



Sub-Matrix: **Water**

Laboratory Duplicate (DUP) Report

Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	LOR	Unit	Original Result	Duplicate Result	RPD(%) or Difference	Duplicate Limits	Qualifier
Dissolved Metals (QC Lot: 1110358) - continued											
VA23C0128-001	QUL-LNF1_WS-1_2023-08	Barium, dissolved	7440-39-3	E421	0.00010	mg/L	0.00511	0.00522	2.09%	20%	---
		Beryllium, dissolved	7440-41-7	E421	0.000100	mg/L	<0.000100	<0.000100	0	Diff <2x LOR	---
		Bismuth, dissolved	7440-69-9	E421	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	---
		Boron, dissolved	7440-42-8	E421	0.010	mg/L	<0.010	<0.010	0	Diff <2x LOR	---
		Cadmium, dissolved	7440-43-9	E421	0.0000050	mg/L	<0.0000050	0.0000053	0.0000003	Diff <2x LOR	---
		Calcium, dissolved	7440-70-2	E421	0.050	mg/L	17.2	17.7	3.10%	20%	---
		Chromium, dissolved	7440-47-3	E421	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	---
		Cobalt, dissolved	7440-48-4	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	---
		Copper, dissolved	7440-50-8	E421	0.00050	mg/L	0.00443	0.00441	0.00002	Diff <2x LOR	---
		Iron, dissolved	7439-89-6	E421	0.030	mg/L	<0.030	<0.030	0	Diff <2x LOR	---
		Lead, dissolved	7439-92-1	E421	0.000050	mg/L	0.000245	0.000236	0.000009	Diff <2x LOR	---
		Lithium, dissolved	7439-93-2	E421	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	---
		Magnesium, dissolved	7439-95-4	E421	0.100	mg/L	2.43	2.46	1.54%	20%	---
		Manganese, dissolved	7439-96-5	E421	0.00010	mg/L	0.00062	0.00061	0.000005	Diff <2x LOR	---
		Molybdenum, dissolved	7439-98-7	E421	0.000050	mg/L	0.000358	0.000374	0.000017	Diff <2x LOR	---
		Nickel, dissolved	7440-02-0	E421	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	---
		Potassium, dissolved	7440-09-7	E421	0.050	mg/L	0.638	0.654	2.38%	20%	---
		Selenium, dissolved	7782-49-2	E421	0.000050	mg/L	0.000102	0.000079	0.000023	Diff <2x LOR	---
		Silicon, dissolved	7440-21-3	E421	0.050	mg/L	0.883	0.872	1.26%	20%	---
		Silver, dissolved	7440-22-4	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	---
		Sodium, dissolved	7440-23-5	E421	0.050	mg/L	4.12	4.14	0.557%	20%	---
		Strontium, dissolved	7440-24-6	E421	0.00020	mg/L	0.143	0.144	1.20%	20%	---
		Thallium, dissolved	7440-28-0	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	---
		Tin, dissolved	7440-31-5	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	---
		Titanium, dissolved	7440-32-6	E421	0.0100	mg/L	<0.0100	<0.0100	0	Diff <2x LOR	---
		Uranium, dissolved	7440-61-1	E421	0.000010	mg/L	0.000159	0.000166	3.80%	20%	---
		Vanadium, dissolved	7440-62-2	E421	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	---
		Zinc, dissolved	7440-66-6	E421	0.0030	mg/L	0.0052	0.0053	0.0001	Diff <2x LOR	---



Method Blank (MB) Report

A Method Blank is an analyte-free matrix that undergoes sample processing identical to that carried out for test samples. Method Blank results are used to monitor and control for potential contamination from the laboratory environment and reagents. For most tests, the DQO for Method Blanks is for the result to be < LOR.

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Physical Tests (QCLot: 1110065)						
Turbidity	---	E121	0.1	NTU	<0.10	---
Physical Tests (QCLot: 1110282)						
Alkalinity, total (as CaCO3)	---	E290	1	mg/L	<1.0	---
Physical Tests (QCLot: 1110283)						
Conductivity	---	E100	1	µS/cm	<1.0	---
Physical Tests (QCLot: 1110306)						
Alkalinity, total (as CaCO3)	---	E290	1	mg/L	<1.0	---
Physical Tests (QCLot: 1110307)						
Conductivity	---	E100	1	µS/cm	<1.0	---
Physical Tests (QCLot: 1114740)						
Solids, total dissolved [TDS]	---	E162	10	mg/L	<10	---
Physical Tests (QCLot: 1114741)						
Solids, total dissolved [TDS]	---	E162	10	mg/L	<10	---
Physical Tests (QCLot: 1115928)						
Solids, total suspended [TSS]	---	E164	1	mg/L	<1.0	---
Physical Tests (QCLot: 1115929)						
Solids, total suspended [TSS]	---	E164	1	mg/L	<1.0	---
Anions and Nutrients (QCLot: 1110284)						
Fluoride	16984-48-8	E235.F	0.02	mg/L	<0.020	---
Anions and Nutrients (QCLot: 1110285)						
Chloride	16887-00-6	E235.Cl	0.5	mg/L	<0.50	---
Anions and Nutrients (QCLot: 1110286)						
Nitrate (as N)	14797-55-8	E235.NO3-L	0.005	mg/L	<0.0050	---
Anions and Nutrients (QCLot: 1110287)						
Nitrite (as N)	14797-65-0	E235.NO2-L	0.001	mg/L	<0.0010	---
Anions and Nutrients (QCLot: 1110288)						
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	<0.30	---
Anions and Nutrients (QCLot: 1110292)						
Phosphate, ortho-, dissolved (as P)	14265-44-2	E378-U	0.001	mg/L	<0.0010	---
Anions and Nutrients (QCLot: 1110309)						
Nitrite (as N)	14797-65-0	E235.NO2-L	0.001	mg/L	<0.0010	---
Anions and Nutrients (QCLot: 1110310)						



Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Anions and Nutrients (QCLot: 1110310) - continued						
Nitrate (as N)	14797-55-8	E235.NO3-L	0.005	mg/L	<0.0050	---
Anions and Nutrients (QCLot: 1110311)						
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	<0.30	---
Anions and Nutrients (QCLot: 1110312)						
Fluoride	16984-48-8	E235.F	0.02	mg/L	<0.020	---
Anions and Nutrients (QCLot: 1110313)						
Chloride	16887-00-6	E235.Cl	0.5	mg/L	<0.50	---
Anions and Nutrients (QCLot: 1110315)						
Phosphate, ortho-, dissolved (as P)	14265-44-2	E378-U	0.001	mg/L	<0.0010	---
Anions and Nutrients (QCLot: 1113594)						
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	<0.0020	---
Anions and Nutrients (QCLot: 1113595)						
Phosphorus, total dissolved	7723-14-0	E375-T	0.002	mg/L	<0.0020	---
Anions and Nutrients (QCLot: 1113596)						
Ammonia, total (as N)	7664-41-7	E298	0.005	mg/L	<0.0050	---
Anions and Nutrients (QCLot: 1113598)						
Nitrogen, total	7727-37-9	E366	0.03	mg/L	<0.030	---
Anions and Nutrients (QCLot: 1114705)						
Phosphorus, total dissolved	7723-14-0	E375-T	0.002	mg/L	<0.0020	---
Anions and Nutrients (QCLot: 1114706)						
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	<0.0020	---
Anions and Nutrients (QCLot: 1114707)						
Ammonia, total (as N)	7664-41-7	E298	0.005	mg/L	<0.0050	---
Anions and Nutrients (QCLot: 1114708)						
Nitrogen, total	7727-37-9	E366	0.03	mg/L	<0.030	---
Organic / Inorganic Carbon (QCLot: 1113597)						
Carbon, dissolved organic [DOC]	---	E358-L	0.5	mg/L	<0.50	---
Organic / Inorganic Carbon (QCLot: 1114709)						
Carbon, dissolved organic [DOC]	---	E358-L	0.5	mg/L	<0.50	---
Total Metals (QCLot: 1110350)						
Aluminum, total	7429-90-5	E420	0.003	mg/L	<0.0030	---
Antimony, total	7440-36-0	E420	0.0001	mg/L	<0.00010	---
Arsenic, total	7440-38-2	E420	0.0001	mg/L	<0.00010	---
Barium, total	7440-39-3	E420	0.0001	mg/L	<0.00010	---
Beryllium, total	7440-41-7	E420	0.00002	mg/L	<0.000020	---



Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Total Metals (QCLot: 1110350) - continued						
Bismuth, total	7440-69-9	E420	0.00005	mg/L	<0.000050	---
Boron, total	7440-42-8	E420	0.01	mg/L	<0.010	---
Cadmium, total	7440-43-9	E420	0.000005	mg/L	<0.0000050	---
Calcium, total	7440-70-2	E420	0.05	mg/L	<0.050	---
Chromium, total	7440-47-3	E420	0.0005	mg/L	<0.00050	---
Cobalt, total	7440-48-4	E420	0.0001	mg/L	<0.00010	---
Copper, total	7440-50-8	E420	0.0005	mg/L	<0.00050	---
Iron, total	7439-89-6	E420	0.01	mg/L	<0.010	---
Lead, total	7439-92-1	E420	0.00005	mg/L	<0.000050	---
Lithium, total	7439-93-2	E420	0.001	mg/L	<0.0010	---
Magnesium, total	7439-95-4	E420	0.005	mg/L	<0.0050	---
Manganese, total	7439-96-5	E420	0.0001	mg/L	<0.00010	---
Molybdenum, total	7439-98-7	E420	0.00005	mg/L	<0.000050	---
Nickel, total	7440-02-0	E420	0.0005	mg/L	<0.00050	---
Potassium, total	7440-09-7	E420	0.05	mg/L	<0.050	---
Selenium, total	7782-49-2	E420	0.00005	mg/L	<0.000050	---
Silicon, total	7440-21-3	E420	0.1	mg/L	<0.10	---
Silver, total	7440-22-4	E420	0.00001	mg/L	<0.000010	---
Sodium, total	7440-23-5	E420	0.05	mg/L	<0.050	---
Strontium, total	7440-24-6	E420	0.0002	mg/L	<0.00020	---
Thallium, total	7440-28-0	E420	0.00001	mg/L	<0.000010	---
Tin, total	7440-31-5	E420	0.0001	mg/L	<0.00010	---
Titanium, total	7440-32-6	E420	0.0003	mg/L	<0.00030	---
Uranium, total	7440-61-1	E420	0.00001	mg/L	<0.000010	---
Vanadium, total	7440-62-2	E420	0.0005	mg/L	<0.00050	---
Zinc, total	7440-66-6	E420	0.003	mg/L	<0.0030	---
Dissolved Metals (QCLot: 1110358)						
Aluminum, dissolved	7429-90-5	E421	0.001	mg/L	<0.0010	---
Antimony, dissolved	7440-36-0	E421	0.0001	mg/L	<0.00010	---
Arsenic, dissolved	7440-38-2	E421	0.0001	mg/L	<0.00010	---
Barium, dissolved	7440-39-3	E421	0.0001	mg/L	<0.00010	---
Beryllium, dissolved	7440-41-7	E421	0.00002	mg/L	<0.000020	---
Bismuth, dissolved	7440-69-9	E421	0.00005	mg/L	<0.000050	---
Boron, dissolved	7440-42-8	E421	0.01	mg/L	<0.010	---
Cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	<0.0000050	---



Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Dissolved Metals (QCLot: 1110358) - continued						
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	<0.050	---
Chromium, dissolved	7440-47-3	E421	0.0005	mg/L	<0.00050	---
Cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	<0.00010	---
Copper, dissolved	7440-50-8	E421	0.0002	mg/L	<0.00020	---
Iron, dissolved	7439-89-6	E421	0.01	mg/L	<0.010	---
Lead, dissolved	7439-92-1	E421	0.00005	mg/L	<0.000050	---
Lithium, dissolved	7439-93-2	E421	0.001	mg/L	<0.0010	---
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	<0.0050	---
Manganese, dissolved	7439-96-5	E421	0.0001	mg/L	<0.00010	---
Molybdenum, dissolved	7439-98-7	E421	0.00005	mg/L	<0.000050	---
Nickel, dissolved	7440-02-0	E421	0.0005	mg/L	<0.00050	---
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	<0.050	---
Selenium, dissolved	7782-49-2	E421	0.00005	mg/L	<0.000050	---
Silicon, dissolved	7440-21-3	E421	0.05	mg/L	<0.050	---
Silver, dissolved	7440-22-4	E421	0.00001	mg/L	<0.000010	---
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	<0.050	---
Strontium, dissolved	7440-24-6	E421	0.0002	mg/L	<0.00020	---
Thallium, dissolved	7440-28-0	E421	0.00001	mg/L	<0.000010	---
Tin, dissolved	7440-31-5	E421	0.0001	mg/L	<0.00010	---
Titanium, dissolved	7440-32-6	E421	0.0003	mg/L	<0.00030	---
Uranium, dissolved	7440-61-1	E421	0.00001	mg/L	<0.000010	---
Vanadium, dissolved	7440-62-2	E421	0.0005	mg/L	<0.00050	---
Zinc, dissolved	7440-66-6	E421	0.001	mg/L	<0.0010	---



Laboratory Control Sample (LCS) Report

A Laboratory Control Sample (LCS) is an analyte-free matrix that has been fortified (spiked) with test analytes at known concentration and processed in an identical manner to test samples. LCS results are expressed as percent recovery, and are used to monitor and control test method accuracy and precision, independent of test sample matrix.

Sub-Matrix: Water

					Laboratory Control Sample (LCS) Report				
Analyte	CAS Number	Method	LOR	Unit	Spike	Recovery (%)	Recovery Limits (%)		Qualifier
					Concentration	LCS	Low	High	
Physical Tests (QCLot: 1110065)									
Turbidity	---	E121	0.1	NTU	200 NTU	99.5	85.0	115	---
Physical Tests (QCLot: 1110281)									
pH	---	E108	---	pH units	7 pH units	100	98.0	102	---
Physical Tests (QCLot: 1110282)									
Alkalinity, total (as CaCO3)	---	E290	1	mg/L	500 mg/L	108	85.0	115	---
Physical Tests (QCLot: 1110283)									
Conductivity	---	E100	1	µS/cm	146.9 µS/cm	99.9	90.0	110	---
Physical Tests (QCLot: 1110306)									
Alkalinity, total (as CaCO3)	---	E290	1	mg/L	500 mg/L	108	85.0	115	---
Physical Tests (QCLot: 1110307)									
Conductivity	---	E100	1	µS/cm	146.9 µS/cm	99.8	90.0	110	---
Physical Tests (QCLot: 1110308)									
pH	---	E108	---	pH units	7 pH units	100	98.0	102	---
Physical Tests (QCLot: 1114740)									
Solids, total dissolved [TDS]	---	E162	10	mg/L	1000 mg/L	103	85.0	115	---
Physical Tests (QCLot: 1114741)									
Solids, total dissolved [TDS]	---	E162	10	mg/L	1000 mg/L	111	85.0	115	---
Physical Tests (QCLot: 1115928)									
Solids, total suspended [TSS]	---	E164	1	mg/L	150 mg/L	95.0	85.0	115	---
Physical Tests (QCLot: 1115929)									
Solids, total suspended [TSS]	---	E164	1	mg/L	150 mg/L	89.0	85.0	115	---
Anions and Nutrients (QCLot: 1110284)									
Fluoride	16984-48-8	E235.F	0.02	mg/L	1 mg/L	102	90.0	110	---
Anions and Nutrients (QCLot: 1110285)									
Chloride	16887-00-6	E235.Cl	0.5	mg/L	100 mg/L	102	90.0	110	---
Anions and Nutrients (QCLot: 1110286)									
Nitrate (as N)	14797-55-8	E235.NO3-L	0.005	mg/L	2.5 mg/L	103	90.0	110	---
Anions and Nutrients (QCLot: 1110287)									
Nitrite (as N)	14797-65-0	E235.NO2-L	0.001	mg/L	0.5 mg/L	102	90.0	110	---
Anions and Nutrients (QCLot: 1110288)									
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	100 mg/L	105	90.0	110	---



Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
Anions and Nutrients (QCLot: 1110292)									
Phosphate, ortho-, dissolved (as P)	14265-44-2	E378-U	0.001	mg/L	0.03 mg/L	104	80.0	120	----
Anions and Nutrients (QCLot: 1110309)									
Nitrite (as N)	14797-65-0	E235.NO2-L	0.001	mg/L	0.5 mg/L	99.7	90.0	110	----
Anions and Nutrients (QCLot: 1110310)									
Nitrate (as N)	14797-55-8	E235.NO3-L	0.005	mg/L	2.5 mg/L	103	90.0	110	----
Anions and Nutrients (QCLot: 1110311)									
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	100 mg/L	105	90.0	110	----
Anions and Nutrients (QCLot: 1110312)									
Fluoride	16984-48-8	E235.F	0.02	mg/L	1 mg/L	103	90.0	110	----
Anions and Nutrients (QCLot: 1110313)									
Chloride	16887-00-6	E235.Cl	0.5	mg/L	100 mg/L	102	90.0	110	----
Anions and Nutrients (QCLot: 1110315)									
Phosphate, ortho-, dissolved (as P)	14265-44-2	E378-U	0.001	mg/L	0.03 mg/L	100	80.0	120	----
Anions and Nutrients (QCLot: 1113594)									
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	0.05 mg/L	80.4	80.0	120	----
Anions and Nutrients (QCLot: 1113595)									
Phosphorus, total dissolved	7723-14-0	E375-T	0.002	mg/L	0.05 mg/L	83.5	80.0	120	----
Anions and Nutrients (QCLot: 1113596)									
Ammonia, total (as N)	7664-41-7	E298	0.005	mg/L	0.2 mg/L	94.3	85.0	115	----
Anions and Nutrients (QCLot: 1113598)									
Nitrogen, total	7727-37-9	E366	0.03	mg/L	0.5 mg/L	97.4	75.0	125	----
Anions and Nutrients (QCLot: 1114705)									
Phosphorus, total dissolved	7723-14-0	E375-T	0.002	mg/L	0.05 mg/L	91.7	80.0	120	----
Anions and Nutrients (QCLot: 1114706)									
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	0.05 mg/L	90.1	80.0	120	----
Anions and Nutrients (QCLot: 1114707)									
Ammonia, total (as N)	7664-41-7	E298	0.005	mg/L	0.2 mg/L	95.1	85.0	115	----
Anions and Nutrients (QCLot: 1114708)									
Nitrogen, total	7727-37-9	E366	0.03	mg/L	0.5 mg/L	98.5	75.0	125	----
Organic / Inorganic Carbon (QCLot: 1113597)									
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	8.57 mg/L	102	80.0	120	----
Organic / Inorganic Carbon (QCLot: 1114709)									
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	8.57 mg/L	100	80.0	120	----



Sub-Matrix: **Water**

Laboratory Control Sample (LCS) Report

Analyte	CAS Number	Method	LOR	Unit	Spike	Recovery (%)	Recovery Limits (%)		Qualifier
					Concentration	LCS	Low	High	
Total Metals (QCLot: 1110350)									
Aluminum, total	7429-90-5	E420	0.003	mg/L	2 mg/L	99.4	80.0	120	----
Antimony, total	7440-36-0	E420	0.0001	mg/L	1 mg/L	102	80.0	120	----
Arsenic, total	7440-38-2	E420	0.0001	mg/L	1 mg/L	100	80.0	120	----
Barium, total	7440-39-3	E420	0.0001	mg/L	0.25 mg/L	104	80.0	120	----
Beryllium, total	7440-41-7	E420	0.00002	mg/L	0.1 mg/L	99.7	80.0	120	----
Bismuth, total	7440-69-9	E420	0.00005	mg/L	1 mg/L	104	80.0	120	----
Boron, total	7440-42-8	E420	0.01	mg/L	1 mg/L	94.5	80.0	120	----
Cadmium, total	7440-43-9	E420	0.000005	mg/L	0.1 mg/L	99.4	80.0	120	----
Calcium, total	7440-70-2	E420	0.05	mg/L	50 mg/L	97.9	80.0	120	----
Chromium, total	7440-47-3	E420	0.0005	mg/L	0.25 mg/L	96.5	80.0	120	----
Cobalt, total	7440-48-4	E420	0.0001	mg/L	0.25 mg/L	97.0	80.0	120	----
Copper, total	7440-50-8	E420	0.0005	mg/L	0.25 mg/L	94.5	80.0	120	----
Iron, total	7439-89-6	E420	0.01	mg/L	1 mg/L	95.4	80.0	120	----
Lead, total	7439-92-1	E420	0.00005	mg/L	0.5 mg/L	103	80.0	120	----
Lithium, total	7439-93-2	E420	0.001	mg/L	0.25 mg/L	99.2	80.0	120	----
Magnesium, total	7439-95-4	E420	0.005	mg/L	50 mg/L	105	80.0	120	----
Manganese, total	7439-96-5	E420	0.0001	mg/L	0.25 mg/L	97.4	80.0	120	----
Molybdenum, total	7439-98-7	E420	0.00005	mg/L	0.25 mg/L	99.5	80.0	120	----
Nickel, total	7440-02-0	E420	0.0005	mg/L	0.5 mg/L	96.2	80.0	120	----
Potassium, total	7440-09-7	E420	0.05	mg/L	50 mg/L	102	80.0	120	----
Selenium, total	7782-49-2	E420	0.00005	mg/L	1 mg/L	102	80.0	120	----
Silicon, total	7440-21-3	E420	0.1	mg/L	10 mg/L	106	80.0	120	----
Silver, total	7440-22-4	E420	0.00001	mg/L	0.1 mg/L	93.8	80.0	120	----
Sodium, total	7440-23-5	E420	0.05	mg/L	50 mg/L	106	80.0	120	----
Strontium, total	7440-24-6	E420	0.0002	mg/L	0.25 mg/L	96.8	80.0	120	----
Thallium, total	7440-28-0	E420	0.00001	mg/L	1 mg/L	101	80.0	120	----
Tin, total	7440-31-5	E420	0.0001	mg/L	0.5 mg/L	99.2	80.0	120	----
Titanium, total	7440-32-6	E420	0.0003	mg/L	0.25 mg/L	93.1	80.0	120	----
Uranium, total	7440-61-1	E420	0.00001	mg/L	0.005 mg/L	103	80.0	120	----
Vanadium, total	7440-62-2	E420	0.0005	mg/L	0.5 mg/L	96.7	80.0	120	----
Zinc, total	7440-66-6	E420	0.003	mg/L	0.5 mg/L	98.0	80.0	120	----
Dissolved Metals (QCLot: 1110358)									
Aluminum, dissolved	7429-90-5	E421	0.001	mg/L	2 mg/L	98.8	80.0	120	----
Antimony, dissolved	7440-36-0	E421	0.0001	mg/L	1 mg/L	102	80.0	120	----
Arsenic, dissolved	7440-38-2	E421	0.0001	mg/L	1 mg/L	104	80.0	120	----



Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
Dissolved Metals (QCLot: 1110358) - continued									
Barium, dissolved	7440-39-3	E421	0.0001	mg/L	0.25 mg/L	101	80.0	120	----
Beryllium, dissolved	7440-41-7	E421	0.00002	mg/L	0.1 mg/L	98.8	80.0	120	----
Bismuth, dissolved	7440-69-9	E421	0.00005	mg/L	1 mg/L	102	80.0	120	----
Boron, dissolved	7440-42-8	E421	0.01	mg/L	1 mg/L	99.2	80.0	120	----
Cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	0.1 mg/L	98.6	80.0	120	----
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	50 mg/L	100	80.0	120	----
Chromium, dissolved	7440-47-3	E421	0.0005	mg/L	0.25 mg/L	97.3	80.0	120	----
Cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	0.25 mg/L	99.7	80.0	120	----
Copper, dissolved	7440-50-8	E421	0.0002	mg/L	0.25 mg/L	96.8	80.0	120	----
Iron, dissolved	7439-89-6	E421	0.01	mg/L	1 mg/L	99.9	80.0	120	----
Lead, dissolved	7439-92-1	E421	0.00005	mg/L	0.5 mg/L	98.8	80.0	120	----
Lithium, dissolved	7439-93-2	E421	0.001	mg/L	0.25 mg/L	95.8	80.0	120	----
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	50 mg/L	100	80.0	120	----
Manganese, dissolved	7439-96-5	E421	0.0001	mg/L	0.25 mg/L	99.7	80.0	120	----
Molybdenum, dissolved	7439-98-7	E421	0.00005	mg/L	0.25 mg/L	104	80.0	120	----
Nickel, dissolved	7440-02-0	E421	0.0005	mg/L	0.5 mg/L	97.9	80.0	120	----
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	50 mg/L	102	80.0	120	----
Selenium, dissolved	7782-49-2	E421	0.00005	mg/L	1 mg/L	101	80.0	120	----
Silicon, dissolved	7440-21-3	E421	0.05	mg/L	10 mg/L	110	80.0	120	----
Silver, dissolved	7440-22-4	E421	0.00001	mg/L	0.1 mg/L	96.6	80.0	120	----
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	50 mg/L	106	80.0	120	----
Strontium, dissolved	7440-24-6	E421	0.0002	mg/L	0.25 mg/L	102	80.0	120	----
Thallium, dissolved	7440-28-0	E421	0.00001	mg/L	1 mg/L	96.6	80.0	120	----
Tin, dissolved	7440-31-5	E421	0.0001	mg/L	0.5 mg/L	99.0	80.0	120	----
Titanium, dissolved	7440-32-6	E421	0.0003	mg/L	0.25 mg/L	93.2	80.0	120	----
Uranium, dissolved	7440-61-1	E421	0.00001	mg/L	0.005 mg/L	102	80.0	120	----
Vanadium, dissolved	7440-62-2	E421	0.0005	mg/L	0.5 mg/L	99.4	80.0	120	----
Zinc, dissolved	7440-66-6	E421	0.001	mg/L	0.5 mg/L	92.5	80.0	120	----



Matrix Spike (MS) Report

A Matrix Spike (MS) is a randomly selected intra-laboratory replicate sample that has been fortified (spiked) with test analytes at known concentration, and processed in an identical manner to test samples. Matrix Spikes provide information regarding analyte recovery and potential matrix effects. MS DQO exceedances due to sample matrix may sometimes be unavoidable; in such cases, test results for the associated sample (or similar samples) may be subject to bias. ND – Recovery not determined, background level >= 1x spike level.

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Anions and Nutrients (QCLot: 1110284)										
VA23C0158-002	Anonymous	Fluoride	16984-48-8	E235.F	1.04 mg/L	1 mg/L	104	75.0	125	----
Anions and Nutrients (QCLot: 1110285)										
VA23C0158-002	Anonymous	Chloride	16887-00-6	E235.Cl	102 mg/L	100 mg/L	102	75.0	125	----
Anions and Nutrients (QCLot: 1110286)										
VA23C0158-002	Anonymous	Nitrate (as N)	14797-55-8	E235.NO3-L	2.56 mg/L	2.5 mg/L	102	75.0	125	----
Anions and Nutrients (QCLot: 1110287)										
VA23C0158-002	Anonymous	Nitrite (as N)	14797-65-0	E235.NO2-L	0.510 mg/L	0.5 mg/L	102	75.0	125	----
Anions and Nutrients (QCLot: 1110288)										
VA23C0158-002	Anonymous	Sulfate (as SO4)	14808-79-8	E235.SO4	99.0 mg/L	100 mg/L	99.0	75.0	125	----
Anions and Nutrients (QCLot: 1110292)										
VA23C0128-002	QUL-LNF1_WS-2_2023-08	Phosphate, ortho-, dissolved (as P)	14265-44-2	E378-U	0.0290 mg/L	0.03 mg/L	96.5	70.0	130	----
Anions and Nutrients (QCLot: 1110309)										
WR2300963-001	Anonymous	Nitrite (as N)	14797-65-0	E235.NO2-L	0.478 mg/L	0.5 mg/L	95.6	75.0	125	----
Anions and Nutrients (QCLot: 1110310)										
WR2300963-001	Anonymous	Nitrate (as N)	14797-55-8	E235.NO3-L	2.51 mg/L	2.5 mg/L	100	75.0	125	----
Anions and Nutrients (QCLot: 1110311)										
WR2300963-001	Anonymous	Sulfate (as SO4)	14808-79-8	E235.SO4	101 mg/L	100 mg/L	101	75.0	125	----
Anions and Nutrients (QCLot: 1110312)										
WR2300963-001	Anonymous	Fluoride	16984-48-8	E235.F	1.01 mg/L	1 mg/L	101	75.0	125	----
Anions and Nutrients (QCLot: 1110313)										
WR2300963-001	Anonymous	Chloride	16887-00-6	E235.Cl	100 mg/L	100 mg/L	100	75.0	125	----
Anions and Nutrients (QCLot: 1110315)										
VA23C0107-002	Anonymous	Phosphate, ortho-, dissolved (as P)	14265-44-2	E378-U	2.88 mg/L	3 mg/L	96.0	70.0	130	----
Anions and Nutrients (QCLot: 1113594)										
FJ2302204-002	Anonymous	Phosphorus, total	7723-14-0	E372-U	0.0429 mg/L	0.05 mg/L	85.9	70.0	130	----
Anions and Nutrients (QCLot: 1113595)										
FJ2302204-002	Anonymous	Phosphorus, total dissolved	7723-14-0	E375-T	0.0432 mg/L	0.05 mg/L	86.3	70.0	130	----



Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Anions and Nutrients (QCLot: 1113596)										
FJ2302204-002	Anonymous	Ammonia, total (as N)	7664-41-7	E298	ND mg/L	0.1 mg/L	ND	75.0	125	MS-B
Anions and Nutrients (QCLot: 1113598)										
VA23C0085-002	Anonymous	Nitrogen, total	7727-37-9	E366	0.391 mg/L	0.4 mg/L	97.7	70.0	130	----
Anions and Nutrients (QCLot: 1114705)										
KS2303238-001	Anonymous	Phosphorus, total dissolved	7723-14-0	E375-T	0.0451 mg/L	0.05 mg/L	90.3	70.0	130	----
Anions and Nutrients (QCLot: 1114706)										
VA23C0128-009	QUL-LREF1_WS-4_2023-08	Phosphorus, total	7723-14-0	E372-U	0.0443 mg/L	0.05 mg/L	88.6	70.0	130	----
Anions and Nutrients (QCLot: 1114707)										
KS2303238-002	Anonymous	Ammonia, total (as N)	7664-41-7	E298	0.0939 mg/L	0.1 mg/L	93.9	75.0	125	----
Anions and Nutrients (QCLot: 1114708)										
KS2303238-002	Anonymous	Nitrogen, total	7727-37-9	E366	0.414 mg/L	0.4 mg/L	104	70.0	130	----
Organic / Inorganic Carbon (QCLot: 1113597)										
FJ2302204-002	Anonymous	Carbon, dissolved organic [DOC]	----	E358-L	ND mg/L	5 mg/L	ND	70.0	130	----
Organic / Inorganic Carbon (QCLot: 1114709)										
VA23C0128-010	QUL-LREF1_WS-5_2023-08	Carbon, dissolved organic [DOC]	----	E358-L	5.32 mg/L	5 mg/L	106	70.0	130	----
Total Metals (QCLot: 1110350)										
VA23C0128-002	QUL-LNF1_WS-2_2023-08	Aluminum, total	7429-90-5	E420	0.194 mg/L	0.2 mg/L	97.3	70.0	130	----
		Antimony, total	7440-36-0	E420	0.0187 mg/L	0.02 mg/L	93.6	70.0	130	----
		Arsenic, total	7440-38-2	E420	0.0195 mg/L	0.02 mg/L	97.3	70.0	130	----
		Barium, total	7440-39-3	E420	0.0206 mg/L	0.02 mg/L	103	70.0	130	----
		Beryllium, total	7440-41-7	E420	0.0370 mg/L	0.04 mg/L	92.5	70.0	130	----
		Bismuth, total	7440-69-9	E420	0.0102 mg/L	0.01 mg/L	102	70.0	130	----
		Boron, total	7440-42-8	E420	0.094 mg/L	0.1 mg/L	94.4	70.0	130	----
		Cadmium, total	7440-43-9	E420	0.00407 mg/L	0.004 mg/L	102	70.0	130	----
		Calcium, total	7440-70-2	E420	ND mg/L	4 mg/L	ND	70.0	130	----
		Chromium, total	7440-47-3	E420	0.0396 mg/L	0.04 mg/L	99.0	70.0	130	----
		Cobalt, total	7440-48-4	E420	0.0199 mg/L	0.02 mg/L	99.4	70.0	130	----
		Copper, total	7440-50-8	E420	0.0194 mg/L	0.02 mg/L	97.1	70.0	130	----
		Iron, total	7439-89-6	E420	1.96 mg/L	2 mg/L	97.8	70.0	130	----
		Lead, total	7439-92-1	E420	0.0196 mg/L	0.02 mg/L	98.1	70.0	130	----
		Lithium, total	7439-93-2	E420	0.0935 mg/L	0.1 mg/L	93.5	70.0	130	----
		Magnesium, total	7439-95-4	E420	ND mg/L	1 mg/L	ND	70.0	130	----
		Manganese, total	7439-96-5	E420	0.0196 mg/L	0.02 mg/L	97.8	70.0	130	----



Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Total Metals (QCLot: 1110350) - continued										
VA23C0128-002	QUL-LNF1_WS-2_2023-08	Molybdenum, total	7439-98-7	E420	0.0192 mg/L	0.02 mg/L	96.1	70.0	130	----
		Nickel, total	7440-02-0	E420	0.0395 mg/L	0.04 mg/L	98.8	70.0	130	----
		Potassium, total	7440-09-7	E420	3.95 mg/L	4 mg/L	98.7	70.0	130	----
		Selenium, total	7782-49-2	E420	0.0425 mg/L	0.04 mg/L	106	70.0	130	----
		Silicon, total	7440-21-3	E420	9.55 mg/L	10 mg/L	95.5	70.0	130	----
		Silver, total	7440-22-4	E420	0.00390 mg/L	0.004 mg/L	97.6	70.0	130	----
		Sodium, total	7440-23-5	E420	2.11 mg/L	2 mg/L	106	70.0	130	----
		Strontium, total	7440-24-6	E420	ND mg/L	0.02 mg/L	ND	70.0	130	----
		Thallium, total	7440-28-0	E420	0.00381 mg/L	0.004 mg/L	95.2	70.0	130	----
		Tin, total	7440-31-5	E420	0.0192 mg/L	0.02 mg/L	96.1	70.0	130	----
		Titanium, total	7440-32-6	E420	0.0374 mg/L	0.04 mg/L	93.6	70.0	130	----
		Uranium, total	7440-61-1	E420	0.00390 mg/L	0.004 mg/L	97.5	70.0	130	----
		Vanadium, total	7440-62-2	E420	0.0987 mg/L	0.1 mg/L	98.7	70.0	130	----
		Zinc, total	7440-66-6	E420	0.397 mg/L	0.4 mg/L	99.2	70.0	130	----
Dissolved Metals (QCLot: 1110358)										
VA23C0128-002	QUL-LNF1_WS-2_2023-08	Aluminum, dissolved	7429-90-5	E421	0.193 mg/L	0.2 mg/L	96.3	70.0	130	----
		Antimony, dissolved	7440-36-0	E421	0.0186 mg/L	0.02 mg/L	93.0	70.0	130	----
		Arsenic, dissolved	7440-38-2	E421	0.0191 mg/L	0.02 mg/L	95.4	70.0	130	----
		Barium, dissolved	7440-39-3	E421	0.0198 mg/L	0.02 mg/L	99.2	70.0	130	----
		Beryllium, dissolved	7440-41-7	E421	0.0394 mg/L	0.04 mg/L	98.4	70.0	130	----
		Bismuth, dissolved	7440-69-9	E421	0.00916 mg/L	0.01 mg/L	91.6	70.0	130	----
		Boron, dissolved	7440-42-8	E421	0.094 mg/L	0.1 mg/L	94.1	70.0	130	----
		Cadmium, dissolved	7440-43-9	E421	0.00395 mg/L	0.004 mg/L	98.7	70.0	130	----
		Calcium, dissolved	7440-70-2	E421	ND mg/L	4 mg/L	ND	70.0	130	----
		Chromium, dissolved	7440-47-3	E421	0.0386 mg/L	0.04 mg/L	96.5	70.0	130	----
		Cobalt, dissolved	7440-48-4	E421	0.0193 mg/L	0.02 mg/L	96.6	70.0	130	----
		Copper, dissolved	7440-50-8	E421	0.0188 mg/L	0.02 mg/L	93.9	70.0	130	----
		Iron, dissolved	7439-89-6	E421	1.93 mg/L	2 mg/L	96.7	70.0	130	----
		Lead, dissolved	7439-92-1	E421	0.0192 mg/L	0.02 mg/L	95.9	70.0	130	----
		Lithium, dissolved	7439-93-2	E421	0.0976 mg/L	0.1 mg/L	97.6	70.0	130	----
		Magnesium, dissolved	7439-95-4	E421	ND mg/L	1 mg/L	ND	70.0	130	----
		Manganese, dissolved	7439-96-5	E421	0.0195 mg/L	0.02 mg/L	97.6	70.0	130	----
		Molybdenum, dissolved	7439-98-7	E421	0.0188 mg/L	0.02 mg/L	94.2	70.0	130	----
		Nickel, dissolved	7440-02-0	E421	0.0384 mg/L	0.04 mg/L	96.0	70.0	130	----
		Potassium, dissolved	7440-09-7	E421	3.76 mg/L	4 mg/L	93.9	70.0	130	----



Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Dissolved Metals (QCLot: 1110358) - continued										
VA23C0128-002	QUL-LNF1_WS-2_2023-08	Selenium, dissolved	7782-49-2	E421	0.0391 mg/L	0.04 mg/L	97.8	70.0	130	----
		Silicon, dissolved	7440-21-3	E421	10.0 mg/L	10 mg/L	100	70.0	130	----
		Silver, dissolved	7440-22-4	E421	0.00382 mg/L	0.004 mg/L	95.6	70.0	130	----
		Sodium, dissolved	7440-23-5	E421	2.06 mg/L	2 mg/L	103	70.0	130	----
		Strontium, dissolved	7440-24-6	E421	ND mg/L	0.02 mg/L	ND	70.0	130	----
		Thallium, dissolved	7440-28-0	E421	0.00376 mg/L	0.004 mg/L	94.0	70.0	130	----
		Tin, dissolved	7440-31-5	E421	0.0188 mg/L	0.02 mg/L	93.9	70.0	130	----
		Titanium, dissolved	7440-32-6	E421	0.0372 mg/L	0.04 mg/L	93.1	70.0	130	----
		Uranium, dissolved	7440-61-1	E421	0.00387 mg/L	0.004 mg/L	96.8	70.0	130	----
		Vanadium, dissolved	7440-62-2	E421	0.0963 mg/L	0.1 mg/L	96.3	70.0	130	----
		Zinc, dissolved	7440-66-6	E421	0.365 mg/L	0.4 mg/L	91.2	70.0	130	----

Qualifiers

Qualifier	Description
MS-B	Matrix Spike recovery could not be accurately calculated due to high analyte background in sample.

WATER QUALITY

ALS Laboratory Report VA23C0131

(Finalized January 5, 2024)



CERTIFICATE OF ANALYSIS

Work Order : **VA23C0131**
Amendment : **1**
Client : **Mount Polley Mining Corporation**
Contact : Mr. Gabriel Holmes
Address : PO Box 12
 Likely BC Canada V0L 1N0
Telephone : 250-790-2215 ext 2171
Project : ----
PO : 5590012190
C-O-C number : ----
Sampler : ----
Site : ----
Quote number : VA22-MPMC100-006 - Minnow Env. - Water Quality
No. of samples received : 3
No. of samples analysed : 3

Page : 1 of 6
Laboratory : ALS Environmental - Vancouver
Account Manager : Can Dang
Address : 8081 Lougheed Highway
 Burnaby BC Canada V5A 1W9
Telephone : +1 604 253 4188
Date Samples Received : 29-Aug-2023 12:35
Date Analysis Commenced : 29-Aug-2023
Issue Date : 05-Jan-2024 11:03

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QC Interpretive report to assist with Quality Review and Sample Receipt Notification (SRN).

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

<i>Signatories</i>	<i>Position</i>	<i>Laboratory Department</i>
Kevin Duarte	Supervisor - Metals ICP Instrumentation	Inorganics, Burnaby, British Columbia
Kim Jensen	Department Manager - Metals	Metals, Burnaby, British Columbia
Lindsay Gung	Supervisor - Water Chemistry	Inorganics, Burnaby, British Columbia
Tracy Harley	Supervisor - Water Quality Instrumentation	Inorganics, Burnaby, British Columbia



General Comments

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Refer to the ALS Quality Control Interpretive report (QCI) for applicable references and methodology summaries. Reference methods may incorporate modifications to improve performance.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

Please refer to Quality Control Interpretive report (QCI) for information regarding Holding Time compliance.

Key : CAS Number: Chemical Abstracts Services number is a unique identifier assigned to discrete substances
 LOR: Limit of Reporting (detection limit).

Unit	Description
-	no units
µS/cm	microsiemens per centimetre
mg/L	milligrams per litre
NTU	nephelometric turbidity units
pH units	pH units

<: less than.

>: greater than.

Surrogate: An analyte that is similar in behavior to target analyte(s), but that does not occur naturally in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery.

Test results reported relate only to the samples as received by the laboratory.

UNLESS OTHERWISE STATED on SRN or QCI Report, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

Accreditation

Accreditation	Description	Laboratory	Address
A	CALA ISO/IEC 17025:2017	VA ALS Environmental - Vancouver	8081 Lougheed Highway, Burnaby, BC

Applicable accreditations are indicated in the Method/Lab column as superscripts.

Workorder Comments

Amendment (04/01/2023): This report has been amended as a result of a request to change sample identification numbers for VA23C0419-001 and -002. All analysis results are as per the previous report.



Analytical Results

Sub-Matrix: Water (Matrix: Water)					Client sample ID	QUL-ZOO-1_W S_DI-1_2023-08	QUL-ZOO-7_W S_DI-1_2023-08	QUL-ZOO-7_W S_DI-1X_2023-08	----	----
Client sampling date / time					27-Aug-2023 14:15	27-Aug-2023 12:15	27-Aug-2023 12:15	----	----	
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23C0131-001 Result	VA23C0131-002 Result	VA23C0131-003 Result	----- ----	----- ----	
Physical Tests										
Alkalinity, total (as CaCO3)	----	E290/VA	A	1.0	mg/L	49.1	49.7	49.7	----	----
Conductivity	----	E100/VA	A	2.0	µS/cm	114	116	119	----	----
Hardness (as CaCO3), dissolved	----	EC100/VA		0.50	mg/L	50.5	51.4	51.3	----	----
Hardness (as CaCO3), from total Ca/Mg	----	EC100A/VA		0.50	mg/L	49.7	51.7	51.4	----	----
pH	----	E108/VA	A	0.10	pH units	7.98	7.95	7.90	----	----
Solids, total dissolved [TDS]	----	E162/VA	A	10	mg/L	61	70	68	----	----
Solids, total suspended [TSS]	----	E164/VA	A	1.0	mg/L	2.8	7.5	1.8	----	----
Turbidity	----	E121/VA	A	0.10	NTU	1.28	2.86	2.92	----	----
Anions and Nutrients										
Ammonia, total (as N)	7664-41-7	E298/VA	A	0.0050	mg/L	0.0125	0.0347	0.0473	----	----
Chloride	16887-00-6	E235.Cl/VA	A	0.50	mg/L	<0.50	0.59	0.93	----	----
Fluoride	16984-48-8	E235.F/VA	A	0.020	mg/L	0.026	0.025	0.025	----	----
Nitrate (as N)	14797-55-8	E235.NO3-L/V A	A	0.0050	mg/L	0.0427	0.0489	0.0622	----	----
Nitrate + Nitrite (as N)	----	EC235.N+N/V A		0.0050	mg/L	0.0427	0.0489	0.0632	----	----
Nitrite (as N)	14797-65-0	E235.NO2-L/V A	A	0.0010	mg/L	<0.0010	<0.0010	0.0010	----	----
Nitrogen, total	7727-37-9	E366/VA	A	0.030	mg/L	0.247	0.739	0.889	----	----
Phosphate, ortho-, dissolved (as P)	14265-44-2	E378-U/VA	A	0.0010	mg/L	<0.0010	<0.0010	<0.0010	----	----
Phosphorus, total	7723-14-0	E372-U/VA	A	0.0020	mg/L	0.0052	0.0124	0.0132	----	----
Phosphorus, total dissolved	7723-14-0	E375-T/VA	A	0.0020	mg/L	<0.0020	0.0057	0.0068	----	----
Sulfate (as SO4)	14808-79-8	E235.SO4/VA	A	0.30	mg/L	6.93	6.92	7.08	----	----
Organic / Inorganic Carbon										
Carbon, dissolved organic [DOC]	----	E358-L/VA	A	0.50	mg/L	3.29	4.94	5.73	----	----
Total Metals										
Aluminum, total	7429-90-5	E420/VA	A	0.0030	mg/L	0.0328	0.0882	0.107	----	----
Antimony, total	7440-36-0	E420/VA	A	0.00010	mg/L	<0.00010	<0.00010	0.00012	----	----
Arsenic, total	7440-38-2	E420/VA	A	0.00010	mg/L	0.00014	0.00022	0.00021	----	----



Analytical Results

Sub-Matrix: Water (Matrix: Water)						Client sample ID	QUL-ZOO-1_W S_DI-1_2023-08	QUL-ZOO-7_W S_DI-1_2023-08	QUL-ZOO-7_W S_DI-1X_2023-08	----	----
Client sampling date / time						27-Aug-2023 14:15	27-Aug-2023 12:15	27-Aug-2023 12:15	----	----	
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23C0131-001	VA23C0131-002	VA23C0131-003	-----	-----		
					Result	Result	Result	----	----		
Total Metals											
Barium, total	7440-39-3	E420/VA	A	0.00010	mg/L	0.00592	0.00783	0.00832	----	----	
Beryllium, total	7440-41-7	E420/VA	A	0.000100	mg/L	<0.000100	<0.000100	<0.000100	----	----	
Bismuth, total	7440-69-9	E420/VA	A	0.000050	mg/L	<0.000050	<0.000050	<0.000050	----	----	
Boron, total	7440-42-8	E420/VA	A	0.010	mg/L	<0.010	<0.010	<0.010	----	----	
Cadmium, total	7440-43-9	E420/VA	A	0.0000050	mg/L	0.0000116	0.0000202	0.0000244	----	----	
Calcium, total	7440-70-2	E420/VA	A	0.050	mg/L	16.5	17.2	17.1	----	----	
Chromium, total	7440-47-3	E420/VA	A	0.00050	mg/L	<0.00050	<0.00050	<0.00050	----	----	
Cobalt, total	7440-48-4	E420/VA	A	0.00010	mg/L	<0.00010	<0.00010	<0.00010	----	----	
Copper, total	7440-50-8	E420/VA	A	0.00050	mg/L	0.00168	0.00560	0.00632	----	----	
Iron, total	7439-89-6	E420/VA	A	0.030	mg/L	<0.030	0.078	0.088	----	----	
Lead, total	7439-92-1	E420/VA	A	0.000050	mg/L	0.000057	0.000164	0.000197	----	----	
Lithium, total	7439-93-2	E420/VA	A	0.0010	mg/L	<0.0010	<0.0010	<0.0010	----	----	
Magnesium, total	7439-95-4	E420/VA	A	0.100	mg/L	2.06	2.13	2.11	----	----	
Manganese, total	7439-96-5	E420/VA	A	0.00010	mg/L	0.00180	0.00515	0.00573	----	----	
Molybdenum, total	7439-98-7	E420/VA	A	0.000050	mg/L	0.000327	0.000375	0.000377	----	----	
Nickel, total	7440-02-0	E420/VA	A	0.00050	mg/L	<0.00050	0.00067	0.00070	----	----	
Potassium, total	7440-09-7	E420/VA	A	0.050	mg/L	0.653	0.905	0.979	----	----	
Selenium, total	7782-49-2	E420/VA	A	0.000050	mg/L	0.000117	0.000115	0.000126	----	----	
Silicon, total	7440-21-3	E420/VA	A	0.10	mg/L	1.05	1.09	1.12	----	----	
Silver, total	7440-22-4	E420/VA	A	0.000010	mg/L	<0.000010	<0.000010	<0.000010	----	----	
Sodium, total	7440-23-5	E420/VA	A	0.050	mg/L	1.10	1.41	1.49	----	----	
Strontium, total	7440-24-6	E420/VA	A	0.00020	mg/L	0.130	0.128	0.132	----	----	
Thallium, total	7440-28-0	E420/VA	A	0.000010	mg/L	<0.000010	<0.000010	<0.000010	----	----	
Tin, total	7440-31-5	E420/VA	A	0.00010	mg/L	<0.00010	0.00015	0.00022	----	----	
Titanium, total	7440-32-6	E420/VA	A	0.0100	mg/L	<0.0100	<0.0100	<0.0100	----	----	
Uranium, total	7440-61-1	E420/VA	A	0.000010	mg/L	0.000161	0.000159	0.000168	----	----	
Vanadium, total	7440-62-2	E420/VA	A	0.00050	mg/L	<0.00050	<0.00050	<0.00050	----	----	
Zinc, total	7440-66-6	E420/VA	A	0.0030	mg/L	<0.0030	0.0130	0.0151	----	----	
Dissolved Metals											



Analytical Results

Sub-Matrix: Water (Matrix: Water)						Client sample ID	QUL-ZOO-1_W S_DI-1_2023-08	QUL-ZOO-7_W S_DI-1_2023-08	QUL-ZOO-7_W S_DI-1X_2023-08	----	----
Client sampling date / time						27-Aug-2023 14:15	27-Aug-2023 12:15	27-Aug-2023 12:15	----	----	
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23C0131-001	VA23C0131-002	VA23C0131-003	-----	-----		
					Result	Result	Result	----	----		
Dissolved Metals											
Aluminum, dissolved	7429-90-5	E421/VA	A	0.0030	mg/L	0.0058	0.0107	0.0131	----	----	
Antimony, dissolved	7440-36-0	E421/VA	A	0.00010	mg/L	<0.00010	<0.00010	<0.00010	----	----	
Arsenic, dissolved	7440-38-2	E421/VA	A	0.00010	mg/L	0.00011	0.00011	0.00012	----	----	
Barium, dissolved	7440-39-3	E421/VA	A	0.00010	mg/L	0.00528	0.00621	0.00599	----	----	
Beryllium, dissolved	7440-41-7	E421/VA	A	0.000100	mg/L	<0.000100	<0.000100	<0.000100	----	----	
Bismuth, dissolved	7440-69-9	E421/VA	A	0.000050	mg/L	<0.000050	<0.000050	<0.000050	----	----	
Boron, dissolved	7440-42-8	E421/VA	A	0.010	mg/L	<0.010	<0.010	<0.010	----	----	
Cadmium, dissolved	7440-43-9	E421/VA	A	0.0000050	mg/L	<0.0000050	0.0000156	0.0000147	----	----	
Calcium, dissolved	7440-70-2	E421/VA	A	0.050	mg/L	16.9	17.2	17.2	----	----	
Chromium, dissolved	7440-47-3	E421/VA	A	0.00050	mg/L	<0.00050	<0.00050	<0.00050	----	----	
Cobalt, dissolved	7440-48-4	E421/VA	A	0.00010	mg/L	<0.00010	<0.00010	<0.00010	----	----	
Copper, dissolved	7440-50-8	E421/VA	A	0.00050	mg/L	0.00072	0.00178	0.00198	----	----	
Iron, dissolved	7439-89-6	E421/VA	A	0.030	mg/L	<0.030	<0.030	<0.030	----	----	
Lead, dissolved	7439-92-1	E421/VA	A	0.000050	mg/L	<0.000050	0.000053	0.000057	----	----	
Lithium, dissolved	7439-93-2	E421/VA	A	0.0010	mg/L	<0.0010	<0.0010	<0.0010	----	----	
Magnesium, dissolved	7439-95-4	E421/VA	A	0.100	mg/L	2.02	2.05	2.04	----	----	
Manganese, dissolved	7439-96-5	E421/VA	A	0.00010	mg/L	0.00034	0.00191	0.00213	----	----	
Molybdenum, dissolved	7439-98-7	E421/VA	A	0.000050	mg/L	0.000347	0.000358	0.000358	----	----	
Nickel, dissolved	7440-02-0	E421/VA	A	0.00050	mg/L	<0.00050	<0.00050	<0.00050	----	----	
Potassium, dissolved	7440-09-7	E421/VA	A	0.050	mg/L	0.535	0.839	0.897	----	----	
Selenium, dissolved	7782-49-2	E421/VA	A	0.000050	mg/L	0.000109	0.000092	0.000112	----	----	
Silicon, dissolved	7440-21-3	E421/VA	A	0.050	mg/L	0.941	0.869	0.870	----	----	
Silver, dissolved	7440-22-4	E421/VA	A	0.000010	mg/L	<0.000010	<0.000010	<0.000010	----	----	
Sodium, dissolved	7440-23-5	E421/VA	A	0.050	mg/L	0.956	1.30	1.37	----	----	
Strontium, dissolved	7440-24-6	E421/VA	A	0.00020	mg/L	0.133	0.134	0.131	----	----	
Thallium, dissolved	7440-28-0	E421/VA	A	0.000010	mg/L	<0.000010	<0.000010	<0.000010	----	----	
Tin, dissolved	7440-31-5	E421/VA	A	0.00010	mg/L	<0.00010	<0.00010	0.00011	----	----	
Titanium, dissolved	7440-32-6	E421/VA	A	0.0100	mg/L	<0.0100	<0.0100	<0.0100	----	----	
Uranium, dissolved	7440-61-1	E421/VA	A	0.000010	mg/L	0.000156	0.000164	0.000158	----	----	



Analytical Results

Sub-Matrix: Water (Matrix: Water)						Client sample ID	QUL-ZOO-1_W S_DI-1_2023-08	QUL-ZOO-7_W S_DI-1_2023-08	QUL-ZOO-7_W S_DI-1X_2023- 08	----	----
Client sampling date / time						27-Aug-2023 14:15	27-Aug-2023 12:15	27-Aug-2023 12:15	----	----	
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23C0131-001	VA23C0131-002	VA23C0131-003	-----	-----		
					Result	Result	Result	----	----		
Dissolved Metals											
Vanadium, dissolved	7440-62-2	E421/VA	A	0.00050	mg/L	<0.00050	<0.00050	<0.00050	----	----	
Zinc, dissolved	7440-66-6	E421/VA	A	0.0030	mg/L	<0.0030	0.0108	0.0116	----	----	
Dissolved metals filtration location	----	EP421/VA		-	-	Field	Field	Field	----	----	

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.

QUALITY CONTROL INTERPRETIVE REPORT

<p>Work Order : VA23C0131</p> <p>Amendment : 1</p> <p>Client : Mount Polley Mining Corporation</p> <p>Contact : Mr. Gabriel Holmes</p> <p>Address : PO Box 12 Likely BC Canada V0L 1N0</p> <p>Telephone : 250-790-2215 ext 2171</p> <p>Project : ----</p> <p>PO : 5590012190</p> <p>C-O-C number : ----</p> <p>Sampler : ----</p> <p>Site : ----</p> <p>Quote number : VA22-MPMC100-006 - Minnow Env. - Water Quality</p> <p>No. of samples received : 3</p> <p>No. of samples analysed : 3</p>	<p>Page : 1 of 15</p> <p>Laboratory : ALS Environmental - Vancouver</p> <p>Account Manager : Can Dang</p> <p>Address : 8081 Lougheed Highway Burnaby, British Columbia Canada V5A 1W9</p> <p>Telephone : +1 604 253 4188</p> <p>Date Samples Received : 29-Aug-2023 12:35</p> <p>Issue Date : 05-Jan-2024 11:03</p>
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This report is automatically generated by the ALS LIMS (Laboratory Information Management System) through evaluation of Quality Control (QC) results and other QA parameters associated with this submission, and is intended to facilitate rapid data validation by auditors or reviewers. The report highlights any exceptions and outliers to ALS Data Quality Objectives, provides holding time details and exceptions, summarizes QC sample frequencies, and lists applicable methodology references and summaries.

Key

- Anonymous: Refers to samples which are not part of this work order, but which formed part of the QC process lot.
- CAS Number: Chemical Abstracts Service number is a unique identifier assigned to discrete substances.
- DQO: Data Quality Objective.
- LOR: Limit of Reporting (detection limit).
- RPD: Relative Percent Difference.

Workorder Comments

Holding times are displayed as "----" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

Summary of Outliers

Outliers : Quality Control Samples

- No Method Blank value outliers occur.
- No Duplicate outliers occur.
- No Laboratory Control Sample (LCS) outliers occur
- No Matrix Spike outliers occur.
- No Test sample Surrogate recovery outliers exist.

Outliers: Reference Material (RM) Samples

- No Reference Material (RM) Sample outliers occur.

Outliers : Analysis Holding Time Compliance (Breaches)

- Analysis Holding Time Outliers exist - please see following pages for full details.

Outliers : Frequency of Quality Control Samples

- No Quality Control Sample Frequency Outliers occur.



Analysis Holding Time Compliance

This report summarizes extraction / preparation and analysis times and compares each with ALS recommended holding times, which are selected to meet known provincial and /or federal requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by organizations such as CCME, US EPA, APHA Standard Methods, ASTM, or Environment Canada (where available). Dates and holding times reported below represent the first dates of extraction or analysis. If subsequent tests or dilutions exceeded holding times, qualifiers are added (refer to COA).

If samples are identified below as having been analyzed or extracted outside of recommended holding times, measurement uncertainties may be increased, and this should be taken into consideration when interpreting results.

Where actual sampling date is not provided on the chain of custody, the date of receipt with time at 00:00 is used for calculation purposes.

Where only the sample date without time is provided on the chain of custody, the sampling date at 00:00 is used for calculation purposes.

Matrix: **Water** Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) QUL-ZOO-1_WS_DI-1_2023-08	E298	27-Aug-2023	01-Sep-2023	28 days	5 days	✔	01-Sep-2023	28 days	5 days	✔
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) QUL-ZOO-7_WS_DI-1_2023-08	E298	27-Aug-2023	01-Sep-2023	28 days	5 days	✔	01-Sep-2023	28 days	5 days	✔
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) QUL-ZOO-7_WS_DI-1X_2023-08	E298	27-Aug-2023	01-Sep-2023	28 days	5 days	✔	01-Sep-2023	28 days	5 days	✔
Anions and Nutrients : Chloride in Water by IC										
HDPE QUL-ZOO-1_WS_DI-1_2023-08	E235.Cl	27-Aug-2023	30-Aug-2023	28 days	2 days	✔	30-Aug-2023	28 days	2 days	✔
Anions and Nutrients : Chloride in Water by IC										
HDPE QUL-ZOO-7_WS_DI-1_2023-08	E235.Cl	27-Aug-2023	30-Aug-2023	28 days	3 days	✔	30-Aug-2023	28 days	3 days	✔
Anions and Nutrients : Chloride in Water by IC										
HDPE QUL-ZOO-7_WS_DI-1X_2023-08	E235.Cl	27-Aug-2023	30-Aug-2023	28 days	3 days	✔	30-Aug-2023	28 days	3 days	✔
Anions and Nutrients : Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)										
HDPE QUL-ZOO-1_WS_DI-1_2023-08	E378-U	27-Aug-2023	30-Aug-2023	3 days	2 days	✔	30-Aug-2023	3 days	3 days	✔



Matrix: **Water** Evaluation: * = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Anions and Nutrients : Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)											
HDPE QUL-ZOO-7_WS_DI-1_2023-08	E378-U	27-Aug-2023	30-Aug-2023	3 days	3 days	✓	30-Aug-2023	3 days	3 days	✓	
Anions and Nutrients : Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)											
HDPE QUL-ZOO-7_WS_DI-1X_2023-08	E378-U	27-Aug-2023	30-Aug-2023	3 days	3 days	✓	30-Aug-2023	3 days	3 days	✓	
Anions and Nutrients : Fluoride in Water by IC											
HDPE QUL-ZOO-1_WS_DI-1_2023-08	E235.F	27-Aug-2023	30-Aug-2023	28 days	2 days	✓	30-Aug-2023	28 days	2 days	✓	
Anions and Nutrients : Fluoride in Water by IC											
HDPE QUL-ZOO-7_WS_DI-1_2023-08	E235.F	27-Aug-2023	30-Aug-2023	28 days	3 days	✓	30-Aug-2023	28 days	3 days	✓	
Anions and Nutrients : Fluoride in Water by IC											
HDPE QUL-ZOO-7_WS_DI-1X_2023-08	E235.F	27-Aug-2023	30-Aug-2023	28 days	3 days	✓	30-Aug-2023	28 days	3 days	✓	
Anions and Nutrients : Nitrate in Water by IC (Low Level)											
HDPE QUL-ZOO-1_WS_DI-1_2023-08	E235.NO3-L	27-Aug-2023	30-Aug-2023	3 days	2 days	✓	30-Aug-2023	3 days	2 days	✓	
Anions and Nutrients : Nitrate in Water by IC (Low Level)											
HDPE QUL-ZOO-7_WS_DI-1_2023-08	E235.NO3-L	27-Aug-2023	30-Aug-2023	3 days	3 days	✓	30-Aug-2023	3 days	3 days	✓	
Anions and Nutrients : Nitrate in Water by IC (Low Level)											
HDPE QUL-ZOO-7_WS_DI-1X_2023-08	E235.NO3-L	27-Aug-2023	30-Aug-2023	3 days	3 days	✓	30-Aug-2023	3 days	3 days	✓	
Anions and Nutrients : Nitrite in Water by IC (Low Level)											
HDPE QUL-ZOO-1_WS_DI-1_2023-08	E235.NO2-L	27-Aug-2023	30-Aug-2023	3 days	2 days	✓	30-Aug-2023	3 days	2 days	✓	



Matrix: **Water** Evaluation: * = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation					Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval		
				Rec	Actual			Rec	Actual			
Anions and Nutrients : Nitrite in Water by IC (Low Level)												
HDPE QUL-ZOO-7_WS_DI-1_2023-08	E235.NO2-L	27-Aug-2023	30-Aug-2023	3 days	3 days	✓	30-Aug-2023	3 days	3 days	✓		
Anions and Nutrients : Nitrite in Water by IC (Low Level)												
HDPE QUL-ZOO-7_WS_DI-1X_2023-08	E235.NO2-L	27-Aug-2023	30-Aug-2023	3 days	3 days	✓	30-Aug-2023	3 days	3 days	✓		
Anions and Nutrients : Sulfate in Water by IC												
HDPE QUL-ZOO-1_WS_DI-1_2023-08	E235.SO4	27-Aug-2023	30-Aug-2023	28 days	2 days	✓	30-Aug-2023	28 days	2 days	✓		
Anions and Nutrients : Sulfate in Water by IC												
HDPE QUL-ZOO-7_WS_DI-1_2023-08	E235.SO4	27-Aug-2023	30-Aug-2023	28 days	3 days	✓	30-Aug-2023	28 days	3 days	✓		
Anions and Nutrients : Sulfate in Water by IC												
HDPE QUL-ZOO-7_WS_DI-1X_2023-08	E235.SO4	27-Aug-2023	30-Aug-2023	28 days	3 days	✓	30-Aug-2023	28 days	3 days	✓		
Anions and Nutrients : Total Dissolved Phosphorus by Colourimetry (0.002 mg/L)												
Amber glass dissolved (sulfuric acid) QUL-ZOO-1_WS_DI-1_2023-08	E375-T	27-Aug-2023	01-Sep-2023	28 days	5 days	✓	04-Sep-2023	28 days	8 days	✓		
Anions and Nutrients : Total Dissolved Phosphorus by Colourimetry (0.002 mg/L)												
Amber glass dissolved (sulfuric acid) QUL-ZOO-7_WS_DI-1_2023-08	E375-T	27-Aug-2023	01-Sep-2023	28 days	5 days	✓	04-Sep-2023	28 days	8 days	✓		
Anions and Nutrients : Total Dissolved Phosphorus by Colourimetry (0.002 mg/L)												
Amber glass dissolved (sulfuric acid) QUL-ZOO-7_WS_DI-1X_2023-08	E375-T	27-Aug-2023	01-Sep-2023	28 days	5 days	✓	04-Sep-2023	28 days	8 days	✓		
Anions and Nutrients : Total Nitrogen by Colourimetry												
Amber glass total (sulfuric acid) QUL-ZOO-1_WS_DI-1_2023-08	E366	27-Aug-2023	01-Sep-2023	28 days	5 days	✓	02-Sep-2023	28 days	6 days	✓		



Matrix: **Water** Evaluation: * = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Anions and Nutrients : Total Nitrogen by Colourimetry										
Amber glass total (sulfuric acid) QUL-ZOO-7_WS_DI-1_2023-08	E366	27-Aug-2023	01-Sep-2023	28 days	5 days	✓	02-Sep-2023	28 days	6 days	✓
Anions and Nutrients : Total Nitrogen by Colourimetry										
Amber glass total (sulfuric acid) QUL-ZOO-7_WS_DI-1X_2023-08	E366	27-Aug-2023	01-Sep-2023	28 days	5 days	✓	02-Sep-2023	28 days	6 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) QUL-ZOO-1_WS_DI-1_2023-08	E372-U	27-Aug-2023	01-Sep-2023	28 days	5 days	✓	04-Sep-2023	28 days	8 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) QUL-ZOO-7_WS_DI-1_2023-08	E372-U	27-Aug-2023	01-Sep-2023	28 days	5 days	✓	04-Sep-2023	28 days	8 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) QUL-ZOO-7_WS_DI-1X_2023-08	E372-U	27-Aug-2023	01-Sep-2023	28 days	5 days	✓	04-Sep-2023	28 days	8 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE - dissolved (lab preserved) QUL-ZOO-1_WS_DI-1_2023-08	E421	27-Aug-2023	31-Aug-2023	180 days	4 days	✓	01-Sep-2023	180 days	5 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE - dissolved (lab preserved) QUL-ZOO-7_WS_DI-1_2023-08	E421	27-Aug-2023	31-Aug-2023	180 days	4 days	✓	01-Sep-2023	180 days	5 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE - dissolved (lab preserved) QUL-ZOO-7_WS_DI-1X_2023-08	E421	27-Aug-2023	31-Aug-2023	180 days	4 days	✓	01-Sep-2023	180 days	5 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) QUL-ZOO-1_WS_DI-1_2023-08	E358-L	27-Aug-2023	01-Sep-2023	28 days	5 days	✓	01-Sep-2023	28 days	5 days	✓



Matrix: **Water** Evaluation: * = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) QUL-ZOO-7_WS_DI-1_2023-08	E358-L	27-Aug-2023	01-Sep-2023	28 days	5 days	✓	01-Sep-2023	28 days	5 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) QUL-ZOO-7_WS_DI-1X_2023-08	E358-L	27-Aug-2023	01-Sep-2023	28 days	5 days	✓	01-Sep-2023	28 days	5 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE QUL-ZOO-1_WS_DI-1_2023-08	E290	27-Aug-2023	30-Aug-2023	14 days	2 days	✓	30-Aug-2023	14 days	3 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE QUL-ZOO-7_WS_DI-1_2023-08	E290	27-Aug-2023	30-Aug-2023	14 days	3 days	✓	30-Aug-2023	14 days	3 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE QUL-ZOO-7_WS_DI-1X_2023-08	E290	27-Aug-2023	30-Aug-2023	14 days	3 days	✓	30-Aug-2023	14 days	3 days	✓
Physical Tests : Conductivity in Water										
HDPE QUL-ZOO-1_WS_DI-1_2023-08	E100	27-Aug-2023	30-Aug-2023	28 days	2 days	✓	30-Aug-2023	28 days	3 days	✓
Physical Tests : Conductivity in Water										
HDPE QUL-ZOO-7_WS_DI-1_2023-08	E100	27-Aug-2023	30-Aug-2023	28 days	3 days	✓	30-Aug-2023	28 days	3 days	✓
Physical Tests : Conductivity in Water										
HDPE QUL-ZOO-7_WS_DI-1X_2023-08	E100	27-Aug-2023	30-Aug-2023	28 days	3 days	✓	30-Aug-2023	28 days	3 days	✓
Physical Tests : pH by Meter										
HDPE QUL-ZOO-1_WS_DI-1_2023-08	E108	27-Aug-2023	30-Aug-2023	0.25 hrs	59 hrs	* EHTR-FM	30-Aug-2023	0.25 hrs	63 hrs	* EHTR-FM



Matrix: **Water** Evaluation: * = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Physical Tests : pH by Meter											
HDPE QUL-ZOO-7_WS_DI-1_2023-08	E108	27-Aug-2023	30-Aug-2023	0.25 hrs	61 hrs	* EHTR-FM	30-Aug-2023	0.25 hrs	65 hrs	* EHTR-FM	
Physical Tests : pH by Meter											
HDPE QUL-ZOO-7_WS_DI-1X_2023-08	E108	27-Aug-2023	30-Aug-2023	0.25 hrs	61 hrs	* EHTR-FM	30-Aug-2023	0.25 hrs	65 hrs	* EHTR-FM	
Physical Tests : TDS by Gravimetry											
HDPE QUL-ZOO-1_WS_DI-1_2023-08	E162	27-Aug-2023	----	----	----		01-Sep-2023	7 days	4 days	✓	
Physical Tests : TDS by Gravimetry											
HDPE QUL-ZOO-7_WS_DI-1_2023-08	E162	27-Aug-2023	----	----	----		01-Sep-2023	7 days	5 days	✓	
Physical Tests : TDS by Gravimetry											
HDPE QUL-ZOO-7_WS_DI-1X_2023-08	E162	27-Aug-2023	----	----	----		01-Sep-2023	7 days	5 days	✓	
Physical Tests : TSS by Gravimetry (Whole Bottle)											
HDPE [TSS-WB] QUL-ZOO-1_WS_DI-1_2023-08	E164	27-Aug-2023	----	----	----		01-Sep-2023	7 days	5 days	✓	
Physical Tests : TSS by Gravimetry (Whole Bottle)											
HDPE [TSS-WB] QUL-ZOO-7_WS_DI-1_2023-08	E164	27-Aug-2023	----	----	----		01-Sep-2023	7 days	5 days	✓	
Physical Tests : TSS by Gravimetry (Whole Bottle)											
HDPE [TSS-WB] QUL-ZOO-7_WS_DI-1X_2023-08	E164	27-Aug-2023	----	----	----		01-Sep-2023	7 days	5 days	✓	
Physical Tests : Turbidity by Nephelometry											
HDPE QUL-ZOO-1_WS_DI-1_2023-08	E121	27-Aug-2023	----	----	----		29-Aug-2023	3 days	2 days	✓	



Matrix: **Water** Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Physical Tests : Turbidity by Nephelometry											
HDPE QUL-ZOO-7_WS_DI-1_2023-08	E121	27-Aug-2023	----	----	----		29-Aug-2023	3 days	2 days	✔	
Physical Tests : Turbidity by Nephelometry											
HDPE QUL-ZOO-7_WS_DI-1X_2023-08	E121	27-Aug-2023	----	----	----		29-Aug-2023	3 days	2 days	✔	
Total Metals : Total Metals in Water by CRC ICPMS											
HDPE - total (lab preserved) QUL-ZOO-1_WS_DI-1_2023-08	E420	27-Aug-2023	30-Aug-2023	180 days	3 days	✔	01-Sep-2023	180 days	5 days	✔	
Total Metals : Total Metals in Water by CRC ICPMS											
HDPE - total (lab preserved) QUL-ZOO-7_WS_DI-1_2023-08	E420	27-Aug-2023	30-Aug-2023	180 days	3 days	✔	01-Sep-2023	180 days	5 days	✔	
Total Metals : Total Metals in Water by CRC ICPMS											
HDPE - total (lab preserved) QUL-ZOO-7_WS_DI-1X_2023-08	E420	27-Aug-2023	30-Aug-2023	180 days	3 days	✔	01-Sep-2023	180 days	5 days	✔	

Legend & Qualifier Definitions

EHTR-FM: Exceeded ALS recommended hold time prior to sample receipt. Field Measurement recommended
 Rec. HT: ALS recommended hold time (see units).



Quality Control Parameter Frequency Compliance

The following report summarizes the frequency of laboratory QC samples analyzed within the analytical batches (QC lots) in which the submitted samples were processed. The actual frequency should be greater than or equal to the expected frequency.

Matrix: **Water** Evaluation: * = QC frequency outside specification; ✓ = QC frequency within specification.

Quality Control Sample Type	Method	QC Lot #	Count		Frequency (%)		
			QC	Regular	Actual	Expected	Evaluation
Analytical Methods							
Laboratory Duplicates (DUP)							
Alkalinity Species by Titration	E290	1110393	1	11	9.0	5.0	✓
Ammonia by Fluorescence	E298	1114707	1	10	10.0	5.0	✓
Chloride in Water by IC	E235.Cl	1110394	1	7	14.2	5.0	✓
Conductivity in Water	E100	1110392	1	7	14.2	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1112014	1	19	5.2	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1114709	1	6	16.6	5.0	✓
Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)	E378-U	1110390	1	17	5.8	5.0	✓
Fluoride in Water by IC	E235.F	1110398	1	3	33.3	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	1110396	1	15	6.6	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1110395	1	15	6.6	5.0	✓
pH by Meter	E108	1110391	1	7	14.2	5.0	✓
Sulfate in Water by IC	E235.SO4	1110397	1	3	33.3	5.0	✓
TDS by Gravimetry	E162	1114741	1	20	5.0	5.0	✓
Total Dissolved Phosphorus by Colourimetry (0.002 mg/L)	E375-T	1114705	1	18	5.5	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1111209	1	20	5.0	5.0	✓
Total Nitrogen by Colourimetry	E366	1114708	1	9	11.1	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1114706	1	15	6.6	5.0	✓
Turbidity by Nephelometry	E121	1110076	1	20	5.0	5.0	✓
Laboratory Control Samples (LCS)							
Alkalinity Species by Titration	E290	1110393	1	11	9.0	5.0	✓
Ammonia by Fluorescence	E298	1114707	1	10	10.0	5.0	✓
Chloride in Water by IC	E235.Cl	1110394	1	7	14.2	5.0	✓
Conductivity in Water	E100	1110392	1	7	14.2	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1112014	1	19	5.2	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1114709	1	6	16.6	5.0	✓
Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)	E378-U	1110390	1	17	5.8	5.0	✓
Fluoride in Water by IC	E235.F	1110398	1	3	33.3	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	1110396	1	15	6.6	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1110395	1	15	6.6	5.0	✓
pH by Meter	E108	1110391	1	7	14.2	5.0	✓
Sulfate in Water by IC	E235.SO4	1110397	1	3	33.3	5.0	✓
TDS by Gravimetry	E162	1114741	1	20	5.0	5.0	✓
Total Dissolved Phosphorus by Colourimetry (0.002 mg/L)	E375-T	1114705	1	18	5.5	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1111209	1	20	5.0	5.0	✓
Total Nitrogen by Colourimetry	E366	1114708	1	9	11.1	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1114706	1	15	6.6	5.0	✓



Matrix: **Water**

Evaluation: ✖ = QC frequency outside specification; ✔ = QC frequency within specification.

Quality Control Sample Type	Method	QC Lot #	Count		Frequency (%)		
			QC	Regular	Actual	Expected	Evaluation
Analytical Methods							
Laboratory Control Samples (LCS) - Continued							
TSS by Gravimetry (Whole Bottle)	E164	1115929	1	19	5.2	5.0	✔
Turbidity by Nephelometry	E121	1110076	1	20	5.0	5.0	✔
Method Blanks (MB)							
Alkalinity Species by Titration	E290	1110393	1	11	9.0	5.0	✔
Ammonia by Fluorescence	E298	1114707	1	10	10.0	5.0	✔
Chloride in Water by IC	E235.Cl	1110394	1	7	14.2	5.0	✔
Conductivity in Water	E100	1110392	1	7	14.2	5.0	✔
Dissolved Metals in Water by CRC ICPMS	E421	1112014	1	19	5.2	5.0	✔
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1114709	1	6	16.6	5.0	✔
Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)	E378-U	1110390	1	17	5.8	5.0	✔
Fluoride in Water by IC	E235.F	1110398	1	3	33.3	5.0	✔
Nitrate in Water by IC (Low Level)	E235.NO3-L	1110396	1	15	6.6	5.0	✔
Nitrite in Water by IC (Low Level)	E235.NO2-L	1110395	1	15	6.6	5.0	✔
Sulfate in Water by IC	E235.SO4	1110397	1	3	33.3	5.0	✔
TDS by Gravimetry	E162	1114741	1	20	5.0	5.0	✔
Total Dissolved Phosphorus by Colourimetry (0.002 mg/L)	E375-T	1114705	1	18	5.5	5.0	✔
Total Metals in Water by CRC ICPMS	E420	1111209	1	20	5.0	5.0	✔
Total Nitrogen by Colourimetry	E366	1114708	1	9	11.1	5.0	✔
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1114706	1	15	6.6	5.0	✔
TSS by Gravimetry (Whole Bottle)	E164	1115929	1	19	5.2	5.0	✔
Turbidity by Nephelometry	E121	1110076	1	20	5.0	5.0	✔
Matrix Spikes (MS)							
Ammonia by Fluorescence	E298	1114707	1	10	10.0	5.0	✔
Chloride in Water by IC	E235.Cl	1110394	1	7	14.2	5.0	✔
Dissolved Metals in Water by CRC ICPMS	E421	1112014	1	19	5.2	5.0	✔
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1114709	1	6	16.6	5.0	✔
Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)	E378-U	1110390	1	17	5.8	5.0	✔
Fluoride in Water by IC	E235.F	1110398	1	3	33.3	5.0	✔
Nitrate in Water by IC (Low Level)	E235.NO3-L	1110396	1	15	6.6	5.0	✔
Nitrite in Water by IC (Low Level)	E235.NO2-L	1110395	1	15	6.6	5.0	✔
Sulfate in Water by IC	E235.SO4	1110397	1	3	33.3	5.0	✔
Total Dissolved Phosphorus by Colourimetry (0.002 mg/L)	E375-T	1114705	1	18	5.5	5.0	✔
Total Metals in Water by CRC ICPMS	E420	1111209	1	20	5.0	5.0	✔
Total Nitrogen by Colourimetry	E366	1114708	1	9	11.1	5.0	✔
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1114706	1	15	6.6	5.0	✔



Methodology References and Summaries

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Reference methods may incorporate modifications to improve performance (indicated by "mod").

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Conductivity in Water	E100 ALS Environmental - Vancouver	Water	APHA 2510 (mod)	Conductivity, also known as Electrical Conductivity (EC) or Specific Conductance, is measured by immersion of a conductivity cell with platinum electrodes into a water sample. Conductivity measurements are temperature-compensated to 25°C.
pH by Meter	E108 ALS Environmental - Vancouver	Water	APHA 4500-H (mod)	pH is determined by potentiometric measurement with a pH electrode, and is conducted at ambient laboratory temperature (normally 20 ± 5°C). For high accuracy test results, pH should be measured in the field within the recommended 15 minute hold time.
Turbidity by Nephelometry	E121 ALS Environmental - Vancouver	Water	APHA 2130 B (mod)	Turbidity is measured by the nephelometric method, by measuring the intensity of light scatter under defined conditions.
TDS by Gravimetry	E162 ALS Environmental - Vancouver	Water	APHA 2540 C (mod)	Total Dissolved Solids (TDS) are determined by filtering a sample through a glass fibre filter, with evaporation of the filtrate at 180 ± 2°C for 16 hours or to constant weight, with gravimetric measurement of the residue.
TSS by Gravimetry (Whole Bottle)	E164 ALS Environmental - Vancouver	Water	APHA 2540 D (mod)	Total Suspended Solids (TSS) are determined by filtering a sample through a glass fibre filter, following by drying of the filter at 104 ± 1°C, with gravimetric measurement of the filtered solids. Samples containing very high dissolved solid content (i.e. seawaters, brackish waters) may produce a positive bias by this method. Alternate analysis methods are available for these types of samples.
Chloride in Water by IC	E235.Cl ALS Environmental - Vancouver	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Fluoride in Water by IC	E235.F ALS Environmental - Vancouver	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Nitrite in Water by IC (Low Level)	E235.NO2-L ALS Environmental - Vancouver	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Nitrate in Water by IC (Low Level)	E235.NO3-L ALS Environmental - Vancouver	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.



Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Sulfate in Water by IC	E235.SO4 ALS Environmental - Vancouver	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Alkalinity Species by Titration	E290 ALS Environmental - Vancouver	Water	APHA 2320 B (mod)	Total alkalinity is determined by potentiometric titration to a pH 4.5 endpoint. Bicarbonate, carbonate and hydroxide alkalinity are calculated from phenolphthalein alkalinity and total alkalinity values.
Ammonia by Fluorescence	E298 ALS Environmental - Vancouver	Water	Method Fialab 100, 2018	Ammonia in water is determined by automated continuous flow analysis with membrane diffusion and fluorescence detection, after reaction with OPA (ortho-phthalaldehyde). This method is approved under US EPA 40 CFR Part 136 (May 2021)
Dissolved Organic Carbon by Combustion (Low Level)	E358-L ALS Environmental - Vancouver	Water	APHA 5310 B (mod)	Dissolved Organic Carbon (Non-Purgeable), also known as NPOC (dissolved), is a direct measurement of DOC after a filtered (0.45 micron) sample has been acidified and purged to remove inorganic carbon (IC). Analysis is by high temperature combustion with infrared detection of CO ₂ . NPOC does not include volatile organic species that are purged off with IC. For samples where the majority of DC (dissolved carbon) is comprised of IC (which is common), this method is more accurate and more reliable than the DOC by subtraction method (i.e. DC minus DIC).
Total Nitrogen by Colourimetry	E366 ALS Environmental - Vancouver	Water	Chinchilla Scientific Nitrate Method, 2011	Following digestion, total nitrogen is is determined colourimetrically using a discrete analyzer utilizing the vanadium chloride reduction method. This method of analysis is approved under US EPA 40 CFR Part 136 (May 2021).
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U ALS Environmental - Vancouver	Water	APHA 4500-P E (mod).	Total Phosphorus is determined colourimetrically using a discrete analyzer after heated persulfate digestion of the sample.
Total Dissolved Phosphorus by Colourimetry (0.002 mg/L)	E375-T ALS Environmental - Vancouver	Water	APHA 4500-P E (mod).	Total Dissolved Phosphorus is determined colourimetrically using a discrete analyzer after filtration through a 0.45 micron filter followed by heated persulfate digestion of the sample.
Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)	E378-U ALS Environmental - Vancouver	Water	APHA 4500-P F (mod)	Dissolved Orthophosphate is determined colourimetrically on a sample that has been lab or field filtered through a 0.45 micron membrane filter. Field filtration is recommended to ensure test results represent conditions at time of sampling.
Total Metals in Water by CRC ICPMS	E420 ALS Environmental - Vancouver	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS. Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.



Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Dissolved Metals in Water by CRC ICPMS	E421 ALS Environmental - Vancouver	Water	APHA 3030B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS. Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.
Dissolved Hardness (Calculated)	EC100 ALS Environmental - Vancouver	Water	APHA 2340B	"Hardness (as CaCO3), dissolved" is calculated from the sum of dissolved Calcium and Magnesium concentrations, expressed in CaCO3 equivalents. "Total Hardness" refers to the sum of Calcium and Magnesium Hardness. Hardness is normally or preferentially calculated from dissolved Calcium and Magnesium concentrations, because it is a property of water due to dissolved divalent cations.
Hardness (Calculated) from Total Ca/Mg	EC100A ALS Environmental - Vancouver	Water	APHA 2340B	"Hardness (as CaCO3), from total Ca/Mg" is calculated from the sum of total Calcium and Magnesium concentrations, expressed in CaCO3 equivalents. "Total Hardness" refers to the sum of Calcium and Magnesium Hardness. Hardness is normally or preferentially calculated from dissolved Calcium and Magnesium concentrations, because it is a property of water due to dissolved divalent cations. Hardness from total Ca/Mg is normally comparable to Dissolved Hardness in non-turbid waters.
Nitrate and Nitrite (as N) (Calculation)	EC235.N+N ALS Environmental - Vancouver	Water	EPA 300.0	Nitrate and Nitrite (as N) is a calculated parameter. Nitrate and Nitrite (as N) = Nitrite (as N) + Nitrate (as N).

Preparation Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Preparation for Ammonia	EP298 ALS Environmental - Vancouver	Water		Sample preparation for Preserved Nutrients Water Quality Analysis.
Preparation for Dissolved Organic Carbon for Combustion	EP358 ALS Environmental - Vancouver	Water	APHA 5310 B (mod)	Preparation for Dissolved Organic Carbon
Digestion for Total Nitrogen in water	EP366 ALS Environmental - Vancouver	Water	APHA 4500-P J (mod)	Samples for total nitrogen analysis are digested using a heated persulfate digestion. Nitrogen compounds are converted to nitrate in this digestion.
Digestion for Total Phosphorus in water	EP372 ALS Environmental - Vancouver	Water	APHA 4500-P E (mod).	Samples are heated with a persulfate digestion reagent.
Digestion for Dissolved Phosphorus in water	EP375 ALS Environmental - Vancouver	Water	APHA 4500-P E (mod).	Samples are filtered through a 0.45 micron membrane filter and then heated with a persulfate digestion reagent.
Dissolved Metals Water Filtration	EP421	Water	APHA 3030B	Water samples are filtered (0.45 um), and preserved with HNO3.

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Work Order : VA23C0131 Amendment 1
Client : Mount Polley Mining Corporation
Project : ---



<i>Preparation Methods</i>	<i>Method / Lab</i>	<i>Matrix</i>	<i>Method Reference</i>	<i>Method Descriptions</i>
	ALS Environmental - Vancouver			

QUALITY CONTROL REPORT

Work Order	: VA23C0131	Page	: 1 of 15
Amendment	: 1		
Client	: Mount Polley Mining Corporation	Laboratory	: ALS Environmental - Vancouver
Contact	: Mr. Gabriel Holmes	Account Manager	: Can Dang
Address	: PO Box 12 Likely BC Canada V0L 1N0	Address	: 8081 Lougheed Highway Burnaby, British Columbia Canada V5A 1W9
Telephone	:	Telephone	: +1 604 253 4188
Project	: ----	Date Samples Received	: 29-Aug-2023 12:35
PO	: 5590012190	Date Analysis Commenced	: 29-Aug-2023
C-O-C number	: ----	Issue Date	: 05-Jan-2024 11:03
Sampler	: ---- 250-790-2215 ext 2171		
Site	: ----		
Quote number	: VA22-MPMC100-006 - Minnow Env. - Water Quality		
No. of samples received	: 3		
No. of samples analysed	: 3		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Quality Control Report contains the following information:

- Laboratory Duplicate (DUP) Report; Relative Percent Difference (RPD) and Data Quality Objectives
- Matrix Spike (MS) Report; Recovery and Data Quality Objectives
- Method Blank (MB) Report; Recovery and Data Quality Objectives
- Laboratory Control Sample (LCS) Report; Recovery and Data Quality Objectives

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

<i>Signatories</i>	<i>Position</i>	<i>Laboratory Department</i>
Kevin Duarte	Supervisor - Metals ICP Instrumentation	Vancouver Inorganics, Burnaby, British Columbia
Kim Jensen	Department Manager - Metals	Vancouver Metals, Burnaby, British Columbia
Lindsay Gung	Supervisor - Water Chemistry	Vancouver Inorganics, Burnaby, British Columbia
Tracy Harley	Supervisor - Water Quality Instrumentation	Vancouver Inorganics, Burnaby, British Columbia



General Comments

The ALS Quality Control (QC) report is optionally provided to ALS clients upon request. ALS test methods include comprehensive QC checks with every analysis to ensure our high standards of quality are met. Each QC result has a known or expected target value, which is compared against predetermined Data Quality Objectives (DQOs) to provide confidence in the accuracy of associated test results. This report contains detailed results for all QC results applicable to this sample submission. Please refer to the ALS Quality Control Interpretation report (QCI) for applicable method references and methodology summaries.

Key :

Anonymous = Refers to samples which are not part of this work order, but which formed part of the QC process lot.

CAS Number = Chemical Abstracts Service number is a unique identifier assigned to discrete substances.

DQO = Data Quality Objective.

LOR = Limit of Reporting (detection limit).

RPD = Relative Percent Difference

= Indicates a QC result that did not meet the ALS DQO.

Workorder Comments

Holding times are displayed as "---" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.



Laboratory Duplicate (DUP) Report

A Laboratory Duplicate (DUP) is a randomly selected intralaboratory replicate sample. Laboratory Duplicates provide information regarding method precision and sample heterogeneity. ALS DQOs for Laboratory Duplicates are expressed as test-specific limits for Relative Percent Difference (RPD), or as an absolute difference limit of 2 times the LOR for low concentration duplicates within ~ 4-10 times the LOR (cut-off is test-specific).

Sub-Matrix: Water					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	LOR	Unit	Original Result	Duplicate Result	RPD(%) or Difference	Duplicate Limits	Qualifier
Physical Tests (QC Lot: 1110076)											
VA23C0026-001	Anonymous	Turbidity	----	E121	0.10	NTU	68.2	66.8	1.96%	15%	----
Physical Tests (QC Lot: 1110391)											
VA23C0131-003	QUL-ZOO-7_WS_DI-1X_2 023-08	pH	----	E108	0.10	pH units	7.90	7.90	0.00%	4%	----
Physical Tests (QC Lot: 1110392)											
VA23C0131-003	QUL-ZOO-7_WS_DI-1X_2 023-08	Conductivity	----	E100	2.0	µS/cm	119	119	0.336%	10%	----
Physical Tests (QC Lot: 1110393)											
VA23C0131-003	QUL-ZOO-7_WS_DI-1X_2 023-08	Alkalinity, total (as CaCO3)	----	E290	1.0	mg/L	49.7	49.9	0.402%	20%	----
Physical Tests (QC Lot: 1114741)											
VA23C0128-010	Anonymous	Solids, total dissolved [TDS]	----	E162	13	mg/L	63	64	2	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1110390)											
VA23C0121-001	Anonymous	Phosphate, ortho-, dissolved (as P)	14265-44-2	E378-U	0.0200	mg/L	0.929	0.941	1.23%	20%	----
Anions and Nutrients (QC Lot: 1110394)											
VA23C0131-001	QUL-ZOO-1_WS_DI-1_20 23-08	Chloride	16887-00-6	E235.Cl	0.50	mg/L	<0.50	<0.50	0	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1110395)											
VA23C0131-001	QUL-ZOO-1_WS_DI-1_20 23-08	Nitrite (as N)	14797-65-0	E235.NO2-L	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1110396)											
VA23C0131-001	QUL-ZOO-1_WS_DI-1_20 23-08	Nitrate (as N)	14797-55-8	E235.NO3-L	0.0050	mg/L	0.0427	0.0426	0.00010	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1110397)											
VA23C0131-001	QUL-ZOO-1_WS_DI-1_20 23-08	Sulfate (as SO4)	14808-79-8	E235.SO4	0.30	mg/L	6.93	6.94	0.133%	20%	----
Anions and Nutrients (QC Lot: 1110398)											
VA23C0131-001	QUL-ZOO-1_WS_DI-1_20 23-08	Fluoride	16984-48-8	E235.F	0.020	mg/L	0.026	0.027	0.0008	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1114705)											
KS2303227-001	Anonymous	Phosphorus, total dissolved	7723-14-0	E375-T	0.0200	mg/L	0.133	0.135	0.0022	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1114706)											
KS2303227-001	Anonymous	Phosphorus, total	7723-14-0	E372-U	0.0200	mg/L	0.324	0.317	2.07%	20%	----
Anions and Nutrients (QC Lot: 1114707)											



Sub-Matrix: Water					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	LOR	Unit	Original Result	Duplicate Result	RPD(%) or Difference	Duplicate Limits	Qualifier
Anions and Nutrients (QC Lot: 1114707) - continued											
KS2303238-001	Anonymous	Ammonia, total (as N)	7664-41-7	E298	0.0250	mg/L	0.441	0.432	2.02%	20%	---
Anions and Nutrients (QC Lot: 1114708)											
KS2303238-001	Anonymous	Nitrogen, total	7727-37-9	E366	0.300	mg/L	6.67	6.60	1.03%	20%	---
Organic / Inorganic Carbon (QC Lot: 1114709)											
VA23C0128-009	Anonymous	Carbon, dissolved organic [DOC]	---	E358-L	0.50	mg/L	2.53	2.56	0.03	Diff <2x LOR	---
Total Metals (QC Lot: 1111209)											
VA23C0127-001	Anonymous	Aluminum, total	7429-90-5	E420	0.0100	mg/L	0.0144	0.0140	0.0005	Diff <2x LOR	---
		Antimony, total	7440-36-0	E420	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	---
		Arsenic, total	7440-38-2	E420	0.00010	mg/L	0.00142	0.00144	1.75%	20%	---
		Barium, total	7440-39-3	E420	0.0200	mg/L	<0.0200	<0.0200	0	Diff <2x LOR	---
		Beryllium, total	7440-41-7	E420	0.000020	mg/L	<0.000020	<0.000020	0	Diff <2x LOR	---
		Bismuth, total	7440-69-9	E420	0.000050	mg/L	0.000554	0.000539	2.69%	20%	---
		Boron, total	7440-42-8	E420	0.100	mg/L	0.241	0.248	0.008	Diff <2x LOR	---
		Cadmium, total	7440-43-9	E420	0.000200	mg/L	<0.000200	<0.000200	0	Diff <2x LOR	---
		Calcium, total	7440-70-2	E420	0.100	mg/L	3.41	3.53	3.58%	20%	---
		Chromium, total	7440-47-3	E420	0.00200	mg/L	<0.00200	<0.00200	0	Diff <2x LOR	---
		Cobalt, total	7440-48-4	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	---
		Copper, total	7440-50-8	E420	0.00100	mg/L	0.0784	0.0799	1.92%	20%	---
		Iron, total	7439-89-6	E420	0.030	mg/L	<0.030	<0.030	0	Diff <2x LOR	---
		Lead, total	7439-92-1	E420	0.000500	mg/L	0.00162	0.00159	0.000031	Diff <2x LOR	---
		Lithium, total	7439-93-2	E420	0.0010	mg/L	0.0105	0.0109	3.39%	20%	---
		Magnesium, total	7439-95-4	E420	0.100	mg/L	<0.100	<0.100	0	Diff <2x LOR	---
		Manganese, total	7439-96-5	E420	0.00200	mg/L	<0.00200	<0.00200	0	Diff <2x LOR	---
		Molybdenum, total	7439-98-7	E420	0.000050	mg/L	0.000225	0.000232	0.000007	Diff <2x LOR	---
		Nickel, total	7440-02-0	E420	0.00050	mg/L	0.00054	0.00054	0.000002	Diff <2x LOR	---
		Potassium, total	7440-09-7	E420	0.100	mg/L	<0.100	<0.100	0	Diff <2x LOR	---
		Selenium, total	7782-49-2	E420	0.00100	mg/L	<0.00100	<0.00100	0	Diff <2x LOR	---
		Silicon, total	7440-21-3	E420	0.10	mg/L	0.20	0.20	0.001	Diff <2x LOR	---
		Silver, total	7440-22-4	E420	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	---
		Sodium, total	7440-23-5	E420	2.00	mg/L	80.7	83.6	3.54%	20%	---
		Strontium, total	7440-24-6	E420	0.00020	mg/L	0.00099	0.00098	0.000003	Diff <2x LOR	---
		Thallium, total	7440-28-0	E420	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	---
		Tin, total	7440-31-5	E420	0.00010	mg/L	0.00084	0.00085	0.000009	Diff <2x LOR	---
		Titanium, total	7440-32-6	E420	0.00030	mg/L	<0.00030	<0.00030	0	Diff <2x LOR	---



Sub-Matrix: Water					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	LOR	Unit	Original Result	Duplicate Result	RPD(%) or Difference	Duplicate Limits	Qualifier
Total Metals (QC Lot: 1111209) - continued											
VA23C0127-001	Anonymous	Uranium, total	7440-61-1	E420	0.000100	mg/L	<0.000100	<0.000100	0	Diff <2x LOR	---
		Vanadium, total	7440-62-2	E420	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	---
		Zinc, total	7440-66-6	E420	0.0500	mg/L	0.0717	0.0738	0.0020	Diff <2x LOR	---
Dissolved Metals (QC Lot: 1112014)											
VA23C0131-001	QUL-ZOO-1_WS_DI-1_20 23-08	Aluminum, dissolved	7429-90-5	E421	0.0030	mg/L	0.0058	0.0062	0.0004	Diff <2x LOR	---
		Antimony, dissolved	7440-36-0	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	---
		Arsenic, dissolved	7440-38-2	E421	0.00010	mg/L	0.00011	0.00011	0.000008	Diff <2x LOR	---
		Barium, dissolved	7440-39-3	E421	0.00010	mg/L	0.00528	0.00542	2.65%	20%	---
		Beryllium, dissolved	7440-41-7	E421	0.000100	mg/L	<0.000100	<0.000100	0	Diff <2x LOR	---
		Bismuth, dissolved	7440-69-9	E421	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	---
		Boron, dissolved	7440-42-8	E421	0.010	mg/L	<0.010	<0.010	0	Diff <2x LOR	---
		Cadmium, dissolved	7440-43-9	E421	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	---
		Calcium, dissolved	7440-70-2	E421	0.050	mg/L	16.9	17.2	1.60%	20%	---
		Chromium, dissolved	7440-47-3	E421	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	---
		Cobalt, dissolved	7440-48-4	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	---
		Copper, dissolved	7440-50-8	E421	0.00050	mg/L	0.00072	0.00074	0.00001	Diff <2x LOR	---
		Iron, dissolved	7439-89-6	E421	0.030	mg/L	<0.030	<0.030	0	Diff <2x LOR	---
		Lead, dissolved	7439-92-1	E421	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	---
		Lithium, dissolved	7439-93-2	E421	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	---
		Magnesium, dissolved	7439-95-4	E421	0.100	mg/L	2.02	2.04	1.06%	20%	---
		Manganese, dissolved	7439-96-5	E421	0.00010	mg/L	0.00034	0.00036	0.00001	Diff <2x LOR	---
		Molybdenum, dissolved	7439-98-7	E421	0.000050	mg/L	0.000347	0.000348	0.0000003	Diff <2x LOR	---
		Nickel, dissolved	7440-02-0	E421	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	---
		Potassium, dissolved	7440-09-7	E421	0.050	mg/L	0.535	0.550	2.83%	20%	---
		Selenium, dissolved	7782-49-2	E421	0.000050	mg/L	0.000109	0.000082	0.000027	Diff <2x LOR	---
		Silicon, dissolved	7440-21-3	E421	0.050	mg/L	0.941	0.975	3.55%	20%	---
		Silver, dissolved	7440-22-4	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	---
		Sodium, dissolved	7440-23-5	E421	0.050	mg/L	0.956	0.990	3.53%	20%	---
		Strontium, dissolved	7440-24-6	E421	0.00020	mg/L	0.133	0.133	0.0914%	20%	---
		Thallium, dissolved	7440-28-0	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	---
		Tin, dissolved	7440-31-5	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	---
		Titanium, dissolved	7440-32-6	E421	0.0100	mg/L	<0.0100	<0.0100	0	Diff <2x LOR	---
		Uranium, dissolved	7440-61-1	E421	0.000010	mg/L	0.000156	0.000159	1.85%	20%	---
		Vanadium, dissolved	7440-62-2	E421	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	---



Sub-Matrix: Water					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	LOR	Unit	Original Result	Duplicate Result	RPD(%) or Difference	Duplicate Limits	Qualifier
Dissolved Metals (QC Lot: 1112014) - continued											
VA23C0131-001	QUL-ZOO-1_WS_DI-1_20 23-08	Zinc, dissolved	7440-66-6	E421	0.0030	mg/L	<0.0030	<0.0030	0	Diff <2x LOR	----



Method Blank (MB) Report

A Method Blank is an analyte-free matrix that undergoes sample processing identical to that carried out for test samples. Method Blank results are used to monitor and control for potential contamination from the laboratory environment and reagents. For most tests, the DQO for Method Blanks is for the result to be < LOR.

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Physical Tests (QCLot: 1110076)						
Turbidity	----	E121	0.1	NTU	<0.10	----
Physical Tests (QCLot: 1110392)						
Conductivity	----	E100	1	µS/cm	<1.0	----
Physical Tests (QCLot: 1110393)						
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	1.4	----
Physical Tests (QCLot: 1114741)						
Solids, total dissolved [TDS]	----	E162	10	mg/L	<10	----
Physical Tests (QCLot: 1115929)						
Solids, total suspended [TSS]	----	E164	1	mg/L	<1.0	----
Anions and Nutrients (QCLot: 1110390)						
Phosphate, ortho-, dissolved (as P)	14265-44-2	E378-U	0.001	mg/L	<0.0010	----
Anions and Nutrients (QCLot: 1110394)						
Chloride	16887-00-6	E235.Cl	0.5	mg/L	<0.50	----
Anions and Nutrients (QCLot: 1110395)						
Nitrite (as N)	14797-65-0	E235.NO2-L	0.001	mg/L	<0.0010	----
Anions and Nutrients (QCLot: 1110396)						
Nitrate (as N)	14797-55-8	E235.NO3-L	0.005	mg/L	<0.0050	----
Anions and Nutrients (QCLot: 1110397)						
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	<0.30	----
Anions and Nutrients (QCLot: 1110398)						
Fluoride	16984-48-8	E235.F	0.02	mg/L	<0.020	----
Anions and Nutrients (QCLot: 1114705)						
Phosphorus, total dissolved	7723-14-0	E375-T	0.002	mg/L	<0.0020	----
Anions and Nutrients (QCLot: 1114706)						
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	<0.0020	----
Anions and Nutrients (QCLot: 1114707)						
Ammonia, total (as N)	7664-41-7	E298	0.005	mg/L	<0.0050	----
Anions and Nutrients (QCLot: 1114708)						
Nitrogen, total	7727-37-9	E366	0.03	mg/L	<0.030	----
Organic / Inorganic Carbon (QCLot: 1114709)						
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	<0.50	----
Total Metals (QCLot: 1111209)						



Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Total Metals (QCLot: 111209) - continued						
Aluminum, total	7429-90-5	E420	0.003	mg/L	<0.0030	---
Antimony, total	7440-36-0	E420	0.0001	mg/L	<0.00010	---
Arsenic, total	7440-38-2	E420	0.0001	mg/L	<0.00010	---
Barium, total	7440-39-3	E420	0.0001	mg/L	<0.00010	---
Beryllium, total	7440-41-7	E420	0.00002	mg/L	<0.000020	---
Bismuth, total	7440-69-9	E420	0.00005	mg/L	<0.000050	---
Boron, total	7440-42-8	E420	0.01	mg/L	<0.010	---
Cadmium, total	7440-43-9	E420	0.000005	mg/L	<0.0000050	---
Calcium, total	7440-70-2	E420	0.05	mg/L	<0.050	---
Chromium, total	7440-47-3	E420	0.0005	mg/L	<0.00050	---
Cobalt, total	7440-48-4	E420	0.0001	mg/L	<0.00010	---
Copper, total	7440-50-8	E420	0.0005	mg/L	<0.00050	---
Iron, total	7439-89-6	E420	0.01	mg/L	<0.010	---
Lead, total	7439-92-1	E420	0.00005	mg/L	<0.000050	---
Lithium, total	7439-93-2	E420	0.001	mg/L	<0.0010	---
Magnesium, total	7439-95-4	E420	0.005	mg/L	<0.0050	---
Manganese, total	7439-96-5	E420	0.0001	mg/L	<0.00010	---
Molybdenum, total	7439-98-7	E420	0.00005	mg/L	<0.000050	---
Nickel, total	7440-02-0	E420	0.0005	mg/L	<0.00050	---
Potassium, total	7440-09-7	E420	0.05	mg/L	<0.050	---
Selenium, total	7782-49-2	E420	0.00005	mg/L	<0.000050	---
Silicon, total	7440-21-3	E420	0.1	mg/L	<0.10	---
Silver, total	7440-22-4	E420	0.00001	mg/L	<0.000010	---
Sodium, total	7440-23-5	E420	0.05	mg/L	<0.050	---
Strontium, total	7440-24-6	E420	0.0002	mg/L	<0.00020	---
Thallium, total	7440-28-0	E420	0.00001	mg/L	<0.000010	---
Tin, total	7440-31-5	E420	0.0001	mg/L	<0.00010	---
Titanium, total	7440-32-6	E420	0.0003	mg/L	<0.00030	---
Uranium, total	7440-61-1	E420	0.00001	mg/L	<0.000010	---
Vanadium, total	7440-62-2	E420	0.0005	mg/L	<0.00050	---
Zinc, total	7440-66-6	E420	0.003	mg/L	<0.0030	---
Dissolved Metals (QCLot: 1112014)						
Aluminum, dissolved	7429-90-5	E421	0.001	mg/L	<0.0010	---
Antimony, dissolved	7440-36-0	E421	0.0001	mg/L	<0.00010	---
Arsenic, dissolved	7440-38-2	E421	0.0001	mg/L	<0.00010	---



Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Dissolved Metals (QCLot: 1112014) - continued						
Barium, dissolved	7440-39-3	E421	0.0001	mg/L	<0.00010	---
Beryllium, dissolved	7440-41-7	E421	0.00002	mg/L	<0.000020	---
Bismuth, dissolved	7440-69-9	E421	0.00005	mg/L	<0.000050	---
Boron, dissolved	7440-42-8	E421	0.01	mg/L	<0.010	---
Cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	<0.0000050	---
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	<0.050	---
Chromium, dissolved	7440-47-3	E421	0.0005	mg/L	<0.00050	---
Cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	<0.00010	---
Copper, dissolved	7440-50-8	E421	0.0002	mg/L	<0.00020	---
Iron, dissolved	7439-89-6	E421	0.01	mg/L	<0.010	---
Lead, dissolved	7439-92-1	E421	0.00005	mg/L	<0.000050	---
Lithium, dissolved	7439-93-2	E421	0.001	mg/L	<0.0010	---
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	<0.0050	---
Manganese, dissolved	7439-96-5	E421	0.0001	mg/L	<0.00010	---
Molybdenum, dissolved	7439-98-7	E421	0.00005	mg/L	<0.000050	---
Nickel, dissolved	7440-02-0	E421	0.0005	mg/L	<0.00050	---
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	<0.050	---
Selenium, dissolved	7782-49-2	E421	0.00005	mg/L	<0.000050	---
Silicon, dissolved	7440-21-3	E421	0.05	mg/L	<0.050	---
Silver, dissolved	7440-22-4	E421	0.00001	mg/L	<0.000010	---
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	<0.050	---
Strontium, dissolved	7440-24-6	E421	0.0002	mg/L	<0.00020	---
Thallium, dissolved	7440-28-0	E421	0.00001	mg/L	<0.000010	---
Tin, dissolved	7440-31-5	E421	0.0001	mg/L	<0.00010	---
Titanium, dissolved	7440-32-6	E421	0.0003	mg/L	<0.00030	---
Uranium, dissolved	7440-61-1	E421	0.00001	mg/L	<0.000010	---
Vanadium, dissolved	7440-62-2	E421	0.0005	mg/L	<0.00050	---
Zinc, dissolved	7440-66-6	E421	0.001	mg/L	<0.0010	---



Laboratory Control Sample (LCS) Report

A Laboratory Control Sample (LCS) is an analyte-free matrix that has been fortified (spiked) with test analytes at known concentration and processed in an identical manner to test samples. LCS results are expressed as percent recovery, and are used to monitor and control test method accuracy and precision, independent of test sample matrix.

Sub-Matrix: Water

					Laboratory Control Sample (LCS) Report				
Analyte	CAS Number	Method	LOR	Unit	Spike	Recovery (%)	Recovery Limits (%)		Qualifier
					Concentration	LCS	Low	High	
Physical Tests (QCLot: 1110076)									
Turbidity	---	E121	0.1	NTU	200 NTU	99.7	85.0	115	---
Physical Tests (QCLot: 1110391)									
pH	---	E108	---	pH units	7 pH units	100	98.0	102	---
Physical Tests (QCLot: 1110392)									
Conductivity	---	E100	1	µS/cm	146.9 µS/cm	102	90.0	110	---
Physical Tests (QCLot: 1110393)									
Alkalinity, total (as CaCO3)	---	E290	1	mg/L	500 mg/L	108	85.0	115	---
Physical Tests (QCLot: 1114741)									
Solids, total dissolved [TDS]	---	E162	10	mg/L	1000 mg/L	111	85.0	115	---
Physical Tests (QCLot: 1115929)									
Solids, total suspended [TSS]	---	E164	1	mg/L	150 mg/L	89.0	85.0	115	---
Anions and Nutrients (QCLot: 1110390)									
Phosphate, ortho-, dissolved (as P)	14265-44-2	E378-U	0.001	mg/L	0.03 mg/L	100	80.0	120	---
Anions and Nutrients (QCLot: 1110394)									
Chloride	16887-00-6	E235.Cl	0.5	mg/L	100 mg/L	103	90.0	110	---
Anions and Nutrients (QCLot: 1110395)									
Nitrite (as N)	14797-65-0	E235.NO2-L	0.001	mg/L	0.5 mg/L	100	90.0	110	---
Anions and Nutrients (QCLot: 1110396)									
Nitrate (as N)	14797-55-8	E235.NO3-L	0.005	mg/L	2.5 mg/L	104	90.0	110	---
Anions and Nutrients (QCLot: 1110397)									
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	100 mg/L	105	90.0	110	---
Anions and Nutrients (QCLot: 1110398)									
Fluoride	16984-48-8	E235.F	0.02	mg/L	1 mg/L	102	90.0	110	---
Anions and Nutrients (QCLot: 1114705)									
Phosphorus, total dissolved	7723-14-0	E375-T	0.002	mg/L	0.05 mg/L	91.7	80.0	120	---
Anions and Nutrients (QCLot: 1114706)									
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	0.05 mg/L	90.1	80.0	120	---
Anions and Nutrients (QCLot: 1114707)									
Ammonia, total (as N)	7664-41-7	E298	0.005	mg/L	0.2 mg/L	95.1	85.0	115	---
Anions and Nutrients (QCLot: 1114708)									
Nitrogen, total	7727-37-9	E366	0.03	mg/L	0.5 mg/L	98.5	75.0	125	---



Sub-Matrix: **Water**

Laboratory Control Sample (LCS) Report

Analyte	CAS Number	Method	LOR	Unit	Spike	Recovery (%)	Recovery Limits (%)		Qualifier
					Concentration	LCS	Low	High	
Organic / Inorganic Carbon (QCLot: 1114709)									
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	8.57 mg/L	100	80.0	120	----
Total Metals (QCLot: 1111209)									
Aluminum, total	7429-90-5	E420	0.003	mg/L	2 mg/L	101	80.0	120	----
Antimony, total	7440-36-0	E420	0.0001	mg/L	1 mg/L	101	80.0	120	----
Arsenic, total	7440-38-2	E420	0.0001	mg/L	1 mg/L	101	80.0	120	----
Barium, total	7440-39-3	E420	0.0001	mg/L	0.25 mg/L	105	80.0	120	----
Beryllium, total	7440-41-7	E420	0.00002	mg/L	0.1 mg/L	93.8	80.0	120	----
Bismuth, total	7440-69-9	E420	0.00005	mg/L	1 mg/L	103	80.0	120	----
Boron, total	7440-42-8	E420	0.01	mg/L	1 mg/L	92.2	80.0	120	----
Cadmium, total	7440-43-9	E420	0.000005	mg/L	0.1 mg/L	101	80.0	120	----
Calcium, total	7440-70-2	E420	0.05	mg/L	50 mg/L	93.8	80.0	120	----
Chromium, total	7440-47-3	E420	0.0005	mg/L	0.25 mg/L	98.8	80.0	120	----
Cobalt, total	7440-48-4	E420	0.0001	mg/L	0.25 mg/L	98.2	80.0	120	----
Copper, total	7440-50-8	E420	0.0005	mg/L	0.25 mg/L	95.9	80.0	120	----
Iron, total	7439-89-6	E420	0.01	mg/L	1 mg/L	93.5	80.0	120	----
Lead, total	7439-92-1	E420	0.00005	mg/L	0.5 mg/L	103	80.0	120	----
Lithium, total	7439-93-2	E420	0.001	mg/L	0.25 mg/L	97.0	80.0	120	----
Magnesium, total	7439-95-4	E420	0.005	mg/L	50 mg/L	102	80.0	120	----
Manganese, total	7439-96-5	E420	0.0001	mg/L	0.25 mg/L	98.9	80.0	120	----
Molybdenum, total	7439-98-7	E420	0.00005	mg/L	0.25 mg/L	98.0	80.0	120	----
Nickel, total	7440-02-0	E420	0.0005	mg/L	0.5 mg/L	97.6	80.0	120	----
Potassium, total	7440-09-7	E420	0.05	mg/L	50 mg/L	103	80.0	120	----
Selenium, total	7782-49-2	E420	0.00005	mg/L	1 mg/L	102	80.0	120	----
Silicon, total	7440-21-3	E420	0.1	mg/L	10 mg/L	108	80.0	120	----
Silver, total	7440-22-4	E420	0.00001	mg/L	0.1 mg/L	93.6	80.0	120	----
Sodium, total	7440-23-5	E420	0.05	mg/L	50 mg/L	107	80.0	120	----
Strontium, total	7440-24-6	E420	0.0002	mg/L	0.25 mg/L	95.9	80.0	120	----
Thallium, total	7440-28-0	E420	0.00001	mg/L	1 mg/L	101	80.0	120	----
Tin, total	7440-31-5	E420	0.0001	mg/L	0.5 mg/L	97.4	80.0	120	----
Titanium, total	7440-32-6	E420	0.0003	mg/L	0.25 mg/L	88.8	80.0	120	----
Uranium, total	7440-61-1	E420	0.00001	mg/L	0.005 mg/L	101	80.0	120	----
Vanadium, total	7440-62-2	E420	0.0005	mg/L	0.5 mg/L	98.6	80.0	120	----
Zinc, total	7440-66-6	E420	0.003	mg/L	0.5 mg/L	102	80.0	120	----



Sub-Matrix: **Water**

Laboratory Control Sample (LCS) Report

Analyte	CAS Number	Method	LOR	Unit	Spike	Recovery (%)	Recovery Limits (%)		Qualifier
					Concentration	LCS	Low	High	
Dissolved Metals (QCLot: 1112014)									
Aluminum, dissolved	7429-90-5	E421	0.001	mg/L	2 mg/L	98.8	80.0	120	----
Antimony, dissolved	7440-36-0	E421	0.0001	mg/L	1 mg/L	100	80.0	120	----
Arsenic, dissolved	7440-38-2	E421	0.0001	mg/L	1 mg/L	99.9	80.0	120	----
Barium, dissolved	7440-39-3	E421	0.0001	mg/L	0.25 mg/L	104	80.0	120	----
Beryllium, dissolved	7440-41-7	E421	0.00002	mg/L	0.1 mg/L	99.0	80.0	120	----
Bismuth, dissolved	7440-69-9	E421	0.00005	mg/L	1 mg/L	98.5	80.0	120	----
Boron, dissolved	7440-42-8	E421	0.01	mg/L	1 mg/L	98.0	80.0	120	----
Cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	0.1 mg/L	102	80.0	120	----
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	50 mg/L	95.9	80.0	120	----
Chromium, dissolved	7440-47-3	E421	0.0005	mg/L	0.25 mg/L	96.7	80.0	120	----
Cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	0.25 mg/L	96.4	80.0	120	----
Copper, dissolved	7440-50-8	E421	0.0002	mg/L	0.25 mg/L	94.2	80.0	120	----
Iron, dissolved	7439-89-6	E421	0.01	mg/L	1 mg/L	95.2	80.0	120	----
Lead, dissolved	7439-92-1	E421	0.00005	mg/L	0.5 mg/L	102	80.0	120	----
Lithium, dissolved	7439-93-2	E421	0.001	mg/L	0.25 mg/L	96.8	80.0	120	----
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	50 mg/L	102	80.0	120	----
Manganese, dissolved	7439-96-5	E421	0.0001	mg/L	0.25 mg/L	97.5	80.0	120	----
Molybdenum, dissolved	7439-98-7	E421	0.00005	mg/L	0.25 mg/L	99.4	80.0	120	----
Nickel, dissolved	7440-02-0	E421	0.0005	mg/L	0.5 mg/L	97.6	80.0	120	----
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	50 mg/L	101	80.0	120	----
Selenium, dissolved	7782-49-2	E421	0.00005	mg/L	1 mg/L	100	80.0	120	----
Silicon, dissolved	7440-21-3	E421	0.05	mg/L	10 mg/L	103	80.0	120	----
Silver, dissolved	7440-22-4	E421	0.00001	mg/L	0.1 mg/L	94.0	80.0	120	----
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	50 mg/L	101	80.0	120	----
Strontium, dissolved	7440-24-6	E421	0.0002	mg/L	0.25 mg/L	97.2	80.0	120	----
Thallium, dissolved	7440-28-0	E421	0.00001	mg/L	1 mg/L	99.2	80.0	120	----
Tin, dissolved	7440-31-5	E421	0.0001	mg/L	0.5 mg/L	98.8	80.0	120	----
Titanium, dissolved	7440-32-6	E421	0.0003	mg/L	0.25 mg/L	90.3	80.0	120	----
Uranium, dissolved	7440-61-1	E421	0.00001	mg/L	0.005 mg/L	102	80.0	120	----
Vanadium, dissolved	7440-62-2	E421	0.0005	mg/L	0.5 mg/L	98.4	80.0	120	----
Zinc, dissolved	7440-66-6	E421	0.001	mg/L	0.5 mg/L	97.6	80.0	120	----



Matrix Spike (MS) Report

A Matrix Spike (MS) is a randomly selected intra-laboratory replicate sample that has been fortified (spiked) with test analytes at known concentration, and processed in an identical manner to test samples. Matrix Spikes provide information regarding analyte recovery and potential matrix effects. MS DQO exceedances due to sample matrix may sometimes be unavoidable; in such cases, test results for the associated sample (or similar samples) may be subject to bias. ND – Recovery not determined, background level >= 1x spike level.

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Anions and Nutrients (QCLot: 1110390)										
VA23C0122-001	Anonymous	Phosphate, ortho-, dissolved (as P)	14265-44-2	E378-U	0.0292 mg/L	0.03 mg/L	97.4	70.0	130	----
Anions and Nutrients (QCLot: 1110394)										
VA23C0131-002	QUL-ZOO-7_WS_DI-1_202 3-08	Chloride	16887-00-6	E235.Cl	106 mg/L	100 mg/L	106	75.0	125	----
Anions and Nutrients (QCLot: 1110395)										
VA23C0131-002	QUL-ZOO-7_WS_DI-1_202 3-08	Nitrite (as N)	14797-65-0	E235.NO2-L	0.503 mg/L	0.5 mg/L	100	75.0	125	----
Anions and Nutrients (QCLot: 1110396)										
VA23C0131-002	QUL-ZOO-7_WS_DI-1_202 3-08	Nitrate (as N)	14797-55-8	E235.NO3-L	2.64 mg/L	2.5 mg/L	105	75.0	125	----
Anions and Nutrients (QCLot: 1110397)										
VA23C0131-002	QUL-ZOO-7_WS_DI-1_202 3-08	Sulfate (as SO4)	14808-79-8	E235.SO4	107 mg/L	100 mg/L	107	75.0	125	----
Anions and Nutrients (QCLot: 1110398)										
VA23C0131-002	QUL-ZOO-7_WS_DI-1_202 3-08	Fluoride	16984-48-8	E235.F	0.939 mg/L	1 mg/L	93.9	75.0	125	----
Anions and Nutrients (QCLot: 1114705)										
KS2303238-001	Anonymous	Phosphorus, total dissolved	7723-14-0	E375-T	0.0451 mg/L	0.05 mg/L	90.3	70.0	130	----
Anions and Nutrients (QCLot: 1114706)										
VA23C0128-009	Anonymous	Phosphorus, total	7723-14-0	E372-U	0.0443 mg/L	0.05 mg/L	88.6	70.0	130	----
Anions and Nutrients (QCLot: 1114707)										
KS2303238-002	Anonymous	Ammonia, total (as N)	7664-41-7	E298	0.0939 mg/L	0.1 mg/L	93.9	75.0	125	----
Anions and Nutrients (QCLot: 1114708)										
KS2303238-002	Anonymous	Nitrogen, total	7727-37-9	E366	0.414 mg/L	0.4 mg/L	104	70.0	130	----
Organic / Inorganic Carbon (QCLot: 1114709)										
VA23C0128-010	Anonymous	Carbon, dissolved organic [DOC]	----	E358-L	5.32 mg/L	5 mg/L	106	70.0	130	----
Total Metals (QCLot: 1111209)										
VA23C0127-002	Anonymous	Aluminum, total	7429-90-5	E420	0.189 mg/L	0.2 mg/L	94.7	70.0	130	----
		Antimony, total	7440-36-0	E420	0.0186 mg/L	0.02 mg/L	93.1	70.0	130	----
		Arsenic, total	7440-38-2	E420	ND mg/L	0.02 mg/L	ND	70.0	130	----
		Barium, total	7440-39-3	E420	0.0198 mg/L	0.02 mg/L	99.1	70.0	130	----



Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		Qualifier
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	
Total Metals (QCLot: 1111209) - continued										
VA23C0127-002	Anonymous	Beryllium, total	7440-41-7	E420	0.0378 mg/L	0.04 mg/L	94.6	70.0	130	----
		Bismuth, total	7440-69-9	E420	0.00959 mg/L	0.01 mg/L	95.9	70.0	130	----
		Boron, total	7440-42-8	E420	ND mg/L	0.1 mg/L	ND	70.0	130	----
		Cadmium, total	7440-43-9	E420	0.00396 mg/L	0.004 mg/L	99.0	70.0	130	----
		Calcium, total	7440-70-2	E420	3.71 mg/L	4 mg/L	92.8	70.0	130	----
		Chromium, total	7440-47-3	E420	0.0393 mg/L	0.04 mg/L	98.3	70.0	130	----
		Cobalt, total	7440-48-4	E420	0.0192 mg/L	0.02 mg/L	96.2	70.0	130	----
		Copper, total	7440-50-8	E420	ND mg/L	0.02 mg/L	ND	70.0	130	----
		Iron, total	7439-89-6	E420	1.88 mg/L	2 mg/L	94.1	70.0	130	----
		Lead, total	7439-92-1	E420	ND mg/L	0.02 mg/L	ND	70.0	130	----
		Lithium, total	7439-93-2	E420	0.0962 mg/L	0.1 mg/L	96.2	70.0	130	----
		Magnesium, total	7439-95-4	E420	0.969 mg/L	1 mg/L	96.9	70.0	130	----
		Manganese, total	7439-96-5	E420	0.0194 mg/L	0.02 mg/L	97.1	70.0	130	----
		Molybdenum, total	7439-98-7	E420	0.0191 mg/L	0.02 mg/L	95.5	70.0	130	----
		Nickel, total	7440-02-0	E420	0.0376 mg/L	0.04 mg/L	94.0	70.0	130	----
		Potassium, total	7440-09-7	E420	3.99 mg/L	4 mg/L	99.8	70.0	130	----
		Selenium, total	7782-49-2	E420	0.0406 mg/L	0.04 mg/L	102	70.0	130	----
		Silicon, total	7440-21-3	E420	ND mg/L	10 mg/L	ND	70.0	130	----
		Silver, total	7440-22-4	E420	0.00370 mg/L	0.004 mg/L	92.5	70.0	130	----
		Sodium, total	7440-23-5	E420	ND mg/L	2 mg/L	ND	70.0	130	----
		Strontium, total	7440-24-6	E420	0.0198 mg/L	0.02 mg/L	99.1	70.0	130	----
		Thallium, total	7440-28-0	E420	0.00371 mg/L	0.004 mg/L	92.8	70.0	130	----
		Tin, total	7440-31-5	E420	0.0188 mg/L	0.02 mg/L	93.9	70.0	130	----
		Titanium, total	7440-32-6	E420	0.0364 mg/L	0.04 mg/L	91.1	70.0	130	----
		Uranium, total	7440-61-1	E420	0.00388 mg/L	0.004 mg/L	97.0	70.0	130	----
		Vanadium, total	7440-62-2	E420	0.0970 mg/L	0.1 mg/L	97.0	70.0	130	----
		Zinc, total	7440-66-6	E420	0.378 mg/L	0.4 mg/L	94.5	70.0	130	----
Dissolved Metals (QCLot: 1112014)										
VA23C0131-002	QUL-ZOO-7_WS_DI-1_2023-08	Aluminum, dissolved	7429-90-5	E421	0.194 mg/L	0.2 mg/L	96.9	70.0	130	----
		Antimony, dissolved	7440-36-0	E421	0.0187 mg/L	0.02 mg/L	93.3	70.0	130	----
		Arsenic, dissolved	7440-38-2	E421	0.0192 mg/L	0.02 mg/L	95.8	70.0	130	----
		Barium, dissolved	7440-39-3	E421	0.0211 mg/L	0.02 mg/L	105	70.0	130	----
		Beryllium, dissolved	7440-41-7	E421	0.0381 mg/L	0.04 mg/L	95.3	70.0	130	----
		Bismuth, dissolved	7440-69-9	E421	0.00910 mg/L	0.01 mg/L	91.0	70.0	130	----
		Boron, dissolved	7440-42-8	E421	0.093 mg/L	0.1 mg/L	92.8	70.0	130	----



Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Dissolved Metals (QCLot: 1112014) - continued										
VA23C0131-002	QUL-ZOO-7_WS_DI-1_2023-08	Cadmium, dissolved	7440-43-9	E421	0.00400 mg/L	0.004 mg/L	100.0	70.0	130	----
		Calcium, dissolved	7440-70-2	E421	ND mg/L	4 mg/L	ND	70.0	130	----
		Chromium, dissolved	7440-47-3	E421	0.0398 mg/L	0.04 mg/L	99.4	70.0	130	----
		Cobalt, dissolved	7440-48-4	E421	0.0195 mg/L	0.02 mg/L	97.5	70.0	130	----
		Copper, dissolved	7440-50-8	E421	0.0189 mg/L	0.02 mg/L	94.4	70.0	130	----
		Iron, dissolved	7439-89-6	E421	1.84 mg/L	2 mg/L	91.9	70.0	130	----
		Lead, dissolved	7439-92-1	E421	0.0194 mg/L	0.02 mg/L	96.9	70.0	130	----
		Lithium, dissolved	7439-93-2	E421	0.0960 mg/L	0.1 mg/L	96.0	70.0	130	----
		Magnesium, dissolved	7439-95-4	E421	ND mg/L	1 mg/L	ND	70.0	130	----
		Manganese, dissolved	7439-96-5	E421	0.0198 mg/L	0.02 mg/L	98.9	70.0	130	----
		Molybdenum, dissolved	7439-98-7	E421	0.0189 mg/L	0.02 mg/L	94.6	70.0	130	----
		Nickel, dissolved	7440-02-0	E421	0.0393 mg/L	0.04 mg/L	98.3	70.0	130	----
		Potassium, dissolved	7440-09-7	E421	4.09 mg/L	4 mg/L	102	70.0	130	----
		Selenium, dissolved	7782-49-2	E421	0.0396 mg/L	0.04 mg/L	99.0	70.0	130	----
		Silicon, dissolved	7440-21-3	E421	9.51 mg/L	10 mg/L	95.1	70.0	130	----
		Silver, dissolved	7440-22-4	E421	0.00380 mg/L	0.004 mg/L	95.1	70.0	130	----
		Sodium, dissolved	7440-23-5	E421	1.98 mg/L	2 mg/L	98.9	70.0	130	----
		Strontium, dissolved	7440-24-6	E421	ND mg/L	0.02 mg/L	ND	70.0	130	----
		Thallium, dissolved	7440-28-0	E421	0.00383 mg/L	0.004 mg/L	95.7	70.0	130	----
		Tin, dissolved	7440-31-5	E421	0.0190 mg/L	0.02 mg/L	94.8	70.0	130	----
		Titanium, dissolved	7440-32-6	E421	0.0378 mg/L	0.04 mg/L	94.6	70.0	130	----
		Uranium, dissolved	7440-61-1	E421	0.00380 mg/L	0.004 mg/L	95.1	70.0	130	----
		Vanadium, dissolved	7440-62-2	E421	0.0978 mg/L	0.1 mg/L	97.8	70.0	130	----
		Zinc, dissolved	7440-66-6	E421	0.396 mg/L	0.4 mg/L	99.0	70.0	130	----



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Chain of Custody (COC) / Analytical Request Form

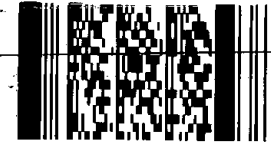
Canada Toll Free: 1 800 668 9878

COC Number: 20 -

Page 1 of 1

Environmental Division
Vancouver

Work Order Reference
VA23C0131



Telephone : +1 604 263 4188

Report To Contact and company name below will appear on the final report		Reports / Recipients		Turnaround Time (TAT) Requested	
Company:	Mount Polley Mining Corp.	Select Report Format:	<input checked="" type="checkbox"/> PDF <input checked="" type="checkbox"/> EXCEL <input checked="" type="checkbox"/> EDD (DIGITAL)	<input checked="" type="checkbox"/> Routine [R] if received by 3pm M-F - no surcharges apply	
Contact:	Gabriel Holmes	Merge QC/QCI Reports with COA	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> N/A	<input type="checkbox"/> 4 day [P4] if received by 3pm M-F - 20% rush surcharge m	
Phone:	236-317-4939	<input type="checkbox"/> Compare Results to Criteria on Report - provide details below if box checked		<input type="checkbox"/> 3 day [P3] if received by 3pm M-F - 25% rush surcharge m	
Company address below will appear on the final report		Select Distribution:	<input checked="" type="checkbox"/> EMAIL <input type="checkbox"/> MAIL <input type="checkbox"/> FAX	<input type="checkbox"/> 2 day [P2] if received by 3pm M-F - 50% rush surcharge m	
Street:	PO BOX 12	Email 1 or Fax:	gabriel.holmes@mountpolley.com	<input type="checkbox"/> 1 day [E] if received by 3pm M-F - 100% rush surcharge m	
City/Province:	Likely, BC	Email 2:	slatimer@minnow.ca, kbatchelar@minnow.ca,	<input type="checkbox"/> Same day [E2] if received by 10am M-S - 200% rush surch	
Postal Code:	V0L 1N0	Email 3:	simone.derosmond@minnow.ca	Additional fees may apply to rush requests on week	
Invoice To	Same as Report To <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	Invoice Recipients		Date and Time Required for all E&P TATs:	
	Copy of Invoice with Report <input type="checkbox"/> YES <input type="checkbox"/> NO	Select Invoice Distribution:	<input checked="" type="checkbox"/> EMAIL <input type="checkbox"/> MAIL <input checked="" type="checkbox"/> FAX	For all tests with rush TATs requested, please	
Company:		Email 1 or Fax:	On File	Analysis	
Contact:	On File	Email 2:		Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below	

Project Information		Oil and Gas Required Fields (client use)	
ALS Account # / Quote #:	VA22-MPMC100-006	AFE/Cost Center:	PO#
Job #:		Major/Minor Code:	Routing Code:
PO / AFE:	23-01 Task 5	Requisitioner:	
LSD:		Location:	

ALS Sample # (ALS use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINER	Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below							SAMPLES ON HOLD	EXTENDED STORAGE REQUIRE	SUSPECTED HAZARD (see notes)
						Nutrients-1	Total Metals	Dissolved Metals	TN, NH3	DOC	TSS (Whole Bottle)				
	QUL-ZOO-1_WS_DI-1_2023-08	27-Aug-23		Water	6	R	R	R	R	R	R				
	QUL-ZOO-7_WS_DI-1_2023-08	27-Aug-23		Water	6	R	R	R	R	R	R				
1 #	QUL-ZOO-1_WS_DI-1_2023-08	27-Aug-23	14:15	Water	6	R	R	R	R	R	R				
2 #	QUL-ZOO-7_WS_DI-1_2023-0	27-Aug-23	12:15	Water	6	R	R	R	R	R	R				
3 #	QUL-ZOO-7_WS_DI-1X_2023-08	27-Aug-23	12:15	Water	6	R	R	R	R	R	R				

Drinking Water (DW) Samples¹ (client use)	Notes / Specify Limits for result evaluation by selecting from drop-down below (Excel COC only)	SAMPLE RECEIPT DETAILS (ALS use only)	
Are samples taken from a Regulated DW System? <input type="checkbox"/> YES <input type="checkbox"/> NO	Please also report N+N Calc.	Cooling Method:	<input type="checkbox"/> NONE <input type="checkbox"/> ICE <input checked="" type="checkbox"/> ICE PACKS <input type="checkbox"/> FROZEN <input type="checkbox"/> COOLING INITIATED
Are samples for human consumption/ use? <input type="checkbox"/> YES <input type="checkbox"/> NO		Submission Comments identified on Sample Receipt Notification: <input type="checkbox"/> YES <input type="checkbox"/> NO	
		Cooler Custody Seals Intact: <input type="checkbox"/> YES <input type="checkbox"/> N/A	Sample Custody Seals Intact: <input type="checkbox"/> YES <input type="checkbox"/> N/A
		INITIAL COOLER TEMPERATURES °C	FINAL COOLER TEMPERATURES °C
			8 9

SHIPMENT RELEASE (client use)			INITIAL SHIPMENT RECEPTION (ALS use only)			FINAL SHIPMENT RECEPTION (ALS use only)		
Released by:	Date:	Time:	Received by:	Date:	Time:	Received by:	Date:	Time:
Peter Schuur	Aug 28/23	7:35				AS	08/29/23	12:37 PM

REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION
 WHITE - LABORATORY COPY YELLOW - CLIENT COPY
 Failure to complete all portions of this form may delay analysis. Please fill in this form LEGIBLY. By the use of this form the user acknowledges and agrees with the Terms and Conditions as specified on the back page of the white - report copy.
 1. If any water samples are taken from a Regulated Drinking Water (DW) System, please submit using an Authorized DW COC form.

WATER QUALITY

ALS Laboratory Report VA23C0272

(Finalized September 7, 2023)

CERTIFICATE OF ANALYSIS

Work Order : **VA23C0272**
Client : **Mount Polley Mining Corporation**
Contact : Mr. Gabriel Holmes
Address : PO Box 12
 Likely BC Canada V0L 1N0
Telephone : 250-790-2215 ext 2171
Project : ----
PO : 23-01 Task 5
C-O-C number : ----
Sampler : ----
Site : ----
Quote number : VA22-MPMC100-006 - Minnow Env. - Water Quality
No. of samples received : 2
No. of samples analysed : 2

Page : 1 of 6
Laboratory : ALS Environmental - Vancouver
Account Manager : Can Dang
Address : 8081 Lougheed Highway
 Burnaby BC Canada V5A 1W9
Telephone : +1 604 253 4188
Date Samples Received : 30-Aug-2023 08:35
Date Analysis Commenced : 31-Aug-2023
Issue Date : 07-Sep-2023 17:13

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QC Interpretive report to assist with Quality Review and Sample Receipt Notification (SRN).

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

<i>Signatories</i>	<i>Position</i>	<i>Laboratory Department</i>
Erin Sanchez		Metals, Burnaby, British Columbia
Kevin Duarte	Supervisor - Metals ICP Instrumentation	Inorganics, Burnaby, British Columbia
Kevin Duarte	Supervisor - Metals ICP Instrumentation	Metals, Burnaby, British Columbia
Kim Jensen	Department Manager - Metals	Metals, Burnaby, British Columbia



General Comments

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Refer to the ALS Quality Control Interpretive report (QCI) for applicable references and methodology summaries. Reference methods may incorporate modifications to improve performance.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

Please refer to Quality Control Interpretive report (QCI) for information regarding Holding Time compliance.

Key : CAS Number: Chemical Abstracts Services number is a unique identifier assigned to discrete substances
LOR: Limit of Reporting (detection limit).

<i>Unit</i>	<i>Description</i>
-	no units
µS/cm	microsiemens per centimetre
mg/L	milligrams per litre
NTU	nephelometric turbidity units
pH units	pH units

<: less than.

>: greater than.

Surrogate: An analyte that is similar in behavior to target analyte(s), but that does not occur naturally in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery.

Test results reported relate only to the samples as received by the laboratory.

UNLESS OTHERWISE STATED on SRN or QCI Report, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.



Analytical Results

Sub-Matrix: Water					Client sample ID				
(Matrix: Water)					BOL-B2_WS_DI -1_2023-08	POL-P2_WS_DI -1_2023-08	----	----	----
Client sampling date / time					28-Aug-2023 12:45	28-Aug-2023 08:45	----	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23C0272-001	VA23C0272-002	-----	-----	-----
					Result	Result	----	----	----
Physical Tests									
Alkalinity, total (as CaCO3)	----	E290/VA	1.0	mg/L	43.0	91.8	----	----	----
Conductivity	----	E100/VA	2.0	µS/cm	104	247	----	----	----
Hardness (as CaCO3), dissolved	----	EC100/VA	0.50	mg/L	46.9	107	----	----	----
Hardness (as CaCO3), from total Ca/Mg	----	EC100A/VA	0.50	mg/L	47.4	108	----	----	----
pH	----	E108/VA	0.10	pH units	7.72	8.21	----	----	----
Solids, total dissolved [TDS]	----	E162/VA	10	mg/L	72	180	----	----	----
Solids, total suspended [TSS]	----	E164/VA	1.0	mg/L	3.4	2.1	----	----	----
Turbidity	----	E121/VA	0.10	NTU	1.13	0.98	----	----	----
Anions and Nutrients									
Ammonia, total (as N)	7664-41-7	E298/VA	0.0050	mg/L	0.0234	0.0113	----	----	----
Chloride	16887-00-6	E235.Cl/VA	0.50	mg/L	0.72	0.89	----	----	----
Fluoride	16984-48-8	E235.F/VA	0.020	mg/L	0.066	0.056	----	----	----
Nitrate (as N)	14797-55-8	E235.NO3-L/V A	0.0050	mg/L	0.0059	<0.0050	----	----	----
Nitrate + Nitrite (as N)	----	EC235.N+N/V A	0.0050	mg/L	0.0070	<0.0051	----	----	----
Nitrite (as N)	14797-65-0	E235.NO2-L/V A	0.0010	mg/L	0.0011	<0.0010	----	----	----
Nitrogen, total	7727-37-9	E366/VA	0.030	mg/L	0.814	0.818	----	----	----
Phosphate, ortho-, dissolved (as P)	14265-44-2	E378-U/VA	0.0010	mg/L	<0.0010	<0.0010	----	----	----
Phosphorus, total	7723-14-0	E372-U/VA	0.0020	mg/L	0.0268	0.0126	----	----	----
Phosphorus, total dissolved	7723-14-0	E375-T/VA	0.0020	mg/L	0.0189	0.0049	----	----	----
Sulfate (as SO4)	14808-79-8	E235.SO4/VA	0.30	mg/L	7.92	33.7	----	----	----
Organic / Inorganic Carbon									
Carbon, dissolved organic [DOC]	----	E358-L/VA	0.50	mg/L	7.65	6.74	----	----	----
Total Metals									
Aluminum, total	7429-90-5	E420/VA	0.0030	mg/L	0.0579	0.0286	----	----	----
Antimony, total	7440-36-0	E420/VA	0.00010	mg/L	0.00011	0.00011	----	----	----
Arsenic, total	7440-38-2	E420/VA	0.00010	mg/L	0.00045	0.00057	----	----	----
Barium, total	7440-39-3	E420/VA	0.00010	mg/L	0.0173	0.0102	----	----	----



Analytical Results

Sub-Matrix: Water					Client sample ID				
(Matrix: Water)					BOL-B2_WS_DI -1_2023-08	POL-P2_WS_DI -1_2023-08	----	----	----
Client sampling date / time					28-Aug-2023 12:45	28-Aug-2023 08:45	---	---	---
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23C0272-001	VA23C0272-002	-----	-----	-----
					Result	Result	---	---	---
Total Metals									
Beryllium, total	7440-41-7	E420/VA	0.000100	mg/L	<0.000100	<0.000100	---	---	---
Bismuth, total	7440-69-9	E420/VA	0.000050	mg/L	<0.000050	<0.000050	---	---	---
Boron, total	7440-42-8	E420/VA	0.010	mg/L	0.046	0.020	---	---	---
Cadmium, total	7440-43-9	E420/VA	0.0000050	mg/L	0.0000075	<0.0000050	---	---	---
Calcium, total	7440-70-2	E420/VA	0.050	mg/L	14.7	34.8	---	---	---
Chromium, total	7440-47-3	E420/VA	0.00050	mg/L	<0.00050	<0.00050	---	---	---
Cobalt, total	7440-48-4	E420/VA	0.00010	mg/L	<0.00010	<0.00010	---	---	---
Copper, total	7440-50-8	E420/VA	0.00050	mg/L	0.00564	0.00442	---	---	---
Iron, total	7439-89-6	E420/VA	0.030	mg/L	0.109	<0.030	---	---	---
Lead, total	7439-92-1	E420/VA	0.000050	mg/L	0.000215	0.000061	---	---	---
Lithium, total	7439-93-2	E420/VA	0.0010	mg/L	<0.0010	<0.0010	---	---	---
Magnesium, total	7439-95-4	E420/VA	0.100	mg/L	2.59	5.03	---	---	---
Manganese, total	7439-96-5	E420/VA	0.00010	mg/L	0.124	0.00502	---	---	---
Molybdenum, total	7439-98-7	E420/VA	0.000050	mg/L	0.000939	0.00619	---	---	---
Nickel, total	7440-02-0	E420/VA	0.00050	mg/L	<0.00050	<0.00050	---	---	---
Potassium, total	7440-09-7	E420/VA	0.050	mg/L	0.613	1.06	---	---	---
Selenium, total	7782-49-2	E420/VA	0.000050	mg/L	0.000202	0.000518	---	---	---
Silicon, total	7440-21-3	E420/VA	0.10	mg/L	2.75	3.09	---	---	---
Silver, total	7440-22-4	E420/VA	0.000010	mg/L	<0.000010	<0.000010	---	---	---
Sodium, total	7440-23-5	E420/VA	0.050	mg/L	2.62	7.26	---	---	---
Strontium, total	7440-24-6	E420/VA	0.00020	mg/L	0.134	0.240	---	---	---
Thallium, total	7440-28-0	E420/VA	0.000010	mg/L	<0.000010	<0.000010	---	---	---
Tin, total	7440-31-5	E420/VA	0.00010	mg/L	<0.00010	<0.00010	---	---	---
Titanium, total	7440-32-6	E420/VA	0.0100	mg/L	<0.0100	<0.0100	---	---	---
Uranium, total	7440-61-1	E420/VA	0.000010	mg/L	0.000037	0.000187	---	---	---
Vanadium, total	7440-62-2	E420/VA	0.00050	mg/L	<0.00050	0.00148	---	---	---
Zinc, total	7440-66-6	E420/VA	0.0030	mg/L	<0.0030	<0.0030	---	---	---
Dissolved Metals									
Aluminum, dissolved	7429-90-5	E421/VA	0.0030	mg/L	0.0055	<0.0030	---	---	---
Antimony, dissolved	7440-36-0	E421/VA	0.00010	mg/L	<0.00010	<0.00010	---	---	---



Analytical Results

Sub-Matrix: Water					Client sample ID		BOL-B2_WS_DI	POL-P2_WS_DI	----	----	----
(Matrix: Water)							-1_2023-08	-1_2023-08			
Client sampling date / time							28-Aug-2023 12:45	28-Aug-2023 08:45	----	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23C0272-001	VA23C0272-002	-----	-----	-----	-----	-----
					Result	Result	----	----	----	----	----
Dissolved Metals											
Arsenic, dissolved	7440-38-2	E421/VA	0.00010	mg/L	0.00040	0.00051	----	----	----	----	----
Barium, dissolved	7440-39-3	E421/VA	0.00010	mg/L	0.0161	0.0102	----	----	----	----	----
Beryllium, dissolved	7440-41-7	E421/VA	0.000100	mg/L	<0.000100	<0.000100	----	----	----	----	----
Bismuth, dissolved	7440-69-9	E421/VA	0.000050	mg/L	<0.000050	<0.000050	----	----	----	----	----
Boron, dissolved	7440-42-8	E421/VA	0.010	mg/L	0.046	0.020	----	----	----	----	----
Cadmium, dissolved	7440-43-9	E421/VA	0.0000050	mg/L	<0.0000050	<0.0000050	----	----	----	----	----
Calcium, dissolved	7440-70-2	E421/VA	0.050	mg/L	14.5	34.6	----	----	----	----	----
Chromium, dissolved	7440-47-3	E421/VA	0.00050	mg/L	<0.00050	<0.00050	----	----	----	----	----
Cobalt, dissolved	7440-48-4	E421/VA	0.00010	mg/L	<0.00010	<0.00010	----	----	----	----	----
Copper, dissolved	7440-50-8	E421/VA	0.00050	mg/L	0.00260	0.00337	----	----	----	----	----
Iron, dissolved	7439-89-6	E421/VA	0.030	mg/L	<0.030	<0.030	----	----	----	----	----
Lead, dissolved	7439-92-1	E421/VA	0.000050	mg/L	0.000092	<0.000050	----	----	----	----	----
Lithium, dissolved	7439-93-2	E421/VA	0.0010	mg/L	<0.0010	<0.0010	----	----	----	----	----
Magnesium, dissolved	7439-95-4	E421/VA	0.100	mg/L	2.60	5.04	----	----	----	----	----
Manganese, dissolved	7439-96-5	E421/VA	0.00010	mg/L	0.110	0.00087	----	----	----	----	----
Molybdenum, dissolved	7439-98-7	E421/VA	0.000050	mg/L	0.000923	0.00618	----	----	----	----	----
Nickel, dissolved	7440-02-0	E421/VA	0.00050	mg/L	<0.00050	<0.00050	----	----	----	----	----
Potassium, dissolved	7440-09-7	E421/VA	0.050	mg/L	0.615	0.995	----	----	----	----	----
Selenium, dissolved	7782-49-2	E421/VA	0.000050	mg/L	0.000207	0.000475	----	----	----	----	----
Silicon, dissolved	7440-21-3	E421/VA	0.050	mg/L	2.81	3.16	----	----	----	----	----
Silver, dissolved	7440-22-4	E421/VA	0.000010	mg/L	<0.000010	<0.000010	----	----	----	----	----
Sodium, dissolved	7440-23-5	E421/VA	0.050	mg/L	2.65	7.28	----	----	----	----	----
Strontium, dissolved	7440-24-6	E421/VA	0.00020	mg/L	0.128	0.232	----	----	----	----	----
Thallium, dissolved	7440-28-0	E421/VA	0.000010	mg/L	<0.000010	<0.000010	----	----	----	----	----
Tin, dissolved	7440-31-5	E421/VA	0.00010	mg/L	<0.00010	<0.00010	----	----	----	----	----
Titanium, dissolved	7440-32-6	E421/VA	0.0100	mg/L	<0.0100	<0.0100	----	----	----	----	----
Uranium, dissolved	7440-61-1	E421/VA	0.000010	mg/L	0.000034	0.000195	----	----	----	----	----
Vanadium, dissolved	7440-62-2	E421/VA	0.00050	mg/L	<0.00050	0.00132	----	----	----	----	----
Zinc, dissolved	7440-66-6	E421/VA	0.0030	mg/L	<0.0030	<0.0030	----	----	----	----	----
Dissolved metals filtration location	----	EP421/VA	-	-	Field	Field	----	----	----	----	----



Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.

QUALITY CONTROL INTERPRETIVE REPORT

<p>Work Order : VA23C0272</p> <p>Client : Mount Polley Mining Corporation</p> <p>Contact : Mr. Gabriel Holmes</p> <p>Address : PO Box 12 Likely BC Canada V0L 1N0</p> <p>Telephone : 250-790-2215 ext 2171</p> <p>Project : ----</p> <p>PO : 23-01 Task 5</p> <p>C-O-C number : ----</p> <p>Sampler : ----</p> <p>Site : ----</p> <p>Quote number : VA22-MPMC100-006 - Minnow Env. - Water Quality</p> <p>No. of samples received : 2</p> <p>No. of samples analysed : 2</p>	<p>Page : 1 of 14</p> <p>Laboratory : ALS Environmental - Vancouver</p> <p>Account Manager : Can Dang</p> <p>Address : 8081 Lougheed Highway Burnaby, British Columbia Canada V5A 1W9</p> <p>Telephone : +1 604 253 4188</p> <p>Date Samples Received : 30-Aug-2023 08:35</p> <p>Issue Date : 07-Sep-2023 17:14</p>
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This report is automatically generated by the ALS LIMS (Laboratory Information Management System) through evaluation of Quality Control (QC) results and other QA parameters associated with this submission, and is intended to facilitate rapid data validation by auditors or reviewers. The report highlights any exceptions and outliers to ALS Data Quality Objectives, provides holding time details and exceptions, summarizes QC sample frequencies, and lists applicable methodology references and summaries.

Key

- Anonymous: Refers to samples which are not part of this work order, but which formed part of the QC process lot.
- CAS Number: Chemical Abstracts Service number is a unique identifier assigned to discrete substances.
- DQO: Data Quality Objective.
- LOR: Limit of Reporting (detection limit).
- RPD: Relative Percent Difference.

Workorder Comments

Holding times are displayed as "----" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

Summary of Outliers

Outliers : Quality Control Samples

- No Duplicate outliers occur.
- No Laboratory Control Sample (LCS) outliers occur
- No Matrix Spike outliers occur.
- Method Blank value outliers occur - please see following pages for full details.
- No Test sample Surrogate recovery outliers exist.

Outliers: Reference Material (RM) Samples

- No Reference Material (RM) Sample outliers occur.

Outliers : Analysis Holding Time Compliance (Breaches)

- Analysis Holding Time Outliers exist - please see following pages for full details.

Outliers : Frequency of Quality Control Samples

- No Quality Control Sample Frequency Outliers occur.



Outliers : Quality Control Samples

Duplicates, Method Blanks, Laboratory Control Samples and Matrix Spikes

Matrix: **Water**

Analyte Group	Laboratory sample ID	Client/Ref Sample ID	Analyte	CAS Number	Method	Result	Limits	Comment
Method Blank (MB) Values								
Physical Tests	QC-MRG2-1114670 001	----	Alkalinity, total (as CaCO3)	----	E290	1.8 mg/L ^B	1.5 mg/L	Blank result exceeds permitted value

Result Qualifiers

Qualifier	Description
B	Method Blank exceeds ALS DQO. Associated sample results which are < Limit of Reporting or > 5 times blank level are considered reliable.



Analysis Holding Time Compliance

This report summarizes extraction / preparation and analysis times and compares each with ALS recommended holding times, which are selected to meet known provincial and /or federal requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by organizations such as CCME, US EPA, APHA Standard Methods, ASTM, or Environment Canada (where available). Dates and holding times reported below represent the first dates of extraction or analysis. If subsequent tests or dilutions exceeded holding times, qualifiers are added (refer to COA).

If samples are identified below as having been analyzed or extracted outside of recommended holding times, measurement uncertainties may be increased, and this should be taken into consideration when interpreting results.

Where actual sampling date is not provided on the chain of custody, the date of receipt with time at 00:00 is used for calculation purposes.

Where only the sample date without time is provided on the chain of custody, the sampling date at 00:00 is used for calculation purposes.

Matrix: **Water** Evaluation: * = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Anions and Nutrients : Ammonia by Fluorescence											
Amber glass total (sulfuric acid) BOL-B2_WS_DI-1_2023-08	E298	28-Aug-2023	02-Sep-2023	28 days	5 days	✓	05-Sep-2023	28 days	8 days	✓	
Anions and Nutrients : Ammonia by Fluorescence											
Amber glass total (sulfuric acid) POL-P2_WS_DI-1_2023-08	E298	28-Aug-2023	02-Sep-2023	28 days	5 days	✓	05-Sep-2023	28 days	8 days	✓	
Anions and Nutrients : Chloride in Water by IC											
HDPE BOL-B2_WS_DI-1_2023-08	E235.Cl	28-Aug-2023	01-Sep-2023	28 days	4 days	✓	01-Sep-2023	28 days	4 days	✓	
Anions and Nutrients : Chloride in Water by IC											
HDPE POL-P2_WS_DI-1_2023-08	E235.Cl	28-Aug-2023	01-Sep-2023	28 days	4 days	✓	01-Sep-2023	28 days	4 days	✓	
Anions and Nutrients : Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001											
HDPE BOL-B2_WS_DI-1_2023-08	E378-U	28-Aug-2023	01-Sep-2023	3 days	4 days	* EHT	01-Sep-2023	3 days	4 days	* EHT	
Anions and Nutrients : Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001											
HDPE POL-P2_WS_DI-1_2023-08	E378-U	28-Aug-2023	01-Sep-2023	3 days	4 days	* EHT	01-Sep-2023	3 days	4 days	* EHT	



Matrix: **Water** Evaluation: * = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Anions and Nutrients : Fluoride in Water by IC											
HDPE BOL-B2_WS_DI-1_2023-08	E235.F	28-Aug-2023	01-Sep-2023	28 days	4 days	✓	01-Sep-2023	28 days	4 days	✓	
Anions and Nutrients : Fluoride in Water by IC											
HDPE POL-P2_WS_DI-1_2023-08	E235.F	28-Aug-2023	01-Sep-2023	28 days	4 days	✓	01-Sep-2023	28 days	4 days	✓	
Anions and Nutrients : Nitrate in Water by IC (Low Level)											
HDPE BOL-B2_WS_DI-1_2023-08	E235.NO3-L	28-Aug-2023	01-Sep-2023	3 days	4 days	* EHT	01-Sep-2023	3 days	4 days	* EHT	
Anions and Nutrients : Nitrate in Water by IC (Low Level)											
HDPE POL-P2_WS_DI-1_2023-08	E235.NO3-L	28-Aug-2023	01-Sep-2023	3 days	4 days	* EHT	01-Sep-2023	3 days	4 days	* EHT	
Anions and Nutrients : Nitrite in Water by IC (Low Level)											
HDPE BOL-B2_WS_DI-1_2023-08	E235.NO2-L	28-Aug-2023	01-Sep-2023	3 days	4 days	* EHT	01-Sep-2023	3 days	4 days	* EHT	
Anions and Nutrients : Nitrite in Water by IC (Low Level)											
HDPE POL-P2_WS_DI-1_2023-08	E235.NO2-L	28-Aug-2023	01-Sep-2023	3 days	4 days	* EHT	01-Sep-2023	3 days	4 days	* EHT	
Anions and Nutrients : Sulfate in Water by IC											
HDPE BOL-B2_WS_DI-1_2023-08	E235.SO4	28-Aug-2023	01-Sep-2023	28 days	4 days	✓	01-Sep-2023	28 days	4 days	✓	
Anions and Nutrients : Sulfate in Water by IC											
HDPE POL-P2_WS_DI-1_2023-08	E235.SO4	28-Aug-2023	01-Sep-2023	28 days	4 days	✓	01-Sep-2023	28 days	4 days	✓	
Anions and Nutrients : Total Dissolved Phosphorus by Colourimetry (0.002 mg/L)											
Amber glass dissolved (sulfuric acid) BOL-B2_WS_DI-1_2023-08	E375-T	28-Aug-2023	02-Sep-2023	28 days	5 days	✓	05-Sep-2023	28 days	8 days	✓	



Matrix: **Water** Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Anions and Nutrients : Total Dissolved Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass dissolved (sulfuric acid) POL-P2_WS_DI-1_2023-08	E375-T	28-Aug-2023	02-Sep-2023	28 days	5 days	✔	05-Sep-2023	28 days	8 days	✔
Anions and Nutrients : Total Nitrogen by Colourimetry										
Amber glass total (sulfuric acid) BOL-B2_WS_DI-1_2023-08	E366	28-Aug-2023	02-Sep-2023	28 days	5 days	✔	04-Sep-2023	28 days	7 days	✔
Anions and Nutrients : Total Nitrogen by Colourimetry										
Amber glass total (sulfuric acid) POL-P2_WS_DI-1_2023-08	E366	28-Aug-2023	02-Sep-2023	28 days	5 days	✔	04-Sep-2023	28 days	7 days	✔
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) BOL-B2_WS_DI-1_2023-08	E372-U	28-Aug-2023	02-Sep-2023	28 days	5 days	✔	05-Sep-2023	28 days	8 days	✔
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) POL-P2_WS_DI-1_2023-08	E372-U	28-Aug-2023	02-Sep-2023	28 days	5 days	✔	05-Sep-2023	28 days	8 days	✔
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE - dissolved (lab preserved) BOL-B2_WS_DI-1_2023-08	E421	28-Aug-2023	01-Sep-2023	180 days	4 days	✔	05-Sep-2023	180 days	8 days	✔
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE - dissolved (lab preserved) POL-P2_WS_DI-1_2023-08	E421	28-Aug-2023	01-Sep-2023	180 days	4 days	✔	05-Sep-2023	180 days	8 days	✔
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) BOL-B2_WS_DI-1_2023-08	E358-L	28-Aug-2023	02-Sep-2023	28 days	5 days	✔	02-Sep-2023	28 days	5 days	✔
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) POL-P2_WS_DI-1_2023-08	E358-L	28-Aug-2023	02-Sep-2023	28 days	5 days	✔	02-Sep-2023	28 days	5 days	✔



Matrix: **Water** Evaluation: * = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Physical Tests : Alkalinity Species by Titration											
HDPE BOL-B2_WS_DI-1_2023-08	E290	28-Aug-2023	01-Sep-2023	14 days	4 days	✓	01-Sep-2023	14 days	4 days	✓	
Physical Tests : Alkalinity Species by Titration											
HDPE POL-P2_WS_DI-1_2023-08	E290	28-Aug-2023	01-Sep-2023	14 days	4 days	✓	01-Sep-2023	14 days	4 days	✓	
Physical Tests : Conductivity in Water											
HDPE BOL-B2_WS_DI-1_2023-08	E100	28-Aug-2023	01-Sep-2023	28 days	4 days	✓	01-Sep-2023	28 days	4 days	✓	
Physical Tests : Conductivity in Water											
HDPE POL-P2_WS_DI-1_2023-08	E100	28-Aug-2023	01-Sep-2023	28 days	4 days	✓	01-Sep-2023	28 days	4 days	✓	
Physical Tests : pH by Meter											
HDPE BOL-B2_WS_DI-1_2023-08	E108	28-Aug-2023	01-Sep-2023	0.25 hrs	84 hrs	* EHTR-FM	01-Sep-2023	0.25 hrs	90 hrs	* EHTR-FM	
Physical Tests : pH by Meter											
HDPE POL-P2_WS_DI-1_2023-08	E108	28-Aug-2023	01-Sep-2023	0.25 hrs	88 hrs	* EHTR-FM	01-Sep-2023	0.25 hrs	94 hrs	* EHTR-FM	
Physical Tests : TDS by Gravimetry											
HDPE BOL-B2_WS_DI-1_2023-08	E162	28-Aug-2023	----	----	----		02-Sep-2023	7 days	5 days	✓	
Physical Tests : TDS by Gravimetry											
HDPE POL-P2_WS_DI-1_2023-08	E162	28-Aug-2023	----	----	----		02-Sep-2023	7 days	5 days	✓	
Physical Tests : TSS by Gravimetry (Whole Bottle)											
HDPE [TSS-WB] BOL-B2_WS_DI-1_2023-08	E164	28-Aug-2023	----	----	----		01-Sep-2023	7 days	4 days	✓	



Matrix: **Water** Evaluation: * = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Physical Tests : TSS by Gravimetry (Whole Bottle)										
HDPE [TSS-WB] POL-P2_WS_DI-1_2023-08	E164	28-Aug-2023	----	----	----		01-Sep-2023	7 days	4 days	✓
Physical Tests : Turbidity by Nephelometry										
HDPE BOL-B2_WS_DI-1_2023-08	E121	28-Aug-2023	----	----	----		31-Aug-2023	3 days	3 days	✓
Physical Tests : Turbidity by Nephelometry										
HDPE POL-P2_WS_DI-1_2023-08	E121	28-Aug-2023	----	----	----		31-Aug-2023	3 days	4 days	* EHT
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE - total (lab preserved) BOL-B2_WS_DI-1_2023-08	E420	28-Aug-2023	01-Sep-2023	180 days	4 days	✓	04-Sep-2023	180 days	7 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE - total (lab preserved) POL-P2_WS_DI-1_2023-08	E420	28-Aug-2023	01-Sep-2023	180 days	4 days	✓	04-Sep-2023	180 days	7 days	✓

Legend & Qualifier Definitions

EHTR-FM: Exceeded ALS recommended hold time prior to sample receipt. Field Measurement recommended
 EHT: Exceeded ALS recommended hold time prior to analysis.
 Rec. HT: ALS recommended hold time (see units).



Quality Control Parameter Frequency Compliance

The following report summarizes the frequency of laboratory QC samples analyzed within the analytical batches (QC lots) in which the submitted samples were processed. The actual frequency should be greater than or equal to the expected frequency.

Matrix: **Water** Evaluation: * = QC frequency outside specification; ✓ = QC frequency within specification.

Quality Control Sample Type	Method	QC Lot #	Count		Frequency (%)		Evaluation
			QC	Regular	Actual	Expected	
Analytical Methods							
Laboratory Duplicates (DUP)							
Alkalinity Species by Titration	E290	1114670	1	18	5.5	5.0	✓
Ammonia by Fluorescence	E298	1117126	1	15	6.6	5.0	✓
Chloride in Water by IC	E235.Cl	1114673	1	19	5.2	5.0	✓
Conductivity in Water	E100	1114671	1	19	5.2	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1114444	1	18	5.5	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1117124	1	15	6.6	5.0	✓
Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)	E378-U	1114679	1	17	5.8	5.0	✓
Fluoride in Water by IC	E235.F	1114672	1	18	5.5	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	1114674	1	19	5.2	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1114675	1	19	5.2	5.0	✓
pH by Meter	E108	1114669	1	20	5.0	5.0	✓
Sulfate in Water by IC	E235.SO4	1114676	1	19	5.2	5.0	✓
TDS by Gravimetry	E162	1117256	1	18	5.5	5.0	✓
Total Dissolved Phosphorus by Colourimetry (0.002 mg/L)	E375-T	1117123	1	19	5.2	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1115356	1	20	5.0	5.0	✓
Total Nitrogen by Colourimetry	E366	1117127	1	12	8.3	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1117125	1	5	20.0	5.0	✓
Turbidity by Nephelometry	E121	1114539	1	20	5.0	5.0	✓
Laboratory Control Samples (LCS)							
Alkalinity Species by Titration	E290	1114670	1	18	5.5	5.0	✓
Ammonia by Fluorescence	E298	1117126	1	15	6.6	5.0	✓
Chloride in Water by IC	E235.Cl	1114673	1	19	5.2	5.0	✓
Conductivity in Water	E100	1114671	1	19	5.2	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1114444	1	18	5.5	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1117124	1	15	6.6	5.0	✓
Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)	E378-U	1114679	1	17	5.8	5.0	✓
Fluoride in Water by IC	E235.F	1114672	1	18	5.5	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	1114674	1	19	5.2	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1114675	1	19	5.2	5.0	✓
pH by Meter	E108	1114669	1	20	5.0	5.0	✓
Sulfate in Water by IC	E235.SO4	1114676	1	19	5.2	5.0	✓
TDS by Gravimetry	E162	1117256	1	18	5.5	5.0	✓
Total Dissolved Phosphorus by Colourimetry (0.002 mg/L)	E375-T	1117123	1	19	5.2	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1115356	1	20	5.0	5.0	✓
Total Nitrogen by Colourimetry	E366	1117127	1	12	8.3	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1117125	1	5	20.0	5.0	✓



Matrix: **Water**

Evaluation: ✖ = QC frequency outside specification; ✔ = QC frequency within specification.

Quality Control Sample Type	Method	QC Lot #	Count		Frequency (%)		
			QC	Regular	Actual	Expected	Evaluation
Analytical Methods							
Laboratory Control Samples (LCS) - Continued							
TSS by Gravimetry (Whole Bottle)	E164	1115929	1	19	5.2	5.0	✔
Turbidity by Nephelometry	E121	1114539	1	20	5.0	5.0	✔
Method Blanks (MB)							
Alkalinity Species by Titration	E290	1114670	1	18	5.5	5.0	✔
Ammonia by Fluorescence	E298	1117126	1	15	6.6	5.0	✔
Chloride in Water by IC	E235.Cl	1114673	1	19	5.2	5.0	✔
Conductivity in Water	E100	1114671	1	19	5.2	5.0	✔
Dissolved Metals in Water by CRC ICPMS	E421	1114444	1	18	5.5	5.0	✔
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1117124	1	15	6.6	5.0	✔
Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)	E378-U	1114679	1	17	5.8	5.0	✔
Fluoride in Water by IC	E235.F	1114672	1	18	5.5	5.0	✔
Nitrate in Water by IC (Low Level)	E235.NO3-L	1114674	1	19	5.2	5.0	✔
Nitrite in Water by IC (Low Level)	E235.NO2-L	1114675	1	19	5.2	5.0	✔
Sulfate in Water by IC	E235.SO4	1114676	1	19	5.2	5.0	✔
TDS by Gravimetry	E162	1117256	1	18	5.5	5.0	✔
Total Dissolved Phosphorus by Colourimetry (0.002 mg/L)	E375-T	1117123	1	19	5.2	5.0	✔
Total Metals in Water by CRC ICPMS	E420	1115356	1	20	5.0	5.0	✔
Total Nitrogen by Colourimetry	E366	1117127	1	12	8.3	5.0	✔
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1117125	1	5	20.0	5.0	✔
TSS by Gravimetry (Whole Bottle)	E164	1115929	1	19	5.2	5.0	✔
Turbidity by Nephelometry	E121	1114539	1	20	5.0	5.0	✔
Matrix Spikes (MS)							
Ammonia by Fluorescence	E298	1117126	1	15	6.6	5.0	✔
Chloride in Water by IC	E235.Cl	1114673	1	19	5.2	5.0	✔
Dissolved Metals in Water by CRC ICPMS	E421	1114444	1	18	5.5	5.0	✔
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1117124	1	15	6.6	5.0	✔
Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)	E378-U	1114679	1	17	5.8	5.0	✔
Fluoride in Water by IC	E235.F	1114672	1	18	5.5	5.0	✔
Nitrate in Water by IC (Low Level)	E235.NO3-L	1114674	1	19	5.2	5.0	✔
Nitrite in Water by IC (Low Level)	E235.NO2-L	1114675	1	19	5.2	5.0	✔
Sulfate in Water by IC	E235.SO4	1114676	1	19	5.2	5.0	✔
Total Dissolved Phosphorus by Colourimetry (0.002 mg/L)	E375-T	1117123	1	19	5.2	5.0	✔
Total Metals in Water by CRC ICPMS	E420	1115356	1	20	5.0	5.0	✔
Total Nitrogen by Colourimetry	E366	1117127	1	12	8.3	5.0	✔
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1117125	1	5	20.0	5.0	✔



Methodology References and Summaries

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Reference methods may incorporate modifications to improve performance (indicated by "mod").

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Conductivity in Water	E100 ALS Environmental - Vancouver	Water	APHA 2510 (mod)	Conductivity, also known as Electrical Conductivity (EC) or Specific Conductance, is measured by immersion of a conductivity cell with platinum electrodes into a water sample. Conductivity measurements are temperature-compensated to 25°C.
pH by Meter	E108 ALS Environmental - Vancouver	Water	APHA 4500-H (mod)	pH is determined by potentiometric measurement with a pH electrode, and is conducted at ambient laboratory temperature (normally 20 ± 5°C). For high accuracy test results, pH should be measured in the field within the recommended 15 minute hold time.
Turbidity by Nephelometry	E121 ALS Environmental - Vancouver	Water	APHA 2130 B (mod)	Turbidity is measured by the nephelometric method, by measuring the intensity of light scatter under defined conditions.
TDS by Gravimetry	E162 ALS Environmental - Vancouver	Water	APHA 2540 C (mod)	Total Dissolved Solids (TDS) are determined by filtering a sample through a glass fibre filter, with evaporation of the filtrate at 180 ± 2°C for 16 hours or to constant weight, with gravimetric measurement of the residue.
TSS by Gravimetry (Whole Bottle)	E164 ALS Environmental - Vancouver	Water	APHA 2540 D (mod)	Total Suspended Solids (TSS) are determined by filtering a sample through a glass fibre filter, following by drying of the filter at 104 ± 1°C, with gravimetric measurement of the filtered solids. Samples containing very high dissolved solid content (i.e. seawaters, brackish waters) may produce a positive bias by this method. Alternate analysis methods are available for these types of samples.
Chloride in Water by IC	E235.Cl ALS Environmental - Vancouver	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Fluoride in Water by IC	E235.F ALS Environmental - Vancouver	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Nitrite in Water by IC (Low Level)	E235.NO2-L ALS Environmental - Vancouver	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Nitrate in Water by IC (Low Level)	E235.NO3-L ALS Environmental - Vancouver	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.



Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Sulfate in Water by IC	E235.SO4 ALS Environmental - Vancouver	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Alkalinity Species by Titration	E290 ALS Environmental - Vancouver	Water	APHA 2320 B (mod)	Total alkalinity is determined by potentiometric titration to a pH 4.5 endpoint. Bicarbonate, carbonate and hydroxide alkalinity are calculated from phenolphthalein alkalinity and total alkalinity values.
Ammonia by Fluorescence	E298 ALS Environmental - Vancouver	Water	Method Fialab 100, 2018	Ammonia in water is determined by automated continuous flow analysis with membrane diffusion and fluorescence detection, after reaction with OPA (ortho-phthalaldehyde). This method is approved under US EPA 40 CFR Part 136 (May 2021)
Dissolved Organic Carbon by Combustion (Low Level)	E358-L ALS Environmental - Vancouver	Water	APHA 5310 B (mod)	Dissolved Organic Carbon (Non-Purgeable), also known as NPOC (dissolved), is a direct measurement of DOC after a filtered (0.45 micron) sample has been acidified and purged to remove inorganic carbon (IC). Analysis is by high temperature combustion with infrared detection of CO ₂ . NPOC does not include volatile organic species that are purged off with IC. For samples where the majority of DC (dissolved carbon) is comprised of IC (which is common), this method is more accurate and more reliable than the DOC by subtraction method (i.e. DC minus DIC).
Total Nitrogen by Colourimetry	E366 ALS Environmental - Vancouver	Water	Chinchilla Scientific Nitrate Method, 2011	Following digestion, total nitrogen is is determined colourimetrically using a discrete analyzer utilizing the vanadium chloride reduction method. This method of analysis is approved under US EPA 40 CFR Part 136 (May 2021).
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U ALS Environmental - Vancouver	Water	APHA 4500-P E (mod).	Total Phosphorus is determined colourimetrically using a discrete analyzer after heated persulfate digestion of the sample.
Total Dissolved Phosphorus by Colourimetry (0.002 mg/L)	E375-T ALS Environmental - Vancouver	Water	APHA 4500-P E (mod).	Total Dissolved Phosphorus is determined colourimetrically using a discrete analyzer after filtration through a 0.45 micron filter followed by heated persulfate digestion of the sample.
Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)	E378-U ALS Environmental - Vancouver	Water	APHA 4500-P F (mod)	Dissolved Orthophosphate is determined colourimetrically on a sample that has been lab or field filtered through a 0.45 micron membrane filter. Field filtration is recommended to ensure test results represent conditions at time of sampling.
Total Metals in Water by CRC ICPMS	E420 ALS Environmental - Vancouver	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS. Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.



Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Dissolved Metals in Water by CRC ICPMS	E421 ALS Environmental - Vancouver	Water	APHA 3030B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS. Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.
Dissolved Hardness (Calculated)	EC100 ALS Environmental - Vancouver	Water	APHA 2340B	"Hardness (as CaCO3), dissolved" is calculated from the sum of dissolved Calcium and Magnesium concentrations, expressed in CaCO3 equivalents. "Total Hardness" refers to the sum of Calcium and Magnesium Hardness. Hardness is normally or preferentially calculated from dissolved Calcium and Magnesium concentrations, because it is a property of water due to dissolved divalent cations.
Hardness (Calculated) from Total Ca/Mg	EC100A ALS Environmental - Vancouver	Water	APHA 2340B	"Hardness (as CaCO3), from total Ca/Mg" is calculated from the sum of total Calcium and Magnesium concentrations, expressed in CaCO3 equivalents. "Total Hardness" refers to the sum of Calcium and Magnesium Hardness. Hardness is normally or preferentially calculated from dissolved Calcium and Magnesium concentrations, because it is a property of water due to dissolved divalent cations. Hardness from total Ca/Mg is normally comparable to Dissolved Hardness in non-turbid waters.
Nitrate and Nitrite (as N) (Calculation)	EC235.N+N ALS Environmental - Vancouver	Water	EPA 300.0	Nitrate and Nitrite (as N) is a calculated parameter. Nitrate and Nitrite (as N) = Nitrite (as N) + Nitrate (as N).

Preparation Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Preparation for Ammonia	EP298 ALS Environmental - Vancouver	Water		Sample preparation for Preserved Nutrients Water Quality Analysis.
Preparation for Dissolved Organic Carbon for Combustion	EP358 ALS Environmental - Vancouver	Water	APHA 5310 B (mod)	Preparation for Dissolved Organic Carbon
Digestion for Total Nitrogen in water	EP366 ALS Environmental - Vancouver	Water	APHA 4500-P J (mod)	Samples for total nitrogen analysis are digested using a heated persulfate digestion. Nitrogen compounds are converted to nitrate in this digestion.
Digestion for Total Phosphorus in water	EP372 ALS Environmental - Vancouver	Water	APHA 4500-P E (mod).	Samples are heated with a persulfate digestion reagent.
Digestion for Dissolved Phosphorus in water	EP375 ALS Environmental - Vancouver	Water	APHA 4500-P E (mod).	Samples are filtered through a 0.45 micron membrane filter and then heated with a persulfate digestion reagent.
Dissolved Metals Water Filtration	EP421	Water	APHA 3030B	Water samples are filtered (0.45 um), and preserved with HNO3.

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Project : ---



<i>Preparation Methods</i>	<i>Method / Lab</i>	<i>Matrix</i>	<i>Method Reference</i>	<i>Method Descriptions</i>
	ALS Environmental - Vancouver			

QUALITY CONTROL REPORT

<p>Work Order : VA23C0272</p> <p>Client : Mount Polley Mining Corporation</p> <p>Contact : Mr. Gabriel Holmes</p> <p>Address : PO Box 12 Likely BC Canada V0L 1N0</p> <p>Telephone :</p> <p>Project : ----</p> <p>PO : 23-01 Task 5</p> <p>C-O-C number : ----</p> <p>Sampler : ---- 250-790-2215 ext 2171</p> <p>Site : ----</p> <p>Quote number : VA22-MPMC100-006 - Minnow Env. - Water Quality</p> <p>No. of samples received : 2</p> <p>No. of samples analysed : 2</p>	<p>Page : 1 of 14</p> <p>Laboratory : ALS Environmental - Vancouver</p> <p>Account Manager : Can Dang</p> <p>Address : 8081 Lougheed Highway Burnaby, British Columbia Canada V5A 1W9</p> <p>Telephone : +1 604 253 4188</p> <p>Date Samples Received : 30-Aug-2023 08:35</p> <p>Date Analysis Commenced : 31-Aug-2023</p> <p>Issue Date : 07-Sep-2023 17:13</p>
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This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Quality Control Report contains the following information:

- Laboratory Duplicate (DUP) Report; Relative Percent Difference (RPD) and Data Quality Objectives
- Matrix Spike (MS) Report; Recovery and Data Quality Objectives
- Method Blank (MB) Report; Recovery and Data Quality Objectives
- Laboratory Control Sample (LCS) Report; Recovery and Data Quality Objectives

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

<i>Signatories</i>	<i>Position</i>	<i>Laboratory Department</i>
Erin Sanchez		Vancouver Metals, Burnaby, British Columbia
Kevin Duarte	Supervisor - Metals ICP Instrumentation	Vancouver Inorganics, Burnaby, British Columbia
Kevin Duarte	Supervisor - Metals ICP Instrumentation	Vancouver Metals, Burnaby, British Columbia
Kim Jensen	Department Manager - Metals	Vancouver Metals, Burnaby, British Columbia

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Client : Mount Polley Mining Corporation
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General Comments

The ALS Quality Control (QC) report is optionally provided to ALS clients upon request. ALS test methods include comprehensive QC checks with every analysis to ensure our high standards of quality are met. Each QC result has a known or expected target value, which is compared against predetermined Data Quality Objectives (DQOs) to provide confidence in the accuracy of associated test results. This report contains detailed results for all QC results applicable to this sample submission. Please refer to the ALS Quality Control Interpretation report (QCI) for applicable method references and methodology summaries.

Key :

Anonymous = Refers to samples which are not part of this work order, but which formed part of the QC process lot.
CAS Number = Chemical Abstracts Service number is a unique identifier assigned to discrete substances.
DQO = Data Quality Objective.
LOR = Limit of Reporting (detection limit).
RPD = Relative Percent Difference
= Indicates a QC result that did not meet the ALS DQO.

Workorder Comments

Holding times are displayed as "---" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.



Laboratory Duplicate (DUP) Report

A Laboratory Duplicate (DUP) is a randomly selected intralaboratory replicate sample. Laboratory Duplicates provide information regarding method precision and sample heterogeneity. ALS DQOs for Laboratory Duplicates are expressed as test-specific limits for Relative Percent Difference (RPD), or as an absolute difference limit of 2 times the LOR for low concentration duplicates within ~ 4-10 times the LOR (cut-off is test-specific).

Sub-Matrix: Water					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	LOR	Unit	Original Result	Duplicate Result	RPD(%) or Difference	Duplicate Limits	Qualifier
Physical Tests (QC Lot: 1114539)											
VA23C0272-001	BOL-B2_WS_DI-1_2023-08	Turbidity	----	E121	0.10	NTU	1.13	1.15	0.02	Diff <2x LOR	----
Physical Tests (QC Lot: 1114669)											
VA23C0272-001	BOL-B2_WS_DI-1_2023-08	pH	----	E108	0.10	pH units	7.72	7.71	0.130%	4%	----
Physical Tests (QC Lot: 1114670)											
VA23C0272-001	BOL-B2_WS_DI-1_2023-08	Alkalinity, total (as CaCO3)	----	E290	1.0	mg/L	43.0	43.0	0.00%	20%	----
Physical Tests (QC Lot: 1114671)											
VA23C0272-001	BOL-B2_WS_DI-1_2023-08	Conductivity	----	E100	2.0	µS/cm	104	104	0.289%	10%	----
Physical Tests (QC Lot: 1117256)											
KS2303211-001	Anonymous	Solids, total dissolved [TDS]	----	E162	20	mg/L	493	482	2.26%	20%	----
Anions and Nutrients (QC Lot: 1114672)											
VA23C0334-001	Anonymous	Fluoride	16984-48-8	E235.F	0.020	mg/L	<0.020	<0.020	0	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1114673)											
VA23C0334-001	Anonymous	Chloride	16887-00-6	E235.Cl	0.50	mg/L	<0.50	<0.50	0	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1114674)											
VA23C0334-001	Anonymous	Nitrate (as N)	14797-55-8	E235.NO3-L	0.0050	mg/L	<0.0050	<0.0050	0	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1114675)											
VA23C0334-001	Anonymous	Nitrite (as N)	14797-65-0	E235.NO2-L	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1114676)											
VA23C0334-001	Anonymous	Sulfate (as SO4)	14808-79-8	E235.SO4	0.30	mg/L	<0.30	<0.30	0	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1114679)											
VA23C0272-001	BOL-B2_WS_DI-1_2023-08	Phosphate, ortho-, dissolved (as P)	14265-44-2	E378-U	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1117123)											
FJ2302215-003	Anonymous	Phosphorus, total dissolved	7723-14-0	E375-T	0.0020	mg/L	0.0036	0.0036	0.00001	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1117125)											
FJ2302217-001	Anonymous	Phosphorus, total	7723-14-0	E372-U	0.0200	mg/L	0.670	0.674	0.650%	20%	----
Anions and Nutrients (QC Lot: 1117126)											
FJ2302215-003	Anonymous	Ammonia, total (as N)	7664-41-7	E298	0.0050	mg/L	<0.0050	<0.0050	0	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1117127)											



Sub-Matrix: Water					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	LOR	Unit	Original Result	Duplicate Result	RPD(%) or Difference	Duplicate Limits	Qualifier
Anions and Nutrients (QC Lot: 1117127) - continued											
FJ2302215-003	Anonymous	Nitrogen, total	7727-37-9	E366	0.030	mg/L	0.168	0.164	0.003	Diff <2x LOR	---
Organic / Inorganic Carbon (QC Lot: 1117124)											
FJ2302215-003	Anonymous	Carbon, dissolved organic [DOC]	---	E358-L	0.50	mg/L	6.39	6.23	2.57%	20%	---
Total Metals (QC Lot: 1115356)											
VA23C0272-001	BOL-B2_WS_DI-1_2023-08	Aluminum, total	7429-90-5	E420	0.0030	mg/L	0.0579	0.0578	0.0872%	20%	---
		Antimony, total	7440-36-0	E420	0.00010	mg/L	0.00011	<0.00010	0.00001	Diff <2x LOR	---
		Arsenic, total	7440-38-2	E420	0.00010	mg/L	0.00045	0.00047	0.00002	Diff <2x LOR	---
		Barium, total	7440-39-3	E420	0.00010	mg/L	0.0173	0.0175	1.38%	20%	---
		Beryllium, total	7440-41-7	E420	0.000100	mg/L	<0.000100	<0.000100	0	Diff <2x LOR	---
		Bismuth, total	7440-69-9	E420	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	---
		Boron, total	7440-42-8	E420	0.010	mg/L	0.046	0.046	0.00003	Diff <2x LOR	---
		Cadmium, total	7440-43-9	E420	0.0000050	mg/L	0.0000075	0.0000069	0.0000005	Diff <2x LOR	---
		Calcium, total	7440-70-2	E420	0.050	mg/L	14.7	14.8	0.902%	20%	---
		Chromium, total	7440-47-3	E420	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	---
		Cobalt, total	7440-48-4	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	---
		Copper, total	7440-50-8	E420	0.00050	mg/L	0.00564	0.00527	6.85%	20%	---
		Iron, total	7439-89-6	E420	0.030	mg/L	0.109	0.113	0.004	Diff <2x LOR	---
		Lead, total	7439-92-1	E420	0.000050	mg/L	0.000215	0.000216	0.000001	Diff <2x LOR	---
		Lithium, total	7439-93-2	E420	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	---
		Magnesium, total	7439-95-4	E420	0.100	mg/L	2.59	2.61	0.762%	20%	---
		Manganese, total	7439-96-5	E420	0.00010	mg/L	0.124	0.125	0.744%	20%	---
		Molybdenum, total	7439-98-7	E420	0.000050	mg/L	0.000939	0.000960	2.26%	20%	---
		Nickel, total	7440-02-0	E420	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	---
		Potassium, total	7440-09-7	E420	0.050	mg/L	0.613	0.616	0.452%	20%	---
		Selenium, total	7782-49-2	E420	0.000050	mg/L	0.000202	0.000221	0.000019	Diff <2x LOR	---
		Silicon, total	7440-21-3	E420	0.10	mg/L	2.75	2.78	0.772%	20%	---
		Silver, total	7440-22-4	E420	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	---
		Sodium, total	7440-23-5	E420	0.050	mg/L	2.62	2.63	0.348%	20%	---
		Strontium, total	7440-24-6	E420	0.00020	mg/L	0.134	0.134	0.476%	20%	---
		Thallium, total	7440-28-0	E420	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	---
		Tin, total	7440-31-5	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	---
		Titanium, total	7440-32-6	E420	0.0100	mg/L	<0.0100	<0.0100	0	Diff <2x LOR	---
		Uranium, total	7440-61-1	E420	0.000010	mg/L	0.000037	0.000035	0.000001	Diff <2x LOR	---
		Vanadium, total	7440-62-2	E420	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	---



Sub-Matrix: Water					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	LOR	Unit	Original Result	Duplicate Result	RPD(%) or Difference	Duplicate Limits	Qualifier
Total Metals (QC Lot: 1115356) - continued											
VA23C0272-001	BOL-B2_WS_DI-1_2023-08	Zinc, total	7440-66-6	E420	0.0030	mg/L	<0.0030	<0.0030	0	Diff <2x LOR	---
Dissolved Metals (QC Lot: 1114444)											
FJ2302197-001	Anonymous	Aluminum, dissolved	7429-90-5	E421	0.0010	mg/L	0.0589	0.0625	5.82%	20%	---
		Antimony, dissolved	7440-36-0	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	---
		Arsenic, dissolved	7440-38-2	E421	0.00010	mg/L	0.00014	0.00015	0.00001	Diff <2x LOR	---
		Barium, dissolved	7440-39-3	E421	0.00010	mg/L	0.160	0.160	0.0317%	20%	---
		Beryllium, dissolved	7440-41-7	E421	0.000020	mg/L	<0.000020	<0.000020	0	Diff <2x LOR	---
		Bismuth, dissolved	7440-69-9	E421	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	---
		Boron, dissolved	7440-42-8	E421	0.010	mg/L	<0.010	<0.010	0	Diff <2x LOR	---
		Cadmium, dissolved	7440-43-9	E421	0.0000050	mg/L	0.0000358	0.0000353	0.0000004	Diff <2x LOR	---
		Calcium, dissolved	7440-70-2	E421	0.050	mg/L	14.8	15.7	5.40%	20%	---
		Chromium, dissolved	7440-47-3	E421	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	---
		Cobalt, dissolved	7440-48-4	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	---
		Copper, dissolved	7440-50-8	E421	0.00020	mg/L	0.00079	0.00084	0.00005	Diff <2x LOR	---
		Iron, dissolved	7439-89-6	E421	0.010	mg/L	0.070	0.074	0.004	Diff <2x LOR	---
		Lead, dissolved	7439-92-1	E421	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	---
		Lithium, dissolved	7439-93-2	E421	0.0010	mg/L	0.0016	0.0016	0.00003	Diff <2x LOR	---
		Magnesium, dissolved	7439-95-4	E421	0.0050	mg/L	5.46	5.54	1.35%	20%	---
		Manganese, dissolved	7439-96-5	E421	0.00010	mg/L	0.00094	0.00107	13.6%	20%	---
		Molybdenum, dissolved	7439-98-7	E421	0.000050	mg/L	0.000171	0.000190	0.000018	Diff <2x LOR	---
		Nickel, dissolved	7440-02-0	E421	0.00050	mg/L	0.00247	0.00257	0.00010	Diff <2x LOR	---
		Potassium, dissolved	7440-09-7	E421	0.050	mg/L	0.525	0.550	4.77%	20%	---
		Selenium, dissolved	7782-49-2	E421	0.000050	mg/L	0.000137	0.000116	0.000021	Diff <2x LOR	---
		Silicon, dissolved	7440-21-3	E421	0.050	mg/L	1.97	1.94	1.23%	20%	---
		Silver, dissolved	7440-22-4	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	---
		Sodium, dissolved	7440-23-5	E421	0.050	mg/L	1.24	1.27	2.12%	20%	---
		Strontium, dissolved	7440-24-6	E421	0.00020	mg/L	0.0431	0.0441	2.31%	20%	---
		Thallium, dissolved	7440-28-0	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	---
		Tin, dissolved	7440-31-5	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	---
		Titanium, dissolved	7440-32-6	E421	0.00030	mg/L	0.00098	0.00111	0.00014	Diff <2x LOR	---
		Uranium, dissolved	7440-61-1	E421	0.000010	mg/L	0.000035	0.000032	0.000003	Diff <2x LOR	---
		Vanadium, dissolved	7440-62-2	E421	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	---
		Zinc, dissolved	7440-66-6	E421	0.0010	mg/L	0.0030	0.0030	0.000009	Diff <2x LOR	---



Method Blank (MB) Report

A Method Blank is an analyte-free matrix that undergoes sample processing identical to that carried out for test samples. Method Blank results are used to monitor and control for potential contamination from the laboratory environment and reagents. For most tests, the DQO for Method Blanks is for the result to be < LOR.

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Physical Tests (QCLot: 1114539)						
Turbidity	----	E121	0.1	NTU	<0.10	----
Physical Tests (QCLot: 1114670)						
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	# 1.8	B
Physical Tests (QCLot: 1114671)						
Conductivity	----	E100	1	µS/cm	1.0	----
Physical Tests (QCLot: 1115929)						
Solids, total suspended [TSS]	----	E164	1	mg/L	<1.0	----
Physical Tests (QCLot: 1117256)						
Solids, total dissolved [TDS]	----	E162	10	mg/L	<10	----
Anions and Nutrients (QCLot: 1114672)						
Fluoride	16984-48-8	E235.F	0.02	mg/L	<0.020	----
Anions and Nutrients (QCLot: 1114673)						
Chloride	16887-00-6	E235.Cl	0.5	mg/L	<0.50	----
Anions and Nutrients (QCLot: 1114674)						
Nitrate (as N)	14797-55-8	E235.NO3-L	0.005	mg/L	<0.0050	----
Anions and Nutrients (QCLot: 1114675)						
Nitrite (as N)	14797-65-0	E235.NO2-L	0.001	mg/L	<0.0010	----
Anions and Nutrients (QCLot: 1114676)						
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	<0.30	----
Anions and Nutrients (QCLot: 1114679)						
Phosphate, ortho-, dissolved (as P)	14265-44-2	E378-U	0.001	mg/L	<0.0010	----
Anions and Nutrients (QCLot: 1117123)						
Phosphorus, total dissolved	7723-14-0	E375-T	0.002	mg/L	<0.0020	----
Anions and Nutrients (QCLot: 1117125)						
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	<0.0020	----
Anions and Nutrients (QCLot: 1117126)						
Ammonia, total (as N)	7664-41-7	E298	0.005	mg/L	<0.0050	----
Anions and Nutrients (QCLot: 1117127)						
Nitrogen, total	7727-37-9	E366	0.03	mg/L	<0.030	----
Organic / Inorganic Carbon (QCLot: 1117124)						
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	<0.50	----



Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Total Metals (QCLot: 1115356)						
Aluminum, total	7429-90-5	E420	0.003	mg/L	<0.0030	---
Antimony, total	7440-36-0	E420	0.0001	mg/L	<0.00010	---
Arsenic, total	7440-38-2	E420	0.0001	mg/L	<0.00010	---
Barium, total	7440-39-3	E420	0.0001	mg/L	<0.00010	---
Beryllium, total	7440-41-7	E420	0.00002	mg/L	<0.000020	---
Bismuth, total	7440-69-9	E420	0.00005	mg/L	<0.000050	---
Boron, total	7440-42-8	E420	0.01	mg/L	<0.010	---
Cadmium, total	7440-43-9	E420	0.000005	mg/L	<0.0000050	---
Calcium, total	7440-70-2	E420	0.05	mg/L	<0.050	---
Chromium, total	7440-47-3	E420	0.0005	mg/L	<0.00050	---
Cobalt, total	7440-48-4	E420	0.0001	mg/L	<0.00010	---
Copper, total	7440-50-8	E420	0.0005	mg/L	<0.00050	---
Iron, total	7439-89-6	E420	0.01	mg/L	<0.010	---
Lead, total	7439-92-1	E420	0.00005	mg/L	<0.000050	---
Lithium, total	7439-93-2	E420	0.001	mg/L	<0.0010	---
Magnesium, total	7439-95-4	E420	0.005	mg/L	<0.0050	---
Manganese, total	7439-96-5	E420	0.0001	mg/L	<0.00010	---
Molybdenum, total	7439-98-7	E420	0.00005	mg/L	<0.000050	---
Nickel, total	7440-02-0	E420	0.0005	mg/L	<0.00050	---
Potassium, total	7440-09-7	E420	0.05	mg/L	<0.050	---
Selenium, total	7782-49-2	E420	0.00005	mg/L	<0.000050	---
Silicon, total	7440-21-3	E420	0.1	mg/L	<0.10	---
Silver, total	7440-22-4	E420	0.00001	mg/L	<0.000010	---
Sodium, total	7440-23-5	E420	0.05	mg/L	<0.050	---
Strontium, total	7440-24-6	E420	0.0002	mg/L	<0.00020	---
Thallium, total	7440-28-0	E420	0.00001	mg/L	<0.000010	---
Tin, total	7440-31-5	E420	0.0001	mg/L	<0.00010	---
Titanium, total	7440-32-6	E420	0.0003	mg/L	<0.00030	---
Uranium, total	7440-61-1	E420	0.00001	mg/L	<0.000010	---
Vanadium, total	7440-62-2	E420	0.0005	mg/L	<0.00050	---
Zinc, total	7440-66-6	E420	0.003	mg/L	<0.0030	---
Dissolved Metals (QCLot: 1114444)						
Aluminum, dissolved	7429-90-5	E421	0.001	mg/L	<0.0010	---
Antimony, dissolved	7440-36-0	E421	0.0001	mg/L	<0.00010	---
Arsenic, dissolved	7440-38-2	E421	0.0001	mg/L	<0.00010	---



Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Dissolved Metals (QCLot: 1114444) - continued						
Barium, dissolved	7440-39-3	E421	0.0001	mg/L	<0.00010	---
Beryllium, dissolved	7440-41-7	E421	0.00002	mg/L	<0.000020	---
Bismuth, dissolved	7440-69-9	E421	0.00005	mg/L	<0.000050	---
Boron, dissolved	7440-42-8	E421	0.01	mg/L	<0.010	---
Cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	<0.0000050	---
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	<0.050	---
Chromium, dissolved	7440-47-3	E421	0.0005	mg/L	<0.00050	---
Cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	<0.00010	---
Copper, dissolved	7440-50-8	E421	0.0002	mg/L	<0.00020	---
Iron, dissolved	7439-89-6	E421	0.01	mg/L	<0.010	---
Lead, dissolved	7439-92-1	E421	0.00005	mg/L	<0.000050	---
Lithium, dissolved	7439-93-2	E421	0.001	mg/L	<0.0010	---
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	<0.0050	---
Manganese, dissolved	7439-96-5	E421	0.0001	mg/L	<0.00010	---
Molybdenum, dissolved	7439-98-7	E421	0.00005	mg/L	<0.000050	---
Nickel, dissolved	7440-02-0	E421	0.0005	mg/L	<0.00050	---
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	<0.050	---
Selenium, dissolved	7782-49-2	E421	0.00005	mg/L	<0.000050	---
Silicon, dissolved	7440-21-3	E421	0.05	mg/L	<0.050	---
Silver, dissolved	7440-22-4	E421	0.00001	mg/L	<0.000010	---
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	<0.050	---
Strontium, dissolved	7440-24-6	E421	0.0002	mg/L	<0.00020	---
Thallium, dissolved	7440-28-0	E421	0.00001	mg/L	<0.000010	---
Tin, dissolved	7440-31-5	E421	0.0001	mg/L	<0.00010	---
Titanium, dissolved	7440-32-6	E421	0.0003	mg/L	<0.00030	---
Uranium, dissolved	7440-61-1	E421	0.00001	mg/L	<0.000010	---
Vanadium, dissolved	7440-62-2	E421	0.0005	mg/L	<0.00050	---
Zinc, dissolved	7440-66-6	E421	0.001	mg/L	<0.0010	---

Qualifiers

Qualifier	Description
B	Method Blank exceeds ALS DQO. Associated sample results which are < Limit of Reporting or > 5 times blank level are considered reliable.



Laboratory Control Sample (LCS) Report

A Laboratory Control Sample (LCS) is an analyte-free matrix that has been fortified (spiked) with test analytes at known concentration and processed in an identical manner to test samples. LCS results are expressed as percent recovery, and are used to monitor and control test method accuracy and precision, independent of test sample matrix.

Sub-Matrix: Water

					Laboratory Control Sample (LCS) Report				
Analyte	CAS Number	Method	LOR	Unit	Spike	Recovery (%)	Recovery Limits (%)		Qualifier
					Concentration	LCS	Low	High	
Physical Tests (QCLot: 1114539)									
Turbidity	---	E121	0.1	NTU	200 NTU	98.4	85.0	115	---
Physical Tests (QCLot: 1114669)									
pH	---	E108	---	pH units	7 pH units	100	98.0	102	---
Physical Tests (QCLot: 1114670)									
Alkalinity, total (as CaCO3)	---	E290	1	mg/L	500 mg/L	108	85.0	115	---
Physical Tests (QCLot: 1114671)									
Conductivity	---	E100	1	µS/cm	146.9 µS/cm	99.8	90.0	110	---
Physical Tests (QCLot: 1115929)									
Solids, total suspended [TSS]	---	E164	1	mg/L	150 mg/L	89.0	85.0	115	---
Physical Tests (QCLot: 1117256)									
Solids, total dissolved [TDS]	---	E162	10	mg/L	1000 mg/L	101	85.0	115	---
Anions and Nutrients (QCLot: 1114672)									
Fluoride	16984-48-8	E235.F	0.02	mg/L	1 mg/L	103	90.0	110	---
Anions and Nutrients (QCLot: 1114673)									
Chloride	16887-00-6	E235.Cl	0.5	mg/L	100 mg/L	102	90.0	110	---
Anions and Nutrients (QCLot: 1114674)									
Nitrate (as N)	14797-55-8	E235.NO3-L	0.005	mg/L	2.5 mg/L	101	90.0	110	---
Anions and Nutrients (QCLot: 1114675)									
Nitrite (as N)	14797-65-0	E235.NO2-L	0.001	mg/L	0.5 mg/L	99.5	90.0	110	---
Anions and Nutrients (QCLot: 1114676)									
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	100 mg/L	101	90.0	110	---
Anions and Nutrients (QCLot: 1114679)									
Phosphate, ortho-, dissolved (as P)	14265-44-2	E378-U	0.001	mg/L	0.03 mg/L	105	80.0	120	---
Anions and Nutrients (QCLot: 1117123)									
Phosphorus, total dissolved	7723-14-0	E375-T	0.002	mg/L	0.05 mg/L	91.0	80.0	120	---
Anions and Nutrients (QCLot: 1117125)									
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	0.05 mg/L	90.5	80.0	120	---
Anions and Nutrients (QCLot: 1117126)									
Ammonia, total (as N)	7664-41-7	E298	0.005	mg/L	0.2 mg/L	91.8	85.0	115	---
Anions and Nutrients (QCLot: 1117127)									
Nitrogen, total	7727-37-9	E366	0.03	mg/L	0.5 mg/L	110	75.0	125	---



Sub-Matrix: **Water**

Laboratory Control Sample (LCS) Report

Analyte	CAS Number	Method	LOR	Unit	Spike	Recovery (%)	Recovery Limits (%)		Qualifier
					Concentration	LCS	Low	High	
Organic / Inorganic Carbon (QCLot: 1117124)									
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	8.57 mg/L	91.0	80.0	120	----
Total Metals (QCLot: 1115356)									
Aluminum, total	7429-90-5	E420	0.003	mg/L	2 mg/L	104	80.0	120	----
Antimony, total	7440-36-0	E420	0.0001	mg/L	1 mg/L	100	80.0	120	----
Arsenic, total	7440-38-2	E420	0.0001	mg/L	1 mg/L	107	80.0	120	----
Barium, total	7440-39-3	E420	0.0001	mg/L	0.25 mg/L	102	80.0	120	----
Beryllium, total	7440-41-7	E420	0.00002	mg/L	0.1 mg/L	102	80.0	120	----
Bismuth, total	7440-69-9	E420	0.00005	mg/L	1 mg/L	98.0	80.0	120	----
Boron, total	7440-42-8	E420	0.01	mg/L	1 mg/L	95.7	80.0	120	----
Cadmium, total	7440-43-9	E420	0.000005	mg/L	0.1 mg/L	100.0	80.0	120	----
Calcium, total	7440-70-2	E420	0.05	mg/L	50 mg/L	104	80.0	120	----
Chromium, total	7440-47-3	E420	0.0005	mg/L	0.25 mg/L	101	80.0	120	----
Cobalt, total	7440-48-4	E420	0.0001	mg/L	0.25 mg/L	101	80.0	120	----
Copper, total	7440-50-8	E420	0.0005	mg/L	0.25 mg/L	98.6	80.0	120	----
Iron, total	7439-89-6	E420	0.01	mg/L	1 mg/L	105	80.0	120	----
Lead, total	7439-92-1	E420	0.00005	mg/L	0.5 mg/L	98.6	80.0	120	----
Lithium, total	7439-93-2	E420	0.001	mg/L	0.25 mg/L	104	80.0	120	----
Magnesium, total	7439-95-4	E420	0.005	mg/L	50 mg/L	102	80.0	120	----
Manganese, total	7439-96-5	E420	0.0001	mg/L	0.25 mg/L	98.9	80.0	120	----
Molybdenum, total	7439-98-7	E420	0.00005	mg/L	0.25 mg/L	104	80.0	120	----
Nickel, total	7440-02-0	E420	0.0005	mg/L	0.5 mg/L	101	80.0	120	----
Potassium, total	7440-09-7	E420	0.05	mg/L	50 mg/L	109	80.0	120	----
Selenium, total	7782-49-2	E420	0.00005	mg/L	1 mg/L	100	80.0	120	----
Silicon, total	7440-21-3	E420	0.1	mg/L	10 mg/L	109	80.0	120	----
Silver, total	7440-22-4	E420	0.00001	mg/L	0.1 mg/L	97.7	80.0	120	----
Sodium, total	7440-23-5	E420	0.05	mg/L	50 mg/L	104	80.0	120	----
Strontium, total	7440-24-6	E420	0.0002	mg/L	0.25 mg/L	103	80.0	120	----
Thallium, total	7440-28-0	E420	0.00001	mg/L	1 mg/L	99.0	80.0	120	----
Tin, total	7440-31-5	E420	0.0001	mg/L	0.5 mg/L	100	80.0	120	----
Titanium, total	7440-32-6	E420	0.0003	mg/L	0.25 mg/L	101	80.0	120	----
Uranium, total	7440-61-1	E420	0.00001	mg/L	0.005 mg/L	96.9	80.0	120	----
Vanadium, total	7440-62-2	E420	0.0005	mg/L	0.5 mg/L	103	80.0	120	----
Zinc, total	7440-66-6	E420	0.003	mg/L	0.5 mg/L	97.9	80.0	120	----



Sub-Matrix: **Water**

Laboratory Control Sample (LCS) Report

Analyte	CAS Number	Method	LOR	Unit	Spike	Recovery (%)	Recovery Limits (%)		Qualifier
					Concentration	LCS	Low	High	
Dissolved Metals (QCLot: 1114444)									
Aluminum, dissolved	7429-90-5	E421	0.001	mg/L	2 mg/L	99.4	80.0	120	----
Antimony, dissolved	7440-36-0	E421	0.0001	mg/L	1 mg/L	101	80.0	120	----
Arsenic, dissolved	7440-38-2	E421	0.0001	mg/L	1 mg/L	106	80.0	120	----
Barium, dissolved	7440-39-3	E421	0.0001	mg/L	0.25 mg/L	102	80.0	120	----
Beryllium, dissolved	7440-41-7	E421	0.00002	mg/L	0.1 mg/L	97.5	80.0	120	----
Bismuth, dissolved	7440-69-9	E421	0.00005	mg/L	1 mg/L	98.1	80.0	120	----
Boron, dissolved	7440-42-8	E421	0.01	mg/L	1 mg/L	95.3	80.0	120	----
Cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	0.1 mg/L	101	80.0	120	----
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	50 mg/L	99.7	80.0	120	----
Chromium, dissolved	7440-47-3	E421	0.0005	mg/L	0.25 mg/L	98.9	80.0	120	----
Cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	0.25 mg/L	102	80.0	120	----
Copper, dissolved	7440-50-8	E421	0.0002	mg/L	0.25 mg/L	96.1	80.0	120	----
Iron, dissolved	7439-89-6	E421	0.01	mg/L	1 mg/L	102	80.0	120	----
Lead, dissolved	7439-92-1	E421	0.00005	mg/L	0.5 mg/L	99.0	80.0	120	----
Lithium, dissolved	7439-93-2	E421	0.001	mg/L	0.25 mg/L	98.4	80.0	120	----
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	50 mg/L	97.2	80.0	120	----
Manganese, dissolved	7439-96-5	E421	0.0001	mg/L	0.25 mg/L	101	80.0	120	----
Molybdenum, dissolved	7439-98-7	E421	0.00005	mg/L	0.25 mg/L	105	80.0	120	----
Nickel, dissolved	7440-02-0	E421	0.0005	mg/L	0.5 mg/L	100	80.0	120	----
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	50 mg/L	102	80.0	120	----
Selenium, dissolved	7782-49-2	E421	0.00005	mg/L	1 mg/L	101	80.0	120	----
Silicon, dissolved	7440-21-3	E421	0.05	mg/L	10 mg/L	110	80.0	120	----
Silver, dissolved	7440-22-4	E421	0.00001	mg/L	0.1 mg/L	94.9	80.0	120	----
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	50 mg/L	102	80.0	120	----
Strontium, dissolved	7440-24-6	E421	0.0002	mg/L	0.25 mg/L	102	80.0	120	----
Thallium, dissolved	7440-28-0	E421	0.00001	mg/L	1 mg/L	102	80.0	120	----
Tin, dissolved	7440-31-5	E421	0.0001	mg/L	0.5 mg/L	103	80.0	120	----
Titanium, dissolved	7440-32-6	E421	0.0003	mg/L	0.25 mg/L	101	80.0	120	----
Uranium, dissolved	7440-61-1	E421	0.00001	mg/L	0.005 mg/L	101	80.0	120	----
Vanadium, dissolved	7440-62-2	E421	0.0005	mg/L	0.5 mg/L	102	80.0	120	----
Zinc, dissolved	7440-66-6	E421	0.001	mg/L	0.5 mg/L	99.5	80.0	120	----



Matrix Spike (MS) Report

A Matrix Spike (MS) is a randomly selected intra-laboratory replicate sample that has been fortified (spiked) with test analytes at known concentration, and processed in an identical manner to test samples. Matrix Spikes provide information regarding analyte recovery and potential matrix effects. MS DQO exceedances due to sample matrix may sometimes be unavoidable; in such cases, test results for the associated sample (or similar samples) may be subject to bias. ND – Recovery not determined, background level >= 1x spike level.

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Anions and Nutrients (QCLot: 1114672)										
VA23C0334-002	Anonymous	Fluoride	16984-48-8	E235.F	0.975 mg/L	1 mg/L	97.5	75.0	125	----
Anions and Nutrients (QCLot: 1114673)										
VA23C0334-002	Anonymous	Chloride	16887-00-6	E235.Cl	98.8 mg/L	100 mg/L	98.8	75.0	125	----
Anions and Nutrients (QCLot: 1114674)										
VA23C0334-002	Anonymous	Nitrate (as N)	14797-55-8	E235.NO3-L	2.48 mg/L	2.5 mg/L	99.1	75.0	125	----
Anions and Nutrients (QCLot: 1114675)										
VA23C0334-002	Anonymous	Nitrite (as N)	14797-65-0	E235.NO2-L	0.459 mg/L	0.5 mg/L	91.8	75.0	125	----
Anions and Nutrients (QCLot: 1114676)										
VA23C0334-002	Anonymous	Sulfate (as SO4)	14808-79-8	E235.SO4	96.7 mg/L	100 mg/L	96.7	75.0	125	----
Anions and Nutrients (QCLot: 1114679)										
VA23C0272-002	POL-P2_WS_DI-1_2023-08	Phosphate, ortho-, dissolved (as P)	14265-44-2	E378-U	0.0350 mg/L	0.03 mg/L	117	70.0	130	----
Anions and Nutrients (QCLot: 1117123)										
FJ2302215-004	Anonymous	Phosphorus, total dissolved	7723-14-0	E375-T	0.0464 mg/L	0.05 mg/L	92.8	70.0	130	----
Anions and Nutrients (QCLot: 1117125)										
FJ2302217-002	Anonymous	Phosphorus, total	7723-14-0	E372-U	ND mg/L	0.05 mg/L	ND	70.0	130	----
Anions and Nutrients (QCLot: 1117126)										
FJ2302215-004	Anonymous	Ammonia, total (as N)	7664-41-7	E298	0.0990 mg/L	0.1 mg/L	99.0	75.0	125	----
Anions and Nutrients (QCLot: 1117127)										
FJ2302215-004	Anonymous	Nitrogen, total	7727-37-9	E366	0.388 mg/L	0.4 mg/L	97.1	70.0	130	----
Organic / Inorganic Carbon (QCLot: 1117124)										
FJ2302215-004	Anonymous	Carbon, dissolved organic [DOC]	----	E358-L	4.44 mg/L	5 mg/L	88.8	70.0	130	----
Total Metals (QCLot: 1115356)										
VA23C0272-002	POL-P2_WS_DI-1_2023-08	Aluminum, total	7429-90-5	E420	0.195 mg/L	0.2 mg/L	97.4	70.0	130	----
		Antimony, total	7440-36-0	E420	0.0186 mg/L	0.02 mg/L	93.2	70.0	130	----
		Arsenic, total	7440-38-2	E420	0.0197 mg/L	0.02 mg/L	98.4	70.0	130	----
		Barium, total	7440-39-3	E420	0.0187 mg/L	0.02 mg/L	93.5	70.0	130	----
		Beryllium, total	7440-41-7	E420	0.0385 mg/L	0.04 mg/L	96.3	70.0	130	----
		Bismuth, total	7440-69-9	E420	0.00891 mg/L	0.01 mg/L	89.1	70.0	130	----



Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Total Metals (QCLot: 1115356) - continued										
VA23C0272-002	POL-P2_WS_DI-1_2023-08	Boron, total	7440-42-8	E420	0.090 mg/L	0.1 mg/L	89.8	70.0	130	----
		Cadmium, total	7440-43-9	E420	0.00393 mg/L	0.004 mg/L	98.3	70.0	130	----
		Calcium, total	7440-70-2	E420	ND mg/L	4 mg/L	ND	70.0	130	----
		Chromium, total	7440-47-3	E420	0.0393 mg/L	0.04 mg/L	98.4	70.0	130	----
		Cobalt, total	7440-48-4	E420	0.0195 mg/L	0.02 mg/L	97.5	70.0	130	----
		Copper, total	7440-50-8	E420	0.0191 mg/L	0.02 mg/L	95.6	70.0	130	----
		Iron, total	7439-89-6	E420	1.92 mg/L	2 mg/L	96.3	70.0	130	----
		Lead, total	7439-92-1	E420	0.0181 mg/L	0.02 mg/L	90.7	70.0	130	----
		Lithium, total	7439-93-2	E420	0.0943 mg/L	0.1 mg/L	94.3	70.0	130	----
		Magnesium, total	7439-95-4	E420	ND mg/L	1 mg/L	ND	70.0	130	----
		Manganese, total	7439-96-5	E420	0.0191 mg/L	0.02 mg/L	95.6	70.0	130	----
		Molybdenum, total	7439-98-7	E420	0.0192 mg/L	0.02 mg/L	96.2	70.0	130	----
		Nickel, total	7440-02-0	E420	0.0388 mg/L	0.04 mg/L	96.9	70.0	130	----
		Potassium, total	7440-09-7	E420	4.14 mg/L	4 mg/L	104	70.0	130	----
		Selenium, total	7782-49-2	E420	0.0402 mg/L	0.04 mg/L	100	70.0	130	----
		Silicon, total	7440-21-3	E420	9.31 mg/L	10 mg/L	93.1	70.0	130	----
		Silver, total	7440-22-4	E420	0.00388 mg/L	0.004 mg/L	97.0	70.0	130	----
		Sodium, total	7440-23-5	E420	ND mg/L	2 mg/L	ND	70.0	130	----
		Strontium, total	7440-24-6	E420	ND mg/L	0.02 mg/L	ND	70.0	130	----
		Thallium, total	7440-28-0	E420	0.00354 mg/L	0.004 mg/L	88.5	70.0	130	----
		Tin, total	7440-31-5	E420	0.0190 mg/L	0.02 mg/L	95.1	70.0	130	----
		Titanium, total	7440-32-6	E420	0.0393 mg/L	0.04 mg/L	98.2	70.0	130	----
		Uranium, total	7440-61-1	E420	0.00361 mg/L	0.004 mg/L	90.3	70.0	130	----
		Vanadium, total	7440-62-2	E420	0.101 mg/L	0.1 mg/L	101	70.0	130	----
		Zinc, total	7440-66-6	E420	0.379 mg/L	0.4 mg/L	94.7	70.0	130	----
Dissolved Metals (QCLot: 1114444)										
FJ2302197-002	Anonymous	Aluminum, dissolved	7429-90-5	E421	0.191 mg/L	0.2 mg/L	95.4	70.0	130	----
		Antimony, dissolved	7440-36-0	E421	0.0186 mg/L	0.02 mg/L	93.0	70.0	130	----
		Arsenic, dissolved	7440-38-2	E421	0.0207 mg/L	0.02 mg/L	104	70.0	130	----
		Barium, dissolved	7440-39-3	E421	ND mg/L	0.02 mg/L	ND	70.0	130	----
		Beryllium, dissolved	7440-41-7	E421	0.0378 mg/L	0.04 mg/L	94.4	70.0	130	----
		Bismuth, dissolved	7440-69-9	E421	0.00918 mg/L	0.01 mg/L	91.8	70.0	130	----
		Boron, dissolved	7440-42-8	E421	0.089 mg/L	0.1 mg/L	89.2	70.0	130	----
		Cadmium, dissolved	7440-43-9	E421	0.00408 mg/L	0.004 mg/L	102	70.0	130	----
		Calcium, dissolved	7440-70-2	E421	ND mg/L	4 mg/L	ND	70.0	130	----



Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Dissolved Metals (QCLot: 1114444) - continued										
FJ2302197-002	Anonymous	Chromium, dissolved	7440-47-3	E421	0.0397 mg/L	0.04 mg/L	99.2	70.0	130	----
		Cobalt, dissolved	7440-48-4	E421	0.0202 mg/L	0.02 mg/L	101	70.0	130	----
		Copper, dissolved	7440-50-8	E421	0.0194 mg/L	0.02 mg/L	97.2	70.0	130	----
		Iron, dissolved	7439-89-6	E421	1.95 mg/L	2 mg/L	97.6	70.0	130	----
		Lead, dissolved	7439-92-1	E421	0.0197 mg/L	0.02 mg/L	98.6	70.0	130	----
		Lithium, dissolved	7439-93-2	E421	0.0925 mg/L	0.1 mg/L	92.5	70.0	130	----
		Magnesium, dissolved	7439-95-4	E421	ND mg/L	1 mg/L	ND	70.0	130	----
		Manganese, dissolved	7439-96-5	E421	0.0200 mg/L	0.02 mg/L	100	70.0	130	----
		Molybdenum, dissolved	7439-98-7	E421	0.0191 mg/L	0.02 mg/L	95.4	70.0	130	----
		Nickel, dissolved	7440-02-0	E421	0.0403 mg/L	0.04 mg/L	101	70.0	130	----
		Potassium, dissolved	7440-09-7	E421	4.07 mg/L	4 mg/L	102	70.0	130	----
		Selenium, dissolved	7782-49-2	E421	0.0431 mg/L	0.04 mg/L	108	70.0	130	----
		Silicon, dissolved	7440-21-3	E421	10.1 mg/L	10 mg/L	101	70.0	130	----
		Silver, dissolved	7440-22-4	E421	0.00374 mg/L	0.004 mg/L	93.6	70.0	130	----
		Sodium, dissolved	7440-23-5	E421	2.06 mg/L	2 mg/L	103	70.0	130	----
		Strontium, dissolved	7440-24-6	E421	ND mg/L	0.02 mg/L	ND	70.0	130	----
		Thallium, dissolved	7440-28-0	E421	0.00390 mg/L	0.004 mg/L	97.5	70.0	130	----
		Tin, dissolved	7440-31-5	E421	0.0191 mg/L	0.02 mg/L	95.7	70.0	130	----
		Titanium, dissolved	7440-32-6	E421	0.0403 mg/L	0.04 mg/L	101	70.0	130	----
		Uranium, dissolved	7440-61-1	E421	0.00386 mg/L	0.004 mg/L	96.4	70.0	130	----
		Vanadium, dissolved	7440-62-2	E421	0.101 mg/L	0.1 mg/L	101	70.0	130	----
		Zinc, dissolved	7440-66-6	E421	0.410 mg/L	0.4 mg/L	103	70.0	130	----



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Chain of Custody (COC) / Analytical Request Form

Canada Toll Free: 1 800 668 9878

COC Number: 20 -

Page 1 of 1

Environmental Division
Vancouver
Work Order Reference
VA23C0272



Telephone : +1 604 253 4188

Main form containing sections: Report To, Reports / Recipients, Turnaround Time (TAT) Requested, Project Information, Oil and Gas Required Fields, Sample Identification and/or Coordinates, Drinking Water (DW) Samples, SHIPMENT RELEASE, INITIAL SHIPMENT RECEPTION, FINAL SHIPMENT RECEPTION.

Table with columns: NUMBER OF CONTAINER, Nutrients-1, Total Metals, Dissolved Metals, TN, NHS, DOC, TSS (Whole Bottle), SAMPLES ON HOLD, EXTENDED STORAGE REQUIRED, SUSPECTED HAZARD.

Failure to complete all portions of this form may delay analysis. Please fill in this form LEGIBLY. By the use of this form the user acknowledges and agrees with the Terms and Conditions as specified on the back of the white report cover.
WHITE - LABORATORY COPY YELLOW - CLIENT COPY

SEDIMENT QUALITY

**ALS Laboratory Report VA23B8809
(Finalized September 11, 2023)**



CERTIFICATE OF ANALYSIS

Work Order : **VA23B8809**
Client : **Mount Polley Mining Corporation**
Contact : Mr. Gabriel Holmes
Address : PO Box 12
 Likely BC Canada V0L 1N0
Telephone : 250-790-2215 ext 2171
Project : ----
PO : 5590012190
C-O-C number : ----
Sampler : KBa
Site : ----
Quote number : VA22-MPMC100-005 - Minnow Environmental-Sediment Quality
No. of samples received : 66
No. of samples analysed : 22

Page : 1 of 12
Laboratory : ALS Environmental - Vancouver
Account Manager : Can Dang
Address : 8081 Lougheed Highway
 Burnaby BC Canada V5A 1W9
Telephone : +1 604 253 4188
Date Samples Received : 15-Aug-2023 09:40
Date Analysis Commenced : 21-Aug-2023
Issue Date : 11-Sep-2023 16:48

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QC Interpretive report to assist with Quality Review and Sample Receipt Notification (SRN).

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

<i>Signatories</i>	<i>Position</i>	<i>Laboratory Department</i>
Hedy Lai	Team Leader - Inorganics	Inorganics, Saskatoon, Saskatchewan
Hedy Lai	Team Leader - Inorganics	Sask Soils, Saskatoon, Saskatchewan
Kim Jensen	Department Manager - Metals	Metals, Burnaby, British Columbia
Rebecca Sit	Supervisor - Organics Extractions	Organics, Burnaby, British Columbia
Sam Silveira	Lab Assistant	Metals, Burnaby, British Columbia



General Comments

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Refer to the ALS Quality Control Interpretive report (QCI) for applicable references and methodology summaries. Reference methods may incorporate modifications to improve performance.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

Please refer to Quality Control Interpretive report (QCI) for information regarding Holding Time compliance.

Key : CAS Number: Chemical Abstracts Services number is a unique identifier assigned to discrete substances
LOR: Limit of Reporting (detection limit).

<i>Unit</i>	<i>Description</i>
%	percent
mg/kg	milligrams per kilogram
pH units	pH units

<: less than.

>: greater than.

Surrogate: An analyte that is similar in behavior to target analyte(s), but that does not occur naturally in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery.

Test results reported relate only to the samples as received by the laboratory.

UNLESS OTHERWISE STATED on SRN or QCI Report, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

Workorder Comments

PSAL:Sample 065,066: Limited sample was available for PSA (100g minimum is standard). Measurement Uncertainty for PSA results may be higher than usual.

PSAL:Sample 045-054,057: Limited sample was available for PSA (100g minimum is standard). Measurement Uncertainty for PSA results may be higher than usual.

Qualifiers

<i>Qualifier</i>	<i>Description</i>
FR4	As per applicable reference method(s), soil:water ratio for Fixed Ratio Leach was modified to 1:4 due to high soil organic content.



Analytical Results

Sub-Matrix: Sediment

Client sample ID

(Matrix: Soil/Solid)

					HAC-U_SE-1_20 23-08 001+002	HAC-U_SE-2_20 23-08 003+004	HAC-U_SE-3_20 23-08 005+006	HAC-U_SE-4_20 23-08 007+008	HAC-U_SE-5_20 23-08 009+010
Client sampling date / time					09-Aug-2023 00:00	09-Aug-2023 00:00	09-Aug-2023 00:00	09-Aug-2023 00:00	08-Aug-2023 00:00
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23B8809-045	VA23B8809-046	VA23B8809-047	VA23B8809-048	VA23B8809-049
					Result	Result	Result	Result	Result
Physical Tests									
Moisture	----	E144/VA	0.25	%	86.6	89.6	90.4	87.7	88.8
pH (1:2 soil:water)	----	E108/VA	0.10	pH units	7.39	7.40 ^{FR4}	7.62 ^{FR4}	7.46	7.39
Particle Size									
Gravel (>2mm)	----	EC184E/SK	1.0	%	<1.0	<1.0	<1.0	<1.0	<1.0
Sand (2.0mm - 0.063mm)	----	EC184E/SK	1.0	%	7.6	1.9	4.3	3.0	2.7
Silt (0.063mm - 0.004mm)	----	EC184E/SK	1.0	%	75.9	80.4	76.6	78.1	77.5
Clay (<0.004mm)	----	EC184E/SK	1.0	%	16.5	17.7	18.2	18.9	19.8
Anions and Nutrients									
Nitrogen, total	7727-37-9	E366/SK	0.020	%	0.733	0.772	0.828	0.753	0.844
Organic / Inorganic Carbon									
Carbon, total organic [TOC], <63µm	----	EC356A/SK	0.050	%	6.22	6.38	7.32	6.44	7.01
Inorganics									
Sulfur, total	7704-34-9	E399/SK	500	mg/kg	3940	5400	3600	4320	5500
Metals									
Aluminum	7429-90-5	E440A/VA	50	mg/kg	18200	19100	18400	19200	19200
Antimony	7440-36-0	E440A/VA	0.10	mg/kg	0.41	0.40	0.46	0.54	0.56
Arsenic	7440-38-2	E440A/VA	0.050	mg/kg	8.18	8.31	9.28	9.74	9.64
Barium	7440-39-3	E440A/VA	0.50	mg/kg	343	351	393	387	387
Beryllium	7440-41-7	E440A/VA	0.10	mg/kg	0.62	0.62	0.60	0.62	0.64
Bismuth	7440-69-9	E440A/VA	0.10	mg/kg	<0.10	<0.10	<0.10	<0.10	<0.10
Boron	7440-42-8	E440A/VA	5.0	mg/kg	22.6	25.5	35.2	26.2	27.2
Cadmium	7440-43-9	E440A/VA	0.020	mg/kg	0.452	0.476	0.493	0.512	0.510
Calcium	7440-70-2	E440A/VA	50	mg/kg	27500	32000	39700	34700	29500
Chromium	7440-47-3	E440A/VA	0.50	mg/kg	28.0	28.5	28.4	30.1	29.8
Cobalt	7440-48-4	E440A/VA	0.10	mg/kg	15.6	16.3	16.0	16.8	16.8
Copper	7440-50-8	E440A/VA	0.50	mg/kg	484	502	505	546	533
Iron	7439-89-6	E440A/VA	50	mg/kg	36800	36700	37100	38600	38700
Lead	7439-92-1	E440A/VA	0.10	mg/kg	5.79	6.02	5.95	6.28	6.34



Analytical Results

Sub-Matrix: Sediment

(Matrix: Soil/Solid)

Client sample ID

					HAC-U_SE-1_20 23-08 001+002	HAC-U_SE-2_20 23-08 003+004	HAC-U_SE-3_20 23-08 005+006	HAC-U_SE-4_20 23-08 007+008	HAC-U_SE-5_20 23-08 009+010
Client sampling date / time					09-Aug-2023 00:00	09-Aug-2023 00:00	09-Aug-2023 00:00	09-Aug-2023 00:00	08-Aug-2023 00:00
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23B8809-045	VA23B8809-046	VA23B8809-047	VA23B8809-048	VA23B8809-049
					Result	Result	Result	Result	Result
Metals									
Lithium	7439-93-2	E440A/VA	2.0	mg/kg	14.8	15.2	14.3	15.0	15.0
Magnesium	7439-95-4	E440A/VA	10	mg/kg	9890	10300	10300	10900	10600
Manganese	7439-96-5	E440A/VA	0.20	mg/kg	3560	3900	5810	4920	3330
Mercury	7439-97-6	E510A/VA	0.0050	mg/kg	0.126	0.134	0.144	0.161	0.168
Molybdenum	7439-98-7	E440A/VA	0.10	mg/kg	4.35	4.91	3.70	5.15	6.28
Nickel	7440-02-0	E440A/VA	0.50	mg/kg	25.2	26.1	25.7	27.8	27.5
Phosphorus	7723-14-0	E440A/VA	50	mg/kg	1580	1560	1820	1710	1780
Potassium	7440-09-7	E440A/VA	100	mg/kg	1450	1550	1580	1550	1600
Selenium	7782-49-2	E440A/VA	0.10	mg/kg	5.40	5.28	6.55	8.92	11.6
Silver	7440-22-4	E440A/VA	0.050	mg/kg	0.181	0.192	0.191	0.211	0.210
Sodium	7440-23-5	E440A/VA	50	mg/kg	502	522	548	561	548
Strontium	7440-24-6	E440A/VA	0.10	mg/kg	154	165	183	174	160
Thallium	7440-28-0	E440A/VA	0.050	mg/kg	0.054	0.055	0.053	0.058	0.058
Tin	7440-31-5	E440A/VA	0.20	mg/kg	0.87	0.86	0.87	0.87	0.92
Titanium	7440-32-6	E440A/VA	1.0	mg/kg	910	966	1100	1090	1120
Uranium	7440-61-1	E440A/VA	0.050	mg/kg	0.831	0.778	0.707	0.822	0.893
Vanadium	7440-62-2	E440A/VA	0.20	mg/kg	114	112	115	121	122
Zinc	7440-66-6	E440A/VA	1.0	mg/kg	76.3	80.6	79.9	85.1	85.5
Zirconium	7440-67-7	E440A/VA	1.0	mg/kg	2.0	1.8	1.4	2.1	2.1

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.



Analytical Results

Sub-Matrix: Sediment

Client sample ID

(Matrix: Soil/Solid)

					HAC-D_SE-1_20	HAC-D_SE-2_20	HAC-D_SE-3_20	HAC-D_SE-4_20	HAC-D_SE-5_20
					23-08	23-08	23-08	23-08	23-08
					011+012	013+014	015+016	017+018	019+020
Client sampling date / time					06-Aug-2023 00:00	06-Aug-2023 00:00	05-Aug-2023 00:00	05-Aug-2023 00:00	05-Aug-2023 00:00
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23B8809-050	VA23B8809-051	VA23B8809-052	VA23B8809-053	VA23B8809-054
					Result	Result	Result	Result	Result
Physical Tests									
Moisture	----	E144/VA	0.25	%	62.1	86.0	71.7	70.7	66.5
pH (1:2 soil:water)	----	E108/VA	0.10	pH units	7.59	7.48	7.65	7.44	7.55
Particle Size									
Gravel (>2mm)	----	EC184E/SK	1.0	%	<1.0	<1.0	<1.0	<1.0	<1.0
Sand (2.0mm - 0.063mm)	----	EC184E/SK	1.0	%	37.6	9.2	17.7	15.4	24.0
Silt (0.063mm - 0.004mm)	----	EC184E/SK	1.0	%	50.0	76.5	69.3	72.5	65.2
Clay (<0.004mm)	----	EC184E/SK	1.0	%	12.4	14.3	12.6	12.1	10.8
Anions and Nutrients									
Nitrogen, total	7727-37-9	E366/SK	0.020	%	0.247	0.382	0.365	0.319	0.260
Organic / Inorganic Carbon									
Carbon, total organic [TOC], <63µm	----	EC356A/SK	0.050	%	2.95	3.28	3.26	2.92	2.50
Inorganics									
Sulfur, total	7704-34-9	E399/SK	500	mg/kg	1750	1430	1390	1460	1560
Metals									
Aluminum	7429-90-5	E440A/VA	50	mg/kg	15600	17300	17100	17800	18100
Antimony	7440-36-0	E440A/VA	0.10	mg/kg	0.48	0.48	0.47	0.49	0.50
Arsenic	7440-38-2	E440A/VA	0.050	mg/kg	31.7	27.6	20.5	20.0	19.1
Barium	7440-39-3	E440A/VA	0.50	mg/kg	254	264	262	270	297
Beryllium	7440-41-7	E440A/VA	0.10	mg/kg	0.64	0.67	0.62	0.64	0.63
Bismuth	7440-69-9	E440A/VA	0.10	mg/kg	0.17	0.16	0.14	0.14	0.13
Boron	7440-42-8	E440A/VA	5.0	mg/kg	11.4	13.4	13.8	15.3	14.6
Cadmium	7440-43-9	E440A/VA	0.020	mg/kg	0.414	0.359	0.339	0.350	0.382
Calcium	7440-70-2	E440A/VA	50	mg/kg	27400	31300	28900	25400	25300
Chromium	7440-47-3	E440A/VA	0.50	mg/kg	30.4	32.7	31.4	34.2	34.6
Cobalt	7440-48-4	E440A/VA	0.10	mg/kg	14.7	15.5	14.7	15.1	15.9
Copper	7440-50-8	E440A/VA	0.50	mg/kg	285	306	343	358	410
Iron	7439-89-6	E440A/VA	50	mg/kg	40700	42200	39100	41900	45600
Lead	7439-92-1	E440A/VA	0.10	mg/kg	10.8	10.2	9.26	9.32	9.04
Lithium	7439-93-2	E440A/VA	2.0	mg/kg	12.4	14.1	13.6	14.5	14.8



Analytical Results

Sub-Matrix: Sediment

(Matrix: Soil/Solid)

Client sample ID

					HAC-D_SE-1_20 23-08 011+012	HAC-D_SE-2_20 23-08 013+014	HAC-D_SE-3_20 23-08 015+016	HAC-D_SE-4_20 23-08 017+018	HAC-D_SE-5_20 23-08 019+020
Client sampling date / time					06-Aug-2023 00:00	06-Aug-2023 00:00	05-Aug-2023 00:00	05-Aug-2023 00:00	05-Aug-2023 00:00
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23B8809-050	VA23B8809-051	VA23B8809-052	VA23B8809-053	VA23B8809-054
					Result	Result	Result	Result	Result
Metals									
Magnesium	7439-95-4	E440A/VA	10	mg/kg	8000	8730	8630	8630	8900
Manganese	7439-96-5	E440A/VA	0.20	mg/kg	1350	1840	1860	1890	2060
Mercury	7439-97-6	E510A/VA	0.0050	mg/kg	0.108	0.121	0.119	0.123	0.125
Molybdenum	7439-98-7	E440A/VA	0.10	mg/kg	1.64	1.70	1.69	1.65	1.68
Nickel	7440-02-0	E440A/VA	0.50	mg/kg	28.7	28.2	26.3	26.6	26.1
Phosphorus	7723-14-0	E440A/VA	50	mg/kg	1140	1170	1210	1230	1400
Potassium	7440-09-7	E440A/VA	100	mg/kg	1630	1740	1590	1640	1580
Selenium	7782-49-2	E440A/VA	0.10	mg/kg	1.93	1.92	2.21	2.02	2.14
Silver	7440-22-4	E440A/VA	0.050	mg/kg	0.193	0.192	0.174	0.184	0.187
Sodium	7440-23-5	E440A/VA	50	mg/kg	331	360	358	363	367
Strontium	7440-24-6	E440A/VA	0.10	mg/kg	193	211	196	185	185
Thallium	7440-28-0	E440A/VA	0.050	mg/kg	0.198	0.168	0.140	0.141	0.132
Tin	7440-31-5	E440A/VA	0.20	mg/kg	0.63	0.71	0.72	0.72	0.73
Titanium	7440-32-6	E440A/VA	1.0	mg/kg	490	666	709	856	979
Uranium	7440-61-1	E440A/VA	0.050	mg/kg	1.21	1.12	1.07	1.04	0.982
Vanadium	7440-62-2	E440A/VA	0.20	mg/kg	108	107	107	118	132
Zinc	7440-66-6	E440A/VA	1.0	mg/kg	85.3	83.5	78.6	81.9	82.8
Zirconium	7440-67-7	E440A/VA	1.0	mg/kg	2.0	1.7	1.7	1.9	2.3

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.



Analytical Results

Sub-Matrix: Sediment

Client sample ID

(Matrix: Soil/Solid)

					EDC-U_SE-1_20	EDC-U_SE-2_20	EDC-U_SE-3_20	EDC-U_SE-4_20	EDC-U_SE-5_20
					23-08	23-08	23-08	23-08	23-08
					021+022	023+024	025+026	027+028	029+030
Client sampling date / time					08-Aug-2023 00:00	07-Aug-2023 00:00	07-Aug-2023 00:00	07-Aug-2023 00:00	07-Aug-2023 00:00
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23B8809-055	VA23B8809-056	VA23B8809-057	VA23B8809-058	VA23B8809-059
					Result	Result	Result	Result	Result
Physical Tests									
Moisture	----	E144/VA	0.25	%	62.9	60.1	68.3	54.9	52.6
pH (1:2 soil:water)	----	E108/VA	0.10	pH units	6.67	6.65	6.40	6.59	6.53
Particle Size									
Gravel (>2mm)	----	EC184E/SK	1.0	%	3.4	3.7	<1.0	<1.0	<1.0
Sand (2.0mm - 0.063mm)	----	EC184E/SK	1.0	%	55.2	53.0	30.3	55.2	55.1
Silt (0.063mm - 0.004mm)	----	EC184E/SK	1.0	%	34.6	33.9	59.9	37.0	35.1
Clay (<0.004mm)	----	EC184E/SK	1.0	%	6.8	9.4	9.5	7.4	9.6
Anions and Nutrients									
Nitrogen, total	7727-37-9	E366/SK	0.020	%	0.312	0.212	0.366	0.255	0.185
Organic / Inorganic Carbon									
Carbon, total organic [TOC], <63µm	----	EC356A/SK	0.050	%	9.96	5.60	7.08	6.75	5.18
Inorganics									
Sulfur, total	7704-34-9	E399/SK	500	mg/kg	1130	790	1160	910	680
Metals									
Aluminum	7429-90-5	E440A/VA	50	mg/kg	19200	18200	17700	18400	21000
Antimony	7440-36-0	E440A/VA	0.10	mg/kg	0.34	0.34	0.29	0.31	0.31
Arsenic	7440-38-2	E440A/VA	0.050	mg/kg	10.5	10.9	12.0	9.27	10.4
Barium	7440-39-3	E440A/VA	0.50	mg/kg	162	141	150	142	161
Beryllium	7440-41-7	E440A/VA	0.10	mg/kg	0.47	0.47	0.44	0.50	0.53
Bismuth	7440-69-9	E440A/VA	0.10	mg/kg	<0.10	0.10	<0.10	<0.10	0.11
Boron	7440-42-8	E440A/VA	5.0	mg/kg	5.9	<5.0	<5.0	5.2	5.6
Cadmium	7440-43-9	E440A/VA	0.020	mg/kg	0.471	0.378	0.431	0.371	0.434
Calcium	7440-70-2	E440A/VA	50	mg/kg	9890	8450	8480	8990	8930
Chromium	7440-47-3	E440A/VA	0.50	mg/kg	58.8	55.2	54.6	58.8	62.6
Cobalt	7440-48-4	E440A/VA	0.10	mg/kg	14.4	13.5	14.5	14.0	15.6
Copper	7440-50-8	E440A/VA	0.50	mg/kg	39.6	41.4	35.7	33.7	37.3
Iron	7439-89-6	E440A/VA	50	mg/kg	30900	29200	32100	30400	33100
Lead	7439-92-1	E440A/VA	0.10	mg/kg	6.16	6.41	5.76	6.06	6.94
Lithium	7439-93-2	E440A/VA	2.0	mg/kg	14.5	15.0	14.1	14.7	16.6



Analytical Results

Sub-Matrix: Sediment

(Matrix: Soil/Solid)

Client sample ID

					EDC-U_SE-1_20 23-08 021+022	EDC-U_SE-2_20 23-08 023+024	EDC-U_SE-3_20 23-08 025+026	EDC-U_SE-4_20 23-08 027+028	EDC-U_SE-5_20 23-08 029+030
Client sampling date / time					08-Aug-2023 00:00	07-Aug-2023 00:00	07-Aug-2023 00:00	07-Aug-2023 00:00	07-Aug-2023 00:00
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23B8809-055	VA23B8809-056	VA23B8809-057	VA23B8809-058	VA23B8809-059
					Result	Result	Result	Result	Result
Metals									
Magnesium	7439-95-4	E440A/VA	10	mg/kg	7720	7660	7190	7440	8270
Manganese	7439-96-5	E440A/VA	0.20	mg/kg	1390	933	1080	859	765
Mercury	7439-97-6	E510A/VA	0.0050	mg/kg	0.106	0.0875	0.0897	0.0823	0.0913
Molybdenum	7439-98-7	E440A/VA	0.10	mg/kg	0.84	0.62	0.63	0.62	0.66
Nickel	7440-02-0	E440A/VA	0.50	mg/kg	33.4	32.9	31.3	30.7	34.7
Phosphorus	7723-14-0	E440A/VA	50	mg/kg	1070	1160	1260	1160	1130
Potassium	7440-09-7	E440A/VA	100	mg/kg	1200	1190	1210	1140	1360
Selenium	7782-49-2	E440A/VA	0.10	mg/kg	0.58	0.46	0.44	0.42	0.48
Silver	7440-22-4	E440A/VA	0.050	mg/kg	0.142	0.137	0.137	0.134	0.152
Sodium	7440-23-5	E440A/VA	50	mg/kg	284	254	272	275	280
Strontium	7440-24-6	E440A/VA	0.10	mg/kg	77.6	66.8	67.6	71.6	75.4
Thallium	7440-28-0	E440A/VA	0.050	mg/kg	0.125	0.116	0.102	0.111	0.135
Tin	7440-31-5	E440A/VA	0.20	mg/kg	0.51	0.41	0.41	0.50	0.48
Titanium	7440-32-6	E440A/VA	1.0	mg/kg	684	638	687	686	698
Uranium	7440-61-1	E440A/VA	0.050	mg/kg	1.39	1.32	1.17	1.33	1.57
Vanadium	7440-62-2	E440A/VA	0.20	mg/kg	81.4	75.1	73.9	80.1	85.9
Zinc	7440-66-6	E440A/VA	1.0	mg/kg	74.7	72.9	75.2	73.5	79.5
Zirconium	7440-67-7	E440A/VA	1.0	mg/kg	1.0	1.5	1.0	1.2	1.1

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.



Analytical Results

Sub-Matrix: Sediment

Client sample ID

(Matrix: Soil/Solid)

					EDC-D_SE-1_20 23-08 031+032	EDC-D_SE-2_20 23-08 033+034	EDC-D_SE-3_20 23-08 035+036	EDC-D_SE-4_20 23-08 037+038	EDC-D_SE-5_20 23-08 039+040
Client sampling date / time					11-Aug-2023 00:00	12-Aug-2023 00:00	12-Aug-2023 00:00	12-Aug-2023 00:00	12-Aug-2023 00:00
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23B8809-060	VA23B8809-061	VA23B8809-062	VA23B8809-063	VA23B8809-064
					Result	Result	Result	Result	Result
Physical Tests									
Moisture	----	E144/VA	0.25	%	50.7	54.4	51.5	50.1	48.6
pH (1:2 soil:water)	----	E108/VA	0.10	pH units	7.45	7.37	7.98	7.14	7.65
Particle Size									
Gravel (>2mm)	----	EC184E/SK	1.0	%	5.4	<1.0	4.8	<1.0	<1.0
Sand (2.0mm - 0.063mm)	----	EC184E/SK	1.0	%	50.0	33.9	34.5	50.4	53.8
Silt (0.063mm - 0.004mm)	----	EC184E/SK	1.0	%	36.8	56.8	52.7	42.1	38.7
Clay (<0.004mm)	----	EC184E/SK	1.0	%	7.8	9.1	8.0	7.2	7.4
Anions and Nutrients									
Nitrogen, total	7727-37-9	E366/SK	0.020	%	0.191	0.204	0.170	0.146	0.117
Organic / Inorganic Carbon									
Carbon, total organic [TOC], <63µm	----	EC356A/SK	0.050	%	3.66	3.75	2.30	2.49	2.53
Inorganics									
Sulfur, total	7704-34-9	E399/SK	500	mg/kg	760	780	700	1850	1280
Metals									
Aluminum	7429-90-5	E440A/VA	50	mg/kg	17300	16100	15700	15000	14400
Antimony	7440-36-0	E440A/VA	0.10	mg/kg	0.36	0.35	0.30	0.34	0.34
Arsenic	7440-38-2	E440A/VA	0.050	mg/kg	12.7	12.0	7.33	11.6	15.2
Barium	7440-39-3	E440A/VA	0.50	mg/kg	142	138	109	128	123
Beryllium	7440-41-7	E440A/VA	0.10	mg/kg	0.43	0.39	0.38	0.37	0.35
Bismuth	7440-69-9	E440A/VA	0.10	mg/kg	0.12	0.10	<0.10	0.10	0.10
Boron	7440-42-8	E440A/VA	5.0	mg/kg	6.2	6.3	5.1	<5.0	<5.0
Cadmium	7440-43-9	E440A/VA	0.020	mg/kg	0.295	0.274	0.193	0.275	0.276
Calcium	7440-70-2	E440A/VA	50	mg/kg	9560	9260	8510	8660	8530
Chromium	7440-47-3	E440A/VA	0.50	mg/kg	49.6	46.3	44.9	45.0	46.2
Cobalt	7440-48-4	E440A/VA	0.10	mg/kg	13.8	13.0	10.8	12.9	13.1
Copper	7440-50-8	E440A/VA	0.50	mg/kg	33.3	30.3	26.6	32.0	28.7
Iron	7439-89-6	E440A/VA	50	mg/kg	33000	30900	25300	30100	32600
Lead	7439-92-1	E440A/VA	0.10	mg/kg	7.20	6.82	6.55	6.76	6.73
Lithium	7439-93-2	E440A/VA	2.0	mg/kg	16.8	16.3	15.5	16.1	15.2



Analytical Results

Sub-Matrix: Sediment

(Matrix: Soil/Solid)

Client sample ID

					EDC-D_SE-1_20 23-08 031+032	EDC-D_SE-2_20 23-08 033+034	EDC-D_SE-3_20 23-08 035+036	EDC-D_SE-4_20 23-08 037+038	EDC-D_SE-5_20 23-08 039+040
Client sampling date / time					11-Aug-2023 00:00	12-Aug-2023 00:00	12-Aug-2023 00:00	12-Aug-2023 00:00	12-Aug-2023 00:00
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23B8809-060	VA23B8809-061	VA23B8809-062	VA23B8809-063	VA23B8809-064
					Result	Result	Result	Result	Result
Metals									
Magnesium	7439-95-4	E440A/VA	10	mg/kg	8210	7740	7260	7300	7400
Manganese	7439-96-5	E440A/VA	0.20	mg/kg	836	862	443	852	846
Mercury	7439-97-6	E510A/VA	0.0050	mg/kg	0.0609	0.0536	0.0507	0.0588	0.0549
Molybdenum	7439-98-7	E440A/VA	0.10	mg/kg	0.66	0.62	0.38	0.78	0.53
Nickel	7440-02-0	E440A/VA	0.50	mg/kg	33.2	31.5	27.7	30.9	30.4
Phosphorus	7723-14-0	E440A/VA	50	mg/kg	1050	1090	1020	1000	1080
Potassium	7440-09-7	E440A/VA	100	mg/kg	1440	1360	1170	1130	1040
Selenium	7782-49-2	E440A/VA	0.10	mg/kg	0.50	0.57	0.37	0.74	0.44
Silver	7440-22-4	E440A/VA	0.050	mg/kg	0.109	0.096	0.089	0.100	0.096
Sodium	7440-23-5	E440A/VA	50	mg/kg	311	315	316	264	248
Strontium	7440-24-6	E440A/VA	0.10	mg/kg	84.2	80.5	79.6	68.5	70.1
Thallium	7440-28-0	E440A/VA	0.050	mg/kg	0.103	0.094	0.091	0.087	0.083
Tin	7440-31-5	E440A/VA	0.20	mg/kg	0.59	0.42	0.44	0.40	0.35
Titanium	7440-32-6	E440A/VA	1.0	mg/kg	824	863	920	737	757
Uranium	7440-61-1	E440A/VA	0.050	mg/kg	0.969	0.970	0.871	1.08	0.801
Vanadium	7440-62-2	E440A/VA	0.20	mg/kg	73.4	68.8	61.7	66.7	68.9
Zinc	7440-66-6	E440A/VA	1.0	mg/kg	71.6	68.2	65.5	66.8	64.9
Zirconium	7440-67-7	E440A/VA	1.0	mg/kg	1.6	1.5	2.1	1.6	1.6

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.



Analytical Results

Sub-Matrix: Sediment

Client sample ID

(Matrix: Soil/Solid)

					HAC-U_SE-1X_ 2023-08 041+042	HAC-D_SE-2X_ 2023-08 043+044	----	----	----
Client sampling date / time					09-Aug-2023 00:00	06-Aug-2023 00:00	----	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23B8809-065	VA23B8809-066	-----	-----	-----
					Result	Result	----	----	----
Physical Tests									
Moisture	----	E144/VA	0.25	%	85.5	73.4	----	----	----
pH (1:2 soil:water)	----	E108/VA	0.10	pH units	7.30	7.29	----	----	----
Particle Size									
Gravel (>2mm)	----	EC184E/SK	1.0	%	<1.0	<1.0	----	----	----
Sand (2.0mm - 0.063mm)	----	EC184E/SK	1.0	%	16.8	19.4	----	----	----
Silt (0.063mm - 0.004mm)	----	EC184E/SK	1.0	%	65.6	66.7	----	----	----
Clay (<0.004mm)	----	EC184E/SK	1.0	%	17.6	13.9	----	----	----
Anions and Nutrients									
Nitrogen, total	7727-37-9	E366/SK	0.020	%	0.743	0.378	----	----	----
Organic / Inorganic Carbon									
Carbon, total organic [TOC], <63µm	----	EC356A/SK	0.050	%	6.00	3.10	----	----	----
Inorganics									
Sulfur, total	7704-34-9	E399/SK	500	mg/kg	2960	1500	----	----	----
Metals									
Aluminum	7429-90-5	E440A/VA	50	mg/kg	18500	15900	----	----	----
Antimony	7440-36-0	E440A/VA	0.10	mg/kg	0.57	0.48	----	----	----
Arsenic	7440-38-2	E440A/VA	0.050	mg/kg	9.64	27.0	----	----	----
Barium	7440-39-3	E440A/VA	0.50	mg/kg	364	254	----	----	----
Beryllium	7440-41-7	E440A/VA	0.10	mg/kg	0.58	0.63	----	----	----
Bismuth	7440-69-9	E440A/VA	0.10	mg/kg	<0.10	0.16	----	----	----
Boron	7440-42-8	E440A/VA	5.0	mg/kg	24.0	13.1	----	----	----
Cadmium	7440-43-9	E440A/VA	0.020	mg/kg	0.471	0.358	----	----	----
Calcium	7440-70-2	E440A/VA	50	mg/kg	28500	30200	----	----	----
Chromium	7440-47-3	E440A/VA	0.50	mg/kg	30.0	31.0	----	----	----
Cobalt	7440-48-4	E440A/VA	0.10	mg/kg	16.4	14.8	----	----	----
Copper	7440-50-8	E440A/VA	0.50	mg/kg	500	297	----	----	----
Iron	7439-89-6	E440A/VA	50	mg/kg	39700	39100	----	----	----
Lead	7439-92-1	E440A/VA	0.10	mg/kg	6.16	10.2	----	----	----
Lithium	7439-93-2	E440A/VA	2.0	mg/kg	14.2	13.8	----	----	----



Analytical Results

Sub-Matrix: Sediment
 (Matrix: Soil/Solid)

Client sample ID

					HAC-U_SE-1X_ 2023-08 041+042	HAC-D_SE-2X_ 2023-08 043+044	----	----	----
Client sampling date / time					09-Aug-2023 00:00	06-Aug-2023 00:00	----	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23B8809-065	VA23B8809-066	-----	-----	-----
					Result	Result	----	----	----
Metals									
Magnesium	7439-95-4	E440A/VA	10	mg/kg	10100	8280	----	----	----
Manganese	7439-96-5	E440A/VA	0.20	mg/kg	3760	1830	----	----	----
Mercury	7439-97-6	E510A/VA	0.0050	mg/kg	0.149	0.111	----	----	----
Molybdenum	7439-98-7	E440A/VA	0.10	mg/kg	5.07	1.59	----	----	----
Nickel	7440-02-0	E440A/VA	0.50	mg/kg	27.2	28.2	----	----	----
Phosphorus	7723-14-0	E440A/VA	50	mg/kg	1780	1150	----	----	----
Potassium	7440-09-7	E440A/VA	100	mg/kg	1480	1600	----	----	----
Selenium	7782-49-2	E440A/VA	0.10	mg/kg	6.64	1.90	----	----	----
Silver	7440-22-4	E440A/VA	0.050	mg/kg	0.203	0.185	----	----	----
Sodium	7440-23-5	E440A/VA	50	mg/kg	575	345	----	----	----
Strontium	7440-24-6	E440A/VA	0.10	mg/kg	158	194	----	----	----
Thallium	7440-28-0	E440A/VA	0.050	mg/kg	0.052	0.170	----	----	----
Tin	7440-31-5	E440A/VA	0.20	mg/kg	1.31	0.74	----	----	----
Titanium	7440-32-6	E440A/VA	1.0	mg/kg	1210	608	----	----	----
Uranium	7440-61-1	E440A/VA	0.050	mg/kg	0.866	1.08	----	----	----
Vanadium	7440-62-2	E440A/VA	0.20	mg/kg	130	98.4	----	----	----
Zinc	7440-66-6	E440A/VA	1.0	mg/kg	89.7	81.4	----	----	----
Zirconium	7440-67-7	E440A/VA	1.0	mg/kg	1.7	1.5	----	----	----

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.

QUALITY CONTROL INTERPRETIVE REPORT

<p>Work Order : VA23B8809</p> <p>Client : Mount Polley Mining Corporation</p> <p>Contact : Mr. Gabriel Holmes</p> <p>Address : PO Box 12 Likely BC Canada V0L 1N0</p> <p>Telephone : 250-790-2215 ext 2171</p> <p>Project : ----</p> <p>PO : 5590012190</p> <p>C-O-C number : ----</p> <p>Sampler : KBa</p> <p>Site : ----</p> <p>Quote number : VA22-MPMC100-005 - Minnow Environmental-Sediment Quality</p> <p>No. of samples received : 66</p> <p>No. of samples analysed : 22</p>	<p>Page : 1 of 20</p> <p>Laboratory : ALS Environmental - Vancouver</p> <p>Account Manager : Can Dang</p> <p>Address : 8081 Lougheed Highway Burnaby, British Columbia Canada V5A 1W9</p> <p>Telephone : +1 604 253 4188</p> <p>Date Samples Received : 15-Aug-2023 09:40</p> <p>Issue Date : 11-Sep-2023 16:48</p>
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This report is automatically generated by the ALS LIMS (Laboratory Information Management System) through evaluation of Quality Control (QC) results and other QA parameters associated with this submission, and is intended to facilitate rapid data validation by auditors or reviewers. The report highlights any exceptions and outliers to ALS Data Quality Objectives, provides holding time details and exceptions, summarizes QC sample frequencies, and lists applicable methodology references and summaries.

Key

- Anonymous: Refers to samples which are not part of this work order, but which formed part of the QC process lot.
- CAS Number: Chemical Abstracts Service number is a unique identifier assigned to discrete substances.
- DQO: Data Quality Objective.
- LOR: Limit of Reporting (detection limit).
- RPD: Relative Percent Difference.

Workorder Comments

Holding times are displayed as "----" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

Summary of Outliers

Outliers : Quality Control Samples

- No Method Blank value outliers occur.
- No Duplicate outliers occur.
- No Laboratory Control Sample (LCS) outliers occur
- No Test sample Surrogate recovery outliers exist.

Outliers: Reference Material (RM) Samples

- No Reference Material (RM) Sample outliers occur.

Outliers : Analysis Holding Time Compliance (Breaches)

- No Analysis Holding Time Outliers exist.

Outliers : Frequency of Quality Control Samples

- No Quality Control Sample Frequency Outliers occur.



Analysis Holding Time Compliance

This report summarizes extraction / preparation and analysis times and compares each with ALS recommended holding times, which are selected to meet known provincial and /or federal requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by organizations such as CCME, US EPA, APHA Standard Methods, ASTM, or Environment Canada (where available). Dates and holding times reported below represent the first dates of extraction or analysis. If subsequent tests or dilutions exceeded holding times, qualifiers are added (refer to COA).

If samples are identified below as having been analyzed or extracted outside of recommended holding times, measurement uncertainties may be increased, and this should be taken into consideration when interpreting results.

Where actual sampling date is not provided on the chain of custody, the date of receipt with time at 00:00 is used for calculation purposes.

Where only the sample date without time is provided on the chain of custody, the sampling date at 00:00 is used for calculation purposes.

Matrix: **Soil/Solid**

Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Anions and Nutrients : Total Nitrogen by Combustion										
Glass soil jar/Teflon lined cap EDC-D_SE-4_2023-08 - 037+038	E366	12-Aug-2023	25-Aug-2023	28 days	13 days	✔	25-Aug-2023	28 days	13 days	✔
Anions and Nutrients : Total Nitrogen by Combustion										
Glass soil jar/Teflon lined cap EDC-D_SE-5_2023-08 - 039+040	E366	12-Aug-2023	25-Aug-2023	28 days	13 days	✔	25-Aug-2023	28 days	13 days	✔
Anions and Nutrients : Total Nitrogen by Combustion										
Glass soil jar/Teflon lined cap EDC-D_SE-2_2023-08 - 033+034	E366	12-Aug-2023	26-Aug-2023	28 days	14 days	✔	26-Aug-2023	28 days	14 days	✔
Anions and Nutrients : Total Nitrogen by Combustion										
Glass soil jar/Teflon lined cap EDC-D_SE-3_2023-08 - 035+036	E366	12-Aug-2023	26-Aug-2023	28 days	14 days	✔	26-Aug-2023	28 days	14 days	✔
Anions and Nutrients : Total Nitrogen by Combustion										
Glass soil jar/Teflon lined cap EDC-D_SE-1_2023-08 - 031+032	E366	11-Aug-2023	26-Aug-2023	28 days	15 days	✔	26-Aug-2023	28 days	15 days	✔
Anions and Nutrients : Total Nitrogen by Combustion										
Glass soil jar/Teflon lined cap HAC-U_SE-1_2023-08 - 001+002	E366	09-Aug-2023	26-Aug-2023	28 days	17 days	✔	26-Aug-2023	28 days	17 days	✔
Anions and Nutrients : Total Nitrogen by Combustion										
Glass soil jar/Teflon lined cap HAC-U_SE-1X_2023-08 - 041+042	E366	09-Aug-2023	26-Aug-2023	28 days	17 days	✔	26-Aug-2023	28 days	17 days	✔



Matrix: Soil/Solid

Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Anions and Nutrients : Total Nitrogen by Combustion										
Glass soil jar/Teflon lined cap HAC-U_SE-2_2023-08 - 003+004	E366	09-Aug-2023	26-Aug-2023	28 days	17 days	✔	26-Aug-2023	28 days	17 days	✔
Anions and Nutrients : Total Nitrogen by Combustion										
Glass soil jar/Teflon lined cap HAC-U_SE-3_2023-08 - 005+006	E366	09-Aug-2023	26-Aug-2023	28 days	17 days	✔	26-Aug-2023	28 days	17 days	✔
Anions and Nutrients : Total Nitrogen by Combustion										
Glass soil jar/Teflon lined cap HAC-U_SE-4_2023-08 - 007+008	E366	09-Aug-2023	26-Aug-2023	28 days	17 days	✔	26-Aug-2023	28 days	17 days	✔
Anions and Nutrients : Total Nitrogen by Combustion										
Glass soil jar/Teflon lined cap EDC-U_SE-1_2023-08 - 021+022	E366	08-Aug-2023	26-Aug-2023	28 days	18 days	✔	26-Aug-2023	28 days	18 days	✔
Anions and Nutrients : Total Nitrogen by Combustion										
Glass soil jar/Teflon lined cap HAC-U_SE-5_2023-08 - 009+010	E366	08-Aug-2023	26-Aug-2023	28 days	18 days	✔	26-Aug-2023	28 days	18 days	✔
Anions and Nutrients : Total Nitrogen by Combustion										
Glass soil jar/Teflon lined cap EDC-U_SE-2_2023-08 - 023+024	E366	07-Aug-2023	26-Aug-2023	28 days	19 days	✔	26-Aug-2023	28 days	19 days	✔
Anions and Nutrients : Total Nitrogen by Combustion										
Glass soil jar/Teflon lined cap EDC-U_SE-3_2023-08 - 025+026	E366	07-Aug-2023	26-Aug-2023	28 days	19 days	✔	26-Aug-2023	28 days	19 days	✔
Anions and Nutrients : Total Nitrogen by Combustion										
Glass soil jar/Teflon lined cap EDC-U_SE-4_2023-08 - 027+028	E366	07-Aug-2023	26-Aug-2023	28 days	19 days	✔	26-Aug-2023	28 days	19 days	✔
Anions and Nutrients : Total Nitrogen by Combustion										
Glass soil jar/Teflon lined cap EDC-U_SE-5_2023-08 - 029+030	E366	07-Aug-2023	26-Aug-2023	28 days	19 days	✔	26-Aug-2023	28 days	19 days	✔



Matrix: Soil/Solid

Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Anions and Nutrients : Total Nitrogen by Combustion											
Glass soil jar/Teflon lined cap HAC-D_SE-1_2023-08 - 011+012	E366	06-Aug-2023	26-Aug-2023	28 days	20 days	✔	26-Aug-2023	28 days	20 days	✔	
Anions and Nutrients : Total Nitrogen by Combustion											
Glass soil jar/Teflon lined cap HAC-D_SE-2_2023-08 - 013+014	E366	06-Aug-2023	26-Aug-2023	28 days	20 days	✔	26-Aug-2023	28 days	20 days	✔	
Anions and Nutrients : Total Nitrogen by Combustion											
Glass soil jar/Teflon lined cap HAC-D_SE-2X_2023-08 - 043+044	E366	06-Aug-2023	26-Aug-2023	28 days	20 days	✔	26-Aug-2023	28 days	20 days	✔	
Anions and Nutrients : Total Nitrogen by Combustion											
Glass soil jar/Teflon lined cap HAC-D_SE-3_2023-08 - 015+016	E366	05-Aug-2023	26-Aug-2023	28 days	21 days	✔	26-Aug-2023	28 days	21 days	✔	
Anions and Nutrients : Total Nitrogen by Combustion											
Glass soil jar/Teflon lined cap HAC-D_SE-4_2023-08 - 017+018	E366	05-Aug-2023	26-Aug-2023	28 days	21 days	✔	26-Aug-2023	28 days	21 days	✔	
Anions and Nutrients : Total Nitrogen by Combustion											
Glass soil jar/Teflon lined cap HAC-D_SE-5_2023-08 - 019+020	E366	05-Aug-2023	26-Aug-2023	28 days	21 days	✔	26-Aug-2023	28 days	21 days	✔	
Inorganics : Total Sulfur by high temperature combustion											
Glass soil jar/Teflon lined cap EDC-D_SE-4_2023-08 - 037+038	E399	12-Aug-2023	25-Aug-2023	365 days	13 days	✔	25-Aug-2023	365 days	13 days	✔	
Inorganics : Total Sulfur by high temperature combustion											
Glass soil jar/Teflon lined cap EDC-D_SE-5_2023-08 - 039+040	E399	12-Aug-2023	25-Aug-2023	365 days	13 days	✔	25-Aug-2023	365 days	13 days	✔	
Inorganics : Total Sulfur by high temperature combustion											
Glass soil jar/Teflon lined cap EDC-D_SE-2_2023-08 - 033+034	E399	12-Aug-2023	26-Aug-2023	365 days	14 days	✔	26-Aug-2023	365 days	14 days	✔	



Matrix: Soil/Solid

Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Inorganics : Total Sulfur by high temperature combustion											
Glass soil jar/Teflon lined cap EDC-D_SE-3_2023-08 - 035+036	E399	12-Aug-2023	26-Aug-2023	365 days	14 days	✔	26-Aug-2023	365 days	14 days	✔	
Inorganics : Total Sulfur by high temperature combustion											
Glass soil jar/Teflon lined cap EDC-D_SE-1_2023-08 - 031+032	E399	11-Aug-2023	26-Aug-2023	365 days	15 days	✔	26-Aug-2023	365 days	15 days	✔	
Inorganics : Total Sulfur by high temperature combustion											
Glass soil jar/Teflon lined cap HAC-U_SE-1_2023-08 - 001+002	E399	09-Aug-2023	26-Aug-2023	365 days	17 days	✔	26-Aug-2023	365 days	17 days	✔	
Inorganics : Total Sulfur by high temperature combustion											
Glass soil jar/Teflon lined cap HAC-U_SE-1X_2023-08 - 041+042	E399	09-Aug-2023	26-Aug-2023	365 days	17 days	✔	26-Aug-2023	365 days	17 days	✔	
Inorganics : Total Sulfur by high temperature combustion											
Glass soil jar/Teflon lined cap HAC-U_SE-2_2023-08 - 003+004	E399	09-Aug-2023	26-Aug-2023	365 days	17 days	✔	26-Aug-2023	365 days	17 days	✔	
Inorganics : Total Sulfur by high temperature combustion											
Glass soil jar/Teflon lined cap HAC-U_SE-3_2023-08 - 005+006	E399	09-Aug-2023	26-Aug-2023	365 days	17 days	✔	26-Aug-2023	365 days	17 days	✔	
Inorganics : Total Sulfur by high temperature combustion											
Glass soil jar/Teflon lined cap HAC-U_SE-4_2023-08 - 007+008	E399	09-Aug-2023	26-Aug-2023	365 days	17 days	✔	26-Aug-2023	365 days	17 days	✔	
Inorganics : Total Sulfur by high temperature combustion											
Glass soil jar/Teflon lined cap EDC-U_SE-1_2023-08 - 021+022	E399	08-Aug-2023	26-Aug-2023	365 days	18 days	✔	26-Aug-2023	365 days	18 days	✔	
Inorganics : Total Sulfur by high temperature combustion											
Glass soil jar/Teflon lined cap HAC-U_SE-5_2023-08 - 009+010	E399	08-Aug-2023	26-Aug-2023	365 days	18 days	✔	26-Aug-2023	365 days	18 days	✔	



Matrix: Soil/Solid

Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Inorganics : Total Sulfur by high temperature combustion											
Glass soil jar/Teflon lined cap EDC-U_SE-2_2023-08 - 023+024	E399	07-Aug-2023	26-Aug-2023	365 days	19 days	✔	26-Aug-2023	365 days	19 days	✔	
Inorganics : Total Sulfur by high temperature combustion											
Glass soil jar/Teflon lined cap EDC-U_SE-3_2023-08 - 025+026	E399	07-Aug-2023	26-Aug-2023	365 days	19 days	✔	26-Aug-2023	365 days	19 days	✔	
Inorganics : Total Sulfur by high temperature combustion											
Glass soil jar/Teflon lined cap EDC-U_SE-4_2023-08 - 027+028	E399	07-Aug-2023	26-Aug-2023	365 days	19 days	✔	26-Aug-2023	365 days	19 days	✔	
Inorganics : Total Sulfur by high temperature combustion											
Glass soil jar/Teflon lined cap EDC-U_SE-5_2023-08 - 029+030	E399	07-Aug-2023	26-Aug-2023	365 days	19 days	✔	26-Aug-2023	365 days	19 days	✔	
Inorganics : Total Sulfur by high temperature combustion											
Glass soil jar/Teflon lined cap HAC-D_SE-1_2023-08 - 011+012	E399	06-Aug-2023	26-Aug-2023	365 days	20 days	✔	26-Aug-2023	365 days	20 days	✔	
Inorganics : Total Sulfur by high temperature combustion											
Glass soil jar/Teflon lined cap HAC-D_SE-2_2023-08 - 013+014	E399	06-Aug-2023	26-Aug-2023	365 days	20 days	✔	26-Aug-2023	365 days	20 days	✔	
Inorganics : Total Sulfur by high temperature combustion											
Glass soil jar/Teflon lined cap HAC-D_SE-2X_2023-08 - 043+044	E399	06-Aug-2023	26-Aug-2023	365 days	20 days	✔	26-Aug-2023	365 days	20 days	✔	
Inorganics : Total Sulfur by high temperature combustion											
Glass soil jar/Teflon lined cap HAC-D_SE-3_2023-08 - 015+016	E399	05-Aug-2023	26-Aug-2023	365 days	21 days	✔	26-Aug-2023	365 days	21 days	✔	
Inorganics : Total Sulfur by high temperature combustion											
Glass soil jar/Teflon lined cap HAC-D_SE-4_2023-08 - 017+018	E399	05-Aug-2023	26-Aug-2023	365 days	21 days	✔	26-Aug-2023	365 days	21 days	✔	



Matrix: Soil/Solid

Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Inorganics : Total Sulfur by high temperature combustion											
Glass soil jar/Teflon lined cap HAC-D_SE-5_2023-08 - 019+020	E399	05-Aug-2023	26-Aug-2023	365 days	21 days	✔	26-Aug-2023	365 days	21 days	✔	
Metals : Mercury in Sediment by CVAAS (<63 µm)											
Glass soil jar/Teflon lined cap EDC-D_SE-2_2023-08 - 033+034	E510A	12-Aug-2023	23-Aug-2023	28 days	12 days	✔	23-Aug-2023	28 days	12 days	✔	
Metals : Mercury in Sediment by CVAAS (<63 µm)											
Glass soil jar/Teflon lined cap EDC-D_SE-3_2023-08 - 035+036	E510A	12-Aug-2023	23-Aug-2023	28 days	12 days	✔	23-Aug-2023	28 days	12 days	✔	
Metals : Mercury in Sediment by CVAAS (<63 µm)											
Glass soil jar/Teflon lined cap EDC-D_SE-4_2023-08 - 037+038	E510A	12-Aug-2023	23-Aug-2023	28 days	12 days	✔	23-Aug-2023	28 days	12 days	✔	
Metals : Mercury in Sediment by CVAAS (<63 µm)											
Glass soil jar/Teflon lined cap EDC-D_SE-5_2023-08 - 039+040	E510A	12-Aug-2023	23-Aug-2023	28 days	12 days	✔	23-Aug-2023	28 days	12 days	✔	
Metals : Mercury in Sediment by CVAAS (<63 µm)											
Glass soil jar/Teflon lined cap EDC-D_SE-1_2023-08 - 031+032	E510A	11-Aug-2023	23-Aug-2023	28 days	13 days	✔	23-Aug-2023	28 days	13 days	✔	
Metals : Mercury in Sediment by CVAAS (<63 µm)											
Glass soil jar/Teflon lined cap HAC-U_SE-1_2023-08 - 001+002	E510A	09-Aug-2023	23-Aug-2023	28 days	15 days	✔	23-Aug-2023	28 days	15 days	✔	
Metals : Mercury in Sediment by CVAAS (<63 µm)											
Glass soil jar/Teflon lined cap HAC-U_SE-1X_2023-08 - 041+042	E510A	09-Aug-2023	23-Aug-2023	28 days	15 days	✔	23-Aug-2023	28 days	15 days	✔	
Metals : Mercury in Sediment by CVAAS (<63 µm)											
Glass soil jar/Teflon lined cap HAC-U_SE-2_2023-08 - 003+004	E510A	09-Aug-2023	23-Aug-2023	28 days	15 days	✔	23-Aug-2023	28 days	15 days	✔	



Matrix: Soil/Solid

Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Metals : Mercury in Sediment by CVAAS (<63 µm)										
Glass soil jar/Teflon lined cap HAC-U_SE-3_2023-08 - 005+006	E510A	09-Aug-2023	23-Aug-2023	28 days	15 days	✔	23-Aug-2023	28 days	15 days	✔
Metals : Mercury in Sediment by CVAAS (<63 µm)										
Glass soil jar/Teflon lined cap HAC-U_SE-4_2023-08 - 007+008	E510A	09-Aug-2023	23-Aug-2023	28 days	15 days	✔	23-Aug-2023	28 days	15 days	✔
Metals : Mercury in Sediment by CVAAS (<63 µm)										
Glass soil jar/Teflon lined cap EDC-U_SE-1_2023-08 - 021+022	E510A	08-Aug-2023	23-Aug-2023	28 days	16 days	✔	23-Aug-2023	28 days	16 days	✔
Metals : Mercury in Sediment by CVAAS (<63 µm)										
Glass soil jar/Teflon lined cap HAC-U_SE-5_2023-08 - 009+010	E510A	08-Aug-2023	23-Aug-2023	28 days	16 days	✔	23-Aug-2023	28 days	16 days	✔
Metals : Mercury in Sediment by CVAAS (<63 µm)										
Glass soil jar/Teflon lined cap EDC-U_SE-2_2023-08 - 023+024	E510A	07-Aug-2023	23-Aug-2023	28 days	17 days	✔	23-Aug-2023	28 days	17 days	✔
Metals : Mercury in Sediment by CVAAS (<63 µm)										
Glass soil jar/Teflon lined cap EDC-U_SE-3_2023-08 - 025+026	E510A	07-Aug-2023	23-Aug-2023	28 days	17 days	✔	23-Aug-2023	28 days	17 days	✔
Metals : Mercury in Sediment by CVAAS (<63 µm)										
Glass soil jar/Teflon lined cap EDC-U_SE-4_2023-08 - 027+028	E510A	07-Aug-2023	23-Aug-2023	28 days	17 days	✔	23-Aug-2023	28 days	17 days	✔
Metals : Mercury in Sediment by CVAAS (<63 µm)										
Glass soil jar/Teflon lined cap EDC-U_SE-5_2023-08 - 029+030	E510A	07-Aug-2023	23-Aug-2023	28 days	17 days	✔	23-Aug-2023	28 days	17 days	✔
Metals : Mercury in Sediment by CVAAS (<63 µm)										
Glass soil jar/Teflon lined cap HAC-D_SE-1_2023-08 - 011+012	E510A	06-Aug-2023	23-Aug-2023	28 days	18 days	✔	23-Aug-2023	28 days	18 days	✔



Matrix: Soil/Solid

Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Metals : Mercury in Sediment by CVAAS (<63 µm)										
Glass soil jar/Teflon lined cap HAC-D_SE-2_2023-08 - 013+014	E510A	06-Aug-2023	23-Aug-2023	28 days	18 days	✔	23-Aug-2023	28 days	18 days	✔
Metals : Mercury in Sediment by CVAAS (<63 µm)										
Glass soil jar/Teflon lined cap HAC-D_SE-2X_2023-08 - 043+044	E510A	06-Aug-2023	23-Aug-2023	28 days	18 days	✔	23-Aug-2023	28 days	18 days	✔
Metals : Mercury in Sediment by CVAAS (<63 µm)										
Glass soil jar/Teflon lined cap HAC-D_SE-3_2023-08 - 015+016	E510A	05-Aug-2023	23-Aug-2023	28 days	19 days	✔	23-Aug-2023	28 days	19 days	✔
Metals : Mercury in Sediment by CVAAS (<63 µm)										
Glass soil jar/Teflon lined cap HAC-D_SE-4_2023-08 - 017+018	E510A	05-Aug-2023	23-Aug-2023	28 days	19 days	✔	23-Aug-2023	28 days	19 days	✔
Metals : Mercury in Sediment by CVAAS (<63 µm)										
Glass soil jar/Teflon lined cap HAC-D_SE-5_2023-08 - 019+020	E510A	05-Aug-2023	23-Aug-2023	28 days	19 days	✔	23-Aug-2023	28 days	19 days	✔
Metals : Metals in Sediment by CRC ICPMS (<63 µm)										
Glass soil jar/Teflon lined cap EDC-D_SE-2_2023-08 - 033+034	E440A	12-Aug-2023	23-Aug-2023	180 days	12 days	✔	24-Aug-2023	180 days	12 days	✔
Metals : Metals in Sediment by CRC ICPMS (<63 µm)										
Glass soil jar/Teflon lined cap EDC-D_SE-3_2023-08 - 035+036	E440A	12-Aug-2023	23-Aug-2023	180 days	12 days	✔	24-Aug-2023	180 days	12 days	✔
Metals : Metals in Sediment by CRC ICPMS (<63 µm)										
Glass soil jar/Teflon lined cap EDC-D_SE-4_2023-08 - 037+038	E440A	12-Aug-2023	23-Aug-2023	180 days	12 days	✔	24-Aug-2023	180 days	12 days	✔
Metals : Metals in Sediment by CRC ICPMS (<63 µm)										
Glass soil jar/Teflon lined cap EDC-D_SE-5_2023-08 - 039+040	E440A	12-Aug-2023	23-Aug-2023	180 days	12 days	✔	24-Aug-2023	180 days	12 days	✔



Matrix: Soil/Solid

Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Metals : Metals in Sediment by CRC ICPMS (<63 µm)											
Glass soil jar/Teflon lined cap EDC-D_SE-1_2023-08 - 031+032	E440A	11-Aug-2023	23-Aug-2023	180 days	13 days	✔	24-Aug-2023	180 days	13 days	✔	
Metals : Metals in Sediment by CRC ICPMS (<63 µm)											
Glass soil jar/Teflon lined cap HAC-U_SE-1_2023-08 - 001+002	E440A	09-Aug-2023	23-Aug-2023	180 days	15 days	✔	24-Aug-2023	180 days	15 days	✔	
Metals : Metals in Sediment by CRC ICPMS (<63 µm)											
Glass soil jar/Teflon lined cap HAC-U_SE-1X_2023-08 - 041+042	E440A	09-Aug-2023	23-Aug-2023	180 days	15 days	✔	24-Aug-2023	180 days	15 days	✔	
Metals : Metals in Sediment by CRC ICPMS (<63 µm)											
Glass soil jar/Teflon lined cap HAC-U_SE-2_2023-08 - 003+004	E440A	09-Aug-2023	23-Aug-2023	180 days	15 days	✔	24-Aug-2023	180 days	15 days	✔	
Metals : Metals in Sediment by CRC ICPMS (<63 µm)											
Glass soil jar/Teflon lined cap HAC-U_SE-3_2023-08 - 005+006	E440A	09-Aug-2023	23-Aug-2023	180 days	15 days	✔	24-Aug-2023	180 days	15 days	✔	
Metals : Metals in Sediment by CRC ICPMS (<63 µm)											
Glass soil jar/Teflon lined cap HAC-U_SE-4_2023-08 - 007+008	E440A	09-Aug-2023	23-Aug-2023	180 days	15 days	✔	24-Aug-2023	180 days	15 days	✔	
Metals : Metals in Sediment by CRC ICPMS (<63 µm)											
Glass soil jar/Teflon lined cap EDC-U_SE-1_2023-08 - 021+022	E440A	08-Aug-2023	23-Aug-2023	180 days	16 days	✔	24-Aug-2023	180 days	16 days	✔	
Metals : Metals in Sediment by CRC ICPMS (<63 µm)											
Glass soil jar/Teflon lined cap HAC-U_SE-5_2023-08 - 009+010	E440A	08-Aug-2023	23-Aug-2023	180 days	16 days	✔	24-Aug-2023	180 days	16 days	✔	
Metals : Metals in Sediment by CRC ICPMS (<63 µm)											
Glass soil jar/Teflon lined cap EDC-U_SE-2_2023-08 - 023+024	E440A	07-Aug-2023	23-Aug-2023	180 days	17 days	✔	24-Aug-2023	180 days	17 days	✔	



Matrix: Soil/Solid

Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Metals : Metals in Sediment by CRC ICPMS (<63 µm)											
Glass soil jar/Teflon lined cap EDC-U_SE-3_2023-08 - 025+026	E440A	07-Aug-2023	23-Aug-2023	180 days	17 days	✔	24-Aug-2023	180 days	17 days	✔	
Metals : Metals in Sediment by CRC ICPMS (<63 µm)											
Glass soil jar/Teflon lined cap EDC-U_SE-4_2023-08 - 027+028	E440A	07-Aug-2023	23-Aug-2023	180 days	17 days	✔	24-Aug-2023	180 days	17 days	✔	
Metals : Metals in Sediment by CRC ICPMS (<63 µm)											
Glass soil jar/Teflon lined cap EDC-U_SE-5_2023-08 - 029+030	E440A	07-Aug-2023	23-Aug-2023	180 days	17 days	✔	24-Aug-2023	180 days	17 days	✔	
Metals : Metals in Sediment by CRC ICPMS (<63 µm)											
Glass soil jar/Teflon lined cap HAC-D_SE-1_2023-08 - 011+012	E440A	06-Aug-2023	23-Aug-2023	180 days	18 days	✔	24-Aug-2023	180 days	18 days	✔	
Metals : Metals in Sediment by CRC ICPMS (<63 µm)											
Glass soil jar/Teflon lined cap HAC-D_SE-2_2023-08 - 013+014	E440A	06-Aug-2023	23-Aug-2023	180 days	18 days	✔	24-Aug-2023	180 days	18 days	✔	
Metals : Metals in Sediment by CRC ICPMS (<63 µm)											
Glass soil jar/Teflon lined cap HAC-D_SE-2X_2023-08 - 043+044	E440A	06-Aug-2023	23-Aug-2023	180 days	18 days	✔	24-Aug-2023	180 days	18 days	✔	
Metals : Metals in Sediment by CRC ICPMS (<63 µm)											
Glass soil jar/Teflon lined cap HAC-D_SE-3_2023-08 - 015+016	E440A	05-Aug-2023	23-Aug-2023	180 days	19 days	✔	24-Aug-2023	180 days	19 days	✔	
Metals : Metals in Sediment by CRC ICPMS (<63 µm)											
Glass soil jar/Teflon lined cap HAC-D_SE-4_2023-08 - 017+018	E440A	05-Aug-2023	23-Aug-2023	180 days	19 days	✔	24-Aug-2023	180 days	19 days	✔	
Metals : Metals in Sediment by CRC ICPMS (<63 µm)											
Glass soil jar/Teflon lined cap HAC-D_SE-5_2023-08 - 019+020	E440A	05-Aug-2023	23-Aug-2023	180 days	19 days	✔	24-Aug-2023	180 days	19 days	✔	



Matrix: Soil/Solid

Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Physical Tests : Moisture Content by Gravimetry										
Glass soil jar/Teflon lined cap EDC-D_SE-1_2023-08 - 031+032	E144	11-Aug-2023	----	----	----		21-Aug-2023	----	10 days	
Physical Tests : Moisture Content by Gravimetry										
Glass soil jar/Teflon lined cap HAC-U_SE-1_2023-08 - 001+002	E144	09-Aug-2023	----	----	----		21-Aug-2023	----	12 days	
Physical Tests : Moisture Content by Gravimetry										
Glass soil jar/Teflon lined cap HAC-U_SE-1X_2023-08 - 041+042	E144	09-Aug-2023	----	----	----		21-Aug-2023	----	12 days	
Physical Tests : Moisture Content by Gravimetry										
Glass soil jar/Teflon lined cap HAC-U_SE-2_2023-08 - 003+004	E144	09-Aug-2023	----	----	----		21-Aug-2023	----	12 days	
Physical Tests : Moisture Content by Gravimetry										
Glass soil jar/Teflon lined cap HAC-U_SE-3_2023-08 - 005+006	E144	09-Aug-2023	----	----	----		21-Aug-2023	----	12 days	
Physical Tests : Moisture Content by Gravimetry										
Glass soil jar/Teflon lined cap HAC-U_SE-4_2023-08 - 007+008	E144	09-Aug-2023	----	----	----		21-Aug-2023	----	12 days	
Physical Tests : Moisture Content by Gravimetry										
Glass soil jar/Teflon lined cap EDC-U_SE-1_2023-08 - 021+022	E144	08-Aug-2023	----	----	----		21-Aug-2023	----	13 days	
Physical Tests : Moisture Content by Gravimetry										
Glass soil jar/Teflon lined cap HAC-U_SE-5_2023-08 - 009+010	E144	08-Aug-2023	----	----	----		21-Aug-2023	----	13 days	
Physical Tests : Moisture Content by Gravimetry										
Glass soil jar/Teflon lined cap EDC-U_SE-2_2023-08 - 023+024	E144	07-Aug-2023	----	----	----		21-Aug-2023	----	14 days	



Matrix: Soil/Solid

Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Physical Tests : Moisture Content by Gravimetry										
Glass soil jar/Teflon lined cap EDC-U_SE-3_2023-08 - 025+026	E144	07-Aug-2023	----	----	----		21-Aug-2023	----	14 days	
Physical Tests : Moisture Content by Gravimetry										
Glass soil jar/Teflon lined cap EDC-U_SE-4_2023-08 - 027+028	E144	07-Aug-2023	----	----	----		21-Aug-2023	----	14 days	
Physical Tests : Moisture Content by Gravimetry										
Glass soil jar/Teflon lined cap EDC-U_SE-5_2023-08 - 029+030	E144	07-Aug-2023	----	----	----		21-Aug-2023	----	14 days	
Physical Tests : Moisture Content by Gravimetry										
Glass soil jar/Teflon lined cap HAC-D_SE-1_2023-08 - 011+012	E144	06-Aug-2023	----	----	----		21-Aug-2023	----	15 days	
Physical Tests : Moisture Content by Gravimetry										
Glass soil jar/Teflon lined cap HAC-D_SE-2_2023-08 - 013+014	E144	06-Aug-2023	----	----	----		21-Aug-2023	----	15 days	
Physical Tests : Moisture Content by Gravimetry										
Glass soil jar/Teflon lined cap HAC-D_SE-2X_2023-08 - 043+044	E144	06-Aug-2023	----	----	----		21-Aug-2023	----	15 days	
Physical Tests : Moisture Content by Gravimetry										
Glass soil jar/Teflon lined cap HAC-D_SE-3_2023-08 - 015+016	E144	05-Aug-2023	----	----	----		21-Aug-2023	----	16 days	
Physical Tests : Moisture Content by Gravimetry										
Glass soil jar/Teflon lined cap HAC-D_SE-4_2023-08 - 017+018	E144	05-Aug-2023	----	----	----		21-Aug-2023	----	16 days	
Physical Tests : Moisture Content by Gravimetry										
Glass soil jar/Teflon lined cap HAC-D_SE-5_2023-08 - 019+020	E144	05-Aug-2023	----	----	----		21-Aug-2023	----	16 days	



Matrix: Soil/Solid

Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Physical Tests : Moisture Content by Gravimetry										
Glass soil jar/Teflon lined cap EDC-D_SE-2_2023-08 - 033+034	E144	12-Aug-2023	----	----	----		21-Aug-2023	----	9 days	
Physical Tests : Moisture Content by Gravimetry										
Glass soil jar/Teflon lined cap EDC-D_SE-3_2023-08 - 035+036	E144	12-Aug-2023	----	----	----		21-Aug-2023	----	9 days	
Physical Tests : Moisture Content by Gravimetry										
Glass soil jar/Teflon lined cap EDC-D_SE-4_2023-08 - 037+038	E144	12-Aug-2023	----	----	----		21-Aug-2023	----	9 days	
Physical Tests : Moisture Content by Gravimetry										
Glass soil jar/Teflon lined cap EDC-D_SE-5_2023-08 - 039+040	E144	12-Aug-2023	----	----	----		21-Aug-2023	----	9 days	
Physical Tests : pH by Meter (1:2 Soil:Water Extraction)										
Glass soil jar/Teflon lined cap EDC-D_SE-2_2023-08 - 033+034	E108	12-Aug-2023	22-Aug-2023	30 days	11 days	✔	23-Aug-2023	30 days	11 days	✔
Physical Tests : pH by Meter (1:2 Soil:Water Extraction)										
Glass soil jar/Teflon lined cap EDC-D_SE-3_2023-08 - 035+036	E108	12-Aug-2023	22-Aug-2023	30 days	11 days	✔	23-Aug-2023	30 days	11 days	✔
Physical Tests : pH by Meter (1:2 Soil:Water Extraction)										
Glass soil jar/Teflon lined cap EDC-D_SE-4_2023-08 - 037+038	E108	12-Aug-2023	22-Aug-2023	30 days	11 days	✔	23-Aug-2023	30 days	11 days	✔
Physical Tests : pH by Meter (1:2 Soil:Water Extraction)										
Glass soil jar/Teflon lined cap EDC-D_SE-5_2023-08 - 039+040	E108	12-Aug-2023	22-Aug-2023	30 days	11 days	✔	23-Aug-2023	30 days	11 days	✔
Physical Tests : pH by Meter (1:2 Soil:Water Extraction)										
Glass soil jar/Teflon lined cap EDC-D_SE-1_2023-08 - 031+032	E108	11-Aug-2023	22-Aug-2023	30 days	12 days	✔	23-Aug-2023	30 days	12 days	✔



Matrix: Soil/Solid

Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Physical Tests : pH by Meter (1:2 Soil:Water Extraction)											
Glass soil jar/Teflon lined cap HAC-U_SE-1_2023-08 - 001+002	E108	09-Aug-2023	22-Aug-2023	30 days	14 days	✔	23-Aug-2023	30 days	14 days	✔	
Physical Tests : pH by Meter (1:2 Soil:Water Extraction)											
Glass soil jar/Teflon lined cap HAC-U_SE-1X_2023-08 - 041+042	E108	09-Aug-2023	22-Aug-2023	30 days	14 days	✔	23-Aug-2023	30 days	14 days	✔	
Physical Tests : pH by Meter (1:2 Soil:Water Extraction)											
Glass soil jar/Teflon lined cap HAC-U_SE-2_2023-08 - 003+004	E108	09-Aug-2023	22-Aug-2023	30 days	14 days	✔	23-Aug-2023	30 days	14 days	✔	
Physical Tests : pH by Meter (1:2 Soil:Water Extraction)											
Glass soil jar/Teflon lined cap HAC-U_SE-3_2023-08 - 005+006	E108	09-Aug-2023	22-Aug-2023	30 days	14 days	✔	23-Aug-2023	30 days	14 days	✔	
Physical Tests : pH by Meter (1:2 Soil:Water Extraction)											
Glass soil jar/Teflon lined cap HAC-U_SE-4_2023-08 - 007+008	E108	09-Aug-2023	22-Aug-2023	30 days	14 days	✔	23-Aug-2023	30 days	14 days	✔	
Physical Tests : pH by Meter (1:2 Soil:Water Extraction)											
Glass soil jar/Teflon lined cap EDC-U_SE-1_2023-08 - 021+022	E108	08-Aug-2023	22-Aug-2023	30 days	15 days	✔	23-Aug-2023	30 days	15 days	✔	
Physical Tests : pH by Meter (1:2 Soil:Water Extraction)											
Glass soil jar/Teflon lined cap HAC-U_SE-5_2023-08 - 009+010	E108	08-Aug-2023	22-Aug-2023	30 days	15 days	✔	23-Aug-2023	30 days	15 days	✔	
Physical Tests : pH by Meter (1:2 Soil:Water Extraction)											
Glass soil jar/Teflon lined cap EDC-U_SE-2_2023-08 - 023+024	E108	07-Aug-2023	22-Aug-2023	30 days	16 days	✔	23-Aug-2023	30 days	16 days	✔	
Physical Tests : pH by Meter (1:2 Soil:Water Extraction)											
Glass soil jar/Teflon lined cap EDC-U_SE-3_2023-08 - 025+026	E108	07-Aug-2023	22-Aug-2023	30 days	16 days	✔	23-Aug-2023	30 days	16 days	✔	



Matrix: Soil/Solid

Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Physical Tests : pH by Meter (1:2 Soil:Water Extraction)										
Glass soil jar/Teflon lined cap EDC-U_SE-4_2023-08 - 027+028	E108	07-Aug-2023	22-Aug-2023	30 days	16 days	✔	23-Aug-2023	30 days	16 days	✔
Physical Tests : pH by Meter (1:2 Soil:Water Extraction)										
Glass soil jar/Teflon lined cap EDC-U_SE-5_2023-08 - 029+030	E108	07-Aug-2023	22-Aug-2023	30 days	16 days	✔	23-Aug-2023	30 days	16 days	✔
Physical Tests : pH by Meter (1:2 Soil:Water Extraction)										
Glass soil jar/Teflon lined cap HAC-D_SE-1_2023-08 - 011+012	E108	06-Aug-2023	22-Aug-2023	30 days	17 days	✔	23-Aug-2023	30 days	17 days	✔
Physical Tests : pH by Meter (1:2 Soil:Water Extraction)										
Glass soil jar/Teflon lined cap HAC-D_SE-2_2023-08 - 013+014	E108	06-Aug-2023	22-Aug-2023	30 days	17 days	✔	23-Aug-2023	30 days	17 days	✔
Physical Tests : pH by Meter (1:2 Soil:Water Extraction)										
Glass soil jar/Teflon lined cap HAC-D_SE-2X_2023-08 - 043+044	E108	06-Aug-2023	22-Aug-2023	30 days	17 days	✔	23-Aug-2023	30 days	17 days	✔
Physical Tests : pH by Meter (1:2 Soil:Water Extraction)										
Glass soil jar/Teflon lined cap HAC-D_SE-3_2023-08 - 015+016	E108	05-Aug-2023	22-Aug-2023	30 days	18 days	✔	23-Aug-2023	30 days	18 days	✔
Physical Tests : pH by Meter (1:2 Soil:Water Extraction)										
Glass soil jar/Teflon lined cap HAC-D_SE-4_2023-08 - 017+018	E108	05-Aug-2023	22-Aug-2023	30 days	18 days	✔	23-Aug-2023	30 days	18 days	✔
Physical Tests : pH by Meter (1:2 Soil:Water Extraction)										
Glass soil jar/Teflon lined cap HAC-D_SE-5_2023-08 - 019+020	E108	05-Aug-2023	22-Aug-2023	30 days	18 days	✔	23-Aug-2023	30 days	18 days	✔

Legend & Qualifier Definitions

Rec. HT: ALS recommended hold time (see units).



Quality Control Parameter Frequency Compliance

The following report summarizes the frequency of laboratory QC samples analyzed within the analytical batches (QC lots) in which the submitted samples were processed. The actual frequency should be greater than or equal to the expected frequency.

Matrix: **Soil/Solid**

Evaluation: ✖ = QC frequency outside specification; ✔ = QC frequency within specification.

Quality Control Sample Type	Method	QC Lot #	Count		Frequency (%)		
			QC	Regular	Actual	Expected	Evaluation
Analytical Methods							
Laboratory Duplicates (DUP)							
Mercury in Sediment by CVAAS (<63 µm)	E510A	1095370	2	22	9.0	5.0	✔
Metals in Sediment by CRC ICPMS (<63 µm)	E440A	1095372	2	22	9.0	5.0	✔
Moisture Content by Gravimetry	E144	1095377	2	23	8.7	5.0	✔
pH by Meter (1:2 Soil:Water Extraction)	E108	1095375	2	22	9.0	5.0	✔
Total Nitrogen by Combustion	E366	1103802	2	36	5.5	5.0	✔
Total Sulfur by high temperature combustion	E399	1103803	2	33	6.0	5.0	✔
Laboratory Control Samples (LCS)							
Mercury in Sediment by CVAAS (<63 µm)	E510A	1095370	4	22	18.1	10.0	✔
Metals in Sediment by CRC ICPMS (<63 µm)	E440A	1095372	4	22	18.1	10.0	✔
Moisture Content by Gravimetry	E144	1095377	2	23	8.7	5.0	✔
pH by Meter (1:2 Soil:Water Extraction)	E108	1095375	2	22	9.0	5.0	✔
Total Nitrogen by Combustion	E366	1103802	4	36	11.1	10.0	✔
Total Sulfur by high temperature combustion	E399	1103803	4	33	12.1	10.0	✔
Method Blanks (MB)							
Mercury in Sediment by CVAAS (<63 µm)	E510A	1095370	2	22	9.0	5.0	✔
Metals in Sediment by CRC ICPMS (<63 µm)	E440A	1095372	2	22	9.0	5.0	✔
Moisture Content by Gravimetry	E144	1095377	2	23	8.7	5.0	✔
Total Nitrogen by Combustion	E366	1103802	2	36	5.5	5.0	✔
Total Sulfur by high temperature combustion	E399	1103803	2	33	6.0	5.0	✔



Methodology References and Summaries

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Reference methods may incorporate modifications to improve performance (indicated by "mod").

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
pH by Meter (1:2 Soil:Water Extraction)	E108 ALS Environmental - Vancouver	Soil/Solid	BC Lab Manual	pH is determined by potentiometric measurement with a pH electrode at ambient laboratory temperature (normally 20 ± 5°C), and is carried out in accordance with procedures described in the BC Lab Manual (prescriptive method). The procedure involves mixing the dried (at <60 °C) and sieved (10mesh/2mm) sample with ultra pure water at a 1:2 ratio of sediment to water. The pH is then measured by a standard pH probe.
Moisture Content by Gravimetry	E144 ALS Environmental - Vancouver	Soil/Solid	CCME PHC in Soil - Tier 1	Moisture is measured gravimetrically by drying the sample at 105°C. Moisture content is calculated as the weight loss (due to water) divided by the wet weight of the sample, expressed as a percentage.
Total Nitrogen by Combustion	E366 ALS Environmental - Saskatoon	Soil/Solid	CSSS (2008) 22.4	The sample is ignited in a combustion analyzer where nitrogen in the reduced nitrous oxide gas is determined using a thermal conductivity detector.
Total Sulfur by high temperature combustion	E399 ALS Environmental - Saskatoon	Soil/Solid	ISO 15178:2000	Air-dried sample is ignited in a combustion analyzer where sulfur in the reduced SO ₂ gas is determined using a thermal conductivity detector.
Metals in Sediment by CRC ICPMS (<63 µm)	E440A ALS Environmental - Vancouver	Soil/Solid	EPA 6020B (mod)	Samples are sieved through a 63 µm sieve, and digested with HNO ₃ and HCl. This method is intended to liberate metals that may be environmentally available. Silicate minerals are not solubilized. Dependent on sample matrix, some metals may be only partially recovered, including Al, Ba, Be, Cr, Sr, Ti, Tl, V, W, and Zr. Volatile forms of sulfur (including sulfide) may not be captured, as they may be lost during sampling, storage, or digestion. Elemental Sulfur may be poorly recovered by this method. Analysis is by Collision/Reaction Cell ICPMS.
Mercury in Sediment by CVAAS (<63 µm)	E510A ALS Environmental - Vancouver	Soil/Solid	EPA 200.2/1631 Appendix (mod)	Samples are sieved through a 63 µm sieve, and digested with HNO ₃ and HCl, followed by CVAAS analysis.
Particle Size Analysis (Pipette) - MMER Classification	EC184E ALS Environmental - Saskatoon	Soil/Solid	Metal Mining Technical Guidance for Environmental Effects Monitoring (2012)	The particle size determination is performed by various methods to generate a Grain Size curve. The data from the curve is then used to produce particle size ranges based on the Metal Mining Effluent Regulations (MMER) classification system for Environmental Effects Monitoring.
Total Organic Carbon (Calculated) in soil (<63 µm)	EC356A ALS Environmental - Saskatoon	Soil/Solid	CSSS (2008) 21.2	Total Organic Carbon (TOC) is calculated by the difference between total carbon (TC) and total inorganic carbon (TIC) analyzed on material passing a 63 µm sieve.
Preparation Methods	Method / Lab	Matrix	Method Reference	Method Descriptions



<i>Preparation Methods</i>	<i>Method / Lab</i>	<i>Matrix</i>	<i>Method Reference</i>	<i>Method Descriptions</i>
Leach 1:2 Soil:Water for pH/EC	EP108 ALS Environmental - Vancouver	Soil/Solid	BC WLAP METHOD: PH, ELECTROMETRIC, SOIL	The procedure involves mixing the dried (at <60°C) and sieved (No. 10 / 2mm) sample with deionized/distilled water at a 1:2 ratio of sediment to water.
Digestion for Metals and Mercury (63 µm Sieve)	EP440A ALS Environmental - Vancouver	Soil/Solid	EPA 200.2 (mod)	Samples are sieved through a 63 µm sieve, and digested with HNO ₃ and HCl. This method is intended to liberate metals that may be environmentally available.
Dry and Grind in Soil/Solid <60°C	EPP442 ALS Environmental - Saskatoon	Soil/Solid	Soil Sampling and Methods of Analysis, Carter 2008	After removal of any coarse fragments and reservation of wet subsamples a portion of homogenized sample is set in a tray and dried at less than 60°C until dry. The sample is then particle size reduced with an automated crusher or mortar and pestle, typically to <2 mm. Further size reduction may be needed for particular tests.

QUALITY CONTROL REPORT

Work Order	: VA23B8809	Page	: 1 of 14
Client	: Mount Polley Mining Corporation	Laboratory	: ALS Environmental - Vancouver
Contact	: Mr. Gabriel Holmes	Account Manager	: Can Dang
Address	: PO Box 12 Likely BC Canada V0L 1N0	Address	: 8081 Lougheed Highway Burnaby, British Columbia Canada V5A 1W9
Telephone	:	Telephone	: +1 604 253 4188
Project	: ----	Date Samples Received	: 15-Aug-2023 09:40
PO	: 5590012190	Date Analysis Commenced	: 21-Aug-2023
C-O-C number	: ----	Issue Date	: 11-Sep-2023 16:48
Sampler	: KBa 250-790-2215 ext 2171		
Site	: ----		
Quote number	: VA22-MPMC100-005 - Minnow Environmental-Sediment Quality		
No. of samples received	: 66		
No. of samples analysed	: 22		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Quality Control Report contains the following information:

- Laboratory Duplicate (DUP) Report; Relative Percent Difference (RPD) and Data Quality Objectives
- Reference Material (RM) Report; Recovery and Data Quality Objectives
- Method Blank (MB) Report; Recovery and Data Quality Objectives
- Laboratory Control Sample (LCS) Report; Recovery and Data Quality Objectives

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

<i>Signatories</i>	<i>Position</i>	<i>Laboratory Department</i>
Hedy Lai	Team Leader - Inorganics	Saskatoon Inorganics, Saskatoon, Saskatchewan
Hedy Lai	Team Leader - Inorganics	Saskatoon Sask Soils, Saskatoon, Saskatchewan
Kim Jensen	Department Manager - Metals	Vancouver Metals, Burnaby, British Columbia
Rebecca Sit	Supervisor - Organics Extractions	Vancouver Organics, Burnaby, British Columbia
Sam Silveira	Lab Assistant	Vancouver Metals, Burnaby, British Columbia

Page : 2 of 14
Work Order : VA23B8809
Client : Mount Polley Mining Corporation
Project : ----



General Comments

The ALS Quality Control (QC) report is optionally provided to ALS clients upon request. ALS test methods include comprehensive QC checks with every analysis to ensure our high standards of quality are met. Each QC result has a known or expected target value, which is compared against predetermined Data Quality Objectives (DQOs) to provide confidence in the accuracy of associated test results. This report contains detailed results for all QC results applicable to this sample submission. Please refer to the ALS Quality Control Interpretation report (QCI) for applicable method references and methodology summaries.

Key :

Anonymous = Refers to samples which are not part of this work order, but which formed part of the QC process lot.

CAS Number = Chemical Abstracts Service number is a unique identifier assigned to discrete substances.

DQO = Data Quality Objective.

LOR = Limit of Reporting (detection limit).

RPD = Relative Percent Difference

= Indicates a QC result that did not meet the ALS DQO.

Workorder Comments

Holding times are displayed as "---" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.



Laboratory Duplicate (DUP) Report

A Laboratory Duplicate (DUP) is a randomly selected intralaboratory replicate sample. Laboratory Duplicates provide information regarding method precision and sample heterogeneity. ALS DQOs for Laboratory Duplicates are expressed as test-specific limits for Relative Percent Difference (RPD), or as an absolute difference limit of 2 times the LOR for low concentration duplicates within ~ 4-10 times the LOR (cut-off is test-specific).

Sub-Matrix: Soil/Solid					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	LOR	Unit	Original Result	Duplicate Result	RPD(%) or Difference	Duplicate Limits	Qualifier
Physical Tests (QC Lot: 1095374)											
VA23B8809-045	HAC-U_SE-1_2023-08 001+002	pH (1:2 soil:water)	----	E108	0.10	pH units	7.39	7.41	0.3%	5%	----
Physical Tests (QC Lot: 1095375)											
VA23B8809-065	HAC-U_SE-1X_2023-08 041+042	pH (1:2 soil:water)	----	E108	0.10	pH units	7.30	7.28	0.3%	5%	----
Physical Tests (QC Lot: 1095376)											
KS2303047-002	Anonymous	Moisture	----	E144	0.25	%	13.6	14.0	2.19%	20%	----
Physical Tests (QC Lot: 1095377)											
VA23B8809-064	EDC-D_SE-5_2023-08 039+040	Moisture	----	E144	0.25	%	48.6	43.5	11.0%	20%	----
Anions and Nutrients (QC Lot: 1103799)											
VA23B8809-047	HAC-U_SE-3_2023-08 005+006	Nitrogen, total	7727-37-9	E366	0.020	%	0.828	0.868	4.72%	20%	----
Anions and Nutrients (QC Lot: 1103802)											
VA23B9346-042	Anonymous	Nitrogen, total	7727-37-9	E366	0.020	%	0.519	0.534	2.82%	20%	----
Inorganics (QC Lot: 1103800)											
VA23B8809-047	HAC-U_SE-3_2023-08 005+006	Sulfur, total	7704-34-9	E399	0.050	%	3600 mg/kg	0.402	0.042	Diff <2x LOR	----
Inorganics (QC Lot: 1103803)											
VA23B9346-042	Anonymous	Sulfur, total	7704-34-9	E399	0.050	%	9020 mg/kg	0.935	3.59%	20%	----
Metals (<63 µm) (QC Lot: 1095370)											
VA23B8809-045	HAC-U_SE-1_2023-08 001+002	Mercury	7439-97-6	E510A	0.0050	mg/kg	0.126	0.127	1.13%	40%	----
Metals (<63 µm) (QC Lot: 1095371)											
VA23B8809-045	HAC-U_SE-1_2023-08 001+002	Aluminum	7429-90-5	E440A	50	mg/kg	18200	17900	1.22%	40%	----
		Antimony	7440-36-0	E440A	0.10	mg/kg	0.41	0.33	0.08	Diff <2x LOR	----
		Arsenic	7440-38-2	E440A	0.050	mg/kg	8.18	7.92	3.31%	30%	----
		Barium	7440-39-3	E440A	0.50	mg/kg	343	343	0.0928%	40%	----
		Beryllium	7440-41-7	E440A	0.10	mg/kg	0.62	0.60	0.02	Diff <2x LOR	----
		Bismuth	7440-69-9	E440A	0.10	mg/kg	<0.10	<0.10	0	Diff <2x LOR	----
		Boron	7440-42-8	E440A	5.0	mg/kg	22.6	19.6	3.0	Diff <2x LOR	----
		Cadmium	7440-43-9	E440A	0.020	mg/kg	0.452	0.460	1.74%	30%	----
		Calcium	7440-70-2	E440A	50	mg/kg	27500	27700	0.866%	30%	----



Sub-Matrix: Soil/Solid					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	LOR	Unit	Original Result	Duplicate Result	RPD(%) or Difference	Duplicate Limits	Qualifier
Metals (<63 µm) (QC Lot: 1095371) - continued											
VA23B8809-045	HAC-U_SE-1_2023-08 001+002	Chromium	7440-47-3	E440A	0.50	mg/kg	28.0	25.8	8.39%	30%	---
		Cobalt	7440-48-4	E440A	0.10	mg/kg	15.6	15.6	0.329%	30%	---
		Copper	7440-50-8	E440A	0.50	mg/kg	484	472	2.44%	30%	---
		Iron	7439-89-6	E440A	50	mg/kg	36800	36300	1.44%	30%	---
		Lead	7439-92-1	E440A	0.10	mg/kg	5.79	5.80	0.149%	40%	---
		Lithium	7439-93-2	E440A	2.0	mg/kg	14.8	14.3	3.84%	30%	---
		Magnesium	7439-95-4	E440A	10	mg/kg	9890	9780	1.07%	30%	---
		Manganese	7439-96-5	E440A	0.20	mg/kg	3560	3550	0.224%	30%	---
		Molybdenum	7439-98-7	E440A	0.10	mg/kg	4.35	4.18	3.87%	40%	---
		Nickel	7440-02-0	E440A	0.50	mg/kg	25.2	24.9	1.25%	30%	---
		Phosphorus	7723-14-0	E440A	50	mg/kg	1580	1620	2.68%	30%	---
		Potassium	7440-09-7	E440A	100	mg/kg	1450	1400	3.80%	40%	---
		Selenium	7782-49-2	E440A	0.10	mg/kg	5.40	5.24	3.05%	30%	---
		Silver	7440-22-4	E440A	0.050	mg/kg	0.181	0.178	0.002	Diff <2x LOR	---
		Sodium	7440-23-5	E440A	50	mg/kg	502	490	2.46%	40%	---
		Strontium	7440-24-6	E440A	0.10	mg/kg	154	153	0.751%	40%	---
		Thallium	7440-28-0	E440A	0.050	mg/kg	0.054	<0.050	0.004	Diff <2x LOR	---
		Tin	7440-31-5	E440A	0.20	mg/kg	0.87	0.79	0.08	Diff <2x LOR	---
		Titanium	7440-32-6	E440A	1.0	mg/kg	910	780	15.5%	40%	---
Uranium	7440-61-1	E440A	0.050	mg/kg	0.831	0.793	4.60%	30%	---		
Vanadium	7440-62-2	E440A	0.20	mg/kg	114	106	6.80%	30%	---		
Zinc	7440-66-6	E440A	1.0	mg/kg	76.3	76.8	0.741%	30%	---		
Zirconium	7440-67-7	E440A	1.0	mg/kg	2.0	1.9	0.05	Diff <2x LOR	---		
Metals (<63 µm) (QC Lot: 1095372)											
VA23B8809-065	HAC-U_SE-1X_2023-08 041+042	Aluminum	7429-90-5	E440A	50	mg/kg	18500	17600	5.12%	40%	---
		Antimony	7440-36-0	E440A	0.10	mg/kg	0.57	0.52	0.05	Diff <2x LOR	---
		Arsenic	7440-38-2	E440A	0.050	mg/kg	9.64	8.98	7.18%	30%	---
		Barium	7440-39-3	E440A	0.50	mg/kg	364	346	5.23%	40%	---
		Beryllium	7440-41-7	E440A	0.10	mg/kg	0.58	0.57	0.01	Diff <2x LOR	---
		Bismuth	7440-69-9	E440A	0.10	mg/kg	<0.10	<0.10	0	Diff <2x LOR	---
		Boron	7440-42-8	E440A	5.0	mg/kg	24.0	23.0	1.0	Diff <2x LOR	---
		Cadmium	7440-43-9	E440A	0.020	mg/kg	0.471	0.450	4.57%	30%	---
		Calcium	7440-70-2	E440A	50	mg/kg	28500	27800	2.17%	30%	---



Sub-Matrix: Soil/Solid					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	LOR	Unit	Original Result	Duplicate Result	RPD(%) or Difference	Duplicate Limits	Qualifier
Metals (<63 µm) (QC Lot: 1095372) - continued											
VA23B8809-065	HAC-U_SE-1X_2023-08 041+042	Chromium	7440-47-3	E440A	0.50	mg/kg	30.0	29.4	1.76%	30%	---
		Cobalt	7440-48-4	E440A	0.10	mg/kg	16.4	15.8	4.06%	30%	---
		Copper	7440-50-8	E440A	0.50	mg/kg	500	471	6.01%	30%	---
		Iron	7439-89-6	E440A	50	mg/kg	39700	37900	4.76%	30%	---
		Lead	7439-92-1	E440A	0.10	mg/kg	6.16	5.77	6.40%	40%	---
		Lithium	7439-93-2	E440A	2.0	mg/kg	14.2	13.5	4.88%	30%	---
		Magnesium	7439-95-4	E440A	10	mg/kg	10100	9720	4.04%	30%	---
		Manganese	7439-96-5	E440A	0.20	mg/kg	3760	3560	5.58%	30%	---
		Molybdenum	7439-98-7	E440A	0.10	mg/kg	5.07	4.73	6.93%	40%	---
		Nickel	7440-02-0	E440A	0.50	mg/kg	27.2	26.5	2.49%	30%	---
		Phosphorus	7723-14-0	E440A	50	mg/kg	1780	1630	8.65%	30%	---
		Potassium	7440-09-7	E440A	100	mg/kg	1480	1450	2.44%	40%	---
		Selenium	7782-49-2	E440A	0.10	mg/kg	6.64	6.08	8.84%	30%	---
		Silver	7440-22-4	E440A	0.050	mg/kg	0.203	0.188	0.015	Diff <2x LOR	---
		Sodium	7440-23-5	E440A	50	mg/kg	575	516	10.9%	40%	---
		Strontium	7440-24-6	E440A	0.10	mg/kg	158	155	1.47%	40%	---
		Thallium	7440-28-0	E440A	0.050	mg/kg	0.052	<0.050	0.002	Diff <2x LOR	---
		Tin	7440-31-5	E440A	0.20	mg/kg	1.31	0.95	32.0%	40%	---
		Titanium	7440-32-6	E440A	1.0	mg/kg	1210	1120	7.95%	40%	---
Uranium	7440-61-1	E440A	0.050	mg/kg	0.866	0.815	6.14%	30%	---		
Vanadium	7440-62-2	E440A	0.20	mg/kg	130	123	6.01%	30%	---		
Zinc	7440-66-6	E440A	1.0	mg/kg	89.7	79.0	12.7%	30%	---		
Zirconium	7440-67-7	E440A	1.0	mg/kg	1.7	1.9	0.2	Diff <2x LOR	---		
Metals (<63 µm) (QC Lot: 1095373)											
VA23B8809-065	HAC-U_SE-1X_2023-08 041+042	Mercury	7439-97-6	E510A	0.0075	mg/kg	0.149	0.132	11.9%	40%	---



Method Blank (MB) Report

A Method Blank is an analyte-free matrix that undergoes sample processing identical to that carried out for test samples. Method Blank results are used to monitor and control for potential contamination from the laboratory environment and reagents. For most tests, the DQO for Method Blanks is for the result to be < LOR.

Sub-Matrix: Soil/Solid

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Physical Tests (QCLot: 1095376)						
Moisture	----	E144	0.25	%	<0.25	----
Physical Tests (QCLot: 1095377)						
Moisture	----	E144	0.25	%	<0.25	----
Anions and Nutrients (QCLot: 1103799)						
Nitrogen, total	7727-37-9	E366	0.02	%	<0.020	----
Anions and Nutrients (QCLot: 1103802)						
Nitrogen, total	7727-37-9	E366	0.02	%	<0.020	----
Inorganics (QCLot: 1103800)						
Sulfur, total	7704-34-9	E399	0.05	%	<0.050	----
Inorganics (QCLot: 1103803)						
Sulfur, total	7704-34-9	E399	0.05	%	<0.050	----
Metals (<63 µm) (QCLot: 1095370)						
Mercury	7439-97-6	E510A	0.005	mg/kg	<0.0050	----
Metals (<63 µm) (QCLot: 1095371)						
Aluminum	7429-90-5	E440A	50	mg/kg	<50	----
Antimony	7440-36-0	E440A	0.1	mg/kg	<0.10	----
Arsenic	7440-38-2	E440A	0.05	mg/kg	<0.050	----
Barium	7440-39-3	E440A	0.5	mg/kg	<0.50	----
Beryllium	7440-41-7	E440A	0.1	mg/kg	<0.10	----
Bismuth	7440-69-9	E440A	0.1	mg/kg	<0.10	----
Boron	7440-42-8	E440A	5	mg/kg	<5.0	----
Cadmium	7440-43-9	E440A	0.02	mg/kg	<0.020	----
Calcium	7440-70-2	E440A	50	mg/kg	<50	----
Chromium	7440-47-3	E440A	0.5	mg/kg	<0.50	----
Cobalt	7440-48-4	E440A	0.1	mg/kg	<0.10	----
Copper	7440-50-8	E440A	0.5	mg/kg	<0.50	----
Iron	7439-89-6	E440A	50	mg/kg	<50	----
Lead	7439-92-1	E440A	0.1	mg/kg	<0.10	----
Lithium	7439-93-2	E440A	2	mg/kg	<2.0	----
Magnesium	7439-95-4	E440A	10	mg/kg	<10	----
Manganese	7439-96-5	E440A	0.2	mg/kg	<0.20	----
Molybdenum	7439-98-7	E440A	0.1	mg/kg	<0.10	----



Sub-Matrix: **Soil/Solid**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Metals (<63 µm) (QCLot: 1095371) - continued						
Nickel	7440-02-0	E440A	0.5	mg/kg	<0.50	---
Phosphorus	7723-14-0	E440A	50	mg/kg	<50	---
Potassium	7440-09-7	E440A	100	mg/kg	<100	---
Selenium	7782-49-2	E440A	0.1	mg/kg	<0.10	---
Silver	7440-22-4	E440A	0.05	mg/kg	<0.050	---
Sodium	7440-23-5	E440A	50	mg/kg	<50	---
Strontium	7440-24-6	E440A	0.1	mg/kg	<0.10	---
Thallium	7440-28-0	E440A	0.05	mg/kg	<0.050	---
Tin	7440-31-5	E440A	0.2	mg/kg	<0.20	---
Titanium	7440-32-6	E440A	1	mg/kg	<1.0	---
Uranium	7440-61-1	E440A	0.05	mg/kg	<0.050	---
Vanadium	7440-62-2	E440A	0.2	mg/kg	<0.20	---
Zinc	7440-66-6	E440A	1	mg/kg	<1.0	---
Zirconium	7440-67-7	E440A	1	mg/kg	<1.0	---
Metals (<63 µm) (QCLot: 1095372)						
Aluminum	7429-90-5	E440A	50	mg/kg	<50	---
Antimony	7440-36-0	E440A	0.1	mg/kg	<0.10	---
Arsenic	7440-38-2	E440A	0.05	mg/kg	<0.050	---
Barium	7440-39-3	E440A	0.5	mg/kg	<0.50	---
Beryllium	7440-41-7	E440A	0.1	mg/kg	<0.10	---
Bismuth	7440-69-9	E440A	0.1	mg/kg	<0.10	---
Boron	7440-42-8	E440A	5	mg/kg	<5.0	---
Cadmium	7440-43-9	E440A	0.02	mg/kg	<0.020	---
Calcium	7440-70-2	E440A	50	mg/kg	<50	---
Chromium	7440-47-3	E440A	0.5	mg/kg	<0.50	---
Cobalt	7440-48-4	E440A	0.1	mg/kg	<0.10	---
Copper	7440-50-8	E440A	0.5	mg/kg	<0.50	---
Iron	7439-89-6	E440A	50	mg/kg	<50	---
Lead	7439-92-1	E440A	0.1	mg/kg	<0.10	---
Lithium	7439-93-2	E440A	2	mg/kg	<2.0	---
Magnesium	7439-95-4	E440A	10	mg/kg	<10	---
Manganese	7439-96-5	E440A	0.2	mg/kg	<0.20	---
Molybdenum	7439-98-7	E440A	0.1	mg/kg	<0.10	---
Nickel	7440-02-0	E440A	0.5	mg/kg	<0.50	---
Phosphorus	7723-14-0	E440A	50	mg/kg	<50	---



Sub-Matrix: **Soil/Solid**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Metals (<63 µm) (QCLot: 1095372) - continued						
Potassium	7440-09-7	E440A	100	mg/kg	<100	---
Selenium	7782-49-2	E440A	0.1	mg/kg	<0.10	---
Silver	7440-22-4	E440A	0.05	mg/kg	<0.050	---
Sodium	7440-23-5	E440A	50	mg/kg	<50	---
Strontium	7440-24-6	E440A	0.1	mg/kg	<0.10	---
Thallium	7440-28-0	E440A	0.05	mg/kg	<0.050	---
Tin	7440-31-5	E440A	0.2	mg/kg	<0.20	---
Titanium	7440-32-6	E440A	1	mg/kg	<1.0	---
Uranium	7440-61-1	E440A	0.05	mg/kg	<0.050	---
Vanadium	7440-62-2	E440A	0.2	mg/kg	<0.20	---
Zinc	7440-66-6	E440A	1	mg/kg	<1.0	---
Zirconium	7440-67-7	E440A	1	mg/kg	<1.0	---
Metals (<63 µm) (QCLot: 1095373)						
Mercury	7439-97-6	E510A	0.005	mg/kg	<0.0050	---



Laboratory Control Sample (LCS) Report

A Laboratory Control Sample (LCS) is an analyte-free matrix that has been fortified (spiked) with test analytes at known concentration and processed in an identical manner to test samples. LCS results are expressed as percent recovery, and are used to monitor and control test method accuracy and precision, independent of test sample matrix.

Sub-Matrix: Soil/Solid

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
Physical Tests (QCLot: 1095374)									
pH (1:2 soil:water)	----	E108	----	pH units	6 pH units	100	95.0	105	----
Physical Tests (QCLot: 1095375)									
pH (1:2 soil:water)	----	E108	----	pH units	6 pH units	100	95.0	105	----
Physical Tests (QCLot: 1095376)									
Moisture	----	E144	0.25	%	50 %	98.1	90.0	110	----
Physical Tests (QCLot: 1095377)									
Moisture	----	E144	0.25	%	50 %	97.1	90.0	110	----
Anions and Nutrients (QCLot: 1103799)									
Nitrogen, total	7727-37-9	E366	0.02	%	22.37 %	102	90.0	110	----
Anions and Nutrients (QCLot: 1103802)									
Nitrogen, total	7727-37-9	E366	0.02	%	22.37 %	97.5	90.0	110	----
Inorganics (QCLot: 1103800)									
Sulfur, total	7704-34-9	E399	0.05	%	12.81 %	99.0	90.0	110	----
Inorganics (QCLot: 1103803)									
Sulfur, total	7704-34-9	E399	0.05	%	12.81 %	100	90.0	110	----
Metals (<63 µm) (QCLot: 1095370)									
Mercury	7439-97-6	E510A	0.005	mg/kg	0.1 mg/kg	103	80.0	120	----
Metals (<63 µm) (QCLot: 1095371)									
Aluminum	7429-90-5	E440A	50	mg/kg	200 mg/kg	98.6	80.0	120	----
Antimony	7440-36-0	E440A	0.1	mg/kg	100 mg/kg	108	80.0	120	----
Arsenic	7440-38-2	E440A	0.05	mg/kg	100 mg/kg	106	80.0	120	----
Barium	7440-39-3	E440A	0.5	mg/kg	25 mg/kg	105	80.0	120	----
Beryllium	7440-41-7	E440A	0.1	mg/kg	10 mg/kg	104	80.0	120	----
Bismuth	7440-69-9	E440A	0.1	mg/kg	100 mg/kg	102	80.0	120	----
Boron	7440-42-8	E440A	5	mg/kg	100 mg/kg	102	80.0	120	----
Cadmium	7440-43-9	E440A	0.02	mg/kg	10 mg/kg	104	80.0	120	----
Calcium	7440-70-2	E440A	50	mg/kg	5000 mg/kg	103	80.0	120	----
Chromium	7440-47-3	E440A	0.5	mg/kg	25 mg/kg	100	80.0	120	----
Cobalt	7440-48-4	E440A	0.1	mg/kg	25 mg/kg	100	80.0	120	----
Copper	7440-50-8	E440A	0.5	mg/kg	25 mg/kg	99.3	80.0	120	----



Sub-Matrix: Soil/Solid

Laboratory Control Sample (LCS) Report

Analyte	CAS Number	Method	LOR	Unit	Spike	Recovery (%)	Recovery Limits (%)		Qualifier
					Concentration	LCS	Low	High	
Metals (<63 µm) (QCLot: 1095371) - continued									
Iron	7439-89-6	E440A	50	mg/kg	100 mg/kg	101	80.0	120	---
Lead	7439-92-1	E440A	0.1	mg/kg	50 mg/kg	104	80.0	120	---
Lithium	7439-93-2	E440A	2	mg/kg	25 mg/kg	101	80.0	120	---
Magnesium	7439-95-4	E440A	10	mg/kg	5000 mg/kg	105	80.0	120	---
Manganese	7439-96-5	E440A	0.2	mg/kg	25 mg/kg	99.5	80.0	120	---
Molybdenum	7439-98-7	E440A	0.1	mg/kg	25 mg/kg	105	80.0	120	---
Nickel	7440-02-0	E440A	0.5	mg/kg	50 mg/kg	101	80.0	120	---
Phosphorus	7723-14-0	E440A	50	mg/kg	1000 mg/kg	101	80.0	120	---
Potassium	7440-09-7	E440A	100	mg/kg	5000 mg/kg	99.4	80.0	120	---
Selenium	7782-49-2	E440A	0.1	mg/kg	100 mg/kg	100	80.0	120	---
Silver	7440-22-4	E440A	0.05	mg/kg	10 mg/kg	89.8	80.0	120	---
Sodium	7440-23-5	E440A	50	mg/kg	5000 mg/kg	102	80.0	120	---
Strontium	7440-24-6	E440A	0.1	mg/kg	25 mg/kg	104	80.0	120	---
Thallium	7440-28-0	E440A	0.05	mg/kg	100 mg/kg	104	80.0	120	---
Tin	7440-31-5	E440A	0.2	mg/kg	50 mg/kg	102	80.0	120	---
Titanium	7440-32-6	E440A	1	mg/kg	25 mg/kg	99.0	80.0	120	---
Uranium	7440-61-1	E440A	0.05	mg/kg	0.5 mg/kg	96.5	80.0	120	---
Vanadium	7440-62-2	E440A	0.2	mg/kg	50 mg/kg	103	80.0	120	---
Zinc	7440-66-6	E440A	1	mg/kg	50 mg/kg	102	80.0	120	---
Zirconium	7440-67-7	E440A	1	mg/kg	10 mg/kg	102	80.0	120	---
Metals (<63 µm) (QCLot: 1095372)									
Aluminum	7429-90-5	E440A	50	mg/kg	200 mg/kg	102	80.0	120	---
Antimony	7440-36-0	E440A	0.1	mg/kg	100 mg/kg	107	80.0	120	---
Arsenic	7440-38-2	E440A	0.05	mg/kg	100 mg/kg	106	80.0	120	---
Barium	7440-39-3	E440A	0.5	mg/kg	25 mg/kg	107	80.0	120	---
Beryllium	7440-41-7	E440A	0.1	mg/kg	10 mg/kg	104	80.0	120	---
Bismuth	7440-69-9	E440A	0.1	mg/kg	100 mg/kg	100	80.0	120	---
Boron	7440-42-8	E440A	5	mg/kg	100 mg/kg	101	80.0	120	---
Cadmium	7440-43-9	E440A	0.02	mg/kg	10 mg/kg	102	80.0	120	---
Calcium	7440-70-2	E440A	50	mg/kg	5000 mg/kg	104	80.0	120	---
Chromium	7440-47-3	E440A	0.5	mg/kg	25 mg/kg	99.7	80.0	120	---
Cobalt	7440-48-4	E440A	0.1	mg/kg	25 mg/kg	101	80.0	120	---
Copper	7440-50-8	E440A	0.5	mg/kg	25 mg/kg	99.6	80.0	120	---
Iron	7439-89-6	E440A	50	mg/kg	100 mg/kg	99.9	80.0	120	---
Lead	7439-92-1	E440A	0.1	mg/kg	50 mg/kg	104	80.0	120	---
Lithium	7439-93-2	E440A	2	mg/kg	25 mg/kg	102	80.0	120	---



Sub-Matrix: Soil/Solid

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
Metals (<63 µm) (QCLot: 1095372) - continued									
Magnesium	7439-95-4	E440A	10	mg/kg	5000 mg/kg	106	80.0	120	----
Manganese	7439-96-5	E440A	0.2	mg/kg	25 mg/kg	101	80.0	120	----
Molybdenum	7439-98-7	E440A	0.1	mg/kg	25 mg/kg	104	80.0	120	----
Nickel	7440-02-0	E440A	0.5	mg/kg	50 mg/kg	101	80.0	120	----
Phosphorus	7723-14-0	E440A	50	mg/kg	1000 mg/kg	104	80.0	120	----
Potassium	7440-09-7	E440A	100	mg/kg	5000 mg/kg	101	80.0	120	----
Selenium	7782-49-2	E440A	0.1	mg/kg	100 mg/kg	101	80.0	120	----
Silver	7440-22-4	E440A	0.05	mg/kg	10 mg/kg	88.8	80.0	120	----
Sodium	7440-23-5	E440A	50	mg/kg	5000 mg/kg	103	80.0	120	----
Strontium	7440-24-6	E440A	0.1	mg/kg	25 mg/kg	102	80.0	120	----
Thallium	7440-28-0	E440A	0.05	mg/kg	100 mg/kg	102	80.0	120	----
Tin	7440-31-5	E440A	0.2	mg/kg	50 mg/kg	102	80.0	120	----
Titanium	7440-32-6	E440A	1	mg/kg	25 mg/kg	101	80.0	120	----
Uranium	7440-61-1	E440A	0.05	mg/kg	0.5 mg/kg	101	80.0	120	----
Vanadium	7440-62-2	E440A	0.2	mg/kg	50 mg/kg	104	80.0	120	----
Zinc	7440-66-6	E440A	1	mg/kg	50 mg/kg	101	80.0	120	----
Zirconium	7440-67-7	E440A	1	mg/kg	10 mg/kg	95.9	80.0	120	----
Metals (<63 µm) (QCLot: 1095373)									
Mercury	7439-97-6	E510A	0.005	mg/kg	0.1 mg/kg	102	80.0	120	----



Reference Material (RM) Report

A Reference Material (RM) is a homogenous material with known and well-established analyte concentrations. RMs are processed in an identical manner to test samples, and are used to monitor and control the accuracy and precision of a test method for a typical sample matrix. RM results are expressed as percent recovery of the target analyte concentration. RM targets may be certified target concentrations provided by the RM supplier, or may be ALS long-term mean values (for empirical test methods).

Sub-Matrix:

Laboratory sample ID	Reference Material ID	Analyte	CAS Number	Method	Reference Material (RM) Report				
					RM Target Concentration	Recovery (%) RM	Recovery Limits (%)		Qualifier
							Low	High	
Anions and Nutrients (QCLot: 1103799)									
	RM	Nitrogen, total	7727-37-9	E366	0.11 %	102	80.0	120	----
Anions and Nutrients (QCLot: 1103802)									
	RM	Nitrogen, total	7727-37-9	E366	0.11 %	94.4	80.0	120	----
Inorganics (QCLot: 1103800)									
	RM	Sulfur, total	7704-34-9	E399	0.352 %	93.5	70.0	130	----
Inorganics (QCLot: 1103803)									
	RM	Sulfur, total	7704-34-9	E399	0.352 %	108	70.0	130	----
Metals (<63 µm) (QCLot: 1095370)									
	SCP SS-2	Mercury	7439-97-6	E510A	0.059 mg/kg	104	70.0	130	----
Metals (<63 µm) (QCLot: 1095371)									
	SCP SS-2	Aluminum	7429-90-5	E440A	9817 mg/kg	106	70.0	130	----
	SCP SS-2	Antimony	7440-36-0	E440A	3.99 mg/kg	96.9	70.0	130	----
	SCP SS-2	Arsenic	7440-38-2	E440A	3.73 mg/kg	104	70.0	130	----
	SCP SS-2	Barium	7440-39-3	E440A	105 mg/kg	104	70.0	130	----
	SCP SS-2	Beryllium	7440-41-7	E440A	0.349 mg/kg	103	70.0	130	----
	SCP SS-2	Boron	7440-42-8	E440A	8.5 mg/kg	131	40.0	160	----
	SCP SS-2	Cadmium	7440-43-9	E440A	0.91 mg/kg	105	70.0	130	----
	SCP SS-2	Calcium	7440-70-2	E440A	31082 mg/kg	110	70.0	130	----
	SCP SS-2	Chromium	7440-47-3	E440A	101 mg/kg	118	70.0	130	----
	SCP SS-2	Cobalt	7440-48-4	E440A	6.9 mg/kg	104	70.0	130	----
	SCP SS-2	Copper	7440-50-8	E440A	123 mg/kg	103	70.0	130	----
	SCP SS-2	Iron	7439-89-6	E440A	23558 mg/kg	106	70.0	130	----
	SCP SS-2	Lead	7439-92-1	E440A	267 mg/kg	110	70.0	130	----
	SCP SS-2	Lithium	7439-93-2	E440A	9.5 mg/kg	106	70.0	130	----
	SCP SS-2	Magnesium	7439-95-4	E440A	5509 mg/kg	112	70.0	130	----
	SCP SS-2	Manganese	7439-96-5	E440A	269 mg/kg	109	70.0	130	----
	SCP SS-2	Molybdenum	7439-98-7	E440A	1.03 mg/kg	107	70.0	130	----
	SCP SS-2	Nickel	7440-02-0	E440A	26.7 mg/kg	104	70.0	130	----



Sub-Matrix:

Laboratory sample ID	Reference Material ID	Analyte	CAS Number	Method	Reference Material (RM) Report				
					RM Target Concentration	Recovery (%) RM	Recovery Limits (%)		Qualifier
							Low	High	
Metals (<63 µm) (QCLot: 1095371) - continued									
	SCP SS-2	Phosphorus	7723-14-0	E440A	752 mg/kg	93.6	70.0	130	----
	SCP SS-2	Potassium	7440-09-7	E440A	1587 mg/kg	111	70.0	130	----
	SCP SS-2	Sodium	7440-23-5	E440A	797 mg/kg	101	70.0	130	----
	SCP SS-2	Strontium	7440-24-6	E440A	86.1 mg/kg	105	70.0	130	----
	SCP SS-2	Thallium	7440-28-0	E440A	0.0786 mg/kg	94.3	40.0	160	----
	SCP SS-2	Tin	7440-31-5	E440A	10.6 mg/kg	95.6	70.0	130	----
	SCP SS-2	Titanium	7440-32-6	E440A	839 mg/kg	118	70.0	130	----
	SCP SS-2	Uranium	7440-61-1	E440A	0.52 mg/kg	107	70.0	130	----
	SCP SS-2	Vanadium	7440-62-2	E440A	32.7 mg/kg	109	70.0	130	----
	SCP SS-2	Zinc	7440-66-6	E440A	297 mg/kg	102	70.0	130	----
	SCP SS-2	Zirconium	7440-67-7	E440A	5.73 mg/kg	92.6	70.0	130	----
Metals (<63 µm) (QCLot: 1095372)									
	SCP SS-2	Aluminum	7429-90-5	E440A	9817 mg/kg	106	70.0	130	----
	SCP SS-2	Antimony	7440-36-0	E440A	3.99 mg/kg	103	70.0	130	----
	SCP SS-2	Arsenic	7440-38-2	E440A	3.73 mg/kg	107	70.0	130	----
	SCP SS-2	Barium	7440-39-3	E440A	105 mg/kg	106	70.0	130	----
	SCP SS-2	Beryllium	7440-41-7	E440A	0.349 mg/kg	114	70.0	130	----
	SCP SS-2	Boron	7440-42-8	E440A	8.5 mg/kg	134	40.0	160	----
	SCP SS-2	Cadmium	7440-43-9	E440A	0.91 mg/kg	101	70.0	130	----
	SCP SS-2	Calcium	7440-70-2	E440A	31082 mg/kg	112	70.0	130	----
	SCP SS-2	Chromium	7440-47-3	E440A	101 mg/kg	118	70.0	130	----
	SCP SS-2	Cobalt	7440-48-4	E440A	6.9 mg/kg	106	70.0	130	----
	SCP SS-2	Copper	7440-50-8	E440A	123 mg/kg	103	70.0	130	----
	SCP SS-2	Iron	7439-89-6	E440A	23558 mg/kg	106	70.0	130	----
	SCP SS-2	Lead	7439-92-1	E440A	267 mg/kg	109	70.0	130	----
	SCP SS-2	Lithium	7439-93-2	E440A	9.5 mg/kg	111	70.0	130	----
	SCP SS-2	Magnesium	7439-95-4	E440A	5509 mg/kg	111	70.0	130	----
	SCP SS-2	Manganese	7439-96-5	E440A	269 mg/kg	107	70.0	130	----
	SCP SS-2	Molybdenum	7439-98-7	E440A	1.03 mg/kg	108	70.0	130	----
	SCP SS-2	Nickel	7440-02-0	E440A	26.7 mg/kg	105	70.0	130	----
	SCP SS-2	Phosphorus	7723-14-0	E440A	752 mg/kg	95.5	70.0	130	----



Sub-Matrix:

Laboratory sample ID	Reference Material ID	Analyte	CAS Number	Method	Reference Material (RM) Report				
					RM Target Concentration	Recovery (%) RM	Recovery Limits (%)		Qualifier
							Low	High	
Metals (<63 µm) (QCLot: 1095372) - continued									
	SCP SS-2	Potassium	7440-09-7	E440A	1587 mg/kg	108	70.0	130	----
	SCP SS-2	Sodium	7440-23-5	E440A	797 mg/kg	100.0	70.0	130	----
	SCP SS-2	Strontium	7440-24-6	E440A	86.1 mg/kg	105	70.0	130	----
	SCP SS-2	Thallium	7440-28-0	E440A	0.0786 mg/kg	98.1	40.0	160	----
	SCP SS-2	Tin	7440-31-5	E440A	10.6 mg/kg	101	70.0	130	----
	SCP SS-2	Titanium	7440-32-6	E440A	839 mg/kg	114	70.0	130	----
	SCP SS-2	Uranium	7440-61-1	E440A	0.52 mg/kg	102	70.0	130	----
	SCP SS-2	Vanadium	7440-62-2	E440A	32.7 mg/kg	108	70.0	130	----
	SCP SS-2	Zinc	7440-66-6	E440A	297 mg/kg	103	70.0	130	----
	SCP SS-2	Zirconium	7440-67-7	E440A	5.73 mg/kg	97.3	70.0	130	----
Metals (<63 µm) (QCLot: 1095373)									
	SCP SS-2	Mercury	7439-97-6	E510A	0.059 mg/kg	105	70.0	130	----



ALS Environmental

Chain-of-Custody (COC) / Analytical Request Form

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COC Number: 15

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Report To Contact and company name below will appear on the final report		Report Format / Distribution			Select Service Level Below - Please confirm all E&P TATs with your AM - surcharges will apply												
Company:	Mount Polley Mining Corporation	Select Report Format: <input checked="" type="checkbox"/> PDF <input checked="" type="checkbox"/> EXCEL <input checked="" type="checkbox"/> EDD (DIGITAL)			Regular [R] <input checked="" type="checkbox"/> Standard TAT if received by 3 pm - business days - no surcharges apply												
Contact:	Gabriel Holmes	Quality Control (QC) Report with Report <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO			PRIORITY (Business Days)			EMERGENCY			1 Business day [E1] <input type="checkbox"/>						
Phone:	236-317-4939	<input type="checkbox"/> Compare Results to Criteria on Report - provide details below if box checked			4 day [P4] <input type="checkbox"/>			3 day [P3] <input type="checkbox"/>			Same Day, Weekend or Statutory holiday [E0] <input type="checkbox"/>						
Company address below will appear on the final report		Select Distribution: <input checked="" type="checkbox"/> EMAIL <input type="checkbox"/> MAIL <input type="checkbox"/> FAX			Date and Time Required for all E&P TATs:												
Street:	PO Box 12	Email 1 or Fax gabriel.holmes@mountpolley.com			For tests that can not be performed according to the service level selected, you will be contacted.												
City/Province:	Likely, BC	Email 2 kbachelor@minnow.ca, slatimer@minnow.ca			Analysis Request												
Postal Code:	V0L 1N0	Email 3 simone.derosmond@minnow.ca			Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below												
Invoice To	Same as Report To <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	Invoice Distribution			Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below												
	Copy of Invoice with Report <input type="checkbox"/> YES <input type="checkbox"/> NO	Select Invoice Distribution: <input checked="" type="checkbox"/> EMAIL <input checked="" type="checkbox"/> MAIL <input type="checkbox"/> FAX															
Company:		Email 1 or Fax gabriel.holmes@mountpolley.com															
Contact:		Email 2															
Project Information		Oil and Gas Required Fields (client use)															
ALS Account # / Quote #:	VA22-MPMC100-005	AFE/Cost Center:		PO#													
Job #:		Major/Minor Code:		Routing Code:													
PO / AFE:		Requisitioner:															
LSD		Location:															
ALS Lab Work Order # (lab use only)	B 8809	ALS Contact:	Can Dang	Sampler:	KBa												
ALS Sample # (lab use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	Metals in Sediment by CRC ICPMS (<63µm) (E440A)	TC, TOC, TIC in Soil (<63 µm) (S351A)	pH by Meter (1:2 Soil:Water Extraction) (E108)	Total Nitrogen by combustion method (0.02 %) (E366)	Total Sulfur by high temperature combustion (E399)	Particle Size Analysis (Pipette-gravel) (S184EA)	Moisture Content by Gravimetry (E144)	Mercury in Sediment by CVAAS (<63µm) (E510A)				Number of Containers	
1	HAC-U_SE-1_2023-08 A	09-Aug-23		Sediment	R	R	R	R	R	R	R	R			1		
2	HAC-U_SE-1_2023-08 B	09-Aug-23		Sediment											1		
3	HAC-U_SE-2_2023-08 A	09-Aug-23		Sediment	R	R	R	R	R	R	R	R			1		
4	HAC-U_SE-2_2023-08 B	09-Aug-23		Sediment											1		
5	HAC-U_SE-3_2023-08 A	09-Aug-23		Sediment	R	R	R	R	R	R	R	R			1		
6	HAC-U_SE-3_2023-08 B	09-Aug-23		Sediment											1		
7	HAC-U_SE-4_2023-08 A	09-Aug-23		Sediment	R	R	R	R	R	R	R	R			1		
8	HAC-U_SE-4_2023-08 B	09-Aug-23		Sediment											1		
9	HAC-U_SE-5_2023-08 A	09-Aug-23		Sediment	R	R	R	R	R	R	R	R			1		
10	HAC-U_SE-5_2023-08 B	09-Aug-23		Sediment											1		
11	HAC-D_SE-1_2023-08 A	09-Aug-23		Sediment	R	R	R	R	R	R	R	R			1		
12	HAC-D_SE-1_2023-08 B	09-Aug-23		Sediment											1		
Drinking Water (DW) Samples¹ (client use)		Special Instructions / Specify Criteria to add on report by clicking on the drop-down list below (electronic COC only)															
Are samples taken from a Regulated DW System? <input type="checkbox"/> YES <input type="checkbox"/> NO		Samples consist of 2 jars (denoted -A and -B). Please combine and homogenize the 2 jars before running analyses. Analyses are intended for the homogenized samples so are only listed for once for each A&B pairing.															
Are samples for human drinking water use? <input type="checkbox"/> YES <input type="checkbox"/> NO		Frozen <input type="checkbox"/> SIF Observations Yes <input type="checkbox"/> No <input type="checkbox"/> Ice Packs <input checked="" type="checkbox"/> Ice Cubes <input type="checkbox"/> Custody-seal intact Yes <input type="checkbox"/> No <input type="checkbox"/> Cooling Initiated <input type="checkbox"/>															
		INITIAL COOLER TEMPERATURES °C				FINAL COOLER TEMPERATURES °C											
						7.9, 2, 15, 8											
SHIPMENT RELEASE (client use)				INITIAL SHIPMENT RECEPTION (lab use only)				FINAL SHIPMENT RECEPTION (lab use only)									
Released by:	Date:	Time:	Received by:	Date:	Time:	Received by:	Date:	Time:									
Katherine Baldebi	12-Aug-23	14:00				RD	Aug 15, 23	4:40am									

Environmental Division
Vancouver
Work Order Reference
VA23B8809



Telephone : +1 604 253 4188

Report To Contact and company name below will appear on the final report			Report Format / Distribution			Select Service Level Below - Please confirm all E&P TATs with your AM - surcharges will apply															
Company: Mount Polley Mining Corporation			Select Report Format: <input checked="" type="checkbox"/> PDF <input checked="" type="checkbox"/> EXCEL <input checked="" type="checkbox"/> EDD (DIGITAL)			Regular [R] <input checked="" type="checkbox"/> Standard TAT if received by 3 pm - business days - no surcharges apply															
Contact: Gabriel Holmes			Quality Control (QC) Report with Report <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO			PRIORITY (Business Days)			4 day [P4] <input type="checkbox"/>			EMERGENCY			1 Business day [E1] <input type="checkbox"/>						
Phone: 236-317-4939			<input type="checkbox"/> Compare Results to Criteria on Report - provide details below if box checked						3 day [P3] <input type="checkbox"/>						Same Day, Weekend or Statutory holiday [E0] <input type="checkbox"/>						
Company address below will appear on the final report						Select Distribution: <input checked="" type="checkbox"/> EMAIL <input type="checkbox"/> MAIL <input type="checkbox"/> FAX															
Street: PO Box 12			Email 1 or Fax: gabriel.holmes@mountpolley.com			Date and Time Required for all E&P TATs:															
City/Province: Likely, BC			Email 2: kbatchelar@minnow.ca, slatimer@minnow.ca			For tests that can not be performed according to the service level selected, you will be contacted.															
Postal Code: V0L 1N0			Email 3: simone.deroosemond@minnow.ca			Analysis Request															
Invoice To: Same as Report To <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO			Invoice Distribution			Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below															
Copy of Invoice with Report <input type="checkbox"/> YES <input type="checkbox"/> NO			Select Invoice Distribution: <input checked="" type="checkbox"/> EMAIL <input checked="" type="checkbox"/> MAIL <input type="checkbox"/> FAX																		
Company:			Email 1 or Fax: gabriel.holmes@mountpolley.com			Number of Containers															
Contact:			Email 2:																		
Project Information			Oil and Gas Required Fields (client use)																		
ALS Account # / Quote #: VA22-MPMC100-005			AFE/Cost Center: PO#																		
Job #:			Major/Minor Code: Routing Code:																		
PO / AFE:			Requisitioner:																		
LSD:			Location:																		
ALS Lab Work Order # (lab use only)			ALS Contact: Can Dang			Sampler: KBA															
ALS Sample # (lab use only)	Sample Identification and/or Coordinates (This description will appear on the report)				Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	Metals in Sediment (<63µm) (E440A)	TC, TOC, TIC in Soil (<63 µm) (S351A)	pH by Meter (1:2 Soil:Water Extraction) (E108)	Total Nitrogen by combustion method (0.02%) (E366)	Total Sulfur by high temperature combustion (E399)	Particle Size Analysis (Particle-gravel) (S184EA)	Moisture Content by Gravimetry (E144)	Mercury in Sediment by CVAAS (<63µm) (E510A)						
13	HAC-D_SE-2_2023-08 A				06-Aug-23	-	Sediment	R	R	R	R	R	R	R	R	R	1				
14	HAC-D_SE-2_2023-08 B				06-Aug-23	-	Sediment										1				
15	HAC-D_SE-3_2023-08 A				05-Aug-23	-	Sediment	R	R	R	R	R	R	R	R	R	1				
16	HAC-D_SE-3_2023-08 B				05-Aug-23	-	Sediment										1				
17	HAC-D_SE-4_2023-08 A				05-Aug-23	-	Sediment	R	R	R	R	R	R	R	R	R	1				
18	HAC-D_SE-4_2023-08 B				05-Aug-23	-	Sediment										1				
19	HAC-D_SE-5_2023-08 A				05-Aug-23	-	Sediment	R	R	R	R	R	R	R	R	R	1				
20	HAC-D_SE-5_2023-08 B				05-Aug-23	-	Sediment										1				
21	EDC-U_SE-1_2023-08 A				08-Aug-23	-	Sediment	R	R	R	R	R	R	R	R	R	1				
22	EDC-U_SE-1_2023-08 B				08-Aug-23	-	Sediment										1				
23	EDC-U_SE-2_2023-08 A				07-Aug-23	-	Sediment	R	R	R	R	R	R	R	R	R	1				
24	EDC-U_SE-2_2023-08 B				07-Aug-23	-	Sediment										1				
Drinking Water (DW) Samples¹ (client use)			Special Instructions / Specify Criteria to add on report by clicking on the drop-down list below (electronic COC only)			SAMPLE CONDITION AS RECEIVED (lab use only)															
Are samples taken from a Regulated DW System? <input type="checkbox"/> YES <input type="checkbox"/> NO			Samples consist of 2 jars (denoted -A and -B). Please combine and homogenize the 2 jars before running analyses. Analyses are intended for the homogenized samples so are only listed for once for each A&B pairing			Frozen <input type="checkbox"/> SIF Observations Yes <input type="checkbox"/> No <input type="checkbox"/> Ice Packs <input checked="" type="checkbox"/> Ice Cubes <input type="checkbox"/> Custody seal intact Yes <input type="checkbox"/> No <input type="checkbox"/> Cooling Initiated <input type="checkbox"/>															
Are samples for human drinking water use? <input type="checkbox"/> YES <input type="checkbox"/> NO						INITIAL COOLER TEMPERATURES °C						FINAL COOLER TEMPERATURES °C									
SHIPMENT RELEASE (client use)			INITIAL SHIPMENT RECEPTION (lab use only)			7.9, 2.15, 8															
Released by: Katharina Bodeker	Date: 12-Aug-23	Time: 14:00	Received by: RD	Date: Aug 15, 23	Time: 9:40am																



Chain of Custody (COC) / Analytical Request Form

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Affix ALS barcode label here
(lab use only)

COC Number: 15 -

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Report To Contact and company name below will appear on the final report			Report Format / Distribution				Select Service Level Below - Please confirm all E&P TATs with your AM - surcharges will apply																						
Company: Mount Polley Mining Corporation			Select Report Format: <input checked="" type="checkbox"/> PDF <input checked="" type="checkbox"/> EXCEL <input checked="" type="checkbox"/> EDD (DIGITAL)				Regular [R] <input checked="" type="checkbox"/> Standard TAT if received by 3 pm - business days - no surcharges apply																						
Contact: Gabriel Holmes			Quality Control (QC) Report with Report <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO				PROPERTY (Business Days)			EMERGENCY																			
Phone: 236-317-4939			<input type="checkbox"/> Compare Results to Criteria on Report - provide details below if box checked				4 day [P4] <input type="checkbox"/>			3 day [P3] <input type="checkbox"/>			1 Business day [E1] <input type="checkbox"/>																
Company address below will appear on the final report			Select Distribution: <input checked="" type="checkbox"/> EMAIL <input type="checkbox"/> MAIL <input type="checkbox"/> FAX				2 day [P2] <input type="checkbox"/>			Same Day, Weekend or Statutory holiday [E0] <input type="checkbox"/>																			
Street: PO Box 12			Email 1 or Fax gabriel.holmes@mountpolley.com				Date and Time Required for all E&P TATs:																						
City/Province: Likely, BC			Email 2 kbatchelar@minnow.ca, slatimer@minnow.ca				For tests that can not be performed according to the service level selected, you will be contacted.																						
Postal Code: V0L 1N0			Email 3 simone.derosemond@minnow.ca				Analysis Request																						
Invoice To Same as Report To <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO			Invoice Distribution				Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below																						
Copy of Invoice with Report <input type="checkbox"/> YES <input type="checkbox"/> NO			Select Invoice Distribution: <input checked="" type="checkbox"/> EMAIL <input checked="" type="checkbox"/> MAIL <input type="checkbox"/> FAX																										
Company:			Email 1 or Fax gabriel.holmes@mountpolley.com																										
Contact:			Email 2																										
Project Information			Oil and Gas Required Fields (client use)																										
ALS Account # / Quote #: VA22-MPMC100-005			AFE/Cost Center:		PO#																								
Job #:			Major/Minor Code:		Routing Code:																								
PO / AFE:			Requisitioner:																										
LSD:			Location:																										
ALS Lab Work Order # (lab use only)			ALS Contact: Can Dang		Sampler: LBa																								
ALS Sample # (lab use only)	Sample Identification and/or Coordinates (This description will appear on the report)				Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	Metals in Sediment by CRC ICPMS (<63µm) (E440A)					TC, TOC, TIC in Soil (<63 µm) (S351A)			pH by Meter (1:2 Soil:Water Extraction) (E108)		Total Nitrogen by combustion method (0.02%) (E366)		Total Sulfur by high temperature combustion (E399)		Particle Size Analysis (Pipette-gravel) (S184EA)		Moisture Content by Gravimetry (E144)		Mercury in Sediment by CVAAS (<63µm) (E510A)		Number of Containers	
25	EDC-U_SE-3_2023-08 A				07	Aug-23	-	Sediment	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	1	
26	EDC-U_SE-3_2023-08 B				07	Aug-23	-	Sediment																				1	
27	EDC-U_SE-4_2023-08 A				07	Aug-23	-	Sediment	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	1	
28	EDC-U_SE-4_2023-08 B				07	Aug-23	-	Sediment																				1	
29	EDC-U_SE-5_2023-08 A				07	Aug-23	-	Sediment	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	1	
30	EDC-U_SE-5_2023-08 B				07	Aug-23	-	Sediment																				1	
31	EDC-D_SE-1_2023-08 A				07	Aug-23	-	Sediment	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	1	
32	EDC-D_SE-1_2023-08 B				07	Aug-23	-	Sediment																				1	
33	EDC-D_SE-2_2023-08 A				12	Aug-23	-	Sediment	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	1	
34	EDC-D_SE-2_2023-08 B				12	Aug-23	-	Sediment																				1	
35	EDC-D_SE-3_2023-08 A				12	Aug-23	-	Sediment	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	1	
36	EDC-D_SE-3_2023-08 B				12	Aug-23	-	Sediment																				1	

Drinking Water (DW) Samples¹ (client use)		Special Instructions / Specify Criteria to add on report by clicking on the drop-down list below (electronic COC only)				SAMPLE CONDITION AS RECEIVED (lab use only)																	
Are samples taken from a Regulated DW System? <input type="checkbox"/> YES <input type="checkbox"/> NO		Samples consist of 2 jars (denoted -A and -B). Please combine and homogenize the 2 jars before running analyses. Analyses are intended for the homogenized samples so are only listed for once for each A&B pairing.				Frozen <input type="checkbox"/> SIF Observations Yes <input type="checkbox"/> No <input type="checkbox"/>																	
Are samples for human drinking water use? <input type="checkbox"/> YES <input type="checkbox"/> NO						Ice Packs <input checked="" type="checkbox"/> Ice Cubes <input type="checkbox"/> Custody seal intact Yes <input type="checkbox"/> No <input type="checkbox"/>																	
						Cooling Initiated <input type="checkbox"/>						INITIAL COOLER TEMPERATURES °C						FINAL COOLER TEMPERATURES °C					
												7.9, 2, 15.8											
SHIPMENT RELEASE (client use)				INITIAL SHIPMENT RECEPTION (lab use only)				FINAL SHIPMENT RECEPTION (lab use only)															
Released by: Katharina Batchelar		Date: 12-Aug-23		Time: 14:00		Received by: RD		Date: Aug 15, 23		Time: 9:40am													

Report To <small>Contact and company name below will appear on the final report</small>		Report Format / Distribution			Select Service Level Below - Please confirm all E&P TATs with your AM - surcharges will apply																																		
Company:	Mount Polley Mining Corporation	Select Report Format: <input checked="" type="checkbox"/> PDF <input checked="" type="checkbox"/> EXCEL <input checked="" type="checkbox"/> EDD (DIGITAL)			Regular [R] <input checked="" type="checkbox"/> Standard TAT if received by 3 pm - business days - no surcharges apply																																		
Contact:	Gabriel Holmes	Quality Control (QC) Report with Report <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO			PRIORITY <small>(Business Days)</small>	4 day [P4] <input type="checkbox"/>				EMERGENCY	1 Business day [E1] <input type="checkbox"/>																												
Phone:	236-317-4939	<input type="checkbox"/> Compare Results to Criteria on Report - provide details below if box checked				3 day [P3] <input type="checkbox"/>					Same Day, Weekend or Statutory holiday [E0] <input type="checkbox"/>																												
<small>Company address below will appear on the final report</small>		Select Distribution: <input checked="" type="checkbox"/> EMAIL <input type="checkbox"/> MAIL <input type="checkbox"/> FAX			Date and Time Required for all E&P TATs:																																		
Street:	PO Box 12	Email 1 or Fax gabriel.holmes@mountpolley.com			For tests that can not be performed according to the service level selected, you will be contacted.																																		
City/Province:	Likely, BC	Email 2 kbatchelar@minnow.ca, slatimer@minnow.ca			Analysis Request																																		
Postal Code:	V0L 1N0	Email 3 simone.derosemond@minnow.ca																																					
Invoice To Same as Report To <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO		Invoice Distribution			<small>Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below</small>																																		
Copy of Invoice with Report <input type="checkbox"/> YES <input type="checkbox"/> NO		Select Invoice Distribution: <input checked="" type="checkbox"/> EMAIL <input checked="" type="checkbox"/> MAIL <input type="checkbox"/> FAX																																					
Company:		Email 1 or Fax gabriel.holmes@mountpolley.com			<small>Metals in Sediment by CRC ICPMS (<63µm) (E440A)</small>	<small>TC, TOC, TIC in Soil (<63 µm) (E351A)</small>	<small>pH by Meter (1:2 Soil:Water Extraction) (E109)</small>	<small>Total Nitrogen by combustion method (0.02%) (E366)</small>	<small>Total Sulfur by high temperature combustion (E399)</small>	<small>Particle Size Analysis (Pipette+gravel) (S184EA)</small>	<small>Moisture Content by Gravimetry (E144)</small>	<small>Mercury in Sediment by CVAAS (<63µm) (E510A)</small>	Number of Containers																										
Contact:		Email 2																																					
Project Information		Oil and Gas Required Fields (client use)																																					
ALS Account # / Quote #:	VA22-MPMC100-005	AFE/Cost Center:		PO#																																			
Job #:		Major/Minor Code:		Routing Code:																																			
PO / AFE:		Requisitioner:																																					
LSD:		Location:																																					
ALS Lab Work Order # (lab use only)		ALS Contact:	Can Dang	Sampler: <i>KBa</i>																																			
ALS Sample # (lab use only)	Sample Identification and/or Coordinates <small>(This description will appear on the report)</small>	Date <small>(dd-mmm-yy)</small>	Time <small>(hh:mm)</small>	Sample Type																																			
37	EDC-D_SE-4_2023-08 A	12	-Aug-23	-																			Sediment	R	R	R	R	R	R	R	R	R							
38	EDC-D_SE-4_2023-08 B	12	-Aug-23	-	Sediment																	1																	
39	EDC-D_SE-5_2023-08 A	12	-Aug-23	-	Sediment	R	R	R	R	R	R	R	R	R								1																	
40	EDC-D_SE-5_2023-08 B	12	-Aug-23	-	Sediment																	1																	
41	HAC-U_SE-IX_2023-08 A	09	-Aug-23	-	Sediment	R	R	R	R	R	R	R	R	R								1																	
42	HAC-U_SE-IX_2023-08 B	09	-Aug-23	-	Sediment																	1																	
43	HAC-D_SE-IX_2023-08 A	06	-Aug-23	-	Sediment	R	R	R	R	R	R	R	R	R								1																	
44	HAC-D_SE-IX_2023-08 B	06	-Aug-23	-	Sediment																	1																	
Drinking Water (DW) Samples¹ (client use)		Special Instructions / Specify Criteria to add on report by clicking on the drop-down list below <small>(electronic COC only)</small>			SAMPLE CONDITION AS RECEIVED (lab use only)																																		
Are samples taken from a Regulated DW System? <input type="checkbox"/> YES <input type="checkbox"/> NO		Samples consist of 2 jars (denoted -A and -B). Please combine and homogenize the 2 jars before running analyses. Analyses are intended for the homogenized samples so are only listed for once for each A&B pairing			Frozen <input type="checkbox"/> SIF Observations Yes <input type="checkbox"/> No <input type="checkbox"/>																																		
Are samples for human drinking water use? <input type="checkbox"/> YES <input type="checkbox"/> NO					Ice Packs <input checked="" type="checkbox"/> Ice Cubes <input type="checkbox"/> Custody seal intact Yes <input type="checkbox"/> No <input type="checkbox"/>																																		
					Cooling Initiated <input type="checkbox"/>					INITIAL COOLER TEMPERATURES °C					FINAL COOLER TEMPERATURES °C																								
										7.9, 2, 15.8																													
SHIPMENT RELEASE (client use)				INITIAL SHIPMENT RECEPTION (lab use only)				FINAL SHIPMENT RECEPTION (lab use only)																															
Released by: <i>Katharina Batchelar</i>		Date: <i>12-Aug-23</i>		Time: <i>14:00</i>		Received by: <i>RD</i>		Date: <i>Aug 15, 23</i>		Time: <i>9:40am</i>																													

SEDIMENT QUALITY

**ALS Laboratory Report VA23C0419
(Finalized September 19, 2023)**

CERTIFICATE OF ANALYSIS

Work Order : **VA23C0419**
Client : **Mount Polley Mining Corporation**
Contact : Mr. Gabriel Holmes
Address : PO Box 12
 Likely BC Canada V0L 1N0
Telephone : 250-790-2215 ext 2171
Project : ----
PO : ----
C-O-C number : ----
Sampler : ----
Site : ----
Quote number : VA22-MPMC100-005 - Minnow Environmental-Sediment Quality
No. of samples received : 51
No. of samples analysed : 17

Page : 1 of 10
Laboratory : ALS Environmental - Vancouver
Account Manager : Can Dang
Address : 8081 Lougheed Highway
 Burnaby BC Canada V5A 1W9
Telephone : +1 604 253 4188
Date Samples Received : 30-Aug-2023 08:35
Date Analysis Commenced : 06-Sep-2023
Issue Date : 19-Sep-2023 23:21

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QC Interpretive report to assist with Quality Review and Sample Receipt Notification (SRN).

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

<i>Signatories</i>	<i>Position</i>	<i>Laboratory Department</i>
Hedy Lai	Team Leader - Inorganics	Inorganics, Saskatoon, Saskatchewan
Hedy Lai	Team Leader - Inorganics	Sask Soils, Saskatoon, Saskatchewan
Ophelia Chiu	Department Manager - Organics	Organics, Burnaby, British Columbia
Robin Weeks	Team Leader - Metals	Metals, Burnaby, British Columbia
Sam Silveira	Lab Assistant	Metals, Burnaby, British Columbia
Xihua Yao	Laboratory Analyst	Inorganics, Saskatoon, Saskatchewan



General Comments

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Refer to the ALS Quality Control Interpretive report (QCI) for applicable references and methodology summaries. Reference methods may incorporate modifications to improve performance.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

Please refer to Quality Control Interpretive report (QCI) for information regarding Holding Time compliance.

Key : CAS Number: Chemical Abstracts Services number is a unique identifier assigned to discrete substances
LOR: Limit of Reporting (detection limit).

<i>Unit</i>	<i>Description</i>
%	percent
mg/kg	milligrams per kilogram
pH units	pH units

<: less than.

>: greater than.

Surrogate: An analyte that is similar in behavior to target analyte(s), but that does not occur naturally in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery.

Test results reported relate only to the samples as received by the laboratory.

UNLESS OTHERWISE STATED on SRN or QCI Report, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

Workorder Comments

PSAL:Sample 045: Limited sample was available for PSA (100g minimum is standard). Measurement Uncertainty for PSA results may be higher than usual.



Analytical Results

Sub-Matrix: Sediment

Client sample ID

(Matrix: Soil/Solid)

					QUL-LNF1_SE-1 _2023-08 A+B	QUL-LNF1_SE-2 _2023-08 A+B	QUL-LNF1_SE-3 _2023-08 A+B	QUL-LNF1_SE-4 _2023-08 A+B	QUL-LNF1_SE-5 _2023-08 A+B
Client sampling date / time					26-Aug-2023 00:00	26-Aug-2023 00:00	26-Aug-2023 00:00	26-Aug-2023 00:00	26-Aug-2023 00:00
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23C0419-003 Result	VA23C0419-006 Result	VA23C0419-009 Result	VA23C0419-012 Result	VA23C0419-015 Result
Physical Tests									
Moisture	----	E144/VA	0.25	%	30.3	31.4	30.9	27.8	28.1
pH (1:2 soil:water)	----	E108/VA	0.10	pH units	8.70	8.70	8.80	8.92	8.74
Particle Size									
Gravel (>2mm)	----	EC184E/SK	1.0	%	<1.0	<1.0	<1.0	1.1	3.9
Sand (2.0mm - 0.063mm)	----	EC184E/SK	1.0	%	95.3	95.8	95.5	96.5	92.5
Silt (0.063mm - 0.004mm)	----	EC184E/SK	1.0	%	4.6	4.2	4.5	2.4	3.6
Clay (<0.004mm)	----	EC184E/SK	1.0	%	<1.0	<1.0	<1.0	<1.0	<1.0
Anions and Nutrients									
Nitrogen, total	7727-37-9	E366/SK	0.020	%	<0.020	0.031	0.031	0.026	0.034
Organic / Inorganic Carbon									
Carbon, total organic [TOC], <63µm	----	EC356A/SK	0.050	%	0.295	0.390	0.267	0.181	0.338
Inorganics									
Sulfur, total	7704-34-9	E399/SK	500	mg/kg	1320	1160	1110	990	950
Metals									
Aluminum	7429-90-5	E440A/VA	50	mg/kg	13500	15600	15600	13700	16900
Antimony	7440-36-0	E440A/VA	0.10	mg/kg	0.53	0.46	0.52	0.48	0.53
Arsenic	7440-38-2	E440A/VA	0.050	mg/kg	16.2	14.2	16.6	17.2	17.6
Barium	7440-39-3	E440A/VA	0.50	mg/kg	129	135	145	138	226
Beryllium	7440-41-7	E440A/VA	0.10	mg/kg	0.50	0.51	0.54	0.50	0.54
Bismuth	7440-69-9	E440A/VA	0.10	mg/kg	0.14	0.11	0.14	0.15	0.12
Boron	7440-42-8	E440A/VA	5.0	mg/kg	8.5	8.3	9.4	6.9	7.7
Cadmium	7440-43-9	E440A/VA	0.020	mg/kg	0.284	0.255	0.303	0.299	0.282
Calcium	7440-70-2	E440A/VA	50	mg/kg	23800	20300	26300	21300	23000
Chromium	7440-47-3	E440A/VA	0.50	mg/kg	61.2	33.9	41.1	56.6	40.5
Cobalt	7440-48-4	E440A/VA	0.10	mg/kg	31.9	19.1	26.7	30.3	20.8
Copper	7440-50-8	E440A/VA	0.50	mg/kg	1470	1170	1530	1520	1260
Iron	7439-89-6	E440A/VA	50	mg/kg	183000	77400	131000	162000	84400
Lead	7439-92-1	E440A/VA	0.10	mg/kg	8.10	7.15	10.6	8.77	7.79
Lithium	7439-93-2	E440A/VA	2.0	mg/kg	12.8	13.7	14.5	13.8	14.9



Analytical Results

Sub-Matrix: Sediment

Client sample ID

(Matrix: Soil/Solid)

					QUL-LNF1_SE-1 _2023-08 A+B	QUL-LNF1_SE-2 _2023-08 A+B	QUL-LNF1_SE-3 _2023-08 A+B	QUL-LNF1_SE-4 _2023-08 A+B	QUL-LNF1_SE-5 _2023-08 A+B
Client sampling date / time					26-Aug-2023 00:00	26-Aug-2023 00:00	26-Aug-2023 00:00	26-Aug-2023 00:00	26-Aug-2023 00:00
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23C0419-003	VA23C0419-006	VA23C0419-009	VA23C0419-012	VA23C0419-015
					Result	Result	Result	Result	Result
Metals									
Magnesium	7439-95-4	E440A/VA	10	mg/kg	8670	8950	9880	9230	10200
Manganese	7439-96-5	E440A/VA	0.20	mg/kg	947	950	937	1050	938
Mercury	7439-97-6	E510A/VA	0.0050	mg/kg	0.0980	0.106	0.122	0.121	0.118
Molybdenum	7439-98-7	E440A/VA	0.10	mg/kg	5.02	3.20	5.04	4.08	4.76
Nickel	7440-02-0	E440A/VA	0.50	mg/kg	22.8	19.9	19.9	25.3	22.6
Phosphorus	7723-14-0	E440A/VA	50	mg/kg	1500	1530	1690	1620	1530
Potassium	7440-09-7	E440A/VA	100	mg/kg	810	980	920	790	1010
Selenium	7782-49-2	E440A/VA	0.10	mg/kg	1.69	1.29	1.84	1.75	1.43
Silver	7440-22-4	E440A/VA	0.050	mg/kg	0.644	0.473	0.717	0.784	0.469
Sodium	7440-23-5	E440A/VA	50	mg/kg	426	544	566	424	611
Strontium	7440-24-6	E440A/VA	0.10	mg/kg	102	127	127	97.5	136
Thallium	7440-28-0	E440A/VA	0.050	mg/kg	<0.050	0.053	<0.050	0.053	<0.050
Tin	7440-31-5	E440A/VA	0.20	mg/kg	1.70	1.37	1.58	1.34	1.28
Titanium	7440-32-6	E440A/VA	1.0	mg/kg	1710	1370	1540	1280	1330
Uranium	7440-61-1	E440A/VA	0.050	mg/kg	1.05	1.00	1.06	0.921	0.990
Vanadium	7440-62-2	E440A/VA	0.20	mg/kg	760	311	539	667	340
Zinc	7440-66-6	E440A/VA	1.0	mg/kg	93.2	68.8	92.1	92.5	81.6
Zirconium	7440-67-7	E440A/VA	1.0	mg/kg	5.7	5.9	6.4	5.0	6.0

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.



Analytical Results

Sub-Matrix: Sediment

Client sample ID

(Matrix: Soil/Solid)

					QUL-LREF1_SE-1_2023-08 A+B	QUL-LREF1_SE-2_2023-08 A+B	QUL-LREF1_SE-3_2023-08 A+B	QUL-LREF1_SE-4_2023-08 A+B	QUL-LREF1_SE-5_2023-08 A+B
Client sampling date / time					26-Aug-2023 00:00	26-Aug-2023 00:00	26-Aug-2023 00:00	26-Aug-2023 00:00	26-Aug-2023 00:00
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23C0419-018	VA23C0419-021	VA23C0419-024	VA23C0419-027	VA23C0419-030
					Result	Result	Result	Result	Result
Physical Tests									
Moisture	---	E144/VA	0.25	%	38.6	31.8	44.8	41.4	38.1
pH (1:2 soil:water)	---	E108/VA	0.10	pH units	6.29	6.31	6.19	6.52	6.44
Particle Size									
Gravel (>2mm)	---	EC184E/SK	1.0	%	5.2	<1.0	1.7	3.0	4.5
Sand (2.0mm - 0.063mm)	---	EC184E/SK	1.0	%	74.9	84.2	53.1	72.0	58.6
Silt (0.063mm - 0.004mm)	---	EC184E/SK	1.0	%	17.1	14.0	40.9	22.0	33.8
Clay (<0.004mm)	---	EC184E/SK	1.0	%	2.8	1.5	4.3	3.0	3.1
Anions and Nutrients									
Nitrogen, total	7727-37-9	E366/SK	0.020	%	0.070	0.070	0.123	0.091	0.081
Organic / Inorganic Carbon									
Carbon, total organic [TOC], <63µm	---	EC356A/SK	0.050	%	1.56	1.14	1.46	1.54	0.884
Inorganics									
Sulfur, total	7704-34-9	E399/SK	500	mg/kg	660	560	600	<500	510
Metals									
Aluminum	7429-90-5	E440A/VA	50	mg/kg	15900	13800	15700	16400	13800
Antimony	7440-36-0	E440A/VA	0.10	mg/kg	0.30	0.25	0.28	0.30	0.22
Arsenic	7440-38-2	E440A/VA	0.050	mg/kg	5.65	4.74	4.34	5.52	3.31
Barium	7440-39-3	E440A/VA	0.50	mg/kg	136	141	132	140	134
Beryllium	7440-41-7	E440A/VA	0.10	mg/kg	0.37	0.32	0.34	0.37	0.29
Bismuth	7440-69-9	E440A/VA	0.10	mg/kg	0.11	<0.10	0.10	0.10	<0.10
Boron	7440-42-8	E440A/VA	5.0	mg/kg	<5.0	<5.0	<5.0	<5.0	<5.0
Cadmium	7440-43-9	E440A/VA	0.020	mg/kg	0.362	0.280	0.337	0.354	0.260
Calcium	7440-70-2	E440A/VA	50	mg/kg	7770	7530	7540	7860	7100
Chromium	7440-47-3	E440A/VA	0.50	mg/kg	54.7	57.7	52.2	56.5	49.9
Cobalt	7440-48-4	E440A/VA	0.10	mg/kg	12.7	8.83	11.0	12.2	8.34
Copper	7440-50-8	E440A/VA	0.50	mg/kg	35.6	29.2	29.6	31.5	24.9
Iron	7439-89-6	E440A/VA	50	mg/kg	27100	26800	24700	26800	21100
Lead	7439-92-1	E440A/VA	0.10	mg/kg	5.96	4.74	5.29	5.45	4.32
Lithium	7439-93-2	E440A/VA	2.0	mg/kg	12.9	10.3	11.8	12.8	9.7
Magnesium	7439-95-4	E440A/VA	10	mg/kg	8310	7200	7740	8220	6970



Analytical Results

Sub-Matrix: Sediment

Client sample ID

(Matrix: Soil/Solid)

					QUL-LREF1_SE-1_2023-08 A+B	QUL-LREF1_SE-2_2023-08 A+B	QUL-LREF1_SE-3_2023-08 A+B	QUL-LREF1_SE-4_2023-08 A+B	QUL-LREF1_SE-5_2023-08 A+B
Client sampling date / time					26-Aug-2023 00:00	26-Aug-2023 00:00	26-Aug-2023 00:00	26-Aug-2023 00:00	26-Aug-2023 00:00
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23C0419-018	VA23C0419-021	VA23C0419-024	VA23C0419-027	VA23C0419-030
					Result	Result	Result	Result	Result
Metals									
Manganese	7439-96-5	E440A/VA	0.20	mg/kg	418	268	377	433	234
Mercury	7439-97-6	E510A/VA	0.0050	mg/kg	0.0363	0.0258	0.0304	0.0345	0.0245
Molybdenum	7439-98-7	E440A/VA	0.10	mg/kg	0.84	0.77	0.67	0.86	0.56
Nickel	7440-02-0	E440A/VA	0.50	mg/kg	32.1	25.9	29.6	31.8	24.5
Phosphorus	7723-14-0	E440A/VA	50	mg/kg	1170	1290	1130	1090	1150
Potassium	7440-09-7	E440A/VA	100	mg/kg	1180	960	1210	1280	920
Selenium	7782-49-2	E440A/VA	0.10	mg/kg	0.77	0.56	0.69	0.75	0.42
Silver	7440-22-4	E440A/VA	0.050	mg/kg	0.151	0.115	0.136	0.146	0.172
Sodium	7440-23-5	E440A/VA	50	mg/kg	413	399	436	444	383
Strontium	7440-24-6	E440A/VA	0.10	mg/kg	72.0	67.5	73.3	75.8	65.1
Thallium	7440-28-0	E440A/VA	0.050	mg/kg	0.120	0.091	0.109	0.117	0.092
Tin	7440-31-5	E440A/VA	0.20	mg/kg	0.47	0.39	0.38	0.41	0.34
Titanium	7440-32-6	E440A/VA	1.0	mg/kg	1050	1080	1090	1120	1050
Uranium	7440-61-1	E440A/VA	0.050	mg/kg	1.18	1.02	1.11	1.14	0.942
Vanadium	7440-62-2	E440A/VA	0.20	mg/kg	64.7	64.4	61.0	63.7	57.3
Zinc	7440-66-6	E440A/VA	1.0	mg/kg	68.2	55.8	62.5	65.8	53.4
Zirconium	7440-67-7	E440A/VA	1.0	mg/kg	4.2	4.1	3.7	3.1	3.6

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.



Analytical Results

Sub-Matrix: Sediment

Client sample ID

(Matrix: Soil/Solid)

					QUL-PNF_SE-1_ 2023-08 A+B	QUL-PNF_SE-2_ 2023-08 A+B	QUL-PNF_SE-3_ 2023-08 A+B	QUL-PNF_SE-4_ 2023-08 A+B	QUL-PNF_SE-5_ 2023-08 A+B
Client sampling date / time					25-Aug-2023 00:00	25-Aug-2023 00:00	25-Aug-2023 00:00	25-Aug-2023 00:00	26-Aug-2023 00:00
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23C0419-033	VA23C0419-036	VA23C0419-039	VA23C0419-042	VA23C0419-045
					Result	Result	Result	Result	Result
Physical Tests									
Moisture	---	E144/VA	0.25	%	64.7	64.1	56.0	59.6	63.8
pH (1:2 soil:water)	---	E108/VA	0.10	pH units	8.30	8.19	8.36	8.49	8.28
Particle Size									
Gravel (>2mm)	---	EC184E/SK	1.0	%	<1.0	<1.0	<1.0	<1.0	<1.0
Sand (2.0mm - 0.063mm)	---	EC184E/SK	1.0	%	6.1	4.5	7.9	8.4	1.1
Silt (0.063mm - 0.004mm)	---	EC184E/SK	1.0	%	52.8	52.2	48.2	45.1	46.4
Clay (<0.004mm)	---	EC184E/SK	1.0	%	41.1	43.3	43.9	46.5	52.5
Anions and Nutrients									
Nitrogen, total	7727-37-9	E366/SK	0.020	%	0.134	0.117	0.092	0.116	0.110
Organic / Inorganic Carbon									
Carbon, total organic [TOC], <63µm	---	EC356A/SK	0.050	%	0.862	0.861	0.518	0.768	0.707
Inorganics									
Sulfur, total	7704-34-9	E399/SK	500	mg/kg	1150	970	720	720	720
Metals									
Aluminum	7429-90-5	E440A/VA	50	mg/kg	30600	30800	26100	29600	30900
Antimony	7440-36-0	E440A/VA	0.10	mg/kg	0.54	0.51	0.49	0.52	0.52
Arsenic	7440-38-2	E440A/VA	0.050	mg/kg	16.2	16.2	13.5	14.9	14.5
Barium	7440-39-3	E440A/VA	0.50	mg/kg	293	292	276	295	309
Beryllium	7440-41-7	E440A/VA	0.10	mg/kg	0.88	0.92	0.75	0.86	0.89
Bismuth	7440-69-9	E440A/VA	0.10	mg/kg	0.15	0.15	0.15	0.17	0.16
Boron	7440-42-8	E440A/VA	5.0	mg/kg	10.4	9.3	8.7	9.1	9.9
Cadmium	7440-43-9	E440A/VA	0.020	mg/kg	0.247	0.236	0.233	0.254	0.254
Calcium	7440-70-2	E440A/VA	50	mg/kg	21800	21200	17300	16300	18500
Chromium	7440-47-3	E440A/VA	0.50	mg/kg	27.2	27.1	28.7	32.4	29.1
Cobalt	7440-48-4	E440A/VA	0.10	mg/kg	25.2	25.5	20.8	22.4	23.3
Copper	7440-50-8	E440A/VA	0.50	mg/kg	847	870	680	695	780
Iron	7439-89-6	E440A/VA	50	mg/kg	45300	41300	46000	40400	37300
Lead	7439-92-1	E440A/VA	0.10	mg/kg	10.7	11.0	10.8	12.1	11.6
Lithium	7439-93-2	E440A/VA	2.0	mg/kg	30.6	30.8	24.4	27.3	27.9
Magnesium	7439-95-4	E440A/VA	10	mg/kg	19700	20500	15100	16800	18100



Analytical Results

Sub-Matrix: Sediment

Client sample ID

(Matrix: Soil/Solid)

					QUL-PNF_SE-1_ 2023-08 A+B	QUL-PNF_SE-2_ 2023-08 A+B	QUL-PNF_SE-3_ 2023-08 A+B	QUL-PNF_SE-4_ 2023-08 A+B	QUL-PNF_SE-5_ 2023-08 A+B
Client sampling date / time					25-Aug-2023 00:00	25-Aug-2023 00:00	25-Aug-2023 00:00	25-Aug-2023 00:00	26-Aug-2023 00:00
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23C0419-033	VA23C0419-036	VA23C0419-039	VA23C0419-042	VA23C0419-045
					Result	Result	Result	Result	Result
Metals									
Manganese	7439-96-5	E440A/VA	0.20	mg/kg	1250	1380	1300	1490	1540
Mercury	7439-97-6	E510A/VA	0.0050	mg/kg	0.0884	0.0942	0.0821	0.0934	0.0956
Molybdenum	7439-98-7	E440A/VA	0.10	mg/kg	3.63	3.20	2.50	3.29	3.23
Nickel	7440-02-0	E440A/VA	0.50	mg/kg	25.0	26.1	25.3	29.1	27.2
Phosphorus	7723-14-0	E440A/VA	50	mg/kg	1220	1200	1230	1130	972
Potassium	7440-09-7	E440A/VA	100	mg/kg	2310	2230	2140	2450	2650
Selenium	7782-49-2	E440A/VA	0.10	mg/kg	1.41	1.19	0.87	0.93	0.97
Silver	7440-22-4	E440A/VA	0.050	mg/kg	0.341	0.349	0.299	0.313	0.325
Sodium	7440-23-5	E440A/VA	50	mg/kg	924	953	905	958	1030
Strontium	7440-24-6	E440A/VA	0.10	mg/kg	194	201	189	206	216
Thallium	7440-28-0	E440A/VA	0.050	mg/kg	0.072	0.076	0.078	0.096	0.086
Tin	7440-31-5	E440A/VA	0.20	mg/kg	1.74	1.58	1.26	1.40	1.54
Titanium	7440-32-6	E440A/VA	1.0	mg/kg	1920	1720	1470	1600	1700
Uranium	7440-61-1	E440A/VA	0.050	mg/kg	1.41	1.35	1.20	1.47	1.43
Vanadium	7440-62-2	E440A/VA	0.20	mg/kg	136	117	143	116	110
Zinc	7440-66-6	E440A/VA	1.0	mg/kg	99.2	102	84.4	93.4	95.1
Zirconium	7440-67-7	E440A/VA	1.0	mg/kg	6.7	5.5	4.7	5.0	5.0

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.



Analytical Results

Sub-Matrix: Sediment

(Matrix: Soil/Solid)

Client sample ID

					QUL-LREF1_SE-5X_2023-08 A+B	QUL-LNF1_SE-2X_2023-08 A+B	----	----	----
Client sampling date / time					26-Aug-2023 00:00	26-Aug-2023 00:00	----	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23C0419-048	VA23C0419-051	-----	-----	-----
					Result	Result	----	----	----
Physical Tests									
Moisture	----	E144/VA	0.25	%	37.1	30.8	----	----	----
pH (1:2 soil:water)	----	E108/VA	0.10	pH units	6.47	8.55	----	----	----
Particle Size									
Gravel (>2mm)	----	EC184E/SK	1.0	%	4.9	<1.0	----	----	----
Sand (2.0mm - 0.063mm)	----	EC184E/SK	1.0	%	55.6	96.2	----	----	----
Silt (0.063mm - 0.004mm)	----	EC184E/SK	1.0	%	36.8	3.8	----	----	----
Clay (<0.004mm)	----	EC184E/SK	1.0	%	2.7	<1.0	----	----	----
Anions and Nutrients									
Nitrogen, total	7727-37-9	E366/SK	0.020	%	0.095	0.031	----	----	----
Organic / Inorganic Carbon									
Carbon, total organic [TOC], <63µm	----	EC356A/SK	0.050	%	0.874	0.548	----	----	----
Inorganics									
Sulfur, total	7704-34-9	E399/SK	500	mg/kg	570	750	----	----	----
Metals									
Aluminum	7429-90-5	E440A/VA	50	mg/kg	13800	17000	----	----	----
Antimony	7440-36-0	E440A/VA	0.10	mg/kg	0.22	0.47	----	----	----
Arsenic	7440-38-2	E440A/VA	0.050	mg/kg	3.51	14.9	----	----	----
Barium	7440-39-3	E440A/VA	0.50	mg/kg	139	163	----	----	----
Beryllium	7440-41-7	E440A/VA	0.10	mg/kg	0.32	0.51	----	----	----
Bismuth	7440-69-9	E440A/VA	0.10	mg/kg	<0.10	0.10	----	----	----
Boron	7440-42-8	E440A/VA	5.0	mg/kg	<5.0	8.2	----	----	----
Cadmium	7440-43-9	E440A/VA	0.020	mg/kg	0.264	0.291	----	----	----
Calcium	7440-70-2	E440A/VA	50	mg/kg	6960	21300	----	----	----
Chromium	7440-47-3	E440A/VA	0.50	mg/kg	49.9	33.9	----	----	----
Cobalt	7440-48-4	E440A/VA	0.10	mg/kg	8.40	19.4	----	----	----
Copper	7440-50-8	E440A/VA	0.50	mg/kg	27.2	1350	----	----	----
Iron	7439-89-6	E440A/VA	50	mg/kg	21500	80500	----	----	----
Lead	7439-92-1	E440A/VA	0.10	mg/kg	4.36	6.61	----	----	----
Lithium	7439-93-2	E440A/VA	2.0	mg/kg	9.8	13.9	----	----	----



Analytical Results

Sub-Matrix: Sediment (Matrix: Soil/Solid)					Client sample ID	QUL-LREF1_SE-5X_2023-08 A+B	QUL-LNF1_SE-2 X_2023-08 A+B	----	----	----
Client sampling date / time					26-Aug-2023 00:00	26-Aug-2023 00:00	----	----	----	
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23C0419-048	VA23C0419-051	-----	-----	-----	
					Result	Result	----	----	----	
Metals										
Magnesium	7439-95-4	E440A/VA	10	mg/kg	7200	9630	----	----	----	
Manganese	7439-96-5	E440A/VA	0.20	mg/kg	234	1010	----	----	----	
Mercury	7439-97-6	E510A/VA	0.0050	mg/kg	0.0246	0.104	----	----	----	
Molybdenum	7439-98-7	E440A/VA	0.10	mg/kg	0.61	3.93	----	----	----	
Nickel	7440-02-0	E440A/VA	0.50	mg/kg	25.1	19.8	----	----	----	
Phosphorus	7723-14-0	E440A/VA	50	mg/kg	1170	1620	----	----	----	
Potassium	7440-09-7	E440A/VA	100	mg/kg	900	1060	----	----	----	
Selenium	7782-49-2	E440A/VA	0.10	mg/kg	0.44	1.41	----	----	----	
Silver	7440-22-4	E440A/VA	0.050	mg/kg	0.104	0.502	----	----	----	
Sodium	7440-23-5	E440A/VA	50	mg/kg	376	593	----	----	----	
Strontium	7440-24-6	E440A/VA	0.10	mg/kg	63.6	138	----	----	----	
Thallium	7440-28-0	E440A/VA	0.050	mg/kg	0.087	<0.050	----	----	----	
Tin	7440-31-5	E440A/VA	0.20	mg/kg	0.33	1.13	----	----	----	
Titanium	7440-32-6	E440A/VA	1.0	mg/kg	1020	1420	----	----	----	
Uranium	7440-61-1	E440A/VA	0.050	mg/kg	0.928	0.906	----	----	----	
Vanadium	7440-62-2	E440A/VA	0.20	mg/kg	57.6	328	----	----	----	
Zinc	7440-66-6	E440A/VA	1.0	mg/kg	53.9	72.1	----	----	----	
Zirconium	7440-67-7	E440A/VA	1.0	mg/kg	4.1	5.4	----	----	----	

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.

QUALITY CONTROL INTERPRETIVE REPORT

<p>Work Order : VA23C0419</p> <p>Client : Mount Polley Mining Corporation</p> <p>Contact : Mr. Gabriel Holmes</p> <p>Address : PO Box 12 Likely BC Canada V0L 1N0</p> <p>Telephone : 250-790-2215 ext 2171</p> <p>Project : ----</p> <p>PO : ----</p> <p>C-O-C number : ----</p> <p>Sampler : ----</p> <p>Site : ----</p> <p>Quote number : VA22-MPMC100-005 - Minnow Environmental-Sediment Quality</p> <p>No. of samples received : 51</p> <p>No. of samples analysed : 17</p>	<p>Page : 1 of 17</p> <p>Laboratory : ALS Environmental - Vancouver</p> <p>Account Manager : Can Dang</p> <p>Address : 8081 Lougheed Highway Burnaby, British Columbia Canada V5A 1W9</p> <p>Telephone : +1 604 253 4188</p> <p>Date Samples Received : 30-Aug-2023 08:35</p> <p>Issue Date : 19-Sep-2023 23:21</p>
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This report is automatically generated by the ALS LIMS (Laboratory Information Management System) through evaluation of Quality Control (QC) results and other QA parameters associated with this submission, and is intended to facilitate rapid data validation by auditors or reviewers. The report highlights any exceptions and outliers to ALS Data Quality Objectives, provides holding time details and exceptions, summarizes QC sample frequencies, and lists applicable methodology references and summaries.

Key

- Anonymous: Refers to samples which are not part of this work order, but which formed part of the QC process lot.
- CAS Number: Chemical Abstracts Service number is a unique identifier assigned to discrete substances.
- DQO: Data Quality Objective.
- LOR: Limit of Reporting (detection limit).
- RPD: Relative Percent Difference.

Workorder Comments

Holding times are displayed as "----" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

Summary of Outliers

Outliers : Quality Control Samples

- No Method Blank value outliers occur.
- No Duplicate outliers occur.
- No Laboratory Control Sample (LCS) outliers occur
- No Test sample Surrogate recovery outliers exist.

Outliers: Reference Material (RM) Samples

- No Reference Material (RM) Sample outliers occur.

Outliers : Analysis Holding Time Compliance (Breaches)

- No Analysis Holding Time Outliers exist.

Outliers : Frequency of Quality Control Samples

- No Quality Control Sample Frequency Outliers occur.



Analysis Holding Time Compliance

This report summarizes extraction / preparation and analysis times and compares each with ALS recommended holding times, which are selected to meet known provincial and /or federal requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by organizations such as CCME, US EPA, APHA Standard Methods, ASTM, or Environment Canada (where available). Dates and holding times reported below represent the first dates of extraction or analysis. If subsequent tests or dilutions exceeded holding times, qualifiers are added (refer to COA).

If samples are identified below as having been analyzed or extracted outside of recommended holding times, measurement uncertainties may be increased, and this should be taken into consideration when interpreting results.

Where actual sampling date is not provided on the chain of custody, the date of receipt with time at 00:00 is used for calculation purposes.

Where only the sample date without time is provided on the chain of custody, the sampling date at 00:00 is used for calculation purposes.

Matrix: Soil/Solid

Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Anions and Nutrients : Total Nitrogen by Combustion											
LDPE bag QUL-LNF1_SE-1_2023-08 A+B	E366	26-Aug-2023	13-Sep-2023	28 days	18 days	✔	13-Sep-2023	28 days	18 days	✔	
Anions and Nutrients : Total Nitrogen by Combustion											
LDPE bag QUL-LNF1_SE-2_2023-08 A+B	E366	26-Aug-2023	13-Sep-2023	28 days	18 days	✔	13-Sep-2023	28 days	18 days	✔	
Anions and Nutrients : Total Nitrogen by Combustion											
LDPE bag QUL-LNF1_SE-2X_2023-08 A+B	E366	26-Aug-2023	13-Sep-2023	28 days	18 days	✔	13-Sep-2023	28 days	18 days	✔	
Anions and Nutrients : Total Nitrogen by Combustion											
LDPE bag QUL-LNF1_SE-3_2023-08 A+B	E366	26-Aug-2023	13-Sep-2023	28 days	18 days	✔	13-Sep-2023	28 days	18 days	✔	
Anions and Nutrients : Total Nitrogen by Combustion											
LDPE bag QUL-LNF1_SE-4_2023-08 A+B	E366	26-Aug-2023	13-Sep-2023	28 days	18 days	✔	13-Sep-2023	28 days	18 days	✔	
Anions and Nutrients : Total Nitrogen by Combustion											
LDPE bag QUL-LNF1_SE-5_2023-08 A+B	E366	26-Aug-2023	13-Sep-2023	28 days	18 days	✔	13-Sep-2023	28 days	18 days	✔	
Anions and Nutrients : Total Nitrogen by Combustion											
LDPE bag QUL-LREF1_SE-1_2023-08 A+B	E366	26-Aug-2023	13-Sep-2023	28 days	18 days	✔	13-Sep-2023	28 days	18 days	✔	



Matrix: Soil/Solid

Evaluation: * = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Anions and Nutrients : Total Nitrogen by Combustion										
LDPE bag QUL-LREF1_SE-2_2023-08 A+B	E366	26-Aug-2023	13-Sep-2023	28 days	18 days	✓	13-Sep-2023	28 days	18 days	✓
Anions and Nutrients : Total Nitrogen by Combustion										
LDPE bag QUL-LREF1_SE-3_2023-08 A+B	E366	26-Aug-2023	13-Sep-2023	28 days	18 days	✓	13-Sep-2023	28 days	18 days	✓
Anions and Nutrients : Total Nitrogen by Combustion										
LDPE bag QUL-LREF1_SE-4_2023-08 A+B	E366	26-Aug-2023	13-Sep-2023	28 days	18 days	✓	13-Sep-2023	28 days	18 days	✓
Anions and Nutrients : Total Nitrogen by Combustion										
LDPE bag QUL-LREF1_SE-5_2023-08 A+B	E366	26-Aug-2023	13-Sep-2023	28 days	18 days	✓	13-Sep-2023	28 days	18 days	✓
Anions and Nutrients : Total Nitrogen by Combustion										
LDPE bag QUL-LREF1_SE-5X_2023-08 A+B	E366	26-Aug-2023	13-Sep-2023	28 days	18 days	✓	13-Sep-2023	28 days	18 days	✓
Anions and Nutrients : Total Nitrogen by Combustion										
LDPE bag QUL-PNF_SE-5_2023-08 A+B	E366	26-Aug-2023	13-Sep-2023	28 days	18 days	✓	13-Sep-2023	28 days	18 days	✓
Anions and Nutrients : Total Nitrogen by Combustion										
LDPE bag QUL-PNF_SE-1_2023-08 A+B	E366	25-Aug-2023	13-Sep-2023	28 days	19 days	✓	13-Sep-2023	28 days	19 days	✓
Anions and Nutrients : Total Nitrogen by Combustion										
LDPE bag QUL-PNF_SE-2_2023-08 A+B	E366	25-Aug-2023	13-Sep-2023	28 days	19 days	✓	13-Sep-2023	28 days	19 days	✓
Anions and Nutrients : Total Nitrogen by Combustion										
LDPE bag QUL-PNF_SE-3_2023-08 A+B	E366	25-Aug-2023	13-Sep-2023	28 days	19 days	✓	13-Sep-2023	28 days	19 days	✓



Matrix: Soil/Solid

Evaluation: * = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Anions and Nutrients : Total Nitrogen by Combustion											
LDPE bag QUL-PNF_SE-4_2023-08 A+B	E366	25-Aug-2023	13-Sep-2023	28 days	19 days	✓	13-Sep-2023	28 days	19 days	✓	
Inorganics : Total Sulfur by high temperature combustion											
LDPE bag QUL-LNF1_SE-1_2023-08 A+B	E399	26-Aug-2023	13-Sep-2023	365 days	18 days	✓	13-Sep-2023	365 days	18 days	✓	
Inorganics : Total Sulfur by high temperature combustion											
LDPE bag QUL-LNF1_SE-2_2023-08 A+B	E399	26-Aug-2023	13-Sep-2023	365 days	18 days	✓	13-Sep-2023	365 days	18 days	✓	
Inorganics : Total Sulfur by high temperature combustion											
LDPE bag QUL-LNF1_SE-2X_2023-08 A+B	E399	26-Aug-2023	13-Sep-2023	365 days	18 days	✓	13-Sep-2023	365 days	18 days	✓	
Inorganics : Total Sulfur by high temperature combustion											
LDPE bag QUL-LNF1_SE-3_2023-08 A+B	E399	26-Aug-2023	13-Sep-2023	365 days	18 days	✓	13-Sep-2023	365 days	18 days	✓	
Inorganics : Total Sulfur by high temperature combustion											
LDPE bag QUL-LNF1_SE-4_2023-08 A+B	E399	26-Aug-2023	13-Sep-2023	365 days	18 days	✓	13-Sep-2023	365 days	18 days	✓	
Inorganics : Total Sulfur by high temperature combustion											
LDPE bag QUL-LNF1_SE-5_2023-08 A+B	E399	26-Aug-2023	13-Sep-2023	365 days	18 days	✓	13-Sep-2023	365 days	18 days	✓	
Inorganics : Total Sulfur by high temperature combustion											
LDPE bag QUL-LREF1_SE-1_2023-08 A+B	E399	26-Aug-2023	13-Sep-2023	365 days	18 days	✓	13-Sep-2023	365 days	18 days	✓	
Inorganics : Total Sulfur by high temperature combustion											
LDPE bag QUL-LREF1_SE-2_2023-08 A+B	E399	26-Aug-2023	13-Sep-2023	365 days	18 days	✓	13-Sep-2023	365 days	18 days	✓	



Matrix: Soil/Solid

Evaluation: * = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Inorganics : Total Sulfur by high temperature combustion											
LDPE bag QUL-LREF1_SE-3_2023-08 A+B	E399	26-Aug-2023	13-Sep-2023	365 days	18 days	✓	13-Sep-2023	365 days	18 days	✓	
Inorganics : Total Sulfur by high temperature combustion											
LDPE bag QUL-LREF1_SE-4_2023-08 A+B	E399	26-Aug-2023	13-Sep-2023	365 days	18 days	✓	13-Sep-2023	365 days	18 days	✓	
Inorganics : Total Sulfur by high temperature combustion											
LDPE bag QUL-LREF1_SE-5_2023-08 A+B	E399	26-Aug-2023	13-Sep-2023	365 days	18 days	✓	13-Sep-2023	365 days	18 days	✓	
Inorganics : Total Sulfur by high temperature combustion											
LDPE bag QUL-LREF1_SE-5X_2023-08 A+B	E399	26-Aug-2023	13-Sep-2023	365 days	18 days	✓	13-Sep-2023	365 days	18 days	✓	
Inorganics : Total Sulfur by high temperature combustion											
LDPE bag QUL-PNF_SE-5_2023-08 A+B	E399	26-Aug-2023	13-Sep-2023	365 days	18 days	✓	13-Sep-2023	365 days	18 days	✓	
Inorganics : Total Sulfur by high temperature combustion											
LDPE bag QUL-PNF_SE-1_2023-08 A+B	E399	25-Aug-2023	13-Sep-2023	365 days	19 days	✓	13-Sep-2023	365 days	19 days	✓	
Inorganics : Total Sulfur by high temperature combustion											
LDPE bag QUL-PNF_SE-2_2023-08 A+B	E399	25-Aug-2023	13-Sep-2023	365 days	19 days	✓	13-Sep-2023	365 days	19 days	✓	
Inorganics : Total Sulfur by high temperature combustion											
LDPE bag QUL-PNF_SE-3_2023-08 A+B	E399	25-Aug-2023	13-Sep-2023	365 days	19 days	✓	13-Sep-2023	365 days	19 days	✓	
Inorganics : Total Sulfur by high temperature combustion											
LDPE bag QUL-PNF_SE-4_2023-08 A+B	E399	25-Aug-2023	13-Sep-2023	365 days	19 days	✓	13-Sep-2023	365 days	19 days	✓	



Matrix: Soil/Solid

Evaluation: * = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Metals : Mercury in Sediment by CVAAS (<63 µm)										
Glass soil jar/Teflon lined cap QUL-LNF1_SE-1_2023-08 A+B	E510A	26-Aug-2023	14-Sep-2023	28 days	19 days	✓	19-Sep-2023	28 days	25 days	✓
Metals : Mercury in Sediment by CVAAS (<63 µm)										
Glass soil jar/Teflon lined cap QUL-LNF1_SE-2_2023-08 A+B	E510A	26-Aug-2023	14-Sep-2023	28 days	19 days	✓	19-Sep-2023	28 days	25 days	✓
Metals : Mercury in Sediment by CVAAS (<63 µm)										
Glass soil jar/Teflon lined cap QUL-LNF1_SE-2X_2023-08 A+B	E510A	26-Aug-2023	14-Sep-2023	28 days	19 days	✓	19-Sep-2023	28 days	25 days	✓
Metals : Mercury in Sediment by CVAAS (<63 µm)										
Glass soil jar/Teflon lined cap QUL-LNF1_SE-3_2023-08 A+B	E510A	26-Aug-2023	14-Sep-2023	28 days	19 days	✓	19-Sep-2023	28 days	25 days	✓
Metals : Mercury in Sediment by CVAAS (<63 µm)										
Glass soil jar/Teflon lined cap QUL-LNF1_SE-4_2023-08 A+B	E510A	26-Aug-2023	14-Sep-2023	28 days	19 days	✓	19-Sep-2023	28 days	25 days	✓
Metals : Mercury in Sediment by CVAAS (<63 µm)										
Glass soil jar/Teflon lined cap QUL-LNF1_SE-5_2023-08 A+B	E510A	26-Aug-2023	14-Sep-2023	28 days	19 days	✓	19-Sep-2023	28 days	25 days	✓
Metals : Mercury in Sediment by CVAAS (<63 µm)										
Glass soil jar/Teflon lined cap QUL-LREF1_SE-1_2023-08 A+B	E510A	26-Aug-2023	14-Sep-2023	28 days	19 days	✓	19-Sep-2023	28 days	25 days	✓
Metals : Mercury in Sediment by CVAAS (<63 µm)										
Glass soil jar/Teflon lined cap QUL-LREF1_SE-2_2023-08 A+B	E510A	26-Aug-2023	14-Sep-2023	28 days	19 days	✓	19-Sep-2023	28 days	25 days	✓
Metals : Mercury in Sediment by CVAAS (<63 µm)										
Glass soil jar/Teflon lined cap QUL-LREF1_SE-3_2023-08 A+B	E510A	26-Aug-2023	14-Sep-2023	28 days	19 days	✓	19-Sep-2023	28 days	25 days	✓



Matrix: Soil/Solid

Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Metals : Mercury in Sediment by CVAAS (<63 µm)										
Glass soil jar/Teflon lined cap QUL-LREF1_SE-4_2023-08 A+B	E510A	26-Aug-2023	14-Sep-2023	28 days	19 days	✔	19-Sep-2023	28 days	25 days	✔
Metals : Mercury in Sediment by CVAAS (<63 µm)										
Glass soil jar/Teflon lined cap QUL-LREF1_SE-5_2023-08 A+B	E510A	26-Aug-2023	14-Sep-2023	28 days	19 days	✔	19-Sep-2023	28 days	25 days	✔
Metals : Mercury in Sediment by CVAAS (<63 µm)										
Glass soil jar/Teflon lined cap QUL-LREF1_SE-5X_2023-08 A+B	E510A	26-Aug-2023	14-Sep-2023	28 days	19 days	✔	19-Sep-2023	28 days	25 days	✔
Metals : Mercury in Sediment by CVAAS (<63 µm)										
Glass soil jar/Teflon lined cap QUL-PNF_SE-5_2023-08 A+B	E510A	26-Aug-2023	14-Sep-2023	28 days	19 days	✔	19-Sep-2023	28 days	25 days	✔
Metals : Mercury in Sediment by CVAAS (<63 µm)										
Glass soil jar/Teflon lined cap QUL-PNF_SE-1_2023-08 A+B	E510A	25-Aug-2023	14-Sep-2023	28 days	20 days	✔	19-Sep-2023	28 days	26 days	✔
Metals : Mercury in Sediment by CVAAS (<63 µm)										
Glass soil jar/Teflon lined cap QUL-PNF_SE-2_2023-08 A+B	E510A	25-Aug-2023	14-Sep-2023	28 days	20 days	✔	19-Sep-2023	28 days	26 days	✔
Metals : Mercury in Sediment by CVAAS (<63 µm)										
Glass soil jar/Teflon lined cap QUL-PNF_SE-3_2023-08 A+B	E510A	25-Aug-2023	14-Sep-2023	28 days	20 days	✔	19-Sep-2023	28 days	26 days	✔
Metals : Mercury in Sediment by CVAAS (<63 µm)										
Glass soil jar/Teflon lined cap QUL-PNF_SE-4_2023-08 A+B	E510A	25-Aug-2023	14-Sep-2023	28 days	20 days	✔	19-Sep-2023	28 days	26 days	✔
Metals : Metals in Sediment by CRC ICPMS (<63 µm)										
Glass soil jar/Teflon lined cap QUL-LNF1_SE-1_2023-08 A+B	E440A	26-Aug-2023	14-Sep-2023	180 days	19 days	✔	19-Sep-2023	180 days	25 days	✔



Matrix: Soil/Solid

Evaluation: * = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Metals : Metals in Sediment by CRC ICPMS (<63 µm)											
Glass soil jar/Teflon lined cap QUL-LNF1_SE-2_2023-08 A+B	E440A	26-Aug-2023	14-Sep-2023	180 days	19 days	✓	19-Sep-2023	180 days	25 days	✓	
Metals : Metals in Sediment by CRC ICPMS (<63 µm)											
Glass soil jar/Teflon lined cap QUL-LNF1_SE-2X_2023-08 A+B	E440A	26-Aug-2023	14-Sep-2023	180 days	19 days	✓	19-Sep-2023	180 days	25 days	✓	
Metals : Metals in Sediment by CRC ICPMS (<63 µm)											
Glass soil jar/Teflon lined cap QUL-LNF1_SE-3_2023-08 A+B	E440A	26-Aug-2023	14-Sep-2023	180 days	19 days	✓	19-Sep-2023	180 days	25 days	✓	
Metals : Metals in Sediment by CRC ICPMS (<63 µm)											
Glass soil jar/Teflon lined cap QUL-LNF1_SE-4_2023-08 A+B	E440A	26-Aug-2023	14-Sep-2023	180 days	19 days	✓	19-Sep-2023	180 days	25 days	✓	
Metals : Metals in Sediment by CRC ICPMS (<63 µm)											
Glass soil jar/Teflon lined cap QUL-LNF1_SE-5_2023-08 A+B	E440A	26-Aug-2023	14-Sep-2023	180 days	19 days	✓	19-Sep-2023	180 days	25 days	✓	
Metals : Metals in Sediment by CRC ICPMS (<63 µm)											
Glass soil jar/Teflon lined cap QUL-LREF1_SE-1_2023-08 A+B	E440A	26-Aug-2023	14-Sep-2023	180 days	19 days	✓	19-Sep-2023	180 days	25 days	✓	
Metals : Metals in Sediment by CRC ICPMS (<63 µm)											
Glass soil jar/Teflon lined cap QUL-LREF1_SE-2_2023-08 A+B	E440A	26-Aug-2023	14-Sep-2023	180 days	19 days	✓	19-Sep-2023	180 days	25 days	✓	
Metals : Metals in Sediment by CRC ICPMS (<63 µm)											
Glass soil jar/Teflon lined cap QUL-LREF1_SE-3_2023-08 A+B	E440A	26-Aug-2023	14-Sep-2023	180 days	19 days	✓	19-Sep-2023	180 days	25 days	✓	
Metals : Metals in Sediment by CRC ICPMS (<63 µm)											
Glass soil jar/Teflon lined cap QUL-LREF1_SE-4_2023-08 A+B	E440A	26-Aug-2023	14-Sep-2023	180 days	19 days	✓	19-Sep-2023	180 days	25 days	✓	



Matrix: Soil/Solid

Evaluation: * = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Metals : Metals in Sediment by CRC ICPMS (<63 µm)											
Glass soil jar/Teflon lined cap QUL-LREF1_SE-5_2023-08 A+B	E440A	26-Aug-2023	14-Sep-2023	180 days	19 days	✓	19-Sep-2023	180 days	25 days	✓	
Metals : Metals in Sediment by CRC ICPMS (<63 µm)											
Glass soil jar/Teflon lined cap QUL-LREF1_SE-5X_2023-08 A+B	E440A	26-Aug-2023	14-Sep-2023	180 days	19 days	✓	19-Sep-2023	180 days	25 days	✓	
Metals : Metals in Sediment by CRC ICPMS (<63 µm)											
Glass soil jar/Teflon lined cap QUL-PNF_SE-5_2023-08 A+B	E440A	26-Aug-2023	14-Sep-2023	180 days	19 days	✓	19-Sep-2023	180 days	25 days	✓	
Metals : Metals in Sediment by CRC ICPMS (<63 µm)											
Glass soil jar/Teflon lined cap QUL-PNF_SE-1_2023-08 A+B	E440A	25-Aug-2023	14-Sep-2023	180 days	20 days	✓	19-Sep-2023	180 days	26 days	✓	
Metals : Metals in Sediment by CRC ICPMS (<63 µm)											
Glass soil jar/Teflon lined cap QUL-PNF_SE-2_2023-08 A+B	E440A	25-Aug-2023	14-Sep-2023	180 days	20 days	✓	19-Sep-2023	180 days	26 days	✓	
Metals : Metals in Sediment by CRC ICPMS (<63 µm)											
Glass soil jar/Teflon lined cap QUL-PNF_SE-3_2023-08 A+B	E440A	25-Aug-2023	14-Sep-2023	180 days	20 days	✓	19-Sep-2023	180 days	26 days	✓	
Metals : Metals in Sediment by CRC ICPMS (<63 µm)											
Glass soil jar/Teflon lined cap QUL-PNF_SE-4_2023-08 A+B	E440A	25-Aug-2023	14-Sep-2023	180 days	20 days	✓	19-Sep-2023	180 days	26 days	✓	
Physical Tests : Moisture Content by Gravimetry											
Glass soil jar/Teflon lined cap QUL-LNF1_SE-1_2023-08 A+B	E144	26-Aug-2023	----	----	----		06-Sep-2023	----	12 days		
Physical Tests : Moisture Content by Gravimetry											
Glass soil jar/Teflon lined cap QUL-LNF1_SE-2_2023-08 A+B	E144	26-Aug-2023	----	----	----		06-Sep-2023	----	12 days		



Matrix: Soil/Solid

Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Physical Tests : Moisture Content by Gravimetry										
Glass soil jar/Teflon lined cap QUL-LNF1_SE-2X_2023-08 A+B	E144	26-Aug-2023	----	----	----		06-Sep-2023	----	12 days	
Physical Tests : Moisture Content by Gravimetry										
Glass soil jar/Teflon lined cap QUL-LNF1_SE-3_2023-08 A+B	E144	26-Aug-2023	----	----	----		06-Sep-2023	----	12 days	
Physical Tests : Moisture Content by Gravimetry										
Glass soil jar/Teflon lined cap QUL-LNF1_SE-4_2023-08 A+B	E144	26-Aug-2023	----	----	----		06-Sep-2023	----	12 days	
Physical Tests : Moisture Content by Gravimetry										
Glass soil jar/Teflon lined cap QUL-LNF1_SE-5_2023-08 A+B	E144	26-Aug-2023	----	----	----		06-Sep-2023	----	12 days	
Physical Tests : Moisture Content by Gravimetry										
Glass soil jar/Teflon lined cap QUL-LREF1_SE-1_2023-08 A+B	E144	26-Aug-2023	----	----	----		06-Sep-2023	----	12 days	
Physical Tests : Moisture Content by Gravimetry										
Glass soil jar/Teflon lined cap QUL-LREF1_SE-2_2023-08 A+B	E144	26-Aug-2023	----	----	----		06-Sep-2023	----	12 days	
Physical Tests : Moisture Content by Gravimetry										
Glass soil jar/Teflon lined cap QUL-LREF1_SE-3_2023-08 A+B	E144	26-Aug-2023	----	----	----		06-Sep-2023	----	12 days	
Physical Tests : Moisture Content by Gravimetry										
Glass soil jar/Teflon lined cap QUL-LREF1_SE-4_2023-08 A+B	E144	26-Aug-2023	----	----	----		06-Sep-2023	----	12 days	
Physical Tests : Moisture Content by Gravimetry										
Glass soil jar/Teflon lined cap QUL-LREF1_SE-5_2023-08 A+B	E144	26-Aug-2023	----	----	----		06-Sep-2023	----	12 days	



Matrix: Soil/Solid

Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Physical Tests : Moisture Content by Gravimetry										
Glass soil jar/Teflon lined cap QUL-LREF1_SE-5X_2023-08 A+B	E144	26-Aug-2023	----	----	----		06-Sep-2023	----	12 days	
Physical Tests : Moisture Content by Gravimetry										
Glass soil jar/Teflon lined cap QUL-PNF_SE-5_2023-08 A+B	E144	26-Aug-2023	----	----	----		06-Sep-2023	----	12 days	
Physical Tests : Moisture Content by Gravimetry										
Glass soil jar/Teflon lined cap QUL-PNF_SE-1_2023-08 A+B	E144	25-Aug-2023	----	----	----		06-Sep-2023	----	13 days	
Physical Tests : Moisture Content by Gravimetry										
Glass soil jar/Teflon lined cap QUL-PNF_SE-2_2023-08 A+B	E144	25-Aug-2023	----	----	----		06-Sep-2023	----	13 days	
Physical Tests : Moisture Content by Gravimetry										
Glass soil jar/Teflon lined cap QUL-PNF_SE-3_2023-08 A+B	E144	25-Aug-2023	----	----	----		06-Sep-2023	----	13 days	
Physical Tests : Moisture Content by Gravimetry										
Glass soil jar/Teflon lined cap QUL-PNF_SE-4_2023-08 A+B	E144	25-Aug-2023	----	----	----		06-Sep-2023	----	13 days	
Physical Tests : pH by Meter (1:2 Soil:Water Extraction)										
Glass soil jar/Teflon lined cap QUL-LNF1_SE-1_2023-08 A+B	E108	26-Aug-2023	12-Sep-2023	30 days	17 days	✔	12-Sep-2023	30 days	17 days	✔
Physical Tests : pH by Meter (1:2 Soil:Water Extraction)										
Glass soil jar/Teflon lined cap QUL-LNF1_SE-2_2023-08 A+B	E108	26-Aug-2023	12-Sep-2023	30 days	17 days	✔	12-Sep-2023	30 days	17 days	✔
Physical Tests : pH by Meter (1:2 Soil:Water Extraction)										
Glass soil jar/Teflon lined cap QUL-LNF1_SE-2X_2023-08 A+B	E108	26-Aug-2023	12-Sep-2023	30 days	17 days	✔	12-Sep-2023	30 days	17 days	✔



Matrix: Soil/Solid

Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Physical Tests : pH by Meter (1:2 Soil:Water Extraction)										
Glass soil jar/Teflon lined cap QUL-LNF1_SE-3_2023-08 A+B	E108	26-Aug-2023	12-Sep-2023	30 days	17 days	✔	12-Sep-2023	30 days	17 days	✔
Physical Tests : pH by Meter (1:2 Soil:Water Extraction)										
Glass soil jar/Teflon lined cap QUL-LNF1_SE-4_2023-08 A+B	E108	26-Aug-2023	12-Sep-2023	30 days	17 days	✔	12-Sep-2023	30 days	17 days	✔
Physical Tests : pH by Meter (1:2 Soil:Water Extraction)										
Glass soil jar/Teflon lined cap QUL-LNF1_SE-5_2023-08 A+B	E108	26-Aug-2023	12-Sep-2023	30 days	17 days	✔	12-Sep-2023	30 days	17 days	✔
Physical Tests : pH by Meter (1:2 Soil:Water Extraction)										
Glass soil jar/Teflon lined cap QUL-LREF1_SE-1_2023-08 A+B	E108	26-Aug-2023	12-Sep-2023	30 days	17 days	✔	12-Sep-2023	30 days	17 days	✔
Physical Tests : pH by Meter (1:2 Soil:Water Extraction)										
Glass soil jar/Teflon lined cap QUL-LREF1_SE-2_2023-08 A+B	E108	26-Aug-2023	12-Sep-2023	30 days	17 days	✔	12-Sep-2023	30 days	17 days	✔
Physical Tests : pH by Meter (1:2 Soil:Water Extraction)										
Glass soil jar/Teflon lined cap QUL-LREF1_SE-3_2023-08 A+B	E108	26-Aug-2023	12-Sep-2023	30 days	17 days	✔	12-Sep-2023	30 days	17 days	✔
Physical Tests : pH by Meter (1:2 Soil:Water Extraction)										
Glass soil jar/Teflon lined cap QUL-LREF1_SE-4_2023-08 A+B	E108	26-Aug-2023	12-Sep-2023	30 days	17 days	✔	12-Sep-2023	30 days	17 days	✔
Physical Tests : pH by Meter (1:2 Soil:Water Extraction)										
Glass soil jar/Teflon lined cap QUL-LREF1_SE-5_2023-08 A+B	E108	26-Aug-2023	12-Sep-2023	30 days	17 days	✔	12-Sep-2023	30 days	17 days	✔
Physical Tests : pH by Meter (1:2 Soil:Water Extraction)										
Glass soil jar/Teflon lined cap QUL-LREF1_SE-5X_2023-08 A+B	E108	26-Aug-2023	12-Sep-2023	30 days	17 days	✔	12-Sep-2023	30 days	17 days	✔



Matrix: **Soil/Solid**

Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Physical Tests : pH by Meter (1:2 Soil:Water Extraction)										
Glass soil jar/Teflon lined cap QUL-PNF_SE-5_2023-08 A+B	E108	26-Aug-2023	12-Sep-2023	30 days	17 days	✔	12-Sep-2023	30 days	17 days	✔
Physical Tests : pH by Meter (1:2 Soil:Water Extraction)										
Glass soil jar/Teflon lined cap QUL-PNF_SE-1_2023-08 A+B	E108	25-Aug-2023	12-Sep-2023	30 days	18 days	✔	12-Sep-2023	30 days	18 days	✔
Physical Tests : pH by Meter (1:2 Soil:Water Extraction)										
Glass soil jar/Teflon lined cap QUL-PNF_SE-2_2023-08 A+B	E108	25-Aug-2023	12-Sep-2023	30 days	18 days	✔	12-Sep-2023	30 days	18 days	✔
Physical Tests : pH by Meter (1:2 Soil:Water Extraction)										
Glass soil jar/Teflon lined cap QUL-PNF_SE-3_2023-08 A+B	E108	25-Aug-2023	12-Sep-2023	30 days	18 days	✔	12-Sep-2023	30 days	18 days	✔
Physical Tests : pH by Meter (1:2 Soil:Water Extraction)										
Glass soil jar/Teflon lined cap QUL-PNF_SE-4_2023-08 A+B	E108	25-Aug-2023	12-Sep-2023	30 days	18 days	✔	12-Sep-2023	30 days	18 days	✔

Legend & Qualifier Definitions

Rec. HT: ALS recommended hold time (see units).



Quality Control Parameter Frequency Compliance

The following report summarizes the frequency of laboratory QC samples analyzed within the analytical batches (QC lots) in which the submitted samples were processed. The actual frequency should be greater than or equal to the expected frequency.

Matrix: **Soil/Solid**

Evaluation: ✖ = QC frequency outside specification; ✔ = QC frequency within specification.

Quality Control Sample Type	Method	QC Lot #	Count		Frequency (%)		
			QC	Regular	Actual	Expected	Evaluation
Analytical Methods							
Laboratory Duplicates (DUP)							
Mercury in Sediment by CVAAS (<63 µm)	E510A	1129865	1	17	5.8	5.0	✔
Metals in Sediment by CRC ICPMS (<63 µm)	E440A	1129866	1	17	5.8	5.0	✔
Moisture Content by Gravimetry	E144	1121019	1	17	5.8	5.0	✔
pH by Meter (1:2 Soil:Water Extraction)	E108	1121018	1	17	5.8	5.0	✔
Total Nitrogen by Combustion	E366	1131385	1	17	5.8	5.0	✔
Total Sulfur by high temperature combustion	E399	1131386	1	17	5.8	5.0	✔
Laboratory Control Samples (LCS)							
Mercury in Sediment by CVAAS (<63 µm)	E510A	1129865	2	17	11.7	10.0	✔
Metals in Sediment by CRC ICPMS (<63 µm)	E440A	1129866	2	17	11.7	10.0	✔
Moisture Content by Gravimetry	E144	1121019	1	17	5.8	5.0	✔
pH by Meter (1:2 Soil:Water Extraction)	E108	1121018	1	17	5.8	5.0	✔
Total Nitrogen by Combustion	E366	1131385	2	17	11.7	10.0	✔
Total Sulfur by high temperature combustion	E399	1131386	2	17	11.7	10.0	✔
Method Blanks (MB)							
Mercury in Sediment by CVAAS (<63 µm)	E510A	1129865	1	17	5.8	5.0	✔
Metals in Sediment by CRC ICPMS (<63 µm)	E440A	1129866	1	17	5.8	5.0	✔
Moisture Content by Gravimetry	E144	1121019	1	17	5.8	5.0	✔
Total Nitrogen by Combustion	E366	1131385	1	17	5.8	5.0	✔
Total Sulfur by high temperature combustion	E399	1131386	1	17	5.8	5.0	✔



Methodology References and Summaries

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Reference methods may incorporate modifications to improve performance (indicated by "mod").

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
pH by Meter (1:2 Soil:Water Extraction)	E108 ALS Environmental - Vancouver	Soil/Solid	BC Lab Manual	pH is determined by potentiometric measurement with a pH electrode at ambient laboratory temperature (normally $20 \pm 5^{\circ}\text{C}$), and is carried out in accordance with procedures described in the BC Lab Manual (prescriptive method). The procedure involves mixing the dried (at $<60^{\circ}\text{C}$) and sieved (10mesh/2mm) sample with ultra pure water at a 1:2 ratio of sediment to water. The pH is then measured by a standard pH probe.
Moisture Content by Gravimetry	E144 ALS Environmental - Vancouver	Soil/Solid	CCME PHC in Soil - Tier 1	Moisture is measured gravimetrically by drying the sample at 105°C . Moisture content is calculated as the weight loss (due to water) divided by the wet weight of the sample, expressed as a percentage.
Total Nitrogen by Combustion	E366 ALS Environmental - Saskatoon	Soil/Solid	CSSS (2008) 22.4	The sample is ignited in a combustion analyzer where nitrogen in the reduced nitrous oxide gas is determined using a thermal conductivity detector.
Total Sulfur by high temperature combustion	E399 ALS Environmental - Saskatoon	Soil/Solid	ISO 15178:2000	Air-dried sample is ignited in a combustion analyzer where sulfur in the reduced SO_2 gas is determined using a thermal conductivity detector.
Metals in Sediment by CRC ICPMS ($<63 \mu\text{m}$)	E440A ALS Environmental - Vancouver	Soil/Solid	EPA 6020B (mod)	Samples are sieved through a $63 \mu\text{m}$ sieve, and digested with HNO_3 and HCl . This method is intended to liberate metals that may be environmentally available. Silicate minerals are not solubilized. Dependent on sample matrix, some metals may be only partially recovered, including Al, Ba, Be, Cr, Sr, Ti, Tl, V, W, and Zr. Volatile forms of sulfur (including sulfide) may not be captured, as they may be lost during sampling, storage, or digestion. Elemental Sulfur may be poorly recovered by this method. Analysis is by Collision/Reaction Cell ICPMS.
Mercury in Sediment by CVAAS ($<63 \mu\text{m}$)	E510A ALS Environmental - Vancouver	Soil/Solid	EPA 200.2/1631 Appendix (mod)	Samples are sieved through a $63 \mu\text{m}$ sieve, and digested with HNO_3 and HCl , followed by CVAAS analysis.
Particle Size Analysis (Pipette) - MMER Classification	EC184E ALS Environmental - Saskatoon	Soil/Solid	Metal Mining Technical Guidance for Environmental Effects Monitoring (2012)	The particle size determination is performed by various methods to generate a Grain Size curve. The data from the curve is then used to produce particle size ranges based on the Metal Mining Effluent Regulations (MMER) classification system for Environmental Effects Monitoring.
Total Organic Carbon (Calculated) in soil ($<63 \mu\text{m}$)	EC356A ALS Environmental - Saskatoon	Soil/Solid	CSSS (2008) 21.2	Total Organic Carbon (TOC) is calculated by the difference between total carbon (TC) and total inorganic carbon (TIC) analyzed on material passing a $63 \mu\text{m}$ sieve.
Preparation Methods	Method / Lab	Matrix	Method Reference	Method Descriptions



<i>Preparation Methods</i>	<i>Method / Lab</i>	<i>Matrix</i>	<i>Method Reference</i>	<i>Method Descriptions</i>
Leach 1:2 Soil:Water for pH/EC	EP108 ALS Environmental - Vancouver	Soil/Solid	BC WLAP METHOD: PH, ELECTROMETRIC, SOIL	The procedure involves mixing the dried (at <60°C) and sieved (No. 10 / 2mm) sample with deionized/distilled water at a 1:2 ratio of sediment to water.
Digestion for Metals and Mercury (63 µm Sieve)	EP440A ALS Environmental - Vancouver	Soil/Solid	EPA 200.2 (mod)	Samples are sieved through a 63 µm sieve, and digested with HNO ₃ and HCl. This method is intended to liberate metals that may be environmentally available.
Dry and Grind in Soil/Solid <60°C	EPP442 ALS Environmental - Saskatoon	Soil/Solid	Soil Sampling and Methods of Analysis, Carter 2008	After removal of any coarse fragments and reservation of wet subsamples a portion of homogenized sample is set in a tray and dried at less than 60°C until dry. The sample is then particle size reduced with an automated crusher or mortar and pestle, typically to <2 mm. Further size reduction may be needed for particular tests.

QUALITY CONTROL REPORT

Work Order	: VA23C0419	Page	: 1 of 10
Client	: Mount Polley Mining Corporation	Laboratory	: ALS Environmental - Vancouver
Contact	: Mr. Gabriel Holmes	Account Manager	: Can Dang
Address	: PO Box 12 Likely BC Canada V0L 1N0	Address	: 8081 Lougheed Highway Burnaby, British Columbia Canada V5A 1W9
Telephone	:	Telephone	: +1 604 253 4188
Project	: ----	Date Samples Received	: 30-Aug-2023 08:35
PO	: ----	Date Analysis Commenced	: 06-Sep-2023
C-O-C number	: ----	Issue Date	: 19-Sep-2023 23:21
Sampler	: ---- 250-790-2215 ext 2171		
Site	: ----		
Quote number	: VA22-MPMC100-005 - Minnow Environmental-Sediment Quality		
No. of samples received	: 51		
No. of samples analysed	: 17		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Quality Control Report contains the following information:

- Laboratory Duplicate (DUP) Report; Relative Percent Difference (RPD) and Data Quality Objectives
- Reference Material (RM) Report; Recovery and Data Quality Objectives
- Method Blank (MB) Report; Recovery and Data Quality Objectives
- Laboratory Control Sample (LCS) Report; Recovery and Data Quality Objectives

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

<i>Signatories</i>	<i>Position</i>	<i>Laboratory Department</i>
Hedy Lai	Team Leader - Inorganics	Saskatoon Inorganics, Saskatoon, Saskatchewan
Hedy Lai	Team Leader - Inorganics	Saskatoon Sask Soils, Saskatoon, Saskatchewan
Ophelia Chiu	Department Manager - Organics	Vancouver Organics, Burnaby, British Columbia
Robin Weeks	Team Leader - Metals	Vancouver Metals, Burnaby, British Columbia
Sam Silveira	Lab Assistant	Vancouver Metals, Burnaby, British Columbia
Xihua Yao	Laboratory Analyst	Saskatoon Inorganics, Saskatoon, Saskatchewan

Page : 2 of 10
Work Order : VA23C0419
Client : Mount Polley Mining Corporation
Project : ----



General Comments

The ALS Quality Control (QC) report is optionally provided to ALS clients upon request. ALS test methods include comprehensive QC checks with every analysis to ensure our high standards of quality are met. Each QC result has a known or expected target value, which is compared against predetermined Data Quality Objectives (DQOs) to provide confidence in the accuracy of associated test results. This report contains detailed results for all QC results applicable to this sample submission. Please refer to the ALS Quality Control Interpretation report (QCI) for applicable method references and methodology summaries.

Key :

- Anonymous = Refers to samples which are not part of this work order, but which formed part of the QC process lot.
- CAS Number = Chemical Abstracts Service number is a unique identifier assigned to discrete substances.
- DQO = Data Quality Objective.
- LOR = Limit of Reporting (detection limit).
- RPD = Relative Percent Difference
- # = Indicates a QC result that did not meet the ALS DQO.

Workorder Comments

Holding times are displayed as "---" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.



Laboratory Duplicate (DUP) Report

A Laboratory Duplicate (DUP) is a randomly selected intralaboratory replicate sample. Laboratory Duplicates provide information regarding method precision and sample heterogeneity. ALS DQOs for Laboratory Duplicates are expressed as test-specific limits for Relative Percent Difference (RPD), or as an absolute difference limit of 2 times the LOR for low concentration duplicates within ~ 4-10 times the LOR (cut-off is test-specific).

Sub-Matrix: Soil/Solid					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	LOR	Unit	Original Result	Duplicate Result	RPD(%) or Difference	Duplicate Limits	Qualifier
Physical Tests (QC Lot: 1121018)											
VA23C0419-003	QUL-LNF1_SE-1_2023-08 A+B	pH (1:2 soil:water)	----	E108	0.10	pH units	8.70	8.96	2.9%	5%	----
Physical Tests (QC Lot: 1121019)											
VA23C0419-003	QUL-LNF1_SE-1_2023-08 A+B	Moisture	----	E144	0.25	%	30.3	31.4	3.70%	20%	----
Anions and Nutrients (QC Lot: 1131385)											
VA23C0419-015	QUL-LNF1_SE-5_2023-08 A+B	Nitrogen, total	7727-37-9	E366	0.020	%	0.034	0.028	0.006	Diff <2x LOR	----
Inorganics (QC Lot: 1131386)											
VA23C0419-015	QUL-LNF1_SE-5_2023-08 A+B	Sulfur, total	7704-34-9	E399	0.050	%	950 mg/kg	0.076	0.019	Diff <2x LOR	----
Metals (<63 µm) (QC Lot: 1129865)											
VA23C0419-003	QUL-LNF1_SE-1_2023-08 A+B	Mercury	7439-97-6	E510A	0.0050	mg/kg	0.0980	0.106	7.56%	40%	----
Metals (<63 µm) (QC Lot: 1129866)											
VA23C0419-003	QUL-LNF1_SE-1_2023-08 A+B	Aluminum	7429-90-5	E440A	50	mg/kg	13500	13500	0.0896%	40%	----
		Antimony	7440-36-0	E440A	0.10	mg/kg	0.53	0.51	0.02	Diff <2x LOR	----
		Arsenic	7440-38-2	E440A	0.050	mg/kg	16.2	16.7	2.56%	30%	----
		Barium	7440-39-3	E440A	0.50	mg/kg	129	126	2.50%	40%	----
		Beryllium	7440-41-7	E440A	0.10	mg/kg	0.50	0.46	0.04	Diff <2x LOR	----
		Bismuth	7440-69-9	E440A	0.10	mg/kg	0.14	0.15	0.01	Diff <2x LOR	----
		Boron	7440-42-8	E440A	5.0	mg/kg	8.5	7.7	0.7	Diff <2x LOR	----
		Cadmium	7440-43-9	E440A	0.020	mg/kg	0.284	0.290	1.97%	30%	----
		Calcium	7440-70-2	E440A	50	mg/kg	23800	23200	2.65%	30%	----
		Chromium	7440-47-3	E440A	0.50	mg/kg	61.2	65.5	6.80%	30%	----
		Cobalt	7440-48-4	E440A	0.10	mg/kg	31.9	33.0	3.57%	30%	----
		Copper	7440-50-8	E440A	0.50	mg/kg	1470	1580	7.11%	30%	----
		Iron	7439-89-6	E440A	50	mg/kg	183000	188000	3.14%	30%	----
		Lead	7439-92-1	E440A	0.10	mg/kg	8.10	8.06	0.474%	40%	----
		Lithium	7439-93-2	E440A	2.0	mg/kg	12.8	12.9	0.1	Diff <2x LOR	----
		Magnesium	7439-95-4	E440A	10	mg/kg	8670	8800	1.50%	30%	----
		Manganese	7439-96-5	E440A	0.20	mg/kg	947	995	4.99%	30%	----
		Molybdenum	7439-98-7	E440A	0.10	mg/kg	5.02	3.60	32.9%	40%	----



Sub-Matrix: Soil/Solid					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	LOR	Unit	Original Result	Duplicate Result	RPD(%) or Difference	Duplicate Limits	Qualifier
Metals (<63 µm) (QC Lot: 1129866) - continued											
VA23C0419-003	QUL-LNF1_SE-1_2023-08 A+B	Nickel	7440-02-0	E440A	0.50	mg/kg	22.8	25.0	9.21%	30%	----
		Phosphorus	7723-14-0	E440A	50	mg/kg	1500	1450	3.18%	30%	----
		Potassium	7440-09-7	E440A	100	mg/kg	810	810	0.529%	40%	----
		Selenium	7782-49-2	E440A	0.10	mg/kg	1.69	2.00	16.9%	30%	----
		Silver	7440-22-4	E440A	0.050	mg/kg	0.644	0.682	5.81%	40%	----
		Sodium	7440-23-5	E440A	50	mg/kg	426	410	3.86%	40%	----
		Strontium	7440-24-6	E440A	0.10	mg/kg	102	99.8	1.85%	40%	----
		Thallium	7440-28-0	E440A	0.050	mg/kg	<0.050	<0.050	0	Diff <2x LOR	----
		Tin	7440-31-5	E440A	0.20	mg/kg	1.70	1.69	0.853%	40%	----
		Titanium	7440-32-6	E440A	1.0	mg/kg	1710	1710	0.262%	40%	----
		Uranium	7440-61-1	E440A	0.050	mg/kg	1.05	0.991	5.44%	30%	----
		Vanadium	7440-62-2	E440A	0.20	mg/kg	760	786	3.24%	30%	----
		Zinc	7440-66-6	E440A	1.0	mg/kg	93.2	95.8	2.84%	30%	----
		Zirconium	7440-67-7	E440A	1.0	mg/kg	5.7	5.9	0.2	Diff <2x LOR	----



Method Blank (MB) Report

A Method Blank is an analyte-free matrix that undergoes sample processing identical to that carried out for test samples. Method Blank results are used to monitor and control for potential contamination from the laboratory environment and reagents. For most tests, the DQO for Method Blanks is for the result to be < LOR.

Sub-Matrix: Soil/Solid

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Physical Tests (QCLot: 1121019)						
Moisture	---	E144	0.25	%	<0.25	---
Anions and Nutrients (QCLot: 1131385)						
Nitrogen, total	7727-37-9	E366	0.02	%	<0.020	---
Inorganics (QCLot: 1131386)						
Sulfur, total	7704-34-9	E399	0.05	%	<0.050	---
Metals (<63 µm) (QCLot: 1129865)						
Mercury	7439-97-6	E510A	0.005	mg/kg	<0.0050	---
Metals (<63 µm) (QCLot: 1129866)						
Aluminum	7429-90-5	E440A	50	mg/kg	<50	---
Antimony	7440-36-0	E440A	0.1	mg/kg	<0.10	---
Arsenic	7440-38-2	E440A	0.05	mg/kg	<0.050	---
Barium	7440-39-3	E440A	0.5	mg/kg	<0.50	---
Beryllium	7440-41-7	E440A	0.1	mg/kg	<0.10	---
Bismuth	7440-69-9	E440A	0.1	mg/kg	<0.10	---
Boron	7440-42-8	E440A	5	mg/kg	<5.0	---
Cadmium	7440-43-9	E440A	0.02	mg/kg	<0.020	---
Calcium	7440-70-2	E440A	50	mg/kg	<50	---
Chromium	7440-47-3	E440A	0.5	mg/kg	<0.50	---
Cobalt	7440-48-4	E440A	0.1	mg/kg	<0.10	---
Copper	7440-50-8	E440A	0.5	mg/kg	<0.50	---
Iron	7439-89-6	E440A	50	mg/kg	<50	---
Lead	7439-92-1	E440A	0.1	mg/kg	<0.10	---
Lithium	7439-93-2	E440A	2	mg/kg	<2.0	---
Magnesium	7439-95-4	E440A	10	mg/kg	<10	---
Manganese	7439-96-5	E440A	0.2	mg/kg	<0.20	---
Molybdenum	7439-98-7	E440A	0.1	mg/kg	<0.10	---
Nickel	7440-02-0	E440A	0.5	mg/kg	<0.50	---
Phosphorus	7723-14-0	E440A	50	mg/kg	<50	---
Potassium	7440-09-7	E440A	100	mg/kg	<100	---
Selenium	7782-49-2	E440A	0.1	mg/kg	<0.10	---
Silver	7440-22-4	E440A	0.05	mg/kg	<0.050	---
Sodium	7440-23-5	E440A	50	mg/kg	<50	---



Sub-Matrix: **Soil/Solid**

<i>Analyte</i>	<i>CAS Number</i>	<i>Method</i>	<i>LOR</i>	<i>Unit</i>	<i>Result</i>	<i>Qualifier</i>
Metals (<63 µm) (QCLot: 1129866) - continued						
Strontium	7440-24-6	E440A	0.1	mg/kg	<0.10	---
Thallium	7440-28-0	E440A	0.05	mg/kg	<0.050	---
Tin	7440-31-5	E440A	0.2	mg/kg	<0.20	---
Titanium	7440-32-6	E440A	1	mg/kg	<1.0	---
Uranium	7440-61-1	E440A	0.05	mg/kg	<0.050	---
Vanadium	7440-62-2	E440A	0.2	mg/kg	<0.20	---
Zinc	7440-66-6	E440A	1	mg/kg	<1.0	---
Zirconium	7440-67-7	E440A	1	mg/kg	<1.0	---



Laboratory Control Sample (LCS) Report

A Laboratory Control Sample (LCS) is an analyte-free matrix that has been fortified (spiked) with test analytes at known concentration and processed in an identical manner to test samples. LCS results are expressed as percent recovery, and are used to monitor and control test method accuracy and precision, independent of test sample matrix.

Sub-Matrix: Soil/Solid

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
Physical Tests (QCLot: 1121018)									
pH (1:2 soil:water)	----	E108	----	pH units	6 pH units	100	95.0	105	----
Physical Tests (QCLot: 1121019)									
Moisture	----	E144	0.25	%	50 %	99.7	90.0	110	----
Anions and Nutrients (QCLot: 1131385)									
Nitrogen, total	7727-37-9	E366	0.02	%	22.37 %	98.0	90.0	110	----
Inorganics (QCLot: 1131386)									
Sulfur, total	7704-34-9	E399	0.05	%	12.81 %	95.0	90.0	110	----
Metals (<63 µm) (QCLot: 1129865)									
Mercury	7439-97-6	E510A	0.005	mg/kg	0.1 mg/kg	85.9	80.0	120	----
Metals (<63 µm) (QCLot: 1129866)									
Aluminum	7429-90-5	E440A	50	mg/kg	200 mg/kg	97.3	80.0	120	----
Antimony	7440-36-0	E440A	0.1	mg/kg	100 mg/kg	107	80.0	120	----
Arsenic	7440-38-2	E440A	0.05	mg/kg	100 mg/kg	100	80.0	120	----
Barium	7440-39-3	E440A	0.5	mg/kg	25 mg/kg	100.0	80.0	120	----
Beryllium	7440-41-7	E440A	0.1	mg/kg	10 mg/kg	90.1	80.0	120	----
Bismuth	7440-69-9	E440A	0.1	mg/kg	100 mg/kg	102	80.0	120	----
Boron	7440-42-8	E440A	5	mg/kg	100 mg/kg	91.6	80.0	120	----
Cadmium	7440-43-9	E440A	0.02	mg/kg	10 mg/kg	98.7	80.0	120	----
Calcium	7440-70-2	E440A	50	mg/kg	5000 mg/kg	94.6	80.0	120	----
Chromium	7440-47-3	E440A	0.5	mg/kg	25 mg/kg	95.3	80.0	120	----
Cobalt	7440-48-4	E440A	0.1	mg/kg	25 mg/kg	94.3	80.0	120	----
Copper	7440-50-8	E440A	0.5	mg/kg	25 mg/kg	89.6	80.0	120	----
Iron	7439-89-6	E440A	50	mg/kg	100 mg/kg	95.1	80.0	120	----
Lead	7439-92-1	E440A	0.1	mg/kg	50 mg/kg	98.1	80.0	120	----
Lithium	7439-93-2	E440A	2	mg/kg	25 mg/kg	92.9	80.0	120	----
Magnesium	7439-95-4	E440A	10	mg/kg	5000 mg/kg	110	80.0	120	----
Manganese	7439-96-5	E440A	0.2	mg/kg	25 mg/kg	95.2	80.0	120	----
Molybdenum	7439-98-7	E440A	0.1	mg/kg	25 mg/kg	92.0	80.0	120	----
Nickel	7440-02-0	E440A	0.5	mg/kg	50 mg/kg	92.8	80.0	120	----
Phosphorus	7723-14-0	E440A	50	mg/kg	1000 mg/kg	100	80.0	120	----



Sub-Matrix: Soil/Solid

Laboratory Control Sample (LCS) Report

Analyte	CAS Number	Method	LOR	Unit	Spike	Recovery (%)	Recovery Limits (%)		Qualifier
					Concentration	LCS	Low	High	
Metals (<63 µm) (QCLot: 1129866) - continued									
Potassium	7440-09-7	E440A	100	mg/kg	5000 mg/kg	99.0	80.0	120	----
Selenium	7782-49-2	E440A	0.1	mg/kg	100 mg/kg	94.6	80.0	120	----
Silver	7440-22-4	E440A	0.05	mg/kg	10 mg/kg	82.2	80.0	120	----
Sodium	7440-23-5	E440A	50	mg/kg	5000 mg/kg	102	80.0	120	----
Strontium	7440-24-6	E440A	0.1	mg/kg	25 mg/kg	99.5	80.0	120	----
Thallium	7440-28-0	E440A	0.05	mg/kg	100 mg/kg	102	80.0	120	----
Tin	7440-31-5	E440A	0.2	mg/kg	50 mg/kg	91.3	80.0	120	----
Titanium	7440-32-6	E440A	1	mg/kg	25 mg/kg	90.4	80.0	120	----
Uranium	7440-61-1	E440A	0.05	mg/kg	0.5 mg/kg	95.9	80.0	120	----
Vanadium	7440-62-2	E440A	0.2	mg/kg	50 mg/kg	98.0	80.0	120	----
Zinc	7440-66-6	E440A	1	mg/kg	50 mg/kg	95.5	80.0	120	----
Zirconium	7440-67-7	E440A	1	mg/kg	10 mg/kg	94.4	80.0	120	----



Reference Material (RM) Report

A Reference Material (RM) is a homogenous material with known and well-established analyte concentrations. RMs are processed in an identical manner to test samples, and are used to monitor and control the accuracy and precision of a test method for a typical sample matrix. RM results are expressed as percent recovery of the target analyte concentration. RM targets may be certified target concentrations provided by the RM supplier, or may be ALS long-term mean values (for empirical test methods).

Sub-Matrix:

Laboratory sample ID	Reference Material ID	Analyte	CAS Number	Method	Reference Material (RM) Report				
					RM Target Concentration	Recovery (%) RM	Recovery Limits (%)		Qualifier
							Low	High	
Anions and Nutrients (QCLot: 1131385)									
	RM	Nitrogen, total	7727-37-9	E366	0.11 %	106	80.0	120	----
Inorganics (QCLot: 1131386)									
	RM	Sulfur, total	7704-34-9	E399	0.352 %	106	70.0	130	----
Metals (<63 µm) (QCLot: 1129865)									
	SCP SS-2	Mercury	7439-97-6	E510A	0.059 mg/kg	88.1	70.0	130	----
Metals (<63 µm) (QCLot: 1129866)									
	SCP SS-2	Aluminum	7429-90-5	E440A	9817 mg/kg	113	70.0	130	----
	SCP SS-2	Antimony	7440-36-0	E440A	3.99 mg/kg	92.2	70.0	130	----
	SCP SS-2	Arsenic	7440-38-2	E440A	3.73 mg/kg	103	70.0	130	----
	SCP SS-2	Barium	7440-39-3	E440A	105 mg/kg	113	70.0	130	----
	SCP SS-2	Beryllium	7440-41-7	E440A	0.349 mg/kg	99.4	70.0	130	----
	SCP SS-2	Boron	7440-42-8	E440A	8.5 mg/kg	113	40.0	160	----
	SCP SS-2	Cadmium	7440-43-9	E440A	0.91 mg/kg	108	70.0	130	----
	SCP SS-2	Calcium	7440-70-2	E440A	31082 mg/kg	102	70.0	130	----
	SCP SS-2	Chromium	7440-47-3	E440A	101 mg/kg	106	70.0	130	----
	SCP SS-2	Cobalt	7440-48-4	E440A	6.9 mg/kg	96.6	70.0	130	----
	SCP SS-2	Copper	7440-50-8	E440A	123 mg/kg	92.5	70.0	130	----
	SCP SS-2	Iron	7439-89-6	E440A	23558 mg/kg	98.5	70.0	130	----
	SCP SS-2	Lead	7439-92-1	E440A	267 mg/kg	103	70.0	130	----
	SCP SS-2	Lithium	7439-93-2	E440A	9.5 mg/kg	94.8	70.0	130	----
	SCP SS-2	Magnesium	7439-95-4	E440A	5509 mg/kg	114	70.0	130	----
	SCP SS-2	Manganese	7439-96-5	E440A	269 mg/kg	100	70.0	130	----
	SCP SS-2	Molybdenum	7439-98-7	E440A	1.03 mg/kg	93.6	70.0	130	----
	SCP SS-2	Nickel	7440-02-0	E440A	26.7 mg/kg	95.8	70.0	130	----
	SCP SS-2	Phosphorus	7723-14-0	E440A	752 mg/kg	92.0	70.0	130	----
	SCP SS-2	Potassium	7440-09-7	E440A	1587 mg/kg	105	70.0	130	----
	SCP SS-2	Sodium	7440-23-5	E440A	797 mg/kg	93.0	70.0	130	----
	SCP SS-2	Strontium	7440-24-6	E440A	86.1 mg/kg	100	70.0	130	----



Sub-Matrix:

Laboratory sample ID	Reference Material ID	Analyte	CAS Number	Method	Reference Material (RM) Report				
					RM Target Concentration	Recovery (%) RM	Recovery Limits (%)		Qualifier
							Low	High	
Metals (<63 µm) (QCLot: 1129866) - continued									
	SCP SS-2	Thallium	7440-28-0	E440A	0.0786 mg/kg	94.7	40.0	160	----
	SCP SS-2	Tin	7440-31-5	E440A	10.6 mg/kg	87.9	70.0	130	----
	SCP SS-2	Titanium	7440-32-6	E440A	839 mg/kg	108	70.0	130	----
	SCP SS-2	Uranium	7440-61-1	E440A	0.52 mg/kg	103	70.0	130	----
	SCP SS-2	Vanadium	7440-62-2	E440A	32.7 mg/kg	101	70.0	130	----
	SCP SS-2	Zinc	7440-66-6	E440A	297 mg/kg	93.4	70.0	130	----
	SCP SS-2	Zirconium	7440-67-7	E440A	5.73 mg/kg	86.3	70.0	130	----

SEDIMENT TOXICITY

**Nautilus Environmental Laboratory Report WO231484
(Finalized December 11, 2023)**



Toxicity testing using *Hyalella azteca*

Sample collected August 2023

Revised Final Report

December 18, 2023

Submitted to: **Minnow Environmental Inc**
Victoria, BC

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SIGNATURE PAGE

Report By:
MinJeong Kang, B. Sc.
Laboratory Biologist



Reviewed By:
Mimi Tran, Dipl. T.
Senior Biologist

This report has been prepared by Nautilus Environmental Company Inc. based on data and/or samples provided by our client and the results of this study are for their sole benefit. Any reliance on the data by a third party is at the sole and exclusive risk of that party. The results presented here relate only to the samples tested.

SUMMARY

Sample and Test Type Information

Sample ID	QUL-LNF1
	QUL-LREF1
Sample collection date	August 26, 2023
Sample receipt date	August 30, 2023
Sample receipt temperature	4.8°C
Test types	14-d <i>Hyaella azteca</i> survival and growth

Results

Endpoint (mean + SD)	Sample ID		
	Control Sediment	QUL-LNF1	QUL-LREF1
<i>H. azteca</i> survival (%)	98.0 ± 4.5	38.0 ± 20.5 ^{*α}	98.0 ± 4.5
<i>H. azteca</i> growth (mg)	0.14 ± 0.04	0.05 ± 0.05 ^{*α}	0.17 ± 0.04

SD = Standard Deviation

(*) Indicates a statistically significant effect relative to control sediment

(α) Indicates a statistically significant effect relative to the reference sediment QUL-LREF1

1.0 INTRODUCTION

Nautilus Environmental Company Inc. conducted freshwater sediment toxicity tests for Minnow Environmental Inc. Samples QUL-LNF1 and QUL-LREF1 were collected on August 26, 2023, and delivered to the Nautilus Environmental Laboratory in Burnaby, BC on August 30, 2023. Each sample was transported in five 500-mL containers, and was received at a temperature of 4.8°C. The samples were stored in the dark at $4 \pm 2^\circ\text{C}$ prior to testing. The 14-d *Hyalella azteca* survival and growth sediment toxicity test was conducted on these samples.

This report describes the results of these toxicity tests. Copies of raw laboratory data sheets and statistical analyses for each sample are provided in Appendix A, sediment description is provided in Appendix B, analytical chemistry is provided in Appendix C and the chain-of-custody forms are provided in Appendix D.

This report was revised from an earlier version to include a deviation in subsampling holding time.

2.0 METHODS

Methods for the toxicity test are summarized in Table 1. Testing was conducted according to procedures described by Environment Canada (2017). Statistical analyses for all tests were performed using CETIS (Tidepool Scientific Software, 2021).

Ammonia concentrations were measured in-house three times per week on the reference sediment sample QUL-LREF1 to ensure that un-ionized ammonia was below 0.2 mg/L N. Subsamples of dissolved copper were collected at test termination as requested by the client, and sent to ALS Environmental (Burnaby, BC) for analysis. Samples of overlying water were collected at test initiation and termination, and then analyzed by ALS Environmental for total ammonia concentration. Analytical results are provided in Appendix C.

Table 1. Summary of test conditions: *Hyalella azteca* survival and growth test.

Test species	<i>Hyalella azteca</i>
Organism source	Aquatic BioSystems, Fort Collins, CO
Organism age	7- to 9-days old
Test type	Static
Test duration	14 days
Test vessel	375-mL glass container
Test volume	100 mL sediment; 175 mL overlying water
Test replicates	5 per sample
Number of organisms	10 per replicate
Control water	Reconstituted water; recipe from Borgmann (1996)
Test solution renewal	None
Test temperature	23 ± 1°C
Feeding	0.75 mL of YCT and 1.35 mg of Tetramin per replicate daily
Light intensity	500 to 1000 lux at water surface
Photoperiod	16 hours light/8 hours dark
Aeration	Continuous gentle aeration
Test measurements	Temperature, dissolved oxygen, pH and conductivity of overlying water measured daily; total ammonia of overlying water measured at test initiation and termination; unionized ammonia measured three times weekly in overlying water of reference sample
Test protocol	Environment Canada (2017), EPS 1/RM/33
Statistical software	CETIS Version 2.1.4
Test endpoints	Survival and dry weight
Test acceptability criteria for controls	≥80% survival and ≥0.1 mg/amphipod dry weight
Reference toxicant	Sodium chloride (NaCl)

3.0 RESULTS

Results of the toxicity tests are summarized in Table 2. Adverse effects were observed on the survival and growth of *H. azteca* in sample QUL-LNF1 compared to the control sediment and the reference sediment, QUL-LREF1. No significant effects were observed on survival or growth in reference sediment QUL-LREF1 compared to the control sediment.

Measured total overlying ammonia concentrations in the *H. azteca* test are summarized in Table 3. These concentrations were at levels that are not expected to cause adverse effects to the species. Unionized ammonia measurements on the reference samples were below 0.2 mg/L throughout the test.

Table 2. Results: *Hyalella azteca* survival and growth test.

Sample ID	Mean ± SD	
	Survival (%)	Average Dry Weight (mg/org)
Control Sediment	98.0 ± 4.5	0.14 ± 0.04
QUL-LNF1	38.0 ± 20.5* ^α	0.05 ± 0.05* ^α
QUL-LREF1	98.0 ± 4.5	0.17 ± 0.04

SD = Standard Deviation

(*) Indicates a statistically significant effect relative to control sediment

(^α) Indicates a statistically significant effect relative to the reference sediment QUL-LREF1

Table 3. Summary of total overlying ammonia concentrations (mg/L N) measured in the *Hyalella azteca* toxicity tests.

Sample ID	Day 0	Day 14
Control	0.0486	2.09
QUL-LNF1	0.0143	0.0532
QUL-LREF1	0.193	0.0829

Table 4. Summary of dissolved copper (mg/L Cu) measured in the *Hyaella azteca* toxicity tests on Day 14.

Replicate	Control	QUL-LNF1	QUL-LREF1
	0.00339	--	--
A	--	0.122	0.00347
B	--	0.0891	0.00322
C	--	0.114	0.00157
D	--	0.0951	0.00349
E	--	0.0910	0.00331

Table 5. Summary of dissolved organic carbon (mg/L C) measured in the *Hyaella azteca* toxicity tests on Day 14.

Replicate	Control	QUL-LNF1	QUL-LREF1
	5.39	--	--
A	--	5.37	5.65
B	--	3.31	4.51
C	--	3.24	4.65
D	--	4.55	6.48
E	--	3.89	4.15

4.0 QA/QC

The health history of the test organisms used in the exposures was acceptable and met the requirement of the Environment Canada protocol. The test met all control acceptability criteria. Water quality parameters remained within ranges specified in the protocols throughout the test, with the exception of pH. The pH of the reference sediment, QUL-LREF1, exceeded 8.0 by a small margin. The client requested the test remain static, unless the unionized ammonia was greater than 0.2 mg/L N. Uncertainties associated with the test are best described by the standard deviations around the mean. It should be noted that the sediment test methods require that particle size, total organic carbon and ammonia be measured in each field replicate. These measurements were not performed as part of the laboratory toxicity testing as the client measured these as part of the analytical chemistry program associated with the project.

Chemistry subsamples sent for analysis exceeded the maximum recommended holding time; however, all subsamples were preserved during collection and stored in the dark at $4 \pm 2^\circ\text{C}$ before being submitted for analysis.

Results of the reference toxicant test conducted during the testing program are summarized in Table 6. Results for the test fell within the acceptable range for organism performance of mean and two standard deviations, based on historical results obtained by the laboratory with this test. Thus, the sensitivity of the organisms used in the test was appropriate.

Table 6. Reference toxicant test result.

Test Species	Endpoint	Historical Mean (2 SD Range)	CV (%)	Test Date
<i>H. azteca</i>	Survival (LC50): 4.7 g/L NaCl	6.2 (4.6 – 8.4)	15	September 14, 2023

SD = Standard Deviation, CV = Coefficient of Variation, LC = Lethal Concentration

5.0 REFERENCES

Borgmann, U. 1996. Systematic Analysis of Aqueous Ion Requirements of *Hyaella azteca*: A Standard Artificial Medium Including the Essential Bromide Ion, Arch. Environ. Contam. Toxicol. 30: 356- 363 pp.

Environment Canada. 2017. Biological test method: test for survival and growth in sediment and water using the freshwater amphipod, *Hyaella azteca*. EPS 1/RM/33, Second Edition, September 2017.

Tidepool Scientific Software. 2021. CETIS comprehensive environmental toxicity information system, version 2.1.4 Tidepool Scientific Software, McKinleyville, CA. 303 pp.

APPENDIX A – *Hyaella azteca* Toxicity Test Data

Hyalella azteca Sediment Test Summary Sheet

Client: Mianow Environmental
 Work Order No.: 231484

Start Date/Time: Sept. 14/23 @ 1030h
 Set up by: REI/MJK

Sample Information:

Sample ID: Various - see below
 Sample Date: Aug. 26/23
 Date Received: Aug. 30/23
 Sample Volume: 5 x 500 mL

Test Organism Information:

Species: Hyalella azteca
 Supplier: Aquatic Biosystems, Co
 Date received: Sept. 13/23
 Age or size (Day 0): 7-9d
 % Mortality in 24 h prior to testing 0

NaCl Reference Toxicant Results:

Reference Toxicant ID: HA248
 Stock Solution ID: n/a
 Date Initiated: Sept. 14/23

96-h LC50 (95% CL): 4.7(3.9-5.8) g/L NaCl

96-h LC50 Reference Toxicant Mean and Range: 6.2(4.6-8.4) g/L NaCl CV (%): 15

Test Results:

Sample ID	Survival ± SD (%)	Average Dry Wt. ± SD (mg)
Control Sediment	98.0 ± 4.5	0.14 ± 0.04
QUL-LNF1	38.0 ± 20.5* ^α	0.05 ± 0.05* ^α
QUL-LREF1	98.0 ± 4.5	0.17 ± 0.04
	±	±
	±	±
	±	±
	±	±

* Indicates a significant effect compared to control sediment.
^α Indicates a significant effect compared to reference sediment QUL-LREF1

Reviewed by: EMM Date reviewed: NOV 17/23

Chronic *H. azteca* Sediment Toxicity Test Data Sheet
Freshwater Sediment Water Quality

Client: Minnow Environmental
Work Order No.: 231484

Start Date & Time: Sept. 14/23 @ 1030h
Termination Date: Sept. 28/23
CER #: 6
Test Organism: Hyalella azteca

Temperature (°C)

Sample ID	Day														
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Control Sediment	22.5	22.0	22.0	22.5	22.5	22.5	22.5	22.0	22.0	22.5	23.0	23.0	23.0	23.0	23.0
QUL - LNF1	↓	↓	22.0	↓	↓	↓	↓	↓	↓	↓	23.0	↓	↓	↓	↓
QUL - LREF1	↓	↓	22.0	↓	↓	↓	↓	↓	↓	↓	23.0	↓	↓	↓	↓
Technician Initials	RZS	MJK	PM	EWL	MJK	MJK	MJK	MJK	MJK	EWL	T.L.	MOK	MOK	MOK	MOK

Thermometer: CER#6

Conductivity (µS)

Sample ID	Day														
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Control Sediment	427	437	445	452	455	466	475	481	496	501	511	520	524	526	529
QUL - LNF1	406	418	419	428	437	444	450	454	463	464	472	480	483	485	489
QUL - LREF1	412	417	423	436	452	468	487	500	512	518	519	505	488	476	463
Technician Initials	RZS	MOK	PM	EWL	MJK	MJK	MOK	MJK	MOK	EWL	T.L.	MOK	MOK	MOK	MOK

Conductivity meter/probe: 3, 3

Light meter: lit-1 Light intensity (Lux): 780-950

Comments: _____

Reviewed by: EMM Date Reviewed: NOV 17/23

Chronic *H. azteca* Sediment Toxicity Test Data Sheet
Freshwater Sediment Water Quality

Client: Minnow Environmental
Work Order No.: 231484

Start Date & Time: Sept. 14/23 @ 1030h
Termination Date: Sept. 28/23
CER #: 6
Test Organism: Hyalella azteca

Dissolved oxygen (mg/L)

Sample ID	Day														
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Control sediment	8.2	8.1	8.1	8.2	8.2	8.1	8.1	8.1	8.1	8.1	8.2	8.0	8.0	7.9	7.9
QUL-LNF1	8.2	8.1	↓	8.2	8.1	8.1	8.0	8.1	8.1	8.1	8.1	8.0	8.0	7.9	8.0
QUL-LREF1	8.1	8.0	↓	8.2	8.1	8.1	8.0	8.0	8.1	8.1	8.1	8.0	8.0	7.9	8.0
Technician Initials	RJS	MJK	PM	km	MJK	MJK	MJK	MJK	MJK	EMC	T.C.	MJK	MJK	MJK	MJK

DO meter/probe: 5 / 5

pH

Sample ID	Day														
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Control sediment	8.0	8.0	8.0	8.0	8.0	8.1	8.0	8.1	8.1	8.0	8.1	7.9	8.0	7.9	7.9
QUL-LNF1	8.1	8.1	8.2	8.2	8.1	8.2	8.1	8.2	8.2	8.1	8.2	7.9	7.9	7.9	8.0
QUL-LREF1	7.9	7.9	8.0	8.0	8.0	8.2	8.3	8.3	8.3	8.3	8.3	7.8	7.9	7.9	7.9
Technician Initials	RJS	MJK	PM	km	MJK	MJK	MJK	MJK	MJK	EMC	T.C.	MJK	MJK	MJK	MJK

pH meter/probe: 3 / 3

Light meter: lit-1 Light intensity (Lux): 780 - 950

Comments: _____

Reviewed by: EMM Date Reviewed: NOV 17/23

H. azteca Sediment Toxicity Test Data Sheet
Freshwater Sediment 14-d Survival and Weight

Client: Minnow Environmental
Work Order No: 231484
Sample ID: Various - see below

Start Date & Date: Sept. 14/23 @ 1030h
Termination Date: Sept. 28/23
Test Organism: Hyalella azteca
Balance: 6

Sample ID	ME Pan No. blue	Rep	No. alive	No. dead	No. missing	Initials	Pan weight (mg)	Pan + organism (mg)	No. weighed	Initials
Control Sediment	1	A	10	0	0	MXK	978.26	980.21	10	AHS/AHS
	2	B	10	0	0	↓	964.25	965.59	10	
	3	C	10	0	0	↓	987.89	989.32	10	
	4	D	9	0	1	↓	985.05	985.90	9	
	5	E	10	0	0	↓	979.30	980.68	10	
QUL-LNF1 [®]	6	A	2	2	2	PKK	987.04	987.30	2	↓
	7	B	6	0	4	↓	987.79	988.09	6	
	8	C	2	0	8	↓	993.16	993.18	2	
	9	D	3	0	7	↓	978.11	978.17	3	
	10	E	6	0	4	↓	1005.66	1005.79	6	
QUL-LREF1	11	A	10	0	0	PKK	981.32	983.09	10	↓
	12	B	10	↓	↓	↓	985.28	986.79	10	
	13	C	10	↓	↓	↓	1006.70	1008.78	10	
	14	D	10	↓	↓	↓	982.00	983.64	9 ^u	
	15	E	9	0	1	↓	965.31	966.78	9	
		A								
		B								
		C								
		D								
		E								

Date/time pan placed in oven: Sept. 26/23 @ 1100h
Date/time pan removed from oven: Sept. 27/23 @ 0710h

Date/time pan + organisms placed in oven: Sept. 28/23 @ 1430h
Date/time pan + organisms removed from oven: Sept 29/23 @ 1430h

Comments: W/lost in transfer @ organisms are smaller compared to other sample and control
Reweigh pans: #4 - 985.87 mg & #6 - 987.30 mg
Reviewed by: EMM Date Reviewed: NOV 17/23

CETIS Summary Report

Report Date: 25 Oct-23 14:11 (p 1 of 1)
 Test Code/ID: 231484 / 11-7765-8660

Hyaella 14-d Survival and Growth Sediment Test

Nautilus Environmental

Batch ID: 12-8243-8184 Test Type: Growth-Survival (23) (20d)
 Start Date: 14 Sep-23 10:30 Protocol: EC/EPS 1/RM/33 (14)
 Ending Date: 28 Sep-23 Species: Hyaella azteca
 Test Length: 13d 14h Taxon: Malacostraca
 Analyst: Rachel Sakurdeep
 Diluent: Reconstituted Water
 Brine:
 Source: Aquatic Biosystems, CO Age: 7-9d

Sample ID: 08-4675-5316 Code: Control Sed Project:
 Sample Date: 13 Sep-23 Material: Sediment Sample Source: Minnow Environmental
 Receipt Date: 13 Sep-23 CAS (PC): Station: Control Sediment
 Sample Age: 34h Client: Minnow Environmental

Sample Code	Sample ID	Sample Date	Receipt Date	Sample Age	Client Name	Project
Control Sed	08-4675-5316	13 Sep-23	13 Sep-23	34h	Minnow Environmental	
QUL-LNF1	17-8754-6100	26 Aug-23 11:25	30 Aug-23 08:26	18d 23h (4.8 °C)		
QUL-LREF1	04-5943-0660	26 Aug-23 09:21	30 Aug-23 08:26	19d 1h (4.8 °C)		

Sample Code	Material Type	Sample Source	Station Location	Lat/Long
Control Sed	Sediment Sample	Minnow Environmental	Control Sediment	
QUL-LNF1	Sediment Sample	Minnow Environmental	QUL-LNF1	
QUL-LREF1	Sediment Sample	Minnow Environmental	QUL-LREF1	

Single Comparison Summary

Analysis ID	Endpoint	Comparison Method	P-Value	Comparison Result	S
00-0725-4462	10d Survival Rate	Fisher Exact/Bonferroni-Holm Test	<1.0E-05	QUL-LNF1 failed 10d survival rate	1
00-0725-4462	10d Survival Rate	Fisher Exact/Bonferroni-Holm Test	0.7525	QUL-LREF1 passed 10d survival rate	1
07-0942-3058	Mean Dry Weight-mg	Dunnett Multiple Comparison Test	0.0033	QUL-LNF1 failed mean dry weight-mg	1
07-0942-3058	Mean Dry Weight-mg	Dunnett Multiple Comparison Test	0.9199	QUL-LREF1 passed mean dry weight-mg	1

14 10d Survival Rate Summary

Sample	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
Control Sed	N	5	0.9800	0.9245	1.0360	0.9000	1.0000	0.0200	0.0447	4.56%	0.00%
QUL-LNF1		5	0.3800	0.1255	0.6345	0.2000	0.6000	0.0917	0.2049	53.93%	61.22%
QUL-LREF1		5	0.9800	0.9245	1.0360	0.9000	1.0000	0.0200	0.0447	4.56%	0.00%

Mean Dry Weight-mg Summary

Sample	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
Control Sed	N	5	0.1409	0.09636	0.1854	0.09445	0.195	0.01604	0.03586	25.46%	0.00%
QUL-LNF1		5	0.04634	-0.0146	0.1073	0.01001	0.13	0.02195	0.04908	105.92%	67.11%
QUL-LREF1		5	0.1652	0.1181	0.2123	0.1078	0.208	0.01697	0.03795	22.97%	-17.25%

14 10d Survival Rate Detail

MD5: F3E371CA7359193E60DC51918AF7B80A

Sample	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
Control Sed	N	1.0000	1.0000	1.0000	0.9000	1.0000
QUL-LNF1		0.2000	0.6000	0.2000	0.3000	0.6000
QUL-LREF1		1.0000	1.0000	1.0000	1.0000	0.9000

Mean Dry Weight-mg Detail

MD5: 807C8E2A01D26D116982D14ACA0D2C7D

Sample	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
Control Sed	N	0.195	0.134	0.143	0.09445	0.138
QUL-LNF1		0.13	0.05001	0.01001	0.02	0.02167
QUL-LREF1		0.177	0.151	0.208	0.1822	0.1078

14 10d Survival Rate Binomials

Sample	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
Control Sed	N	10/10	10/10	10/10	9/10	10/10
QUL-LNF1		2/10	6/10	2/10	3/10	6/10
QUL-LREF1		10/10	10/10	10/10	10/10	9/10

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CETIS Analytical Report

Report Date: 25 Oct-23 14:11 (p 1 of 2)
 Test Code/ID: 231484 / 11-7765-8660

Hyalella 14-d Survival and Growth Sediment Test

Nautilus Environmental

Analysis ID: 00-0725-4462	Endpoint: ^(R2) 10d Survival Rate	CETIS Version: CETISv2.1.4
Analyzed: 24 Oct-23 14:54	Analysis: STP 2xK Contingency Tables	Status Level: 1
Edit Date: 24 Oct-23 14:49	MD5 Hash: F3E371CA7359193E60DC51918AF7B80A	Editor ID: 004-311-246-8
Batch ID: 12-8243-8184	Test Type: Growth-Survival (10d)	Analyst: Rachel Sakurdeep
Start Date: 14 Sep-23 10:30	Protocol: EC/EPS 1/RM/33	Diluent: Reconstituted Water
Ending Date: 28 Sep-23	Species: Hyalella azteca	Brine:
Test Length: 13d 14h	Taxon: Malacostraca	Source: Aquatic Biosystems, CO Age: 7-9d

Sample Code	Sample ID	Sample Date	Receipt Date	Sample Age	Client Name	Project
Control Sed	08-4675-5316	13 Sep-23	13 Sep-23	34h	Minnow Environmental	
QUL-LNF1	17-8754-6100	26 Aug-23 11:25	30 Aug-23 08:26	18d 23h (4.8 °C)		
QUL-LREF1	04-5943-0660	26 Aug-23 09:21	30 Aug-23 08:26	19d 1h (4.8 °C)		

Sample Code	Material Type	Sample Source	Station Location	Lat/Long
Control Sed	Sediment Sample	Minnow Environmental	Control Sediment	
QUL-LNF1	Sediment Sample	Minnow Environmental	QUL-LNF1	
QUL-LREF1	Sediment Sample	Minnow Environmental	QUL-LREF1	

Fisher Exact/Bonferroni-Holm Test

Sample I	vs	Sample II	Test Stat	P-Type	P-Value	Decision(α:5%)
Negative Control		QUL-LNF1*	0.0000	Exact	<1.0E-05	Significant Effect
		QUL-LREF1	0.7525	Exact	0.7525	Non-Significant Effect

^(R2) **10d Survival Rate Frequencies**

Sample	Code	NR	R	NR + R	Prop NR	Prop R	%Effect
Control Sed	N	49	1	50	0.9800	0.0200	0.00%
QUL-LNF1		19	31	50	0.3800	0.6200	61.22%
QUL-LREF1		49	1	50	0.9800	0.0200	0.00%

^(R2) **10d Survival Rate Summary**

Sample	Code	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
Control Sed	N	5	0.9800	0.9245	1.0000	1.0000	0.9000	1.0000	0.0200	4.56%	0.00%
QUL-LNF1		5	0.3800	0.1255	0.6345	0.3000	0.2000	0.6000	0.0917	53.93%	61.22%
QUL-LREF1		5	0.9800	0.9245	1.0000	1.0000	0.9000	1.0000	0.0200	4.56%	0.00%

^(R2) **10d Survival Rate Detail**

Sample	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
Control Sed	N	1.0000	1.0000	1.0000	0.9000	1.0000
QUL-LNF1		0.2000	0.6000	0.2000	0.3000	0.6000
QUL-LREF1		1.0000	1.0000	1.0000	1.0000	0.9000

^(R2) **10d Survival Rate Binomials**

Sample	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
Control Sed	N	10/10	10/10	10/10	9/10	10/10
QUL-LNF1		2/10	6/10	2/10	3/10	6/10
QUL-LREF1		10/10	10/10	10/10	10/10	9/10

10/17/23

CETIS Analytical Report

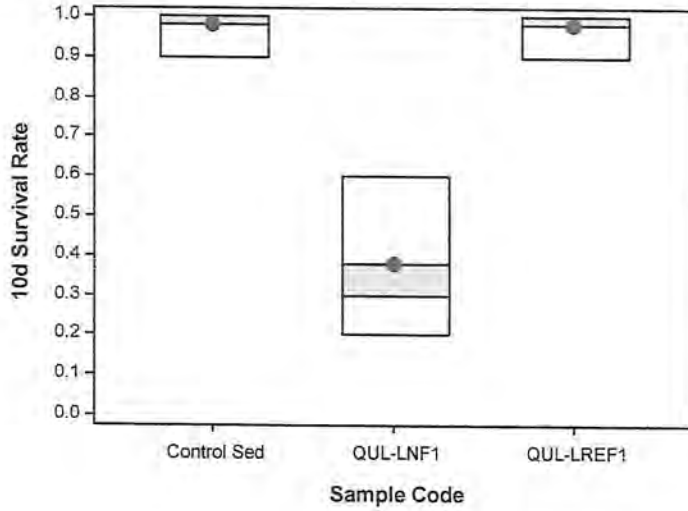
Report Date: 25 Oct-23 14:11 (p 2 of 2)
Test Code/ID: 231484 / 11-7765-8660

Hyalella 14-d Survival and Growth Sediment Test

Nautilus Environmental

Analysis ID: 00-0725-4462 Endpoint: ²²³10d Survival Rate CETIS Version: CETISv2.1.4
Analyzed: 24 Oct-23 14:54 Analysis: STP 2xK Contingency Tables Status Level: 1
Edit Date: 24 Oct-23 14:49 MD5 Hash: F3E371CA7359193E60DC51918AF7B80A Editor ID: 004-311-246-8

Graphics



CETIS Analytical Report

Report Date: 25 Oct-23 14:11 (p 1 of 2)
 Test Code/ID: 231484 / 11-7765-8660

Hyalella 14-d Survival and Growth Sediment Test

Nautilus Environmental

Analysis ID: 07-0942-3058	Endpoint: Mean Dry Weight-mg	CETIS Version: CETISv2.1.4
Analyzed: 24 Oct-23 14:57	Analysis: Parametric-Control vs Treatments	Status Level: 1
Edit Date: 24 Oct-23 14:49	MD5 Hash: 807C8E2A01D26D116982D14ACA0D2C7D	Editor ID: 004-311-246-8
Batch ID: 12-8243-8184	Test Type: Growth-Survival (10d)	Analyst: Rachel Sakurdeep
Start Date: 14 Sep-23 10:30	Protocol: EC/EPS 1/RM/33	Diluent: Reconstituted Water
Ending Date: 28 Sep-23	Species: Hyalella azteca	Brine:
Test Length: 13d 14h	Taxon: Malacostraca	Source: Aquatic Biosystems, CO Age: 7-9d

Sample Code	Sample ID	Sample Date	Receipt Date	Sample Age	Client Name	Project
Control Sed	08-4675-5316	13 Sep-23	13 Sep-23	34h	Minnow Environmental	
QUL-LNF1	17-8754-6100	26 Aug-23 11:25	30 Aug-23 08:26	18d 23h (4.8 °C)		
QUL-LREF1	04-5943-0660	26 Aug-23 09:21	30 Aug-23 08:26	19d 1h (4.8 °C)		

Sample Code	Material Type	Sample Source	Station Location	Lat/Long
Control Sed	Sediment Sample	Minnow Environmental	Control Sediment	
QUL-LNF1	Sediment Sample	Minnow Environmental	QUL-LNF1	
QUL-LREF1	Sediment Sample	Minnow Environmental	QUL-LREF1	

Data Transform	Alt Hyp	Comparison Result	PMSD
Untransformed	C > T	QUL-LNF1 failed mean dry weight-mg endpoint QUL-LREF1 passed mean dry weight-mg endpoint	39.15% 39.15%

Dunnnett Multiple Comparison Test

Sample I	vs	Sample II	df	Test Stat	Critical	MSD	P-Type	P-Value	Decision(α:5%)
Negative Control		QUL-LNF1*	8	3.613	2.108	0.05516	CDF	0.0033	Significant Effect
		QUL-LREF1	8	-0.9291	2.108	0.05516	CDF	0.9199	Non-Significant Effect

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.0394326	0.0197163	2	11.52	0.0016	Significant Effect
Error	0.0205406	0.0017117	12			
Total	0.0599732		14			

ANOVA Assumptions Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variance	Bartlett Equality of Variance Test	0.421	9.21	0.8102	Equal Variances
Distribution	Shapiro-Wilk W Normality Test	0.9636	0.8328	0.7542	Normal Distribution

Mean Dry Weight-mg Summary

Sample	Code	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
Control Sed	N	5	0.1409	0.09636	0.1854	0.138	0.09445	0.195	0.01604	25.46%	0.00%
QUL-LNF1		5	0.04634	-0.0146	0.1073	0.02167	0.01001	0.13	0.02195	105.92%	67.11%
QUL-LREF1		5	0.1652	0.1181	0.2123	0.177	0.1078	0.208	0.01697	22.97%	-17.25%

Mean Dry Weight-mg Detail

Sample	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
Control Sed	N	0.195	0.134	0.143	0.09445	0.138
QUL-LNF1		0.13	0.05001	0.01001	0.02	0.02167
QUL-LREF1		0.177	0.151	0.208	0.1822	0.1078

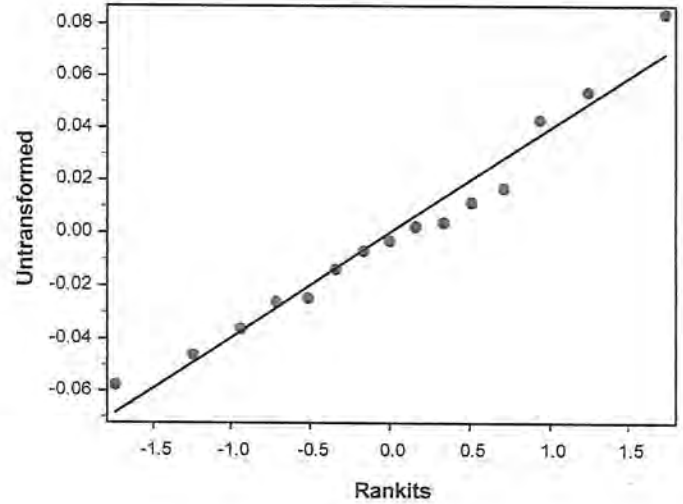
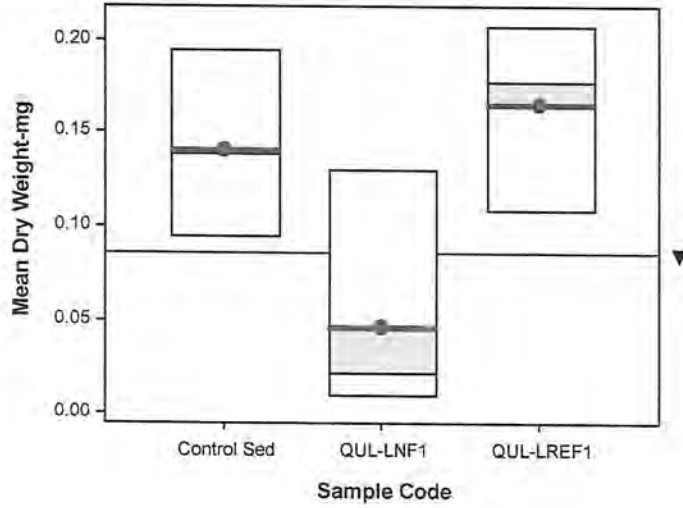
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Hyalella 14-d Survival and Growth Sediment Test

Nautilus Environmental

Analysis ID: 07-0942-3058 Endpoint: Mean Dry Weight-mg CETIS Version: CETISv2.1.4
 Analyzed: 24 Oct-23 14:57 Analysis: Parametric-Control vs Treatments Status Level: 1
 Edit Date: 24 Oct-23 14:49 MD5 Hash: 807C8E2A01D26D116982D14ACA0D2C7D Editor ID: 004-311-246-8

Graphics



CETIS Analytical Report

Report Date: 25 Oct-23 14:12 (p.1 of 2)
 Test Code/ID: 231484 / 11-7765-8660

Hyalella 14-d Survival and Growth Sediment Test

Nautilus Environmental

Analysis ID: 05-2178-8477 Endpoint: ¹⁴10d Survival Rate CETIS Version: CETISv2.1.4
 Analyzed: 24 Oct-23 15:01 Analysis: Single 2x2 Contingency Table Status Level: 1
 Edit Date: 24 Oct-23 14:49 MD5 Hash: 663D3AC7DE4591BE80AD9FB43A109EE1 Editor ID: 004-311-246-8

Batch ID: 12-8243-8184 Test Type: Growth-Survival (10d) Analyst: Rachel Sakurdeep
 Start Date: 14 Sep-23 10:30 Protocol: EC/EPS 1/RM/33 Diluent: Reconstituted Water
 Ending Date: 28 Sep-23 Species: Hyalella azteca Brine:
 Test Length: 13d 14h Taxon: Malacostraca Source: Aquatic Biosystems, CO Age: 7-9d

Sample Code	Sample ID	Sample Date	Receipt Date	Sample Age	Client Name	Project
QUL-LNF1	17-8754-6100	26 Aug-23 11:25	30 Aug-23 08:26	18d 23h (4.8 °C)	Minnow Environmental	
QUL-LREF1	04-5943-0660	26 Aug-23 09:21	30 Aug-23 08:26	19d 1h (4.8 °C)		

Sample Code	Material Type	Sample Source	Station Location	Lat/Long
QUL-LNF1	Sediment Sample	Minnow Environmental	QUL-LNF1	
QUL-LREF1	Sediment Sample	Minnow Environmental	QUL-LREF1	

Fisher Exact Test

Sample I	vs	Sample II	Test Stat	P-Type	P-Value	Decision(α:5%)
Reference Sed		QUL-LNF1*	0.0000	Exact	<1.0E-05	Significant Effect

¹⁴10d Survival Rate Frequencies

Sample	Code	NR	R	NR + R	Prop NR	Prop R	%Effect
QUL-LNF1		19	31	50	0.3800	0.6200	61.22%
QUL-LREF1	RS	49	1	50	0.9800	0.0200	0.00%

¹⁴10d Survival Rate Summary

Sample	Code	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
QUL-LNF1		5	0.3800	0.1255	0.6345	0.3000	0.2000	0.6000	0.0917	53.93%	61.22%
QUL-LREF1	RS	5	0.9800	0.9245	1.0000	1.0000	0.9000	1.0000	0.0200	4.56%	0.00%

¹⁴10d Survival Rate Detail

Sample	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
QUL-LNF1		0.2000	0.6000	0.2000	0.3000	0.6000
QUL-LREF1	RS	1.0000	1.0000	1.0000	1.0000	0.9000

¹⁴10d Survival Rate Binomials

Sample	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
QUL-LNF1		2/10	6/10	2/10	3/10	6/10
QUL-LREF1	RS	10/10	10/10	10/10	10/10	9/10

Handwritten notes: 11/05/23

CETIS Analytical Report

Report Date: 25 Oct-23 14:12 (p 2 of 2)

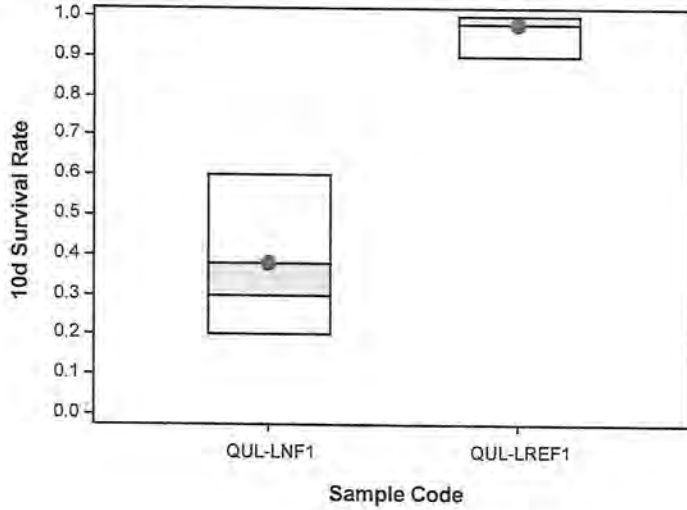
Test Code/ID: 231484 / 11-7765-8660

Hyalella 14-d Survival and Growth Sediment Test

Nautilus Environmental

Analysis ID: 05-2178-8477	Endpoint: 14d Survival Rate	CETIS Version: CETISv2.1.4
Analyzed: 24 Oct-23 15:01	Analysis: Single 2x2 Contingency Table	Status Level: 1
Edit Date: 24 Oct-23 14:49	MD5 Hash: 663D3AC7DE4591BE80AD9FB43A109EE1	Editor ID: 004-311-246-8

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CETIS Analytical Report

Report Date: 25 Oct-23 14:12 (p 1 of 2)
 Test Code/ID: 231484 / 11-7765-8660

Hyalella 14-d Survival and Growth Sediment Test

Nautilus Environmental

Analysis ID: 09-0633-8227	Endpoint: Mean Dry Weight-mg	CETIS Version: CETISv2.1.4
Analyzed: 24 Oct-23 15:01	Analysis: Parametric-Two Sample	Status Level: 1
Edit Date: 24 Oct-23 14:49	MD5 Hash: 86B023BFC2FE68CF472AB8AFA5E0B8E0	Editor ID: 004-311-246-8
Batch ID: 12-8243-8184	Test Type: Growth-Survival (10d)	Analyst: Rachel Sakurdeep
Start Date: 14 Sep-23 10:30	Protocol: EC/EPS 1/RM/33 ¹⁴	Diluent: Reconstituted Water
Ending Date: 28 Sep-23	Species: Hyalella azteca	Brine:
Test Length: 13d 14h	Taxon: Malacostraca	Source: Aquatic Biosystems, CO Age: 7-9d

Sample Code	Sample ID	Sample Date	Receipt Date	Sample Age	Client Name	Project
QUL-LNF1	17-8754-6100	26 Aug-23 11:25	30 Aug-23 08:26	18d 23h (4.8 °C)	Minnow Environmental	
QUL-LREF1	04-5943-0660	26 Aug-23 09:21	30 Aug-23 08:26	19d 1h (4.8 °C)		

Sample Code	Material Type	Sample Source	Station Location	Lat/Long
QUL-LNF1	Sediment Sample	Minnow Environmental	QUL-LNF1	
QUL-LREF1	Sediment Sample	Minnow Environmental	QUL-LREF1	

Data Transform	Alt Hyp	Comparison Result	PMSD
Untransformed	C > T	QUL-LNF1 failed mean dry weight-mg endpoint	31.23%

Equal Variance t Two-Sample Test

Sample I	vs	Sample II	df	Test Stat	Critical	MSD	P-Type	P-Value	Decision(α:5%)
Reference Sed		QUL-LNF1*	8	4.284	1.86	0.05159	CDF	0.0013	Significant Effect

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.0353209	0.0353209	1	18.35	0.0027	Significant Effect
Error	0.0153955	0.0019244	8			
Total	0.0507164		9			

ANOVA Assumptions Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variance	Variance Ratio F Test	1.673	23.15	0.6303	Equal Variances
Distribution	Shapiro-Wilk W Normality Test	0.9583	0.7411	0.7663	Normal Distribution

Mean Dry Weight-mg Summary

Sample	Code	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
QUL-LNF1		5	0.04634	-0.0146	0.1073	0.02167	0.01001	0.13	0.02195	105.92%	71.95%
QUL-LREF1	RS	5	0.1652	0.1181	0.2123	0.177	0.1078	0.208	0.01697	22.97%	0.00%

Mean Dry Weight-mg Detail

Sample	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
QUL-LNF1		0.13	0.05001	0.01001	0.02	0.02167
QUL-LREF1	RS	0.177	0.151	0.208	0.1822	0.1078

CETIS Analytical Report

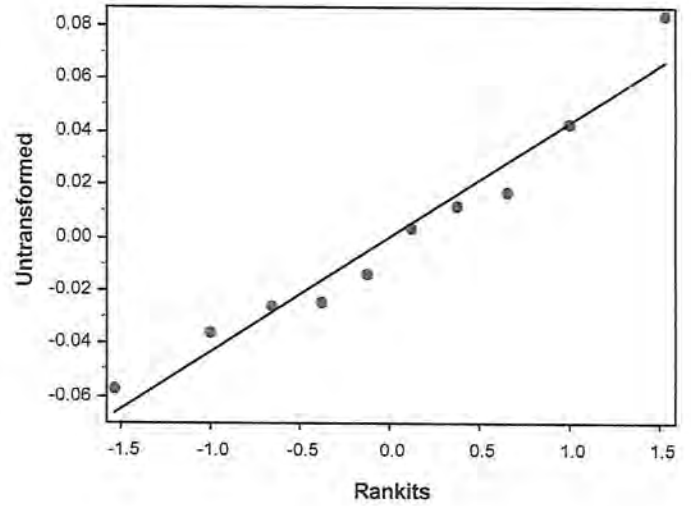
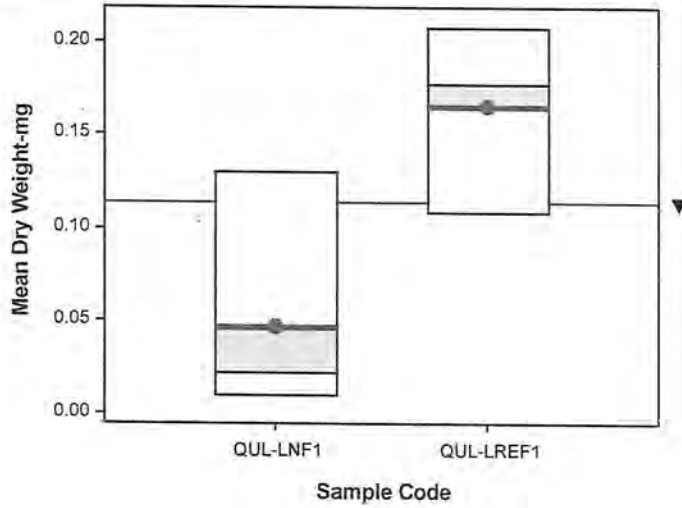
Report Date: 25 Oct-23 14:12 (p 2 of 2)
Test Code/ID: 231484 / 11-7765-8660

Hyaella 14-d Survival and Growth Sediment Test

Nautilus Environmental

Analysis ID: 09-0633-8227	Endpoint: Mean Dry Weight-mg	CETIS Version: CETISv2.1.4
Analyzed: 24 Oct-23 15:01	Analysis: Parametric-Two Sample	Status Level: 1
Edit Date: 24 Oct-23 14:49	MD5 Hash: 86B023BFC2FE68CF472AB8AFA5E0B8E0	Editor ID: 004-311-246-8

Graphics



Nautilus Environmental Water Quality Data For Ammonia

Client: Minnow Environmental

Species: H. azteca

Work Order No: 231484

Sample Type: Overlying water

Date Measured: See below

Date	Sample ID	Temperature (°C)	pH	Total Ammonia as N (mg/L)	Unionized Ammonia as N (mg/L)	Tech. Init.
Sept 14/23	QUL-LREF1	22.5	7.9	0.14	0.004	RZS
Sept 15/23	QUL-LREF1	22.0	7.9	0.03 0.22	0.007	THL/MJK
Sept 18/23	QUL-LREF1	22.5	8.2	0.13 x 10 = 1.3	0.007 0.079 MJK	THL/MJK
Sept 20/23	QUL-LREF1	22.0	8.3	0.19 x 10 = 1.9	0.143	MJK
Sept 22/23	QUL-LREF1	22.0	8.3	0.23 x 10 = 2.3	0.173	MJK
Sept 25/23	QUL-LREF1	23.0	7.9	0.02 x 10 = 0.2	0.007	THL/MJK
Sept 27/23	QUL-LREF1	23.0	7.9	0.081 x 10 = 0.81	0.00343	THL/MJK

Ammonia Salicylate Lot #: A3150

Ammonia Cyanurate Lot #: A3093

Comments: _____

Reviewed by: EMM

Date Reviewed: Nov 17/23

Client : Minnow Environmental

W.O.: 231484

Date see below

Table of PKa values

Temperature (°C)	TDS (mg/L)			Salinity (g/kg)		
	0	250	2000	10	20	30
12	9.662	9.699	9.754	9.788	9.819	9.837
14						9.770
15	9.564	9.601	9.655	9.688	9.719	9.737
16						9.703
17						9.670
18	9.465	9.502	9.557	9.588	9.619	9.636
20	9.401	9.438	9.492	9.523	9.554	9.571
22		9.391				9.508
23	9.307	9.344	9.398	9.426	9.459	9.476
25	9.246	9.283	9.337	9.366	9.397	9.414

Date	Sample ID	Temperature (C)	pH	Salinity (ppt)	Total Ammonia as N (mg/L)	pKa	Unionized Ammonia (mg/L N)
14/09/2023	QUL-LREF1	22.5	7.9		0.14	9.391	0.004379
15/09/2023	QUL-LREF1	22	7.9		0.22	9.391	0.006881
18/09/2023	QUL-LREF1	22.5	8.2		1.30	9.391	0.078674
20/09/2023	QUL-LREF1	22	8.3		1.90	9.391	0.142524
22/09/2023	QUL-LREF1	22	8.3		2.30	9.391	0.172530
25/09/2023	QUL-LREF1	23	7.9		0.20	9.344	0.006945
27/09/2023	QUL-LREF1	23	7.9		0.10	9.344	0.003473

*emm
Nov 7/23*

Hardness and Alkalinity Datasheet

Client: Minnow Environmental
 Work Order No.: 231484

Test Type: 14d. sediment
 Test Species: H. azteca

Day 0 {

Day 14 {

Sample ID	Subsample Date	Date Measured	Alkalinity				Hardness				Initials	
			Sample Volume (mL)	Initial H ₂ SO ₄ volume (mL)	(mL) 0.02N H ₂ SO ₄ used to pH 4.5	(mL) of 0.02N H ₂ SO ₄ used to pH 4.2	Total Alkalinity (mg/L CaCO ₃)	Sample Volume (mL)	Initial EDTA volume (mL)	Volume of 0.01M EDTA Used (mL)		Total Hardness (mg/L CaCO ₃)
Control Sediment	Sept. 14/22	Sept. 14/23	50	0	3.6	3.7	70	50	0	5.6	112	AHS
QUL-LNFI	↓	↓	↓	↓	4.0	4.1	78	↓	↓	6.4	128	↓
QUL-LREFI	↓	↓	↓	↓	4.0	4.1	78	↓	↓	6.1	122	↓
Control Sediment	Sept. 28/23	Sept. 28/23	50	0	5.6	5.7	110	② 50	0	7.1	142	AHS
QUL-LNFI A	↓	↓	100 ^①	↓	0.9	1.0	80	100 ^①	↓	1.6	160	AHS
B	↓	↓	↓	↓	1.0	1.1	90	↓	↓	1.7	170	↓
C	↓	↓	↓	↓	1.1	1.2	100	↓	↓	1.0	100	↓
D	↓	↓	↓	↓	0.9	1.0	80	↓	↓	1.6	160	↓
E	↓	↓	↓	↓	1.4	1.5	130	↓	↓	1.6	160	↓
QUL-LREFI A	↓	↓	↓	↓	0.9	1.0	80	↓	↓	1.6	160	JHL/AHS
B	↓	↓	↓	↓	0.9	1.0	80	↓	↓	1.3	130	↓
C	↓	↓	↓	↓	1.3	1.4	120	↓	↓	1.7	170	↓
D	↓	↓	↓	↓	1.5	1.6	140	↓	↓	1.7	170	↓
E	↓	↓	↓	↓	1.1	1.2	100	↓	↓	1.2	120	↓
Reconstituted Water (Bergmann)	Sept. 13/23	Sept. 13/23	50 100	0	6.9	7.1	67	50 100	0	12.1	121	RZ

② 50

Notes: ① sample diluted to 100 mL w/ DI-water

Reviewed by: EMM

Date Reviewed: NOV 17/23

APPENDIX B – Sediment Description

Sediment Description Data Sheet

Client: Minnow Environmental
 Work Order No.: 231484

Date: Sept. 13/23
 Test Organism: Hyalella azteca

Sample ID	Grain Size	Colour	Odour	Debris	Other	Initials
Control Sediment	sand	grey	none	none	none	RLS
QUL-LNFI-TOX-1-2023-08	sand	brown	none	none	none	AMS
QUL-LNFI-TOX-2-2023-08	sand	brown	none	none	none	↓
QUL-LNFI-TOX-3-2023-08	sand	beige	none	none	none	
QUL-LNFI-TOX-4-2023-08	sand	brown	none	none	none	
QUL-LNFI-TOX-5-2023-08	sand	brown	none	none	none	
QUL-LREFI-TOX-1-2023-08	silt	grey	organic	rocks	none	THL
QUL-LREFI-TOX-2-2023-08	sand	grey	none	none	no overlying water	↓
QUL-LREFI-TOX-3-2023-08	silt	grey	organic	roots	none	
QUL-LREFI-TOX-4-2023-08	silt	grey	none	roots	none	
QUL-LREFI-TOX-5-2023-08	silt	grey	none	none	none	

Reviewed by: Emm

Date Reviewed: Nov 17/23

APPENDIX C – Analytical Chemistry



CERTIFICATE OF ANALYSIS

Work Order : **VA23C6368**
Client : **Nautilus Environmental Company Inc.**
Contact : Nair Yamamoto
Address : 8664 Commerce Court Imperial Square Lake City
 Burnaby BC Canada V5A 4N7
Telephone : 604 420 8773
Project : ----
PO : 2324-117BC
C-O-C number : ----
Sampler : ----
Site : Tissue, Water and Sediment Testing
Quote number : Q69439 (Vancouver Blanket Quote)
No. of samples received : 6
No. of samples analysed : 6

Page : 1 of 3
Laboratory : ALS Environmental - Vancouver
Account Manager : Emmanuel Mariano
Address : 8081 Lougheed Highway
 Burnaby BC Canada V5A 1W9
Telephone : +1 604 253 4188
Date Samples Received : 01-Nov-2023 18:00
Date Analysis Commenced : 02-Nov-2023
Issue Date : 06-Nov-2023 17:03

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QC Interpretive report to assist with Quality Review and Sample Receipt Notification (SRN).

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

<i>Signatories</i>	<i>Position</i>	<i>Laboratory Department</i>
Kate Dimitrova	Supervisor - Inorganic	Inorganics, Burnaby, British Columbia



General Comments

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Refer to the ALS Quality Control Interpretive report (QCI) for applicable references and methodology summaries. Reference methods may incorporate modifications to improve performance.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

Please refer to Quality Control Interpretive report (QCI) for information regarding Holding Time compliance.

Key : CAS Number: Chemical Abstracts Services number is a unique identifier assigned to discrete substances
LOR: Limit of Reporting (detection limit).

<i>Unit</i>	<i>Description</i>
mg/L	milligrams per litre

<: less than.

>: greater than.

Surrogate: An analyte that is similar in behavior to target analyte(s), but that does not occur naturally in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery.

Test results reported relate only to the samples as received by the laboratory.

UNLESS OTHERWISE STATED on SRN or QCI Report, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.



Analytical Results

Sub-Matrix: Water (Matrix: Water)					Client sample ID	Control Sediment Day 0	QUL-LNF1 Day 0	QUL-LREF1 Day 0	Control Sediment Day 14	QUL-LNF1 Day 14
Client sampling date / time					14-Sep-2023 00:00	14-Sep-2023 00:00	14-Sep-2023 00:00	28-Sep-2023 00:00	28-Sep-2023 00:00	
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23C6368-001	VA23C6368-002	VA23C6368-003	VA23C6368-004	VA23C6368-005	
					Result	Result	Result	Result	Result	
Anions and Nutrients										
Ammonia, total (as N)	7664-41-7	E298/VA	0.0050	mg/L	0.0486	0.0143	0.193	2.09	0.0532	

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.

Analytical Results

Sub-Matrix: Water (Matrix: Water)					Client sample ID	QUL-LREF1 Day 14	----	----	----	----
Client sampling date / time					28-Sep-2023 00:00	----	----	----	----	
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23C6368-006	-----	-----	-----	-----	
					Result	----	----	----	----	
Anions and Nutrients										
Ammonia, total (as N)	7664-41-7	E298/VA	0.0050	mg/L	0.0829	----	----	----	----	

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.

QUALITY CONTROL INTERPRETIVE REPORT

<p>Work Order : VA23C6368</p> <p>Client : Nautilus Environmental Company Inc.</p> <p>Contact : Nair Yamamoto</p> <p>Address : 8664 Commerce Court Imperial Square Lake City Burnaby BC Canada V5A 4N7</p> <p>Telephone : 604 420 8773</p> <p>Project : ----</p> <p>PO : 2324-117BC</p> <p>C-O-C number : ----</p> <p>Sampler : ----</p> <p>Site : Tissue, Water and Sediment Testing</p> <p>Quote number : Q69439 (Vancouver Blanket Quote)</p> <p>No. of samples received : 6</p> <p>No. of samples analysed : 6</p>	<p>Page : 1 of 5</p> <p>Laboratory : ALS Environmental - Vancouver</p> <p>Account Manager : Emmanuel Mariano</p> <p>Address : 8081 Lougheed Highway Burnaby, British Columbia Canada V5A 1W9</p> <p>Telephone : +1 604 253 4188</p> <p>Date Samples Received : 01-Nov-2023 18:00</p> <p>Issue Date : 06-Nov-2023 17:03</p>
--	---

This report is automatically generated by the ALS LIMS (Laboratory Information Management System) through evaluation of Quality Control (QC) results and other QA parameters associated with this submission, and is intended to facilitate rapid data validation by auditors or reviewers. The report highlights any exceptions and outliers to ALS Data Quality Objectives, provides holding time details and exceptions, summarizes QC sample frequencies, and lists applicable methodology references and summaries.

Key

- Anonymous: Refers to samples which are not part of this work order, but which formed part of the QC process lot.
- CAS Number: Chemical Abstracts Service number is a unique identifier assigned to discrete substances.
- DQO: Data Quality Objective.
- LOR: Limit of Reporting (detection limit).
- RPD: Relative Percent Difference.

Workorder Comments

Holding times are displayed as "----" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

Summary of Outliers

Outliers : Quality Control Samples

- No Method Blank value outliers occur.
- No Duplicate outliers occur.
- No Laboratory Control Sample (LCS) outliers occur
- No Matrix Spike outliers occur.
- No Test sample Surrogate recovery outliers exist.

Outliers: Reference Material (RM) Samples

- No Reference Material (RM) Sample outliers occur.

Outliers : Analysis Holding Time Compliance (Breaches)

- Analysis Holding Time Outliers exist - please see following pages for full details.

Outliers : Frequency of Quality Control Samples

- No Quality Control Sample Frequency Outliers occur.



Analysis Holding Time Compliance

This report summarizes extraction / preparation and analysis times and compares each with ALS recommended holding times, which are selected to meet known provincial and /or federal requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by organizations such as CCME, US EPA, APHA Standard Methods, ASTM, or Environment Canada (where available). Dates and holding times reported below represent the first dates of extraction or analysis. If subsequent tests or dilutions exceeded holding times, qualifiers are added (refer to COA).

If samples are identified below as having been analyzed or extracted outside of recommended holding times, measurement uncertainties may be increased, and this should be taken into consideration when interpreting results.

Where actual sampling date is not provided on the chain of custody, the date of receipt with time at 00:00 is used for calculation purposes.

Where only the sample date without time is provided on the chain of custody, the sampling date at 00:00 is used for calculation purposes.

Matrix: **Water** Evaluation: * = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Anions and Nutrients : Ammonia by Fluorescence											
Amber glass total (sulfuric acid) Control Sediment - Day 14	E298	28-Sep-2023	02-Nov-2023	28 days	35 days	* EHTR	03-Nov-2023	28 days	36 days	* EHTR-FM	
Anions and Nutrients : Ammonia by Fluorescence											
Amber glass total (sulfuric acid) QUL-LNF1 - Day 14	E298	28-Sep-2023	02-Nov-2023	28 days	35 days	* EHTR	03-Nov-2023	28 days	36 days	* EHTR-FM	
Anions and Nutrients : Ammonia by Fluorescence											
Amber glass total (sulfuric acid) QUL-LREF1 - Day 14	E298	28-Sep-2023	02-Nov-2023	28 days	35 days	* EHTR	03-Nov-2023	28 days	36 days	* EHTR-FM	
Anions and Nutrients : Ammonia by Fluorescence											
Amber glass total (sulfuric acid) Control Sediment - Day 0	E298	14-Sep-2023	02-Nov-2023	28 days	49 days	* EHTR	03-Nov-2023	28 days	50 days	* EHTR-FM	
Anions and Nutrients : Ammonia by Fluorescence											
Amber glass total (sulfuric acid) QUL-LNF1 - Day 0	E298	14-Sep-2023	02-Nov-2023	28 days	49 days	* EHTR	03-Nov-2023	28 days	50 days	* EHTR-FM	
Anions and Nutrients : Ammonia by Fluorescence											
Amber glass total (sulfuric acid) QUL-LREF1 - Day 0	E298	14-Sep-2023	02-Nov-2023	28 days	49 days	* EHTR	03-Nov-2023	28 days	50 days	* EHTR-FM	

Legend & Qualifier Definitions

EHTR-FM: Exceeded ALS recommended hold time prior to sample receipt. Field Measurement recommended

EHTR: Exceeded ALS recommended hold time prior to sample receipt.

Rec. HT: ALS recommended hold time (see units).



Quality Control Parameter Frequency Compliance

The following report summarizes the frequency of laboratory QC samples analyzed within the analytical batches (QC lots) in which the submitted samples were processed. The actual frequency should be greater than or equal to the expected frequency.

Matrix: **Water** Evaluation: ✖ = QC frequency outside specification; ✔ = QC frequency within specification.

Quality Control Sample Type	Method	QC Lot #	Count		Frequency (%)		
			QC	Regular	Actual	Expected	Evaluation
Analytical Methods							
Laboratory Duplicates (DUP)							
Ammonia by Fluorescence	E298	1219993	1	10	10.0	5.0	✔
Laboratory Control Samples (LCS)							
Ammonia by Fluorescence	E298	1219993	1	10	10.0	5.0	✔
Method Blanks (MB)							
Ammonia by Fluorescence	E298	1219993	1	10	10.0	5.0	✔
Matrix Spikes (MS)							
Ammonia by Fluorescence	E298	1219993	1	10	10.0	5.0	✔



Methodology References and Summaries

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Reference methods may incorporate modifications to improve performance (indicated by "mod").

<i>Analytical Methods</i>	<i>Method / Lab</i>	<i>Matrix</i>	<i>Method Reference</i>	<i>Method Descriptions</i>
Ammonia by Fluorescence	E298 ALS Environmental - Vancouver	Water	Method Fialab 100, 2018	Ammonia in water is determined by automated continuous flow analysis with membrane diffusion and fluorescence detection, after reaction with OPA (ortho-phthalaldehyde). This method is approved under US EPA 40 CFR Part 136 (May 2021)
<i>Preparation Methods</i>	<i>Method / Lab</i>	<i>Matrix</i>	<i>Method Reference</i>	<i>Method Descriptions</i>
Preparation for Ammonia	EP298 ALS Environmental - Vancouver	Water		Sample preparation for Preserved Nutrients Water Quality Analysis.

06368



TESTING LOCATION (Please Circle)

Burnaby
8664 Commerce Court
Burnaby, British Columbia, Canada
V5A 4N7
Phone 604.420.8773

Calgary
10823 27 Street SE
Calgary, Alberta, Canada
T2Z 3V9
Phone 403.253.7121

Point Edward
704 Mara Street, Suite 122
Point Edward, Ontario, Canada
N7V 3M4
Phone 519.339.8787

Chain of Custody

Date _____ Page 1 of 1

Report to:

Company: Nautilus Environmental
Address: 8664 Commerce Court
City/Prov/PC: Burnaby, BC
Contact: Rachel Sakurdeep
Phone: (604) 420-8773
Email: rachel@nautilusenvironmental.ca

Invoice To:

Company: Nautilus Environmental
Address: 8664 Commerce Court
City/Prov/PC: Burnaby, BC
Contact: Nair
Phone: (604) 420-8773
Email: nair@nautilusenvironmental.ca
PO No.: 2324-117BC

ANALYSES REQUIRED										Receipt Temperature (°C)	
Overlying Ammonia											

Sample Collection By: _____ Sample Type: Grab OR Composite

SAMPLE ID	DATE (DD/MM/YY)	TIME	MATRIX	# OF CONTAINERS AND VOLUME (e.g. 1 x 20 L)	COMMENTS
1 Control Sediment	14/09/23			1 x 125 mL	Day 0
2 QUL-LNF1	14/09/23			1 x 125 mL	Day 0
3 QUL-LREF1	14/09/23			1 x 125 mL	Day 0
4 Control Sediment	28/09/23			1 x 125 mL	Day 14
5 QUL-LNF1	28/09/23			1 x 125 mL	Day 14
6 QUL-LREF1	28/09/23			1 x 125 mL	Day 14
7					
8					
9					
10					

Environmental Division
Vancouver
Work Order Reference
VA23C6368



Telephone : +1 604 253 4186

SPECIAL INSTRUCTIONS/COMMENTS (CLIENT)

- preserved with sulphuric acid
- cc report to mkang@nautilusenvironmental.ca

SAMPLE RECEIPT DETAILS (LABORATORY)

1. Total No. of Containers		4. Ice Present in Cooler?	Y / N
2. Courier		5. Seal Present?	Y / N
3. Good Condition?	Y / N	6. Initials Present on Seal?	Y / N

SAMPLE DE... COMMENTS (LABORATORY)

RELINQUISHED BY (CLIENT)

Rachel (Printed Name) Nautilus Environmental (Company) 25/10/23 @ 1300 (Date DD/MM/YY and Time)

RECEIVED BY (LABORATORY)

IA (Printed Name) (Company) 1/11 6p (Date DD/MM/YY and Time)

Our liability is limited to the cost of the test requested. The test results only relate to the sample as received. No liability in whole or in part is assumed for the collection, handling, or transport of the sample, application or interpretation of the test data or results in part or in whole.

CERTIFICATE OF ANALYSIS

Work Order : **VA23C6369**
Client : **Nautilus Environmental Company Inc.**
Contact : Nair Yamamoto
Address : 8664 Commerce Court Imperial Square Lake City
 Burnaby BC Canada V5A 4N7
Telephone : 604 420 8773
Project : ----
PO : 2324-118BC
C-O-C number : ----
Sampler : ----
Site : Tissue, Water and Sediment Testing
Quote number : Q69439 (Vancouver Blanket Quote)
No. of samples received : 11
No. of samples analysed : 11

Page : 1 of 4
Laboratory : ALS Environmental - Vancouver
Account Manager : Emmanuel Mariano
Address : 8081 Lougheed Highway
 Burnaby BC Canada V5A 1W9
Telephone : +1 604 253 4188
Date Samples Received : 01-Nov-2023 18:00
Date Analysis Commenced : 02-Nov-2023
Issue Date : 08-Nov-2023 18:53

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QC Interpretive report to assist with Quality Review and Sample Receipt Notification (SRN).

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

<i>Signatories</i>	<i>Position</i>	<i>Laboratory Department</i>
Erin Sanchez		Metals, Burnaby, British Columbia
Kate Dimitrova	Supervisor - Inorganic	Inorganics, Burnaby, British Columbia
Kim Jensen	Department Manager - Metals	Metals, Burnaby, British Columbia



General Comments

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Key : CAS Number: Chemical Abstracts Services number is a unique identifier assigned to discrete substances
LOR: Limit of Reporting (detection limit).

<i>Unit</i>	<i>Description</i>
-	no units
mg/L	milligrams per litre

<: less than.

>: greater than.

Surrogate: An analyte that is similar in behavior to target analyte(s), but that does not occur naturally in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery.

Test results reported relate only to the samples as received by the laboratory.

UNLESS OTHERWISE STATED on SRN or QCI Report, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.



Analytical Results

Sub-Matrix: Water (Matrix: Water)					Client sample ID	Control Sediment Day 14	QUL-LNF1 A Day 14	QUL-LNF1 B Day 14	QUL-LNF1 C Day 14	QUL-LNF1 D Day 14
Client sampling date / time					28-Sep-2023 00:00	28-Sep-2023 00:00	28-Sep-2023 00:00	28-Sep-2023 00:00	28-Sep-2023 00:00	
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23C6369-001	VA23C6369-002	VA23C6369-003	VA23C6369-004	VA23C6369-005	
					Result	Result	Result	Result	Result	
Organic / Inorganic Carbon										
Carbon, dissolved organic [DOC]	----	E358-LVA	0.50	mg/L	5.39	5.37	3.31	3.24	4.55	
Dissolved Metals										
Copper, dissolved	7440-50-8	E421/VA	0.00020	mg/L	0.00339	0.122	0.0891	0.114	0.0951	
Dissolved metals filtration location	----	EP421/VA	-	-	Field	Field	Field	Field	Field	

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.

Analytical Results

Sub-Matrix: Water (Matrix: Water)					Client sample ID	QUL-LNF1 E Day 14	QUL-LREF1 A Day 14	QUL-LREF1 B Day 14	QUL-LREF1 C Day 14	QUL-LREF1 D Day 14
Client sampling date / time					28-Sep-2023 00:00	28-Sep-2023 00:00	28-Sep-2023 00:00	28-Sep-2023 00:00	28-Sep-2023 00:00	
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23C6369-006	VA23C6369-007	VA23C6369-008	VA23C6369-009	VA23C6369-010	
					Result	Result	Result	Result	Result	
Organic / Inorganic Carbon										
Carbon, dissolved organic [DOC]	----	E358-LVA	0.50	mg/L	3.89	5.65	4.51	4.65	6.48	
Dissolved Metals										
Copper, dissolved	7440-50-8	E421/VA	0.00020	mg/L	0.0910	0.00347	0.00322	0.00157	0.00349	
Dissolved metals filtration location	----	EP421/VA	-	-	Field	Field	Field	Field	Field	

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.



Analytical Results

Sub-Matrix: Water					Client sample ID	QUL-LREF1 E	----	----	----	----
(Matrix: Water)						Day 14				
					Client sampling date / time	28-Sep-2023 00:00	----	----	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23C6369-011	-----	-----	-----	-----	-----
					Result	----	----	----	----	----
Organic / Inorganic Carbon										
Carbon, dissolved organic [DOC]	----	E358-L/VA	0.50	mg/L	4.15	----	----	----	----	----
Dissolved Metals										
Copper, dissolved	7440-50-8	E421/VA	0.00020	mg/L	0.00331	----	----	----	----	----
Dissolved metals filtration location	----	EP421/VA	-	-	Field	----	----	----	----	----

Please refer to the General Comments section for an explanation of any result qualifiers detected.

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QUALITY CONTROL INTERPRETIVE REPORT

<p>Work Order : VA23C6369</p> <p>Client : Nautilus Environmental Company Inc.</p> <p>Contact : Nair Yamamoto</p> <p>Address : 8664 Commerce Court Imperial Square Lake City Burnaby BC Canada V5A 4N7</p> <p>Telephone : 604 420 8773</p> <p>Project : ----</p> <p>PO : 2324-118BC</p> <p>C-O-C number : ----</p> <p>Sampler : ----</p> <p>Site : Tissue, Water and Sediment Testing</p> <p>Quote number : Q69439 (Vancouver Blanket Quote)</p> <p>No. of samples received : 11</p> <p>No. of samples analysed : 11</p>	<p>Page : 1 of 7</p> <p>Laboratory : ALS Environmental - Vancouver</p> <p>Account Manager : Emmanuel Mariano</p> <p>Address : 8081 Lougheed Highway Burnaby, British Columbia Canada V5A 1W9</p> <p>Telephone : +1 604 253 4188</p> <p>Date Samples Received : 01-Nov-2023 18:00</p> <p>Issue Date : 08-Nov-2023 18:50</p>
--	---

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Key

- Anonymous: Refers to samples which are not part of this work order, but which formed part of the QC process lot.
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- RPD: Relative Percent Difference.

Workorder Comments

Holding times are displayed as "----" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

Summary of Outliers

Outliers : Quality Control Samples

- No Method Blank value outliers occur.
- No Duplicate outliers occur.
- No Laboratory Control Sample (LCS) outliers occur
- No Matrix Spike outliers occur.
- No Test sample Surrogate recovery outliers exist.

Outliers: Reference Material (RM) Samples

- No Reference Material (RM) Sample outliers occur.

Outliers : Analysis Holding Time Compliance (Breaches)

- Analysis Holding Time Outliers exist - please see following pages for full details.

Outliers : Frequency of Quality Control Samples

- No Quality Control Sample Frequency Outliers occur.



Analysis Holding Time Compliance

This report summarizes extraction / preparation and analysis times and compares each with ALS recommended holding times, which are selected to meet known provincial and /or federal requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by organizations such as CCME, US EPA, APHA Standard Methods, ASTM, or Environment Canada (where available). Dates and holding times reported below represent the first dates of extraction or analysis. If subsequent tests or dilutions exceeded holding times, qualifiers are added (refer to COA).

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Where only the sample date without time is provided on the chain of custody, the sampling date at 00:00 is used for calculation purposes.

Matrix: **Water** Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) Control Sediment - Day 14	E421	28-Sep-2023	07-Nov-2023	180 days	41 days	✔	08-Nov-2023	180 days	42 days	✔
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) QUL-LNF1 A - Day 14	E421	28-Sep-2023	07-Nov-2023	180 days	41 days	✔	08-Nov-2023	180 days	42 days	✔
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) QUL-LNF1 B - Day 14	E421	28-Sep-2023	07-Nov-2023	180 days	41 days	✔	08-Nov-2023	180 days	42 days	✔
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) QUL-LNF1 C - Day 14	E421	28-Sep-2023	07-Nov-2023	180 days	41 days	✔	08-Nov-2023	180 days	42 days	✔
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) QUL-LNF1 D - Day 14	E421	28-Sep-2023	07-Nov-2023	180 days	41 days	✔	08-Nov-2023	180 days	42 days	✔
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) QUL-LNF1 E - Day 14	E421	28-Sep-2023	07-Nov-2023	180 days	41 days	✔	08-Nov-2023	180 days	42 days	✔
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) QUL-LREF1 A - Day 14	E421	28-Sep-2023	07-Nov-2023	180 days	41 days	✔	08-Nov-2023	180 days	42 days	✔



Matrix: **Water** Evaluation: * = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS											
HDPE dissolved (nitric acid) QUL-LREF1 B - Day 14	E421	28-Sep-2023	07-Nov-2023	180 days	41 days	✓	08-Nov-2023	180 days	42 days	✓	
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS											
HDPE dissolved (nitric acid) QUL-LREF1 C - Day 14	E421	28-Sep-2023	07-Nov-2023	180 days	41 days	✓	08-Nov-2023	180 days	42 days	✓	
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS											
HDPE dissolved (nitric acid) QUL-LREF1 D - Day 14	E421	28-Sep-2023	07-Nov-2023	180 days	41 days	✓	08-Nov-2023	180 days	42 days	✓	
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS											
HDPE dissolved (nitric acid) QUL-LREF1 E - Day 14	E421	28-Sep-2023	07-Nov-2023	180 days	41 days	✓	08-Nov-2023	180 days	42 days	✓	
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)											
Amber glass dissolved (sulfuric acid) Control Sediment - Day 14	E358-L	28-Sep-2023	02-Nov-2023	28 days	35 days	* EHTR	03-Nov-2023	28 days	36 days	* EHTR-FM	
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)											
Amber glass dissolved (sulfuric acid) QUL-LNF1 A - Day 14	E358-L	28-Sep-2023	02-Nov-2023	28 days	35 days	* EHTR	03-Nov-2023	28 days	36 days	* EHTR-FM	
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)											
Amber glass dissolved (sulfuric acid) QUL-LNF1 B - Day 14	E358-L	28-Sep-2023	02-Nov-2023	28 days	35 days	* EHTR	03-Nov-2023	28 days	36 days	* EHTR-FM	
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)											
Amber glass dissolved (sulfuric acid) QUL-LNF1 C - Day 14	E358-L	28-Sep-2023	02-Nov-2023	28 days	35 days	* EHTR	03-Nov-2023	28 days	36 days	* EHTR-FM	
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)											
Amber glass dissolved (sulfuric acid) QUL-LNF1 D - Day 14	E358-L	28-Sep-2023	02-Nov-2023	28 days	35 days	* EHTR	03-Nov-2023	28 days	36 days	* EHTR-FM	



Matrix: **Water** Evaluation: * = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) QUL-LNF1 E - Day 14	E358-L	28-Sep-2023	02-Nov-2023	28 days	35 days	* EHTR	03-Nov-2023	28 days	36 days	* EHTR-FM
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) QUL-LREF1 A - Day 14	E358-L	28-Sep-2023	02-Nov-2023	28 days	35 days	* EHTR	03-Nov-2023	28 days	36 days	* EHTR-FM
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) QUL-LREF1 B - Day 14	E358-L	28-Sep-2023	02-Nov-2023	28 days	35 days	* EHTR	03-Nov-2023	28 days	36 days	* EHTR-FM
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) QUL-LREF1 C - Day 14	E358-L	28-Sep-2023	02-Nov-2023	28 days	35 days	* EHTR	03-Nov-2023	28 days	36 days	* EHTR-FM
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) QUL-LREF1 D - Day 14	E358-L	28-Sep-2023	02-Nov-2023	28 days	35 days	* EHTR	03-Nov-2023	28 days	36 days	* EHTR-FM
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) QUL-LREF1 E - Day 14	E358-L	28-Sep-2023	02-Nov-2023	28 days	35 days	* EHTR	03-Nov-2023	28 days	36 days	* EHTR-FM

Legend & Qualifier Definitions

EHTR-FM: Exceeded ALS recommended hold time prior to sample receipt. Field Measurement recommended

EHTR: Exceeded ALS recommended hold time prior to sample receipt.

Rec. HT: ALS recommended hold time (see units).



Quality Control Parameter Frequency Compliance

The following report summarizes the frequency of laboratory QC samples analyzed within the analytical batches (QC lots) in which the submitted samples were processed. The actual frequency should be greater than or equal to the expected frequency.

Matrix: **Water** Evaluation: ✖ = QC frequency outside specification; ✔ = QC frequency within specification.

Quality Control Sample Type	Method	QC Lot #	Count		Frequency (%)		
			QC	Regular	Actual	Expected	Evaluation
Analytical Methods							
Laboratory Duplicates (DUP)							
Dissolved Metals in Water by CRC ICPMS	E421	1219986	1	20	5.0	5.0	✔
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1219995	1	14	7.1	5.0	✔
Laboratory Control Samples (LCS)							
Dissolved Metals in Water by CRC ICPMS	E421	1219986	1	20	5.0	5.0	✔
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1219995	1	14	7.1	5.0	✔
Method Blanks (MB)							
Dissolved Metals in Water by CRC ICPMS	E421	1219986	1	20	5.0	5.0	✔
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1219995	1	14	7.1	5.0	✔
Matrix Spikes (MS)							
Dissolved Metals in Water by CRC ICPMS	E421	1219986	1	20	5.0	5.0	✔
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1219995	1	14	7.1	5.0	✔



Methodology References and Summaries

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Reference methods may incorporate modifications to improve performance (indicated by "mod").

<i>Analytical Methods</i>	<i>Method / Lab</i>	<i>Matrix</i>	<i>Method Reference</i>	<i>Method Descriptions</i>
Dissolved Organic Carbon by Combustion (Low Level)	E358-L ALS Environmental - Vancouver	Water	APHA 5310 B (mod)	Dissolved Organic Carbon (Non-Purgeable), also known as NPOC (dissolved), is a direct measurement of DOC after a filtered (0.45 micron) sample has been acidified and purged to remove inorganic carbon (IC). Analysis is by high temperature combustion with infrared detection of CO ₂ . NPOC does not include volatile organic species that are purged off with IC. For samples where the majority of DC (dissolved carbon) is comprised of IC (which is common), this method is more accurate and more reliable than the DOC by subtraction method (i.e. DC minus DIC).
Dissolved Metals in Water by CRC ICPMS	E421 ALS Environmental - Vancouver	Water	APHA 3030B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS. Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.
<i>Preparation Methods</i>	<i>Method / Lab</i>	<i>Matrix</i>	<i>Method Reference</i>	<i>Method Descriptions</i>
Preparation for Dissolved Organic Carbon for Combustion	EP358 ALS Environmental - Vancouver	Water	APHA 5310 B (mod)	Preparation for Dissolved Organic Carbon
Dissolved Metals Water Filtration	EP421 ALS Environmental - Vancouver	Water	APHA 3030B	Water samples are filtered (0.45 um), and preserved with HNO ₃ .

NAUTILUS ENVIRONMENTAL

TESTING LOCATION (Please Circle)

Burnaby
 8664 Commerce Court
 Burnaby, British Columbia, Canada
 V5A 4N7
 Phone 604.420.8773

Calgary
 10823 27 Street SE
 Calgary, Alberta, Canada
 T2Z 3V9
 Phone 403.253.7121

Point Edward
 704 Mara Street, Suite 122
 Point Edward, Ontario, Canada
 N7Y 1X4
 Phone 519.339.8787

Chain of Custody

Date _____ Page 1 of 2

Report to:

Company: Nautilus Environmental
Address: 8664 Commerce Court
City/Prov/PC: Burnaby, BC
Contact: Rachel Sakurdeep
Phone: (604) 420-8773
Email: rachel@nautilusenvironmental.ca

Invoice To:


Company: Nautilus Environmental
Address: 8664 Commerce Court
City/Prov/PC: Burnaby, BC
Contact: Nair
Phone: (604) 420-8773
Email: nair@nautilusenvironmental.ca
PO No.: 2324-118BC

ANALYSES REQUIRED									
Dissolve Organic Carbon (DOC)	Dissolved Copper								

Sample Collection By: _____ **Sample Type:** Grab OR Composite

SAMPLE ID	DATE (DD/MM/YY)	TIME	MATRIX	# OF CONTAINERS AND VOLUME (e.g. 1 x 20 L)	COMMENTS
Control Sediment	28/09/23			1 x 125 mL	Day 14
QUL-LNF1 A	28/09/23			1 x 125 mL	Day 14
QUL-LNF1 B	28/09/23			1 x 125 mL	Day 14
QUL-LNF1 C	28/09/23			1 x 125 mL	Day 14
QUL-LNF1 D	28/09/23			1 x 125 mL	Day 14
QUL-LNF1 E	28/09/23			1 x 125 mL	Day 14
QUL-LREF1 A	28/09/23			1 x 125 mL	Day 14
QUL-LREF1 B	28/09/23			1 x 125 mL	Day 14
QUL-LREF1 C	28/09/23			1 x 125 mL	Day 14
QUL-LREF1 D	28/09/23			1 x 125 mL	Day 14

Environmental Division
 Vancouver
 Work Order Reference
VA23C6369



Telephone: +1 604 263 4188...

SPECIAL INSTRUCTIONS/COMMENTS (CLIENT)

- preserved
 - cc report to
 mkang@nautilusenvironmental.ca

SAMPLE RECEIPT DETAILS (LABORATORY)

1. Total No. of Containers		4. Ice Present in Cooler?	Y/N
2. Courier		5. Seal Present?	Y/N
3. Good Condition?	Y/N	6. Initials Present on Seal?	Y/N

SAMPLE DESCRIPTION

RELINQUISHED BY (CLIENT)

Rachel
 (Printed Name)

Rachel
 (Signature)

Nautilus Environmental
 (Company)

25/10/23 @ 1300h
 (Date DD/MM/YY and Time)

RECEIVED BY (LABORATORY)

_____ (Printed Name)
 _____ (Signature)

25/10/23 6 PM
 (Date DD/MM/YY and Time)

Our liability is limited to the cost of the test requested. The test results only relate to the sample as received. No liability in whole or in part is assumed for the collection, handling, or transport of the sample, application or interpretation of the test data or results in part or in whole.



TESTING LOCATION (Please Circle)

Burnaby
 8664 Commerce Court
 Burnaby, British Columbia, Canada
 V5A 4N7
 Phone 604.420.8773

Calgary
 10823 27 Street SE
 Calgary, Alberta, Canada
 T2Z 3V9
 Phone 403.253.7121

Point Edward
 704 Mara Street, Suite 122
 Point Edward, Ontario, Canada
 N7V 1X4
 Phone 519.339.8787

Chain of Custody

Date _____ Page 2 of 2

Report to:

Company: Nautilus Environmental
Address: 8664 Commerce Court
City/Prov/PC: Burnaby, BC
Contact: Rachel Sakurdeep
Phone: (604) 420-8773
Email: rachel@nautilusenvironmental.ca

Invoice To:

Company: Nautilus Environmental
Address: 8664 Commerce Court
City/Prov/PC: Burnaby, BC
Contact: Nair
Phone: (604) 420-8773
Email: nair@nautilusenvironmental.ca
PO No.: 2324-118BC

Sample Collection By: _____ **Sample Type:** Grab OR Composite

SAMPLE ID	DATE (DD/MM/YY)	TIME	MATRIX	# OF CONTAINERS AND VOLUME (e.g. 1 x 20 L)	COMMENTS
1 QUL-LREF1 E	28/09/23			1 x 125 mL	Day 14
2					
3					
4					
5					
6					
7					
8					
9					
10					

ANALYSES REQUIRED												Receipt Temperature (°C)
1	2	3	4	5	6	7	8	9	10	11	12	
✓	✓											25

SPECIAL INSTRUCTIONS/COMMENTS (CLIENT)

- preserved
 - cc report to
 mkang@nautilusenvironmental.ca

SAMPLE RECEIPT DETAILS (LABORATORY)

1. Total No. of Containers		4. Ice Present in Cooler?	Y / N
2. Courier		5. Seal Present?	Y / N
3. Good Condition?	Y / N	6. Initials Present on Seal?	Y / N

SAMPLE DESCRIPTION AND COMMENTS (LABORATORY)

RELINQUISHED BY (CLIENT)

Rachel
 (Printed Name)
 Nautilus Environmental
 (Company)
 25/10/23 @ 15:00
 (Date DD/MM/YY and Time)

RECEIVED BY (LABORATORY)

[Signature]
 (Printed Name)
 (Date DD/MM/YY and Time)

Our liability is limited to the cost of the test requested. The test results only relate to the sample as received. No liability in whole or in part is assumed for the collection, handling, or transport of the sample, application or interpretation of the test data or results in part or in whole.

APPENDIX D – Chain-of-Custody Forms



TESTING LOCATION (Please Circle)

Burnaby
 8664 Commerce Court
 Burnaby, British Columbia, Canada
 4N7
 604.420.8773

Calgary
 #4 6125 12th St S.E.
 V5A Calgary, Alberta, Canada
 Phone T2H 2K1
 Phone 403.253.7121

Chain of Custody

Date _____ Page 1 of 1

Report to:		Invoice To:		ANALYSES REQUIRED										Receipt Temperature (°C)
Company	Minnow Environmental	Company	Mount Polley Mining Corporation	14 day Hyallela azteca test										
Address	210-1175 Cook Street	Address	PO Box 12											
City/State/Zip	Victoria, BC, V8V 4A1	City/State/Zip	Likely, BC, V0L 1N0											
Contact	Katharina Batchelar	Contact	Gabriel Holmes											
Phone	250-595-1627 ext. 22	Phone	236-317-4939											
Email	katchelar@minnow.ca slatimer@minnow.ca, simone.derosmond@minnow.ca	Email	gabriel.holmes@mountpolley.com											
		PO No.	23-01-7											

Sample Collection By: _____ Sample Type: Grab OR Composite

SAMPLE ID	DATE	TIME	MATRIX	# OF CONTAINERS AND VOLUME (e.g. 1 x 20 L)	COMMENTS											Receipt Temperature (°C)				
1 QUL-LNF1_TOX-1_2023-08	26-Aug-23	11:25	sediment	1 x 500 mL glass	rep 1	✓														4.8
2 QUL-LNF1_TOX-2_2023-08	26-Aug-23	11:40	sediment	1 x 500 mL glass	rep 2	✓														
3 QUL-LNF1_TOX-3_2023-08	26-Aug-23	12:00	sediment	1 x 500 mL glass	rep 3	✓														
4 QUL-LNF1_TOX-4_2023-08	26-Aug-23	12:14	sediment	1 x 500 mL glass	rep 4	✓														
5 QUL-LNF1_TOX-5_2023-08	26-Aug-23	12:28	sediment	1 x 500 mL glass	rep 5	✓														
6 QUL-LREF1_TOX-1_2023-08	26-Aug-23	9:21	sediment	1 x 500 mL glass	rep 1	✓														
7 QUL-LREF1_TOX-2_2023-08	26-Aug-23	9:39	sediment	1 x 500 mL glass	rep 2	✓														
8 QUL-LREF1_TOX-3_2023-08	26-Aug-23	9:59	sediment	1 x 500 mL glass	rep 3	✓														
9 QUL-LREF1_TOX-4_2023-08	26-Aug-23	10:11	sediment	1 x 500 mL glass	rep 4	✓														
10 QUL-LREF1_TOX-5_2023-08	26-Aug-23	10:27	sediment	1 x 500 mL glass	rep 5	✓														

SPECIAL INSTRUCTIONS/COMMENTS (CLIENT)		SAMPLE RECEIPT DETAILS (LABORATORY)				SAMPLE DESCRIPTION AND COMMENTS (LABORATORY)									
Overlying water must be measured for dissolved copper concentrations in each toxicity replicate for all samples. Please contact Katharina Batchelar (kbatchelar@minnow.ca) to discuss.		1. Total No. of Containers	10	4. Ice Present in Cooler?	Y/N	W0# 231484 ① QUL-LNF1 ② QUL-LREF1									
		2. Courier	Vancouver	5. Seal Present on Cooler?	Y/N										
		3. Good Condition?	Y/N	6. Initials Present on Seal?	Y/N										
RELINQUISHED BY (CLIENT)		RECEIVED BY (LABORATORY)													
(Printed Name) Peter Schuyver (Signature) <i>[Signature]</i>		(Printed Name) Tyronne (Signature) <i>[Signature]</i>													
(Company) Minnow Enviro (Date and Time) Aug 28/23		(Company) Nautilus (Date and Time) Aug. 30/23 @ 8:26													

Additional costs may be required for sample disposal or storage. Payment net 30 unless otherwise contracted.

END OF REPORT

PLANKTON COMMUNITY

**Biologica Laboratory Reports fp23-092 Freshwater
Phytoplankton - Methods
(Finalized November 14, 2023)**



Freshwater Phytoplankton Enumeration and Identification Methods

Client: Minnow (Mt Polley Mining Corp)

Project: Mount Polley

Sample Inventory

Sample arrival: 26-Jun-23; 2-Aug-23; 5-Sep-23

Number of samples: 28 (4, 20, 4)

Number of jars: 28

Biologica project number: fp23-092

Upon arrival samples were examined, and Lugol's preservative was added to ensure adequate preservation of samples. An inventory form was created and verified with the chain of custody (COC) to ensure (1) all samples are accounted for, and (2) each sample had the appropriate number of jars as indicated on the COC. Any discrepancies were reported to the client and were resolved before further sample handling.

Sample Processing

Samples were thoroughly mixed by shaking, and sub-samples (10-50 mL) were dispensed into Utermohl settling chambers and allowed to settle for 12-36 hours (depending on sub-sample volume). Sub-samples were then systematically scanned using a Zeiss Axio Vert A.1 inverted phase-contrast microscope at 400x magnification. All algal units were counted in a series of randomly located fields of view (FOV) until a minimum of 300 units were enumerated. Algal units represent single cells of all algal groups, as well as colonies or filaments of blue-green algae. Given that blue-green algal colonies/filaments may contain hundreds of cells, enumerating units rather than individual cells allows for a more equal representation of algal groups. The mean number of cells per unit (= 1 for single cells, >1 for all other algal forms) was estimated for all taxa and used to calculate total densities. Only "viable" cells (those that appeared to be alive at the time of collection) were identified and enumerated. Chrysophyte loricas were also counted (EPA, 2003).

Algae were identified to genus, where possible, following the most up-to-date taxonomic references and collaborations with international and local algal taxonomic experts. Species-level identifications were only given to identifiable taxa for which there are reliable taxonomic references available that encompass the species-level morphological diversity in North America. This approach ensures the long-term consistency of data sets and is in accordance with the trend in algal taxonomic practice to be more conservative with the delineation of species. Species-level identifications for some taxa are problematic due to widespread phenotypic plasticity that can artificially inflate species richness (Wehr *et al.* 2015). When applicable, the terms "cf." (*confertim*, possibly for species) and "sp.1" (a single undetermined species) were employed to distinguish between different species in the same genus.

Table 1. Summary of phytoplankton samples processed for Minnow (Mt Polley Mining Corp), Mount Polley, 2023.

Client Sample ID	Date Sampled	Biologica Sample ID	Subsample Volume (mL)	Fields of View Counted	Sum of Units Counted*
POL-P2_PHYTO-1_2023-06	20-Jun-23	fp23-092-001	25	27	318
BOL-B2_PHYTO-1_2023-06	21-Jun-23	fp23-092-002	25	17	337
QUL-ZOO-1_PHYTO-1_2023-06	21-Jun-23	fp23-092-003	50	30	302
QUL-ZOO-7_PHYTO-1_2023-06	21-Jun-23	fp23-092-004	25	30	309
POL-P2_PHYTO-1_2023-07	27-Jul-23	fp23-092-009	25	17	313
POL-P2_PHYTO-2_2023-07	27-Jul-23	fp23-092-010	25	13	304
POL-P2_PHYTO-3_2023-07	27-Jul-23	fp23-092-011	25	15	327
POL-P2_PHYTO-4_2023-07	27-Jul-23	fp23-092-012	25	15	300
POL-P2_PHYTO-5_2023-07	27-Jul-23	fp23-092-013	25	13	327
BOL-B2_PHYTO-1_2023-07	27-Jul-23	fp23-092-014	25	30	301
BOL-B2_PHYTO-2_2023-07	27-Jul-23	fp23-092-015	25	23	305
BOL-B2_PHYTO-3_2023-07	27-Jul-23	fp23-092-016	25	27	300
BOL-B2_PHYTO-4_2023-07	27-Jul-23	fp23-092-017	25	23	309
BOL-B2_PHYTO-5_2023-07	27-Jul-23	fp23-092-018	25	27	314
QUL-ZOO-1_PHYTO-1_2023-07	26-Jul-23	fp23-092-019	10	13	310
QUL-ZOO-1_PHYTO-2_2023-07	26-Jul-23	fp23-092-020	10	13	315
QUL-ZOO-1_PHYTO-3_2023-07	26-Jul-23	fp23-092-021	10	13	322
QUL-ZOO-1_PHYTO-4_2023-07	26-Jul-23	fp23-092-022	10	13	344
QUL-ZOO-1_PHYTO-5_2023-07	26-Jul-23	fp23-092-023	10	10	331
QUL-ZOO-7_PHYTO-1_2023-07	26-Jul-23	fp23-092-024	10	10	329
QUL-ZOO-7_PHYTO-2_2023-07	26-Jul-23	fp23-092-025	10	10	354
QUL-ZOO-7_PHYTO-3_2023-07	26-Jul-23	fp23-092-026	10	10	319
QUL-ZOO-7_PHYTO-4_2023-07	26-Jul-23	fp23-092-027	10	13	307
QUL-ZOO-7_PHYTO-5_2023-07	26-Jul-23	fp23-092-028	10	10	362
POL-P2_PHYTO-1_2023-08	28-Aug-23	fp23-092-049	25	8	439
BOL-B2_PHYTO-1_2023-08	28-Aug-23	fp23-092-050	25	25	311
QUL-ZOO-1_PHYTO-1_2023-08	27-Aug-23	fp23-092-051	10	10	515
QUL-ZOO-7_PHYTO-1_2023-08	27-Aug-23	fp23-092-052	10	10	477

*Algal units represent single cells, colonies, coenobia or filaments.

QA/QC

Three samples (10% of samples) were reanalyzed to assess sub-sampling and enumeration precision (Table 2). Samples were randomly selected and processed at different times to reduce counting and identification bias.

Table 2. Summary of enumeration QA/QC results for Minnow (Mt Polley Mining Corp), Mount Polley, 2023.

Client Sample ID	Biologica Sample ID	Original Density (cells/L)	QA Density (cells/L)	% Agreement
POL-P2_PHYTO-1_2023-06	fp23-092-001	1,333,721	1,443,872	91.74
BOL-B2_PHYTO-5_2023-07	fp23-092-018	10,606,587	9,168,289	86.44
QUL-ZOO-7_PHYTO-5_2023-07	fp23-092-028	7,274,435	7,013,199	96.41
			Average:	91.53

* Percent Agreement: $[100 - (\text{difference in abundance between samples}) / \text{total abundance of the original sample}] \%$

Data

Algal densities expressed as the number of cells per litre (cells/L) were derived for each sample from the sub-sample volume, number of FOV assessed, number of units counted, and number of cells per unit.

Results were provided to the Minnow Environmental project manager in Excel spreadsheets via email.

Methodological and Taxonomic References

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Cox, E. J. 1996. Identification of freshwater diatoms from live material. Chapman & Hall.

Environmental Protection Agency. 2003. Standard operating procedure for phytoplankton analysis. Online report number LG401, 41 pp. http://www.epa.gov/glnpo/monitoring/sop/Chapter_4/LG401.pdf.

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Komárek, J., & Anagnostidis, K. 2000. *Cyanoprokaryota Teil-1: Chroococcales*. Berlin: Spektrum

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- Komárek, J., & Anagnostidis, K. 2000. Cyanoprokaryota Teil-2: Oscillatoriales. Berlin: Spektrum Akademischer Verlag Heidelberg; ISBN 3-8274-0890-3.
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Total Phytoplankton Density (cells/L) for Minnow Environmental Inc. Mount Polley, 2023

Biologica Sample ID					fp23-092-001		fp23-092-002	fp23-092-003	
Client Sample ID					POL-P2_PHYTO-1_2023-06		BOL-B2_PHYTO-1_2023-06	QUL-ZOO-1_PHYTO-1_2023-06	
Date Sampled					20-Jun-23		21-Jun-23	21-Jun-23	
Common Name	Phylum	Order	Family	Taxon	Grand Total		Total Density	Total Density	Total Density
					Unique Taxa	Density (cells/L)	(cells/L)	(cells/L)	(cells/L)
Diatoms	Bacillariophyta	Aulacoseirales	Aulacoseiraceae	Aulacoseira sp.	1	154,090	23,816		6,698
Diatoms	Bacillariophyta	Bacillariales	Bacillariaceae	Nitzschia sp.	1	2,977	2,977		
Diatoms	Bacillariophyta	Cocconeidales	Achnanthidiaceae	Achnanthidium sp.	1	2,977			
Diatoms	Bacillariophyta	Fragilariales	Fragilariaceae	Fragilaria crotonensis	1	20,095			
Diatoms	Bacillariophyta	Fragilariales	Fragilariaceae	Fragilaria sp.		14,801	2,977		1,340
Diatoms	Bacillariophyta	Fragilariales	Staurosiraceae	Staurosira sp.	1	8,931	8,931		
Diatoms	Bacillariophyta	Fragilariales	Staurosiraceae	Staurosirella sp.	1	32,152			
Diatoms	Bacillariophyta	Rhabdonematales	Tabellariaceae	Asterionella formosa	1	323,513	83,358	89,837	9,378
Diatoms	Bacillariophyta	Rhabdonematales	Tabellariaceae	Tabellaria fenestrata	1	251,134			
Diatoms	Bacillariophyta	Rhizosoleniales	Rhizosoleniaceae	Urosolenia sp.	1	36,893			1,340
Diatoms	Bacillariophyta	Stephanodiscales	Stephanodiscaceae	Cyclotella sp.		267,981	14,885		10,717
Diatoms	Bacillariophyta	Stephanodiscales	Stephanodiscaceae	Cyclotella cf. atomus	1	770,289			
Diatoms	Bacillariophyta	Stephanodiscales	Stephanodiscaceae	Lindavia sp.	1	51,259			
Diatoms	Bacillariophyta			Centric diatom		73,594,549	29,771	14,185	87,079
Diatoms	Bacillariophyta			Pennate diatom		17,094			
				Total Diatoms		75,548,735	166,715	104,022	116,552
Green Algae	Charophyta	Desmidiiales	Closteriaceae	Closterium sp.	1	6,174			
Green Algae	Charophyta	Klebsormidiales	Elakatothricaceae	Elakatothrix sp.	1	188,555		37,826	
Green Algae	Chlorophyta	Chlamydomonadales	Chlamydomonadaceae	Chlamydomonas sp.	1	6,183			
Green Algae	Chlorophyta	Chlamydomonadales	Sphaerocystidaceae	Sphaerocystis sp.	1	901,091	148,853	330,979	
Green Algae	Chlorophyta	Chlorellales	Chlorellaceae	Dictyosphaerium sp.		0			
Green Algae	Chlorophyta	Chlorellales	Oocystaceae	Nephrocystium sp.	1	88,723		4,728	
Green Algae	Chlorophyta	Chlorellales	Oocystaceae	Oocystis sp.	1	703,674	86,335	28,370	2,679
Green Algae	Chlorophyta	Prasiolales	Prasiolaceae	Stichococcus sp.	1	98,815			
Green Algae	Chlorophyta	Pyramimonadales	Pyramimonadaceae	Pyramimonas sp.	1	36,272			
Green Algae	Chlorophyta	Sphaeropleales	Characiaceae	Ankyra sp.	1	503,300	23,816	127,663	
Green Algae	Chlorophyta	Sphaeropleales	Hydrodictyceae	Pseudopediastrum boryanum	1	75,652		75,652	
Green Algae	Chlorophyta	Sphaeropleales	Hydrodictyceae	Tetraedron sp.	1	22,447			
Green Algae	Chlorophyta	Sphaeropleales	Scenedesmaceae	Desmodesmus sp.	1	27,366			
Green Algae	Chlorophyta	Sphaeropleales	Scenedesmaceae	Scenedesmus arcuatus	1	418,136			
Green Algae	Chlorophyta	Sphaeropleales	Scenedesmaceae	Scenedesmus sp.		29,473			13,397
Green Algae	Chlorophyta	Sphaeropleales	Schizochlamydeaceae	Planktosphaeria sp.	1	29,026	8,931		
Green Algae	Chlorophyta	Sphaeropleales	Selenastraceae	Monoraphidium sp.	1	56,361	2,977		1,340
Green Algae	Chlorophyta	Sphaeropleales	Selenastraceae	Quadrigula sp.	1	56,739		56,739	
Green Algae	Chlorophyta	Trebouxiales	Botryococcaceae	Botryococcus sp.	1	79,235			
Green Algae	Chlorophyta	Trebouxiophyceae ordo incertae sedis	Trebouxiophyceae incertae sedis	Crucigenia sp.	1	35,725			
Green Algae	Chlorophyta			Chlorophyte		18,380			
				Total Green Algae		3,381,329	270,912	661,957	17,416



Total Phytoplankton Density (cells/L) for Minnow Environmental Inc. Mount Polley, 2023

Biologica Sample ID					fp23-092-001		fp23-092-002	fp23-092-003	
Client Sample ID					POL-P2_PHYTO-1_2023-06		BOL-B2_PHYTO-1_2023-06	QUL-ZOO-1_PHYTO-1_2023-06	
Date Sampled					20-Jun-23		21-Jun-23	21-Jun-23	
Common Name	Phylum	Order	Family	Taxon	Grand Total		Total Density	Total Density	Total Density
					Unique Taxa	Density (cells/L)	(cells/L)	(cells/L)	(cells/L)
Golden Algae	Haptophyta	Prymnesiales	Chrysochromulinaceae	Chrysochromulina sp.	1	368,648	8,931	33,098	36,171
Golden Algae	Ochrophyta	Chromulinales	Chromulinaceae	Uroglena sp.	1	755,359	11,908	609,946	2,679
Golden Algae	Ochrophyta	Chromulinales	Dinobryaceae	Chrysolykos sp.	1	10,717			2,679
Golden Algae	Ochrophyta	Chromulinales	Dinobryaceae	Dinobryon bavaricum	1	42,870			1,340
Golden Algae	Ochrophyta	Chromulinales	Dinobryaceae	Dinobryon borgei	1	8,038			
Golden Algae	Ochrophyta	Chromulinales	Dinobryaceae	Dinobryon crenulatum	1	400,666			
Golden Algae	Ochrophyta	Chromulinales	Dinobryaceae	Dinobryon divergens	1	165,971	145,876		6,698
Golden Algae	Ochrophyta	Chromulinales	Dinobryaceae	Dinobryon sp.		242,939	14,885		8,038
Golden Algae	Ochrophyta	Chromulinales	Dinobryaceae	Epipyxis sp.	1	85,325			
Golden Algae	Ochrophyta	Chromulinales	Dinobryaceae	Kephyrion/Pseudokephyrion sp.	1	328,278	8,931		91,098
Golden Algae	Ochrophyta	Hibberdiniales	Stylococaceae	Bitrichia sp.	1	91,884			
Golden Algae	Ochrophyta	Pedinellales	Pedinellaceae	Pseudopedinella sp.	1	38,530			1,340
Golden Algae	Ochrophyta	Phaeothamniales	Phaeothamniaceae	Stichogloea sp.	1	8,074,938			
Golden Algae	Ochrophyta	Synurales	Mallomonadaceae	Mallomonas akrokomos	1	21,174		14,185	
Golden Algae	Ochrophyta	Synurales	Mallomonadaceae	Mallomonas sp.		286,813	83,358	9,457	6,698
Golden Algae	Ochrophyta	Synurales	Synuraceae	Spiniferomonas sp.	1	2,977			
Golden Algae	Ochrophyta			Chrysophyte		99,712	5,954	9,457	2,679
				Total Golden Algae		11,024,839	279,843	676,142	159,421
Cryptomonads	Cryptophyta	Cryptomonadales	Cryptomonadaceae	Cryptomonas sp.	1	684,987	53,587	52,011	14,736
Cryptomonads	Cryptophyta	Pyrenomonadales	Geminigeraceae	Plagioselmis nannoplanctica	1	3,903,062	151,830	28,370	75,022
Cryptomonads	Katablepharidophyta	Katablephariales	Katablepharidaceae	Katablepharis ovalis	1	4,834			1,340
				Total Cryptomonads		4,592,883	205,417	80,380	91,098
Euglenoids	Euglenozoa	Euglenida	Euglenidae	Euglena sp.	1	3,495			
Euglenoids	Euglenozoa	Euglenida	Euglenidae	Trachelomonas sp.	1	31,990			1,340
				Total Euglenoids		35,485	0	0	1,340
Blue-green Algae	Cyanophyta	Chroococcales	Aphanothecaceae	Aphanothece sp.	1	117,012,226		9,021,529	
Blue-green Algae	Cyanophyta	Chroococcales	Chroococcaceae	Chroococcus sp.	1	482,899			
Blue-green Algae	Cyanophyta	Chroococcales	Gomphosphaeriaceae	Gomphosphaeria sp.	1	27,958			
Blue-green Algae	Cyanophyta	Nostocales	Aphanizomenonaceae	Aphanizomenon sp.	1	12,589,221			
Blue-green Algae	Cyanophyta	Nostocales	Aphanizomenonaceae	Dolichospermum sp.	1	19,139,587	276,866	33,098	
Blue-green Algae	Cyanophyta	Pseudanabaenales	Pseudanabaenaceae	Pseudanabaena sp.	1	204,921			
Blue-green Algae	Cyanophyta	Synechococcales	Coelosphaeriaceae	Coelomoron sp.	1	5,291,335		378,261	
Blue-green Algae	Cyanophyta	Synechococcales	Coelosphaeriaceae	Coelosphaerium sp.	1	4,218,638			
Blue-green Algae	Cyanophyta	Synechococcales	Merismopediaceae	Aphanocapsa sp.	1	30,595,567	125,036	179,674	
Blue-green Algae	Cyanophyta	Synechococcales	Synechococcaceae	Synechococcus sp.	1	398,368	8,931		16,076
Blue-green Algae	Cyanophyta			Cyanophyte (coccoid unicell)		117,165			
Blue-green Algae	Cyanophyta			Cyanophyte (colony)		150,044			
				Total Blue-green Algae		190,227,928	410,834	9,612,562	16,076
Dinoflagellates	Miozoa	Gonyaulacales	Ceratiaceae	Ceratium hirundinella	1	22,185			
Dinoflagellates	Miozoa	Gymnodiniales	Gymnodiniaceae	Gymnodinium fuscum		0			
Dinoflagellates	Miozoa	Gymnodiniales	Gymnodiniaceae	Gymnodinium sp.	1	506,208		9,457	2,679
Dinoflagellates	Miozoa	Peridinales	Peridiniaceae	Peridinium sp.	1	43,685			
				Total Dinoflagellates		572,078	0	9,457	2,679
				Total Phytoplankton		285,383,278	1,333,721	11,144,520	404,582
				Total Unique Taxa	62		21	19	22



Total Phytoplankton Density (cells/L) for Minnow Environmental Inc. Mount Polley, 2023

Biologica Sample ID					fp23-092-004		fp23-092-009	fp23-092-010	
Client Sample ID					QUL-ZOO-7_PHYTO-1_2023-06		POL-P2_PHYTO-1_2023-07	POL-P2_PHYTO-2_2023-07	
Date Sampled					21-Jun-23		27-Jul-23	27-Jul-23	
Common Name	Phylum	Order	Family	Taxon	Grand Total		Total Density	Total Density	Total Density
					Unique Taxa	Density (cells/L)	(cells/L)	(cells/L)	(cells/L)
Diatoms	Bacillariophyta	Aulacoseirales	Aulacoseiraceae	Aulacoseira sp.	1	154,090	29,473		12,366
Diatoms	Bacillariophyta	Bacillariales	Bacillariaceae	Nitzschia sp.	1	2,977			
Diatoms	Bacillariophyta	Cocconeidales	Achnanthidiaceae	Achnanthidium sp.	1	2,977			
Diatoms	Bacillariophyta	Fragilariales	Fragilariaceae	Fragilaria crotonensis	1	20,095			
Diatoms	Bacillariophyta	Fragilariales	Fragilariaceae	Fragilaria sp.		14,801			
Diatoms	Bacillariophyta	Fragilariales	Staurosiraceae	Staurosira sp.	1	8,931			
Diatoms	Bacillariophyta	Fragilariales	Staurosiraceae	Staurosirella sp.	1	32,152			
Diatoms	Bacillariophyta	Rhabdonematales	Tabellariaceae	Asterionella formosa	1	323,513			
Diatoms	Bacillariophyta	Rhabdonematales	Tabellariaceae	Tabellaria fenestrata	1	251,134			
Diatoms	Bacillariophyta	Rhizosoleniales	Rhizosoleniaceae	Urosolenia sp.	1	36,893			
Diatoms	Bacillariophyta	Stephanodiscales	Stephanodiscaceae	Cyclotella sp.		267,981	21,435		
Diatoms	Bacillariophyta	Stephanodiscales	Stephanodiscaceae	Cyclotella cf. atomus	1	770,289	8,038	9,457	
Diatoms	Bacillariophyta	Stephanodiscales	Stephanodiscaceae	Lindavia sp.	1	51,259			
Diatoms	Bacillariophyta			Centric diatom		73,594,549	345,636	113,478	18,549
Diatoms	Bacillariophyta			Pennate diatom		17,094		4,728	
				Total Diatoms		75,548,735	404,582	127,663	30,916
Green Algae	Charophyta	Desmidiiales	Closteriaceae	Closterium sp.	1	6,174			
Green Algae	Charophyta	Klebsormidiales	Elakatothricaceae	Elakatothrix sp.	1	188,555			
Green Algae	Chlorophyta	Chlamydomonadales	Chlamydomonadaceae	Chlamydomonas sp.	1	6,183			
Green Algae	Chlorophyta	Chlamydomonadales	Sphaerocystidaceae	Sphaerocystis sp.	1	901,091		56,739	111,296
Green Algae	Chlorophyta	Chlorellales	Chlorellaceae	Dictyosphaerium sp.		0			
Green Algae	Chlorophyta	Chlorellales	Oocystaceae	Nephrocystium sp.	1	88,723			
Green Algae	Chlorophyta	Chlorellales	Oocystaceae	Oocystis sp.	1	703,674	5,359	33,098	86,564
Green Algae	Chlorophyta	Prasiolales	Prasiolaceae	Stichococcus sp.	1	98,815			
Green Algae	Chlorophyta	Pyramimonadales	Pyramimonadaceae	Pyramimonas sp.	1	36,272		4,728	
Green Algae	Chlorophyta	Sphaeropleales	Characiaceae	Ankyra sp.	1	503,300		18,913	37,099
Green Algae	Chlorophyta	Sphaeropleales	Hydrodictyceae	Pseudopediastrum boryanum	1	75,652			
Green Algae	Chlorophyta	Sphaeropleales	Hydrodictyceae	Tetraedron sp.	1	22,447			
Green Algae	Chlorophyta	Sphaeropleales	Scenedesmaceae	Desmodesmus sp.	1	27,366			
Green Algae	Chlorophyta	Sphaeropleales	Scenedesmaceae	Scenedesmus arcuatus	1	418,136		18,913	
Green Algae	Chlorophyta	Sphaeropleales	Scenedesmaceae	Scenedesmus sp.		29,473	16,076		
Green Algae	Chlorophyta	Sphaeropleales	Schizochlamydeaceae	Planktosphaeria sp.	1	29,026			
Green Algae	Chlorophyta	Sphaeropleales	Selenastraceae	Monoraphidium sp.	1	56,361		18,913	6,183
Green Algae	Chlorophyta	Sphaeropleales	Selenastraceae	Quadrigula sp.	1	56,739			
Green Algae	Chlorophyta	Trebouxiales	Botryococcaceae	Botryococcus sp.	1	79,235			49,465
Green Algae	Chlorophyta	Trebouxiophyceae ordo incertae sedis	Trebouxiophyceae incertae sedis	Crucigenia sp.	1	35,725			
Green Algae	Chlorophyta			Chlorophyte		18,380			
				Total Green Algae		3,381,329	21,435	151,304	290,606



Total Phytoplankton Density (cells/L) for Minnow Environmental Inc. Mount Polley, 2023

Biologica Sample ID					fp23-092-004		fp23-092-009	fp23-092-010	
Client Sample ID					QUL-ZOO-7_PHYTO-1_2023-06		POL-P2_PHYTO-1_2023-07	POL-P2_PHYTO-2_2023-07	
Date Sampled					21-Jun-23		27-Jul-23	27-Jul-23	
Common Name	Phylum	Order	Family	Taxon	Grand Total		Total Density	Total Density	Total Density
					Unique Taxa	Density (cells/L)	(cells/L)	(cells/L)	(cells/L)
Golden Algae	Haptophyta	Prymnesiales	Chrysochromulinaceae	Chrysochromulina sp.	1	368,648	18,755	4,728	
Golden Algae	Ochrophyta	Chromulinales	Chromulinaceae	Uroglena sp.	1	755,359	8,038		
Golden Algae	Ochrophyta	Chromulinales	Dinobryaceae	Chrysolykos sp.	1	10,717	8,038		
Golden Algae	Ochrophyta	Chromulinales	Dinobryaceae	Dinobryon bavaricum	1	42,870	21,435		
Golden Algae	Ochrophyta	Chromulinales	Dinobryaceae	Dinobryon borgei	1	8,038	8,038		
Golden Algae	Ochrophyta	Chromulinales	Dinobryaceae	Dinobryon crenulatum	1	400,666	8,038		
Golden Algae	Ochrophyta	Chromulinales	Dinobryaceae	Dinobryon divergens	1	165,971	13,397		
Golden Algae	Ochrophyta	Chromulinales	Dinobryaceae	Dinobryon sp.		242,939	26,794		
Golden Algae	Ochrophyta	Chromulinales	Dinobryaceae	Epipyxis sp.	1	85,325		4,728	
Golden Algae	Ochrophyta	Chromulinales	Dinobryaceae	Kephyrion/Pseudokephyrion sp.	1	328,278	123,250		
Golden Algae	Ochrophyta	Hibberdiniales	Stylococaceae	Bitrichia sp.	1	91,884			
Golden Algae	Ochrophyta	Pedinellales	Pedinellaceae	Pseudopedinella sp.	1	38,530	5,359		
Golden Algae	Ochrophyta	Phaeothamniales	Phaeothamniaceae	Stichogloea sp.	1	8,074,938		439,729	1,032,580
Golden Algae	Ochrophyta	Synurales	Mallomonadaceae	Mallomonas akrokomos	1	21,174			
Golden Algae	Ochrophyta	Synurales	Mallomonadaceae	Mallomonas sp.		286,813	10,717		6,183
Golden Algae	Ochrophyta	Synurales	Synuraceae	Spiniferomonas sp.	1	2,977			
Golden Algae	Ochrophyta			Chrysophyte		99,712			6,183
				Total Golden Algae		11,024,839	251,859	449,185	1,044,946
Cryptomonads	Cryptophyta	Cryptomonadales	Cryptomonadaceae	Cryptomonas sp.	1	684,987	8,038	14,185	12,366
Cryptomonads	Cryptophyta	Pyrenomonadales	Geminigeraceae	Plagioselmis nannoplanctica	1	3,903,062	120,571	151,304	166,944
Cryptomonads	Katablepharidophyta	Katablephariales	Katablepharidaceae	Katablepharis ovalis	1	4,834			
				Total Cryptomonads		4,592,883	128,609	165,489	179,310
Euglenoids	Euglenozoa	Euglenida	Euglenidae	Euglena sp.	1	3,495			
Euglenoids	Euglenozoa	Euglenida	Euglenidae	Trachelomonas sp.	1	31,990			
				Total Euglenoids		35,485	0	0	0
Blue-green Algae	Cyanophyta	Chroococcales	Aphanothecaceae	Aphanothece sp.	1	117,012,226		16,495,626	4,711,534
Blue-green Algae	Cyanophyta	Chroococcales	Chroococcaceae	Chroococcus sp.	1	482,899		70,924	49,465
Blue-green Algae	Cyanophyta	Chroococcales	Gomphosphaeriaceae	Gomphosphaeria sp.	1	27,958			
Blue-green Algae	Cyanophyta	Nostocales	Aphanizomenonaceae	Aphanizomenon sp.	1	12,589,221		840,685	463,734
Blue-green Algae	Cyanophyta	Nostocales	Aphanizomenonaceae	Dolichospermum sp.	1	19,139,587		4,323,127	4,048,254
Blue-green Algae	Cyanophyta	Pseudanabaenales	Pseudanabaenaceae	Pseudanabaena sp.	1	204,921			
Blue-green Algae	Cyanophyta	Synechococcales	Coelosphaeriaceae	Coelomoron sp.	1	5,291,335			
Blue-green Algae	Cyanophyta	Synechococcales	Coelosphaeriaceae	Coelosphaerium sp.	1	4,218,638		992,936	
Blue-green Algae	Cyanophyta	Synechococcales	Merismopediaceae	Aphanocapsa sp.	1	30,595,567		3,625,003	1,692,800
Blue-green Algae	Cyanophyta	Synechococcales	Synechococcaceae	Synechococcus sp.	1	398,368	18,755	85,109	37,099
Blue-green Algae	Cyanophyta			Cyanophyte (coccoid unicell)		117,165		33,098	24,732
Blue-green Algae	Cyanophyta			Cyanophyte (colony)		150,044	128,609		
				Total Blue-green Algae		190,227,928	147,364	26,466,508	11,027,617
Dinoflagellates	Miozoa	Gonyaulacales	Ceratiaceae	Ceratium hirundinella	1	22,185			
Dinoflagellates	Miozoa	Gymnodiniales	Gymnodiniaceae	Gymnodinium fuscum		0			
Dinoflagellates	Miozoa	Gymnodiniales	Gymnodiniaceae	Gymnodinium sp.	1	506,208		18,913	
Dinoflagellates	Miozoa	Peridinales	Peridiniaceae	Peridinium sp.	1	43,685			
				Total Dinoflagellates		572,078	0	18,913	0
				Total Phytoplankton		285,383,278	953,849	27,379,063	12,573,396
				Total Unique Taxa	62		17	21	16



Total Phytoplankton Density (cells/L) for Minnow Environmental Inc. Mount Polley, 2023

Biologica Sample ID					fp23-092-011		fp23-092-012	fp23-092-013	
Client Sample ID					POL-P2_PHYTO-3_2023-07		POL-P2_PHYTO-4_2023-07	POL-P2_PHYTO-5_2023-07	
Date Sampled					27-Jul-23		27-Jul-23	27-Jul-23	
Common Name	Phylum	Order	Family	Taxon	Grand Total		Total Density (cells/L)	Total Density (cells/L)	Total Density (cells/L)
					Unique Taxa	Density (cells/L)			
Diatoms	Bacillariophyta	Aulacoseirales	Aulacoseiraceae	Aulacoseira sp.	1	154,090	5,359	21,435	
Diatoms	Bacillariophyta	Bacillariales	Bacillariaceae	Nitzschia sp.	1	2,977			
Diatoms	Bacillariophyta	Cocconeidales	Achnanthidiaceae	Achnanthidium sp.	1	2,977			
Diatoms	Bacillariophyta	Fragilariales	Fragilariaceae	Fragilaria crotonensis	1	20,095			
Diatoms	Bacillariophyta	Fragilariales	Fragilariaceae	Fragilaria sp.		14,801			
Diatoms	Bacillariophyta	Fragilariales	Staurosiraceae	Staurosira sp.	1	8,931			
Diatoms	Bacillariophyta	Fragilariales	Staurosiraceae	Staurosirella sp.	1	32,152		32,152	
Diatoms	Bacillariophyta	Rhabdonematales	Tabellariaceae	Asterionella formosa	1	323,513			
Diatoms	Bacillariophyta	Rhabdonematales	Tabellariaceae	Tabellaria fenestrata	1	251,134		16,076	
Diatoms	Bacillariophyta	Rhizosoleniales	Rhizosoleniaceae	Urosolenia sp.	1	36,893			
Diatoms	Bacillariophyta	Stephanodiscales	Stephanodiscaceae	Cyclotella sp.		267,981	10,717		6,183
Diatoms	Bacillariophyta	Stephanodiscales	Stephanodiscaceae	Cyclotella cf. atomus	1	770,289			
Diatoms	Bacillariophyta	Stephanodiscales	Stephanodiscaceae	Lindavia sp.	1	51,259	16,076		6,183
Diatoms	Bacillariophyta			Centric diatom		73,594,549	123,250	21,435	
Diatoms	Bacillariophyta			Pennate diatom		17,094			12,366
				Total Diatoms		75,548,735	155,402	91,098	24,732
Green Algae	Charophyta	Desmidiiales	Closteriaceae	Closterium sp.	1	6,174			
Green Algae	Charophyta	Klebsormidiales	Elakatothricaceae	Elakatothrix sp.	1	188,555			
Green Algae	Chlorophyta	Chlamydomonadales	Chlamydomonadaceae	Chlamydomonas sp.	1	6,183			6,183
Green Algae	Chlorophyta	Chlamydomonadales	Sphaerocystidaceae	Sphaerocystis sp.	1	901,091	48,228		111,296
Green Algae	Chlorophyta	Chlorellales	Chlorellaceae	Dictyosphaerium sp.		0			
Green Algae	Chlorophyta	Chlorellales	Oocystaceae	Nephrocystium sp.	1	88,723			
Green Algae	Chlorophyta	Chlorellales	Oocystaceae	Oocystis sp.	1	703,674	10,717	75,022	6,183
Green Algae	Chlorophyta	Prasiolales	Prasiolaceae	Stichococcus sp.	1	98,815			
Green Algae	Chlorophyta	Pyramimonadales	Pyramimonadaceae	Pyramimonas sp.	1	36,272			
Green Algae	Chlorophyta	Sphaeropleales	Characiaceae	Ankyra sp.	1	503,300	10,717	26,793	30,916
Green Algae	Chlorophyta	Sphaeropleales	Hydrodictyceae	Pseudopediastrum boryanum	1	75,652			
Green Algae	Chlorophyta	Sphaeropleales	Hydrodictyceae	Tetraedron sp.	1	22,447			
Green Algae	Chlorophyta	Sphaeropleales	Scenedesmaceae	Desmodesmus sp.	1	27,366			
Green Algae	Chlorophyta	Sphaeropleales	Scenedesmaceae	Scenedesmus arcuatus	1	418,136			
Green Algae	Chlorophyta	Sphaeropleales	Scenedesmaceae	Scenedesmus sp.		29,473			
Green Algae	Chlorophyta	Sphaeropleales	Schizochlamydeaceae	Planktosphaeria sp.	1	29,026			
Green Algae	Chlorophyta	Sphaeropleales	Selenastraceae	Monoraphidium sp.	1	56,361	5,359		6,183
Green Algae	Chlorophyta	Sphaeropleales	Selenastraceae	Quadrigula sp.	1	56,739			
Green Algae	Chlorophyta	Trebouxiales	Botryococcaceae	Botryococcus sp.	1	79,235			
Green Algae	Chlorophyta	Trebouxiophyceae ordo incertae sedis	Trebouxiophyceae incertae sedis	Crucigenia sp.	1	35,725			
Green Algae	Chlorophyta			Chlorophyte		18,380			
				Total Green Algae		3,381,329	75,022	101,815	160,761



Total Phytoplankton Density (cells/L) for Minnow Environmental Inc. Mount Polley, 2023

Biologica Sample ID					fp23-092-011		fp23-092-012	fp23-092-013	
Client Sample ID					POL-P2_PHYTO-3_2023-07		POL-P2_PHYTO-4_2023-07	POL-P2_PHYTO-5_2023-07	
Date Sampled					27-Jul-23		27-Jul-23	27-Jul-23	
Common Name	Phylum	Order	Family	Taxon	Grand Total		Total Density (cells/L)	Total Density (cells/L)	Total Density (cells/L)
					Unique Taxa	Density (cells/L)			
Golden Algae	Haptophyta	Prymnesiales	Chrysochromulinaceae	Chrysochromulina sp.	1	368,648		5,359	
Golden Algae	Ochrophyta	Chromulinales	Chromulinaceae	Uroglena sp.	1	755,359			
Golden Algae	Ochrophyta	Chromulinales	Dinobryaceae	Chrysolykos sp.	1	10,717			
Golden Algae	Ochrophyta	Chromulinales	Dinobryaceae	Dinobryon bavaricum	1	42,870			
Golden Algae	Ochrophyta	Chromulinales	Dinobryaceae	Dinobryon borgei	1	8,038			
Golden Algae	Ochrophyta	Chromulinales	Dinobryaceae	Dinobryon crenulatum	1	400,666			
Golden Algae	Ochrophyta	Chromulinales	Dinobryaceae	Dinobryon divergens	1	165,971			
Golden Algae	Ochrophyta	Chromulinales	Dinobryaceae	Dinobryon sp.		242,939			
Golden Algae	Ochrophyta	Chromulinales	Dinobryaceae	Epipyxis sp.	1	85,325		16,076	6,183
Golden Algae	Ochrophyta	Chromulinales	Dinobryaceae	Kephyrion/Pseudokephyrion sp.	1	328,278			
Golden Algae	Ochrophyta	Hibberdiniales	Stylococcaceae	Bitrichia sp.	1	91,884			
Golden Algae	Ochrophyta	Pedinellales	Pedinellaceae	Pseudopedinella sp.	1	38,530	5,359		
Golden Algae	Ochrophyta	Phaeothamniales	Phaeothamniaceae	Stichogloea sp.	1	8,074,938	819,881	728,783	1,224,257
Golden Algae	Ochrophyta	Synurales	Mallomonadaceae	Mallomonas akrokomos	1	21,174			
Golden Algae	Ochrophyta	Synurales	Mallomonadaceae	Mallomonas sp.		286,813		5,359	
Golden Algae	Ochrophyta	Synurales	Synuraceae	Spiniferomonas sp.	1	2,977			
Golden Algae	Ochrophyta			Chrysophyte		99,712		5,359	
				Total Golden Algae		11,024,839	825,240	760,935	1,230,440
Cryptomonads	Cryptophyta	Cryptomonadales	Cryptomonadaceae	Cryptomonas sp.	1	684,987	10,717	10,717	18,549
Cryptomonads	Cryptophyta	Pyrenomonadales	Geminigeraceae	Plagioselmis nannoplanctica	1	3,903,062	155,402	101,815	92,747
Cryptomonads	Katablepharidophyta	Katablephariales	Katablepharidaceae	Katablepharis ovalis	1	4,834			
				Total Cryptomonads		4,592,883	166,120	112,533	111,296
Euglenoids	Euglenozoa	Euglenida	Euglenidae	Euglena sp.	1	3,495			
Euglenoids	Euglenozoa	Euglenida	Euglenidae	Trachelomonas sp.	1	31,990			
				Total Euglenoids		35,485	0	0	0
Blue-green Algae	Cyanophyta	Chroococcales	Aphanothecaceae	Aphanothece sp.	1	117,012,226	13,091,304	9,967,948	19,665,742
Blue-green Algae	Cyanophyta	Chroococcales	Chroococcaceae	Chroococcus sp.	1	482,899	117,891	160,761	68,014
Blue-green Algae	Cyanophyta	Chroococcales	Gomphosphaeriaceae	Gomphosphaeria sp.	1	27,958			
Blue-green Algae	Cyanophyta	Nostocales	Aphanizomenonaceae	Aphanizomenon sp.	1	12,589,221	1,286,088	350,102	828,537
Blue-green Algae	Cyanophyta	Nostocales	Aphanizomenonaceae	Dolichospermum sp.	1	19,139,587	3,038,978	3,111,774	2,431,391
Blue-green Algae	Cyanophyta	Pseudanabaenales	Pseudanabaenaceae	Pseudanabaena sp.	1	204,921			
Blue-green Algae	Cyanophyta	Synechococcales	Coelosphaeriaceae	Coelomoron sp.	1	5,291,335			
Blue-green Algae	Cyanophyta	Synechococcales	Coelosphaeriaceae	Coelosphaerium sp.	1	4,218,638			556,480
Blue-green Algae	Cyanophyta	Synechococcales	Merismopediaceae	Aphanocapsa sp.	1	30,595,567	982,786	2,235,343	1,748,938
Blue-green Algae	Cyanophyta	Synechococcales	Synechococcaceae	Synechococcus sp.	1	398,368		26,793	24,732
Blue-green Algae	Cyanophyta			Cyanophyte (coccoid unicell)		117,165	26,793		18,549
Blue-green Algae	Cyanophyta			Cyanophyte (colony)		150,044			
				Total Blue-green Algae		190,227,928	18,581,352	15,852,721	25,342,385
Dinoflagellates	Miozoa	Gonyaulacales	Ceratiaceae	Ceratium hirundinella	1	22,185			6,183
Dinoflagellates	Miozoa	Gymnodiniales	Gymnodiniaceae	Gymnodinium fuscum		0			
Dinoflagellates	Miozoa	Gymnodiniales	Gymnodiniaceae	Gymnodinium sp.	1	506,208	10,717	5,359	18,549
Dinoflagellates	Miozoa	Peridinales	Peridiniaceae	Peridinium sp.	1	43,685			
				Total Dinoflagellates		572,078	10,717	5,359	24,732
				Total Phytoplankton		285,383,278	19,813,853	16,924,461	26,894,347
				Total Unique Taxa	62		18	18	21



Total Phytoplankton Density (cells/L) for Minnow Environmental Inc. Mount Polley, 2023

Biologica Sample ID					fp23-092-014		fp23-092-015	fp23-092-016	
Client Sample ID					BOL-B2_PHYTO-1_2023-07		BOL-B2_PHYTO-2_2023-07	BOL-B2_PHYTO-3_2023-07	
Date Sampled					27-Jul-23		27-Jul-23	27-Jul-23	
Common Name	Phylum	Order	Family	Taxon	Grand Total		Total Density (cells/L)	Total Density (cells/L)	Total Density (cells/L)
					Unique Taxa	Density (cells/L)			
Diatoms	Bacillariophyta	Aulacoseirales	Aulacoseiraceae	Aulacoseira sp.	1	154,090		13,979	
Diatoms	Bacillariophyta	Bacillariales	Bacillariaceae	Nitzschia sp.	1	2,977			
Diatoms	Bacillariophyta	Cocconeidales	Achnanthidiaceae	Achnanthidium sp.	1	2,977			2,977
Diatoms	Bacillariophyta	Fragilariales	Fragilariaceae	Fragilaria crotonensis	1	20,095			
Diatoms	Bacillariophyta	Fragilariales	Fragilariaceae	Fragilaria sp.		14,801		3,495	
Diatoms	Bacillariophyta	Fragilariales	Staurosiraceae	Staurosira sp.	1	8,931			
Diatoms	Bacillariophyta	Fragilariales	Staurosiraceae	Staurosirella sp.	1	32,152			
Diatoms	Bacillariophyta	Rhabdonematales	Tabellariaceae	Asterionella formosa	1	323,513		3,495	5,954
Diatoms	Bacillariophyta	Rhabdonematales	Tabellariaceae	Tabellaria fenestrata	1	251,134	53,587	27,958	59,541
Diatoms	Bacillariophyta	Rhizosoleniales	Rhizosoleniaceae	Urosolenia sp.	1	36,893			
Diatoms	Bacillariophyta	Stephanodiscales	Stephanodiscaceae	Cyclotella sp.		267,981			
Diatoms	Bacillariophyta	Stephanodiscales	Stephanodiscaceae	Cyclotella cf. atomus	1	770,289			
Diatoms	Bacillariophyta	Stephanodiscales	Stephanodiscaceae	Lindavia sp.	1	51,259			
Diatoms	Bacillariophyta			Centric diatom		73,594,549	5,359	3,495	8,931
Diatoms	Bacillariophyta			Pennate diatom		17,094			
				Total Diatoms		75,548,735	58,946	52,422	77,403
Green Algae	Charophyta	Desmidiiales	Closteriaceae	Closterium sp.	1	6,174	2,679		
Green Algae	Charophyta	Klebsormidiales	Elakatotrichaceae	Elakatothrix sp.	1	188,555	5,359	6,990	
Green Algae	Chlorophyta	Chlamydomonadales	Chlamydomonadaceae	Chlamydomonas sp.	1	6,183			
Green Algae	Chlorophyta	Chlamydomonadales	Sphaerocystidaceae	Sphaerocystis sp.	1	901,091	72,342		5,954
Green Algae	Chlorophyta	Chlorellales	Chlorellaceae	Dictyosphaerium sp.		0			
Green Algae	Chlorophyta	Chlorellales	Oocystaceae	Nephrocystium sp.	1	88,723			
Green Algae	Chlorophyta	Chlorellales	Oocystaceae	Oocystis sp.	1	703,674	24,114	17,474	29,771
Green Algae	Chlorophyta	Prasiolales	Prasiolaceae	Stichococcus sp.	1	98,815			2,977
Green Algae	Chlorophyta	Pyramimonadales	Pyramimonadaceae	Pyramimonas sp.	1	36,272	2,679	10,484	5,954
Green Algae	Chlorophyta	Sphaeropleales	Characiaceae	Ankyra sp.	1	503,300	56,266	48,927	47,633
Green Algae	Chlorophyta	Sphaeropleales	Hydrodictyceae	Pseudopediastrum boryanum	1	75,652			
Green Algae	Chlorophyta	Sphaeropleales	Hydrodictyceae	Tetraedron sp.	1	22,447			
Green Algae	Chlorophyta	Sphaeropleales	Scenedesmaceae	Desmodesmus sp.	1	27,366			
Green Algae	Chlorophyta	Sphaeropleales	Scenedesmaceae	Scenedesmus arcuatus	1	418,136	104,495	157,266	35,725
Green Algae	Chlorophyta	Sphaeropleales	Scenedesmaceae	Scenedesmus sp.		29,473			
Green Algae	Chlorophyta	Sphaeropleales	Schizochlamydeaceae	Planktosphaeria sp.	1	29,026			
Green Algae	Chlorophyta	Sphaeropleales	Selenastraceae	Monoraphidium sp.	1	56,361	5,359		
Green Algae	Chlorophyta	Sphaeropleales	Selenastraceae	Quadrigula sp.	1	56,739			
Green Algae	Chlorophyta	Trebouxiales	Botryococcaceae	Botryococcus sp.	1	79,235			
Green Algae	Chlorophyta	Trebouxiophyceae ordo incertae sedis	Trebouxiophyceae incertae sedis	Crucigenia sp.	1	35,725			
Green Algae	Chlorophyta			Chlorophyte		18,380		3,495	2,977
				Total Green Algae		3,381,329	273,294	244,636	130,990



Total Phytoplankton Density (cells/L) for Minnow Environmental Inc. Mount Polley, 2023

Biologica Sample ID					fp23-092-014		fp23-092-015	fp23-092-016	
Client Sample ID					BOL-B2_PHYTO-1_2023-07		BOL-B2_PHYTO-2_2023-07	BOL-B2_PHYTO-3_2023-07	
Date Sampled					27-Jul-23		27-Jul-23	27-Jul-23	
Common Name	Phylum	Order	Family	Taxon	Grand Total		Total Density (cells/L)	Total Density (cells/L)	Total Density (cells/L)
					Unique Taxa	Density (cells/L)			
Golden Algae	Haptophyta	Prymnesiales	Chrysochromulinaceae	Chrysochromulina sp.	1	368,648	21,435	41,938	23,816
Golden Algae	Ochrophyta	Chromulinales	Chromulinaceae	Uroglena sp.	1	755,359		3,495	2,977
Golden Algae	Ochrophyta	Chromulinales	Dinobryaceae	Chrysolykos sp.	1	10,717			
Golden Algae	Ochrophyta	Chromulinales	Dinobryaceae	Dinobryon bavaricum	1	42,870			
Golden Algae	Ochrophyta	Chromulinales	Dinobryaceae	Dinobryon borgei	1	8,038			
Golden Algae	Ochrophyta	Chromulinales	Dinobryaceae	Dinobryon crenulatum	1	400,666			
Golden Algae	Ochrophyta	Chromulinales	Dinobryaceae	Dinobryon divergens	1	165,971			
Golden Algae	Ochrophyta	Chromulinales	Dinobryaceae	Dinobryon sp.		242,939			
Golden Algae	Ochrophyta	Chromulinales	Dinobryaceae	Epipyxis sp.	1	85,325	2,679	13,979	17,862
Golden Algae	Ochrophyta	Chromulinales	Dinobryaceae	Kephyrion/Pseudokephyrion sp.	1	328,278			
Golden Algae	Ochrophyta	Hibberdiniales	Stylococaceae	Bitrichia sp.	1	91,884	2,679	10,484	
Golden Algae	Ochrophyta	Pedinellales	Pedinellaceae	Pseudopedinella sp.	1	38,530	8,038		2,977
Golden Algae	Ochrophyta	Phaeothamniales	Phaeothamniaceae	Stichogloea sp.	1	8,074,938		34,948	44,656
Golden Algae	Ochrophyta	Synurales	Mallomonadaceae	Mallomonas akrokomos	1	21,174		6,990	
Golden Algae	Ochrophyta	Synurales	Mallomonadaceae	Mallomonas sp.		286,813		3,495	5,954
Golden Algae	Ochrophyta	Synurales	Synuraceae	Spiniferomonas sp.	1	2,977			
Golden Algae	Ochrophyta			Chrysophyte		99,712		3,495	5,954
				Total Golden Algae		11,024,839	34,832	118,823	104,197
Cryptomonads	Cryptophyta	Cryptomonadales	Cryptomonadaceae	Cryptomonas sp.	1	684,987	21,435	20,969	23,816
Cryptomonads	Cryptophyta	Pyrenomonadales	Geminigeraceae	Plagioselmis nannoplanctica	1	3,903,062	222,386	398,408	318,545
Cryptomonads	Katablepharidophyta	Katablephariales	Katablepharidaceae	Katablepharis ovalis	1	4,834		3,495	
				Total Cryptomonads		4,592,883	243,821	422,871	342,361
Euglenoids	Euglenozoa	Euglenida	Euglenidae	Euglena sp.	1	3,495			
Euglenoids	Euglenozoa	Euglenida	Euglenidae	Trachelomonas sp.	1	31,990	10,717	3,495	2,977
				Total Euglenoids		35,485	10,717	3,495	2,977
Blue-green Algae	Cyanophyta	Chroococcales	Aphanothecaceae	Aphanothece sp.	1	117,012,226	2,657,915	5,032,518	7,541,038
Blue-green Algae	Cyanophyta	Chroococcales	Chroococcaceae	Chroococcus sp.	1	482,899	5,359	10,484	
Blue-green Algae	Cyanophyta	Chroococcales	Gomphosphaeriaceae	Gomphosphaeria sp.	1	27,958		27,958	
Blue-green Algae	Cyanophyta	Nostocales	Aphanizomenonaceae	Aphanizomenon sp.	1	12,589,221	785,537	1,056,829	875,254
Blue-green Algae	Cyanophyta	Nostocales	Aphanizomenonaceae	Dolichospermum sp.	1	19,139,587	58,946	255,121	358,363
Blue-green Algae	Cyanophyta	Pseudanabaenales	Pseudanabaenaceae	Pseudanabaena sp.	1	204,921			
Blue-green Algae	Cyanophyta	Synechococcales	Coelosphaeriaceae	Coelomoron sp.	1	5,291,335	2,668,633		839,530
Blue-green Algae	Cyanophyta	Synechococcales	Coelosphaeriaceae	Coelosphaerium sp.	1	4,218,638		891,175	595,411
Blue-green Algae	Cyanophyta	Synechococcales	Merismopediaceae	Aphanocapsa sp.	1	30,595,567	3,610,871	1,467,818	547,778
Blue-green Algae	Cyanophyta	Synechococcales	Synechococcaceae	Synechococcus sp.	1	398,368	5,359	17,474	14,885
Blue-green Algae	Cyanophyta			Cyanophyte (coccooid unicell)		117,165	8,038		2,977
Blue-green Algae	Cyanophyta			Cyanophyte (colony)		150,044	21,435		
				Total Blue-green Algae		190,227,928	9,822,091	8,759,378	10,775,237
Dinoflagellates	Miozoa	Gonyaulacales	Ceratiaceae	Ceratium hirundinella	1	22,185			2,977
Dinoflagellates	Miozoa	Gymnodiniales	Gymnodiniaceae	Gymnodinium fuscum		0			
Dinoflagellates	Miozoa	Gymnodiniales	Gymnodiniaceae	Gymnodinium sp.	1	506,208	13,397	13,979	8,931
Dinoflagellates	Miozoa	Peridinales	Peridiniaceae	Peridinium sp.	1	43,685			
				Total Dinoflagellates		572,078	13,397	13,979	11,908
				Total Phytoplankton		285,383,278	10,457,097	9,615,605	11,445,075
				Total Unique Taxa	62		25	28	28



Total Phytoplankton Density (cells/L) for Minnow Environmental Inc. Mount Polley, 2023

Biologica Sample ID					fp23-092-017		fp23-092-018	fp23-092-019	
Client Sample ID					BOL-B2_PHYTO-4_2023-07		BOL-B2_PHYTO-5_2023-07	QUL-ZOO-1_PHYTO-1_2023-07	
Date Sampled					27-Jul-23		27-Jul-23	26-Jul-23	
Common Name	Phylum	Order	Family	Taxon	Grand Total		Total Density (cells/L)	Total Density (cells/L)	Total Density (cells/L)
					Unique Taxa	Density (cells/L)			
Diatoms	Bacillariophyta	Aulacoseirales	Aulacoseiraceae	Aulacoseira sp.	1	154,090			
Diatoms	Bacillariophyta	Bacillariales	Bacillariaceae	Nitzschia sp.	1	2,977			
Diatoms	Bacillariophyta	Cocconeidales	Achnanthidiaceae	Achnanthidium sp.	1	2,977			
Diatoms	Bacillariophyta	Fragilariales	Fragilariaceae	Fragilaria crotonensis	1	20,095			
Diatoms	Bacillariophyta	Fragilariales	Fragilariaceae	Fragilaria sp.		14,801	6,990		
Diatoms	Bacillariophyta	Fragilariales	Staurosiraceae	Staurosira sp.	1	8,931			
Diatoms	Bacillariophyta	Fragilariales	Staurosiraceae	Staurosirella sp.	1	32,152			
Diatoms	Bacillariophyta	Rhabdonematales	Tabellariaceae	Asterionella formosa	1	323,513	20,969		
Diatoms	Bacillariophyta	Rhabdonematales	Tabellariaceae	Tabellaria fenestrata	1	251,134	31,453	35,725	
Diatoms	Bacillariophyta	Rhizosoleniales	Rhizosoleniaceae	Urosolenia sp.	1	36,893			
Diatoms	Bacillariophyta	Stephanodiscales	Stephanodiscaceae	Cyclotella sp.		267,981			15,458
Diatoms	Bacillariophyta	Stephanodiscales	Stephanodiscaceae	Cyclotella cf. atomus	1	770,289			
Diatoms	Bacillariophyta	Stephanodiscales	Stephanodiscaceae	Lindavia sp.	1	51,259	3,495		
Diatoms	Bacillariophyta			Centric diatom		73,594,549	31,453	8,931	4,513,674
Diatoms	Bacillariophyta			Pennate diatom		17,094			
				Total Diatoms		75,548,735	94,360	44,656	4,529,132
Green Algae	Charophyta	Desmidiiales	Closteriaceae	Closterium sp.	1	6,174	3,495		
Green Algae	Charophyta	Klebsormidiales	Elakatothricaceae	Elakatothrix sp.	1	188,555	6,990		
Green Algae	Chlorophyta	Chlamydomonadales	Chlamydomonadaceae	Chlamydomonas sp.	1	6,183			
Green Algae	Chlorophyta	Chlamydomonadales	Sphaerocystidaceae	Sphaerocystis sp.	1	901,091	3,495	11,908	
Green Algae	Chlorophyta	Chlorellales	Chlorellaceae	Dictyosphaerium sp.		0			
Green Algae	Chlorophyta	Chlorellales	Oocystaceae	Nephrocystium sp.	1	88,723	10,484	5,954	
Green Algae	Chlorophyta	Chlorellales	Oocystaceae	Oocystis sp.	1	703,674	76,886	23,816	15,458
Green Algae	Chlorophyta	Prasiolales	Prasiolaceae	Stichococcus sp.	1	98,815			
Green Algae	Chlorophyta	Pyramimonadales	Pyramimonadaceae	Pyramimonas sp.	1	36,272	3,495	5,954	
Green Algae	Chlorophyta	Sphaeropleales	Characiaceae	Ankyra sp.	1	503,300	20,969	47,633	
Green Algae	Chlorophyta	Sphaeropleales	Hydrodictyaceae	Pseudopediastrum boryanum	1	75,652			
Green Algae	Chlorophyta	Sphaeropleales	Hydrodictyaceae	Tetraedron sp.	1	22,447	6,990		
Green Algae	Chlorophyta	Sphaeropleales	Scenedesmaceae	Desmodesmus sp.	1	27,366		11,908	15,458
Green Algae	Chlorophyta	Sphaeropleales	Scenedesmaceae	Scenedesmus arcuatus	1	418,136	83,875	17,862	
Green Algae	Chlorophyta	Sphaeropleales	Scenedesmaceae	Scenedesmus sp.		29,473			
Green Algae	Chlorophyta	Sphaeropleales	Schizochlamydeaceae	Planktosphaeria sp.	1	29,026			
Green Algae	Chlorophyta	Sphaeropleales	Selenastraceae	Monoraphidium sp.	1	56,361			
Green Algae	Chlorophyta	Sphaeropleales	Selenastraceae	Quadrigula sp.	1	56,739			
Green Algae	Chlorophyta	Trebouxiales	Botryococcaceae	Botryococcus sp.	1	79,235		29,771	
Green Algae	Chlorophyta	Trebouxiophyceae ordo incertae sedis	Trebouxiophyceae incertae sedis	Crucigenia sp.	1	35,725		11,908	
Green Algae	Chlorophyta			Chlorophyte		18,380		2,977	
				Total Green Algae		3,381,329	216,678	169,692	30,916



Total Phytoplankton Density (cells/L) for Minnow Environmental Inc. Mount Polley, 2023

Biologica Sample ID					fp23-092-017		fp23-092-018	fp23-092-019	
Client Sample ID					BOL-B2_PHYTO-4_2023-07		BOL-B2_PHYTO-5_2023-07	QUL-ZOO-1_PHYTO-1_2023-07	
Date Sampled					27-Jul-23		27-Jul-23	26-Jul-23	
Common Name	Phylum	Order	Family	Taxon	Grand Total		Total Density (cells/L)	Total Density (cells/L)	Total Density (cells/L)
					Unique Taxa	Density (cells/L)			
Golden Algae	Haptophyta	Prymnesiales	Chrysochromulinaceae	Chrysochromulina sp.	1	368,648	41,938	68,472	
Golden Algae	Ochrophyta	Chromulinales	Chromulinaceae	Uroglena sp.	1	755,359	13,979	26,794	
Golden Algae	Ochrophyta	Chromulinales	Dinobryaceae	Chrysolykos sp.	1	10,717			
Golden Algae	Ochrophyta	Chromulinales	Dinobryaceae	Dinobryon bavaricum	1	42,870			
Golden Algae	Ochrophyta	Chromulinales	Dinobryaceae	Dinobryon borgei	1	8,038			
Golden Algae	Ochrophyta	Chromulinales	Dinobryaceae	Dinobryon crenulatum	1	400,666			30,916
Golden Algae	Ochrophyta	Chromulinales	Dinobryaceae	Dinobryon divergens	1	165,971			
Golden Algae	Ochrophyta	Chromulinales	Dinobryaceae	Dinobryon sp.		242,939			15,458
Golden Algae	Ochrophyta	Chromulinales	Dinobryaceae	Epipyxis sp.	1	85,325		23,816	
Golden Algae	Ochrophyta	Chromulinales	Dinobryaceae	Kephyrion/Pseudokephyrion sp.	1	328,278		2,977	
Golden Algae	Ochrophyta	Hibberdiniales	Stylococcaceae	Bitrichia sp.	1	91,884		2,977	15,458
Golden Algae	Ochrophyta	Pedinellales	Pedinellaceae	Pseudopedinella sp.	1	38,530			
Golden Algae	Ochrophyta	Phaeothamniales	Phaeothamniaceae	Stichogloea sp.	1	8,074,938	62,906	107,174	
Golden Algae	Ochrophyta	Synurales	Mallomonadaceae	Mallomonas akrokomos	1	21,174			
Golden Algae	Ochrophyta	Synurales	Mallomonadaceae	Mallomonas sp.		286,813	17,474	5,954	15,458
Golden Algae	Ochrophyta	Synurales	Synuraceae	Spiniferomonas sp.	1	2,977			
Golden Algae	Ochrophyta			Chrysophyte		99,712	3,495	5,954	
				Total Golden Algae		11,024,839	139,792	244,119	77,289
Cryptomonads	Cryptophyta	Cryptomonadales	Cryptomonadaceae	Cryptomonas sp.	1	684,987	41,938	35,725	46,373
Cryptomonads	Cryptophyta	Pyrenomonadales	Geminigeraceae	Plagioselmis nannoplanctica	1	3,903,062	286,574	291,751	108,205
Cryptomonads	Katablepharidophyta	Katablephariales	Katablepharidaceae	Katablepharis ovalis	1	4,834			
				Total Cryptomonads		4,592,883	328,512	327,476	154,578
Euglenoids	Euglenozoa	Euglenida	Euglenidae	Euglena sp.	1	3,495	3,495		
Euglenoids	Euglenozoa	Euglenida	Euglenidae	Trachelomonas sp.	1	31,990	10,484	2,977	
				Total Euglenoids		35,485	13,979	2,977	0
Blue-green Algae	Cyanophyta	Chroococcales	Aphanothecaceae	Aphanothece sp.	1	117,012,226	10,307,925	6,990,126	
Blue-green Algae	Cyanophyta	Chroococcales	Chroococcaceae	Chroococcus sp.	1	482,899			
Blue-green Algae	Cyanophyta	Chroococcales	Gomphosphaeriaceae	Gomphosphaeria sp.	1	27,958			
Blue-green Algae	Cyanophyta	Nostocales	Aphanizomenonaceae	Aphanizomenon sp.	1	12,589,221	1,328,026	648,337	
Blue-green Algae	Cyanophyta	Nostocales	Aphanizomenonaceae	Dolichospermum sp.	1	19,139,587	272,595	229,233	
Blue-green Algae	Cyanophyta	Pseudanabaenales	Pseudanabaenaceae	Pseudanabaena sp.	1	204,921			
Blue-green Algae	Cyanophyta	Synechococcales	Coelosphaeriaceae	Coelomoron sp.	1	5,291,335	1,404,911		
Blue-green Algae	Cyanophyta	Synechococcales	Coelosphaeriaceae	Coelosphaerium sp.	1	4,218,638		881,208	
Blue-green Algae	Cyanophyta	Synechococcales	Merismopediaceae	Aphanocapsa sp.	1	30,595,567	407,727	1,041,969	
Blue-green Algae	Cyanophyta	Synechococcales	Synechococcaceae	Synechococcus sp.	1	398,368	20,969	8,931	
Blue-green Algae	Cyanophyta			Cyanophyte (coccoid unicell)		117,165		2,977	
Blue-green Algae	Cyanophyta			Cyanophyte (colony)		150,044			
				Total Blue-green Algae		190,227,928	13,742,153	9,802,782	0
Dinoflagellates	Miozoa	Gonyaulacales	Ceratiaceae	Ceratium hirundinella	1	22,185		2,977	
Dinoflagellates	Miozoa	Gymnodiniales	Gymnodiniaceae	Gymnodinium fuscum		0			
Dinoflagellates	Miozoa	Gymnodiniales	Gymnodiniaceae	Gymnodinium sp.	1	506,208	6,990	11,908	
Dinoflagellates	Miozoa	Peridinales	Peridiniaceae	Peridinium sp.	1	43,685	3,495		
				Total Dinoflagellates		572,078	10,484	14,885	0
				Total Phytoplankton		285,383,278	14,545,958	10,606,587	4,791,914
				Total Unique Taxa	62		29	29	8



Total Phytoplankton Density (cells/L) for Minnow Environmental Inc. Mount Polley, 2023

Biologica Sample ID					fp23-092-020		fp23-092-021	fp23-092-022	
Client Sample ID					QUL-ZOO-1_PHYTO-2_2023-07		QUL-ZOO-1_PHYTO-3_2023-07	QUL-ZOO-1_PHYTO-4_2023-07	
Date Sampled					26-Jul-23		26-Jul-23	26-Jul-23	
Common Name	Phylum	Order	Family	Taxon	Grand Total		Total Density (cells/L)	Total Density (cells/L)	Total Density (cells/L)
					Unique Taxa	Density (cells/L)			
Diatoms	Bacillariophyta	Aulacoseirales	Aulacoseiraceae	Aulacoseira sp.	1	154,090		30,916	
Diatoms	Bacillariophyta	Bacillariales	Bacillariaceae	Nitzschia sp.	1	2,977			
Diatoms	Bacillariophyta	Cocconeidales	Achnanthidiaceae	Achnanthidium sp.	1	2,977			
Diatoms	Bacillariophyta	Fragilariales	Fragilariaceae	Fragilaria crotonensis	1	20,095			
Diatoms	Bacillariophyta	Fragilariales	Fragilariaceae	Fragilaria sp.		14,801			
Diatoms	Bacillariophyta	Fragilariales	Staurosiraceae	Staurosira sp.	1	8,931			
Diatoms	Bacillariophyta	Fragilariales	Staurosiraceae	Staurosirella sp.	1	32,152			
Diatoms	Bacillariophyta	Rhabdonematales	Tabellariaceae	Asterionella formosa	1	323,513			
Diatoms	Bacillariophyta	Rhabdonematales	Tabellariaceae	Tabellaria fenestrata	1	251,134			
Diatoms	Bacillariophyta	Rhizosoleniales	Rhizosoleniaceae	Urosolenia sp.	1	36,893			
Diatoms	Bacillariophyta	Stephanodiscales	Stephanodiscaceae	Cyclotella sp.		267,981		61,831	15,458
Diatoms	Bacillariophyta	Stephanodiscales	Stephanodiscaceae	Cyclotella cf. atomus	1	770,289	15,458		92,747
Diatoms	Bacillariophyta	Stephanodiscales	Stephanodiscaceae	Lindavia sp.	1	51,259			15,458
Diatoms	Bacillariophyta			Centric diatom		73,594,549	4,544,590	4,683,710	4,931,034
Diatoms	Bacillariophyta			Pennate diatom		17,094			
				Total Diatoms		75,548,735	4,560,048	4,776,457	5,054,697
Green Algae	Charophyta	Desmidiiales	Closteriaceae	Closterium sp.	1	6,174			
Green Algae	Charophyta	Klebsormidiales	Elakatotrichaceae	Elakatotrix sp.	1	188,555			15,458
Green Algae	Chlorophyta	Chlamydomonadales	Chlamydomonadaceae	Chlamydomonas sp.	1	6,183			
Green Algae	Chlorophyta	Chlamydomonadales	Sphaerocystidaceae	Sphaerocystis sp.	1	901,091			
Green Algae	Chlorophyta	Chlorellales	Chlorellaceae	Dictyosphaerium sp.		0			
Green Algae	Chlorophyta	Chlorellales	Oocystaceae	Nephrocytium sp.	1	88,723			
Green Algae	Chlorophyta	Chlorellales	Oocystaceae	Oocystis sp.	1	703,674		15,458	
Green Algae	Chlorophyta	Prasiolales	Prasiolaceae	Stichococcus sp.	1	98,815			15,458
Green Algae	Chlorophyta	Pyramimonadales	Pyramimonadaceae	Pyramimonas sp.	1	36,272			
Green Algae	Chlorophyta	Sphaeropleales	Characiaceae	Ankyra sp.	1	503,300			
Green Algae	Chlorophyta	Sphaeropleales	Hydrodictyaceae	Pseudopediastrum boryanum	1	75,652			
Green Algae	Chlorophyta	Sphaeropleales	Hydrodictyaceae	Tetraedron sp.	1	22,447			
Green Algae	Chlorophyta	Sphaeropleales	Scenedesmaceae	Desmodesmus sp.	1	27,366			
Green Algae	Chlorophyta	Sphaeropleales	Scenedesmaceae	Scenedesmus arcuatus	1	418,136			
Green Algae	Chlorophyta	Sphaeropleales	Scenedesmaceae	Scenedesmus sp.		29,473			
Green Algae	Chlorophyta	Sphaeropleales	Schizochlamydeaceae	Planktosphaeria sp.	1	29,026			
Green Algae	Chlorophyta	Sphaeropleales	Selenastraceae	Monoraphidium sp.	1	56,361			
Green Algae	Chlorophyta	Sphaeropleales	Selenastraceae	Quadrigula sp.	1	56,739			
Green Algae	Chlorophyta	Trebouxiales	Botryococcaceae	Botryococcus sp.	1	79,235			
Green Algae	Chlorophyta	Trebouxiophyceae ordo incertae sedis	Trebouxiophyceae incertae sedis	Crucigenia sp.	1	35,725			
Green Algae	Chlorophyta			Chlorophyte		18,380			
				Total Green Algae		3,381,329	0	15,458	30,916



Total Phytoplankton Density (cells/L) for Minnow Environmental Inc. Mount Polley, 2023

Biologica Sample ID					fp23-092-020		fp23-092-021	fp23-092-022	
Client Sample ID					QUL-ZOO-1_PHYTO-2_2023-07		QUL-ZOO-1_PHYTO-3_2023-07	QUL-ZOO-1_PHYTO-4_2023-07	
Date Sampled					26-Jul-23		26-Jul-23	26-Jul-23	
Common Name	Phylum	Order	Family	Taxon	Grand Total		Total Density	Total Density	Total Density
					Unique Taxa	Density (cells/L)	(cells/L)	(cells/L)	(cells/L)
Golden Algae	Haptophyta	Prymnesiales	Chrysochromulinaceae	Chrysochromulina sp.	1	368,648			
Golden Algae	Ochrophyta	Chromulinales	Chromulinaceae	Uroglena sp.	1	755,359			
Golden Algae	Ochrophyta	Chromulinales	Dinobryaceae	Chrysolykos sp.	1	10,717			
Golden Algae	Ochrophyta	Chromulinales	Dinobryaceae	Dinobryon bavaricum	1	42,870			
Golden Algae	Ochrophyta	Chromulinales	Dinobryaceae	Dinobryon borgei	1	8,038			
Golden Algae	Ochrophyta	Chromulinales	Dinobryaceae	Dinobryon crenulatum	1	400,666	61,831	46,373	61,831
Golden Algae	Ochrophyta	Chromulinales	Dinobryaceae	Dinobryon divergens	1	165,971			
Golden Algae	Ochrophyta	Chromulinales	Dinobryaceae	Dinobryon sp.		242,939	15,458	15,458	
Golden Algae	Ochrophyta	Chromulinales	Dinobryaceae	Epipyxis sp.	1	85,325			
Golden Algae	Ochrophyta	Chromulinales	Dinobryaceae	Kephyrion/Pseudokephyrion sp.	1	328,278			15,458
Golden Algae	Ochrophyta	Hibberdiniales	Stylococccaceae	Bitrichia sp.	1	91,884			
Golden Algae	Ochrophyta	Pedinellales	Pedinellaceae	Pseudopedinella sp.	1	38,530			
Golden Algae	Ochrophyta	Phaeothamniales	Phaeothamniaceae	Stichogloea sp.	1	8,074,938	92,747		
Golden Algae	Ochrophyta	Synurales	Mallomonadaceae	Mallomonas akrokomos	1	21,174			
Golden Algae	Ochrophyta	Synurales	Mallomonadaceae	Mallomonas sp.		286,813			46,373
Golden Algae	Ochrophyta	Synurales	Synuraceae	Spiniferomonas sp.	1	2,977			
Golden Algae	Ochrophyta			Chrysophyte		99,712	15,458		
				Total Golden Algae		11,024,839	185,493	61,831	123,662
Cryptomonads	Cryptophyta	Cryptomonadales	Cryptomonadaceae	Cryptomonas sp.	1	684,987	15,458	30,916	15,458
Cryptomonads	Cryptophyta	Pyrenomonadales	Geminigeraceae	Plagioselmis nannoplanctica	1	3,903,062	61,831	61,831	77,289
Cryptomonads	Katablepharidophyta	Katablephariales	Katablepharidaceae	Katablepharis ovalis	1	4,834			
				Total Cryptomonads		4,592,883	77,289	92,747	92,747
Euglenoids	Euglenozoa	Euglenida	Euglenidae	Euglena sp.	1	3,495			
Euglenoids	Euglenozoa	Euglenida	Euglenidae	Trachelomonas sp.	1	31,990			
				Total Euglenoids		35,485	0	0	0
Blue-green Algae	Cyanophyta	Chroococcales	Aphanothecaceae	Aphanothece sp.	1	117,012,226			
Blue-green Algae	Cyanophyta	Chroococcales	Chroococcaceae	Chroococcus sp.	1	482,899			
Blue-green Algae	Cyanophyta	Chroococcales	Gomposphaeriaceae	Gomposphaeria sp.	1	27,958			
Blue-green Algae	Cyanophyta	Nostocales	Aphanizomenonaceae	Aphanizomenon sp.	1	12,589,221			
Blue-green Algae	Cyanophyta	Nostocales	Aphanizomenonaceae	Dolichospermum sp.	1	19,139,587			
Blue-green Algae	Cyanophyta	Pseudanabaenales	Pseudanabaenaceae	Pseudanabaena sp.	1	204,921			
Blue-green Algae	Cyanophyta	Synechococcales	Coelosphaeriaceae	Coelomoron sp.	1	5,291,335			
Blue-green Algae	Cyanophyta	Synechococcales	Coelosphaeriaceae	Coelosphaerium sp.	1	4,218,638			
Blue-green Algae	Cyanophyta	Synechococcales	Merismopediaceae	Aphanocapsa sp.	1	30,595,567			
Blue-green Algae	Cyanophyta	Synechococcales	Synechococcaceae	Synechococcus sp.	1	398,368	15,458		
Blue-green Algae	Cyanophyta			Cyanophyte (coccoid unicell)		117,165			
Blue-green Algae	Cyanophyta			Cyanophyte (colony)		150,044			
				Total Blue-green Algae		190,227,928	15,458	0	0
Dinoflagellates	Miozoa	Gonyaulacales	Ceratiaceae	Ceratium hirundinella	1	22,185			
Dinoflagellates	Miozoa	Gymnodiniales	Gymnodiniaceae	Gymnodinium fuscum		0			
Dinoflagellates	Miozoa	Gymnodiniales	Gymnodiniaceae	Gymnodinium sp.	1	506,208	30,916	30,916	15,458
Dinoflagellates	Miozoa	Peridinales	Peridiniaceae	Peridinium sp.	1	43,685			
				Total Dinoflagellates		572,078	30,916	30,916	15,458
				Total Phytoplankton		285,383,278	4,869,203	4,977,408	5,317,479
				Total Unique Taxa	62		7	7	10



Total Phytoplankton Density (cells/L) for Minnow Environmental Inc. Mount Polley, 2023

Biologica Sample ID					fp23-092-023		fp23-092-024	fp23-092-025	
Client Sample ID					QUL-ZOO-1_PHYTO-5_2023-07		QUL-ZOO-7_PHYTO-1_2023-07	QUL-ZOO-7_PHYTO-2_2023-07	
Date Sampled					26-Jul-23		26-Jul-23	26-Jul-23	
Common Name	Phylum	Order	Family	Taxon	Grand Total		Total Density	Total Density	Total Density
					Unique Taxa	Density (cells/L)	(cells/L)	(cells/L)	(cells/L)
Diatoms	Bacillariophyta	Aulacoseirales	Aulacoseiraceae	Aulacoseira sp.	1	154,090			
Diatoms	Bacillariophyta	Bacillariales	Bacillariaceae	Nitzschia sp.	1	2,977			
Diatoms	Bacillariophyta	Cocconeidales	Achnanthidiaceae	Achnanthidium sp.	1	2,977			
Diatoms	Bacillariophyta	Fragilariales	Fragilariaceae	Fragilaria crotonensis	1	20,095	20,095		
Diatoms	Bacillariophyta	Fragilariales	Fragilariaceae	Fragilaria sp.		14,801			
Diatoms	Bacillariophyta	Fragilariales	Staurosiraceae	Staurosira sp.	1	8,931			
Diatoms	Bacillariophyta	Fragilariales	Staurosiraceae	Staurosirella sp.	1	32,152			
Diatoms	Bacillariophyta	Rhabdonematales	Tabellariaceae	Asterionella formosa	1	323,513			
Diatoms	Bacillariophyta	Rhabdonematales	Tabellariaceae	Tabellaria fenestrata	1	251,134			
Diatoms	Bacillariophyta	Rhizosoleniales	Rhizosoleniaceae	Urosolenia sp.	1	36,893		15,458	
Diatoms	Bacillariophyta	Stephanodiscales	Stephanodiscaceae	Cyclotella sp.		267,981		15,458	
Diatoms	Bacillariophyta	Stephanodiscales	Stephanodiscaceae	Cyclotella cf. atomus	1	770,289	80,380		80,380
Diatoms	Bacillariophyta	Stephanodiscales	Stephanodiscaceae	Lindavia sp.	1	51,259			
Diatoms	Bacillariophyta			Centric diatom		73,594,549	6,309,869	4,822,830	6,792,152
Diatoms	Bacillariophyta			Pennate diatom		17,094			
				Total Diatoms		75,548,735	6,410,345	4,853,746	6,872,533
Green Algae	Charophyta	Desmidiiales	Closteriaceae	Closterium sp.	1	6,174			
Green Algae	Charophyta	Klebsormidiales	Elakatothricaceae	Elakatothrix sp.	1	188,555			
Green Algae	Chlorophyta	Chlamydomonadales	Chlamydomonadaceae	Chlamydomonas sp.	1	6,183			
Green Algae	Chlorophyta	Chlamydomonadales	Sphaerocystidaceae	Sphaerocystis sp.	1	901,091			
Green Algae	Chlorophyta	Chlorellales	Chlorellaceae	Dictyosphaerium sp.		0			
Green Algae	Chlorophyta	Chlorellales	Oocystaceae	Nephrocytium sp.	1	88,723		15,458	
Green Algae	Chlorophyta	Chlorellales	Oocystaceae	Oocystis sp.	1	703,674			
Green Algae	Chlorophyta	Prasiolales	Prasiolaceae	Stichococcus sp.	1	98,815			
Green Algae	Chlorophyta	Pyramimonadales	Pyramimonadaceae	Pyramimonas sp.	1	36,272			
Green Algae	Chlorophyta	Sphaeropleales	Characiaceae	Ankyra sp.	1	503,300			
Green Algae	Chlorophyta	Sphaeropleales	Hydrodictyaceae	Pseudopediastrum boryanum	1	75,652			
Green Algae	Chlorophyta	Sphaeropleales	Hydrodictyaceae	Tetraedron sp.	1	22,447			
Green Algae	Chlorophyta	Sphaeropleales	Scenedesmaceae	Desmodesmus sp.	1	27,366			
Green Algae	Chlorophyta	Sphaeropleales	Scenedesmaceae	Scenedesmus arcuatus	1	418,136			
Green Algae	Chlorophyta	Sphaeropleales	Scenedesmaceae	Scenedesmus sp.		29,473			
Green Algae	Chlorophyta	Sphaeropleales	Schizochlamydeaceae	Planktosphaeria sp.	1	29,026			
Green Algae	Chlorophyta	Sphaeropleales	Selenastraceae	Monoraphidium sp.	1	56,361			
Green Algae	Chlorophyta	Sphaeropleales	Selenastraceae	Quadrigula sp.	1	56,739			
Green Algae	Chlorophyta	Trebouxiales	Botryococcaceae	Botryococcus sp.	1	79,235			
Green Algae	Chlorophyta	Trebouxiophyceae ordo incertae sedis	Trebouxiophyceae incertae sedis	Crucigenia sp.	1	35,725			
Green Algae	Chlorophyta			Chlorophyte		18,380			
				Total Green Algae		3,381,329	0	15,458	0



Total Phytoplankton Density (cells/L) for Minnow Environmental Inc. Mount Polley, 2023

Biologica Sample ID					fp23-092-023		fp23-092-024	fp23-092-025	
Client Sample ID					QUL-ZOO-1_PHYTO-5_2023-07		QUL-ZOO-7_PHYTO-1_2023-07	QUL-ZOO-7_PHYTO-2_2023-07	
Date Sampled					26-Jul-23		26-Jul-23	26-Jul-23	
Common Name	Phylum	Order	Family	Taxon	Grand Total		Total Density	Total Density	Total Density
					Unique Taxa	Density (cells/L)	(cells/L)	(cells/L)	(cells/L)
Golden Algae	Haptophyta	Prymnesiales	Chrysochromulinaceae	Chrysochromulina sp.	1	368,648			
Golden Algae	Ochrophyta	Chromulinales	Chromulinaceae	Uroglena sp.	1	755,359			
Golden Algae	Ochrophyta	Chromulinales	Dinobryaceae	Chrysolykos sp.	1	10,717			
Golden Algae	Ochrophyta	Chromulinales	Dinobryaceae	Dinobryon bavaricum	1	42,870			
Golden Algae	Ochrophyta	Chromulinales	Dinobryaceae	Dinobryon borgei	1	8,038			
Golden Algae	Ochrophyta	Chromulinales	Dinobryaceae	Dinobryon crenulatum	1	400,666			
Golden Algae	Ochrophyta	Chromulinales	Dinobryaceae	Dinobryon divergens	1	165,971			
Golden Algae	Ochrophyta	Chromulinales	Dinobryaceae	Dinobryon sp.		242,939	30,916		20,095
Golden Algae	Ochrophyta	Chromulinales	Dinobryaceae	Epipyxis sp.	1	85,325			
Golden Algae	Ochrophyta	Chromulinales	Dinobryaceae	Kephyrion/Pseudokephyrion sp.	1	328,278			
Golden Algae	Ochrophyta	Hibberdiniales	Stylococaceae	Bitrichia sp.	1	91,884			
Golden Algae	Ochrophyta	Pedinellales	Pedinellaceae	Pseudopedinella sp.	1	38,530		15,458	
Golden Algae	Ochrophyta	Phaeothamniales	Phaeothamniaceae	Stichogloea sp.	1	8,074,938	120,571	30,916	80,380
Golden Algae	Ochrophyta	Synurales	Mallomonadaceae	Mallomonas akrokomos	1	21,174			
Golden Algae	Ochrophyta	Synurales	Mallomonadaceae	Mallomonas sp.		286,813			
Golden Algae	Ochrophyta	Synurales	Synuraceae	Spiniferomonas sp.	1	2,977			
Golden Algae	Ochrophyta			Chrysophyte		99,712			
				Total Golden Algae		11,024,839	120,571	77,289	100,476
Cryptomonads	Cryptophyta	Cryptomonadales	Cryptomonadaceae	Cryptomonas sp.	1	684,987	20,095	15,458	40,190
Cryptomonads	Cryptophyta	Pyrenomonadales	Geminigeraceae	Plagioselmis nannoplanctica	1	3,903,062	100,476	61,831	40,190
Cryptomonads	Katablepharidophyta	Katablephariales	Katablepharidaceae	Katablepharis ovalis	1	4,834			
				Total Cryptomonads		4,592,883	120,571	77,289	80,380
Euglenoids	Euglenozoa	Euglenida	Euglenidae	Euglena sp.	1	3,495			
Euglenoids	Euglenozoa	Euglenida	Euglenidae	Trachelomonas sp.	1	31,990			
				Total Euglenoids		35,485	0	0	0
Blue-green Algae	Cyanophyta	Chroococcales	Aphanothecaceae	Aphanothece sp.	1	117,012,226			
Blue-green Algae	Cyanophyta	Chroococcales	Chroococcaceae	Chroococcus sp.	1	482,899			
Blue-green Algae	Cyanophyta	Chroococcales	Gomposphaeriaceae	Gomposphaeria sp.	1	27,958			
Blue-green Algae	Cyanophyta	Nostocales	Aphanizomenonaceae	Aphanizomenon sp.	1	12,589,221			
Blue-green Algae	Cyanophyta	Nostocales	Aphanizomenonaceae	Dolichospermum sp.	1	19,139,587			
Blue-green Algae	Cyanophyta	Pseudanabaenales	Pseudanabaenaceae	Pseudanabaena sp.	1	204,921			
Blue-green Algae	Cyanophyta	Synechococcales	Coelosphaeriaceae	Coelomoron sp.	1	5,291,335			
Blue-green Algae	Cyanophyta	Synechococcales	Coelosphaeriaceae	Coelosphaerium sp.	1	4,218,638			
Blue-green Algae	Cyanophyta	Synechococcales	Merismopediaceae	Aphanocapsa sp.	1	30,595,567			
Blue-green Algae	Cyanophyta	Synechococcales	Synechococcaceae	Synechococcus sp.	1	398,368			
Blue-green Algae	Cyanophyta			Cyanophyte (coccolid unicell)		117,165			
Blue-green Algae	Cyanophyta			Cyanophyte (colony)		150,044			
				Total Blue-green Algae		190,227,928	0	0	0
Dinoflagellates	Miozoa	Gonyaulacales	Ceratiaceae	Ceratium hirundinella	1	22,185			
Dinoflagellates	Miozoa	Gymnodiniales	Gymnodiniaceae	Gymnodinium fuscum		0			
Dinoflagellates	Miozoa	Gymnodiniales	Gymnodiniaceae	Gymnodinium sp.	1	506,208		61,831	40,190
Dinoflagellates	Miozoa	Peridinales	Peridiniaceae	Peridinium sp.	1	43,685			20,095
				Total Dinoflagellates		572,078	0	61,831	60,285
				Total Phytoplankton		285,383,278	6,651,486	5,085,612	7,113,674
				Total Unique Taxa	62		5	9	7



Total Phytoplankton Density (cells/L) for Minnow Environmental Inc. Mount Polley, 2023

Biologica Sample ID					fp23-092-026		fp23-092-027	fp23-092-028	
Client Sample ID					QUL-ZOO-7_PHYTO-3_2023-07		QUL-ZOO-7_PHYTO-4_2023-07	QUL-ZOO-7_PHYTO-5_2023-07	
Date Sampled					26-Jul-23		26-Jul-23	26-Jul-23	
Common Name	Phylum	Order	Family	Taxon	Grand Total		Total Density	Total Density	Total Density
					Unique Taxa	Density (cells/L)	(cells/L)	(cells/L)	(cells/L)
Diatoms	Bacillariophyta	Aulacoseirales	Aulacoseiraceae	Aulacoseira sp.	1	154,090			
Diatoms	Bacillariophyta	Bacillariales	Bacillariaceae	Nitzschia sp.	1	2,977			
Diatoms	Bacillariophyta	Cocconeidales	Achnanthidiaceae	Achnanthidium sp.	1	2,977			
Diatoms	Bacillariophyta	Fragilariales	Fragilariaceae	Fragilaria crotonensis	1	20,095			
Diatoms	Bacillariophyta	Fragilariales	Fragilariaceae	Fragilaria sp.		14,801			
Diatoms	Bacillariophyta	Fragilariales	Staurosiraceae	Staurosira sp.	1	8,931			
Diatoms	Bacillariophyta	Fragilariales	Staurosiraceae	Staurosirella sp.	1	32,152			
Diatoms	Bacillariophyta	Rhabdonematales	Tabellariaceae	Asterionella formosa	1	323,513			
Diatoms	Bacillariophyta	Rhabdonematales	Tabellariaceae	Tabellaria fenestrata	1	251,134			
Diatoms	Bacillariophyta	Rhizosoleniales	Rhizosoleniaceae	Urosolenia sp.	1	36,893			
Diatoms	Bacillariophyta	Stephanodiscales	Stephanodiscaceae	Cyclotella sp.		267,981	60,285	15,458	
Diatoms	Bacillariophyta	Stephanodiscales	Stephanodiscaceae	Cyclotella cf. atomus	1	770,289	20,095	61,831	20,095
Diatoms	Bacillariophyta	Stephanodiscales	Stephanodiscaceae	Lindavia sp.	1	51,259			
Diatoms	Bacillariophyta			Centric diatom		73,594,549	5,968,252	4,374,554	6,731,867
Diatoms	Bacillariophyta			Pennate diatom		17,094			
				Total Diatoms		75,548,735	6,048,633	4,451,843	6,751,962
Green Algae	Charophyta	Desmidiiales	Closteriaceae	Closterium sp.	1	6,174			
Green Algae	Charophyta	Klebsormidiales	Elakatotrichaceae	Elakatotrix sp.	1	188,555		15,458	40,190
Green Algae	Chlorophyta	Chlamydomonadales	Chlamydomonadaceae	Chlamydomonas sp.	1	6,183			
Green Algae	Chlorophyta	Chlamydomonadales	Sphaerocystidaceae	Sphaerocystis sp.	1	901,091			
Green Algae	Chlorophyta	Chlorellales	Chlorellaceae	Dictyosphaerium sp.		0			
Green Algae	Chlorophyta	Chlorellales	Oocystaceae	Nephrocystium sp.	1	88,723			20,095
Green Algae	Chlorophyta	Chlorellales	Oocystaceae	Oocystis sp.	1	703,674		30,916	20,095
Green Algae	Chlorophyta	Prasiolales	Prasiolaceae	Stichococcus sp.	1	98,815	40,190		20,095
Green Algae	Chlorophyta	Pyramimonadales	Pyramimonadaceae	Pyramimonas sp.	1	36,272			
Green Algae	Chlorophyta	Sphaeropleales	Characiaceae	Ankyra sp.	1	503,300			
Green Algae	Chlorophyta	Sphaeropleales	Hydrodictyceae	Pseudopediastrum boryanum	1	75,652			
Green Algae	Chlorophyta	Sphaeropleales	Hydrodictyceae	Tetraedron sp.	1	22,447		15,458	
Green Algae	Chlorophyta	Sphaeropleales	Scenedesmaceae	Desmodesmus sp.	1	27,366			
Green Algae	Chlorophyta	Sphaeropleales	Scenedesmaceae	Scenedesmus arcuatus	1	418,136			
Green Algae	Chlorophyta	Sphaeropleales	Scenedesmaceae	Scenedesmus sp.		29,473			
Green Algae	Chlorophyta	Sphaeropleales	Schizochlamydeaceae	Planktosphaeria sp.	1	29,026	20,095		
Green Algae	Chlorophyta	Sphaeropleales	Selenastraceae	Monoraphidium sp.	1	56,361			
Green Algae	Chlorophyta	Sphaeropleales	Selenastraceae	Quadrigula sp.	1	56,739			
Green Algae	Chlorophyta	Trebouxiales	Botryococcaceae	Botryococcus sp.	1	79,235			
Green Algae	Chlorophyta	Trebouxiophyceae ordo incertae sedis	Trebouxiophyceae incertae sedis	Crucigenia sp.	1	35,725			
Green Algae	Chlorophyta			Chlorophyte		18,380			
				Total Green Algae		3,381,329	60,285	61,831	100,476



Total Phytoplankton Density (cells/L) for Minnow Environmental Inc. Mount Polley, 2023

Biologica Sample ID					fp23-092-026		fp23-092-027	fp23-092-028	
Client Sample ID					QUL-ZOO-7_PHYTO-3_2023-07		QUL-ZOO-7_PHYTO-4_2023-07	QUL-ZOO-7_PHYTO-5_2023-07	
Date Sampled					26-Jul-23		26-Jul-23	26-Jul-23	
Common Name	Phylum	Order	Family	Taxon	Grand Total		Total Density	Total Density	Total Density
					Unique Taxa	Density (cells/L)	(cells/L)	(cells/L)	(cells/L)
Golden Algae	Haptophyta	Prymnesiales	Chrysochromulinaceae	Chrysochromulina sp.	1	368,648			
Golden Algae	Ochrophyta	Chromulinales	Chromulinaceae	Uroglena sp.	1	755,359			
Golden Algae	Ochrophyta	Chromulinales	Dinobryaceae	Chrysolykos sp.	1	10,717			
Golden Algae	Ochrophyta	Chromulinales	Dinobryaceae	Dinobryon bavaricum	1	42,870			20,095
Golden Algae	Ochrophyta	Chromulinales	Dinobryaceae	Dinobryon borgei	1	8,038			
Golden Algae	Ochrophyta	Chromulinales	Dinobryaceae	Dinobryon crenulatum	1	400,666	80,380	30,916	60,285
Golden Algae	Ochrophyta	Chromulinales	Dinobryaceae	Dinobryon divergens	1	165,971			
Golden Algae	Ochrophyta	Chromulinales	Dinobryaceae	Dinobryon sp.		242,939	20,095	15,458	
Golden Algae	Ochrophyta	Chromulinales	Dinobryaceae	Epipyxis sp.	1	85,325			
Golden Algae	Ochrophyta	Chromulinales	Dinobryaceae	Kephyrion/Pseudokephyrion sp.	1	328,278	20,095	46,373	
Golden Algae	Ochrophyta	Hibberdiniales	Stylococaceae	Bitrichia sp.	1	91,884			
Golden Algae	Ochrophyta	Pedinellales	Pedinellaceae	Pseudopedinella sp.	1	38,530			
Golden Algae	Ochrophyta	Phaeothamniales	Phaeothamniaceae	Stichogloea sp.	1	8,074,938			
Golden Algae	Ochrophyta	Synurales	Mallomonadaceae	Mallomonas akrokomos	1	21,174			
Golden Algae	Ochrophyta	Synurales	Mallomonadaceae	Mallomonas sp.		286,813	40,190		
Golden Algae	Ochrophyta	Synurales	Synuraceae	Spiniferomonas sp.	1	2,977			
Golden Algae	Ochrophyta			Chrysophyte		99,712			
				Total Golden Algae		11,024,839	160,761	92,747	80,380
Cryptomonads	Cryptophyta	Cryptomonadales	Cryptomonadaceae	Cryptomonas sp.	1	684,987	40,190		40,190
Cryptomonads	Cryptophyta	Pyrenomonadales	Geminigeraceae	Plagioselmis nannoplanctica	1	3,903,062	40,190	77,289	261,237
Cryptomonads	Katablepharidophyta	Katablephariales	Katablepharidaceae	Katablepharis ovalis	1	4,834			
				Total Cryptomonads		4,592,883	80,380	77,289	301,427
Euglenoids	Euglenozoa	Euglenida	Euglenidae	Euglena sp.	1	3,495			
Euglenoids	Euglenozoa	Euglenida	Euglenidae	Trachelomonas sp.	1	31,990			
				Total Euglenoids		35,485	0	0	0
Blue-green Algae	Cyanophyta	Chroococcales	Aphanothecaceae	Aphanothece sp.	1	117,012,226			
Blue-green Algae	Cyanophyta	Chroococcales	Chroococcaceae	Chroococcus sp.	1	482,899			
Blue-green Algae	Cyanophyta	Chroococcales	Gomphosphaeriaceae	Gomphosphaeria sp.	1	27,958			
Blue-green Algae	Cyanophyta	Nostocales	Aphanizomenonaceae	Aphanizomenon sp.	1	12,589,221			
Blue-green Algae	Cyanophyta	Nostocales	Aphanizomenonaceae	Dolichospermum sp.	1	19,139,587			
Blue-green Algae	Cyanophyta	Pseudanabaenales	Pseudanabaenaceae	Pseudanabaena sp.	1	204,921			
Blue-green Algae	Cyanophyta	Synechococcales	Coelosphaeriaceae	Coelomoron sp.	1	5,291,335			
Blue-green Algae	Cyanophyta	Synechococcales	Coelosphaeriaceae	Coelosphaerium sp.	1	4,218,638			
Blue-green Algae	Cyanophyta	Synechococcales	Merismopediaceae	Aphanocapsa sp.	1	30,595,567	1,205,707	618,312	
Blue-green Algae	Cyanophyta	Synechococcales	Synechococcaceae	Synechococcus sp.	1	398,368			
Blue-green Algae	Cyanophyta			Cyanophyte (coccoid unicell)		117,165			
Blue-green Algae	Cyanophyta			Cyanophyte (colony)		150,044			
				Total Blue-green Algae		190,227,928	1,205,707	618,312	0
Dinoflagellates	Miozoa	Gonyaulacales	Ceratiaceae	Ceratium hirundinella	1	22,185			
Dinoflagellates	Miozoa	Gymnodiniales	Gymnodiniaceae	Gymnodinium fuscum		0			
Dinoflagellates	Miozoa	Gymnodiniales	Gymnodiniaceae	Gymnodinium sp.	1	506,208	20,095	46,373	40,190
Dinoflagellates	Miozoa	Peridinales	Peridiniaceae	Peridinium sp.	1	43,685	20,095		
				Total Dinoflagellates		572,078	40,190	46,373	40,190
				Total Phytoplankton		285,383,278	7,595,957	5,348,395	7,274,435
				Total Unique Taxa	62		11	9	10



Total Phytoplankton Density (cells/L) for Minnow Environmental Inc. Mount Polley, 2023

Biologica Sample ID					fp23-092-049		fp23-092-050	fp23-092-051	
Client Sample ID					POL-P2_PHYTO-1_2023-08		BOL-B2_PHYTO-1_2023-08	QUL-ZOO-1_PHYTO-1_2023-08	
Date Sampled					28-Aug-23		28-Aug-23	27-Aug-23	
Common Name	Phylum	Order	Family	Taxon	Grand Total		Total Density	Total Density	Total Density
					Unique Taxa	Density (cells/L)	(cells/L)	(cells/L)	(cells/L)
Diatoms	Bacillariophyta	Aulacoseirales	Aulacoseiraceae	Aulacoseira sp.	1	154,090	10,048		
Diatoms	Bacillariophyta	Bacillariales	Bacillariaceae	Nitzschia sp.	1	2,977			
Diatoms	Bacillariophyta	Cocconeidales	Achnanthidiaceae	Achnanthidium sp.	1	2,977			
Diatoms	Bacillariophyta	Fragilariales	Fragilariaceae	Fragilaria crotonensis	1	20,095			
Diatoms	Bacillariophyta	Fragilariales	Fragilariaceae	Fragilaria sp.		14,801			
Diatoms	Bacillariophyta	Fragilariales	Staurosiraceae	Staurosira sp.	1	8,931			
Diatoms	Bacillariophyta	Fragilariales	Staurosiraceae	Staurosirella sp.	1	32,152			
Diatoms	Bacillariophyta	Rhabdonematales	Tabellariaceae	Asterionella formosa	1	323,513	110,523		
Diatoms	Bacillariophyta	Rhabdonematales	Tabellariaceae	Tabellaria fenestrata	1	251,134		26,794	
Diatoms	Bacillariophyta	Rhizosoleniales	Rhizosoleniaceae	Urosolenia sp.	1	36,893			20,095
Diatoms	Bacillariophyta	Stephanodiscales	Stephanodiscaceae	Cyclotella sp.		267,981			
Diatoms	Bacillariophyta	Stephanodiscales	Stephanodiscaceae	Cyclotella cf. atomus	1	770,289			281,332
Diatoms	Bacillariophyta	Stephanodiscales	Stephanodiscaceae	Lindavia sp.	1	51,259	10,048		
Diatoms	Bacillariophyta			Centric diatom		73,594,549			9,886,801
Diatoms	Bacillariophyta			Pennate diatom		17,094			
				Total Diatoms		75,548,735	130,618	26,794	10,188,228
Green Algae	Charophyta	Desmidiiales	Closteriaceae	Closterium sp.	1	6,174			
Green Algae	Charophyta	Klebsormidiales	Elakatotrichaceae	Elakatotrix sp.	1	188,555			20,095
Green Algae	Chlorophyta	Chlamydomonadales	Chlamydomonadaceae	Chlamydomonas sp.	1	6,183			
Green Algae	Chlorophyta	Chlamydomonadales	Sphaerocystidaceae	Sphaerocystis sp.	1	901,091			
Green Algae	Chlorophyta	Chlorellales	Chlorellaceae	Dictyosphaerium sp.		0			
Green Algae	Chlorophyta	Chlorellales	Oocystaceae	Nephrocystium sp.	1	88,723		11,908	20,095
Green Algae	Chlorophyta	Chlorellales	Oocystaceae	Oocystis sp.	1	703,674	100,476	14,885	
Green Algae	Chlorophyta	Prasiolales	Prasiolaceae	Stichococcus sp.	1	98,815			20,095
Green Algae	Chlorophyta	Pyramimonadales	Pyramimonadaceae	Pyramimonas sp.	1	36,272		2,977	
Green Algae	Chlorophyta	Sphaeropleales	Characiaceae	Ankyra sp.	1	503,300		5,954	
Green Algae	Chlorophyta	Sphaeropleales	Hydrodictyaceae	Pseudopediastrum boryanum	1	75,652			
Green Algae	Chlorophyta	Sphaeropleales	Hydrodictyaceae	Tetraedron sp.	1	22,447			
Green Algae	Chlorophyta	Sphaeropleales	Scenedesmaceae	Desmodesmus sp.	1	27,366			
Green Algae	Chlorophyta	Sphaeropleales	Scenedesmaceae	Scenedesmus arcuatus	1	418,136			
Green Algae	Chlorophyta	Sphaeropleales	Scenedesmaceae	Scenedesmus sp.		29,473			
Green Algae	Chlorophyta	Sphaeropleales	Schizochlamydeaceae	Planktosphaeria sp.	1	29,026			
Green Algae	Chlorophyta	Sphaeropleales	Selenastraceae	Monoraphidium sp.	1	56,361	10,048		
Green Algae	Chlorophyta	Sphaeropleales	Selenastraceae	Quadrigula sp.	1	56,739			
Green Algae	Chlorophyta	Trebouxiales	Botryococcaceae	Botryococcus sp.	1	79,235			
Green Algae	Chlorophyta	Trebouxiophyceae ordo incertae sedis	Trebouxiophyceae incertae sedis	Crucigenia sp.	1	35,725		23,816	
Green Algae	Chlorophyta			Chlorophyte		18,380		8,931	
				Total Green Algae		3,381,329	110,523	68,472	60,285



Total Phytoplankton Density (cells/L) for Minnow Environmental Inc. Mount Polley, 2023

Biologica Sample ID					fp23-092-049		fp23-092-050	fp23-092-051	
Client Sample ID					POL-P2_PHYTO-1_2023-08		BOL-B2_PHYTO-1_2023-08	QUL-ZOO-1_PHYTO-1_2023-08	
Date Sampled					28-Aug-23		28-Aug-23	27-Aug-23	
Common Name	Phylum	Order	Family	Taxon	Grand Total		Total Density	Total Density	Total Density
					Unique Taxa	Density (cells/L)	(cells/L)	(cells/L)	(cells/L)
Golden Algae	Haptophyta	Prymnesiales	Chrysochromulinaceae	Chrysochromulina sp.	1	368,648		23,816	
Golden Algae	Ochrophyta	Chromulinales	Chromulinaceae	Uroglena sp.	1	755,359	10,048	65,495	
Golden Algae	Ochrophyta	Chromulinales	Dinobryaceae	Chrysolykos sp.	1	10,717			
Golden Algae	Ochrophyta	Chromulinales	Dinobryaceae	Dinobryon bavaricum	1	42,870			
Golden Algae	Ochrophyta	Chromulinales	Dinobryaceae	Dinobryon borgei	1	8,038			
Golden Algae	Ochrophyta	Chromulinales	Dinobryaceae	Dinobryon crenulatum	1	400,666			
Golden Algae	Ochrophyta	Chromulinales	Dinobryaceae	Dinobryon divergens	1	165,971			
Golden Algae	Ochrophyta	Chromulinales	Dinobryaceae	Dinobryon sp.		242,939			
Golden Algae	Ochrophyta	Chromulinales	Dinobryaceae	Epipyxis sp.	1	85,325			
Golden Algae	Ochrophyta	Chromulinales	Dinobryaceae	Kephyrion/Pseudokephyrion sp.	1	328,278			
Golden Algae	Ochrophyta	Hibberdiniales	Stylococccaceae	Bitrichia sp.	1	91,884			20,095
Golden Algae	Ochrophyta	Pedinellales	Pedinellaceae	Pseudopedinella sp.	1	38,530			
Golden Algae	Ochrophyta	Phaeothamniales	Phaeothamniaceae	Stichogloea sp.	1	8,074,938	3,255,410		
Golden Algae	Ochrophyta	Synurales	Mallomonadaceae	Mallomonas akrokomos	1	21,174			
Golden Algae	Ochrophyta	Synurales	Mallomonadaceae	Mallomonas sp.		286,813	10,048		20,095
Golden Algae	Ochrophyta	Synurales	Synuraceae	Spiniferomonas sp.	1	2,977		2,977	
Golden Algae	Ochrophyta			Chrysophyte		99,712		35,725	
				Total Golden Algae		11,024,839	3,275,505	128,013	40,190
Cryptomonads	Cryptophyta	Cryptomonadales	Cryptomonadaceae	Cryptomonas sp.	1	684,987	40,190	41,679	
Cryptomonads	Cryptophyta	Pyrenomonadales	Geminigeraceae	Plagioselmis nannoplanctica	1	3,903,062	180,856	250,073	20,095
Cryptomonads	Katablepharidophyta	Katablephariales	Katablepharidaceae	Katablepharis ovalis	1	4,834			
				Total Cryptomonads		4,592,883	221,046	291,751	20,095
Euglenoids	Euglenozoa	Euglenida	Euglenidae	Euglena sp.	1	3,495			
Euglenoids	Euglenozoa	Euglenida	Euglenidae	Trachelomonas sp.	1	31,990			
				Total Euglenoids		35,485	0	0	0
Blue-green Algae	Cyanophyta	Chroococcales	Aphanothecaceae	Aphanothece sp.	1	117,012,226	7,572,513	3,956,507	
Blue-green Algae	Cyanophyta	Chroococcales	Chroococcaceae	Chroococcus sp.	1	482,899			
Blue-green Algae	Cyanophyta	Chroococcales	Gomphosphaeriaceae	Gomphosphaeria sp.	1	27,958			
Blue-green Algae	Cyanophyta	Nostocales	Aphanizomenonaceae	Aphanizomenon sp.	1	12,589,221	60,285	4,065,807	
Blue-green Algae	Cyanophyta	Nostocales	Aphanizomenonaceae	Dolichospermum sp.	1	19,139,587	582,759	119,082	
Blue-green Algae	Cyanophyta	Pseudanabaenales	Pseudanabaenaceae	Pseudanabaena sp.	1	204,921		204,921	
Blue-green Algae	Cyanophyta	Synechococcales	Coelosphaeriaceae	Coelomoron sp.	1	5,291,335			
Blue-green Algae	Cyanophyta	Synechococcales	Coelosphaeriaceae	Coelosphaerium sp.	1	4,218,638	301,427		
Blue-green Algae	Cyanophyta	Synechococcales	Merismopediaceae	Aphanocapsa sp.	1	30,595,567	8,750,245	2,355,560	
Blue-green Algae	Cyanophyta	Synechococcales	Synechococcaceae	Synechococcus sp.	1	398,368	60,285		
Blue-green Algae	Cyanophyta			Cyanophyte (coccooid unicell)		117,165			
Blue-green Algae	Cyanophyta			Cyanophyte (colony)		150,044			
				Total Blue-green Algae		190,227,928	17,327,514	10,701,877	0
Dinoflagellates	Miozoa	Gonyaulacales	Ceratiaceae	Ceratium hirundinella	1	22,185	10,048		
Dinoflagellates	Miozoa	Gymnodiniales	Gymnodiniaceae	Gymnodinium fuscum		0			
Dinoflagellates	Miozoa	Gymnodiniales	Gymnodiniaceae	Gymnodinium sp.	1	506,208	30,143	8,931	40,190
Dinoflagellates	Miozoa	Peridinales	Peridiniaceae	Peridinium sp.	1	43,685			
				Total Dinoflagellates		572,078	40,190	8,931	40,190
				Total Phytoplankton		285,383,278	21,105,397	11,225,839	10,348,989
				Total Unique Taxa	62		18	17	9



Total Phytoplankton Density (cells/L) for Minnow Environmental Inc. Mount Polley, 2023

Biologica Sample ID					fp23-092-052		fp23-092-001_QA	fp23-092-018_QA	
Client Sample ID					QUL-ZOO-7_PHYTO-1_2023-08		POL-P2_PHYTO-1_2023-06_QA	BOL-B2_PHYTO-5_2023-07_QA	
Date Sampled					27-Aug-23		20-Jun-23	27-Jul-23	
Common Name	Phylum	Order	Family	Taxon	Grand Total		Total Density	Total Density	Total Density
					Unique Taxa	Density (cells/L)	(cells/L)	(cells/L)	(cells/L)
Diatoms	Bacillariophyta	Aulacoseirales	Aulacoseiraceae	Aulacoseira sp.	1	154,090		23,816	20,839
Diatoms	Bacillariophyta	Bacillariales	Bacillariaceae	Nitzschia sp.	1	2,977			2,977
Diatoms	Bacillariophyta	Cocconeidales	Achnanthidiaceae	Achnanthidium sp.	1	2,977			
Diatoms	Bacillariophyta	Fragilariales	Fragilariaceae	Fragilaria crotonensis	1	20,095			
Diatoms	Bacillariophyta	Fragilariales	Fragilariaceae	Fragilaria sp.		14,801			
Diatoms	Bacillariophyta	Fragilariales	Staurosiraceae	Staurosira sp.	1	8,931			
Diatoms	Bacillariophyta	Fragilariales	Staurosiraceae	Staurosirella sp.	1	32,152			
Diatoms	Bacillariophyta	Rhabdonematales	Tabellariaceae	Asterionella formosa	1	323,513		101,220	2,977
Diatoms	Bacillariophyta	Rhabdonematales	Tabellariaceae	Tabellaria fenestrata	1	251,134			62,518
Diatoms	Bacillariophyta	Rhizosoleniales	Rhizosoleniaceae	Urosolenia sp.	1	36,893			
Diatoms	Bacillariophyta	Stephanodiscales	Stephanodiscaceae	Cyclotella sp.		267,981	20,095		
Diatoms	Bacillariophyta	Stephanodiscales	Stephanodiscaceae	Cyclotella cf. atomus	1	770,289	100,476		
Diatoms	Bacillariophyta	Stephanodiscales	Stephanodiscaceae	Lindavia sp.	1	51,259			
Diatoms	Bacillariophyta			Centric diatom		73,594,549	9,223,662	11,908	8,931
Diatoms	Bacillariophyta			Pennate diatom		17,094			
				Total Diatoms		75,548,735	9,344,233	136,945	98,243
Green Algae	Charophyta	Desmidiiales	Closteriaceae	Closterium sp.	1	6,174			
Green Algae	Charophyta	Klebsormidiales	Elakatothricaceae	Elakatothrix sp.	1	188,555	40,190		5,954
Green Algae	Chlorophyta	Chlamydomonadales	Chlamydomonadaceae	Chlamydomonas sp.	1	6,183			
Green Algae	Chlorophyta	Chlamydomonadales	Sphaerocystidaceae	Sphaerocystis sp.	1	901,091		235,187	26,794
Green Algae	Chlorophyta	Chlorellales	Chlorellaceae	Dictyosphaerium sp.		0			29,771
Green Algae	Chlorophyta	Chlorellales	Oocystaceae	Nephrocytium sp.	1	88,723			
Green Algae	Chlorophyta	Chlorellales	Oocystaceae	Oocystis sp.	1	703,674		47,633	44,656
Green Algae	Chlorophyta	Prasiolales	Prasiolaceae	Stichococcus sp.	1	98,815			
Green Algae	Chlorophyta	Pyramimonadales	Pyramimonadaceae	Pyramimonas sp.	1	36,272			2,977
Green Algae	Chlorophyta	Sphaeropleales	Characiaceae	Ankyra sp.	1	503,300		47,633	29,771
Green Algae	Chlorophyta	Sphaeropleales	Hydrodictyceae	Pseudopediastrum boryanum	1	75,652			
Green Algae	Chlorophyta	Sphaeropleales	Hydrodictyceae	Tetraedron sp.	1	22,447			
Green Algae	Chlorophyta	Sphaeropleales	Scenedesmaceae	Desmodesmus sp.	1	27,366			
Green Algae	Chlorophyta	Sphaeropleales	Scenedesmaceae	Scenedesmus arcuatus	1	418,136			38,702
Green Algae	Chlorophyta	Sphaeropleales	Scenedesmaceae	Scenedesmus sp.		29,473			
Green Algae	Chlorophyta	Sphaeropleales	Schizochlamydeaceae	Planktosphaeria sp.	1	29,026		2,977	
Green Algae	Chlorophyta	Sphaeropleales	Selenastraceae	Monoraphidium sp.	1	56,361			
Green Algae	Chlorophyta	Sphaeropleales	Selenastraceae	Quadrigula sp.	1	56,739			
Green Algae	Chlorophyta	Trebouxiales	Botryococcaceae	Botryococcus sp.	1	79,235			23,816
Green Algae	Chlorophyta	Trebouxiophyceae ordo incertae sedis	Trebouxiophyceae incertae sedis	Crucigenia sp.	1	35,725			11,908
Green Algae	Chlorophyta			Chlorophyte		18,380			5,954
				Total Green Algae		3,381,329	40,190	333,430	220,302



Total Phytoplankton Density (cells/L) for Minnow Environmental Inc. Mount Polley, 2023

Biologica Sample ID					fp23-092-052		fp23-092-001_QA	fp23-092-018_QA	
Client Sample ID					QUL-ZOO-7_PHYTO-1_2023-08		POL-P2_PHYTO-1_2023-06_QA	BOL-B2_PHYTO-5_2023-07_QA	
Date Sampled					27-Aug-23		20-Jun-23	27-Jul-23	
Common Name	Phylum	Order	Family	Taxon	Grand Total		Total Density	Total Density	Total Density
					Unique Taxa	Density (cells/L)	(cells/L)	(cells/L)	(cells/L)
Golden Algae	Haptophyta	Prymnesiales	Chrysochromulinaceae	Chrysochromulina sp.	1	368,648	40,190	2,977	17,862
Golden Algae	Ochrophyta	Chromulinales	Chromulinaceae	Uroglena sp.	1	755,359			5,954
Golden Algae	Ochrophyta	Chromulinales	Dinobryaceae	Chrysolykos sp.	1	10,717			
Golden Algae	Ochrophyta	Chromulinales	Dinobryaceae	Dinobryon bavaricum	1	42,870			
Golden Algae	Ochrophyta	Chromulinales	Dinobryaceae	Dinobryon borgei	1	8,038			
Golden Algae	Ochrophyta	Chromulinales	Dinobryaceae	Dinobryon crenulatum	1	400,666	20,095		
Golden Algae	Ochrophyta	Chromulinales	Dinobryaceae	Dinobryon divergens	1	165,971		151,830	
Golden Algae	Ochrophyta	Chromulinales	Dinobryaceae	Dinobryon sp.		242,939	60,285	17,862	
Golden Algae	Ochrophyta	Chromulinales	Dinobryaceae	Epipyxis sp.	1	85,325			2,977
Golden Algae	Ochrophyta	Chromulinales	Dinobryaceae	Kephyrion/Pseudokephyrion sp.	1	328,278	20,095		
Golden Algae	Ochrophyta	Hibberdiniales	Stylococcaceae	Bitrichia sp.	1	91,884	40,190		2,977
Golden Algae	Ochrophyta	Pedinellales	Pedinellaceae	Pseudopedinella sp.	1	38,530		2,977	2,977
Golden Algae	Ochrophyta	Phaeothamniales	Phaeothamniaceae	Stichogloea sp.	1	8,074,938			44,656
Golden Algae	Ochrophyta	Synurales	Mallomonadaceae	Mallomonas akrokomos	1	21,174			
Golden Algae	Ochrophyta	Synurales	Mallomonadaceae	Mallomonas sp.		286,813		50,610	8,931
Golden Algae	Ochrophyta	Synurales	Synuraceae	Spiniferomonas sp.	1	2,977			
Golden Algae	Ochrophyta			Chrysophyte		99,712		14,885	5,954
				Total Golden Algae		11,024,839	180,856	241,142	92,289
Cryptomonads	Cryptophyta	Cryptomonadales	Cryptomonadaceae	Cryptomonas sp.	1	684,987		62,518	23,816
Cryptomonads	Cryptophyta	Pyrenomonadales	Geminigeraceae	Plagioselmis nannoplanctica	1	3,903,062		110,151	279,843
Cryptomonads	Katablepharidophyta	Katablephariales	Katablepharidaceae	Katablepharis ovalis	1	4,834			
				Total Cryptomonads		4,592,883	0	172,669	303,660
Euglenoids	Euglenozoa	Euglenida	Euglenidae	Euglena sp.	1	3,495			
Euglenoids	Euglenozoa	Euglenida	Euglenidae	Trachelomonas sp.	1	31,990			2,977
				Total Euglenoids		35,485	0	0	2,977
Blue-green Algae	Cyanophyta	Chroococcales	Aphanothecaceae	Aphanothece sp.	1	117,012,226			5,575,281
Blue-green Algae	Cyanophyta	Chroococcales	Chroococcaceae	Chroococcus sp.	1	482,899			
Blue-green Algae	Cyanophyta	Chroococcales	Gomposphaeriaceae	Gomposphaeria sp.	1	27,958			
Blue-green Algae	Cyanophyta	Nostocales	Aphanizomenonaceae	Aphanizomenon sp.	1	12,589,221		44,656	719,852
Blue-green Algae	Cyanophyta	Nostocales	Aphanizomenonaceae	Dolichospermum sp.	1	19,139,587		276,866	133,968
Blue-green Algae	Cyanophyta	Pseudanabaenales	Pseudanabaenaceae	Pseudanabaena sp.	1	204,921			
Blue-green Algae	Cyanophyta	Synechococcales	Coelosphaeriaceae	Coelomoron sp.	1	5,291,335			
Blue-green Algae	Cyanophyta	Synechococcales	Coelosphaeriaceae	Coelosphaerium sp.	1	4,218,638			841,018
Blue-green Algae	Cyanophyta	Synechococcales	Merismopediaceae	Aphanocapsa sp.	1	30,595,567		235,187	1,136,044
Blue-green Algae	Cyanophyta	Synechococcales	Synechococcaceae	Synechococcus sp.	1	398,368			14,885
Blue-green Algae	Cyanophyta			Cyanophyte (coccolid unicell)		117,165			5,954
Blue-green Algae	Cyanophyta			Cyanophyte (colony)		150,044			
				Total Blue-green Algae		190,227,928	0	556,709	8,427,002
Dinoflagellates	Miozoa	Gonyaulacales	Ceratiaceae	Ceratium hirundinella	1	22,185			2,977
Dinoflagellates	Miozoa	Gymnodiniales	Gymnodiniaceae	Gymnodinium fuscum		0		2,977	
Dinoflagellates	Miozoa	Gymnodiniales	Gymnodiniaceae	Gymnodinium sp.	1	506,208	20,095		20,839
Dinoflagellates	Miozoa	Peridinales	Peridiniaceae	Peridinium sp.	1	43,685			
				Total Dinoflagellates		572,078	20,095	2,977	23,816
				Total Phytoplankton		285,383,278	9,585,375	1,443,872	9,168,289
				Total Unique Taxa	62		7	16	31



Total Phytoplankton Density (cells/L) for Minnow Environmental Inc. Mount Polley, 2023

Biologica Sample ID					fp23-092-028_QA		
Client Sample ID					QUL-ZOO-7_PHYTO-5_2023-07_QA		
Date Sampled					26-Jul-23		
Common Name	Phylum	Order	Family	Taxon	Grand Total		Total Density (cells/L)
					Unique Taxa	Density (cells/L)	
Diatoms	Bacillariophyta	Aulacoseirales	Aulacoseiraceae	Aulacoseira sp.	1	154,090	
Diatoms	Bacillariophyta	Bacillariales	Bacillariaceae	Nitzschia sp.	1	2,977	
Diatoms	Bacillariophyta	Cocconeidales	Achnanthidiaceae	Achnanthidium sp.	1	2,977	
Diatoms	Bacillariophyta	Fragilariales	Fragilariaceae	Fragilaria crotonensis	1	20,095	
Diatoms	Bacillariophyta	Fragilariales	Fragilariaceae	Fragilaria sp.		14,801	
Diatoms	Bacillariophyta	Fragilariales	Staurosiraceae	Staurosira sp.	1	8,931	
Diatoms	Bacillariophyta	Fragilariales	Staurosiraceae	Staurosirella sp.	1	32,152	
Diatoms	Bacillariophyta	Rhabdonematales	Tabellariaceae	Asterionella formosa	1	323,513	
Diatoms	Bacillariophyta	Rhabdonematales	Tabellariaceae	Tabellaria fenestrata	1	251,134	
Diatoms	Bacillariophyta	Rhizosoleniales	Rhizosoleniaceae	Urosolenia sp.	1	36,893	
Diatoms	Bacillariophyta	Stephanodiscales	Stephanodiscaceae	Cyclotella sp.		267,981	
Diatoms	Bacillariophyta	Stephanodiscales	Stephanodiscaceae	Cyclotella cf. atomus	1	770,289	20,095
Diatoms	Bacillariophyta	Stephanodiscales	Stephanodiscaceae	Lindavia sp.	1	51,259	
Diatoms	Bacillariophyta			Centric diatom		73,594,549	6,651,486
Diatoms	Bacillariophyta			Pennate diatom		17,094	
				Total Diatoms		75,548,735	6,671,581
Green Algae	Charophyta	Desmidiiales	Closteriaceae	Closterium sp.	1	6,174	
Green Algae	Charophyta	Klebsormidiales	Elakatotrichaceae	Elakatothrix sp.	1	188,555	
Green Algae	Chlorophyta	Chlamydomonadales	Chlamydomonadaceae	Chlamydomonas sp.	1	6,183	
Green Algae	Chlorophyta	Chlamydomonadales	Sphaerocystidaceae	Sphaerocystis sp.	1	901,091	
Green Algae	Chlorophyta	Chlorellales	Chlorellaceae	Dictyosphaerium sp.		0	
Green Algae	Chlorophyta	Chlorellales	Oocystaceae	Nephrocystium sp.	1	88,723	20,095
Green Algae	Chlorophyta	Chlorellales	Oocystaceae	Oocystis sp.	1	703,674	
Green Algae	Chlorophyta	Prasiolales	Prasiolaceae	Stichococcus sp.	1	98,815	
Green Algae	Chlorophyta	Pyramimonadales	Pyramimonadaceae	Pyramimonas sp.	1	36,272	
Green Algae	Chlorophyta	Sphaeropleales	Characiaceae	Ankyra sp.	1	503,300	
Green Algae	Chlorophyta	Sphaeropleales	Hydrodictyaceae	Pseudopediastrum boryanum	1	75,652	
Green Algae	Chlorophyta	Sphaeropleales	Hydrodictyaceae	Tetraedron sp.	1	22,447	20,095
Green Algae	Chlorophyta	Sphaeropleales	Scenedesmaceae	Desmodesmus sp.	1	27,366	
Green Algae	Chlorophyta	Sphaeropleales	Scenedesmaceae	Scenedesmus arcuatus	1	418,136	
Green Algae	Chlorophyta	Sphaeropleales	Scenedesmaceae	Scenedesmus sp.		29,473	
Green Algae	Chlorophyta	Sphaeropleales	Schizochlamydeaceae	Planktosphaeria sp.	1	29,026	
Green Algae	Chlorophyta	Sphaeropleales	Selenastraceae	Monoraphidium sp.	1	56,361	
Green Algae	Chlorophyta	Sphaeropleales	Selenastraceae	Quadrigula sp.	1	56,739	
Green Algae	Chlorophyta	Trebouxiales	Botryococcaceae	Botryococcus sp.	1	79,235	
Green Algae	Chlorophyta	Trebouxiophyceae ordo incertae sedis	Trebouxiophyceae incertae sedis	Crucigenia sp.	1	35,725	
Green Algae	Chlorophyta			Chlorophyte		18,380	
				Total Green Algae		3,381,329	40,190



Total Phytoplankton Density (cells/L) for Minnow Environmental Inc. Mount Polley, 2023

Biologica Sample ID					fp23-092-028_QA		
Client Sample ID					QUL-ZOO-7_PHYTO-5_2023-07_QA		
Date Sampled					26-Jul-23		
Common Name	Phylum	Order	Family	Taxon	Grand Total		Total Density (cells/L)
					Unique Taxa	Density (cells/L)	
Golden Algae	Haptophyta	Prymnesiales	Chrysochromulinaceae	Chrysochromulina sp.	1	368,648	
Golden Algae	Ochrophyta	Chromulinales	Chromulinaceae	Uroglena sp.	1	755,359	
Golden Algae	Ochrophyta	Chromulinales	Dinobryaceae	Chrysolykos sp.	1	10,717	
Golden Algae	Ochrophyta	Chromulinales	Dinobryaceae	Dinobryon bavaricum	1	42,870	
Golden Algae	Ochrophyta	Chromulinales	Dinobryaceae	Dinobryon borgei	1	8,038	
Golden Algae	Ochrophyta	Chromulinales	Dinobryaceae	Dinobryon crenulatum	1	400,666	80,380
Golden Algae	Ochrophyta	Chromulinales	Dinobryaceae	Dinobryon divergens	1	165,971	20,095
Golden Algae	Ochrophyta	Chromulinales	Dinobryaceae	Dinobryon sp.		242,939	
Golden Algae	Ochrophyta	Chromulinales	Dinobryaceae	Epipyxis sp.	1	85,325	
Golden Algae	Ochrophyta	Chromulinales	Dinobryaceae	Kephyrion/Pseudokephyrion sp.	1	328,278	
Golden Algae	Ochrophyta	Hibberdiniales	Stylococaceae	Bitrichia sp.	1	91,884	
Golden Algae	Ochrophyta	Pedinellales	Pedinellaceae	Pseudopedinella sp.	1	38,530	
Golden Algae	Ochrophyta	Phaeothamniales	Phaeothamniaceae	Stichogloea sp.	1	8,074,938	
Golden Algae	Ochrophyta	Synurales	Mallomonadaceae	Mallomonas akrokomos	1	21,174	
Golden Algae	Ochrophyta	Synurales	Mallomonadaceae	Mallomonas sp.		286,813	
Golden Algae	Ochrophyta	Synurales	Synuraceae	Spiniferomonas sp.	1	2,977	
Golden Algae	Ochrophyta			Chrysophyte		99,712	
				Total Golden Algae		11,024,839	100,476
Cryptomonads	Cryptophyta	Cryptomonadales	Cryptomonadaceae	Cryptomonas sp.	1	684,987	40,190
Cryptomonads	Cryptophyta	Pyrenomonadales	Geminigeraceae	Plagioselmis nannoplanctica	1	3,903,062	140,666
Cryptomonads	Katablepharidophyta	Katablephariales	Katablepharidaceae	Katablepharis ovalis	1	4,834	
				Total Cryptomonads		4,592,883	180,856
Euglenoids	Euglenozoa	Euglenida	Euglenidae	Euglena sp.	1	3,495	
Euglenoids	Euglenozoa	Euglenida	Euglenidae	Trachelomonas sp.	1	31,990	
				Total Euglenoids		35,485	0
Blue-green Algae	Cyanophyta	Chroococcales	Aphanothecaceae	Aphanothece sp.	1	117,012,226	
Blue-green Algae	Cyanophyta	Chroococcales	Chroococcaceae	Chroococcus sp.	1	482,899	
Blue-green Algae	Cyanophyta	Chroococcales	Gomphosphaeriaceae	Gomphosphaeria sp.	1	27,958	
Blue-green Algae	Cyanophyta	Nostocales	Aphanizomenonaceae	Aphanizomenon sp.	1	12,589,221	
Blue-green Algae	Cyanophyta	Nostocales	Aphanizomenonaceae	Dolichospermum sp.	1	19,139,587	
Blue-green Algae	Cyanophyta	Pseudanabaenales	Pseudanabaenaceae	Pseudanabaena sp.	1	204,921	
Blue-green Algae	Cyanophyta	Synechococcales	Coelosphaeriaceae	Coelomoron sp.	1	5,291,335	
Blue-green Algae	Cyanophyta	Synechococcales	Coelosphaeriaceae	Coelosphaerium sp.	1	4,218,638	
Blue-green Algae	Cyanophyta	Synechococcales	Merismopediaceae	Aphanocapsa sp.	1	30,595,567	
Blue-green Algae	Cyanophyta	Synechococcales	Synechococcaceae	Synechococcus sp.	1	398,368	
Blue-green Algae	Cyanophyta			Cyanophyte (coccooid unicell)		117,165	
Blue-green Algae	Cyanophyta			Cyanophyte (colony)		150,044	
				Total Blue-green Algae		190,227,928	0
Dinoflagellates	Miozoa	Gonyaulacales	Ceratiaceae	Ceratium hirundinella	1	22,185	
Dinoflagellates	Miozoa	Gymnodiniales	Gymnodiniaceae	Gymnodinium fuscum		0	
Dinoflagellates	Miozoa	Gymnodiniales	Gymnodiniaceae	Gymnodinium sp.	1	506,208	20,095
Dinoflagellates	Miozoa	Peridinales	Peridiniaceae	Peridinium sp.	1	43,685	
				Total Dinoflagellates		572,078	20,095
				Total Phytoplankton		285,383,278	7,013,199
				Total Unique Taxa	62		8

PLANKTON COMMUNITY

**Biologica Laboratory Reports fz23-092 Freshwater
Zooplankton - Methods
(Finalized November 14, 2023)**



Freshwater Zooplankton Enumeration and Identification Methods

Client: Minnow (Mt Polley Mining Corp)

Project: Mount Polley

Sample Inventory

Sample arrival: 26-Jun-23, 2-Aug-23, 5-Sep-23

Number of samples: 28 (4, 20, 4)

Number of jars: 28

Screen size: 50 μ m

Biologica project number: fz23-092

Upon arrival, the samples were examined and double-checked against the chain of custody to ensure that (1) all samples were accounted for, and (2) each sample had the appropriate number of jars as indicated on the COC. Any discrepancies were reported to the client and were resolved before further sample handling. Samples were transferred from 10% formalin into 70% ethanol and assigned a unique identification number.

Sample Processing

Freshwater zooplankton samples were analyzed in 2 fractions as follows:

(1) A "Coarse" fraction comprised of cladocerans, adult copepods, and copepodids, in which a minimum count of 200 organisms was obtained, and

(2) A "Fine" or "Micro" fraction, in which only copepod nauplii and rotifers were identified and enumerated. Processing of the micro fraction was completed to either a 100-count or a minimum of three sub-samples. The Micro fraction was analyzed using a 1-mL Sedgewick-Rafter counting chamber.

The Coarse fraction was analyzed in a Bogorov tray through a stereo microscope at 10-40x magnification. All organisms were identified by taxonomic experts to the lowest taxonomic level using a compound microscope (100-400x magnification), appropriate dissection tools, and standard taxonomic references. For copepods, the stage of development was also recorded (copepodite stages I-V) as is the sex for mature individuals (copepod stage VI).

Sub-sampling for all fractions was performed using Hensen-Stempel pipettes. Generally sub-samples are 1/10 of total sample volume for the "Coarse" fraction and 1/100 for the "Micro" fraction.

Zooplankton were identified to species wherever possible, although immature copepods lack differentiating features required for identification beyond order (e.g., Calanoida, Cyclopoida, or Harpacticoida). All identifications were performed using taxonomic references and collaborations with external experts, where necessary.

Table 1. Summary of zooplankton samples processed for Minnow (Mt Polley Mining Corp), Mount Polley, 2023.

Client Sample ID	Lake	Date Sampled	Biologica Sample ID	Fraction	Split	Specimens Counted
POL-P2_ZOO-1_2023-06	Polley	20-Jun-23	fz23-092-005	Coarse	4/250	220
				Fine	1/250	288
BOL-B2_ZOO-1_2023-06	Bootjack	21-Jun-23	fz23-092-006	Coarse	3/400	266
				Fine	1/400	356
QUL-ZOO-1_ZOO-1_2023-06	Quesnel	21-Jun-23	fz23-092-007	Coarse	7/100	254
				Fine	2/100	105
QUL-ZOO-7_ZOO-1_2023-06	Quesnel	21-Jun-23	fz23-092-008	Coarse	2/100	276
				Fine	1/100	168
POL-P2_ZOO-1_2023-07	Polley	27-Jul-23	fz23-092-029	Coarse	20/300	219
				Fine	2/300	128
POL-P2_ZOO-2_2023-07	Polley	27-Jul-23	fz23-092-030	Coarse	14/250	216
				Fine	1/250	110
POL-P2_ZOO-3_2023-07	Polley	27-Jul-23	fz23-092-031	Coarse	12/250	199
				Fine	2/250	179
POL-P2_ZOO-4_2023-07	Polley	27-Jul-23	fz23-092-032	Coarse	20/250	305
				Fine	1/250	134
POL-P2_ZOO-5_2023-07	Polley	27-Jul-23	fz23-092-033	Coarse	17/400	218
				Fine	3/400	121
BOL-B2_ZOO-1_2023-07	Bootjack	27-Jul-23	fz23-092-034	Coarse	25/200	294
				Fine	1/200	162
BOL-B2_ZOO-2_2023-07	Bootjack	27-Jul-23	fz23-092-035	Coarse	14/200	208
				Fine	1/200	142
BOL-B2_ZOO-3_2023-07	Bootjack	27-Jul-23	fz23-092-036	Coarse	13/400	217
				Fine	2/400	118
BOL-B2_ZOO-4_2023-07	Bootjack	27-Jul-23	fz23-092-037	Coarse	20/300	246
				Fine	1/300	120
BOL-B2_ZOO-5_2023-07	Bootjack	27-Jul-23	fz23-092-038	Coarse	22/200	221
				Fine	1/200	152
QUL-ZOO-1_ZOO-1_2023-07	Quesnel	26-Jul-23	fz23-092-039	Coarse	4/100	203
				Fine	1/100	195
QUL-ZOO-1_ZOO-2_2023-07	Quesnel	26-Jul-23	fz23-092-040	Coarse	6/200	234
				Fine	1/200	189
QUL-ZOO-1_ZOO-3_2023-07	Quesnel	26-Jul-23	fz23-092-041	Coarse	6/200	224
				Fine	1/200	189
QUL-ZOO-1_ZOO-4_2023-07	Quesnel	26-Jul-23	fz23-092-042	Coarse	4/200	234
				Fine	1/200	393
QUL-ZOO-1_ZOO-5_2023-07	Quesnel	26-Jul-23	fz23-092-043	Coarse	5/100	218
				Fine	1/100	221
QUL-ZOO-7_ZOO-1_2023-07	Quesnel	26-Jul-23	fz23-092-044	Coarse	4/200	227
				Fine	1/200	207
QUL-ZOO-7_ZOO-2_2023-07	Quesnel	26-Jul-23	fz23-092-045	Coarse	8/200	226
				Fine	1/200	235

Client Sample ID	Lake	Date Sampled	Biologica Sample ID	Fraction	Split	Specimens Counted
QUL-ZOO-7_ZOO-3_2023-07	Quesnel	26-Jul-23	fz23-092-046	Coarse	19/100	296
				Fine	1/100	160
QUL-ZOO-7_ZOO-4_2023-07	Quesnel	26-Jul-23	fz23-092-047	Coarse	5/200	230
				Fine	1/200	223
QUL-ZOO-7_ZOO-5_2023-07	Quesnel	26-Jul-23	fz23-092-048	Coarse	8/200	234
				Fine	1/200	220
POL-P2_ZOO-1_2023-08	Polley	28-Aug-23	fz23-092-053	Coarse	16/300	256
				Fine	2/300	101
BOL-B2_ZOO-1_2023-08	Bootjack	28-Aug-23	fz23-092-054	Coarse	14/200	218
				Fine	2/200	182
QUL-ZOO-1_ZOO-1_2023-08	Quesnel	27-Aug-23	fz23-092-055	Coarse	8/200	232
				Fine	1/200	186
QUL-ZOO-7_ZOO-1_2023-08	Quesnel	27-Aug-23	fz23-092-056	Coarse	6/100	218
				Fine	1/100	156

QA/QC

Ten percent of samples (n= 3) were reanalyzed to assess sub-sampling accuracy and taxonomic consistency. The samples were chosen at random and processed at different times to reduce counting and identification bias. The percent agreement between QA samples is reported in Table 2.

Table 2. Summary of enumeration QA/QC results for Minnow (Mt Polley Mining Corp), Mount Polley, 2023.

Client Sample ID	Biologica Sample ID	Original Total Abundance	QA Total Abundance	Percent Agreement
POL-P2_ZOO-1_2023-07	fz23-092-029	22,485	22,665	99.20
QUL-ZOO-1_ZOO-1_2023-07	fz23-092-039	24,575	24,200	98.47
BOL-B2_ZOO-1_2023-08	fz23-092-054	21,314	26,200	77.08
			Average:	91.58

Percent Agreement:

$100 - [(difference\ in\ abundance\ between\ samples / total\ abundance\ of\ original\ sample) \times 100]$

Data

Biomass calculations were also performed for the 7 dominant zooplankton taxa by measuring at least 5-10 specimens of each taxon and applying length/weight regression formulae (EPA, 2003). Biomass estimates were presented as total per-sample wet-weight and dry-weight values derived from per-sample abundances.

Taxonomic data were recorded in Biologica's custom database. Results were provided to the Minnow (Mt Polley Mining Corp) project manager in Excel spreadsheets via email.

Methodological and Taxonomic References

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Zooplankton Total Abundance Data Matrix for Minnow Environment Inc., Mount Polley, 2023

Biologica Sample ID							fz23-092-005	fz23-092-006	fz23-092-007	fz23-092-008	fz23-092-029
Lake							Polley	Bootjack	Quesnel	Quesnel	Polley
Client Sample ID							POL-P2_ZOO-1_2023-06	BOL-B2_ZOO-1_2023-06	QUL-ZOO-1_ZOO-1_2023-06	QUL-ZOO-7_ZOO-1_2023-06	POL-P2_ZOO-1_2023-07
Date Sampled							20-Jun-23	21-Jun-23	21-Jun-23	21-Jun-23	27-Jul-23
Groupcode	Major Group	Family	Taxon	Stage	Total	Total Abundance	Total Abundance	Total Abundance	Total Abundance	Total Abundance	Total Abundance
					Unique Taxa	(#/sample)	(#/sample)	(#/sample)	(#/sample)	(#/sample)	(#/sample)
CRCL	Crustacea Cladocera	Bosminidae	Eubosmina sp.	F	1	5,438		133	29	100	
CRCL	Crustacea Cladocera	Daphniidae	Daphnia longiremis	F	1	647	250				105
CRCL	Crustacea Cladocera	Daphniidae	Daphnia mendotae complex	F	1	23,823	6,063	4,000		250	240
CRCL	Crustacea Cladocera	Daphniidae	Daphnia pulex	F	1	632					75
CRCL	Crustacea Cladocera	Daphniidae	Daphnia sp.	F		45					
CRCL	Crustacea Cladocera	Daphniidae	Scapholeberis rammneri	F	1	232					
CRCL	Crustacea Cladocera	Daphniidae	Scapholeberis sp.	F		5					
CRCL	Crustacea Cladocera	Holopediidae	Holopedium sp.	F	1	11					
CRCL	Crustacea Cladocera	Leptodoridae	Leptodora kindtii	F	1	171				50	
CRCL	Crustacea Cladocera	Polyphemidae	Polyphemus pediculus	F	1	226					
			Total Cladocera			31,230	6,313	4,133	29	400	420
CRCO	Crustacea Copepoda Calanoida	Diaptomidae	Aglaodiaptomus leptopus	Vlf	1	331					30
CRCO	Crustacea Copepoda Calanoida	Diaptomidae	Aglaodiaptomus leptopus	Vlm		174					15
CRCO	Crustacea Copepoda Calanoida	Diaptomidae	Hesperodiaptomus sp.	Vlf	1	250					
CRCO	Crustacea Copepoda Calanoida	Diaptomidae	Hesperodiaptomus sp.	Vlm		25					
CRCO	Crustacea Copepoda Calanoida	Temoridae	Epischura sp.	Vlm	1	33					
CRCO	Crustacea Copepoda Calanoida		Calanoida indet.	I-V		31,968	250	2,933	343	1,850	375
CRCO	Crustacea Copepoda Calanoida		Calanoida indet.	Vlf		496	63	267			15
			Total Calanoida			33,277	313	3,200	343	1,850	435
CRCO	Crustacea Copepoda Cyclopoida	Cyclopidae	Diacyclops thomasi	Vlf	1	1,375	750		14		
CRCO	Crustacea Copepoda Cyclopoida	Cyclopidae	Diacyclops thomasi	Vlm		349	250				
CRCO	Crustacea Copepoda Cyclopoida		Cyclopoida indet.	I-V		125,562	6,125	28,133	3,243	11,550	2,430
CRCO	Crustacea Copepoda Cyclopoida		Cyclopoida indet.	Vlm		50					
			Total Cyclopoida			127,336	7,125	28,133	3,257	11,550	2,430
CRCO	Crustacea Copepoda Calanoida		Calanoida indet.	Nauplius		13,600		1,600	200	9,300	300
CRCO	Crustacea Copepoda Cyclopoida		Cyclopoida indet.	Nauplius		196,142	15,500	39,600	2,750	1,300	8,550
			Total Copepoda Nauplii			209,742	15,500	41,200	2,950	10,600	8,850
			Total Crustacean Zooplankton			401,584	29,250	76,667	6,579	24,400	12,135
INDI	Insecta Diptera	Chaoboridae	Chaoborus sp.	----	1	89					
			Total Diptera			89	0	0	0	0	0
ROTI	Rotifera	Conochilidae	Conochilus sp.	----	1	26,583	10,500	400	200	100	450
ROTI	Rotifera	Filiniidae	Filinia sp.	----	1	5,492	750				300
ROTI	Rotifera	Asplanchnidae	Asplanchna sp.	----	1	200					
ROTI	Rotifera	Brachionidae	Kellicottia sp.	----	1	377,358	40,000	94,400	1,050	4,400	6,450
ROTI	Rotifera	Brachionidae	Keratella sp. 1	----	1	243,775	500		600	1,200	2,100
ROTI	Rotifera	Brachionidae	Keratella sp. 2	----	1	7,625	500	1,200	50		150
ROTI	Rotifera	Brachionidae	Notholca sp.	----	1	200					
ROTI	Rotifera	Euchlanidae	Euchlanis sp.	----	1	0					
ROTI	Rotifera	Gastropodidae	Ascomorpha sp.	----	1	13,700	250		50		
ROTI	Rotifera	Gastropodidae	Gastropus sp.	----	1	31,150	1,000	5,200	150		600
ROTI	Rotifera	Lecanidae	Monostyla sp.	----	1	100					
ROTI	Rotifera	Synchaetidae	Polyarthra sp.	----	1	64,558	3,000		200	400	300
ROTI	Rotifera	Synchaetidae	Synchaetidae indet.	----		200					
ROTI	Rotifera	Trichocercidae	Trichocerca sp.	----	1	225				100	
			Total Rotifera			771,167	56,500	101,200	2,300	6,200	10,350
			Total Zooplankton			1,172,839	85,750	177,867	8,879	30,600	22,485
			Total Unique Taxa		26		12	8	10	10	12



Zooplankton Total Abundance Data Matrix for Minnow Environment Inc., Mount Polley, 2023

Biologica Sample ID							fz23-092-030	fz23-092-031	fz23-092-032	fz23-092-033	fz23-092-034
Lake							Polley	Polley	Polley	Polley	Bootjack
Client Sample ID							POL-P2_ZOO-2_2023-07	POL-P2_ZOO-3_2023-07	POL-P2_ZOO-4_2023-07	POL-P2_ZOO-5_2023-07	BOL-B2_ZOO-1_2023-07
Date Sampled							27-Jul-23	27-Jul-23	27-Jul-23	27-Jul-23	27-Jul-23
Groupcode	Major Group	Family	Taxon	Stage	Total	Total Abundance	Total Abundance	Total Abundance	Total Abundance	Total Abundance	
					Unique Taxa	(#/sample)	(#/sample)	(#/sample)	(#/sample)	(#/sample)	
CRCL	Crustacea Cladocera	Bosminidae	Eubosmina sp.	F	1	5,438			13	47	
CRCL	Crustacea Cladocera	Daphniidae	Daphnia longiremis	F	1	647	54	104	88	47	
CRCL	Crustacea Cladocera	Daphniidae	Daphnia mendotae complex	F	1	23,823	232	250	275	306	
CRCL	Crustacea Cladocera	Daphniidae	Daphnia pulex	F	1	632	107		63	71	
CRCL	Crustacea Cladocera	Daphniidae	Daphnia sp.	F		45					
CRCL	Crustacea Cladocera	Daphniidae	Scapholeberis rammneri	F	1	232					
CRCL	Crustacea Cladocera	Daphniidae	Scapholeberis sp.	F		5					
CRCL	Crustacea Cladocera	Holopediidae	Holopedium sp.	F	1	11					
CRCL	Crustacea Cladocera	Leptodoridae	Leptodora kindtii	F	1	171		21			
CRCL	Crustacea Cladocera	Polyphemidae	Polyphemus pediculus	F	1	226					
			Total Cladocera			31,230	393	375	438	471	256
CRCO	Crustacea Copepoda Calanoida	Diaptomidae	Aglaodiaptomus leptopus	Vlf	1	331	18	42	38		
CRCO	Crustacea Copepoda Calanoida	Diaptomidae	Aglaodiaptomus leptopus	Vlm		174	54	21	38	8	
CRCO	Crustacea Copepoda Calanoida	Diaptomidae	Hesperodiaptomus sp.	Vlf	1	250					
CRCO	Crustacea Copepoda Calanoida	Diaptomidae	Hesperodiaptomus sp.	Vlm		25					
CRCO	Crustacea Copepoda Calanoida	Temoridae	Epischura sp.	Vlm	1	33					
CRCO	Crustacea Copepoda Calanoida		Calanoida indet.	I-V		31,968	446	271	275	306	
CRCO	Crustacea Copepoda Calanoida		Calanoida indet.	Vlf		496		21		136	
			Total Calanoida			33,277	518	354	350	306	144
CRCO	Crustacea Copepoda Cyclopoida	Cyclopidae	Diacyclops thomasi	Vlf	1	1,375				24	
CRCO	Crustacea Copepoda Cyclopoida	Cyclopidae	Diacyclops thomasi	Vlm		349				8	
CRCO	Crustacea Copepoda Cyclopoida		Cyclopoida indet.	I-V		125,562	2,946	3,416	3,025	4,353	
CRCO	Crustacea Copepoda Cyclopoida		Cyclopoida indet.	Vlm		50				1,920	
			Total Cyclopoida			127,336	2,946	3,416	3,025	4,353	1,952
CRCO	Crustacea Copepoda Calanoida		Calanoida indet.	Nauplius		13,600	500	500		600	
CRCO	Crustacea Copepoda Cyclopoida		Cyclopoida indet.	Nauplius		196,142	11,000	10,125	16,500	6,267	
			Total Copepoda Nauplii			209,742	11,500	10,625	16,500	6,267	11,400
			Total Crustacean Zooplankton			401,584	15,357	14,770	20,313	11,396	13,752
INDI	Insecta Diptera	Chaoboridae	Chaoborus sp.	----	1	89					
			Total Diptera			89	0	0	0	0	0
ROTI	Rotifera	Conochilidae	Conochilus sp.	----	1	26,583	1,000	1,250	1,500	133	
ROTI	Rotifera	Filiniidae	Filinia sp.	----	1	5,492	500	1,125	500	667	
ROTI	Rotifera	Asplanchnidae	Asplanchna sp.	----	1	200				200	
ROTI	Rotifera	Brachionidae	Kellicottia sp.	----	1	377,358	10,500	6,125	11,500	6,533	
ROTI	Rotifera	Brachionidae	Keratella sp. 1	----	1	243,775	1,500	1,375	2,500	2,000	
ROTI	Rotifera	Brachionidae	Keratella sp. 2	----	1	7,625	500	375	250	400	
ROTI	Rotifera	Brachionidae	Notholca sp.	----	1	200					
ROTI	Rotifera	Euchlanidae	Euchlanis sp.	----	1	0					
ROTI	Rotifera	Gastropodidae	Ascomorpha sp.	----	1	13,700	250				
ROTI	Rotifera	Gastropodidae	Gastropus sp.	----	1	31,150		500		400	
ROTI	Rotifera	Lecanidae	Monostyla sp.	----	1	100					
ROTI	Rotifera	Synchaetidae	Polyarthra sp.	----	1	64,558	1,750	875	750	133	
ROTI	Rotifera	Synchaetidae	Synchaetidae indet.	----		200				600	
ROTI	Rotifera	Trichocercidae	Trichocerca sp.	----	1	225		125			
			Total Rotifera			771,167	16,000	11,750	17,000	9,867	21,000
			Total Zooplankton			1,172,839	31,357	26,520	37,313	21,263	34,752
			Total Unique Taxa		26		12	13	12	12	9



Zooplankton Total Abundance Data Matrix for Minnow Environment Inc., Mount Polley, 2023

Biologica Sample ID							fz23-092-035	fz23-092-036	fz23-092-037	fz23-092-038	fz23-092-039
Lake							Bootjack	Bootjack	Bootjack	Bootjack	Quesnel
Client Sample ID							BOL-B2_ZOO-2_2023-07	BOL-B2_ZOO-3_2023-07	BOL-B2_ZOO-4_2023-07	BOL-B2_ZOO-5_2023-07	QUL-ZOO-1_ZOO-1_2023-07
Date Sampled							27-Jul-23	27-Jul-23	27-Jul-23	27-Jul-23	26-Jul-23
Groupcode	Major Group	Family	Taxon	Stage	Total	Total Abundance	Total Abundance	Total Abundance	Total Abundance	Total Abundance	
					Unique Taxa	(#/sample)	(#/sample)	(#/sample)	(#/sample)	(#/sample)	
CRCL	Crustacea Cladocera	Bosminidae	Eubosmina sp.	F	1	5,438					75
CRCL	Crustacea Cladocera	Daphniidae	Daphnia longiremis	F	1	647					
CRCL	Crustacea Cladocera	Daphniidae	Daphnia mendotae complex	F	1	23,823	543	2,062	900	127	450
CRCL	Crustacea Cladocera	Daphniidae	Daphnia pulex	F	1	632				82	
CRCL	Crustacea Cladocera	Daphniidae	Daphnia sp.	F		45				45	
CRCL	Crustacea Cladocera	Daphniidae	Scapholeberis rammneri	F	1	232					
CRCL	Crustacea Cladocera	Daphniidae	Scapholeberis sp.	F		5					
CRCL	Crustacea Cladocera	Holopediidae	Holopedium sp.	F	1	11					
CRCL	Crustacea Cladocera	Leptodoridae	Leptodora kindtii	F	1	171					
CRCL	Crustacea Cladocera	Polyphemidae	Polyphemus pediculus	F	1	226					
			Total Cladocera			31,230	543	2,062	900	255	525
CRCO	Crustacea Copepoda Calanoida	Diaptomidae	Aglaodiaptomus leptopus	Vlf	1	331			30		
CRCO	Crustacea Copepoda Calanoida	Diaptomidae	Aglaodiaptomus leptopus	Vlm		174			15		
CRCO	Crustacea Copepoda Calanoida	Diaptomidae	Hesperodiaptomus sp.	Vlf	1	250					250
CRCO	Crustacea Copepoda Calanoida	Diaptomidae	Hesperodiaptomus sp.	Vlm		25					25
CRCO	Crustacea Copepoda Calanoida	Temoridae	Epischura sp.	Vlm	1	33					
CRCO	Crustacea Copepoda Calanoida		Calanoida indet.	I-V		31,968	43	246	180	82	1,200
CRCO	Crustacea Copepoda Calanoida		Calanoida indet.	Vlf		496	86	31		9	
			Total Calanoida			33,277	129	277	225	91	1,475
CRCO	Crustacea Copepoda Cyclopoida	Cyclopidae	Diacyclops thomasi	Vlf	1	1,375	114	123	90	91	50
CRCO	Crustacea Copepoda Cyclopoida	Cyclopidae	Diacyclops thomasi	Vlm		349		31	60		
CRCO	Crustacea Copepoda Cyclopoida		Cyclopoida indet.	I-V		125,562	2,157	4,154	2,400	1,573	3,025
CRCO	Crustacea Copepoda Cyclopoida		Cyclopoida indet.	Vlm		50					
			Total Cyclopoida			127,336	2,271	4,308	2,550	1,664	3,075
CRCO	Crustacea Copepoda Calanoida		Calanoida indet.	Nauplius		13,600		200			
CRCO	Crustacea Copepoda Cyclopoida		Cyclopoida indet.	Nauplius		196,142	9,000	5,600	15,300	7,800	2,200
			Total Copepoda Nauplii			209,742	9,000	5,800	15,300	7,800	2,200
			Total Crustacean Zooplankton			401,584	11,943	12,446	18,975	9,809	7,275
INDI	Insecta Diptera	Chaoboridae	Chaoborus sp.	----	1	89	29	31	15		
			Total Diptera			89	29	31	15	0	0
ROTI	Rotifera	Conochilidae	Conochilus sp.	----	1	26,583	200	200	300	400	500
ROTI	Rotifera	Filiniidae	Filinia sp.	----	1	5,492		200		600	200
ROTI	Rotifera	Asplanchnidae	Asplanchna sp.	----	1	200	200				
ROTI	Rotifera	Brachionidae	Kellicottia sp.	----	1	377,358	15,600	12,200	15,000	17,400	7,000
ROTI	Rotifera	Brachionidae	Keratella sp. 1	----	1	243,775	800	1,400	1,800	600	8,400
ROTI	Rotifera	Brachionidae	Keratella sp. 2	----	1	7,625	1,000	400	900	400	
ROTI	Rotifera	Brachionidae	Notholca sp.	----	1	200					
ROTI	Rotifera	Euchlanidae	Euchlanis sp.	----	1	0					
ROTI	Rotifera	Gastropodidae	Ascomorpha sp.	----	1	13,700					
ROTI	Rotifera	Gastropodidae	Gastropus sp.	----	1	31,150	1,000	1,200	900	2,000	700
ROTI	Rotifera	Lecanidae	Monostyla sp.	----	1	100					100
ROTI	Rotifera	Synchaetidae	Polyarthra sp.	----	1	64,558	600	2,200	1,800	1,200	400
ROTI	Rotifera	Synchaetidae	Synchaetidae indet.	----		200					
ROTI	Rotifera	Trichocercidae	Trichocerca sp.	----	1	225					
			Total Rotifera			771,167	19,400	17,800	20,700	22,600	17,300
			Total Zooplankton			1,172,839	31,371	30,277	39,690	32,409	24,575
			Total Unique Taxa		26		11	11	10	11	11



Zooplankton Total Abundance Data Matrix for Minnow Environment Inc., Mount Polley, 2023

Biologica Sample ID							fz23-092-040	fz23-092-041	fz23-092-042	fz23-092-043	fz23-092-044
Lake							Quesnel	Quesnel	Quesnel	Quesnel	Quesnel
Client Sample ID							QUL-ZOO-1_ZOO-2_2023-07	QUL-ZOO-1_ZOO-3_2023-07	QUL-ZOO-1_ZOO-4_2023-07	QUL-ZOO-1_ZOO-5_2023-07	QUL-ZOO-7_ZOO-1_2023-07
Date Sampled							26-Jul-23	26-Jul-23	26-Jul-23	26-Jul-23	26-Jul-23
Groupcode	Major Group	Family	Taxon	Stage	Total	Total Abundance	Total Abundance	Total Abundance	Total Abundance	Total Abundance	Total Abundance
					Unique Taxa	(#/sample)	(#/sample)	(#/sample)	(#/sample)	(#/sample)	(#/sample)
CRCL	Crustacea Cladocera	Bosminidae	Eubosmina sp.	F	1	5,438	520	300	1,150	280	950
CRCL	Crustacea Cladocera	Daphniidae	Daphnia longiremis	F	1	647					
CRCL	Crustacea Cladocera	Daphniidae	Daphnia mendotae complex	F	1	23,823	520	567	600	220	1,150
CRCL	Crustacea Cladocera	Daphniidae	Daphnia pulex	F	1	632					
CRCL	Crustacea Cladocera	Daphniidae	Daphnia sp.	F		45					
CRCL	Crustacea Cladocera	Daphniidae	Scapholeberis rammneri	F	1	232	40	67	100		
CRCL	Crustacea Cladocera	Daphniidae	Scapholeberis sp.	F		5					
CRCL	Crustacea Cladocera	Holopediidae	Holopedium sp.	F	1	11					
CRCL	Crustacea Cladocera	Leptodoridae	Leptodora kindtii	F	1	171			50		
CRCL	Crustacea Cladocera	Polyphemidae	Polyphemus pediculus	F	1	226	40		100		
			Total Cladocera			31,230	1,120	933	2,000	500	2,100
CRCO	Crustacea Copepoda Calanoida	Diaptomidae	Aglao diaptomus leptopus	Vlf	1	331					
CRCO	Crustacea Copepoda Calanoida	Diaptomidae	Aglao diaptomus leptopus	Vlm		174					
CRCO	Crustacea Copepoda Calanoida	Diaptomidae	Hesperodiaptomus sp.	Vlf	1	250					
CRCO	Crustacea Copepoda Calanoida	Diaptomidae	Hesperodiaptomus sp.	Vlm		25					
CRCO	Crustacea Copepoda Calanoida	Temoridae	Epischura sp.	Vlm	1	33		33			
CRCO	Crustacea Copepoda Calanoida		Calanoida indet.	I-V		31,968	2,040	2,600	4,150	1,580	2,800
CRCO	Crustacea Copepoda Calanoida		Calanoida indet.	Vlf		496					
			Total Calanoida			33,277	2,040	2,633	4,150	1,580	2,800
CRCO	Crustacea Copepoda Cyclopoida	Cyclopidae	Diacyclops thomasi	Vlf	1	1,375	40		50		
CRCO	Crustacea Copepoda Cyclopoida	Cyclopidae	Diacyclops thomasi	Vlm		349					
CRCO	Crustacea Copepoda Cyclopoida		Cyclopoida indet.	I-V		125,562	4,600	3,900	5,500	2,280	6,450
CRCO	Crustacea Copepoda Cyclopoida		Cyclopoida indet.	Vlm		50					
			Total Cyclopoida			127,336	4,640	3,900	5,550	2,280	6,450
CRCO	Crustacea Copepoda Calanoida		Calanoida indet.	Nauplius		13,600					
CRCO	Crustacea Copepoda Cyclopoida		Cyclopoida indet.	Nauplius		196,142	2,600	3,800	5,200	1,700	4,200
			Total Copepoda Nauplii			209,742	2,600	3,800	5,200	1,700	4,200
			Total Crustacean Zooplankton			401,584	10,400	11,267	16,900	6,060	15,550
INDI	Insecta Diptera	Chaoboridae	Chaoborus sp.	----	1	89					
			Total Diptera			89	0	0	0	0	0
ROTI	Rotifera	Conochilidae	Conochilus sp.	----	1	26,583	200	400	600	200	800
ROTI	Rotifera	Filiniidae	Filinia sp.	----	1	5,492					
ROTI	Rotifera	Asplanchnidae	Asplanchna sp.	----	1	200					
ROTI	Rotifera	Brachionidae	Kellicottia sp.	----	1	377,358	9,800	11,200	25,000	6,400	9,400
ROTI	Rotifera	Brachionidae	Keratella sp. 1	----	1	243,775	19,400	18,800	36,600	10,900	19,800
ROTI	Rotifera	Brachionidae	Keratella sp. 2	----	1	7,625	200		400	200	
ROTI	Rotifera	Brachionidae	Notholca sp.	----	1	200					200
ROTI	Rotifera	Euchlanidae	Euchlanis sp.	----	1	0					
ROTI	Rotifera	Gastropodidae	Ascomorpha sp.	----	1	13,700	600			100	400
ROTI	Rotifera	Gastropodidae	Gastropus sp.	----	1	31,150	1,800	800	2,200	900	2,000
ROTI	Rotifera	Lecanidae	Monostyla sp.	----	1	100					
ROTI	Rotifera	Synchaetidae	Polyarthra sp.	----	1	64,558	3,200	2,600	8,600	1,700	4,600
ROTI	Rotifera	Synchaetidae	Synchaetidae indet.	----		200		200			
ROTI	Rotifera	Trichocercidae	Trichocerca sp.	----	1	225					
			Total Rotifera			771,167	35,200	34,000	73,400	20,400	37,200
			Total Zooplankton			1,172,839	45,600	45,267	90,300	26,460	52,750
			Total Unique Taxa		26		14	10	13	11	11



Zooplankton Total Abundance Data Matrix for Minnow Environment Inc., Mount Polley, 2023

Biologica Sample ID							fz23-092-045	fz23-092-046	fz23-092-047	fz23-092-048	fz23-092-053
Lake							Quesnel	Quesnel	Quesnel	Quesnel	Polley
Client Sample ID							QUL-ZOO-7_ZOO-2_2023-07	QUL-ZOO-7_ZOO-3_2023-07	QUL-ZOO-7_ZOO-4_2023-07	QUL-ZOO-7_ZOO-5_2023-07	POL-P2_ZOO-1_2023-08
Date Sampled							26-Jul-23	26-Jul-23	26-Jul-23	26-Jul-23	28-Aug-23
Groupcode	Major Group	Family	Taxon	Stage	Total	Total Abundance	Total Abundance	Total Abundance	Total Abundance	Total Abundance	
					Unique Taxa	(#/sample)	(#/sample)	(#/sample)	(#/sample)	(#/sample)	
CRCL	Crustacea Cladocera	Bosminidae	Eubosmina sp.	F	1	5,438	200	84	400	250	188
CRCL	Crustacea Cladocera	Daphniidae	Daphnia longiremis	F	1	647					
CRCL	Crustacea Cladocera	Daphniidae	Daphnia mendotae complex	F	1	23,823	675	84	1,320	575	694
CRCL	Crustacea Cladocera	Daphniidae	Daphnia pulex	F	1	632					206
CRCL	Crustacea Cladocera	Daphniidae	Daphnia sp.	F		45					
CRCL	Crustacea Cladocera	Daphniidae	Scapholeberis rammneri	F	1	232				25	
CRCL	Crustacea Cladocera	Daphniidae	Scapholeberis sp.	F		5		5			
CRCL	Crustacea Cladocera	Holopediidae	Holopedium sp.	F	1	11		11			
CRCL	Crustacea Cladocera	Leptodoridae	Leptodora kindtii	F	1	171	50				
CRCL	Crustacea Cladocera	Polyphemidae	Polyphemus pediculus	F	1	226	25	11		50	
			Total Cladocera			31,230	950	195	1,720	900	1,088
CRCO	Crustacea Copepoda Calanoida	Diaptomidae	Aglao diaptomus leptopus	Vlf	1	331					131
CRCO	Crustacea Copepoda Calanoida	Diaptomidae	Aglao diaptomus leptopus	Vlm		174		5			19
CRCO	Crustacea Copepoda Calanoida	Diaptomidae	Hesperodiaptomus sp.	Vlf	1	250					
CRCO	Crustacea Copepoda Calanoida	Diaptomidae	Hesperodiaptomus sp.	Vlm		25					
CRCO	Crustacea Copepoda Calanoida	Temoridae	Epischura sp.	Vlm	1	33					
CRCO	Crustacea Copepoda Calanoida		Calanoida indet.	I-V		31,968	1,275	442	2,680	2,175	300
CRCO	Crustacea Copepoda Calanoida		Calanoida indet.	Vlf		496		5			
			Total Calanoida			33,277	1,275	453	2,680	2,175	450
CRCO	Crustacea Copepoda Cyclopoida	Cyclopidae	Diacyclops thomasi	Vlf	1	1,375					
CRCO	Crustacea Copepoda Cyclopoida	Cyclopidae	Diacyclops thomasi	Vlm		349					
CRCO	Crustacea Copepoda Cyclopoida		Cyclopoida indet.	I-V		125,562	3,375	911	4,800	2,775	3,263
CRCO	Crustacea Copepoda Cyclopoida		Cyclopoida indet.	Vlm		50	50				
			Total Cyclopoida			127,336	3,425	911	4,800	2,775	3,263
CRCO	Crustacea Copepoda Calanoida		Calanoida indet.	Nauplius		13,600		100	200		
CRCO	Crustacea Copepoda Cyclopoida		Cyclopoida indet.	Nauplius		196,142	1,000	600	1,000	2,400	4,350
			Total Copepoda Nauplii			209,742	1,000	700	1,200	2,400	4,350
			Total Crustacean Zooplankton			401,584	6,650	2,258	10,400	8,250	9,150
INDI	Insecta Diptera	Chaoboridae	Chaoborus sp.	----	1	89					
			Total Diptera			89	0	0	0	0	0
ROTI	Rotifera	Conochilidae	Conochilus sp.	----	1	26,583	800	100	600	1,400	450
ROTI	Rotifera	Filiniidae	Filinia sp.	----	1	5,492					450
ROTI	Rotifera	Asplanchnidae	Asplanchna sp.	----	1	200					
ROTI	Rotifera	Brachionidae	Kellicottia sp.	----	1	377,358	11,000	4,200	11,200	11,800	1,800
ROTI	Rotifera	Brachionidae	Keratella sp. 1	----	1	243,775	25,400	8,300	22,800	21,000	6,300
ROTI	Rotifera	Brachionidae	Keratella sp. 2	----	1	7,625			600		
ROTI	Rotifera	Brachionidae	Notholca sp.	----	1	200					
ROTI	Rotifera	Euchlanidae	Euchlanis sp.	----	1	0					
ROTI	Rotifera	Gastropodidae	Ascomorpha sp.	----	1	13,700	600	100	600	2,400	1,350
ROTI	Rotifera	Gastropodidae	Gastropus sp.	----	1	31,150	2,800	1,400	3,000	2,400	
ROTI	Rotifera	Lecanidae	Monostyla sp.	----	1	100					
ROTI	Rotifera	Synchaetidae	Polyarthra sp.	----	1	64,558	5,400	1,200	4,600	2,600	450
ROTI	Rotifera	Synchaetidae	Synchaetidae indet.	----		200					
ROTI	Rotifera	Trichocercidae	Trichocerca sp.	----	1	225					
			Total Rotifera			771,167	46,000	15,300	43,400	41,600	10,800
			Total Zooplankton			1,172,839	52,650	17,558	53,800	49,850	19,950
			Total Unique Taxa		26		12	14	11	12	11



Zooplankton Total Abundance Data Matrix for Minnow Environment Inc., Mount Polley, 2023

Biologica Sample ID							fz23-092-054	fz23-092-055	fz23-092-056	fz23-092-029_QA	fz23-092-039_QA
Lake							Bootjack	Quesnel	Quesnel	Polley	Quesnel
Client Sample ID							BOL-B2_ZOO-1_2023-08	QUL-ZOO-1_ZOO-1_2023-08	QUL-ZOO-7_ZOO-1_2023-08	POL-P2_ZOO-1_2023-07_QA	QUL-ZOO-1_ZOO-1_2023-07_QA
Date Sampled							28-Aug-23	27-Aug-23	27-Aug-23	27-Jul-23	26-Jul-23
Groupcode	Major Group	Family	Taxon	Stage	Total	Total Abundance	Total Abundance	Total Abundance	Total Abundance	Total Abundance	Total Abundance
					Unique Taxa	(#/sample)	(#/sample)	(#/sample)	(#/sample)	(#/sample)	(#/sample)
CRCL	Crustacea Cladocera	Bosminidae	Eubosmina sp.	F	1	5,438	29	475	217		175
CRCL	Crustacea Cladocera	Daphniidae	Daphnia longiremis	F	1	647				105	
CRCL	Crustacea Cladocera	Daphniidae	Daphnia mendotae complex	F	1	23,823	457	725	283	240	325
CRCL	Crustacea Cladocera	Daphniidae	Daphnia pulex	F	1	632	29			30	
CRCL	Crustacea Cladocera	Daphniidae	Daphnia sp.	F		45					
CRCL	Crustacea Cladocera	Daphniidae	Scapholeberis rammneri	F	1	232					25
CRCL	Crustacea Cladocera	Daphniidae	Scapholeberis sp.	F		5					
CRCL	Crustacea Cladocera	Holopediidae	Holopedium sp.	F	1	11					
CRCL	Crustacea Cladocera	Leptodoridae	Leptodora kindtii	F	1	171					
CRCL	Crustacea Cladocera	Polyphemidae	Polyphemus pediculus	F	1	226					
			Total Cladocera			31,230	514	1,200	500	375	525
CRCO	Crustacea Copepoda Calanoida	Diaptomidae	Aglaodiaptomus leptopus	Vlf	1	331	43			30	
CRCO	Crustacea Copepoda Calanoida	Diaptomidae	Aglaodiaptomus leptopus	Vlm		174				15	
CRCO	Crustacea Copepoda Calanoida	Diaptomidae	Hesperodiaptomus sp.	Vlf	1	250					
CRCO	Crustacea Copepoda Calanoida	Diaptomidae	Hesperodiaptomus sp.	Vlm		25					
CRCO	Crustacea Copepoda Calanoida	Temoridae	Epischura sp.	Vlm	1	33					
CRCO	Crustacea Copepoda Calanoida		Calanoida indet.	I-V		31,968	14	1,925	1,050	330	1,125
CRCO	Crustacea Copepoda Calanoida		Calanoida indet.	Vlf		496				15	
			Total Calanoida			33,277	57	1,925	1,050	390	1,125
CRCO	Crustacea Copepoda Cyclopoida	Cyclopidae	Diacyclops thomasi	Vlf	1	1,375	29				
CRCO	Crustacea Copepoda Cyclopoida	Cyclopidae	Diacyclops thomasi	Vlm		349					
CRCO	Crustacea Copepoda Cyclopoida		Cyclopoida indet.	I-V		125,562	2,500	2,675	2,083	2,850	2,750
CRCO	Crustacea Copepoda Cyclopoida		Cyclopoida indet.	Vlm		50					
			Total Cyclopoida			127,336	2,529	2,675	2,083	2,850	2,750
CRCO	Crustacea Copepoda Calanoida		Calanoida indet.	Nauplius		13,600	100			300	
CRCO	Crustacea Copepoda Cyclopoida		Cyclopoida indet.	Nauplius		196,142	3,500	1,600	1,900	9,900	1,700
			Total Copepoda Nauplii			209,742	3,600	1,600	1,900	10,200	1,700
			Total Crustacean Zooplankton			401,584	6,700	7,400	5,533	13,815	6,100
INDI	Insecta Diptera	Chaoboridae	Chaoborus sp.	----	1	89	14				
			Total Diptera			89	14	0	0	0	0
ROTI	Rotifera	Conochilidae	Conochilus sp.	----	1	26,583	2,600	400	500		200
ROTI	Rotifera	Filiniidae	Filinia sp.	----	1	5,492				600	
ROTI	Rotifera	Asplanchnidae	Asplanchna sp.	----	1	200					
ROTI	Rotifera	Brachionidae	Kellicottia sp.	----	1	377,358	3,100	4,200	2,100	6,000	6,900
ROTI	Rotifera	Brachionidae	Keratella sp. 1	----	1	243,775	2,000	19,800	6,500	1,650	7,100
ROTI	Rotifera	Brachionidae	Keratella sp. 2	----	1	7,625	100			150	
ROTI	Rotifera	Brachionidae	Notholca sp.	----	1	200					
ROTI	Rotifera	Euchlanidae	Euchlanis sp.	----	1	0					
ROTI	Rotifera	Gastropodidae	Ascomorpha sp.	----	1	13,700		4,600	2,400		200
ROTI	Rotifera	Gastropodidae	Gastropus sp.	----	1	31,150		200			3,000
ROTI	Rotifera	Lecanidae	Monostyla sp.	----	1	100					
ROTI	Rotifera	Synchaetidae	Polyarthra sp.	----	1	64,558	6,800	6,400	2,200	450	700
ROTI	Rotifera	Synchaetidae	Synchaetidae indet.	----		200					
ROTI	Rotifera	Trichocercidae	Trichocerca sp.	----	1	225					
			Total Rotifera			771,167	14,600	35,600	13,700	8,850	18,100
			Total Zooplankton			1,172,839	21,314	43,000	19,233	22,665	24,200
			Total Unique Taxa		26		11	10	9	10	11



Zooplankton Total Abundance Data Matrix for Minnow Environmentl Inc., Mount Polley, 2023

Biologica Sample ID							fz23-092-054_QA
Lake							Bootjack
Client Sample ID							BOL-B2_ZOO-1_2023-08_QA
Date Sampled							28-Aug-23
Groupcode	Major Group	Family	Taxon	Stage	Total	Total Abundance	Total Abundance
					Unique Taxa	(#/sample)	(#/sample)
CRCL	Crustacea Cladocera	Bosminidae	Eubosmina sp.	F	1	5,438	
CRCL	Crustacea Cladocera	Daphniidae	Daphnia longiremis	F	1	647	
CRCL	Crustacea Cladocera	Daphniidae	Daphnia mendotae complex	F	1	23,823	443
CRCL	Crustacea Cladocera	Daphniidae	Daphnia pulex	F	1	632	143
CRCL	Crustacea Cladocera	Daphniidae	Daphnia sp.	F		45	
CRCL	Crustacea Cladocera	Daphniidae	Scapholeberis rammneri	F	1	232	
CRCL	Crustacea Cladocera	Daphniidae	Scapholeberis sp.	F		5	
CRCL	Crustacea Cladocera	Holopediidae	Holopedium sp.	F	1	11	
CRCL	Crustacea Cladocera	Leptodoridae	Leptodora kindtii	F	1	171	
CRCL	Crustacea Cladocera	Polyphemidae	Polyphemus pediculus	F	1	226	
			Total Cladocera			31,230	586
CRCO	Crustacea Copepoda Calanoida	Diaptomidae	Aglaodiaptomus leptopus	Vlf	1	331	43
CRCO	Crustacea Copepoda Calanoida	Diaptomidae	Aglaodiaptomus leptopus	Vlm		174	14
CRCO	Crustacea Copepoda Calanoida	Diaptomidae	Hesperodiaptomus sp.	Vlf	1	250	
CRCO	Crustacea Copepoda Calanoida	Diaptomidae	Hesperodiaptomus sp.	Vlm		25	
CRCO	Crustacea Copepoda Calanoida	Temoridae	Epischura sp.	Vlm	1	33	
CRCO	Crustacea Copepoda Calanoida		Calanoida indet.	I-V		31,968	86
CRCO	Crustacea Copepoda Calanoida		Calanoida indet.	Vlf		496	
			Total Calanoida			33,277	143
CRCO	Crustacea Copepoda Cyclopoida	Cyclopidae	Diacyclops thomasi	Vlf	1	1,375	14
CRCO	Crustacea Copepoda Cyclopoida	Cyclopidae	Diacyclops thomasi	Vlm		349	14
CRCO	Crustacea Copepoda Cyclopoida		Cyclopoida indet.	I-V		125,562	2,400
CRCO	Crustacea Copepoda Cyclopoida		Cyclopoida indet.	Vlm		50	
			Total Cyclopoida			127,336	2,428
CRCO	Crustacea Copepoda Calanoida		Calanoida indet.	Nauplius		13,600	200
CRCO	Crustacea Copepoda Cyclopoida		Cyclopoida indet.	Nauplius		196,142	2,700
			Total Copepoda Nauplii			209,742	2,900
			Total Crustacean Zooplankton			401,584	6,057
INDI	Insecta Diptera	Chaoboridae	Chaoborus sp.	----	1	89	43
			Total Diptera			89	43
ROTI	Rotifera	Conochilidae	Conochilus sp.	----	1	26,583	4,600
ROTI	Rotifera	Filiniidae	Filinia sp.	----	1	5,492	200
ROTI	Rotifera	Asplanchnidae	Asplanchna sp.	----	1	200	
ROTI	Rotifera	Brachionidae	Kellicottia sp.	----	1	377,358	4,600
ROTI	Rotifera	Brachionidae	Keratella sp. 1	----	1	243,775	1,500
ROTI	Rotifera	Brachionidae	Keratella sp. 2	----	1	7,625	100
ROTI	Rotifera	Brachionidae	Notholca sp.	----	1	200	
ROTI	Rotifera	Euchlanidae	Euchlanis sp.	----	1	0	100
ROTI	Rotifera	Gastropodidae	Ascomorpha sp.	----	1	13,700	
ROTI	Rotifera	Gastropodidae	Gastropus sp.	----	1	31,150	100
ROTI	Rotifera	Lecanidae	Monostyla sp.	----	1	100	
ROTI	Rotifera	Synchaetidae	Polyarthra sp.	----	1	64,558	8,900
ROTI	Rotifera	Synchaetidae	Synchaetidae indet.	----		200	
ROTI	Rotifera	Trichocercidae	Trichocerca sp.	----	1	225	
			Total Rotifera			771,167	20,100
			Total Zooplankton			1,172,839	26,200
			Total Unique Taxa		26		13



Zooplankton total wet (WW) and dry (DW) weight biomass data matrix for Minnow Environmental Inc. Mount Polley, 2023

Biologica Sample ID					fz23-092-005		fz23-092-006		fz23-092-007		fz23-092-008		fz23-092-029				
Lake					Polley		Bootjack		Quesnel		Quesnel		Polley				
Client Sample ID					POL-P2_ZOO-1_2023-06		BOL-B2_ZOO-1_2023-06		QUL-ZOO-1_ZOO-1_2023-06		QUL-ZOO-7_ZOO-1_2023-06		POL-P2_ZOO-1_2023-07				
Date Sampled					20-Jun-23		21-Jun-23		21-Jun-23		21-Jun-23		27-Jul-23				
Groupcode	Major Group	Family	Taxon	Stage	Total Biomass		Total Biomass		Total Biomass		Total Biomass		Total Biomass		Total Biomass		
					DW (mg/sample)	WW (mg/sample)	DW (mg/sample)	WW (mg/sample)	DW (mg/sample)	WW (mg/sample)	DW (mg/sample)	WW (mg/sample)	DW (mg/sample)	WW (mg/sample)	DW (mg/sample)	WW (mg/sample)	
CRCO	Crustacea	Copepoda	Calanoida	indet.	I-V	204.39	1,021.94	1.59	7.97	18.70	93.50	2.19	10.93	11.79	58.97	2.39	11.95
			Total Calanoida			204.39	1,021.94	1.59	7.97	18.70	93.50	2.19	10.93	11.79	58.97	2.39	11.95
CRCO	Crustacea	Copepoda	Cyclopoida	indet.	I-V	497.88	2,489.40	24.31	121.56	111.67	558.37	12.87	64.36	45.85	229.24	9.65	48.23
			Total Cyclopoida			497.88	2,489.40	24.31	121.56	111.67	558.37	12.87	64.36	45.85	229.24	9.65	48.23
CRCO	Crustacea	Copepoda	Cyclopoida	indet.	Nauplius	18.67	93.34	1.48	7.38	3.77	18.85	0.26	1.31	0.12	0.62	0.81	4.07
			Total Copepoda Nauplii			18.67	93.34	1.48	7.38	3.77	18.85	0.26	1.31	0.12	0.62	0.81	4.07
			Total Crustacean Zooplankton			720.94	3,604.68	27.38	136.91	134.14	670.71	15.32	76.60	57.76	288.82	12.85	64.25
ROTI	Rotifera	Gastropodidae	Gastropus	sp.	----	0.63	6.34	0.02	0.20	0.11	1.06	0.00	0.03			0.01	0.12
ROTI	Rotifera	Brachionidae	Kellicottia	sp.	----	4.33	43.34	0.46	4.59	1.08	10.84	0.01	0.12	0.05	0.51	0.07	0.74
ROTI	Rotifera	Brachionidae	Keratella	sp. 1	----	10.66	106.55	0.02	0.22			0.03	0.26	0.05	0.52	0.09	0.92
ROTI	Rotifera	Synchaetidae	Polyarthra	sp.	----	3.81	38.08	0.18	1.77			0.01	0.12	0.02	0.24	0.02	0.18
			Total Rotifera			19.43	194.31	0.68	6.79	1.19	11.90	0.05	0.53	0.13	1.27	0.20	1.96
			Total Zooplankton			740.37	3,798.99	28.06	143.69	135.33	682.61	15.37	77.13	57.89	290.09	13.05	66.21



Zooplankton total wet (WW) and dry (DW) weight biomass data matrix for Minnow Environmental Inc. Mount Polley, 2023

Biologica Sample ID					fz23-092-030		fz23-092-031		fz23-092-032		fz23-092-033		fz23-092-034				
Lake					Polley		Polley		Polley		Polley		Bootjack				
Client Sample ID					POL-P2_ZOO-2_2023-07		POL-P2_ZOO-3_2023-07		POL-P2_ZOO-4_2023-07		POL-P2_ZOO-5_2023-07		BOL-B2_ZOO-1_2023-07				
Date Sampled					27-Jul-23		27-Jul-23		27-Jul-23		27-Jul-23		27-Jul-23				
Groupcode	Major Group	Family	Taxon	Stage	Total Biomass		Total Biomass		Total Biomass		Total Biomass		Total Biomass		Total Biomass		
					DW (mg/sample)	WW (mg/sample)	DW (mg/sample)	WW (mg/sample)	DW (mg/sample)	WW (mg/sample)	DW (mg/sample)	WW (mg/sample)	DW (mg/sample)	WW (mg/sample)	DW (mg/sample)	WW (mg/sample)	
CRCO	Crustacea	Copepoda	Calanoida	Calanoida indet.	I-V	204.39	1,021.94	2.85	14.23	1.73	8.63	1.75	8.77	1.95	9.75	0.87	4.33
			Total Calanoida			204.39	1,021.94	2.85	14.23	1.73	8.63	1.75	8.77	1.95	9.75	0.87	4.33
CRCO	Crustacea	Copepoda	Cyclopoida	Cyclopoida indet.	I-V	497.88	2,489.40	11.70	58.48	13.56	67.80	12.01	60.04	17.28	86.39	7.62	38.11
			Total Cyclopoida			497.88	2,489.40	11.70	58.48	13.56	67.80	12.01	60.04	17.28	86.39	7.62	38.11
CRCO	Crustacea	Copepoda	Cyclopoida	Cyclopoida indet.	Nauplius	18.67	93.34	1.05	5.23	0.96	4.82	1.57	7.85	0.60	2.98	1.03	5.14
			Total Copepoda Nauplii			18.67	93.34	1.05	5.23	0.96	4.82	1.57	7.85	0.60	2.98	1.03	5.14
			Total Crustacean Zooplankton			720.94	3,604.68	15.59	77.94	16.25	81.25	15.33	76.66	19.83	99.13	9.52	47.58
ROTI	Rotifera	Gastropodidae	Gastropus sp.	----		0.63	6.34			0.01	0.10					0.01	0.08
ROTI	Rotifera	Brachionidae	Kellicottia sp.	----		4.33	43.34	0.12	1.21	0.07	0.70	0.13	1.32	0.08	0.75	0.21	2.07
ROTI	Rotifera	Brachionidae	Keratella sp. 1	----		10.66	106.55	0.07	0.66	0.06	0.60	0.11	1.09	0.09	0.87	0.06	0.61
ROTI	Rotifera	Synchaetidae	Polyarthra sp.	----		3.81	38.08	0.10	1.03	0.05	0.52	0.04	0.44	0.01	0.08	0.04	0.35
			Total Rotifera			19.43	194.31	0.29	2.89	0.19	1.92	0.29	2.86	0.17	1.70	0.31	3.11
			Total Zooplankton			740.37	3,798.99	15.88	80.84	16.44	83.17	15.62	79.51	20.00	100.83	9.83	50.70



Zooplankton total wet (WW) and dry (DW) weight biomass data matrix for Minnow Environmental Inc. Mount Polley, 2023

Biologica Sample ID					fz23-092-035		fz23-092-036		fz23-092-037		fz23-092-038		fz23-092-039				
Lake					Bootjack		Bootjack		Bootjack		Bootjack		Quesnel				
Client Sample ID					BOL-B2_ZOO-2_2023-07		BOL-B2_ZOO-3_2023-07		BOL-B2_ZOO-4_2023-07		BOL-B2_ZOO-5_2023-07		QUL-ZOO-1_ZOO-1_2023-07				
Date Sampled					27-Jul-23		27-Jul-23		27-Jul-23		27-Jul-23		26-Jul-23				
Groupcode	Major Group	Family	Taxon	Stage	Total Biomass		Total Biomass		Total Biomass		Total Biomass		Total Biomass		Total Biomass		
					DW (mg/sample)	WW (mg/sample)	DW (mg/sample)	WW (mg/sample)	DW (mg/sample)	WW (mg/sample)	DW (mg/sample)	WW (mg/sample)	DW (mg/sample)	WW (mg/sample)	DW (mg/sample)	WW (mg/sample)	
CRCO	Crustacea	Copepoda	Calanoida	Calanoida indet.	I-V	204.39	1,021.94	0.27	1.37	1.57	7.85	1.15	5.74	0.52	2.61	7.65	38.25
			Total Calanoida			204.39	1,021.94	0.27	1.37	1.57	7.85	1.15	5.74	0.52	2.61	7.65	38.25
CRCO	Crustacea	Copepoda	Cyclopoida	Cyclopoida indet.	I-V	497.88	2,489.40	8.56	42.81	16.49	82.44	9.53	47.63	6.24	31.21	12.01	60.04
			Total Cyclopoida			497.88	2,489.40	8.56	42.81	16.49	82.44	9.53	47.63	6.24	31.21	12.01	60.04
CRCO	Crustacea	Copepoda	Cyclopoida	Cyclopoida indet.	Nauplius	18.67	93.34	0.86	4.28	0.53	2.67	1.46	7.28	0.74	3.71	0.21	1.05
			Total Copepoda Nauplii			18.67	93.34	0.86	4.28	0.53	2.67	1.46	7.28	0.74	3.71	0.21	1.05
			Total Crustacean Zooplankton			720.94	3,604.68	9.69	48.46	18.59	92.95	12.13	60.65	7.51	37.53	19.87	99.33
ROTI	Rotifera	Gastropodidae	Gastropus sp.	----	0.63	6.34	0.02	0.20	0.02	0.24	0.02	0.18	0.04	0.41	0.01	0.14	
ROTI	Rotifera	Brachionidae	Kellicottia sp.	----	4.33	43.34	0.18	1.79	0.14	1.40	0.17	1.72	0.20	2.00	0.08	0.80	
ROTI	Rotifera	Brachionidae	Keratella sp. 1	----	10.66	106.55	0.03	0.35	0.06	0.61	0.08	0.79	0.03	0.26	0.37	3.67	
ROTI	Rotifera	Synchaetidae	Polyarthra sp.	----	3.81	38.08	0.04	0.35	0.13	1.30	0.11	1.06	0.07	0.71	0.02	0.24	
			Total Rotifera			19.43	194.31	0.27	2.70	0.36	3.55	0.38	3.75	0.34	3.38	0.49	4.85
			Total Zooplankton			740.37	3,798.99	9.96	51.16	18.95	96.51	12.51	64.41	7.84	40.91	20.35	104.19



Zooplankton total wet (WW) and dry (DW) weight biomass data matrix for Minnow Environmental Inc. Mount Polley, 2023

Biologica Sample ID					fz23-092-040		fz23-092-041		fz23-092-042		fz23-092-043		fz23-092-044				
Lake					Quesnel		Quesnel		Quesnel		Quesnel		Quesnel				
Client Sample ID					QUL-ZOO-1_ZOO-2_2023-07		QUL-ZOO-1_ZOO-3_2023-07		QUL-ZOO-1_ZOO-4_2023-07		QUL-ZOO-1_ZOO-5_2023-07		QUL-ZOO-7_ZOO-1_2023-07				
Date Sampled					26-Jul-23		26-Jul-23		26-Jul-23		26-Jul-23		26-Jul-23				
Groupcode	Major Group	Family	Taxon	Stage	Total Biomass		Total Biomass		Total Biomass		Total Biomass		Total Biomass		Total Biomass		
					DW (mg/sample)	WW (mg/sample)	DW (mg/sample)	WW (mg/sample)	DW (mg/sample)	WW (mg/sample)	DW (mg/sample)	WW (mg/sample)	DW (mg/sample)	WW (mg/sample)	DW (mg/sample)	WW (mg/sample)	
CRCO	Crustacea	Copepoda	Calanoida	Calanoida indet.	I-V	204.39	1,021.94	13.60	68.00	16.57	82.87	26.46	132.28	10.07	50.36	17.85	89.25
			Total Calanoida			204.39	1,021.94	13.60	68.00	16.57	82.87	26.46	132.28	10.07	50.36	17.85	89.25
CRCO	Crustacea	Copepoda	Cyclopoida	Cyclopoida indet.	I-V	497.88	2,489.40	17.73	88.65	15.48	77.40	21.83	109.16	9.05	45.25	25.60	128.01
			Total Cyclopoida			497.88	2,489.40	17.73	88.65	15.48	77.40	21.83	109.16	9.05	45.25	25.60	128.01
CRCO	Crustacea	Copepoda	Cyclopoida	Cyclopoida indet.	Nauplius	18.67	93.34	0.25	1.24	0.36	1.81	0.49	2.47	0.16	0.81	0.40	2.00
			Total Copepoda Nauplii			18.67	93.34	0.25	1.24	0.36	1.81	0.49	2.47	0.16	0.81	0.40	2.00
			Total Crustacean Zooplankton			720.94	3,604.68	31.58	157.89	32.42	162.09	48.78	243.92	19.28	96.42	43.85	219.26
ROTI	Rotifera	Gastropodidae	Gastropus sp.	----	0.63	6.34	0.04	0.37	0.02	0.16	0.04	0.45	0.02	0.18	0.04	0.41	
ROTI	Rotifera	Brachionidae	Kellicottia sp.	----	4.33	43.34	0.11	1.13	0.13	1.29	0.29	2.87	0.07	0.74	0.11	1.08	
ROTI	Rotifera	Brachionidae	Keratella sp. 1	----	10.66	106.55	0.85	8.48	0.82	8.22	1.60	16.00	0.48	4.76	0.87	8.65	
ROTI	Rotifera	Synchaetidae	Polyarthra sp.	----	3.81	38.08	0.19	1.89	0.15	1.53	0.51	5.07	0.10	1.00	0.27	2.71	
			Total Rotifera			19.43	194.31	1.19	11.86	1.12	11.20	2.44	24.39	0.67	6.69	1.29	12.85
			Total Zooplankton			740.37	3,798.99	32.76	169.75	33.54	173.29	51.22	268.30	19.95	103.11	45.14	232.12



Zooplankton total wet (WW) and dry (DW) weight biomass data matrix for Minnow Environmental Inc. Mount Polley, 2023

Biologica Sample ID					fz23-092-045		fz23-092-046		fz23-092-047		fz23-092-048		fz23-092-053				
Lake					Quesnel		Quesnel		Quesnel		Quesnel		Polley				
Client Sample ID					QUL-ZOO-7_ZOO-2_2023-07		QUL-ZOO-7_ZOO-3_2023-07		QUL-ZOO-7_ZOO-4_2023-07		QUL-ZOO-7_ZOO-5_2023-07		POL-P2_ZOO-1_2023-08				
Date Sampled					26-Jul-23		26-Jul-23		26-Jul-23		26-Jul-23		28-Aug-23				
Groupcode	Major Group	Family	Taxon	Stage	Total Biomass		Total Biomass		Total Biomass		Total Biomass		Total Biomass		Total Biomass		
					DW (mg/sample)	WW (mg/sample)	DW (mg/sample)	WW (mg/sample)	DW (mg/sample)	WW (mg/sample)	DW (mg/sample)	WW (mg/sample)	DW (mg/sample)	WW (mg/sample)	DW (mg/sample)	WW (mg/sample)	
CRCO	Crustacea	Copepoda	Calanoida	Calanoida indet.	I-V	204.39	1,021.94	8.13	40.64	2.82	14.09	17.08	85.42	13.87	69.33	1.91	9.56
			Total Calanoida			204.39	1,021.94	8.13	40.64	2.82	14.09	17.08	85.42	13.87	69.33	1.91	9.56
CRCO	Crustacea	Copepoda	Cyclopoida	Cyclopoida indet.	I-V	497.88	2,489.40	13.40	66.98	3.61	18.07	19.05	95.27	11.02	55.08	12.95	64.75
			Total Cyclopoida			497.88	2,489.40	13.40	66.98	3.61	18.07	19.05	95.27	11.02	55.08	12.95	64.75
CRCO	Crustacea	Copepoda	Cyclopoida	Cyclopoida indet.	Nauplius	18.67	93.34	0.10	0.48	0.06	0.29	0.10	0.48	0.23	1.14	0.41	2.07
			Total Copepoda Nauplii			18.67	93.34	0.10	0.48	0.06	0.29	0.10	0.48	0.23	1.14	0.41	2.07
			Total Crustacean Zooplankton			720.94	3,604.68	21.62	108.10	6.49	32.45	36.23	181.17	25.11	125.55	15.28	76.38
ROTI	Rotifera	Gastropodidae	Gastropus sp.	----	0.63	6.34	0.06	0.57	0.03	0.28	0.06	0.61	0.05	0.49			
ROTI	Rotifera	Brachionidae	Kellicottia sp.	----	4.33	43.34	0.13	1.26	0.05	0.48	0.13	1.29	0.14	1.36	0.02	0.21	
ROTI	Rotifera	Brachionidae	Keratella sp. 1	----	10.66	106.55	1.11	11.10	0.36	3.63	1.00	9.97	0.92	9.18	0.28	2.75	
ROTI	Rotifera	Synchaetidae	Polyarthra sp.	----	3.81	38.08	0.32	3.18	0.07	0.71	0.27	2.71	0.15	1.53	0.03	0.27	
			Total Rotifera			19.43	194.31	1.61	16.12	0.51	5.10	1.46	14.58	1.26	12.56	0.32	3.23
			Total Zooplankton			740.37	3,798.99	23.23	124.22	7.00	37.55	37.69	195.74	26.36	138.10	15.60	79.61



Zooplankton total wet (WW) and dry (DW) weight biomass data matrix for Minnow Environmental Inc. Mount Polley, 2023

Biologica Sample ID					fz23-092-054		fz23-092-055		fz23-092-056		fz23-092-029_QA		fz23-092-039_QA		fz23-092-054_QA				
Lake					Bootjack		Quesnel		Quesnel		Polley		Quesnel		Bootjack				
Client Sample ID					BOL-B2_ZOO-1_2023-08		QUL-ZOO-1_ZOO-1_2023-08		QUL-ZOO-7_ZOO-1_2023-08		POL-P2_ZOO-1_2023-07_QA		QUL-ZOO-1_ZOO-1_2023-07_QA		BOL-B2_ZOO-1_2023-08_QA				
Date Sampled					28-Aug-23		27-Aug-23		27-Aug-23		27-Jul-23		26-Jul-23		28-Aug-23				
Groupcode	Major Group	Family	Taxon	Stage	Total Biomass		Total Biomass		Total Biomass		Total Biomass		Total Biomass		Total Biomass		Total Biomass		
					DW (mg/sample)	WW (mg/sample)	DW (mg/sample)	WW (mg/sample)	DW (mg/sample)	WW (mg/sample)	DW (mg/sample)	WW (mg/sample)	DW (mg/sample)	WW (mg/sample)	DW (mg/sample)	WW (mg/sample)	DW (mg/sample)	WW (mg/sample)	DW (mg/sample)
CRCO	Crustacea	Copepoda	Calanoida	Calanoida indet.	I-V	204.39	1,021.94	0.09	0.46	12.27	61.36	6.69	33.47	2.10	10.52	7.17	35.86	0.55	2.73
			Total Calanoida			204.39	1,021.94	0.09	0.46	12.27	61.36	6.69	33.47	2.10	10.52	7.17	35.86	0.55	2.73
CRCO	Crustacea	Copepoda	Cyclopoida	Cyclopoida indet.	I-V	497.88	2,489.40	9.92	49.62	10.62	53.09	8.27	41.35	11.31	56.56	10.92	54.58	9.53	47.63
			Total Cyclopoida			497.88	2,489.40	9.92	49.62	10.62	53.09	8.27	41.35	11.31	56.56	10.92	54.58	9.53	47.63
CRCO	Crustacea	Copepoda	Cyclopoida	Cyclopoida indet.	Nauplius	18.67	93.34	0.33	1.67	0.15	0.76	0.18	0.90	0.94	4.71	0.16	0.81	0.26	1.28
			Total Copepoda Nauplii			18.67	93.34	0.33	1.67	0.15	0.76	0.18	0.90	0.94	4.71	0.16	0.81	0.26	1.28
			Total Crustacean Zooplankton			720.94	3,604.68	10.35	51.74	23.04	115.21	15.14	75.72	14.36	71.79	18.25	91.25	10.33	51.65
ROTI	Rotifera	Gastropodidae	Gastropus sp.	----	0.63	6.34			0.00	0.04					0.06	0.61	0.00	0.02	
ROTI	Rotifera	Brachionidae	Kellicottia sp.	----	4.33	43.34	0.04	0.36	0.05	0.48	0.02	0.24	0.07	0.69	0.08	0.79	0.05	0.53	
ROTI	Rotifera	Brachionidae	Keratella sp. 1	----	10.66	106.55	0.09	0.87	0.87	8.65	0.28	2.84	0.07	0.72	0.31	3.10	0.07	0.66	
ROTI	Rotifera	Synchaetidae	Polyarthra sp.	----	3.81	38.08	0.40	4.01	0.38	3.77	0.13	1.30	0.03	0.27	0.04	0.41	0.52	5.25	
			Total Rotifera			19.43	194.31	0.52	5.24	1.30	12.95	0.44	4.38	0.17	1.68	0.49	4.92	0.65	6.45
			Total Zooplankton			740.37	3,798.99	10.87	56.98	24.34	128.16	15.58	80.10	14.53	73.47	18.74	96.17	10.98	58.10

ZOOPLANKTON TISSUE QUALITY

**ALS Laboratory Report VA23B4407
(Finalized July 27, 2023)**

CERTIFICATE OF ANALYSIS

Work Order : **VA23B4407**
Client : **Mount Polley Mining Corporation**
Contact : Mr. Gabriel Holmes
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Telephone : 250-790-2215 ext 2171
Project : ----
PO : 5590012190
C-O-C number : ----
Sampler : RHD, SLA
Site : 23-01 Task 5
Quote number : VA22-MPMC100-002
No. of samples received : 5
No. of samples analysed : 5

Page : 1 of 4
Laboratory : ALS Environmental - Vancouver
Account Manager : Can Dang
Address : 8081 Lougheed Highway
 Burnaby BC Canada V5A 1W9
Telephone : +1 604 253 4188
Date Samples Received : 23-Jun-2023 11:15
Date Analysis Commenced : 13-Jul-2023
Issue Date : 27-Jul-2023 09:36

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QC Interpretive report to assist with Quality Review and Sample Receipt Notification (SRN).

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

<i>Signatories</i>	<i>Position</i>	<i>Laboratory Department</i>
Robin Weeks	Team Leader - Metals	Metals, Burnaby, British Columbia
Salimah Khimani	Lab Assistant	Metals, Burnaby, British Columbia
Sam Silveira	Lab Assistant	Metals, Burnaby, British Columbia



General Comments

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Refer to the ALS Quality Control Interpretive report (QCI) for applicable references and methodology summaries. Reference methods may incorporate modifications to improve performance.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

Please refer to Quality Control Interpretive report (QCI) for information regarding Holding Time compliance.

Key : CAS Number: Chemical Abstracts Services number is a unique identifier assigned to discrete substances
 LOR: Limit of Reporting (detection limit).

Unit	Description
%	percent
mg/kg	milligrams per kilogram
mg/kg wwt	milligrams per kilogram wet weight

<: less than.

>: greater than.

Surrogate: An analyte that is similar in behavior to target analyte(s), but that does not occur naturally in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery.

Test results reported relate only to the samples as received by the laboratory.

UNLESS OTHERWISE STATED on SRN or QCI Report, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

Accreditation

Accreditation	Description	Laboratory	Address
A	CALA ISO/IEC 17025:2017	VA ALS Environmental - Vancouver	8081 Lougheed Highway, Burnaby, BC

Applicable accreditations are indicated in the Method/Lab column as superscripts.

Qualifiers

Qualifier	Description
DLIS	Detection Limit Adjusted due to insufficient sample.



Analytical Results

Sub-Matrix: Tissue						Client sample ID				
(Matrix: Biota)						POL-P2_ZOOT-1_2023-06	BOL-B2_ZOOT-1_2023-06	QUL-ZOO-7_ZO-OT-1_2023-06	QUL-ZOO-1_ZO-OT-1_2023-06	BOL-B2_ZOOT-1X_2023-06
Client sampling date / time						20-Jun-2023 00:00	21-Jun-2023 00:00	21-Jun-2023 00:00	21-Jun-2023 00:00	21-Jun-2023 00:00
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23B4407-001	VA23B4407-002	VA23B4407-003	VA23B4407-004	VA23B4407-005	
					Result	Result	Result	Result	Result	
Physical Tests										
Moisture	----	E144A/VA	A	2.0	%	98.1	98.6	95.1	94.9	98.5
Metals										
Aluminum	7429-90-5	E475/VA	A	5.0	mg/kg	2860	2170	589	1260	2170
Antimony	7440-36-0	E475/VA	A	0.020	mg/kg	0.186	0.148	0.147	0.096	0.127
Arsenic	7440-38-2	E475/VA	A	0.050	mg/kg	6.76	5.15	2.52	3.04	4.99
Barium	7440-39-3	E475/VA	A	0.050	mg/kg	50.0	82.7	20.2	30.4	88.9
Beryllium	7440-41-7	E475/VA	A	0.010	mg/kg	0.097	0.092	0.022	0.046	0.092
Bismuth	7440-69-9	E475/VA	A	0.010	mg/kg	0.086	0.045	0.017	0.050	0.065
Boron	7440-42-8	E475/VA	A	1.0	mg/kg	7.0	6.5	1.2	1.1	5.9
Cadmium	7440-43-9	E475/VA	A	0.010	mg/kg	0.572	0.487	0.997	0.827	0.464
Calcium	7440-70-2	E475/VA	A	20	mg/kg	40900	23200	4820	2570	23700
Cesium	7440-46-2	E475/VA	A	0.0050	mg/kg	0.299	0.288	0.0866	0.120	0.279
Chromium	7440-47-3	E475/VA	A	0.20	mg/kg	21.1	14.1	24.4	11.0	8.72
Cobalt	7440-48-4	E475/VA	A	0.020	mg/kg	2.72	2.14	1.04	1.13	1.97
Copper	7440-50-8	E475/VA	A	0.20	mg/kg	152	128	45.8	65.1	100
Iron	7439-89-6	E475/VA	A	5.0	mg/kg	4980	5170	1150	2190	4700
Lead	7439-92-1	E475/VA	A	0.050	mg/kg	1.54	1.62	1.11	0.819	1.59
Lithium	7439-93-2	E475/VA	A	0.50	mg/kg	2.40	1.65	0.92	1.14	1.66
Magnesium	7439-95-4	E475/VA	A	2.0	mg/kg	3150	2630	1280	1270	2480
Manganese	7439-96-5	E475/VA	A	0.050	mg/kg	514	1890	61.1	78.5	1930
Mercury	7439-97-6	E512/VA	A	0.010	mg/kg	0.065	0.090	0.033	0.030	0.094
Mercury	7439-97-6	E512A/VA	A	0.0020	mg/kg ww	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Molybdenum	7439-98-7	E475/VA	A	0.040	mg/kg	1.64	2.26	1.46	1.30	1.46
Nickel	7440-02-0	E475/VA	A	0.20	mg/kg	11.9	8.88	12.7	6.78	6.37
Phosphorus	7723-14-0	E475/VA	A	20	mg/kg	15300	17000	12500	8780	15900
Potassium	7440-09-7	E475/VA	A	20	mg/kg	8350	12700	10200	7500	11500
Rubidium	7440-17-7	E475/VA	A	0.050	mg/kg	7.90	13.9	17.8	13.2	12.9
Selenium	7782-49-2	E475/VA	A	0.10	mg/kg	5.24	3.89	2.85	2.21	3.60
Silver	7440-22-4	E475.Ag/VA	A	0.0050	mg/kg	0.0710	0.106	0.0739	0.0729	0.105



Analytical Results

Sub-Matrix: Tissue						Client sample ID				
(Matrix: Biota)						POL-P2_ZOOT-1_2023-06	BOL-B2_ZOOT-1_2023-06	QUL-ZOO-7_ZO OT-1_2023-06	QUL-ZOO-1_ZO OT-1_2023-06	BOL-B2_ZOOT-1X_2023-06
Client sampling date / time						20-Jun-2023 00:00	21-Jun-2023 00:00	21-Jun-2023 00:00	21-Jun-2023 00:00	21-Jun-2023 00:00
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23B4407-001	VA23B4407-002	VA23B4407-003	VA23B4407-004	VA23B4407-005	
					Result	Result	Result	Result	Result	
Metals										
Sodium	7440-23-5	E475/VA	A	20	mg/kg	6580	7130	3970	2510	6720
Strontium	7440-24-6	E475/VA	A	0.10	mg/kg	175	151	26.3	18.3	150
Tellurium	13494-80-9	E475/VA	A	0.020	mg/kg	<0.025 ^{DLS}	<0.020	<0.020	<0.020	<0.020
Thallium	7440-28-0	E475/VA	A	0.0020	mg/kg	0.0114	0.0220	0.0258	0.0166	0.0209
Tin	7440-31-5	E475/VA	A	0.10	mg/kg	1.10	0.82	0.28	0.73	0.60
Titanium	7440-32-6	E475.Ti/VA	A	0.50	mg/kg	174	112	39.4	69.7	104
Uranium	7440-61-1	E475/VA	A	0.0020	mg/kg	0.193	0.436	0.0669	0.102	0.421
Vanadium	7440-62-2	E475/VA	A	0.10	mg/kg	19.4	11.2	2.90	6.10	9.35
Zinc	7440-66-6	E475/VA	A	1.0	mg/kg	96.2	134	88.1	86.1	113
Zirconium	7440-67-7	E475/VA	A	0.20	mg/kg	1.44	1.35	0.56	1.02	1.59

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.

QUALITY CONTROL INTERPRETIVE REPORT

<p>Work Order : VA23B4407</p> <p>Client : Mount Polley Mining Corporation</p> <p>Contact : Mr. Gabriel Holmes</p> <p>Address : PO Box 12 Likely BC Canada V0L 1N0</p> <p>Telephone : 250-790-2215 ext 2171</p> <p>Project : ----</p> <p>PO : 5590012190</p> <p>C-O-C number : ----</p> <p>Sampler : RHD, SLA</p> <p>Site : 23-01 Task 5</p> <p>Quote number : VA22-MPMC100-002</p> <p>No. of samples received : 5</p> <p>No. of samples analysed : 5</p>	<p>Page : 1 of 9</p> <p>Laboratory : ALS Environmental - Vancouver</p> <p>Account Manager : Can Dang</p> <p>Address : 8081 Lougheed Highway Burnaby, British Columbia Canada V5A 1W9</p> <p>Telephone : +1 604 253 4188</p> <p>Date Samples Received : 23-Jun-2023 11:15</p> <p>Issue Date : 27-Jul-2023 09:36</p>
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This report is automatically generated by the ALS LIMS (Laboratory Information Management System) through evaluation of Quality Control (QC) results and other QA parameters associated with this submission, and is intended to facilitate rapid data validation by auditors or reviewers. The report highlights any exceptions and outliers to ALS Data Quality Objectives, provides holding time details and exceptions, summarizes QC sample frequencies, and lists applicable methodology references and summaries.

Key

- Anonymous: Refers to samples which are not part of this work order, but which formed part of the QC process lot.
- CAS Number: Chemical Abstracts Service number is a unique identifier assigned to discrete substances.
- DQO: Data Quality Objective.
- LOR: Limit of Reporting (detection limit).
- RPD: Relative Percent Difference.

Workorder Comments

Holding times are displayed as "----" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

Summary of Outliers

Outliers : Quality Control Samples

- No Method Blank value outliers occur.
- No Laboratory Control Sample (LCS) outliers occur
- No Test sample Surrogate recovery outliers exist.

Outliers: Reference Material (RM) Samples

- No Reference Material (RM) Sample outliers occur.

Outliers : Analysis Holding Time Compliance (Breaches)

- No Analysis Holding Time Outliers exist.

Outliers : Frequency of Quality Control Samples

- No Quality Control Sample Frequency Outliers occur.



Analysis Holding Time Compliance

This report summarizes extraction / preparation and analysis times and compares each with ALS recommended holding times, which are selected to meet known provincial and /or federal requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by organizations such as CCME, US EPA, APHA Standard Methods, ASTM, or Environment Canada (where available). Dates and holding times reported below represent the first dates of extraction or analysis. If subsequent tests or dilutions exceeded holding times, qualifiers are added (refer to COA).

If samples are identified below as having been analyzed or extracted outside of recommended holding times, measurement uncertainties may be increased, and this should be taken into consideration when interpreting results.

Where actual sampling date is not provided on the chain of custody, the date of receipt with time at 00:00 is used for calculation purposes.

Where only the sample date without time is provided on the chain of custody, the sampling date at 00:00 is used for calculation purposes.

Matrix: **Biota** Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Metals : Mercury in Biota by CVAAS (DRY units, Biopsy)										
LDPE bag BOL-B2_ZOOT-1_2023-06	E512	21-Jun-2023	25-Jul-2023	365 days	34 days	✔	26-Jul-2023	331 days	1 days	✔
Metals : Mercury in Biota by CVAAS (DRY units, Biopsy)										
LDPE bag BOL-B2_ZOOT-1X_2023-06	E512	21-Jun-2023	25-Jul-2023	365 days	34 days	✔	26-Jul-2023	331 days	1 days	✔
Metals : Mercury in Biota by CVAAS (DRY units, Biopsy)										
LDPE bag QUL-ZOO-1_ZOOT-1_2023-06	E512	21-Jun-2023	25-Jul-2023	365 days	34 days	✔	26-Jul-2023	331 days	1 days	✔
Metals : Mercury in Biota by CVAAS (DRY units, Biopsy)										
LDPE bag QUL-ZOO-7_ZOOT-1_2023-06	E512	21-Jun-2023	25-Jul-2023	365 days	34 days	✔	26-Jul-2023	331 days	1 days	✔
Metals : Mercury in Biota by CVAAS (DRY units, Biopsy)										
LDPE bag POL-P2_ZOOT-1_2023-06	E512	20-Jun-2023	25-Jul-2023	365 days	35 days	✔	26-Jul-2023	330 days	1 days	✔
Metals : Mercury in Biota by CVAAS (WET units, Biopsy)										
LDPE bag BOL-B2_ZOOT-1_2023-06	E512A	21-Jun-2023	25-Jul-2023	365 days	34 days	✔	26-Jul-2023	331 days	1 days	✔
Metals : Mercury in Biota by CVAAS (WET units, Biopsy)										
LDPE bag BOL-B2_ZOOT-1X_2023-06	E512A	21-Jun-2023	25-Jul-2023	365 days	34 days	✔	26-Jul-2023	331 days	1 days	✔



Matrix: **Biota** Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Metals : Mercury in Biota by CVAAS (WET units, Biopsy)											
LDPE bag QUL-ZOO-1_ZOOT-1_2023-06	E512A	21-Jun-2023	25-Jul-2023	365 days	34 days	✔	26-Jul-2023	331 days	1 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Biopsy)											
LDPE bag QUL-ZOO-7_ZOOT-1_2023-06	E512A	21-Jun-2023	25-Jul-2023	365 days	34 days	✔	26-Jul-2023	331 days	1 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Biopsy)											
LDPE bag POL-P2_ZOOT-1_2023-06	E512A	20-Jun-2023	25-Jul-2023	365 days	35 days	✔	26-Jul-2023	330 days	1 days	✔	
Metals : Metals by CRC ICPMS (DRY units, Biopsy)											
LDPE bag BOL-B2_ZOOT-1_2023-06	E475	21-Jun-2023	25-Jul-2023	730 days	34 days	✔	25-Jul-2023	696 days	0 days	✔	
Metals : Metals by CRC ICPMS (DRY units, Biopsy)											
LDPE bag BOL-B2_ZOOT-1X_2023-06	E475	21-Jun-2023	25-Jul-2023	730 days	34 days	✔	25-Jul-2023	696 days	0 days	✔	
Metals : Metals by CRC ICPMS (DRY units, Biopsy)											
LDPE bag QUL-ZOO-1_ZOOT-1_2023-06	E475	21-Jun-2023	25-Jul-2023	730 days	34 days	✔	25-Jul-2023	696 days	0 days	✔	
Metals : Metals by CRC ICPMS (DRY units, Biopsy)											
LDPE bag QUL-ZOO-7_ZOOT-1_2023-06	E475	21-Jun-2023	25-Jul-2023	730 days	34 days	✔	25-Jul-2023	696 days	0 days	✔	
Metals : Metals by CRC ICPMS (DRY units, Biopsy)											
LDPE bag POL-P2_ZOOT-1_2023-06	E475	20-Jun-2023	25-Jul-2023	730 days	35 days	✔	25-Jul-2023	695 days	0 days	✔	
Metals : Silver in Biota by CRC ICPMS (DRY units, Biopsy)											
LDPE bag BOL-B2_ZOOT-1_2023-06	E475.Ag	21-Jun-2023	25-Jul-2023	730 days	34 days	✔	25-Jul-2023	696 days	0 days	✔	



Matrix: **Biota** Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Metals : Silver in Biota by CRC ICPMS (DRY units, Biopsy)											
LDPE bag BOL-B2_ZOOT-1X_2023-06	E475.Ag	21-Jun-2023	25-Jul-2023	730 days	34 days	✔	25-Jul-2023	696 days	0 days	✔	
Metals : Silver in Biota by CRC ICPMS (DRY units, Biopsy)											
LDPE bag QUL-ZOO-1_ZOOT-1_2023-06	E475.Ag	21-Jun-2023	25-Jul-2023	730 days	34 days	✔	25-Jul-2023	696 days	0 days	✔	
Metals : Silver in Biota by CRC ICPMS (DRY units, Biopsy)											
LDPE bag QUL-ZOO-7_ZOOT-1_2023-06	E475.Ag	21-Jun-2023	25-Jul-2023	730 days	34 days	✔	25-Jul-2023	696 days	0 days	✔	
Metals : Silver in Biota by CRC ICPMS (DRY units, Biopsy)											
LDPE bag POL-P2_ZOOT-1_2023-06	E475.Ag	20-Jun-2023	25-Jul-2023	730 days	35 days	✔	25-Jul-2023	695 days	0 days	✔	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Biopsy)											
LDPE bag BOL-B2_ZOOT-1_2023-06	E475.Ti	21-Jun-2023	25-Jul-2023	730 days	34 days	✔	25-Jul-2023	696 days	0 days	✔	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Biopsy)											
LDPE bag BOL-B2_ZOOT-1X_2023-06	E475.Ti	21-Jun-2023	25-Jul-2023	730 days	34 days	✔	25-Jul-2023	696 days	0 days	✔	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Biopsy)											
LDPE bag QUL-ZOO-1_ZOOT-1_2023-06	E475.Ti	21-Jun-2023	25-Jul-2023	730 days	34 days	✔	25-Jul-2023	696 days	0 days	✔	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Biopsy)											
LDPE bag QUL-ZOO-7_ZOOT-1_2023-06	E475.Ti	21-Jun-2023	25-Jul-2023	730 days	34 days	✔	25-Jul-2023	696 days	0 days	✔	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Biopsy)											
LDPE bag POL-P2_ZOOT-1_2023-06	E475.Ti	20-Jun-2023	25-Jul-2023	730 days	35 days	✔	25-Jul-2023	695 days	0 days	✔	



Matrix: **Biota** Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Physical Tests : Moisture Content by Gravimetry (Biopsy)										
LDPE bag BOL-B2_ZOOT-1_2023-06	E144A	21-Jun-2023	----	----	----		25-Jul-2023	----	----	
Physical Tests : Moisture Content by Gravimetry (Biopsy)										
LDPE bag BOL-B2_ZOOT-1X_2023-06	E144A	21-Jun-2023	----	----	----		25-Jul-2023	----	----	
Physical Tests : Moisture Content by Gravimetry (Biopsy)										
LDPE bag POL-P2_ZOOT-1_2023-06	E144A	20-Jun-2023	----	----	----		25-Jul-2023	----	----	
Physical Tests : Moisture Content by Gravimetry (Biopsy)										
LDPE bag QUL-ZOO-1_ZOOT-1_2023-06	E144A	21-Jun-2023	----	----	----		25-Jul-2023	----	----	
Physical Tests : Moisture Content by Gravimetry (Biopsy)										
LDPE bag QUL-ZOO-7_ZOOT-1_2023-06	E144A	21-Jun-2023	----	----	----		25-Jul-2023	----	----	

Legend & Qualifier Definitions

Rec. HT: ALS recommended hold time (see units).



Quality Control Parameter Frequency Compliance

The following report summarizes the frequency of laboratory QC samples analyzed within the analytical batches (QC lots) in which the submitted samples were processed. The actual frequency should be greater than or equal to the expected frequency.

Matrix: **Biota** Evaluation: ✖ = QC frequency outside specification; ✔ = QC frequency within specification.

Quality Control Sample Type	Method	QC Lot #	Count		Frequency (%)		
			QC	Regular	Actual	Expected	Evaluation
Analytical Methods							
Laboratory Control Samples (LCS)							
Mercury in Biota by CVAAS (DRY units, Biopsy)	E512	1054320	2	15	13.3	10.0	✔
Mercury in Biota by CVAAS (WET units, Biopsy)	E512A	1054321	2	15	13.3	10.0	✔
Metals by CRC ICPMS (DRY units, Biopsy)	E475	1054322	2	15	13.3	10.0	✔
Moisture Content by Gravimetry (Biopsy)	E144A	1054351	1	15	6.6	5.0	✔
Silver in Biota by CRC ICPMS (DRY units, Biopsy)	E475.Ag	1054323	2	5	40.0	10.0	✔
Titanium in Biota by CRC ICPMS (DRY units, Biopsy)	E475.Ti	1054324	2	5	40.0	10.0	✔
Method Blanks (MB)							
Mercury in Biota by CVAAS (DRY units, Biopsy)	E512	1054320	1	15	6.6	5.0	✔
Mercury in Biota by CVAAS (WET units, Biopsy)	E512A	1054321	1	15	6.6	5.0	✔
Metals by CRC ICPMS (DRY units, Biopsy)	E475	1054322	1	15	6.6	5.0	✔
Moisture Content by Gravimetry (Biopsy)	E144A	1054351	1	15	6.6	5.0	✔
Silver in Biota by CRC ICPMS (DRY units, Biopsy)	E475.Ag	1054323	1	5	20.0	5.0	✔
Titanium in Biota by CRC ICPMS (DRY units, Biopsy)	E475.Ti	1054324	1	5	20.0	5.0	✔



Methodology References and Summaries

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Reference methods may incorporate modifications to improve performance (indicated by "mod").

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Moisture Content by Gravimetry (Biopsy)	E144A ALS Environmental - Vancouver	Biota	Puget Sound Water Quality Authority/CCME PHC in Soil - Tier 1	This analysis is carried out gravimetrically by drying the sample at <60 deg. C for a minimum of three days.
Metals by CRC ICPMS (DRY units, Biopsy)	E475 ALS Environmental - Vancouver	Biota	EPA 200.3/6020B (mod)	Samples are digested with nitric acid, hydrochloric acid, and hydrogen peroxide. Analysis is by Collision/Reaction Cell ICPMS: This method employs a strong acid/peroxide digestion, and is intended to provide a conservative estimate of bio-available metals. Near complete recoveries are achieved for most toxicologically important metals, but elements associated with recalcitrant minerals may be only partially recovered.
Silver in Biota by CRC ICPMS (DRY units, Biopsy)	E475.Ag ALS Environmental - Vancouver	Biota	EPA 200.3/6020B (mod)	Samples are digested with nitric acid, hydrochloric acid, and hydrogen peroxide. Analysis is by Collision/Reaction Cell ICPMS. Method Limitation: This method employs a strong acid/peroxide digestion, and is intended to provide a conservative estimate of bio-available metals. Near complete recoveries are achieved for most toxicologically important metals, but elements associated with recalcitrant minerals may be only partially recovered.
Titanium in Biota by CRC ICPMS (DRY units, Biopsy)	E475.Ti ALS Environmental - Vancouver	Biota	EPA 200.3/6020B (mod)	Samples are digested with nitric acid, hydrochloric acid, and hydrogen peroxide. Analysis is by Collision/Reaction Cell ICPMS. Method Limitation: This method employs a strong acid/peroxide digestion, and is intended to provide a conservative estimate of bio-available metals. Near complete recoveries are achieved for most toxicologically important metals, but elements associated with recalcitrant minerals may be only partially recovered.
Mercury in Biota by CVAAS (DRY units, Biopsy)	E512 ALS Environmental - Vancouver	Biota	EPA 200.3/1631 Appendix (mod)	Samples are digested with nitric acid, hydrochloric acid, and hydrogen peroxide. Analysis is by CVAAS.
Mercury in Biota by CVAAS (WET units, Biopsy)	E512A ALS Environmental - Vancouver	Biota	EPA 200.3/1631 Appendix (mod)	Samples are homogenized digested with nitric acid, hydrochloric acid, and hydrogen peroxide. Analysis is by CVAAS.
Preparation Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Metals and Mercury Biota Digestion (Micro)	EP472 ALS Environmental - Vancouver	Biota	EPA 200.3	This method, designed for small sample amounts, uses a heated strong acid digestion with HNO ₃ , HCl, and H ₂ O ₂ and is intended to provide a conservative estimate of bio-available metals.



<i>Preparation Methods</i>	<i>Method / Lab</i>	<i>Matrix</i>	<i>Method Reference</i>	<i>Method Descriptions</i>
Metals and Mercury Biota Digestion (Biopsy)	EP475 ALS Environmental - Vancouver	Biota	EPA 200.3/200.8 (mod)	Samples are digested with nitric acid, hydrochloric acid, and hydrogen peroxide. Method Limitation: This method employs a strong acid/peroxide digestion, and is intended to provide a conservative estimate of bio-available metals. Near complete recoveries are achieved for most toxicologically important metals, but elements associated with recalcitrant minerals may be only partially recovered.

QUALITY CONTROL REPORT

Work Order	: VA23B4407	Page	: 1 of 8
Client	: Mount Polley Mining Corporation	Laboratory	: ALS Environmental - Vancouver
Contact	: Mr. Gabriel Holmes	Account Manager	: Can Dang
Address	: PO Box 12 Likely BC Canada V0L 1N0	Address	: 8081 Lougheed Highway Burnaby, British Columbia Canada V5A 1W9
Telephone	:	Telephone	: +1 604 253 4188
Project	: ----	Date Samples Received	: 23-Jun-2023 11:15
PO	: 5590012190	Date Analysis Commenced	: 13-Jul-2023
C-O-C number	: ----	Issue Date	: 27-Jul-2023 09:36
Sampler	: RHD, SLA 250-790-2215 ext 2171		
Site	: 23-01 Task 5		
Quote number	: VA22-MPMC100-002		
No. of samples received	: 5		
No. of samples analysed	: 5		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Quality Control Report contains the following information:

- Reference Material (RM) Report; Recovery and Data Quality Objectives
- Method Blank (MB) Report; Recovery and Data Quality Objectives
- Laboratory Control Sample (LCS) Report; Recovery and Data Quality Objectives

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

<i>Signatories</i>	<i>Position</i>	<i>Laboratory Department</i>
Robin Weeks	Team Leader - Metals	Vancouver Metals, Burnaby, British Columbia
Salimah Khimani	Lab Assistant	Vancouver Metals, Burnaby, British Columbia
Sam Silveira	Lab Assistant	Vancouver Metals, Burnaby, British Columbia

Page : 2 of 8
Work Order : VA23B4407
Client : Mount Polley Mining Corporation
Project : ----



General Comments

The ALS Quality Control (QC) report is optionally provided to ALS clients upon request. ALS test methods include comprehensive QC checks with every analysis to ensure our high standards of quality are met. Each QC result has a known or expected target value, which is compared against predetermined Data Quality Objectives (DQOs) to provide confidence in the accuracy of associated test results. This report contains detailed results for all QC results applicable to this sample submission. Please refer to the ALS Quality Control Interpretation report (QCI) for applicable method references and methodology summaries.

Key :

Anonymous = Refers to samples which are not part of this work order, but which formed part of the QC process lot.

CAS Number = Chemical Abstracts Service number is a unique identifier assigned to discrete substances.

DQO = Data Quality Objective.

LOR = Limit of Reporting (detection limit).

RPD = Relative Percent Difference

= Indicates a QC result that did not meet the ALS DQO.

Workorder Comments

Holding times are displayed as "---" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.



Method Blank (MB) Report

A Method Blank is an analyte-free matrix that undergoes sample processing identical to that carried out for test samples. Method Blank results are used to monitor and control for potential contamination from the laboratory environment and reagents. For most tests, the DQO for Method Blanks is for the result to be < LOR.

Sub-Matrix: Biota

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Physical Tests (QCLot: 1054351)						
Moisture	---	E144A	2	%	<2.0	---
Metals (QCLot: 1054320)						
Mercury	7439-97-6	E512	0.01	mg/kg	<0.010	---
Metals (QCLot: 1054321)						
Mercury	7439-97-6	E512A	0.002	mg/kg wwt	<0.0020	---
Metals (QCLot: 1054322)						
Aluminum	7429-90-5	E475	5	mg/kg	<5.0	---
Antimony	7440-36-0	E475	0.02	mg/kg	<0.020	---
Arsenic	7440-38-2	E475	0.05	mg/kg	<0.050	---
Barium	7440-39-3	E475	0.05	mg/kg	<0.050	---
Beryllium	7440-41-7	E475	0.01	mg/kg	<0.010	---
Bismuth	7440-69-9	E475	0.01	mg/kg	<0.010	---
Boron	7440-42-8	E475	1	mg/kg	<1.0	---
Cadmium	7440-43-9	E475	0.01	mg/kg	<0.010	---
Calcium	7440-70-2	E475	20	mg/kg	<20	---
Cesium	7440-46-2	E475	0.005	mg/kg	<0.0050	---
Chromium	7440-47-3	E475	0.2	mg/kg	<0.20	---
Cobalt	7440-48-4	E475	0.02	mg/kg	<0.020	---
Copper	7440-50-8	E475	0.2	mg/kg	<0.20	---
Iron	7439-89-6	E475	5	mg/kg	<5.0	---
Lead	7439-92-1	E475	0.05	mg/kg	<0.050	---
Lithium	7439-93-2	E475	0.5	mg/kg	<0.50	---
Magnesium	7439-95-4	E475	2	mg/kg	<2.0	---
Manganese	7439-96-5	E475	0.05	mg/kg	<0.050	---
Molybdenum	7439-98-7	E475	0.04	mg/kg	<0.040	---
Nickel	7440-02-0	E475	0.2	mg/kg	<0.20	---
Phosphorus	7723-14-0	E475	20	mg/kg	<20	---
Potassium	7440-09-7	E475	20	mg/kg	<20	---
Rubidium	7440-17-7	E475	0.05	mg/kg	<0.050	---
Selenium	7782-49-2	E475	0.1	mg/kg	<0.10	---
Sodium	7440-23-5	E475	20	mg/kg	<20	---
Strontium	7440-24-6	E475	0.1	mg/kg	<0.10	---



Sub-Matrix: **Biota**

<i>Analyte</i>	<i>CAS Number</i>	<i>Method</i>	<i>LOR</i>	<i>Unit</i>	<i>Result</i>	<i>Qualifier</i>
Metals (QCLot: 1054322) - continued						
Tellurium	13494-80-9	E475	0.02	mg/kg	<0.020	---
Thallium	7440-28-0	E475	0.002	mg/kg	<0.0020	---
Tin	7440-31-5	E475	0.1	mg/kg	<0.10	---
Uranium	7440-61-1	E475	0.002	mg/kg	<0.0020	---
Vanadium	7440-62-2	E475	0.1	mg/kg	<0.10	---
Zinc	7440-66-6	E475	1	mg/kg	<1.0	---
Zirconium	7440-67-7	E475	0.2	mg/kg	<0.20	---
Metals (QCLot: 1054323)						
Silver	7440-22-4	E475.Ag	0.005	mg/kg	<0.0050	---
Metals (QCLot: 1054324)						
Titanium	7440-32-6	E475.Ti	0.5	mg/kg	<0.50	---



Laboratory Control Sample (LCS) Report

A Laboratory Control Sample (LCS) is an analyte-free matrix that has been fortified (spiked) with test analytes at known concentration and processed in an identical manner to test samples. LCS results are expressed as percent recovery, and are used to monitor and control test method accuracy and precision, independent of test sample matrix.

Sub-Matrix: Biota

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
Physical Tests (QCLot: 1054351)									
Moisture	---	E144A	2	%	100 %	100	90.0	110	---
Metals (QCLot: 1054320)									
Mercury	7439-97-6	E512	0.01	mg/kg	0.05 mg/kg	89.7	80.0	120	---
Metals (QCLot: 1054321)									
Mercury	7439-97-6	E512A	0.002	mg/kg wwt	0.05 mg/kg wwt	89.7	80.0	120	---
Metals (QCLot: 1054322)									
Aluminum	7429-90-5	E475	5	mg/kg	50 mg/kg	103	80.0	120	---
Antimony	7440-36-0	E475	0.02	mg/kg	25 mg/kg	95.4	80.0	120	---
Arsenic	7440-38-2	E475	0.05	mg/kg	25 mg/kg	106	80.0	120	---
Barium	7440-39-3	E475	0.05	mg/kg	6.25 mg/kg	104	80.0	120	---
Beryllium	7440-41-7	E475	0.01	mg/kg	2.5 mg/kg	95.0	80.0	120	---
Bismuth	7440-69-9	E475	0.01	mg/kg	25 mg/kg	99.1	80.0	120	---
Boron	7440-42-8	E475	1	mg/kg	25 mg/kg	85.2	80.0	120	---
Cadmium	7440-43-9	E475	0.01	mg/kg	2.5 mg/kg	97.5	80.0	120	---
Calcium	7440-70-2	E475	20	mg/kg	1250 mg/kg	95.6	80.0	120	---
Cesium	7440-46-2	E475	0.005	mg/kg	1.25 mg/kg	103	80.0	120	---
Chromium	7440-47-3	E475	0.2	mg/kg	6.25 mg/kg	102	80.0	120	---
Cobalt	7440-48-4	E475	0.02	mg/kg	6.25 mg/kg	99.6	80.0	120	---
Copper	7440-50-8	E475	0.2	mg/kg	6.25 mg/kg	96.4	80.0	120	---
Iron	7439-89-6	E475	5	mg/kg	25 mg/kg	103	80.0	120	---
Lead	7439-92-1	E475	0.05	mg/kg	12.5 mg/kg	96.5	80.0	120	---
Lithium	7439-93-2	E475	0.5	mg/kg	6.25 mg/kg	93.6	80.0	120	---
Magnesium	7439-95-4	E475	2	mg/kg	1250 mg/kg	97.9	80.0	120	---
Manganese	7439-96-5	E475	0.05	mg/kg	6.25 mg/kg	102	80.0	120	---
Molybdenum	7439-98-7	E475	0.04	mg/kg	6.25 mg/kg	99.5	80.0	120	---
Nickel	7440-02-0	E475	0.2	mg/kg	12.5 mg/kg	100	80.0	120	---
Phosphorus	7723-14-0	E475	20	mg/kg	250 mg/kg	106	80.0	120	---
Potassium	7440-09-7	E475	20	mg/kg	1250 mg/kg	102	80.0	120	---
Rubidium	7440-17-7	E475	0.05	mg/kg	2.5 mg/kg	105	80.0	120	---
Selenium	7782-49-2	E475	0.1	mg/kg	25 mg/kg	98.0	80.0	120	---
Sodium	7440-23-5	E475	20	mg/kg	1250 mg/kg	103	80.0	120	---
Strontium	7440-24-6	E475	0.1	mg/kg	6.25 mg/kg	99.9	80.0	120	---



Sub-Matrix: **Biota**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
Metals (QCLot: 1054322) - continued									
Tellurium	13494-80-9	E475	0.02	mg/kg	2.5 mg/kg	93.9	80.0	120	----
Thallium	7440-28-0	E475	0.002	mg/kg	25 mg/kg	96.3	80.0	120	----
Tin	7440-31-5	E475	0.1	mg/kg	12.5 mg/kg	95.8	80.0	120	----
Uranium	7440-61-1	E475	0.002	mg/kg	0.125 mg/kg	99.1	80.0	120	----
Vanadium	7440-62-2	E475	0.1	mg/kg	12.5 mg/kg	105	80.0	120	----
Zinc	7440-66-6	E475	1	mg/kg	12.5 mg/kg	96.0	80.0	120	----
Zirconium	7440-67-7	E475	0.2	mg/kg	2.5 mg/kg	97.5	80.0	120	----
Metals (QCLot: 1054323)									
Silver	7440-22-4	E475.Ag	0.005	mg/kg	2.5 mg/kg	89.4	80.0	120	----
Metals (QCLot: 1054324)									
Titanium	7440-32-6	E475.Ti	0.5	mg/kg	6.25 mg/kg	99.2	80.0	120	----



Reference Material (RM) Report

A Reference Material (RM) is a homogenous material with known and well-established analyte concentrations. RMs are processed in an identical manner to test samples, and are used to monitor and control the accuracy and precision of a test method for a typical sample matrix. RM results are expressed as percent recovery of the target analyte concentration. RM targets may be certified target concentrations provided by the RM supplier, or may be ALS long-term mean values (for empirical test methods).

Sub-Matrix:

Laboratory sample ID	Reference Material ID	Analyte	CAS Number	Method	Reference Material (RM) Report				
					RM Target Concentration	Recovery (%) RM	Recovery Limits (%)		Qualifier
							Low	High	
Metals (QCLot: 1054320)									
	RM	Mercury	7439-97-6	E512	0.281 mg/kg	83.6	70.0	130	----
Metals (QCLot: 1054321)									
	RM	Mercury	7439-97-6	E512A	0.281 mg/kg wwt	83.6	70.0	130	----
Metals (QCLot: 1054322)									
	RM	Aluminum	7429-90-5	E475	147 mg/kg	85.3	70.0	130	----
	RM	Arsenic	7440-38-2	E475	14.5 mg/kg	96.2	70.0	130	----
	RM	Barium	7440-39-3	E475	0.352 mg/kg	89.5	70.0	130	----
	RM	Boron	7440-42-8	E475	3.47 mg/kg	81.8	70.0	130	----
	RM	Cadmium	7440-43-9	E475	0.153 mg/kg	96.6	70.0	130	----
	RM	Calcium	7440-70-2	E475	2010 mg/kg	85.7	70.0	130	----
	RM	Cesium	7440-46-2	E475	0.0889 mg/kg	91.3	70.0	130	----
	RM	Chromium	7440-47-3	E475	0.453 mg/kg	87.6	50.0	150	----
	RM	Cobalt	7440-48-4	E475	0.0567 mg/kg	88.8	65.0	135	----
	RM	Copper	7440-50-8	E475	3.3 mg/kg	92.4	70.0	130	----
	RM	Iron	7439-89-6	E475	102 mg/kg	89.0	70.0	130	----
	RM	Lead	7439-92-1	E475	0.058 mg/kg	87.6	15.0	185	----
	RM	Magnesium	7439-95-4	E475	899 mg/kg	93.0	70.0	130	----
	RM	Manganese	7439-96-5	E475	0.948 mg/kg	92.3	70.0	130	----
	RM	Molybdenum	7439-98-7	E475	0.134 mg/kg	108	70.0	130	----
	RM	Nickel	7440-02-0	E475	0.33 mg/kg	94.9	40.0	160	----
	RM	Phosphorus	7723-14-0	E475	6700 mg/kg	96.8	70.0	130	----
	RM	Potassium	7440-09-7	E475	11600 mg/kg	99.2	70.0	130	----
	RM	Rubidium	7440-17-7	E475	2.53 mg/kg	95.2	70.0	130	----
	RM	Selenium	7782-49-2	E475	2.48 mg/kg	97.2	70.0	130	----
	RM	Sodium	7440-23-5	E475	9620 mg/kg	97.3	70.0	130	----
	RM	Strontium	7440-24-6	E475	10.6 mg/kg	87.0	70.0	130	----
	RM	Vanadium	7440-62-2	E475	0.269 mg/kg	89.3	70.0	130	----
	RM	Zinc	7440-66-6	E475	28.7 mg/kg	93.2	70.0	130	----



Sub-Matrix:

					Reference Material (RM) Report				
Laboratory sample ID	Reference Material ID	Analyte	CAS Number	Method	RM Target Concentration	Recovery (%) RM	Recovery Limits (%)		Qualifier
							Low	High	
Metals (QCLot: 1054323)									
	RM	Silver	7440-22-4	E475.Ag	0.139 mg/kg	88.9	70.0	130	----
Metals (QCLot: 1054324)									
	RM	Titanium	7440-32-6	E475.Ti	1.15 mg/kg	79.0	70.0	130	----



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Chain of Custody (COC) / Analytical Request Form

COC Number: 20 -

Page 1 of 1

Canada Toll Free: 1 800 668 9878

Report To Contact and company name below will appear on the final report		Reports / Recipients			Turnaround Time (TAT) Requested				AFFIX ALS BARCODE LABEL HERE (ALS use only)											
Company:	Mount Polley Mining Corp.	Select Report Format:	<input checked="" type="checkbox"/> PDF <input checked="" type="checkbox"/> EXCEL <input checked="" type="checkbox"/> EDD (DIGITAL)	<input checked="" type="checkbox"/> Routine (R) if received by 3pm M-F - no surcharges apply																
Contact:	Gabriel Holmes	Merge QC/QCI Reports with COA	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> N/A	<input type="checkbox"/> 4 day [P4] if received by 3pm M-F - 20% rush surcharge minimum																
Phone:	236-317-4939	<input type="checkbox"/> Compare Results to Criteria on Report - provide details below if box checked		<input type="checkbox"/> 3 day [P3] if received by 3pm M-F - 25% rush surcharge minimum																
Company address below will appear on the final report		Select Distribution:	<input checked="" type="checkbox"/> EMAIL <input type="checkbox"/> MAIL <input type="checkbox"/> FAX	<input type="checkbox"/> 2 day [P2] if received by 3pm M-F - 50% rush surcharge minimum																
Street:	PO BOX 12	Email 1 or Fax:	gabriel.holmes@mountpolley.com	<input type="checkbox"/> 1 day [E] if received by 3pm M-F - 100% rush surcharge minimum																
City/Province:	Likely, BC	Email 2:	slatimer@minnow.ca; kbatchelar@minnow.ca	<input type="checkbox"/> Same day [E2] if received by 10am M-S - 200% rush surcharge.																
Postal Code:	V0L 1N0	Email 3:	simone.derosemont@minnow.ca	Additional fees may apply to rush requests on weekends, statutory holidays and for non-routine tests.																
Invoice To	Same as Report To <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	Invoice Recipients			Date and Time Required for all E&P TATs:		Date and Time Required for all E&P TATs:													
	Copy of Invoice with Report <input type="checkbox"/> YES <input type="checkbox"/> NO	Select Invoice Distribution: <input checked="" type="checkbox"/> EMAIL <input type="checkbox"/> MAIL <input checked="" type="checkbox"/> FAX			For all tests with rush TATs requested, please contact your AM to confirm availability.															
Company:		Email 1 or Fax: On File			Analysis Request															
Contact:	On File	Email 2:			Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below															
Project Information		Oil and Gas Required Fields (client use)			NUMBER OF CONTAINERS								SAMPLES ON HOLD	EXTENDED STORAGE REQUIRED	SUSPECTED HAZARD (see notes)					
ALS Account # / Quote #:	VA22-MPMC100-002	AFE/Cost Center:	PO#	Moisture Content by Gravimetry E144																
Job #:		Major/Minor Code:	Routing Code:	Mercury in Biota by CVAAS (DRY units, Routine) E510																
PO / AFE:	23-01 Task 5	Requisitioner:		Mercury in Biota by CVAAS (WET units, Routine) E510A																
LSD:		Location:		Metals in Biota by CRC ICPMS (DRY units, Routine) E440																
ALS Lab Work Order # (ALS use only):		ALS Contact:	Can Dang	Sampler:	SUA/RHO	Silver in Biota by CRC ICPMS (DRY units, Routine) E440, Ag														
ALS Sample # (ALS use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type		Titanium in Biota by CRC ICPMS (DRY units, Routine) E440, Ti														
	POL-P2_ZOOT-1_2023-06	20-Jun-23	N/A	Tissue	1															
	BOL-B2_ZOOT-1_2023-06	21-Jun-23		Tissue	1															
	QUL-ZOO-7_ZOOT-1_2023-06	21-Jun-23		Tissue	1															
	QUL-ZOO-1_ZOOT-1_2023-06	21-Jun-23		Tissue	1															
	BOL-B2_ZOOT-1X_2023-06	21-Jun-23	N/A	Tissue	1															

Environmental Division
Vancouver
Work Order Reference
VA23B4407

Telephone: +1 604 263 4188

Drinking Water (DW) Samples¹ (client use)		Notes / Specify Limits for result evaluation by selecting from drop-down below (Excel COC only)			SAMPLE RECEIPT			
Are samples taken from a Regulated DW System? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO		If sample is insufficient for regular digestion and analysis, contact kbatchelar@minnow.ca to discuss analysis options (e.g., use of microdigestion and HR-ICPMS)			Cooling Method: <input type="checkbox"/> NONE <input type="checkbox"/> ICE <input checked="" type="checkbox"/> ICE PACKS <input type="checkbox"/> FROZEN <input type="checkbox"/> COOLING INITIATED			
Are samples for human consumption/ use? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO					Submission Comments identified on Sample Receipt Notification: <input type="checkbox"/> YES <input type="checkbox"/> NO			
					Cooler Custody Seals Intact: <input type="checkbox"/> YES <input type="checkbox"/> N/A Sample Custody Seals Intact: <input type="checkbox"/> YES <input type="checkbox"/> N/A			
					INITIAL COOLER TEMPERATURES °C		FINAL COOLER TEMPERATURES °C	
SHIPMENT RELEASE (client use)		INITIAL SHIPMENT RECEPTION (ALS use only)			FINAL SHIPMENT RECEPTION (ALS use only)			
Released by: S. Latimer	Date: 21-Jun-23	Time: 17:30	Received by:	Date:	Time:	Received by: JC	Date: JUN 23 2023	Time: 11:50am

ZOOPLANKTON TISSUE QUALITY

**ALS Laboratory Report VA23B7798
(Finalized September 12, 2023)**



CERTIFICATE OF ANALYSIS

<p>Work Order : VA23B7798</p> <p>Client : Mount Polley Mining Corporation</p> <p>Contact : Mr. Gabriel Holmes</p> <p>Address : PO Box 12 Likely BC Canada V0L 1N0</p> <p>Telephone : 250-790-2215 ext 2171</p> <p>Project : ----</p> <p>PO : 5590012190</p> <p>C-O-C number : ----</p> <p>Sampler : SLA/CAP</p> <p>Site : ----</p> <p>Quote number : VA22-MPMC100-002</p> <p>No. of samples received : 21</p> <p>No. of samples analysed : 21</p>	<p>Page : 1 of 12</p> <p>Laboratory : ALS Environmental - Vancouver</p> <p>Account Manager : Can Dang</p> <p>Address : 8081 Lougheed Highway Burnaby BC Canada V5A 1W9</p> <p>Telephone : +1 604 253 4188</p> <p>Date Samples Received : 02-Aug-2023 11:20</p> <p>Date Analysis Commenced : 23-Aug-2023</p> <p>Issue Date : 12-Sep-2023 16:30</p>
--	---

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QC Interpretive report to assist with Quality Review and Sample Receipt Notification (SRN).

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

<i>Signatories</i>	<i>Position</i>	<i>Laboratory Department</i>
Carla Vasquez	Lab Assistant	Metals, Burnaby, British Columbia
Kevin Duarte	Supervisor - Metals ICP Instrumentation	Metals, Burnaby, British Columbia
Owen Cheng		Metals, Burnaby, British Columbia
Ragini Saini	Lab Assistant	Metals, Burnaby, British Columbia
Sam Silveira	Lab Assistant	Metals, Burnaby, British Columbia



General Comments

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Refer to the ALS Quality Control Interpretive report (QCI) for applicable references and methodology summaries. Reference methods may incorporate modifications to improve performance.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

Please refer to Quality Control Interpretive report (QCI) for information regarding Holding Time compliance.

Key : CAS Number: Chemical Abstracts Services number is a unique identifier assigned to discrete substances
LOR: Limit of Reporting (detection limit).

<i>Unit</i>	<i>Description</i>
%	percent
mg/kg	milligrams per kilogram
mg/kg ww	milligrams per kilogram wet weight

<: less than.

>: greater than.

Surrogate: An analyte that is similar in behavior to target analyte(s), but that does not occur naturally in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery.

Test results reported relate only to the samples as received by the laboratory.

UNLESS OTHERWISE STATED on SRN or QCI Report, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.



Analytical Results

Sub-Matrix: Tissue					Client sample ID				
(Matrix: Biota)					POL-P2_ZOOT-1_2023-07	POL-P2_ZOOT-2_2023-07	POL-P2_ZOOT-3_2023-07	POL-P2_ZOOT-4_2023-07	POL-P2_ZOOT-5_2023-07
Client sampling date / time					27-Jul-2023 00:00	27-Jul-2023 00:00	27-Jul-2023 00:00	27-Jul-2023 00:00	27-Jul-2023 00:00
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23B7798-001	VA23B7798-002	VA23B7798-003	VA23B7798-004	VA23B7798-005
					Result	Result	Result	Result	Result
Physical Tests									
Moisture	----	E144A/VA	2.0	%	98.5	98.2	97.8	98.9	98.0
Metals									
Aluminum	7429-90-5	E475/VA	5.0	mg/kg	1820	7740	2710	2070	7630
Antimony	7440-36-0	E475/VA	0.020	mg/kg	0.413	0.271	0.309	0.532	0.348
Arsenic	7440-38-2	E475/VA	0.050	mg/kg	7.97	8.74	8.32	9.37	9.02
Barium	7440-39-3	E475/VA	0.050	mg/kg	37.0	65.0	39.1	39.4	70.2
Beryllium	7440-41-7	E475/VA	0.010	mg/kg	0.058	0.217	0.091	0.064	0.235
Bismuth	7440-69-9	E475/VA	0.010	mg/kg	0.092	0.081	0.072	0.081	0.097
Boron	7440-42-8	E475/VA	1.0	mg/kg	17.6	15.8	14.5	18.3	15.3
Cadmium	7440-43-9	E475/VA	0.010	mg/kg	0.587	0.512	0.796	0.534	0.489
Calcium	7440-70-2	E475/VA	20	mg/kg	21600	21200	15100	28400	20300
Cesium	7440-46-2	E475/VA	0.0050	mg/kg	0.185	0.667	0.298	0.221	0.783
Chromium	7440-47-3	E475/VA	0.20	mg/kg	16.0	59.7	13.5	8.97	36.0
Cobalt	7440-48-4	E475/VA	0.020	mg/kg	2.07	8.66	2.65	2.35	6.33
Copper	7440-50-8	E475/VA	0.20	mg/kg	105	231	144	137	264
Iron	7439-89-6	E475/VA	5.0	mg/kg	3100	12800	4530	3550	10700
Lead	7439-92-1	E475/VA	0.050	mg/kg	3.70	5.28	4.43	5.72	5.70
Lithium	7439-93-2	E475/VA	0.50	mg/kg	1.64	5.86	2.44	1.87	6.40
Magnesium	7439-95-4	E475/VA	2.0	mg/kg	3330	7870	3380	3870	5290
Manganese	7439-96-5	E475/VA	0.050	mg/kg	368	886	446	377	622
Mercury	7439-97-6	E512/VA	0.010	mg/kg	0.046	0.052	0.048	0.053	0.083
Mercury	7439-97-6	E512A/VA	0.0020	mg/kg wwt	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Molybdenum	7439-98-7	E475/VA	0.040	mg/kg	2.90	3.62	2.58	3.43	3.20
Nickel	7440-02-0	E475/VA	0.20	mg/kg	17.0	35.5	14.9	15.6	26.1
Phosphorus	7723-14-0	E475/VA	20	mg/kg	11800	9820	10800	14200	9540
Potassium	7440-09-7	E475/VA	20	mg/kg	10700	8850	9120	12700	7760
Rubidium	7440-17-7	E475/VA	0.050	mg/kg	6.96	7.99	7.01	7.71	8.84
Selenium	7782-49-2	E475/VA	0.10	mg/kg	3.60	3.69	3.78	3.99	4.10
Silver	7440-22-4	E475.Ag/VA	0.0050	mg/kg	0.141	0.255	0.133	0.166	0.240
Sodium	7440-23-5	E475/VA	20	mg/kg	4760	3420	3760	6410	3510



Analytical Results

Sub-Matrix: Tissue
 (Matrix: Biota)

					Client sample ID	POL-P2_ZOOT-1_2023-07	POL-P2_ZOOT-2_2023-07	POL-P2_ZOOT-3_2023-07	POL-P2_ZOOT-4_2023-07	POL-P2_ZOOT-5_2023-07
					Client sampling date / time	27-Jul-2023 00:00	27-Jul-2023 00:00	27-Jul-2023 00:00	27-Jul-2023 00:00	27-Jul-2023 00:00
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23B7798-001	VA23B7798-002	VA23B7798-003	VA23B7798-004	VA23B7798-005	
					Result	Result	Result	Result	Result	
Metals										
Strontium	7440-24-6	E475/VA	0.10	mg/kg	116	130	88.3	151	127	
Tellurium	13494-80-9	E475/VA	0.020	mg/kg	0.572	0.356	0.226	0.426	0.216	
Thallium	7440-28-0	E475/VA	0.0020	mg/kg	0.0226	0.0336	0.0228	0.0193	0.0423	
Tin	7440-31-5	E475/VA	0.10	mg/kg	4.19	2.28	2.68	1.37	1.92	
Titanium	7440-32-6	E475.Ti/VA	0.50	mg/kg	115	542	165	128	400	
Uranium	7440-61-1	E475/VA	0.0020	mg/kg	0.175	0.391	0.231	0.184	0.553	
Vanadium	7440-62-2	E475/VA	0.10	mg/kg	11.5	52.3	15.1	12.7	34.4	
Zinc	7440-66-6	E475/VA	1.0	mg/kg	249	208	170	343	238	
Zirconium	7440-67-7	E475/VA	0.20	mg/kg	1.68	3.46	1.98	2.61	4.24	

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.



Analytical Results

Sub-Matrix: Tissue (Matrix: Biota)				Client sample ID	BOL-B2_ZOOT-1_2023-067	BOL-B2_ZOOT-2_2023-07	BOL-B2_ZOOT-3_2023-07	BOL-B2_ZOOT-4_2023-07	BOL-B2_ZOOT-5_2023-07
Client sampling date / time				27-Jul-2023 00:00	27-Jul-2023 00:00	27-Jul-2023 00:00	27-Jul-2023 00:00	27-Jul-2023 00:00	
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23B7798-006	VA23B7798-007	VA23B7798-008	VA23B7798-009	VA23B7798-010
					Result	Result	Result	Result	Result
Physical Tests									
Moisture	----	E144A/VA	2.0	%	98.6	97.6	98.0	97.4	97.3
Metals									
Aluminum	7429-90-5	E475/VA	5.0	mg/kg	2800	2210	2560	2360	4100
Antimony	7440-36-0	E475/VA	0.020	mg/kg	0.579	0.348	0.303	0.138	0.310
Arsenic	7440-38-2	E475/VA	0.050	mg/kg	5.49	5.26	6.40	5.86	6.16
Barium	7440-39-3	E475/VA	0.050	mg/kg	82.7	61.6	69.0	65.1	109
Beryllium	7440-41-7	E475/VA	0.010	mg/kg	0.106	0.084	0.100	0.072	0.137
Bismuth	7440-69-9	E475/VA	0.010	mg/kg	0.084	0.047	0.060	0.032	0.063
Boron	7440-42-8	E475/VA	1.0	mg/kg	49.9	14.5	20.2	12.3	10.5
Cadmium	7440-43-9	E475/VA	0.010	mg/kg	0.409	0.346	0.370	0.353	0.371
Calcium	7440-70-2	E475/VA	20	mg/kg	26500	26300	23400	23600	20700
Cesium	7440-46-2	E475/VA	0.0050	mg/kg	0.310	0.258	0.263	0.320	0.431
Chromium	7440-47-3	E475/VA	0.20	mg/kg	33.7	17.2	18.8	10.1	14.8
Cobalt	7440-48-4	E475/VA	0.020	mg/kg	2.60	2.02	2.29	1.73	3.18
Copper	7440-50-8	E475/VA	0.20	mg/kg	182	149	117	184	189
Iron	7439-89-6	E475/VA	5.0	mg/kg	5300	4250	5560	4000	7340
Lead	7439-92-1	E475/VA	0.050	mg/kg	4.68	2.25	2.72	2.22	4.08
Lithium	7439-93-2	E475/VA	0.50	mg/kg	2.32	2.01	1.86	1.34	2.76
Magnesium	7439-95-4	E475/VA	2.0	mg/kg	2850	2680	2630	2320	3040
Manganese	7439-96-5	E475/VA	0.050	mg/kg	788	920	1320	688	1030
Mercury	7439-97-6	E512/VA	0.010	mg/kg	0.059	0.051	0.043	0.050	0.048
Mercury	7439-97-6	E512A/VA	0.0020	mg/kg wwt	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Molybdenum	7439-98-7	E475/VA	0.040	mg/kg	2.44	2.22	2.22	1.73	1.95
Nickel	7440-02-0	E475/VA	0.20	mg/kg	22.5	13.6	17.0	12.5	11.4
Phosphorus	7723-14-0	E475/VA	20	mg/kg	8910	9380	9560	10100	7550
Potassium	7440-09-7	E475/VA	20	mg/kg	6140	6350	7450	7560	5280
Rubidium	7440-17-7	E475/VA	0.050	mg/kg	6.70	6.48	7.49	7.35	6.42
Selenium	7782-49-2	E475/VA	0.10	mg/kg	2.28	2.51	2.40	2.64	2.06
Silver	7440-22-4	E475.Ag/VA	0.0050	mg/kg	0.237	0.125	0.128	0.0878	0.164
Sodium	7440-23-5	E475/VA	20	mg/kg	3680	3590	3610	4780	2960
Strontium	7440-24-6	E475/VA	0.10	mg/kg	166	163	153	148	144



Analytical Results

Sub-Matrix: Tissue
 (Matrix: Biota)

					Client sample ID	BOL-B2_ZOOT-1_2023-067	BOL-B2_ZOOT-2_2023-07	BOL-B2_ZOOT-3_2023-07	BOL-B2_ZOOT-4_2023-07	BOL-B2_ZOOT-5_2023-07
					Client sampling date / time	27-Jul-2023 00:00	27-Jul-2023 00:00	27-Jul-2023 00:00	27-Jul-2023 00:00	27-Jul-2023 00:00
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23B7798-006	VA23B7798-007	VA23B7798-008	VA23B7798-009	VA23B7798-010	
					Result	Result	Result	Result	Result	
Metals										
Tellurium	13494-80-9	E475/VA	0.020	mg/kg	0.327	0.222	0.189	0.321	0.291	
Thallium	7440-28-0	E475/VA	0.0020	mg/kg	0.0438	0.0556	0.0562	0.0446	0.0516	
Tin	7440-31-5	E475/VA	0.10	mg/kg	2.44	0.89	1.04	0.93	2.86	
Titanium	7440-32-6	E475.Ti/VA	0.50	mg/kg	187	121	157	112	274	
Uranium	7440-61-1	E475/VA	0.0020	mg/kg	0.252	0.190	0.273	0.216	0.289	
Vanadium	7440-62-2	E475/VA	0.10	mg/kg	27.8	31.6	32.8	28.3	37.7	
Zinc	7440-66-6	E475/VA	1.0	mg/kg	270	146	148	148	215	
Zirconium	7440-67-7	E475/VA	0.20	mg/kg	2.38	1.55	1.94	1.73	3.04	

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.



Analytical Results

Sub-Matrix: Tissue					Client sample ID				
(Matrix: Biota)					QUL-ZOO-7_ZO OT-1_2023-07	QUL-ZOO-7_ZO OT-2_2023-07	QUL-ZOO-7_ZO OT-3_2023-07	QUL-ZOO-7_ZO OT-4_2023-07	QUL-ZOO-7_ZO OT-5_2023-07
Client sampling date / time					26-Jul-2023 00:00	26-Jul-2023 00:00	26-Jul-2023 00:00	26-Jul-2023 00:00	26-Jul-2023 00:00
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23B7798-011	VA23B7798-012	VA23B7798-013	VA23B7798-014	VA23B7798-015
					Result	Result	Result	Result	Result
Physical Tests									
Moisture	----	E144A/VA	2.0	%	97.8	97.9	97.9	97.2	97.3
Metals									
Aluminum	7429-90-5	E475/VA	5.0	mg/kg	1520	934	889	1040	1210
Antimony	7440-36-0	E475/VA	0.020	mg/kg	0.381	0.599	2.91	0.208	0.334
Arsenic	7440-38-2	E475/VA	0.050	mg/kg	5.12	3.60	3.78	3.52	3.70
Barium	7440-39-3	E475/VA	0.050	mg/kg	31.0	18.9	31.7	21.8	25.4
Beryllium	7440-41-7	E475/VA	0.010	mg/kg	0.051	0.034	0.033	0.038	0.042
Bismuth	7440-69-9	E475/VA	0.010	mg/kg	0.054	0.042	0.028	0.058	0.052
Boron	7440-42-8	E475/VA	1.0	mg/kg	10.0	5.2	5.5	2.6	4.0
Cadmium	7440-43-9	E475/VA	0.010	mg/kg	2.41	1.76	2.21	1.84	1.63
Calcium	7440-70-2	E475/VA	20	mg/kg	23200	16200	22100	21100	21300
Cesium	7440-46-2	E475/VA	0.0050	mg/kg	0.188	0.132	0.111	0.134	0.157
Chromium	7440-47-3	E475/VA	0.20	mg/kg	11.3	13.3	4.78	4.92	9.82
Cobalt	7440-48-4	E475/VA	0.020	mg/kg	1.70	1.25	1.12	1.16	1.31
Copper	7440-50-8	E475/VA	0.20	mg/kg	87.0	58.1	36.1	58.4	78.0
Iron	7439-89-6	E475/VA	5.0	mg/kg	2760	1870	1480	2070	2260
Lead	7439-92-1	E475/VA	0.050	mg/kg	6.78	4.81	2.21	3.21	3.72
Lithium	7439-93-2	E475/VA	0.50	mg/kg	1.80	1.22	1.02	1.29	1.41
Magnesium	7439-95-4	E475/VA	2.0	mg/kg	2130	1590	1530	1640	1750
Manganese	7439-96-5	E475/VA	0.050	mg/kg	133	93.1	95.2	86.2	102
Mercury	7439-97-6	E512/VA	0.010	mg/kg	0.082	0.052	0.058	0.053	0.063
Mercury	7439-97-6	E512A/VA	0.0020	mg/kg wwt	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Molybdenum	7439-98-7	E475/VA	0.040	mg/kg	3.09	1.87	0.907	2.75	3.38
Nickel	7440-02-0	E475/VA	0.20	mg/kg	11.5	9.89	5.58	5.98	7.61
Phosphorus	7723-14-0	E475/VA	20	mg/kg	15100	10900	12500	11100	11200
Potassium	7440-09-7	E475/VA	20	mg/kg	11500	8520	8940	7900	7430
Rubidium	7440-17-7	E475/VA	0.050	mg/kg	20.4	14.6	15.3	14.2	13.4
Selenium	7782-49-2	E475/VA	0.10	mg/kg	4.25	2.79	3.37	2.95	2.91
Silver	7440-22-4	E475.Ag/VA	0.0050	mg/kg	0.184	0.162	0.0993	0.137	0.138
Sodium	7440-23-5	E475/VA	20	mg/kg	7330	5460	5880	4860	4380
Strontium	7440-24-6	E475/VA	0.10	mg/kg	141	100	131	117	116



Analytical Results

Sub-Matrix: Tissue

(Matrix: Biota)

					Client sample ID	QUL-ZOO-7_ZO OT-1_2023-07	QUL-ZOO-7_ZO OT-2_2023-07	QUL-ZOO-7_ZO OT-3_2023-07	QUL-ZOO-7_ZO OT-4_2023-07	QUL-ZOO-7_ZO OT-5_2023-07
					Client sampling date / time	26-Jul-2023 00:00	26-Jul-2023 00:00	26-Jul-2023 00:00	26-Jul-2023 00:00	26-Jul-2023 00:00
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23B7798-011	VA23B7798-012	VA23B7798-013	VA23B7798-014	VA23B7798-015	
					Result	Result	Result	Result	Result	
Metals										
Tellurium	13494-80-9	E475/VA	0.020	mg/kg	0.186	0.275	0.205	0.458	0.398	
Thallium	7440-28-0	E475/VA	0.0020	mg/kg	0.0411	0.0240	0.0272	0.0269	0.0244	
Tin	7440-31-5	E475/VA	0.10	mg/kg	1.72	1.48	0.67	1.00	1.41	
Titanium	7440-32-6	E475.Ti/VA	0.50	mg/kg	82.6	57.0	50.6	63.1	68.8	
Uranium	7440-61-1	E475/VA	0.0020	mg/kg	0.171	0.113	0.114	0.122	0.127	
Vanadium	7440-62-2	E475/VA	0.10	mg/kg	6.23	4.44	3.33	4.90	5.39	
Zinc	7440-66-6	E475/VA	1.0	mg/kg	206	207	160	250	244	
Zirconium	7440-67-7	E475/VA	0.20	mg/kg	1.70	1.10	0.96	2.45	1.16	

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.



Analytical Results

Sub-Matrix: Tissue					Client sample ID	QUL-ZOO-1_ZO OT-1_2023-07	QUL-ZOO-1_ZO OT-2_2023-07	QUL-ZOO-1_ZO OT-3_2023-07	QUL-ZOO-1_ZO OT-4_2023-07	QUL-ZOO-1_ZO OT-5_2023-07
(Matrix: Biota)					Client sampling date / time	26-Jul-2023 00:00	26-Jul-2023 00:00	26-Jul-2023 00:00	26-Jul-2023 00:00	26-Jul-2023 00:00
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23B7798-016	VA23B7798-017	VA23B7798-018	VA23B7798-019	VA23B7798-020	
					Result	Result	Result	Result	Result	
Physical Tests										
Moisture	----	E144A/VA	2.0	%	98.2	98.4	98.0	98.0	96.3	
Metals										
Aluminum	7429-90-5	E475/VA	5.0	mg/kg	637	1580	1200	1290	662	
Antimony	7440-36-0	E475/VA	0.020	mg/kg	0.266	0.824	0.429	1.28	0.458	
Arsenic	7440-38-2	E475/VA	0.050	mg/kg	3.15	4.95	4.27	4.71	3.14	
Barium	7440-39-3	E475/VA	0.050	mg/kg	17.2	43.3	43.4	31.5	19.8	
Beryllium	7440-41-7	E475/VA	0.010	mg/kg	0.025	0.056	0.046	0.042	0.024	
Bismuth	7440-69-9	E475/VA	0.010	mg/kg	0.036	0.098	0.065	0.103	0.034	
Boron	7440-42-8	E475/VA	1.0	mg/kg	1.9	13.0	3.5	14.0	2.1	
Cadmium	7440-43-9	E475/VA	0.010	mg/kg	1.69	2.73	2.34	2.48	1.59	
Calcium	7440-70-2	E475/VA	20	mg/kg	13600	23600	19500	18600	12900	
Cesium	7440-46-2	E475/VA	0.0050	mg/kg	0.0896	0.205	0.144	0.162	0.0929	
Chromium	7440-47-3	E475/VA	0.20	mg/kg	4.09	26.2	12.5	10.8	13.9	
Cobalt	7440-48-4	E475/VA	0.020	mg/kg	0.841	1.88	1.38	1.52	0.923	
Copper	7440-50-8	E475/VA	0.20	mg/kg	34.7	95.2	68.9	68.2	53.2	
Iron	7439-89-6	E475/VA	5.0	mg/kg	1420	3130	2320	2560	1410	
Lead	7439-92-1	E475/VA	0.050	mg/kg	1.82	4.68	3.24	5.50	1.41	
Lithium	7439-93-2	E475/VA	0.50	mg/kg	0.86	1.78	1.31	1.64	0.87	
Magnesium	7439-95-4	E475/VA	2.0	mg/kg	1290	2330	2080	2020	1260	
Manganese	7439-96-5	E475/VA	0.050	mg/kg	69.2	134	100	116	59.6	
Mercury	7439-97-6	E512/VA	0.010	mg/kg	0.050	0.094	0.059	0.084	0.043	
Mercury	7439-97-6	E512A/VA	0.0020	mg/kg wwt	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	
Molybdenum	7439-98-7	E475/VA	0.040	mg/kg	0.884	2.22	1.59	2.64	1.42	
Nickel	7440-02-0	E475/VA	0.20	mg/kg	4.29	23.1	8.94	9.47	8.38	
Phosphorus	7723-14-0	E475/VA	20	mg/kg	9780	13400	12400	12800	9760	
Potassium	7440-09-7	E475/VA	20	mg/kg	7150	9190	8240	9890	7780	
Rubidium	7440-17-7	E475/VA	0.050	mg/kg	12.1	16.2	13.8	17.4	12.7	
Selenium	7782-49-2	E475/VA	0.10	mg/kg	2.56	3.70	3.04	3.84	2.44	
Silver	7440-22-4	E475.Ag/VA	0.0050	mg/kg	0.0976	0.252	0.159	0.182	0.0830	
Sodium	7440-23-5	E475/VA	20	mg/kg	3850	5430	4320	5640	4620	
Strontium	7440-24-6	E475/VA	0.10	mg/kg	83.4	143	103	113	75.7	



Analytical Results

Sub-Matrix: Tissue

(Matrix: Biota)

					Client sample ID	QUL-ZOO-1_ZO OT-1_2023-07	QUL-ZOO-1_ZO OT-2_2023-07	QUL-ZOO-1_ZO OT-3_2023-07	QUL-ZOO-1_ZO OT-4_2023-07	QUL-ZOO-1_ZO OT-5_2023-07
					Client sampling date / time	26-Jul-2023 00:00	26-Jul-2023 00:00	26-Jul-2023 00:00	26-Jul-2023 00:00	26-Jul-2023 00:00
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23B7798-016	VA23B7798-017	VA23B7798-018	VA23B7798-019	VA23B7798-020	
					Result	Result	Result	Result	Result	
Metals										
Tellurium	13494-80-9	E475/VA	0.020	mg/kg	0.202	0.758	0.437	0.568	0.386	
Thallium	7440-28-0	E475/VA	0.0020	mg/kg	0.0201	0.0369	0.0254	0.0309	0.0200	
Tin	7440-31-5	E475/VA	0.10	mg/kg	0.82	2.45	1.81	2.48	1.12	
Titanium	7440-32-6	E475.Ti/VA	0.50	mg/kg	40.5	88.9	93.1	76.0	47.6	
Uranium	7440-61-1	E475/VA	0.0020	mg/kg	0.0860	0.179	0.138	0.162	0.0735	
Vanadium	7440-62-2	E475/VA	0.10	mg/kg	3.71	8.19	5.76	6.31	3.99	
Zinc	7440-66-6	E475/VA	1.0	mg/kg	147	347	379	331	153	
Zirconium	7440-67-7	E475/VA	0.20	mg/kg	0.75	1.56	1.58	1.61	0.65	

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.



Analytical Results

Sub-Matrix: Tissue					Client sample ID	BOL-B2_ZOOT-5X_2023-07	----	----	----	----
(Matrix: Biota)					Client sampling date / time	27-Jul-2023 00:00	----	----	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23B7798-021	-----	-----	-----	-----	
					Result	----	----	----	----	
Physical Tests										
Moisture	----	E144A/VA	2.0	%	97.7	----	----	----	----	
Metals										
Aluminum	7429-90-5	E475/VA	5.0	mg/kg	2990	----	----	----	----	
Antimony	7440-36-0	E475/VA	0.020	mg/kg	0.338	----	----	----	----	
Arsenic	7440-38-2	E475/VA	0.050	mg/kg	5.28	----	----	----	----	
Barium	7440-39-3	E475/VA	0.050	mg/kg	106	----	----	----	----	
Beryllium	7440-41-7	E475/VA	0.010	mg/kg	0.117	----	----	----	----	
Bismuth	7440-69-9	E475/VA	0.010	mg/kg	0.064	----	----	----	----	
Boron	7440-42-8	E475/VA	1.0	mg/kg	18.1	----	----	----	----	
Cadmium	7440-43-9	E475/VA	0.010	mg/kg	0.314	----	----	----	----	
Calcium	7440-70-2	E475/VA	20	mg/kg	19800	----	----	----	----	
Cesium	7440-46-2	E475/VA	0.0050	mg/kg	0.294	----	----	----	----	
Chromium	7440-47-3	E475/VA	0.20	mg/kg	28.0	----	----	----	----	
Cobalt	7440-48-4	E475/VA	0.020	mg/kg	2.72	----	----	----	----	
Copper	7440-50-8	E475/VA	0.20	mg/kg	145	----	----	----	----	
Iron	7439-89-6	E475/VA	5.0	mg/kg	5560	----	----	----	----	
Lead	7439-92-1	E475/VA	0.050	mg/kg	3.38	----	----	----	----	
Lithium	7439-93-2	E475/VA	0.50	mg/kg	2.17	----	----	----	----	
Magnesium	7439-95-4	E475/VA	2.0	mg/kg	2580	----	----	----	----	
Manganese	7439-96-5	E475/VA	0.050	mg/kg	970	----	----	----	----	
Mercury	7439-97-6	E512/VA	0.010	mg/kg	0.053	----	----	----	----	
Mercury	7439-97-6	E512A/VA	0.0020	mg/kg wwt	<0.0020	----	----	----	----	
Molybdenum	7439-98-7	E475/VA	0.040	mg/kg	5.11	----	----	----	----	
Nickel	7440-02-0	E475/VA	0.20	mg/kg	18.4	----	----	----	----	
Phosphorus	7723-14-0	E475/VA	20	mg/kg	6890	----	----	----	----	
Potassium	7440-09-7	E475/VA	20	mg/kg	4900	----	----	----	----	
Rubidium	7440-17-7	E475/VA	0.050	mg/kg	5.85	----	----	----	----	
Selenium	7782-49-2	E475/VA	0.10	mg/kg	1.89	----	----	----	----	
Silver	7440-22-4	E475.Ag/VA	0.0050	mg/kg	0.158	----	----	----	----	
Sodium	7440-23-5	E475/VA	20	mg/kg	2700	----	----	----	----	
Strontium	7440-24-6	E475/VA	0.10	mg/kg	121	----	----	----	----	



Analytical Results

Sub-Matrix: Tissue					Client sample ID	BOL-B2_ZOOT-5X_2023-07	----	----	----	----
(Matrix: Biota)					Client sampling date / time	27-Jul-2023 00:00	----	----	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23B7798-021	-----	-----	-----	-----	
					Result	----	----	----	----	
Metals										
Tellurium	13494-80-9	E475/VA	0.020	mg/kg	0.594	----	----	----	----	
Thallium	7440-28-0	E475/VA	0.0020	mg/kg	0.0475	----	----	----	----	
Tin	7440-31-5	E475/VA	0.10	mg/kg	2.45	----	----	----	----	
Titanium	7440-32-6	E475.Ti/VA	0.50	mg/kg	231	----	----	----	----	
Uranium	7440-61-1	E475/VA	0.0020	mg/kg	0.245	----	----	----	----	
Vanadium	7440-62-2	E475/VA	0.10	mg/kg	30.9	----	----	----	----	
Zinc	7440-66-6	E475/VA	1.0	mg/kg	209	----	----	----	----	
Zirconium	7440-67-7	E475/VA	0.20	mg/kg	2.64	----	----	----	----	

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.

QUALITY CONTROL INTERPRETIVE REPORT

<p>Work Order : VA23B7798</p> <p>Client : Mount Polley Mining Corporation</p> <p>Contact : Mr. Gabriel Holmes</p> <p>Address : PO Box 12 Likely BC Canada V0L 1N0</p> <p>Telephone : 250-790-2215 ext 2171</p> <p>Project : ----</p> <p>PO : 5590012190</p> <p>C-O-C number : ----</p> <p>Sampler : SLA/CAP</p> <p>Site : ----</p> <p>Quote number : VA22-MPMC100-002</p> <p>No. of samples received : 21</p> <p>No. of samples analysed : 21</p>	<p>Page : 1 of 21</p> <p>Laboratory : ALS Environmental - Vancouver</p> <p>Account Manager : Can Dang</p> <p>Address : 8081 Lougheed Highway Burnaby, British Columbia Canada V5A 1W9</p> <p>Telephone : +1 604 253 4188</p> <p>Date Samples Received : 02-Aug-2023 11:20</p> <p>Issue Date : 12-Sep-2023 16:30</p>
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This report is automatically generated by the ALS LIMS (Laboratory Information Management System) through evaluation of Quality Control (QC) results and other QA parameters associated with this submission, and is intended to facilitate rapid data validation by auditors or reviewers. The report highlights any exceptions and outliers to ALS Data Quality Objectives, provides holding time details and exceptions, summarizes QC sample frequencies, and lists applicable methodology references and summaries.

Key

- Anonymous: Refers to samples which are not part of this work order, but which formed part of the QC process lot.
- CAS Number: Chemical Abstracts Service number is a unique identifier assigned to discrete substances.
- DQO: Data Quality Objective.
- LOR: Limit of Reporting (detection limit).
- RPD: Relative Percent Difference.

Workorder Comments

Holding times are displayed as "----" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

Summary of Outliers

Outliers : Quality Control Samples

- No Method Blank value outliers occur.
- No Laboratory Control Sample (LCS) outliers occur
- No Test sample Surrogate recovery outliers exist.

Outliers: Reference Material (RM) Samples

- Reference Material (RM) Sample outliers occur - please see the following pages for full details.

Outliers : Analysis Holding Time Compliance (Breaches)

- No Analysis Holding Time Outliers exist.

Outliers : Frequency of Quality Control Samples

- No Quality Control Sample Frequency Outliers occur.



Matrix: Biota

Analyte Group	Laboratory sample ID	Client/Ref Sample ID	Analyte	CAS Number	Method	Result	Limits	Comment
Reference Material (RM) Sample								
Metals	QC-MRG5-1108246 003	----	Aluminum	7429-90-5	E475	67.7 % MES	70.0-130%	Recovery less than lower control limit
Metals	QC-MRG5-1108246 003	----	Vanadium	7440-62-2	E475	68.3 % MES	70.0-130%	Recovery less than lower control limit
Metals	QC-MRG5-1108246 003	----	Titanium	7440-32-6	E475.Ti	68.5 % MES	70.0-130%	Recovery less than lower control limit

Result Qualifiers

Qualifier	Description
MES	Data Quality Objective was marginally exceeded (by < 10% absolute) for < 10% of analytes in a Multi-Element Scan / Multi-Parameter Scan (considered acceptable as per OMOE & CCME).



Analysis Holding Time Compliance

This report summarizes extraction / preparation and analysis times and compares each with ALS recommended holding times, which are selected to meet known provincial and /or federal requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by organizations such as CCME, US EPA, APHA Standard Methods, ASTM, or Environment Canada (where available). Dates and holding times reported below represent the first dates of extraction or analysis. If subsequent tests or dilutions exceeded holding times, qualifiers are added (refer to COA).

If samples are identified below as having been analyzed or extracted outside of recommended holding times, measurement uncertainties may be increased, and this should be taken into consideration when interpreting results.

Where actual sampling date is not provided on the chain of custody, the date of receipt with time at 00:00 is used for calculation purposes.

Where only the sample date without time is provided on the chain of custody, the sampling date at 00:00 is used for calculation purposes.

Matrix: **Biota** Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Metals : Mercury in Biota by CVAAS (DRY units, Biopsy)										
LDPE bag BOL-B2_ZOOT-1_2023-067	E512	27-Jul-2023	29-Aug-2023	365 days	33 days	✔	31-Aug-2023	365 days	36 days	✔
Metals : Mercury in Biota by CVAAS (DRY units, Biopsy)										
LDPE bag BOL-B2_ZOOT-2_2023-07	E512	27-Jul-2023	29-Aug-2023	365 days	33 days	✔	31-Aug-2023	365 days	36 days	✔
Metals : Mercury in Biota by CVAAS (DRY units, Biopsy)										
LDPE bag BOL-B2_ZOOT-3_2023-07	E512	27-Jul-2023	29-Aug-2023	365 days	33 days	✔	31-Aug-2023	365 days	36 days	✔
Metals : Mercury in Biota by CVAAS (DRY units, Biopsy)										
LDPE bag BOL-B2_ZOOT-4_2023-07	E512	27-Jul-2023	29-Aug-2023	365 days	33 days	✔	31-Aug-2023	365 days	36 days	✔
Metals : Mercury in Biota by CVAAS (DRY units, Biopsy)										
LDPE bag BOL-B2_ZOOT-5_2023-07	E512	27-Jul-2023	29-Aug-2023	365 days	33 days	✔	31-Aug-2023	365 days	36 days	✔
Metals : Mercury in Biota by CVAAS (DRY units, Biopsy)										
LDPE bag BOL-B2_ZOOT-5X_2023-07	E512	27-Jul-2023	29-Aug-2023	365 days	33 days	✔	31-Aug-2023	365 days	36 days	✔
Metals : Mercury in Biota by CVAAS (DRY units, Biopsy)										
LDPE bag POL-P2_ZOOT-1_2023-07	E512	27-Jul-2023	29-Aug-2023	365 days	33 days	✔	31-Aug-2023	365 days	36 days	✔



Matrix: **Biota** Evaluation: * = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Metals : Mercury in Biota by CVAAS (DRY units, Biopsy)											
LDPE bag POL-P2_ZOOT-2_2023-07	E512	27-Jul-2023	29-Aug-2023	365 days	33 days	✓	31-Aug-2023	365 days	36 days	✓	
Metals : Mercury in Biota by CVAAS (DRY units, Biopsy)											
LDPE bag POL-P2_ZOOT-3_2023-07	E512	27-Jul-2023	29-Aug-2023	365 days	33 days	✓	31-Aug-2023	365 days	36 days	✓	
Metals : Mercury in Biota by CVAAS (DRY units, Biopsy)											
LDPE bag POL-P2_ZOOT-4_2023-07	E512	27-Jul-2023	29-Aug-2023	365 days	33 days	✓	31-Aug-2023	365 days	36 days	✓	
Metals : Mercury in Biota by CVAAS (DRY units, Biopsy)											
LDPE bag POL-P2_ZOOT-5_2023-07	E512	27-Jul-2023	29-Aug-2023	365 days	33 days	✓	31-Aug-2023	365 days	36 days	✓	
Metals : Mercury in Biota by CVAAS (DRY units, Biopsy)											
LDPE bag QUL-ZOO-1_ZOOT-1_2023-07	E512	26-Jul-2023	29-Aug-2023	365 days	34 days	✓	31-Aug-2023	365 days	37 days	✓	
Metals : Mercury in Biota by CVAAS (DRY units, Biopsy)											
LDPE bag QUL-ZOO-1_ZOOT-2_2023-07	E512	26-Jul-2023	29-Aug-2023	365 days	34 days	✓	31-Aug-2023	365 days	37 days	✓	
Metals : Mercury in Biota by CVAAS (DRY units, Biopsy)											
LDPE bag QUL-ZOO-1_ZOOT-3_2023-07	E512	26-Jul-2023	29-Aug-2023	365 days	34 days	✓	31-Aug-2023	365 days	37 days	✓	
Metals : Mercury in Biota by CVAAS (DRY units, Biopsy)											
LDPE bag QUL-ZOO-1_ZOOT-4_2023-07	E512	26-Jul-2023	29-Aug-2023	365 days	34 days	✓	31-Aug-2023	365 days	37 days	✓	
Metals : Mercury in Biota by CVAAS (DRY units, Biopsy)											
LDPE bag QUL-ZOO-1_ZOOT-5_2023-07	E512	26-Jul-2023	29-Aug-2023	365 days	34 days	✓	31-Aug-2023	365 days	37 days	✓	



Matrix: **Biota** Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Metals : Mercury in Biota by CVAAS (DRY units, Biopsy)											
LDPE bag QUL-ZOO-7_ZOOT-1_2023-07	E512	26-Jul-2023	29-Aug-2023	365 days	34 days	✔	31-Aug-2023	365 days	37 days	✔	
Metals : Mercury in Biota by CVAAS (DRY units, Biopsy)											
LDPE bag QUL-ZOO-7_ZOOT-2_2023-07	E512	26-Jul-2023	29-Aug-2023	365 days	34 days	✔	31-Aug-2023	365 days	37 days	✔	
Metals : Mercury in Biota by CVAAS (DRY units, Biopsy)											
LDPE bag QUL-ZOO-7_ZOOT-3_2023-07	E512	26-Jul-2023	29-Aug-2023	365 days	34 days	✔	31-Aug-2023	365 days	37 days	✔	
Metals : Mercury in Biota by CVAAS (DRY units, Biopsy)											
LDPE bag QUL-ZOO-7_ZOOT-4_2023-07	E512	26-Jul-2023	29-Aug-2023	365 days	34 days	✔	31-Aug-2023	365 days	37 days	✔	
Metals : Mercury in Biota by CVAAS (DRY units, Biopsy)											
LDPE bag QUL-ZOO-7_ZOOT-5_2023-07	E512	26-Jul-2023	29-Aug-2023	365 days	34 days	✔	31-Aug-2023	365 days	37 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Biopsy)											
LDPE bag BOL-B2_ZOOT-1_2023-067	E512A	27-Jul-2023	29-Aug-2023	365 days	33 days	✔	31-Aug-2023	365 days	36 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Biopsy)											
LDPE bag BOL-B2_ZOOT-2_2023-07	E512A	27-Jul-2023	29-Aug-2023	365 days	33 days	✔	31-Aug-2023	365 days	36 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Biopsy)											
LDPE bag BOL-B2_ZOOT-3_2023-07	E512A	27-Jul-2023	29-Aug-2023	365 days	33 days	✔	31-Aug-2023	365 days	36 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Biopsy)											
LDPE bag BOL-B2_ZOOT-4_2023-07	E512A	27-Jul-2023	29-Aug-2023	365 days	33 days	✔	31-Aug-2023	365 days	36 days	✔	



Matrix: **Biota** Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Metals : Mercury in Biota by CVAAS (WET units, Biopsy)										
LDPE bag BOL-B2_ZOOT-5_2023-07	E512A	27-Jul-2023	29-Aug-2023	365 days	33 days	✔	31-Aug-2023	365 days	36 days	✔
Metals : Mercury in Biota by CVAAS (WET units, Biopsy)										
LDPE bag BOL-B2_ZOOT-5X_2023-07	E512A	27-Jul-2023	29-Aug-2023	365 days	33 days	✔	31-Aug-2023	365 days	36 days	✔
Metals : Mercury in Biota by CVAAS (WET units, Biopsy)										
LDPE bag POL-P2_ZOOT-1_2023-07	E512A	27-Jul-2023	29-Aug-2023	365 days	33 days	✔	31-Aug-2023	365 days	36 days	✔
Metals : Mercury in Biota by CVAAS (WET units, Biopsy)										
LDPE bag POL-P2_ZOOT-2_2023-07	E512A	27-Jul-2023	29-Aug-2023	365 days	33 days	✔	31-Aug-2023	365 days	36 days	✔
Metals : Mercury in Biota by CVAAS (WET units, Biopsy)										
LDPE bag POL-P2_ZOOT-3_2023-07	E512A	27-Jul-2023	29-Aug-2023	365 days	33 days	✔	31-Aug-2023	365 days	36 days	✔
Metals : Mercury in Biota by CVAAS (WET units, Biopsy)										
LDPE bag POL-P2_ZOOT-4_2023-07	E512A	27-Jul-2023	29-Aug-2023	365 days	33 days	✔	31-Aug-2023	365 days	36 days	✔
Metals : Mercury in Biota by CVAAS (WET units, Biopsy)										
LDPE bag POL-P2_ZOOT-5_2023-07	E512A	27-Jul-2023	29-Aug-2023	365 days	33 days	✔	31-Aug-2023	365 days	36 days	✔
Metals : Mercury in Biota by CVAAS (WET units, Biopsy)										
LDPE bag QUL-ZOO-1_ZOOT-1_2023-07	E512A	26-Jul-2023	29-Aug-2023	365 days	34 days	✔	31-Aug-2023	365 days	37 days	✔
Metals : Mercury in Biota by CVAAS (WET units, Biopsy)										
LDPE bag QUL-ZOO-1_ZOOT-2_2023-07	E512A	26-Jul-2023	29-Aug-2023	365 days	34 days	✔	31-Aug-2023	365 days	37 days	✔



Matrix: **Biota** Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Metals : Mercury in Biota by CVAAS (WET units, Biopsy)											
LDPE bag QUL-ZOO-1_ZOOT-3_2023-07	E512A	26-Jul-2023	29-Aug-2023	365 days	34 days	✔	31-Aug-2023	365 days	37 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Biopsy)											
LDPE bag QUL-ZOO-1_ZOOT-4_2023-07	E512A	26-Jul-2023	29-Aug-2023	365 days	34 days	✔	31-Aug-2023	365 days	37 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Biopsy)											
LDPE bag QUL-ZOO-1_ZOOT-5_2023-07	E512A	26-Jul-2023	29-Aug-2023	365 days	34 days	✔	31-Aug-2023	365 days	37 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Biopsy)											
LDPE bag QUL-ZOO-7_ZOOT-1_2023-07	E512A	26-Jul-2023	29-Aug-2023	365 days	34 days	✔	31-Aug-2023	365 days	37 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Biopsy)											
LDPE bag QUL-ZOO-7_ZOOT-2_2023-07	E512A	26-Jul-2023	29-Aug-2023	365 days	34 days	✔	31-Aug-2023	365 days	37 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Biopsy)											
LDPE bag QUL-ZOO-7_ZOOT-3_2023-07	E512A	26-Jul-2023	29-Aug-2023	365 days	34 days	✔	31-Aug-2023	365 days	37 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Biopsy)											
LDPE bag QUL-ZOO-7_ZOOT-4_2023-07	E512A	26-Jul-2023	29-Aug-2023	365 days	34 days	✔	31-Aug-2023	365 days	37 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Biopsy)											
LDPE bag QUL-ZOO-7_ZOOT-5_2023-07	E512A	26-Jul-2023	29-Aug-2023	365 days	34 days	✔	31-Aug-2023	365 days	37 days	✔	
Metals : Metals by CRC ICPMS (DRY units, Biopsy)											
LDPE bag BOL-B2_ZOOT-1_2023-067	E475	27-Jul-2023	29-Aug-2023	730 days	33 days	✔	29-Aug-2023	730 days	34 days	✔	



Matrix: **Biota** Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Metals : Metals by CRC ICPMS (DRY units, Biopsy)											
LDPE bag BOL-B2_ZOOT-2_2023-07	E475	27-Jul-2023	29-Aug-2023	730 days	33 days	✔	29-Aug-2023	730 days	34 days	✔	
Metals : Metals by CRC ICPMS (DRY units, Biopsy)											
LDPE bag BOL-B2_ZOOT-3_2023-07	E475	27-Jul-2023	29-Aug-2023	730 days	33 days	✔	29-Aug-2023	730 days	34 days	✔	
Metals : Metals by CRC ICPMS (DRY units, Biopsy)											
LDPE bag BOL-B2_ZOOT-4_2023-07	E475	27-Jul-2023	29-Aug-2023	730 days	33 days	✔	29-Aug-2023	730 days	34 days	✔	
Metals : Metals by CRC ICPMS (DRY units, Biopsy)											
LDPE bag BOL-B2_ZOOT-5_2023-07	E475	27-Jul-2023	29-Aug-2023	730 days	33 days	✔	29-Aug-2023	730 days	34 days	✔	
Metals : Metals by CRC ICPMS (DRY units, Biopsy)											
LDPE bag BOL-B2_ZOOT-5X_2023-07	E475	27-Jul-2023	29-Aug-2023	730 days	33 days	✔	29-Aug-2023	730 days	34 days	✔	
Metals : Metals by CRC ICPMS (DRY units, Biopsy)											
LDPE bag POL-P2_ZOOT-1_2023-07	E475	27-Jul-2023	29-Aug-2023	730 days	33 days	✔	29-Aug-2023	730 days	34 days	✔	
Metals : Metals by CRC ICPMS (DRY units, Biopsy)											
LDPE bag POL-P2_ZOOT-2_2023-07	E475	27-Jul-2023	29-Aug-2023	730 days	33 days	✔	29-Aug-2023	730 days	34 days	✔	
Metals : Metals by CRC ICPMS (DRY units, Biopsy)											
LDPE bag POL-P2_ZOOT-3_2023-07	E475	27-Jul-2023	29-Aug-2023	730 days	33 days	✔	29-Aug-2023	730 days	34 days	✔	
Metals : Metals by CRC ICPMS (DRY units, Biopsy)											
LDPE bag POL-P2_ZOOT-4_2023-07	E475	27-Jul-2023	29-Aug-2023	730 days	33 days	✔	29-Aug-2023	730 days	34 days	✔	



Matrix: **Biota** Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Metals : Metals by CRC ICPMS (DRY units, Biopsy)											
LDPE bag POL-P2_ZOOT-5_2023-07	E475	27-Jul-2023	29-Aug-2023	730 days	33 days	✔	29-Aug-2023	730 days	34 days	✔	
Metals : Metals by CRC ICPMS (DRY units, Biopsy)											
LDPE bag QUL-ZOO-1_ZOOT-1_2023-07	E475	26-Jul-2023	29-Aug-2023	730 days	34 days	✔	29-Aug-2023	730 days	35 days	✔	
Metals : Metals by CRC ICPMS (DRY units, Biopsy)											
LDPE bag QUL-ZOO-1_ZOOT-2_2023-07	E475	26-Jul-2023	29-Aug-2023	730 days	34 days	✔	29-Aug-2023	730 days	35 days	✔	
Metals : Metals by CRC ICPMS (DRY units, Biopsy)											
LDPE bag QUL-ZOO-1_ZOOT-3_2023-07	E475	26-Jul-2023	29-Aug-2023	730 days	34 days	✔	29-Aug-2023	730 days	35 days	✔	
Metals : Metals by CRC ICPMS (DRY units, Biopsy)											
LDPE bag QUL-ZOO-1_ZOOT-4_2023-07	E475	26-Jul-2023	29-Aug-2023	730 days	34 days	✔	29-Aug-2023	730 days	35 days	✔	
Metals : Metals by CRC ICPMS (DRY units, Biopsy)											
LDPE bag QUL-ZOO-1_ZOOT-5_2023-07	E475	26-Jul-2023	29-Aug-2023	730 days	34 days	✔	29-Aug-2023	730 days	35 days	✔	
Metals : Metals by CRC ICPMS (DRY units, Biopsy)											
LDPE bag QUL-ZOO-7_ZOOT-1_2023-07	E475	26-Jul-2023	29-Aug-2023	730 days	34 days	✔	29-Aug-2023	730 days	35 days	✔	
Metals : Metals by CRC ICPMS (DRY units, Biopsy)											
LDPE bag QUL-ZOO-7_ZOOT-2_2023-07	E475	26-Jul-2023	29-Aug-2023	730 days	34 days	✔	29-Aug-2023	730 days	35 days	✔	
Metals : Metals by CRC ICPMS (DRY units, Biopsy)											
LDPE bag QUL-ZOO-7_ZOOT-3_2023-07	E475	26-Jul-2023	29-Aug-2023	730 days	34 days	✔	29-Aug-2023	730 days	35 days	✔	



Matrix: **Biota** Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Metals : Metals by CRC ICPMS (DRY units, Biopsy)											
LDPE bag QUL-ZOO-7_ZOOT-4_2023-07	E475	26-Jul-2023	29-Aug-2023	730 days	34 days	✔	29-Aug-2023	730 days	35 days	✔	
Metals : Metals by CRC ICPMS (DRY units, Biopsy)											
LDPE bag QUL-ZOO-7_ZOOT-5_2023-07	E475	26-Jul-2023	29-Aug-2023	730 days	34 days	✔	29-Aug-2023	730 days	35 days	✔	
Metals : Silver in Biota by CRC ICPMS (DRY units, Biopsy)											
LDPE bag BOL-B2_ZOOT-1_2023-067	E475.Ag	27-Jul-2023	29-Aug-2023	730 days	33 days	✔	29-Aug-2023	730 days	34 days	✔	
Metals : Silver in Biota by CRC ICPMS (DRY units, Biopsy)											
LDPE bag BOL-B2_ZOOT-2_2023-07	E475.Ag	27-Jul-2023	29-Aug-2023	730 days	33 days	✔	29-Aug-2023	730 days	34 days	✔	
Metals : Silver in Biota by CRC ICPMS (DRY units, Biopsy)											
LDPE bag BOL-B2_ZOOT-3_2023-07	E475.Ag	27-Jul-2023	29-Aug-2023	730 days	33 days	✔	29-Aug-2023	730 days	34 days	✔	
Metals : Silver in Biota by CRC ICPMS (DRY units, Biopsy)											
LDPE bag BOL-B2_ZOOT-4_2023-07	E475.Ag	27-Jul-2023	29-Aug-2023	730 days	33 days	✔	29-Aug-2023	730 days	34 days	✔	
Metals : Silver in Biota by CRC ICPMS (DRY units, Biopsy)											
LDPE bag BOL-B2_ZOOT-5_2023-07	E475.Ag	27-Jul-2023	29-Aug-2023	730 days	33 days	✔	29-Aug-2023	730 days	34 days	✔	
Metals : Silver in Biota by CRC ICPMS (DRY units, Biopsy)											
LDPE bag BOL-B2_ZOOT-5X_2023-07	E475.Ag	27-Jul-2023	29-Aug-2023	730 days	33 days	✔	29-Aug-2023	730 days	34 days	✔	
Metals : Silver in Biota by CRC ICPMS (DRY units, Biopsy)											
LDPE bag POL-P2_ZOOT-1_2023-07	E475.Ag	27-Jul-2023	29-Aug-2023	730 days	33 days	✔	29-Aug-2023	730 days	34 days	✔	



Matrix: **Biota** Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Metals : Silver in Biota by CRC ICPMS (DRY units, Biopsy)											
LDPE bag POL-P2_ZOOT-2_2023-07	E475.Ag	27-Jul-2023	29-Aug-2023	730 days	33 days	✔	29-Aug-2023	730 days	34 days	✔	
Metals : Silver in Biota by CRC ICPMS (DRY units, Biopsy)											
LDPE bag POL-P2_ZOOT-3_2023-07	E475.Ag	27-Jul-2023	29-Aug-2023	730 days	33 days	✔	29-Aug-2023	730 days	34 days	✔	
Metals : Silver in Biota by CRC ICPMS (DRY units, Biopsy)											
LDPE bag POL-P2_ZOOT-4_2023-07	E475.Ag	27-Jul-2023	29-Aug-2023	730 days	33 days	✔	29-Aug-2023	730 days	34 days	✔	
Metals : Silver in Biota by CRC ICPMS (DRY units, Biopsy)											
LDPE bag POL-P2_ZOOT-5_2023-07	E475.Ag	27-Jul-2023	29-Aug-2023	730 days	33 days	✔	29-Aug-2023	730 days	34 days	✔	
Metals : Silver in Biota by CRC ICPMS (DRY units, Biopsy)											
LDPE bag QUL-ZOO-1_ZOOT-1_2023-07	E475.Ag	26-Jul-2023	29-Aug-2023	730 days	34 days	✔	29-Aug-2023	730 days	35 days	✔	
Metals : Silver in Biota by CRC ICPMS (DRY units, Biopsy)											
LDPE bag QUL-ZOO-1_ZOOT-2_2023-07	E475.Ag	26-Jul-2023	29-Aug-2023	730 days	34 days	✔	29-Aug-2023	730 days	35 days	✔	
Metals : Silver in Biota by CRC ICPMS (DRY units, Biopsy)											
LDPE bag QUL-ZOO-1_ZOOT-3_2023-07	E475.Ag	26-Jul-2023	29-Aug-2023	730 days	34 days	✔	29-Aug-2023	730 days	35 days	✔	
Metals : Silver in Biota by CRC ICPMS (DRY units, Biopsy)											
LDPE bag QUL-ZOO-1_ZOOT-4_2023-07	E475.Ag	26-Jul-2023	29-Aug-2023	730 days	34 days	✔	29-Aug-2023	730 days	35 days	✔	
Metals : Silver in Biota by CRC ICPMS (DRY units, Biopsy)											
LDPE bag QUL-ZOO-1_ZOOT-5_2023-07	E475.Ag	26-Jul-2023	29-Aug-2023	730 days	34 days	✔	29-Aug-2023	730 days	35 days	✔	



Matrix: **Biota** Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Metals : Silver in Biota by CRC ICPMS (DRY units, Biopsy)											
LDPE bag QUL-ZOO-7_ZOOT-1_2023-07	E475.Ag	26-Jul-2023	29-Aug-2023	730 days	34 days	✔	29-Aug-2023	730 days	35 days	✔	
Metals : Silver in Biota by CRC ICPMS (DRY units, Biopsy)											
LDPE bag QUL-ZOO-7_ZOOT-2_2023-07	E475.Ag	26-Jul-2023	29-Aug-2023	730 days	34 days	✔	29-Aug-2023	730 days	35 days	✔	
Metals : Silver in Biota by CRC ICPMS (DRY units, Biopsy)											
LDPE bag QUL-ZOO-7_ZOOT-3_2023-07	E475.Ag	26-Jul-2023	29-Aug-2023	730 days	34 days	✔	29-Aug-2023	730 days	35 days	✔	
Metals : Silver in Biota by CRC ICPMS (DRY units, Biopsy)											
LDPE bag QUL-ZOO-7_ZOOT-4_2023-07	E475.Ag	26-Jul-2023	29-Aug-2023	730 days	34 days	✔	29-Aug-2023	730 days	35 days	✔	
Metals : Silver in Biota by CRC ICPMS (DRY units, Biopsy)											
LDPE bag QUL-ZOO-7_ZOOT-5_2023-07	E475.Ag	26-Jul-2023	29-Aug-2023	730 days	34 days	✔	29-Aug-2023	730 days	35 days	✔	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Biopsy)											
LDPE bag BOL-B2_ZOOT-1_2023-067	E475.Ti	27-Jul-2023	29-Aug-2023	730 days	33 days	✔	29-Aug-2023	730 days	34 days	✔	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Biopsy)											
LDPE bag BOL-B2_ZOOT-2_2023-07	E475.Ti	27-Jul-2023	29-Aug-2023	730 days	33 days	✔	29-Aug-2023	730 days	34 days	✔	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Biopsy)											
LDPE bag BOL-B2_ZOOT-3_2023-07	E475.Ti	27-Jul-2023	29-Aug-2023	730 days	33 days	✔	29-Aug-2023	730 days	34 days	✔	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Biopsy)											
LDPE bag BOL-B2_ZOOT-4_2023-07	E475.Ti	27-Jul-2023	29-Aug-2023	730 days	33 days	✔	29-Aug-2023	730 days	34 days	✔	



Matrix: **Biota** Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Metals : Titanium in Biota by CRC ICPMS (DRY units, Biopsy)											
LDPE bag BOL-B2_ZOOT-5_2023-07	E475.Ti	27-Jul-2023	29-Aug-2023	730 days	33 days	✔	29-Aug-2023	730 days	34 days	✔	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Biopsy)											
LDPE bag BOL-B2_ZOOT-5X_2023-07	E475.Ti	27-Jul-2023	29-Aug-2023	730 days	33 days	✔	29-Aug-2023	730 days	34 days	✔	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Biopsy)											
LDPE bag POL-P2_ZOOT-1_2023-07	E475.Ti	27-Jul-2023	29-Aug-2023	730 days	33 days	✔	29-Aug-2023	730 days	34 days	✔	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Biopsy)											
LDPE bag POL-P2_ZOOT-2_2023-07	E475.Ti	27-Jul-2023	29-Aug-2023	730 days	33 days	✔	29-Aug-2023	730 days	34 days	✔	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Biopsy)											
LDPE bag POL-P2_ZOOT-3_2023-07	E475.Ti	27-Jul-2023	29-Aug-2023	730 days	33 days	✔	29-Aug-2023	730 days	34 days	✔	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Biopsy)											
LDPE bag POL-P2_ZOOT-4_2023-07	E475.Ti	27-Jul-2023	29-Aug-2023	730 days	33 days	✔	29-Aug-2023	730 days	34 days	✔	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Biopsy)											
LDPE bag POL-P2_ZOOT-5_2023-07	E475.Ti	27-Jul-2023	29-Aug-2023	730 days	33 days	✔	29-Aug-2023	730 days	34 days	✔	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Biopsy)											
LDPE bag QUL-ZOO-1_ZOOT-1_2023-07	E475.Ti	26-Jul-2023	29-Aug-2023	730 days	34 days	✔	29-Aug-2023	730 days	35 days	✔	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Biopsy)											
LDPE bag QUL-ZOO-1_ZOOT-2_2023-07	E475.Ti	26-Jul-2023	29-Aug-2023	730 days	34 days	✔	29-Aug-2023	730 days	35 days	✔	



Matrix: **Biota** Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Metals : Titanium in Biota by CRC ICPMS (DRY units, Biopsy)											
LDPE bag QUL-ZOO-1_ZOOT-3_2023-07	E475.Ti	26-Jul-2023	29-Aug-2023	730 days	34 days	✔	29-Aug-2023	730 days	35 days	✔	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Biopsy)											
LDPE bag QUL-ZOO-1_ZOOT-4_2023-07	E475.Ti	26-Jul-2023	29-Aug-2023	730 days	34 days	✔	29-Aug-2023	730 days	35 days	✔	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Biopsy)											
LDPE bag QUL-ZOO-1_ZOOT-5_2023-07	E475.Ti	26-Jul-2023	29-Aug-2023	730 days	34 days	✔	29-Aug-2023	730 days	35 days	✔	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Biopsy)											
LDPE bag QUL-ZOO-7_ZOOT-1_2023-07	E475.Ti	26-Jul-2023	29-Aug-2023	730 days	34 days	✔	29-Aug-2023	730 days	35 days	✔	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Biopsy)											
LDPE bag QUL-ZOO-7_ZOOT-2_2023-07	E475.Ti	26-Jul-2023	29-Aug-2023	730 days	34 days	✔	29-Aug-2023	730 days	35 days	✔	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Biopsy)											
LDPE bag QUL-ZOO-7_ZOOT-3_2023-07	E475.Ti	26-Jul-2023	29-Aug-2023	730 days	34 days	✔	29-Aug-2023	730 days	35 days	✔	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Biopsy)											
LDPE bag QUL-ZOO-7_ZOOT-4_2023-07	E475.Ti	26-Jul-2023	29-Aug-2023	730 days	34 days	✔	29-Aug-2023	730 days	35 days	✔	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Biopsy)											
LDPE bag QUL-ZOO-7_ZOOT-5_2023-07	E475.Ti	26-Jul-2023	29-Aug-2023	730 days	34 days	✔	29-Aug-2023	730 days	35 days	✔	
Physical Tests : Moisture Content by Gravimetry (Biopsy)											
LDPE bag QUL-ZOO-1_ZOOT-2_2023-07	E144A	26-Jul-2023	----	----	----		23-Aug-2023	----	29 days		



Matrix: **Biota** Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Physical Tests : Moisture Content by Gravimetry (Biopsy)										
LDPE bag QUL-ZOO-1_ZOOT-4_2023-07	E144A	26-Jul-2023	----	----	----		23-Aug-2023	----	29 days	
Physical Tests : Moisture Content by Gravimetry (Biopsy)										
LDPE bag QUL-ZOO-7_ZOOT-1_2023-07	E144A	26-Jul-2023	----	----	----		23-Aug-2023	----	29 days	
Physical Tests : Moisture Content by Gravimetry (Biopsy)										
LDPE bag BOL-B2_ZOOT-1_2023-067	E144A	27-Jul-2023	----	----	----		29-Aug-2023	----	33 days	
Physical Tests : Moisture Content by Gravimetry (Biopsy)										
LDPE bag BOL-B2_ZOOT-2_2023-07	E144A	27-Jul-2023	----	----	----		29-Aug-2023	----	33 days	
Physical Tests : Moisture Content by Gravimetry (Biopsy)										
LDPE bag BOL-B2_ZOOT-3_2023-07	E144A	27-Jul-2023	----	----	----		29-Aug-2023	----	33 days	
Physical Tests : Moisture Content by Gravimetry (Biopsy)										
LDPE bag BOL-B2_ZOOT-4_2023-07	E144A	27-Jul-2023	----	----	----		29-Aug-2023	----	33 days	
Physical Tests : Moisture Content by Gravimetry (Biopsy)										
LDPE bag BOL-B2_ZOOT-5_2023-07	E144A	27-Jul-2023	----	----	----		29-Aug-2023	----	33 days	
Physical Tests : Moisture Content by Gravimetry (Biopsy)										
LDPE bag BOL-B2_ZOOT-5X_2023-07	E144A	27-Jul-2023	----	----	----		29-Aug-2023	----	33 days	
Physical Tests : Moisture Content by Gravimetry (Biopsy)										
LDPE bag POL-P2_ZOOT-1_2023-07	E144A	27-Jul-2023	----	----	----		29-Aug-2023	----	33 days	



Matrix: **Biota** Evaluation: * = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Physical Tests : Moisture Content by Gravimetry (Biopsy)										
LDPE bag POL-P2_ZOOT-2_2023-07	E144A	27-Jul-2023	----	----	----		29-Aug-2023	----	33 days	
Physical Tests : Moisture Content by Gravimetry (Biopsy)										
LDPE bag POL-P2_ZOOT-3_2023-07	E144A	27-Jul-2023	----	----	----		29-Aug-2023	----	33 days	
Physical Tests : Moisture Content by Gravimetry (Biopsy)										
LDPE bag POL-P2_ZOOT-4_2023-07	E144A	27-Jul-2023	----	----	----		29-Aug-2023	----	33 days	
Physical Tests : Moisture Content by Gravimetry (Biopsy)										
LDPE bag POL-P2_ZOOT-5_2023-07	E144A	27-Jul-2023	----	----	----		29-Aug-2023	----	33 days	
Physical Tests : Moisture Content by Gravimetry (Biopsy)										
LDPE bag QUL-ZOO-1_ZOOT-1_2023-07	E144A	26-Jul-2023	----	----	----		29-Aug-2023	----	34 days	
Physical Tests : Moisture Content by Gravimetry (Biopsy)										
LDPE bag QUL-ZOO-1_ZOOT-3_2023-07	E144A	26-Jul-2023	----	----	----		29-Aug-2023	----	34 days	
Physical Tests : Moisture Content by Gravimetry (Biopsy)										
LDPE bag QUL-ZOO-1_ZOOT-5_2023-07	E144A	26-Jul-2023	----	----	----		29-Aug-2023	----	34 days	
Physical Tests : Moisture Content by Gravimetry (Biopsy)										
LDPE bag QUL-ZOO-7_ZOOT-2_2023-07	E144A	26-Jul-2023	----	----	----		29-Aug-2023	----	34 days	
Physical Tests : Moisture Content by Gravimetry (Biopsy)										
LDPE bag QUL-ZOO-7_ZOOT-3_2023-07	E144A	26-Jul-2023	----	----	----		29-Aug-2023	----	34 days	



Matrix: **Biota** Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		
				Rec	Actual			Rec	Actual	
Physical Tests : Moisture Content by Gravimetry (Biopsy)										
LDPE bag QUL-ZOO-7_ZOOT-4_2023-07	E144A	26-Jul-2023	----	----	----		29-Aug-2023	----	34 days	
Physical Tests : Moisture Content by Gravimetry (Biopsy)										
LDPE bag QUL-ZOO-7_ZOOT-5_2023-07	E144A	26-Jul-2023	----	----	----		29-Aug-2023	----	34 days	

Legend & Qualifier Definitions

Rec. HT: ALS recommended hold time (see units).



Quality Control Parameter Frequency Compliance

The following report summarizes the frequency of laboratory QC samples analyzed within the analytical batches (QC lots) in which the submitted samples were processed. The actual frequency should be greater than or equal to the expected frequency.

Matrix: **Biota**

Evaluation: ✖ = QC frequency outside specification; ✔ = QC frequency within specification.

Quality Control Sample Type	Method	QC Lot #	Count		Frequency (%)		
			QC	Regular	Actual	Expected	Evaluation
<i>Analytical Methods</i>							
Laboratory Control Samples (LCS)							
Mercury in Biota by CVAAS (DRY units, Biopsy)	E512	1108538	4	21	19.0	10.0	✔
Mercury in Biota by CVAAS (WET units, Biopsy)	E512A	1108539	4	21	19.0	10.0	✔
Metals by CRC ICPMS (DRY units, Biopsy)	E475	1108542	4	21	19.0	10.0	✔
Moisture Content by Gravimetry (Biopsy)	E144A	1100052	2	21	9.5	5.0	✔
Silver in Biota by CRC ICPMS (DRY units, Biopsy)	E475.Ag	1108540	4	21	19.0	10.0	✔
Titanium in Biota by CRC ICPMS (DRY units, Biopsy)	E475.Ti	1108541	4	21	19.0	10.0	✔
Method Blanks (MB)							
Mercury in Biota by CVAAS (DRY units, Biopsy)	E512	1108538	2	21	9.5	5.0	✔
Mercury in Biota by CVAAS (WET units, Biopsy)	E512A	1108539	2	21	9.5	5.0	✔
Metals by CRC ICPMS (DRY units, Biopsy)	E475	1108542	2	21	9.5	5.0	✔
Moisture Content by Gravimetry (Biopsy)	E144A	1100052	2	21	9.5	5.0	✔
Silver in Biota by CRC ICPMS (DRY units, Biopsy)	E475.Ag	1108540	2	21	9.5	5.0	✔
Titanium in Biota by CRC ICPMS (DRY units, Biopsy)	E475.Ti	1108541	2	21	9.5	5.0	✔



Methodology References and Summaries

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Reference methods may incorporate modifications to improve performance (indicated by "mod").

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Moisture Content by Gravimetry (Biopsy)	E144A ALS Environmental - Vancouver	Biota	Puget Sound Water Quality Authority/CCME PHC in Soil - Tier 1	This analysis is carried out gravimetrically by drying the sample at <60 deg. C for a minimum of three days.
Metals by CRC ICPMS (DRY units, Biopsy)	E475 ALS Environmental - Vancouver	Biota	EPA 200.3/6020B (mod)	Samples are digested with nitric acid, hydrochloric acid, and hydrogen peroxide. Analysis is by Collision/Reaction Cell ICPMS: This method employs a strong acid/peroxide digestion, and is intended to provide a conservative estimate of bio-available metals. Near complete recoveries are achieved for most toxicologically important metals, but elements associated with recalcitrant minerals may be only partially recovered.
Silver in Biota by CRC ICPMS (DRY units, Biopsy)	E475.Ag ALS Environmental - Vancouver	Biota	EPA 200.3/6020B (mod)	Samples are digested with nitric acid, hydrochloric acid, and hydrogen peroxide. Analysis is by Collision/Reaction Cell ICPMS. Method Limitation: This method employs a strong acid/peroxide digestion, and is intended to provide a conservative estimate of bio-available metals. Near complete recoveries are achieved for most toxicologically important metals, but elements associated with recalcitrant minerals may be only partially recovered.
Titanium in Biota by CRC ICPMS (DRY units, Biopsy)	E475.Ti ALS Environmental - Vancouver	Biota	EPA 200.3/6020B (mod)	Samples are digested with nitric acid, hydrochloric acid, and hydrogen peroxide. Analysis is by Collision/Reaction Cell ICPMS. Method Limitation: This method employs a strong acid/peroxide digestion, and is intended to provide a conservative estimate of bio-available metals. Near complete recoveries are achieved for most toxicologically important metals, but elements associated with recalcitrant minerals may be only partially recovered.
Mercury in Biota by CVAAS (DRY units, Biopsy)	E512 ALS Environmental - Vancouver	Biota	EPA 200.3/1631 Appendix (mod)	Samples are digested with nitric acid, hydrochloric acid, and hydrogen peroxide. Analysis is by CVAAS.
Mercury in Biota by CVAAS (WET units, Biopsy)	E512A ALS Environmental - Vancouver	Biota	EPA 200.3/1631 Appendix (mod)	Samples are homogenized digested with nitric acid, hydrochloric acid, and hydrogen peroxide. Analysis is by CVAAS.
Preparation Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Metals and Mercury Biota Digestion (Micro)	EP472 ALS Environmental - Vancouver	Biota	EPA 200.3	This method, designed for small sample amounts, uses a heated strong acid digestion with HNO ₃ , HCl, and H ₂ O ₂ and is intended to provide a conservative estimate of bio-available metals.

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Work Order : VA23B7798
Client : Mount Polley Mining Corporation
Project : ---



<i>Preparation Methods</i>	<i>Method / Lab</i>	<i>Matrix</i>	<i>Method Reference</i>	<i>Method Descriptions</i>
Metals and Mercury Biota Digestion (Biopsy)	EP475 ALS Environmental - Vancouver	Biota	EPA 200.3/200.8 (mod)	Samples are digested with nitric acid, hydrochloric acid, and hydrogen peroxide. Method Limitation: This method employs a strong acid/peroxide digestion, and is intended to provide a conservative estimate of bio-available metals. Near complete recoveries are achieved for most toxicologically important metals, but elements associated with recalcitrant minerals may be only partially recovered.

QUALITY CONTROL REPORT

Work Order	: VA23B7798	Page	: 1 of 11
Client	: Mount Polley Mining Corporation	Laboratory	: ALS Environmental - Vancouver
Contact	: Mr. Gabriel Holmes	Account Manager	: Can Dang
Address	: PO Box 12 Likely BC Canada V0L 1N0	Address	: 8081 Lougheed Highway Burnaby, British Columbia Canada V5A 1W9
Telephone	:	Telephone	: +1 604 253 4188
Project	: ----	Date Samples Received	: 02-Aug-2023 11:20
PO	: 5590012190	Date Analysis Commenced	: 23-Aug-2023
C-O-C number	: ----	Issue Date	: 12-Sep-2023 16:30
Sampler	: SLA/CAP 250-790-2215 ext 2171		
Site	: ----		
Quote number	: VA22-MPMC100-002		
No. of samples received	: 21		
No. of samples analysed	: 21		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Quality Control Report contains the following information:

- Reference Material (RM) Report; Recovery and Data Quality Objectives
- Method Blank (MB) Report; Recovery and Data Quality Objectives
- Laboratory Control Sample (LCS) Report; Recovery and Data Quality Objectives

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

<i>Signatories</i>	<i>Position</i>	<i>Laboratory Department</i>
Carla Vasquez	Lab Assistant	Vancouver Metals, Burnaby, British Columbia
Kevin Duarte	Supervisor - Metals ICP Instrumentation	Vancouver Metals, Burnaby, British Columbia
Owen Cheng		Vancouver Metals, Burnaby, British Columbia
Ragini Saini	Lab Assistant	Vancouver Metals, Burnaby, British Columbia
Sam Silveira	Lab Assistant	Vancouver Metals, Burnaby, British Columbia

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Work Order : VA23B7798
Client : Mount Polley Mining Corporation
Project : ----



General Comments

The ALS Quality Control (QC) report is optionally provided to ALS clients upon request. ALS test methods include comprehensive QC checks with every analysis to ensure our high standards of quality are met. Each QC result has a known or expected target value, which is compared against predetermined Data Quality Objectives (DQOs) to provide confidence in the accuracy of associated test results. This report contains detailed results for all QC results applicable to this sample submission. Please refer to the ALS Quality Control Interpretation report (QCI) for applicable method references and methodology summaries.

Key :

Anonymous = Refers to samples which are not part of this work order, but which formed part of the QC process lot.
CAS Number = Chemical Abstracts Service number is a unique identifier assigned to discrete substances.
DQO = Data Quality Objective.
LOR = Limit of Reporting (detection limit).
RPD = Relative Percent Difference
= Indicates a QC result that did not meet the ALS DQO.

Workorder Comments

Holding times are displayed as "---" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.



Method Blank (MB) Report

A Method Blank is an analyte-free matrix that undergoes sample processing identical to that carried out for test samples. Method Blank results are used to monitor and control for potential contamination from the laboratory environment and reagents. For most tests, the DQO for Method Blanks is for the result to be < LOR.

Sub-Matrix: Biota

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Physical Tests (QCLot: 1100052)						
Moisture	----	E144A	2	%	<2.0	----
Physical Tests (QCLot: 1108571)						
Moisture	----	E144A	2	%	<2.0	----
Metals (QCLot: 1108246)						
Silver	7440-22-4	E475.Ag	0.005	mg/kg	<0.0050	----
Metals (QCLot: 1108247)						
Titanium	7440-32-6	E475.Ti	0.5	mg/kg	<0.50	----
Metals (QCLot: 1108248)						
Mercury	7439-97-6	E512	0.01	mg/kg	<0.010	----
Metals (QCLot: 1108249)						
Mercury	7439-97-6	E512A	0.002	mg/kg wwt	<0.0020	----
Metals (QCLot: 1108250)						
Aluminum	7429-90-5	E475	5	mg/kg	<5.0	----
Antimony	7440-36-0	E475	0.02	mg/kg	<0.020	----
Arsenic	7440-38-2	E475	0.05	mg/kg	<0.050	----
Barium	7440-39-3	E475	0.05	mg/kg	<0.050	----
Beryllium	7440-41-7	E475	0.01	mg/kg	<0.010	----
Bismuth	7440-69-9	E475	0.01	mg/kg	<0.010	----
Boron	7440-42-8	E475	1	mg/kg	<1.0	----
Cadmium	7440-43-9	E475	0.01	mg/kg	<0.010	----
Calcium	7440-70-2	E475	20	mg/kg	<20	----
Cesium	7440-46-2	E475	0.005	mg/kg	<0.0050	----
Chromium	7440-47-3	E475	0.2	mg/kg	<0.20	----
Cobalt	7440-48-4	E475	0.02	mg/kg	<0.020	----
Copper	7440-50-8	E475	0.2	mg/kg	<0.20	----
Iron	7439-89-6	E475	5	mg/kg	<5.0	----
Lead	7439-92-1	E475	0.05	mg/kg	<0.050	----
Lithium	7439-93-2	E475	0.5	mg/kg	<0.50	----
Magnesium	7439-95-4	E475	2	mg/kg	<2.0	----
Manganese	7439-96-5	E475	0.05	mg/kg	<0.050	----
Molybdenum	7439-98-7	E475	0.04	mg/kg	<0.040	----
Nickel	7440-02-0	E475	0.2	mg/kg	<0.20	----



Sub-Matrix: Biota

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Metals (QCLot: 1108250) - continued						
Phosphorus	7723-14-0	E475	20	mg/kg	<20	---
Potassium	7440-09-7	E475	20	mg/kg	<20	---
Rubidium	7440-17-7	E475	0.05	mg/kg	<0.050	---
Selenium	7782-49-2	E475	0.1	mg/kg	<0.10	---
Sodium	7440-23-5	E475	20	mg/kg	<20	---
Strontium	7440-24-6	E475	0.1	mg/kg	<0.10	---
Tellurium	13494-80-9	E475	0.02	mg/kg	<0.020	---
Thallium	7440-28-0	E475	0.002	mg/kg	<0.0020	---
Tin	7440-31-5	E475	0.1	mg/kg	<0.10	---
Uranium	7440-61-1	E475	0.002	mg/kg	<0.0020	---
Vanadium	7440-62-2	E475	0.1	mg/kg	<0.10	---
Zinc	7440-66-6	E475	1	mg/kg	<1.0	---
Zirconium	7440-67-7	E475	0.2	mg/kg	<0.20	---
Metals (QCLot: 1108538)						
Mercury	7439-97-6	E512	0.01	mg/kg	<0.010	---
Metals (QCLot: 1108539)						
Mercury	7439-97-6	E512A	0.002	mg/kg wwt	<0.0020	---
Metals (QCLot: 1108540)						
Silver	7440-22-4	E475.Ag	0.005	mg/kg	<0.0050	---
Metals (QCLot: 1108541)						
Titanium	7440-32-6	E475.Ti	0.5	mg/kg	<0.50	---
Metals (QCLot: 1108542)						
Aluminum	7429-90-5	E475	5	mg/kg	<5.0	---
Antimony	7440-36-0	E475	0.02	mg/kg	<0.020	---
Arsenic	7440-38-2	E475	0.05	mg/kg	<0.050	---
Barium	7440-39-3	E475	0.05	mg/kg	<0.050	---
Beryllium	7440-41-7	E475	0.01	mg/kg	<0.010	---
Bismuth	7440-69-9	E475	0.01	mg/kg	<0.010	---
Boron	7440-42-8	E475	1	mg/kg	<1.0	---
Cadmium	7440-43-9	E475	0.01	mg/kg	<0.010	---
Calcium	7440-70-2	E475	20	mg/kg	<20	---
Cesium	7440-46-2	E475	0.005	mg/kg	<0.0050	---
Chromium	7440-47-3	E475	0.2	mg/kg	<0.20	---
Cobalt	7440-48-4	E475	0.02	mg/kg	<0.020	---
Copper	7440-50-8	E475	0.2	mg/kg	<0.20	---



Sub-Matrix: Biota

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Metals (QCLot: 1108542) - continued						
Iron	7439-89-6	E475	5	mg/kg	<5.0	---
Lead	7439-92-1	E475	0.05	mg/kg	<0.050	---
Lithium	7439-93-2	E475	0.5	mg/kg	<0.50	---
Magnesium	7439-95-4	E475	2	mg/kg	<2.0	---
Manganese	7439-96-5	E475	0.05	mg/kg	<0.050	---
Molybdenum	7439-98-7	E475	0.04	mg/kg	<0.040	---
Nickel	7440-02-0	E475	0.2	mg/kg	<0.20	---
Phosphorus	7723-14-0	E475	20	mg/kg	<20	---
Potassium	7440-09-7	E475	20	mg/kg	<20	---
Rubidium	7440-17-7	E475	0.05	mg/kg	<0.050	---
Selenium	7782-49-2	E475	0.1	mg/kg	<0.10	---
Sodium	7440-23-5	E475	20	mg/kg	<20	---
Strontium	7440-24-6	E475	0.1	mg/kg	<0.10	---
Tellurium	13494-80-9	E475	0.02	mg/kg	<0.020	---
Thallium	7440-28-0	E475	0.002	mg/kg	<0.0020	---
Tin	7440-31-5	E475	0.1	mg/kg	<0.10	---
Uranium	7440-61-1	E475	0.002	mg/kg	<0.0020	---
Vanadium	7440-62-2	E475	0.1	mg/kg	<0.10	---
Zinc	7440-66-6	E475	1	mg/kg	<1.0	---
Zirconium	7440-67-7	E475	0.2	mg/kg	<0.20	---



Laboratory Control Sample (LCS) Report

A Laboratory Control Sample (LCS) is an analyte-free matrix that has been fortified (spiked) with test analytes at known concentration and processed in an identical manner to test samples. LCS results are expressed as percent recovery, and are used to monitor and control test method accuracy and precision, independent of test sample matrix.

Sub-Matrix: Biota					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		Qualifier
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	
Physical Tests (QCLot: 1100052)									
Moisture	---	E144A	2	%	100 %	100	90.0	110	---
Physical Tests (QCLot: 1108571)									
Moisture	---	E144A	2	%	100 %	100	90.0	110	---
Metals (QCLot: 1108246)									
Silver	7440-22-4	E475.Ag	0.005	mg/kg	2.5 mg/kg	92.1	80.0	120	---
Metals (QCLot: 1108247)									
Titanium	7440-32-6	E475.Ti	0.5	mg/kg	6.25 mg/kg	97.3	80.0	120	---
Metals (QCLot: 1108248)									
Mercury	7439-97-6	E512	0.01	mg/kg	0.05 mg/kg	98.5	80.0	120	---
Metals (QCLot: 1108249)									
Mercury	7439-97-6	E512A	0.002	mg/kg wwt	0.05 mg/kg wwt	98.5	80.0	120	---
Metals (QCLot: 1108250)									
Aluminum	7429-90-5	E475	5	mg/kg	50 mg/kg	100.0	80.0	120	---
Antimony	7440-36-0	E475	0.02	mg/kg	25 mg/kg	96.4	80.0	120	---
Arsenic	7440-38-2	E475	0.05	mg/kg	25 mg/kg	104	80.0	120	---
Barium	7440-39-3	E475	0.05	mg/kg	6.25 mg/kg	98.6	80.0	120	---
Beryllium	7440-41-7	E475	0.01	mg/kg	2.5 mg/kg	95.4	80.0	120	---
Bismuth	7440-69-9	E475	0.01	mg/kg	25 mg/kg	98.6	80.0	120	---
Boron	7440-42-8	E475	1	mg/kg	25 mg/kg	92.9	80.0	120	---
Cadmium	7440-43-9	E475	0.01	mg/kg	2.5 mg/kg	97.4	80.0	120	---
Calcium	7440-70-2	E475	20	mg/kg	1250 mg/kg	93.4	80.0	120	---
Cesium	7440-46-2	E475	0.005	mg/kg	1.25 mg/kg	101	80.0	120	---
Chromium	7440-47-3	E475	0.2	mg/kg	6.25 mg/kg	97.7	80.0	120	---
Cobalt	7440-48-4	E475	0.02	mg/kg	6.25 mg/kg	95.6	80.0	120	---
Copper	7440-50-8	E475	0.2	mg/kg	6.25 mg/kg	94.6	80.0	120	---
Iron	7439-89-6	E475	5	mg/kg	25 mg/kg	99.6	80.0	120	---
Lead	7439-92-1	E475	0.05	mg/kg	12.5 mg/kg	99.6	80.0	120	---
Lithium	7439-93-2	E475	0.5	mg/kg	6.25 mg/kg	96.0	80.0	120	---
Magnesium	7439-95-4	E475	2	mg/kg	1250 mg/kg	96.5	80.0	120	---
Manganese	7439-96-5	E475	0.05	mg/kg	6.25 mg/kg	98.0	80.0	120	---
Molybdenum	7439-98-7	E475	0.04	mg/kg	6.25 mg/kg	106	80.0	120	---
Nickel	7440-02-0	E475	0.2	mg/kg	12.5 mg/kg	96.2	80.0	120	---



Sub-Matrix: Biota

Laboratory Control Sample (LCS) Report

Analyte	CAS Number	Method	LOR	Unit	Spike	Recovery (%)	Recovery Limits (%)		Qualifier
					Concentration	LCS	Low	High	
Metals (QCLot: 1108250) - continued									
Phosphorus	7723-14-0	E475	20	mg/kg	250 mg/kg	104	80.0	120	---
Potassium	7440-09-7	E475	20	mg/kg	1250 mg/kg	96.2	80.0	120	---
Rubidium	7440-17-7	E475	0.05	mg/kg	2.5 mg/kg	99.4	80.0	120	---
Selenium	7782-49-2	E475	0.1	mg/kg	25 mg/kg	95.3	80.0	120	---
Sodium	7440-23-5	E475	20	mg/kg	1250 mg/kg	98.4	80.0	120	---
Strontium	7440-24-6	E475	0.1	mg/kg	6.25 mg/kg	101	80.0	120	---
Tellurium	13494-80-9	E475	0.02	mg/kg	2.5 mg/kg	94.7	80.0	120	---
Thallium	7440-28-0	E475	0.002	mg/kg	25 mg/kg	97.9	80.0	120	---
Tin	7440-31-5	E475	0.1	mg/kg	12.5 mg/kg	100	80.0	120	---
Uranium	7440-61-1	E475	0.002	mg/kg	0.125 mg/kg	101	80.0	120	---
Vanadium	7440-62-2	E475	0.1	mg/kg	12.5 mg/kg	101	80.0	120	---
Zinc	7440-66-6	E475	1	mg/kg	12.5 mg/kg	94.8	80.0	120	---
Zirconium	7440-67-7	E475	0.2	mg/kg	2.5 mg/kg	103	80.0	120	---
Metals (QCLot: 1108538)									
Mercury	7439-97-6	E512	0.01	mg/kg	0.05 mg/kg	93.2	80.0	120	---
Metals (QCLot: 1108539)									
Mercury	7439-97-6	E512A	0.002	mg/kg wwt	0.05 mg/kg wwt	93.2	80.0	120	---
Metals (QCLot: 1108540)									
Silver	7440-22-4	E475.Ag	0.005	mg/kg	2.5 mg/kg	88.4	80.0	120	---
Metals (QCLot: 1108541)									
Titanium	7440-32-6	E475.Ti	0.5	mg/kg	6.25 mg/kg	92.4	80.0	120	---
Metals (QCLot: 1108542)									
Aluminum	7429-90-5	E475	5	mg/kg	50 mg/kg	96.4	80.0	120	---
Antimony	7440-36-0	E475	0.02	mg/kg	25 mg/kg	92.7	80.0	120	---
Arsenic	7440-38-2	E475	0.05	mg/kg	25 mg/kg	102	80.0	120	---
Barium	7440-39-3	E475	0.05	mg/kg	6.25 mg/kg	97.4	80.0	120	---
Beryllium	7440-41-7	E475	0.01	mg/kg	2.5 mg/kg	87.3	80.0	120	---
Bismuth	7440-69-9	E475	0.01	mg/kg	25 mg/kg	93.8	80.0	120	---
Boron	7440-42-8	E475	1	mg/kg	25 mg/kg	85.6	80.0	120	---
Cadmium	7440-43-9	E475	0.01	mg/kg	2.5 mg/kg	94.4	80.0	120	---
Calcium	7440-70-2	E475	20	mg/kg	1250 mg/kg	84.0	80.0	120	---
Cesium	7440-46-2	E475	0.005	mg/kg	1.25 mg/kg	95.1	80.0	120	---
Chromium	7440-47-3	E475	0.2	mg/kg	6.25 mg/kg	94.8	80.0	120	---
Cobalt	7440-48-4	E475	0.02	mg/kg	6.25 mg/kg	93.6	80.0	120	---
Copper	7440-50-8	E475	0.2	mg/kg	6.25 mg/kg	91.9	80.0	120	---
Iron	7439-89-6	E475	5	mg/kg	25 mg/kg	98.0	80.0	120	---



Sub-Matrix: Biota

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
Metals (QCLot: 1108542) - continued									
Lead	7439-92-1	E475	0.05	mg/kg	12.5 mg/kg	94.8	80.0	120	----
Lithium	7439-93-2	E475	0.5	mg/kg	6.25 mg/kg	88.9	80.0	120	----
Magnesium	7439-95-4	E475	2	mg/kg	1250 mg/kg	92.4	80.0	120	----
Manganese	7439-96-5	E475	0.05	mg/kg	6.25 mg/kg	95.6	80.0	120	----
Molybdenum	7439-98-7	E475	0.04	mg/kg	6.25 mg/kg	100	80.0	120	----
Nickel	7440-02-0	E475	0.2	mg/kg	12.5 mg/kg	94.2	80.0	120	----
Phosphorus	7723-14-0	E475	20	mg/kg	250 mg/kg	100	80.0	120	----
Potassium	7440-09-7	E475	20	mg/kg	1250 mg/kg	96.5	80.0	120	----
Rubidium	7440-17-7	E475	0.05	mg/kg	2.5 mg/kg	97.2	80.0	120	----
Selenium	7782-49-2	E475	0.1	mg/kg	25 mg/kg	95.8	80.0	120	----
Sodium	7440-23-5	E475	20	mg/kg	1250 mg/kg	98.6	80.0	120	----
Strontium	7440-24-6	E475	0.1	mg/kg	6.25 mg/kg	101	80.0	120	----
Tellurium	13494-80-9	E475	0.02	mg/kg	2.5 mg/kg	91.7	80.0	120	----
Thallium	7440-28-0	E475	0.002	mg/kg	25 mg/kg	94.4	80.0	120	----
Tin	7440-31-5	E475	0.1	mg/kg	12.5 mg/kg	95.5	80.0	120	----
Uranium	7440-61-1	E475	0.002	mg/kg	0.125 mg/kg	98.1	80.0	120	----
Vanadium	7440-62-2	E475	0.1	mg/kg	12.5 mg/kg	97.6	80.0	120	----
Zinc	7440-66-6	E475	1	mg/kg	12.5 mg/kg	91.9	80.0	120	----
Zirconium	7440-67-7	E475	0.2	mg/kg	2.5 mg/kg	98.2	80.0	120	----



Reference Material (RM) Report

A Reference Material (RM) is a homogenous material with known and well-established analyte concentrations. RMs are processed in an identical manner to test samples, and are used to monitor and control the accuracy and precision of a test method for a typical sample matrix. RM results are expressed as percent recovery of the target analyte concentration. RM targets may be certified target concentrations provided by the RM supplier, or may be ALS long-term mean values (for empirical test methods).

Sub-Matrix:

Laboratory sample ID	Reference Material ID	Analyte	CAS Number	Method	Reference Material (RM) Report				
					RM Target Concentration	Recovery (%) RM	Recovery Limits (%)		Qualifier
							Low	High	
Metals (QCLot: 1108246)									
	RM	Silver	7440-22-4	E475.Ag	0.139 mg/kg	74.7	70.0	130	----
Metals (QCLot: 1108247)									
	RM	Titanium	7440-32-6	E475.Ti	1.15 mg/kg	# 68.5	70.0	130	MES
Metals (QCLot: 1108248)									
	RM	Mercury	7439-97-6	E512	0.281 mg/kg	106	70.0	130	----
Metals (QCLot: 1108249)									
	RM	Mercury	7439-97-6	E512A	0.281 mg/kg wwt	106	70.0	130	----
Metals (QCLot: 1108250)									
	RM	Aluminum	7429-90-5	E475	147 mg/kg	# 67.7	70.0	130	MES
	RM	Arsenic	7440-38-2	E475	14.5 mg/kg	74.2	70.0	130	----
	RM	Barium	7440-39-3	E475	0.352 mg/kg	71.1	70.0	130	----
	RM	Boron	7440-42-8	E475	3.47 mg/kg	70.9	70.0	130	----
	RM	Cadmium	7440-43-9	E475	0.153 mg/kg	75.3	70.0	130	----
	RM	Calcium	7440-70-2	E475	2010 mg/kg	75.6	70.0	130	----
	RM	Cesium	7440-46-2	E475	0.0889 mg/kg	73.6	70.0	130	----
	RM	Chromium	7440-47-3	E475	0.453 mg/kg	72.8	50.0	150	----
	RM	Cobalt	7440-48-4	E475	0.0567 mg/kg	74.0	65.0	135	----
	RM	Copper	7440-50-8	E475	3.3 mg/kg	72.3	70.0	130	----
	RM	Iron	7439-89-6	E475	102 mg/kg	72.8	70.0	130	----
	RM	Lead	7439-92-1	E475	0.058 mg/kg	75.4	15.0	185	----
	RM	Magnesium	7439-95-4	E475	899 mg/kg	73.4	70.0	130	----
	RM	Manganese	7439-96-5	E475	0.948 mg/kg	72.1	70.0	130	----
	RM	Molybdenum	7439-98-7	E475	0.134 mg/kg	73.1	70.0	130	----
	RM	Nickel	7440-02-0	E475	0.33 mg/kg	74.9	40.0	160	----
	RM	Phosphorus	7723-14-0	E475	6700 mg/kg	74.6	70.0	130	----
	RM	Potassium	7440-09-7	E475	11600 mg/kg	75.4	70.0	130	----
	RM	Rubidium	7440-17-7	E475	2.53 mg/kg	72.8	70.0	130	----
	RM	Selenium	7782-49-2	E475	2.48 mg/kg	74.4	70.0	130	----



Sub-Matrix:

Laboratory sample ID	Reference Material ID	Analyte	CAS Number	Method	Reference Material (RM) Report				
					RM Target Concentration	Recovery (%) RM	Recovery Limits (%)		Qualifier
							Low	High	
Metals (QCLot: 1108250) - continued									
	RM	Sodium	7440-23-5	E475	9620 mg/kg	72.2	70.0	130	----
	RM	Strontium	7440-24-6	E475	10.6 mg/kg	83.2	70.0	130	----
	RM	Vanadium	7440-62-2	E475	0.269 mg/kg	# 68.3	70.0	130	MES
	RM	Zinc	7440-66-6	E475	28.7 mg/kg	76.2	70.0	130	----
Metals (QCLot: 1108538)									
	RM	Mercury	7439-97-6	E512	0.281 mg/kg	95.1	70.0	130	----
Metals (QCLot: 1108539)									
	RM	Mercury	7439-97-6	E512A	0.281 mg/kg wwt	95.1	70.0	130	----
Metals (QCLot: 1108540)									
	RM	Silver	7440-22-4	E475.Ag	0.139 mg/kg	91.6	70.0	130	----
Metals (QCLot: 1108541)									
	RM	Titanium	7440-32-6	E475.Ti	1.15 mg/kg	78.8	70.0	130	----
Metals (QCLot: 1108542)									
	RM	Aluminum	7429-90-5	E475	147 mg/kg	109	70.0	130	----
	RM	Arsenic	7440-38-2	E475	14.5 mg/kg	96.7	70.0	130	----
	RM	Barium	7440-39-3	E475	0.352 mg/kg	89.7	70.0	130	----
	RM	Boron	7440-42-8	E475	3.47 mg/kg	86.1	70.0	130	----
	RM	Cadmium	7440-43-9	E475	0.153 mg/kg	96.2	70.0	130	----
	RM	Calcium	7440-70-2	E475	2010 mg/kg	86.3	70.0	130	----
	RM	Cesium	7440-46-2	E475	0.0889 mg/kg	92.9	70.0	130	----
	RM	Chromium	7440-47-3	E475	0.453 mg/kg	92.0	50.0	150	----
	RM	Cobalt	7440-48-4	E475	0.0567 mg/kg	100	65.0	135	----
	RM	Copper	7440-50-8	E475	3.3 mg/kg	92.0	70.0	130	----
	RM	Iron	7439-89-6	E475	102 mg/kg	90.5	70.0	130	----
	RM	Lead	7439-92-1	E475	0.058 mg/kg	93.0	15.0	185	----
	RM	Magnesium	7439-95-4	E475	899 mg/kg	91.4	70.0	130	----
	RM	Manganese	7439-96-5	E475	0.948 mg/kg	94.6	70.0	130	----
	RM	Molybdenum	7439-98-7	E475	0.134 mg/kg	91.2	70.0	130	----
	RM	Nickel	7440-02-0	E475	0.33 mg/kg	96.8	40.0	160	----
	RM	Phosphorus	7723-14-0	E475	6700 mg/kg	96.3	70.0	130	----
	RM	Potassium	7440-09-7	E475	11600 mg/kg	96.4	70.0	130	----
	RM	Rubidium	7440-17-7	E475	2.53 mg/kg	92.4	70.0	130	----



Sub-Matrix:

Laboratory sample ID	Reference Material ID	Analyte	CAS Number	Method	Reference Material (RM) Report				
					RM Target Concentration	Recovery (%) RM	Recovery Limits (%)		Qualifier
							Low	High	
Metals (QCLot: 1108542) - continued									
	RM	Selenium	7782-49-2	E475	2.48 mg/kg	99.0	70.0	130	----
	RM	Sodium	7440-23-5	E475	9620 mg/kg	95.8	70.0	130	----
	RM	Strontium	7440-24-6	E475	10.6 mg/kg	93.5	70.0	130	----
	RM	Vanadium	7440-62-2	E475	0.269 mg/kg	87.7	70.0	130	----
	RM	Zinc	7440-66-6	E475	28.7 mg/kg	95.8	70.0	130	----

Qualifiers

Qualifier	Description
MES	Data Quality Objective was marginally exceeded (by < 10% absolute) for < 10% of analytes in a Multi-Element Scan / Multi-Parameter Scan (considered acceptable as per OMOE & CCME).



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Chain of Custody (COC) / Analytical Request Form

COC Number: 20 -

Page 1 of 2

Canada Toll Free: 1 800 668 9878

Report To Contact and company name below will appear on the final report		Reports / Recipients			Turnaround Time (TAT) Requested						AFFIX ALS BARCODE LABEL HERE (ALS use only)																										
Company:	Mount Polley Mining Corp.	Select Report Format:	<input checked="" type="checkbox"/> PDF <input checked="" type="checkbox"/> EXCEL <input checked="" type="checkbox"/> EDD (DIGITAL)	<input checked="" type="checkbox"/> Routine (R) if received by 3pm M-F - no surcharges apply	<input type="checkbox"/> 4 day [P4] if received by 3pm M-F - 20% rush surcharge minimum <input checked="" type="checkbox"/> 3 day [P3] if received by 3pm M-F - 25% rush surcharge minimum <input type="checkbox"/> 2 day [P2] if received by 3pm M-F - 50% rush surcharge minimum <input type="checkbox"/> 1 day [E] if received by 3pm M-F - 100% rush surcharge minimum <input type="checkbox"/> Same day [E2] if received by 10am M-S - 200% rush surcharge																																
Contact:	Gabriel Holmes	Merge QC/QCI Reports with COA:	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> N/A	<input type="checkbox"/> Compare Results to Criteria on Report - provide details below if box checked Select Distribution: <input checked="" type="checkbox"/> EMAIL <input type="checkbox"/> MAIL <input type="checkbox"/> FAX Email 1 or Fax: gabriel.holmes@mountpolley.com							Additional fees may apply to rush requests on weekends, statutory holidays and for non-routine tests.																										
Phone:	236-317-4939					Date and Time Required for all E&P TATs:																															
Company address below will appear on the final report		Select Invoice Recipients			For all tests with rush TATs requested, please contact your AM to confirm availability.																																
Street:	PO BOX 12	Select Invoice Distribution: <input checked="" type="checkbox"/> EMAIL <input type="checkbox"/> MAIL <input checked="" type="checkbox"/> FAX			Analysis Request																																
City/Province:	Likely, BC	Email 2: slatimer@minnow.ca; kbatchelar@minnow.ca			Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below <table border="1"> <tr> <th rowspan="2">NUMBER OF CONTAINERS</th> <th rowspan="2">Moisture Content by Gravimetry E144</th> <th rowspan="2">Mercury in Biota by CVAAS (DRY units, Routine) E510</th> <th rowspan="2">Mercury in Biota by CVAAS (WET units, Routine) E510A</th> <th rowspan="2">Metals in Biota by CRC IC/PMs (DRY units, Routine) E440</th> <th rowspan="2">Silver in Biota by CRC IC/PMs (DRY units, Routine) E440.A9</th> <th rowspan="2">Titanium in Biota by CRC IC/PMs (DRY units, Routine) E440.IT</th> <th colspan="10"></th> </tr> <tr> <th colspan="10"></th> </tr> </table>						NUMBER OF CONTAINERS	Moisture Content by Gravimetry E144	Mercury in Biota by CVAAS (DRY units, Routine) E510	Mercury in Biota by CVAAS (WET units, Routine) E510A	Metals in Biota by CRC IC/PMs (DRY units, Routine) E440	Silver in Biota by CRC IC/PMs (DRY units, Routine) E440.A9	Titanium in Biota by CRC IC/PMs (DRY units, Routine) E440.IT																				
NUMBER OF CONTAINERS	Moisture Content by Gravimetry E144	Mercury in Biota by CVAAS (DRY units, Routine) E510	Mercury in Biota by CVAAS (WET units, Routine) E510A	Metals in Biota by CRC IC/PMs (DRY units, Routine) E440														Silver in Biota by CRC IC/PMs (DRY units, Routine) E440.A9	Titanium in Biota by CRC IC/PMs (DRY units, Routine) E440.IT																		
Postal Code:	V0L 1N0	Email 3: simone.deroosemond@minnow.ca									AMPLES ON HOLD EXTENDED STORAGE REQUIRED SUSPECTED HAZARD (see notes)																										
Invoice To:	Same as Report To <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	Invoice Recipients																																			
Copy of Invoice with Report <input type="checkbox"/> YES <input type="checkbox"/> NO		Select Invoice Distribution: <input checked="" type="checkbox"/> EMAIL <input type="checkbox"/> MAIL <input checked="" type="checkbox"/> FAX																																			
Company:	On File	Email 1 or Fax: On File																																			
Contact:	On File	Email 2:																																			
Project Information		Oil and Gas Required Fields (client use)																																			
ALS Account # / Quote #:	VA22-MPMC100-002	AFE/Cost Center:		PO#:																																	
Job #:		Major/Minor Code:		Routing Code:																																	
PO / AFE:		Requisitioner:																																			
LSD:		Location:																																			
ALS Lab Work Order # (ALS use only): BTJA		ALS Contact: Can Dang		Sampler: SLA/CAP																																	
ALS Sample # (ALS use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type																																	
1	POL-P2_ZOOT-1_2023-07	27 -July-23	N/A	Tissue	1	R	R	R	R	R	R																										
2	POL-P2_ZOOT-2_2023-07	27 -July-23		Tissue	1	R	R	R	R	R	R																										
3	POL-P2_ZOOT-3_2023-07	27 -July-23		Tissue	1	R	R	R	R	R	R																										
4	POL-P2_ZOOT-4_2023-07	27 -July-23		Tissue	1	R	R	R	R	R	R																										
5	POL-P2_ZOOT-5_2023-07	27 -July-23		Tissue	1	R	R	R	R	R	R																										
6	BOL-B2_ZOOT-1_2023-067	27 -July-23		Tissue	1	R	R	R	R	R	R																										
7	BOL-B2_ZOOT-2_2023-07	27 -July-23		Tissue	1	R	R	R	R	R	R																										
8	BOL-B2_ZOOT-3_2023-07	27 -July-23		Tissue	1	R	R	R	R	R	R																										
9	BOL-B2_ZOOT-4_2023-07	27 -July-23		Tissue	1	R	R	R	R	R	R																										
10	BOL-B2_ZOOT-5_2023-07	27 -July-23	N/A	Tissue	1	R	R	R	R	R	R																										
	ZOC-X-2023-07	27-28		Tissue																																	
Drinking Water (DW) Samples¹ (client use)		Notes / Specify Limits for result evaluation by selecting from drop-down below (Excel COC only)			SAMPLE RECEIPT DETAILS (ALS use only)																																
Are samples taken from a Regulated DW System? <input type="checkbox"/> YES <input type="checkbox"/> NO		If sample is insufficient for regular digestion and analysis, contact kbatchelar@minnow.ca to discuss analysis options (e.g., use of microdigestion and HR-IC/PMs)			Cooling Method: <input type="checkbox"/> NONE <input type="checkbox"/> ICE <input checked="" type="checkbox"/> ICE PACKS <input type="checkbox"/> FROZEN <input type="checkbox"/> COOLING INITIATED																																
Are samples for human consumption/ use? <input type="checkbox"/> YES <input type="checkbox"/> NO					Submission Comments identified on Sample Receipt Notification: <input type="checkbox"/> YES <input type="checkbox"/> NO																																
					Cooler Custody Seals Intact: <input type="checkbox"/> YES <input type="checkbox"/> N/A Sample Custody Seals Intact: <input type="checkbox"/> YES <input type="checkbox"/> N/A																																
					INITIAL COOLER TEMPERATURES °C			FINAL COOLER TEMPERATURES °C																													
								8 9 9																													
SHIPMENT RELEASE (client use)		INITIAL SHIPMENT RECEPTION (ALS use only)			FINAL SHIPMENT RECEPTION (ALS use only)																																
Released by: S. Latimer	Date: 27 Jul 23	Time: 17:30	Received by:	Date:	Time:	Received by: JL	Date: 02 AUG 2023	Time: 12:00am																													

Environmental Division
 Vancouver
 Work Order Reference
VA23B7798

Telephone: +1 604 253 4198



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Chain of Custody (COC) / Analytical Request Form

COC Number: 20 -

Page 2 of 2

Canada Toll Free: 1 800 668 9878

Report To Contact and company name below will appear on the final report		Reports / Recipients			Turnaround Time (TAT) Requested						AFFIX ALS BARCODE LABEL HERE (ALS use only)							
Company:	Mount Polley Mining Corp.	Select Report Format:	<input checked="" type="checkbox"/> PDF <input checked="" type="checkbox"/> EXCEL <input checked="" type="checkbox"/> EDD (DIGITAL)	<input checked="" type="checkbox"/> Routine [R] if received by 3pm M-F - no surcharges apply														
Contact:	Gabriel Holmes	Merge QC/QCI Reports with COA	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> N/A	<input type="checkbox"/> 4 day [P4] if received by 3pm M-F - 20% rush surcharge minimum														
Phone:	236-317-4939	<input type="checkbox"/> Compare Results to Criteria on Report - provide details below if box checked		<input type="checkbox"/> 3 day [P3] if received by 3pm M-F - 25% rush surcharge minimum														
Company address below will appear on the final report		Select Distribution:	<input checked="" type="checkbox"/> EMAIL <input type="checkbox"/> MAIL <input type="checkbox"/> FAX	<input type="checkbox"/> 2 day [P2] if received by 3pm M-F - 50% rush surcharge minimum														
Street:	PO BOX 12	Email 1 or Fax:	gabriel.holmes@mountpolley.com	<input type="checkbox"/> 1 day [E] if received by 3pm M-F - 100% rush surcharge minimum														
City/Province:	Likely, BC	Email 2:	slatimer@minnow.ca, kbatchelar@minnow.ca	<input type="checkbox"/> Same day [E2] if received by 10am M-F - 200% rush surcharge.														
Postal Code:	VOL 1N0	Email 3:	simone.derosemond@minnow.ca	Additional fees may apply to rush requests on weekends, statutory holidays and for non-routine tests.														
Invoice To	Same as Report To <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	Invoice Recipients			Date and Time Required for all E&P TATs:													
	Copy of Invoice with Report <input type="checkbox"/> YES <input type="checkbox"/> NO	Select Invoice Distribution:	<input checked="" type="checkbox"/> EMAIL <input type="checkbox"/> MAIL <input checked="" type="checkbox"/> FAX	For all tests with rush TATs requested, please contact your AM to confirm availability.														
Company:	On File	Email 1 or Fax:	On File	Analysis Request														
Contact:	On File	Email 2:		Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below														
Project Information		Oil and Gas Required Fields (client use)			NUMBER OF CONTAINERS											SAMPLES ON HOLD	EXTENDED STORAGE REQUIRED	SUSPECTED HAZARD (see notes)
ALS Account # / Quote #:	VA22-MPMC100-002	AFE/Cost Center:	PO#															
Job #:		Major/Minor Code:	Routing Code:															
PO / AFE:		Requisitioner:																
LSD:		Location:																
ALS Lab Work Order # (ALS use only):		ALS Contact:	Can Dang	Sampler:	SLA/CAP													
ALS Sample # (ALS use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	Moisture Content by Gravimetry E144	Mercury in Biota by CVAAS (DRY units, Routine) E51D	Mercury in Biota by CVAAS (WET units, Routine) E510A	Metals in Biota by CRC ICPMS (DRY units, Routine) E440	Silver in Biota by CRC ICPMS (DRY units, Routine) E440-Ag	Titanium in Biota by CRC ICPMS (DRY units, Routine) E440-Ti								
11	QUL-ZOO-7_ZOOT-1_2023-07	26 -July-23	N/A	Tissue	1	R	R	R	R	R								
12	QUL-ZOO-7_ZOOT-2_2023-07	26 -July-23		Tissue	1	R	R	R	R	R								
13	QUL-ZOO-7_ZOOT-3_2023-07	26 -July-23		Tissue	1	R	R	R	R	R								
14	QUL-ZOO-7_ZOOT-4_2023-07	26 -July-23		Tissue	1	R	R	R	R	R								
15	QUL-ZOO-7_ZOOT-5_2023-07	26 -July-23		Tissue	1	R	R	R	R	R								
16	QUL-ZOO-1_ZOOT-1_2023-07	26 -July-23		Tissue	1	R	R	R	R	R								
17	QUL-ZOO-1_ZOOT-2_2023-07	26 -July-23		Tissue	1	R	R	R	R	R								
18	QUL-ZOO-1_ZOOT-3_2023-07	26 -July-23		Tissue	1	R	R	R	R	R								
19	QUL-ZOO-1_ZOOT-4_2023-07	26 -July-23		Tissue	1	R	R	R	R	R								
20	QUL-ZOO-1_ZOOT-5_2023-07	26 -July-23		Tissue	1	R	R	R	R	R								
21	BOL-B2_ZOOT-5 X_2023-07	27 -July-23	N/A	Tissue	1	R	R	R	R	R								
Drinking Water (DW) Samples¹ (client use)		Notes / Specify Limits for result evaluation by selecting from drop-down below (Excel COC only)			SAMPLE RECEIPT DETAILS (ALS use only)													
Are samples taken from a Regulated DW System? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO		If sample is insufficient for regular digestion and analysis, contact kbatchelar@minnow.ca to discuss analysis options (e.g., use of microdigestion and HR-ICPMS)			Cooling Method: <input type="checkbox"/> NONE <input type="checkbox"/> ICE <input checked="" type="checkbox"/> ICE PACKS <input type="checkbox"/> FROZEN <input type="checkbox"/> COOLING INITIATED													
Are samples for human consumption/ use? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO					Submission Comments identified on Sample Receipt Notification: <input type="checkbox"/> YES <input type="checkbox"/> NO													
					Cooler Custody Seals Intact: <input type="checkbox"/> YES <input type="checkbox"/> N/A Sample Custody Seals Intact: <input type="checkbox"/> YES <input type="checkbox"/> N/A													
					INITIAL COOLER TEMPERATURES °C					FINAL COOLER TEMPERATURES °C								
					8					9 9								
SHIPMENT RELEASE (client use)		INITIAL SHIPMENT RECEPTION (ALS use only)			FINAL SHIPMENT RECEPTION (ALS use only)													
Released by: S. Latimer	Date: 27-Jul-23	Time: 17:30	Received by:	Date:	Time:	Received by: SC	Date: 02 AUG 2023	Time: 11:20 AM										

ZOOPLANKTON TISSUE QUALITY

ALS Laboratory Report VA23C0397

(Finalized December 4, 2023)

CERTIFICATE OF ANALYSIS

Work Order	: VA23C0397	Page	: 1 of 4
Amendment	: 1	Laboratory	: ALS Environmental - Vancouver
Client	: Mount Polley Mining Corporation	Account Manager	: Can Dang
Contact	: Mr. Gabriel Holmes	Address	: 8081 Lougheed Highway Burnaby BC Canada V5A 1W9
Address	: PO Box 12 Likely BC Canada V0L 1N0	Telephone	: +1 604 253 4188
Telephone	: 250-790-2215 ext 2171	Date Samples Received	: 30-Aug-2023 08:35
Project	: ----	Date Analysis Commenced	: 26-Sep-2023
PO	: 5590012190	Issue Date	: 04-Dec-2023 17:12
C-O-C number	: ----		
Sampler	: ----		
Site	: ----		
Quote number	: VA22-MPMC100-002		
No. of samples received	: 5		
No. of samples analysed	: 5		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QC Interpretive report to assist with Quality Review and Sample Receipt Notification (SRN).

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

<i>Signatories</i>	<i>Position</i>	<i>Laboratory Department</i>
Arshdeep Kaur	Lab Assistant	Metals, Burnaby, British Columbia
Kevin Duarte	Supervisor - Metals ICP Instrumentation	Metals, Burnaby, British Columbia
Owen Cheng		Metals, Burnaby, British Columbia
Robin Weeks	Team Leader - Metals	Metals, Burnaby, British Columbia



General Comments

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Refer to the ALS Quality Control Interpretive report (QCI) for applicable references and methodology summaries. Reference methods may incorporate modifications to improve performance.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

Please refer to Quality Control Interpretive report (QCI) for information regarding Holding Time compliance.

Key : CAS Number: Chemical Abstracts Services number is a unique identifier assigned to discrete substances
LOR: Limit of Reporting (detection limit).

<i>Unit</i>	<i>Description</i>
%	percent
mg/kg	milligrams per kilogram
mg/kg wwt	milligrams per kilogram wet weight

<: less than.

>: greater than.

Surrogate: An analyte that is similar in behavior to target analyte(s), but that does not occur naturally in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery.

Test results reported relate only to the samples as received by the laboratory.

UNLESS OTHERWISE STATED on SRN or QCI Report, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

Workorder Comments

Amendment (04/11/2023): This report has been amended following changes to the analytical data reported. The quality system is being utilised to resolve this issue. The metals analysis data for the samples ALS identify as VA23C0397-001 and -005 has been modified.

Qualifiers

<i>Qualifier</i>	<i>Description</i>
DLHM	Detection Limit Adjusted: Sample has high moisture content.



Analytical Results

Sub-Matrix: Tissue					Client sample ID				
(Matrix: Biota)					POL-P2_ZOOT-1_2023-08	BOL-B2_ZOOT-1_2023-08	QUL-ZOO-7_ZO-OT-1_2023-08	QUL-ZOO-1_ZO-OT-1_2023-08	POL-P2_ZOOT-1X_2023-08
Client sampling date / time					28-Aug-2023 00:00	28-Aug-2023 00:00	27-Aug-2023 00:00	27-Aug-2023 00:00	28-Aug-2023 00:00
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23C0397-001	VA23C0397-002	VA23C0397-003	VA23C0397-004	VA23C0397-005
					Result	Result	Result	Result	Result
Physical Tests									
Moisture	----	E144A/VA	2.0	%	99.3	99.3	98.5	98.8	99.3
Metals									
Aluminum	7429-90-5	E475/VA	5.0	mg/kg	1310	1150	975	1100	1340
Antimony	7440-36-0	E475/VA	0.020	mg/kg	0.320	0.190	0.156	0.243	0.230
Arsenic	7440-38-2	E475/VA	0.050	mg/kg	8.86	6.18	5.14	4.85	10.4
Barium	7440-39-3	E475/VA	0.050	mg/kg	36.7	63.3	14.7	14.5	46.4
Beryllium	7440-41-7	E475/VA	0.010	mg/kg	0.046	0.056	0.043	0.031	0.056
Bismuth	7440-69-9	E475/VA	0.010	mg/kg	0.043	0.036	0.018	0.013	0.043
Boron	7440-42-8	E475/VA	1.0	mg/kg	12.2	11.1	2.1	1.7	11.8
Cadmium	7440-43-9	E475/VA	0.010	mg/kg	0.559	0.839	2.49	2.29	0.588
Calcium	7440-70-2	E475/VA	20	mg/kg	25200	30700	17500	14800	28200
Cesium	7440-46-2	E475/VA	0.0050	mg/kg	0.154	0.139	0.175	0.290	0.177
Chromium	7440-47-3	E475/VA	0.20	mg/kg	11.3	16.3	5.84	14.5	35.4
Cobalt	7440-48-4	E475/VA	0.020	mg/kg	1.29	1.36	1.12	1.26	1.50
Copper	7440-50-8	E475/VA	0.20	mg/kg	171	132	60.8	43.2	188
Iron	7439-89-6	E475/VA	5.0	mg/kg	2280	3460	1820	1830	2410
Lead	7439-92-1	E475/VA	0.050	mg/kg	1.77	1.37	1.16	1.12	2.05
Lithium	7439-93-2	E475/VA	0.50	mg/kg	1.43	1.05	1.38	1.13	1.67
Magnesium	7439-95-4	E475/VA	2.0	mg/kg	4040	4000	1660	1730	4080
Manganese	7439-96-5	E475/VA	0.050	mg/kg	283	800	82.5	71.4	324
Mercury	7439-97-6	E512/VA	0.010	mg/kg	0.049	0.074	0.053	0.054	0.048
Mercury	7439-97-6	E512A/VA	0.0020	mg/kg ww	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Molybdenum	7439-98-7	E475/VA	0.040	mg/kg	1.67	1.74	0.601	0.778	2.47
Nickel	7440-02-0	E475/VA	0.20	mg/kg	4.22	14.9	4.99	4.32	5.95
Phosphorus	7723-14-0	E475/VA	20	mg/kg	10800	14600	12300	11800	12500
Potassium	7440-09-7	E475/VA	20	mg/kg	7790	10100	9580	8740	8650
Rubidium	7440-17-7	E475/VA	0.050	mg/kg	7.16	8.92	17.2	15.3	7.76
Selenium	7782-49-2	E475/VA	0.10	mg/kg	4.81	3.05	3.33	3.08	5.45
Silver	7440-22-4	E475.Ag/VA	0.0050	mg/kg	0.0567	0.0572	0.0771	0.0819	0.0572



Analytical Results

Sub-Matrix: Tissue (Matrix: Biota)					Client sample ID	POL-P2_ZOOT-1_2023-08	BOL-B2_ZOOT-1_2023-08	QUL-ZOO-7_ZO OT-1_2023-08	QUL-ZOO-1_ZO OT-1_2023-08	POL-P2_ZOOT-1X_2023-08
Client sampling date / time					28-Aug-2023 00:00	28-Aug-2023 00:00	27-Aug-2023 00:00	27-Aug-2023 00:00	28-Aug-2023 00:00	
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23C0397-001	VA23C0397-002	VA23C0397-003	VA23C0397-004	VA23C0397-005	
					Result	Result	Result	Result	Result	
Metals										
Sodium	7440-23-5	E475/VA	20	mg/kg	4080	5710	6100	5510	4380	
Strontium	7440-24-6	E475/VA	0.10	mg/kg	159	184	96.0	82.9	171	
Tellurium	13494-80-9	E475/VA	0.020	mg/kg	0.048	<0.040 ^{DLHM}	<0.020	<0.020	<0.035 ^{DLHM}	
Thallium	7440-28-0	E475/VA	0.0020	mg/kg	0.0120	0.0367	0.0221	0.0182	0.0114	
Tin	7440-31-5	E475/VA	0.10	mg/kg	1.80	1.55	0.60	0.73	2.03	
Titanium	7440-32-6	E475.Ti/VA	0.50	mg/kg	95.9	63.7	51.9	63.4	102	
Uranium	7440-61-1	E475/VA	0.0020	mg/kg	0.168	0.223	0.120	0.118	0.186	
Vanadium	7440-62-2	E475/VA	0.10	mg/kg	11.0	28.6	4.70	4.80	10.8	
Zinc	7440-66-6	E475/VA	1.0	mg/kg	130	111	103	98.7	140	
Zirconium	7440-67-7	E475/VA	0.20	mg/kg	1.04	0.74	0.76	0.78	1.33	

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.

QUALITY CONTROL INTERPRETIVE REPORT

<p>Work Order : VA23C0397</p> <p>Amendment : 1</p> <p>Client : Mount Polley Mining Corporation</p> <p>Contact : Mr. Gabriel Holmes</p> <p>Address : PO Box 12 Likely BC Canada V0L 1N0</p> <p>Telephone : 250-790-2215 ext 2171</p> <p>Project : ----</p> <p>PO : 5590012190</p> <p>C-O-C number : ----</p> <p>Sampler : ----</p> <p>Site : ----</p> <p>Quote number : VA22-MPMC100-002</p> <p>No. of samples received : 5</p> <p>No. of samples analysed : 5</p>	<p>Page : 1 of 9</p> <p>Laboratory : ALS Environmental - Vancouver</p> <p>Account Manager : Can Dang</p> <p>Address : 8081 Lougheed Highway Burnaby, British Columbia Canada V5A 1W9</p> <p>Telephone : +1 604 253 4188</p> <p>Date Samples Received : 30-Aug-2023 08:35</p> <p>Issue Date : 04-Dec-2023 17:12</p>
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This report is automatically generated by the ALS LIMS (Laboratory Information Management System) through evaluation of Quality Control (QC) results and other QA parameters associated with this submission, and is intended to facilitate rapid data validation by auditors or reviewers. The report highlights any exceptions and outliers to ALS Data Quality Objectives, provides holding time details and exceptions, summarizes QC sample frequencies, and lists applicable methodology references and summaries.

Key

- Anonymous: Refers to samples which are not part of this work order, but which formed part of the QC process lot.
- CAS Number: Chemical Abstracts Service number is a unique identifier assigned to discrete substances.
- DQO: Data Quality Objective.
- LOR: Limit of Reporting (detection limit).
- RPD: Relative Percent Difference.

Workorder Comments

Holding times are displayed as "----" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

Summary of Outliers

Outliers : Quality Control Samples

- No Method Blank value outliers occur.
- No Laboratory Control Sample (LCS) outliers occur
- No Test sample Surrogate recovery outliers exist.

Outliers: Reference Material (RM) Samples

- No Reference Material (RM) Sample outliers occur.

Outliers : Analysis Holding Time Compliance (Breaches)

- No Analysis Holding Time Outliers exist.

Outliers : Frequency of Quality Control Samples

- No Quality Control Sample Frequency Outliers occur.



Analysis Holding Time Compliance

This report summarizes extraction / preparation and analysis times and compares each with ALS recommended holding times, which are selected to meet known provincial and /or federal requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by organizations such as CCME, US EPA, APHA Standard Methods, ASTM, or Environment Canada (where available). Dates and holding times reported below represent the first dates of extraction or analysis. If subsequent tests or dilutions exceeded holding times, qualifiers are added (refer to COA).

If samples are identified below as having been analyzed or extracted outside of recommended holding times, measurement uncertainties may be increased, and this should be taken into consideration when interpreting results.

Where actual sampling date is not provided on the chain of custody, the date of receipt with time at 00:00 is used for calculation purposes.

Where only the sample date without time is provided on the chain of custody, the sampling date at 00:00 is used for calculation purposes.

Matrix: **Biota** Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Metals : Mercury in Biota by CVAAS (DRY units, Biopsy)										
LDPE bag BOL-B2_ZOOT-1_2023-08	E512	28-Aug-2023	04-Oct-2023	365 days	38 days	✔	04-Oct-2023	365 days	38 days	✔
Metals : Mercury in Biota by CVAAS (DRY units, Biopsy)										
LDPE bag POL-P2_ZOOT-1_2023-08	E512	28-Aug-2023	04-Oct-2023	365 days	38 days	✔	04-Oct-2023	365 days	38 days	✔
Metals : Mercury in Biota by CVAAS (DRY units, Biopsy)										
LDPE bag POL-P2_ZOOT-1X_2023-08	E512	28-Aug-2023	04-Oct-2023	365 days	38 days	✔	04-Oct-2023	365 days	38 days	✔
Metals : Mercury in Biota by CVAAS (DRY units, Biopsy)										
LDPE bag QUL-ZOO-1_ZOOT-1_2023-08	E512	27-Aug-2023	04-Oct-2023	365 days	39 days	✔	04-Oct-2023	365 days	39 days	✔
Metals : Mercury in Biota by CVAAS (DRY units, Biopsy)										
LDPE bag QUL-ZOO-7_ZOOT-1_2023-08	E512	27-Aug-2023	04-Oct-2023	365 days	39 days	✔	04-Oct-2023	365 days	39 days	✔
Metals : Mercury in Biota by CVAAS (WET units, Biopsy)										
LDPE bag BOL-B2_ZOOT-1_2023-08	E512A	28-Aug-2023	04-Oct-2023	365 days	38 days	✔	04-Oct-2023	365 days	38 days	✔
Metals : Mercury in Biota by CVAAS (WET units, Biopsy)										
LDPE bag POL-P2_ZOOT-1_2023-08	E512A	28-Aug-2023	04-Oct-2023	365 days	38 days	✔	04-Oct-2023	365 days	38 days	✔



Matrix: **Biota** Evaluation: * = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Metals : Mercury in Biota by CVAAS (WET units, Biopsy)											
LDPE bag POL-P2_ZOOT-1X_2023-08	E512A	28-Aug-2023	04-Oct-2023	365 days	38 days	✓	04-Oct-2023	365 days	38 days	✓	
Metals : Mercury in Biota by CVAAS (WET units, Biopsy)											
LDPE bag QUL-ZOO-1_ZOOT-1_2023-08	E512A	27-Aug-2023	04-Oct-2023	365 days	39 days	✓	04-Oct-2023	365 days	39 days	✓	
Metals : Mercury in Biota by CVAAS (WET units, Biopsy)											
LDPE bag QUL-ZOO-7_ZOOT-1_2023-08	E512A	27-Aug-2023	04-Oct-2023	365 days	39 days	✓	04-Oct-2023	365 days	39 days	✓	
Metals : Metals by CRC ICPMS (DRY units, Biopsy)											
LDPE bag BOL-B2_ZOOT-1_2023-08	E475	28-Aug-2023	04-Oct-2023	730 days	38 days	✓	06-Oct-2023	730 days	40 days	✓	
Metals : Metals by CRC ICPMS (DRY units, Biopsy)											
LDPE bag POL-P2_ZOOT-1_2023-08	E475	28-Aug-2023	04-Oct-2023	730 days	38 days	✓	06-Oct-2023	730 days	40 days	✓	
Metals : Metals by CRC ICPMS (DRY units, Biopsy)											
LDPE bag POL-P2_ZOOT-1X_2023-08	E475	28-Aug-2023	04-Oct-2023	730 days	38 days	✓	06-Oct-2023	730 days	40 days	✓	
Metals : Metals by CRC ICPMS (DRY units, Biopsy)											
LDPE bag QUL-ZOO-1_ZOOT-1_2023-08	E475	27-Aug-2023	04-Oct-2023	730 days	39 days	✓	06-Oct-2023	730 days	41 days	✓	
Metals : Metals by CRC ICPMS (DRY units, Biopsy)											
LDPE bag QUL-ZOO-7_ZOOT-1_2023-08	E475	27-Aug-2023	04-Oct-2023	730 days	39 days	✓	06-Oct-2023	730 days	41 days	✓	
Metals : Silver in Biota by CRC ICPMS (DRY units, Biopsy)											
LDPE bag BOL-B2_ZOOT-1_2023-08	E475.Ag	28-Aug-2023	04-Oct-2023	730 days	38 days	✓	06-Oct-2023	730 days	40 days	✓	



Matrix: **Biota** Evaluation: * = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Metals : Silver in Biota by CRC ICPMS (DRY units, Biopsy)											
LDPE bag POL-P2_ZOOT-1_2023-08	E475.Ag	28-Aug-2023	04-Oct-2023	730 days	38 days	✓	06-Oct-2023	730 days	40 days	✓	
Metals : Silver in Biota by CRC ICPMS (DRY units, Biopsy)											
LDPE bag POL-P2_ZOOT-1X_2023-08	E475.Ag	28-Aug-2023	04-Oct-2023	730 days	38 days	✓	06-Oct-2023	730 days	40 days	✓	
Metals : Silver in Biota by CRC ICPMS (DRY units, Biopsy)											
LDPE bag QUL-ZOO-1_ZOOT-1_2023-08	E475.Ag	27-Aug-2023	04-Oct-2023	730 days	39 days	✓	06-Oct-2023	730 days	41 days	✓	
Metals : Silver in Biota by CRC ICPMS (DRY units, Biopsy)											
LDPE bag QUL-ZOO-7_ZOOT-1_2023-08	E475.Ag	27-Aug-2023	04-Oct-2023	730 days	39 days	✓	06-Oct-2023	730 days	41 days	✓	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Biopsy)											
LDPE bag BOL-B2_ZOOT-1_2023-08	E475.Ti	28-Aug-2023	04-Oct-2023	730 days	38 days	✓	06-Oct-2023	730 days	40 days	✓	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Biopsy)											
LDPE bag POL-P2_ZOOT-1_2023-08	E475.Ti	28-Aug-2023	04-Oct-2023	730 days	38 days	✓	06-Oct-2023	730 days	40 days	✓	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Biopsy)											
LDPE bag POL-P2_ZOOT-1X_2023-08	E475.Ti	28-Aug-2023	04-Oct-2023	730 days	38 days	✓	06-Oct-2023	730 days	40 days	✓	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Biopsy)											
LDPE bag QUL-ZOO-1_ZOOT-1_2023-08	E475.Ti	27-Aug-2023	04-Oct-2023	730 days	39 days	✓	06-Oct-2023	730 days	41 days	✓	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Biopsy)											
LDPE bag QUL-ZOO-7_ZOOT-1_2023-08	E475.Ti	27-Aug-2023	04-Oct-2023	730 days	39 days	✓	06-Oct-2023	730 days	41 days	✓	



Matrix: **Biota** Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Physical Tests : Moisture Content by Gravimetry (Biopsy)										
LDPE bag BOL-B2_ZOOT-1_2023-08	E144A	28-Aug-2023	----	----	----		04-Oct-2023	----	38 days	
Physical Tests : Moisture Content by Gravimetry (Biopsy)										
LDPE bag POL-P2_ZOOT-1_2023-08	E144A	28-Aug-2023	----	----	----		04-Oct-2023	----	38 days	
Physical Tests : Moisture Content by Gravimetry (Biopsy)										
LDPE bag POL-P2_ZOOT-1X_2023-08	E144A	28-Aug-2023	----	----	----		04-Oct-2023	----	38 days	
Physical Tests : Moisture Content by Gravimetry (Biopsy)										
LDPE bag QUL-ZOO-1_ZOOT-1_2023-08	E144A	27-Aug-2023	----	----	----		04-Oct-2023	----	39 days	
Physical Tests : Moisture Content by Gravimetry (Biopsy)										
LDPE bag QUL-ZOO-7_ZOOT-1_2023-08	E144A	27-Aug-2023	----	----	----		04-Oct-2023	----	39 days	

Legend & Qualifier Definitions

Rec. HT: ALS recommended hold time (see units).



Quality Control Parameter Frequency Compliance

The following report summarizes the frequency of laboratory QC samples analyzed within the analytical batches (QC lots) in which the submitted samples were processed. The actual frequency should be greater than or equal to the expected frequency.

Matrix: **Biota**

Evaluation: ✖ = QC frequency outside specification; ✔ = QC frequency within specification.

Quality Control Sample Type	Method	QC Lot #	Count		Frequency (%)		
			QC	Regular	Actual	Expected	Evaluation
Analytical Methods							
Laboratory Control Samples (LCS)							
Mercury in Biota by CVAAS (DRY units, Biopsy)	E512	1168166	2	11	18.1	10.0	✔
Mercury in Biota by CVAAS (WET units, Biopsy)	E512A	1168167	2	5	40.0	10.0	✔
Metals by CRC ICPMS (DRY units, Biopsy)	E475	1168168	2	11	18.1	10.0	✔
Moisture Content by Gravimetry (Biopsy)	E144A	1168327	1	11	9.0	5.0	✔
Silver in Biota by CRC ICPMS (DRY units, Biopsy)	E475.Ag	1168164	2	11	18.1	10.0	✔
Titanium in Biota by CRC ICPMS (DRY units, Biopsy)	E475.Ti	1168165	2	11	18.1	10.0	✔
Method Blanks (MB)							
Mercury in Biota by CVAAS (DRY units, Biopsy)	E512	1168166	1	11	9.0	5.0	✔
Mercury in Biota by CVAAS (WET units, Biopsy)	E512A	1168167	1	5	20.0	5.0	✔
Metals by CRC ICPMS (DRY units, Biopsy)	E475	1168168	1	11	9.0	5.0	✔
Moisture Content by Gravimetry (Biopsy)	E144A	1168327	1	11	9.0	5.0	✔
Silver in Biota by CRC ICPMS (DRY units, Biopsy)	E475.Ag	1168164	1	11	9.0	5.0	✔
Titanium in Biota by CRC ICPMS (DRY units, Biopsy)	E475.Ti	1168165	1	11	9.0	5.0	✔



Methodology References and Summaries

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Reference methods may incorporate modifications to improve performance (indicated by "mod").

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Moisture Content by Gravimetry (Biopsy)	E144A ALS Environmental - Vancouver	Biota	Puget Sound Water Quality Authority/CCME PHC in Soil - Tier 1	This analysis is carried out gravimetrically by drying the sample at <60 deg. C for a minimum of three days.
Metals by CRC ICPMS (DRY units, Biopsy)	E475 ALS Environmental - Vancouver	Biota	EPA 200.3/6020B (mod)	Samples are digested with nitric acid, hydrochloric acid, and hydrogen peroxide. Analysis is by Collision/Reaction Cell ICPMS: This method employs a strong acid/peroxide digestion, and is intended to provide a conservative estimate of bio-available metals. Near complete recoveries are achieved for most toxicologically important metals, but elements associated with recalcitrant minerals may be only partially recovered.
Silver in Biota by CRC ICPMS (DRY units, Biopsy)	E475.Ag ALS Environmental - Vancouver	Biota	EPA 200.3/6020B (mod)	Samples are digested with nitric acid, hydrochloric acid, and hydrogen peroxide. Analysis is by Collision/Reaction Cell ICPMS. Method Limitation: This method employs a strong acid/peroxide digestion, and is intended to provide a conservative estimate of bio-available metals. Near complete recoveries are achieved for most toxicologically important metals, but elements associated with recalcitrant minerals may be only partially recovered.
Titanium in Biota by CRC ICPMS (DRY units, Biopsy)	E475.Ti ALS Environmental - Vancouver	Biota	EPA 200.3/6020B (mod)	Samples are digested with nitric acid, hydrochloric acid, and hydrogen peroxide. Analysis is by Collision/Reaction Cell ICPMS. Method Limitation: This method employs a strong acid/peroxide digestion, and is intended to provide a conservative estimate of bio-available metals. Near complete recoveries are achieved for most toxicologically important metals, but elements associated with recalcitrant minerals may be only partially recovered.
Mercury in Biota by CVAAS (DRY units, Biopsy)	E512 ALS Environmental - Vancouver	Biota	EPA 200.3/1631 Appendix (mod)	Samples are digested with nitric acid, hydrochloric acid, and hydrogen peroxide. Analysis is by CVAAS.
Mercury in Biota by CVAAS (WET units, Biopsy)	E512A ALS Environmental - Vancouver	Biota	EPA 200.3/1631 Appendix (mod)	Samples are homogenized digested with nitric acid, hydrochloric acid, and hydrogen peroxide. Analysis is by CVAAS.
Preparation Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Metals and Mercury Biota Digestion (Micro)	EP472 ALS Environmental - Vancouver	Biota	EPA 200.3	This method, designed for small sample amounts, uses a heated strong acid digestion with HNO ₃ , HCl, and H ₂ O ₂ and is intended to provide a conservative estimate of bio-available metals.



<i>Preparation Methods</i>	<i>Method / Lab</i>	<i>Matrix</i>	<i>Method Reference</i>	<i>Method Descriptions</i>
Metals and Mercury Biota Digestion (Biopsy)	EP475 ALS Environmental - Vancouver	Biota	EPA 200.3/200.8 (mod)	Samples are digested with nitric acid, hydrochloric acid, and hydrogen peroxide. Method Limitation: This method employs a strong acid/peroxide digestion, and is intended to provide a conservative estimate of bio-available metals. Near complete recoveries are achieved for most toxicologically important metals, but elements associated with recalcitrant minerals may be only partially recovered.

QUALITY CONTROL REPORT

Work Order	: VA23C0397	Page	: 1 of 8
Amendment	: 1		
Client	: Mount Polley Mining Corporation	Laboratory	: ALS Environmental - Vancouver
Contact	: Mr. Gabriel Holmes	Account Manager	: Can Dang
Address	: PO Box 12 Likely BC Canada V0L 1N0	Address	: 8081 Lougheed Highway Burnaby, British Columbia Canada V5A 1W9
Telephone	:	Telephone	: +1 604 253 4188
Project	: ----	Date Samples Received	: 30-Aug-2023 08:35
PO	: 5590012190	Date Analysis Commenced	: 26-Sep-2023
C-O-C number	: ----	Issue Date	: 04-Dec-2023 17:12
Sampler	: ---- 250-790-2215 ext 2171		
Site	: ----		
Quote number	: VA22-MPMC100-002		
No. of samples received	: 5		
No. of samples analysed	: 5		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Quality Control Report contains the following information:

- Reference Material (RM) Report; Recovery and Data Quality Objectives
- Method Blank (MB) Report; Recovery and Data Quality Objectives
- Laboratory Control Sample (LCS) Report; Recovery and Data Quality Objectives

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

<i>Signatories</i>	<i>Position</i>	<i>Laboratory Department</i>
Arshdeep Kaur	Lab Assistant	Vancouver Metals, Burnaby, British Columbia
Kevin Duarte	Supervisor - Metals ICP Instrumentation	Vancouver Metals, Burnaby, British Columbia
Owen Cheng		Vancouver Metals, Burnaby, British Columbia
Robin Weeks	Team Leader - Metals	Vancouver Metals, Burnaby, British Columbia

Page : 2 of 8
Work Order : VA23C0397 Amendment 1
Client : Mount Polley Mining Corporation
Project : ----



General Comments

The ALS Quality Control (QC) report is optionally provided to ALS clients upon request. ALS test methods include comprehensive QC checks with every analysis to ensure our high standards of quality are met. Each QC result has a known or expected target value, which is compared against predetermined Data Quality Objectives (DQOs) to provide confidence in the accuracy of associated test results. This report contains detailed results for all QC results applicable to this sample submission. Please refer to the ALS Quality Control Interpretation report (QCI) for applicable method references and methodology summaries.

Key :

Anonymous = Refers to samples which are not part of this work order, but which formed part of the QC process lot.

CAS Number = Chemical Abstracts Service number is a unique identifier assigned to discrete substances.

DQO = Data Quality Objective.

LOR = Limit of Reporting (detection limit).

RPD = Relative Percent Difference

= Indicates a QC result that did not meet the ALS DQO.

Workorder Comments

Holding times are displayed as "---" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.



Method Blank (MB) Report

A Method Blank is an analyte-free matrix that undergoes sample processing identical to that carried out for test samples. Method Blank results are used to monitor and control for potential contamination from the laboratory environment and reagents. For most tests, the DQO for Method Blanks is for the result to be < LOR.

Sub-Matrix: Biota

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Physical Tests (QCLot: 1168327)						
Moisture	----	E144A	2	%	<2.0	----
Metals (QCLot: 1168164)						
Silver	7440-22-4	E475.Ag	0.005	mg/kg	<0.0050	----
Metals (QCLot: 1168165)						
Titanium	7440-32-6	E475.Ti	0.5	mg/kg	<0.50	----
Metals (QCLot: 1168166)						
Mercury	7439-97-6	E512	0.01	mg/kg	<0.010	----
Metals (QCLot: 1168167)						
Mercury	7439-97-6	E512A	0.002	mg/kg wwt	<0.0020	----
Metals (QCLot: 1168168)						
Aluminum	7429-90-5	E475	5	mg/kg	<5.0	----
Antimony	7440-36-0	E475	0.02	mg/kg	<0.020	----
Arsenic	7440-38-2	E475	0.05	mg/kg	<0.050	----
Barium	7440-39-3	E475	0.05	mg/kg	<0.050	----
Beryllium	7440-41-7	E475	0.01	mg/kg	<0.010	----
Bismuth	7440-69-9	E475	0.01	mg/kg	<0.010	----
Boron	7440-42-8	E475	1	mg/kg	<1.0	----
Cadmium	7440-43-9	E475	0.01	mg/kg	<0.010	----
Calcium	7440-70-2	E475	20	mg/kg	<20	----
Cesium	7440-46-2	E475	0.005	mg/kg	<0.0050	----
Chromium	7440-47-3	E475	0.2	mg/kg	<0.20	----
Cobalt	7440-48-4	E475	0.02	mg/kg	<0.020	----
Copper	7440-50-8	E475	0.2	mg/kg	<0.20	----
Iron	7439-89-6	E475	5	mg/kg	<5.0	----
Lead	7439-92-1	E475	0.05	mg/kg	<0.050	----
Lithium	7439-93-2	E475	0.5	mg/kg	<0.50	----
Magnesium	7439-95-4	E475	2	mg/kg	<2.0	----
Manganese	7439-96-5	E475	0.05	mg/kg	<0.050	----
Molybdenum	7439-98-7	E475	0.04	mg/kg	<0.040	----
Nickel	7440-02-0	E475	0.2	mg/kg	<0.20	----
Phosphorus	7723-14-0	E475	20	mg/kg	<20	----
Potassium	7440-09-7	E475	20	mg/kg	<20	----



Sub-Matrix: **Biota**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Metals (QCLot: 1168168) - continued						
Rubidium	7440-17-7	E475	0.05	mg/kg	<0.050	---
Selenium	7782-49-2	E475	0.1	mg/kg	<0.10	---
Sodium	7440-23-5	E475	20	mg/kg	<20	---
Strontium	7440-24-6	E475	0.1	mg/kg	<0.10	---
Tellurium	13494-80-9	E475	0.02	mg/kg	<0.020	---
Thallium	7440-28-0	E475	0.002	mg/kg	<0.0020	---
Tin	7440-31-5	E475	0.1	mg/kg	<0.10	---
Uranium	7440-61-1	E475	0.002	mg/kg	<0.0020	---
Vanadium	7440-62-2	E475	0.1	mg/kg	<0.10	---
Zinc	7440-66-6	E475	1	mg/kg	<1.0	---
Zirconium	7440-67-7	E475	0.2	mg/kg	<0.20	---



Laboratory Control Sample (LCS) Report

A Laboratory Control Sample (LCS) is an analyte-free matrix that has been fortified (spiked) with test analytes at known concentration and processed in an identical manner to test samples. LCS results are expressed as percent recovery, and are used to monitor and control test method accuracy and precision, independent of test sample matrix.

Sub-Matrix: Biota					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		Qualifier
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	
Physical Tests (QCLot: 1168327)									
Moisture	---	E144A	2	%	100 %	100	90.0	110	---
Metals (QCLot: 1168164)									
Silver	7440-22-4	E475.Ag	0.005	mg/kg	2.5 mg/kg	97.1	80.0	120	---
Metals (QCLot: 1168165)									
Titanium	7440-32-6	E475.Ti	0.5	mg/kg	6.25 mg/kg	105	80.0	120	---
Metals (QCLot: 1168166)									
Mercury	7439-97-6	E512	0.01	mg/kg	0.05 mg/kg	88.0	80.0	120	---
Metals (QCLot: 1168167)									
Mercury	7439-97-6	E512A	0.002	mg/kg wwt	0.05 mg/kg wwt	88.0	80.0	120	---
Metals (QCLot: 1168168)									
Aluminum	7429-90-5	E475	5	mg/kg	50 mg/kg	110	80.0	120	---
Antimony	7440-36-0	E475	0.02	mg/kg	25 mg/kg	112	80.0	120	---
Arsenic	7440-38-2	E475	0.05	mg/kg	25 mg/kg	115	80.0	120	---
Barium	7440-39-3	E475	0.05	mg/kg	6.25 mg/kg	109	80.0	120	---
Beryllium	7440-41-7	E475	0.01	mg/kg	2.5 mg/kg	97.9	80.0	120	---
Bismuth	7440-69-9	E475	0.01	mg/kg	25 mg/kg	102	80.0	120	---
Boron	7440-42-8	E475	1	mg/kg	25 mg/kg	87.0	80.0	120	---
Cadmium	7440-43-9	E475	0.01	mg/kg	2.5 mg/kg	106	80.0	120	---
Calcium	7440-70-2	E475	20	mg/kg	1250 mg/kg	95.1	80.0	120	---
Cesium	7440-46-2	E475	0.005	mg/kg	1.25 mg/kg	111	80.0	120	---
Chromium	7440-47-3	E475	0.2	mg/kg	6.25 mg/kg	111	80.0	120	---
Cobalt	7440-48-4	E475	0.02	mg/kg	6.25 mg/kg	108	80.0	120	---
Copper	7440-50-8	E475	0.2	mg/kg	6.25 mg/kg	105	80.0	120	---
Iron	7439-89-6	E475	5	mg/kg	25 mg/kg	102	80.0	120	---
Lead	7439-92-1	E475	0.05	mg/kg	12.5 mg/kg	101	80.0	120	---
Lithium	7439-93-2	E475	0.5	mg/kg	6.25 mg/kg	95.2	80.0	120	---
Magnesium	7439-95-4	E475	2	mg/kg	1250 mg/kg	104	80.0	120	---
Manganese	7439-96-5	E475	0.05	mg/kg	6.25 mg/kg	110	80.0	120	---
Molybdenum	7439-98-7	E475	0.04	mg/kg	6.25 mg/kg	108	80.0	120	---
Nickel	7440-02-0	E475	0.2	mg/kg	12.5 mg/kg	106	80.0	120	---
Phosphorus	7723-14-0	E475	20	mg/kg	250 mg/kg	112	80.0	120	---
Potassium	7440-09-7	E475	20	mg/kg	1250 mg/kg	106	80.0	120	---



Sub-Matrix: Biota

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
Metals (QCLot: 1168168) - continued									
Rubidium	7440-17-7	E475	0.05	mg/kg	2.5 mg/kg	110	80.0	120	----
Selenium	7782-49-2	E475	0.1	mg/kg	25 mg/kg	101	80.0	120	----
Sodium	7440-23-5	E475	20	mg/kg	1250 mg/kg	107	80.0	120	----
Strontium	7440-24-6	E475	0.1	mg/kg	6.25 mg/kg	107	80.0	120	----
Tellurium	13494-80-9	E475	0.02	mg/kg	2.5 mg/kg	110	80.0	120	----
Thallium	7440-28-0	E475	0.002	mg/kg	25 mg/kg	103	80.0	120	----
Tin	7440-31-5	E475	0.1	mg/kg	12.5 mg/kg	108	80.0	120	----
Uranium	7440-61-1	E475	0.002	mg/kg	0.125 mg/kg	107	80.0	120	----
Vanadium	7440-62-2	E475	0.1	mg/kg	12.5 mg/kg	113	80.0	120	----
Zinc	7440-66-6	E475	1	mg/kg	12.5 mg/kg	107	80.0	120	----
Zirconium	7440-67-7	E475	0.2	mg/kg	2.5 mg/kg	105	80.0	120	----



Reference Material (RM) Report

A Reference Material (RM) is a homogenous material with known and well-established analyte concentrations. RMs are processed in an identical manner to test samples, and are used to monitor and control the accuracy and precision of a test method for a typical sample matrix. RM results are expressed as percent recovery of the target analyte concentration. RM targets may be certified target concentrations provided by the RM supplier, or may be ALS long-term mean values (for empirical test methods).

Sub-Matrix:

Laboratory sample ID	Reference Material ID	Analyte	CAS Number	Method	Reference Material (RM) Report				
					RM Target Concentration	Recovery (%) RM	Recovery Limits (%)		Qualifier
							Low	High	
Metals (QCLot: 1168164)									
	RM	Silver	7440-22-4	E475.Ag	0.139 mg/kg	100	70.0	130	----
Metals (QCLot: 1168165)									
	RM	Titanium	7440-32-6	E475.Ti	1.15 mg/kg	89.3	70.0	130	----
Metals (QCLot: 1168166)									
	RM	Mercury	7439-97-6	E512	0.281 mg/kg	104	70.0	130	----
Metals (QCLot: 1168167)									
	RM	Mercury	7439-97-6	E512A	0.281 mg/kg wwt	104	70.0	130	----
Metals (QCLot: 1168168)									
	RM	Aluminum	7429-90-5	E475	147 mg/kg	97.5	70.0	130	----
	RM	Arsenic	7440-38-2	E475	14.5 mg/kg	105	70.0	130	----
	RM	Barium	7440-39-3	E475	0.352 mg/kg	100	70.0	130	----
	RM	Boron	7440-42-8	E475	3.47 mg/kg	92.9	70.0	130	----
	RM	Cadmium	7440-43-9	E475	0.153 mg/kg	104	70.0	130	----
	RM	Calcium	7440-70-2	E475	2010 mg/kg	98.2	70.0	130	----
	RM	Cesium	7440-46-2	E475	0.0889 mg/kg	102	70.0	130	----
	RM	Chromium	7440-47-3	E475	0.453 mg/kg	96.8	50.0	150	----
	RM	Cobalt	7440-48-4	E475	0.0567 mg/kg	114	65.0	135	----
	RM	Copper	7440-50-8	E475	3.3 mg/kg	101	70.0	130	----
	RM	Iron	7439-89-6	E475	102 mg/kg	103	70.0	130	----
	RM	Lead	7439-92-1	E475	0.058 mg/kg	95.5	15.0	185	----
	RM	Magnesium	7439-95-4	E475	899 mg/kg	99.0	70.0	130	----
	RM	Manganese	7439-96-5	E475	0.948 mg/kg	102	70.0	130	----
	RM	Molybdenum	7439-98-7	E475	0.134 mg/kg	99.9	70.0	130	----
	RM	Nickel	7440-02-0	E475	0.33 mg/kg	103	40.0	160	----
	RM	Phosphorus	7723-14-0	E475	6700 mg/kg	108	70.0	130	----
	RM	Potassium	7440-09-7	E475	11600 mg/kg	104	70.0	130	----
	RM	Rubidium	7440-17-7	E475	2.53 mg/kg	104	70.0	130	----
	RM	Selenium	7782-49-2	E475	2.48 mg/kg	106	70.0	130	----



Sub-Matrix:

Laboratory sample ID	Reference Material ID	Analyte	CAS Number	Method	Reference Material (RM) Report				
					RM Target Concentration	Recovery (%) RM	Recovery Limits (%)		Qualifier
							Low	High	
Metals (QCLot: 1168168) - continued									
	RM	Sodium	7440-23-5	E475	9620 mg/kg	101	70.0	130	----
	RM	Strontium	7440-24-6	E475	10.6 mg/kg	97.5	70.0	130	----
	RM	Vanadium	7440-62-2	E475	0.269 mg/kg	101	70.0	130	----
	RM	Zinc	7440-66-6	E475	28.7 mg/kg	106	70.0	130	----



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Chain of Custody (COC) / Analytical Request Form

COC Number: 20 -

Page 1 of 1

Canada Toll Free: 1 800 668 9878

Report To Contact and company name below will appear on the final report		Reports / Recipients			Turnaround Time (TAT) Requested					AFFIX ALS BARCODE LABEL HERE (ALS use only)							
Company:	Mount Polley Mining Corp.	Select Report Format:	<input checked="" type="checkbox"/> PDF <input checked="" type="checkbox"/> EXCEL <input checked="" type="checkbox"/> EDD (DIGITAL)		<input checked="" type="checkbox"/> Routine [R] if received by 3pm M-F - no surcharges apply												
Contact:	Gabriel Holmes	Merge QC/QCI Reports with COA	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> N/A		<input type="checkbox"/> 4 day [P4] if received by 3pm M-F - 20% rush surcharge minimum												
Phone:	236-317-4939	Compare Results to Criteria on Report - provide details below if box checked	<input type="checkbox"/>		<input type="checkbox"/> 3 day [P3] if received by 3pm M-F - 25% rush surcharge minimum												
Company address below will appear on the final report:		Select Distribution:	<input checked="" type="checkbox"/> EMAIL <input type="checkbox"/> MAIL <input type="checkbox"/> FAX		<input type="checkbox"/> 2 day [P2] if received by 3pm M-F - 50% rush surcharge minimum												
Street:	PO BOX 12	Email 1 or Fax:	gabriel.holmes@mountpolley.com		<input type="checkbox"/> 1 day [E] if received by 3pm M-F - 100% rush surcharge minimum												
City/Province:	Likely BC	Email 2:	slatimer@minnow.ca; kbatchelar@minnow.ca		<input type="checkbox"/> Same day [E2] if received by 10am M-S - 200% rush surcharge												
Postal Code:	V0L 1N0	Email 3:	simone.derosmond@minnow.ca		Additional fees may apply to rush requests on weekends, statutory holidays and for non-routine tests.												
Invoice To:	Same as Report To <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	Invoice Recipients			Date and Time Required for all E&P TATs:												
Copy of Invoice with Report <input type="checkbox"/> YES <input type="checkbox"/> NO		Select Invoice Distribution:	<input checked="" type="checkbox"/> EMAIL <input type="checkbox"/> MAIL <input checked="" type="checkbox"/> FAX		For all tests with rush TATs requested, please contact your AM to confirm availability.												
Company:		Email 1 or Fax: On File			Analysis Request												
Contact:	On File	Email 2:			Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below												
Project Information		Oil and Gas Required Fields (client use)			NUMBER OF CONTAINER							SAMPLES ON HOLD	EXTENDED STORAGE REQUIRED	SUSPECTED HAZARD (see notes)			
ALS Account # / Quote #:	VA22-MPMC100-002	AFE/Cost Center:	PO#			Moisture Content by Gravimetry E144											
Job #:		Major/Minor Code:	Routing Code:			Mercury in Biota by CVAAS (DRY units, Routine) E510											
PO / AFE:	23-01 Task 5	Requisitioner:				Mercury in Biota by CVAAS (WET units, Routine) E510A											
LSD:		Location:				Metals in Biota by CRC ICPMS (DRY units, Routine) E440											
ALS Lab Work Order # (ALS use only):		ALS Contact:	Can Dang	Sampler:		Silver in Biota by CRC ICPMS (DRY units, Routine) E440.A9											
ALS Sample # (ALS use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	Titanium in Biota by CRC ICPMS (DRY units, Routine) E440.T1												
	POL-P2_ZOOT-1_2023-08	23-Aug-23		Tissue													
	BOL-B2_ZOOT-1_2023-08	28-Aug-23		Tissue													
	QUL-ZOO-7_ZOOT-1_2023-08	27-Aug-23		Tissue													
	QUL-ZOO-1_ZOOT-1_2023-08	27-Aug-23		Tissue													
	Pol-P2_ZOOT-1X_2023-08	28-Aug-23		Tissue													

Environmental Division
Vancouver
Work Order Reference
VA23C0397

Telephone : +1 604 253 4188

Drinking Water (DW) Samples (client use)		Notes / Specify Limits for result evaluation by selecting from drop-down below (Excel COC only)			SAMPLE RECEIPT DETAILS (ALS use only)				
Are samples taken from a Regulated DW System? <input type="checkbox"/> YES <input type="checkbox"/> NO		If sample is insufficient for regular digestion and analysis, contact kbatchelar@minnow.ca to discuss analysis options (e.g., use of microdigestion and HR-ICPMS)			Cooling Method: <input type="checkbox"/> NONE <input type="checkbox"/> ICE <input checked="" type="checkbox"/> ICE PACKS <input type="checkbox"/> FROZEN <input type="checkbox"/> COOLING INITIATED				
Are samples for human consumption/ use? <input type="checkbox"/> YES <input type="checkbox"/> NO					Submission Comments identified on Sample Receipt Notification: <input type="checkbox"/> YES <input type="checkbox"/> NO				
					Cooler Custody Seals Intact: <input type="checkbox"/> YES <input type="checkbox"/> N/A Sample Custody Seals Intact: <input type="checkbox"/> YES <input checked="" type="checkbox"/> N/A				
					INITIAL COOLER TEMPERATURES °C		FINAL COOLER TEMPERATURES °C		
							8		
SHIPMENT RELEASE (client use)		INITIAL SHIPMENT RECEPTION (ALS use only)			FINAL SHIPMENT RECEPTION (ALS use only)				
Released by:	Date:	Time:	Received by:	Date:	Time:	Received by:	Date:	Time:	
Peter Shuman	Aug 29/23	1:00				UP	8/30/23	8:25	

REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION WHITE - LABORATORY COPY YELLOW - CLIENT COPY

Failure to complete all portions of this form may delay analysis. Please fill in this form LEGIBLY. By the use of this form the user acknowledges and agrees with the Terms and Conditions as specified on the back page of the white - report copy.

1. If any water samples are taken from a Regulated Drinking Water (DW) System, please submit using an Authorized DW COC form.

PHYTOPLANKTON PRODUCTIVITY

**ALS Laboratory Report VA23B4406
(Finalized June 30, 2023)**



CERTIFICATE OF ANALYSIS

Work Order : **VA23B4406**
Client : **Mount Polley Mining Corporation**
Contact : Mr. Gabriel Holmes
Address : PO Box 12
 Likely BC Canada V0L 1N0
Telephone : 250-790-2215 ext 2171
Project : ----
PO : 23-01 Task 5
C-O-C number : ----
Sampler : ----
Site : ----
Quote number : VA22-MPMC100-004-Minnow Environmental-Periphyton
 Analysis
No. of samples received : 5
No. of samples analysed : 5

Page : 1 of 3
Laboratory : Vancouver - Environmental
Account Manager : Can Dang
Address : 8081 Lougheed Highway
 Burnaby BC Canada V5A 1W9
Telephone : +1 604 253 4188
Date Samples Received : 23-Jun-2023 11:15
Date Analysis Commenced : 26-Jun-2023
Issue Date : 30-Jun-2023 13:53

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QC Interpretive report to assist with Quality Review and Sample Receipt Notification (SRN).

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

<i>Signatories</i>	<i>Position</i>	<i>Laboratory Department</i>
Paolo Obillo	Account Manager Assistant	Administration, Burnaby, British Columbia
Tracy Harley	Supervisor - Water Quality Instrumentation	Inorganics, Burnaby, British Columbia



Page : 2 of 3
 Work Order : VA23B4406
 Client : Mount Polley Mining Corporation
 Project : ----

General Comments

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Refer to the ALS Quality Control Interpretive report (QCI) for applicable references and methodology summaries. Reference methods may incorporate modifications to improve performance.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

Please refer to Quality Control Interpretive report (QCI) for information regarding Holding Time compliance.

Key : CAS Number: Chemical Abstracts Services number is a unique identifier assigned to discrete substances
 LOR: Limit of Reporting (detection limit).

Unit	Description
µg/L	micrograms per litre
µg/sample	micrograms per sample
L	litres

<: less than.

>: greater than.

Surrogate: An analyte that is similar in behavior to target analyte(s), but that does not occur naturally in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery.

Test results reported relate only to the samples as received by the laboratory.

UNLESS OTHERWISE STATED on SRN or QCI Report, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

Analytical Results

Sub-Matrix: Water					Client sample ID				
(Matrix: Water)					POL-P2_CHLA-1_2023-06	BOL-B2_CHLA-1_2023-06	QUL-ZOO-7_CH LA-1_2023-06	QUL-ZOO-1_CH LA-1_2023-06	QUL-ZOO-7_CH LA-1X_2023-06
Client sampling date / time					20-Jun-2023	21-Jun-2023	21-Jun-2023	21-Jun-2023	21-Jun-2023
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23B4406-001	VA23B4406-002	VA23B4406-003	VA23B4406-004	VA23B4406-005
					Result	Result	Result	Result	Result
Field Tests									
Sampling volume, field	----	EF003/VA	0.010	L	0.250	0.250	0.250	0.250	0.250
Plant Pigments									
Chlorophyll a	479-61-8	EC870A/VA	0.010	µg/L	2.64	2.30	1.48	1.60	1.54
Chlorophyll a	479-61-8	E870A/VA	0.0020	µg/sample	0.660	0.576	0.371	0.399	0.385

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.



QUALITY CONTROL INTERPRETIVE REPORT

<p>Work Order : VA23B4406</p> <p>Client : Mount Polley Mining Corporation</p> <p>Contact : Mr. Gabriel Holmes</p> <p>Address : PO Box 12 Likely BC Canada V0L 1N0</p> <p>Telephone : 250-790-2215 ext 2171</p> <p>Project : ----</p> <p>PO : 23-01 Task 5</p> <p>C-O-C number : ----</p> <p>Sampler : ----</p> <p>Site : ----</p> <p>Quote number : VA22-MPMC100-004-Minnow Environmental-Periphyton Analysis</p> <p>No. of samples received : 5</p> <p>No. of samples analysed : 5</p>	<p>Page : 1 of 6</p> <p>Laboratory : Vancouver - Environmental</p> <p>Account Manager : Can Dang</p> <p>Address : 8081 Lougheed Highway Burnaby, British Columbia Canada V5A 1W9</p> <p>Telephone : +1 604 253 4188</p> <p>Date Samples Received : 23-Jun-2023 11:15</p> <p>Issue Date : 30-Jun-2023 13:52</p>
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This report is automatically generated by the ALS LIMS (Laboratory Information Management System) through evaluation of Quality Control (QC) results and other QA parameters associated with this submission, and is intended to facilitate rapid data validation by auditors or reviewers. The report highlights any exceptions and outliers to ALS Data Quality Objectives, provides holding time details and exceptions, summarizes QC sample frequencies, and lists applicable methodology references and summaries.

Key

- Anonymous: Refers to samples which are not part of this work order, but which formed part of the QC process lot.
 - CAS Number: Chemical Abstracts Service number is a unique identifier assigned to discrete substances.
 - DQO: Data Quality Objective.
 - LOR: Limit of Reporting (detection limit).
 - RPD: Relative Percent Difference.
-

Workorder Comments

Holding times are displayed as "----" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

Summary of Outliers

Outliers : Quality Control Samples

- No Method Blank value outliers occur.
- No Laboratory Control Sample (LCS) outliers occur
- No Test sample Surrogate recovery outliers exist.

Outliers: Reference Material (RM) Samples

- No Reference Material (RM) Sample outliers occur.

Outliers : Analysis Holding Time Compliance (Breaches)

- No Analysis Holding Time Outliers exist.

Outliers : Frequency of Quality Control Samples

- No Quality Control Sample Frequency Outliers occur.



Analysis Holding Time Compliance

This report summarizes extraction / preparation and analysis times and compares each with ALS recommended holding times, which are selected to meet known provincial and /or federal requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by organizations such as CCME, US EPA, APHA Standard Methods, ASTM, or Environment Canada (where available). Dates and holding times reported below represent the first dates of extraction or analysis. If subsequent tests or dilutions exceeded holding times, qualifiers are added (refer to COA).

If samples are identified below as having been analyzed or extracted outside of recommended holding times, measurement uncertainties may be increased, and this should be taken into consideration when interpreting results.

Where actual sampling date is not provided on the chain of custody, the date of receipt with time at 00:00 is used for calculation purposes.

Where only the sample date without time is provided on the chain of custody, the sampling date at 00:00 is used for calculation purposes.

Matrix: **Water** Evaluation: * = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Field Tests : Field Volume (L)											
Opaque HDPE tube BOL-B2_CHLA-1_2023-06	EF003	21-Jun-2023	----	----	----		30-Jun-2023	----	----		
Field Tests : Field Volume (L)											
Opaque HDPE tube POL-P2_CHLA-1_2023-06	EF003	20-Jun-2023	----	----	----		30-Jun-2023	----	----		
Field Tests : Field Volume (L)											
Opaque HDPE tube QUL-ZOO-1_CHLA-1_2023-06	EF003	21-Jun-2023	----	----	----		30-Jun-2023	----	----		
Field Tests : Field Volume (L)											
Opaque HDPE tube QUL-ZOO-7_CHLA-1_2023-06	EF003	21-Jun-2023	----	----	----		30-Jun-2023	----	----		
Field Tests : Field Volume (L)											
Opaque HDPE tube QUL-ZOO-7_CHLA-1X_2023-06	EF003	21-Jun-2023	----	----	----		30-Jun-2023	----	----		
Plant Pigments : Chlorophyll-a by Fluorometry (Field Filtered µg)											
Opaque HDPE tube BOL-B2_CHLA-1_2023-06	E870A	21-Jun-2023	26-Jun-2023	28 days	6 days	✓	26-Jun-2023	28 days	0 days	✓	
Plant Pigments : Chlorophyll-a by Fluorometry (Field Filtered µg)											
Opaque HDPE tube QUL-ZOO-1_CHLA-1_2023-06	E870A	21-Jun-2023	26-Jun-2023	28 days	6 days	✓	26-Jun-2023	28 days	0 days	✓	



Matrix: **Water** Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Plant Pigments : Chlorophyll-a by Fluorometry (Field Filtered µg)											
Opaque HDPE tube QUL-ZOO-7_CHLA-1_2023-06	E870A	21-Jun-2023	26-Jun-2023	28 days	6 days	✔	26-Jun-2023	28 days	0 days	✔	
Plant Pigments : Chlorophyll-a by Fluorometry (Field Filtered µg)											
Opaque HDPE tube QUL-ZOO-7_CHLA-1X_2023-06	E870A	21-Jun-2023	26-Jun-2023	28 days	6 days	✔	26-Jun-2023	28 days	0 days	✔	
Plant Pigments : Chlorophyll-a by Fluorometry (Field Filtered µg)											
Opaque HDPE tube POL-P2_CHLA-1_2023-06	E870A	20-Jun-2023	26-Jun-2023	28 days	7 days	✔	26-Jun-2023	28 days	0 days	✔	

Legend & Qualifier Definitions

Rec. HT: ALS recommended hold time (see units).



Quality Control Parameter Frequency Compliance

The following report summarizes the frequency of laboratory QC samples analyzed within the analytical batches (QC lots) in which the submitted samples were processed. The actual frequency should be greater than or equal to the expected frequency.

Matrix: **Water** Evaluation: ✖ = QC frequency outside specification; ✔ = QC frequency within specification.

Quality Control Sample Type	Method	QC Lot #	Count		Frequency (%)		
			QC	Regular	Actual	Expected	Evaluation
Analytical Methods							
Laboratory Control Samples (LCS)							
Chlorophyll-a by Fluorometry (Field Filtered µg)	E870A	1017827	1	5	20.0	5.0	✔
Method Blanks (MB)							
Chlorophyll-a by Fluorometry (Field Filtered µg)	E870A	1017827	1	5	20.0	5.0	✔



Methodology References and Summaries

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Reference methods may incorporate modifications to improve performance (indicated by "mod").

<i>Analytical Methods</i>	<i>Method / Lab</i>	<i>Matrix</i>	<i>Method Reference</i>	<i>Method Descriptions</i>
Chlorophyll-a by Fluorometry (Field Filtered µg)	E870A Vancouver - Environmental	Water	EPA 445.0 (mod)	Chlorophyll-a is determined by solvent extraction followed with analysis by fluorometry using the non-acidification procedure. Sampling volume not provided by client.
Chlorophyll-a by Fluorometry (Field Filtered µg/L)	EC870A Vancouver - Environmental	Water	CALC	Convert results to sample concentration based on field information.
Field Volume (L)	EF003 Vancouver - Environmental	Water		Field measurement of sampling volume provided by client and recorded on ALS report may affect the validity of results.
<i>Preparation Methods</i>	<i>Method / Lab</i>	<i>Matrix</i>	<i>Method Reference</i>	<i>Method Descriptions</i>
Chlorophyll-a Extraction (Field Filtered)	EP870A Vancouver - Environmental	Water	EPA 445.0 (mod)	Chlorophyll-a solvent extraction.

QUALITY CONTROL REPORT

Work Order	: VA23B4406	Page	: 1 of 3
Client	: Mount Polley Mining Corporation	Laboratory	: Vancouver - Environmental
Contact	: Mr. Gabriel Holmes	Account Manager	: Can Dang
Address	: PO Box 12 Likely BC Canada V0L 1N0	Address	: 8081 Lougheed Highway Burnaby, British Columbia Canada V5A 1W9
Telephone	:	Telephone	: +1 604 253 4188
Project	: ----	Date Samples Received	: 23-Jun-2023 11:15
PO	: 23-01 Task 5	Date Analysis Commenced	: 26-Jun-2023
C-O-C number	: ----	Issue Date	: 30-Jun-2023 13:45
Sampler	: ---- 250-790-2215 ext 2171		
Site	: ----		
Quote number	: VA22-MPMC100-004-Minnow Environmental-Periphyton Analysis		
No. of samples received	: 5		
No. of samples analysed	: 5		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Quality Control Report contains the following information:

- Method Blank (MB) Report; Recovery and Data Quality Objectives
- Laboratory Control Sample (LCS) Report; Recovery and Data Quality Objectives

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

<i>Signatories</i>	<i>Position</i>	<i>Laboratory Department</i>
Paolo Obillo	Account Manager Assistant	Vancouver Administration, Burnaby, British Columbia
Tracy Harley	Supervisor - Water Quality Instrumentation	Vancouver Inorganics, Burnaby, British Columbia



General Comments

The ALS Quality Control (QC) report is optionally provided to ALS clients upon request. ALS test methods include comprehensive QC checks with every analysis to ensure our high standards of quality are met. Each QC result has a known or expected target value, which is compared against predetermined Data Quality Objectives (DQOs) to provide confidence in the accuracy of associated test results. This report contains detailed results for all QC results applicable to this sample submission. Please refer to the ALS Quality Control Interpretation report (QCI) for applicable method references and methodology summaries.

Key :

- Anonymous = Refers to samples which are not part of this work order, but which formed part of the QC process lot.
- CAS Number = Chemical Abstracts Service number is a unique identifier assigned to discrete substances.
- DQO = Data Quality Objective.
- LOR = Limit of Reporting (detection limit).
- RPD = Relative Percent Difference
- # = Indicates a QC result that did not meet the ALS DQO.

Workorder Comments

Holding times are displayed as "----" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

Method Blank (MB) Report

A Method Blank is an analyte-free matrix that undergoes sample processing identical to that carried out for test samples. Method Blank results are used to monitor and control for potential contamination from the laboratory environment and reagents. For most tests, the DQO for Method Blanks is for the result to be < LOR.

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Plant Pigments (QCLot: 1017827)						
Chlorophyll a	479-61-8	E870A	0.002	µg/sample	<0.0020	----

Laboratory Control Sample (LCS) Report

A Laboratory Control Sample (LCS) is an analyte-free matrix that has been fortified (spiked) with test analytes at known concentration and processed in an identical manner to test samples. LCS results are expressed as percent recovery, and are used to monitor and control test method accuracy and precision, independent of test sample matrix.

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
Plant Pigments (QCLot: 1017827)									
Chlorophyll a	479-61-8	E870A	0.002	µg/sample	1 µg/sample	93.8	80.0	120	----

Page : 3 of 3
Work Order : VA23B4406
Client : Mount Polley Mining Corporation
Project : ---





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Chain of Custody (COC) / Analytical Request Form

COC Number: 20 -

Page 1 of 1

Canada Toll Free: 1 800 668 9878

Report To Contact and company name below will appear on the final report		Reports / Recipients			Turnaround Time (TAT) Requested			AFFIX ALS BARCODE LABEL HERE (ALS use only)					
Company:	Mount Polley Mining Corp.	Select Report Format:	<input checked="" type="checkbox"/> PDF <input checked="" type="checkbox"/> EXCEL <input checked="" type="checkbox"/> EDD (DIGITAL)	<input checked="" type="checkbox"/> Routine [R] if received by 3pm M-F - no surcharges apply									
Contact:	Gabriel Holmes	Merge QC/QCI Reports with COA	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> N/A	<input type="checkbox"/> 4 day [P4] if received by 3pm M-F - 20% rush surcharge minimum									
Phone:	236-317-4939	<input type="checkbox"/> Compare Results to Criteria on Report - provide details below if box checked		<input type="checkbox"/> 3 day [P3] if received by 3pm M-F - 25% rush surcharge minimum									
Company address below will appear on the final report		Select Distribution:	<input checked="" type="checkbox"/> EMAIL <input type="checkbox"/> MAIL <input type="checkbox"/> FAX	<input type="checkbox"/> 2 day [P2] if received by 3pm M-F - 50% rush surcharge minimum									
Street:	PO BOX 12	Email 1 or Fax:	gabriel.holmes@mountpolley.com	<input type="checkbox"/> 1 day [E] if received by 3pm M-F - 100% rush surcharge minimum									
City/Province:	Likely, BC	Email 2:	slatimer@minnow.ca; kbatchelar@minnow.ca;	<input type="checkbox"/> Same day [E2] if received by 10am M-S - 200% rush surcharge.									
Postal Code:	V0L 1N0	Email 3:	simone.derosemond@minnow.ca	Additional fees may apply to rush requests on weekends, statutory holidays and for non-routine tests.									
Invoice To	Same as Report To <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	Invoice Recipients			Date and Time Required for all E&P TATs:								
	Copy of Invoice with Report <input type="checkbox"/> YES <input type="checkbox"/> NO	Select Invoice Distribution:	<input checked="" type="checkbox"/> EMAIL <input type="checkbox"/> MAIL <input checked="" type="checkbox"/> FAX	For all tests with rush TATs requested, please contact your AM to confirm availability.									
Company:		Email 1 or Fax:	On File	Analysis Request									
Contact:	On File	Email 2:		Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below									
Project Information		Oil and Gas Required Fields (client use)			NUMBER OF CONTAINERS	CHL-A by Fluorimetry (E870A)	SAMPLES ON HOLD	EXTENDED STORAGE REQUIRED	SUSPECTED HAZARD (see notes)				
ALS Account # / Quote #:	VA22-MPMC100-004	AFE/Cost Center:	PO#										
Job #:		Major/Minor Code:	Routing Code:										
PO / AFE:	23-01 Task 5	Requisitioner:											
LSD:		Location:											
ALS Lab Work Order # (ALS use only):		ALS Contact:	Can Dang	Sampler:									
ALS Sample # (ALS use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type									
	POL-P2_CHLA-1_2023-06 (250ml)	20-Jun-23	16:15 N/A	Tissue	1	R							
	BOL-B2_CHLA-1_2023-06 (250ml)	21-Jun-23		Tissue	1	R							
	QUL-ZOO-7_CHLA-1_2023-06 (250ml)	21-Jun-23		Tissue	1	R							
	QUL-ZOO-1_CHLA-1_2023-06 (250ml)	21-Jun-23		Tissue	1	R							
	QUL-ZOO-7_CHLA-1X_2023-06 (250ml)	21-Jun-23	N/A	Tissue	1	R							

Environmental Division
Vancouver
Work Order Reference
VA23B4406

Telephone : +1 604 253 4188

Drinking Water (DW) Samples¹ (client use)		Notes / Specify Limits for result evaluation by selecting from drop-down below (Excel COC only)			SAMPLE RECEIPT DETAILS (ALS use only)			
Are samples taken from a Regulated DW System? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO		250ml samples. Will provide email w/ volume details to Can Dang; volume also recorded in brackets beside sample ID (ml)			Cooling Method: <input type="checkbox"/> NONE <input type="checkbox"/> ICE <input checked="" type="checkbox"/> ICE PACKS <input type="checkbox"/> FROZEN <input type="checkbox"/> COOLING INITIATED			
Are samples for human consumption/ use? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO					Submission Comments identified on Sample Receipt Notification: <input type="checkbox"/> YES <input type="checkbox"/> NO			
SHIPMENT RELEASE (client use)		INITIAL SHIPMENT RECEPTION (ALS use only)			FINAL SHIPMENT RECEPTION (ALS use only)			
Released by: S. Slatimer	Date: 21-Jun-23	Time: 17:30	Received by:	Date:	Time:	Received by: JC	Date: JUN 23 2023	Time: 11:00am

PHYTOPLANKTON PRODUCTIVITY

**ALS Laboratory Report VA23B7803
(Finalized August 10, 2023)**



CERTIFICATE OF ANALYSIS

Work Order : **VA23B7803**
Client : **Mount Polley Mining Corporation**
Contact : Mr. Gabriel Holmes
Address : PO Box 12
 Likely BC Canada V0L 1N0
Telephone : 250-790-2215 ext 2171
Project : ----
PO : 5500052166
C-O-C number : ----
Sampler : CAP, SLA
Site : ----
Quote number : VA22-MPMC100-004-Minnow Environmental-Periphyton
 Analysis
No. of samples received : 22
No. of samples analysed : 22

Page : 1 of 5
Laboratory : ALS Environmental - Vancouver
Account Manager : Can Dang
Address : 8081 Lougheed Highway
 Burnaby BC Canada V5A 1W9
Telephone : +1 604 253 4188
Date Samples Received : 02-Aug-2023 11:20
Date Analysis Commenced : 03-Aug-2023
Issue Date : 10-Aug-2023 12:02

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QC Interpretive report to assist with Quality Review and Sample Receipt Notification (SRN).

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

<i>Signatories</i>	<i>Position</i>	<i>Laboratory Department</i>
Emmanuel Mariano	Account Manager	Administration, Burnaby, British Columbia
Lindsay Gung	Supervisor - Water Chemistry	Inorganics, Burnaby, British Columbia



General Comments

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Refer to the ALS Quality Control Interpretive report (QCI) for applicable references and methodology summaries. Reference methods may incorporate modifications to improve performance.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

Please refer to Quality Control Interpretive report (QCI) for information regarding Holding Time compliance.

Key : CAS Number: Chemical Abstracts Services number is a unique identifier assigned to discrete substances
LOR: Limit of Reporting (detection limit).

<i>Unit</i>	<i>Description</i>
µg/L	micrograms per litre
µg/sample	micrograms per sample
L	litres

<: less than.

>: greater than.

Surrogate: An analyte that is similar in behavior to target analyte(s), but that does not occur naturally in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery.

Test results reported relate only to the samples as received by the laboratory.

UNLESS OTHERWISE STATED on SRN or QCI Report, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.



Analytical Results

Sub-Matrix: Water					Client sample ID				
(Matrix: Water)					POL-P2_CHLA-1_2023-07	POL-P2_CHLA-2_2023-07	POL-P2_CHLA-3_2023-07	POL-P2_CHLA-4_2023-07	POL-P2_CHLA-5_2023-07
Client sampling date / time					27-Jul-2023 00:00	27-Jul-2023 00:00	27-Jul-2023 00:00	27-Jul-2023 00:00	27-Jul-2023 00:00
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23B7803-001	VA23B7803-002	VA23B7803-003	VA23B7803-004	VA23B7803-005
					Result	Result	Result	Result	Result
Field Tests									
Sampling volume, field	----	EF003/VA	0.010	L	0.250	0.250	0.250	0.250	0.250
Plant Pigments									
Chlorophyll a	479-61-8	EC870A/VA	0.010	µg/L	3.56	3.47	4.08	3.89	3.79
Chlorophyll a	479-61-8	E870A/VA	0.0100	µg/sample	0.889	0.868	1.02	0.973	0.947

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.

Analytical Results

Sub-Matrix: Water					Client sample ID				
(Matrix: Water)					BOL-B2_CHLA-1_2023-07	BOL-B2_CHLA-2_2023-07	BOL-B2_CHLA-3_2023-07	BOL-B2_CHLA-4_2023-07	BOL-B2_CHLA-5_2023-07
Client sampling date / time					27-Jul-2023 00:00	27-Jul-2023 00:00	27-Jul-2023 00:00	27-Jul-2023 00:00	27-Jul-2023 00:00
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23B7803-006	VA23B7803-007	VA23B7803-008	VA23B7803-009	VA23B7803-010
					Result	Result	Result	Result	Result
Field Tests									
Sampling volume, field	----	EF003/VA	0.010	L	0.250	0.250	0.250	0.250	0.250
Plant Pigments									
Chlorophyll a	479-61-8	EC870A/VA	0.010	µg/L	2.53	2.54	2.61	3.08	2.52
Chlorophyll a	479-61-8	E870A/VA	0.0100	µg/sample	0.633	0.636	0.652	0.771	0.629

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.



Analytical Results

Sub-Matrix: Water					Client sample ID				
(Matrix: Water)					QUL-ZOO-7_CH LA-1_2023-07	QUL-ZOO-7_CH LA-2_2023-07	QUL-ZOO-7_CH LA-3_2023-07	QUL-ZOO-7_CH LA-4_2023-07	QUL-ZOO-7_CH LA-5_2023-07
Client sampling date / time					26-Jul-2023 00:00	26-Jul-2023 00:00	26-Jul-2023 00:00	26-Jul-2023 00:00	26-Jul-2023 00:00
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23B7803-011	VA23B7803-012	VA23B7803-013	VA23B7803-014	VA23B7803-015
					Result	Result	Result	Result	Result
Field Tests									
Sampling volume, field	----	EF003/VA	0.010	L	0.250	0.250	0.250	0.250	0.250
Plant Pigments									
Chlorophyll a	479-61-8	EC870A/VA	0.010	µg/L	0.924	1.35	1.28	0.812	1.06
Chlorophyll a	479-61-8	E870A/VA	0.0100	µg/sample	0.231	0.338	0.319	0.203	0.266

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.

Analytical Results

Sub-Matrix: Water					Client sample ID				
(Matrix: Water)					QUL-ZOO-1_CH LA-1_2023-07	QUL-ZOO-1_CH LA-2_2023-07	QUL-ZOO-1_CH LA-3_2023-07	QUL-ZOO-1_CH LA-4_2023-07	QUL-ZOO-1_CH LA-5_2023-07
Client sampling date / time					26-Jul-2023 00:00	26-Jul-2023 00:00	26-Jul-2023 00:00	26-Jul-2023 00:00	26-Jul-2023 00:00
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23B7803-016	VA23B7803-017	VA23B7803-018	VA23B7803-019	VA23B7803-020
					Result	Result	Result	Result	Result
Field Tests									
Sampling volume, field	----	EF003/VA	0.010	L	0.250	0.250	0.250	0.250	0.250
Plant Pigments									
Chlorophyll a	479-61-8	EC870A/VA	0.010	µg/L	1.41	1.48	1.34	1.07	1.42
Chlorophyll a	479-61-8	E870A/VA	0.0100	µg/sample	0.352	0.370	0.334	0.267	0.354

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.



Analytical Results

Sub-Matrix: Water					Client sample ID	QUL-ZOO-7_CH LA-1X_2023-07	Filter Blank	----	----	----
(Matrix: Water)					Client sampling date / time	26-Jul-2023 00:00	26-Jul-2023 00:00	----	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23B7803-021	VA23B7803-022	-----	-----	-----	
					Result	Result	----	----	----	
Field Tests										
Sampling volume, field	----	EF003/VA	0.010	L	0.250	----	----	----	----	
Plant Pigments										
Chlorophyll a	479-61-8	EC870A/VA	0.010	µg/L	1.07	----	----	----	----	
Chlorophyll a	479-61-8	E870A/VA	0.0020	µg/sample	----	0.0026	----	----	----	
Chlorophyll a	479-61-8	E870A/VA	0.0100	µg/sample	0.268	----	----	----	----	

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.

QUALITY CONTROL INTERPRETIVE REPORT

<p>Work Order : VA23B7803</p> <p>Client : Mount Polley Mining Corporation</p> <p>Contact : Mr. Gabriel Holmes</p> <p>Address : PO Box 12 Likely BC Canada V0L 1N0</p> <p>Telephone : 250-790-2215 ext 2171</p> <p>Project : ----</p> <p>PO : 5500052166</p> <p>C-O-C number : ----</p> <p>Sampler : CAP, SLA</p> <p>Site : ----</p> <p>Quote number : VA22-MPMC100-004-Minnow Environmental-Periphyton Analysis</p> <p>No. of samples received : 22</p> <p>No. of samples analysed : 22</p>	<p>Page : 1 of 10</p> <p>Laboratory : ALS Environmental - Vancouver</p> <p>Account Manager : Can Dang</p> <p>Address : 8081 Lougheed Highway Burnaby, British Columbia Canada V5A 1W9</p> <p>Telephone : +1 604 253 4188</p> <p>Date Samples Received : 02-Aug-2023 11:20</p> <p>Issue Date : 10-Aug-2023 12:02</p>
--	--

This report is automatically generated by the ALS LIMS (Laboratory Information Management System) through evaluation of Quality Control (QC) results and other QA parameters associated with this submission, and is intended to facilitate rapid data validation by auditors or reviewers. The report highlights any exceptions and outliers to ALS Data Quality Objectives, provides holding time details and exceptions, summarizes QC sample frequencies, and lists applicable methodology references and summaries.

Key

- Anonymous: Refers to samples which are not part of this work order, but which formed part of the QC process lot.
 - CAS Number: Chemical Abstracts Service number is a unique identifier assigned to discrete substances.
 - DQO: Data Quality Objective.
 - LOR: Limit of Reporting (detection limit).
 - RPD: Relative Percent Difference.
-

Workorder Comments

Holding times are displayed as "----" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

Summary of Outliers

Outliers : Quality Control Samples

- No Method Blank value outliers occur.
- No Laboratory Control Sample (LCS) outliers occur
- No Test sample Surrogate recovery outliers exist.

Outliers: Reference Material (RM) Samples

- No Reference Material (RM) Sample outliers occur.

Outliers : Analysis Holding Time Compliance (Breaches)

- No Analysis Holding Time Outliers exist.

Outliers : Frequency of Quality Control Samples

- No Quality Control Sample Frequency Outliers occur.



Analysis Holding Time Compliance

This report summarizes extraction / preparation and analysis times and compares each with ALS recommended holding times, which are selected to meet known provincial and /or federal requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by organizations such as CCME, US EPA, APHA Standard Methods, ASTM, or Environment Canada (where available). Dates and holding times reported below represent the first dates of extraction or analysis. If subsequent tests or dilutions exceeded holding times, qualifiers are added (refer to COA).

If samples are identified below as having been analyzed or extracted outside of recommended holding times, measurement uncertainties may be increased, and this should be taken into consideration when interpreting results.

Where actual sampling date is not provided on the chain of custody, the date of receipt with time at 00:00 is used for calculation purposes.

Where only the sample date without time is provided on the chain of custody, the sampling date at 00:00 is used for calculation purposes.

Matrix: **Water** Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Field Tests : Field Volume (L)										
Opaque HDPE tube BOL-B2_CHLA-1_2023-07	EF003	27-Jul-2023	---	---	---		03-Aug-2023	---	8 days	
Field Tests : Field Volume (L)										
Opaque HDPE tube BOL-B2_CHLA-2_2023-07	EF003	27-Jul-2023	---	---	---		03-Aug-2023	---	8 days	
Field Tests : Field Volume (L)										
Opaque HDPE tube BOL-B2_CHLA-3_2023-07	EF003	27-Jul-2023	---	---	---		03-Aug-2023	---	8 days	
Field Tests : Field Volume (L)										
Opaque HDPE tube BOL-B2_CHLA-4_2023-07	EF003	27-Jul-2023	---	---	---		03-Aug-2023	---	8 days	
Field Tests : Field Volume (L)										
Opaque HDPE tube BOL-B2_CHLA-5_2023-07	EF003	27-Jul-2023	---	---	---		03-Aug-2023	---	8 days	
Field Tests : Field Volume (L)										
Opaque HDPE tube POL-P2_CHLA-1_2023-07	EF003	27-Jul-2023	---	---	---		03-Aug-2023	---	8 days	
Field Tests : Field Volume (L)										
Opaque HDPE tube POL-P2_CHLA-2_2023-07	EF003	27-Jul-2023	---	---	---		03-Aug-2023	---	8 days	



Matrix: **Water** Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Field Tests : Field Volume (L)										
Opaque HDPE tube POL-P2_CHLA-3_2023-07	EF003	27-Jul-2023	----	----	----		03-Aug-2023	----	8 days	
Field Tests : Field Volume (L)										
Opaque HDPE tube POL-P2_CHLA-4_2023-07	EF003	27-Jul-2023	----	----	----		03-Aug-2023	----	8 days	
Field Tests : Field Volume (L)										
Opaque HDPE tube POL-P2_CHLA-5_2023-07	EF003	27-Jul-2023	----	----	----		03-Aug-2023	----	8 days	
Field Tests : Field Volume (L)										
Opaque HDPE tube QUL-ZOO-1_CHLA-1_2023-07	EF003	26-Jul-2023	----	----	----		03-Aug-2023	----	9 days	
Field Tests : Field Volume (L)										
Opaque HDPE tube QUL-ZOO-1_CHLA-2_2023-07	EF003	26-Jul-2023	----	----	----		03-Aug-2023	----	9 days	
Field Tests : Field Volume (L)										
Opaque HDPE tube QUL-ZOO-1_CHLA-3_2023-07	EF003	26-Jul-2023	----	----	----		03-Aug-2023	----	9 days	
Field Tests : Field Volume (L)										
Opaque HDPE tube QUL-ZOO-1_CHLA-4_2023-07	EF003	26-Jul-2023	----	----	----		03-Aug-2023	----	9 days	
Field Tests : Field Volume (L)										
Opaque HDPE tube QUL-ZOO-1_CHLA-5_2023-07	EF003	26-Jul-2023	----	----	----		03-Aug-2023	----	9 days	
Field Tests : Field Volume (L)										
Opaque HDPE tube QUL-ZOO-7_CHLA-1_2023-07	EF003	26-Jul-2023	----	----	----		03-Aug-2023	----	9 days	



Matrix: **Water** Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Field Tests : Field Volume (L)										
Opaque HDPE tube QUL-ZOO-7_CHLA-1X_2023-07	EF003	26-Jul-2023	----	----	----		03-Aug-2023	----	9 days	
Field Tests : Field Volume (L)										
Opaque HDPE tube QUL-ZOO-7_CHLA-2_2023-07	EF003	26-Jul-2023	----	----	----		03-Aug-2023	----	9 days	
Field Tests : Field Volume (L)										
Opaque HDPE tube QUL-ZOO-7_CHLA-3_2023-07	EF003	26-Jul-2023	----	----	----		03-Aug-2023	----	9 days	
Field Tests : Field Volume (L)										
Opaque HDPE tube QUL-ZOO-7_CHLA-4_2023-07	EF003	26-Jul-2023	----	----	----		03-Aug-2023	----	9 days	
Field Tests : Field Volume (L)										
Opaque HDPE tube QUL-ZOO-7_CHLA-5_2023-07	EF003	26-Jul-2023	----	----	----		03-Aug-2023	----	9 days	
Plant Pigments : Chlorophyll-a by Fluorometry (Field Filtered µg)										
Opaque HDPE tube BOL-B2_CHLA-1_2023-07	E870A	27-Jul-2023	09-Aug-2023	28 days	14 days	✔	09-Aug-2023	28 days	0 days	✔
Plant Pigments : Chlorophyll-a by Fluorometry (Field Filtered µg)										
Opaque HDPE tube BOL-B2_CHLA-2_2023-07	E870A	27-Jul-2023	09-Aug-2023	28 days	14 days	✔	09-Aug-2023	28 days	0 days	✔
Plant Pigments : Chlorophyll-a by Fluorometry (Field Filtered µg)										
Opaque HDPE tube BOL-B2_CHLA-3_2023-07	E870A	27-Jul-2023	09-Aug-2023	28 days	14 days	✔	09-Aug-2023	28 days	0 days	✔
Plant Pigments : Chlorophyll-a by Fluorometry (Field Filtered µg)										
Opaque HDPE tube BOL-B2_CHLA-4_2023-07	E870A	27-Jul-2023	09-Aug-2023	28 days	14 days	✔	09-Aug-2023	28 days	0 days	✔



Matrix: **Water** Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Plant Pigments : Chlorophyll-a by Fluorometry (Field Filtered µg)										
Opaque HDPE tube BOL-B2_CHLA-5_2023-07	E870A	27-Jul-2023	09-Aug-2023	28 days	14 days	✔	09-Aug-2023	28 days	0 days	✔
Plant Pigments : Chlorophyll-a by Fluorometry (Field Filtered µg)										
Opaque HDPE tube POL-P2_CHLA-1_2023-07	E870A	27-Jul-2023	09-Aug-2023	28 days	14 days	✔	09-Aug-2023	28 days	0 days	✔
Plant Pigments : Chlorophyll-a by Fluorometry (Field Filtered µg)										
Opaque HDPE tube POL-P2_CHLA-2_2023-07	E870A	27-Jul-2023	09-Aug-2023	28 days	14 days	✔	09-Aug-2023	28 days	0 days	✔
Plant Pigments : Chlorophyll-a by Fluorometry (Field Filtered µg)										
Opaque HDPE tube POL-P2_CHLA-3_2023-07	E870A	27-Jul-2023	09-Aug-2023	28 days	14 days	✔	09-Aug-2023	28 days	0 days	✔
Plant Pigments : Chlorophyll-a by Fluorometry (Field Filtered µg)										
Opaque HDPE tube POL-P2_CHLA-4_2023-07	E870A	27-Jul-2023	09-Aug-2023	28 days	14 days	✔	09-Aug-2023	28 days	0 days	✔
Plant Pigments : Chlorophyll-a by Fluorometry (Field Filtered µg)										
Opaque HDPE tube POL-P2_CHLA-5_2023-07	E870A	27-Jul-2023	09-Aug-2023	28 days	14 days	✔	09-Aug-2023	28 days	0 days	✔
Plant Pigments : Chlorophyll-a by Fluorometry (Field Filtered µg)										
Opaque HDPE tube Filter Blank	E870A	26-Jul-2023	09-Aug-2023	28 days	15 days	✔	09-Aug-2023	28 days	0 days	✔
Plant Pigments : Chlorophyll-a by Fluorometry (Field Filtered µg)										
Opaque HDPE tube QUL-ZOO-1_CHLA-1_2023-07	E870A	26-Jul-2023	09-Aug-2023	28 days	15 days	✔	09-Aug-2023	28 days	0 days	✔
Plant Pigments : Chlorophyll-a by Fluorometry (Field Filtered µg)										
Opaque HDPE tube QUL-ZOO-1_CHLA-2_2023-07	E870A	26-Jul-2023	09-Aug-2023	28 days	15 days	✔	09-Aug-2023	28 days	0 days	✔



Matrix: **Water** Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Plant Pigments : Chlorophyll-a by Fluorometry (Field Filtered µg)										
Opaque HDPE tube QUL-ZOO-1_CHLA-3_2023-07	E870A	26-Jul-2023	09-Aug-2023	28 days	15 days	✔	09-Aug-2023	28 days	0 days	✔
Plant Pigments : Chlorophyll-a by Fluorometry (Field Filtered µg)										
Opaque HDPE tube QUL-ZOO-1_CHLA-4_2023-07	E870A	26-Jul-2023	09-Aug-2023	28 days	15 days	✔	09-Aug-2023	28 days	0 days	✔
Plant Pigments : Chlorophyll-a by Fluorometry (Field Filtered µg)										
Opaque HDPE tube QUL-ZOO-1_CHLA-5_2023-07	E870A	26-Jul-2023	09-Aug-2023	28 days	15 days	✔	09-Aug-2023	28 days	0 days	✔
Plant Pigments : Chlorophyll-a by Fluorometry (Field Filtered µg)										
Opaque HDPE tube QUL-ZOO-7_CHLA-1_2023-07	E870A	26-Jul-2023	09-Aug-2023	28 days	15 days	✔	09-Aug-2023	28 days	0 days	✔
Plant Pigments : Chlorophyll-a by Fluorometry (Field Filtered µg)										
Opaque HDPE tube QUL-ZOO-7_CHLA-1X_2023-07	E870A	26-Jul-2023	09-Aug-2023	28 days	15 days	✔	09-Aug-2023	28 days	0 days	✔
Plant Pigments : Chlorophyll-a by Fluorometry (Field Filtered µg)										
Opaque HDPE tube QUL-ZOO-7_CHLA-2_2023-07	E870A	26-Jul-2023	09-Aug-2023	28 days	15 days	✔	09-Aug-2023	28 days	0 days	✔
Plant Pigments : Chlorophyll-a by Fluorometry (Field Filtered µg)										
Opaque HDPE tube QUL-ZOO-7_CHLA-3_2023-07	E870A	26-Jul-2023	09-Aug-2023	28 days	15 days	✔	09-Aug-2023	28 days	0 days	✔
Plant Pigments : Chlorophyll-a by Fluorometry (Field Filtered µg)										
Opaque HDPE tube QUL-ZOO-7_CHLA-4_2023-07	E870A	26-Jul-2023	09-Aug-2023	28 days	15 days	✔	09-Aug-2023	28 days	0 days	✔
Plant Pigments : Chlorophyll-a by Fluorometry (Field Filtered µg)										
Opaque HDPE tube QUL-ZOO-7_CHLA-5_2023-07	E870A	26-Jul-2023	09-Aug-2023	28 days	15 days	✔	09-Aug-2023	28 days	0 days	✔

[Legend & Qualifier Definitions](#)

Page : 8 of 10
Work Order : VA23B7803
Client : Mount Polley Mining Corporation
Project : ---



Rec. HT: ALS recommended hold time (see units).



Quality Control Parameter Frequency Compliance

The following report summarizes the frequency of laboratory QC samples analyzed within the analytical batches (QC lots) in which the submitted samples were processed. The actual frequency should be greater than or equal to the expected frequency.

Matrix: **Water** Evaluation: ✖ = QC frequency outside specification; ✔ = QC frequency within specification.

Quality Control Sample Type	Method	QC Lot #	Count		Frequency (%)		
			QC	Regular	Actual	Expected	Evaluation
<i>Analytical Methods</i>							
Laboratory Control Samples (LCS)							
Chlorophyll-a by Fluorometry (Field Filtered µg)	E870A	1077501	2	23	8.7	5.0	✔
Method Blanks (MB)							
Chlorophyll-a by Fluorometry (Field Filtered µg)	E870A	1077501	2	23	8.7	5.0	✔



Methodology References and Summaries

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Reference methods may incorporate modifications to improve performance (indicated by "mod").

<i>Analytical Methods</i>	<i>Method / Lab</i>	<i>Matrix</i>	<i>Method Reference</i>	<i>Method Descriptions</i>
Chlorophyll-a by Fluorometry (Field Filtered µg)	E870A ALS Environmental - Vancouver	Water	EPA 445.0 (mod)	Chlorophyll-a is determined by solvent extraction followed with analysis by fluorometry using the non-acidification procedure. Sampling volume not provided by client.
Chlorophyll-a by Fluorometry (Field Filtered µg/L)	EC870A ALS Environmental - Vancouver	Water	CALC	Convert results to sample concentration based on field information.
Field Volume (L)	EF003 ALS Environmental - Vancouver	Water		Field measurement of sampling volume provided by client and recorded on ALS report may affect the validity of results.
<i>Preparation Methods</i>	<i>Method / Lab</i>	<i>Matrix</i>	<i>Method Reference</i>	<i>Method Descriptions</i>
Chlorophyll-a Extraction (Field Filtered)	EP870A ALS Environmental - Vancouver	Water	EPA 445.0 (mod)	Chlorophyll-a solvent extraction.

QUALITY CONTROL REPORT

Work Order	: VA23B7803	Page	: 1 of 3
Client	: Mount Polley Mining Corporation	Laboratory	: ALS Environmental - Vancouver
Contact	: Mr. Gabriel Holmes	Account Manager	: Can Dang
Address	: PO Box 12 Likely BC Canada V0L 1N0	Address	: 8081 Lougheed Highway Burnaby, British Columbia Canada V5A 1W9
Telephone	:	Telephone	: +1 604 253 4188
Project	: ----	Date Samples Received	: 02-Aug-2023 11:20
PO	: 5500052166	Date Analysis Commenced	: 03-Aug-2023
C-O-C number	: ----	Issue Date	: 10-Aug-2023 12:02
Sampler	: CAP, SLA 250-790-2215 ext 2171		
Site	: ----		
Quote number	: VA22-MPMC100-004-Minnow Environmental-Periphyton Analysis		
No. of samples received	: 22		
No. of samples analysed	: 22		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Quality Control Report contains the following information:

- Method Blank (MB) Report; Recovery and Data Quality Objectives
- Laboratory Control Sample (LCS) Report; Recovery and Data Quality Objectives

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

<i>Signatories</i>	<i>Position</i>	<i>Laboratory Department</i>
Emmanuel Mariano	Account Manager	Vancouver Administration, Burnaby, British Columbia
Lindsay Gung	Supervisor - Water Chemistry	Vancouver Inorganics, Burnaby, British Columbia



General Comments

The ALS Quality Control (QC) report is optionally provided to ALS clients upon request. ALS test methods include comprehensive QC checks with every analysis to ensure our high standards of quality are met. Each QC result has a known or expected target value, which is compared against predetermined Data Quality Objectives (DQOs) to provide confidence in the accuracy of associated test results. This report contains detailed results for all QC results applicable to this sample submission. Please refer to the ALS Quality Control Interpretation report (QCI) for applicable method references and methodology summaries.

Key :

- Anonymous = Refers to samples which are not part of this work order, but which formed part of the QC process lot.
- CAS Number = Chemical Abstracts Service number is a unique identifier assigned to discrete substances.
- DQO = Data Quality Objective.
- LOR = Limit of Reporting (detection limit).
- RPD = Relative Percent Difference
- # = Indicates a QC result that did not meet the ALS DQO.

Workorder Comments

Holding times are displayed as "----" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

Method Blank (MB) Report

A Method Blank is an analyte-free matrix that undergoes sample processing identical to that carried out for test samples. Method Blank results are used to monitor and control for potential contamination from the laboratory environment and reagents. For most tests, the DQO for Method Blanks is for the result to be < LOR.

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Plant Pigments (QCLot: 1077501)						
Chlorophyll a	479-61-8	E870A	0.002	µg/sample	<0.0020	----
Plant Pigments (QCLot: 1077502)						
Chlorophyll a	479-61-8	E870A	0.002	µg/sample	<0.0020	----



Laboratory Control Sample (LCS) Report

A Laboratory Control Sample (LCS) is an analyte-free matrix that has been fortified (spiked) with test analytes at known concentration and processed in an identical manner to test samples. LCS results are expressed as percent recovery, and are used to monitor and control test method accuracy and precision, independent of test sample matrix.

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
Plant Pigments (QCLot: 1077501)									
Chlorophyll a	479-61-8	E870A	0.002	µg/sample	1 µg/sample	90.1	80.0	120	----
Plant Pigments (QCLot: 1077502)									
Chlorophyll a	479-61-8	E870A	0.002	µg/sample	1 µg/sample	90.3	80.0	120	----



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Chain of Custody (COC) / Analytical Request Form

COC Number: 20 -

Page 1 of 2

Canada Toll Free: 1 800 668 9878

Report To		Reports / Recipients			Turnaround Time (TAT) Requested		Analysis Request							
Contact and company name below will appear on the final report		Select Report Format: <input checked="" type="checkbox"/> PDF <input checked="" type="checkbox"/> EXCEL <input checked="" type="checkbox"/> EDD (DIGITAL)			<input checked="" type="checkbox"/> Routine [R] if received by 3pm M-F - no surcharges apply <input type="checkbox"/> 4 day [P4] if received by 3pm M-F - 20% rush surcharge minimum <input type="checkbox"/> 3 day [P3] if received by 3pm M-F - 25% rush surcharge minimum <input type="checkbox"/> 2 day [P2] if received by 3pm M-F - 50% rush surcharge minimum <input type="checkbox"/> 1 day [E] if received by 3pm M-F - 100% rush surcharge minimum <input type="checkbox"/> Same day [E2] if received by 10am M-S - 200% rush surcharge		AFFIX ALS BARCODE LABEL HERE (ALS use only)							
Company:	Mount Polley Mining Corp.	Merge QC/QCI Reports with COA <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> N/A			Additional fees may apply to rush requests on weekends, statutory holidays and for non-routine tests									
Contact:	Gabriel Holmes	<input type="checkbox"/> Compare Results to Criteria on Report - provide details below if box checked			Date and Time Required for all E&P TATs:									
Phone:	236-317-4939	Select Distribution: <input checked="" type="checkbox"/> EMAIL <input type="checkbox"/> MAIL <input type="checkbox"/> FAX			For all tests with rush TATs requested, please contact your AM to confirm availability.									
Company address below will appear on the final report		Email 1 or Fax: gabriel.holmes@mountpolley.com			Analysis Request									
Street:	PO BOX 12	Email 2: slatimer@minnow.ca; kbatchelar@minnow.ca			Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below									
City/Province:	Likely, BC	Email 3: simone.derosemond@minnow.ca			NUMBER OF CONTAINERS									
Postal Code:	V0L 1N0	Invoice Recipients			CHLA by Fluorimetry (EC870A)									
Invoice To:	Same as Report To <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	Select Invoice Distribution: <input checked="" type="checkbox"/> EMAIL <input type="checkbox"/> MAIL <input checked="" type="checkbox"/> FAX			SAMPLES ON HOLD									
Copy of Invoice with Report <input type="checkbox"/> YES <input type="checkbox"/> NO		Email 1 or Fax: On File			EXTENDED STORAGE REQUIRED									
Company:		Email 2:			SUSPECTED HAZARD (see notes)									
Contact:	On File	Oil and Gas Required Fields (client use)												
Project Information		AFE/Cost Center:												
ALS Account # / Quote #		Major/Minor Code:												
Job #:		Routing Code:												
PO / AFE:		Requisitioner:												
LSD:		Location:												
ALS Lab Work Order # (ALS use only): B7803		ALS Contact: Can Dang		Sampler: SLA, CAP										
ALS Sample # (ALS use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	1	2	3	4	5	6	7	8	9	10
	POL-P2_CHLA-1_2023-07 (250 mL)	27 -JUL-23	N/A	Water	1	R								
	POL-P2_CHLA-2_2023-07 (250 mL)	27 -JUL-23		Water	1	R								
	POL-P2_CHLA-3_2023-07 (250 mL)	27 -JUL-23		Water	1	R								
	POL-P2_CHLA-4_2023-07 (250 mL)	27 -JUL-23		Water	1	R								
	POL-P2_CHLA-5_2023-07 (250 mL)	27 -JUL-23		Water	1	R								
	BOL-B2_CHLA-1_2023-07 (250 mL)	27 -JUL-23		Water	1	R								
	BOL-B2_CHLA-2_2023-07 (250 mL)	27 -JUL-23		Water	1	R								
	BOL-B2_CHLA-3_2023-07 (250 mL)	27 -JUL-23		Water	1	R								
	BOL-B2_CHLA-4_2023-07 (250 mL)	27 -JUL-23		Water	1	R								
	BOL-B2_CHLA-5_2023-07 (250 mL)	27 -JUL-23		Water	1	R								
	QUL-ZOO-7_CHLA-1_2023-07 (240 mL)*	26 -JUL-23		Water	1	R								
	QUL-ZOO-7_CHLA-2_2023-07 (250 mL)*	26 -JUL-23	N/A	Water	1	R								
Drinking Water (DW) Samples ¹ (client use)		Notes / Specify Limits for result evaluation by selecting from drop-down below (Excel COC only)			SAMPLE RECEIPT DETAILS (ALS use only)									
Are samples taken from a Regulated DW System? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO		Volume filtered is in brackets			Cooling Method: <input type="checkbox"/> NONE <input type="checkbox"/> ICE <input checked="" type="checkbox"/> ICE PACKS <input type="checkbox"/> FROZEN <input type="checkbox"/> COOLING INITIATED									
Are samples for human consumption/ use? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO		Field filtered chlorophyll-a samples. Each sample was 250 mL unless otherwise noted. Samples were frozen after filtration			Submission Comments identified on Sample Receipt Notification: <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO									
					Cooler Custody Seals Intact: <input type="checkbox"/> YES <input type="checkbox"/> N/A Sample Custody Seals Intact: <input type="checkbox"/> YES <input type="checkbox"/> N/A									
					INITIAL COOLER TEMPERATURES °C					FINAL COOLER TEMPERATURES °C				
					8					9 9				
SHIPMENT RELEASE (client use)		INITIAL SHIPMENT RECEPTION (ALS use only)			FINAL SHIPMENT RECEPTION (ALS use only)									
Released by: S. Latimer	Date: 27-Jul-23	Time: 18:15	Received by:	Date:	Time:	Received by: JC	Date: 02 AUG 2023	Time: 12:00am						

Environmental Division
 Vancouver
 Work Order Reference
VA23B7803

Telephone : +1 604 253 4188



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Chain of Custody (COC) / Analytical Request Form

COC Number: 20 -

Page 2 of 2

Canada Toll Free: 1 800 668 9878

Report To Contact and company name below will appear on the final report		Reports / Recipients			Turnaround Time (TAT) Requested			AFFIX ALS BARCODE LABEL HERE (ALS use only)						
Company:	Mount Polley Mining Corp.	Select Report Format:	<input checked="" type="checkbox"/> PDF <input checked="" type="checkbox"/> EXCEL <input checked="" type="checkbox"/> EDD (DIGITAL)	<input checked="" type="checkbox"/> Routine [R] if received by 3pm M-F - no surcharges apply										
Contact:	Gabriel Holmes	Merge QC/QCI Reports with COA	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> N/A	<input type="checkbox"/> 4 day [P4] if received by 3pm M-F - 20% rush surcharge minimum										
Phone:	236-317-4939	<input type="checkbox"/> Compare Results to Criteria on Report - provide details below if box checked		<input type="checkbox"/> 3 day [P3] if received by 3pm M-F - 25% rush surcharge minimum										
Company address below will appear on the final report		Select Distribution:	<input checked="" type="checkbox"/> EMAIL <input type="checkbox"/> MAIL <input type="checkbox"/> FAX	<input type="checkbox"/> 2 day [P2] if received by 3pm M-F - 50% rush surcharge minimum										
Street:	PO BOX 12	Email 1 or Fax:	gabriel.holmes@mountpolley.com	<input type="checkbox"/> 1 day [E] if received by 3pm M-F - 100% rush surcharge minimum										
City/Province:	Likely, BC	Email 2:	slatimer@minnow.ca; kbatchelar@minnow.ca	<input type="checkbox"/> Same day [E2] if received by 10am M-S - 200% rush surcharge.										
Postal Code:	V0L 1N0	Email 3:	simone.derosemond@minnow.ca	Additional fees may apply to rush requests on weekends, statutory holidays and for non-routine tests.										
Invoice To	Same as Report To <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	Invoice Recipients			Date and Time Required for all E&P TATs:									
	Copy of Invoice with Report <input type="checkbox"/> YES <input type="checkbox"/> NO	Select Invoice Distribution:	<input checked="" type="checkbox"/> EMAIL <input type="checkbox"/> MAIL <input checked="" type="checkbox"/> FAX	For all tests with rush TATs requested, please contact your AM to confirm availability.										
Company:		Email 1 or Fax:	On File	Analysis Request										
Contact:	On File	Email 2:		Indicate Filtered (F), Preserved (P), or Filtered and Preserved (F/P) below										
Project Information		Oil and Gas Required Fields (client use)			NUMBER OF CONTAINERS					SAMPLES ON HOLD	EXTENDED STORAGE REQUIRED	SUSPECTED HAZARD (see notes)		
ALS Account # / Quote #:	VA22-MPMC100-004	AFE/Cost Center:	PO#											
Job #:		Major/Minor Code:	Routing Code:											
PO / AFE:	236-317-4939	Requisitioner:												
LSD:		Location:												
ALS Lab Work Order # (ALS use only):		ALS Contact:	Can Dang	Sampler:	SLA, CAP									
ALS Sample # (ALS use only)	Sample Identification and/or Coordinates (This description will appear on the report)		Date (dd-mm-yy)	Time (hh:mm)	Sample Type									
	QUL-ZOO-7_CHLA-3_2023-07 (250mL)		26	JUL-23	N/A	Water	1	R						
	QUL-ZOO-7_CHLA-4_2023-07 (250mL)		26	JUL-23		Water	1	R						
	QUL-ZOO-7_CHLA-5_2023-07 (250mL)		26	JUL-23		Water	1	R						
	QUL-ZOO-1_CHLA-1_2023-07 (250mL)		26	JUL-23		Water	1	R						
	QUL-ZOO-1_CHLA-2_2023-07 (245mL)		26	JUL-23		Water	1	R						
	QUL-ZOO-1_CHLA-3_2023-07 (250mL)		26	JUL-23		Water	1	R						
	QUL-ZOO-1_CHLA-4_2023-07 (250mL)		26	JUL-23		Water	1	R						
	QUL-ZOO-1_CHLA-5_2023-07 (250mL)		26	JUL-23		Water	1	R						
	QUL-ZOO-7_CHLA-1X_2023-07 (230mL) (QUL-ZOO-7-CHLA-1X-2023-07)		26	JUL-23	N/A	Water	1	R						
Drinking Water (DW) Samples¹ (client use)		Notes / Specify Limits for result evaluation by selecting from drop-down below (Excel COC only)			SAMPLE RECEIPT DETAILS (ALS use only)									
Are samples taken from a Regulated DW System? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO		Field filtered chlorophyll-a samples. Each sample was 250 mL unless otherwise noted. Samples were frozen after filtration			Cooling Method: <input type="checkbox"/> NONE <input type="checkbox"/> ICE <input checked="" type="checkbox"/> ICE PACKS <input type="checkbox"/> FROZEN <input type="checkbox"/> COOLING INITIATED									
Are samples for human consumption/use? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO					Submission Comments identified on Sample Receipt Notification: <input type="checkbox"/> YES <input type="checkbox"/> NO									
					Cooler Custody Seals Intact: <input type="checkbox"/> YES <input type="checkbox"/> N/A Sample Custody Seals intact: <input type="checkbox"/> YES <input type="checkbox"/> N/A									
					INITIAL COOLER TEMPERATURES °C		FINAL COOLER TEMPERATURES °C							
							8 9 9							
SHIPMENT RELEASE (client use)			INITIAL SHIPMENT RECEPTION (ALS use only)			FINAL SHIPMENT RECEPTION (ALS use only)								
Released by:	Date:	Time:	Received by:	Date:	Time:	Received by:	Date:	Time:						
S. Latimer	27-Jul-23	18:15				JL	02 AUG 2023	11:20am						

PHYTOPLANKTON PRODUCTIVITY

**ALS Laboratory Report VA23C0394
(Finalized January 4, 2024)**



CERTIFICATE OF ANALYSIS

Work Order : **VA23C0394**
Amendment : **1**
Client : **Mount Polley Mining Corporation**
Contact : Gabriel Holmes
Address : PO Box 12
 Likely BC Canada V0L 1N0
Telephone : 250-790-2215 ext 2171
Project : ----
PO : 5590012190
C-O-C number : ----
Sampler : ----
Site : ----
Quote number : VA22-MPMC100-004-Minnow Environmental-Periphyton
 Analysis
No. of samples received : 5
No. of samples analysed : 5

Page : 1 of 3

Laboratory : ALS Environmental - Vancouver
Account Manager : Can Dang
Address : 8081 Lougheed Highway
 Burnaby BC Canada V5A 1W9
Telephone : +1 604 253 4188
Date Samples Received : 30-Aug-2023 08:35
Date Analysis Commenced : 06-Sep-2023
Issue Date : 04-Jan-2024 15:02

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QC Interpretive report to assist with Quality Review and Sample Receipt Notification (SRN).

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

<i>Signatories</i>	<i>Position</i>	<i>Laboratory Department</i>
Kim Jensen	Department Manager - Metals	Inorganics, Burnaby, British Columbia
Lindsay Gung	Supervisor - Water Chemistry	Inorganics, Burnaby, British Columbia
Paolo Obillo	Account Manager Assistant	Administration, Burnaby, British Columbia



General Comments

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Refer to the ALS Quality Control Interpretive report (QCI) for applicable references and methodology summaries. Reference methods may incorporate modifications to improve performance.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

Please refer to Quality Control Interpretive report (QCI) for information regarding Holding Time compliance.

Key : CAS Number: Chemical Abstracts Services number is a unique identifier assigned to discrete substances
LOR: Limit of Reporting (detection limit).

<i>Unit</i>	<i>Description</i>
µg/L	micrograms per litre
µg/sample	micrograms per sample
L	litres

<: less than.

>: greater than.

Surrogate: An analyte that is similar in behavior to target analyte(s), but that does not occur naturally in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery.

Test results reported relate only to the samples as received by the laboratory.

UNLESS OTHERWISE STATED on SRN or QCI Report, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

Workorder Comments

Amendment (04/01/2023): This report has been amended and re-released to allow the reporting of additional analytical data. Included additional field data and result as ug/L analysis data.



Analytical Results

Sub-Matrix: Water (Matrix: Water)					Client sample ID	POL-P2_CHLA-1_2023-08	BOL-B2_CHLA-1_2023-08	QUL-ZOO-7_CHLA-1_2023-08	QUL-ZOO-1_CHLA-1_2023-08	QUL-ZOO-1_CHLA-1X_2023-08
Client sampling date / time					28-Aug-2023 00:00	28-Aug-2023 00:00	27-Aug-2023 00:00	27-Aug-2023 00:00	27-Aug-2023 00:00	
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23C0394-001	VA23C0394-002	VA23C0394-003	VA23C0394-004	VA23C0394-005	
					Result	Result	Result	Result	Result	
Field Tests										
Sampling volume, field	----	EF003/VA	0.010	L	0.240	0.240	0.240	0.240	0.240	
Plant Pigments										
Chlorophyll a	479-61-8	EC870A/VA	0.010	µg/L	4.25	2.62	2.09	2.34	2.12	
Chlorophyll a	479-61-8	E870A/VA	0.0020	µg/sample	1.02	0.629	0.502	0.563	0.508	

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.

QUALITY CONTROL INTERPRETIVE REPORT

<p>Work Order : VA23C0394</p> <p>Amendment : 1</p> <p>Client : Mount Polley Mining Corporation</p> <p>Contact : Gabriel Holmes</p> <p>Address : PO Box 12 Likely BC Canada V0L 1N0</p> <p>Telephone : 250-790-2215 ext 2171</p> <p>Project : ----</p> <p>PO : 5590012190</p> <p>C-O-C number : ----</p> <p>Sampler : ----</p> <p>Site : ----</p> <p>Quote number : VA22-MPMC100-004-Minnow Environmental-Periphyton Analysis</p> <p>No. of samples received : 5</p> <p>No. of samples analysed : 5</p>	<p>Page : 1 of 6</p> <p>Laboratory : ALS Environmental - Vancouver</p> <p>Account Manager : Can Dang</p> <p>Address : 8081 Lougheed Highway Burnaby, British Columbia Canada V5A 1W9</p> <p>Telephone : +1 604 253 4188</p> <p>Date Samples Received : 30-Aug-2023 08:35</p> <p>Issue Date : 04-Jan-2024 15:02</p>
---	---

This report is automatically generated by the ALS LIMS (Laboratory Information Management System) through evaluation of Quality Control (QC) results and other QA parameters associated with this submission, and is intended to facilitate rapid data validation by auditors or reviewers. The report highlights any exceptions and outliers to ALS Data Quality Objectives, provides holding time details and exceptions, summarizes QC sample frequencies, and lists applicable methodology references and summaries.

Key

- Anonymous: Refers to samples which are not part of this work order, but which formed part of the QC process lot.
- CAS Number: Chemical Abstracts Service number is a unique identifier assigned to discrete substances.
- DQO: Data Quality Objective.
- LOR: Limit of Reporting (detection limit).
- RPD: Relative Percent Difference.

Workorder Comments

Holding times are displayed as "----" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

Summary of Outliers

Outliers : Quality Control Samples

- No Method Blank value outliers occur.
- No Laboratory Control Sample (LCS) outliers occur
- No Test sample Surrogate recovery outliers exist.

Outliers: Reference Material (RM) Samples

- No Reference Material (RM) Sample outliers occur.

Outliers : Analysis Holding Time Compliance (Breaches)

- No Analysis Holding Time Outliers exist.

Outliers : Frequency of Quality Control Samples

- No Quality Control Sample Frequency Outliers occur.



Analysis Holding Time Compliance

This report summarizes extraction / preparation and analysis times and compares each with ALS recommended holding times, which are selected to meet known provincial and /or federal requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by organizations such as CCME, US EPA, APHA Standard Methods, ASTM, or Environment Canada (where available). Dates and holding times reported below represent the first dates of extraction or analysis. If subsequent tests or dilutions exceeded holding times, qualifiers are added (refer to COA).

If samples are identified below as having been analyzed or extracted outside of recommended holding times, measurement uncertainties may be increased, and this should be taken into consideration when interpreting results.

Where actual sampling date is not provided on the chain of custody, the date of receipt with time at 00:00 is used for calculation purposes.

Where only the sample date without time is provided on the chain of custody, the sampling date at 00:00 is used for calculation purposes.

Matrix: **Water** Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Field Tests : Field Volume (L)										
Opaque HDPE tube BOL-B2_CHLA-1_2023-08	EF003	28-Aug-2023	----	----	----		04-Jan-2024	----	130 days	
Field Tests : Field Volume (L)										
Opaque HDPE tube POL-P2_CHLA-1_2023-08	EF003	28-Aug-2023	----	----	----		04-Jan-2024	----	130 days	
Field Tests : Field Volume (L)										
Opaque HDPE tube QUL-ZOO-1_CHLA-1_2023-08	EF003	27-Aug-2023	----	----	----		04-Jan-2024	----	131 days	
Field Tests : Field Volume (L)										
Opaque HDPE tube QUL-ZOO-1_CHLA-1X_2023-08	EF003	27-Aug-2023	----	----	----		04-Jan-2024	----	131 days	
Field Tests : Field Volume (L)										
Opaque HDPE tube QUL-ZOO-7_CHLA-1_2023-08	EF003	27-Aug-2023	----	----	----		04-Jan-2024	----	131 days	
Plant Pigments : Chlorophyll-a by Fluorometry (Field Filtered µg)										
Opaque HDPE tube BOL-B2_CHLA-1_2023-08	E870A	28-Aug-2023	06-Sep-2023	28 days	10 days	✔	06-Sep-2023	28 days	0 days	✔
Plant Pigments : Chlorophyll-a by Fluorometry (Field Filtered µg)										
Opaque HDPE tube POL-P2_CHLA-1_2023-08	E870A	28-Aug-2023	06-Sep-2023	28 days	10 days	✔	06-Sep-2023	28 days	0 days	✔



Matrix: **Water** Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Plant Pigments : Chlorophyll-a by Fluorometry (Field Filtered µg)										
Opaque HDPE tube QUL-ZOO-1_CHLA-1_2023-08	E870A	27-Aug-2023	06-Sep-2023	28 days	11 days	✔	06-Sep-2023	28 days	0 days	✔
Plant Pigments : Chlorophyll-a by Fluorometry (Field Filtered µg)										
Opaque HDPE tube QUL-ZOO-1_CHLA-1X_2023-08	E870A	27-Aug-2023	06-Sep-2023	28 days	11 days	✔	06-Sep-2023	28 days	0 days	✔
Plant Pigments : Chlorophyll-a by Fluorometry (Field Filtered µg)										
Opaque HDPE tube QUL-ZOO-7_CHLA-1_2023-08	E870A	27-Aug-2023	06-Sep-2023	28 days	11 days	✔	06-Sep-2023	28 days	0 days	✔

Legend & Qualifier Definitions

Rec. HT: ALS recommended hold time (see units).



Quality Control Parameter Frequency Compliance

The following report summarizes the frequency of laboratory QC samples analyzed within the analytical batches (QC lots) in which the submitted samples were processed. The actual frequency should be greater than or equal to the expected frequency.

Matrix: **Water** Evaluation: ✖ = QC frequency outside specification; ✔ = QC frequency within specification.

Quality Control Sample Type	Method	QC Lot #	Count		Frequency (%)		
			QC	Regular	Actual	Expected	Evaluation
Analytical Methods							
Laboratory Control Samples (LCS)							
Chlorophyll-a by Fluorometry (Field Filtered µg)	E870A	1121497	2	37	5.4	5.0	✔
Method Blanks (MB)							
Chlorophyll-a by Fluorometry (Field Filtered µg)	E870A	1121497	2	37	5.4	5.0	✔



Methodology References and Summaries

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Reference methods may incorporate modifications to improve performance (indicated by "mod").

<i>Analytical Methods</i>	<i>Method / Lab</i>	<i>Matrix</i>	<i>Method Reference</i>	<i>Method Descriptions</i>
Chlorophyll-a by Fluorometry (Field Filtered µg)	E870A ALS Environmental - Vancouver	Water	EPA 445.0 (mod)	Chlorophyll-a is determined by solvent extraction followed with analysis by fluorometry using the non-acidification procedure. Sampling volume not provided by client.
Chlorophyll-a by Fluorometry (Field Filtered µg/L)	EC870A ALS Environmental - Vancouver	Water	CALC	Convert results to sample concentration based on field information.
Field Volume (L)	EF003 ALS Environmental - Vancouver	Water		Field measurement of sampling volume provided by client and recorded on ALS report may affect the validity of results.
<i>Preparation Methods</i>	<i>Method / Lab</i>	<i>Matrix</i>	<i>Method Reference</i>	<i>Method Descriptions</i>
Chlorophyll-a Extraction (Field Filtered)	EP870A ALS Environmental - Vancouver	Water	EPA 445.0 (mod)	Chlorophyll-a solvent extraction.

QUALITY CONTROL REPORT

Work Order	: VA23C0394	Page	: 1 of 3
Amendment	: 1		
Client	: Mount Polley Mining Corporation	Laboratory	: ALS Environmental - Vancouver
Contact	: Gabriel Holmes	Account Manager	: Can Dang
Address	: PO Box 12 Likely BC Canada V0L 1N0	Address	: 8081 Lougheed Highway Burnaby, British Columbia Canada V5A 1W9
Telephone	:	Telephone	: +1 604 253 4188
Project	: ----	Date Samples Received	: 30-Aug-2023 08:35
PO	: 5590012190	Date Analysis Commenced	: 06-Sep-2023
C-O-C number	: ----	Issue Date	: 04-Jan-2024 15:02
Sampler	: ---- 250-790-2215 ext 2171		
Site	: ----		
Quote number	: VA22-MPMC100-004-Minnow Environmental-Periphyton Analysis		
No. of samples received	: 5		
No. of samples analysed	: 5		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Quality Control Report contains the following information:

- Method Blank (MB) Report; Recovery and Data Quality Objectives
- Laboratory Control Sample (LCS) Report; Recovery and Data Quality Objectives

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

<i>Signatories</i>	<i>Position</i>	<i>Laboratory Department</i>
Kim Jensen	Department Manager - Metals	Vancouver Inorganics, Burnaby, British Columbia
Lindsay Gung	Supervisor - Water Chemistry	Vancouver Inorganics, Burnaby, British Columbia
Paolo Obillo	Account Manager Assistant	Vancouver Administration, Burnaby, British Columbia



General Comments

The ALS Quality Control (QC) report is optionally provided to ALS clients upon request. ALS test methods include comprehensive QC checks with every analysis to ensure our high standards of quality are met. Each QC result has a known or expected target value, which is compared against predetermined Data Quality Objectives (DQOs) to provide confidence in the accuracy of associated test results. This report contains detailed results for all QC results applicable to this sample submission. Please refer to the ALS Quality Control Interpretation report (QCI) for applicable method references and methodology summaries.

Key :

- Anonymous = Refers to samples which are not part of this work order, but which formed part of the QC process lot.
- CAS Number = Chemical Abstracts Service number is a unique identifier assigned to discrete substances.
- DQO = Data Quality Objective.
- LOR = Limit of Reporting (detection limit).
- RPD = Relative Percent Difference
- # = Indicates a QC result that did not meet the ALS DQO.

Workorder Comments

Holding times are displayed as "---" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

Method Blank (MB) Report

A Method Blank is an analyte-free matrix that undergoes sample processing identical to that carried out for test samples. Method Blank results are used to monitor and control for potential contamination from the laboratory environment and reagents. For most tests, the DQO for Method Blanks is for the result to be < LOR.

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Plant Pigments (QCLot: 1121497)						
Chlorophyll a	479-61-8	E870A	0.002	µg/sample	<0.0020	----
Plant Pigments (QCLot: 1121498)						
Chlorophyll a	479-61-8	E870A	0.002	µg/sample	<0.0020	----



Laboratory Control Sample (LCS) Report

A Laboratory Control Sample (LCS) is an analyte-free matrix that has been fortified (spiked) with test analytes at known concentration and processed in an identical manner to test samples. LCS results are expressed as percent recovery, and are used to monitor and control test method accuracy and precision, independent of test sample matrix.

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
Plant Pigments (QCLot: 1121497)									
Chlorophyll a	479-61-8	E870A	0.002	µg/sample	1 µg/sample	89.2	80.0	120	----
Plant Pigments (QCLot: 1121498)									
Chlorophyll a	479-61-8	E870A	0.002	µg/sample	1 µg/sample	88.9	80.0	120	----



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Chain of Custody (COC) / Analytical Request Form

COC Number: 20 -

Page 1 of 1

Canada Toll Free: 1 800 668 9878

Contact and company name below will appear on the final report

Reports / Recipients

Turnaround Time (TAT) Requested

AFFIX ALS BARCODE LABEL HERE (ALS use only)

Company: Mount Polley Mining Corp.
 Contact: Gabriel Holmes
 Phone: 236-317-4839
 Company address below will appear on the final report
 Street: PO BOX 12
 City/Province: Lkely, BC
 Postal Code: V0L 1N0

Select Report Format: PDF EXCEL EDC (DIGITAL)
 Merge QC/QCI Reports with COA YES NO N/A
 Complete Results to Client on Report - provide details below, if box checked
 Select Distribution: EMAIL MAIL FAX
 Email 1 or Fax: gabriel.holmes@mountpolley.com
 Email 2: slimmer@minnow.ca; kbachelar@minnow.ca
 Email 3: slimmer.d@minnow.ca
 Invoice Recipients: slimmer.d@minnow.ca
 Select Invoice Distribution: EMAIL MAIL FAX
 Email 1 or Fax: On File
 Email 2: On File

Company: On File
 Contact: On File
 Project Information: VAA22-MPMC100-004
 ALS Account # / Quote #: VAA22-MPMC100-004
 Job #:
 PO / AFE: 23-01 Task 5
 LSD:
 Location:
 Requestioner:
 Major/Minor Code:
 AFE/Cost Center:
 Oil and Gas Required Fields (client use):
 PO#:
 Routing Code:
 ALS Lab Work Order # (ALS use only): 40394

Additional fees may apply to rush requests on weekends, statutory holidays and for non-routine tests.
 Date and Time Required for all E&P TATs:
 For all tests with rush TATs requested, please contact your ALS to confirm availability.
 Analysis Request:
 Indicate Filtered (F), Preserved (P) or Filtered and Preserved (FP) below

ALS Sample # (ALS use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mm-yy)	Time (hh:mm)	Sample Type	ALS Contact:	Can Dang	Sampler:
1	POL-P2_CHLA-1_2023-08	28-Aug-23		Tissue			
2	BOL-B2_CHLA-1_2023-08	28-Aug-23		Tissue			
3	QUL-ZOO-7_CHLA-1_2023-08	23-Aug-23		Tissue			
4	QUL-ZOO-1_CHLA-1_2023-08	23-Aug-23		Tissue			
5	QUL-ZOO-1_CHLA-1_2023-08	Aug-23		Tissue			

NUMBER OF CONTAINERS	CHL-A by Fluorometry (E870A)
1	R
1	R
1	R
1	R
1	R
1	R

Environmental Division
 Vancouver
 Work Order Reference
VAA23C0394
 Telephone: +1 804 253 4198

Drinking Water (DW) Samples (client use)
 Are samples taken from a Regulated DW System? YES NO
 Are samples for human consumption/ use? YES NO
 Notes/Specify limits for result evaluation by selecting from drop-down below (Excel COC only)

SAMPLE RECEIPT DETAILS (ALS use only)
 Cooling Method: NONE ICE ICE PACKS FROZEN COOLING INITIATED
 Submission Comments identified on Sample Receipt Notification: YES NO
 Cooler Custody Seals Intact: YES N/A NO
 INITIAL COOLER TEMPERATURES °C:
 FINAL COOLER TEMPERATURES °C:
 INITIAL SHIPMENT RECEPTION (ALS use only)
 Released by: *Roger Sluiter* Date: *28/08/23*
 Received by: *DP* Date: *28/08/23*
 Time: *8:35 AM*

REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION
 WHITE - LABORATORY COPY YELLOW - CLIENT COPY
 Failure to complete all portions of this form may delay analysis. Please fill in this form the user acknowledges and agrees with the Terms and Conditions as specified on the back page of the white - report copy.
 1. If any water samples are taken from a Regulated Drinking Water (DW) System, please submit using an Authorized DW COC form.

PERIPHYTON COMMUNITY

**Biologica Laboratory Reports pp23-092 Freshwater
Periphyton - Methods
(Finalized November 2, 2023)**



Freshwater Periphyton Enumeration and Identification Methods

Client: Minnow (Mt Polley Mining Corp)

Project: Mount Polley

Sample Inventory

Sample arrival: 15-Aug-23

Number of samples: 30

Number of jars: 30

Biologica project number: pp23-092

Upon arrival, samples were examined, and Lugols preservative was added (if needed) to ensure adequate preservation of samples. An inventory form was created and verified with the chain of custody (COC) to ensure that (1) all samples are accounted for, and (2) each sample had the appropriate number of jars as indicated on the COC. Any discrepancies were reported to the client and were resolved before further sample handling.

Sample Processing

Distilled water was added to the samples as needed to make their volumes uniform (21.4 mL). Samples were sonicated for 7 minutes using a CO-Z Digital Ultrasonic Cleaner (40 kHz), and sub-samples (0.1 - 0.2 mL) were dispensed into 10 mL Utermohl settling chambers, topped up with distilled water, and gravity settled for 3 hours. Sub-samples were then systematically scanned using a Zeiss Axio Vert A.1 inverted phase-contrast microscope at 400x magnification. All algal cells were counted in a series of randomly located fields of view (FOV) until a minimum of 300 algal units were enumerated, or until 80 FOV were scanned. Algal units represent single cells of all algal groups, as well as colonies or filaments of blue-green algae. Given that blue-green algal colonies/filaments may contain hundreds of cells, enumerating units, rather than individual cells, allows for a more equal representation of algal groups. The mean number of cells per unit (= 1 for single cells, >1 for all other algal forms) were estimated for all taxa and used to calculate total densities. Only "viable" cells (those that appeared to be alive at the time of collection) were identified and enumerated. Chrysophyte loricas were also counted (EPA, 2003).

Algae were identified to genus, where possible, following the most up-to-date taxonomic references and collaborations with international and local algal taxonomic experts. Species-level identifications were only given to identifiable taxa for which there are reliable taxonomic references available that encompass the species-level morphological diversity in North America. This approach ensures long-term consistency of data sets and is in accordance with the trend in algal taxonomic practice to be more conservative with delineation of species. Species-level identifications for some taxa are problematic due to widespread phenotypic plasticity that can artificially inflate species richness (Wehr *et al.* 2015). When applicable, terms "cf." (*confertim*, possibly for species) and "sp.1" (a single undetermined species) were employed to distinguish between different species in the same genus.

Table 1. Summary of periphyton samples processed for Minnow (Mt Polley Mining Corp), Mount Polley, 2023.

Client Sample ID	Rep	Date Sampled	Biologica Sample ID	Sub-sample Volume (mL)	Fields of View Scanned	Total Units Counted*
E1_PERI-2_2023-08	2	05-Aug-23	pp23-092-001	0.1	10	316
E1_PERI-4_2023-08	4	05-Aug-23	pp23-092-002	0.1	15	332
E1_PERI-5_2023-08	5	05-Aug-23	pp23-092-003	0.1	60	312
E1_PERI-6_2023-08	6	05-Aug-23	pp23-092-004	0.1	43	312
E1_PERI-7_2023-08	7	05-Aug-23	pp23-092-005	0.2	15	327
HAC-D_PERI-1_2023-08	1	06-Aug-23	pp23-092-006	0.1	15	337
HAC-D_PERI-2_2023-08	2	06-Aug-23	pp23-092-007	0.1	20	330
HAC-D_PERI-3_2023-08	3	06-Aug-23	pp23-092-008	0.1	10	340
HAC-D_PERI-4_2023-08	4	06-Aug-23	pp23-092-009	0.1	23	300
HAC-D_PERI-5_2023-08	5	06-Aug-23	pp23-092-010	0.1	15	301
EDC-U_PERI-5_2023-08	5	07-Aug-23	pp23-092-011	0.1	10	364
EDC-U_PERI-1_2023-08	1	08-Aug-23	pp23-092-012	0.1	10	305
EDC-U_PERI-2_2023-08	1	08-Aug-23	pp23-092-013	0.1	7	338
EDC-U_PERI-3_2023-08	1	08-Aug-23	pp23-092-014	0.1	10	307
EDC-U_PERI-4_2023-08	1	08-Aug-23	pp23-092-015	0.1	10	304
HAC-U_PERI-1_2023-08	1	09-Aug-23	pp23-092-016	0.1	13	307
HAC-U_PERI-2_2023-08	2	09-Aug-23	pp23-092-017	0.1	13	318
HAC-U_PERI-3_2023-08	3	09-Aug-23	pp23-092-018	0.1	33	324
HAC-U_PERI-4_2023-08	4	09-Aug-23	pp23-092-019	0.1	17	303
HAC-U_PERI-5_2023-08	5	09-Aug-23	pp23-092-020	0.1	27	306
HAC-R1_PERI-1_2023-08	1	10-Aug-23	pp23-092-021	0.1	25	303
HAC-R1_PERI-2_2023-08	2	10-Aug-23	pp23-092-022	0.1	43	316
HAC-R1_PERI-3_2023-08	3	10-Aug-23	pp23-092-023	0.1	20	307
HAC-R1_PERI-4_2023-08	4	10-Aug-23	pp23-092-024	0.1	15	333
HAC-R1_PERI-5_2023-08	5	10-Aug-23	pp23-092-025	0.1	23	337
EDC-D_PERI-1_2023-08	1	11-Aug-23	pp23-092-026	0.1	7	382
EDC-D_PERI-3_2023-08	3	11-Aug-23	pp23-092-027	0.1	13	323
EDC-D_PERI-5_2023-08	5	11-Aug-23	pp23-092-028	0.1	10	420
EDC-D_PERI-7_2023-08	7	11-Aug-23	pp23-092-029	0.1	7	303
EDC-D_PERI-8_2023-08	8	11-Aug-23	pp23-092-030	0.1	15	328

*Algal units represent single cells, colonies, coenobia or filaments.

QA/QC

Ten percent of samples (n=3) were re-analyzed to assess the precision of enumeration (Table 2). Replicate samples are chosen at random and processed at different times to reduce counting and identification bias.

Table 2. Summary of enumeration QA/QC results for Minnow (Mt Polley Mining Corp), Mount Polley, 2023.

Client Sample ID	Biologica Sample ID	Original Density	QA Density	Percent Agreement
E1_PERI-4_2023-08	pp23-092-002	648,876	715,293	89.76
HAC-D_PERI-4_2023-08	pp23-092-009	1,444,503	1,326,021	91.80
EDC-D_PERI-3_2023-08	pp23-092-027	1,063,322	1,245,331	82.88
Average:				88.15

Percent Agreement: $[100 - (\text{difference in density between samples}) / \text{total density of the original sample}] \%$

Data Analysis

Algal densities, expressed as the number of per centimetre squared (cells/cm²), were derived for each sample from the area scrapped, sub-sample volume, number of FOV assessed, number of units counted, and number of cells per unit.

Results were provided to the Minnow project manager in Excel spreadsheets via email.

Methodological and Taxonomic References

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Total periphyton density (cells/cm²) for Minnow (Mt Polley Mining Corp) Mount Polley, 2023

Client Sample ID						pp23-092-001	pp23-092-002	pp23-092-003	pp23-092-004	pp23-092-005
Replicate						E1_PERI-2_2023-08	E1_PERI-4_2023-08	E1_PERI-5_2023-08	E1_PERI-6_2023-08	E1_PERI-7_2023-08
Date Sampled						2	4	5	6	7
Date Sampled						05-Aug-23	05-Aug-23	05-Aug-23	05-Aug-23	05-Aug-23
Grand Total						Total Density	Total Density	Total Density	Total Density	Total Density
Common Name	Phylum	Order	Family	Taxon	Unique Taxa	Density (cells/cm ²)	(cells/cm ²)	(cells/cm ²)	(cells/cm ²)	(cells/cm ²)
Diatoms	Bacillariophyta	Bacillariales	Bacillariaceae	Nitzschia acicularis/draveillensis	1	1,433		1,433		
Diatoms	Bacillariophyta	Bacillariales	Bacillariaceae	Nitzschia sp.		365,929	12,901	43,004	3,225	3,584
Diatoms	Bacillariophyta	Cocconeidales	Achnanthidiaceae	Achnanthidium minutissimum	1	202,913	6,451	21,502	1,433	7,167
Diatoms	Bacillariophyta	Cocconeidales	Achnanthidiaceae	Achnanthidium sp.		638,288	19,352	139,045	6,092	15,768
Diatoms	Bacillariophyta	Cocconeidales	Achnanthidiaceae	Planothidium sp.	1	3,867			1,000	717
Diatoms	Bacillariophyta	Cocconeidales	Cocconeidaceae	Cocconeis pediculus	1	5,442	2,150		358	1,433
Diatoms	Bacillariophyta	Cocconeidales	Cocconeidaceae	Cocconeis placentula	1	259,825	4,300	14,335	4,659	9,001
Diatoms	Bacillariophyta	Cymbellales	Cymbellaceae	Cymbella sp.	1	267,240		7,167		2,000
Diatoms	Bacillariophyta	Cymbellales	Gomphonemataceae	Delicata sp.	1	8,601				
Diatoms	Bacillariophyta	Cymbellales	Gomphonemataceae	Encyonema sp.	1	62,502			500	
Diatoms	Bacillariophyta	Cymbellales	Gomphonemataceae	Encyonopsis cf. microcephala	1	6,017			500	
Diatoms	Bacillariophyta	Cymbellales	Gomphonemataceae	Gomphonema sp.	1	2,560,864	109,659	24,369	16,126	19,002
Diatoms	Bacillariophyta	Cymbellales	Gomphonemataceae	Reimeria sp.	1	3,584				49,454
Diatoms	Bacillariophyta	Cymbellales	Rhoicospheniaceae	Rhoicosphenia sp.	1	87,783				
Diatoms	Bacillariophyta	Fragilariales	Fragilariaceae	Fragilaria crotonensis	1	2,580				
Diatoms	Bacillariophyta	Fragilariales	Fragilariaceae	Fragilaria sp.		30,030	2,150	2,867	1,792	2,000
Diatoms	Bacillariophyta	Fragilariales	Staurosiraceae	Staurosira sp.	1	64,180				717
Diatoms	Bacillariophyta	Fragilariales	Staurosiraceae	Staurosirella sp.	1	44,159				
Diatoms	Bacillariophyta	Licmophorales	Ulnariaceae	Ulnaria sp.	1	2,867		2,867		
Diatoms	Bacillariophyta	Melosirales	Melosiraceae	Melosira sp.	1	86,105		34,403	717	500
Diatoms	Bacillariophyta	Naviculales	Amphipleuraceae	Amphipleura pellucida	1	4,300		2,867		1,433
Diatoms	Bacillariophyta	Naviculales	Naviculaceae	Navicula sp.	1	164,644	2,150	7,167		1,000
Diatoms	Bacillariophyta	Rhabdonematales	Tabellariaceae	Diatoma sp.	1	165,021	4,300		358	1,000
Diatoms	Bacillariophyta	Rhopalodiales	Rhopalodiaceae	Epithemia adnata	1	3,584				717
Diatoms	Bacillariophyta	Rhopalodiales	Rhopalodiaceae	Epithemia gibba	1	17,620		2,867	3,000	
Diatoms	Bacillariophyta	Rhopalodiales	Rhopalodiaceae	Epithemia sp.		33,212		4,300	500	
Diatoms	Bacillariophyta	Rhopalodiales	Rhopalodiaceae	Epithemia turgida	1	7,595				
Diatoms	Bacillariophyta	Rhopalodiales	Rhopalodiaceae	Epithemia sorex	1	53,535		1,433	500	
Diatoms	Bacillariophyta	Stephanodiscales	Stephanodiscaceae	Cyclotella sp.	1	3,584		2,867		717
Diatoms	Bacillariophyta	Stephanodiscales	Stephanodiscaceae	Lindavia sp.	1	1,433				
Diatoms	Bacillariophyta	Thalassiosiphales	Catenulaceae	Amphora sp.	1	4,880				
Diatoms	Bacillariophyta			Centric diatom		3,572				
Diatoms	Bacillariophyta			Pennate diatom		143,764	4,300	8,601	717	2,000
				Total Diatoms		5,310,954	167,714	321,093	35,478	71,506
										87,441
Green Algae	Charophyta	Zygnematales	Zygnemataceae	Mougeotia sp.	1	15,051		12,901		
Green Algae	Charophyta	Zygnematales	Zygnemataceae	Spirogyra sp.		0				
Green Algae	Chlorophyta	Chaetophorales	Chaetophoraceae	Chaetophora sp.	1	272,621	36,553			
Green Algae	Chlorophyta	Chlamydomonadales	Sphaerocystidaceae	Hormotila sp.		0				
Green Algae	Chlorophyta	Oedogoniales	Oedogoniaceae	Bulbochaete sp.	1	443,157				
Green Algae	Chlorophyta	Sphaeropleales	Hydrodictyceae	Stauridium tetras	1	5,434		1,433	4,000	
Green Algae	Chlorophyta	Sphaeropleales	Scenedesmaceae	Desmodesmus sp.	1	8,040				
Green Algae	Chlorophyta	Sphaeropleales	Scenedesmaceae	Scenedesmus sp.	1	2,867				
Green Algae	Chlorophyta	Sphaeropleales	Selenastraceae	Monoraphidium sp.	1	38,561	2,150	12,901	1,792	9,501
Green Algae	Chlorophyta	Ulotrichales	Ulotrichaceae	Ulothrix sp.	1	163,004				1,433
Green Algae	Chlorophyta			Chlorophyte		1,093,104	81,707	7,167	8,242	18,502
				Total Green Algae		2,041,840	120,410	32,969	11,468	32,003
										10,751



Total periphyton density (cells/cm²) for Minnow (Mt Polley Mining Corp) Mount Polley, 2023

Client Sample ID						pp23-092-001	pp23-092-002	pp23-092-003	pp23-092-004	pp23-092-005
Replicate						E1_PERI-2_2023-08	E1_PERI-4_2023-08	E1_PERI-5_2023-08	E1_PERI-6_2023-08	E1_PERI-7_2023-08
Date Sampled						2	4	5	6	7
Date Sampled						05-Aug-23	05-Aug-23	05-Aug-23	05-Aug-23	05-Aug-23
Grand Total						Total Density	Total Density	Total Density	Total Density	Total Density
Common Name	Phylum	Order	Family	Taxon	Unique Taxa	Density (cells/cm ²)	(cells/cm ²)	(cells/cm ²)	(cells/cm ²)	(cells/cm ²)
Blue-green Algae	Cyanophyta	Chroococcales	Chroococcaceae	Chroococcus sp.	1	65,758				
Blue-green Algae	Cyanophyta	Nostocales	Nostocaceae	Anabaena sp.	1	12,601		8,601		4,000
Blue-green Algae	Cyanophyta	Nostocales	Rivulariaceae	Calothrix sp.	1	7,303,034			5,017	16,501
Blue-green Algae	Cyanophyta	Oscillatoriales	Oscillatoriaceae	Oscillatoria sp.	1	39,932				
Blue-green Algae	Cyanophyta	Oscillatoriales	Oscillatoriaceae	Phormidium sp.	1	234,073	81,707		9,317	
Blue-green Algae	Cyanophyta	Pleurocapsales	Hyellaceae	Pleurocapsa sp.		0				
Blue-green Algae	Cyanophyta	Pseudanabaenales	Pseudanabaenaceae	Pseudanabaena sp.	1	202,843		84,574	2,150	60,005
Blue-green Algae	Cyanophyta	Synechococcales	Chamaesiphonaceae	Chamaesiphon sp. (colony)		6,946,967	334,199	46,826	243,418	56,576
Blue-green Algae	Cyanophyta	Synechococcales	Chamaesiphonaceae	Chamaesiphon sp. (single cell)	1	757,369	73,106	10,034	19,352	10,001
Blue-green Algae	Cyanophyta	Synechococcales	Heteroleibleiniaceae	Heteroleibleinia sp.	1	64,395,614	1,525,362	45,870	156,157	122,069
Blue-green Algae	Cyanophyta	Synechococcales	Leptolyngbyaceae	Leptolyngbya sp.	1	4,451,753	6,451			33,003
Blue-green Algae	Cyanophyta	Synechococcales	Merismopediaceae	Merismopedia sp.	1	17,201				
Blue-green Algae	Cyanophyta			Cyanophyte (coccoid unicell)		9,635				
Blue-green Algae	Cyanophyta			Cyanophyte (colony)		171,327		22,935		
Blue-green Algae	Cyanophyta			Cyanophyte (filament)		1,891,245	147,441		16,341	8,001
				Total Blue-green Algae		86,499,352	2,168,265	218,840	451,752	310,156
Red Algae	Rhodophyta	Acrochaetiales	Acrochaetiaceae	Audouinella sp.	1	802,203	79,557	75,973	1,792	12,501
				Total Red Algae		802,203	79,557	75,973	1,792	12,501
Brown Algae	Ochrophyta	Sphacelariales	Lithodermataceae	Bodanella sp.	1	429,415	12,901			5,734
				Total Brown Algae		429,415	12,901	0	0	5,734
				Total Periphyton		95,083,764	2,548,847	648,876	500,490	426,166
				Total Unique Taxa	47		16	20	16	15



Total periphyton density (cells/cm²) for Minnow (Mt Polley Mining Corp) Mount Polley, 2023

Client Sample ID						pp23-092-006	pp23-092-007	pp23-092-008	pp23-092-009	pp23-092-010
Replicate						HAC-D_PERI-1_2023-08	HAC-D_PERI-2_2023-08	HAC-D_PERI-3_2023-08	HAC-D_PERI-4_2023-08	HAC-D_PERI-5_2023-08
Date Sampled						1	2	3	4	5
						06-Aug-23	06-Aug-23	06-Aug-23	06-Aug-23	06-Aug-23
Grand Total						Total Density	Total Density	Total Density	Total Density	Total Density
Common Name	Phylum	Order	Family	Taxon	Unique Taxa	Density (cells/cm ²)	(cells/cm ²)	(cells/cm ²)	(cells/cm ²)	(cells/cm ²)
Diatoms	Bacillariophyta	Bacillariales	Bacillariaceae	Nitzschia acicularis/draveillensis	1	1,433				
Diatoms	Bacillariophyta	Bacillariales	Bacillariaceae	Nitzschia sp.		365,929				
Diatoms	Bacillariophyta	Cocconeidales	Achnanthidiaceae	Achnanthidium minutissimum	1	202,913	14,335	15,051	45,154	12,153
Diatoms	Bacillariophyta	Cocconeidales	Achnanthidiaceae	Achnanthidium sp.		638,288	22,935	10,751	21,502	6,544
Diatoms	Bacillariophyta	Cocconeidales	Achnanthidiaceae	Planothidium sp.	1	3,867	32,969	19,352	47,304	4,674
Diatoms	Bacillariophyta	Cocconeidales	Cocconeidaceae	Cocconeis pediculus	1	5,442				
Diatoms	Bacillariophyta	Cocconeidales	Cocconeidaceae	Cocconeis placentula	1	259,825	2,867	5,375	12,901	
Diatoms	Bacillariophyta	Cymbellales	Cymbellaceae	Cymbella sp.	1	267,240	11,468	4,300	122,560	9,349
Diatoms	Bacillariophyta	Cymbellales	Gomphonemataceae	Delicata sp.	1	8,601				2,867
Diatoms	Bacillariophyta	Cymbellales	Gomphonemataceae	Encyonema sp.	1	62,502	5,734	6,451	43,004	4,300
Diatoms	Bacillariophyta	Cymbellales	Gomphonemataceae	Encyonopsis cf. microcephala	1	6,017	1,433		2,150	
Diatoms	Bacillariophyta	Cymbellales	Gomphonemataceae	Gomphonema sp.	1	2,560,864	143,345	64,505	103,209	35,525
Diatoms	Bacillariophyta	Cymbellales	Gomphonemataceae	Reimeria sp.	1	3,584	1,433			
Diatoms	Bacillariophyta	Cymbellales	Rhoicospheniaceae	Rhoicosphenia sp.	1	87,783		3,225		1,433
Diatoms	Bacillariophyta	Fragilariales	Fragilariaceae	Fragilaria crotonensis	1	2,580				
Diatoms	Bacillariophyta	Fragilariales	Fragilariaceae	Fragilaria sp.		30,030	1,433			1,433
Diatoms	Bacillariophyta	Fragilariales	Staurosiraceae	Staurosira sp.	1	64,180				3,739
Diatoms	Bacillariophyta	Fragilariales	Staurosiraceae	Staurosirella sp.	1	44,159				
Diatoms	Bacillariophyta	Licmophorales	Ulnariaceae	Ulnaria sp.	1	2,867				
Diatoms	Bacillariophyta	Melosirales	Melosiraceae	Melosira sp.	1	86,105				
Diatoms	Bacillariophyta	Naviculales	Amphipleuraceae	Amphipleura pellucida	1	4,300				
Diatoms	Bacillariophyta	Naviculales	Naviculaceae	Navicula sp.	1	164,644	4,300	2,150	6,451	935
Diatoms	Bacillariophyta	Rhabdonematales	Tabellariaceae	Diatoma sp.	1	165,021	8,601	60,205	30,102	30,850
Diatoms	Bacillariophyta	Rhopalodiales	Rhopalodiaceae	Epithemia adnata	1	3,584	2,867			
Diatoms	Bacillariophyta	Rhopalodiales	Rhopalodiaceae	Epithemia gibba	1	17,620				
Diatoms	Bacillariophyta	Rhopalodiales	Rhopalodiaceae	Epithemia sp.		33,212	4,300			
Diatoms	Bacillariophyta	Rhopalodiales	Rhopalodiaceae	Epithemia turgida	1	7,595				
Diatoms	Bacillariophyta	Rhopalodiales	Rhopalodiaceae	Epithemia sorex	1	53,535		2,150	935	
Diatoms	Bacillariophyta	Stephanodiscales	Stephanodiscaceae	Cyclotella sp.	1	3,584				
Diatoms	Bacillariophyta	Stephanodiscales	Stephanodiscaceae	Lindavia sp.	1	1,433				
Diatoms	Bacillariophyta	Thalassiosiphales	Catenulaceae	Amphora sp.	1	4,880	1,433		2,150	
Diatoms	Bacillariophyta			Centric diatom		3,572				
Diatoms	Bacillariophyta			Pennate diatom		143,764	10,034	6,451	10,751	9,349
				Total Diatoms		5,310,954	269,489	199,967	449,387	114,053
										160,547
Green Algae	Charophyta	Zygnematales	Zygnemataceae	Mougeotia sp.	1	15,051				
Green Algae	Charophyta	Zygnematales	Zygnemataceae	Spirogyra sp.		0				
Green Algae	Chlorophyta	Chaetophorales	Chaetophoraceae	Chaetophora sp.	1	272,621				
Green Algae	Chlorophyta	Chlamydomonadales	Sphaerocystidaceae	Hormotila sp.		0				
Green Algae	Chlorophyta	Oedogoniales	Oedogoniaceae	Bulbochaete sp.	1	443,157				
Green Algae	Chlorophyta	Sphaeropleales	Hydrodictyceae	Stauridium tetras	1	5,434				
Green Algae	Chlorophyta	Sphaeropleales	Scenedesmaceae	Desmodesmus sp.	1	8,040			3,739	
Green Algae	Chlorophyta	Sphaeropleales	Scenedesmaceae	Scenedesmus sp.	1	2,867				
Green Algae	Chlorophyta	Sphaeropleales	Selenastraceae	Monoraphidium sp.	1	38,561				
Green Algae	Chlorophyta	Ulotrichales	Ulotrichaceae	Ulothrix sp.	1	163,004				
Green Algae	Chlorophyta			Chlorophyte		1,093,104				15,768
				Total Green Algae		2,041,840	0	0	0	3,739
										15,768



Total periphyton density (cells/cm²) for Minnow (Mt Polley Mining Corp) Mount Polley, 2023

Client Sample ID						pp23-092-006	pp23-092-007	pp23-092-008	pp23-092-009	pp23-092-010
Replicate						HAC-D_PERI-1_2023-08	HAC-D_PERI-2_2023-08	HAC-D_PERI-3_2023-08	HAC-D_PERI-4_2023-08	HAC-D_PERI-5_2023-08
Date Sampled						1	2	3	4	5
						06-Aug-23	06-Aug-23	06-Aug-23	06-Aug-23	06-Aug-23
Grand Total						Total Density	Total Density	Total Density	Total Density	Total Density
Common Name	Phylum	Order	Family	Taxon	Unique Taxa	Density (cells/cm ²)	(cells/cm ²)	(cells/cm ²)	(cells/cm ²)	(cells/cm ²)
Blue-green Algae	Cyanophyta	Chroococcales	Chroococcaceae	Chroococcus sp.	1	65,758		12,901		
Blue-green Algae	Cyanophyta	Nostocales	Nostocaceae	Anabaena sp.	1	12,601				
Blue-green Algae	Cyanophyta	Nostocales	Rivulariaceae	Calothrix sp.	1	7,303,034	335,069	58,055	1,086,147	10,283
Blue-green Algae	Cyanophyta	Oscillatoriales	Oscillatoriaceae	Oscillatoria sp.	1	39,932				
Blue-green Algae	Cyanophyta	Oscillatoriales	Oscillatoriaceae	Phormidium sp.	1	234,073		35,478	17,201	45,870
Blue-green Algae	Cyanophyta	Pleurocapsales	Hyellaceae	Pleurocapsa sp.		0				
Blue-green Algae	Cyanophyta	Pseudanabaenales	Pseudanabaenaceae	Pseudanabaena sp.	1	202,843				
Blue-green Algae	Cyanophyta	Synechococcales	Chamaesiphonaceae	Chamaesiphon sp. (colony)		6,946,967	67,372	177,031	298,516	185,821
Blue-green Algae	Cyanophyta	Synechococcales	Chamaesiphonaceae	Chamaesiphon sp. (single cell)	1	757,369	2,867	16,126	8,601	9,349
Blue-green Algae	Cyanophyta	Synechococcales	Heteroleibleiniaceae	Heteroleibleinia sp.	1	64,395,614	3,406,785	1,219,957	1,870,264	893,151
Blue-green Algae	Cyanophyta	Synechococcales	Leptolyngbyaceae	Leptolyngbya sp.	1	4,451,753	335,837	304,788	286,690	177,623
Blue-green Algae	Cyanophyta	Synechococcales	Merismopediaceae	Merismopedia sp.	1	17,201			17,201	
Blue-green Algae	Cyanophyta			Cyanophyte (coccooid unicell)		9,635	2,867			
Blue-green Algae	Cyanophyta			Cyanophyte (colony)		171,327				
Blue-green Algae	Cyanophyta			Cyanophyte (filament)		1,891,245	223,619	628,634	97,475	25,241
				Total Blue-green Algae		86,499,352	4,374,417	2,452,971	3,682,097	1,301,469
Red Algae	Rhodophyta	Acrochaetiales	Acrochaetiaceae	Audouinella sp.	1	802,203				
				Total Red Algae		802,203	0	0	0	0
Brown Algae	Ochrophyta	Sphacelariales	Lithodermataceae	Bodanella sp.	1	429,415	21,502	18,277	10,751	25,241
				Total Brown Algae		429,415	21,502	18,277	10,751	25,241
				Total Periphyton		95,083,764	4,665,407	2,671,214	4,142,235	1,444,503
				Total Unique Taxa	47		18	17	18	14



Total periphyton density (cells/cm²) for Minnow (Mt Polley Mining Corp) Mount Polley, 2023

Client Sample ID						pp23-092-011	pp23-092-012	pp23-092-013	pp23-092-014	pp23-092-015	
Replicate						EDC-U_PERI-5_2023-08	EDC-U_PERI-1_2023-08	EDC-U_PERI-2_2023-08	EDC-U_PERI-3_2023-08	EDC-U_PERI-4_2023-08	
Date Sampled						5	1	1	1	1	
Date Sampled						07-Aug-23	08-Aug-23	08-Aug-23	08-Aug-23	08-Aug-23	
Grand Total						Total Density	Total Density	Total Density	Total Density	Total Density	
Common Name	Phylum	Order	Family	Taxon	Unique Taxa	Density (cells/cm ²)	(cells/cm ²)	(cells/cm ²)	(cells/cm ²)	(cells/cm ²)	
Diatoms	Bacillariophyta	Bacillariales	Bacillariaceae	Nitzschia acicularis/draveillensis	1	1,433					
Diatoms	Bacillariophyta	Bacillariales	Bacillariaceae	Nitzschia sp.		365,929	2,150		3,072		
Diatoms	Bacillariophyta	Cocconeidales	Achnanthidiaceae	Achnanthidium minutissimum	1	202,913	32,253		36,860		
Diatoms	Bacillariophyta	Cocconeidales	Achnanthidiaceae	Achnanthidium sp.		638,288	81,707		79,864	2,150	
Diatoms	Bacillariophyta	Cocconeidales	Achnanthidiaceae	Planothidium sp.	1	3,867					
Diatoms	Bacillariophyta	Cocconeidales	Cocconeidaceae	Cocconeis pediculus	1	5,442					
Diatoms	Bacillariophyta	Cocconeidales	Cocconeidaceae	Cocconeis placentula	1	259,825			2,150	2,150	
Diatoms	Bacillariophyta	Cymbellales	Cymbellaceae	Cymbella sp.	1	267,240					
Diatoms	Bacillariophyta	Cymbellales	Gomphonemataceae	Delicata sp.	1	8,601	8,601				
Diatoms	Bacillariophyta	Cymbellales	Gomphonemataceae	Encyonema sp.	1	62,502					
Diatoms	Bacillariophyta	Cymbellales	Gomphonemataceae	Encyonopsis cf. microcephala	1	6,017					
Diatoms	Bacillariophyta	Cymbellales	Gomphonemataceae	Gomphonema sp.	1	2,560,864	58,055	23,652	52,219	2,150	
Diatoms	Bacillariophyta	Cymbellales	Gomphonemataceae	Reimeria sp.	1	3,584					
Diatoms	Bacillariophyta	Cymbellales	Rhoicospheniaceae	Rhoicosphenia sp.	1	87,783	6,451				
Diatoms	Bacillariophyta	Fragilariales	Fragilariaceae	Fragilaria crotonensis	1	2,580					
Diatoms	Bacillariophyta	Fragilariales	Fragilariaceae	Fragilaria sp.		30,030			2,150		
Diatoms	Bacillariophyta	Fragilariales	Staurosiraceae	Staurosira sp.	1	64,180					
Diatoms	Bacillariophyta	Fragilariales	Staurosiraceae	Staurosirella sp.	1	44,159					
Diatoms	Bacillariophyta	Licmophorales	Ulnariaceae	Ulnaria sp.	1	2,867					
Diatoms	Bacillariophyta	Melosirales	Melosiraceae	Melosira sp.	1	86,105	6,451				
Diatoms	Bacillariophyta	Naviculales	Amphipleuraceae	Amphipleura pellucida	1	4,300					
Diatoms	Bacillariophyta	Naviculales	Naviculaceae	Navicula sp.	1	164,644					
Diatoms	Bacillariophyta	Rhabdonematales	Tabellariaceae	Diatoma sp.	1	165,021					
Diatoms	Bacillariophyta	Rhopalodiales	Rhopalodiaceae	Epithemia adnata	1	3,584					
Diatoms	Bacillariophyta	Rhopalodiales	Rhopalodiaceae	Epithemia gibba	1	17,620					
Diatoms	Bacillariophyta	Rhopalodiales	Rhopalodiaceae	Epithemia sp.		33,212					
Diatoms	Bacillariophyta	Rhopalodiales	Rhopalodiaceae	Epithemia turgida	1	7,595					
Diatoms	Bacillariophyta	Rhopalodiales	Rhopalodiaceae	Epithemia sorex	1	53,535					
Diatoms	Bacillariophyta	Stephanodiscales	Stephanodiscaceae	Cyclotella sp.	1	3,584					
Diatoms	Bacillariophyta	Stephanodiscales	Stephanodiscaceae	Lindavia sp.	1	1,433					
Diatoms	Bacillariophyta	Thalassiosiphales	Catenulaceae	Amphora sp.	1	4,880					
Diatoms	Bacillariophyta			Centric diatom		3,572					
Diatoms	Bacillariophyta			Pennate diatom		143,764	21,502		3,072		
				Total Diatoms		5,310,954	217,168	23,652	175,086	8,601	4,300
Green Algae	Charophyta	Zygnematales	Zygnemataceae	Mougeotia sp.	1	15,051	2,150				
Green Algae	Charophyta	Zygnematales	Zygnemataceae	Spirogyra sp.		0					
Green Algae	Chlorophyta	Chaetophorales	Chaetophoraceae	Chaetophora sp.	1	272,621	10,751				
Green Algae	Chlorophyta	Chlamydomonadales	Sphaerocystidaceae	Hormotila sp.		0					
Green Algae	Chlorophyta	Oedogoniales	Oedogoniaceae	Bulbochaete sp.	1	443,157					
Green Algae	Chlorophyta	Sphaeropleales	Hydrodictyceae	Stauridium tetras	1	5,434					
Green Algae	Chlorophyta	Sphaeropleales	Scenedesmaceae	Desmodesmus sp.	1	8,040					
Green Algae	Chlorophyta	Sphaeropleales	Scenedesmaceae	Scenedesmus sp.	1	2,867					
Green Algae	Chlorophyta	Sphaeropleales	Selenastraceae	Monoraphidium sp.	1	38,561					
Green Algae	Chlorophyta	Ulotrichales	Ulotrichaceae	Ulothrix sp.	1	163,004					
Green Algae	Chlorophyta			Chlorophyte		1,093,104	66,656	105,359	55,290	19,352	111,809
				Total Green Algae		2,041,840	79,557	105,359	55,290	19,352	111,809



Total periphyton density (cells/cm²) for Minnow (Mt Polley Mining Corp) Mount Polley, 2023

Client Sample ID						pp23-092-011	pp23-092-012	pp23-092-013	pp23-092-014	pp23-092-015
Replicate						EDC-U_PERI-5_2023-08	EDC-U_PERI-1_2023-08	EDC-U_PERI-2_2023-08	EDC-U_PERI-3_2023-08	EDC-U_PERI-4_2023-08
Date Sampled						5	1	1	1	1
Date Sampled						07-Aug-23	08-Aug-23	08-Aug-23	08-Aug-23	08-Aug-23
Grand Total						Total Density	Total Density	Total Density	Total Density	Total Density
Common Name	Phylum	Order	Family	Taxon	Unique Taxa	Density (cells/cm ²)	(cells/cm ²)	(cells/cm ²)	(cells/cm ²)	(cells/cm ²)
Blue-green Algae	Cyanophyta	Chroococcales	Chroococcaceae	Chroococcus sp.	1	65,758				
Blue-green Algae	Cyanophyta	Nostocales	Nostocaceae	Anabaena sp.	1	12,601				
Blue-green Algae	Cyanophyta	Nostocales	Rivulariaceae	Calothrix sp.	1	7,303,034	40,853		36,860	
Blue-green Algae	Cyanophyta	Oscillatoriales	Oscillatoriaceae	Oscillatoria sp.	1	39,932				
Blue-green Algae	Cyanophyta	Oscillatoriales	Oscillatoriaceae	Phormidium sp.	1	234,073				
Blue-green Algae	Cyanophyta	Pleurocapsales	Hyellaceae	Pleurocapsa sp.		0				
Blue-green Algae	Cyanophyta	Pseudanabaenales	Pseudanabaenaceae	Pseudanabaena sp.	1	202,843	6,451			
Blue-green Algae	Cyanophyta	Synechococcales	Chamaesiphonaceae	Chamaesiphon sp. (colony)		6,946,967	214,301	588,926	559,408	913,826
Blue-green Algae	Cyanophyta	Synechococcales	Chamaesiphonaceae	Chamaesiphon sp. (single cell)	1	757,369	81,707	107,509	58,362	120,410
Blue-green Algae	Cyanophyta	Synechococcales	Heteroleibleiniaceae	Heteroleibleinia sp.	1	64,395,614	4,772,186	3,952,207	13,531,574	5,034,192
Blue-green Algae	Cyanophyta	Synechococcales	Leptolyngbyaceae	Leptolyngbya sp.	1	4,451,753	547,005	195,666	193,516	38,703
Blue-green Algae	Cyanophyta	Synechococcales	Merismopediaceae	Merismopedia sp.	1	17,201				
Blue-green Algae	Cyanophyta			Cyanophyte (coccoid unicell)		9,635				
Blue-green Algae	Cyanophyta			Cyanophyte (colony)		171,327	17,201			
Blue-green Algae	Cyanophyta			Cyanophyte (filament)		1,891,245	60,205			113,959
				Total Blue-green Algae		86,499,352	5,739,910	4,844,309	14,379,720	6,221,090
Red Algae	Rhodophyta	Acrochaetiales	Acrochaetiaceae	Audouinella sp.	1	802,203	32,253	12,901		21,502
				Total Red Algae		802,203	32,253	12,901	0	21,502
Brown Algae	Ochrophyta	Sphacelariales	Lithodermataceae	Bodanella sp.	1	429,415		2,150		
				Total Brown Algae		429,415	0	2,150	0	0
				Total Periphyton		95,083,764	6,068,887	4,988,371	14,610,096	6,270,544
				Total Unique Taxa	47		14	7	8	9
										7



Total periphyton density (cells/cm²) for Minnow (Mt Polley Mining Corp) Mount Polley, 2023

Client Sample ID						pp23-092-016	pp23-092-017	pp23-092-018	pp23-092-019	pp23-092-020
Replicate						HAC-U_PERI-1_2023-08	HAC-U_PERI-2_2023-08	HAC-U_PERI-3_2023-08	HAC-U_PERI-4_2023-08	HAC-U_PERI-5_2023-08
Date Sampled						1	2	3	4	5
						09-Aug-23	09-Aug-23	09-Aug-23	09-Aug-23	09-Aug-23
Grand Total						Total Density	Total Density	Total Density	Total Density	Total Density
Common Name	Phylum	Order	Family	Taxon	Unique Taxa	Density (cells/cm ²)	(cells/cm ²)	(cells/cm ²)	(cells/cm ²)	(cells/cm ²)
Diatoms	Bacillariophyta	Bacillariales	Bacillariaceae	Nitzschia acicularis/draveillensis	1	1,433				
Diatoms	Bacillariophyta	Bacillariales	Bacillariaceae	Nitzschia sp.		365,929	33,080			
Diatoms	Bacillariophyta	Cocconeidales	Achnanthidiaceae	Achnanthidium minutissimum	1	202,913		1,654	1,955	3,794
Diatoms	Bacillariophyta	Cocconeidales	Achnanthidiaceae	Achnanthidium sp.		638,288		6,616	7,819	13,913
Diatoms	Bacillariophyta	Cocconeidales	Achnanthidiaceae	Planothidium sp.	1	3,867				
Diatoms	Bacillariophyta	Cocconeidales	Cocconeidaceae	Cocconeis pediculus	1	5,442				
Diatoms	Bacillariophyta	Cocconeidales	Cocconeidaceae	Cocconeis placentula	1	259,825	6,616	8,270	1,303	1,265
Diatoms	Bacillariophyta	Cymbellales	Cymbellaceae	Cymbella sp.	1	267,240	14,886	6,616	3,909	2,530
Diatoms	Bacillariophyta	Cymbellales	Gomphonemataceae	Delicata sp.	1	8,601				
Diatoms	Bacillariophyta	Cymbellales	Gomphonemataceae	Encyonema sp.	1	62,502	1,654			
Diatoms	Bacillariophyta	Cymbellales	Gomphonemataceae	Encyonopsis cf. microcephala	1	6,017				
Diatoms	Bacillariophyta	Cymbellales	Gomphonemataceae	Gomphonema sp.	1	2,560,864	94,277	170,360	22,153	104,979
Diatoms	Bacillariophyta	Cymbellales	Gomphonemataceae	Reimeria sp.	1	3,584				
Diatoms	Bacillariophyta	Cymbellales	Rhoicospheniaceae	Rhoicosphenia sp.	1	87,783				
Diatoms	Bacillariophyta	Fragilariales	Fragilariaceae	Fragilaria crotonensis	1	2,580				
Diatoms	Bacillariophyta	Fragilariales	Fragilariaceae	Fragilaria sp.		30,030	3,308			
Diatoms	Bacillariophyta	Fragilariales	Staurosiraceae	Staurosira sp.	1	64,180	3,308			
Diatoms	Bacillariophyta	Fragilariales	Staurosiraceae	Staurosirella sp.	1	44,159	9,924		1,955	
Diatoms	Bacillariophyta	Licmophorales	Ulnariaceae	Ulnaria sp.	1	2,867				
Diatoms	Bacillariophyta	Melosirales	Melosiraceae	Melosira sp.	1	86,105	6,616			
Diatoms	Bacillariophyta	Naviculales	Amphipleuraceae	Amphipleura pellucida	1	4,300				
Diatoms	Bacillariophyta	Naviculales	Naviculaceae	Navicula sp.	1	164,644		1,654		2,389
Diatoms	Bacillariophyta	Rhabdonematales	Tabellariaceae	Diatoma sp.	1	165,021				
Diatoms	Bacillariophyta	Rhopalodiales	Rhopalodiaceae	Epithemia adnata	1	3,584				
Diatoms	Bacillariophyta	Rhopalodiales	Rhopalodiaceae	Epithemia gibba	1	17,620				
Diatoms	Bacillariophyta	Rhopalodiales	Rhopalodiaceae	Epithemia sp.		33,212				
Diatoms	Bacillariophyta	Rhopalodiales	Rhopalodiaceae	Epithemia turgida	1	7,595				1,265
Diatoms	Bacillariophyta	Rhopalodiales	Rhopalodiaceae	Epithemia sorex	1	53,535				
Diatoms	Bacillariophyta	Stephanodiscales	Stephanodiscaceae	Cyclotella sp.	1	3,584				
Diatoms	Bacillariophyta	Stephanodiscales	Stephanodiscaceae	Lindavia sp.	1	1,433				
Diatoms	Bacillariophyta	Thalassiosiphales	Catenulaceae	Amphora sp.	1	4,880				796
Diatoms	Bacillariophyta			Centric diatom		3,572				
Diatoms	Bacillariophyta			Pennate diatom		143,764	1,654		5,059	2,389
				Total Diatoms		5,310,954	175,322	195,170	39,746	132,805
Green Algae	Charophyta	Zygnematales	Zygnemataceae	Mougeotia sp.	1	15,051				
Green Algae	Charophyta	Zygnematales	Zygnemataceae	Spirogyra sp.		0				
Green Algae	Chlorophyta	Chaetophorales	Chaetophoraceae	Chaetophora sp.	1	272,621	49,620	31,426	18,244	13,913
Green Algae	Chlorophyta	Chlamydomonadales	Sphaerocystidaceae	Hormotila sp.		0				
Green Algae	Chlorophyta	Oedogoniales	Oedogoniaceae	Bulbochaete sp.	1	443,157				
Green Algae	Chlorophyta	Sphaeropleales	Hydrodictyceae	Stauridium tetras	1	5,434				
Green Algae	Chlorophyta	Sphaeropleales	Scenedesmaceae	Desmodesmus sp.	1	8,040				
Green Algae	Chlorophyta	Sphaeropleales	Scenedesmaceae	Scenedesmus sp.	1	2,867				
Green Algae	Chlorophyta	Sphaeropleales	Selenastraceae	Monoraphidium sp.	1	38,561				
Green Algae	Chlorophyta	Ulotrichales	Ulotrichaceae	Ulothrix sp.	1	163,004				
Green Algae	Chlorophyta			Chlorophyte		1,093,104	143,897	41,350	13,683	67,035
				Total Green Algae		2,041,840	193,516	72,775	31,927	80,948



Total periphyton density (cells/cm²) for Minnow (Mt Polley Mining Corp) Mount Polley, 2023

Client Sample ID						pp23-092-016	pp23-092-017	pp23-092-018	pp23-092-019	pp23-092-020
Replicate						HAC-U_PERI-1_2023-08	HAC-U_PERI-2_2023-08	HAC-U_PERI-3_2023-08	HAC-U_PERI-4_2023-08	HAC-U_PERI-5_2023-08
Date Sampled						1	2	3	4	5
						09-Aug-23	09-Aug-23	09-Aug-23	09-Aug-23	09-Aug-23
Grand Total						Total Density	Total Density	Total Density	Total Density	Total Density
Common Name	Phylum	Order	Family	Taxon	Unique Taxa	Density (cells/cm ²)	(cells/cm ²)	(cells/cm ²)	(cells/cm ²)	(cells/cm ²)
Blue-green Algae	Cyanophyta	Chroococcales	Chroococcaceae	Chroococcus sp.	1	65,758		20,675		11,945
Blue-green Algae	Cyanophyta	Nostocales	Nostocaceae	Anabaena sp.	1	12,601				
Blue-green Algae	Cyanophyta	Nostocales	Rivulariaceae	Calothrix sp.	1	7,303,034		74,429		315,359
Blue-green Algae	Cyanophyta	Oscillatoriales	Oscillatoriaceae	Oscillatoria sp.	1	39,932			116,269	
Blue-green Algae	Cyanophyta	Oscillatoriales	Oscillatoriaceae	Phormidium sp.	1	234,073				
Blue-green Algae	Cyanophyta	Pleurocapsales	Hyellaceae	Pleurocapsa sp.		0				
Blue-green Algae	Cyanophyta	Pseudanabaenales	Pseudanabaenaceae	Pseudanabaena sp.	1	202,843			3,909	
Blue-green Algae	Cyanophyta	Synechococcales	Chamaesiphonaceae	Chamaesiphon sp. (colony)		6,946,967	99,239	376,050	103,370	123,755
Blue-green Algae	Cyanophyta	Synechococcales	Chamaesiphonaceae	Chamaesiphon sp. (single cell)	1	757,369	14,886	19,848	9,122	12,742
Blue-green Algae	Cyanophyta	Synechococcales	Heteroleibleiniaceae	Heteroleibleinia sp.	1	64,395,614	1,374,460	2,440,052	895,169	1,552,604
Blue-green Algae	Cyanophyta	Synechococcales	Leptolyngbyaceae	Leptolyngbya sp.	1	4,451,753	227,423	34,734	393,222	143,982
Blue-green Algae	Cyanophyta	Synechococcales	Merismopediaceae	Merismopedia sp.	1	17,201				
Blue-green Algae	Cyanophyta			Cyanophyte (coccooid unicell)		9,635			3,258	
Blue-green Algae	Cyanophyta			Cyanophyte (colony)		171,327	3,308		5,213	9,556
Blue-green Algae	Cyanophyta			Cyanophyte (filament)		1,891,245		44,658	44,307	76,650
				Total Blue-green Algae		86,499,352	1,719,316	3,010,445	1,573,838	1,511,203
Red Algae	Rhodophyta	Acrochaetiales	Acrochaetiaceae	Audouinella sp.	1	802,203				
				Total Red Algae		802,203	0	0	0	0
Brown Algae	Ochrophyta	Sphacelariales	Lithodermataceae	Bodanella sp.	1	429,415	9,924	36,388	13,031	2,389
				Total Brown Algae		429,415	9,924	36,388	13,031	2,389
				Total Periphyton		95,083,764	2,098,078	3,314,778	1,658,542	1,636,231
				Total Unique Taxa	47		14	12	13	14



Total periphyton density (cells/cm²) for Minnow (Mt Polley Mining Corp) Mount Polley, 2023

Client Sample ID						pp23-092-021	pp23-092-022	pp23-092-023	pp23-092-024	pp23-092-025
Replicate						HAC-R1_PERI-1_2023-08	HAC-R1_PERI-2_2023-08	HAC-R1_PERI-3_2023-08	HAC-R1_PERI-4_2023-08	HAC-R1_PERI-5_2023-08
Date Sampled						1	2	3	4	5
						10-Aug-23	10-Aug-23	10-Aug-23	10-Aug-23	10-Aug-23
Grand Total						Total Density	Total Density	Total Density	Total Density	Total Density
Common Name	Phylum	Order	Family	Taxon	Unique Taxa	Density (cells/cm ²)	(cells/cm ²)	(cells/cm ²)	(cells/cm ²)	(cells/cm ²)
Diatoms	Bacillariophyta	Bacillariales	Bacillariaceae	Nitzschia acicularis/draveillensis	1	1,433				
Diatoms	Bacillariophyta	Bacillariales	Bacillariaceae	Nitzschia sp.		365,929				
Diatoms	Bacillariophyta	Cocconeidales	Achnanthidiaceae	Achnanthidium minutissimum	1	202,913	860	2,000	3,225	7,167
Diatoms	Bacillariophyta	Cocconeidales	Achnanthidiaceae	Achnanthidium sp.		638,288	11,181	3,500	5,375	2,867
Diatoms	Bacillariophyta	Cocconeidales	Achnanthidiaceae	Planothidium sp.	1	3,867				
Diatoms	Bacillariophyta	Cocconeidales	Cocconeidaceae	Cocconeis pediculus	1	5,442				
Diatoms	Bacillariophyta	Cocconeidales	Cocconeidaceae	Cocconeis placentula	1	259,825	7,741	5,000	6,451	14,335
Diatoms	Bacillariophyta	Cymbellales	Cymbellaceae	Cymbella sp.	1	267,240	1,720		20,427	22,935
Diatoms	Bacillariophyta	Cymbellales	Gomphonemataceae	Delicata sp.	1	8,601				
Diatoms	Bacillariophyta	Cymbellales	Gomphonemataceae	Encyonema sp.	1	62,502	860			
Diatoms	Bacillariophyta	Cymbellales	Gomphonemataceae	Encyonopsis cf. microcephala	1	6,017		500		1,433
Diatoms	Bacillariophyta	Cymbellales	Gomphonemataceae	Gomphonema sp.	1	2,560,864	67,946	21,002	12,901	68,806
Diatoms	Bacillariophyta	Cymbellales	Gomphonemataceae	Reimeria sp.	1	3,584				
Diatoms	Bacillariophyta	Cymbellales	Rhoicospheniaceae	Rhoicosphenia sp.	1	87,783				
Diatoms	Bacillariophyta	Fragilariales	Fragilariaceae	Fragilaria crotonensis	1	2,580	2,580			
Diatoms	Bacillariophyta	Fragilariales	Fragilariaceae	Fragilaria sp.		30,030	860	1,000	3,225	935
Diatoms	Bacillariophyta	Fragilariales	Staurosiraceae	Staurosira sp.	1	64,180	7,741		45,154	1,433
Diatoms	Bacillariophyta	Fragilariales	Staurosiraceae	Staurosirella sp.	1	44,159	3,440		11,826	8,601
Diatoms	Bacillariophyta	Licmophorales	Ulnariaceae	Ulnaria sp.	1	2,867				
Diatoms	Bacillariophyta	Melosirales	Melosiraceae	Melosira sp.	1	86,105				
Diatoms	Bacillariophyta	Naviculales	Amphipleuraceae	Amphipleura pellucida	1	4,300				
Diatoms	Bacillariophyta	Naviculales	Naviculaceae	Navicula sp.	1	164,644	5,160	5,500	16,126	4,300
Diatoms	Bacillariophyta	Rhabdonematales	Tabellariaceae	Diatoma sp.	1	165,021				2,805
Diatoms	Bacillariophyta	Rhopalodiales	Rhopalodiaceae	Epithemia adnata	1	3,584				935
Diatoms	Bacillariophyta	Rhopalodiales	Rhopalodiaceae	Epithemia gibba	1	17,620			1,075	
Diatoms	Bacillariophyta	Rhopalodiales	Rhopalodiaceae	Epithemia sp.		33,212	6,020	4,000	2,150	1,433
Diatoms	Bacillariophyta	Rhopalodiales	Rhopalodiaceae	Epithemia turgida	1	7,595	860	1,500	2,867	935
Diatoms	Bacillariophyta	Rhopalodiales	Rhopalodiaceae	Epithemia sorex	1	53,535	3,440	5,500	34,403	1,433
Diatoms	Bacillariophyta	Stephanodiscales	Stephanodiscaceae	Cyclotella sp.	1	3,584				
Diatoms	Bacillariophyta	Stephanodiscales	Stephanodiscaceae	Lindavia sp.	1	1,433			1,433	
Diatoms	Bacillariophyta	Thalassiosiphales	Catenulaceae	Amphora sp.	1	4,880		500		
Diatoms	Bacillariophyta			Centric diatom		3,572		500		
Diatoms	Bacillariophyta			Pennate diatom		143,764	6,020	1,500	4,300	2,867
				Total Diatoms		5,310,954	127,291	52,004	166,639	141,912
										93,486
Green Algae	Charophyta	Zygnematales	Zygnemataceae	Mougeotia sp.	1	15,051				
Green Algae	Charophyta	Zygnematales	Zygnemataceae	Spirogyra sp.		0				
Green Algae	Chlorophyta	Chaetophorales	Chaetophoraceae	Chaetophora sp.	1	272,621	860		47,304	39,264
Green Algae	Chlorophyta	Chlamydomonadales	Sphaerocystidaceae	Hormotila sp.		0				
Green Algae	Chlorophyta	Oedogoniales	Oedogoniaceae	Bulbochaete sp.	1	443,157				
Green Algae	Chlorophyta	Sphaeropleales	Hydrodictyceae	Stauridium tetras	1	5,434				
Green Algae	Chlorophyta	Sphaeropleales	Scenedesmaceae	Desmodesmus sp.	1	8,040		4,300		
Green Algae	Chlorophyta	Sphaeropleales	Scenedesmaceae	Scenedesmus sp.	1	2,867			2,867	
Green Algae	Chlorophyta	Sphaeropleales	Selenastraceae	Monoraphidium sp.	1	38,561	860			
Green Algae	Chlorophyta	Ulotrichales	Ulotrichaceae	Ulothrix sp.	1	163,004				
Green Algae	Chlorophyta			Chlorophyte		1,093,104	1,720	7,001	54,471	8,414
				Total Green Algae		2,041,840	3,440	7,001	4,300	104,642
										47,678



Total periphyton density (cells/cm²) for Minnow (Mt Polley Mining Corp) Mount Polley, 2023

Client Sample ID						pp23-092-021	pp23-092-022	pp23-092-023	pp23-092-024	pp23-092-025
Replicate						HAC-R1_PERI-1_2023-08	HAC-R1_PERI-2_2023-08	HAC-R1_PERI-3_2023-08	HAC-R1_PERI-4_2023-08	HAC-R1_PERI-5_2023-08
Date Sampled						1	2	3	4	5
						10-Aug-23	10-Aug-23	10-Aug-23	10-Aug-23	10-Aug-23
Grand Total						Total Density	Total Density	Total Density	Total Density	Total Density
Common Name	Phylum	Order	Family	Taxon	Unique Taxa	Density (cells/cm ²)	(cells/cm ²)	(cells/cm ²)	(cells/cm ²)	(cells/cm ²)
Blue-green Algae	Cyanophyta	Chroococcales	Chroococcaceae	Chroococcus sp.	1	65,758				
Blue-green Algae	Cyanophyta	Nostocales	Nostocaceae	Anabaena sp.	1	12,601				
Blue-green Algae	Cyanophyta	Nostocales	Rivulariaceae	Calothrix sp.	1	7,303,034	710,494	185,554	1,186,898	191,561
Blue-green Algae	Cyanophyta	Oscillatoriales	Oscillatoriaceae	Oscillatoria sp.	1	39,932				
Blue-green Algae	Cyanophyta	Oscillatoriales	Oscillatoriaceae	Phormidium sp.	1	234,073				18,697
Blue-green Algae	Cyanophyta	Pleurocapsales	Hyellaceae	Pleurocapsa sp.		0				
Blue-green Algae	Cyanophyta	Pseudanabaenales	Pseudanabaenaceae	Pseudanabaena sp.	1	202,843	6,020	5,000		
Blue-green Algae	Cyanophyta	Synechococcales	Chamaesiphonaceae	Chamaesiphon sp. (colony)		6,946,967	151,878	95,462		34,403
Blue-green Algae	Cyanophyta	Synechococcales	Chamaesiphonaceae	Chamaesiphon sp. (single cell)	1	757,369	7,741	2,000	1,075	12,901
Blue-green Algae	Cyanophyta	Synechococcales	Heteroleibleiniaceae	Heteroleibleinia sp.	1	64,395,614	467,592	346,852	84,932	2,546,431
Blue-green Algae	Cyanophyta	Synechococcales	Leptolyngbyaceae	Leptolyngbya sp.	1	4,451,753	43,004			453,790
Blue-green Algae	Cyanophyta	Synechococcales	Merismopediaceae	Merismopedia sp.	1	17,201				
Blue-green Algae	Cyanophyta			Cyanophyte (coccooid unicell)		9,635	860	500	2,150	
Blue-green Algae	Cyanophyta			Cyanophyte (colony)		171,327	6,881	5,500		25,802
Blue-green Algae	Cyanophyta			Cyanophyte (filament)		1,891,245	860	26,877		28,669
				Total Blue-green Algae		86,499,352	1,395,330	667,747	1,275,056	3,293,558
Red Algae	Rhodophyta	Acrochaetiales	Acrochaetiaceae	Audouinella sp.	1	802,203				
				Total Red Algae		802,203	0	0	0	0
Brown Algae	Ochrophyta	Sphacelariales	Lithodermataceae	Bodanella sp.	1	429,415	21,502	39,003	90,307	27,236
				Total Brown Algae		429,415	21,502	39,003	90,307	27,236
				Total Periphyton		95,083,764	1,547,562	765,755	1,536,302	3,567,347
				Total Unique Taxa	47		20	17	16	18
										19



Total periphyton density (cells/cm²) for Minnow (Mt Polley Mining Corp) Mount Polley, 2023

Client Sample ID						pp23-092-026	pp23-092-027	pp23-092-028	pp23-092-029	pp23-092-030
Replicate						EDC-D_PERI-1_2023-08	EDC-D_PERI-3_2023-08	EDC-D_PERI-5_2023-08	EDC-D_PERI-7_2023-08	EDC-D_PERI-8_2023-08
Date Sampled						1	3	5	7	8
Date Sampled						11-Aug-23	11-Aug-23	11-Aug-23	11-Aug-23	11-Aug-23
Grand Total						Total Density	Total Density	Total Density	Total Density	Total Density
Common Name	Phylum	Order	Family	Taxon	Unique Taxa	Density (cells/cm ²)	(cells/cm ²)	(cells/cm ²)	(cells/cm ²)	(cells/cm ²)
Diatoms	Bacillariophyta	Bacillariales	Bacillariaceae	Nitzschia acicularis/draveillensis	1	1,433				
Diatoms	Bacillariophyta	Bacillariales	Bacillariaceae	Nitzschia sp.		365,929	6,143			
Diatoms	Bacillariophyta	Cocconeidales	Achnanthidiaceae	Achnanthidium minutissimum	1	202,913			6,143	24,369
Diatoms	Bacillariophyta	Cocconeidales	Achnanthidiaceae	Achnanthidium sp.		638,288	6,143			7,167
Diatoms	Bacillariophyta	Cocconeidales	Achnanthidiaceae	Planothidium sp.	1	3,867			2,150	
Diatoms	Bacillariophyta	Cocconeidales	Cocconeidaceae	Cocconeis pediculus	1	5,442				
Diatoms	Bacillariophyta	Cocconeidales	Cocconeidaceae	Cocconeis placentula	1	259,825	3,072		104,201	4,300
Diatoms	Bacillariophyta	Cymbellales	Cymbellaceae	Cymbella sp.	1	267,240			21,502	7,167
Diatoms	Bacillariophyta	Cymbellales	Gomphonemataceae	Delicata sp.	1	8,601				
Diatoms	Bacillariophyta	Cymbellales	Gomphonemataceae	Encyonema sp.	1	62,502				
Diatoms	Bacillariophyta	Cymbellales	Gomphonemataceae	Encyonopsis cf. microcephala	1	6,017				
Diatoms	Bacillariophyta	Cymbellales	Gomphonemataceae	Gomphonema sp.	1	2,560,864	365,530		64,505	445,087
Diatoms	Bacillariophyta	Cymbellales	Gomphonemataceae	Reimeria sp.	1	3,584			196,588	141,912
Diatoms	Bacillariophyta	Cymbellales	Rhoicospheniaceae	Rhoicosphenia sp.	1	87,783	21,502		19,848	27,952
Diatoms	Bacillariophyta	Fragilariales	Fragilariaceae	Fragilaria crotonensis	1	2,580				3,072
Diatoms	Bacillariophyta	Fragilariales	Fragilariaceae	Fragilaria sp.		30,030	3,072		1,654	4,300
Diatoms	Bacillariophyta	Fragilariales	Staurisiraceae	Staurisira sp.	1	64,180				1,433
Diatoms	Bacillariophyta	Fragilariales	Staurisiraceae	Staurisirella sp.	1	44,159				
Diatoms	Bacillariophyta	Licmophorales	Ulnariaceae	Ulnaria sp.	1	2,867				
Diatoms	Bacillariophyta	Melosirales	Melosiraceae	Melosira sp.	1	86,105	24,573		4,962	6,451
Diatoms	Bacillariophyta	Naviculales	Amphipleuraceae	Amphipleura pellucida	1	4,300				1,433
Diatoms	Bacillariophyta	Naviculales	Naviculaceae	Navicula sp.	1	164,644	21,502		49,620	9,215
Diatoms	Bacillariophyta	Rhabdonematales	Tabellariaceae	Diatoma sp.	1	165,021			6,451	9,215
Diatoms	Bacillariophyta	Rhopalodiales	Rhopalodiaceae	Epithemia adnata	1	3,584				11,468
Diatoms	Bacillariophyta	Rhopalodiales	Rhopalodiaceae	Epithemia gibba	1	17,620			1,654	
Diatoms	Bacillariophyta	Rhopalodiales	Rhopalodiaceae	Epithemia sp.		33,212			2,150	3,072
Diatoms	Bacillariophyta	Rhopalodiales	Rhopalodiaceae	Epithemia turgida	1	7,595			3,072	4,300
Diatoms	Bacillariophyta	Rhopalodiales	Rhopalodiaceae	Epithemia sorex	1	53,535				1,433
Diatoms	Bacillariophyta	Stephanodiscales	Stephanodiscaceae	Cyclotella sp.	1	3,584				
Diatoms	Bacillariophyta	Stephanodiscales	Stephanodiscaceae	Lindavia sp.	1	1,433				
Diatoms	Bacillariophyta	Thalassiosiphales	Catenulaceae	Amphora sp.	1	4,880				
Diatoms	Bacillariophyta			Centric diatom		3,572	3,072			
Diatoms	Bacillariophyta			Pennate diatom		143,764	6,143	8,270		9,215
				Total Diatoms		5,310,954	460,753	330,797	496,691	261,093
										268,056
Green Algae	Charophyta	Zygnematales	Zygnemataceae	Mougeotia sp.	1	15,051				
Green Algae	Charophyta	Zygnematales	Zygnemataceae	Spirogyra sp.		0				
Green Algae	Chlorophyta	Chaetophorales	Chaetophoraceae	Chaetophora sp.	1	272,621				
Green Algae	Chlorophyta	Chlamydomonadales	Sphaerocystidaceae	Hormotila sp.		0				
Green Algae	Chlorophyta	Oedogoniales	Oedogoniaceae	Bulbochaete sp.	1	443,157	187,373		44,658	4,300
Green Algae	Chlorophyta	Sphaeropleales	Hydrodictyceae	Stauridium tetras	1	5,434				199,659
Green Algae	Chlorophyta	Sphaeropleales	Scenedesmaceae	Desmodesmus sp.	1	8,040				7,167
Green Algae	Chlorophyta	Sphaeropleales	Scenedesmaceae	Scenedesmus sp.	1	2,867				
Green Algae	Chlorophyta	Sphaeropleales	Selenastraceae	Monoraphidium sp.	1	38,561			9,924	
Green Algae	Chlorophyta	Ulotrichales	Ulotrichaceae	Ulothrix sp.	1	163,004	24,573		116,110	12,287
Green Algae	Chlorophyta			Chlorophyte		1,093,104	153,584	14,886	8,601	30,717
				Total Green Algae		2,041,840	365,530	69,467	129,011	242,663
										31,536



Total periphyton density (cells/cm²) for Minnow (Mt Polley Mining Corp) Mount Polley, 2023

Client Sample ID						pp23-092-026	pp23-092-027	pp23-092-028	pp23-092-029	pp23-092-030
Replicate						EDC-D_PERI-1_2023-08	EDC-D_PERI-3_2023-08	EDC-D_PERI-5_2023-08	EDC-D_PERI-7_2023-08	EDC-D_PERI-8_2023-08
Date Sampled						1	3	5	7	8
Date Sampled						11-Aug-23	11-Aug-23	11-Aug-23	11-Aug-23	11-Aug-23
Grand Total						Total Density	Total Density	Total Density	Total Density	Total Density
Common Name	Phylum	Order	Family	Taxon	Unique Taxa	Density (cells/cm ²)	(cells/cm ²)	(cells/cm ²)	(cells/cm ²)	(cells/cm ²)
Blue-green Algae	Cyanophyta	Chroococcales	Chroococcaceae	Chroococcus sp.	1	65,758				
Blue-green Algae	Cyanophyta	Nostocales	Nostocaceae	Anabaena sp.	1	12,601				
Blue-green Algae	Cyanophyta	Nostocales	Rivulariaceae	Calothrix sp.	1	7,303,034			55,290	50,171
Blue-green Algae	Cyanophyta	Oscillatoriales	Oscillatoriaceae	Oscillatoria sp.	1	39,932			39,932	
Blue-green Algae	Cyanophyta	Oscillatoriales	Oscillatoriaceae	Phormidium sp.	1	234,073		25,802		
Blue-green Algae	Cyanophyta	Pleurocapsales	Hyellaceae	Pleurocapsa sp.		0				
Blue-green Algae	Cyanophyta	Pseudanabaenales	Pseudanabaenaceae	Pseudanabaena sp.	1	202,843		34,734		
Blue-green Algae	Cyanophyta	Synechococcales	Chamaesiphonaceae	Chamaesiphon sp. (colony)		6,946,967	422,475	219,318	212,868	178,158
Blue-green Algae	Cyanophyta	Synechococcales	Chamaesiphonaceae	Chamaesiphon sp. (single cell)	1	757,369	12,287	4,962	8,601	21,502
Blue-green Algae	Cyanophyta	Synechococcales	Heteroleibleiniaceae	Heteroleibleinia sp.	1	64,395,614	3,244,517	273,380	3,060,290	2,058,028
Blue-green Algae	Cyanophyta	Synechococcales	Leptolyngbyaceae	Leptolyngbya sp.	1	4,451,753		46,312		46,075
Blue-green Algae	Cyanophyta	Synechococcales	Merismopediaceae	Merismopedia sp.	1	17,201				
Blue-green Algae	Cyanophyta			Cyanophyte (coccooid unicell)		9,635				
Blue-green Algae	Cyanophyta			Cyanophyte (colony)		171,327		6,616		48,737
Blue-green Algae	Cyanophyta			Cyanophyte (filament)		1,891,245			62,970	20,068
				Total Blue-green Algae		86,499,352	3,679,278	585,321	3,307,561	2,461,954
Red Algae	Rhodophyta	Acrochaetiales	Acrochaetiaceae	Audouinella sp.	1	802,203	89,079	77,737	92,458	178,158
				Total Red Algae		802,203	89,079	77,737	92,458	178,158
Brown Algae	Ochrophyta	Sphacelariales	Lithodermataceae	Bodanella sp.	1	429,415				
				Total Brown Algae		429,415	0	0	0	0
				Total Periphyton		95,083,764	4,594,640	1,063,322	4,025,720	3,143,868
				Total Unique Taxa	47		13	17	14	16



Total periphyton density (cells/cm²) for Minnow (Mt Polley Mining Corp) Mount Polley, 2023

Client Sample ID					pp23-092-002_QA		pp23-092-009_QA		pp23-092-027_QA	
Replicate					E1_PERI-4_2023-08_QA		HAC-D_PERI-4_2023-08_QA		EDC-D_PERI-3_2023-08_QA	
Date Sampled					4-Jan-00		4		3	
					05-Aug-23		06-Aug-23		11-Aug-23	
					Grand Total		Total Density		Total Density	
Common Name	Phylum	Order	Family	Taxon	Unique Taxa	Density (cells/cm ²)	(cells/cm ²)	(cells/cm ²)	(cells/cm ²)	(cells/cm ²)
Diatoms	Bacillariophyta	Bacillariales	Bacillariaceae	Nitzschia acicularis/draveillensis	1	1,433	2,867			
Diatoms	Bacillariophyta	Bacillariales	Bacillariaceae	Nitzschia sp.		365,929	37,270	12,153		33,080
Diatoms	Bacillariophyta	Cocconeidales	Achnanthidiaceae	Achnanthidium minutissimum	1	202,913	24,369	935		8,270
Diatoms	Bacillariophyta	Cocconeidales	Achnanthidiaceae	Achnanthidium sp.		638,288	159,113	7,479		13,232
Diatoms	Bacillariophyta	Cocconeidales	Achnanthidiaceae	Planothidium sp.	1	3,867	2,867			1,654
Diatoms	Bacillariophyta	Cocconeidales	Cocconeidaceae	Cocconeis pediculus	1	5,442	2,867			
Diatoms	Bacillariophyta	Cocconeidales	Cocconeidaceae	Cocconeis placentula	1	259,825	10,034	2,805		94,277
Diatoms	Bacillariophyta	Cymbellales	Cymbellaceae	Cymbella sp.	1	267,240	4,300	6,544		3,308
Diatoms	Bacillariophyta	Cymbellales	Gomphonemataceae	Delicata sp.	1	8,601				
Diatoms	Bacillariophyta	Cymbellales	Gomphonemataceae	Encyonema sp.	1	62,502		1,870		1,654
Diatoms	Bacillariophyta	Cymbellales	Gomphonemataceae	Encyonopsis cf. microcephala	1	6,017				
Diatoms	Bacillariophyta	Cymbellales	Gomphonemataceae	Gomphonema sp.	1	2,560,864	12,901	27,111		69,467
Diatoms	Bacillariophyta	Cymbellales	Gomphonemataceae	Reimeria sp.	1	3,584				
Diatoms	Bacillariophyta	Cymbellales	Rhoicospheniaceae	Rhoicosphenia sp.	1	87,783				18,194
Diatoms	Bacillariophyta	Fragilariales	Fragilariaceae	Fragilaria crotonensis	1	2,580				
Diatoms	Bacillariophyta	Fragilariales	Fragilariaceae	Fragilaria sp.		30,030	4,300	935		
Diatoms	Bacillariophyta	Fragilariales	Staurosiraceae	Staurosira sp.	1	64,180	11,468	1,870		
Diatoms	Bacillariophyta	Fragilariales	Staurosiraceae	Staurosirella sp.	1	44,159				
Diatoms	Bacillariophyta	Licmophorales	Ulnariaceae	Ulnaria sp.	1	2,867	1,433			
Diatoms	Bacillariophyta	Melosirales	Melosiraceae	Melosira sp.	1	86,105	54,471			24,810
Diatoms	Bacillariophyta	Naviculales	Amphipleuraceae	Amphipleura pellucida	1	4,300	7,167			
Diatoms	Bacillariophyta	Naviculales	Naviculaceae	Navicula sp.	1	164,644	5,734	1,870		67,813
Diatoms	Bacillariophyta	Rhabdonematales	Tabellariaceae	Diatoma sp.	1	165,021		39,264		
Diatoms	Bacillariophyta	Rhopalodiales	Rhopalodiaceae	Epithemia adnata	1	3,584	1,433			
Diatoms	Bacillariophyta	Rhopalodiales	Rhopalodiaceae	Epithemia gibba	1	17,620	11,468			
Diatoms	Bacillariophyta	Rhopalodiales	Rhopalodiaceae	Epithemia sp.		33,212	2,867	1,870		
Diatoms	Bacillariophyta	Rhopalodiales	Rhopalodiaceae	Epithemia turgida	1	7,595				
Diatoms	Bacillariophyta	Rhopalodiales	Rhopalodiaceae	Epithemia sorex	1	53,535		1,870		
Diatoms	Bacillariophyta	Stephanodiscales	Stephanodiscaceae	Cyclotella sp.	1	3,584				4,962
Diatoms	Bacillariophyta	Stephanodiscales	Stephanodiscaceae	Lindavia sp.	1	1,433				
Diatoms	Bacillariophyta	Thalassiosiphales	Catenulaceae	Amphora sp.	1	4,880				
Diatoms	Bacillariophyta			Centric diatom		3,572				
Diatoms	Bacillariophyta			Pennate diatom		143,764	4,300	3,739		4,962
				Total Diatoms		5,310,954	361,230	110,313		345,683
Green Algae	Charophyta	Zygnematales	Zygnemataceae	Mougeotia sp.	1	15,051	7,167			
Green Algae	Charophyta	Zygnematales	Zygnemataceae	Spirogyra sp.		0	1,433			
Green Algae	Chlorophyta	Chaetophorales	Chaetophoraceae	Chaetophora sp.	1	272,621				
Green Algae	Chlorophyta	Chlamydomonadales	Sphaerocystidaceae	Hormotila sp.		0		2,805		
Green Algae	Chlorophyta	Oedogoniales	Oedogoniaceae	Bulbochaete sp.	1	443,157				6,616
Green Algae	Chlorophyta	Sphaeropleales	Hydrodictyceae	Stauridium tetras	1	5,434				
Green Algae	Chlorophyta	Sphaeropleales	Scenedesmaceae	Desmodesmus sp.	1	8,040				
Green Algae	Chlorophyta	Sphaeropleales	Scenedesmaceae	Scenedesmus sp.	1	2,867	5,734	6,544		
Green Algae	Chlorophyta	Sphaeropleales	Selenastraceae	Monoraphidium sp.	1	38,561	11,468	1,870		9,924
Green Algae	Chlorophyta	Ulotrichales	Ulotrichaceae	Ulothrix sp.	1	163,004				
Green Algae	Chlorophyta			Chlorophyte		1,093,104	24,369	4,674		14,886
				Total Green Algae		2,041,840	50,171	15,893		31,426



Total periphyton density (cells/cm²) for Minnow (Mt Polley Mining Corp) Mount Polley, 2023

Client Sample ID						pp23-092-002_QA	pp23-092-009_QA	pp23-092-027_QA
Replicate						E1_PERI-4_2023-08_QA	HAC-D_PERI-4_2023-08_QA	EDC-D_PERI-3_2023-08_QA
Date Sampled						4-Jan-00	4	3
Date Sampled						05-Aug-23	06-Aug-23	11-Aug-23
Grand Total						Total Density	Total Density	Total Density
Common Name	Phylum	Order	Family	Taxon	Unique Taxa	Density (cells/cm ²)	(cells/cm ²)	(cells/cm ²)
Blue-green Algae	Cyanophyta	Chroococcales	Chroococcaceae	Chroococcus sp.	1	65,758	5,734	
Blue-green Algae	Cyanophyta	Nostocales	Nostocaceae	Anabaena sp.	1	12,601	8,601	
Blue-green Algae	Cyanophyta	Nostocales	Rivulariaceae	Calothrix sp.	1	7,303,034		13,088
Blue-green Algae	Cyanophyta	Oscillatoriales	Oscillatoriaceae	Oscillatoria sp.	1	39,932		
Blue-green Algae	Cyanophyta	Oscillatoriales	Oscillatoriaceae	Phormidium sp.	1	234,073		
Blue-green Algae	Cyanophyta	Pleurocapsales	Hyellaceae	Pleurocapsa sp.		0		23,156
Blue-green Algae	Cyanophyta	Pseudanabaenales	Pseudanabaenaceae	Pseudanabaena sp.	1	202,843	74,540	3,739
Blue-green Algae	Cyanophyta	Synechococcales	Chamaesiphonaceae	Chamaesiphon sp. (colony)		6,946,967	141,912	118,892
Blue-green Algae	Cyanophyta	Synechococcales	Chamaesiphonaceae	Chamaesiphon sp. (single cell)	1	757,369	5,734	13,088
Blue-green Algae	Cyanophyta	Synechococcales	Heteroleibleiniaceae	Heteroleibleinia sp.	1	64,395,614	32,969	951,912
Blue-green Algae	Cyanophyta	Synechococcales	Leptolyngbyaceae	Leptolyngbya sp.	1	4,451,753		19,632
Blue-green Algae	Cyanophyta	Synechococcales	Merismopediaceae	Merismopedia sp.	1	17,201		
Blue-green Algae	Cyanophyta			Cyanophyte (coccooid unicell)		9,635		935
Blue-green Algae	Cyanophyta			Cyanophyte (colony)		171,327		
Blue-green Algae	Cyanophyta			Cyanophyte (filament)		1,891,245		47,678
				Total Blue-green Algae		86,499,352	269,489	1,168,965
Red Algae	Rhodophyta	Acrochaetiales	Acrochaetiaceae	Audouinella sp.	1	802,203	34,403	
				Total Red Algae		802,203	34,403	0
Brown Algae	Ochrophyta	Sphacelariales	Lithodermataceae	Bodanella sp.	1	429,415		30,850
				Total Brown Algae		429,415	0	30,850
				Total Periphyton		95,083,764	715,293	1,326,021
				Total Unique Taxa	47		25	20
								19

PERIPHYTON PRODUCTIVITY

**ALS Laboratory Report VA23B8885
(Finalized August 29, 2023)**

CERTIFICATE OF ANALYSIS

Work Order : **VA23B8885**
Client : **Mount Polley Mining Corporation**
Contact : Mr. Gabriel Holmes
Address : PO Box 12
 Likely BC Canada V0L 1N0
Telephone : 250-790-2215 ext 2171
Project : ----
PO : 5590012190
C-O-C number : ----
Sampler : KBa
Site : ----
Quote number : VA22-MPMC100-004-Minnow Environmental-Periphyton
 Analysis
No. of samples received : 80
No. of samples analysed : 80

Page : 1 of 9
Laboratory : ALS Environmental - Vancouver
Account Manager : Can Dang
Address : 8081 Lougheed Highway
 Burnaby BC Canada V5A 1W9
Telephone : +1 604 253 4188
Date Samples Received : 15-Aug-2023 09:40
Date Analysis Commenced : 21-Aug-2023
Issue Date : 29-Aug-2023 13:17

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QC Interpretive report to assist with Quality Review and Sample Receipt Notification (SRN).

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

<i>Signatories</i>	<i>Position</i>	<i>Laboratory Department</i>
Tracy Harley	Supervisor - Water Quality Instrumentation	Inorganics, Burnaby, British Columbia



General Comments

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Refer to the ALS Quality Control Interpretive report (QCI) for applicable references and methodology summaries. Reference methods may incorporate modifications to improve performance.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

Please refer to Quality Control Interpretive report (QCI) for information regarding Holding Time compliance.

Key : CAS Number: Chemical Abstracts Services number is a unique identifier assigned to discrete substances
LOR: Limit of Reporting (detection limit).

<i>Unit</i>	<i>Description</i>
µg	micrograms
g/sample	grams per sample

<: less than.

>: greater than.

Surrogate: An analyte that is similar in behavior to target analyte(s), but that does not occur naturally in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery.

Test results reported relate only to the samples as received by the laboratory.

UNLESS OTHERWISE STATED on SRN or QCI Report, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.



Analytical Results

Sub-Matrix: Tissue					Client sample ID				
(Matrix: Biota)					FPC-R3_CHLA-1 _2023-08	FPC-R3_CHLA-2 _2023-08	FPC-R3_CHLA-3 _2023-08	FPC-R3_CHLA-4 _2023-08	FPC-R3_CHLA-5 _2023-08
Client sampling date / time					11-Aug-2023 00:00	11-Aug-2023 00:00	11-Aug-2023 00:00	11-Aug-2023 00:00	11-Aug-2023 00:00
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23B8885-001	VA23B8885-002	VA23B8885-003	VA23B8885-004	VA23B8885-005
					Result	Result	Result	Result	Result
Plant Pigments									
Chlorophyll a	479-61-8	E870/VA	0.010	µg	34.5	110	52.7	43.6	54.4

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.

Analytical Results

Sub-Matrix: Tissue					Client sample ID				
(Matrix: Biota)					HAC-R1_CHLA-1 _2023-08	HAC-R1_CHLA-2 _2023-08	HAC-R1_CHLA-3 _2023-08	HAC-R1_CHLA-4 _2023-08	HAC-R1_CHLA-5 _2023-08
Client sampling date / time					10-Aug-2023 00:00	10-Aug-2023 00:00	10-Aug-2023 00:00	10-Aug-2023 00:00	10-Aug-2023 00:00
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23B8885-006	VA23B8885-007	VA23B8885-008	VA23B8885-009	VA23B8885-010
					Result	Result	Result	Result	Result
Plant Pigments									
Chlorophyll a	479-61-8	E870/VA	0.010	µg	76.9	30.0	132	52.6	115

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.



Analytical Results

Sub-Matrix: Tissue (Matrix: Biota)					Client sample ID	HAC-U_CHLA-1 _2023-08	HAC-U_CHLA-2 _2023-08	HAC-U_CHLA-3 _2023-08	HAC-U_CHLA-4 _2023-08	HAC-U_CHLA-5 _2023-08
Client sampling date / time					09-Aug-2023 00:00	09-Aug-2023 00:00	09-Aug-2023 00:00	09-Aug-2023 00:00	09-Aug-2023 00:00	
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23B8885-011	VA23B8885-012	VA23B8885-013	VA23B8885-014	VA23B8885-015	
					Result	Result	Result	Result	Result	
Plant Pigments										
Chlorophyll a	479-61-8	E870/VA	0.010	µg	68.4	47.4	27.1	52.6	37.4	

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.

Analytical Results

Sub-Matrix: Tissue (Matrix: Biota)					Client sample ID	EDC-U_CHLA-1 _2023-08	EDC-U_CHLA-2 _2023-08	EDC-U_CHLA-3 _2023-08	EDC-U_CHLA-4 _2023-08	EDC-U_CHLA-5 _2023-08
Client sampling date / time					08-Aug-2023 00:00	08-Aug-2023 00:00	08-Aug-2023 00:00	08-Aug-2023 00:00	08-Aug-2023 00:00	07-Aug-2023 00:00
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23B8885-016	VA23B8885-017	VA23B8885-018	VA23B8885-019	VA23B8885-020	
					Result	Result	Result	Result	Result	
Plant Pigments										
Chlorophyll a	479-61-8	E870/VA	0.010	µg	47.4	37.7	19.8	19.4	36.2	

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.

Analytical Results

Sub-Matrix: Tissue (Matrix: Biota)					Client sample ID	HAC-R3_CHLA-1 _2023-08	HAC-R3_CHLA-2 _2023-08	HAC-R3_CHLA-3 _2023-08	HAC-R3_CHLA-4 _2023-08	HAC-R3_CHLA-5 _2023-08
Client sampling date / time					11-Aug-2023 00:00	11-Aug-2023 00:00	11-Aug-2023 00:00	11-Aug-2023 00:00	11-Aug-2023 00:00	11-Aug-2023 00:00
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23B8885-021	VA23B8885-022	VA23B8885-023	VA23B8885-024	VA23B8885-025	
					Result	Result	Result	Result	Result	
Plant Pigments										
Chlorophyll a	479-61-8	E870/VA	0.010	µg	54.2	9.02	3.36	14.0	4.29	

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.



Analytical Results

Sub-Matrix: Tissue (Matrix: Biota)					Client sample ID	HAC-D_CHLA-1 _2023-08	HAC-D_CHLA-2 _2023-08	HAC-D_CHLA-3 _2023-08	HAC-D_CHLA-4 _2023-08	HAC-D_CHLA-5 _2023-08
Client sampling date / time					06-Aug-2023 00:00	06-Aug-2023 00:00	06-Aug-2023 00:00	06-Aug-2023 00:00	06-Aug-2023 00:00	
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23B8885-026	VA23B8885-027	VA23B8885-028	VA23B8885-029	VA23B8885-030	
					Result	Result	Result	Result	Result	
Plant Pigments										
Chlorophyll a	479-61-8	E870/VA	0.010	µg	33.4	39.6	37.6	18.7	28.1	

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.

Analytical Results

Sub-Matrix: Tissue (Matrix: Biota)					Client sample ID	EDC-D_CHLA-1 _2023-08	EDC-D_CHLA-7 _2023-08	EDC-D_CHLA-3 _2023-08	EDC-D_CHLA-8 _2023-08	EDC-D_CHLA-5 _2023-08
Client sampling date / time					11-Aug-2023 00:00	11-Aug-2023 00:00	11-Aug-2023 00:00	11-Aug-2023 00:00	11-Aug-2023 00:00	
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23B8885-031	VA23B8885-032	VA23B8885-033	VA23B8885-034	VA23B8885-035	
					Result	Result	Result	Result	Result	
Plant Pigments										
Chlorophyll a	479-61-8	E870/VA	0.010	µg	281	39.0	119	16.8	44.2	

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.

Analytical Results

Sub-Matrix: Tissue (Matrix: Biota)					Client sample ID	E1_CHLA-2_20 23-08	E1_CHLA-6_20 23-08	E1_CHLA-7_20 23-08	E1_CHLA-4_20 23-08	E1_CHLA-5_20 23-08
Client sampling date / time					05-Aug-2023 00:00	04-Aug-2023 00:00	04-Aug-2023 00:00	05-Aug-2023 00:00	04-Aug-2023 00:00	
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23B8885-036	VA23B8885-037	VA23B8885-038	VA23B8885-039	VA23B8885-040	
					Result	Result	Result	Result	Result	
Plant Pigments										
Chlorophyll a	479-61-8	E870/VA	0.010	µg	19.0	41.1	25.1	26.0	0.751	

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.



Analytical Results

Sub-Matrix: Tissue (Matrix: Biota)					Client sample ID	FPC-R3_AFDM-1_2023-08	FPC-R3_AFDM-2_2023-08	FPC-R3_AFDM-3_2023-08	FPC-R3_AFDM-4_2023-08	FPC-R3_AFDM-5_2023-08
Client sampling date / time					11-Aug-2023 00:00	11-Aug-2023 00:00	11-Aug-2023 00:00	11-Aug-2023 00:00	11-Aug-2023 00:00	11-Aug-2023 00:00
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23B8885-041	VA23B8885-042	VA23B8885-043	VA23B8885-044	VA23B8885-045	
					Result	Result	Result	Result	Result	
Physical Tests										
Ash free dry weight	----	E137/VA	0.0010	g/sample	0.0143	0.0137	0.0125	0.0272	0.0105	
Ash weight	----	E137/VA	0.0010	g/sample	0.148	0.159	0.137	0.0702	0.0690	
Weight, dry	----	E137/VA	0.0010	g/sample	0.163	0.172	0.150	0.0974	0.0794	

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.

Analytical Results

Sub-Matrix: Tissue (Matrix: Biota)					Client sample ID	HAC-R1_AFDM-1_2023-08	HAC-R1_AFDM-2_2023-08	HAC-R1_AFDM-3_2023-08	HAC-R1_AFDM-4_2023-08	HAC-R1_AFDM-5_2023-08
Client sampling date / time					10-Aug-2023 00:00	10-Aug-2023 00:00	10-Aug-2023 00:00	10-Aug-2023 00:00	10-Aug-2023 00:00	10-Aug-2023 00:00
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23B8885-046	VA23B8885-047	VA23B8885-048	VA23B8885-049	VA23B8885-050	
					Result	Result	Result	Result	Result	
Physical Tests										
Ash free dry weight	----	E137/VA	0.0010	g/sample	0.0329	0.0115	0.0429	0.0205	0.0430	
Ash weight	----	E137/VA	0.0010	g/sample	0.137	0.0300	0.0970	0.0574	0.104	
Weight, dry	----	E137/VA	0.0010	g/sample	0.170	0.0416	0.140	0.0778	0.147	

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.



Analytical Results

Sub-Matrix: Tissue (Matrix: Biota)					Client sample ID				
					HAC-U_AFDM-1 _2023-08	HAC-U_AFDM-2 _2023-08	HAC-U_AFDM-3 _2023-08	HAC-U_AFDM-4 _2023-08	HAC-U_AFDM-5 _2023-08
Client sampling date / time					09-Aug-2023 00:00	09-Aug-2023 00:00	09-Aug-2023 00:00	09-Aug-2023 00:00	09-Aug-2023 00:00
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23B8885-051	VA23B8885-052	VA23B8885-053	VA23B8885-054	VA23B8885-055
Physical Tests					Result	Result	Result	Result	Result
Ash free dry weight	----	E137/VA	0.0010	g/sample	0.0535	0.0333	0.0283	0.0279	0.0534
Ash weight	----	E137/VA	0.0010	g/sample	0.159	0.0780	0.0915	0.110	0.149
Weight, dry	----	E137/VA	0.0010	g/sample	0.213	0.111	0.120	0.138	0.203

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.

Analytical Results

Sub-Matrix: Tissue (Matrix: Biota)					Client sample ID				
					EDC-U_AFDM-1 _2023-08	EDC-U_AFDM-2 _2023-08	EDC-U_AFDM-3 _2023-08	EDC-U_AFDM-4 _2023-08	EDC-U_AFDM-5 _2023-08
Client sampling date / time					08-Aug-2023 00:00	08-Aug-2023 00:00	08-Aug-2023 00:00	08-Aug-2023 00:00	07-Aug-2023 00:00
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23B8885-056	VA23B8885-057	VA23B8885-058	VA23B8885-059	VA23B8885-060
Physical Tests					Result	Result	Result	Result	Result
Ash free dry weight	----	E137/VA	0.0010	g/sample	0.0126	0.0153	0.0139	0.0211	0.0175
Ash weight	----	E137/VA	0.0010	g/sample	0.0035	0.0180	0.0057	0.0080	0.0259
Weight, dry	----	E137/VA	0.0010	g/sample	0.0160	0.0332	0.0196	0.0291	0.0434

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.



Analytical Results

Sub-Matrix: Tissue (Matrix: Biota)					Client sample ID				
					HAC-R3_AFDM-1_2023-08	HAC-R3_AFDM-2_2023-08	HAC-R3_AFDM-3_2023-08	HAC-R3_AFDM-4_2023-08	HAC-R3_AFDM-5_2023-08
Client sampling date / time					11-Aug-2023 00:00	11-Aug-2023 00:00	11-Aug-2023 00:00	11-Aug-2023 00:00	11-Aug-2023 00:00
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23B8885-061	VA23B8885-062	VA23B8885-063	VA23B8885-064	VA23B8885-065
					Result	Result	Result	Result	Result
Physical Tests									
Ash free dry weight	----	E137/VA	0.0010	g/sample	0.0887	0.0593	0.0052	0.0146	<0.0010
Ash weight	----	E137/VA	0.0010	g/sample	0.247	0.230	0.0556	0.0987	0.0173
Weight, dry	----	E137/VA	0.0010	g/sample	0.336	0.289	0.0608	0.113	0.0161

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.

Analytical Results

Sub-Matrix: Tissue (Matrix: Biota)					Client sample ID				
					HAC-D_AFDM-1_2023-08	HAC-D_AFDM-2_2023-08	HAC-D_AFDM-3_2023-08	HAC-D_AFDM-4_2023-08	HAC-D_AFDM-5_2023-08
Client sampling date / time					06-Aug-2023 00:00	06-Aug-2023 00:00	06-Aug-2023 00:00	06-Aug-2023 00:00	06-Aug-2023 00:00
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23B8885-066	VA23B8885-067	VA23B8885-068	VA23B8885-069	VA23B8885-070
					Result	Result	Result	Result	Result
Physical Tests									
Ash free dry weight	----	E137/VA	0.0010	g/sample	0.0251	0.0560	0.0239	0.0225	0.0250
Ash weight	----	E137/VA	0.0010	g/sample	0.101	0.168	0.130	0.0832	0.0892
Weight, dry	----	E137/VA	0.0010	g/sample	0.127	0.225	0.154	0.106	0.114

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.



Analytical Results

Sub-Matrix: Tissue (Matrix: Biota)					Client sample ID				
					EDC-D_AFDM-1 _2023-08	EDC-D_AFDM-7 _2023-08	EDC-D_AFDM-3 _2023-08	EDC-D_AFDM-8 _2023-08	EDC-D_AFDM-5 _2023-08
Client sampling date / time					11-Aug-2023 00:00	11-Aug-2023 00:00	11-Aug-2023 00:00	11-Aug-2023 00:00	11-Aug-2023 00:00
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23B8885-071	VA23B8885-072	VA23B8885-073	VA23B8885-074	VA23B8885-075
					Result	Result	Result	Result	Result
Physical Tests									
Ash free dry weight	----	E137/VA	0.0010	g/sample	0.0211	0.0245	0.0260	0.0111	0.0120
Ash weight	----	E137/VA	0.0010	g/sample	0.0225	0.0594	0.0344	0.0468	0.0155
Weight, dry	----	E137/VA	0.0010	g/sample	0.0436	0.0839	0.0603	0.0579	0.0275

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.

Analytical Results

Sub-Matrix: Tissue (Matrix: Biota)					Client sample ID				
					E1_AFDM-6_20 23-08	E1_AFDM-2_20 23-08	E1_AFDM-7_20 23-08	E1_AFDM-4_20 23-08	E1_AFDM-5_20 23-08
Client sampling date / time					04-Aug-2023 00:00	05-Aug-2023 00:00	04-Aug-2023 00:00	05-Aug-2023 00:00	04-Aug-2023 00:00
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23B8885-076	VA23B8885-077	VA23B8885-078	VA23B8885-079	VA23B8885-080
					Result	Result	Result	Result	Result
Physical Tests									
Ash free dry weight	----	E137/VA	0.0010	g/sample	0.0154	0.0083	0.0138	0.0149	<0.0010
Ash weight	----	E137/VA	0.0010	g/sample	0.130	0.0113	0.0346	0.0395	0.0233
Weight, dry	----	E137/VA	0.0010	g/sample	0.146	0.0197	0.0485	0.0544	0.0240

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.

QUALITY CONTROL INTERPRETIVE REPORT

<p>Work Order : VA23B8885</p> <p>Client : Mount Polley Mining Corporation</p> <p>Contact : Mr. Gabriel Holmes</p> <p>Address : PO Box 12 Likely BC Canada V0L 1N0</p> <p>Telephone : 250-790-2215 ext 2171</p> <p>Project : ----</p> <p>PO : 5590012190</p> <p>C-O-C number : ----</p> <p>Sampler : KBa</p> <p>Site : ----</p> <p>Quote number : VA22-MPMC100-004-Minnow Environmental-Periphyton Analysis</p> <p>No. of samples received : 80</p> <p>No. of samples analysed : 80</p>	<p>Page : 1 of 14</p> <p>Laboratory : ALS Environmental - Vancouver</p> <p>Account Manager : Can Dang</p> <p>Address : 8081 Lougheed Highway Burnaby, British Columbia Canada V5A 1W9</p> <p>Telephone : +1 604 253 4188</p> <p>Date Samples Received : 15-Aug-2023 09:40</p> <p>Issue Date : 29-Aug-2023 13:17</p>
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This report is automatically generated by the ALS LIMS (Laboratory Information Management System) through evaluation of Quality Control (QC) results and other QA parameters associated with this submission, and is intended to facilitate rapid data validation by auditors or reviewers. The report highlights any exceptions and outliers to ALS Data Quality Objectives, provides holding time details and exceptions, summarizes QC sample frequencies, and lists applicable methodology references and summaries.

Key

- Anonymous: Refers to samples which are not part of this work order, but which formed part of the QC process lot.
- CAS Number: Chemical Abstracts Service number is a unique identifier assigned to discrete substances.
- DQO: Data Quality Objective.
- LOR: Limit of Reporting (detection limit).
- RPD: Relative Percent Difference.

Workorder Comments

Holding times are displayed as "----" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

Summary of Outliers

Outliers : Quality Control Samples

- No Method Blank value outliers occur.
- No Laboratory Control Sample (LCS) outliers occur
- No Test sample Surrogate recovery outliers exist.

Outliers: Reference Material (RM) Samples

- No Reference Material (RM) Sample outliers occur.

Outliers : Analysis Holding Time Compliance (Breaches)

- No Analysis Holding Time Outliers exist.

Outliers : Frequency of Quality Control Samples

- No Quality Control Sample Frequency Outliers occur.



Analysis Holding Time Compliance

This report summarizes extraction / preparation and analysis times and compares each with ALS recommended holding times, which are selected to meet known provincial and /or federal requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by organizations such as CCME, US EPA, APHA Standard Methods, ASTM, or Environment Canada (where available). Dates and holding times reported below represent the first dates of extraction or analysis. If subsequent tests or dilutions exceeded holding times, qualifiers are added (refer to COA).

If samples are identified below as having been analyzed or extracted outside of recommended holding times, measurement uncertainties may be increased, and this should be taken into consideration when interpreting results.

Where actual sampling date is not provided on the chain of custody, the date of receipt with time at 00:00 is used for calculation purposes.

Where only the sample date without time is provided on the chain of custody, the sampling date at 00:00 is used for calculation purposes.

Matrix: **Biota** Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Physical Tests : Ash-free Dry Weight by Gravimetry										
Tube EDC-D_AFDM-1_2023-08	E137	11-Aug-2023	---	---	---		25-Aug-2023	180 days	15 days	✔
Physical Tests : Ash-free Dry Weight by Gravimetry										
Tube EDC-D_AFDM-3_2023-08	E137	11-Aug-2023	---	---	---		25-Aug-2023	180 days	15 days	✔
Physical Tests : Ash-free Dry Weight by Gravimetry										
Tube EDC-D_AFDM-5_2023-08	E137	11-Aug-2023	---	---	---		25-Aug-2023	180 days	15 days	✔
Physical Tests : Ash-free Dry Weight by Gravimetry										
Tube EDC-D_AFDM-7_2023-08	E137	11-Aug-2023	---	---	---		25-Aug-2023	180 days	15 days	✔
Physical Tests : Ash-free Dry Weight by Gravimetry										
Tube EDC-D_AFDM-8_2023-08	E137	11-Aug-2023	---	---	---		25-Aug-2023	180 days	15 days	✔
Physical Tests : Ash-free Dry Weight by Gravimetry										
Tube FPC-R3_AFDM-1_2023-08	E137	11-Aug-2023	---	---	---		25-Aug-2023	180 days	15 days	✔
Physical Tests : Ash-free Dry Weight by Gravimetry										
Tube FPC-R3_AFDM-2_2023-08	E137	11-Aug-2023	---	---	---		25-Aug-2023	180 days	15 days	✔



Matrix: **Biota** Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Physical Tests : Ash-free Dry Weight by Gravimetry										
Tube FPC-R3_AFDM-3_2023-08	E137	11-Aug-2023	----	----	----		25-Aug-2023	180 days	15 days	✔
Physical Tests : Ash-free Dry Weight by Gravimetry										
Tube FPC-R3_AFDM-4_2023-08	E137	11-Aug-2023	----	----	----		25-Aug-2023	180 days	15 days	✔
Physical Tests : Ash-free Dry Weight by Gravimetry										
Tube FPC-R3_AFDM-5_2023-08	E137	11-Aug-2023	----	----	----		25-Aug-2023	180 days	15 days	✔
Physical Tests : Ash-free Dry Weight by Gravimetry										
Tube HAC-R3_AFDM-1_2023-08	E137	11-Aug-2023	----	----	----		25-Aug-2023	180 days	15 days	✔
Physical Tests : Ash-free Dry Weight by Gravimetry										
Tube HAC-R3_AFDM-2_2023-08	E137	11-Aug-2023	----	----	----		25-Aug-2023	180 days	15 days	✔
Physical Tests : Ash-free Dry Weight by Gravimetry										
Tube HAC-R3_AFDM-3_2023-08	E137	11-Aug-2023	----	----	----		25-Aug-2023	180 days	15 days	✔
Physical Tests : Ash-free Dry Weight by Gravimetry										
Tube HAC-R3_AFDM-4_2023-08	E137	11-Aug-2023	----	----	----		25-Aug-2023	180 days	15 days	✔
Physical Tests : Ash-free Dry Weight by Gravimetry										
Tube HAC-R3_AFDM-5_2023-08	E137	11-Aug-2023	----	----	----		25-Aug-2023	180 days	15 days	✔
Physical Tests : Ash-free Dry Weight by Gravimetry										
Tube HAC-R1_AFDM-1_2023-08	E137	10-Aug-2023	----	----	----		25-Aug-2023	180 days	16 days	✔



Matrix: **Biota** Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Physical Tests : Ash-free Dry Weight by Gravimetry											
Tube HAC-R1_AFDM-2_2023-08	E137	10-Aug-2023	----	----	----		25-Aug-2023	180 days	16 days	✔	
Physical Tests : Ash-free Dry Weight by Gravimetry											
Tube HAC-R1_AFDM-3_2023-08	E137	10-Aug-2023	----	----	----		25-Aug-2023	180 days	16 days	✔	
Physical Tests : Ash-free Dry Weight by Gravimetry											
Tube HAC-R1_AFDM-4_2023-08	E137	10-Aug-2023	----	----	----		25-Aug-2023	180 days	16 days	✔	
Physical Tests : Ash-free Dry Weight by Gravimetry											
Tube HAC-R1_AFDM-5_2023-08	E137	10-Aug-2023	----	----	----		25-Aug-2023	180 days	16 days	✔	
Physical Tests : Ash-free Dry Weight by Gravimetry											
Tube HAC-U_AFDM-1_2023-08	E137	09-Aug-2023	----	----	----		25-Aug-2023	180 days	17 days	✔	
Physical Tests : Ash-free Dry Weight by Gravimetry											
Tube HAC-U_AFDM-2_2023-08	E137	09-Aug-2023	----	----	----		25-Aug-2023	180 days	17 days	✔	
Physical Tests : Ash-free Dry Weight by Gravimetry											
Tube HAC-U_AFDM-3_2023-08	E137	09-Aug-2023	----	----	----		25-Aug-2023	180 days	17 days	✔	
Physical Tests : Ash-free Dry Weight by Gravimetry											
Tube HAC-U_AFDM-4_2023-08	E137	09-Aug-2023	----	----	----		25-Aug-2023	180 days	17 days	✔	
Physical Tests : Ash-free Dry Weight by Gravimetry											
Tube HAC-U_AFDM-5_2023-08	E137	09-Aug-2023	----	----	----		25-Aug-2023	180 days	17 days	✔	



Matrix: **Biota** Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Physical Tests : Ash-free Dry Weight by Gravimetry										
Tube EDC-U_AFDM-1_2023-08	E137	08-Aug-2023	----	----	----		25-Aug-2023	180 days	18 days	✔
Physical Tests : Ash-free Dry Weight by Gravimetry										
Tube EDC-U_AFDM-2_2023-08	E137	08-Aug-2023	----	----	----		25-Aug-2023	180 days	18 days	✔
Physical Tests : Ash-free Dry Weight by Gravimetry										
Tube EDC-U_AFDM-3_2023-08	E137	08-Aug-2023	----	----	----		25-Aug-2023	180 days	18 days	✔
Physical Tests : Ash-free Dry Weight by Gravimetry										
Tube EDC-U_AFDM-4_2023-08	E137	08-Aug-2023	----	----	----		25-Aug-2023	180 days	18 days	✔
Physical Tests : Ash-free Dry Weight by Gravimetry										
Tube EDC-U_AFDM-5_2023-08	E137	07-Aug-2023	----	----	----		25-Aug-2023	180 days	19 days	✔
Physical Tests : Ash-free Dry Weight by Gravimetry										
Tube HAC-D_AFDM-1_2023-08	E137	06-Aug-2023	----	----	----		25-Aug-2023	180 days	20 days	✔
Physical Tests : Ash-free Dry Weight by Gravimetry										
Tube HAC-D_AFDM-2_2023-08	E137	06-Aug-2023	----	----	----		25-Aug-2023	180 days	20 days	✔
Physical Tests : Ash-free Dry Weight by Gravimetry										
Tube HAC-D_AFDM-3_2023-08	E137	06-Aug-2023	----	----	----		25-Aug-2023	180 days	20 days	✔
Physical Tests : Ash-free Dry Weight by Gravimetry										
Tube HAC-D_AFDM-4_2023-08	E137	06-Aug-2023	----	----	----		25-Aug-2023	180 days	20 days	✔



Matrix: **Biota** Evaluation: * = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Physical Tests : Ash-free Dry Weight by Gravimetry										
Tube HAC-D_AFDM-5_2023-08	E137	06-Aug-2023	----	----	----		25-Aug-2023	180 days	20 days	✓
Physical Tests : Ash-free Dry Weight by Gravimetry										
Tube E1_AFDM-2_2023-08	E137	05-Aug-2023	----	----	----		25-Aug-2023	180 days	21 days	✓
Physical Tests : Ash-free Dry Weight by Gravimetry										
Tube E1_AFDM-4_2023-08	E137	05-Aug-2023	----	----	----		25-Aug-2023	180 days	21 days	✓
Physical Tests : Ash-free Dry Weight by Gravimetry										
Tube E1_AFDM-5_2023-08	E137	04-Aug-2023	----	----	----		25-Aug-2023	180 days	22 days	✓
Physical Tests : Ash-free Dry Weight by Gravimetry										
Tube E1_AFDM-6_2023-08	E137	04-Aug-2023	----	----	----		25-Aug-2023	180 days	22 days	✓
Physical Tests : Ash-free Dry Weight by Gravimetry										
Tube E1_AFDM-7_2023-08	E137	04-Aug-2023	----	----	----		25-Aug-2023	180 days	22 days	✓
Plant Pigments : Chlorophyll-a by Fluorometry										
Opaque HDPE tube EDC-D_CHLA-1_2023-08	E870	11-Aug-2023	21-Aug-2023	28 days	10 days	✓	21-Aug-2023	28 days	0 days	✓
Plant Pigments : Chlorophyll-a by Fluorometry										
Opaque HDPE tube EDC-D_CHLA-3_2023-08	E870	11-Aug-2023	21-Aug-2023	28 days	10 days	✓	21-Aug-2023	28 days	0 days	✓
Plant Pigments : Chlorophyll-a by Fluorometry										
Opaque HDPE tube EDC-D_CHLA-5_2023-08	E870	11-Aug-2023	21-Aug-2023	28 days	10 days	✓	21-Aug-2023	28 days	0 days	✓



Matrix: **Biota** Evaluation: * = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Plant Pigments : Chlorophyll-a by Fluorometry											
Opaque HDPE tube EDC-D_CHLA-7_2023-08	E870	11-Aug-2023	21-Aug-2023	28 days	10 days	✓	21-Aug-2023	28 days	0 days	✓	
Plant Pigments : Chlorophyll-a by Fluorometry											
Opaque HDPE tube EDC-D_CHLA-8_2023-08	E870	11-Aug-2023	21-Aug-2023	28 days	10 days	✓	21-Aug-2023	28 days	0 days	✓	
Plant Pigments : Chlorophyll-a by Fluorometry											
Opaque HDPE tube FPC-R3_CHLA-1_2023-08	E870	11-Aug-2023	21-Aug-2023	28 days	10 days	✓	21-Aug-2023	28 days	0 days	✓	
Plant Pigments : Chlorophyll-a by Fluorometry											
Opaque HDPE tube FPC-R3_CHLA-2_2023-08	E870	11-Aug-2023	21-Aug-2023	28 days	10 days	✓	21-Aug-2023	28 days	0 days	✓	
Plant Pigments : Chlorophyll-a by Fluorometry											
Opaque HDPE tube FPC-R3_CHLA-3_2023-08	E870	11-Aug-2023	21-Aug-2023	28 days	10 days	✓	21-Aug-2023	28 days	0 days	✓	
Plant Pigments : Chlorophyll-a by Fluorometry											
Opaque HDPE tube FPC-R3_CHLA-4_2023-08	E870	11-Aug-2023	21-Aug-2023	28 days	10 days	✓	21-Aug-2023	28 days	0 days	✓	
Plant Pigments : Chlorophyll-a by Fluorometry											
Opaque HDPE tube FPC-R3_CHLA-5_2023-08	E870	11-Aug-2023	21-Aug-2023	28 days	10 days	✓	21-Aug-2023	28 days	0 days	✓	
Plant Pigments : Chlorophyll-a by Fluorometry											
Opaque HDPE tube HAC-R3_CHLA-1_2023-08	E870	11-Aug-2023	21-Aug-2023	28 days	10 days	✓	21-Aug-2023	28 days	0 days	✓	
Plant Pigments : Chlorophyll-a by Fluorometry											
Opaque HDPE tube HAC-R3_CHLA-2_2023-08	E870	11-Aug-2023	21-Aug-2023	28 days	10 days	✓	21-Aug-2023	28 days	0 days	✓	



Matrix: **Biota** Evaluation: * = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Plant Pigments : Chlorophyll-a by Fluorometry											
Opaque HDPE tube HAC-R3_CHLA-3_2023-08	E870	11-Aug-2023	21-Aug-2023	28 days	10 days	✓	21-Aug-2023	28 days	0 days	✓	
Plant Pigments : Chlorophyll-a by Fluorometry											
Opaque HDPE tube HAC-R3_CHLA-4_2023-08	E870	11-Aug-2023	21-Aug-2023	28 days	10 days	✓	21-Aug-2023	28 days	0 days	✓	
Plant Pigments : Chlorophyll-a by Fluorometry											
Opaque HDPE tube HAC-R3_CHLA-5_2023-08	E870	11-Aug-2023	21-Aug-2023	28 days	10 days	✓	21-Aug-2023	28 days	0 days	✓	
Plant Pigments : Chlorophyll-a by Fluorometry											
Opaque HDPE tube HAC-R1_CHLA-1_2023-08	E870	10-Aug-2023	21-Aug-2023	28 days	11 days	✓	21-Aug-2023	28 days	0 days	✓	
Plant Pigments : Chlorophyll-a by Fluorometry											
Opaque HDPE tube HAC-R1_CHLA-2_2023-08	E870	10-Aug-2023	21-Aug-2023	28 days	11 days	✓	21-Aug-2023	28 days	0 days	✓	
Plant Pigments : Chlorophyll-a by Fluorometry											
Opaque HDPE tube HAC-R1_CHLA-3_2023-08	E870	10-Aug-2023	21-Aug-2023	28 days	11 days	✓	21-Aug-2023	28 days	0 days	✓	
Plant Pigments : Chlorophyll-a by Fluorometry											
Opaque HDPE tube HAC-R1_CHLA-4_2023-08	E870	10-Aug-2023	21-Aug-2023	28 days	11 days	✓	21-Aug-2023	28 days	0 days	✓	
Plant Pigments : Chlorophyll-a by Fluorometry											
Opaque HDPE tube HAC-R1_CHLA-5_2023-08	E870	10-Aug-2023	21-Aug-2023	28 days	11 days	✓	21-Aug-2023	28 days	0 days	✓	
Plant Pigments : Chlorophyll-a by Fluorometry											
Opaque HDPE tube HAC-U_CHLA-1_2023-08	E870	09-Aug-2023	21-Aug-2023	28 days	12 days	✓	21-Aug-2023	28 days	0 days	✓	



Matrix: **Biota** Evaluation: * = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Plant Pigments : Chlorophyll-a by Fluorometry											
Opaque HDPE tube HAC-U_CHLA-2_2023-08	E870	09-Aug-2023	21-Aug-2023	28 days	12 days	✓	21-Aug-2023	28 days	0 days	✓	
Plant Pigments : Chlorophyll-a by Fluorometry											
Opaque HDPE tube HAC-U_CHLA-3_2023-08	E870	09-Aug-2023	21-Aug-2023	28 days	12 days	✓	21-Aug-2023	28 days	0 days	✓	
Plant Pigments : Chlorophyll-a by Fluorometry											
Opaque HDPE tube HAC-U_CHLA-4_2023-08	E870	09-Aug-2023	21-Aug-2023	28 days	12 days	✓	21-Aug-2023	28 days	0 days	✓	
Plant Pigments : Chlorophyll-a by Fluorometry											
Opaque HDPE tube HAC-U_CHLA-5_2023-08	E870	09-Aug-2023	21-Aug-2023	28 days	12 days	✓	21-Aug-2023	28 days	0 days	✓	
Plant Pigments : Chlorophyll-a by Fluorometry											
Opaque HDPE tube EDC-U_CHLA-1_2023-08	E870	08-Aug-2023	21-Aug-2023	28 days	13 days	✓	21-Aug-2023	28 days	0 days	✓	
Plant Pigments : Chlorophyll-a by Fluorometry											
Opaque HDPE tube EDC-U_CHLA-2_2023-08	E870	08-Aug-2023	21-Aug-2023	28 days	13 days	✓	21-Aug-2023	28 days	0 days	✓	
Plant Pigments : Chlorophyll-a by Fluorometry											
Opaque HDPE tube EDC-U_CHLA-3_2023-08	E870	08-Aug-2023	21-Aug-2023	28 days	13 days	✓	21-Aug-2023	28 days	0 days	✓	
Plant Pigments : Chlorophyll-a by Fluorometry											
Opaque HDPE tube EDC-U_CHLA-4_2023-08	E870	08-Aug-2023	21-Aug-2023	28 days	13 days	✓	21-Aug-2023	28 days	0 days	✓	
Plant Pigments : Chlorophyll-a by Fluorometry											
Opaque HDPE tube EDC-U_CHLA-5_2023-08	E870	07-Aug-2023	21-Aug-2023	28 days	14 days	✓	21-Aug-2023	28 days	0 days	✓	



Matrix: **Biota** Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Plant Pigments : Chlorophyll-a by Fluorometry											
Opaque HDPE tube HAC-D_CHLA-1_2023-08	E870	06-Aug-2023	21-Aug-2023	28 days	15 days	✔	21-Aug-2023	28 days	0 days	✔	
Plant Pigments : Chlorophyll-a by Fluorometry											
Opaque HDPE tube HAC-D_CHLA-2_2023-08	E870	06-Aug-2023	21-Aug-2023	28 days	15 days	✔	21-Aug-2023	28 days	0 days	✔	
Plant Pigments : Chlorophyll-a by Fluorometry											
Opaque HDPE tube HAC-D_CHLA-3_2023-08	E870	06-Aug-2023	21-Aug-2023	28 days	15 days	✔	21-Aug-2023	28 days	0 days	✔	
Plant Pigments : Chlorophyll-a by Fluorometry											
Opaque HDPE tube HAC-D_CHLA-4_2023-08	E870	06-Aug-2023	21-Aug-2023	28 days	15 days	✔	21-Aug-2023	28 days	0 days	✔	
Plant Pigments : Chlorophyll-a by Fluorometry											
Opaque HDPE tube HAC-D_CHLA-5_2023-08	E870	06-Aug-2023	21-Aug-2023	28 days	15 days	✔	21-Aug-2023	28 days	0 days	✔	
Plant Pigments : Chlorophyll-a by Fluorometry											
Opaque HDPE tube E1_CHLA-2_2023-08	E870	05-Aug-2023	21-Aug-2023	28 days	16 days	✔	21-Aug-2023	28 days	0 days	✔	
Plant Pigments : Chlorophyll-a by Fluorometry											
Opaque HDPE tube E1_CHLA-4_2023-08	E870	05-Aug-2023	21-Aug-2023	28 days	16 days	✔	21-Aug-2023	28 days	0 days	✔	
Plant Pigments : Chlorophyll-a by Fluorometry											
Opaque HDPE tube E1_CHLA-5_2023-08	E870	04-Aug-2023	21-Aug-2023	28 days	17 days	✔	21-Aug-2023	28 days	0 days	✔	
Plant Pigments : Chlorophyll-a by Fluorometry											
Opaque HDPE tube E1_CHLA-6_2023-08	E870	04-Aug-2023	21-Aug-2023	28 days	17 days	✔	21-Aug-2023	28 days	0 days	✔	



Matrix: **Biota** Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Plant Pigments : Chlorophyll-a by Fluorometry										
Opaque HDPE tube E1_CHLA-7_2023-08	E870	04-Aug-2023	21-Aug-2023	28 days	17 days	✔	21-Aug-2023	28 days	0 days	✔

Legend & Qualifier Definitions

Rec. HT: ALS recommended hold time (see units).



Quality Control Parameter Frequency Compliance

The following report summarizes the frequency of laboratory QC samples analyzed within the analytical batches (QC lots) in which the submitted samples were processed. The actual frequency should be greater than or equal to the expected frequency.

Matrix: **Biota**

Evaluation: ✖ = QC frequency outside specification; ✔ = QC frequency within specification.

Quality Control Sample Type	Method	QC Lot #	Count		Frequency (%)		
			QC	Regular	Actual	Expected	Evaluation
<i>Analytical Methods</i>							
Laboratory Control Samples (LCS)							
Ash-free Dry Weight by Gravimetry	E137	1104738	2	40	5.0	5.0	✔
Chlorophyll-a by Fluorometry	E870	1095092	2	40	5.0	5.0	✔
Method Blanks (MB)							
Ash-free Dry Weight by Gravimetry	E137	1104738	2	40	5.0	5.0	✔
Chlorophyll-a by Fluorometry	E870	1095092	2	40	5.0	5.0	✔



Methodology References and Summaries

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Reference methods may incorporate modifications to improve performance (indicated by "mod").

<i>Analytical Methods</i>	<i>Method / Lab</i>	<i>Matrix</i>	<i>Method Reference</i>	<i>Method Descriptions</i>
Ash-free Dry Weight by Gravimetry	E137 ALS Environmental - Vancouver	Biota	APHA 10200 I (mod)	"Ash-free dry weight is determined gravimetrically after drying the submitted sample at 105°C. The residue is then ignited at 500°C and the ash rewetted to restore water of hydration to clays and other minerals. The ash weight is determined gravimetrically after bringing the rewetted ash to constant weight at 104°. The ash-free dry weight is the difference between the dry weight and the ash weight.
Chlorophyll-a by Fluorometry	E870 ALS Environmental - Vancouver	Biota	EPA 445.0 (mod)	Chlorophyll-a is determined by solvent extraction followed with analysis by fluorometry using the non-acidification procedure.
<i>Preparation Methods</i>	<i>Method / Lab</i>	<i>Matrix</i>	<i>Method Reference</i>	<i>Method Descriptions</i>
Chlorophyll-a Extraction	EP870 ALS Environmental - Vancouver	Biota	EPA 445.0 (mod)	Chlorophyll-a solvent extraction.

QUALITY CONTROL REPORT

Work Order	: VA23B8885	Page	: 1 of 3
Client	: Mount Polley Mining Corporation	Laboratory	: ALS Environmental - Vancouver
Contact	: Mr. Gabriel Holmes	Account Manager	: Can Dang
Address	: PO Box 12 Likely BC Canada V0L 1N0	Address	: 8081 Lougheed Highway Burnaby, British Columbia Canada V5A 1W9
Telephone	:	Telephone	: +1 604 253 4188
Project	: ----	Date Samples Received	: 15-Aug-2023 09:40
PO	: 5590012190	Date Analysis Commenced	: 21-Aug-2023
C-O-C number	: ----	Issue Date	: 29-Aug-2023 13:17
Sampler	: KBa 250-790-2215 ext 2171		
Site	: ----		
Quote number	: VA22-MPMC100-004-Minnow Environmental-Periphyton Analysis		
No. of samples received	: 80		
No. of samples analysed	: 80		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Quality Control Report contains the following information:

- Method Blank (MB) Report; Recovery and Data Quality Objectives
- Laboratory Control Sample (LCS) Report; Recovery and Data Quality Objectives

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

<i>Signatories</i>	<i>Position</i>	<i>Laboratory Department</i>
Tracy Harley	Supervisor - Water Quality Instrumentation	Vancouver Inorganics, Burnaby, British Columbia



General Comments

The ALS Quality Control (QC) report is optionally provided to ALS clients upon request. ALS test methods include comprehensive QC checks with every analysis to ensure our high standards of quality are met. Each QC result has a known or expected target value, which is compared against predetermined Data Quality Objectives (DQOs) to provide confidence in the accuracy of associated test results. This report contains detailed results for all QC results applicable to this sample submission. Please refer to the ALS Quality Control Interpretation report (QCI) for applicable method references and methodology summaries.

Key :

- Anonymous = Refers to samples which are not part of this work order, but which formed part of the QC process lot.
- CAS Number = Chemical Abstracts Service number is a unique identifier assigned to discrete substances.
- DQO = Data Quality Objective.
- LOR = Limit of Reporting (detection limit).
- RPD = Relative Percent Difference
- # = Indicates a QC result that did not meet the ALS DQO.

Workorder Comments

Holding times are displayed as "---" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

Method Blank (MB) Report

A Method Blank is an analyte-free matrix that undergoes sample processing identical to that carried out for test samples. Method Blank results are used to monitor and control for potential contamination from the laboratory environment and reagents. For most tests, the DQO for Method Blanks is for the result to be < LOR.

Sub-Matrix: **Biota**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Physical Tests (QCLot: 1104738)						
Ash free dry weight	---	E137	0.001	g/sample	<0.0010	---
Ash weight	---	E137	0.001	g/sample	<0.0010	---
Weight, dry	---	E137	0.001	g/sample	<0.0010	---
Physical Tests (QCLot: 1104739)						
Ash free dry weight	---	E137	0.001	g/sample	<0.0010	---
Ash weight	---	E137	0.001	g/sample	<0.0010	---
Weight, dry	---	E137	0.001	g/sample	<0.0010	---
Plant Pigments (QCLot: 1095092)						
Chlorophyll a	479-61-8	E870	0.01	µg	<0.010	---
Plant Pigments (QCLot: 1095093)						
Chlorophyll a	479-61-8	E870	0.01	µg	<0.010	---



Laboratory Control Sample (LCS) Report

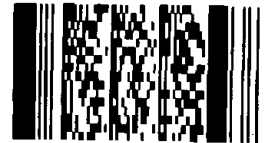
A Laboratory Control Sample (LCS) is an analyte-free matrix that has been fortified (spiked) with test analytes at known concentration and processed in an identical manner to test samples. LCS results are expressed as percent recovery, and are used to monitor and control test method accuracy and precision, independent of test sample matrix.

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		Qualifier
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	
Physical Tests (QCLot: 1104738)									
Ash free dry weight	----	E137	0.001	g/sample	0.0405 g/sample	98.8	70.0	130	----
Ash weight	----	E137	0.001	g/sample	0.0745 g/sample	109	70.0	130	----
Weight, dry	----	E137	0.001	g/sample	0.115 g/sample	105	70.0	130	----
Physical Tests (QCLot: 1104739)									
Ash free dry weight	----	E137	0.001	g/sample	0.0405 g/sample	93.8	70.0	130	----
Ash weight	----	E137	0.001	g/sample	0.0745 g/sample	110	70.0	130	----
Weight, dry	----	E137	0.001	g/sample	0.115 g/sample	104	70.0	130	----
Plant Pigments (QCLot: 1095092)									
Chlorophyll a	479-61-8	E870	0.01	µg	1 µg	91.5	80.0	120	----
Plant Pigments (QCLot: 1095093)									
Chlorophyll a	479-61-8	E870	0.01	µg	1 µg	90.7	80.0	120	----

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Report To Contact and company name below will appear on the final report		Report Format / Distribution			Select Service Level Below - Please confirm all E&P TATs with your client			
Company:	Mount Polley Mining Corporation	Select Report Format:	<input checked="" type="checkbox"/> EXCEL	<input type="checkbox"/> EDD (DIGITAL)	Regular [R] <input checked="" type="checkbox"/> Standard TAT if received by 3			
Contact:	Gabriel Holmes	Quality Control (QC) Report with Report	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	PRIORITY (Business Days)	4 day [P4]	EMERGENCY	1
Phone:	236-317-4939	<input checked="" type="checkbox"/> Compare Results to Criteria on Report - provide details below if box				3 day [P3]		2
Company address below will appear on the final report		Select Distribution:	<input checked="" type="checkbox"/> EMAIL	<input type="checkbox"/> MAIL		<input type="checkbox"/> FAX		2 day [P2]
Street:	PO Box 12	Email 1 or Fax:	gabriel.holmes@mountpolley.com		Date and Time Required for all E&P TATs:			
City/Province:	Likely, BC	Email 2:	kbatchelar@minnow.ca; slatimer@minnow.ca		For tests that can not be performed according to the service level			
Postal Code:	V0L 1N0	Email 3:	simone.derosmond@minnow.ca		Analysis Re			
Invoice To	Same as Report To <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	Invoice Distribution			Indicate Filtered (F), Preserved (P) or Filtered and			
	Copy of Invoice with Report <input type="checkbox"/> YES <input type="checkbox"/> NO	Select Invoice Distribution:	<input checked="" type="checkbox"/> EMAIL	<input checked="" type="checkbox"/> MAIL	<input type="checkbox"/> FAX			
Company:		Email 1 or Fax:	gabriel.holmes@mountpolley.com					
Contact:		Email 2:						
Project Information		Oil and Gas Required Fields (client use)						
ALS Account # / Quote #	VA22-MPMC100-004	AFE/Cost Center:			PO#			
Job #:		Major/Minor Code:			Routing Code:			
PO / AFE:		Requisitioner:						
LSD:		Location:						
ALS Lab Work Order # (lab use only)	8885	ALS Contact:	Can Dang	Sampler:	KBa			
ALS Sample # (lab use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	Chlorophyll a by Fluorometry (E137)	Ash-free Dry Weight by Gravimetry (E137)	Number of Containers	
1	FPC-R3_CHLA-1_2023-08	11-Aug-23	-	Tissue	R			1
2	FPC-R3_CHLA-2_2023-08	11-Aug-23	-	Tissue	R			1
3	FPC-R3_CHLA-3_2023-08	11-Aug-23	-	Tissue	R			1
4	FPC-R3_CHLA-4_2023-08	11-Aug-23	-	Tissue	R			1
5	FPC-R3_CHLA-5_2023-08	11-Aug-23	-	Tissue	R			1
6	HAC-R1_CHLA-1_2023-08	10-Aug-23	-	Tissue	R			1
7	HAC-R1_CHLA-2_2023-08	10-Aug-23	-	Tissue	R			1
8	HAC-R1_CHLA-3_2023-08	10-Aug-23	-	Tissue	R			1
9	HAC-R1_CHLA-4_2023-08	10-Aug-23	-	Tissue	R			1
10	HAC-R1_CHLA-5_2023-08	10-Aug-23	-	Tissue	R			1
11	HAC-U_CHLA-1_2023-08	09-Aug-23	-	Tissue	R			1
12	HAC-U_CHLA-2_2023-08	09-Aug-23	-	Tissue	R			1
Drinking Water (DW) Samples¹ (client use)		Special Instructions / Specify Criteria to add on report by clicking on the drop-down list below (electronic COC only)			SAMPLE CONDITION AS RECEIVED (lab use only)			
Are samples taken from a Regulated DW System? <input type="checkbox"/>					Frozen <input type="checkbox"/> SIF Observations Yes <input type="checkbox"/> No <input type="checkbox"/>			
Are samples for human drinking water use? <input type="checkbox"/>					Ice Packs <input checked="" type="checkbox"/> Ice Cubes <input type="checkbox"/> Custody seal intact Yes <input type="checkbox"/> No <input type="checkbox"/>			
					Cooling Initiated <input type="checkbox"/>			
					INITIAL COOLER TEMPERATURES °C		FINAL COOLER TEMPERATURES °C	
							7, 9, 2, 15, 9°	
SHIPMENT RELEASE (client use)		INITIAL SHIPMENT RECEPTION (lab use only)			FINAL SHIPMENT RECEPTION (lab use only)			
Released by:	Date:	Time:	Received by:	Date:	Time:	Received by:	Date:	Time:
Katharina Batchelor	12-Aug-23	14:00				AD	Aug 15, 23	9:40am

Environmental Division
Vancouver
Work Order Reference
VA23B8885



Telephone : +1 604 253 4188

REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION

WHITE - LABORATORY COPY YELLOW - CLIENT COPY

OCTOBER 2015 FRONT

Failure to complete all portions of this form may delay analysis. Please fill in this form LEGIBLY. By the use of this form the user acknowledges and agrees with the Terms and Conditions as specified on the back page of the white - report copy.

1. If any water samples are taken from a Regulated Drinking Water (DW) System, please submit using an Authorized DW COC form.

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Report To <small>Contact and company name below will appear on the final report</small>		Report Format / Distribution			Select Service Level Below - Please confirm all E&P TATs with your AM - surcharges will apply																																																																																																																		
Company: Mount Polley Mining Corporation		Select Report Format: <input checked="" type="checkbox"/> EXCEL <input checked="" type="checkbox"/> EDD (DIGITAL)			Regular (R) <input checked="" type="checkbox"/> Standard TAT if received by 3 pm - business days - no surcharges apply																																																																																																																		
Contact: Gabriel Holmes		Quality Control (QC) Report with Report <input checked="" type="checkbox"/> NO			PRIORITY (Business Days)	4 day [P4] <input type="checkbox"/>				EMERGENCY	1 Business day [E1] <input type="checkbox"/>																																																																																																												
Phone: 236-317-4939		<input type="checkbox"/> Compare Results to Criteria on Report - provide details below if box				3 day [P3] <input type="checkbox"/>					Same Day, Weekend or Statutory holiday [E0] <input type="checkbox"/>																																																																																																												
<small>Company address below will appear on the final report</small>		Select Distribution: <input checked="" type="checkbox"/> EMAIL <input type="checkbox"/> MAIL <input type="checkbox"/> FAX			Date and Time Required for all E&P TATs:																																																																																																																		
Street: PO Box 12		Email 1 or Fax gabriel.holmes@mountpolley.com			For tests that can not be performed according to the service level selected, you will be contacted.																																																																																																																		
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Postal Code: VOL 1N0		Email 3 simone.derosemmond@minnow.ca																																																																																																																					
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Company:		Email 1 or Fax gabriel.holmes@mountpolley.com			<table border="1" style="width:100%; height:100%; border-collapse: collapse;"> <tr> <td rowspan="10" style="writing-mode: vertical-rl; transform: rotate(180deg);">Chlorophyll-a by Fluorometry (E870)</td> <td rowspan="10" style="writing-mode: vertical-rl; transform: rotate(180deg);">Ash-free Dry Weight by Gravimetry (E137)</td> <td colspan="10"></td> <td rowspan="10" style="writing-mode: vertical-rl; transform: rotate(180deg);">Number of Containers</td> </tr> <tr><td colspan="10"></td></tr> <tr><td colspan="10"></td></tr> <tr><td colspan="10"></td></tr> <tr><td colspan="10"></td></tr> <tr><td colspan="10"></td></tr> <tr><td colspan="10"></td></tr> <tr><td colspan="10"></td></tr> <tr><td colspan="10"></td></tr> <tr><td colspan="10"></td></tr> </table>												Chlorophyll-a by Fluorometry (E870)	Ash-free Dry Weight by Gravimetry (E137)											Number of Containers																																																																																										
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13	HAC-U_CHLA-3_2023-08	09-Aug-23	—	Tissue	R										1																																																																																																								
14	HAC-U_CHLA-4_2023-08	09-Aug-23	—	Tissue	R										1																																																																																																								
15	HAC-U_CHLA-5_2023-08	09-Aug-23	—	Tissue	R										1																																																																																																								
16	EDC-U_CHLA-1_2023-08	08-Aug-23	—	Tissue	R										1																																																																																																								
17	EDC-U_CHLA-2_2023-08	08-Aug-23	—	Tissue	R										1																																																																																																								
18	EDC-U_CHLA-3_2023-08	08-Aug-23	—	Tissue	R										1																																																																																																								
19	EDC-U_CHLA-4_2023-08	08-Aug-23	—	Tissue	R										1																																																																																																								
20	EDC-U_CHLA-5_2023-08	07-Aug-23	—	Tissue	R										1																																																																																																								
21	HAC-R3_CHLA-1_2023-08	11-Aug-23	—	Tissue	R										1																																																																																																								
22	HAC-R3_CHLA-2_2023-08	11-Aug-23	—	Tissue	R										1																																																																																																								
23	HAC-R3_CHLA-3_2023-08	11-Aug-23	—	Tissue	R										1																																																																																																								
24	HAC-R3_CHLA-4_2023-08	11-Aug-23	—	Tissue	R										1																																																																																																								
Drinking Water (DW) Samples (client use)		Special Instructions / Specify Criteria to add on report by clicking on the drop-down list below <small>(electronic COC only)</small>			SAMPLE CONDITION AS RECEIVED (lab use only)																																																																																																																		
Are samples taken from a Regulated DW System? <input type="checkbox"/> <input checked="" type="checkbox"/>					Frozen <input type="checkbox"/> SIF Observations Yes <input type="checkbox"/> No <input type="checkbox"/>																																																																																																																		
Are samples for human drinking water use? <input type="checkbox"/> <input checked="" type="checkbox"/>					Ice Packs <input type="checkbox"/> Ice Cubes <input type="checkbox"/> Custody seal intact Yes <input type="checkbox"/> No <input type="checkbox"/>																																																																																																																		
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SHIPMENT RELEASE (client use)				INITIAL SHIPMENT RECEPTION (lab use only)				FINAL SHIPMENT RECEPTION (lab use only)																																																																																																															
Released by: Katharina Batchelar		Date: 12-Aug-23		Time: 14:00		Received by: RD		Date: Aug 15, 23		Time: 9:40am																																																																																																													

Canada Toll Free: 1 800 668 9878

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Report To Contact and company name below will appear on the final report			Report Format / Distribution			Select Service Level Below - Please confirm all E&P TATs with your AM - surcharges will apply							
Company:	Mount Polley Mining Corporation		Select Report Format: <input checked="" type="checkbox"/> EXCEL <input checked="" type="checkbox"/> EDD (DIGITAL)			Regular [R] <input checked="" type="checkbox"/> Standard TAT if received by 3 pm - business days - no surcharges apply							
Contact:	Gabriel Holmes		Quality Control (QC) Report with Report <input checked="" type="checkbox"/> NO			PRIORITY (Business Days)	4 day [P4]	EMERGENCY	1 Business day [E1]				
Phone:	238-317-4939		<input type="checkbox"/> Compare Results to Criteria on Report - provide details below if box Select Distribution: <input checked="" type="checkbox"/> EMAIL <input type="checkbox"/> MAIL <input type="checkbox"/> FAX				3 day [P3]		Same Day, Weekend or Statutory holiday [E0]				
Company address below will appear on the final report			Email 1 or Fax gabriel.holmes@mountpolley.com			Date and Time Required for all E&P TATs:							
Street:	PO Box 12		Email 2 kbatchelar@minnow.ca; slatimer@minnow.ca			For tests that can not be performed according to the service level selected, you will be contacted.							
City/Province:	Likely, BC		Email 3 simone.derosmond@minnow.ca			Analysis Request							
Postal Code:	V0L 1N0					Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below							
Invoice To	Same as Report To <input checked="" type="checkbox"/> YES NO		Invoice Distribution			Chlorophyll-a by Fluorometry (E870)	Ash-free Dry Weight by Gravimetry (E137)		Number of Containers				
Copy of Invoice with Report <input type="checkbox"/> YES NO			Select Invoice Distribution: <input checked="" type="checkbox"/> EMAIL <input checked="" type="checkbox"/> MAIL <input type="checkbox"/> FAX										
Company:			Email 1 or Fax gabriel.holmes@mountpolley.com										
Contact:			Email 2										
Project Information			Oil and Gas Required Fields (client use)										
ALS Account # / Quote #	VA22-MPMC100-004		AFE/Cost Center:		PO#								
Job #:			Major/Minor Code:		Routing Code:								
PO / AFE:			Requisitioner:										
LSD:			Location:										
ALS Lab Work Order # (lab use only)			ALS Contact:	Can Dang	Sampler: KBa								
ALS Sample # (lab use only)	Sample Identification and/or Coordinates (This description will appear on the report)		Date (dd-mmm-yy)	Time (hh:mm)	Sample Type								
25	HAC-R3_CHLA-5_2023-08		11 -Aug-23	14:00	Tissue	R			1				
26	HAC-D_CHLA-1_2023-08		06 -Aug-23	1	Tissue	R			1				
27	HAC-D_CHLA-2_2023-08		06 -Aug-23	1	Tissue	R			1				
28	HAC-D_CHLA-3_2023-08		06 -Aug-23	1	Tissue	R			1				
29	HAC-D_CHLA-4_2023-08		06 -Aug-23	1	Tissue	R			1				
30	HAC-D_CHLA-5_2023-08		06 -Aug-23	1	Tissue	R			1				
31	EDC-D_CHLA-1_2023-08		11 -Aug-23	1	Tissue	R			1				
32	EDC-D_CHLA-7_2023-08		11 -Aug-23	1	Tissue	R			1				
33	EDC-D_CHLA-3_2023-08		11 -Aug-23	1	Tissue	R			1				
34	EDC-D_CHLA-8_2023-08		11 -Aug-23	1	Tissue	R			1				
35	EDC-D_CHLA-5_2023-08		11 -Aug-23	1	Tissue	R			1				
36	EDC-D_CHLA-1_2023-08 E1 CHLA-2_2023-08		05 -Aug-23	1	Tissue	R			1				
Drinking Water (DW) Samples (client use)			Special Instructions / Specify Criteria to add on report by clicking on the drop-down list below (electronic COC only)			SAMPLE CONDITION AS RECEIVED (lab use only)							
Are samples taken from a Regulated DW System? <input type="checkbox"/> <input checked="" type="checkbox"/>						Frozen <input type="checkbox"/>	SIF Observations Yes <input type="checkbox"/> No <input type="checkbox"/>						
Are samples for human drinking water use? 1 1						Ice Packs <input checked="" type="checkbox"/>	Ice Cubes <input type="checkbox"/>	Custody seal intact Yes <input type="checkbox"/> No <input type="checkbox"/>					
						Cooling Initiated <input type="checkbox"/>							
						INITIAL COOLER TEMPERATURES °C		FINAL COOLER TEMPERATURES °C					
								7.9, 2.15, 8°					
SHIPMENT RELEASE (client use)			INITIAL SHIPMENT RECEPTION (lab use only)			FINAL SHIPMENT RECEPTION (lab use only)							
Released by:	Date:	Time:	Received by:	Date:	Time:	Received by:	Date:	Time:					
Katharina Bekler	12-Aug-23	14:00				RD	Aug 15, 23	9:40am					

REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION

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Failure to complete all portions of this form may delay analysis. Please fill in this form LEGIBLY. By the use of this form the user acknowledges and agrees with the Terms and Conditions as specified on the back page of the white - report copy.

1. If any water samples are taken from a Regulated Drinking Water (DW) System, please submit using an Authorized DW COC form.

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Report To Contact and company name below will appear on the final report		Report Format / Distribution			Select Service Level Below - Please confirm all E&P TATs with your AM - surcharges will apply														
Company:	Mount Polley Mining Corporation	Select Report Format: <input checked="" type="checkbox"/> EXCEL <input checked="" type="checkbox"/> EDD (DIGITAL)			Regular [R] <input checked="" type="checkbox"/> Standard TAT if received by 3 pm - business days - no surcharges apply														
Contact:	Gabriel Holmes	Quality Control (QC) Report with Report <input checked="" type="checkbox"/> NO			PRIORITY (Business Days)	4 day [P4] <input type="checkbox"/>				EMERGENCY	1 Business day [E1] <input type="checkbox"/>								
Phone:	236-317-4939	<input type="checkbox"/> Compare Results to Criteria on Report - provide details below if box				3 day [P3] <input type="checkbox"/>					Same Day, Weekend or Statutory holiday [E0] <input type="checkbox"/>								
Company address below will appear on the final report		Select Distribution: <input checked="" type="checkbox"/> EMAIL <input type="checkbox"/> MAIL <input type="checkbox"/> FAX			Date and Time Required for all E&P TATs:														
Street:	PO Box 12	Email 1 or Fax gabriel.holmes@mountpolley.com			For tests that can not be performed according to the service level selected, you will be contacted.														
City/Province:	Likely, BC	Email 2 kbatchelar@minnow.ca; slatimer@minnow.ca			Analysis Request														
Postal Code:	V0L 1N0	Email 3 simone.derosemond@minnow.ca																	
Invoice To	Same as Report To <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	Invoice Distribution			Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below														
	Copy of Invoice with Report <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	Select Invoice Distribution: <input checked="" type="checkbox"/> EMAIL <input checked="" type="checkbox"/> MAIL <input type="checkbox"/> FAX																	
Company:		Email 1 or Fax gabriel.holmes@mountpolley.com			Chlorophyll-a by Fluorometry (E870)	Ash-free Dry Weight by Gravimetry (E137)											Number of Containers		
Contact:		Email 2																	
Project Information		Oil and Gas Required Fields (client use)																	
ALS Account # / Quote #:	VA22-MPMC100-004	AFE/Cost Center:		PO#															
Job #:		Major/Minor Code:		Routing Code:															
PO / AFE:		Requisitioner:																	
LSD:		Location:																	
ALS Lab Work Order # (lab use only)		ALS Contact: Can Dang		Sampler: KBo															
ALS Sample # (lab use only)	Sample Identification and/or Coordinates (This description will appear on the report)			Date (dd-mm-yy)			Time (hh:mm)	Sample Type											
37	E1_CHLA-2_2023-08 E1-CHLA-6-2023-08			04-Aug-23			---	Tissue	R										
38	E1_CHCA-3_2023-08 E1-CHLA-7-2023-08			04-Aug-23	---	Tissue	R											1	
39	E1_CHLA-4_2023-08			05-Aug-23	---	Tissue	R											1	
40	E1_CHLA-5_2023-08			04-Aug-23	---	Tissue	R											1	
41	FPC-R3_AFDM-1_2023-08			11-Aug-23	---	Tissue	R											1	
42	FPC-R3_AFDM-2_2023-08			11-Aug-23	---	Tissue	R											1	
43	FPC-R3_AFDM-3_2023-08			11-Aug-23	---	Tissue	R											1	
44	FPC-R3_AFDM-4_2023-08			11-Aug-23	---	Tissue	R											1	
45	FPC-R3_AFDM-5_2023-08			11-Aug-23	---	Tissue	R											1	
46	HAC-R1_AFDM-1_2023-08			10-Aug-23	---	Tissue	R											1	
47	HAC-R1_AFDM-2_2023-08			10-Aug-23	---	Tissue	R											1	
Drinking Water (DW) Samples¹ (client use)		Special Instructions / Specify Criteria to add on report by clicking on the drop-down list below (electronic COC only)			SAMPLE CONDITION AS RECEIVED (lab use only)														
Are samples taken from a Regulated DW System? <input type="checkbox"/>					Frozen <input type="checkbox"/> SIF Observations Yes <input type="checkbox"/> No <input type="checkbox"/>														
Are samples for human drinking water use? <input type="checkbox"/>					Ice Packs <input checked="" type="checkbox"/> Ice Cubes <input type="checkbox"/> Custody seal intact Yes <input type="checkbox"/> No <input type="checkbox"/>														
					Cooling Initiated <input type="checkbox"/>														
					INITIAL COOLER TEMPERATURES °C					FINAL COOLER TEMPERATURES °C									
										7.9, 2, 15, 8									
SHIPMENT RELEASE (client use)				INITIAL SHIPMENT RECEPTION (lab use only)				FINAL SHIPMENT RECEPTION (lab use only)											
Released by:	Date:	Time:	Received by:	Date:	Time:	Received by:	Date:	Time:	Received by:	Date:	Time:								
Katharina Batchelar	12-Aug-23	14:00				RD	Aug 15, 23	9:40am											

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1. If any water samples are taken from a Regulated Drinking Water (DW) System, please submit using an Authorized DW COC form.



Chain of Custody (COC) / Analytical Request Form

Affix ALS barcode label here (lab use only)

COC Number: 15

Canada Toll Free: 1 800 668 9878

www.alsglobal.com

Report To Contact and company name below will appear on the final report		Report Format / Distribution			Select Service Level Below - Please confirm all E&P TATs with your AM - surcharges will apply												
Company: Mount Polley Mining Corporation		Select Report Format: <input checked="" type="checkbox"/> EXCEL <input checked="" type="checkbox"/> EDD (DIGITAL)			Regular [R] <input checked="" type="checkbox"/> Standard TAT if received by 3 pm - business days - no surcharges apply												
Contact: Gabriel Holmes		Quality Control (QC) Report with Report <input checked="" type="checkbox"/> NO			PRIORITY (Business days)	4 day [P4]		EMERGENCY	1 Business day [E1]								
Phone: 236-317-4939		<input type="checkbox"/> Compare Results to Criteria on Report - provide details below if box				3 day [P3]			Same Day, Weekend or Statutory holiday [E0] <input type="checkbox"/>								
Company address below will appear on the final report		Select Distribution: <input checked="" type="checkbox"/> EMAIL <input type="checkbox"/> MAIL <input type="checkbox"/> FAX				2 day [P2]											
Street: PO Box 12		Email 1 or Fax gabriel.holmes@mountpolley.com			Date and Time Required for all E&P TATs:												
City/Province: Likely, BC		Email 2 kbatchelar@minnow.ca, slatimer@minnow.ca			For tests that can not be performed according to the service level selected, you will be contacted.												
Postal Code: VOL 1N0		Email 3 simone.derosemond@minnow.ca			Analysis Request												
Invoice To: Same as Report To <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO		Invoice Distribution			Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below												
Copy of Invoice with Report <input type="checkbox"/> YES <input type="checkbox"/> NO		Select Invoice Distribution: <input checked="" type="checkbox"/> EMAIL <input checked="" type="checkbox"/> MAIL <input type="checkbox"/> FAX															
Company:		Email 1 or Fax gabriel.holmes@mountpolley.com			Chlorophyll-a by Fluorometry (E870)											Number of Containers	
Contact:		Email 2															
Project Information		Oil and Gas Required Fields (client use)															
ALS Account # / Quote #: VA22-MPMC-100-004		AFE/Cost Center:		PO#													
Job #:		Major/Minor Code:		Routing Code:													
PO / AFE:		Requisitioner:															
LSD:		Location:															
ALS Lab Work Order # (lab use only):		ALS Contact:	Can Dang	Sampler: KBa													
Company:		Email 1 or Fax gabriel.holmes@mountpolley.com															
Contact:		Email 2															
ALS Sample # (lab use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type													
48	HAC-R1_AFDM-3_2023-08	10-Aug-23	---	Tissue											1		
49	HAC-R1_AFDM-4_2023-08	10-Aug-23	---	Tissue											1		
50	HAC-R1_AFDM-5_2023-08	10-Aug-23	---	Tissue											1		
51	HAC-U_AFDM-1_2023-08	09-Aug-23	---	Tissue											1		
52	HAC-U_AFDM-2_2023-08	09-Aug-23	---	Tissue											1		
53	HAC-U_AFDM-3_2023-08	09-Aug-23	---	Tissue											1		
54	HAC-U_AFDM-4_2023-08	09-Aug-23	---	Tissue											1		
55	HAC-U_AFDM-5_2023-08	09-Aug-23	---	Tissue											1		
56	EDC-U_AFDM-1_2023-08	09-Aug-23	---	Tissue											1		
57	EDC-U_AFDM-2_2023-08	09-Aug-23	---	Tissue											1		
58	EDC-U_AFDM-3_2023-08	09-Aug-23	---	Tissue											1		
59	EDC-U_AFDM-4_2023-08	09-Aug-23	---	Tissue											1		
Drinking Water (DW) Samples¹ (client use)		Special Instructions / Specify Criteria to add on report by clicking on the drop-down list below (electronic COC only)			SAMPLE CONDITION AS RECEIVED (lab use only)												
Are samples taken from a Regulated DW System? <input type="checkbox"/>					Frozen <input type="checkbox"/> SIF Observations Yes <input type="checkbox"/> No <input type="checkbox"/>												
Are samples for human drinking water use? <input type="checkbox"/>					Ice Packs <input checked="" type="checkbox"/> Ice Cubes <input type="checkbox"/> Custody seal intact Yes <input type="checkbox"/> No <input type="checkbox"/>												
					Cooling Initiated <input type="checkbox"/>												
					INITIAL COOLER TEMPERATURES °C					FINAL COOLER TEMPERATURES °C							
										7.9, 2, 15.8							
SHIPMENT RELEASE (client use)				INITIAL SHIPMENT RECEPTION (lab use only)				FINAL SHIPMENT RECEPTION (lab use only)									
Released by: Katharina Batchelor		Date: 12-Aug-23		Time: 14:00		Received by:		Date:		Time:		Received by: RD		Date: Aug 15, 23		Time: 9:40am	

Report To Contact and company name below will appear on the final report		Report Format / Distribution			Select Service Level Below - Please confirm all E&P TATs with your AM - surcharges will apply												
Company: Mount Polley Mining Corporation		Select Report Format: <input checked="" type="checkbox"/> PDF <input checked="" type="checkbox"/> EXCEL <input checked="" type="checkbox"/> EDD (DIGITAL)			Regular [R] <input checked="" type="checkbox"/> Standard TAT if received by 3 pm - business days - no surcharges apply												
Contact: Gabriel Holmes		Quality Control (QC) Report with Report <input checked="" type="checkbox"/> <input type="checkbox"/> NO			PRIORITY (Business Days)		4 day [P4] <input type="checkbox"/>		EMERGENCY		1 Business day [E1] <input type="checkbox"/>						
Phone: 236-317-4939		<input type="checkbox"/> Compare Results to Criteria on Report - provide details below if box			3 day [P3] <input type="checkbox"/>				Same Day, Weekend or		Statutory holiday [E0] <input type="checkbox"/>						
Company address below will appear on the final report		Select Distribution: <input checked="" type="checkbox"/> EMAIL <input type="checkbox"/> MAIL <input type="checkbox"/> FAX															
Street: PO Box 12		Email 1 or Fax gabriel.holmes@mountpolley.com			Date and Time Required for all E&P TATs:												
City/Province: Likely, BC		Email 2 kbatchelar@minnow.ca; slatimer@minnow.ca			For tests that can not be performed according to the service level selected, you will be contacted.												
Postal Code: V0L 1N0		Email 3 simone.derosmond@minnow.ca			Analysis Request												
Invoice To: Same as Report To <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO		Invoice Distribution			Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below												
Copy of Invoice with Report <input type="checkbox"/> YES <input type="checkbox"/> NO		Select Invoice Distribution: <input checked="" type="checkbox"/> EMAIL <input checked="" type="checkbox"/> MAIL <input type="checkbox"/> FAX															
Company:		Email 1 or Fax gabriel.holmes@mountpolley.com															
Contact:		Email 2															
Project Information		Oil and Gas Required Fields (client use)															
ALS Account # / Quote #: VA22-MPMC100-004		AFE/Cost Center:		PO#													
Job #:		Major/Minor Code:		Routing Code:													
PO / AFE:		Requisitioner:															
LSD:		Location:															
ALS Lab Work Order # (lab use only)		ALS Contact: Can Dang		Sampler: KBa													
ALS Sample # (lab use only)	Sample Identification and/or Coordinates (This description will appear on the report)			Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	Chlorophyll-a by Fluorometry (E870)	Ash-free Dry Weight by Gravimetry (E137)								Number of Containers	
60	EDC-U_AFDM-5_2023-08			07	-Aug-23	Tissue	R										1
61	HAC-R3_AFDM-1_2023-08			11	-Aug-23	Tissue	R										1
62	HAC-R3_AFDM-2_2023-08			11	-Aug-23	Tissue	R										1
63	HAC-R3_AFDM-3_2023-08			11	-Aug-23	Tissue	R										1
64	HAC-R3_AFDM-4_2023-08			11	-Aug-23	Tissue	R										1
65	HAC-R3_AFDM-5_2023-08			11	-Aug-23	Tissue	R										1
66	HAC-D_AFDM-1_2023-08			06	-Aug-23	Tissue	R										1
67	HAC-D_AFDM-2_2023-08			06	-Aug-23	Tissue	R										1
68	HAC-D_AFDM-3_2023-08			06	-Aug-23	Tissue	R										1
69	HAC-D_AFDM-4_2023-08			06	-Aug-23	Tissue	R										1
70	HAC-D_AFDM-5_2023-08			06	-Aug-23	Tissue	R										1
71	EDC-D_AFDM-1_2023-08			11	-Aug-23	Tissue	R										1
Drinking Water (DW) Samples (client use)		Special Instructions / Specify Criteria to add on report by clicking on the drop-down list below (electronic COC only)			SAMPLE CONDITION AS RECEIVED (lab use only)												
Are samples taken from a Regulated DW System? <input type="checkbox"/> <input checked="" type="checkbox"/>					Frozen <input type="checkbox"/> SIF Observations Yes <input type="checkbox"/> No <input type="checkbox"/>												
Are samples for human drinking water use? <input type="checkbox"/> <input checked="" type="checkbox"/>					Ice Packs <input checked="" type="checkbox"/> Ice Cubes <input type="checkbox"/> Custody seal intact Yes <input type="checkbox"/> No <input type="checkbox"/>												
					Cooling Initiated <input type="checkbox"/>												
					INITIAL COOLER TEMPERATURES °C					FINAL COOLER TEMPERATURES °C							
										7, 9, 2, 15, 8							
SHIPMENT RELEASE (client use)				INITIAL SHIPMENT RECEPTION (lab use only)				FINAL SHIPMENT RECEPTION (lab use only)									
Released by: Katharina Batchelar		Date: 12-Aug-23		Time: 14:00		Received by: RD		Date: Aug 15, 23		Time: 9:40am							



Chain of Custody (COC) / Analytical Request Form

COC Number: 15 -

Affix ALS barcode label here (lab use only)

Page 7 of 7

Canada Toll Free: 1 800 668 9878

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Report To Contact and company name below will appear on the final report Company: Mount Polley Mining Corporation Contact: Gabriel Holmes Phone: 236-317-4939 Company address below will appear on the final report Street: PO Box 12 City/Province: Likely, BC Postal Code: V0L 1N0 Invoice To: Same as Report To <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO Copy of Invoice with Report <input type="checkbox"/> YES <input type="checkbox"/> NO Company: Contact:		Report Format / Distribution Select Report Format: <input checked="" type="checkbox"/> PDF <input checked="" type="checkbox"/> EXCEL <input checked="" type="checkbox"/> EDD (DIGITAL) Quality Control (QC) Report with Report <input checked="" type="checkbox"/> <input type="checkbox"/> NO <input type="checkbox"/> Compare Results to Criteria on Report - provide details below if box Select Distribution: <input checked="" type="checkbox"/> EMAIL <input type="checkbox"/> MAIL <input type="checkbox"/> FAX Email 1 or Fax: gabriel.holmes@mountpolley.com Email 2: kbatchelar@minnow.ca; slatimer@minnow.ca Email 3: simone.derosemond@minnow.ca Invoice Distribution Select Invoice Distribution: <input checked="" type="checkbox"/> EMAIL <input checked="" type="checkbox"/> MAIL <input type="checkbox"/> FAX Email 1 or Fax: gabriel.holmes@mountpolley.com Email 2:			Select Service Level Below - Please confirm all E&P TATs with your AM - surcharges will apply Regular [R] <input checked="" type="checkbox"/> Standard TAT if received by 3 pm - business days - no surcharges apply <table border="1"> <tr> <td rowspan="3">PRIORITY (Business Days)</td> <td>4 day [P4]</td> <td><input type="checkbox"/></td> <td rowspan="3">EMERGENCY</td> <td>1 Business day [E1]</td> <td><input type="checkbox"/></td> </tr> <tr> <td>3 day [P3]</td> <td><input type="checkbox"/></td> <td>Same Day, Weekend or Statutory holiday [E0]</td> <td><input type="checkbox"/></td> </tr> <tr> <td>2 day [P2]</td> <td><input type="checkbox"/></td> <td></td> <td></td> </tr> </table> Date and Time Required for all E&P TATs:					PRIORITY (Business Days)	4 day [P4]	<input type="checkbox"/>	EMERGENCY	1 Business day [E1]	<input type="checkbox"/>	3 day [P3]	<input type="checkbox"/>	Same Day, Weekend or Statutory holiday [E0]	<input type="checkbox"/>	2 day [P2]	<input type="checkbox"/>																																																																																																																																																																																													
PRIORITY (Business Days)	4 day [P4]	<input type="checkbox"/>	EMERGENCY	1 Business day [E1]	<input type="checkbox"/>																																																																																																																																																																																																													
	3 day [P3]	<input type="checkbox"/>		Same Day, Weekend or Statutory holiday [E0]	<input type="checkbox"/>																																																																																																																																																																																																													
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Project Information ALS Account # / Quote #: VA22-MPMC100-004 Job #: AFE/Cost Center: PO# PO / AFE: Major/Minor Code: Routing Code: LSD: Requisitioner: Location:		Oil and Gas Required Fields (client use) ALS Lab Work Order # (lab use only): ALS Contact: Can Dang Sampler: KBo			Analysis Request Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below <table border="1"> <tr> <td rowspan="10">Chlorophyll-a by Fluorometry (E870)</td> <td rowspan="10">Ash-free Dry Weight by Gravimetry (E137)</td> <td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td> </tr> <tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> </table>					Chlorophyll-a by Fluorometry (E870)	Ash-free Dry Weight by Gravimetry (E137)																																																																																																																																																																																																							
Chlorophyll-a by Fluorometry (E870)	Ash-free Dry Weight by Gravimetry (E137)																																																																																																																																																																																																																	
Drinking Water (DW) Samples¹ (client use) Are samples taken from a Regulated DW System? <input type="checkbox"/> <input checked="" type="checkbox"/> Are samples for human drinking water use? <input type="checkbox"/> <input checked="" type="checkbox"/>		Special Instructions / Specify Criteria to add on report by clicking on the drop-down list below (electronic COC only)			SAMPLE CONDITION AS RECEIVED (lab use only) Frozen <input type="checkbox"/> SIF Observations Yes <input type="checkbox"/> No <input type="checkbox"/> Ice Packs <input checked="" type="checkbox"/> Ice Cubes <input type="checkbox"/> Custody seal intact Yes <input type="checkbox"/> No <input type="checkbox"/> Cooling Initiated <input type="checkbox"/> INITIAL COOLER TEMPERATURES °C: _____ FINAL COOLER TEMPERATURES °C: 7, 9, 2, 15, 8																																																																																																																																																																																																													
SHIPMENT RELEASE (client use) Released by: Katharina Batchelar Date: 12-Aug-23 Time: 14:00		INITIAL SHIPMENT RECEPTION (lab use only) Received by: _____ Date: _____ Time: _____			FINAL SHIPMENT RECEPTION (lab use only) Received by: RD Date: Aug 15, 23 Time: 9:40am																																																																																																																																																																																																													

BENTHIC INVERTEBRATE COMMUNITY

**Cordillera Methods, QC Report, and Results 23-01-1
(Finalized December 12, 2023)**

Methods and QC Report 2023

Project ID: MPMC Hazeltine (23-01-1)



Client: Minnow Environmental

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Sample Reception

On August 18, 2023, Cordillera Consulting received 10 benthic samples from Minnow Environmental. When samples arrived to Cordillera Consulting, exterior packaging was initially inspected for damage or wet spots that would have indicated damage to the interior containers.

Samples were logged into a proprietary software database (INSTAR1) where the clients assigned sample name was recorded along with a Cordillera Consulting (CC) number for cross-reference. Each sample was checked to ensure that all sites and replicates recorded on field sheets or packing lists were delivered intact and with adequate preservative. Any missing, mislabelled or extra samples were reported to the client immediately to confirm the total numbers and correct names on the sample jars. The client representative was notified of the arrival of the shipment and provided a sample inventory once intake was completed.

See table below for sample inventory:

Table 1: Summary of sample information including Cordillera Consulting (CC) number

Sample	CC#	Date	Size	# of Jars
FPC-R3_BIC-1_2023-08	CC240206	08/11/2023	250 µM	1
FPC-R3_BIC-2_2023-08	CC240207	08/11/2023	250 µM	1
FPC-R3_BIC-3_2023-08	CC240208	08/11/2023	250 µM	1
FPC-R3_BIC-4_2023-08	CC240209	08/11/2023	250 µM	1
FPC-R3_BIC-5_2023-08	CC240210	08/11/2023	250 µM	1
HAC-R3_BIC-1_2023-08	CC240211	08/11/2023	250 µM	1
HAC-R3_BIC-2_2023-08	CC240212	08/11/2023	250 µM	1
HAC-R3_BIC-3_2023-08	CC240213	08/11/2023	250 µM	1
HAC-R3_BIC-4_2023-08	CC240214	08/11/2023	250 µM	1
HAC-R3_BIC-5_2023-08	CC240215	08/11/2023	250 µM	1

Sample Sorting

- Using a gridded Petri dish, fine forceps and a low power stereo-microscope (Olympus, Nikon, Leica) the sorting technicians removed the invertebrates and sorted them into family/orders.
- The sorting technician kept a running tally of total numbers excluding organisms from Porifera, Nemata, Platyhelminthes, Ostracoda, Copepoda, Cladocera and terrestrial drop-ins such as aphids. These organisms were marked for their presence (given a value of 1) only and left in the sample. They were not included towards the 300-organism subsample count.
- Where specimens are broken or damaged, only heads were counted.

- Subsampling was conducted with the use of a Marchant Box.
- When using the Marchant box, cells were extracted at the same time in the order indicated by a random number table. If the 300th organism was found part way into sorting a cell then the balance of that cell was sorted. If the organism count had not reached 300 by the 50th cell then the entire sample was sorted.
- The total number of cells sorted and the number of organisms removed were recorded manually on a bench sheet and then recorded into INSTAR1
- Organisms were stored in vials containing 80% ethanol and an interior label indicating the site names, date of sampling, site code numbers and portion subsampled. This information was also recorded on the laboratory bench sheet and on INSTAR1.
- The sorted portion of the debris was preserved and labeled separately from the unsorted portion and was tested for sorting efficiency (Sorting Quality Control – Sorting Efficiency). The unsorted portion was also labeled and preserved in separate jars.

Percent sub-sampled and total countable invertebrates pulled from the samples were summarized in the table below.

Table 2: Percent sub-sample and invertebrate count for each sample

Sample	Date	CC#	250 micron fraction	
			% Sampled	# Invertebrates
FPC-R3_BIC-1_2023-08	11-Aug-23	CC240206	5%	556
FPC-R3_BIC-2_2023-08	11-Aug-23	CC240207	5%	458
FPC-R3_BIC-3_2023-08	11-Aug-23	CC240208	8%	301
FPC-R3_BIC-4_2023-08	11-Aug-23	CC240209	5%	300
FPC-R3_BIC-5_2023-08	11-Aug-23	CC240210	5%	305
HAC-R3_BIC-1_2023-08	11-Aug-23	CC240211	10%	300
HAC-R3_BIC-2_2023-08	11-Aug-23	CC240212	5%	310
HAC-R3_BIC-3_2023-08	11-Aug-23	CC240213	10%	329
HAC-R3_BIC-4_2023-08	11-Aug-23	CC240214	7%	332
HAC-R3_BIC-5_2023-08	11-Aug-23	CC240215	10%	304

Sorting Quality Control - Sorting Efficiency

As a part of Cordillera’s laboratory policy, all projects undergo sorting efficiency checks.

- As sorting progresses, 10% of samples were randomly chosen by senior members of the sorting team for resorting.
- All sorters working on a project had at least 1 sample resorted by another sorter.
- An efficiency of 90 % was expected (95% for CABIN samples).

- If 90/95% efficiency was not met, samples from that sorter were resorted.
- To calculate sorting efficiency the following formula was used:

$$\frac{\#OrganismsMissed}{TotalOrganismsFound} * 100 = \% OM$$

Table 3 Summary of sorting efficiency

	Total from Sample	Percent Efficiency
Site - QC, Sample - QC 1, CC# - CC240210, Percent sampled = 5%, Sieve size = 250		
Coleoptera	1	
Heptageniidae	1	
Chironomidae	4	
Trichoptera	1	
Plecoptera	2	
Collembola	1	
Leptophlebiidae	2	
Total:	12	96.07%

Sorting Quality Control - Sub-Sampling QC

Certain Provincial and Mining projects require additional sorting checks in the form of sub-sampling QC, (Environmental Effects Monitoring (EEM) protocol). This ensured that any fraction of the total sample that was examined was actually an accurate representation of the number of total organisms. Organisms from the additional sub-samples were not identified; rather total organism count only was compared.

Sub-Sampling efficiency was measured on 10% of the number of sub-sampled samples in the project. Ex. In a project where 50 of 100 total samples were processed through subsampling using a Marchant box, then 10% of 50; or 5 samples were used for sub sampling efficiency.

Sub-Sampling efficiency was performed by fractioning the entire sample into sub-sample percentages. On each sub-sampled portion, a total organism count was recorded and compared to the rest of the sub-samples. In order to pass, all fractions were required to be within 20% of total organism count.

Example: If 300 organisms are found in 10% of the sample, the sorter will continue to sample in 10% fractions until the entire sample is separated. They will then count the total number of organisms in each of the 10 fractions of 10% and compare the organism count.

When divergence is >20% the sorting manager examines for the source of the problem and takes steps to correct it. With the Marchant box, the problem typically rested with how the box is flipped back to the upright position. For this reason, subsampling was performed by experienced employees only. Another common source of error would be the type of debris in the sample. Samples with algae or heavy with periphyton have a higher incident of failure due to clumping than clear samples.

Table 4 Summary of Sub Sample efficiency

Station ID		Organisms in Subsample																				Sorter		Actual Total	Precision		Accuracy		
CC#	Sample Name	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	By	Time		Percent Range		Min	Max	
240215	HAC-R3_BIC-5_2023-08	319	337	321	325	368	343	361	362	349	365												MP	505	3450	0.28	13.32	0.58	7.54

Taxonomic Effort

The next procedure was the identification to genus-species level where possible of all the organisms in the sample.

- Identifications were made at the genus/species level for all insect organisms found including Chironomidae (Based on CABIN protocol).
- Non-insect organisms (except those not included in CABIN count) were identified to genus/species where possible and to a minimum of family level with intact and mature specimens.
- The Standard Taxonomic Effort lists compiled by the CABIN manual¹, SAFIT², and PNAMP³ were used as a guide line for what level of identification to achieve where the condition and maturity of the organism enabled.
- Organisms from the same families/order were kept in separate vials with 80% ethanol and an interior label of printed laser paper.
- Chironomidae was identified to genus/species level where possible and was aided by slide mounts. CMC-10 was used to clear and mount the slide.
- Oligochaetes was identified to family/genus level with the aid of slide mounts. CMC-10 was used to clear and mount the slide.
- Other Annelida (leeches, polychaetes) were identified to the family/genus/species level with undamaged, mature specimens.
- Mollusca was identified to family and genus/species where possible
- Decapoda, Amphipoda and Isopoda were identified at family/genus/species level where possible.
- Bryozoans and Nemata remained at the phylum level
- Hydrachnidae and Cnidaria were identified at the family/genus level where possible.
- When requested, reference collections were made containing at least one individual from each taxa listed. Organisms represented will have been identified to the lowest practical level.
- Reference collection specimens were stored in 55 mm glass vials with screw-cap lids with polyseal inserts (museum quality). They were labeled with taxa name, site code, date identified and taxonomist name. The same information was applied to labels on the slide mounts.

Taxonomists

The taxonomists for this project were certified by the Society of Freshwater Science (SFS) Taxonomic Certification Program at level 2 which is the required certification for CABIN projects:

Scott Finlayson: Group 1 General Arthropods (East/West); Group 2 EPT (East/West);
Group 3 Chironomidae (East/West); Group 4 Oligochaeta

Adam Bliss: Group 1 General Arthropods (East/West); Group 2 EPT (East/West); Group 3 Chironomidae

Rita Avery: Group 1 General Arthropods (East/West); Group 2 EPT (East/West)

Garret Naish: Group 2 EPT (East/West)

Biomass

As a note on the provided biomass for this project. An issue occurred in sample HAC-R3 BIC-5_2023-08 that made the data unreliable and has thus been removed from the rest of the dataset.

Taxonomic QC

Taxonomic QC was performed in house by someone other than the original taxonomist.

- Quality control protocol involved complete, blind re-identification and re-enumeration of at least 10% of samples by a second SFS-certified taxonomist.
- Samples for taxonomic quality control were randomly selected and quality control procedures were conducted as the project progresses through the laboratories.
- The second (QC) taxonomist will calculate and record four types of errors:
 1. Misidentification error
 2. Enumeration error
 3. Questionable taxonomic resolution error
 4. Insufficient taxonomic resolution error

The QC coordinator then calculates the following estimates of taxonomic precision.

1. The percent total identification error rate is calculated as:

$$\frac{\text{Sum of incorrect identifications}}{\text{total organisms counted in audit}} * (100)$$

The average total identification error rate of audited samples did not exceed 5%. All samples that exceed a 5% error rate were re-evaluated to determine whether repeated errors or patterns in error contributed.

2. The percent difference in enumeration (PDE) to quantify the consistency of specimen counts.

$$PDE = \frac{|n_1 - n_2|}{n_1 + n_2} x 100$$

3. The percent taxonomic disagreement (PTD) to quantify the shared precision between two sets of identifications.

$$PTD = \left(1 - \left[\frac{a}{N}\right]\right) \times 100$$

4. Bray Curtis dissimilarity Index to quantify the differences in identifications.

$$BC_{ij} = 1 - \frac{2C_{ij}}{S_j + S_i}$$

Error Summary

All samples report errors within the acceptable limits for CABIN Laboratory methods (less than 5% error).

Table 5 Summary of taxonomic error following QC

Site	Taxa Identified	% Error	PDE	PTD	Bray - Curtis Dissimilarity index
Site - 2023, Sample - FPC-R3_BIC-2_2023-08, CC# - CC240207, Percent sampled = 5%, Sieve size = 250	459	0.00	0.10905125	0.87145969	0.00763359

There will always be disagreements between taxonomists regarding the degree of taxonomic resolution in immature specimens and when laboratories make use of different keys for certain groups (Mollusks is an especially disputed group). It is always possible that some taxa found by the original taxonomist were overlooked in QC.

All of the Taxonomic QC samples that were observed passed testing according to the CABIN misidentification protocols. See the tables below for results from taxonomic QC audit.

Error Rationale

Site - 2023, Sample - FPC-R3_BIC-2_2023-08, CC# - CC240207, Percent sampled = 5%, Sieve size = 250	Laboratory Count	QC Audit Count	Agreement	Misidentification	Questionable Taxonomic Resolution	Enumeration	Insufficient Taxonomic Resolution	Comments
Apatania	3	3						
Atractides	8	8						
Aturus	4	4						
Baetidae	24	22	No			X		
Baetis	2	4	No			X		
Capniidae	17	17						
Cheumatopsyche	11	11						
Chironomidae	4	4						
Corynoneura	2	2						
Dicranota	4	4						
Elmidae	4	4						
Eukiefferiella	14	15	No			X		
Heptageniidae	98	98						
Hydropsychidae	39	39						
Hydroptilidae	1	1						
Isoperla	9	9						
Lebertia	1	1						
Leptophlebiidae	87	87						
Malenka	11	11						
Neoplasta	1	1						
Oribatida	1	1						
Orthocladius complex	5	5						
Parametriocnemus	1	1						
Phaenopsectra	1	1						
Pisidiidae	17	16	No			X		
Pisidium	1	2	No			X		
Plecoptera	15	15						
Polypedilum	2	2						
Rhyacophila	5	5						
Sialis	7	7						
Simulium	2	2						
Sperchon	4	4						
Stempellinella	1	1						
Sweltsa	1	1						
Synorthocladius	5	5						
Tanypodinae	4	4						

Tanytarsini	2	2						
Trichoptera	10	10						
Tvetenia	12	12						
Wormaldia	9	9						
Zapada	9	9						
Total:	458	459						
					0	5	0	
% Total Misidentification Rate =	misidentifications	x100 =	0.00	Pass				
	total number							

References

¹ McDermott, H., Paull, T., Strachan, S. (May 2014). Laboratory Methods: Processing, Taxonomy, and Quality Control of Benthic Macroinvertebrate Samples, Environment Canada. ISBN: 978-1-100-25417-3

² Southwest Association of Freshwater Invertebrate Taxonomists. (2015). www.safit.org

³ Pacific Northwest Aquatic Monitoring Partnership (Accessed 2015). www.pnamp.org

Taxonomic Keys

Below is a reference list of taxonomic keys utilized by taxonomists at Cordillera Consulting. Cordillera taxonomists routinely seek out new literature to ensure the most accurate identification keys are being utilized. This is not reflective of the exhaustive list of resources that we use for identification. A more complete list of taxonomic resources can be found at Southwest Association of Freshwater Invertebrate Taxonomists. (2015).

http://www.safit.org/Docs/SAFIT_Taxonomic_Literature_Database_1_March_2011.enl

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Brown HP & White DS (1978) Notes on Separation and Identification of North American Riffle Beetles (Coleoptera: Dryopidea: Elmidae). Entomological News 89 (1&2): 1-13

Clifford, Hugh F. 1991. Aquatic Invertebrates of Alberta. University of Alberta Press Edmonton, Alberta.

Epler, John. 2001 The Larval Chironomids of North and South Carolina. <http://home.earthlink.net/~johnepler/>

Epler, John. Identification Manual for the Water Beetles of Florida. <http://home.earthlink.net/~johnepler/>

Epler, John. Identification Manual for the Aquatic and Semi-aquatic Heteroptera of Florida. <http://home.earthlink.net/~johnepler/>

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Westfall, Minter J. Jr. and May, Michael L. 1996. Damselflies of North America. Scientific Publishers, Gainesville, FL.

Wiggins, Glenn B. 1998. Larvae of the North American Caddisfly Genera (Trichoptera) 2nd ed. University of Toronto Press. Toronto Ontario.

Raw Benthic Invertebrate Density Results (# individuals/sample), Mount Polley Mine



Project: 23-01-1 (MPMC Hazeltine)
 Minnow Environmental (BC)
 Taxonomist: Scott Finlayson
scottfinlayson@cordilleraconsulting.ca
 250-494-7553

Site:	FPC-R3	FPC-R3	FPC-R3	FPC-R3	FPC-R3	HAC-R3	HAC-R3	HAC-R3	HAC-R3	HAC-R3
Sample:	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
Sample Collection Date:	11-Aug-23	11-Aug-23	11-Aug-23	11-Aug-23	11-Aug-23	11-Aug-23	11-Aug-23	11-Aug-23	11-Aug-23	11-Aug-23
CC#:	CC240206	CC240207	CC240208	CC240209	CC240210	CC240211	CC240212	CC240213	CC240214	CC240215
Phylum: Arthropoda	0	0	0	0	0	0	0	0	0	0
Subphylum: Hexapoda	0	0	0	0	0	0	0	0	0	0
Class: Insecta	0	0	0	0	0	0	0	0	0	0
Order: Coleoptera	0	0	25	20	0	0	0	0	0	0
Family: Dytiscidae	0	0	0	0	0	0	0	0	0	0
Subfamily: Hydroporinae	0	0	0	0	0	0	0	20	0	10
Family: Elmidae	0	80	88	40	200	500	1,460	490	414	220
<i>Heterolimnius</i>	0	0	0	80	40	0	0	0	0	0
<i>Optioservus</i>	0	0	50	20	0	450	500	70	85	0
Family: Hydrophilidae	0	0	0	0	0	0	0	0	0	0
<i>Ametor</i>	0	0	13	0	0	0	0	0	0	0
Order: Ephemeroptera	460	0	250	0	0	0	0	10	0	10
Family: Ameletidae	0	0	0	0	0	0	0	0	0	0
<i>Ameletus</i>	0	0	38	0	0	0	0	0	0	30
Family: Baetidae	260	480	88	120	320	60	240	120	329	220
<i>Acentrella</i>	40	0	0	0	0	0	0	0	0	0
<i>Baetis</i>	0	40	63	40	180	10	220	80	314	210
<i>Baetis bicaudatus</i>	0	0	0	0	0	0	20	0	0	0
<i>Baetis rhodani group</i>	20	0	25	0	20	50	220	30	129	60
<i>Dipheter hageni</i>	0	0	0	0	0	50	160	0	129	50
Family: Ephemerellidae	0	0	0	0	20	120	60	40	29	100
<i>Drunella grandis group</i>	0	0	0	0	0	0	0	0	0	30
Family: Heptageniidae	140	1,960	1,100	1,660	2,080	60	160	200	371	960
<i>Epeorus</i>	0	0	0	0	0	0	0	0	29	0
Family: Leptophlebiidae	1,680	1,740	150	760	560	370	880	170	400	100
Order: Plecoptera	0	300	25	460	300	0	0	0	0	20
Family: Capniidae	260	340	113	520	440	0	0	10	14	0
Family: Chloroperlidae	0	0	25	40	0	0	0	0	0	0
<i>Sweltsa</i>	0	20	125	260	80	0	0	0	0	0
Family: Leuctridae	0	0	0	20	0	0	0	0	0	0

Note: A value of zero reported at a less specific level of taxonomy does not indicate an absence of organisms at a more specific level of taxonomy.

Raw Benthic Invertebrate Density Results (# individuals/sample), Mount Polley Mine



Project: 23-01-1 (MPMC Hazeltine)
 Minnow Environmental (BC)
 Taxonomist: Scott Finlayson
scottfinlayson@cordilleraconsulting.ca
 250-494-7553

Site:	FPC-R3	FPC-R3	FPC-R3	FPC-R3	FPC-R3	HAC-R3	HAC-R3	HAC-R3	HAC-R3	HAC-R3
Sample:	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
Sample Collection Date:	11-Aug-23	11-Aug-23	11-Aug-23	11-Aug-23	11-Aug-23	11-Aug-23	11-Aug-23	11-Aug-23	11-Aug-23	11-Aug-23
CC#:	CC240206	CC240207	CC240208	CC240209	CC240210	CC240211	CC240212	CC240213	CC240214	CC240215
 Family: Nemouridae	0	0	13	20	60	0	0	0	0	0
<i>Malenka</i>	120	220	25	0	0	0	0	0	0	0
<i>Zapada</i>	0	180	63	20	100	0	0	0	0	0
<i>Zapada cinctipes</i>	0	0	0	0	0	30	0	20	0	0
<i>Zapada oregonensis group</i>	0	0	38	80	40	0	0	0	0	0
 Family: Perlidae	0	0	0	0	0	0	0	0	0	0
<i>Claassenia sabulosa</i>	0	0	0	0	0	0	0	0	0	20
 Family: Perlodidae	0	0	0	0	0	10	0	0	29	0
<i>Isoperla</i>	40	180	38	20	40	0	0	0	0	0
 Order: Trichoptera	280	200	38	40	0	30	0	230	71	280
 Family: Apataniidae	0	0	0	0	0	10	0	0	0	0
<i>Apatania</i>	0	60	0	0	20	0	0	0	0	0
 Family: Glossosomatidae	0	0	0	0	0	0	0	0	0	0
<i>Glossosoma</i>	0	0	0	0	0	0	0	0	14	0
 Family: Hydropsychidae	420	780	38	0	0	30	160	180	443	90
<i>Cheumatopsyche</i>	540	220	0	0	0	10	100	10	157	20
<i>Hydropsyche</i>	0	0	0	0	0	0	0	10	14	0
<i>Parapsyche</i>	0	0	13	0	20	0	0	0	0	0
 Family: Hydroptilidae	0	20	0	0	0	0	100	50	0	0
<i>Hydroptila</i>	0	0	0	0	0	0	20	110	0	0
 Family: Lepidostomatidae	0	0	0	0	0	0	0	0	0	0
<i>Lepidostoma</i>	0	0	0	0	0	20	40	50	757	330
 Family: Leptoceridae	0	0	0	0	0	0	20	0	57	30
 Family: Philopotamidae	0	0	0	0	0	0	0	0	0	0
<i>Wormaldia</i>	0	180	125	80	60	0	0	0	0	0
 Family: Polycentropodidae	0	0	0	0	0	0	0	0	0	0
<i>Polycentropus</i>	0	0	0	0	0	0	0	0	29	0
 Family: Rhyacophilidae	0	0	0	0	0	0	0	0	0	0
<i>Rhyacophila</i>	0	100	50	80	40	0	0	0	0	10
<i>Rhyacophila brunnea/vemna group</i>	0	0	0	20	0	0	0	0	29	20

Note: A value of zero reported at a less specific level of taxonomy does not indicate an absence of organisms at a more specific level of taxonomy.

Raw Benthic Invertebrate Density Results (# individuals/sample), Mount Polley Mine



Project: 23-01-1 (MPMC Hazeltine)
 Minnow Environmental (BC)
 Taxonomist: Scott Finlayson
scottfinlayson@cordilleraconsulting.ca
 250-494-7553

Site:	FPC-R3	FPC-R3	FPC-R3	FPC-R3	FPC-R3	HAC-R3	HAC-R3	HAC-R3	HAC-R3	HAC-R3
Sample:	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
Sample Collection Date:	11-Aug-23	11-Aug-23	11-Aug-23	11-Aug-23	11-Aug-23	11-Aug-23	11-Aug-23	11-Aug-23	11-Aug-23	11-Aug-23
CC#:	CC240206	CC240207	CC240208	CC240209	CC240210	CC240211	CC240212	CC240213	CC240214	CC240215
<i>Rhyacophila narvae</i>	0	0	0	0	0	0	0	0	0	10
 Order: Diptera	0	0	0	40	0	10	0	0	0	0
 Family: Ceratopogonidae	0	0	0	0	0	0	0	0	0	0
<i>Dasyhelea</i>	40	0	0	0	0	0	0	0	0	0
<i>Mallochohelea</i>	20	0	0	20	0	0	0	0	0	0
 Family: Chironomidae	300	80	88	20	60	0	60	60	29	40
 Subfamily: Chironominae	0	0	0	0	0	0	0	0	0	0
 Tribe: Chironomini	20	0	0	0	0	0	0	30	0	0
<i>Microtendipes</i>	0	0	0	20	0	40	100	30	0	0
<i>Paratendipes</i>	0	0	0	0	0	10	20	10	0	0
<i>Phaenopsectra</i>	0	20	0	0	0	0	0	0	0	0
<i>Polypedilum</i>	0	40	0	40	20	0	0	50	14	0
 Tribe: Tanytarsini	600	40	13	20	40	40	0	20	14	0
<i>Micropsectra</i>	360	0	25	0	20	10	60	50	71	10
<i>Rheotanytarsus</i>	280	0	13	20	0	60	500	170	143	10
<i>Stempellinella</i>	20	20	50	40	0	0	0	0	0	0
<i>Tanytarsus</i>	40	0	0	40	0	30	0	20	29	0
 Subfamily: Diamesinae	0	0	0	0	0	0	0	0	0	0
 Tribe: Diamesini	0	0	0	0	0	0	0	0	0	0
<i>Diamesa</i>	0	0	0	0	20	0	0	0	0	10
<i>Pagastia</i>	0	0	0	60	0	0	0	0	14	0
 Subfamily: Orthocladiinae	240	0	88	40	20	30	0	70	14	0
<i>Brillia</i>	40	0	0	0	20	0	0	0	0	0
<i>Corynoneura</i>	220	40	38	20	0	20	0	0	0	20
<i>Eukiefferiella</i>	280	280	25	400	380	10	0	50	14	0
<i>Limnophyes</i>	0	0	63	0	40	0	0	0	0	0
<i>Metriocnemus</i>	0	0	0	0	20	0	0	0	0	0
<i>Orthocladus complex</i>	120	100	0	40	40	140	0	280	57	0
<i>Parametriocnemus</i>	80	20	13	0	0	10	0	30	43	0
<i>Rheocricotopus</i>	0	0	88	160	100	0	0	0	0	0

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Raw Benthic Invertebrate Density Results (# individuals/sample), Mount Polley Mine



Project: 23-01-1 (MPMC Hazeltine)
 Minnow Environmental (BC)
 Taxonomist: Scott Finlayson
scottfinlayson@cordilleraconsulting.ca
 250-494-7553

Site:	FPC-R3	FPC-R3	FPC-R3	FPC-R3	FPC-R3	HAC-R3	HAC-R3	HAC-R3	HAC-R3	HAC-R3
Sample:	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
Sample Collection Date:	11-Aug-23	11-Aug-23	11-Aug-23	11-Aug-23	11-Aug-23	11-Aug-23	11-Aug-23	11-Aug-23	11-Aug-23	11-Aug-23
CC#:	CC240206	CC240207	CC240208	CC240209	CC240210	CC240211	CC240212	CC240213	CC240214	CC240215
<i>Synorthocladius</i>	560	100	0	40	20	40	100	130	0	10
<i>Thienemanniella</i>	0	0	0	20	40	10	40	10	0	20
<i>Tvetenia</i>	200	240	50	60	0	0	0	20	14	0
 Subfamily: Tanypodinae	220	80	0	80	20	30	0	10	14	0
<i>Ablabesmyia</i>	0	0	0	0	0	10	0	0	0	0
<i>Nilotanypus</i>	0	0	0	20	0	0	0	0	0	0
 Tribe: Pentaneurini	0	0	0	0	0	0	0	0	0	0
<i>Pentaneura</i>	0	0	0	0	0	10	20	150	86	30
<i>Thienemannimyia group</i>	280	0	13	20	0	210	160	80	157	10
 Family: Empididae	20	0	0	0	0	0	0	10	0	10
<i>Neoplasta</i>	20	20	0	0	0	0	0	0	0	0
 Family: Simuliidae	0	0	13	0	0	0	0	0	0	0
<i>Simulium</i>	120	40	38	0	0	10	0	10	14	0
 Family: Tabanidae	0	0	0	0	0	10	0	0	0	0
<i>Chrysops</i>	0	0	0	0	0	0	0	0	14	0
 Family: Tipulidae	0	0	13	0	0	0	0	0	0	0
<i>Dicranota</i>	40	80	0	0	0	0	0	10	14	0
<i>Limnophila</i>	0	0	0	0	20	0	0	0	0	0
<i>Tipula</i>	20	0	0	0	0	0	0	0	0	0
 Order: Hemiptera	0	0	0	0	0	10	0	0	0	0
 Order: Megaloptera	0	0	0	0	0	0	0	0	0	0
 Family: Sialidae	0	0	0	0	0	0	0	0	0	0
<i>Sialis</i>	40	140	0	20	0	0	0	0	0	0
 Order: Odonata	0	0	0	0	0	0	0	0	0	0
 Family: Aeshnidae	0	0	0	0	0	10	0	0	0	0
 Order: Collembola	20	0	25	0	320	0	0	0	0	0
Subphylum: Chelicerata	0	0	0	0	0	0	0	0	0	0
 Class: Arachnida	0	0	0	0	0	0	0	0	0	0
 Order: Oribatida	80	20	13	0	0	0	0	10	0	0
 Order: Sarcotiformes	0	0	0	0	0	0	0	0	0	0

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Raw Benthic Invertebrate Density Results (# individuals/sample), Mount Polley Mine



Project: 23-01-1 (MPMC Hazeltine)
 Minnow Environmental (BC)
 Taxonomist: Scott Finlayson
scottfinlayson@cordilleraconsulting.ca
 250-494-7553

Site:	FPC-R3	FPC-R3	FPC-R3	FPC-R3	FPC-R3	HAC-R3	HAC-R3	HAC-R3	HAC-R3	HAC-R3
Sample:	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
Sample Collection Date:	11-Aug-23	11-Aug-23	11-Aug-23	11-Aug-23	11-Aug-23	11-Aug-23	11-Aug-23	11-Aug-23	11-Aug-23	11-Aug-23
CC#:	CC240206	CC240207	CC240208	CC240209	CC240210	CC240211	CC240212	CC240213	CC240214	CC240215
Family: Hydrozetidae	0	0	0	0	0	40	100	10	0	0
Order: Trombidiformes	0	0	25	60	20	0	0	0	0	0
Family: Aturidae	0	0	0	0	0	0	0	0	0	0
<i>Aturus</i>	40	80	113	120	40	10	0	10	0	10
Family: Feltriidae	0	0	0	0	0	0	0	0	0	0
<i>Feltria</i>	20	0	0	0	0	0	0	0	0	0
Family: Hygrobatidae	0	0	0	0	0	0	40	0	0	0
<i>Atractides</i>	20	160	25	60	40	20	60	0	0	10
Family: Lebertiidae	0	0	0	0	0	0	0	0	0	0
<i>Lebertia</i>	100	20	0	0	40	0	0	0	0	0
Family: Sperchontidae	0	0	0	0	0	0	0	0	0	0
<i>Sperchon</i>	80	80	0	0	0	0	20	0	0	0
Phylum: Annelida	0	0	0	0	0	0	0	0	0	0
Subphylum: Clitellata	0	0	0	0	0	0	0	0	0	0
Class: Oligochaeta	0	0	0	0	20	0	20	0	0	0
Order: Lumbriculida	0	0	0	0	0	0	0	0	0	0
Family: Lumbriculidae	0	0	13	0	0	0	0	0	0	0
Order: Tubificida	0	0	0	0	0	0	0	0	0	0
Family: Enchytraeidae	0	0	0	0	0	0	0	0	0	0
<i>Enchytraeus</i>	0	0	0	20	100	0	0	0	0	0
Family: Naididae	0	0	0	0	0	0	0	0	0	0
<i>Nais</i>	20	0	0	0	0	30	0	20	0	0
Subfamily: Tubificinae with hair chaetae	0	0	25	0	0	0	0	0	0	0
Phylum: Cnidaria	0	0	0	0	0	0	0	0	0	0
Class: Hydrozoa	0	0	0	0	0	0	0	0	0	0
Order: Anthoathecatae	0	0	0	0	0	0	0	0	0	0
Family: Hydridae	0	0	0	0	0	0	0	0	0	0
<i>Hydra</i>	0	0	0	0	0	0	20	10	0	10
Phylum: Mollusca	0	0	0	0	0	0	0	0	0	0
Class: Bivalvia	0	0	0	0	0	0	0	0	0	0

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Area-Based Benthic Invertebrate Density Results (# individuals/m²), Mount Polley Mine



Project: 23-01-1 (MPMC Hazelton)
 Minnow Environmental (BC)
 Taxonomist: Scott Finlayson
scottfinlayson@cordilleraconsulting.ca
 250-494-7553

Site:	FPC-R3	FPC-R3	FPC-R3	FPC-R3	FPC-R3	HAC-R3	HAC-R3	HAC-R3	HAC-R3	HAC-R3
Sample:	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
Sample Collection Date:	11-Aug-23	11-Aug-23	11-Aug-23	11-Aug-23	11-Aug-23	11-Aug-23	11-Aug-23	11-Aug-23	11-Aug-23	11-Aug-23
CC#:	CC240206	CC240207	CC240208	CC240209	CC240210	CC240211	CC240212	CC240213	CC240214	CC240215
Phylum: Arthropoda	0	0	0	0	0	0	0	0	0	0
Subphylum: Hexapoda	0	0	0	0	0	0	0	0	0	0
Class: Insecta	0	0	0	0	0	0	0	0	0	0
Order: Coleoptera	0	0	89.6	71.7	0	0	0	0	0	0
Family: Dytiscidae	0	0	0	0	0	0	0	0	0	0
Subfamily: Hydroporinae	0	0	0	0	0	0	0	66.7	0	33.3
Family: Elmidae	0	287	315	143	717	1,667	4,867	1,633	1,380	733
<i>Heterolimnius</i>	0	0	0	287	143	0	0	0	0	0
<i>Optioservus</i>	0	0	179	71.7	0	1,500	1,667	233	283	0
Family: Hydrophilidae	0	0	0	0	0	0	0	0	0	0
<i>Ametor</i>	0	0	46.6	0	0	0	0	0	0	0
Order: Ephemeroptera	1,649	0	896	0	0	0	0	33.3	0	33.3
Family: Ameletidae	0	0	0	0	0	0	0	0	0	0
<i>Ameletus</i>	0	0	136	0	0	0	0	0	0	100
Family: Baetidae	932	1,720	315	430	1,147	200	800	400	1,097	733
<i>Acentrella</i>	143	0	0	0	0	0	0	0	0	0
<i>Baetis</i>	0	143	226	143	645	33.3	733	267	1,047	700
<i>Baetis bicaudatus</i>	0	0	0	0	0	0	66.7	0	0	0
<i>Baetis rhodani group</i>	71.7	0	89.6	0	71.7	167	733	100	430	200
<i>Dipheter hageni</i>	0	0	0	0	0	167	533	0	430	167
Family: Ephemerellidae	0	0	0	0	71.7	400	200	133	96.7	333
<i>Drunella grandis group</i>	0	0	0	0	0	0	0	0	0	100
Family: Heptageniidae	502	7,025	3,943	5,950	7,455	200	533	667	1,237	3,200
<i>Epeorus</i>	0	0	0	0	0	0	0	0	96.7	0
Family: Leptophlebiidae	6,022	6,237	538	2,724	2,007	1,233	2,933	567	1,333	333
Order: Plecoptera	0	1,075	89.6	1,649	1,075	0	0	0	0	66.7
Family: Capniidae	932	1,219	405	1,864	1,577	0	0	33.3	46.7	0
Family: Chloroperlidae	0	0	89.6	143	0	0	0	0	0	0
<i>Sweltsa</i>	0	71.7	448	932	287	0	0	0	0	0
Family: Leuctridae	0	0	0	71.7	0	0	0	0	0	0

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Area-Based Benthic Invertebrate Density Results (# individuals/m²), Mount Polley Mine



Project: 23-01-1 (MPMC Hazeltine)

Minnow Environmental (BC)

Taxonomist: Scott Finlayson

scottfinlayson@cordilleraconsulting.ca

250-494-7553

Site:	FPC-R3	FPC-R3	FPC-R3	FPC-R3	FPC-R3	HAC-R3	HAC-R3	HAC-R3	HAC-R3	HAC-R3
Sample:	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
Sample Collection Date:	11-Aug-23	11-Aug-23	11-Aug-23	11-Aug-23	11-Aug-23	11-Aug-23	11-Aug-23	11-Aug-23	11-Aug-23	11-Aug-23
CC#:	CC240206	CC240207	CC240208	CC240209	CC240210	CC240211	CC240212	CC240213	CC240214	CC240215
 Family: Nemouridae	0	0	46.6	71.7	215	0	0	0	0	0
<i>Malenka</i>	430	789	89.6	0	0	0	0	0	0	0
<i>Zapada</i>	0	645	226	71.7	358	0	0	0	0	0
<i>Zapada cinctipes</i>	0	0	0	0	0	100	0	66.7	0	0
<i>Zapada oregonensis group</i>	0	0	136	287	143	0	0	0	0	0
 Family: Perlidae	0	0	0	0	0	0	0	0	0	0
<i>Claassenia sabulosa</i>	0	0	0	0	0	0	0	0	0	66.7
 Family: Perlodidae	0	0	0	0	0	33.3	0	0	96.7	0
<i>Isoperla</i>	143	645	136	71.7	143	0	0	0	0	0
 Order: Trichoptera	1,004	717	136	143	0	100	0	767	237	933
 Family: Apataniidae	0	0	0	0	0	33.3	0	0	0	0
<i>Apatania</i>	0	215	0	0	71.7	0	0	0	0	0
 Family: Glossosomatidae	0	0	0	0	0	0	0	0	0	0
<i>Glossosoma</i>	0	0	0	0	0	0	0	0	46.7	0
 Family: Hydropsychidae	1,505	2,796	136	0	0	100	533	600	1,477	300
<i>Cheumatopsyche</i>	1,935	789	0	0	0	33.3	333	33.3	523	66.7
<i>Hydropsyche</i>	0	0	0	0	0	0	0	33.3	46.7	0
<i>Parapsyche</i>	0	0	46.6	0	71.7	0	0	0	0	0
 Family: Hydroptilidae	0	71.7	0	0	0	0	333	167	0	0
<i>Hydroptila</i>	0	0	0	0	0	0	66.7	367	0	0
 Family: Lepidostomatidae	0	0	0	0	0	0	0	0	0	0
<i>Lepidostoma</i>	0	0	0	0	0	66.7	133	167	2,523	1,100
 Family: Leptoceridae	0	0	0	0	0	0	66.7	0	190	100
 Family: Philopotamidae	0	0	0	0	0	0	0	0	0	0
<i>Wormaldia</i>	0	645	448	287	215	0	0	0	0	0
 Family: Polycentropodidae	0	0	0	0	0	0	0	0	0	0
<i>Polycentropus</i>	0	0	0	0	0	0	0	0	96.7	0
 Family: Rhyacophilidae	0	0	0	0	0	0	0	0	0	0
<i>Rhyacophila</i>	0	358	179	287	143	0	0	0	0	33.3
<i>Rhyacophila brunnea/vemna group</i>	0	0	0	71.7	0	0	0	0	96.7	66.7

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Area-Based Benthic Invertebrate Density Results (# individuals/m²), Mount Polley Mine



Project: 23-01-1 (MPMC Hazeltine)

Minnow Environmental (BC)

Taxonomist: Scott Finlayson

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250-494-7553

Site:	FPC-R3	FPC-R3	FPC-R3	FPC-R3	FPC-R3	HAC-R3	HAC-R3	HAC-R3	HAC-R3	HAC-R3
Sample:	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
Sample Collection Date:	11-Aug-23	11-Aug-23	11-Aug-23	11-Aug-23	11-Aug-23	11-Aug-23	11-Aug-23	11-Aug-23	11-Aug-23	11-Aug-23
CC#:	CC240206	CC240207	CC240208	CC240209	CC240210	CC240211	CC240212	CC240213	CC240214	CC240215
<i>Rhyacophila narvae</i>	0	0	0	0	0	0	0	0	0	33.3
Order: Diptera	0	0	0	143	0	33.3	0	0	0	0
Family: Ceratopogonidae	0	0	0	0	0	0	0	0	0	0
<i>Dasyhelea</i>	143	0	0	0	0	0	0	0	0	0
<i>Mallochohelea</i>	71.7	0	0	71.7	0	0	0	0	0	0
Family: Chironomidae	1,075	287	315	71.7	215	0	200	200	96.7	133
Subfamily: Chironominae	0	0	0	0	0	0	0	0	0	0
Tribe: Chironomini	71.7	0	0	0	0	0	0	100	0	0
<i>Microtendipes</i>	0	0	0	71.7	0	133	333	100	0	0
<i>Paratendipes</i>	0	0	0	0	0	33.3	66.7	33.3	0	0
<i>Phaenopsectra</i>	0	71.7	0	0	0	0	0	0	0	0
<i>Polypedilum</i>	0	143	0	143	71.7	0	0	167	46.7	0
Tribe: Tanytarsini	2,151	143	46.6	71.7	143	133	0	66.7	46.7	0
<i>Micropsectra</i>	1,290	0	89.6	0	71.7	33.3	200	167	237	33.3
<i>Rheotanytarsus</i>	1,004	0	46.6	71.7	0	200	1,667	567	477	33.3
<i>Stempellinella</i>	71.7	71.7	179	143	0	0	0	0	0	0
<i>Tanytarsus</i>	143	0	0	143	0	100	0	66.7	96.7	0
Subfamily: Diamesinae	0	0	0	0	0	0	0	0	0	0
Tribe: Diamesini	0	0	0	0	0	0	0	0	0	0
<i>Diamesa</i>	0	0	0	0	71.7	0	0	0	0	33.3
<i>Pagastia</i>	0	0	0	215	0	0	0	0	46.7	0
Subfamily: Orthoclaadiinae	860	0	315	143	71.7	100	0	233	46.7	0
<i>Brillia</i>	143	0	0	0	71.7	0	0	0	0	0
<i>Corynoneura</i>	789	143	136	71.7	0	66.7	0	0	0	66.7
<i>Eukiefferiella</i>	1,004	1,004	89.6	1,434	1,362	33.3	0	167	46.7	0
<i>Limnophyes</i>	0	0	226	0	143	0	0	0	0	0
<i>Metriocnemus</i>	0	0	0	0	71.7	0	0	0	0	0
<i>Orthocladius complex</i>	430	358	0	143	143	467	0	933	190	0
<i>Parametriocnemus</i>	287	71.7	46.6	0	0	33.3	0	100	143	0
<i>Rheocricotopus</i>	0	0	315	573	358	0	0	0	0	0

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Area-Based Benthic Invertebrate Density Results (# individuals/m²), Mount Polley Mine



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 Taxonomist: Scott Finlayson
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 250-494-7553

Site:	FPC-R3	FPC-R3	FPC-R3	FPC-R3	FPC-R3	HAC-R3	HAC-R3	HAC-R3	HAC-R3	HAC-R3
Sample:	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
Sample Collection Date:	11-Aug-23	11-Aug-23	11-Aug-23	11-Aug-23	11-Aug-23	11-Aug-23	11-Aug-23	11-Aug-23	11-Aug-23	11-Aug-23
CC#:	CC240206	CC240207	CC240208	CC240209	CC240210	CC240211	CC240212	CC240213	CC240214	CC240215
<i>Synorthocladius</i>	2,007	358	0	143	71.7	133	333	433	0	33.3
<i>Thienemanniella</i>	0	0	0	71.7	143	33.3	133	33.3	0	66.7
<i>Tvetenia</i>	717	860	179	215	0	0	0	66.7	46.7	0
 Subfamily: Tanypodinae	789	287	0	287	71.7	100	0	33.3	46.7	0
<i>Ablabesmyia</i>	0	0	0	0	0	33.3	0	0	0	0
<i>Nilotanypus</i>	0	0	0	71.7	0	0	0	0	0	0
 Tribe: Pentaneurini	0	0	0	0	0	0	0	0	0	0
<i>Pentaneura</i>	0	0	0	0	0	33.3	66.7	500	287	100
<i>Thienemannimyia</i> group	1,004	0	46.6	71.7	0	700	533	267	523	33.3
 Family: Empididae	71.7	0	0	0	0	0	0	33.3	0	33.3
<i>Neoplasta</i>	71.7	71.7	0	0	0	0	0	0	0	0
 Family: Simuliidae	0	0	46.6	0	0	0	0	0	0	0
<i>Simulium</i>	430	143	136	0	0	33.3	0	33.3	46.7	0
 Family: Tabanidae	0	0	0	0	0	33.3	0	0	0	0
<i>Chrysops</i>	0	0	0	0	0	0	0	0	46.7	0
 Family: Tipulidae	0	0	46.6	0	0	0	0	0	0	0
<i>Dicranota</i>	143	287	0	0	0	0	0	33.3	46.7	0
<i>Limnophila</i>	0	0	0	0	71.7	0	0	0	0	0
<i>Tipula</i>	71.7	0	0	0	0	0	0	0	0	0
 Order: Hemiptera	0	0	0	0	0	33.3	0	0	0	0
 Order: Megaloptera	0	0	0	0	0	0	0	0	0	0
 Family: Sialidae	0	0	0	0	0	0	0	0	0	0
<i>Sialis</i>	143	502	0	71.7	0	0	0	0	0	0
 Order: Odonata	0	0	0	0	0	0	0	0	0	0
 Family: Aeshnidae	0	0	0	0	0	33.3	0	0	0	0
 Order: Collembola	71.7	0	89.6	0	1,147	0	0	0	0	0
Subphylum: Chelicerata	0	0	0	0	0	0	0	0	0	0
 Class: Arachnida	0	0	0	0	0	0	0	0	0	0
 Order: Oribatida	287	71.7	46.6	0	0	0	0	33.3	0	0
 Order: Sarcotiformes	0	0	0	0	0	0	0	0	0	0

Notes: All results displayed are area-based densities (#/m²). A value of zero reported at a less specific level of taxonomy does not indicate an absence of organisms at a more specific level of taxonomy.

Area-Based Benthic Invertebrate Density Results (# individuals/m²), Mount Polley Mine



Project: 23-01-1 (MPMC Hazelton)

Minnow Environmental (BC)

Taxonomist: Scott Finlayson

scottfinlayson@cordilleraconsulting.ca

250-494-7553

Site:	FPC-R3	FPC-R3	FPC-R3	FPC-R3	FPC-R3	HAC-R3	HAC-R3	HAC-R3	HAC-R3	HAC-R3
Sample:	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
Sample Collection Date:	11-Aug-23	11-Aug-23	11-Aug-23	11-Aug-23	11-Aug-23	11-Aug-23	11-Aug-23	11-Aug-23	11-Aug-23	11-Aug-23
CC#:	CC240206	CC240207	CC240208	CC240209	CC240210	CC240211	CC240212	CC240213	CC240214	CC240215
Family: Hydrozetidae	0	0	0	0	0	133	333	33.3	0	0
Order: Trombidiformes	0	0	89.6	215	71.7	0	0	0	0	0
Family: Aturidae	0	0	0	0	0	0	0	0	0	0
<i>Aturus</i>	143	287	405	430	143	33.3	0	33.3	0	33.3
Family: Feltriidae	0	0	0	0	0	0	0	0	0	0
<i>Feltria</i>	71.7	0	0	0	0	0	0	0	0	0
Family: Hygrobatidae	0	0	0	0	0	0	133	0	0	0
<i>Atractides</i>	71.7	573	89.6	215	143	66.7	200	0	0	33.3
Family: Lebertiidae	0	0	0	0	0	0	0	0	0	0
<i>Lebertia</i>	358	71.7	0	0	143	0	0	0	0	0
Family: Sperchontidae	0	0	0	0	0	0	0	0	0	0
<i>Sperchon</i>	287	287	0	0	0	0	66.7	0	0	0
Phylum: Annelida	0	0	0	0	0	0	0	0	0	0
Subphylum: Clitellata	0	0	0	0	0	0	0	0	0	0
Class: Oligochaeta	0	0	0	0	71.7	0	66.7	0	0	0
Order: Lumbriculida	0	0	0	0	0	0	0	0	0	0
Family: Lumbriculidae	0	0	46.6	0	0	0	0	0	0	0
Order: Tubificida	0	0	0	0	0	0	0	0	0	0
Family: Enchytraeidae	0	0	0	0	0	0	0	0	0	0
<i>Enchytraeus</i>	0	0	0	71.7	358	0	0	0	0	0
Family: Naididae	0	0	0	0	0	0	0	0	0	0
<i>Nais</i>	71.7	0	0	0	0	100	0	66.7	0	0
Subfamily: Tubificinae with hair chaetae	0	0	89.6	0	0	0	0	0	0	0
Phylum: Cnidaria	0	0	0	0	0	0	0	0	0	0
Class: Hydrozoa	0	0	0	0	0	0	0	0	0	0
Order: Anthoathecatae	0	0	0	0	0	0	0	0	0	0
Family: Hydridae	0	0	0	0	0	0	0	0	0	0
<i>Hydra</i>	0	0	0	0	0	0	66.7	33.3	0	33.3
Phylum: Mollusca	0	0	0	0	0	0	0	0	0	0
Class: Bivalvia	0	0	0	0	0	0	0	0	0	0

Notes: All results displayed are area-based densities (#/m²). A value of zero reported at a less specific level of taxonomy does not indicate an absence of organisms at a more specific level of taxonomy.

Area-Based Benthic Invertebrate Density Results (# individuals/m²), Mount Polley Mine



Project: 23-01-1 (MPMC Hazeltine)

Minnow Environmental (BC)

Taxonomist: Scott Finlayson

scottfinlayson@cordilleraconsulting.ca

250-494-7553

Site:	FPC-R3	FPC-R3	FPC-R3	FPC-R3	FPC-R3	HAC-R3	HAC-R3	HAC-R3	HAC-R3	HAC-R3
Sample:	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
Sample Collection Date:	11-Aug-23	11-Aug-23	11-Aug-23	11-Aug-23	11-Aug-23	11-Aug-23	11-Aug-23	11-Aug-23	11-Aug-23	11-Aug-23
CC#:	CC240206	CC240207	CC240208	CC240209	CC240210	CC240211	CC240212	CC240213	CC240214	CC240215
Order: Veneroida	0	0	0	0	0	0	0	0	0	0
Family: Pisidiidae	7,527	1,219	1,032	358	0	0	0	0	0	0
<i>Pisidium</i>	430	71.7	0	0	71.7	0	0	0	0	0
Class: Gastropoda	287	0	0	0	0	367	667	100	333	33.3
Order: Basommatophora	0	0	0	0	0	0	0	0	0	0
Family: Lymnaeidae	0	0	0	0	0	0	0	0	0	0
<i>Fossaria</i>	0	0	0	0	0	433	1,067	0	46.7	0
Family: Physidae	0	0	0	0	0	0	0	0	96.7	0
Family: Planorbidae	0	0	0	0	0	300	0	0	0	0
Totals:	39,857	32,832	13,538	21,505	21,864	10,000	20,667	10,967	15,803	10,133
Taxa present but not included:	0	0	0	0	0	0	0	0	0	0
Phylum: Arthropoda	0	0	0	0	0	0	0	0	0	0
Class: Copepoda	71.7	0	46.6	0	0	0	0	0	46.7	0
Subphylum: Crustacea	0	0	0	0	0	0	0	0	0	0
Class: Branchiopoda	0	0	0	0	0	0	0	0	0	0
Order: Cladocera	0	71.7	46.6	71.7	0	33.3	66.7	33.3	0	33.3
Class: Ostracoda	0	0	46.6	71.7	71.7	33.3	66.7	33.3	46.7	33.3
Phylum: Annelida	0	0	0	0	0	0	0	0	0	0
Subphylum: Clitellata	0	0	0	0	0	0	0	0	0	0
Class: Oligochaeta	0	0	0	0	71.7	0	66.7	0	0	0
Order: Tubificida	0	0	0	0	0	0	0	0	0	0
Family: Lumbricidae	71.7	143	89.6	430	143	0	0	0	0	0
Phylum: Nemata	0	0	46.6	0	0	0	0	0	0	0
Totals:	143	215	276	573	287	66.7	200	66.7	93.3	66.7

Notes: All results displayed are area-based densities (#/m²). A value of zero reported at a less specific level of taxonomy does not indicate an absence of organisms at a more specific level of taxonomy.

Raw Benthic Invertebrate Density Results (# individuals/sample), Mount Polley Mine



Project: 23-01-1 (MPMC Hazeltine)
 Minnow Environmental (BC)
 Taxonomist: Scott Finlayson
scottfinlayson@cordilleraconsulting.ca
 250-494-7553

Site:	FPC-R3	FPC-R3	FPC-R3	FPC-R3	FPC-R3	HAC-R3	HAC-R3	HAC-R3	HAC-R3	HAC-R3
Sample:	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
Sample Collection Date:	11-Aug-23	11-Aug-23	11-Aug-23	11-Aug-23	11-Aug-23	11-Aug-23	11-Aug-23	11-Aug-23	11-Aug-23	11-Aug-23
CC#:	CC240206	CC240207	CC240208	CC240209	CC240210	CC240211	CC240212	CC240213	CC240214	CC240215
Order: Veneroida	0	0	0	0	0	0	0	0	0	0
Family: Pisidiidae	2,100	340	288	100	0	0	0	0	0	0
<i>Pisidium</i>	120	20	0	0	20	0	0	0	0	0
Class: Gastropoda	80	0	0	0	0	110	200	30	100	10
Order: Basommatophora	0	0	0	0	0	0	0	0	0	0
Family: Lymnaeidae	0	0	0	0	0	0	0	0	0	0
<i>Fossaria</i>	0	0	0	0	0	130	320	0	14	0
Family: Physidae	0	0	0	0	0	0	0	0	29	0
Family: Planorbidae	0	0	0	0	0	90	0	0	0	0
Totals:	11,120	9,160	3,777	6,000	6,100	3,000	6,200	3,290	4,741	3,040
Taxa present but not included:										
Phylum: Arthropoda	0	0	0	0	0	0	0	0	0	0
Class: Copepoda	20	0	13	0	0	0	0	0	14	0
Subphylum: Crustacea	0	0	0	0	0	0	0	0	0	0
Class: Branchiopoda	0	0	0	0	0	0	0	0	0	0
Order: Cladocera	0	20	13	20	0	10	20	10	0	10
Class: Ostracoda	0	0	13	20	20	10	20	10	14	10
Phylum: Annelida	0	0	0	0	0	0	0	0	0	0
Subphylum: Clitellata	0	0	0	0	0	0	0	0	0	0
Class: Oligochaeta	0	0	0	0	20	0	20	0	0	0
Order: Tubificida	0	0	0	0	0	0	0	0	0	0
Family: Lumbricidae	20	40	25	120	40	0	0	0	0	0
Phylum: Nemata	0	0	13	0	0	0	0	0	0	0
Totals:	40	60	77	160	80	20	60	20	28	20

Note: A value of zero reported at a less specific level of taxonomy does not indicate an absence of organisms at a more specific level of taxonomy.

Raw Benthic Invertebrate Biomass Results (g), Mount Polley Mine



Project: Mt. Polley 2023
 Minnow Environmental (BC)
 Taxonomist: Scott Finlayson
scottfinlayson@cordilleraconsulting.ca
 250-494-7553

Site:	FPC-R3	FPC-R3	FPC-R3	FPC-R3	FPC-R3	HAC-R3	HAC-R3	HAC-R3	HAC-R3
Sample:	BIC-1_2023-08	BIC-2_2023-08	BIC-3_2023-08	BIC-4_2023-08	BIC-5_2023-08	BIC-1_2023-08	BIC-2_2023-08	BIC-3_2023-08	BIC-4_2023-08
Sample Collection Date:	11-Aug-23	11-Aug-23	11-Aug-23	11-Aug-23	11-Aug-23	11-Aug-23	11-Aug-23	11-Aug-23	11-Aug-23
CC#:	CC240206	CC240207	CC240208	CC240209	CC240210	CC240211	CC240212	CC240213	CC240214
Mesh	250	250	250	250	250	250	250	250	250
Sub-sample %	5	5	8	5	5	10	5	10	7
Dry Biomass analysis (g)									
Sample Total Dry Weight									
All organisms	1.016	0.380	0.268	4.550	0.614	2.164	0.630	0.135	0.947
Raw Dry Weight									
All organisms	0.0508	0.019	0.0214	0.2275	0.0307	0.2164	0.0315	0.0135	0.0663
Measured Weight									
All organisms	0.1856	0.1533	0.1558	0.3631	0.1655	0.3518	0.1665	0.1478	0.2007
Mesh Weight	0								
All organisms	0.1348	0.1343	0.1344	0.1356	0.1348	0.1354	0.135	0.1343	0.1344
Wet Biomass Analysis (g)									
Sample Total Wet Weight (g)									
All organisms	0.2742	0.1154	0.1167	0.6300	0.1352	0.6763	0.1177	0.0349	0.3409
Mesh Weight	0.8158	0.8245	0.8408	0.8529	0.8452	0.8232	0.823	0.8401	0.8105
Corrected Wet Weight									
All organisms	5.4840	2.3080	1.4588	12.6000	2.7040	6.7630	2.3540	0.3490	4.8700
Raw Wet Weight									
All organisms	1.09	0.9399	0.9575	1.4829	0.9804	1.4995	0.9407	0.875	1.1514

BENTHIC INVERTEBRATE COMMUNITY

**Cordillera Methods, QC Report, and Results 23-01-6
(Finalized October 24, 2023)**

Methods and QC Report 2023

Project ID: MPMC Creek CEMP (23-01-6)



Client: Minnow Environmental

Prepared by:

Cordillera Consulting Inc.

Summerland, BC

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Sample Reception

On August 18, 2023, Cordillera Consulting received 30 benthic samples from Minnow Environmental. When samples arrived to Cordillera Consulting, exterior packaging was initially inspected for damage or wet spots that would have indicated damage to the interior containers.

Samples were logged into a proprietary software database (INSTAR1) where the clients assigned sample name was recorded along with a Cordillera Consulting (CC) number for cross-reference. Each sample was checked to ensure that all sites and replicates recorded on field sheets or packing lists were delivered intact and with adequate preservative. Any missing, mislabelled or extra samples were reported to the client immediately to confirm the total numbers and correct names on the sample jars. The client representative was notified of the arrival of the shipment and provided a sample inventory once intake was completed.

See table below for sample inventory:

Table 1: Summary of sample information including Cordillera Consulting (CC) number

Sample	CC#	Date	Size	# of Jars
HAC-R1_BIC-1_2023-08	CC240216	08/10/2023	250 µM	1
HAC-R1_BIC-2_2023-08	CC240217	08/10/2023	250 µM	1
HAC-R1_BIC-3_2023-08	CC240218	08/10/2023	250 µM	1
HAC-R1_BIC-4_2023-08	CC240219	08/10/2023	250 µM	1
HAC-R1_BIC-5_2023-08	CC240220	08/10/2023	250 µM	1
HAC-U_BIC-1_2023-08	CC240221	08/09/2023	250 µM	1
HAC-U_BIC-2_2023-08	CC240222	08/09/2023	250 µM	1
HAC-U_BIC-3_2023-08	CC240223	08/09/2023	250 µM	1
HAC-U_BIC-4_2023-08	CC240224	08/09/2023	250 µM	1
HAC-U_BIC-5_2023-08	CC240225	08/10/2023	250 µM	1
EDC-U_BIC-1_2023-08	CC240226	08/08/2023	250 µM	1
EDC-U_BIC-2_2023-08	CC240227	08/08/2023	250 µM	1
EDC-U_BIC-3_2023-08	CC240228	08/08/2023	250 µM	1
EDC-U_BIC-4_2023-08	CC240229	08/08/2023	250 µM	1
EDC-U_BIC-5_2023-08	CC240230	08/07/2023	250 µM	1
HAC-D_BIC-1_2023-08	CC240231	08/06/2023	250 µM	1
HAC-D_BIC-2_2023-08	CC240232	08/06/2023	250 µM	1
HAC-D_BIC-3_2023-08	CC240233	08/06/2023	250 µM	1
HAC-D_BIC-4_2023-08	CC240234	08/06/2023	250 µM	1
HAC-D_BIC-5_2023-08	CC240235	08/06/2023	250 µM	1
EDC-D_BIC-1_2023-08	CC240236	08/11/2023	250 µM	1
EDC-D_BIC-3_2023-08	CC240237	08/11/2023	250 µM	1
EDC-D_BIC-5_2023-08	CC240238	08/11/2023	250 µM	1

EDC-D_BIC-7_2023-08	CC240239	08/11/2023	250 µM	1
EDC-D_BIC-8_2023-08	CC240240	08/11/2023	250 µM	1
E1_BIC-2_2023-08	CC240241	08/05/2023	250 µM	1
E1_BIC-4_2023-08	CC240242	08/05/2023	250 µM	1
E1_BIC-5_2023-08	CC240243	08/04/2023	250 µM	1
E1_BIC-6_2023-08	CC240244	08/04/2023	250 µM	1
E1_BIC-7_2023-08	CC240245	08/04/2023	250 µM	1

Sample Sorting

- Using a gridded Petri dish, fine forceps and a low power stereo-microscope (Olympus, Nikon, Leica) the sorting technicians removed the invertebrates and sorted them into family/orders.
- The sorting technician kept a running tally of total numbers excluding organisms from Porifera, Nemata, Platyhelminthes, Ostracoda, Copepoda, Cladocera and terrestrial drop-ins such as aphids. These organisms were marked for their presence (given a value of 1) only and left in the sample. They were not included towards the 300-organism subsample count.
- Where specimens are broken or damaged, only heads were counted.
- Subsampling was conducted with the use of a Marchant Box.
- When using the Marchant box, cells were extracted at the same time in the order indicated by a random number table. If the 300th organism was found part way into sorting a cell then the balance of that cell was sorted. If the organism count had not reached 300 by the 50th cell then the entire sample was sorted.
- The total number of cells sorted and the number of organisms removed were recorded manually on a bench sheet and then recorded into INSTAR1
- Organisms were stored in vials containing 80% ethanol and an interior label indicating the site names, date of sampling, site code numbers and portion subsampled. This information was also recorded on the laboratory bench sheet and on INSTAR1.
- The sorted portion of the debris was preserved and labeled separately from the unsorted portion and was tested for sorting efficiency (Sorting Quality Control – Sorting Efficiency). The unsorted portion was also labeled and preserved in separate jars.

Percent sub-sampled and total countable invertebrates pulled from the samples were summarized in the table below.

Table 2: Percent sub-sample and invertebrate count for each sample

Sample	Date	CC#	250 micron fraction	
			% Sampled	# Invertebrates

HAC-R1_BIC-1_2023-08	10-Aug-23	CC240216	6%	341
HAC-R1_BIC-2_2023-08	10-Aug-23	CC240217	5%	427
HAC-R1_BIC-3_2023-08	10-Aug-23	CC240218	10%	509
HAC-R1_BIC-4_2023-08	10-Aug-23	CC240219	5%	312
HAC-R1_BIC-5_2023-08	10-Aug-23	CC240220	6%	300
HAC-U_BIC-1_2023-08	9-Aug-23	CC240221	5%	436
HAC-U_BIC-2_2023-08	9-Aug-23	CC240222	5%	392
HAC-U_BIC-3_2023-08	9-Aug-23	CC240223	5%	439
HAC-U_BIC-4_2023-08	9-Aug-23	CC240224	5%	417
HAC-U_BIC-5_2023-08	10-Aug-23	CC240225	5%	750
EDC-U_BIC-1_2023-08	8-Aug-23	CC240226	8%	341
EDC-U_BIC-2_2023-08	8-Aug-23	CC240227	28%	337
EDC-U_BIC-3_2023-08	8-Aug-23	CC240228	6%	337
EDC-U_BIC-4_2023-08	8-Aug-23	CC240229	15%	316
EDC-U_BIC-5_2023-08	7-Aug-23	CC240230	27%	304
HAC-D_BIC-1_2023-08	6-Aug-23	CC240231	5%	308
HAC-D_BIC-2_2023-08	6-Aug-23	CC240232	8%	319
HAC-D_BIC-3_2023-08	6-Aug-23	CC240233	10%	343
HAC-D_BIC-4_2023-08	6-Aug-23	CC240234	10%	391
HAC-D_BIC-5_2023-08	6-Aug-23	CC240235	6%	323
EDC-D_BIC-1_2023-08	11-Aug-23	CC240236	5%	318
EDC-D_BIC-3_2023-08	11-Aug-23	CC240237	5%	472
EDC-D_BIC-5_2023-08	11-Aug-23	CC240238	8%	346
EDC-D_BIC-7_2023-08	11-Aug-23	CC240239	10%	448
EDC-D_BIC-8_2023-08	11-Aug-23	CC240240	5%	436
E1_BIC-2_2023-08	5-Aug-23	CC240241	5%	319
E1_BIC-4_2023-08	5-Aug-23	CC240242	5%	1081
E1_BIC-5_2023-08	4-Aug-23	CC240243	100%	396
E1_BIC-6_2023-08	4-Aug-23	CC240244	5%	901
E1_BIC-7_2023-08	4-Aug-23	CC240245	5%	341

Sorting Quality Control - Sorting Efficiency

As a part of Cordillera's laboratory policy, all projects undergo sorting efficiency checks.

- As sorting progresses, 10% of samples were randomly chosen by senior members of the sorting team for resorting.
- All sorters working on a project had at least 1 sample resorted by another sorter.
- An efficiency of 90 % was expected (95% for CABIN samples).
- If 90/95% efficiency was not met, samples from that sorter were resorted.
- To calculated sorting efficiency the following formula was used:

$$\frac{\#OrganismsMissed}{TotalOrganismsFound} * 100 = \% OM$$

Table 3 Summary of sorting efficiency

	Total from Sample	Percent Efficiency
Site - QC, Sample - QC 1, CC# - CC240233, Percent sampled = 10%, Sieve size = 250		
Simuliidae	1	
Trichoptera	1	
Total:	2	343 99.42%

	Total from Sample	Percent Efficiency
Site - QC, Sample - QC 2, CC# - CC240227, Percent sampled = 28%, Sieve size = 250		
Trichoptera	2	
Chironomidae	1	
Trombidiformes	5	
Total:	8	337 97.63%

	Total from Sample	Percent Efficiency
Site - QC, Sample - QC 3, CC# - CC240236, Percent sampled = 5%, Sieve size = 250		
Heptageniidae	1	
Ephemerellidae	1	
Chironomidae	6	
Trichoptera	1	
Total:	9	318 97.17%

Sorting Quality Control - Sub-Sampling QC

Certain Provincial and Mining projects require additional sorting checks in the form of sub-sampling QC, (Environmental Effects Monitoring (EEM) protocol). This ensured that any fraction of the total sample that was examined was actually an accurate representation of the number of total organisms. Organisms from the additional sub-samples were not identified; rather total organism count only was compared.

Sub-Sampling efficiency was measured on 10% of the number of sub-sampled samples in the project. Ex. In a project where 50 of 100 total samples were processed through subsampling using a Marchant box, then 10% of 50; or 5 samples were used for sub sampling efficiency.

Sub-Sampling efficiency was performed by fractioning the entire sample into sub-sample percentages. On each sub-sampled portion, a total organism count was recorded and compared to the rest of the sub-samples. In order to pass, all fractions were required to be within 20% of total organism count.

Example: If 300 organisms are found in 10% of the sample, the sorter will continue to sample in 10% fractions until the entire sample is separated. They will then count the total number of organisms in each of the 10 fractions of 10% and compare the organism count.

When divergence is >20% the sorting manager examines for the source of the problem and takes steps to correct it. With the Marchant box, the problem typically rested with how the box is flipped back to the upright position. For this reason, subsampling was performed by experienced employees only. Another common source of error would be the type of debris in the sample. Samples with algae or heavy with periphyton have a higher incident of failure due to clumping than clear samples.

Table 4 Summary of Sub Sample efficiency

Station ID		Organisms in Subsample																				Sorter		Actual Total	Precision		Accuracy	
CC#	Sample Name	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	By	Time		Percent Range		Min	Max
240239	EDC-D_BIC-7_2023-08	461	444	470	410	472	467	397	405	459	451											MP	575	4436	0.42	15.89	0.09	10.50
240234	HAC-D_BIC-4_2023-08	395	433	425	424	402																MP	240	2079	0.24	8.78	1.97	5.00
240218	HAC-R1_BIC-3_2023-08	526	551	522	577	535																MP	440	2711	0.76	9.53	1.33	6.42

Taxonomic Effort

The next procedure was the identification to genus-species level where possible of all the organisms in the sample.

- Identifications were made at the genus/species level for all insect organisms found including Chironomidae (Based on CABIN protocol).
- Non-insect organisms (except those not included in CABIN count) were identified to genus/species where possible and to a minimum of family level with intact and mature specimens.
- The Standard Taxonomic Effort lists compiled by the CABIN manual¹, SAFIT², and PNAMP³ were used as a guide line for what level of identification to achieve where the condition and maturity of the organism enabled.
- Organisms from the same families/order were kept in separate vials with 80% ethanol and an interior label of printed laser paper.
- Chironomidae was identified to genus/species level where possible and was aided by slide mounts. CMC-10 was used to clear and mount the slide.
- Oligochaetes was identified to family/genus level with the aid of slide mounts. CMC-10 was used to clear and mount the slide.
- Other Annelida (leeches, polychaetes) were identified to the family/genus/species level with undamaged, mature specimens.
- Mollusca was identified to family and genus/species where possible
- Decapoda, Amphipoda and Isopoda were identified at family/genus/species level where possible.
- Bryozoans and Nemata remained at the phylum level
- Hydrachnidae and Cnidaria were identified at the family/genus level where possible.
- When requested, reference collections were made containing at least one individual from each taxa listed. Organisms represented will have been identified to the lowest practical level.
- Reference collection specimens were stored in 55 mm glass vials with screw-cap lids with polyseal inserts (museum quality). They were labeled with taxa name, site code, date identified and taxonomist name. The same information was applied to labels on the slide mounts.

Taxonomists

The taxonomists for this project were certified by the Society of Freshwater Science (SFS) Taxonomic Certification Program at level 2 which is the required certification for CABIN projects:

Scott Finlayson: Group 1 General Arthropods (East/West); Group 2 EPT (East/West); Group 3 Chironomidae (East/West); Group 4 Oligochaeta

Adam Bliss: Group 1 General Arthropods (East/West); Group 2 EPT (East/West); Group 3 Chironomidae

Rita Avery: Group 1 General Arthropods (East/West); Group 2 EPT (East/West)

Garret Naish: Group 2 EPT (East/West)

Taxonomic QC

Taxonomic QC was performed in house by someone other than the original taxonomist.

- Quality control protocol involved complete, blind re-identification and re-enumeration of at least 10% of samples by a second SFS-certified taxonomist.
- Samples for taxonomic quality control were randomly selected and quality control procedures were conducted as the project progresses through the laboratories.
- The second (QC) taxonomist will calculate and record four types of errors:
 1. Misidentification error
 2. Enumeration error
 3. Questionable taxonomic resolution error
 4. Insufficient taxonomic resolution error

The QC coordinator then calculates the following estimates of taxonomic precision.

1. The percent total identification error rate is calculated as:

$$\frac{\text{Sum of incorrect identifications}}{\text{total organisms counted in audit}} * (100)$$

The average total identification error rate of audited samples did not exceed 5%. All samples that exceed a 5% error rate were re-evaluated to determine whether repeated errors or patterns in error contributed.

2. The percent difference in enumeration (PDE) to quantify the consistency of specimen counts.

$$PDE = \frac{|n_1 - n_2|}{n_1 + n_2} x 100$$

3. The percent taxonomic disagreement (PTD) to quantify the shared precision between two sets of identifications.

$$PTD = \left(1 - \left[\frac{a}{N}\right]\right) x 100$$

4. Bray Curtis dissimilarity Index to quantify the differences in identifications.

$$BC_{ij} = 1 - \frac{2C_{ij}}{S_j + S_i}$$

Error Summary

All samples report errors within the acceptable limits for CABIN Laboratory methods (less than 5% error).

Table 5 Summary of taxonomic error following QC

Site	Taxa Identified	% Error	PDE	PTD	Bray - Curtis Dissimilarity index
Site - 2023, Sample - HAC-R1_BIC-2_2023-08, CC# - CC240217, Percent sampled = 5%, Sieve size = 250	428	0.23	0.11695906	0.70093458	0.00584795
Site - 2023, Sample - EDC-U_BIC-1_2023-08, CC# - CC240226, Percent sampled = 8%, Sieve size = 250	339	0.00	0.29411765	0.8797654	0.00588235
Site - 2023, Sample - EDC-D_BIC-8_2023-08, CC# - CC240240, Percent sampled = 5%, Sieve size = 250	435	0.00	0.11481056	0.68807339	0.00574053

There will always be disagreements between taxonomists regarding the degree of taxonomic resolution in immature specimens and when laboratories make use of different keys for certain groups (Mollusks is an especially disputed group). It is always possible that some taxa found by the original taxonomist were overlooked in QC.

All of the Taxonomic QC samples that were observed passed testing according to the CABIN misidentification protocols. See the tables below for results from taxonomic QC audit.

Error Rationale

Site - 2023, Sample - HAC-R1_BIC-2_2023-08, CC# - CC240217, Percent sampled = 5%, Sieve size = 250	Laboratory Count	QC Audit Count	Agreement	Misidentification	Questionable Taxonomic Resolution	Enumeration	Insufficient Taxonomic Resolution	Comments
Amphipoda	1	1						

Atractides	1	1					
Aturus	1	1					
Baetidae	12	11	No			X	
Cheumatopsyche	19	19					
Chironomidae	9	9					
Chironominae	1	1					
Dipheter hageni	4	4					
Elmidae	3	3					
Fossaria	2	2					
Gastropoda	24	24					
Glyphopsyche irrorata	1	1					
Gyraulus	5	5					
Hemerodromia	3	3					
Heptageniidae	1	1					
Hyalella	1	1					
Hydra	2	2					
Hydropsyche	4	5	No	1		X	
Hydropsychidae	45	45					
Hydrozetidae	13	13					
Lepidostoma	2	2					
Leptoceridae	6	6					
Leptophlebiidae	37	37					
Microtendipes	1	1					
Optioservus	6	6					
Oribatida	1	1					
Orthoclaadiinae	1	1					
Orthocladius complex	41	41					
Paraleptophlebia	4	4					
Parametricnemus	1	1					
Paratendipes	1	1					
Phaenopsectra	1	1					
Physa	1	1					
Physidae	1	1					
Polypedilum	1	1					
Pseudochironomus	1	1					
Rheotanytarsus	117	118	No			X	
Simulium	1	1					
Synorthocladius	9	9					
Tanytarsini	2	3	No			X	
Tanytarsus	3	2	No			X	
Thienemannimyia group	25	25					
Trichoptera	8	8					

Tubificinae without hair chaetae	1	1						
Tvetenia	3	3						
Total:	427	428						
					0	5	0	
% Total Misidentification Rate =	misidentifications	x100	0.23	Pass				
	=	total number						
Site - 2023, Sample - EDC-U_BIC-1_2023-08, CC# - CC240226, Percent sampled = 8%, Sieve size = 250	Laboratory Count	QC Audit Count	Agreement	Misidentification	Questionable Taxonomic Resolution	Enumeration	Insufficient Taxonomic Resolution	Comments
Ameletus	1	1						
Arcteonais lomondi	3	3						
Capniidae	2	2						
Ceratopogonidae	4	4						
Corynoneura	10	9	No			X		
Elmidae	2	2						
Empididae	1	1						
Enchytraeus	1	1						
Eukiefferiella	4	4						
Halacaridae	1	1						
Heptageniidae	49	49						
Hexatoma	1	1						
Leptophlebiidae	3	3						
Micropsectra	5	5						
Microtendipes	2	2						
Natarsia	2	2						
Optioservus	1	1						
Oribatida	36	35	No			X		
Orthoclaadiinae	4	4						
Paraleptophlebia	1	1						
Polypedilum	1	1						
Rheocricotopus	24	24						
Sialis	2	2						
Sweltsa	1	1						
Tanypodinae	10	10						
Tanytarsini	42	41	No			X		
Tanytarsus	3	4	No			X		

Telmatopelopia	2	2						
Torrenticola	1	1						
Trichoptera	120	120						
Tubificinae with hair chaetae	2	2						
Total:	341	339						
					0	4	0	
% Total Misidentification Rate =	misidentifications	x100	0.00	Pass				
	total number	=						
Site - 2023, Sample - EDC-D_BIC-8_2023-08, CC# - CC240240, Percent sampled = 5%, Sieve size = 250	Laboratory Count	QC Audit Count	Agreement	Misidentification	Questionable Taxonomic Resolution	Enumeration	Insufficient Taxonomic Resolution	Comments
Antocha	16	17	No			X		
Baetidae	35	34	No			X		
Baetis	3	4	No			X		
Baetis rhodani group	2	2						
Capniidae	6	6						
Cardiocladius	6	6						
Chironomidae	1	1						
Elmidae	3	3						
Empididae	3	3						
Enchytraeus	1	1						
Ephemerellidae	20	20						
Eukiefferiella	31	31						
Heleniella	1	1						
Heptageniidae	22	22						
Hydropsyche	2	2						
Hydropsychidae	27	27						
Lepidostoma	1	1						
Lumbriculidae	1	1						
Micropsectra	5	5						
Nemouridae	2	2						
Optioservus	1	1						
Orthocladiinae	5	5						
Orthocladius complex	136	134	No			X		
Perlodidae	1	1						
Plecoptera	3	3						

Potthastia gaedii group	5	5						
Rheotanytarsus	35	35						
Rhyacophila brunnea/vemna group	2	2						
Sweltsa	4	4						
Tanypodinae	2	2						
Tanytarsini	1	1						
Testudacarus	4	4						
Thienemanniella	17	17						
Thienemannimyia group	4	4						
Torrenticola	7	7						
Torrenticolidae	6	6						
Trichoptera	8	8						
Trombidiformes	2	2						
Tvetenia	5	5						
Total:	436	435						
						0	4	0
% Total Misidentification Rate =	misidentifications total number	x100 =	0.00	Pass				

References

¹ McDermott, H., Paull, T., Strachan, S. (May 2014). Laboratory Methods: Processing, Taxonomy, and Quality Control of Benthic Macroinvertebrate Samples, Environment Canada. ISBN: 978-1-100-25417-3

² Southwest Association of Freshwater Invertebrate Taxonomists. (2015). www.safit.org

³ Pacific Northwest Aquatic Monitoring Partnership (Accessed 2015). www.pnamp.org

Taxonomic Keys

Below is a reference list of taxonomic keys utilized by taxonomists at Cordillera Consulting. Cordillera taxonomists routinely seek out new literature to ensure the most accurate identification keys are being utilized. This is not reflective of the exhaustive list of resources that we use for identification. A more complete list of taxonomic resources can be found at Southwest Association of Freshwater Invertebrate Taxonomists. (2015).

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Raw Benthic Invertebrate Density Results (# individuals/sample), Mount Polley Mine



Project: 23-01-6 (MPMC Creek CEMP)
 Minnow Environmental (BC)
 Taxonomist: Scott Finlayson
scottfinlayson@cordilleraconsulting.ca
 250-494-7553

Site:	HAC-R1	HAC-R1	HAC-R1	HAC-R1	HAC-R1	HAC-U	HAC-U	HAC-U	HAC-U	HAC-U
Sample:	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
Sample Collection Date:	10-Aug-23	10-Aug-23	10-Aug-23	10-Aug-23	10-Aug-23	9-Aug-23	9-Aug-23	9-Aug-23	9-Aug-23	10-Aug-23
CC#:	CC240216	CC240217	CC240218	CC240219	CC240220	CC240221	CC240222	CC240223	CC240224	CC240225
Phylum: Arthropoda	0	0	0	0	0	0	0	0	0	0
Subphylum: Hexapoda	0	0	0	0	0	0	0	0	0	0
Class: Insecta	0	0	0	0	0	0	0	0	0	0
Order: Coleoptera	0	0	0	0	0	0	0	0	0	0
Family: Dytiscidae	0	0	0	0	0	0	0	0	0	0
Subfamily: Hydroporinae	0	0	0	0	0	0	0	0	0	0
Family: Elmidae	17	60	80	0	67	460	620	820	1,200	1,080
<i>Heterolimnius</i>	0	0	0	0	0	0	0	0	0	0
<i>Narpus</i>	0	0	0	0	0	0	0	0	0	0
<i>Optioservus</i>	17	120	100	0	67	140	180	440	440	440
Order: Ephemeroptera	0	0	0	0	0	0	0	0	0	0
Family: Ameletidae	0	0	0	0	0	0	0	0	0	0
<i>Ameletus</i>	0	0	0	0	0	0	0	0	0	0
Family: Baetidae	50	240	30	0	67	160	40	120	180	100
<i>Acentrella</i>	0	0	0	0	0	0	0	0	0	0
<i>Baetis</i>	0	0	0	0	0	0	20	0	20	0
<i>Baetis bicaudatus</i>	0	0	0	0	0	0	0	0	0	0
<i>Baetis rhodani group</i>	0	0	0	0	0	0	0	40	0	40
<i>Dipheter hageni</i>	17	80	10	0	0	40	0	20	0	40
<i>Procloeon</i>	0	0	0	0	0	0	0	0	0	0
Family: Ephemerellidae	0	0	0	0	17	0	20	0	0	0
<i>Drunella</i>	0	0	0	0	0	0	0	0	0	0
<i>Drunella doddsii</i>	0	0	0	0	0	0	0	0	0	0
<i>Drunella grandis group</i>	0	0	0	0	0	0	0	0	0	0
Family: Heptageniidae	0	20	10	0	0	20	0	20	20	40
<i>Cinygmula</i>	0	0	0	0	0	0	0	0	0	0
<i>Rhithrogena</i>	0	0	0	0	0	0	0	0	0	0
<i>Stenonema femoratum</i>	0	0	0	0	0	0	0	0	0	0
Family: Leptophlebiidae	817	740	860	260	433	980	360	400	120	400
<i>Paraleptophlebia</i>	117	80	30	40	83	0	100	280	20	440
Order: Plecoptera	0	0	0	0	0	0	0	0	0	0
Family: Capniidae	0	0	0	0	0	0	0	0	0	0
Family: Chloroperlidae	0	0	0	0	0	0	0	0	0	0
<i>Sweltsa</i>	0	0	0	0	0	0	0	0	0	0
Family: Leuctridae	0	0	0	0	0	0	0	0	0	0

Note: A value of zero reported at a less specific level of taxonomy does not indicate an absence of organisms at a more specific level of taxonomy.

Raw Benthic Invertebrate Density Results (# individuals/sample), Mount Polley Mine



Project: 23-01-6 (MPMC Creek CEMP)
 Minnow Environmental (BC)
 Taxonomist: Scott Finlayson
scottfinlayson@cordilleraconsulting.ca
 250-494-7553

Site:	HAC-R1	HAC-R1	HAC-R1	HAC-R1	HAC-R1	HAC-U	HAC-U	HAC-U	HAC-U	HAC-U
Sample:	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
Sample Collection Date:	10-Aug-23	10-Aug-23	10-Aug-23	10-Aug-23	10-Aug-23	9-Aug-23	9-Aug-23	9-Aug-23	9-Aug-23	10-Aug-23
CC#:	CC240216	CC240217	CC240218	CC240219	CC240220	CC240221	CC240222	CC240223	CC240224	CC240225
 Family: Nemouridae	0	0	0	0	0	0	0	0	0	0
<i>Zapada</i>	0	0	0	0	0	0	0	0	0	0
<i>Zapada cinctipes</i>	0	0	0	0	0	0	0	0	0	0
<i>Zapada oregonensis group</i>	0	0	0	0	0	0	0	0	0	0
 Family: Perlidae	0	0	0	0	0	0	0	0	0	0
<i>Doroneuria</i>	0	0	0	0	0	0	0	0	0	0
 Family: Perlodidae	0	0	0	0	0	0	0	0	0	0
<i>Isoperla</i>	0	0	0	0	0	0	0	0	0	0
 Family: Pteronarcyidae	0	0	0	0	0	0	0	0	0	0
<i>Pteronarcella</i>	0	0	0	0	0	0	0	0	0	0
 Family: Taeniopterygidae	0	0	0	0	0	0	0	0	0	0
 Order: Trichoptera	67	160	30	20	17	160	140	20	80	60
 Family: Apataniidae	0	0	0	0	0	0	0	0	0	0
<i>Apatania</i>	0	0	0	0	0	0	0	0	0	0
 Family: Brachycentridae	0	0	0	0	0	0	0	0	0	0
 Family: Glossosomatidae	0	0	0	0	0	0	0	0	0	0
<i>Glossosoma</i>	0	0	0	0	0	0	0	0	0	0
 Family: Hydropsychidae	450	900	220	20	250	720	480	780	800	760
<i>Cheumatopsyche</i>	167	380	50	20	33	120	60	300	60	140
<i>Hydropsyche</i>	0	80	0	0	0	40	40	40	120	280
 Family: Hydroptilidae	0	0	0	20	0	0	0	0	0	0
<i>Hydroptila</i>	0	0	0	0	0	0	0	0	0	20
 Family: Lepidostomatidae	0	0	0	0	0	0	0	0	0	0
<i>Lepidostoma</i>	33	40	70	20	50	380	180	380	380	400
 Family: Leptoceridae	117	120	130	40	400	60	60	100	140	40
<i>Ceraclea</i>	50	0	10	0	0	0	0	0	0	0
 Family: Limnephilidae	0	0	0	0	0	0	0	0	0	0
<i>Glyphopsyche irrorata</i>	17	20	0	0	0	0	0	0	0	0
 Family: Polycentropodidae	0	0	0	0	0	0	0	0	0	0
<i>Polycentropus</i>	0	0	0	0	0	20	0	0	0	0
 Family: Rhyacophilidae	0	0	0	0	0	0	0	0	0	0
<i>Rhyacophila</i>	0	0	0	0	0	0	0	0	20	20
<i>Rhyacophila angelita group</i>	0	0	0	0	0	0	0	0	0	0
<i>Rhyacophila brunnea/vemna group</i>	0	0	0	0	0	0	0	20	0	0
<i>Rhyacophila narvae</i>	0	0	0	0	0	0	0	0	0	0

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Raw Benthic Invertebrate Density Results (# individuals/sample), Mount Polley Mine



Project: 23-01-6 (MPMC Creek CEMP)
 Minnow Environmental (BC)
 Taxonomist: Scott Finlayson
scottfinlayson@cordilleraconsulting.ca
 250-494-7553

Site:	HAC-R1	HAC-R1	HAC-R1	HAC-R1	HAC-R1	HAC-U	HAC-U	HAC-U	HAC-U	HAC-U
Sample:	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
Sample Collection Date:	10-Aug-23	10-Aug-23	10-Aug-23	10-Aug-23	10-Aug-23	9-Aug-23	9-Aug-23	9-Aug-23	9-Aug-23	10-Aug-23
CC#:	CC240216	CC240217	CC240218	CC240219	CC240220	CC240221	CC240222	CC240223	CC240224	CC240225
 Order: Diptera	0	0	0	0	0	0	0	0	0	0
 Family: Ceratopogonidae	0	0	0	20	0	0	0	0	0	0
<i>Bezzia/ Palpomyia</i>	0	0	0	20	0	0	0	0	0	0
<i>Mallochohelea</i>	0	0	0	0	0	0	0	0	0	0
 Family: Chironomidae	83	180	70	20	100	180	180	280	220	420
 Subfamily: Chironominae	0	20	0	0	0	0	0	0	0	0
 Tribe: Chironomini	0	0	230	1,600	400	0	0	80	0	440
<i>Chironomus</i>	0	0	0	0	0	0	0	0	0	0
<i>Cryptochironomus</i>	0	0	0	0	0	0	0	0	0	0
<i>Microtendipes</i>	50	20	110	120	83	140	200	120	120	180
<i>Paratendipes</i>	67	20	140	540	217	0	0	60	0	100
<i>Phaenopsectra</i>	0	20	0	0	0	0	0	20	0	0
<i>Polypedilum</i>	0	20	0	0	0	0	20	20	60	40
<i>Saetheria</i>	0	0	0	0	0	0	0	0	0	0
<i>Stictochironomus</i>	0	0	0	0	0	0	0	0	0	0
 Tribe: Pseudochironomini	0	0	0	0	0	0	0	0	0	0
<i>Pseudochironomus</i>	0	20	0	0	0	0	0	0	0	0
 Tribe: Tanytarsini	83	40	40	0	67	80	80	40	140	520
<i>Micropsectra</i>	0	0	20	0	0	0	40	40	0	0
<i>Rheotanytarsus</i>	717	2,340	580	40	433	1,140	1,360	1,420	1,740	5,540
<i>Stempellinella</i>	0	0	20	0	0	0	0	0	0	0
<i>Tanytarsus</i>	33	60	80	40	67	220	140	160	140	180
 Subfamily: Diamesinae	0	0	0	0	0	0	0	0	0	0
 Tribe: Diamesini	0	0	0	0	0	0	0	0	0	0
<i>Pagastia</i>	0	0	0	0	0	0	0	0	20	20
<i>Potthastia gaedii group</i>	0	0	0	0	0	0	0	0	0	0
 Subfamily: Orthoclaadiinae	67	20	30	20	133	20	140	60	120	120
<i>Brillia</i>	0	0	0	0	0	0	0	0	0	0
<i>Cardiocladius</i>	0	0	0	0	0	0	0	0	20	0
<i>Corynoneura</i>	17	0	0	0	0	0	20	40	0	80
<i>Cricotopus (Nostococladus)</i>	0	0	0	0	0	0	0	0	0	0
<i>Eukiefferiella</i>	33	0	20	20	0	40	20	20	100	100
<i>Heleniella</i>	0	0	0	0	0	0	0	0	0	0
<i>Heterotrissocladus</i>	0	0	0	0	0	0	0	0	0	0
<i>Limnophyes</i>	0	0	0	0	0	0	0	0	0	0

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 Minnow Environmental (BC)
 Taxonomist: Scott Finlayson
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 250-494-7553

Site:	HAC-R1	HAC-R1	HAC-R1	HAC-R1	HAC-R1	HAC-U	HAC-U	HAC-U	HAC-U	HAC-U
Sample:	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
Sample Collection Date:	10-Aug-23	10-Aug-23	10-Aug-23	10-Aug-23	10-Aug-23	9-Aug-23	9-Aug-23	9-Aug-23	9-Aug-23	10-Aug-23
CC#:	CC240216	CC240217	CC240218	CC240219	CC240220	CC240221	CC240222	CC240223	CC240224	CC240225
<i>Nanocladius</i>	0	0	0	0	0	40	0	0	0	0
<i>Orthocladius complex</i>	500	820	500	1,260	283	1,080	740	1000	260	560
<i>Orthocladius lignicola</i>	0	0	0	0	0	0	0	0	0	0
<i>Parakiefferiella</i>	0	0	0	0	0	0	0	0	0	0
<i>Parametricnemus</i>	17	20	30	0	0	140	180	20	80	100
<i>Psectrocladius</i>	0	0	0	0	0	0	0	0	0	0
<i>Rheocricotopus</i>	0	0	0	0	0	0	0	0	0	0
<i>Synorthocladius</i>	50	180	60	60	33	460	420	500	380	380
<i>Thienemanniella</i>	17	0	0	0	0	0	0	0	0	60
<i>Tvetenia</i>	17	60	0	0	0	0	0	0	0	0
 Subfamily: Tanypodinae	0	0	0	0	67	0	40	0	0	60
<i>Ablabesmyia</i>	0	0	60	80	83	20	20	40	0	20
<i>Paramerina</i>	0	0	0	0	0	0	0	0	0	0
 Tribe: Natarsiini	0	0	0	0	0	0	0	0	0	0
<i>Natarsia</i>	0	0	0	0	0	0	0	0	0	0
 Tribe: Pentaneurini	0	0	0	0	0	0	0	0	0	0
<i>Pentaneura</i>	17	0	10	0	17	20	60	0	20	20
<i>Telmatopelopia</i>	0	0	0	0	0	0	0	0	0	0
<i>Thienemannimyia group</i>	850	500	670	320	633	340	320	440	120	220
 Tribe: Procladiini	0	0	0	0	0	0	0	0	0	0
<i>Procladius</i>	0	0	0	0	0	0	0	0	20	0
 Family: Dixidae	0	0	0	0	0	0	0	0	0	0
<i>Dixella</i>	0	0	0	0	0	0	0	0	0	0
 Family: Empididae	0	0	0	0	0	20	0	0	0	0
<i>Clinocera</i>	0	0	0	0	0	0	0	0	0	0
<i>Hemerodromia</i>	17	60	20	0	33	0	0	0	20	0
 Family: Pelecorhynchidae	0	0	0	0	0	0	0	0	0	0
<i>Glutops</i>	0	0	0	0	0	0	0	0	0	0
 Family: Psychodidae	0	0	0	0	0	0	0	0	0	0
<i>Pericoma/Telmatoscopus</i>	0	0	0	0	0	0	0	0	0	0
 Family: Simuliidae	0	0	0	0	0	20	20	0	0	60
<i>Simulium</i>	83	20	20	0	0	0	0	0	20	280
 Family: Tabanidae	0	0	0	20	0	0	0	0	0	0
<i>Chrysops</i>	0	0	0	0	0	0	0	0	0	0

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 Minnow Environmental (BC)
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 250-494-7553

Site:	HAC-R1	HAC-R1	HAC-R1	HAC-R1	HAC-R1	HAC-U	HAC-U	HAC-U	HAC-U	HAC-U
Sample:	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
Sample Collection Date:	10-Aug-23	10-Aug-23	10-Aug-23	10-Aug-23	10-Aug-23	9-Aug-23	9-Aug-23	9-Aug-23	9-Aug-23	10-Aug-23
CC#:	CC240216	CC240217	CC240218	CC240219	CC240220	CC240221	CC240222	CC240223	CC240224	CC240225
 Family: Tipulidae	0	0	0	0	0	0	0	20	0	0
<i>Antocha</i>	0	0	0	0	0	120	320	80	120	20
<i>Dicranota</i>	0	0	0	0	0	0	0	0	0	0
<i>Hexatoma</i>	0	0	0	0	0	0	0	0	0	0
<i>Tipula</i>	0	0	0	0	0	0	0	0	0	0
 Order: Hemiptera	0	0	0	0	0	200	0	0	0	0
 Family: Corixidae	0	0	0	0	0	0	0	0	0	0
<i>Sigara</i>	0	0	0	0	0	0	0	0	0	0
 Order: Megaloptera	0	0	0	0	0	0	0	0	0	0
 Family: Sialidae	0	0	0	0	0	0	0	0	0	0
<i>Sialis</i>	0	0	0	0	0	0	0	0	0	0
 Order: Odonata	0	0	0	0	0	0	0	0	0	0
 Family: Corduliidae	0	0	0	0	0	0	0	0	0	0
<i>Somatochlora cingulata</i>	0	0	0	0	0	20	0	0	0	0
 Order: Thysanoptera	0	0	0	20	0	20	20	0	0	0
 Order: Collembola	0	0	0	0	0	0	0	0	0	0
Subphylum: Chelicerata	0	0	0	0	0	0	0	0	0	0
 Class: Arachnida	0	0	0	0	0	0	0	0	0	0
 Order: Oribatida	100	20	70	80	100	80	80	0	60	100
 Order: Sarcoptiformes	0	0	0	0	0	0	0	0	0	0
 Family: Hydrozetidae	200	260	190	280	233	180	80	100	100	120
 Order: Trombidiformes	0	0	0	0	33	0	0	60	60	20
 Family: Aturidae	0	0	0	0	0	0	0	0	0	0
<i>Aturus</i>	33	20	0	0	0	0	0	0	0	0
 Family: Feltriidae	0	0	0	0	0	0	0	0	0	0
<i>Feltria</i>	0	0	0	0	0	0	0	0	0	0
 Family: Halacaridae	0	0	0	0	0	0	0	0	0	0
 Family: Hydryphantidae	0	0	0	0	0	0	0	0	0	0
<i>Protzia</i>	0	0	0	0	0	0	0	0	0	0
 Family: Hygrobatidae	0	0	0	0	0	0	0	0	0	0
<i>Atractides</i>	0	20	0	0	0	0	20	20	20	40
<i>Hygrobates</i>	0	0	0	0	0	0	0	0	0	0
 Family: Lebertiidae	0	0	0	0	0	0	0	0	0	0
<i>Lebertia</i>	0	0	0	0	0	0	0	0	0	0

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Site:	HAC-R1	HAC-R1	HAC-R1	HAC-R1	HAC-R1	HAC-U	HAC-U	HAC-U	HAC-U	HAC-U
Sample:	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
Sample Collection Date:	10-Aug-23	10-Aug-23	10-Aug-23	10-Aug-23	10-Aug-23	9-Aug-23	9-Aug-23	9-Aug-23	9-Aug-23	10-Aug-23
CC#:	CC240216	CC240217	CC240218	CC240219	CC240220	CC240221	CC240222	CC240223	CC240224	CC240225
 Family: Sperchontidae	0	0	0	0	0	0	0	0	0	0
<i>Sperchon</i>	17	0	0	0	0	0	0	0	0	20
 Family: Torrenticolidae	0	0	0	0	0	0	0	0	0	0
<i>Testudacarus</i>	0	0	0	0	0	0	0	0	0	0
<i>Torrenticola</i>	0	0	0	0	0	0	0	0	0	0
 Family: Unionicolidae	0	0	0	0	0	0	0	0	0	0
<i>Unionicola</i>	0	0	0	20	0	0	0	0	0	0
Subphylum: Crustacea	0	0	0	0	0	0	0	0	0	0
 Class: Malacostraca	0	0	0	0	0	0	0	0	0	0
 Order: Amphipoda	17	20	30	20	17	0	0	80	20	20
 Family: Gammaridae	0	0	0	0	0	0	0	0	0	0
<i>Gammarus</i>	0	0	0	40	0	0	0	0	0	0
 Family: Hyalellidae	0	0	0	0	0	0	0	0	0	0
<i>Hyalella</i>	33	20	0	0	0	0	0	40	20	40
Phylum: Annelida	0	0	0	0	0	0	0	0	0	0
Subphylum: Clitellata	0	0	0	0	0	0	0	0	0	0
 Order: Hirudinida	0	0	0	0	0	0	0	0	20	0
 Family: Erpobdellidae	0	0	0	0	0	0	0	0	0	20
 Family: Hirudinidae	0	0	0	0	0	0	0	0	20	0
 Class: Oligochaeta	0	0	0	0	17	0	0	0	0	0
 Order: Lumbriculida	0	0	0	0	0	0	0	0	0	0
 Family: Lumbriculidae	0	0	0	0	0	0	0	0	0	20
 Order: Tubificida	0	0	0	0	0	0	0	0	0	0
 Family: Enchytraeidae	0	0	0	0	0	0	0	0	0	0
<i>Enchytraeus</i>	0	0	300	940	50	0	0	0	0	0
 Family: Naididae	0	0	0	0	0	0	20	0	0	0
<i>Arcteonais lomondi</i>	0	0	0	0	0	0	0	0	0	0
<i>Nais</i>	0	0	0	60	33	0	260	40	20	120
<i>Pristina</i>	0	0	0	0	0	0	0	0	0	0
<i>Stylaria lacustris</i>	0	0	0	0	0	0	40	0	0	0
 Subfamily: Tubificinae with hair chaetae	17	0	0	0	0	0	0	0	0	0
 Subfamily: Tubificinae without hair chaetae	50	20	0	20	0	0	0	20	0	0

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Site:	HAC-R1	HAC-R1	HAC-R1	HAC-R1	HAC-R1	HAC-U	HAC-U	HAC-U	HAC-U	HAC-U
Sample:	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
Sample Collection Date:	10-Aug-23	10-Aug-23	10-Aug-23	10-Aug-23	10-Aug-23	9-Aug-23	9-Aug-23	9-Aug-23	9-Aug-23	10-Aug-23
CC#:	CC240216	CC240217	CC240218	CC240219	CC240220	CC240221	CC240222	CC240223	CC240224	CC240225
Phylum: Cnidaria	0	0	0	0	0	0	0	0	0	0
Class: Hydrozoa	0	0	0	0	0	0	0	0	0	0
Order: Anthoathecatae	0	0	0	0	0	0	0	0	0	0
Family: Hydridae	0	0	0	0	0	0	0	0	0	0
<i>Hydra</i>	0	40	0	0	0	0	20	0	0	40
Phylum: Mollusca	0	0	0	0	0	0	0	0	0	0
Class: Bivalvia	0	0	0	0	0	0	0	0	0	0
Order: Veneroidea	0	0	0	0	0	0	0	0	0	0
Family: Pisiidae	0	0	0	0	0	0	0	0	0	0
Class: Gastropoda	250	480	130	80	300	620	480	80	240	400
Order: Basommatophora	0	0	0	0	0	0	0	0	0	0
Family: Lymnaeidae	0	0	0	0	0	0	0	0	0	0
<i>Fossaria</i>	17	40	0	20	33	140	120	40	140	60
Family: Physidae	0	20	0	0	0	0	0	0	20	20
<i>Physa</i>	0	20	0	0	0	0	0	0	20	0
Family: Planorbidae	183	0	0	40	33	60	0	0	0	0
<i>Gyraulus</i>	117	100	30	0	17	20	80	60	260	140
Totals:	5,688	8,540	5,090	6,240	4,999	8,720	7,840	8,780	8,340	15,000
Taxa present but not included:										
Phylum: Arthropoda	0	0	0	0	0	0	0	0	0	0
Class: Copepoda	17	20	0	0	17	20	20	0	0	20
Subphylum: Crustacea	0	0	0	0	0	0	0	0	0	0
Class: Branchiopoda	0	0	0	0	0	0	0	0	0	0
Order: Cladocera	17	20	10	20	17	20	20	0	20	20
Class: Ostracoda	17	20	10	20	17	20	20	20	20	20
Phylum: Annelida	0	0	0	0	0	0	0	0	0	0
Subphylum: Clitellata	0	0	0	0	0	0	0	0	0	0
Class: Oligochaeta	0	0	0	0	17	0	0	0	0	0
Order: Tubificida	0	0	0	0	0	0	0	0	0	0
Family: Lumbricidae	0	0	0	0	0	0	0	0	0	0
Phylum: Nemata	0	20	10	0	17	20	0	0	0	0
Phylum: Platyhelminthes	0	0	0	0	0	0	0	0	0	0
Class: Turbellaria	0	0	0	20	0	0	0	0	0	0
Totals:	51	80	30	60	85	80	60	20	40	60

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 250-494-7553

Site:	EDC-U	EDC-U	EDC-U	EDC-U	EDC-U	HAC-D	HAC-D	HAC-D	HAC-D	HAC-D
Sample:	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
Sample Collection Date:	8-Aug-23	8-Aug-23	8-Aug-23	8-Aug-23	7-Aug-23	6-Aug-23	6-Aug-23	6-Aug-23	6-Aug-23	6-Aug-23
CC#:	CC240226	CC240227	CC240228	CC240229	CC240230	CC240231	CC240232	CC240233	CC240234	CC240235
Phylum: Arthropoda	0	0	0	0	0	0	0	0	0	0
Subphylum: Hexapoda	0	0	0	0	0	0	0	0	0	0
Class: Insecta	0	0	0	0	0	0	0	0	0	0
Order: Coleoptera	0	0	0	0	0	0	0	0	0	0
Family: Dytiscidae	0	0	0	13	0	20	0	0	0	0
Subfamily: Hydroporinae	0	0	17	0	0	0	0	0	0	50
Family: Elmidae	25	4	33	40	15	40	0	30	20	0
<i>Heterolimnius</i>	0	4	17	0	0	0	0	0	0	0
<i>Narpus</i>	0	0	0	0	0	0	0	0	0	0
<i>Optioservus</i>	13	0	0	53	19	0	0	0	0	0
Order: Ephemeroptera	0	0	0	0	0	0	0	0	0	0
Family: Ameletidae	0	0	0	0	0	0	0	0	0	0
<i>Ameletus</i>	13	7	100	0	0	20	0	0	0	0
Family: Baetidae	0	0	17	0	0	200	75	60	80	250
<i>Acentrella</i>	0	0	0	0	0	20	0	0	0	133
<i>Baetis</i>	0	0	0	0	0	0	13	10	10	0
<i>Baetis bicaudatus</i>	0	0	0	0	0	0	0	0	0	0
<i>Baetis rhodani group</i>	0	0	0	0	0	20	0	0	0	33
<i>Dipheter hageni</i>	0	0	0	0	0	80	38	30	90	67
<i>Procloeon</i>	0	4	17	0	0	40	25	10	0	50
Family: Ephemerellidae	0	0	0	0	0	40	63	40	20	0
<i>Drunella</i>	0	0	0	0	0	0	0	0	0	0
<i>Drunella doddsii</i>	0	0	0	0	0	0	0	0	0	0
<i>Drunella grandis group</i>	0	0	0	0	0	0	0	0	0	0
Family: Heptageniidae	613	732	1,133	647	7	720	313	60	80	67
<i>Cinygmula</i>	0	0	0	0	0	0	0	0	0	0
<i>Rhithrogena</i>	0	0	0	0	0	0	0	0	0	0
<i>Stenonema femoratum</i>	0	54	0	0	0	0	0	0	0	0
Family: Leptophlebiidae	38	57	250	60	130	100	125	40	130	50
<i>Paraleptophlebia</i>	13	11	67	53	33	60	13	30	50	17
Order: Plecoptera	0	4	17	7	0	0	0	0	0	0
Family: Capniidae	25	4	0	220	0	140	25	20	20	0
Family: Chloroperlidae	0	0	0	13	0	0	0	0	0	0
<i>Sweltsa</i>	13	4	33	20	0	20	0	0	0	0
Family: Leuctridae	0	0	17	0	0	0	0	0	0	0

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 Minnow Environmental (BC)
 Taxonomist: Scott Finlayson
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 250-494-7553

Site:	EDC-U	EDC-U	EDC-U	EDC-U	EDC-U	HAC-D	HAC-D	HAC-D	HAC-D	HAC-D
Sample:	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
Sample Collection Date:	8-Aug-23	8-Aug-23	8-Aug-23	8-Aug-23	7-Aug-23	6-Aug-23	6-Aug-23	6-Aug-23	6-Aug-23	6-Aug-23
CC#:	CC240226	CC240227	CC240228	CC240229	CC240230	CC240231	CC240232	CC240233	CC240234	CC240235
 Family: Nemouridae	0	0	0	0	0	0	0	0	0	0
<i>Zapada</i>	0	0	0	0	0	0	0	0	0	0
<i>Zapada cinctipes</i>	0	0	0	0	0	40	13	0	0	0
<i>Zapada oregonensis group</i>	0	0	0	0	0	0	0	0	0	0
 Family: Perlidae	0	0	0	0	0	0	0	0	0	0
<i>Doroneuria</i>	0	0	0	0	0	0	0	0	0	0
 Family: Perlodidae	0	0	0	0	0	0	0	0	0	0
<i>Isoperla</i>	0	0	0	0	0	40	0	0	0	0
 Family: Pteronarcyidae	0	0	0	0	0	0	0	0	0	0
<i>Pteronarcella</i>	0	0	0	0	0	0	0	0	0	0
 Family: Taeniopterygidae	0	0	0	0	0	0	0	10	0	0
 Order: Trichoptera	1,500	4	83	7	0	440	188	40	110	67
 Family: Apataniidae	0	0	0	0	0	0	0	0	0	0
<i>Apatania</i>	0	0	0	0	0	0	0	0	0	0
 Family: Brachycentridae	0	0	0	0	0	0	0	0	0	0
 Family: Glossosomatidae	0	0	0	0	0	0	0	0	0	0
<i>Glossosoma</i>	0	0	0	0	0	0	0	0	0	0
 Family: Hydropsychidae	0	0	0	0	4	240	550	140	300	367
<i>Cheumatopsyche</i>	0	0	0	0	0	40	63	0	40	33
<i>Hydropsyche</i>	0	0	0	0	0	100	50	10	20	200
 Family: Hydroptilidae	0	0	0	0	0	0	0	0	0	0
<i>Hydroptila</i>	0	0	0	0	0	0	0	10	0	0
 Family: Lepidostomatidae	0	0	0	0	0	0	0	0	0	0
<i>Lepidostoma</i>	0	0	0	0	0	1,860	700	310	220	467
 Family: Leptoceridae	0	4	50	0	0	60	38	50	40	67
<i>Ceraclea</i>	0	0	0	0	0	0	0	0	0	0
 Family: Limnephilidae	0	0	0	0	0	0	0	0	0	0
<i>Glyphopsyche irrorata</i>	0	0	0	0	0	0	0	0	0	0
 Family: Polycentropodidae	0	0	0	0	0	0	0	0	0	0
<i>Polycentropus</i>	0	0	0	0	0	0	13	0	0	0
 Family: Rhyacophilidae	0	0	0	0	0	0	0	0	0	0
<i>Rhyacophila</i>	0	0	0	0	0	0	0	0	0	0
<i>Rhyacophila angelita group</i>	0	0	0	0	0	0	0	0	0	0
<i>Rhyacophila brunnea/vemna group</i>	0	0	0	0	0	0	0	0	0	0
<i>Rhyacophila narvae</i>	0	0	0	0	0	0	0	0	0	0

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Sample:	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
Sample Collection Date:	8-Aug-23	8-Aug-23	8-Aug-23	8-Aug-23	7-Aug-23	6-Aug-23	6-Aug-23	6-Aug-23	6-Aug-23	6-Aug-23
CC#:	CC240226	CC240227	CC240228	CC240229	CC240230	CC240231	CC240232	CC240233	CC240234	CC240235
 Order: Diptera	0	0	0	0	0	0	0	40	10	17
 Family: Ceratopogonidae	50	0	0	0	0	0	0	0	0	0
<i>Bezzia/ Palpomyia</i>	0	0	0	0	0	0	0	0	0	0
<i>Mallochohelea</i>	0	0	0	7	4	0	0	0	0	0
 Family: Chironomidae	0	4	0	13	0	40	138	120	70	83
 Subfamily: Chironominae	0	0	0	0	0	0	0	0	10	0
 Tribe: Chironomini	0	0	0	0	15	0	0	0	0	0
<i>Chironomus</i>	0	0	0	0	11	0	0	0	0	0
<i>Cryptochironomus</i>	0	0	0	0	0	0	13	0	10	0
<i>Microtendipes</i>	25	21	50	53	174	180	200	350	180	300
<i>Paratendipes</i>	0	0	0	0	0	0	0	0	0	0
<i>Phaenopsectra</i>	0	4	0	0	0	0	0	0	0	0
<i>Polypedilum</i>	13	4	0	0	19	0	100	20	90	33
<i>Saetheria</i>	0	0	0	0	0	0	13	0	0	0
<i>Stictochironomus</i>	0	4	0	47	107	0	0	0	0	0
 Tribe: Pseudochironomini	0	0	0	0	0	0	0	0	0	0
<i>Pseudochironomus</i>	0	0	0	0	0	0	0	0	0	0
 Tribe: Tanytarsini	525	0	667	27	11	40	0	40	20	50
<i>Micropsectra</i>	63	0	33	127	0	160	50	10	0	17
<i>Rheotanytarsus</i>	0	0	0	20	0	320	238	660	840	1,367
<i>Stempellinella</i>	0	0	0	7	0	0	0	0	0	0
<i>Tanytarsus</i>	38	0	67	47	0	200	150	40	50	50
 Subfamily: Diamesinae	0	0	0	0	0	0	0	0	0	0
 Tribe: Diamesini	0	0	0	0	0	0	0	0	0	0
<i>Pagastia</i>	0	0	0	0	0	20	0	0	0	0
<i>Potthastia gaedii group</i>	0	0	0	0	0	0	0	0	0	0
 Subfamily: Orthocladiinae	50	7	0	0	0	20	38	10	40	33
<i>Brillia</i>	0	0	0	0	0	0	0	0	0	0
<i>Cardiocladius</i>	0	0	0	0	0	0	0	0	0	33
<i>Corynoneura</i>	125	0	0	7	0	20	63	30	10	33
<i>Cricotopus (Nostococladus)</i>	0	0	0	0	0	0	0	0	0	0
<i>Eukiefferiella</i>	50	0	0	0	0	160	88	70	90	150
<i>Heleniella</i>	0	0	0	0	0	0	0	0	0	0
<i>Heterotrissocladus</i>	0	0	0	20	0	0	0	10	0	100
<i>Limnophyes</i>	0	0	17	0	0	0	0	0	0	0

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Sample:	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
Sample Collection Date:	8-Aug-23	8-Aug-23	8-Aug-23	8-Aug-23	7-Aug-23	6-Aug-23	6-Aug-23	6-Aug-23	6-Aug-23	6-Aug-23
CC#:	CC240226	CC240227	CC240228	CC240229	CC240230	CC240231	CC240232	CC240233	CC240234	CC240235
<i>Nanocladius</i>	0	0	0	0	0	0	0	0	10	0
<i>Orthocladius complex</i>	0	0	0	0	4	20	75	170	300	583
<i>Orthocladius lignicola</i>	0	0	0	7	0	0	0	0	0	0
<i>Parakiefferiella</i>	0	0	0	0	0	0	0	0	0	0
<i>Parametricnemus</i>	0	0	0	0	0	0	63	30	40	0
<i>Psectrocladius</i>	0	0	0	0	0	0	0	0	0	0
<i>Rheocricotopus</i>	300	7	33	27	0	0	0	0	0	17
<i>Synorthocladius</i>	0	0	0	0	0	180	200	490	510	300
<i>Thienemanniella</i>	0	0	0	0	0	20	38	10	10	33
<i>Tvetenia</i>	0	0	0	0	0	0	0	20	50	67
 Subfamily: Tanypodinae	125	14	83	153	41	0	25	20	20	0
<i>Ablabesmyia</i>	0	0	0	0	0	0	0	0	0	0
<i>Paramerina</i>	0	0	17	0	0	0	0	0	0	0
 Tribe: Natarsiini	0	0	0	0	0	0	0	0	0	0
<i>Natarsia</i>	25	4	17	7	19	0	0	0	0	0
 Tribe: Pentaneurini	0	0	0	0	0	0	0	0	0	0
<i>Pentaneura</i>	0	0	0	0	0	20	0	20	20	0
<i>Telmatopelopia</i>	25	54	17	40	67	0	0	0	0	0
<i>Thienemannimyia group</i>	0	0	17	7	0	100	125	160	110	50
 Tribe: Procladiini	0	0	0	0	0	0	0	0	0	0
<i>Procladius</i>	0	4	0	0	4	0	0	0	0	0
 Family: Dixidae	0	0	0	0	0	0	0	0	0	0
<i>Dixella</i>	0	4	0	0	4	0	0	0	0	0
 Family: Empididae	13	0	0	0	0	0	0	0	0	0
<i>Clinocera</i>	0	0	0	0	0	0	0	0	0	0
<i>Hemerodromia</i>	0	0	0	0	0	0	0	10	0	0
 Family: Pelecorhynchidae	0	0	0	0	0	0	0	0	0	0
<i>Glutops</i>	0	0	0	0	0	0	0	0	0	0
 Family: Psychodidae	0	0	0	0	0	0	0	0	0	0
<i>Pericoma/Telmatoscopus</i>	0	0	0	0	0	0	0	0	0	0
 Family: Simuliidae	0	0	0	0	0	0	0	0	0	0
<i>Simulium</i>	0	0	0	0	0	0	0	10	20	0
 Family: Tabanidae	0	0	0	0	0	0	0	0	0	0
<i>Chrysops</i>	0	0	0	0	0	20	0	0	0	0

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Sample:	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
Sample Collection Date:	8-Aug-23	8-Aug-23	8-Aug-23	8-Aug-23	7-Aug-23	6-Aug-23	6-Aug-23	6-Aug-23	6-Aug-23	6-Aug-23
CC#:	CC240226	CC240227	CC240228	CC240229	CC240230	CC240231	CC240232	CC240233	CC240234	CC240235
 Family: Tipulidae	0	0	0	0	0	20	38	10	0	0
<i>Antocha</i>	0	0	0	0	0	80	0	50	100	17
<i>Dicranota</i>	0	0	0	0	0	20	0	0	0	0
<i>Hexatoma</i>	13	0	0	0	0	0	0	0	0	0
<i>Tipula</i>	0	0	0	0	0	0	0	0	0	0
 Order: Hemiptera	0	0	0	7	0	0	0	40	0	0
 Family: Corixidae	0	0	0	0	0	0	0	0	0	0
<i>Sigara</i>	0	0	0	0	0	20	0	0	0	0
 Order: Megaloptera	0	0	0	13	0	0	0	0	0	0
 Family: Sialidae	0	0	0	0	0	0	0	0	0	0
<i>Sialis</i>	25	21	217	53	4	0	0	0	0	0
 Order: Odonata	0	0	0	0	0	0	0	0	0	0
 Family: Corduliidae	0	0	0	0	0	0	0	0	0	0
<i>Somatochlora cingulata</i>	0	0	0	0	0	0	0	0	0	0
 Order: Thysanoptera	0	0	0	0	4	0	13	20	0	0
 Order: Collembola	0	0	17	0	0	0	0	0	0	17
Subphylum: Chelicerata	0	0	0	0	0	0	0	0	0	0
 Class: Arachnida	0	0	0	0	0	0	0	0	0	0
 Order: Oribatida	450	154	2,350	213	93	0	0	0	0	0
 Order: Sarcotiformes	0	0	0	0	0	0	0	0	0	0
 Family: Hydrozetidae	0	0	17	27	7	0	0	0	0	0
 Order: Trombidiformes	0	0	17	0	0	20	0	0	10	0
 Family: Aturidae	0	0	17	0	11	0	0	0	0	0
<i>Aturus</i>	0	0	0	0	67	0	0	20	20	17
 Family: Feltriidae	0	0	0	0	0	0	0	0	0	0
<i>Feltria</i>	0	0	0	0	0	0	0	0	0	0
 Family: Halacaridae	13	4	0	0	0	0	0	0	0	0
 Family: Hydryphantidae	0	0	0	0	0	0	0	0	0	0
<i>Protzia</i>	0	0	0	0	0	0	0	0	0	0
 Family: Hygrobatidae	0	0	0	0	0	0	0	0	0	0
<i>Atractides</i>	0	0	0	0	0	20	0	0	0	0
<i>Hygrobates</i>	0	0	0	0	0	0	0	0	0	0
 Family: Lebertiidae	0	0	0	0	0	0	0	0	0	0
<i>Lebertia</i>	0	0	0	0	0	0	0	0	10	0

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Sample Collection Date:	8-Aug-23	8-Aug-23	8-Aug-23	8-Aug-23	7-Aug-23	6-Aug-23	6-Aug-23	6-Aug-23	6-Aug-23	6-Aug-23
CC#:	CC240226	CC240227	CC240228	CC240229	CC240230	CC240231	CC240232	CC240233	CC240234	CC240235
 Family: Sperchontidae	0	0	0	0	0	0	0	0	0	0
<i>Sperchon</i>	0	0	0	7	0	0	0	0	0	0
 Family: Torrenticolidae	0	0	0	0	0	0	0	0	0	0
<i>Testudacarus</i>	0	0	0	7	4	0	0	0	0	0
<i>Torrenticola</i>	13	4	0	0	4	0	0	0	10	0
 Family: Unionicolidae	0	0	0	0	0	0	0	0	0	0
<i>Unionicola</i>	0	0	0	0	0	0	0	0	0	0
Subphylum: Crustacea	0	0	0	0	0	0	0	0	0	0
 Class: Malacostraca	0	0	0	0	0	0	0	0	0	0
 Order: Amphipoda	0	0	0	0	0	0	0	0	0	0
 Family: Gammaridae	0	0	0	0	0	0	0	0	0	0
<i>Gammarus</i>	0	0	0	0	0	0	0	0	0	0
 Family: Hyalellidae	0	0	0	0	0	0	0	0	0	0
<i>Hyalella</i>	0	0	0	0	0	0	0	0	0	0
Phylum: Annelida	0	0	0	0	0	0	0	0	0	0
Subphylum: Clitellata	0	0	0	0	0	0	0	0	0	0
 Order: Hirudinida	0	0	0	0	0	0	0	0	0	0
 Family: Erpobdellidae	0	0	0	0	0	0	0	0	0	0
 Family: Hirudinidae	0	0	0	0	0	0	0	0	0	0
 Class: Oligochaeta	0	0	0	0	15	0	0	0	0	0
 Order: Lumbriculida	0	0	0	0	0	0	0	0	0	0
 Family: Lumbriculidae	0	0	0	0	0	0	0	20	0	0
 Order: Tubificida	0	0	0	0	0	0	0	0	0	0
 Family: Enchytraeidae	0	0	0	0	0	0	0	0	0	0
<i>Enchytraeus</i>	13	0	0	7	48	60	0	0	0	0
 Family: Naididae	0	0	0	0	0	0	0	0	0	0
<i>Arcteonais lomondi</i>	38	0	50	13	11	0	0	0	0	0
<i>Nais</i>	0	4	0	7	56	20	25	10	20	33
<i>Pristina</i>	0	0	0	0	0	20	0	0	0	0
<i>Stylaria lacustris</i>	0	0	0	0	0	0	0	0	0	0
 Subfamily: Tubificinae with hair chaetae	25	0	0	0	41	0	0	0	0	0
 Subfamily: Tubificinae without hair chaetae	0	0	0	0	56	0	0	0	0	0

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CC#:	CC240226	CC240227	CC240228	CC240229	CC240230	CC240231	CC240232	CC240233	CC240234	CC240235
Phylum: Cnidaria	0	0	0	0	0	0	0	0	0	0
Class: Hydrozoa	0	0	0	0	0	0	0	0	0	0
Order: Anthoathecatae	0	0	0	0	0	0	0	0	0	0
Family: Hydridae	0	0	0	0	0	0	0	0	0	0
<i>Hydra</i>	0	0	0	0	0	0	0	0	0	0
Phylum: Mollusca	0	0	0	0	0	0	0	0	0	0
Class: Bivalvia	0	0	0	0	0	0	0	0	0	0
Order: Veneroidea	0	0	0	0	0	0	0	0	0	0
Family: Pisidiidae	0	0	0	7	22	20	0	0	0	0
Class: Gastropoda	0	0	67	0	0	0	0	10	0	33
Order: Basommatophora	0	0	0	0	0	0	0	0	0	0
Family: Lymnaeidae	0	0	0	0	0	0	0	0	0	0
<i>Fossaria</i>	0	0	0	0	0	0	0	0	0	0
Family: Physidae	0	0	0	0	0	0	0	0	0	0
<i>Physa</i>	0	0	0	0	0	0	0	0	0	0
Family: Planorbidae	0	0	0	0	0	0	0	0	0	17
<i>Gyraulus</i>	0	0	0	0	0	0	0	10	0	17
Totals:	4,270	1,211	5,621	2,110	1,131	6,160	3,998	3,430	3,910	5,385
Taxa present but not included:										
Phylum: Arthropoda	0	0	0	0	0	0	0	0	0	0
Class: Copepoda	0	4	17	7	4	20	13	10	0	0
Subphylum: Crustacea	0	0	0	0	0	0	0	0	0	0
Class: Branchiopoda	0	0	0	0	0	0	0	0	0	0
Order: Cladocera	0	0	0	7	0	20	0	10	10	0
Class: Ostracoda	0	0	0	7	4	20	13	10	10	17
Phylum: Annelida	0	0	0	0	0	0	0	0	0	0
Subphylum: Clitellata	0	0	0	0	0	0	0	0	0	0
Class: Oligochaeta	0	0	0	0	15	0	0	0	0	0
Order: Tubificida	0	0	0	0	0	0	0	0	0	0
Family: Lumbricidae	0	0	0	0	0	0	0	0	0	17
Phylum: Nemata	0	4	17	0	4	0	0	0	10	0
Phylum: Platyhelminthes	0	0	0	0	0	0	0	0	0	0
Class: Turbellaria	0	0	0	0	0	0	0	0	0	0
Totals:	0	8	34	21	27	60	26	30	30	34

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Sample:	Rep 1	Rep 3	Rep 5	Rep 7	Rep 8	Rep 2	Rep 4	Rep 5	Rep 6	Rep 7
Sample Collection Date:	11-Aug-23	11-Aug-23	11-Aug-23	11-Aug-23	11-Aug-23	5-Aug-23	5-Aug-23	4-Aug-23	4-Aug-23	4-Aug-23
CC#:	CC240236	CC240237	CC240238	CC240239	CC240240	CC240241	CC240242	CC240243	CC240244	CC240245
Phylum: Arthropoda	0	0	0	0	0	0	0	0	0	0
Subphylum: Hexapoda	0	0	0	0	0	0	0	0	0	0
Class: Insecta	0	0	0	0	0	0	0	0	0	0
Order: Coleoptera	0	20	0	0	0	0	0	0	0	0
Family: Dytiscidae	0	0	0	0	0	0	0	0	0	0
Subfamily: Hydroporinae	0	0	0	0	0	80	280	7	0	20
Family: Elmidae	200	100	88	250	60	40	100	6	140	60
<i>Heterlimnius</i>	20	60	13	110	0	220	100	6	80	40
<i>Narpus</i>	40	0	0	0	0	0	0	0	0	0
<i>Optioservus</i>	0	0	0	0	20	0	0	0	0	0
Order: Ephemeroptera	0	20	75	10	0	0	0	0	0	0
Family: Ameletidae	0	0	0	0	0	0	0	0	0	0
<i>Ameletus</i>	0	0	0	0	0	20	80	0	20	20
Family: Baetidae	560	720	388	200	700	80	320	11	600	180
<i>Acentrella</i>	0	40	0	10	0	40	20	1	40	160
<i>Baetis</i>	40	120	75	60	60	100	0	0	20	0
<i>Baetis bicaudatus</i>	0	60	25	0	0	0	0	0	0	0
<i>Baetis rhodani group</i>	20	140	0	60	40	40	0	0	20	0
<i>Dipheter hageni</i>	0	0	0	0	0	20	0	0	160	60
<i>Procloeon</i>	0	0	0	0	0	0	0	4	0	20
Family: Ephemerellidae	80	360	100	780	400	360	0	1	0	40
<i>Drunella</i>	0	0	25	10	0	0	0	0	0	0
<i>Drunella doddsii</i>	0	20	0	20	0	0	0	0	0	0
<i>Drunella grandis group</i>	60	0	0	0	0	0	0	0	40	40
Family: Heptageniidae	1,200	820	950	890	440	380	240	10	420	120
<i>Cinygmula</i>	0	20	13	0	0	0	0	0	0	0
<i>Rhithrogena</i>	20	40	0	110	0	0	0	0	0	0
<i>Stenonema femoratum</i>	0	0	0	0	0	0	0	0	0	0
Family: Leptophlebiidae	0	80	25	10	0	40	40	2	220	60
<i>Paraleptophlebia</i>	0	0	0	0	0	20	20	0	20	40
Order: Plecoptera	20	80	50	30	60	60	0	1	0	0
Family: Capniidae	0	40	50	100	120	20	40	3	100	40
Family: Chloroperlidae	20	60	13	40	0	0	0	0	0	0
<i>Sweltsa</i>	160	80	50	80	80	80	60	3	20	0
Family: Leuctridae	20	0	0	20	0	0	0	0	0	0

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Sample Collection Date:	11-Aug-23	11-Aug-23	11-Aug-23	11-Aug-23	11-Aug-23	5-Aug-23	5-Aug-23	4-Aug-23	4-Aug-23	4-Aug-23
CC#:	CC240236	CC240237	CC240238	CC240239	CC240240	CC240241	CC240242	CC240243	CC240244	CC240245
 Family: Nemouridae	0	20	0	0	40	0	20	0	0	0
<i>Zapada</i>	0	40	25	0	0	0	20	0	0	0
<i>Zapada cinctipes</i>	60	40	13	20	0	0	60	5	240	20
<i>Zapada oregonensis group</i>	0	0	13	0	0	0	0	0	0	0
 Family: Perlidae	0	0	0	10	0	0	0	0	0	0
<i>Doroneuria</i>	20	20	13	10	0	0	80	0	20	0
 Family: Perlodidae	20	0	0	10	20	0	0	0	0	0
<i>Isoperla</i>	0	40	13	10	0	0	0	0	0	20
 Family: Pteronarcyidae	0	0	0	0	0	0	0	0	0	0
<i>Pteronarcella</i>	0	20	0	0	0	0	0	0	0	0
 Family: Taeniopterygidae	0	0	0	0	0	0	0	0	0	0
 Order: Trichoptera	220	140	113	90	160	220	1,400	10	560	500
 Family: Apataniidae	0	0	0	0	0	0	0	0	0	0
<i>Apatania</i>	0	0	0	0	0	20	0	0	0	0
 Family: Brachycentridae	60	0	13	0	0	0	0	0	0	0
 Family: Glossosomatidae	0	160	0	360	0	0	0	0	0	0
<i>Glossosoma</i>	0	120	13	130	0	0	20	0	0	0
 Family: Hydropsychidae	0	240	113	110	540	80	1,140	33	2,020	360
<i>Cheumatopsyche</i>	0	0	0	0	0	0	0	3	100	160
<i>Hydropsyche</i>	0	40	0	20	40	0	200	4	420	160
 Family: Hydroptilidae	0	0	0	0	0	0	140	2	240	0
<i>Hydroptila</i>	0	0	0	0	0	0	200	0	60	0
 Family: Lepidostomatidae	0	0	0	0	0	0	0	0	0	0
<i>Lepidostoma</i>	0	20	200	0	20	2,560	1,200	35	340	700
 Family: Leptoceridae	180	20	13	0	0	0	0	3	0	0
<i>Ceraclea</i>	0	0	0	0	0	0	0	0	0	0
 Family: Limnephilidae	0	0	0	0	0	0	0	0	20	0
<i>Glyphopsyche irrorata</i>	0	0	0	0	0	0	0	0	0	0
 Family: Polycentropodidae	0	0	0	0	0	0	0	0	0	0
<i>Polycentropus</i>	0	0	0	0	0	0	0	0	0	0
 Family: Rhyacophilidae	0	0	0	0	0	0	0	0	0	0
<i>Rhyacophila</i>	40	20	50	170	0	0	20	0	0	0
<i>Rhyacophila angelita group</i>	0	0	0	0	0	0	0	0	0	40
<i>Rhyacophila brunnea/vemna group</i>	0	20	38	60	40	0	0	0	0	0
<i>Rhyacophila narvae</i>	20	20	0	110	0	0	0	0	0	0

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CC#:	CC240236	CC240237	CC240238	CC240239	CC240240	CC240241	CC240242	CC240243	CC240244	CC240245
 Order: Diptera	0	40	0	0	0	20	100	2	0	40
 Family: Ceratopogonidae	0	0	0	0	0	0	0	0	0	0
<i>Bezzia/ Palpomyia</i>	0	0	0	0	0	0	0	0	0	0
<i>Mallochohelea</i>	0	0	0	0	0	0	0	0	0	0
 Family: Chironomidae	40	120	13	10	20	100	360	10	400	140
 Subfamily: Chironominae	0	0	13	0	0	0	260	0	0	0
 Tribe: Chironomini	120	0	0	0	0	0	180	0	20	0
<i>Chironomus</i>	0	0	0	0	0	0	0	0	0	0
<i>Cryptochironomus</i>	0	0	0	0	0	0	0	0	0	0
<i>Microtendipes</i>	0	0	0	0	0	0	200	3	400	100
<i>Paratendipes</i>	0	0	0	0	0	0	0	0	0	0
<i>Phaenopsectra</i>	0	0	0	0	0	0	0	0	0	0
<i>Polypedilum</i>	20	20	0	10	0	0	220	2	120	60
<i>Saetheria</i>	0	0	0	0	0	0	0	0	0	0
<i>Stictochironomus</i>	0	0	0	0	0	0	0	0	0	0
 Tribe: Pseudochironomini	0	0	0	0	0	0	0	0	0	0
<i>Pseudochironomus</i>	0	0	0	0	0	0	0	0	0	0
 Tribe: Tanytarsini	180	160	0	10	20	20	2,040	15	140	0
<i>Micropsectra</i>	40	60	50	40	100	60	720	11	420	20
<i>Rheotanytarsus</i>	380	1,420	63	10	700	20	280	50	2,800	200
<i>Stempellinella</i>	20	0	25	0	0	0	0	0	20	0
<i>Tanytarsus</i>	0	0	0	0	0	0	300	12	140	40
 Subfamily: Diamesinae	0	0	0	0	0	0	0	0	0	0
 Tribe: Diamesini	0	0	0	0	0	0	0	0	0	0
<i>Pagastia</i>	0	0	0	0	0	0	80	1	0	0
<i>Potthastia gaedii group</i>	0	20	25	0	100	0	20	0	0	0
 Subfamily: Orthoclaadiinae	120	220	13	0	100	20	640	2	100	80
<i>Brillia</i>	0	20	25	0	0	0	0	0	0	0
<i>Cardiocladius</i>	0	0	25	0	120	0	80	0	0	0
<i>Corynoneura</i>	80	0	13	0	0	0	120	2	260	0
<i>Cricotopus (Nostococladus)</i>	20	0	13	0	0	20	0	0	0	0
<i>Eukiefferiella</i>	40	420	163	10	620	60	880	1	360	280
<i>Heleniella</i>	0	0	0	0	20	0	20	0	0	0
<i>Heterotrissocladus</i>	0	0	0	0	0	0	0	0	0	0
<i>Limnophyes</i>	0	0	0	0	0	0	0	0	0	0

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Sample Collection Date:	11-Aug-23	11-Aug-23	11-Aug-23	11-Aug-23	11-Aug-23	5-Aug-23	5-Aug-23	4-Aug-23	4-Aug-23	4-Aug-23
CC#:	CC240236	CC240237	CC240238	CC240239	CC240240	CC240241	CC240242	CC240243	CC240244	CC240245
<i>Nanocladius</i>	0	0	0	0	0	0	0	0	0	0
<i>Orthocladius complex</i>	840	1,220	338	20	2,720	140	3,200	17	1,640	440
<i>Orthocladius lignicola</i>	0	0	0	0	0	0	0	0	0	0
<i>Parakiefferiella</i>	0	0	0	0	0	0	240	0	20	0
<i>Parametriocnemus</i>	40	0	0	0	0	0	20	0	160	80
<i>Psectrocladius</i>	0	0	0	0	0	0	80	0	0	0
<i>Rheocricotopus</i>	60	0	75	0	0	0	0	2	0	0
<i>Synorthocladius</i>	0	0	0	0	0	220	1,620	56	1,880	1,340
<i>Thienemanniella</i>	60	60	13	0	340	40	20	0	40	20
<i>Tvetenia</i>	20	260	213	20	100	20	80	0	120	0
 Subfamily: Tanypodinae	20	40	50	0	40	40	1,700	1	60	80
<i>Ablabesmyia</i>	0	0	0	0	0	0	0	0	0	0
<i>Paramerina</i>	0	0	0	0	0	0	20	0	0	0
 Tribe: Natarsiini	0	0	0	0	0	0	0	0	0	0
<i>Natarsia</i>	0	0	0	0	0	0	0	0	0	0
 Tribe: Pentaneurini	0	0	0	0	0	0	0	0	0	0
<i>Pentaneura</i>	0	0	0	0	0	0	20	0	0	0
<i>Telmatopelopia</i>	0	0	0	0	0	0	0	0	0	0
<i>Thienemannimyia group</i>	80	200	38	30	80	60	800	19	540	180
 Tribe: Procladiini	0	0	0	0	0	0	0	0	0	0
<i>Procladius</i>	0	0	0	0	0	0	0	0	0	0
 Family: Dixidae	0	0	25	0	0	0	0	0	0	0
<i>Dixella</i>	0	0	0	0	0	0	0	0	0	0
 Family: Empididae	20	60	25	0	60	20	60	0	40	0
<i>Clinocera</i>	0	0	0	0	0	0	0	0	20	0
<i>Hemerodromia</i>	0	0	0	0	0	0	40	3	40	0
 Family: Pelecorhynchidae	0	0	0	0	0	0	0	0	0	0
<i>Glutops</i>	20	0	0	10	0	0	0	0	0	0
 Family: Psychodidae	0	0	0	0	0	0	0	0	0	0
<i>Pericoma/Telmatoscopus</i>	0	40	0	10	0	0	0	0	0	0
 Family: Simuliidae	0	0	0	0	0	0	80	7	440	120
<i>Simulium</i>	0	0	0	10	0	0	0	6	560	80
 Family: Tabanidae	0	0	0	0	0	0	0	0	0	0
<i>Chrysops</i>	0	0	0	0	0	0	0	0	0	0

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CC#:	CC240236	CC240237	CC240238	CC240239	CC240240	CC240241	CC240242	CC240243	CC240244	CC240245
 Family: Tipulidae	0	40	0	0	0	20	0	2	0	0
<i>Antocha</i>	20	120	50	50	320	480	800	10	360	340
<i>Dicranota</i>	0	0	0	10	0	0	0	0	20	0
<i>Hexatoma</i>	0	0	0	0	0	20	60	0	0	0
<i>Tipula</i>	20	0	0	0	0	0	0	0	0	0
 Order: Hemiptera	0	0	0	0	0	0	0	0	0	0
 Family: Corixidae	0	0	0	0	0	0	0	0	0	0
<i>Sigara</i>	0	0	0	0	0	0	0	0	0	0
 Order: Megaloptera	0	0	0	0	0	0	0	0	0	0
 Family: Sialidae	0	0	0	0	0	0	0	0	0	0
<i>Sialis</i>	0	0	0	0	0	0	0	0	0	0
 Order: Odonata	0	0	0	0	0	0	0	0	0	0
 Family: Corduliidae	0	0	0	0	0	0	0	0	0	0
<i>Somatochlora cingulata</i>	0	0	0	0	0	0	0	0	0	0
 Order: Thysanoptera	0	0	0	0	0	0	0	0	0	0
 Order: Collembola	0	0	25	0	0	0	20	0	0	0
Subphylum: Chelicerata	0	0	0	0	0	0	0	0	0	0
 Class: Arachnida	0	0	0	0	0	0	0	0	0	0
 Order: Oribatida	240	20	0	70	0	20	20	0	0	0
 Order: Sarcotiformes	0	0	0	0	0	0	0	0	0	0
 Family: Hydrozetidae	20	0	0	0	0	0	0	0	0	0
 Order: Trombidiformes	120	260	0	40	40	40	120	2	140	80
 Family: Aturidae	0	0	13	0	0	0	40	0	0	0
<i>Aturus</i>	280	200	63	0	0	120	140	4	480	60
 Family: Feltriidae	0	0	0	0	0	0	0	0	0	0
<i>Feltria</i>	0	40	0	0	0	0	40	1	20	20
 Family: Halacaridae	0	0	0	0	0	0	0	0	0	0
 Family: Hydryphantidae	0	0	0	0	0	0	0	0	0	0
<i>Protzia</i>	0	0	13	0	0	0	0	0	0	0
 Family: Hygrobatidae	0	0	0	0	0	0	0	0	0	0
<i>Atractides</i>	0	0	0	10	0	40	0	1	20	40
<i>Hygrobates</i>	0	0	0	0	0	0	20	0	0	0
 Family: Lebertiidae	0	0	0	0	0	0	0	0	0	0
<i>Lebertia</i>	20	0	13	0	0	20	20	0	0	0

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CC#:	CC240236	CC240237	CC240238	CC240239	CC240240	CC240241	CC240242	CC240243	CC240244	CC240245
 Family: Sperchontidae	0	0	0	0	0	0	0	0	0	0
<i>Sperchon</i>	0	20	0	0	0	0	0	0	0	20
 Family: Torrenticolidae	20	100	163	50	120	140	0	0	0	0
<i>Testudacarus</i>	120	140	0	0	80	0	20	0	40	20
<i>Torrenticola</i>	200	260	200	150	140	120	0	2	60	20
 Family: Unionicolidae	0	0	0	0	0	0	0	0	0	0
<i>Unionicola</i>	0	0	0	0	0	0	0	0	0	0
Subphylum: Crustacea	0	0	0	0	0	0	0	0	0	0
 Class: Malacostraca	0	0	0	0	0	0	0	0	0	0
 Order: Amphipoda	0	0	0	0	0	0	0	0	0	0
 Family: Gammaridae	0	0	0	0	0	0	0	0	0	0
<i>Gammarus</i>	0	0	0	0	0	0	0	0	0	0
 Family: Hyalellidae	0	0	0	0	0	0	0	0	0	0
<i>Hyalella</i>	0	0	0	0	0	0	0	0	0	0
Phylum: Annelida	0	0	0	0	0	0	0	0	0	0
Subphylum: Clitellata	0	0	0	0	0	0	0	0	0	0
 Order: Hirudinida	0	0	0	0	0	0	0	0	0	0
 Family: Erpobdellidae	0	0	0	0	0	0	0	0	0	0
 Family: Hirudinidae	0	0	0	0	0	0	0	0	0	0
 Class: Oligochaeta	0	0	0	0	0	0	0	0	0	0
 Order: Lumbriculida	0	0	0	0	0	0	0	0	0	0
 Family: Lumbriculidae	0	0	13	10	20	20	0	2	40	40
 Order: Tubificida	0	0	0	0	0	0	0	0	0	0
 Family: Enchytraeidae	0	0	0	0	0	0	0	0	0	0
<i>Enchytraeus</i>	0	0	0	0	20	0	40	0	100	20
 Family: Naididae	0	0	0	0	0	0	0	0	0	0
<i>Arctonais lomondi</i>	0	0	0	0	0	0	0	0	0	0
<i>Nais</i>	0	0	0	0	0	0	0	0	80	0
<i>Pristina</i>	0	0	0	0	0	0	0	0	0	0
<i>Stylaria lacustris</i>	0	0	0	0	0	0	0	0	0	0
 Subfamily: Tubificinae with hair chaetae	0	0	0	0	0	0	0	0	0	0
 Subfamily: Tubificinae without hair chaetae	0	0	0	0	0	0	0	0	0	0

Note: A value of zero reported at a less specific level of taxonomy does not indicate an absence of organisms at a more specific level of taxonomy.

Raw Benthic Invertebrate Density Results (# individuals/sample), Mount Polley Mine



Project: 23-01-6 (MPMC Creek CEMP)
 Minnow Environmental (BC)
 Taxonomist: Scott Finlayson
scottfinlayson@cordilleraconsulting.ca
 250-494-7553

Site:	EDC-D	EDC-D	EDC-D	EDC-D	EDC-D	E1	E1	E1	E1	E1
Sample:	Rep 1	Rep 3	Rep 5	Rep 7	Rep 8	Rep 2	Rep 4	Rep 5	Rep 6	Rep 7
Sample Collection Date:	11-Aug-23	11-Aug-23	11-Aug-23	11-Aug-23	11-Aug-23	5-Aug-23	5-Aug-23	4-Aug-23	4-Aug-23	4-Aug-23
CC#:	CC240236	CC240237	CC240238	CC240239	CC240240	CC240241	CC240242	CC240243	CC240244	CC240245
Phylum: Cnidaria	0	0	0	0	0	0	0	0	0	0
Class: Hydrozoa	0	0	0	0	0	0	0	0	0	0
Order: Anthoathecatae	0	0	0	0	0	0	0	0	0	0
Family: Hydridae	0	0	0	0	0	0	0	0	0	0
Hydra	0	0	0	0	0	0	0	0	0	0
Phylum: Mollusca	0	0	0	0	0	0	0	0	0	0
Class: Bivalvia	0	0	0	0	0	0	0	0	0	0
Order: Veneroidea	0	0	0	0	0	0	0	0	0	0
Family: Pisiidae	0	0	0	0	0	0	0	0	0	0
Class: Gastropoda	0	0	0	0	0	0	0	0	0	0
Order: Basommatophora	0	0	0	0	0	0	0	0	0	0
Family: Lymnaeidae	0	0	0	0	0	0	0	0	0	0
Fossaria	0	0	0	0	0	0	0	0	0	0
Family: Physidae	0	0	0	0	0	0	0	0	0	0
Physa	0	0	0	0	0	0	0	0	0	0
Family: Planorbidae	0	0	0	0	0	0	0	0	0	0
Gyraulus	0	0	0	0	0	0	0	0	0	0
Totals:	6,360	9,440	4,341	4,480	8,720	6,380	21,620	396	18,020	6,820
Taxa present but not included:										
Phylum: Arthropoda	0	0	0	0	0	0	0	0	0	0
Class: Copepoda	0	0	0	0	0	0	20	1	20	20
Subphylum: Crustacea	0	0	0	0	0	0	0	0	0	0
Class: Branchiopoda	0	0	0	0	0	0	0	0	0	0
Order: Cladocera	0	0	0	0	0	0	20	0	20	0
Class: Ostracoda	20	20	0	10	20	20	20	1	20	20
Phylum: Annelida	0	0	0	0	0	0	0	0	0	0
Subphylum: Clitellata	0	0	0	0	0	0	0	0	0	0
Class: Oligochaeta	0	0	0	0	0	0	0	0	0	0
Order: Tubificida	0	0	0	0	0	0	0	0	0	0
Family: Lumbricidae	0	0	0	0	0	0	0	0	0	0
Phylum: Nemata	0	0	0	0	20	0	20	1	20	20
Phylum: Platyhelminthes	0	0	0	0	0	0	0	0	0	0
Class: Turbellaria	0	0	0	0	0	0	0	0	0	0
Totals:	20	20	0	10	40	20	80	3	80	60

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Area-Based Benthic Invertebrate Density Results (# individuals/m²), Mount Polley Mine



Project: 23-01-6 (MPMC Creek CEMP)
 Minnow Environmental (BC)
 Taxonomist: Scott Finlayson
scottfinlayson@cordilleraconsulting.ca
 250-494-7553

Site:	HAC-R1	HAC-R1	HAC-R1	HAC-R1	HAC-R1	HAC-U	HAC-U	HAC-U	HAC-U	HAC-U
Sample:	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
Sample Collection Date:	10-Aug-23	10-Aug-23	10-Aug-23	10-Aug-23	10-Aug-23	9-Aug-23	9-Aug-23	9-Aug-23	9-Aug-23	10-Aug-23
CC#:	CC240216	CC240217	CC240218	CC240219	CC240220	CC240221	CC240222	CC240223	CC240224	CC240225
Phylum: Arthropoda	0	0	0	0	0	0	0	0	0	0
Subphylum: Hexapoda	0	0	0	0	0	0	0	0	0	0
Class: Insecta	0	0	0	0	0	0	0	0	0	0
Order: Coleoptera	0	0	0	0	0	0	0	0	0	0
Family: Dytiscidae	0	0	0	0	0	0	0	0	0	0
Subfamily: Hydroporinae	0	0	0	0	0	0	0	0	0	0
Family: Elmidae	56.7	200	267	0	223	1,533	2,067	2,733	4,000	3,600
<i>Heterlimnius</i>	0	0	0	0	0	0	0	0	0	0
<i>Narpus</i>	0	0	0	0	0	0	0	0	0	0
<i>Optioservus</i>	56.7	400	333	0	223	467	600	1,467	1,467	1,467
Order: Ephemeroptera	0	0	0	0	0	0	0	0	0	0
Family: Ameletidae	0	0	0	0	0	0	0	0	0	0
<i>Ameletus</i>	0	0	0	0	0	0	0	0	0	0
Family: Baetidae	167	800	100	0	223	533	133	400	600	333
<i>Acentrella</i>	0	0	0	0	0	0	0	0	0	0
<i>Baetis</i>	0	0	0	0	0	0	66.7	0	66.7	0
<i>Baetis bicaudatus</i>	0	0	0	0	0	0	0	0	0	0
<i>Baetis rhodani group</i>	0	0	0	0	0	0	0	133	0	133
<i>Dipheter hageni</i>	56.7	267	33.3	0	0	133	0	66.7	0	133
<i>Proclleon</i>	0	0	0	0	0	0	0	0	0	0
Family: Ephemerellidae	0	0	0	0	56.7	0	66.7	0	0	0
<i>Drunella</i>	0	0	0	0	0	0	0	0	0	0
<i>Drunella doddsii</i>	0	0	0	0	0	0	0	0	0	0
<i>Drunella grandis group</i>	0	0	0	0	0	0	0	0	0	0
Family: Heptageniidae	0	66.7	33.3	0	0	66.7	0	66.7	66.7	133
<i>Cinygmula</i>	0	0	0	0	0	0	0	0	0	0
<i>Rhithrogena</i>	0	0	0	0	0	0	0	0	0	0
<i>Stenonema femoratum</i>	0	0	0	0	0	0	0	0	0	0
Family: Leptophlebiidae	2,723	2,467	2,867	867	1,443	3,267	1,200	1,333	400	1,333
<i>Paraleptophlebia</i>	390	267	100	133	277	0	333	933	66.7	1,467
Order: Plecoptera	0	0	0	0	0	0	0	0	0	0
Family: Capniidae	0	0	0	0	0	0	0	0	0	0
Family: Chloroperlidae	0	0	0	0	0	0	0	0	0	0
<i>Sweltsa</i>	0	0	0	0	0	0	0	0	0	0
Family: Leuctridae	0	0	0	0	0	0	0	0	0	0

Notes: All results displayed are area-based densities (#/m²). A value of zero reported at a less specific level of taxonomy does not indicate an absence of organisms at a more specific level of taxonomy.

Area-Based Benthic Invertebrate Density Results (# individuals/m²), Mount Polley Mine



Project: 23-01-6 (MPMC Creek CEMP)
 Minnow Environmental (BC)
 Taxonomist: Scott Finlayson
scottfinlayson@cordilleraconsulting.ca
 250-494-7553

Site:	HAC-R1	HAC-R1	HAC-R1	HAC-R1	HAC-R1	HAC-U	HAC-U	HAC-U	HAC-U	HAC-U
Sample:	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
Sample Collection Date:	10-Aug-23	10-Aug-23	10-Aug-23	10-Aug-23	10-Aug-23	9-Aug-23	9-Aug-23	9-Aug-23	9-Aug-23	10-Aug-23
CC#:	CC240216	CC240217	CC240218	CC240219	CC240220	CC240221	CC240222	CC240223	CC240224	CC240225
 Family: Nemouridae	0	0	0	0	0	0	0	0	0	0
<i>Zapada</i>	0	0	0	0	0	0	0	0	0	0
<i>Zapada cinctipes</i>	0	0	0	0	0	0	0	0	0	0
<i>Zapada oregonensis group</i>	0	0	0	0	0	0	0	0	0	0
 Family: Perlidae	0	0	0	0	0	0	0	0	0	0
<i>Doroneuria</i>	0	0	0	0	0	0	0	0	0	0
 Family: Perlodidae	0	0	0	0	0	0	0	0	0	0
<i>Isoperla</i>	0	0	0	0	0	0	0	0	0	0
 Family: Pteronarcyidae	0	0	0	0	0	0	0	0	0	0
<i>Pteronarcella</i>	0	0	0	0	0	0	0	0	0	0
 Family: Taeniopterygidae	0	0	0	0	0	0	0	0	0	0
 Order: Trichoptera	223	533	100	66.7	56.7	533	467	66.7	267	200
 Family: Apataniidae	0	0	0	0	0	0	0	0	0	0
<i>Apatania</i>	0	0	0	0	0	0	0	0	0	0
 Family: Brachycentridae	0	0	0	0	0	0	0	0	0	0
 Family: Glossosomatidae	0	0	0	0	0	0	0	0	0	0
<i>Glossosoma</i>	0	0	0	0	0	0	0	0	0	0
 Family: Hydropsychidae	1,500	3,000	733	66.7	833	2,400	1,600	2,600	2,667	2,533
<i>Cheumatopsyche</i>	557	1,267	167	66.7	110	400	200	1,000	200	467
<i>Hydropsyche</i>	0	267	0	0	0	133	133	133	400	933
 Family: Hydroptilidae	0	0	0	66.7	0	0	0	0	0	0
<i>Hydroptila</i>	0	0	0	0	0	0	0	0	0	66.7
 Family: Lepidostomatidae	0	0	0	0	0	0	0	0	0	0
<i>Lepidostoma</i>	110	133	233	66.7	167	1,267	600	1,267	1,267	1,333
 Family: Leptoceridae	390	400	433	133	1,333	200	200	333	467	133
<i>Ceraclea</i>	167	0	33.3	0	0	0	0	0	0	0
 Family: Limnephilidae	0	0	0	0	0	0	0	0	0	0
<i>Glyphopsyche irrorata</i>	56.7	66.7	0	0	0	0	0	0	0	0
 Family: Polycentropodidae	0	0	0	0	0	0	0	0	0	0
<i>Polycentropus</i>	0	0	0	0	0	66.7	0	0	0	0
 Family: Rhyacophilidae	0	0	0	0	0	0	0	0	0	0
<i>Rhyacophila</i>	0	0	0	0	0	0	0	0	66.7	66.7
<i>Rhyacophila angelita group</i>	0	0	0	0	0	0	0	0	0	0
<i>Rhyacophila brunnea/vemna group</i>	0	0	0	0	0	0	0	66.7	0	0
<i>Rhyacophila narvae</i>	0	0	0	0	0	0	0	0	0	0

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Area-Based Benthic Invertebrate Density Results (# individuals/m²), Mount Polley Mine



Project: 23-01-6 (MPMC Creek CEMP)
 Minnow Environmental (BC)
 Taxonomist: Scott Finlayson
scottfinlayson@cordilleraconsulting.ca
 250-494-7553

Site:	HAC-R1	HAC-R1	HAC-R1	HAC-R1	HAC-R1	HAC-U	HAC-U	HAC-U	HAC-U	HAC-U
Sample:	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
Sample Collection Date:	10-Aug-23	10-Aug-23	10-Aug-23	10-Aug-23	10-Aug-23	9-Aug-23	9-Aug-23	9-Aug-23	9-Aug-23	10-Aug-23
CC#:	CC240216	CC240217	CC240218	CC240219	CC240220	CC240221	CC240222	CC240223	CC240224	CC240225
 Order: Diptera	0	0	0	0	0	0	0	0	0	0
 Family: Ceratopogonidae	0	0	0	66.7	0	0	0	0	0	0
<i>Bezzia/ Palpomyia</i>	0	0	0	66.7	0	0	0	0	0	0
<i>Mallochohelea</i>	0	0	0	0	0	0	0	0	0	0
 Family: Chironomidae	277	600	233	66.7	333	600	600	933	733	1,400
 Subfamily: Chironominae	0	66.7	0	0	0	0	0	0	0	0
 Tribe: Chironomini	0	0	767	5,333	1,333	0	0	267	0	1,467
<i>Chironomus</i>	0	0	0	0	0	0	0	0	0	0
<i>Cryptochironomus</i>	0	0	0	0	0	0	0	0	0	0
<i>Microtendipes</i>	167	66.7	367	400	277	467	667	400	400	600
<i>Paratendipes</i>	223	66.7	467	1,800	723	0	0	200	0	333
<i>Phaenopsectra</i>	0	66.7	0	0	0	0	0	66.7	0	0
<i>Polypedilum</i>	0	66.7	0	0	0	0	66.7	66.7	200	133
<i>Saetheria</i>	0	0	0	0	0	0	0	0	0	0
<i>Stictochironomus</i>	0	0	0	0	0	0	0	0	0	0
 Tribe: Pseudochironomini	0	0	0	0	0	0	0	0	0	0
<i>Pseudochironomus</i>	0	66.7	0	0	0	0	0	0	0	0
 Tribe: Tanytarsini	277	133	133	0	223	267	267	133	467	1,733
<i>Micropectra</i>	0	0	66.7	0	0	0	133	133	0	0
<i>Rheotanytarsus</i>	2,390	7,800	1,933	133	1,443	3,800	4,533	4,733	5,800	18,467
<i>Stempellinella</i>	0	0	66.7	0	0	0	0	0	0	0
<i>Tanytarsus</i>	110	200	267	133	223	733	467	533	467	600
 Subfamily: Diamesinae	0	0	0	0	0	0	0	0	0	0
 Tribe: Diamesini	0	0	0	0	0	0	0	0	0	0
<i>Pagastia</i>	0	0	0	0	0	0	0	0	66.7	66.7
<i>Pothastia gaedii group</i>	0	0	0	0	0	0	0	0	0	0
 Subfamily: Orthoclaadiinae	223	66.7	100	66.7	443	66.7	467	200	400	400
<i>Brillia</i>	0	0	0	0	0	0	0	0	0	0
<i>Cardiocladius</i>	0	0	0	0	0	0	0	0	66.7	0
<i>Corynoneura</i>	56.7	0	0	0	0	0	66.7	133	0	267
<i>Cricotopus (Nostococladus)</i>	0	0	0	0	0	0	0	0	0	0
<i>Eukiefferiella</i>	110	0	66.7	66.7	0	133	66.7	66.7	333	333
<i>Heleniella</i>	0	0	0	0	0	0	0	0	0	0
<i>Heterotrissocladus</i>	0	0	0	0	0	0	0	0	0	0
<i>Limnophyes</i>	0	0	0	0	0	0	0	0	0	0

Notes: All results displayed are area-based densities (#/m²). A value of zero reported at a less specific level of taxonomy does not indicate an absence of organisms at a more specific level of taxonomy.

Area-Based Benthic Invertebrate Density Results (# individuals/m²), Mount Polley Mine



Project: 23-01-6 (MPMC Creek CEMP)
 Minnow Environmental (BC)
 Taxonomist: Scott Finlayson
scottfinlayson@cordilleraconsulting.ca
 250-494-7553

Site:	HAC-R1	HAC-R1	HAC-R1	HAC-R1	HAC-R1	HAC-U	HAC-U	HAC-U	HAC-U	HAC-U
Sample:	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
Sample Collection Date:	10-Aug-23	10-Aug-23	10-Aug-23	10-Aug-23	10-Aug-23	9-Aug-23	9-Aug-23	9-Aug-23	9-Aug-23	10-Aug-23
CC#:	CC240216	CC240217	CC240218	CC240219	CC240220	CC240221	CC240222	CC240223	CC240224	CC240225
<i>Nanocladius</i>	0	0	0	0	0	133	0	0	0	0
<i>Orthocladius complex</i>	1,667	2,733	1,667	4,200	943	3,600	2,467	3,333	867	1,867
<i>Orthocladius lignicola</i>	0	0	0	0	0	0	0	0	0	0
<i>Parakiefferiella</i>	0	0	0	0	0	0	0	0	0	0
<i>Parametricnemus</i>	56.7	66.7	100	0	0	467	600	66.7	267	333
<i>Psectrocladius</i>	0	0	0	0	0	0	0	0	0	0
<i>Rheocricotopus</i>	0	0	0	0	0	0	0	0	0	0
<i>Synorthocladius</i>	167	600	200	200	110	1,533	1,400	1,667	1,267	1,267
<i>Thienemanniella</i>	56.7	0	0	0	0	0	0	0	0	200
<i>Tvetenia</i>	56.7	200	0	0	0	0	0	0	0	0
 Subfamily: Tanypodinae	0	0	0	0	223	0	133	0	0	200
<i>Ablabesmyia</i>	0	0	200	267	277	66.7	66.7	133	0	66.7
<i>Paramerina</i>	0	0	0	0	0	0	0	0	0	0
 Tribe: Natarsiini	0	0	0	0	0	0	0	0	0	0
<i>Natarsia</i>	0	0	0	0	0	0	0	0	0	0
 Tribe: Pentaneurini	0	0	0	0	0	0	0	0	0	0
<i>Pentaneura</i>	56.7	0	33.3	0	56.7	66.7	200	0	66.7	66.7
<i>Telmatopelopia</i>	0	0	0	0	0	0	0	0	0	0
<i>Thienemannimyia group</i>	2,833	1,667	2,233	1,067	2,110	1,133	1,067	1,467	400	733
 Tribe: Procladiini	0	0	0	0	0	0	0	0	0	0
<i>Procladius</i>	0	0	0	0	0	0	0	0	66.7	0
 Family: Dixidae	0	0	0	0	0	0	0	0	0	0
<i>Dixella</i>	0	0	0	0	0	0	0	0	0	0
 Family: Empididae	0	0	0	0	0	66.7	0	0	0	0
<i>Clinocera</i>	0	0	0	0	0	0	0	0	0	0
<i>Hemerodromia</i>	56.7	200	66.7	0	110	0	0	0	66.7	0
 Family: Pelecorhynchidae	0	0	0	0	0	0	0	0	0	0
<i>Glutops</i>	0	0	0	0	0	0	0	0	0	0
 Family: Psychodidae	0	0	0	0	0	0	0	0	0	0
<i>Pericoma/Telmatoscopus</i>	0	0	0	0	0	0	0	0	0	0
 Family: Simuliidae	0	0	0	0	0	66.7	66.7	0	0	200
<i>Simulium</i>	277	66.7	66.7	0	0	0	0	0	66.7	933
 Family: Tabanidae	0	0	0	66.7	0	0	0	0	0	0
<i>Chrysops</i>	0	0	0	0	0	0	0	0	0	0

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Area-Based Benthic Invertebrate Density Results (# individuals/m²), Mount Polley Mine



Project: 23-01-6 (MPMC Creek CEMP)
 Minnow Environmental (BC)
 Taxonomist: Scott Finlayson
scottfinlayson@cordilleraconsulting.ca
 250-494-7553

Site:	HAC-R1	HAC-R1	HAC-R1	HAC-R1	HAC-R1	HAC-U	HAC-U	HAC-U	HAC-U	HAC-U
Sample:	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
Sample Collection Date:	10-Aug-23	10-Aug-23	10-Aug-23	10-Aug-23	10-Aug-23	9-Aug-23	9-Aug-23	9-Aug-23	9-Aug-23	10-Aug-23
CC#:	CC240216	CC240217	CC240218	CC240219	CC240220	CC240221	CC240222	CC240223	CC240224	CC240225
 Family: Tipulidae	0	0	0	0	0	0	0	66.7	0	0
<i>Antocha</i>	0	0	0	0	0	400	1,067	267	400	66.7
<i>Dicranota</i>	0	0	0	0	0	0	0	0	0	0
<i>Hexatoma</i>	0	0	0	0	0	0	0	0	0	0
<i>Tipula</i>	0	0	0	0	0	0	0	0	0	0
 Order: Hemiptera	0	0	0	0	0	667	0	0	0	0
 Family: Corixidae	0	0	0	0	0	0	0	0	0	0
<i>Sigara</i>	0	0	0	0	0	0	0	0	0	0
 Order: Megaloptera	0	0	0	0	0	0	0	0	0	0
 Family: Sialidae	0	0	0	0	0	0	0	0	0	0
<i>Sialis</i>	0	0	0	0	0	0	0	0	0	0
 Order: Odonata	0	0	0	0	0	0	0	0	0	0
 Family: Corduliidae	0	0	0	0	0	0	0	0	0	0
<i>Somatochlora cingulata</i>	0	0	0	0	0	66.7	0	0	0	0
 Order: Thysanoptera	0	0	0	66.7	0	66.7	66.7	0	0	0
 Order: Collembola	0	0	0	0	0	0	0	0	0	0
Subphylum: Chelicerata	0	0	0	0	0	0	0	0	0	0
 Class: Arachnida	0	0	0	0	0	0	0	0	0	0
 Order: Oribatida	333	66.7	233	267	333	267	267	0	200	333
 Order: Sarcoptiformes	0	0	0	0	0	0	0	0	0	0
 Family: Hydrozetidae	667	867	633	933	777	600	267	333	333	400
 Order: Trombidiformes	0	0	0	0	110	0	0	200	200	66.7
 Family: Aturidae	0	0	0	0	0	0	0	0	0	0
<i>Aturus</i>	110	66.7	0	0	0	0	0	0	0	0
 Family: Feltriidae	0	0	0	0	0	0	0	0	0	0
<i>Feltria</i>	0	0	0	0	0	0	0	0	0	0
 Family: Halacaridae	0	0	0	0	0	0	0	0	0	0
 Family: Hydryphantidae	0	0	0	0	0	0	0	0	0	0
<i>Protzia</i>	0	0	0	0	0	0	0	0	0	0
 Family: Hygrobatidae	0	0	0	0	0	0	0	0	0	0
<i>Atractides</i>	0	66.7	0	0	0	0	66.7	66.7	66.7	133
<i>Hygrobates</i>	0	0	0	0	0	0	0	0	0	0
 Family: Lebertiidae	0	0	0	0	0	0	0	0	0	0
<i>Lebertia</i>	0	0	0	0	0	0	0	0	0	0

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Area-Based Benthic Invertebrate Density Results (# individuals/m²), Mount Polley Mine



Project: 23-01-6 (MPMC Creek CEMP)
 Minnow Environmental (BC)
 Taxonomist: Scott Finlayson
scottfinlayson@cordilleraconsulting.ca
 250-494-7553

Site:	HAC-R1	HAC-R1	HAC-R1	HAC-R1	HAC-R1	HAC-U	HAC-U	HAC-U	HAC-U	HAC-U
Sample:	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
Sample Collection Date:	10-Aug-23	10-Aug-23	10-Aug-23	10-Aug-23	10-Aug-23	9-Aug-23	9-Aug-23	9-Aug-23	9-Aug-23	10-Aug-23
CC#:	CC240216	CC240217	CC240218	CC240219	CC240220	CC240221	CC240222	CC240223	CC240224	CC240225
 Family: Sperchontidae	0	0	0	0	0	0	0	0	0	0
<i>Sperchon</i>	56.7	0	0	0	0	0	0	0	0	66.7
 Family: Torrenticolidae	0	0	0	0	0	0	0	0	0	0
<i>Testudacarus</i>	0	0	0	0	0	0	0	0	0	0
<i>Torrenticola</i>	0	0	0	0	0	0	0	0	0	0
 Family: Unionicolidae	0	0	0	0	0	0	0	0	0	0
<i>Unionicola</i>	0	0	0	66.7	0	0	0	0	0	0
Subphylum: Crustacea	0	0	0	0	0	0	0	0	0	0
 Class: Malacostraca	0	0	0	0	0	0	0	0	0	0
 Order: Amphipoda	56.7	66.7	100	66.7	56.7	0	0	267	66.7	66.7
 Family: Gammaridae	0	0	0	0	0	0	0	0	0	0
<i>Gammarus</i>	0	0	0	133	0	0	0	0	0	0
 Family: Hyalellidae	0	0	0	0	0	0	0	0	0	0
<i>Hyalella</i>	110	66.7	0	0	0	0	0	133	66.7	133
Phylum: Annelida	0	0	0	0	0	0	0	0	0	0
Subphylum: Clitellata	0	0	0	0	0	0	0	0	0	0
 Order: Hirudinida	0	0	0	0	0	0	0	0	66.7	0
 Family: Erpobdellidae	0	0	0	0	0	0	0	0	0	66.7
 Family: Hirudinidae	0	0	0	0	0	0	0	0	66.7	0
 Class: Oligochaeta	0	0	0	0	56.7	0	0	0	0	0
 Order: Lumbriculida	0	0	0	0	0	0	0	0	0	0
 Family: Lumbriculidae	0	0	0	0	0	0	0	0	0	66.7
 Order: Tubificida	0	0	0	0	0	0	0	0	0	0
 Family: Enchytraeidae	0	0	0	0	0	0	0	0	0	0
<i>Enchytraeus</i>	0	0	1,000	3,133	167	0	0	0	0	0
 Family: Naididae	0	0	0	0	0	0	66.7	0	0	0
<i>Arcteonais lomondi</i>	0	0	0	0	0	0	0	0	0	0
<i>Nais</i>	0	0	0	200	110	0	867	133	66.7	400
<i>Pristina</i>	0	0	0	0	0	0	0	0	0	0
<i>Stylaria lacustris</i>	0	0	0	0	0	0	133	0	0	0
 Subfamily: Tubificinae with hair chaetae	56.7	0	0	0	0	0	0	0	0	0
 Subfamily: Tubificinae without hair chaetae	167	66.7	0	66.7	0	0	0	66.7	0	0

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Area-Based Benthic Invertebrate Density Results (# individuals/m²), Mount Polley Mine



Project: 23-01-6 (MPMC Creek CEMP)
 Minnow Environmental (BC)
 Taxonomist: Scott Finlayson
scottfinlayson@cordilleraconsulting.ca
 250-494-7553

Site:	HAC-R1	HAC-R1	HAC-R1	HAC-R1	HAC-R1	HAC-U	HAC-U	HAC-U	HAC-U	HAC-U
Sample:	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
Sample Collection Date:	10-Aug-23	10-Aug-23	10-Aug-23	10-Aug-23	10-Aug-23	9-Aug-23	9-Aug-23	9-Aug-23	9-Aug-23	10-Aug-23
CC#:	CC240216	CC240217	CC240218	CC240219	CC240220	CC240221	CC240222	CC240223	CC240224	CC240225
Phylum: Cnidaria	0	0	0	0	0	0	0	0	0	0
Class: Hydrozoa	0	0	0	0	0	0	0	0	0	0
Order: Anthoathecatae	0	0	0	0	0	0	0	0	0	0
Family: Hydridae	0	0	0	0	0	0	0	0	0	0
<i>Hydra</i>	0	133	0	0	0	0	66.7	0	0	133
Phylum: Mollusca	0	0	0	0	0	0	0	0	0	0
Class: Bivalvia	0	0	0	0	0	0	0	0	0	0
Order: Veneroidea	0	0	0	0	0	0	0	0	0	0
Family: Pisiidae	0	0	0	0	0	0	0	0	0	0
Class: Gastropoda	833	1,600	433	267	1,000	2,067	1,600	267	800	1,333
Order: Basommatophora	0	0	0	0	0	0	0	0	0	0
Family: Lymnaeidae	0	0	0	0	0	0	0	0	0	0
<i>Fossaria</i>	56.7	133	0	66.7	110	467	400	133	467	200
Family: Physidae	0	66.7	0	0	0	0	0	0	66.7	66.7
<i>Physa</i>	0	66.7	0	0	0	0	0	0	66.7	0
Family: Planorbidae	610	0	0	133	110	200	0	0	0	0
<i>Gyraulus</i>	390	333	100	0	56.7	66.7	267	200	867	467
Totals:	18,960	28,467	16,967	20,800	16,663	29,067	26,133	29,267	27,800	50,000
Taxa present but not included:										
Phylum: Arthropoda	0	0	0	0	0	0	0	0	0	0
Class: Copepoda	56.7	66.7	0	0	56.7	66.7	66.7	0	0	66.7
Subphylum: Crustacea	0	0	0	0	0	0	0	0	0	0
Class: Branchiopoda	0	0	0	0	0	0	0	0	0	0
Order: Cladocera	56.7	66.7	33.3	66.7	56.7	66.7	66.7	0	66.7	66.7
Class: Ostracoda	56.7	66.7	33.3	66.7	56.7	66.7	66.7	66.7	66.7	66.7
Phylum: Annelida	0	0	0	0	0	0	0	0	0	0
Subphylum: Clitellata	0	0	0	0	0	0	0	0	0	0
Class: Oligochaeta	0	0	0	0	56.7	0	0	0	0	0
Order: Tubificida	0	0	0	0	0	0	0	0	0	0
Family: Lumbricidae	0	0	0	0	0	0	0	0	0	0
Phylum: Nemata	0	66.7	33.3	0	56.7	66.7	0	0	0	0
Phylum: Platyhelminthes	0	0	0	0	0	0	0	0	0	0
Class: Turbellaria	0	0	0	66.7	0	0	0	0	0	0
Totals:	170	267	100	200	283	267	200	66.7	133	200

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Area-Based Benthic Invertebrate Density Results (# individuals/m²), Mount Polley Mine



Project: 23-01-6 (MPMC Creek CEMP)
 Minnow Environmental (BC)
 Taxonomist: Scott Finlayson
scottfinlayson@cordilleraconsulting.ca
 250-494-7553

Site:	EDC-U	EDC-U	EDC-U	EDC-U	EDC-U	HAC-D	HAC-D	HAC-D	HAC-D	HAC-D
Sample:	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
Sample Collection Date:	8-Aug-23	8-Aug-23	8-Aug-23	8-Aug-23	7-Aug-23	6-Aug-23	6-Aug-23	6-Aug-23	6-Aug-23	6-Aug-23
CC#:	CC240226	CC240227	CC240228	CC240229	CC240230	CC240231	CC240232	CC240233	CC240234	CC240235
Phylum: Arthropoda	0	0	0	0	0	0	0	0	0	0
Subphylum: Hexapoda	0	0	0	0	0	0	0	0	0	0
Class: Insecta	0	0	0	0	0	0	0	0	0	0
Order: Coleoptera	0	0	0	0	0	0	0	0	0	0
Family: Dytiscidae	0	0	0	46.6	0	71.7	0	0	0	0
Subfamily: Hydroporinae	0	0	60.9	0	0	0	0	0	0	179
Family: Elmidae	89.6	14.3	118	143	53.8	143	0	108	71.7	0
<i>Heterlimnius</i>	0	14.3	60.9	0	0	0	0	0	0	0
<i>Narpus</i>	0	0	0	0	0	0	0	0	0	0
<i>Optioservus</i>	46.6	0	0	190	68.1	0	0	0	0	0
Order: Ephemeroptera	0	0	0	0	0	0	0	0	0	0
Family: Ameletidae	0	0	0	0	0	0	0	0	0	0
<i>Ameletus</i>	46.6	25.1	358	0	0	71.7	0	0	0	0
Family: Baetidae	0	0	60.9	0	0	717	269	215	287	896
<i>Acentrella</i>	0	0	0	0	0	71.7	0	0	0	477
<i>Baetis</i>	0	0	0	0	0	0	46.6	35.8	35.8	0
<i>Baetis bicaudatus</i>	0	0	0	0	0	0	0	0	0	0
<i>Baetis rhodani group</i>	0	0	0	0	0	71.7	0	0	0	118
<i>Dipheter hageni</i>	0	0	0	0	0	287	136	108	323	240
<i>Proclleon</i>	0	14.3	60.9	0	0	143	89.6	35.8	0	179
Family: Ephemerellidae	0	0	0	0	0	143	226	143	71.7	0
<i>Drunella</i>	0	0	0	0	0	0	0	0	0	0
<i>Drunella doddsii</i>	0	0	0	0	0	0	0	0	0	0
<i>Drunella grandis group</i>	0	0	0	0	0	0	0	0	0	0
Family: Heptageniidae	2,197	2,624	4,061	2,319	25.1	2,581	1,122	215	287	240
<i>Cinygmula</i>	0	0	0	0	0	0	0	0	0	0
<i>Rhithrogena</i>	0	0	0	0	0	0	0	0	0	0
<i>Stenonema femoratum</i>	0	194	0	0	0	0	0	0	0	0
Family: Leptophlebiidae	136	204	896	215	466	358	448	143	466	179
<i>Paraleptophlebia</i>	46.6	39.4	240	190	118	215	46.6	108	179	60.9
Order: Plecoptera	0	14.3	60.9	25.1	0	0	0	0	0	0
Family: Capniidae	89.6	14.3	0	789	0	502	89.6	71.7	71.7	0
Family: Chloroperlidae	0	0	0	46.6	0	0	0	0	0	0
<i>Sweltsa</i>	46.6	14.3	118	71.7	0	71.7	0	0	0	0
Family: Leuctridae	0	0	60.9	0	0	0	0	0	0	0

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Area-Based Benthic Invertebrate Density Results (# individuals/m²), Mount Polley Mine



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 250-494-7553

Site:	EDC-U	EDC-U	EDC-U	EDC-U	EDC-U	HAC-D	HAC-D	HAC-D	HAC-D	HAC-D
Sample:	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
Sample Collection Date:	8-Aug-23	8-Aug-23	8-Aug-23	8-Aug-23	7-Aug-23	6-Aug-23	6-Aug-23	6-Aug-23	6-Aug-23	6-Aug-23
CC#:	CC240226	CC240227	CC240228	CC240229	CC240230	CC240231	CC240232	CC240233	CC240234	CC240235
 Family: Nemouridae	0	0	0	0	0	0	0	0	0	0
<i>Zapada</i>	0	0	0	0	0	0	0	0	0	0
<i>Zapada cinctipes</i>	0	0	0	0	0	143	46.6	0	0	0
<i>Zapada oregonensis group</i>	0	0	0	0	0	0	0	0	0	0
 Family: Perlidae	0	0	0	0	0	0	0	0	0	0
<i>Doroneuria</i>	0	0	0	0	0	0	0	0	0	0
 Family: Perlodidae	0	0	0	0	0	0	0	0	0	0
<i>Isoperla</i>	0	0	0	0	0	143	0	0	0	0
 Family: Pteronarcyidae	0	0	0	0	0	0	0	0	0	0
<i>Pteronarcella</i>	0	0	0	0	0	0	0	0	0	0
 Family: Taeniopterygidae	0	0	0	0	0	0	0	35.8	0	0
 Order: Trichoptera	5,376	14.3	297	25.1	0	1,577	674	143	394	240
 Family: Apataniidae	0	0	0	0	0	0	0	0	0	0
<i>Apatania</i>	0	0	0	0	0	0	0	0	0	0
 Family: Brachycentridae	0	0	0	0	0	0	0	0	0	0
 Family: Glossosomatidae	0	0	0	0	0	0	0	0	0	0
<i>Glossosoma</i>	0	0	0	0	0	0	0	0	0	0
 Family: Hydropsychidae	0	0	0	0	14.3	860	1,971	502	1,075	1,315
<i>Cheumatopsyche</i>	0	0	0	0	0	143	226	0	143	118
<i>Hydropsyche</i>	0	0	0	0	0	358	179	35.8	71.7	717
 Family: Hydroptilidae	0	0	0	0	0	0	0	0	0	0
<i>Hydroptila</i>	0	0	0	0	0	0	0	35.8	0	0
 Family: Lepidostomatidae	0	0	0	0	0	0	0	0	0	0
<i>Lepidostoma</i>	0	0	0	0	0	6,667	2,509	1,111	789	1,674
 Family: Leptoceridae	0	14.3	179	0	0	215	136	179	143	240
<i>Ceraclea</i>	0	0	0	0	0	0	0	0	0	0
 Family: Limnephilidae	0	0	0	0	0	0	0	0	0	0
<i>Glyphopsyche irrorata</i>	0	0	0	0	0	0	0	0	0	0
 Family: Polycentropodidae	0	0	0	0	0	0	0	0	0	0
<i>Polycentropus</i>	0	0	0	0	0	0	46.6	0	0	0
 Family: Rhyacophilidae	0	0	0	0	0	0	0	0	0	0
<i>Rhyacophila</i>	0	0	0	0	0	0	0	0	0	0
<i>Rhyacophila angelita group</i>	0	0	0	0	0	0	0	0	0	0
<i>Rhyacophila brunnea/vemna group</i>	0	0	0	0	0	0	0	0	0	0
<i>Rhyacophila narvae</i>	0	0	0	0	0	0	0	0	0	0

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Area-Based Benthic Invertebrate Density Results (# individuals/m²), Mount Polley Mine



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 250-494-7553

Site:	EDC-U	EDC-U	EDC-U	EDC-U	EDC-U	HAC-D	HAC-D	HAC-D	HAC-D	HAC-D
Sample:	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
Sample Collection Date:	8-Aug-23	8-Aug-23	8-Aug-23	8-Aug-23	7-Aug-23	6-Aug-23	6-Aug-23	6-Aug-23	6-Aug-23	6-Aug-23
CC#:	CC240226	CC240227	CC240228	CC240229	CC240230	CC240231	CC240232	CC240233	CC240234	CC240235
 Order: Diptera	0	0	0	0	0	0	0	143	35.8	60.9
 Family: Ceratopogonidae	179	0	0	0	0	0	0	0	0	0
<i>Bezzia/ Palpomyia</i>	0	0	0	0	0	0	0	0	0	0
<i>Mallochohelea</i>	0	0	0	25.1	14.3	0	0	0	0	0
 Family: Chironomidae	0	14.3	0	46.6	0	143	495	430	251	297
 Subfamily: Chironominae	0	0	0	0	0	0	0	0	35.8	0
 Tribe: Chironomini	0	0	0	0	53.8	0	0	0	0	0
<i>Chironomus</i>	0	0	0	0	39.4	0	0	0	0	0
<i>Cryptochironomus</i>	0	0	0	0	0	0	46.6	0	35.8	0
<i>Microtendipes</i>	89.6	75.3	179	190	624	645	717	1,254	645	1,075
<i>Paratendipes</i>	0	0	0	0	0	0	0	0	0	0
<i>Phaenopsectra</i>	0	14.3	0	0	0	0	0	0	0	0
<i>Polypedilum</i>	46.6	14.3	0	0	68.1	0	358	71.7	323	118
<i>Saetheria</i>	0	0	0	0	0	0	46.6	0	0	0
<i>Stictochironomus</i>	0	14.3	0	168	384	0	0	0	0	0
 Tribe: Pseudochironomini	0	0	0	0	0	0	0	0	0	0
<i>Pseudochironomus</i>	0	0	0	0	0	0	0	0	0	0
 Tribe: Tanytarsini	1,882	0	2,391	96.8	39.4	143	0	143	71.7	179
<i>Micropsectra</i>	226	0	118	455	0	573	179	35.8	0	60.9
<i>Rheotanytarsus</i>	0	0	0	71.7	0	1,147	853	2,366	3,011	4,900
<i>Stempellinella</i>	0	0	0	25.1	0	0	0	0	0	0
<i>Tanytarsus</i>	136	0	240	168	0	717	538	143	179	179
 Subfamily: Diamesinae	0	0	0	0	0	0	0	0	0	0
 Tribe: Diamesini	0	0	0	0	0	0	0	0	0	0
<i>Pagastia</i>	0	0	0	0	0	71.7	0	0	0	0
<i>Potthastia gaedii group</i>	0	0	0	0	0	0	0	0	0	0
 Subfamily: Orthoclaadiinae	179	25.1	0	0	0	71.7	136	35.8	143	118
<i>Brillia</i>	0	0	0	0	0	0	0	0	0	0
<i>Cardiocladius</i>	0	0	0	0	0	0	0	0	0	118
<i>Corynoneura</i>	448	0	0	25.1	0	71.7	226	108	35.8	118
<i>Cricotopus (Nostococladus)</i>	0	0	0	0	0	0	0	0	0	0
<i>Eukiefferiella</i>	179	0	0	0	0	573	315	251	323	538
<i>Heleniella</i>	0	0	0	0	0	0	0	0	0	0
<i>Heterotrissocladus</i>	0	0	0	71.7	0	0	0	35.8	0	358
<i>Limnophyes</i>	0	0	60.9	0	0	0	0	0	0	0

Notes: All results displayed are area-based densities (

Area-Based Benthic Invertebrate Density Results (# individuals/m²), Mount Polley Mine



Project: 23-01-6 (MPMC Creek CEMP)
 Minnow Environmental (BC)
 Taxonomist: Scott Finlayson
scottfinlayson@cordilleraconsulting.ca
 250-494-7553

Site:	EDC-U	EDC-U	EDC-U	EDC-U	EDC-U	HAC-D	HAC-D	HAC-D	HAC-D	HAC-D
Sample:	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
Sample Collection Date:	8-Aug-23	8-Aug-23	8-Aug-23	8-Aug-23	7-Aug-23	6-Aug-23	6-Aug-23	6-Aug-23	6-Aug-23	6-Aug-23
CC#:	CC240226	CC240227	CC240228	CC240229	CC240230	CC240231	CC240232	CC240233	CC240234	CC240235
<i>Nanocladius</i>	0	0	0	0	0	0	0	0	35.8	0
<i>Orthocladius complex</i>	0	0	0	0	14.3	71.7	269	609	1,075	2,090
<i>Orthocladius lignicola</i>	0	0	0	25.1	0	0	0	0	0	0
<i>Parakiefferiella</i>	0	0	0	0	0	0	0	0	0	0
<i>Parametricnemus</i>	0	0	0	0	0	0	226	108	143	0
<i>Psectrocladius</i>	0	0	0	0	0	0	0	0	0	0
<i>Rheocricotopus</i>	1,075	25.1	118	96.8	0	0	0	0	0	60.9
<i>Synorthocladius</i>	0	0	0	0	0	645	717	1,756	1,828	1,075
<i>Thienemanniella</i>	0	0	0	0	0	71.7	136	35.8	35.8	118
<i>Tvetenia</i>	0	0	0	0	0	0	0	71.7	179	240
 Subfamily: Tanypodinae	448	50.2	297	548	147	0	89.6	71.7	71.7	0
<i>Ablabesmyia</i>	0	0	0	0	0	0	0	0	0	0
<i>Paramerina</i>	0	0	60.9	0	0	0	0	0	0	0
 Tribe: Natarsiini	0	0	0	0	0	0	0	0	0	0
<i>Natarsia</i>	89.6	14.3	60.9	25.1	68.1	0	0	0	0	0
 Tribe: Pentaneurini	0	0	0	0	0	0	0	0	0	0
<i>Pentaneura</i>	0	0	0	0	0	71.7	0	71.7	71.7	0
<i>Telmatopelopia</i>	89.6	194	60.9	143	240	0	0	0	0	0
<i>Thienemannimyia group</i>	0	0	60.9	25.1	0	358	448	573	394	179
 Tribe: Procladiini	0	0	0	0	0	0	0	0	0	0
<i>Procladius</i>	0	14.3	0	0	14.3	0	0	0	0	0
 Family: Dixidae	0	0	0	0	0	0	0	0	0	0
<i>Dixella</i>	0	14.3	0	0	14.3	0	0	0	0	0
 Family: Empididae	46.6	0	0	0	0	0	0	0	0	0
<i>Clinocera</i>	0	0	0	0	0	0	0	0	0	0
<i>Hemerodromia</i>	0	0	0	0	0	0	0	35.8	0	0
 Family: Pelecorhynchidae	0	0	0	0	0	0	0	0	0	0
<i>Glutops</i>	0	0	0	0	0	0	0	0	0	0
 Family: Psychodidae	0	0	0	0	0	0	0	0	0	0
<i>Pericoma/Telmatoscopus</i>	0	0	0	0	0	0	0	0	0	0
 Family: Simuliidae	0	0	0	0	0	0	0	0	0	0
<i>Simulium</i>	0	0	0	0	0	0	0	35.8	71.7	0
 Family: Tabanidae	0	0	0	0	0	0	0	0	0	0
<i>Chrysops</i>	0	0	0	0	0	71.7	0	0	0	0

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Site:	EDC-U	EDC-U	EDC-U	EDC-U	EDC-U	HAC-D	HAC-D	HAC-D	HAC-D	HAC-D
Sample:	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
Sample Collection Date:	8-Aug-23	8-Aug-23	8-Aug-23	8-Aug-23	7-Aug-23	6-Aug-23	6-Aug-23	6-Aug-23	6-Aug-23	6-Aug-23
CC#:	CC240226	CC240227	CC240228	CC240229	CC240230	CC240231	CC240232	CC240233	CC240234	CC240235
 Family: Tipulidae	0	0	0	0	0	71.7	136	35.8	0	0
<i>Antocha</i>	0	0	0	0	0	287	0	179	358	60.9
<i>Dicranota</i>	0	0	0	0	0	71.7	0	0	0	0
<i>Hexatoma</i>	46.6	0	0	0	0	0	0	0	0	0
<i>Tipula</i>	0	0	0	0	0	0	0	0	0	0
 Order: Hemiptera	0	0	0	25.1	0	0	0	143	0	0
 Family: Corixidae	0	0	0	0	0	0	0	0	0	0
<i>Sigara</i>	0	0	0	0	0	71.7	0	0	0	0
 Order: Megaloptera	0	0	0	46.6	0	0	0	0	0	0
 Family: Sialidae	0	0	0	0	0	0	0	0	0	0
<i>Sialis</i>	89.6	75.3	778	190	14.3	0	0	0	0	0
 Order: Odonata	0	0	0	0	0	0	0	0	0	0
 Family: Corduliidae	0	0	0	0	0	0	0	0	0	0
<i>Somatochlora cingulata</i>	0	0	0	0	0	0	0	0	0	0
 Order: Thysanoptera	0	0	0	0	14.3	0	46.6	71.7	0	0
 Order: Collembola	0	0	60.9	0	0	0	0	0	0	60.9
Subphylum: Chelicerata	0	0	0	0	0	0	0	0	0	0
 Class: Arachnida	0	0	0	0	0	0	0	0	0	0
 Order: Oribatida	1,613	552	8,423	763	333	0	0	0	0	0
 Order: Sarcoptiformes	0	0	0	0	0	0	0	0	0	0
 Family: Hydrozetidae	0	0	60.9	96.8	25.1	0	0	0	0	0
 Order: Trombidiformes	0	0	60.9	0	0	71.7	0	0	35.8	0
 Family: Aturidae	0	0	60.9	0	39.4	0	0	0	0	0
<i>Aturus</i>	0	0	0	0	240	0	0	71.7	71.7	60.9
 Family: Feltriidae	0	0	0	0	0	0	0	0	0	0
<i>Feltria</i>	0	0	0	0	0	0	0	0	0	0
 Family: Halacaridae	46.6	14.3	0	0	0	0	0	0	0	0
 Family: Hydryphantidae	0	0	0	0	0	0	0	0	0	0
<i>Protzia</i>	0	0	0	0	0	0	0	0	0	0
 Family: Hygrobatidae	0	0	0	0	0	0	0	0	0	0
<i>Atractides</i>	0	0	0	0	0	71.7	0	0	0	0
<i>Hygrobates</i>	0	0	0	0	0	0	0	0	0	0
 Family: Lebertiidae	0	0	0	0	0	0	0	0	0	0
<i>Lebertia</i>	0	0	0	0	0	0	0	0	35.8	0

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Site:	EDC-U	EDC-U	EDC-U	EDC-U	EDC-U	HAC-D	HAC-D	HAC-D	HAC-D	HAC-D
Sample:	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
Sample Collection Date:	8-Aug-23	8-Aug-23	8-Aug-23	8-Aug-23	7-Aug-23	6-Aug-23	6-Aug-23	6-Aug-23	6-Aug-23	6-Aug-23
CC#:	CC240226	CC240227	CC240228	CC240229	CC240230	CC240231	CC240232	CC240233	CC240234	CC240235
 Family: Sperchontidae	0	0	0	0	0	0	0	0	0	0
<i>Sperchon</i>	0	0	0	25.1	0	0	0	0	0	0
 Family: Torrenticolidae	0	0	0	0	0	0	0	0	0	0
<i>Testudacarus</i>	0	0	0	25.1	14.3	0	0	0	0	0
<i>Torrenticola</i>	46.6	14.3	0	0	14.3	0	0	0	35.8	0
 Family: Unionicolidae	0	0	0	0	0	0	0	0	0	0
<i>Unionicola</i>	0	0	0	0	0	0	0	0	0	0
Subphylum: Crustacea	0	0	0	0	0	0	0	0	0	0
 Class: Malacostraca	0	0	0	0	0	0	0	0	0	0
 Order: Amphipoda	0	0	0	0	0	0	0	0	0	0
 Family: Gammaridae	0	0	0	0	0	0	0	0	0	0
<i>Gammarus</i>	0	0	0	0	0	0	0	0	0	0
 Family: Hyalellidae	0	0	0	0	0	0	0	0	0	0
<i>Hyalella</i>	0	0	0	0	0	0	0	0	0	0
Phylum: Annelida	0	0	0	0	0	0	0	0	0	0
Subphylum: Clitellata	0	0	0	0	0	0	0	0	0	0
 Order: Hirudinida	0	0	0	0	0	0	0	0	0	0
 Family: Erpobdellidae	0	0	0	0	0	0	0	0	0	0
 Family: Hirudinidae	0	0	0	0	0	0	0	0	0	0
 Class: Oligochaeta	0	0	0	0	53.8	0	0	0	0	0
 Order: Lumbriculida	0	0	0	0	0	0	0	0	0	0
 Family: Lumbriculidae	0	0	0	0	0	0	0	71.7	0	0
 Order: Tubificida	0	0	0	0	0	0	0	0	0	0
 Family: Enchytraeidae	0	0	0	0	0	0	0	0	0	0
<i>Enchytraeus</i>	46.6	0	0	25.1	172	215	0	0	0	0
 Family: Naididae	0	0	0	0	0	0	0	0	0	0
<i>Arcteonais lomondi</i>	136	0	179	46.6	39.4	0	0	0	0	0
<i>Nais</i>	0	14.3	0	25.1	201	71.7	89.6	35.8	71.7	118
<i>Pristina</i>	0	0	0	0	0	71.7	0	0	0	0
<i>Stylaria lacustris</i>	0	0	0	0	0	0	0	0	0	0
 Subfamily: Tubificinae with hair chaetae	89.6	0	0	0	147	0	0	0	0	0
 Subfamily: Tubificinae without hair chaetae	0	0	0	0	201	0	0	0	0	0

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Site:	EDC-U	EDC-U	EDC-U	EDC-U	EDC-U	HAC-D	HAC-D	HAC-D	HAC-D	HAC-D
Sample:	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
Sample Collection Date:	8-Aug-23	8-Aug-23	8-Aug-23	8-Aug-23	7-Aug-23	6-Aug-23	6-Aug-23	6-Aug-23	6-Aug-23	6-Aug-23
CC#:	CC240226	CC240227	CC240228	CC240229	CC240230	CC240231	CC240232	CC240233	CC240234	CC240235
Phylum: Cnidaria	0	0	0	0	0	0	0	0	0	0
Class: Hydrozoa	0	0	0	0	0	0	0	0	0	0
Order: Anthoathecatae	0	0	0	0	0	0	0	0	0	0
Family: Hydridae	0	0	0	0	0	0	0	0	0	0
<i>Hydra</i>	0	0	0	0	0	0	0	0	0	0
Phylum: Mollusca	0	0	0	0	0	0	0	0	0	0
Class: Bivalvia	0	0	0	0	0	0	0	0	0	0
Order: Veneroidea	0	0	0	0	0	0	0	0	0	0
Family: Pisiidae	0	0	0	25.1	78.9	71.7	0	0	0	0
Class: Gastropoda	0	0	240	0	0	0	0	35.8	0	118
Order: Basommatophora	0	0	0	0	0	0	0	0	0	0
Family: Lymnaeidae	0	0	0	0	0	0	0	0	0	0
<i>Fossaria</i>	0	0	0	0	0	0	0	0	0	0
Family: Physidae	0	0	0	0	0	0	0	0	0	0
<i>Physa</i>	0	0	0	0	0	0	0	0	0	0
Family: Planorbidae	0	0	0	0	0	0	0	0	0	60.9
<i>Gyraulus</i>	0	0	0	0	0	0	0	35.8	0	60.9
Totals:	15,305	4,341	20,147	7,563	4,054	22,079	14,330	12,294	14,014	19,301
Taxa present but not included:										
Phylum: Arthropoda	0	0	0	0	0	0	0	0	0	0
Class: Copepoda	0	14.3	60.9	25.1	14.3	71.7	46.6	35.8	0	0
Subphylum: Crustacea	0	0	0	0	0	0	0	0	0	0
Class: Branchiopoda	0	0	0	0	0	0	0	0	0	0
Order: Cladocera	0	0	0	25.1	0	71.7	0	35.8	35.8	0
Class: Ostracoda	0	0	0	25.1	14.3	71.7	46.6	35.8	35.8	60.9
Phylum: Annelida	0	0	0	0	0	0	0	0	0	0
Subphylum: Clitellata	0	0	0	0	0	0	0	0	0	0
Class: Oligochaeta	0	0	0	0	53.8	0	0	0	0	0
Order: Tubificida	0	0	0	0	0	0	0	0	0	0
Family: Lumbricidae	0	0	0	0	0	0	0	0	0	60.9
Phylum: Nemata	0	14.3	60.9	0	14.3	0	0	0	35.8	0
Phylum: Platyhelminthes	0	0	0	0	0	0	0	0	0	0
Class: Turbellaria	0	0	0	0	0	0	0	0	0	0
Totals:	0	28.7	122	75.3	96.8	215	93.2	108	108	122

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Site:	EDC-D	EDC-D	EDC-D	EDC-D	EDC-D	E1	E1	E1	E1	E1
Sample:	Rep 1	Rep 3	Rep 5	Rep 7	Rep 8	Rep 2	Rep 4	Rep 5	Rep 6	Rep 7
Sample Collection Date:	11-Aug-23	11-Aug-23	11-Aug-23	11-Aug-23	11-Aug-23	5-Aug-23	5-Aug-23	4-Aug-23	4-Aug-23	4-Aug-23
CC#:	CC240236	CC240237	CC240238	CC240239	CC240240	CC240241	CC240242	CC240243	CC240244	CC240245
Phylum: Arthropoda	0	0	0	0	0	0	0	0	0	0
Subphylum: Hexapoda	0	0	0	0	0	0	0	0	0	0
Class: Insecta	0	0	0	0	0	0	0	0	0	0
Order: Coleoptera	0	71.7	0	0	0	0	0	0	0	0
Family: Dytiscidae	0	0	0	0	0	0	0	0	0	0
Subfamily: Hydroporinae	0	0	0	0	0	287	1,004	25.1	0	71.7
Family: Elmidae	717	358	315	896	215	143	358	21.5	502	215
<i>Heterlimnius</i>	71.7	215	46.6	394	0	789	358	21.5	287	143
<i>Narpus</i>	143	0	0	0	0	0	0	0	0	0
<i>Optioservus</i>	0	0	0	0	71.7	0	0	0	0	0
Order: Ephemeroptera	0	71.7	269	35.8	0	0	0	0	0	0
Family: Ameletidae	0	0	0	0	0	0	0	0	0	0
<i>Ameletus</i>	0	0	0	0	0	71.7	287	0	71.7	71.7
Family: Baetidae	2,007	2,581	1,391	717	2,509	287	1,147	39.4	2,151	645
<i>Acentrella</i>	0	143	0	35.8	0	143	71.7	3.58	143	573
<i>Baetis</i>	143	430	269	215	215	358	0	0	71.7	0
<i>Baetis bicaudatus</i>	0	215	89.6	0	0	0	0	0	0	0
<i>Baetis rhodani group</i>	71.7	502	0	215	143	143	0	0	71.7	0
<i>Dipheter hageni</i>	0	0	0	0	0	71.7	0	0	573	215
<i>Procloeon</i>	0	0	0	0	0	0	0	14.3	0	71.7
Family: Ephemerellidae	287	1,290	358	2,796	1,434	1,290	0	3.58	0	143
<i>Drunella</i>	0	0	89.6	35.8	0	0	0	0	0	0
<i>Drunella doddsii</i>	0	71.7	0	71.7	0	0	0	0	0	0
<i>Drunella grandis group</i>	215	0	0	0	0	0	0	0	143	143
Family: Heptageniidae	4,301	2,939	3,405	3,190	1,577	1,362	860	35.8	1,505	430
<i>Cinygmula</i>	0	71.7	46.6	0	0	0	0	0	0	0
<i>Rhithrogena</i>	71.7	143	0	394	0	0	0	0	0	0
<i>Stenonema femoratum</i>	0	0	0	0	0	0	0	0	0	0
Family: Leptophlebiidae	0	287	89.6	35.8	0	143	143	7.17	789	215
<i>Paraleptophlebia</i>	0	0	0	0	0	71.7	71.7	0	71.7	143
Order: Plecoptera	71.7	287	179	108	215	215	0	3.58	0	0
Family: Capniidae	0	143	179	358	430	71.7	143	10.8	358	143
Family: Chloroperlidae	71.7	215	46.6	143	0	0	0	0	0	0
<i>Sweltsa</i>	573	287	179	287	287	287	215	10.8	71.7	0
Family: Leuctridae	71.7	0	0	71.7	0	0	0	0	0	0

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Sample:	Rep 1	Rep 3	Rep 5	Rep 7	Rep 8	Rep 2	Rep 4	Rep 5	Rep 6	Rep 7
Sample Collection Date:	11-Aug-23	11-Aug-23	11-Aug-23	11-Aug-23	11-Aug-23	5-Aug-23	5-Aug-23	4-Aug-23	4-Aug-23	4-Aug-23
CC#:	CC240236	CC240237	CC240238	CC240239	CC240240	CC240241	CC240242	CC240243	CC240244	CC240245
 Family: Nemouridae	0	71.7	0	0	143	0	71.7	0	0	0
<i>Zapada</i>	0	143	89.6	0	0	0	71.7	0	0	0
<i>Zapada cinctipes</i>	215	143	46.6	71.7	0	0	215	17.9	860	71.7
<i>Zapada oregonensis group</i>	0	0	46.6	0	0	0	0	0	0	0
 Family: Perlidae	0	0	0	35.8	0	0	0	0	0	0
<i>Doroneuria</i>	71.7	71.7	46.6	35.8	0	0	287	0	71.7	0
 Family: Perlodidae	71.7	0	0	35.8	71.7	0	0	0	0	0
<i>Isoperla</i>	0	143	46.6	35.8	0	0	0	0	0	71.7
 Family: Pteronarcyidae	0	0	0	0	0	0	0	0	0	0
<i>Pteronarcella</i>	0	71.7	0	0	0	0	0	0	0	0
 Family: Taeniopterygidae	0	0	0	0	0	0	0	0	0	0
 Order: Trichoptera	789	502	405	323	573	789	5,018	35.8	2,007	1,792
 Family: Apataniidae	0	0	0	0	0	0	0	0	0	0
<i>Apatania</i>	0	0	0	0	0	71.7	0	0	0	0
 Family: Brachycentridae	215	0	46.6	0	0	0	0	0	0	0
 Family: Glossosomatidae	0	573	0	1,290	0	0	0	0	0	0
<i>Glossosoma</i>	0	430	46.6	466	0	0	71.7	0	0	0
 Family: Hydropsychidae	0	860	405	394	1,935	287	4,086	118	7,240	1,290
<i>Cheumatopsyche</i>	0	0	0	0	0	0	0	10.8	358	573
<i>Hydropsyche</i>	0	143	0	71.7	143	0	717	14.3	1,505	573
 Family: Hydroptilidae	0	0	0	0	0	0	502	7.17	860	0
<i>Hydroptila</i>	0	0	0	0	0	0	717	0	215	0
 Family: Lepidostomatidae	0	0	0	0	0	0	0	0	0	0
<i>Lepidostoma</i>	0	71.7	717	0	71.7	9,176	4,301	125	1,219	2,509
 Family: Leptoceridae	645	71.7	46.6	0	0	0	0	10.8	0	0
<i>Ceraclea</i>	0	0	0	0	0	0	0	0	0	0
 Family: Limnephilidae	0	0	0	0	0	0	0	0	71.7	0
<i>Glyphopsyche irrorata</i>	0	0	0	0	0	0	0	0	0	0
 Family: Polycentropodidae	0	0	0	0	0	0	0	0	0	0
<i>Polycentropus</i>	0	0	0	0	0	0	0	0	0	0
 Family: Rhyacophilidae	0	0	0	0	0	0	0	0	0	0
<i>Rhyacophila</i>	143	71.7	179	609	0	0	71.7	0	0	0
<i>Rhyacophila angelita group</i>	0	0	0	0	0	0	0	0	0	143
<i>Rhyacophila brunnea/vemna group</i>	0	71.7	136	215	143	0	0	0	0	0
<i>Rhyacophila narvae</i>	71.7	71.7	0	394	0	0	0	0	0	0

Notes: All results displayed are area-based densities (

Area-Based Benthic Invertebrate Density Results (# individuals/m²), Mount Polley Mine



Project: 23-01-6 (MPMC Creek CEMP)
 Minnow Environmental (BC)
 Taxonomist: Scott Finlayson
scottfinlayson@cordilleraconsulting.ca
 250-494-7553

Site:	EDC-D	EDC-D	EDC-D	EDC-D	EDC-D	E1	E1	E1	E1	E1
Sample:	Rep 1	Rep 3	Rep 5	Rep 7	Rep 8	Rep 2	Rep 4	Rep 5	Rep 6	Rep 7
Sample Collection Date:	11-Aug-23	11-Aug-23	11-Aug-23	11-Aug-23	11-Aug-23	5-Aug-23	5-Aug-23	4-Aug-23	4-Aug-23	4-Aug-23
CC#:	CC240236	CC240237	CC240238	CC240239	CC240240	CC240241	CC240242	CC240243	CC240244	CC240245
 Order: Diptera	0	143	0	0	0	71.7	358	7.17	0	143
 Family: Ceratopogonidae	0	0	0	0	0	0	0	0	0	0
<i>Bezzia/ Palpomyia</i>	0	0	0	0	0	0	0	0	0	0
<i>Mallochohelea</i>	0	0	0	0	0	0	0	0	0	0
 Family: Chironomidae	143	430	46.6	35.8	71.7	358	1,290	35.8	1,434	502
 Subfamily: Chironominae	0	0	46.6	0	0	0	932	0	0	0
 Tribe: Chironomini	430	0	0	0	0	0	645	0	71.7	0
<i>Chironomus</i>	0	0	0	0	0	0	0	0	0	0
<i>Cryptochironomus</i>	0	0	0	0	0	0	0	0	0	0
<i>Microtendipes</i>	0	0	0	0	0	0	717	10.8	1,434	358
<i>Paratendipes</i>	0	0	0	0	0	0	0	0	0	0
<i>Phaenopsectra</i>	0	0	0	0	0	0	0	0	0	0
<i>Polypedilum</i>	71.7	71.7	0	35.8	0	0	789	7.17	430	215
<i>Saetheria</i>	0	0	0	0	0	0	0	0	0	0
<i>Stictochironomus</i>	0	0	0	0	0	0	0	0	0	0
 Tribe: Pseudochironomini	0	0	0	0	0	0	0	0	0	0
<i>Pseudochironomus</i>	0	0	0	0	0	0	0	0	0	0
 Tribe: Tanytarsini	645	573	0	35.8	71.7	71.7	7,312	53.8	502	0
<i>Micropsectra</i>	143	215	179	143	358	215	2,581	39.4	1,505	71.7
<i>Rheotanytarsus</i>	1,362	5,090	226	35.8	2,509	71.7	1,004	179	10,036	717
<i>Stempellinella</i>	71.7	0	89.6	0	0	0	0	0	71.7	0
<i>Tanytarsus</i>	0	0	0	0	0	0	1,075	43.0	502	143
 Subfamily: Diamesinae	0	0	0	0	0	0	0	0	0	0
 Tribe: Diamesini	0	0	0	0	0	0	0	0	0	0
<i>Pagastia</i>	0	0	0	0	0	0	287	3.58	0	0
<i>Pothastia gaedii group</i>	0	71.7	89.6	0	358	0	71.7	0	0	0
 Subfamily: Orthoclaadiinae	430	789	46.6	0	358	71.7	2,294	7.17	358	287
<i>Brillia</i>	0	71.7	89.6	0	0	0	0	0	0	0
<i>Cardiocladius</i>	0	0	89.6	0	430	0	287	0	0	0
<i>Corynoneura</i>	287	0	46.6	0	0	0	430	7.17	932	0
<i>Cricotopus (Nostococcladius)</i>	71.7	0	46.6	0	0	71.7	0	0	0	0
<i>Eukiefferiella</i>	143	1,505	584	35.8	2,222	215	3,154	3.58	1,290	1,004
<i>Heleniella</i>	0	0	0	0	71.7	0	71.7	0	0	0
<i>Heterotrissoccladius</i>	0	0	0	0	0	0	0	0	0	0
<i>Limnophyes</i>	0	0	0	0	0	0	0	0	0	0

Notes: All results displayed are area-based densities (

Area-Based Benthic Invertebrate Density Results (# individuals/m²), Mount Polley Mine



Project: 23-01-6 (MPMC Creek CEMP)
 Minnow Environmental (BC)
 Taxonomist: Scott Finlayson
scottfinlayson@cordilleraconsulting.ca
 250-494-7553

Site:	EDC-D	EDC-D	EDC-D	EDC-D	EDC-D	E1	E1	E1	E1	E1
Sample:	Rep 1	Rep 3	Rep 5	Rep 7	Rep 8	Rep 2	Rep 4	Rep 5	Rep 6	Rep 7
Sample Collection Date:	11-Aug-23	11-Aug-23	11-Aug-23	11-Aug-23	11-Aug-23	5-Aug-23	5-Aug-23	4-Aug-23	4-Aug-23	4-Aug-23
CC#:	CC240236	CC240237	CC240238	CC240239	CC240240	CC240241	CC240242	CC240243	CC240244	CC240245
<i>Nanocladius</i>	0	0	0	0	0	0	0	0	0	0
<i>Orthocladius complex</i>	3,011	4,373	1,211	71.7	9,749	502	11,470	60.9	5,878	1,577
<i>Orthocladius lignicola</i>	0	0	0	0	0	0	0	0	0	0
<i>Parakiefferiella</i>	0	0	0	0	0	0	860	0	71.7	0
<i>Parametriocnemus</i>	143	0	0	0	0	0	71.7	0	573	287
<i>Psectrocladius</i>	0	0	0	0	0	0	287	0	0	0
<i>Rheocricotopus</i>	215	0	269	0	0	0	0	7.17	0	0
<i>Synorthocladius</i>	0	0	0	0	0	789	5,806	201	6,738	4,803
<i>Thienemanniella</i>	215	215	46.6	0	1,219	143	71.7	0	143	71.7
<i>Tvetenia</i>	71.7	932	763	71.7	358	71.7	287	0	430	0
 Subfamily: Tanypodinae	71.7	143	179	0	143	143	6,093	3.58	215	287
<i>Ablabesmyia</i>	0	0	0	0	0	0	0	0	0	0
<i>Paramerina</i>	0	0	0	0	0	0	71.7	0	0	0
 Tribe: Natarsiini	0	0	0	0	0	0	0	0	0	0
<i>Natarsia</i>	0	0	0	0	0	0	0	0	0	0
 Tribe: Pentaneurini	0	0	0	0	0	0	0	0	0	0
<i>Pentaneura</i>	0	0	0	0	0	0	71.7	0	0	0
<i>Telmatopelopia</i>	0	0	0	0	0	0	0	0	0	0
<i>Thienemannimyia group</i>	287	717	136	108	287	215	2,867	68.1	1,935	645
 Tribe: Procladiini	0	0	0	0	0	0	0	0	0	0
<i>Procladius</i>	0	0	0	0	0	0	0	0	0	0
 Family: Dixidae	0	0	89.6	0	0	0	0	0	0	0
<i>Dixella</i>	0	0	0	0	0	0	0	0	0	0
 Family: Empididae	71.7	215	89.6	0	215	71.7	215	0	143	0
<i>Clinocera</i>	0	0	0	0	0	0	0	0	71.7	0
<i>Hemerodromia</i>	0	0	0	0	0	0	143	10.8	143	0
 Family: Pelecorhynchidae	0	0	0	0	0	0	0	0	0	0
<i>Glutops</i>	71.7	0	0	35.8	0	0	0	0	0	0
 Family: Psychodidae	0	0	0	0	0	0	0	0	0	0
<i>Pericoma/Telmatoscopus</i>	0	143	0	35.8	0	0	0	0	0	0
 Family: Simuliidae	0	0	0	0	0	0	287	25.1	1,577	430
<i>Simulium</i>	0	0	0	35.8	0	0	0	21.5	2,007	287
 Family: Tabanidae	0	0	0	0	0	0	0	0	0	0
<i>Chrysops</i>	0	0	0	0	0	0	0	0	0	0

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Area-Based Benthic Invertebrate Density Results (# individuals/m²), Mount Polley Mine



Project: 23-01-6 (MPMC Creek CEMP)
 Minnow Environmental (BC)
 Taxonomist: Scott Finlayson
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 250-494-7553

Site:	EDC-D	EDC-D	EDC-D	EDC-D	EDC-D	E1	E1	E1	E1	E1
Sample:	Rep 1	Rep 3	Rep 5	Rep 7	Rep 8	Rep 2	Rep 4	Rep 5	Rep 6	Rep 7
Sample Collection Date:	11-Aug-23	11-Aug-23	11-Aug-23	11-Aug-23	11-Aug-23	5-Aug-23	5-Aug-23	4-Aug-23	4-Aug-23	4-Aug-23
CC#:	CC240236	CC240237	CC240238	CC240239	CC240240	CC240241	CC240242	CC240243	CC240244	CC240245
 Family: Tipulidae	0	143	0	0	0	71.7	0	7.17	0	0
<i>Antocha</i>	71.7	430	179	179	1,147	1,720	2,867	35.8	1,290	1,219
<i>Dicranota</i>	0	0	0	35.8	0	0	0	0	71.7	0
<i>Hexatoma</i>	0	0	0	0	0	71.7	215	0	0	0
<i>Tipula</i>	71.7	0	0	0	0	0	0	0	0	0
 Order: Hemiptera	0	0	0	0	0	0	0	0	0	0
 Family: Corixidae	0	0	0	0	0	0	0	0	0	0
<i>Sigara</i>	0	0	0	0	0	0	0	0	0	0
 Order: Megaloptera	0	0	0	0	0	0	0	0	0	0
 Family: Sialidae	0	0	0	0	0	0	0	0	0	0
<i>Sialis</i>	0	0	0	0	0	0	0	0	0	0
 Order: Odonata	0	0	0	0	0	0	0	0	0	0
 Family: Corduliidae	0	0	0	0	0	0	0	0	0	0
<i>Somatochlora cingulata</i>	0	0	0	0	0	0	0	0	0	0
 Order: Thysanoptera	0	0	0	0	0	0	0	0	0	0
 Order: Collembola	0	0	89.6	0	0	0	71.7	0	0	0
Subphylum: Chelicerata	0	0	0	0	0	0	0	0	0	0
 Class: Arachnida	0	0	0	0	0	0	0	0	0	0
 Order: Oribatida	860	71.7	0	251	0	71.7	71.7	0	0	0
 Order: Sarcoptiformes	0	0	0	0	0	0	0	0	0	0
 Family: Hydrozetidae	71.7	0	0	0	0	0	0	0	0	0
 Order: Trombidiformes	430	932	0	143	143	143	430	7.17	502	287
 Family: Aturidae	0	0	46.6	0	0	0	143	0	0	0
<i>Aturus</i>	1,004	717	226	0	0	430	502	14.3	1,720	215
 Family: Feltriidae	0	0	0	0	0	0	0	0	0	0
<i>Feltria</i>	0	143	0	0	0	0	143	3.58	71.7	71.7
 Family: Halacaridae	0	0	0	0	0	0	0	0	0	0
 Family: Hydryphantidae	0	0	0	0	0	0	0	0	0	0
<i>Protzia</i>	0	0	46.6	0	0	0	0	0	0	0
 Family: Hygrobatidae	0	0	0	0	0	0	0	0	0	0
<i>Atractides</i>	0	0	0	35.8	0	143	0	3.58	71.7	143
<i>Hygrobates</i>	0	0	0	0	0	0	71.7	0	0	0
 Family: Lebertiidae	0	0	0	0	0	0	0	0	0	0
<i>Lebertia</i>	71.7	0	46.6	0	0	71.7	71.7	0	0	0

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Area-Based Benthic Invertebrate Density Results (# individuals/m²), Mount Polley Mine



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 Minnow Environmental (BC)
 Taxonomist: Scott Finlayson
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 250-494-7553

Site:	EDC-D	EDC-D	EDC-D	EDC-D	EDC-D	E1	E1	E1	E1	E1
Sample:	Rep 1	Rep 3	Rep 5	Rep 7	Rep 8	Rep 2	Rep 4	Rep 5	Rep 6	Rep 7
Sample Collection Date:	11-Aug-23	11-Aug-23	11-Aug-23	11-Aug-23	11-Aug-23	5-Aug-23	5-Aug-23	4-Aug-23	4-Aug-23	4-Aug-23
CC#:	CC240236	CC240237	CC240238	CC240239	CC240240	CC240241	CC240242	CC240243	CC240244	CC240245
 Family: Sperchontidae	0	0	0	0	0	0	0	0	0	0
<i>Sperchon</i>	0	71.7	0	0	0	0	0	0	0	71.7
 Family: Torrenticolidae	71.7	358	584	179	430	502	0	0	0	0
<i>Testudacarus</i>	430	502	0	0	287	0	71.7	0	143	71.7
<i>Torrenticola</i>	717	932	717	538	502	430	0	7.17	215	71.7
 Family: Unionicolidae	0	0	0	0	0	0	0	0	0	0
<i>Unionicola</i>	0	0	0	0	0	0	0	0	0	0
Subphylum: Crustacea	0	0	0	0	0	0	0	0	0	0
 Class: Malacostraca	0	0	0	0	0	0	0	0	0	0
 Order: Amphipoda	0	0	0	0	0	0	0	0	0	0
 Family: Gammaridae	0	0	0	0	0	0	0	0	0	0
<i>Gammarus</i>	0	0	0	0	0	0	0	0	0	0
 Family: Hyalellidae	0	0	0	0	0	0	0	0	0	0
<i>Hyalella</i>	0	0	0	0	0	0	0	0	0	0
Phylum: Annelida	0	0	0	0	0	0	0	0	0	0
Subphylum: Clitellata	0	0	0	0	0	0	0	0	0	0
 Order: Hirudinida	0	0	0	0	0	0	0	0	0	0
 Family: Erpobdellidae	0	0	0	0	0	0	0	0	0	0
 Family: Hirudinidae	0	0	0	0	0	0	0	0	0	0
 Class: Oligochaeta	0	0	0	0	0	0	0	0	0	0
 Order: Lumbriculida	0	0	0	0	0	0	0	0	0	0
 Family: Lumbriculidae	0	0	46.6	35.8	71.7	71.7	0	7.17	143	143
 Order: Tubificida	0	0	0	0	0	0	0	0	0	0
 Family: Enchytraeidae	0	0	0	0	0	0	0	0	0	0
<i>Enchytraeus</i>	0	0	0	0	71.7	0	143	0	358	71.7
 Family: Naididae	0	0	0	0	0	0	0	0	0	0
<i>Arcteonais lomondi</i>	0	0	0	0	0	0	0	0	0	0
<i>Nais</i>	0	0	0	0	0	0	0	0	287	0
<i>Pristina</i>	0	0	0	0	0	0	0	0	0	0
<i>Stylaria lacustris</i>	0	0	0	0	0	0	0	0	0	0
 Subfamily: Tubificinae with hair chaetae	0	0	0	0	0	0	0	0	0	0
 Subfamily: Tubificinae without hair chaetae	0	0	0	0	0	0	0	0	0	0

Notes: All results displayed are area-based densities (

Area-Based Benthic Invertebrate Density Results (# individuals/m²), Mount Polley Mine



Project: 23-01-6 (MPMC Creek CEMP)
 Minnow Environmental (BC)
 Taxonomist: Scott Finlayson
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 250-494-7553

Site:	EDC-D	EDC-D	EDC-D	EDC-D	EDC-D	E1	E1	E1	E1	E1
Sample:	Rep 1	Rep 3	Rep 5	Rep 7	Rep 8	Rep 2	Rep 4	Rep 5	Rep 6	Rep 7
Sample Collection Date:	11-Aug-23	11-Aug-23	11-Aug-23	11-Aug-23	11-Aug-23	5-Aug-23	5-Aug-23	4-Aug-23	4-Aug-23	4-Aug-23
CC#:	CC240236	CC240237	CC240238	CC240239	CC240240	CC240241	CC240242	CC240243	CC240244	CC240245
Phylum: Cnidaria	0	0	0	0	0	0	0	0	0	0
Class: Hydrozoa	0	0	0	0	0	0	0	0	0	0
Order: Anthoathecatae	0	0	0	0	0	0	0	0	0	0
Family: Hydridae	0	0	0	0	0	0	0	0	0	0
<i>Hydra</i>	0	0	0	0	0	0	0	0	0	0
Phylum: Mollusca	0	0	0	0	0	0	0	0	0	0
Class: Bivalvia	0	0	0	0	0	0	0	0	0	0
Order: Veneroidea	0	0	0	0	0	0	0	0	0	0
Family: Pisiidae	0	0	0	0	0	0	0	0	0	0
Class: Gastropoda	0	0	0	0	0	0	0	0	0	0
Order: Basommatophora	0	0	0	0	0	0	0	0	0	0
Family: Lymnaeidae	0	0	0	0	0	0	0	0	0	0
<i>Fossaria</i>	0	0	0	0	0	0	0	0	0	0
Family: Physidae	0	0	0	0	0	0	0	0	0	0
<i>Physa</i>	0	0	0	0	0	0	0	0	0	0
Family: Planorbidae	0	0	0	0	0	0	0	0	0	0
<i>Gyraulus</i>	0	0	0	0	0	0	0	0	0	0
Totals:	22,796	33,835	15,559	16,057	31,254	22,867	77,491	1,419	64,588	24,444
Taxa present but not included:										
Phylum: Arthropoda	0	0	0	0	0	0	0	0	0	0
Class: Copepoda	0	0	0	0	0	0	71.7	3.58	71.7	71.7
Subphylum: Crustacea	0	0	0	0	0	0	0	0	0	0
Class: Branchiopoda	0	0	0	0	0	0	0	0	0	0
Order: Cladocera	0	0	0	0	0	0	71.7	0	71.7	0
Class: Ostracoda	71.7	71.7	0	35.8	71.7	71.7	71.7	3.58	71.7	71.7
Phylum: Annelida	0	0	0	0	0	0	0	0	0	0
Subphylum: Clitellata	0	0	0	0	0	0	0	0	0	0
Class: Oligochaeta	0	0	0	0	0	0	0	0	0	0
Order: Tubificida	0	0	0	0	0	0	0	0	0	0
Family: Lumbricidae	0	0	0	0	0	0	0	0	0	0
Phylum: Nemata	0	0	0	0	71.7	0	71.7	3.58	71.7	71.7
Phylum: Platyhelminthes	0	0	0	0	0	0	0	0	0	0
Class: Turbellaria	0	0	0	0	0	0	0	0	0	0
Totals:	71.7	71.7	0	35.8	143	71.7	287	10.8	287	215

Notes: All results displayed are area-based densities (

Raw Benthic Invertebrate Biomass Results (g), Mount Polley Mine



Project: Mt. Polley 2023

Minnow Environmental (BC)

Taxonomist: Scott Finlayson

scottfinlayson@cordilleraconsulting.ca

250-494-7553

Site:	HAC-R1	HAC-R1	HAC-R1	HAC-R1	HAC-R1	HAC-U	HAC-U	HAC-U	HAC-U	HAC-U
Sample:	BIC-1_2023-08	BIC-2_2023-08	BIC-3_2023-08	BIC-4_2023-08	BIC-5_2023-08	BIC-1_2023-08	BIC-2_2023-08	BIC-3_2023-08	BIC-4_2023-08	BIC-5_2023-08
Sample Collection Date:	10-Aug-23	10-Aug-23	10-Aug-23	10-Aug-23	10-Aug-23	9-Aug-23	9-Aug-23	9-Aug-23	9-Aug-23	10-Aug-23
CC#:	CC240216	CC240217	CC240218	CC240219	CC240220	CC240221	CC240222	CC240223	CC240224	CC240225
Mesh	250	250	250	250	250	250	250	250	250	250
Sub-sample %	6	5	10	5	6	5	5	5	5	5
<u>Dry Biomass analysis (g)</u>										
Sample Total Dry Weight										
All organisms	1.0150	1.4360	0.4190	0.4640	0.1733	0.7300	0.4980	0.6700	2.2840	2.3040
Raw Dry Weight										
All organisms	0.0609	0.0718	0.0419	0.0232	0.0104	0.0365	0.0249	0.0335	0.1142	0.1152
Measured Weight										
All organisms	0.1957	0.2054	0.1767	0.1572	0.1449	0.1712	0.1596	0.1685	0.2498	0.2499
Mesh Weight	0.0000									
All organisms	0.1348	0.1336	0.1348	0.1340	0.1345	0.1347	0.1347	0.1350	0.1356	0.1347
<u>Wet Biomass Analysis (g)</u>										
Sample Total Wet Weight (g)										
All organisms	0.2620	0.3344	0.2469	0.1110	0.0347	0.1279	0.1245	0.1541	0.4225	0.5440
Mesh Weight	0.7953	0.7954	0.7949	0.8195	0.8158	0.8098	0.8115	0.8214	0.7950	0.8104
Corrected Wet Weight										
All organisms	4.3667	6.6880	2.4690	2.2200	0.5783	2.5580	2.4900	3.0820	8.4500	10.8800
Raw Wet Weight										
All organisms	1.0573	1.1298	1.0418	0.9305	0.8505	0.9377	0.9360	0.9755	1.2175	1.3544

Raw Benthic Invertebrate Biomass Results (g), Mount Polley Mine



Project: Mt. Polley 2023
 Minnow Environmental (BC)
 Taxonomist: Scott Finlayson
scottfinlayson@cordilleraconsulting.ca
 250-494-7553

Site:	EDC-U	EDC-U	EDC-U	EDC-U	EDC-U	HAC-D	HAC-D	HAC-D	HAC-D	HAC-D
Sample:	BIC-1_2023-08	BIC-2_2023-08	BIC-3_2023-08	BIC-4_2023-08	BIC-5_2023-08	BIC-1_2023-08	BIC-2_2023-08	BIC-3_2023-08	BIC-4_2023-08	BIC-5_2023-08
Sample Collection Date:	8-Aug-23	8-Aug-23	8-Aug-23	8-Aug-23	7-Aug-23	6-Aug-23	6-Aug-23	6-Aug-23	6-Aug-23	6-Aug-23
CC#:	CC2240226	CC240227	CC240228	CC240229	CC240230	CC240231	CC240232	CC240233	CC240234	CC240235
Mesh	250	250	250	250	250	250	250	250	250	250
Sub-sample %	8	28	6	15	27	5	8	10	10	6
<u>Dry Biomass analysis (g)</u>										
Sample Total Dry Weight										
All organisms	0.2625	0.0514	0.1233	0.0953	0.0389	0.3600	0.3975	0.4140	0.1770	1.0317
Raw Dry Weight										
All organisms	0.0210	0.0144	0.0074	0.0143	0.0105	0.0180	0.0318	0.0414	0.0177	0.0619
Measured Weight										
All organisms	0.1552	0.1487	0.1405	0.1479	0.1450	0.1529	0.1662	0.1755	0.1524	0.1978
Mesh Weight										
All organisms	0.1342	0.1343	0.1331	0.1336	0.1345	0.1349	0.1344	0.1341	0.1347	0.1359
<u>Wet Biomass Analysis (g)</u>										
Sample Total Wet Weight										
All organisms	0.1115	0.1108	0.0842	0.1029	0.0774	0.0974	0.1299	0.1374	0.0893	0.2363
Mesh Weight										
All organisms	0.7992	0.7783	0.7797	0.7929	0.7898	0.7868	0.7848	0.7842	0.7958	0.7838
Corrected Wet Weight										
All organisms	1.3938	0.3957	1.4033	0.6860	0.2867	1.9480	1.6238	1.3740	0.8930	3.9383
Raw Wet Weight										
All organisms	0.9107	0.8891	0.8639	0.8958	0.8672	0.8842	0.9147	0.9216	0.8851	1.0201

Raw Benthic Invertebrate Biomass Results (g), Mount Polley Mine



Project: Mt. Polley 2023
 Minnow Environmental (BC)
 Taxonomist: Scott Finlayson
scottfinlayson@cordilleraconsulting.ca
 250-494-7553

Site:	EDC-D	EDC-D	EDC-D	EDC-D	EDC-D	E1	E1	E1	E1	E1
Sample:	BIC-1_2023-08	BIC-3_2023-08	BIC-5_2023-08	BIC-7_2023-08	BIC-8_2023-08	BIC-2_2023-08	BIC-4_2023-08	BIC-5_2023-08	BIC-6_2023-08	BIC-7_2023-08
Sample Collection Date:	11-Aug-23	11-Aug-23	11-Aug-23	11-Aug-23	11-Aug-23	5-Aug-23	5-Aug-23	4-Aug-23	4-Aug-23	4-Aug-23
CC#:	CC240236	CC240237	CC240238	CC240239	CC240240	CC240241	CC240242	CC240243	CC240244	CC240245
Mesh	250	250	250	250	250	250	250	250	250	250
Sub-sample %	5	5	8	10	5	5	5	100	5	5
<u>Dry Biomass analysis (g)</u>										
Sample Total Dry Weight										
All organisms	1.4320	0.5180	0.3163	0.2590	0.0940	1.6060	5.0280	0.0254	3.2560	0.5760
Raw Dry Weight										
All organisms	0.0716	0.0259	0.0253	0.0259	0.0047	0.0803	0.2514	0.0254	0.1628	0.0288
Measured Weight										
All organisms	0.2075	0.1611	0.1606	0.1606	0.1414	0.2150	0.3883	0.1606	0.2976	0.1637
Mesh Weight										
All organisms	0.1359	0.1352	0.1353	0.1347	0.1367	0.1347	0.1369	0.1352	0.1348	0.1349
<u>Wet Biomass Analysis (g)</u>										
Sample Total Wet Weight										
All organisms	0.3544	0.1106	0.1108	0.1139	0.0435	0.3686	1.1126	0.1042	0.7769	0.1584
Mesh Weight										
All organisms	0.7768	0.7856	0.7835	0.7860	0.7843	0.7833	0.7817	0.7701	0.7874	0.7620
Corrected Wet Weight										
All organisms	7.0880	2.2120	1.3850	1.1390	0.8700	7.3720	22.2520	0.1042	15.5380	3.1680
Raw Wet Weight										
All organisms	1.1312	0.8962	0.8943	0.8999	0.8278	1.1519	1.8943	0.8743	1.5643	0.9204

BENTHIC INVERTEBRATE COMMUNITY

**Cordillera Methods, QC Report, and Results 23-01-7
(Finalized November 11, 2023)**

Methods and QC Report 2023

Project ID: MPMC Lake Sediment and BIC (23-01-7)



Client: Minnow Environmental

Prepared by:

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Summerland, BC

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Sample Reception

On September 5, 2023, Cordillera Consulting received 5 benthic samples from Minnow Environmental. When samples arrived to Cordillera Consulting, exterior packaging was initially inspected for damage or wet spots that would have indicated damage to the interior containers.

Samples were logged into a proprietary software database (INSTAR1) where the clients assigned sample name was recorded along with a Cordillera Consulting (CC) number for cross-reference. Each sample was checked to ensure that all sites and replicates recorded on field sheets or packing lists were delivered intact and with adequate preservative. Any missing, mislabelled or extra samples were reported to the client immediately to confirm the total numbers and correct names on the sample jars. The client representative was notified of the arrival of the shipment and provided a sample inventory once intake was completed.

See table below for sample inventory:

Table 1: Summary of sample information including Cordillera Consulting (CC) number

Sample	CC#	Date	Size	# of Jars
QUL-PNF_BIC-1_2023-08	CC240467	08/25/2023	250 µM	1
QUL-PNF_BIC-2_2023-08	CC240468	08/25/2023	250 µM	1
QUL-PNF_BIC-3_2023-08	CC240469	08/25/2023	250 µM	1
QUL-PNF_BIC-4_2023-08	CC240470	08/25/2023	250 µM	1
QUL-PNF_BIC-5_2023-08	CC240471	08/26/2023	250 µM	1

Sample Sorting

- Using a gridded Petri dish, fine forceps and a low power stereo-microscope (Olympus, Nikon, Leica) the sorting technicians removed the invertebrates and sorted them into family/orders.
- The sorting technician kept a running tally of total numbers excluding organisms from Porifera, Nemata, Platyhelminthes, Ostracoda, Copepoda, Cladocera and terrestrial drop-ins such as aphids. These organisms were marked for their presence (given a value of 1) only and left in the sample. They were not included towards the 300-organism subsample count.
- Where specimens are broken or damaged, only heads were counted.
- Subsampling was conducted with the use of a Marchant Box.
- When using the Marchant box, cells were extracted at the same time in the order indicated by a random number table. If the 300th organism was found part way into sorting a cell then the balance of that cell was sorted. If the organism count had not reached 300 by the 50th cell then the entire sample was sorted.

- The total number of cells sorted and the number of organisms removed were recorded manually on a bench sheet and then recorded into INSTAR1
- Organisms were stored in vials containing 80% ethanol and an interior label indicating the site names, date of sampling, site code numbers and portion subsampled. This information was also recorded on the laboratory bench sheet and on INSTAR1.
- The sorted portion of the debris was preserved and labeled separately from the unsorted portion and was tested for sorting efficiency (Sorting Quality Control – Sorting Efficiency). The unsorted portion was also labeled and preserved in separate jars.

Percent sub-sampled and total countable invertebrates pulled from the samples were summarized in the table below.

Table 2: Percent sub-sample and invertebrate count for each sample

Sample	Date	CC#	250 micron fraction	
			% Sampled	# Invertebrates
QUL-PNF_BIC-1_2023-08	25-Aug-23	CC240467	100%	98
QUL-PNF_BIC-2_2023-08	25-Aug-23	CC240468	100%	79
QUL-PNF_BIC-3_2023-08	25-Aug-23	CC240469	100%	58
QUL-PNF_BIC-4_2023-08	25-Aug-23	CC240470	100%	88
QUL-PNF_BIC-5_2023-08	26-Aug-23	CC240471	100%	70

Sorting Quality Control - Sorting Efficiency

As a part of Cordillera’s laboratory policy, all projects undergo sorting efficiency checks.

- As sorting progresses, 10% of samples were randomly chosen by senior members of the sorting team for resorting.
- All sorters working on a project had at least 1 sample resorted by another sorter.
- An efficiency of 90 % was expected (95% for CABIN samples).
- If 90/95% efficiency was not met, samples from that sorter were resorted.
- To calculate sorting efficiency the following formula was used:

$$\frac{\#OrganismsMissed}{TotalOrganismsFound} * 100 = \% OM$$

Table 3 Summary of sorting efficiency

	Total from Sample	Percent Efficiency
Site - QC, Sample - QC 1, CC# - CC240471, Percent sampled = 100%, Sieve size = 250		
Trombidiformes	2	
Oligochaeta	1	
Total:	3	70 95.71%

Sorting Quality Control - Sub-Sampling QC

Certain Provincial and Mining projects require additional sorting checks in the form of sub-sampling QC, (Environmental Effects Monitoring (EEM) protocol). This ensured that any fraction of the total sample that was examined was actually an accurate representation of the number of total organisms. Organisms from the additional sub-samples were not identified; rather total organism count only was compared.

Sub-Sampling efficiency was measured on 10% of the number of sub-sampled samples in the project. Ex. In a project where 50 of 100 total samples were processed through subsampling using a Marchant box, then 10% of 50; or 5 samples were used for sub sampling efficiency.

Sub-Sampling efficiency was performed by fractioning the entire sample into sub-sample percentages. On each sub-sampled portion, a total organism count was recorded and compared to the rest of the sub-samples. In order to pass, all fractions were required to be within 20% of total organism count.

Example: If 300 organisms are found in 10% of the sample, the sorter will continue to sample in 10% fractions until the entire sample is separated. They will then count the total number of organisms in each of the 10 fractions of 10% and compare the organism count.

When divergence is >20% the sorting manager examines for the source of the problem and takes steps to correct it. With the Marchant box, the problem typically rested with how the box is flipped back to the upright position. For this reason, subsampling was performed by experienced employees only. Another common source of error would be the type of debris in the sample. Samples with algae or heavy with periphyton have a higher incident of failure due to clumping than clear samples.

All samples in this project were fully sorted so subsample QC was not performed.

Taxonomic Effort

The next procedure was the identification to genus-species level where possible of all the organisms in the sample.

- Identifications were made at the genus/species level for all insect organisms found including Chironomidae (Based on CABIN protocol).
- Non-insect organisms (except those not included in CABIN count) were identified to genus/species where possible and to a minimum of family level with intact and mature specimens.
- The Standard Taxonomic Effort lists compiled by the CABIN manual¹, SAFIT², and PNAMP³ were used as a guide line for what level of identification to achieve where the condition and maturity of the organism enabled.
- Organisms from the same families/order were kept in separate vials with 80% ethanol and an interior label of printed laser paper.
- Chironomidae was identified to genus/species level where possible and was aided by slide mounts. CMC-10 was used to clear and mount the slide.
- Oligochaetes was identified to family/genus level with the aid of slide mounts. CMC-10 was used to clear and mount the slide.
- Other Annelida (leeches, polychaetes) were identified to the family/genus/species level with undamaged, mature specimens.
- Mollusca was identified to family and genus/species where possible
- Decapoda, Amphipoda and Isopoda were identified at family/genus/species level where possible.
- Bryozoans and Nemata remained at the phylum level
- Hydrachnidae and Cnidaria were identified at the family/genus level where possible.
- When requested, reference collections were made containing at least one individual from each taxa listed. Organisms represented will have been identified to the lowest practical level.
- Reference collection specimens were stored in 55 mm glass vials with screw-cap lids with polyseal inserts (museum quality). They were labeled with taxa name, site code, date identified and taxonomist name. The same information was applied to labels on the slide mounts.

Taxonomists

The taxonomists for this project were certified by the Society of Freshwater Science (SFS) Taxonomic Certification Program at level 2 which is the required certification for CABIN projects:

Scott Finlayson: Group 1 General Arthropods (East/West); Group 2 EPT (East/West); Group 3 Chironomidae (East/West); Group 4 Oligochaeta

Adam Bliss: Group 1 General Arthropods (East/West); Group 2 EPT (East/West); Group 3 Chironomidae

Rita Avery: Group 1 General Arthropods (East/West); Group 2 EPT (East/West)

Garret Naish: Group 2 EPT (East/West)

Taxonomic QC

Taxonomic QC was performed in house by someone other than the original taxonomist.

- Quality control protocol involved complete, blind re-identification and re-enumeration of at least 10% of samples by a second SFS-certified taxonomist.
- Samples for taxonomic quality control were randomly selected and quality control procedures were conducted as the project progresses through the laboratories.
- The second (QC) taxonomist will calculate and record four types of errors:
 1. Misidentification error
 2. Enumeration error
 3. Questionable taxonomic resolution error
 4. Insufficient taxonomic resolution error

The QC coordinator then calculates the following estimates of taxonomic precision.

1. The percent total identification error rate is calculated as:

$$\frac{\text{Sum of incorrect identifications}}{\text{total organisms counted in audit}} * (100)$$

The average total identification error rate of audited samples did not exceed 5%. All samples that exceed a 5% error rate were re-evaluated to determine whether repeated errors or patterns in error contributed.

2. The percent difference in enumeration (PDE) to quantify the consistency of specimen counts.

$$PDE = \frac{|n_1 - n_2|}{n_1 + n_2} x 100$$

3. The percent taxonomic disagreement (PTD) to quantify the shared precision between two sets of identifications.

$$PTD = \left(1 - \left[\frac{a}{N}\right]\right) x 100$$

4. Bray Curtis dissimilarity Index to quantify the differences in identifications.

$$BC_{ij} = 1 - \frac{2C_{ij}}{S_j + S_i}$$

Error Summary

All samples report errors within the acceptable limits for CABIN Laboratory methods (less than 5% error).

Table 4 Summary of taxonomic error following QC

Site	Taxa Identified	% Error	PDE	PTD	Bray - Curtis Dissimilarity index
Site - 2023, Sample - QUL-PNF_BIC-2_2023-08, CC# - CC240468, Percent sampled = 100%, Sieve size = 250	78	0.00	0.63694268	1.26582278	0.00636943

There will always be disagreements between taxonomists regarding the degree of taxonomic resolution in immature specimens and when laboratories make use of different keys for certain groups (Mollusks is an especially disputed group). It is always possible that some taxa found by the original taxonomist were overlooked in QC.

All of the Taxonomic QC samples that were observed passed testing according to the CABIN misidentification protocols. See the tables below for results from taxonomic QC audit.

Error Rationale

Site - 2023, Sample - QUL-PNF_BIC-2_2023-08, CC# - CC240468, Percent sampled = 100%, Sieve size = 250	Laboratory Count	QC Audit Count	Agreement	Misidentification	Questionable Taxonomic Resolution	Enumeration	Insufficient Taxonomic Resolution	Comments
Ablabesmyia	1	1						
Chironomidae	16	16						
Heterotrissocladius	23	23						
Lebertia	3	3						

Naididae	1	1						
Oligochaeta	1	0	No			X		
Parakiefferiella	1	1						
Procladius	16	16						
Sergentia	5	5						
Trombidiformes	6	6						
Tubificinae with hair chaetae	6	6						
Total:	79	78						
					0	1	0	
% Total Misidentification Rate =	misidentifications	x100 =	0.00	Pass				
	total number							

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¹ McDermott, H., Paull, T., Strachan, S. (May 2014). Laboratory Methods: Processing, Taxonomy, and Quality Control of Benthic Macroinvertebrate Samples, Environment Canada. ISBN: 978-1-100-25417-3

² Southwest Association of Freshwater Invertebrate Taxonomists. (2015). www.safit.org

³ Pacific Northwest Aquatic Monitoring Partnership (Accessed 2015). www.pnamp.org

Taxonomic Keys

Below is a reference list of taxonomic keys utilized by taxonomists at Cordillera Consulting. Cordillera taxonomists routinely seek out new literature to ensure the most accurate identification keys are being utilized. This is not reflective of the exhaustive list of resources that we use for identification. A more complete list of taxonomic resources can be found at Southwest Association of Freshwater Invertebrate Taxonomists. (2015).

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Raw Benthic Invertebrate Density Results (# individuals/sample), Mount Polley Mine



Project: 23-01-7 (MPMC Lake Sediment and Bic)
 Minnow (BC)
 Taxonomist: Scott Finlayson
scottfinlayson@cordilleraconsulting.ca
 250-494-7553

Site:	QUL-PNF	QUL-PNF	QUL-PNF	QUL-PNF	QUL-PNF
Sample:	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
Sample Collection Date:	25-Aug-23	25-Aug-23	25-Aug-23	25-Aug-23	26-Aug-23
CC#:	CC240467	CC240468	CC240469	CC240470	CC240471
Phylum: Arthropoda	0	0	0	0	0
Subphylum: Hexapoda	0	0	0	0	0
Class: Insecta	0	0	0	0	0
Order: Plecoptera	0	0	0	0	0
Family: Nemouridae	0	0	0	0	0
<i>Zapada columbiana</i>	3	0	0	0	0
Family: Taeniopterygidae	2	0	0	0	0
Order: Diptera	0	0	0	0	0
Family: Ceratopogonidae	0	0	0	0	0
<i>Sphaeromias</i>	0	0	0	1	0
Family: Chironomidae	10	16	5	13	8
Subfamily: Chironominae	0	0	0	0	0
Tribe: Chironomini	0	0	0	0	0
<i>Sergentia</i>	8	5	0	1	0
Tribe: Tanytarsini	0	0	0	0	1
Subfamily: Diamesinae	0	0	0	0	0
<i>Protanypus</i>	1	0	1	2	0
Subfamily: Orthoclaadiinae	0	0	0	0	0
<i>Heterotrissocladius</i>	15	23	22	33	27
<i>Parakiefferiella</i>	1	1	1	0	0
<i>Platysmittia</i>	2	0	4	1	3
Subfamily: Tanypodinae	0	0	0	0	0
<i>Ablabesmyia</i>	0	1	1	0	0

Note: A value of zero reported at a less specific level of taxonomy does not indicate an absence of organisms at a more specific level of taxonomy.

Raw Benthic Invertebrate Density Results (# individuals/sample), Mount Polley Mine



Project: 23-01-7 (MPMC Lake Sediment and Bic)
 Minnow (BC)
 Taxonomist: Scott Finlayson
scottfinlayson@cordilleraconsulting.ca
 250-494-7553

Site:	QUL-PNF	QUL-PNF	QUL-PNF	QUL-PNF	QUL-PNF
Sample:	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
Sample Collection Date:	25-Aug-23	25-Aug-23	25-Aug-23	25-Aug-23	26-Aug-23
CC#:	CC240467	CC240468	CC240469	CC240470	CC240471
 Tribe: Procladiini	0	0	0	0	0
<i>Procladius</i>	12	16	6	10	9
Subphylum: Chelicerata	0	0	0	0	0
 Class: Arachnida	0	0	0	0	0
 Order: Sarcoptiformes	0	0	0	0	0
 Family: Hydrozetidae	31	0	2	0	11
 Order: Trombidiformes	1	6	0	1	4
 Family: Lebertiidae	0	0	0	0	0
<i>Lebertia</i>	2	3	2	0	1
Subphylum: Crustacea	0	0	0	0	0
 Class: Malacostraca	0	0	0	0	0
 Order: Amphipoda	0	0	0	0	0
 Family: Hyalellidae	0	0	0	0	0
<i>Hyalella</i>	0	0	0	0	1
Phylum: Annelida	0	0	0	0	0
Subphylum: Clitellata	0	0	0	0	0
 Class: Oligochaeta	4	1	0	0	0
 Order: Lumbriculida	0	0	0	0	0
 Family: Lumbriculidae	0	0	0	0	1
 Order: Tubificida	0	0	0	0	0
 Family: Enchytraeidae	0	0	0	0	0
<i>Enchytraeus</i>	0	0	0	23	0

Note: A value of zero reported at a less specific level of taxonomy does not indicate an absence of organisms at a more specific level of taxonomy.

Raw Benthic Invertebrate Density Results (# individuals/sample), Mount Polley Mine



Project: 23-01-7 (MPMC Lake Sediment and Bic)
 Minnow (BC)
 Taxonomist: Scott Finlayson
scottfinlayson@cordilleraconsulting.ca
 250-494-7553

Site:	QUL-PNF	QUL-PNF	QUL-PNF	QUL-PNF	QUL-PNF
Sample:	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
Sample Collection Date:	25-Aug-23	25-Aug-23	25-Aug-23	25-Aug-23	26-Aug-23
CC#:	CC240467	CC240468	CC240469	CC240470	CC240471
Family: Naididae	0	1	0	0	0
Subfamily: Tubificinae with hair chaetae	5	6	14	3	4
Phylum: Mollusca	0	0	0	0	0
Class: Gastropoda	1	0	0	0	0
Totals:	98	79	58	88	70
Taxa present but not included:					
Phylum: Arthropoda	0	0	0	0	0
Subphylum: Hexapoda	0	0	0	0	0
Class: Insecta	0	0	0	0	0
Order: Homoptera	0	0	0	0	0
Family: Cicadellidae	0	0	0	0	1
Class: Copepoda	1	1	1	1	1
Subphylum: Crustacea	0	0	0	0	0
Class: Branchiopoda	0	0	0	0	0
Order: Cladocera	1	0	1	1	1
Class: Ostracoda	0	1	1	0	1
Phylum: Nemata	1	1	1	1	1
Totals:	3	3	4	3	5

Note: A value of zero reported at a less specific level of taxonomy does not indicate an absence of organisms at a more specific level of taxonomy.

Area-Based Benthic Invertebrate Density Results (# individuals/m²), Mount Polley Mine



Project: 23-01-7 (MPMC Lake Sediment and Bic)
 Minnow (BC)
 Taxonomist: Scott Finlayson
scottfinlayson@cordilleraconsulting.ca
 250-494-7553

Site:	QUL-PNF	QUL-PNF	QUL-PNF	QUL-PNF	QUL-PNF
Sample:	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
Sample Collection Date:	25-Aug-23	25-Aug-23	25-Aug-23	25-Aug-23	26-Aug-23
CC#:	CC240467	CC240468	CC240469	CC240470	CC240471
Phylum: Arthropoda	0	0	0	0	0
Subphylum: Hexapoda	0	0	0	0	0
Class: Insecta	0	0	0	0	0
Order: Plecoptera	0	0	0	0	0
Family: Nemouridae	0	0	0	0	0
<i>Zapada columbiana</i>	25.8	0	0	0	0
Family: Taeniopterygidae	17.2	0	0	0	0
Order: Diptera	0	0	0	0	0
Family: Ceratopogonidae	0	0	0	0	0
<i>Sphaeromias</i>	0	0	0	8.61	0
Family: Chironomidae	86.1	138	43.1	112	68.9
Subfamily: Chironominae	0	0	0	0	0
Tribe: Chironomini	0	0	0	0	0
<i>Sergentia</i>	68.9	43.1	0	8.61	0
Tribe: Tanytarsini	0	0	0	0	8.61
Subfamily: Diamesinae	0	0	0	0	0
<i>Protanypus</i>	8.61	0	8.61	17.2	0
Subfamily: Orthocladiinae	0	0	0	0	0
<i>Heterotrissocladius</i>	129	198	189	284	233
<i>Parakiefferiella</i>	8.61	8.61	8.61	0	0
<i>Platysmittia</i>	17.2	0	34.4	8.61	25.8
Subfamily: Tanypodinae	0	0	0	0	0
<i>Ablabesmyia</i>	0	8.61	8.61	0	0

Note: All results displayed are area-based densities (#/m²). A value of zero reported at a less specific level of taxonomy does not indicate an absence of organisms at a more specific level of taxonomy.

Area-Based Benthic Invertebrate Density Results (# individuals/m²), Mount Polley Mine



Project: 23-01-7 (MPMC Lake Sediment and Bic)
 Minnow (BC)
 Taxonomist: Scott Finlayson
scottfinlayson@cordilleraconsulting.ca
 250-494-7553

Site:	QUL-PNF	QUL-PNF	QUL-PNF	QUL-PNF	QUL-PNF
Sample:	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
Sample Collection Date:	25-Aug-23	25-Aug-23	25-Aug-23	25-Aug-23	26-Aug-23
CC#:	CC240467	CC240468	CC240469	CC240470	CC240471
Tribe: Procladiini	0	0	0	0	0
<i>Procladius</i>	103	138	51.7	86.1	77.5
Subphylum: Chelicerata	0	0	0	0	0
Class: Arachnida	0	0	0	0	0
Order: Sarcoptiformes	0	0	0	0	0
Family: Hydrozetidae	267	0	17.2	0	94.7
Order: Trombidiformes	8.61	51.7	0	8.61	34.4
Family: Lebertiidae	0	0	0	0	0
<i>Lebertia</i>	17.2	25.8	17.2	0	8.61
Subphylum: Crustacea	0	0	0	0	0
Class: Malacostraca	0	0	0	0	0
Order: Amphipoda	0	0	0	0	0
Family: Hyalellidae	0	0	0	0	0
<i>Hyalella</i>	0	0	0	0	8.61
Phylum: Annelida	0	0	0	0	0
Subphylum: Clitellata	0	0	0	0	0
Class: Oligochaeta	34.4	8.61	0	0	0
Order: Lumbriculida	0	0	0	0	0
Family: Lumbriculidae	0	0	0	0	8.61
Order: Tubificida	0	0	0	0	0
Family: Enchytraeidae	0	0	0	0	0
<i>Enchytraeus</i>	0	0	0	198	0

Note: All results displayed are area-based densities (#/m²). A value of zero reported at a less specific level of taxonomy does not indicate an absence of organisms at a more specific level of taxonomy.

Area-Based Benthic Invertebrate Density Results (# individuals/m²), Mount Polley Mine



Project: 23-01-7 (MPMC Lake Sediment and Bic)
 Minnow (BC)
 Taxonomist: Scott Finlayson
scottfinlayson@cordilleraconsulting.ca
 250-494-7553

Site:	QUL-PNF	QUL-PNF	QUL-PNF	QUL-PNF	QUL-PNF
Sample:	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
Sample Collection Date:	25-Aug-23	25-Aug-23	25-Aug-23	25-Aug-23	26-Aug-23
CC#:	CC240467	CC240468	CC240469	CC240470	CC240471
Family: Naididae	0	8.61	0	0	0
Subfamily: Tubificinae with hair chaetae	43.1	51.7	121	25.8	34.4
Phylum: Mollusca	0	0	0	0	0
Class: Gastropoda	8.61	0	0	0	0
Totals:	844	680	499	758	603
Taxa present but not included:					
Phylum: Arthropoda	0	0	0	0	0
Subphylum: Hexapoda	0	0	0	0	0
Class: Insecta	0	0	0	0	0
Order: Homoptera	0	0	0	0	0
Family: Cicadellidae	0	0	0	0	8.61
Class: Copepoda	8.61	8.61	8.61	8.61	8.61
Subphylum: Crustacea	0	0	0	0	0
Class: Branchiopoda	0	0	0	0	0
Order: Cladocera	8.61	0	8.61	8.61	8.61
Class: Ostracoda	0	8.61	8.61	0	8.61
Phylum: Nemata	8.61	8.61	8.61	8.61	8.61
Totals:	25.8	25.8	34.4	25.8	43.1

Note: All results displayed are area-based densities (#/m²). A value of zero reported at a less specific level of taxonomy does not indicate an absence of organisms at a more specific level of taxonomy.

**PERIPHYTON AND BENTHIC
INVERTEBRATE TISSUE QUALITY**

ALS Laboratory Report VA23B8888

(Finalized November 17, 2023)

CERTIFICATE OF ANALYSIS

<p>Work Order : VA23B8888</p> <p>Amendment : 1</p> <p>Client : Mount Polley Mining Corporation</p> <p>Contact : Mr. Gabriel Holmes</p> <p>Address : PO Box 12 Likely BC Canada V0L 1N0</p> <p>Telephone : 250-790-2215 ext 2171</p> <p>Project : ----</p> <p>PO : 5590012190</p> <p>C-O-C number : ----</p> <p>Sampler : KBa</p> <p>Site : ----</p> <p>Quote number : VA22-MPMC100-002</p> <p>No. of samples received : 159</p> <p>No. of samples analysed : 159</p>	<p>Page : 1 of 73</p> <p>Laboratory : ALS Environmental - Vancouver</p> <p>Account Manager : Can Dang</p> <p>Address : 8081 Lougheed Highway Burnaby BC Canada V5A 1W9</p> <p>Telephone : +1 604 253 4188</p> <p>Date Samples Received : 15-Aug-2023 09:40</p> <p>Date Analysis Commenced : 11-Sep-2023</p> <p>Issue Date : 17-Nov-2023 11:43</p>
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This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QC Interpretive report to assist with Quality Review and Sample Receipt Notification (SRN).

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

<i>Signatories</i>	<i>Position</i>	<i>Laboratory Department</i>
Arshdeep Kaur	Lab Assistant	Metals, Burnaby, British Columbia
Kevin Duarte	Supervisor - Metals ICP Instrumentation	Metals, Burnaby, British Columbia
Kim Jensen	Department Manager - Metals	Metals, Burnaby, British Columbia
Kinny Wu	Lab Analyst	Metals, Burnaby, British Columbia
Owen Cheng		Metals, Burnaby, British Columbia
Ragini Saini	Lab Assistant	Metals, Burnaby, British Columbia
Salimah Khimani	Lab Assistant	Metals, Burnaby, British Columbia
Sam Silveira	Lab Assistant	Metals, Burnaby, British Columbia
Tony Nguyen	Analyst	Metals, Burnaby, British Columbia



General Comments

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Refer to the ALS Quality Control Interpretive report (QCI) for applicable references and methodology summaries. Reference methods may incorporate modifications to improve performance.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

Please refer to Quality Control Interpretive report (QCI) for information regarding Holding Time compliance.

Key : CAS Number: Chemical Abstracts Services number is a unique identifier assigned to discrete substances
LOR: Limit of Reporting (detection limit).

<i>Unit</i>	<i>Description</i>
%	percent
mg/kg	milligrams per kilogram
mg/kg wwt	milligrams per kilogram wet weight

<: less than.

>: greater than.

Surrogate: An analyte that is similar in behavior to target analyte(s), but that does not occur naturally in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery.

Test results reported relate only to the samples as received by the laboratory.

UNLESS OTHERWISE STATED on SRN or QCI Report, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

Workorder Comments

Amendment (17/11/2023): This report has been amended and re-released to allow the reporting of additional analytical data. Includes mercury analysis data in wet weight basis

Qualifiers

<i>Qualifier</i>	<i>Description</i>
DLA	Detection Limit adjusted for required dilution.
DLIS	Detection Limit Adjusted due to insufficient sample.
DLM	Detection Limit Adjusted due to sample matrix effects (e.g. chemical interference, colour, turbidity).
RRR	Refer to report comments for issues regarding this analysis.



Analytical Results

Sub-Matrix: Tissue					Client sample ID				
(Matrix: Biota)					HAC-R1_PERT-1_2023-08	HAC-R1_PERT-2_2023-08	HAC-R1_PERT-3_2023-08	HAC-R1_PERT-4_2023-08	HAC-R1_PERT-5_2023-08
Client sampling date / time					10-Aug-2023 00:00	10-Aug-2023 00:00	10-Aug-2023 00:00	10-Aug-2023 00:00	10-Aug-2023 00:00
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23B8888-001	VA23B8888-002	VA23B8888-003	VA23B8888-004	VA23B8888-005
					Result	Result	Result	Result	Result
Physical Tests									
Moisture	----	E144A/VA	2.0	%	----	----	----	67.8	----
Moisture	----	E144-H/VA	2.0	%	52.2	59.4	70.7	----	59.8
Metals									
Aluminum	7429-90-5	E475/VA	5.0	mg/kg	----	----	----	4590	----
Aluminum	7429-90-5	E472/VA	5.0	mg/kg	4790	1360	1500	----	1870
Antimony	7440-36-0	E472/VA	0.010	mg/kg	0.037	0.074	0.084	----	0.069
Antimony	7440-36-0	E475/VA	0.020	mg/kg	----	----	----	0.097	----
Arsenic	7440-38-2	E472/VA	0.030	mg/kg	2.69	2.16	2.24	----	2.55
Arsenic	7440-38-2	E475/VA	0.050	mg/kg	----	----	----	5.45	----
Barium	7440-39-3	E475/VA	0.050	mg/kg	----	----	----	281	----
Barium	7440-39-3	E472/VA	0.050	mg/kg	527	134	105	----	197
Beryllium	7440-41-7	E475/VA	0.010	mg/kg	----	----	----	0.159	----
Beryllium	7440-41-7	E472/VA	0.010	mg/kg	0.133	0.032	0.055	----	0.051
Bismuth	7440-69-9	E475/VA	0.010	mg/kg	----	----	----	<0.010	----
Bismuth	7440-69-9	E472/VA	0.010	mg/kg	<0.010	<0.014 ^{DLA}	<0.014 ^{DLA}	----	<0.014 ^{DLA}
Boron	7440-42-8	E475/VA	1.0	mg/kg	----	----	----	33.5	----
Boron	7440-42-8	E472/VA	1.0	mg/kg	131	239	283	----	140
Cadmium	7440-43-9	E475/VA	0.010	mg/kg	----	----	----	0.123	----
Cadmium	7440-43-9	E472/VA	0.010	mg/kg	0.189	0.140	0.178	----	0.155
Calcium	7440-70-2	E475/VA	20	mg/kg	----	----	----	178000	----
Calcium	7440-70-2	E472/VA	20	mg/kg	198000	236000	196000	----	218000
Cesium	7440-46-2	E475/VA	0.0050	mg/kg	----	----	----	0.126	----
Cesium	7440-46-2	E472/VA	0.0050	mg/kg	0.666	0.192	0.176	----	0.131
Chromium	7440-47-3	E475/VA	0.20	mg/kg	----	----	----	35.8	----
Chromium	7440-47-3	E472/VA	0.20	mg/kg	7.25	4.86	6.13	----	9.14
Cobalt	7440-48-4	E475/VA	0.020	mg/kg	----	----	----	1.84	----
Cobalt	7440-48-4	E472/VA	0.020	mg/kg	2.72	1.42	2.49	----	1.52
Copper	7440-50-8	E475/VA	0.20	mg/kg	----	----	----	165	----
Copper	7440-50-8	E472/VA	0.20	mg/kg	39.4	35.9	75.9	----	40.6



Analytical Results

Sub-Matrix: Tissue (Matrix: Biota)					Client sample ID	HAC-R1_PERT-1_2023-08	HAC-R1_PERT-2_2023-08	HAC-R1_PERT-3_2023-08	HAC-R1_PERT-4_2023-08	HAC-R1_PERT-5_2023-08
Client sampling date / time					10-Aug-2023 00:00	10-Aug-2023 00:00	10-Aug-2023 00:00	10-Aug-2023 00:00	10-Aug-2023 00:00	
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23B8888-001	VA23B8888-002	VA23B8888-003	VA23B8888-004	VA23B8888-005	
					Result	Result	Result	Result	Result	
Metals										
Iron	7439-89-6	E475/VA	5.0	mg/kg	---	---	---	3660	---	
Iron	7439-89-6	E472/VA	5.0	mg/kg	3290	1720	2740	---	2090	
Lead	7439-92-1	E475/VA	0.050	mg/kg	---	---	---	0.628	---	
Lead	7439-92-1	E472/VA	0.050	mg/kg	0.991	0.223	0.806	---	0.385	
Lithium	7439-93-2	E475/VA	0.50	mg/kg	---	---	---	1.34	---	
Lithium	7439-93-2	E472/VA	0.50	mg/kg	3.71	1.20	1.52	---	1.18	
Magnesium	7439-95-4	E475/VA	2.0	mg/kg	---	---	---	2320	---	
Magnesium	7439-95-4	E472/VA	2.0	mg/kg	3620	2850	3050	---	2790	
Manganese	7439-96-5	E475/VA	0.050	mg/kg	---	---	---	1450	---	
Manganese	7439-96-5	E472/VA	0.050	mg/kg	1000	950	1470	---	1070	
Mercury	7439-97-6	E511/VA	0.0050	mg/kg	0.0529	0.0060	0.0114	---	0.0081	
Mercury	7439-97-6	E512/VA	0.010	mg/kg	---	---	---	0.036	---	
Mercury	7439-97-6	E511A/VA	0.0010	mg/kg wwt	0.0253	0.0024	0.0033	---	0.0032	
Mercury	7439-97-6	E512A/VA	0.0020	mg/kg wwt	---	---	---	0.0116	---	
Molybdenum	7439-98-7	E475/VA	0.040	mg/kg	---	---	---	0.940	---	
Molybdenum	7439-98-7	E472/VA	0.040	mg/kg	0.668	0.883	1.33	---	0.834	
Nickel	7440-02-0	E475/VA	0.20	mg/kg	---	---	---	2.71	---	
Nickel	7440-02-0	E472/VA	0.20	mg/kg	2.79	3.10	4.14	---	3.07	
Phosphorus	7723-14-0	E472/VA	10	mg/kg	618	548	739	---	920	
Phosphorus	7723-14-0	E475/VA	20	mg/kg	---	---	---	1620	---	
Potassium	7440-09-7	E475/VA	20	mg/kg	---	---	---	3270	---	
Potassium	7440-09-7	E472/VA	20	mg/kg	1940	1950	3550	---	2520	
Rubidium	7440-17-7	E475/VA	0.050	mg/kg	---	---	---	4.57	---	
Rubidium	7440-17-7	E472/VA	0.050	mg/kg	4.52	2.09	3.75	---	2.79	
Selenium	7782-49-2	E475/VA	0.10	mg/kg	---	---	---	1.51	---	
Selenium	7782-49-2	E472/VA	0.10	mg/kg	1.31	2.93	2.62	---	1.98	
Silver	7440-22-4	E475.Ag/VA	0.0050	mg/kg	---	---	---	0.0228	---	
Silver	7440-22-4	E472.Ag/VA	0.0050	mg/kg	0.0111	0.0099	0.0167	---	0.0150	
Sodium	7440-23-5	E475/VA	20	mg/kg	---	---	---	376	---	
Sodium	7440-23-5	E472/VA	20	mg/kg	223	315	286	---	233	



Analytical Results

Sub-Matrix: Tissue (Matrix: Biota)					Client sample ID	HAC-R1_PERT-1_2023-08	HAC-R1_PERT-2_2023-08	HAC-R1_PERT-3_2023-08	HAC-R1_PERT-4_2023-08	HAC-R1_PERT-5_2023-08
Client sampling date / time					10-Aug-2023 00:00	10-Aug-2023 00:00	10-Aug-2023 00:00	10-Aug-2023 00:00	10-Aug-2023 00:00	
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23B8888-001	VA23B8888-002	VA23B8888-003	VA23B8888-004	VA23B8888-005	
					Result	Result	Result	Result	Result	
Metals										
Strontium	7440-24-6	E475/VA	0.10	mg/kg	---	---	---	416	---	
Strontium	7440-24-6	E472/VA	0.10	mg/kg	376	501	436	---	503	
Tellurium	13494-80-9	E475/VA	0.020	mg/kg	---	---	---	0.032	---	
Tellurium	13494-80-9	E472/VA	0.020	mg/kg	<0.020	<0.028 ^{DLA}	<0.029 ^{DLA}	---	<0.028 ^{DLA}	
Thallium	7440-28-0	E475/VA	0.0020	mg/kg	---	---	---	0.0063	---	
Thallium	7440-28-0	E472/VA	0.0020	mg/kg	0.0059	0.0040	0.0072	---	0.0045	
Tin	7440-31-5	E475/VA	0.10	mg/kg	---	---	---	0.12	---	
Tin	7440-31-5	E472/VA	0.10	mg/kg	0.13	<0.14 ^{DLA}	<0.14 ^{DLA}	---	<0.14 ^{DLA}	
Titanium	7440-32-6	E475.Ti/VA	0.50	mg/kg	---	---	---	138	---	
Titanium	7440-32-6	E472.Ti/VA	0.50	mg/kg	162	127	131	---	120	
Uranium	7440-61-1	E475/VA	0.0020	mg/kg	---	---	---	0.114	---	
Uranium	7440-61-1	E472/VA	0.0020	mg/kg	0.107	0.0984	0.125	---	0.102	
Vanadium	7440-62-2	E475/VA	0.10	mg/kg	---	---	---	14.9	---	
Vanadium	7440-62-2	E472/VA	0.10	mg/kg	10.4	6.71	9.66	---	7.62	
Zinc	7440-66-6	E475/VA	1.0	mg/kg	---	---	---	10.7	---	
Zinc	7440-66-6	E472/VA	1.0	mg/kg	14.8	8.1	10.4	---	9.3	
Zirconium	7440-67-7	E475/VA	0.20	mg/kg	---	---	---	1.16	---	
Zirconium	7440-67-7	E472/VA	0.20	mg/kg	1.44	0.83	1.23	---	1.06	

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.



Analytical Results

Sub-Matrix: Tissue					Client sample ID				
(Matrix: Biota)					HAC-R1_PERT-6_2023-08	HAC-R1_PERT-7_2023-08	HAC-R1_PERT-8_2023-08	HAC-U_PERT-1_2023-08	HAC-U_PERT-2_2023-08
Client sampling date / time					10-Aug-2023 00:00	09-Aug-2023 00:00	09-Aug-2023 00:00	09-Aug-2023 00:00	09-Aug-2023 00:00
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23B8888-006	VA23B8888-007	VA23B8888-008	VA23B8888-009	VA23B8888-010
					Result	Result	Result	Result	Result
Physical Tests									
Moisture	----	E144-H/VA	2.0	%	68.3	68.0	64.3	61.9	67.4
Metals									
Aluminum	7429-90-5	E472/VA	5.0	mg/kg	1170	814	6330	698	705
Antimony	7440-36-0	E472/VA	0.010	mg/kg	0.069	0.063	0.075	0.067	0.077
Arsenic	7440-38-2	E472/VA	0.030	mg/kg	2.09	1.95	3.13	2.51	2.00
Barium	7440-39-3	E472/VA	0.050	mg/kg	98.8	69.1	263	116	98.0
Beryllium	7440-41-7	E472/VA	0.010	mg/kg	0.046	0.034	0.109	0.020	0.041
Bismuth	7440-69-9	E472/VA	0.010	mg/kg	<0.016 ^{DLA}	<0.016 ^{DLA}	<0.014 ^{DLA}	<0.015 ^{DLA}	<0.015 ^{DLA}
Boron	7440-42-8	E472/VA	1.0	mg/kg	224	183	124	102	284
Cadmium	7440-43-9	E472/VA	0.010	mg/kg	0.147	0.130	0.139	0.133	0.093
Calcium	7440-70-2	E472/VA	20	mg/kg	224000	224000	196000	258000	220000
Cesium	7440-46-2	E472/VA	0.0050	mg/kg	0.121	0.104	0.278	0.0838	0.0921
Chromium	7440-47-3	E472/VA	0.20	mg/kg	1.38	1.77	28.4	12.6	6.69
Cobalt	7440-48-4	E472/VA	0.020	mg/kg	1.13	1.05	3.73	1.11	2.20
Copper	7440-50-8	E472/VA	0.20	mg/kg	36.7	36.1	221	20.5	166
Iron	7439-89-6	E472/VA	5.0	mg/kg	1670	1320	4210	1260	1660
Lead	7439-92-1	E472/VA	0.050	mg/kg	0.282	0.271	1.09	0.188	0.604
Lithium	7439-93-2	E472/VA	0.50	mg/kg	<0.78 ^{DLA}	0.82	1.76	<0.76 ^{DLA}	<0.76 ^{DLA}
Magnesium	7439-95-4	E472/VA	2.0	mg/kg	2590	2500	3260	2590	2850
Manganese	7439-96-5	E472/VA	0.050	mg/kg	1170	966	2720	3370	3310
Mercury	7439-97-6	E511/VA	0.0050	mg/kg	0.0066	0.0077	0.0081	0.0087	0.0051
Mercury	7439-97-6	E511A/VA	0.0010	mg/kg ww	0.0021	0.0024	0.0029	0.0033	0.0016
Molybdenum	7439-98-7	E472/VA	0.040	mg/kg	1.21	0.939	1.24	0.662	1.19
Nickel	7440-02-0	E472/VA	0.20	mg/kg	2.88	3.20	2.82	1.79	1.49
Phosphorus	7723-14-0	E472/VA	10	mg/kg	690	740	936	1330	671
Potassium	7440-09-7	E472/VA	20	mg/kg	3720	2160	3370	3020	4120
Rubidium	7440-17-7	E472/VA	0.050	mg/kg	3.72	2.17	4.44	3.83	4.04
Selenium	7782-49-2	E472/VA	0.10	mg/kg	2.31	2.39	1.47	1.58	1.83
Silver	7440-22-4	E472.Ag/VA	0.0050	mg/kg	0.0098	<0.0081 ^{DLA}	0.0262	0.0139	<0.0076 ^{DLA}
Sodium	7440-23-5	E472/VA	20	mg/kg	220	183	425	233	239



Analytical Results

Sub-Matrix: Tissue (Matrix: Biota)					Client sample ID	HAC-R1_PERT-6_2023-08	HAC-R1_PERT-7_2023-08	HAC-R1_PERT-8_2023-08	HAC-U_PERT-1_2023-08	HAC-U_PERT-2_2023-08
Client sampling date / time					10-Aug-2023 00:00	09-Aug-2023 00:00	09-Aug-2023 00:00	09-Aug-2023 00:00	09-Aug-2023 00:00	
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23B8888-006	VA23B8888-007	VA23B8888-008	VA23B8888-009	VA23B8888-010	
					Result	Result	Result	Result	Result	
Metals										
Strontium	7440-24-6	E472/VA	0.10	mg/kg	503	482	485	613	541	
Tellurium	13494-80-9	E472/VA	0.020	mg/kg	<0.031 ^{DLA}	<0.032 ^{DLA}	<0.028 ^{DLA}	<0.030 ^{DLA}	<0.030 ^{DLA}	
Thallium	7440-28-0	E472/VA	0.0020	mg/kg	0.0053	0.0045	0.0062	0.0050	0.0059	
Tin	7440-31-5	E472/VA	0.10	mg/kg	<0.16 ^{DLA}	<0.16 ^{DLA}	0.16	<0.15 ^{DLA}	<0.15 ^{DLA}	
Titanium	7440-32-6	E472.Ti/VA	0.50	mg/kg	78.2	59.5	211	60.6	51.4	
Uranium	7440-61-1	E472/VA	0.0020	mg/kg	0.0948	0.0966	0.127	0.101	0.0989	
Vanadium	7440-62-2	E472/VA	0.10	mg/kg	6.87	4.59	16.7	5.84	6.64	
Zinc	7440-66-6	E472/VA	1.0	mg/kg	6.5	5.8	13.1	5.5	6.9	
Zirconium	7440-67-7	E472/VA	0.20	mg/kg	0.68	0.65	1.96	0.43	0.73	

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.



Analytical Results

Sub-Matrix: Tissue (Matrix: Biota)					Client sample ID	HAC-U_PERT-3 _2023-08	HAC-U_PERT-4 _2023-08	HAC-U_PERT-5 _2023-08	HAC-U_PERT-6 _2023-08	HAC-U_PERT-7 _2023-08
Client sampling date / time					09-Aug-2023 00:00	09-Aug-2023 00:00	09-Aug-2023 00:00	08-Aug-2023 00:00	07-Aug-2023 00:00	
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23B8888-011	VA23B8888-012	VA23B8888-013	VA23B8888-014	VA23B8888-015	
					Result	Result	Result	Result	Result	
Physical Tests										
Moisture	---	E144A/VA	2.0	%	52.9	---	---	---	---	
Moisture	---	E144-H/VA	2.0	%	---	63.6	69.0	74.5	70.9	
Metals										
Aluminum	7429-90-5	E475/VA	5.0	mg/kg	6920	---	---	---	---	
Aluminum	7429-90-5	E472/VA	5.0	mg/kg	---	2320	612	410	654	
Antimony	7440-36-0	E472/VA	0.010	mg/kg	---	0.045	0.076	0.046	0.077	
Antimony	7440-36-0	E475/VA	0.020	mg/kg	0.046	---	---	---	---	
Arsenic	7440-38-2	E472/VA	0.030	mg/kg	---	2.88	3.00	1.65	1.98	
Arsenic	7440-38-2	E475/VA	0.050	mg/kg	4.92	---	---	---	---	
Barium	7440-39-3	E475/VA	0.050	mg/kg	126	---	---	---	---	
Barium	7440-39-3	E472/VA	0.050	mg/kg	---	1480	143	82.7	164	
Beryllium	7440-41-7	E475/VA	0.010	mg/kg	0.185	---	---	---	---	
Beryllium	7440-41-7	E472/VA	0.010	mg/kg	---	0.035	0.023	<0.018 ^{DLA}	0.021	
Bismuth	7440-69-9	E475/VA	0.010	mg/kg	<0.010	---	---	---	---	
Bismuth	7440-69-9	E472/VA	0.010	mg/kg	---	<0.011 ^{DLA}	<0.016 ^{DLA}	<0.018 ^{DLA}	<0.015 ^{DLA}	
Boron	7440-42-8	E475/VA	1.0	mg/kg	90.3	---	---	---	---	
Boron	7440-42-8	E472/VA	1.0	mg/kg	---	38.0	87.3	210	241	
Cadmium	7440-43-9	E475/VA	0.010	mg/kg	0.165	---	---	---	---	
Cadmium	7440-43-9	E472/VA	0.010	mg/kg	---	0.119	0.265	0.096	0.144	
Calcium	7440-70-2	E475/VA	20	mg/kg	217000	---	---	---	---	
Calcium	7440-70-2	E472/VA	20	mg/kg	---	240000	267000	216000	241000	
Cesium	7440-46-2	E475/VA	0.0050	mg/kg	0.104	---	---	---	---	
Cesium	7440-46-2	E472/VA	0.0050	mg/kg	---	0.104	0.0518	0.0958	0.117	
Chromium	7440-47-3	E475/VA	0.20	mg/kg	32.2	---	---	---	---	
Chromium	7440-47-3	E472/VA	0.20	mg/kg	---	20.1	1.35	1.04	0.60	
Cobalt	7440-48-4	E475/VA	0.020	mg/kg	1.33	---	---	---	---	
Cobalt	7440-48-4	E472/VA	0.020	mg/kg	---	1.18	0.987	0.567	1.59	
Copper	7440-50-8	E475/VA	0.20	mg/kg	38.2	---	---	---	---	
Copper	7440-50-8	E472/VA	0.20	mg/kg	---	26.2	33.5	18.9	70.0	
Iron	7439-89-6	E475/VA	5.0	mg/kg	2340	---	---	---	---	



Analytical Results

Sub-Matrix: Tissue
 (Matrix: Biota)

Client sample ID

					HAC-U_PERT-3 _2023-08	HAC-U_PERT-4 _2023-08	HAC-U_PERT-5 _2023-08	HAC-U_PERT-6 _2023-08	HAC-U_PERT-7 _2023-08
Client sampling date / time					09-Aug-2023 00:00	09-Aug-2023 00:00	09-Aug-2023 00:00	08-Aug-2023 00:00	07-Aug-2023 00:00
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23B8888-011	VA23B8888-012	VA23B8888-013	VA23B8888-014	VA23B8888-015
					Result	Result	Result	Result	Result
Metals									
Iron	7439-89-6	E472/VA	5.0	mg/kg	---	2230	917	674	939
Lead	7439-92-1	E475/VA	0.050	mg/kg	0.565	---	---	---	---
Lead	7439-92-1	E472/VA	0.050	mg/kg	---	0.259	0.221	0.142	0.330
Lithium	7439-93-2	E475/VA	0.50	mg/kg	1.31	---	---	---	---
Lithium	7439-93-2	E472/VA	0.50	mg/kg	---	0.97	<0.83 ^{DLA}	<0.90 ^{DLA}	<0.75 ^{DLA}
Magnesium	7439-95-4	E475/VA	2.0	mg/kg	2480	---	---	---	---
Magnesium	7439-95-4	E472/VA	2.0	mg/kg	---	2540	2690	2470	2780
Manganese	7439-96-5	E475/VA	0.050	mg/kg	3640	---	---	---	---
Manganese	7439-96-5	E472/VA	0.050	mg/kg	---	2560	4630	2180	4140
Mercury	7439-97-6	E511/VA	0.0050	mg/kg	---	0.0061	0.0082	0.0066	0.0064
Mercury	7439-97-6	E512/VA	0.010	mg/kg	0.011	---	---	---	---
Mercury	7439-97-6	E511A/VA	0.0010	mg/kg wwt	---	0.0022	0.0025	0.0017	0.0019
Mercury	7439-97-6	E512A/VA	0.0020	mg/kg wwt	0.0054	---	---	---	---
Molybdenum	7439-98-7	E475/VA	0.040	mg/kg	1.15	---	---	---	---
Molybdenum	7439-98-7	E472/VA	0.040	mg/kg	---	0.557	0.708	0.807	0.942
Nickel	7440-02-0	E475/VA	0.20	mg/kg	2.26	---	---	---	---
Nickel	7440-02-0	E472/VA	0.20	mg/kg	---	1.71	2.47	1.46	1.88
Phosphorus	7723-14-0	E472/VA	10	mg/kg	---	1100	1160	833	838
Phosphorus	7723-14-0	E475/VA	20	mg/kg	1060	---	---	---	---
Potassium	7440-09-7	E475/VA	20	mg/kg	2900	---	---	---	---
Potassium	7440-09-7	E472/VA	20	mg/kg	---	2020	1700	4160	4610
Rubidium	7440-17-7	E475/VA	0.050	mg/kg	3.36	---	---	---	---
Rubidium	7440-17-7	E472/VA	0.050	mg/kg	---	2.76	1.48	4.19	4.64
Selenium	7782-49-2	E475/VA	0.10	mg/kg	1.90	---	---	---	---
Selenium	7782-49-2	E472/VA	0.10	mg/kg	---	1.50	2.16	1.85	2.01
Silver	7440-22-4	E475.Ag/VA	0.0050	mg/kg	0.0218	---	---	---	---
Silver	7440-22-4	E472.Ag/VA	0.0050	mg/kg	---	0.0072	<0.0083 ^{DLA}	<0.0090 ^{DLA}	0.0140
Sodium	7440-23-5	E475/VA	20	mg/kg	244	---	---	---	---
Sodium	7440-23-5	E472/VA	20	mg/kg	---	209	209	264	198
Strontium	7440-24-6	E475/VA	0.10	mg/kg	464	---	---	---	---



Analytical Results

Sub-Matrix: Tissue (Matrix: Biota)					Client sample ID	HAC-U_PERT-3 _2023-08	HAC-U_PERT-4 _2023-08	HAC-U_PERT-5 _2023-08	HAC-U_PERT-6 _2023-08	HAC-U_PERT-7 _2023-08
Client sampling date / time					09-Aug-2023 00:00	09-Aug-2023 00:00	09-Aug-2023 00:00	08-Aug-2023 00:00	07-Aug-2023 00:00	
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23B8888-011	VA23B8888-012	VA23B8888-013	VA23B8888-014	VA23B8888-015	
					Result	Result	Result	Result	Result	
Metals										
Strontium	7440-24-6	E472/VA	0.10	mg/kg	----	534	579	532	569	
Tellurium	13494-80-9	E475/VA	0.020	mg/kg	<0.020	----	----	----	----	
Tellurium	13494-80-9	E472/VA	0.020	mg/kg	----	<0.022 ^{DLA}	<0.033 ^{DLA}	<0.036 ^{DLA}	<0.030 ^{DLA}	
Thallium	7440-28-0	E475/VA	0.0020	mg/kg	0.0081	----	----	----	----	
Thallium	7440-28-0	E472/VA	0.0020	mg/kg	----	0.0082	0.0103	0.0074	0.0078	
Tin	7440-31-5	E475/VA	0.10	mg/kg	<0.10	----	----	----	----	
Tin	7440-31-5	E472/VA	0.10	mg/kg	----	<0.11 ^{DLA}	<0.16 ^{DLA}	<0.18 ^{DLA}	<0.15 ^{DLA}	
Titanium	7440-32-6	E475.Ti/VA	0.50	mg/kg	70.4	----	----	----	----	
Titanium	7440-32-6	E472.Ti/VA	0.50	mg/kg	----	120	35.0	27.8	50.9	
Uranium	7440-61-1	E475/VA	0.0020	mg/kg	0.105	----	----	----	----	
Uranium	7440-61-1	E472/VA	0.0020	mg/kg	----	0.0847	0.0985	0.139	0.109	
Vanadium	7440-62-2	E475/VA	0.10	mg/kg	15.3	----	----	----	----	
Vanadium	7440-62-2	E472/VA	0.10	mg/kg	----	9.66	4.32	3.25	4.52	
Zinc	7440-66-6	E475/VA	1.0	mg/kg	7.1	----	----	----	----	
Zinc	7440-66-6	E472/VA	1.0	mg/kg	----	6.5	7.1	4.0	4.9	
Zirconium	7440-67-7	E475/VA	0.20	mg/kg	0.79	----	----	----	----	
Zirconium	7440-67-7	E472/VA	0.20	mg/kg	----	0.62	0.53	0.41	0.48	

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.



Analytical Results

Sub-Matrix: Tissue (Matrix: Biota)					Client sample ID	HAC-U_PERT-8 _2023-08	HAC-D_PERT-1 _2023-08	HAC-D_PERT-2 _2023-08	HAC-D_PERT-3 _2023-08	HAC-D_PERT-4 _2023-08
Client sampling date / time					07-Aug-2023 00:00	06-Aug-2023 00:00	06-Aug-2023 00:00	06-Aug-2023 00:00	06-Aug-2023 00:00	
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23B8888-016	VA23B8888-017	VA23B8888-018	VA23B8888-019	VA23B8888-020	
					Result	Result	Result	Result	Result	
Physical Tests										
Moisture	---	E144A/VA	2.0	%	---	---	68.9	---	---	
Moisture	---	E144-H/VA	2.0	%	63.5	49.2	---	63.1	61.2	
Metals										
Aluminum	7429-90-5	E475/VA	5.0	mg/kg	---	---	1310	---	---	
Aluminum	7429-90-5	E472/VA	5.0	mg/kg	7530	4110	---	2560	3650	
Antimony	7440-36-0	E472/VA	0.010	mg/kg	0.164	0.083	---	0.073	0.118	
Antimony	7440-36-0	E475/VA	0.020	mg/kg	---	---	0.039	---	---	
Arsenic	7440-38-2	E472/VA	0.030	mg/kg	3.14	9.51	---	5.34	4.62	
Arsenic	7440-38-2	E475/VA	0.050	mg/kg	---	---	3.10	---	---	
Barium	7440-39-3	E475/VA	0.050	mg/kg	---	---	129	---	---	
Barium	7440-39-3	E472/VA	0.050	mg/kg	120	150	---	146	637	
Beryllium	7440-41-7	E475/VA	0.010	mg/kg	---	---	0.035	---	---	
Beryllium	7440-41-7	E472/VA	0.010	mg/kg	0.260	0.192	---	0.076	0.170	
Bismuth	7440-69-9	E475/VA	0.010	mg/kg	---	---	<0.010	---	---	
Bismuth	7440-69-9	E472/VA	0.010	mg/kg	<0.011 ^{DLA}	0.047	---	0.014	0.018	
Boron	7440-42-8	E475/VA	1.0	mg/kg	---	---	160	---	---	
Boron	7440-42-8	E472/VA	1.0	mg/kg	94.3	99.8	---	205	153	
Cadmium	7440-43-9	E475/VA	0.010	mg/kg	---	---	0.338	---	---	
Cadmium	7440-43-9	E472/VA	0.010	mg/kg	0.104	0.287	---	0.347	0.406	
Calcium	7440-70-2	E475/VA	20	mg/kg	---	---	222000	---	---	
Calcium	7440-70-2	E472/VA	20	mg/kg	209000	160000	---	219000	187000	
Cesium	7440-46-2	E475/VA	0.0050	mg/kg	---	---	0.240	---	---	
Cesium	7440-46-2	E472/VA	0.0050	mg/kg	0.210	0.638	---	0.323	0.238	
Chromium	7440-47-3	E475/VA	0.20	mg/kg	---	---	1.34	---	---	
Chromium	7440-47-3	E472/VA	0.20	mg/kg	1.73	7.21	---	11.9	4.68	
Cobalt	7440-48-4	E475/VA	0.020	mg/kg	---	---	1.25	---	---	
Cobalt	7440-48-4	E472/VA	0.020	mg/kg	1.56	4.44	---	3.10	2.42	
Copper	7440-50-8	E475/VA	0.20	mg/kg	---	---	36.4	---	---	
Copper	7440-50-8	E472/VA	0.20	mg/kg	154	105	---	63.5	140	
Iron	7439-89-6	E475/VA	5.0	mg/kg	---	---	1650	---	---	



Analytical Results

Sub-Matrix: Tissue (Matrix: Biota)					Client sample ID	HAC-U_PERT-8 _2023-08	HAC-D_PERT-1 _2023-08	HAC-D_PERT-2 _2023-08	HAC-D_PERT-3 _2023-08	HAC-D_PERT-4 _2023-08
Client sampling date / time					07-Aug-2023 00:00	06-Aug-2023 00:00	06-Aug-2023 00:00	06-Aug-2023 00:00	06-Aug-2023 00:00	
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23B8888-016	VA23B8888-017	VA23B8888-018	VA23B8888-019	VA23B8888-020	
					Result	Result	Result	Result	Result	
Metals										
Iron	7439-89-6	E472/VA	5.0	mg/kg	2830	10100	---	4730	3160	
Lead	7439-92-1	E475/VA	0.050	mg/kg	---	---	0.496	---	---	
Lead	7439-92-1	E472/VA	0.050	mg/kg	1.74	2.74	---	1.07	1.07	
Lithium	7439-93-2	E475/VA	0.50	mg/kg	---	---	0.94	---	---	
Lithium	7439-93-2	E472/VA	0.50	mg/kg	0.93	3.66	---	2.63	1.39	
Magnesium	7439-95-4	E475/VA	2.0	mg/kg	---	---	2640	---	---	
Magnesium	7439-95-4	E472/VA	2.0	mg/kg	2780	4090	---	4000	3170	
Manganese	7439-96-5	E475/VA	0.050	mg/kg	---	---	896	---	---	
Manganese	7439-96-5	E472/VA	0.050	mg/kg	2310	768	---	1520	2790	
Mercury	7439-97-6	E511/VA	0.0050	mg/kg	0.0080	0.0267	---	0.0151	0.0714	
Mercury	7439-97-6	E512/VA	0.010	mg/kg	---	---	0.015	---	---	
Mercury	7439-97-6	E511A/VA	0.0010	mg/kg wwt	0.0029	0.0136	---	0.0056	0.0277	
Mercury	7439-97-6	E512A/VA	0.0020	mg/kg wwt	---	---	0.0046	---	---	
Molybdenum	7439-98-7	E475/VA	0.040	mg/kg	---	---	0.854	---	---	
Molybdenum	7439-98-7	E472/VA	0.040	mg/kg	0.726	0.787	---	0.763	1.16	
Nickel	7440-02-0	E475/VA	0.20	mg/kg	---	---	2.51	---	---	
Nickel	7440-02-0	E472/VA	0.20	mg/kg	2.60	7.68	---	4.07	3.67	
Phosphorus	7723-14-0	E472/VA	10	mg/kg	919	1180	---	1080	1320	
Phosphorus	7723-14-0	E475/VA	20	mg/kg	---	---	1080	---	---	
Potassium	7440-09-7	E475/VA	20	mg/kg	---	---	3270	---	---	
Potassium	7440-09-7	E472/VA	20	mg/kg	4010	2390	---	2070	3070	
Rubidium	7440-17-7	E475/VA	0.050	mg/kg	---	---	4.19	---	---	
Rubidium	7440-17-7	E472/VA	0.050	mg/kg	4.71	5.07	---	2.63	3.75	
Selenium	7782-49-2	E475/VA	0.10	mg/kg	---	---	2.39	---	---	
Selenium	7782-49-2	E472/VA	0.10	mg/kg	1.74	2.16	---	2.46	2.34	
Silver	7440-22-4	E475.Ag/VA	0.0050	mg/kg	---	---	0.0116	---	---	
Silver	7440-22-4	E472.Ag/VA	0.0050	mg/kg	0.0207	0.0561	---	0.0411	0.0475	
Sodium	7440-23-5	E475/VA	20	mg/kg	---	---	260	---	---	
Sodium	7440-23-5	E472/VA	20	mg/kg	459	327	---	284	604	
Strontium	7440-24-6	E475/VA	0.10	mg/kg	---	---	541	---	---	



Analytical Results

Sub-Matrix: Tissue (Matrix: Biota)					Client sample ID	HAC-U_PERT-8 _2023-08	HAC-D_PERT-1 _2023-08	HAC-D_PERT-2 _2023-08	HAC-D_PERT-3 _2023-08	HAC-D_PERT-4 _2023-08
Client sampling date / time					07-Aug-2023 00:00	06-Aug-2023 00:00	06-Aug-2023 00:00	06-Aug-2023 00:00	06-Aug-2023 00:00	
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23B8888-016	VA23B8888-017	VA23B8888-018	VA23B8888-019	VA23B8888-020	
					Result	Result	Result	Result	Result	
Metals										
Strontium	7440-24-6	E472/VA	0.10	mg/kg	484	415	----	491	438	
Tellurium	13494-80-9	E475/VA	0.020	mg/kg	----	----	0.021	----	----	
Tellurium	13494-80-9	E472/VA	0.020	mg/kg	<0.022 ^{DLA}	0.025	----	<0.024 ^{DLA}	0.061	
Thallium	7440-28-0	E475/VA	0.0020	mg/kg	----	----	0.0206	----	----	
Thallium	7440-28-0	E472/VA	0.0020	mg/kg	0.0066	0.0619	----	0.0251	0.0234	
Tin	7440-31-5	E475/VA	0.10	mg/kg	----	----	<0.10	----	----	
Tin	7440-31-5	E472/VA	0.10	mg/kg	0.15	0.17	----	<0.12 ^{DLA}	<0.15 ^{DLA}	
Titanium	7440-32-6	E475.Ti/VA	0.50	mg/kg	----	----	57.5	----	----	
Titanium	7440-32-6	E472.Ti/VA	0.50	mg/kg	153	211	----	122	155	
Uranium	7440-61-1	E475/VA	0.0020	mg/kg	----	----	0.134	----	----	
Uranium	7440-61-1	E472/VA	0.0020	mg/kg	0.159	0.402	----	0.169	0.161	
Vanadium	7440-62-2	E475/VA	0.10	mg/kg	----	----	5.74	----	----	
Vanadium	7440-62-2	E472/VA	0.10	mg/kg	11.6	30.4	----	15.6	13.8	
Zinc	7440-66-6	E475/VA	1.0	mg/kg	----	----	10.9	----	----	
Zinc	7440-66-6	E472/VA	1.0	mg/kg	6.4	28.2	----	15.5	17.8	
Zirconium	7440-67-7	E475/VA	0.20	mg/kg	----	----	0.78	----	----	
Zirconium	7440-67-7	E472/VA	0.20	mg/kg	1.17	3.18	----	1.42	1.36	

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.



Analytical Results

Sub-Matrix: Tissue (Matrix: Biota)					Client sample ID	HAC-D_PERT-5 _2023-08	HAC-D_PERT-6 _2023-08	HAC-D_PERT-7 _2023-08	HAC-D_PERT-8 _2023-08	EDC-U_PERT-1_ 2023-08
Client sampling date / time					06-Aug-2023 00:00	06-Aug-2023 00:00	06-Aug-2023 00:00	05-Aug-2023 00:00	08-Aug-2023 00:00	
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23B8888-021	VA23B8888-022	VA23B8888-023	VA23B8888-024	VA23B8888-025	
					Result	Result	Result	Result	Result	
Physical Tests										
Moisture	----	E144-H/VA	2.0	%	55.5	67.8	71.3	55.0	81.4	
Metals										
Aluminum	7429-90-5	E472/VA	5.0	mg/kg	2870	5500	2350	4690	2040	
Antimony	7440-36-0	E472/VA	0.010	mg/kg	0.072	0.058	0.069	0.055	0.070	
Arsenic	7440-38-2	E472/VA	0.030	mg/kg	5.71	9.53	6.39	5.47	5.09	
Barium	7440-39-3	E472/VA	0.050	mg/kg	312	225	322	149	120	
Beryllium	7440-41-7	E472/VA	0.010	mg/kg	0.127	0.216	0.095	0.163	0.088	
Bismuth	7440-69-9	E472/VA	0.010	mg/kg	0.017	0.050	0.020	0.015	0.012	
Boron	7440-42-8	E472/VA	1.0	mg/kg	99.6	132	108	139	57.0	
Cadmium	7440-43-9	E472/VA	0.010	mg/kg	0.427	0.447	0.547	0.302	0.630	
Calcium	7440-70-2	E472/VA	20	mg/kg	202000	145000	177000	156000	9350	
Cesium	7440-46-2	E472/VA	0.0050	mg/kg	0.413	0.809	0.358	0.454	0.0790	
Chromium	7440-47-3	E472/VA	0.20	mg/kg	7.48	10.4	4.22	11.6	38.2	
Cobalt	7440-48-4	E472/VA	0.020	mg/kg	4.06	6.81	4.37	5.42	8.40	
Copper	7440-50-8	E472/VA	0.20	mg/kg	85.0	162	87.6	137	20.5	
Iron	7439-89-6	E472/VA	5.0	mg/kg	5730	11800	5120	8220	5420	
Lead	7439-92-1	E472/VA	0.050	mg/kg	1.12	2.95	1.29	1.21	0.737	
Lithium	7439-93-2	E472/VA	0.50	mg/kg	2.28	5.04	2.28	6.32	1.23	
Magnesium	7439-95-4	E472/VA	2.0	mg/kg	3770	4530	3250	4760	2750	
Manganese	7439-96-5	E472/VA	0.050	mg/kg	6190	5970	7720	4660	3850	
Mercury	7439-97-6	E511/VA	0.0050	mg/kg	0.0236	0.0559	0.0268	0.0236	0.0247	
Mercury	7439-97-6	E511/VA	0.0010	mg/kg wwt	0.0105	0.0180	0.0077	0.0106	0.0046	
Molybdenum	7439-98-7	E472/VA	0.040	mg/kg	1.05	1.23	1.06	1.16	2.54	
Nickel	7440-02-0	E472/VA	0.20	mg/kg	5.99	9.84	5.81	7.59	29.2	
Phosphorus	7723-14-0	E472/VA	10	mg/kg	1350	1430	1780	1020	1920	
Potassium	7440-09-7	E472/VA	20	mg/kg	2830	3170	3140	2390	5650	
Rubidium	7440-17-7	E472/VA	0.050	mg/kg	4.24	7.08	4.67	3.97	9.38	
Selenium	7782-49-2	E472/VA	0.10	mg/kg	2.60	3.43	2.85	2.58	0.26	
Silver	7440-22-4	E472.Ag/VA	0.0050	mg/kg	0.0336	0.0677	0.0285	0.0382	0.0274	
Sodium	7440-23-5	E472/VA	20	mg/kg	290	296	304	340	154	



Analytical Results

Sub-Matrix: Tissue (Matrix: Biota)					Client sample ID	HAC-D_PERT-5 _2023-08	HAC-D_PERT-6 _2023-08	HAC-D_PERT-7 _2023-08	HAC-D_PERT-8 _2023-08	EDC-U_PERT-1_ 2023-08
Client sampling date / time					06-Aug-2023 00:00	06-Aug-2023 00:00	06-Aug-2023 00:00	05-Aug-2023 00:00	08-Aug-2023 00:00	
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23B8888-021	VA23B8888-022	VA23B8888-023	VA23B8888-024	VA23B8888-025	
					Result	Result	Result	Result	Result	
Metals										
Strontium	7440-24-6	E472/VA	0.10	mg/kg	504	367	434	354	59.0	
Tellurium	13494-80-9	E472/VA	0.020	mg/kg	<0.024 ^{DLA}	<0.031 ^{DLA}	<0.033 ^{DLA}	<0.020	<0.020	
Thallium	7440-28-0	E472/VA	0.0020	mg/kg	0.0390	0.0672	0.0601	0.0332	0.0398	
Tin	7440-31-5	E472/VA	0.10	mg/kg	<0.12 ^{DLA}	0.18	<0.16 ^{DLA}	<0.10	<0.10	
Titanium	7440-32-6	E472.Ti/VA	0.50	mg/kg	184	279	119	304	153	
Uranium	7440-61-1	E472/VA	0.0020	mg/kg	0.205	0.374	0.205	0.191	0.162	
Vanadium	7440-62-2	E472/VA	0.10	mg/kg	19.4	35.2	17.1	27.4	14.6	
Zinc	7440-66-6	E472/VA	1.0	mg/kg	19.4	36.2	26.8	21.9	39.4	
Zirconium	7440-67-7	E472/VA	0.20	mg/kg	2.20	3.62	1.22	2.67	2.75	

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.



Analytical Results

Sub-Matrix: Tissue (Matrix: Biota)					Client sample ID	EDC-U_PERT-2_ 2023-08	EDC-U_PERT-3_ 2023-08	EDC-U_PERT-4_ 2023-08	EDC-U_PERT-5_ 2023-08	EDC-U_PERT-6_ 2023-08
Client sampling date / time					08-Aug-2023 00:00	08-Aug-2023 00:00	08-Aug-2023 00:00	07-Aug-2023 00:00	07-Aug-2023 00:00	
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23B8888-026	VA23B8888-027	VA23B8888-028	VA23B8888-029	VA23B8888-030	
					Result	Result	Result	Result	Result	
Physical Tests										
Moisture	---	E144A/VA	2.0	%	---	77.7	80.7	---	89.6	
Moisture	---	E144-H/VA	2.0	%	85.4	---	---	81.2	---	
Metals										
Aluminum	7429-90-5	E475/VA	5.0	mg/kg	---	3740	3000	---	6980	
Aluminum	7429-90-5	E472/VA	5.0	mg/kg	2180	---	---	6610	---	
Antimony	7440-36-0	E472/VA	0.010	mg/kg	0.076	---	---	0.077	---	
Antimony	7440-36-0	E475/VA	0.020	mg/kg	---	0.139	0.110	---	0.071	
Arsenic	7440-38-2	E472/VA	0.030	mg/kg	3.93	---	---	12.2	---	
Arsenic	7440-38-2	E475/VA	0.050	mg/kg	---	15.4	8.63	---	11.0	
Barium	7440-39-3	E475/VA	0.050	mg/kg	---	345	237	---	229	
Barium	7440-39-3	E472/VA	0.050	mg/kg	105	---	---	277	---	
Beryllium	7440-41-7	E475/VA	0.010	mg/kg	---	0.200	0.116	---	0.258	
Beryllium	7440-41-7	E472/VA	0.010	mg/kg	0.078	---	---	0.215	---	
Bismuth	7440-69-9	E475/VA	0.010	mg/kg	---	0.035	0.018	---	0.048	
Bismuth	7440-69-9	E472/VA	0.010	mg/kg	0.021	---	---	0.041	---	
Boron	7440-42-8	E475/VA	1.0	mg/kg	---	22.2	15.0	---	10.2	
Boron	7440-42-8	E472/VA	1.0	mg/kg	70.1	---	---	34.3	---	
Cadmium	7440-43-9	E475/VA	0.010	mg/kg	---	1.13	0.643	---	0.790	
Cadmium	7440-43-9	E472/VA	0.010	mg/kg	0.242	---	---	0.826	---	
Calcium	7440-70-2	E475/VA	20	mg/kg	---	7850	6050	---	8920	
Calcium	7440-70-2	E472/VA	20	mg/kg	11600	---	---	8230	---	
Cesium	7440-46-2	E475/VA	0.0050	mg/kg	---	0.0718	0.107	---	0.408	
Cesium	7440-46-2	E472/VA	0.0050	mg/kg	0.162	---	---	0.397	---	
Chromium	7440-47-3	E475/VA	0.20	mg/kg	---	137	147	---	18.0 ^{RRR}	
Chromium	7440-47-3	E472/VA	0.20	mg/kg	7.05	---	---	18.6	---	
Cobalt	7440-48-4	E475/VA	0.020	mg/kg	---	20.6	16.9	---	25.1	
Cobalt	7440-48-4	E472/VA	0.020	mg/kg	5.97	---	---	21.6	---	
Copper	7440-50-8	E475/VA	0.20	mg/kg	---	42.9	28.0	---	33.5	
Copper	7440-50-8	E472/VA	0.20	mg/kg	15.9	---	---	25.4	---	
Iron	7439-89-6	E475/VA	5.0	mg/kg	---	14900	9700	---	16800	



Analytical Results

Sub-Matrix: Tissue (Matrix: Biota)					Client sample ID	EDC-U_PERT-2_ 2023-08	EDC-U_PERT-3_ 2023-08	EDC-U_PERT-4_ 2023-08	EDC-U_PERT-5_ 2023-08	EDC-U_PERT-6_ 2023-08
Client sampling date / time					08-Aug-2023 00:00	08-Aug-2023 00:00	08-Aug-2023 00:00	07-Aug-2023 00:00	07-Aug-2023 00:00	
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23B8888-026	VA23B8888-027	VA23B8888-028	VA23B8888-029	VA23B8888-030	
					Result	Result	Result	Result	Result	
Metals										
Iron	7439-89-6	E472/VA	5.0	mg/kg	5250	---	---	15200	---	
Lead	7439-92-1	E475/VA	0.050	mg/kg	---	1.80	1.06	---	2.56	
Lead	7439-92-1	E472/VA	0.050	mg/kg	0.845	---	---	2.33	---	
Lithium	7439-93-2	E475/VA	0.50	mg/kg	---	1.78	2.04	---	5.46	
Lithium	7439-93-2	E472/VA	0.50	mg/kg	1.77	---	---	5.73	---	
Magnesium	7439-95-4	E475/VA	2.0	mg/kg	---	2340	1880	---	3600	
Magnesium	7439-95-4	E472/VA	2.0	mg/kg	2770	---	---	3400	---	
Manganese	7439-96-5	E475/VA	0.050	mg/kg	---	8880	8260	---	10100	
Manganese	7439-96-5	E472/VA	0.050	mg/kg	2230	---	---	10600	---	
Mercury	7439-97-6	E511/VA	0.0050	mg/kg	0.0337	---	---	0.0614	---	
Mercury	7439-97-6	E512/VA	0.010	mg/kg	---	0.057	0.056	---	0.076	
Mercury	7439-97-6	E511A/VA	0.0010	mg/kg wwt	0.0049	---	---	0.0116	---	
Mercury	7439-97-6	E512A/VA	0.0020	mg/kg wwt	---	0.0126	0.0108	---	0.0080	
Molybdenum	7439-98-7	E475/VA	0.040	mg/kg	---	3.28	2.61	---	1.35 ^{RRR}	
Molybdenum	7439-98-7	E472/VA	0.040	mg/kg	3.18	---	---	2.36	---	
Nickel	7440-02-0	E475/VA	0.20	mg/kg	---	48.1	22.7	---	26.7	
Nickel	7440-02-0	E472/VA	0.20	mg/kg	12.4	---	---	27.7	---	
Phosphorus	7723-14-0	E472/VA	10	mg/kg	1070	---	---	1450	---	
Phosphorus	7723-14-0	E475/VA	20	mg/kg	---	2010	1680	---	1850	
Potassium	7440-09-7	E475/VA	20	mg/kg	---	4230	4990	---	4140	
Potassium	7440-09-7	E472/VA	20	mg/kg	4550	---	---	2690	---	
Rubidium	7440-17-7	E475/VA	0.050	mg/kg	---	6.37	6.89	---	7.65	
Rubidium	7440-17-7	E472/VA	0.050	mg/kg	8.52	---	---	7.80	---	
Selenium	7782-49-2	E475/VA	0.10	mg/kg	---	0.31	0.26	---	0.50	
Selenium	7782-49-2	E472/VA	0.10	mg/kg	0.21	---	---	0.40	---	
Silver	7440-22-4	E475.Ag/VA	0.0050	mg/kg	---	0.0865	0.188	---	0.0930	
Silver	7440-22-4	E472.Ag/VA	0.0050	mg/kg	0.0489	---	---	0.0831	---	
Sodium	7440-23-5	E475/VA	20	mg/kg	---	271	482	---	395	
Sodium	7440-23-5	E472/VA	20	mg/kg	134	---	---	220	---	
Strontium	7440-24-6	E475/VA	0.10	mg/kg	---	121	48.4	---	67.0	



Analytical Results

Sub-Matrix: Tissue (Matrix: Biota)					Client sample ID	EDC-U_PERT-2_ 2023-08	EDC-U_PERT-3_ 2023-08	EDC-U_PERT-4_ 2023-08	EDC-U_PERT-5_ 2023-08	EDC-U_PERT-6_ 2023-08
Client sampling date / time					08-Aug-2023 00:00	08-Aug-2023 00:00	08-Aug-2023 00:00	07-Aug-2023 00:00	07-Aug-2023 00:00	
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23B8888-026	VA23B8888-027	VA23B8888-028	VA23B8888-029	VA23B8888-030	
					Result	Result	Result	Result	Result	
Metals										
Strontium	7440-24-6	E472/VA	0.10	mg/kg	85.6	----	----	69.1	----	
Tellurium	13494-80-9	E475/VA	0.020	mg/kg	----	<0.023 ^{DLIS}	<0.028 ^{DLIS}	----	<0.020	
Tellurium	13494-80-9	E472/VA	0.020	mg/kg	<0.020	----	----	<0.020	----	
Thallium	7440-28-0	E475/VA	0.0020	mg/kg	----	0.0657	0.0590	----	0.0830	
Thallium	7440-28-0	E472/VA	0.0020	mg/kg	0.0421	----	----	0.0985	----	
Tin	7440-31-5	E475/VA	0.10	mg/kg	----	0.15	0.16	----	0.12	
Tin	7440-31-5	E472/VA	0.10	mg/kg	<0.10	----	----	0.14	----	
Titanium	7440-32-6	E475.Ti/VA	0.50	mg/kg	----	222	176	----	328	
Titanium	7440-32-6	E472.Ti/VA	0.50	mg/kg	112	----	----	284	----	
Uranium	7440-61-1	E475/VA	0.0020	mg/kg	----	0.396	0.276	----	0.539	
Uranium	7440-61-1	E472/VA	0.0020	mg/kg	0.202	----	----	0.449	----	
Vanadium	7440-62-2	E475/VA	0.10	mg/kg	----	41.5	27.2	----	44.7	
Vanadium	7440-62-2	E472/VA	0.10	mg/kg	10.1	----	----	37.2	----	
Zinc	7440-66-6	E475/VA	1.0	mg/kg	----	78.9	64.4	----	57.8	
Zinc	7440-66-6	E472/VA	1.0	mg/kg	21.8	----	----	54.8	----	
Zirconium	7440-67-7	E475/VA	0.20	mg/kg	----	4.16	2.78	----	4.84	
Zirconium	7440-67-7	E472/VA	0.20	mg/kg	3.10	----	----	3.90	----	

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.



Analytical Results

Sub-Matrix: Tissue (Matrix: Biota)					Client sample ID	EDC-U_PERT-7_ 2023-08	EDC-U_PERT-8_ 2023-08	EDC-D_PERT-1_ 2023-08	EDC-D_PERT-2_ 2023-08	EDC-D_PERT-3_ 2023-08
Client sampling date / time					07-Aug-2023 00:00	07-Aug-2023 00:00	11-Aug-2023 00:00	11-Aug-2023 00:00	11-Aug-2023 00:00	
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23B8888-031	VA23B8888-032	VA23B8888-033	VA23B8888-034	VA23B8888-035	
					Result	Result	Result	Result	Result	
Physical Tests										
Moisture	---	E144A/VA	2.0	%	82.0	---	---	---	---	
Moisture	---	E144-H/VA	2.0	%	---	84.7	85.4	79.0	87.1	
Metals										
Aluminum	7429-90-5	E475/VA	5.0	mg/kg	5880	---	---	---	---	
Aluminum	7429-90-5	E472/VA	5.0	mg/kg	---	12600	2860	7360	3610	
Antimony	7440-36-0	E472/VA	0.010	mg/kg	---	0.057	0.058	0.034	0.047	
Antimony	7440-36-0	E475/VA	0.020	mg/kg	0.139	---	---	---	---	
Arsenic	7440-38-2	E472/VA	0.030	mg/kg	---	28.9	20.6	14.8	18.0	
Arsenic	7440-38-2	E475/VA	0.050	mg/kg	13.3	---	---	---	---	
Barium	7440-39-3	E475/VA	0.050	mg/kg	170	---	---	---	---	
Barium	7440-39-3	E472/VA	0.050	mg/kg	---	175	159	84.2	121	
Beryllium	7440-41-7	E475/VA	0.010	mg/kg	0.187	---	---	---	---	
Beryllium	7440-41-7	E472/VA	0.010	mg/kg	---	0.482	0.093	0.245	0.138	
Bismuth	7440-69-9	E475/VA	0.010	mg/kg	0.035	---	---	---	---	
Bismuth	7440-69-9	E472/VA	0.010	mg/kg	---	0.088	0.026	0.038	0.030	
Boron	7440-42-8	E475/VA	1.0	mg/kg	15.6	---	---	---	---	
Boron	7440-42-8	E472/VA	1.0	mg/kg	---	32.1	50.4	23.6	37.7	
Cadmium	7440-43-9	E475/VA	0.010	mg/kg	0.623	---	---	---	---	
Cadmium	7440-43-9	E472/VA	0.010	mg/kg	---	0.441	0.582	0.322	0.480	
Calcium	7440-70-2	E475/VA	20	mg/kg	12000	---	---	---	---	
Calcium	7440-70-2	E472/VA	20	mg/kg	---	9590	22500	17500	17900	
Cesium	7440-46-2	E475/VA	0.0050	mg/kg	0.282	---	---	---	---	
Cesium	7440-46-2	E472/VA	0.0050	mg/kg	---	0.821	0.445	0.578	0.564	
Chromium	7440-47-3	E475/VA	0.20	mg/kg	26.3	---	---	---	---	
Chromium	7440-47-3	E472/VA	0.20	mg/kg	---	33.4	9.56	23.5	9.35	
Cobalt	7440-48-4	E475/VA	0.020	mg/kg	18.4	---	---	---	---	
Cobalt	7440-48-4	E472/VA	0.020	mg/kg	---	16.0	7.02	11.0	6.43	
Copper	7440-50-8	E475/VA	0.20	mg/kg	38.9	---	---	---	---	
Copper	7440-50-8	E472/VA	0.20	mg/kg	---	35.4	17.6	16.7	22.4	
Iron	7439-89-6	E475/VA	5.0	mg/kg	17300	---	---	---	---	



Analytical Results

Sub-Matrix: Tissue (Matrix: Biota)					Client sample ID	EDC-U_PERT-7_ 2023-08	EDC-U_PERT-8_ 2023-08	EDC-D_PERT-1_ 2023-08	EDC-D_PERT-2_ 2023-08	EDC-D_PERT-3_ 2023-08
Client sampling date / time					07-Aug-2023 00:00	07-Aug-2023 00:00	11-Aug-2023 00:00	11-Aug-2023 00:00	11-Aug-2023 00:00	
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23B8888-031	VA23B8888-032	VA23B8888-033	VA23B8888-034	VA23B8888-035	
					Result	Result	Result	Result	Result	
Metals										
Iron	7439-89-6	E472/VA	5.0	mg/kg	---	31800	6160	20400	8770	
Lead	7439-92-1	E475/VA	0.050	mg/kg	2.62	---	---	---	---	
Lead	7439-92-1	E472/VA	0.050	mg/kg	---	5.14	0.986	2.60	1.65	
Lithium	7439-93-2	E475/VA	0.50	mg/kg	4.19	---	---	---	---	
Lithium	7439-93-2	E472/VA	0.50	mg/kg	---	11.0	2.39	7.13	3.65	
Magnesium	7439-95-4	E475/VA	2.0	mg/kg	4300	---	---	---	---	
Magnesium	7439-95-4	E472/VA	2.0	mg/kg	---	5630	3840	5130	3210	
Manganese	7439-96-5	E475/VA	0.050	mg/kg	4690	---	---	---	---	
Manganese	7439-96-5	E472/VA	0.050	mg/kg	---	3890	4340	1550	3280	
Mercury	7439-97-6	E511/VA	0.0050	mg/kg	---	0.0750	0.0546	0.0286	0.0480	
Mercury	7439-97-6	E512/VA	0.010	mg/kg	0.068	---	---	---	---	
Mercury	7439-97-6	E511A/VA	0.0010	mg/kg wwt	---	0.0115	0.0080	0.0060	0.0062	
Mercury	7439-97-6	E512A/VA	0.0020	mg/kg wwt	0.0122	---	---	---	---	
Molybdenum	7439-98-7	E475/VA	0.040	mg/kg	1.34	---	---	---	---	
Molybdenum	7439-98-7	E472/VA	0.040	mg/kg	---	1.32	3.92	1.37	1.47	
Nickel	7440-02-0	E475/VA	0.20	mg/kg	30.8	---	---	---	---	
Nickel	7440-02-0	E472/VA	0.20	mg/kg	---	27.4	15.9	17.9	16.3	
Phosphorus	7723-14-0	E472/VA	10	mg/kg	---	1390	2630	1470	2480	
Phosphorus	7723-14-0	E475/VA	20	mg/kg	1730	---	---	---	---	
Potassium	7440-09-7	E475/VA	20	mg/kg	3030	---	---	---	---	
Potassium	7440-09-7	E472/VA	20	mg/kg	---	2090	7980	3160	5280	
Rubidium	7440-17-7	E475/VA	0.050	mg/kg	6.35	---	---	---	---	
Rubidium	7440-17-7	E472/VA	0.050	mg/kg	---	10.6	10.2	5.88	7.80	
Selenium	7782-49-2	E475/VA	0.10	mg/kg	0.46	---	---	---	---	
Selenium	7782-49-2	E472/VA	0.10	mg/kg	---	0.41	2.72	1.01	2.61	
Silver	7440-22-4	E475.Ag/VA	0.0050	mg/kg	0.104	---	---	---	---	
Silver	7440-22-4	E472.Ag/VA	0.0050	mg/kg	---	0.107	0.0294	0.0398	0.0376	
Sodium	7440-23-5	E475/VA	20	mg/kg	220	---	---	---	---	
Sodium	7440-23-5	E472/VA	20	mg/kg	---	236	639	374	461	
Strontium	7440-24-6	E475/VA	0.10	mg/kg	69.0	---	---	---	---	



Analytical Results

Sub-Matrix: Tissue (Matrix: Biota)					Client sample ID	EDC-U_PERT-7_ 2023-08	EDC-U_PERT-8_ 2023-08	EDC-D_PERT-1_ 2023-08	EDC-D_PERT-2_ 2023-08	EDC-D_PERT-3_ 2023-08
Client sampling date / time					07-Aug-2023 00:00	07-Aug-2023 00:00	11-Aug-2023 00:00	11-Aug-2023 00:00	11-Aug-2023 00:00	
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23B8888-031	VA23B8888-032	VA23B8888-033	VA23B8888-034	VA23B8888-035	
					Result	Result	Result	Result	Result	
Metals										
Strontium	7440-24-6	E472/VA	0.10	mg/kg	----	76.6	173	112	110	
Tellurium	13494-80-9	E475/VA	0.020	mg/kg	<0.027 ^{DLIS}	----	----	----	----	
Tellurium	13494-80-9	E472/VA	0.020	mg/kg	----	0.021	<0.020	<0.020	<0.020	
Thallium	7440-28-0	E475/VA	0.0020	mg/kg	0.0670	----	----	----	----	
Thallium	7440-28-0	E472/VA	0.0020	mg/kg	----	0.0911	0.0402	0.0406	0.0380	
Tin	7440-31-5	E475/VA	0.10	mg/kg	0.14	----	----	----	----	
Tin	7440-31-5	E472/VA	0.10	mg/kg	----	0.19	<0.10	0.12	<0.10	
Titanium	7440-32-6	E475.Ti/VA	0.50	mg/kg	385	----	----	----	----	
Titanium	7440-32-6	E472.Ti/VA	0.50	mg/kg	----	531	140	393	161	
Uranium	7440-61-1	E475/VA	0.0020	mg/kg	0.588	----	----	----	----	
Uranium	7440-61-1	E472/VA	0.0020	mg/kg	----	0.599	0.220	0.352	0.270	
Vanadium	7440-62-2	E475/VA	0.10	mg/kg	37.5	----	----	----	----	
Vanadium	7440-62-2	E472/VA	0.10	mg/kg	----	76.3	14.0	57.8	17.3	
Zinc	7440-66-6	E475/VA	1.0	mg/kg	51.6	----	----	----	----	
Zinc	7440-66-6	E472/VA	1.0	mg/kg	----	59.0	54.7	44.8	43.2	
Zirconium	7440-67-7	E475/VA	0.20	mg/kg	5.28	----	----	----	----	
Zirconium	7440-67-7	E472/VA	0.20	mg/kg	----	7.89	2.25	5.80	2.41	

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.



Analytical Results

Sub-Matrix: Tissue (Matrix: Biota)					Client sample ID	EDC-D_PERT-4_ 2023-08	EDC-D_PERT-5_ 2023-08	EDC-D_PERT-6_ 2023-08	EDC-D_PERT-7_ 2023-08	EDC-D_PERT-8_ 2023-08
Client sampling date / time					11-Aug-2023 00:00	11-Aug-2023 00:00	11-Aug-2023 00:00	11-Aug-2023 00:00	11-Aug-2023 00:00	
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23B8888-036	VA23B8888-037	VA23B8888-038	VA23B8888-039	VA23B8888-040	
					Result	Result	Result	Result	Result	
Physical Tests										
Moisture	----	E144-H/VA	2.0	%	89.0	84.0	82.3	82.4	85.5	
Metals										
Aluminum	7429-90-5	E472/VA	5.0	mg/kg	2860	4320	8890	8910	5970	
Antimony	7440-36-0	E472/VA	0.010	mg/kg	0.037	0.078	0.047	0.080	0.052	
Arsenic	7440-38-2	E472/VA	0.030	mg/kg	14.2	13.4	14.0	18.1	14.4	
Barium	7440-39-3	E472/VA	0.050	mg/kg	148	112	142	111	120	
Beryllium	7440-41-7	E472/VA	0.010	mg/kg	0.102	0.128	0.291	0.254	0.174	
Bismuth	7440-69-9	E472/VA	0.010	mg/kg	0.035	0.021	0.084	0.035	0.042	
Boron	7440-42-8	E472/VA	1.0	mg/kg	92.3	48.3	43.0	24.8	143	
Cadmium	7440-43-9	E472/VA	0.010	mg/kg	0.351	0.401	0.324	0.357	0.258	
Calcium	7440-70-2	E472/VA	20	mg/kg	84200	33700	17600	27500	65700	
Cesium	7440-46-2	E472/VA	0.0050	mg/kg	0.577	0.505	1.29	1.33	0.770	
Chromium	7440-47-3	E472/VA	0.20	mg/kg	6.20	14.0	22.6	20.4	18.8	
Cobalt	7440-48-4	E472/VA	0.020	mg/kg	4.52	5.75	10.1	9.60	6.20	
Copper	7440-50-8	E472/VA	0.20	mg/kg	16.2	19.7	25.6	28.8	16.8	
Iron	7439-89-6	E472/VA	5.0	mg/kg	6000	8880	17300	19800	12200	
Lead	7439-92-1	E472/VA	0.050	mg/kg	1.16	1.22	3.93	2.63	2.52	
Lithium	7439-93-2	E472/VA	0.50	mg/kg	2.53	3.96	8.64	7.50	5.76	
Magnesium	7439-95-4	E472/VA	2.0	mg/kg	3510	4250	4810	6800	4750	
Manganese	7439-96-5	E472/VA	0.050	mg/kg	2250	2120	1740	1510	1140	
Mercury	7439-97-6	E511/VA	0.0050	mg/kg	0.0286	0.0450	0.0490	0.0525	0.0337	
Mercury	7439-97-6	E511/VA	0.0010	mg/kg ww	0.0031	0.0072	0.0087	0.0092	0.0049	
Molybdenum	7439-98-7	E472/VA	0.040	mg/kg	1.20	1.33	0.754	3.65	1.53	
Nickel	7440-02-0	E472/VA	0.20	mg/kg	12.8	16.6	21.5	18.1	14.3	
Phosphorus	7723-14-0	E472/VA	10	mg/kg	2430	2070	1210	1970	1500	
Potassium	7440-09-7	E472/VA	20	mg/kg	6410	5330	1950	5520	4110	
Rubidium	7440-17-7	E472/VA	0.050	mg/kg	8.30	7.33	8.03	8.62	8.31	
Selenium	7782-49-2	E472/VA	0.10	mg/kg	2.44	2.49	2.69	1.81	1.30	
Silver	7440-22-4	E472.Ag/VA	0.0050	mg/kg	0.0280	0.0367	0.0635	0.0713	0.0442	
Sodium	7440-23-5	E472/VA	20	mg/kg	628	364	374	2290	410	



Analytical Results

Sub-Matrix: Tissue (Matrix: Biota)					Client sample ID	EDC-D_PERT-4_ 2023-08	EDC-D_PERT-5_ 2023-08	EDC-D_PERT-6_ 2023-08	EDC-D_PERT-7_ 2023-08	EDC-D_PERT-8_ 2023-08
Client sampling date / time					11-Aug-2023 00:00	11-Aug-2023 00:00	11-Aug-2023 00:00	11-Aug-2023 00:00	11-Aug-2023 00:00	
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23B8888-036	VA23B8888-037	VA23B8888-038	VA23B8888-039	VA23B8888-040	
					Result	Result	Result	Result	Result	
Metals										
Strontium	7440-24-6	E472/VA	0.10	mg/kg	264	143	111	165	253	
Tellurium	13494-80-9	E472/VA	0.020	mg/kg	<0.020	<0.020	<0.020	0.039	<0.020	
Thallium	7440-28-0	E472/VA	0.0020	mg/kg	0.0477	0.0353	0.0626	0.0371	0.0395	
Tin	7440-31-5	E472/VA	0.10	mg/kg	<0.10	0.12	0.15	0.14	0.10	
Titanium	7440-32-6	E472.Ti/VA	0.50	mg/kg	157	272	435	672	325	
Uranium	7440-61-1	E472/VA	0.0020	mg/kg	0.179	0.191	0.512	4.20	0.283	
Vanadium	7440-62-2	E472/VA	0.10	mg/kg	14.3	28.6	37.3	55.7	28.3	
Zinc	7440-66-6	E472/VA	1.0	mg/kg	23.1	34.4	45.9	61.3	49.0	
Zirconium	7440-67-7	E472/VA	0.20	mg/kg	2.25	3.24	5.89	6.72	4.88	

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.



Analytical Results

Sub-Matrix: Tissue (Matrix: Biota)					Client sample ID	E1_PERT-1_202 3-08	E1_PERT-2_202 3-08	E1_PERT-3_202 3-08	E1_PERT-4_202 3-08	E1_PERT-5_202 3-08
Client sampling date / time					05-Aug-2023 00:00	05-Aug-2023 00:00	05-Aug-2023 00:00	05-Aug-2023 00:00	04-Aug-2023 00:00	
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23B8888-041	VA23B8888-042	VA23B8888-043	VA23B8888-044	VA23B8888-045	
					Result	Result	Result	Result	Result	
Physical Tests										
Moisture	----	E144-H/VA	2.0	%	86.6	87.5	83.6	84.8	84.2	
Metals										
Aluminum	7429-90-5	E472/VA	5.0	mg/kg	5060	1970	7140	7010	10900	
Antimony	7440-36-0	E472/VA	0.010	mg/kg	0.064	0.067	0.052	0.059	0.052	
Arsenic	7440-38-2	E472/VA	0.030	mg/kg	7.32	8.33	9.80	9.36	9.91	
Barium	7440-39-3	E472/VA	0.050	mg/kg	89.8	95.7	475	205	160	
Beryllium	7440-41-7	E472/VA	0.010	mg/kg	0.100	0.052	0.228	0.196	0.332	
Bismuth	7440-69-9	E472/VA	0.010	mg/kg	0.019	0.018	0.038	0.034	0.066	
Boron	7440-42-8	E472/VA	1.0	mg/kg	44.2	84.9	25.6	67.4	37.9	
Cadmium	7440-43-9	E472/VA	0.010	mg/kg	0.219	0.365	1.00	0.703	0.402	
Calcium	7440-70-2	E472/VA	20	mg/kg	121000	136000	46800	25900	44900	
Cesium	7440-46-2	E472/VA	0.0050	mg/kg	0.220	0.238	0.614	0.603	1.26	
Chromium	7440-47-3	E472/VA	0.20	mg/kg	102	36.0	26.1	30.1	23.3	
Cobalt	7440-48-4	E472/VA	0.020	mg/kg	4.76	2.08	6.44	5.73	8.76	
Copper	7440-50-8	E472/VA	0.20	mg/kg	22.3	24.2	68.9	109	173	
Iron	7439-89-6	E472/VA	5.0	mg/kg	9900	3400	15400	12900	19700	
Lead	7439-92-1	E472/VA	0.050	mg/kg	2.16	0.752	2.45	2.43	4.31	
Lithium	7439-93-2	E472/VA	0.50	mg/kg	4.20	1.65	6.08	5.76	11.0	
Magnesium	7439-95-4	E472/VA	2.0	mg/kg	5890	3880	6150	4750	6740	
Manganese	7439-96-5	E472/VA	0.050	mg/kg	421	553	1710	738	922	
Mercury	7439-97-6	E511/VA	0.0050	mg/kg	0.0168	0.0262	0.0442	0.0487	0.0620	
Mercury	7439-97-6	E511/VA	0.0010	mg/kg wwt	0.0023	0.0033	0.0073	0.0074	0.0098	
Molybdenum	7439-98-7	E472/VA	0.040	mg/kg	1.18	0.974	1.35	1.13	1.01	
Nickel	7440-02-0	E472/VA	0.20	mg/kg	15.6	8.79	13.7	11.9	19.1	
Phosphorus	7723-14-0	E472/VA	10	mg/kg	1590	2630	1240	2110	1320	
Potassium	7440-09-7	E472/VA	20	mg/kg	3850	7140	6450	5170	1920	
Rubidium	7440-17-7	E472/VA	0.050	mg/kg	5.66	9.18	5.09	7.61	9.06	
Selenium	7782-49-2	E472/VA	0.10	mg/kg	0.74	1.79	0.96	1.46	1.23	
Silver	7440-22-4	E472.Ag/VA	0.0050	mg/kg	0.0349	0.0375	0.0712	0.0701	0.0778	
Sodium	7440-23-5	E472/VA	20	mg/kg	480	819	396	880	532	



Analytical Results

Sub-Matrix: Tissue					Client sample ID	E1_PERT-1_202	E1_PERT-2_202	E1_PERT-3_202	E1_PERT-4_202	E1_PERT-5_202
(Matrix: Biota)						3-08	3-08	3-08	3-08	3-08
Client sampling date / time						05-Aug-2023 00:00	05-Aug-2023 00:00	05-Aug-2023 00:00	05-Aug-2023 00:00	04-Aug-2023 00:00
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23B8888-041	VA23B8888-042	VA23B8888-043	VA23B8888-044	VA23B8888-045	
					Result	Result	Result	Result	Result	
Metals										
Strontium	7440-24-6	E472/VA	0.10	mg/kg	332	359	171	168	184	
Tellurium	13494-80-9	E472/VA	0.020	mg/kg	<0.020	<0.020	<0.020	<0.020	0.025	
Thallium	7440-28-0	E472/VA	0.0020	mg/kg	0.0149	0.0172	0.0462	0.0370	0.0615	
Tin	7440-31-5	E472/VA	0.10	mg/kg	0.13	<0.10	0.12	0.15	0.44	
Titanium	7440-32-6	E472.Ti/VA	0.50	mg/kg	683	115	420	368	558	
Uranium	7440-61-1	E472/VA	0.0020	mg/kg	0.190	0.118	0.390	0.369	0.419	
Vanadium	7440-62-2	E472/VA	0.10	mg/kg	27.8	10.4	43.7	32.4	47.9	
Zinc	7440-66-6	E472/VA	1.0	mg/kg	24.3	38.9	48.3	53.1	49.1	
Zirconium	7440-67-7	E472/VA	0.20	mg/kg	5.84	1.63	4.88	4.41	6.25	

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.



Analytical Results

Sub-Matrix: Tissue (Matrix: Biota)					Client sample ID	E1_PERT-6_202 3-08	E1_PERT-7_202 3-08	E1_PERT-8_202 3-08	HAC-R1_INV-1_ 2023-08	HAC-R1_INV-2_ 2023-08
Client sampling date / time					04-Aug-2023 00:00	04-Aug-2023 00:00	03-Aug-2023 00:00	10-Aug-2023 00:00	10-Aug-2023 00:00	
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23B8888-046	VA23B8888-047	VA23B8888-048	VA23B8888-049	VA23B8888-050	
					Result	Result	Result	Result	Result	
Physical Tests										
Moisture	---	E144-H/VA	2.0	%	64.0	85.1	82.7	84.9	80.0	
Metals										
Aluminum	7429-90-5	E472/VA	5.0	mg/kg	8250	5220	9340	1740	1400	
Antimony	7440-36-0	E472/VA	0.010	mg/kg	0.024	0.112	0.091	0.045	0.040	
Arsenic	7440-38-2	E472/VA	0.030	mg/kg	7.46	10.5	14.2	2.15	2.65	
Barium	7440-39-3	E472/VA	0.050	mg/kg	103	199	238	31.2	47.4	
Beryllium	7440-41-7	E472/VA	0.010	mg/kg	0.250	0.158	0.290	0.057	0.042	
Bismuth	7440-69-9	E472/VA	0.010	mg/kg	0.040	0.029	0.061	0.010	<0.010	
Boron	7440-42-8	E472/VA	1.0	mg/kg	14.4	62.4	47.1	4.0	4.7	
Cadmium	7440-43-9	E472/VA	0.010	mg/kg	0.161	0.488	0.608	0.600	0.857	
Calcium	7440-70-2	E472/VA	20	mg/kg	39600	74400	35200	4730	35000	
Cesium	7440-46-2	E472/VA	0.0050	mg/kg	0.870	0.585	0.956	0.186	0.151	
Chromium	7440-47-3	E472/VA	0.20	mg/kg	15.9	70.1	29.3	2.94	2.01	
Cobalt	7440-48-4	E472/VA	0.020	mg/kg	6.96	6.77	11.0	2.39	1.70	
Copper	7440-50-8	E472/VA	0.20	mg/kg	118	140	160	116	105	
Iron	7439-89-6	E472/VA	5.0	mg/kg	14400	11400	18600	3060	2270	
Lead	7439-92-1	E472/VA	0.050	mg/kg	2.86	1.90	3.82	0.665	0.460	
Lithium	7439-93-2	E472/VA	0.50	mg/kg	8.18	4.30	8.65	1.49	1.26	
Magnesium	7439-95-4	E472/VA	2.0	mg/kg	5140	4930	6120	1870	2480	
Manganese	7439-96-5	E472/VA	0.050	mg/kg	629	4130	5970	1090	714	
Mercury	7439-97-6	E511/VA	0.0050	mg/kg	0.0588	0.0438	0.0744	0.0929	0.0799	
Mercury	7439-97-6	E511/VA	0.0010	mg/kg ww	0.0212	0.0065	0.0129	0.0140	0.0160	
Molybdenum	7439-98-7	E472/VA	0.040	mg/kg	0.748	1.30	1.30	1.67	2.24	
Nickel	7440-02-0	E472/VA	0.20	mg/kg	14.5	13.6	19.5	3.68	2.62	
Phosphorus	7723-14-0	E472/VA	10	mg/kg	907	2390	3040	8130	12500	
Potassium	7440-09-7	E472/VA	20	mg/kg	1500	4820	4050	9400	9920	
Rubidium	7440-17-7	E472/VA	0.050	mg/kg	5.87	8.28	8.26	5.34	6.50	
Selenium	7782-49-2	E472/VA	0.10	mg/kg	0.66	1.51	1.75	6.51	5.52	
Silver	7440-22-4	E472.Ag/VA	0.0050	mg/kg	0.0988	0.0831	0.120	0.0323	0.0254	
Sodium	7440-23-5	E472/VA	20	mg/kg	827	621	1190	5610	5220	



Analytical Results

Sub-Matrix: Tissue (Matrix: Biota)					Client sample ID	E1_PERT-6_202 3-08	E1_PERT-7_202 3-08	E1_PERT-8_202 3-08	HAC-R1_INV-1_ 2023-08	HAC-R1_INV-2_ 2023-08
Client sampling date / time					04-Aug-2023 00:00	04-Aug-2023 00:00	03-Aug-2023 00:00	10-Aug-2023 00:00	10-Aug-2023 00:00	
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23B8888-046	VA23B8888-047	VA23B8888-048	VA23B8888-049	VA23B8888-050	
					Result	Result	Result	Result	Result	
Metals										
Strontium	7440-24-6	E472/VA	0.10	mg/kg	156	233	179	30.2	214	
Tellurium	13494-80-9	E472/VA	0.020	mg/kg	0.054	<0.020	0.023	<0.020	<0.020	
Thallium	7440-28-0	E472/VA	0.0020	mg/kg	0.0357	0.0347	0.0585	0.0075	0.0088	
Tin	7440-31-5	E472/VA	0.10	mg/kg	0.17	0.20	0.27	<0.10	<0.10	
Titanium	7440-32-6	E472.Ti/VA	0.50	mg/kg	481	331	526	104	75.7	
Uranium	7440-61-1	E472/VA	0.0020	mg/kg	0.312	0.328	0.590	0.145	0.115	
Vanadium	7440-62-2	E472/VA	0.10	mg/kg	41.6	33.9	46.1	10.0	7.57	
Zinc	7440-66-6	E472/VA	1.0	mg/kg	32.9	42.5	67.0	128	115	
Zirconium	7440-67-7	E472/VA	0.20	mg/kg	5.60	3.58	6.35	1.28	0.64	

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.



Analytical Results

Sub-Matrix: Tissue (Matrix: Biota)					Client sample ID	HAC-R1_INV-3_ 2023-08	HAC-R1_INV-4_ 2023-08	HAC-R1_INV-5_ 2023-08	HAC-R1_INV-6_ 2023-08	HAC-R1_INV-7_ 2023-08
Client sampling date / time					10-Aug-2023 00:00	10-Aug-2023 00:00	10-Aug-2023 00:00	10-Aug-2023 00:00	09-Aug-2023 00:00	
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23B8888-051	VA23B8888-052	VA23B8888-053	VA23B8888-054	VA23B8888-055	
					Result	Result	Result	Result	Result	
Physical Tests										
Moisture	---	E144-H/VA	2.0	%	80.1	82.2	78.6	81.2	85.5	
Metals										
Aluminum	7429-90-5	E472/VA	5.0	mg/kg	1350	2210	1200	952	1760	
Antimony	7440-36-0	E472/VA	0.010	mg/kg	0.034	0.056	0.028	0.026	0.042	
Arsenic	7440-38-2	E472/VA	0.030	mg/kg	2.34	3.78	2.93	2.62	4.55	
Barium	7440-39-3	E472/VA	0.050	mg/kg	35.0	49.4	28.6	20.0	57.8	
Beryllium	7440-41-7	E472/VA	0.010	mg/kg	0.044	0.062	0.037	0.028	0.054	
Bismuth	7440-69-9	E472/VA	0.010	mg/kg	<0.010	0.010	<0.010	<0.010	0.011	
Boron	7440-42-8	E472/VA	1.0	mg/kg	4.2	4.0	2.3	3.3	3.8	
Cadmium	7440-43-9	E472/VA	0.010	mg/kg	0.918	1.74	1.84	2.50	0.933	
Calcium	7440-70-2	E472/VA	20	mg/kg	4260	23800	8270	6050	52200	
Cesium	7440-46-2	E472/VA	0.0050	mg/kg	0.154	0.199	0.132	0.119	0.168	
Chromium	7440-47-3	E472/VA	0.20	mg/kg	2.15	2.74	1.81	1.40	2.68	
Cobalt	7440-48-4	E472/VA	0.020	mg/kg	2.00	2.55	1.40	1.28	2.15	
Copper	7440-50-8	E472/VA	0.20	mg/kg	107	183	109	80.4	236	
Iron	7439-89-6	E472/VA	5.0	mg/kg	2400	3350	2190	1520	2960	
Lead	7439-92-1	E472/VA	0.050	mg/kg	0.559	0.717	0.400	0.316	0.573	
Lithium	7439-93-2	E472/VA	0.50	mg/kg	1.18	1.62	1.00	0.78	1.42	
Magnesium	7439-95-4	E472/VA	2.0	mg/kg	1930	2940	2260	2260	3660	
Manganese	7439-96-5	E472/VA	0.050	mg/kg	882	1140	450	355	1350	
Mercury	7439-97-6	E511/VA	0.0050	mg/kg	0.104	0.103	0.0888	0.0674	0.0921	
Mercury	7439-97-6	E511A/VA	0.0010	mg/kg ww	0.0207	0.0183	0.0190	0.0127	0.0134	
Molybdenum	7439-98-7	E472/VA	0.040	mg/kg	3.08	3.08	1.62	2.94	1.83	
Nickel	7440-02-0	E472/VA	0.20	mg/kg	3.29	4.01	2.23	2.62	3.47	
Phosphorus	7723-14-0	E472/VA	10	mg/kg	9520	13500	9800	10000	14200	
Potassium	7440-09-7	E472/VA	20	mg/kg	10200	10600	8660	9030	8100	
Rubidium	7440-17-7	E472/VA	0.050	mg/kg	5.48	6.31	7.21	10.2	5.68	
Selenium	7782-49-2	E472/VA	0.10	mg/kg	6.32	6.94	11.1	7.55	5.46	
Silver	7440-22-4	E472.Ag/VA	0.0050	mg/kg	0.0264	0.0436	0.0287	0.0217	0.0474	
Sodium	7440-23-5	E472/VA	20	mg/kg	4620	4820	6410	4450	3640	



Analytical Results

Sub-Matrix: Tissue (Matrix: Biota)					Client sample ID	HAC-R1_INV-3_ 2023-08	HAC-R1_INV-4_ 2023-08	HAC-R1_INV-5_ 2023-08	HAC-R1_INV-6_ 2023-08	HAC-R1_INV-7_ 2023-08
Client sampling date / time					10-Aug-2023 00:00	10-Aug-2023 00:00	10-Aug-2023 00:00	10-Aug-2023 00:00	09-Aug-2023 00:00	
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23B8888-051	VA23B8888-052	VA23B8888-053	VA23B8888-054	VA23B8888-055	
					Result	Result	Result	Result	Result	
Metals										
Strontium	7440-24-6	E472/VA	0.10	mg/kg	23.5	91.5	49.4	30.1	137	
Tellurium	13494-80-9	E472/VA	0.020	mg/kg	<0.020	<0.020	<0.020	<0.020	<0.020	
Thallium	7440-28-0	E472/VA	0.0020	mg/kg	0.0075	0.0124	0.0082	0.0073	0.0102	
Tin	7440-31-5	E472/VA	0.10	mg/kg	<0.10	<0.10	<0.10	0.12	<0.10	
Titanium	7440-32-6	E472.Ti/VA	0.50	mg/kg	75.9	90.4	54.3	36.2	75.0	
Uranium	7440-61-1	E472/VA	0.0020	mg/kg	0.127	0.172	0.0935	0.0711	0.116	
Vanadium	7440-62-2	E472/VA	0.10	mg/kg	8.00	11.2	6.34	4.77	9.18	
Zinc	7440-66-6	E472/VA	1.0	mg/kg	141	130	140	116	117	
Zirconium	7440-67-7	E472/VA	0.20	mg/kg	0.89	0.56	0.52	<0.20	<0.20	

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.



Analytical Results

Sub-Matrix: Tissue (Matrix: Biota)					Client sample ID	HAC-R1_INV-8_2023-08	HAC-U_INV-1_2_023-08	HAC-U_INV-2_2_023-08	HAC-U_INV-3_2_023-08	HAC-U_INV-4_2_023-08
Client sampling date / time					09-Aug-2023 00:00	09-Aug-2023 00:00	09-Aug-2023 00:00	09-Aug-2023 00:00	09-Aug-2023 00:00	
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23B8888-056	VA23B8888-057	VA23B8888-058	VA23B8888-059	VA23B8888-060	
					Result	Result	Result	Result	Result	
Physical Tests										
Moisture	---	E144-H/VA	2.0	%	77.7	78.1	80.1	78.5	78.3	
Metals										
Aluminum	7429-90-5	E472/VA	5.0	mg/kg	9450	1700	3090	729	2860	
Antimony	7440-36-0	E472/VA	0.010	mg/kg	0.030	0.045	0.058	0.035	0.055	
Arsenic	7440-38-2	E472/VA	0.030	mg/kg	6.76	2.70	3.51	2.07	2.44	
Barium	7440-39-3	E472/VA	0.050	mg/kg	33.4	85.0	107	60.5	95.2	
Beryllium	7440-41-7	E472/VA	0.010	mg/kg	0.185	0.059	0.103	0.023	0.099	
Bismuth	7440-69-9	E472/VA	0.010	mg/kg	<0.010	<0.010	0.014	<0.010	0.014	
Boron	7440-42-8	E472/VA	1.0	mg/kg	7.9	4.4	9.6	2.9	6.3	
Cadmium	7440-43-9	E472/VA	0.010	mg/kg	1.06	0.946	0.643	1.20	0.893	
Calcium	7440-70-2	E472/VA	20	mg/kg	49200	17200	67400	49200	63300	
Cesium	7440-46-2	E472/VA	0.0050	mg/kg	0.112	0.177	0.319	0.124	0.226	
Chromium	7440-47-3	E472/VA	0.20	mg/kg	1.33	2.18	4.48	1.36	4.31	
Cobalt	7440-48-4	E472/VA	0.020	mg/kg	3.68	2.08	3.17	1.20	3.28	
Copper	7440-50-8	E472/VA	0.20	mg/kg	132	144	227	310	170	
Iron	7439-89-6	E472/VA	5.0	mg/kg	5160	3040	5430	1750	4630	
Lead	7439-92-1	E472/VA	0.050	mg/kg	0.721	0.460	1.05	0.322	0.964	
Lithium	7439-93-2	E472/VA	0.50	mg/kg	4.38	1.50	2.57	0.64	2.27	
Magnesium	7439-95-4	E472/VA	2.0	mg/kg	3760	2410	4350	2430	2680	
Manganese	7439-96-5	E472/VA	0.050	mg/kg	961	1900	2520	1560	2670	
Mercury	7439-97-6	E511/VA	0.0050	mg/kg	0.0684	0.101	0.148	0.114	0.0975	
Mercury	7439-97-6	E511A/VA	0.0010	mg/kg ww	0.0152	0.0222	0.0294	0.0244	0.0212	
Molybdenum	7439-98-7	E472/VA	0.040	mg/kg	1.61	2.42	1.83	1.40	3.00	
Nickel	7440-02-0	E472/VA	0.20	mg/kg	2.61	2.99	5.78	1.97	4.60	
Phosphorus	7723-14-0	E472/VA	10	mg/kg	7730	8800	9160	10500	7890	
Potassium	7440-09-7	E472/VA	20	mg/kg	5110	7320	5430	6680	6060	
Rubidium	7440-17-7	E472/VA	0.050	mg/kg	3.36	4.55	5.61	3.53	3.02	
Selenium	7782-49-2	E472/VA	0.10	mg/kg	3.99	6.24	5.85	11.7	9.14	
Silver	7440-22-4	E472.Ag/VA	0.0050	mg/kg	0.0212	0.0302	0.0914	0.0470	0.0556	
Sodium	7440-23-5	E472/VA	20	mg/kg	2190	2790	2470	4850	2930	



Analytical Results

Sub-Matrix: Tissue (Matrix: Biota)					Client sample ID	HAC-R1_INV-8_2023-08	HAC-U_INV-1_2_023-08	HAC-U_INV-2_2_023-08	HAC-U_INV-3_2_023-08	HAC-U_INV-4_2_023-08
Client sampling date / time					09-Aug-2023 00:00	09-Aug-2023 00:00	09-Aug-2023 00:00	09-Aug-2023 00:00	09-Aug-2023 00:00	
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23B8888-056	VA23B8888-057	VA23B8888-058	VA23B8888-059	VA23B8888-060	
					Result	Result	Result	Result	Result	
Metals										
Strontium	7440-24-6	E472/VA	0.10	mg/kg	106	53.0	175	118	136	
Tellurium	13494-80-9	E472/VA	0.020	mg/kg	<0.020	<0.020	<0.020	<0.020	<0.020	
Thallium	7440-28-0	E472/VA	0.0020	mg/kg	0.0065	0.0084	0.0246	0.0138	0.0116	
Tin	7440-31-5	E472/VA	0.10	mg/kg	<0.10	<0.10	<0.10	<0.10	<0.10	
Titanium	7440-32-6	E472.Ti/VA	0.50	mg/kg	220	95.7	180	37.4	134	
Uranium	7440-61-1	E472/VA	0.0020	mg/kg	0.0946	0.154	0.179	0.0761	0.146	
Vanadium	7440-62-2	E472/VA	0.10	mg/kg	21.0	11.3	17.8	4.80	14.7	
Zinc	7440-66-6	E472/VA	1.0	mg/kg	82.7	101	83.3	136	116	
Zirconium	7440-67-7	E472/VA	0.20	mg/kg	1.20	0.76	0.46	<0.20	1.02	

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.



Analytical Results

Sub-Matrix: Tissue (Matrix: Biota)					Client sample ID	HAC-U_INV-5_2 023-08	HAC-U_INV-6_2 023-08	HAC-U_INV-7_2 023-08	HAC-U_INV-8_2 023-08	HAC-D_INV-1_2 023-08
Client sampling date / time					09-Aug-2023 00:00	08-Aug-2023 00:00	07-Aug-2023 00:00	07-Aug-2023 00:00	06-Aug-2023 00:00	
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23B8888-061	VA23B8888-062	VA23B8888-063	VA23B8888-064	VA23B8888-065	
					Result	Result	Result	Result	Result	
Physical Tests										
Moisture	---	E144A/VA	2.0	%	---	---	---	86.4	---	
Moisture	---	E144-H/VA	2.0	%	84.7	85.2	78.3	---	78.0	
Metals										
Aluminum	7429-90-5	E475/VA	5.0	mg/kg	---	---	---	732	---	
Aluminum	7429-90-5	E472/VA	5.0	mg/kg	1400	2120	730	---	2240	
Antimony	7440-36-0	E472/VA	0.010	mg/kg	0.067	0.070	0.034	---	0.084	
Antimony	7440-36-0	E475/VA	0.020	mg/kg	---	---	---	0.036	---	
Arsenic	7440-38-2	E472/VA	0.030	mg/kg	2.72	2.49	1.46	---	13.4	
Arsenic	7440-38-2	E475/VA	0.050	mg/kg	---	---	---	1.67	---	
Barium	7440-39-3	E475/VA	0.050	mg/kg	---	---	---	67.8	---	
Barium	7440-39-3	E472/VA	0.050	mg/kg	106	123	74.5	---	72.6	
Beryllium	7440-41-7	E475/VA	0.010	mg/kg	---	---	---	0.024	---	
Beryllium	7440-41-7	E472/VA	0.010	mg/kg	0.046	0.066	0.024	---	0.090	
Bismuth	7440-69-9	E475/VA	0.010	mg/kg	---	---	---	<0.010	---	
Bismuth	7440-69-9	E472/VA	0.010	mg/kg	0.011	0.011	<0.010	---	0.011	
Boron	7440-42-8	E475/VA	1.0	mg/kg	---	---	---	3.6	---	
Boron	7440-42-8	E472/VA	1.0	mg/kg	5.9	15.6	3.6	---	4.8	
Cadmium	7440-43-9	E475/VA	0.010	mg/kg	---	---	---	1.57	---	
Cadmium	7440-43-9	E472/VA	0.010	mg/kg	1.45	1.33	1.35	---	0.886	
Calcium	7440-70-2	E475/VA	20	mg/kg	---	---	---	15200	---	
Calcium	7440-70-2	E472/VA	20	mg/kg	42300	54900	4400	---	8720	
Cesium	7440-46-2	E475/VA	0.0050	mg/kg	---	---	---	0.0852	---	
Cesium	7440-46-2	E472/VA	0.0050	mg/kg	0.144	0.226	0.0936	---	0.178	
Chromium	7440-47-3	E475/VA	0.20	mg/kg	---	---	---	1.37	---	
Chromium	7440-47-3	E472/VA	0.20	mg/kg	2.17	3.61	1.63	---	2.19	
Cobalt	7440-48-4	E475/VA	0.020	mg/kg	---	---	---	1.30	---	
Cobalt	7440-48-4	E472/VA	0.020	mg/kg	1.89	2.39	1.45	---	3.62	
Copper	7440-50-8	E475/VA	0.20	mg/kg	---	---	---	110	---	
Copper	7440-50-8	E472/VA	0.20	mg/kg	166	139	77.0	---	127	
Iron	7439-89-6	E475/VA	5.0	mg/kg	---	---	---	1380	---	



Analytical Results

Sub-Matrix: Tissue (Matrix: Biota)					Client sample ID	HAC-U_INV-5_2 023-08	HAC-U_INV-6_2 023-08	HAC-U_INV-7_2 023-08	HAC-U_INV-8_2 023-08	HAC-D_INV-1_2 023-08
Client sampling date / time					09-Aug-2023 00:00	08-Aug-2023 00:00	07-Aug-2023 00:00	07-Aug-2023 00:00	06-Aug-2023 00:00	
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23B8888-061	VA23B8888-062	VA23B8888-063	VA23B8888-064	VA23B8888-065	
					Result	Result	Result	Result	Result	
Metals										
Iron	7439-89-6	E472/VA	5.0	mg/kg	2650	3390	1380	----	5540	
Lead	7439-92-1	E475/VA	0.050	mg/kg	----	----	----	0.301	----	
Lead	7439-92-1	E472/VA	0.050	mg/kg	0.471	0.706	0.318	----	1.20	
Lithium	7439-93-2	E475/VA	0.50	mg/kg	----	----	----	0.62	----	
Lithium	7439-93-2	E472/VA	0.50	mg/kg	1.12	1.65	0.65	----	5.00	
Magnesium	7439-95-4	E475/VA	2.0	mg/kg	----	----	----	1840	----	
Magnesium	7439-95-4	E472/VA	2.0	mg/kg	1860	2690	1550	----	3750	
Manganese	7439-96-5	E475/VA	0.050	mg/kg	----	----	----	2330	----	
Manganese	7439-96-5	E472/VA	0.050	mg/kg	2390	3170	2150	----	763	
Mercury	7439-97-6	E511/VA	0.0050	mg/kg	0.0790	0.0983	0.110	----	0.0826	
Mercury	7439-97-6	E512/VA	0.010	mg/kg	----	----	----	0.089	----	
Mercury	7439-97-6	E511A/VA	0.0010	mg/kg wwt	0.0121	0.0146	0.0237	----	0.0182	
Mercury	7439-97-6	E512A/VA	0.0020	mg/kg wwt	----	----	----	0.0122	----	
Molybdenum	7439-98-7	E475/VA	0.040	mg/kg	----	----	----	1.38	----	
Molybdenum	7439-98-7	E472/VA	0.040	mg/kg	2.52	1.66	1.71	----	1.25	
Nickel	7440-02-0	E475/VA	0.20	mg/kg	----	----	----	3.04	----	
Nickel	7440-02-0	E472/VA	0.20	mg/kg	2.92	3.88	2.82	----	5.04	
Phosphorus	7723-14-0	E472/VA	10	mg/kg	8900	11600	10100	----	9410	
Phosphorus	7723-14-0	E475/VA	20	mg/kg	----	----	----	10100	----	
Potassium	7440-09-7	E475/VA	20	mg/kg	----	----	----	8780	----	
Potassium	7440-09-7	E472/VA	20	mg/kg	7420	8120	10600	----	7490	
Rubidium	7440-17-7	E475/VA	0.050	mg/kg	----	----	----	3.99	----	
Rubidium	7440-17-7	E472/VA	0.050	mg/kg	3.52	4.95	3.81	----	4.46	
Selenium	7782-49-2	E475/VA	0.10	mg/kg	----	----	----	7.81	----	
Selenium	7782-49-2	E472/VA	0.10	mg/kg	7.73	7.70	6.65	----	6.34	
Silver	7440-22-4	E475.Ag/VA	0.0050	mg/kg	----	----	----	0.0455	----	
Silver	7440-22-4	E472.Ag/VA	0.0050	mg/kg	0.0520	0.106	0.0343	----	0.0414	
Sodium	7440-23-5	E475/VA	20	mg/kg	----	----	----	4140	----	
Sodium	7440-23-5	E472/VA	20	mg/kg	2660	3440	4000	----	2690	
Strontium	7440-24-6	E475/VA	0.10	mg/kg	----	----	----	54.8	----	



Analytical Results

Sub-Matrix: Tissue (Matrix: Biota)					Client sample ID	HAC-U_INV-5_2 023-08	HAC-U_INV-6_2 023-08	HAC-U_INV-7_2 023-08	HAC-U_INV-8_2 023-08	HAC-D_INV-1_2 023-08
Client sampling date / time					09-Aug-2023 00:00	08-Aug-2023 00:00	07-Aug-2023 00:00	07-Aug-2023 00:00	06-Aug-2023 00:00	
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23B8888-061	VA23B8888-062	VA23B8888-063	VA23B8888-064	VA23B8888-065	
					Result	Result	Result	Result	Result	
Metals										
Strontium	7440-24-6	E472/VA	0.10	mg/kg	98.9	158	27.1	----	42.2	
Tellurium	13494-80-9	E475/VA	0.020	mg/kg	----	----	----	<0.020	----	
Tellurium	13494-80-9	E472/VA	0.020	mg/kg	<0.020	<0.020	<0.020	----	<0.020	
Thallium	7440-28-0	E475/VA	0.0020	mg/kg	----	----	----	0.0087	----	
Thallium	7440-28-0	E472/VA	0.0020	mg/kg	0.0086	0.0122	0.0069	----	0.0271	
Tin	7440-31-5	E475/VA	0.10	mg/kg	----	----	----	<0.10	----	
Tin	7440-31-5	E472/VA	0.10	mg/kg	<0.10	<0.10	<0.10	----	<0.10	
Titanium	7440-32-6	E475.Ti/VA	0.50	mg/kg	----	----	----	40.1	----	
Titanium	7440-32-6	E472.Ti/VA	0.50	mg/kg	77.1	108	36.8	----	48.7	
Uranium	7440-61-1	E475/VA	0.0020	mg/kg	----	----	----	0.0760	----	
Uranium	7440-61-1	E472/VA	0.0020	mg/kg	0.124	0.136	0.0859	----	0.149	
Vanadium	7440-62-2	E475/VA	0.10	mg/kg	----	----	----	4.25	----	
Vanadium	7440-62-2	E472/VA	0.10	mg/kg	8.94	11.2	4.23	----	17.1	
Zinc	7440-66-6	E475/VA	1.0	mg/kg	----	----	----	126	----	
Zinc	7440-66-6	E472/VA	1.0	mg/kg	106	118	102	----	160	
Zirconium	7440-67-7	E475/VA	0.20	mg/kg	----	----	----	0.53	----	
Zirconium	7440-67-7	E472/VA	0.20	mg/kg	0.57	0.83	0.51	----	1.02	

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.



Analytical Results

Sub-Matrix: Tissue (Matrix: Biota)					Client sample ID	HAC-D_INV-2_2 023-08	HAC-D_INV-3_2 023-08	HAC-D_INV-4_2 023-08	HAC-D_INV-5_2 023-08	HAC-D_INV-6_2 023-08
Client sampling date / time					06-Aug-2023 00:00	06-Aug-2023 00:00	06-Aug-2023 00:00	06-Aug-2023 00:00	06-Aug-2023 00:00	
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23B8888-066	VA23B8888-067	VA23B8888-068	VA23B8888-069	VA23B8888-070	
					Result	Result	Result	Result	Result	
Physical Tests										
Moisture	---	E144-H/VA	2.0	%	75.2	80.2	75.3	77.7	78.9	
Metals										
Aluminum	7429-90-5	E472/VA	5.0	mg/kg	15500	1480	2220	3820	2240	
Antimony	7440-36-0	E472/VA	0.010	mg/kg	0.041	0.040	0.065	0.071	0.043	
Arsenic	7440-38-2	E472/VA	0.030	mg/kg	4.60	4.10	2.88	5.15	3.12	
Barium	7440-39-3	E472/VA	0.050	mg/kg	44.8	52.9	33.1	60.9	128	
Beryllium	7440-41-7	E472/VA	0.010	mg/kg	0.119	0.079	0.081	0.119	0.074	
Bismuth	7440-69-9	E472/VA	0.010	mg/kg	0.017	0.013	0.015	0.016	0.015	
Boron	7440-42-8	E472/VA	1.0	mg/kg	7.0	6.0	4.6	4.9	5.6	
Cadmium	7440-43-9	E472/VA	0.010	mg/kg	1.11	1.55	1.24	2.77	1.90	
Calcium	7440-70-2	E472/VA	20	mg/kg	16400	7920	4640	5640	6480	
Cesium	7440-46-2	E472/VA	0.0050	mg/kg	0.311	0.204	0.185	0.293	0.218	
Chromium	7440-47-3	E472/VA	0.20	mg/kg	2.90	1.89	2.74	2.53	3.54	
Cobalt	7440-48-4	E472/VA	0.020	mg/kg	3.74	2.73	2.33	4.77	3.30	
Copper	7440-50-8	E472/VA	0.20	mg/kg	211	195	161	287	138	
Iron	7439-89-6	E472/VA	5.0	mg/kg	5310	3000	3230	6090	3760	
Lead	7439-92-1	E472/VA	0.050	mg/kg	1.59	0.916	0.745	1.85	1.09	
Lithium	7439-93-2	E472/VA	0.50	mg/kg	2.04	1.53	1.67	3.48	2.59	
Magnesium	7439-95-4	E472/VA	2.0	mg/kg	2330	2060	1880	3640	2300	
Manganese	7439-96-5	E472/VA	0.050	mg/kg	829	825	961	2050	1990	
Mercury	7439-97-6	E511/VA	0.0050	mg/kg	0.0692	0.101	0.0881	0.100	0.117	
Mercury	7439-97-6	E511/VA	0.0010	mg/kg ww	0.0171	0.0200	0.0217	0.0224	0.0246	
Molybdenum	7439-98-7	E472/VA	0.040	mg/kg	1.86	2.28	2.44	2.21	1.85	
Nickel	7440-02-0	E472/VA	0.20	mg/kg	3.72	2.72	4.05	3.95	4.30	
Phosphorus	7723-14-0	E472/VA	10	mg/kg	7520	9000	7450	7370	7870	
Potassium	7440-09-7	E472/VA	20	mg/kg	8100	8090	7290	7100	7310	
Rubidium	7440-17-7	E472/VA	0.050	mg/kg	7.22	6.52	4.34	5.81	5.66	
Selenium	7782-49-2	E472/VA	0.10	mg/kg	5.71	6.66	7.35	6.67	7.96	
Silver	7440-22-4	E472.Ag/VA	0.0050	mg/kg	0.0466	0.0540	0.0557	0.0566	0.0462	
Sodium	7440-23-5	E472/VA	20	mg/kg	2820	3220	4310	2470	2900	



Analytical Results

Sub-Matrix: Tissue (Matrix: Biota)					Client sample ID	HAC-D_INV-2_2 023-08	HAC-D_INV-3_2 023-08	HAC-D_INV-4_2 023-08	HAC-D_INV-5_2 023-08	HAC-D_INV-6_2 023-08
Client sampling date / time					06-Aug-2023 00:00	06-Aug-2023 00:00	06-Aug-2023 00:00	06-Aug-2023 00:00	06-Aug-2023 00:00	
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23B8888-066	VA23B8888-067	VA23B8888-068	VA23B8888-069	VA23B8888-070	
					Result	Result	Result	Result	Result	
Metals										
Strontium	7440-24-6	E472/VA	0.10	mg/kg	52.1	34.0	22.8	33.0	27.9	
Tellurium	13494-80-9	E472/VA	0.020	mg/kg	<0.020	<0.020	<0.020	<0.020	<0.020	
Thallium	7440-28-0	E472/VA	0.0020	mg/kg	0.0198	0.0204	0.0155	0.0210	0.0464	
Tin	7440-31-5	E472/VA	0.10	mg/kg	0.10	<0.10	<0.10	<0.10	<0.10	
Titanium	7440-32-6	E472.Ti/VA	0.50	mg/kg	222	77.2	81.8	131	76.9	
Uranium	7440-61-1	E472/VA	0.0020	mg/kg	0.185	0.150	0.128	0.187	0.151	
Vanadium	7440-62-2	E472/VA	0.10	mg/kg	20.2	8.79	11.2	17.7	10.4	
Zinc	7440-66-6	E472/VA	1.0	mg/kg	111	114	119	115	123	
Zirconium	7440-67-7	E472/VA	0.20	mg/kg	3.11	0.93	0.64	1.21	0.89	

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.



Analytical Results

Sub-Matrix: Tissue (Matrix: Biota)					Client sample ID	HAC-D_INV-7_2 023-08	HAC-D_INV-8_2 023-08	EDC-U_INV-1_2 023-08	EDC-U_INV-2_2 023-08	EDC-U_INV-3_2 023-08
Client sampling date / time					06-Aug-2023 00:00	05-Aug-2023 00:00	08-Aug-2023 00:00	08-Aug-2023 00:00	08-Aug-2023 00:00	
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23B8888-071	VA23B8888-072	VA23B8888-073	VA23B8888-074	VA23B8888-075	
					Result	Result	Result	Result	Result	
Physical Tests										
Moisture	---	E144-H/VA	2.0	%	82.9	75.6	74.9	83.2	79.6	
Metals										
Aluminum	7429-90-5	E472/VA	5.0	mg/kg	1320	2240	730	947	432	
Antimony	7440-36-0	E472/VA	0.010	mg/kg	0.061	0.047	0.019	0.027	0.015	
Arsenic	7440-38-2	E472/VA	0.030	mg/kg	2.69	3.30	1.09	1.80	0.819	
Barium	7440-39-3	E472/VA	0.050	mg/kg	35.0	83.7	10.3	13.9	7.96	
Beryllium	7440-41-7	E472/VA	0.010	mg/kg	0.051	0.088	0.021	0.027	0.019	
Bismuth	7440-69-9	E472/VA	0.010	mg/kg	0.012	0.016	<0.010	<0.010	<0.010	
Boron	7440-42-8	E472/VA	1.0	mg/kg	5.3	7.6	1.2	1.4	<1.0	
Cadmium	7440-43-9	E472/VA	0.010	mg/kg	1.10	0.522	1.31	3.16	1.87	
Calcium	7440-70-2	E472/VA	20	mg/kg	4950	9560	1880	2750	1680	
Cesium	7440-46-2	E472/VA	0.0050	mg/kg	0.197	0.288	0.0488	0.0720	0.0310	
Chromium	7440-47-3	E472/VA	0.20	mg/kg	2.81	3.21	1.52	3.22	1.39	
Cobalt	7440-48-4	E472/VA	0.020	mg/kg	2.18	2.99	1.56	5.27	1.50	
Copper	7440-50-8	E472/VA	0.20	mg/kg	108	151	49.6	26.1	24.4	
Iron	7439-89-6	E472/VA	5.0	mg/kg	3050	4580	1460	1870	813	
Lead	7439-92-1	E472/VA	0.050	mg/kg	0.811	1.14	0.497	0.370	0.159	
Lithium	7439-93-2	E472/VA	0.50	mg/kg	1.38	2.14	0.84	0.85	<0.50	
Magnesium	7439-95-4	E472/VA	2.0	mg/kg	1800	2320	1350	1700	1020	
Manganese	7439-96-5	E472/VA	0.050	mg/kg	1180	2380	240	426	403	
Mercury	7439-97-6	E511/VA	0.0050	mg/kg	0.104	0.0780	0.134	0.123	0.163	
Mercury	7439-97-6	E511A/VA	0.0010	mg/kg ww	0.0178	0.0190	0.0336	0.0207	0.0332	
Molybdenum	7439-98-7	E472/VA	0.040	mg/kg	2.09	2.65	3.43	1.14	0.441	
Nickel	7440-02-0	E472/VA	0.20	mg/kg	3.30	4.21	1.56	2.72	1.56	
Phosphorus	7723-14-0	E472/VA	10	mg/kg	8590	7440	7720	8940	6330	
Potassium	7440-09-7	E472/VA	20	mg/kg	8460	7190	6500	8840	5810	
Rubidium	7440-17-7	E472/VA	0.050	mg/kg	3.67	2.87	3.57	10.3	6.14	
Selenium	7782-49-2	E472/VA	0.10	mg/kg	6.70	7.77	1.12	0.83	1.08	
Silver	7440-22-4	E472.Ag/VA	0.0050	mg/kg	0.0493	0.0511	0.242	0.0947	0.154	
Sodium	7440-23-5	E472/VA	20	mg/kg	4410	3290	3310	5160	3340	



Analytical Results

Sub-Matrix: Tissue (Matrix: Biota)					Client sample ID	HAC-D_INV-7_2 023-08	HAC-D_INV-8_2 023-08	EDC-U_INV-1_2 023-08	EDC-U_INV-2_2 023-08	EDC-U_INV-3_2 023-08
Client sampling date / time					06-Aug-2023 00:00	05-Aug-2023 00:00	08-Aug-2023 00:00	08-Aug-2023 00:00	08-Aug-2023 00:00	
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23B8888-071	VA23B8888-072	VA23B8888-073	VA23B8888-074	VA23B8888-075	
					Result	Result	Result	Result	Result	
Metals										
Strontium	7440-24-6	E472/VA	0.10	mg/kg	23.4	44.4	7.70	13.8	8.63	
Tellurium	13494-80-9	E472/VA	0.020	mg/kg	<0.020	<0.020	<0.020	<0.020	<0.020	
Thallium	7440-28-0	E472/VA	0.0020	mg/kg	0.0198	0.0282	0.0250	0.0186	0.0186	
Tin	7440-31-5	E472/VA	0.10	mg/kg	<0.10	<0.10	<0.10	<0.10	<0.10	
Titanium	7440-32-6	E472.Ti/VA	0.50	mg/kg	52.3	94.2	68.9	40.5	16.7	
Uranium	7440-61-1	E472/VA	0.0020	mg/kg	0.123	0.229	0.0692	0.122	0.119	
Vanadium	7440-62-2	E472/VA	0.10	mg/kg	7.30	12.1	3.65	4.01	1.92	
Zinc	7440-66-6	E472/VA	1.0	mg/kg	144	92.8	109	145	110	
Zirconium	7440-67-7	E472/VA	0.20	mg/kg	0.89	1.48	0.55	0.91	0.39	

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.



Analytical Results

Sub-Matrix: Tissue (Matrix: Biota)					Client sample ID	EDC-U_INV-4_2 023-08	EDC-U_INV-5_2 023-08	EDC-U_INV-6_2 023-08	EDC-U_INV-7_2 023-08	EDC-U_INV-8_2 023-08
Client sampling date / time					08-Aug-2023 00:00	07-Aug-2023 00:00	07-Aug-2023 00:00	07-Aug-2023 00:00	07-Aug-2023 00:00	
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23B8888-076	VA23B8888-077	VA23B8888-078	VA23B8888-079	VA23B8888-080	
					Result	Result	Result	Result	Result	
Physical Tests										
Moisture	---	E144A/VA	2.0	%	---	---	---	---	88.0	
Moisture	---	E144-H/VA	2.0	%	83.5	82.4	81.9	81.0	---	
Metals										
Aluminum	7429-90-5	E475/VA	5.0	mg/kg	---	---	---	---	135	
Aluminum	7429-90-5	E472/VA	5.0	mg/kg	735	813	376	688	---	
Antimony	7440-36-0	E472/VA	0.010	mg/kg	0.025	0.026	0.024	0.021	---	
Antimony	7440-36-0	E475/VA	0.020	mg/kg	---	---	---	---	<0.020	
Arsenic	7440-38-2	E472/VA	0.030	mg/kg	1.92	2.31	1.26	1.27	---	
Arsenic	7440-38-2	E475/VA	0.050	mg/kg	---	---	---	---	0.595	
Barium	7440-39-3	E475/VA	0.050	mg/kg	---	---	---	---	3.51	
Barium	7440-39-3	E472/VA	0.050	mg/kg	28.4	28.8	100	8.83	---	
Beryllium	7440-41-7	E475/VA	0.010	mg/kg	---	---	---	---	<0.010	
Beryllium	7440-41-7	E472/VA	0.010	mg/kg	0.028	0.034	0.017	0.018	---	
Bismuth	7440-69-9	E475/VA	0.010	mg/kg	---	---	---	---	<0.010	
Bismuth	7440-69-9	E472/VA	0.010	mg/kg	<0.010	<0.010	<0.010	<0.010	---	
Boron	7440-42-8	E475/VA	1.0	mg/kg	---	---	---	---	3.3	
Boron	7440-42-8	E472/VA	1.0	mg/kg	<1.0	<1.0	3.1	2.0	---	
Cadmium	7440-43-9	E475/VA	0.010	mg/kg	---	---	---	---	3.78	
Cadmium	7440-43-9	E472/VA	0.010	mg/kg	1.97	1.64	0.792	2.10	---	
Calcium	7440-70-2	E475/VA	20	mg/kg	---	---	---	---	1910	
Calcium	7440-70-2	E472/VA	20	mg/kg	1670	1630	1440	1930	---	
Cesium	7440-46-2	E475/VA	0.0050	mg/kg	---	---	---	---	0.0128	
Cesium	7440-46-2	E472/VA	0.0050	mg/kg	0.0520	0.0519	0.0155	0.0524	---	
Chromium	7440-47-3	E475/VA	0.20	mg/kg	---	---	---	---	0.57	
Chromium	7440-47-3	E472/VA	0.20	mg/kg	2.32	2.29	1.31	2.82	---	
Cobalt	7440-48-4	E475/VA	0.020	mg/kg	---	---	---	---	1.04	
Cobalt	7440-48-4	E472/VA	0.020	mg/kg	3.38	3.12	5.56	1.72	---	
Copper	7440-50-8	E475/VA	0.20	mg/kg	---	---	---	---	16.6	
Copper	7440-50-8	E472/VA	0.20	mg/kg	20.4	26.1	18.4	34.6	---	
Iron	7439-89-6	E475/VA	5.0	mg/kg	---	---	---	---	335	



Analytical Results

Sub-Matrix: Tissue (Matrix: Biota)					Client sample ID	EDC-U_INV-4_2 023-08	EDC-U_INV-5_2 023-08	EDC-U_INV-6_2 023-08	EDC-U_INV-7_2 023-08	EDC-U_INV-8_2 023-08
Client sampling date / time					08-Aug-2023 00:00	07-Aug-2023 00:00	07-Aug-2023 00:00	07-Aug-2023 00:00	07-Aug-2023 00:00	
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23B8888-076	VA23B8888-077	VA23B8888-078	VA23B8888-079	VA23B8888-080	
					Result	Result	Result	Result	Result	
Metals										
Iron	7439-89-6	E472/VA	5.0	mg/kg	2430	2210	1550	1380	---	
Lead	7439-92-1	E475/VA	0.050	mg/kg	---	---	---	---	0.088	
Lead	7439-92-1	E472/VA	0.050	mg/kg	0.297	0.325	0.140	0.256	---	
Lithium	7439-93-2	E475/VA	0.50	mg/kg	---	---	---	---	<0.50	
Lithium	7439-93-2	E472/VA	0.50	mg/kg	0.59	0.59	<0.50	0.58	---	
Magnesium	7439-95-4	E475/VA	2.0	mg/kg	---	---	---	---	1820	
Magnesium	7439-95-4	E472/VA	2.0	mg/kg	1220	1080	1970	1350	---	
Manganese	7439-96-5	E475/VA	0.050	mg/kg	---	---	---	---	100	
Manganese	7439-96-5	E472/VA	0.050	mg/kg	1370	1190	2980	235	---	
Mercury	7439-97-6	E511/VA	0.0050	mg/kg	0.126	0.147	0.0863	0.104	---	
Mercury	7439-97-6	E512/VA	0.010	mg/kg	---	---	---	---	0.115	
Mercury	7439-97-6	E511A/VA	0.0010	mg/kg wwt	0.0208	0.0259	0.0156	0.0198	---	
Mercury	7439-97-6	E512A/VA	0.0020	mg/kg wwt	---	---	---	---	0.0137	
Molybdenum	7439-98-7	E475/VA	0.040	mg/kg	---	---	---	---	0.646	
Molybdenum	7439-98-7	E472/VA	0.040	mg/kg	0.511	0.368	3.97	0.722	---	
Nickel	7440-02-0	E475/VA	0.20	mg/kg	---	---	---	---	0.58	
Nickel	7440-02-0	E472/VA	0.20	mg/kg	2.14	2.41	2.78	1.92	---	
Phosphorus	7723-14-0	E472/VA	10	mg/kg	6780	5410	9080	7830	---	
Phosphorus	7723-14-0	E475/VA	20	mg/kg	---	---	---	---	10700	
Potassium	7440-09-7	E475/VA	20	mg/kg	---	---	---	---	10900	
Potassium	7440-09-7	E472/VA	20	mg/kg	6240	5960	7880	7380	---	
Rubidium	7440-17-7	E475/VA	0.050	mg/kg	---	---	---	---	4.30	
Rubidium	7440-17-7	E472/VA	0.050	mg/kg	8.02	5.94	2.13	4.30	---	
Selenium	7782-49-2	E475/VA	0.10	mg/kg	---	---	---	---	0.95	
Selenium	7782-49-2	E472/VA	0.10	mg/kg	0.94	0.85	0.69	1.73	---	
Silver	7440-22-4	E475.Ag/VA	0.0050	mg/kg	---	---	---	---	0.128	
Silver	7440-22-4	E472.Ag/VA	0.0050	mg/kg	0.142	0.120	0.0392	0.181	---	
Sodium	7440-23-5	E475/VA	20	mg/kg	---	---	---	---	20400	
Sodium	7440-23-5	E472/VA	20	mg/kg	4340	4240	5120	3600	---	
Strontium	7440-24-6	E475/VA	0.10	mg/kg	---	---	---	---	4.78	



Analytical Results

Sub-Matrix: Tissue (Matrix: Biota)					Client sample ID	EDC-U_INV-4_2 023-08	EDC-U_INV-5_2 023-08	EDC-U_INV-6_2 023-08	EDC-U_INV-7_2 023-08	EDC-U_INV-8_2 023-08
Client sampling date / time					08-Aug-2023 00:00	07-Aug-2023 00:00	07-Aug-2023 00:00	07-Aug-2023 00:00	07-Aug-2023 00:00	
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23B8888-076	VA23B8888-077	VA23B8888-078	VA23B8888-079	VA23B8888-080	
					Result	Result	Result	Result	Result	
Metals										
Strontium	7440-24-6	E472/VA	0.10	mg/kg	9.96	8.79	14.2	8.96	----	
Tellurium	13494-80-9	E475/VA	0.020	mg/kg	----	----	----	----	<0.020	
Tellurium	13494-80-9	E472/VA	0.020	mg/kg	<0.020	<0.020	<0.020	<0.020	----	
Thallium	7440-28-0	E475/VA	0.0020	mg/kg	----	----	----	----	0.0127	
Thallium	7440-28-0	E472/VA	0.0020	mg/kg	0.0248	0.0216	0.0103	0.0182	----	
Tin	7440-31-5	E475/VA	0.10	mg/kg	----	----	----	----	<0.10	
Tin	7440-31-5	E472/VA	0.10	mg/kg	<0.10	<0.10	<0.10	<0.10	----	
Titanium	7440-32-6	E475.Ti/VA	0.50	mg/kg	----	----	----	----	6.70	
Titanium	7440-32-6	E472.Ti/VA	0.50	mg/kg	28.7	30.5	12.0	29.4	----	
Uranium	7440-61-1	E475/VA	0.0020	mg/kg	----	----	----	----	0.0420	
Uranium	7440-61-1	E472/VA	0.0020	mg/kg	0.131	0.163	0.132	0.0828	----	
Vanadium	7440-62-2	E475/VA	0.10	mg/kg	----	----	----	----	0.68	
Vanadium	7440-62-2	E472/VA	0.10	mg/kg	4.37	4.98	3.09	3.07	----	
Zinc	7440-66-6	E475/VA	1.0	mg/kg	----	----	----	----	150	
Zinc	7440-66-6	E472/VA	1.0	mg/kg	110	97.8	317	118	----	
Zirconium	7440-67-7	E475/VA	0.20	mg/kg	----	----	----	----	0.38	
Zirconium	7440-67-7	E472/VA	0.20	mg/kg	0.68	0.66	0.74	0.57	----	

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.



Analytical Results

Sub-Matrix: Tissue (Matrix: Biota)					Client sample ID	EDC-D_INV-1_2 023-08	EDC-D_INV-2_2 023-08	EDC-D_INV-3_2 023-08	EDC-D_INV-4_2 023-08	EDC-D_INV-5_2 023-08
Client sampling date / time					11-Aug-2023 00:00	11-Aug-2023 00:00	11-Aug-2023 00:00	11-Aug-2023 00:00	11-Aug-2023 00:00	
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23B8888-081	VA23B8888-082	VA23B8888-083	VA23B8888-084	VA23B8888-085	
					Result	Result	Result	Result	Result	
Physical Tests										
Moisture	----	E144-H/VA	2.0	%	80.8	80.5	77.9	79.7	80.6	
Metals										
Aluminum	7429-90-5	E472/VA	5.0	mg/kg	586	413	324	227	582	
Antimony	7440-36-0	E472/VA	0.010	mg/kg	0.016	0.014	0.013	<0.010	0.016	
Arsenic	7440-38-2	E472/VA	0.030	mg/kg	4.08	4.00	4.93	2.89	3.65	
Barium	7440-39-3	E472/VA	0.050	mg/kg	10.4	14.0	11.8	6.42	10.5	
Beryllium	7440-41-7	E472/VA	0.010	mg/kg	0.018	0.014	0.012	<0.010	0.016	
Bismuth	7440-69-9	E472/VA	0.010	mg/kg	<0.010	<0.010	<0.010	<0.010	<0.010	
Boron	7440-42-8	E472/VA	1.0	mg/kg	2.7	2.3	2.1	2.1	2.1	
Cadmium	7440-43-9	E472/VA	0.010	mg/kg	1.10	0.959	1.51	0.793	1.16	
Calcium	7440-70-2	E472/VA	20	mg/kg	3190	1620	1680	1210	1820	
Cesium	7440-46-2	E472/VA	0.0050	mg/kg	0.133	0.0803	0.0828	0.0552	0.0987	
Chromium	7440-47-3	E472/VA	0.20	mg/kg	1.62	1.13	0.96	0.71	1.51	
Cobalt	7440-48-4	E472/VA	0.020	mg/kg	1.28	1.09	1.37	0.803	1.30	
Copper	7440-50-8	E472/VA	0.20	mg/kg	22.7	22.9	24.7	21.1	27.8	
Iron	7439-89-6	E472/VA	5.0	mg/kg	1240	902	757	511	1160	
Lead	7439-92-1	E472/VA	0.050	mg/kg	0.290	0.191	0.158	0.100	0.252	
Lithium	7439-93-2	E472/VA	0.50	mg/kg	0.65	<0.50	<0.50	<0.50	0.57	
Magnesium	7439-95-4	E472/VA	2.0	mg/kg	1650	1390	1240	1170	1600	
Manganese	7439-96-5	E472/VA	0.050	mg/kg	226	251	260	204	230	
Mercury	7439-97-6	E511/VA	0.0050	mg/kg	0.109	0.0803	0.0772	0.0729	0.0767	
Mercury	7439-97-6	E511/VA	0.0010	mg/kg ww	0.0209	0.0157	0.0170	0.0148	0.0149	
Molybdenum	7439-98-7	E472/VA	0.040	mg/kg	0.600	0.733	0.705	0.636	0.624	
Nickel	7440-02-0	E472/VA	0.20	mg/kg	2.18	1.85	1.88	1.37	2.06	
Phosphorus	7723-14-0	E472/VA	10	mg/kg	8100	8010	9060	7840	8900	
Potassium	7440-09-7	E472/VA	20	mg/kg	6830	7560	8480	7440	8600	
Rubidium	7440-17-7	E472/VA	0.050	mg/kg	4.24	3.80	5.12	4.21	4.61	
Selenium	7782-49-2	E472/VA	0.10	mg/kg	2.50	2.30	2.60	2.04	2.70	
Silver	7440-22-4	E472.Ag/VA	0.0050	mg/kg	0.0652	0.0648	0.0712	0.0838	0.0601	
Sodium	7440-23-5	E472/VA	20	mg/kg	2950	2860	3070	3150	3690	



Analytical Results

Sub-Matrix: Tissue (Matrix: Biota)					Client sample ID	EDC-D_INV-1_2 023-08	EDC-D_INV-2_2 023-08	EDC-D_INV-3_2 023-08	EDC-D_INV-4_2 023-08	EDC-D_INV-5_2 023-08
Client sampling date / time					11-Aug-2023 00:00	11-Aug-2023 00:00	11-Aug-2023 00:00	11-Aug-2023 00:00	11-Aug-2023 00:00	
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23B8888-081	VA23B8888-082	VA23B8888-083	VA23B8888-084	VA23B8888-085	
					Result	Result	Result	Result	Result	
Metals										
Strontium	7440-24-6	E472/VA	0.10	mg/kg	16.9	9.51	11.6	7.20	10.6	
Tellurium	13494-80-9	E472/VA	0.020	mg/kg	<0.020	<0.020	<0.020	<0.020	<0.020	
Thallium	7440-28-0	E472/VA	0.0020	mg/kg	0.0101	0.0087	0.0094	0.0078	0.0099	
Tin	7440-31-5	E472/VA	0.10	mg/kg	<0.10	<0.10	<0.10	<0.10	<0.10	
Titanium	7440-32-6	E472.Ti/VA	0.50	mg/kg	26.6	15.7	14.0	8.50	25.3	
Uranium	7440-61-1	E472/VA	0.0020	mg/kg	0.0534	0.0426	0.0368	0.0240	0.0544	
Vanadium	7440-62-2	E472/VA	0.10	mg/kg	2.10	1.50	1.30	0.81	2.02	
Zinc	7440-66-6	E472/VA	1.0	mg/kg	132	115	132	143	132	
Zirconium	7440-67-7	E472/VA	0.20	mg/kg	0.46	0.31	0.30	<0.20	0.41	

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.



Analytical Results

Sub-Matrix: Tissue (Matrix: Biota)					Client sample ID	EDC-D_INV-6_2 023-08	EDC-D_INV-7_2 023-08	EDC-D_INV-8_2 023-08	E1_INV-1_2023- 08	E1_INV-2_2023- 08
Client sampling date / time					11-Aug-2023 00:00	11-Aug-2023 00:00	11-Aug-2023 00:00	05-Aug-2023 00:00	05-Aug-2023 00:00	
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23B8888-086	VA23B8888-087	VA23B8888-088	VA23B8888-089	VA23B8888-090	
					Result	Result	Result	Result	Result	
Physical Tests										
Moisture	---	E144-H/VA	2.0	%	82.4	80.3	83.6	83.8	80.0	
Metals										
Aluminum	7429-90-5	E472/VA	5.0	mg/kg	239	656	343	340	945	
Antimony	7440-36-0	E472/VA	0.010	mg/kg	0.014	0.024	0.020	0.028	0.033	
Arsenic	7440-38-2	E472/VA	0.030	mg/kg	1.92	2.96	2.52	2.09	2.71	
Barium	7440-39-3	E472/VA	0.050	mg/kg	8.03	15.9	8.29	8.13	20.0	
Beryllium	7440-41-7	E472/VA	0.010	mg/kg	<0.010	0.020	0.013	0.017	0.029	
Bismuth	7440-69-9	E472/VA	0.010	mg/kg	<0.010	<0.010	<0.010	<0.010	<0.010	
Boron	7440-42-8	E472/VA	1.0	mg/kg	1.3	2.0	2.5	2.1	2.6	
Cadmium	7440-43-9	E472/VA	0.010	mg/kg	1.06	1.78	1.68	1.90	1.70	
Calcium	7440-70-2	E472/VA	20	mg/kg	1000	1750	1710	2220	2920	
Cesium	7440-46-2	E472/VA	0.0050	mg/kg	0.0612	0.109	0.0765	0.0518	0.140	
Chromium	7440-47-3	E472/VA	0.20	mg/kg	0.80	1.58	1.33	1.26	2.68	
Cobalt	7440-48-4	E472/VA	0.020	mg/kg	0.669	1.56	1.31	1.55	1.76	
Copper	7440-50-8	E472/VA	0.20	mg/kg	26.8	23.4	20.8	28.9	39.8	
Iron	7439-89-6	E472/VA	5.0	mg/kg	570	1320	885	812	1930	
Lead	7439-92-1	E472/VA	0.050	mg/kg	0.150	0.300	0.280	0.254	0.449	
Lithium	7439-93-2	E472/VA	0.50	mg/kg	<0.50	0.66	<0.50	<0.50	1.06	
Magnesium	7439-95-4	E472/VA	2.0	mg/kg	1080	1520	1190	1630	2520	
Manganese	7439-96-5	E472/VA	0.050	mg/kg	253	255	219	120	193	
Mercury	7439-97-6	E511/VA	0.0050	mg/kg	0.142	0.0944	0.0983	0.0683	0.0666	
Mercury	7439-97-6	E511A/VA	0.0010	mg/kg ww	0.0250	0.0186	0.0162	0.0111	0.0134	
Molybdenum	7439-98-7	E472/VA	0.040	mg/kg	0.707	0.804	0.437	0.854	0.868	
Nickel	7440-02-0	E472/VA	0.20	mg/kg	1.69	2.66	2.11	2.27	3.12	
Phosphorus	7723-14-0	E472/VA	10	mg/kg	6920	8980	7260	9330	11300	
Potassium	7440-09-7	E472/VA	20	mg/kg	7120	8770	6590	8130	8980	
Rubidium	7440-17-7	E472/VA	0.050	mg/kg	2.57	5.10	3.01	3.35	4.00	
Selenium	7782-49-2	E472/VA	0.10	mg/kg	2.68	3.35	2.24	2.89	3.13	
Silver	7440-22-4	E472.Ag/VA	0.0050	mg/kg	0.0991	0.0677	0.179	0.143	0.133	
Sodium	7440-23-5	E472/VA	20	mg/kg	2810	3210	5570	9390	6560	



Analytical Results

Sub-Matrix: Tissue (Matrix: Biota)					Client sample ID	EDC-D_INV-6_2 023-08	EDC-D_INV-7_2 023-08	EDC-D_INV-8_2 023-08	E1_INV-1_2023- 08	E1_INV-2_2023- 08
Client sampling date / time					11-Aug-2023 00:00	11-Aug-2023 00:00	11-Aug-2023 00:00	05-Aug-2023 00:00	05-Aug-2023 00:00	
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23B8888-086	VA23B8888-087	VA23B8888-088	VA23B8888-089	VA23B8888-090	
					Result	Result	Result	Result	Result	
Metals										
Strontium	7440-24-6	E472/VA	0.10	mg/kg	6.64	11.0	9.66	11.3	17.5	
Tellurium	13494-80-9	E472/VA	0.020	mg/kg	<0.020	<0.020	<0.020	<0.020	<0.020	
Thallium	7440-28-0	E472/VA	0.0020	mg/kg	0.0091	0.0134	0.0095	0.0175	0.0173	
Tin	7440-31-5	E472/VA	0.10	mg/kg	<0.10	<0.10	<0.10	<0.10	<0.10	
Titanium	7440-32-6	E472.Ti/VA	0.50	mg/kg	10.1	29.5	12.4	17.3	42.1	
Uranium	7440-61-1	E472/VA	0.0020	mg/kg	0.0386	0.0656	0.0541	0.0739	0.0853	
Vanadium	7440-62-2	E472/VA	0.10	mg/kg	1.04	2.53	1.77	1.62	3.92	
Zinc	7440-66-6	E472/VA	1.0	mg/kg	130	147	143	142	166	
Zirconium	7440-67-7	E472/VA	0.20	mg/kg	0.22	0.50	0.38	0.49	0.79	

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.



Analytical Results

Sub-Matrix: Tissue (Matrix: Biota)					Client sample ID	E1_INV-3_2023-08	E1_INV-4_2023-08	E1_INV-5_2023-08	E1_INV-6_2023-08	E1_INV-7_2023-08
Client sampling date / time					05-Aug-2023 00:00	05-Aug-2023 00:00	04-Aug-2023 00:00	04-Aug-2023 00:00	04-Aug-2023 00:00	
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23B8888-091	VA23B8888-092	VA23B8888-093	VA23B8888-094	VA23B8888-095	
					Result	Result	Result	Result	Result	
Physical Tests										
Moisture	---	E144-H/VA	2.0	%	84.0	81.4	79.5	82.8	75.5	
Metals										
Aluminum	7429-90-5	E472/VA	5.0	mg/kg	387	1150	578	1040	1340	
Antimony	7440-36-0	E472/VA	0.010	mg/kg	0.021	0.035	0.021	0.030	0.036	
Arsenic	7440-38-2	E472/VA	0.030	mg/kg	2.99	3.28	2.37	3.96	5.42	
Barium	7440-39-3	E472/VA	0.050	mg/kg	31.2	34.1	16.2	20.2	44.5	
Beryllium	7440-41-7	E472/VA	0.010	mg/kg	0.013	0.036	0.018	0.033	0.042	
Bismuth	7440-69-9	E472/VA	0.010	mg/kg	<0.010	<0.010	<0.010	<0.010	0.013	
Boron	7440-42-8	E472/VA	1.0	mg/kg	1.9	3.2	2.1	2.3	2.4	
Cadmium	7440-43-9	E472/VA	0.010	mg/kg	3.50	3.42	2.89	6.05	5.62	
Calcium	7440-70-2	E472/VA	20	mg/kg	3640	3600	3260	3670	3790	
Cesium	7440-46-2	E472/VA	0.0050	mg/kg	0.0711	0.141	0.0874	0.149	0.187	
Chromium	7440-47-3	E472/VA	0.20	mg/kg	1.42	3.40	1.72	3.34	3.67	
Cobalt	7440-48-4	E472/VA	0.020	mg/kg	1.98	2.80	1.66	2.53	2.83	
Copper	7440-50-8	E472/VA	0.20	mg/kg	34.8	77.5	76.3	109	121	
Iron	7439-89-6	E472/VA	5.0	mg/kg	822	2220	1130	2050	2780	
Lead	7439-92-1	E472/VA	0.050	mg/kg	0.232	0.608	0.290	0.568	0.650	
Lithium	7439-93-2	E472/VA	0.50	mg/kg	<0.50	1.16	0.59	1.07	1.46	
Magnesium	7439-95-4	E472/VA	2.0	mg/kg	1980	1910	1810	1910	2160	
Manganese	7439-96-5	E472/VA	0.050	mg/kg	535	296	149	318	761	
Mercury	7439-97-6	E511/VA	0.0050	mg/kg	0.0945	0.0565	0.0833	0.100	0.118	
Mercury	7439-97-6	E511/VA	0.0010	mg/kg wwt	0.0152	0.0105	0.0171	0.0172	0.0289	
Molybdenum	7439-98-7	E472/VA	0.040	mg/kg	0.606	0.530	0.629	1.34	1.30	
Nickel	7440-02-0	E472/VA	0.20	mg/kg	1.75	3.10	1.89	3.48	4.12	
Phosphorus	7723-14-0	E472/VA	10	mg/kg	10700	9560	9350	8640	11100	
Potassium	7440-09-7	E472/VA	20	mg/kg	10600	9820	8170	7840	11100	
Rubidium	7440-17-7	E472/VA	0.050	mg/kg	3.96	3.68	3.71	6.09	8.93	
Selenium	7782-49-2	E472/VA	0.10	mg/kg	2.41	2.26	2.81	3.31	3.52	
Silver	7440-22-4	E472.Ag/VA	0.0050	mg/kg	0.255	0.0586	0.0808	0.0486	0.0911	
Sodium	7440-23-5	E472/VA	20	mg/kg	9960	6830	4920	6020	6090	



Analytical Results

Sub-Matrix: Tissue (Matrix: Biota)					Client sample ID	E1_INV-3_2023-08	E1_INV-4_2023-08	E1_INV-5_2023-08	E1_INV-6_2023-08	E1_INV-7_2023-08
Client sampling date / time					05-Aug-2023 00:00	05-Aug-2023 00:00	04-Aug-2023 00:00	04-Aug-2023 00:00	04-Aug-2023 00:00	
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23B8888-091	VA23B8888-092	VA23B8888-093	VA23B8888-094	VA23B8888-095	
					Result	Result	Result	Result	Result	
Metals										
Strontium	7440-24-6	E472/VA	0.10	mg/kg	17.8	21.3	15.5	20.0	23.5	
Tellurium	13494-80-9	E472/VA	0.020	mg/kg	<0.020	<0.020	<0.020	<0.020	<0.020	
Thallium	7440-28-0	E472/VA	0.0020	mg/kg	0.0168	0.0149	0.0136	0.0383	0.0329	
Tin	7440-31-5	E472/VA	0.10	mg/kg	<0.10	<0.10	<0.10	<0.10	<0.10	
Titanium	7440-32-6	E472.Ti/VA	0.50	mg/kg	17.6	50.5	31.2	52.5	53.1	
Uranium	7440-61-1	E472/VA	0.0020	mg/kg	0.0880	0.131	0.0570	0.0859	0.111	
Vanadium	7440-62-2	E472/VA	0.10	mg/kg	1.90	5.03	2.73	4.57	5.97	
Zinc	7440-66-6	E472/VA	1.0	mg/kg	156	145	159	147	134	
Zirconium	7440-67-7	E472/VA	0.20	mg/kg	0.40	0.82	0.46	0.81	0.91	

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.



Analytical Results

Sub-Matrix: Tissue (Matrix: Biota)					Client sample ID	E1_INV-8_2023-08	HAC-R1_INVCA D-1_2023-08	HAC-R1_INVCA D-2_2023-08	HAC-R1_INVCA D-3_2023-08	HAC-R1_INVCA D-4_2023-08
Client sampling date / time					03-Aug-2023 00:00	10-Aug-2023 00:00	10-Aug-2023 00:00	10-Aug-2023 00:00	10-Aug-2023 00:00	
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23B8888-096	VA23B8888-097	VA23B8888-098	VA23B8888-099	VA23B8888-100	
					Result	Result	Result	Result	Result	
Physical Tests										
Moisture	---	E144-H/VA	2.0	%	84.3	76.1	73.6	79.2	75.9	
Metals										
Aluminum	7429-90-5	E472/VA	5.0	mg/kg	1090	1470	419	700	77.4	
Antimony	7440-36-0	E472/VA	0.010	mg/kg	0.030	0.040	0.026	0.033	0.020	
Arsenic	7440-38-2	E472/VA	0.030	mg/kg	9.23	1.47	0.582	1.07	0.465	
Barium	7440-39-3	E472/VA	0.050	mg/kg	45.4	38.4	79.6	20.6	3.65	
Beryllium	7440-41-7	E472/VA	0.010	mg/kg	0.040	0.047	0.014	0.024	<0.010	
Bismuth	7440-69-9	E472/VA	0.010	mg/kg	<0.010	0.011	<0.010	<0.010	<0.010	
Boron	7440-42-8	E472/VA	1.0	mg/kg	2.9	3.1	<1.0	1.8	<1.0	
Cadmium	7440-43-9	E472/VA	0.010	mg/kg	5.54	0.209	0.062	0.137	0.035	
Calcium	7440-70-2	E472/VA	20	mg/kg	5240	3000	1330	1340	673	
Cesium	7440-46-2	E472/VA	0.0050	mg/kg	0.154	0.152	0.0372	0.0786	0.0097	
Chromium	7440-47-3	E472/VA	0.20	mg/kg	3.61	2.51	0.56	1.25	<0.20	
Cobalt	7440-48-4	E472/VA	0.020	mg/kg	3.04	2.13	0.554	1.16	0.118	
Copper	7440-50-8	E472/VA	0.20	mg/kg	99.6	82.7	38.0	58.0	19.4	
Iron	7439-89-6	E472/VA	5.0	mg/kg	2460	2700	652	1350	203	
Lead	7439-92-1	E472/VA	0.050	mg/kg	0.537	0.636	0.172	0.357	0.052	
Lithium	7439-93-2	E472/VA	0.50	mg/kg	1.16	1.35	<0.50	0.65	<0.50	
Magnesium	7439-95-4	E472/VA	2.0	mg/kg	1700	1660	1150	1350	1100	
Manganese	7439-96-5	E472/VA	0.050	mg/kg	710	1140	288	661	85.4	
Mercury	7439-97-6	E511/VA	0.0050	mg/kg	0.0638	0.0789	0.0736	0.0767	0.0588	
Mercury	7439-97-6	E511/VA	0.0010	mg/kg wwt	0.0100	0.0189	0.0195	0.0160	0.0142	
Molybdenum	7439-98-7	E472/VA	0.040	mg/kg	1.87	2.72	7.47	3.99	9.10	
Nickel	7440-02-0	E472/VA	0.20	mg/kg	3.70	3.22	0.74	1.68	<0.20	
Phosphorus	7723-14-0	E472/VA	10	mg/kg	7620	8820	7760	8830	7120	
Potassium	7440-09-7	E472/VA	20	mg/kg	7200	9020	6940	8710	7020	
Rubidium	7440-17-7	E472/VA	0.050	mg/kg	7.63	2.50	1.45	1.68	1.17	
Selenium	7782-49-2	E472/VA	0.10	mg/kg	2.80	4.28	7.87	5.07	8.43	
Silver	7440-22-4	E472.Ag/VA	0.0050	mg/kg	0.0367	0.0416	0.0083	0.0162	0.0052	
Sodium	7440-23-5	E472/VA	20	mg/kg	3380	3990	2710	3830	2600	



Analytical Results

Sub-Matrix: Tissue (Matrix: Biota)					Client sample ID	E1_INV-8_2023-08	HAC-R1_INVCA D-1_2023-08	HAC-R1_INVCA D-2_2023-08	HAC-R1_INVCA D-3_2023-08	HAC-R1_INVCA D-4_2023-08
Client sampling date / time					03-Aug-2023 00:00	10-Aug-2023 00:00	10-Aug-2023 00:00	10-Aug-2023 00:00	10-Aug-2023 00:00	
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23B8888-096	VA23B8888-097	VA23B8888-098	VA23B8888-099	VA23B8888-100	
					Result	Result	Result	Result	Result	
Metals										
Strontium	7440-24-6	E472/VA	0.10	mg/kg	24.9	20.9	23.4	10.4	4.59	
Tellurium	13494-80-9	E472/VA	0.020	mg/kg	<0.020	<0.020	<0.020	<0.020	<0.020	
Thallium	7440-28-0	E472/VA	0.0020	mg/kg	0.0241	0.0068	<0.0020	0.0032	<0.0020	
Tin	7440-31-5	E472/VA	0.10	mg/kg	<0.10	<0.10	<0.10	<0.10	<0.10	
Titanium	7440-32-6	E472.Ti/VA	0.50	mg/kg	49.3	82.6	22.2	45.1	5.54	
Uranium	7440-61-1	E472/VA	0.0020	mg/kg	0.0882	0.112	0.0418	0.0708	0.0383	
Vanadium	7440-62-2	E472/VA	0.10	mg/kg	5.33	8.73	2.13	4.53	0.73	
Zinc	7440-66-6	E472/VA	1.0	mg/kg	113	118	97.4	125	105	
Zirconium	7440-67-7	E472/VA	0.20	mg/kg	0.66	1.04	0.28	0.58	<0.20	

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.



Analytical Results

Sub-Matrix: Tissue					Client sample ID				
(Matrix: Biota)					HAC-R1_INVCA D-5_2023-08	HAC-R1_INVCA D-6_2023-08	HAC-R1_INVCA D-7_2023-08	HAC-R1_INVCA D-8_2023-08	HAC-U_INVCA D-1_2023-08
Client sampling date / time					10-Aug-2023 00:00	10-Aug-2023 00:00	09-Aug-2023 00:00	09-Aug-2023 00:00	09-Aug-2023 00:00
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23B8888-101	VA23B8888-102	VA23B8888-103	VA23B8888-104	VA23B8888-105
					Result	Result	Result	Result	Result
Physical Tests									
Moisture	----	E144-H/VA	2.0	%	75.7	78.8	82.3	76.2	73.5
Metals									
Aluminum	7429-90-5	E472/VA	5.0	mg/kg	1680	82.3	707	1400	382
Antimony	7440-36-0	E472/VA	0.010	mg/kg	0.037	0.016	0.029	0.018	0.016
Arsenic	7440-38-2	E472/VA	0.030	mg/kg	1.59	0.416	0.892	0.813	0.582
Barium	7440-39-3	E472/VA	0.050	mg/kg	10.0	2.00	25.1	4.77	25.2
Beryllium	7440-41-7	E472/VA	0.010	mg/kg	0.049	<0.010	0.025	0.022	0.013
Bismuth	7440-69-9	E472/VA	0.010	mg/kg	0.025	<0.010	<0.010	<0.010	<0.010
Boron	7440-42-8	E472/VA	1.0	mg/kg	<1.0	<1.0	1.9	<1.0	<1.0
Cadmium	7440-43-9	E472/VA	0.010	mg/kg	0.032	<0.010	0.164	0.027	0.154
Calcium	7440-70-2	E472/VA	20	mg/kg	1620	816	1670	997	2420
Cesium	7440-46-2	E472/VA	0.0050	mg/kg	0.0637	0.0118	0.0749	0.0143	0.0370
Chromium	7440-47-3	E472/VA	0.20	mg/kg	16.8	<0.20	1.36	14.0	0.88
Cobalt	7440-48-4	E472/VA	0.020	mg/kg	2.13	0.153	0.950	0.700	0.464
Copper	7440-50-8	E472/VA	0.20	mg/kg	394	20.3	45.7	20.9	28.4
Iron	7439-89-6	E472/VA	5.0	mg/kg	3190	229	1300	2100	779
Lead	7439-92-1	E472/VA	0.050	mg/kg	0.800	<0.050	0.288	0.132	0.179
Lithium	7439-93-2	E472/VA	0.50	mg/kg	2.95	<0.50	0.65	2.90	<0.50
Magnesium	7439-95-4	E472/VA	2.0	mg/kg	2600	1320	1350	3250	1140
Manganese	7439-96-5	E472/VA	0.050	mg/kg	272	80.8	653	147	552
Mercury	7439-97-6	E511/VA	0.0050	mg/kg	0.0983	0.0832	0.0597	0.0533	0.0235
Mercury	7439-97-6	E511/VA	0.0010	mg/kg ww	0.0239	0.0176	0.0106	0.0127	0.0062
Molybdenum	7439-98-7	E472/VA	0.040	mg/kg	12.0	7.01	6.91	9.72	11.0
Nickel	7440-02-0	E472/VA	0.20	mg/kg	2.73	<0.20	1.55	9.22	0.93
Phosphorus	7723-14-0	E472/VA	10	mg/kg	7040	8330	7810	8440	8710
Potassium	7440-09-7	E472/VA	20	mg/kg	6100	8340	7460	7670	5460
Rubidium	7440-17-7	E472/VA	0.050	mg/kg	1.52	1.22	1.81	1.18	1.34
Selenium	7782-49-2	E472/VA	0.10	mg/kg	11.8	11.3	6.65	10.1	32.6
Silver	7440-22-4	E472.Ag/VA	0.0050	mg/kg	0.202	<0.0050	0.0133	<0.0050	0.0098
Sodium	7440-23-5	E472/VA	20	mg/kg	2190	3110	2770	2800	2270



Analytical Results

Sub-Matrix: Tissue

Client sample ID

(Matrix: Biota)

					HAC-R1_INVCA D-5_2023-08	HAC-R1_INVCA D-6_2023-08	HAC-R1_INVCA D-7_2023-08	HAC-R1_INVCA D-8_2023-08	HAC-U_INVCA D-1_2023-08
Client sampling date / time					10-Aug-2023 00:00	10-Aug-2023 00:00	09-Aug-2023 00:00	09-Aug-2023 00:00	09-Aug-2023 00:00
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23B8888-101	VA23B8888-102	VA23B8888-103	VA23B8888-104	VA23B8888-105
					Result	Result	Result	Result	Result
Metals									
Strontium	7440-24-6	E472/VA	0.10	mg/kg	29.6	4.02	12.3	7.01	16.7
Tellurium	13494-80-9	E472/VA	0.020	mg/kg	<0.020	<0.020	<0.020	<0.020	<0.020
Thallium	7440-28-0	E472/VA	0.0020	mg/kg	<0.0020	<0.0020	0.0031	<0.0020	0.0020
Tin	7440-31-5	E472/VA	0.10	mg/kg	<0.10	<0.10	<0.10	<0.10	<0.10
Titanium	7440-32-6	E472.Ti/VA	0.50	mg/kg	78.7	6.06	43.6	45.2	25.9
Uranium	7440-61-1	E472/VA	0.0020	mg/kg	0.147	0.0048	0.0636	0.0100	0.157
Vanadium	7440-62-2	E472/VA	0.10	mg/kg	8.96	0.53	4.14	8.58	2.33
Zinc	7440-66-6	E472/VA	1.0	mg/kg	123	94.4	111	100	87.0
Zirconium	7440-67-7	E472/VA	0.20	mg/kg	0.96	<0.20	0.52	0.26	0.27

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.



Analytical Results

Sub-Matrix: Tissue

Client sample ID

(Matrix: Biota)

					HAC-U_INVCAD-2_2023-08	HAC-U_INVCAD-3_2023-08	HAC-U_INVCAD-4_2023-08	HAC-U_INVCAD-5_2023-08	HAC-U_INVCAD-6_2023-08
Client sampling date / time					09-Aug-2023 00:00	09-Aug-2023 00:00	09-Aug-2023 00:00	09-Aug-2023 00:00	06-Aug-2023 00:00
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23B8888-106	VA23B8888-107	VA23B8888-108	VA23B8888-109	VA23B8888-110
					Result	Result	Result	Result	Result
Physical Tests									
Moisture	---	E144-H/VA	2.0	%	69.8	77.3	81.0	77.8	73.4
Metals									
Aluminum	7429-90-5	E472/VA	5.0	mg/kg	142	374	735	46.2	35.1
Antimony	7440-36-0	E472/VA	0.010	mg/kg	0.014	0.021	0.038	<0.010	0.010
Arsenic	7440-38-2	E472/VA	0.030	mg/kg	0.397	0.965	1.18	0.260	0.304
Barium	7440-39-3	E472/VA	0.050	mg/kg	15.0	95.2	63.5	3.33	2.86
Beryllium	7440-41-7	E472/VA	0.010	mg/kg	<0.010	0.012	0.027	<0.010	<0.010
Bismuth	7440-69-9	E472/VA	0.010	mg/kg	<0.010	<0.010	<0.010	0.012	<0.010
Boron	7440-42-8	E472/VA	1.0	mg/kg	<1.0	1.6	3.4	<1.0	<1.0
Cadmium	7440-43-9	E472/VA	0.010	mg/kg	0.131	0.470	0.434	0.038	0.020
Calcium	7440-70-2	E472/VA	20	mg/kg	1200	1920	3510	1360	1080
Cesium	7440-46-2	E472/VA	0.0050	mg/kg	0.0190	0.0445	0.0871	0.0101	0.0088
Chromium	7440-47-3	E472/VA	0.20	mg/kg	0.37	0.91	1.57	<0.20	<0.20
Cobalt	7440-48-4	E472/VA	0.020	mg/kg	0.230	0.877	1.20	0.084	0.064
Copper	7440-50-8	E472/VA	0.20	mg/kg	22.3	38.5	69.9	19.5	16.5
Iron	7439-89-6	E472/VA	5.0	mg/kg	298	693	1460	141	123
Lead	7439-92-1	E472/VA	0.050	mg/kg	0.069	0.170	0.319	0.055	<0.050
Lithium	7439-93-2	E472/VA	0.50	mg/kg	<0.50	<0.50	0.69	<0.50	<0.50
Magnesium	7439-95-4	E472/VA	2.0	mg/kg	1060	1220	1510	1100	1090
Manganese	7439-96-5	E472/VA	0.050	mg/kg	365	1700	1830	138	135
Mercury	7439-97-6	E511/VA	0.0050	mg/kg	0.0464	0.0703	0.0709	0.0338	0.0423
Mercury	7439-97-6	E511/VA	0.0010	mg/kg ww	0.0140	0.0159	0.0135	0.0075	0.0113
Molybdenum	7439-98-7	E472/VA	0.040	mg/kg	10.1	4.46	7.15	14.5	11.1
Nickel	7440-02-0	E472/VA	0.20	mg/kg	0.36	1.14	2.04	1.11	<0.20
Phosphorus	7723-14-0	E472/VA	10	mg/kg	8160	9470	9620	8300	7990
Potassium	7440-09-7	E472/VA	20	mg/kg	6170	9170	9960	6040	6490
Rubidium	7440-17-7	E472/VA	0.050	mg/kg	1.19	1.99	2.26	1.38	1.29
Selenium	7782-49-2	E472/VA	0.10	mg/kg	25.0	7.88	18.2	43.1	26.4
Silver	7440-22-4	E472.Ag/VA	0.0050	mg/kg	0.0067	0.0114	0.0346	<0.0050	<0.0050
Sodium	7440-23-5	E472/VA	20	mg/kg	2280	3730	3970	2340	2380



Analytical Results

Sub-Matrix: Tissue

Client sample ID

(Matrix: Biota)

					HAC-U_INVCAD-2_2023-08	HAC-U_INVCAD-3_2023-08	HAC-U_INVCAD-4_2023-08	HAC-U_INVCAD-5_2023-08	HAC-U_INVCAD-6_2023-08
Client sampling date / time					09-Aug-2023 00:00	09-Aug-2023 00:00	09-Aug-2023 00:00	09-Aug-2023 00:00	06-Aug-2023 00:00
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23B8888-106	VA23B8888-107	VA23B8888-108	VA23B8888-109	VA23B8888-110
					Result	Result	Result	Result	Result
Metals									
Strontium	7440-24-6	E472/VA	0.10	mg/kg	8.54	14.6	18.7	8.48	6.36
Tellurium	13494-80-9	E472/VA	0.020	mg/kg	<0.020	<0.020	<0.020	<0.020	<0.020
Thallium	7440-28-0	E472/VA	0.0020	mg/kg	<0.0020	0.0034	0.0047	<0.0020	<0.0020
Tin	7440-31-5	E472/VA	0.10	mg/kg	<0.10	<0.10	<0.10	<0.10	<0.10
Titanium	7440-32-6	E472.Ti/VA	0.50	mg/kg	8.36	22.0	46.6	2.31	1.92
Uranium	7440-61-1	E472/VA	0.0020	mg/kg	0.0190	0.0572	0.122	0.0131	0.0052
Vanadium	7440-62-2	E472/VA	0.10	mg/kg	0.94	2.34	4.98	0.54	0.30
Zinc	7440-66-6	E472/VA	1.0	mg/kg	81.6	110	123	84.5	76.1
Zirconium	7440-67-7	E472/VA	0.20	mg/kg	<0.20	0.29	0.59	<0.20	<0.20

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.



Analytical Results

Sub-Matrix: Tissue					Client sample ID				
(Matrix: Biota)					HAC-U_INVCAD-7_2023-08	HAC-U_INVCAD-8_2023-08	HAC-D_INVCAD-1_2023-08	HAC-D_INVCAD-2_2023-08	HAC-D_INVCAD-3_2023-08
Client sampling date / time					07-Aug-2023 00:00	07-Aug-2023 00:00	06-Aug-2023 00:00	06-Aug-2023 00:00	06-Aug-2023 00:00
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23B8888-111	VA23B8888-112	VA23B8888-113	VA23B8888-114	VA23B8888-115
					Result	Result	Result	Result	Result
Physical Tests									
Moisture	----	E144-H/VA	2.0	%	71.3	78.0	73.1	74.8	77.5
Metals									
Aluminum	7429-90-5	E472/VA	5.0	mg/kg	28.1	176	69.3	33.8	184
Antimony	7440-36-0	E472/VA	0.010	mg/kg	0.012	0.020	0.020	0.021	0.028
Arsenic	7440-38-2	E472/VA	0.030	mg/kg	0.183	0.603	0.698	0.465	0.850
Barium	7440-39-3	E472/VA	0.050	mg/kg	2.48	2.86	3.06	1.62	5.29
Beryllium	7440-41-7	E472/VA	0.010	mg/kg	<0.010	<0.010	<0.010	<0.010	<0.010
Bismuth	7440-69-9	E472/VA	0.010	mg/kg	<0.010	<0.010	<0.010	<0.010	<0.010
Boron	7440-42-8	E472/VA	1.0	mg/kg	<1.0	<1.0	<1.0	<1.0	<1.0
Cadmium	7440-43-9	E472/VA	0.010	mg/kg	<0.020 ^{DLM}	0.012	0.016	<0.010	0.049
Calcium	7440-70-2	E472/VA	20	mg/kg	825	766	822	541	1530
Cesium	7440-46-2	E472/VA	0.0050	mg/kg	0.0085	0.0156	0.0216	0.0144	0.0327
Chromium	7440-47-3	E472/VA	0.20	mg/kg	<0.20	0.28	<0.20	<0.20	0.29
Cobalt	7440-48-4	E472/VA	0.020	mg/kg	0.056	0.373	0.158	0.108	0.332
Copper	7440-50-8	E472/VA	0.20	mg/kg	17.6	24.5	18.4	18.5	28.3
Iron	7439-89-6	E472/VA	5.0	mg/kg	116	439	246	163	406
Lead	7439-92-1	E472/VA	0.050	mg/kg	<0.050	0.056	0.113	0.064	0.137
Lithium	7439-93-2	E472/VA	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
Magnesium	7439-95-4	E472/VA	2.0	mg/kg	1080	1720	1080	1290	1360
Manganese	7439-96-5	E472/VA	0.050	mg/kg	121	148	60.1	74.4	165
Mercury	7439-97-6	E511/VA	0.0050	mg/kg	0.0573	0.0700	0.0380	0.0696	0.0787
Mercury	7439-97-6	E511A/VA	0.0010	mg/kg ww	0.0164	0.0154	0.0102	0.0175	0.0177
Molybdenum	7439-98-7	E472/VA	0.040	mg/kg	14.1	9.32	5.53	4.00	5.00
Nickel	7440-02-0	E472/VA	0.20	mg/kg	0.21	1.10	<0.20	0.23	0.36
Phosphorus	7723-14-0	E472/VA	10	mg/kg	7980	8960	7310	8480	8790
Potassium	7440-09-7	E472/VA	20	mg/kg	6490	8610	6370	7580	7300
Rubidium	7440-17-7	E472/VA	0.050	mg/kg	1.34	1.50	1.15	1.25	1.77
Selenium	7782-49-2	E472/VA	0.10	mg/kg	34.5	17.0	8.75	19.4	18.2
Silver	7440-22-4	E472.Ag/VA	0.0050	mg/kg	<0.0050	<0.0050	<0.0050	0.0086	<0.0050
Sodium	7440-23-5	E472/VA	20	mg/kg	2430	3120	2360	2930	2840



Analytical Results

Sub-Matrix: Tissue

Client sample ID

(Matrix: Biota)

					HAC-U_INVCAD-7_2023-08	HAC-U_INVCAD-8_2023-08	HAC-D_INVCAD-1_2023-08	HAC-D_INVCAD-2_2023-08	HAC-D_INVCAD-3_2023-08
Client sampling date / time					07-Aug-2023 00:00	07-Aug-2023 00:00	06-Aug-2023 00:00	06-Aug-2023 00:00	06-Aug-2023 00:00
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23B8888-111	VA23B8888-112	VA23B8888-113	VA23B8888-114	VA23B8888-115
					Result	Result	Result	Result	Result
Metals									
Strontium	7440-24-6	E472/VA	0.10	mg/kg	5.20	4.66	5.68	3.25	9.61
Tellurium	13494-80-9	E472/VA	0.020	mg/kg	<0.020	<0.020	<0.020	<0.020	<0.020
Thallium	7440-28-0	E472/VA	0.0020	mg/kg	<0.0020	<0.0020	0.0022	<0.0020	0.0035
Tin	7440-31-5	E472/VA	0.10	mg/kg	<0.10	<0.10	<0.10	<0.10	<0.10
Titanium	7440-32-6	E472.Ti/VA	0.50	mg/kg	1.81	22.7	4.44	2.28	7.47
Uranium	7440-61-1	E472/VA	0.0020	mg/kg	0.0046	0.0086	0.0095	0.0031	0.0137
Vanadium	7440-62-2	E472/VA	0.10	mg/kg	0.23	1.04	0.54	0.20	1.17
Zinc	7440-66-6	E472/VA	1.0	mg/kg	77.0	109	79.6	96.0	111
Zirconium	7440-67-7	E472/VA	0.20	mg/kg	<0.20	0.20	<0.20	<0.20	<0.20

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.



Analytical Results

Sub-Matrix: Tissue

Client sample ID

(Matrix: Biota)

					HAC-D_INVCAD-4_2023-08	HAC-D_INVCAD-5_2023-08	HAC-D_INVCAD-6_2023-08	HAC-D_INVCAD-7_2023-08	HAC-D_INVCAD-8_2023-08
Client sampling date / time					06-Aug-2023 00:00	06-Aug-2023 00:00	06-Aug-2023 00:00	06-Aug-2023 00:00	05-Aug-2023 00:00
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23B8888-116	VA23B8888-117	VA23B8888-118	VA23B8888-119	VA23B8888-120
					Result	Result	Result	Result	Result
Physical Tests									
Moisture	----	E144-H/VA	2.0	%	74.0	76.1	75.4	76.7	71.8
Metals									
Aluminum	7429-90-5	E472/VA	5.0	mg/kg	69.1	52.6	55.1	89.5	506
Antimony	7440-36-0	E472/VA	0.010	mg/kg	0.014	0.023	0.024	0.024	0.031
Arsenic	7440-38-2	E472/VA	0.030	mg/kg	0.555	0.735	0.887	0.778	1.70
Barium	7440-39-3	E472/VA	0.050	mg/kg	5.00	3.31	2.31	3.84	18.8
Beryllium	7440-41-7	E472/VA	0.010	mg/kg	<0.010	<0.010	<0.010	<0.010	0.022
Bismuth	7440-69-9	E472/VA	0.010	mg/kg	<0.010	<0.010	<0.010	<0.010	<0.010
Boron	7440-42-8	E472/VA	1.0	mg/kg	<1.0	<1.0	<1.0	<1.0	1.6
Cadmium	7440-43-9	E472/VA	0.010	mg/kg	0.053	0.021	0.015	0.020	0.079
Calcium	7440-70-2	E472/VA	20	mg/kg	792	704	544	706	1760
Cesium	7440-46-2	E472/VA	0.0050	mg/kg	0.0219	0.0214	0.0191	0.0283	0.0732
Chromium	7440-47-3	E472/VA	0.20	mg/kg	0.24	<0.20	<0.20	0.29	0.84
Cobalt	7440-48-4	E472/VA	0.020	mg/kg	0.205	0.150	0.144	0.203	0.762
Copper	7440-50-8	E472/VA	0.20	mg/kg	22.7	24.8	21.2	23.4	42.9
Iron	7439-89-6	E472/VA	5.0	mg/kg	242	165	208	221	1200
Lead	7439-92-1	E472/VA	0.050	mg/kg	0.083	0.071	0.068	0.100	0.295
Lithium	7439-93-2	E472/VA	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
Magnesium	7439-95-4	E472/VA	2.0	mg/kg	1230	1300	1040	1150	1320
Manganese	7439-96-5	E472/VA	0.050	mg/kg	172	118	113	160	480
Mercury	7439-97-6	E511/VA	0.0050	mg/kg	0.0776	0.0758	0.0650	0.0810	0.0490
Mercury	7439-97-6	E511A/VA	0.0010	mg/kg ww	0.0202	0.0181	0.0160	0.0188	0.0138
Molybdenum	7439-98-7	E472/VA	0.040	mg/kg	5.88	10.7	8.61	8.14	10.8
Nickel	7440-02-0	E472/VA	0.20	mg/kg	0.47	0.28	<0.20	0.26	1.06
Phosphorus	7723-14-0	E472/VA	10	mg/kg	8010	7960	7940	7730	8090
Potassium	7440-09-7	E472/VA	20	mg/kg	7140	7770	7120	6990	7370
Rubidium	7440-17-7	E472/VA	0.050	mg/kg	1.45	1.78	1.69	1.57	2.40
Selenium	7782-49-2	E472/VA	0.10	mg/kg	22.3	24.4	23.2	24.6	18.9
Silver	7440-22-4	E472.Ag/VA	0.0050	mg/kg	<0.0050	0.0062	0.0050	0.0062	0.0135
Sodium	7440-23-5	E472/VA	20	mg/kg	2820	2860	2450	2290	2630



Analytical Results

Sub-Matrix: Tissue

(Matrix: Biota)

					Client sample ID	HAC-D_INVCAD-4_2023-08	HAC-D_INVCAD-5_2023-08	HAC-D_INVCAD-6_2023-08	HAC-D_INVCAD-7_2023-08	HAC-D_INVCAD-8_2023-08
					Client sampling date / time	06-Aug-2023 00:00	06-Aug-2023 00:00	06-Aug-2023 00:00	06-Aug-2023 00:00	05-Aug-2023 00:00
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23B8888-116	VA23B8888-117	VA23B8888-118	VA23B8888-119	VA23B8888-120	
					Result	Result	Result	Result	Result	
Metals										
Strontium	7440-24-6	E472/VA	0.10	mg/kg	4.63	4.82	3.69	5.12	8.74	
Tellurium	13494-80-9	E472/VA	0.020	mg/kg	<0.020	<0.020	<0.020	<0.020	<0.020	
Thallium	7440-28-0	E472/VA	0.0020	mg/kg	<0.0020	<0.0020	<0.0020	<0.0020	0.0052	
Tin	7440-31-5	E472/VA	0.10	mg/kg	<0.10	<0.10	<0.10	<0.10	<0.10	
Titanium	7440-32-6	E472.Ti/VA	0.50	mg/kg	4.33	2.83	3.29	3.80	30.4	
Uranium	7440-61-1	E472/VA	0.0020	mg/kg	0.0079	0.0049	0.0051	0.0069	0.0431	
Vanadium	7440-62-2	E472/VA	0.10	mg/kg	0.44	0.46	0.51	0.63	3.51	
Zinc	7440-66-6	E472/VA	1.0	mg/kg	87.0	96.8	93.2	108	83.7	
Zirconium	7440-67-7	E472/VA	0.20	mg/kg	<0.20	<0.20	<0.20	<0.20	0.40	

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.



Analytical Results

Sub-Matrix: Tissue

Client sample ID

(Matrix: Biota)

					EDC-U_INVCAD-1_2023-08	EDC-U_INVCAD-2_2023-08	EDC-U_INVCAD-3_2023-08	EDC-U_INVCAD-4_2023-08	EDC-U_INVCAD-5_2023-08
Client sampling date / time					08-Aug-2023 00:00	08-Aug-2023 00:00	08-Aug-2023 00:00	08-Aug-2023 00:00	07-Aug-2023 00:00
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23B8888-121	VA23B8888-122	VA23B8888-123	VA23B8888-124	VA23B8888-125
					Result	Result	Result	Result	Result
Physical Tests									
Moisture	----	E144-H/VA	2.0	%	77.9	74.7	76.2	76.1	74.5
Metals									
Aluminum	7429-90-5	E472/VA	5.0	mg/kg	79.8	152	66.0	163	782
Antimony	7440-36-0	E472/VA	0.010	mg/kg	<0.010	0.012	<0.010	0.012	0.024
Arsenic	7440-38-2	E472/VA	0.030	mg/kg	0.598	0.680	0.663	0.466	1.48
Barium	7440-39-3	E472/VA	0.050	mg/kg	6.90	21.9	8.24	6.45	14.2
Beryllium	7440-41-7	E472/VA	0.010	mg/kg	<0.010	<0.010	<0.010	<0.010	0.022
Bismuth	7440-69-9	E472/VA	0.010	mg/kg	<0.010	<0.010	<0.010	<0.010	<0.010
Boron	7440-42-8	E472/VA	1.0	mg/kg	<1.0	1.5	1.1	<1.0	<1.0
Cadmium	7440-43-9	E472/VA	0.010	mg/kg	0.248	0.359	0.045	0.024	0.909
Calcium	7440-70-2	E472/VA	20	mg/kg	1330	1290	1340	1220	1490
Cesium	7440-46-2	E472/VA	0.0050	mg/kg	0.0092	0.0100	<0.0050	0.0122	0.0362
Chromium	7440-47-3	E472/VA	0.20	mg/kg	0.29	0.79	0.25	0.52	1.80
Cobalt	7440-48-4	E472/VA	0.020	mg/kg	0.664	0.892	0.519	0.797	2.39
Copper	7440-50-8	E472/VA	0.20	mg/kg	16.8	22.6	14.4	15.5	46.7
Iron	7439-89-6	E472/VA	5.0	mg/kg	345	511	281	507	1920
Lead	7439-92-1	E472/VA	0.050	mg/kg	0.065	0.088	<0.050	0.082	0.220
Lithium	7439-93-2	E472/VA	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	0.99
Magnesium	7439-95-4	E472/VA	2.0	mg/kg	1360	1240	1150	1340	1360
Manganese	7439-96-5	E472/VA	0.050	mg/kg	304	744	332	366	603
Mercury	7439-97-6	E511/VA	0.0050	mg/kg	0.0370	0.0500	0.0279	0.0404	0.127
Mercury	7439-97-6	E511A/VA	0.0010	mg/kg ww	0.0082	0.0126	0.0066	0.0096	0.0324
Molybdenum	7439-98-7	E472/VA	0.040	mg/kg	6.55	4.40	8.13	5.51	0.985
Nickel	7440-02-0	E472/VA	0.20	mg/kg	0.55	1.60	0.35	0.43	1.71
Phosphorus	7723-14-0	E472/VA	10	mg/kg	8810	8410	8640	9330	7490
Potassium	7440-09-7	E472/VA	20	mg/kg	6780	7800	5630	7250	7160
Rubidium	7440-17-7	E472/VA	0.050	mg/kg	1.76	1.96	1.51	1.59	6.40
Selenium	7782-49-2	E472/VA	0.10	mg/kg	0.81	0.64	0.39	0.74	1.58
Silver	7440-22-4	E472.Ag/VA	0.0050	mg/kg	0.0546	0.0364	0.0455	0.0232	0.278
Sodium	7440-23-5	E472/VA	20	mg/kg	3480	2670	2540	2840	4020



Analytical Results

Sub-Matrix: Tissue

Client sample ID

(Matrix: Biota)

					EDC-U_INVCAD-1_2023-08	EDC-U_INVCAD-2_2023-08	EDC-U_INVCAD-3_2023-08	EDC-U_INVCAD-4_2023-08	EDC-U_INVCAD-5_2023-08
Client sampling date / time					08-Aug-2023 00:00	08-Aug-2023 00:00	08-Aug-2023 00:00	08-Aug-2023 00:00	07-Aug-2023 00:00
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23B8888-121	VA23B8888-122	VA23B8888-123	VA23B8888-124	VA23B8888-125
					Result	Result	Result	Result	Result
Metals									
Strontium	7440-24-6	E472/VA	0.10	mg/kg	9.88	10.3	12.4	9.09	6.47
Tellurium	13494-80-9	E472/VA	0.020	mg/kg	<0.020	<0.020	<0.020	<0.020	<0.020
Thallium	7440-28-0	E472/VA	0.0020	mg/kg	0.0028	0.0040	0.0041	0.0029	0.0185
Tin	7440-31-5	E472/VA	0.10	mg/kg	<0.10	<0.10	<0.10	<0.10	<0.10
Titanium	7440-32-6	E472.Ti/VA	0.50	mg/kg	3.40	7.07	2.57	6.94	22.4
Uranium	7440-61-1	E472/VA	0.0020	mg/kg	0.0138	0.0442	0.0119	0.0144	0.0764
Vanadium	7440-62-2	E472/VA	0.10	mg/kg	0.55	1.03	0.52	0.89	4.82
Zinc	7440-66-6	E472/VA	1.0	mg/kg	107	206	82.4	96.3	100
Zirconium	7440-67-7	E472/VA	0.20	mg/kg	<0.20	0.28	<0.20	<0.20	0.36

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.



Analytical Results

Sub-Matrix: Tissue

Client sample ID

(Matrix: Biota)

					EDC-U_INVCAD-6_2023-08	EDC-U_INVCAD-7_2023-08	EDC-U_INVCAD-8_2023-08	EDC-D_INVCAD-1_2023-08	EDC-D_INVCAD-2_2023-08
Client sampling date / time					07-Aug-2023 00:00	07-Aug-2023 00:00	07-Aug-2023 00:00	11-Aug-2023 00:00	11-Aug-2023 00:00
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23B8888-126	VA23B8888-127	VA23B8888-128	VA23B8888-129	VA23B8888-130
					Result	Result	Result	Result	Result
Physical Tests									
Moisture	----	E144-H/VA	2.0	%	78.5	76.3	75.9	71.8	76.8
Metals									
Aluminum	7429-90-5	E472/VA	5.0	mg/kg	50.8	344	103	25.2	75.7
Antimony	7440-36-0	E472/VA	0.010	mg/kg	<0.010	0.016	0.016	0.011	0.036
Arsenic	7440-38-2	E472/VA	0.030	mg/kg	0.492	0.742	1.06	1.48	3.95
Barium	7440-39-3	E472/VA	0.050	mg/kg	6.83	9.30	11.7	5.53	35.3
Beryllium	7440-41-7	E472/VA	0.010	mg/kg	<0.010	0.012	<0.010	<0.010	0.019
Bismuth	7440-69-9	E472/VA	0.010	mg/kg	<0.010	0.024	0.010	<0.010	0.087
Boron	7440-42-8	E472/VA	1.0	mg/kg	<1.0	<1.0	<1.0	<1.0	<1.0
Cadmium	7440-43-9	E472/VA	0.010	mg/kg	0.078	0.052	0.113	0.018	0.072
Calcium	7440-70-2	E472/VA	20	mg/kg	1600	2330	820	906	1390
Cesium	7440-46-2	E472/VA	0.0050	mg/kg	<0.0050	0.0126	0.0080	0.0115	0.0278
Chromium	7440-47-3	E472/VA	0.20	mg/kg	0.26	0.63	0.66	<0.20	0.34
Cobalt	7440-48-4	E472/VA	0.020	mg/kg	0.474	0.618	1.18	0.137	0.656
Copper	7440-50-8	E472/VA	0.20	mg/kg	14.7	14.5	15.5	12.0	19.1
Iron	7439-89-6	E472/VA	5.0	mg/kg	204	860	1530	122	240
Lead	7439-92-1	E472/VA	0.050	mg/kg	<0.050	0.145	0.069	<0.050	0.139
Lithium	7439-93-2	E472/VA	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
Magnesium	7439-95-4	E472/VA	2.0	mg/kg	1420	1390	1080	851	1420
Manganese	7439-96-5	E472/VA	0.050	mg/kg	292	204	726	109	472
Mercury	7439-97-6	E511/VA	0.0050	mg/kg	0.0474	<0.0050	0.0779	0.0519	0.0332
Mercury	7439-97-6	E511/VA	0.0010	mg/kg ww	0.0102	<0.0010	0.0187	0.0147	0.0077
Molybdenum	7439-98-7	E472/VA	0.040	mg/kg	6.96	9.42	2.91	3.81	4.59
Nickel	7440-02-0	E472/VA	0.20	mg/kg	0.33	0.71	0.42	0.28	1.23
Phosphorus	7723-14-0	E472/VA	10	mg/kg	9070	8700	7620	6680	9790
Potassium	7440-09-7	E472/VA	20	mg/kg	6860	5220	6080	5380	7910
Rubidium	7440-17-7	E472/VA	0.050	mg/kg	1.63	1.55	1.39	1.37	1.58
Selenium	7782-49-2	E472/VA	0.10	mg/kg	0.62	0.44	1.07	0.77	1.55
Silver	7440-22-4	E472.Ag/VA	0.0050	mg/kg	0.0347	0.0398	0.0165	0.0094	0.0149
Sodium	7440-23-5	E472/VA	20	mg/kg	3170	2330	2070	1660	3140



Analytical Results

Sub-Matrix: Tissue

(Matrix: Biota)

					Client sample ID	EDC-U_INVCAD-6_2023-08	EDC-U_INVCAD-7_2023-08	EDC-U_INVCAD-8_2023-08	EDC-D_INVCAD-1_2023-08	EDC-D_INVCAD-2_2023-08
					Client sampling date / time	07-Aug-2023 00:00	07-Aug-2023 00:00	07-Aug-2023 00:00	11-Aug-2023 00:00	11-Aug-2023 00:00
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23B8888-126	VA23B8888-127	VA23B8888-128	VA23B8888-129	VA23B8888-130	
					Result	Result	Result	Result	Result	
Metals										
Strontium	7440-24-6	E472/VA	0.10	mg/kg	11.8	15.7	6.39	7.12	11.2	
Tellurium	13494-80-9	E472/VA	0.020	mg/kg	<0.020	<0.020	<0.020	<0.020	<0.020	
Thallium	7440-28-0	E472/VA	0.0020	mg/kg	0.0029	0.0240	0.0115	<0.0020	0.0965	
Tin	7440-31-5	E472/VA	0.10	mg/kg	<0.10	<0.10	<0.10	<0.10	<0.10	
Titanium	7440-32-6	E472.Ti/VA	0.50	mg/kg	2.17	34.4	4.09	1.07	2.44	
Uranium	7440-61-1	E472/VA	0.0020	mg/kg	0.0105	0.0231	0.0153	0.0049	0.0189	
Vanadium	7440-62-2	E472/VA	0.10	mg/kg	0.38	2.31	1.21	0.20	0.37	
Zinc	7440-66-6	E472/VA	1.0	mg/kg	96.9	90.2	117	67.2	159	
Zirconium	7440-67-7	E472/VA	0.20	mg/kg	<0.20	0.27	<0.20	<0.20	<0.20	

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.



Analytical Results

Sub-Matrix: Tissue

Client sample ID

(Matrix: Biota)

					EDC-D_INVCAD-3_2023-08	EDC-D_INVCAD-4_2023-08	EDC-D_INVCAD-5_2023-08	EDC-D_INVCAD-6_2023-08	EDC-D_INVCAD-7_2023-08
Client sampling date / time					11-Aug-2023 00:00	11-Aug-2023 00:00	11-Aug-2023 00:00	11-Aug-2023 00:00	11-Aug-2023 00:00
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23B8888-131	VA23B8888-132	VA23B8888-133	VA23B8888-134	VA23B8888-135
					Result	Result	Result	Result	Result
Physical Tests									
Moisture	----	E144-H/VA	2.0	%	77.0	79.8	72.5	78.1	76.6
Metals									
Aluminum	7429-90-5	E472/VA	5.0	mg/kg	20.8	27.5	420	111	130
Antimony	7440-36-0	E472/VA	0.010	mg/kg	0.010	<0.010	<0.010	0.013	0.017
Arsenic	7440-38-2	E472/VA	0.030	mg/kg	1.91	1.95	3.13	1.90	2.66
Barium	7440-39-3	E472/VA	0.050	mg/kg	3.01	6.98	46.6	18.6	37.0
Beryllium	7440-41-7	E472/VA	0.010	mg/kg	<0.010	<0.010	0.010	<0.010	<0.010
Bismuth	7440-69-9	E472/VA	0.010	mg/kg	<0.010	<0.010	<0.010	<0.010	<0.010
Boron	7440-42-8	E472/VA	1.0	mg/kg	<1.0	<1.0	<1.0	<1.0	<1.0
Cadmium	7440-43-9	E472/VA	0.010	mg/kg	0.015	0.052	0.173	0.086	0.385
Calcium	7440-70-2	E472/VA	20	mg/kg	766	1100	1060	903	828
Cesium	7440-46-2	E472/VA	0.0050	mg/kg	0.0131	0.0128	0.0316	0.0189	0.0178
Chromium	7440-47-3	E472/VA	0.20	mg/kg	<0.20	<0.20	0.21	0.29	0.26
Cobalt	7440-48-4	E472/VA	0.020	mg/kg	0.103	0.124	0.958	0.262	0.606
Copper	7440-50-8	E472/VA	0.20	mg/kg	17.8	16.4	16.2	15.7	20.6
Iron	7439-89-6	E472/VA	5.0	mg/kg	137	160	916	310	355
Lead	7439-92-1	E472/VA	0.050	mg/kg	<0.050	<0.050	0.124	0.082	0.142
Lithium	7439-93-2	E472/VA	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
Magnesium	7439-95-4	E472/VA	2.0	mg/kg	1200	1220	1470	1300	1360
Manganese	7439-96-5	E472/VA	0.050	mg/kg	80.2	89.3	355	177	272
Mercury	7439-97-6	E511/VA	0.0050	mg/kg	0.0423	0.0342	0.0292	0.0550	0.0657
Mercury	7439-97-6	E511/VA	0.0010	mg/kg ww	0.0097	0.0069	0.0080	0.0121	0.0154
Molybdenum	7439-98-7	E472/VA	0.040	mg/kg	4.33	4.63	5.90	3.02	4.51
Nickel	7440-02-0	E472/VA	0.20	mg/kg	<0.20	<0.20	1.25	0.45	0.95
Phosphorus	7723-14-0	E472/VA	10	mg/kg	8020	8900	8060	8840	8620
Potassium	7440-09-7	E472/VA	20	mg/kg	6970	7380	6490	7610	7260
Rubidium	7440-17-7	E472/VA	0.050	mg/kg	1.53	1.87	1.63	1.52	1.75
Selenium	7782-49-2	E472/VA	0.10	mg/kg	1.40	1.80	1.47	1.77	1.84
Silver	7440-22-4	E472.Ag/VA	0.0050	mg/kg	0.0075	0.0080	0.0117	0.0100	0.0216
Sodium	7440-23-5	E472/VA	20	mg/kg	2650	3000	2480	2990	3130



Analytical Results

Sub-Matrix: Tissue

(Matrix: Biota)

					Client sample ID	EDC-D_INVCAD-3_2023-08	EDC-D_INVCAD-4_2023-08	EDC-D_INVCAD-5_2023-08	EDC-D_INVCAD-6_2023-08	EDC-D_INVCAD-7_2023-08
					Client sampling date / time	11-Aug-2023 00:00	11-Aug-2023 00:00	11-Aug-2023 00:00	11-Aug-2023 00:00	11-Aug-2023 00:00
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23B8888-131	VA23B8888-132	VA23B8888-133	VA23B8888-134	VA23B8888-135	
					Result	Result	Result	Result	Result	
Metals										
Strontium	7440-24-6	E472/VA	0.10	mg/kg	5.58	6.80	8.03	6.65	5.33	
Tellurium	13494-80-9	E472/VA	0.020	mg/kg	<0.020	<0.020	<0.020	<0.020	<0.020	
Thallium	7440-28-0	E472/VA	0.0020	mg/kg	<0.0020	<0.0020	0.0022	0.0021	0.0029	
Tin	7440-31-5	E472/VA	0.10	mg/kg	<0.10	<0.10	<0.10	<0.10	<0.10	
Titanium	7440-32-6	E472.Ti/VA	0.50	mg/kg	1.12	1.65	5.20	6.18	3.93	
Uranium	7440-61-1	E472/VA	0.0020	mg/kg	0.0022	0.0032	0.0223	0.0257	0.0261	
Vanadium	7440-62-2	E472/VA	0.10	mg/kg	0.11	0.16	2.38	0.60	1.48	
Zinc	7440-66-6	E472/VA	1.0	mg/kg	97.8	109	167	176	197	
Zirconium	7440-67-7	E472/VA	0.20	mg/kg	<0.20	<0.20	<0.20	<0.20	0.24	

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.



Analytical Results

Sub-Matrix: Tissue

Client sample ID

(Matrix: Biota)

					EDC-D_INVCAD-8_2023-08	E1_INVCAD-1_2023-08	E1_INVCAD-2_2023-08	E1_INVCAD-3_2023-08	E1_INVCAD-4_2023-08
Client sampling date / time					11-Aug-2023 00:00	05-Aug-2023 00:00	05-Aug-2023 00:00	05-Aug-2023 00:00	05-Aug-2023 00:00
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23B8888-136	VA23B8888-137	VA23B8888-138	VA23B8888-139	VA23B8888-140
					Result	Result	Result	Result	Result
Physical Tests									
Moisture	----	E144-H/VA	2.0	%	76.0	73.9	72.4	75.1	74.0
Metals									
Aluminum	7429-90-5	E472/VA	5.0	mg/kg	28.6	1220	40.0	37.8	61.3
Antimony	7440-36-0	E472/VA	0.010	mg/kg	<0.010	0.014	0.012	0.012	0.014
Arsenic	7440-38-2	E472/VA	0.030	mg/kg	2.31	1.21	1.72	1.06	0.820
Barium	7440-39-3	E472/VA	0.050	mg/kg	40.5	4.73	15.0	3.68	3.96
Beryllium	7440-41-7	E472/VA	0.010	mg/kg	<0.010	0.012	<0.010	<0.010	<0.010
Bismuth	7440-69-9	E472/VA	0.010	mg/kg	<0.010	<0.010	<0.010	<0.010	<0.010
Boron	7440-42-8	E472/VA	1.0	mg/kg	<1.0	<1.0	<1.0	<1.0	<1.0
Cadmium	7440-43-9	E472/VA	0.010	mg/kg	0.096	0.023	0.207	0.050	0.031
Calcium	7440-70-2	E472/VA	20	mg/kg	1180	940	771	601	671
Cesium	7440-46-2	E472/VA	0.0050	mg/kg	0.0117	0.0168	0.0107	0.0222	0.0112
Chromium	7440-47-3	E472/VA	0.20	mg/kg	0.21	1.35	<0.20	0.25	0.38
Cobalt	7440-48-4	E472/VA	0.020	mg/kg	0.387	0.413	0.248	0.211	0.114
Copper	7440-50-8	E472/VA	0.20	mg/kg	17.3	15.8	16.4	13.2	16.9
Iron	7439-89-6	E472/VA	5.0	mg/kg	179	2450	160	151	197
Lead	7439-92-1	E472/VA	0.050	mg/kg	0.058	0.198	0.112	0.055	0.103
Lithium	7439-93-2	E472/VA	0.50	mg/kg	<0.50	1.20	<0.50	<0.50	<0.50
Magnesium	7439-95-4	E472/VA	2.0	mg/kg	1220	2110	1140	1180	1190
Manganese	7439-96-5	E472/VA	0.050	mg/kg	254	105	134	112	86.3
Mercury	7439-97-6	E511/VA	0.0050	mg/kg	0.0308	0.0584	0.0316	0.0685	0.0441
Mercury	7439-97-6	E511/VA	0.0010	mg/kg ww	0.0074	0.0153	0.0087	0.0171	0.0115
Molybdenum	7439-98-7	E472/VA	0.040	mg/kg	5.82	2.85	2.89	0.874	1.32
Nickel	7440-02-0	E472/VA	0.20	mg/kg	0.50	0.98	0.44	<0.20	<0.20
Phosphorus	7723-14-0	E472/VA	10	mg/kg	9530	7700	7580	7620	7480
Potassium	7440-09-7	E472/VA	20	mg/kg	7430	6760	6790	7040	6600
Rubidium	7440-17-7	E472/VA	0.050	mg/kg	1.49	1.99	2.12	1.04	1.08
Selenium	7782-49-2	E472/VA	0.10	mg/kg	1.37	1.93	1.93	1.52	1.58
Silver	7440-22-4	E472.Ag/VA	0.0050	mg/kg	0.0118	0.0117	0.0087	0.0064	0.0289
Sodium	7440-23-5	E472/VA	20	mg/kg	2900	2630	2470	2940	2740



Analytical Results

Sub-Matrix: Tissue

Client sample ID

(Matrix: Biota)

					EDC-D_INVCAD-8_2023-08	E1_INVCAD-1_2023-08	E1_INVCAD-2_2023-08	E1_INVCAD-3_2023-08	E1_INVCAD-4_2023-08
Client sampling date / time					11-Aug-2023 00:00	05-Aug-2023 00:00	05-Aug-2023 00:00	05-Aug-2023 00:00	05-Aug-2023 00:00
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23B8888-136	VA23B8888-137	VA23B8888-138	VA23B8888-139	VA23B8888-140
					Result	Result	Result	Result	Result
Metals									
Strontium	7440-24-6	E472/VA	0.10	mg/kg	8.51	4.04	4.75	3.42	3.93
Tellurium	13494-80-9	E472/VA	0.020	mg/kg	<0.020	<0.020	<0.020	<0.020	<0.020
Thallium	7440-28-0	E472/VA	0.0020	mg/kg	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Tin	7440-31-5	E472/VA	0.10	mg/kg	<0.10	<0.10	<0.10	<0.10	<0.10
Titanium	7440-32-6	E472.Ti/VA	0.50	mg/kg	1.55	71.7	2.03	3.72	5.83
Uranium	7440-61-1	E472/VA	0.0020	mg/kg	0.0131	0.0298	0.0080	0.0021	0.0035
Vanadium	7440-62-2	E472/VA	0.10	mg/kg	0.26	4.38	0.21	0.33	0.41
Zinc	7440-66-6	E472/VA	1.0	mg/kg	163	96.2	121	82.9	78.5
Zirconium	7440-67-7	E472/VA	0.20	mg/kg	<0.20	0.47	<0.20	<0.20	<0.20

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.



Analytical Results

Sub-Matrix: Tissue (Matrix: Biota)					Client sample ID	E1_INVCAD-5_2 023-08	E1_INVCAD-6_2 023-08	E1_INVCAD-7_2 023-08	E1_INVCAD-8_2 023-08	HAC-U PERT-6 X_2023-08
Client sampling date / time					04-Aug-2023 00:00	04-Aug-2023 00:00	04-Aug-2023 00:00	03-Aug-2023 00:00	08-Aug-2023 00:00	
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23B8888-141	VA23B8888-142	VA23B8888-143	VA23B8888-144	VA23B8888-145	
					Result	Result	Result	Result	Result	
Physical Tests										
Moisture	---	E144-H/VA	2.0	%	75.2	72.9	70.6	74.8	70.8	
Metals										
Aluminum	7429-90-5	E472/VA	5.0	mg/kg	25.3	30.2	22.4	153	1940	
Antimony	7440-36-0	E472/VA	0.010	mg/kg	0.011	0.014	<0.010	0.010	0.057	
Arsenic	7440-38-2	E472/VA	0.030	mg/kg	0.683	0.763	0.882	0.918	1.88	
Barium	7440-39-3	E472/VA	0.050	mg/kg	3.99	6.45	6.09	23.4	110	
Beryllium	7440-41-7	E472/VA	0.010	mg/kg	<0.010	<0.010	<0.010	<0.010	0.035	
Bismuth	7440-69-9	E472/VA	0.010	mg/kg	<0.010	<0.010	<0.010	<0.010	<0.010	
Boron	7440-42-8	E472/VA	1.0	mg/kg	<1.0	<1.0	<1.0	<1.0	200	
Cadmium	7440-43-9	E472/VA	0.010	mg/kg	0.040	0.089	0.076	0.150	0.116	
Calcium	7440-70-2	E472/VA	20	mg/kg	864	886	954	909	304000	
Cesium	7440-46-2	E472/VA	0.0050	mg/kg	0.0084	0.0102	0.0088	0.0180	0.154	
Chromium	7440-47-3	E472/VA	0.20	mg/kg	<0.20	<0.20	<0.20	0.26	2.82	
Cobalt	7440-48-4	E472/VA	0.020	mg/kg	0.105	0.125	0.110	0.314	1.04	
Copper	7440-50-8	E472/VA	0.20	mg/kg	15.2	17.9	16.2	19.5	27.8	
Iron	7439-89-6	E472/VA	5.0	mg/kg	114	126	122	252	1500	
Lead	7439-92-1	E472/VA	0.050	mg/kg	0.052	0.062	0.053	0.084	0.298	
Lithium	7439-93-2	E472/VA	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	1.11	
Magnesium	7439-95-4	E472/VA	2.0	mg/kg	1060	1140	1090	1140	3110	
Manganese	7439-96-5	E472/VA	0.050	mg/kg	73.2	98.8	188	257	2630	
Mercury	7439-97-6	E511/VA	0.0050	mg/kg	0.0469	0.0384	0.0509	0.0438	0.0090	
Mercury	7439-97-6	E511A/VA	0.0010	mg/kg wwt	0.0116	0.0104	0.0150	0.0110	0.0026	
Molybdenum	7439-98-7	E472/VA	0.040	mg/kg	1.36	2.03	4.45	2.66	0.986	
Nickel	7440-02-0	E472/VA	0.20	mg/kg	<0.20	0.37	<0.20	0.42	2.25	
Phosphorus	7723-14-0	E472/VA	10	mg/kg	7460	7930	7840	7320	917	
Potassium	7440-09-7	E472/VA	20	mg/kg	6180	6820	6320	7220	4470	
Rubidium	7440-17-7	E472/VA	0.050	mg/kg	1.27	1.69	1.54	1.71	4.66	
Selenium	7782-49-2	E472/VA	0.10	mg/kg	2.12	2.13	1.84	2.13	2.02	
Silver	7440-22-4	E472.Ag/VA	0.0050	mg/kg	<0.0050	<0.0050	<0.0050	0.0052	0.0177	
Sodium	7440-23-5	E472/VA	20	mg/kg	2670	2980	2550	2920	354	



Analytical Results

Sub-Matrix: Tissue (Matrix: Biota)					Client sample ID	E1_INVCAD-5_2 023-08	E1_INVCAD-6_2 023-08	E1_INVCAD-7_2 023-08	E1_INVCAD-8_2 023-08	HAC-U PERT-6 X_2023-08
Client sampling date / time					04-Aug-2023 00:00	04-Aug-2023 00:00	04-Aug-2023 00:00	03-Aug-2023 00:00	08-Aug-2023 00:00	
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23B8888-141	VA23B8888-142	VA23B8888-143	VA23B8888-144	VA23B8888-145	
					Result	Result	Result	Result	Result	
Metals										
Strontium	7440-24-6	E472/VA	0.10	mg/kg	4.86	5.23	5.74	5.29	664	
Tellurium	13494-80-9	E472/VA	0.020	mg/kg	<0.020	<0.020	<0.020	<0.020	<0.020	
Thallium	7440-28-0	E472/VA	0.0020	mg/kg	<0.0020	<0.0020	0.0029	0.0022	0.0082	
Tin	7440-31-5	E472/VA	0.10	mg/kg	<0.10	<0.10	<0.10	<0.10	<0.10	
Titanium	7440-32-6	E472.Ti/VA	0.50	mg/kg	1.24	2.10	1.50	5.30	73.2	
Uranium	7440-61-1	E472/VA	0.0020	mg/kg	0.0031	0.0034	0.0028	0.0070	0.136	
Vanadium	7440-62-2	E472/VA	0.10	mg/kg	0.16	0.14	0.17	0.44	6.14	
Zinc	7440-66-6	E472/VA	1.0	mg/kg	77.0	88.6	97.4	90.4	5.5	
Zirconium	7440-67-7	E472/VA	0.20	mg/kg	<0.20	<0.20	<0.20	<0.20	0.74	

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.



Analytical Results

Sub-Matrix: Tissue (Matrix: Biota)					Client sample ID	HAC-D_PERT-3 X_2023-08	HAC-U_PERT-2 X_2023-08	E1_PERT-4X_2 023-08	EDC-D_PERT-4 X_2023-08	E1_INV-2X_202 3-08
Client sampling date / time					06-Aug-2023 00:00	09-Aug-2023 00:00	05-Aug-2023 00:00	11-Aug-2023 00:00	05-Aug-2023 00:00	
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23B8888-146	VA23B8888-147	VA23B8888-148	VA23B8888-149	VA23B8888-150	
					Result	Result	Result	Result	Result	
Physical Tests										
Moisture	----	E144-H/VA	2.0	%	64.7	62.7	92.3	89.4	83.6	
Metals										
Aluminum	7429-90-5	E472/VA	5.0	mg/kg	4600	508	5170	2760	327	
Antimony	7440-36-0	E472/VA	0.010	mg/kg	0.060	0.052	0.052	0.044	0.019	
Arsenic	7440-38-2	E472/VA	0.030	mg/kg	5.69	1.52	8.05	14.2	2.20	
Barium	7440-39-3	E472/VA	0.050	mg/kg	772	84.7	102	117	9.47	
Beryllium	7440-41-7	E472/VA	0.010	mg/kg	0.138	0.021	0.173	0.102	0.013	
Bismuth	7440-69-9	E472/VA	0.010	mg/kg	0.022	<0.010	0.033	0.040	<0.010	
Boron	7440-42-8	E472/VA	1.0	mg/kg	107	162	120	86.8	1.9	
Cadmium	7440-43-9	E472/VA	0.010	mg/kg	0.291	0.082	0.612	0.289	1.73	
Calcium	7440-70-2	E472/VA	20	mg/kg	235000	310000	37800	84500	2280	
Cesium	7440-46-2	E472/VA	0.0050	mg/kg	0.454	0.122	0.598	0.544	0.0578	
Chromium	7440-47-3	E472/VA	0.20	mg/kg	6.65	1.18	14.9	6.67	1.86	
Cobalt	7440-48-4	E472/VA	0.020	mg/kg	3.24	0.748	3.79	4.22	1.45	
Copper	7440-50-8	E472/VA	0.20	mg/kg	96.1	24.3	84.2	15.7	30.8	
Iron	7439-89-6	E472/VA	5.0	mg/kg	6580	898	8950	5890	894	
Lead	7439-92-1	E472/VA	0.050	mg/kg	1.54	0.205	2.13	1.26	0.256	
Lithium	7439-93-2	E472/VA	0.50	mg/kg	3.35	0.65	4.70	2.51	<0.50	
Magnesium	7439-95-4	E472/VA	2.0	mg/kg	3700	2680	3810	3580	1640	
Manganese	7439-96-5	E472/VA	0.050	mg/kg	1570	2000	622	1750	124	
Mercury	7439-97-6	E511/VA	0.0050	mg/kg	0.0304	<0.0050	0.0408	0.0284	0.0503	
Mercury	7439-97-6	E511/VA	0.0010	mg/kg ww	0.0108	0.0018	0.0031	0.0030	0.0082	
Molybdenum	7439-98-7	E472/VA	0.040	mg/kg	1.01	0.897	0.823	0.964	0.828	
Nickel	7440-02-0	E472/VA	0.20	mg/kg	5.59	1.56	10.0	11.4	2.03	
Phosphorus	7723-14-0	E472/VA	10	mg/kg	1270	628	1620	2600	9410	
Potassium	7440-09-7	E472/VA	20	mg/kg	2750	4660	5400	7290	8270	
Rubidium	7440-17-7	E472/VA	0.050	mg/kg	4.54	4.63	7.83	8.90	3.60	
Selenium	7782-49-2	E472/VA	0.10	mg/kg	2.43	1.59	1.22	2.57	2.89	
Silver	7440-22-4	E472.Ag/VA	0.0050	mg/kg	0.0314	0.0052	0.0590	0.0277	0.144	
Sodium	7440-23-5	E472/VA	20	mg/kg	397	221	953	666	8000	



Analytical Results

Sub-Matrix: Tissue (Matrix: Biota)					Client sample ID	HAC-D_PERT-3 X_2023-08	HAC-U_PERT-2 X_2023-08	E1_PERT-4X_2 023-08	EDC-D_PERT-4 X_2023-08	E1_INV-2X_202 3-08
Client sampling date / time					06-Aug-2023 00:00	09-Aug-2023 00:00	05-Aug-2023 00:00	11-Aug-2023 00:00	05-Aug-2023 00:00	
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23B8888-146	VA23B8888-147	VA23B8888-148	VA23B8888-149	VA23B8888-150	
					Result	Result	Result	Result	Result	
Metals										
Strontium	7440-24-6	E472/VA	0.10	mg/kg	530	666	160	277	11.8	
Tellurium	13494-80-9	E472/VA	0.020	mg/kg	0.020	<0.020	<0.020	<0.020	<0.020	
Thallium	7440-28-0	E472/VA	0.0020	mg/kg	0.0348	0.0057	0.0333	0.0343	0.0114	
Tin	7440-31-5	E472/VA	0.10	mg/kg	<0.10	<0.10	0.11	<0.10	<0.10	
Titanium	7440-32-6	E472.Ti/VA	0.50	mg/kg	218	41.8	249	134	15.0	
Uranium	7440-61-1	E472/VA	0.0020	mg/kg	0.226	0.0842	0.353	0.236	0.0652	
Vanadium	7440-62-2	E472/VA	0.10	mg/kg	21.8	4.24	22.6	13.0	1.72	
Zinc	7440-66-6	E472/VA	1.0	mg/kg	17.9	3.4	39.1	23.4	133	
Zirconium	7440-67-7	E472/VA	0.20	mg/kg	2.32	0.53	4.11	2.36	0.38	

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.



Analytical Results

Sub-Matrix: Tissue (Matrix: Biota)					Client sample ID	HAC-D_INV-2X_ 2023-08	HAC-U_INV-2X_ 2023-08	HAC-R1_INV-6X_ _2023-08	EDC-D_INV-6X_ 2023-08	E1_INVCAD-7X_ 2023-08
Client sampling date / time					06-Aug-2023 00:00	09-Aug-2023 00:00	10-Aug-2023 00:00	11-Aug-2023 00:00	04-Aug-2023 00:00	
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23B8888-151	VA23B8888-152	VA23B8888-153	VA23B8888-154	VA23B8888-155	
					Result	Result	Result	Result	Result	
Physical Tests										
Moisture	---	E144-H/VA	2.0	%	82.2	78.1	82.0	79.1	73.1	
Metals										
Aluminum	7429-90-5	E472/VA	5.0	mg/kg	5630	1960	2760	357	20.3	
Antimony	7440-36-0	E472/VA	0.010	mg/kg	0.056	0.056	0.054	0.016	0.013	
Arsenic	7440-38-2	E472/VA	0.030	mg/kg	5.72	3.21	3.14	2.94	1.40	
Barium	7440-39-3	E472/VA	0.050	mg/kg	93.4	85.0	55.8	11.2	14.2	
Beryllium	7440-41-7	E472/VA	0.010	mg/kg	0.237	0.071	0.090	0.012	<0.010	
Bismuth	7440-69-9	E472/VA	0.010	mg/kg	0.023	<0.010	0.013	<0.010	<0.010	
Boron	7440-42-8	E472/VA	1.0	mg/kg	11.6	4.1	6.8	1.4	<1.0	
Cadmium	7440-43-9	E472/VA	0.010	mg/kg	1.01	0.990	2.85	1.28	0.228	
Calcium	7440-70-2	E472/VA	20	mg/kg	16800	72000	47700	2160	815	
Cesium	7440-46-2	E472/VA	0.0050	mg/kg	0.401	0.201	0.295	0.0846	0.0104	
Chromium	7440-47-3	E472/VA	0.20	mg/kg	4.33	4.12	4.02	1.31	<0.20	
Cobalt	7440-48-4	E472/VA	0.020	mg/kg	4.84	2.09	2.87	0.849	0.410	
Copper	7440-50-8	E472/VA	0.20	mg/kg	273	314	164	30.8	29.9	
Iron	7439-89-6	E472/VA	5.0	mg/kg	6660	4110	4200	848	159	
Lead	7439-92-1	E472/VA	0.050	mg/kg	1.53	0.649	1.07	0.219	0.060	
Lithium	7439-93-2	E472/VA	0.50	mg/kg	4.36	1.63	2.46	<0.50	<0.50	
Magnesium	7439-95-4	E472/VA	2.0	mg/kg	3020	2680	2820	1960	1160	
Manganese	7439-96-5	E472/VA	0.050	mg/kg	1000	1390	1180	306	476	
Mercury	7439-97-6	E511/VA	0.0050	mg/kg	0.0674	0.0920	0.0574	0.104	0.0648	
Mercury	7439-97-6	E511A/VA	0.0010	mg/kg wwt	0.0120	0.0201	0.0103	0.0217	0.0174	
Molybdenum	7439-98-7	E472/VA	0.040	mg/kg	1.99	1.41	3.79	0.700	3.28	
Nickel	7440-02-0	E472/VA	0.20	mg/kg	4.41	3.58	5.00	2.29	0.48	
Phosphorus	7723-14-0	E472/VA	10	mg/kg	7490	10500	9140	9510	8150	
Potassium	7440-09-7	E472/VA	20	mg/kg	7720	6180	8290	8580	7370	
Rubidium	7440-17-7	E472/VA	0.050	mg/kg	5.27	4.94	6.90	3.76	2.08	
Selenium	7782-49-2	E472/VA	0.10	mg/kg	3.42	9.75	6.25	2.53	2.17	
Silver	7440-22-4	E472.Ag/VA	0.0050	mg/kg	0.0662	0.0838	0.0564	0.114	0.0102	
Sodium	7440-23-5	E472/VA	20	mg/kg	3170	4840	4390	3430	2660	



Analytical Results

Sub-Matrix: Tissue (Matrix: Biota)					Client sample ID	HAC-D_INV-2X_ 2023-08	HAC-U_INV-2X_ 2023-08	HAC-R1_INV-6X_ _2023-08	EDC-D_INV-6X_ 2023-08	E1_INVCAD-7X_ 2023-08
Client sampling date / time					06-Aug-2023 00:00	09-Aug-2023 00:00	10-Aug-2023 00:00	11-Aug-2023 00:00	04-Aug-2023 00:00	
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23B8888-151	VA23B8888-152	VA23B8888-153	VA23B8888-154	VA23B8888-155	
					Result	Result	Result	Result	Result	
Metals										
Strontium	7440-24-6	E472/VA	0.10	mg/kg	56.9	172	114	13.4	5.14	
Tellurium	13494-80-9	E472/VA	0.020	mg/kg	<0.020	<0.020	<0.020	<0.020	<0.020	
Thallium	7440-28-0	E472/VA	0.0020	mg/kg	0.0252	0.0126	0.0183	0.0132	0.0022	
Tin	7440-31-5	E472/VA	0.10	mg/kg	<0.10	<0.10	0.16	<0.10	<0.10	
Titanium	7440-32-6	E472.Ti/VA	0.50	mg/kg	190	102	113	17.0	0.90	
Uranium	7440-61-1	E472/VA	0.0020	mg/kg	0.235	0.131	0.202	0.0601	0.0116	
Vanadium	7440-62-2	E472/VA	0.10	mg/kg	20.8	12.2	12.9	1.52	0.27	
Zinc	7440-66-6	E472/VA	1.0	mg/kg	114	102	127	174	106	
Zirconium	7440-67-7	E472/VA	0.20	mg/kg	2.08	0.25	0.66	0.34	<0.20	

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.



Analytical Results

Sub-Matrix: Tissue					Client sample ID				
(Matrix: Biota)					HAC-D_INVCA 4X_2023-08	HAC-U_INVCA 2X_2023-08	HAC-R1_INVCA D-8X_2023-08	EDC-D_INVCA 8X_2023-08	----
Client sampling date / time					06-Aug-2023 00:00	09-Aug-2023 00:00	09-Aug-2023 00:00	11-Aug-2023 00:00	----
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23B8888-156	VA23B8888-157	VA23B8888-158	VA23B8888-159	-----
					Result	Result	Result	Result	----
Physical Tests									
Moisture	----	E144-H/VA	2.0	%	76.7	75.7	74.7	77.7	----
Metals									
Aluminum	7429-90-5	E472/VA	5.0	mg/kg	220	211	90.4	105	----
Antimony	7440-36-0	E472/VA	0.010	mg/kg	0.020	0.027	0.013	<0.010	----
Arsenic	7440-38-2	E472/VA	0.030	mg/kg	0.768	0.541	0.487	2.20	----
Barium	7440-39-3	E472/VA	0.050	mg/kg	8.45	19.8	2.59	11.0	----
Beryllium	7440-41-7	E472/VA	0.010	mg/kg	0.011	<0.010	<0.010	<0.010	----
Bismuth	7440-69-9	E472/VA	0.010	mg/kg	<0.010	<0.010	<0.010	<0.010	----
Boron	7440-42-8	E472/VA	1.0	mg/kg	<1.0	<1.0	<1.0	1.6	----
Cadmium	7440-43-9	E472/VA	0.010	mg/kg	0.110	0.147	0.015	0.037	----
Calcium	7440-70-2	E472/VA	20	mg/kg	1180	2240	623	1520	----
Cesium	7440-46-2	E472/VA	0.0050	mg/kg	0.0348	0.0274	0.0113	0.0228	----
Chromium	7440-47-3	E472/VA	0.20	mg/kg	0.34	0.57	<0.20	0.34	----
Cobalt	7440-48-4	E472/VA	0.020	mg/kg	0.417	0.440	0.143	0.310	----
Copper	7440-50-8	E472/VA	0.20	mg/kg	32.0	33.9	18.4	14.1	----
Iron	7439-89-6	E472/VA	5.0	mg/kg	454	486	221	314	----
Lead	7439-92-1	E472/VA	0.050	mg/kg	0.153	0.130	<0.050	0.093	----
Lithium	7439-93-2	E472/VA	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	----
Magnesium	7439-95-4	E472/VA	2.0	mg/kg	1330	1120	1160	1180	----
Manganese	7439-96-5	E472/VA	0.050	mg/kg	336	589	117	136	----
Mercury	7439-97-6	E511/VA	0.0050	mg/kg	0.0890	0.0437	0.0532	0.0406	----
Mercury	7439-97-6	E511/VA	0.0010	mg/kg ww	0.0207	0.0106	0.0135	0.0090	----
Molybdenum	7439-98-7	E472/VA	0.040	mg/kg	5.56	9.29	13.6	4.13	----
Nickel	7440-02-0	E472/VA	0.20	mg/kg	0.48	0.71	0.35	0.66	----
Phosphorus	7723-14-0	E472/VA	10	mg/kg	8420	7980	7560	8980	----
Potassium	7440-09-7	E472/VA	20	mg/kg	8310	7390	6830	7660	----
Rubidium	7440-17-7	E472/VA	0.050	mg/kg	1.74	1.69	1.38	1.71	----
Selenium	7782-49-2	E472/VA	0.10	mg/kg	22.2	22.1	9.94	1.44	----
Silver	7440-22-4	E472.Ag/VA	0.0050	mg/kg	0.0071	0.0140	<0.0050	0.0095	----
Sodium	7440-23-5	E472/VA	20	mg/kg	3030	2930	2580	2540	----



Analytical Results

Sub-Matrix: Tissue (Matrix: Biota)					Client sample ID	HAC-D_INVCAD-4X_2023-08	HAC-U_INVCAD-2X_2023-08	HAC-R1_INVCA-D-8X_2023-08	EDC-D_INVCAD-8X_2023-08	----
Client sampling date / time					06-Aug-2023 00:00	09-Aug-2023 00:00	09-Aug-2023 00:00	11-Aug-2023 00:00	----	
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23B8888-156	VA23B8888-157	VA23B8888-158	VA23B8888-159	-----	
					Result	Result	Result	Result	----	
Metals										
Strontium	7440-24-6	E472/VA	0.10	mg/kg	6.94	12.1	3.89	10.1	----	
Tellurium	13494-80-9	E472/VA	0.020	mg/kg	<0.020	<0.020	<0.020	<0.020	----	
Thallium	7440-28-0	E472/VA	0.0020	mg/kg	0.0031	<0.0020	<0.0020	0.0021	----	
Tin	7440-31-5	E472/VA	0.10	mg/kg	<0.10	<0.10	<0.10	<0.10	----	
Titanium	7440-32-6	E472.Ti/VA	0.50	mg/kg	9.98	13.5	5.75	5.05	----	
Uranium	7440-61-1	E472/VA	0.0020	mg/kg	0.0178	0.0514	0.0059	0.0200	----	
Vanadium	7440-62-2	E472/VA	0.10	mg/kg	1.06	1.70	0.63	0.53	----	
Zinc	7440-66-6	E472/VA	1.0	mg/kg	108	87.5	98.0	102	----	
Zirconium	7440-67-7	E472/VA	0.20	mg/kg	<0.20	0.22	<0.20	<0.20	----	

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.

QUALITY CONTROL INTERPRETIVE REPORT

<p>Work Order : VA23B8888</p> <p>Amendment : 1</p> <p>Client : Mount Polley Mining Corporation</p> <p>Contact : Mr. Gabriel Holmes</p> <p>Address : PO Box 12 Likely BC Canada V0L 1N0</p> <p>Telephone : 250-790-2215 ext 2171</p> <p>Project : ----</p> <p>PO : 5590012190</p> <p>C-O-C number : ----</p> <p>Sampler : KBa</p> <p>Site : ----</p> <p>Quote number : VA22-MPMC100-002</p> <p>No. of samples received : 159</p> <p>No. of samples analysed : 159</p>	<p>Page : 1 of 115</p> <p>Laboratory : ALS Environmental - Vancouver</p> <p>Account Manager : Can Dang</p> <p>Address : 8081 Lougheed Highway Burnaby, British Columbia Canada V5A 1W9</p> <p>Telephone : +1 604 253 4188</p> <p>Date Samples Received : 15-Aug-2023 09:40</p> <p>Issue Date : 17-Nov-2023 11:40</p>
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This report is automatically generated by the ALS LIMS (Laboratory Information Management System) through evaluation of Quality Control (QC) results and other QA parameters associated with this submission, and is intended to facilitate rapid data validation by auditors or reviewers. The report highlights any exceptions and outliers to ALS Data Quality Objectives, provides holding time details and exceptions, summarizes QC sample frequencies, and lists applicable methodology references and summaries.

Key

- Anonymous: Refers to samples which are not part of this work order, but which formed part of the QC process lot.
- CAS Number: Chemical Abstracts Service number is a unique identifier assigned to discrete substances.
- DQO: Data Quality Objective.
- LOR: Limit of Reporting (detection limit).
- RPD: Relative Percent Difference.

Workorder Comments

Holding times are displayed as "----" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

Summary of Outliers

Outliers : Quality Control Samples

- No Method Blank value outliers occur.
- Duplicate outliers occur - please see following pages for full details.
- Laboratory Control Sample (LCS) outliers occur - please see following pages for full details.
- No Test sample Surrogate recovery outliers exist.

Outliers: Reference Material (RM) Samples

- Reference Material (RM) Sample outliers occur - please see the following pages for full details.

Outliers : Analysis Holding Time Compliance (Breaches)

- No Analysis Holding Time Outliers exist.

Outliers : Frequency of Quality Control Samples

- No Quality Control Sample Frequency Outliers occur.



Outliers : Quality Control Samples

Duplicates, Method Blanks, Laboratory Control Samples and Matrix Spikes

Matrix: Biota

Analyte Group	Laboratory sample ID	Client/Ref Sample ID	Analyte	CAS Number	Method	Result	Limits	Comment
Duplicate (DUP) RPDs								
Metals	VA23B8888-024	HAC-D_PERT-8_2023-08	Aluminum	7429-90-5	E472	41.4 % DUP-H	40%	Duplicate RPD does not meet the DQO for this test.
Metals	VA23B8888-096	E1_INV-8_2023-08	Aluminum	7429-90-5	E472	57.6 % DUP-H	40%	Duplicate RPD does not meet the DQO for this test.
Metals	VA23B8888-119	HAC-D_INVCAD-7_2023-08	Aluminum	7429-90-5	E472	45.8 % DUP-H	40%	Duplicate RPD does not meet the DQO for this test.
Metals	VA23B8888-151	HAC-D_INV-2X_2023-08	Aluminum	7429-90-5	E472	54.1 % DUP-H	40%	Duplicate RPD does not meet the DQO for this test.
Metals	VA23B8888-096	E1_INV-8_2023-08	Arsenic	7440-38-2	E472	44.8 % DUP-H	40%	Duplicate RPD does not meet the DQO for this test.
Metals	VA23B8888-151	HAC-D_INV-2X_2023-08	Beryllium	7440-41-7	E472	59.3 % DUP-H	40%	Duplicate RPD does not meet the DQO for this test.
Metals	VA23B8888-151	HAC-D_INV-2X_2023-08	Boron	7440-42-8	E472	48.6 % DUP-H	40%	Duplicate RPD does not meet the DQO for this test.
Metals	VA23B8888-151	HAC-D_INV-2X_2023-08	Calcium	7440-70-2	E472	61.7 % DUP-H	60%	Duplicate RPD does not meet the DQO for this test.
Metals	VA23B8888-096	E1_INV-8_2023-08	Cesium	7440-46-2	E472	42.4 % DUP-H	40%	Duplicate RPD does not meet the DQO for this test.
Metals	VA23B8888-119	HAC-D_INVCAD-7_2023-08	Cesium	7440-46-2	E472	0.0110 % DUP-H	Diff <2x LOR	Low Level DUP DQO exceeded (difference > 2 LOR).
Metals	VA23B8888-024	HAC-D_PERT-8_2023-08	Chromium	7440-47-3	E472	57.2 % DUP-H	40%	Duplicate RPD does not meet the DQO for this test.
Metals	VA23B8888-096	E1_INV-8_2023-08	Chromium	7440-47-3	E472	61.4 % DUP-H	40%	Duplicate RPD does not meet the DQO for this test.
Metals	VA23B8888-149	EDC-D_PERT-4X_2023-08	Chromium	7440-47-3	E472	40.8 % DUP-H	40%	Duplicate RPD does not meet the DQO for this test.
Metals	VA23B8888-024	HAC-D_PERT-8_2023-08	Copper	7440-50-8	E472	55.3 % DUP-H	40%	Duplicate RPD does not meet the DQO for this test.
Metals	VA23B8888-151	HAC-D_INV-2X_2023-08	Copper	7440-50-8	E472	42.7 % DUP-H	40%	Duplicate RPD does not meet the DQO for this test.
Metals	VA23B8888-024	HAC-D_PERT-8_2023-08	Iron	7439-89-6	E472	44.5 % DUP-H	40%	Duplicate RPD does not meet the DQO for this test.
Metals	VA23B8888-096	E1_INV-8_2023-08	Iron	7439-89-6	E472	48.3 % DUP-H	40%	Duplicate RPD does not meet the DQO for this test.
Metals	VA23B8888-024	HAC-D_PERT-8_2023-08	Lithium	7439-93-2	E472	70.1 % DUP-H	40%	Duplicate RPD does not meet the DQO for this test.



Matrix: Biota

Analyte Group	Laboratory sample ID	Client/Ref Sample ID	Analyte	CAS Number	Method	Result	Limits	Comment
Duplicate (DUP) RPDs - Continued								
Metals	VA23B8888-024	HAC-D_PERT-8_2023-08	Selenium	7782-49-2	E472	40.5 % DUP-H	40%	Duplicate RPD does not meet the DQO for this test.
Metals	VA23B8888-024	HAC-D_PERT-8_2023-08	Vanadium	7440-62-2	E472	40.7 % DUP-H	40%	Duplicate RPD does not meet the DQO for this test.
Metals	VA23B8888-096	E1_INV-8_2023-08	Vanadium	7440-62-2	E472	58.7 % DUP-H	40%	Duplicate RPD does not meet the DQO for this test.
Metals	VA23B8888-024	HAC-D_PERT-8_2023-08	Zirconium	7440-67-7	E472	42.4 % DUP-H	40%	Duplicate RPD does not meet the DQO for this test.
Metals	VA23B8888-096	E1_INV-8_2023-08	Zirconium	7440-67-7	E472	0.63 % DUP-H	Diff <2x LOR	Low Level DUP DQO exceeded (difference > 2 LOR).
Metals	VA23B8888-096	E1_INV-8_2023-08	Titanium	7440-32-6	E472.Ti	68.9 % DUP-H	40%	Duplicate RPD does not meet the DQO for this test.

Result Qualifiers

Qualifier	Description
DUP-H	Duplicate results outside ALS DQO, due to sample heterogeneity.

Laboratory Control Sample (LCS) Recoveries								
Metals	QC-MRG4-1140997 002	----	Molybdenum	7439-98-7	E472	122 % MES	80.0-120%	Recovery greater than upper control limit
Metals	QC-MRG4-1140997 002	----	Phosphorus	7723-14-0	E472	124 % MES	80.0-120%	Recovery greater than upper control limit
Metals	QC-MRG4-1140409 002	----	Boron	7440-42-8	E475	79.8 % MES	80.0-120%	Recovery less than lower control limit

Result Qualifiers

Qualifier	Description
MES	Data Quality Objective was marginally exceeded (by < 10% absolute) for < 10% of analytes in a Multi-Element Scan / Multi-Parameter Scan (considered acceptable as per OMOE & CCME).

Reference Material (RM) Sample								
Metals	QC-MRG4-1140405 003	----	Chromium	7440-47-3	E475	282 % RM-H	50.0-150%	Recovery greater than upper control limit
Metals	QC-MRG4-1140405 003	----	Molybdenum	7439-98-7	E475	212 % RM-H	70.0-130%	Recovery greater than upper control limit
Metals	QC-MRG4-1140405 003	----	Vanadium	7440-62-2	E475	137 % MES	70.0-130%	Recovery greater than upper control limit



Matrix: **Biota**

Analyte Group	Laboratory sample ID	Client/Ref Sample ID	Analyte	CAS Number	Method	Result	Limits	Comment
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Result Qualifiers

Qualifier	Description
MES	<i>Data Quality Objective was marginally exceeded (by < 10% absolute) for < 10% of analytes in a Multi-Element Scan / Multi-Parameter Scan (considered acceptable as per OMOE & CCME).</i>
RM-H	<i>Reference Material recovery was above ALS DQO. Non-detected sample results are considered reliable. Other results, if reported, have been qualified.</i>



Analysis Holding Time Compliance

This report summarizes extraction / preparation and analysis times and compares each with ALS recommended holding times, which are selected to meet known provincial and /or federal requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by organizations such as CCME, US EPA, APHA Standard Methods, ASTM, or Environment Canada (where available). Dates and holding times reported below represent the first dates of extraction or analysis. If subsequent tests or dilutions exceeded holding times, qualifiers are added (refer to COA).

If samples are identified below as having been analyzed or extracted outside of recommended holding times, measurement uncertainties may be increased, and this should be taken into consideration when interpreting results.

Where actual sampling date is not provided on the chain of custody, the date of receipt with time at 00:00 is used for calculation purposes.

Where only the sample date without time is provided on the chain of custody, the sampling date at 00:00 is used for calculation purposes.

Matrix: **Biota** Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Metals : Mercury in Biota by CVAAS (DRY units, Biopsy)										
LDPE bag HAC-R1_PERT-4_2023-08	E512	10-Aug-2023	13-Sep-2023	365 days	35 days	✔	19-Sep-2023	365 days	40 days	✔
Metals : Mercury in Biota by CVAAS (DRY units, Biopsy)										
LDPE bag HAC-U_PERT-3_2023-08	E512	09-Aug-2023	13-Sep-2023	365 days	36 days	✔	19-Sep-2023	365 days	41 days	✔
Metals : Mercury in Biota by CVAAS (DRY units, Biopsy)										
LDPE bag EDC-U_PERT-3_2023-08	E512	08-Aug-2023	13-Sep-2023	365 days	37 days	✔	19-Sep-2023	365 days	42 days	✔
Metals : Mercury in Biota by CVAAS (DRY units, Biopsy)										
LDPE bag EDC-U_PERT-4_2023-08	E512	08-Aug-2023	13-Sep-2023	365 days	37 days	✔	19-Sep-2023	365 days	42 days	✔
Metals : Mercury in Biota by CVAAS (DRY units, Biopsy)										
LDPE bag EDC-U_INV-8_2023-08	E512	07-Aug-2023	13-Sep-2023	365 days	38 days	✔	19-Sep-2023	365 days	43 days	✔
Metals : Mercury in Biota by CVAAS (DRY units, Biopsy)										
LDPE bag EDC-U_PERT-7_2023-08	E512	07-Aug-2023	13-Sep-2023	365 days	38 days	✔	19-Sep-2023	365 days	43 days	✔
Metals : Mercury in Biota by CVAAS (DRY units, Biopsy)										
LDPE bag HAC-D_PERT-2_2023-08	E512	06-Aug-2023	13-Sep-2023	365 days	39 days	✔	19-Sep-2023	365 days	44 days	✔



Matrix: **Biota** Evaluation: * = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Metals : Mercury in Biota by CVAAS (DRY units, Biopsy)											
LDPE bag EDC-U_PERT-6_2023-08	E512	07-Aug-2023	18-Sep-2023	365 days	43 days	✓	19-Sep-2023	365 days	44 days	✓	
Metals : Mercury in Biota by CVAAS (DRY units, Biopsy)											
LDPE bag HAC-U_INV-8_2023-08	E512	07-Aug-2023	18-Sep-2023	365 days	43 days	✓	19-Sep-2023	365 days	44 days	✓	
Metals : Mercury in Biota by CVAAS (DRY units, Micro)											
LDPE bag HAC-R1_PERT-1_2023-08	E511	10-Aug-2023	12-Sep-2023	365 days	33 days	✓	14-Sep-2023	365 days	35 days	✓	
Metals : Mercury in Biota by CVAAS (DRY units, Micro)											
LDPE bag HAC-R1_PERT-2_2023-08	E511	10-Aug-2023	12-Sep-2023	365 days	33 days	✓	14-Sep-2023	365 days	35 days	✓	
Metals : Mercury in Biota by CVAAS (DRY units, Micro)											
LDPE bag HAC-R1_PERT-3_2023-08	E511	10-Aug-2023	12-Sep-2023	365 days	33 days	✓	14-Sep-2023	365 days	35 days	✓	
Metals : Mercury in Biota by CVAAS (DRY units, Micro)											
LDPE bag HAC-R1_PERT-5_2023-08	E511	10-Aug-2023	12-Sep-2023	365 days	33 days	✓	14-Sep-2023	365 days	35 days	✓	
Metals : Mercury in Biota by CVAAS (DRY units, Micro)											
LDPE bag HAC-R1_PERT-6_2023-08	E511	10-Aug-2023	12-Sep-2023	365 days	33 days	✓	14-Sep-2023	365 days	35 days	✓	
Metals : Mercury in Biota by CVAAS (DRY units, Micro)											
LDPE bag HAC-R1_PERT-7_2023-08	E511	09-Aug-2023	12-Sep-2023	365 days	34 days	✓	14-Sep-2023	365 days	36 days	✓	
Metals : Mercury in Biota by CVAAS (DRY units, Micro)											
LDPE bag HAC-R1_PERT-8_2023-08	E511	09-Aug-2023	12-Sep-2023	365 days	34 days	✓	14-Sep-2023	365 days	36 days	✓	



Matrix: **Biota** Evaluation: * = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Metals : Mercury in Biota by CVAAS (DRY units, Micro)											
LDPE bag HAC-U_PERT-1_2023-08	E511	09-Aug-2023	12-Sep-2023	365 days	34 days	✓	14-Sep-2023	365 days	36 days	✓	
Metals : Mercury in Biota by CVAAS (DRY units, Micro)											
LDPE bag HAC-U_PERT-2_2023-08	E511	09-Aug-2023	12-Sep-2023	365 days	34 days	✓	14-Sep-2023	365 days	36 days	✓	
Metals : Mercury in Biota by CVAAS (DRY units, Micro)											
LDPE bag HAC-U_PERT-4_2023-08	E511	09-Aug-2023	12-Sep-2023	365 days	34 days	✓	14-Sep-2023	365 days	36 days	✓	
Metals : Mercury in Biota by CVAAS (DRY units, Micro)											
LDPE bag HAC-U_PERT-5_2023-08	E511	09-Aug-2023	12-Sep-2023	365 days	34 days	✓	14-Sep-2023	365 days	36 days	✓	
Metals : Mercury in Biota by CVAAS (DRY units, Micro)											
LDPE bag HAC-U_PERT-6_2023-08	E511	08-Aug-2023	12-Sep-2023	365 days	35 days	✓	14-Sep-2023	365 days	37 days	✓	
Metals : Mercury in Biota by CVAAS (DRY units, Micro)											
LDPE bag EDC-D_PERT-1_2023-08	E511	11-Aug-2023	15-Sep-2023	365 days	35 days	✓	19-Sep-2023	365 days	40 days	✓	
Metals : Mercury in Biota by CVAAS (DRY units, Micro)											
LDPE bag EDC-D_PERT-2_2023-08	E511	11-Aug-2023	15-Sep-2023	365 days	35 days	✓	19-Sep-2023	365 days	40 days	✓	
Metals : Mercury in Biota by CVAAS (DRY units, Micro)											
LDPE bag EDC-D_PERT-3_2023-08	E511	11-Aug-2023	15-Sep-2023	365 days	35 days	✓	19-Sep-2023	365 days	40 days	✓	
Metals : Mercury in Biota by CVAAS (DRY units, Micro)											
LDPE bag EDC-D_PERT-4_2023-08	E511	11-Aug-2023	15-Sep-2023	365 days	35 days	✓	19-Sep-2023	365 days	40 days	✓	



Matrix: **Biota** Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Metals : Mercury in Biota by CVAAS (DRY units, Micro)											
LDPE bag EDC-D_PERT-5_2023-08	E511	11-Aug-2023	15-Sep-2023	365 days	35 days	✔	19-Sep-2023	365 days	40 days	✔	
Metals : Mercury in Biota by CVAAS (DRY units, Micro)											
LDPE bag EDC-D_PERT-6_2023-08	E511	11-Aug-2023	15-Sep-2023	365 days	35 days	✔	19-Sep-2023	365 days	40 days	✔	
Metals : Mercury in Biota by CVAAS (DRY units, Micro)											
LDPE bag EDC-D_PERT-7_2023-08	E511	11-Aug-2023	15-Sep-2023	365 days	35 days	✔	19-Sep-2023	365 days	40 days	✔	
Metals : Mercury in Biota by CVAAS (DRY units, Micro)											
LDPE bag EDC-D_PERT-8_2023-08	E511	11-Aug-2023	15-Sep-2023	365 days	35 days	✔	19-Sep-2023	365 days	40 days	✔	
Metals : Mercury in Biota by CVAAS (DRY units, Micro)											
LDPE bag HAC-U_PERT-7_2023-08	E511	07-Aug-2023	12-Sep-2023	365 days	36 days	✔	14-Sep-2023	365 days	38 days	✔	
Metals : Mercury in Biota by CVAAS (DRY units, Micro)											
LDPE bag HAC-U_PERT-8_2023-08	E511	07-Aug-2023	12-Sep-2023	365 days	36 days	✔	14-Sep-2023	365 days	38 days	✔	
Metals : Mercury in Biota by CVAAS (DRY units, Micro)											
LDPE bag HAC-R1_INV-1_2023-08	E511	10-Aug-2023	15-Sep-2023	365 days	36 days	✔	19-Sep-2023	365 days	41 days	✔	
Metals : Mercury in Biota by CVAAS (DRY units, Micro)											
LDPE bag HAC-R1_INV-2_2023-08	E511	10-Aug-2023	15-Sep-2023	365 days	36 days	✔	19-Sep-2023	365 days	41 days	✔	
Metals : Mercury in Biota by CVAAS (DRY units, Micro)											
LDPE bag HAC-R1_INV-3_2023-08	E511	10-Aug-2023	15-Sep-2023	365 days	36 days	✔	19-Sep-2023	365 days	41 days	✔	



Matrix: **Biota** Evaluation: * = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Metals : Mercury in Biota by CVAAS (DRY units, Micro)											
LDPE bag HAC-R1_INV-4_2023-08	E511	10-Aug-2023	15-Sep-2023	365 days	36 days	✓	19-Sep-2023	365 days	41 days	✓	
Metals : Mercury in Biota by CVAAS (DRY units, Micro)											
LDPE bag HAC-R1_INV-5_2023-08	E511	10-Aug-2023	15-Sep-2023	365 days	36 days	✓	19-Sep-2023	365 days	41 days	✓	
Metals : Mercury in Biota by CVAAS (DRY units, Micro)											
LDPE bag HAC-R1_INV-6_2023-08	E511	10-Aug-2023	15-Sep-2023	365 days	36 days	✓	19-Sep-2023	365 days	41 days	✓	
Metals : Mercury in Biota by CVAAS (DRY units, Micro)											
LDPE bag HAC-D_PERT-1_2023-08	E511	06-Aug-2023	12-Sep-2023	365 days	37 days	✓	14-Sep-2023	365 days	39 days	✓	
Metals : Mercury in Biota by CVAAS (DRY units, Micro)											
LDPE bag HAC-D_PERT-3_2023-08	E511	06-Aug-2023	12-Sep-2023	365 days	37 days	✓	14-Sep-2023	365 days	39 days	✓	
Metals : Mercury in Biota by CVAAS (DRY units, Micro)											
LDPE bag HAC-D_PERT-4_2023-08	E511	06-Aug-2023	12-Sep-2023	365 days	37 days	✓	14-Sep-2023	365 days	39 days	✓	
Metals : Mercury in Biota by CVAAS (DRY units, Micro)											
LDPE bag HAC-D_PERT-5_2023-08	E511	06-Aug-2023	12-Sep-2023	365 days	37 days	✓	14-Sep-2023	365 days	39 days	✓	
Metals : Mercury in Biota by CVAAS (DRY units, Micro)											
LDPE bag HAC-D_PERT-6_2023-08	E511	06-Aug-2023	12-Sep-2023	365 days	37 days	✓	14-Sep-2023	365 days	39 days	✓	
Metals : Mercury in Biota by CVAAS (DRY units, Micro)											
LDPE bag HAC-D_PERT-7_2023-08	E511	06-Aug-2023	12-Sep-2023	365 days	37 days	✓	14-Sep-2023	365 days	39 days	✓	



Matrix: **Biota** Evaluation: * = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Metals : Mercury in Biota by CVAAS (DRY units, Micro)											
LDPE bag EDC-U_INV-3_2023-08	E511	08-Aug-2023	13-Sep-2023	365 days	37 days	✓	19-Sep-2023	365 days	42 days	✓	
Metals : Mercury in Biota by CVAAS (DRY units, Micro)											
LDPE bag HAC-R1_INV-7_2023-08	E511	09-Aug-2023	15-Sep-2023	365 days	37 days	✓	19-Sep-2023	365 days	42 days	✓	
Metals : Mercury in Biota by CVAAS (DRY units, Micro)											
LDPE bag HAC-R1_INV-8_2023-08	E511	09-Aug-2023	15-Sep-2023	365 days	37 days	✓	19-Sep-2023	365 days	42 days	✓	
Metals : Mercury in Biota by CVAAS (DRY units, Micro)											
LDPE bag HAC-U_INV-1_2023-08	E511	09-Aug-2023	15-Sep-2023	365 days	37 days	✓	19-Sep-2023	365 days	42 days	✓	
Metals : Mercury in Biota by CVAAS (DRY units, Micro)											
LDPE bag HAC-U_INV-2_2023-08	E511	09-Aug-2023	15-Sep-2023	365 days	37 days	✓	19-Sep-2023	365 days	42 days	✓	
Metals : Mercury in Biota by CVAAS (DRY units, Micro)											
LDPE bag HAC-U_INV-3_2023-08	E511	09-Aug-2023	15-Sep-2023	365 days	37 days	✓	19-Sep-2023	365 days	42 days	✓	
Metals : Mercury in Biota by CVAAS (DRY units, Micro)											
LDPE bag HAC-U_INV-4_2023-08	E511	09-Aug-2023	15-Sep-2023	365 days	37 days	✓	19-Sep-2023	365 days	42 days	✓	
Metals : Mercury in Biota by CVAAS (DRY units, Micro)											
LDPE bag HAC-U_INV-5_2023-08	E511	09-Aug-2023	15-Sep-2023	365 days	37 days	✓	19-Sep-2023	365 days	42 days	✓	
Metals : Mercury in Biota by CVAAS (DRY units, Micro)											
LDPE bag EDC-U_INV-6_2023-08	E511	07-Aug-2023	13-Sep-2023	365 days	38 days	✓	19-Sep-2023	365 days	43 days	✓	



Matrix: **Biota** Evaluation: * = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Metals : Mercury in Biota by CVAAS (DRY units, Micro)											
LDPE bag EDC-U_INV-7_2023-08	E511	07-Aug-2023	13-Sep-2023	365 days	38 days	✓	19-Sep-2023	365 days	43 days	✓	
Metals : Mercury in Biota by CVAAS (DRY units, Micro)											
LDPE bag EDC-U_PERT-1_2023-08	E511	08-Aug-2023	15-Sep-2023	365 days	38 days	✓	19-Sep-2023	365 days	43 days	✓	
Metals : Mercury in Biota by CVAAS (DRY units, Micro)											
LDPE bag EDC-U_PERT-2_2023-08	E511	08-Aug-2023	15-Sep-2023	365 days	38 days	✓	19-Sep-2023	365 days	43 days	✓	
Metals : Mercury in Biota by CVAAS (DRY units, Micro)											
LDPE bag HAC-U_INV-6_2023-08	E511	08-Aug-2023	15-Sep-2023	365 days	38 days	✓	19-Sep-2023	365 days	43 days	✓	
Metals : Mercury in Biota by CVAAS (DRY units, Micro)											
LDPE bag EDC-D_INV-1_2023-08	E511	11-Aug-2023	18-Sep-2023	365 days	39 days	✓	19-Sep-2023	365 days	40 days	✓	
Metals : Mercury in Biota by CVAAS (DRY units, Micro)											
LDPE bag EDC-D_INV-2_2023-08	E511	11-Aug-2023	18-Sep-2023	365 days	39 days	✓	19-Sep-2023	365 days	40 days	✓	
Metals : Mercury in Biota by CVAAS (DRY units, Micro)											
LDPE bag EDC-D_INV-3_2023-08	E511	11-Aug-2023	18-Sep-2023	365 days	39 days	✓	19-Sep-2023	365 days	40 days	✓	
Metals : Mercury in Biota by CVAAS (DRY units, Micro)											
LDPE bag EDC-D_INV-4_2023-08	E511	11-Aug-2023	18-Sep-2023	365 days	39 days	✓	19-Sep-2023	365 days	40 days	✓	
Metals : Mercury in Biota by CVAAS (DRY units, Micro)											
LDPE bag EDC-D_INV-5_2023-08	E511	11-Aug-2023	18-Sep-2023	365 days	39 days	✓	19-Sep-2023	365 days	40 days	✓	



Matrix: **Biota** Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Metals : Mercury in Biota by CVAAS (DRY units, Micro)										
LDPE bag EDC-D_INV-6_2023-08	E511	11-Aug-2023	18-Sep-2023	365 days	39 days	✔	19-Sep-2023	365 days	40 days	✔
Metals : Mercury in Biota by CVAAS (DRY units, Micro)										
LDPE bag EDC-D_INV-7_2023-08	E511	11-Aug-2023	18-Sep-2023	365 days	39 days	✔	19-Sep-2023	365 days	40 days	✔
Metals : Mercury in Biota by CVAAS (DRY units, Micro)										
LDPE bag EDC-D_INV-8_2023-08	E511	11-Aug-2023	18-Sep-2023	365 days	39 days	✔	19-Sep-2023	365 days	40 days	✔
Metals : Mercury in Biota by CVAAS (DRY units, Micro)										
LDPE bag EDC-D_INVCAD-1_2023-08	E511	11-Aug-2023	19-Sep-2023	365 days	39 days	✔	20-Sep-2023	365 days	40 days	✔
Metals : Mercury in Biota by CVAAS (DRY units, Micro)										
LDPE bag EDC-D_INVCAD-2_2023-08	E511	11-Aug-2023	19-Sep-2023	365 days	39 days	✔	20-Sep-2023	365 days	40 days	✔
Metals : Mercury in Biota by CVAAS (DRY units, Micro)										
LDPE bag EDC-U_PERT-5_2023-08	E511	07-Aug-2023	15-Sep-2023	365 days	39 days	✔	19-Sep-2023	365 days	44 days	✔
Metals : Mercury in Biota by CVAAS (DRY units, Micro)										
LDPE bag EDC-U_PERT-8_2023-08	E511	07-Aug-2023	15-Sep-2023	365 days	39 days	✔	19-Sep-2023	365 days	44 days	✔
Metals : Mercury in Biota by CVAAS (DRY units, Micro)										
LDPE bag HAC-U_INV-7_2023-08	E511	07-Aug-2023	15-Sep-2023	365 days	39 days	✔	19-Sep-2023	365 days	44 days	✔
Metals : Mercury in Biota by CVAAS (DRY units, Micro)										
LDPE bag HAC-R1_INVCAD-1_2023-08	E511	10-Aug-2023	19-Sep-2023	365 days	40 days	✔	20-Sep-2023	365 days	41 days	✔



Matrix: **Biota** Evaluation: * = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Metals : Mercury in Biota by CVAAS (DRY units, Micro)											
LDPE bag HAC-R1_INVCAD-2_2023-08	E511	10-Aug-2023	19-Sep-2023	365 days	40 days	✓	20-Sep-2023	365 days	41 days	✓	
Metals : Mercury in Biota by CVAAS (DRY units, Micro)											
LDPE bag HAC-R1_INVCAD-3_2023-08	E511	10-Aug-2023	19-Sep-2023	365 days	40 days	✓	20-Sep-2023	365 days	41 days	✓	
Metals : Mercury in Biota by CVAAS (DRY units, Micro)											
LDPE bag HAC-R1_INVCAD-4_2023-08	E511	10-Aug-2023	19-Sep-2023	365 days	40 days	✓	20-Sep-2023	365 days	41 days	✓	
Metals : Mercury in Biota by CVAAS (DRY units, Micro)											
LDPE bag HAC-R1_INVCAD-5_2023-08	E511	10-Aug-2023	19-Sep-2023	365 days	40 days	✓	20-Sep-2023	365 days	41 days	✓	
Metals : Mercury in Biota by CVAAS (DRY units, Micro)											
LDPE bag HAC-R1_INVCAD-6_2023-08	E511	10-Aug-2023	19-Sep-2023	365 days	40 days	✓	20-Sep-2023	365 days	41 days	✓	
Metals : Mercury in Biota by CVAAS (DRY units, Micro)											
LDPE bag HAC-D_INV-1_2023-08	E511	06-Aug-2023	15-Sep-2023	365 days	40 days	✓	19-Sep-2023	365 days	45 days	✓	
Metals : Mercury in Biota by CVAAS (DRY units, Micro)											
LDPE bag HAC-D_INV-2_2023-08	E511	06-Aug-2023	15-Sep-2023	365 days	40 days	✓	19-Sep-2023	365 days	45 days	✓	
Metals : Mercury in Biota by CVAAS (DRY units, Micro)											
LDPE bag HAC-R1_INVCAD-7_2023-08	E511	09-Aug-2023	19-Sep-2023	365 days	41 days	✓	20-Sep-2023	365 days	42 days	✓	
Metals : Mercury in Biota by CVAAS (DRY units, Micro)											
LDPE bag HAC-R1_INVCAD-8_2023-08	E511	09-Aug-2023	19-Sep-2023	365 days	41 days	✓	20-Sep-2023	365 days	42 days	✓	



Matrix: **Biota** Evaluation: * = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Metals : Mercury in Biota by CVAAS (DRY units, Micro)										
LDPE bag HAC-U_INVCAD-1_2023-08	E511	09-Aug-2023	19-Sep-2023	365 days	41 days	✓	20-Sep-2023	365 days	42 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Micro)										
LDPE bag HAC-U_INVCAD-2_2023-08	E511	09-Aug-2023	19-Sep-2023	365 days	41 days	✓	20-Sep-2023	365 days	42 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Micro)										
LDPE bag HAC-U_INVCAD-3_2023-08	E511	09-Aug-2023	19-Sep-2023	365 days	41 days	✓	20-Sep-2023	365 days	42 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Micro)										
LDPE bag HAC-U_INVCAD-4_2023-08	E511	09-Aug-2023	19-Sep-2023	365 days	41 days	✓	20-Sep-2023	365 days	42 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Micro)										
LDPE bag HAC-U_INVCAD-5_2023-08	E511	09-Aug-2023	19-Sep-2023	365 days	41 days	✓	20-Sep-2023	365 days	42 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Micro)										
LDPE bag E1_PERT-1_2023-08	E511	05-Aug-2023	15-Sep-2023	365 days	41 days	✓	19-Sep-2023	365 days	46 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Micro)										
LDPE bag E1_PERT-2_2023-08	E511	05-Aug-2023	15-Sep-2023	365 days	41 days	✓	19-Sep-2023	365 days	46 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Micro)										
LDPE bag E1_PERT-3_2023-08	E511	05-Aug-2023	15-Sep-2023	365 days	41 days	✓	19-Sep-2023	365 days	46 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Micro)										
LDPE bag E1_PERT-4_2023-08	E511	05-Aug-2023	15-Sep-2023	365 days	41 days	✓	19-Sep-2023	365 days	46 days	✓



Matrix: **Biota** Evaluation: * = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Metals : Mercury in Biota by CVAAS (DRY units, Micro)										
LDPE bag HAC-D_PERT-8_2023-08	E511	05-Aug-2023	15-Sep-2023	365 days	41 days	✓	19-Sep-2023	365 days	46 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Micro)										
LDPE bag EDC-U_INV-1_2023-08	E511	08-Aug-2023	18-Sep-2023	365 days	42 days	✓	19-Sep-2023	365 days	43 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Micro)										
LDPE bag EDC-U_INV-2_2023-08	E511	08-Aug-2023	18-Sep-2023	365 days	42 days	✓	19-Sep-2023	365 days	43 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Micro)										
LDPE bag EDC-U_INV-3_2023-08	E511	08-Aug-2023	18-Sep-2023	365 days	42 days	✓	19-Sep-2023	365 days	43 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Micro)										
LDPE bag EDC-U_INV-4_2023-08	E511	08-Aug-2023	18-Sep-2023	365 days	42 days	✓	19-Sep-2023	365 days	43 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Micro)										
LDPE bag EDC-U_INVCAD-1_2023-08	E511	08-Aug-2023	19-Sep-2023	365 days	42 days	✓	20-Sep-2023	365 days	43 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Micro)										
LDPE bag EDC-U_INVCAD-2_2023-08	E511	08-Aug-2023	19-Sep-2023	365 days	42 days	✓	20-Sep-2023	365 days	43 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Micro)										
LDPE bag EDC-U_INVCAD-4_2023-08	E511	08-Aug-2023	19-Sep-2023	365 days	42 days	✓	20-Sep-2023	365 days	43 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Micro)										
LDPE bag E1_PERT-5_2023-08	E511	04-Aug-2023	15-Sep-2023	365 days	42 days	✓	19-Sep-2023	365 days	47 days	✓



Matrix: **Biota** Evaluation: * = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Metals : Mercury in Biota by CVAAS (DRY units, Micro)										
LDPE bag E1_PERT-6_2023-08	E511	04-Aug-2023	15-Sep-2023	365 days	42 days	✓	19-Sep-2023	365 days	47 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Micro)										
LDPE bag E1_PERT-7_2023-08	E511	04-Aug-2023	15-Sep-2023	365 days	42 days	✓	19-Sep-2023	365 days	47 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Micro)										
LDPE bag EDC-U_INV-5_2023-08	E511	07-Aug-2023	18-Sep-2023	365 days	43 days	✓	19-Sep-2023	365 days	44 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Micro)										
LDPE bag EDC-U_INVCAD-5_2023-08	E511	07-Aug-2023	19-Sep-2023	365 days	43 days	✓	20-Sep-2023	365 days	44 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Micro)										
LDPE bag EDC-U_INVCAD-6_2023-08	E511	07-Aug-2023	19-Sep-2023	365 days	43 days	✓	20-Sep-2023	365 days	44 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Micro)										
LDPE bag EDC-U_INVCAD-7_2023-08	E511	07-Aug-2023	19-Sep-2023	365 days	43 days	✓	20-Sep-2023	365 days	44 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Micro)										
LDPE bag EDC-U_INVCAD-8_2023-08	E511	07-Aug-2023	19-Sep-2023	365 days	43 days	✓	20-Sep-2023	365 days	44 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Micro)										
LDPE bag HAC-U_INVCAD-7_2023-08	E511	07-Aug-2023	19-Sep-2023	365 days	43 days	✓	20-Sep-2023	365 days	44 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Micro)										
LDPE bag HAC-U_INVCAD-8_2023-08	E511	07-Aug-2023	19-Sep-2023	365 days	43 days	✓	20-Sep-2023	365 days	44 days	✓



Matrix: **Biota** Evaluation: * = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Metals : Mercury in Biota by CVAAS (DRY units, Micro)											
LDPE bag E1_PERT-8_2023-08	E511	03-Aug-2023	15-Sep-2023	365 days	43 days	✓	19-Sep-2023	365 days	48 days	✓	
Metals : Mercury in Biota by CVAAS (DRY units, Micro)											
LDPE bag HAC-D_INV-3_2023-08	E511	06-Aug-2023	18-Sep-2023	365 days	44 days	✓	19-Sep-2023	365 days	45 days	✓	
Metals : Mercury in Biota by CVAAS (DRY units, Micro)											
LDPE bag HAC-D_INV-4_2023-08	E511	06-Aug-2023	18-Sep-2023	365 days	44 days	✓	19-Sep-2023	365 days	45 days	✓	
Metals : Mercury in Biota by CVAAS (DRY units, Micro)											
LDPE bag HAC-D_INV-5_2023-08	E511	06-Aug-2023	18-Sep-2023	365 days	44 days	✓	19-Sep-2023	365 days	45 days	✓	
Metals : Mercury in Biota by CVAAS (DRY units, Micro)											
LDPE bag HAC-D_INV-6_2023-08	E511	06-Aug-2023	18-Sep-2023	365 days	44 days	✓	19-Sep-2023	365 days	45 days	✓	
Metals : Mercury in Biota by CVAAS (DRY units, Micro)											
LDPE bag HAC-D_INV-7_2023-08	E511	06-Aug-2023	18-Sep-2023	365 days	44 days	✓	19-Sep-2023	365 days	45 days	✓	
Metals : Mercury in Biota by CVAAS (DRY units, Micro)											
LDPE bag HAC-D_INVCAD-1_2023-08	E511	06-Aug-2023	19-Sep-2023	365 days	44 days	✓	20-Sep-2023	365 days	45 days	✓	
Metals : Mercury in Biota by CVAAS (DRY units, Micro)											
LDPE bag HAC-D_INVCAD-2_2023-08	E511	06-Aug-2023	19-Sep-2023	365 days	44 days	✓	20-Sep-2023	365 days	45 days	✓	
Metals : Mercury in Biota by CVAAS (DRY units, Micro)											
LDPE bag HAC-D_INVCAD-3_2023-08	E511	06-Aug-2023	19-Sep-2023	365 days	44 days	✓	20-Sep-2023	365 days	45 days	✓	



Matrix: **Biota** Evaluation: * = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Metals : Mercury in Biota by CVAAS (DRY units, Micro)											
LDPE bag HAC-D_INVCAD-4_2023-08	E511	06-Aug-2023	19-Sep-2023	365 days	44 days	✓	20-Sep-2023	365 days	45 days	✓	
Metals : Mercury in Biota by CVAAS (DRY units, Micro)											
LDPE bag HAC-D_INVCAD-5_2023-08	E511	06-Aug-2023	19-Sep-2023	365 days	44 days	✓	20-Sep-2023	365 days	45 days	✓	
Metals : Mercury in Biota by CVAAS (DRY units, Micro)											
LDPE bag HAC-D_INVCAD-6_2023-08	E511	06-Aug-2023	19-Sep-2023	365 days	44 days	✓	20-Sep-2023	365 days	45 days	✓	
Metals : Mercury in Biota by CVAAS (DRY units, Micro)											
LDPE bag HAC-D_INVCAD-7_2023-08	E511	06-Aug-2023	19-Sep-2023	365 days	44 days	✓	20-Sep-2023	365 days	45 days	✓	
Metals : Mercury in Biota by CVAAS (DRY units, Micro)											
LDPE bag HAC-U_INVCAD-6_2023-08	E511	06-Aug-2023	19-Sep-2023	365 days	44 days	✓	20-Sep-2023	365 days	45 days	✓	
Metals : Mercury in Biota by CVAAS (DRY units, Micro)											
LDPE bag E1_INV-1_2023-08	E511	05-Aug-2023	18-Sep-2023	365 days	45 days	✓	19-Sep-2023	365 days	46 days	✓	
Metals : Mercury in Biota by CVAAS (DRY units, Micro)											
LDPE bag E1_INV-2_2023-08	E511	05-Aug-2023	19-Sep-2023	365 days	45 days	✓	20-Sep-2023	365 days	46 days	✓	
Metals : Mercury in Biota by CVAAS (DRY units, Micro)											
LDPE bag E1_INV-3_2023-08	E511	05-Aug-2023	19-Sep-2023	365 days	45 days	✓	20-Sep-2023	365 days	46 days	✓	
Metals : Mercury in Biota by CVAAS (DRY units, Micro)											
LDPE bag E1_INV-4_2023-08	E511	05-Aug-2023	19-Sep-2023	365 days	45 days	✓	20-Sep-2023	365 days	46 days	✓	



Matrix: **Biota** Evaluation: * = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Metals : Mercury in Biota by CVAAS (DRY units, Micro)											
LDPE bag EDC-D_INV-6X_2023-08	E511	11-Aug-2023	25-Sep-2023	365 days	45 days	✓	26-Sep-2023	365 days	46 days	✓	
Metals : Mercury in Biota by CVAAS (DRY units, Micro)											
LDPE bag EDC-D_INVCAD-3_2023-08	E511	11-Aug-2023	25-Sep-2023	365 days	45 days	✓	26-Sep-2023	365 days	46 days	✓	
Metals : Mercury in Biota by CVAAS (DRY units, Micro)											
LDPE bag EDC-D_INVCAD-4_2023-08	E511	11-Aug-2023	25-Sep-2023	365 days	45 days	✓	26-Sep-2023	365 days	46 days	✓	
Metals : Mercury in Biota by CVAAS (DRY units, Micro)											
LDPE bag EDC-D_INVCAD-5_2023-08	E511	11-Aug-2023	25-Sep-2023	365 days	45 days	✓	26-Sep-2023	365 days	46 days	✓	
Metals : Mercury in Biota by CVAAS (DRY units, Micro)											
LDPE bag EDC-D_INVCAD-6_2023-08	E511	11-Aug-2023	25-Sep-2023	365 days	45 days	✓	26-Sep-2023	365 days	46 days	✓	
Metals : Mercury in Biota by CVAAS (DRY units, Micro)											
LDPE bag EDC-D_INVCAD-7_2023-08	E511	11-Aug-2023	25-Sep-2023	365 days	45 days	✓	26-Sep-2023	365 days	46 days	✓	
Metals : Mercury in Biota by CVAAS (DRY units, Micro)											
LDPE bag EDC-D_INVCAD-8_2023-08	E511	11-Aug-2023	25-Sep-2023	365 days	45 days	✓	26-Sep-2023	365 days	46 days	✓	
Metals : Mercury in Biota by CVAAS (DRY units, Micro)											
LDPE bag EDC-D_INVCAD-8X_2023-08	E511	11-Aug-2023	25-Sep-2023	365 days	45 days	✓	26-Sep-2023	365 days	46 days	✓	
Metals : Mercury in Biota by CVAAS (DRY units, Micro)											
LDPE bag EDC-D_PERT-4X_2023-08	E511	11-Aug-2023	25-Sep-2023	365 days	45 days	✓	26-Sep-2023	365 days	46 days	✓	



Matrix: **Biota** Evaluation: * = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Metals : Mercury in Biota by CVAAS (DRY units, Micro)											
LDPE bag HAC-D_INV-8_2023-08	E511	05-Aug-2023	18-Sep-2023	365 days	45 days	✓	19-Sep-2023	365 days	46 days	✓	
Metals : Mercury in Biota by CVAAS (DRY units, Micro)											
LDPE bag HAC-D_INVCAD-8_2023-08	E511	05-Aug-2023	19-Sep-2023	365 days	45 days	✓	20-Sep-2023	365 days	46 days	✓	
Metals : Mercury in Biota by CVAAS (DRY units, Micro)											
LDPE bag E1_INV-5_2023-08	E511	04-Aug-2023	19-Sep-2023	365 days	46 days	✓	20-Sep-2023	365 days	47 days	✓	
Metals : Mercury in Biota by CVAAS (DRY units, Micro)											
LDPE bag E1_INV-6_2023-08	E511	04-Aug-2023	19-Sep-2023	365 days	46 days	✓	20-Sep-2023	365 days	47 days	✓	
Metals : Mercury in Biota by CVAAS (DRY units, Micro)											
LDPE bag E1_INV-7_2023-08	E511	04-Aug-2023	19-Sep-2023	365 days	46 days	✓	20-Sep-2023	365 days	47 days	✓	
Metals : Mercury in Biota by CVAAS (DRY units, Micro)											
LDPE bag HAC-R1_INV-6X_2023-08	E511	10-Aug-2023	25-Sep-2023	365 days	46 days	✓	26-Sep-2023	365 days	47 days	✓	
Metals : Mercury in Biota by CVAAS (DRY units, Micro)											
LDPE bag E1_INV-8_2023-08	E511	03-Aug-2023	19-Sep-2023	365 days	47 days	✓	20-Sep-2023	365 days	48 days	✓	
Metals : Mercury in Biota by CVAAS (DRY units, Micro)											
LDPE bag HAC-R1_INVCAD-8X_2023-08	E511	09-Aug-2023	25-Sep-2023	365 days	47 days	✓	26-Sep-2023	365 days	48 days	✓	
Metals : Mercury in Biota by CVAAS (DRY units, Micro)											
LDPE bag HAC-U_INV-2X_2023-08	E511	09-Aug-2023	25-Sep-2023	365 days	47 days	✓	26-Sep-2023	365 days	48 days	✓	



Matrix: **Biota** Evaluation: * = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Metals : Mercury in Biota by CVAAS (DRY units, Micro)											
LDPE bag HAC-U_INVCAD-2X_2023-08	E511	09-Aug-2023	25-Sep-2023	365 days	47 days	✓	26-Sep-2023	365 days	48 days	✓	
Metals : Mercury in Biota by CVAAS (DRY units, Micro)											
LDPE bag HAC-U_PERT-2X_2023-08	E511	09-Aug-2023	25-Sep-2023	365 days	47 days	✓	26-Sep-2023	365 days	48 days	✓	
Metals : Mercury in Biota by CVAAS (DRY units, Micro)											
LDPE bag HAC-U_PERT-6X_2023-08	E511	08-Aug-2023	25-Sep-2023	365 days	48 days	✓	26-Sep-2023	365 days	49 days	✓	
Metals : Mercury in Biota by CVAAS (DRY units, Micro)											
LDPE bag HAC-D_INV-2X_2023-08	E511	06-Aug-2023	25-Sep-2023	365 days	50 days	✓	26-Sep-2023	365 days	51 days	✓	
Metals : Mercury in Biota by CVAAS (DRY units, Micro)											
LDPE bag HAC-D_INVCAD-4X_2023-08	E511	06-Aug-2023	25-Sep-2023	365 days	50 days	✓	26-Sep-2023	365 days	51 days	✓	
Metals : Mercury in Biota by CVAAS (DRY units, Micro)											
LDPE bag HAC-D_PERT-3X_2023-08	E511	06-Aug-2023	25-Sep-2023	365 days	50 days	✓	26-Sep-2023	365 days	51 days	✓	
Metals : Mercury in Biota by CVAAS (DRY units, Micro)											
LDPE bag E1_INV-2X_2023-08	E511	05-Aug-2023	25-Sep-2023	365 days	51 days	✓	26-Sep-2023	365 days	52 days	✓	
Metals : Mercury in Biota by CVAAS (DRY units, Micro)											
LDPE bag E1_INVCAD-1_2023-08	E511	05-Aug-2023	25-Sep-2023	365 days	51 days	✓	26-Sep-2023	365 days	52 days	✓	
Metals : Mercury in Biota by CVAAS (DRY units, Micro)											
LDPE bag E1_INVCAD-2_2023-08	E511	05-Aug-2023	25-Sep-2023	365 days	51 days	✓	26-Sep-2023	365 days	52 days	✓	



Matrix: **Biota** Evaluation: * = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Metals : Mercury in Biota by CVAAS (DRY units, Micro)											
LDPE bag E1_INVCAD-3_2023-08	E511	05-Aug-2023	25-Sep-2023	365 days	51 days	✓	26-Sep-2023	365 days	52 days	✓	
Metals : Mercury in Biota by CVAAS (DRY units, Micro)											
LDPE bag E1_INVCAD-4_2023-08	E511	05-Aug-2023	25-Sep-2023	365 days	51 days	✓	26-Sep-2023	365 days	52 days	✓	
Metals : Mercury in Biota by CVAAS (DRY units, Micro)											
LDPE bag E1_PERT-4X_2023-08	E511	05-Aug-2023	25-Sep-2023	365 days	51 days	✓	26-Sep-2023	365 days	52 days	✓	
Metals : Mercury in Biota by CVAAS (DRY units, Micro)											
LDPE bag E1_INVCAD-5_2023-08	E511	04-Aug-2023	25-Sep-2023	365 days	52 days	✓	26-Sep-2023	365 days	53 days	✓	
Metals : Mercury in Biota by CVAAS (DRY units, Micro)											
LDPE bag E1_INVCAD-6_2023-08	E511	04-Aug-2023	25-Sep-2023	365 days	52 days	✓	26-Sep-2023	365 days	53 days	✓	
Metals : Mercury in Biota by CVAAS (DRY units, Micro)											
LDPE bag E1_INVCAD-7_2023-08	E511	04-Aug-2023	25-Sep-2023	365 days	52 days	✓	26-Sep-2023	365 days	53 days	✓	
Metals : Mercury in Biota by CVAAS (DRY units, Micro)											
LDPE bag E1_INVCAD-7X_2023-08	E511	04-Aug-2023	25-Sep-2023	365 days	52 days	✓	26-Sep-2023	365 days	53 days	✓	
Metals : Mercury in Biota by CVAAS (DRY units, Micro)											
LDPE bag E1_INVCAD-8_2023-08	E511	03-Aug-2023	25-Sep-2023	365 days	53 days	✓	26-Sep-2023	365 days	54 days	✓	
Metals : Mercury in Biota by CVAAS (WET units, Biopsy)											
LDPE bag HAC-R1_PERT-4_2023-08	E512A	10-Aug-2023	10-Nov-2023	365 days	93 days	✓	16-Nov-2023	365 days	99 days	✓	



Matrix: **Biota** Evaluation: * = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Metals : Mercury in Biota by CVAAS (WET units, Biopsy)										
LDPE bag HAC-U_PERT-3_2023-08	E512A	09-Aug-2023	10-Nov-2023	365 days	94 days	✓	16-Nov-2023	365 days	100 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Biopsy)										
LDPE bag EDC-U_PERT-3_2023-08	E512A	08-Aug-2023	10-Nov-2023	365 days	95 days	✓	16-Nov-2023	365 days	101 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Biopsy)										
LDPE bag EDC-U_PERT-4_2023-08	E512A	08-Aug-2023	10-Nov-2023	365 days	95 days	✓	16-Nov-2023	365 days	101 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Biopsy)										
LDPE bag EDC-U_INV-8_2023-08	E512A	07-Aug-2023	10-Nov-2023	365 days	96 days	✓	16-Nov-2023	365 days	102 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Biopsy)										
LDPE bag EDC-U_PERT-6_2023-08	E512A	07-Aug-2023	10-Nov-2023	365 days	96 days	✓	16-Nov-2023	365 days	102 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Biopsy)										
LDPE bag EDC-U_PERT-7_2023-08	E512A	07-Aug-2023	10-Nov-2023	365 days	96 days	✓	16-Nov-2023	365 days	102 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Biopsy)										
LDPE bag HAC-U_INV-8_2023-08	E512A	07-Aug-2023	10-Nov-2023	365 days	96 days	✓	16-Nov-2023	365 days	102 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Biopsy)										
LDPE bag HAC-D_PERT-2_2023-08	E512A	06-Aug-2023	10-Nov-2023	365 days	97 days	✓	16-Nov-2023	365 days	103 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Micro)										
LDPE bag E1_INVCAD-8_2023-08	E511A	03-Aug-2023	10-Nov-2023	365 days	100 days	✓	16-Nov-2023	365 days	106 days	✓



Matrix: **Biota** Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Metals : Mercury in Biota by CVAAS (WET units, Micro)											
LDPE bag EDC-D_INV-1_2023-08	E511A	11-Aug-2023	10-Nov-2023	365 days	91 days	✔	16-Nov-2023	365 days	98 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Micro)											
LDPE bag EDC-D_INV-2_2023-08	E511A	11-Aug-2023	10-Nov-2023	365 days	91 days	✔	16-Nov-2023	365 days	98 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Micro)											
LDPE bag EDC-D_INV-3_2023-08	E511A	11-Aug-2023	10-Nov-2023	365 days	91 days	✔	16-Nov-2023	365 days	98 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Micro)											
LDPE bag EDC-D_INV-4_2023-08	E511A	11-Aug-2023	10-Nov-2023	365 days	91 days	✔	16-Nov-2023	365 days	98 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Micro)											
LDPE bag EDC-D_INV-5_2023-08	E511A	11-Aug-2023	10-Nov-2023	365 days	91 days	✔	16-Nov-2023	365 days	98 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Micro)											
LDPE bag EDC-D_INV-6_2023-08	E511A	11-Aug-2023	10-Nov-2023	365 days	91 days	✔	16-Nov-2023	365 days	98 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Micro)											
LDPE bag EDC-D_INV-7_2023-08	E511A	11-Aug-2023	10-Nov-2023	365 days	91 days	✔	16-Nov-2023	365 days	98 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Micro)											
LDPE bag EDC-D_INV-8_2023-08	E511A	11-Aug-2023	10-Nov-2023	365 days	91 days	✔	16-Nov-2023	365 days	98 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Micro)											
LDPE bag EDC-D_PERT-1_2023-08	E511A	11-Aug-2023	10-Nov-2023	365 days	91 days	✔	16-Nov-2023	365 days	98 days	✔	



Matrix: **Biota** Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Metals : Mercury in Biota by CVAAS (WET units, Micro)											
LDPE bag EDC-D_PERT-2_2023-08	E511A	11-Aug-2023	10-Nov-2023	365 days	91 days	✔	16-Nov-2023	365 days	98 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Micro)											
LDPE bag EDC-D_PERT-3_2023-08	E511A	11-Aug-2023	10-Nov-2023	365 days	91 days	✔	16-Nov-2023	365 days	98 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Micro)											
LDPE bag EDC-D_PERT-4_2023-08	E511A	11-Aug-2023	10-Nov-2023	365 days	91 days	✔	16-Nov-2023	365 days	98 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Micro)											
LDPE bag EDC-D_PERT-5_2023-08	E511A	11-Aug-2023	10-Nov-2023	365 days	91 days	✔	16-Nov-2023	365 days	98 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Micro)											
LDPE bag EDC-D_PERT-6_2023-08	E511A	11-Aug-2023	10-Nov-2023	365 days	91 days	✔	16-Nov-2023	365 days	98 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Micro)											
LDPE bag EDC-D_PERT-7_2023-08	E511A	11-Aug-2023	10-Nov-2023	365 days	91 days	✔	16-Nov-2023	365 days	98 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Micro)											
LDPE bag EDC-D_PERT-8_2023-08	E511A	11-Aug-2023	10-Nov-2023	365 days	91 days	✔	16-Nov-2023	365 days	98 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Micro)											
LDPE bag EDC-D_INV-6X_2023-08	E511A	11-Aug-2023	10-Nov-2023	365 days	92 days	✔	16-Nov-2023	365 days	98 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Micro)											
LDPE bag EDC-D_INVCAD-1_2023-08	E511A	11-Aug-2023	10-Nov-2023	365 days	92 days	✔	16-Nov-2023	365 days	98 days	✔	



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Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Metals : Mercury in Biota by CVAAS (WET units, Micro)											
LDPE bag EDC-D_INVCAD-2_2023-08	E511A	11-Aug-2023	10-Nov-2023	365 days	92 days	✔	16-Nov-2023	365 days	98 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Micro)											
LDPE bag EDC-D_INVCAD-3_2023-08	E511A	11-Aug-2023	10-Nov-2023	365 days	92 days	✔	16-Nov-2023	365 days	98 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Micro)											
LDPE bag EDC-D_INVCAD-4_2023-08	E511A	11-Aug-2023	10-Nov-2023	365 days	92 days	✔	16-Nov-2023	365 days	98 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Micro)											
LDPE bag EDC-D_INVCAD-5_2023-08	E511A	11-Aug-2023	10-Nov-2023	365 days	92 days	✔	16-Nov-2023	365 days	98 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Micro)											
LDPE bag EDC-D_INVCAD-6_2023-08	E511A	11-Aug-2023	10-Nov-2023	365 days	92 days	✔	16-Nov-2023	365 days	98 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Micro)											
LDPE bag EDC-D_INVCAD-7_2023-08	E511A	11-Aug-2023	10-Nov-2023	365 days	92 days	✔	16-Nov-2023	365 days	98 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Micro)											
LDPE bag EDC-D_INVCAD-8_2023-08	E511A	11-Aug-2023	10-Nov-2023	365 days	92 days	✔	16-Nov-2023	365 days	98 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Micro)											
LDPE bag EDC-D_INVCAD-8X_2023-08	E511A	11-Aug-2023	10-Nov-2023	365 days	92 days	✔	16-Nov-2023	365 days	98 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Micro)											
LDPE bag EDC-D_PERT-4X_2023-08	E511A	11-Aug-2023	10-Nov-2023	365 days	92 days	✔	16-Nov-2023	365 days	98 days	✔	



Matrix: **Biota** Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Metals : Mercury in Biota by CVAAS (WET units, Micro)											
LDPE bag HAC-R1_INV-1_2023-08	E511A	10-Aug-2023	10-Nov-2023	365 days	92 days	✔	16-Nov-2023	365 days	99 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Micro)											
LDPE bag HAC-R1_INV-2_2023-08	E511A	10-Aug-2023	10-Nov-2023	365 days	92 days	✔	16-Nov-2023	365 days	99 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Micro)											
LDPE bag HAC-R1_INV-3_2023-08	E511A	10-Aug-2023	10-Nov-2023	365 days	92 days	✔	16-Nov-2023	365 days	99 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Micro)											
LDPE bag HAC-R1_INV-4_2023-08	E511A	10-Aug-2023	10-Nov-2023	365 days	92 days	✔	16-Nov-2023	365 days	99 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Micro)											
LDPE bag HAC-R1_INV-5_2023-08	E511A	10-Aug-2023	10-Nov-2023	365 days	92 days	✔	16-Nov-2023	365 days	99 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Micro)											
LDPE bag HAC-R1_INV-6_2023-08	E511A	10-Aug-2023	10-Nov-2023	365 days	92 days	✔	16-Nov-2023	365 days	99 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Micro)											
LDPE bag HAC-R1_INVCAD-1_2023-08	E511A	10-Aug-2023	10-Nov-2023	365 days	92 days	✔	16-Nov-2023	365 days	99 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Micro)											
LDPE bag HAC-R1_INVCAD-2_2023-08	E511A	10-Aug-2023	10-Nov-2023	365 days	92 days	✔	16-Nov-2023	365 days	99 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Micro)											
LDPE bag HAC-R1_INVCAD-3_2023-08	E511A	10-Aug-2023	10-Nov-2023	365 days	92 days	✔	16-Nov-2023	365 days	99 days	✔	



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			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Metals : Mercury in Biota by CVAAS (WET units, Micro)											
LDPE bag HAC-R1_INVCAD-4_2023-08	E511A	10-Aug-2023	10-Nov-2023	365 days	92 days	✔	16-Nov-2023	365 days	99 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Micro)											
LDPE bag HAC-R1_INVCAD-5_2023-08	E511A	10-Aug-2023	10-Nov-2023	365 days	92 days	✔	16-Nov-2023	365 days	99 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Micro)											
LDPE bag HAC-R1_INVCAD-6_2023-08	E511A	10-Aug-2023	10-Nov-2023	365 days	92 days	✔	16-Nov-2023	365 days	99 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Micro)											
LDPE bag HAC-R1_PERT-1_2023-08	E511A	10-Aug-2023	10-Nov-2023	365 days	92 days	✔	16-Nov-2023	365 days	99 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Micro)											
LDPE bag HAC-R1_PERT-2_2023-08	E511A	10-Aug-2023	10-Nov-2023	365 days	92 days	✔	16-Nov-2023	365 days	99 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Micro)											
LDPE bag HAC-R1_PERT-3_2023-08	E511A	10-Aug-2023	10-Nov-2023	365 days	92 days	✔	16-Nov-2023	365 days	99 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Micro)											
LDPE bag HAC-R1_PERT-5_2023-08	E511A	10-Aug-2023	10-Nov-2023	365 days	92 days	✔	16-Nov-2023	365 days	99 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Micro)											
LDPE bag HAC-R1_PERT-6_2023-08	E511A	10-Aug-2023	10-Nov-2023	365 days	92 days	✔	16-Nov-2023	365 days	99 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Micro)											
LDPE bag HAC-R1_INV-7_2023-08	E511A	09-Aug-2023	10-Nov-2023	365 days	93 days	✔	16-Nov-2023	365 days	100 days	✔	



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			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Metals : Mercury in Biota by CVAAS (WET units, Micro)											
LDPE bag HAC-R1_INV-8_2023-08	E511A	09-Aug-2023	10-Nov-2023	365 days	93 days	✔	16-Nov-2023	365 days	100 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Micro)											
LDPE bag HAC-R1_INVCAD-7_2023-08	E511A	09-Aug-2023	10-Nov-2023	365 days	93 days	✔	16-Nov-2023	365 days	100 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Micro)											
LDPE bag HAC-R1_INVCAD-8_2023-08	E511A	09-Aug-2023	10-Nov-2023	365 days	93 days	✔	16-Nov-2023	365 days	100 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Micro)											
LDPE bag HAC-R1_PERT-7_2023-08	E511A	09-Aug-2023	10-Nov-2023	365 days	93 days	✔	16-Nov-2023	365 days	100 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Micro)											
LDPE bag HAC-R1_PERT-8_2023-08	E511A	09-Aug-2023	10-Nov-2023	365 days	93 days	✔	16-Nov-2023	365 days	100 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Micro)											
LDPE bag HAC-U_INV-1_2023-08	E511A	09-Aug-2023	10-Nov-2023	365 days	93 days	✔	16-Nov-2023	365 days	100 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Micro)											
LDPE bag HAC-U_INV-2_2023-08	E511A	09-Aug-2023	10-Nov-2023	365 days	93 days	✔	16-Nov-2023	365 days	100 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Micro)											
LDPE bag HAC-U_INV-3_2023-08	E511A	09-Aug-2023	10-Nov-2023	365 days	93 days	✔	16-Nov-2023	365 days	100 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Micro)											
LDPE bag HAC-U_INV-4_2023-08	E511A	09-Aug-2023	10-Nov-2023	365 days	93 days	✔	16-Nov-2023	365 days	100 days	✔	



Matrix: **Biota**

Evaluation: * = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Metals : Mercury in Biota by CVAAS (WET units, Micro)											
LDPE bag HAC-U_INV-5_2023-08	E511A	09-Aug-2023	10-Nov-2023	365 days	93 days	✓	16-Nov-2023	365 days	100 days	✓	
Metals : Mercury in Biota by CVAAS (WET units, Micro)											
LDPE bag HAC-U_INVCAD-1_2023-08	E511A	09-Aug-2023	10-Nov-2023	365 days	93 days	✓	16-Nov-2023	365 days	100 days	✓	
Metals : Mercury in Biota by CVAAS (WET units, Micro)											
LDPE bag HAC-U_INVCAD-2_2023-08	E511A	09-Aug-2023	10-Nov-2023	365 days	93 days	✓	16-Nov-2023	365 days	100 days	✓	
Metals : Mercury in Biota by CVAAS (WET units, Micro)											
LDPE bag HAC-U_INVCAD-3_2023-08	E511A	09-Aug-2023	10-Nov-2023	365 days	93 days	✓	16-Nov-2023	365 days	100 days	✓	
Metals : Mercury in Biota by CVAAS (WET units, Micro)											
LDPE bag HAC-U_INVCAD-4_2023-08	E511A	09-Aug-2023	10-Nov-2023	365 days	93 days	✓	16-Nov-2023	365 days	100 days	✓	
Metals : Mercury in Biota by CVAAS (WET units, Micro)											
LDPE bag HAC-U_INVCAD-5_2023-08	E511A	09-Aug-2023	10-Nov-2023	365 days	93 days	✓	16-Nov-2023	365 days	100 days	✓	
Metals : Mercury in Biota by CVAAS (WET units, Micro)											
LDPE bag HAC-U_PERT-1_2023-08	E511A	09-Aug-2023	10-Nov-2023	365 days	93 days	✓	16-Nov-2023	365 days	100 days	✓	
Metals : Mercury in Biota by CVAAS (WET units, Micro)											
LDPE bag HAC-U_PERT-2_2023-08	E511A	09-Aug-2023	10-Nov-2023	365 days	93 days	✓	16-Nov-2023	365 days	100 days	✓	
Metals : Mercury in Biota by CVAAS (WET units, Micro)											
LDPE bag HAC-U_PERT-4_2023-08	E511A	09-Aug-2023	10-Nov-2023	365 days	93 days	✓	16-Nov-2023	365 days	100 days	✓	



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			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Metals : Mercury in Biota by CVAAS (WET units, Micro)											
LDPE bag HAC-U_PERT-5_2023-08	E511A	09-Aug-2023	10-Nov-2023	365 days	93 days	✓	16-Nov-2023	365 days	100 days	✓	
Metals : Mercury in Biota by CVAAS (WET units, Micro)											
LDPE bag HAC-R1_INV-6X_2023-08	E511A	10-Aug-2023	10-Nov-2023	365 days	93 days	✓	16-Nov-2023	365 days	99 days	✓	
Metals : Mercury in Biota by CVAAS (WET units, Micro)											
LDPE bag HAC-R1_INVCAD-8X_2023-08	E511A	09-Aug-2023	10-Nov-2023	365 days	94 days	✓	16-Nov-2023	365 days	100 days	✓	
Metals : Mercury in Biota by CVAAS (WET units, Micro)											
LDPE bag HAC-U_INV-2X_2023-08	E511A	09-Aug-2023	10-Nov-2023	365 days	94 days	✓	16-Nov-2023	365 days	100 days	✓	
Metals : Mercury in Biota by CVAAS (WET units, Micro)											
LDPE bag HAC-U_INVCAD-2X_2023-08	E511A	09-Aug-2023	10-Nov-2023	365 days	94 days	✓	16-Nov-2023	365 days	100 days	✓	
Metals : Mercury in Biota by CVAAS (WET units, Micro)											
LDPE bag HAC-U_PERT-2X_2023-08	E511A	09-Aug-2023	10-Nov-2023	365 days	94 days	✓	16-Nov-2023	365 days	100 days	✓	
Metals : Mercury in Biota by CVAAS (WET units, Micro)											
LDPE bag EDC-U_INV-1_2023-08	E511A	08-Aug-2023	10-Nov-2023	365 days	94 days	✓	16-Nov-2023	365 days	101 days	✓	
Metals : Mercury in Biota by CVAAS (WET units, Micro)											
LDPE bag EDC-U_INV-2_2023-08	E511A	08-Aug-2023	10-Nov-2023	365 days	94 days	✓	16-Nov-2023	365 days	101 days	✓	
Metals : Mercury in Biota by CVAAS (WET units, Micro)											
LDPE bag EDC-U_INV-3_2023-08	E511A	08-Aug-2023	10-Nov-2023	365 days	94 days	✓	16-Nov-2023	365 days	101 days	✓	



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				Rec	Actual			Rec	Actual		
Metals : Mercury in Biota by CVAAS (WET units, Micro)											
LDPE bag EDC-U_INV-4_2023-08	E511A	08-Aug-2023	10-Nov-2023	365 days	94 days	✔	16-Nov-2023	365 days	101 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Micro)											
LDPE bag EDC-U_PERT-1_2023-08	E511A	08-Aug-2023	10-Nov-2023	365 days	94 days	✔	16-Nov-2023	365 days	101 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Micro)											
LDPE bag EDC-U_PERT-2_2023-08	E511A	08-Aug-2023	10-Nov-2023	365 days	94 days	✔	16-Nov-2023	365 days	101 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Micro)											
LDPE bag HAC-U_INV-6_2023-08	E511A	08-Aug-2023	10-Nov-2023	365 days	94 days	✔	16-Nov-2023	365 days	101 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Micro)											
LDPE bag HAC-U_PERT-6_2023-08	E511A	08-Aug-2023	10-Nov-2023	365 days	94 days	✔	16-Nov-2023	365 days	101 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Micro)											
LDPE bag EDC-U_INVCAD-1_2023-08	E511A	08-Aug-2023	10-Nov-2023	365 days	95 days	✔	16-Nov-2023	365 days	101 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Micro)											
LDPE bag EDC-U_INVCAD-2_2023-08	E511A	08-Aug-2023	10-Nov-2023	365 days	95 days	✔	16-Nov-2023	365 days	101 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Micro)											
LDPE bag EDC-U_INVCAD-3_2023-08	E511A	08-Aug-2023	10-Nov-2023	365 days	95 days	✔	16-Nov-2023	365 days	101 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Micro)											
LDPE bag EDC-U_INVCAD-4_2023-08	E511A	08-Aug-2023	10-Nov-2023	365 days	95 days	✔	16-Nov-2023	365 days	101 days	✔	



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				Rec	Actual			Rec	Actual		
Metals : Mercury in Biota by CVAAS (WET units, Micro)											
LDPE bag HAC-U_PERT-6X_2023-08	E511A	08-Aug-2023	10-Nov-2023	365 days	95 days	✔	16-Nov-2023	365 days	101 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Micro)											
LDPE bag EDC-U_INV-5_2023-08	E511A	07-Aug-2023	10-Nov-2023	365 days	95 days	✔	16-Nov-2023	365 days	102 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Micro)											
LDPE bag EDC-U_PERT-5_2023-08	E511A	07-Aug-2023	10-Nov-2023	365 days	95 days	✔	16-Nov-2023	365 days	102 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Micro)											
LDPE bag EDC-U_PERT-8_2023-08	E511A	07-Aug-2023	10-Nov-2023	365 days	95 days	✔	16-Nov-2023	365 days	102 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Micro)											
LDPE bag HAC-U_INV-7_2023-08	E511A	07-Aug-2023	10-Nov-2023	365 days	95 days	✔	16-Nov-2023	365 days	102 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Micro)											
LDPE bag HAC-U_PERT-7_2023-08	E511A	07-Aug-2023	10-Nov-2023	365 days	95 days	✔	16-Nov-2023	365 days	102 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Micro)											
LDPE bag HAC-U_PERT-8_2023-08	E511A	07-Aug-2023	10-Nov-2023	365 days	95 days	✔	16-Nov-2023	365 days	102 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Micro)											
LDPE bag EDC-U_INV-6_2023-08	E511A	07-Aug-2023	10-Nov-2023	365 days	96 days	✔	16-Nov-2023	365 days	102 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Micro)											
LDPE bag EDC-U_INV-7_2023-08	E511A	07-Aug-2023	10-Nov-2023	365 days	96 days	✔	16-Nov-2023	365 days	102 days	✔	



Matrix: **Biota** Evaluation: * = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Metals : Mercury in Biota by CVAAS (WET units, Micro)											
LDPE bag EDC-U_INVCAD-5_2023-08	E511A	07-Aug-2023	10-Nov-2023	365 days	96 days	✓	16-Nov-2023	365 days	102 days	✓	
Metals : Mercury in Biota by CVAAS (WET units, Micro)											
LDPE bag EDC-U_INVCAD-6_2023-08	E511A	07-Aug-2023	10-Nov-2023	365 days	96 days	✓	16-Nov-2023	365 days	102 days	✓	
Metals : Mercury in Biota by CVAAS (WET units, Micro)											
LDPE bag EDC-U_INVCAD-7_2023-08	E511A	07-Aug-2023	10-Nov-2023	365 days	96 days	✓	16-Nov-2023	365 days	102 days	✓	
Metals : Mercury in Biota by CVAAS (WET units, Micro)											
LDPE bag EDC-U_INVCAD-8_2023-08	E511A	07-Aug-2023	10-Nov-2023	365 days	96 days	✓	16-Nov-2023	365 days	102 days	✓	
Metals : Mercury in Biota by CVAAS (WET units, Micro)											
LDPE bag HAC-U_INVCAD-7_2023-08	E511A	07-Aug-2023	10-Nov-2023	365 days	96 days	✓	16-Nov-2023	365 days	102 days	✓	
Metals : Mercury in Biota by CVAAS (WET units, Micro)											
LDPE bag HAC-U_INVCAD-8_2023-08	E511A	07-Aug-2023	10-Nov-2023	365 days	96 days	✓	16-Nov-2023	365 days	102 days	✓	
Metals : Mercury in Biota by CVAAS (WET units, Micro)											
LDPE bag HAC-D_INV-1_2023-08	E511A	06-Aug-2023	10-Nov-2023	365 days	96 days	✓	16-Nov-2023	365 days	103 days	✓	
Metals : Mercury in Biota by CVAAS (WET units, Micro)											
LDPE bag HAC-D_INV-2_2023-08	E511A	06-Aug-2023	10-Nov-2023	365 days	96 days	✓	16-Nov-2023	365 days	103 days	✓	
Metals : Mercury in Biota by CVAAS (WET units, Micro)											
LDPE bag HAC-D_INV-3_2023-08	E511A	06-Aug-2023	10-Nov-2023	365 days	96 days	✓	16-Nov-2023	365 days	103 days	✓	



Matrix: **Biota** Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Metals : Mercury in Biota by CVAAS (WET units, Micro)											
LDPE bag HAC-D_INV-4_2023-08	E511A	06-Aug-2023	10-Nov-2023	365 days	96 days	✔	16-Nov-2023	365 days	103 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Micro)											
LDPE bag HAC-D_INV-5_2023-08	E511A	06-Aug-2023	10-Nov-2023	365 days	96 days	✔	16-Nov-2023	365 days	103 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Micro)											
LDPE bag HAC-D_INV-6_2023-08	E511A	06-Aug-2023	10-Nov-2023	365 days	96 days	✔	16-Nov-2023	365 days	103 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Micro)											
LDPE bag HAC-D_INV-7_2023-08	E511A	06-Aug-2023	10-Nov-2023	365 days	96 days	✔	16-Nov-2023	365 days	103 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Micro)											
LDPE bag HAC-D_PERT-1_2023-08	E511A	06-Aug-2023	10-Nov-2023	365 days	96 days	✔	16-Nov-2023	365 days	103 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Micro)											
LDPE bag HAC-D_PERT-3_2023-08	E511A	06-Aug-2023	10-Nov-2023	365 days	96 days	✔	16-Nov-2023	365 days	103 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Micro)											
LDPE bag HAC-D_PERT-4_2023-08	E511A	06-Aug-2023	10-Nov-2023	365 days	96 days	✔	16-Nov-2023	365 days	103 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Micro)											
LDPE bag HAC-D_PERT-5_2023-08	E511A	06-Aug-2023	10-Nov-2023	365 days	96 days	✔	16-Nov-2023	365 days	103 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Micro)											
LDPE bag HAC-D_PERT-6_2023-08	E511A	06-Aug-2023	10-Nov-2023	365 days	96 days	✔	16-Nov-2023	365 days	103 days	✔	



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Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Metals : Mercury in Biota by CVAAS (WET units, Micro)											
LDPE bag HAC-D_PERT-7_2023-08	E511A	06-Aug-2023	10-Nov-2023	365 days	96 days	✔	16-Nov-2023	365 days	103 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Micro)											
LDPE bag HAC-D_INV-2X_2023-08	E511A	06-Aug-2023	10-Nov-2023	365 days	97 days	✔	16-Nov-2023	365 days	103 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Micro)											
LDPE bag HAC-D_INVCAD-1_2023-08	E511A	06-Aug-2023	10-Nov-2023	365 days	97 days	✔	16-Nov-2023	365 days	103 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Micro)											
LDPE bag HAC-D_INVCAD-2_2023-08	E511A	06-Aug-2023	10-Nov-2023	365 days	97 days	✔	16-Nov-2023	365 days	103 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Micro)											
LDPE bag HAC-D_INVCAD-3_2023-08	E511A	06-Aug-2023	10-Nov-2023	365 days	97 days	✔	16-Nov-2023	365 days	103 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Micro)											
LDPE bag HAC-D_INVCAD-4_2023-08	E511A	06-Aug-2023	10-Nov-2023	365 days	97 days	✔	16-Nov-2023	365 days	103 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Micro)											
LDPE bag HAC-D_INVCAD-4X_2023-08	E511A	06-Aug-2023	10-Nov-2023	365 days	97 days	✔	16-Nov-2023	365 days	103 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Micro)											
LDPE bag HAC-D_INVCAD-5_2023-08	E511A	06-Aug-2023	10-Nov-2023	365 days	97 days	✔	16-Nov-2023	365 days	103 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Micro)											
LDPE bag HAC-D_INVCAD-6_2023-08	E511A	06-Aug-2023	10-Nov-2023	365 days	97 days	✔	16-Nov-2023	365 days	103 days	✔	



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Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Metals : Mercury in Biota by CVAAS (WET units, Micro)										
LDPE bag HAC-D_INVCAD-7_2023-08	E511A	06-Aug-2023	10-Nov-2023	365 days	97 days	✓	16-Nov-2023	365 days	103 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Micro)										
LDPE bag HAC-D_PERT-3X_2023-08	E511A	06-Aug-2023	10-Nov-2023	365 days	97 days	✓	16-Nov-2023	365 days	103 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Micro)										
LDPE bag HAC-U_INVCAD-6_2023-08	E511A	06-Aug-2023	10-Nov-2023	365 days	97 days	✓	16-Nov-2023	365 days	103 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Micro)										
LDPE bag E1_INV-1_2023-08	E511A	05-Aug-2023	10-Nov-2023	365 days	97 days	✓	16-Nov-2023	365 days	104 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Micro)										
LDPE bag E1_INV-2_2023-08	E511A	05-Aug-2023	10-Nov-2023	365 days	97 days	✓	16-Nov-2023	365 days	104 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Micro)										
LDPE bag E1_INV-3_2023-08	E511A	05-Aug-2023	10-Nov-2023	365 days	97 days	✓	16-Nov-2023	365 days	104 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Micro)										
LDPE bag E1_INV-4_2023-08	E511A	05-Aug-2023	10-Nov-2023	365 days	97 days	✓	16-Nov-2023	365 days	104 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Micro)										
LDPE bag E1_PERT-1_2023-08	E511A	05-Aug-2023	10-Nov-2023	365 days	97 days	✓	16-Nov-2023	365 days	104 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Micro)										
LDPE bag E1_PERT-2_2023-08	E511A	05-Aug-2023	10-Nov-2023	365 days	97 days	✓	16-Nov-2023	365 days	104 days	✓



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Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Metals : Mercury in Biota by CVAAS (WET units, Micro)											
LDPE bag E1_PERT-3_2023-08	E511A	05-Aug-2023	10-Nov-2023	365 days	97 days	✓	16-Nov-2023	365 days	104 days	✓	
Metals : Mercury in Biota by CVAAS (WET units, Micro)											
LDPE bag E1_PERT-4_2023-08	E511A	05-Aug-2023	10-Nov-2023	365 days	97 days	✓	16-Nov-2023	365 days	104 days	✓	
Metals : Mercury in Biota by CVAAS (WET units, Micro)											
LDPE bag HAC-D_INV-8_2023-08	E511A	05-Aug-2023	10-Nov-2023	365 days	97 days	✓	16-Nov-2023	365 days	104 days	✓	
Metals : Mercury in Biota by CVAAS (WET units, Micro)											
LDPE bag HAC-D_PERT-8_2023-08	E511A	05-Aug-2023	10-Nov-2023	365 days	97 days	✓	16-Nov-2023	365 days	104 days	✓	
Metals : Mercury in Biota by CVAAS (WET units, Micro)											
LDPE bag E1_INV-2X_2023-08	E511A	05-Aug-2023	10-Nov-2023	365 days	98 days	✓	16-Nov-2023	365 days	104 days	✓	
Metals : Mercury in Biota by CVAAS (WET units, Micro)											
LDPE bag E1_INVCAD-1_2023-08	E511A	05-Aug-2023	10-Nov-2023	365 days	98 days	✓	16-Nov-2023	365 days	104 days	✓	
Metals : Mercury in Biota by CVAAS (WET units, Micro)											
LDPE bag E1_INVCAD-2_2023-08	E511A	05-Aug-2023	10-Nov-2023	365 days	98 days	✓	16-Nov-2023	365 days	104 days	✓	
Metals : Mercury in Biota by CVAAS (WET units, Micro)											
LDPE bag E1_INVCAD-3_2023-08	E511A	05-Aug-2023	10-Nov-2023	365 days	98 days	✓	16-Nov-2023	365 days	104 days	✓	
Metals : Mercury in Biota by CVAAS (WET units, Micro)											
LDPE bag E1_INVCAD-4_2023-08	E511A	05-Aug-2023	10-Nov-2023	365 days	98 days	✓	16-Nov-2023	365 days	104 days	✓	



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Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Metals : Mercury in Biota by CVAAS (WET units, Micro)											
LDPE bag E1_PERT-4X_2023-08	E511A	05-Aug-2023	10-Nov-2023	365 days	98 days	✔	16-Nov-2023	365 days	104 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Micro)											
LDPE bag HAC-D_INVCAD-8_2023-08	E511A	05-Aug-2023	10-Nov-2023	365 days	98 days	✔	16-Nov-2023	365 days	104 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Micro)											
LDPE bag E1_INV-5_2023-08	E511A	04-Aug-2023	10-Nov-2023	365 days	98 days	✔	16-Nov-2023	365 days	105 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Micro)											
LDPE bag E1_INV-6_2023-08	E511A	04-Aug-2023	10-Nov-2023	365 days	98 days	✔	16-Nov-2023	365 days	105 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Micro)											
LDPE bag E1_INV-7_2023-08	E511A	04-Aug-2023	10-Nov-2023	365 days	98 days	✔	16-Nov-2023	365 days	105 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Micro)											
LDPE bag E1_PERT-5_2023-08	E511A	04-Aug-2023	10-Nov-2023	365 days	98 days	✔	16-Nov-2023	365 days	105 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Micro)											
LDPE bag E1_PERT-6_2023-08	E511A	04-Aug-2023	10-Nov-2023	365 days	98 days	✔	16-Nov-2023	365 days	105 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Micro)											
LDPE bag E1_PERT-7_2023-08	E511A	04-Aug-2023	10-Nov-2023	365 days	98 days	✔	16-Nov-2023	365 days	105 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Micro)											
LDPE bag E1_INVCAD-5_2023-08	E511A	04-Aug-2023	10-Nov-2023	365 days	99 days	✔	16-Nov-2023	365 days	105 days	✔	



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Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Metals : Mercury in Biota by CVAAS (WET units, Micro)											
LDPE bag E1_INVCAD-6_2023-08	E511A	04-Aug-2023	10-Nov-2023	365 days	99 days	✓	16-Nov-2023	365 days	105 days	✓	
Metals : Mercury in Biota by CVAAS (WET units, Micro)											
LDPE bag E1_INVCAD-7_2023-08	E511A	04-Aug-2023	10-Nov-2023	365 days	99 days	✓	16-Nov-2023	365 days	105 days	✓	
Metals : Mercury in Biota by CVAAS (WET units, Micro)											
LDPE bag E1_INVCAD-7X_2023-08	E511A	04-Aug-2023	10-Nov-2023	365 days	99 days	✓	16-Nov-2023	365 days	105 days	✓	
Metals : Mercury in Biota by CVAAS (WET units, Micro)											
LDPE bag E1_INV-8_2023-08	E511A	03-Aug-2023	10-Nov-2023	365 days	99 days	✓	16-Nov-2023	365 days	106 days	✓	
Metals : Mercury in Biota by CVAAS (WET units, Micro)											
LDPE bag E1_PERT-8_2023-08	E511A	03-Aug-2023	10-Nov-2023	365 days	99 days	✓	16-Nov-2023	365 days	106 days	✓	
Metals : Metals by CRC ICPMS (DRY units, Biopsy)											
LDPE bag HAC-R1_PERT-4_2023-08	E475	10-Aug-2023	13-Sep-2023	730 days	35 days	✓	13-Sep-2023	730 days	35 days	✓	
Metals : Metals by CRC ICPMS (DRY units, Biopsy)											
LDPE bag HAC-U_PERT-3_2023-08	E475	09-Aug-2023	13-Sep-2023	730 days	36 days	✓	13-Sep-2023	730 days	36 days	✓	
Metals : Metals by CRC ICPMS (DRY units, Biopsy)											
LDPE bag EDC-U_PERT-3_2023-08	E475	08-Aug-2023	13-Sep-2023	730 days	37 days	✓	13-Sep-2023	730 days	37 days	✓	
Metals : Metals by CRC ICPMS (DRY units, Biopsy)											
LDPE bag EDC-U_PERT-4_2023-08	E475	08-Aug-2023	13-Sep-2023	730 days	37 days	✓	13-Sep-2023	730 days	37 days	✓	



Matrix: **Biota** Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Metals : Metals by CRC ICPMS (DRY units, Biopsy)											
LDPE bag EDC-U_INV-8_2023-08	E475	07-Aug-2023	13-Sep-2023	730 days	38 days	✔	13-Sep-2023	730 days	38 days	✔	
Metals : Metals by CRC ICPMS (DRY units, Biopsy)											
LDPE bag EDC-U_PERT-7_2023-08	E475	07-Aug-2023	13-Sep-2023	730 days	38 days	✔	13-Sep-2023	730 days	38 days	✔	
Metals : Metals by CRC ICPMS (DRY units, Biopsy)											
LDPE bag HAC-D_PERT-2_2023-08	E475	06-Aug-2023	13-Sep-2023	730 days	39 days	✔	13-Sep-2023	730 days	39 days	✔	
Metals : Metals by CRC ICPMS (DRY units, Biopsy)											
LDPE bag EDC-U_PERT-6_2023-08	E475	07-Aug-2023	18-Sep-2023	730 days	43 days	✔	11-Oct-2023	730 days	66 days	✔	
Metals : Metals by CRC ICPMS (DRY units, Biopsy)											
LDPE bag HAC-U_INV-8_2023-08	E475	07-Aug-2023	18-Sep-2023	730 days	43 days	✔	11-Oct-2023	730 days	66 days	✔	
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag HAC-R1_PERT-1_2023-08	E472	10-Aug-2023	12-Sep-2023	730 days	33 days	✔	14-Sep-2023	730 days	35 days	✔	
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag HAC-R1_PERT-2_2023-08	E472	10-Aug-2023	12-Sep-2023	730 days	33 days	✔	14-Sep-2023	730 days	35 days	✔	
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag HAC-R1_PERT-3_2023-08	E472	10-Aug-2023	12-Sep-2023	730 days	33 days	✔	14-Sep-2023	730 days	35 days	✔	
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag HAC-R1_PERT-5_2023-08	E472	10-Aug-2023	12-Sep-2023	730 days	33 days	✔	14-Sep-2023	730 days	35 days	✔	



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Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag HAC-R1_PERT-6_2023-08	E472	10-Aug-2023	12-Sep-2023	730 days	33 days	✓	14-Sep-2023	730 days	35 days	✓	
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag HAC-R1_PERT-7_2023-08	E472	09-Aug-2023	12-Sep-2023	730 days	34 days	✓	14-Sep-2023	730 days	36 days	✓	
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag HAC-R1_PERT-8_2023-08	E472	09-Aug-2023	12-Sep-2023	730 days	34 days	✓	14-Sep-2023	730 days	36 days	✓	
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag HAC-U_PERT-1_2023-08	E472	09-Aug-2023	12-Sep-2023	730 days	34 days	✓	14-Sep-2023	730 days	36 days	✓	
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag HAC-U_PERT-2_2023-08	E472	09-Aug-2023	12-Sep-2023	730 days	34 days	✓	14-Sep-2023	730 days	36 days	✓	
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag HAC-U_PERT-4_2023-08	E472	09-Aug-2023	12-Sep-2023	730 days	34 days	✓	14-Sep-2023	730 days	36 days	✓	
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag HAC-U_PERT-5_2023-08	E472	09-Aug-2023	12-Sep-2023	730 days	34 days	✓	14-Sep-2023	730 days	36 days	✓	
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag HAC-U_PERT-6_2023-08	E472	08-Aug-2023	12-Sep-2023	730 days	35 days	✓	14-Sep-2023	730 days	37 days	✓	
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag EDC-D_PERT-1_2023-08	E472	11-Aug-2023	15-Sep-2023	730 days	35 days	✓	18-Sep-2023	730 days	38 days	✓	



Matrix: **Biota** Evaluation: * = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag EDC-D_PERT-2_2023-08	E472	11-Aug-2023	15-Sep-2023	730 days	35 days	✓	18-Sep-2023	730 days	38 days	✓	
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag EDC-D_PERT-3_2023-08	E472	11-Aug-2023	15-Sep-2023	730 days	35 days	✓	18-Sep-2023	730 days	38 days	✓	
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag EDC-D_PERT-4_2023-08	E472	11-Aug-2023	15-Sep-2023	730 days	35 days	✓	18-Sep-2023	730 days	38 days	✓	
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag EDC-D_PERT-5_2023-08	E472	11-Aug-2023	15-Sep-2023	730 days	35 days	✓	18-Sep-2023	730 days	38 days	✓	
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag EDC-D_PERT-6_2023-08	E472	11-Aug-2023	15-Sep-2023	730 days	35 days	✓	18-Sep-2023	730 days	38 days	✓	
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag EDC-D_PERT-7_2023-08	E472	11-Aug-2023	15-Sep-2023	730 days	35 days	✓	18-Sep-2023	730 days	38 days	✓	
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag EDC-D_PERT-8_2023-08	E472	11-Aug-2023	15-Sep-2023	730 days	35 days	✓	18-Sep-2023	730 days	38 days	✓	
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag HAC-U_PERT-7_2023-08	E472	07-Aug-2023	12-Sep-2023	730 days	36 days	✓	14-Sep-2023	730 days	38 days	✓	
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag HAC-U_PERT-8_2023-08	E472	07-Aug-2023	12-Sep-2023	730 days	36 days	✓	14-Sep-2023	730 days	38 days	✓	



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Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)										
LDPE bag HAC-R1_INV-1_2023-08	E472	10-Aug-2023	15-Sep-2023	730 days	36 days	✓	18-Sep-2023	730 days	39 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)										
LDPE bag HAC-R1_INV-2_2023-08	E472	10-Aug-2023	15-Sep-2023	730 days	36 days	✓	18-Sep-2023	730 days	39 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)										
LDPE bag HAC-R1_INV-3_2023-08	E472	10-Aug-2023	15-Sep-2023	730 days	36 days	✓	18-Sep-2023	730 days	39 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)										
LDPE bag HAC-R1_INV-4_2023-08	E472	10-Aug-2023	15-Sep-2023	730 days	36 days	✓	18-Sep-2023	730 days	39 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)										
LDPE bag HAC-R1_INV-5_2023-08	E472	10-Aug-2023	15-Sep-2023	730 days	36 days	✓	18-Sep-2023	730 days	39 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)										
LDPE bag HAC-R1_INV-6_2023-08	E472	10-Aug-2023	15-Sep-2023	730 days	36 days	✓	18-Sep-2023	730 days	39 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)										
LDPE bag EDC-U_INVCAD-3_2023-08	E472	08-Aug-2023	13-Sep-2023	730 days	37 days	✓	13-Sep-2023	730 days	37 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)										
LDPE bag HAC-D_PERT-1_2023-08	E472	06-Aug-2023	12-Sep-2023	730 days	37 days	✓	14-Sep-2023	730 days	39 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)										
LDPE bag HAC-D_PERT-3_2023-08	E472	06-Aug-2023	12-Sep-2023	730 days	37 days	✓	14-Sep-2023	730 days	39 days	✓



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Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)										
LDPE bag HAC-D_PERT-4_2023-08	E472	06-Aug-2023	12-Sep-2023	730 days	37 days	✓	14-Sep-2023	730 days	39 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)										
LDPE bag HAC-D_PERT-5_2023-08	E472	06-Aug-2023	12-Sep-2023	730 days	37 days	✓	14-Sep-2023	730 days	39 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)										
LDPE bag HAC-D_PERT-6_2023-08	E472	06-Aug-2023	12-Sep-2023	730 days	37 days	✓	14-Sep-2023	730 days	39 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)										
LDPE bag HAC-D_PERT-7_2023-08	E472	06-Aug-2023	12-Sep-2023	730 days	37 days	✓	14-Sep-2023	730 days	39 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)										
LDPE bag HAC-R1_INV-7_2023-08	E472	09-Aug-2023	15-Sep-2023	730 days	37 days	✓	18-Sep-2023	730 days	40 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)										
LDPE bag HAC-R1_INV-8_2023-08	E472	09-Aug-2023	15-Sep-2023	730 days	37 days	✓	18-Sep-2023	730 days	40 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)										
LDPE bag HAC-U_INV-1_2023-08	E472	09-Aug-2023	15-Sep-2023	730 days	37 days	✓	18-Sep-2023	730 days	40 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)										
LDPE bag HAC-U_INV-2_2023-08	E472	09-Aug-2023	15-Sep-2023	730 days	37 days	✓	18-Sep-2023	730 days	40 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)										
LDPE bag HAC-U_INV-3_2023-08	E472	09-Aug-2023	15-Sep-2023	730 days	37 days	✓	18-Sep-2023	730 days	40 days	✓



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			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)										
LDPE bag HAC-U_INV-4_2023-08	E472	09-Aug-2023	15-Sep-2023	730 days	37 days	✓	18-Sep-2023	730 days	40 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)										
LDPE bag HAC-U_INV-5_2023-08	E472	09-Aug-2023	15-Sep-2023	730 days	37 days	✓	18-Sep-2023	730 days	40 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)										
LDPE bag EDC-U_INV-6_2023-08	E472	07-Aug-2023	13-Sep-2023	730 days	38 days	✓	13-Sep-2023	730 days	38 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)										
LDPE bag EDC-U_INV-7_2023-08	E472	07-Aug-2023	13-Sep-2023	730 days	38 days	✓	13-Sep-2023	730 days	38 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)										
LDPE bag EDC-U_PERT-1_2023-08	E472	08-Aug-2023	15-Sep-2023	730 days	38 days	✓	18-Sep-2023	730 days	41 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)										
LDPE bag EDC-U_PERT-2_2023-08	E472	08-Aug-2023	15-Sep-2023	730 days	38 days	✓	18-Sep-2023	730 days	41 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)										
LDPE bag HAC-U_INV-6_2023-08	E472	08-Aug-2023	15-Sep-2023	730 days	38 days	✓	18-Sep-2023	730 days	41 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)										
LDPE bag EDC-D_INV-1_2023-08	E472	11-Aug-2023	18-Sep-2023	730 days	39 days	✓	19-Sep-2023	730 days	40 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)										
LDPE bag EDC-D_INV-2_2023-08	E472	11-Aug-2023	18-Sep-2023	730 days	39 days	✓	19-Sep-2023	730 days	40 days	✓



Matrix: **Biota** Evaluation: * = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag EDC-D_INV-3_2023-08	E472	11-Aug-2023	18-Sep-2023	730 days	39 days	✓	19-Sep-2023	730 days	40 days	✓	
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag EDC-D_INV-4_2023-08	E472	11-Aug-2023	18-Sep-2023	730 days	39 days	✓	19-Sep-2023	730 days	40 days	✓	
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag EDC-D_INV-5_2023-08	E472	11-Aug-2023	18-Sep-2023	730 days	39 days	✓	19-Sep-2023	730 days	40 days	✓	
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag EDC-D_INV-6_2023-08	E472	11-Aug-2023	18-Sep-2023	730 days	39 days	✓	19-Sep-2023	730 days	40 days	✓	
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag EDC-D_INV-7_2023-08	E472	11-Aug-2023	18-Sep-2023	730 days	39 days	✓	19-Sep-2023	730 days	40 days	✓	
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag EDC-D_INV-8_2023-08	E472	11-Aug-2023	18-Sep-2023	730 days	39 days	✓	19-Sep-2023	730 days	40 days	✓	
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag EDC-D_INVCAD-1_2023-08	E472	11-Aug-2023	19-Sep-2023	730 days	39 days	✓	19-Sep-2023	730 days	40 days	✓	
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag EDC-D_INVCAD-2_2023-08	E472	11-Aug-2023	19-Sep-2023	730 days	39 days	✓	19-Sep-2023	730 days	40 days	✓	
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag EDC-U_PERT-5_2023-08	E472	07-Aug-2023	15-Sep-2023	730 days	39 days	✓	18-Sep-2023	730 days	42 days	✓	



Matrix: **Biota** Evaluation: * = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag EDC-U_PERT-8_2023-08	E472	07-Aug-2023	15-Sep-2023	730 days	39 days	✓	18-Sep-2023	730 days	42 days	✓	
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag HAC-U_INV-7_2023-08	E472	07-Aug-2023	15-Sep-2023	730 days	39 days	✓	18-Sep-2023	730 days	42 days	✓	
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag HAC-R1_INVCAD-1_2023-08	E472	10-Aug-2023	19-Sep-2023	730 days	40 days	✓	19-Sep-2023	730 days	41 days	✓	
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag HAC-R1_INVCAD-2_2023-08	E472	10-Aug-2023	19-Sep-2023	730 days	40 days	✓	19-Sep-2023	730 days	41 days	✓	
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag HAC-R1_INVCAD-3_2023-08	E472	10-Aug-2023	19-Sep-2023	730 days	40 days	✓	19-Sep-2023	730 days	41 days	✓	
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag HAC-R1_INVCAD-4_2023-08	E472	10-Aug-2023	19-Sep-2023	730 days	40 days	✓	19-Sep-2023	730 days	41 days	✓	
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag HAC-R1_INVCAD-5_2023-08	E472	10-Aug-2023	19-Sep-2023	730 days	40 days	✓	19-Sep-2023	730 days	41 days	✓	
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag HAC-R1_INVCAD-6_2023-08	E472	10-Aug-2023	19-Sep-2023	730 days	40 days	✓	19-Sep-2023	730 days	41 days	✓	
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag HAC-D_INV-1_2023-08	E472	06-Aug-2023	15-Sep-2023	730 days	40 days	✓	18-Sep-2023	730 days	43 days	✓	



Matrix: **Biota** Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag HAC-D_INV-2_2023-08	E472	06-Aug-2023	15-Sep-2023	730 days	40 days	✔	18-Sep-2023	730 days	43 days	✔	
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag HAC-R1_INVCAD-7_2023-08	E472	09-Aug-2023	19-Sep-2023	730 days	41 days	✔	19-Sep-2023	730 days	42 days	✔	
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag HAC-R1_INVCAD-8_2023-08	E472	09-Aug-2023	19-Sep-2023	730 days	41 days	✔	19-Sep-2023	730 days	42 days	✔	
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag HAC-U_INVCAD-1_2023-08	E472	09-Aug-2023	19-Sep-2023	730 days	41 days	✔	19-Sep-2023	730 days	42 days	✔	
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag HAC-U_INVCAD-2_2023-08	E472	09-Aug-2023	19-Sep-2023	730 days	41 days	✔	19-Sep-2023	730 days	42 days	✔	
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag HAC-U_INVCAD-3_2023-08	E472	09-Aug-2023	19-Sep-2023	730 days	41 days	✔	19-Sep-2023	730 days	42 days	✔	
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag HAC-U_INVCAD-4_2023-08	E472	09-Aug-2023	19-Sep-2023	730 days	41 days	✔	19-Sep-2023	730 days	42 days	✔	
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag HAC-U_INVCAD-5_2023-08	E472	09-Aug-2023	19-Sep-2023	730 days	41 days	✔	19-Sep-2023	730 days	42 days	✔	
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag E1_PERT-1_2023-08	E472	05-Aug-2023	15-Sep-2023	730 days	41 days	✔	18-Sep-2023	730 days	44 days	✔	



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Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag E1_PERT-2_2023-08	E472	05-Aug-2023	15-Sep-2023	730 days	41 days	✓	18-Sep-2023	730 days	44 days	✓	
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag E1_PERT-3_2023-08	E472	05-Aug-2023	15-Sep-2023	730 days	41 days	✓	18-Sep-2023	730 days	44 days	✓	
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag E1_PERT-4_2023-08	E472	05-Aug-2023	15-Sep-2023	730 days	41 days	✓	18-Sep-2023	730 days	44 days	✓	
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag HAC-D_PERT-8_2023-08	E472	05-Aug-2023	15-Sep-2023	730 days	41 days	✓	18-Sep-2023	730 days	44 days	✓	
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag EDC-U_INV-1_2023-08	E472	08-Aug-2023	18-Sep-2023	730 days	42 days	✓	19-Sep-2023	730 days	43 days	✓	
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag EDC-U_INV-2_2023-08	E472	08-Aug-2023	18-Sep-2023	730 days	42 days	✓	19-Sep-2023	730 days	43 days	✓	
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag EDC-U_INV-3_2023-08	E472	08-Aug-2023	18-Sep-2023	730 days	42 days	✓	19-Sep-2023	730 days	43 days	✓	
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag EDC-U_INV-4_2023-08	E472	08-Aug-2023	18-Sep-2023	730 days	42 days	✓	19-Sep-2023	730 days	43 days	✓	
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag EDC-U_INVCAD-1_2023-08	E472	08-Aug-2023	19-Sep-2023	730 days	42 days	✓	19-Sep-2023	730 days	43 days	✓	



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			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)										
LDPE bag EDC-U_INVCAD-2_2023-08	E472	08-Aug-2023	19-Sep-2023	730 days	42 days	✓	19-Sep-2023	730 days	43 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)										
LDPE bag EDC-U_INVCAD-4_2023-08	E472	08-Aug-2023	19-Sep-2023	730 days	42 days	✓	19-Sep-2023	730 days	43 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)										
LDPE bag E1_PERT-5_2023-08	E472	04-Aug-2023	15-Sep-2023	730 days	42 days	✓	18-Sep-2023	730 days	45 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)										
LDPE bag E1_PERT-6_2023-08	E472	04-Aug-2023	15-Sep-2023	730 days	42 days	✓	18-Sep-2023	730 days	45 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)										
LDPE bag E1_PERT-7_2023-08	E472	04-Aug-2023	15-Sep-2023	730 days	42 days	✓	18-Sep-2023	730 days	45 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)										
LDPE bag EDC-U_INV-5_2023-08	E472	07-Aug-2023	18-Sep-2023	730 days	43 days	✓	19-Sep-2023	730 days	44 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)										
LDPE bag EDC-U_INVCAD-5_2023-08	E472	07-Aug-2023	19-Sep-2023	730 days	43 days	✓	19-Sep-2023	730 days	44 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)										
LDPE bag EDC-U_INVCAD-6_2023-08	E472	07-Aug-2023	19-Sep-2023	730 days	43 days	✓	19-Sep-2023	730 days	44 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)										
LDPE bag EDC-U_INVCAD-7_2023-08	E472	07-Aug-2023	19-Sep-2023	730 days	43 days	✓	19-Sep-2023	730 days	44 days	✓



Matrix: **Biota** Evaluation: * = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)										
LDPE bag EDC-U_INVCAD-8_2023-08	E472	07-Aug-2023	19-Sep-2023	730 days	43 days	✓	19-Sep-2023	730 days	44 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)										
LDPE bag HAC-U_INVCAD-7_2023-08	E472	07-Aug-2023	19-Sep-2023	730 days	43 days	✓	19-Sep-2023	730 days	44 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)										
LDPE bag HAC-U_INVCAD-8_2023-08	E472	07-Aug-2023	19-Sep-2023	730 days	43 days	✓	19-Sep-2023	730 days	44 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)										
LDPE bag E1_PERT-8_2023-08	E472	03-Aug-2023	15-Sep-2023	730 days	43 days	✓	18-Sep-2023	730 days	46 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)										
LDPE bag HAC-D_INV-3_2023-08	E472	06-Aug-2023	18-Sep-2023	730 days	44 days	✓	19-Sep-2023	730 days	45 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)										
LDPE bag HAC-D_INV-4_2023-08	E472	06-Aug-2023	18-Sep-2023	730 days	44 days	✓	19-Sep-2023	730 days	45 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)										
LDPE bag HAC-D_INV-5_2023-08	E472	06-Aug-2023	18-Sep-2023	730 days	44 days	✓	19-Sep-2023	730 days	45 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)										
LDPE bag HAC-D_INV-6_2023-08	E472	06-Aug-2023	18-Sep-2023	730 days	44 days	✓	19-Sep-2023	730 days	45 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)										
LDPE bag HAC-D_INV-7_2023-08	E472	06-Aug-2023	18-Sep-2023	730 days	44 days	✓	19-Sep-2023	730 days	45 days	✓



Matrix: **Biota** Evaluation: * = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag HAC-D_INVCAD-1_2023-08	E472	06-Aug-2023	19-Sep-2023	730 days	44 days	✓	19-Sep-2023	730 days	45 days	✓	
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag HAC-D_INVCAD-2_2023-08	E472	06-Aug-2023	19-Sep-2023	730 days	44 days	✓	19-Sep-2023	730 days	45 days	✓	
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag HAC-D_INVCAD-3_2023-08	E472	06-Aug-2023	19-Sep-2023	730 days	44 days	✓	19-Sep-2023	730 days	45 days	✓	
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag HAC-D_INVCAD-4_2023-08	E472	06-Aug-2023	19-Sep-2023	730 days	44 days	✓	19-Sep-2023	730 days	45 days	✓	
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag HAC-D_INVCAD-5_2023-08	E472	06-Aug-2023	19-Sep-2023	730 days	44 days	✓	19-Sep-2023	730 days	45 days	✓	
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag HAC-D_INVCAD-6_2023-08	E472	06-Aug-2023	19-Sep-2023	730 days	44 days	✓	19-Sep-2023	730 days	45 days	✓	
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag HAC-D_INVCAD-7_2023-08	E472	06-Aug-2023	19-Sep-2023	730 days	44 days	✓	19-Sep-2023	730 days	45 days	✓	
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag HAC-U_INVCAD-6_2023-08	E472	06-Aug-2023	19-Sep-2023	730 days	44 days	✓	19-Sep-2023	730 days	45 days	✓	
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag E1_INV-1_2023-08	E472	05-Aug-2023	18-Sep-2023	730 days	45 days	✓	19-Sep-2023	730 days	46 days	✓	



Matrix: **Biota** Evaluation: * = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag E1_INV-2_2023-08	E472	05-Aug-2023	19-Sep-2023	730 days	45 days	✓	19-Sep-2023	730 days	46 days	✓	
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag E1_INV-3_2023-08	E472	05-Aug-2023	19-Sep-2023	730 days	45 days	✓	19-Sep-2023	730 days	46 days	✓	
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag E1_INV-4_2023-08	E472	05-Aug-2023	19-Sep-2023	730 days	45 days	✓	19-Sep-2023	730 days	46 days	✓	
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag EDC-D_INV-6X_2023-08	E472	11-Aug-2023	25-Sep-2023	730 days	45 days	✓	25-Sep-2023	730 days	46 days	✓	
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag EDC-D_INVCAD-3_2023-08	E472	11-Aug-2023	25-Sep-2023	730 days	45 days	✓	25-Sep-2023	730 days	46 days	✓	
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag EDC-D_INVCAD-4_2023-08	E472	11-Aug-2023	25-Sep-2023	730 days	45 days	✓	25-Sep-2023	730 days	46 days	✓	
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag EDC-D_INVCAD-5_2023-08	E472	11-Aug-2023	25-Sep-2023	730 days	45 days	✓	25-Sep-2023	730 days	46 days	✓	
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag EDC-D_INVCAD-6_2023-08	E472	11-Aug-2023	25-Sep-2023	730 days	45 days	✓	25-Sep-2023	730 days	46 days	✓	
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag EDC-D_INVCAD-7_2023-08	E472	11-Aug-2023	25-Sep-2023	730 days	45 days	✓	25-Sep-2023	730 days	46 days	✓	



Matrix: **Biota** Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag EDC-D_INVCAD-8_2023-08	E472	11-Aug-2023	25-Sep-2023	730 days	45 days	✔	25-Sep-2023	730 days	46 days	✔	
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag EDC-D_INVCAD-8X_2023-08	E472	11-Aug-2023	25-Sep-2023	730 days	45 days	✔	25-Sep-2023	730 days	46 days	✔	
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag EDC-D_PERT-4X_2023-08	E472	11-Aug-2023	25-Sep-2023	730 days	45 days	✔	25-Sep-2023	730 days	46 days	✔	
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag HAC-D_INV-8_2023-08	E472	05-Aug-2023	18-Sep-2023	730 days	45 days	✔	19-Sep-2023	730 days	46 days	✔	
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag HAC-D_INVCAD-8_2023-08	E472	05-Aug-2023	19-Sep-2023	730 days	45 days	✔	19-Sep-2023	730 days	46 days	✔	
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag E1_INV-5_2023-08	E472	04-Aug-2023	19-Sep-2023	730 days	46 days	✔	19-Sep-2023	730 days	47 days	✔	
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag E1_INV-6_2023-08	E472	04-Aug-2023	19-Sep-2023	730 days	46 days	✔	19-Sep-2023	730 days	47 days	✔	
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag E1_INV-7_2023-08	E472	04-Aug-2023	19-Sep-2023	730 days	46 days	✔	19-Sep-2023	730 days	47 days	✔	
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag HAC-R1_INV-6X_2023-08	E472	10-Aug-2023	25-Sep-2023	730 days	46 days	✔	25-Sep-2023	730 days	47 days	✔	



Matrix: **Biota** Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)										
LDPE bag E1_INV-8_2023-08	E472	03-Aug-2023	19-Sep-2023	730 days	47 days	✔	19-Sep-2023	730 days	48 days	✔
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)										
LDPE bag HAC-R1_INVCAD-8X_2023-08	E472	09-Aug-2023	25-Sep-2023	730 days	47 days	✔	25-Sep-2023	730 days	48 days	✔
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)										
LDPE bag HAC-U_INV-2X_2023-08	E472	09-Aug-2023	25-Sep-2023	730 days	47 days	✔	25-Sep-2023	730 days	48 days	✔
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)										
LDPE bag HAC-U_INVCAD-2X_2023-08	E472	09-Aug-2023	25-Sep-2023	730 days	47 days	✔	25-Sep-2023	730 days	48 days	✔
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)										
LDPE bag HAC-U_PERT-2X_2023-08	E472	09-Aug-2023	25-Sep-2023	730 days	47 days	✔	25-Sep-2023	730 days	48 days	✔
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)										
LDPE bag HAC-U_PERT-6X_2023-08	E472	08-Aug-2023	25-Sep-2023	730 days	48 days	✔	25-Sep-2023	730 days	49 days	✔
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)										
LDPE bag HAC-D_INV-2X_2023-08	E472	06-Aug-2023	25-Sep-2023	730 days	50 days	✔	25-Sep-2023	730 days	51 days	✔
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)										
LDPE bag HAC-D_INVCAD-4X_2023-08	E472	06-Aug-2023	25-Sep-2023	730 days	50 days	✔	25-Sep-2023	730 days	51 days	✔
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)										
LDPE bag HAC-D_PERT-3X_2023-08	E472	06-Aug-2023	25-Sep-2023	730 days	50 days	✔	25-Sep-2023	730 days	51 days	✔



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Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag E1_INV-2X_2023-08	E472	05-Aug-2023	25-Sep-2023	730 days	51 days	✓	25-Sep-2023	730 days	52 days	✓	
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag E1_INVCAD-1_2023-08	E472	05-Aug-2023	25-Sep-2023	730 days	51 days	✓	25-Sep-2023	730 days	52 days	✓	
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag E1_INVCAD-2_2023-08	E472	05-Aug-2023	25-Sep-2023	730 days	51 days	✓	25-Sep-2023	730 days	52 days	✓	
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag E1_INVCAD-3_2023-08	E472	05-Aug-2023	25-Sep-2023	730 days	51 days	✓	25-Sep-2023	730 days	52 days	✓	
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag E1_INVCAD-4_2023-08	E472	05-Aug-2023	25-Sep-2023	730 days	51 days	✓	25-Sep-2023	730 days	52 days	✓	
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag E1_PERT-4X_2023-08	E472	05-Aug-2023	25-Sep-2023	730 days	51 days	✓	25-Sep-2023	730 days	52 days	✓	
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag E1_INVCAD-5_2023-08	E472	04-Aug-2023	25-Sep-2023	730 days	52 days	✓	25-Sep-2023	730 days	53 days	✓	
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag E1_INVCAD-6_2023-08	E472	04-Aug-2023	25-Sep-2023	730 days	52 days	✓	25-Sep-2023	730 days	53 days	✓	
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag E1_INVCAD-7_2023-08	E472	04-Aug-2023	25-Sep-2023	730 days	52 days	✓	25-Sep-2023	730 days	53 days	✓	



Matrix: **Biota** Evaluation: * = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)										
LDPE bag E1_INVCAD-7X_2023-08	E472	04-Aug-2023	25-Sep-2023	730 days	52 days	✓	25-Sep-2023	730 days	53 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)										
LDPE bag E1_INVCAD-8_2023-08	E472	03-Aug-2023	25-Sep-2023	730 days	53 days	✓	25-Sep-2023	730 days	54 days	✓
Metals : Silver in Biota by CRC ICPMS (DRY units, Biopsy)										
LDPE bag HAC-R1_PERT-4_2023-08	E475.Ag	10-Aug-2023	13-Sep-2023	730 days	35 days	✓	13-Sep-2023	730 days	35 days	✓
Metals : Silver in Biota by CRC ICPMS (DRY units, Biopsy)										
LDPE bag HAC-U_PERT-3_2023-08	E475.Ag	09-Aug-2023	13-Sep-2023	730 days	36 days	✓	13-Sep-2023	730 days	36 days	✓
Metals : Silver in Biota by CRC ICPMS (DRY units, Biopsy)										
LDPE bag EDC-U_PERT-3_2023-08	E475.Ag	08-Aug-2023	13-Sep-2023	730 days	37 days	✓	13-Sep-2023	730 days	37 days	✓
Metals : Silver in Biota by CRC ICPMS (DRY units, Biopsy)										
LDPE bag EDC-U_PERT-4_2023-08	E475.Ag	08-Aug-2023	13-Sep-2023	730 days	37 days	✓	13-Sep-2023	730 days	37 days	✓
Metals : Silver in Biota by CRC ICPMS (DRY units, Biopsy)										
LDPE bag EDC-U_INV-8_2023-08	E475.Ag	07-Aug-2023	13-Sep-2023	730 days	38 days	✓	13-Sep-2023	730 days	38 days	✓
Metals : Silver in Biota by CRC ICPMS (DRY units, Biopsy)										
LDPE bag EDC-U_PERT-7_2023-08	E475.Ag	07-Aug-2023	13-Sep-2023	730 days	38 days	✓	13-Sep-2023	730 days	38 days	✓
Metals : Silver in Biota by CRC ICPMS (DRY units, Biopsy)										
LDPE bag HAC-D_PERT-2_2023-08	E475.Ag	06-Aug-2023	13-Sep-2023	730 days	39 days	✓	13-Sep-2023	730 days	39 days	✓



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Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Metals : Silver in Biota by CRC ICPMS (DRY units, Biopsy)											
LDPE bag EDC-U_PERT-6_2023-08	E475.Ag	07-Aug-2023	18-Sep-2023	730 days	43 days	✓	11-Oct-2023	730 days	66 days	✓	
Metals : Silver in Biota by CRC ICPMS (DRY units, Biopsy)											
LDPE bag HAC-U_INV-8_2023-08	E475.Ag	07-Aug-2023	18-Sep-2023	730 days	43 days	✓	11-Oct-2023	730 days	66 days	✓	
Metals : Silver in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag HAC-R1_PERT-1_2023-08	E472.Ag	10-Aug-2023	12-Sep-2023	730 days	33 days	✓	14-Sep-2023	730 days	35 days	✓	
Metals : Silver in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag HAC-R1_PERT-2_2023-08	E472.Ag	10-Aug-2023	12-Sep-2023	730 days	33 days	✓	14-Sep-2023	730 days	35 days	✓	
Metals : Silver in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag HAC-R1_PERT-3_2023-08	E472.Ag	10-Aug-2023	12-Sep-2023	730 days	33 days	✓	14-Sep-2023	730 days	35 days	✓	
Metals : Silver in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag HAC-R1_PERT-5_2023-08	E472.Ag	10-Aug-2023	12-Sep-2023	730 days	33 days	✓	14-Sep-2023	730 days	35 days	✓	
Metals : Silver in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag HAC-R1_PERT-6_2023-08	E472.Ag	10-Aug-2023	12-Sep-2023	730 days	33 days	✓	14-Sep-2023	730 days	35 days	✓	
Metals : Silver in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag HAC-R1_PERT-7_2023-08	E472.Ag	09-Aug-2023	12-Sep-2023	730 days	34 days	✓	14-Sep-2023	730 days	36 days	✓	
Metals : Silver in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag HAC-R1_PERT-8_2023-08	E472.Ag	09-Aug-2023	12-Sep-2023	730 days	34 days	✓	14-Sep-2023	730 days	36 days	✓	



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Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Metals : Silver in Biota by CRC ICPMS (DRY units, Micro)										
LDPE bag HAC-U_PERT-1_2023-08	E472.Ag	09-Aug-2023	12-Sep-2023	730 days	34 days	✓	14-Sep-2023	730 days	36 days	✓
Metals : Silver in Biota by CRC ICPMS (DRY units, Micro)										
LDPE bag HAC-U_PERT-2_2023-08	E472.Ag	09-Aug-2023	12-Sep-2023	730 days	34 days	✓	14-Sep-2023	730 days	36 days	✓
Metals : Silver in Biota by CRC ICPMS (DRY units, Micro)										
LDPE bag HAC-U_PERT-4_2023-08	E472.Ag	09-Aug-2023	12-Sep-2023	730 days	34 days	✓	14-Sep-2023	730 days	36 days	✓
Metals : Silver in Biota by CRC ICPMS (DRY units, Micro)										
LDPE bag HAC-U_PERT-5_2023-08	E472.Ag	09-Aug-2023	12-Sep-2023	730 days	34 days	✓	14-Sep-2023	730 days	36 days	✓
Metals : Silver in Biota by CRC ICPMS (DRY units, Micro)										
LDPE bag HAC-U_PERT-6_2023-08	E472.Ag	08-Aug-2023	12-Sep-2023	730 days	35 days	✓	14-Sep-2023	730 days	37 days	✓
Metals : Silver in Biota by CRC ICPMS (DRY units, Micro)										
LDPE bag EDC-D_PERT-1_2023-08	E472.Ag	11-Aug-2023	15-Sep-2023	730 days	35 days	✓	18-Sep-2023	730 days	38 days	✓
Metals : Silver in Biota by CRC ICPMS (DRY units, Micro)										
LDPE bag EDC-D_PERT-2_2023-08	E472.Ag	11-Aug-2023	15-Sep-2023	730 days	35 days	✓	18-Sep-2023	730 days	38 days	✓
Metals : Silver in Biota by CRC ICPMS (DRY units, Micro)										
LDPE bag EDC-D_PERT-3_2023-08	E472.Ag	11-Aug-2023	15-Sep-2023	730 days	35 days	✓	18-Sep-2023	730 days	38 days	✓
Metals : Silver in Biota by CRC ICPMS (DRY units, Micro)										
LDPE bag EDC-D_PERT-4_2023-08	E472.Ag	11-Aug-2023	15-Sep-2023	730 days	35 days	✓	18-Sep-2023	730 days	38 days	✓



Matrix: **Biota** Evaluation: * = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Metals : Silver in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag EDC-D_PERT-5_2023-08	E472.Ag	11-Aug-2023	15-Sep-2023	730 days	35 days	✓	18-Sep-2023	730 days	38 days	✓	
Metals : Silver in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag EDC-D_PERT-6_2023-08	E472.Ag	11-Aug-2023	15-Sep-2023	730 days	35 days	✓	18-Sep-2023	730 days	38 days	✓	
Metals : Silver in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag EDC-D_PERT-7_2023-08	E472.Ag	11-Aug-2023	15-Sep-2023	730 days	35 days	✓	18-Sep-2023	730 days	38 days	✓	
Metals : Silver in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag EDC-D_PERT-8_2023-08	E472.Ag	11-Aug-2023	15-Sep-2023	730 days	35 days	✓	18-Sep-2023	730 days	38 days	✓	
Metals : Silver in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag HAC-U_PERT-7_2023-08	E472.Ag	07-Aug-2023	12-Sep-2023	730 days	36 days	✓	14-Sep-2023	730 days	38 days	✓	
Metals : Silver in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag HAC-U_PERT-8_2023-08	E472.Ag	07-Aug-2023	12-Sep-2023	730 days	36 days	✓	14-Sep-2023	730 days	38 days	✓	
Metals : Silver in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag HAC-R1_INV-1_2023-08	E472.Ag	10-Aug-2023	15-Sep-2023	730 days	36 days	✓	18-Sep-2023	730 days	39 days	✓	
Metals : Silver in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag HAC-R1_INV-2_2023-08	E472.Ag	10-Aug-2023	15-Sep-2023	730 days	36 days	✓	18-Sep-2023	730 days	39 days	✓	
Metals : Silver in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag HAC-R1_INV-3_2023-08	E472.Ag	10-Aug-2023	15-Sep-2023	730 days	36 days	✓	18-Sep-2023	730 days	39 days	✓	



Matrix: **Biota** Evaluation: * = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Metals : Silver in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag HAC-R1_INV-4_2023-08	E472.Ag	10-Aug-2023	15-Sep-2023	730 days	36 days	✓	18-Sep-2023	730 days	39 days	✓	
Metals : Silver in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag HAC-R1_INV-5_2023-08	E472.Ag	10-Aug-2023	15-Sep-2023	730 days	36 days	✓	18-Sep-2023	730 days	39 days	✓	
Metals : Silver in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag HAC-R1_INV-6_2023-08	E472.Ag	10-Aug-2023	15-Sep-2023	730 days	36 days	✓	18-Sep-2023	730 days	39 days	✓	
Metals : Silver in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag EDC-U_INVCAD-3_2023-08	E472.Ag	08-Aug-2023	13-Sep-2023	730 days	37 days	✓	13-Sep-2023	730 days	37 days	✓	
Metals : Silver in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag HAC-D_PERT-1_2023-08	E472.Ag	06-Aug-2023	12-Sep-2023	730 days	37 days	✓	14-Sep-2023	730 days	39 days	✓	
Metals : Silver in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag HAC-D_PERT-3_2023-08	E472.Ag	06-Aug-2023	12-Sep-2023	730 days	37 days	✓	14-Sep-2023	730 days	39 days	✓	
Metals : Silver in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag HAC-D_PERT-4_2023-08	E472.Ag	06-Aug-2023	12-Sep-2023	730 days	37 days	✓	14-Sep-2023	730 days	39 days	✓	
Metals : Silver in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag HAC-D_PERT-5_2023-08	E472.Ag	06-Aug-2023	12-Sep-2023	730 days	37 days	✓	14-Sep-2023	730 days	39 days	✓	
Metals : Silver in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag HAC-D_PERT-6_2023-08	E472.Ag	06-Aug-2023	12-Sep-2023	730 days	37 days	✓	14-Sep-2023	730 days	39 days	✓	



Matrix: **Biota** Evaluation: * = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Metals : Silver in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag HAC-D_PERT-7_2023-08	E472.Ag	06-Aug-2023	12-Sep-2023	730 days	37 days	✓	14-Sep-2023	730 days	39 days	✓	
Metals : Silver in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag HAC-R1_INV-7_2023-08	E472.Ag	09-Aug-2023	15-Sep-2023	730 days	37 days	✓	18-Sep-2023	730 days	40 days	✓	
Metals : Silver in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag HAC-R1_INV-8_2023-08	E472.Ag	09-Aug-2023	15-Sep-2023	730 days	37 days	✓	18-Sep-2023	730 days	40 days	✓	
Metals : Silver in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag HAC-U_INV-1_2023-08	E472.Ag	09-Aug-2023	15-Sep-2023	730 days	37 days	✓	18-Sep-2023	730 days	40 days	✓	
Metals : Silver in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag HAC-U_INV-2_2023-08	E472.Ag	09-Aug-2023	15-Sep-2023	730 days	37 days	✓	18-Sep-2023	730 days	40 days	✓	
Metals : Silver in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag HAC-U_INV-3_2023-08	E472.Ag	09-Aug-2023	15-Sep-2023	730 days	37 days	✓	18-Sep-2023	730 days	40 days	✓	
Metals : Silver in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag HAC-U_INV-4_2023-08	E472.Ag	09-Aug-2023	15-Sep-2023	730 days	37 days	✓	18-Sep-2023	730 days	40 days	✓	
Metals : Silver in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag HAC-U_INV-5_2023-08	E472.Ag	09-Aug-2023	15-Sep-2023	730 days	37 days	✓	18-Sep-2023	730 days	40 days	✓	
Metals : Silver in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag EDC-U_INV-6_2023-08	E472.Ag	07-Aug-2023	13-Sep-2023	730 days	38 days	✓	13-Sep-2023	730 days	38 days	✓	



Matrix: **Biota** Evaluation: * = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Metals : Silver in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag EDC-U_INV-7_2023-08	E472.Ag	07-Aug-2023	13-Sep-2023	730 days	38 days	✓	13-Sep-2023	730 days	38 days	✓	
Metals : Silver in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag EDC-U_PERT-1_2023-08	E472.Ag	08-Aug-2023	15-Sep-2023	730 days	38 days	✓	18-Sep-2023	730 days	41 days	✓	
Metals : Silver in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag EDC-U_PERT-2_2023-08	E472.Ag	08-Aug-2023	15-Sep-2023	730 days	38 days	✓	18-Sep-2023	730 days	41 days	✓	
Metals : Silver in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag HAC-U_INV-6_2023-08	E472.Ag	08-Aug-2023	15-Sep-2023	730 days	38 days	✓	18-Sep-2023	730 days	41 days	✓	
Metals : Silver in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag EDC-D_INV-1_2023-08	E472.Ag	11-Aug-2023	18-Sep-2023	730 days	39 days	✓	19-Sep-2023	730 days	40 days	✓	
Metals : Silver in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag EDC-D_INV-2_2023-08	E472.Ag	11-Aug-2023	18-Sep-2023	730 days	39 days	✓	19-Sep-2023	730 days	40 days	✓	
Metals : Silver in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag EDC-D_INV-3_2023-08	E472.Ag	11-Aug-2023	18-Sep-2023	730 days	39 days	✓	19-Sep-2023	730 days	40 days	✓	
Metals : Silver in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag EDC-D_INV-4_2023-08	E472.Ag	11-Aug-2023	18-Sep-2023	730 days	39 days	✓	19-Sep-2023	730 days	40 days	✓	
Metals : Silver in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag EDC-D_INV-5_2023-08	E472.Ag	11-Aug-2023	18-Sep-2023	730 days	39 days	✓	19-Sep-2023	730 days	40 days	✓	



Matrix: **Biota** Evaluation: * = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Metals : Silver in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag EDC-D_INV-6_2023-08	E472.Ag	11-Aug-2023	18-Sep-2023	730 days	39 days	✓	19-Sep-2023	730 days	40 days	✓	
Metals : Silver in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag EDC-D_INV-7_2023-08	E472.Ag	11-Aug-2023	18-Sep-2023	730 days	39 days	✓	19-Sep-2023	730 days	40 days	✓	
Metals : Silver in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag EDC-D_INV-8_2023-08	E472.Ag	11-Aug-2023	18-Sep-2023	730 days	39 days	✓	19-Sep-2023	730 days	40 days	✓	
Metals : Silver in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag EDC-D_INVCAD-1_2023-08	E472.Ag	11-Aug-2023	19-Sep-2023	730 days	39 days	✓	19-Sep-2023	730 days	40 days	✓	
Metals : Silver in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag EDC-D_INVCAD-2_2023-08	E472.Ag	11-Aug-2023	19-Sep-2023	730 days	39 days	✓	19-Sep-2023	730 days	40 days	✓	
Metals : Silver in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag EDC-U_PERT-5_2023-08	E472.Ag	07-Aug-2023	15-Sep-2023	730 days	39 days	✓	18-Sep-2023	730 days	42 days	✓	
Metals : Silver in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag EDC-U_PERT-8_2023-08	E472.Ag	07-Aug-2023	15-Sep-2023	730 days	39 days	✓	18-Sep-2023	730 days	42 days	✓	
Metals : Silver in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag HAC-U_INV-7_2023-08	E472.Ag	07-Aug-2023	15-Sep-2023	730 days	39 days	✓	18-Sep-2023	730 days	42 days	✓	
Metals : Silver in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag HAC-R1_INVCAD-1_2023-08	E472.Ag	10-Aug-2023	19-Sep-2023	730 days	40 days	✓	19-Sep-2023	730 days	41 days	✓	



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Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Metals : Silver in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag HAC-R1_INVCAD-2_2023-08	E472.Ag	10-Aug-2023	19-Sep-2023	730 days	40 days	✓	19-Sep-2023	730 days	41 days	✓	
Metals : Silver in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag HAC-R1_INVCAD-3_2023-08	E472.Ag	10-Aug-2023	19-Sep-2023	730 days	40 days	✓	19-Sep-2023	730 days	41 days	✓	
Metals : Silver in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag HAC-R1_INVCAD-4_2023-08	E472.Ag	10-Aug-2023	19-Sep-2023	730 days	40 days	✓	19-Sep-2023	730 days	41 days	✓	
Metals : Silver in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag HAC-R1_INVCAD-5_2023-08	E472.Ag	10-Aug-2023	19-Sep-2023	730 days	40 days	✓	19-Sep-2023	730 days	41 days	✓	
Metals : Silver in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag HAC-R1_INVCAD-6_2023-08	E472.Ag	10-Aug-2023	19-Sep-2023	730 days	40 days	✓	19-Sep-2023	730 days	41 days	✓	
Metals : Silver in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag HAC-D_INV-1_2023-08	E472.Ag	06-Aug-2023	15-Sep-2023	730 days	40 days	✓	18-Sep-2023	730 days	43 days	✓	
Metals : Silver in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag HAC-D_INV-2_2023-08	E472.Ag	06-Aug-2023	15-Sep-2023	730 days	40 days	✓	18-Sep-2023	730 days	43 days	✓	
Metals : Silver in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag HAC-R1_INVCAD-7_2023-08	E472.Ag	09-Aug-2023	19-Sep-2023	730 days	41 days	✓	19-Sep-2023	730 days	42 days	✓	
Metals : Silver in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag HAC-R1_INVCAD-8_2023-08	E472.Ag	09-Aug-2023	19-Sep-2023	730 days	41 days	✓	19-Sep-2023	730 days	42 days	✓	



Matrix: **Biota** Evaluation: * = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Metals : Silver in Biota by CRC ICPMS (DRY units, Micro)										
LDPE bag HAC-U_INVCAD-1_2023-08	E472.Ag	09-Aug-2023	19-Sep-2023	730 days	41 days	✓	19-Sep-2023	730 days	42 days	✓
Metals : Silver in Biota by CRC ICPMS (DRY units, Micro)										
LDPE bag HAC-U_INVCAD-2_2023-08	E472.Ag	09-Aug-2023	19-Sep-2023	730 days	41 days	✓	19-Sep-2023	730 days	42 days	✓
Metals : Silver in Biota by CRC ICPMS (DRY units, Micro)										
LDPE bag HAC-U_INVCAD-3_2023-08	E472.Ag	09-Aug-2023	19-Sep-2023	730 days	41 days	✓	19-Sep-2023	730 days	42 days	✓
Metals : Silver in Biota by CRC ICPMS (DRY units, Micro)										
LDPE bag HAC-U_INVCAD-4_2023-08	E472.Ag	09-Aug-2023	19-Sep-2023	730 days	41 days	✓	19-Sep-2023	730 days	42 days	✓
Metals : Silver in Biota by CRC ICPMS (DRY units, Micro)										
LDPE bag HAC-U_INVCAD-5_2023-08	E472.Ag	09-Aug-2023	19-Sep-2023	730 days	41 days	✓	19-Sep-2023	730 days	42 days	✓
Metals : Silver in Biota by CRC ICPMS (DRY units, Micro)										
LDPE bag E1_PERT-1_2023-08	E472.Ag	05-Aug-2023	15-Sep-2023	730 days	41 days	✓	18-Sep-2023	730 days	44 days	✓
Metals : Silver in Biota by CRC ICPMS (DRY units, Micro)										
LDPE bag E1_PERT-2_2023-08	E472.Ag	05-Aug-2023	15-Sep-2023	730 days	41 days	✓	18-Sep-2023	730 days	44 days	✓
Metals : Silver in Biota by CRC ICPMS (DRY units, Micro)										
LDPE bag E1_PERT-3_2023-08	E472.Ag	05-Aug-2023	15-Sep-2023	730 days	41 days	✓	18-Sep-2023	730 days	44 days	✓
Metals : Silver in Biota by CRC ICPMS (DRY units, Micro)										
LDPE bag E1_PERT-4_2023-08	E472.Ag	05-Aug-2023	15-Sep-2023	730 days	41 days	✓	18-Sep-2023	730 days	44 days	✓



Matrix: **Biota** Evaluation: * = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Metals : Silver in Biota by CRC ICPMS (DRY units, Micro)										
LDPE bag HAC-D_PERT-8_2023-08	E472.Ag	05-Aug-2023	15-Sep-2023	730 days	41 days	✓	18-Sep-2023	730 days	44 days	✓
Metals : Silver in Biota by CRC ICPMS (DRY units, Micro)										
LDPE bag EDC-U_INV-1_2023-08	E472.Ag	08-Aug-2023	18-Sep-2023	730 days	42 days	✓	19-Sep-2023	730 days	43 days	✓
Metals : Silver in Biota by CRC ICPMS (DRY units, Micro)										
LDPE bag EDC-U_INV-2_2023-08	E472.Ag	08-Aug-2023	18-Sep-2023	730 days	42 days	✓	19-Sep-2023	730 days	43 days	✓
Metals : Silver in Biota by CRC ICPMS (DRY units, Micro)										
LDPE bag EDC-U_INV-3_2023-08	E472.Ag	08-Aug-2023	18-Sep-2023	730 days	42 days	✓	19-Sep-2023	730 days	43 days	✓
Metals : Silver in Biota by CRC ICPMS (DRY units, Micro)										
LDPE bag EDC-U_INV-4_2023-08	E472.Ag	08-Aug-2023	18-Sep-2023	730 days	42 days	✓	19-Sep-2023	730 days	43 days	✓
Metals : Silver in Biota by CRC ICPMS (DRY units, Micro)										
LDPE bag EDC-U_INVCAD-1_2023-08	E472.Ag	08-Aug-2023	19-Sep-2023	730 days	42 days	✓	19-Sep-2023	730 days	43 days	✓
Metals : Silver in Biota by CRC ICPMS (DRY units, Micro)										
LDPE bag EDC-U_INVCAD-2_2023-08	E472.Ag	08-Aug-2023	19-Sep-2023	730 days	42 days	✓	19-Sep-2023	730 days	43 days	✓
Metals : Silver in Biota by CRC ICPMS (DRY units, Micro)										
LDPE bag EDC-U_INVCAD-4_2023-08	E472.Ag	08-Aug-2023	19-Sep-2023	730 days	42 days	✓	19-Sep-2023	730 days	43 days	✓
Metals : Silver in Biota by CRC ICPMS (DRY units, Micro)										
LDPE bag E1_PERT-5_2023-08	E472.Ag	04-Aug-2023	15-Sep-2023	730 days	42 days	✓	18-Sep-2023	730 days	45 days	✓



Matrix: **Biota** Evaluation: * = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Metals : Silver in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag E1_PERT-6_2023-08	E472.Ag	04-Aug-2023	15-Sep-2023	730 days	42 days	✓	18-Sep-2023	730 days	45 days	✓	
Metals : Silver in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag E1_PERT-7_2023-08	E472.Ag	04-Aug-2023	15-Sep-2023	730 days	42 days	✓	18-Sep-2023	730 days	45 days	✓	
Metals : Silver in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag EDC-U_INV-5_2023-08	E472.Ag	07-Aug-2023	18-Sep-2023	730 days	43 days	✓	19-Sep-2023	730 days	44 days	✓	
Metals : Silver in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag EDC-U_INVCAD-5_2023-08	E472.Ag	07-Aug-2023	19-Sep-2023	730 days	43 days	✓	19-Sep-2023	730 days	44 days	✓	
Metals : Silver in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag EDC-U_INVCAD-6_2023-08	E472.Ag	07-Aug-2023	19-Sep-2023	730 days	43 days	✓	19-Sep-2023	730 days	44 days	✓	
Metals : Silver in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag EDC-U_INVCAD-7_2023-08	E472.Ag	07-Aug-2023	19-Sep-2023	730 days	43 days	✓	19-Sep-2023	730 days	44 days	✓	
Metals : Silver in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag EDC-U_INVCAD-8_2023-08	E472.Ag	07-Aug-2023	19-Sep-2023	730 days	43 days	✓	19-Sep-2023	730 days	44 days	✓	
Metals : Silver in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag HAC-U_INVCAD-7_2023-08	E472.Ag	07-Aug-2023	19-Sep-2023	730 days	43 days	✓	19-Sep-2023	730 days	44 days	✓	
Metals : Silver in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag HAC-U_INVCAD-8_2023-08	E472.Ag	07-Aug-2023	19-Sep-2023	730 days	43 days	✓	19-Sep-2023	730 days	44 days	✓	



Matrix: **Biota** Evaluation: * = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Metals : Silver in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag E1_PERT-8_2023-08	E472.Ag	03-Aug-2023	15-Sep-2023	730 days	43 days	✓	18-Sep-2023	730 days	46 days	✓	
Metals : Silver in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag HAC-D_INV-3_2023-08	E472.Ag	06-Aug-2023	18-Sep-2023	730 days	44 days	✓	19-Sep-2023	730 days	45 days	✓	
Metals : Silver in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag HAC-D_INV-4_2023-08	E472.Ag	06-Aug-2023	18-Sep-2023	730 days	44 days	✓	19-Sep-2023	730 days	45 days	✓	
Metals : Silver in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag HAC-D_INV-5_2023-08	E472.Ag	06-Aug-2023	18-Sep-2023	730 days	44 days	✓	19-Sep-2023	730 days	45 days	✓	
Metals : Silver in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag HAC-D_INV-6_2023-08	E472.Ag	06-Aug-2023	18-Sep-2023	730 days	44 days	✓	19-Sep-2023	730 days	45 days	✓	
Metals : Silver in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag HAC-D_INV-7_2023-08	E472.Ag	06-Aug-2023	18-Sep-2023	730 days	44 days	✓	19-Sep-2023	730 days	45 days	✓	
Metals : Silver in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag HAC-D_INVCAD-1_2023-08	E472.Ag	06-Aug-2023	19-Sep-2023	730 days	44 days	✓	19-Sep-2023	730 days	45 days	✓	
Metals : Silver in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag HAC-D_INVCAD-2_2023-08	E472.Ag	06-Aug-2023	19-Sep-2023	730 days	44 days	✓	19-Sep-2023	730 days	45 days	✓	
Metals : Silver in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag HAC-D_INVCAD-3_2023-08	E472.Ag	06-Aug-2023	19-Sep-2023	730 days	44 days	✓	19-Sep-2023	730 days	45 days	✓	



Matrix: **Biota** Evaluation: * = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Metals : Silver in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag HAC-D_INVCAD-4_2023-08	E472.Ag	06-Aug-2023	19-Sep-2023	730 days	44 days	✓	19-Sep-2023	730 days	45 days	✓	
Metals : Silver in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag HAC-D_INVCAD-5_2023-08	E472.Ag	06-Aug-2023	19-Sep-2023	730 days	44 days	✓	19-Sep-2023	730 days	45 days	✓	
Metals : Silver in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag HAC-D_INVCAD-6_2023-08	E472.Ag	06-Aug-2023	19-Sep-2023	730 days	44 days	✓	19-Sep-2023	730 days	45 days	✓	
Metals : Silver in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag HAC-D_INVCAD-7_2023-08	E472.Ag	06-Aug-2023	19-Sep-2023	730 days	44 days	✓	19-Sep-2023	730 days	45 days	✓	
Metals : Silver in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag HAC-U_INVCAD-6_2023-08	E472.Ag	06-Aug-2023	19-Sep-2023	730 days	44 days	✓	19-Sep-2023	730 days	45 days	✓	
Metals : Silver in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag E1_INV-1_2023-08	E472.Ag	05-Aug-2023	18-Sep-2023	730 days	45 days	✓	19-Sep-2023	730 days	46 days	✓	
Metals : Silver in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag E1_INV-2_2023-08	E472.Ag	05-Aug-2023	19-Sep-2023	730 days	45 days	✓	19-Sep-2023	730 days	46 days	✓	
Metals : Silver in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag E1_INV-3_2023-08	E472.Ag	05-Aug-2023	19-Sep-2023	730 days	45 days	✓	19-Sep-2023	730 days	46 days	✓	
Metals : Silver in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag E1_INV-4_2023-08	E472.Ag	05-Aug-2023	19-Sep-2023	730 days	45 days	✓	19-Sep-2023	730 days	46 days	✓	



Matrix: **Biota** Evaluation: * = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Metals : Silver in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag EDC-D_INV-6X_2023-08	E472.Ag	11-Aug-2023	25-Sep-2023	730 days	45 days	✓	25-Sep-2023	730 days	46 days	✓	
Metals : Silver in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag EDC-D_INVCAD-3_2023-08	E472.Ag	11-Aug-2023	25-Sep-2023	730 days	45 days	✓	25-Sep-2023	730 days	46 days	✓	
Metals : Silver in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag EDC-D_INVCAD-4_2023-08	E472.Ag	11-Aug-2023	25-Sep-2023	730 days	45 days	✓	25-Sep-2023	730 days	46 days	✓	
Metals : Silver in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag EDC-D_INVCAD-5_2023-08	E472.Ag	11-Aug-2023	25-Sep-2023	730 days	45 days	✓	25-Sep-2023	730 days	46 days	✓	
Metals : Silver in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag EDC-D_INVCAD-6_2023-08	E472.Ag	11-Aug-2023	25-Sep-2023	730 days	45 days	✓	25-Sep-2023	730 days	46 days	✓	
Metals : Silver in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag EDC-D_INVCAD-7_2023-08	E472.Ag	11-Aug-2023	25-Sep-2023	730 days	45 days	✓	25-Sep-2023	730 days	46 days	✓	
Metals : Silver in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag EDC-D_INVCAD-8_2023-08	E472.Ag	11-Aug-2023	25-Sep-2023	730 days	45 days	✓	25-Sep-2023	730 days	46 days	✓	
Metals : Silver in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag EDC-D_INVCAD-8X_2023-08	E472.Ag	11-Aug-2023	25-Sep-2023	730 days	45 days	✓	25-Sep-2023	730 days	46 days	✓	
Metals : Silver in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag EDC-D_PERT-4X_2023-08	E472.Ag	11-Aug-2023	25-Sep-2023	730 days	45 days	✓	25-Sep-2023	730 days	46 days	✓	



Matrix: **Biota** Evaluation: * = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Metals : Silver in Biota by CRC ICPMS (DRY units, Micro)										
LDPE bag HAC-D_INV-8_2023-08	E472.Ag	05-Aug-2023	18-Sep-2023	730 days	45 days	✓	19-Sep-2023	730 days	46 days	✓
Metals : Silver in Biota by CRC ICPMS (DRY units, Micro)										
LDPE bag HAC-D_INVCAD-8_2023-08	E472.Ag	05-Aug-2023	19-Sep-2023	730 days	45 days	✓	19-Sep-2023	730 days	46 days	✓
Metals : Silver in Biota by CRC ICPMS (DRY units, Micro)										
LDPE bag E1_INV-5_2023-08	E472.Ag	04-Aug-2023	19-Sep-2023	730 days	46 days	✓	19-Sep-2023	730 days	47 days	✓
Metals : Silver in Biota by CRC ICPMS (DRY units, Micro)										
LDPE bag E1_INV-6_2023-08	E472.Ag	04-Aug-2023	19-Sep-2023	730 days	46 days	✓	19-Sep-2023	730 days	47 days	✓
Metals : Silver in Biota by CRC ICPMS (DRY units, Micro)										
LDPE bag E1_INV-7_2023-08	E472.Ag	04-Aug-2023	19-Sep-2023	730 days	46 days	✓	19-Sep-2023	730 days	47 days	✓
Metals : Silver in Biota by CRC ICPMS (DRY units, Micro)										
LDPE bag HAC-R1_INV-6X_2023-08	E472.Ag	10-Aug-2023	25-Sep-2023	730 days	46 days	✓	25-Sep-2023	730 days	47 days	✓
Metals : Silver in Biota by CRC ICPMS (DRY units, Micro)										
LDPE bag E1_INV-8_2023-08	E472.Ag	03-Aug-2023	19-Sep-2023	730 days	47 days	✓	19-Sep-2023	730 days	48 days	✓
Metals : Silver in Biota by CRC ICPMS (DRY units, Micro)										
LDPE bag HAC-R1_INVCAD-8X_2023-08	E472.Ag	09-Aug-2023	25-Sep-2023	730 days	47 days	✓	25-Sep-2023	730 days	48 days	✓
Metals : Silver in Biota by CRC ICPMS (DRY units, Micro)										
LDPE bag HAC-U_INV-2X_2023-08	E472.Ag	09-Aug-2023	25-Sep-2023	730 days	47 days	✓	25-Sep-2023	730 days	48 days	✓



Matrix: **Biota** Evaluation: * = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Metals : Silver in Biota by CRC ICPMS (DRY units, Micro)										
LDPE bag HAC-U_INVCAD-2X_2023-08	E472.Ag	09-Aug-2023	25-Sep-2023	730 days	47 days	✓	25-Sep-2023	730 days	48 days	✓
Metals : Silver in Biota by CRC ICPMS (DRY units, Micro)										
LDPE bag HAC-U_PERT-2X_2023-08	E472.Ag	09-Aug-2023	25-Sep-2023	730 days	47 days	✓	25-Sep-2023	730 days	48 days	✓
Metals : Silver in Biota by CRC ICPMS (DRY units, Micro)										
LDPE bag HAC-U_PERT-6X_2023-08	E472.Ag	08-Aug-2023	25-Sep-2023	730 days	48 days	✓	25-Sep-2023	730 days	49 days	✓
Metals : Silver in Biota by CRC ICPMS (DRY units, Micro)										
LDPE bag HAC-D_INV-2X_2023-08	E472.Ag	06-Aug-2023	25-Sep-2023	730 days	50 days	✓	25-Sep-2023	730 days	51 days	✓
Metals : Silver in Biota by CRC ICPMS (DRY units, Micro)										
LDPE bag HAC-D_INVCAD-4X_2023-08	E472.Ag	06-Aug-2023	25-Sep-2023	730 days	50 days	✓	25-Sep-2023	730 days	51 days	✓
Metals : Silver in Biota by CRC ICPMS (DRY units, Micro)										
LDPE bag HAC-D_PERT-3X_2023-08	E472.Ag	06-Aug-2023	25-Sep-2023	730 days	50 days	✓	25-Sep-2023	730 days	51 days	✓
Metals : Silver in Biota by CRC ICPMS (DRY units, Micro)										
LDPE bag E1_INV-2X_2023-08	E472.Ag	05-Aug-2023	25-Sep-2023	730 days	51 days	✓	25-Sep-2023	730 days	52 days	✓
Metals : Silver in Biota by CRC ICPMS (DRY units, Micro)										
LDPE bag E1_INVCAD-1_2023-08	E472.Ag	05-Aug-2023	25-Sep-2023	730 days	51 days	✓	25-Sep-2023	730 days	52 days	✓
Metals : Silver in Biota by CRC ICPMS (DRY units, Micro)										
LDPE bag E1_INVCAD-2_2023-08	E472.Ag	05-Aug-2023	25-Sep-2023	730 days	51 days	✓	25-Sep-2023	730 days	52 days	✓



Matrix: **Biota** Evaluation: * = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Metals : Silver in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag E1_INVCAD-3_2023-08	E472.Ag	05-Aug-2023	25-Sep-2023	730 days	51 days	✓	25-Sep-2023	730 days	52 days	✓	
Metals : Silver in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag E1_INVCAD-4_2023-08	E472.Ag	05-Aug-2023	25-Sep-2023	730 days	51 days	✓	25-Sep-2023	730 days	52 days	✓	
Metals : Silver in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag E1_PERT-4X_2023-08	E472.Ag	05-Aug-2023	25-Sep-2023	730 days	51 days	✓	25-Sep-2023	730 days	52 days	✓	
Metals : Silver in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag E1_INVCAD-5_2023-08	E472.Ag	04-Aug-2023	25-Sep-2023	730 days	52 days	✓	25-Sep-2023	730 days	53 days	✓	
Metals : Silver in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag E1_INVCAD-6_2023-08	E472.Ag	04-Aug-2023	25-Sep-2023	730 days	52 days	✓	25-Sep-2023	730 days	53 days	✓	
Metals : Silver in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag E1_INVCAD-7_2023-08	E472.Ag	04-Aug-2023	25-Sep-2023	730 days	52 days	✓	25-Sep-2023	730 days	53 days	✓	
Metals : Silver in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag E1_INVCAD-7X_2023-08	E472.Ag	04-Aug-2023	25-Sep-2023	730 days	52 days	✓	25-Sep-2023	730 days	53 days	✓	
Metals : Silver in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag E1_INVCAD-8_2023-08	E472.Ag	03-Aug-2023	25-Sep-2023	730 days	53 days	✓	25-Sep-2023	730 days	54 days	✓	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Biopsy)											
LDPE bag HAC-R1_PERT-4_2023-08	E475.Ti	10-Aug-2023	13-Sep-2023	730 days	35 days	✓	13-Sep-2023	730 days	35 days	✓	



Matrix: **Biota** Evaluation: * = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Biopsy)										
LDPE bag HAC-U_PERT-3_2023-08	E475.Ti	09-Aug-2023	13-Sep-2023	730 days	36 days	✓	13-Sep-2023	730 days	36 days	✓
Metals : Titanium in Biota by CRC ICPMS (DRY units, Biopsy)										
LDPE bag EDC-U_PERT-3_2023-08	E475.Ti	08-Aug-2023	13-Sep-2023	730 days	37 days	✓	13-Sep-2023	730 days	37 days	✓
Metals : Titanium in Biota by CRC ICPMS (DRY units, Biopsy)										
LDPE bag EDC-U_PERT-4_2023-08	E475.Ti	08-Aug-2023	13-Sep-2023	730 days	37 days	✓	13-Sep-2023	730 days	37 days	✓
Metals : Titanium in Biota by CRC ICPMS (DRY units, Biopsy)										
LDPE bag EDC-U_INV-8_2023-08	E475.Ti	07-Aug-2023	13-Sep-2023	730 days	38 days	✓	13-Sep-2023	730 days	38 days	✓
Metals : Titanium in Biota by CRC ICPMS (DRY units, Biopsy)										
LDPE bag EDC-U_PERT-7_2023-08	E475.Ti	07-Aug-2023	13-Sep-2023	730 days	38 days	✓	13-Sep-2023	730 days	38 days	✓
Metals : Titanium in Biota by CRC ICPMS (DRY units, Biopsy)										
LDPE bag HAC-D_PERT-2_2023-08	E475.Ti	06-Aug-2023	13-Sep-2023	730 days	39 days	✓	13-Sep-2023	730 days	39 days	✓
Metals : Titanium in Biota by CRC ICPMS (DRY units, Biopsy)										
LDPE bag EDC-U_PERT-6_2023-08	E475.Ti	07-Aug-2023	18-Sep-2023	730 days	43 days	✓	11-Oct-2023	730 days	66 days	✓
Metals : Titanium in Biota by CRC ICPMS (DRY units, Biopsy)										
LDPE bag HAC-U_INV-8_2023-08	E475.Ti	07-Aug-2023	18-Sep-2023	730 days	43 days	✓	11-Oct-2023	730 days	66 days	✓
Metals : Titanium in Biota by CRC ICPMS (DRY units, Micro)										
LDPE bag HAC-R1_PERT-1_2023-08	E472.Ti	10-Aug-2023	12-Sep-2023	730 days	33 days	✓	14-Sep-2023	730 days	35 days	✓



Matrix: **Biota** Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Metals : Titanium in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag HAC-R1_PERT-2_2023-08	E472.Ti	10-Aug-2023	12-Sep-2023	730 days	33 days	✔	14-Sep-2023	730 days	35 days	✔	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag HAC-R1_PERT-3_2023-08	E472.Ti	10-Aug-2023	12-Sep-2023	730 days	33 days	✔	14-Sep-2023	730 days	35 days	✔	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag HAC-R1_PERT-5_2023-08	E472.Ti	10-Aug-2023	12-Sep-2023	730 days	33 days	✔	14-Sep-2023	730 days	35 days	✔	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag HAC-R1_PERT-6_2023-08	E472.Ti	10-Aug-2023	12-Sep-2023	730 days	33 days	✔	14-Sep-2023	730 days	35 days	✔	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag HAC-R1_PERT-7_2023-08	E472.Ti	09-Aug-2023	12-Sep-2023	730 days	34 days	✔	14-Sep-2023	730 days	36 days	✔	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag HAC-R1_PERT-8_2023-08	E472.Ti	09-Aug-2023	12-Sep-2023	730 days	34 days	✔	14-Sep-2023	730 days	36 days	✔	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag HAC-U_PERT-1_2023-08	E472.Ti	09-Aug-2023	12-Sep-2023	730 days	34 days	✔	14-Sep-2023	730 days	36 days	✔	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag HAC-U_PERT-2_2023-08	E472.Ti	09-Aug-2023	12-Sep-2023	730 days	34 days	✔	14-Sep-2023	730 days	36 days	✔	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag HAC-U_PERT-4_2023-08	E472.Ti	09-Aug-2023	12-Sep-2023	730 days	34 days	✔	14-Sep-2023	730 days	36 days	✔	



Matrix: **Biota** Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Micro)										
LDPE bag HAC-U_PERT-5_2023-08	E472.Ti	09-Aug-2023	12-Sep-2023	730 days	34 days	✔	14-Sep-2023	730 days	36 days	✔
Metals : Titanium in Biota by CRC ICPMS (DRY units, Micro)										
LDPE bag HAC-U_PERT-6_2023-08	E472.Ti	08-Aug-2023	12-Sep-2023	730 days	35 days	✔	14-Sep-2023	730 days	37 days	✔
Metals : Titanium in Biota by CRC ICPMS (DRY units, Micro)										
LDPE bag EDC-D_PERT-1_2023-08	E472.Ti	11-Aug-2023	15-Sep-2023	730 days	35 days	✔	18-Sep-2023	730 days	38 days	✔
Metals : Titanium in Biota by CRC ICPMS (DRY units, Micro)										
LDPE bag EDC-D_PERT-2_2023-08	E472.Ti	11-Aug-2023	15-Sep-2023	730 days	35 days	✔	18-Sep-2023	730 days	38 days	✔
Metals : Titanium in Biota by CRC ICPMS (DRY units, Micro)										
LDPE bag EDC-D_PERT-3_2023-08	E472.Ti	11-Aug-2023	15-Sep-2023	730 days	35 days	✔	18-Sep-2023	730 days	38 days	✔
Metals : Titanium in Biota by CRC ICPMS (DRY units, Micro)										
LDPE bag EDC-D_PERT-4_2023-08	E472.Ti	11-Aug-2023	15-Sep-2023	730 days	35 days	✔	18-Sep-2023	730 days	38 days	✔
Metals : Titanium in Biota by CRC ICPMS (DRY units, Micro)										
LDPE bag EDC-D_PERT-5_2023-08	E472.Ti	11-Aug-2023	15-Sep-2023	730 days	35 days	✔	18-Sep-2023	730 days	38 days	✔
Metals : Titanium in Biota by CRC ICPMS (DRY units, Micro)										
LDPE bag EDC-D_PERT-6_2023-08	E472.Ti	11-Aug-2023	15-Sep-2023	730 days	35 days	✔	18-Sep-2023	730 days	38 days	✔
Metals : Titanium in Biota by CRC ICPMS (DRY units, Micro)										
LDPE bag EDC-D_PERT-7_2023-08	E472.Ti	11-Aug-2023	15-Sep-2023	730 days	35 days	✔	18-Sep-2023	730 days	38 days	✔



Matrix: **Biota** Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Metals : Titanium in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag EDC-D_PERT-8_2023-08	E472.Ti	11-Aug-2023	15-Sep-2023	730 days	35 days	✔	18-Sep-2023	730 days	38 days	✔	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag HAC-U_PERT-7_2023-08	E472.Ti	07-Aug-2023	12-Sep-2023	730 days	36 days	✔	14-Sep-2023	730 days	38 days	✔	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag HAC-U_PERT-8_2023-08	E472.Ti	07-Aug-2023	12-Sep-2023	730 days	36 days	✔	14-Sep-2023	730 days	38 days	✔	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag HAC-R1_INV-1_2023-08	E472.Ti	10-Aug-2023	15-Sep-2023	730 days	36 days	✔	18-Sep-2023	730 days	39 days	✔	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag HAC-R1_INV-2_2023-08	E472.Ti	10-Aug-2023	15-Sep-2023	730 days	36 days	✔	18-Sep-2023	730 days	39 days	✔	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag HAC-R1_INV-3_2023-08	E472.Ti	10-Aug-2023	15-Sep-2023	730 days	36 days	✔	18-Sep-2023	730 days	39 days	✔	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag HAC-R1_INV-4_2023-08	E472.Ti	10-Aug-2023	15-Sep-2023	730 days	36 days	✔	18-Sep-2023	730 days	39 days	✔	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag HAC-R1_INV-5_2023-08	E472.Ti	10-Aug-2023	15-Sep-2023	730 days	36 days	✔	18-Sep-2023	730 days	39 days	✔	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag HAC-R1_INV-6_2023-08	E472.Ti	10-Aug-2023	15-Sep-2023	730 days	36 days	✔	18-Sep-2023	730 days	39 days	✔	



Matrix: **Biota** Evaluation: * = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Metals : Titanium in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag EDC-U_INVCAD-3_2023-08	E472.Ti	08-Aug-2023	13-Sep-2023	730 days	37 days	✓	13-Sep-2023	730 days	37 days	✓	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag HAC-D_PERT-1_2023-08	E472.Ti	06-Aug-2023	12-Sep-2023	730 days	37 days	✓	14-Sep-2023	730 days	39 days	✓	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag HAC-D_PERT-3_2023-08	E472.Ti	06-Aug-2023	12-Sep-2023	730 days	37 days	✓	14-Sep-2023	730 days	39 days	✓	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag HAC-D_PERT-4_2023-08	E472.Ti	06-Aug-2023	12-Sep-2023	730 days	37 days	✓	14-Sep-2023	730 days	39 days	✓	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag HAC-D_PERT-5_2023-08	E472.Ti	06-Aug-2023	12-Sep-2023	730 days	37 days	✓	14-Sep-2023	730 days	39 days	✓	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag HAC-D_PERT-6_2023-08	E472.Ti	06-Aug-2023	12-Sep-2023	730 days	37 days	✓	14-Sep-2023	730 days	39 days	✓	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag HAC-D_PERT-7_2023-08	E472.Ti	06-Aug-2023	12-Sep-2023	730 days	37 days	✓	14-Sep-2023	730 days	39 days	✓	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag HAC-R1_INV-7_2023-08	E472.Ti	09-Aug-2023	15-Sep-2023	730 days	37 days	✓	18-Sep-2023	730 days	40 days	✓	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag HAC-R1_INV-8_2023-08	E472.Ti	09-Aug-2023	15-Sep-2023	730 days	37 days	✓	18-Sep-2023	730 days	40 days	✓	



Matrix: **Biota** Evaluation: * = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Metals : Titanium in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag HAC-U_INV-1_2023-08	E472.Ti	09-Aug-2023	15-Sep-2023	730 days	37 days	✓	18-Sep-2023	730 days	40 days	✓	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag HAC-U_INV-2_2023-08	E472.Ti	09-Aug-2023	15-Sep-2023	730 days	37 days	✓	18-Sep-2023	730 days	40 days	✓	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag HAC-U_INV-3_2023-08	E472.Ti	09-Aug-2023	15-Sep-2023	730 days	37 days	✓	18-Sep-2023	730 days	40 days	✓	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag HAC-U_INV-4_2023-08	E472.Ti	09-Aug-2023	15-Sep-2023	730 days	37 days	✓	18-Sep-2023	730 days	40 days	✓	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag HAC-U_INV-5_2023-08	E472.Ti	09-Aug-2023	15-Sep-2023	730 days	37 days	✓	18-Sep-2023	730 days	40 days	✓	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag EDC-U_INV-6_2023-08	E472.Ti	07-Aug-2023	13-Sep-2023	730 days	38 days	✓	13-Sep-2023	730 days	38 days	✓	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag EDC-U_INV-7_2023-08	E472.Ti	07-Aug-2023	13-Sep-2023	730 days	38 days	✓	13-Sep-2023	730 days	38 days	✓	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag EDC-U_PERT-1_2023-08	E472.Ti	08-Aug-2023	15-Sep-2023	730 days	38 days	✓	18-Sep-2023	730 days	41 days	✓	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag EDC-U_PERT-2_2023-08	E472.Ti	08-Aug-2023	15-Sep-2023	730 days	38 days	✓	18-Sep-2023	730 days	41 days	✓	



Matrix: **Biota** Evaluation: * = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Metals : Titanium in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag HAC-U_INV-6_2023-08	E472.Ti	08-Aug-2023	15-Sep-2023	730 days	38 days	✓	18-Sep-2023	730 days	41 days	✓	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag EDC-D_INV-1_2023-08	E472.Ti	11-Aug-2023	18-Sep-2023	730 days	39 days	✓	19-Sep-2023	730 days	40 days	✓	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag EDC-D_INV-2_2023-08	E472.Ti	11-Aug-2023	18-Sep-2023	730 days	39 days	✓	19-Sep-2023	730 days	40 days	✓	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag EDC-D_INV-3_2023-08	E472.Ti	11-Aug-2023	18-Sep-2023	730 days	39 days	✓	19-Sep-2023	730 days	40 days	✓	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag EDC-D_INV-4_2023-08	E472.Ti	11-Aug-2023	18-Sep-2023	730 days	39 days	✓	19-Sep-2023	730 days	40 days	✓	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag EDC-D_INV-5_2023-08	E472.Ti	11-Aug-2023	18-Sep-2023	730 days	39 days	✓	19-Sep-2023	730 days	40 days	✓	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag EDC-D_INV-6_2023-08	E472.Ti	11-Aug-2023	18-Sep-2023	730 days	39 days	✓	19-Sep-2023	730 days	40 days	✓	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag EDC-D_INV-7_2023-08	E472.Ti	11-Aug-2023	18-Sep-2023	730 days	39 days	✓	19-Sep-2023	730 days	40 days	✓	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag EDC-D_INV-8_2023-08	E472.Ti	11-Aug-2023	18-Sep-2023	730 days	39 days	✓	19-Sep-2023	730 days	40 days	✓	



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Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Micro)										
LDPE bag EDC-D_INVCAD-1_2023-08	E472.Ti	11-Aug-2023	19-Sep-2023	730 days	39 days	✓	19-Sep-2023	730 days	40 days	✓
Metals : Titanium in Biota by CRC ICPMS (DRY units, Micro)										
LDPE bag EDC-D_INVCAD-2_2023-08	E472.Ti	11-Aug-2023	19-Sep-2023	730 days	39 days	✓	19-Sep-2023	730 days	40 days	✓
Metals : Titanium in Biota by CRC ICPMS (DRY units, Micro)										
LDPE bag EDC-U_PERT-5_2023-08	E472.Ti	07-Aug-2023	15-Sep-2023	730 days	39 days	✓	18-Sep-2023	730 days	42 days	✓
Metals : Titanium in Biota by CRC ICPMS (DRY units, Micro)										
LDPE bag EDC-U_PERT-8_2023-08	E472.Ti	07-Aug-2023	15-Sep-2023	730 days	39 days	✓	18-Sep-2023	730 days	42 days	✓
Metals : Titanium in Biota by CRC ICPMS (DRY units, Micro)										
LDPE bag HAC-U_INV-7_2023-08	E472.Ti	07-Aug-2023	15-Sep-2023	730 days	39 days	✓	18-Sep-2023	730 days	42 days	✓
Metals : Titanium in Biota by CRC ICPMS (DRY units, Micro)										
LDPE bag HAC-R1_INVCAD-1_2023-08	E472.Ti	10-Aug-2023	19-Sep-2023	730 days	40 days	✓	19-Sep-2023	730 days	41 days	✓
Metals : Titanium in Biota by CRC ICPMS (DRY units, Micro)										
LDPE bag HAC-R1_INVCAD-2_2023-08	E472.Ti	10-Aug-2023	19-Sep-2023	730 days	40 days	✓	19-Sep-2023	730 days	41 days	✓
Metals : Titanium in Biota by CRC ICPMS (DRY units, Micro)										
LDPE bag HAC-R1_INVCAD-3_2023-08	E472.Ti	10-Aug-2023	19-Sep-2023	730 days	40 days	✓	19-Sep-2023	730 days	41 days	✓
Metals : Titanium in Biota by CRC ICPMS (DRY units, Micro)										
LDPE bag HAC-R1_INVCAD-4_2023-08	E472.Ti	10-Aug-2023	19-Sep-2023	730 days	40 days	✓	19-Sep-2023	730 days	41 days	✓



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Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Metals : Titanium in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag HAC-R1_INVCAD-5_2023-08	E472.Ti	10-Aug-2023	19-Sep-2023	730 days	40 days	✓	19-Sep-2023	730 days	41 days	✓	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag HAC-R1_INVCAD-6_2023-08	E472.Ti	10-Aug-2023	19-Sep-2023	730 days	40 days	✓	19-Sep-2023	730 days	41 days	✓	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag HAC-D_INV-1_2023-08	E472.Ti	06-Aug-2023	15-Sep-2023	730 days	40 days	✓	18-Sep-2023	730 days	43 days	✓	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag HAC-D_INV-2_2023-08	E472.Ti	06-Aug-2023	15-Sep-2023	730 days	40 days	✓	18-Sep-2023	730 days	43 days	✓	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag HAC-R1_INVCAD-7_2023-08	E472.Ti	09-Aug-2023	19-Sep-2023	730 days	41 days	✓	19-Sep-2023	730 days	42 days	✓	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag HAC-R1_INVCAD-8_2023-08	E472.Ti	09-Aug-2023	19-Sep-2023	730 days	41 days	✓	19-Sep-2023	730 days	42 days	✓	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag HAC-U_INVCAD-1_2023-08	E472.Ti	09-Aug-2023	19-Sep-2023	730 days	41 days	✓	19-Sep-2023	730 days	42 days	✓	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag HAC-U_INVCAD-2_2023-08	E472.Ti	09-Aug-2023	19-Sep-2023	730 days	41 days	✓	19-Sep-2023	730 days	42 days	✓	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag HAC-U_INVCAD-3_2023-08	E472.Ti	09-Aug-2023	19-Sep-2023	730 days	41 days	✓	19-Sep-2023	730 days	42 days	✓	



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Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Metals : Titanium in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag HAC-U_INVCAD-4_2023-08	E472.Ti	09-Aug-2023	19-Sep-2023	730 days	41 days	✔	19-Sep-2023	730 days	42 days	✔	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag HAC-U_INVCAD-5_2023-08	E472.Ti	09-Aug-2023	19-Sep-2023	730 days	41 days	✔	19-Sep-2023	730 days	42 days	✔	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag E1_PERT-1_2023-08	E472.Ti	05-Aug-2023	15-Sep-2023	730 days	41 days	✔	18-Sep-2023	730 days	44 days	✔	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag E1_PERT-2_2023-08	E472.Ti	05-Aug-2023	15-Sep-2023	730 days	41 days	✔	18-Sep-2023	730 days	44 days	✔	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag E1_PERT-3_2023-08	E472.Ti	05-Aug-2023	15-Sep-2023	730 days	41 days	✔	18-Sep-2023	730 days	44 days	✔	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag E1_PERT-4_2023-08	E472.Ti	05-Aug-2023	15-Sep-2023	730 days	41 days	✔	18-Sep-2023	730 days	44 days	✔	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag HAC-D_PERT-8_2023-08	E472.Ti	05-Aug-2023	15-Sep-2023	730 days	41 days	✔	18-Sep-2023	730 days	44 days	✔	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag EDC-U_INV-1_2023-08	E472.Ti	08-Aug-2023	18-Sep-2023	730 days	42 days	✔	19-Sep-2023	730 days	43 days	✔	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag EDC-U_INV-2_2023-08	E472.Ti	08-Aug-2023	18-Sep-2023	730 days	42 days	✔	19-Sep-2023	730 days	43 days	✔	



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Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Metals : Titanium in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag EDC-U_INV-3_2023-08	E472.Ti	08-Aug-2023	18-Sep-2023	730 days	42 days	✔	19-Sep-2023	730 days	43 days	✔	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag EDC-U_INV-4_2023-08	E472.Ti	08-Aug-2023	18-Sep-2023	730 days	42 days	✔	19-Sep-2023	730 days	43 days	✔	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag EDC-U_INVCAD-1_2023-08	E472.Ti	08-Aug-2023	19-Sep-2023	730 days	42 days	✔	19-Sep-2023	730 days	43 days	✔	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag EDC-U_INVCAD-2_2023-08	E472.Ti	08-Aug-2023	19-Sep-2023	730 days	42 days	✔	19-Sep-2023	730 days	43 days	✔	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag EDC-U_INVCAD-4_2023-08	E472.Ti	08-Aug-2023	19-Sep-2023	730 days	42 days	✔	19-Sep-2023	730 days	43 days	✔	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag E1_PERT-5_2023-08	E472.Ti	04-Aug-2023	15-Sep-2023	730 days	42 days	✔	18-Sep-2023	730 days	45 days	✔	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag E1_PERT-6_2023-08	E472.Ti	04-Aug-2023	15-Sep-2023	730 days	42 days	✔	18-Sep-2023	730 days	45 days	✔	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag E1_PERT-7_2023-08	E472.Ti	04-Aug-2023	15-Sep-2023	730 days	42 days	✔	18-Sep-2023	730 days	45 days	✔	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag EDC-U_INV-5_2023-08	E472.Ti	07-Aug-2023	18-Sep-2023	730 days	43 days	✔	19-Sep-2023	730 days	44 days	✔	



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Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Micro)										
LDPE bag EDC-U_INVCAD-5_2023-08	E472.Ti	07-Aug-2023	19-Sep-2023	730 days	43 days	✓	19-Sep-2023	730 days	44 days	✓
Metals : Titanium in Biota by CRC ICPMS (DRY units, Micro)										
LDPE bag EDC-U_INVCAD-6_2023-08	E472.Ti	07-Aug-2023	19-Sep-2023	730 days	43 days	✓	19-Sep-2023	730 days	44 days	✓
Metals : Titanium in Biota by CRC ICPMS (DRY units, Micro)										
LDPE bag EDC-U_INVCAD-7_2023-08	E472.Ti	07-Aug-2023	19-Sep-2023	730 days	43 days	✓	19-Sep-2023	730 days	44 days	✓
Metals : Titanium in Biota by CRC ICPMS (DRY units, Micro)										
LDPE bag EDC-U_INVCAD-8_2023-08	E472.Ti	07-Aug-2023	19-Sep-2023	730 days	43 days	✓	19-Sep-2023	730 days	44 days	✓
Metals : Titanium in Biota by CRC ICPMS (DRY units, Micro)										
LDPE bag HAC-U_INVCAD-7_2023-08	E472.Ti	07-Aug-2023	19-Sep-2023	730 days	43 days	✓	19-Sep-2023	730 days	44 days	✓
Metals : Titanium in Biota by CRC ICPMS (DRY units, Micro)										
LDPE bag HAC-U_INVCAD-8_2023-08	E472.Ti	07-Aug-2023	19-Sep-2023	730 days	43 days	✓	19-Sep-2023	730 days	44 days	✓
Metals : Titanium in Biota by CRC ICPMS (DRY units, Micro)										
LDPE bag E1_PERT-8_2023-08	E472.Ti	03-Aug-2023	15-Sep-2023	730 days	43 days	✓	18-Sep-2023	730 days	46 days	✓
Metals : Titanium in Biota by CRC ICPMS (DRY units, Micro)										
LDPE bag HAC-D_INV-3_2023-08	E472.Ti	06-Aug-2023	18-Sep-2023	730 days	44 days	✓	19-Sep-2023	730 days	45 days	✓
Metals : Titanium in Biota by CRC ICPMS (DRY units, Micro)										
LDPE bag HAC-D_INV-4_2023-08	E472.Ti	06-Aug-2023	18-Sep-2023	730 days	44 days	✓	19-Sep-2023	730 days	45 days	✓



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Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Metals : Titanium in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag HAC-D_INV-5_2023-08	E472.Ti	06-Aug-2023	18-Sep-2023	730 days	44 days	✓	19-Sep-2023	730 days	45 days	✓	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag HAC-D_INV-6_2023-08	E472.Ti	06-Aug-2023	18-Sep-2023	730 days	44 days	✓	19-Sep-2023	730 days	45 days	✓	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag HAC-D_INV-7_2023-08	E472.Ti	06-Aug-2023	18-Sep-2023	730 days	44 days	✓	19-Sep-2023	730 days	45 days	✓	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag HAC-D_INVCAD-1_2023-08	E472.Ti	06-Aug-2023	19-Sep-2023	730 days	44 days	✓	19-Sep-2023	730 days	45 days	✓	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag HAC-D_INVCAD-2_2023-08	E472.Ti	06-Aug-2023	19-Sep-2023	730 days	44 days	✓	19-Sep-2023	730 days	45 days	✓	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag HAC-D_INVCAD-3_2023-08	E472.Ti	06-Aug-2023	19-Sep-2023	730 days	44 days	✓	19-Sep-2023	730 days	45 days	✓	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag HAC-D_INVCAD-4_2023-08	E472.Ti	06-Aug-2023	19-Sep-2023	730 days	44 days	✓	19-Sep-2023	730 days	45 days	✓	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag HAC-D_INVCAD-5_2023-08	E472.Ti	06-Aug-2023	19-Sep-2023	730 days	44 days	✓	19-Sep-2023	730 days	45 days	✓	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag HAC-D_INVCAD-6_2023-08	E472.Ti	06-Aug-2023	19-Sep-2023	730 days	44 days	✓	19-Sep-2023	730 days	45 days	✓	



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Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Metals : Titanium in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag HAC-D_INVCAD-7_2023-08	E472.Ti	06-Aug-2023	19-Sep-2023	730 days	44 days	✔	19-Sep-2023	730 days	45 days	✔	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag HAC-U_INVCAD-6_2023-08	E472.Ti	06-Aug-2023	19-Sep-2023	730 days	44 days	✔	19-Sep-2023	730 days	45 days	✔	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag E1_INV-1_2023-08	E472.Ti	05-Aug-2023	18-Sep-2023	730 days	45 days	✔	19-Sep-2023	730 days	46 days	✔	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag E1_INV-2_2023-08	E472.Ti	05-Aug-2023	19-Sep-2023	730 days	45 days	✔	19-Sep-2023	730 days	46 days	✔	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag E1_INV-3_2023-08	E472.Ti	05-Aug-2023	19-Sep-2023	730 days	45 days	✔	19-Sep-2023	730 days	46 days	✔	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag E1_INV-4_2023-08	E472.Ti	05-Aug-2023	19-Sep-2023	730 days	45 days	✔	19-Sep-2023	730 days	46 days	✔	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag EDC-D_INV-6X_2023-08	E472.Ti	11-Aug-2023	25-Sep-2023	730 days	45 days	✔	25-Sep-2023	730 days	46 days	✔	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag EDC-D_INVCAD-3_2023-08	E472.Ti	11-Aug-2023	25-Sep-2023	730 days	45 days	✔	25-Sep-2023	730 days	46 days	✔	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag EDC-D_INVCAD-4_2023-08	E472.Ti	11-Aug-2023	25-Sep-2023	730 days	45 days	✔	25-Sep-2023	730 days	46 days	✔	



Matrix: **Biota** Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Metals : Titanium in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag EDC-D_INVCAD-5_2023-08	E472.Ti	11-Aug-2023	25-Sep-2023	730 days	45 days	✔	25-Sep-2023	730 days	46 days	✔	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag EDC-D_INVCAD-6_2023-08	E472.Ti	11-Aug-2023	25-Sep-2023	730 days	45 days	✔	25-Sep-2023	730 days	46 days	✔	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag EDC-D_INVCAD-7_2023-08	E472.Ti	11-Aug-2023	25-Sep-2023	730 days	45 days	✔	25-Sep-2023	730 days	46 days	✔	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag EDC-D_INVCAD-8_2023-08	E472.Ti	11-Aug-2023	25-Sep-2023	730 days	45 days	✔	25-Sep-2023	730 days	46 days	✔	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag EDC-D_INVCAD-8X_2023-08	E472.Ti	11-Aug-2023	25-Sep-2023	730 days	45 days	✔	25-Sep-2023	730 days	46 days	✔	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag EDC-D_PERT-4X_2023-08	E472.Ti	11-Aug-2023	25-Sep-2023	730 days	45 days	✔	25-Sep-2023	730 days	46 days	✔	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag HAC-D_INV-8_2023-08	E472.Ti	05-Aug-2023	18-Sep-2023	730 days	45 days	✔	19-Sep-2023	730 days	46 days	✔	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag HAC-D_INVCAD-8_2023-08	E472.Ti	05-Aug-2023	19-Sep-2023	730 days	45 days	✔	19-Sep-2023	730 days	46 days	✔	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag E1_INV-5_2023-08	E472.Ti	04-Aug-2023	19-Sep-2023	730 days	46 days	✔	19-Sep-2023	730 days	47 days	✔	



Matrix: **Biota** Evaluation: * = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Micro)										
LDPE bag E1_INV-6_2023-08	E472.Ti	04-Aug-2023	19-Sep-2023	730 days	46 days	✓	19-Sep-2023	730 days	47 days	✓
Metals : Titanium in Biota by CRC ICPMS (DRY units, Micro)										
LDPE bag E1_INV-7_2023-08	E472.Ti	04-Aug-2023	19-Sep-2023	730 days	46 days	✓	19-Sep-2023	730 days	47 days	✓
Metals : Titanium in Biota by CRC ICPMS (DRY units, Micro)										
LDPE bag HAC-R1_INV-6X_2023-08	E472.Ti	10-Aug-2023	25-Sep-2023	730 days	46 days	✓	25-Sep-2023	730 days	47 days	✓
Metals : Titanium in Biota by CRC ICPMS (DRY units, Micro)										
LDPE bag E1_INV-8_2023-08	E472.Ti	03-Aug-2023	19-Sep-2023	730 days	47 days	✓	19-Sep-2023	730 days	48 days	✓
Metals : Titanium in Biota by CRC ICPMS (DRY units, Micro)										
LDPE bag HAC-R1_INVCAD-8X_2023-08	E472.Ti	09-Aug-2023	25-Sep-2023	730 days	47 days	✓	25-Sep-2023	730 days	48 days	✓
Metals : Titanium in Biota by CRC ICPMS (DRY units, Micro)										
LDPE bag HAC-U_INV-2X_2023-08	E472.Ti	09-Aug-2023	25-Sep-2023	730 days	47 days	✓	25-Sep-2023	730 days	48 days	✓
Metals : Titanium in Biota by CRC ICPMS (DRY units, Micro)										
LDPE bag HAC-U_INVCAD-2X_2023-08	E472.Ti	09-Aug-2023	25-Sep-2023	730 days	47 days	✓	25-Sep-2023	730 days	48 days	✓
Metals : Titanium in Biota by CRC ICPMS (DRY units, Micro)										
LDPE bag HAC-U_PERT-2X_2023-08	E472.Ti	09-Aug-2023	25-Sep-2023	730 days	47 days	✓	25-Sep-2023	730 days	48 days	✓
Metals : Titanium in Biota by CRC ICPMS (DRY units, Micro)										
LDPE bag HAC-U_PERT-6X_2023-08	E472.Ti	08-Aug-2023	25-Sep-2023	730 days	48 days	✓	25-Sep-2023	730 days	49 days	✓



Matrix: **Biota** Evaluation: * = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Metals : Titanium in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag HAC-D_INV-2X_2023-08	E472.Ti	06-Aug-2023	25-Sep-2023	730 days	50 days	✓	25-Sep-2023	730 days	51 days	✓	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag HAC-D_INVCAD-4X_2023-08	E472.Ti	06-Aug-2023	25-Sep-2023	730 days	50 days	✓	25-Sep-2023	730 days	51 days	✓	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag HAC-D_PERT-3X_2023-08	E472.Ti	06-Aug-2023	25-Sep-2023	730 days	50 days	✓	25-Sep-2023	730 days	51 days	✓	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag E1_INV-2X_2023-08	E472.Ti	05-Aug-2023	25-Sep-2023	730 days	51 days	✓	25-Sep-2023	730 days	52 days	✓	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag E1_INVCAD-1_2023-08	E472.Ti	05-Aug-2023	25-Sep-2023	730 days	51 days	✓	25-Sep-2023	730 days	52 days	✓	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag E1_INVCAD-2_2023-08	E472.Ti	05-Aug-2023	25-Sep-2023	730 days	51 days	✓	25-Sep-2023	730 days	52 days	✓	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag E1_INVCAD-3_2023-08	E472.Ti	05-Aug-2023	25-Sep-2023	730 days	51 days	✓	25-Sep-2023	730 days	52 days	✓	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag E1_INVCAD-4_2023-08	E472.Ti	05-Aug-2023	25-Sep-2023	730 days	51 days	✓	25-Sep-2023	730 days	52 days	✓	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag E1_PERT-4X_2023-08	E472.Ti	05-Aug-2023	25-Sep-2023	730 days	51 days	✓	25-Sep-2023	730 days	52 days	✓	



Matrix: **Biota** Evaluation: * = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Micro)										
LDPE bag E1_INVCAD-5_2023-08	E472.Ti	04-Aug-2023	25-Sep-2023	730 days	52 days	✓	25-Sep-2023	730 days	53 days	✓
Metals : Titanium in Biota by CRC ICPMS (DRY units, Micro)										
LDPE bag E1_INVCAD-6_2023-08	E472.Ti	04-Aug-2023	25-Sep-2023	730 days	52 days	✓	25-Sep-2023	730 days	53 days	✓
Metals : Titanium in Biota by CRC ICPMS (DRY units, Micro)										
LDPE bag E1_INVCAD-7_2023-08	E472.Ti	04-Aug-2023	25-Sep-2023	730 days	52 days	✓	25-Sep-2023	730 days	53 days	✓
Metals : Titanium in Biota by CRC ICPMS (DRY units, Micro)										
LDPE bag E1_INVCAD-7X_2023-08	E472.Ti	04-Aug-2023	25-Sep-2023	730 days	52 days	✓	25-Sep-2023	730 days	53 days	✓
Metals : Titanium in Biota by CRC ICPMS (DRY units, Micro)										
LDPE bag E1_INVCAD-8_2023-08	E472.Ti	03-Aug-2023	25-Sep-2023	730 days	53 days	✓	25-Sep-2023	730 days	54 days	✓
Physical Tests : Moisture Content by Gravimetry (Biopsy)										
LDPE bag HAC-R1_PERT-4_2023-08	E144A	10-Aug-2023	----	----	----		11-Sep-2023	----	32 days	
Physical Tests : Moisture Content by Gravimetry (Biopsy)										
LDPE bag HAC-U_PERT-3_2023-08	E144A	09-Aug-2023	----	----	----		11-Sep-2023	----	33 days	
Physical Tests : Moisture Content by Gravimetry (Biopsy)										
LDPE bag EDC-U_PERT-3_2023-08	E144A	08-Aug-2023	----	----	----		11-Sep-2023	----	34 days	
Physical Tests : Moisture Content by Gravimetry (Biopsy)										
LDPE bag EDC-U_PERT-4_2023-08	E144A	08-Aug-2023	----	----	----		11-Sep-2023	----	34 days	



Matrix: **Biota** Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Physical Tests : Moisture Content by Gravimetry (Biopsy)										
LDPE bag EDC-U_INV-8_2023-08	E144A	07-Aug-2023	----	----	----		11-Sep-2023	----	35 days	
Physical Tests : Moisture Content by Gravimetry (Biopsy)										
LDPE bag EDC-U_PERT-7_2023-08	E144A	07-Aug-2023	----	----	----		11-Sep-2023	----	35 days	
Physical Tests : Moisture Content by Gravimetry (Biopsy)										
LDPE bag HAC-D_PERT-2_2023-08	E144A	06-Aug-2023	----	----	----		11-Sep-2023	----	36 days	
Physical Tests : Moisture Content by Gravimetry (Biopsy)										
LDPE bag EDC-U_PERT-6_2023-08	E144A	07-Aug-2023	----	----	----		18-Sep-2023	----	43 days	
Physical Tests : Moisture Content by Gravimetry (Biopsy)										
LDPE bag HAC-U_INV-8_2023-08	E144A	07-Aug-2023	----	----	----		18-Sep-2023	----	43 days	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag EDC-D_PERT-1_2023-08	E144-H	11-Aug-2023	----	----	----		11-Sep-2023	----	31 days	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag EDC-D_PERT-2_2023-08	E144-H	11-Aug-2023	----	----	----		11-Sep-2023	----	31 days	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag EDC-D_PERT-3_2023-08	E144-H	11-Aug-2023	----	----	----		11-Sep-2023	----	31 days	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag EDC-D_PERT-4_2023-08	E144-H	11-Aug-2023	----	----	----		11-Sep-2023	----	31 days	



Matrix: **Biota** Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag EDC-D_PERT-5_2023-08	E144-H	11-Aug-2023	----	----	----		11-Sep-2023	----	31 days	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag EDC-D_PERT-6_2023-08	E144-H	11-Aug-2023	----	----	----		11-Sep-2023	----	31 days	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag EDC-D_PERT-7_2023-08	E144-H	11-Aug-2023	----	----	----		11-Sep-2023	----	31 days	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag EDC-D_PERT-8_2023-08	E144-H	11-Aug-2023	----	----	----		11-Sep-2023	----	31 days	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag HAC-R1_INV-1_2023-08	E144-H	10-Aug-2023	----	----	----		11-Sep-2023	----	32 days	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag HAC-R1_INV-2_2023-08	E144-H	10-Aug-2023	----	----	----		11-Sep-2023	----	32 days	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag HAC-R1_INV-3_2023-08	E144-H	10-Aug-2023	----	----	----		11-Sep-2023	----	32 days	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag HAC-R1_INV-4_2023-08	E144-H	10-Aug-2023	----	----	----		11-Sep-2023	----	32 days	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag HAC-R1_INV-5_2023-08	E144-H	10-Aug-2023	----	----	----		11-Sep-2023	----	32 days	



Matrix: **Biota** Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag HAC-R1_INV-6_2023-08	E144-H	10-Aug-2023	----	----	----		11-Sep-2023	----	32 days	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag HAC-R1_PERT-1_2023-08	E144-H	10-Aug-2023	----	----	----		11-Sep-2023	----	32 days	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag HAC-R1_PERT-2_2023-08	E144-H	10-Aug-2023	----	----	----		11-Sep-2023	----	32 days	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag HAC-R1_PERT-3_2023-08	E144-H	10-Aug-2023	----	----	----		11-Sep-2023	----	32 days	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag HAC-R1_PERT-5_2023-08	E144-H	10-Aug-2023	----	----	----		11-Sep-2023	----	32 days	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag HAC-R1_PERT-6_2023-08	E144-H	10-Aug-2023	----	----	----		11-Sep-2023	----	32 days	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag EDC-D_INV-1_2023-08	E144-H	11-Aug-2023	----	----	----		13-Sep-2023	----	33 days	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag EDC-D_INV-2_2023-08	E144-H	11-Aug-2023	----	----	----		13-Sep-2023	----	33 days	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag EDC-D_INV-3_2023-08	E144-H	11-Aug-2023	----	----	----		13-Sep-2023	----	33 days	



Matrix: **Biota** Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag EDC-D_INV-4_2023-08	E144-H	11-Aug-2023	----	----	----		13-Sep-2023	----	33 days	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag EDC-D_INV-5_2023-08	E144-H	11-Aug-2023	----	----	----		13-Sep-2023	----	33 days	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag EDC-D_INV-6_2023-08	E144-H	11-Aug-2023	----	----	----		13-Sep-2023	----	33 days	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag EDC-D_INV-7_2023-08	E144-H	11-Aug-2023	----	----	----		13-Sep-2023	----	33 days	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag EDC-D_INV-8_2023-08	E144-H	11-Aug-2023	----	----	----		13-Sep-2023	----	33 days	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag HAC-R1_INV-7_2023-08	E144-H	09-Aug-2023	----	----	----		11-Sep-2023	----	33 days	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag HAC-R1_INV-8_2023-08	E144-H	09-Aug-2023	----	----	----		11-Sep-2023	----	33 days	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag HAC-R1_PERT-7_2023-08	E144-H	09-Aug-2023	----	----	----		11-Sep-2023	----	33 days	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag HAC-R1_PERT-8_2023-08	E144-H	09-Aug-2023	----	----	----		11-Sep-2023	----	33 days	



Matrix: **Biota** Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag HAC-U_INV-1_2023-08	E144-H	09-Aug-2023	----	----	----		11-Sep-2023	----	33 days	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag HAC-U_INV-2_2023-08	E144-H	09-Aug-2023	----	----	----		11-Sep-2023	----	33 days	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag HAC-U_INV-3_2023-08	E144-H	09-Aug-2023	----	----	----		11-Sep-2023	----	33 days	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag HAC-U_INV-4_2023-08	E144-H	09-Aug-2023	----	----	----		11-Sep-2023	----	33 days	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag HAC-U_INV-5_2023-08	E144-H	09-Aug-2023	----	----	----		11-Sep-2023	----	33 days	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag HAC-U_PERT-1_2023-08	E144-H	09-Aug-2023	----	----	----		11-Sep-2023	----	33 days	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag HAC-U_PERT-2_2023-08	E144-H	09-Aug-2023	----	----	----		11-Sep-2023	----	33 days	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag HAC-U_PERT-4_2023-08	E144-H	09-Aug-2023	----	----	----		11-Sep-2023	----	33 days	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag HAC-U_PERT-5_2023-08	E144-H	09-Aug-2023	----	----	----		11-Sep-2023	----	33 days	



Matrix: **Biota** Evaluation: * = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag EDC-U_PERT-1_2023-08	E144-H	08-Aug-2023	----	----	----		11-Sep-2023	----	34 days	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag EDC-U_PERT-2_2023-08	E144-H	08-Aug-2023	----	----	----		11-Sep-2023	----	34 days	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag HAC-U_INV-6_2023-08	E144-H	08-Aug-2023	----	----	----		11-Sep-2023	----	34 days	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag HAC-U_PERT-6_2023-08	E144-H	08-Aug-2023	----	----	----		11-Sep-2023	----	34 days	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag EDC-D_INVCAD-1_2023-08	E144-H	11-Aug-2023	----	----	----		14-Sep-2023	----	35 days	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag EDC-D_INVCAD-2_2023-08	E144-H	11-Aug-2023	----	----	----		14-Sep-2023	----	35 days	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag EDC-U_PERT-5_2023-08	E144-H	07-Aug-2023	----	----	----		11-Sep-2023	----	35 days	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag EDC-U_PERT-8_2023-08	E144-H	07-Aug-2023	----	----	----		11-Sep-2023	----	35 days	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag HAC-R1_INVCAD-1_2023-08	E144-H	10-Aug-2023	----	----	----		14-Sep-2023	----	35 days	



Matrix: **Biota** Evaluation: * = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag HAC-R1_INVCAD-2_2023-08	E144-H	10-Aug-2023	----	----	----		14-Sep-2023	----	35 days	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag HAC-R1_INVCAD-3_2023-08	E144-H	10-Aug-2023	----	----	----		14-Sep-2023	----	35 days	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag HAC-R1_INVCAD-4_2023-08	E144-H	10-Aug-2023	----	----	----		14-Sep-2023	----	35 days	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag HAC-R1_INVCAD-5_2023-08	E144-H	10-Aug-2023	----	----	----		14-Sep-2023	----	35 days	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag HAC-R1_INVCAD-6_2023-08	E144-H	10-Aug-2023	----	----	----		14-Sep-2023	----	35 days	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag HAC-U_INV-7_2023-08	E144-H	07-Aug-2023	----	----	----		11-Sep-2023	----	35 days	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag HAC-U_PERT-7_2023-08	E144-H	07-Aug-2023	----	----	----		11-Sep-2023	----	35 days	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag HAC-U_PERT-8_2023-08	E144-H	07-Aug-2023	----	----	----		11-Sep-2023	----	35 days	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag EDC-U_INV-1_2023-08	E144-H	08-Aug-2023	----	----	----		13-Sep-2023	----	36 days	



Matrix: **Biota** Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag EDC-U_INV-2_2023-08	E144-H	08-Aug-2023	----	----	----		13-Sep-2023	----	36 days	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag EDC-U_INV-3_2023-08	E144-H	08-Aug-2023	----	----	----		13-Sep-2023	----	36 days	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag EDC-U_INV-4_2023-08	E144-H	08-Aug-2023	----	----	----		13-Sep-2023	----	36 days	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag HAC-D_INV-1_2023-08	E144-H	06-Aug-2023	----	----	----		11-Sep-2023	----	36 days	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag HAC-D_INV-2_2023-08	E144-H	06-Aug-2023	----	----	----		11-Sep-2023	----	36 days	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag HAC-D_PERT-1_2023-08	E144-H	06-Aug-2023	----	----	----		11-Sep-2023	----	36 days	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag HAC-D_PERT-3_2023-08	E144-H	06-Aug-2023	----	----	----		11-Sep-2023	----	36 days	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag HAC-D_PERT-4_2023-08	E144-H	06-Aug-2023	----	----	----		11-Sep-2023	----	36 days	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag HAC-D_PERT-5_2023-08	E144-H	06-Aug-2023	----	----	----		11-Sep-2023	----	36 days	



Matrix: **Biota** Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag HAC-D_PERT-6_2023-08	E144-H	06-Aug-2023	----	----	----		11-Sep-2023	----	36 days	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag HAC-D_PERT-7_2023-08	E144-H	06-Aug-2023	----	----	----		11-Sep-2023	----	36 days	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag HAC-R1_INVCAD-7_2023-08	E144-H	09-Aug-2023	----	----	----		14-Sep-2023	----	36 days	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag HAC-R1_INVCAD-8_2023-08	E144-H	09-Aug-2023	----	----	----		14-Sep-2023	----	36 days	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag HAC-U_INVCAD-1_2023-08	E144-H	09-Aug-2023	----	----	----		14-Sep-2023	----	36 days	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag HAC-U_INVCAD-2_2023-08	E144-H	09-Aug-2023	----	----	----		14-Sep-2023	----	36 days	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag HAC-U_INVCAD-3_2023-08	E144-H	09-Aug-2023	----	----	----		14-Sep-2023	----	36 days	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag HAC-U_INVCAD-4_2023-08	E144-H	09-Aug-2023	----	----	----		14-Sep-2023	----	36 days	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag HAC-U_INVCAD-5_2023-08	E144-H	09-Aug-2023	----	----	----		14-Sep-2023	----	36 days	



Matrix: **Biota** Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag E1_PERT-1_2023-08	E144-H	05-Aug-2023	----	----	----		11-Sep-2023	----	37 days	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag E1_PERT-2_2023-08	E144-H	05-Aug-2023	----	----	----		11-Sep-2023	----	37 days	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag E1_PERT-3_2023-08	E144-H	05-Aug-2023	----	----	----		11-Sep-2023	----	37 days	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag E1_PERT-4_2023-08	E144-H	05-Aug-2023	----	----	----		11-Sep-2023	----	37 days	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag EDC-U_INV-5_2023-08	E144-H	07-Aug-2023	----	----	----		13-Sep-2023	----	37 days	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag EDC-U_INVCAD-3_2023-08	E144-H	08-Aug-2023	----	----	----		14-Sep-2023	----	37 days	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag HAC-D_PERT-8_2023-08	E144-H	05-Aug-2023	----	----	----		11-Sep-2023	----	37 days	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag E1_PERT-5_2023-08	E144-H	04-Aug-2023	----	----	----		11-Sep-2023	----	38 days	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag E1_PERT-6_2023-08	E144-H	04-Aug-2023	----	----	----		11-Sep-2023	----	38 days	



Matrix: **Biota** Evaluation: * = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag E1_PERT-7_2023-08	E144-H	04-Aug-2023	----	----	----		11-Sep-2023	----	38 days	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag EDC-U_INV-6_2023-08	E144-H	07-Aug-2023	----	----	----		14-Sep-2023	----	38 days	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag EDC-U_INV-7_2023-08	E144-H	07-Aug-2023	----	----	----		14-Sep-2023	----	38 days	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag EDC-U_INVCAD-1_2023-08	E144-H	08-Aug-2023	----	----	----		14-Sep-2023	----	38 days	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag EDC-U_INVCAD-2_2023-08	E144-H	08-Aug-2023	----	----	----		14-Sep-2023	----	38 days	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag EDC-U_INVCAD-4_2023-08	E144-H	08-Aug-2023	----	----	----		14-Sep-2023	----	38 days	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag HAC-D_INV-3_2023-08	E144-H	06-Aug-2023	----	----	----		13-Sep-2023	----	38 days	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag HAC-D_INV-4_2023-08	E144-H	06-Aug-2023	----	----	----		13-Sep-2023	----	38 days	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag HAC-D_INV-5_2023-08	E144-H	06-Aug-2023	----	----	----		13-Sep-2023	----	38 days	



Matrix: **Biota** Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag HAC-D_INV-6_2023-08	E144-H	06-Aug-2023	----	----	----		13-Sep-2023	----	38 days	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag HAC-D_INV-7_2023-08	E144-H	06-Aug-2023	----	----	----		13-Sep-2023	----	38 days	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag E1_INV-1_2023-08	E144-H	05-Aug-2023	----	----	----		13-Sep-2023	----	39 days	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag E1_PERT-8_2023-08	E144-H	03-Aug-2023	----	----	----		11-Sep-2023	----	39 days	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag EDC-D_INV-6X_2023-08	E144-H	11-Aug-2023	----	----	----		19-Sep-2023	----	39 days	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag EDC-D_INVCAD-3_2023-08	E144-H	11-Aug-2023	----	----	----		18-Sep-2023	----	39 days	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag EDC-D_INVCAD-4_2023-08	E144-H	11-Aug-2023	----	----	----		18-Sep-2023	----	39 days	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag EDC-D_INVCAD-5_2023-08	E144-H	11-Aug-2023	----	----	----		18-Sep-2023	----	39 days	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag EDC-D_INVCAD-6_2023-08	E144-H	11-Aug-2023	----	----	----		18-Sep-2023	----	39 days	



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Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag EDC-D_INVCAD-7_2023-08	E144-H	11-Aug-2023	----	----	----		18-Sep-2023	----	39 days	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag EDC-D_INVCAD-8_2023-08	E144-H	11-Aug-2023	----	----	----		18-Sep-2023	----	39 days	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag EDC-D_INVCAD-8X_2023-08	E144-H	11-Aug-2023	----	----	----		19-Sep-2023	----	39 days	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag EDC-D_PERT-4X_2023-08	E144-H	11-Aug-2023	----	----	----		18-Sep-2023	----	39 days	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag EDC-U_INVCAD-5_2023-08	E144-H	07-Aug-2023	----	----	----		14-Sep-2023	----	39 days	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag EDC-U_INVCAD-6_2023-08	E144-H	07-Aug-2023	----	----	----		14-Sep-2023	----	39 days	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag EDC-U_INVCAD-7_2023-08	E144-H	07-Aug-2023	----	----	----		14-Sep-2023	----	39 days	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag EDC-U_INVCAD-8_2023-08	E144-H	07-Aug-2023	----	----	----		14-Sep-2023	----	39 days	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag HAC-D_INV-8_2023-08	E144-H	05-Aug-2023	----	----	----		13-Sep-2023	----	39 days	



Matrix: **Biota** Evaluation: * = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag HAC-U_INVCAD-7_2023-08	E144-H	07-Aug-2023	----	----	----		14-Sep-2023	----	39 days	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag HAC-U_INVCAD-8_2023-08	E144-H	07-Aug-2023	----	----	----		14-Sep-2023	----	39 days	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag E1_INV-2_2023-08	E144-H	05-Aug-2023	----	----	----		14-Sep-2023	----	40 days	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag E1_INV-3_2023-08	E144-H	05-Aug-2023	----	----	----		14-Sep-2023	----	40 days	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag E1_INV-4_2023-08	E144-H	05-Aug-2023	----	----	----		14-Sep-2023	----	40 days	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag HAC-D_INVCAD-1_2023-08	E144-H	06-Aug-2023	----	----	----		14-Sep-2023	----	40 days	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag HAC-D_INVCAD-2_2023-08	E144-H	06-Aug-2023	----	----	----		14-Sep-2023	----	40 days	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag HAC-D_INVCAD-3_2023-08	E144-H	06-Aug-2023	----	----	----		14-Sep-2023	----	40 days	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag HAC-D_INVCAD-4_2023-08	E144-H	06-Aug-2023	----	----	----		14-Sep-2023	----	40 days	



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Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag HAC-D_INVCAD-5_2023-08	E144-H	06-Aug-2023	----	----	----		14-Sep-2023	----	40 days	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag HAC-D_INVCAD-6_2023-08	E144-H	06-Aug-2023	----	----	----		14-Sep-2023	----	40 days	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag HAC-D_INVCAD-7_2023-08	E144-H	06-Aug-2023	----	----	----		14-Sep-2023	----	40 days	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag HAC-R1_INV-6X_2023-08	E144-H	10-Aug-2023	----	----	----		19-Sep-2023	----	40 days	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag HAC-U_INVCAD-6_2023-08	E144-H	06-Aug-2023	----	----	----		14-Sep-2023	----	40 days	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag E1_INV-5_2023-08	E144-H	04-Aug-2023	----	----	----		14-Sep-2023	----	41 days	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag E1_INV-6_2023-08	E144-H	04-Aug-2023	----	----	----		14-Sep-2023	----	41 days	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag E1_INV-7_2023-08	E144-H	04-Aug-2023	----	----	----		14-Sep-2023	----	41 days	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag HAC-D_INVCAD-8_2023-08	E144-H	05-Aug-2023	----	----	----		14-Sep-2023	----	41 days	



Matrix: **Biota** Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag HAC-R1_INVCAD-8X_2023-08	E144-H	09-Aug-2023	----	----	----		19-Sep-2023	----	41 days	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag HAC-U_INV-2X_2023-08	E144-H	09-Aug-2023	----	----	----		19-Sep-2023	----	41 days	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag HAC-U_INVCAD-2X_2023-08	E144-H	09-Aug-2023	----	----	----		19-Sep-2023	----	41 days	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag HAC-U_PERT-2X_2023-08	E144-H	09-Aug-2023	----	----	----		18-Sep-2023	----	41 days	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag E1_INV-8_2023-08	E144-H	03-Aug-2023	----	----	----		14-Sep-2023	----	42 days	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag HAC-U_PERT-6X_2023-08	E144-H	08-Aug-2023	----	----	----		18-Sep-2023	----	42 days	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag HAC-D_INV-2X_2023-08	E144-H	06-Aug-2023	----	----	----		19-Sep-2023	----	44 days	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag HAC-D_INVCAD-4X_2023-08	E144-H	06-Aug-2023	----	----	----		19-Sep-2023	----	44 days	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag HAC-D_PERT-3X_2023-08	E144-H	06-Aug-2023	----	----	----		18-Sep-2023	----	44 days	



Matrix: **Biota** Evaluation: * = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag E1_INV-2X_2023-08	E144-H	05-Aug-2023	----	----	----		18-Sep-2023	----	45 days	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag E1_INVCAD-1_2023-08	E144-H	05-Aug-2023	----	----	----		18-Sep-2023	----	45 days	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag E1_INVCAD-2_2023-08	E144-H	05-Aug-2023	----	----	----		18-Sep-2023	----	45 days	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag E1_INVCAD-3_2023-08	E144-H	05-Aug-2023	----	----	----		18-Sep-2023	----	45 days	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag E1_INVCAD-4_2023-08	E144-H	05-Aug-2023	----	----	----		18-Sep-2023	----	45 days	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag E1_PERT-4X_2023-08	E144-H	05-Aug-2023	----	----	----		18-Sep-2023	----	45 days	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag E1_INVCAD-5_2023-08	E144-H	04-Aug-2023	----	----	----		18-Sep-2023	----	46 days	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag E1_INVCAD-6_2023-08	E144-H	04-Aug-2023	----	----	----		18-Sep-2023	----	46 days	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag E1_INVCAD-7_2023-08	E144-H	04-Aug-2023	----	----	----		18-Sep-2023	----	46 days	



Matrix: **Biota** Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag E1_INVCAD-7X_2023-08	E144-H	04-Aug-2023	----	----	----		19-Sep-2023	----	46 days	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag E1_INVCAD-8_2023-08	E144-H	03-Aug-2023	----	----	----		18-Sep-2023	----	47 days	

Legend & Qualifier Definitions

Rec. HT: ALS recommended hold time (see units).



Quality Control Parameter Frequency Compliance

The following report summarizes the frequency of laboratory QC samples analyzed within the analytical batches (QC lots) in which the submitted samples were processed. The actual frequency should be greater than or equal to the expected frequency.

Matrix: **Biota** Evaluation: * = QC frequency outside specification; ✓ = QC frequency within specification.

Quality Control Sample Type	Method	QC Lot #	Count		Frequency (%)		
			QC	Regular	Actual	Expected	Evaluation
Analytical Methods							
Laboratory Duplicates (DUP)							
Mercury in Biota by CVAAS (DRY units, Micro)	E511	1127971	8	150	5.3	5.0	✓
Mercury in Biota by CVAAS (WET units, Micro)	E511A	1232337	8	150	5.3	5.0	✓
Metals in Biota by CRC ICPMS (DRY units, Micro)	E472	1127972	9	150	6.0	5.0	✓
Moisture Content by Gravimetry (Micro)	E144-H	1127758	8	150	5.3	5.0	✓
Silver in Biota by CRC ICPMS (DRY units, Micro)	E472.Ag	1127969	8	150	5.3	5.0	✓
Titanium in Biota by CRC ICPMS (DRY units, Micro)	E472.Ti	1127970	8	150	5.3	5.0	✓
Laboratory Control Samples (LCS)							
Mercury in Biota by CVAAS (DRY units, Biopsy)	E512	1131146	6	9	66.6	10.0	✓
Mercury in Biota by CVAAS (DRY units, Micro)	E511	1127971	18	150	12.0	10.0	✓
Mercury in Biota by CVAAS (WET units, Biopsy)	E512A	1232701	6	9	66.6	10.0	✓
Mercury in Biota by CVAAS (WET units, Micro)	E511A	1232337	18	150	12.0	10.0	✓
Metals by CRC ICPMS (DRY units, Biopsy)	E475	1131147	6	9	66.6	10.0	✓
Metals in Biota by CRC ICPMS (DRY units, Micro)	E472	1127972	18	150	12.0	10.0	✓
Moisture Content by Gravimetry (Biopsy)	E144A	1127759	3	9	33.3	5.0	✓
Moisture Content by Gravimetry (Micro)	E144-H	1127758	9	150	6.0	5.0	✓
Silver in Biota by CRC ICPMS (DRY units, Biopsy)	E475.Ag	1131144	6	9	66.6	10.0	✓
Silver in Biota by CRC ICPMS (DRY units, Micro)	E472.Ag	1127969	18	150	12.0	10.0	✓
Titanium in Biota by CRC ICPMS (DRY units, Biopsy)	E475.Ti	1131145	6	9	66.6	10.0	✓
Titanium in Biota by CRC ICPMS (DRY units, Micro)	E472.Ti	1127970	18	150	12.0	10.0	✓
Method Blanks (MB)							
Mercury in Biota by CVAAS (DRY units, Biopsy)	E512	1131146	3	9	33.3	5.0	✓
Mercury in Biota by CVAAS (DRY units, Micro)	E511	1127971	9	150	6.0	5.0	✓
Mercury in Biota by CVAAS (WET units, Biopsy)	E512A	1232701	3	9	33.3	5.0	✓
Mercury in Biota by CVAAS (WET units, Micro)	E511A	1232337	9	150	6.0	5.0	✓
Metals by CRC ICPMS (DRY units, Biopsy)	E475	1131147	3	9	33.3	5.0	✓
Metals in Biota by CRC ICPMS (DRY units, Micro)	E472	1127972	9	150	6.0	5.0	✓
Moisture Content by Gravimetry (Biopsy)	E144A	1127759	3	9	33.3	5.0	✓
Moisture Content by Gravimetry (Micro)	E144-H	1127758	9	150	6.0	5.0	✓
Silver in Biota by CRC ICPMS (DRY units, Biopsy)	E475.Ag	1131144	3	9	33.3	5.0	✓
Silver in Biota by CRC ICPMS (DRY units, Micro)	E472.Ag	1127969	9	150	6.0	5.0	✓
Titanium in Biota by CRC ICPMS (DRY units, Biopsy)	E475.Ti	1131145	3	9	33.3	5.0	✓
Titanium in Biota by CRC ICPMS (DRY units, Micro)	E472.Ti	1127970	9	150	6.0	5.0	✓



Methodology References and Summaries

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Reference methods may incorporate modifications to improve performance (indicated by "mod").

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Moisture Content by Gravimetry (Biopsy)	E144A ALS Environmental - Vancouver	Biota	Puget Sound Water Quality Authority/CCME PHC in Soil - Tier 1	This analysis is carried out gravimetrically by drying the sample at <60 deg. C for a minimum of three days.
Moisture Content by Gravimetry (Micro)	E144-H ALS Environmental - Vancouver	Biota	Puget Sound Water Quality Authority/BC MOE Lab Manual	Moisture is measured gravimetrically by drying the sample at <60°C for a minimum of 3 days to constant weight. Moisture content is calculated as the weight loss (due to water) divided by the wet weight of soil, expressed as a percentage.
Metals in Biota by CRC ICPMS (DRY units, Micro)	E472 ALS Environmental - Vancouver	Biota	EPA 200.3/6020B (mod)	Tissue samples are homogenized and sub-sampled prior to hotblock digestion with HNO ₃ , HCl, and H ₂ O ₂ . Analysis is by Collision/Reaction Cell ICPMS. Method Limitation: This method employs a strong acid/peroxide digestion, and is intended to provide a conservative estimate of bio-available metals. Near complete recoveries are achieved for most toxicologically important metals, but elements associated with recalcitrant minerals may be only partially recovered.
Silver in Biota by CRC ICPMS (DRY units, Micro)	E472.Ag ALS Environmental - Vancouver	Biota	EPA 200.3/6020B (mod)	Tissue samples are homogenized and sub-sampled prior to hotblock digestion with HNO ₃ , HCl, and H ₂ O ₂ . Analysis is by Collision/Reaction Cell ICPMS. Method Limitation: This method employs a strong acid/peroxide digestion, and is intended to provide a conservative estimate of bio-available metals. Near complete recoveries are achieved for most toxicologically important metals, but elements associated with recalcitrant minerals may be only partially recovered.
Titanium in Biota by CRC ICPMS (DRY units, Micro)	E472.Ti ALS Environmental - Vancouver	Biota	EPA 200.3/6020B (mod)	Tissue samples are homogenized and sub-sampled prior to hotblock digestion with HNO ₃ , HCl, and H ₂ O ₂ . Analysis is by Collision/Reaction Cell ICPMS. Method Limitation: This method employs a strong acid/peroxide digestion, and is intended to provide a conservative estimate of bio-available metals. Near complete recoveries are achieved for most toxicologically important metals, but elements associated with recalcitrant minerals may be only partially recovered.
Metals by CRC ICPMS (DRY units, Biopsy)	E475 ALS Environmental - Vancouver	Biota	EPA 200.3/6020B (mod)	Samples are digested with nitric acid, hydrochloric acid, and hydrogen peroxide. Analysis is by Collision/Reaction Cell ICPMS: This method employs a strong acid/peroxide digestion, and is intended to provide a conservative estimate of bio-available metals. Near complete recoveries are achieved for most toxicologically important metals, but elements associated with recalcitrant minerals may be only partially recovered.



Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Silver in Biota by CRC ICPMS (DRY units, Biopsy)	E475.Ag ALS Environmental - Vancouver	Biota	EPA 200.3/6020B (mod)	Samples are digested with nitric acid, hydrochloric acid, and hydrogen peroxide. Analysis is by Collision/Reaction Cell ICPMS. Method Limitation: This method employs a strong acid/peroxide digestion, and is intended to provide a conservative estimate of bio-available metals. Near complete recoveries are achieved for most toxicologically important metals, but elements associated with recalcitrant minerals may be only partially recovered.
Titanium in Biota by CRC ICPMS (DRY units, Biopsy)	E475.Ti ALS Environmental - Vancouver	Biota	EPA 200.3/6020B (mod)	Samples are digested with nitric acid, hydrochloric acid, and hydrogen peroxide. Analysis is by Collision/Reaction Cell ICPMS. Method Limitation: This method employs a strong acid/peroxide digestion, and is intended to provide a conservative estimate of bio-available metals. Near complete recoveries are achieved for most toxicologically important metals, but elements associated with recalcitrant minerals may be only partially recovered.
Mercury in Biota by CVAAS (DRY units, Micro)	E511 ALS Environmental - Vancouver	Biota	EPA 200.3/1631 Appendix (mod)	Samples are homogenized and sub-sampled prior to hotblock digestion with nitric acid, hydrochloric acid, and hydrogen peroxide. Analysis is by CVAAS.
Mercury in Biota by CVAAS (WET units, Micro)	E511A ALS Environmental - Vancouver	Biota	EPA 200.3/1631 Appendix (mod)	Samples are homogenized and sub-sampled prior to hotblock digestion with nitric acid, hydrochloric acid, and hydrogen peroxide. Analysis is by CVAAS.
Mercury in Biota by CVAAS (DRY units, Biopsy)	E512 ALS Environmental - Vancouver	Biota	EPA 200.3/1631 Appendix (mod)	Samples are digested with nitric acid, hydrochloric acid, and hydrogen peroxide. Analysis is by CVAAS.
Mercury in Biota by CVAAS (WET units, Biopsy)	E512A ALS Environmental - Vancouver	Biota	EPA 200.3/1631 Appendix (mod)	Samples are homogenized digested with nitric acid, hydrochloric acid, and hydrogen peroxide. Analysis is by CVAAS.

Preparation Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Metals and Mercury Biota Digestion (Micro)	EP472 ALS Environmental - Vancouver	Biota	EPA 200.3	This method, designed for small sample amounts, uses a heated strong acid digestion with HNO ₃ , HCl, and H ₂ O ₂ and is intended to provide a conservative estimate of bio-available metals.
Metals and Mercury Biota Digestion (Biopsy)	EP475 ALS Environmental - Vancouver	Biota	EPA 200.3/200.8 (mod)	Samples are digested with nitric acid, hydrochloric acid, and hydrogen peroxide. Method Limitation: This method employs a strong acid/peroxide digestion, and is intended to provide a conservative estimate of bio-available metals. Near complete recoveries are achieved for most toxicologically important metals, but elements associated with recalcitrant minerals may be only partially recovered.

QUALITY CONTROL REPORT

Work Order	: VA23B8888	Page	: 1 of 57
Amendment	: 1		
Client	: Mount Polley Mining Corporation	Laboratory	: ALS Environmental - Vancouver
Contact	: Mr. Gabriel Holmes	Account Manager	: Can Dang
Address	: PO Box 12 Likely BC Canada V0L 1N0	Address	: 8081 Lougheed Highway Burnaby, British Columbia Canada V5A 1W9
Telephone	:	Telephone	: +1 604 253 4188
Project	: ----	Date Samples Received	: 15-Aug-2023 09:40
PO	: 5590012190	Date Analysis Commenced	: 11-Sep-2023
C-O-C number	: ----	Issue Date	: 17-Nov-2023 11:38
Sampler	: KBa 250-790-2215 ext 2171		
Site	: ----		
Quote number	: VA22-MPMC100-002		
No. of samples received	: 159		
No. of samples analysed	: 159		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Quality Control Report contains the following information:

- Laboratory Duplicate (DUP) Report; Relative Percent Difference (RPD) and Data Quality Objectives
- Reference Material (RM) Report; Recovery and Data Quality Objectives
- Method Blank (MB) Report; Recovery and Data Quality Objectives
- Laboratory Control Sample (LCS) Report; Recovery and Data Quality Objectives

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

<i>Signatories</i>	<i>Position</i>	<i>Laboratory Department</i>
Arshdeep Kaur	Lab Assistant	Vancouver Metals, Burnaby, British Columbia
Kevin Duarte	Supervisor - Metals ICP Instrumentation	Vancouver Metals, Burnaby, British Columbia
Kim Jensen	Department Manager - Metals	Vancouver Metals, Burnaby, British Columbia
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Owen Cheng		Vancouver Metals, Burnaby, British Columbia
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Salimah Khimani	Lab Assistant	Vancouver Metals, Burnaby, British Columbia
Sam Silveira	Lab Assistant	Vancouver Metals, Burnaby, British Columbia
Tony Nguyen	Analyst	Vancouver Metals, Burnaby, British Columbia



General Comments

The ALS Quality Control (QC) report is optionally provided to ALS clients upon request. ALS test methods include comprehensive QC checks with every analysis to ensure our high standards of quality are met. Each QC result has a known or expected target value, which is compared against predetermined Data Quality Objectives (DQOs) to provide confidence in the accuracy of associated test results. This report contains detailed results for all QC results applicable to this sample submission. Please refer to the ALS Quality Control Interpretation report (QCI) for applicable method references and methodology summaries.

Key :

- Anonymous = Refers to samples which are not part of this work order, but which formed part of the QC process lot.
- CAS Number = Chemical Abstracts Service number is a unique identifier assigned to discrete substances.
- DQO = Data Quality Objective.
- LOR = Limit of Reporting (detection limit).
- RPD = Relative Percent Difference
- # = Indicates a QC result that did not meet the ALS DQO.

Workorder Comments

Holding times are displayed as "---" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.



Laboratory Duplicate (DUP) Report

A Laboratory Duplicate (DUP) is a randomly selected intralaboratory replicate sample. Laboratory Duplicates provide information regarding method precision and sample heterogeneity. ALS DQOs for Laboratory Duplicates are expressed as test-specific limits for Relative Percent Difference (RPD), or as an absolute difference limit of 2 times the LOR for low concentration duplicates within ~ 4-10 times the LOR (cut-off is test-specific).

Sub-Matrix: Biota					Laboratory Duplicate (DUP) Report							
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	LOR	Unit	Original Result	Duplicate Result	RPD(%) or Difference	Duplicate Limits	Qualifier	
Physical Tests (QC Lot: 1127758)												
VA23B8888-006	HAC-R1_PERT-6_2023-08	Moisture	----	E144-H	2.0	%	68.3	67.6	1.11%	20%	----	
Physical Tests (QC Lot: 1127763)												
VA23B8888-024	HAC-D_PERT-8_2023-08	Moisture	----	E144-H	2.0	%	55.0	60.8	9.99%	20%	----	
Physical Tests (QC Lot: 1127764)												
VA23B8888-052	HAC-R1_INV-4_2023-08	Moisture	----	E144-H	2.0	%	82.2	78.5	4.55%	20%	----	
Physical Tests (QC Lot: 1131740)												
VA23B8888-074	EDC-U_INV-2_2023-08	Moisture	----	E144-H	2.0	%	83.2	81.9	1.55%	20%	----	
Physical Tests (QC Lot: 1133719)												
VA23B8888-096	E1_INV-8_2023-08	Moisture	----	E144-H	2.0	%	84.3	85.0	0.750%	20%	----	
Physical Tests (QC Lot: 1134363)												
VA23B8888-119	HAC-D_INVCAD-7_2023-08	Moisture	----	E144-H	2.0	%	76.7	74.6	2.83%	20%	----	
Physical Tests (QC Lot: 1140020)												
VA23B8888-149	EDC-D_PERT-4X_2023-08	Moisture	----	E144-H	2.0	%	89.4	89.1	0.331%	20%	----	
Physical Tests (QC Lot: 1140822)												
VA23B8888-151	HAC-D_INV-2X_2023-08	Moisture	----	E144-H	2.0	%	82.2	83.0	0.971%	20%	----	
Metals (QC Lot: 1127969)												
VA23B8888-006	HAC-R1_PERT-6_2023-08	Silver	7440-22-4	E472.Ag	0.0077	mg/kg	0.0098	0.0112	0.0013	Diff <2x LOR	----	
Metals (QC Lot: 1127970)												
VA23B8888-006	HAC-R1_PERT-6_2023-08	Titanium	7440-32-6	E472.Ti	0.77	mg/kg	78.2	82.8	5.69%	40%	----	
Metals (QC Lot: 1127971)												
VA23B8888-006	HAC-R1_PERT-6_2023-08	Mercury	7439-97-6	E511	0.0050	mg/kg	0.0066	0.0071	0.0005	Diff <2x LOR	----	
Metals (QC Lot: 1127972)												
VA23B8888-006	HAC-R1_PERT-6_2023-08	Aluminum	7429-90-5	E472	7.7	mg/kg	1170	1160	1.28%	40%	----	
		Arsenic	7440-38-2	E472	0.046	mg/kg	2.09	1.93	8.06%	40%	----	
		Beryllium	7440-41-7	E472	0.015	mg/kg	0.046	0.041	0.005	Diff <2x LOR	----	
		Iron	7439-89-6	E472	7.7	mg/kg	1670	1590	4.48%	40%	----	
		Vanadium	7440-62-2	E472	0.15	mg/kg	6.87	6.27	9.17%	40%	----	
		Antimony	7440-36-0	E472	0.015	mg/kg	0.069	0.080	0.012	Diff <2x LOR	----	
		Barium	7440-39-3	E472	0.077	mg/kg	98.8	121	20.0%	40%	----	



Sub-Matrix: Biota

Laboratory Duplicate (DUP) Report

Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	LOR	Unit	Original Result	Duplicate Result	RPD(%) or Difference	Duplicate Limits	Qualifier
Metals (QC Lot: 1127972) - continued											
VA23B8888-006	HAC-R1_PERT-6_2023-08	Bismuth	7440-69-9	E472	0.015	mg/kg	<0.016	<0.015	0.015	Diff <2x LOR	---
		Boron	7440-42-8	E472	1.5	mg/kg	224	232	3.87%	40%	---
		Cadmium	7440-43-9	E472	0.015	mg/kg	0.147	0.139	5.55%	40%	---
		Calcium	7440-70-2	E472	31	mg/kg	224000	211000	5.64%	60%	---
		Cesium	7440-46-2	E472	0.0077	mg/kg	0.121	0.123	1.47%	40%	---
		Chromium	7440-47-3	E472	0.31	mg/kg	1.38	1.27	0.12	Diff <2x LOR	---
		Cobalt	7440-48-4	E472	0.031	mg/kg	1.13	1.40	21.1%	40%	---
		Copper	7440-50-8	E472	0.31	mg/kg	36.7	40.2	8.98%	40%	---
		Lead	7439-92-1	E472	0.077	mg/kg	0.282	0.414	0.133	Diff <2x LOR	---
		Lithium	7439-93-2	E472	0.77	mg/kg	<0.78	0.94	0.94	Diff <2x LOR	---
		Magnesium	7439-95-4	E472	3.1	mg/kg	2590	2740	5.64%	40%	---
		Manganese	7439-96-5	E472	0.077	mg/kg	1170	1150	2.16%	40%	---
		Molybdenum	7439-98-7	E472	0.061	mg/kg	1.21	1.46	19.1%	40%	---
		Nickel	7440-02-0	E472	0.31	mg/kg	2.88	2.89	0.421%	40%	---
		Phosphorus	7723-14-0	E472	15	mg/kg	690	699	1.25%	40%	---
		Potassium	7440-09-7	E472	31	mg/kg	3720	3380	9.58%	40%	---
		Rubidium	7440-17-7	E472	0.077	mg/kg	3.72	3.58	3.98%	40%	---
		Selenium	7782-49-2	E472	0.15	mg/kg	2.31	2.03	12.9%	40%	---
		Sodium	7440-23-5	E472	31	mg/kg	220	214	2.79%	40%	---
		Strontium	7440-24-6	E472	0.15	mg/kg	503	470	6.80%	60%	---
		Tellurium	13494-80-9	E472	0.031	mg/kg	<0.031	<0.031	0.031	Diff <2x LOR	---
Thallium	7440-28-0	E472	0.0031	mg/kg	0.0053	0.0050	0.0003	Diff <2x LOR	---		
Tin	7440-31-5	E472	0.15	mg/kg	<0.16	<0.15	0.15	Diff <2x LOR	---		
Uranium	7440-61-1	E472	0.0031	mg/kg	0.0948	0.107	12.4%	40%	---		
Zinc	7440-66-6	E472	1.5	mg/kg	6.5	7.6	1.1	Diff <2x LOR	---		
Zirconium	7440-67-7	E472	0.31	mg/kg	0.68	1.09	0.41	Diff <2x LOR	---		
Metals (QC Lot: 1135563)											
VA23B8888-024	HAC-D_PERT-8_2023-08	Silver	7440-22-4	E472.Ag	0.0050	mg/kg	0.0382	0.0320	17.9%	40%	---
Metals (QC Lot: 1135564)											
VA23B8888-024	HAC-D_PERT-8_2023-08	Titanium	7440-32-6	E472.Ti	0.50	mg/kg	304	230	27.6%	40%	---
Metals (QC Lot: 1135565)											
VA23B8888-024	HAC-D_PERT-8_2023-08	Mercury	7439-97-6	E511	0.0050	mg/kg	0.0236	0.0220	0.0017	Diff <2x LOR	---
Metals (QC Lot: 1135566)											
VA23B8888-024	HAC-D_PERT-8_2023-08	Aluminum	7429-90-5	E472	5.0	mg/kg	4690	3080	41.4%	40%	DUP-H



Sub-Matrix: Biota					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	LOR	Unit	Original Result	Duplicate Result	RPD(%) or Difference	Duplicate Limits	Qualifier
Metals (QC Lot: 1135566) - continued											
VA23B8888-024	HAC-D_PERT-8_2023-08	Antimony	7440-36-0	E472	0.010	mg/kg	0.055	0.054	2.14%	40%	---
		Arsenic	7440-38-2	E472	0.030	mg/kg	5.47	4.67	15.8%	40%	---
		Barium	7440-39-3	E472	0.050	mg/kg	149	205	31.4%	40%	---
		Beryllium	7440-41-7	E472	0.010	mg/kg	0.163	0.162	0.750%	40%	---
		Bismuth	7440-69-9	E472	0.010	mg/kg	0.015	0.013	0.002	Diff <2x LOR	---
		Boron	7440-42-8	E472	1.0	mg/kg	139	143	2.62%	40%	---
		Cadmium	7440-43-9	E472	0.010	mg/kg	0.302	0.315	4.29%	40%	---
		Calcium	7440-70-2	E472	20	mg/kg	156000	159000	1.98%	60%	---
		Cesium	7440-46-2	E472	0.0050	mg/kg	0.454	0.343	27.9%	40%	---
		Chromium	7440-47-3	E472	0.20	mg/kg	11.6	6.44	57.2%	40%	DUP-H
		Cobalt	7440-48-4	E472	0.020	mg/kg	5.42	4.31	22.9%	40%	---
		Copper	7440-50-8	E472	0.20	mg/kg	137	77.9	55.3%	40%	DUP-H
		Iron	7439-89-6	E472	5.0	mg/kg	8220	5230	44.5%	40%	DUP-H
		Lead	7439-92-1	E472	0.050	mg/kg	1.21	1.05	14.6%	40%	---
		Lithium	7439-93-2	E472	0.50	mg/kg	6.32	3.04	70.1%	40%	DUP-H
		Magnesium	7439-95-4	E472	2.0	mg/kg	4760	3790	22.6%	40%	---
		Manganese	7439-96-5	E472	0.050	mg/kg	4660	5140	9.62%	40%	---
		Molybdenum	7439-98-7	E472	0.040	mg/kg	1.16	1.40	19.4%	40%	---
		Nickel	7440-02-0	E472	0.20	mg/kg	7.59	7.69	1.28%	40%	---
		Phosphorus	7723-14-0	E472	10	mg/kg	1020	1150	11.6%	40%	---
		Potassium	7440-09-7	E472	20	mg/kg	2390	2660	10.8%	40%	---
		Rubidium	7440-17-7	E472	0.050	mg/kg	3.97	4.13	3.98%	40%	---
		Selenium	7782-49-2	E472	0.10	mg/kg	2.58	3.90	40.5%	40%	DUP-H
		Sodium	7440-23-5	E472	20	mg/kg	340	263	25.7%	40%	---
		Strontium	7440-24-6	E472	0.10	mg/kg	354	370	4.28%	60%	---
		Tellurium	13494-80-9	E472	0.020	mg/kg	<0.020	<0.020	0	Diff <2x LOR	---
		Thallium	7440-28-0	E472	0.0020	mg/kg	0.0332	0.0371	11.0%	40%	---
		Tin	7440-31-5	E472	0.10	mg/kg	<0.10	<0.10	0	Diff <2x LOR	---
		Uranium	7440-61-1	E472	0.0020	mg/kg	0.191	0.226	17.0%	40%	---
		Vanadium	7440-62-2	E472	0.10	mg/kg	27.4	18.1	40.7%	40%	DUP-H
		Zinc	7440-66-6	E472	1.0	mg/kg	21.9	17.9	19.9%	40%	---
		Zirconium	7440-67-7	E472	0.20	mg/kg	2.67	1.74	42.4%	40%	DUP-H
Metals (QC Lot: 1135567)											
VA23B8888-052	HAC-R1_INV-4_2023-08	Silver	7440-22-4	E472.Ag	0.0050	mg/kg	0.0436	0.0428	1.89%	40%	---



Sub-Matrix: Biota					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	LOR	Unit	Original Result	Duplicate Result	RPD(%) or Difference	Duplicate Limits	Qualifier
Metals (QC Lot: 1135568)											
VA23B8888-052	HAC-R1_INV-4_2023-08	Titanium	7440-32-6	E472.Ti	0.50	mg/kg	90.4	77.9	14.9%	40%	---
Metals (QC Lot: 1135569)											
VA23B8888-052	HAC-R1_INV-4_2023-08	Mercury	7439-97-6	E511	0.0051	mg/kg	0.103	0.110	6.62%	40%	---
Metals (QC Lot: 1135570)											
VA23B8888-052	HAC-R1_INV-4_2023-08	Aluminum	7429-90-5	E472	5.0	mg/kg	2210	1960	12.0%	40%	---
		Antimony	7440-36-0	E472	0.010	mg/kg	0.056	0.051	10.4%	40%	---
		Arsenic	7440-38-2	E472	0.030	mg/kg	3.78	3.54	6.80%	40%	---
		Barium	7440-39-3	E472	0.050	mg/kg	49.4	33.7	37.9%	40%	---
		Beryllium	7440-41-7	E472	0.010	mg/kg	0.062	0.056	10.5%	40%	---
		Bismuth	7440-69-9	E472	0.010	mg/kg	0.010	0.011	0.0002	Diff <2x LOR	---
		Boron	7440-42-8	E472	1.0	mg/kg	4.0	4.3	0.3	Diff <2x LOR	---
		Cadmium	7440-43-9	E472	0.010	mg/kg	1.74	1.68	3.56%	40%	---
		Calcium	7440-70-2	E472	20	mg/kg	23800	17600	29.5%	60%	---
		Cesium	7440-46-2	E472	0.0050	mg/kg	0.199	0.186	7.19%	40%	---
		Chromium	7440-47-3	E472	0.20	mg/kg	2.74	2.78	1.59%	40%	---
		Cobalt	7440-48-4	E472	0.020	mg/kg	2.55	2.43	4.91%	40%	---
		Copper	7440-50-8	E472	0.20	mg/kg	183	164	11.0%	40%	---
		Iron	7439-89-6	E472	5.0	mg/kg	3350	3030	10.1%	40%	---
		Lead	7439-92-1	E472	0.050	mg/kg	0.717	0.708	1.34%	40%	---
		Lithium	7439-93-2	E472	0.50	mg/kg	1.62	1.52	0.10	Diff <2x LOR	---
		Magnesium	7439-95-4	E472	2.0	mg/kg	2940	2780	5.84%	40%	---
		Manganese	7439-96-5	E472	0.050	mg/kg	1140	1000	13.1%	40%	---
		Molybdenum	7439-98-7	E472	0.040	mg/kg	3.08	3.21	4.05%	40%	---
		Nickel	7440-02-0	E472	0.20	mg/kg	4.01	3.78	5.82%	40%	---
		Phosphorus	7723-14-0	E472	10	mg/kg	13500	12500	8.06%	40%	---
		Potassium	7440-09-7	E472	20	mg/kg	10600	10600	0.311%	40%	---
		Rubidium	7440-17-7	E472	0.050	mg/kg	6.31	6.14	2.88%	40%	---
		Selenium	7782-49-2	E472	0.10	mg/kg	6.94	7.56	8.54%	40%	---
		Sodium	7440-23-5	E472	20	mg/kg	4820	4750	1.44%	40%	---
		Strontium	7440-24-6	E472	0.10	mg/kg	91.5	69.6	27.1%	60%	---
		Tellurium	13494-80-9	E472	0.020	mg/kg	<0.020	<0.020	0	Diff <2x LOR	---
		Thallium	7440-28-0	E472	0.0020	mg/kg	0.0124	0.0122	1.25%	40%	---
		Tin	7440-31-5	E472	0.10	mg/kg	<0.10	<0.10	0	Diff <2x LOR	---
		Uranium	7440-61-1	E472	0.0020	mg/kg	0.172	0.148	15.2%	40%	---



Sub-Matrix: Biota					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	LOR	Unit	Original Result	Duplicate Result	RPD(%) or Difference	Duplicate Limits	Qualifier
Metals (QC Lot: 1135570) - continued											
VA23B8888-052	HAC-R1_INV-4_2023-08	Vanadium	7440-62-2	E472	0.10	mg/kg	11.2	9.81	13.7%	40%	---
		Zinc	7440-66-6	E472	1.0	mg/kg	130	128	1.63%	40%	---
		Zirconium	7440-67-7	E472	0.20	mg/kg	0.56	0.62	0.07	Diff <2x LOR	---
Metals (QC Lot: 1138697)											
VA23B8888-074	EDC-U_INV-2_2023-08	Silver	7440-22-4	E472.Ag	0.0050	mg/kg	0.0947	0.0949	0.259%	40%	---
Metals (QC Lot: 1138698)											
VA23B8888-074	EDC-U_INV-2_2023-08	Titanium	7440-32-6	E472.Ti	0.50	mg/kg	40.5	38.8	4.10%	40%	---
Metals (QC Lot: 1138699)											
VA23B8888-074	EDC-U_INV-2_2023-08	Mercury	7439-97-6	E511	0.0054	mg/kg	0.123	0.121	1.12%	40%	---
Metals (QC Lot: 1138700)											
VA23B8888-074	EDC-U_INV-2_2023-08	Aluminum	7429-90-5	E472	5.0	mg/kg	947	930	1.88%	40%	---
		Antimony	7440-36-0	E472	0.010	mg/kg	0.027	0.028	0.0008	Diff <2x LOR	---
		Arsenic	7440-38-2	E472	0.030	mg/kg	1.80	1.72	4.85%	40%	---
		Barium	7440-39-3	E472	0.050	mg/kg	13.9	13.3	4.46%	40%	---
		Beryllium	7440-41-7	E472	0.010	mg/kg	0.027	0.027	0.00008	Diff <2x LOR	---
		Bismuth	7440-69-9	E472	0.010	mg/kg	<0.010	<0.010	0	Diff <2x LOR	---
		Boron	7440-42-8	E472	1.0	mg/kg	1.4	1.5	0.04	Diff <2x LOR	---
		Cadmium	7440-43-9	E472	0.010	mg/kg	3.16	3.00	5.31%	40%	---
		Calcium	7440-70-2	E472	20	mg/kg	2750	2650	3.79%	60%	---
		Cesium	7440-46-2	E472	0.0050	mg/kg	0.0720	0.0681	5.56%	40%	---
		Chromium	7440-47-3	E472	0.20	mg/kg	3.22	3.42	5.70%	40%	---
		Cobalt	7440-48-4	E472	0.020	mg/kg	5.27	5.02	4.83%	40%	---
		Copper	7440-50-8	E472	0.20	mg/kg	26.1	26.3	0.785%	40%	---
		Iron	7439-89-6	E472	5.0	mg/kg	1870	1860	0.773%	40%	---
		Lead	7439-92-1	E472	0.050	mg/kg	0.370	0.376	1.74%	40%	---
		Lithium	7439-93-2	E472	0.50	mg/kg	0.85	0.82	0.02	Diff <2x LOR	---
		Magnesium	7439-95-4	E472	2.0	mg/kg	1700	1700	0.0911%	40%	---
		Manganese	7439-96-5	E472	0.050	mg/kg	426	416	2.36%	40%	---
		Molybdenum	7439-98-7	E472	0.040	mg/kg	1.14	1.01	11.5%	40%	---
		Nickel	7440-02-0	E472	0.20	mg/kg	2.72	2.71	0.358%	40%	---
		Phosphorus	7723-14-0	E472	10	mg/kg	8940	8730	2.38%	40%	---
Potassium	7440-09-7	E472	20	mg/kg	8840	8580	2.98%	40%	---		
Rubidium	7440-17-7	E472	0.050	mg/kg	10.3	9.83	4.98%	40%	---		
Selenium	7782-49-2	E472	0.10	mg/kg	0.83	0.79	5.39%	40%	---		



Sub-Matrix: Biota					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	LOR	Unit	Original Result	Duplicate Result	RPD(%) or Difference	Duplicate Limits	Qualifier
Metals (QC Lot: 1138700) - continued											
VA23B8888-074	EDC-U_INV-2_2023-08	Sodium	7440-23-5	E472	20	mg/kg	5160	5040	2.41%	40%	---
		Strontium	7440-24-6	E472	0.10	mg/kg	13.8	13.8	0.0835%	60%	---
		Tellurium	13494-80-9	E472	0.020	mg/kg	<0.020	<0.020	0	Diff <2x LOR	---
		Thallium	7440-28-0	E472	0.0020	mg/kg	0.0186	0.0178	4.44%	40%	---
		Tin	7440-31-5	E472	0.10	mg/kg	<0.10	<0.10	0	Diff <2x LOR	---
		Uranium	7440-61-1	E472	0.0020	mg/kg	0.122	0.118	3.40%	40%	---
		Vanadium	7440-62-2	E472	0.10	mg/kg	4.01	3.80	5.55%	40%	---
		Zinc	7440-66-6	E472	1.0	mg/kg	145	147	1.40%	40%	---
Zirconium	7440-67-7	E472	0.20	mg/kg	0.91	0.92	0.005	Diff <2x LOR	---		
Metals (QC Lot: 1140978)											
VA23B8888-096	E1_INV-8_2023-08	Silver	7440-22-4	E472.Ag	0.0050	mg/kg	0.0367	0.0462	22.8%	40%	---
Metals (QC Lot: 1140979)											
VA23B8888-096	E1_INV-8_2023-08	Titanium	7440-32-6	E472.Ti	0.50	mg/kg	49.3	101	68.9%	40%	DUP-H
Metals (QC Lot: 1140980)											
VA23B8888-096	E1_INV-8_2023-08	Mercury	7439-97-6	E511	0.0050	mg/kg	0.0638	0.0700	9.15%	40%	---
Metals (QC Lot: 1140981)											
VA23B8888-096	E1_INV-8_2023-08	Aluminum	7429-90-5	E472	5.0	mg/kg	1090	1980	57.6%	40%	DUP-H
		Antimony	7440-36-0	E472	0.010	mg/kg	0.030	0.035	0.005	Diff <2x LOR	---
		Arsenic	7440-38-2	E472	0.030	mg/kg	9.23	5.85	44.8%	40%	DUP-H
		Barium	7440-39-3	E472	0.050	mg/kg	45.4	49.0	7.54%	40%	---
		Beryllium	7440-41-7	E472	0.010	mg/kg	0.040	0.059	37.7%	40%	---
		Bismuth	7440-69-9	E472	0.010	mg/kg	<0.010	0.012	0.002	Diff <2x LOR	---
		Boron	7440-42-8	E472	1.0	mg/kg	2.9	3.8	0.9	Diff <2x LOR	---
		Cadmium	7440-43-9	E472	0.010	mg/kg	5.54	6.22	11.6%	40%	---
		Calcium	7440-70-2	E472	20	mg/kg	5240	6490	21.4%	60%	---
		Cesium	7440-46-2	E472	0.0050	mg/kg	0.154	0.237	42.4%	40%	DUP-H
		Chromium	7440-47-3	E472	0.20	mg/kg	3.61	6.80	61.4%	40%	DUP-H
		Cobalt	7440-48-4	E472	0.020	mg/kg	3.04	3.80	22.3%	40%	---
		Copper	7440-50-8	E472	0.20	mg/kg	99.6	118	17.0%	40%	---
		Iron	7439-89-6	E472	5.0	mg/kg	2460	4020	48.3%	40%	DUP-H
		Lead	7439-92-1	E472	0.050	mg/kg	0.537	0.794	38.6%	40%	---
		Lithium	7439-93-2	E472	0.50	mg/kg	1.16	2.14	0.97	Diff <2x LOR	---
		Magnesium	7439-95-4	E472	2.0	mg/kg	1700	2180	24.5%	40%	---
Manganese	7439-96-5	E472	0.050	mg/kg	710	786	10.2%	40%	---		



Sub-Matrix: Biota					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	LOR	Unit	Original Result	Duplicate Result	RPD(%) or Difference	Duplicate Limits	Qualifier
Metals (QC Lot: 1140981) - continued											
VA23B8888-096	E1_INV-8_2023-08	Molybdenum	7439-98-7	E472	0.040	mg/kg	1.87	1.88	0.479%	40%	---
		Nickel	7440-02-0	E472	0.20	mg/kg	3.70	5.06	31.1%	40%	---
		Phosphorus	7723-14-0	E472	10	mg/kg	7620	7600	0.346%	40%	---
		Potassium	7440-09-7	E472	20	mg/kg	7200	7780	7.75%	40%	---
		Rubidium	7440-17-7	E472	0.050	mg/kg	7.63	8.76	13.8%	40%	---
		Selenium	7782-49-2	E472	0.10	mg/kg	2.80	2.70	3.83%	40%	---
		Sodium	7440-23-5	E472	20	mg/kg	3380	3570	5.49%	40%	---
		Strontium	7440-24-6	E472	0.10	mg/kg	24.9	30.1	18.8%	60%	---
		Tellurium	13494-80-9	E472	0.020	mg/kg	<0.020	<0.020	0	Diff <2x LOR	---
		Thallium	7440-28-0	E472	0.0020	mg/kg	0.0241	0.0288	17.8%	40%	---
		Tin	7440-31-5	E472	0.10	mg/kg	<0.10	0.11	0.01	Diff <2x LOR	---
		Uranium	7440-61-1	E472	0.0020	mg/kg	0.0882	0.128	37.2%	40%	---
		Vanadium	7440-62-2	E472	0.10	mg/kg	5.33	9.76	58.7%	40%	DUP-H
		Zinc	7440-66-6	E472	1.0	mg/kg	113	112	0.473%	40%	---
Zirconium	7440-67-7	E472	0.20	mg/kg	0.66	# 1.29	0.63	Diff <2x LOR	DUP-H		
Metals (QC Lot: 1140997)											
VA23B8888-119	HAC-D_INVCAD-7_2023-08	Silver	7440-22-4	E472.Ag	0.0050	mg/kg	0.0062	<0.0050	0.0012	Diff <2x LOR	---
Metals (QC Lot: 1140998)											
VA23B8888-119	HAC-D_INVCAD-7_2023-08	Titanium	7440-32-6	E472.Ti	0.50	mg/kg	3.80	5.12	29.7%	40%	---
Metals (QC Lot: 1140999)											
VA23B8888-119	HAC-D_INVCAD-7_2023-08	Mercury	7439-97-6	E511	0.0050	mg/kg	0.0810	0.0786	3.07%	40%	---
Metals (QC Lot: 1141000)											
VA23B8888-119	HAC-D_INVCAD-7_2023-08	Aluminum	7429-90-5	E472	5.0	mg/kg	89.5	56.1	45.8%	40%	DUP-H
		Antimony	7440-36-0	E472	0.010	mg/kg	0.024	0.021	0.003	Diff <2x LOR	---
		Arsenic	7440-38-2	E472	0.030	mg/kg	0.778	0.846	8.33%	40%	---
		Barium	7440-39-3	E472	0.050	mg/kg	3.84	3.41	11.9%	40%	---
		Beryllium	7440-41-7	E472	0.010	mg/kg	<0.010	<0.010	0	Diff <2x LOR	---
		Bismuth	7440-69-9	E472	0.010	mg/kg	<0.010	<0.010	0	Diff <2x LOR	---
		Boron	7440-42-8	E472	1.0	mg/kg	<1.0	<1.0	0	Diff <2x LOR	---
		Cadmium	7440-43-9	E472	0.010	mg/kg	0.020	0.016	0.003	Diff <2x LOR	---
		Calcium	7440-70-2	E472	20	mg/kg	706	653	7.88%	60%	---
		Cesium	7440-46-2	E472	0.0050	mg/kg	0.0283	# 0.0173	0.0110	Diff <2x LOR	DUP-H



Sub-Matrix: Biota

Laboratory Duplicate (DUP) Report

Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	LOR	Unit	Original Result	Duplicate Result	RPD(%) or Difference	Duplicate Limits	Qualifier
Metals (QC Lot: 1141000) - continued											
VA23B8888-119	HAC-D_INVCAD-7_2023-08	Chromium	7440-47-3	E472	0.20	mg/kg	0.29	0.25	0.03	Diff <2x LOR	---
		Cobalt	7440-48-4	E472	0.020	mg/kg	0.203	0.157	25.2%	40%	---
		Copper	7440-50-8	E472	0.20	mg/kg	23.4	22.2	5.20%	40%	---
		Iron	7439-89-6	E472	5.0	mg/kg	221	223	1.17%	40%	---
		Lead	7439-92-1	E472	0.050	mg/kg	0.100	0.088	0.012	Diff <2x LOR	---
		Lithium	7439-93-2	E472	0.50	mg/kg	<0.50	<0.50	0	Diff <2x LOR	---
		Magnesium	7439-95-4	E472	2.0	mg/kg	1150	1180	2.26%	40%	---
		Manganese	7439-96-5	E472	0.050	mg/kg	160	133	18.7%	40%	---
		Molybdenum	7439-98-7	E472	0.040	mg/kg	8.14	9.74	17.9%	40%	---
		Nickel	7440-02-0	E472	0.20	mg/kg	0.26	<0.20	0.06	Diff <2x LOR	---
		Phosphorus	7723-14-0	E472	10	mg/kg	7730	8270	6.76%	40%	---
		Potassium	7440-09-7	E472	20	mg/kg	6990	7330	4.69%	40%	---
		Rubidium	7440-17-7	E472	0.050	mg/kg	1.57	1.48	5.99%	40%	---
		Selenium	7782-49-2	E472	0.10	mg/kg	24.6	28.2	13.9%	40%	---
		Sodium	7440-23-5	E472	20	mg/kg	2290	2300	0.310%	40%	---
		Strontium	7440-24-6	E472	0.10	mg/kg	5.12	4.18	20.3%	60%	---
		Tellurium	13494-80-9	E472	0.020	mg/kg	<0.020	<0.020	0	Diff <2x LOR	---
		Thallium	7440-28-0	E472	0.0020	mg/kg	<0.0020	<0.0020	0	Diff <2x LOR	---
		Tin	7440-31-5	E472	0.10	mg/kg	<0.10	<0.10	0	Diff <2x LOR	---
		Uranium	7440-61-1	E472	0.0020	mg/kg	0.0069	0.0044	0.0025	Diff <2x LOR	---
Vanadium	7440-62-2	E472	0.10	mg/kg	0.63	0.48	28.1%	40%	---		
Zinc	7440-66-6	E472	1.0	mg/kg	108	90.2	18.0%	40%	---		
Zirconium	7440-67-7	E472	0.20	mg/kg	<0.20	<0.20	0	Diff <2x LOR	---		
Metals (QC Lot: 1151073)											
VA23B8888-149	EDC-D_PERT-4X_2023-08	Silver	7440-22-4	E472.Ag	0.0050	mg/kg	0.0277	0.0278	0.136%	40%	---
Metals (QC Lot: 1151074)											
VA23B8888-149	EDC-D_PERT-4X_2023-08	Titanium	7440-32-6	E472.Ti	0.50	mg/kg	134	141	5.03%	40%	---
Metals (QC Lot: 1151075)											
VA23B8888-149	EDC-D_PERT-4X_2023-08	Mercury	7439-97-6	E511	0.0076	mg/kg	0.0284	0.0298	0.0014	Diff <2x LOR	---
Metals (QC Lot: 1151076)											
VA23B8888-149	EDC-D_PERT-4X_2023-08	Aluminum	7429-90-5	E472	5.0	mg/kg	2760	2770	0.409%	40%	---
		Antimony	7440-36-0	E472	0.010	mg/kg	0.044	0.042	0.002	Diff <2x LOR	---
		Arsenic	7440-38-2	E472	0.030	mg/kg	14.2	14.6	2.77%	40%	---



Sub-Matrix: Biota					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	LOR	Unit	Original Result	Duplicate Result	RPD(%) or Difference	Duplicate Limits	Qualifier
Metals (QC Lot: 1151076) - continued											
VA23B8888-149	EDC-D_PERT-4X_2023-08	Barium	7440-39-3	E472	0.050	mg/kg	117	132	12.2%	40%	---
		Beryllium	7440-41-7	E472	0.010	mg/kg	0.102	0.100	1.46%	40%	---
		Bismuth	7440-69-9	E472	0.010	mg/kg	0.040	0.034	0.006	Diff <2x LOR	---
		Boron	7440-42-8	E472	1.0	mg/kg	86.8	98.2	12.3%	40%	---
		Cadmium	7440-43-9	E472	0.010	mg/kg	0.289	0.306	5.55%	40%	---
		Calcium	7440-70-2	E472	20	mg/kg	84500	91600	8.08%	60%	---
		Cesium	7440-46-2	E472	0.0050	mg/kg	0.544	0.577	5.81%	40%	---
		Chromium	7440-47-3	E472	0.20	mg/kg	6.67	10.1	40.8%	40%	DUP-H
		Cobalt	7440-48-4	E472	0.020	mg/kg	4.22	4.29	1.63%	40%	---
		Copper	7440-50-8	E472	0.20	mg/kg	15.7	15.4	1.99%	40%	---
		Iron	7439-89-6	E472	5.0	mg/kg	5890	6100	3.48%	40%	---
		Lead	7439-92-1	E472	0.050	mg/kg	1.26	1.25	0.712%	40%	---
		Lithium	7439-93-2	E472	0.50	mg/kg	2.51	2.48	0.03	Diff <2x LOR	---
		Magnesium	7439-95-4	E472	2.0	mg/kg	3580	3660	2.14%	40%	---
		Manganese	7439-96-5	E472	0.050	mg/kg	1750	1840	5.01%	40%	---
		Molybdenum	7439-98-7	E472	0.040	mg/kg	0.964	1.02	6.08%	40%	---
		Nickel	7440-02-0	E472	0.20	mg/kg	11.4	11.8	3.75%	40%	---
		Phosphorus	7723-14-0	E472	10	mg/kg	2600	2640	1.43%	40%	---
		Potassium	7440-09-7	E472	20	mg/kg	7290	7390	1.31%	40%	---
		Rubidium	7440-17-7	E472	0.050	mg/kg	8.90	9.21	3.42%	40%	---
		Selenium	7782-49-2	E472	0.10	mg/kg	2.57	2.64	2.90%	40%	---
		Sodium	7440-23-5	E472	20	mg/kg	666	707	5.94%	40%	---
		Strontium	7440-24-6	E472	0.10	mg/kg	277	300	7.88%	60%	---
		Tellurium	13494-80-9	E472	0.020	mg/kg	<0.020	<0.020	0	Diff <2x LOR	---
		Thallium	7440-28-0	E472	0.0020	mg/kg	0.0343	0.0354	3.27%	40%	---
		Tin	7440-31-5	E472	0.10	mg/kg	<0.10	<0.10	0	Diff <2x LOR	---
		Uranium	7440-61-1	E472	0.0020	mg/kg	0.236	0.225	4.99%	40%	---
		Vanadium	7440-62-2	E472	0.10	mg/kg	13.0	13.9	6.82%	40%	---
		Zinc	7440-66-6	E472	1.0	mg/kg	23.4	25.1	7.25%	40%	---
		Zirconium	7440-67-7	E472	0.20	mg/kg	2.36	2.34	0.841%	40%	---
Metals (QC Lot: 1151081)											
VA23B8888-151	HAC-D_INV-2X_2023-08	Silver	7440-22-4	E472.Ag	0.0050	mg/kg	0.0662	0.0566	15.5%	40%	---
Metals (QC Lot: 1151082)											
VA23B8888-151	HAC-D_INV-2X_2023-08	Titanium	7440-32-6	E472.Ti	0.50	mg/kg	190	172	9.62%	40%	---



Sub-Matrix: Biota					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	LOR	Unit	Original Result	Duplicate Result	RPD(%) or Difference	Duplicate Limits	Qualifier
Metals (QC Lot: 1151083)											
VA23B8888-151	HAC-D_INV-2X_2023-08	Mercury	7439-97-6	E511	0.0050	mg/kg	0.0674	0.0494	30.9%	40%	---
Metals (QC Lot: 1151084)											
VA23B8888-151	HAC-D_INV-2X_2023-08	Aluminum	7429-90-5	E472	5.0	mg/kg	5630	3230	54.1%	40%	DUP-H
		Antimony	7440-36-0	E472	0.010	mg/kg	0.056	0.045	21.3%	40%	---
		Arsenic	7440-38-2	E472	0.030	mg/kg	5.72	4.26	29.1%	40%	---
		Barium	7440-39-3	E472	0.050	mg/kg	93.4	88.4	5.42%	40%	---
		Beryllium	7440-41-7	E472	0.010	mg/kg	0.237	0.128	59.3%	40%	DUP-H
		Bismuth	7440-69-9	E472	0.010	mg/kg	0.023	0.021	0.002	Diff <2x LOR	---
		Boron	7440-42-8	E472	1.0	mg/kg	11.6	7.0	48.6%	40%	DUP-H
		Cadmium	7440-43-9	E472	0.010	mg/kg	1.01	0.902	10.9%	40%	---
		Calcium	7440-70-2	E472	20	mg/kg	16800	8880	61.7%	60%	DUP-H
		Cesium	7440-46-2	E472	0.0050	mg/kg	0.401	0.314	24.4%	40%	---
		Chromium	7440-47-3	E472	0.20	mg/kg	4.33	3.57	19.1%	40%	---
		Cobalt	7440-48-4	E472	0.020	mg/kg	4.84	4.13	15.8%	40%	---
		Copper	7440-50-8	E472	0.20	mg/kg	273	177	42.7%	40%	DUP-H
		Iron	7439-89-6	E472	5.0	mg/kg	6660	5930	11.6%	40%	---
		Lead	7439-92-1	E472	0.050	mg/kg	1.53	1.22	22.7%	40%	---
		Lithium	7439-93-2	E472	0.50	mg/kg	4.36	4.00	8.71%	40%	---
		Magnesium	7439-95-4	E472	2.0	mg/kg	3020	2800	7.53%	40%	---
		Manganese	7439-96-5	E472	0.050	mg/kg	1000	941	6.24%	40%	---
		Molybdenum	7439-98-7	E472	0.040	mg/kg	1.99	2.07	3.87%	40%	---
		Nickel	7440-02-0	E472	0.20	mg/kg	4.41	4.19	5.09%	40%	---
		Phosphorus	7723-14-0	E472	10	mg/kg	7490	6850	8.91%	40%	---
		Potassium	7440-09-7	E472	20	mg/kg	7720	7250	6.30%	40%	---
		Rubidium	7440-17-7	E472	0.050	mg/kg	5.27	4.93	6.77%	40%	---
		Selenium	7782-49-2	E472	0.10	mg/kg	3.42	2.95	14.7%	40%	---
		Sodium	7440-23-5	E472	20	mg/kg	3170	2910	8.46%	40%	---
		Strontium	7440-24-6	E472	0.10	mg/kg	56.9	42.5	28.9%	60%	---
		Tellurium	13494-80-9	E472	0.020	mg/kg	<0.020	<0.020	0	Diff <2x LOR	---
		Thallium	7440-28-0	E472	0.0020	mg/kg	0.0252	0.0196	25.1%	40%	---
		Tin	7440-31-5	E472	0.10	mg/kg	<0.10	<0.10	0	Diff <2x LOR	---
		Uranium	7440-61-1	E472	0.0020	mg/kg	0.235	0.194	19.2%	40%	---
		Vanadium	7440-62-2	E472	0.10	mg/kg	20.8	18.6	11.3%	40%	---
		Zinc	7440-66-6	E472	1.0	mg/kg	114	102	10.6%	40%	---



Sub-Matrix: Biota					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	LOR	Unit	Original Result	Duplicate Result	RPD(%) or Difference	Duplicate Limits	Qualifier
Metals (QC Lot: 1151084) - continued											
VA23B8888-151	HAC-D_INV-2X_2023-08	Zirconium	7440-67-7	E472	0.20	mg/kg	2.08	1.83	13.0%	40%	----
Metals (QC Lot: 1232337)											
VA23B8888-006	HAC-R1_PERT-6_2023-08	Mercury	7439-97-6	E511A	0.0010	mg/kg wwt	0.0021	0.0022	0.0001	Diff <2x LOR	----
Metals (QC Lot: 1232429)											
VA23B8888-024	HAC-D_PERT-8_2023-08	Mercury	7439-97-6	E511A	0.0010	mg/kg wwt	0.0106	0.0099	7.34%	40%	----
Metals (QC Lot: 1232439)											
VA23B8888-052	HAC-R1_INV-4_2023-08	Mercury	7439-97-6	E511A	0.0010	mg/kg wwt	0.0183	0.0196	6.62%	40%	----
Metals (QC Lot: 1232445)											
VA23B8888-074	EDC-U_INV-2_2023-08	Mercury	7439-97-6	E511A	0.0010	mg/kg wwt	0.0207	0.0204	1.12%	40%	----
Metals (QC Lot: 1232447)											
VA23B8888-096	E1_INV-8_2023-08	Mercury	7439-97-6	E511A	0.0010	mg/kg wwt	0.0100	0.0110	9.15%	40%	----
Metals (QC Lot: 1232451)											
VA23B8888-119	HAC-D_INVCAD-7_2023-08	Mercury	7439-97-6	E511A	0.0010	mg/kg wwt	0.0188	0.0183	3.07%	40%	----
Metals (QC Lot: 1232454)											
VA23B8888-149	EDC-D_PERT-4X_2023-08	Mercury	7439-97-6	E511A	0.0010	mg/kg wwt	0.0030	0.0032	0.0002	Diff <2x LOR	----
Metals (QC Lot: 1232464)											
VA23B8888-151	HAC-D_INV-2X_2023-08	Mercury	7439-97-6	E511A	0.0010	mg/kg wwt	0.0120	0.0088	30.9%	40%	----

Qualifiers

Qualifier	Description
DUP-H	Duplicate results outside ALS DQO, due to sample heterogeneity.



Method Blank (MB) Report

A Method Blank is an analyte-free matrix that undergoes sample processing identical to that carried out for test samples. Method Blank results are used to monitor and control for potential contamination from the laboratory environment and reagents. For most tests, the DQO for Method Blanks is for the result to be < LOR.

Sub-Matrix: **Biota**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Physical Tests (QCLot: 1127758)						
Moisture	---	E144-H	2	%	<2.0	---
Physical Tests (QCLot: 1127759)						
Moisture	---	E144A	2	%	<2.0	---
Physical Tests (QCLot: 1127763)						
Moisture	---	E144-H	2	%	<2.0	---
Physical Tests (QCLot: 1127764)						
Moisture	---	E144-H	2	%	<2.0	---
Physical Tests (QCLot: 1131740)						
Moisture	---	E144-H	2	%	<2.0	---
Physical Tests (QCLot: 1133247)						
Moisture	---	E144-H	2	%	<2.0	---
Physical Tests (QCLot: 1133719)						
Moisture	---	E144-H	2	%	<2.0	---
Physical Tests (QCLot: 1134363)						
Moisture	---	E144-H	2	%	<2.0	---
Physical Tests (QCLot: 1140020)						
Moisture	---	E144-H	2	%	<2.0	---
Physical Tests (QCLot: 1140403)						
Moisture	---	E144A	2	%	<2.0	---
Physical Tests (QCLot: 1140404)						
Moisture	---	E144A	2	%	<2.0	---
Physical Tests (QCLot: 1140822)						
Moisture	---	E144-H	2	%	<2.0	---
Metals (QCLot: 1127969)						
Silver	7440-22-4	E472.Ag	0.005	mg/kg	<0.0050	---
Metals (QCLot: 1127970)						
Titanium	7440-32-6	E472.Ti	0.5	mg/kg	<0.50	---
Metals (QCLot: 1127971)						
Mercury	7439-97-6	E511	0.005	mg/kg	<0.0050	---
Metals (QCLot: 1127972)						
Aluminum	7429-90-5	E472	5	mg/kg	<5.0	---
Antimony	7440-36-0	E472	0.01	mg/kg	<0.010	---



Sub-Matrix: Biota

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Metals (QCLot: 1127972) - continued						
Arsenic	7440-38-2	E472	0.03	mg/kg	<0.030	---
Barium	7440-39-3	E472	0.05	mg/kg	<0.050	---
Beryllium	7440-41-7	E472	0.01	mg/kg	<0.010	---
Bismuth	7440-69-9	E472	0.01	mg/kg	<0.010	---
Boron	7440-42-8	E472	1	mg/kg	<1.0	---
Cadmium	7440-43-9	E472	0.01	mg/kg	<0.010	---
Calcium	7440-70-2	E472	20	mg/kg	<20	---
Cesium	7440-46-2	E472	0.005	mg/kg	<0.0050	---
Chromium	7440-47-3	E472	0.2	mg/kg	<0.20	---
Cobalt	7440-48-4	E472	0.02	mg/kg	<0.020	---
Copper	7440-50-8	E472	0.2	mg/kg	<0.20	---
Iron	7439-89-6	E472	5	mg/kg	<5.0	---
Lead	7439-92-1	E472	0.05	mg/kg	<0.050	---
Lithium	7439-93-2	E472	0.5	mg/kg	<0.50	---
Magnesium	7439-95-4	E472	2	mg/kg	<2.0	---
Manganese	7439-96-5	E472	0.05	mg/kg	<0.050	---
Molybdenum	7439-98-7	E472	0.04	mg/kg	<0.040	---
Nickel	7440-02-0	E472	0.2	mg/kg	<0.20	---
Phosphorus	7723-14-0	E472	10	mg/kg	<10	---
Potassium	7440-09-7	E472	20	mg/kg	<20	---
Rubidium	7440-17-7	E472	0.05	mg/kg	<0.050	---
Selenium	7782-49-2	E472	0.1	mg/kg	<0.10	---
Sodium	7440-23-5	E472	20	mg/kg	<20	---
Strontium	7440-24-6	E472	0.1	mg/kg	<0.10	---
Tellurium	13494-80-9	E472	0.02	mg/kg	<0.020	---
Thallium	7440-28-0	E472	0.002	mg/kg	<0.0020	---
Tin	7440-31-5	E472	0.1	mg/kg	<0.10	---
Uranium	7440-61-1	E472	0.002	mg/kg	<0.0020	---
Vanadium	7440-62-2	E472	0.1	mg/kg	<0.10	---
Zinc	7440-66-6	E472	1	mg/kg	<1.0	---
Zirconium	7440-67-7	E472	0.2	mg/kg	<0.20	---
Metals (QCLot: 1131144)						
Silver	7440-22-4	E475.Ag	0.005	mg/kg	<0.0050	---
Metals (QCLot: 1131145)						
Titanium	7440-32-6	E475.Ti	0.5	mg/kg	<0.50	---



Sub-Matrix: Biota

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Metals (QCLot: 1131146)						
Mercury	7439-97-6	E512	0.01	mg/kg	<0.010	----
Metals (QCLot: 1131147)						
Aluminum	7429-90-5	E475	5	mg/kg	<5.0	----
Antimony	7440-36-0	E475	0.02	mg/kg	<0.020	----
Arsenic	7440-38-2	E475	0.05	mg/kg	<0.050	----
Barium	7440-39-3	E475	0.05	mg/kg	<0.050	----
Beryllium	7440-41-7	E475	0.01	mg/kg	<0.010	----
Bismuth	7440-69-9	E475	0.01	mg/kg	<0.010	----
Boron	7440-42-8	E475	1	mg/kg	<1.0	----
Cadmium	7440-43-9	E475	0.01	mg/kg	<0.010	----
Calcium	7440-70-2	E475	20	mg/kg	<20	----
Cesium	7440-46-2	E475	0.005	mg/kg	<0.0050	----
Chromium	7440-47-3	E475	0.2	mg/kg	<0.20	----
Cobalt	7440-48-4	E475	0.02	mg/kg	<0.020	----
Copper	7440-50-8	E475	0.2	mg/kg	<0.20	----
Iron	7439-89-6	E475	5	mg/kg	<5.0	----
Lead	7439-92-1	E475	0.05	mg/kg	<0.050	----
Lithium	7439-93-2	E475	0.5	mg/kg	<0.50	----
Magnesium	7439-95-4	E475	2	mg/kg	<2.0	----
Manganese	7439-96-5	E475	0.05	mg/kg	<0.050	----
Molybdenum	7439-98-7	E475	0.04	mg/kg	<0.040	----
Nickel	7440-02-0	E475	0.2	mg/kg	<0.20	----
Phosphorus	7723-14-0	E475	20	mg/kg	<20	----
Potassium	7440-09-7	E475	20	mg/kg	<20	----
Rubidium	7440-17-7	E475	0.05	mg/kg	<0.050	----
Selenium	7782-49-2	E475	0.1	mg/kg	<0.10	----
Sodium	7440-23-5	E475	20	mg/kg	<20	----
Strontium	7440-24-6	E475	0.1	mg/kg	<0.10	----
Tellurium	13494-80-9	E475	0.02	mg/kg	<0.020	----
Thallium	7440-28-0	E475	0.002	mg/kg	<0.0020	----
Tin	7440-31-5	E475	0.1	mg/kg	<0.10	----
Uranium	7440-61-1	E475	0.002	mg/kg	<0.0020	----
Vanadium	7440-62-2	E475	0.1	mg/kg	<0.10	----
Zinc	7440-66-6	E475	1	mg/kg	<1.0	----
Zirconium	7440-67-7	E475	0.2	mg/kg	<0.20	----



Sub-Matrix: Biota

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Metals (QCLot: 1131928)						
Silver	7440-22-4	E472.Ag	0.005	mg/kg	<0.0050	---
Metals (QCLot: 1131929)						
Titanium	7440-32-6	E472.Ti	0.5	mg/kg	<0.50	---
Metals (QCLot: 1131930)						
Mercury	7439-97-6	E511	0.005	mg/kg	<0.0050	---
Metals (QCLot: 1131931)						
Aluminum	7429-90-5	E472	5	mg/kg	<5.0	---
Antimony	7440-36-0	E472	0.01	mg/kg	<0.010	---
Arsenic	7440-38-2	E472	0.03	mg/kg	<0.030	---
Barium	7440-39-3	E472	0.05	mg/kg	<0.050	---
Beryllium	7440-41-7	E472	0.01	mg/kg	<0.010	---
Bismuth	7440-69-9	E472	0.01	mg/kg	<0.010	---
Boron	7440-42-8	E472	1	mg/kg	<1.0	---
Cadmium	7440-43-9	E472	0.01	mg/kg	<0.010	---
Calcium	7440-70-2	E472	20	mg/kg	<20	---
Cesium	7440-46-2	E472	0.005	mg/kg	<0.0050	---
Chromium	7440-47-3	E472	0.2	mg/kg	<0.20	---
Cobalt	7440-48-4	E472	0.02	mg/kg	<0.020	---
Copper	7440-50-8	E472	0.2	mg/kg	<0.20	---
Iron	7439-89-6	E472	5	mg/kg	<5.0	---
Lead	7439-92-1	E472	0.05	mg/kg	<0.050	---
Lithium	7439-93-2	E472	0.5	mg/kg	<0.50	---
Magnesium	7439-95-4	E472	2	mg/kg	<2.0	---
Manganese	7439-96-5	E472	0.05	mg/kg	<0.050	---
Molybdenum	7439-98-7	E472	0.04	mg/kg	<0.040	---
Nickel	7440-02-0	E472	0.2	mg/kg	<0.20	---
Phosphorus	7723-14-0	E472	10	mg/kg	<10	---
Potassium	7440-09-7	E472	20	mg/kg	<20	---
Rubidium	7440-17-7	E472	0.05	mg/kg	<0.050	---
Selenium	7782-49-2	E472	0.1	mg/kg	<0.10	---
Sodium	7440-23-5	E472	20	mg/kg	<20	---
Strontium	7440-24-6	E472	0.1	mg/kg	<0.10	---
Tellurium	13494-80-9	E472	0.02	mg/kg	<0.020	---
Thallium	7440-28-0	E472	0.002	mg/kg	<0.0020	---
Tin	7440-31-5	E472	0.1	mg/kg	<0.10	---



Sub-Matrix: Biota

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Metals (QCLot: 1131931) - continued						
Uranium	7440-61-1	E472	0.002	mg/kg	<0.0020	---
Vanadium	7440-62-2	E472	0.1	mg/kg	<0.10	---
Zinc	7440-66-6	E472	1	mg/kg	<1.0	---
Zirconium	7440-67-7	E472	0.2	mg/kg	<0.20	---
Metals (QCLot: 1135563)						
Silver	7440-22-4	E472.Ag	0.005	mg/kg	<0.0050	---
Metals (QCLot: 1135564)						
Titanium	7440-32-6	E472.Ti	0.5	mg/kg	<0.50	---
Metals (QCLot: 1135565)						
Mercury	7439-97-6	E511	0.005	mg/kg	<0.0050	---
Metals (QCLot: 1135566)						
Aluminum	7429-90-5	E472	5	mg/kg	<5.0	---
Antimony	7440-36-0	E472	0.01	mg/kg	<0.010	---
Arsenic	7440-38-2	E472	0.03	mg/kg	<0.030	---
Barium	7440-39-3	E472	0.05	mg/kg	<0.050	---
Beryllium	7440-41-7	E472	0.01	mg/kg	<0.010	---
Bismuth	7440-69-9	E472	0.01	mg/kg	<0.010	---
Boron	7440-42-8	E472	1	mg/kg	<1.0	---
Cadmium	7440-43-9	E472	0.01	mg/kg	<0.010	---
Calcium	7440-70-2	E472	20	mg/kg	<20	---
Cesium	7440-46-2	E472	0.005	mg/kg	<0.0050	---
Chromium	7440-47-3	E472	0.2	mg/kg	<0.20	---
Cobalt	7440-48-4	E472	0.02	mg/kg	<0.020	---
Copper	7440-50-8	E472	0.2	mg/kg	<0.20	---
Iron	7439-89-6	E472	5	mg/kg	<5.0	---
Lead	7439-92-1	E472	0.05	mg/kg	<0.050	---
Lithium	7439-93-2	E472	0.5	mg/kg	<0.50	---
Magnesium	7439-95-4	E472	2	mg/kg	<2.0	---
Manganese	7439-96-5	E472	0.05	mg/kg	<0.050	---
Molybdenum	7439-98-7	E472	0.04	mg/kg	<0.040	---
Nickel	7440-02-0	E472	0.2	mg/kg	<0.20	---
Phosphorus	7723-14-0	E472	10	mg/kg	<10	---
Potassium	7440-09-7	E472	20	mg/kg	<20	---
Rubidium	7440-17-7	E472	0.05	mg/kg	<0.050	---
Selenium	7782-49-2	E472	0.1	mg/kg	<0.10	---



Sub-Matrix: **Biota**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Metals (QCLot: 1135566) - continued						
Sodium	7440-23-5	E472	20	mg/kg	<20	----
Strontium	7440-24-6	E472	0.1	mg/kg	<0.10	----
Tellurium	13494-80-9	E472	0.02	mg/kg	<0.020	----
Thallium	7440-28-0	E472	0.002	mg/kg	<0.0020	----
Tin	7440-31-5	E472	0.1	mg/kg	<0.10	----
Uranium	7440-61-1	E472	0.002	mg/kg	<0.0020	----
Vanadium	7440-62-2	E472	0.1	mg/kg	<0.10	----
Zinc	7440-66-6	E472	1	mg/kg	<1.0	----
Zirconium	7440-67-7	E472	0.2	mg/kg	<0.20	----
Metals (QCLot: 1135567)						
Silver	7440-22-4	E472.Ag	0.005	mg/kg	<0.0050	----
Metals (QCLot: 1135568)						
Titanium	7440-32-6	E472.Ti	0.5	mg/kg	<0.50	----
Metals (QCLot: 1135569)						
Mercury	7439-97-6	E511	0.005	mg/kg	<0.0050	----
Metals (QCLot: 1135570)						
Aluminum	7429-90-5	E472	5	mg/kg	<5.0	----
Antimony	7440-36-0	E472	0.01	mg/kg	<0.010	----
Arsenic	7440-38-2	E472	0.03	mg/kg	<0.030	----
Barium	7440-39-3	E472	0.05	mg/kg	<0.050	----
Beryllium	7440-41-7	E472	0.01	mg/kg	<0.010	----
Bismuth	7440-69-9	E472	0.01	mg/kg	<0.010	----
Boron	7440-42-8	E472	1	mg/kg	<1.0	----
Cadmium	7440-43-9	E472	0.01	mg/kg	<0.010	----
Calcium	7440-70-2	E472	20	mg/kg	<20	----
Cesium	7440-46-2	E472	0.005	mg/kg	<0.0050	----
Chromium	7440-47-3	E472	0.2	mg/kg	<0.20	----
Cobalt	7440-48-4	E472	0.02	mg/kg	<0.020	----
Copper	7440-50-8	E472	0.2	mg/kg	<0.20	----
Iron	7439-89-6	E472	5	mg/kg	<5.0	----
Lead	7439-92-1	E472	0.05	mg/kg	<0.050	----
Lithium	7439-93-2	E472	0.5	mg/kg	<0.50	----
Magnesium	7439-95-4	E472	2	mg/kg	<2.0	----
Manganese	7439-96-5	E472	0.05	mg/kg	<0.050	----
Molybdenum	7439-98-7	E472	0.04	mg/kg	<0.040	----



Sub-Matrix: Biota

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Metals (QCLot: 1135570) - continued						
Nickel	7440-02-0	E472	0.2	mg/kg	<0.20	---
Phosphorus	7723-14-0	E472	10	mg/kg	<10	---
Potassium	7440-09-7	E472	20	mg/kg	<20	---
Rubidium	7440-17-7	E472	0.05	mg/kg	<0.050	---
Selenium	7782-49-2	E472	0.1	mg/kg	<0.10	---
Sodium	7440-23-5	E472	20	mg/kg	<20	---
Strontium	7440-24-6	E472	0.1	mg/kg	<0.10	---
Tellurium	13494-80-9	E472	0.02	mg/kg	<0.020	---
Thallium	7440-28-0	E472	0.002	mg/kg	<0.0020	---
Tin	7440-31-5	E472	0.1	mg/kg	<0.10	---
Uranium	7440-61-1	E472	0.002	mg/kg	<0.0020	---
Vanadium	7440-62-2	E472	0.1	mg/kg	<0.10	---
Zinc	7440-66-6	E472	1	mg/kg	<1.0	---
Zirconium	7440-67-7	E472	0.2	mg/kg	<0.20	---
Metals (QCLot: 1138697)						
Silver	7440-22-4	E472.Ag	0.005	mg/kg	<0.0050	---
Metals (QCLot: 1138698)						
Titanium	7440-32-6	E472.Ti	0.5	mg/kg	<0.50	---
Metals (QCLot: 1138699)						
Mercury	7439-97-6	E511	0.005	mg/kg	<0.0050	---
Metals (QCLot: 1138700)						
Aluminum	7429-90-5	E472	5	mg/kg	<5.0	---
Antimony	7440-36-0	E472	0.01	mg/kg	<0.010	---
Arsenic	7440-38-2	E472	0.03	mg/kg	<0.030	---
Barium	7440-39-3	E472	0.05	mg/kg	<0.050	---
Beryllium	7440-41-7	E472	0.01	mg/kg	<0.010	---
Bismuth	7440-69-9	E472	0.01	mg/kg	<0.010	---
Boron	7440-42-8	E472	1	mg/kg	<1.0	---
Cadmium	7440-43-9	E472	0.01	mg/kg	<0.010	---
Calcium	7440-70-2	E472	20	mg/kg	<20	---
Cesium	7440-46-2	E472	0.005	mg/kg	<0.0050	---
Chromium	7440-47-3	E472	0.2	mg/kg	<0.20	---
Cobalt	7440-48-4	E472	0.02	mg/kg	<0.020	---
Copper	7440-50-8	E472	0.2	mg/kg	<0.20	---
Iron	7439-89-6	E472	5	mg/kg	<5.0	---



Sub-Matrix: **Biota**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Metals (QCLot: 1138700) - continued						
Lead	7439-92-1	E472	0.05	mg/kg	<0.050	---
Lithium	7439-93-2	E472	0.5	mg/kg	<0.50	---
Magnesium	7439-95-4	E472	2	mg/kg	<2.0	---
Manganese	7439-96-5	E472	0.05	mg/kg	<0.050	---
Molybdenum	7439-98-7	E472	0.04	mg/kg	<0.040	---
Nickel	7440-02-0	E472	0.2	mg/kg	<0.20	---
Phosphorus	7723-14-0	E472	10	mg/kg	<10	---
Potassium	7440-09-7	E472	20	mg/kg	<20	---
Rubidium	7440-17-7	E472	0.05	mg/kg	<0.050	---
Selenium	7782-49-2	E472	0.1	mg/kg	<0.10	---
Sodium	7440-23-5	E472	20	mg/kg	<20	---
Strontium	7440-24-6	E472	0.1	mg/kg	<0.10	---
Tellurium	13494-80-9	E472	0.02	mg/kg	<0.020	---
Thallium	7440-28-0	E472	0.002	mg/kg	<0.0020	---
Tin	7440-31-5	E472	0.1	mg/kg	<0.10	---
Uranium	7440-61-1	E472	0.002	mg/kg	<0.0020	---
Vanadium	7440-62-2	E472	0.1	mg/kg	<0.10	---
Zinc	7440-66-6	E472	1	mg/kg	<1.0	---
Zirconium	7440-67-7	E472	0.2	mg/kg	<0.20	---
Metals (QCLot: 1140405)						
Silver	7440-22-4	E475.Ag	0.005	mg/kg	<0.0050	---
Metals (QCLot: 1140406)						
Titanium	7440-32-6	E475.Ti	0.5	mg/kg	<0.50	---
Metals (QCLot: 1140407)						
Mercury	7439-97-6	E512	0.01	mg/kg	<0.010	---
Metals (QCLot: 1140408)						
Aluminum	7429-90-5	E475	5	mg/kg	<5.0	---
Antimony	7440-36-0	E475	0.02	mg/kg	<0.020	---
Arsenic	7440-38-2	E475	0.05	mg/kg	<0.050	---
Barium	7440-39-3	E475	0.05	mg/kg	<0.050	---
Beryllium	7440-41-7	E475	0.01	mg/kg	<0.010	---
Bismuth	7440-69-9	E475	0.01	mg/kg	<0.010	---
Boron	7440-42-8	E475	1	mg/kg	<1.0	---
Cadmium	7440-43-9	E475	0.01	mg/kg	<0.010	---
Calcium	7440-70-2	E475	20	mg/kg	<20	---



Sub-Matrix: **Biota**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Metals (QCLot: 1140408) - continued						
Cesium	7440-46-2	E475	0.005	mg/kg	<0.0050	---
Chromium	7440-47-3	E475	0.2	mg/kg	<0.20	---
Cobalt	7440-48-4	E475	0.02	mg/kg	<0.020	---
Copper	7440-50-8	E475	0.2	mg/kg	<0.20	---
Iron	7439-89-6	E475	5	mg/kg	<5.0	---
Lead	7439-92-1	E475	0.05	mg/kg	<0.050	---
Lithium	7439-93-2	E475	0.5	mg/kg	<0.50	---
Magnesium	7439-95-4	E475	2	mg/kg	<2.0	---
Manganese	7439-96-5	E475	0.05	mg/kg	<0.050	---
Molybdenum	7439-98-7	E475	0.04	mg/kg	<0.040	---
Nickel	7440-02-0	E475	0.2	mg/kg	<0.20	---
Phosphorus	7723-14-0	E475	20	mg/kg	<20	---
Potassium	7440-09-7	E475	20	mg/kg	<20	---
Rubidium	7440-17-7	E475	0.05	mg/kg	<0.050	---
Selenium	7782-49-2	E475	0.1	mg/kg	<0.10	---
Sodium	7440-23-5	E475	20	mg/kg	<20	---
Strontium	7440-24-6	E475	0.1	mg/kg	<0.10	---
Tellurium	13494-80-9	E475	0.02	mg/kg	<0.020	---
Thallium	7440-28-0	E475	0.002	mg/kg	<0.0020	---
Tin	7440-31-5	E475	0.1	mg/kg	<0.10	---
Uranium	7440-61-1	E475	0.002	mg/kg	<0.0020	---
Vanadium	7440-62-2	E475	0.1	mg/kg	<0.10	---
Zinc	7440-66-6	E475	1	mg/kg	<1.0	---
Zirconium	7440-67-7	E475	0.2	mg/kg	<0.20	---
Metals (QCLot: 1140409)						
Silver	7440-22-4	E475.Ag	0.005	mg/kg	<0.0050	---
Metals (QCLot: 1140410)						
Titanium	7440-32-6	E475.Ti	0.5	mg/kg	<0.50	---
Metals (QCLot: 1140411)						
Mercury	7439-97-6	E512	0.01	mg/kg	<0.010	---
Metals (QCLot: 1140412)						
Aluminum	7429-90-5	E475	5	mg/kg	<5.0	---
Antimony	7440-36-0	E475	0.02	mg/kg	<0.020	---
Arsenic	7440-38-2	E475	0.05	mg/kg	<0.050	---
Barium	7440-39-3	E475	0.05	mg/kg	<0.050	---



Sub-Matrix: Biota

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Metals (QCLot: 1140412) - continued						
Beryllium	7440-41-7	E475	0.01	mg/kg	<0.010	---
Bismuth	7440-69-9	E475	0.01	mg/kg	<0.010	---
Boron	7440-42-8	E475	1	mg/kg	<1.0	---
Cadmium	7440-43-9	E475	0.01	mg/kg	<0.010	---
Calcium	7440-70-2	E475	20	mg/kg	<20	---
Cesium	7440-46-2	E475	0.005	mg/kg	<0.0050	---
Chromium	7440-47-3	E475	0.2	mg/kg	<0.20	---
Cobalt	7440-48-4	E475	0.02	mg/kg	<0.020	---
Copper	7440-50-8	E475	0.2	mg/kg	<0.20	---
Iron	7439-89-6	E475	5	mg/kg	<5.0	---
Lead	7439-92-1	E475	0.05	mg/kg	<0.050	---
Lithium	7439-93-2	E475	0.5	mg/kg	<0.50	---
Magnesium	7439-95-4	E475	2	mg/kg	<2.0	---
Manganese	7439-96-5	E475	0.05	mg/kg	<0.050	---
Molybdenum	7439-98-7	E475	0.04	mg/kg	<0.040	---
Nickel	7440-02-0	E475	0.2	mg/kg	<0.20	---
Phosphorus	7723-14-0	E475	20	mg/kg	<20	---
Potassium	7440-09-7	E475	20	mg/kg	<20	---
Rubidium	7440-17-7	E475	0.05	mg/kg	<0.050	---
Selenium	7782-49-2	E475	0.1	mg/kg	<0.10	---
Sodium	7440-23-5	E475	20	mg/kg	<20	---
Strontium	7440-24-6	E475	0.1	mg/kg	<0.10	---
Tellurium	13494-80-9	E475	0.02	mg/kg	<0.020	---
Thallium	7440-28-0	E475	0.002	mg/kg	<0.0020	---
Tin	7440-31-5	E475	0.1	mg/kg	<0.10	---
Uranium	7440-61-1	E475	0.002	mg/kg	<0.0020	---
Vanadium	7440-62-2	E475	0.1	mg/kg	<0.10	---
Zinc	7440-66-6	E475	1	mg/kg	<1.0	---
Zirconium	7440-67-7	E475	0.2	mg/kg	<0.20	---
Metals (QCLot: 1140978)						
Silver	7440-22-4	E472.Ag	0.005	mg/kg	<0.0050	---
Metals (QCLot: 1140979)						
Titanium	7440-32-6	E472.Ti	0.5	mg/kg	<0.50	---
Metals (QCLot: 1140980)						
Mercury	7439-97-6	E511	0.005	mg/kg	<0.0050	---



Sub-Matrix: Biota

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Metals (QCLot: 1140981)						
Aluminum	7429-90-5	E472	5	mg/kg	<5.0	---
Antimony	7440-36-0	E472	0.01	mg/kg	<0.010	---
Arsenic	7440-38-2	E472	0.03	mg/kg	<0.030	---
Barium	7440-39-3	E472	0.05	mg/kg	<0.050	---
Beryllium	7440-41-7	E472	0.01	mg/kg	<0.010	---
Bismuth	7440-69-9	E472	0.01	mg/kg	<0.010	---
Boron	7440-42-8	E472	1	mg/kg	<1.0	---
Cadmium	7440-43-9	E472	0.01	mg/kg	<0.010	---
Calcium	7440-70-2	E472	20	mg/kg	<20	---
Cesium	7440-46-2	E472	0.005	mg/kg	<0.0050	---
Chromium	7440-47-3	E472	0.2	mg/kg	<0.20	---
Cobalt	7440-48-4	E472	0.02	mg/kg	<0.020	---
Copper	7440-50-8	E472	0.2	mg/kg	<0.20	---
Iron	7439-89-6	E472	5	mg/kg	<5.0	---
Lead	7439-92-1	E472	0.05	mg/kg	<0.050	---
Lithium	7439-93-2	E472	0.5	mg/kg	<0.50	---
Magnesium	7439-95-4	E472	2	mg/kg	<2.0	---
Manganese	7439-96-5	E472	0.05	mg/kg	<0.050	---
Molybdenum	7439-98-7	E472	0.04	mg/kg	<0.040	---
Nickel	7440-02-0	E472	0.2	mg/kg	<0.20	---
Phosphorus	7723-14-0	E472	10	mg/kg	<10	---
Potassium	7440-09-7	E472	20	mg/kg	<20	---
Rubidium	7440-17-7	E472	0.05	mg/kg	<0.050	---
Selenium	7782-49-2	E472	0.1	mg/kg	<0.10	---
Sodium	7440-23-5	E472	20	mg/kg	<20	---
Strontium	7440-24-6	E472	0.1	mg/kg	<0.10	---
Tellurium	13494-80-9	E472	0.02	mg/kg	<0.020	---
Thallium	7440-28-0	E472	0.002	mg/kg	<0.0020	---
Tin	7440-31-5	E472	0.1	mg/kg	<0.10	---
Uranium	7440-61-1	E472	0.002	mg/kg	<0.0020	---
Vanadium	7440-62-2	E472	0.1	mg/kg	<0.10	---
Zinc	7440-66-6	E472	1	mg/kg	<1.0	---
Zirconium	7440-67-7	E472	0.2	mg/kg	<0.20	---
Metals (QCLot: 1140997)						
Silver	7440-22-4	E472.Ag	0.005	mg/kg	<0.0050	---



Sub-Matrix: Biota

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Metals (QCLot: 1140998)						
Titanium	7440-32-6	E472.Ti	0.5	mg/kg	<0.50	---
Metals (QCLot: 1140999)						
Mercury	7439-97-6	E511	0.005	mg/kg	<0.0050	---
Metals (QCLot: 1141000)						
Aluminum	7429-90-5	E472	5	mg/kg	<5.0	---
Antimony	7440-36-0	E472	0.01	mg/kg	<0.010	---
Arsenic	7440-38-2	E472	0.03	mg/kg	<0.030	---
Barium	7440-39-3	E472	0.05	mg/kg	<0.050	---
Beryllium	7440-41-7	E472	0.01	mg/kg	<0.010	---
Bismuth	7440-69-9	E472	0.01	mg/kg	<0.010	---
Boron	7440-42-8	E472	1	mg/kg	<1.0	---
Cadmium	7440-43-9	E472	0.01	mg/kg	<0.010	---
Calcium	7440-70-2	E472	20	mg/kg	<20	---
Cesium	7440-46-2	E472	0.005	mg/kg	<0.0050	---
Chromium	7440-47-3	E472	0.2	mg/kg	<0.20	---
Cobalt	7440-48-4	E472	0.02	mg/kg	<0.020	---
Copper	7440-50-8	E472	0.2	mg/kg	<0.20	---
Iron	7439-89-6	E472	5	mg/kg	<5.0	---
Lead	7439-92-1	E472	0.05	mg/kg	<0.050	---
Lithium	7439-93-2	E472	0.5	mg/kg	<0.50	---
Magnesium	7439-95-4	E472	2	mg/kg	<2.0	---
Manganese	7439-96-5	E472	0.05	mg/kg	<0.050	---
Molybdenum	7439-98-7	E472	0.04	mg/kg	<0.040	---
Nickel	7440-02-0	E472	0.2	mg/kg	<0.20	---
Phosphorus	7723-14-0	E472	10	mg/kg	<10	---
Potassium	7440-09-7	E472	20	mg/kg	<20	---
Rubidium	7440-17-7	E472	0.05	mg/kg	<0.050	---
Selenium	7782-49-2	E472	0.1	mg/kg	<0.10	---
Sodium	7440-23-5	E472	20	mg/kg	<20	---
Strontium	7440-24-6	E472	0.1	mg/kg	<0.10	---
Tellurium	13494-80-9	E472	0.02	mg/kg	<0.020	---
Thallium	7440-28-0	E472	0.002	mg/kg	<0.0020	---
Tin	7440-31-5	E472	0.1	mg/kg	<0.10	---
Uranium	7440-61-1	E472	0.002	mg/kg	<0.0020	---
Vanadium	7440-62-2	E472	0.1	mg/kg	<0.10	---



Sub-Matrix: Biota

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Metals (QCLot: 1141000) - continued						
Zinc	7440-66-6	E472	1	mg/kg	<1.0	---
Zirconium	7440-67-7	E472	0.2	mg/kg	<0.20	---
Metals (QCLot: 1151073)						
Silver	7440-22-4	E472.Ag	0.005	mg/kg	<0.0050	---
Metals (QCLot: 1151074)						
Titanium	7440-32-6	E472.Ti	0.5	mg/kg	<0.50	---
Metals (QCLot: 1151075)						
Mercury	7439-97-6	E511	0.005	mg/kg	<0.0050	---
Metals (QCLot: 1151076)						
Aluminum	7429-90-5	E472	5	mg/kg	<5.0	---
Antimony	7440-36-0	E472	0.01	mg/kg	<0.010	---
Arsenic	7440-38-2	E472	0.03	mg/kg	<0.030	---
Barium	7440-39-3	E472	0.05	mg/kg	<0.050	---
Beryllium	7440-41-7	E472	0.01	mg/kg	<0.010	---
Bismuth	7440-69-9	E472	0.01	mg/kg	<0.010	---
Boron	7440-42-8	E472	1	mg/kg	<1.0	---
Cadmium	7440-43-9	E472	0.01	mg/kg	<0.010	---
Calcium	7440-70-2	E472	20	mg/kg	<20	---
Cesium	7440-46-2	E472	0.005	mg/kg	<0.0050	---
Chromium	7440-47-3	E472	0.2	mg/kg	<0.20	---
Cobalt	7440-48-4	E472	0.02	mg/kg	<0.020	---
Copper	7440-50-8	E472	0.2	mg/kg	<0.20	---
Iron	7439-89-6	E472	5	mg/kg	<5.0	---
Lead	7439-92-1	E472	0.05	mg/kg	<0.050	---
Lithium	7439-93-2	E472	0.5	mg/kg	<0.50	---
Magnesium	7439-95-4	E472	2	mg/kg	<2.0	---
Manganese	7439-96-5	E472	0.05	mg/kg	<0.050	---
Molybdenum	7439-98-7	E472	0.04	mg/kg	<0.040	---
Nickel	7440-02-0	E472	0.2	mg/kg	<0.20	---
Phosphorus	7723-14-0	E472	10	mg/kg	<10	---
Potassium	7440-09-7	E472	20	mg/kg	<20	---
Rubidium	7440-17-7	E472	0.05	mg/kg	<0.050	---
Selenium	7782-49-2	E472	0.1	mg/kg	<0.10	---
Sodium	7440-23-5	E472	20	mg/kg	<20	---
Strontium	7440-24-6	E472	0.1	mg/kg	<0.10	---



Sub-Matrix: Biota

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Metals (QCLot: 1151076) - continued						
Tellurium	13494-80-9	E472	0.02	mg/kg	<0.020	---
Thallium	7440-28-0	E472	0.002	mg/kg	<0.0020	---
Tin	7440-31-5	E472	0.1	mg/kg	<0.10	---
Uranium	7440-61-1	E472	0.002	mg/kg	<0.0020	---
Vanadium	7440-62-2	E472	0.1	mg/kg	<0.10	---
Zinc	7440-66-6	E472	1	mg/kg	<1.0	---
Zirconium	7440-67-7	E472	0.2	mg/kg	<0.20	---
Metals (QCLot: 1151081)						
Silver	7440-22-4	E472.Ag	0.005	mg/kg	<0.0050	---
Metals (QCLot: 1151082)						
Titanium	7440-32-6	E472.Ti	0.5	mg/kg	<0.50	---
Metals (QCLot: 1151083)						
Mercury	7439-97-6	E511	0.005	mg/kg	<0.0050	---
Metals (QCLot: 1151084)						
Aluminum	7429-90-5	E472	5	mg/kg	<5.0	---
Antimony	7440-36-0	E472	0.01	mg/kg	<0.010	---
Arsenic	7440-38-2	E472	0.03	mg/kg	<0.030	---
Barium	7440-39-3	E472	0.05	mg/kg	<0.050	---
Beryllium	7440-41-7	E472	0.01	mg/kg	<0.010	---
Bismuth	7440-69-9	E472	0.01	mg/kg	<0.010	---
Boron	7440-42-8	E472	1	mg/kg	<1.0	---
Cadmium	7440-43-9	E472	0.01	mg/kg	<0.010	---
Calcium	7440-70-2	E472	20	mg/kg	<20	---
Cesium	7440-46-2	E472	0.005	mg/kg	<0.0050	---
Chromium	7440-47-3	E472	0.2	mg/kg	<0.20	---
Cobalt	7440-48-4	E472	0.02	mg/kg	<0.020	---
Copper	7440-50-8	E472	0.2	mg/kg	<0.20	---
Iron	7439-89-6	E472	5	mg/kg	<5.0	---
Lead	7439-92-1	E472	0.05	mg/kg	<0.050	---
Lithium	7439-93-2	E472	0.5	mg/kg	<0.50	---
Magnesium	7439-95-4	E472	2	mg/kg	<2.0	---
Manganese	7439-96-5	E472	0.05	mg/kg	<0.050	---
Molybdenum	7439-98-7	E472	0.04	mg/kg	<0.040	---
Nickel	7440-02-0	E472	0.2	mg/kg	<0.20	---
Phosphorus	7723-14-0	E472	10	mg/kg	<10	---



Sub-Matrix: **Biota**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Metals (QCLot: 1151084) - continued						
Potassium	7440-09-7	E472	20	mg/kg	<20	----
Rubidium	7440-17-7	E472	0.05	mg/kg	<0.050	----
Selenium	7782-49-2	E472	0.1	mg/kg	<0.10	----
Sodium	7440-23-5	E472	20	mg/kg	<20	----
Strontium	7440-24-6	E472	0.1	mg/kg	<0.10	----
Tellurium	13494-80-9	E472	0.02	mg/kg	<0.020	----
Thallium	7440-28-0	E472	0.002	mg/kg	<0.0020	----
Tin	7440-31-5	E472	0.1	mg/kg	<0.10	----
Uranium	7440-61-1	E472	0.002	mg/kg	<0.0020	----
Vanadium	7440-62-2	E472	0.1	mg/kg	<0.10	----
Zinc	7440-66-6	E472	1	mg/kg	<1.0	----
Zirconium	7440-67-7	E472	0.2	mg/kg	<0.20	----
Metals (QCLot: 1232337)						
Mercury	7439-97-6	E511A	0.001	mg/kg wwt	<0.0010	----
Metals (QCLot: 1232429)						
Mercury	7439-97-6	E511A	0.001	mg/kg wwt	<0.0010	----
Metals (QCLot: 1232439)						
Mercury	7439-97-6	E511A	0.001	mg/kg wwt	<0.0010	----
Metals (QCLot: 1232445)						
Mercury	7439-97-6	E511A	0.001	mg/kg wwt	<0.0010	----
Metals (QCLot: 1232447)						
Mercury	7439-97-6	E511A	0.001	mg/kg wwt	<0.0010	----
Metals (QCLot: 1232449)						
Mercury	7439-97-6	E511A	0.001	mg/kg wwt	<0.0010	----
Metals (QCLot: 1232451)						
Mercury	7439-97-6	E511A	0.001	mg/kg wwt	<0.0010	----
Metals (QCLot: 1232454)						
Mercury	7439-97-6	E511A	0.001	mg/kg wwt	<0.0010	----
Metals (QCLot: 1232464)						
Mercury	7439-97-6	E511A	0.001	mg/kg wwt	<0.0010	----
Metals (QCLot: 1232701)						
Mercury	7439-97-6	E512A	0.002	mg/kg wwt	<0.0020	----
Metals (QCLot: 1232705)						
Mercury	7439-97-6	E512A	0.002	mg/kg wwt	<0.0020	----
Metals (QCLot: 1232709)						



Sub-Matrix: **Biota**

<i>Analyte</i>	<i>CAS Number</i>	<i>Method</i>	<i>LOR</i>	<i>Unit</i>	<i>Result</i>	<i>Qualifier</i>
Metals (QCLot: 1232709) - continued						
Mercury	7439-97-6	E512A	0.002	mg/kg wwt	<0.0020	---



Laboratory Control Sample (LCS) Report

A Laboratory Control Sample (LCS) is an analyte-free matrix that has been fortified (spiked) with test analytes at known concentration and processed in an identical manner to test samples. LCS results are expressed as percent recovery, and are used to monitor and control test method accuracy and precision, independent of test sample matrix.

Sub-Matrix: Biota

					Laboratory Control Sample (LCS) Report				
Analyte	CAS Number	Method	LOR	Unit	Spike	Recovery (%)	Recovery Limits (%)		Qualifier
					Concentration	LCS	Low	High	
Physical Tests (QCLot: 1127758)									
Moisture	---	E144-H	2	%	100 %	100	90.0	110	---
Physical Tests (QCLot: 1127759)									
Moisture	---	E144A	2	%	100 %	100	90.0	110	---
Physical Tests (QCLot: 1127763)									
Moisture	---	E144-H	2	%	100 %	100	90.0	110	---
Physical Tests (QCLot: 1127764)									
Moisture	---	E144-H	2	%	100 %	100	90.0	110	---
Physical Tests (QCLot: 1131740)									
Moisture	---	E144-H	2	%	100 %	100	90.0	110	---
Physical Tests (QCLot: 1133247)									
Moisture	---	E144-H	2	%	100 %	100	90.0	110	---
Physical Tests (QCLot: 1133719)									
Moisture	---	E144-H	2	%	100 %	100	90.0	110	---
Physical Tests (QCLot: 1134363)									
Moisture	---	E144-H	2	%	100 %	100	90.0	110	---
Physical Tests (QCLot: 1140020)									
Moisture	---	E144-H	2	%	100 %	100	90.0	110	---
Physical Tests (QCLot: 1140403)									
Moisture	---	E144A	2	%	100 %	100	90.0	110	---
Physical Tests (QCLot: 1140404)									
Moisture	---	E144A	2	%	100 %	100	90.0	110	---
Physical Tests (QCLot: 1140822)									
Moisture	---	E144-H	2	%	100 %	100	90.0	110	---
Metals (QCLot: 1127969)									
Silver	7440-22-4	E472.Ag	0.005	mg/kg	1 mg/kg	90.7	80.0	120	---
Metals (QCLot: 1127970)									
Titanium	7440-32-6	E472.Ti	0.5	mg/kg	2.5 mg/kg	99.5	80.0	120	---
Metals (QCLot: 1127971)									
Mercury	7439-97-6	E511	0.005	mg/kg	0.02 mg/kg	100	80.0	120	---
Metals (QCLot: 1127972)									
Aluminum	7429-90-5	E472	5	mg/kg	20 mg/kg	106	80.0	120	---



Sub-Matrix: Biota

Laboratory Control Sample (LCS) Report

Analyte	CAS Number	Method	LOR	Unit	Spike	Recovery (%)	Recovery Limits (%)		Qualifier
					Concentration	LCS	Low	High	
Metals (QCLot: 1127972) - continued									
Antimony	7440-36-0	E472	0.01	mg/kg	10 mg/kg	103	80.0	120	----
Arsenic	7440-38-2	E472	0.03	mg/kg	10 mg/kg	108	80.0	120	----
Barium	7440-39-3	E472	0.05	mg/kg	2.5 mg/kg	105	80.0	120	----
Beryllium	7440-41-7	E472	0.01	mg/kg	1 mg/kg	97.2	80.0	120	----
Bismuth	7440-69-9	E472	0.01	mg/kg	10 mg/kg	95.5	80.0	120	----
Boron	7440-42-8	E472	1	mg/kg	10 mg/kg	91.1	80.0	120	----
Cadmium	7440-43-9	E472	0.01	mg/kg	1 mg/kg	98.1	80.0	120	----
Calcium	7440-70-2	E472	20	mg/kg	500 mg/kg	97.3	80.0	120	----
Cesium	7440-46-2	E472	0.005	mg/kg	0.5 mg/kg	103	80.0	120	----
Chromium	7440-47-3	E472	0.2	mg/kg	2.5 mg/kg	102	80.0	120	----
Cobalt	7440-48-4	E472	0.02	mg/kg	2.5 mg/kg	103	80.0	120	----
Copper	7440-50-8	E472	0.2	mg/kg	2.5 mg/kg	96.8	80.0	120	----
Iron	7439-89-6	E472	5	mg/kg	10 mg/kg	101	80.0	120	----
Lead	7439-92-1	E472	0.05	mg/kg	5 mg/kg	99.6	80.0	120	----
Lithium	7439-93-2	E472	0.5	mg/kg	2.5 mg/kg	99.4	80.0	120	----
Magnesium	7439-95-4	E472	2	mg/kg	500 mg/kg	101	80.0	120	----
Manganese	7439-96-5	E472	0.05	mg/kg	2.5 mg/kg	103	80.0	120	----
Molybdenum	7439-98-7	E472	0.04	mg/kg	2.5 mg/kg	106	80.0	120	----
Nickel	7440-02-0	E472	0.2	mg/kg	5 mg/kg	99.2	80.0	120	----
Phosphorus	7723-14-0	E472	10	mg/kg	100 mg/kg	111	80.0	120	----
Potassium	7440-09-7	E472	20	mg/kg	500 mg/kg	104	80.0	120	----
Rubidium	7440-17-7	E472	0.05	mg/kg	1 mg/kg	104	80.0	120	----
Selenium	7782-49-2	E472	0.1	mg/kg	10 mg/kg	100	80.0	120	----
Sodium	7440-23-5	E472	20	mg/kg	500 mg/kg	102	80.0	120	----
Strontium	7440-24-6	E472	0.1	mg/kg	2.5 mg/kg	102	80.0	120	----
Tellurium	13494-80-9	E472	0.02	mg/kg	1 mg/kg	97.6	80.0	120	----
Thallium	7440-28-0	E472	0.002	mg/kg	10 mg/kg	98.3	80.0	120	----
Tin	7440-31-5	E472	0.1	mg/kg	5 mg/kg	101	80.0	120	----
Uranium	7440-61-1	E472	0.002	mg/kg	0.05 mg/kg	98.2	80.0	120	----
Vanadium	7440-62-2	E472	0.1	mg/kg	5 mg/kg	104	80.0	120	----
Zinc	7440-66-6	E472	1	mg/kg	5 mg/kg	98.2	80.0	120	----
Zirconium	7440-67-7	E472	0.2	mg/kg	1 mg/kg	101	80.0	120	----
Metals (QCLot: 1131144)									
Silver	7440-22-4	E475.Ag	0.005	mg/kg	2.5 mg/kg	86.2	80.0	120	----
Metals (QCLot: 1131145)									
Titanium	7440-32-6	E475.Ti	0.5	mg/kg	6.25 mg/kg	89.5	80.0	120	----



Sub-Matrix: Biota

Laboratory Control Sample (LCS) Report

Analyte	CAS Number	Method	LOR	Unit	Spike	Recovery (%)	Recovery Limits (%)		Qualifier
					Concentration	LCS	Low	High	
Metals (QCLot: 1131146)									
Mercury	7439-97-6	E512	0.01	mg/kg	0.05 mg/kg	86.2	80.0	120	---
Metals (QCLot: 1131147)									
Aluminum	7429-90-5	E475	5	mg/kg	50 mg/kg	103	80.0	120	---
Antimony	7440-36-0	E475	0.02	mg/kg	25 mg/kg	92.4	80.0	120	---
Arsenic	7440-38-2	E475	0.05	mg/kg	25 mg/kg	100	80.0	120	---
Barium	7440-39-3	E475	0.05	mg/kg	6.25 mg/kg	101	80.0	120	---
Beryllium	7440-41-7	E475	0.01	mg/kg	2.5 mg/kg	92.2	80.0	120	---
Bismuth	7440-69-9	E475	0.01	mg/kg	25 mg/kg	91.4	80.0	120	---
Boron	7440-42-8	E475	1	mg/kg	25 mg/kg	86.4	80.0	120	---
Cadmium	7440-43-9	E475	0.01	mg/kg	2.5 mg/kg	96.2	80.0	120	---
Calcium	7440-70-2	E475	20	mg/kg	1250 mg/kg	90.0	80.0	120	---
Cesium	7440-46-2	E475	0.005	mg/kg	1.25 mg/kg	101	80.0	120	---
Chromium	7440-47-3	E475	0.2	mg/kg	6.25 mg/kg	98.7	80.0	120	---
Cobalt	7440-48-4	E475	0.02	mg/kg	6.25 mg/kg	96.0	80.0	120	---
Copper	7440-50-8	E475	0.2	mg/kg	6.25 mg/kg	94.2	80.0	120	---
Iron	7439-89-6	E475	5	mg/kg	25 mg/kg	99.2	80.0	120	---
Lead	7439-92-1	E475	0.05	mg/kg	12.5 mg/kg	94.6	80.0	120	---
Lithium	7439-93-2	E475	0.5	mg/kg	6.25 mg/kg	96.6	80.0	120	---
Magnesium	7439-95-4	E475	2	mg/kg	1250 mg/kg	94.5	80.0	120	---
Manganese	7439-96-5	E475	0.05	mg/kg	6.25 mg/kg	98.4	80.0	120	---
Molybdenum	7439-98-7	E475	0.04	mg/kg	6.25 mg/kg	97.0	80.0	120	---
Nickel	7440-02-0	E475	0.2	mg/kg	12.5 mg/kg	96.3	80.0	120	---
Phosphorus	7723-14-0	E475	20	mg/kg	250 mg/kg	100	80.0	120	---
Potassium	7440-09-7	E475	20	mg/kg	1250 mg/kg	100	80.0	120	---
Rubidium	7440-17-7	E475	0.05	mg/kg	2.5 mg/kg	99.1	80.0	120	---
Selenium	7782-49-2	E475	0.1	mg/kg	25 mg/kg	90.7	80.0	120	---
Sodium	7440-23-5	E475	20	mg/kg	1250 mg/kg	97.7	80.0	120	---
Strontium	7440-24-6	E475	0.1	mg/kg	6.25 mg/kg	99.3	80.0	120	---
Tellurium	13494-80-9	E475	0.02	mg/kg	2.5 mg/kg	89.3	80.0	120	---
Thallium	7440-28-0	E475	0.002	mg/kg	25 mg/kg	91.2	80.0	120	---
Tin	7440-31-5	E475	0.1	mg/kg	12.5 mg/kg	94.7	80.0	120	---
Uranium	7440-61-1	E475	0.002	mg/kg	0.125 mg/kg	95.5	80.0	120	---
Vanadium	7440-62-2	E475	0.1	mg/kg	12.5 mg/kg	101	80.0	120	---
Zinc	7440-66-6	E475	1	mg/kg	12.5 mg/kg	94.1	80.0	120	---
Zirconium	7440-67-7	E475	0.2	mg/kg	2.5 mg/kg	94.6	80.0	120	---

Metals (QCLot: 1131928)



Sub-Matrix: Biota

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
Metals (QCLot: 1131928) - continued									
Silver	7440-22-4	E472.Ag	0.005	mg/kg	1 mg/kg	89.0	80.0	120	---
Metals (QCLot: 1131929)									
Titanium	7440-32-6	E472.Ti	0.5	mg/kg	2.5 mg/kg	95.5	80.0	120	---
Metals (QCLot: 1131930)									
Mercury	7439-97-6	E511	0.005	mg/kg	0.02 mg/kg	97.3	80.0	120	---
Metals (QCLot: 1131931)									
Aluminum	7429-90-5	E472	5	mg/kg	20 mg/kg	105	80.0	120	---
Antimony	7440-36-0	E472	0.01	mg/kg	10 mg/kg	96.8	80.0	120	---
Arsenic	7440-38-2	E472	0.03	mg/kg	10 mg/kg	106	80.0	120	---
Barium	7440-39-3	E472	0.05	mg/kg	2.5 mg/kg	104	80.0	120	---
Beryllium	7440-41-7	E472	0.01	mg/kg	1 mg/kg	96.5	80.0	120	---
Bismuth	7440-69-9	E472	0.01	mg/kg	10 mg/kg	94.8	80.0	120	---
Boron	7440-42-8	E472	1	mg/kg	10 mg/kg	94.2	80.0	120	---
Cadmium	7440-43-9	E472	0.01	mg/kg	1 mg/kg	98.2	80.0	120	---
Calcium	7440-70-2	E472	20	mg/kg	500 mg/kg	92.9	80.0	120	---
Cesium	7440-46-2	E472	0.005	mg/kg	0.5 mg/kg	101	80.0	120	---
Chromium	7440-47-3	E472	0.2	mg/kg	2.5 mg/kg	100	80.0	120	---
Cobalt	7440-48-4	E472	0.02	mg/kg	2.5 mg/kg	98.6	80.0	120	---
Copper	7440-50-8	E472	0.2	mg/kg	2.5 mg/kg	96.3	80.0	120	---
Iron	7439-89-6	E472	5	mg/kg	10 mg/kg	100	80.0	120	---
Lead	7439-92-1	E472	0.05	mg/kg	5 mg/kg	97.3	80.0	120	---
Lithium	7439-93-2	E472	0.5	mg/kg	2.5 mg/kg	102	80.0	120	---
Magnesium	7439-95-4	E472	2	mg/kg	500 mg/kg	97.8	80.0	120	---
Manganese	7439-96-5	E472	0.05	mg/kg	2.5 mg/kg	100	80.0	120	---
Molybdenum	7439-98-7	E472	0.04	mg/kg	2.5 mg/kg	104	80.0	120	---
Nickel	7440-02-0	E472	0.2	mg/kg	5 mg/kg	97.8	80.0	120	---
Phosphorus	7723-14-0	E472	10	mg/kg	100 mg/kg	108	80.0	120	---
Potassium	7440-09-7	E472	20	mg/kg	500 mg/kg	98.9	80.0	120	---
Rubidium	7440-17-7	E472	0.05	mg/kg	1 mg/kg	103	80.0	120	---
Selenium	7782-49-2	E472	0.1	mg/kg	10 mg/kg	95.8	80.0	120	---
Sodium	7440-23-5	E472	20	mg/kg	500 mg/kg	99.5	80.0	120	---
Strontium	7440-24-6	E472	0.1	mg/kg	2.5 mg/kg	103	80.0	120	---
Tellurium	13494-80-9	E472	0.02	mg/kg	1 mg/kg	95.0	80.0	120	---
Thallium	7440-28-0	E472	0.002	mg/kg	10 mg/kg	96.0	80.0	120	---
Tin	7440-31-5	E472	0.1	mg/kg	5 mg/kg	101	80.0	120	---
Uranium	7440-61-1	E472	0.002	mg/kg	0.05 mg/kg	100	80.0	120	---



Sub-Matrix: Biota

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
Metals (QCLot: 1131931) - continued									
Vanadium	7440-62-2	E472	0.1	mg/kg	5 mg/kg	104	80.0	120	---
Zinc	7440-66-6	E472	1	mg/kg	5 mg/kg	96.4	80.0	120	---
Zirconium	7440-67-7	E472	0.2	mg/kg	1 mg/kg	100	80.0	120	---
Metals (QCLot: 1135563)									
Silver	7440-22-4	E472.Ag	0.005	mg/kg	1 mg/kg	84.8	80.0	120	---
Metals (QCLot: 1135564)									
Titanium	7440-32-6	E472.Ti	0.5	mg/kg	2.5 mg/kg	110	80.0	120	---
Metals (QCLot: 1135565)									
Mercury	7439-97-6	E511	0.005	mg/kg	0.02 mg/kg	93.2	80.0	120	---
Metals (QCLot: 1135566)									
Aluminum	7429-90-5	E472	5	mg/kg	20 mg/kg	110	80.0	120	---
Antimony	7440-36-0	E472	0.01	mg/kg	10 mg/kg	101	80.0	120	---
Arsenic	7440-38-2	E472	0.03	mg/kg	10 mg/kg	112	80.0	120	---
Barium	7440-39-3	E472	0.05	mg/kg	2.5 mg/kg	104	80.0	120	---
Beryllium	7440-41-7	E472	0.01	mg/kg	1 mg/kg	99.6	80.0	120	---
Bismuth	7440-69-9	E472	0.01	mg/kg	10 mg/kg	97.4	80.0	120	---
Boron	7440-42-8	E472	1	mg/kg	10 mg/kg	95.2	80.0	120	---
Cadmium	7440-43-9	E472	0.01	mg/kg	1 mg/kg	97.9	80.0	120	---
Calcium	7440-70-2	E472	20	mg/kg	500 mg/kg	102	80.0	120	---
Cesium	7440-46-2	E472	0.005	mg/kg	0.5 mg/kg	104	80.0	120	---
Chromium	7440-47-3	E472	0.2	mg/kg	2.5 mg/kg	110	80.0	120	---
Cobalt	7440-48-4	E472	0.02	mg/kg	2.5 mg/kg	107	80.0	120	---
Copper	7440-50-8	E472	0.2	mg/kg	2.5 mg/kg	103	80.0	120	---
Iron	7439-89-6	E472	5	mg/kg	10 mg/kg	107	80.0	120	---
Lead	7439-92-1	E472	0.05	mg/kg	5 mg/kg	96.5	80.0	120	---
Lithium	7439-93-2	E472	0.5	mg/kg	2.5 mg/kg	101	80.0	120	---
Magnesium	7439-95-4	E472	2	mg/kg	500 mg/kg	106	80.0	120	---
Manganese	7439-96-5	E472	0.05	mg/kg	2.5 mg/kg	107	80.0	120	---
Molybdenum	7439-98-7	E472	0.04	mg/kg	2.5 mg/kg	104	80.0	120	---
Nickel	7440-02-0	E472	0.2	mg/kg	5 mg/kg	106	80.0	120	---
Phosphorus	7723-14-0	E472	10	mg/kg	100 mg/kg	113	80.0	120	---
Potassium	7440-09-7	E472	20	mg/kg	500 mg/kg	104	80.0	120	---
Rubidium	7440-17-7	E472	0.05	mg/kg	1 mg/kg	107	80.0	120	---
Selenium	7782-49-2	E472	0.1	mg/kg	10 mg/kg	105	80.0	120	---
Sodium	7440-23-5	E472	20	mg/kg	500 mg/kg	96.4	80.0	120	---
Strontium	7440-24-6	E472	0.1	mg/kg	2.5 mg/kg	102	80.0	120	---



Sub-Matrix: Biota

Laboratory Control Sample (LCS) Report

Analyte	CAS Number	Method	LOR	Unit	Laboratory Control Sample (LCS) Report				
					Concentration	Recovery (%)	Recovery Limits (%)		Qualifier
						Low	High		
Metals (QCLot: 1135566) - continued									
Tellurium	13494-80-9	E472	0.02	mg/kg	1 mg/kg	100.0	80.0	120	---
Thallium	7440-28-0	E472	0.002	mg/kg	10 mg/kg	96.5	80.0	120	---
Tin	7440-31-5	E472	0.1	mg/kg	5 mg/kg	104	80.0	120	---
Uranium	7440-61-1	E472	0.002	mg/kg	0.05 mg/kg	97.0	80.0	120	---
Vanadium	7440-62-2	E472	0.1	mg/kg	5 mg/kg	111	80.0	120	---
Zinc	7440-66-6	E472	1	mg/kg	5 mg/kg	102	80.0	120	---
Zirconium	7440-67-7	E472	0.2	mg/kg	1 mg/kg	105	80.0	120	---
Metals (QCLot: 1135567)									
Silver	7440-22-4	E472.Ag	0.005	mg/kg	1 mg/kg	86.2	80.0	120	---
Metals (QCLot: 1135568)									
Titanium	7440-32-6	E472.Ti	0.5	mg/kg	2.5 mg/kg	110	80.0	120	---
Metals (QCLot: 1135569)									
Mercury	7439-97-6	E511	0.005	mg/kg	0.02 mg/kg	98.6	80.0	120	---
Metals (QCLot: 1135570)									
Aluminum	7429-90-5	E472	5	mg/kg	20 mg/kg	115	80.0	120	---
Antimony	7440-36-0	E472	0.01	mg/kg	10 mg/kg	106	80.0	120	---
Arsenic	7440-38-2	E472	0.03	mg/kg	10 mg/kg	117	80.0	120	---
Barium	7440-39-3	E472	0.05	mg/kg	2.5 mg/kg	111	80.0	120	---
Beryllium	7440-41-7	E472	0.01	mg/kg	1 mg/kg	103	80.0	120	---
Bismuth	7440-69-9	E472	0.01	mg/kg	10 mg/kg	104	80.0	120	---
Boron	7440-42-8	E472	1	mg/kg	10 mg/kg	92.2	80.0	120	---
Cadmium	7440-43-9	E472	0.01	mg/kg	1 mg/kg	104	80.0	120	---
Calcium	7440-70-2	E472	20	mg/kg	500 mg/kg	99.3	80.0	120	---
Cesium	7440-46-2	E472	0.005	mg/kg	0.5 mg/kg	106	80.0	120	---
Chromium	7440-47-3	E472	0.2	mg/kg	2.5 mg/kg	113	80.0	120	---
Cobalt	7440-48-4	E472	0.02	mg/kg	2.5 mg/kg	110	80.0	120	---
Copper	7440-50-8	E472	0.2	mg/kg	2.5 mg/kg	106	80.0	120	---
Iron	7439-89-6	E472	5	mg/kg	10 mg/kg	112	80.0	120	---
Lead	7439-92-1	E472	0.05	mg/kg	5 mg/kg	104	80.0	120	---
Lithium	7439-93-2	E472	0.5	mg/kg	2.5 mg/kg	102	80.0	120	---
Magnesium	7439-95-4	E472	2	mg/kg	500 mg/kg	109	80.0	120	---
Manganese	7439-96-5	E472	0.05	mg/kg	2.5 mg/kg	112	80.0	120	---
Molybdenum	7439-98-7	E472	0.04	mg/kg	2.5 mg/kg	111	80.0	120	---
Nickel	7440-02-0	E472	0.2	mg/kg	5 mg/kg	110	80.0	120	---
Phosphorus	7723-14-0	E472	10	mg/kg	100 mg/kg	118	80.0	120	---
Potassium	7440-09-7	E472	20	mg/kg	500 mg/kg	105	80.0	120	---



Sub-Matrix: Biota

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
Metals (QCLot: 1135570) - continued									
Rubidium	7440-17-7	E472	0.05	mg/kg	1 mg/kg	110	80.0	120	---
Selenium	7782-49-2	E472	0.1	mg/kg	10 mg/kg	111	80.0	120	---
Sodium	7440-23-5	E472	20	mg/kg	500 mg/kg	99.2	80.0	120	---
Strontium	7440-24-6	E472	0.1	mg/kg	2.5 mg/kg	109	80.0	120	---
Tellurium	13494-80-9	E472	0.02	mg/kg	1 mg/kg	105	80.0	120	---
Thallium	7440-28-0	E472	0.002	mg/kg	10 mg/kg	103	80.0	120	---
Tin	7440-31-5	E472	0.1	mg/kg	5 mg/kg	109	80.0	120	---
Uranium	7440-61-1	E472	0.002	mg/kg	0.05 mg/kg	104	80.0	120	---
Vanadium	7440-62-2	E472	0.1	mg/kg	5 mg/kg	114	80.0	120	---
Zinc	7440-66-6	E472	1	mg/kg	5 mg/kg	104	80.0	120	---
Zirconium	7440-67-7	E472	0.2	mg/kg	1 mg/kg	113	80.0	120	---
Metals (QCLot: 1138697)									
Silver	7440-22-4	E472.Ag	0.005	mg/kg	1 mg/kg	87.4	80.0	120	---
Metals (QCLot: 1138698)									
Titanium	7440-32-6	E472.Ti	0.5	mg/kg	2.5 mg/kg	94.3	80.0	120	---
Metals (QCLot: 1138699)									
Mercury	7439-97-6	E511	0.005	mg/kg	0.02 mg/kg	84.6	80.0	120	---
Metals (QCLot: 1138700)									
Aluminum	7429-90-5	E472	5	mg/kg	20 mg/kg	101	80.0	120	---
Antimony	7440-36-0	E472	0.01	mg/kg	10 mg/kg	96.1	80.0	120	---
Arsenic	7440-38-2	E472	0.03	mg/kg	10 mg/kg	99.6	80.0	120	---
Barium	7440-39-3	E472	0.05	mg/kg	2.5 mg/kg	98.3	80.0	120	---
Beryllium	7440-41-7	E472	0.01	mg/kg	1 mg/kg	92.8	80.0	120	---
Bismuth	7440-69-9	E472	0.01	mg/kg	10 mg/kg	92.5	80.0	120	---
Boron	7440-42-8	E472	1	mg/kg	10 mg/kg	93.1	80.0	120	---
Cadmium	7440-43-9	E472	0.01	mg/kg	1 mg/kg	94.7	80.0	120	---
Calcium	7440-70-2	E472	20	mg/kg	500 mg/kg	91.0	80.0	120	---
Cesium	7440-46-2	E472	0.005	mg/kg	0.5 mg/kg	97.6	80.0	120	---
Chromium	7440-47-3	E472	0.2	mg/kg	2.5 mg/kg	96.8	80.0	120	---
Cobalt	7440-48-4	E472	0.02	mg/kg	2.5 mg/kg	95.2	80.0	120	---
Copper	7440-50-8	E472	0.2	mg/kg	2.5 mg/kg	91.0	80.0	120	---
Iron	7439-89-6	E472	5	mg/kg	10 mg/kg	95.3	80.0	120	---
Lead	7439-92-1	E472	0.05	mg/kg	5 mg/kg	93.1	80.0	120	---
Lithium	7439-93-2	E472	0.5	mg/kg	2.5 mg/kg	96.3	80.0	120	---
Magnesium	7439-95-4	E472	2	mg/kg	500 mg/kg	95.8	80.0	120	---
Manganese	7439-96-5	E472	0.05	mg/kg	2.5 mg/kg	97.0	80.0	120	---



Sub-Matrix: Biota

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
Metals (QCLot: 1138700) - continued									
Molybdenum	7439-98-7	E472	0.04	mg/kg	2.5 mg/kg	100	80.0	120	---
Nickel	7440-02-0	E472	0.2	mg/kg	5 mg/kg	94.8	80.0	120	---
Phosphorus	7723-14-0	E472	10	mg/kg	100 mg/kg	104	80.0	120	---
Potassium	7440-09-7	E472	20	mg/kg	500 mg/kg	97.0	80.0	120	---
Rubidium	7440-17-7	E472	0.05	mg/kg	1 mg/kg	95.3	80.0	120	---
Selenium	7782-49-2	E472	0.1	mg/kg	10 mg/kg	92.6	80.0	120	---
Sodium	7440-23-5	E472	20	mg/kg	500 mg/kg	99.6	80.0	120	---
Strontium	7440-24-6	E472	0.1	mg/kg	2.5 mg/kg	97.0	80.0	120	---
Tellurium	13494-80-9	E472	0.02	mg/kg	1 mg/kg	93.8	80.0	120	---
Thallium	7440-28-0	E472	0.002	mg/kg	10 mg/kg	89.8	80.0	120	---
Tin	7440-31-5	E472	0.1	mg/kg	5 mg/kg	98.8	80.0	120	---
Uranium	7440-61-1	E472	0.002	mg/kg	0.05 mg/kg	97.4	80.0	120	---
Vanadium	7440-62-2	E472	0.1	mg/kg	5 mg/kg	97.5	80.0	120	---
Zinc	7440-66-6	E472	1	mg/kg	5 mg/kg	95.0	80.0	120	---
Zirconium	7440-67-7	E472	0.2	mg/kg	1 mg/kg	101	80.0	120	---
Metals (QCLot: 1140405)									
Silver	7440-22-4	E475.Ag	0.005	mg/kg	2.5 mg/kg	85.8	80.0	120	---
Metals (QCLot: 1140406)									
Titanium	7440-32-6	E475.Ti	0.5	mg/kg	6.25 mg/kg	104	80.0	120	---
Metals (QCLot: 1140407)									
Mercury	7439-97-6	E512	0.01	mg/kg	0.05 mg/kg	88.7	80.0	120	---
Metals (QCLot: 1140408)									
Aluminum	7429-90-5	E475	5	mg/kg	50 mg/kg	107	80.0	120	---
Antimony	7440-36-0	E475	0.02	mg/kg	25 mg/kg	103	80.0	120	---
Arsenic	7440-38-2	E475	0.05	mg/kg	25 mg/kg	110	80.0	120	---
Barium	7440-39-3	E475	0.05	mg/kg	6.25 mg/kg	102	80.0	120	---
Beryllium	7440-41-7	E475	0.01	mg/kg	2.5 mg/kg	95.4	80.0	120	---
Bismuth	7440-69-9	E475	0.01	mg/kg	25 mg/kg	99.0	80.0	120	---
Boron	7440-42-8	E475	1	mg/kg	25 mg/kg	82.3	80.0	120	---
Cadmium	7440-43-9	E475	0.01	mg/kg	2.5 mg/kg	101	80.0	120	---
Calcium	7440-70-2	E475	20	mg/kg	1250 mg/kg	96.4	80.0	120	---
Cesium	7440-46-2	E475	0.005	mg/kg	1.25 mg/kg	101	80.0	120	---
Chromium	7440-47-3	E475	0.2	mg/kg	6.25 mg/kg	105	80.0	120	---
Cobalt	7440-48-4	E475	0.02	mg/kg	6.25 mg/kg	104	80.0	120	---
Copper	7440-50-8	E475	0.2	mg/kg	6.25 mg/kg	100	80.0	120	---
Iron	7439-89-6	E475	5	mg/kg	25 mg/kg	103	80.0	120	---



Sub-Matrix: Biota

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
Metals (QCLot: 1140408) - continued									
Lead	7439-92-1	E475	0.05	mg/kg	12.5 mg/kg	97.9	80.0	120	---
Lithium	7439-93-2	E475	0.5	mg/kg	6.25 mg/kg	95.4	80.0	120	---
Magnesium	7439-95-4	E475	2	mg/kg	1250 mg/kg	102	80.0	120	---
Manganese	7439-96-5	E475	0.05	mg/kg	6.25 mg/kg	104	80.0	120	---
Molybdenum	7439-98-7	E475	0.04	mg/kg	6.25 mg/kg	107	80.0	120	---
Nickel	7440-02-0	E475	0.2	mg/kg	12.5 mg/kg	103	80.0	120	---
Phosphorus	7723-14-0	E475	20	mg/kg	250 mg/kg	110	80.0	120	---
Potassium	7440-09-7	E475	20	mg/kg	1250 mg/kg	104	80.0	120	---
Rubidium	7440-17-7	E475	0.05	mg/kg	2.5 mg/kg	104	80.0	120	---
Selenium	7782-49-2	E475	0.1	mg/kg	25 mg/kg	104	80.0	120	---
Sodium	7440-23-5	E475	20	mg/kg	1250 mg/kg	92.7	80.0	120	---
Strontium	7440-24-6	E475	0.1	mg/kg	6.25 mg/kg	106	80.0	120	---
Tellurium	13494-80-9	E475	0.02	mg/kg	2.5 mg/kg	104	80.0	120	---
Thallium	7440-28-0	E475	0.002	mg/kg	25 mg/kg	95.2	80.0	120	---
Tin	7440-31-5	E475	0.1	mg/kg	12.5 mg/kg	104	80.0	120	---
Uranium	7440-61-1	E475	0.002	mg/kg	0.125 mg/kg	97.2	80.0	120	---
Vanadium	7440-62-2	E475	0.1	mg/kg	12.5 mg/kg	107	80.0	120	---
Zinc	7440-66-6	E475	1	mg/kg	12.5 mg/kg	100	80.0	120	---
Zirconium	7440-67-7	E475	0.2	mg/kg	2.5 mg/kg	108	80.0	120	---
Metals (QCLot: 1140409)									
Silver	7440-22-4	E475.Ag	0.005	mg/kg	2.5 mg/kg	82.9	80.0	120	---
Metals (QCLot: 1140410)									
Titanium	7440-32-6	E475.Ti	0.5	mg/kg	6.25 mg/kg	97.7	80.0	120	---
Metals (QCLot: 1140411)									
Mercury	7439-97-6	E512	0.01	mg/kg	0.05 mg/kg	96.0	80.0	120	---
Metals (QCLot: 1140412)									
Aluminum	7429-90-5	E475	5	mg/kg	50 mg/kg	100	80.0	120	---
Antimony	7440-36-0	E475	0.02	mg/kg	25 mg/kg	98.5	80.0	120	---
Arsenic	7440-38-2	E475	0.05	mg/kg	25 mg/kg	103	80.0	120	---
Barium	7440-39-3	E475	0.05	mg/kg	6.25 mg/kg	97.7	80.0	120	---
Beryllium	7440-41-7	E475	0.01	mg/kg	2.5 mg/kg	93.0	80.0	120	---
Bismuth	7440-69-9	E475	0.01	mg/kg	25 mg/kg	92.5	80.0	120	---
Boron	7440-42-8	E475	1	mg/kg	25 mg/kg	# 79.8	80.0	120	MES
Cadmium	7440-43-9	E475	0.01	mg/kg	2.5 mg/kg	95.8	80.0	120	---
Calcium	7440-70-2	E475	20	mg/kg	1250 mg/kg	94.0	80.0	120	---
Cesium	7440-46-2	E475	0.005	mg/kg	1.25 mg/kg	96.4	80.0	120	---



Sub-Matrix: Biota

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
Metals (QCLot: 1140412) - continued									
Chromium	7440-47-3	E475	0.2	mg/kg	6.25 mg/kg	100	80.0	120	----
Cobalt	7440-48-4	E475	0.02	mg/kg	6.25 mg/kg	98.3	80.0	120	----
Copper	7440-50-8	E475	0.2	mg/kg	6.25 mg/kg	95.0	80.0	120	----
Iron	7439-89-6	E475	5	mg/kg	25 mg/kg	99.5	80.0	120	----
Lead	7439-92-1	E475	0.05	mg/kg	12.5 mg/kg	92.9	80.0	120	----
Lithium	7439-93-2	E475	0.5	mg/kg	6.25 mg/kg	91.3	80.0	120	----
Magnesium	7439-95-4	E475	2	mg/kg	1250 mg/kg	96.0	80.0	120	----
Manganese	7439-96-5	E475	0.05	mg/kg	6.25 mg/kg	97.5	80.0	120	----
Molybdenum	7439-98-7	E475	0.04	mg/kg	6.25 mg/kg	103	80.0	120	----
Nickel	7440-02-0	E475	0.2	mg/kg	12.5 mg/kg	98.3	80.0	120	----
Phosphorus	7723-14-0	E475	20	mg/kg	250 mg/kg	102	80.0	120	----
Potassium	7440-09-7	E475	20	mg/kg	1250 mg/kg	95.1	80.0	120	----
Rubidium	7440-17-7	E475	0.05	mg/kg	2.5 mg/kg	98.1	80.0	120	----
Selenium	7782-49-2	E475	0.1	mg/kg	25 mg/kg	98.0	80.0	120	----
Sodium	7440-23-5	E475	20	mg/kg	1250 mg/kg	85.2	80.0	120	----
Strontium	7440-24-6	E475	0.1	mg/kg	6.25 mg/kg	102	80.0	120	----
Tellurium	13494-80-9	E475	0.02	mg/kg	2.5 mg/kg	98.7	80.0	120	----
Thallium	7440-28-0	E475	0.002	mg/kg	25 mg/kg	92.3	80.0	120	----
Tin	7440-31-5	E475	0.1	mg/kg	12.5 mg/kg	98.8	80.0	120	----
Uranium	7440-61-1	E475	0.002	mg/kg	0.125 mg/kg	91.4	80.0	120	----
Vanadium	7440-62-2	E475	0.1	mg/kg	12.5 mg/kg	102	80.0	120	----
Zinc	7440-66-6	E475	1	mg/kg	12.5 mg/kg	95.3	80.0	120	----
Zirconium	7440-67-7	E475	0.2	mg/kg	2.5 mg/kg	104	80.0	120	----
Metals (QCLot: 1140978)									
Silver	7440-22-4	E472.Ag	0.005	mg/kg	1 mg/kg	93.1	80.0	120	----
Metals (QCLot: 1140979)									
Titanium	7440-32-6	E472.Ti	0.5	mg/kg	2.5 mg/kg	112	80.0	120	----
Metals (QCLot: 1140980)									
Mercury	7439-97-6	E511	0.005	mg/kg	0.02 mg/kg	90.6	80.0	120	----
Metals (QCLot: 1140981)									
Aluminum	7429-90-5	E472	5	mg/kg	20 mg/kg	111	80.0	120	----
Antimony	7440-36-0	E472	0.01	mg/kg	10 mg/kg	108	80.0	120	----
Arsenic	7440-38-2	E472	0.03	mg/kg	10 mg/kg	114	80.0	120	----
Barium	7440-39-3	E472	0.05	mg/kg	2.5 mg/kg	114	80.0	120	----
Beryllium	7440-41-7	E472	0.01	mg/kg	1 mg/kg	101	80.0	120	----
Bismuth	7440-69-9	E472	0.01	mg/kg	10 mg/kg	97.6	80.0	120	----



Sub-Matrix: Biota

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
Metals (QCLot: 1140981) - continued									
Boron	7440-42-8	E472	1	mg/kg	10 mg/kg	95.0	80.0	120	----
Cadmium	7440-43-9	E472	0.01	mg/kg	1 mg/kg	106	80.0	120	----
Calcium	7440-70-2	E472	20	mg/kg	500 mg/kg	99.7	80.0	120	----
Cesium	7440-46-2	E472	0.005	mg/kg	0.5 mg/kg	109	80.0	120	----
Chromium	7440-47-3	E472	0.2	mg/kg	2.5 mg/kg	112	80.0	120	----
Cobalt	7440-48-4	E472	0.02	mg/kg	2.5 mg/kg	109	80.0	120	----
Copper	7440-50-8	E472	0.2	mg/kg	2.5 mg/kg	106	80.0	120	----
Iron	7439-89-6	E472	5	mg/kg	10 mg/kg	105	80.0	120	----
Lead	7439-92-1	E472	0.05	mg/kg	5 mg/kg	99.0	80.0	120	----
Lithium	7439-93-2	E472	0.5	mg/kg	2.5 mg/kg	103	80.0	120	----
Magnesium	7439-95-4	E472	2	mg/kg	500 mg/kg	110	80.0	120	----
Manganese	7439-96-5	E472	0.05	mg/kg	2.5 mg/kg	111	80.0	120	----
Molybdenum	7439-98-7	E472	0.04	mg/kg	2.5 mg/kg	112	80.0	120	----
Nickel	7440-02-0	E472	0.2	mg/kg	5 mg/kg	107	80.0	120	----
Phosphorus	7723-14-0	E472	10	mg/kg	100 mg/kg	116	80.0	120	----
Potassium	7440-09-7	E472	20	mg/kg	500 mg/kg	112	80.0	120	----
Rubidium	7440-17-7	E472	0.05	mg/kg	1 mg/kg	110	80.0	120	----
Selenium	7782-49-2	E472	0.1	mg/kg	10 mg/kg	105	80.0	120	----
Sodium	7440-23-5	E472	20	mg/kg	500 mg/kg	110	80.0	120	----
Strontium	7440-24-6	E472	0.1	mg/kg	2.5 mg/kg	108	80.0	120	----
Tellurium	13494-80-9	E472	0.02	mg/kg	1 mg/kg	105	80.0	120	----
Thallium	7440-28-0	E472	0.002	mg/kg	10 mg/kg	95.6	80.0	120	----
Tin	7440-31-5	E472	0.1	mg/kg	5 mg/kg	109	80.0	120	----
Uranium	7440-61-1	E472	0.002	mg/kg	0.05 mg/kg	104	80.0	120	----
Vanadium	7440-62-2	E472	0.1	mg/kg	5 mg/kg	113	80.0	120	----
Zinc	7440-66-6	E472	1	mg/kg	5 mg/kg	102	80.0	120	----
Zirconium	7440-67-7	E472	0.2	mg/kg	1 mg/kg	112	80.0	120	----
Metals (QCLot: 1140997)									
Silver	7440-22-4	E472.Ag	0.005	mg/kg	1 mg/kg	101	80.0	120	----
Metals (QCLot: 1140998)									
Titanium	7440-32-6	E472.Ti	0.5	mg/kg	2.5 mg/kg	120	80.0	120	----
Metals (QCLot: 1140999)									
Mercury	7439-97-6	E511	0.005	mg/kg	0.02 mg/kg	107	80.0	120	----
Metals (QCLot: 1141000)									
Aluminum	7429-90-5	E472	5	mg/kg	20 mg/kg	118	80.0	120	----
Antimony	7440-36-0	E472	0.01	mg/kg	10 mg/kg	116	80.0	120	----



Sub-Matrix: Biota

Laboratory Control Sample (LCS) Report

Analyte	CAS Number	Method	LOR	Unit	Spike	Recovery (%)	Recovery Limits (%)		Qualifier
					Concentration	LCS	Low	High	
Metals (QCLot: 1141000) - continued									
Arsenic	7440-38-2	E472	0.03	mg/kg	10 mg/kg	118	80.0	120	----
Barium	7440-39-3	E472	0.05	mg/kg	2.5 mg/kg	120	80.0	120	----
Beryllium	7440-41-7	E472	0.01	mg/kg	1 mg/kg	116	80.0	120	----
Bismuth	7440-69-9	E472	0.01	mg/kg	10 mg/kg	108	80.0	120	----
Boron	7440-42-8	E472	1	mg/kg	10 mg/kg	116	80.0	120	----
Cadmium	7440-43-9	E472	0.01	mg/kg	1 mg/kg	114	80.0	120	----
Calcium	7440-70-2	E472	20	mg/kg	500 mg/kg	113	80.0	120	----
Cesium	7440-46-2	E472	0.005	mg/kg	0.5 mg/kg	120	80.0	120	----
Chromium	7440-47-3	E472	0.2	mg/kg	2.5 mg/kg	118	80.0	120	----
Cobalt	7440-48-4	E472	0.02	mg/kg	2.5 mg/kg	117	80.0	120	----
Copper	7440-50-8	E472	0.2	mg/kg	2.5 mg/kg	114	80.0	120	----
Iron	7439-89-6	E472	5	mg/kg	10 mg/kg	114	80.0	120	----
Lead	7439-92-1	E472	0.05	mg/kg	5 mg/kg	110	80.0	120	----
Lithium	7439-93-2	E472	0.5	mg/kg	2.5 mg/kg	118	80.0	120	----
Magnesium	7439-95-4	E472	2	mg/kg	500 mg/kg	116	80.0	120	----
Manganese	7439-96-5	E472	0.05	mg/kg	2.5 mg/kg	120	80.0	120	----
Molybdenum	7439-98-7	E472	0.04	mg/kg	2.5 mg/kg	# 122	80.0	120	MES
Nickel	7440-02-0	E472	0.2	mg/kg	5 mg/kg	115	80.0	120	----
Phosphorus	7723-14-0	E472	10	mg/kg	100 mg/kg	# 124	80.0	120	MES
Potassium	7440-09-7	E472	20	mg/kg	500 mg/kg	119	80.0	120	----
Rubidium	7440-17-7	E472	0.05	mg/kg	1 mg/kg	119	80.0	120	----
Selenium	7782-49-2	E472	0.1	mg/kg	10 mg/kg	112	80.0	120	----
Sodium	7440-23-5	E472	20	mg/kg	500 mg/kg	120	80.0	120	----
Strontium	7440-24-6	E472	0.1	mg/kg	2.5 mg/kg	119	80.0	120	----
Tellurium	13494-80-9	E472	0.02	mg/kg	1 mg/kg	111	80.0	120	----
Thallium	7440-28-0	E472	0.002	mg/kg	10 mg/kg	105	80.0	120	----
Tin	7440-31-5	E472	0.1	mg/kg	5 mg/kg	117	80.0	120	----
Uranium	7440-61-1	E472	0.002	mg/kg	0.05 mg/kg	116	80.0	120	----
Vanadium	7440-62-2	E472	0.1	mg/kg	5 mg/kg	119	80.0	120	----
Zinc	7440-66-6	E472	1	mg/kg	5 mg/kg	110	80.0	120	----
Zirconium	7440-67-7	E472	0.2	mg/kg	1 mg/kg	119	80.0	120	----
Metals (QCLot: 1151073)									
Silver	7440-22-4	E472.Ag	0.005	mg/kg	1 mg/kg	92.6	80.0	120	----
Metals (QCLot: 1151074)									
Titanium	7440-32-6	E472.Ti	0.5	mg/kg	2.5 mg/kg	104	80.0	120	----
Metals (QCLot: 1151075)									



Sub-Matrix: Biota

Laboratory Control Sample (LCS) Report

Analyte	CAS Number	Method	LOR	Unit	Spike	Recovery (%)	Recovery Limits (%)		Qualifier
					Concentration	LCS	Low	High	
Metals (QCLot: 1151075) - continued									
Mercury	7439-97-6	E511	0.005	mg/kg	0.02 mg/kg	101	80.0	120	---
Metals (QCLot: 1151076)									
Aluminum	7429-90-5	E472	5	mg/kg	20 mg/kg	107	80.0	120	---
Antimony	7440-36-0	E472	0.01	mg/kg	10 mg/kg	101	80.0	120	---
Arsenic	7440-38-2	E472	0.03	mg/kg	10 mg/kg	108	80.0	120	---
Barium	7440-39-3	E472	0.05	mg/kg	2.5 mg/kg	109	80.0	120	---
Beryllium	7440-41-7	E472	0.01	mg/kg	1 mg/kg	99.4	80.0	120	---
Bismuth	7440-69-9	E472	0.01	mg/kg	10 mg/kg	100	80.0	120	---
Boron	7440-42-8	E472	1	mg/kg	10 mg/kg	86.4	80.0	120	---
Cadmium	7440-43-9	E472	0.01	mg/kg	1 mg/kg	99.8	80.0	120	---
Calcium	7440-70-2	E472	20	mg/kg	500 mg/kg	99.0	80.0	120	---
Cesium	7440-46-2	E472	0.005	mg/kg	0.5 mg/kg	103	80.0	120	---
Chromium	7440-47-3	E472	0.2	mg/kg	2.5 mg/kg	108	80.0	120	---
Cobalt	7440-48-4	E472	0.02	mg/kg	2.5 mg/kg	104	80.0	120	---
Copper	7440-50-8	E472	0.2	mg/kg	2.5 mg/kg	100	80.0	120	---
Iron	7439-89-6	E472	5	mg/kg	10 mg/kg	105	80.0	120	---
Lead	7439-92-1	E472	0.05	mg/kg	5 mg/kg	99.2	80.0	120	---
Lithium	7439-93-2	E472	0.5	mg/kg	2.5 mg/kg	102	80.0	120	---
Magnesium	7439-95-4	E472	2	mg/kg	500 mg/kg	102	80.0	120	---
Manganese	7439-96-5	E472	0.05	mg/kg	2.5 mg/kg	105	80.0	120	---
Molybdenum	7439-98-7	E472	0.04	mg/kg	2.5 mg/kg	103	80.0	120	---
Nickel	7440-02-0	E472	0.2	mg/kg	5 mg/kg	109	80.0	120	---
Phosphorus	7723-14-0	E472	10	mg/kg	100 mg/kg	112	80.0	120	---
Potassium	7440-09-7	E472	20	mg/kg	500 mg/kg	105	80.0	120	---
Rubidium	7440-17-7	E472	0.05	mg/kg	1 mg/kg	104	80.0	120	---
Selenium	7782-49-2	E472	0.1	mg/kg	10 mg/kg	102	80.0	120	---
Sodium	7440-23-5	E472	20	mg/kg	500 mg/kg	107	80.0	120	---
Strontium	7440-24-6	E472	0.1	mg/kg	2.5 mg/kg	103	80.0	120	---
Tellurium	13494-80-9	E472	0.02	mg/kg	1 mg/kg	102	80.0	120	---
Thallium	7440-28-0	E472	0.002	mg/kg	10 mg/kg	99.3	80.0	120	---
Tin	7440-31-5	E472	0.1	mg/kg	5 mg/kg	98.8	80.0	120	---
Uranium	7440-61-1	E472	0.002	mg/kg	0.05 mg/kg	104	80.0	120	---
Vanadium	7440-62-2	E472	0.1	mg/kg	5 mg/kg	108	80.0	120	---
Zinc	7440-66-6	E472	1	mg/kg	5 mg/kg	99.6	80.0	120	---
Zirconium	7440-67-7	E472	0.2	mg/kg	1 mg/kg	102	80.0	120	---

Metals (QCLot: 1151081)



Sub-Matrix: Biota

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
Metals (QCLot: 1151081) - continued									
Silver	7440-22-4	E472.Ag	0.005	mg/kg	1 mg/kg	93.5	80.0	120	---
Metals (QCLot: 1151082)									
Titanium	7440-32-6	E472.Ti	0.5	mg/kg	2.5 mg/kg	106	80.0	120	---
Metals (QCLot: 1151083)									
Mercury	7439-97-6	E511	0.005	mg/kg	0.02 mg/kg	101	80.0	120	---
Metals (QCLot: 1151084)									
Aluminum	7429-90-5	E472	5	mg/kg	20 mg/kg	108	80.0	120	---
Antimony	7440-36-0	E472	0.01	mg/kg	10 mg/kg	102	80.0	120	---
Arsenic	7440-38-2	E472	0.03	mg/kg	10 mg/kg	107	80.0	120	---
Barium	7440-39-3	E472	0.05	mg/kg	2.5 mg/kg	110	80.0	120	---
Beryllium	7440-41-7	E472	0.01	mg/kg	1 mg/kg	103	80.0	120	---
Bismuth	7440-69-9	E472	0.01	mg/kg	10 mg/kg	102	80.0	120	---
Boron	7440-42-8	E472	1	mg/kg	10 mg/kg	90.8	80.0	120	---
Cadmium	7440-43-9	E472	0.01	mg/kg	1 mg/kg	102	80.0	120	---
Calcium	7440-70-2	E472	20	mg/kg	500 mg/kg	99.2	80.0	120	---
Cesium	7440-46-2	E472	0.005	mg/kg	0.5 mg/kg	107	80.0	120	---
Chromium	7440-47-3	E472	0.2	mg/kg	2.5 mg/kg	106	80.0	120	---
Cobalt	7440-48-4	E472	0.02	mg/kg	2.5 mg/kg	102	80.0	120	---
Copper	7440-50-8	E472	0.2	mg/kg	2.5 mg/kg	98.0	80.0	120	---
Iron	7439-89-6	E472	5	mg/kg	10 mg/kg	106	80.0	120	---
Lead	7439-92-1	E472	0.05	mg/kg	5 mg/kg	103	80.0	120	---
Lithium	7439-93-2	E472	0.5	mg/kg	2.5 mg/kg	104	80.0	120	---
Magnesium	7439-95-4	E472	2	mg/kg	500 mg/kg	98.9	80.0	120	---
Manganese	7439-96-5	E472	0.05	mg/kg	2.5 mg/kg	105	80.0	120	---
Molybdenum	7439-98-7	E472	0.04	mg/kg	2.5 mg/kg	112	80.0	120	---
Nickel	7440-02-0	E472	0.2	mg/kg	5 mg/kg	107	80.0	120	---
Phosphorus	7723-14-0	E472	10	mg/kg	100 mg/kg	110	80.0	120	---
Potassium	7440-09-7	E472	20	mg/kg	500 mg/kg	103	80.0	120	---
Rubidium	7440-17-7	E472	0.05	mg/kg	1 mg/kg	105	80.0	120	---
Selenium	7782-49-2	E472	0.1	mg/kg	10 mg/kg	98.6	80.0	120	---
Sodium	7440-23-5	E472	20	mg/kg	500 mg/kg	108	80.0	120	---
Strontium	7440-24-6	E472	0.1	mg/kg	2.5 mg/kg	105	80.0	120	---
Tellurium	13494-80-9	E472	0.02	mg/kg	1 mg/kg	104	80.0	120	---
Thallium	7440-28-0	E472	0.002	mg/kg	10 mg/kg	102	80.0	120	---
Tin	7440-31-5	E472	0.1	mg/kg	5 mg/kg	103	80.0	120	---
Uranium	7440-61-1	E472	0.002	mg/kg	0.05 mg/kg	110	80.0	120	---



Sub-Matrix: Biota

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
Metals (QCLot: 1151084) - continued									
Vanadium	7440-62-2	E472	0.1	mg/kg	5 mg/kg	107	80.0	120	---
Zinc	7440-66-6	E472	1	mg/kg	5 mg/kg	97.4	80.0	120	---
Zirconium	7440-67-7	E472	0.2	mg/kg	1 mg/kg	106	80.0	120	---
Metals (QCLot: 1232337)									
Mercury	7439-97-6	E511A	0.001	mg/kg wwt	0.02 mg/kg wwt	100	80.0	120	---
Metals (QCLot: 1232429)									
Mercury	7439-97-6	E511A	0.001	mg/kg wwt	0.02 mg/kg wwt	93.2	80.0	120	---
Metals (QCLot: 1232439)									
Mercury	7439-97-6	E511A	0.001	mg/kg wwt	0.02 mg/kg wwt	98.6	80.0	120	---
Metals (QCLot: 1232445)									
Mercury	7439-97-6	E511A	0.001	mg/kg wwt	0.02 mg/kg wwt	84.6	80.0	120	---
Metals (QCLot: 1232447)									
Mercury	7439-97-6	E511A	0.001	mg/kg wwt	0.02 mg/kg wwt	90.6	80.0	120	---
Metals (QCLot: 1232449)									
Mercury	7439-97-6	E511A	0.001	mg/kg wwt	0.02 mg/kg wwt	97.3	80.0	120	---
Metals (QCLot: 1232451)									
Mercury	7439-97-6	E511A	0.001	mg/kg wwt	0.02 mg/kg wwt	107	80.0	120	---
Metals (QCLot: 1232454)									
Mercury	7439-97-6	E511A	0.001	mg/kg wwt	0.02 mg/kg wwt	101	80.0	120	---
Metals (QCLot: 1232464)									
Mercury	7439-97-6	E511A	0.001	mg/kg wwt	0.02 mg/kg wwt	101	80.0	120	---
Metals (QCLot: 1232701)									
Mercury	7439-97-6	E512A	0.002	mg/kg wwt	0.05 mg/kg wwt	86.2	80.0	120	---
Metals (QCLot: 1232705)									
Mercury	7439-97-6	E512A	0.002	mg/kg wwt	0.05 mg/kg wwt	96.0	80.0	120	---
Metals (QCLot: 1232709)									
Mercury	7439-97-6	E512A	0.002	mg/kg wwt	0.05 mg/kg wwt	88.7	80.0	120	---

Qualifiers

Qualifier	Description
MES	Data Quality Objective was marginally exceeded (by < 10% absolute) for < 10% of analytes in a Multi-Element Scan / Multi-Parameter Scan (considered acceptable as per OMOE & CCME).



Reference Material (RM) Report

A Reference Material (RM) is a homogenous material with known and well-established analyte concentrations. RMs are processed in an identical manner to test samples, and are used to monitor and control the accuracy and precision of a test method for a typical sample matrix. RM results are expressed as percent recovery of the target analyte concentration. RM targets may be certified target concentrations provided by the RM supplier, or may be ALS long-term mean values (for empirical test methods).

Sub-Matrix:

Laboratory sample ID	Reference Material ID	Analyte	CAS Number	Method	Reference Material (RM) Report				
					RM Target Concentration	Recovery (%) RM	Recovery Limits (%)		Qualifier
							Low	High	
Metals (QCLot: 1127969)									
	RM	Silver	7440-22-4	E472.Ag	0.139 mg/kg	91.4	70.0	130	---
Metals (QCLot: 1127970)									
	RM	Titanium	7440-32-6	E472.Ti	1.15 mg/kg	74.9	70.0	130	---
Metals (QCLot: 1127971)									
	RM	Mercury	7439-97-6	E511	0.281 mg/kg	99.7	70.0	130	---
Metals (QCLot: 1127972)									
	RM	Aluminum	7429-90-5	E472	147 mg/kg	82.5	70.0	130	---
	RM	Arsenic	7440-38-2	E472	14.5 mg/kg	92.0	70.0	130	---
	RM	Barium	7440-39-3	E472	0.352 mg/kg	84.7	70.0	130	---
	RM	Boron	7440-42-8	E472	3.47 mg/kg	90.8	70.0	130	---
	RM	Cadmium	7440-43-9	E472	0.153 mg/kg	91.4	70.0	130	---
	RM	Calcium	7440-70-2	E472	2010 mg/kg	89.5	70.0	130	---
	RM	Cesium	7440-46-2	E472	0.0889 mg/kg	92.5	70.0	130	---
	RM	Chromium	7440-47-3	E472	0.453 mg/kg	88.0	50.0	150	---
	RM	Cobalt	7440-48-4	E472	0.0567 mg/kg	89.2	65.0	135	---
	RM	Copper	7440-50-8	E472	3.3 mg/kg	88.6	70.0	130	---
	RM	Iron	7439-89-6	E472	102 mg/kg	89.8	70.0	130	---
	RM	Lead	7439-92-1	E472	0.058 mg/kg	90.1	15.0	185	---
	RM	Magnesium	7439-95-4	E472	899 mg/kg	89.7	70.0	130	---
	RM	Manganese	7439-96-5	E472	0.948 mg/kg	89.0	70.0	130	---
	RM	Molybdenum	7439-98-7	E472	0.134 mg/kg	91.2	70.0	130	---
	RM	Nickel	7440-02-0	E472	0.33 mg/kg	87.0	40.0	160	---
	RM	Phosphorus	7723-14-0	E472	6700 mg/kg	95.2	70.0	130	---
	RM	Potassium	7440-09-7	E472	11600 mg/kg	93.8	70.0	130	---
	RM	Rubidium	7440-17-7	E472	2.53 mg/kg	90.4	70.0	130	---
	RM	Selenium	7782-49-2	E472	2.48 mg/kg	97.6	70.0	130	---
	RM	Sodium	7440-23-5	E472	9620 mg/kg	94.3	70.0	130	---



Sub-Matrix:

Laboratory sample ID	Reference Material ID	Analyte	CAS Number	Method	Reference Material (RM) Report				
					RM Target Concentration	Recovery (%) RM	Recovery Limits (%)		Qualifier
							Low	High	
Metals (QCLot: 1127972) - continued									
	RM	Strontium	7440-24-6	E472	10.6 mg/kg	89.2	70.0	130	----
	RM	Vanadium	7440-62-2	E472	0.269 mg/kg	86.1	70.0	130	----
	RM	Zinc	7440-66-6	E472	28.7 mg/kg	92.6	70.0	130	----
Metals (QCLot: 1131144)									
	RM	Silver	7440-22-4	E475.Ag	0.139 mg/kg	86.2	70.0	130	----
Metals (QCLot: 1131145)									
	RM	Titanium	7440-32-6	E475.Ti	1.15 mg/kg	72.9	70.0	130	----
Metals (QCLot: 1131146)									
	RM	Mercury	7439-97-6	E512	0.281 mg/kg	84.4	70.0	130	----
Metals (QCLot: 1131147)									
	RM	Aluminum	7429-90-5	E475	147 mg/kg	80.4	70.0	130	----
	RM	Arsenic	7440-38-2	E475	14.5 mg/kg	88.0	70.0	130	----
	RM	Barium	7440-39-3	E475	0.352 mg/kg	90.9	70.0	130	----
	RM	Boron	7440-42-8	E475	3.47 mg/kg	85.0	70.0	130	----
	RM	Cadmium	7440-43-9	E475	0.153 mg/kg	89.1	70.0	130	----
	RM	Calcium	7440-70-2	E475	2010 mg/kg	92.6	70.0	130	----
	RM	Cesium	7440-46-2	E475	0.0889 mg/kg	87.5	70.0	130	----
	RM	Chromium	7440-47-3	E475	0.453 mg/kg	82.6	50.0	150	----
	RM	Cobalt	7440-48-4	E475	0.0567 mg/kg	88.4	65.0	135	----
	RM	Copper	7440-50-8	E475	3.3 mg/kg	85.4	70.0	130	----
	RM	Iron	7439-89-6	E475	102 mg/kg	84.4	70.0	130	----
	RM	Lead	7439-92-1	E475	0.058 mg/kg	88.2	15.0	185	----
	RM	Magnesium	7439-95-4	E475	899 mg/kg	83.7	70.0	130	----
	RM	Manganese	7439-96-5	E475	0.948 mg/kg	84.3	70.0	130	----
	RM	Molybdenum	7439-98-7	E475	0.134 mg/kg	84.8	70.0	130	----
	RM	Nickel	7440-02-0	E475	0.33 mg/kg	81.4	40.0	160	----
	RM	Phosphorus	7723-14-0	E475	6700 mg/kg	88.9	70.0	130	----
	RM	Potassium	7440-09-7	E475	11600 mg/kg	89.2	70.0	130	----
	RM	Rubidium	7440-17-7	E475	2.53 mg/kg	87.6	70.0	130	----
	RM	Selenium	7782-49-2	E475	2.48 mg/kg	89.4	70.0	130	----
	RM	Sodium	7440-23-5	E475	9620 mg/kg	87.5	70.0	130	----



Sub-Matrix:

Laboratory sample ID	Reference Material ID	Analyte	CAS Number	Method	Reference Material (RM) Report				
					RM Target Concentration	Recovery (%) RM	Recovery Limits (%)		Qualifier
							Low	High	
Metals (QCLot: 1131147) - continued									
	RM	Strontium	7440-24-6	E475	10.6 mg/kg	85.1	70.0	130	----
	RM	Vanadium	7440-62-2	E475	0.269 mg/kg	84.6	70.0	130	----
	RM	Zinc	7440-66-6	E475	28.7 mg/kg	88.2	70.0	130	----
Metals (QCLot: 1131928)									
	RM	Silver	7440-22-4	E472.Ag	0.139 mg/kg	89.0	70.0	130	----
Metals (QCLot: 1131929)									
	RM	Titanium	7440-32-6	E472.Ti	1.15 mg/kg	71.3	70.0	130	----
Metals (QCLot: 1131930)									
	RM	Mercury	7439-97-6	E511	0.281 mg/kg	92.6	70.0	130	----
Metals (QCLot: 1131931)									
	RM	Aluminum	7429-90-5	E472	147 mg/kg	83.6	70.0	130	----
	RM	Arsenic	7440-38-2	E472	14.5 mg/kg	89.8	70.0	130	----
	RM	Barium	7440-39-3	E472	0.352 mg/kg	90.9	70.0	130	----
	RM	Boron	7440-42-8	E472	3.47 mg/kg	87.1	70.0	130	----
	RM	Cadmium	7440-43-9	E472	0.153 mg/kg	92.8	70.0	130	----
	RM	Calcium	7440-70-2	E472	2010 mg/kg	89.1	70.0	130	----
	RM	Cesium	7440-46-2	E472	0.0889 mg/kg	88.6	70.0	130	----
	RM	Chromium	7440-47-3	E472	0.453 mg/kg	86.0	50.0	150	----
	RM	Cobalt	7440-48-4	E472	0.0567 mg/kg	90.8	65.0	135	----
	RM	Copper	7440-50-8	E472	3.3 mg/kg	88.5	70.0	130	----
	RM	Iron	7439-89-6	E472	102 mg/kg	87.1	70.0	130	----
	RM	Lead	7439-92-1	E472	0.058 mg/kg	88.1	15.0	185	----
	RM	Magnesium	7439-95-4	E472	899 mg/kg	84.6	70.0	130	----
	RM	Manganese	7439-96-5	E472	0.948 mg/kg	86.4	70.0	130	----
	RM	Molybdenum	7439-98-7	E472	0.134 mg/kg	84.8	70.0	130	----
	RM	Nickel	7440-02-0	E472	0.33 mg/kg	85.0	40.0	160	----
	RM	Phosphorus	7723-14-0	E472	6700 mg/kg	90.4	70.0	130	----
	RM	Potassium	7440-09-7	E472	11600 mg/kg	91.8	70.0	130	----
	RM	Rubidium	7440-17-7	E472	2.53 mg/kg	87.7	70.0	130	----
	RM	Selenium	7782-49-2	E472	2.48 mg/kg	90.6	70.0	130	----
	RM	Sodium	7440-23-5	E472	9620 mg/kg	90.9	70.0	130	----



Sub-Matrix:

Laboratory sample ID	Reference Material ID	Analyte	CAS Number	Method	Reference Material (RM) Report				
					RM Target Concentration	Recovery (%) RM	Recovery Limits (%)		Qualifier
							Low	High	
Metals (QCLot: 1131931) - continued									
	RM	Strontium	7440-24-6	E472	10.6 mg/kg	89.8	70.0	130	----
	RM	Vanadium	7440-62-2	E472	0.269 mg/kg	84.6	70.0	130	----
	RM	Zinc	7440-66-6	E472	28.7 mg/kg	90.8	70.0	130	----
Metals (QCLot: 1135563)									
	RM	Silver	7440-22-4	E472.Ag	0.139 mg/kg	90.1	70.0	130	----
Metals (QCLot: 1135564)									
	RM	Titanium	7440-32-6	E472.Ti	1.15 mg/kg	81.7	70.0	130	----
Metals (QCLot: 1135565)									
	RM	Mercury	7439-97-6	E511	0.281 mg/kg	97.6	70.0	130	----
Metals (QCLot: 1135566)									
	RM	Aluminum	7429-90-5	E472	147 mg/kg	97.0	70.0	130	----
	RM	Arsenic	7440-38-2	E472	14.5 mg/kg	96.6	70.0	130	----
	RM	Barium	7440-39-3	E472	0.352 mg/kg	86.2	70.0	130	----
	RM	Boron	7440-42-8	E472	3.47 mg/kg	99.7	70.0	130	----
	RM	Cadmium	7440-43-9	E472	0.153 mg/kg	99.3	70.0	130	----
	RM	Calcium	7440-70-2	E472	2010 mg/kg	93.3	70.0	130	----
	RM	Cesium	7440-46-2	E472	0.0889 mg/kg	92.6	70.0	130	----
	RM	Chromium	7440-47-3	E472	0.453 mg/kg	90.1	50.0	150	----
	RM	Cobalt	7440-48-4	E472	0.0567 mg/kg	92.0	65.0	135	----
	RM	Copper	7440-50-8	E472	3.3 mg/kg	95.1	70.0	130	----
	RM	Iron	7439-89-6	E472	102 mg/kg	94.5	70.0	130	----
	RM	Lead	7439-92-1	E472	0.058 mg/kg	87.1	15.0	185	----
	RM	Magnesium	7439-95-4	E472	899 mg/kg	94.4	70.0	130	----
	RM	Manganese	7439-96-5	E472	0.948 mg/kg	96.4	70.0	130	----
	RM	Molybdenum	7439-98-7	E472	0.134 mg/kg	94.0	70.0	130	----
	RM	Nickel	7440-02-0	E472	0.33 mg/kg	91.2	40.0	160	----
	RM	Phosphorus	7723-14-0	E472	6700 mg/kg	95.3	70.0	130	----
	RM	Potassium	7440-09-7	E472	11600 mg/kg	95.2	70.0	130	----
	RM	Rubidium	7440-17-7	E472	2.53 mg/kg	96.0	70.0	130	----
	RM	Selenium	7782-49-2	E472	2.48 mg/kg	103	70.0	130	----
	RM	Sodium	7440-23-5	E472	9620 mg/kg	86.9	70.0	130	----



Sub-Matrix:

Laboratory sample ID	Reference Material ID	Analyte	CAS Number	Method	Reference Material (RM) Report				
					RM Target Concentration	Recovery (%) RM	Recovery Limits (%)		Qualifier
							Low	High	
Metals (QCLot: 1135566) - continued									
	RM	Strontium	7440-24-6	E472	10.6 mg/kg	93.5	70.0	130	----
	RM	Vanadium	7440-62-2	E472	0.269 mg/kg	97.6	70.0	130	----
	RM	Zinc	7440-66-6	E472	28.7 mg/kg	96.9	70.0	130	----
Metals (QCLot: 1135567)									
	RM	Silver	7440-22-4	E472.Ag	0.139 mg/kg	108	70.0	130	----
Metals (QCLot: 1135568)									
	RM	Titanium	7440-32-6	E472.Ti	1.15 mg/kg	103	70.0	130	----
Metals (QCLot: 1135569)									
	RM	Mercury	7439-97-6	E511	0.281 mg/kg	107	70.0	130	----
Metals (QCLot: 1135570)									
	RM	Aluminum	7429-90-5	E472	147 mg/kg	109	70.0	130	----
	RM	Arsenic	7440-38-2	E472	14.5 mg/kg	112	70.0	130	----
	RM	Barium	7440-39-3	E472	0.352 mg/kg	104	70.0	130	----
	RM	Boron	7440-42-8	E472	3.47 mg/kg	118	70.0	130	----
	RM	Cadmium	7440-43-9	E472	0.153 mg/kg	114	70.0	130	----
	RM	Calcium	7440-70-2	E472	2010 mg/kg	113	70.0	130	----
	RM	Cesium	7440-46-2	E472	0.0889 mg/kg	107	70.0	130	----
	RM	Chromium	7440-47-3	E472	0.453 mg/kg	107	50.0	150	----
	RM	Cobalt	7440-48-4	E472	0.0567 mg/kg	115	65.0	135	----
	RM	Copper	7440-50-8	E472	3.3 mg/kg	109	70.0	130	----
	RM	Iron	7439-89-6	E472	102 mg/kg	109	70.0	130	----
	RM	Lead	7439-92-1	E472	0.058 mg/kg	102	15.0	185	----
	RM	Magnesium	7439-95-4	E472	899 mg/kg	112	70.0	130	----
	RM	Manganese	7439-96-5	E472	0.948 mg/kg	111	70.0	130	----
	RM	Molybdenum	7439-98-7	E472	0.134 mg/kg	120	70.0	130	----
	RM	Nickel	7440-02-0	E472	0.33 mg/kg	110	40.0	160	----
	RM	Phosphorus	7723-14-0	E472	6700 mg/kg	121	70.0	130	----
	RM	Potassium	7440-09-7	E472	11600 mg/kg	117	70.0	130	----
	RM	Rubidium	7440-17-7	E472	2.53 mg/kg	112	70.0	130	----
	RM	Selenium	7782-49-2	E472	2.48 mg/kg	113	70.0	130	----
	RM	Sodium	7440-23-5	E472	9620 mg/kg	118	70.0	130	----



Sub-Matrix:

Laboratory sample ID	Reference Material ID	Analyte	CAS Number	Method	Reference Material (RM) Report				
					RM Target Concentration	Recovery (%) RM	Recovery Limits (%)		Qualifier
							Low	High	
Metals (QCLot: 1135570) - continued									
	RM	Strontium	7440-24-6	E472	10.6 mg/kg	107	70.0	130	----
	RM	Vanadium	7440-62-2	E472	0.269 mg/kg	108	70.0	130	----
	RM	Zinc	7440-66-6	E472	28.7 mg/kg	118	70.0	130	----
Metals (QCLot: 1138697)									
	RM	Silver	7440-22-4	E472.Ag	0.139 mg/kg	99.7	70.0	130	----
Metals (QCLot: 1138698)									
	RM	Titanium	7440-32-6	E472.Ti	1.15 mg/kg	93.3	70.0	130	----
Metals (QCLot: 1138699)									
	RM	Mercury	7439-97-6	E511	0.281 mg/kg	100	70.0	130	----
Metals (QCLot: 1138700)									
	RM	Aluminum	7429-90-5	E472	147 mg/kg	101	70.0	130	----
	RM	Arsenic	7440-38-2	E472	14.5 mg/kg	105	70.0	130	----
	RM	Barium	7440-39-3	E472	0.352 mg/kg	97.6	70.0	130	----
	RM	Boron	7440-42-8	E472	3.47 mg/kg	112	70.0	130	----
	RM	Cadmium	7440-43-9	E472	0.153 mg/kg	106	70.0	130	----
	RM	Calcium	7440-70-2	E472	2010 mg/kg	99.7	70.0	130	----
	RM	Cesium	7440-46-2	E472	0.0889 mg/kg	101	70.0	130	----
	RM	Chromium	7440-47-3	E472	0.453 mg/kg	101	50.0	150	----
	RM	Cobalt	7440-48-4	E472	0.0567 mg/kg	106	65.0	135	----
	RM	Copper	7440-50-8	E472	3.3 mg/kg	99.0	70.0	130	----
	RM	Iron	7439-89-6	E472	102 mg/kg	101	70.0	130	----
	RM	Lead	7439-92-1	E472	0.058 mg/kg	95.9	15.0	185	----
	RM	Magnesium	7439-95-4	E472	899 mg/kg	103	70.0	130	----
	RM	Manganese	7439-96-5	E472	0.948 mg/kg	103	70.0	130	----
	RM	Molybdenum	7439-98-7	E472	0.134 mg/kg	97.8	70.0	130	----
	RM	Nickel	7440-02-0	E472	0.33 mg/kg	99.1	40.0	160	----
	RM	Phosphorus	7723-14-0	E472	6700 mg/kg	109	70.0	130	----
	RM	Potassium	7440-09-7	E472	11600 mg/kg	108	70.0	130	----
	RM	Rubidium	7440-17-7	E472	2.53 mg/kg	101	70.0	130	----
	RM	Selenium	7782-49-2	E472	2.48 mg/kg	107	70.0	130	----
	RM	Sodium	7440-23-5	E472	9620 mg/kg	109	70.0	130	----



Sub-Matrix:

Laboratory sample ID	Reference Material ID	Analyte	CAS Number	Method	Reference Material (RM) Report				
					RM Target Concentration	Recovery (%) RM	Recovery Limits (%)		Qualifier
							Low	High	
Metals (QCLot: 1138700) - continued									
	RM	Strontium	7440-24-6	E472	10.6 mg/kg	98.8	70.0	130	----
	RM	Vanadium	7440-62-2	E472	0.269 mg/kg	101	70.0	130	----
	RM	Zinc	7440-66-6	E472	28.7 mg/kg	106	70.0	130	----
Metals (QCLot: 1140405)									
	RM	Silver	7440-22-4	E475.Ag	0.139 mg/kg	86.0	70.0	130	----
Metals (QCLot: 1140406)									
	RM	Titanium	7440-32-6	E475.Ti	1.15 mg/kg	70.9	70.0	130	----
Metals (QCLot: 1140407)									
	RM	Mercury	7439-97-6	E512	0.281 mg/kg	80.3	70.0	130	----
Metals (QCLot: 1140408)									
	RM	Aluminum	7429-90-5	E475	147 mg/kg	82.2	70.0	130	----
	RM	Arsenic	7440-38-2	E475	14.5 mg/kg	93.3	70.0	130	----
	RM	Barium	7440-39-3	E475	0.352 mg/kg	94.0	70.0	130	----
	RM	Boron	7440-42-8	E475	3.47 mg/kg	85.3	70.0	130	----
	RM	Cadmium	7440-43-9	E475	0.153 mg/kg	91.0	70.0	130	----
	RM	Calcium	7440-70-2	E475	2010 mg/kg	106	70.0	130	----
	RM	Cesium	7440-46-2	E475	0.0889 mg/kg	89.7	70.0	130	----
	RM	Chromium	7440-47-3	E475	0.453 mg/kg	# 282	50.0	150	RM-H
	RM	Cobalt	7440-48-4	E475	0.0567 mg/kg	95.6	65.0	135	----
	RM	Copper	7440-50-8	E475	3.3 mg/kg	93.3	70.0	130	----
	RM	Iron	7439-89-6	E475	102 mg/kg	100	70.0	130	----
	RM	Lead	7439-92-1	E475	0.058 mg/kg	84.0	15.0	185	----
	RM	Magnesium	7439-95-4	E475	899 mg/kg	89.9	70.0	130	----
	RM	Manganese	7439-96-5	E475	0.948 mg/kg	98.5	70.0	130	----
	RM	Molybdenum	7439-98-7	E475	0.134 mg/kg	# 212	70.0	130	RM-H
	RM	Nickel	7440-02-0	E475	0.33 mg/kg	97.0	40.0	160	----
	RM	Phosphorus	7723-14-0	E475	6700 mg/kg	96.3	70.0	130	----
	RM	Potassium	7440-09-7	E475	11600 mg/kg	94.7	70.0	130	----
	RM	Rubidium	7440-17-7	E475	2.53 mg/kg	97.7	70.0	130	----
	RM	Selenium	7782-49-2	E475	2.48 mg/kg	97.4	70.0	130	----
	RM	Sodium	7440-23-5	E475	9620 mg/kg	84.5	70.0	130	----



Sub-Matrix:

Laboratory sample ID	Reference Material ID	Analyte	CAS Number	Method	Reference Material (RM) Report				
					RM Target Concentration	Recovery (%) RM	Recovery Limits (%)		Qualifier
							Low	High	
Metals (QCLot: 1140408) - continued									
	RM	Strontium	7440-24-6	E475	10.6 mg/kg	94.0	70.0	130	----
	RM	Vanadium	7440-62-2	E475	0.269 mg/kg	# 137	70.0	130	MES
	RM	Zinc	7440-66-6	E475	28.7 mg/kg	97.5	70.0	130	----
Metals (QCLot: 1140409)									
	RM	Silver	7440-22-4	E475.Ag	0.139 mg/kg	94.4	70.0	130	----
Metals (QCLot: 1140410)									
	RM	Titanium	7440-32-6	E475.Ti	1.15 mg/kg	87.2	70.0	130	----
Metals (QCLot: 1140411)									
	RM	Mercury	7439-97-6	E512	0.281 mg/kg	102	70.0	130	----
Metals (QCLot: 1140412)									
	RM	Aluminum	7429-90-5	E475	147 mg/kg	90.1	70.0	130	----
	RM	Arsenic	7440-38-2	E475	14.5 mg/kg	98.8	70.0	130	----
	RM	Barium	7440-39-3	E475	0.352 mg/kg	106	70.0	130	----
	RM	Boron	7440-42-8	E475	3.47 mg/kg	95.2	70.0	130	----
	RM	Cadmium	7440-43-9	E475	0.153 mg/kg	97.3	70.0	130	----
	RM	Calcium	7440-70-2	E475	2010 mg/kg	110	70.0	130	----
	RM	Cesium	7440-46-2	E475	0.0889 mg/kg	97.3	70.0	130	----
	RM	Chromium	7440-47-3	E475	0.453 mg/kg	90.4	50.0	150	----
	RM	Cobalt	7440-48-4	E475	0.0567 mg/kg	100	65.0	135	----
	RM	Copper	7440-50-8	E475	3.3 mg/kg	98.1	70.0	130	----
	RM	Iron	7439-89-6	E475	102 mg/kg	92.9	70.0	130	----
	RM	Lead	7439-92-1	E475	0.058 mg/kg	96.2	15.0	185	----
	RM	Magnesium	7439-95-4	E475	899 mg/kg	95.5	70.0	130	----
	RM	Manganese	7439-96-5	E475	0.948 mg/kg	97.3	70.0	130	----
	RM	Molybdenum	7439-98-7	E475	0.134 mg/kg	99.6	70.0	130	----
	RM	Nickel	7440-02-0	E475	0.33 mg/kg	90.8	40.0	160	----
	RM	Phosphorus	7723-14-0	E475	6700 mg/kg	99.8	70.0	130	----
	RM	Potassium	7440-09-7	E475	11600 mg/kg	98.2	70.0	130	----
	RM	Rubidium	7440-17-7	E475	2.53 mg/kg	98.2	70.0	130	----
	RM	Selenium	7782-49-2	E475	2.48 mg/kg	105	70.0	130	----
	RM	Sodium	7440-23-5	E475	9620 mg/kg	87.5	70.0	130	----



Sub-Matrix:

Laboratory sample ID	Reference Material ID	Analyte	CAS Number	Method	Reference Material (RM) Report				
					RM Target Concentration	Recovery (%) RM	Recovery Limits (%)		Qualifier
							Low	High	
Metals (QCLot: 1140412) - continued									
	RM	Strontium	7440-24-6	E475	10.6 mg/kg	100	70.0	130	----
	RM	Vanadium	7440-62-2	E475	0.269 mg/kg	95.9	70.0	130	----
	RM	Zinc	7440-66-6	E475	28.7 mg/kg	102	70.0	130	----
Metals (QCLot: 1140978)									
	RM	Silver	7440-22-4	E472.Ag	0.139 mg/kg	101	70.0	130	----
Metals (QCLot: 1140979)									
	RM	Titanium	7440-32-6	E472.Ti	1.15 mg/kg	87.0	70.0	130	----
Metals (QCLot: 1140980)									
	RM	Mercury	7439-97-6	E511	0.281 mg/kg	99.9	70.0	130	----
Metals (QCLot: 1140981)									
	RM	Aluminum	7429-90-5	E472	147 mg/kg	98.9	70.0	130	----
	RM	Arsenic	7440-38-2	E472	14.5 mg/kg	102	70.0	130	----
	RM	Barium	7440-39-3	E472	0.352 mg/kg	94.5	70.0	130	----
	RM	Boron	7440-42-8	E472	3.47 mg/kg	98.3	70.0	130	----
	RM	Cadmium	7440-43-9	E472	0.153 mg/kg	104	70.0	130	----
	RM	Calcium	7440-70-2	E472	2010 mg/kg	97.9	70.0	130	----
	RM	Cesium	7440-46-2	E472	0.0889 mg/kg	103	70.0	130	----
	RM	Chromium	7440-47-3	E472	0.453 mg/kg	93.8	50.0	150	----
	RM	Cobalt	7440-48-4	E472	0.0567 mg/kg	102	65.0	135	----
	RM	Copper	7440-50-8	E472	3.3 mg/kg	98.0	70.0	130	----
	RM	Iron	7439-89-6	E472	102 mg/kg	98.2	70.0	130	----
	RM	Lead	7439-92-1	E472	0.058 mg/kg	98.8	15.0	185	----
	RM	Magnesium	7439-95-4	E472	899 mg/kg	101	70.0	130	----
	RM	Manganese	7439-96-5	E472	0.948 mg/kg	99.4	70.0	130	----
	RM	Molybdenum	7439-98-7	E472	0.134 mg/kg	99.5	70.0	130	----
	RM	Nickel	7440-02-0	E472	0.33 mg/kg	90.9	40.0	160	----
	RM	Phosphorus	7723-14-0	E472	6700 mg/kg	104	70.0	130	----
	RM	Potassium	7440-09-7	E472	11600 mg/kg	105	70.0	130	----
	RM	Rubidium	7440-17-7	E472	2.53 mg/kg	101	70.0	130	----
	RM	Selenium	7782-49-2	E472	2.48 mg/kg	104	70.0	130	----
	RM	Sodium	7440-23-5	E472	9620 mg/kg	102	70.0	130	----



Sub-Matrix:

Laboratory sample ID	Reference Material ID	Analyte	CAS Number	Method	Reference Material (RM) Report				
					RM Target Concentration	Recovery (%) RM	Recovery Limits (%)		Qualifier
							Low	High	
Metals (QCLot: 1140981) - continued									
	RM	Strontium	7440-24-6	E472	10.6 mg/kg	101	70.0	130	----
	RM	Vanadium	7440-62-2	E472	0.269 mg/kg	101	70.0	130	----
	RM	Zinc	7440-66-6	E472	28.7 mg/kg	102	70.0	130	----
Metals (QCLot: 1140997)									
	RM	Silver	7440-22-4	E472.Ag	0.139 mg/kg	104	70.0	130	----
Metals (QCLot: 1140998)									
	RM	Titanium	7440-32-6	E472.Ti	1.15 mg/kg	85.4	70.0	130	----
Metals (QCLot: 1140999)									
	RM	Mercury	7439-97-6	E511	0.281 mg/kg	105	70.0	130	----
Metals (QCLot: 1141000)									
	RM	Aluminum	7429-90-5	E472	147 mg/kg	91.8	70.0	130	----
	RM	Arsenic	7440-38-2	E472	14.5 mg/kg	111	70.0	130	----
	RM	Barium	7440-39-3	E472	0.352 mg/kg	100	70.0	130	----
	RM	Boron	7440-42-8	E472	3.47 mg/kg	98.0	70.0	130	----
	RM	Cadmium	7440-43-9	E472	0.153 mg/kg	108	70.0	130	----
	RM	Calcium	7440-70-2	E472	2010 mg/kg	104	70.0	130	----
	RM	Cesium	7440-46-2	E472	0.0889 mg/kg	106	70.0	130	----
	RM	Chromium	7440-47-3	E472	0.453 mg/kg	96.4	50.0	150	----
	RM	Cobalt	7440-48-4	E472	0.0567 mg/kg	104	65.0	135	----
	RM	Copper	7440-50-8	E472	3.3 mg/kg	107	70.0	130	----
	RM	Iron	7439-89-6	E472	102 mg/kg	103	70.0	130	----
	RM	Lead	7439-92-1	E472	0.058 mg/kg	102	15.0	185	----
	RM	Magnesium	7439-95-4	E472	899 mg/kg	104	70.0	130	----
	RM	Manganese	7439-96-5	E472	0.948 mg/kg	108	70.0	130	----
	RM	Molybdenum	7439-98-7	E472	0.134 mg/kg	117	70.0	130	----
	RM	Nickel	7440-02-0	E472	0.33 mg/kg	95.6	40.0	160	----
	RM	Phosphorus	7723-14-0	E472	6700 mg/kg	114	70.0	130	----
	RM	Potassium	7440-09-7	E472	11600 mg/kg	117	70.0	130	----
	RM	Rubidium	7440-17-7	E472	2.53 mg/kg	108	70.0	130	----
	RM	Selenium	7782-49-2	E472	2.48 mg/kg	113	70.0	130	----
	RM	Sodium	7440-23-5	E472	9620 mg/kg	114	70.0	130	----



Sub-Matrix:

Laboratory sample ID	Reference Material ID	Analyte	CAS Number	Method	Reference Material (RM) Report				
					RM Target Concentration	Recovery (%) RM	Recovery Limits (%)		Qualifier
							Low	High	
Metals (QCLot: 1141000) - continued									
	RM	Strontium	7440-24-6	E472	10.6 mg/kg	103	70.0	130	----
	RM	Vanadium	7440-62-2	E472	0.269 mg/kg	102	70.0	130	----
	RM	Zinc	7440-66-6	E472	28.7 mg/kg	109	70.0	130	----
Metals (QCLot: 1151073)									
	RM	Silver	7440-22-4	E472.Ag	0.139 mg/kg	95.2	70.0	130	----
Metals (QCLot: 1151074)									
	RM	Titanium	7440-32-6	E472.Ti	1.15 mg/kg	87.6	70.0	130	----
Metals (QCLot: 1151075)									
	RM	Mercury	7439-97-6	E511	0.281 mg/kg	102	70.0	130	----
Metals (QCLot: 1151076)									
	RM	Aluminum	7429-90-5	E472	147 mg/kg	94.5	70.0	130	----
	RM	Arsenic	7440-38-2	E472	14.5 mg/kg	95.8	70.0	130	----
	RM	Barium	7440-39-3	E472	0.352 mg/kg	91.6	70.0	130	----
	RM	Boron	7440-42-8	E472	3.47 mg/kg	83.6	70.0	130	----
	RM	Cadmium	7440-43-9	E472	0.153 mg/kg	92.3	70.0	130	----
	RM	Calcium	7440-70-2	E472	2010 mg/kg	97.2	70.0	130	----
	RM	Cesium	7440-46-2	E472	0.0889 mg/kg	97.8	70.0	130	----
	RM	Chromium	7440-47-3	E472	0.453 mg/kg	84.4	50.0	150	----
	RM	Cobalt	7440-48-4	E472	0.0567 mg/kg	98.0	65.0	135	----
	RM	Copper	7440-50-8	E472	3.3 mg/kg	91.1	70.0	130	----
	RM	Iron	7439-89-6	E472	102 mg/kg	94.9	70.0	130	----
	RM	Lead	7439-92-1	E472	0.058 mg/kg	129	15.0	185	----
	RM	Magnesium	7439-95-4	E472	899 mg/kg	90.5	70.0	130	----
	RM	Manganese	7439-96-5	E472	0.948 mg/kg	92.7	70.0	130	----
	RM	Molybdenum	7439-98-7	E472	0.134 mg/kg	91.7	70.0	130	----
	RM	Nickel	7440-02-0	E472	0.33 mg/kg	80.7	40.0	160	----
	RM	Phosphorus	7723-14-0	E472	6700 mg/kg	98.2	70.0	130	----
	RM	Potassium	7440-09-7	E472	11600 mg/kg	98.7	70.0	130	----
	RM	Rubidium	7440-17-7	E472	2.53 mg/kg	93.5	70.0	130	----
	RM	Selenium	7782-49-2	E472	2.48 mg/kg	100.0	70.0	130	----
	RM	Sodium	7440-23-5	E472	9620 mg/kg	99.2	70.0	130	----



Sub-Matrix:

Laboratory sample ID	Reference Material ID	Analyte	CAS Number	Method	Reference Material (RM) Report				
					RM Target Concentration	Recovery (%) RM	Recovery Limits (%)		Qualifier
							Low	High	
Metals (QCLot: 1151076) - continued									
	RM	Strontium	7440-24-6	E472	10.6 mg/kg	93.8	70.0	130	----
	RM	Vanadium	7440-62-2	E472	0.269 mg/kg	92.3	70.0	130	----
	RM	Zinc	7440-66-6	E472	28.7 mg/kg	95.4	70.0	130	----
Metals (QCLot: 1151081)									
	RM	Silver	7440-22-4	E472.Ag	0.139 mg/kg	98.3	70.0	130	----
Metals (QCLot: 1151082)									
	RM	Titanium	7440-32-6	E472.Ti	1.15 mg/kg	89.0	70.0	130	----
Metals (QCLot: 1151083)									
	RM	Mercury	7439-97-6	E511	0.281 mg/kg	105	70.0	130	----
Metals (QCLot: 1151084)									
	RM	Aluminum	7429-90-5	E472	147 mg/kg	102	70.0	130	----
	RM	Arsenic	7440-38-2	E472	14.5 mg/kg	101	70.0	130	----
	RM	Barium	7440-39-3	E472	0.352 mg/kg	93.9	70.0	130	----
	RM	Boron	7440-42-8	E472	3.47 mg/kg	101	70.0	130	----
	RM	Cadmium	7440-43-9	E472	0.153 mg/kg	97.6	70.0	130	----
	RM	Calcium	7440-70-2	E472	2010 mg/kg	106	70.0	130	----
	RM	Cesium	7440-46-2	E472	0.0889 mg/kg	101	70.0	130	----
	RM	Chromium	7440-47-3	E472	0.453 mg/kg	88.4	50.0	150	----
	RM	Cobalt	7440-48-4	E472	0.0567 mg/kg	97.5	65.0	135	----
	RM	Copper	7440-50-8	E472	3.3 mg/kg	96.3	70.0	130	----
	RM	Iron	7439-89-6	E472	102 mg/kg	101	70.0	130	----
	RM	Lead	7439-92-1	E472	0.058 mg/kg	96.2	15.0	185	----
	RM	Magnesium	7439-95-4	E472	899 mg/kg	97.0	70.0	130	----
	RM	Manganese	7439-96-5	E472	0.948 mg/kg	99.3	70.0	130	----
	RM	Molybdenum	7439-98-7	E472	0.134 mg/kg	110	70.0	130	----
	RM	Nickel	7440-02-0	E472	0.33 mg/kg	85.4	40.0	160	----
	RM	Phosphorus	7723-14-0	E472	6700 mg/kg	105	70.0	130	----
	RM	Potassium	7440-09-7	E472	11600 mg/kg	104	70.0	130	----
	RM	Rubidium	7440-17-7	E472	2.53 mg/kg	98.2	70.0	130	----
	RM	Selenium	7782-49-2	E472	2.48 mg/kg	104	70.0	130	----
	RM	Sodium	7440-23-5	E472	9620 mg/kg	104	70.0	130	----



Sub-Matrix:

Laboratory sample ID	Reference Material ID	Analyte	CAS Number	Method	Reference Material (RM) Report				
					RM Target Concentration	Recovery (%) RM	Recovery Limits (%)		Qualifier
							Low	High	
Metals (QCLot: 1151084) - continued									
	RM	Strontium	7440-24-6	E472	10.6 mg/kg	97.1	70.0	130	----
	RM	Vanadium	7440-62-2	E472	0.269 mg/kg	99.8	70.0	130	----
	RM	Zinc	7440-66-6	E472	28.7 mg/kg	100	70.0	130	----
Metals (QCLot: 1232337)									
	RM	Mercury	7439-97-6	E511A	0.281 mg/kg wwt	99.7	70.0	130	----
Metals (QCLot: 1232429)									
	RM	Mercury	7439-97-6	E511A	0.281 mg/kg wwt	97.6	70.0	130	----
Metals (QCLot: 1232439)									
	RM	Mercury	7439-97-6	E511A	0.281 mg/kg wwt	107	70.0	130	----
Metals (QCLot: 1232445)									
	RM	Mercury	7439-97-6	E511A	0.281 mg/kg wwt	100	70.0	130	----
Metals (QCLot: 1232447)									
	RM	Mercury	7439-97-6	E511A	0.281 mg/kg wwt	99.9	70.0	130	----
Metals (QCLot: 1232449)									
	RM	Mercury	7439-97-6	E511A	0.281 mg/kg wwt	92.6	70.0	130	----
Metals (QCLot: 1232451)									
	RM	Mercury	7439-97-6	E511A	0.281 mg/kg wwt	105	70.0	130	----
Metals (QCLot: 1232454)									
	RM	Mercury	7439-97-6	E511A	0.281 mg/kg wwt	102	70.0	130	----
Metals (QCLot: 1232464)									
	RM	Mercury	7439-97-6	E511A	0.281 mg/kg wwt	105	70.0	130	----
Metals (QCLot: 1232701)									
	RM	Mercury	7439-97-6	E512A	0.281 mg/kg wwt	84.4	70.0	130	----
Metals (QCLot: 1232705)									
	RM	Mercury	7439-97-6	E512A	0.281 mg/kg wwt	102	70.0	130	----
Metals (QCLot: 1232709)									
	RM	Mercury	7439-97-6	E512A	0.281 mg/kg wwt	80.3	70.0	130	----

Qualifiers

Qualifier	Description
RM-H	Reference Material recovery was above ALS DQO. Non-detected sample results are considered reliable. Other results, if reported, have been qualified.

Report To Contact and company name below will appear on the final report		Report Format / Distribution			Select Service Level Below - Please confirm all E&P TATs														
Company:	Mount Polley Mining Corporation	Select Report Format:	<input checked="" type="checkbox"/> PDF <input checked="" type="checkbox"/> EXCEL <input checked="" type="checkbox"/> EDD (DIGITAL)	<table border="1"> <tr> <td rowspan="3">PRIORITY (Business Days)</td> <td>Regular [R]</td> <td><input checked="" type="checkbox"/> Standard TAT if recd</td> <td rowspan="3">EMERGENCY</td> </tr> <tr> <td>4 day [P4]</td> <td><input type="checkbox"/></td> </tr> <tr> <td>3 day [P3]</td> <td><input type="checkbox"/></td> </tr> <tr> <td>2 day [P2]</td> <td><input type="checkbox"/></td> <td></td> </tr> </table>					PRIORITY (Business Days)	Regular [R]	<input checked="" type="checkbox"/> Standard TAT if recd	EMERGENCY	4 day [P4]	<input type="checkbox"/>	3 day [P3]	<input type="checkbox"/>	2 day [P2]	<input type="checkbox"/>	
PRIORITY (Business Days)	Regular [R]	<input checked="" type="checkbox"/> Standard TAT if recd	EMERGENCY																
	4 day [P4]	<input type="checkbox"/>																	
	3 day [P3]	<input type="checkbox"/>																	
2 day [P2]	<input type="checkbox"/>																		
Contact:	Gabriel Holmes	Quality Control (QC) Report with Report:	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO																
Phone:	236-317-4939	<input type="checkbox"/> Compare Results to Criteria on Report - provide details below if box checked																	
Company address below will appear on the final report		Select Distribution:	<input checked="" type="checkbox"/> EMAIL <input type="checkbox"/> MAIL <input type="checkbox"/> FAX																
Street:	PO Box 12	Email 1 or Fax:	gabriel.holmes@mountpolley.com	Date and Time Required for all E&P TATs:															
City/Province:	Likely, BC	Email 2:	kbatchelar@minnow.ca; slatimer@minnow.ca	For tests that can not be performed according to the service:															
Postal Code:	V0L 1N0	Email 3:	simone.derosemont@minnow.ca	Analysis															
Invoice To	Same as Report To <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	Invoice Distribution			Indicate Filtered (F), Preserved (P) or Filtered														
	Copy of Invoice with Report <input type="checkbox"/> YES <input type="checkbox"/> NO	Select Invoice Distribution:	<input checked="" type="checkbox"/> EMAIL <input checked="" type="checkbox"/> MAIL <input type="checkbox"/> FAX																
Company:		Email 1 or Fax:	gabriel.holmes@mountpolley.com																
Contact:		Email 2:																	
Project Information		Oil and Gas Required Fields (client use)																	
ALS Account # / Quote #:	VA22-MPMC100-002	AFE/Cost Center:		PO#:															
Job #:		Major/Minor Code:		Routing Code:															
PO / AFE:		Requisitioner:																	
LSID:		Location:																	
ALS Lab Work Order # (lab use only)		ALS Contact:	Can Dang	Sampler:	KBo														
ALS Sample # (lab use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	Moisture Content by Gravimetry (E144)	Mercury in Biota by CVAAS (DRY units, Routine) (E510)	Metals in Biota by CRC ICPMS (DRY units, Routine) (E440)	Silver in Biota by CRC ICPMS (DRY units, Routine) (E440.Ag)	Titanium in Biota by CRC ICPMS (DRY units, Routine) (E440.Ti)	Number of Containers									
1	HAC-R1_PERT-1_2023-08	10 -Aug-23		Tissue	R	R	R	R	R	1									
2	HAC-R1_PERT-2_2023-08	10 -Aug-23		Tissue	R	R	R	R	R	1									
3	HAC-R1_PERT-3_2023-08	10 -Aug-23		Tissue	R	R	R	R	R	1									
4	HAC-R1_PERT-4_2023-08	10 -Aug-23		Tissue	R	R	R	R	R	1									
5	HAC-R1_PERT-5_2023-08	10 -Aug-23		Tissue	R	R	R	R	R	1									
6	HAC-R1_PERT-6_2023-08	10 -Aug-23		Tissue	R	R	R	R	R	1									
7	HAC-R1_PERT-7_2023-08	9 -Aug-23		Tissue	R	R	R	R	R	1									
8	HAC-R1_PERT-8_2023-08	9 -Aug-23		Tissue	R	R	R	R	R	1									
9	HAC-U_PERT-1_2023-08	9 -Aug-23		Tissue	R	R	R	R	R	1									
10	HAC-U_PERT-2_2023-08	9 -Aug-23		Tissue	R	R	R	R	R	1									
11	HAC-U_PERT-3_2023-08	9 -Aug-23		Tissue	R	R	R	R	R	1									
12	HAC-U_PERT-4_2023-08	9 -Aug-23		Tissue	R	R	R	R	R	1									

**Environmental Division
Vancouver**
Work Order Reference
VA23B8888



Telephone : +1 604 253 4189

Drinking Water (DW) Samples¹ (client use)		Special Instructions / Specify Criteria to add on report by clicking on the drop-down list below (electronic COC only)			SAMPLE CONDITION AS RECEIVED (lab use only)					
Are samples taken from a Regulated DW System? <input type="checkbox"/> YES <input type="checkbox"/> NO		If sample is insufficient for regular digestion and analysis, please contact kbatchelar@minnow.ca or slatimer@minnow.ca to discuss analysis options.			Frozen <input type="checkbox"/> SIF Observations Yes <input type="checkbox"/> No <input type="checkbox"/>					
Are samples for human drinking water use? <input type="checkbox"/> YES <input type="checkbox"/> NO					Ice Packs <input checked="" type="checkbox"/> Ice Cubes <input type="checkbox"/> Custody seal intact Yes <input type="checkbox"/> No <input type="checkbox"/>					
					Cooling Initiated <input type="checkbox"/>					
					INITIAL COOLER TEMPERATURES °C					
					FINAL COOLER TEMPERATURES °C					
					7, 9, 2, 15.8					
SHIPMENT RELEASE (client use)				INITIAL SHIPMENT RECEPTION (lab use only)			FINAL SHIPMENT RECEPTION (lab use only)			
Released by:	Date:	Time:	Received by:	Date:	Time:	Received by:	Date:	Time:		
Katharina Batchelar	12-Aug-23	14:00				RD	Aug 15, 23	9:40am		

Report To Contact and company name below will appear on the final report		Report Format / Distribution			Select Service Level Below - Please confirm all E&P TATs with your AM - surcharges will apply															
Company:	Mount Polley Mining Corporation	Select Report Format:	<input checked="" type="checkbox"/> PDF	<input checked="" type="checkbox"/> EXCEL	<input checked="" type="checkbox"/> EDD (DIGITAL)	Regular [R] <input checked="" type="checkbox"/> Standard TAT if received by 3 pm - business days - no surcharges apply														
Contact:	Gabriel Holmes	Quality Control (QC) Report with Report	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO			PROPERTY (Business Days)	4 day [P4] <input type="checkbox"/>					EMERGENCY	1 Business day [E1] <input type="checkbox"/>							
Phone:	236-317-4939	<input type="checkbox"/> Compare Results to Criteria on Report - provide details below if box checked			3 day [P3] <input type="checkbox"/>					Same Day, Weekend or Statutory holiday [E0] <input type="checkbox"/>										
Company address below will appear on the final report		Select Distribution:	<input checked="" type="checkbox"/> EMAIL <input type="checkbox"/> MAIL <input type="checkbox"/> FAX			2 day [P2] <input type="checkbox"/>														
Street:	PO Box 12	Email 1 or Fax:	gabriel.holmes@mountpolley.com			Date and Time Required for all E&P TATs:														
City/Province:	Likely, BC	Email 2:	kbatchelar@minnow.ca; slatimer@minnow.ca			For tests that can not be performed according to the service level selected, you will be contacted.														
Postal Code:	V0L 1N0	Email 3:	simone.derosmond@minnow.ca			Analysis Request														
Invoice To		Invoice Distribution			Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below															
Same as Report To <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO		Select Invoice Distribution:	<input checked="" type="checkbox"/> EMAIL <input checked="" type="checkbox"/> MAIL <input type="checkbox"/> FAX																	
Copy of Invoice with Report <input type="checkbox"/> YES <input type="checkbox"/> NO		Email 1 or Fax:	gabriel.holmes@mountpolley.com																	
Company:		Email 2:																		
Contact:		Email 3:																		
Project Information				Oil and Gas Required Fields (client use)																
ALS Account # / Quote #:	VA22-MPMC100-002			AFE/Cost Center:	PO#															
Job #:				Major/Minor Code:	Routing Code:															
PO / AFE:				Requisitioner:																
LSD:				Location:																
ALS Lab Work Order # (lab use only)				ALS Contact:	Can Dang		Sampler:	KPa												
ALS Sample # (lab use only)	Sample Identification and/or Coordinates (This description will appear on the report)			Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	Moisture Content by Gravimetry (E144)	Mercury in Biota by CVAAS (DRY units, Routine) (E510)	Metals in Biota by CRC ICPMs (DRY units, Routine) (E440)	Silver in Biota by CRC ICPMs (DRY units, Routine) (E440-Ag)	Titanium in Biota by CRC ICPMs (DRY units, Routine) (E440-Ti)						Number of Containers			
25	EDC-U_PERT-1_2023-08			8 -Aug-23	-	Tissue	R	R	R	R	R						1			
26	EDC-U_PERT-2_2023-08			8 -Aug-23	-	Tissue	R	R	R	R	R						1			
27	EDC-U_PERT-3_2023-08			8 -Aug-23	-	Tissue	R	R	R	R	R						1			
28	EDC-U_PERT-4_2023-08			8 -Aug-23	-	Tissue	R	R	R	R	R						1			
29	EDC-U_PERT-5_2023-08			7 -Aug-23	-	Tissue	R	R	R	R	R						1			
30	EDC-U_PERT-6_2023-08			7 -Aug-23	-	Tissue	R	R	R	R	R						1			
31	EDC-U_PERT-7_2023-08			7 -Aug-23	-	Tissue	R	R	R	R	R						1			
32	EDC-U_PERT-8_2023-08			7 -Aug-23	-	Tissue	R	R	R	R	R						1			
33	EDC-D_PERT-1_2023-08			11 -Aug-23	-	Tissue	R	R	R	R	R						1			
34	EDC-D_PERT-2_2023-08			11 -Aug-23	-	Tissue	R	R	R	R	R						1			
35	EDC-D_PERT-3_2023-08			11 -Aug-23	-	Tissue	R	R	R	R	R						1			
36	EDC-D_PERT-4_2023-08			11 -Aug-23	-	Tissue	R	R	R	R	R						1			
Drinking Water (DW) Samples¹ (client use)				Special Instructions / Specify Criteria to add on report by clicking on the drop-down list below (electronic COC only)				SAMPLE CONDITION AS RECEIVED (lab use only)												
Are samples taken from a Regulated DW System? <input type="checkbox"/> YES <input type="checkbox"/> NO				If sample is insufficient for regular digestion and analysis, please contact kbatchelar@minnow.ca or slatimer@minnow.ca to discuss analysis options.				Frozen <input type="checkbox"/>					SIF Observations Yes <input type="checkbox"/> No <input type="checkbox"/>							
Are samples for human drinking water use? <input type="checkbox"/> YES <input type="checkbox"/> NO								Ice Packs <input checked="" type="checkbox"/>					Ice Cubes <input type="checkbox"/>					Custody seal intact Yes <input type="checkbox"/> No <input type="checkbox"/>		
								Cooling Initiated <input type="checkbox"/>												
								INITIAL COOLER TEMPERATURES °C					FINAL COOLER TEMPERATURES °C							
													7.9, 2, 15.8							
SHIPMENT RELEASE (client use)				INITIAL SHIPMENT RECEPTION (lab use only)				FINAL SHIPMENT RECEPTION (lab use only)												
Released by:	Katharina Batdebr			Date:	12-Aug-23		Time:	14:00		Received by:	RD			Date:	Aug 15, 23			Time:	9:40am	

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Report To Contact and company name below will appear on the final report		Report Format / Distribution			Select Service Level Below - Please confirm all E&P TATs with your AM - surcharges will apply											
Company:	Mount Polley Mining Corporation	Select Report Format: <input checked="" type="checkbox"/> PDF <input checked="" type="checkbox"/> EXCEL <input checked="" type="checkbox"/> EDD (DIGITAL)			Regular [R] <input checked="" type="checkbox"/> Standard TAT if received by 3 pm - business days - no surcharges apply											
Contact:	Gabriel Holmes	Quality Control (QC) Report with Report <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO			PRIORITY (Business Days)	4 day [P4] <input type="checkbox"/>		EMERGENCY	1 Business day [E1] <input type="checkbox"/>							
Phone:	236-317-4939	<input type="checkbox"/> Compare Results to Criteria on Report - provide details below if box checked				3 day [P3] <input type="checkbox"/>			Same Day, Weekend or Statutory holiday [E0] <input type="checkbox"/>							
Company address below will appear on the final report		Select Distribution: <input checked="" type="checkbox"/> EMAIL <input type="checkbox"/> MAIL <input type="checkbox"/> FAX				2 day [P2] <input type="checkbox"/>										
Street:	PO Box 12	Email 1 or Fax gabriel.holmes@mountpolley.com			Date and Time Required for all E&P TATs:											
City/Province:	Likely, BC	Email 2 kbatchelar@minnow.ca; slatimer@minnow.ca			For tests that can not be performed according to the service level selected, you will be contacted.											
Postal Code:	V0L 1N0	Email 3 simone.deroosemond@minnow.ca			Analysis Request											
Invoice To	Same as Report To <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	Invoice Distribution			Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below											
	Copy of Invoice with Report <input type="checkbox"/> YES <input type="checkbox"/> NO	Select Invoice Distribution: <input checked="" type="checkbox"/> EMAIL <input checked="" type="checkbox"/> MAIL <input type="checkbox"/> FAX														
Company:		Email 1 or Fax gabriel.holmes@mountpolley.com														
Contact:		Email 2														
Project Information		Oil and Gas Required Fields (client use)														
ALS Account # / Quote #:	VA22-MPMC100-002	AFE/Cost Center:		PO#												
Job #:		Major/Minor Code:		Routing Code:												
PO / AFE:		Requisitioner:														
LSD:		Location:														
ALS Lab Work Order # (lab use only)		ALS Contact:	Can Dang	Sampler:	KBa											
ALS Sample # (lab use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	Moisture Content by Gravimetry (E144)					Number of Containers						
37	EDC-D_PERT-5_2023-08	11 -Aug-23	1	Tissue	R	R	R	R	R							1
38	EDC-D_PERT-6_2023-08	11 -Aug-23	1	Tissue	R	R	R	R	R							1
39	EDC-D_PERT-7_2023-08	11 -Aug-23	1	Tissue	R	R	R	R	R							1
40	EDC-D_PERT-8_2023-08	11 -Aug-23	1	Tissue	R	R	R	R	R							1
41	E1_PERT-1_2023-08	5 -Aug-23	1	Tissue	R	R	R	R	R							1
42	E1_PERT-2_2023-08	5 -Aug-23	1	Tissue	R	R	R	R	R							1
43	E1_PERT-3_2023-08	5 -Aug-23	1	Tissue	R	R	R	R	R							1
44	E1_PERT-4_2023-08	5 -Aug-23	1	Tissue	R	R	R	R	R							1
45	E1_PERT-5_2023-08	4 -Aug-23	1	Tissue	R	R	R	R	R							1
46	E1_PERT-6_2023-08	4 -Aug-23	1	Tissue	R	R	R	R	R							1
47	E1_PERT-7_2023-08	4 -Aug-23	1	Tissue	R	R	R	R	R							1
48	E1_PERT-8_2023-08	3 -Aug-23	1	Tissue	R	R	R	R	R							1
Drinking Water (DW) Samples¹ (client use)		Special Instructions / Specify Criteria to add on report by clicking on the drop-down list below (electronic COC only)			SAMPLE CONDITION AS RECEIVED (lab use only)											
Are samples taken from a Regulated DW System? <input type="checkbox"/> YES <input type="checkbox"/> NO		If sample is insufficient for regular digestion and analysis, please contact kbatchelar@minnow.ca or slatimer@minnow.ca to discuss analysis options.			Frozen <input type="checkbox"/> SIF Observations Yes <input type="checkbox"/> No <input type="checkbox"/>					Ice Packs <input checked="" type="checkbox"/> Ice Cubes <input type="checkbox"/> Custody seal intact Yes <input type="checkbox"/> No <input type="checkbox"/>						
Are samples for human drinking water use? <input type="checkbox"/> YES <input type="checkbox"/> NO					Cooling Initiated <input type="checkbox"/>					INITIAL COOLER TEMPERATURES °C					FINAL COOLER TEMPERATURES °C	
										7, 9, 2, 15, 8						
SHIPMENT RELEASE (client use)		INITIAL SHIPMENT RECEPTION (lab use only)			FINAL SHIPMENT RECEPTION (lab use only)											
Released by:	Date:	Time:	Received by:	Date:	Time:	Received by:	Date:	Time:								
Katharina Batchelar	12-Aug-23	14:00				RD	Aug 15, 23	4:40am								

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Failure to complete all portions of this form may delay analysis. Please fill in this form LEGIBLY. By the use of this form the user acknowledges and agrees with the Terms and Conditions as specified on the back page of the white - report copy.

1. If any water samples are taken from a Regulated Drinking Water (DW) System, please submit using an Authorized DW COC form.

Report To Contact and company name below will appear on the final report		Report Format / Distribution			Select Service Level Below - Please confirm all E&P TATs with your AM - surcharges will apply											
Company:	Mount Polley Mining Corporation	Select Report Format: <input checked="" type="checkbox"/> PDF <input checked="" type="checkbox"/> EXCEL <input checked="" type="checkbox"/> EDD (DIGITAL)			Regular [R] <input checked="" type="checkbox"/> Standard TAT if received by 3 pm - business days - no surcharges apply											
Contact:	Gabriel Holmes	Quality Control (QC) Report with Report <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO			PRIORITY (business days)		EMERGENCY									
Phone:	236-317-4939	<input type="checkbox"/> Compare Results to Criteria on Report - provide details below if box checked			4 day [P4] <input type="checkbox"/>		1 Business day [E1] <input type="checkbox"/>									
Company address below will appear on the final report		Select Distribution: <input checked="" type="checkbox"/> EMAIL <input type="checkbox"/> MAIL <input type="checkbox"/> FAX			3 day [P3] <input type="checkbox"/>		Same Day, Weekend or Statutory holiday [E0] <input type="checkbox"/>									
Street:	PO Box 12	Email 1 or Fax gabriel.holmes@mountpolley.com			Date and Time Required for all E&P TATs:											
City/Province:	Likely, BC	Email 2 kbatchelar@minnow.ca; slatimer@minnow.ca			For tests that can not be performed according to the service level selected, you will be contacted.											
Postal Code:	V0L 1N0	Email 3 simone.derosemond@minnow.ca			Analysis Request											
Invoice To	Same as Report To <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	Invoice Distribution			Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below											
	Copy of Invoice with Report <input type="checkbox"/> YES <input type="checkbox"/> NO	Select Invoice Distribution: <input checked="" type="checkbox"/> EMAIL <input checked="" type="checkbox"/> MAIL <input type="checkbox"/> FAX														
Company:		Email 1 or Fax gabriel.holmes@mountpolley.com														
Contact:		Email 2														
Project Information		Oil and Gas Required Fields (client use)														
ALS Account # / Quote #:	VA22-MPMC100-002	AFE/Cost Center:		PO#												
Job #:		Major/Minor Code:		Routing Code:												
PO / AFE:		Requisitioner:														
LSD:		Location:														
ALS Lab Work Order # (lab use only)		ALS Contact:	Can Dang	Sampler: KBa												
ALS Sample # (lab use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	Moisture Content by Gravimetry (E144)					Number of Containers						
49	HAC-R1_INV-1_2023-08	10-Aug-23	---	Tissue	Mercury in Biota by CVAAS (DRY units, Routine) (E510)											1
50	HAC-R1_INV-2_2023-08	10-Aug-23	---	Tissue	Metals in Biota by CRC IC/PMS (DRY units, Routine) (E440)											1
51	HAC-R1_INV-3_2023-08	10-Aug-23	---	Tissue	Silver in Biota by CRC IC/PMS (DRY units, Routine) (E440 Ag)											1
52	HAC-R1_INV-4_2023-08	10-Aug-23	---	Tissue	Titanium in Biota by CRC IC/PMS (DRY units, Routine) (E440 Ti)											1
53	HAC-R1_INV-5_2023-08	10-Aug-23	---	Tissue												1
54	HAC-R1_INV-6_2023-08	10-Aug-23	---	Tissue												1
55	HAC-R1_INV-7_2023-08	9-Aug-23	---	Tissue												1
56	HAC-R1_INV-8_2023-08	9-Aug-23	---	Tissue												1
57	HAC-U_INV-1_2023-08	9-Aug-23	---	Tissue												1
58	HAC-U_INV-2_2023-08	9-Aug-23	---	Tissue												1
59	HAC-U_INV-3_2023-08	9-Aug-23	---	Tissue												1
60	HAC-U_INV-4_2023-08	9-Aug-23	---	Tissue												1
Drinking Water (DW) Samples¹ (client use)		Special Instructions / Specify Criteria to add on report by clicking on the drop-down list below (electronic COC only)			SAMPLE CONDITION AS RECEIVED (lab use only)											
Are samples taken from a Regulated DW System? <input type="checkbox"/> YES <input type="checkbox"/> NO		If sample is insufficient for regular digestion and analysis, please contact kbatchelar@minnow.ca or slatimer@minnow.ca to discuss analysis options.			Frozen <input type="checkbox"/>					SIF Observations Yes <input type="checkbox"/> No <input type="checkbox"/>						
Are samples for human drinking water use? <input type="checkbox"/> YES <input type="checkbox"/> NO					Ice Packs <input type="checkbox"/> Ice Cubes <input type="checkbox"/>					Custody seal intact Yes <input type="checkbox"/> No <input type="checkbox"/>						
					Cooling Initiated <input type="checkbox"/>											
					INITIAL COOLER TEMPERATURES °C					FINAL COOLER TEMPERATURES °C						
										7, 9, 2, 15, 8°						
SHIPMENT RELEASE (client use)				INITIAL SHIPMENT RECEPTION (lab use only)				FINAL SHIPMENT RECEPTION (lab use only)								
Released by:	Date:	Time:	Received by:	Date:	Time:	Received by:	Date:	Time:	Received by:	Date:	Time:					
Katharina Batcher	12-Aug-23	14:00				RD	Aug 15, 23	9:40am								

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Report To Contact and company name below will appear on the final report		Report Format / Distribution			Select Service Level Below - Please confirm all E&P TATs with your AM - surcharges will apply																	
Company:	Mount Polley Mining Corporation	Select Report Format: <input checked="" type="checkbox"/> PDF <input checked="" type="checkbox"/> EXCEL <input checked="" type="checkbox"/> EDD (DIGITAL)			Regular [R] <input checked="" type="checkbox"/> Standard TAT if received by 3 pm - business days - no surcharges apply																	
Contact:	Gabriel Holmes	Quality Control (QC) Report with Report <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO			PRIORITY (Business days)	4 day [P4] <input type="checkbox"/>					EMERGENCY	1 Business day [E1] <input type="checkbox"/>										
Phone:	236-317-4939	<input type="checkbox"/> Compare Results to Criteria on Report - provide details below if box checked				3 day [P3] <input type="checkbox"/>						Same Day, Weekend or Statutory holiday [E0] <input type="checkbox"/>										
Company address below will appear on the final report		Select Distribution: <input checked="" type="checkbox"/> EMAIL <input type="checkbox"/> MAIL <input type="checkbox"/> FAX				2 day [P2] <input type="checkbox"/>																
Street:	PO Box 12	Email 1 or Fax gabriel.holmes@mountpolley.com			Date and Time Required for all E&P TATs:																	
City/Province:	Likely, BC	Email 2 kbatchelar@minnow.ca; slatimer@minnow.ca			For tests that can not be performed according to the service level selected, you will be contacted.																	
Postal Code:	V0L 1N0	Email 3 simone.derosemont@minnow.ca			Analysis Request																	
Invoice To	Same as Report To <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	Invoice Distribution			Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below																	
	Copy of Invoice with Report <input type="checkbox"/> YES <input type="checkbox"/> NO	Select Invoice Distribution: <input checked="" type="checkbox"/> EMAIL <input checked="" type="checkbox"/> MAIL <input type="checkbox"/> FAX																				
Company:		Email 1 or Fax gabriel.holmes@mountpolley.com																				
Contact:		Email 2																				
Project Information		Oil and Gas Required Fields (client use)																				
ALS Account # / Quote #	VA22-MPMC100-002	AFE/Cost Center:		PO#																		
Job #:		Major/Minor Code:		Routing Code:																		
PO / AFE:		Requisitioner:																				
LSD:		Location:																				
ALS Lab Work Order # (lab use only)		ALS Contact:	Can Dang	Sampler: KBa																		
ALS Sample # (lab use only)	Sample Identification and/or Coordinates (This description will appear on the report)		Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	Moisture Content by Gravimetry (E144)					Number of Containers											
						Mercury in Biota by CVAAS (DRY units, Routine) (E510)																
						Metals in Biota by CRC ICPMS (DRY units, Routine) (E440)																
						Silver in Biota by CRC ICPMS (DRY units, Routine) (E440 Ag)																
						Titanium in Biota by CRC ICPMS (DRY units, Routine) (E440 Ti)																
61	HAC-U_INV-5_2023-08		9-Aug-23	---	Tissue	R	R	R	R	R											1	
62	HAC-U_INV-6_2023-08		8-Aug-23	---	Tissue	R	R	R	R	R												1
63	HAC-U_INV-7_2023-08		7-Aug-23	---	Tissue	R	R	R	R	R												1
64	HAC-U_INV-8_2023-08		7-Aug-23	---	Tissue	R	R	R	R	R												1
65	HAC-D_INV-1_2023-08		6-Aug-23	---	Tissue	R	R	R	R	R												1
66	HAC-D_INV-2_2023-08		6-Aug-23	---	Tissue	R	R	R	R	R												1
67	HAC-D_INV-3_2023-08		6-Aug-23	---	Tissue	R	R	R	R	R												1
68	HAC-D_INV-4_2023-08		6-Aug-23	---	Tissue	R	R	R	R	R												1
69	HAC-D_INV-5_2023-08		6-Aug-23	---	Tissue	R	R	R	R	R												1
70	HAC-D_INV-6_2023-08		6-Aug-23	---	Tissue	R	R	R	R	R												1
71	HAC-D_INV-7_2023-08		6-Aug-23	---	Tissue	R	R	R	R	R												1
72	HAC-D_INV-8_2023-08		5-Aug-23	---	Tissue	R	R	R	R	R												1
Drinking Water (DW) Samples¹ (client use)		Special Instructions / Specify Criteria to add on report by clicking on the drop-down list below (electronic COC only)			SAMPLE CONDITION AS RECEIVED (lab use only)																	
Are samples taken from a Regulated DW System? <input type="checkbox"/> YES <input type="checkbox"/> NO		If sample is insufficient for regular digestion and analysis, please contact kbatchelar@minnow.ca or slatimer@minnow.ca to discuss analysis options.			Frozen <input type="checkbox"/>					SIF Observations Yes <input type="checkbox"/> No <input type="checkbox"/>												
Are samples for human drinking water use? <input type="checkbox"/> YES <input type="checkbox"/> NO					Ice Packs <input checked="" type="checkbox"/>					Ice Cubes <input type="checkbox"/> Custody seal intact Yes <input type="checkbox"/> No <input type="checkbox"/>												
		Cooling Initiated <input type="checkbox"/>																				
					INITIAL COOLER TEMPERATURES °C					FINAL COOLER TEMPERATURES °C												
										7.9.2.15.8												
SHIPMENT RELEASE (client use)			INITIAL SHIPMENT RECEPTION (lab use only)			FINAL SHIPMENT RECEPTION (lab use only)																
Released by:	Date:	Time:	Received by:	Date:	Time:	Received by:	Date:	Time:	Received by:	Date:	Time:	Received by:	Date:	Time:								
Katharina Batchelar	12-Aug-23	14:00				RD	Aug 15, 23	9:40 am														

Report To		Report Format / Distribution			Select Service Level Below - Please confirm all E&P TATs with your AM - surcharges will apply												
Contact and company name below will appear on the final report		Select Report Format: <input type="checkbox"/> PDF <input checked="" type="checkbox"/> EXCEL <input checked="" type="checkbox"/> EDD (DIGITAL)			Regular [R] <input checked="" type="checkbox"/> Standard TAT if received by 3 pm - business days - no surcharges apply												
Company:	Mount Polley Mining Corporation	Quality Control (QC) Report with Report <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO			PRIORITY (Business Days)	4 day [P4] <input type="checkbox"/>		EMERGENCY	1 Business day [E1] <input type="checkbox"/>			Date and Time Required for all E&P TATs:					
Contact:	Gabriel Holmes	<input type="checkbox"/> Compare Results to Criteria on Report - provide details below if box checked				3 day [P3] <input type="checkbox"/>			Same Day, Weekend or Statutory holiday [E0] <input type="checkbox"/>								
Phone:	236-317-4939	Select Distribution: <input checked="" type="checkbox"/> EMAIL <input type="checkbox"/> MAIL <input type="checkbox"/> FAX				2 day [P2] <input type="checkbox"/>											
Company address below will appear on the final report		Email 1 or Fax gabriel.holmes@mountpolley.com			For tests that can not be performed according to the service level selected, you will be contacted.												
Street:	PO Box 12	Email 2 kbatchelar@minnow.ca, slatimer@minnow.ca			Analysis Request												
City/Province:	Likely, BC	Email 3 simone.deroosemond@minnow.ca			Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below												
Postal Code:	V0L 1N0	Invoice Distribution			Moisture Content by Gravimetry (E144)												
Invoice To	Same as Report To <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	Select Invoice Distribution: <input checked="" type="checkbox"/> EMAIL <input checked="" type="checkbox"/> MAIL <input type="checkbox"/> FAX			Mercury in Biota by CVMS (DRY units, Routine) (E510)												
	Copy of Invoice with Report <input type="checkbox"/> YES <input type="checkbox"/> NO	Email 1 or Fax gabriel.holmes@mountpolley.com			Metals in Biota by CRC IC/PMS (DRY units, Routine) (E440)												
Company:		Email 2			Silver in Biota by CRC IC/PMS (DRY units, Routine) (E440 Ag)												
Contact:					Titanium in Biota by CRC IC/PMS (DRY units, Routine) (E440 Ti)												
Project Information		Oil and Gas Required Fields (client use)			Number of Containers												
ALS Account # / Quote #: VA22-MPMC100-002		AFE/Cost Center:	PO#														
Job #:		Major/Minor Code:	Routing Code:														
PO / AFE:		Requisitioner:															
LSD:		Location:															
ALS Lab Work Order # (lab use only)		ALS Contact: Can Dang	Sampler: KBa														
ALS Sample # (lab use only)	Sample Identification and/or Coordinates (This description will appear on the report)			Date (dd-mmm-yy)	Time (hh:mm)	Sample Type											
73	EDC-U_INV-1_2023-08			8 -Aug-23	--	Tissue	R	R	R	R	R						1
74	EDC-U_INV-2_2023-08			8 -Aug-23	--	Tissue	R	R	R	R	R						1
75	EDC-U_INV-3_2023-08			8 -Aug-23	--	Tissue	R	R	R	R	R						1
76	EDC-U_INV-4_2023-08			8 -Aug-23	--	Tissue	R	R	R	R	R						1
77	EDC-U_INV-5_2023-08			7 -Aug-23	--	Tissue	R	R	R	R	R						1
78	EDC-U_INV-6_2023-08			7 -Aug-23	--	Tissue	R	R	R	R	R						1
79	EDC-U_INV-7_2023-08			7 -Aug-23	--	Tissue	R	R	R	R	R						1
80	EDC-U_INV-8_2023-08			7 -Aug-23	--	Tissue	R	R	R	R	R						1
81	EDC-D_INV-1_2023-08			11 -Aug-23	--	Tissue	R	R	R	R	R						1
82	EDC-D_INV-2_2023-08			11 -Aug-23	--	Tissue	R	R	R	R	R						1
83	EDC-D_INV-3_2023-08			11 -Aug-23	--	Tissue	R	R	R	R	R						1
84	EDC-D_INV-4_2023-08			11 -Aug-23	--	Tissue	R	R	R	R	R						1
Drinking Water (DW) Samples¹ (client use)		SAMPLE CONDITION AS RECEIVED (lab use only)															
Special Instructions / Specify Criteria to add on report by clicking on the drop-down list below (electronic COC only)		Frözen <input type="checkbox"/>					SIF Observations Yes <input type="checkbox"/> No <input type="checkbox"/>										
Are samples taken from a Regulated DW System? <input type="checkbox"/> YES <input type="checkbox"/> NO		Ice Packs <input checked="" type="checkbox"/>					Ice Cubes <input type="checkbox"/> Custody seal intact Yes <input type="checkbox"/> No <input type="checkbox"/>										
Are samples for human drinking water use? <input type="checkbox"/> YES <input type="checkbox"/> NO		Cooling Initiated <input type="checkbox"/>					INITIAL COOLER TEMPERATURES °C					FINAL COOLER TEMPERATURES °C					
												7.9, 2.15, 8					
SHIPMENT RELEASE (client use)				INITIAL SHIPMENT RECEPTION (lab use only)				FINAL SHIPMENT RECEPTION (lab use only)									
Released by:	Date:	Time:	Received by:	Date:	Time:	Received by:	Date:	Time:	Received by:	Date:	Time:	Received by:	Date:	Time:			
Katharina Batchelar	12-Aug-23	14:00				RD	Aug 15, 23	9:40am									

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1. If any water samples are taken from a Regulated Drinking Water (DW) System, please submit using an Authorized DW COC form.

Report To Contact and company name below will appear on the final report		Report Format / Distribution			Select Service Level Below - Please confirm all E&P TATs with your AM - surcharges will apply																	
Company:	Mount Polley Mining Corporation	Select Report Format: <input checked="" type="checkbox"/> PDF <input checked="" type="checkbox"/> EXCEL <input checked="" type="checkbox"/> EDD (DIGITAL)			Regular [R] <input checked="" type="checkbox"/> Standard TAT if received by 3 pm - business days - no surcharges apply					EMERGENCY												
Contact:	Gabriel Holmes	Quality Control (QC) Report with Report <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO			4 day [P4] <input type="checkbox"/>		1 Business day [E1] <input type="checkbox"/>															
Phone:	236-317-4939	<input type="checkbox"/> Compare Results to Criteria on Report - provide details below if box checked			3 day [P3] <input type="checkbox"/>		Same Day, Weekend or Statutory holiday [E0] <input type="checkbox"/>															
Company address below will appear on the final report		Select Distribution: <input checked="" type="checkbox"/> EMAIL <input type="checkbox"/> MAIL <input type="checkbox"/> FAX			2 day [P2] <input type="checkbox"/>																	
Street:	PO Box 12	Email 1 or Fax gabriel.holmes@mountpolley.com			Date and Time Required for all E&P TATs:																	
City/Province:	Likely, BC	Email 2 kbatchelar@minnow.ca; slatimer@minnow.ca			For tests that can not be performed according to the service level selected, you will be contacted.																	
Postal Code:	V0L 1N0	Email 3 simone.derosemond@minnow.ca			Analysis Request																	
Invoice To	Same as Report To <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	Invoice Distribution			Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below																	
	Copy of Invoice with Report <input type="checkbox"/> YES <input type="checkbox"/> NO	Select Invoice Distribution: <input checked="" type="checkbox"/> EMAIL <input checked="" type="checkbox"/> MAIL <input type="checkbox"/> FAX																				
Company:		Email 1 or Fax gabriel.holmes@mountpolley.com																				
Contact:		Email 2																				
Project Information		Oil and Gas Required Fields (client use)																				
ALS Account # / Quote #: VA22-MPMC100-002		AFE/Cost Center:		PO#																		
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PO / AFE:		Requisitioner:																				
LSD:		Location:																				
ALS Lab Work Order # (lab use only)		ALS Contact: Can Dang		Sampler: KBa																		
ALS Sample # (lab use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	Moisture Content by Gravimetry (E144)					Number of Containers												
55	EDC-D_INV-5_2023-08	11 -Aug-23	---	Tissue	R	R	R	R	R												1	
86	EDC-D_INV-6_2023-08	11 -Aug-23	---	Tissue	R	R	R	R	R													1
87	EDC-D_INV-7_2023-08	11 -Aug-23	---	Tissue	R	R	R	R	R													1
88	EDC-D_INV-8_2023-08	11 -Aug-23	---	Tissue	R	R	R	R	R													1
89	E1_INV-1_2023-08	5 -Aug-23	---	Tissue	R	R	R	R	R													1
90	E1_INV-2_2023-08	5 -Aug-23	---	Tissue	R	R	R	R	R													1
91	E1_INV-3_2023-08	5 -Aug-23	---	Tissue	R	R	R	R	R													1
92	E1_INV-4_2023-08	5 -Aug-23	---	Tissue	R	R	R	R	R													1
93	E1_INV-5_2023-08	4 -Aug-23	---	Tissue	R	R	R	R	R													1
94	E1_INV-6_2023-08	4 -Aug-23	---	Tissue	R	R	R	R	R													1
95	E1_INV-7_2023-08	4 -Aug-23	---	Tissue	R	R	R	R	R													1
96	E1_INV-8_2023-08	3 -Aug-23	---	Tissue	R	R	R	R	R													1
Drinking Water (DW) Samples¹ (client use)		Special Instructions / Specify Criteria to add on report by clicking on the drop-down list below (electronic COC only)			SAMPLE CONDITION AS RECEIVED (lab use only)																	
Are samples taken from a Regulated DW System? <input type="checkbox"/> YES <input type="checkbox"/> NO		If sample is insufficient for regular digestion and analysis, please contact kbatchelar@minnow.ca or slatimer@minnow.ca to discuss analysis options.			Frozen <input type="checkbox"/>					SIF Observations Yes <input type="checkbox"/> No <input type="checkbox"/>												
Are samples for human drinking water use? <input type="checkbox"/> YES <input type="checkbox"/> NO					Ice Packs <input checked="" type="checkbox"/>					Ice Cubes <input type="checkbox"/>					Custody seal intact Yes <input type="checkbox"/> No <input type="checkbox"/>							
					Cooling Initiated <input type="checkbox"/>																	
					INITIAL COOLER TEMPERATURES °C					FINAL COOLER TEMPERATURES °C												
										7, 9, 2, 15.8°												
SHIPMENT RELEASE (client use)				INITIAL SHIPMENT RECEPTION (lab use only)				FINAL SHIPMENT RECEPTION (lab use only)														
Released by:	Date:	Time:	Received by:	Date:	Time:	Received by:	Date:	Time:	Received by:	Date:	Time:											
Katharina Batchelar	12 Aug-23	14:00				RD	Aug 15, 23	9:40am														

Report To Contact and company name below will appear on the final report		Report Format / Distribution			Select Service Level Below - Please confirm all E&P TATs with your AM - surcharges will apply											
Company:	Mount Polley Mining Corporation	Select Report Format: <input checked="" type="checkbox"/> PDF <input checked="" type="checkbox"/> EXCEL <input checked="" type="checkbox"/> EDD (DIGITAL)			Regular [R] <input checked="" type="checkbox"/> Standard TAT if received by 3 pm - business days - no surcharges apply					EMERGENCY						
Contact:	Gabriel Holmes	Quality Control (QC) Report with Report <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO			4 day [P4] <input type="checkbox"/>		1 Business day [E1] <input type="checkbox"/>									
Phone:	236-317-4939	<input type="checkbox"/> Compare Results to Criteria on Report - provide details below if box checked			3 day [P3] <input type="checkbox"/>		Same Day, Weekend or Statutory holiday [E0] <input type="checkbox"/>									
Company address below will appear on the final report		Select Distribution: <input checked="" type="checkbox"/> EMAIL <input type="checkbox"/> MAIL <input type="checkbox"/> FAX			2 day [P2] <input type="checkbox"/>											
Street:	PO Box 12	Email 1 or Fax gabriel.holmes@mountpolley.com			Date and Time Required for all E&P TATs:											
City/Province:	Likely, BC	Email 2 kbatchelar@minnow.ca; slatimer@minnow.ca			For tests that can not be performed according to the service level selected, you will be contacted.											
Postal Code:	V0L 1N0	Email 3 simone.deroosemond@minnow.ca			Analysis Request											
Invoice To	Same as Report To <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	Invoice Distribution			Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below											
	Copy of Invoice with Report <input type="checkbox"/> YES <input type="checkbox"/> NO	Select Invoice Distribution: <input checked="" type="checkbox"/> EMAIL <input checked="" type="checkbox"/> MAIL <input type="checkbox"/> FAX														
Company:		Email 1 or Fax gabriel.holmes@mountpolley.com														
Contact:		Email 2														
Project Information		Oil and Gas Required Fields (client use)														
ALS Account # / Quote #:	VA22-MPMC100-002	AFE/Cost Center:		PO#												
Job #:		Major/Minor Code:		Routing Code:												
PO / AFE:		Requisitioner:														
LSD:		Location:														
ALS Lab Work Order # (lab use only)		ALS Contact:	Can Dang	Sampler: KBa												
ALS Sample # (lab use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	Moisture Content by Gravimetry (E144)					Number of Containers						
97	HAC-R1_INVCAD-1_2023-08	10-Aug-23	11	Tissue	R	R	R	R	R						1	
98	HAC-R1_INVCAD-2_2023-08	10-Aug-23	11	Tissue	R	R	R	R	R						1	
99	HAC-R1_INVCAD-3_2023-08	10-Aug-23	11	Tissue	R	R	R	R	R						1	
100	HAC-R1_INVCAD-4_2023-08	10-Aug-23	11	Tissue	R	R	R	R	R						1	
101	HAC-R1_INVCAD-5_2023-08	10-Aug-23	11	Tissue	R	R	R	R	R						1	
102	HAC-R1_INVCAD-6_2023-08	10-Aug-23	11	Tissue	R	R	R	R	R						1	
103	HAC-R1_INVCAD-7_2023-08	9-Aug-23	11	Tissue	R	R	R	R	R						1	
104	HAC-R1_INVCAD-8_2023-08	9-Aug-23	11	Tissue	R	R	R	R	R						1	
105	HAC-U_INVCAD-1_2023-08	9-Aug-23	11	Tissue	R	R	R	R	R						1	
106	HAC-U_INVCAD-2_2023-08	9-Aug-23	11	Tissue	R	R	R	R	R						1	
107	HAC-U_INVCAD-3_2023-08	9-Aug-23	11	Tissue	R	R	R	R	R						1	
108	HAC-U_INVCAD-4_2023-08	9-Aug-23	11	Tissue	R	R	R	R	R						1	
Drinking Water (DW) Samples¹ (client use)		Special Instructions / Specify Criteria to add on report by clicking on the drop-down list below (electronic COC only)			SAMPLE CONDITION AS RECEIVED (lab use only)											
Are samples taken from a Regulated DW System? <input type="checkbox"/> YES <input type="checkbox"/> NO		If sample is insufficient for regular digestion and analysis, please contact kbatchelar@minnow.ca or slatimer@minnow.ca to discuss analysis options.			Frozen <input type="checkbox"/> SIF Observations Yes <input type="checkbox"/> No <input type="checkbox"/>					Ice Packs <input checked="" type="checkbox"/> Ice Cubes <input type="checkbox"/> Custody seal intact Yes <input type="checkbox"/> No <input type="checkbox"/>						
Are samples for human drinking water use? <input type="checkbox"/> YES <input type="checkbox"/> NO					Cooling Initiated <input type="checkbox"/>					INITIAL COOLER TEMPERATURES °C					FINAL COOLER TEMPERATURES °C	
										79.2 15.8						
SHIPMENT RELEASE (client use)				INITIAL SHIPMENT RECEPTION (lab use only)				FINAL SHIPMENT RECEPTION (lab use only)								
Released by:	Date:	Time:	Received by:	Date:	Time:	Received by:	Date:	Time:	Received by:	Date:	Time:					
Katharina Batchelar	12-Aug-23	14:00				RD	Aug 15, 23	9:40am								



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Canada Toll Free: 1 800 668 9878

Affix ALS barcode label here (lab use only)

COC Number: 15 -

Page 10 of 14

Report To Contact and company name below will appear on the final report		Report Format / Distribution			Select Service Level Below - Please confirm all E&P TATs with your AM - surcharges will apply											
Company:	Mount Polley Mining Corporation	Select Report Format: <input checked="" type="checkbox"/> PDF <input checked="" type="checkbox"/> EXCEL <input checked="" type="checkbox"/> EDD (DIGITAL)			Regular [R] <input checked="" type="checkbox"/> Standard TAT if received by 3 pm - business days - no surcharges apply					EMERGENCY						
Contact:	Gabriel Holmes	Quality Control (QC) Report with Report <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO			4 day [P4] <input type="checkbox"/>		1 Business day [E1] <input type="checkbox"/>									
Phone:	236-317-4939	<input type="checkbox"/> Compare Results to Criteria on Report - provide details below if box checked			3 day [P3] <input type="checkbox"/>		Same Day, Weekend or Statutory holiday [E0] <input type="checkbox"/>									
Company address below will appear on the final report		Select Distribution: <input checked="" type="checkbox"/> EMAIL <input type="checkbox"/> MAIL <input type="checkbox"/> FAX			2 day [P2] <input type="checkbox"/>											
Street:	PO Box 12	Email 1 or Fax gabriel.holmes@mountpolley.com			Date and Time Required for all E&P TATs:											
City/Province:	Likely, BC	Email 2 kbatchelar@minnow.ca; slatimer@minnow.ca			For tests that can not be performed according to the service level selected, you will be contacted.											
Postal Code:	V0L 1N0	Email 3 simone.derosemmond@minnow.ca			Analysis Request											
Invoice To	Same as Report To <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	Invoice Distribution			Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below											
	Copy of Invoice with Report <input type="checkbox"/> YES <input type="checkbox"/> NO	Select Invoice Distribution: <input checked="" type="checkbox"/> EMAIL <input checked="" type="checkbox"/> MAIL <input type="checkbox"/> FAX														
Company:		Email 1 or Fax gabriel.holmes@mountpolley.com														
Contact:		Email 2														
Project Information		Oil and Gas Required Fields (client use)														
ALS Account # / Quote #:	VA22-MPMC100-002	AFE/Cost Center:		PO#												
Job #:		Major/Minor Code:		Routing Code:												
PO / AFE:		Requisitioner:														
LSD:		Location:														
ALS Lab Work Order # (lab use only)		ALS Contact:	Can Dang	Sampler:	KBa											
ALS Sample # (lab use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	Moisture Content by Gravimetry (E144)					Number of Containers						
109	HAC-U_INVCAD-5_2023-08	9 -Aug-23	11	Tissue	R	R	R	R	R						1	
100	HAC-U_INVCAD-6_2023-08	9 -Aug-23	11	Tissue	R	R	R	R	R						1	
111	HAC-U_INVCAD-7_2023-08	7 -Aug-23	11	Tissue	R	R	R	R	R						1	
112	HAC-U_INVCAD-8_2023-08	7 -Aug-23	11	Tissue	R	R	R	R	R						1	
113	HAC-D_INVCAD-1_2023-08	6 -Aug-23	11	Tissue	R	R	R	R	R						1	
114	HAC-D_INVCAD-2_2023-08	6 -Aug-23	11	Tissue	R	R	R	R	R						1	
115	HAC-D_INVCAD-3_2023-08	6 -Aug-23	11	Tissue	R	R	R	R	R						1	
116	HAC-D_INVCAD-4_2023-08	6 -Aug-23	11	Tissue	R	R	R	R	R						1	
117	HAC-D_INVCAD-5_2023-08	6 -Aug-23	11	Tissue	R	R	R	R	R						1	
118	HAC-D_INVCAD-6_2023-08	6 -Aug-23	11	Tissue	R	R	R	R	R						1	
119	HAC-D_INVCAD-7_2023-08	6 -Aug-23	11	Tissue	R	R	R	R	R						1	
120	HAC-D_INVCAD-8_2023-08	5 -Aug-23	11	Tissue	R	R	R	R	R						1	
Drinking Water (DW) Samples¹ (client use)		Special Instructions / Specify Criteria to add on report by clicking on the drop-down list below (electronic COC only)			SAMPLE CONDITION AS RECEIVED (lab use only)											
Are samples taken from a Regulated DW System? <input type="checkbox"/> YES <input type="checkbox"/> NO		If sample is insufficient for regular digestion and analysis, please contact kbatchelar@minnow.ca or slatimer@minnow.ca to discuss analysis options.			Frozen <input type="checkbox"/> SIF Observations Yes <input type="checkbox"/> No <input type="checkbox"/>					Ice Packs <input checked="" type="checkbox"/> Ice Cubes <input type="checkbox"/> Custody seal intact Yes <input type="checkbox"/> No <input type="checkbox"/>						
Are samples for human drinking water use? <input type="checkbox"/> YES <input type="checkbox"/> NO					Cooling Initiated <input type="checkbox"/>					INITIAL COOLER TEMPERATURES °C					FINAL COOLER TEMPERATURES °C	
SHIPMENT RELEASE (client use)		INITIAL SHIPMENT RECEPTION (lab use only)			FINAL SHIPMENT RECEPTION (lab use only)											
Released by:	Date:	Time:	Received by:	Date:	Time:	Received by:	Date:	Time:								
Katharina Batchelor	12-Aug-23	14:00				RD	Aug 15, 23	9:40am								

REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION

WHITE - LABORATORY COPY YELLOW - CLIENT COPY

OCTOBER 2015 PROXY

Failure to complete all portions of this form may delay analysis. Please fill in this form LEGIBLY. By the use of this form the user acknowledges and agrees with the Terms and Conditions as specified on the back page of the white - report copy.

1. If any water samples are taken from a Regulated Drinking Water (DW) System, please submit using an Authorized DW COC form.



Chain of Custody (COC) / Analytical Request Form

Canada Toll Free: 1 800 668 9878

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Affix ALS barcode label here

(lab use only)

COC Number: 15

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Report To			Report Format / Distribution				Select Service Level Below - Please confirm all E&P TATs with your AM - surcharges will apply																																																																													
Company: Mount Polley Mining Corporation			Select Report Format: <input checked="" type="checkbox"/> PDF <input checked="" type="checkbox"/> EXCEL <input checked="" type="checkbox"/> EDD (DIGITAL)				Regular [R] <input checked="" type="checkbox"/> Standard TAT if received by 3 pm - business days - no surcharges apply						EMERGENCY																																																																							
Contact: Gabriel Holmes			Quality Control (QC) Report with Report <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO				4 day [P4] <input type="checkbox"/>			1 Business day [E1] <input type="checkbox"/>																																																																										
Phone: 236-317-4939			Compare Results to Criteria on Report - provide details below if box checked <input type="checkbox"/>				3 day [P3] <input type="checkbox"/>			Same Day, Weekend or Statutory holiday [E0] <input type="checkbox"/>																																																																										
Company address below will appear on the final report			Select Distribution: <input checked="" type="checkbox"/> EMAIL <input type="checkbox"/> MAIL <input type="checkbox"/> FAX				2 day [P2] <input type="checkbox"/>																																																																													
Street: PO Box 12			Email 1 or Fax: gabriel.holmes@mountpolley.com				Date and Time Required for all E&P TATs: _____																																																																													
City/Province: Likely, BC			Email 2: kbatchelar@minnow.ca; slatimer@minnow.ca				For tests that can not be performed according to the service level selected, you will be contacted.																																																																													
Postal Code: V0L 1N0			Email 3: simone.derosemond@minnow.ca				Analysis Request																																																																													
Invoice To: Same as Report To <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO			Invoice Distribution				Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below																																																																													
Copy of invoice with Report <input type="checkbox"/> YES <input type="checkbox"/> NO			Select Invoice Distribution: <input checked="" type="checkbox"/> EMAIL <input checked="" type="checkbox"/> MAIL <input type="checkbox"/> FAX																																																																																	
Company:			Email 1 or Fax: gabriel.holmes@mountpolley.com				<table border="1"> <tr> <td rowspan="5">Moisture Content by Gravimetry (E144)</td> <td rowspan="5">Mercury in Biota by CVAAS (DRY units, Routine) (E510)</td> <td rowspan="5">Metals in Biota by CRC ICPMS (DRY units, Routine) (E440)</td> <td rowspan="5">Silver in Biota by CRC ICPMS (DRY units, Routine) (E440.Ag)</td> <td rowspan="5">Titanium in Biota by CRC ICPMS (DRY units, Routine) (E440.Ti)</td> <td colspan="12"></td> <td rowspan="5">Number of Containers</td> </tr> <tr><td colspan="12"></td></tr> <tr><td colspan="12"></td></tr> <tr><td colspan="12"></td></tr> <tr><td colspan="12"></td></tr> </table>												Moisture Content by Gravimetry (E144)	Mercury in Biota by CVAAS (DRY units, Routine) (E510)	Metals in Biota by CRC ICPMS (DRY units, Routine) (E440)	Silver in Biota by CRC ICPMS (DRY units, Routine) (E440.Ag)	Titanium in Biota by CRC ICPMS (DRY units, Routine) (E440.Ti)													Number of Containers																																																
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Project Information			Oil and Gas Required Fields (client use)																																																																																	
ALS Account # / Quote #: VA22-MPMC100-002			AFE/Cost Center:		PO#																																																																															
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21	EDC-U_INVCAD-1_2023-08			8	-Aug-23	Tissue	R	R	R	R	R													1																																																												
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23	EDC-U_INVCAD-3_2023-08			8	-Aug-23	Tissue	R	R	R	R	R													1																																																												
24	EDC-U_INVCAD-4_2023-08			8	-Aug-23	Tissue	R	R	R	R	R													1																																																												
25	EDC-U_INVCAD-5_2023-08			7	-Aug-23	Tissue	R	R	R	R	R													1																																																												
26	EDC-U_INVCAD-6_2023-08			7	-Aug-23	Tissue	R	R	R	R	R													1																																																												
27	EDC-U_INVCAD-7_2023-08			7	-Aug-23	Tissue	R	R	R	R	R													1																																																												
28	EDC-U_INVCAD-8_2023-08			7	-Aug-23	Tissue	R	R	R	R	R													1																																																												
29	EDC-D_INVCAD-1_2023-08			11	-Aug-23	Tissue	R	R	R	R	R													1																																																												
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31	EDC-D_INVCAD-3_2023-08			11	-Aug-23	Tissue	R	R	R	R	R													1																																																												
32	EDC-D_INVCAD-4_2023-08			11	-Aug-23	Tissue	R	R	R	R	R													1																																																												
Drinking Water (DW) Samples¹ (client use)			Special Instructions / Specify Criteria to add on report by clicking on the drop-down list below (electronic COC only)				SAMPLE CONDITION AS RECEIVED (lab use only)																																																																													
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Report To Contact and company name below will appear on the final report		Report Format / Distribution			Select Service Level Below - Please confirm all E&P TATs with your AM - surcharges will apply																																																			
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Contact: Gabriel Holmes		Quality Control (QC) Report with Report <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO			PRIORITY (business days)		4 day [P4] <input type="checkbox"/>			EMERGENCY		1 Business day [E1] <input type="checkbox"/>																																												
Phone: 236-317-4939		<input type="checkbox"/> Compare Results to Criteria on Report - provide details below if box checked					3 day [P3] <input type="checkbox"/>					Same Day, Weekend or Statutory holiday [E0] <input type="checkbox"/>																																												
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Street: PO Box 12		Email 1 or Fax gabriel.holmes@mountpolley.com			For tests that can not be performed according to the service level selected, you will be contacted.																																																			
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Copy of Invoice with Report <input type="checkbox"/> YES <input type="checkbox"/> NO		Select Invoice Distribution: <input checked="" type="checkbox"/> EMAIL <input checked="" type="checkbox"/> MAIL <input type="checkbox"/> FAX			<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td colspan="10"></td> <td colspan="2" rowspan="4" style="writing-mode: vertical-rl; transform: rotate(180deg);">Number of Containers</td> </tr> <tr> <td colspan="10"></td> </tr> <tr> <td colspan="10"></td> </tr> <tr> <td colspan="10"></td> </tr> </table>																				Number of Containers																															
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Company:		Email 1 or Fax gabriel.holmes@mountpolley.com			<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td colspan="10"></td> <td colspan="2" rowspan="4" style="writing-mode: vertical-rl; transform: rotate(180deg);">Number of Containers</td> </tr> <tr> <td colspan="10"></td> </tr> <tr> <td colspan="10"></td> </tr> <tr> <td colspan="10"></td> </tr> </table>																				Number of Containers																															
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Contact:		Email 2			<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td colspan="10"></td> <td colspan="2" rowspan="4" style="writing-mode: vertical-rl; transform: rotate(180deg);">Number of Containers</td> </tr> <tr> <td colspan="10"></td> </tr> <tr> <td colspan="10"></td> </tr> <tr> <td colspan="10"></td> </tr> </table>																				Number of Containers																															
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Project Information		Oil and Gas Required Fields (client use)			<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td colspan="10"></td> <td colspan="2" rowspan="4" style="writing-mode: vertical-rl; transform: rotate(180deg);">Number of Containers</td> </tr> <tr> <td colspan="10"></td> </tr> <tr> <td colspan="10"></td> </tr> <tr> <td colspan="10"></td> </tr> </table>																				Number of Containers																															
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ALS Account # / Quote #: VA22-MPMC100-002		AFE/Cost Center: PO#			<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td colspan="10"></td> <td colspan="2" rowspan="4" style="writing-mode: vertical-rl; transform: rotate(180deg);">Number of Containers</td> </tr> <tr> <td colspan="10"></td> </tr> <tr> <td colspan="10"></td> </tr> <tr> <td colspan="10"></td> </tr> </table>																				Number of Containers																															
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Job #:		Major/Minor Code: Routing Code:			<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td colspan="10"></td> <td colspan="2" rowspan="2" style="writing-mode: vertical-rl; transform: rotate(180deg);">Number of Containers</td> </tr> <tr> <td colspan="10"></td> </tr> </table>																				Number of Containers																															
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PO / AFE:		Requisitioner:			<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td colspan="10"></td> <td colspan="2" rowspan="2" style="writing-mode: vertical-rl; transform: rotate(180deg);">Number of Containers</td> </tr> <tr> <td colspan="10"></td> </tr> </table>																				Number of Containers																															
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LSD:		Location:			<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td colspan="10"></td> <td colspan="2" rowspan="2" style="writing-mode: vertical-rl; transform: rotate(180deg);">Number of Containers</td> </tr> <tr> <td colspan="10"></td> </tr> </table>																				Number of Containers																															
															Number of Containers																																									
ALS Lab Work Order # (lab use only)		ALS Contact: Can Dang Sampler: <i>KBa</i>			<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td colspan="10"></td> <td colspan="2" rowspan="2" style="writing-mode: vertical-rl; transform: rotate(180deg);">Number of Containers</td> </tr> <tr> <td colspan="10"></td> </tr> </table>																				Number of Containers																															
										Number of Containers																																														
ALS Sample # (lab use only)		Sample Identification and/or Coordinates (This description will appear on the report)			Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	Moisture Content by Gravimetry (E144)	Mercury in Biota by CVAAS (DRY units, Routine) (E510)	Metals in Biota by CRC ICPMS (DRY units, Routine) (E440)	Silver in Biota by CRC ICPMS (DRY units, Routine) (E440.Ag)	Titanium in Biota by CRC ICPMS (DRY units, Routine) (E440.Ti)																																												
<i>33</i>		EDC-D_INVCAD-5_2023-08			<i>11</i> -Aug-23	<i>11</i>	Tissue	R	R	R	R	R										1																																		
<i>34</i>		EDC-D_INVCAD-6_2023-08			<i>11</i> -Aug-23	<i>11</i>	Tissue	R	R	R	R	R										1																																		
<i>35</i>		EDC-D_INVCAD-7_2023-08			<i>11</i> -Aug-23	<i>11</i>	Tissue	R	R	R	R	R										1																																		
<i>36</i>		EDC-D_INVCAD-8_2023-08			<i>11</i> -Aug-23	<i>11</i>	Tissue	R	R	R	R	R										1																																		
<i>37</i>		E1_INVCAD-1_2023-08			<i>11</i> -Aug-23	<i>11</i>	Tissue	R	R	R	R	R										1																																		
<i>38</i>		E1_INVCAD-2_2023-08			<i>11</i> -Aug-23	<i>11</i>	Tissue	R	R	R	R	R										1																																		
<i>39</i>		E1_INVCAD-3_2023-08			<i>11</i> -Aug-23	<i>11</i>	Tissue	R	R	R	R	R										1																																		
<i>40</i>		E1_INVCAD-4_2023-08			<i>11</i> -Aug-23	<i>11</i>	Tissue	R	R	R	R	R										1																																		
<i>41</i>		E1_INVCAD-5_2023-08			<i>11</i> -Aug-23	<i>11</i>	Tissue	R	R	R	R	R										1																																		
<i>42</i>		E1_INVCAD-6_2023-08			<i>11</i> -Aug-23	<i>11</i>	Tissue	R	R	R	R	R										1																																		
<i>43</i>		E1_INVCAD-7_2023-08			<i>11</i> -Aug-23	<i>11</i>	Tissue	R	R	R	R	R										1																																		
<i>44</i>		E1_INVCAD-8_2023-08			<i>11</i> -Aug-23	<i>11</i>	Tissue	R	R	R	R	R										1																																		
Drinking Water (DW) Samples¹ (client use)		Special Instructions / Specify Criteria to add on report by clicking on the drop-down list below (electronic COC only)			SAMPLE CONDITION AS RECEIVED (lab use only)																																																			
Are samples taken from a Regulated DW System? <input type="checkbox"/> YES <input type="checkbox"/> NO		If sample is insufficient for regular digestion and analysis, please contact kbatchelar@minnow.ca or slatimer@minnow.ca to discuss analysis options.			Frozen <input type="checkbox"/> SIF Observations Yes <input type="checkbox"/> No <input type="checkbox"/>					Ice Packs <input checked="" type="checkbox"/> Ice Cubes <input type="checkbox"/> Custody seal intact Yes <input type="checkbox"/> No <input type="checkbox"/>																																														
Are samples for human drinking water use? <input type="checkbox"/> YES <input type="checkbox"/> NO					Cooling Initiated <input type="checkbox"/>					INITIAL COOLER TEMPERATURES °C					FINAL COOLER TEMPERATURES °C																																									
										7.9, 2.15, 8																																														
SHIPMENT RELEASE (client use)		INITIAL SHIPMENT RECEPTION (lab use only)			FINAL SHIPMENT RECEPTION (lab use only)																																																			
Released by: <i>Katharina Batschelar</i> Date: <i>12-Aug-23</i> Time: <i>14:00</i>		Received by: _____ Date: _____ Time: _____			Received by: <i>RD</i> Date: <i>Aug 15, 23</i> Time: <i>4:40AM</i>																																																			

FISH TISSUE QUALITY

**ALS Laboratory Report VA23B1226
(Finalized July 4, 2023)**

CERTIFICATE OF ANALYSIS

<p>Work Order : VA23B1226</p> <p>Client : Mount Polley Mining Corporation</p> <p>Contact : Gabriel Holmes</p> <p>Address : PO Box 12 Likely BC Canada V0L 1N0</p> <p>Telephone : 250-790-2215 ext 2171</p> <p>Project : ----</p> <p>PO : 5590012190</p> <p>C-O-C number : ----</p> <p>Sampler : ----</p> <p>Site : ----</p> <p>Quote number : VA22-MPMC100-002</p> <p>No. of samples received : 140</p> <p>No. of samples analysed : 140</p>	<p>Page : 1 of 73</p> <p>Laboratory : Vancouver - Environmental</p> <p>Account Manager : Can Dang</p> <p>Address : 8081 Lougheed Highway Burnaby BC Canada V5A 1W9</p> <p>Telephone : +1 604 253 4188</p> <p>Date Samples Received : 19-May-2023 11:30</p> <p>Date Analysis Commenced : 09-Jun-2023</p> <p>Issue Date : 04-Jul-2023 09:09</p>
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This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QC Interpretive report to assist with Quality Review and Sample Receipt Notification (SRN).

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

<i>Signatories</i>	<i>Position</i>	<i>Laboratory Department</i>
Hamideh Moradi	Analyst	Metals, Burnaby, British Columbia
Kevin Duarte	Supervisor - Metals ICP Instrumentation	Metals, Burnaby, British Columbia
Kinny Wu	Lab Analyst	Metals, Burnaby, British Columbia
Maria Larrotta	Lab Assistant	Metals, Burnaby, British Columbia
Owen Cheng		Metals, Burnaby, British Columbia
Parnian Sane	Analyst	Metals, Burnaby, British Columbia
Ragini Saini	Lab Assistant	Metals, Burnaby, British Columbia
Salimah Khimani	Lab Assistant	Metals, Burnaby, British Columbia
Sam Silveira	Lab Assistant	Metals, Burnaby, British Columbia



General Comments

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Refer to the ALS Quality Control Interpretive report (QCI) for applicable references and methodology summaries. Reference methods may incorporate modifications to improve performance.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

Please refer to Quality Control Interpretive report (QCI) for information regarding Holding Time compliance.

Key : CAS Number: Chemical Abstracts Services number is a unique identifier assigned to discrete substances
LOR: Limit of Reporting (detection limit).

<i>Unit</i>	<i>Description</i>
%	percent
mg/kg	milligrams per kilogram
mg/kg ww	milligrams per kilogram wet weight

<: less than.

>: greater than.

Surrogate: An analyte that is similar in behavior to target analyte(s), but that does not occur naturally in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery.

Test results reported relate only to the samples as received by the laboratory.

UNLESS OTHERWISE STATED on SRN or QCI Report, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.



Analytical Results

Sub-Matrix: Tissue					Client sample ID				
(Matrix: Biota)					POL_RB-M-1_2 023-05	POL_RB-M-2_2 023-05	POL_RB-M-3_2 023-05	POL_RB-M-4_2 023-05	POL_RB-M-5_2 023-05
Client sampling date / time					12-May-2023	12-May-2023	12-May-2023	12-May-2023	12-May-2023
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23B1226-001	VA23B1226-002	VA23B1226-003	VA23B1226-004	VA23B1226-005
					Result	Result	Result	Result	Result
Physical Tests									
Moisture	----	E144/VA	0.50	%	77.5	80.7	79.3	78.3	80.7
Metals									
Aluminum	7429-90-5	E440/VA	2.0	mg/kg	3.5	11.2	4.6	<2.0	6.2
Antimony	7440-36-0	E440/VA	0.010	mg/kg	<0.010	<0.010	<0.010	<0.010	<0.010
Arsenic	7440-38-2	E440/VA	0.020	mg/kg	0.071	0.124	0.052	0.059	0.080
Barium	7440-39-3	E440/VA	0.050	mg/kg	0.180	0.454	0.204	0.082	0.218
Beryllium	7440-41-7	E440/VA	0.010	mg/kg	<0.010	<0.010	<0.010	<0.010	<0.010
Bismuth	7440-69-9	E440/VA	0.010	mg/kg	<0.010	<0.010	<0.010	<0.010	<0.010
Boron	7440-42-8	E440/VA	1.0	mg/kg	<1.0	<1.0	<1.0	<1.0	<1.0
Cadmium	7440-43-9	E440/VA	0.0050	mg/kg	<0.0050	0.0061	<0.0050	<0.0050	<0.0050
Calcium	7440-70-2	E440/VA	20	mg/kg	1240	842	281	974	458
Cesium	7440-46-2	E440/VA	0.0050	mg/kg	0.0694	0.0678	0.0581	0.0684	0.0463
Chromium	7440-47-3	E440/VA	0.050	mg/kg	0.094	0.182	0.102	0.137	0.190
Cobalt	7440-48-4	E440/VA	0.020	mg/kg	0.023	0.044	0.033	<0.020	0.025
Copper	7440-50-8	E440/VA	0.10	mg/kg	2.01	3.80	2.58	0.95	3.11
Iron	7439-89-6	E440/VA	3.0	mg/kg	28.6	65.7	49.1	20.6	37.3
Lead	7439-92-1	E440/VA	0.020	mg/kg	<0.020	0.028	<0.020	<0.020	<0.020
Lithium	7439-93-2	E440/VA	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
Magnesium	7439-95-4	E440/VA	2.0	mg/kg	1250	1340	1220	1220	1290
Manganese	7439-96-5	E440/VA	0.050	mg/kg	0.626	0.980	0.510	0.413	0.517
Mercury	7439-97-6	E510/VA	0.0050	mg/kg	0.488	0.609	0.435	0.489	0.440
Mercury	7439-97-6	E510A/VA	0.0010	mg/kg wwt	0.110	0.117	0.0900	0.106	0.0850
Molybdenum	7439-98-7	E440/VA	0.020	mg/kg	<0.020	0.026	<0.020	<0.020	<0.020
Nickel	7440-02-0	E440/VA	0.20	mg/kg	<0.20	<0.20	<0.20	<0.20	<0.20
Phosphorus	7723-14-0	E440/VA	10	mg/kg	13100	15000	13100	12200	13200
Potassium	7440-09-7	E440/VA	20	mg/kg	20300	23100	21400	19800	22400
Rubidium	7440-17-7	E440/VA	0.050	mg/kg	8.80	9.99	9.31	9.23	9.56
Selenium	7782-49-2	E440/VA	0.050	mg/kg	3.00	3.45	3.29	3.13	3.67
Silver	7440-22-4	E440.Ag/VA	0.0050	mg/kg	<0.0050	0.0404	<0.0050	<0.0050	<0.0050
Sodium	7440-23-5	E440/VA	20	mg/kg	1450	1930	1540	1300	1700



Analytical Results

Sub-Matrix: Tissue

Client sample ID

(Matrix: Biota)

					POL_RB-M-1_2 023-05	POL_RB-M-2_2 023-05	POL_RB-M-3_2 023-05	POL_RB-M-4_2 023-05	POL_RB-M-5_2 023-05
Client sampling date / time					12-May-2023	12-May-2023	12-May-2023	12-May-2023	12-May-2023
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23B1226-001	VA23B1226-002	VA23B1226-003	VA23B1226-004	VA23B1226-005
					Result	Result	Result	Result	Result
Metals									
Strontium	7440-24-6	E440/VA	0.050	mg/kg	1.48	1.12	0.280	1.09	0.523
Tellurium	13494-80-9	E440/VA	0.020	mg/kg	<0.020	<0.020	<0.020	<0.020	<0.020
Thallium	7440-28-0	E440/VA	0.0020	mg/kg	0.0065	0.0066	0.0100	0.0071	0.0098
Tin	7440-31-5	E440/VA	0.10	mg/kg	0.22	0.24	<0.10	<0.10	0.22
Titanium	7440-32-6	E440.Ti/VA	0.25	mg/kg	<0.25	0.69	0.28	<0.25	0.52
Uranium	7440-61-1	E440/VA	0.0020	mg/kg	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Vanadium	7440-62-2	E440/VA	0.10	mg/kg	<0.10	<0.10	<0.10	<0.10	<0.10
Zinc	7440-66-6	E440/VA	0.50	mg/kg	14.2	19.8	16.5	12.1	16.0
Zirconium	7440-67-7	E440/VA	0.20	mg/kg	<0.20	<0.20	<0.20	<0.20	<0.20

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.



Analytical Results

Sub-Matrix: Tissue (Matrix: Biota)					Client sample ID	POL_RB-M-6_2 023-05	POL_RB-M-7_2 023-05	POL_RB-M-8_2 023-05	POL_RB-O-1_2 023-05	POL_RB-O-2_2 023-05
Client sampling date / time					13-May-2023	13-May-2023	13-May-2023	12-May-2023	12-May-2023	
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23B1226-006	VA23B1226-007	VA23B1226-008	VA23B1226-009	VA23B1226-010	
					Result	Result	Result	Result	Result	
Physical Tests										
Moisture	----	E144/VA	0.50	%	78.1	79.2	79.3	60.0	63.8	
Metals										
Aluminum	7429-90-5	E440/VA	2.0	mg/kg	3.8	<2.0	2.5	<2.0	4.8	
Antimony	7440-36-0	E440/VA	0.010	mg/kg	<0.010	<0.010	<0.010	<0.010	<0.010	
Arsenic	7440-38-2	E440/VA	0.020	mg/kg	0.042	0.050	0.070	0.030	0.043	
Barium	7440-39-3	E440/VA	0.050	mg/kg	0.238	0.245	0.193	0.235	0.319	
Beryllium	7440-41-7	E440/VA	0.010	mg/kg	<0.010	<0.010	<0.010	<0.010	<0.010	
Bismuth	7440-69-9	E440/VA	0.010	mg/kg	<0.010	<0.010	<0.010	<0.010	<0.010	
Boron	7440-42-8	E440/VA	1.0	mg/kg	<1.0	<1.0	<1.0	<1.0	<1.0	
Cadmium	7440-43-9	E440/VA	0.0050	mg/kg	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	
Calcium	7440-70-2	E440/VA	20	mg/kg	258	2610	237	1140	1100	
Cesium	7440-46-2	E440/VA	0.0050	mg/kg	0.0624	0.0524	0.0560	0.0143	0.0167	
Chromium	7440-47-3	E440/VA	0.050	mg/kg	0.061	<0.050	0.087	<0.050	<0.050	
Cobalt	7440-48-4	E440/VA	0.020	mg/kg	0.041	<0.020	0.025	0.064	0.090	
Copper	7440-50-8	E440/VA	0.10	mg/kg	2.76	1.22	2.17	9.34	8.86	
Iron	7439-89-6	E440/VA	3.0	mg/kg	50.8	22.0	37.8	46.5	61.0	
Lead	7439-92-1	E440/VA	0.020	mg/kg	<0.020	<0.020	<0.020	<0.020	<0.020	
Lithium	7439-93-2	E440/VA	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50	
Magnesium	7439-95-4	E440/VA	2.0	mg/kg	1100	1410	1230	1430	1510	
Manganese	7439-96-5	E440/VA	0.050	mg/kg	0.745	0.827	0.333	2.50	5.24	
Mercury	7439-97-6	E510/VA	0.0050	mg/kg	0.332	0.938	0.457	0.0055	0.0143	
Mercury	7439-97-6	E510A/VA	0.0010	mg/kg wwt	0.0729	0.195	0.0947	0.0022	0.0052	
Molybdenum	7439-98-7	E440/VA	0.020	mg/kg	<0.020	<0.020	<0.020	0.044	0.039	
Nickel	7440-02-0	E440/VA	0.20	mg/kg	<0.20	<0.20	<0.20	<0.20	<0.20	
Phosphorus	7723-14-0	E440/VA	10	mg/kg	11400	14600	12300	11900	12400	
Potassium	7440-09-7	E440/VA	20	mg/kg	19800	22400	21800	7090	7590	
Rubidium	7440-17-7	E440/VA	0.050	mg/kg	11.4	8.06	11.0	3.52	4.22	
Selenium	7782-49-2	E440/VA	0.050	mg/kg	4.03	3.58	3.56	8.70	6.87	
Silver	7440-22-4	E440.Ag/VA	0.0050	mg/kg	<0.0050	<0.0050	<0.0050	<0.0050	0.0063	
Sodium	7440-23-5	E440/VA	20	mg/kg	1920	1520	1560	1980	2450	
Strontium	7440-24-6	E440/VA	0.050	mg/kg	0.251	2.98	0.155	3.16	3.08	



Analytical Results

Sub-Matrix: Tissue (Matrix: Biota)					Client sample ID	POL_RB-M-6_2 023-05	POL_RB-M-7_2 023-05	POL_RB-M-8_2 023-05	POL_RB-O-1_2 023-05	POL_RB-O-2_2 023-05
Client sampling date / time					13-May-2023	13-May-2023	13-May-2023	12-May-2023	12-May-2023	
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23B1226-006	VA23B1226-007	VA23B1226-008	VA23B1226-009	VA23B1226-010	
					Result	Result	Result	Result	Result	
Metals										
Tellurium	13494-80-9	E440/VA	0.020	mg/kg	<0.020	<0.020	<0.020	<0.020	<0.020	
Thallium	7440-28-0	E440/VA	0.0020	mg/kg	0.0045	0.0068	0.0070	<0.0020	<0.0020	
Tin	7440-31-5	E440/VA	0.10	mg/kg	0.12	0.44	0.20	<0.10	<0.10	
Titanium	7440-32-6	E440.Ti/VA	0.25	mg/kg	0.32	<0.25	<0.25	<0.25	0.30	
Uranium	7440-61-1	E440/VA	0.0020	mg/kg	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	
Vanadium	7440-62-2	E440/VA	0.10	mg/kg	<0.10	<0.10	<0.10	<0.10	<0.10	
Zinc	7440-66-6	E440/VA	0.50	mg/kg	18.8	14.2	15.0	67.3	78.9	
Zirconium	7440-67-7	E440/VA	0.20	mg/kg	<0.20	<0.20	<0.20	<0.20	<0.20	

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.



Analytical Results

Sub-Matrix: Tissue (Matrix: Biota)					Client sample ID	POL_RB-O-3_2 023-05	POL_RB-O-4_2 023-05	POL_RB-O-5_2 023-05	POL_RB-O-6_2 023-05	POL_RB-O-7_2 023-05
Client sampling date / time					12-May-2023	12-May-2023	12-May-2023	13-May-2023	13-May-2023	
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23B1226-011	VA23B1226-012	VA23B1226-013	VA23B1226-014	VA23B1226-015	
					Result	Result	Result	Result	Result	
Physical Tests										
Moisture	----	E144/VA	0.50	%	61.3	62.5	61.5	59.2	65.5	
Metals										
Aluminum	7429-90-5	E440/VA	2.0	mg/kg	3.7	<2.0	2.8	2.2	<2.0	
Antimony	7440-36-0	E440/VA	0.010	mg/kg	<0.010	<0.010	<0.010	<0.010	<0.010	
Arsenic	7440-38-2	E440/VA	0.020	mg/kg	0.046	0.037	0.045	0.024	0.044	
Barium	7440-39-3	E440/VA	0.050	mg/kg	0.324	0.204	0.220	0.348	0.193	
Beryllium	7440-41-7	E440/VA	0.010	mg/kg	<0.010	<0.010	<0.010	<0.010	<0.010	
Bismuth	7440-69-9	E440/VA	0.010	mg/kg	<0.010	<0.010	<0.010	<0.010	<0.010	
Boron	7440-42-8	E440/VA	1.0	mg/kg	<1.0	<1.0	<1.0	<1.0	<1.0	
Cadmium	7440-43-9	E440/VA	0.0050	mg/kg	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	
Calcium	7440-70-2	E440/VA	20	mg/kg	1270	1440	1360	1020	1140	
Cesium	7440-46-2	E440/VA	0.0050	mg/kg	0.0131	0.0140	0.0146	0.0195	0.0122	
Chromium	7440-47-3	E440/VA	0.050	mg/kg	<0.050	<0.050	<0.050	<0.050	<0.050	
Cobalt	7440-48-4	E440/VA	0.020	mg/kg	0.107	0.100	0.054	0.080	0.140	
Copper	7440-50-8	E440/VA	0.10	mg/kg	15.0	7.00	8.17	11.9	11.1	
Iron	7439-89-6	E440/VA	3.0	mg/kg	68.9	61.5	57.2	46.4	75.7	
Lead	7439-92-1	E440/VA	0.020	mg/kg	<0.020	<0.020	<0.020	<0.020	<0.020	
Lithium	7439-93-2	E440/VA	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50	
Magnesium	7439-95-4	E440/VA	2.0	mg/kg	1580	1360	1510	1580	1520	
Manganese	7439-96-5	E440/VA	0.050	mg/kg	3.99	2.80	3.58	5.46	4.34	
Mercury	7439-97-6	E510/VA	0.0050	mg/kg	0.0067	0.0108	<0.0050	0.0065	0.0278	
Mercury	7439-97-6	E510A/VA	0.0010	mg/kg wwt	0.0026	0.0040	0.0015	0.0026	0.0096	
Molybdenum	7439-98-7	E440/VA	0.020	mg/kg	0.046	0.072	0.052	0.034	0.052	
Nickel	7440-02-0	E440/VA	0.20	mg/kg	<0.20	<0.20	<0.20	<0.20	<0.20	
Phosphorus	7723-14-0	E440/VA	10	mg/kg	12100	12000	12000	11700	12200	
Potassium	7440-09-7	E440/VA	20	mg/kg	6620	7280	7390	6850	7660	
Rubidium	7440-17-7	E440/VA	0.050	mg/kg	3.30	3.76	3.90	4.70	3.55	
Selenium	7782-49-2	E440/VA	0.050	mg/kg	9.91	8.25	8.14	12.8	7.23	
Silver	7440-22-4	E440.Ag/VA	0.0050	mg/kg	<0.0050	<0.0050	0.0074	<0.0050	0.0115	
Sodium	7440-23-5	E440/VA	20	mg/kg	2380	2430	1960	1800	3130	
Strontium	7440-24-6	E440/VA	0.050	mg/kg	3.33	3.09	3.42	3.26	2.32	



Analytical Results

Sub-Matrix: Tissue (Matrix: Biota)					Client sample ID	POL_RB-O-3_2 023-05	POL_RB-O-4_2 023-05	POL_RB-O-5_2 023-05	POL_RB-O-6_2 023-05	POL_RB-O-7_2 023-05
Client sampling date / time					12-May-2023	12-May-2023	12-May-2023	13-May-2023	13-May-2023	
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23B1226-011	VA23B1226-012	VA23B1226-013	VA23B1226-014	VA23B1226-015	
					Result	Result	Result	Result	Result	
Metals										
Tellurium	13494-80-9	E440/VA	0.020	mg/kg	<0.020	<0.020	<0.020	<0.020	<0.020	
Thallium	7440-28-0	E440/VA	0.0020	mg/kg	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	
Tin	7440-31-5	E440/VA	0.10	mg/kg	<0.10	<0.10	<0.10	<0.10	<0.10	
Titanium	7440-32-6	E440.Ti/VA	0.25	mg/kg	<0.25	<0.25	<0.25	<0.25	<0.25	
Uranium	7440-61-1	E440/VA	0.0020	mg/kg	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	
Vanadium	7440-62-2	E440/VA	0.10	mg/kg	<0.10	<0.10	<0.10	<0.10	<0.10	
Zinc	7440-66-6	E440/VA	0.50	mg/kg	88.8	77.2	65.6	59.5	99.0	
Zirconium	7440-67-7	E440/VA	0.20	mg/kg	<0.20	<0.20	<0.20	<0.20	<0.20	

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.



Analytical Results

Sub-Matrix: Tissue					Client sample ID				
(Matrix: Biota)					POL_RB-O-8_2 023-05	POL_RB-Li-1_2 023-05	POL_RB-Li-2_2 023-05	POL_RB-Li-3_2 023-05	POL_RB-Li-4_2 023-05
Client sampling date / time					13-May-2023	12-May-2023	12-May-2023	12-May-2023	12-May-2023
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23B1226-016	VA23B1226-017	VA23B1226-018	VA23B1226-019	VA23B1226-020
					Result	Result	Result	Result	Result
Physical Tests									
Moisture	----	E144/VA	0.50	%	61.4	----	----	----	----
Moisture	----	E144-H/VA	2.0	%	----	75.1	75.3	74.8	76.0
Metals									
Aluminum	7429-90-5	E440/VA	2.0	mg/kg	2.2	----	----	----	----
Aluminum	7429-90-5	E472/VA	5.0	mg/kg	----	6.1	23.9	8.5	<5.0
Antimony	7440-36-0	E472/VA	0.010	mg/kg	----	<0.010	0.014	<0.010	<0.010
Antimony	7440-36-0	E440/VA	0.010	mg/kg	<0.010	----	----	----	----
Arsenic	7440-38-2	E440/VA	0.020	mg/kg	0.059	----	----	----	----
Arsenic	7440-38-2	E472/VA	0.030	mg/kg	----	0.060	0.137	0.097	0.076
Barium	7440-39-3	E472/VA	0.050	mg/kg	----	0.284	0.467	0.137	<0.050
Barium	7440-39-3	E440/VA	0.050	mg/kg	0.247	----	----	----	----
Beryllium	7440-41-7	E472/VA	0.010	mg/kg	----	<0.010	<0.010	<0.010	<0.010
Beryllium	7440-41-7	E440/VA	0.010	mg/kg	<0.010	----	----	----	----
Bismuth	7440-69-9	E472/VA	0.010	mg/kg	----	<0.010	<0.010	<0.010	<0.010
Bismuth	7440-69-9	E440/VA	0.010	mg/kg	<0.010	----	----	----	----
Boron	7440-42-8	E472/VA	1.0	mg/kg	----	<1.0	<1.0	<1.0	<1.0
Boron	7440-42-8	E440/VA	1.0	mg/kg	<1.0	----	----	----	----
Cadmium	7440-43-9	E440/VA	0.0050	mg/kg	<0.0050	----	----	----	----
Cadmium	7440-43-9	E472/VA	0.010	mg/kg	----	0.148	0.207	0.164	0.125
Calcium	7440-70-2	E472/VA	20	mg/kg	----	235	326	294	302
Calcium	7440-70-2	E440/VA	20	mg/kg	1360	----	----	----	----
Cesium	7440-46-2	E472/VA	0.0050	mg/kg	----	0.0332	0.0447	0.0338	0.0325
Cesium	7440-46-2	E440/VA	0.0050	mg/kg	0.0154	----	----	----	----
Chromium	7440-47-3	E440/VA	0.050	mg/kg	<0.050	----	----	----	----
Chromium	7440-47-3	E472/VA	0.20	mg/kg	----	<0.20	<0.20	<0.20	<0.20
Cobalt	7440-48-4	E472/VA	0.020	mg/kg	----	0.077	0.117	0.113	0.074
Cobalt	7440-48-4	E440/VA	0.020	mg/kg	0.117	----	----	----	----
Copper	7440-50-8	E440/VA	0.10	mg/kg	10.4	----	----	----	----
Copper	7440-50-8	E472/VA	0.20	mg/kg	----	131	58.7	288	27.9
Iron	7439-89-6	E440/VA	3.0	mg/kg	59.2	----	----	----	----
Iron	7439-89-6	E472/VA	5.0	mg/kg	----	2090	3270	2850	2020



Analytical Results

Sub-Matrix: Tissue

Client sample ID

(Matrix: Biota)

					POL_RB-O-8_2 023-05	POL_RB-Li-1_2 023-05	POL_RB-Li-2_2 023-05	POL_RB-Li-3_2 023-05	POL_RB-Li-4_2 023-05
Client sampling date / time					13-May-2023	12-May-2023	12-May-2023	12-May-2023	12-May-2023
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23B1226-016	VA23B1226-017	VA23B1226-018	VA23B1226-019	VA23B1226-020
					Result	Result	Result	Result	Result
Metals									
Lead	7439-92-1	E440/VA	0.020	mg/kg	<0.020	----	----	----	----
Lead	7439-92-1	E472/VA	0.050	mg/kg	----	<0.050	0.094	<0.050	<0.050
Lithium	7439-93-2	E472/VA	0.50	mg/kg	----	<0.50	<0.50	<0.50	<0.50
Lithium	7439-93-2	E440/VA	0.50	mg/kg	<0.50	----	----	----	----
Magnesium	7439-95-4	E472/VA	2.0	mg/kg	----	714	774	676	662
Magnesium	7439-95-4	E440/VA	2.0	mg/kg	1660	----	----	----	----
Manganese	7439-96-5	E472/VA	0.050	mg/kg	----	4.78	6.99	7.20	3.76
Manganese	7439-96-5	E440/VA	0.050	mg/kg	3.46	----	----	----	----
Mercury	7439-97-6	E511/VA	0.0050	mg/kg	----	0.421	0.334	0.357	0.372
Mercury	7439-97-6	E510/VA	0.0050	mg/kg	<0.0050	----	----	----	----
Mercury	7439-97-6	E511A/VA	0.0010	mg/kg wwt	----	0.105	0.0824	0.0901	0.0892
Mercury	7439-97-6	E510A/VA	0.0010	mg/kg wwt	0.0015	----	----	----	----
Molybdenum	7439-98-7	E440/VA	0.020	mg/kg	0.042	----	----	----	----
Molybdenum	7439-98-7	E472/VA	0.040	mg/kg	----	0.960	1.05	1.48	0.678
Nickel	7440-02-0	E472/VA	0.20	mg/kg	----	<0.20	<0.20	<0.20	<0.20
Nickel	7440-02-0	E440/VA	0.20	mg/kg	<0.20	----	----	----	----
Phosphorus	7723-14-0	E472/VA	10	mg/kg	----	14100	15500	14200	13100
Phosphorus	7723-14-0	E440/VA	10	mg/kg	12500	----	----	----	----
Potassium	7440-09-7	E472/VA	20	mg/kg	----	12200	13500	12200	13300
Potassium	7440-09-7	E440/VA	20	mg/kg	7350	----	----	----	----
Rubidium	7440-17-7	E472/VA	0.050	mg/kg	----	6.16	7.80	6.53	7.72
Rubidium	7440-17-7	E440/VA	0.050	mg/kg	4.54	----	----	----	----
Selenium	7782-49-2	E440/VA	0.050	mg/kg	9.80	----	----	----	----
Selenium	7782-49-2	E472/VA	0.10	mg/kg	----	35.7	35.1	102	12.0
Silver	7440-22-4	E472.Ag/VA	0.0050	mg/kg	----	0.418	0.424	0.806	0.149
Silver	7440-22-4	E440.Ag/VA	0.0050	mg/kg	<0.0050	----	----	----	----
Sodium	7440-23-5	E472/VA	20	mg/kg	----	4620	4690	5130	5180
Sodium	7440-23-5	E440/VA	20	mg/kg	2010	----	----	----	----
Strontium	7440-24-6	E440/VA	0.050	mg/kg	3.52	----	----	----	----
Strontium	7440-24-6	E472/VA	0.10	mg/kg	----	0.39	0.76	0.58	0.45
Tellurium	13494-80-9	E472/VA	0.020	mg/kg	----	<0.020	<0.020	<0.020	<0.020



Analytical Results

Sub-Matrix: Tissue (Matrix: Biota)					Client sample ID	POL_RB-O-8_2 023-05	POL_RB-Li-1_2 023-05	POL_RB-Li-2_2 023-05	POL_RB-Li-3_2 023-05	POL_RB-Li-4_2 023-05
Client sampling date / time					13-May-2023	12-May-2023	12-May-2023	12-May-2023	12-May-2023	
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23B1226-016	VA23B1226-017	VA23B1226-018	VA23B1226-019	VA23B1226-020	
					Result	Result	Result	Result	Result	
Metals										
Tellurium	13494-80-9	E440/VA	0.020	mg/kg	<0.020	----	----	----	----	
Thallium	7440-28-0	E472/VA	0.0020	mg/kg	----	0.106	0.113	0.233	0.0952	
Thallium	7440-28-0	E440/VA	0.0020	mg/kg	<0.0020	----	----	----	----	
Tin	7440-31-5	E472/VA	0.10	mg/kg	----	<0.10	<0.10	<0.10	<0.10	
Tin	7440-31-5	E440/VA	0.10	mg/kg	<0.10	----	----	----	----	
Titanium	7440-32-6	E440.Ti/VA	0.25	mg/kg	<0.25	----	----	----	----	
Titanium	7440-32-6	E472.Ti/VA	0.50	mg/kg	----	<0.50	1.12	1.32	<0.50	
Uranium	7440-61-1	E472/VA	0.0020	mg/kg	----	0.0052	0.0082	0.0066	0.0039	
Uranium	7440-61-1	E440/VA	0.0020	mg/kg	<0.0020	----	----	----	----	
Vanadium	7440-62-2	E472/VA	0.10	mg/kg	----	0.64	0.70	0.88	0.43	
Vanadium	7440-62-2	E440/VA	0.10	mg/kg	<0.10	----	----	----	----	
Zinc	7440-66-6	E440/VA	0.50	mg/kg	75.9	----	----	----	----	
Zinc	7440-66-6	E472/VA	1.0	mg/kg	----	138	206	137	142	
Zirconium	7440-67-7	E472/VA	0.20	mg/kg	----	<0.20	<0.20	<0.20	<0.20	
Zirconium	7440-67-7	E440/VA	0.20	mg/kg	<0.20	----	----	----	----	

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.



Analytical Results

Sub-Matrix: Tissue					Client sample ID				
(Matrix: Biota)					POL_RB-Li-5_2 023-05	POL_RB-Li-6_2 023-05	POL_RB-Li-7_2 023-05	POL_RB-Li-8_2 023-05	POL_RB-Ki-1_2 023-05
Client sampling date / time					12-May-2023	13-May-2023	13-May-2023	13-May-2023	12-May-2023
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23B1226-021	VA23B1226-022	VA23B1226-023	VA23B1226-024	VA23B1226-025
					Result	Result	Result	Result	Result
Physical Tests									
Moisture	----	E144A/VA	2.0	%	----	----	72.9	----	----
Moisture	----	E144-H/VA	2.0	%	75.8	77.0	----	76.4	79.1
Metals									
Aluminum	7429-90-5	E475/VA	5.0	mg/kg	----	----	<5.0	----	----
Aluminum	7429-90-5	E472/VA	5.0	mg/kg	8.5	19.6	----	9.5	12.9
Antimony	7440-36-0	E472/VA	0.010	mg/kg	<0.010	<0.010	----	<0.010	<0.010
Antimony	7440-36-0	E475/VA	0.020	mg/kg	----	----	<0.020	----	----
Arsenic	7440-38-2	E472/VA	0.030	mg/kg	0.110	0.067	----	0.151	0.410
Arsenic	7440-38-2	E475/VA	0.050	mg/kg	----	----	0.088	----	----
Barium	7440-39-3	E475/VA	0.050	mg/kg	----	----	0.081	----	----
Barium	7440-39-3	E472/VA	0.050	mg/kg	0.150	0.150	----	0.227	0.590
Beryllium	7440-41-7	E475/VA	0.010	mg/kg	----	----	<0.010	----	----
Beryllium	7440-41-7	E472/VA	0.010	mg/kg	<0.010	<0.010	----	<0.010	<0.010
Bismuth	7440-69-9	E475/VA	0.010	mg/kg	----	----	<0.010	----	----
Bismuth	7440-69-9	E472/VA	0.010	mg/kg	<0.010	<0.010	----	<0.010	<0.010
Boron	7440-42-8	E475/VA	1.0	mg/kg	----	----	<1.0	----	----
Boron	7440-42-8	E472/VA	1.0	mg/kg	<1.0	<1.0	----	<1.0	<1.0
Cadmium	7440-43-9	E475/VA	0.010	mg/kg	----	----	0.062	----	----
Cadmium	7440-43-9	E472/VA	0.010	mg/kg	0.233	0.588	----	0.206	0.487
Calcium	7440-70-2	E475/VA	20	mg/kg	----	----	265	----	----
Calcium	7440-70-2	E472/VA	20	mg/kg	308	372	----	286	494
Cesium	7440-46-2	E475/VA	0.0050	mg/kg	----	----	0.0390	----	----
Cesium	7440-46-2	E472/VA	0.0050	mg/kg	0.0419	0.0566	----	0.0353	0.0264
Chromium	7440-47-3	E475/VA	0.20	mg/kg	----	----	<0.20	----	----
Chromium	7440-47-3	E472/VA	0.20	mg/kg	0.54	<0.20	----	<0.20	0.24
Cobalt	7440-48-4	E475/VA	0.020	mg/kg	----	----	0.082	----	----
Cobalt	7440-48-4	E472/VA	0.020	mg/kg	0.097	0.157	----	0.129	1.15
Copper	7440-50-8	E475/VA	0.20	mg/kg	----	----	14.5	----	----
Copper	7440-50-8	E472/VA	0.20	mg/kg	16.6	297	----	62.7	5.78
Iron	7439-89-6	E475/VA	5.0	mg/kg	----	----	1390	----	----
Iron	7439-89-6	E472/VA	5.0	mg/kg	1350	4420	----	1910	770



Analytical Results

Sub-Matrix: Tissue

Client sample ID

(Matrix: Biota)

					POL_RB-Li-5_2 023-05	POL_RB-Li-6_2 023-05	POL_RB-Li-7_2 023-05	POL_RB-Li-8_2 023-05	POL_RB-Ki-1_2 023-05
Client sampling date / time					12-May-2023	13-May-2023	13-May-2023	13-May-2023	12-May-2023
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23B1226-021	VA23B1226-022	VA23B1226-023	VA23B1226-024	VA23B1226-025
					Result	Result	Result	Result	Result
Metals									
Lead	7439-92-1	E475/VA	0.050	mg/kg	----	----	<0.050	----	----
Lead	7439-92-1	E472/VA	0.050	mg/kg	<0.050	<0.050	----	<0.050	<0.050
Lithium	7439-93-2	E475/VA	0.50	mg/kg	----	----	<0.50	----	----
Lithium	7439-93-2	E472/VA	0.50	mg/kg	<0.50	<0.50	----	<0.50	<0.50
Magnesium	7439-95-4	E475/VA	2.0	mg/kg	----	----	834	----	----
Magnesium	7439-95-4	E472/VA	2.0	mg/kg	824	685	----	568	510
Manganese	7439-96-5	E475/VA	0.050	mg/kg	----	----	5.85	----	----
Manganese	7439-96-5	E472/VA	0.050	mg/kg	5.92	6.82	----	4.00	3.20
Mercury	7439-97-6	E511/VA	0.0050	mg/kg	0.164	0.235	----	0.274	0.526
Mercury	7439-97-6	E512/VA	0.010	mg/kg	----	----	0.598	----	----
Mercury	7439-97-6	E511A/VA	0.0010	mg/kg wwt	0.0395	0.0541	----	0.0645	0.110
Mercury	7439-97-6	E512A/VA	0.0020	mg/kg wwt	----	----	0.162	----	----
Molybdenum	7439-98-7	E475/VA	0.040	mg/kg	----	----	0.834	----	----
Molybdenum	7439-98-7	E472/VA	0.040	mg/kg	0.783	1.70	----	0.909	0.355
Nickel	7440-02-0	E475/VA	0.20	mg/kg	----	----	0.21	----	----
Nickel	7440-02-0	E472/VA	0.20	mg/kg	0.41	<0.20	----	<0.20	0.36
Phosphorus	7723-14-0	E472/VA	10	mg/kg	14900	14100	----	11700	9950
Phosphorus	7723-14-0	E475/VA	20	mg/kg	----	----	15200	----	----
Potassium	7440-09-7	E475/VA	20	mg/kg	----	----	14900	----	----
Potassium	7440-09-7	E472/VA	20	mg/kg	14200	12900	----	11700	8290
Rubidium	7440-17-7	E475/VA	0.050	mg/kg	----	----	7.24	----	----
Rubidium	7440-17-7	E472/VA	0.050	mg/kg	8.17	8.69	----	6.97	4.36
Selenium	7782-49-2	E475/VA	0.10	mg/kg	----	----	12.8	----	----
Selenium	7782-49-2	E472/VA	0.10	mg/kg	15.1	81.1	----	25.1	11.5
Silver	7440-22-4	E475.Ag/VA	0.0050	mg/kg	----	----	0.102	----	----
Silver	7440-22-4	E472.Ag/VA	0.0050	mg/kg	0.130	0.477	----	0.315	<0.0050
Sodium	7440-23-5	E475/VA	20	mg/kg	----	----	4560	----	----
Sodium	7440-23-5	E472/VA	20	mg/kg	6050	5830	----	6250	6920
Strontium	7440-24-6	E475/VA	0.10	mg/kg	----	----	0.35	----	----
Strontium	7440-24-6	E472/VA	0.10	mg/kg	0.57	0.62	----	0.49	1.38
Tellurium	13494-80-9	E475/VA	0.020	mg/kg	----	----	<0.020	----	----



Analytical Results

Sub-Matrix: Tissue (Matrix: Biota)					Client sample ID	POL_RB-Li-5_2 023-05	POL_RB-Li-6_2 023-05	POL_RB-Li-7_2 023-05	POL_RB-Li-8_2 023-05	POL_RB-Ki-1_2 023-05
Client sampling date / time					12-May-2023	13-May-2023	13-May-2023	13-May-2023	12-May-2023	
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23B1226-021	VA23B1226-022	VA23B1226-023	VA23B1226-024	VA23B1226-025	
					Result	Result	Result	Result	Result	
Metals										
Tellurium	13494-80-9	E472/VA	0.020	mg/kg	<0.020	<0.020	----	<0.020	<0.020	
Thallium	7440-28-0	E475/VA	0.0020	mg/kg	----	----	0.110	----	----	
Thallium	7440-28-0	E472/VA	0.0020	mg/kg	0.137	0.0975	----	0.119	0.0701	
Tin	7440-31-5	E475/VA	0.10	mg/kg	----	----	<0.10	----	----	
Tin	7440-31-5	E472/VA	0.10	mg/kg	<0.10	<0.10	----	<0.10	<0.10	
Titanium	7440-32-6	E475.Ti/VA	0.50	mg/kg	----	----	<0.50	----	----	
Titanium	7440-32-6	E472.Ti/VA	0.50	mg/kg	<0.50	<0.50	----	0.82	0.96	
Uranium	7440-61-1	E475/VA	0.0020	mg/kg	----	----	0.0067	----	----	
Uranium	7440-61-1	E472/VA	0.0020	mg/kg	0.0036	0.0212	----	0.0022	0.0068	
Vanadium	7440-62-2	E475/VA	0.10	mg/kg	----	----	0.64	----	----	
Vanadium	7440-62-2	E472/VA	0.10	mg/kg	0.40	1.14	----	0.55	0.79	
Zinc	7440-66-6	E475/VA	1.0	mg/kg	----	----	147	----	----	
Zinc	7440-66-6	E472/VA	1.0	mg/kg	142	253	----	158	198	
Zirconium	7440-67-7	E475/VA	0.20	mg/kg	----	----	<0.20	----	----	
Zirconium	7440-67-7	E472/VA	0.20	mg/kg	<0.20	<0.20	----	<0.20	<0.20	

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.



Analytical Results

Sub-Matrix: Tissue					Client sample ID				
(Matrix: Biota)					POL_RB-Ki-2_2 023-05	POL_RB-Ki-3_2 023-05	POL_RB-Ki-4_2 023-05	POL_RB-Ki-5_2 023-05	POL_RB-Ki-6_2 023-05
Client sampling date / time					12-May-2023	12-May-2023	12-May-2023	12-May-2023	13-May-2023
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23B1226-026	VA23B1226-027	VA23B1226-028	VA23B1226-029	VA23B1226-030
					Result	Result	Result	Result	Result
Physical Tests									
Moisture	----	E144A/VA	2.0	%	79.7	77.5	----	80.4	78.3
Moisture	----	E144-H/VA	2.0	%	----	----	79.0	----	----
Metals									
Aluminum	7429-90-5	E475/VA	5.0	mg/kg	179	65.8	----	381	30.2
Aluminum	7429-90-5	E472/VA	5.0	mg/kg	----	----	5.7	----	----
Antimony	7440-36-0	E472/VA	0.010	mg/kg	----	----	<0.010	----	----
Antimony	7440-36-0	E475/VA	0.020	mg/kg	0.074	<0.020	----	0.026	<0.020
Arsenic	7440-38-2	E472/VA	0.030	mg/kg	----	----	0.341	----	----
Arsenic	7440-38-2	E475/VA	0.050	mg/kg	0.481	0.609	----	0.598	0.509
Barium	7440-39-3	E475/VA	0.050	mg/kg	3.90	1.02	----	12.6	0.972
Barium	7440-39-3	E472/VA	0.050	mg/kg	----	----	0.285	----	----
Beryllium	7440-41-7	E475/VA	0.010	mg/kg	<0.010	<0.010	----	0.012	<0.010
Beryllium	7440-41-7	E472/VA	0.010	mg/kg	----	----	<0.010	----	----
Bismuth	7440-69-9	E475/VA	0.010	mg/kg	0.017	<0.010	----	<0.010	<0.010
Bismuth	7440-69-9	E472/VA	0.010	mg/kg	----	----	<0.010	----	----
Boron	7440-42-8	E475/VA	1.0	mg/kg	<1.0	<1.0	----	1.2	<1.0
Boron	7440-42-8	E472/VA	1.0	mg/kg	----	----	<1.0	----	----
Cadmium	7440-43-9	E475/VA	0.010	mg/kg	0.345	0.600	----	2.25	0.981
Cadmium	7440-43-9	E472/VA	0.010	mg/kg	----	----	0.310	----	----
Calcium	7440-70-2	E475/VA	20	mg/kg	1610	1150	----	1520	683
Calcium	7440-70-2	E472/VA	20	mg/kg	----	----	430	----	----
Cesium	7440-46-2	E475/VA	0.0050	mg/kg	0.0736	0.0397	----	0.0844	0.0558
Cesium	7440-46-2	E472/VA	0.0050	mg/kg	----	----	0.0296	----	----
Chromium	7440-47-3	E475/VA	0.20	mg/kg	1.15	0.37	----	0.68	0.40
Chromium	7440-47-3	E472/VA	0.20	mg/kg	----	----	<0.20	----	----
Cobalt	7440-48-4	E475/VA	0.020	mg/kg	0.922	1.30	----	1.47	1.83
Cobalt	7440-48-4	E472/VA	0.020	mg/kg	----	----	1.04	----	----
Copper	7440-50-8	E475/VA	0.20	mg/kg	19.4	11.8	----	30.6	7.56
Copper	7440-50-8	E472/VA	0.20	mg/kg	----	----	3.86	----	----
Iron	7439-89-6	E475/VA	5.0	mg/kg	1110	1150	----	1720	1180
Iron	7439-89-6	E472/VA	5.0	mg/kg	----	----	846	----	----



Analytical Results

Sub-Matrix: Tissue					Client sample ID				
(Matrix: Biota)					POL_RB-Ki-2_2	POL_RB-Ki-3_2	POL_RB-Ki-4_2	POL_RB-Ki-5_2	POL_RB-Ki-6_2
					023-05	023-05	023-05	023-05	023-05
Client sampling date / time					12-May-2023	12-May-2023	12-May-2023	12-May-2023	13-May-2023
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23B1226-026	VA23B1226-027	VA23B1226-028	VA23B1226-029	VA23B1226-030
					Result	Result	Result	Result	Result
Metals									
Lead	7439-92-1	E475/VA	0.050	mg/kg	0.588	0.082	----	0.338	0.072
Lead	7439-92-1	E472/VA	0.050	mg/kg	----	----	<0.050	----	----
Lithium	7439-93-2	E475/VA	0.50	mg/kg	<0.50	<0.50	----	<0.50	<0.50
Lithium	7439-93-2	E472/VA	0.50	mg/kg	----	----	<0.50	----	----
Magnesium	7439-95-4	E475/VA	2.0	mg/kg	951	844	----	957	702
Magnesium	7439-95-4	E472/VA	2.0	mg/kg	----	----	569	----	----
Manganese	7439-96-5	E475/VA	0.050	mg/kg	10.2	20.2	----	18.7	4.86
Manganese	7439-96-5	E472/VA	0.050	mg/kg	----	----	2.01	----	----
Mercury	7439-97-6	E511/VA	0.0050	mg/kg	----	----	0.386	----	----
Mercury	7439-97-6	E512/VA	0.010	mg/kg	0.492	0.346	----	0.330	0.322
Mercury	7439-97-6	E511A/VA	0.0010	mg/kg wwt	----	----	0.0811	----	----
Mercury	7439-97-6	E512A/VA	0.0020	mg/kg wwt	0.0998	0.0778	----	0.0646	0.0697
Molybdenum	7439-98-7	E475/VA	0.040	mg/kg	0.315	0.459	----	0.763	0.521
Molybdenum	7439-98-7	E472/VA	0.040	mg/kg	----	----	0.268	----	----
Nickel	7440-02-0	E475/VA	0.20	mg/kg	1.05	0.66	----	1.20	1.12
Nickel	7440-02-0	E472/VA	0.20	mg/kg	----	----	0.31	----	----
Phosphorus	7723-14-0	E472/VA	10	mg/kg	----	----	11200	----	----
Phosphorus	7723-14-0	E475/VA	20	mg/kg	14800	12100	----	10400	11800
Potassium	7440-09-7	E475/VA	20	mg/kg	13800	11300	----	9980	11700
Potassium	7440-09-7	E472/VA	20	mg/kg	----	----	10700	----	----
Rubidium	7440-17-7	E475/VA	0.050	mg/kg	7.58	6.08	----	5.63	8.04
Rubidium	7440-17-7	E472/VA	0.050	mg/kg	----	----	6.02	----	----
Selenium	7782-49-2	E475/VA	0.10	mg/kg	9.12	13.4	----	14.4	22.3
Selenium	7782-49-2	E472/VA	0.10	mg/kg	----	----	9.49	----	----
Silver	7440-22-4	E475.Ag/VA	0.0050	mg/kg	0.173	0.0169	----	0.0355	<0.0050
Silver	7440-22-4	E472.Ag/VA	0.0050	mg/kg	----	----	<0.0050	----	----
Sodium	7440-23-5	E475/VA	20	mg/kg	11600	9100	----	6970	10900
Sodium	7440-23-5	E472/VA	20	mg/kg	----	----	6970	----	----
Strontium	7440-24-6	E475/VA	0.10	mg/kg	4.81	3.36	----	6.01	1.82
Strontium	7440-24-6	E472/VA	0.10	mg/kg	----	----	1.15	----	----
Tellurium	13494-80-9	E475/VA	0.020	mg/kg	<0.020	<0.020	----	<0.020	<0.020



Analytical Results

Sub-Matrix: Tissue (Matrix: Biota)					Client sample ID	POL_RB-Ki-2_2 023-05	POL_RB-Ki-3_2 023-05	POL_RB-Ki-4_2 023-05	POL_RB-Ki-5_2 023-05	POL_RB-Ki-6_2 023-05
Client sampling date / time					12-May-2023	12-May-2023	12-May-2023	12-May-2023	13-May-2023	
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23B1226-026	VA23B1226-027	VA23B1226-028	VA23B1226-029	VA23B1226-030	
					Result	Result	Result	Result	Result	
Metals										
Tellurium	13494-80-9	E472/VA	0.020	mg/kg	----	----	<0.020	----	----	
Thallium	7440-28-0	E475/VA	0.0020	mg/kg	0.0153	0.0743	----	0.0983	0.0450	
Thallium	7440-28-0	E472/VA	0.0020	mg/kg	----	----	0.0265	----	----	
Tin	7440-31-5	E475/VA	0.10	mg/kg	0.20	<0.10	----	0.28	<0.10	
Tin	7440-31-5	E472/VA	0.10	mg/kg	----	----	<0.10	----	----	
Titanium	7440-32-6	E475.Ti/VA	0.50	mg/kg	13.1	4.74	----	37.6	2.05	
Titanium	7440-32-6	E472.Ti/VA	0.50	mg/kg	----	----	<0.50	----	----	
Uranium	7440-61-1	E475/VA	0.0020	mg/kg	0.0217	0.0116	----	0.0260	0.0238	
Uranium	7440-61-1	E472/VA	0.0020	mg/kg	----	----	0.0048	----	----	
Vanadium	7440-62-2	E475/VA	0.10	mg/kg	1.62	1.01	----	3.51	1.26	
Vanadium	7440-62-2	E472/VA	0.10	mg/kg	----	----	0.46	----	----	
Zinc	7440-66-6	E475/VA	1.0	mg/kg	445	238	----	291	237	
Zinc	7440-66-6	E472/VA	1.0	mg/kg	----	----	185	----	----	
Zirconium	7440-67-7	E475/VA	0.20	mg/kg	0.21	<0.20	----	0.27	<0.20	
Zirconium	7440-67-7	E472/VA	0.20	mg/kg	----	----	<0.20	----	----	

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.



Analytical Results

Sub-Matrix: Tissue					Client sample ID				
(Matrix: Biota)					POL_RB-Ki-7_2 023-05	POL_RB-Ki-8_2 023-05	BOL_RB-M-1_2 023-05	BOL_RB-M-2_2 023-05	BOL_RB-M-3_2 023-05
Client sampling date / time					13-May-2023	13-May-2023	14-May-2023	14-May-2023	14-May-2023
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23B1226-031	VA23B1226-032	VA23B1226-033	VA23B1226-034	VA23B1226-035
					Result	Result	Result	Result	Result
Physical Tests									
Moisture	----	E144/VA	0.50	%	----	----	82.2	79.1	79.8
Moisture	----	E144A/VA	2.0	%	74.5	----	----	----	----
Moisture	----	E144-H/VA	2.0	%	----	74.7	----	----	----
Metals									
Aluminum	7429-90-5	E440/VA	2.0	mg/kg	----	----	7.2	6.7	5.8
Aluminum	7429-90-5	E475/VA	5.0	mg/kg	<5.0	----	----	----	----
Aluminum	7429-90-5	E472/VA	5.0	mg/kg	----	29.0	----	----	----
Antimony	7440-36-0	E472/VA	0.010	mg/kg	----	0.011	----	----	----
Antimony	7440-36-0	E440/VA	0.010	mg/kg	----	----	<0.010	<0.010	<0.010
Antimony	7440-36-0	E475/VA	0.020	mg/kg	<0.020	----	----	----	----
Arsenic	7440-38-2	E440/VA	0.020	mg/kg	----	----	0.041	0.029	0.034
Arsenic	7440-38-2	E472/VA	0.030	mg/kg	----	0.815	----	----	----
Arsenic	7440-38-2	E475/VA	0.050	mg/kg	0.323	----	----	----	----
Barium	7440-39-3	E475/VA	0.050	mg/kg	0.212	----	----	----	----
Barium	7440-39-3	E472/VA	0.050	mg/kg	----	1.43	----	----	----
Barium	7440-39-3	E440/VA	0.050	mg/kg	----	----	0.368	0.837	0.337
Beryllium	7440-41-7	E475/VA	0.010	mg/kg	<0.010	----	----	----	----
Beryllium	7440-41-7	E472/VA	0.010	mg/kg	----	<0.010	----	----	----
Beryllium	7440-41-7	E440/VA	0.010	mg/kg	----	----	<0.010	<0.010	<0.010
Bismuth	7440-69-9	E475/VA	0.010	mg/kg	<0.010	----	----	----	----
Bismuth	7440-69-9	E472/VA	0.010	mg/kg	----	<0.010	----	----	----
Bismuth	7440-69-9	E440/VA	0.010	mg/kg	----	----	<0.010	<0.010	<0.010
Boron	7440-42-8	E475/VA	1.0	mg/kg	<1.0	----	----	----	----
Boron	7440-42-8	E472/VA	1.0	mg/kg	----	<1.0	----	----	----
Boron	7440-42-8	E440/VA	1.0	mg/kg	----	----	<1.0	<1.0	<1.0
Cadmium	7440-43-9	E440/VA	0.0050	mg/kg	----	----	<0.0050	<0.0050	<0.0050
Cadmium	7440-43-9	E475/VA	0.010	mg/kg	0.482	----	----	----	----
Cadmium	7440-43-9	E472/VA	0.010	mg/kg	----	0.833	----	----	----
Calcium	7440-70-2	E475/VA	20	mg/kg	1080	----	----	----	----
Calcium	7440-70-2	E472/VA	20	mg/kg	----	690	----	----	----
Calcium	7440-70-2	E440/VA	20	mg/kg	----	----	254	675	236



Analytical Results

Sub-Matrix: Tissue

Client sample ID

(Matrix: Biota)

					POL_RB-Ki-7_2 023-05	POL_RB-Ki-8_2 023-05	BOL_RB-M-1_2 023-05	BOL_RB-M-2_2 023-05	BOL_RB-M-3_2 023-05
Client sampling date / time					13-May-2023	13-May-2023	14-May-2023	14-May-2023	14-May-2023
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23B1226-031	VA23B1226-032	VA23B1226-033	VA23B1226-034	VA23B1226-035
					Result	Result	Result	Result	Result
Metals									
Cesium	7440-46-2	E475/VA	0.0050	mg/kg	0.0141	----	----	----	----
Cesium	7440-46-2	E472/VA	0.0050	mg/kg	----	0.0398	----	----	----
Cesium	7440-46-2	E440/VA	0.0050	mg/kg	----	----	0.0516	0.0696	0.0402
Chromium	7440-47-3	E440/VA	0.050	mg/kg	----	----	0.091	0.148	0.107
Chromium	7440-47-3	E475/VA	0.20	mg/kg	<0.20	----	----	----	----
Chromium	7440-47-3	E472/VA	0.20	mg/kg	----	0.21	----	----	----
Cobalt	7440-48-4	E475/VA	0.020	mg/kg	0.617	----	----	----	----
Cobalt	7440-48-4	E472/VA	0.020	mg/kg	----	2.84	----	----	----
Cobalt	7440-48-4	E440/VA	0.020	mg/kg	----	----	0.036	<0.020	0.020
Copper	7440-50-8	E440/VA	0.10	mg/kg	----	----	2.78	1.90	3.29
Copper	7440-50-8	E475/VA	0.20	mg/kg	4.41	----	----	----	----
Copper	7440-50-8	E472/VA	0.20	mg/kg	----	8.01	----	----	----
Iron	7439-89-6	E440/VA	3.0	mg/kg	----	----	53.7	30.8	39.7
Iron	7439-89-6	E475/VA	5.0	mg/kg	1180	----	----	----	----
Iron	7439-89-6	E472/VA	5.0	mg/kg	----	949	----	----	----
Lead	7439-92-1	E440/VA	0.020	mg/kg	----	----	0.023	<0.020	<0.020
Lead	7439-92-1	E475/VA	0.050	mg/kg	<0.050	----	----	----	----
Lead	7439-92-1	E472/VA	0.050	mg/kg	----	0.114	----	----	----
Lithium	7439-93-2	E475/VA	0.50	mg/kg	<0.50	----	----	----	----
Lithium	7439-93-2	E472/VA	0.50	mg/kg	----	<0.50	----	----	----
Lithium	7439-93-2	E440/VA	0.50	mg/kg	----	----	<0.50	<0.50	<0.50
Magnesium	7439-95-4	E475/VA	2.0	mg/kg	613	----	----	----	----
Magnesium	7439-95-4	E472/VA	2.0	mg/kg	----	774	----	----	----
Magnesium	7439-95-4	E440/VA	2.0	mg/kg	----	----	1250	1360	1270
Manganese	7439-96-5	E475/VA	0.050	mg/kg	2.96	----	----	----	----
Manganese	7439-96-5	E472/VA	0.050	mg/kg	----	3.56	----	----	----
Manganese	7439-96-5	E440/VA	0.050	mg/kg	----	----	0.872	0.699	0.708
Mercury	7439-97-6	E511/VA	0.0050	mg/kg	----	0.412	----	----	----
Mercury	7439-97-6	E510/VA	0.0050	mg/kg	----	----	0.627	0.267	0.259
Mercury	7439-97-6	E512/VA	0.010	mg/kg	0.935	----	----	----	----
Mercury	7439-97-6	E511/VA	0.0010	mg/kg wwt	----	0.104	----	----	----



Analytical Results

Sub-Matrix: Tissue

Client sample ID

(Matrix: Biota)

					POL_RB-Ki-7_2 023-05	POL_RB-Ki-8_2 023-05	BOL_RB-M-1_2 023-05	BOL_RB-M-2_2 023-05	BOL_RB-M-3_2 023-05
Client sampling date / time					13-May-2023	13-May-2023	14-May-2023	14-May-2023	14-May-2023
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23B1226-031	VA23B1226-032	VA23B1226-033	VA23B1226-034	VA23B1226-035
					Result	Result	Result	Result	Result
Metals									
Mercury	7439-97-6	E510A/VA	0.0010	mg/kg wwt	----	----	0.112	0.0558	0.0523
Mercury	7439-97-6	E512A/VA	0.0020	mg/kg wwt	0.238	----	----	----	----
Molybdenum	7439-98-7	E440/VA	0.020	mg/kg	----	----	<0.020	0.022	<0.020
Molybdenum	7439-98-7	E475/VA	0.040	mg/kg	0.262	----	----	----	----
Molybdenum	7439-98-7	E472/VA	0.040	mg/kg	----	0.436	----	----	----
Nickel	7440-02-0	E475/VA	0.20	mg/kg	0.40	----	----	----	----
Nickel	7440-02-0	E472/VA	0.20	mg/kg	----	0.63	----	----	----
Nickel	7440-02-0	E440/VA	0.20	mg/kg	----	----	<0.20	<0.20	<0.20
Phosphorus	7723-14-0	E472/VA	10	mg/kg	----	11100	----	----	----
Phosphorus	7723-14-0	E440/VA	10	mg/kg	----	----	14100	13500	14000
Phosphorus	7723-14-0	E475/VA	20	mg/kg	9860	----	----	----	----
Potassium	7440-09-7	E475/VA	20	mg/kg	9240	----	----	----	----
Potassium	7440-09-7	E472/VA	20	mg/kg	----	10400	----	----	----
Potassium	7440-09-7	E440/VA	20	mg/kg	----	----	23000	21900	23600
Rubidium	7440-17-7	E475/VA	0.050	mg/kg	4.01	----	----	----	----
Rubidium	7440-17-7	E472/VA	0.050	mg/kg	----	6.06	----	----	----
Rubidium	7440-17-7	E440/VA	0.050	mg/kg	----	----	11.5	12.6	10.4
Selenium	7782-49-2	E440/VA	0.050	mg/kg	----	----	1.98	2.13	2.20
Selenium	7782-49-2	E475/VA	0.10	mg/kg	10.6	----	----	----	----
Selenium	7782-49-2	E472/VA	0.10	mg/kg	----	14.6	----	----	----
Silver	7440-22-4	E475.Ag/VA	0.0050	mg/kg	0.0054	----	----	----	----
Silver	7440-22-4	E472.Ag/VA	0.0050	mg/kg	----	<0.0050	----	----	----
Silver	7440-22-4	E440.Ag/VA	0.0050	mg/kg	----	----	0.0060	<0.0050	<0.0050
Sodium	7440-23-5	E475/VA	20	mg/kg	7630	----	----	----	----
Sodium	7440-23-5	E472/VA	20	mg/kg	----	7730	----	----	----
Sodium	7440-23-5	E440/VA	20	mg/kg	----	----	2420	1770	1630
Strontium	7440-24-6	E440/VA	0.050	mg/kg	----	----	0.322	0.826	0.181
Strontium	7440-24-6	E475/VA	0.10	mg/kg	1.95	----	----	----	----
Strontium	7440-24-6	E472/VA	0.10	mg/kg	----	1.99	----	----	----
Tellurium	13494-80-9	E475/VA	0.020	mg/kg	<0.020	----	----	----	----
Tellurium	13494-80-9	E472/VA	0.020	mg/kg	----	<0.020	----	----	----



Analytical Results

Sub-Matrix: Tissue (Matrix: Biota)					Client sample ID	POL_RB-Ki-7_2 023-05	POL_RB-Ki-8_2 023-05	BOL_RB-M-1_2 023-05	BOL_RB-M-2_2 023-05	BOL_RB-M-3_2 023-05
Client sampling date / time					13-May-2023	13-May-2023	14-May-2023	14-May-2023	14-May-2023	
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23B1226-031	VA23B1226-032	VA23B1226-033	VA23B1226-034	VA23B1226-035	
					Result	Result	Result	Result	Result	
Metals										
Tellurium	13494-80-9	E440/VA	0.020	mg/kg	----	----	<0.020	<0.020	<0.020	
Thallium	7440-28-0	E475/VA	0.0020	mg/kg	0.0285	----	----	----	----	
Thallium	7440-28-0	E472/VA	0.0020	mg/kg	----	0.0671	----	----	----	
Thallium	7440-28-0	E440/VA	0.0020	mg/kg	----	----	0.0138	0.0122	0.0158	
Tin	7440-31-5	E475/VA	0.10	mg/kg	<0.10	----	----	----	----	
Tin	7440-31-5	E472/VA	0.10	mg/kg	----	<0.10	----	----	----	
Tin	7440-31-5	E440/VA	0.10	mg/kg	----	----	0.29	0.24	0.32	
Titanium	7440-32-6	E440.Ti/VA	0.25	mg/kg	----	----	0.51	0.54	0.59	
Titanium	7440-32-6	E475.Ti/VA	0.50	mg/kg	<0.50	----	----	----	----	
Titanium	7440-32-6	E472.Ti/VA	0.50	mg/kg	----	2.16	----	----	----	
Uranium	7440-61-1	E475/VA	0.0020	mg/kg	0.0079	----	----	----	----	
Uranium	7440-61-1	E472/VA	0.0020	mg/kg	----	0.0065	----	----	----	
Uranium	7440-61-1	E440/VA	0.0020	mg/kg	----	----	<0.0020	<0.0020	<0.0020	
Vanadium	7440-62-2	E475/VA	0.10	mg/kg	0.66	----	----	----	----	
Vanadium	7440-62-2	E472/VA	0.10	mg/kg	----	0.90	----	----	----	
Vanadium	7440-62-2	E440/VA	0.10	mg/kg	----	----	<0.10	<0.10	<0.10	
Zinc	7440-66-6	E440/VA	0.50	mg/kg	----	----	18.4	13.0	17.2	
Zinc	7440-66-6	E475/VA	1.0	mg/kg	212	----	----	----	----	
Zinc	7440-66-6	E472/VA	1.0	mg/kg	----	166	----	----	----	
Zirconium	7440-67-7	E475/VA	0.20	mg/kg	<0.20	----	----	----	----	
Zirconium	7440-67-7	E472/VA	0.20	mg/kg	----	<0.20	----	----	----	
Zirconium	7440-67-7	E440/VA	0.20	mg/kg	----	----	<0.20	<0.20	<0.20	

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.



Analytical Results

Sub-Matrix: Tissue (Matrix: Biota)					Client sample ID	BOL_RB-M-4_2 023-05	BOL_RB-M-5_2 023-05	BOL_RB-M-6_2 023-05	BOL_RB-M-7_2 023-05	BOL_RB-M-8_2 023-05
Client sampling date / time					14-May-2023	14-May-2023	14-May-2023	15-May-2023	15-May-2023	
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23B1226-036	VA23B1226-037	VA23B1226-038	VA23B1226-039	VA23B1226-040	
					Result	Result	Result	Result	Result	
Physical Tests										
Moisture	----	E144/VA	0.50	%	79.5	80.1	78.7	82.0	81.5	
Metals										
Aluminum	7429-90-5	E440/VA	2.0	mg/kg	2.4	5.1	3.1	102	10.4	
Antimony	7440-36-0	E440/VA	0.010	mg/kg	<0.010	<0.010	<0.010	<0.010	<0.010	
Arsenic	7440-38-2	E440/VA	0.020	mg/kg	0.028	0.040	0.028	0.043	0.026	
Barium	7440-39-3	E440/VA	0.050	mg/kg	0.408	0.334	0.285	0.523	0.414	
Beryllium	7440-41-7	E440/VA	0.010	mg/kg	<0.010	<0.010	<0.010	<0.010	<0.010	
Bismuth	7440-69-9	E440/VA	0.010	mg/kg	<0.010	<0.010	<0.010	<0.010	<0.010	
Boron	7440-42-8	E440/VA	1.0	mg/kg	<1.0	<1.0	<1.0	<1.0	<1.0	
Cadmium	7440-43-9	E440/VA	0.0050	mg/kg	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	
Calcium	7440-70-2	E440/VA	20	mg/kg	1280	301	590	466	1630	
Cesium	7440-46-2	E440/VA	0.0050	mg/kg	0.0647	0.0515	0.0799	0.0542	0.0651	
Chromium	7440-47-3	E440/VA	0.050	mg/kg	0.080	0.114	0.059	0.188	0.153	
Cobalt	7440-48-4	E440/VA	0.020	mg/kg	<0.020	0.032	<0.020	0.091	0.033	
Copper	7440-50-8	E440/VA	0.10	mg/kg	1.52	3.59	2.58	4.75	2.87	
Iron	7439-89-6	E440/VA	3.0	mg/kg	30.1	48.6	28.6	132	62.6	
Lead	7439-92-1	E440/VA	0.020	mg/kg	<0.020	<0.020	<0.020	0.028	<0.020	
Lithium	7439-93-2	E440/VA	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50	
Magnesium	7439-95-4	E440/VA	2.0	mg/kg	1210	1320	1320	1480	1420	
Manganese	7439-96-5	E440/VA	0.050	mg/kg	0.925	0.842	0.863	1.74	1.29	
Mercury	7439-97-6	E510/VA	0.0050	mg/kg	0.387	0.344	0.167	0.552	0.537	
Mercury	7439-97-6	E510A/VA	0.0010	mg/kg wwt	0.0794	0.0684	0.0355	0.0994	0.0994	
Molybdenum	7439-98-7	E440/VA	0.020	mg/kg	<0.020	0.031	<0.020	0.040	0.024	
Nickel	7440-02-0	E440/VA	0.20	mg/kg	<0.20	<0.20	<0.20	0.24	0.35	
Phosphorus	7723-14-0	E440/VA	10	mg/kg	14400	13900	12900	15000	15700	
Potassium	7440-09-7	E440/VA	20	mg/kg	23500	21800	20100	24500	24400	
Rubidium	7440-17-7	E440/VA	0.050	mg/kg	13.2	10.8	17.0	12.7	12.3	
Selenium	7782-49-2	E440/VA	0.050	mg/kg	2.39	2.49	3.20	2.58	2.14	
Silver	7440-22-4	E440.Ag/VA	0.0050	mg/kg	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	
Sodium	7440-23-5	E440/VA	20	mg/kg	1600	2630	2720	2940	2560	
Strontium	7440-24-6	E440/VA	0.050	mg/kg	1.81	0.272	0.693	0.632	2.69	



Analytical Results

Sub-Matrix: Tissue (Matrix: Biota)					Client sample ID	BOL_RB-M-4_2 023-05	BOL_RB-M-5_2 023-05	BOL_RB-M-6_2 023-05	BOL_RB-M-7_2 023-05	BOL_RB-M-8_2 023-05
Client sampling date / time					14-May-2023	14-May-2023	14-May-2023	15-May-2023	15-May-2023	
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23B1226-036	VA23B1226-037	VA23B1226-038	VA23B1226-039	VA23B1226-040	
					Result	Result	Result	Result	Result	
Metals										
Tellurium	13494-80-9	E440/VA	0.020	mg/kg	<0.020	<0.020	<0.020	<0.020	<0.020	
Thallium	7440-28-0	E440/VA	0.0020	mg/kg	0.0113	0.0139	0.0114	0.0166	0.0165	
Tin	7440-31-5	E440/VA	0.10	mg/kg	0.38	0.26	0.25	0.74	0.22	
Titanium	7440-32-6	E440.Ti/VA	0.25	mg/kg	<0.25	0.39	0.28	1.67	0.68	
Uranium	7440-61-1	E440/VA	0.0020	mg/kg	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	
Vanadium	7440-62-2	E440/VA	0.10	mg/kg	<0.10	<0.10	<0.10	0.33	<0.10	
Zinc	7440-66-6	E440/VA	0.50	mg/kg	14.8	19.8	15.1	24.4	19.4	
Zirconium	7440-67-7	E440/VA	0.20	mg/kg	<0.20	<0.20	<0.20	<0.20	<0.20	

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.



Analytical Results

Sub-Matrix: Tissue					Client sample ID				
(Matrix: Biota)					BOL_RB-O-1_2	BOL_RB-O-2_2	BOL_RB-O-3_2	BOL_RB-O-4_2	BOL_RB-O-5_2
					023-05	023-05	023-05	023-05	023-05
Client sampling date / time					14-May-2023	14-May-2023	14-May-2023	14-May-2023	14-May-2023
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23B1226-041	VA23B1226-042	VA23B1226-043	VA23B1226-044	VA23B1226-045
					Result	Result	Result	Result	Result
Physical Tests									
Moisture	----	E144/VA	0.50	%	62.6	60.7	63.0	61.8	58.9
Metals									
Aluminum	7429-90-5	E440/VA	2.0	mg/kg	4.5	<2.0	<2.0	<2.0	<2.0
Antimony	7440-36-0	E440/VA	0.010	mg/kg	<0.010	<0.010	<0.010	<0.010	<0.010
Arsenic	7440-38-2	E440/VA	0.020	mg/kg	0.030	0.025	0.023	<0.020	<0.020
Barium	7440-39-3	E440/VA	0.050	mg/kg	1.13	0.425	0.449	0.421	0.476
Beryllium	7440-41-7	E440/VA	0.010	mg/kg	<0.010	<0.010	<0.010	<0.010	<0.010
Bismuth	7440-69-9	E440/VA	0.010	mg/kg	<0.010	<0.010	<0.010	<0.010	<0.010
Boron	7440-42-8	E440/VA	1.0	mg/kg	<1.0	<1.0	<1.0	<1.0	<1.0
Cadmium	7440-43-9	E440/VA	0.0050	mg/kg	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Calcium	7440-70-2	E440/VA	20	mg/kg	1430	1090	1300	1110	999
Cesium	7440-46-2	E440/VA	0.0050	mg/kg	0.0141	0.0141	0.0111	0.0148	0.0146
Chromium	7440-47-3	E440/VA	0.050	mg/kg	0.067	<0.050	<0.050	<0.050	<0.050
Cobalt	7440-48-4	E440/VA	0.020	mg/kg	0.083	0.098	0.066	0.048	0.055
Copper	7440-50-8	E440/VA	0.10	mg/kg	9.72	10.6	9.49	6.54	9.23
Iron	7439-89-6	E440/VA	3.0	mg/kg	66.3	45.9	59.0	48.1	49.1
Lead	7439-92-1	E440/VA	0.020	mg/kg	<0.020	<0.020	<0.020	<0.020	<0.020
Lithium	7439-93-2	E440/VA	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
Magnesium	7439-95-4	E440/VA	2.0	mg/kg	1670	1650	1470	1520	1510
Manganese	7439-96-5	E440/VA	0.050	mg/kg	3.58	4.10	3.78	5.72	3.47
Mercury	7439-97-6	E510/VA	0.0050	mg/kg	0.0139	<0.0050	0.0084	0.0119	0.0071
Mercury	7439-97-6	E510A/VA	0.0010	mg/kg wwt	0.0052	0.0017	0.0031	0.0045	0.0029
Molybdenum	7439-98-7	E440/VA	0.020	mg/kg	0.046	0.026	0.034	0.035	0.028
Nickel	7440-02-0	E440/VA	0.20	mg/kg	<0.20	<0.20	<0.20	<0.20	<0.20
Phosphorus	7723-14-0	E440/VA	10	mg/kg	11500	11500	11700	11800	12100
Potassium	7440-09-7	E440/VA	20	mg/kg	7220	7120	7380	6220	7320
Rubidium	7440-17-7	E440/VA	0.050	mg/kg	4.15	4.50	3.50	4.26	4.12
Selenium	7782-49-2	E440/VA	0.050	mg/kg	5.06	4.74	5.12	4.43	5.50
Silver	7440-22-4	E440.Ag/VA	0.0050	mg/kg	0.0186	<0.0050	0.0059	0.0132	0.0086
Sodium	7440-23-5	E440/VA	20	mg/kg	2230	1990	2560	2040	1940
Strontium	7440-24-6	E440/VA	0.050	mg/kg	4.86	3.81	3.18	3.55	3.63



Analytical Results

Sub-Matrix: Tissue (Matrix: Biota)					Client sample ID	BOL_RB-O-1_2 023-05	BOL_RB-O-2_2 023-05	BOL_RB-O-3_2 023-05	BOL_RB-O-4_2 023-05	BOL_RB-O-5_2 023-05
Client sampling date / time					14-May-2023	14-May-2023	14-May-2023	14-May-2023	14-May-2023	
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23B1226-041	VA23B1226-042	VA23B1226-043	VA23B1226-044	VA23B1226-045	
					Result	Result	Result	Result	Result	
Metals										
Tellurium	13494-80-9	E440/VA	0.020	mg/kg	<0.020	<0.020	<0.020	<0.020	<0.020	
Thallium	7440-28-0	E440/VA	0.0020	mg/kg	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	
Tin	7440-31-5	E440/VA	0.10	mg/kg	0.11	<0.10	<0.10	<0.10	<0.10	
Titanium	7440-32-6	E440.Ti/VA	0.25	mg/kg	0.28	<0.25	<0.25	<0.25	<0.25	
Uranium	7440-61-1	E440/VA	0.0020	mg/kg	0.0026	<0.0020	<0.0020	<0.0020	<0.0020	
Vanadium	7440-62-2	E440/VA	0.10	mg/kg	<0.10	<0.10	<0.10	<0.10	<0.10	
Zinc	7440-66-6	E440/VA	0.50	mg/kg	70.1	70.5	79.5	79.7	65.9	
Zirconium	7440-67-7	E440/VA	0.20	mg/kg	<0.20	<0.20	<0.20	<0.20	<0.20	

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.



Analytical Results

Sub-Matrix: Tissue					Client sample ID				
(Matrix: Biota)					BOL_RB-O-6_2 023-05	BOL_RB-O-7_2 023-05	BOL_RB-O-8_2 023-05	BOL_RB-Li-1_2 023-05	BOL_RB-Li-2_2 023-05
Client sampling date / time					14-May-2023	15-May-2023	15-May-2023	14-May-2023	14-May-2023
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23B1226-046	VA23B1226-047	VA23B1226-048	VA23B1226-049	VA23B1226-050
					Result	Result	Result	Result	Result
Physical Tests									
Moisture	----	E144/VA	0.50	%	62.4	----	64.6	----	----
Moisture	----	E144-H/VA	2.0	%	----	60.9	----	76.9	75.5
Metals									
Aluminum	7429-90-5	E440/VA	2.0	mg/kg	<2.0	----	<2.0	----	----
Aluminum	7429-90-5	E472/VA	5.0	mg/kg	----	<5.0	----	11.2	<5.0
Antimony	7440-36-0	E472/VA	0.010	mg/kg	----	<0.010	----	<0.010	<0.010
Antimony	7440-36-0	E440/VA	0.010	mg/kg	<0.010	----	<0.010	----	----
Arsenic	7440-38-2	E440/VA	0.020	mg/kg	<0.020	----	<0.020	----	----
Arsenic	7440-38-2	E472/VA	0.030	mg/kg	----	<0.030	----	0.058	0.050
Barium	7440-39-3	E472/VA	0.050	mg/kg	----	0.746	----	0.605	0.251
Barium	7440-39-3	E440/VA	0.050	mg/kg	0.649	----	0.489	----	----
Beryllium	7440-41-7	E472/VA	0.010	mg/kg	----	<0.010	----	<0.010	<0.010
Beryllium	7440-41-7	E440/VA	0.010	mg/kg	<0.010	----	<0.010	----	----
Bismuth	7440-69-9	E472/VA	0.010	mg/kg	----	<0.010	----	<0.010	<0.010
Bismuth	7440-69-9	E440/VA	0.010	mg/kg	<0.010	----	<0.010	----	----
Boron	7440-42-8	E472/VA	1.0	mg/kg	----	<1.0	----	<1.0	<1.0
Boron	7440-42-8	E440/VA	1.0	mg/kg	<1.0	----	<1.0	----	----
Cadmium	7440-43-9	E440/VA	0.0050	mg/kg	<0.0050	----	<0.0050	----	----
Cadmium	7440-43-9	E472/VA	0.010	mg/kg	----	<0.010	----	0.124	0.163
Calcium	7440-70-2	E472/VA	20	mg/kg	----	1300	----	345	232
Calcium	7440-70-2	E440/VA	20	mg/kg	1460	----	1060	----	----
Cesium	7440-46-2	E472/VA	0.0050	mg/kg	----	0.0141	----	0.0319	0.0333
Cesium	7440-46-2	E440/VA	0.0050	mg/kg	0.0206	----	0.0140	----	----
Chromium	7440-47-3	E440/VA	0.050	mg/kg	<0.050	----	<0.050	----	----
Chromium	7440-47-3	E472/VA	0.20	mg/kg	----	<0.20	----	<0.20	<0.20
Cobalt	7440-48-4	E472/VA	0.020	mg/kg	----	0.077	----	0.137	0.085
Cobalt	7440-48-4	E440/VA	0.020	mg/kg	0.033	----	0.080	----	----
Copper	7440-50-8	E440/VA	0.10	mg/kg	5.61	----	10.3	----	----
Copper	7440-50-8	E472/VA	0.20	mg/kg	----	9.12	----	49.7	183
Iron	7439-89-6	E440/VA	3.0	mg/kg	53.0	----	74.9	----	----
Iron	7439-89-6	E472/VA	5.0	mg/kg	----	51.4	----	2260	1640



Analytical Results

Sub-Matrix: Tissue
 (Matrix: Biota)

Client sample ID

					BOL_RB-O-6_2 023-05	BOL_RB-O-7_2 023-05	BOL_RB-O-8_2 023-05	BOL_RB-Li-1_2 023-05	BOL_RB-Li-2_2 023-05
Client sampling date / time					14-May-2023	15-May-2023	15-May-2023	14-May-2023	14-May-2023
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23B1226-046	VA23B1226-047	VA23B1226-048	VA23B1226-049	VA23B1226-050
					Result	Result	Result	Result	Result
Metals									
Lead	7439-92-1	E440/VA	0.020	mg/kg	<0.020	----	<0.020	----	----
Lead	7439-92-1	E472/VA	0.050	mg/kg	----	<0.050	----	<0.050	<0.050
Lithium	7439-93-2	E472/VA	0.50	mg/kg	----	<0.50	----	<0.50	<0.50
Lithium	7439-93-2	E440/VA	0.50	mg/kg	<0.50	----	<0.50	----	----
Magnesium	7439-95-4	E472/VA	2.0	mg/kg	----	1670	----	567	588
Magnesium	7439-95-4	E440/VA	2.0	mg/kg	1540	----	1800	----	----
Manganese	7439-96-5	E472/VA	0.050	mg/kg	----	4.02	----	9.47	8.41
Manganese	7439-96-5	E440/VA	0.050	mg/kg	7.57	----	6.80	----	----
Mercury	7439-97-6	E511/VA	0.0050	mg/kg	----	0.0081	----	0.495	0.329
Mercury	7439-97-6	E510/VA	0.0050	mg/kg	0.0098	----	0.0184	----	----
Mercury	7439-97-6	E511A/VA	0.0010	mg/kg wwt	----	0.0032	----	0.114	0.0805
Mercury	7439-97-6	E510A/VA	0.0010	mg/kg wwt	0.0037	----	0.0065	----	----
Molybdenum	7439-98-7	E440/VA	0.020	mg/kg	0.086	----	0.036	----	----
Molybdenum	7439-98-7	E472/VA	0.040	mg/kg	----	<0.040	----	1.10	0.996
Nickel	7440-02-0	E472/VA	0.20	mg/kg	----	<0.20	----	<0.20	<0.20
Nickel	7440-02-0	E440/VA	0.20	mg/kg	<0.20	----	<0.20	----	----
Phosphorus	7723-14-0	E472/VA	10	mg/kg	----	12300	----	11800	12800
Phosphorus	7723-14-0	E440/VA	10	mg/kg	11900	----	12500	----	----
Potassium	7440-09-7	E472/VA	20	mg/kg	----	7280	----	11200	12500
Potassium	7440-09-7	E440/VA	20	mg/kg	7490	----	7370	----	----
Rubidium	7440-17-7	E472/VA	0.050	mg/kg	----	3.60	----	7.00	8.06
Rubidium	7440-17-7	E440/VA	0.050	mg/kg	6.92	----	4.08	----	----
Selenium	7782-49-2	E440/VA	0.050	mg/kg	6.08	----	5.47	----	----
Selenium	7782-49-2	E472/VA	0.10	mg/kg	----	6.00	----	14.0	23.2
Silver	7440-22-4	E472.Ag/VA	0.0050	mg/kg	----	0.0160	----	0.851	1.23
Silver	7440-22-4	E440.Ag/VA	0.0050	mg/kg	<0.0050	----	0.0103	----	----
Sodium	7440-23-5	E472/VA	20	mg/kg	----	1900	----	7140	4890
Sodium	7440-23-5	E440/VA	20	mg/kg	2090	----	2530	----	----
Strontium	7440-24-6	E440/VA	0.050	mg/kg	3.75	----	3.30	----	----
Strontium	7440-24-6	E472/VA	0.10	mg/kg	----	4.28	----	0.78	0.47
Tellurium	13494-80-9	E472/VA	0.020	mg/kg	----	<0.020	----	<0.020	<0.020



Analytical Results

Sub-Matrix: Tissue (Matrix: Biota)					Client sample ID	BOL_RB-O-6_2 023-05	BOL_RB-O-7_2 023-05	BOL_RB-O-8_2 023-05	BOL_RB-Li-1_2 023-05	BOL_RB-Li-2_2 023-05
Client sampling date / time					14-May-2023	15-May-2023	15-May-2023	14-May-2023	14-May-2023	
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23B1226-046	VA23B1226-047	VA23B1226-048	VA23B1226-049	VA23B1226-050	
					Result	Result	Result	Result	Result	
Metals										
Tellurium	13494-80-9	E440/VA	0.020	mg/kg	<0.020	----	<0.020	----	----	
Thallium	7440-28-0	E472/VA	0.0020	mg/kg	----	<0.0020	----	0.115	0.245	
Thallium	7440-28-0	E440/VA	0.0020	mg/kg	<0.0020	----	<0.0020	----	----	
Tin	7440-31-5	E472/VA	0.10	mg/kg	----	<0.10	----	<0.10	<0.10	
Tin	7440-31-5	E440/VA	0.10	mg/kg	<0.10	----	<0.10	----	----	
Titanium	7440-32-6	E440.Ti/VA	0.25	mg/kg	<0.25	----	<0.25	----	----	
Titanium	7440-32-6	E472.Ti/VA	0.50	mg/kg	----	<0.50	----	0.70	<0.50	
Uranium	7440-61-1	E472/VA	0.0020	mg/kg	----	<0.0020	----	0.0144	0.0044	
Uranium	7440-61-1	E440/VA	0.0020	mg/kg	<0.0020	----	<0.0020	----	----	
Vanadium	7440-62-2	E472/VA	0.10	mg/kg	----	<0.10	----	0.52	0.23	
Vanadium	7440-62-2	E440/VA	0.10	mg/kg	<0.10	----	<0.10	----	----	
Zinc	7440-66-6	E440/VA	0.50	mg/kg	64.5	----	75.8	----	----	
Zinc	7440-66-6	E472/VA	1.0	mg/kg	----	79.4	----	160	174	
Zirconium	7440-67-7	E472/VA	0.20	mg/kg	----	<0.20	----	<0.20	<0.20	
Zirconium	7440-67-7	E440/VA	0.20	mg/kg	<0.20	----	<0.20	----	----	

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.



Analytical Results

Sub-Matrix: Tissue					Client sample ID	BOL_RB-Li-3_2	BOL_RB-Li-4_2	BOL_RB-Li-5_2	BOL_RB-Li-6_2	BOL_RB-Li-7_2
(Matrix: Biota)						023-05	023-05	023-05	023-05	023-05
Client sampling date / time						14-May-2023	14-May-2023	14-May-2023	14-May-2023	15-May-2023
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23B1226-051	VA23B1226-052	VA23B1226-053	VA23B1226-054	VA23B1226-055	
					Result	Result	Result	Result	Result	
Physical Tests										
Moisture	----	E144A/VA	2.0	%	76.0	74.7	73.4	78.0	79.0	
Metals										
Aluminum	7429-90-5	E475/VA	5.0	mg/kg	6.4	<5.0	<5.0	<5.0	17.0	
Antimony	7440-36-0	E475/VA	0.020	mg/kg	<0.020	<0.020	<0.020	<0.020	<0.020	
Arsenic	7440-38-2	E475/VA	0.050	mg/kg	0.055	<0.050	<0.050	<0.050	<0.050	
Barium	7440-39-3	E475/VA	0.050	mg/kg	0.195	<0.050	0.138	<0.050	0.292	
Beryllium	7440-41-7	E475/VA	0.010	mg/kg	<0.010	<0.010	<0.010	<0.010	<0.010	
Bismuth	7440-69-9	E475/VA	0.010	mg/kg	<0.010	<0.010	<0.010	<0.010	<0.010	
Boron	7440-42-8	E475/VA	1.0	mg/kg	<1.0	<1.0	<1.0	<1.0	<1.0	
Cadmium	7440-43-9	E475/VA	0.010	mg/kg	0.117	0.120	0.080	0.173	0.125	
Calcium	7440-70-2	E475/VA	20	mg/kg	359	180	220	216	680	
Cesium	7440-46-2	E475/VA	0.0050	mg/kg	0.0259	0.0235	0.0156	0.0264	0.0325	
Chromium	7440-47-3	E475/VA	0.20	mg/kg	<0.20	<0.20	<0.20	<0.20	<0.20	
Cobalt	7440-48-4	E475/VA	0.020	mg/kg	0.088	0.055	0.064	0.070	0.129	
Copper	7440-50-8	E475/VA	0.20	mg/kg	275	15.5	58.9	24.6	65.6	
Iron	7439-89-6	E475/VA	5.0	mg/kg	1240	867	852	329	1140	
Lead	7439-92-1	E475/VA	0.050	mg/kg	<0.050	<0.050	<0.050	<0.050	0.108	
Lithium	7439-93-2	E475/VA	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50	
Magnesium	7439-95-4	E475/VA	2.0	mg/kg	841	472	349	388	600	
Manganese	7439-96-5	E475/VA	0.050	mg/kg	9.85	9.06	7.08	5.71	7.41	
Mercury	7439-97-6	E512/VA	0.010	mg/kg	0.290	0.548	0.587	0.231	0.288	
Mercury	7439-97-6	E512A/VA	0.0020	mg/kg wwt	0.0698	0.138	0.156	0.0508	0.0605	
Molybdenum	7439-98-7	E475/VA	0.040	mg/kg	0.986	0.504	0.449	0.387	0.745	
Nickel	7440-02-0	E475/VA	0.20	mg/kg	<0.20	<0.20	<0.20	<0.20	<0.20	
Phosphorus	7723-14-0	E475/VA	20	mg/kg	16500	9490	7380	7860	12000	
Potassium	7440-09-7	E475/VA	20	mg/kg	15400	8540	7080	6640	11400	
Rubidium	7440-17-7	E475/VA	0.050	mg/kg	8.29	5.32	3.76	6.04	7.13	
Selenium	7782-49-2	E475/VA	0.10	mg/kg	29.0	5.36	12.8	7.02	9.54	
Silver	7440-22-4	E475.Ag/VA	0.0050	mg/kg	1.82	0.252	0.677	0.326	0.672	
Sodium	7440-23-5	E475/VA	20	mg/kg	5980	2200	2280	4060	5750	
Strontium	7440-24-6	E475/VA	0.10	mg/kg	0.57	0.29	0.40	0.36	1.19	



Analytical Results

Sub-Matrix: Tissue (Matrix: Biota)					Client sample ID	BOL_RB-Li-3_2 023-05	BOL_RB-Li-4_2 023-05	BOL_RB-Li-5_2 023-05	BOL_RB-Li-6_2 023-05	BOL_RB-Li-7_2 023-05
Client sampling date / time					14-May-2023	14-May-2023	14-May-2023	14-May-2023	15-May-2023	
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23B1226-051	VA23B1226-052	VA23B1226-053	VA23B1226-054	VA23B1226-055	
					Result	Result	Result	Result	Result	
Metals										
Tellurium	13494-80-9	E475/VA	0.020	mg/kg	<0.020	<0.020	<0.020	<0.020	<0.020	
Thallium	7440-28-0	E475/VA	0.0020	mg/kg	0.248	0.106	0.0851	0.0706	0.137	
Tin	7440-31-5	E475/VA	0.10	mg/kg	<0.10	<0.10	<0.10	<0.10	<0.10	
Titanium	7440-32-6	E475.Ti/VA	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	1.01	
Uranium	7440-61-1	E475/VA	0.0020	mg/kg	0.0032	0.0036	0.0023	0.0044	0.0027	
Vanadium	7440-62-2	E475/VA	0.10	mg/kg	0.19	0.12	0.14	<0.10	0.34	
Zinc	7440-66-6	E475/VA	1.0	mg/kg	213	85.9	88.6	96.2	204	
Zirconium	7440-67-7	E475/VA	0.20	mg/kg	<0.20	<0.20	<0.20	<0.20	<0.20	

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.



Analytical Results

Sub-Matrix: Tissue					Client sample ID				
(Matrix: Biota)					BOL_RB-Li-8_2 023-05	BOL_RB-Ki-1_2 023-05	BOL_RB-Ki-2_2 023-05	BOL_RB-Ki-3_2 023-05	BOL_RB-Ki-4_2 023-05
Client sampling date / time					15-May-2023	14-May-2023	14-May-2023	14-May-2023	14-May-2023
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23B1226-056	VA23B1226-057	VA23B1226-058	VA23B1226-059	VA23B1226-060
					Result	Result	Result	Result	Result
Physical Tests									
Moisture	----	E144A/VA	2.0	%	75.8	82.9	76.7	78.8	79.0
Metals									
Aluminum	7429-90-5	E475/VA	5.0	mg/kg	8.4	43.8	10.3	26.0	<5.0
Antimony	7440-36-0	E475/VA	0.020	mg/kg	<0.020	<0.020	<0.020	<0.020	<0.020
Arsenic	7440-38-2	E475/VA	0.050	mg/kg	<0.050	0.324	0.375	0.190	0.056
Barium	7440-39-3	E475/VA	0.050	mg/kg	0.191	2.12	0.968	1.02	0.592
Beryllium	7440-41-7	E475/VA	0.010	mg/kg	<0.010	<0.010	<0.010	<0.010	<0.010
Bismuth	7440-69-9	E475/VA	0.010	mg/kg	<0.010	<0.010	<0.010	<0.010	<0.010
Boron	7440-42-8	E475/VA	1.0	mg/kg	<1.0	<1.0	<1.0	<1.0	<1.0
Cadmium	7440-43-9	E475/VA	0.010	mg/kg	0.154	0.658	1.05	0.370	0.317
Calcium	7440-70-2	E475/VA	20	mg/kg	302	775	722	694	238
Cesium	7440-46-2	E475/VA	0.0050	mg/kg	0.0287	0.0509	0.0406	0.0320	0.0286
Chromium	7440-47-3	E475/VA	0.20	mg/kg	<0.20	0.61	0.25	0.36	0.21
Cobalt	7440-48-4	E475/VA	0.020	mg/kg	0.090	1.20	1.41	0.429	0.208
Copper	7440-50-8	E475/VA	0.20	mg/kg	166	10.8	7.00	7.38	3.58
Iron	7439-89-6	E475/VA	5.0	mg/kg	2610	1070	785	628	522
Lead	7439-92-1	E475/VA	0.050	mg/kg	<0.050	0.141	<0.050	0.072	<0.050
Lithium	7439-93-2	E475/VA	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
Magnesium	7439-95-4	E475/VA	2.0	mg/kg	612	923	701	623	369
Manganese	7439-96-5	E475/VA	0.050	mg/kg	5.27	5.61	4.90	5.93	2.40
Mercury	7439-97-6	E512/VA	0.010	mg/kg	0.436	0.627	0.324	0.318	0.583
Mercury	7439-97-6	E512A/VA	0.0020	mg/kg wwt	0.106	0.107	0.0753	0.0674	0.122
Molybdenum	7439-98-7	E475/VA	0.040	mg/kg	1.29	0.448	0.521	0.278	0.182
Nickel	7440-02-0	E475/VA	0.20	mg/kg	0.42	0.82	0.41	0.34	0.21
Phosphorus	7723-14-0	E475/VA	20	mg/kg	12700	13400	11500	11300	7210
Potassium	7440-09-7	E475/VA	20	mg/kg	12000	15000	11300	10600	7630
Rubidium	7440-17-7	E475/VA	0.050	mg/kg	6.92	8.67	7.80	5.54	5.22
Selenium	7782-49-2	E475/VA	0.10	mg/kg	16.7	11.3	10.6	6.29	4.09
Silver	7440-22-4	E475.Ag/VA	0.0050	mg/kg	1.96	0.0556	0.0069	0.0201	0.0055
Sodium	7440-23-5	E475/VA	20	mg/kg	4840	12200	8850	8460	4420
Strontium	7440-24-6	E475/VA	0.10	mg/kg	0.54	2.84	2.72	1.57	0.63



Analytical Results

Sub-Matrix: Tissue
 (Matrix: Biota)

					Client sample ID	BOL_RB-Li-8_2 023-05	BOL_RB-Ki-1_2 023-05	BOL_RB-Ki-2_2 023-05	BOL_RB-Ki-3_2 023-05	BOL_RB-Ki-4_2 023-05
					Client sampling date / time	15-May-2023	14-May-2023	14-May-2023	14-May-2023	14-May-2023
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23B1226-056	VA23B1226-057	VA23B1226-058	VA23B1226-059	VA23B1226-060	
					Result	Result	Result	Result	Result	
Metals										
Tellurium	13494-80-9	E475/VA	0.020	mg/kg	<0.020	<0.020	<0.020	<0.020	<0.020	
Thallium	7440-28-0	E475/VA	0.0020	mg/kg	0.210	0.0725	0.0944	0.0442	0.0202	
Tin	7440-31-5	E475/VA	0.10	mg/kg	<0.10	<0.10	<0.10	<0.10	<0.10	
Titanium	7440-32-6	E475.Ti/VA	0.50	mg/kg	<0.50	3.70	0.74	2.14	<0.50	
Uranium	7440-61-1	E475/VA	0.0020	mg/kg	0.0057	0.0195	0.0088	0.0067	0.0052	
Vanadium	7440-62-2	E475/VA	0.10	mg/kg	0.26	0.71	0.34	0.28	0.13	
Zinc	7440-66-6	E475/VA	1.0	mg/kg	204	168	150	184	83.1	
Zirconium	7440-67-7	E475/VA	0.20	mg/kg	<0.20	<0.20	<0.20	<0.20	<0.20	

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.



Analytical Results

Sub-Matrix: Tissue					Client sample ID				
(Matrix: Biota)					BOL_RB-Ki-5_2 023-05	BOL_RB-Ki-6_2 023-05	BOL_RB-Ki-7_2 023-05	BOL_RB-Ki-8_2 023-05	POL_LSU-M-1_ 2023-05
Client sampling date / time					14-May-2023	14-May-2023	15-May-2023	15-May-2023	13-May-2023
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23B1226-061	VA23B1226-062	VA23B1226-063	VA23B1226-064	VA23B1226-065
					Result	Result	Result	Result	Result
Physical Tests									
Moisture	----	E144/VA	0.50	%	----	----	----	----	79.2
Moisture	----	E144A/VA	2.0	%	75.2	81.1	81.3	77.4	----
Metals									
Aluminum	7429-90-5	E440/VA	2.0	mg/kg	----	----	----	----	<2.0
Aluminum	7429-90-5	E475/VA	5.0	mg/kg	40.3	11.8	106	16.2	----
Antimony	7440-36-0	E440/VA	0.010	mg/kg	----	----	----	----	<0.010
Antimony	7440-36-0	E475/VA	0.020	mg/kg	0.034	<0.020	<0.020	<0.020	----
Arsenic	7440-38-2	E440/VA	0.020	mg/kg	----	----	----	----	0.205
Arsenic	7440-38-2	E475/VA	0.050	mg/kg	0.325	0.207	0.428	0.438	----
Barium	7440-39-3	E475/VA	0.050	mg/kg	2.73	0.951	5.76	1.45	----
Barium	7440-39-3	E440/VA	0.050	mg/kg	----	----	----	----	0.343
Beryllium	7440-41-7	E475/VA	0.010	mg/kg	0.013	<0.010	<0.010	<0.010	----
Beryllium	7440-41-7	E440/VA	0.010	mg/kg	----	----	----	----	<0.010
Bismuth	7440-69-9	E475/VA	0.010	mg/kg	<0.010	<0.010	<0.010	<0.010	----
Bismuth	7440-69-9	E440/VA	0.010	mg/kg	----	----	----	----	<0.010
Boron	7440-42-8	E475/VA	1.0	mg/kg	<1.0	<1.0	<1.0	<1.0	----
Boron	7440-42-8	E440/VA	1.0	mg/kg	----	----	----	----	<1.0
Cadmium	7440-43-9	E440/VA	0.0050	mg/kg	----	----	----	----	<0.0050
Cadmium	7440-43-9	E475/VA	0.010	mg/kg	0.628	0.774	0.495	0.703	----
Calcium	7440-70-2	E475/VA	20	mg/kg	952	1000	1220	827	----
Calcium	7440-70-2	E440/VA	20	mg/kg	----	----	----	----	1020
Cesium	7440-46-2	E475/VA	0.0050	mg/kg	0.0380	0.0638	0.0684	0.0344	----
Cesium	7440-46-2	E440/VA	0.0050	mg/kg	----	----	----	----	0.105
Chromium	7440-47-3	E440/VA	0.050	mg/kg	----	----	----	----	<0.050
Chromium	7440-47-3	E475/VA	0.20	mg/kg	0.44	1.14	0.23	0.30	----
Cobalt	7440-48-4	E475/VA	0.020	mg/kg	1.08	0.210	1.48	1.24	----
Cobalt	7440-48-4	E440/VA	0.020	mg/kg	----	----	----	----	<0.020
Copper	7440-50-8	E440/VA	0.10	mg/kg	----	----	----	----	1.04
Copper	7440-50-8	E475/VA	0.20	mg/kg	9.24	9.13	8.54	7.58	----
Iron	7439-89-6	E440/VA	3.0	mg/kg	----	----	----	----	9.4
Iron	7439-89-6	E475/VA	5.0	mg/kg	898	811	889	883	----



Analytical Results

Sub-Matrix: Tissue (Matrix: Biota)					Client sample ID	BOL_RB-Ki-5_2 023-05	BOL_RB-Ki-6_2 023-05	BOL_RB-Ki-7_2 023-05	BOL_RB-Ki-8_2 023-05	POL_LSU-M-1_ 2023-05
Client sampling date / time					14-May-2023	14-May-2023	15-May-2023	15-May-2023	13-May-2023	
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23B1226-061	VA23B1226-062	VA23B1226-063	VA23B1226-064	VA23B1226-065	
					Result	Result	Result	Result	Result	
Metals										
Lead	7439-92-1	E440/VA	0.020	mg/kg	----	----	----	----	<0.020	
Lead	7439-92-1	E475/VA	0.050	mg/kg	0.382	<0.050	0.106	<0.050	----	
Lithium	7439-93-2	E475/VA	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	----	
Lithium	7439-93-2	E440/VA	0.50	mg/kg	----	----	----	----	<0.50	
Magnesium	7439-95-4	E475/VA	2.0	mg/kg	740	924	900	763	----	
Magnesium	7439-95-4	E440/VA	2.0	mg/kg	----	----	----	----	1490	
Manganese	7439-96-5	E475/VA	0.050	mg/kg	8.85	5.03	9.67	4.17	----	
Manganese	7439-96-5	E440/VA	0.050	mg/kg	----	----	----	----	1.26	
Mercury	7439-97-6	E510/VA	0.0050	mg/kg	----	----	----	----	0.246	
Mercury	7439-97-6	E512/VA	0.010	mg/kg	0.398	0.218	0.512	0.460	----	
Mercury	7439-97-6	E510A/VA	0.0010	mg/kg wwt	----	----	----	----	0.0510	
Mercury	7439-97-6	E512A/VA	0.0020	mg/kg wwt	0.0988	0.0411	0.0958	0.104	----	
Molybdenum	7439-98-7	E440/VA	0.020	mg/kg	----	----	----	----	0.022	
Molybdenum	7439-98-7	E475/VA	0.040	mg/kg	0.395	0.638	0.459	0.623	----	
Nickel	7440-02-0	E475/VA	0.20	mg/kg	0.38	0.76	0.40	0.40	----	
Nickel	7440-02-0	E440/VA	0.20	mg/kg	----	----	----	----	<0.20	
Phosphorus	7723-14-0	E440/VA	10	mg/kg	----	----	----	----	13200	
Phosphorus	7723-14-0	E475/VA	20	mg/kg	11400	14300	12400	12300	----	
Potassium	7440-09-7	E475/VA	20	mg/kg	11900	18500	13700	11600	----	
Potassium	7440-09-7	E440/VA	20	mg/kg	----	----	----	----	23000	
Rubidium	7440-17-7	E475/VA	0.050	mg/kg	6.62	16.6	7.89	6.35	----	
Rubidium	7440-17-7	E440/VA	0.050	mg/kg	----	----	----	----	17.1	
Selenium	7782-49-2	E440/VA	0.050	mg/kg	----	----	----	----	5.81	
Selenium	7782-49-2	E475/VA	0.10	mg/kg	9.01	13.2	10.9	11.9	----	
Silver	7440-22-4	E475.Ag/VA	0.0050	mg/kg	0.0201	0.0067	0.0361	0.0063	----	
Silver	7440-22-4	E440.Ag/VA	0.0050	mg/kg	----	----	----	----	<0.0050	
Sodium	7440-23-5	E475/VA	20	mg/kg	9310	8260	10100	8860	----	
Sodium	7440-23-5	E440/VA	20	mg/kg	----	----	----	----	1670	
Strontium	7440-24-6	E440/VA	0.050	mg/kg	----	----	----	----	1.30	
Strontium	7440-24-6	E475/VA	0.10	mg/kg	2.48	1.75	6.08	2.99	----	
Tellurium	13494-80-9	E475/VA	0.020	mg/kg	<0.020	<0.020	<0.020	<0.020	----	



Analytical Results

Sub-Matrix: Tissue (Matrix: Biota)					Client sample ID	BOL_RB-Ki-5_2 023-05	BOL_RB-Ki-6_2 023-05	BOL_RB-Ki-7_2 023-05	BOL_RB-Ki-8_2 023-05	POL_LSU-M-1_ 2023-05
Client sampling date / time					14-May-2023	14-May-2023	15-May-2023	15-May-2023	13-May-2023	
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23B1226-061	VA23B1226-062	VA23B1226-063	VA23B1226-064	VA23B1226-065	
					Result	Result	Result	Result	Result	
Metals										
Tellurium	13494-80-9	E440/VA	0.020	mg/kg	----	----	----	----	<0.020	
Thallium	7440-28-0	E475/VA	0.0020	mg/kg	0.0585	0.0456	0.0506	0.100	----	
Thallium	7440-28-0	E440/VA	0.0020	mg/kg	----	----	----	----	<0.0020	
Tin	7440-31-5	E475/VA	0.10	mg/kg	<0.10	<0.10	<0.10	<0.10	----	
Tin	7440-31-5	E440/VA	0.10	mg/kg	----	----	----	----	0.32	
Titanium	7440-32-6	E440.Ti/VA	0.25	mg/kg	----	----	----	----	<0.25	
Titanium	7440-32-6	E475.Ti/VA	0.50	mg/kg	3.14	0.86	3.86	1.19	----	
Uranium	7440-61-1	E475/VA	0.0020	mg/kg	0.0105	0.0162	0.0092	0.0126	----	
Uranium	7440-61-1	E440/VA	0.0020	mg/kg	----	----	----	----	<0.0020	
Vanadium	7440-62-2	E475/VA	0.10	mg/kg	0.52	0.35	0.69	0.41	----	
Vanadium	7440-62-2	E440/VA	0.10	mg/kg	----	----	----	----	<0.10	
Zinc	7440-66-6	E440/VA	0.50	mg/kg	----	----	----	----	23.3	
Zinc	7440-66-6	E475/VA	1.0	mg/kg	296	158	333	159	----	
Zirconium	7440-67-7	E475/VA	0.20	mg/kg	<0.20	<0.20	<0.20	<0.20	----	
Zirconium	7440-67-7	E440/VA	0.20	mg/kg	----	----	----	----	<0.20	

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.



Analytical Results

Sub-Matrix: Tissue (Matrix: Biota)					Client sample ID	POL_LSU-M-2_ 2023-05	POL_LSU-M-3_ 2023-05	POL_LSU-M-4_ 2023-05	POL_LSU-M-5_ 2023-05	POL_LSU-M-6_ 2023-05
Client sampling date / time					16-May-2023	16-May-2023	16-May-2023	16-May-2023	16-May-2023	
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23B1226-066	VA23B1226-067	VA23B1226-068	VA23B1226-069	VA23B1226-070	
					Result	Result	Result	Result	Result	
Physical Tests										
Moisture	----	E144/VA	0.50	%	78.9	80.1	78.3	78.5	78.7	
Metals										
Aluminum	7429-90-5	E440/VA	2.0	mg/kg	9.5	3.4	9.3	9.4	8.6	
Antimony	7440-36-0	E440/VA	0.010	mg/kg	<0.010	<0.010	<0.010	<0.010	<0.010	
Arsenic	7440-38-2	E440/VA	0.020	mg/kg	0.121	0.096	0.073	0.096	0.135	
Barium	7440-39-3	E440/VA	0.050	mg/kg	0.392	0.441	0.592	0.486	0.613	
Beryllium	7440-41-7	E440/VA	0.010	mg/kg	<0.010	<0.010	<0.010	<0.010	<0.010	
Bismuth	7440-69-9	E440/VA	0.010	mg/kg	<0.010	<0.010	<0.010	<0.010	<0.010	
Boron	7440-42-8	E440/VA	1.0	mg/kg	<1.0	<1.0	<1.0	<1.0	<1.0	
Cadmium	7440-43-9	E440/VA	0.0050	mg/kg	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	
Calcium	7440-70-2	E440/VA	20	mg/kg	682	681	502	638	694	
Cesium	7440-46-2	E440/VA	0.0050	mg/kg	0.118	0.110	0.117	0.126	0.104	
Chromium	7440-47-3	E440/VA	0.050	mg/kg	<0.050	0.063	0.053	0.055	0.239	
Cobalt	7440-48-4	E440/VA	0.020	mg/kg	0.022	<0.020	0.029	<0.020	<0.020	
Copper	7440-50-8	E440/VA	0.10	mg/kg	2.66	1.70	4.36	2.51	2.10	
Iron	7439-89-6	E440/VA	3.0	mg/kg	38.8	30.0	54.6	35.5	37.1	
Lead	7439-92-1	E440/VA	0.020	mg/kg	<0.020	<0.020	<0.020	<0.020	0.403	
Lithium	7439-93-2	E440/VA	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50	
Magnesium	7439-95-4	E440/VA	2.0	mg/kg	1390	1440	1290	1630	1630	
Manganese	7439-96-5	E440/VA	0.050	mg/kg	1.01	1.07	1.18	1.08	1.60	
Mercury	7439-97-6	E510/VA	0.0050	mg/kg	0.326	0.306	0.242	0.405	0.257	
Mercury	7439-97-6	E510A/VA	0.0010	mg/kg wwt	0.0688	0.0609	0.0526	0.0870	0.0547	
Molybdenum	7439-98-7	E440/VA	0.020	mg/kg	0.025	0.059	0.058	<0.020	0.026	
Nickel	7440-02-0	E440/VA	0.20	mg/kg	<0.20	<0.20	<0.20	<0.20	<0.20	
Phosphorus	7723-14-0	E440/VA	10	mg/kg	13400	13000	12700	13800	13400	
Potassium	7440-09-7	E440/VA	20	mg/kg	23700	23200	21100	23300	23400	
Rubidium	7440-17-7	E440/VA	0.050	mg/kg	15.3	16.4	13.9	16.3	14.3	
Selenium	7782-49-2	E440/VA	0.050	mg/kg	6.66	7.20	6.48	7.98	6.75	
Silver	7440-22-4	E440.Ag/VA	0.0050	mg/kg	<0.0050	<0.0050	<0.0050	0.0074	<0.0050	
Sodium	7440-23-5	E440/VA	20	mg/kg	1660	1980	2040	1700	1850	
Strontium	7440-24-6	E440/VA	0.050	mg/kg	0.720	0.659	0.432	0.499	0.580	



Analytical Results

Sub-Matrix: Tissue (Matrix: Biota)					Client sample ID	POL_LSU-M-2_ 2023-05	POL_LSU-M-3_ 2023-05	POL_LSU-M-4_ 2023-05	POL_LSU-M-5_ 2023-05	POL_LSU-M-6_ 2023-05
Client sampling date / time					16-May-2023	16-May-2023	16-May-2023	16-May-2023	16-May-2023	
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23B1226-066	VA23B1226-067	VA23B1226-068	VA23B1226-069	VA23B1226-070	
					Result	Result	Result	Result	Result	
Metals										
Tellurium	13494-80-9	E440/VA	0.020	mg/kg	<0.020	<0.020	<0.020	<0.020	<0.020	
Thallium	7440-28-0	E440/VA	0.0020	mg/kg	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	
Tin	7440-31-5	E440/VA	0.10	mg/kg	0.17	0.32	0.29	0.12	0.26	
Titanium	7440-32-6	E440.Ti/VA	0.25	mg/kg	0.84	<0.25	0.86	0.87	0.74	
Uranium	7440-61-1	E440/VA	0.0020	mg/kg	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	
Vanadium	7440-62-2	E440/VA	0.10	mg/kg	<0.10	<0.10	<0.10	<0.10	<0.10	
Zinc	7440-66-6	E440/VA	0.50	mg/kg	31.2	30.6	38.8	29.1	25.1	
Zirconium	7440-67-7	E440/VA	0.20	mg/kg	<0.20	<0.20	<0.20	<0.20	<0.20	

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.



Analytical Results

Sub-Matrix: Tissue (Matrix: Biota)					Client sample ID	POL_LSU-M-7_ 2023-05	POL_LSU-M-8_ 2023-05	POL_LSU-O-1_ 2023-05	POL_LSU-O-2_ 2023-05	POL_LSU-O-3_ 2023-05
Client sampling date / time					16-May-2023	16-May-2023	13-May-2023	16-May-2023	16-May-2023	
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23B1226-071	VA23B1226-072	VA23B1226-073	VA23B1226-074	VA23B1226-075	
					Result	Result	Result	Result	Result	
Physical Tests										
Moisture	----	E144/VA	0.50	%	76.7	78.5	62.3	63.7	64.3	
Metals										
Aluminum	7429-90-5	E440/VA	2.0	mg/kg	52.1	71.6	<2.0	<2.0	2.6	
Antimony	7440-36-0	E440/VA	0.010	mg/kg	<0.010	<0.010	<0.010	<0.010	<0.010	
Arsenic	7440-38-2	E440/VA	0.020	mg/kg	0.298	0.136	0.085	0.062	0.046	
Barium	7440-39-3	E440/VA	0.050	mg/kg	1.61	2.48	0.177	0.132	0.184	
Beryllium	7440-41-7	E440/VA	0.010	mg/kg	<0.010	<0.010	<0.010	<0.010	<0.010	
Bismuth	7440-69-9	E440/VA	0.010	mg/kg	<0.010	<0.010	<0.010	<0.010	<0.010	
Boron	7440-42-8	E440/VA	1.0	mg/kg	<1.0	<1.0	<1.0	<1.0	<1.0	
Cadmium	7440-43-9	E440/VA	0.0050	mg/kg	<0.0050	<0.0050	0.0051	<0.0050	0.0052	
Calcium	7440-70-2	E440/VA	20	mg/kg	820	782	505	477	494	
Cesium	7440-46-2	E440/VA	0.0050	mg/kg	0.122	0.126	0.0135	0.0119	0.0101	
Chromium	7440-47-3	E440/VA	0.050	mg/kg	0.093	0.552	<0.050	<0.050	<0.050	
Cobalt	7440-48-4	E440/VA	0.020	mg/kg	0.063	0.104	0.068	0.050	0.046	
Copper	7440-50-8	E440/VA	0.10	mg/kg	6.02	9.19	3.88	4.18	3.54	
Iron	7439-89-6	E440/VA	3.0	mg/kg	115	220	34.3	51.4	50.9	
Lead	7439-92-1	E440/VA	0.020	mg/kg	0.025	0.238	<0.020	<0.020	<0.020	
Lithium	7439-93-2	E440/VA	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50	
Magnesium	7439-95-4	E440/VA	2.0	mg/kg	1380	1410	626	676	672	
Manganese	7439-96-5	E440/VA	0.050	mg/kg	2.80	4.12	21.9	9.97	17.5	
Mercury	7439-97-6	E510/VA	0.0050	mg/kg	0.199	0.528	0.0058	0.0094	0.0084	
Mercury	7439-97-6	E510A/VA	0.0010	mg/kg wwt	0.0465	0.114	0.0022	0.0034	0.0030	
Molybdenum	7439-98-7	E440/VA	0.020	mg/kg	0.060	0.129	0.084	0.084	0.103	
Nickel	7440-02-0	E440/VA	0.20	mg/kg	<0.20	<0.20	<0.20	<0.20	<0.20	
Phosphorus	7723-14-0	E440/VA	10	mg/kg	11700	12800	11900	12200	11800	
Potassium	7440-09-7	E440/VA	20	mg/kg	20000	21700	6120	6390	6160	
Rubidium	7440-17-7	E440/VA	0.050	mg/kg	11.1	17.0	5.91	4.71	5.48	
Selenium	7782-49-2	E440/VA	0.050	mg/kg	7.06	6.32	7.35	8.62	8.04	
Silver	7440-22-4	E440.Ag/VA	0.0050	mg/kg	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	
Sodium	7440-23-5	E440/VA	20	mg/kg	1440	2450	1620	1660	1940	
Strontium	7440-24-6	E440/VA	0.050	mg/kg	1.31	1.66	0.620	0.475	0.459	



Analytical Results

Sub-Matrix: Tissue (Matrix: Biota)					Client sample ID	POL_LSU-M-7_ 2023-05	POL_LSU-M-8_ 2023-05	POL_LSU-O-1_ 2023-05	POL_LSU-O-2_ 2023-05	POL_LSU-O-3_ 2023-05
Client sampling date / time					16-May-2023	16-May-2023	13-May-2023	16-May-2023	16-May-2023	
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23B1226-071	VA23B1226-072	VA23B1226-073	VA23B1226-074	VA23B1226-075	
					Result	Result	Result	Result	Result	
Metals										
Tellurium	13494-80-9	E440/VA	0.020	mg/kg	<0.020	<0.020	<0.020	<0.020	<0.020	
Thallium	7440-28-0	E440/VA	0.0020	mg/kg	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	
Tin	7440-31-5	E440/VA	0.10	mg/kg	0.11	0.18	<0.10	<0.10	<0.10	
Titanium	7440-32-6	E440.Ti/VA	0.25	mg/kg	4.56	6.42	<0.25	<0.25	<0.25	
Uranium	7440-61-1	E440/VA	0.0020	mg/kg	0.0020	0.0035	<0.0020	<0.0020	<0.0020	
Vanadium	7440-62-2	E440/VA	0.10	mg/kg	0.35	0.70	<0.10	0.12	0.14	
Zinc	7440-66-6	E440/VA	0.50	mg/kg	34.0	31.9	83.2	88.9	81.0	
Zirconium	7440-67-7	E440/VA	0.20	mg/kg	<0.20	<0.20	<0.20	<0.20	<0.20	

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.



Analytical Results

Sub-Matrix: Tissue (Matrix: Biota)					Client sample ID	POL_LSU-O-4_ 2023-05	POL_LSU-O-5_ 2023-05	POL_LSU-O-6_ 2023-05	POL_LSU-O-7_ 2023-05	POL_LSU-O-8_ 2023-05
Client sampling date / time					16-May-2023	16-May-2023	16-May-2023	16-May-2023	16-May-2023	
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23B1226-076	VA23B1226-077	VA23B1226-078	VA23B1226-079	VA23B1226-080	
					Result	Result	Result	Result	Result	
Physical Tests										
Moisture	----	E144/VA	0.50	%	67.9	69.6	61.9	62.6	64.1	
Metals										
Aluminum	7429-90-5	E440/VA	2.0	mg/kg	4.4	3.1	2.6	4.4	8.7	
Antimony	7440-36-0	E440/VA	0.010	mg/kg	<0.010	<0.010	<0.010	<0.010	<0.010	
Arsenic	7440-38-2	E440/VA	0.020	mg/kg	0.041	0.050	0.056	0.112	0.056	
Barium	7440-39-3	E440/VA	0.050	mg/kg	0.233	0.185	0.225	0.478	0.326	
Beryllium	7440-41-7	E440/VA	0.010	mg/kg	<0.010	<0.010	<0.010	<0.010	<0.010	
Bismuth	7440-69-9	E440/VA	0.010	mg/kg	<0.010	<0.010	<0.010	<0.010	<0.010	
Boron	7440-42-8	E440/VA	1.0	mg/kg	<1.0	<1.0	<1.0	<1.0	<1.0	
Cadmium	7440-43-9	E440/VA	0.0050	mg/kg	<0.0050	0.0102	<0.0050	<0.0050	<0.0050	
Calcium	7440-70-2	E440/VA	20	mg/kg	414	378	472	412	371	
Cesium	7440-46-2	E440/VA	0.0050	mg/kg	0.0123	0.0142	0.0110	0.0178	0.0155	
Chromium	7440-47-3	E440/VA	0.050	mg/kg	<0.050	<0.050	<0.050	<0.050	<0.050	
Cobalt	7440-48-4	E440/VA	0.020	mg/kg	0.045	0.069	0.072	0.084	0.063	
Copper	7440-50-8	E440/VA	0.10	mg/kg	3.77	4.06	3.80	4.04	4.56	
Iron	7439-89-6	E440/VA	3.0	mg/kg	45.1	50.7	43.5	46.4	60.6	
Lead	7439-92-1	E440/VA	0.020	mg/kg	<0.020	<0.020	<0.020	<0.020	<0.020	
Lithium	7439-93-2	E440/VA	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50	
Magnesium	7439-95-4	E440/VA	2.0	mg/kg	713	732	675	650	816	
Manganese	7439-96-5	E440/VA	0.050	mg/kg	10.2	8.46	21.9	14.3	14.7	
Mercury	7439-97-6	E510/VA	0.0050	mg/kg	0.0072	0.0110	0.0058	0.0052	0.0085	
Mercury	7439-97-6	E510A/VA	0.0010	mg/kg wwt	0.0023	0.0033	0.0022	0.0020	0.0030	
Molybdenum	7439-98-7	E440/VA	0.020	mg/kg	0.067	0.072	0.069	0.064	0.066	
Nickel	7440-02-0	E440/VA	0.20	mg/kg	<0.20	<0.20	<0.20	<0.20	<0.20	
Phosphorus	7723-14-0	E440/VA	10	mg/kg	11800	12500	11900	11700	12100	
Potassium	7440-09-7	E440/VA	20	mg/kg	7520	8490	5740	6130	6200	
Rubidium	7440-17-7	E440/VA	0.050	mg/kg	5.39	6.15	4.28	3.98	5.60	
Selenium	7782-49-2	E440/VA	0.050	mg/kg	7.71	8.22	7.83	10.4	7.90	
Silver	7440-22-4	E440.Ag/VA	0.0050	mg/kg	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	
Sodium	7440-23-5	E440/VA	20	mg/kg	2650	3150	1320	1760	1640	
Strontium	7440-24-6	E440/VA	0.050	mg/kg	0.401	0.436	0.539	0.572	0.790	



Analytical Results

Sub-Matrix: Tissue (Matrix: Biota)					Client sample ID	POL_LSU-O-4_ 2023-05	POL_LSU-O-5_ 2023-05	POL_LSU-O-6_ 2023-05	POL_LSU-O-7_ 2023-05	POL_LSU-O-8_ 2023-05
Client sampling date / time					16-May-2023	16-May-2023	16-May-2023	16-May-2023	16-May-2023	
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23B1226-076	VA23B1226-077	VA23B1226-078	VA23B1226-079	VA23B1226-080	
					Result	Result	Result	Result	Result	
Metals										
Tellurium	13494-80-9	E440/VA	0.020	mg/kg	<0.020	<0.020	<0.020	<0.020	<0.020	
Thallium	7440-28-0	E440/VA	0.0020	mg/kg	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	
Tin	7440-31-5	E440/VA	0.10	mg/kg	<0.10	<0.10	<0.10	<0.10	<0.10	
Titanium	7440-32-6	E440.Ti/VA	0.25	mg/kg	0.35	0.27	<0.25	0.30	0.65	
Uranium	7440-61-1	E440/VA	0.0020	mg/kg	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	
Vanadium	7440-62-2	E440/VA	0.10	mg/kg	<0.10	0.10	<0.10	<0.10	0.12	
Zinc	7440-66-6	E440/VA	0.50	mg/kg	83.5	94.0	80.3	82.0	86.8	
Zirconium	7440-67-7	E440/VA	0.20	mg/kg	<0.20	<0.20	<0.20	<0.20	<0.20	

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.



Analytical Results

Sub-Matrix: Tissue (Matrix: Biota)					Client sample ID	POL_LSU-Li-1_ 2023-05	POL_LSU-Li-2_ 2023-05	POL_LSU-Li-3_ 2023-05	POL_LSU-Li-4_ 2023-05	POL_LSU-Li-5_ 2023-05
Client sampling date / time					13-May-2023	16-May-2023	16-May-2023	16-May-2023	16-May-2023	
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23B1226-081	VA23B1226-082	VA23B1226-083	VA23B1226-084	VA23B1226-085	
					Result	Result	Result	Result	Result	
Physical Tests										
Moisture	----	E144-H/VA	2.0	%	73.9	73.1	75.8	73.8	73.8	
Metals										
Aluminum	7429-90-5	E472/VA	5.0	mg/kg	<5.0	12.6	6.8	10.5	13.0	
Antimony	7440-36-0	E472/VA	0.010	mg/kg	<0.010	0.021	<0.010	0.014	0.030	
Arsenic	7440-38-2	E472/VA	0.030	mg/kg	0.154	0.323	0.148	0.210	0.405	
Barium	7440-39-3	E472/VA	0.050	mg/kg	0.064	0.330	0.163	0.331	0.354	
Beryllium	7440-41-7	E472/VA	0.010	mg/kg	<0.010	<0.010	<0.010	<0.010	<0.010	
Bismuth	7440-69-9	E472/VA	0.010	mg/kg	<0.010	<0.010	<0.010	<0.010	<0.010	
Boron	7440-42-8	E472/VA	1.0	mg/kg	<1.0	<1.0	<1.0	<1.0	<1.0	
Cadmium	7440-43-9	E472/VA	0.010	mg/kg	0.172	0.290	0.191	0.302	0.409	
Calcium	7440-70-2	E472/VA	20	mg/kg	168	267	163	211	269	
Cesium	7440-46-2	E472/VA	0.0050	mg/kg	0.0267	0.0190	0.0166	0.0222	0.0177	
Chromium	7440-47-3	E472/VA	0.20	mg/kg	<0.20	<0.20	<0.20	0.21	0.32	
Cobalt	7440-48-4	E472/VA	0.020	mg/kg	0.087	0.086	0.071	0.079	0.115	
Copper	7440-50-8	E472/VA	0.20	mg/kg	37.5	51.2	33.5	34.2	58.6	
Iron	7439-89-6	E472/VA	5.0	mg/kg	138	298	388	378	388	
Lead	7439-92-1	E472/VA	0.050	mg/kg	<0.050	0.075	<0.050	<0.050	<0.050	
Lithium	7439-93-2	E472/VA	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50	
Magnesium	7439-95-4	E472/VA	2.0	mg/kg	933	787	772	679	929	
Manganese	7439-96-5	E472/VA	0.050	mg/kg	11.3	8.56	9.33	7.06	9.01	
Mercury	7439-97-6	E511/VA	0.0050	mg/kg	0.0354	0.0777	0.0567	0.0826	0.102	
Mercury	7439-97-6	E511A/VA	0.0010	mg/kg wwt	0.0092	0.0209	0.0137	0.0216	0.0266	
Molybdenum	7439-98-7	E472/VA	0.040	mg/kg	1.45	1.42	0.991	1.01	1.49	
Nickel	7440-02-0	E472/VA	0.20	mg/kg	<0.20	<0.20	<0.20	<0.20	<0.20	
Phosphorus	7723-14-0	E472/VA	10	mg/kg	16000	13400	12600	11200	15100	
Potassium	7440-09-7	E472/VA	20	mg/kg	14100	12100	10700	8980	11700	
Rubidium	7440-17-7	E472/VA	0.050	mg/kg	14.8	8.24	10.1	7.51	9.23	
Selenium	7782-49-2	E472/VA	0.10	mg/kg	8.52	10.1	6.69	7.92	12.0	
Silver	7440-22-4	E472.Ag/VA	0.0050	mg/kg	0.0238	0.0352	0.0348	0.0152	0.0379	
Sodium	7440-23-5	E472/VA	20	mg/kg	3410	3310	2690	2740	4040	
Strontium	7440-24-6	E472/VA	0.10	mg/kg	0.35	0.69	0.38	0.52	0.54	



Analytical Results

Sub-Matrix: Tissue (Matrix: Biota)					Client sample ID	POL_LSU-Li-1_ 2023-05	POL_LSU-Li-2_ 2023-05	POL_LSU-Li-3_ 2023-05	POL_LSU-Li-4_ 2023-05	POL_LSU-Li-5_ 2023-05
Client sampling date / time					13-May-2023	16-May-2023	16-May-2023	16-May-2023	16-May-2023	16-May-2023
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23B1226-081	VA23B1226-082	VA23B1226-083	VA23B1226-084	VA23B1226-085	
					Result	Result	Result	Result	Result	
Metals										
Tellurium	13494-80-9	E472/VA	0.020	mg/kg	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020
Thallium	7440-28-0	E472/VA	0.0020	mg/kg	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Tin	7440-31-5	E472/VA	0.10	mg/kg	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Titanium	7440-32-6	E472.Ti/VA	0.50	mg/kg	<0.50	0.89	<0.50	0.70	1.08	
Uranium	7440-61-1	E472/VA	0.0020	mg/kg	<0.0020	0.0023	0.0023	0.0020	0.0030	
Vanadium	7440-62-2	E472/VA	0.10	mg/kg	0.13	0.70	0.79	0.45	1.07	
Zinc	7440-66-6	E472/VA	1.0	mg/kg	99.0	84.8	69.0	79.7	110	
Zirconium	7440-67-7	E472/VA	0.20	mg/kg	<0.20	<0.20	<0.20	<0.20	<0.20	

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.



Analytical Results

Sub-Matrix: Tissue (Matrix: Biota)					Client sample ID	POL_LSU-Li-6_ 2023-05	POL_LSU-Li-7_ 2023-05	POL_LSU-Li-8_ 2023-05	POL_LSU-Ki-1_ 2023-05	POL_LSU-Ki-2_ 2023-05
Client sampling date / time					16-May-2023	16-May-2023	16-May-2023	13-May-2023	16-May-2023	
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23B1226-086	VA23B1226-087	VA23B1226-088	VA23B1226-089	VA23B1226-090	
					Result	Result	Result	Result	Result	
Physical Tests										
Moisture	----	E144/VA	0.50	%	----	72.0	76.1	----	----	
Moisture	----	E144A/VA	2.0	%	----	----	----	77.0	79.0	
Moisture	----	E144-H/VA	2.0	%	71.8	----	----	----	----	
Metals										
Aluminum	7429-90-5	E440/VA	2.0	mg/kg	----	13.8	22.5	----	----	
Aluminum	7429-90-5	E475/VA	5.0	mg/kg	----	----	----	5.9	33.1	
Aluminum	7429-90-5	E472/VA	5.0	mg/kg	10.7	----	----	----	----	
Antimony	7440-36-0	E472/VA	0.010	mg/kg	<0.010	----	----	----	----	
Antimony	7440-36-0	E440/VA	0.010	mg/kg	----	0.010	0.023	----	----	
Antimony	7440-36-0	E475/VA	0.020	mg/kg	----	----	----	<0.020	<0.020	
Arsenic	7440-38-2	E440/VA	0.020	mg/kg	----	0.271	0.296	----	----	
Arsenic	7440-38-2	E472/VA	0.030	mg/kg	0.128	----	----	----	----	
Arsenic	7440-38-2	E475/VA	0.050	mg/kg	----	----	----	0.183	0.193	
Barium	7440-39-3	E475/VA	0.050	mg/kg	----	----	----	0.871	0.896	
Barium	7440-39-3	E472/VA	0.050	mg/kg	0.331	----	----	----	----	
Barium	7440-39-3	E440/VA	0.050	mg/kg	----	0.572	0.463	----	----	
Beryllium	7440-41-7	E475/VA	0.010	mg/kg	----	----	----	<0.010	<0.010	
Beryllium	7440-41-7	E472/VA	0.010	mg/kg	<0.010	----	----	----	----	
Beryllium	7440-41-7	E440/VA	0.010	mg/kg	----	<0.010	<0.010	----	----	
Bismuth	7440-69-9	E475/VA	0.010	mg/kg	----	----	----	<0.010	<0.010	
Bismuth	7440-69-9	E472/VA	0.010	mg/kg	<0.010	----	----	----	----	
Bismuth	7440-69-9	E440/VA	0.010	mg/kg	----	<0.010	<0.010	----	----	
Boron	7440-42-8	E475/VA	1.0	mg/kg	----	----	----	<1.0	<1.0	
Boron	7440-42-8	E472/VA	1.0	mg/kg	<1.0	----	----	----	----	
Boron	7440-42-8	E440/VA	1.0	mg/kg	----	<1.0	<1.0	----	----	
Cadmium	7440-43-9	E440/VA	0.0050	mg/kg	----	0.147	0.433	----	----	
Cadmium	7440-43-9	E475/VA	0.010	mg/kg	----	----	----	1.48	1.95	
Cadmium	7440-43-9	E472/VA	0.010	mg/kg	0.107	----	----	----	----	
Calcium	7440-70-2	E475/VA	20	mg/kg	----	----	----	459	599	
Calcium	7440-70-2	E472/VA	20	mg/kg	176	----	----	----	----	
Calcium	7440-70-2	E440/VA	20	mg/kg	----	232	253	----	----	



Analytical Results

Sub-Matrix: Tissue					Client sample ID				
(Matrix: Biota)					POL_LSU-Li-6_2023-05	POL_LSU-Li-7_2023-05	POL_LSU-Li-8_2023-05	POL_LSU-Ki-1_2023-05	POL_LSU-Ki-2_2023-05
Client sampling date / time					16-May-2023	16-May-2023	16-May-2023	13-May-2023	16-May-2023
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23B1226-086	VA23B1226-087	VA23B1226-088	VA23B1226-089	VA23B1226-090
					Result	Result	Result	Result	Result
Metals									
Cesium	7440-46-2	E475/VA	0.0050	mg/kg	----	----	----	0.0316	0.0318
Cesium	7440-46-2	E472/VA	0.0050	mg/kg	0.0133	----	----	----	----
Cesium	7440-46-2	E440/VA	0.0050	mg/kg	----	0.0266	0.0346	----	----
Chromium	7440-47-3	E440/VA	0.050	mg/kg	----	<0.050	0.063	----	----
Chromium	7440-47-3	E475/VA	0.20	mg/kg	----	----	----	<0.20	<0.20
Chromium	7440-47-3	E472/VA	0.20	mg/kg	0.26	----	----	----	----
Cobalt	7440-48-4	E475/VA	0.020	mg/kg	----	----	----	0.306	0.285
Cobalt	7440-48-4	E472/VA	0.020	mg/kg	0.072	----	----	----	----
Cobalt	7440-48-4	E440/VA	0.020	mg/kg	----	0.098	0.128	----	----
Copper	7440-50-8	E440/VA	0.10	mg/kg	----	53.2	58.4	----	----
Copper	7440-50-8	E475/VA	0.20	mg/kg	----	----	----	5.08	9.57
Copper	7440-50-8	E472/VA	0.20	mg/kg	58.4	----	----	----	----
Iron	7439-89-6	E440/VA	3.0	mg/kg	----	181	398	----	----
Iron	7439-89-6	E475/VA	5.0	mg/kg	----	----	----	448	512
Iron	7439-89-6	E472/VA	5.0	mg/kg	217	----	----	----	----
Lead	7439-92-1	E440/VA	0.020	mg/kg	----	0.021	0.031	----	----
Lead	7439-92-1	E475/VA	0.050	mg/kg	----	----	----	<0.050	<0.050
Lead	7439-92-1	E472/VA	0.050	mg/kg	0.110	----	----	----	----
Lithium	7439-93-2	E475/VA	0.50	mg/kg	----	----	----	<0.50	<0.50
Lithium	7439-93-2	E472/VA	0.50	mg/kg	<0.50	----	----	----	----
Lithium	7439-93-2	E440/VA	0.50	mg/kg	----	<0.50	<0.50	----	----
Magnesium	7439-95-4	E475/VA	2.0	mg/kg	----	----	----	645	713
Magnesium	7439-95-4	E472/VA	2.0	mg/kg	658	----	----	----	----
Magnesium	7439-95-4	E440/VA	2.0	mg/kg	----	834	1160	----	----
Manganese	7439-96-5	E475/VA	0.050	mg/kg	----	----	----	6.25	5.24
Manganese	7439-96-5	E472/VA	0.050	mg/kg	8.04	----	----	----	----
Manganese	7439-96-5	E440/VA	0.050	mg/kg	----	10.0	14.5	----	----
Mercury	7439-97-6	E511/VA	0.0050	mg/kg	0.0483	----	----	----	----
Mercury	7439-97-6	E510/VA	0.0050	mg/kg	----	0.0354	0.0938	----	----
Mercury	7439-97-6	E512/VA	0.010	mg/kg	----	----	----	0.058	0.124
Mercury	7439-97-6	E511A/VA	0.0010	mg/kg wwt	0.0136	----	----	----	----



Analytical Results

Sub-Matrix: Tissue (Matrix: Biota)					Client sample ID	POL_LSU-Li-6_ 2023-05	POL_LSU-Li-7_ 2023-05	POL_LSU-Li-8_ 2023-05	POL_LSU-Ki-1_ 2023-05	POL_LSU-Ki-2_ 2023-05
Client sampling date / time					16-May-2023	16-May-2023	16-May-2023	13-May-2023	16-May-2023	
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23B1226-086	VA23B1226-087	VA23B1226-088	VA23B1226-089	VA23B1226-090	
					Result	Result	Result	Result	Result	
Metals										
Mercury	7439-97-6	E510A/VA	0.0010	mg/kg wwt	----	0.0099	0.0224	----	----	
Mercury	7439-97-6	E512A/VA	0.0020	mg/kg wwt	----	----	----	0.0134	0.0262	
Molybdenum	7439-98-7	E440/VA	0.020	mg/kg	----	0.974	1.49	----	----	
Molybdenum	7439-98-7	E475/VA	0.040	mg/kg	----	----	----	0.839	0.807	
Molybdenum	7439-98-7	E472/VA	0.040	mg/kg	0.982	----	----	----	----	
Nickel	7440-02-0	E475/VA	0.20	mg/kg	----	----	----	0.29	0.43	
Nickel	7440-02-0	E472/VA	0.20	mg/kg	<0.20	----	----	----	----	
Nickel	7440-02-0	E440/VA	0.20	mg/kg	----	<0.20	<0.20	----	----	
Phosphorus	7723-14-0	E472/VA	10	mg/kg	10600	----	----	----	----	
Phosphorus	7723-14-0	E440/VA	10	mg/kg	----	13300	18200	----	----	
Phosphorus	7723-14-0	E475/VA	20	mg/kg	----	----	----	13200	13200	
Potassium	7440-09-7	E475/VA	20	mg/kg	----	----	----	11300	12500	
Potassium	7440-09-7	E472/VA	20	mg/kg	9090	----	----	----	----	
Potassium	7440-09-7	E440/VA	20	mg/kg	----	11900	15300	----	----	
Rubidium	7440-17-7	E475/VA	0.050	mg/kg	----	----	----	9.73	9.54	
Rubidium	7440-17-7	E472/VA	0.050	mg/kg	6.58	----	----	----	----	
Rubidium	7440-17-7	E440/VA	0.050	mg/kg	----	7.98	13.4	----	----	
Selenium	7782-49-2	E440/VA	0.050	mg/kg	----	10.8	12.5	----	----	
Selenium	7782-49-2	E475/VA	0.10	mg/kg	----	----	----	8.95	11.4	
Selenium	7782-49-2	E472/VA	0.10	mg/kg	6.66	----	----	----	----	
Silver	7440-22-4	E475.Ag/VA	0.0050	mg/kg	----	----	----	<0.0050	<0.0050	
Silver	7440-22-4	E472.Ag/VA	0.0050	mg/kg	0.0281	----	----	----	----	
Silver	7440-22-4	E440.Ag/VA	0.0050	mg/kg	----	0.0282	0.0196	----	----	
Sodium	7440-23-5	E475/VA	20	mg/kg	----	----	----	6040	7340	
Sodium	7440-23-5	E472/VA	20	mg/kg	2610	----	----	----	----	
Sodium	7440-23-5	E440/VA	20	mg/kg	----	3380	3670	----	----	
Strontium	7440-24-6	E440/VA	0.050	mg/kg	----	0.672	0.808	----	----	
Strontium	7440-24-6	E475/VA	0.10	mg/kg	----	----	----	0.88	1.05	
Strontium	7440-24-6	E472/VA	0.10	mg/kg	0.44	----	----	----	----	
Tellurium	13494-80-9	E475/VA	0.020	mg/kg	----	----	----	<0.020	0.028	
Tellurium	13494-80-9	E472/VA	0.020	mg/kg	<0.020	----	----	----	----	



Analytical Results

Sub-Matrix: Tissue (Matrix: Biota)					Client sample ID	POL_LSU-Li-6_ 2023-05	POL_LSU-Li-7_ 2023-05	POL_LSU-Li-8_ 2023-05	POL_LSU-Ki-1_ 2023-05	POL_LSU-Ki-2_ 2023-05
Client sampling date / time					16-May-2023	16-May-2023	16-May-2023	13-May-2023	16-May-2023	
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23B1226-086	VA23B1226-087	VA23B1226-088	VA23B1226-089	VA23B1226-090	
					Result	Result	Result	Result	Result	
Metals										
Tellurium	13494-80-9	E440/VA	0.020	mg/kg	----	<0.020	<0.020	----	----	
Thallium	7440-28-0	E475/VA	0.0020	mg/kg	----	----	----	0.0087	0.0039	
Thallium	7440-28-0	E472/VA	0.0020	mg/kg	<0.0020	----	----	----	----	
Thallium	7440-28-0	E440/VA	0.0020	mg/kg	----	<0.0020	<0.0020	----	----	
Tin	7440-31-5	E475/VA	0.10	mg/kg	----	----	----	<0.10	<0.10	
Tin	7440-31-5	E472/VA	0.10	mg/kg	<0.10	----	----	----	----	
Tin	7440-31-5	E440/VA	0.10	mg/kg	----	0.18	0.19	----	----	
Titanium	7440-32-6	E440.Ti/VA	0.25	mg/kg	----	1.16	1.37	----	----	
Titanium	7440-32-6	E475.Ti/VA	0.50	mg/kg	----	----	----	0.55	3.01	
Titanium	7440-32-6	E472.Ti/VA	0.50	mg/kg	0.86	----	----	----	----	
Uranium	7440-61-1	E475/VA	0.0020	mg/kg	----	----	----	0.0033	0.0054	
Uranium	7440-61-1	E472/VA	0.0020	mg/kg	<0.0020	----	----	----	----	
Uranium	7440-61-1	E440/VA	0.0020	mg/kg	----	<0.0020	0.0020	----	----	
Vanadium	7440-62-2	E475/VA	0.10	mg/kg	----	----	----	0.72	3.37	
Vanadium	7440-62-2	E472/VA	0.10	mg/kg	0.26	----	----	----	----	
Vanadium	7440-62-2	E440/VA	0.10	mg/kg	----	0.24	0.55	----	----	
Zinc	7440-66-6	E440/VA	0.50	mg/kg	----	92.6	126	----	----	
Zinc	7440-66-6	E475/VA	1.0	mg/kg	----	----	----	184	139	
Zinc	7440-66-6	E472/VA	1.0	mg/kg	76.9	----	----	----	----	
Zirconium	7440-67-7	E475/VA	0.20	mg/kg	----	----	----	<0.20	<0.20	
Zirconium	7440-67-7	E472/VA	0.20	mg/kg	<0.20	----	----	----	----	
Zirconium	7440-67-7	E440/VA	0.20	mg/kg	----	<0.20	<0.20	----	----	

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.



Analytical Results

Sub-Matrix: Tissue					Client sample ID				
(Matrix: Biota)					POL_LSU-Ki-3_2023-05	POL_LSU-Ki-4_2023-05	POL_LSU-Ki-5_2023-05	POL_LSU-Ki-6_2023-05	POL_LSU-Ki-7_2023-05
Client sampling date / time					16-May-2023	16-May-2023	16-May-2023	16-May-2023	16-May-2023
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23B1226-091	VA23B1226-092	VA23B1226-093	VA23B1226-094	VA23B1226-095
					Result	Result	Result	Result	Result
Physical Tests									
Moisture	----	E144A/VA	2.0	%	----	----	76.1	62.2	----
Moisture	----	E144-H/VA	2.0	%	80.7	78.9	----	----	68.0
Metals									
Aluminum	7429-90-5	E475/VA	5.0	mg/kg	----	----	34.2	5.4	----
Aluminum	7429-90-5	E472/VA	5.0	mg/kg	60.4	29.6	----	----	25.5
Antimony	7440-36-0	E472/VA	0.010	mg/kg	<0.010	<0.010	----	----	<0.010
Antimony	7440-36-0	E475/VA	0.020	mg/kg	----	----	<0.020	<0.020	----
Arsenic	7440-38-2	E472/VA	0.030	mg/kg	0.214	0.153	----	----	0.243
Arsenic	7440-38-2	E475/VA	0.050	mg/kg	----	----	0.235	0.169	----
Barium	7440-39-3	E475/VA	0.050	mg/kg	----	----	2.20	0.560	----
Barium	7440-39-3	E472/VA	0.050	mg/kg	2.09	1.34	----	----	1.70
Beryllium	7440-41-7	E475/VA	0.010	mg/kg	----	----	<0.010	<0.010	----
Beryllium	7440-41-7	E472/VA	0.010	mg/kg	<0.010	<0.010	----	----	<0.010
Bismuth	7440-69-9	E475/VA	0.010	mg/kg	----	----	<0.010	<0.010	----
Bismuth	7440-69-9	E472/VA	0.010	mg/kg	<0.010	<0.010	----	----	<0.010
Boron	7440-42-8	E475/VA	1.0	mg/kg	----	----	<1.0	<1.0	----
Boron	7440-42-8	E472/VA	1.0	mg/kg	<1.0	<1.0	----	----	<1.0
Cadmium	7440-43-9	E475/VA	0.010	mg/kg	----	----	2.34	0.527	----
Cadmium	7440-43-9	E472/VA	0.010	mg/kg	1.32	1.62	----	----	0.530
Calcium	7440-70-2	E475/VA	20	mg/kg	----	----	528	234	----
Calcium	7440-70-2	E472/VA	20	mg/kg	567	444	----	----	270
Cesium	7440-46-2	E475/VA	0.0050	mg/kg	----	----	0.0260	0.0128	----
Cesium	7440-46-2	E472/VA	0.0050	mg/kg	0.0294	0.0240	----	----	0.0260
Chromium	7440-47-3	E475/VA	0.20	mg/kg	----	----	0.22	<0.20	----
Chromium	7440-47-3	E472/VA	0.20	mg/kg	<0.20	<0.20	----	----	<0.20
Cobalt	7440-48-4	E475/VA	0.020	mg/kg	----	----	0.206	0.182	----
Cobalt	7440-48-4	E472/VA	0.020	mg/kg	0.206	0.342	----	----	0.246
Copper	7440-50-8	E475/VA	0.20	mg/kg	----	----	12.3	3.58	----
Copper	7440-50-8	E472/VA	0.20	mg/kg	14.7	9.56	----	----	6.03
Iron	7439-89-6	E475/VA	5.0	mg/kg	----	----	362	200	----
Iron	7439-89-6	E472/VA	5.0	mg/kg	544	502	----	----	288



Analytical Results

Sub-Matrix: Tissue
 (Matrix: Biota)

Client sample ID

					POL_LSU-Ki-3_ 2023-05	POL_LSU-Ki-4_ 2023-05	POL_LSU-Ki-5_ 2023-05	POL_LSU-Ki-6_ 2023-05	POL_LSU-Ki-7_ 2023-05
Client sampling date / time					16-May-2023	16-May-2023	16-May-2023	16-May-2023	16-May-2023
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23B1226-091	VA23B1226-092	VA23B1226-093	VA23B1226-094	VA23B1226-095
					Result	Result	Result	Result	Result
Metals									
Lead	7439-92-1	E475/VA	0.050	mg/kg	----	----	0.101	<0.050	----
Lead	7439-92-1	E472/VA	0.050	mg/kg	0.084	<0.050	----	----	<0.050
Lithium	7439-93-2	E475/VA	0.50	mg/kg	----	----	<0.50	<0.50	----
Lithium	7439-93-2	E472/VA	0.50	mg/kg	<0.50	<0.50	----	----	<0.50
Magnesium	7439-95-4	E475/VA	2.0	mg/kg	----	----	608	310	----
Magnesium	7439-95-4	E472/VA	2.0	mg/kg	632	633	----	----	478
Manganese	7439-96-5	E475/VA	0.050	mg/kg	----	----	6.61	3.23	----
Manganese	7439-96-5	E472/VA	0.050	mg/kg	6.84	5.04	----	----	3.91
Mercury	7439-97-6	E511/VA	0.0050	mg/kg	0.0892	0.0912	----	----	0.0374
Mercury	7439-97-6	E512/VA	0.010	mg/kg	----	----	0.197	0.036	----
Mercury	7439-97-6	E511A/VA	0.0010	mg/kg wwt	0.0172	0.0193	----	----	0.0120
Mercury	7439-97-6	E512A/VA	0.0020	mg/kg wwt	----	----	0.0471	0.0138	----
Molybdenum	7439-98-7	E475/VA	0.040	mg/kg	----	----	1.16	0.524	----
Molybdenum	7439-98-7	E472/VA	0.040	mg/kg	0.835	0.874	----	----	0.351
Nickel	7440-02-0	E475/VA	0.20	mg/kg	----	----	0.35	0.22	----
Nickel	7440-02-0	E472/VA	0.20	mg/kg	0.43	0.35	----	----	<0.20
Phosphorus	7723-14-0	E472/VA	10	mg/kg	11900	11800	----	----	8610
Phosphorus	7723-14-0	E475/VA	20	mg/kg	----	----	11300	6310	----
Potassium	7440-09-7	E475/VA	20	mg/kg	----	----	9210	5160	----
Potassium	7440-09-7	E472/VA	20	mg/kg	9880	9240	----	----	7190
Rubidium	7440-17-7	E475/VA	0.050	mg/kg	----	----	7.58	3.86	----
Rubidium	7440-17-7	E472/VA	0.050	mg/kg	9.11	7.06	----	----	4.69
Selenium	7782-49-2	E475/VA	0.10	mg/kg	----	----	9.44	4.83	----
Selenium	7782-49-2	E472/VA	0.10	mg/kg	8.54	8.40	----	----	6.40
Silver	7440-22-4	E475.Ag/VA	0.0050	mg/kg	----	----	<0.0050	<0.0050	----
Silver	7440-22-4	E472.Ag/VA	0.0050	mg/kg	<0.0050	<0.0050	----	----	<0.0050
Sodium	7440-23-5	E475/VA	20	mg/kg	----	----	7200	3440	----
Sodium	7440-23-5	E472/VA	20	mg/kg	7980	6780	----	----	3310
Strontium	7440-24-6	E475/VA	0.10	mg/kg	----	----	1.08	0.49	----
Strontium	7440-24-6	E472/VA	0.10	mg/kg	1.29	0.88	----	----	0.70
Tellurium	13494-80-9	E475/VA	0.020	mg/kg	----	----	0.052	<0.020	----



Analytical Results

Sub-Matrix: Tissue (Matrix: Biota)					Client sample ID	POL_LSU-Ki-3_ 2023-05	POL_LSU-Ki-4_ 2023-05	POL_LSU-Ki-5_ 2023-05	POL_LSU-Ki-6_ 2023-05	POL_LSU-Ki-7_ 2023-05
Client sampling date / time					16-May-2023	16-May-2023	16-May-2023	16-May-2023	16-May-2023	
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23B1226-091	VA23B1226-092	VA23B1226-093	VA23B1226-094	VA23B1226-095	
					Result	Result	Result	Result	Result	
Metals										
Tellurium	13494-80-9	E472/VA	0.020	mg/kg	<0.020	<0.020	----	----	<0.020	
Thallium	7440-28-0	E475/VA	0.0020	mg/kg	----	----	0.0040	<0.0020	----	
Thallium	7440-28-0	E472/VA	0.0020	mg/kg	<0.0020	<0.0020	----	----	<0.0020	
Tin	7440-31-5	E475/VA	0.10	mg/kg	----	----	<0.10	<0.10	----	
Tin	7440-31-5	E472/VA	0.10	mg/kg	<0.10	<0.10	----	----	<0.10	
Titanium	7440-32-6	E475.Ti/VA	0.50	mg/kg	----	----	3.41	0.56	----	
Titanium	7440-32-6	E472.Ti/VA	0.50	mg/kg	5.44	2.48	----	----	1.92	
Uranium	7440-61-1	E475/VA	0.0020	mg/kg	----	----	0.0053	<0.0020	----	
Uranium	7440-61-1	E472/VA	0.0020	mg/kg	0.0070	0.0038	----	----	0.0026	
Vanadium	7440-62-2	E475/VA	0.10	mg/kg	----	----	2.93	0.59	----	
Vanadium	7440-62-2	E472/VA	0.10	mg/kg	2.93	1.42	----	----	0.59	
Zinc	7440-66-6	E475/VA	1.0	mg/kg	----	----	244	89.4	----	
Zinc	7440-66-6	E472/VA	1.0	mg/kg	128	182	----	----	135	
Zirconium	7440-67-7	E475/VA	0.20	mg/kg	----	----	<0.20	<0.20	----	
Zirconium	7440-67-7	E472/VA	0.20	mg/kg	<0.20	<0.20	----	----	<0.20	

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.



Analytical Results

Sub-Matrix: Tissue					Client sample ID				
(Matrix: Biota)					POL_LSU-Ki-8_2023-05	BOL_LSU-M-1_2023-05	BOL_LSU-M-2_2023-05	BOL_LSU-M-3_2023-05	BOL_LSU-M-4_2023-05
Client sampling date / time					16-May-2023	14-May-2023	14-May-2023	14-May-2023	14-May-2023
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23B1226-096	VA23B1226-097	VA23B1226-098	VA23B1226-099	VA23B1226-100
					Result	Result	Result	Result	Result
Physical Tests									
Moisture	----	E144/VA	0.50	%	----	79.6	78.8	78.2	77.2
Moisture	----	E144-H/VA	2.0	%	79.7	----	----	----	----
Metals									
Aluminum	7429-90-5	E440/VA	2.0	mg/kg	----	4.0	3.2	4.4	4.0
Aluminum	7429-90-5	E472/VA	5.0	mg/kg	46.2	----	----	----	----
Antimony	7440-36-0	E472/VA	0.010	mg/kg	<0.010	----	----	----	----
Antimony	7440-36-0	E440/VA	0.010	mg/kg	----	<0.010	<0.010	<0.010	<0.010
Arsenic	7440-38-2	E440/VA	0.020	mg/kg	----	0.056	0.049	0.085	0.168
Arsenic	7440-38-2	E472/VA	0.030	mg/kg	0.238	----	----	----	----
Barium	7440-39-3	E472/VA	0.050	mg/kg	3.79	----	----	----	----
Barium	7440-39-3	E440/VA	0.050	mg/kg	----	0.598	0.618	0.452	0.218
Beryllium	7440-41-7	E472/VA	0.010	mg/kg	<0.010	----	----	----	----
Beryllium	7440-41-7	E440/VA	0.010	mg/kg	----	<0.010	<0.010	<0.010	<0.010
Bismuth	7440-69-9	E472/VA	0.010	mg/kg	<0.010	----	----	----	----
Bismuth	7440-69-9	E440/VA	0.010	mg/kg	----	<0.010	<0.010	<0.010	<0.010
Boron	7440-42-8	E472/VA	1.0	mg/kg	<1.0	----	----	----	----
Boron	7440-42-8	E440/VA	1.0	mg/kg	----	<1.0	<1.0	<1.0	<1.0
Cadmium	7440-43-9	E440/VA	0.0050	mg/kg	----	<0.0050	<0.0050	0.0055	<0.0050
Cadmium	7440-43-9	E472/VA	0.010	mg/kg	2.51	----	----	----	----
Calcium	7440-70-2	E472/VA	20	mg/kg	633	----	----	----	----
Calcium	7440-70-2	E440/VA	20	mg/kg	----	2300	873	676	587
Cesium	7440-46-2	E472/VA	0.0050	mg/kg	0.0332	----	----	----	----
Cesium	7440-46-2	E440/VA	0.0050	mg/kg	----	0.107	0.114	0.120	0.223
Chromium	7440-47-3	E440/VA	0.050	mg/kg	----	<0.050	<0.050	<0.050	<0.050
Chromium	7440-47-3	E472/VA	0.20	mg/kg	<0.20	----	----	----	----
Cobalt	7440-48-4	E472/VA	0.020	mg/kg	0.539	----	----	----	----
Cobalt	7440-48-4	E440/VA	0.020	mg/kg	----	0.026	<0.020	0.031	<0.020
Copper	7440-50-8	E440/VA	0.10	mg/kg	----	3.59	2.04	3.77	2.18
Copper	7440-50-8	E472/VA	0.20	mg/kg	14.0	----	----	----	----
Iron	7439-89-6	E440/VA	3.0	mg/kg	----	60.4	26.6	58.3	28.4
Iron	7439-89-6	E472/VA	5.0	mg/kg	617	----	----	----	----



Analytical Results

Sub-Matrix: Tissue (Matrix: Biota)					Client sample ID	POL_LSU-Ki-8_ 2023-05	BOL_LSU-M-1_ 2023-05	BOL_LSU-M-2_ 2023-05	BOL_LSU-M-3_ 2023-05	BOL_LSU-M-4_ 2023-05
Client sampling date / time					16-May-2023	14-May-2023	14-May-2023	14-May-2023	14-May-2023	
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23B1226-096	VA23B1226-097	VA23B1226-098	VA23B1226-099	VA23B1226-100	
					Result	Result	Result	Result	Result	
Metals										
Lead	7439-92-1	E440/VA	0.020	mg/kg	----	<0.020	<0.020	<0.020	<0.020	
Lead	7439-92-1	E472/VA	0.050	mg/kg	0.361	----	----	----	----	
Lithium	7439-93-2	E472/VA	0.50	mg/kg	<0.50	----	----	----	----	
Lithium	7439-93-2	E440/VA	0.50	mg/kg	----	<0.50	<0.50	<0.50	<0.50	
Magnesium	7439-95-4	E472/VA	2.0	mg/kg	693	----	----	----	----	
Magnesium	7439-95-4	E440/VA	2.0	mg/kg	----	1220	1360	1150	1340	
Manganese	7439-96-5	E472/VA	0.050	mg/kg	9.53	----	----	----	----	
Manganese	7439-96-5	E440/VA	0.050	mg/kg	----	5.98	1.54	2.64	1.11	
Mercury	7439-97-6	E511/VA	0.0050	mg/kg	0.169	----	----	----	----	
Mercury	7439-97-6	E510/VA	0.0050	mg/kg	----	0.344	0.471	0.500	0.394	
Mercury	7439-97-6	E511A/VA	0.0010	mg/kg wwt	0.0344	----	----	----	----	
Mercury	7439-97-6	E510A/VA	0.0010	mg/kg wwt	----	0.0701	0.0999	0.109	0.0898	
Molybdenum	7439-98-7	E440/VA	0.020	mg/kg	----	0.030	<0.020	0.026	<0.020	
Molybdenum	7439-98-7	E472/VA	0.040	mg/kg	1.36	----	----	----	----	
Nickel	7440-02-0	E472/VA	0.20	mg/kg	0.68	----	----	----	----	
Nickel	7440-02-0	E440/VA	0.20	mg/kg	----	<0.20	<0.20	<0.20	<0.20	
Phosphorus	7723-14-0	E472/VA	10	mg/kg	12500	----	----	----	----	
Phosphorus	7723-14-0	E440/VA	10	mg/kg	----	13400	12400	11700	11100	
Potassium	7440-09-7	E472/VA	20	mg/kg	9970	----	----	----	----	
Potassium	7440-09-7	E440/VA	20	mg/kg	----	20500	20600	18300	18700	
Rubidium	7440-17-7	E472/VA	0.050	mg/kg	9.21	----	----	----	----	
Rubidium	7440-17-7	E440/VA	0.050	mg/kg	----	10.4	10.6	12.4	14.0	
Selenium	7782-49-2	E440/VA	0.050	mg/kg	----	2.80	2.25	2.55	2.60	
Selenium	7782-49-2	E472/VA	0.10	mg/kg	10.7	----	----	----	----	
Silver	7440-22-4	E472.Ag/VA	0.0050	mg/kg	<0.0050	----	----	----	----	
Silver	7440-22-4	E440.Ag/VA	0.0050	mg/kg	----	<0.0050	<0.0050	<0.0050	<0.0050	
Sodium	7440-23-5	E472/VA	20	mg/kg	8500	----	----	----	----	
Sodium	7440-23-5	E440/VA	20	mg/kg	----	1760	1440	1710	1020	
Strontium	7440-24-6	E440/VA	0.050	mg/kg	----	5.22	1.45	1.37	0.907	
Strontium	7440-24-6	E472/VA	0.10	mg/kg	2.02	----	----	----	----	
Tellurium	13494-80-9	E472/VA	0.020	mg/kg	0.038	----	----	----	----	



Analytical Results

Sub-Matrix: Tissue (Matrix: Biota)					Client sample ID	POL_LSU-Ki-8_ 2023-05	BOL_LSU-M-1_ 2023-05	BOL_LSU-M-2_ 2023-05	BOL_LSU-M-3_ 2023-05	BOL_LSU-M-4_ 2023-05
Client sampling date / time					16-May-2023	14-May-2023	14-May-2023	14-May-2023	14-May-2023	
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23B1226-096	VA23B1226-097	VA23B1226-098	VA23B1226-099	VA23B1226-100	
					Result	Result	Result	Result	Result	
Metals										
Tellurium	13494-80-9	E440/VA	0.020	mg/kg	----	<0.020	<0.020	<0.020	<0.020	
Thallium	7440-28-0	E472/VA	0.0020	mg/kg	0.0030	----	----	----	----	
Thallium	7440-28-0	E440/VA	0.0020	mg/kg	----	<0.0020	<0.0020	0.0081	0.0046	
Tin	7440-31-5	E472/VA	0.10	mg/kg	<0.10	----	----	----	----	
Tin	7440-31-5	E440/VA	0.10	mg/kg	----	0.31	0.26	0.24	0.22	
Titanium	7440-32-6	E440.Ti/VA	0.25	mg/kg	----	0.33	0.26	0.41	0.30	
Titanium	7440-32-6	E472.Ti/VA	0.50	mg/kg	3.66	----	----	----	----	
Uranium	7440-61-1	E472/VA	0.0020	mg/kg	0.0068	----	----	----	----	
Uranium	7440-61-1	E440/VA	0.0020	mg/kg	----	<0.0020	<0.0020	<0.0020	<0.0020	
Vanadium	7440-62-2	E472/VA	0.10	mg/kg	3.16	----	----	----	----	
Vanadium	7440-62-2	E440/VA	0.10	mg/kg	----	<0.10	<0.10	<0.10	<0.10	
Zinc	7440-66-6	E440/VA	0.50	mg/kg	----	22.6	19.7	21.3	21.1	
Zinc	7440-66-6	E472/VA	1.0	mg/kg	194	----	----	----	----	
Zirconium	7440-67-7	E472/VA	0.20	mg/kg	<0.20	----	----	----	----	
Zirconium	7440-67-7	E440/VA	0.20	mg/kg	----	<0.20	<0.20	<0.20	<0.20	

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.



Analytical Results

Sub-Matrix: Tissue					Client sample ID	BOL_LSU-M-5_	BOL_LSU-M-6_	BOL_LSU-M-7_	BOL_LSU-M-8_	BOL_LSU-O-1_
(Matrix: Biota)						2023-05	2023-05	2023-05	2023-05	2023-05
Client sampling date / time						14-May-2023	14-May-2023	14-May-2023	14-May-2023	14-May-2023
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23B1226-101	VA23B1226-102	VA23B1226-103	VA23B1226-104	VA23B1226-105	
					Result	Result	Result	Result	Result	
Physical Tests										
Moisture	----	E144/VA	0.50	%	73.3	66.6	78.9	73.5	65.1	
Metals										
Aluminum	7429-90-5	E440/VA	2.0	mg/kg	3.3	12.4	2.6	7.2	4.8	
Antimony	7440-36-0	E440/VA	0.010	mg/kg	<0.010	<0.010	<0.010	<0.010	<0.010	
Arsenic	7440-38-2	E440/VA	0.020	mg/kg	0.084	0.061	0.047	0.042	0.045	
Barium	7440-39-3	E440/VA	0.050	mg/kg	0.179	0.786	0.378	0.525	0.355	
Beryllium	7440-41-7	E440/VA	0.010	mg/kg	<0.010	<0.010	<0.010	<0.010	<0.010	
Bismuth	7440-69-9	E440/VA	0.010	mg/kg	<0.010	<0.010	<0.010	<0.010	<0.010	
Boron	7440-42-8	E440/VA	1.0	mg/kg	<1.0	<1.0	<1.0	<1.0	<1.0	
Cadmium	7440-43-9	E440/VA	0.0050	mg/kg	<0.0050	<0.0050	<0.0050	0.0059	<0.0050	
Calcium	7440-70-2	E440/VA	20	mg/kg	368	281	927	363	592	
Cesium	7440-46-2	E440/VA	0.0050	mg/kg	0.153	0.0570	0.119	0.0682	0.0190	
Chromium	7440-47-3	E440/VA	0.050	mg/kg	<0.050	<0.050	<0.050	0.089	<0.050	
Cobalt	7440-48-4	E440/VA	0.020	mg/kg	0.020	0.043	<0.020	0.033	0.066	
Copper	7440-50-8	E440/VA	0.10	mg/kg	2.89	4.44	1.68	3.29	3.27	
Iron	7439-89-6	E440/VA	3.0	mg/kg	36.3	84.1	30.4	76.8	65.9	
Lead	7439-92-1	E440/VA	0.020	mg/kg	0.022	0.101	0.022	<0.020	<0.020	
Lithium	7439-93-2	E440/VA	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50	
Magnesium	7439-95-4	E440/VA	2.0	mg/kg	992	654	1380	888	743	
Manganese	7439-96-5	E440/VA	0.050	mg/kg	1.11	1.27	1.47	1.20	23.4	
Mercury	7439-97-6	E510/VA	0.0050	mg/kg	0.288	0.317	0.506	0.298	0.0113	
Mercury	7439-97-6	E510A/VA	0.0010	mg/kg wwt	0.0768	0.106	0.107	0.0790	0.0040	
Molybdenum	7439-98-7	E440/VA	0.020	mg/kg	0.031	0.027	0.021	0.027	0.063	
Nickel	7440-02-0	E440/VA	0.20	mg/kg	<0.20	<0.20	<0.20	<0.20	<0.20	
Phosphorus	7723-14-0	E440/VA	10	mg/kg	9730	7280	12400	9200	12400	
Potassium	7440-09-7	E440/VA	20	mg/kg	16600	10100	21200	13900	6820	
Rubidium	7440-17-7	E440/VA	0.050	mg/kg	11.0	5.33	10.9	6.02	4.22	
Selenium	7782-49-2	E440/VA	0.050	mg/kg	2.59	1.80	2.18	2.15	4.45	
Silver	7440-22-4	E440.Ag/VA	0.0050	mg/kg	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	
Sodium	7440-23-5	E440/VA	20	mg/kg	1540	1270	1710	1530	1550	
Strontium	7440-24-6	E440/VA	0.050	mg/kg	0.467	0.539	1.47	0.517	0.925	



Analytical Results

Sub-Matrix: Tissue (Matrix: Biota)					Client sample ID	BOL_LSU-M-5_ 2023-05	BOL_LSU-M-6_ 2023-05	BOL_LSU-M-7_ 2023-05	BOL_LSU-M-8_ 2023-05	BOL_LSU-O-1_ 2023-05
Client sampling date / time					14-May-2023	14-May-2023	14-May-2023	14-May-2023	14-May-2023	
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23B1226-101	VA23B1226-102	VA23B1226-103	VA23B1226-104	VA23B1226-105	
					Result	Result	Result	Result	Result	
Metals										
Tellurium	13494-80-9	E440/VA	0.020	mg/kg	<0.020	<0.020	<0.020	<0.020	<0.020	
Thallium	7440-28-0	E440/VA	0.0020	mg/kg	<0.0020	0.0034	<0.0020	<0.0020	<0.0020	
Tin	7440-31-5	E440/VA	0.10	mg/kg	0.25	0.24	0.19	0.38	<0.10	
Titanium	7440-32-6	E440.Ti/VA	0.25	mg/kg	0.27	1.14	<0.25	0.76	0.25	
Uranium	7440-61-1	E440/VA	0.0020	mg/kg	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	
Vanadium	7440-62-2	E440/VA	0.10	mg/kg	<0.10	0.11	<0.10	<0.10	<0.10	
Zinc	7440-66-6	E440/VA	0.50	mg/kg	19.5	19.3	19.6	25.7	88.7	
Zirconium	7440-67-7	E440/VA	0.20	mg/kg	<0.20	<0.20	<0.20	<0.20	<0.20	

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.



Analytical Results

Sub-Matrix: Tissue					Client sample ID	BOL_LSU-O-2_	BOL_LSU-O-3_	BOL_LSU-O-4_	BOL_LSU-O-5_	BOL_LSU-O-6_
(Matrix: Biota)						2023-05	2023-05	2023-05	2023-05	2023-05
Client sampling date / time						14-May-2023	14-May-2023	14-May-2023	14-May-2023	14-May-2023
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23B1226-106	VA23B1226-107	VA23B1226-108	VA23B1226-109	VA23B1226-110	
					Result	Result	Result	Result	Result	
Physical Tests										
Moisture	----	E144/VA	0.50	%	65.8	64.7	63.5	64.5	66.1	
Metals										
Aluminum	7429-90-5	E440/VA	2.0	mg/kg	6.0	2.2	<2.0	<2.0	<2.0	
Antimony	7440-36-0	E440/VA	0.010	mg/kg	<0.010	<0.010	<0.010	<0.010	<0.010	
Arsenic	7440-38-2	E440/VA	0.020	mg/kg	0.050	0.074	0.074	0.066	0.042	
Barium	7440-39-3	E440/VA	0.050	mg/kg	0.438	0.282	0.210	0.227	0.171	
Beryllium	7440-41-7	E440/VA	0.010	mg/kg	<0.010	<0.010	<0.010	<0.010	<0.010	
Bismuth	7440-69-9	E440/VA	0.010	mg/kg	<0.010	<0.010	<0.010	<0.010	<0.010	
Boron	7440-42-8	E440/VA	1.0	mg/kg	<1.0	<1.0	<1.0	<1.0	<1.0	
Cadmium	7440-43-9	E440/VA	0.0050	mg/kg	0.0068	<0.0050	<0.0050	<0.0050	<0.0050	
Calcium	7440-70-2	E440/VA	20	mg/kg	791	737	642	596	730	
Cesium	7440-46-2	E440/VA	0.0050	mg/kg	0.0192	0.0261	0.0389	0.0261	0.0206	
Chromium	7440-47-3	E440/VA	0.050	mg/kg	<0.050	<0.050	<0.050	<0.050	<0.050	
Cobalt	7440-48-4	E440/VA	0.020	mg/kg	0.045	0.044	0.055	0.065	0.081	
Copper	7440-50-8	E440/VA	0.10	mg/kg	3.71	3.49	3.96	4.18	3.99	
Iron	7439-89-6	E440/VA	3.0	mg/kg	62.4	48.0	39.6	49.7	43.1	
Lead	7439-92-1	E440/VA	0.020	mg/kg	<0.020	<0.020	<0.020	<0.020	<0.020	
Lithium	7439-93-2	E440/VA	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50	
Magnesium	7439-95-4	E440/VA	2.0	mg/kg	761	751	732	765	804	
Manganese	7439-96-5	E440/VA	0.050	mg/kg	19.6	17.7	20.6	23.7	22.4	
Mercury	7439-97-6	E510/VA	0.0050	mg/kg	0.0183	0.0157	0.0121	0.0122	0.0190	
Mercury	7439-97-6	E510A/VA	0.0010	mg/kg wwt	0.0062	0.0055	0.0044	0.0043	0.0064	
Molybdenum	7439-98-7	E440/VA	0.020	mg/kg	0.079	0.060	0.055	0.066	0.052	
Nickel	7440-02-0	E440/VA	0.20	mg/kg	<0.20	<0.20	<0.20	<0.20	<0.20	
Phosphorus	7723-14-0	E440/VA	10	mg/kg	11700	11400	11400	11600	11300	
Potassium	7440-09-7	E440/VA	20	mg/kg	6840	6300	6110	6500	6670	
Rubidium	7440-17-7	E440/VA	0.050	mg/kg	4.27	5.27	5.53	4.97	4.13	
Selenium	7782-49-2	E440/VA	0.050	mg/kg	4.30	4.24	5.11	4.88	4.83	
Silver	7440-22-4	E440.Ag/VA	0.0050	mg/kg	0.0069	0.0054	<0.0050	0.0055	0.0068	
Sodium	7440-23-5	E440/VA	20	mg/kg	1700	1540	1500	1620	1870	
Strontium	7440-24-6	E440/VA	0.050	mg/kg	0.906	0.880	0.840	0.884	0.873	



Analytical Results

Sub-Matrix: Tissue (Matrix: Biota)					Client sample ID	BOL_LSU-O-2_ 2023-05	BOL_LSU-O-3_ 2023-05	BOL_LSU-O-4_ 2023-05	BOL_LSU-O-5_ 2023-05	BOL_LSU-O-6_ 2023-05
Client sampling date / time					14-May-2023	14-May-2023	14-May-2023	14-May-2023	14-May-2023	
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23B1226-106	VA23B1226-107	VA23B1226-108	VA23B1226-109	VA23B1226-110	
					Result	Result	Result	Result	Result	
Metals										
Tellurium	13494-80-9	E440/VA	0.020	mg/kg	<0.020	<0.020	<0.020	<0.020	<0.020	
Thallium	7440-28-0	E440/VA	0.0020	mg/kg	<0.0020	0.0026	0.0028	<0.0020	<0.0020	
Tin	7440-31-5	E440/VA	0.10	mg/kg	<0.10	<0.10	<0.10	<0.10	<0.10	
Titanium	7440-32-6	E440.Ti/VA	0.25	mg/kg	0.32	<0.25	<0.25	<0.25	<0.25	
Uranium	7440-61-1	E440/VA	0.0020	mg/kg	0.0020	<0.0020	<0.0020	<0.0020	<0.0020	
Vanadium	7440-62-2	E440/VA	0.10	mg/kg	<0.10	<0.10	<0.10	<0.10	<0.10	
Zinc	7440-66-6	E440/VA	0.50	mg/kg	73.4	77.6	78.3	76.1	74.4	
Zirconium	7440-67-7	E440/VA	0.20	mg/kg	<0.20	<0.20	<0.20	<0.20	<0.20	

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.



Analytical Results

Sub-Matrix: Tissue (Matrix: Biota)					Client sample ID	BOL_LSU-O-7_ 2023-05	BOL_LSU-O-8_ 2023-05	BOL_LSU-Li-1_ 2023-05	BOL_LSU-Li-2_ 2023-05	BOL_LSU-Li-3_ 2023-05
Client sampling date / time					14-May-2023	14-May-2023	14-May-2023	14-May-2023	14-May-2023	
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23B1226-111	VA23B1226-112	VA23B1226-113	VA23B1226-114	VA23B1226-115	
					Result	Result	Result	Result	Result	
Physical Tests										
Moisture	----	E144/VA	0.50	%	65.0	65.5	75.7	76.6	75.7	
Metals										
Aluminum	7429-90-5	E440/VA	2.0	mg/kg	<2.0	5.9	8.7	13.1	6.4	
Antimony	7440-36-0	E440/VA	0.010	mg/kg	<0.010	<0.010	0.011	0.028	0.018	
Arsenic	7440-38-2	E440/VA	0.020	mg/kg	0.046	0.038	0.139	0.207	0.191	
Barium	7440-39-3	E440/VA	0.050	mg/kg	0.222	0.263	0.271	0.414	0.278	
Beryllium	7440-41-7	E440/VA	0.010	mg/kg	<0.010	<0.010	<0.010	<0.010	<0.010	
Bismuth	7440-69-9	E440/VA	0.010	mg/kg	<0.010	<0.010	<0.010	<0.010	<0.010	
Boron	7440-42-8	E440/VA	1.0	mg/kg	<1.0	<1.0	<1.0	<1.0	<1.0	
Cadmium	7440-43-9	E440/VA	0.0050	mg/kg	0.0062	<0.0050	0.111	0.641	0.496	
Calcium	7440-70-2	E440/VA	20	mg/kg	670	725	312	321	260	
Cesium	7440-46-2	E440/VA	0.0050	mg/kg	0.0188	0.0161	0.0334	0.0386	0.0410	
Chromium	7440-47-3	E440/VA	0.050	mg/kg	<0.050	<0.050	<0.050	0.097	<0.050	
Cobalt	7440-48-4	E440/VA	0.020	mg/kg	0.052	0.056	0.113	0.132	0.129	
Copper	7440-50-8	E440/VA	0.10	mg/kg	3.46	4.16	20.1	23.6	40.8	
Iron	7439-89-6	E440/VA	3.0	mg/kg	50.4	90.9	402	910	361	
Lead	7439-92-1	E440/VA	0.020	mg/kg	<0.020	<0.020	0.021	0.036	0.027	
Lithium	7439-93-2	E440/VA	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50	
Magnesium	7439-95-4	E440/VA	2.0	mg/kg	727	812	1180	1160	1120	
Manganese	7439-96-5	E440/VA	0.050	mg/kg	10.6	16.3	19.6	14.6	15.5	
Mercury	7439-97-6	E510/VA	0.0050	mg/kg	0.0162	0.0145	0.118	0.235	0.106	
Mercury	7439-97-6	E510A/VA	0.0010	mg/kg wwt	0.0057	0.0050	0.0286	0.0550	0.0258	
Molybdenum	7439-98-7	E440/VA	0.020	mg/kg	0.062	0.067	1.11	1.51	1.13	
Nickel	7440-02-0	E440/VA	0.20	mg/kg	<0.20	<0.20	<0.20	<0.20	<0.20	
Phosphorus	7723-14-0	E440/VA	10	mg/kg	11100	12000	18900	19300	18000	
Potassium	7440-09-7	E440/VA	20	mg/kg	6290	6970	15400	14600	14000	
Rubidium	7440-17-7	E440/VA	0.050	mg/kg	4.09	3.66	8.37	8.56	10.8	
Selenium	7782-49-2	E440/VA	0.050	mg/kg	4.50	4.84	7.70	9.19	7.44	
Silver	7440-22-4	E440.Ag/VA	0.0050	mg/kg	0.0060	0.0076	0.0209	0.0262	0.0604	
Sodium	7440-23-5	E440/VA	20	mg/kg	1730	2040	3630	3770	4000	
Strontium	7440-24-6	E440/VA	0.050	mg/kg	0.822	0.930	0.829	0.800	0.931	



Analytical Results

Sub-Matrix: Tissue (Matrix: Biota)					Client sample ID	BOL_LSU-O-7_ 2023-05	BOL_LSU-O-8_ 2023-05	BOL_LSU-Li-1_ 2023-05	BOL_LSU-Li-2_ 2023-05	BOL_LSU-Li-3_ 2023-05
Client sampling date / time					14-May-2023	14-May-2023	14-May-2023	14-May-2023	14-May-2023	
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23B1226-111	VA23B1226-112	VA23B1226-113	VA23B1226-114	VA23B1226-115	
					Result	Result	Result	Result	Result	
Metals										
Tellurium	13494-80-9	E440/VA	0.020	mg/kg	<0.020	<0.020	<0.020	<0.020	<0.020	
Thallium	7440-28-0	E440/VA	0.0020	mg/kg	<0.0020	<0.0020	<0.0020	0.0033	0.0052	
Tin	7440-31-5	E440/VA	0.10	mg/kg	<0.10	<0.10	0.22	0.14	0.32	
Titanium	7440-32-6	E440.Ti/VA	0.25	mg/kg	<0.25	0.46	0.66	0.55	0.32	
Uranium	7440-61-1	E440/VA	0.0020	mg/kg	<0.0020	<0.0020	0.0033	0.0097	0.0035	
Vanadium	7440-62-2	E440/VA	0.10	mg/kg	<0.10	<0.10	0.24	0.75	0.16	
Zinc	7440-66-6	E440/VA	0.50	mg/kg	75.5	79.9	91.1	104	116	
Zirconium	7440-67-7	E440/VA	0.20	mg/kg	<0.20	<0.20	<0.20	<0.20	<0.20	

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.



Analytical Results

Sub-Matrix: Tissue (Matrix: Biota)					Client sample ID	BOL_LSU-Li-4_ 2023-05	BOL_LSU-Li-5_ 2023-05	BOL_LSU-Li-6_ 2023-05	BOL_LSU-Li-7_ 2023-05	BOL_LSU-Li-8_ 2023-05
Client sampling date / time					14-May-2023	14-May-2023	14-May-2023	14-May-2023	14-May-2023	
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23B1226-116	VA23B1226-117	VA23B1226-118	VA23B1226-119	VA23B1226-120	
					Result	Result	Result	Result	Result	
Physical Tests										
Moisture	----	E144/VA	0.50	%	74.7	75.5	77.2	75.7	76.8	
Metals										
Aluminum	7429-90-5	E440/VA	2.0	mg/kg	5.5	3.8	6.2	3.8	8.7	
Antimony	7440-36-0	E440/VA	0.010	mg/kg	<0.010	0.011	0.019	0.020	0.023	
Arsenic	7440-38-2	E440/VA	0.020	mg/kg	0.175	0.147	0.102	0.135	0.090	
Barium	7440-39-3	E440/VA	0.050	mg/kg	0.234	0.155	0.216	0.268	0.300	
Beryllium	7440-41-7	E440/VA	0.010	mg/kg	<0.010	<0.010	<0.010	<0.010	<0.010	
Bismuth	7440-69-9	E440/VA	0.010	mg/kg	<0.010	<0.010	<0.010	<0.010	<0.010	
Boron	7440-42-8	E440/VA	1.0	mg/kg	<1.0	<1.0	<1.0	<1.0	<1.0	
Cadmium	7440-43-9	E440/VA	0.0050	mg/kg	0.222	0.382	0.607	0.625	0.475	
Calcium	7440-70-2	E440/VA	20	mg/kg	346	315	287	306	304	
Cesium	7440-46-2	E440/VA	0.0050	mg/kg	0.0594	0.0556	0.0271	0.0315	0.0323	
Chromium	7440-47-3	E440/VA	0.050	mg/kg	<0.050	<0.050	0.062	<0.050	<0.050	
Cobalt	7440-48-4	E440/VA	0.020	mg/kg	0.115	0.124	0.127	0.109	0.118	
Copper	7440-50-8	E440/VA	0.10	mg/kg	31.7	20.5	19.6	24.0	19.7	
Iron	7439-89-6	E440/VA	3.0	mg/kg	201	296	753	368	362	
Lead	7439-92-1	E440/VA	0.020	mg/kg	0.035	0.047	0.030	0.030	<0.020	
Lithium	7439-93-2	E440/VA	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50	
Magnesium	7439-95-4	E440/VA	2.0	mg/kg	1050	1090	1120	1120	1070	
Manganese	7439-96-5	E440/VA	0.050	mg/kg	15.1	14.1	16.8	14.1	12.4	
Mercury	7439-97-6	E510/VA	0.0050	mg/kg	0.0923	0.112	0.190	0.155	0.147	
Mercury	7439-97-6	E510A/VA	0.0010	mg/kg wwt	0.0233	0.0274	0.0432	0.0377	0.0340	
Molybdenum	7439-98-7	E440/VA	0.020	mg/kg	1.18	1.14	1.13	1.20	1.19	
Nickel	7440-02-0	E440/VA	0.20	mg/kg	<0.20	<0.20	<0.20	<0.20	<0.20	
Phosphorus	7723-14-0	E440/VA	10	mg/kg	16700	18700	18400	18800	16900	
Potassium	7440-09-7	E440/VA	20	mg/kg	13300	14700	15900	14800	14900	
Rubidium	7440-17-7	E440/VA	0.050	mg/kg	11.1	10.1	10.0	9.11	7.27	
Selenium	7782-49-2	E440/VA	0.050	mg/kg	6.78	7.04	7.05	6.97	6.24	
Silver	7440-22-4	E440.Ag/VA	0.0050	mg/kg	0.0293	0.0277	0.0244	0.0467	0.0369	
Sodium	7440-23-5	E440/VA	20	mg/kg	3900	4000	3950	3930	4990	
Strontium	7440-24-6	E440/VA	0.050	mg/kg	1.24	0.839	0.774	0.904	0.745	



Analytical Results

Sub-Matrix: Tissue (Matrix: Biota)					Client sample ID	BOL_LSU-Li-4_ 2023-05	BOL_LSU-Li-5_ 2023-05	BOL_LSU-Li-6_ 2023-05	BOL_LSU-Li-7_ 2023-05	BOL_LSU-Li-8_ 2023-05
Client sampling date / time					14-May-2023	14-May-2023	14-May-2023	14-May-2023	14-May-2023	14-May-2023
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23B1226-116	VA23B1226-117	VA23B1226-118	VA23B1226-119	VA23B1226-120	
					Result	Result	Result	Result	Result	
Metals										
Tellurium	13494-80-9	E440/VA	0.020	mg/kg	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020
Thallium	7440-28-0	E440/VA	0.0020	mg/kg	0.0055	0.0023	0.0031	0.0028	<0.0020	
Tin	7440-31-5	E440/VA	0.10	mg/kg	0.33	0.19	0.21	0.19	0.28	
Titanium	7440-32-6	E440.Ti/VA	0.25	mg/kg	0.36	<0.25	0.44	<0.25	0.58	
Uranium	7440-61-1	E440/VA	0.0020	mg/kg	0.0031	0.0052	0.0069	0.0039	0.0062	
Vanadium	7440-62-2	E440/VA	0.10	mg/kg	0.11	0.17	0.36	0.21	0.30	
Zinc	7440-66-6	E440/VA	0.50	mg/kg	90.5	89.0	91.1	90.8	90.2	
Zirconium	7440-67-7	E440/VA	0.20	mg/kg	<0.20	<0.20	<0.20	<0.20	<0.20	

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.



Analytical Results

Sub-Matrix: Tissue					Client sample ID				
(Matrix: Biota)					BOL_LSU-Ki-1_2023-05	BOL_LSU-Ki-2_2023-05	BOL_LSU-Ki-3_2023-05	BOL_LSU-Ki-4_2023-05	BOL_LSU-Ki-5_2023-05
Client sampling date / time					14-May-2023	14-May-2023	14-May-2023	14-May-2023	14-May-2023
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23B1226-121	VA23B1226-122	VA23B1226-123	VA23B1226-124	VA23B1226-125
					Result	Result	Result	Result	Result
Physical Tests									
Moisture	----	E144/VA	0.50	%	----	----	76.9	----	78.3
Moisture	----	E144-H/VA	2.0	%	75.5	79.8	----	74.0	----
Metals									
Aluminum	7429-90-5	E440/VA	2.0	mg/kg	----	----	26.6	----	17.6
Aluminum	7429-90-5	E472/VA	5.0	mg/kg	21.4	26.0	----	<5.0	----
Antimony	7440-36-0	E472/VA	0.010	mg/kg	<0.010	0.015	----	<0.010	----
Antimony	7440-36-0	E440/VA	0.010	mg/kg	----	----	0.011	----	<0.010
Arsenic	7440-38-2	E440/VA	0.020	mg/kg	----	----	0.190	----	0.212
Arsenic	7440-38-2	E472/VA	0.030	mg/kg	0.092	0.166	----	0.147	----
Barium	7440-39-3	E472/VA	0.050	mg/kg	1.22	3.81	----	0.652	----
Barium	7440-39-3	E440/VA	0.050	mg/kg	----	----	2.12	----	1.48
Beryllium	7440-41-7	E472/VA	0.010	mg/kg	<0.010	<0.010	----	<0.010	----
Beryllium	7440-41-7	E440/VA	0.010	mg/kg	----	----	<0.010	----	<0.010
Bismuth	7440-69-9	E472/VA	0.010	mg/kg	<0.010	0.012	----	<0.010	----
Bismuth	7440-69-9	E440/VA	0.010	mg/kg	----	----	<0.010	----	<0.010
Boron	7440-42-8	E472/VA	1.0	mg/kg	<1.0	<1.0	----	<1.0	----
Boron	7440-42-8	E440/VA	1.0	mg/kg	----	----	<1.0	----	<1.0
Cadmium	7440-43-9	E440/VA	0.0050	mg/kg	----	----	1.48	----	0.996
Cadmium	7440-43-9	E472/VA	0.010	mg/kg	0.338	3.31	----	1.02	----
Calcium	7440-70-2	E472/VA	20	mg/kg	869	2740	----	458	----
Calcium	7440-70-2	E440/VA	20	mg/kg	----	----	887	----	967
Cesium	7440-46-2	E472/VA	0.0050	mg/kg	0.0296	0.0331	----	0.0620	----
Cesium	7440-46-2	E440/VA	0.0050	mg/kg	----	----	0.0481	----	0.0710
Chromium	7440-47-3	E440/VA	0.050	mg/kg	----	----	0.104	----	0.088
Chromium	7440-47-3	E472/VA	0.20	mg/kg	0.53	<0.20	----	<0.20	----
Cobalt	7440-48-4	E472/VA	0.020	mg/kg	0.150	0.319	----	0.292	----
Cobalt	7440-48-4	E440/VA	0.020	mg/kg	----	----	0.306	----	0.360
Copper	7440-50-8	E440/VA	0.10	mg/kg	----	----	7.24	----	9.41
Copper	7440-50-8	E472/VA	0.20	mg/kg	6.77	7.98	----	5.19	----
Iron	7439-89-6	E440/VA	3.0	mg/kg	----	----	433	----	548
Iron	7439-89-6	E472/VA	5.0	mg/kg	395	237	----	364	----



Analytical Results

Sub-Matrix: Tissue					Client sample ID	BOL_LSU-Ki-1_	BOL_LSU-Ki-2_	BOL_LSU-Ki-3_	BOL_LSU-Ki-4_	BOL_LSU-Ki-5_
(Matrix: Biota)						2023-05	2023-05	2023-05	2023-05	2023-05
Client sampling date / time						14-May-2023	14-May-2023	14-May-2023	14-May-2023	14-May-2023
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23B1226-121	VA23B1226-122	VA23B1226-123	VA23B1226-124	VA23B1226-125	
					Result	Result	Result	Result	Result	
Metals										
Lead	7439-92-1	E440/VA	0.020	mg/kg	----	----	0.083	----	0.163	
Lead	7439-92-1	E472/VA	0.050	mg/kg	0.081	0.077	----	<0.050	----	
Lithium	7439-93-2	E472/VA	0.50	mg/kg	<0.50	<0.50	----	<0.50	----	
Lithium	7439-93-2	E440/VA	0.50	mg/kg	----	----	<0.50	----	<0.50	
Magnesium	7439-95-4	E472/VA	2.0	mg/kg	498	541	----	545	----	
Magnesium	7439-95-4	E440/VA	2.0	mg/kg	----	----	581	----	783	
Manganese	7439-96-5	E472/VA	0.050	mg/kg	23.1	44.3	----	5.65	----	
Manganese	7439-96-5	E440/VA	0.050	mg/kg	----	----	12.4	----	13.2	
Mercury	7439-97-6	E511/VA	0.0050	mg/kg	0.161	0.546	----	0.168	----	
Mercury	7439-97-6	E510/VA	0.0050	mg/kg	----	----	0.217	----	0.150	
Mercury	7439-97-6	E511A/VA	0.0010	mg/kg wwt	0.0394	0.110	----	0.0438	----	
Mercury	7439-97-6	E510A/VA	0.0010	mg/kg wwt	----	----	0.0500	----	0.0326	
Molybdenum	7439-98-7	E440/VA	0.020	mg/kg	----	----	0.420	----	0.419	
Molybdenum	7439-98-7	E472/VA	0.040	mg/kg	0.406	0.851	----	0.505	----	
Nickel	7440-02-0	E472/VA	0.20	mg/kg	0.41	0.73	----	0.31	----	
Nickel	7440-02-0	E440/VA	0.20	mg/kg	----	----	0.56	----	0.65	
Phosphorus	7723-14-0	E472/VA	10	mg/kg	9600	12000	----	10400	----	
Phosphorus	7723-14-0	E440/VA	10	mg/kg	----	----	10900	----	13300	
Potassium	7440-09-7	E472/VA	20	mg/kg	7960	7810	----	9060	----	
Potassium	7440-09-7	E440/VA	20	mg/kg	----	----	8900	----	11500	
Rubidium	7440-17-7	E472/VA	0.050	mg/kg	5.02	5.63	----	8.65	----	
Rubidium	7440-17-7	E440/VA	0.050	mg/kg	----	----	7.04	----	8.40	
Selenium	7782-49-2	E440/VA	0.050	mg/kg	----	----	5.71	----	6.54	
Selenium	7782-49-2	E472/VA	0.10	mg/kg	4.24	7.13	----	5.43	----	
Silver	7440-22-4	E472.Ag/VA	0.0050	mg/kg	<0.0050	0.0053	----	<0.0050	----	
Silver	7440-22-4	E440.Ag/VA	0.0050	mg/kg	----	----	0.0066	----	0.0078	
Sodium	7440-23-5	E472/VA	20	mg/kg	4900	8520	----	4370	----	
Sodium	7440-23-5	E440/VA	20	mg/kg	----	----	6740	----	7240	
Strontium	7440-24-6	E440/VA	0.050	mg/kg	----	----	3.04	----	3.08	
Strontium	7440-24-6	E472/VA	0.10	mg/kg	1.97	5.88	----	1.04	----	
Tellurium	13494-80-9	E472/VA	0.020	mg/kg	<0.020	0.079	----	<0.020	----	



Analytical Results

Sub-Matrix: Tissue

Client sample ID

(Matrix: Biota)

					BOL_LSU-Ki-1_ 2023-05	BOL_LSU-Ki-2_ 2023-05	BOL_LSU-Ki-3_ 2023-05	BOL_LSU-Ki-4_ 2023-05	BOL_LSU-Ki-5_ 2023-05
Client sampling date / time					14-May-2023	14-May-2023	14-May-2023	14-May-2023	14-May-2023
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23B1226-121	VA23B1226-122	VA23B1226-123	VA23B1226-124	VA23B1226-125
					Result	Result	Result	Result	Result
Metals									
Tellurium	13494-80-9	E440/VA	0.020	mg/kg	----	----	0.027	----	<0.020
Thallium	7440-28-0	E472/VA	0.0020	mg/kg	0.0064	0.0230	----	0.0255	----
Thallium	7440-28-0	E440/VA	0.0020	mg/kg	----	----	0.0143	----	0.0119
Tin	7440-31-5	E472/VA	0.10	mg/kg	<0.10	<0.10	----	<0.10	----
Tin	7440-31-5	E440/VA	0.10	mg/kg	----	----	0.32	----	0.30
Titanium	7440-32-6	E440.Ti/VA	0.25	mg/kg	----	----	2.30	----	1.93
Titanium	7440-32-6	E472.Ti/VA	0.50	mg/kg	1.58	1.61	----	<0.50	----
Uranium	7440-61-1	E472/VA	0.0020	mg/kg	0.0071	0.0322	----	0.0059	----
Uranium	7440-61-1	E440/VA	0.0020	mg/kg	----	----	0.0146	----	0.0190
Vanadium	7440-62-2	E472/VA	0.10	mg/kg	0.64	2.73	----	0.25	----
Vanadium	7440-62-2	E440/VA	0.10	mg/kg	----	----	0.59	----	0.60
Zinc	7440-66-6	E440/VA	0.50	mg/kg	----	----	98.8	----	132
Zinc	7440-66-6	E472/VA	1.0	mg/kg	69.2	114	----	124	----
Zirconium	7440-67-7	E472/VA	0.20	mg/kg	<0.20	<0.20	----	<0.20	----
Zirconium	7440-67-7	E440/VA	0.20	mg/kg	----	----	<0.20	----	<0.20

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.



Analytical Results

Sub-Matrix: Tissue (Matrix: Biota)					Client sample ID	BOL_LSU-Ki-6_ 2023-05	BOL_LSU-Ki-7_ 2023-05	BOL_LSU-Ki-8_ 2023-05	POL_RB-M-7X_ 2023-05	POL_LSU-M-1X _2023-05
Client sampling date / time					14-May-2023	14-May-2023	14-May-2023	13-May-2023	13-May-2023	
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23B1226-126	VA23B1226-127	VA23B1226-128	VA23B1226-129	VA23B1226-130	
					Result	Result	Result	Result	Result	
Physical Tests										
Moisture	----	E144/VA	0.50	%	----	77.6	76.4	78.7	77.1	
Moisture	----	E144-H/VA	2.0	%	79.1	----	----	----	----	
Metals										
Aluminum	7429-90-5	E440/VA	2.0	mg/kg	----	<2.0	9.0	<2.0	3.5	
Aluminum	7429-90-5	E472/VA	5.0	mg/kg	13.6	----	----	----	----	
Antimony	7440-36-0	E472/VA	0.010	mg/kg	0.014	----	----	----	----	
Antimony	7440-36-0	E440/VA	0.010	mg/kg	----	<0.010	<0.010	<0.010	<0.010	
Arsenic	7440-38-2	E440/VA	0.020	mg/kg	----	0.077	0.073	0.054	0.194	
Arsenic	7440-38-2	E472/VA	0.030	mg/kg	0.096	----	----	----	----	
Barium	7440-39-3	E472/VA	0.050	mg/kg	1.39	----	----	----	----	
Barium	7440-39-3	E440/VA	0.050	mg/kg	----	0.966	2.24	0.062	0.160	
Beryllium	7440-41-7	E472/VA	0.010	mg/kg	<0.010	----	----	----	----	
Beryllium	7440-41-7	E440/VA	0.010	mg/kg	----	<0.010	<0.010	<0.010	<0.010	
Bismuth	7440-69-9	E472/VA	0.010	mg/kg	<0.010	----	----	----	----	
Bismuth	7440-69-9	E440/VA	0.010	mg/kg	----	<0.010	<0.010	<0.010	<0.010	
Boron	7440-42-8	E472/VA	1.0	mg/kg	<1.0	----	----	----	----	
Boron	7440-42-8	E440/VA	1.0	mg/kg	----	<1.0	<1.0	<1.0	<1.0	
Cadmium	7440-43-9	E440/VA	0.0050	mg/kg	----	1.69	1.41	<0.0050	<0.0050	
Cadmium	7440-43-9	E472/VA	0.010	mg/kg	3.06	----	----	----	----	
Calcium	7440-70-2	E472/VA	20	mg/kg	653	----	----	----	----	
Calcium	7440-70-2	E440/VA	20	mg/kg	----	523	685	1410	626	
Cesium	7440-46-2	E472/VA	0.0050	mg/kg	0.0340	----	----	----	----	
Cesium	7440-46-2	E440/VA	0.0050	mg/kg	----	0.0459	0.0304	0.0526	0.0994	
Chromium	7440-47-3	E440/VA	0.050	mg/kg	----	<0.050	0.057	<0.050	<0.050	
Chromium	7440-47-3	E472/VA	0.20	mg/kg	<0.20	----	----	----	----	
Cobalt	7440-48-4	E472/VA	0.020	mg/kg	0.542	----	----	----	----	
Cobalt	7440-48-4	E440/VA	0.020	mg/kg	----	0.176	0.239	<0.020	<0.020	
Copper	7440-50-8	E440/VA	0.10	mg/kg	----	4.36	5.89	1.53	1.48	
Copper	7440-50-8	E472/VA	0.20	mg/kg	6.53	----	----	----	----	
Iron	7439-89-6	E440/VA	3.0	mg/kg	----	374	448	24.0	18.3	
Iron	7439-89-6	E472/VA	5.0	mg/kg	356	----	----	----	----	



Analytical Results

Sub-Matrix: Tissue

Client sample ID

(Matrix: Biota)

					BOL_LSU-Ki-6_ 2023-05	BOL_LSU-Ki-7_ 2023-05	BOL_LSU-Ki-8_ 2023-05	POL_RB-M-7X_ 2023-05	POL_LSU-M-1X _2023-05
Client sampling date / time					14-May-2023	14-May-2023	14-May-2023	13-May-2023	13-May-2023
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23B1226-126	VA23B1226-127	VA23B1226-128	VA23B1226-129	VA23B1226-130
					Result	Result	Result	Result	Result
Metals									
Lead	7439-92-1	E440/VA	0.020	mg/kg	----	<0.020	0.022	<0.020	<0.020
Lead	7439-92-1	E472/VA	0.050	mg/kg	<0.050	----	----	----	----
Lithium	7439-93-2	E472/VA	0.50	mg/kg	<0.50	----	----	----	----
Lithium	7439-93-2	E440/VA	0.50	mg/kg	----	<0.50	<0.50	<0.50	<0.50
Magnesium	7439-95-4	E472/VA	2.0	mg/kg	537	----	----	----	----
Magnesium	7439-95-4	E440/VA	2.0	mg/kg	----	702	577	1440	1420
Manganese	7439-96-5	E472/VA	0.050	mg/kg	8.96	----	----	----	----
Manganese	7439-96-5	E440/VA	0.050	mg/kg	----	7.73	8.32	0.626	0.901
Mercury	7439-97-6	E511/VA	0.0050	mg/kg	0.578	----	----	----	----
Mercury	7439-97-6	E510/VA	0.0050	mg/kg	----	0.269	0.296	0.946	0.239
Mercury	7439-97-6	E511A/VA	0.0010	mg/kg wwt	0.121	----	----	----	----
Mercury	7439-97-6	E510A/VA	0.0010	mg/kg wwt	----	0.0604	0.0699	0.201	0.0546
Molybdenum	7439-98-7	E440/VA	0.020	mg/kg	----	0.409	0.546	<0.020	<0.020
Molybdenum	7439-98-7	E472/VA	0.040	mg/kg	0.652	----	----	----	----
Nickel	7440-02-0	E472/VA	0.20	mg/kg	0.83	----	----	----	----
Nickel	7440-02-0	E440/VA	0.20	mg/kg	----	0.42	0.55	<0.20	<0.20
Phosphorus	7723-14-0	E472/VA	10	mg/kg	11000	----	----	----	----
Phosphorus	7723-14-0	E440/VA	10	mg/kg	----	13900	10500	13400	11800
Potassium	7440-09-7	E472/VA	20	mg/kg	9090	----	----	----	----
Potassium	7440-09-7	E440/VA	20	mg/kg	----	11800	9860	21600	20600
Rubidium	7440-17-7	E472/VA	0.050	mg/kg	5.86	----	----	----	----
Rubidium	7440-17-7	E440/VA	0.050	mg/kg	----	7.35	4.86	7.60	14.9
Selenium	7782-49-2	E440/VA	0.050	mg/kg	----	6.17	5.66	3.81	5.99
Selenium	7782-49-2	E472/VA	0.10	mg/kg	5.78	----	----	----	----
Silver	7440-22-4	E472.Ag/VA	0.0050	mg/kg	<0.0050	----	----	----	----
Silver	7440-22-4	E440.Ag/VA	0.0050	mg/kg	----	<0.0050	<0.0050	<0.0050	<0.0050
Sodium	7440-23-5	E472/VA	20	mg/kg	5750	----	----	----	----
Sodium	7440-23-5	E440/VA	20	mg/kg	----	5420	7290	1530	1480
Strontium	7440-24-6	E440/VA	0.050	mg/kg	----	1.16	1.55	1.57	0.674
Strontium	7440-24-6	E472/VA	0.10	mg/kg	1.41	----	----	----	----
Tellurium	13494-80-9	E472/VA	0.020	mg/kg	0.052	----	----	----	----



Analytical Results

Sub-Matrix: Tissue

Client sample ID

(Matrix: Biota)

					BOL_LSU-Ki-6_ 2023-05	BOL_LSU-Ki-7_ 2023-05	BOL_LSU-Ki-8_ 2023-05	POL_RB-M-7X_ 2023-05	POL_LSU-M-1X _2023-05
Client sampling date / time					14-May-2023	14-May-2023	14-May-2023	13-May-2023	13-May-2023
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23B1226-126	VA23B1226-127	VA23B1226-128	VA23B1226-129	VA23B1226-130
					Result	Result	Result	Result	Result
Metals									
Tellurium	13494-80-9	E440/VA	0.020	mg/kg	----	0.028	<0.020	<0.020	<0.020
Thallium	7440-28-0	E472/VA	0.0020	mg/kg	0.0159	----	----	----	----
Thallium	7440-28-0	E440/VA	0.0020	mg/kg	----	0.0061	0.0063	0.0068	<0.0020
Tin	7440-31-5	E472/VA	0.10	mg/kg	<0.10	----	----	----	----
Tin	7440-31-5	E440/VA	0.10	mg/kg	----	0.36	0.42	0.19	0.28
Titanium	7440-32-6	E440.Ti/VA	0.25	mg/kg	----	<0.25	0.85	<0.25	0.30
Titanium	7440-32-6	E472.Ti/VA	0.50	mg/kg	1.53	----	----	----	----
Uranium	7440-61-1	E472/VA	0.0020	mg/kg	0.0210	----	----	----	----
Uranium	7440-61-1	E440/VA	0.0020	mg/kg	----	0.0153	0.0151	<0.0020	<0.0020
Vanadium	7440-62-2	E472/VA	0.10	mg/kg	1.30	----	----	----	----
Vanadium	7440-62-2	E440/VA	0.10	mg/kg	----	0.83	0.83	<0.10	<0.10
Zinc	7440-66-6	E440/VA	0.50	mg/kg	----	108	127	14.7	23.6
Zinc	7440-66-6	E472/VA	1.0	mg/kg	90.4	----	----	----	----
Zirconium	7440-67-7	E472/VA	0.20	mg/kg	<0.20	----	----	----	----
Zirconium	7440-67-7	E440/VA	0.20	mg/kg	----	<0.20	<0.20	<0.20	<0.20

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.



Analytical Results

Sub-Matrix: Tissue (Matrix: Biota)					Client sample ID	BOL_RB-M-5X_ 2023-05	POL_RB-O-7X_ 2023-05	POL_LSU-O-1X_ _2023-05	BOL_RB-O-5X_ 2023-05	POL_RB-Li-7X_ 2023-05
Client sampling date / time					14-May-2023	13-May-2023	13-May-2023	14-May-2023	13-May-2023	
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23B1226-131	VA23B1226-132	VA23B1226-133	VA23B1226-134	VA23B1226-135	
					Result	Result	Result	Result	Result	
Physical Tests										
Moisture	----	E144/VA	0.50	%	79.0	65.6	63.6	58.8	----	
Moisture	----	E144A/VA	2.0	%	----	----	----	----	71.4	
Metals										
Aluminum	7429-90-5	E440/VA	2.0	mg/kg	7.2	<2.0	<2.0	2.3	----	
Aluminum	7429-90-5	E475/VA	5.0	mg/kg	----	----	----	----	6.6	
Antimony	7440-36-0	E440/VA	0.010	mg/kg	<0.010	<0.010	<0.010	<0.010	----	
Antimony	7440-36-0	E475/VA	0.020	mg/kg	----	----	----	----	<0.020	
Arsenic	7440-38-2	E440/VA	0.020	mg/kg	0.044	0.042	0.094	0.021	----	
Arsenic	7440-38-2	E475/VA	0.050	mg/kg	----	----	----	----	0.092	
Barium	7440-39-3	E475/VA	0.050	mg/kg	----	----	----	----	0.093	
Barium	7440-39-3	E440/VA	0.050	mg/kg	0.255	0.129	0.159	0.432	----	
Beryllium	7440-41-7	E475/VA	0.010	mg/kg	----	----	----	----	<0.010	
Beryllium	7440-41-7	E440/VA	0.010	mg/kg	<0.010	<0.010	<0.010	<0.010	----	
Bismuth	7440-69-9	E475/VA	0.010	mg/kg	----	----	----	----	<0.010	
Bismuth	7440-69-9	E440/VA	0.010	mg/kg	<0.010	<0.010	<0.010	<0.010	----	
Boron	7440-42-8	E475/VA	1.0	mg/kg	----	----	----	----	<1.0	
Boron	7440-42-8	E440/VA	1.0	mg/kg	<1.0	<1.0	<1.0	<1.0	----	
Cadmium	7440-43-9	E440/VA	0.0050	mg/kg	<0.0050	<0.0050	0.0055	<0.0050	----	
Cadmium	7440-43-9	E475/VA	0.010	mg/kg	----	----	----	----	0.072	
Calcium	7440-70-2	E475/VA	20	mg/kg	----	----	----	----	263	
Calcium	7440-70-2	E440/VA	20	mg/kg	264	1030	450	960	----	
Cesium	7440-46-2	E475/VA	0.0050	mg/kg	----	----	----	----	0.0336	
Cesium	7440-46-2	E440/VA	0.0050	mg/kg	0.0487	0.0117	0.0144	0.0137	----	
Chromium	7440-47-3	E440/VA	0.050	mg/kg	0.069	<0.050	<0.050	<0.050	----	
Chromium	7440-47-3	E475/VA	0.20	mg/kg	----	----	----	----	<0.20	
Cobalt	7440-48-4	E475/VA	0.020	mg/kg	----	----	----	----	0.086	
Cobalt	7440-48-4	E440/VA	0.020	mg/kg	0.037	0.131	0.072	0.049	----	
Copper	7440-50-8	E440/VA	0.10	mg/kg	4.14	9.92	3.65	8.26	----	
Copper	7440-50-8	E475/VA	0.20	mg/kg	----	----	----	----	12.1	
Iron	7439-89-6	E440/VA	3.0	mg/kg	56.6	77.9	34.1	46.8	----	
Iron	7439-89-6	E475/VA	5.0	mg/kg	----	----	----	----	1770	



Analytical Results

Sub-Matrix: Tissue
 (Matrix: Biota)

Client sample ID

					BOL_RB-M-5X_ 2023-05	POL_RB-O-7X_ 2023-05	POL_LSU-O-1X_ _2023-05	BOL_RB-O-5X_ 2023-05	POL_RB-Li-7X_ 2023-05
Client sampling date / time					14-May-2023	13-May-2023	13-May-2023	14-May-2023	13-May-2023
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23B1226-131	VA23B1226-132	VA23B1226-133	VA23B1226-134	VA23B1226-135
					Result	Result	Result	Result	Result
Metals									
Lead	7439-92-1	E440/VA	0.020	mg/kg	0.024	<0.020	<0.020	<0.020	----
Lead	7439-92-1	E475/VA	0.050	mg/kg	----	----	----	----	<0.050
Lithium	7439-93-2	E475/VA	0.50	mg/kg	----	----	----	----	<0.50
Lithium	7439-93-2	E440/VA	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	----
Magnesium	7439-95-4	E475/VA	2.0	mg/kg	----	----	----	----	819
Magnesium	7439-95-4	E440/VA	2.0	mg/kg	1300	1460	644	1400	----
Manganese	7439-96-5	E475/VA	0.050	mg/kg	----	----	----	----	6.23
Manganese	7439-96-5	E440/VA	0.050	mg/kg	0.969	4.14	21.7	3.32	----
Mercury	7439-97-6	E510/VA	0.0050	mg/kg	0.333	0.0277	<0.0050	0.0062	----
Mercury	7439-97-6	E512/VA	0.010	mg/kg	----	----	----	----	0.597
Mercury	7439-97-6	E510A/VA	0.0010	mg/kg wwt	0.0698	0.0095	0.0018	0.0025	----
Mercury	7439-97-6	E512A/VA	0.0020	mg/kg wwt	----	----	----	----	0.171
Molybdenum	7439-98-7	E440/VA	0.020	mg/kg	<0.020	0.056	0.064	0.021	----
Molybdenum	7439-98-7	E475/VA	0.040	mg/kg	----	----	----	----	0.785
Nickel	7440-02-0	E475/VA	0.20	mg/kg	----	----	----	----	<0.20
Nickel	7440-02-0	E440/VA	0.20	mg/kg	<0.20	<0.20	<0.20	<0.20	----
Phosphorus	7723-14-0	E440/VA	10	mg/kg	13000	11400	12300	11100	----
Phosphorus	7723-14-0	E475/VA	20	mg/kg	----	----	----	----	15100
Potassium	7440-09-7	E475/VA	20	mg/kg	----	----	----	----	14200
Potassium	7440-09-7	E440/VA	20	mg/kg	21400	7270	6000	6710	----
Rubidium	7440-17-7	E475/VA	0.050	mg/kg	----	----	----	----	6.89
Rubidium	7440-17-7	E440/VA	0.050	mg/kg	10.1	3.30	5.62	3.73	----
Selenium	7782-49-2	E440/VA	0.050	mg/kg	2.45	7.03	7.61	5.44	----
Selenium	7782-49-2	E475/VA	0.10	mg/kg	----	----	----	----	11.8
Silver	7440-22-4	E475.Ag/VA	0.0050	mg/kg	----	----	----	----	0.0541
Silver	7440-22-4	E440.Ag/VA	0.0050	mg/kg	<0.0050	0.0114	<0.0050	0.0085	----
Sodium	7440-23-5	E475/VA	20	mg/kg	----	----	----	----	4580
Sodium	7440-23-5	E440/VA	20	mg/kg	2460	2870	1590	1860	----
Strontium	7440-24-6	E440/VA	0.050	mg/kg	0.262	2.27	0.592	3.94	----
Strontium	7440-24-6	E475/VA	0.10	mg/kg	----	----	----	----	0.38
Tellurium	13494-80-9	E475/VA	0.020	mg/kg	----	----	----	----	<0.020



Analytical Results

Sub-Matrix: Tissue
 (Matrix: Biota)

Client sample ID

					BOL_RB-M-5X_ 2023-05	POL_RB-O-7X_ 2023-05	POL_LSU-O-1X _2023-05	BOL_RB-O-5X_ 2023-05	POL_RB-Li-7X_ 2023-05
Client sampling date / time					14-May-2023	13-May-2023	13-May-2023	14-May-2023	13-May-2023
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23B1226-131	VA23B1226-132	VA23B1226-133	VA23B1226-134	VA23B1226-135
					Result	Result	Result	Result	Result
Metals									
Tellurium	13494-80-9	E440/VA	0.020	mg/kg	<0.020	<0.020	<0.020	<0.020	----
Thallium	7440-28-0	E475/VA	0.0020	mg/kg	----	----	----	----	0.105
Thallium	7440-28-0	E440/VA	0.0020	mg/kg	0.0146	<0.0020	<0.0020	<0.0020	----
Tin	7440-31-5	E475/VA	0.10	mg/kg	----	----	----	----	<0.10
Tin	7440-31-5	E440/VA	0.10	mg/kg	0.20	<0.10	<0.10	<0.10	----
Titanium	7440-32-6	E440.Ti/VA	0.25	mg/kg	0.60	<0.25	<0.25	<0.25	----
Titanium	7440-32-6	E475.Ti/VA	0.50	mg/kg	----	----	----	----	<0.50
Uranium	7440-61-1	E475/VA	0.0020	mg/kg	----	----	----	----	0.0083
Uranium	7440-61-1	E440/VA	0.0020	mg/kg	<0.0020	<0.0020	<0.0020	<0.0020	----
Vanadium	7440-62-2	E475/VA	0.10	mg/kg	----	----	----	----	0.73
Vanadium	7440-62-2	E440/VA	0.10	mg/kg	<0.10	<0.10	<0.10	<0.10	----
Zinc	7440-66-6	E440/VA	0.50	mg/kg	21.0	89.9	79.0	58.3	----
Zinc	7440-66-6	E475/VA	1.0	mg/kg	----	----	----	----	154
Zirconium	7440-67-7	E475/VA	0.20	mg/kg	----	----	----	----	<0.20
Zirconium	7440-67-7	E440/VA	0.20	mg/kg	<0.20	<0.20	<0.20	<0.20	----

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.



Analytical Results

Sub-Matrix: Tissue (Matrix: Biota)					Client sample ID	POL_LSU-Li-1X _2023-05	BOL_RB-Li-5X_ 2023-05	POL_RB-Ki-7X_ 2023-05	POL_LSU-Ki-1X _2023-05	BOL_RB-Ki-5X_ 2023-05
Client sampling date / time					13-May-2023	14-May-2023	13-May-2023	13-May-2023	14-May-2023	
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23B1226-136	VA23B1226-137	VA23B1226-138	VA23B1226-139	VA23B1226-140	
					Result	Result	Result	Result	Result	
Physical Tests										
Moisture	----	E144A/VA	2.0	%	----	73.9	73.9	74.4	73.5	
Moisture	----	E144-H/VA	2.0	%	74.6	----	----	----	----	
Metals										
Aluminum	7429-90-5	E475/VA	5.0	mg/kg	----	17.3	7.3	8.5	26.8	
Aluminum	7429-90-5	E472/VA	5.0	mg/kg	37.4	----	----	----	----	
Antimony	7440-36-0	E472/VA	0.010	mg/kg	<0.010	----	----	----	----	
Antimony	7440-36-0	E475/VA	0.020	mg/kg	----	<0.020	<0.020	<0.020	<0.020	
Arsenic	7440-38-2	E472/VA	0.030	mg/kg	0.181	----	----	----	----	
Arsenic	7440-38-2	E475/VA	0.050	mg/kg	----	0.053	0.833	0.231	0.269	
Barium	7440-39-3	E475/VA	0.050	mg/kg	----	0.401	0.775	1.57	2.18	
Barium	7440-39-3	E472/VA	0.050	mg/kg	0.350	----	----	----	----	
Beryllium	7440-41-7	E475/VA	0.010	mg/kg	----	<0.010	<0.010	<0.010	<0.010	
Beryllium	7440-41-7	E472/VA	0.010	mg/kg	<0.010	----	----	----	----	
Bismuth	7440-69-9	E475/VA	0.010	mg/kg	----	<0.010	<0.010	<0.010	<0.010	
Bismuth	7440-69-9	E472/VA	0.010	mg/kg	<0.010	----	----	----	----	
Boron	7440-42-8	E475/VA	1.0	mg/kg	----	<1.0	<1.0	<1.0	<1.0	
Boron	7440-42-8	E472/VA	1.0	mg/kg	<1.0	----	----	----	----	
Cadmium	7440-43-9	E475/VA	0.010	mg/kg	----	0.151	1.60	1.44	0.555	
Cadmium	7440-43-9	E472/VA	0.010	mg/kg	0.184	----	----	----	----	
Calcium	7440-70-2	E475/VA	20	mg/kg	----	767	862	503	1090	
Calcium	7440-70-2	E472/VA	20	mg/kg	206	----	----	----	----	
Cesium	7440-46-2	E475/VA	0.0050	mg/kg	----	0.0300	0.0271	0.0233	0.0274	
Cesium	7440-46-2	E472/VA	0.0050	mg/kg	0.0300	----	----	----	----	
Chromium	7440-47-3	E475/VA	0.20	mg/kg	----	<0.20	<0.20	<0.20	0.22	
Chromium	7440-47-3	E472/VA	0.20	mg/kg	<0.20	----	----	----	----	
Cobalt	7440-48-4	E475/VA	0.020	mg/kg	----	0.149	1.93	0.272	0.879	
Cobalt	7440-48-4	E472/VA	0.020	mg/kg	0.131	----	----	----	----	
Copper	7440-50-8	E475/VA	0.20	mg/kg	----	138	7.53	4.92	7.15	
Copper	7440-50-8	E472/VA	0.20	mg/kg	32.0	----	----	----	----	
Iron	7439-89-6	E475/VA	5.0	mg/kg	----	1770	589	578	1090	
Iron	7439-89-6	E472/VA	5.0	mg/kg	260	----	----	----	----	



Analytical Results

Sub-Matrix: Tissue
 (Matrix: Biota)

Client sample ID

					POL_LSU-Li-1X _2023-05	BOL_RB-Li-5X_ 2023-05	POL_RB-Ki-7X_ 2023-05	POL_LSU-Ki-1X _2023-05	BOL_RB-Ki-5X_ 2023-05
Client sampling date / time					13-May-2023	14-May-2023	13-May-2023	13-May-2023	14-May-2023
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23B1226-136	VA23B1226-137	VA23B1226-138	VA23B1226-139	VA23B1226-140
					Result	Result	Result	Result	Result
Metals									
Lead	7439-92-1	E475/VA	0.050	mg/kg	----	0.092	<0.050	<0.050	0.310
Lead	7439-92-1	E472/VA	0.050	mg/kg	<0.050	----	----	----	----
Lithium	7439-93-2	E475/VA	0.50	mg/kg	----	<0.50	<0.50	<0.50	<0.50
Lithium	7439-93-2	E472/VA	0.50	mg/kg	<0.50	----	----	----	----
Magnesium	7439-95-4	E475/VA	2.0	mg/kg	----	742	700	516	608
Magnesium	7439-95-4	E472/VA	2.0	mg/kg	851	----	----	----	----
Manganese	7439-96-5	E475/VA	0.050	mg/kg	----	14.9	7.50	8.10	7.12
Manganese	7439-96-5	E472/VA	0.050	mg/kg	13.2	----	----	----	----
Mercury	7439-97-6	E511/VA	0.0050	mg/kg	0.0383	----	----	----	----
Mercury	7439-97-6	E512/VA	0.010	mg/kg	----	0.433	0.815	0.050	0.374
Mercury	7439-97-6	E511A/VA	0.0010	mg/kg wwt	0.0097	----	----	----	----
Mercury	7439-97-6	E512A/VA	0.0020	mg/kg wwt	----	0.113	0.213	0.0129	0.0991
Molybdenum	7439-98-7	E475/VA	0.040	mg/kg	----	0.946	0.601	0.822	0.403
Molybdenum	7439-98-7	E472/VA	0.040	mg/kg	1.30	----	----	----	----
Nickel	7440-02-0	E475/VA	0.20	mg/kg	----	<0.20	0.60	0.25	0.33
Nickel	7440-02-0	E472/VA	0.20	mg/kg	<0.20	----	----	----	----
Phosphorus	7723-14-0	E472/VA	10	mg/kg	13800	----	----	----	----
Phosphorus	7723-14-0	E475/VA	20	mg/kg	----	14700	12200	10200	8390
Potassium	7440-09-7	E475/VA	20	mg/kg	----	13200	10100	8660	9630
Potassium	7440-09-7	E472/VA	20	mg/kg	13100	----	----	----	----
Rubidium	7440-17-7	E475/VA	0.050	mg/kg	----	6.73	5.00	7.44	5.26
Rubidium	7440-17-7	E472/VA	0.050	mg/kg	13.6	----	----	----	----
Selenium	7782-49-2	E475/VA	0.10	mg/kg	----	31.8	15.8	8.32	8.27
Selenium	7782-49-2	E472/VA	0.10	mg/kg	7.44	----	----	----	----
Silver	7440-22-4	E475.Ag/VA	0.0050	mg/kg	----	1.56	0.0152	<0.0050	0.0154
Silver	7440-22-4	E472.Ag/VA	0.0050	mg/kg	0.0153	----	----	----	----
Sodium	7440-23-5	E475/VA	20	mg/kg	----	5960	7960	6260	7790
Sodium	7440-23-5	E472/VA	20	mg/kg	3270	----	----	----	----
Strontium	7440-24-6	E475/VA	0.10	mg/kg	----	1.34	2.51	1.09	2.95
Strontium	7440-24-6	E472/VA	0.10	mg/kg	0.77	----	----	----	----
Tellurium	13494-80-9	E475/VA	0.020	mg/kg	----	<0.020	<0.020	<0.020	<0.020



Analytical Results

Sub-Matrix: Tissue
 (Matrix: Biota)

Client sample ID

					POL_LSU-Li-1X_2023-05	BOL_RB-Li-5X_2023-05	POL_RB-Ki-7X_2023-05	POL_LSU-Ki-1X_2023-05	BOL_RB-Ki-5X_2023-05
Client sampling date / time					13-May-2023	14-May-2023	13-May-2023	13-May-2023	14-May-2023
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23B1226-136	VA23B1226-137	VA23B1226-138	VA23B1226-139	VA23B1226-140
					Result	Result	Result	Result	Result
Metals									
Tellurium	13494-80-9	E472/VA	0.020	mg/kg	<0.020	----	----	----	----
Thallium	7440-28-0	E475/VA	0.0020	mg/kg	----	0.150	0.0756	0.0121	0.0523
Thallium	7440-28-0	E472/VA	0.0020	mg/kg	<0.0020	----	----	----	----
Tin	7440-31-5	E475/VA	0.10	mg/kg	----	<0.10	<0.10	<0.10	<0.10
Tin	7440-31-5	E472/VA	0.10	mg/kg	<0.10	----	----	----	----
Titanium	7440-32-6	E475.Ti/VA	0.50	mg/kg	----	0.89	1.74	0.80	1.87
Titanium	7440-32-6	E472.Ti/VA	0.50	mg/kg	3.26	----	----	----	----
Uranium	7440-61-1	E475/VA	0.0020	mg/kg	----	0.0061	0.0174	0.0027	0.0079
Uranium	7440-61-1	E472/VA	0.0020	mg/kg	0.0034	----	----	----	----
Vanadium	7440-62-2	E475/VA	0.10	mg/kg	----	0.28	1.17	0.68	0.31
Vanadium	7440-62-2	E472/VA	0.10	mg/kg	0.57	----	----	----	----
Zinc	7440-66-6	E475/VA	1.0	mg/kg	----	186	322	264	248
Zinc	7440-66-6	E472/VA	1.0	mg/kg	81.5	----	----	----	----
Zirconium	7440-67-7	E475/VA	0.20	mg/kg	----	<0.20	<0.20	<0.20	<0.20
Zirconium	7440-67-7	E472/VA	0.20	mg/kg	<0.20	----	----	----	----

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.

QUALITY CONTROL INTERPRETIVE REPORT

<p>Work Order : VA23B1226</p> <p>Client : Mount Polley Mining Corporation</p> <p>Contact : Gabriel Holmes</p> <p>Address : PO Box 12 Likely BC Canada V0L 1N0</p> <p>Telephone : 250-790-2215 ext 2171</p> <p>Project : ----</p> <p>PO : 5590012190</p> <p>C-O-C number : ----</p> <p>Sampler : ----</p> <p>Site : ----</p> <p>Quote number : VA22-MPMC100-002</p> <p>No. of samples received : 140</p> <p>No. of samples analysed : 140</p>	<p>Page : 1 of 103</p> <p>Laboratory : Vancouver - Environmental</p> <p>Account Manager : Can Dang</p> <p>Address : 8081 Lougheed Highway Burnaby, British Columbia Canada V5A 1W9</p> <p>Telephone : +1 604 253 4188</p> <p>Date Samples Received : 19-May-2023 11:30</p> <p>Issue Date : 04-Jul-2023 09:09</p>
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This report is automatically generated by the ALS LIMS (Laboratory Information Management System) through evaluation of Quality Control (QC) results and other QA parameters associated with this submission, and is intended to facilitate rapid data validation by auditors or reviewers. The report highlights any exceptions and outliers to ALS Data Quality Objectives, provides holding time details and exceptions, summarizes QC sample frequencies, and lists applicable methodology references and summaries.

Key

- Anonymous: Refers to samples which are not part of this work order, but which formed part of the QC process lot.
- CAS Number: Chemical Abstracts Service number is a unique identifier assigned to discrete substances.
- DQO: Data Quality Objective.
- LOR: Limit of Reporting (detection limit).
- RPD: Relative Percent Difference.

Workorder Comments

Holding times are displayed as "----" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

Summary of Outliers

Outliers : Quality Control Samples

- Method Blank value outliers occur - please see following pages for full details.
- Duplicate outliers occur - please see following pages for full details.
- Laboratory Control Sample (LCS) outliers occur - please see following pages for full details.
- No Test sample Surrogate recovery outliers exist.

Outliers: Reference Material (RM) Samples

- No Reference Material (RM) Sample outliers occur.

Outliers : Analysis Holding Time Compliance (Breaches)

- No Analysis Holding Time Outliers exist.

Outliers : Frequency of Quality Control Samples

- No Quality Control Sample Frequency Outliers occur.



Outliers : Quality Control Samples

Duplicates, Method Blanks, Laboratory Control Samples and Matrix Spikes

Matrix: Biota

Analyte Group	Laboratory sample ID	Client/Ref Sample ID	Analyte	CAS Number	Method	Result	Limits	Comment
Method Blank (MB) Values								
Metals	QC-MRG5-9981190 01	----	Iron	7439-89-6	E475	15.0 ^B mg/kg	5 mg/kg	Blank result exceeds permitted value
Metals	QC-MRG5-9981190 01	----	Manganese	7439-96-5	E475	0.090 ^B mg/kg	0.05 mg/kg	Blank result exceeds permitted value

Result Qualifiers

Qualifier	Description
B	Method Blank exceeds ALS DQO. Associated sample results which are < Limit of Reporting or > 5 times blank level are considered reliable.

Duplicate (DUP) RPDs								
Metals	VA23B1226-037	BOL_RB-M-5_2023-05	Calcium	7440-70-2	E440	62.6 % ^{DUP-H}	60%	Duplicate RPD does not meet the DQO for this test.
Metals	VA23B1226-037	BOL_RB-M-5_2023-05	Strontium	7440-24-6	E440	91.0 % ^{DUP-H}	60%	Duplicate RPD does not meet the DQO for this test.
Metals	VA23B1226-083	POL_LSU-Li-3_2023-05	Silver	7440-22-4	E472.Ag	78.2 % ^{DUP-H}	40%	Duplicate RPD does not meet the DQO for this test.
Metals	VA23B1226-081	POL_LSU-Li-1_2023-05	Silver	7440-22-4	E472.Ag	55.8 % ^{DUP-H}	40%	Duplicate RPD does not meet the DQO for this test.

Result Qualifiers

Qualifier	Description
DUP-H	Duplicate results outside ALS DQO, due to sample heterogeneity.

Laboratory Control Sample (LCS) Recoveries								
Metals	QC-MRG5-1005044 002	----	Silver	7440-22-4	E472.Ag	70.3 % ^{MES}	80.0-120%	Recovery less than lower control limit
Metals	QC-MRG5-9981030 02	----	Silver	7440-22-4	E472.Ag	77.4 % ^{MES}	80.0-120%	Recovery less than lower control limit

Result Qualifiers

Qualifier	Description
MES	Data Quality Objective was marginally exceeded (by < 10% absolute) for < 10% of analytes in a Multi-Element Scan / Multi-Parameter Scan (considered acceptable as per OMOE & CCME).





Analysis Holding Time Compliance

This report summarizes extraction / preparation and analysis times and compares each with ALS recommended holding times, which are selected to meet known provincial and /or federal requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by organizations such as CCME, US EPA, APHA Standard Methods, ASTM, or Environment Canada (where available). Dates and holding times reported below represent the first dates of extraction or analysis. If subsequent tests or dilutions exceeded holding times, qualifiers are added (refer to COA).

If samples are identified below as having been analyzed or extracted outside of recommended holding times, measurement uncertainties may be increased, and this should be taken into consideration when interpreting results.

Where actual sampling date is not provided on the chain of custody, the date of receipt with time at 00:00 is used for calculation purposes.

Where only the sample date without time is provided on the chain of custody, the sampling date at 00:00 is used for calculation purposes.

Matrix: **Biota**

Evaluation: * = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Metals : Mercury in Biota by CVAAS (DRY units, Biopsy)										
LDPE bag POL_LSU-Ki-2_2023-05	E512	16-May-2023	20-Jun-2023	----	----		21-Jun-2023	365 days	36 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Biopsy)										
LDPE bag POL_LSU-Ki-5_2023-05	E512	16-May-2023	20-Jun-2023	----	----		21-Jun-2023	365 days	36 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Biopsy)										
LDPE bag POL_LSU-Ki-6_2023-05	E512	16-May-2023	20-Jun-2023	----	----		21-Jun-2023	365 days	36 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Biopsy)										
LDPE bag BOL_RB-Ki-7_2023-05	E512	15-May-2023	20-Jun-2023	----	----		21-Jun-2023	365 days	37 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Biopsy)										
LDPE bag BOL_RB-Ki-8_2023-05	E512	15-May-2023	20-Jun-2023	----	----		21-Jun-2023	365 days	37 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Biopsy)										
LDPE bag BOL_RB-Ki-5_2023-05	E512	14-May-2023	20-Jun-2023	----	----		21-Jun-2023	365 days	38 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Biopsy)										
LDPE bag BOL_RB-Ki-5X_2023-05	E512	14-May-2023	20-Jun-2023	----	----		21-Jun-2023	365 days	38 days	✓



Matrix: **Biota** Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Metals : Mercury in Biota by CVAAS (DRY units, Biopsy)											
LDPE bag BOL_RB-Ki-6_2023-05	E512	14-May-2023	20-Jun-2023	----	----		21-Jun-2023	365 days	38 days	✔	
Metals : Mercury in Biota by CVAAS (DRY units, Biopsy)											
LDPE bag BOL_RB-Li-5X_2023-05	E512	14-May-2023	20-Jun-2023	----	----		21-Jun-2023	365 days	38 days	✔	
Metals : Mercury in Biota by CVAAS (DRY units, Biopsy)											
LDPE bag BOL_RB-Li-7_2023-05	E512	15-May-2023	20-Jun-2023	----	----		21-Jun-2023	365 days	38 days	✔	
Metals : Mercury in Biota by CVAAS (DRY units, Biopsy)											
LDPE bag BOL_RB-Li-8_2023-05	E512	15-May-2023	20-Jun-2023	----	----		21-Jun-2023	365 days	38 days	✔	
Metals : Mercury in Biota by CVAAS (DRY units, Biopsy)											
LDPE bag BOL_RB-Ki-1_2023-05	E512	14-May-2023	20-Jun-2023	----	----		21-Jun-2023	365 days	39 days	✔	
Metals : Mercury in Biota by CVAAS (DRY units, Biopsy)											
LDPE bag BOL_RB-Ki-2_2023-05	E512	14-May-2023	20-Jun-2023	----	----		21-Jun-2023	365 days	39 days	✔	
Metals : Mercury in Biota by CVAAS (DRY units, Biopsy)											
LDPE bag BOL_RB-Ki-3_2023-05	E512	14-May-2023	20-Jun-2023	----	----		21-Jun-2023	365 days	39 days	✔	
Metals : Mercury in Biota by CVAAS (DRY units, Biopsy)											
LDPE bag BOL_RB-Ki-4_2023-05	E512	14-May-2023	20-Jun-2023	----	----		21-Jun-2023	365 days	39 days	✔	
Metals : Mercury in Biota by CVAAS (DRY units, Biopsy)											
LDPE bag BOL_RB-Li-3_2023-05	E512	14-May-2023	20-Jun-2023	----	----		21-Jun-2023	365 days	39 days	✔	



Matrix: **Biota** Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Metals : Mercury in Biota by CVAAS (DRY units, Biopsy)											
LDPE bag BOL_RB-Li-4_2023-05	E512	14-May-2023	20-Jun-2023	----	----		21-Jun-2023	365 days	39 days	✔	
Metals : Mercury in Biota by CVAAS (DRY units, Biopsy)											
LDPE bag BOL_RB-Li-5_2023-05	E512	14-May-2023	20-Jun-2023	----	----		21-Jun-2023	365 days	39 days	✔	
Metals : Mercury in Biota by CVAAS (DRY units, Biopsy)											
LDPE bag BOL_RB-Li-6_2023-05	E512	14-May-2023	20-Jun-2023	----	----		21-Jun-2023	365 days	39 days	✔	
Metals : Mercury in Biota by CVAAS (DRY units, Biopsy)											
LDPE bag POL_LSU-Ki-1_2023-05	E512	13-May-2023	20-Jun-2023	----	----		21-Jun-2023	365 days	39 days	✔	
Metals : Mercury in Biota by CVAAS (DRY units, Biopsy)											
LDPE bag POL_LSU-Ki-1X_2023-05	E512	13-May-2023	20-Jun-2023	----	----		21-Jun-2023	365 days	39 days	✔	
Metals : Mercury in Biota by CVAAS (DRY units, Biopsy)											
LDPE bag POL_RB-Ki-7X_2023-05	E512	13-May-2023	20-Jun-2023	----	----		21-Jun-2023	365 days	39 days	✔	
Metals : Mercury in Biota by CVAAS (DRY units, Biopsy)											
LDPE bag POL_RB-Li-7X_2023-05	E512	13-May-2023	20-Jun-2023	----	----		21-Jun-2023	365 days	39 days	✔	
Metals : Mercury in Biota by CVAAS (DRY units, Biopsy)											
LDPE bag POL_RB-Ki-6_2023-05	E512	13-May-2023	20-Jun-2023	----	----		21-Jun-2023	365 days	40 days	✔	
Metals : Mercury in Biota by CVAAS (DRY units, Biopsy)											
LDPE bag POL_RB-Ki-7_2023-05	E512	13-May-2023	20-Jun-2023	----	----		21-Jun-2023	365 days	40 days	✔	



Matrix: **Biota** Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Metals : Mercury in Biota by CVAAS (DRY units, Biopsy)											
LDPE bag POL_RB-Li-7_2023-05	E512	13-May-2023	20-Jun-2023	----	----		21-Jun-2023	365 days	40 days	✔	
Metals : Mercury in Biota by CVAAS (DRY units, Biopsy)											
LDPE bag POL_RB-Ki-2_2023-05	E512	12-May-2023	20-Jun-2023	----	----		21-Jun-2023	365 days	41 days	✔	
Metals : Mercury in Biota by CVAAS (DRY units, Biopsy)											
LDPE bag POL_RB-Ki-3_2023-05	E512	12-May-2023	20-Jun-2023	----	----		21-Jun-2023	365 days	41 days	✔	
Metals : Mercury in Biota by CVAAS (DRY units, Biopsy)											
LDPE bag POL_RB-Ki-5_2023-05	E512	12-May-2023	20-Jun-2023	----	----		21-Jun-2023	365 days	41 days	✔	
Metals : Mercury in Biota by CVAAS (DRY units, Micro)											
LDPE bag POL_LSU-Li-2_2023-05	E511	16-May-2023	20-Jun-2023	----	----		21-Jun-2023	365 days	37 days	✔	
Metals : Mercury in Biota by CVAAS (DRY units, Micro)											
LDPE bag BOL_RB-O-7_2023-05	E511	15-May-2023	20-Jun-2023	----	----		21-Jun-2023	365 days	38 days	✔	
Metals : Mercury in Biota by CVAAS (DRY units, Micro)											
LDPE bag BOL_RB-Li-1_2023-05	E511	14-May-2023	20-Jun-2023	----	----		21-Jun-2023	365 days	39 days	✔	
Metals : Mercury in Biota by CVAAS (DRY units, Micro)											
LDPE bag BOL_RB-Li-2_2023-05	E511	14-May-2023	20-Jun-2023	----	----		21-Jun-2023	365 days	39 days	✔	
Metals : Mercury in Biota by CVAAS (DRY units, Micro)											
LDPE bag POL_LSU-Li-1_2023-05	E511	13-May-2023	20-Jun-2023	----	----		21-Jun-2023	365 days	40 days	✔	



Matrix: **Biota** Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Metals : Mercury in Biota by CVAAS (DRY units, Micro)											
LDPE bag POL_RB-Ki-8_2023-05	E511	13-May-2023	20-Jun-2023	----	----		21-Jun-2023	365 days	40 days	✔	
Metals : Mercury in Biota by CVAAS (DRY units, Micro)											
LDPE bag POL_RB-Li-6_2023-05	E511	13-May-2023	20-Jun-2023	----	----		21-Jun-2023	365 days	40 days	✔	
Metals : Mercury in Biota by CVAAS (DRY units, Micro)											
LDPE bag POL_RB-Li-8_2023-05	E511	13-May-2023	20-Jun-2023	----	----		21-Jun-2023	365 days	40 days	✔	
Metals : Mercury in Biota by CVAAS (DRY units, Micro)											
LDPE bag POL_RB-Ki-1_2023-05	E511	12-May-2023	20-Jun-2023	----	----		21-Jun-2023	365 days	41 days	✔	
Metals : Mercury in Biota by CVAAS (DRY units, Micro)											
LDPE bag POL_RB-Ki-4_2023-05	E511	12-May-2023	20-Jun-2023	----	----		21-Jun-2023	365 days	41 days	✔	
Metals : Mercury in Biota by CVAAS (DRY units, Micro)											
LDPE bag POL_RB-Li-1_2023-05	E511	12-May-2023	20-Jun-2023	----	----		21-Jun-2023	365 days	41 days	✔	
Metals : Mercury in Biota by CVAAS (DRY units, Micro)											
LDPE bag POL_RB-Li-2_2023-05	E511	12-May-2023	20-Jun-2023	----	----		21-Jun-2023	365 days	41 days	✔	
Metals : Mercury in Biota by CVAAS (DRY units, Micro)											
LDPE bag POL_RB-Li-3_2023-05	E511	12-May-2023	20-Jun-2023	----	----		21-Jun-2023	365 days	41 days	✔	
Metals : Mercury in Biota by CVAAS (DRY units, Micro)											
LDPE bag POL_RB-Li-4_2023-05	E511	12-May-2023	20-Jun-2023	----	----		21-Jun-2023	365 days	41 days	✔	



Matrix: Biota

Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Metals : Mercury in Biota by CVAAS (DRY units, Micro)											
LDPE bag POL_RB-Li-5_2023-05	E511	12-May-2023	20-Jun-2023	----	----		21-Jun-2023	365 days	41 days	✔	
Metals : Mercury in Biota by CVAAS (DRY units, Micro)											
LDPE bag POL_LSU-Ki-3_2023-05	E511	16-May-2023	23-Jun-2023	----	----		26-Jun-2023	365 days	42 days	✔	
Metals : Mercury in Biota by CVAAS (DRY units, Micro)											
LDPE bag POL_LSU-Ki-4_2023-05	E511	16-May-2023	23-Jun-2023	----	----		26-Jun-2023	365 days	42 days	✔	
Metals : Mercury in Biota by CVAAS (DRY units, Micro)											
LDPE bag POL_LSU-Ki-7_2023-05	E511	16-May-2023	23-Jun-2023	----	----		26-Jun-2023	365 days	42 days	✔	
Metals : Mercury in Biota by CVAAS (DRY units, Micro)											
LDPE bag POL_LSU-Ki-8_2023-05	E511	16-May-2023	23-Jun-2023	----	----		26-Jun-2023	365 days	42 days	✔	
Metals : Mercury in Biota by CVAAS (DRY units, Micro)											
LDPE bag POL_LSU-Li-3_2023-05	E511	16-May-2023	23-Jun-2023	----	----		26-Jun-2023	365 days	42 days	✔	
Metals : Mercury in Biota by CVAAS (DRY units, Micro)											
LDPE bag POL_LSU-Li-4_2023-05	E511	16-May-2023	23-Jun-2023	----	----		26-Jun-2023	365 days	42 days	✔	
Metals : Mercury in Biota by CVAAS (DRY units, Micro)											
LDPE bag POL_LSU-Li-5_2023-05	E511	16-May-2023	23-Jun-2023	----	----		26-Jun-2023	365 days	42 days	✔	
Metals : Mercury in Biota by CVAAS (DRY units, Micro)											
LDPE bag POL_LSU-Li-6_2023-05	E511	16-May-2023	23-Jun-2023	----	----		26-Jun-2023	365 days	42 days	✔	



Matrix: **Biota** Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Metals : Mercury in Biota by CVAAS (DRY units, Micro)											
LDPE bag BOL_LSU-Ki-1_2023-05	E511	14-May-2023	23-Jun-2023	----	----		26-Jun-2023	365 days	44 days	✔	
Metals : Mercury in Biota by CVAAS (DRY units, Micro)											
LDPE bag BOL_LSU-Ki-2_2023-05	E511	14-May-2023	23-Jun-2023	----	----		26-Jun-2023	365 days	44 days	✔	
Metals : Mercury in Biota by CVAAS (DRY units, Micro)											
LDPE bag BOL_LSU-Ki-4_2023-05	E511	14-May-2023	23-Jun-2023	----	----		26-Jun-2023	365 days	44 days	✔	
Metals : Mercury in Biota by CVAAS (DRY units, Micro)											
LDPE bag BOL_LSU-Ki-6_2023-05	E511	14-May-2023	23-Jun-2023	----	----		26-Jun-2023	365 days	44 days	✔	
Metals : Mercury in Biota by CVAAS (DRY units, Micro)											
LDPE bag POL_LSU-Li-1X_2023-05	E511	13-May-2023	23-Jun-2023	----	----		26-Jun-2023	365 days	45 days	✔	
Metals : Mercury in Biota by CVAAS (DRY units, Routine)											
LDPE bag POL_LSU-M-2_2023-05	E510	16-May-2023	14-Jun-2023	----	----		15-Jun-2023	365 days	30 days	✔	
Metals : Mercury in Biota by CVAAS (DRY units, Routine)											
LDPE bag POL_LSU-M-3_2023-05	E510	16-May-2023	14-Jun-2023	----	----		15-Jun-2023	365 days	30 days	✔	
Metals : Mercury in Biota by CVAAS (DRY units, Routine)											
LDPE bag POL_LSU-M-4_2023-05	E510	16-May-2023	14-Jun-2023	----	----		15-Jun-2023	365 days	30 days	✔	
Metals : Mercury in Biota by CVAAS (DRY units, Routine)											
LDPE bag POL_LSU-M-5_2023-05	E510	16-May-2023	14-Jun-2023	----	----		15-Jun-2023	365 days	30 days	✔	



Matrix: **Biota** Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Metals : Mercury in Biota by CVAAS (DRY units, Routine)											
LDPE bag POL_LSU-M-6_2023-05	E510	16-May-2023	14-Jun-2023	----	----		15-Jun-2023	365 days	30 days	✔	
Metals : Mercury in Biota by CVAAS (DRY units, Routine)											
LDPE bag POL_LSU-M-7_2023-05	E510	16-May-2023	14-Jun-2023	----	----		15-Jun-2023	365 days	30 days	✔	
Metals : Mercury in Biota by CVAAS (DRY units, Routine)											
LDPE bag POL_LSU-M-8_2023-05	E510	16-May-2023	14-Jun-2023	----	----		15-Jun-2023	365 days	30 days	✔	
Metals : Mercury in Biota by CVAAS (DRY units, Routine)											
LDPE bag BOL_RB-M-7_2023-05	E510	15-May-2023	14-Jun-2023	----	----		15-Jun-2023	365 days	31 days	✔	
Metals : Mercury in Biota by CVAAS (DRY units, Routine)											
LDPE bag BOL_RB-M-8_2023-05	E510	15-May-2023	14-Jun-2023	----	----		15-Jun-2023	365 days	31 days	✔	
Metals : Mercury in Biota by CVAAS (DRY units, Routine)											
LDPE bag BOL_RB-O-8_2023-05	E510	15-May-2023	14-Jun-2023	----	----		15-Jun-2023	365 days	31 days	✔	
Metals : Mercury in Biota by CVAAS (DRY units, Routine)											
LDPE bag BOL_RB-M-1_2023-05	E510	14-May-2023	14-Jun-2023	----	----		15-Jun-2023	365 days	32 days	✔	
Metals : Mercury in Biota by CVAAS (DRY units, Routine)											
LDPE bag BOL_RB-M-2_2023-05	E510	14-May-2023	14-Jun-2023	----	----		15-Jun-2023	365 days	32 days	✔	
Metals : Mercury in Biota by CVAAS (DRY units, Routine)											
LDPE bag BOL_RB-M-3_2023-05	E510	14-May-2023	14-Jun-2023	----	----		15-Jun-2023	365 days	32 days	✔	



Matrix: **Biota** Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Metals : Mercury in Biota by CVAAS (DRY units, Routine)											
LDPE bag BOL_RB-M-4_2023-05	E510	14-May-2023	14-Jun-2023	----	----		15-Jun-2023	365 days	32 days	✔	
Metals : Mercury in Biota by CVAAS (DRY units, Routine)											
LDPE bag BOL_RB-M-5_2023-05	E510	14-May-2023	14-Jun-2023	----	----		15-Jun-2023	365 days	32 days	✔	
Metals : Mercury in Biota by CVAAS (DRY units, Routine)											
LDPE bag BOL_RB-M-6_2023-05	E510	14-May-2023	14-Jun-2023	----	----		15-Jun-2023	365 days	32 days	✔	
Metals : Mercury in Biota by CVAAS (DRY units, Routine)											
LDPE bag BOL_RB-O-1_2023-05	E510	14-May-2023	14-Jun-2023	----	----		15-Jun-2023	365 days	32 days	✔	
Metals : Mercury in Biota by CVAAS (DRY units, Routine)											
LDPE bag BOL_RB-O-2_2023-05	E510	14-May-2023	14-Jun-2023	----	----		15-Jun-2023	365 days	32 days	✔	
Metals : Mercury in Biota by CVAAS (DRY units, Routine)											
LDPE bag BOL_RB-O-3_2023-05	E510	14-May-2023	14-Jun-2023	----	----		15-Jun-2023	365 days	32 days	✔	
Metals : Mercury in Biota by CVAAS (DRY units, Routine)											
LDPE bag BOL_RB-O-4_2023-05	E510	14-May-2023	14-Jun-2023	----	----		15-Jun-2023	365 days	32 days	✔	
Metals : Mercury in Biota by CVAAS (DRY units, Routine)											
LDPE bag BOL_RB-O-5_2023-05	E510	14-May-2023	14-Jun-2023	----	----		15-Jun-2023	365 days	32 days	✔	
Metals : Mercury in Biota by CVAAS (DRY units, Routine)											
LDPE bag BOL_RB-O-6_2023-05	E510	14-May-2023	14-Jun-2023	----	----		15-Jun-2023	365 days	32 days	✔	



Matrix: **Biota** Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Metals : Mercury in Biota by CVAAS (DRY units, Routine)											
LDPE bag POL_LSU-Li-7_2023-05	E510	16-May-2023	16-Jun-2023	----	----		16-Jun-2023	365 days	32 days	✔	
Metals : Mercury in Biota by CVAAS (DRY units, Routine)											
LDPE bag POL_LSU-Li-8_2023-05	E510	16-May-2023	16-Jun-2023	----	----		16-Jun-2023	365 days	32 days	✔	
Metals : Mercury in Biota by CVAAS (DRY units, Routine)											
LDPE bag POL_LSU-O-2_2023-05	E510	16-May-2023	16-Jun-2023	----	----		16-Jun-2023	365 days	32 days	✔	
Metals : Mercury in Biota by CVAAS (DRY units, Routine)											
LDPE bag POL_LSU-O-3_2023-05	E510	16-May-2023	16-Jun-2023	----	----		16-Jun-2023	365 days	32 days	✔	
Metals : Mercury in Biota by CVAAS (DRY units, Routine)											
LDPE bag POL_LSU-O-4_2023-05	E510	16-May-2023	16-Jun-2023	----	----		16-Jun-2023	365 days	32 days	✔	
Metals : Mercury in Biota by CVAAS (DRY units, Routine)											
LDPE bag POL_LSU-O-5_2023-05	E510	16-May-2023	16-Jun-2023	----	----		16-Jun-2023	365 days	32 days	✔	
Metals : Mercury in Biota by CVAAS (DRY units, Routine)											
LDPE bag POL_LSU-O-6_2023-05	E510	16-May-2023	16-Jun-2023	----	----		16-Jun-2023	365 days	32 days	✔	
Metals : Mercury in Biota by CVAAS (DRY units, Routine)											
LDPE bag POL_LSU-O-7_2023-05	E510	16-May-2023	16-Jun-2023	----	----		16-Jun-2023	365 days	32 days	✔	
Metals : Mercury in Biota by CVAAS (DRY units, Routine)											
LDPE bag POL_LSU-O-8_2023-05	E510	16-May-2023	16-Jun-2023	----	----		16-Jun-2023	365 days	32 days	✔	



Matrix: **Biota** Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Metals : Mercury in Biota by CVAAS (DRY units, Routine)											
LDPE bag BOL_LSU-Ki-3_2023-05	E510	14-May-2023	16-Jun-2023	----	----		16-Jun-2023	365 days	33 days	✔	
Metals : Mercury in Biota by CVAAS (DRY units, Routine)											
LDPE bag BOL_LSU-Ki-5_2023-05	E510	14-May-2023	16-Jun-2023	----	----		16-Jun-2023	365 days	33 days	✔	
Metals : Mercury in Biota by CVAAS (DRY units, Routine)											
LDPE bag BOL_LSU-Ki-7_2023-05	E510	14-May-2023	16-Jun-2023	----	----		16-Jun-2023	365 days	33 days	✔	
Metals : Mercury in Biota by CVAAS (DRY units, Routine)											
LDPE bag BOL_LSU-Ki-8_2023-05	E510	14-May-2023	16-Jun-2023	----	----		16-Jun-2023	365 days	33 days	✔	
Metals : Mercury in Biota by CVAAS (DRY units, Routine)											
LDPE bag BOL_RB-M-5X_2023-05	E510	14-May-2023	16-Jun-2023	----	----		16-Jun-2023	365 days	33 days	✔	
Metals : Mercury in Biota by CVAAS (DRY units, Routine)											
LDPE bag BOL_RB-O-5X_2023-05	E510	14-May-2023	16-Jun-2023	----	----		16-Jun-2023	365 days	33 days	✔	
Metals : Mercury in Biota by CVAAS (DRY units, Routine)											
LDPE bag POL_LSU-M-1_2023-05	E510	13-May-2023	14-Jun-2023	----	----		15-Jun-2023	365 days	33 days	✔	
Metals : Mercury in Biota by CVAAS (DRY units, Routine)											
LDPE bag POL_LSU-O-1_2023-05	E510	13-May-2023	14-Jun-2023	----	----		15-Jun-2023	365 days	33 days	✔	
Metals : Mercury in Biota by CVAAS (DRY units, Routine)											
LDPE bag POL_RB-M-6_2023-05	E510	13-May-2023	14-Jun-2023	----	----		15-Jun-2023	365 days	33 days	✔	



Matrix: **Biota** Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Metals : Mercury in Biota by CVAAS (DRY units, Routine)											
LDPE bag POL_RB-M-7_2023-05	E510	13-May-2023	14-Jun-2023	----	----		15-Jun-2023	365 days	33 days	✔	
Metals : Mercury in Biota by CVAAS (DRY units, Routine)											
LDPE bag POL_RB-M-8_2023-05	E510	13-May-2023	14-Jun-2023	----	----		15-Jun-2023	365 days	33 days	✔	
Metals : Mercury in Biota by CVAAS (DRY units, Routine)											
LDPE bag POL_RB-O-6_2023-05	E510	13-May-2023	14-Jun-2023	----	----		15-Jun-2023	365 days	33 days	✔	
Metals : Mercury in Biota by CVAAS (DRY units, Routine)											
LDPE bag POL_RB-O-7_2023-05	E510	13-May-2023	14-Jun-2023	----	----		15-Jun-2023	365 days	33 days	✔	
Metals : Mercury in Biota by CVAAS (DRY units, Routine)											
LDPE bag POL_RB-O-8_2023-05	E510	13-May-2023	14-Jun-2023	----	----		15-Jun-2023	365 days	33 days	✔	
Metals : Mercury in Biota by CVAAS (DRY units, Routine)											
LDPE bag BOL_LSU-Li-1_2023-05	E510	14-May-2023	16-Jun-2023	----	----		16-Jun-2023	365 days	34 days	✔	
Metals : Mercury in Biota by CVAAS (DRY units, Routine)											
LDPE bag BOL_LSU-Li-2_2023-05	E510	14-May-2023	16-Jun-2023	----	----		16-Jun-2023	365 days	34 days	✔	
Metals : Mercury in Biota by CVAAS (DRY units, Routine)											
LDPE bag BOL_LSU-Li-3_2023-05	E510	14-May-2023	16-Jun-2023	----	----		16-Jun-2023	365 days	34 days	✔	
Metals : Mercury in Biota by CVAAS (DRY units, Routine)											
LDPE bag BOL_LSU-Li-4_2023-05	E510	14-May-2023	16-Jun-2023	----	----		16-Jun-2023	365 days	34 days	✔	



Matrix: **Biota** Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Metals : Mercury in Biota by CVAAS (DRY units, Routine)											
LDPE bag BOL_LSU-Li-5_2023-05	E510	14-May-2023	16-Jun-2023	----	----		16-Jun-2023	365 days	34 days	✔	
Metals : Mercury in Biota by CVAAS (DRY units, Routine)											
LDPE bag BOL_LSU-Li-6_2023-05	E510	14-May-2023	16-Jun-2023	----	----		16-Jun-2023	365 days	34 days	✔	
Metals : Mercury in Biota by CVAAS (DRY units, Routine)											
LDPE bag BOL_LSU-Li-7_2023-05	E510	14-May-2023	16-Jun-2023	----	----		16-Jun-2023	365 days	34 days	✔	
Metals : Mercury in Biota by CVAAS (DRY units, Routine)											
LDPE bag BOL_LSU-Li-8_2023-05	E510	14-May-2023	16-Jun-2023	----	----		16-Jun-2023	365 days	34 days	✔	
Metals : Mercury in Biota by CVAAS (DRY units, Routine)											
LDPE bag BOL_LSU-M-1_2023-05	E510	14-May-2023	16-Jun-2023	----	----		16-Jun-2023	365 days	34 days	✔	
Metals : Mercury in Biota by CVAAS (DRY units, Routine)											
LDPE bag BOL_LSU-M-2_2023-05	E510	14-May-2023	16-Jun-2023	----	----		16-Jun-2023	365 days	34 days	✔	
Metals : Mercury in Biota by CVAAS (DRY units, Routine)											
LDPE bag BOL_LSU-M-3_2023-05	E510	14-May-2023	16-Jun-2023	----	----		16-Jun-2023	365 days	34 days	✔	
Metals : Mercury in Biota by CVAAS (DRY units, Routine)											
LDPE bag BOL_LSU-M-4_2023-05	E510	14-May-2023	16-Jun-2023	----	----		16-Jun-2023	365 days	34 days	✔	
Metals : Mercury in Biota by CVAAS (DRY units, Routine)											
LDPE bag BOL_LSU-M-5_2023-05	E510	14-May-2023	16-Jun-2023	----	----		16-Jun-2023	365 days	34 days	✔	



Matrix: **Biota** Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Metals : Mercury in Biota by CVAAS (DRY units, Routine)											
LDPE bag BOL_LSU-M-6_2023-05	E510	14-May-2023	16-Jun-2023	----	----		16-Jun-2023	365 days	34 days	✔	
Metals : Mercury in Biota by CVAAS (DRY units, Routine)											
LDPE bag BOL_LSU-M-7_2023-05	E510	14-May-2023	16-Jun-2023	----	----		16-Jun-2023	365 days	34 days	✔	
Metals : Mercury in Biota by CVAAS (DRY units, Routine)											
LDPE bag BOL_LSU-M-8_2023-05	E510	14-May-2023	16-Jun-2023	----	----		16-Jun-2023	365 days	34 days	✔	
Metals : Mercury in Biota by CVAAS (DRY units, Routine)											
LDPE bag BOL_LSU-O-1_2023-05	E510	14-May-2023	16-Jun-2023	----	----		16-Jun-2023	365 days	34 days	✔	
Metals : Mercury in Biota by CVAAS (DRY units, Routine)											
LDPE bag BOL_LSU-O-2_2023-05	E510	14-May-2023	16-Jun-2023	----	----		16-Jun-2023	365 days	34 days	✔	
Metals : Mercury in Biota by CVAAS (DRY units, Routine)											
LDPE bag BOL_LSU-O-3_2023-05	E510	14-May-2023	16-Jun-2023	----	----		16-Jun-2023	365 days	34 days	✔	
Metals : Mercury in Biota by CVAAS (DRY units, Routine)											
LDPE bag BOL_LSU-O-4_2023-05	E510	14-May-2023	16-Jun-2023	----	----		16-Jun-2023	365 days	34 days	✔	
Metals : Mercury in Biota by CVAAS (DRY units, Routine)											
LDPE bag BOL_LSU-O-5_2023-05	E510	14-May-2023	16-Jun-2023	----	----		16-Jun-2023	365 days	34 days	✔	
Metals : Mercury in Biota by CVAAS (DRY units, Routine)											
LDPE bag BOL_LSU-O-6_2023-05	E510	14-May-2023	16-Jun-2023	----	----		16-Jun-2023	365 days	34 days	✔	



Matrix: **Biota** Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Metals : Mercury in Biota by CVAAS (DRY units, Routine)											
LDPE bag BOL_LSU-O-7_2023-05	E510	14-May-2023	16-Jun-2023	----	----		16-Jun-2023	365 days	34 days	✔	
Metals : Mercury in Biota by CVAAS (DRY units, Routine)											
LDPE bag BOL_LSU-O-8_2023-05	E510	14-May-2023	16-Jun-2023	----	----		16-Jun-2023	365 days	34 days	✔	
Metals : Mercury in Biota by CVAAS (DRY units, Routine)											
LDPE bag POL_LSU-M-1X_2023-05	E510	13-May-2023	16-Jun-2023	----	----		16-Jun-2023	365 days	34 days	✔	
Metals : Mercury in Biota by CVAAS (DRY units, Routine)											
LDPE bag POL_LSU-O-1X_2023-05	E510	13-May-2023	16-Jun-2023	----	----		16-Jun-2023	365 days	34 days	✔	
Metals : Mercury in Biota by CVAAS (DRY units, Routine)											
LDPE bag POL_RB-M-1_2023-05	E510	12-May-2023	14-Jun-2023	----	----		15-Jun-2023	365 days	34 days	✔	
Metals : Mercury in Biota by CVAAS (DRY units, Routine)											
LDPE bag POL_RB-M-2_2023-05	E510	12-May-2023	14-Jun-2023	----	----		15-Jun-2023	365 days	34 days	✔	
Metals : Mercury in Biota by CVAAS (DRY units, Routine)											
LDPE bag POL_RB-M-3_2023-05	E510	12-May-2023	14-Jun-2023	----	----		15-Jun-2023	365 days	34 days	✔	
Metals : Mercury in Biota by CVAAS (DRY units, Routine)											
LDPE bag POL_RB-M-4_2023-05	E510	12-May-2023	14-Jun-2023	----	----		15-Jun-2023	365 days	34 days	✔	
Metals : Mercury in Biota by CVAAS (DRY units, Routine)											
LDPE bag POL_RB-M-5_2023-05	E510	12-May-2023	14-Jun-2023	----	----		15-Jun-2023	365 days	34 days	✔	



Matrix: **Biota** Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Metals : Mercury in Biota by CVAAS (DRY units, Routine)											
LDPE bag POL_RB-M-7X_2023-05	E510	13-May-2023	16-Jun-2023	----	----		16-Jun-2023	365 days	34 days	✔	
Metals : Mercury in Biota by CVAAS (DRY units, Routine)											
LDPE bag POL_RB-O-1_2023-05	E510	12-May-2023	14-Jun-2023	----	----		15-Jun-2023	365 days	34 days	✔	
Metals : Mercury in Biota by CVAAS (DRY units, Routine)											
LDPE bag POL_RB-O-2_2023-05	E510	12-May-2023	14-Jun-2023	----	----		15-Jun-2023	365 days	34 days	✔	
Metals : Mercury in Biota by CVAAS (DRY units, Routine)											
LDPE bag POL_RB-O-3_2023-05	E510	12-May-2023	14-Jun-2023	----	----		15-Jun-2023	365 days	34 days	✔	
Metals : Mercury in Biota by CVAAS (DRY units, Routine)											
LDPE bag POL_RB-O-4_2023-05	E510	12-May-2023	14-Jun-2023	----	----		15-Jun-2023	365 days	34 days	✔	
Metals : Mercury in Biota by CVAAS (DRY units, Routine)											
LDPE bag POL_RB-O-5_2023-05	E510	12-May-2023	14-Jun-2023	----	----		15-Jun-2023	365 days	34 days	✔	
Metals : Mercury in Biota by CVAAS (DRY units, Routine)											
LDPE bag POL_RB-O-7X_2023-05	E510	13-May-2023	16-Jun-2023	----	----		16-Jun-2023	365 days	34 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Biopsy)											
LDPE bag POL_LSU-Ki-2_2023-05	E512A	16-May-2023	20-Jun-2023	----	----		21-Jun-2023	365 days	36 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Biopsy)											
LDPE bag POL_LSU-Ki-5_2023-05	E512A	16-May-2023	20-Jun-2023	----	----		21-Jun-2023	365 days	36 days	✔	



Matrix: **Biota** Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Metals : Mercury in Biota by CVAAS (WET units, Biopsy)											
LDPE bag POL_LSU-Ki-6_2023-05	E512A	16-May-2023	20-Jun-2023	----	----		21-Jun-2023	365 days	36 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Biopsy)											
LDPE bag BOL_RB-Ki-7_2023-05	E512A	15-May-2023	20-Jun-2023	----	----		21-Jun-2023	365 days	37 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Biopsy)											
LDPE bag BOL_RB-Ki-8_2023-05	E512A	15-May-2023	20-Jun-2023	----	----		21-Jun-2023	365 days	37 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Biopsy)											
LDPE bag BOL_RB-Ki-5_2023-05	E512A	14-May-2023	20-Jun-2023	----	----		21-Jun-2023	365 days	38 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Biopsy)											
LDPE bag BOL_RB-Ki-5X_2023-05	E512A	14-May-2023	20-Jun-2023	----	----		21-Jun-2023	365 days	38 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Biopsy)											
LDPE bag BOL_RB-Ki-6_2023-05	E512A	14-May-2023	20-Jun-2023	----	----		21-Jun-2023	365 days	38 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Biopsy)											
LDPE bag BOL_RB-Li-5X_2023-05	E512A	14-May-2023	20-Jun-2023	----	----		21-Jun-2023	365 days	38 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Biopsy)											
LDPE bag BOL_RB-Li-7_2023-05	E512A	15-May-2023	20-Jun-2023	----	----		21-Jun-2023	365 days	38 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Biopsy)											
LDPE bag BOL_RB-Li-8_2023-05	E512A	15-May-2023	20-Jun-2023	----	----		21-Jun-2023	365 days	38 days	✔	



Matrix: **Biota** Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Metals : Mercury in Biota by CVAAS (WET units, Biopsy)											
LDPE bag BOL_RB-Ki-1_2023-05	E512A	14-May-2023	20-Jun-2023	----	----		21-Jun-2023	365 days	39 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Biopsy)											
LDPE bag BOL_RB-Ki-2_2023-05	E512A	14-May-2023	20-Jun-2023	----	----		21-Jun-2023	365 days	39 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Biopsy)											
LDPE bag BOL_RB-Ki-3_2023-05	E512A	14-May-2023	20-Jun-2023	----	----		21-Jun-2023	365 days	39 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Biopsy)											
LDPE bag BOL_RB-Ki-4_2023-05	E512A	14-May-2023	20-Jun-2023	----	----		21-Jun-2023	365 days	39 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Biopsy)											
LDPE bag BOL_RB-Li-3_2023-05	E512A	14-May-2023	20-Jun-2023	----	----		21-Jun-2023	365 days	39 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Biopsy)											
LDPE bag BOL_RB-Li-4_2023-05	E512A	14-May-2023	20-Jun-2023	----	----		21-Jun-2023	365 days	39 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Biopsy)											
LDPE bag BOL_RB-Li-5_2023-05	E512A	14-May-2023	20-Jun-2023	----	----		21-Jun-2023	365 days	39 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Biopsy)											
LDPE bag BOL_RB-Li-6_2023-05	E512A	14-May-2023	20-Jun-2023	----	----		21-Jun-2023	365 days	39 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Biopsy)											
LDPE bag POL_LSU-Ki-1_2023-05	E512A	13-May-2023	20-Jun-2023	----	----		21-Jun-2023	365 days	39 days	✔	



Matrix: **Biota** Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Metals : Mercury in Biota by CVAAS (WET units, Biopsy)											
LDPE bag POL_LSU-Ki-1X_2023-05	E512A	13-May-2023	20-Jun-2023	----	----		21-Jun-2023	365 days	39 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Biopsy)											
LDPE bag POL_RB-Ki-7X_2023-05	E512A	13-May-2023	20-Jun-2023	----	----		21-Jun-2023	365 days	39 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Biopsy)											
LDPE bag POL_RB-Li-7X_2023-05	E512A	13-May-2023	20-Jun-2023	----	----		21-Jun-2023	365 days	39 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Biopsy)											
LDPE bag POL_RB-Ki-6_2023-05	E512A	13-May-2023	20-Jun-2023	----	----		21-Jun-2023	365 days	40 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Biopsy)											
LDPE bag POL_RB-Ki-7_2023-05	E512A	13-May-2023	20-Jun-2023	----	----		21-Jun-2023	365 days	40 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Biopsy)											
LDPE bag POL_RB-Li-7_2023-05	E512A	13-May-2023	20-Jun-2023	----	----		21-Jun-2023	365 days	40 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Biopsy)											
LDPE bag POL_RB-Ki-2_2023-05	E512A	12-May-2023	20-Jun-2023	----	----		21-Jun-2023	365 days	41 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Biopsy)											
LDPE bag POL_RB-Ki-3_2023-05	E512A	12-May-2023	20-Jun-2023	----	----		21-Jun-2023	365 days	41 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Biopsy)											
LDPE bag POL_RB-Ki-5_2023-05	E512A	12-May-2023	20-Jun-2023	----	----		21-Jun-2023	365 days	41 days	✔	



Matrix: **Biota** Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Metals : Mercury in Biota by CVAAS (WET units, Micro)											
LDPE bag POL_LSU-Li-2_2023-05	E511A	16-May-2023	20-Jun-2023	----	----		21-Jun-2023	365 days	37 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Micro)											
LDPE bag BOL_RB-O-7_2023-05	E511A	15-May-2023	20-Jun-2023	----	----		21-Jun-2023	365 days	38 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Micro)											
LDPE bag BOL_RB-Li-1_2023-05	E511A	14-May-2023	20-Jun-2023	----	----		21-Jun-2023	365 days	39 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Micro)											
LDPE bag BOL_RB-Li-2_2023-05	E511A	14-May-2023	20-Jun-2023	----	----		21-Jun-2023	365 days	39 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Micro)											
LDPE bag POL_LSU-Li-1_2023-05	E511A	13-May-2023	20-Jun-2023	----	----		21-Jun-2023	365 days	40 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Micro)											
LDPE bag POL_RB-Ki-8_2023-05	E511A	13-May-2023	20-Jun-2023	----	----		21-Jun-2023	365 days	40 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Micro)											
LDPE bag POL_RB-Li-6_2023-05	E511A	13-May-2023	20-Jun-2023	----	----		21-Jun-2023	365 days	40 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Micro)											
LDPE bag POL_RB-Li-8_2023-05	E511A	13-May-2023	20-Jun-2023	----	----		21-Jun-2023	365 days	40 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Micro)											
LDPE bag POL_RB-Ki-1_2023-05	E511A	12-May-2023	20-Jun-2023	----	----		21-Jun-2023	365 days	41 days	✔	



Matrix: **Biota** Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Metals : Mercury in Biota by CVAAS (WET units, Micro)											
LDPE bag POL_RB-Ki-4_2023-05	E511A	12-May-2023	20-Jun-2023	----	----		21-Jun-2023	365 days	41 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Micro)											
LDPE bag POL_RB-Li-1_2023-05	E511A	12-May-2023	20-Jun-2023	----	----		21-Jun-2023	365 days	41 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Micro)											
LDPE bag POL_RB-Li-2_2023-05	E511A	12-May-2023	20-Jun-2023	----	----		21-Jun-2023	365 days	41 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Micro)											
LDPE bag POL_RB-Li-3_2023-05	E511A	12-May-2023	20-Jun-2023	----	----		21-Jun-2023	365 days	41 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Micro)											
LDPE bag POL_RB-Li-4_2023-05	E511A	12-May-2023	20-Jun-2023	----	----		21-Jun-2023	365 days	41 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Micro)											
LDPE bag POL_RB-Li-5_2023-05	E511A	12-May-2023	20-Jun-2023	----	----		21-Jun-2023	365 days	41 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Micro)											
LDPE bag POL_LSU-Ki-3_2023-05	E511A	16-May-2023	23-Jun-2023	----	----		26-Jun-2023	365 days	42 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Micro)											
LDPE bag POL_LSU-Ki-4_2023-05	E511A	16-May-2023	23-Jun-2023	----	----		26-Jun-2023	365 days	42 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Micro)											
LDPE bag POL_LSU-Ki-7_2023-05	E511A	16-May-2023	23-Jun-2023	----	----		26-Jun-2023	365 days	42 days	✔	



Matrix: Biota Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Metals : Mercury in Biota by CVAAS (WET units, Micro)											
LDPE bag POL_LSU-Ki-8_2023-05	E511A	16-May-2023	23-Jun-2023	----	----		26-Jun-2023	365 days	42 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Micro)											
LDPE bag POL_LSU-Li-3_2023-05	E511A	16-May-2023	23-Jun-2023	----	----		26-Jun-2023	365 days	42 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Micro)											
LDPE bag POL_LSU-Li-4_2023-05	E511A	16-May-2023	23-Jun-2023	----	----		26-Jun-2023	365 days	42 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Micro)											
LDPE bag POL_LSU-Li-5_2023-05	E511A	16-May-2023	23-Jun-2023	----	----		26-Jun-2023	365 days	42 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Micro)											
LDPE bag POL_LSU-Li-6_2023-05	E511A	16-May-2023	23-Jun-2023	----	----		26-Jun-2023	365 days	42 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Micro)											
LDPE bag BOL_LSU-Ki-1_2023-05	E511A	14-May-2023	23-Jun-2023	----	----		26-Jun-2023	365 days	44 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Micro)											
LDPE bag BOL_LSU-Ki-2_2023-05	E511A	14-May-2023	23-Jun-2023	----	----		26-Jun-2023	365 days	44 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Micro)											
LDPE bag BOL_LSU-Ki-4_2023-05	E511A	14-May-2023	23-Jun-2023	----	----		26-Jun-2023	365 days	44 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Micro)											
LDPE bag BOL_LSU-Ki-6_2023-05	E511A	14-May-2023	23-Jun-2023	----	----		26-Jun-2023	365 days	44 days	✔	



Matrix: **Biota** Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Metals : Mercury in Biota by CVAAS (WET units, Micro)										
LDPE bag POL_LSU-Li-1X_2023-05	E511A	13-May-2023	23-Jun-2023	----	----		26-Jun-2023	365 days	45 days	✔
Metals : Mercury in Biota by CVAAS (WET units, Routine)										
LDPE bag POL_LSU-M-2_2023-05	E510A	16-May-2023	14-Jun-2023	----	----		15-Jun-2023	365 days	30 days	✔
Metals : Mercury in Biota by CVAAS (WET units, Routine)										
LDPE bag POL_LSU-M-3_2023-05	E510A	16-May-2023	14-Jun-2023	----	----		15-Jun-2023	365 days	30 days	✔
Metals : Mercury in Biota by CVAAS (WET units, Routine)										
LDPE bag POL_LSU-M-4_2023-05	E510A	16-May-2023	14-Jun-2023	----	----		15-Jun-2023	365 days	30 days	✔
Metals : Mercury in Biota by CVAAS (WET units, Routine)										
LDPE bag POL_LSU-M-5_2023-05	E510A	16-May-2023	14-Jun-2023	----	----		15-Jun-2023	365 days	30 days	✔
Metals : Mercury in Biota by CVAAS (WET units, Routine)										
LDPE bag POL_LSU-M-6_2023-05	E510A	16-May-2023	14-Jun-2023	----	----		15-Jun-2023	365 days	30 days	✔
Metals : Mercury in Biota by CVAAS (WET units, Routine)										
LDPE bag POL_LSU-M-7_2023-05	E510A	16-May-2023	14-Jun-2023	----	----		15-Jun-2023	365 days	30 days	✔
Metals : Mercury in Biota by CVAAS (WET units, Routine)										
LDPE bag POL_LSU-M-8_2023-05	E510A	16-May-2023	14-Jun-2023	----	----		15-Jun-2023	365 days	30 days	✔
Metals : Mercury in Biota by CVAAS (WET units, Routine)										
LDPE bag BOL_RB-M-7_2023-05	E510A	15-May-2023	14-Jun-2023	----	----		15-Jun-2023	365 days	31 days	✔



Matrix: **Biota** Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Metals : Mercury in Biota by CVAAS (WET units, Routine)											
LDPE bag BOL_RB-M-8_2023-05	E510A	15-May-2023	14-Jun-2023	----	----		15-Jun-2023	365 days	31 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Routine)											
LDPE bag BOL_RB-O-8_2023-05	E510A	15-May-2023	14-Jun-2023	----	----		15-Jun-2023	365 days	31 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Routine)											
LDPE bag BOL_RB-M-1_2023-05	E510A	14-May-2023	14-Jun-2023	----	----		15-Jun-2023	365 days	32 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Routine)											
LDPE bag BOL_RB-M-2_2023-05	E510A	14-May-2023	14-Jun-2023	----	----		15-Jun-2023	365 days	32 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Routine)											
LDPE bag BOL_RB-M-3_2023-05	E510A	14-May-2023	14-Jun-2023	----	----		15-Jun-2023	365 days	32 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Routine)											
LDPE bag BOL_RB-M-4_2023-05	E510A	14-May-2023	14-Jun-2023	----	----		15-Jun-2023	365 days	32 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Routine)											
LDPE bag BOL_RB-M-5_2023-05	E510A	14-May-2023	14-Jun-2023	----	----		15-Jun-2023	365 days	32 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Routine)											
LDPE bag BOL_RB-M-6_2023-05	E510A	14-May-2023	14-Jun-2023	----	----		15-Jun-2023	365 days	32 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Routine)											
LDPE bag BOL_RB-O-1_2023-05	E510A	14-May-2023	14-Jun-2023	----	----		15-Jun-2023	365 days	32 days	✔	



Matrix: **Biota** Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Metals : Mercury in Biota by CVAAS (WET units, Routine)											
LDPE bag BOL_RB-O-2_2023-05	E510A	14-May-2023	14-Jun-2023	----	----		15-Jun-2023	365 days	32 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Routine)											
LDPE bag BOL_RB-O-3_2023-05	E510A	14-May-2023	14-Jun-2023	----	----		15-Jun-2023	365 days	32 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Routine)											
LDPE bag BOL_RB-O-4_2023-05	E510A	14-May-2023	14-Jun-2023	----	----		15-Jun-2023	365 days	32 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Routine)											
LDPE bag BOL_RB-O-5_2023-05	E510A	14-May-2023	14-Jun-2023	----	----		15-Jun-2023	365 days	32 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Routine)											
LDPE bag BOL_RB-O-6_2023-05	E510A	14-May-2023	14-Jun-2023	----	----		15-Jun-2023	365 days	32 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Routine)											
LDPE bag POL_LSU-Li-7_2023-05	E510A	16-May-2023	16-Jun-2023	----	----		16-Jun-2023	365 days	32 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Routine)											
LDPE bag POL_LSU-Li-8_2023-05	E510A	16-May-2023	16-Jun-2023	----	----		16-Jun-2023	365 days	32 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Routine)											
LDPE bag POL_LSU-O-2_2023-05	E510A	16-May-2023	16-Jun-2023	----	----		16-Jun-2023	365 days	32 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Routine)											
LDPE bag POL_LSU-O-3_2023-05	E510A	16-May-2023	16-Jun-2023	----	----		16-Jun-2023	365 days	32 days	✔	



Matrix: **Biota** Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Metals : Mercury in Biota by CVAAS (WET units, Routine)											
LDPE bag POL_LSU-O-4_2023-05	E510A	16-May-2023	16-Jun-2023	----	----		16-Jun-2023	365 days	32 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Routine)											
LDPE bag POL_LSU-O-5_2023-05	E510A	16-May-2023	16-Jun-2023	----	----		16-Jun-2023	365 days	32 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Routine)											
LDPE bag POL_LSU-O-6_2023-05	E510A	16-May-2023	16-Jun-2023	----	----		16-Jun-2023	365 days	32 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Routine)											
LDPE bag POL_LSU-O-7_2023-05	E510A	16-May-2023	16-Jun-2023	----	----		16-Jun-2023	365 days	32 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Routine)											
LDPE bag POL_LSU-O-8_2023-05	E510A	16-May-2023	16-Jun-2023	----	----		16-Jun-2023	365 days	32 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Routine)											
LDPE bag BOL_LSU-Ki-3_2023-05	E510A	14-May-2023	16-Jun-2023	----	----		16-Jun-2023	365 days	33 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Routine)											
LDPE bag BOL_LSU-Ki-5_2023-05	E510A	14-May-2023	16-Jun-2023	----	----		16-Jun-2023	365 days	33 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Routine)											
LDPE bag BOL_LSU-Ki-7_2023-05	E510A	14-May-2023	16-Jun-2023	----	----		16-Jun-2023	365 days	33 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Routine)											
LDPE bag BOL_LSU-Ki-8_2023-05	E510A	14-May-2023	16-Jun-2023	----	----		16-Jun-2023	365 days	33 days	✔	



Matrix: **Biota** Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Metals : Mercury in Biota by CVAAS (WET units, Routine)											
LDPE bag BOL_RB-M-5X_2023-05	E510A	14-May-2023	16-Jun-2023	----	----		16-Jun-2023	365 days	33 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Routine)											
LDPE bag BOL_RB-O-5X_2023-05	E510A	14-May-2023	16-Jun-2023	----	----		16-Jun-2023	365 days	33 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Routine)											
LDPE bag POL_LSU-M-1_2023-05	E510A	13-May-2023	14-Jun-2023	----	----		15-Jun-2023	365 days	33 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Routine)											
LDPE bag POL_LSU-O-1_2023-05	E510A	13-May-2023	14-Jun-2023	----	----		15-Jun-2023	365 days	33 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Routine)											
LDPE bag POL_RB-M-6_2023-05	E510A	13-May-2023	14-Jun-2023	----	----		15-Jun-2023	365 days	33 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Routine)											
LDPE bag POL_RB-M-7_2023-05	E510A	13-May-2023	14-Jun-2023	----	----		15-Jun-2023	365 days	33 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Routine)											
LDPE bag POL_RB-M-8_2023-05	E510A	13-May-2023	14-Jun-2023	----	----		15-Jun-2023	365 days	33 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Routine)											
LDPE bag POL_RB-O-6_2023-05	E510A	13-May-2023	14-Jun-2023	----	----		15-Jun-2023	365 days	33 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Routine)											
LDPE bag POL_RB-O-7_2023-05	E510A	13-May-2023	14-Jun-2023	----	----		15-Jun-2023	365 days	33 days	✔	



Matrix: **Biota** Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Metals : Mercury in Biota by CVAAS (WET units, Routine)											
LDPE bag POL_RB-O-8_2023-05	E510A	13-May-2023	14-Jun-2023	----	----		15-Jun-2023	365 days	33 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Routine)											
LDPE bag BOL_LSU-Li-1_2023-05	E510A	14-May-2023	16-Jun-2023	----	----		16-Jun-2023	365 days	34 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Routine)											
LDPE bag BOL_LSU-Li-2_2023-05	E510A	14-May-2023	16-Jun-2023	----	----		16-Jun-2023	365 days	34 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Routine)											
LDPE bag BOL_LSU-Li-3_2023-05	E510A	14-May-2023	16-Jun-2023	----	----		16-Jun-2023	365 days	34 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Routine)											
LDPE bag BOL_LSU-Li-4_2023-05	E510A	14-May-2023	16-Jun-2023	----	----		16-Jun-2023	365 days	34 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Routine)											
LDPE bag BOL_LSU-Li-5_2023-05	E510A	14-May-2023	16-Jun-2023	----	----		16-Jun-2023	365 days	34 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Routine)											
LDPE bag BOL_LSU-Li-6_2023-05	E510A	14-May-2023	16-Jun-2023	----	----		16-Jun-2023	365 days	34 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Routine)											
LDPE bag BOL_LSU-Li-7_2023-05	E510A	14-May-2023	16-Jun-2023	----	----		16-Jun-2023	365 days	34 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Routine)											
LDPE bag BOL_LSU-Li-8_2023-05	E510A	14-May-2023	16-Jun-2023	----	----		16-Jun-2023	365 days	34 days	✔	



Matrix: **Biota** Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Metals : Mercury in Biota by CVAAS (WET units, Routine)											
LDPE bag BOL_LSU-M-1_2023-05	E510A	14-May-2023	16-Jun-2023	----	----		16-Jun-2023	365 days	34 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Routine)											
LDPE bag BOL_LSU-M-2_2023-05	E510A	14-May-2023	16-Jun-2023	----	----		16-Jun-2023	365 days	34 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Routine)											
LDPE bag BOL_LSU-M-3_2023-05	E510A	14-May-2023	16-Jun-2023	----	----		16-Jun-2023	365 days	34 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Routine)											
LDPE bag BOL_LSU-M-4_2023-05	E510A	14-May-2023	16-Jun-2023	----	----		16-Jun-2023	365 days	34 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Routine)											
LDPE bag BOL_LSU-M-5_2023-05	E510A	14-May-2023	16-Jun-2023	----	----		16-Jun-2023	365 days	34 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Routine)											
LDPE bag BOL_LSU-M-6_2023-05	E510A	14-May-2023	16-Jun-2023	----	----		16-Jun-2023	365 days	34 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Routine)											
LDPE bag BOL_LSU-M-7_2023-05	E510A	14-May-2023	16-Jun-2023	----	----		16-Jun-2023	365 days	34 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Routine)											
LDPE bag BOL_LSU-M-8_2023-05	E510A	14-May-2023	16-Jun-2023	----	----		16-Jun-2023	365 days	34 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Routine)											
LDPE bag BOL_LSU-O-1_2023-05	E510A	14-May-2023	16-Jun-2023	----	----		16-Jun-2023	365 days	34 days	✔	



Matrix: **Biota** Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Metals : Mercury in Biota by CVAAS (WET units, Routine)											
LDPE bag BOL_LSU-O-2_2023-05	E510A	14-May-2023	16-Jun-2023	----	----		16-Jun-2023	365 days	34 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Routine)											
LDPE bag BOL_LSU-O-3_2023-05	E510A	14-May-2023	16-Jun-2023	----	----		16-Jun-2023	365 days	34 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Routine)											
LDPE bag BOL_LSU-O-4_2023-05	E510A	14-May-2023	16-Jun-2023	----	----		16-Jun-2023	365 days	34 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Routine)											
LDPE bag BOL_LSU-O-5_2023-05	E510A	14-May-2023	16-Jun-2023	----	----		16-Jun-2023	365 days	34 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Routine)											
LDPE bag BOL_LSU-O-6_2023-05	E510A	14-May-2023	16-Jun-2023	----	----		16-Jun-2023	365 days	34 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Routine)											
LDPE bag BOL_LSU-O-7_2023-05	E510A	14-May-2023	16-Jun-2023	----	----		16-Jun-2023	365 days	34 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Routine)											
LDPE bag BOL_LSU-O-8_2023-05	E510A	14-May-2023	16-Jun-2023	----	----		16-Jun-2023	365 days	34 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Routine)											
LDPE bag POL_LSU-M-1X_2023-05	E510A	13-May-2023	16-Jun-2023	----	----		16-Jun-2023	365 days	34 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Routine)											
LDPE bag POL_LSU-O-1X_2023-05	E510A	13-May-2023	16-Jun-2023	----	----		16-Jun-2023	365 days	34 days	✔	



Matrix: **Biota** Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Metals : Mercury in Biota by CVAAS (WET units, Routine)											
LDPE bag POL_RB-M-1_2023-05	E510A	12-May-2023	14-Jun-2023	----	----		15-Jun-2023	365 days	34 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Routine)											
LDPE bag POL_RB-M-2_2023-05	E510A	12-May-2023	14-Jun-2023	----	----		15-Jun-2023	365 days	34 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Routine)											
LDPE bag POL_RB-M-3_2023-05	E510A	12-May-2023	14-Jun-2023	----	----		15-Jun-2023	365 days	34 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Routine)											
LDPE bag POL_RB-M-4_2023-05	E510A	12-May-2023	14-Jun-2023	----	----		15-Jun-2023	365 days	34 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Routine)											
LDPE bag POL_RB-M-5_2023-05	E510A	12-May-2023	14-Jun-2023	----	----		15-Jun-2023	365 days	34 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Routine)											
LDPE bag POL_RB-M-7X_2023-05	E510A	13-May-2023	16-Jun-2023	----	----		16-Jun-2023	365 days	34 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Routine)											
LDPE bag POL_RB-O-1_2023-05	E510A	12-May-2023	14-Jun-2023	----	----		15-Jun-2023	365 days	34 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Routine)											
LDPE bag POL_RB-O-2_2023-05	E510A	12-May-2023	14-Jun-2023	----	----		15-Jun-2023	365 days	34 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Routine)											
LDPE bag POL_RB-O-3_2023-05	E510A	12-May-2023	14-Jun-2023	----	----		15-Jun-2023	365 days	34 days	✔	



Matrix: **Biota** Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Metals : Mercury in Biota by CVAAS (WET units, Routine)											
LDPE bag POL_RB-O-4_2023-05	E510A	12-May-2023	14-Jun-2023	----	----		15-Jun-2023	365 days	34 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Routine)											
LDPE bag POL_RB-O-5_2023-05	E510A	12-May-2023	14-Jun-2023	----	----		15-Jun-2023	365 days	34 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Routine)											
LDPE bag POL_RB-O-7X_2023-05	E510A	13-May-2023	16-Jun-2023	----	----		16-Jun-2023	365 days	34 days	✔	
Metals : Metals by CRC ICPMS (DRY units, Biopsy)											
LDPE bag POL_LSU-Ki-2_2023-05	E475	16-May-2023	20-Jun-2023	----	----		22-Jun-2023	730 days	37 days	✔	
Metals : Metals by CRC ICPMS (DRY units, Biopsy)											
LDPE bag POL_LSU-Ki-5_2023-05	E475	16-May-2023	20-Jun-2023	----	----		22-Jun-2023	730 days	37 days	✔	
Metals : Metals by CRC ICPMS (DRY units, Biopsy)											
LDPE bag POL_LSU-Ki-6_2023-05	E475	16-May-2023	20-Jun-2023	----	----		22-Jun-2023	730 days	37 days	✔	
Metals : Metals by CRC ICPMS (DRY units, Biopsy)											
LDPE bag BOL_RB-Ki-7_2023-05	E475	15-May-2023	20-Jun-2023	----	----		22-Jun-2023	730 days	38 days	✔	
Metals : Metals by CRC ICPMS (DRY units, Biopsy)											
LDPE bag BOL_RB-Ki-8_2023-05	E475	15-May-2023	20-Jun-2023	----	----		22-Jun-2023	730 days	38 days	✔	
Metals : Metals by CRC ICPMS (DRY units, Biopsy)											
LDPE bag BOL_RB-Ki-5_2023-05	E475	14-May-2023	20-Jun-2023	----	----		22-Jun-2023	730 days	39 days	✔	



Matrix: **Biota** Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Metals : Metals by CRC ICPMS (DRY units, Biopsy)											
LDPE bag BOL_RB-Ki-5X_2023-05	E475	14-May-2023	20-Jun-2023	----	----		22-Jun-2023	730 days	39 days	✔	
Metals : Metals by CRC ICPMS (DRY units, Biopsy)											
LDPE bag BOL_RB-Ki-6_2023-05	E475	14-May-2023	20-Jun-2023	----	----		22-Jun-2023	730 days	39 days	✔	
Metals : Metals by CRC ICPMS (DRY units, Biopsy)											
LDPE bag BOL_RB-Li-5X_2023-05	E475	14-May-2023	20-Jun-2023	----	----		22-Jun-2023	730 days	39 days	✔	
Metals : Metals by CRC ICPMS (DRY units, Biopsy)											
LDPE bag BOL_RB-Li-7_2023-05	E475	15-May-2023	20-Jun-2023	----	----		22-Jun-2023	730 days	39 days	✔	
Metals : Metals by CRC ICPMS (DRY units, Biopsy)											
LDPE bag BOL_RB-Li-8_2023-05	E475	15-May-2023	20-Jun-2023	----	----		22-Jun-2023	730 days	39 days	✔	
Metals : Metals by CRC ICPMS (DRY units, Biopsy)											
LDPE bag BOL_RB-Ki-1_2023-05	E475	14-May-2023	20-Jun-2023	----	----		22-Jun-2023	730 days	40 days	✔	
Metals : Metals by CRC ICPMS (DRY units, Biopsy)											
LDPE bag BOL_RB-Ki-2_2023-05	E475	14-May-2023	20-Jun-2023	----	----		22-Jun-2023	730 days	40 days	✔	
Metals : Metals by CRC ICPMS (DRY units, Biopsy)											
LDPE bag BOL_RB-Ki-3_2023-05	E475	14-May-2023	20-Jun-2023	----	----		22-Jun-2023	730 days	40 days	✔	
Metals : Metals by CRC ICPMS (DRY units, Biopsy)											
LDPE bag BOL_RB-Ki-4_2023-05	E475	14-May-2023	20-Jun-2023	----	----		22-Jun-2023	730 days	40 days	✔	



Matrix: **Biota** Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Metals : Metals by CRC ICPMS (DRY units, Biopsy)											
LDPE bag BOL_RB-Li-3_2023-05	E475	14-May-2023	20-Jun-2023	----	----		22-Jun-2023	730 days	40 days	✔	
Metals : Metals by CRC ICPMS (DRY units, Biopsy)											
LDPE bag BOL_RB-Li-4_2023-05	E475	14-May-2023	20-Jun-2023	----	----		22-Jun-2023	730 days	40 days	✔	
Metals : Metals by CRC ICPMS (DRY units, Biopsy)											
LDPE bag BOL_RB-Li-5_2023-05	E475	14-May-2023	20-Jun-2023	----	----		22-Jun-2023	730 days	40 days	✔	
Metals : Metals by CRC ICPMS (DRY units, Biopsy)											
LDPE bag BOL_RB-Li-6_2023-05	E475	14-May-2023	20-Jun-2023	----	----		22-Jun-2023	730 days	40 days	✔	
Metals : Metals by CRC ICPMS (DRY units, Biopsy)											
LDPE bag POL_LSU-Ki-1_2023-05	E475	13-May-2023	20-Jun-2023	----	----		22-Jun-2023	730 days	40 days	✔	
Metals : Metals by CRC ICPMS (DRY units, Biopsy)											
LDPE bag POL_LSU-Ki-1X_2023-05	E475	13-May-2023	20-Jun-2023	----	----		22-Jun-2023	730 days	40 days	✔	
Metals : Metals by CRC ICPMS (DRY units, Biopsy)											
LDPE bag POL_RB-Ki-7X_2023-05	E475	13-May-2023	20-Jun-2023	----	----		22-Jun-2023	730 days	40 days	✔	
Metals : Metals by CRC ICPMS (DRY units, Biopsy)											
LDPE bag POL_RB-Li-7X_2023-05	E475	13-May-2023	20-Jun-2023	----	----		22-Jun-2023	730 days	40 days	✔	
Metals : Metals by CRC ICPMS (DRY units, Biopsy)											
LDPE bag POL_RB-Ki-6_2023-05	E475	13-May-2023	20-Jun-2023	----	----		22-Jun-2023	730 days	41 days	✔	



Matrix: **Biota** Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Metals : Metals by CRC ICPMS (DRY units, Biopsy)											
LDPE bag POL_RB-Ki-7_2023-05	E475	13-May-2023	20-Jun-2023	----	----		22-Jun-2023	730 days	41 days	✔	
Metals : Metals by CRC ICPMS (DRY units, Biopsy)											
LDPE bag POL_RB-Li-7_2023-05	E475	13-May-2023	20-Jun-2023	----	----		22-Jun-2023	730 days	41 days	✔	
Metals : Metals by CRC ICPMS (DRY units, Biopsy)											
LDPE bag POL_RB-Ki-2_2023-05	E475	12-May-2023	20-Jun-2023	----	----		22-Jun-2023	730 days	42 days	✔	
Metals : Metals by CRC ICPMS (DRY units, Biopsy)											
LDPE bag POL_RB-Ki-3_2023-05	E475	12-May-2023	20-Jun-2023	----	----		22-Jun-2023	730 days	42 days	✔	
Metals : Metals by CRC ICPMS (DRY units, Biopsy)											
LDPE bag POL_RB-Ki-5_2023-05	E475	12-May-2023	20-Jun-2023	----	----		22-Jun-2023	730 days	42 days	✔	
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag POL_LSU-Li-2_2023-05	E472	16-May-2023	20-Jun-2023	----	----		22-Jun-2023	730 days	38 days	✔	
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag BOL_RB-O-7_2023-05	E472	15-May-2023	20-Jun-2023	----	----		22-Jun-2023	730 days	39 days	✔	
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag BOL_RB-Li-1_2023-05	E472	14-May-2023	20-Jun-2023	----	----		22-Jun-2023	730 days	40 days	✔	
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag BOL_RB-Li-2_2023-05	E472	14-May-2023	20-Jun-2023	----	----		22-Jun-2023	730 days	40 days	✔	



Matrix: Biota Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag POL_LSU-Li-1_2023-05	E472	13-May-2023	20-Jun-2023	----	----		22-Jun-2023	730 days	41 days	✔	
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag POL_RB-Ki-8_2023-05	E472	13-May-2023	20-Jun-2023	----	----		22-Jun-2023	730 days	41 days	✔	
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag POL_RB-Li-6_2023-05	E472	13-May-2023	20-Jun-2023	----	----		22-Jun-2023	730 days	41 days	✔	
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag POL_RB-Li-8_2023-05	E472	13-May-2023	20-Jun-2023	----	----		22-Jun-2023	730 days	41 days	✔	
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag POL_LSU-Ki-3_2023-05	E472	16-May-2023	23-Jun-2023	----	----		26-Jun-2023	730 days	42 days	✔	
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag POL_LSU-Ki-4_2023-05	E472	16-May-2023	23-Jun-2023	----	----		26-Jun-2023	730 days	42 days	✔	
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag POL_LSU-Ki-7_2023-05	E472	16-May-2023	23-Jun-2023	----	----		26-Jun-2023	730 days	42 days	✔	
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag POL_LSU-Ki-8_2023-05	E472	16-May-2023	23-Jun-2023	----	----		26-Jun-2023	730 days	42 days	✔	
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag POL_LSU-Li-3_2023-05	E472	16-May-2023	23-Jun-2023	----	----		26-Jun-2023	730 days	42 days	✔	



Matrix: **Biota** Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag POL_LSU-Li-4_2023-05	E472	16-May-2023	23-Jun-2023	----	----		26-Jun-2023	730 days	42 days	✔	
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag POL_LSU-Li-5_2023-05	E472	16-May-2023	23-Jun-2023	----	----		26-Jun-2023	730 days	42 days	✔	
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag POL_LSU-Li-6_2023-05	E472	16-May-2023	23-Jun-2023	----	----		26-Jun-2023	730 days	42 days	✔	
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag POL_RB-Ki-1_2023-05	E472	12-May-2023	20-Jun-2023	----	----		22-Jun-2023	730 days	42 days	✔	
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag POL_RB-Ki-4_2023-05	E472	12-May-2023	20-Jun-2023	----	----		22-Jun-2023	730 days	42 days	✔	
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag POL_RB-Li-1_2023-05	E472	12-May-2023	20-Jun-2023	----	----		22-Jun-2023	730 days	42 days	✔	
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag POL_RB-Li-2_2023-05	E472	12-May-2023	20-Jun-2023	----	----		22-Jun-2023	730 days	42 days	✔	
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag POL_RB-Li-3_2023-05	E472	12-May-2023	20-Jun-2023	----	----		22-Jun-2023	730 days	42 days	✔	
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag POL_RB-Li-4_2023-05	E472	12-May-2023	20-Jun-2023	----	----		22-Jun-2023	730 days	42 days	✔	



Matrix: Biota Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag POL_RB-Li-5_2023-05	E472	12-May-2023	20-Jun-2023	----	----		22-Jun-2023	730 days	42 days	✔	
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag BOL_LSU-Ki-1_2023-05	E472	14-May-2023	23-Jun-2023	----	----		26-Jun-2023	730 days	44 days	✔	
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag BOL_LSU-Ki-2_2023-05	E472	14-May-2023	23-Jun-2023	----	----		26-Jun-2023	730 days	44 days	✔	
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag BOL_LSU-Ki-4_2023-05	E472	14-May-2023	23-Jun-2023	----	----		26-Jun-2023	730 days	44 days	✔	
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag BOL_LSU-Ki-6_2023-05	E472	14-May-2023	23-Jun-2023	----	----		26-Jun-2023	730 days	44 days	✔	
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag POL_LSU-Li-1X_2023-05	E472	13-May-2023	23-Jun-2023	----	----		26-Jun-2023	730 days	45 days	✔	
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag POL_LSU-M-2_2023-05	E440	16-May-2023	14-Jun-2023	----	----		14-Jun-2023	730 days	30 days	✔	
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag POL_LSU-M-3_2023-05	E440	16-May-2023	14-Jun-2023	----	----		14-Jun-2023	730 days	30 days	✔	
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag POL_LSU-M-4_2023-05	E440	16-May-2023	14-Jun-2023	----	----		14-Jun-2023	730 days	30 days	✔	



Matrix: **Biota** Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag POL_LSU-M-5_2023-05	E440	16-May-2023	14-Jun-2023	----	----		14-Jun-2023	730 days	30 days	✔	
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag POL_LSU-M-6_2023-05	E440	16-May-2023	14-Jun-2023	----	----		14-Jun-2023	730 days	30 days	✔	
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag POL_LSU-M-7_2023-05	E440	16-May-2023	14-Jun-2023	----	----		14-Jun-2023	730 days	30 days	✔	
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag POL_LSU-M-8_2023-05	E440	16-May-2023	14-Jun-2023	----	----		14-Jun-2023	730 days	30 days	✔	
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag BOL_RB-M-7_2023-05	E440	15-May-2023	14-Jun-2023	----	----		14-Jun-2023	730 days	31 days	✔	
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag BOL_RB-M-8_2023-05	E440	15-May-2023	14-Jun-2023	----	----		14-Jun-2023	730 days	31 days	✔	
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag BOL_RB-O-8_2023-05	E440	15-May-2023	14-Jun-2023	----	----		14-Jun-2023	730 days	31 days	✔	
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag POL_LSU-Li-7_2023-05	E440	16-May-2023	16-Jun-2023	----	----		16-Jun-2023	730 days	31 days	✔	
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag POL_LSU-Li-8_2023-05	E440	16-May-2023	16-Jun-2023	----	----		16-Jun-2023	730 days	31 days	✔	



Matrix: Biota Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag POL_LSU-O-2_2023-05	E440	16-May-2023	16-Jun-2023	----	----		16-Jun-2023	730 days	31 days	✔	
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag POL_LSU-O-3_2023-05	E440	16-May-2023	16-Jun-2023	----	----		16-Jun-2023	730 days	31 days	✔	
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag POL_LSU-O-4_2023-05	E440	16-May-2023	16-Jun-2023	----	----		16-Jun-2023	730 days	31 days	✔	
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag POL_LSU-O-5_2023-05	E440	16-May-2023	16-Jun-2023	----	----		16-Jun-2023	730 days	31 days	✔	
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag POL_LSU-O-6_2023-05	E440	16-May-2023	16-Jun-2023	----	----		16-Jun-2023	730 days	31 days	✔	
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag POL_LSU-O-7_2023-05	E440	16-May-2023	16-Jun-2023	----	----		16-Jun-2023	730 days	31 days	✔	
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag POL_LSU-O-8_2023-05	E440	16-May-2023	16-Jun-2023	----	----		16-Jun-2023	730 days	31 days	✔	
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag BOL_RB-M-1_2023-05	E440	14-May-2023	14-Jun-2023	----	----		14-Jun-2023	730 days	32 days	✔	
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag BOL_RB-M-2_2023-05	E440	14-May-2023	14-Jun-2023	----	----		14-Jun-2023	730 days	32 days	✔	



Matrix: Biota Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag BOL_RB-M-3_2023-05	E440	14-May-2023	14-Jun-2023	----	----		14-Jun-2023	730 days	32 days	✔	
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag BOL_RB-M-4_2023-05	E440	14-May-2023	14-Jun-2023	----	----		14-Jun-2023	730 days	32 days	✔	
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag BOL_RB-M-5_2023-05	E440	14-May-2023	14-Jun-2023	----	----		14-Jun-2023	730 days	32 days	✔	
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag BOL_RB-M-6_2023-05	E440	14-May-2023	14-Jun-2023	----	----		14-Jun-2023	730 days	32 days	✔	
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag BOL_RB-O-1_2023-05	E440	14-May-2023	14-Jun-2023	----	----		14-Jun-2023	730 days	32 days	✔	
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag BOL_RB-O-2_2023-05	E440	14-May-2023	14-Jun-2023	----	----		14-Jun-2023	730 days	32 days	✔	
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag BOL_RB-O-3_2023-05	E440	14-May-2023	14-Jun-2023	----	----		14-Jun-2023	730 days	32 days	✔	
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag BOL_RB-O-4_2023-05	E440	14-May-2023	14-Jun-2023	----	----		14-Jun-2023	730 days	32 days	✔	
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag BOL_RB-O-5_2023-05	E440	14-May-2023	14-Jun-2023	----	----		14-Jun-2023	730 days	32 days	✔	



Matrix: Biota Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag BOL_RB-O-6_2023-05	E440	14-May-2023	14-Jun-2023	----	----		14-Jun-2023	730 days	32 days	✔	
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag BOL_LSU-Ki-3_2023-05	E440	14-May-2023	16-Jun-2023	----	----		16-Jun-2023	730 days	33 days	✔	
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag BOL_LSU-Ki-5_2023-05	E440	14-May-2023	16-Jun-2023	----	----		16-Jun-2023	730 days	33 days	✔	
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag BOL_LSU-Ki-7_2023-05	E440	14-May-2023	16-Jun-2023	----	----		16-Jun-2023	730 days	33 days	✔	
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag BOL_LSU-Ki-8_2023-05	E440	14-May-2023	16-Jun-2023	----	----		16-Jun-2023	730 days	33 days	✔	
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag BOL_LSU-M-1_2023-05	E440	14-May-2023	16-Jun-2023	----	----		16-Jun-2023	730 days	33 days	✔	
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag BOL_LSU-M-2_2023-05	E440	14-May-2023	16-Jun-2023	----	----		16-Jun-2023	730 days	33 days	✔	
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag BOL_LSU-M-3_2023-05	E440	14-May-2023	16-Jun-2023	----	----		16-Jun-2023	730 days	33 days	✔	
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag BOL_LSU-M-4_2023-05	E440	14-May-2023	16-Jun-2023	----	----		16-Jun-2023	730 days	33 days	✔	



Matrix: Biota Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag BOL_LSU-M-5_2023-05	E440	14-May-2023	16-Jun-2023	----	----		16-Jun-2023	730 days	33 days	✔	
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag BOL_LSU-M-6_2023-05	E440	14-May-2023	16-Jun-2023	----	----		16-Jun-2023	730 days	33 days	✔	
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag BOL_LSU-M-7_2023-05	E440	14-May-2023	16-Jun-2023	----	----		16-Jun-2023	730 days	33 days	✔	
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag BOL_LSU-M-8_2023-05	E440	14-May-2023	16-Jun-2023	----	----		16-Jun-2023	730 days	33 days	✔	
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag BOL_LSU-O-1_2023-05	E440	14-May-2023	16-Jun-2023	----	----		16-Jun-2023	730 days	33 days	✔	
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag BOL_LSU-O-2_2023-05	E440	14-May-2023	16-Jun-2023	----	----		16-Jun-2023	730 days	33 days	✔	
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag BOL_LSU-O-3_2023-05	E440	14-May-2023	16-Jun-2023	----	----		16-Jun-2023	730 days	33 days	✔	
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag BOL_RB-M-5X_2023-05	E440	14-May-2023	16-Jun-2023	----	----		16-Jun-2023	730 days	33 days	✔	
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag BOL_RB-O-5X_2023-05	E440	14-May-2023	16-Jun-2023	----	----		16-Jun-2023	730 days	33 days	✔	



Matrix: Biota Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag POL_LSU-M-1_2023-05	E440	13-May-2023	14-Jun-2023	----	----		14-Jun-2023	730 days	33 days	✔	
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag POL_LSU-O-1_2023-05	E440	13-May-2023	14-Jun-2023	----	----		14-Jun-2023	730 days	33 days	✔	
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag POL_RB-M-6_2023-05	E440	13-May-2023	14-Jun-2023	----	----		14-Jun-2023	730 days	33 days	✔	
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag POL_RB-M-7_2023-05	E440	13-May-2023	14-Jun-2023	----	----		14-Jun-2023	730 days	33 days	✔	
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag POL_RB-M-8_2023-05	E440	13-May-2023	14-Jun-2023	----	----		14-Jun-2023	730 days	33 days	✔	
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag POL_RB-O-6_2023-05	E440	13-May-2023	14-Jun-2023	----	----		14-Jun-2023	730 days	33 days	✔	
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag POL_RB-O-7_2023-05	E440	13-May-2023	14-Jun-2023	----	----		14-Jun-2023	730 days	33 days	✔	
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag POL_RB-O-8_2023-05	E440	13-May-2023	14-Jun-2023	----	----		14-Jun-2023	730 days	33 days	✔	
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag BOL_LSU-Li-1_2023-05	E440	14-May-2023	16-Jun-2023	----	----		16-Jun-2023	730 days	34 days	✔	



Matrix: Biota

Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag BOL_LSU-Li-2_2023-05	E440	14-May-2023	16-Jun-2023	----	----		16-Jun-2023	730 days	34 days	✔	
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag BOL_LSU-Li-3_2023-05	E440	14-May-2023	16-Jun-2023	----	----		16-Jun-2023	730 days	34 days	✔	
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag BOL_LSU-Li-4_2023-05	E440	14-May-2023	16-Jun-2023	----	----		16-Jun-2023	730 days	34 days	✔	
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag BOL_LSU-Li-5_2023-05	E440	14-May-2023	16-Jun-2023	----	----		16-Jun-2023	730 days	34 days	✔	
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag BOL_LSU-Li-6_2023-05	E440	14-May-2023	16-Jun-2023	----	----		16-Jun-2023	730 days	34 days	✔	
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag BOL_LSU-Li-7_2023-05	E440	14-May-2023	16-Jun-2023	----	----		16-Jun-2023	730 days	34 days	✔	
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag BOL_LSU-Li-8_2023-05	E440	14-May-2023	16-Jun-2023	----	----		16-Jun-2023	730 days	34 days	✔	
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag BOL_LSU-O-4_2023-05	E440	14-May-2023	16-Jun-2023	----	----		16-Jun-2023	730 days	34 days	✔	
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag BOL_LSU-O-5_2023-05	E440	14-May-2023	16-Jun-2023	----	----		16-Jun-2023	730 days	34 days	✔	



Matrix: Biota Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag BOL_LSU-O-6_2023-05	E440	14-May-2023	16-Jun-2023	----	----		16-Jun-2023	730 days	34 days	✔	
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag BOL_LSU-O-7_2023-05	E440	14-May-2023	16-Jun-2023	----	----		16-Jun-2023	730 days	34 days	✔	
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag BOL_LSU-O-8_2023-05	E440	14-May-2023	16-Jun-2023	----	----		16-Jun-2023	730 days	34 days	✔	
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag POL_LSU-M-1X_2023-05	E440	13-May-2023	16-Jun-2023	----	----		16-Jun-2023	730 days	34 days	✔	
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag POL_LSU-O-1X_2023-05	E440	13-May-2023	16-Jun-2023	----	----		16-Jun-2023	730 days	34 days	✔	
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag POL_RB-M-1_2023-05	E440	12-May-2023	14-Jun-2023	----	----		14-Jun-2023	730 days	34 days	✔	
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag POL_RB-M-2_2023-05	E440	12-May-2023	14-Jun-2023	----	----		14-Jun-2023	730 days	34 days	✔	
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag POL_RB-M-3_2023-05	E440	12-May-2023	14-Jun-2023	----	----		14-Jun-2023	730 days	34 days	✔	
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag POL_RB-M-4_2023-05	E440	12-May-2023	14-Jun-2023	----	----		14-Jun-2023	730 days	34 days	✔	



Matrix: Biota Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag POL_RB-M-5_2023-05	E440	12-May-2023	14-Jun-2023	----	----		14-Jun-2023	730 days	34 days	✔	
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag POL_RB-M-7X_2023-05	E440	13-May-2023	16-Jun-2023	----	----		16-Jun-2023	730 days	34 days	✔	
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag POL_RB-O-1_2023-05	E440	12-May-2023	14-Jun-2023	----	----		14-Jun-2023	730 days	34 days	✔	
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag POL_RB-O-2_2023-05	E440	12-May-2023	14-Jun-2023	----	----		14-Jun-2023	730 days	34 days	✔	
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag POL_RB-O-3_2023-05	E440	12-May-2023	14-Jun-2023	----	----		14-Jun-2023	730 days	34 days	✔	
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag POL_RB-O-4_2023-05	E440	12-May-2023	14-Jun-2023	----	----		14-Jun-2023	730 days	34 days	✔	
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag POL_RB-O-5_2023-05	E440	12-May-2023	14-Jun-2023	----	----		14-Jun-2023	730 days	34 days	✔	
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag POL_RB-O-7X_2023-05	E440	13-May-2023	16-Jun-2023	----	----		16-Jun-2023	730 days	34 days	✔	
Metals : Silver in Biota by CRC ICPMS (DRY units, Biopsy)											
LDPE bag POL_LSU-Ki-2_2023-05	E475.Ag	16-May-2023	20-Jun-2023	----	----		22-Jun-2023	730 days	37 days	✔	



Matrix: Biota Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Metals : Silver in Biota by CRC ICPMS (DRY units, Biopsy)											
LDPE bag POL_LSU-Ki-5_2023-05	E475.Ag	16-May-2023	20-Jun-2023	----	----		22-Jun-2023	730 days	37 days	✔	
Metals : Silver in Biota by CRC ICPMS (DRY units, Biopsy)											
LDPE bag POL_LSU-Ki-6_2023-05	E475.Ag	16-May-2023	20-Jun-2023	----	----		22-Jun-2023	730 days	37 days	✔	
Metals : Silver in Biota by CRC ICPMS (DRY units, Biopsy)											
LDPE bag BOL_RB-Ki-7_2023-05	E475.Ag	15-May-2023	20-Jun-2023	----	----		22-Jun-2023	730 days	38 days	✔	
Metals : Silver in Biota by CRC ICPMS (DRY units, Biopsy)											
LDPE bag BOL_RB-Ki-8_2023-05	E475.Ag	15-May-2023	20-Jun-2023	----	----		22-Jun-2023	730 days	38 days	✔	
Metals : Silver in Biota by CRC ICPMS (DRY units, Biopsy)											
LDPE bag BOL_RB-Ki-5_2023-05	E475.Ag	14-May-2023	20-Jun-2023	----	----		22-Jun-2023	730 days	39 days	✔	
Metals : Silver in Biota by CRC ICPMS (DRY units, Biopsy)											
LDPE bag BOL_RB-Ki-5X_2023-05	E475.Ag	14-May-2023	20-Jun-2023	----	----		22-Jun-2023	730 days	39 days	✔	
Metals : Silver in Biota by CRC ICPMS (DRY units, Biopsy)											
LDPE bag BOL_RB-Ki-6_2023-05	E475.Ag	14-May-2023	20-Jun-2023	----	----		22-Jun-2023	730 days	39 days	✔	
Metals : Silver in Biota by CRC ICPMS (DRY units, Biopsy)											
LDPE bag BOL_RB-Li-5X_2023-05	E475.Ag	14-May-2023	20-Jun-2023	----	----		22-Jun-2023	730 days	39 days	✔	
Metals : Silver in Biota by CRC ICPMS (DRY units, Biopsy)											
LDPE bag BOL_RB-Li-7_2023-05	E475.Ag	15-May-2023	20-Jun-2023	----	----		22-Jun-2023	730 days	39 days	✔	



Matrix: **Biota** Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Metals : Silver in Biota by CRC ICPMS (DRY units, Biopsy)											
LDPE bag BOL_RB-Li-8_2023-05	E475.Ag	15-May-2023	20-Jun-2023	----	----		22-Jun-2023	730 days	39 days	✔	
Metals : Silver in Biota by CRC ICPMS (DRY units, Biopsy)											
LDPE bag BOL_RB-Ki-1_2023-05	E475.Ag	14-May-2023	20-Jun-2023	----	----		22-Jun-2023	730 days	40 days	✔	
Metals : Silver in Biota by CRC ICPMS (DRY units, Biopsy)											
LDPE bag BOL_RB-Ki-2_2023-05	E475.Ag	14-May-2023	20-Jun-2023	----	----		22-Jun-2023	730 days	40 days	✔	
Metals : Silver in Biota by CRC ICPMS (DRY units, Biopsy)											
LDPE bag BOL_RB-Ki-3_2023-05	E475.Ag	14-May-2023	20-Jun-2023	----	----		22-Jun-2023	730 days	40 days	✔	
Metals : Silver in Biota by CRC ICPMS (DRY units, Biopsy)											
LDPE bag BOL_RB-Ki-4_2023-05	E475.Ag	14-May-2023	20-Jun-2023	----	----		22-Jun-2023	730 days	40 days	✔	
Metals : Silver in Biota by CRC ICPMS (DRY units, Biopsy)											
LDPE bag BOL_RB-Li-3_2023-05	E475.Ag	14-May-2023	20-Jun-2023	----	----		22-Jun-2023	730 days	40 days	✔	
Metals : Silver in Biota by CRC ICPMS (DRY units, Biopsy)											
LDPE bag BOL_RB-Li-4_2023-05	E475.Ag	14-May-2023	20-Jun-2023	----	----		22-Jun-2023	730 days	40 days	✔	
Metals : Silver in Biota by CRC ICPMS (DRY units, Biopsy)											
LDPE bag BOL_RB-Li-5_2023-05	E475.Ag	14-May-2023	20-Jun-2023	----	----		22-Jun-2023	730 days	40 days	✔	
Metals : Silver in Biota by CRC ICPMS (DRY units, Biopsy)											
LDPE bag BOL_RB-Li-6_2023-05	E475.Ag	14-May-2023	20-Jun-2023	----	----		22-Jun-2023	730 days	40 days	✔	



Matrix: Biota Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Metals : Silver in Biota by CRC ICPMS (DRY units, Biopsy)											
LDPE bag POL_LSU-Ki-1_2023-05	E475.Ag	13-May-2023	20-Jun-2023	----	----		22-Jun-2023	730 days	40 days	✔	
Metals : Silver in Biota by CRC ICPMS (DRY units, Biopsy)											
LDPE bag POL_LSU-Ki-1X_2023-05	E475.Ag	13-May-2023	20-Jun-2023	----	----		22-Jun-2023	730 days	40 days	✔	
Metals : Silver in Biota by CRC ICPMS (DRY units, Biopsy)											
LDPE bag POL_RB-Ki-7X_2023-05	E475.Ag	13-May-2023	20-Jun-2023	----	----		22-Jun-2023	730 days	40 days	✔	
Metals : Silver in Biota by CRC ICPMS (DRY units, Biopsy)											
LDPE bag POL_RB-Li-7X_2023-05	E475.Ag	13-May-2023	20-Jun-2023	----	----		22-Jun-2023	730 days	40 days	✔	
Metals : Silver in Biota by CRC ICPMS (DRY units, Biopsy)											
LDPE bag POL_RB-Ki-6_2023-05	E475.Ag	13-May-2023	20-Jun-2023	----	----		22-Jun-2023	730 days	41 days	✔	
Metals : Silver in Biota by CRC ICPMS (DRY units, Biopsy)											
LDPE bag POL_RB-Ki-7_2023-05	E475.Ag	13-May-2023	20-Jun-2023	----	----		22-Jun-2023	730 days	41 days	✔	
Metals : Silver in Biota by CRC ICPMS (DRY units, Biopsy)											
LDPE bag POL_RB-Li-7_2023-05	E475.Ag	13-May-2023	20-Jun-2023	----	----		22-Jun-2023	730 days	41 days	✔	
Metals : Silver in Biota by CRC ICPMS (DRY units, Biopsy)											
LDPE bag POL_RB-Ki-2_2023-05	E475.Ag	12-May-2023	20-Jun-2023	----	----		22-Jun-2023	730 days	42 days	✔	
Metals : Silver in Biota by CRC ICPMS (DRY units, Biopsy)											
LDPE bag POL_RB-Ki-3_2023-05	E475.Ag	12-May-2023	20-Jun-2023	----	----		22-Jun-2023	730 days	42 days	✔	



Matrix: Biota Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Metals : Silver in Biota by CRC ICPMS (DRY units, Biopsy)										
LDPE bag POL_RB-Ki-5_2023-05	E475.Ag	12-May-2023	20-Jun-2023	----	----		22-Jun-2023	730 days	42 days	✔
Metals : Silver in Biota by CRC ICPMS (DRY units, Micro)										
LDPE bag POL_LSU-Li-2_2023-05	E472.Ag	16-May-2023	20-Jun-2023	----	----		22-Jun-2023	730 days	38 days	✔
Metals : Silver in Biota by CRC ICPMS (DRY units, Micro)										
LDPE bag BOL_RB-O-7_2023-05	E472.Ag	15-May-2023	20-Jun-2023	----	----		22-Jun-2023	730 days	39 days	✔
Metals : Silver in Biota by CRC ICPMS (DRY units, Micro)										
LDPE bag BOL_RB-Li-1_2023-05	E472.Ag	14-May-2023	20-Jun-2023	----	----		22-Jun-2023	730 days	40 days	✔
Metals : Silver in Biota by CRC ICPMS (DRY units, Micro)										
LDPE bag BOL_RB-Li-2_2023-05	E472.Ag	14-May-2023	20-Jun-2023	----	----		22-Jun-2023	730 days	40 days	✔
Metals : Silver in Biota by CRC ICPMS (DRY units, Micro)										
LDPE bag POL_LSU-Li-1_2023-05	E472.Ag	13-May-2023	20-Jun-2023	----	----		22-Jun-2023	730 days	41 days	✔
Metals : Silver in Biota by CRC ICPMS (DRY units, Micro)										
LDPE bag POL_RB-Ki-8_2023-05	E472.Ag	13-May-2023	20-Jun-2023	----	----		22-Jun-2023	730 days	41 days	✔
Metals : Silver in Biota by CRC ICPMS (DRY units, Micro)										
LDPE bag POL_RB-Li-6_2023-05	E472.Ag	13-May-2023	20-Jun-2023	----	----		22-Jun-2023	730 days	41 days	✔
Metals : Silver in Biota by CRC ICPMS (DRY units, Micro)										
LDPE bag POL_RB-Li-8_2023-05	E472.Ag	13-May-2023	20-Jun-2023	----	----		22-Jun-2023	730 days	41 days	✔



Matrix: **Biota** Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Metals : Silver in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag POL_LSU-Ki-3_2023-05	E472.Ag	16-May-2023	23-Jun-2023	----	----		26-Jun-2023	730 days	42 days	✔	
Metals : Silver in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag POL_LSU-Ki-4_2023-05	E472.Ag	16-May-2023	23-Jun-2023	----	----		26-Jun-2023	730 days	42 days	✔	
Metals : Silver in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag POL_LSU-Ki-7_2023-05	E472.Ag	16-May-2023	23-Jun-2023	----	----		26-Jun-2023	730 days	42 days	✔	
Metals : Silver in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag POL_LSU-Ki-8_2023-05	E472.Ag	16-May-2023	23-Jun-2023	----	----		26-Jun-2023	730 days	42 days	✔	
Metals : Silver in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag POL_LSU-Li-3_2023-05	E472.Ag	16-May-2023	23-Jun-2023	----	----		26-Jun-2023	730 days	42 days	✔	
Metals : Silver in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag POL_LSU-Li-4_2023-05	E472.Ag	16-May-2023	23-Jun-2023	----	----		26-Jun-2023	730 days	42 days	✔	
Metals : Silver in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag POL_LSU-Li-5_2023-05	E472.Ag	16-May-2023	23-Jun-2023	----	----		26-Jun-2023	730 days	42 days	✔	
Metals : Silver in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag POL_LSU-Li-6_2023-05	E472.Ag	16-May-2023	23-Jun-2023	----	----		26-Jun-2023	730 days	42 days	✔	
Metals : Silver in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag POL_RB-Ki-1_2023-05	E472.Ag	12-May-2023	20-Jun-2023	----	----		22-Jun-2023	730 days	42 days	✔	



Matrix: **Biota** Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Metals : Silver in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag POL_RB-Ki-4_2023-05	E472.Ag	12-May-2023	20-Jun-2023	----	----		22-Jun-2023	730 days	42 days	✔	
Metals : Silver in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag POL_RB-Li-1_2023-05	E472.Ag	12-May-2023	20-Jun-2023	----	----		22-Jun-2023	730 days	42 days	✔	
Metals : Silver in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag POL_RB-Li-2_2023-05	E472.Ag	12-May-2023	20-Jun-2023	----	----		22-Jun-2023	730 days	42 days	✔	
Metals : Silver in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag POL_RB-Li-3_2023-05	E472.Ag	12-May-2023	20-Jun-2023	----	----		22-Jun-2023	730 days	42 days	✔	
Metals : Silver in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag POL_RB-Li-4_2023-05	E472.Ag	12-May-2023	20-Jun-2023	----	----		22-Jun-2023	730 days	42 days	✔	
Metals : Silver in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag POL_RB-Li-5_2023-05	E472.Ag	12-May-2023	20-Jun-2023	----	----		22-Jun-2023	730 days	42 days	✔	
Metals : Silver in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag BOL_LSU-Ki-1_2023-05	E472.Ag	14-May-2023	23-Jun-2023	----	----		26-Jun-2023	730 days	44 days	✔	
Metals : Silver in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag BOL_LSU-Ki-2_2023-05	E472.Ag	14-May-2023	23-Jun-2023	----	----		26-Jun-2023	730 days	44 days	✔	
Metals : Silver in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag BOL_LSU-Ki-4_2023-05	E472.Ag	14-May-2023	23-Jun-2023	----	----		26-Jun-2023	730 days	44 days	✔	



Matrix: Biota Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Metals : Silver in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag BOL_LSU-Ki-6_2023-05	E472.Ag	14-May-2023	23-Jun-2023	----	----		26-Jun-2023	730 days	44 days	✔	
Metals : Silver in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag POL_LSU-Li-1X_2023-05	E472.Ag	13-May-2023	23-Jun-2023	----	----		26-Jun-2023	730 days	45 days	✔	
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag POL_LSU-M-2_2023-05	E440.Ag	16-May-2023	14-Jun-2023	----	----		14-Jun-2023	730 days	30 days	✔	
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag POL_LSU-M-3_2023-05	E440.Ag	16-May-2023	14-Jun-2023	----	----		14-Jun-2023	730 days	30 days	✔	
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag POL_LSU-M-4_2023-05	E440.Ag	16-May-2023	14-Jun-2023	----	----		14-Jun-2023	730 days	30 days	✔	
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag POL_LSU-M-5_2023-05	E440.Ag	16-May-2023	14-Jun-2023	----	----		14-Jun-2023	730 days	30 days	✔	
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag POL_LSU-M-6_2023-05	E440.Ag	16-May-2023	14-Jun-2023	----	----		14-Jun-2023	730 days	30 days	✔	
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag POL_LSU-M-7_2023-05	E440.Ag	16-May-2023	14-Jun-2023	----	----		14-Jun-2023	730 days	30 days	✔	
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag POL_LSU-M-8_2023-05	E440.Ag	16-May-2023	14-Jun-2023	----	----		14-Jun-2023	730 days	30 days	✔	



Matrix: Biota Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag BOL_RB-M-7_2023-05	E440.Ag	15-May-2023	14-Jun-2023	----	----		14-Jun-2023	730 days	31 days	✔	
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag BOL_RB-M-8_2023-05	E440.Ag	15-May-2023	14-Jun-2023	----	----		14-Jun-2023	730 days	31 days	✔	
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag BOL_RB-O-8_2023-05	E440.Ag	15-May-2023	14-Jun-2023	----	----		14-Jun-2023	730 days	31 days	✔	
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag POL_LSU-Li-7_2023-05	E440.Ag	16-May-2023	16-Jun-2023	----	----		16-Jun-2023	730 days	31 days	✔	
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag POL_LSU-Li-8_2023-05	E440.Ag	16-May-2023	16-Jun-2023	----	----		16-Jun-2023	730 days	31 days	✔	
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag POL_LSU-O-2_2023-05	E440.Ag	16-May-2023	16-Jun-2023	----	----		16-Jun-2023	730 days	31 days	✔	
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag POL_LSU-O-3_2023-05	E440.Ag	16-May-2023	16-Jun-2023	----	----		16-Jun-2023	730 days	31 days	✔	
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag POL_LSU-O-4_2023-05	E440.Ag	16-May-2023	16-Jun-2023	----	----		16-Jun-2023	730 days	31 days	✔	
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag POL_LSU-O-5_2023-05	E440.Ag	16-May-2023	16-Jun-2023	----	----		16-Jun-2023	730 days	31 days	✔	



Matrix: **Biota** Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag POL_LSU-O-6_2023-05	E440.Ag	16-May-2023	16-Jun-2023	----	----		16-Jun-2023	730 days	31 days	✔
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag POL_LSU-O-7_2023-05	E440.Ag	16-May-2023	16-Jun-2023	----	----		16-Jun-2023	730 days	31 days	✔
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag POL_LSU-O-8_2023-05	E440.Ag	16-May-2023	16-Jun-2023	----	----		16-Jun-2023	730 days	31 days	✔
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag BOL_RB-M-1_2023-05	E440.Ag	14-May-2023	14-Jun-2023	----	----		14-Jun-2023	730 days	32 days	✔
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag BOL_RB-M-2_2023-05	E440.Ag	14-May-2023	14-Jun-2023	----	----		14-Jun-2023	730 days	32 days	✔
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag BOL_RB-M-3_2023-05	E440.Ag	14-May-2023	14-Jun-2023	----	----		14-Jun-2023	730 days	32 days	✔
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag BOL_RB-M-4_2023-05	E440.Ag	14-May-2023	14-Jun-2023	----	----		14-Jun-2023	730 days	32 days	✔
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag BOL_RB-M-5_2023-05	E440.Ag	14-May-2023	14-Jun-2023	----	----		14-Jun-2023	730 days	32 days	✔
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag BOL_RB-M-6_2023-05	E440.Ag	14-May-2023	14-Jun-2023	----	----		14-Jun-2023	730 days	32 days	✔



Matrix: Biota Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag BOL_RB-O-1_2023-05	E440.Ag	14-May-2023	14-Jun-2023	----	----		14-Jun-2023	730 days	32 days	✔	
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag BOL_RB-O-2_2023-05	E440.Ag	14-May-2023	14-Jun-2023	----	----		14-Jun-2023	730 days	32 days	✔	
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag BOL_RB-O-3_2023-05	E440.Ag	14-May-2023	14-Jun-2023	----	----		14-Jun-2023	730 days	32 days	✔	
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag BOL_RB-O-4_2023-05	E440.Ag	14-May-2023	14-Jun-2023	----	----		14-Jun-2023	730 days	32 days	✔	
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag BOL_RB-O-5_2023-05	E440.Ag	14-May-2023	14-Jun-2023	----	----		14-Jun-2023	730 days	32 days	✔	
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag BOL_RB-O-6_2023-05	E440.Ag	14-May-2023	14-Jun-2023	----	----		14-Jun-2023	730 days	32 days	✔	
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag BOL_LSU-Ki-3_2023-05	E440.Ag	14-May-2023	16-Jun-2023	----	----		16-Jun-2023	730 days	33 days	✔	
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag BOL_LSU-Ki-5_2023-05	E440.Ag	14-May-2023	16-Jun-2023	----	----		16-Jun-2023	730 days	33 days	✔	
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag BOL_LSU-Ki-7_2023-05	E440.Ag	14-May-2023	16-Jun-2023	----	----		16-Jun-2023	730 days	33 days	✔	



Matrix: **Biota** Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag BOL_LSU-Ki-8_2023-05	E440.Ag	14-May-2023	16-Jun-2023	----	----		16-Jun-2023	730 days	33 days	✔	
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag BOL_LSU-M-1_2023-05	E440.Ag	14-May-2023	16-Jun-2023	----	----		16-Jun-2023	730 days	33 days	✔	
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag BOL_LSU-M-2_2023-05	E440.Ag	14-May-2023	16-Jun-2023	----	----		16-Jun-2023	730 days	33 days	✔	
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag BOL_LSU-M-3_2023-05	E440.Ag	14-May-2023	16-Jun-2023	----	----		16-Jun-2023	730 days	33 days	✔	
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag BOL_LSU-M-4_2023-05	E440.Ag	14-May-2023	16-Jun-2023	----	----		16-Jun-2023	730 days	33 days	✔	
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag BOL_LSU-M-5_2023-05	E440.Ag	14-May-2023	16-Jun-2023	----	----		16-Jun-2023	730 days	33 days	✔	
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag BOL_LSU-M-6_2023-05	E440.Ag	14-May-2023	16-Jun-2023	----	----		16-Jun-2023	730 days	33 days	✔	
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag BOL_LSU-M-7_2023-05	E440.Ag	14-May-2023	16-Jun-2023	----	----		16-Jun-2023	730 days	33 days	✔	
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag BOL_LSU-M-8_2023-05	E440.Ag	14-May-2023	16-Jun-2023	----	----		16-Jun-2023	730 days	33 days	✔	



Matrix: Biota Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag BOL_LSU-O-1_2023-05	E440.Ag	14-May-2023	16-Jun-2023	----	----		16-Jun-2023	730 days	33 days	✔	
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag BOL_LSU-O-2_2023-05	E440.Ag	14-May-2023	16-Jun-2023	----	----		16-Jun-2023	730 days	33 days	✔	
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag BOL_LSU-O-3_2023-05	E440.Ag	14-May-2023	16-Jun-2023	----	----		16-Jun-2023	730 days	33 days	✔	
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag BOL_RB-M-5X_2023-05	E440.Ag	14-May-2023	16-Jun-2023	----	----		16-Jun-2023	730 days	33 days	✔	
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag BOL_RB-O-5X_2023-05	E440.Ag	14-May-2023	16-Jun-2023	----	----		16-Jun-2023	730 days	33 days	✔	
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag POL_LSU-M-1_2023-05	E440.Ag	13-May-2023	14-Jun-2023	----	----		14-Jun-2023	730 days	33 days	✔	
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag POL_LSU-O-1_2023-05	E440.Ag	13-May-2023	14-Jun-2023	----	----		14-Jun-2023	730 days	33 days	✔	
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag POL_RB-M-6_2023-05	E440.Ag	13-May-2023	14-Jun-2023	----	----		14-Jun-2023	730 days	33 days	✔	
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag POL_RB-M-7_2023-05	E440.Ag	13-May-2023	14-Jun-2023	----	----		14-Jun-2023	730 days	33 days	✔	



Matrix: Biota Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag POL_RB-M-8_2023-05	E440.Ag	13-May-2023	14-Jun-2023	----	----		14-Jun-2023	730 days	33 days	✔	
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag POL_RB-O-6_2023-05	E440.Ag	13-May-2023	14-Jun-2023	----	----		14-Jun-2023	730 days	33 days	✔	
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag POL_RB-O-7_2023-05	E440.Ag	13-May-2023	14-Jun-2023	----	----		14-Jun-2023	730 days	33 days	✔	
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag POL_RB-O-8_2023-05	E440.Ag	13-May-2023	14-Jun-2023	----	----		14-Jun-2023	730 days	33 days	✔	
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag BOL_LSU-Li-1_2023-05	E440.Ag	14-May-2023	16-Jun-2023	----	----		16-Jun-2023	730 days	34 days	✔	
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag BOL_LSU-Li-2_2023-05	E440.Ag	14-May-2023	16-Jun-2023	----	----		16-Jun-2023	730 days	34 days	✔	
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag BOL_LSU-Li-3_2023-05	E440.Ag	14-May-2023	16-Jun-2023	----	----		16-Jun-2023	730 days	34 days	✔	
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag BOL_LSU-Li-4_2023-05	E440.Ag	14-May-2023	16-Jun-2023	----	----		16-Jun-2023	730 days	34 days	✔	
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag BOL_LSU-Li-5_2023-05	E440.Ag	14-May-2023	16-Jun-2023	----	----		16-Jun-2023	730 days	34 days	✔	



Matrix: **Biota** Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag BOL_LSU-Li-6_2023-05	E440.Ag	14-May-2023	16-Jun-2023	----	----		16-Jun-2023	730 days	34 days	✔	
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag BOL_LSU-Li-7_2023-05	E440.Ag	14-May-2023	16-Jun-2023	----	----		16-Jun-2023	730 days	34 days	✔	
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag BOL_LSU-Li-8_2023-05	E440.Ag	14-May-2023	16-Jun-2023	----	----		16-Jun-2023	730 days	34 days	✔	
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag BOL_LSU-O-4_2023-05	E440.Ag	14-May-2023	16-Jun-2023	----	----		16-Jun-2023	730 days	34 days	✔	
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag BOL_LSU-O-5_2023-05	E440.Ag	14-May-2023	16-Jun-2023	----	----		16-Jun-2023	730 days	34 days	✔	
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag BOL_LSU-O-6_2023-05	E440.Ag	14-May-2023	16-Jun-2023	----	----		16-Jun-2023	730 days	34 days	✔	
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag BOL_LSU-O-7_2023-05	E440.Ag	14-May-2023	16-Jun-2023	----	----		16-Jun-2023	730 days	34 days	✔	
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag BOL_LSU-O-8_2023-05	E440.Ag	14-May-2023	16-Jun-2023	----	----		16-Jun-2023	730 days	34 days	✔	
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag POL_LSU-M-1X_2023-05	E440.Ag	13-May-2023	16-Jun-2023	----	----		16-Jun-2023	730 days	34 days	✔	



Matrix: Biota Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag POL_LSU-O-1X_2023-05	E440.Ag	13-May-2023	16-Jun-2023	----	----		16-Jun-2023	730 days	34 days	✔	
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag POL_RB-M-1_2023-05	E440.Ag	12-May-2023	14-Jun-2023	----	----		14-Jun-2023	730 days	34 days	✔	
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag POL_RB-M-2_2023-05	E440.Ag	12-May-2023	14-Jun-2023	----	----		14-Jun-2023	730 days	34 days	✔	
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag POL_RB-M-3_2023-05	E440.Ag	12-May-2023	14-Jun-2023	----	----		14-Jun-2023	730 days	34 days	✔	
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag POL_RB-M-4_2023-05	E440.Ag	12-May-2023	14-Jun-2023	----	----		14-Jun-2023	730 days	34 days	✔	
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag POL_RB-M-5_2023-05	E440.Ag	12-May-2023	14-Jun-2023	----	----		14-Jun-2023	730 days	34 days	✔	
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag POL_RB-M-7X_2023-05	E440.Ag	13-May-2023	16-Jun-2023	----	----		16-Jun-2023	730 days	34 days	✔	
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag POL_RB-O-1_2023-05	E440.Ag	12-May-2023	14-Jun-2023	----	----		14-Jun-2023	730 days	34 days	✔	
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag POL_RB-O-2_2023-05	E440.Ag	12-May-2023	14-Jun-2023	----	----		14-Jun-2023	730 days	34 days	✔	



Matrix: Biota Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag POL_RB-O-3_2023-05	E440.Ag	12-May-2023	14-Jun-2023	----	----		14-Jun-2023	730 days	34 days	✔	
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag POL_RB-O-4_2023-05	E440.Ag	12-May-2023	14-Jun-2023	----	----		14-Jun-2023	730 days	34 days	✔	
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag POL_RB-O-5_2023-05	E440.Ag	12-May-2023	14-Jun-2023	----	----		14-Jun-2023	730 days	34 days	✔	
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag POL_RB-O-7X_2023-05	E440.Ag	13-May-2023	16-Jun-2023	----	----		16-Jun-2023	730 days	34 days	✔	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Biopsy)											
LDPE bag POL_LSU-Ki-2_2023-05	E475.Ti	16-May-2023	20-Jun-2023	----	----		22-Jun-2023	730 days	37 days	✔	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Biopsy)											
LDPE bag POL_LSU-Ki-5_2023-05	E475.Ti	16-May-2023	20-Jun-2023	----	----		22-Jun-2023	730 days	37 days	✔	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Biopsy)											
LDPE bag POL_LSU-Ki-6_2023-05	E475.Ti	16-May-2023	20-Jun-2023	----	----		22-Jun-2023	730 days	37 days	✔	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Biopsy)											
LDPE bag BOL_RB-Ki-7_2023-05	E475.Ti	15-May-2023	20-Jun-2023	----	----		22-Jun-2023	730 days	38 days	✔	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Biopsy)											
LDPE bag BOL_RB-Ki-8_2023-05	E475.Ti	15-May-2023	20-Jun-2023	----	----		22-Jun-2023	730 days	38 days	✔	



Matrix: **Biota** Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Metals : Titanium in Biota by CRC ICPMS (DRY units, Biopsy)											
LDPE bag BOL_RB-Ki-5_2023-05	E475.Ti	14-May-2023	20-Jun-2023	----	----		22-Jun-2023	730 days	39 days	✔	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Biopsy)											
LDPE bag BOL_RB-Ki-5X_2023-05	E475.Ti	14-May-2023	20-Jun-2023	----	----		22-Jun-2023	730 days	39 days	✔	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Biopsy)											
LDPE bag BOL_RB-Ki-6_2023-05	E475.Ti	14-May-2023	20-Jun-2023	----	----		22-Jun-2023	730 days	39 days	✔	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Biopsy)											
LDPE bag BOL_RB-Li-5X_2023-05	E475.Ti	14-May-2023	20-Jun-2023	----	----		22-Jun-2023	730 days	39 days	✔	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Biopsy)											
LDPE bag BOL_RB-Li-7_2023-05	E475.Ti	15-May-2023	20-Jun-2023	----	----		22-Jun-2023	730 days	39 days	✔	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Biopsy)											
LDPE bag BOL_RB-Li-8_2023-05	E475.Ti	15-May-2023	20-Jun-2023	----	----		22-Jun-2023	730 days	39 days	✔	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Biopsy)											
LDPE bag BOL_RB-Ki-1_2023-05	E475.Ti	14-May-2023	20-Jun-2023	----	----		22-Jun-2023	730 days	40 days	✔	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Biopsy)											
LDPE bag BOL_RB-Ki-2_2023-05	E475.Ti	14-May-2023	20-Jun-2023	----	----		22-Jun-2023	730 days	40 days	✔	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Biopsy)											
LDPE bag BOL_RB-Ki-3_2023-05	E475.Ti	14-May-2023	20-Jun-2023	----	----		22-Jun-2023	730 days	40 days	✔	



Matrix: **Biota** Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Metals : Titanium in Biota by CRC ICPMS (DRY units, Biopsy)											
LDPE bag BOL_RB-Ki-4_2023-05	E475.Ti	14-May-2023	20-Jun-2023	----	----		22-Jun-2023	730 days	40 days	✔	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Biopsy)											
LDPE bag BOL_RB-Li-3_2023-05	E475.Ti	14-May-2023	20-Jun-2023	----	----		22-Jun-2023	730 days	40 days	✔	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Biopsy)											
LDPE bag BOL_RB-Li-4_2023-05	E475.Ti	14-May-2023	20-Jun-2023	----	----		22-Jun-2023	730 days	40 days	✔	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Biopsy)											
LDPE bag BOL_RB-Li-5_2023-05	E475.Ti	14-May-2023	20-Jun-2023	----	----		22-Jun-2023	730 days	40 days	✔	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Biopsy)											
LDPE bag BOL_RB-Li-6_2023-05	E475.Ti	14-May-2023	20-Jun-2023	----	----		22-Jun-2023	730 days	40 days	✔	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Biopsy)											
LDPE bag POL_LSU-Ki-1_2023-05	E475.Ti	13-May-2023	20-Jun-2023	----	----		22-Jun-2023	730 days	40 days	✔	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Biopsy)											
LDPE bag POL_LSU-Ki-1X_2023-05	E475.Ti	13-May-2023	20-Jun-2023	----	----		22-Jun-2023	730 days	40 days	✔	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Biopsy)											
LDPE bag POL_RB-Ki-7X_2023-05	E475.Ti	13-May-2023	20-Jun-2023	----	----		22-Jun-2023	730 days	40 days	✔	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Biopsy)											
LDPE bag POL_RB-Li-7X_2023-05	E475.Ti	13-May-2023	20-Jun-2023	----	----		22-Jun-2023	730 days	40 days	✔	



Matrix: Biota Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Metals : Titanium in Biota by CRC ICPMS (DRY units, Biopsy)											
LDPE bag POL_RB-Ki-6_2023-05	E475.Ti	13-May-2023	20-Jun-2023	----	----		22-Jun-2023	730 days	41 days	✔	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Biopsy)											
LDPE bag POL_RB-Ki-7_2023-05	E475.Ti	13-May-2023	20-Jun-2023	----	----		22-Jun-2023	730 days	41 days	✔	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Biopsy)											
LDPE bag POL_RB-Li-7_2023-05	E475.Ti	13-May-2023	20-Jun-2023	----	----		22-Jun-2023	730 days	41 days	✔	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Biopsy)											
LDPE bag POL_RB-Ki-2_2023-05	E475.Ti	12-May-2023	20-Jun-2023	----	----		22-Jun-2023	730 days	42 days	✔	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Biopsy)											
LDPE bag POL_RB-Ki-3_2023-05	E475.Ti	12-May-2023	20-Jun-2023	----	----		22-Jun-2023	730 days	42 days	✔	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Biopsy)											
LDPE bag POL_RB-Ki-5_2023-05	E475.Ti	12-May-2023	20-Jun-2023	----	----		22-Jun-2023	730 days	42 days	✔	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag POL_LSU-Li-2_2023-05	E472.Ti	16-May-2023	20-Jun-2023	----	----		22-Jun-2023	730 days	38 days	✔	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag BOL_RB-O-7_2023-05	E472.Ti	15-May-2023	20-Jun-2023	----	----		22-Jun-2023	730 days	39 days	✔	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag BOL_RB-Li-1_2023-05	E472.Ti	14-May-2023	20-Jun-2023	----	----		22-Jun-2023	730 days	40 days	✔	



Matrix: Biota Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Metals : Titanium in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag BOL_RB-Li-2_2023-05	E472.Ti	14-May-2023	20-Jun-2023	----	----		22-Jun-2023	730 days	40 days	✔	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag POL_LSU-Li-1_2023-05	E472.Ti	13-May-2023	20-Jun-2023	----	----		22-Jun-2023	730 days	41 days	✔	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag POL_RB-Ki-8_2023-05	E472.Ti	13-May-2023	20-Jun-2023	----	----		22-Jun-2023	730 days	41 days	✔	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag POL_RB-Li-6_2023-05	E472.Ti	13-May-2023	20-Jun-2023	----	----		22-Jun-2023	730 days	41 days	✔	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag POL_RB-Li-8_2023-05	E472.Ti	13-May-2023	20-Jun-2023	----	----		22-Jun-2023	730 days	41 days	✔	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag POL_LSU-Ki-3_2023-05	E472.Ti	16-May-2023	23-Jun-2023	----	----		26-Jun-2023	730 days	42 days	✔	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag POL_LSU-Ki-4_2023-05	E472.Ti	16-May-2023	23-Jun-2023	----	----		26-Jun-2023	730 days	42 days	✔	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag POL_LSU-Ki-7_2023-05	E472.Ti	16-May-2023	23-Jun-2023	----	----		26-Jun-2023	730 days	42 days	✔	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag POL_LSU-Ki-8_2023-05	E472.Ti	16-May-2023	23-Jun-2023	----	----		26-Jun-2023	730 days	42 days	✔	



Matrix: Biota Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Metals : Titanium in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag POL_LSU-Li-3_2023-05	E472.Ti	16-May-2023	23-Jun-2023	----	----		26-Jun-2023	730 days	42 days	✔	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag POL_LSU-Li-4_2023-05	E472.Ti	16-May-2023	23-Jun-2023	----	----		26-Jun-2023	730 days	42 days	✔	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag POL_LSU-Li-5_2023-05	E472.Ti	16-May-2023	23-Jun-2023	----	----		26-Jun-2023	730 days	42 days	✔	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag POL_LSU-Li-6_2023-05	E472.Ti	16-May-2023	23-Jun-2023	----	----		26-Jun-2023	730 days	42 days	✔	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag POL_RB-Ki-1_2023-05	E472.Ti	12-May-2023	20-Jun-2023	----	----		22-Jun-2023	730 days	42 days	✔	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag POL_RB-Ki-4_2023-05	E472.Ti	12-May-2023	20-Jun-2023	----	----		22-Jun-2023	730 days	42 days	✔	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag POL_RB-Li-1_2023-05	E472.Ti	12-May-2023	20-Jun-2023	----	----		22-Jun-2023	730 days	42 days	✔	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag POL_RB-Li-2_2023-05	E472.Ti	12-May-2023	20-Jun-2023	----	----		22-Jun-2023	730 days	42 days	✔	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag POL_RB-Li-3_2023-05	E472.Ti	12-May-2023	20-Jun-2023	----	----		22-Jun-2023	730 days	42 days	✔	



Matrix: Biota Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Metals : Titanium in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag POL_RB-Li-4_2023-05	E472.Ti	12-May-2023	20-Jun-2023	----	----		22-Jun-2023	730 days	42 days	✔	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag POL_RB-Li-5_2023-05	E472.Ti	12-May-2023	20-Jun-2023	----	----		22-Jun-2023	730 days	42 days	✔	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag BOL_LSU-Ki-1_2023-05	E472.Ti	14-May-2023	23-Jun-2023	----	----		26-Jun-2023	730 days	44 days	✔	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag BOL_LSU-Ki-2_2023-05	E472.Ti	14-May-2023	23-Jun-2023	----	----		26-Jun-2023	730 days	44 days	✔	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag BOL_LSU-Ki-4_2023-05	E472.Ti	14-May-2023	23-Jun-2023	----	----		26-Jun-2023	730 days	44 days	✔	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag BOL_LSU-Ki-6_2023-05	E472.Ti	14-May-2023	23-Jun-2023	----	----		26-Jun-2023	730 days	44 days	✔	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag POL_LSU-Li-1X_2023-05	E472.Ti	13-May-2023	23-Jun-2023	----	----		26-Jun-2023	730 days	45 days	✔	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag POL_LSU-M-2_2023-05	E440.Ti	16-May-2023	14-Jun-2023	----	----		14-Jun-2023	730 days	30 days	✔	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag POL_LSU-M-3_2023-05	E440.Ti	16-May-2023	14-Jun-2023	----	----		14-Jun-2023	730 days	30 days	✔	



Matrix: **Biota** Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag POL_LSU-M-4_2023-05	E440.Ti	16-May-2023	14-Jun-2023	----	----		14-Jun-2023	730 days	30 days	✔	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag POL_LSU-M-5_2023-05	E440.Ti	16-May-2023	14-Jun-2023	----	----		14-Jun-2023	730 days	30 days	✔	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag POL_LSU-M-6_2023-05	E440.Ti	16-May-2023	14-Jun-2023	----	----		14-Jun-2023	730 days	30 days	✔	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag POL_LSU-M-7_2023-05	E440.Ti	16-May-2023	14-Jun-2023	----	----		14-Jun-2023	730 days	30 days	✔	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag POL_LSU-M-8_2023-05	E440.Ti	16-May-2023	14-Jun-2023	----	----		14-Jun-2023	730 days	30 days	✔	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag BOL_RB-M-7_2023-05	E440.Ti	15-May-2023	14-Jun-2023	----	----		14-Jun-2023	730 days	31 days	✔	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag BOL_RB-M-8_2023-05	E440.Ti	15-May-2023	14-Jun-2023	----	----		14-Jun-2023	730 days	31 days	✔	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag BOL_RB-O-8_2023-05	E440.Ti	15-May-2023	14-Jun-2023	----	----		14-Jun-2023	730 days	31 days	✔	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag POL_LSU-Li-7_2023-05	E440.Ti	16-May-2023	16-Jun-2023	----	----		16-Jun-2023	730 days	31 days	✔	



Matrix: **Biota** Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag POL_LSU-Li-8_2023-05	E440.Ti	16-May-2023	16-Jun-2023	----	----		16-Jun-2023	730 days	31 days	✔	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag POL_LSU-O-2_2023-05	E440.Ti	16-May-2023	16-Jun-2023	----	----		16-Jun-2023	730 days	31 days	✔	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag POL_LSU-O-3_2023-05	E440.Ti	16-May-2023	16-Jun-2023	----	----		16-Jun-2023	730 days	31 days	✔	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag POL_LSU-O-4_2023-05	E440.Ti	16-May-2023	16-Jun-2023	----	----		16-Jun-2023	730 days	31 days	✔	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag POL_LSU-O-5_2023-05	E440.Ti	16-May-2023	16-Jun-2023	----	----		16-Jun-2023	730 days	31 days	✔	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag POL_LSU-O-6_2023-05	E440.Ti	16-May-2023	16-Jun-2023	----	----		16-Jun-2023	730 days	31 days	✔	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag POL_LSU-O-7_2023-05	E440.Ti	16-May-2023	16-Jun-2023	----	----		16-Jun-2023	730 days	31 days	✔	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag POL_LSU-O-8_2023-05	E440.Ti	16-May-2023	16-Jun-2023	----	----		16-Jun-2023	730 days	31 days	✔	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag BOL_RB-M-1_2023-05	E440.Ti	14-May-2023	14-Jun-2023	----	----		14-Jun-2023	730 days	32 days	✔	



Matrix: Biota Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag BOL_RB-M-2_2023-05	E440.Ti	14-May-2023	14-Jun-2023	----	----		14-Jun-2023	730 days	32 days	✔	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag BOL_RB-M-3_2023-05	E440.Ti	14-May-2023	14-Jun-2023	----	----		14-Jun-2023	730 days	32 days	✔	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag BOL_RB-M-4_2023-05	E440.Ti	14-May-2023	14-Jun-2023	----	----		14-Jun-2023	730 days	32 days	✔	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag BOL_RB-M-5_2023-05	E440.Ti	14-May-2023	14-Jun-2023	----	----		14-Jun-2023	730 days	32 days	✔	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag BOL_RB-M-6_2023-05	E440.Ti	14-May-2023	14-Jun-2023	----	----		14-Jun-2023	730 days	32 days	✔	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag BOL_RB-O-1_2023-05	E440.Ti	14-May-2023	14-Jun-2023	----	----		14-Jun-2023	730 days	32 days	✔	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag BOL_RB-O-2_2023-05	E440.Ti	14-May-2023	14-Jun-2023	----	----		14-Jun-2023	730 days	32 days	✔	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag BOL_RB-O-3_2023-05	E440.Ti	14-May-2023	14-Jun-2023	----	----		14-Jun-2023	730 days	32 days	✔	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag BOL_RB-O-4_2023-05	E440.Ti	14-May-2023	14-Jun-2023	----	----		14-Jun-2023	730 days	32 days	✔	



Matrix: **Biota** Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag BOL_RB-O-5_2023-05	E440.Ti	14-May-2023	14-Jun-2023	----	----		14-Jun-2023	730 days	32 days	✔	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag BOL_RB-O-6_2023-05	E440.Ti	14-May-2023	14-Jun-2023	----	----		14-Jun-2023	730 days	32 days	✔	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag BOL_LSU-Ki-3_2023-05	E440.Ti	14-May-2023	16-Jun-2023	----	----		16-Jun-2023	730 days	33 days	✔	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag BOL_LSU-Ki-5_2023-05	E440.Ti	14-May-2023	16-Jun-2023	----	----		16-Jun-2023	730 days	33 days	✔	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag BOL_LSU-Ki-7_2023-05	E440.Ti	14-May-2023	16-Jun-2023	----	----		16-Jun-2023	730 days	33 days	✔	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag BOL_LSU-Ki-8_2023-05	E440.Ti	14-May-2023	16-Jun-2023	----	----		16-Jun-2023	730 days	33 days	✔	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag BOL_LSU-M-1_2023-05	E440.Ti	14-May-2023	16-Jun-2023	----	----		16-Jun-2023	730 days	33 days	✔	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag BOL_LSU-M-2_2023-05	E440.Ti	14-May-2023	16-Jun-2023	----	----		16-Jun-2023	730 days	33 days	✔	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag BOL_LSU-M-3_2023-05	E440.Ti	14-May-2023	16-Jun-2023	----	----		16-Jun-2023	730 days	33 days	✔	



Matrix: **Biota** Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag BOL_LSU-M-4_2023-05	E440.Ti	14-May-2023	16-Jun-2023	----	----		16-Jun-2023	730 days	33 days	✔	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag BOL_LSU-M-5_2023-05	E440.Ti	14-May-2023	16-Jun-2023	----	----		16-Jun-2023	730 days	33 days	✔	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag BOL_LSU-M-6_2023-05	E440.Ti	14-May-2023	16-Jun-2023	----	----		16-Jun-2023	730 days	33 days	✔	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag BOL_LSU-M-7_2023-05	E440.Ti	14-May-2023	16-Jun-2023	----	----		16-Jun-2023	730 days	33 days	✔	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag BOL_LSU-M-8_2023-05	E440.Ti	14-May-2023	16-Jun-2023	----	----		16-Jun-2023	730 days	33 days	✔	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag BOL_LSU-O-1_2023-05	E440.Ti	14-May-2023	16-Jun-2023	----	----		16-Jun-2023	730 days	33 days	✔	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag BOL_LSU-O-2_2023-05	E440.Ti	14-May-2023	16-Jun-2023	----	----		16-Jun-2023	730 days	33 days	✔	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag BOL_LSU-O-3_2023-05	E440.Ti	14-May-2023	16-Jun-2023	----	----		16-Jun-2023	730 days	33 days	✔	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag BOL_RB-M-5X_2023-05	E440.Ti	14-May-2023	16-Jun-2023	----	----		16-Jun-2023	730 days	33 days	✔	



Matrix: **Biota** Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag BOL_RB-O-5X_2023-05	E440.Ti	14-May-2023	16-Jun-2023	----	----		16-Jun-2023	730 days	33 days	✔	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag POL_LSU-M-1_2023-05	E440.Ti	13-May-2023	14-Jun-2023	----	----		14-Jun-2023	730 days	33 days	✔	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag POL_LSU-O-1_2023-05	E440.Ti	13-May-2023	14-Jun-2023	----	----		14-Jun-2023	730 days	33 days	✔	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag POL_RB-M-6_2023-05	E440.Ti	13-May-2023	14-Jun-2023	----	----		14-Jun-2023	730 days	33 days	✔	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag POL_RB-M-7_2023-05	E440.Ti	13-May-2023	14-Jun-2023	----	----		14-Jun-2023	730 days	33 days	✔	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag POL_RB-M-8_2023-05	E440.Ti	13-May-2023	14-Jun-2023	----	----		14-Jun-2023	730 days	33 days	✔	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag POL_RB-O-6_2023-05	E440.Ti	13-May-2023	14-Jun-2023	----	----		14-Jun-2023	730 days	33 days	✔	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag POL_RB-O-7_2023-05	E440.Ti	13-May-2023	14-Jun-2023	----	----		14-Jun-2023	730 days	33 days	✔	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag POL_RB-O-8_2023-05	E440.Ti	13-May-2023	14-Jun-2023	----	----		14-Jun-2023	730 days	33 days	✔	



Matrix: **Biota** Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag BOL_LSU-Li-1_2023-05	E440.Ti	14-May-2023	16-Jun-2023	----	----		16-Jun-2023	730 days	34 days	✔	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag BOL_LSU-Li-2_2023-05	E440.Ti	14-May-2023	16-Jun-2023	----	----		16-Jun-2023	730 days	34 days	✔	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag BOL_LSU-Li-3_2023-05	E440.Ti	14-May-2023	16-Jun-2023	----	----		16-Jun-2023	730 days	34 days	✔	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag BOL_LSU-Li-4_2023-05	E440.Ti	14-May-2023	16-Jun-2023	----	----		16-Jun-2023	730 days	34 days	✔	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag BOL_LSU-Li-5_2023-05	E440.Ti	14-May-2023	16-Jun-2023	----	----		16-Jun-2023	730 days	34 days	✔	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag BOL_LSU-Li-6_2023-05	E440.Ti	14-May-2023	16-Jun-2023	----	----		16-Jun-2023	730 days	34 days	✔	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag BOL_LSU-Li-7_2023-05	E440.Ti	14-May-2023	16-Jun-2023	----	----		16-Jun-2023	730 days	34 days	✔	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag BOL_LSU-Li-8_2023-05	E440.Ti	14-May-2023	16-Jun-2023	----	----		16-Jun-2023	730 days	34 days	✔	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag BOL_LSU-O-4_2023-05	E440.Ti	14-May-2023	16-Jun-2023	----	----		16-Jun-2023	730 days	34 days	✔	



Matrix: **Biota** Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag BOL_LSU-O-5_2023-05	E440.Ti	14-May-2023	16-Jun-2023	----	----		16-Jun-2023	730 days	34 days	✔	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag BOL_LSU-O-6_2023-05	E440.Ti	14-May-2023	16-Jun-2023	----	----		16-Jun-2023	730 days	34 days	✔	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag BOL_LSU-O-7_2023-05	E440.Ti	14-May-2023	16-Jun-2023	----	----		16-Jun-2023	730 days	34 days	✔	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag BOL_LSU-O-8_2023-05	E440.Ti	14-May-2023	16-Jun-2023	----	----		16-Jun-2023	730 days	34 days	✔	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag POL_LSU-M-1X_2023-05	E440.Ti	13-May-2023	16-Jun-2023	----	----		16-Jun-2023	730 days	34 days	✔	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag POL_LSU-O-1X_2023-05	E440.Ti	13-May-2023	16-Jun-2023	----	----		16-Jun-2023	730 days	34 days	✔	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag POL_RB-M-1_2023-05	E440.Ti	12-May-2023	14-Jun-2023	----	----		14-Jun-2023	730 days	34 days	✔	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag POL_RB-M-2_2023-05	E440.Ti	12-May-2023	14-Jun-2023	----	----		14-Jun-2023	730 days	34 days	✔	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag POL_RB-M-3_2023-05	E440.Ti	12-May-2023	14-Jun-2023	----	----		14-Jun-2023	730 days	34 days	✔	



Matrix: Biota Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag POL_RB-M-4_2023-05	E440.Ti	12-May-2023	14-Jun-2023	----	----		14-Jun-2023	730 days	34 days	✔	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag POL_RB-M-5_2023-05	E440.Ti	12-May-2023	14-Jun-2023	----	----		14-Jun-2023	730 days	34 days	✔	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag POL_RB-M-7X_2023-05	E440.Ti	13-May-2023	16-Jun-2023	----	----		16-Jun-2023	730 days	34 days	✔	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag POL_RB-O-1_2023-05	E440.Ti	12-May-2023	14-Jun-2023	----	----		14-Jun-2023	730 days	34 days	✔	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag POL_RB-O-2_2023-05	E440.Ti	12-May-2023	14-Jun-2023	----	----		14-Jun-2023	730 days	34 days	✔	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag POL_RB-O-3_2023-05	E440.Ti	12-May-2023	14-Jun-2023	----	----		14-Jun-2023	730 days	34 days	✔	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag POL_RB-O-4_2023-05	E440.Ti	12-May-2023	14-Jun-2023	----	----		14-Jun-2023	730 days	34 days	✔	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag POL_RB-O-5_2023-05	E440.Ti	12-May-2023	14-Jun-2023	----	----		14-Jun-2023	730 days	34 days	✔	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag POL_RB-O-7X_2023-05	E440.Ti	13-May-2023	16-Jun-2023	----	----		16-Jun-2023	730 days	34 days	✔	



Matrix: **Biota** Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Physical Tests : Moisture Content by Gravimetry (Biopsy)										
LDPE bag BOL_RB-Ki-1_2023-05	E144A	14-May-2023	----	----	----		15-Jun-2023	----	----	
Physical Tests : Moisture Content by Gravimetry (Biopsy)										
LDPE bag BOL_RB-Ki-2_2023-05	E144A	14-May-2023	----	----	----		15-Jun-2023	----	----	
Physical Tests : Moisture Content by Gravimetry (Biopsy)										
LDPE bag BOL_RB-Ki-3_2023-05	E144A	14-May-2023	----	----	----		15-Jun-2023	----	----	
Physical Tests : Moisture Content by Gravimetry (Biopsy)										
LDPE bag BOL_RB-Ki-4_2023-05	E144A	14-May-2023	----	----	----		15-Jun-2023	----	----	
Physical Tests : Moisture Content by Gravimetry (Biopsy)										
LDPE bag BOL_RB-Ki-5_2023-05	E144A	14-May-2023	----	----	----		15-Jun-2023	----	----	
Physical Tests : Moisture Content by Gravimetry (Biopsy)										
LDPE bag BOL_RB-Ki-5X_2023-05	E144A	14-May-2023	----	----	----		15-Jun-2023	----	----	
Physical Tests : Moisture Content by Gravimetry (Biopsy)										
LDPE bag BOL_RB-Ki-6_2023-05	E144A	14-May-2023	----	----	----		15-Jun-2023	----	----	
Physical Tests : Moisture Content by Gravimetry (Biopsy)										
LDPE bag BOL_RB-Ki-7_2023-05	E144A	15-May-2023	----	----	----		15-Jun-2023	----	----	
Physical Tests : Moisture Content by Gravimetry (Biopsy)										
LDPE bag BOL_RB-Ki-8_2023-05	E144A	15-May-2023	----	----	----		15-Jun-2023	----	----	



Matrix: Biota

Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Physical Tests : Moisture Content by Gravimetry (Biopsy)										
LDPE bag BOL_RB-Li-3_2023-05	E144A	14-May-2023	----	----	----		15-Jun-2023	----	----	
Physical Tests : Moisture Content by Gravimetry (Biopsy)										
LDPE bag BOL_RB-Li-4_2023-05	E144A	14-May-2023	----	----	----		15-Jun-2023	----	----	
Physical Tests : Moisture Content by Gravimetry (Biopsy)										
LDPE bag BOL_RB-Li-5_2023-05	E144A	14-May-2023	----	----	----		15-Jun-2023	----	----	
Physical Tests : Moisture Content by Gravimetry (Biopsy)										
LDPE bag BOL_RB-Li-5X_2023-05	E144A	14-May-2023	----	----	----		15-Jun-2023	----	----	
Physical Tests : Moisture Content by Gravimetry (Biopsy)										
LDPE bag BOL_RB-Li-6_2023-05	E144A	14-May-2023	----	----	----		15-Jun-2023	----	----	
Physical Tests : Moisture Content by Gravimetry (Biopsy)										
LDPE bag BOL_RB-Li-7_2023-05	E144A	15-May-2023	----	----	----		15-Jun-2023	----	----	
Physical Tests : Moisture Content by Gravimetry (Biopsy)										
LDPE bag BOL_RB-Li-8_2023-05	E144A	15-May-2023	----	----	----		15-Jun-2023	----	----	
Physical Tests : Moisture Content by Gravimetry (Biopsy)										
LDPE bag POL_LSU-Ki-1_2023-05	E144A	13-May-2023	----	----	----		15-Jun-2023	----	----	
Physical Tests : Moisture Content by Gravimetry (Biopsy)										
LDPE bag POL_LSU-Ki-1X_2023-05	E144A	13-May-2023	----	----	----		15-Jun-2023	----	----	



Matrix: Biota

Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Physical Tests : Moisture Content by Gravimetry (Biopsy)										
LDPE bag POL_LSU-Ki-2_2023-05	E144A	16-May-2023	----	----	----		15-Jun-2023	----	----	
Physical Tests : Moisture Content by Gravimetry (Biopsy)										
LDPE bag POL_LSU-Ki-5_2023-05	E144A	16-May-2023	----	----	----		15-Jun-2023	----	----	
Physical Tests : Moisture Content by Gravimetry (Biopsy)										
LDPE bag POL_LSU-Ki-6_2023-05	E144A	16-May-2023	----	----	----		15-Jun-2023	----	----	
Physical Tests : Moisture Content by Gravimetry (Biopsy)										
LDPE bag POL_RB-Ki-2_2023-05	E144A	12-May-2023	----	----	----		15-Jun-2023	----	----	
Physical Tests : Moisture Content by Gravimetry (Biopsy)										
LDPE bag POL_RB-Ki-3_2023-05	E144A	12-May-2023	----	----	----		15-Jun-2023	----	----	
Physical Tests : Moisture Content by Gravimetry (Biopsy)										
LDPE bag POL_RB-Ki-5_2023-05	E144A	12-May-2023	----	----	----		15-Jun-2023	----	----	
Physical Tests : Moisture Content by Gravimetry (Biopsy)										
LDPE bag POL_RB-Ki-6_2023-05	E144A	13-May-2023	----	----	----		15-Jun-2023	----	----	
Physical Tests : Moisture Content by Gravimetry (Biopsy)										
LDPE bag POL_RB-Ki-7_2023-05	E144A	13-May-2023	----	----	----		15-Jun-2023	----	----	
Physical Tests : Moisture Content by Gravimetry (Biopsy)										
LDPE bag POL_RB-Ki-7X_2023-05	E144A	13-May-2023	----	----	----		15-Jun-2023	----	----	



Matrix: **Biota** Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Physical Tests : Moisture Content by Gravimetry (Biopsy)										
LDPE bag POL_RB-Li-7_2023-05	E144A	13-May-2023	----	----	----		15-Jun-2023	----	----	
Physical Tests : Moisture Content by Gravimetry (Biopsy)										
LDPE bag POL_RB-Li-7X_2023-05	E144A	13-May-2023	----	----	----		15-Jun-2023	----	----	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag BOL_LSU-Ki-1_2023-05	E144-H	14-May-2023	----	----	----		15-Jun-2023	----	----	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag BOL_LSU-Ki-2_2023-05	E144-H	14-May-2023	----	----	----		15-Jun-2023	----	----	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag BOL_LSU-Ki-4_2023-05	E144-H	14-May-2023	----	----	----		15-Jun-2023	----	----	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag BOL_LSU-Ki-6_2023-05	E144-H	14-May-2023	----	----	----		15-Jun-2023	----	----	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag BOL_RB-Li-1_2023-05	E144-H	14-May-2023	----	----	----		14-Jun-2023	----	----	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag BOL_RB-Li-2_2023-05	E144-H	14-May-2023	----	----	----		14-Jun-2023	----	----	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag BOL_RB-O-7_2023-05	E144-H	15-May-2023	----	----	----		14-Jun-2023	----	----	



Matrix: Biota

Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag POL_LSU-Ki-3_2023-05	E144-H	16-May-2023	----	----	----		15-Jun-2023	----	----	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag POL_LSU-Ki-4_2023-05	E144-H	16-May-2023	----	----	----		15-Jun-2023	----	----	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag POL_LSU-Ki-7_2023-05	E144-H	16-May-2023	----	----	----		15-Jun-2023	----	----	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag POL_LSU-Ki-8_2023-05	E144-H	16-May-2023	----	----	----		15-Jun-2023	----	----	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag POL_LSU-Li-1_2023-05	E144-H	13-May-2023	----	----	----		14-Jun-2023	----	----	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag POL_LSU-Li-1X_2023-05	E144-H	13-May-2023	----	----	----		15-Jun-2023	----	----	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag POL_LSU-Li-2_2023-05	E144-H	16-May-2023	----	----	----		14-Jun-2023	----	----	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag POL_LSU-Li-3_2023-05	E144-H	16-May-2023	----	----	----		15-Jun-2023	----	----	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag POL_LSU-Li-4_2023-05	E144-H	16-May-2023	----	----	----		15-Jun-2023	----	----	



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Analyte Group Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag POL_LSU-Li-5_2023-05	E144-H	16-May-2023	----	----	----		15-Jun-2023	----	----	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag POL_LSU-Li-6_2023-05	E144-H	16-May-2023	----	----	----		15-Jun-2023	----	----	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag POL_RB-Ki-1_2023-05	E144-H	12-May-2023	----	----	----		14-Jun-2023	----	----	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag POL_RB-Ki-4_2023-05	E144-H	12-May-2023	----	----	----		14-Jun-2023	----	----	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag POL_RB-Ki-8_2023-05	E144-H	13-May-2023	----	----	----		14-Jun-2023	----	----	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag POL_RB-Li-1_2023-05	E144-H	12-May-2023	----	----	----		14-Jun-2023	----	----	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag POL_RB-Li-2_2023-05	E144-H	12-May-2023	----	----	----		14-Jun-2023	----	----	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag POL_RB-Li-3_2023-05	E144-H	12-May-2023	----	----	----		14-Jun-2023	----	----	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag POL_RB-Li-4_2023-05	E144-H	12-May-2023	----	----	----		14-Jun-2023	----	----	



Matrix: Biota

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Analyte Group Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Physical Tests : Moisture Content by Gravimetry (Micro)											
LDPE bag POL_RB-Li-5_2023-05	E144-H	12-May-2023	----	----	----		14-Jun-2023	----	----		
Physical Tests : Moisture Content by Gravimetry (Micro)											
LDPE bag POL_RB-Li-6_2023-05	E144-H	13-May-2023	----	----	----		14-Jun-2023	----	----		
Physical Tests : Moisture Content by Gravimetry (Micro)											
LDPE bag POL_RB-Li-8_2023-05	E144-H	13-May-2023	----	----	----		14-Jun-2023	----	----		
Physical Tests : Moisture Content by Gravimetry											
LDPE bag BOL_LSU-Ki-3_2023-05	E144	14-May-2023	----	----	----		09-Jun-2023	----	----		
Physical Tests : Moisture Content by Gravimetry											
LDPE bag BOL_LSU-Ki-5_2023-05	E144	14-May-2023	----	----	----		09-Jun-2023	----	----		
Physical Tests : Moisture Content by Gravimetry											
LDPE bag BOL_LSU-Ki-7_2023-05	E144	14-May-2023	----	----	----		09-Jun-2023	----	----		
Physical Tests : Moisture Content by Gravimetry											
LDPE bag BOL_LSU-Ki-8_2023-05	E144	14-May-2023	----	----	----		09-Jun-2023	----	----		
Physical Tests : Moisture Content by Gravimetry											
LDPE bag BOL_LSU-Li-1_2023-05	E144	14-May-2023	----	----	----		09-Jun-2023	----	----		
Physical Tests : Moisture Content by Gravimetry											
LDPE bag BOL_LSU-Li-2_2023-05	E144	14-May-2023	----	----	----		09-Jun-2023	----	----		



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			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag BOL_LSU-Li-3_2023-05	E144	14-May-2023	----	----	----		09-Jun-2023	----	----	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag BOL_LSU-Li-4_2023-05	E144	14-May-2023	----	----	----		09-Jun-2023	----	----	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag BOL_LSU-Li-5_2023-05	E144	14-May-2023	----	----	----		09-Jun-2023	----	----	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag BOL_LSU-Li-6_2023-05	E144	14-May-2023	----	----	----		09-Jun-2023	----	----	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag BOL_LSU-Li-7_2023-05	E144	14-May-2023	----	----	----		09-Jun-2023	----	----	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag BOL_LSU-Li-8_2023-05	E144	14-May-2023	----	----	----		09-Jun-2023	----	----	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag BOL_LSU-M-1_2023-05	E144	14-May-2023	----	----	----		09-Jun-2023	----	----	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag BOL_LSU-M-2_2023-05	E144	14-May-2023	----	----	----		09-Jun-2023	----	----	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag BOL_LSU-M-3_2023-05	E144	14-May-2023	----	----	----		09-Jun-2023	----	----	



Matrix: Biota

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Analyte Group Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag BOL_LSU-M-4_2023-05	E144	14-May-2023	----	----	----		09-Jun-2023	----	----	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag BOL_LSU-M-5_2023-05	E144	14-May-2023	----	----	----		09-Jun-2023	----	----	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag BOL_LSU-M-6_2023-05	E144	14-May-2023	----	----	----		09-Jun-2023	----	----	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag BOL_LSU-M-7_2023-05	E144	14-May-2023	----	----	----		09-Jun-2023	----	----	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag BOL_LSU-M-8_2023-05	E144	14-May-2023	----	----	----		09-Jun-2023	----	----	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag BOL_LSU-O-1_2023-05	E144	14-May-2023	----	----	----		09-Jun-2023	----	----	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag BOL_LSU-O-2_2023-05	E144	14-May-2023	----	----	----		09-Jun-2023	----	----	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag BOL_LSU-O-3_2023-05	E144	14-May-2023	----	----	----		09-Jun-2023	----	----	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag BOL_LSU-O-4_2023-05	E144	14-May-2023	----	----	----		09-Jun-2023	----	----	



Matrix: Biota

Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag BOL_LSU-O-5_2023-05	E144	14-May-2023	----	----	----		09-Jun-2023	----	----	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag BOL_LSU-O-6_2023-05	E144	14-May-2023	----	----	----		09-Jun-2023	----	----	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag BOL_LSU-O-7_2023-05	E144	14-May-2023	----	----	----		09-Jun-2023	----	----	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag BOL_LSU-O-8_2023-05	E144	14-May-2023	----	----	----		09-Jun-2023	----	----	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag BOL_RB-M-1_2023-05	E144	14-May-2023	----	----	----		09-Jun-2023	----	----	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag BOL_RB-M-2_2023-05	E144	14-May-2023	----	----	----		09-Jun-2023	----	----	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag BOL_RB-M-3_2023-05	E144	14-May-2023	----	----	----		09-Jun-2023	----	----	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag BOL_RB-M-4_2023-05	E144	14-May-2023	----	----	----		09-Jun-2023	----	----	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag BOL_RB-M-5_2023-05	E144	14-May-2023	----	----	----		09-Jun-2023	----	----	



Matrix: Biota

Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag BOL_RB-M-5X_2023-05	E144	14-May-2023	----	----	----		09-Jun-2023	----	----	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag BOL_RB-M-6_2023-05	E144	14-May-2023	----	----	----		09-Jun-2023	----	----	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag BOL_RB-M-7_2023-05	E144	15-May-2023	----	----	----		09-Jun-2023	----	----	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag BOL_RB-M-8_2023-05	E144	15-May-2023	----	----	----		09-Jun-2023	----	----	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag BOL_RB-O-1_2023-05	E144	14-May-2023	----	----	----		09-Jun-2023	----	----	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag BOL_RB-O-2_2023-05	E144	14-May-2023	----	----	----		09-Jun-2023	----	----	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag BOL_RB-O-3_2023-05	E144	14-May-2023	----	----	----		09-Jun-2023	----	----	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag BOL_RB-O-4_2023-05	E144	14-May-2023	----	----	----		09-Jun-2023	----	----	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag BOL_RB-O-5_2023-05	E144	14-May-2023	----	----	----		09-Jun-2023	----	----	



Matrix: **Biota** Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag BOL_RB-O-5X_2023-05	E144	14-May-2023	----	----	----		09-Jun-2023	----	----	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag BOL_RB-O-6_2023-05	E144	14-May-2023	----	----	----		09-Jun-2023	----	----	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag BOL_RB-O-8_2023-05	E144	15-May-2023	----	----	----		09-Jun-2023	----	----	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag POL_LSU-Li-7_2023-05	E144	16-May-2023	----	----	----		09-Jun-2023	----	----	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag POL_LSU-Li-8_2023-05	E144	16-May-2023	----	----	----		09-Jun-2023	----	----	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag POL_LSU-M-1_2023-05	E144	13-May-2023	----	----	----		09-Jun-2023	----	----	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag POL_LSU-M-1X_2023-05	E144	13-May-2023	----	----	----		09-Jun-2023	----	----	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag POL_LSU-M-2_2023-05	E144	16-May-2023	----	----	----		09-Jun-2023	----	----	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag POL_LSU-M-3_2023-05	E144	16-May-2023	----	----	----		09-Jun-2023	----	----	



Matrix: Biota

Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag POL_LSU-M-4_2023-05	E144	16-May-2023	----	----	----		09-Jun-2023	----	----	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag POL_LSU-M-5_2023-05	E144	16-May-2023	----	----	----		09-Jun-2023	----	----	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag POL_LSU-M-6_2023-05	E144	16-May-2023	----	----	----		09-Jun-2023	----	----	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag POL_LSU-M-7_2023-05	E144	16-May-2023	----	----	----		09-Jun-2023	----	----	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag POL_LSU-M-8_2023-05	E144	16-May-2023	----	----	----		09-Jun-2023	----	----	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag POL_LSU-O-1_2023-05	E144	13-May-2023	----	----	----		09-Jun-2023	----	----	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag POL_LSU-O-1X_2023-05	E144	13-May-2023	----	----	----		09-Jun-2023	----	----	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag POL_LSU-O-2_2023-05	E144	16-May-2023	----	----	----		09-Jun-2023	----	----	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag POL_LSU-O-3_2023-05	E144	16-May-2023	----	----	----		09-Jun-2023	----	----	



Matrix: **Biota** Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag POL_LSU-O-4_2023-05	E144	16-May-2023	----	----	----		09-Jun-2023	----	----	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag POL_LSU-O-5_2023-05	E144	16-May-2023	----	----	----		09-Jun-2023	----	----	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag POL_LSU-O-6_2023-05	E144	16-May-2023	----	----	----		09-Jun-2023	----	----	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag POL_LSU-O-7_2023-05	E144	16-May-2023	----	----	----		09-Jun-2023	----	----	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag POL_LSU-O-8_2023-05	E144	16-May-2023	----	----	----		09-Jun-2023	----	----	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag POL_RB-M-1_2023-05	E144	12-May-2023	----	----	----		09-Jun-2023	----	----	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag POL_RB-M-2_2023-05	E144	12-May-2023	----	----	----		09-Jun-2023	----	----	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag POL_RB-M-3_2023-05	E144	12-May-2023	----	----	----		09-Jun-2023	----	----	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag POL_RB-M-4_2023-05	E144	12-May-2023	----	----	----		09-Jun-2023	----	----	



Matrix: **Biota** Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag POL_RB-M-5_2023-05	E144	12-May-2023	----	----	----		09-Jun-2023	----	----	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag POL_RB-M-6_2023-05	E144	13-May-2023	----	----	----		09-Jun-2023	----	----	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag POL_RB-M-7_2023-05	E144	13-May-2023	----	----	----		09-Jun-2023	----	----	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag POL_RB-M-7X_2023-05	E144	13-May-2023	----	----	----		09-Jun-2023	----	----	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag POL_RB-M-8_2023-05	E144	13-May-2023	----	----	----		09-Jun-2023	----	----	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag POL_RB-O-1_2023-05	E144	12-May-2023	----	----	----		09-Jun-2023	----	----	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag POL_RB-O-2_2023-05	E144	12-May-2023	----	----	----		09-Jun-2023	----	----	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag POL_RB-O-3_2023-05	E144	12-May-2023	----	----	----		09-Jun-2023	----	----	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag POL_RB-O-4_2023-05	E144	12-May-2023	----	----	----		09-Jun-2023	----	----	



Matrix: **Biota** Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag POL_RB-O-5_2023-05	E144	12-May-2023	----	----	----		09-Jun-2023	----	----	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag POL_RB-O-6_2023-05	E144	13-May-2023	----	----	----		09-Jun-2023	----	----	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag POL_RB-O-7_2023-05	E144	13-May-2023	----	----	----		09-Jun-2023	----	----	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag POL_RB-O-7X_2023-05	E144	13-May-2023	----	----	----		09-Jun-2023	----	----	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag POL_RB-O-8_2023-05	E144	13-May-2023	----	----	----		09-Jun-2023	----	----	

Legend & Qualifier Definitions

Rec. HT: ALS recommended hold time (see units).



Quality Control Parameter Frequency Compliance

The following report summarizes the frequency of laboratory QC samples analyzed within the analytical batches (QC lots) in which the submitted samples were processed. The actual frequency should be greater than or equal to the expected frequency.

Matrix: **Biota** Evaluation: * = QC frequency outside specification; ✓ = QC frequency within specification.

Quality Control Sample Type	Method	QC Lot #	Count		Frequency (%)		Evaluation
			QC	Regular	Actual	Expected	
Analytical Methods							
Laboratory Duplicates (DUP)							
Mercury in Biota by CVAAS (DRY units, Micro)	E511	998105	2	28	7.1	5.0	✓
Mercury in Biota by CVAAS (DRY units, Routine)	E510	986884	5	83	6.0	5.0	✓
Mercury in Biota by CVAAS (WET units, Micro)	E511A	998106	2	28	7.1	5.0	✓
Mercury in Biota by CVAAS (WET units, Routine)	E510A	986883	5	83	6.0	5.0	✓
Metals in Biota by CRC ICPMS (DRY units, Micro)	E472	998107	3	28	10.7	5.0	✓
Metals in Biota by CRC ICPMS (DRY units, Routine)	E440	986882	7	83	8.4	5.0	✓
Moisture Content by Gravimetry	E144	981475	5	83	6.0	5.0	✓
Moisture Content by Gravimetry (Micro)	E144-H	988341	2	28	7.1	5.0	✓
Silver in Biota by CRC ICPMS (DRY units, Micro)	E472.Ag	998103	2	28	7.1	5.0	✓
Silver in Biota by CRC ICPMS (DRY units, Routine)	E440.Ag	986886	5	83	6.0	5.0	✓
Titanium in Biota by CRC ICPMS (DRY units, Micro)	E472.Ti	998104	2	28	7.1	5.0	✓
Titanium in Biota by CRC ICPMS (DRY units, Routine)	E440.Ti	986885	5	83	6.0	5.0	✓
Laboratory Control Samples (LCS)							
Mercury in Biota by CVAAS (DRY units, Biopsy)	E512	998096	4	29	13.7	10.0	✓
Mercury in Biota by CVAAS (DRY units, Micro)	E511	998105	4	28	14.2	10.0	✓
Mercury in Biota by CVAAS (DRY units, Routine)	E510	986884	10	83	12.0	10.0	✓
Mercury in Biota by CVAAS (WET units, Biopsy)	E512A	998097	4	29	13.7	10.0	✓
Mercury in Biota by CVAAS (WET units, Micro)	E511A	998106	4	28	14.2	10.0	✓
Mercury in Biota by CVAAS (WET units, Routine)	E510A	986883	10	83	12.0	10.0	✓
Metals by CRC ICPMS (DRY units, Biopsy)	E475	998098	4	29	13.7	10.0	✓
Metals in Biota by CRC ICPMS (DRY units, Micro)	E472	998107	4	28	14.2	10.0	✓
Metals in Biota by CRC ICPMS (DRY units, Routine)	E440	986882	11	83	13.2	10.0	✓
Moisture Content by Gravimetry	E144	981475	5	83	6.0	5.0	✓
Moisture Content by Gravimetry (Biopsy)	E144A	989889	2	29	6.9	5.0	✓
Moisture Content by Gravimetry (Micro)	E144-H	988341	2	28	7.1	5.0	✓
Silver in Biota by CRC ICPMS (DRY units, Biopsy)	E475.Ag	998094	4	29	13.7	10.0	✓
Silver in Biota by CRC ICPMS (DRY units, Micro)	E472.Ag	998103	4	28	14.2	10.0	✓
Silver in Biota by CRC ICPMS (DRY units, Routine)	E440.Ag	986886	10	83	12.0	10.0	✓
Titanium in Biota by CRC ICPMS (DRY units, Biopsy)	E475.Ti	998095	4	29	13.7	10.0	✓
Titanium in Biota by CRC ICPMS (DRY units, Micro)	E472.Ti	998104	4	28	14.2	10.0	✓
Titanium in Biota by CRC ICPMS (DRY units, Routine)	E440.Ti	986885	10	83	12.0	10.0	✓
Method Blanks (MB)							
Mercury in Biota by CVAAS (DRY units, Biopsy)	E512	998096	2	29	6.9	5.0	✓
Mercury in Biota by CVAAS (DRY units, Micro)	E511	998105	2	28	7.1	5.0	✓
Mercury in Biota by CVAAS (DRY units, Routine)	E510	986884	5	83	6.0	5.0	✓



Matrix: **Biota**

Evaluation: ✖ = QC frequency outside specification; ✔ = QC frequency within specification.

Quality Control Sample Type	Method	QC Lot #	Count		Frequency (%)		
			QC	Regular	Actual	Expected	Evaluation
<i>Analytical Methods</i>							
Method Blanks (MB) - Continued							
Mercury in Biota by CVAAS (WET units, Biopsy)	E512A	998097	2	29	6.9	5.0	✔
Mercury in Biota by CVAAS (WET units, Micro)	E511A	998106	2	28	7.1	5.0	✔
Mercury in Biota by CVAAS (WET units, Routine)	E510A	986883	5	83	6.0	5.0	✔
Metals by CRC ICPMS (DRY units, Biopsy)	E475	998098	3	29	10.3	5.0	✔
Metals in Biota by CRC ICPMS (DRY units, Micro)	E472	998107	2	28	7.1	5.0	✔
Metals in Biota by CRC ICPMS (DRY units, Routine)	E440	986882	5	83	6.0	5.0	✔
Moisture Content by Gravimetry	E144	981475	5	83	6.0	5.0	✔
Moisture Content by Gravimetry (Biopsy)	E144A	989889	2	29	6.9	5.0	✔
Moisture Content by Gravimetry (Micro)	E144-H	988341	2	28	7.1	5.0	✔
Silver in Biota by CRC ICPMS (DRY units, Biopsy)	E475.Ag	998094	2	29	6.9	5.0	✔
Silver in Biota by CRC ICPMS (DRY units, Micro)	E472.Ag	998103	2	28	7.1	5.0	✔
Silver in Biota by CRC ICPMS (DRY units, Routine)	E440.Ag	986886	5	83	6.0	5.0	✔
Titanium in Biota by CRC ICPMS (DRY units, Biopsy)	E475.Ti	998095	2	29	6.9	5.0	✔
Titanium in Biota by CRC ICPMS (DRY units, Micro)	E472.Ti	998104	2	28	7.1	5.0	✔
Titanium in Biota by CRC ICPMS (DRY units, Routine)	E440.Ti	986885	5	83	6.0	5.0	✔



Methodology References and Summaries

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Reference methods may incorporate modifications to improve performance (indicated by "mod").

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Moisture Content by Gravimetry	E144 Vancouver - Environmental	Biota	Puget Sound Water Quality Authority/CCME PHC in Soil - Tier 1	Moisture is measured gravimetrically by drying the sample at 105°C. Moisture content is calculated as the weight loss (due to water) divided by the wet weight of the sample, expressed as a percentage.
Moisture Content by Gravimetry (Biopsy)	E144A Vancouver - Environmental	Biota	Puget Sound Water Quality Authority/CCME PHC in Soil - Tier 1	This analysis is carried out gravimetrically by drying the sample at <60 deg. C for a minimum of three days.
Moisture Content by Gravimetry (Micro)	E144-H Vancouver - Environmental	Biota	Puget Sound Water Quality Authority/BC MOE Lab Manual	Moisture is measured gravimetrically by drying the sample at <60°C for a minimum of 3 days to constant weight. Moisture content is calculated as the weight loss (due to water) divided by the wet weight of soil, expressed as a percentage.
Metals in Biota by CRC ICPMS (DRY units, Routine)	E440 Vancouver - Environmental	Biota	EPA 200.3/6020B (mod)	Tissue samples are homogenized and sub-sampled prior to hotblock digestion with HNO ₃ , HCl, and H ₂ O ₂ . Analysis is by Collision/Reaction Cell ICPMS. Method Limitation: This method employs a strong acid/peroxide digestion, and is intended to provide a conservative estimate of bio-available metals. Near complete recoveries are achieved for most toxicologically important metals, but elements associated with recalcitrant minerals may be only partially recovered.
Silver in Biota by CRC ICPMS (DRY units, Routine)	E440.Ag Vancouver - Environmental	Biota	EPA 200.3/6020B (mod)	Tissue samples are homogenized and sub-sampled prior to hotblock digestion with HNO ₃ , HCl, and H ₂ O ₂ . Analysis is by Collision/Reaction Cell ICPMS. Method Limitation: This method employs a strong acid/peroxide digestion, and is intended to provide a conservative estimate of bio-available metals. Near complete recoveries are achieved for most toxicologically important metals, but elements associated with recalcitrant minerals may be only partially recovered.
Titanium in Biota by CRC ICPMS (DRY units, Routine)	E440.Ti Vancouver - Environmental	Biota	EPA 200.3/6020B (mod)	Tissue samples are homogenized and sub-sampled prior to hotblock digestion with HNO ₃ , HCl, and H ₂ O ₂ . Analysis is by Collision/Reaction Cell ICPMS. Method Limitation: This method employs a strong acid/peroxide digestion, and is intended to provide a conservative estimate of bio-available metals. Near complete recoveries are achieved for most toxicologically important metals, but elements associated with recalcitrant minerals may be only partially recovered.
Metals in Biota by CRC ICPMS (DRY units, Micro)	E472 Vancouver - Environmental	Biota	EPA 200.3/6020B (mod)	Tissue samples are homogenized and sub-sampled prior to hotblock digestion with HNO ₃ , HCl, and H ₂ O ₂ . Analysis is by Collision/Reaction Cell ICPMS. Method Limitation: This method employs a strong acid/peroxide digestion, and is intended to provide a conservative estimate of bio-available metals. Near complete recoveries are achieved for most toxicologically important metals, but elements associated with recalcitrant minerals may be only partially recovered.



Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Silver in Biota by CRC ICPMS (DRY units, Micro)	E472.Ag Vancouver - Environmental	Biota	EPA 200.3/6020B (mod)	Tissue samples are homogenized and sub-sampled prior to hotblock digestion with HNO ₃ , HCl, and H ₂ O ₂ . Analysis is by Collision/Reaction Cell ICPMS. Method Limitation: This method employs a strong acid/peroxide digestion, and is intended to provide a conservative estimate of bio-available metals. Near complete recoveries are achieved for most toxicologically important metals, but elements associated with recalcitrant minerals may be only partially recovered.
Titanium in Biota by CRC ICPMS (DRY units, Micro)	E472.Ti Vancouver - Environmental	Biota	EPA 200.3/6020B (mod)	Tissue samples are homogenized and sub-sampled prior to hotblock digestion with HNO ₃ , HCl, and H ₂ O ₂ . Analysis is by Collision/Reaction Cell ICPMS. Method Limitation: This method employs a strong acid/peroxide digestion, and is intended to provide a conservative estimate of bio-available metals. Near complete recoveries are achieved for most toxicologically important metals, but elements associated with recalcitrant minerals may be only partially recovered.
Metals by CRC ICPMS (DRY units, Biopsy)	E475 Vancouver - Environmental	Biota	EPA 200.3/6020B (mod)	Samples are digested with nitric acid, hydrochloric acid, and hydrogen peroxide. Analysis is by Collision/Reaction Cell ICPMS: This method employs a strong acid/peroxide digestion, and is intended to provide a conservative estimate of bio-available metals. Near complete recoveries are achieved for most toxicologically important metals, but elements associated with recalcitrant minerals may be only partially recovered.
Silver in Biota by CRC ICPMS (DRY units, Biopsy)	E475.Ag Vancouver - Environmental	Biota	EPA 200.3/6020B (mod)	Samples are digested with nitric acid, hydrochloric acid, and hydrogen peroxide. Analysis is by Collision/Reaction Cell ICPMS. Method Limitation: This method employs a strong acid/peroxide digestion, and is intended to provide a conservative estimate of bio-available metals. Near complete recoveries are achieved for most toxicologically important metals, but elements associated with recalcitrant minerals may be only partially recovered.
Titanium in Biota by CRC ICPMS (DRY units, Biopsy)	E475.Ti Vancouver - Environmental	Biota	EPA 200.3/6020B (mod)	Samples are digested with nitric acid, hydrochloric acid, and hydrogen peroxide. Analysis is by Collision/Reaction Cell ICPMS. Method Limitation: This method employs a strong acid/peroxide digestion, and is intended to provide a conservative estimate of bio-available metals. Near complete recoveries are achieved for most toxicologically important metals, but elements associated with recalcitrant minerals may be only partially recovered.
Mercury in Biota by CVAAS (DRY units, Routine)	E510 Vancouver - Environmental	Biota	EPA 200.3/1631 Appendix (mod)	Samples are homogenized and sub-sampled prior to hotblock digestion with HNO ₃ , HCl, and H ₂ O ₂ . Analysis is by CVAAS.
Mercury in Biota by CVAAS (WET units, Routine)	E510A Vancouver - Environmental	Biota	EPA 200.3/1631 Appendix (mod)	Samples are homogenized and sub-sampled prior to hotblock digestion with HNO ₃ , HCl, and H ₂ O ₂ . Analysis is by CVAAS.
Mercury in Biota by CVAAS (DRY units, Micro)	E511 Vancouver - Environmental	Biota	EPA 200.3/1631 Appendix (mod)	Samples are homogenized and sub-sampled prior to hotblock digestion with nitric acid, hydrochloric acid, and hydrogen peroxide. Analysis is by CVAAS.



<i>Analytical Methods</i>	<i>Method / Lab</i>	<i>Matrix</i>	<i>Method Reference</i>	<i>Method Descriptions</i>
Mercury in Biota by CVAAS (WET units, Micro)	E511A Vancouver - Environmental	Biota	EPA 200.3/1631 Appendix (mod)	Samples are homogenized and sub-sampled prior to hotblock digestion with nitric acid, hydrochloric acid, and hydrogen peroxide. Analysis is by CVAAS.
Mercury in Biota by CVAAS (DRY units, Biopsy)	E512 Vancouver - Environmental	Biota	EPA 200.3/1631 Appendix (mod)	Samples are digested with nitric acid, hydrochloric acid, and hydrogen peroxide. Analysis is by CVAAS.
Mercury in Biota by CVAAS (WET units, Biopsy)	E512A Vancouver - Environmental	Biota	EPA 200.3/1631 Appendix (mod)	Samples are homogenized digested with nitric acid, hydrochloric acid, and hydrogen peroxide. Analysis is by CVAAS.

<i>Preparation Methods</i>	<i>Method / Lab</i>	<i>Matrix</i>	<i>Method Reference</i>	<i>Method Descriptions</i>
Metals and Mercury Biota Digestion	EP440 Vancouver - Environmental	Biota	EPA 200.3	This method uses a heated strong acid digestion with HNO ₃ , HCl, and H ₂ O ₂ and is intended to provide a conservative estimate of bio-available metals.
Metals and Mercury Biota Digestion (Micro)	EP472 Vancouver - Environmental	Biota	EPA 200.3	This method, designed for small sample amounts, uses a heated strong acid digestion with HNO ₃ , HCl, and H ₂ O ₂ and is intended to provide a conservative estimate of bio-available metals.
Metals and Mercury Biota Digestion (Biopsy)	EP475 Vancouver - Environmental	Biota	EPA 200.3/200.8 (mod)	Samples are digested with nitric acid, hydrochloric acid, and hydrogen peroxide. Method Limitation: This method employs a strong acid/peroxide digestion, and is intended to provide a conservative estimate of bio-available metals. Near complete recoveries are achieved for most toxicologically important metals, but elements associated with recalcitrant minerals may be only partially recovered.

QUALITY CONTROL REPORT

<p>Work Order : VA23B1226</p> <p>Client : Mount Polley Mining Corporation</p> <p>Contact : Gabriel Holmes</p> <p>Address : PO Box 12 Likely BC Canada V0L 1N0</p> <p>Telephone :</p> <p>Project : ----</p> <p>PO : 5590012190</p> <p>C-O-C number : ----</p> <p>Sampler : ---- 250-790-2215 ext 2171</p> <p>Site : ----</p> <p>Quote number : VA22-MPMC100-002</p> <p>No. of samples received : 140</p> <p>No. of samples analysed : 140</p>	<p>Page : 1 of 46</p> <p>Laboratory : Vancouver - Environmental</p> <p>Account Manager : Can Dang</p> <p>Address : 8081 Lougheed Highway Burnaby, British Columbia Canada V5A 1W9</p> <p>Telephone : +1 604 253 4188</p> <p>Date Samples Received : 19-May-2023 11:30</p> <p>Date Analysis Commenced : 09-Jun-2023</p> <p>Issue Date : 04-Jul-2023 09:09</p>
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This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Quality Control Report contains the following information:

- Laboratory Duplicate (DUP) Report; Relative Percent Difference (RPD) and Data Quality Objectives
- Reference Material (RM) Report; Recovery and Data Quality Objectives
- Method Blank (MB) Report; Recovery and Data Quality Objectives
- Laboratory Control Sample (LCS) Report; Recovery and Data Quality Objectives

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

<i>Signatories</i>	<i>Position</i>	<i>Laboratory Department</i>
Hamideh Moradi	Analyst	Vancouver Metals, Burnaby, British Columbia
Kevin Duarte	Supervisor - Metals ICP Instrumentation	Vancouver Metals, Burnaby, British Columbia
Kinny Wu	Lab Analyst	Vancouver Metals, Burnaby, British Columbia
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Work Order : VA23B1226
Client : Mount Polley Mining Corporation
Project : ----



General Comments

The ALS Quality Control (QC) report is optionally provided to ALS clients upon request. ALS test methods include comprehensive QC checks with every analysis to ensure our high standards of quality are met. Each QC result has a known or expected target value, which is compared against predetermined Data Quality Objectives (DQOs) to provide confidence in the accuracy of associated test results. This report contains detailed results for all QC results applicable to this sample submission. Please refer to the ALS Quality Control Interpretation report (QCI) for applicable method references and methodology summaries.

Key :

Anonymous = Refers to samples which are not part of this work order, but which formed part of the QC process lot.

CAS Number = Chemical Abstracts Service number is a unique identifier assigned to discrete substances.

DQO = Data Quality Objective.

LOR = Limit of Reporting (detection limit).

RPD = Relative Percent Difference

= Indicates a QC result that did not meet the ALS DQO.

Workorder Comments

Holding times are displayed as "---" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.



Laboratory Duplicate (DUP) Report

A Laboratory Duplicate (DUP) is a randomly selected intralaboratory replicate sample. Laboratory Duplicates provide information regarding method precision and sample heterogeneity. ALS DQOs for Laboratory Duplicates are expressed as test-specific limits for Relative Percent Difference (RPD), or as an absolute difference limit of 2 times the LOR for low concentration duplicates within ~ 4-10 times the LOR (cut-off is test-specific).

Sub-Matrix: Biota					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	LOR	Unit	Original Result	Duplicate Result	RPD(%) or Difference	Duplicate Limits	Qualifier
Physical Tests (QC Lot: 981475)											
VA23B1226-001	POL_RB-M-1_2023-05	Moisture	----	E144	0.50	%	77.5	77.1	0.491%	20%	----
Physical Tests (QC Lot: 981489)											
VA23B1226-037	BOL_RB-M-5_2023-05	Moisture	----	E144	0.50	%	80.1	79.7	0.514%	20%	----
Physical Tests (QC Lot: 981491)											
VA23B1226-074	POL_LSU-O-2_2023-05	Moisture	----	E144	0.50	%	63.7	63.7	0.0472%	20%	----
Physical Tests (QC Lot: 981494)											
VA23B1226-108	BOL_LSU-O-4_2023-05	Moisture	----	E144	0.50	%	63.5	63.4	0.184%	20%	----
Physical Tests (QC Lot: 981495)											
VA23B1226-132	POL_RB-O-7X_2023-05	Moisture	----	E144	0.50	%	65.6	65.2	0.710%	20%	----
Physical Tests (QC Lot: 988341)											
VA23B1226-081	POL_LSU-Li-1_2023-05	Moisture	----	E144-H	2.0	%	73.9	73.8	0.152%	20%	----
Physical Tests (QC Lot: 989877)											
VA23B1226-083	POL_LSU-Li-3_2023-05	Moisture	----	E144-H	2.0	%	75.8	75.8	0.00942%	20%	----
Metals (QC Lot: 1005044)											
VA23B1226-083	POL_LSU-Li-3_2023-05	Silver	7440-22-4	E472.Ag	0.0050	mg/kg	0.0348	0.0152	78.2%	40%	DUP-H
Metals (QC Lot: 1005045)											
VA23B1226-083	POL_LSU-Li-3_2023-05	Titanium	7440-32-6	E472.Ti	0.50	mg/kg	<0.50	0.64	0.14	Diff <2x LOR	----
Metals (QC Lot: 1005046)											
VA23B1226-083	POL_LSU-Li-3_2023-05	Mercury	7439-97-6	E511	0.0050	mg/kg	0.0567	0.0639	12.0%	40%	----
Metals (QC Lot: 1005047)											
VA23B1226-083	POL_LSU-Li-3_2023-05	Mercury	7439-97-6	E511A	0.0010	mg/kg wwt	0.0137	0.0155	12.0%	40%	----
Metals (QC Lot: 1005048)											
VA23B1226-083	POL_LSU-Li-3_2023-05	Aluminum	7429-90-5	E472	5.0	mg/kg	6.8	8.4	1.6	Diff <2x LOR	----
		Antimony	7440-36-0	E472	0.010	mg/kg	<0.010	<0.010	0	Diff <2x LOR	----
		Arsenic	7440-38-2	E472	0.030	mg/kg	0.148	0.174	15.9%	40%	----
		Barium	7440-39-3	E472	0.050	mg/kg	0.163	0.165	0.002	Diff <2x LOR	----
		Beryllium	7440-41-7	E472	0.010	mg/kg	<0.010	<0.010	0	Diff <2x LOR	----
		Bismuth	7440-69-9	E472	0.010	mg/kg	<0.010	<0.010	0	Diff <2x LOR	----
		Boron	7440-42-8	E472	1.0	mg/kg	<1.0	<1.0	0	Diff <2x LOR	----
		Cadmium	7440-43-9	E472	0.010	mg/kg	0.191	0.225	16.4%	40%	----



Sub-Matrix: Biota

Laboratory Duplicate (DUP) Report

Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	LOR	Unit	Original Result	Duplicate Result	RPD(%) or Difference	Duplicate Limits	Qualifier
Metals (QC Lot: 1005048) - continued											
VA23B1226-083	POL_LSU-Li-3_2023-05	Calcium	7440-70-2	E472	20	mg/kg	163	190	15.4%	60%	---
		Cesium	7440-46-2	E472	0.0050	mg/kg	0.0166	0.0191	0.0025	Diff <2x LOR	---
		Chromium	7440-47-3	E472	0.20	mg/kg	<0.20	<0.20	0	Diff <2x LOR	---
		Cobalt	7440-48-4	E472	0.020	mg/kg	0.071	0.084	0.013	Diff <2x LOR	---
		Copper	7440-50-8	E472	0.20	mg/kg	33.5	39.4	16.3%	40%	---
		Iron	7439-89-6	E472	5.0	mg/kg	388	454	15.7%	40%	---
		Lead	7439-92-1	E472	0.050	mg/kg	<0.050	<0.050	0	Diff <2x LOR	---
		Lithium	7439-93-2	E472	0.50	mg/kg	<0.50	<0.50	0	Diff <2x LOR	---
		Magnesium	7439-95-4	E472	2.0	mg/kg	772	889	14.0%	40%	---
		Manganese	7439-96-5	E472	0.050	mg/kg	9.33	10.9	15.3%	40%	---
		Molybdenum	7439-98-7	E472	0.040	mg/kg	0.991	1.16	16.2%	40%	---
		Nickel	7440-02-0	E472	0.20	mg/kg	<0.20	<0.20	0	Diff <2x LOR	---
		Phosphorus	7723-14-0	E472	10	mg/kg	12600	14500	14.6%	40%	---
		Potassium	7440-09-7	E472	20	mg/kg	10700	12200	13.4%	40%	---
		Rubidium	7440-17-7	E472	0.050	mg/kg	10.1	11.8	14.7%	40%	---
		Selenium	7782-49-2	E472	0.10	mg/kg	6.69	7.91	16.7%	40%	---
		Sodium	7440-23-5	E472	20	mg/kg	2690	3060	13.0%	40%	---
		Strontium	7440-24-6	E472	0.10	mg/kg	0.38	0.44	14.3%	60%	---
		Tellurium	13494-80-9	E472	0.020	mg/kg	<0.020	<0.020	0	Diff <2x LOR	---
		Thallium	7440-28-0	E472	0.0020	mg/kg	<0.0020	<0.0020	0	Diff <2x LOR	---
		Tin	7440-31-5	E472	0.10	mg/kg	<0.10	<0.10	0	Diff <2x LOR	---
		Uranium	7440-61-1	E472	0.0020	mg/kg	0.0023	0.0029	0.0007	Diff <2x LOR	---
		Vanadium	7440-62-2	E472	0.10	mg/kg	0.79	0.93	16.6%	40%	---
		Zinc	7440-66-6	E472	1.0	mg/kg	69.0	81.4	16.5%	40%	---
		Zirconium	7440-67-7	E472	0.20	mg/kg	<0.20	<0.20	0	Diff <2x LOR	---
Metals (QC Lot: 986882)											
VA23B1226-001	POL_RB-M-1_2023-05	Molybdenum	7439-98-7	E440	0.020	mg/kg	<0.020	<0.020	0	Diff <2x LOR	---
VA23B1226-001	POL_RB-M-1_2023-05	Aluminum	7429-90-5	E440	2.0	mg/kg	3.5	3.2	0.3	Diff <2x LOR	---
		Antimony	7440-36-0	E440	0.010	mg/kg	<0.010	<0.010	0	Diff <2x LOR	---
		Arsenic	7440-38-2	E440	0.020	mg/kg	0.071	0.072	0.001	Diff <2x LOR	---
		Barium	7440-39-3	E440	0.050	mg/kg	0.180	0.110	0.071	Diff <2x LOR	---
		Beryllium	7440-41-7	E440	0.010	mg/kg	<0.010	<0.010	0	Diff <2x LOR	---
		Bismuth	7440-69-9	E440	0.010	mg/kg	<0.010	<0.010	0	Diff <2x LOR	---
		Boron	7440-42-8	E440	1.0	mg/kg	<1.0	<1.0	0	Diff <2x LOR	---



Sub-Matrix: Biota					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	LOR	Unit	Original Result	Duplicate Result	RPD(%) or Difference	Duplicate Limits	Qualifier
Metals (QC Lot: 986882) - continued											
VA23B1226-001	POL_RB-M-1_2023-05	Cadmium	7440-43-9	E440	0.0050	mg/kg	<0.0050	<0.0050	0	Diff <2x LOR	----
		Calcium	7440-70-2	E440	20	mg/kg	1240	856	37.1%	60%	----
		Cesium	7440-46-2	E440	0.0050	mg/kg	0.0694	0.0682	1.67%	40%	----
		Chromium	7440-47-3	E440	0.050	mg/kg	0.094	<0.050	0.044	Diff <2x LOR	----
		Cobalt	7440-48-4	E440	0.020	mg/kg	0.023	<0.020	0.003	Diff <2x LOR	----
		Copper	7440-50-8	E440	0.10	mg/kg	2.01	2.22	9.96%	40%	----
		Iron	7439-89-6	E440	3.0	mg/kg	28.6	27.1	5.45%	40%	----
		Lead	7439-92-1	E440	0.020	mg/kg	<0.020	<0.020	0	Diff <2x LOR	----
		Lithium	7439-93-2	E440	0.50	mg/kg	<0.50	<0.50	0	Diff <2x LOR	----
		Magnesium	7439-95-4	E440	2.0	mg/kg	1250	1300	3.95%	40%	----
		Manganese	7439-96-5	E440	0.050	mg/kg	0.626	0.567	9.92%	40%	----
		Nickel	7440-02-0	E440	0.20	mg/kg	<0.20	<0.20	0	Diff <2x LOR	----
		Phosphorus	7723-14-0	E440	10	mg/kg	13100	13300	1.76%	40%	----
		Potassium	7440-09-7	E440	20	mg/kg	20300	20800	2.45%	40%	----
		Rubidium	7440-17-7	E440	0.050	mg/kg	8.80	8.78	0.192%	40%	----
		Selenium	7782-49-2	E440	0.050	mg/kg	3.00	3.19	5.90%	40%	----
		Sodium	7440-23-5	E440	20	mg/kg	1450	1480	2.10%	40%	----
		Strontium	7440-24-6	E440	0.050	mg/kg	1.48	0.976	41.0%	60%	----
		Tellurium	13494-80-9	E440	0.020	mg/kg	<0.020	<0.020	0	Diff <2x LOR	----
		Thallium	7440-28-0	E440	0.0020	mg/kg	0.0065	0.0073	0.0008	Diff <2x LOR	----
Tin	7440-31-5	E440	0.10	mg/kg	0.22	<0.10	0.12	Diff <2x LOR	----		
Uranium	7440-61-1	E440	0.0020	mg/kg	<0.0020	<0.0020	0	Diff <2x LOR	----		
Vanadium	7440-62-2	E440	0.10	mg/kg	<0.10	<0.10	0	Diff <2x LOR	----		
Zinc	7440-66-6	E440	0.50	mg/kg	14.2	13.6	4.94%	40%	----		
Zirconium	7440-67-7	E440	0.20	mg/kg	<0.20	<0.20	0	Diff <2x LOR	----		
Metals (QC Lot: 986883)											
VA23B1226-001	POL_RB-M-1_2023-05	Mercury	7439-97-6	E510A	0.0023	mg/kg wwt	0.110	0.115	4.78%	40%	----
Metals (QC Lot: 986884)											
VA23B1226-001	POL_RB-M-1_2023-05	Mercury	7439-97-6	E510	0.0103	mg/kg	0.488	0.512	4.78%	40%	----
Metals (QC Lot: 986885)											
VA23B1226-001	POL_RB-M-1_2023-05	Titanium	7440-32-6	E440.Ti	0.25	mg/kg	<0.25	0.26	0.006	Diff <2x LOR	----
Metals (QC Lot: 986886)											
VA23B1226-001	POL_RB-M-1_2023-05	Silver	7440-22-4	E440.Ag	0.0050	mg/kg	<0.0050	<0.0050	0	Diff <2x LOR	----
Metals (QC Lot: 986889)											



Sub-Matrix: Biota

Laboratory Duplicate (DUP) Report

Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	LOR	Unit	Original Result	Duplicate Result	RPD(%) or Difference	Duplicate Limits	Qualifier
Metals (QC Lot: 986889) - continued											
VA23B1226-037	BOL_RB-M-5_2023-05	Aluminum	7429-90-5	E440	2.0	mg/kg	5.1	3.7	1.4	Diff <2x LOR	---
		Antimony	7440-36-0	E440	0.010	mg/kg	<0.010	<0.010	0	Diff <2x LOR	---
		Arsenic	7440-38-2	E440	0.020	mg/kg	0.040	0.036	0.004	Diff <2x LOR	---
		Barium	7440-39-3	E440	0.050	mg/kg	0.334	0.276	19.0%	40%	---
		Beryllium	7440-41-7	E440	0.010	mg/kg	<0.010	<0.010	0	Diff <2x LOR	---
		Bismuth	7440-69-9	E440	0.010	mg/kg	<0.010	<0.010	0	Diff <2x LOR	---
		Boron	7440-42-8	E440	1.0	mg/kg	<1.0	<1.0	0	Diff <2x LOR	---
		Cadmium	7440-43-9	E440	0.0050	mg/kg	<0.0050	<0.0050	0	Diff <2x LOR	---
		Calcium	7440-70-2	E440	20	mg/kg	301	576	62.6%	60%	DUP-H
		Cesium	7440-46-2	E440	0.0050	mg/kg	0.0515	0.0509	1.15%	40%	---
		Chromium	7440-47-3	E440	0.050	mg/kg	0.114	0.112	0.002	Diff <2x LOR	---
		Cobalt	7440-48-4	E440	0.020	mg/kg	0.032	0.038	0.006	Diff <2x LOR	---
		Copper	7440-50-8	E440	0.10	mg/kg	3.59	4.80	28.6%	40%	---
		Iron	7439-89-6	E440	3.0	mg/kg	48.6	57.3	16.3%	40%	---
		Lead	7439-92-1	E440	0.020	mg/kg	<0.020	<0.020	0	Diff <2x LOR	---
		Lithium	7439-93-2	E440	0.50	mg/kg	<0.50	<0.50	0	Diff <2x LOR	---
		Magnesium	7439-95-4	E440	2.0	mg/kg	1320	1340	1.42%	40%	---
		Manganese	7439-96-5	E440	0.050	mg/kg	0.842	0.936	10.6%	40%	---
		Molybdenum	7439-98-7	E440	0.020	mg/kg	0.031	0.038	0.007	Diff <2x LOR	---
		Nickel	7440-02-0	E440	0.20	mg/kg	<0.20	<0.20	0	Diff <2x LOR	---
		Phosphorus	7723-14-0	E440	10	mg/kg	13900	14200	1.98%	40%	---
		Potassium	7440-09-7	E440	20	mg/kg	21800	21400	1.94%	40%	---
		Rubidium	7440-17-7	E440	0.050	mg/kg	10.8	10.4	3.10%	40%	---
		Selenium	7782-49-2	E440	0.050	mg/kg	2.49	2.59	3.88%	40%	---
		Sodium	7440-23-5	E440	20	mg/kg	2630	2700	2.60%	40%	---
		Strontium	7440-24-6	E440	0.050	mg/kg	0.272	0.726	91.0%	60%	DUP-H
		Tellurium	13494-80-9	E440	0.020	mg/kg	<0.020	<0.020	0	Diff <2x LOR	---
		Thallium	7440-28-0	E440	0.0020	mg/kg	0.0139	0.0148	6.22%	40%	---
		Tin	7440-31-5	E440	0.10	mg/kg	0.26	0.22	0.03	Diff <2x LOR	---
		Uranium	7440-61-1	E440	0.0020	mg/kg	<0.0020	<0.0020	0	Diff <2x LOR	---
		Vanadium	7440-62-2	E440	0.10	mg/kg	<0.10	<0.10	0	Diff <2x LOR	---
		Zinc	7440-66-6	E440	0.50	mg/kg	19.8	21.5	8.70%	40%	---
		Zirconium	7440-67-7	E440	0.20	mg/kg	<0.20	<0.20	0	Diff <2x LOR	---

Metals (QC Lot: 986890)



Sub-Matrix: Biota					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	LOR	Unit	Original Result	Duplicate Result	RPD(%) or Difference	Duplicate Limits	Qualifier
Metals (QC Lot: 986890) - continued											
VA23B1226-037	BOL_RB-M-5_2023-05	Mercury	7439-97-6	E510A	0.0021	mg/kg wwt	0.0684	0.0683	0.107%	40%	----
Metals (QC Lot: 986891)											
VA23B1226-037	BOL_RB-M-5_2023-05	Silver	7440-22-4	E440.Ag	0.0050	mg/kg	<0.0050	<0.0050	0	Diff <2x LOR	----
Metals (QC Lot: 986892)											
VA23B1226-037	BOL_RB-M-5_2023-05	Mercury	7439-97-6	E510	0.0104	mg/kg	0.344	0.344	0.107%	40%	----
Metals (QC Lot: 986893)											
VA23B1226-037	BOL_RB-M-5_2023-05	Titanium	7440-32-6	E440.Ti	0.25	mg/kg	0.39	0.30	0.09	Diff <2x LOR	----
Metals (QC Lot: 986898)											
VA23B1226-074	POL_LSU-O-2_2023-05	Aluminum	7429-90-5	E440	2.0	mg/kg	<2.0	<2.0	0	Diff <2x LOR	----
		Antimony	7440-36-0	E440	0.010	mg/kg	<0.010	<0.010	0	Diff <2x LOR	----
		Arsenic	7440-38-2	E440	0.020	mg/kg	0.062	0.062	0.0002	Diff <2x LOR	----
		Barium	7440-39-3	E440	0.050	mg/kg	0.132	0.117	0.015	Diff <2x LOR	----
		Beryllium	7440-41-7	E440	0.010	mg/kg	<0.010	<0.010	0	Diff <2x LOR	----
		Bismuth	7440-69-9	E440	0.010	mg/kg	<0.010	<0.010	0	Diff <2x LOR	----
		Boron	7440-42-8	E440	1.0	mg/kg	<1.0	<1.0	0	Diff <2x LOR	----
		Cadmium	7440-43-9	E440	0.0050	mg/kg	<0.0050	<0.0050	0	Diff <2x LOR	----
		Calcium	7440-70-2	E440	20	mg/kg	477	479	0.504%	60%	----
		Cesium	7440-46-2	E440	0.0050	mg/kg	0.0119	0.0116	0.0003	Diff <2x LOR	----
		Chromium	7440-47-3	E440	0.050	mg/kg	<0.050	<0.050	0	Diff <2x LOR	----
		Cobalt	7440-48-4	E440	0.020	mg/kg	0.050	0.050	0.0008	Diff <2x LOR	----
		Copper	7440-50-8	E440	0.10	mg/kg	4.18	4.18	0.0319%	40%	----
		Iron	7439-89-6	E440	3.0	mg/kg	51.4	48.7	5.43%	40%	----
		Lead	7439-92-1	E440	0.020	mg/kg	<0.020	<0.020	0	Diff <2x LOR	----
		Lithium	7439-93-2	E440	0.50	mg/kg	<0.50	<0.50	0	Diff <2x LOR	----
		Magnesium	7439-95-4	E440	2.0	mg/kg	676	666	1.58%	40%	----
		Manganese	7439-96-5	E440	0.050	mg/kg	9.97	10.1	1.75%	40%	----
		Molybdenum	7439-98-7	E440	0.020	mg/kg	0.084	0.071	0.013	Diff <2x LOR	----
		Nickel	7440-02-0	E440	0.20	mg/kg	<0.20	<0.20	0	Diff <2x LOR	----
		Phosphorus	7723-14-0	E440	10	mg/kg	12200	12500	2.73%	40%	----
		Potassium	7440-09-7	E440	20	mg/kg	6390	6490	1.56%	40%	----
		Rubidium	7440-17-7	E440	0.050	mg/kg	4.71	4.74	0.626%	40%	----
		Selenium	7782-49-2	E440	0.050	mg/kg	8.62	8.78	1.84%	40%	----
		Sodium	7440-23-5	E440	20	mg/kg	1660	1680	1.18%	40%	----
		Strontium	7440-24-6	E440	0.050	mg/kg	0.475	0.472	0.829%	60%	----



Sub-Matrix: Biota					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	LOR	Unit	Original Result	Duplicate Result	RPD(%) or Difference	Duplicate Limits	Qualifier
Metals (QC Lot: 986898) - continued											
VA23B1226-074	POL_LSU-O-2_2023-05	Tellurium	13494-80-9	E440	0.020	mg/kg	<0.020	<0.020	0	Diff <2x LOR	----
		Thallium	7440-28-0	E440	0.0020	mg/kg	<0.0020	<0.0020	0	Diff <2x LOR	----
		Tin	7440-31-5	E440	0.10	mg/kg	<0.10	<0.10	0	Diff <2x LOR	----
		Uranium	7440-61-1	E440	0.0020	mg/kg	<0.0020	<0.0020	0	Diff <2x LOR	----
		Vanadium	7440-62-2	E440	0.10	mg/kg	0.12	0.11	0.007	Diff <2x LOR	----
		Zinc	7440-66-6	E440	0.50	mg/kg	88.9	89.4	0.588%	40%	----
		Zirconium	7440-67-7	E440	0.20	mg/kg	<0.20	<0.20	0	Diff <2x LOR	----
Metals (QC Lot: 986899)											
VA23B1226-074	POL_LSU-O-2_2023-05	Mercury	7439-97-6	E510A	0.0018	mg/kg wwt	0.0034	0.0033	0.0002	Diff <2x LOR	----
Metals (QC Lot: 986900)											
VA23B1226-074	POL_LSU-O-2_2023-05	Silver	7440-22-4	E440.Ag	0.0050	mg/kg	<0.0050	<0.0050	0	Diff <2x LOR	----
Metals (QC Lot: 986901)											
VA23B1226-074	POL_LSU-O-2_2023-05	Mercury	7439-97-6	E510	0.0050	mg/kg	0.0094	0.0090	0.0004	Diff <2x LOR	----
Metals (QC Lot: 986902)											
VA23B1226-074	POL_LSU-O-2_2023-05	Titanium	7440-32-6	E440.Ti	0.25	mg/kg	<0.25	<0.25	0	Diff <2x LOR	----
Metals (QC Lot: 986913)											
VA23B1226-108	BOL_LSU-O-4_2023-05	Aluminum	7429-90-5	E440	2.0	mg/kg	<2.0	<2.0	0	Diff <2x LOR	----
		Antimony	7440-36-0	E440	0.010	mg/kg	<0.010	<0.010	0	Diff <2x LOR	----
		Arsenic	7440-38-2	E440	0.020	mg/kg	0.074	0.075	0.0003	Diff <2x LOR	----
		Barium	7440-39-3	E440	0.050	mg/kg	0.210	0.200	0.010	Diff <2x LOR	----
		Beryllium	7440-41-7	E440	0.010	mg/kg	<0.010	<0.010	0	Diff <2x LOR	----
		Bismuth	7440-69-9	E440	0.010	mg/kg	<0.010	<0.010	0	Diff <2x LOR	----
		Boron	7440-42-8	E440	1.0	mg/kg	<1.0	<1.0	0	Diff <2x LOR	----
		Cadmium	7440-43-9	E440	0.0050	mg/kg	<0.0050	<0.0050	0	Diff <2x LOR	----
		Calcium	7440-70-2	E440	20	mg/kg	642	619	3.70%	60%	----
		Cesium	7440-46-2	E440	0.0050	mg/kg	0.0389	0.0365	6.44%	40%	----
		Chromium	7440-47-3	E440	0.050	mg/kg	<0.050	<0.050	0	Diff <2x LOR	----
		Cobalt	7440-48-4	E440	0.020	mg/kg	0.055	0.056	0.001	Diff <2x LOR	----
		Copper	7440-50-8	E440	0.10	mg/kg	3.96	3.99	0.868%	40%	----
		Iron	7439-89-6	E440	3.0	mg/kg	39.6	41.5	4.78%	40%	----
		Lead	7439-92-1	E440	0.020	mg/kg	<0.020	<0.020	0	Diff <2x LOR	----
		Lithium	7439-93-2	E440	0.50	mg/kg	<0.50	<0.50	0	Diff <2x LOR	----
		Magnesium	7439-95-4	E440	2.0	mg/kg	732	775	5.81%	40%	----
Manganese	7439-96-5	E440	0.050	mg/kg	20.6	20.5	0.384%	40%	----		



Sub-Matrix: Biota					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	LOR	Unit	Original Result	Duplicate Result	RPD(%) or Difference	Duplicate Limits	Qualifier
Metals (QC Lot: 986913) - continued											
VA23B1226-108	BOL_LSU-O-4_2023-05	Molybdenum	7439-98-7	E440	0.020	mg/kg	0.055	0.054	0.0007	Diff <2x LOR	----
		Nickel	7440-02-0	E440	0.20	mg/kg	<0.20	<0.20	0	Diff <2x LOR	----
		Phosphorus	7723-14-0	E440	10	mg/kg	11400	11400	0.124%	40%	----
		Potassium	7440-09-7	E440	20	mg/kg	6110	6120	0.0914%	40%	----
		Rubidium	7440-17-7	E440	0.050	mg/kg	5.53	5.56	0.422%	40%	----
		Selenium	7782-49-2	E440	0.050	mg/kg	5.11	5.03	1.59%	40%	----
		Sodium	7440-23-5	E440	20	mg/kg	1500	1500	0.208%	40%	----
		Strontium	7440-24-6	E440	0.050	mg/kg	0.840	0.816	2.83%	60%	----
		Tellurium	13494-80-9	E440	0.020	mg/kg	<0.020	<0.020	0	Diff <2x LOR	----
		Thallium	7440-28-0	E440	0.0020	mg/kg	0.0028	0.0026	0.0002	Diff <2x LOR	----
		Tin	7440-31-5	E440	0.10	mg/kg	<0.10	<0.10	0	Diff <2x LOR	----
		Uranium	7440-61-1	E440	0.0020	mg/kg	<0.0020	<0.0020	0	Diff <2x LOR	----
		Vanadium	7440-62-2	E440	0.10	mg/kg	<0.10	<0.10	0	Diff <2x LOR	----
		Zinc	7440-66-6	E440	0.50	mg/kg	78.3	78.9	0.772%	40%	----
Zirconium	7440-67-7	E440	0.20	mg/kg	<0.20	<0.20	0	Diff <2x LOR	----		
Metals (QC Lot: 986914)											
VA23B1226-108	BOL_LSU-O-4_2023-05	Mercury	7439-97-6	E510A	0.0020	mg/kg wwt	0.0044	0.0037	0.0006	Diff <2x LOR	----
Metals (QC Lot: 986915)											
VA23B1226-108	BOL_LSU-O-4_2023-05	Silver	7440-22-4	E440.Ag	0.0050	mg/kg	<0.0050	<0.0050	0	Diff <2x LOR	----
Metals (QC Lot: 986916)											
VA23B1226-108	BOL_LSU-O-4_2023-05	Mercury	7439-97-6	E510	0.0056	mg/kg	0.0121	0.0103	0.0018	Diff <2x LOR	----
Metals (QC Lot: 986917)											
VA23B1226-108	BOL_LSU-O-4_2023-05	Titanium	7440-32-6	E440.Ti	0.25	mg/kg	<0.25	<0.25	0	Diff <2x LOR	----
Metals (QC Lot: 986935)											
VA23B1226-123	BOL_LSU-Ki-3_2023-05	Lead	7439-92-1	E440	0.020	mg/kg	0.083	0.077	0.006	Diff <2x LOR	----
		Manganese	7439-96-5	E440	0.050	mg/kg	12.4	12.9	3.52%	40%	----
		Molybdenum	7439-98-7	E440	0.020	mg/kg	0.420	0.414	1.24%	40%	----
VA23B1226-123	BOL_LSU-Ki-3_2023-05	Aluminum	7429-90-5	E440	2.0	mg/kg	26.6	32.0	18.2%	40%	----
		Antimony	7440-36-0	E440	0.010	mg/kg	0.011	<0.010	0.0008	Diff <2x LOR	----
		Arsenic	7440-38-2	E440	0.020	mg/kg	0.190	0.200	5.14%	40%	----
		Barium	7440-39-3	E440	0.050	mg/kg	2.12	2.58	19.6%	40%	----
		Beryllium	7440-41-7	E440	0.010	mg/kg	<0.010	<0.010	0	Diff <2x LOR	----
		Bismuth	7440-69-9	E440	0.010	mg/kg	<0.010	<0.010	0	Diff <2x LOR	----
		Boron	7440-42-8	E440	1.0	mg/kg	<1.0	<1.0	0	Diff <2x LOR	----



Sub-Matrix: Biota					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	LOR	Unit	Original Result	Duplicate Result	RPD(%) or Difference	Duplicate Limits	Qualifier
Metals (QC Lot: 986935) - continued											
VA23B1226-123	BOL_LSU-Ki-3_2023-05	Cadmium	7440-43-9	E440	0.0050	mg/kg	1.48	1.84	21.3%	40%	---
		Calcium	7440-70-2	E440	20	mg/kg	887	1630	58.9%	60%	---
		Cesium	7440-46-2	E440	0.0050	mg/kg	0.0481	0.0512	6.10%	40%	---
		Chromium	7440-47-3	E440	0.050	mg/kg	0.104	0.143	0.040	Diff <2x LOR	---
		Cobalt	7440-48-4	E440	0.020	mg/kg	0.306	0.317	3.45%	40%	---
		Copper	7440-50-8	E440	0.10	mg/kg	7.24	7.64	5.43%	40%	---
		Iron	7439-89-6	E440	3.0	mg/kg	433	492	12.8%	40%	---
		Lithium	7439-93-2	E440	0.50	mg/kg	<0.50	<0.50	0	Diff <2x LOR	---
		Magnesium	7439-95-4	E440	2.0	mg/kg	581	615	5.78%	40%	---
		Nickel	7440-02-0	E440	0.20	mg/kg	0.56	0.59	0.03	Diff <2x LOR	---
		Phosphorus	7723-14-0	E440	10	mg/kg	10900	11600	6.76%	40%	---
		Potassium	7440-09-7	E440	20	mg/kg	8900	9180	3.15%	40%	---
		Rubidium	7440-17-7	E440	0.050	mg/kg	7.04	7.23	2.70%	40%	---
		Selenium	7782-49-2	E440	0.050	mg/kg	5.71	5.68	0.648%	40%	---
		Sodium	7440-23-5	E440	20	mg/kg	6740	7000	3.64%	40%	---
		Strontium	7440-24-6	E440	0.050	mg/kg	3.04	5.24	53.1%	60%	---
		Tellurium	13494-80-9	E440	0.020	mg/kg	0.027	0.020	0.007	Diff <2x LOR	---
		Thallium	7440-28-0	E440	0.0020	mg/kg	0.0143	0.0143	0.137%	40%	---
		Tin	7440-31-5	E440	0.10	mg/kg	0.32	0.45	0.13	Diff <2x LOR	---
		Uranium	7440-61-1	E440	0.0020	mg/kg	0.0146	0.0162	10.3%	40%	---
Vanadium	7440-62-2	E440	0.10	mg/kg	0.59	0.69	16.2%	40%	---		
Zinc	7440-66-6	E440	0.50	mg/kg	98.8	121	19.9%	40%	---		
Zirconium	7440-67-7	E440	0.20	mg/kg	<0.20	<0.20	0	Diff <2x LOR	---		
Metals (QC Lot: 986936)											
VA23B1226-123	BOL_LSU-Ki-3_2023-05	Mercury	7439-97-6	E510A	0.0016	mg/kg wwt	0.0500	0.0507	1.38%	40%	---
Metals (QC Lot: 986937)											
VA23B1226-123	BOL_LSU-Ki-3_2023-05	Silver	7440-22-4	E440.Ag	0.0050	mg/kg	0.0066	0.0073	0.0007	Diff <2x LOR	---
Metals (QC Lot: 986938)											
VA23B1226-123	BOL_LSU-Ki-3_2023-05	Mercury	7439-97-6	E510	0.0070	mg/kg	0.217	0.220	1.38%	40%	---
Metals (QC Lot: 986939)											
VA23B1226-123	BOL_LSU-Ki-3_2023-05	Titanium	7440-32-6	E440.Ti	0.25	mg/kg	2.30	2.42	4.85%	40%	---
Metals (QC Lot: 998103)											
VA23B1226-081	POL_LSU-Li-1_2023-05	Silver	7440-22-4	E472.Ag	0.0050	mg/kg	0.0238	0.0423	55.8%	40%	DUP-H
Metals (QC Lot: 998104)											



Sub-Matrix: Biota					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	LOR	Unit	Original Result	Duplicate Result	RPD(%) or Difference	Duplicate Limits	Qualifier
Metals (QC Lot: 998104) - continued											
VA23B1226-081	POL_LSU-Li-1_2023-05	Titanium	7440-32-6	E472.Ti	0.50	mg/kg	<0.50	1.13	0.63	Diff <2x LOR	----
Metals (QC Lot: 998105)											
VA23B1226-081	POL_LSU-Li-1_2023-05	Mercury	7439-97-6	E511	0.0050	mg/kg	0.0354	0.0345	2.51%	40%	----
Metals (QC Lot: 998106)											
VA23B1226-081	POL_LSU-Li-1_2023-05	Mercury	7439-97-6	E511A	0.0010	mg/kg wwt	0.0092	0.0090	2.51%	40%	----
Metals (QC Lot: 998107)											
VA23B1226-081	POL_LSU-Li-1_2023-05	Aluminum	7429-90-5	E472	5.0	mg/kg	<5.0	<5.0	0	Diff <2x LOR	----
		Arsenic	7440-38-2	E472	0.030	mg/kg	0.154	0.164	5.67%	40%	----
		Barium	7440-39-3	E472	0.050	mg/kg	0.064	0.070	0.006	Diff <2x LOR	----
		Cadmium	7440-43-9	E472	0.010	mg/kg	0.172	0.186	7.85%	40%	----
		Calcium	7440-70-2	E472	20	mg/kg	168	176	4.44%	60%	----
		Copper	7440-50-8	E472	0.20	mg/kg	37.5	39.8	6.04%	40%	----
		Iron	7439-89-6	E472	5.0	mg/kg	138	137	0.570%	40%	----
		Strontium	7440-24-6	E472	0.10	mg/kg	0.35	0.35	1.85%	60%	----
		Vanadium	7440-62-2	E472	0.10	mg/kg	0.13	0.14	0.007	Diff <2x LOR	----
		Antimony	7440-36-0	E472	0.010	mg/kg	<0.010	0.022	0.012	Diff <2x LOR	----
		Beryllium	7440-41-7	E472	0.010	mg/kg	<0.010	<0.010	0	Diff <2x LOR	----
		Bismuth	7440-69-9	E472	0.010	mg/kg	<0.010	<0.010	0	Diff <2x LOR	----
		Boron	7440-42-8	E472	1.0	mg/kg	<1.0	<1.0	0	Diff <2x LOR	----
		Cesium	7440-46-2	E472	0.0050	mg/kg	0.0267	0.0229	0.0038	Diff <2x LOR	----
		Chromium	7440-47-3	E472	0.20	mg/kg	<0.20	0.21	0.008	Diff <2x LOR	----
		Cobalt	7440-48-4	E472	0.020	mg/kg	0.087	0.110	0.023	Diff <2x LOR	----
		Lead	7439-92-1	E472	0.050	mg/kg	<0.050	0.092	0.042	Diff <2x LOR	----
		Lithium	7439-93-2	E472	0.50	mg/kg	<0.50	<0.50	0	Diff <2x LOR	----
		Magnesium	7439-95-4	E472	2.0	mg/kg	933	1020	8.94%	40%	----
		Manganese	7439-96-5	E472	0.050	mg/kg	11.3	10.7	5.28%	40%	----
		Molybdenum	7439-98-7	E472	0.040	mg/kg	1.45	1.65	12.9%	40%	----
Nickel	7440-02-0	E472	0.20	mg/kg	<0.20	<0.20	0	Diff <2x LOR	----		
Phosphorus	7723-14-0	E472	10	mg/kg	16000	16800	5.11%	40%	----		
Potassium	7440-09-7	E472	20	mg/kg	14100	14400	1.98%	40%	----		
Rubidium	7440-17-7	E472	0.050	mg/kg	14.8	10.1	37.2%	40%	----		
Selenium	7782-49-2	E472	0.10	mg/kg	8.52	11.7	31.5%	40%	----		
Sodium	7440-23-5	E472	20	mg/kg	3410	4060	17.4%	40%	----		
Tellurium	13494-80-9	E472	0.020	mg/kg	<0.020	<0.020	0	Diff <2x LOR	----		



Sub-Matrix: Biota					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	LOR	Unit	Original Result	Duplicate Result	RPD(%) or Difference	Duplicate Limits	Qualifier
Metals (QC Lot: 998107) - continued											
VA23B1226-081	POL_LSU-Li-1_2023-05	Thallium	7440-28-0	E472	0.0020	mg/kg	<0.0020	<0.0020	0	Diff <2x LOR	----
		Tin	7440-31-5	E472	0.10	mg/kg	<0.10	<0.10	0	Diff <2x LOR	----
		Uranium	7440-61-1	E472	0.0020	mg/kg	<0.0020	0.0027	0.0007	Diff <2x LOR	----
		Zinc	7440-66-6	E472	1.0	mg/kg	99.0	106	6.56%	40%	----
		Zirconium	7440-67-7	E472	0.20	mg/kg	<0.20	<0.20	0	Diff <2x LOR	----

Qualifiers

Qualifier	Description
DUP-H	Duplicate results outside ALS DQO, due to sample heterogeneity.



Method Blank (MB) Report

A Method Blank is an analyte-free matrix that undergoes sample processing identical to that carried out for test samples. Method Blank results are used to monitor and control for potential contamination from the laboratory environment and reagents. For most tests, the DQO for Method Blanks is for the result to be < LOR.

Sub-Matrix: Biota

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Physical Tests (QCLot: 981475)						
Moisture	---	E144	0.5	%	<0.50	---
Physical Tests (QCLot: 981489)						
Moisture	---	E144	0.5	%	<0.50	---
Physical Tests (QCLot: 981491)						
Moisture	---	E144	0.5	%	<0.50	---
Physical Tests (QCLot: 981494)						
Moisture	---	E144	0.5	%	<0.50	---
Physical Tests (QCLot: 981495)						
Moisture	---	E144	0.5	%	<0.50	---
Physical Tests (QCLot: 988341)						
Moisture	---	E144-H	2	%	<2.0	---
Physical Tests (QCLot: 989877)						
Moisture	---	E144-H	2	%	<2.0	---
Physical Tests (QCLot: 989889)						
Moisture	---	E144A	2	%	<2.0	---
Physical Tests (QCLot: 989891)						
Moisture	---	E144A	2	%	<2.0	---
Metals (QCLot: 1005044)						
Silver	7440-22-4	E472.Ag	0.005	mg/kg	<0.0050	---
Metals (QCLot: 1005045)						
Titanium	7440-32-6	E472.Ti	0.5	mg/kg	<0.50	---
Metals (QCLot: 1005046)						
Mercury	7439-97-6	E511	0.005	mg/kg	<0.0050	---
Metals (QCLot: 1005047)						
Mercury	7439-97-6	E511A	0.001	mg/kg wwt	<0.0010	---
Metals (QCLot: 1005048)						
Aluminum	7429-90-5	E472	5	mg/kg	<5.0	---
Antimony	7440-36-0	E472	0.01	mg/kg	<0.010	---
Arsenic	7440-38-2	E472	0.03	mg/kg	<0.030	---
Barium	7440-39-3	E472	0.05	mg/kg	<0.050	---
Beryllium	7440-41-7	E472	0.01	mg/kg	<0.010	---
Bismuth	7440-69-9	E472	0.01	mg/kg	<0.010	---



Sub-Matrix: Biota

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Metals (QCLot: 1005048) - continued						
Boron	7440-42-8	E472	1	mg/kg	<1.0	---
Cadmium	7440-43-9	E472	0.01	mg/kg	<0.010	---
Calcium	7440-70-2	E472	20	mg/kg	<20	---
Cesium	7440-46-2	E472	0.005	mg/kg	<0.0050	---
Chromium	7440-47-3	E472	0.2	mg/kg	<0.20	---
Cobalt	7440-48-4	E472	0.02	mg/kg	<0.020	---
Copper	7440-50-8	E472	0.2	mg/kg	<0.20	---
Iron	7439-89-6	E472	5	mg/kg	<5.0	---
Lead	7439-92-1	E472	0.05	mg/kg	<0.050	---
Lithium	7439-93-2	E472	0.5	mg/kg	<0.50	---
Magnesium	7439-95-4	E472	2	mg/kg	<2.0	---
Manganese	7439-96-5	E472	0.05	mg/kg	<0.050	---
Molybdenum	7439-98-7	E472	0.04	mg/kg	<0.040	---
Nickel	7440-02-0	E472	0.2	mg/kg	<0.20	---
Phosphorus	7723-14-0	E472	10	mg/kg	<10	---
Potassium	7440-09-7	E472	20	mg/kg	<20	---
Rubidium	7440-17-7	E472	0.05	mg/kg	<0.050	---
Selenium	7782-49-2	E472	0.1	mg/kg	<0.10	---
Sodium	7440-23-5	E472	20	mg/kg	<20	---
Strontium	7440-24-6	E472	0.1	mg/kg	<0.10	---
Tellurium	13494-80-9	E472	0.02	mg/kg	<0.020	---
Thallium	7440-28-0	E472	0.002	mg/kg	<0.0020	---
Tin	7440-31-5	E472	0.1	mg/kg	<0.10	---
Uranium	7440-61-1	E472	0.002	mg/kg	<0.0020	---
Vanadium	7440-62-2	E472	0.1	mg/kg	<0.10	---
Zinc	7440-66-6	E472	1	mg/kg	<1.0	---
Zirconium	7440-67-7	E472	0.2	mg/kg	<0.20	---
Metals (QCLot: 986882)						
Aluminum	7429-90-5	E440	2	mg/kg	<2.0	---
Antimony	7440-36-0	E440	0.01	mg/kg	<0.010	---
Arsenic	7440-38-2	E440	0.02	mg/kg	<0.020	---
Barium	7440-39-3	E440	0.05	mg/kg	<0.050	---
Beryllium	7440-41-7	E440	0.01	mg/kg	<0.010	---
Bismuth	7440-69-9	E440	0.01	mg/kg	<0.010	---
Boron	7440-42-8	E440	1	mg/kg	<1.0	---



Sub-Matrix: **Biota**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Metals (QCLot: 986882) - continued						
Cadmium	7440-43-9	E440	0.005	mg/kg	<0.0050	---
Calcium	7440-70-2	E440	20	mg/kg	<20	---
Cesium	7440-46-2	E440	0.005	mg/kg	<0.0050	---
Chromium	7440-47-3	E440	0.05	mg/kg	<0.050	---
Cobalt	7440-48-4	E440	0.02	mg/kg	<0.020	---
Copper	7440-50-8	E440	0.1	mg/kg	<0.10	---
Iron	7439-89-6	E440	3	mg/kg	<3.0	---
Lead	7439-92-1	E440	0.02	mg/kg	<0.020	---
Lithium	7439-93-2	E440	0.5	mg/kg	<0.50	---
Magnesium	7439-95-4	E440	2	mg/kg	<2.0	---
Manganese	7439-96-5	E440	0.05	mg/kg	<0.050	---
Molybdenum	7439-98-7	E440	0.02	mg/kg	<0.020	---
Nickel	7440-02-0	E440	0.2	mg/kg	<0.20	---
Phosphorus	7723-14-0	E440	10	mg/kg	<10	---
Potassium	7440-09-7	E440	20	mg/kg	<20	---
Rubidium	7440-17-7	E440	0.05	mg/kg	<0.050	---
Selenium	7782-49-2	E440	0.05	mg/kg	<0.050	---
Sodium	7440-23-5	E440	20	mg/kg	<20	---
Strontium	7440-24-6	E440	0.05	mg/kg	<0.050	---
Tellurium	13494-80-9	E440	0.02	mg/kg	<0.020	---
Thallium	7440-28-0	E440	0.002	mg/kg	<0.0020	---
Tin	7440-31-5	E440	0.1	mg/kg	<0.10	---
Uranium	7440-61-1	E440	0.002	mg/kg	<0.0020	---
Vanadium	7440-62-2	E440	0.1	mg/kg	<0.10	---
Zinc	7440-66-6	E440	0.5	mg/kg	<0.50	---
Zirconium	7440-67-7	E440	0.2	mg/kg	<0.20	---
Metals (QCLot: 986883)						
Mercury	7439-97-6	E510A	0.001	mg/kg wwt	<0.0010	---
Metals (QCLot: 986884)						
Mercury	7439-97-6	E510	0.005	mg/kg	<0.0050	---
Metals (QCLot: 986885)						
Titanium	7440-32-6	E440.Ti	0.25	mg/kg	<0.25	---
Metals (QCLot: 986886)						
Silver	7440-22-4	E440.Ag	0.005	mg/kg	<0.0050	---
Metals (QCLot: 986889)						



Sub-Matrix: Biota

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Metals (QCLot: 986889) - continued						
Aluminum	7429-90-5	E440	2	mg/kg	<2.0	---
Antimony	7440-36-0	E440	0.01	mg/kg	<0.010	---
Arsenic	7440-38-2	E440	0.02	mg/kg	<0.020	---
Barium	7440-39-3	E440	0.05	mg/kg	<0.050	---
Beryllium	7440-41-7	E440	0.01	mg/kg	<0.010	---
Bismuth	7440-69-9	E440	0.01	mg/kg	<0.010	---
Boron	7440-42-8	E440	1	mg/kg	<1.0	---
Cadmium	7440-43-9	E440	0.005	mg/kg	<0.0050	---
Calcium	7440-70-2	E440	20	mg/kg	<20	---
Cesium	7440-46-2	E440	0.005	mg/kg	<0.0050	---
Chromium	7440-47-3	E440	0.05	mg/kg	<0.050	---
Cobalt	7440-48-4	E440	0.02	mg/kg	<0.020	---
Copper	7440-50-8	E440	0.1	mg/kg	<0.10	---
Iron	7439-89-6	E440	3	mg/kg	<3.0	---
Lead	7439-92-1	E440	0.02	mg/kg	<0.020	---
Lithium	7439-93-2	E440	0.5	mg/kg	<0.50	---
Magnesium	7439-95-4	E440	2	mg/kg	<2.0	---
Manganese	7439-96-5	E440	0.05	mg/kg	<0.050	---
Molybdenum	7439-98-7	E440	0.02	mg/kg	<0.020	---
Nickel	7440-02-0	E440	0.2	mg/kg	<0.20	---
Phosphorus	7723-14-0	E440	10	mg/kg	<10	---
Potassium	7440-09-7	E440	20	mg/kg	<20	---
Rubidium	7440-17-7	E440	0.05	mg/kg	<0.050	---
Selenium	7782-49-2	E440	0.05	mg/kg	<0.050	---
Sodium	7440-23-5	E440	20	mg/kg	<20	---
Strontium	7440-24-6	E440	0.05	mg/kg	<0.050	---
Tellurium	13494-80-9	E440	0.02	mg/kg	<0.020	---
Thallium	7440-28-0	E440	0.002	mg/kg	<0.0020	---
Tin	7440-31-5	E440	0.1	mg/kg	<0.10	---
Uranium	7440-61-1	E440	0.002	mg/kg	<0.0020	---
Vanadium	7440-62-2	E440	0.1	mg/kg	<0.10	---
Zinc	7440-66-6	E440	0.5	mg/kg	<0.50	---
Zirconium	7440-67-7	E440	0.2	mg/kg	<0.20	---
Metals (QCLot: 986890)						
Mercury	7439-97-6	E510A	0.001	mg/kg wwt	<0.0010	---



Sub-Matrix: Biota

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Metals (QCLot: 986891)						
Silver	7440-22-4	E440.Ag	0.005	mg/kg	<0.0050	---
Metals (QCLot: 986892)						
Mercury	7439-97-6	E510	0.005	mg/kg	<0.0050	---
Metals (QCLot: 986893)						
Titanium	7440-32-6	E440.Ti	0.25	mg/kg	<0.25	---
Metals (QCLot: 986898)						
Aluminum	7429-90-5	E440	2	mg/kg	<2.0	---
Antimony	7440-36-0	E440	0.01	mg/kg	<0.010	---
Arsenic	7440-38-2	E440	0.02	mg/kg	<0.020	---
Barium	7440-39-3	E440	0.05	mg/kg	<0.050	---
Beryllium	7440-41-7	E440	0.01	mg/kg	<0.010	---
Bismuth	7440-69-9	E440	0.01	mg/kg	<0.010	---
Boron	7440-42-8	E440	1	mg/kg	<1.0	---
Cadmium	7440-43-9	E440	0.005	mg/kg	<0.0050	---
Calcium	7440-70-2	E440	20	mg/kg	<20	---
Cesium	7440-46-2	E440	0.005	mg/kg	<0.0050	---
Chromium	7440-47-3	E440	0.05	mg/kg	<0.050	---
Cobalt	7440-48-4	E440	0.02	mg/kg	<0.020	---
Copper	7440-50-8	E440	0.1	mg/kg	<0.10	---
Iron	7439-89-6	E440	3	mg/kg	<3.0	---
Lead	7439-92-1	E440	0.02	mg/kg	<0.020	---
Lithium	7439-93-2	E440	0.5	mg/kg	<0.50	---
Magnesium	7439-95-4	E440	2	mg/kg	<2.0	---
Manganese	7439-96-5	E440	0.05	mg/kg	<0.050	---
Molybdenum	7439-98-7	E440	0.02	mg/kg	<0.020	---
Nickel	7440-02-0	E440	0.2	mg/kg	<0.20	---
Phosphorus	7723-14-0	E440	10	mg/kg	<10	---
Potassium	7440-09-7	E440	20	mg/kg	<20	---
Rubidium	7440-17-7	E440	0.05	mg/kg	<0.050	---
Selenium	7782-49-2	E440	0.05	mg/kg	<0.050	---
Sodium	7440-23-5	E440	20	mg/kg	<20	---
Strontium	7440-24-6	E440	0.05	mg/kg	<0.050	---
Tellurium	13494-80-9	E440	0.02	mg/kg	<0.020	---
Thallium	7440-28-0	E440	0.002	mg/kg	<0.0020	---
Tin	7440-31-5	E440	0.1	mg/kg	<0.10	---



Sub-Matrix: Biota

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Metals (QCLot: 986898) - continued						
Uranium	7440-61-1	E440	0.002	mg/kg	<0.0020	---
Vanadium	7440-62-2	E440	0.1	mg/kg	<0.10	---
Zinc	7440-66-6	E440	0.5	mg/kg	<0.50	---
Zirconium	7440-67-7	E440	0.2	mg/kg	<0.20	---
Metals (QCLot: 986899)						
Mercury	7439-97-6	E510A	0.001	mg/kg wwt	<0.0010	---
Metals (QCLot: 986900)						
Silver	7440-22-4	E440.Ag	0.005	mg/kg	<0.0050	---
Metals (QCLot: 986901)						
Mercury	7439-97-6	E510	0.005	mg/kg	<0.0050	---
Metals (QCLot: 986902)						
Titanium	7440-32-6	E440.Ti	0.25	mg/kg	<0.25	---
Metals (QCLot: 986913)						
Aluminum	7429-90-5	E440	2	mg/kg	<2.0	---
Antimony	7440-36-0	E440	0.01	mg/kg	<0.010	---
Arsenic	7440-38-2	E440	0.02	mg/kg	<0.020	---
Barium	7440-39-3	E440	0.05	mg/kg	<0.050	---
Beryllium	7440-41-7	E440	0.01	mg/kg	<0.010	---
Bismuth	7440-69-9	E440	0.01	mg/kg	<0.010	---
Boron	7440-42-8	E440	1	mg/kg	<1.0	---
Cadmium	7440-43-9	E440	0.005	mg/kg	<0.0050	---
Calcium	7440-70-2	E440	20	mg/kg	<20	---
Cesium	7440-46-2	E440	0.005	mg/kg	<0.0050	---
Chromium	7440-47-3	E440	0.05	mg/kg	<0.050	---
Cobalt	7440-48-4	E440	0.02	mg/kg	<0.020	---
Copper	7440-50-8	E440	0.1	mg/kg	<0.10	---
Iron	7439-89-6	E440	3	mg/kg	<3.0	---
Lead	7439-92-1	E440	0.02	mg/kg	<0.020	---
Lithium	7439-93-2	E440	0.5	mg/kg	<0.50	---
Magnesium	7439-95-4	E440	2	mg/kg	<2.0	---
Manganese	7439-96-5	E440	0.05	mg/kg	<0.050	---
Molybdenum	7439-98-7	E440	0.02	mg/kg	<0.020	---
Nickel	7440-02-0	E440	0.2	mg/kg	<0.20	---
Phosphorus	7723-14-0	E440	10	mg/kg	<10	---
Potassium	7440-09-7	E440	20	mg/kg	<20	---



Sub-Matrix: Biota

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Metals (QCLot: 986913) - continued						
Rubidium	7440-17-7	E440	0.05	mg/kg	<0.050	---
Selenium	7782-49-2	E440	0.05	mg/kg	<0.050	---
Sodium	7440-23-5	E440	20	mg/kg	<20	---
Strontium	7440-24-6	E440	0.05	mg/kg	<0.050	---
Tellurium	13494-80-9	E440	0.02	mg/kg	<0.020	---
Thallium	7440-28-0	E440	0.002	mg/kg	<0.0020	---
Tin	7440-31-5	E440	0.1	mg/kg	<0.10	---
Uranium	7440-61-1	E440	0.002	mg/kg	<0.0020	---
Vanadium	7440-62-2	E440	0.1	mg/kg	<0.10	---
Zinc	7440-66-6	E440	0.5	mg/kg	<0.50	---
Zirconium	7440-67-7	E440	0.2	mg/kg	<0.20	---
Metals (QCLot: 986914)						
Mercury	7439-97-6	E510A	0.001	mg/kg wwt	<0.0010	---
Metals (QCLot: 986915)						
Silver	7440-22-4	E440.Ag	0.005	mg/kg	<0.0050	---
Metals (QCLot: 986916)						
Mercury	7439-97-6	E510	0.005	mg/kg	<0.0050	---
Metals (QCLot: 986917)						
Titanium	7440-32-6	E440.Ti	0.25	mg/kg	<0.25	---
Metals (QCLot: 986935)						
Aluminum	7429-90-5	E440	2	mg/kg	<2.0	---
Antimony	7440-36-0	E440	0.01	mg/kg	<0.010	---
Arsenic	7440-38-2	E440	0.02	mg/kg	<0.020	---
Barium	7440-39-3	E440	0.05	mg/kg	<0.050	---
Beryllium	7440-41-7	E440	0.01	mg/kg	<0.010	---
Bismuth	7440-69-9	E440	0.01	mg/kg	<0.010	---
Boron	7440-42-8	E440	1	mg/kg	<1.0	---
Cadmium	7440-43-9	E440	0.005	mg/kg	<0.0050	---
Calcium	7440-70-2	E440	20	mg/kg	<20	---
Cesium	7440-46-2	E440	0.005	mg/kg	<0.0050	---
Chromium	7440-47-3	E440	0.05	mg/kg	<0.050	---
Cobalt	7440-48-4	E440	0.02	mg/kg	<0.020	---
Copper	7440-50-8	E440	0.1	mg/kg	<0.10	---
Iron	7439-89-6	E440	3	mg/kg	<3.0	---
Lead	7439-92-1	E440	0.02	mg/kg	<0.020	---



Sub-Matrix: Biota

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Metals (QCLot: 986935) - continued						
Lithium	7439-93-2	E440	0.5	mg/kg	<0.50	---
Magnesium	7439-95-4	E440	2	mg/kg	<2.0	---
Manganese	7439-96-5	E440	0.05	mg/kg	<0.050	---
Molybdenum	7439-98-7	E440	0.02	mg/kg	<0.020	---
Nickel	7440-02-0	E440	0.2	mg/kg	<0.20	---
Phosphorus	7723-14-0	E440	10	mg/kg	<10	---
Potassium	7440-09-7	E440	20	mg/kg	<20	---
Rubidium	7440-17-7	E440	0.05	mg/kg	<0.050	---
Selenium	7782-49-2	E440	0.05	mg/kg	<0.050	---
Sodium	7440-23-5	E440	20	mg/kg	<20	---
Strontium	7440-24-6	E440	0.05	mg/kg	<0.050	---
Tellurium	13494-80-9	E440	0.02	mg/kg	<0.020	---
Thallium	7440-28-0	E440	0.002	mg/kg	<0.0020	---
Tin	7440-31-5	E440	0.1	mg/kg	<0.10	---
Uranium	7440-61-1	E440	0.002	mg/kg	<0.0020	---
Vanadium	7440-62-2	E440	0.1	mg/kg	<0.10	---
Zinc	7440-66-6	E440	0.5	mg/kg	<0.50	---
Zirconium	7440-67-7	E440	0.2	mg/kg	<0.20	---
Metals (QCLot: 986936)						
Mercury	7439-97-6	E510A	0.001	mg/kg wwt	<0.0010	---
Metals (QCLot: 986937)						
Silver	7440-22-4	E440.Ag	0.005	mg/kg	<0.0050	---
Metals (QCLot: 986938)						
Mercury	7439-97-6	E510	0.005	mg/kg	<0.0050	---
Metals (QCLot: 986939)						
Titanium	7440-32-6	E440.Ti	0.25	mg/kg	<0.25	---
Metals (QCLot: 998094)						
Silver	7440-22-4	E475.Ag	0.005	mg/kg	<0.0050	---
Metals (QCLot: 998095)						
Titanium	7440-32-6	E475.Ti	0.5	mg/kg	<0.50	---
Metals (QCLot: 998096)						
Mercury	7439-97-6	E512	0.01	mg/kg	<0.010	---
Metals (QCLot: 998097)						
Mercury	7439-97-6	E512A	0.002	mg/kg wwt	<0.0020	---
Metals (QCLot: 998098)						



Sub-Matrix: Biota

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Metals (QCLot: 998098) - continued						
Aluminum	7429-90-5	E475	5	mg/kg	<5.0	---
Antimony	7440-36-0	E475	0.02	mg/kg	<0.020	---
Arsenic	7440-38-2	E475	0.05	mg/kg	<0.050	---
Barium	7440-39-3	E475	0.05	mg/kg	<0.050	---
Beryllium	7440-41-7	E475	0.01	mg/kg	<0.010	---
Bismuth	7440-69-9	E475	0.01	mg/kg	<0.010	---
Boron	7440-42-8	E475	1	mg/kg	<1.0	---
Cadmium	7440-43-9	E475	0.01	mg/kg	<0.010	---
Calcium	7440-70-2	E475	20	mg/kg	<20	---
Cesium	7440-46-2	E475	0.005	mg/kg	<0.0050	---
Chromium	7440-47-3	E475	0.2	mg/kg	<0.20	---
Cobalt	7440-48-4	E475	0.02	mg/kg	<0.020	---
Copper	7440-50-8	E475	0.2	mg/kg	<0.20	---
Iron	7439-89-6	E475	5	mg/kg	<5.0	---
Lead	7439-92-1	E475	0.05	mg/kg	<0.050	---
Lithium	7439-93-2	E475	0.5	mg/kg	<0.50	---
Magnesium	7439-95-4	E475	2	mg/kg	<2.0	---
Manganese	7439-96-5	E475	0.05	mg/kg	<0.050	---
Molybdenum	7439-98-7	E475	0.04	mg/kg	<0.040	---
Nickel	7440-02-0	E475	0.2	mg/kg	<0.20	---
Phosphorus	7723-14-0	E475	20	mg/kg	<20	---
Potassium	7440-09-7	E475	20	mg/kg	<20	---
Rubidium	7440-17-7	E475	0.05	mg/kg	<0.050	---
Selenium	7782-49-2	E475	0.1	mg/kg	<0.10	---
Sodium	7440-23-5	E475	20	mg/kg	<20	---
Strontium	7440-24-6	E475	0.1	mg/kg	<0.10	---
Tellurium	13494-80-9	E475	0.02	mg/kg	<0.020	---
Thallium	7440-28-0	E475	0.002	mg/kg	<0.0020	---
Tin	7440-31-5	E475	0.1	mg/kg	<0.10	---
Uranium	7440-61-1	E475	0.002	mg/kg	<0.0020	---
Vanadium	7440-62-2	E475	0.1	mg/kg	<0.10	---
Zinc	7440-66-6	E475	1	mg/kg	<1.0	---
Zirconium	7440-67-7	E475	0.2	mg/kg	<0.20	---
Metals (QCLot: 998103)						
Silver	7440-22-4	E472.Ag	0.005	mg/kg	<0.0050	---



Sub-Matrix: Biota

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Metals (QCLot: 998104)						
Titanium	7440-32-6	E472.Ti	0.5	mg/kg	<0.50	---
Metals (QCLot: 998105)						
Mercury	7439-97-6	E511	0.005	mg/kg	<0.0050	---
Metals (QCLot: 998106)						
Mercury	7439-97-6	E511A	0.001	mg/kg wwt	<0.0010	---
Metals (QCLot: 998107)						
Aluminum	7429-90-5	E472	5	mg/kg	<5.0	---
Antimony	7440-36-0	E472	0.01	mg/kg	<0.010	---
Arsenic	7440-38-2	E472	0.03	mg/kg	<0.030	---
Barium	7440-39-3	E472	0.05	mg/kg	<0.050	---
Beryllium	7440-41-7	E472	0.01	mg/kg	<0.010	---
Bismuth	7440-69-9	E472	0.01	mg/kg	<0.010	---
Boron	7440-42-8	E472	1	mg/kg	<1.0	---
Cadmium	7440-43-9	E472	0.01	mg/kg	<0.010	---
Calcium	7440-70-2	E472	20	mg/kg	<20	---
Cesium	7440-46-2	E472	0.005	mg/kg	<0.0050	---
Chromium	7440-47-3	E472	0.2	mg/kg	<0.20	---
Cobalt	7440-48-4	E472	0.02	mg/kg	<0.020	---
Copper	7440-50-8	E472	0.2	mg/kg	<0.20	---
Iron	7439-89-6	E472	5	mg/kg	<5.0	---
Lead	7439-92-1	E472	0.05	mg/kg	<0.050	---
Lithium	7439-93-2	E472	0.5	mg/kg	<0.50	---
Magnesium	7439-95-4	E472	2	mg/kg	<2.0	---
Manganese	7439-96-5	E472	0.05	mg/kg	<0.050	---
Molybdenum	7439-98-7	E472	0.04	mg/kg	<0.040	---
Nickel	7440-02-0	E472	0.2	mg/kg	<0.20	---
Phosphorus	7723-14-0	E472	10	mg/kg	<10	---
Potassium	7440-09-7	E472	20	mg/kg	<20	---
Rubidium	7440-17-7	E472	0.05	mg/kg	<0.050	---
Selenium	7782-49-2	E472	0.1	mg/kg	<0.10	---
Sodium	7440-23-5	E472	20	mg/kg	<20	---
Strontium	7440-24-6	E472	0.1	mg/kg	<0.10	---
Tellurium	13494-80-9	E472	0.02	mg/kg	<0.020	---
Thallium	7440-28-0	E472	0.002	mg/kg	<0.0020	---
Tin	7440-31-5	E472	0.1	mg/kg	<0.10	---



Sub-Matrix: Biota

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Metals (QCLot: 998107) - continued						
Uranium	7440-61-1	E472	0.002	mg/kg	<0.0020	---
Vanadium	7440-62-2	E472	0.1	mg/kg	<0.10	---
Zinc	7440-66-6	E472	1	mg/kg	<1.0	---
Zirconium	7440-67-7	E472	0.2	mg/kg	<0.20	---
Metals (QCLot: 998119)						
Silver	7440-22-4	E475.Ag	0.005	mg/kg	<0.0050	---
Metals (QCLot: 998120)						
Titanium	7440-32-6	E475.Ti	0.5	mg/kg	<0.50	---
Metals (QCLot: 998121)						
Mercury	7439-97-6	E512	0.01	mg/kg	<0.010	---
Metals (QCLot: 998122)						
Mercury	7439-97-6	E512A	0.002	mg/kg wwt	<0.0020	---
Metals (QCLot: 998123)						
Aluminum	7429-90-5	E475	5	mg/kg	<5.0	---
Antimony	7440-36-0	E475	0.02	mg/kg	<0.020	---
Arsenic	7440-38-2	E475	0.05	mg/kg	<0.050	---
Barium	7440-39-3	E475	0.05	mg/kg	<0.050	---
Beryllium	7440-41-7	E475	0.01	mg/kg	<0.010	---
Bismuth	7440-69-9	E475	0.01	mg/kg	<0.010	---
Boron	7440-42-8	E475	1	mg/kg	<1.0	---
Cadmium	7440-43-9	E475	0.01	mg/kg	<0.010	---
Calcium	7440-70-2	E475	20	mg/kg	<20	---
Cesium	7440-46-2	E475	0.005	mg/kg	<0.0050	---
Chromium	7440-47-3	E475	0.2	mg/kg	<0.20	MBRR
Cobalt	7440-48-4	E475	0.02	mg/kg	<0.020	---
Copper	7440-50-8	E475	0.2	mg/kg	<0.20	---
Iron	7439-89-6	E475	5	mg/kg	# 15.0	B
Lead	7439-92-1	E475	0.05	mg/kg	<0.050	---
Lithium	7439-93-2	E475	0.5	mg/kg	<0.50	---
Magnesium	7439-95-4	E475	2	mg/kg	<2.0	---
Manganese	7439-96-5	E475	0.05	mg/kg	# 0.090	B
Molybdenum	7439-98-7	E475	0.04	mg/kg	<0.040	---
Nickel	7440-02-0	E475	0.2	mg/kg	<0.20	---
Phosphorus	7723-14-0	E475	20	mg/kg	<20	---
Potassium	7440-09-7	E475	20	mg/kg	<20	---



Sub-Matrix: **Biota**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Metals (QCLot: 998123) - continued						
Rubidium	7440-17-7	E475	0.05	mg/kg	<0.050	---
Selenium	7782-49-2	E475	0.1	mg/kg	<0.10	---
Sodium	7440-23-5	E475	20	mg/kg	<20	---
Strontium	7440-24-6	E475	0.1	mg/kg	<0.10	---
Tellurium	13494-80-9	E475	0.02	mg/kg	<0.020	---
Thallium	7440-28-0	E475	0.002	mg/kg	<0.0020	---
Tin	7440-31-5	E475	0.1	mg/kg	<0.10	---
Uranium	7440-61-1	E475	0.002	mg/kg	<0.0020	---
Vanadium	7440-62-2	E475	0.1	mg/kg	<0.10	---
Zinc	7440-66-6	E475	1	mg/kg	<1.0	---
Zirconium	7440-67-7	E475	0.2	mg/kg	<0.20	---

Qualifiers

Qualifier	Description
B	Method Blank exceeds ALS DQO. Associated sample results which are < Limit of Reporting or > 5 times blank level are considered reliable.
MBRR	Initial MB for this submission had positive results for flagged analyte (data not shown). Low level samples were repeated with new QC (2nd MB results shown). High level results (>5x initial MB level) and non-detect results were reported and are defensible



Laboratory Control Sample (LCS) Report

A Laboratory Control Sample (LCS) is an analyte-free matrix that has been fortified (spiked) with test analytes at known concentration and processed in an identical manner to test samples. LCS results are expressed as percent recovery, and are used to monitor and control test method accuracy and precision, independent of test sample matrix.

Sub-Matrix: Biota

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
Physical Tests (QCLot: 981475)									
Moisture	---	E144	0.5	%	50 %	100	90.0	110	---
Physical Tests (QCLot: 981489)									
Moisture	---	E144	0.5	%	50 %	100	90.0	110	---
Physical Tests (QCLot: 981491)									
Moisture	---	E144	0.5	%	50 %	100	90.0	110	---
Physical Tests (QCLot: 981494)									
Moisture	---	E144	0.5	%	50 %	100	90.0	110	---
Physical Tests (QCLot: 981495)									
Moisture	---	E144	0.5	%	50 %	100	90.0	110	---
Physical Tests (QCLot: 988341)									
Moisture	---	E144-H	2	%	100 %	100	90.0	110	---
Physical Tests (QCLot: 989877)									
Moisture	---	E144-H	2	%	100 %	100	90.0	110	---
Physical Tests (QCLot: 989889)									
Moisture	---	E144A	2	%	100 %	100	90.0	110	---
Physical Tests (QCLot: 989891)									
Moisture	---	E144A	2	%	100 %	100	90.0	110	---
Metals (QCLot: 1005044)									
Silver	7440-22-4	E472.Ag	0.005	mg/kg	1 mg/kg	# 70.3	80.0	120	MES
Metals (QCLot: 1005045)									
Titanium	7440-32-6	E472.Ti	0.5	mg/kg	2.5 mg/kg	93.5	80.0	120	---
Metals (QCLot: 1005046)									
Mercury	7439-97-6	E511	0.005	mg/kg	0.02 mg/kg	90.4	80.0	120	---
Metals (QCLot: 1005047)									
Mercury	7439-97-6	E511A	0.001	mg/kg wwt	0.02 mg/kg wwt	90.4	80.0	120	---
Metals (QCLot: 1005048)									
Aluminum	7429-90-5	E472	5	mg/kg	20 mg/kg	82.9	80.0	120	---
Antimony	7440-36-0	E472	0.01	mg/kg	10 mg/kg	92.5	80.0	120	---
Arsenic	7440-38-2	E472	0.03	mg/kg	10 mg/kg	84.5	80.0	120	---
Barium	7440-39-3	E472	0.05	mg/kg	2.5 mg/kg	83.4	80.0	120	---
Beryllium	7440-41-7	E472	0.01	mg/kg	1 mg/kg	95.9	80.0	120	---



Sub-Matrix: Biota

Laboratory Control Sample (LCS) Report

Analyte	CAS Number	Method	LOR	Unit	Spike	Recovery (%)	Recovery Limits (%)		Qualifier
					Concentration	LCS	Low	High	
Metals (QCLot: 1005048) - continued									
Bismuth	7440-69-9	E472	0.01	mg/kg	10 mg/kg	94.9	80.0	120	----
Boron	7440-42-8	E472	1	mg/kg	10 mg/kg	91.6	80.0	120	----
Cadmium	7440-43-9	E472	0.01	mg/kg	1 mg/kg	94.9	80.0	120	----
Calcium	7440-70-2	E472	20	mg/kg	500 mg/kg	96.5	80.0	120	----
Cesium	7440-46-2	E472	0.005	mg/kg	0.5 mg/kg	80.9	80.0	120	----
Chromium	7440-47-3	E472	0.2	mg/kg	2.5 mg/kg	80.8	80.0	120	----
Cobalt	7440-48-4	E472	0.02	mg/kg	2.5 mg/kg	95.3	80.0	120	----
Copper	7440-50-8	E472	0.2	mg/kg	2.5 mg/kg	91.8	80.0	120	----
Iron	7439-89-6	E472	5	mg/kg	10 mg/kg	81.5	80.0	120	----
Lead	7439-92-1	E472	0.05	mg/kg	5 mg/kg	96.8	80.0	120	----
Lithium	7439-93-2	E472	0.5	mg/kg	2.5 mg/kg	101	80.0	120	----
Magnesium	7439-95-4	E472	2	mg/kg	500 mg/kg	94.2	80.0	120	----
Manganese	7439-96-5	E472	0.05	mg/kg	2.5 mg/kg	81.2	80.0	120	----
Molybdenum	7439-98-7	E472	0.04	mg/kg	2.5 mg/kg	95.6	80.0	120	----
Nickel	7440-02-0	E472	0.2	mg/kg	5 mg/kg	94.6	80.0	120	----
Phosphorus	7723-14-0	E472	10	mg/kg	100 mg/kg	85.5	80.0	120	----
Potassium	7440-09-7	E472	20	mg/kg	500 mg/kg	99.7	80.0	120	----
Rubidium	7440-17-7	E472	0.05	mg/kg	1 mg/kg	98.2	80.0	120	----
Selenium	7782-49-2	E472	0.1	mg/kg	10 mg/kg	98.6	80.0	120	----
Sodium	7440-23-5	E472	20	mg/kg	500 mg/kg	80.7	80.0	120	----
Strontium	7440-24-6	E472	0.1	mg/kg	2.5 mg/kg	80.0	80.0	120	----
Tellurium	13494-80-9	E472	0.02	mg/kg	1 mg/kg	90.7	80.0	120	----
Thallium	7440-28-0	E472	0.002	mg/kg	10 mg/kg	95.2	80.0	120	----
Tin	7440-31-5	E472	0.1	mg/kg	5 mg/kg	93.3	80.0	120	----
Uranium	7440-61-1	E472	0.002	mg/kg	0.05 mg/kg	81.6	80.0	120	----
Vanadium	7440-62-2	E472	0.1	mg/kg	5 mg/kg	82.6	80.0	120	----
Zinc	7440-66-6	E472	1	mg/kg	5 mg/kg	93.4	80.0	120	----
Zirconium	7440-67-7	E472	0.2	mg/kg	1 mg/kg	95.2	80.0	120	----
Metals (QCLot: 986882)									
Aluminum	7429-90-5	E440	2	mg/kg	20 mg/kg	101	80.0	120	----
Antimony	7440-36-0	E440	0.01	mg/kg	10 mg/kg	101	80.0	120	----
Arsenic	7440-38-2	E440	0.02	mg/kg	10 mg/kg	105	80.0	120	----
Barium	7440-39-3	E440	0.05	mg/kg	2.5 mg/kg	107	80.0	120	----
Beryllium	7440-41-7	E440	0.01	mg/kg	1 mg/kg	102	80.0	120	----
Bismuth	7440-69-9	E440	0.01	mg/kg	10 mg/kg	98.6	80.0	120	----
Boron	7440-42-8	E440	1	mg/kg	10 mg/kg	96.2	80.0	120	----



Sub-Matrix: Biota

Laboratory Control Sample (LCS) Report

Analyte	CAS Number	Method	LOR	Unit	Spike	Recovery (%)	Recovery Limits (%)		Qualifier
					Concentration	LCS	Low	High	
Metals (QCLot: 986882) - continued									
Cadmium	7440-43-9	E440	0.005	mg/kg	1 mg/kg	101	80.0	120	----
Calcium	7440-70-2	E440	20	mg/kg	500 mg/kg	105	80.0	120	----
Cesium	7440-46-2	E440	0.005	mg/kg	0.5 mg/kg	104	80.0	120	----
Chromium	7440-47-3	E440	0.05	mg/kg	2.5 mg/kg	98.1	80.0	120	----
Cobalt	7440-48-4	E440	0.02	mg/kg	2.5 mg/kg	99.1	80.0	120	----
Copper	7440-50-8	E440	0.1	mg/kg	2.5 mg/kg	97.3	80.0	120	----
Iron	7439-89-6	E440	3	mg/kg	10 mg/kg	102	80.0	120	----
Lead	7439-92-1	E440	0.02	mg/kg	5 mg/kg	102	80.0	120	----
Lithium	7439-93-2	E440	0.5	mg/kg	2.5 mg/kg	104	80.0	120	----
Magnesium	7439-95-4	E440	2	mg/kg	500 mg/kg	98.4	80.0	120	----
Manganese	7439-96-5	E440	0.05	mg/kg	2.5 mg/kg	101	80.0	120	----
Molybdenum	7439-98-7	E440	0.02	mg/kg	2.5 mg/kg	102	80.0	120	----
Nickel	7440-02-0	E440	0.2	mg/kg	5 mg/kg	99.7	80.0	120	----
Phosphorus	7723-14-0	E440	10	mg/kg	100 mg/kg	104	80.0	120	----
Potassium	7440-09-7	E440	20	mg/kg	500 mg/kg	103	80.0	120	----
Rubidium	7440-17-7	E440	0.05	mg/kg	1 mg/kg	107	80.0	120	----
Selenium	7782-49-2	E440	0.05	mg/kg	10 mg/kg	102	80.0	120	----
Sodium	7440-23-5	E440	20	mg/kg	500 mg/kg	99.8	80.0	120	----
Strontium	7440-24-6	E440	0.05	mg/kg	2.5 mg/kg	111	80.0	120	----
Tellurium	13494-80-9	E440	0.02	mg/kg	1 mg/kg	102	80.0	120	----
Thallium	7440-28-0	E440	0.002	mg/kg	10 mg/kg	101	80.0	120	----
Tin	7440-31-5	E440	0.1	mg/kg	5 mg/kg	96.6	80.0	120	----
Uranium	7440-61-1	E440	0.002	mg/kg	0.05 mg/kg	102	80.0	120	----
Vanadium	7440-62-2	E440	0.1	mg/kg	5 mg/kg	102	80.0	120	----
Zinc	7440-66-6	E440	0.5	mg/kg	5 mg/kg	93.8	80.0	120	----
Zirconium	7440-67-7	E440	0.2	mg/kg	1 mg/kg	95.9	80.0	120	----
Metals (QCLot: 986883)									
Mercury	7439-97-6	E510A	0.001	mg/kg wwt	0.02 mg/kg wwt	98.6	80.0	120	----
Metals (QCLot: 986884)									
Mercury	7439-97-6	E510	0.005	mg/kg	0.02 mg/kg	98.6	80.0	120	----
Metals (QCLot: 986885)									
Titanium	7440-32-6	E440.Ti	0.25	mg/kg	2.5 mg/kg	93.4	80.0	120	----
Metals (QCLot: 986886)									
Silver	7440-22-4	E440.Ag	0.005	mg/kg	1 mg/kg	96.6	80.0	120	----
Metals (QCLot: 986889)									
Aluminum	7429-90-5	E440	2	mg/kg	20 mg/kg	107	80.0	120	----



Sub-Matrix: Biota

Laboratory Control Sample (LCS) Report

Analyte	CAS Number	Method	LOR	Unit	Spike	Recovery (%)	Recovery Limits (%)		Qualifier
					Concentration	LCS	Low	High	
Metals (QCLot: 986889) - continued									
Antimony	7440-36-0	E440	0.01	mg/kg	10 mg/kg	107	80.0	120	----
Arsenic	7440-38-2	E440	0.02	mg/kg	10 mg/kg	108	80.0	120	----
Barium	7440-39-3	E440	0.05	mg/kg	2.5 mg/kg	111	80.0	120	----
Beryllium	7440-41-7	E440	0.01	mg/kg	1 mg/kg	108	80.0	120	----
Bismuth	7440-69-9	E440	0.01	mg/kg	10 mg/kg	103	80.0	120	----
Boron	7440-42-8	E440	1	mg/kg	10 mg/kg	102	80.0	120	----
Cadmium	7440-43-9	E440	0.005	mg/kg	1 mg/kg	105	80.0	120	----
Calcium	7440-70-2	E440	20	mg/kg	500 mg/kg	110	80.0	120	----
Cesium	7440-46-2	E440	0.005	mg/kg	0.5 mg/kg	108	80.0	120	----
Chromium	7440-47-3	E440	0.05	mg/kg	2.5 mg/kg	104	80.0	120	----
Cobalt	7440-48-4	E440	0.02	mg/kg	2.5 mg/kg	104	80.0	120	----
Copper	7440-50-8	E440	0.1	mg/kg	2.5 mg/kg	103	80.0	120	----
Iron	7439-89-6	E440	3	mg/kg	10 mg/kg	110	80.0	120	----
Lead	7439-92-1	E440	0.02	mg/kg	5 mg/kg	107	80.0	120	----
Lithium	7439-93-2	E440	0.5	mg/kg	2.5 mg/kg	108	80.0	120	----
Magnesium	7439-95-4	E440	2	mg/kg	500 mg/kg	103	80.0	120	----
Manganese	7439-96-5	E440	0.05	mg/kg	2.5 mg/kg	104	80.0	120	----
Molybdenum	7439-98-7	E440	0.02	mg/kg	2.5 mg/kg	104	80.0	120	----
Nickel	7440-02-0	E440	0.2	mg/kg	5 mg/kg	104	80.0	120	----
Phosphorus	7723-14-0	E440	10	mg/kg	100 mg/kg	113	80.0	120	----
Potassium	7440-09-7	E440	20	mg/kg	500 mg/kg	106	80.0	120	----
Rubidium	7440-17-7	E440	0.05	mg/kg	1 mg/kg	108	80.0	120	----
Selenium	7782-49-2	E440	0.05	mg/kg	10 mg/kg	104	80.0	120	----
Sodium	7440-23-5	E440	20	mg/kg	500 mg/kg	103	80.0	120	----
Strontium	7440-24-6	E440	0.05	mg/kg	2.5 mg/kg	115	80.0	120	----
Tellurium	13494-80-9	E440	0.02	mg/kg	1 mg/kg	106	80.0	120	----
Thallium	7440-28-0	E440	0.002	mg/kg	10 mg/kg	104	80.0	120	----
Tin	7440-31-5	E440	0.1	mg/kg	5 mg/kg	102	80.0	120	----
Uranium	7440-61-1	E440	0.002	mg/kg	0.05 mg/kg	108	80.0	120	----
Vanadium	7440-62-2	E440	0.1	mg/kg	5 mg/kg	106	80.0	120	----
Zinc	7440-66-6	E440	0.5	mg/kg	5 mg/kg	98.8	80.0	120	----
Zirconium	7440-67-7	E440	0.2	mg/kg	1 mg/kg	103	80.0	120	----
Metals (QCLot: 986890)									
Mercury	7439-97-6	E510A	0.001	mg/kg wwt	0.02 mg/kg wwt	95.4	80.0	120	----
Metals (QCLot: 986891)									
Silver	7440-22-4	E440.Ag	0.005	mg/kg	1 mg/kg	101	80.0	120	----



Sub-Matrix: Biota

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
Metals (QCLot: 986892)									
Mercury	7439-97-6	E510	0.005	mg/kg	0.02 mg/kg	95.4	80.0	120	---
Metals (QCLot: 986893)									
Titanium	7440-32-6	E440.Ti	0.25	mg/kg	2.5 mg/kg	98.0	80.0	120	---
Metals (QCLot: 986898)									
Aluminum	7429-90-5	E440	2	mg/kg	20 mg/kg	106	80.0	120	---
Antimony	7440-36-0	E440	0.01	mg/kg	10 mg/kg	110	80.0	120	---
Arsenic	7440-38-2	E440	0.02	mg/kg	10 mg/kg	107	80.0	120	---
Barium	7440-39-3	E440	0.05	mg/kg	2.5 mg/kg	104	80.0	120	---
Beryllium	7440-41-7	E440	0.01	mg/kg	1 mg/kg	107	80.0	120	---
Bismuth	7440-69-9	E440	0.01	mg/kg	10 mg/kg	107	80.0	120	---
Boron	7440-42-8	E440	1	mg/kg	10 mg/kg	104	80.0	120	---
Cadmium	7440-43-9	E440	0.005	mg/kg	1 mg/kg	102	80.0	120	---
Calcium	7440-70-2	E440	20	mg/kg	500 mg/kg	107	80.0	120	---
Cesium	7440-46-2	E440	0.005	mg/kg	0.5 mg/kg	112	80.0	120	---
Chromium	7440-47-3	E440	0.05	mg/kg	2.5 mg/kg	104	80.0	120	---
Cobalt	7440-48-4	E440	0.02	mg/kg	2.5 mg/kg	104	80.0	120	---
Copper	7440-50-8	E440	0.1	mg/kg	2.5 mg/kg	102	80.0	120	---
Iron	7439-89-6	E440	3	mg/kg	10 mg/kg	112	80.0	120	---
Lead	7439-92-1	E440	0.02	mg/kg	5 mg/kg	110	80.0	120	---
Lithium	7439-93-2	E440	0.5	mg/kg	2.5 mg/kg	104	80.0	120	---
Magnesium	7439-95-4	E440	2	mg/kg	500 mg/kg	106	80.0	120	---
Manganese	7439-96-5	E440	0.05	mg/kg	2.5 mg/kg	102	80.0	120	---
Molybdenum	7439-98-7	E440	0.02	mg/kg	2.5 mg/kg	109	80.0	120	---
Nickel	7440-02-0	E440	0.2	mg/kg	5 mg/kg	103	80.0	120	---
Phosphorus	7723-14-0	E440	10	mg/kg	100 mg/kg	110	80.0	120	---
Potassium	7440-09-7	E440	20	mg/kg	500 mg/kg	105	80.0	120	---
Rubidium	7440-17-7	E440	0.05	mg/kg	1 mg/kg	104	80.0	120	---
Selenium	7782-49-2	E440	0.05	mg/kg	10 mg/kg	110	80.0	120	---
Sodium	7440-23-5	E440	20	mg/kg	500 mg/kg	107	80.0	120	---
Strontium	7440-24-6	E440	0.05	mg/kg	2.5 mg/kg	114	80.0	120	---
Tellurium	13494-80-9	E440	0.02	mg/kg	1 mg/kg	108	80.0	120	---
Thallium	7440-28-0	E440	0.002	mg/kg	10 mg/kg	110	80.0	120	---
Tin	7440-31-5	E440	0.1	mg/kg	5 mg/kg	100	80.0	120	---
Uranium	7440-61-1	E440	0.002	mg/kg	0.05 mg/kg	107	80.0	120	---
Vanadium	7440-62-2	E440	0.1	mg/kg	5 mg/kg	105	80.0	120	---
Zinc	7440-66-6	E440	0.5	mg/kg	5 mg/kg	97.6	80.0	120	---



Sub-Matrix: Biota

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
Metals (QCLot: 986898) - continued									
Zirconium	7440-67-7	E440	0.2	mg/kg	1 mg/kg	108	80.0	120	---
Metals (QCLot: 986899)									
Mercury	7439-97-6	E510A	0.001	mg/kg wwt	0.02 mg/kg wwt	91.2	80.0	120	---
Metals (QCLot: 986900)									
Silver	7440-22-4	E440.Ag	0.005	mg/kg	1 mg/kg	99.8	80.0	120	---
Metals (QCLot: 986901)									
Mercury	7439-97-6	E510	0.005	mg/kg	0.02 mg/kg	91.2	80.0	120	---
Metals (QCLot: 986902)									
Titanium	7440-32-6	E440.Ti	0.25	mg/kg	2.5 mg/kg	98.7	80.0	120	---
Metals (QCLot: 986913)									
Aluminum	7429-90-5	E440	2	mg/kg	20 mg/kg	104	80.0	120	---
Antimony	7440-36-0	E440	0.01	mg/kg	10 mg/kg	107	80.0	120	---
Arsenic	7440-38-2	E440	0.02	mg/kg	10 mg/kg	105	80.0	120	---
Barium	7440-39-3	E440	0.05	mg/kg	2.5 mg/kg	96.2	80.0	120	---
Beryllium	7440-41-7	E440	0.01	mg/kg	1 mg/kg	99.9	80.0	120	---
Bismuth	7440-69-9	E440	0.01	mg/kg	10 mg/kg	106	80.0	120	---
Boron	7440-42-8	E440	1	mg/kg	10 mg/kg	90.2	80.0	120	---
Cadmium	7440-43-9	E440	0.005	mg/kg	1 mg/kg	102	80.0	120	---
Calcium	7440-70-2	E440	20	mg/kg	500 mg/kg	99.5	80.0	120	---
Cesium	7440-46-2	E440	0.005	mg/kg	0.5 mg/kg	108	80.0	120	---
Chromium	7440-47-3	E440	0.05	mg/kg	2.5 mg/kg	104	80.0	120	---
Cobalt	7440-48-4	E440	0.02	mg/kg	2.5 mg/kg	105	80.0	120	---
Copper	7440-50-8	E440	0.1	mg/kg	2.5 mg/kg	105	80.0	120	---
Iron	7439-89-6	E440	3	mg/kg	10 mg/kg	111	80.0	120	---
Lead	7439-92-1	E440	0.02	mg/kg	5 mg/kg	108	80.0	120	---
Lithium	7439-93-2	E440	0.5	mg/kg	2.5 mg/kg	95.6	80.0	120	---
Magnesium	7439-95-4	E440	2	mg/kg	500 mg/kg	107	80.0	120	---
Manganese	7439-96-5	E440	0.05	mg/kg	2.5 mg/kg	98.6	80.0	120	---
Molybdenum	7439-98-7	E440	0.02	mg/kg	2.5 mg/kg	104	80.0	120	---
Nickel	7440-02-0	E440	0.2	mg/kg	5 mg/kg	105	80.0	120	---
Phosphorus	7723-14-0	E440	10	mg/kg	100 mg/kg	106	80.0	120	---
Potassium	7440-09-7	E440	20	mg/kg	500 mg/kg	98.6	80.0	120	---
Rubidium	7440-17-7	E440	0.05	mg/kg	1 mg/kg	96.8	80.0	120	---
Selenium	7782-49-2	E440	0.05	mg/kg	10 mg/kg	107	80.0	120	---
Sodium	7440-23-5	E440	20	mg/kg	500 mg/kg	104	80.0	120	---
Strontium	7440-24-6	E440	0.05	mg/kg	2.5 mg/kg	112	80.0	120	---



Sub-Matrix: Biota

Laboratory Control Sample (LCS) Report

Analyte	CAS Number	Method	LOR	Unit	Spike	Recovery (%)	Recovery Limits (%)		Qualifier
					Concentration	LCS	Low	High	
Metals (QCLot: 986913) - continued									
Tellurium	13494-80-9	E440	0.02	mg/kg	1 mg/kg	107	80.0	120	---
Thallium	7440-28-0	E440	0.002	mg/kg	10 mg/kg	106	80.0	120	---
Tin	7440-31-5	E440	0.1	mg/kg	5 mg/kg	98.7	80.0	120	---
Uranium	7440-61-1	E440	0.002	mg/kg	0.05 mg/kg	110	80.0	120	---
Vanadium	7440-62-2	E440	0.1	mg/kg	5 mg/kg	104	80.0	120	---
Zinc	7440-66-6	E440	0.5	mg/kg	5 mg/kg	94.1	80.0	120	---
Zirconium	7440-67-7	E440	0.2	mg/kg	1 mg/kg	102	80.0	120	---
Metals (QCLot: 986914)									
Mercury	7439-97-6	E510A	0.001	mg/kg wwt	0.02 mg/kg wwt	92.7	80.0	120	---
Metals (QCLot: 986915)									
Silver	7440-22-4	E440.Ag	0.005	mg/kg	1 mg/kg	97.5	80.0	120	---
Metals (QCLot: 986916)									
Mercury	7439-97-6	E510	0.005	mg/kg	0.02 mg/kg	92.7	80.0	120	---
Metals (QCLot: 986917)									
Titanium	7440-32-6	E440.Ti	0.25	mg/kg	2.5 mg/kg	96.8	80.0	120	---
Metals (QCLot: 986935)									
Aluminum	7429-90-5	E440	2	mg/kg	20 mg/kg	107	80.0	120	---
Antimony	7440-36-0	E440	0.01	mg/kg	10 mg/kg	101	80.0	120	---
Arsenic	7440-38-2	E440	0.02	mg/kg	10 mg/kg	108	80.0	120	---
Barium	7440-39-3	E440	0.05	mg/kg	2.5 mg/kg	108	80.0	120	---
Beryllium	7440-41-7	E440	0.01	mg/kg	1 mg/kg	95.1	80.0	120	---
Bismuth	7440-69-9	E440	0.01	mg/kg	10 mg/kg	97.5	80.0	120	---
Boron	7440-42-8	E440	1	mg/kg	10 mg/kg	85.6	80.0	120	---
Cadmium	7440-43-9	E440	0.005	mg/kg	1 mg/kg	104	80.0	120	---
Calcium	7440-70-2	E440	20	mg/kg	500 mg/kg	96.4	80.0	120	---
Cesium	7440-46-2	E440	0.005	mg/kg	0.5 mg/kg	102	80.0	120	---
Chromium	7440-47-3	E440	0.05	mg/kg	2.5 mg/kg	105	80.0	120	---
Cobalt	7440-48-4	E440	0.02	mg/kg	2.5 mg/kg	104	80.0	120	---
Copper	7440-50-8	E440	0.1	mg/kg	2.5 mg/kg	103	80.0	120	---
Iron	7439-89-6	E440	3	mg/kg	10 mg/kg	112	80.0	120	---
Lead	7439-92-1	E440	0.02	mg/kg	5 mg/kg	98.6	80.0	120	---
Lithium	7439-93-2	E440	0.5	mg/kg	2.5 mg/kg	92.9	80.0	120	---
Magnesium	7439-95-4	E440	2	mg/kg	500 mg/kg	107	80.0	120	---
Manganese	7439-96-5	E440	0.05	mg/kg	2.5 mg/kg	103	80.0	120	---
Molybdenum	7439-98-7	E440	0.02	mg/kg	2.5 mg/kg	99.6	80.0	120	---
Nickel	7440-02-0	E440	0.2	mg/kg	5 mg/kg	103	80.0	120	---



Sub-Matrix: Biota

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
Metals (QCLot: 986935) - continued									
Phosphorus	7723-14-0	E440	10	mg/kg	100 mg/kg	113	80.0	120	----
Potassium	7440-09-7	E440	20	mg/kg	500 mg/kg	105	80.0	120	----
Rubidium	7440-17-7	E440	0.05	mg/kg	1 mg/kg	106	80.0	120	----
Selenium	7782-49-2	E440	0.05	mg/kg	10 mg/kg	110	80.0	120	----
Sodium	7440-23-5	E440	20	mg/kg	500 mg/kg	102	80.0	120	----
Strontium	7440-24-6	E440	0.05	mg/kg	2.5 mg/kg	106	80.0	120	----
Tellurium	13494-80-9	E440	0.02	mg/kg	1 mg/kg	99.4	80.0	120	----
Thallium	7440-28-0	E440	0.002	mg/kg	10 mg/kg	97.6	80.0	120	----
Tin	7440-31-5	E440	0.1	mg/kg	5 mg/kg	100	80.0	120	----
Uranium	7440-61-1	E440	0.002	mg/kg	0.05 mg/kg	98.4	80.0	120	----
Vanadium	7440-62-2	E440	0.1	mg/kg	5 mg/kg	106	80.0	120	----
Zinc	7440-66-6	E440	0.5	mg/kg	5 mg/kg	97.4	80.0	120	----
Zirconium	7440-67-7	E440	0.2	mg/kg	1 mg/kg	95.4	80.0	120	----
Metals (QCLot: 986936)									
Mercury	7439-97-6	E510A	0.001	mg/kg wwt	0.02 mg/kg wwt	94.8	80.0	120	----
Metals (QCLot: 986937)									
Silver	7440-22-4	E440.Ag	0.005	mg/kg	1 mg/kg	91.9	80.0	120	----
Metals (QCLot: 986938)									
Mercury	7439-97-6	E510	0.005	mg/kg	0.02 mg/kg	94.8	80.0	120	----
Metals (QCLot: 986939)									
Titanium	7440-32-6	E440.Ti	0.25	mg/kg	2.5 mg/kg	96.6	80.0	120	----
Metals (QCLot: 998094)									
Silver	7440-22-4	E475.Ag	0.005	mg/kg	2.5 mg/kg	87.8	80.0	120	----
Metals (QCLot: 998095)									
Titanium	7440-32-6	E475.Ti	0.5	mg/kg	6.25 mg/kg	99.1	80.0	120	----
Metals (QCLot: 998096)									
Mercury	7439-97-6	E512	0.01	mg/kg	0.05 mg/kg	92.8	80.0	120	----
Metals (QCLot: 998097)									
Mercury	7439-97-6	E512A	0.002	mg/kg wwt	0.05 mg/kg wwt	92.8	80.0	120	----
Metals (QCLot: 998098)									
Aluminum	7429-90-5	E475	5	mg/kg	50 mg/kg	108	80.0	120	----
Antimony	7440-36-0	E475	0.02	mg/kg	25 mg/kg	94.9	80.0	120	----
Arsenic	7440-38-2	E475	0.05	mg/kg	25 mg/kg	106	80.0	120	----
Barium	7440-39-3	E475	0.05	mg/kg	6.25 mg/kg	103	80.0	120	----
Beryllium	7440-41-7	E475	0.01	mg/kg	2.5 mg/kg	103	80.0	120	----
Bismuth	7440-69-9	E475	0.01	mg/kg	25 mg/kg	95.5	80.0	120	----



Sub-Matrix: Biota

Laboratory Control Sample (LCS) Report

Analyte	CAS Number	Method	LOR	Unit	Spike	Recovery (%)	Recovery Limits (%)		Qualifier
					Concentration	LCS	Low	High	
Metals (QCLot: 998098) - continued									
Boron	7440-42-8	E475	1	mg/kg	25 mg/kg	100	80.0	120	----
Cadmium	7440-43-9	E475	0.01	mg/kg	2.5 mg/kg	99.4	80.0	120	----
Calcium	7440-70-2	E475	20	mg/kg	1250 mg/kg	99.6	80.0	120	----
Cesium	7440-46-2	E475	0.005	mg/kg	1.25 mg/kg	100	80.0	120	----
Chromium	7440-47-3	E475	0.2	mg/kg	6.25 mg/kg	104	80.0	120	----
Cobalt	7440-48-4	E475	0.02	mg/kg	6.25 mg/kg	102	80.0	120	----
Copper	7440-50-8	E475	0.2	mg/kg	6.25 mg/kg	99.5	80.0	120	----
Iron	7439-89-6	E475	5	mg/kg	25 mg/kg	109	80.0	120	----
Lead	7439-92-1	E475	0.05	mg/kg	12.5 mg/kg	98.8	80.0	120	----
Lithium	7439-93-2	E475	0.5	mg/kg	6.25 mg/kg	101	80.0	120	----
Magnesium	7439-95-4	E475	2	mg/kg	1250 mg/kg	104	80.0	120	----
Manganese	7439-96-5	E475	0.05	mg/kg	6.25 mg/kg	105	80.0	120	----
Molybdenum	7439-98-7	E475	0.04	mg/kg	6.25 mg/kg	101	80.0	120	----
Nickel	7440-02-0	E475	0.2	mg/kg	12.5 mg/kg	102	80.0	120	----
Phosphorus	7723-14-0	E475	20	mg/kg	250 mg/kg	112	80.0	120	----
Potassium	7440-09-7	E475	20	mg/kg	1250 mg/kg	105	80.0	120	----
Rubidium	7440-17-7	E475	0.05	mg/kg	2.5 mg/kg	103	80.0	120	----
Selenium	7782-49-2	E475	0.1	mg/kg	25 mg/kg	116	80.0	120	----
Sodium	7440-23-5	E475	20	mg/kg	1250 mg/kg	110	80.0	120	----
Strontium	7440-24-6	E475	0.1	mg/kg	6.25 mg/kg	101	80.0	120	----
Tellurium	13494-80-9	E475	0.02	mg/kg	2.5 mg/kg	97.4	80.0	120	----
Thallium	7440-28-0	E475	0.002	mg/kg	25 mg/kg	95.5	80.0	120	----
Tin	7440-31-5	E475	0.1	mg/kg	12.5 mg/kg	98.2	80.0	120	----
Uranium	7440-61-1	E475	0.002	mg/kg	0.125 mg/kg	98.8	80.0	120	----
Vanadium	7440-62-2	E475	0.1	mg/kg	12.5 mg/kg	107	80.0	120	----
Zinc	7440-66-6	E475	1	mg/kg	12.5 mg/kg	100	80.0	120	----
Zirconium	7440-67-7	E475	0.2	mg/kg	2.5 mg/kg	99.7	80.0	120	----
Metals (QCLot: 998103)									
Silver	7440-22-4	E472.Ag	0.005	mg/kg	1 mg/kg	# 77.4	80.0	120	MES
Metals (QCLot: 998104)									
Titanium	7440-32-6	E472.Ti	0.5	mg/kg	2.5 mg/kg	82.8	80.0	120	----
Metals (QCLot: 998105)									
Mercury	7439-97-6	E511	0.005	mg/kg	0.02 mg/kg	111	80.0	120	----
Metals (QCLot: 998106)									
Mercury	7439-97-6	E511A	0.001	mg/kg wwt	0.02 mg/kg wwt	111	80.0	120	----
Metals (QCLot: 998107)									



Sub-Matrix: Biota

Laboratory Control Sample (LCS) Report

Analyte	CAS Number	Method	LOR	Unit	Spike	Recovery (%)	Recovery Limits (%)		Qualifier
					Concentration	LCS	Low	High	
Metals (QCLot: 998107) - continued									
Aluminum	7429-90-5	E472	5	mg/kg	20 mg/kg	87.8	80.0	120	----
Antimony	7440-36-0	E472	0.01	mg/kg	10 mg/kg	84.1	80.0	120	----
Arsenic	7440-38-2	E472	0.03	mg/kg	10 mg/kg	89.5	80.0	120	----
Barium	7440-39-3	E472	0.05	mg/kg	2.5 mg/kg	90.1	80.0	120	----
Beryllium	7440-41-7	E472	0.01	mg/kg	1 mg/kg	88.0	80.0	120	----
Bismuth	7440-69-9	E472	0.01	mg/kg	10 mg/kg	83.0	80.0	120	----
Boron	7440-42-8	E472	1	mg/kg	10 mg/kg	87.5	80.0	120	----
Cadmium	7440-43-9	E472	0.01	mg/kg	1 mg/kg	85.8	80.0	120	----
Calcium	7440-70-2	E472	20	mg/kg	500 mg/kg	87.4	80.0	120	----
Cesium	7440-46-2	E472	0.005	mg/kg	0.5 mg/kg	86.2	80.0	120	----
Chromium	7440-47-3	E472	0.2	mg/kg	2.5 mg/kg	85.4	80.0	120	----
Cobalt	7440-48-4	E472	0.02	mg/kg	2.5 mg/kg	84.1	80.0	120	----
Copper	7440-50-8	E472	0.2	mg/kg	2.5 mg/kg	81.6	80.0	120	----
Iron	7439-89-6	E472	5	mg/kg	10 mg/kg	92.1	80.0	120	----
Lead	7439-92-1	E472	0.05	mg/kg	5 mg/kg	85.8	80.0	120	----
Lithium	7439-93-2	E472	0.5	mg/kg	2.5 mg/kg	89.5	80.0	120	----
Magnesium	7439-95-4	E472	2	mg/kg	500 mg/kg	85.5	80.0	120	----
Manganese	7439-96-5	E472	0.05	mg/kg	2.5 mg/kg	86.2	80.0	120	----
Molybdenum	7439-98-7	E472	0.04	mg/kg	2.5 mg/kg	86.8	80.0	120	----
Nickel	7440-02-0	E472	0.2	mg/kg	5 mg/kg	83.4	80.0	120	----
Phosphorus	7723-14-0	E472	10	mg/kg	100 mg/kg	92.9	80.0	120	----
Potassium	7440-09-7	E472	20	mg/kg	500 mg/kg	85.2	80.0	120	----
Rubidium	7440-17-7	E472	0.05	mg/kg	1 mg/kg	85.2	80.0	120	----
Selenium	7782-49-2	E472	0.1	mg/kg	10 mg/kg	90.9	80.0	120	----
Sodium	7440-23-5	E472	20	mg/kg	500 mg/kg	89.8	80.0	120	----
Strontium	7440-24-6	E472	0.1	mg/kg	2.5 mg/kg	87.4	80.0	120	----
Tellurium	13494-80-9	E472	0.02	mg/kg	1 mg/kg	84.9	80.0	120	----
Thallium	7440-28-0	E472	0.002	mg/kg	10 mg/kg	85.6	80.0	120	----
Tin	7440-31-5	E472	0.1	mg/kg	5 mg/kg	83.9	80.0	120	----
Uranium	7440-61-1	E472	0.002	mg/kg	0.05 mg/kg	87.4	80.0	120	----
Vanadium	7440-62-2	E472	0.1	mg/kg	5 mg/kg	87.3	80.0	120	----
Zinc	7440-66-6	E472	1	mg/kg	5 mg/kg	83.6	80.0	120	----
Zirconium	7440-67-7	E472	0.2	mg/kg	1 mg/kg	85.5	80.0	120	----
Metals (QCLot: 998119)									
Silver	7440-22-4	E475.Ag	0.005	mg/kg	2.5 mg/kg	92.3	80.0	120	----
Metals (QCLot: 998120)									



Sub-Matrix: Biota

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
Metals (QCLot: 998120) - continued									
Titanium	7440-32-6	E475.Ti	0.5	mg/kg	6.25 mg/kg	104	80.0	120	---
Metals (QCLot: 998121)									
Mercury	7439-97-6	E512	0.01	mg/kg	0.05 mg/kg	93.4	80.0	120	---
Metals (QCLot: 998122)									
Mercury	7439-97-6	E512A	0.002	mg/kg wwt	0.05 mg/kg wwt	93.4	80.0	120	---
Metals (QCLot: 998123)									
Aluminum	7429-90-5	E475	5	mg/kg	50 mg/kg	107	80.0	120	---
Antimony	7440-36-0	E475	0.02	mg/kg	25 mg/kg	99.0	80.0	120	---
Arsenic	7440-38-2	E475	0.05	mg/kg	25 mg/kg	106	80.0	120	---
Barium	7440-39-3	E475	0.05	mg/kg	6.25 mg/kg	111	80.0	120	---
Beryllium	7440-41-7	E475	0.01	mg/kg	2.5 mg/kg	105	80.0	120	---
Bismuth	7440-69-9	E475	0.01	mg/kg	25 mg/kg	99.5	80.0	120	---
Boron	7440-42-8	E475	1	mg/kg	25 mg/kg	99.6	80.0	120	---
Cadmium	7440-43-9	E475	0.01	mg/kg	2.5 mg/kg	101	80.0	120	---
Calcium	7440-70-2	E475	20	mg/kg	1250 mg/kg	101	80.0	120	---
Cesium	7440-46-2	E475	0.005	mg/kg	1.25 mg/kg	105	80.0	120	---
Chromium	7440-47-3	E475	0.2	mg/kg	6.25 mg/kg	101	80.0	120	---
Cobalt	7440-48-4	E475	0.02	mg/kg	6.25 mg/kg	98.4	80.0	120	---
Copper	7440-50-8	E475	0.2	mg/kg	6.25 mg/kg	94.7	80.0	120	---
Iron	7439-89-6	E475	5	mg/kg	25 mg/kg	110	80.0	120	---
Lead	7439-92-1	E475	0.05	mg/kg	12.5 mg/kg	104	80.0	120	---
Lithium	7439-93-2	E475	0.5	mg/kg	6.25 mg/kg	105	80.0	120	---
Magnesium	7439-95-4	E475	2	mg/kg	1250 mg/kg	103	80.0	120	---
Manganese	7439-96-5	E475	0.05	mg/kg	6.25 mg/kg	104	80.0	120	---
Molybdenum	7439-98-7	E475	0.04	mg/kg	6.25 mg/kg	104	80.0	120	---
Nickel	7440-02-0	E475	0.2	mg/kg	12.5 mg/kg	97.1	80.0	120	---
Phosphorus	7723-14-0	E475	20	mg/kg	250 mg/kg	111	80.0	120	---
Potassium	7440-09-7	E475	20	mg/kg	1250 mg/kg	107	80.0	120	---
Rubidium	7440-17-7	E475	0.05	mg/kg	2.5 mg/kg	106	80.0	120	---
Selenium	7782-49-2	E475	0.1	mg/kg	25 mg/kg	108	80.0	120	---
Sodium	7440-23-5	E475	20	mg/kg	1250 mg/kg	104	80.0	120	---
Strontium	7440-24-6	E475	0.1	mg/kg	6.25 mg/kg	104	80.0	120	---
Tellurium	13494-80-9	E475	0.02	mg/kg	2.5 mg/kg	97.5	80.0	120	---
Thallium	7440-28-0	E475	0.002	mg/kg	25 mg/kg	101	80.0	120	---
Tin	7440-31-5	E475	0.1	mg/kg	12.5 mg/kg	101	80.0	120	---
Uranium	7440-61-1	E475	0.002	mg/kg	0.125 mg/kg	105	80.0	120	---



Sub-Matrix: **Biota**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
Metals (QCLot: 998123) - continued									
Vanadium	7440-62-2	E475	0.1	mg/kg	12.5 mg/kg	105	80.0	120	----
Zinc	7440-66-6	E475	1	mg/kg	12.5 mg/kg	98.8	80.0	120	----
Zirconium	7440-67-7	E475	0.2	mg/kg	2.5 mg/kg	105	80.0	120	----

Qualifiers

Qualifier	Description
MES	Data Quality Objective was marginally exceeded (by < 10% absolute) for < 10% of analytes in a Multi-Element Scan / Multi-Parameter Scan (considered acceptable as per OMOE & CCME).



Reference Material (RM) Report

A Reference Material (RM) is a homogenous material with known and well-established analyte concentrations. RMs are processed in an identical manner to test samples, and are used to monitor and control the accuracy and precision of a test method for a typical sample matrix. RM results are expressed as percent recovery of the target analyte concentration. RM targets may be certified target concentrations provided by the RM supplier, or may be ALS long-term mean values (for empirical test methods).

Sub-Matrix:

Laboratory sample ID	Reference Material ID	Analyte	CAS Number	Method	Reference Material (RM) Report				
					RM Target Concentration	Recovery (%) RM	Recovery Limits (%)		Qualifier
					Low	High			
Metals (QCLot: 1005044)									
	RM	Silver	7440-22-4	E472.Ag	0.139 mg/kg	83.4	70.0	130	----
Metals (QCLot: 1005045)									
	RM	Titanium	7440-32-6	E472.Ti	1.15 mg/kg	85.1	70.0	130	----
Metals (QCLot: 1005046)									
	RM	Mercury	7439-97-6	E511	0.281 mg/kg	94.3	70.0	130	----
Metals (QCLot: 1005047)									
	RM	Mercury	7439-97-6	E511A	0.281 mg/kg wwt	94.3	70.0	130	----
Metals (QCLot: 1005048)									
	RM	Aluminum	7429-90-5	E472	147 mg/kg	80.7	70.0	130	----
	RM	Arsenic	7440-38-2	E472	14.5 mg/kg	87.4	70.0	130	----
	RM	Barium	7440-39-3	E472	0.352 mg/kg	89.0	70.0	130	----
	RM	Boron	7440-42-8	E472	3.47 mg/kg	80.7	70.0	130	----
	RM	Cadmium	7440-43-9	E472	0.153 mg/kg	86.5	70.0	130	----
	RM	Calcium	7440-70-2	E472	2010 mg/kg	95.3	70.0	130	----
	RM	Cesium	7440-46-2	E472	0.0889 mg/kg	81.5	70.0	130	----
	RM	Chromium	7440-47-3	E472	0.453 mg/kg	125	50.0	150	----
	RM	Cobalt	7440-48-4	E472	0.0567 mg/kg	86.6	65.0	135	----
	RM	Copper	7440-50-8	E472	3.3 mg/kg	84.3	70.0	130	----
	RM	Iron	7439-89-6	E472	102 mg/kg	86.8	70.0	130	----
	RM	Lead	7439-92-1	E472	0.058 mg/kg	83.5	15.0	185	----
	RM	Magnesium	7439-95-4	E472	899 mg/kg	86.9	70.0	130	----
	RM	Manganese	7439-96-5	E472	0.948 mg/kg	86.3	70.0	130	----
	RM	Molybdenum	7439-98-7	E472	0.134 mg/kg	89.0	70.0	130	----
	RM	Nickel	7440-02-0	E472	0.33 mg/kg	82.1	40.0	160	----
	RM	Phosphorus	7723-14-0	E472	6700 mg/kg	89.6	70.0	130	----
	RM	Potassium	7440-09-7	E472	11600 mg/kg	84.1	70.0	130	----
	RM	Rubidium	7440-17-7	E472	2.53 mg/kg	83.5	70.0	130	----
	RM	Selenium	7782-49-2	E472	2.48 mg/kg	89.0	70.0	130	----



Sub-Matrix:

Laboratory sample ID	Reference Material ID	Analyte	CAS Number	Method	Reference Material (RM) Report				
					RM Target Concentration	Recovery (%) RM	Recovery Limits (%)		Qualifier
							Low	High	
Metals (QCLot: 1005048) - continued									
	RM	Sodium	7440-23-5	E472	9620 mg/kg	84.7	70.0	130	----
	RM	Strontium	7440-24-6	E472	10.6 mg/kg	83.3	70.0	130	----
	RM	Vanadium	7440-62-2	E472	0.269 mg/kg	88.8	70.0	130	----
	RM	Zinc	7440-66-6	E472	28.7 mg/kg	87.9	70.0	130	----
Metals (QCLot: 986882)									
	RM	Aluminum	7429-90-5	E440	147 mg/kg	97.3	70.0	130	----
	RM	Arsenic	7440-38-2	E440	14.5 mg/kg	97.2	70.0	130	----
	RM	Barium	7440-39-3	E440	0.352 mg/kg	95.3	70.0	130	----
	RM	Boron	7440-42-8	E440	3.47 mg/kg	104	70.0	130	----
	RM	Cadmium	7440-43-9	E440	0.153 mg/kg	100	70.0	130	----
	RM	Calcium	7440-70-2	E440	2010 mg/kg	106	70.0	130	----
	RM	Cesium	7440-46-2	E440	0.0889 mg/kg	99.8	70.0	130	----
	RM	Chromium	7440-47-3	E440	0.453 mg/kg	88.8	70.0	130	----
	RM	Cobalt	7440-48-4	E440	0.0567 mg/kg	110	65.0	135	----
	RM	Copper	7440-50-8	E440	3.3 mg/kg	94.3	70.0	130	----
	RM	Iron	7439-89-6	E440	102 mg/kg	97.6	70.0	130	----
	RM	Lead	7439-92-1	E440	0.058 mg/kg	94.0	70.0	130	----
	RM	Magnesium	7439-95-4	E440	899 mg/kg	94.0	70.0	130	----
	RM	Manganese	7439-96-5	E440	0.948 mg/kg	97.0	70.0	130	----
	RM	Molybdenum	7439-98-7	E440	0.134 mg/kg	92.3	70.0	130	----
	RM	Nickel	7440-02-0	E440	0.33 mg/kg	91.7	40.0	160	----
	RM	Phosphorus	7723-14-0	E440	6700 mg/kg	101	70.0	130	----
	RM	Potassium	7440-09-7	E440	11600 mg/kg	100	70.0	130	----
	RM	Rubidium	7440-17-7	E440	2.53 mg/kg	101	70.0	130	----
	RM	Selenium	7782-49-2	E440	2.48 mg/kg	98.6	70.0	130	----
	RM	Sodium	7440-23-5	E440	9620 mg/kg	96.5	70.0	130	----
	RM	Strontium	7440-24-6	E440	10.6 mg/kg	101	70.0	130	----
	RM	Vanadium	7440-62-2	E440	0.269 mg/kg	92.2	70.0	130	----
	RM	Zinc	7440-66-6	E440	28.7 mg/kg	97.5	70.0	130	----
Metals (QCLot: 986883)									
	RM	Mercury	7439-97-6	E510A	0.281 mg/kg wwt	95.7	70.0	130	----



Sub-Matrix:

Laboratory sample ID	Reference Material ID	Analyte	CAS Number	Method	Reference Material (RM) Report				
					RM Target Concentration	Recovery (%) RM	Recovery Limits (%)		Qualifier
							Low	High	
Metals (QCLot: 986884)									
	RM	Mercury	7439-97-6	E510	0.281 mg/kg	95.7	70.0	130	---
Metals (QCLot: 986885)									
	RM	Titanium	7440-32-6	E440.Ti	1.15 mg/kg	81.1	70.0	130	---
Metals (QCLot: 986886)									
	RM	Silver	7440-22-4	E440.Ag	0.139 mg/kg	101	70.0	130	---
Metals (QCLot: 986889)									
	RM	Aluminum	7429-90-5	E440	147 mg/kg	87.9	70.0	130	---
	RM	Arsenic	7440-38-2	E440	14.5 mg/kg	100	70.0	130	---
	RM	Barium	7440-39-3	E440	0.352 mg/kg	99.2	70.0	130	---
	RM	Boron	7440-42-8	E440	3.47 mg/kg	96.9	70.0	130	---
	RM	Cadmium	7440-43-9	E440	0.153 mg/kg	105	70.0	130	---
	RM	Calcium	7440-70-2	E440	2010 mg/kg	110	70.0	130	---
	RM	Cesium	7440-46-2	E440	0.0889 mg/kg	103	70.0	130	---
	RM	Chromium	7440-47-3	E440	0.453 mg/kg	94.9	70.0	130	---
	RM	Cobalt	7440-48-4	E440	0.0567 mg/kg	106	65.0	135	---
	RM	Copper	7440-50-8	E440	3.3 mg/kg	102	70.0	130	---
	RM	Iron	7439-89-6	E440	102 mg/kg	101	70.0	130	---
	RM	Lead	7439-92-1	E440	0.058 mg/kg	106	70.0	130	---
	RM	Magnesium	7439-95-4	E440	899 mg/kg	97.5	70.0	130	---
	RM	Manganese	7439-96-5	E440	0.948 mg/kg	106	70.0	130	---
	RM	Molybdenum	7439-98-7	E440	0.134 mg/kg	102	70.0	130	---
	RM	Nickel	7440-02-0	E440	0.33 mg/kg	102	40.0	160	---
	RM	Phosphorus	7723-14-0	E440	6700 mg/kg	105	70.0	130	---
	RM	Potassium	7440-09-7	E440	11600 mg/kg	104	70.0	130	---
	RM	Rubidium	7440-17-7	E440	2.53 mg/kg	106	70.0	130	---
	RM	Selenium	7782-49-2	E440	2.48 mg/kg	104	70.0	130	---
	RM	Sodium	7440-23-5	E440	9620 mg/kg	101	70.0	130	---
	RM	Strontium	7440-24-6	E440	10.6 mg/kg	100	70.0	130	---
	RM	Vanadium	7440-62-2	E440	0.269 mg/kg	92.4	70.0	130	---
	RM	Zinc	7440-66-6	E440	28.7 mg/kg	102	70.0	130	---
Metals (QCLot: 986890)									



Sub-Matrix:

Laboratory sample ID	Reference Material ID	Analyte	CAS Number	Method	Reference Material (RM) Report				
					RM Target Concentration	Recovery (%) RM	Recovery Limits (%)		Qualifier
							Low	High	
Metals (QCLot: 986890) - continued									
	RM	Mercury	7439-97-6	E510A	0.281 mg/kg wwt	87.4	70.0	130	---
Metals (QCLot: 986891)									
	RM	Silver	7440-22-4	E440.Ag	0.139 mg/kg	103	70.0	130	---
Metals (QCLot: 986892)									
	RM	Mercury	7439-97-6	E510	0.281 mg/kg	87.4	70.0	130	---
Metals (QCLot: 986893)									
	RM	Titanium	7440-32-6	E440.Ti	1.15 mg/kg	75.2	70.0	130	---
Metals (QCLot: 986898)									
	RM	Aluminum	7429-90-5	E440	147 mg/kg	73.5	70.0	130	---
	RM	Arsenic	7440-38-2	E440	14.5 mg/kg	95.4	70.0	130	---
	RM	Barium	7440-39-3	E440	0.352 mg/kg	89.4	70.0	130	---
	RM	Boron	7440-42-8	E440	3.47 mg/kg	98.6	70.0	130	---
	RM	Cadmium	7440-43-9	E440	0.153 mg/kg	97.1	70.0	130	---
	RM	Calcium	7440-70-2	E440	2010 mg/kg	96.5	70.0	130	---
	RM	Cesium	7440-46-2	E440	0.0889 mg/kg	100.0	70.0	130	---
	RM	Chromium	7440-47-3	E440	0.453 mg/kg	86.2	70.0	130	---
	RM	Cobalt	7440-48-4	E440	0.0567 mg/kg	103	65.0	135	---
	RM	Copper	7440-50-8	E440	3.3 mg/kg	95.5	70.0	130	---
	RM	Iron	7439-89-6	E440	102 mg/kg	93.8	70.0	130	---
	RM	Lead	7439-92-1	E440	0.058 mg/kg	103	70.0	130	---
	RM	Magnesium	7439-95-4	E440	899 mg/kg	89.7	70.0	130	---
	RM	Manganese	7439-96-5	E440	0.948 mg/kg	93.0	70.0	130	---
	RM	Molybdenum	7439-98-7	E440	0.134 mg/kg	87.0	70.0	130	---
	RM	Nickel	7440-02-0	E440	0.33 mg/kg	94.2	40.0	160	---
	RM	Phosphorus	7723-14-0	E440	6700 mg/kg	94.8	70.0	130	---
	RM	Potassium	7440-09-7	E440	11600 mg/kg	98.4	70.0	130	---
	RM	Rubidium	7440-17-7	E440	2.53 mg/kg	89.0	70.0	130	---
	RM	Selenium	7782-49-2	E440	2.48 mg/kg	100	70.0	130	---
	RM	Sodium	7440-23-5	E440	9620 mg/kg	98.0	70.0	130	---
	RM	Strontium	7440-24-6	E440	10.6 mg/kg	98.7	70.0	130	---
	RM	Vanadium	7440-62-2	E440	0.269 mg/kg	79.6	70.0	130	---



Sub-Matrix:

Laboratory sample ID	Reference Material ID	Analyte	CAS Number	Method	Reference Material (RM) Report				
					RM Target Concentration	Recovery (%) RM	Recovery Limits (%)		Qualifier
							Low	High	
Metals (QCLot: 986898) - continued									
	RM	Zinc	7440-66-6	E440	28.7 mg/kg	95.8	70.0	130	---
Metals (QCLot: 986899)									
	RM	Mercury	7439-97-6	E510A	0.281 mg/kg wwt	90.3	70.0	130	---
Metals (QCLot: 986900)									
	RM	Silver	7440-22-4	E440.Ag	0.139 mg/kg	98.9	70.0	130	---
Metals (QCLot: 986901)									
	RM	Mercury	7439-97-6	E510	0.281 mg/kg	90.3	70.0	130	---
Metals (QCLot: 986902)									
	RM	Titanium	7440-32-6	E440.Ti	1.15 mg/kg	73.6	70.0	130	---
Metals (QCLot: 986913)									
	RM	Aluminum	7429-90-5	E440	147 mg/kg	86.3	70.0	130	---
	RM	Arsenic	7440-38-2	E440	14.5 mg/kg	102	70.0	130	---
	RM	Barium	7440-39-3	E440	0.352 mg/kg	111	70.0	130	---
	RM	Boron	7440-42-8	E440	3.47 mg/kg	97.0	70.0	130	---
	RM	Cadmium	7440-43-9	E440	0.153 mg/kg	111	70.0	130	---
	RM	Calcium	7440-70-2	E440	2010 mg/kg	110	70.0	130	---
	RM	Cesium	7440-46-2	E440	0.0889 mg/kg	109	70.0	130	---
	RM	Chromium	7440-47-3	E440	0.453 mg/kg	101	70.0	130	---
	RM	Cobalt	7440-48-4	E440	0.0567 mg/kg	116	65.0	135	---
	RM	Copper	7440-50-8	E440	3.3 mg/kg	108	70.0	130	---
	RM	Iron	7439-89-6	E440	102 mg/kg	105	70.0	130	---
	RM	Lead	7439-92-1	E440	0.058 mg/kg	121	70.0	130	---
	RM	Magnesium	7439-95-4	E440	899 mg/kg	104	70.0	130	---
	RM	Manganese	7439-96-5	E440	0.948 mg/kg	99.8	70.0	130	---
	RM	Molybdenum	7439-98-7	E440	0.134 mg/kg	115	70.0	130	---
	RM	Nickel	7440-02-0	E440	0.33 mg/kg	104	40.0	160	---
	RM	Phosphorus	7723-14-0	E440	6700 mg/kg	103	70.0	130	---
	RM	Potassium	7440-09-7	E440	11600 mg/kg	106	70.0	130	---
	RM	Rubidium	7440-17-7	E440	2.53 mg/kg	98.7	70.0	130	---
	RM	Selenium	7782-49-2	E440	2.48 mg/kg	110	70.0	130	---
	RM	Sodium	7440-23-5	E440	9620 mg/kg	109	70.0	130	---
	RM	Strontium	7440-24-6	E440	10.6 mg/kg	115	70.0	130	---



Sub-Matrix:

Laboratory sample ID	Reference Material ID	Analyte	CAS Number	Method	Reference Material (RM) Report				
					RM Target Concentration	Recovery (%) RM	Recovery Limits (%)		Qualifier
							Low	High	
Metals (QCLot: 986913) - continued									
	RM	Vanadium	7440-62-2	E440	0.269 mg/kg	90.9	70.0	130	----
	RM	Zinc	7440-66-6	E440	28.7 mg/kg	103	70.0	130	----
Metals (QCLot: 986914)									
	RM	Mercury	7439-97-6	E510A	0.281 mg/kg wwt	90.8	70.0	130	----
Metals (QCLot: 986915)									
	RM	Silver	7440-22-4	E440.Ag	0.139 mg/kg	113	70.0	130	----
Metals (QCLot: 986916)									
	RM	Mercury	7439-97-6	E510	0.281 mg/kg	90.8	70.0	130	----
Metals (QCLot: 986917)									
	RM	Titanium	7440-32-6	E440.Ti	1.15 mg/kg	84.5	70.0	130	----
Metals (QCLot: 986935)									
	RM	Aluminum	7429-90-5	E440	147 mg/kg	91.3	70.0	130	----
	RM	Arsenic	7440-38-2	E440	14.5 mg/kg	98.9	70.0	130	----
	RM	Barium	7440-39-3	E440	0.352 mg/kg	121	70.0	130	----
	RM	Boron	7440-42-8	E440	3.47 mg/kg	94.2	70.0	130	----
	RM	Cadmium	7440-43-9	E440	0.153 mg/kg	101	70.0	130	----
	RM	Calcium	7440-70-2	E440	2010 mg/kg	126	70.0	130	----
	RM	Cesium	7440-46-2	E440	0.0889 mg/kg	102	70.0	130	----
	RM	Chromium	7440-47-3	E440	0.453 mg/kg	96.7	70.0	130	----
	RM	Cobalt	7440-48-4	E440	0.0567 mg/kg	108	65.0	135	----
	RM	Copper	7440-50-8	E440	3.3 mg/kg	102	70.0	130	----
	RM	Iron	7439-89-6	E440	102 mg/kg	97.9	70.0	130	----
	RM	Lead	7439-92-1	E440	0.058 mg/kg	108	70.0	130	----
	RM	Magnesium	7439-95-4	E440	899 mg/kg	101	70.0	130	----
	RM	Manganese	7439-96-5	E440	0.948 mg/kg	101	70.0	130	----
	RM	Molybdenum	7439-98-7	E440	0.134 mg/kg	86.5	70.0	130	----
	RM	Nickel	7440-02-0	E440	0.33 mg/kg	99.4	40.0	160	----
	RM	Phosphorus	7723-14-0	E440	6700 mg/kg	101	70.0	130	----
	RM	Potassium	7440-09-7	E440	11600 mg/kg	102	70.0	130	----
	RM	Rubidium	7440-17-7	E440	2.53 mg/kg	102	70.0	130	----
	RM	Selenium	7782-49-2	E440	2.48 mg/kg	108	70.0	130	----
	RM	Sodium	7440-23-5	E440	9620 mg/kg	102	70.0	130	----



Sub-Matrix:

Laboratory sample ID	Reference Material ID	Analyte	CAS Number	Method	Reference Material (RM) Report				
					RM Target Concentration	Recovery (%) RM	Recovery Limits (%)		Qualifier
							Low	High	
Metals (QCLot: 986935) - continued									
	RM	Strontium	7440-24-6	E440	10.6 mg/kg	109	70.0	130	----
	RM	Vanadium	7440-62-2	E440	0.269 mg/kg	92.6	70.0	130	----
	RM	Zinc	7440-66-6	E440	28.7 mg/kg	101	70.0	130	----
Metals (QCLot: 986936)									
	RM	Mercury	7439-97-6	E510A	0.281 mg/kg wwt	89.4	70.0	130	----
Metals (QCLot: 986937)									
	RM	Silver	7440-22-4	E440.Ag	0.139 mg/kg	106	70.0	130	----
Metals (QCLot: 986938)									
	RM	Mercury	7439-97-6	E510	0.281 mg/kg	89.4	70.0	130	----
Metals (QCLot: 986939)									
	RM	Titanium	7440-32-6	E440.Ti	1.15 mg/kg	83.8	70.0	130	----
Metals (QCLot: 998094)									
	RM	Silver	7440-22-4	E475.Ag	0.139 mg/kg	97.4	70.0	130	----
Metals (QCLot: 998095)									
	RM	Titanium	7440-32-6	E475.Ti	1.15 mg/kg	81.3	70.0	130	----
Metals (QCLot: 998096)									
	RM	Mercury	7439-97-6	E512	0.281 mg/kg	95.0	70.0	130	----
Metals (QCLot: 998097)									
	RM	Mercury	7439-97-6	E512A	0.281 mg/kg wwt	95.0	70.0	130	----
Metals (QCLot: 998098)									
	RM	Aluminum	7429-90-5	E475	147 mg/kg	102	70.0	130	----
	RM	Arsenic	7440-38-2	E475	14.5 mg/kg	97.2	70.0	130	----
	RM	Barium	7440-39-3	E475	0.352 mg/kg	91.9	70.0	130	----
	RM	Boron	7440-42-8	E475	3.47 mg/kg	100	70.0	130	----
	RM	Cadmium	7440-43-9	E475	0.153 mg/kg	96.8	70.0	130	----
	RM	Calcium	7440-70-2	E475	2010 mg/kg	99.7	70.0	130	----
	RM	Cesium	7440-46-2	E475	0.0889 mg/kg	98.2	70.0	130	----
	RM	Chromium	7440-47-3	E475	0.453 mg/kg	101	50.0	150	----
	RM	Cobalt	7440-48-4	E475	0.0567 mg/kg	93.7	65.0	135	----
	RM	Copper	7440-50-8	E475	3.3 mg/kg	93.8	70.0	130	----
	RM	Iron	7439-89-6	E475	102 mg/kg	98.5	70.0	130	----
	RM	Lead	7439-92-1	E475	0.058 mg/kg	103	15.0	185	----



Sub-Matrix:

Laboratory sample ID	Reference Material ID	Analyte	CAS Number	Method	Reference Material (RM) Report				
					RM Target Concentration	Recovery (%) RM	Recovery Limits (%)		Qualifier
							Low	High	
Metals (QCLot: 998098) - continued									
	RM	Magnesium	7439-95-4	E475	899 mg/kg	98.9	70.0	130	----
	RM	Manganese	7439-96-5	E475	0.948 mg/kg	97.9	70.0	130	----
	RM	Molybdenum	7439-98-7	E475	0.134 mg/kg	121	70.0	130	----
	RM	Nickel	7440-02-0	E475	0.33 mg/kg	97.0	40.0	160	----
	RM	Phosphorus	7723-14-0	E475	6700 mg/kg	103	70.0	130	----
	RM	Potassium	7440-09-7	E475	11600 mg/kg	106	70.0	130	----
	RM	Rubidium	7440-17-7	E475	2.53 mg/kg	99.7	70.0	130	----
	RM	Selenium	7782-49-2	E475	2.48 mg/kg	102	70.0	130	----
	RM	Sodium	7440-23-5	E475	9620 mg/kg	104	70.0	130	----
	RM	Strontium	7440-24-6	E475	10.6 mg/kg	98.2	70.0	130	----
	RM	Vanadium	7440-62-2	E475	0.269 mg/kg	101	70.0	130	----
	RM	Zinc	7440-66-6	E475	28.7 mg/kg	101	70.0	130	----
Metals (QCLot: 998103)									
	RM	Silver	7440-22-4	E472.Ag	0.139 mg/kg	84.3	70.0	130	----
Metals (QCLot: 998104)									
	RM	Titanium	7440-32-6	E472.Ti	1.15 mg/kg	74.5	70.0	130	----
Metals (QCLot: 998105)									
	RM	Mercury	7439-97-6	E511	0.281 mg/kg	94.1	70.0	130	----
Metals (QCLot: 998106)									
	RM	Mercury	7439-97-6	E511A	0.281 mg/kg wwt	94.1	70.0	130	----
Metals (QCLot: 998107)									
	RM	Aluminum	7429-90-5	E472	147 mg/kg	80.6	70.0	130	----
	RM	Arsenic	7440-38-2	E472	14.5 mg/kg	86.3	70.0	130	----
	RM	Barium	7440-39-3	E472	0.352 mg/kg	83.7	70.0	130	----
	RM	Boron	7440-42-8	E472	3.47 mg/kg	86.4	70.0	130	----
	RM	Cadmium	7440-43-9	E472	0.153 mg/kg	89.0	70.0	130	----
	RM	Calcium	7440-70-2	E472	2010 mg/kg	89.1	70.0	130	----
	RM	Cesium	7440-46-2	E472	0.0889 mg/kg	84.4	70.0	130	----
	RM	Chromium	7440-47-3	E472	0.453 mg/kg	102	50.0	150	----
	RM	Cobalt	7440-48-4	E472	0.0567 mg/kg	91.0	65.0	135	----
	RM	Copper	7440-50-8	E472	3.3 mg/kg	87.8	70.0	130	----
	RM	Iron	7439-89-6	E472	102 mg/kg	89.9	70.0	130	----



Sub-Matrix:

Laboratory sample ID	Reference Material ID	Analyte	CAS Number	Method	Reference Material (RM) Report				
					RM Target Concentration	Recovery (%) RM	Recovery Limits (%)		Qualifier
							Low	High	
Metals (QCLot: 998107) - continued									
	RM	Lead	7439-92-1	E472	0.058 mg/kg	89.3	15.0	185	----
	RM	Magnesium	7439-95-4	E472	899 mg/kg	86.2	70.0	130	----
	RM	Manganese	7439-96-5	E472	0.948 mg/kg	88.1	70.0	130	----
	RM	Molybdenum	7439-98-7	E472	0.134 mg/kg	82.7	70.0	130	----
	RM	Nickel	7440-02-0	E472	0.33 mg/kg	96.4	40.0	160	----
	RM	Phosphorus	7723-14-0	E472	6700 mg/kg	88.8	70.0	130	----
	RM	Potassium	7440-09-7	E472	11600 mg/kg	89.0	70.0	130	----
	RM	Rubidium	7440-17-7	E472	2.53 mg/kg	84.9	70.0	130	----
	RM	Selenium	7782-49-2	E472	2.48 mg/kg	97.6	70.0	130	----
	RM	Sodium	7440-23-5	E472	9620 mg/kg	91.7	70.0	130	----
	RM	Strontium	7440-24-6	E472	10.6 mg/kg	84.8	70.0	130	----
	RM	Vanadium	7440-62-2	E472	0.269 mg/kg	85.9	70.0	130	----
	RM	Zinc	7440-66-6	E472	28.7 mg/kg	91.2	70.0	130	----
Metals (QCLot: 998119)									
	RM	Silver	7440-22-4	E475.Ag	0.139 mg/kg	102	70.0	130	----
Metals (QCLot: 998120)									
	RM	Titanium	7440-32-6	E475.Ti	1.15 mg/kg	89.5	70.0	130	----
Metals (QCLot: 998121)									
	RM	Mercury	7439-97-6	E512	0.281 mg/kg	93.8	70.0	130	----
Metals (QCLot: 998122)									
	RM	Mercury	7439-97-6	E512A	0.281 mg/kg wwt	93.8	70.0	130	----
Metals (QCLot: 998123)									
	RM	Aluminum	7429-90-5	E475	147 mg/kg	105	70.0	130	----
	RM	Arsenic	7440-38-2	E475	14.5 mg/kg	104	70.0	130	----
	RM	Barium	7440-39-3	E475	0.352 mg/kg	110	70.0	130	----
	RM	Boron	7440-42-8	E475	3.47 mg/kg	95.8	70.0	130	----
	RM	Cadmium	7440-43-9	E475	0.153 mg/kg	105	70.0	130	----
	RM	Calcium	7440-70-2	E475	2010 mg/kg	102	70.0	130	----
	RM	Cesium	7440-46-2	E475	0.0889 mg/kg	103	70.0	130	----
	RM	Chromium	7440-47-3	E475	0.453 mg/kg	104	50.0	150	----
	RM	Cobalt	7440-48-4	E475	0.0567 mg/kg	106	65.0	135	----
	RM	Copper	7440-50-8	E475	3.3 mg/kg	100	70.0	130	----



Sub-Matrix:

Laboratory sample ID	Reference Material ID	Analyte	CAS Number	Method	Reference Material (RM) Report				
					RM Target Concentration	Recovery (%) RM	Recovery Limits (%)		Qualifier
							Low	High	
Metals (QCLot: 998123) - continued									
	RM	Iron	7439-89-6	E475	102 mg/kg	105	70.0	130	----
	RM	Lead	7439-92-1	E475	0.058 mg/kg	102	15.0	185	----
	RM	Magnesium	7439-95-4	E475	899 mg/kg	104	70.0	130	----
	RM	Manganese	7439-96-5	E475	0.948 mg/kg	114	70.0	130	----
	RM	Molybdenum	7439-98-7	E475	0.134 mg/kg	105	70.0	130	----
	RM	Nickel	7440-02-0	E475	0.33 mg/kg	104	40.0	160	----
	RM	Phosphorus	7723-14-0	E475	6700 mg/kg	110	70.0	130	----
	RM	Potassium	7440-09-7	E475	11600 mg/kg	112	70.0	130	----
	RM	Rubidium	7440-17-7	E475	2.53 mg/kg	104	70.0	130	----
	RM	Selenium	7782-49-2	E475	2.48 mg/kg	108	70.0	130	----
	RM	Sodium	7440-23-5	E475	9620 mg/kg	108	70.0	130	----
	RM	Strontium	7440-24-6	E475	10.6 mg/kg	98.6	70.0	130	----
	RM	Vanadium	7440-62-2	E475	0.269 mg/kg	104	70.0	130	----
	RM	Zinc	7440-66-6	E475	28.7 mg/kg	106	70.0	130	----

Report To Contact and company name below will appear on the final report		Report Format / Distribution			Select Service Level Below - Please confirm all E&P TATs with your AM - surcharges will apply																
Company:	Mount Polley Mining Corporation	Select Report Format: <input checked="" type="checkbox"/> PDF <input checked="" type="checkbox"/> EXCEL <input checked="" type="checkbox"/> EDD (DIGITAL)			Regular [R] <input checked="" type="checkbox"/> Standard TAT if received by 3 pm - business days - no surcharges apply																
Contact:	Gabriel Holmes	Quality Control (QC) Report with Report <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO			PRIORITY (Business Days)		4 day [P4] <input type="checkbox"/>		EMERGENCY		1 Business day [E1] <input type="checkbox"/>										
Phone:	236-317-4939	<input type="checkbox"/> Compare Results to Criteria on Report - provide details below if box checked			3 day [P3] <input type="checkbox"/>		2 day [P2] <input type="checkbox"/>		Same Day, Weekend or Statutory holiday [E0] <input type="checkbox"/>												
Company address below will appear on the final report		Select Distribution: <input checked="" type="checkbox"/> EMAIL <input type="checkbox"/> MAIL <input type="checkbox"/> FAX			Date and Time Required for all E&P TATs:																
Street:	PO Box 12	Email 1 or Fax gabriel.holmes@mountpolley.com			For tests that can not be performed according to the service level selected, you will be contacted.																
City/Province:	Likely, BC	Email 2 kbatchelar@minnow.ca			Analysis Request																
Postal Code:	V0L 1N0	Email 3 slatimer@minnow.ca; simone.derosmond@minnow.ca			Indicate Filled (F), Preserved (P) or Filled and Preserved (F/P) below																
Invoice To	Same as Report To <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	Invoice Distribution			Moisture Content by Gravimetry (E144) Mercury in Biota by CVAAS (DRY units, Routine) (E510) Mercury in Biota by CVAAS (WET units, Routine) (E510A) Metals in Biota by CRC ICPMS (DRY units, Routine) (E440) Silver in Biota by CRC ICPMS (DRY units, Routine) (E440.Ag) Titanium in Biota by CRC ICPMS (DRY units, Routine) (E440.Ti)																
	Copy of Invoice with Report <input type="checkbox"/> YES <input type="checkbox"/> NO	Select Invoice Distribution: <input checked="" type="checkbox"/> EMAIL <input checked="" type="checkbox"/> MAIL <input type="checkbox"/> FAX																			
Company:		Email 1 or Fax gabriel.holmes@mountpolley.com			Number of Containers																
Contact:		Email 2																			
Project Information		Oil and Gas Required Fields (client use)																			
ALS Account # / Quote #:	VA22-MPMC100-002	AFE/Cost Center:		PO#																	
Job #:		Major/Minor Code:		Routing Code:																	
PO / AFE:		Requisitioner:																			
LSD:		Location:																			
ALS Lab Work Order # (lab use only)		ALS Contact: Can Dang		Sampler: SLA CAP																	
ALS Sample # (lab use only)	Sample Identification and/or Coordinates (This description will appear on the report)			Date (dd-mmm-yy)	Time (hh:mm)	Sample Type															
	Environmental Division Vancouver Work Order Reference VA23B1226			12 -May-23	---	Tissue	R	R	R	R	R	R	R	R	R	R	R	R	R	R	1
	[Barcode]			12 -May-23	---	Tissue	R	R	R	R	R	R	R	R	R	R	R	R	R	R	1
	Telephone: +1 604 253 4186			12 -May-23	---	Tissue	R	R	R	R	R	R	R	R	R	R	R	R	R	R	1
				12 -May-23	---	Tissue	R	R	R	R	R	R	R	R	R	R	R	R	R	R	1
				12 -May-23	---	Tissue	R	R	R	R	R	R	R	R	R	R	R	R	R	R	1
				12 -May-23	---	Tissue	R	R	R	R	R	R	R	R	R	R	R	R	R	R	1
				12 -May-23	---	Tissue	R	R	R	R	R	R	R	R	R	R	R	R	R	R	1
				12 -May-23	---	Tissue	R	R	R	R	R	R	R	R	R	R	R	R	R	R	1
				12 -May-23	---	Tissue	R	R	R	R	R	R	R	R	R	R	R	R	R	R	1
				12 -May-23	---	Tissue	R	R	R	R	R	R	R	R	R	R	R	R	R	R	1
Drinking Water (DW) Samples¹ (client use)		Special Instructions / Specify Criteria to add on report by clicking on the drop-down list below (electronic COC only)			SAMPLE CONDITION AS RECEIVED (lab use only)																
Are samples taken from a Regulated DW System? <input type="checkbox"/> YES <input type="checkbox"/> NO		If sample insufficient for routine digestion and analysis, contact kbatchelar@minnow.ca to discuss analysis options (e.g., microdigestion and HR-ICPMS). Internal PO 22-29-Task 3 23-01			Frozen <input type="checkbox"/> SIF Observations Yes <input type="checkbox"/> No <input type="checkbox"/>																
Are samples for human drinking water use? <input type="checkbox"/> YES <input type="checkbox"/> NO					Ice Packs <input type="checkbox"/> Ice Cubes <input type="checkbox"/> Custody seal intact Yes <input type="checkbox"/> No <input type="checkbox"/>																
					Cooling Initiated <input type="checkbox"/>																
					INITIAL COOLER TEMPERATURES °C					FINAL COOLER TEMPERATURES °C											
					6.0					-1											
SHIPMENT RELEASE (client use)		INITIAL SHIPMENT RECEPTION (lab use only)			FINAL SHIPMENT RECEPTION (lab use only)																
Released by:	Date:	Time:	Received by:	Date:	Time:	Received by:	Date:	Time:	Received by:	Date:	Time:	Received by:	Date:	Time:							
S. Latimer	17-May-23	0800	Krista	May 18	1100	ICE PK	JC			MAY 19 2023	1130am										

Grand Charge
X/ Cooler

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Report To Contact and company name below will appear on the final report		Report Format / Distribution			Select Service Level Below - Please confirm all E&P TATs with your AM - surcharges will apply																		
Company:	Mount Polley Mining Corporation	Select Report Format: <input checked="" type="checkbox"/> PDF <input checked="" type="checkbox"/> EXCEL <input checked="" type="checkbox"/> EDD (DIGITAL)			Regular [R] <input checked="" type="checkbox"/> Standard TAT if received by 3 pm - business days - no surcharges apply																		
Contact:	Gabriel Holmes	Quality Control (QC) Report with Report <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO			PRIORITY (Business Days)	4 day [P4] <input type="checkbox"/>				EMERGENCY	1 Business day [E1] <input type="checkbox"/>												
Phone:	236-317-4939	<input type="checkbox"/> Compare Results to Criteria on Report - provide details below if box checked				3 day [P3] <input type="checkbox"/>					Same Day, Weekend or Statutory holiday [E0] <input type="checkbox"/>												
Company address below will appear on the final report		Select Distribution: <input checked="" type="checkbox"/> EMAIL <input type="checkbox"/> MAIL <input type="checkbox"/> FAX			Date and Time Required for all E&P TATs:																		
Street:	PO Box 12	Email 1 or Fax gabriel.holmes@mountpolley.com			For tests that can not be performed according to the service level selected, you will be contacted.																		
City/Province:	Likely, BC	Email 2 kbatchelar@minnow.ca			Analysis Request																		
Postal Code:	V0L 1N0	Email 3 slatimer@minnow.ca; simone.derosemond@minnow.ca			Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below																		
Invoice To	Same as Report To <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	Invoice Distribution			Moisture Content by Gravimetry (E144)	Mercury in Biota by CVAAS (DRY units, Routine) (E510)	Mercury in Biota by CVAAS (WET units, Routine) (E510A)	Metals in Biota by CRC ICPMS (DRY units, Routine) (E440)	Silver in Biota by CRC ICPMS (DRY units, Routine) (E440.Ag)	Titanium in Biota by CRC ICPMS (DRY units, Routine) (E440.Ti)											Number of Containers		
	Copy of Invoice with Report <input type="checkbox"/> YES <input type="checkbox"/> NO	Select Invoice Distribution: <input checked="" type="checkbox"/> EMAIL <input checked="" type="checkbox"/> MAIL <input type="checkbox"/> FAX																					
Company:		Email 1 or Fax gabriel.holmes@mountpolley.com																					
Contact:		Email 2																					
Project Information		Oil and Gas Required Fields (client use)																					
ALS Account # / Quote #:	VA22-MPMC100-002	AFEI/Cost Center:		PO#:																			
Job #:		Major/Minor Code:		Routing Code:																			
PO / AFE:		Requisitioner:																					
LSD:		Location:																					
ALS Lab Work Order # (lab use only)		ALS Contact:	Can Dang	Sampler:	SUM/CAP																		
ALS Sample # (lab use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type											Number of Containers								
	POL_RB-O-5_2023-05	12-May-23	—	Tissue	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	1
	POL_RB-O-6_2023-05	13-May-23	—	Tissue	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	1
	POL_RB-O-7_2023-05	13-May-23	—	Tissue	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	1
	POL_RB-O-8_2023-05	13-May-23	—	Tissue	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	1
	POL_RB-Li-1_2023-05	12-May-23	—	Tissue	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	1
	POL_RB-Li-2_2023-05	12-May-23	—	Tissue	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	1
	POL_RB-Li-3_2023-05	12-May-23	—	Tissue	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	1
	POL_RB-Li-4_2023-05	12-May-23	—	Tissue	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	1
	POL_RB-Li-5_2023-05	12-May-23	—	Tissue	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	1
	POL_RB-Li-6_2023-05	13-May-23	—	Tissue	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	1
	POL_RB-Li-7_2023-05	13-May-23	—	Tissue	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	1
	POL_RB-Li-8_2023-05	13-May-23	—	Tissue	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	1
Drinking Water (DW) Samples¹ (client use)		Special Instructions / Specify Criteria to add on report by clicking on the drop-down list below (electronic COC only)			SAMPLE CONDITION AS RECEIVED (lab use only)																		
Are samples taken from a Regulated DW System? <input type="checkbox"/> YES <input type="checkbox"/> NO		If sample insufficient for routine digestion and analysis, contact kbatchelar@minnow.ca to discuss analysis options (e.g., microdigestion and HR-ICPMS). Internal PO 22-29 Task 3			Frozen <input type="checkbox"/> SIF Observations Yes <input type="checkbox"/> No <input type="checkbox"/>																		
Are samples for human drinking water use? <input type="checkbox"/> YES <input type="checkbox"/> NO					Ice Packs <input type="checkbox"/> Ice Cubes <input type="checkbox"/> Custody seal intact Yes <input type="checkbox"/> No <input type="checkbox"/>																		
					Cooling Initiated <input type="checkbox"/>																		
					INITIAL COOLER TEMPERATURES °C					FINAL COOLER TEMPERATURES °C													
										-1													
SHIPMENT RELEASE (client use)				INITIAL SHIPMENT RECEPTION (lab use only)				FINAL SHIPMENT RECEPTION (lab use only)															
Released by:	Date:	Time:	Received by:	Date:	Time:	Received by:	Date:	Time:	Received by:	Date:	Time:												
S. Labme	17-May-23	0800				ice pk	MAY 19 2023	1130am	JL														

Report To <small>Contact and company name below will appear on the final report</small>			Report Format / Distribution			Select Service Level Below - Please confirm all E&P TATs with your AM - surcharges will apply																																																														
Company: Mount Polley Mining Corporation			Select Report Format: <input checked="" type="checkbox"/> PDF <input checked="" type="checkbox"/> EXCEL <input checked="" type="checkbox"/> EDD (DIGITAL)			Regular [R] <input checked="" type="checkbox"/> Standard TAT if received by 3 pm - business days - no surcharges apply																																																														
Contact: Gabriel Holmes			Quality Control (QC) Report with Report <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> Compare Results to Criteria on Report - provide details below if box checked			PRIORITY (Business Days)		4 day [P4] <input type="checkbox"/> 3 day [P3] <input type="checkbox"/> 2 day [P2] <input type="checkbox"/>		EMERGENCY		1 Business day [E1] <input type="checkbox"/> Same Day, Weekend or Statutory holiday [E0] <input type="checkbox"/>																																																								
Phone: 236-317-4939 <small>Company address below will appear on the final report</small>			Select Distribution: <input checked="" type="checkbox"/> EMAIL <input type="checkbox"/> MAIL <input type="checkbox"/> FAX			Date and Time Required for all E&P TATs:																																																														
Street: PO Box 12			Email 1 or Fax <u>gabriel.holmes@mountpolley.com</u>			For tests that can not be performed according to the service level selected, you will be contacted.																																																														
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	POL_RB-Ki-1_2023-05		12 -May-23		Tissue	R	R	R	R	R	R				1																																																					
	POL_RB-Ki-2_2023-05		12 -May-23		Tissue	R	R	R	R	R	R				1																																																					
	POL_RB-Ki-3_2023-05		12 -May-23		Tissue	R	R	R	R	R	R				1																																																					
	POL_RB-Ki-4_2023-05		12 -May-23		Tissue	R	R	R	R	R	R				1																																																					
	POL_RB-Ki-5_2023-05		12 -May-23		Tissue	R	R	R	R	R	R				1																																																					
	POL_RB-Ki-6_2023-05		13 -May-23		Tissue	R	R	R	R	R	R				1																																																					
	POL_RB-Ki-7_2023-05		13 -May-23		Tissue	R	R	R	R	R	R				1																																																					
	POL_RB-Ki-8_2023-05		13 -May-23		Tissue	R	R	R	R	R	R				1																																																					
	BOL_RB-M-1_2023-05		14 -May-23		Tissue	R	R	R	R	R	R				1																																																					
	BOL_RB-M-2_2023-05		14 -May-23		Tissue	R	R	R	R	R	R				1																																																					
	BOL_RB-M-3_2023-05		14 -May-23		Tissue	R	R	R	R	R	R				1																																																					
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Report To Contact and company name below will appear on the final report		Report Format / Distribution			Select Service Level Below - Please confirm all E&P TATs with your AM - surcharges will apply											
Company: Mount Polley Mining Corporation		Select Report Format: <input checked="" type="checkbox"/> PDF <input checked="" type="checkbox"/> EXCEL <input checked="" type="checkbox"/> EDD (DIGITAL)			Regular [R] <input checked="" type="checkbox"/> Standard TAT if received by 3 pm - business days - no surcharges apply					EMERGENCY						
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Phone: 236-317-4939		<input type="checkbox"/> Compare Results to Criteria on Report - provide details below if box checked			3 day [P3] <input type="checkbox"/>		Same Day, Weekend or Statutory holiday [E0] <input type="checkbox"/>									
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Street: PO Box 12		Email 1 or Fax gabriel.holmes@mountpolley.com			Date and Time Required for all E&P TATs:											
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Postal Code: V0L 1N0		Email 3 slatimer@minnow.ca; simone.derosemond@minnow.ca			Analysis Request											
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BOL_RB-M-5_2023-05	✓			14	-May-23	/	Tissue	R	R	R	R	R	R			1
BOL_RB-M-6_2023-05	✓			14	-May-23	/	Tissue	R	R	R	R	R	R			1
BOL_RB-M-7_2023-05	✓			15	-May-23	/	Tissue	R	R	R	R	R	R			1
BOL_RB-M-8_2023-05	✓			15	-May-23	/	Tissue	R	R	R	R	R	R			1
BOL_RB-O-1_2023-05	✓			14	-May-23	/	Tissue	R	R	R	R	R	R			1
BOL_RB-O-2_2023-05	✓			14	-May-23	/	Tissue	R	R	R	R	R	R			1
BOL_RB-O-3_2023-05	✓			14	-May-23	/	Tissue	R	R	R	R	R	R			1
BOL_RB-O-4_2023-05	✓			14	-May-23	/	Tissue	R	R	R	R	R	R			1
BOL_RB-O-5_2023-05	✓			14	-May-23	/	Tissue	R	R	R	R	R	R			1
BOL_RB-O-6_2023-05	✓			14	-May-23	/	Tissue	R	R	R	R	R	R			1
BOL_RB-O-7_2023-05	✓			15	-May-23	/	Tissue	R	R	R	R	R	R			1
BOL_RB-O-8_2023-05	✓			15	-May-23	/	Tissue	R	R	R	R	R	R			1
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SHIPMENT RELEASE (client use)		INITIAL SHIPMENT RECEPTION (lab use only)			FINAL SHIPMENT RECEPTION (lab use only)											
Released by: <u>S. Latimer</u>	Date: <u>17 May-23</u>	Time: <u>0800</u>	Received by: <u>SC</u>	Date: <u>MAY 19 2023</u>	Time: <u>1130am</u>											

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Street:	PO Box 12	Email 2			kbatchelar@minnow.ca		For tests that can not be performed according to the service level selected, you will be contacted.													
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Postal Code:	V0L 1N0	Invoice To			Same as Report To <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO		Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below													
Company address below will appear on the final report		Copy of Invoice with Report <input type="checkbox"/> YES <input type="checkbox"/> NO			Select Invoice Distribution:		<input checked="" type="checkbox"/> EMAIL <input checked="" type="checkbox"/> MAIL <input type="checkbox"/> FAX													
Company:		Company:			gabriel.holmes@mountpolley.com															
Contact:		Contact:			gabriel.holmes@mountpolley.com															
Project Information		Oil and Gas Required Fields (client use)																		
ALS Account # / Quote #	VA22-MPMC100-002	AFE/Cost Center:	PO#																	
Job #:		Major/Minor Code:	Routing Code:																	
PO / AFE:		Requisitioner:																		
LSD:		Location:																		
ALS Lab Work Order # (lab use only)		ALS Contact:	Can Dang	Sampler:	SLA/CAP															
ALS Sample # (lab use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	Moisture Content by Gravimetry (E144)	Mercury in Biota by CVAAS (DRY units, Routine) (E510)	Mercury in Biota by CVAAS (WET units, Routine) (E510a)	Metals in Biota by CRC ICPMS (DRY units, Routine) (E440)	Silver in Biota by CRC ICPMS (DRY units, Routine) (E440 Ag)	Titanium in Biota by CRC ICPMS (DRY units, Routine) (E440 Ti)									Number of Containers	
	BOL_RB-KI-5_2023-05	14	-May-23	Tissue	R	R	R	R	R	R									1	
	BOL_RB-KI-6_2023-05	14	-May-23	Tissue	R	R	R	R	R	R									1	
	BOL_RB-KI-7_2023-05	15	-May-23	Tissue	R	R	R	R	R	R									1	
	BOL_RB-KI-8_2023-05	15	-May-23	Tissue	R	R	R	R	R	R									1	
	POL_LSU-M-1_2023-05	13	-May-23	Tissue	R	R	R	R	R	R									1	
	POL_LSU-M-2_2023-05	16	-May-23	Tissue	R	R	R	R	R	R									1	
	POL_LSU-M-3_2023-05	16	-May-23	Tissue	R	R	R	R	R	R									1	
	POL_LSU-M-4_2023-05	16	-May-23	Tissue	R	R	R	R	R	R									1	
	POL_LSU-M-5_2023-05	16	-May-23	Tissue	R	R	R	R	R	R									1	
	POL_LSU-M-6_2023-05	16	-May-23	Tissue	R	R	R	R	R	R									1	
	POL_LSU-M-7_2023-05	16	-May-23	Tissue	R	R	R	R	R	R									1	
	POL_LSU-M-8_2023-05	16	-May-23	Tissue	R	R	R	R	R	R									1	
Drinking Water (DW) Samples¹ (client use)		Special Instructions / Specify Criteria to add on report by clicking on the drop-down list below (electronic COC only)			SAMPLE CONDITION AS RECEIVED (lab use only)															
Are samples taken from a Regulated DW System? <input type="checkbox"/> YES <input type="checkbox"/> NO		If sample insufficient for routine digestion and analysis, contact kbatchelar@minnow.ca to discuss analysis options (e.g., microdigestion and HR-ICPMS). Internal PO 22-29 Task 3			Frozen <input type="checkbox"/>					SIF Observations Yes <input type="checkbox"/> No <input type="checkbox"/>										
Are samples for human drinking water use? <input type="checkbox"/> YES <input type="checkbox"/> NO					Ice Packs <input checked="" type="checkbox"/> Ice Cubes <input type="checkbox"/>					Custody seal intact Yes <input type="checkbox"/> No <input type="checkbox"/>										
					Cooling Initiated <input type="checkbox"/>					INITIAL COOLER TEMPERATURES °C					FINAL COOLER TEMPERATURES °C					
															-1					
SHIPMENT RELEASE (client use)				INITIAL SHIPMENT RECEPTION (lab use only)				FINAL SHIPMENT RECEPTION (lab use only)												
Released by:	Date:	Time:	Received by:	Date:	Time:	Received by:	Date:	Time:	Received by:	Date:	Time:	Received by:	Date:	Time:	Received by:	Date:	Time:			
S. Labrec	17-May-23	0800																		

Report To		Report Format / Distribution		Select Service Level Below - Please confirm all E&P TATs with your AM - surcharges will apply											
Company:	Mount Polley Mining Corporation	Select Report Format:	<input checked="" type="checkbox"/> PDF <input checked="" type="checkbox"/> EXCEL <input checked="" type="checkbox"/> EDD (DIGITAL)	Regular [R] <input checked="" type="checkbox"/> Standard TAT if received by 3 pm - business days - no surcharges apply 4 day [P4] <input type="checkbox"/> 1 Business day [E1] <input type="checkbox"/> 3 day [P3] <input type="checkbox"/> Same Day, Weekend or Statutory holiday [E0] <input type="checkbox"/> 2 day [P2] <input type="checkbox"/>											
Contact:	Gabriel Holmes	Quality Control (QC) Report with Report	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	PRIORITY (Business Days) EMERGENCY											
Phone:	236-317-4939	<input type="checkbox"/> Compare Results to Criteria on Report - provide details below if box checked													
Company address below will appear on the final report		Select Distribution:	<input checked="" type="checkbox"/> EMAIL <input type="checkbox"/> MAIL <input type="checkbox"/> FAX	Date and Time Required for all E&P TATs:											
Street:	PO Box 12	Email 1 or Fax	gabriel.holmes@mountpolley.com	For tests that can not be performed according to the service level selected, you will be contacted.											
City/Province:	Likely, BC	Email 2	kbatchelar@minnow.ca	Analysis Request											
Postal Code:	V0L 1N0	Email 3	slatimer@minnow.ca; simone.derosemond@minnow.ca	Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below											
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	Copy of Invoice with Report <input type="checkbox"/> YES <input type="checkbox"/> NO	Select Invoice Distribution:	<input checked="" type="checkbox"/> EMAIL <input checked="" type="checkbox"/> MAIL <input type="checkbox"/> FAX												
Company:		Email 1 or Fax	gabriel.holmes@mountpolley.com												
Contact:		Email 2													
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LSD:		Location:													
ALS Lab Work Order # (lab use only)		ALS Contact:	Can Dang												
		Sampler:	SLATICAP												
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	POL_LSU-O-1_2023-05	13 -May-23		Tissue	R	R	R	R	R	R					1
	POL_LSU-O-2_2023-05	16 -May-23		Tissue	R	R	R	R	R	R					1
	POL_LSU-O-3_2023-05	16 -May-23		Tissue	R	R	R	R	R	R					1
	POL_LSU-O-4_2023-05	16 -May-23		Tissue	R	R	R	R	R	R					1
	POL_LSU-O-5_2023-05	16 -May-23		Tissue	R	R	R	R	R	R					1
	POL_LSU-O-6_2023-05	16 -May-23		Tissue	R	R	R	R	R	R					1
	POL_LSU-O-7_2023-05	16 -May-23		Tissue	R	R	R	R	R	R					1
	POL_LSU-O-8_2023-05	16 -May-23		Tissue	R	R	R	R	R	R					1
	POL_LSU-LI-1_2023-05	13 -May-23		Tissue	R	R	R	R	R	R					1
	POL_LSU-LI-2_2023-05	16 -May-23		Tissue	R	R	R	R	R	R					1
	POL_LSU-LI-3_2023-05	16 -May-23		Tissue	R	R	R	R	R	R					1
	POL_LSU-LI-4_2023-05	16 -May-23		Tissue	R	R	R	R	R	R					1
Drinking Water (DW) Samples ¹ (client use)		Special Instructions / Specify Criteria to add on report by clicking on the drop-down list below (electronic COC only)		SAMPLE CONDITION AS RECEIVED (lab use only)											
Are samples taken from a Regulated DW System? <input type="checkbox"/> YES <input type="checkbox"/> NO		If sample insufficient for routine digestion and analysis, contact kbatchelar@minnow.ca to discuss analysis options (e.g., microdigestion and HR-ICPMS). Internal PO 22-29 Task 3		Frozen <input type="checkbox"/> SIF Observations Yes <input type="checkbox"/> No <input type="checkbox"/> Ice Packs <input checked="" type="checkbox"/> Ice Cubes <input type="checkbox"/> Custody seal intact Yes <input type="checkbox"/> No <input type="checkbox"/> Cooling Initiated <input type="checkbox"/>											
Are samples for human drinking water use? <input type="checkbox"/> YES <input type="checkbox"/> NO				INITIAL COOLER TEMPERATURES °C FINAL COOLER TEMPERATURES °C -1											
SHIPMENT RELEASE (client use)		INITIAL SHIPMENT RECEPTION (lab use only)			FINAL SHIPMENT RECEPTION (lab use only)										
Released by:	Date:	Time:	Received by:	Date:	Time:	Received by:	Date:	Time:							
S. Slatimer	17-May-23	0800				JL	MAY 19 2023	1130am							

Report To Contact and company name below will appear on the final report		Report Format / Distribution			Select Service Level Below - Please confirm all E&P TATs with your AM - surcharges will apply																																																																																																															
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Contact: Gabriel Holmes		Quality Control (QC) Report with Report <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO			4 day [P4] <input type="checkbox"/>		3 day [P3] <input type="checkbox"/>		2 day [P2] <input type="checkbox"/>		EMERGENCY		1 Business day [E1] <input type="checkbox"/>																																																																																																							
Phone: 236-317-4939		<input type="checkbox"/> Compare Results to Criteria on Report - provide details below if box checked								Same Day, Weekend or Statutory holiday [E0] <input type="checkbox"/>																																																																																																										
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Postal Code: V0L 1N0		Email 3 slatimer@minnow.ca; simone.derosemond@minnow.ca			Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below																																																																																																															
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✓ POL_LSU-LI-5_2023-05				16 -May-23		Tissue	R R R R R R						1																																																																																																							
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Released by: S. Latimer		Date: 17-May-23		Time: 0800		Received by:		Date: 17-May-23		Time: 1130 AM																																																																																																										



Chain of Custody (COC) / Analytical Request Form

Affix ALS barcode label here (lab use only)

COC Number:

Canada Toll Free: 1 800 668 9878

www.alsglobal.com

Report To Contact and company name below will appear on the final report		Report Format / Distribution			Select Service Level Below - Please confirm all E&P TATs with your AM - surcharges will apply																													
Company:	Mount Polley Mining Corporation	Select Report Format: <input checked="" type="checkbox"/> PDF <input checked="" type="checkbox"/> EXCEL <input checked="" type="checkbox"/> EDD (DIGITAL)			Regular [R] <input checked="" type="checkbox"/> Standard TAT if received by 3 pm - business days - no surcharges apply																													
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Phone:	236-317-4939	<input type="checkbox"/> Compare Results to Criteria on Report - provide details below if box checked				3 day [P3] <input type="checkbox"/>					Same Day, Weekend or Statutory holiday [E0] <input type="checkbox"/>																							
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	BOL_LSU-O-1_2023-05	14 -May-23		Tissue	R	R	R	R	R	R									1															
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	BOL_LSU-O-3_2023-05	14 -May-23		Tissue	R	R	R	R	R	R									1															
	BOL_LSU-O-4_2023-05	14 -May-23		Tissue	R	R	R	R	R	R									1															
Drinking Water (DW) Samples¹ (client use)		Special Instructions / Specify Criteria to add on report by clicking on the drop-down list below (electronic COC only)			SAMPLE CONDITION AS RECEIVED (lab use only)																													
Are samples taken from a Regulated DW System? <input type="checkbox"/> YES <input type="checkbox"/> NO		If sample insufficient for routine digestion and analysis, contact kbatchelar@minnow.ca to discuss analysis options (e.g., microdigestion and HR-ICPMS). Internal PO 22-29 Task 3			Frozen <input checked="" type="checkbox"/> SIF Observations Yes <input type="checkbox"/> No <input type="checkbox"/>																													
Are samples for human drinking water use? <input type="checkbox"/> YES <input type="checkbox"/> NO					Ice Packs <input checked="" type="checkbox"/> Ice Cubes <input type="checkbox"/> Custody seal intact Yes <input type="checkbox"/> No <input type="checkbox"/>																													
					Cooling Initiated <input type="checkbox"/>					INITIAL COOLER TEMPERATURES °C					FINAL COOLER TEMPERATURES °C																			
															-1																			
SHIPMENT RELEASE (client use)				INITIAL SHIPMENT RECEPTION (lab use only)				FINAL SHIPMENT RECEPTION (lab use only)																										
Released by:	Date:	Time:	Received by:	Date:	Time:	Received by:	Date:	Time:	Received by:	Date:	Time:	Received by:	Date:	Time:																				
S. Slatimer	17-May-23	0900							JC	MAY 19 2023	1130AM																							

REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION. Failure to complete all portions of this form may delay analysis. 1. If any water samples are taken from a Regulated Drinking Water (DW) System, please submit using an Authorized DW COC form.

Report To		Report Format / Distribution		Select Service Level Below - Please confirm all E&P TATs with your AM - surcharges will apply														
Company:	Mount Polley Mining Corporation	Select Report Format:	<input checked="" type="checkbox"/> PDF <input checked="" type="checkbox"/> EXCEL <input type="checkbox"/> EDD (DIGITAL)	Regular [R] <input checked="" type="checkbox"/> Standard TAT if received by 3 pm - business days - no surcharges apply		4 day [P4] <input type="checkbox"/>		3 day [P3] <input type="checkbox"/>		2 day [P2] <input type="checkbox"/>		1 Business day [E1] <input type="checkbox"/>		Same Day, Weekend or Statutory holiday [E0] <input type="checkbox"/>				
Contact:	Gabriel Holmes	Quality Control (QC) Report with Report	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	Date and Time Required for all E&P TATs:														
Phone:	236-317-4939	<input type="checkbox"/> Compare Results to Criteria on Report - provide details below if box checked		For tests that can not be performed according to the service level selected, you will be contacted.														
Company address below will appear on the final report		Select Distribution:	<input checked="" type="checkbox"/> EMAIL <input type="checkbox"/> MAIL <input type="checkbox"/> FAX	Analysis Request														
Street:	PO Box 12	Email 1 or Fax:	gabriel.holmes@mountpolley.com	Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below												Number of Containers		
City/Province:	Likely, BC	Email 2:	kbatchelar@minnow.ca															
Postal Code:	V0L 1N0	Email 3:	slatimer@minnow.ca; simone.derosemond@minnow.ca															
Invoice To	Same as Report To <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	Invoice Distribution		Moisture Content by Gravimetry (E144)												Number of Containers		
	Copy of invoice with Report <input type="checkbox"/> YES <input type="checkbox"/> NO	Select Invoice Distribution:	<input checked="" type="checkbox"/> EMAIL <input checked="" type="checkbox"/> MAIL <input type="checkbox"/> FAX	Mercury in Biota by CVAAS (DRY units, Routine) (E510)														
Company:		Email 1 or Fax:	gabriel.holmes@mountpolley.com	Mercury in Biota by CVAAS (WET units, Routine) (E510A)												Number of Containers		
Contact:		Email 2:		Metals in Biota by CRC ICPMS (DRY units, Routine) (E440)														
Project Information		Oil and Gas Required Fields (client use)		Silver in Biota by CRC ICPMS (DRY units, Routine) (E440.Ag)												Number of Containers		
ALS Account # / Quote #:	VA22-MPMC100-002	AFE/Cost Center:	PO#	Titanium in Biota by CRC ICPMS (DRY units, Routine) (E440.Ti)														
Job #:		Major/Minor Code:	Routing Code:													Number of Containers		
PO / AFE:		Requisitioner:																
LSD:		Location:																
ALS Lab Work Order # (lab use only)		ALS Contact:	Can Dang	Sampler:	SLA/CAF													
ALS Sample # (lab use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type													Number of Containers	
	BOL_LSU-O-5_2023-05	14 -May-23		Tissue	R	R	R	R	R	R	R							1
	BOL_LSU-O-6_2023-05	14 -May-23		Tissue	R	R	R	R	R	R	R							1
	BOL_LSU-O-7_2023-05	14 -May-23		Tissue	R	R	R	R	R	R	R							1
	BOL_LSU-O-8_2023-05	14 -May-23		Tissue	R	R	R	R	R	R	R							1
	BOL_LSU-LI-1_2023-05	14 -May-23		Tissue	R	R	R	R	R	R	R							1
	BOL_LSU-LI-2_2023-05	14 -May-23		Tissue	R	R	R	R	R	R	R							1
	BOL_LSU-LI-3_2023-05	14 -May-23		Tissue	R	R	R	R	R	R	R							1
	BOL_LSU-LI-4_2023-05	14 -May-23		Tissue	R	R	R	R	R	R	R							1
	BOL_LSU-LI-5_2023-05	14 -May-23		Tissue	R	R	R	R	R	R	R							1
	BOL_LSU-LI-6_2023-05	14 -May-23		Tissue	R	R	R	R	R	R	R							1
	BOL_LSU-LI-7_2023-05	14 -May-23		Tissue	R	R	R	R	R	R	R							1
	BOL_LSU-LI-8_2023-05	14 -May-23		Tissue	R	R	R	R	R	R	R							1
Drinking Water (DW) Samples ¹ (client use)		Special Instructions / Specify Criteria to add on report by clicking on the drop-down list below (electronic COC only)																
Are samples taken from a Regulated DW System? <input type="checkbox"/> YES <input type="checkbox"/> NO		SAMPLE CONDITION AS RECEIVED (lab use only)																
Are samples for human drinking water use? <input type="checkbox"/> YES <input type="checkbox"/> NO		Frozen <input type="checkbox"/> Ice Packs <input checked="" type="checkbox"/> Ice Cubes <input type="checkbox"/> Cooling Initiated <input type="checkbox"/>																
		SIF Observations Yes <input type="checkbox"/> No <input type="checkbox"/>																
		Custody seal intact Yes <input type="checkbox"/> No <input type="checkbox"/>																
		INITIAL COOLER TEMPERATURES °C																
		FINAL COOLER TEMPERATURES °C																
		-1																
SHIPMENT RELEASE (client use)				INITIAL SHIPMENT RECEPTION (lab use only)				FINAL SHIPMENT RECEPTION (lab use only)										
Released by:	Date:	Time:	Received by:	Date:	Time:	Received by:	Date:	Time:	Received by:	Date:	Time:	Received by:	Date:	Time:				
S. Latimer	17-May-23	0800				JC	MAY 19 2023	1130am										

Report To Contact and company name below will appear on the final report		Report Format / Distribution			Select Service Level Below - Please confirm all E&P TATs with your AM - surcharges will apply												
Company: Mount Polley Mining Corporation		Select Report Format: <input checked="" type="checkbox"/> PDF <input checked="" type="checkbox"/> EXCEL <input type="checkbox"/> EDD (DIGITAL)			Regular [R] <input checked="" type="checkbox"/> Standard TAT if received by 3 pm - business days - no surcharges apply					EMERGENCY							
Contact: Gabriel Holmes		Quality Control (QC) Report with Report <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO			4 day [P4] <input type="checkbox"/>		1 Business day [E1] <input type="checkbox"/>										
Phone: 236-317-4939		<input type="checkbox"/> Compare Results to Criteria on Report - provide details below if box checked			3 day [P3] <input type="checkbox"/>		Same Day, Weekend or Statutory holiday [E0] <input type="checkbox"/>										
Company address below will appear on the final report		Select Distribution: <input checked="" type="checkbox"/> EMAIL <input type="checkbox"/> MAIL <input type="checkbox"/> FAX			2 day [P2] <input type="checkbox"/>												
Street: PO Box 12		Email 1 or Fax: gabriel.holmes@mountpolley.com			Date and Time Required for all E&P TATs:												
City/Province: Likely, BC		Email 2: kbatchelar@minnow.ca			For tests that can not be performed according to the service level selected, you will be contacted.												
Postal Code: V0L 1N0		Email 3: slatimer@minnow.ca; simone.derosmond@minnow.ca			Analysis Request												
Invoice To		Invoice Distribution			Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below												
Same as Report To <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO		Select Invoice Distribution: <input checked="" type="checkbox"/> EMAIL <input checked="" type="checkbox"/> MAIL <input type="checkbox"/> FAX															
Copy of Invoice with Report <input type="checkbox"/> YES <input type="checkbox"/> NO		Email 1 or Fax: gabriel.holmes@mountpolley.com															
Company:		Email 2: kivens@mountpolley.com															
Contact:																	
Project Information		Oil and Gas Required Fields (client use)															
ALS Account # / Quote #: VA22-MPMC100-002		AFE/Cost Center:		PO#													
Job #:		Major/Minor Code:		Routing Code:													
PO / AFE:		Requisitioner:															
LSD:		Location:															
ALS Lab Work Order # (lab use only)		ALS Contact: Can Dang		Sampler: SLA/ICAP													
ALS Sample # (lab use only)		Sample Identification and/or Coordinates (This description will appear on the report)			Date (dd-mmm-yy)		Time (hh:mm)		Sample Type		Moisture Content by Gravimetry (E144)						Number of Containers
											Mercury in Biota by CVAAS (DRY units, Routine) (E510)						
BOL_LSU-KI-1_2023-05					14 -May-23				Tissue		Mercury in Biota by CVAAS (WET units, Routine) (E510A)						
BOL_LSU-KI-2_2023-05					14 -May-23				Tissue		Metals in Biota by CRC ICPMS (DRY units, Routine) (E440)						
BOL_LSU-KI-3_2023-05					14 -May-23				Tissue		Silver in Biota by CRC ICPMS (DRY units, Routine) (E440/Ag)						
BOL_LSU-KI-4_2023-05					14 -May-23				Tissue		Titanium in Biota by CRC ICPMS (DRY units, Routine) (E440/Ti)						
BOL_LSU-KI-5_2023-05					14 -May-23				Tissue								
BOL_LSU-KI-6_2023-05					14 -May-23				Tissue								
BOL_LSU-KI-7_2023-05					14 -May-23				Tissue								
BOL_LSU-KI-8_2023-05					14 -May-23				Tissue								
POL_RB-M-7 X_2023-05					13 -May-23				Tissue								
POL_LSU-M-1 X_2023-05					13 -May-23				Tissue								
BOL_RB-M-5 X_2023-05					14 -May-23				Tissue								
POL_RB-O-7 X_2023-05					13 -May-23				Tissue								
Drinking Water (DW) Samples¹ (client use)		Special Instructions / Specify Criteria to add on report by clicking on the drop-down list below (electronic COC only)			SAMPLE CONDITION AS RECEIVED (lab use only)												
Are samples taken from a Regulated DW System? <input type="checkbox"/> YES <input type="checkbox"/> NO		If sample insufficient for routine digestion and analysis, contact kbatchelar@minnow.ca to discuss analysis options (e.g., microdigestion and HR-ICPMS). Internal PO 22-29 Task 3			Frozen <input type="checkbox"/> SIF Observations Yes <input type="checkbox"/> No <input type="checkbox"/>												
Are samples for human drinking water use? <input type="checkbox"/> YES <input type="checkbox"/> NO					Ice Packs <input checked="" type="checkbox"/> Ice Cubes <input type="checkbox"/> Custody seal intact Yes <input type="checkbox"/> No <input type="checkbox"/>												
		Cooling Initiated <input type="checkbox"/>															
		INITIAL COOLER TEMPERATURES °C					FINAL COOLER TEMPERATURES °C										
							-1										
SHIPMENT RELEASE (client use)				INITIAL SHIPMENT RECEPTION (lab use only)				FINAL SHIPMENT RECEPTION (lab use only)									
Released by: S. Labmer		Date: 17-May-23		Time: 0800		Received by:		Date: MAY 19 2023		Time: 11:30am							

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Report To <small>Contact and company name below will appear on the final report</small>		Report Format / Distribution			Select Service Level Below - Please confirm all E&P TATs with your AM - surcharges will apply													
Company:	Mount Polley Mining Corporation	Select Report Format: <input checked="" type="checkbox"/> PDF <input checked="" type="checkbox"/> EXCEL <input type="checkbox"/> EDD (DIGITAL)			Regular [R] <input checked="" type="checkbox"/> Standard TAT if received by 3 pm - business days - no surcharges apply						EMERGENCY							
Contact:	Gabriel Holmes	Quality Control (QC) Report with Report <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO			4 day [P4] <input type="checkbox"/>			1 Business day [E1] <input type="checkbox"/>										
Phone:	236-317-4938	<input type="checkbox"/> Compare Results to Criteria on Report - provide details below if box checked			3 day [P3] <input type="checkbox"/>			Same Day, Weekend or Statutory holiday [E0] <input type="checkbox"/>										
<small>Company address below will appear on the final report</small>		Select Distribution: <input checked="" type="checkbox"/> EMAIL <input type="checkbox"/> MAIL <input type="checkbox"/> FAX			2 day [P2] <input type="checkbox"/>													
Street:	PO Box 12	Email 1 or Fax gabriel.holmes@mountpolley.com			Date and Time Required for all E&P TATs:													
City/Province:	Likely, BC	Email 2 kbatchelar@minnow.ca			For tests that can not be performed according to the service level selected, you will be contacted.													
Postal Code:	V0L 1N0	Email 3 slatimer@minnow.ca; simone.derosmond@minnow.ca			Analysis Request													
Invoice To	Same as Report To <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	Invoice Distribution			<small>Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below</small>													
	Copy of Invoice with Report <input type="checkbox"/> YES <input type="checkbox"/> NO	Select Invoice Distribution: <input checked="" type="checkbox"/> EMAIL <input checked="" type="checkbox"/> MAIL <input type="checkbox"/> FAX																
Company:		Email 1 or Fax gabriel.holmes@mountpolley.com																
Contact:		Email 2																
Project Information		Oil and Gas Required Fields (client use)																
ALS Account # / Quote #: VA22-MPMC100-002		AFE/Cost Center: PO#																
Job #:		Major/Minor Code: Routing Code:																
PO / AFE:		Requisitioner:																
LSD:		Location:																
ALS Lab Work Order # (lab use only)		ALS Contact:		Can Dang	Sampler:													
ALS Sample # (lab use only)	Sample Identification and/or Coordinates <small>(This description will appear on the report)</small>			Date <small>(dd-mmm-yy)</small>	Time <small>(hh:mm)</small>	Sample Type												
	POL_LSU-01 X_2023-05 (POL_LSU-01 X_2023-05)			13	-May-23	Tissue												
	BOL_RB-05 X_2023-05			14	-May-23	Tissue												
	POL_RB-Li-7 X_2023-05			13	-May-23	Tissue												
	POL_LSA-Li-1 X_2023-05			13	-May-23	Tissue												
	BOL_RB-Li-5 X_2023-05			14	-May-23	Tissue												
	POL_RB-Ki-7 X_2023-05			13	-May-23	Tissue												
	POL_LSA-Ki-1 X_2023-05			13	-May-23	Tissue												
	BOL_RB-Ki-5 X_2023-05			14	-May-23	Tissue												
Dripping Water (DW) Samples¹ (client use)		Special Instructions / Specify Criteria to add on report by clicking on the drop-down list below <small>(electronic COC only)</small>			SAMPLE CONDITION AS RECEIVED (lab use only)													
Are samples taken from a Regulated DW System? <input type="checkbox"/> YES <input type="checkbox"/> NO		If sample insufficient for routine digestion and analysis, contact kbatchelar@minnow.ca to discuss analysis options (e.g., microdigestion and HR-ICPMS). Internal PO 22-29 Task 3			Frozen <input type="checkbox"/> SIF Observations Yes <input type="checkbox"/> No <input type="checkbox"/>													
Are samples for human drinking water use? <input type="checkbox"/> YES <input type="checkbox"/> NO					Ice Packs <input type="checkbox"/> Ice Cubes <input type="checkbox"/> Custody seal intact Yes <input type="checkbox"/> No <input type="checkbox"/>													
					Cooling Initiated <input type="checkbox"/>													
					INITIAL COOLER TEMPERATURES °C							FINAL COOLER TEMPERATURES °C						
												-1						
SHIPMENT RELEASE (client use)				INITIAL SHIPMENT RECEPTION (lab use only)				FINAL SHIPMENT RECEPTION (lab use only)										
Released by:	Date:	Time:	Received by:	Date:	Time:	Received by:	Date:	Time:	Received by:	Date:	Time:							
S. Latimer	17-May-23	0800								MAY 19 2023	1130am							

FISH TISSUE QUALITY

**ALS Laboratory Report VA23C4184
(Finalized December 15, 2023)**



CERTIFICATE OF ANALYSIS

<p>Work Order : VA23C4184</p> <p>Client : Mount Polley Mining Corporation</p> <p>Contact : Mr. Gabriel Holmes</p> <p>Address : PO Box 12 Likely BC Canada V0L 1N0</p> <p>Telephone : 250-790-2215 ext 2171</p> <p>Project : ----</p> <p>PO : 5590012190</p> <p>C-O-C number : ----</p> <p>Sampler : JBF, PLE</p> <p>Site : ----</p> <p>Quote number : VA22-MPMC100-002</p> <p>No. of samples received : 33</p> <p>No. of samples analysed : 33</p>	<p>Page : 1 of 19</p> <p>Laboratory : ALS Environmental - Vancouver</p> <p>Account Manager : Can Dang</p> <p>Address : 8081 Lougheed Highway Burnaby BC Canada V5A 1W9</p> <p>Telephone : +1 604 253 4188</p> <p>Date Samples Received : 11-Oct-2023 11:30</p> <p>Date Analysis Commenced : 07-Dec-2023</p> <p>Issue Date : 14-Dec-2023 21:26</p>
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This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QC Interpretive report to assist with Quality Review and Sample Receipt Notification (SRN).

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

<i>Signatories</i>	<i>Position</i>	<i>Laboratory Department</i>
Carla Vasquez	Lab Assistant	Metals, Burnaby, British Columbia
Kenson Lo		Metals, Burnaby, British Columbia
Kevin Duarte	Supervisor - Metals ICP Instrumentation	Metals, Burnaby, British Columbia
Maria Larrotta	Lab Assistant	Metals, Burnaby, British Columbia
Owen Cheng		Metals, Burnaby, British Columbia
Ragini Saini	Lab Assistant	Metals, Burnaby, British Columbia
Sam Silveira	Lab Assistant	Metals, Burnaby, British Columbia



General Comments

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Refer to the ALS Quality Control Interpretive report (QCI) for applicable references and methodology summaries. Reference methods may incorporate modifications to improve performance.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

Please refer to Quality Control Interpretive report (QCI) for information regarding Holding Time compliance.

Key : CAS Number: Chemical Abstracts Services number is a unique identifier assigned to discrete substances
LOR: Limit of Reporting (detection limit).

<i>Unit</i>	<i>Description</i>
%	percent
mg/kg	milligrams per kilogram
mg/kg wwt	milligrams per kilogram wet weight

<: less than.

>: greater than.

Surrogate: An analyte that is similar in behavior to target analyte(s), but that does not occur naturally in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery.

Test results reported relate only to the samples as received by the laboratory.

UNLESS OTHERWISE STATED on SRN or QCI Report, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

Qualifiers

<i>Qualifier</i>	<i>Description</i>
DLM	Detection Limit Adjusted due to sample matrix effects (e.g. chemical interference, colour, turbidity).



Analytical Results

Sub-Matrix: Tissue					Client sample ID				
(Matrix: Biota)					QUR_RB-M-1_2 023-10	QUR_RB-M-2_2 023-10	QUR_RB-M-3_2 023-10	QUR_RB-M-4_2 023-10	QUR_RB-M-5_2 023-10
Client sampling date / time					01-Oct-2023 00:00	01-Oct-2023 00:00	01-Oct-2023 00:00	01-Oct-2023 00:00	01-Oct-2023 00:00
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23C4184-001	VA23C4184-002	VA23C4184-003	VA23C4184-004	VA23C4184-005
					Result	Result	Result	Result	Result
Physical Tests									
Moisture	----	E144/VA	0.50	%	76.2	76.8	77.1	76.0	80.0
Metals									
Aluminum	7429-90-5	E440/VA	2.0	mg/kg	<2.0	<2.0	<2.0	4.0	<2.0
Antimony	7440-36-0	E440/VA	0.010	mg/kg	<0.010	<0.010	<0.010	0.046	<0.010
Arsenic	7440-38-2	E440/VA	0.020	mg/kg	0.083	0.139	0.187	0.184	0.284
Barium	7440-39-3	E440/VA	0.050	mg/kg	0.216	0.302	0.266	0.348	0.187
Beryllium	7440-41-7	E440/VA	0.010	mg/kg	<0.010	<0.010	<0.010	<0.010	<0.010
Bismuth	7440-69-9	E440/VA	0.010	mg/kg	<0.010	<0.010	<0.010	<0.010	<0.010
Boron	7440-42-8	E440/VA	1.0	mg/kg	<1.0	<1.0	<1.0	<1.0	<1.0
Cadmium	7440-43-9	E440/VA	0.0050	mg/kg	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Calcium	7440-70-2	E440/VA	20	mg/kg	309	234	244	284	327
Cesium	7440-46-2	E440/VA	0.0050	mg/kg	0.0572	0.0650	0.0646	0.0700	0.104
Chromium	7440-47-3	E440/VA	0.050	mg/kg	<0.050	<0.050	<0.050	0.107	<0.050
Cobalt	7440-48-4	E440/VA	0.020	mg/kg	0.045	0.047	0.067	0.094	0.065
Copper	7440-50-8	E440/VA	0.10	mg/kg	1.58	0.80	1.38	2.04	1.38
Iron	7439-89-6	E440/VA	3.0	mg/kg	16.9	15.1	19.4	33.6	22.7
Lead	7439-92-1	E440/VA	0.020	mg/kg	<0.020	<0.020	<0.020	<0.020	<0.020
Lithium	7439-93-2	E440/VA	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
Magnesium	7439-95-4	E440/VA	2.0	mg/kg	1390	1290	1380	1090	1380
Manganese	7439-96-5	E440/VA	0.050	mg/kg	0.286	0.175	0.244	0.404	0.240
Mercury	7439-97-6	E510/VA	0.0050	mg/kg	0.314	0.448	0.308	0.384	0.539
Mercury	7439-97-6	E510A/VA	0.0010	mg/kg wwt	0.0746	0.104	0.0706	0.0923	0.108
Molybdenum	7439-98-7	E440/VA	0.020	mg/kg	<0.020	<0.020	<0.020	<0.020	<0.020
Nickel	7440-02-0	E440/VA	0.20	mg/kg	<0.20	<0.20	<0.20	<0.20	<0.20
Phosphorus	7723-14-0	E440/VA	10	mg/kg	12200	11800	12400	11300	13500
Potassium	7440-09-7	E440/VA	20	mg/kg	20100	20200	20700	19200	23600
Rubidium	7440-17-7	E440/VA	0.050	mg/kg	14.8	16.3	15.6	13.6	22.3
Selenium	7782-49-2	E440/VA	0.050	mg/kg	2.71	2.20	2.43	2.31	2.29
Silver	7440-22-4	E440.Ag/VA	0.0050	mg/kg	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050



Analytical Results

Sub-Matrix: Tissue (Matrix: Biota)					Client sample ID	QUR_RB-M-1_2 023-10	QUR_RB-M-2_2 023-10	QUR_RB-M-3_2 023-10	QUR_RB-M-4_2 023-10	QUR_RB-M-5_2 023-10
Client sampling date / time					01-Oct-2023 00:00	01-Oct-2023 00:00	01-Oct-2023 00:00	01-Oct-2023 00:00	01-Oct-2023 00:00	
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23C4184-001	VA23C4184-002	VA23C4184-003	VA23C4184-004	VA23C4184-005	
					Result	Result	Result	Result	Result	
Metals										
Sodium	7440-23-5	E440/VA	20	mg/kg	1390	1180	1310	1320	1590	
Strontium	7440-24-6	E440/VA	0.050	mg/kg	0.270	0.149	0.160	0.322	0.194	
Tellurium	13494-80-9	E440/VA	0.020	mg/kg	<0.020	<0.020	<0.020	<0.020	<0.020	
Thallium	7440-28-0	E440/VA	0.0020	mg/kg	0.0144	0.0135	0.0173	0.0189	0.0241	
Tin	7440-31-5	E440/VA	0.10	mg/kg	<0.10	<0.10	<0.10	<0.10	<0.10	
Titanium	7440-32-6	E440.Ti/VA	0.25	mg/kg	<0.25	<0.25	<0.25	<0.25	<0.25	
Uranium	7440-61-1	E440/VA	0.0020	mg/kg	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	
Vanadium	7440-62-2	E440/VA	0.10	mg/kg	<0.10	<0.10	<0.10	<0.10	<0.10	
Zinc	7440-66-6	E440/VA	0.50	mg/kg	18.8	15.3	15.9	17.3	18.0	
Zirconium	7440-67-7	E440/VA	0.20	mg/kg	<0.20	<0.20	<0.20	<0.20	<0.20	

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.



Analytical Results

Sub-Matrix: Tissue (Matrix: Biota)					Client sample ID	QUR_RB-M-6_2 023-10	QUR_RB-M-7_2 023-10	QUR_RB-M-8_2 023-10	QUR_RB-Li-1_2 023-10	QUR_RB-Li-2_2 023-10
Client sampling date / time					01-Oct-2023 00:00	02-Oct-2023 00:00	02-Oct-2023 00:00	01-Oct-2023 00:00	01-Oct-2023 00:00	
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23C4184-006	VA23C4184-007	VA23C4184-008	VA23C4184-009	VA23C4184-010	
					Result	Result	Result	Result	Result	
Physical Tests										
Moisture	---	E144/VA	0.50	%	77.2	76.2	77.4	---	---	
Moisture	---	E144-H/VA	2.0	%	---	---	---	72.5	76.1	
Metals										
Aluminum	7429-90-5	E440/VA	2.0	mg/kg	<2.0	<2.0	<2.0	---	---	
Aluminum	7429-90-5	E472/VA	5.0	mg/kg	---	---	---	<5.0	10.8	
Antimony	7440-36-0	E472/VA	0.010	mg/kg	---	---	---	<0.010	<0.010	
Antimony	7440-36-0	E440/VA	0.010	mg/kg	<0.010	<0.010	<0.010	---	---	
Arsenic	7440-38-2	E440/VA	0.020	mg/kg	0.474	0.052	0.524	---	---	
Arsenic	7440-38-2	E472/VA	0.030	mg/kg	---	---	---	0.263	0.324	
Barium	7440-39-3	E472/VA	0.050	mg/kg	---	---	---	0.550	0.417	
Barium	7440-39-3	E440/VA	0.050	mg/kg	0.165	0.213	0.250	---	---	
Beryllium	7440-41-7	E472/VA	0.010	mg/kg	---	---	---	<0.010	<0.010	
Beryllium	7440-41-7	E440/VA	0.010	mg/kg	<0.010	<0.010	<0.010	---	---	
Bismuth	7440-69-9	E472/VA	0.010	mg/kg	---	---	---	<0.010	<0.010	
Bismuth	7440-69-9	E440/VA	0.010	mg/kg	<0.010	<0.010	<0.010	---	---	
Boron	7440-42-8	E472/VA	1.0	mg/kg	---	---	---	<1.0	<1.0	
Boron	7440-42-8	E440/VA	1.0	mg/kg	<1.0	<1.0	<1.0	---	---	
Cadmium	7440-43-9	E440/VA	0.0050	mg/kg	<0.0050	<0.0050	<0.0050	---	---	
Cadmium	7440-43-9	E472/VA	0.010	mg/kg	---	---	---	0.280	0.666	
Calcium	7440-70-2	E472/VA	20	mg/kg	---	---	---	212	220	
Calcium	7440-70-2	E440/VA	20	mg/kg	269	478	326	---	---	
Cesium	7440-46-2	E472/VA	0.0050	mg/kg	---	---	---	0.0266	0.0427	
Cesium	7440-46-2	E440/VA	0.0050	mg/kg	0.104	0.0491	0.0700	---	---	
Chromium	7440-47-3	E440/VA	0.050	mg/kg	0.055	<0.050	<0.050	---	---	
Chromium	7440-47-3	E472/VA	0.20	mg/kg	---	---	---	<0.20	<0.20	
Cobalt	7440-48-4	E472/VA	0.020	mg/kg	---	---	---	0.183	0.269	
Cobalt	7440-48-4	E440/VA	0.020	mg/kg	0.067	0.032	0.062	---	---	
Copper	7440-50-8	E440/VA	0.10	mg/kg	1.51	1.38	1.04	---	---	
Copper	7440-50-8	E472/VA	0.20	mg/kg	---	---	---	52.2	76.6	
Iron	7439-89-6	E440/VA	3.0	mg/kg	24.9	15.0	16.4	---	---	



Analytical Results

Sub-Matrix: Tissue (Matrix: Biota)					Client sample ID	QUR_RB-M-6_2 023-10	QUR_RB-M-7_2 023-10	QUR_RB-M-8_2 023-10	QUR_RB-Li-1_2 023-10	QUR_RB-Li-2_2 023-10
Client sampling date / time					01-Oct-2023 00:00	02-Oct-2023 00:00	02-Oct-2023 00:00	01-Oct-2023 00:00	01-Oct-2023 00:00	
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23C4184-006	VA23C4184-007	VA23C4184-008	VA23C4184-009	VA23C4184-010	
					Result	Result	Result	Result	Result	
Metals										
Iron	7439-89-6	E472/VA	5.0	mg/kg	---	---	---	693	1500	
Lead	7439-92-1	E440/VA	0.020	mg/kg	<0.020	<0.020	<0.020	---	---	
Lead	7439-92-1	E472/VA	0.050	mg/kg	---	---	---	<0.050	<0.050	
Lithium	7439-93-2	E472/VA	0.50	mg/kg	---	---	---	<0.50	<0.50	
Lithium	7439-93-2	E440/VA	0.50	mg/kg	<0.50	<0.50	<0.50	---	---	
Magnesium	7439-95-4	E472/VA	2.0	mg/kg	---	---	---	690	575	
Magnesium	7439-95-4	E440/VA	2.0	mg/kg	1150	1090	1440	---	---	
Manganese	7439-96-5	E472/VA	0.050	mg/kg	---	---	---	5.33	7.56	
Manganese	7439-96-5	E440/VA	0.050	mg/kg	0.250	0.273	0.200	---	---	
Mercury	7439-97-6	E511/VA	0.0050	mg/kg	---	---	---	0.148	0.284	
Mercury	7439-97-6	E510/VA	0.0050	mg/kg	0.374	0.325	0.534	---	---	
Mercury	7439-97-6	E511A/VA	0.0010	mg/kg wwt	---	---	---	0.0408	0.0678	
Mercury	7439-97-6	E510A/VA	0.0010	mg/kg wwt	0.0854	0.0775	0.121	---	---	
Molybdenum	7439-98-7	E440/VA	0.020	mg/kg	<0.020	<0.020	<0.020	---	---	
Molybdenum	7439-98-7	E472/VA	0.040	mg/kg	---	---	---	1.01	1.24	
Nickel	7440-02-0	E472/VA	0.20	mg/kg	---	---	---	<0.20	<0.20	
Nickel	7440-02-0	E440/VA	0.20	mg/kg	<0.20	<0.20	<0.20	---	---	
Phosphorus	7723-14-0	E472/VA	10	mg/kg	---	---	---	15600	14700	
Phosphorus	7723-14-0	E440/VA	10	mg/kg	11100	11900	13100	---	---	
Potassium	7440-09-7	E472/VA	20	mg/kg	---	---	---	12300	12200	
Potassium	7440-09-7	E440/VA	20	mg/kg	18300	19900	22000	---	---	
Rubidium	7440-17-7	E472/VA	0.050	mg/kg	---	---	---	10.4	16.1	
Rubidium	7440-17-7	E440/VA	0.050	mg/kg	19.4	14.4	18.5	---	---	
Selenium	7782-49-2	E440/VA	0.050	mg/kg	2.31	2.68	2.06	---	---	
Selenium	7782-49-2	E472/VA	0.10	mg/kg	---	---	---	24.2	32.2	
Silver	7440-22-4	E472.Ag/VA	0.0050	mg/kg	---	---	---	1.13	2.71	
Silver	7440-22-4	E440.Ag/VA	0.0050	mg/kg	<0.0050	<0.0050	<0.0050	---	---	
Sodium	7440-23-5	E472/VA	20	mg/kg	---	---	---	4290	4290	
Sodium	7440-23-5	E440/VA	20	mg/kg	1280	1270	1310	---	---	
Strontium	7440-24-6	E440/VA	0.050	mg/kg	0.231	0.517	0.288	---	---	



Analytical Results

Sub-Matrix: Tissue (Matrix: Biota)					Client sample ID	QUR_RB-M-6_2 023-10	QUR_RB-M-7_2 023-10	QUR_RB-M-8_2 023-10	QUR_RB-Li-1_2 023-10	QUR_RB-Li-2_2 023-10
Client sampling date / time					01-Oct-2023 00:00	02-Oct-2023 00:00	02-Oct-2023 00:00	01-Oct-2023 00:00	01-Oct-2023 00:00	
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23C4184-006 Result	VA23C4184-007 Result	VA23C4184-008 Result	VA23C4184-009 Result	VA23C4184-010 Result	
Metals										
Strontium	7440-24-6	E472/VA	0.10	mg/kg	----	----	----	0.37	0.42	
Tellurium	13494-80-9	E472/VA	0.020	mg/kg	----	----	----	<0.020	<0.020	
Tellurium	13494-80-9	E440/VA	0.020	mg/kg	<0.020	<0.020	<0.020	----	----	
Thallium	7440-28-0	E472/VA	0.0020	mg/kg	----	----	----	0.0726	0.141	
Thallium	7440-28-0	E440/VA	0.0020	mg/kg	0.0245	0.0119	0.0151	----	----	
Tin	7440-31-5	E472/VA	0.10	mg/kg	----	----	----	<0.10	<0.10	
Tin	7440-31-5	E440/VA	0.10	mg/kg	<0.10	<0.10	<0.10	----	----	
Titanium	7440-32-6	E440.Ti/VA	0.25	mg/kg	<0.25	<0.25	<0.25	----	----	
Titanium	7440-32-6	E472.Ti/VA	0.50	mg/kg	----	----	----	<0.50	<0.50	
Uranium	7440-61-1	E472/VA	0.0020	mg/kg	----	----	----	0.0043	0.0097	
Uranium	7440-61-1	E440/VA	0.0020	mg/kg	<0.0020	<0.0020	<0.0020	----	----	
Vanadium	7440-62-2	E472/VA	0.10	mg/kg	----	----	----	<0.10	0.36	
Vanadium	7440-62-2	E440/VA	0.10	mg/kg	<0.10	<0.10	<0.10	----	----	
Zinc	7440-66-6	E440/VA	0.50	mg/kg	16.3	15.2	17.2	----	----	
Zinc	7440-66-6	E472/VA	1.0	mg/kg	----	----	----	103	106	
Zirconium	7440-67-7	E472/VA	0.20	mg/kg	----	----	----	<0.20	<0.20	
Zirconium	7440-67-7	E440/VA	0.20	mg/kg	<0.20	<0.20	<0.20	----	----	

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.



Analytical Results

Sub-Matrix: Tissue (Matrix: Biota)					Client sample ID	QUR_RB-Li-3_2 023-10	QUR_RB-Li-4_2 023-10	QUR_RB-Li-5_2 023-10	QUR_RB-Li-6_2 023-10	QUR_RB-Li-7_2 023-10
Client sampling date / time					01-Oct-2023 00:00	01-Oct-2023 00:00	01-Oct-2023 00:00	01-Oct-2023 00:00	02-Oct-2023 00:00	
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23C4184-011	VA23C4184-012	VA23C4184-013	VA23C4184-014	VA23C4184-015	
					Result	Result	Result	Result	Result	
Physical Tests										
Moisture	---	E144-H/VA	2.0	%	74.2	76.6	75.3	76.8	77.2	
Metals										
Aluminum	7429-90-5	E472/VA	5.0	mg/kg	6.1	25.0	7.9	11.0	<5.0	
Antimony	7440-36-0	E472/VA	0.010	mg/kg	<0.010	<0.010	<0.010	<0.010	<0.010	
Arsenic	7440-38-2	E472/VA	0.030	mg/kg	0.143	0.266	0.218	0.270	0.140	
Barium	7440-39-3	E472/VA	0.050	mg/kg	0.454	0.606	0.313	0.340	0.331	
Beryllium	7440-41-7	E472/VA	0.010	mg/kg	<0.010	<0.010	<0.010	<0.010	<0.010	
Bismuth	7440-69-9	E472/VA	0.010	mg/kg	<0.010	<0.010	<0.010	<0.010	<0.010	
Boron	7440-42-8	E472/VA	1.0	mg/kg	1.0	1.0	<1.0	<1.0	<1.0	
Cadmium	7440-43-9	E472/VA	0.010	mg/kg	1.17	0.858	1.01	1.05	0.387	
Calcium	7440-70-2	E472/VA	20	mg/kg	246	263	346	198	259	
Cesium	7440-46-2	E472/VA	0.0050	mg/kg	0.0246	0.0289	0.0379	0.0393	0.0168	
Chromium	7440-47-3	E472/VA	0.20	mg/kg	<0.20	0.28	<0.20	<0.20	<0.20	
Cobalt	7440-48-4	E472/VA	0.020	mg/kg	0.282	0.438	0.207	0.354	0.204	
Copper	7440-50-8	E472/VA	0.20	mg/kg	57.9	130	201	102	212	
Iron	7439-89-6	E472/VA	5.0	mg/kg	1640	2680	874	447	734	
Lead	7439-92-1	E472/VA	0.050	mg/kg	<0.050	<0.050	<0.050	<0.050	<0.050	
Lithium	7439-93-2	E472/VA	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50	
Magnesium	7439-95-4	E472/VA	2.0	mg/kg	710	656	750	674	583	
Manganese	7439-96-5	E472/VA	0.050	mg/kg	12.4	8.05	10.7	9.78	4.68	
Mercury	7439-97-6	E511/VA	0.0050	mg/kg	0.253	0.301	0.344	0.263	0.212	
Mercury	7439-97-6	E511/VA	0.0010	mg/kg wwt	0.0653	0.0704	0.0848	0.0609	0.0484	
Molybdenum	7439-98-7	E472/VA	0.040	mg/kg	1.23	1.53	0.969	1.16	0.784	
Nickel	7440-02-0	E472/VA	0.20	mg/kg	<0.20	0.21	<0.20	<0.20	<0.20	
Phosphorus	7723-14-0	E472/VA	10	mg/kg	17100	15700	14300	14600	13200	
Potassium	7440-09-7	E472/VA	20	mg/kg	13300	12100	12500	13300	11900	
Rubidium	7440-17-7	E472/VA	0.050	mg/kg	16.1	10.6	16.8	23.5	10.2	
Selenium	7782-49-2	E472/VA	0.10	mg/kg	25.3	43.4	34.8	33.8	48.2	
Silver	7440-22-4	E472.Ag/VA	0.0050	mg/kg	2.24	4.47	3.04	3.82	2.50	
Sodium	7440-23-5	E472/VA	20	mg/kg	3170	4970	4840	3880	5440	



Analytical Results

Sub-Matrix: Tissue (Matrix: Biota)					Client sample ID	QUR_RB-Li-3_2 023-10	QUR_RB-Li-4_2 023-10	QUR_RB-Li-5_2 023-10	QUR_RB-Li-6_2 023-10	QUR_RB-Li-7_2 023-10
Client sampling date / time					01-Oct-2023 00:00	01-Oct-2023 00:00	01-Oct-2023 00:00	01-Oct-2023 00:00	02-Oct-2023 00:00	
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23C4184-011	VA23C4184-012	VA23C4184-013	VA23C4184-014	VA23C4184-015	
					Result	Result	Result	Result	Result	
Metals										
Strontium	7440-24-6	E472/VA	0.10	mg/kg	0.34	0.73	0.43	0.26	0.58	
Tellurium	13494-80-9	E472/VA	0.020	mg/kg	<0.020	<0.020	<0.020	<0.020	<0.020	
Thallium	7440-28-0	E472/VA	0.0020	mg/kg	0.0675	0.0920	0.0821	0.111	0.0493	
Tin	7440-31-5	E472/VA	0.10	mg/kg	<0.10	<0.10	<0.10	<0.10	<0.10	
Titanium	7440-32-6	E472.Ti/VA	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50	
Uranium	7440-61-1	E472/VA	0.0020	mg/kg	0.0131	0.0311	0.0063	0.0155	0.0053	
Vanadium	7440-62-2	E472/VA	0.10	mg/kg	0.12	0.33	0.20	<0.10	<0.10	
Zinc	7440-66-6	E472/VA	1.0	mg/kg	130	117	114	125	98.6	
Zirconium	7440-67-7	E472/VA	0.20	mg/kg	<0.20	<0.20	<0.20	<0.20	<0.20	

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.



Analytical Results

Sub-Matrix: Tissue (Matrix: Biota)					Client sample ID	QUR_RB-Li-8_2 023-10	QUR_RB-Ki-1_2 023-10	QUR_RB-Ki-2_2 023-10	QUR_RB-Ki-3_2 023-10	QUR_RB-Ki-4_2 023-10
Client sampling date / time					02-Oct-2023 00:00	01-Oct-2023 00:00	01-Oct-2023 00:00	01-Oct-2023 00:00	01-Oct-2023 00:00	
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23C4184-016	VA23C4184-017	VA23C4184-018	VA23C4184-019	VA23C4184-020	
					Result	Result	Result	Result	Result	
Physical Tests										
Moisture	---	E144-H/VA	2.0	%	74.5	76.1	79.2	74.8	79.3	
Metals										
Aluminum	7429-90-5	E472/VA	5.0	mg/kg	7.5	<5.0	7.8	8.6	8.5	
Antimony	7440-36-0	E472/VA	0.010	mg/kg	<0.010	<0.010	<0.010	0.012	<0.010	
Arsenic	7440-38-2	E472/VA	0.030	mg/kg	0.214	0.407	1.39	1.28	0.703	
Barium	7440-39-3	E472/VA	0.050	mg/kg	0.491	0.671	0.485	0.831	0.302	
Beryllium	7440-41-7	E472/VA	0.010	mg/kg	<0.010	<0.010	<0.010	<0.010	<0.010	
Bismuth	7440-69-9	E472/VA	0.010	mg/kg	<0.010	<0.010	<0.010	<0.010	<0.010	
Boron	7440-42-8	E472/VA	1.0	mg/kg	<1.0	<1.0	<1.0	<1.0	<1.0	
Cadmium	7440-43-9	E472/VA	0.010	mg/kg	0.606	0.467	0.815	2.66	0.782	
Calcium	7440-70-2	E472/VA	20	mg/kg	294	445	516	1220	656	
Cesium	7440-46-2	E472/VA	0.0050	mg/kg	0.0400	0.0355	0.0535	0.0347	0.0479	
Chromium	7440-47-3	E472/VA	0.20	mg/kg	<0.20	<0.20	0.35	0.36	0.41	
Cobalt	7440-48-4	E472/VA	0.020	mg/kg	0.203	0.768	1.18	1.33	1.94	
Copper	7440-50-8	E472/VA	0.20	mg/kg	83.5	4.51	4.82	6.86	4.12	
Iron	7439-89-6	E472/VA	5.0	mg/kg	2170	880	1260	938	1280	
Lead	7439-92-1	E472/VA	0.050	mg/kg	<0.050	<0.050	<0.050	0.065	0.052	
Lithium	7439-93-2	E472/VA	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50	
Magnesium	7439-95-4	E472/VA	2.0	mg/kg	838	679	954	605	818	
Manganese	7439-96-5	E472/VA	0.050	mg/kg	13.1	2.90	2.82	3.09	1.95	
Mercury	7439-97-6	E511/VA	0.0050	mg/kg	0.378	0.300	0.665	0.413	0.696	
Mercury	7439-97-6	E511/VA	0.0010	mg/kg ww	0.0962	0.0716	0.138	0.104	0.144	
Molybdenum	7439-98-7	E472/VA	0.040	mg/kg	0.925	0.296	0.375	0.631	0.304	
Nickel	7440-02-0	E472/VA	0.20	mg/kg	<0.20	0.53	0.57	0.99	1.62	
Phosphorus	7723-14-0	E472/VA	10	mg/kg	16600	13400	15600	9550	12500	
Potassium	7440-09-7	E472/VA	20	mg/kg	14800	13600	14500	9610	12600	
Rubidium	7440-17-7	E472/VA	0.050	mg/kg	24.6	11.5	15.0	10.0	11.7	
Selenium	7782-49-2	E472/VA	0.10	mg/kg	20.0	32.4	15.3	19.9	10.9	
Silver	7440-22-4	E472.Ag/VA	0.0050	mg/kg	2.50	<0.0050	0.0115	0.0210	0.0123	
Sodium	7440-23-5	E472/VA	20	mg/kg	2850	6600	7940	7380	8660	



Analytical Results

Sub-Matrix: Tissue (Matrix: Biota)					Client sample ID	QUR_RB-Li-8_2 023-10	QUR_RB-Ki-1_2 023-10	QUR_RB-Ki-2_2 023-10	QUR_RB-Ki-3_2 023-10	QUR_RB-Ki-4_2 023-10
Client sampling date / time					02-Oct-2023 00:00	01-Oct-2023 00:00	01-Oct-2023 00:00	01-Oct-2023 00:00	01-Oct-2023 00:00	01-Oct-2023 00:00
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23C4184-016	VA23C4184-017	VA23C4184-018	VA23C4184-019	VA23C4184-020	
					Result	Result	Result	Result	Result	
Metals										
Strontium	7440-24-6	E472/VA	0.10	mg/kg	0.44	1.39	3.02	4.07	1.71	
Tellurium	13494-80-9	E472/VA	0.020	mg/kg	<0.020	<0.020	0.045	0.022	0.054	
Thallium	7440-28-0	E472/VA	0.0020	mg/kg	0.0968	0.0453	0.0424	0.0912	0.0464	
Tin	7440-31-5	E472/VA	0.10	mg/kg	<0.10	<0.10	<0.10	<0.10	<0.10	
Titanium	7440-32-6	E472.Ti/VA	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50	
Uranium	7440-61-1	E472/VA	0.0020	mg/kg	0.0095	0.0092	0.0192	0.0216	0.0450	
Vanadium	7440-62-2	E472/VA	0.10	mg/kg	0.29	0.12	0.75	0.24	0.53	
Zinc	7440-66-6	E472/VA	1.0	mg/kg	113	111	148	135	112	
Zirconium	7440-67-7	E472/VA	0.20	mg/kg	<0.20	<0.20	<0.20	<0.20	<0.20	

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.



Analytical Results

Sub-Matrix: Tissue					Client sample ID				
(Matrix: Biota)					QUR_RB-Ki-5_2	QUR_RB-Ki-6_2	QUR_RB-Ki-7_2	QUR_RB-Ki-8_2	QUR_RB-O-2_2
					023-10	023-10	023-10	023-10	023-10
Client sampling date / time					01-Oct-2023 00:00	01-Oct-2023 00:00	02-Oct-2023 00:00	02-Oct-2023 00:00	01-Oct-2023 00:00
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23C4184-021	VA23C4184-022	VA23C4184-023	VA23C4184-024	VA23C4184-025
					Result	Result	Result	Result	Result
Physical Tests									
Moisture	---	E144A/VA	2.0	%	---	---	---	---	80.4
Moisture	---	E144-H/VA	2.0	%	80.2	77.4	75.4	76.9	---
Metals									
Aluminum	7429-90-5	E475/VA	5.0	mg/kg	---	---	---	---	7.5
Aluminum	7429-90-5	E472/VA	5.0	mg/kg	17.9	9.2	<5.0	5.1	---
Antimony	7440-36-0	E472/VA	0.010	mg/kg	0.017	0.014	<0.010	<0.010	---
Antimony	7440-36-0	E475/VA	0.020	mg/kg	---	---	---	---	<0.020
Arsenic	7440-38-2	E472/VA	0.030	mg/kg	1.42	1.15	0.321	0.812	---
Arsenic	7440-38-2	E475/VA	0.050	mg/kg	---	---	---	---	0.142
Barium	7440-39-3	E475/VA	0.050	mg/kg	---	---	---	---	0.128
Barium	7440-39-3	E472/VA	0.050	mg/kg	0.698	0.320	0.190	0.518	---
Beryllium	7440-41-7	E475/VA	0.010	mg/kg	---	---	---	---	<0.010
Beryllium	7440-41-7	E472/VA	0.010	mg/kg	<0.010	<0.010	<0.010	<0.010	---
Bismuth	7440-69-9	E475/VA	0.010	mg/kg	---	---	---	---	<0.010
Bismuth	7440-69-9	E472/VA	0.010	mg/kg	<0.010	<0.010	<0.010	<0.010	---
Boron	7440-42-8	E475/VA	1.0	mg/kg	---	---	---	---	<1.0
Boron	7440-42-8	E472/VA	1.0	mg/kg	<1.0	<1.0	<1.0	<1.0	---
Cadmium	7440-43-9	E475/VA	0.010	mg/kg	---	---	---	---	0.027
Cadmium	7440-43-9	E472/VA	0.010	mg/kg	2.04	1.91	0.560	1.57	---
Calcium	7440-70-2	E475/VA	20	mg/kg	---	---	---	---	440
Calcium	7440-70-2	E472/VA	20	mg/kg	1420	1010	534	1180	---
Cesium	7440-46-2	E475/VA	0.0050	mg/kg	---	---	---	---	0.0522
Cesium	7440-46-2	E472/VA	0.0050	mg/kg	0.0619	0.0514	0.0258	0.0458	---
Chromium	7440-47-3	E475/VA	0.20	mg/kg	---	---	---	---	0.46
Chromium	7440-47-3	E472/VA	0.20	mg/kg	0.65	0.47	<0.20	0.36	---
Cobalt	7440-48-4	E475/VA	0.020	mg/kg	---	---	---	---	0.927
Cobalt	7440-48-4	E472/VA	0.020	mg/kg	1.86	1.39	0.521	1.10	---
Copper	7440-50-8	E475/VA	0.20	mg/kg	---	---	---	---	8.59
Copper	7440-50-8	E472/VA	0.20	mg/kg	7.84	5.60	4.29	4.53	---
Iron	7439-89-6	E475/VA	5.0	mg/kg	---	---	---	---	823



Analytical Results

Sub-Matrix: Tissue					Client sample ID				
(Matrix: Biota)					QUR_RB-Ki-5_2	QUR_RB-Ki-6_2	QUR_RB-Ki-7_2	QUR_RB-Ki-8_2	QUR_RB-O-2_2
					023-10	023-10	023-10	023-10	023-10
Client sampling date / time					01-Oct-2023 00:00	01-Oct-2023 00:00	02-Oct-2023 00:00	02-Oct-2023 00:00	01-Oct-2023 00:00
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23C4184-021	VA23C4184-022	VA23C4184-023	VA23C4184-024	VA23C4184-025
					Result	Result	Result	Result	Result
Metals									
Iron	7439-89-6	E472/VA	5.0	mg/kg	1260	1140	881	895	---
Lead	7439-92-1	E475/VA	0.050	mg/kg	---	---	---	---	0.082
Lead	7439-92-1	E472/VA	0.050	mg/kg	0.103	0.064	<0.050	<0.050	---
Lithium	7439-93-2	E475/VA	0.50	mg/kg	---	---	---	---	<0.50
Lithium	7439-93-2	E472/VA	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	---
Magnesium	7439-95-4	E475/VA	2.0	mg/kg	---	---	---	---	890
Magnesium	7439-95-4	E472/VA	2.0	mg/kg	843	556	562	684	---
Manganese	7439-96-5	E475/VA	0.050	mg/kg	---	---	---	---	4.19
Manganese	7439-96-5	E472/VA	0.050	mg/kg	3.55	2.16	2.03	2.20	---
Mercury	7439-97-6	E511/VA	0.0050	mg/kg	0.746	0.541	0.349	0.630	---
Mercury	7439-97-6	E512/VA	0.010	mg/kg	---	---	---	---	0.120
Mercury	7439-97-6	E511A/VA	0.0010	mg/kg wwt	0.147	0.122	0.0859	0.145	---
Mercury	7439-97-6	E512A/VA	0.0020	mg/kg wwt	---	---	---	---	0.0236
Molybdenum	7439-98-7	E475/VA	0.040	mg/kg	---	---	---	---	0.054
Molybdenum	7439-98-7	E472/VA	0.040	mg/kg	0.679	0.405	0.278	0.391	---
Nickel	7440-02-0	E475/VA	0.20	mg/kg	---	---	---	---	0.58
Nickel	7440-02-0	E472/VA	0.20	mg/kg	1.48	1.01	0.30	0.74	---
Phosphorus	7723-14-0	E472/VA	10	mg/kg	12200	10600	9590	11000	---
Phosphorus	7723-14-0	E475/VA	20	mg/kg	---	---	---	---	12600
Potassium	7440-09-7	E475/VA	20	mg/kg	---	---	---	---	17400
Potassium	7440-09-7	E472/VA	20	mg/kg	12100	10900	10600	11400	---
Rubidium	7440-17-7	E475/VA	0.050	mg/kg	---	---	---	---	19.0
Rubidium	7440-17-7	E472/VA	0.050	mg/kg	14.8	13.8	9.48	12.1	---
Selenium	7782-49-2	E475/VA	0.10	mg/kg	---	---	---	---	12.0
Selenium	7782-49-2	E472/VA	0.10	mg/kg	19.3	13.6	15.2	12.0	---
Silver	7440-22-4	E475.Ag/VA	0.0050	mg/kg	---	---	---	---	0.0228
Silver	7440-22-4	E472.Ag/VA	0.0050	mg/kg	0.0331	0.0304	<0.0050	0.0133	---
Sodium	7440-23-5	E475/VA	20	mg/kg	---	---	---	---	5360
Sodium	7440-23-5	E472/VA	20	mg/kg	9570	7130	5610	6920	---
Strontium	7440-24-6	E475/VA	0.10	mg/kg	---	---	---	---	0.63



Analytical Results

Sub-Matrix: Tissue (Matrix: Biota)					Client sample ID	QUR_RB-Ki-5_2 023-10	QUR_RB-Ki-6_2 023-10	QUR_RB-Ki-7_2 023-10	QUR_RB-Ki-8_2 023-10	QUR_RB-O-2_2 023-10
Client sampling date / time					01-Oct-2023 00:00	01-Oct-2023 00:00	02-Oct-2023 00:00	02-Oct-2023 00:00	01-Oct-2023 00:00	
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23C4184-021	VA23C4184-022	VA23C4184-023	VA23C4184-024	VA23C4184-025	
					Result	Result	Result	Result	Result	
Metals										
Strontium	7440-24-6	E472/VA	0.10	mg/kg	3.44	2.56	1.15	2.95	----	
Tellurium	13494-80-9	E475/VA	0.020	mg/kg	----	----	----	----	<0.020	
Tellurium	13494-80-9	E472/VA	0.020	mg/kg	0.037	0.046	<0.020	0.026	----	
Thallium	7440-28-0	E475/VA	0.0020	mg/kg	----	----	----	----	0.0080	
Thallium	7440-28-0	E472/VA	0.0020	mg/kg	0.0935	0.0587	0.0338	0.0640	----	
Tin	7440-31-5	E475/VA	0.10	mg/kg	----	----	----	----	<0.10	
Tin	7440-31-5	E472/VA	0.10	mg/kg	<0.10	<0.10	<0.10	<0.10	----	
Titanium	7440-32-6	E475.Ti/VA	0.50	mg/kg	----	----	----	----	0.71	
Titanium	7440-32-6	E472.Ti/VA	0.50	mg/kg	<1.00 ^{DLM}	<0.50	<0.50	<0.50	----	
Uranium	7440-61-1	E475/VA	0.0020	mg/kg	----	----	----	----	<0.0020	
Uranium	7440-61-1	E472/VA	0.0020	mg/kg	0.0283	0.0360	0.0091	0.0166	----	
Vanadium	7440-62-2	E475/VA	0.10	mg/kg	----	----	----	----	0.12	
Vanadium	7440-62-2	E472/VA	0.10	mg/kg	0.52	0.22	<0.10	0.42	----	
Zinc	7440-66-6	E475/VA	1.0	mg/kg	----	----	----	----	336	
Zinc	7440-66-6	E472/VA	1.0	mg/kg	133	126	93.2	137	----	
Zirconium	7440-67-7	E475/VA	0.20	mg/kg	----	----	----	----	<0.20	
Zirconium	7440-67-7	E472/VA	0.20	mg/kg	<0.20	<0.20	<0.20	<0.20	----	

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.



Analytical Results

Sub-Matrix: Tissue (Matrix: Biota)					Client sample ID	QUR_RB-O-3_2 023-10	QUR_RB-O-5_2 023-10	QUR_RB-O-6_2 023-10	QUR_RB-O-8_2 023-10	QUR_RB-M-3X_ 2023-10
Client sampling date / time					01-Oct-2023 00:00	01-Oct-2023 00:00	01-Oct-2023 00:00	02-Oct-2023 00:00	01-Oct-2023 00:00	
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23C4184-026	VA23C4184-027	VA23C4184-028	VA23C4184-029	VA23C4184-030	
					Result	Result	Result	Result	Result	
Physical Tests										
Moisture	---	E144/VA	0.50	%	---	---	---	---	77.0	
Moisture	---	E144-H/VA	2.0	%	64.9	66.1	67.3	65.0	---	
Metals										
Aluminum	7429-90-5	E440/VA	2.0	mg/kg	---	---	---	---	<2.0	
Aluminum	7429-90-5	E472/VA	5.0	mg/kg	<5.0	<5.0	<5.0	<5.0	---	
Antimony	7440-36-0	E472/VA	0.010	mg/kg	<0.010	<0.010	<0.010	<0.010	---	
Antimony	7440-36-0	E440/VA	0.010	mg/kg	---	---	---	---	<0.010	
Arsenic	7440-38-2	E440/VA	0.020	mg/kg	---	---	---	---	0.178	
Arsenic	7440-38-2	E472/VA	0.030	mg/kg	0.035	0.060	0.110	0.098	---	
Barium	7440-39-3	E472/VA	0.050	mg/kg	0.547	0.428	0.565	0.419	---	
Barium	7440-39-3	E440/VA	0.050	mg/kg	---	---	---	---	0.283	
Beryllium	7440-41-7	E472/VA	0.010	mg/kg	<0.010	<0.010	<0.010	<0.010	---	
Beryllium	7440-41-7	E440/VA	0.010	mg/kg	---	---	---	---	<0.010	
Bismuth	7440-69-9	E472/VA	0.010	mg/kg	<0.010	<0.010	<0.010	<0.010	---	
Bismuth	7440-69-9	E440/VA	0.010	mg/kg	---	---	---	---	<0.010	
Boron	7440-42-8	E472/VA	1.0	mg/kg	<1.0	<1.0	<1.0	<1.0	---	
Boron	7440-42-8	E440/VA	1.0	mg/kg	---	---	---	---	<1.0	
Cadmium	7440-43-9	E440/VA	0.0050	mg/kg	---	---	---	---	<0.0050	
Cadmium	7440-43-9	E472/VA	0.010	mg/kg	<0.010	0.011	0.012	<0.010	---	
Calcium	7440-70-2	E472/VA	20	mg/kg	1200	1300	924	973	---	
Calcium	7440-70-2	E440/VA	20	mg/kg	---	---	---	---	289	
Cesium	7440-46-2	E472/VA	0.0050	mg/kg	0.0154	0.0230	0.0327	0.0227	---	
Cesium	7440-46-2	E440/VA	0.0050	mg/kg	---	---	---	---	0.0659	
Chromium	7440-47-3	E440/VA	0.050	mg/kg	---	---	---	---	0.122	
Chromium	7440-47-3	E472/VA	0.20	mg/kg	<0.20	<0.20	<0.20	<0.20	---	
Cobalt	7440-48-4	E472/VA	0.020	mg/kg	0.255	0.289	0.449	0.306	---	
Cobalt	7440-48-4	E440/VA	0.020	mg/kg	---	---	---	---	0.062	
Copper	7440-50-8	E440/VA	0.10	mg/kg	---	---	---	---	1.16	
Copper	7440-50-8	E472/VA	0.20	mg/kg	17.9	21.0	28.4	25.0	---	
Iron	7439-89-6	E440/VA	3.0	mg/kg	---	---	---	---	20.0	



Analytical Results

Sub-Matrix: Tissue (Matrix: Biota)					Client sample ID	QUR_RB-O-3_2 023-10	QUR_RB-O-5_2 023-10	QUR_RB-O-6_2 023-10	QUR_RB-O-8_2 023-10	QUR_RB-M-3X_ 2023-10
Client sampling date / time					01-Oct-2023 00:00	01-Oct-2023 00:00	01-Oct-2023 00:00	02-Oct-2023 00:00	01-Oct-2023 00:00	
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23C4184-026	VA23C4184-027	VA23C4184-028	VA23C4184-029	VA23C4184-030	
					Result	Result	Result	Result	Result	
Metals										
Iron	7439-89-6	E472/VA	5.0	mg/kg	136	129	161	165	---	
Lead	7439-92-1	E440/VA	0.020	mg/kg	---	---	---	---	<0.020	
Lead	7439-92-1	E472/VA	0.050	mg/kg	<0.050	<0.050	<0.050	<0.050	---	
Lithium	7439-93-2	E472/VA	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	---	
Lithium	7439-93-2	E440/VA	0.50	mg/kg	---	---	---	---	<0.50	
Magnesium	7439-95-4	E472/VA	2.0	mg/kg	1240	1450	1230	1130	---	
Magnesium	7439-95-4	E440/VA	2.0	mg/kg	---	---	---	---	1370	
Manganese	7439-96-5	E472/VA	0.050	mg/kg	11.1	6.26	13.2	13.0	---	
Manganese	7439-96-5	E440/VA	0.050	mg/kg	---	---	---	---	0.236	
Mercury	7439-97-6	E511/VA	0.0050	mg/kg	0.0277	0.0401	0.0404	0.0458	---	
Mercury	7439-97-6	E510/VA	0.0050	mg/kg	---	---	---	---	0.309	
Mercury	7439-97-6	E511A/VA	0.0010	mg/kg wwt	0.0097	0.0136	0.0132	0.0160	---	
Mercury	7439-97-6	E510A/VA	0.0010	mg/kg wwt	---	---	---	---	0.0709	
Molybdenum	7439-98-7	E440/VA	0.020	mg/kg	---	---	---	---	0.060	
Molybdenum	7439-98-7	E472/VA	0.040	mg/kg	<0.040	<0.040	<0.040	<0.040	---	
Nickel	7440-02-0	E472/VA	0.20	mg/kg	<0.20	<0.20	<0.20	<0.20	---	
Nickel	7440-02-0	E440/VA	0.20	mg/kg	---	---	---	---	<0.20	
Phosphorus	7723-14-0	E472/VA	10	mg/kg	9710	10400	10000	9560	---	
Phosphorus	7723-14-0	E440/VA	10	mg/kg	---	---	---	---	11200	
Potassium	7440-09-7	E472/VA	20	mg/kg	4610	4840	6090	5230	---	
Potassium	7440-09-7	E440/VA	20	mg/kg	---	---	---	---	18400	
Rubidium	7440-17-7	E472/VA	0.050	mg/kg	4.42	6.33	8.75	6.46	---	
Rubidium	7440-17-7	E440/VA	0.050	mg/kg	---	---	---	---	14.2	
Selenium	7782-49-2	E440/VA	0.050	mg/kg	---	---	---	---	2.20	
Selenium	7782-49-2	E472/VA	0.10	mg/kg	18.0	9.82	22.8	13.1	---	
Silver	7440-22-4	E472.Ag/VA	0.0050	mg/kg	0.0595	0.0306	0.0619	0.0670	---	
Silver	7440-22-4	E440.Ag/VA	0.0050	mg/kg	---	---	---	---	<0.0050	
Sodium	7440-23-5	E472/VA	20	mg/kg	2320	2320	2840	2660	---	
Sodium	7440-23-5	E440/VA	20	mg/kg	---	---	---	---	1140	
Strontium	7440-24-6	E440/VA	0.050	mg/kg	---	---	---	---	0.243	



Analytical Results

Sub-Matrix: Tissue (Matrix: Biota)					Client sample ID	QUR_RB-O-3_2 023-10	QUR_RB-O-5_2 023-10	QUR_RB-O-6_2 023-10	QUR_RB-O-8_2 023-10	QUR_RB-M-3X_ 2023-10
Client sampling date / time					01-Oct-2023 00:00	01-Oct-2023 00:00	01-Oct-2023 00:00	02-Oct-2023 00:00	01-Oct-2023 00:00	
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23C4184-026	VA23C4184-027	VA23C4184-028	VA23C4184-029	VA23C4184-030	
					Result	Result	Result	Result	Result	
Metals										
Strontium	7440-24-6	E472/VA	0.10	mg/kg	3.38	2.69	2.51	2.85	----	
Tellurium	13494-80-9	E472/VA	0.020	mg/kg	<0.020	<0.020	<0.020	<0.020	----	
Tellurium	13494-80-9	E440/VA	0.020	mg/kg	----	----	----	----	<0.020	
Thallium	7440-28-0	E472/VA	0.0020	mg/kg	0.0069	0.0084	0.0073	0.0060	----	
Thallium	7440-28-0	E440/VA	0.0020	mg/kg	----	----	----	----	0.0195	
Tin	7440-31-5	E472/VA	0.10	mg/kg	<0.10	<0.10	<0.10	<0.10	----	
Tin	7440-31-5	E440/VA	0.10	mg/kg	----	----	----	----	<0.10	
Titanium	7440-32-6	E440.Ti/VA	0.25	mg/kg	----	----	----	----	<0.25	
Titanium	7440-32-6	E472.Ti/VA	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	----	
Uranium	7440-61-1	E472/VA	0.0020	mg/kg	0.0028	<0.0020	0.0051	<0.0020	----	
Uranium	7440-61-1	E440/VA	0.0020	mg/kg	----	----	----	----	<0.0020	
Vanadium	7440-62-2	E472/VA	0.10	mg/kg	<0.10	<0.10	<0.10	<0.10	----	
Vanadium	7440-62-2	E440/VA	0.10	mg/kg	----	----	----	----	<0.10	
Zinc	7440-66-6	E440/VA	0.50	mg/kg	----	----	----	----	13.6	
Zinc	7440-66-6	E472/VA	1.0	mg/kg	107	83.3	217	132	----	
Zirconium	7440-67-7	E472/VA	0.20	mg/kg	<0.20	<0.20	<0.20	<0.20	----	
Zirconium	7440-67-7	E440/VA	0.20	mg/kg	----	----	----	----	<0.20	

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.



Analytical Results

Sub-Matrix: Tissue					Client sample ID	QUR_RB-Li-3X_2023-10	QUR_RB-Ki-3X_2023-10	QUR_RB-O-3X_2023-10	----	----
(Matrix: Biota)					Client sampling date / time	01-Oct-2023 00:00	01-Oct-2023 00:00	01-Oct-2023 00:00	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23C4184-031	VA23C4184-032	VA23C4184-033	-----	-----	
					Result	Result	Result	----	----	
Physical Tests										
Moisture	----	E144-H/VA	2.0	%	72.4	74.6	65.2	----	----	
Metals										
Aluminum	7429-90-5	E472/VA	5.0	mg/kg	7.2	6.4	<5.0	----	----	
Antimony	7440-36-0	E472/VA	0.010	mg/kg	<0.010	<0.010	<0.010	----	----	
Arsenic	7440-38-2	E472/VA	0.030	mg/kg	0.148	0.734	0.038	----	----	
Barium	7440-39-3	E472/VA	0.050	mg/kg	0.519	0.416	0.614	----	----	
Beryllium	7440-41-7	E472/VA	0.010	mg/kg	<0.010	<0.010	<0.010	----	----	
Bismuth	7440-69-9	E472/VA	0.010	mg/kg	<0.010	<0.010	<0.010	----	----	
Boron	7440-42-8	E472/VA	1.0	mg/kg	<1.0	<1.0	<1.0	----	----	
Cadmium	7440-43-9	E472/VA	0.010	mg/kg	1.06	1.29	<0.010	----	----	
Calcium	7440-70-2	E472/VA	20	mg/kg	261	1200	1250	----	----	
Cesium	7440-46-2	E472/VA	0.0050	mg/kg	0.0248	0.0257	0.0180	----	----	
Chromium	7440-47-3	E472/VA	0.20	mg/kg	<0.20	0.26	<0.20	----	----	
Cobalt	7440-48-4	E472/VA	0.020	mg/kg	0.288	1.11	0.329	----	----	
Copper	7440-50-8	E472/VA	0.20	mg/kg	68.0	4.04	21.7	----	----	
Iron	7439-89-6	E472/VA	5.0	mg/kg	1470	1610	154	----	----	
Lead	7439-92-1	E472/VA	0.050	mg/kg	<0.050	0.066	<0.050	----	----	
Lithium	7439-93-2	E472/VA	0.50	mg/kg	<0.50	<0.50	<0.50	----	----	
Magnesium	7439-95-4	E472/VA	2.0	mg/kg	734	409	1500	----	----	
Manganese	7439-96-5	E472/VA	0.050	mg/kg	12.8	1.97	14.4	----	----	
Mercury	7439-97-6	E511/VA	0.0050	mg/kg	0.243	0.364	0.0274	----	----	
Mercury	7439-97-6	E511/VA	0.0010	mg/kg wwt	0.0671	0.0925	0.0096	----	----	
Molybdenum	7439-98-7	E472/VA	0.040	mg/kg	1.17	0.350	<0.040	----	----	
Nickel	7440-02-0	E472/VA	0.20	mg/kg	8.16	0.77	<0.20	----	----	
Phosphorus	7723-14-0	E472/VA	10	mg/kg	15800	8980	11800	----	----	
Potassium	7440-09-7	E472/VA	20	mg/kg	12500	10300	5830	----	----	
Rubidium	7440-17-7	E472/VA	0.050	mg/kg	14.8	9.31	5.48	----	----	
Selenium	7782-49-2	E472/VA	0.10	mg/kg	28.4	19.8	20.8	----	----	
Silver	7440-22-4	E472.Ag/VA	0.0050	mg/kg	2.78	0.0147	0.0678	----	----	
Sodium	7440-23-5	E472/VA	20	mg/kg	3230	6880	2990	----	----	



Analytical Results

Sub-Matrix: Tissue (Matrix: Biota)					Client sample ID	QUR_RB-Li-3X_ 2023-10	QUR_RB-Ki-3X_ 2023-10	QUR_RB-O-3X_ 2023-10	----	----
Client sampling date / time					01-Oct-2023 00:00	01-Oct-2023 00:00	01-Oct-2023 00:00	----	----	
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23C4184-031	VA23C4184-032	VA23C4184-033	-----	-----	
					Result	Result	Result	----	----	
Metals										
Strontium	7440-24-6	E472/VA	0.10	mg/kg	0.37	2.37	3.77	----	----	
Tellurium	13494-80-9	E472/VA	0.020	mg/kg	<0.020	0.022	<0.020	----	----	
Thallium	7440-28-0	E472/VA	0.0020	mg/kg	0.0702	0.0536	0.0082	----	----	
Tin	7440-31-5	E472/VA	0.10	mg/kg	<0.10	<0.10	<0.10	----	----	
Titanium	7440-32-6	E472.Ti/VA	0.50	mg/kg	<0.50	<0.50	<0.50	----	----	
Uranium	7440-61-1	E472/VA	0.0020	mg/kg	0.0126	0.0176	0.0033	----	----	
Vanadium	7440-62-2	E472/VA	0.10	mg/kg	0.11	0.20	<0.10	----	----	
Zinc	7440-66-6	E472/VA	1.0	mg/kg	123	126	127	----	----	
Zirconium	7440-67-7	E472/VA	0.20	mg/kg	<0.20	<0.20	<0.20	----	----	

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.

QUALITY CONTROL INTERPRETIVE REPORT

<p>Work Order : VA23C4184</p> <p>Client : Mount Polley Mining Corporation</p> <p>Contact : Mr. Gabriel Holmes</p> <p>Address : PO Box 12 Likely BC Canada V0L 1N0</p> <p>Telephone : 250-790-2215 ext 2171</p> <p>Project : ----</p> <p>PO : 5590012190</p> <p>C-O-C number : ----</p> <p>Sampler : JBF, PLE</p> <p>Site : ----</p> <p>Quote number : VA22-MPMC100-002</p> <p>No. of samples received : 33</p> <p>No. of samples analysed : 33</p>	<p>Page : 1 of 32</p> <p>Laboratory : ALS Environmental - Vancouver</p> <p>Account Manager : Can Dang</p> <p>Address : 8081 Lougheed Highway Burnaby, British Columbia Canada V5A 1W9</p> <p>Telephone : +1 604 253 4188</p> <p>Date Samples Received : 11-Oct-2023 11:30</p> <p>Issue Date : 14-Dec-2023 21:26</p>
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This report is automatically generated by the ALS LIMS (Laboratory Information Management System) through evaluation of Quality Control (QC) results and other QA parameters associated with this submission, and is intended to facilitate rapid data validation by auditors or reviewers. The report highlights any exceptions and outliers to ALS Data Quality Objectives, provides holding time details and exceptions, summarizes QC sample frequencies, and lists applicable methodology references and summaries.

Key

- Anonymous: Refers to samples which are not part of this work order, but which formed part of the QC process lot.
- CAS Number: Chemical Abstracts Service number is a unique identifier assigned to discrete substances.
- DQO: Data Quality Objective.
- LOR: Limit of Reporting (detection limit).
- RPD: Relative Percent Difference.

Workorder Comments

Holding times are displayed as "----" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

Summary of Outliers

Outliers : Quality Control Samples

- No Method Blank value outliers occur.
- Duplicate outliers occur - please see following pages for full details.
- Laboratory Control Sample (LCS) outliers occur - please see following pages for full details.
- No Test sample Surrogate recovery outliers exist.

Outliers: Reference Material (RM) Samples

- Reference Material (RM) Sample outliers occur - please see the following pages for full details.

Outliers : Analysis Holding Time Compliance (Breaches)

- No Analysis Holding Time Outliers exist.

Outliers : Frequency of Quality Control Samples

- No Quality Control Sample Frequency Outliers occur.



Outliers : Quality Control Samples

Duplicates, Method Blanks, Laboratory Control Samples and Matrix Spikes

Matrix: Biota

Analyte Group	Laboratory sample ID	Client/Ref Sample ID	Analyte	CAS Number	Method	Result	Limits	Comment
Duplicate (DUP) RPDs								
Metals	VA23C4184-030	QUR_RB-M-3X_2023 -10	Chromium	7440-47-3	E440	139 % DUP-H	40%	Duplicate RPD does not meet the DQO for this test.
Metals	VA23C4184-030	QUR_RB-M-3X_2023 -10	Magnesium	7439-95-4	E440	41.4 % DUP-H	40%	Duplicate RPD does not meet the DQO for this test.
Metals	VA23C4184-030	QUR_RB-M-3X_2023 -10	Molybdenum	7439-98-7	E440	0.040 % DUP-H	Diff <2x LOR	Low Level DUP DQO exceeded (difference > 2 LOR).

Result Qualifiers

Qualifier	Description
DUP-H	Duplicate results outside ALS DQO, due to sample heterogeneity.

Laboratory Control Sample (LCS) Recoveries								
Metals	QC-MRG5-1267425 002	----	Silver	7440-22-4	E440.Ag	75.3 % MES	80.0-120%	Recovery less than lower control limit
Metals	QC-MRG5-1272272 002	----	Aluminum	7429-90-5	E472	122 % MES	80.0-120%	Recovery greater than upper control limit
Metals	QC-MRG5-1272272 002	----	Arsenic	7440-38-2	E472	121 % MES	80.0-120%	Recovery greater than upper control limit
Metals	QC-MRG5-1272272 002	----	Phosphorus	7723-14-0	E472	122 % MES	80.0-120%	Recovery greater than upper control limit

Result Qualifiers

Qualifier	Description
MES	Data Quality Objective was marginally exceeded (by < 10% absolute) for < 10% of analytes in a Multi-Element Scan / Multi-Parameter Scan (considered acceptable as per OMOE & CCME).

Reference Material (RM) Sample								
Metals	QC-MRG6-1269893 003	----	Titanium	7440-32-6	E440.Ti	61.9 % LCS-L	70.0-130%	Recovery less than lower control limit

Result Qualifiers

Qualifier	Description
LCS-L	Lab Control Sample recovery was below ALS DQO. Reference Material and/or Matrix Spike results were acceptable. Non-detected sample results are considered reliable. Other results, if reported, have been qualified.

Page : 4 of 32
Work Order : VA23C4184
Client : Mount Polley Mining Corporation
Project : ---



Matrix: **Biota**

Analyte Group	Laboratory sample ID	Client/Ref Sample ID	Analyte	CAS Number	Method	Result	Limits	Comment
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Analysis Holding Time Compliance

This report summarizes extraction / preparation and analysis times and compares each with ALS recommended holding times, which are selected to meet known provincial and /or federal requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by organizations such as CCME, US EPA, APHA Standard Methods, ASTM, or Environment Canada (where available). Dates and holding times reported below represent the first dates of extraction or analysis. If subsequent tests or dilutions exceeded holding times, qualifiers are added (refer to COA).

If samples are identified below as having been analyzed or extracted outside of recommended holding times, measurement uncertainties may be increased, and this should be taken into consideration when interpreting results.

Where actual sampling date is not provided on the chain of custody, the date of receipt with time at 00:00 is used for calculation purposes.

Where only the sample date without time is provided on the chain of custody, the sampling date at 00:00 is used for calculation purposes.

Matrix: **Biota** Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Metals : Mercury in Biota by CVAAS (DRY units, Biopsy)										
LDPE bag QUR_RB-O-2_2023-10	E512	01-Oct-2023	13-Dec-2023	365 days	74 days	✔	13-Dec-2023	365 days	74 days	✔
Metals : Mercury in Biota by CVAAS (DRY units, Micro)										
LDPE bag QUR_RB-Ki-7_2023-10	E511	02-Oct-2023	11-Dec-2023	365 days	71 days	✔	12-Dec-2023	365 days	71 days	✔
Metals : Mercury in Biota by CVAAS (DRY units, Micro)										
LDPE bag QUR_RB-Ki-8_2023-10	E511	02-Oct-2023	11-Dec-2023	365 days	71 days	✔	12-Dec-2023	365 days	71 days	✔
Metals : Mercury in Biota by CVAAS (DRY units, Micro)										
LDPE bag QUR_RB-Li-7_2023-10	E511	02-Oct-2023	11-Dec-2023	365 days	71 days	✔	12-Dec-2023	365 days	71 days	✔
Metals : Mercury in Biota by CVAAS (DRY units, Micro)										
LDPE bag QUR_RB-Li-8_2023-10	E511	02-Oct-2023	11-Dec-2023	365 days	71 days	✔	12-Dec-2023	365 days	71 days	✔
Metals : Mercury in Biota by CVAAS (DRY units, Micro)										
LDPE bag QUR_RB-O-8_2023-10	E511	02-Oct-2023	11-Dec-2023	365 days	71 days	✔	12-Dec-2023	365 days	71 days	✔
Metals : Mercury in Biota by CVAAS (DRY units, Micro)										
LDPE bag QUR_RB-Ki-1_2023-10	E511	01-Oct-2023	11-Dec-2023	365 days	72 days	✔	12-Dec-2023	365 days	72 days	✔



Matrix: **Biota** Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Metals : Mercury in Biota by CVAAS (DRY units, Micro)											
LDPE bag QUR_RB-Ki-2_2023-10	E511	01-Oct-2023	11-Dec-2023	365 days	72 days	✔	12-Dec-2023	365 days	72 days	✔	
Metals : Mercury in Biota by CVAAS (DRY units, Micro)											
LDPE bag QUR_RB-Ki-3_2023-10	E511	01-Oct-2023	11-Dec-2023	365 days	72 days	✔	12-Dec-2023	365 days	72 days	✔	
Metals : Mercury in Biota by CVAAS (DRY units, Micro)											
LDPE bag QUR_RB-Ki-3X_2023-10	E511	01-Oct-2023	11-Dec-2023	365 days	72 days	✔	12-Dec-2023	365 days	72 days	✔	
Metals : Mercury in Biota by CVAAS (DRY units, Micro)											
LDPE bag QUR_RB-Ki-4_2023-10	E511	01-Oct-2023	11-Dec-2023	365 days	72 days	✔	12-Dec-2023	365 days	72 days	✔	
Metals : Mercury in Biota by CVAAS (DRY units, Micro)											
LDPE bag QUR_RB-Ki-5_2023-10	E511	01-Oct-2023	11-Dec-2023	365 days	72 days	✔	12-Dec-2023	365 days	72 days	✔	
Metals : Mercury in Biota by CVAAS (DRY units, Micro)											
LDPE bag QUR_RB-Ki-6_2023-10	E511	01-Oct-2023	11-Dec-2023	365 days	72 days	✔	12-Dec-2023	365 days	72 days	✔	
Metals : Mercury in Biota by CVAAS (DRY units, Micro)											
LDPE bag QUR_RB-Li-1_2023-10	E511	01-Oct-2023	11-Dec-2023	365 days	72 days	✔	12-Dec-2023	365 days	72 days	✔	
Metals : Mercury in Biota by CVAAS (DRY units, Micro)											
LDPE bag QUR_RB-Li-2_2023-10	E511	01-Oct-2023	11-Dec-2023	365 days	72 days	✔	12-Dec-2023	365 days	72 days	✔	
Metals : Mercury in Biota by CVAAS (DRY units, Micro)											
LDPE bag QUR_RB-Li-3_2023-10	E511	01-Oct-2023	11-Dec-2023	365 days	72 days	✔	12-Dec-2023	365 days	72 days	✔	



Matrix: **Biota** Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Metals : Mercury in Biota by CVAAS (DRY units, Micro)											
LDPE bag QUR_RB-Li-3X_2023-10	E511	01-Oct-2023	11-Dec-2023	365 days	72 days	✔	12-Dec-2023	365 days	72 days	✔	
Metals : Mercury in Biota by CVAAS (DRY units, Micro)											
LDPE bag QUR_RB-Li-4_2023-10	E511	01-Oct-2023	11-Dec-2023	365 days	72 days	✔	12-Dec-2023	365 days	72 days	✔	
Metals : Mercury in Biota by CVAAS (DRY units, Micro)											
LDPE bag QUR_RB-Li-5_2023-10	E511	01-Oct-2023	11-Dec-2023	365 days	72 days	✔	12-Dec-2023	365 days	72 days	✔	
Metals : Mercury in Biota by CVAAS (DRY units, Micro)											
LDPE bag QUR_RB-Li-6_2023-10	E511	01-Oct-2023	11-Dec-2023	365 days	72 days	✔	12-Dec-2023	365 days	72 days	✔	
Metals : Mercury in Biota by CVAAS (DRY units, Micro)											
LDPE bag QUR_RB-O-3_2023-10	E511	01-Oct-2023	11-Dec-2023	365 days	72 days	✔	12-Dec-2023	365 days	72 days	✔	
Metals : Mercury in Biota by CVAAS (DRY units, Micro)											
LDPE bag QUR_RB-O-3X_2023-10	E511	01-Oct-2023	11-Dec-2023	365 days	72 days	✔	12-Dec-2023	365 days	72 days	✔	
Metals : Mercury in Biota by CVAAS (DRY units, Micro)											
LDPE bag QUR_RB-O-5_2023-10	E511	01-Oct-2023	11-Dec-2023	365 days	72 days	✔	12-Dec-2023	365 days	72 days	✔	
Metals : Mercury in Biota by CVAAS (DRY units, Micro)											
LDPE bag QUR_RB-O-6_2023-10	E511	01-Oct-2023	11-Dec-2023	365 days	72 days	✔	12-Dec-2023	365 days	72 days	✔	
Metals : Mercury in Biota by CVAAS (DRY units, Routine)											
LDPE bag QUR_RB-M-7_2023-10	E510	02-Oct-2023	08-Dec-2023	365 days	67 days	✔	08-Dec-2023	365 days	68 days	✔	



Matrix: **Biota** Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Metals : Mercury in Biota by CVAAS (DRY units, Routine)											
LDPE bag QUR_RB-M-8_2023-10	E510	02-Oct-2023	08-Dec-2023	365 days	67 days	✔	08-Dec-2023	365 days	68 days	✔	
Metals : Mercury in Biota by CVAAS (DRY units, Routine)											
LDPE bag QUR_RB-M-1_2023-10	E510	01-Oct-2023	08-Dec-2023	365 days	68 days	✔	08-Dec-2023	365 days	69 days	✔	
Metals : Mercury in Biota by CVAAS (DRY units, Routine)											
LDPE bag QUR_RB-M-2_2023-10	E510	01-Oct-2023	08-Dec-2023	365 days	68 days	✔	08-Dec-2023	365 days	69 days	✔	
Metals : Mercury in Biota by CVAAS (DRY units, Routine)											
LDPE bag QUR_RB-M-3_2023-10	E510	01-Oct-2023	08-Dec-2023	365 days	68 days	✔	08-Dec-2023	365 days	69 days	✔	
Metals : Mercury in Biota by CVAAS (DRY units, Routine)											
LDPE bag QUR_RB-M-4_2023-10	E510	01-Oct-2023	08-Dec-2023	365 days	68 days	✔	08-Dec-2023	365 days	69 days	✔	
Metals : Mercury in Biota by CVAAS (DRY units, Routine)											
LDPE bag QUR_RB-M-5_2023-10	E510	01-Oct-2023	08-Dec-2023	365 days	68 days	✔	08-Dec-2023	365 days	69 days	✔	
Metals : Mercury in Biota by CVAAS (DRY units, Routine)											
LDPE bag QUR_RB-M-6_2023-10	E510	01-Oct-2023	08-Dec-2023	365 days	68 days	✔	08-Dec-2023	365 days	69 days	✔	
Metals : Mercury in Biota by CVAAS (DRY units, Routine)											
LDPE bag QUR_RB-M-3X_2023-10	E510	01-Oct-2023	11-Dec-2023	365 days	72 days	✔	12-Dec-2023	365 days	72 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Biopsy)											
LDPE bag QUR_RB-O-2_2023-10	E512A	01-Oct-2023	13-Dec-2023	365 days	74 days	✔	13-Dec-2023	365 days	74 days	✔	



Matrix: **Biota** Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Metals : Mercury in Biota by CVAAS (WET units, Micro)											
LDPE bag QUR_RB-Ki-7_2023-10	E511A	02-Oct-2023	11-Dec-2023	365 days	71 days	✔	12-Dec-2023	365 days	71 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Micro)											
LDPE bag QUR_RB-Ki-8_2023-10	E511A	02-Oct-2023	11-Dec-2023	365 days	71 days	✔	12-Dec-2023	365 days	71 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Micro)											
LDPE bag QUR_RB-Li-7_2023-10	E511A	02-Oct-2023	11-Dec-2023	365 days	71 days	✔	12-Dec-2023	365 days	71 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Micro)											
LDPE bag QUR_RB-Li-8_2023-10	E511A	02-Oct-2023	11-Dec-2023	365 days	71 days	✔	12-Dec-2023	365 days	71 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Micro)											
LDPE bag QUR_RB-O-8_2023-10	E511A	02-Oct-2023	11-Dec-2023	365 days	71 days	✔	12-Dec-2023	365 days	71 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Micro)											
LDPE bag QUR_RB-Ki-1_2023-10	E511A	01-Oct-2023	11-Dec-2023	365 days	72 days	✔	12-Dec-2023	365 days	72 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Micro)											
LDPE bag QUR_RB-Ki-2_2023-10	E511A	01-Oct-2023	11-Dec-2023	365 days	72 days	✔	12-Dec-2023	365 days	72 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Micro)											
LDPE bag QUR_RB-Ki-3_2023-10	E511A	01-Oct-2023	11-Dec-2023	365 days	72 days	✔	12-Dec-2023	365 days	72 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Micro)											
LDPE bag QUR_RB-Ki-3X_2023-10	E511A	01-Oct-2023	11-Dec-2023	365 days	72 days	✔	12-Dec-2023	365 days	72 days	✔	



Matrix: **Biota** Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Metals : Mercury in Biota by CVAAS (WET units, Micro)											
LDPE bag QUR_RB-Ki-4_2023-10	E511A	01-Oct-2023	11-Dec-2023	365 days	72 days	✔	12-Dec-2023	365 days	72 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Micro)											
LDPE bag QUR_RB-Ki-5_2023-10	E511A	01-Oct-2023	11-Dec-2023	365 days	72 days	✔	12-Dec-2023	365 days	72 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Micro)											
LDPE bag QUR_RB-Ki-6_2023-10	E511A	01-Oct-2023	11-Dec-2023	365 days	72 days	✔	12-Dec-2023	365 days	72 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Micro)											
LDPE bag QUR_RB-Li-1_2023-10	E511A	01-Oct-2023	11-Dec-2023	365 days	72 days	✔	12-Dec-2023	365 days	72 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Micro)											
LDPE bag QUR_RB-Li-2_2023-10	E511A	01-Oct-2023	11-Dec-2023	365 days	72 days	✔	12-Dec-2023	365 days	72 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Micro)											
LDPE bag QUR_RB-Li-3_2023-10	E511A	01-Oct-2023	11-Dec-2023	365 days	72 days	✔	12-Dec-2023	365 days	72 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Micro)											
LDPE bag QUR_RB-Li-3X_2023-10	E511A	01-Oct-2023	11-Dec-2023	365 days	72 days	✔	12-Dec-2023	365 days	72 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Micro)											
LDPE bag QUR_RB-Li-4_2023-10	E511A	01-Oct-2023	11-Dec-2023	365 days	72 days	✔	12-Dec-2023	365 days	72 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Micro)											
LDPE bag QUR_RB-Li-5_2023-10	E511A	01-Oct-2023	11-Dec-2023	365 days	72 days	✔	12-Dec-2023	365 days	72 days	✔	



Matrix: **Biota** Evaluation: * = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Metals : Mercury in Biota by CVAAS (WET units, Micro)											
LDPE bag QUR_RB-Li-6_2023-10	E511A	01-Oct-2023	11-Dec-2023	365 days	72 days	✓	12-Dec-2023	365 days	72 days	✓	
Metals : Mercury in Biota by CVAAS (WET units, Micro)											
LDPE bag QUR_RB-O-3_2023-10	E511A	01-Oct-2023	11-Dec-2023	365 days	72 days	✓	12-Dec-2023	365 days	72 days	✓	
Metals : Mercury in Biota by CVAAS (WET units, Micro)											
LDPE bag QUR_RB-O-3X_2023-10	E511A	01-Oct-2023	11-Dec-2023	365 days	72 days	✓	12-Dec-2023	365 days	72 days	✓	
Metals : Mercury in Biota by CVAAS (WET units, Micro)											
LDPE bag QUR_RB-O-5_2023-10	E511A	01-Oct-2023	11-Dec-2023	365 days	72 days	✓	12-Dec-2023	365 days	72 days	✓	
Metals : Mercury in Biota by CVAAS (WET units, Micro)											
LDPE bag QUR_RB-O-6_2023-10	E511A	01-Oct-2023	11-Dec-2023	365 days	72 days	✓	12-Dec-2023	365 days	72 days	✓	
Metals : Mercury in Biota by CVAAS (WET units, Routine)											
LDPE bag QUR_RB-M-7_2023-10	E510A	02-Oct-2023	08-Dec-2023	365 days	67 days	✓	08-Dec-2023	365 days	68 days	✓	
Metals : Mercury in Biota by CVAAS (WET units, Routine)											
LDPE bag QUR_RB-M-8_2023-10	E510A	02-Oct-2023	08-Dec-2023	365 days	67 days	✓	08-Dec-2023	365 days	68 days	✓	
Metals : Mercury in Biota by CVAAS (WET units, Routine)											
LDPE bag QUR_RB-M-1_2023-10	E510A	01-Oct-2023	08-Dec-2023	365 days	68 days	✓	08-Dec-2023	365 days	69 days	✓	
Metals : Mercury in Biota by CVAAS (WET units, Routine)											
LDPE bag QUR_RB-M-2_2023-10	E510A	01-Oct-2023	08-Dec-2023	365 days	68 days	✓	08-Dec-2023	365 days	69 days	✓	



Matrix: **Biota** Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Metals : Mercury in Biota by CVAAS (WET units, Routine)											
LDPE bag QUR_RB-M-3_2023-10	E510A	01-Oct-2023	08-Dec-2023	365 days	68 days	✔	08-Dec-2023	365 days	69 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Routine)											
LDPE bag QUR_RB-M-4_2023-10	E510A	01-Oct-2023	08-Dec-2023	365 days	68 days	✔	08-Dec-2023	365 days	69 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Routine)											
LDPE bag QUR_RB-M-5_2023-10	E510A	01-Oct-2023	08-Dec-2023	365 days	68 days	✔	08-Dec-2023	365 days	69 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Routine)											
LDPE bag QUR_RB-M-6_2023-10	E510A	01-Oct-2023	08-Dec-2023	365 days	68 days	✔	08-Dec-2023	365 days	69 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Routine)											
LDPE bag QUR_RB-M-3X_2023-10	E510A	01-Oct-2023	11-Dec-2023	365 days	72 days	✔	12-Dec-2023	365 days	72 days	✔	
Metals : Metals by CRC ICPMS (DRY units, Biopsy)											
LDPE bag QUR_RB-O-2_2023-10	E475	01-Oct-2023	13-Dec-2023	730 days	74 days	✔	13-Dec-2023	730 days	74 days	✔	
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag QUR_RB-Ki-7_2023-10	E472	02-Oct-2023	11-Dec-2023	730 days	71 days	✔	12-Dec-2023	730 days	71 days	✔	
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag QUR_RB-Ki-8_2023-10	E472	02-Oct-2023	11-Dec-2023	730 days	71 days	✔	12-Dec-2023	730 days	71 days	✔	
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag QUR_RB-Li-7_2023-10	E472	02-Oct-2023	11-Dec-2023	730 days	71 days	✔	12-Dec-2023	730 days	71 days	✔	



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Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag QUR_RB-Li-8_2023-10	E472	02-Oct-2023	11-Dec-2023	730 days	71 days	✔	12-Dec-2023	730 days	71 days	✔	
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag QUR_RB-O-8_2023-10	E472	02-Oct-2023	11-Dec-2023	730 days	71 days	✔	12-Dec-2023	730 days	71 days	✔	
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag QUR_RB-Ki-1_2023-10	E472	01-Oct-2023	11-Dec-2023	730 days	72 days	✔	12-Dec-2023	730 days	72 days	✔	
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag QUR_RB-Ki-2_2023-10	E472	01-Oct-2023	11-Dec-2023	730 days	72 days	✔	12-Dec-2023	730 days	72 days	✔	
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag QUR_RB-Ki-3_2023-10	E472	01-Oct-2023	11-Dec-2023	730 days	72 days	✔	12-Dec-2023	730 days	72 days	✔	
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag QUR_RB-Ki-3X_2023-10	E472	01-Oct-2023	11-Dec-2023	730 days	72 days	✔	12-Dec-2023	730 days	72 days	✔	
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag QUR_RB-Ki-4_2023-10	E472	01-Oct-2023	11-Dec-2023	730 days	72 days	✔	12-Dec-2023	730 days	72 days	✔	
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag QUR_RB-Ki-5_2023-10	E472	01-Oct-2023	11-Dec-2023	730 days	72 days	✔	12-Dec-2023	730 days	72 days	✔	
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag QUR_RB-Ki-6_2023-10	E472	01-Oct-2023	11-Dec-2023	730 days	72 days	✔	12-Dec-2023	730 days	72 days	✔	



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			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag QUR_RB-Li-1_2023-10	E472	01-Oct-2023	11-Dec-2023	730 days	72 days	✔	12-Dec-2023	730 days	72 days	✔	
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag QUR_RB-Li-2_2023-10	E472	01-Oct-2023	11-Dec-2023	730 days	72 days	✔	12-Dec-2023	730 days	72 days	✔	
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag QUR_RB-Li-3_2023-10	E472	01-Oct-2023	11-Dec-2023	730 days	72 days	✔	12-Dec-2023	730 days	72 days	✔	
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag QUR_RB-Li-3X_2023-10	E472	01-Oct-2023	11-Dec-2023	730 days	72 days	✔	12-Dec-2023	730 days	72 days	✔	
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag QUR_RB-Li-4_2023-10	E472	01-Oct-2023	11-Dec-2023	730 days	72 days	✔	12-Dec-2023	730 days	72 days	✔	
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag QUR_RB-Li-5_2023-10	E472	01-Oct-2023	11-Dec-2023	730 days	72 days	✔	12-Dec-2023	730 days	72 days	✔	
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag QUR_RB-Li-6_2023-10	E472	01-Oct-2023	11-Dec-2023	730 days	72 days	✔	12-Dec-2023	730 days	72 days	✔	
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag QUR_RB-O-3_2023-10	E472	01-Oct-2023	11-Dec-2023	730 days	72 days	✔	12-Dec-2023	730 days	72 days	✔	
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag QUR_RB-O-3X_2023-10	E472	01-Oct-2023	11-Dec-2023	730 days	72 days	✔	12-Dec-2023	730 days	72 days	✔	



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			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag QUR_RB-O-5_2023-10	E472	01-Oct-2023	11-Dec-2023	730 days	72 days	✔	12-Dec-2023	730 days	72 days	✔	
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag QUR_RB-O-6_2023-10	E472	01-Oct-2023	11-Dec-2023	730 days	72 days	✔	12-Dec-2023	730 days	72 days	✔	
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag QUR_RB-M-7_2023-10	E440	02-Oct-2023	08-Dec-2023	730 days	67 days	✔	08-Dec-2023	730 days	68 days	✔	
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag QUR_RB-M-8_2023-10	E440	02-Oct-2023	08-Dec-2023	730 days	67 days	✔	08-Dec-2023	730 days	68 days	✔	
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag QUR_RB-M-1_2023-10	E440	01-Oct-2023	08-Dec-2023	730 days	68 days	✔	08-Dec-2023	730 days	69 days	✔	
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag QUR_RB-M-2_2023-10	E440	01-Oct-2023	08-Dec-2023	730 days	68 days	✔	08-Dec-2023	730 days	69 days	✔	
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag QUR_RB-M-3_2023-10	E440	01-Oct-2023	08-Dec-2023	730 days	68 days	✔	08-Dec-2023	730 days	69 days	✔	
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag QUR_RB-M-4_2023-10	E440	01-Oct-2023	08-Dec-2023	730 days	68 days	✔	08-Dec-2023	730 days	69 days	✔	
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag QUR_RB-M-5_2023-10	E440	01-Oct-2023	08-Dec-2023	730 days	68 days	✔	08-Dec-2023	730 days	69 days	✔	



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			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag QUR_RB-M-6_2023-10	E440	01-Oct-2023	08-Dec-2023	730 days	68 days	✔	08-Dec-2023	730 days	69 days	✔	
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag QUR_RB-M-3X_2023-10	E440	01-Oct-2023	11-Dec-2023	730 days	72 days	✔	12-Dec-2023	730 days	72 days	✔	
Metals : Silver in Biota by CRC ICPMS (DRY units, Biopsy)											
LDPE bag QUR_RB-O-2_2023-10	E475.Ag	01-Oct-2023	13-Dec-2023	730 days	74 days	✔	13-Dec-2023	730 days	74 days	✔	
Metals : Silver in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag QUR_RB-Ki-7_2023-10	E472.Ag	02-Oct-2023	11-Dec-2023	730 days	71 days	✔	12-Dec-2023	730 days	71 days	✔	
Metals : Silver in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag QUR_RB-Ki-8_2023-10	E472.Ag	02-Oct-2023	11-Dec-2023	730 days	71 days	✔	12-Dec-2023	730 days	71 days	✔	
Metals : Silver in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag QUR_RB-Li-7_2023-10	E472.Ag	02-Oct-2023	11-Dec-2023	730 days	71 days	✔	12-Dec-2023	730 days	71 days	✔	
Metals : Silver in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag QUR_RB-Li-8_2023-10	E472.Ag	02-Oct-2023	11-Dec-2023	730 days	71 days	✔	12-Dec-2023	730 days	71 days	✔	
Metals : Silver in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag QUR_RB-O-8_2023-10	E472.Ag	02-Oct-2023	11-Dec-2023	730 days	71 days	✔	12-Dec-2023	730 days	71 days	✔	
Metals : Silver in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag QUR_RB-Ki-1_2023-10	E472.Ag	01-Oct-2023	11-Dec-2023	730 days	72 days	✔	12-Dec-2023	730 days	72 days	✔	



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				Rec	Actual			Rec	Actual		
Metals : Silver in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag QUR_RB-Ki-2_2023-10	E472.Ag	01-Oct-2023	11-Dec-2023	730 days	72 days	✔	12-Dec-2023	730 days	72 days	✔	
Metals : Silver in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag QUR_RB-Ki-3_2023-10	E472.Ag	01-Oct-2023	11-Dec-2023	730 days	72 days	✔	12-Dec-2023	730 days	72 days	✔	
Metals : Silver in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag QUR_RB-Ki-3X_2023-10	E472.Ag	01-Oct-2023	11-Dec-2023	730 days	72 days	✔	12-Dec-2023	730 days	72 days	✔	
Metals : Silver in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag QUR_RB-Ki-4_2023-10	E472.Ag	01-Oct-2023	11-Dec-2023	730 days	72 days	✔	12-Dec-2023	730 days	72 days	✔	
Metals : Silver in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag QUR_RB-Ki-5_2023-10	E472.Ag	01-Oct-2023	11-Dec-2023	730 days	72 days	✔	12-Dec-2023	730 days	72 days	✔	
Metals : Silver in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag QUR_RB-Ki-6_2023-10	E472.Ag	01-Oct-2023	11-Dec-2023	730 days	72 days	✔	12-Dec-2023	730 days	72 days	✔	
Metals : Silver in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag QUR_RB-Li-1_2023-10	E472.Ag	01-Oct-2023	11-Dec-2023	730 days	72 days	✔	12-Dec-2023	730 days	72 days	✔	
Metals : Silver in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag QUR_RB-Li-2_2023-10	E472.Ag	01-Oct-2023	11-Dec-2023	730 days	72 days	✔	12-Dec-2023	730 days	72 days	✔	
Metals : Silver in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag QUR_RB-Li-3_2023-10	E472.Ag	01-Oct-2023	11-Dec-2023	730 days	72 days	✔	12-Dec-2023	730 days	72 days	✔	



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Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Metals : Silver in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag QUR_RB-Li-3X_2023-10	E472.Ag	01-Oct-2023	11-Dec-2023	730 days	72 days	✔	12-Dec-2023	730 days	72 days	✔	
Metals : Silver in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag QUR_RB-Li-4_2023-10	E472.Ag	01-Oct-2023	11-Dec-2023	730 days	72 days	✔	12-Dec-2023	730 days	72 days	✔	
Metals : Silver in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag QUR_RB-Li-5_2023-10	E472.Ag	01-Oct-2023	11-Dec-2023	730 days	72 days	✔	12-Dec-2023	730 days	72 days	✔	
Metals : Silver in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag QUR_RB-Li-6_2023-10	E472.Ag	01-Oct-2023	11-Dec-2023	730 days	72 days	✔	12-Dec-2023	730 days	72 days	✔	
Metals : Silver in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag QUR_RB-O-3_2023-10	E472.Ag	01-Oct-2023	11-Dec-2023	730 days	72 days	✔	12-Dec-2023	730 days	72 days	✔	
Metals : Silver in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag QUR_RB-O-3X_2023-10	E472.Ag	01-Oct-2023	11-Dec-2023	730 days	72 days	✔	12-Dec-2023	730 days	72 days	✔	
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LDPE bag QUR_RB-O-5_2023-10	E472.Ag	01-Oct-2023	11-Dec-2023	730 days	72 days	✔	12-Dec-2023	730 days	72 days	✔	
Metals : Silver in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag QUR_RB-O-6_2023-10	E472.Ag	01-Oct-2023	11-Dec-2023	730 days	72 days	✔	12-Dec-2023	730 days	72 days	✔	
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag QUR_RB-M-7_2023-10	E440.Ag	02-Oct-2023	08-Dec-2023	730 days	67 days	✔	08-Dec-2023	730 days	68 days	✔	



Matrix: **Biota** Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag QUR_RB-M-8_2023-10	E440.Ag	02-Oct-2023	08-Dec-2023	730 days	67 days	✔	08-Dec-2023	730 days	68 days	✔	
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag QUR_RB-M-1_2023-10	E440.Ag	01-Oct-2023	08-Dec-2023	730 days	68 days	✔	08-Dec-2023	730 days	69 days	✔	
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag QUR_RB-M-2_2023-10	E440.Ag	01-Oct-2023	08-Dec-2023	730 days	68 days	✔	08-Dec-2023	730 days	69 days	✔	
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag QUR_RB-M-3_2023-10	E440.Ag	01-Oct-2023	08-Dec-2023	730 days	68 days	✔	08-Dec-2023	730 days	69 days	✔	
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag QUR_RB-M-4_2023-10	E440.Ag	01-Oct-2023	08-Dec-2023	730 days	68 days	✔	08-Dec-2023	730 days	69 days	✔	
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag QUR_RB-M-5_2023-10	E440.Ag	01-Oct-2023	08-Dec-2023	730 days	68 days	✔	08-Dec-2023	730 days	69 days	✔	
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag QUR_RB-M-6_2023-10	E440.Ag	01-Oct-2023	08-Dec-2023	730 days	68 days	✔	08-Dec-2023	730 days	69 days	✔	
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag QUR_RB-M-3X_2023-10	E440.Ag	01-Oct-2023	11-Dec-2023	730 days	72 days	✔	12-Dec-2023	730 days	72 days	✔	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Biopsy)											
LDPE bag QUR_RB-O-2_2023-10	E475.Ti	01-Oct-2023	13-Dec-2023	730 days	74 days	✔	13-Dec-2023	730 days	74 days	✔	



Matrix: **Biota** Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Metals : Titanium in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag QUR_RB-Ki-7_2023-10	E472.Ti	02-Oct-2023	11-Dec-2023	730 days	71 days	✔	12-Dec-2023	730 days	71 days	✔	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag QUR_RB-Ki-8_2023-10	E472.Ti	02-Oct-2023	11-Dec-2023	730 days	71 days	✔	12-Dec-2023	730 days	71 days	✔	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag QUR_RB-Li-7_2023-10	E472.Ti	02-Oct-2023	11-Dec-2023	730 days	71 days	✔	12-Dec-2023	730 days	71 days	✔	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag QUR_RB-Li-8_2023-10	E472.Ti	02-Oct-2023	11-Dec-2023	730 days	71 days	✔	12-Dec-2023	730 days	71 days	✔	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag QUR_RB-O-8_2023-10	E472.Ti	02-Oct-2023	11-Dec-2023	730 days	71 days	✔	12-Dec-2023	730 days	71 days	✔	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag QUR_RB-Ki-1_2023-10	E472.Ti	01-Oct-2023	11-Dec-2023	730 days	72 days	✔	12-Dec-2023	730 days	72 days	✔	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag QUR_RB-Ki-2_2023-10	E472.Ti	01-Oct-2023	11-Dec-2023	730 days	72 days	✔	12-Dec-2023	730 days	72 days	✔	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag QUR_RB-Ki-3_2023-10	E472.Ti	01-Oct-2023	11-Dec-2023	730 days	72 days	✔	12-Dec-2023	730 days	72 days	✔	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag QUR_RB-Ki-3X_2023-10	E472.Ti	01-Oct-2023	11-Dec-2023	730 days	72 days	✔	12-Dec-2023	730 days	72 days	✔	



Matrix: **Biota** Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Metals : Titanium in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag QUR_RB-Ki-4_2023-10	E472.Ti	01-Oct-2023	11-Dec-2023	730 days	72 days	✔	12-Dec-2023	730 days	72 days	✔	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag QUR_RB-Ki-5_2023-10	E472.Ti	01-Oct-2023	11-Dec-2023	730 days	72 days	✔	12-Dec-2023	730 days	72 days	✔	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag QUR_RB-Ki-6_2023-10	E472.Ti	01-Oct-2023	11-Dec-2023	730 days	72 days	✔	12-Dec-2023	730 days	72 days	✔	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag QUR_RB-Li-1_2023-10	E472.Ti	01-Oct-2023	11-Dec-2023	730 days	72 days	✔	12-Dec-2023	730 days	72 days	✔	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag QUR_RB-Li-2_2023-10	E472.Ti	01-Oct-2023	11-Dec-2023	730 days	72 days	✔	12-Dec-2023	730 days	72 days	✔	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag QUR_RB-Li-3_2023-10	E472.Ti	01-Oct-2023	11-Dec-2023	730 days	72 days	✔	12-Dec-2023	730 days	72 days	✔	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag QUR_RB-Li-3X_2023-10	E472.Ti	01-Oct-2023	11-Dec-2023	730 days	72 days	✔	12-Dec-2023	730 days	72 days	✔	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag QUR_RB-Li-4_2023-10	E472.Ti	01-Oct-2023	11-Dec-2023	730 days	72 days	✔	12-Dec-2023	730 days	72 days	✔	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag QUR_RB-Li-5_2023-10	E472.Ti	01-Oct-2023	11-Dec-2023	730 days	72 days	✔	12-Dec-2023	730 days	72 days	✔	



Matrix: **Biota** Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Metals : Titanium in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag QUR_RB-Li-6_2023-10	E472.Ti	01-Oct-2023	11-Dec-2023	730 days	72 days	✔	12-Dec-2023	730 days	72 days	✔	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag QUR_RB-O-3_2023-10	E472.Ti	01-Oct-2023	11-Dec-2023	730 days	72 days	✔	12-Dec-2023	730 days	72 days	✔	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag QUR_RB-O-3X_2023-10	E472.Ti	01-Oct-2023	11-Dec-2023	730 days	72 days	✔	12-Dec-2023	730 days	72 days	✔	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag QUR_RB-O-5_2023-10	E472.Ti	01-Oct-2023	11-Dec-2023	730 days	72 days	✔	12-Dec-2023	730 days	72 days	✔	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag QUR_RB-O-6_2023-10	E472.Ti	01-Oct-2023	11-Dec-2023	730 days	72 days	✔	12-Dec-2023	730 days	72 days	✔	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag QUR_RB-M-7_2023-10	E440.Ti	02-Oct-2023	08-Dec-2023	730 days	67 days	✔	08-Dec-2023	730 days	68 days	✔	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag QUR_RB-M-8_2023-10	E440.Ti	02-Oct-2023	08-Dec-2023	730 days	67 days	✔	08-Dec-2023	730 days	68 days	✔	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag QUR_RB-M-1_2023-10	E440.Ti	01-Oct-2023	08-Dec-2023	730 days	68 days	✔	08-Dec-2023	730 days	69 days	✔	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag QUR_RB-M-2_2023-10	E440.Ti	01-Oct-2023	08-Dec-2023	730 days	68 days	✔	08-Dec-2023	730 days	69 days	✔	



Matrix: **Biota** Evaluation: * = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag QUR_RB-M-3_2023-10	E440.Ti	01-Oct-2023	08-Dec-2023	730 days	68 days	✓	08-Dec-2023	730 days	69 days	✓	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag QUR_RB-M-4_2023-10	E440.Ti	01-Oct-2023	08-Dec-2023	730 days	68 days	✓	08-Dec-2023	730 days	69 days	✓	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag QUR_RB-M-5_2023-10	E440.Ti	01-Oct-2023	08-Dec-2023	730 days	68 days	✓	08-Dec-2023	730 days	69 days	✓	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag QUR_RB-M-6_2023-10	E440.Ti	01-Oct-2023	08-Dec-2023	730 days	68 days	✓	08-Dec-2023	730 days	69 days	✓	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag QUR_RB-M-3X_2023-10	E440.Ti	01-Oct-2023	11-Dec-2023	730 days	72 days	✓	12-Dec-2023	730 days	72 days	✓	
Physical Tests : Moisture Content by Gravimetry (Biopsy)											
LDPE bag QUR_RB-O-2_2023-10	E144A	01-Oct-2023	----	----	----		13-Dec-2023	----	73 days		
Physical Tests : Moisture Content by Gravimetry (Micro)											
LDPE bag QUR_RB-Ki-7_2023-10	E144-H	02-Oct-2023	----	----	----		11-Dec-2023	----	71 days		
Physical Tests : Moisture Content by Gravimetry (Micro)											
LDPE bag QUR_RB-Ki-8_2023-10	E144-H	02-Oct-2023	----	----	----		11-Dec-2023	----	71 days		
Physical Tests : Moisture Content by Gravimetry (Micro)											
LDPE bag QUR_RB-Li-7_2023-10	E144-H	02-Oct-2023	----	----	----		11-Dec-2023	----	71 days		



Matrix: **Biota** Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag QUR_RB-Li-8_2023-10	E144-H	02-Oct-2023	----	----	----		11-Dec-2023	----	71 days	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag QUR_RB-O-8_2023-10	E144-H	02-Oct-2023	----	----	----		11-Dec-2023	----	71 days	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag QUR_RB-Ki-1_2023-10	E144-H	01-Oct-2023	----	----	----		11-Dec-2023	----	72 days	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag QUR_RB-Ki-2_2023-10	E144-H	01-Oct-2023	----	----	----		11-Dec-2023	----	72 days	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag QUR_RB-Ki-3_2023-10	E144-H	01-Oct-2023	----	----	----		11-Dec-2023	----	72 days	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag QUR_RB-Ki-3X_2023-10	E144-H	01-Oct-2023	----	----	----		11-Dec-2023	----	72 days	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag QUR_RB-Ki-4_2023-10	E144-H	01-Oct-2023	----	----	----		11-Dec-2023	----	72 days	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag QUR_RB-Ki-5_2023-10	E144-H	01-Oct-2023	----	----	----		11-Dec-2023	----	72 days	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag QUR_RB-Ki-6_2023-10	E144-H	01-Oct-2023	----	----	----		11-Dec-2023	----	72 days	



Matrix: **Biota** Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag QUR_RB-Li-1_2023-10	E144-H	01-Oct-2023	----	----	----		11-Dec-2023	----	72 days	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag QUR_RB-Li-2_2023-10	E144-H	01-Oct-2023	----	----	----		11-Dec-2023	----	72 days	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag QUR_RB-Li-3_2023-10	E144-H	01-Oct-2023	----	----	----		11-Dec-2023	----	72 days	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag QUR_RB-Li-3X_2023-10	E144-H	01-Oct-2023	----	----	----		11-Dec-2023	----	72 days	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag QUR_RB-Li-4_2023-10	E144-H	01-Oct-2023	----	----	----		11-Dec-2023	----	72 days	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag QUR_RB-Li-5_2023-10	E144-H	01-Oct-2023	----	----	----		11-Dec-2023	----	72 days	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag QUR_RB-Li-6_2023-10	E144-H	01-Oct-2023	----	----	----		11-Dec-2023	----	72 days	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag QUR_RB-O-3_2023-10	E144-H	01-Oct-2023	----	----	----		11-Dec-2023	----	72 days	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag QUR_RB-O-3X_2023-10	E144-H	01-Oct-2023	----	----	----		11-Dec-2023	----	72 days	



Matrix: **Biota** Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag QUR_RB-O-5_2023-10	E144-H	01-Oct-2023	----	----	----		11-Dec-2023	----	72 days	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag QUR_RB-O-6_2023-10	E144-H	01-Oct-2023	----	----	----		11-Dec-2023	----	72 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag QUR_RB-M-7_2023-10	E144	02-Oct-2023	----	----	----		07-Dec-2023	----	67 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag QUR_RB-M-8_2023-10	E144	02-Oct-2023	----	----	----		07-Dec-2023	----	67 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag QUR_RB-M-1_2023-10	E144	01-Oct-2023	----	----	----		07-Dec-2023	----	68 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag QUR_RB-M-2_2023-10	E144	01-Oct-2023	----	----	----		07-Dec-2023	----	68 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag QUR_RB-M-3_2023-10	E144	01-Oct-2023	----	----	----		07-Dec-2023	----	68 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag QUR_RB-M-4_2023-10	E144	01-Oct-2023	----	----	----		07-Dec-2023	----	68 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag QUR_RB-M-5_2023-10	E144	01-Oct-2023	----	----	----		07-Dec-2023	----	68 days	



Matrix: **Biota** Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag QUR_RB-M-6_2023-10	E144	01-Oct-2023	----	----	----		07-Dec-2023	----	68 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag QUR_RB-M-3X_2023-10	E144	01-Oct-2023	----	----	----		08-Dec-2023	----	69 days	

Legend & Qualifier Definitions

Rec. HT: ALS recommended hold time (see units).



Quality Control Parameter Frequency Compliance

The following report summarizes the frequency of laboratory QC samples analyzed within the analytical batches (QC lots) in which the submitted samples were processed. The actual frequency should be greater than or equal to the expected frequency.

Matrix: **Biota** Evaluation: ✖ = QC frequency outside specification; ✔ = QC frequency within specification.

Quality Control Sample Type	Method	QC Lot #	Count		Frequency (%)		Evaluation
			QC	Regular	Actual	Expected	
Analytical Methods							
Laboratory Duplicates (DUP)							
Mercury in Biota by CVAAS (DRY units, Micro)	E511	1272162	2	23	8.7	5.0	✔
Mercury in Biota by CVAAS (DRY units, Routine)	E510	1267427	2	19	10.5	5.0	✔
Mercury in Biota by CVAAS (WET units, Micro)	E511A	1272163	2	23	8.7	5.0	✔
Mercury in Biota by CVAAS (WET units, Routine)	E510A	1267426	2	19	10.5	5.0	✔
Metals in Biota by CRC ICPMS (DRY units, Micro)	E472	1272164	2	23	8.7	5.0	✔
Metals in Biota by CRC ICPMS (DRY units, Routine)	E440	1267425	2	19	10.5	5.0	✔
Moisture Content by Gravimetry	E144	1268570	2	17	11.7	5.0	✔
Moisture Content by Gravimetry (Micro)	E144-H	1272159	2	23	8.7	5.0	✔
Silver in Biota by CRC ICPMS (DRY units, Micro)	E472.Ag	1272160	2	23	8.7	5.0	✔
Silver in Biota by CRC ICPMS (DRY units, Routine)	E440.Ag	1267429	2	9	22.2	5.0	✔
Titanium in Biota by CRC ICPMS (DRY units, Micro)	E472.Ti	1272161	2	23	8.7	5.0	✔
Titanium in Biota by CRC ICPMS (DRY units, Routine)	E440.Ti	1267428	2	9	22.2	5.0	✔
Laboratory Control Samples (LCS)							
Mercury in Biota by CVAAS (DRY units, Biopsy)	E512	1275096	2	1	200.0	10.0	✔
Mercury in Biota by CVAAS (DRY units, Micro)	E511	1272162	4	23	17.3	10.0	✔
Mercury in Biota by CVAAS (DRY units, Routine)	E510	1267427	4	19	21.0	10.0	✔
Mercury in Biota by CVAAS (WET units, Biopsy)	E512A	1275097	2	1	200.0	10.0	✔
Mercury in Biota by CVAAS (WET units, Micro)	E511A	1272163	4	23	17.3	10.0	✔
Mercury in Biota by CVAAS (WET units, Routine)	E510A	1267426	4	19	21.0	10.0	✔
Metals by CRC ICPMS (DRY units, Biopsy)	E475	1275098	2	1	200.0	10.0	✔
Metals in Biota by CRC ICPMS (DRY units, Micro)	E472	1272164	4	23	17.3	10.0	✔
Metals in Biota by CRC ICPMS (DRY units, Routine)	E440	1267425	4	19	21.0	10.0	✔
Moisture Content by Gravimetry	E144	1268570	2	17	11.7	5.0	✔
Moisture Content by Gravimetry (Biopsy)	E144A	1275099	1	1	100.0	5.0	✔
Moisture Content by Gravimetry (Micro)	E144-H	1272159	2	23	8.7	5.0	✔
Silver in Biota by CRC ICPMS (DRY units, Biopsy)	E475.Ag	1275094	2	1	200.0	10.0	✔
Silver in Biota by CRC ICPMS (DRY units, Micro)	E472.Ag	1272160	4	23	17.3	10.0	✔
Silver in Biota by CRC ICPMS (DRY units, Routine)	E440.Ag	1267429	4	9	44.4	10.0	✔
Titanium in Biota by CRC ICPMS (DRY units, Biopsy)	E475.Ti	1275095	2	1	200.0	10.0	✔
Titanium in Biota by CRC ICPMS (DRY units, Micro)	E472.Ti	1272161	4	23	17.3	10.0	✔
Titanium in Biota by CRC ICPMS (DRY units, Routine)	E440.Ti	1267428	4	9	44.4	10.0	✔
Method Blanks (MB)							
Mercury in Biota by CVAAS (DRY units, Biopsy)	E512	1275096	1	1	100.0	5.0	✔
Mercury in Biota by CVAAS (DRY units, Micro)	E511	1272162	2	23	8.7	5.0	✔
Mercury in Biota by CVAAS (DRY units, Routine)	E510	1267427	2	19	10.5	5.0	✔



Matrix: **Biota**

Evaluation: ✖ = QC frequency outside specification; ✔ = QC frequency within specification.

Quality Control Sample Type	Method	QC Lot #	Count		Frequency (%)		
			QC	Regular	Actual	Expected	Evaluation
<i>Analytical Methods</i>							
Method Blanks (MB) - Continued							
Mercury in Biota by CVAAS (WET units, Biopsy)	E512A	1275097	1	1	100.0	5.0	✔
Mercury in Biota by CVAAS (WET units, Micro)	E511A	1272163	2	23	8.7	5.0	✔
Mercury in Biota by CVAAS (WET units, Routine)	E510A	1267426	2	19	10.5	5.0	✔
Metals by CRC ICPMS (DRY units, Biopsy)	E475	1275098	1	1	100.0	5.0	✔
Metals in Biota by CRC ICPMS (DRY units, Micro)	E472	1272164	2	23	8.7	5.0	✔
Metals in Biota by CRC ICPMS (DRY units, Routine)	E440	1267425	2	19	10.5	5.0	✔
Moisture Content by Gravimetry	E144	1268570	2	17	11.7	5.0	✔
Moisture Content by Gravimetry (Biopsy)	E144A	1275099	1	1	100.0	5.0	✔
Moisture Content by Gravimetry (Micro)	E144-H	1272159	2	23	8.7	5.0	✔
Silver in Biota by CRC ICPMS (DRY units, Biopsy)	E475.Ag	1275094	1	1	100.0	5.0	✔
Silver in Biota by CRC ICPMS (DRY units, Micro)	E472.Ag	1272160	2	23	8.7	5.0	✔
Silver in Biota by CRC ICPMS (DRY units, Routine)	E440.Ag	1267429	2	9	22.2	5.0	✔
Titanium in Biota by CRC ICPMS (DRY units, Biopsy)	E475.Ti	1275095	1	1	100.0	5.0	✔
Titanium in Biota by CRC ICPMS (DRY units, Micro)	E472.Ti	1272161	2	23	8.7	5.0	✔
Titanium in Biota by CRC ICPMS (DRY units, Routine)	E440.Ti	1267428	2	9	22.2	5.0	✔



Methodology References and Summaries

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Reference methods may incorporate modifications to improve performance (indicated by "mod").

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Moisture Content by Gravimetry	E144 ALS Environmental - Vancouver	Biota	Puget Sound Water Quality Authority/CCME PHC in Soil - Tier 1	Moisture is measured gravimetrically by drying the sample at 105°C. Moisture content is calculated as the weight loss (due to water) divided by the wet weight of the sample, expressed as a percentage.
Moisture Content by Gravimetry (Biopsy)	E144A ALS Environmental - Vancouver	Biota	Puget Sound Water Quality Authority/CCME PHC in Soil - Tier 1	This analysis is carried out gravimetrically by drying the sample at <60 deg. C for a minimum of three days.
Moisture Content by Gravimetry (Micro)	E144-H ALS Environmental - Vancouver	Biota	Puget Sound Water Quality Authority/BC MOE Lab Manual	Moisture is measured gravimetrically by drying the sample at <60°C for a minimum of 3 days to constant weight. Moisture content is calculated as the weight loss (due to water) divided by the wet weight of soil, expressed as a percentage.
Metals in Biota by CRC ICPMS (DRY units, Routine)	E440 ALS Environmental - Vancouver	Biota	EPA 200.3/6020B (mod)	Tissue samples are homogenized and sub-sampled prior to hotblock digestion with HNO ₃ , HCl, and H ₂ O ₂ . Analysis is by Collision/Reaction Cell ICPMS. Method Limitation: This method employs a strong acid/peroxide digestion, and is intended to provide a conservative estimate of bio-available metals. Near complete recoveries are achieved for most toxicologically important metals, but elements associated with recalcitrant minerals may be only partially recovered.
Silver in Biota by CRC ICPMS (DRY units, Routine)	E440.Ag ALS Environmental - Vancouver	Biota	EPA 200.3/6020B (mod)	Tissue samples are homogenized and sub-sampled prior to hotblock digestion with HNO ₃ , HCl, and H ₂ O ₂ . Analysis is by Collision/Reaction Cell ICPMS. Method Limitation: This method employs a strong acid/peroxide digestion, and is intended to provide a conservative estimate of bio-available metals. Near complete recoveries are achieved for most toxicologically important metals, but elements associated with recalcitrant minerals may be only partially recovered.
Titanium in Biota by CRC ICPMS (DRY units, Routine)	E440.Ti ALS Environmental - Vancouver	Biota	EPA 200.3/6020B (mod)	Tissue samples are homogenized and sub-sampled prior to hotblock digestion with HNO ₃ , HCl, and H ₂ O ₂ . Analysis is by Collision/Reaction Cell ICPMS. Method Limitation: This method employs a strong acid/peroxide digestion, and is intended to provide a conservative estimate of bio-available metals. Near complete recoveries are achieved for most toxicologically important metals, but elements associated with recalcitrant minerals may be only partially recovered.
Metals in Biota by CRC ICPMS (DRY units, Micro)	E472 ALS Environmental - Vancouver	Biota	EPA 200.3/6020B (mod)	Tissue samples are homogenized and sub-sampled prior to hotblock digestion with HNO ₃ , HCl, and H ₂ O ₂ . Analysis is by Collision/Reaction Cell ICPMS. Method Limitation: This method employs a strong acid/peroxide digestion, and is intended to provide a conservative estimate of bio-available metals. Near complete recoveries are achieved for most toxicologically important metals, but elements associated with recalcitrant minerals may be only partially recovered.



Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Silver in Biota by CRC ICPMS (DRY units, Micro)	E472.Ag ALS Environmental - Vancouver	Biota	EPA 200.3/6020B (mod)	Tissue samples are homogenized and sub-sampled prior to hotblock digestion with HNO ₃ , HCl, and H ₂ O ₂ . Analysis is by Collision/Reaction Cell ICPMS. Method Limitation: This method employs a strong acid/peroxide digestion, and is intended to provide a conservative estimate of bio-available metals. Near complete recoveries are achieved for most toxicologically important metals, but elements associated with recalcitrant minerals may be only partially recovered.
Titanium in Biota by CRC ICPMS (DRY units, Micro)	E472.Ti ALS Environmental - Vancouver	Biota	EPA 200.3/6020B (mod)	Tissue samples are homogenized and sub-sampled prior to hotblock digestion with HNO ₃ , HCl, and H ₂ O ₂ . Analysis is by Collision/Reaction Cell ICPMS. Method Limitation: This method employs a strong acid/peroxide digestion, and is intended to provide a conservative estimate of bio-available metals. Near complete recoveries are achieved for most toxicologically important metals, but elements associated with recalcitrant minerals may be only partially recovered.
Metals by CRC ICPMS (DRY units, Biopsy)	E475 ALS Environmental - Vancouver	Biota	EPA 200.3/6020B (mod)	Samples are digested with nitric acid, hydrochloric acid, and hydrogen peroxide. Analysis is by Collision/Reaction Cell ICPMS: This method employs a strong acid/peroxide digestion, and is intended to provide a conservative estimate of bio-available metals. Near complete recoveries are achieved for most toxicologically important metals, but elements associated with recalcitrant minerals may be only partially recovered.
Silver in Biota by CRC ICPMS (DRY units, Biopsy)	E475.Ag ALS Environmental - Vancouver	Biota	EPA 200.3/6020B (mod)	Samples are digested with nitric acid, hydrochloric acid, and hydrogen peroxide. Analysis is by Collision/Reaction Cell ICPMS. Method Limitation: This method employs a strong acid/peroxide digestion, and is intended to provide a conservative estimate of bio-available metals. Near complete recoveries are achieved for most toxicologically important metals, but elements associated with recalcitrant minerals may be only partially recovered.
Titanium in Biota by CRC ICPMS (DRY units, Biopsy)	E475.Ti ALS Environmental - Vancouver	Biota	EPA 200.3/6020B (mod)	Samples are digested with nitric acid, hydrochloric acid, and hydrogen peroxide. Analysis is by Collision/Reaction Cell ICPMS. Method Limitation: This method employs a strong acid/peroxide digestion, and is intended to provide a conservative estimate of bio-available metals. Near complete recoveries are achieved for most toxicologically important metals, but elements associated with recalcitrant minerals may be only partially recovered.
Mercury in Biota by CVAAS (DRY units, Routine)	E510 ALS Environmental - Vancouver	Biota	EPA 200.3/1631 Appendix (mod)	Samples are homogenized and sub-sampled prior to hotblock digestion with HNO ₃ , HCl, and H ₂ O ₂ . Analysis is by CVAAS.
Mercury in Biota by CVAAS (WET units, Routine)	E510A ALS Environmental - Vancouver	Biota	EPA 200.3/1631 Appendix (mod)	Samples are homogenized and sub-sampled prior to hotblock digestion with HNO ₃ , HCl, and H ₂ O ₂ . Analysis is by CVAAS.
Mercury in Biota by CVAAS (DRY units, Micro)	E511 ALS Environmental - Vancouver	Biota	EPA 200.3/1631 Appendix (mod)	Samples are homogenized and sub-sampled prior to hotblock digestion with nitric acid, hydrochloric acid, and hydrogen peroxide. Analysis is by CVAAS.



<i>Analytical Methods</i>	<i>Method / Lab</i>	<i>Matrix</i>	<i>Method Reference</i>	<i>Method Descriptions</i>
Mercury in Biota by CVAAS (WET units, Micro)	E511A ALS Environmental - Vancouver	Biota	EPA 200.3/1631 Appendix (mod)	Samples are homogenized and sub-sampled prior to hotblock digestion with nitric acid, hydrochloric acid, and hydrogen peroxide. Analysis is by CVAAS.
Mercury in Biota by CVAAS (DRY units, Biopsy)	E512 ALS Environmental - Vancouver	Biota	EPA 200.3/1631 Appendix (mod)	Samples are digested with nitric acid, hydrochloric acid, and hydrogen peroxide. Analysis is by CVAAS.
Mercury in Biota by CVAAS (WET units, Biopsy)	E512A ALS Environmental - Vancouver	Biota	EPA 200.3/1631 Appendix (mod)	Samples are homogenized digested with nitric acid, hydrochloric acid, and hydrogen peroxide. Analysis is by CVAAS.

<i>Preparation Methods</i>	<i>Method / Lab</i>	<i>Matrix</i>	<i>Method Reference</i>	<i>Method Descriptions</i>
Metals and Mercury Biota Digestion	EP440 ALS Environmental - Vancouver	Biota	EPA 200.3	This method uses a heated strong acid digestion with HNO ₃ , HCl, and H ₂ O ₂ and is intended to provide a conservative estimate of bio-available metals.
Metals and Mercury Biota Digestion (Micro)	EP472 ALS Environmental - Vancouver	Biota	EPA 200.3	This method, designed for small sample amounts, uses a heated strong acid digestion with HNO ₃ , HCl, and H ₂ O ₂ and is intended to provide a conservative estimate of bio-available metals.
Metals and Mercury Biota Digestion (Biopsy)	EP475 ALS Environmental - Vancouver	Biota	EPA 200.3/200.8 (mod)	Samples are digested with nitric acid, hydrochloric acid, and hydrogen peroxide. Method Limitation: This method employs a strong acid/peroxide digestion, and is intended to provide a conservative estimate of bio-available metals. Near complete recoveries are achieved for most toxicologically important metals, but elements associated with recalcitrant minerals may be only partially recovered.

QUALITY CONTROL REPORT

<p>Work Order : VA23C4184</p> <p>Client : Mount Polley Mining Corporation</p> <p>Contact : Mr. Gabriel Holmes</p> <p>Address : PO Box 12 Likely BC Canada V0L 1N0</p> <p>Telephone :</p> <p>Project : ----</p> <p>PO : 5590012190</p> <p>C-O-C number : ----</p> <p>Sampler : JBF, PLE 250-790-2215 ext 2171</p> <p>Site : ----</p> <p>Quote number : VA22-MPMC100-002</p> <p>No. of samples received : 33</p> <p>No. of samples analysed : 33</p>	<p>Page : 1 of 28</p> <p>Laboratory : ALS Environmental - Vancouver</p> <p>Account Manager : Can Dang</p> <p>Address : 8081 Lougheed Highway Burnaby, British Columbia Canada V5A 1W9</p> <p>Telephone : +1 604 253 4188</p> <p>Date Samples Received : 11-Oct-2023 11:30</p> <p>Date Analysis Commenced : 07-Dec-2023</p> <p>Issue Date : 14-Dec-2023 21:26</p>
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This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Quality Control Report contains the following information:

- Laboratory Duplicate (DUP) Report; Relative Percent Difference (RPD) and Data Quality Objectives
- Reference Material (RM) Report; Recovery and Data Quality Objectives
- Method Blank (MB) Report; Recovery and Data Quality Objectives
- Laboratory Control Sample (LCS) Report; Recovery and Data Quality Objectives

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

<i>Signatories</i>	<i>Position</i>	<i>Laboratory Department</i>
Carla Vasquez	Lab Assistant	Vancouver Metals, Burnaby, British Columbia
Kenson Lo		Vancouver Metals, Burnaby, British Columbia
Kevin Duarte	Supervisor - Metals ICP Instrumentation	Vancouver Metals, Burnaby, British Columbia
Maria Larrotta	Lab Assistant	Vancouver Metals, Burnaby, British Columbia
Owen Cheng		Vancouver Metals, Burnaby, British Columbia
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Page : 2 of 28
Work Order : VA23C4184
Client : Mount Polley Mining Corporation
Project : ----



General Comments

The ALS Quality Control (QC) report is optionally provided to ALS clients upon request. ALS test methods include comprehensive QC checks with every analysis to ensure our high standards of quality are met. Each QC result has a known or expected target value, which is compared against predetermined Data Quality Objectives (DQOs) to provide confidence in the accuracy of associated test results. This report contains detailed results for all QC results applicable to this sample submission. Please refer to the ALS Quality Control Interpretation report (QCI) for applicable method references and methodology summaries.

Key :

Anonymous = Refers to samples which are not part of this work order, but which formed part of the QC process lot.

CAS Number = Chemical Abstracts Service number is a unique identifier assigned to discrete substances.

DQO = Data Quality Objective.

LOR = Limit of Reporting (detection limit).

RPD = Relative Percent Difference

= Indicates a QC result that did not meet the ALS DQO.

Workorder Comments

Holding times are displayed as "---" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.



Laboratory Duplicate (DUP) Report

A Laboratory Duplicate (DUP) is a randomly selected intralaboratory replicate sample. Laboratory Duplicates provide information regarding method precision and sample heterogeneity. ALS DQOs for Laboratory Duplicates are expressed as test-specific limits for Relative Percent Difference (RPD), or as an absolute difference limit of 2 times the LOR for low concentration duplicates within ~ 4-10 times the LOR (cut-off is test-specific).

Sub-Matrix: Biota					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	LOR	Unit	Original Result	Duplicate Result	RPD(%) or Difference	Duplicate Limits	Qualifier
Physical Tests (QC Lot: 1268570)											
VA23C4184-001	QUR_RB-M-1_2023-10	Moisture	----	E144	0.50	%	76.2	74.1	2.78%	20%	----
Physical Tests (QC Lot: 1269881)											
VA23C4184-030	QUR_RB-M-3X_2023-10	Moisture	----	E144	0.50	%	77.0	80.4	4.26%	20%	----
Physical Tests (QC Lot: 1272159)											
VA23C4184-028	QUR_RB-O-6_2023-10	Moisture	----	E144-H	2.0	%	67.3	68.1	1.20%	20%	----
Physical Tests (QC Lot: 1272269)											
VA23C4184-009	QUR_RB-Li-1_2023-10	Moisture	----	E144-H	2.0	%	72.5	71.4	1.60%	20%	----
Metals (QC Lot: 1267425)											
VA23C4184-001	QUR_RB-M-1_2023-10	Aluminum	7429-90-5	E440	2.0	mg/kg	<2.0	<2.0	0	Diff <2x LOR	----
		Antimony	7440-36-0	E440	0.010	mg/kg	<0.010	<0.010	0	Diff <2x LOR	----
		Arsenic	7440-38-2	E440	0.020	mg/kg	0.083	0.095	0.012	Diff <2x LOR	----
		Barium	7440-39-3	E440	0.050	mg/kg	0.216	0.186	0.030	Diff <2x LOR	----
		Beryllium	7440-41-7	E440	0.010	mg/kg	<0.010	<0.010	0	Diff <2x LOR	----
		Bismuth	7440-69-9	E440	0.010	mg/kg	<0.010	<0.010	0	Diff <2x LOR	----
		Boron	7440-42-8	E440	1.0	mg/kg	<1.0	<1.0	0	Diff <2x LOR	----
		Cadmium	7440-43-9	E440	0.0050	mg/kg	<0.0050	<0.0050	0	Diff <2x LOR	----
		Calcium	7440-70-2	E440	20	mg/kg	309	293	5.49%	60%	----
		Cesium	7440-46-2	E440	0.0050	mg/kg	0.0572	0.0545	4.85%	40%	----
		Chromium	7440-47-3	E440	0.050	mg/kg	<0.050	<0.050	0	Diff <2x LOR	----
		Cobalt	7440-48-4	E440	0.020	mg/kg	0.045	0.047	0.002	Diff <2x LOR	----
		Copper	7440-50-8	E440	0.10	mg/kg	1.58	1.89	17.8%	40%	----
		Iron	7439-89-6	E440	3.0	mg/kg	16.9	19.6	14.5%	40%	----
		Lead	7439-92-1	E440	0.020	mg/kg	<0.020	<0.020	0	Diff <2x LOR	----
		Lithium	7439-93-2	E440	0.50	mg/kg	<0.50	<0.50	0	Diff <2x LOR	----
		Magnesium	7439-95-4	E440	2.0	mg/kg	1390	1150	18.6%	40%	----
		Manganese	7439-96-5	E440	0.050	mg/kg	0.286	0.310	7.87%	40%	----
		Molybdenum	7439-98-7	E440	0.020	mg/kg	<0.020	<0.020	0	Diff <2x LOR	----
		Nickel	7440-02-0	E440	0.20	mg/kg	<0.20	<0.20	0	Diff <2x LOR	----
		Phosphorus	7723-14-0	E440	10	mg/kg	12200	12300	0.392%	40%	----
		Potassium	7440-09-7	E440	20	mg/kg	20100	20400	1.26%	40%	----



Sub-Matrix: Biota					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	LOR	Unit	Original Result	Duplicate Result	RPD(%) or Difference	Duplicate Limits	Qualifier
Metals (QC Lot: 1267425) - continued											
VA23C4184-001	QUR_RB-M-1_2023-10	Rubidium	7440-17-7	E440	0.050	mg/kg	14.8	14.7	0.986%	40%	---
		Selenium	7782-49-2	E440	0.050	mg/kg	2.71	2.76	1.93%	40%	---
		Sodium	7440-23-5	E440	20	mg/kg	1390	1390	0.128%	40%	---
		Strontium	7440-24-6	E440	0.050	mg/kg	0.270	0.251	7.04%	60%	---
		Tellurium	13494-80-9	E440	0.020	mg/kg	<0.020	<0.020	0	Diff <2x LOR	---
		Thallium	7440-28-0	E440	0.0020	mg/kg	0.0144	0.0150	3.85%	40%	---
		Tin	7440-31-5	E440	0.10	mg/kg	<0.10	<0.10	0	Diff <2x LOR	---
		Uranium	7440-61-1	E440	0.0020	mg/kg	<0.0020	<0.0020	0	Diff <2x LOR	---
		Vanadium	7440-62-2	E440	0.10	mg/kg	<0.10	<0.10	0	Diff <2x LOR	---
		Zinc	7440-66-6	E440	0.50	mg/kg	18.8	19.2	1.90%	40%	---
Zirconium	7440-67-7	E440	0.20	mg/kg	<0.20	<0.20	0	Diff <2x LOR	---		
Metals (QC Lot: 1267426)											
VA23C4184-001	QUR_RB-M-1_2023-10	Mercury	7439-97-6	E510A	0.0018	mg/kg wwt	0.0746	0.0708	5.20%	40%	---
Metals (QC Lot: 1267427)											
VA23C4184-001	QUR_RB-M-1_2023-10	Mercury	7439-97-6	E510	0.0077	mg/kg	0.314	0.298	5.20%	40%	---
Metals (QC Lot: 1267428)											
VA23C4184-001	QUR_RB-M-1_2023-10	Titanium	7440-32-6	E440.Ti	0.25	mg/kg	<0.25	<0.25	0	Diff <2x LOR	---
Metals (QC Lot: 1267429)											
VA23C4184-001	QUR_RB-M-1_2023-10	Silver	7440-22-4	E440.Ag	0.0050	mg/kg	<0.0050	<0.0050	0	Diff <2x LOR	---
Metals (QC Lot: 1269893)											
VA23C4184-030	QUR_RB-M-3X_2023-10	Aluminum	7429-90-5	E440	2.0	mg/kg	<2.0	<2.0	0	Diff <2x LOR	---
		Antimony	7440-36-0	E440	0.010	mg/kg	<0.010	<0.010	0	Diff <2x LOR	---
		Arsenic	7440-38-2	E440	0.020	mg/kg	0.178	0.172	3.30%	40%	---
		Barium	7440-39-3	E440	0.050	mg/kg	0.283	0.345	19.6%	40%	---
		Beryllium	7440-41-7	E440	0.010	mg/kg	<0.010	<0.010	0	Diff <2x LOR	---
		Bismuth	7440-69-9	E440	0.010	mg/kg	<0.010	<0.010	0	Diff <2x LOR	---
		Boron	7440-42-8	E440	1.0	mg/kg	<1.0	<1.0	0	Diff <2x LOR	---
		Cadmium	7440-43-9	E440	0.0050	mg/kg	<0.0050	<0.0050	0	Diff <2x LOR	---
		Calcium	7440-70-2	E440	20	mg/kg	289	309	6.79%	60%	---
		Cesium	7440-46-2	E440	0.0050	mg/kg	0.0659	0.0599	9.52%	40%	---
		Chromium	7440-47-3	E440	0.050	mg/kg	0.122	0.677	139%	40%	DUP-H
		Cobalt	7440-48-4	E440	0.020	mg/kg	0.062	0.059	0.003	Diff <2x LOR	---
		Copper	7440-50-8	E440	0.10	mg/kg	1.16	1.27	9.82%	40%	---
		Iron	7439-89-6	E440	3.0	mg/kg	20.0	25.8	25.2%	40%	---



Sub-Matrix: Biota					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	LOR	Unit	Original Result	Duplicate Result	RPD(%) or Difference	Duplicate Limits	Qualifier
Metals (QC Lot: 1269893) - continued											
VA23C4184-030	QR_RB-M-3X_2023-10	Lead	7439-92-1	E440	0.020	mg/kg	<0.020	<0.020	0	Diff <2x LOR	----
		Lithium	7439-93-2	E440	0.50	mg/kg	<0.50	<0.50	0	Diff <2x LOR	----
		Magnesium	7439-95-4	E440	2.0	mg/kg	1370	900	41.4%	40%	DUP-H
		Manganese	7439-96-5	E440	0.050	mg/kg	0.236	0.236	0.0003	Diff <2x LOR	----
		Molybdenum	7439-98-7	E440	0.020	mg/kg	0.060	# <0.020	0.040	Diff <2x LOR	DUP-H
		Nickel	7440-02-0	E440	0.20	mg/kg	<0.20	<0.20	0	Diff <2x LOR	----
		Phosphorus	7723-14-0	E440	10	mg/kg	11200	10500	5.86%	40%	----
		Potassium	7440-09-7	E440	20	mg/kg	18400	17800	3.34%	40%	----
		Rubidium	7440-17-7	E440	0.050	mg/kg	14.2	13.0	8.22%	40%	----
		Selenium	7782-49-2	E440	0.050	mg/kg	2.20	2.32	5.50%	40%	----
		Sodium	7440-23-5	E440	20	mg/kg	1140	1110	2.47%	40%	----
		Strontium	7440-24-6	E440	0.050	mg/kg	0.243	0.306	23.1%	60%	----
		Tellurium	13494-80-9	E440	0.020	mg/kg	<0.020	<0.020	0	Diff <2x LOR	----
		Thallium	7440-28-0	E440	0.0020	mg/kg	0.0195	0.0173	12.1%	40%	----
		Tin	7440-31-5	E440	0.10	mg/kg	<0.10	<0.10	0	Diff <2x LOR	----
		Uranium	7440-61-1	E440	0.0020	mg/kg	<0.0020	<0.0020	0	Diff <2x LOR	----
		Vanadium	7440-62-2	E440	0.10	mg/kg	<0.10	<0.10	0	Diff <2x LOR	----
		Zinc	7440-66-6	E440	0.50	mg/kg	13.6	13.4	1.92%	40%	----
Zirconium	7440-67-7	E440	0.20	mg/kg	<0.20	<0.20	0	Diff <2x LOR	----		
Metals (QC Lot: 1269897)											
VA23C4184-030	QR_RB-M-3X_2023-10	Silver	7440-22-4	E440.Ag	0.0050	mg/kg	<0.0050	<0.0050	0	Diff <2x LOR	----
Metals (QC Lot: 1269898)											
VA23C4184-030	QR_RB-M-3X_2023-10	Mercury	7439-97-6	E510A	0.0028	mg/kg wwt	0.0709	0.0616	14.1%	40%	----
Metals (QC Lot: 1269899)											
VA23C4184-030	QR_RB-M-3X_2023-10	Mercury	7439-97-6	E510	0.0122	mg/kg	0.309	0.268	14.1%	40%	----
Metals (QC Lot: 1269900)											
VA23C4184-030	QR_RB-M-3X_2023-10	Titanium	7440-32-6	E440.Ti	0.25	mg/kg	<0.25	<0.25	0	Diff <2x LOR	----
Metals (QC Lot: 1272160)											
VA23C4184-028	QR_RB-O-6_2023-10	Silver	7440-22-4	E472.Ag	0.0050	mg/kg	0.0619	0.0647	4.37%	40%	----
Metals (QC Lot: 1272161)											
VA23C4184-028	QR_RB-O-6_2023-10	Titanium	7440-32-6	E472.Ti	0.50	mg/kg	<0.50	<0.50	0	Diff <2x LOR	----
Metals (QC Lot: 1272162)											
VA23C4184-028	QR_RB-O-6_2023-10	Mercury	7439-97-6	E511	0.0050	mg/kg	0.0404	0.0421	3.97%	40%	----
Metals (QC Lot: 1272163)											



Sub-Matrix: Biota					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	LOR	Unit	Original Result	Duplicate Result	RPD(%) or Difference	Duplicate Limits	Qualifier
Metals (QC Lot: 1272163) - continued											
VA23C4184-028	QUR_RB-O-6_2023-10	Mercury	7439-97-6	E511A	0.0010	mg/kg wwt	0.0132	0.0138	3.97%	40%	---
Metals (QC Lot: 1272164)											
VA23C4184-028	QUR_RB-O-6_2023-10	Aluminum	7429-90-5	E472	5.0	mg/kg	<5.0	<5.0	0	Diff <2x LOR	---
		Antimony	7440-36-0	E472	0.010	mg/kg	<0.010	<0.010	0	Diff <2x LOR	---
		Arsenic	7440-38-2	E472	0.030	mg/kg	0.110	0.122	0.011	Diff <2x LOR	---
		Barium	7440-39-3	E472	0.050	mg/kg	0.565	0.596	5.41%	40%	---
		Beryllium	7440-41-7	E472	0.010	mg/kg	<0.010	<0.010	0	Diff <2x LOR	---
		Bismuth	7440-69-9	E472	0.010	mg/kg	<0.010	<0.010	0	Diff <2x LOR	---
		Boron	7440-42-8	E472	1.0	mg/kg	<1.0	<1.0	0	Diff <2x LOR	---
		Cadmium	7440-43-9	E472	0.010	mg/kg	0.012	0.013	0.002	Diff <2x LOR	---
		Calcium	7440-70-2	E472	20	mg/kg	924	1030	11.2%	60%	---
		Cesium	7440-46-2	E472	0.0050	mg/kg	0.0327	0.0351	7.21%	40%	---
		Chromium	7440-47-3	E472	0.20	mg/kg	<0.20	<0.20	0	Diff <2x LOR	---
		Cobalt	7440-48-4	E472	0.020	mg/kg	0.449	0.487	8.17%	40%	---
		Copper	7440-50-8	E472	0.20	mg/kg	28.4	30.7	7.74%	40%	---
		Iron	7439-89-6	E472	5.0	mg/kg	161	174	7.92%	40%	---
		Lead	7439-92-1	E472	0.050	mg/kg	<0.050	<0.050	0	Diff <2x LOR	---
		Lithium	7439-93-2	E472	0.50	mg/kg	<0.50	<0.50	0	Diff <2x LOR	---
		Magnesium	7439-95-4	E472	2.0	mg/kg	1230	1560	23.5%	40%	---
		Manganese	7439-96-5	E472	0.050	mg/kg	13.2	16.1	19.6%	40%	---
		Molybdenum	7439-98-7	E472	0.040	mg/kg	<0.040	<0.040	0	Diff <2x LOR	---
		Nickel	7440-02-0	E472	0.20	mg/kg	<0.20	<0.20	0	Diff <2x LOR	---
		Phosphorus	7723-14-0	E472	10	mg/kg	10000	11600	14.5%	40%	---
		Potassium	7440-09-7	E472	20	mg/kg	6090	6830	11.4%	40%	---
		Rubidium	7440-17-7	E472	0.050	mg/kg	8.75	9.86	11.9%	40%	---
		Selenium	7782-49-2	E472	0.10	mg/kg	22.8	24.0	5.12%	40%	---
		Sodium	7440-23-5	E472	20	mg/kg	2840	3150	10.2%	40%	---
		Strontium	7440-24-6	E472	0.10	mg/kg	2.51	2.74	8.67%	60%	---
		Tellurium	13494-80-9	E472	0.020	mg/kg	<0.020	<0.020	0	Diff <2x LOR	---
		Thallium	7440-28-0	E472	0.0020	mg/kg	0.0073	0.0087	0.0015	Diff <2x LOR	---
		Tin	7440-31-5	E472	0.10	mg/kg	<0.10	<0.10	0	Diff <2x LOR	---
		Uranium	7440-61-1	E472	0.0020	mg/kg	0.0051	0.0053	0.0002	Diff <2x LOR	---
		Vanadium	7440-62-2	E472	0.10	mg/kg	<0.10	<0.10	0	Diff <2x LOR	---
		Zinc	7440-66-6	E472	1.0	mg/kg	217	242	11.0%	40%	---



Sub-Matrix: Biota					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	LOR	Unit	Original Result	Duplicate Result	RPD(%) or Difference	Duplicate Limits	Qualifier
Metals (QC Lot: 1272164) - continued											
VA23C4184-028	QUR_RB-O-6_2023-10	Zirconium	7440-67-7	E472	0.20	mg/kg	<0.20	<0.20	0	Diff <2x LOR	----
Metals (QC Lot: 1272272)											
VA23C4184-009	QUR_RB-Li-1_2023-10	Silver	7440-22-4	E472.Ag	0.0050	mg/kg	1.13	1.24	9.50%	40%	----
Metals (QC Lot: 1272273)											
VA23C4184-009	QUR_RB-Li-1_2023-10	Titanium	7440-32-6	E472.Ti	0.50	mg/kg	<0.50	<0.50	0	Diff <2x LOR	----
Metals (QC Lot: 1272274)											
VA23C4184-009	QUR_RB-Li-1_2023-10	Mercury	7439-97-6	E511	0.0050	mg/kg	0.148	0.171	14.2%	40%	----
Metals (QC Lot: 1272275)											
VA23C4184-009	QUR_RB-Li-1_2023-10	Mercury	7439-97-6	E511A	0.0010	mg/kg wwt	0.0408	0.0471	14.2%	40%	----
Metals (QC Lot: 1272276)											
VA23C4184-009	QUR_RB-Li-1_2023-10	Aluminum	7429-90-5	E472	5.0	mg/kg	<5.0	<5.0	0	Diff <2x LOR	----
		Antimony	7440-36-0	E472	0.010	mg/kg	<0.010	<0.010	0	Diff <2x LOR	----
		Arsenic	7440-38-2	E472	0.030	mg/kg	0.263	0.271	3.00%	40%	----
		Barium	7440-39-3	E472	0.050	mg/kg	0.550	0.632	13.8%	40%	----
		Beryllium	7440-41-7	E472	0.010	mg/kg	<0.010	<0.010	0	Diff <2x LOR	----
		Bismuth	7440-69-9	E472	0.010	mg/kg	<0.010	<0.010	0	Diff <2x LOR	----
		Boron	7440-42-8	E472	1.0	mg/kg	<1.0	<1.0	0	Diff <2x LOR	----
		Cadmium	7440-43-9	E472	0.010	mg/kg	0.280	0.271	3.11%	40%	----
		Calcium	7440-70-2	E472	20	mg/kg	212	214	0.557%	60%	----
		Cesium	7440-46-2	E472	0.0050	mg/kg	0.0266	0.0262	1.91%	40%	----
		Chromium	7440-47-3	E472	0.20	mg/kg	<0.20	<0.20	0	Diff <2x LOR	----
		Cobalt	7440-48-4	E472	0.020	mg/kg	0.183	0.182	0.0764%	40%	----
		Copper	7440-50-8	E472	0.20	mg/kg	52.2	52.3	0.0282%	40%	----
		Iron	7439-89-6	E472	5.0	mg/kg	693	673	3.00%	40%	----
		Lead	7439-92-1	E472	0.050	mg/kg	<0.050	<0.050	0	Diff <2x LOR	----
		Lithium	7439-93-2	E472	0.50	mg/kg	<0.50	<0.50	0	Diff <2x LOR	----
		Magnesium	7439-95-4	E472	2.0	mg/kg	690	654	5.31%	40%	----
		Manganese	7439-96-5	E472	0.050	mg/kg	5.33	5.22	1.98%	40%	----
		Molybdenum	7439-98-7	E472	0.040	mg/kg	1.01	1.06	4.66%	40%	----
		Nickel	7440-02-0	E472	0.20	mg/kg	<0.20	<0.20	0	Diff <2x LOR	----
		Phosphorus	7723-14-0	E472	10	mg/kg	15600	15200	2.58%	40%	----
		Potassium	7440-09-7	E472	20	mg/kg	12300	12100	1.73%	40%	----
		Rubidium	7440-17-7	E472	0.050	mg/kg	10.4	10.3	1.33%	40%	----
		Selenium	7782-49-2	E472	0.10	mg/kg	24.2	25.1	3.32%	40%	----



Sub-Matrix: Biota					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	LOR	Unit	Original Result	Duplicate Result	RPD(%) or Difference	Duplicate Limits	Qualifier
Metals (QC Lot: 1272276) - continued											
VA23C4184-009	QUR_RB-Li-1_2023-10	Sodium	7440-23-5	E472	20	mg/kg	4290	4230	1.57%	40%	----
		Strontium	7440-24-6	E472	0.10	mg/kg	0.37	0.37	0.362%	60%	----
		Tellurium	13494-80-9	E472	0.020	mg/kg	<0.020	<0.020	0	Diff <2x LOR	----
		Thallium	7440-28-0	E472	0.0020	mg/kg	0.0726	0.0690	4.96%	40%	----
		Tin	7440-31-5	E472	0.10	mg/kg	<0.10	<0.10	0	Diff <2x LOR	----
		Uranium	7440-61-1	E472	0.0020	mg/kg	0.0043	0.0044	0.0001	Diff <2x LOR	----
		Vanadium	7440-62-2	E472	0.10	mg/kg	<0.10	<0.10	0	Diff <2x LOR	----
		Zinc	7440-66-6	E472	1.0	mg/kg	103	103	0.216%	40%	----
		Zirconium	7440-67-7	E472	0.20	mg/kg	<0.20	<0.20	0	Diff <2x LOR	----

Qualifiers

Qualifier	Description
DUP-H	Duplicate results outside ALS DQO, due to sample heterogeneity.



Method Blank (MB) Report

A Method Blank is an analyte-free matrix that undergoes sample processing identical to that carried out for test samples. Method Blank results are used to monitor and control for potential contamination from the laboratory environment and reagents. For most tests, the DQO for Method Blanks is for the result to be < LOR.

Sub-Matrix: Biota

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Physical Tests (QCLot: 1268570)						
Moisture	---	E144	0.5	%	<0.50	---
Physical Tests (QCLot: 1269881)						
Moisture	---	E144	0.5	%	<0.50	---
Physical Tests (QCLot: 1272159)						
Moisture	---	E144-H	2	%	<2.0	---
Physical Tests (QCLot: 1272269)						
Moisture	---	E144-H	2	%	<2.0	---
Physical Tests (QCLot: 1275099)						
Moisture	---	E144A	2	%	<2.0	---
Metals (QCLot: 1267425)						
Aluminum	7429-90-5	E440	2	mg/kg	<2.0	---
Antimony	7440-36-0	E440	0.01	mg/kg	<0.010	---
Arsenic	7440-38-2	E440	0.02	mg/kg	<0.020	---
Barium	7440-39-3	E440	0.05	mg/kg	<0.050	---
Beryllium	7440-41-7	E440	0.01	mg/kg	<0.010	---
Bismuth	7440-69-9	E440	0.01	mg/kg	<0.010	---
Boron	7440-42-8	E440	1	mg/kg	<1.0	---
Cadmium	7440-43-9	E440	0.005	mg/kg	<0.0050	---
Calcium	7440-70-2	E440	20	mg/kg	<20	---
Cesium	7440-46-2	E440	0.005	mg/kg	<0.0050	---
Chromium	7440-47-3	E440	0.05	mg/kg	<0.050	---
Cobalt	7440-48-4	E440	0.02	mg/kg	<0.020	---
Copper	7440-50-8	E440	0.1	mg/kg	<0.10	---
Iron	7439-89-6	E440	3	mg/kg	<3.0	---
Lead	7439-92-1	E440	0.02	mg/kg	<0.020	---
Lithium	7439-93-2	E440	0.5	mg/kg	<0.50	---
Magnesium	7439-95-4	E440	2	mg/kg	<2.0	---
Manganese	7439-96-5	E440	0.05	mg/kg	<0.050	---
Molybdenum	7439-98-7	E440	0.02	mg/kg	<0.020	---
Nickel	7440-02-0	E440	0.2	mg/kg	<0.20	---
Phosphorus	7723-14-0	E440	10	mg/kg	<10	---
Potassium	7440-09-7	E440	20	mg/kg	<20	---



Sub-Matrix: **Biota**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Metals (QCLot: 1267425) - continued						
Rubidium	7440-17-7	E440	0.05	mg/kg	<0.050	---
Selenium	7782-49-2	E440	0.05	mg/kg	<0.050	---
Sodium	7440-23-5	E440	20	mg/kg	<20	---
Strontium	7440-24-6	E440	0.05	mg/kg	<0.050	---
Tellurium	13494-80-9	E440	0.02	mg/kg	<0.020	---
Thallium	7440-28-0	E440	0.002	mg/kg	<0.0020	---
Tin	7440-31-5	E440	0.1	mg/kg	<0.10	---
Uranium	7440-61-1	E440	0.002	mg/kg	<0.0020	---
Vanadium	7440-62-2	E440	0.1	mg/kg	<0.10	---
Zinc	7440-66-6	E440	0.5	mg/kg	<0.50	---
Zirconium	7440-67-7	E440	0.2	mg/kg	<0.20	---
Metals (QCLot: 1267426)						
Mercury	7439-97-6	E510A	0.001	mg/kg wwt	<0.0010	---
Metals (QCLot: 1267427)						
Mercury	7439-97-6	E510	0.005	mg/kg	<0.0050	---
Metals (QCLot: 1267428)						
Titanium	7440-32-6	E440.Ti	0.25	mg/kg	<0.25	---
Metals (QCLot: 1267429)						
Silver	7440-22-4	E440.Ag	0.005	mg/kg	<0.0050	---
Metals (QCLot: 1269893)						
Aluminum	7429-90-5	E440	2	mg/kg	<2.0	---
Antimony	7440-36-0	E440	0.01	mg/kg	<0.010	---
Arsenic	7440-38-2	E440	0.02	mg/kg	<0.020	---
Barium	7440-39-3	E440	0.05	mg/kg	<0.050	---
Beryllium	7440-41-7	E440	0.01	mg/kg	<0.010	---
Bismuth	7440-69-9	E440	0.01	mg/kg	<0.010	---
Boron	7440-42-8	E440	1	mg/kg	<1.0	---
Cadmium	7440-43-9	E440	0.005	mg/kg	<0.0050	---
Calcium	7440-70-2	E440	20	mg/kg	<20	---
Cesium	7440-46-2	E440	0.005	mg/kg	<0.0050	---
Chromium	7440-47-3	E440	0.05	mg/kg	<0.050	---
Cobalt	7440-48-4	E440	0.02	mg/kg	<0.020	---
Copper	7440-50-8	E440	0.1	mg/kg	<0.10	---
Iron	7439-89-6	E440	3	mg/kg	<3.0	---
Lead	7439-92-1	E440	0.02	mg/kg	<0.020	---



Sub-Matrix: **Biota**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Metals (QCLot: 1269893) - continued						
Lithium	7439-93-2	E440	0.5	mg/kg	<0.50	---
Magnesium	7439-95-4	E440	2	mg/kg	<2.0	---
Manganese	7439-96-5	E440	0.05	mg/kg	<0.050	---
Molybdenum	7439-98-7	E440	0.02	mg/kg	<0.020	---
Nickel	7440-02-0	E440	0.2	mg/kg	<0.20	---
Phosphorus	7723-14-0	E440	10	mg/kg	<10	---
Potassium	7440-09-7	E440	20	mg/kg	<20	---
Rubidium	7440-17-7	E440	0.05	mg/kg	<0.050	---
Selenium	7782-49-2	E440	0.05	mg/kg	<0.050	---
Sodium	7440-23-5	E440	20	mg/kg	<20	---
Strontium	7440-24-6	E440	0.05	mg/kg	<0.050	---
Tellurium	13494-80-9	E440	0.02	mg/kg	<0.020	---
Thallium	7440-28-0	E440	0.002	mg/kg	<0.0020	---
Tin	7440-31-5	E440	0.1	mg/kg	<0.10	---
Uranium	7440-61-1	E440	0.002	mg/kg	<0.0020	---
Vanadium	7440-62-2	E440	0.1	mg/kg	<0.10	---
Zinc	7440-66-6	E440	0.5	mg/kg	<0.50	---
Zirconium	7440-67-7	E440	0.2	mg/kg	<0.20	---
Metals (QCLot: 1269897)						
Silver	7440-22-4	E440.Ag	0.005	mg/kg	<0.0050	---
Metals (QCLot: 1269898)						
Mercury	7439-97-6	E510A	0.001	mg/kg wwt	<0.0010	---
Metals (QCLot: 1269899)						
Mercury	7439-97-6	E510	0.005	mg/kg	<0.0250	---
Metals (QCLot: 1269900)						
Titanium	7440-32-6	E440.Ti	0.25	mg/kg	<0.25	---
Metals (QCLot: 1272160)						
Silver	7440-22-4	E472.Ag	0.005	mg/kg	<0.0050	---
Metals (QCLot: 1272161)						
Titanium	7440-32-6	E472.Ti	0.5	mg/kg	<0.50	---
Metals (QCLot: 1272162)						
Mercury	7439-97-6	E511	0.005	mg/kg	<0.0050	---
Metals (QCLot: 1272163)						
Mercury	7439-97-6	E511A	0.001	mg/kg wwt	<0.0010	---
Metals (QCLot: 1272164)						



Sub-Matrix: Biota

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Metals (QCLot: 1272164) - continued						
Aluminum	7429-90-5	E472	5	mg/kg	<5.0	---
Antimony	7440-36-0	E472	0.01	mg/kg	<0.010	---
Arsenic	7440-38-2	E472	0.03	mg/kg	<0.030	---
Barium	7440-39-3	E472	0.05	mg/kg	<0.050	---
Beryllium	7440-41-7	E472	0.01	mg/kg	<0.010	---
Bismuth	7440-69-9	E472	0.01	mg/kg	<0.010	---
Boron	7440-42-8	E472	1	mg/kg	<1.0	---
Cadmium	7440-43-9	E472	0.01	mg/kg	<0.010	---
Calcium	7440-70-2	E472	20	mg/kg	<20	---
Cesium	7440-46-2	E472	0.005	mg/kg	<0.0050	---
Chromium	7440-47-3	E472	0.2	mg/kg	<0.20	---
Cobalt	7440-48-4	E472	0.02	mg/kg	<0.020	---
Copper	7440-50-8	E472	0.2	mg/kg	<0.20	---
Iron	7439-89-6	E472	5	mg/kg	<5.0	---
Lead	7439-92-1	E472	0.05	mg/kg	<0.050	---
Lithium	7439-93-2	E472	0.5	mg/kg	<0.50	---
Magnesium	7439-95-4	E472	2	mg/kg	<2.0	---
Manganese	7439-96-5	E472	0.05	mg/kg	<0.050	---
Molybdenum	7439-98-7	E472	0.04	mg/kg	<0.040	---
Nickel	7440-02-0	E472	0.2	mg/kg	<0.20	---
Phosphorus	7723-14-0	E472	10	mg/kg	<10	---
Potassium	7440-09-7	E472	20	mg/kg	<20	---
Rubidium	7440-17-7	E472	0.05	mg/kg	<0.050	---
Selenium	7782-49-2	E472	0.1	mg/kg	<0.10	---
Sodium	7440-23-5	E472	20	mg/kg	<20	---
Strontium	7440-24-6	E472	0.1	mg/kg	<0.10	---
Tellurium	13494-80-9	E472	0.02	mg/kg	<0.020	---
Thallium	7440-28-0	E472	0.002	mg/kg	<0.0020	---
Tin	7440-31-5	E472	0.1	mg/kg	<0.10	---
Uranium	7440-61-1	E472	0.002	mg/kg	<0.0020	---
Vanadium	7440-62-2	E472	0.1	mg/kg	<0.10	---
Zinc	7440-66-6	E472	1	mg/kg	<1.0	---
Zirconium	7440-67-7	E472	0.2	mg/kg	<0.20	---
Metals (QCLot: 1272272)						
Silver	7440-22-4	E472.Ag	0.005	mg/kg	<0.0050	---



Sub-Matrix: Biota

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Metals (QCLot: 1272273)						
Titanium	7440-32-6	E472.Ti	0.5	mg/kg	<0.50	---
Metals (QCLot: 1272274)						
Mercury	7439-97-6	E511	0.005	mg/kg	<0.0050	---
Metals (QCLot: 1272275)						
Mercury	7439-97-6	E511A	0.001	mg/kg wwt	<0.0010	---
Metals (QCLot: 1272276)						
Aluminum	7429-90-5	E472	5	mg/kg	<5.0	---
Antimony	7440-36-0	E472	0.01	mg/kg	<0.010	---
Arsenic	7440-38-2	E472	0.03	mg/kg	<0.030	---
Barium	7440-39-3	E472	0.05	mg/kg	<0.050	---
Beryllium	7440-41-7	E472	0.01	mg/kg	<0.010	---
Bismuth	7440-69-9	E472	0.01	mg/kg	<0.010	---
Boron	7440-42-8	E472	1	mg/kg	<1.0	---
Cadmium	7440-43-9	E472	0.01	mg/kg	<0.010	---
Calcium	7440-70-2	E472	20	mg/kg	<20	---
Cesium	7440-46-2	E472	0.005	mg/kg	<0.0050	---
Chromium	7440-47-3	E472	0.2	mg/kg	<0.20	---
Cobalt	7440-48-4	E472	0.02	mg/kg	<0.020	---
Copper	7440-50-8	E472	0.2	mg/kg	<0.20	---
Iron	7439-89-6	E472	5	mg/kg	<5.0	---
Lead	7439-92-1	E472	0.05	mg/kg	<0.050	---
Lithium	7439-93-2	E472	0.5	mg/kg	<0.50	---
Magnesium	7439-95-4	E472	2	mg/kg	<2.0	---
Manganese	7439-96-5	E472	0.05	mg/kg	<0.050	---
Molybdenum	7439-98-7	E472	0.04	mg/kg	<0.040	---
Nickel	7440-02-0	E472	0.2	mg/kg	<0.20	---
Phosphorus	7723-14-0	E472	10	mg/kg	<10	---
Potassium	7440-09-7	E472	20	mg/kg	<20	---
Rubidium	7440-17-7	E472	0.05	mg/kg	<0.050	---
Selenium	7782-49-2	E472	0.1	mg/kg	<0.10	---
Sodium	7440-23-5	E472	20	mg/kg	<20	---
Strontium	7440-24-6	E472	0.1	mg/kg	<0.10	---
Tellurium	13494-80-9	E472	0.02	mg/kg	<0.020	---
Thallium	7440-28-0	E472	0.002	mg/kg	<0.0020	---
Tin	7440-31-5	E472	0.1	mg/kg	<0.10	---



Sub-Matrix: Biota

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Metals (QCLot: 1272276) - continued						
Uranium	7440-61-1	E472	0.002	mg/kg	<0.0020	---
Vanadium	7440-62-2	E472	0.1	mg/kg	<0.10	---
Zinc	7440-66-6	E472	1	mg/kg	<1.0	---
Zirconium	7440-67-7	E472	0.2	mg/kg	<0.20	---
Metals (QCLot: 1275094)						
Silver	7440-22-4	E475.Ag	0.005	mg/kg	<0.0050	---
Metals (QCLot: 1275095)						
Titanium	7440-32-6	E475.Ti	0.5	mg/kg	<0.50	---
Metals (QCLot: 1275096)						
Mercury	7439-97-6	E512	0.01	mg/kg	<0.010	---
Metals (QCLot: 1275097)						
Mercury	7439-97-6	E512A	0.002	mg/kg wwt	<0.0020	---
Metals (QCLot: 1275098)						
Aluminum	7429-90-5	E475	5	mg/kg	<5.0	---
Antimony	7440-36-0	E475	0.02	mg/kg	<0.020	---
Arsenic	7440-38-2	E475	0.05	mg/kg	<0.050	---
Barium	7440-39-3	E475	0.05	mg/kg	<0.050	---
Beryllium	7440-41-7	E475	0.01	mg/kg	<0.010	---
Bismuth	7440-69-9	E475	0.01	mg/kg	<0.010	---
Boron	7440-42-8	E475	1	mg/kg	<1.0	---
Cadmium	7440-43-9	E475	0.01	mg/kg	<0.010	---
Calcium	7440-70-2	E475	20	mg/kg	<20	---
Cesium	7440-46-2	E475	0.005	mg/kg	<0.0050	---
Chromium	7440-47-3	E475	0.2	mg/kg	<0.20	---
Cobalt	7440-48-4	E475	0.02	mg/kg	<0.020	---
Copper	7440-50-8	E475	0.2	mg/kg	<0.20	---
Iron	7439-89-6	E475	5	mg/kg	<5.0	---
Lead	7439-92-1	E475	0.05	mg/kg	<0.050	---
Lithium	7439-93-2	E475	0.5	mg/kg	<0.50	---
Magnesium	7439-95-4	E475	2	mg/kg	<2.0	---
Manganese	7439-96-5	E475	0.05	mg/kg	<0.050	---
Molybdenum	7439-98-7	E475	0.04	mg/kg	<0.040	---
Nickel	7440-02-0	E475	0.2	mg/kg	<0.20	---
Phosphorus	7723-14-0	E475	20	mg/kg	<20	---
Potassium	7440-09-7	E475	20	mg/kg	<20	---



Sub-Matrix: **Biota**

<i>Analyte</i>	<i>CAS Number</i>	<i>Method</i>	<i>LOR</i>	<i>Unit</i>	<i>Result</i>	<i>Qualifier</i>
Metals (QCLot: 1275098) - continued						
Rubidium	7440-17-7	E475	0.05	mg/kg	<0.050	---
Selenium	7782-49-2	E475	0.1	mg/kg	<0.10	---
Sodium	7440-23-5	E475	20	mg/kg	<20	---
Strontium	7440-24-6	E475	0.1	mg/kg	<0.10	---
Tellurium	13494-80-9	E475	0.02	mg/kg	<0.020	---
Thallium	7440-28-0	E475	0.002	mg/kg	<0.0020	---
Tin	7440-31-5	E475	0.1	mg/kg	<0.10	---
Uranium	7440-61-1	E475	0.002	mg/kg	<0.0020	---
Vanadium	7440-62-2	E475	0.1	mg/kg	<0.10	---
Zinc	7440-66-6	E475	1	mg/kg	<1.0	---
Zirconium	7440-67-7	E475	0.2	mg/kg	<0.20	---



Laboratory Control Sample (LCS) Report

A Laboratory Control Sample (LCS) is an analyte-free matrix that has been fortified (spiked) with test analytes at known concentration and processed in an identical manner to test samples. LCS results are expressed as percent recovery, and are used to monitor and control test method accuracy and precision, independent of test sample matrix.

Sub-Matrix: Biota

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
Physical Tests (QCLot: 1268570)									
Moisture	---	E144	0.5	%	50 %	100	90.0	110	---
Physical Tests (QCLot: 1269881)									
Moisture	---	E144	0.5	%	50 %	99.8	90.0	110	---
Physical Tests (QCLot: 1272159)									
Moisture	---	E144-H	2	%	100 %	100	90.0	110	---
Physical Tests (QCLot: 1272269)									
Moisture	---	E144-H	2	%	100 %	100	90.0	110	---
Physical Tests (QCLot: 1275099)									
Moisture	---	E144A	2	%	100 %	99.5	90.0	110	---
Metals (QCLot: 1267425)									
Aluminum	7429-90-5	E440	2	mg/kg	20 mg/kg	101	80.0	120	---
Antimony	7440-36-0	E440	0.01	mg/kg	10 mg/kg	89.2	80.0	120	---
Arsenic	7440-38-2	E440	0.02	mg/kg	10 mg/kg	103	80.0	120	---
Barium	7440-39-3	E440	0.05	mg/kg	2.5 mg/kg	100	80.0	120	---
Beryllium	7440-41-7	E440	0.01	mg/kg	1 mg/kg	89.8	80.0	120	---
Bismuth	7440-69-9	E440	0.01	mg/kg	10 mg/kg	91.3	80.0	120	---
Boron	7440-42-8	E440	1	mg/kg	10 mg/kg	83.6	80.0	120	---
Cadmium	7440-43-9	E440	0.005	mg/kg	1 mg/kg	98.0	80.0	120	---
Calcium	7440-70-2	E440	20	mg/kg	500 mg/kg	87.0	80.0	120	---
Cesium	7440-46-2	E440	0.005	mg/kg	0.5 mg/kg	83.2	80.0	120	---
Chromium	7440-47-3	E440	0.05	mg/kg	2.5 mg/kg	99.3	80.0	120	---
Cobalt	7440-48-4	E440	0.02	mg/kg	2.5 mg/kg	99.5	80.0	120	---
Copper	7440-50-8	E440	0.1	mg/kg	2.5 mg/kg	95.7	80.0	120	---
Iron	7439-89-6	E440	3	mg/kg	10 mg/kg	100	80.0	120	---
Lead	7439-92-1	E440	0.02	mg/kg	5 mg/kg	91.1	80.0	120	---
Lithium	7439-93-2	E440	0.5	mg/kg	2.5 mg/kg	91.6	80.0	120	---
Magnesium	7439-95-4	E440	2	mg/kg	500 mg/kg	99.8	80.0	120	---
Manganese	7439-96-5	E440	0.05	mg/kg	2.5 mg/kg	98.2	80.0	120	---
Molybdenum	7439-98-7	E440	0.02	mg/kg	2.5 mg/kg	87.1	80.0	120	---
Nickel	7440-02-0	E440	0.2	mg/kg	5 mg/kg	99.3	80.0	120	---
Phosphorus	7723-14-0	E440	10	mg/kg	100 mg/kg	106	80.0	120	---
Potassium	7440-09-7	E440	20	mg/kg	500 mg/kg	102	80.0	120	---



Sub-Matrix: Biota

Laboratory Control Sample (LCS) Report

Analyte	CAS Number	Method	LOR	Unit	Spike	Recovery (%)	Recovery Limits (%)		Qualifier
					Concentration	LCS	Low	High	
Metals (QCLot: 1267425) - continued									
Rubidium	7440-17-7	E440	0.05	mg/kg	1 mg/kg	100	80.0	120	---
Selenium	7782-49-2	E440	0.05	mg/kg	10 mg/kg	97.9	80.0	120	---
Sodium	7440-23-5	E440	20	mg/kg	500 mg/kg	99.6	80.0	120	---
Strontium	7440-24-6	E440	0.05	mg/kg	2.5 mg/kg	88.9	80.0	120	---
Tellurium	13494-80-9	E440	0.02	mg/kg	1 mg/kg	87.5	80.0	120	---
Thallium	7440-28-0	E440	0.002	mg/kg	10 mg/kg	89.8	80.0	120	---
Tin	7440-31-5	E440	0.1	mg/kg	5 mg/kg	88.6	80.0	120	---
Uranium	7440-61-1	E440	0.002	mg/kg	0.05 mg/kg	91.7	80.0	120	---
Vanadium	7440-62-2	E440	0.1	mg/kg	5 mg/kg	100	80.0	120	---
Zinc	7440-66-6	E440	0.5	mg/kg	5 mg/kg	95.8	80.0	120	---
Zirconium	7440-67-7	E440	0.2	mg/kg	1 mg/kg	84.6	80.0	120	---
Metals (QCLot: 1267426)									
Mercury	7439-97-6	E510A	0.001	mg/kg wwt	0.02 mg/kg wwt	84.8	80.0	120	---
Metals (QCLot: 1267427)									
Mercury	7439-97-6	E510	0.005	mg/kg	0.02 mg/kg	84.8	80.0	120	---
Metals (QCLot: 1267428)									
Titanium	7440-32-6	E440.Ti	0.25	mg/kg	2.5 mg/kg	96.6	80.0	120	---
Metals (QCLot: 1267429)									
Silver	7440-22-4	E440.Ag	0.005	mg/kg	1 mg/kg	# 75.3	80.0	120	MES
Metals (QCLot: 1269893)									
Aluminum	7429-90-5	E440	2	mg/kg	20 mg/kg	105	80.0	120	---
Antimony	7440-36-0	E440	0.01	mg/kg	10 mg/kg	102	80.0	120	---
Arsenic	7440-38-2	E440	0.02	mg/kg	10 mg/kg	107	80.0	120	---
Barium	7440-39-3	E440	0.05	mg/kg	2.5 mg/kg	104	80.0	120	---
Beryllium	7440-41-7	E440	0.01	mg/kg	1 mg/kg	102	80.0	120	---
Bismuth	7440-69-9	E440	0.01	mg/kg	10 mg/kg	97.5	80.0	120	---
Boron	7440-42-8	E440	1	mg/kg	10 mg/kg	96.8	80.0	120	---
Cadmium	7440-43-9	E440	0.005	mg/kg	1 mg/kg	94.5	80.0	120	---
Calcium	7440-70-2	E440	20	mg/kg	500 mg/kg	101	80.0	120	---
Cesium	7440-46-2	E440	0.005	mg/kg	0.5 mg/kg	99.4	80.0	120	---
Chromium	7440-47-3	E440	0.05	mg/kg	2.5 mg/kg	103	80.0	120	---
Cobalt	7440-48-4	E440	0.02	mg/kg	2.5 mg/kg	101	80.0	120	---
Copper	7440-50-8	E440	0.1	mg/kg	2.5 mg/kg	99.0	80.0	120	---
Iron	7439-89-6	E440	3	mg/kg	10 mg/kg	100	80.0	120	---
Lead	7439-92-1	E440	0.02	mg/kg	5 mg/kg	105	80.0	120	---
Lithium	7439-93-2	E440	0.5	mg/kg	2.5 mg/kg	103	80.0	120	---



Sub-Matrix: Biota

Laboratory Control Sample (LCS) Report

Analyte	CAS Number	Method	LOR	Unit	Spike	Recovery (%)	Recovery Limits (%)		Qualifier
					Concentration	LCS	Low	High	
Metals (QCLot: 1269893) - continued									
Magnesium	7439-95-4	E440	2	mg/kg	500 mg/kg	101	80.0	120	----
Manganese	7439-96-5	E440	0.05	mg/kg	2.5 mg/kg	103	80.0	120	----
Molybdenum	7439-98-7	E440	0.02	mg/kg	2.5 mg/kg	98.8	80.0	120	----
Nickel	7440-02-0	E440	0.2	mg/kg	5 mg/kg	101	80.0	120	----
Phosphorus	7723-14-0	E440	10	mg/kg	100 mg/kg	109	80.0	120	----
Potassium	7440-09-7	E440	20	mg/kg	500 mg/kg	102	80.0	120	----
Rubidium	7440-17-7	E440	0.05	mg/kg	1 mg/kg	103	80.0	120	----
Selenium	7782-49-2	E440	0.05	mg/kg	10 mg/kg	97.9	80.0	120	----
Sodium	7440-23-5	E440	20	mg/kg	500 mg/kg	99.0	80.0	120	----
Strontium	7440-24-6	E440	0.05	mg/kg	2.5 mg/kg	104	80.0	120	----
Tellurium	13494-80-9	E440	0.02	mg/kg	1 mg/kg	99.6	80.0	120	----
Thallium	7440-28-0	E440	0.002	mg/kg	10 mg/kg	104	80.0	120	----
Tin	7440-31-5	E440	0.1	mg/kg	5 mg/kg	94.8	80.0	120	----
Uranium	7440-61-1	E440	0.002	mg/kg	0.05 mg/kg	103	80.0	120	----
Vanadium	7440-62-2	E440	0.1	mg/kg	5 mg/kg	104	80.0	120	----
Zinc	7440-66-6	E440	0.5	mg/kg	5 mg/kg	98.5	80.0	120	----
Zirconium	7440-67-7	E440	0.2	mg/kg	1 mg/kg	98.6	80.0	120	----
Metals (QCLot: 1269897)									
Silver	7440-22-4	E440.Ag	0.005	mg/kg	1 mg/kg	91.1	80.0	120	----
Metals (QCLot: 1269898)									
Mercury	7439-97-6	E510A	0.001	mg/kg wwt	0.02 mg/kg wwt	103	80.0	120	----
Metals (QCLot: 1269899)									
Mercury	7439-97-6	E510	0.005	mg/kg	0.02 mg/kg	103	80.0	120	----
Metals (QCLot: 1269900)									
Titanium	7440-32-6	E440.Ti	0.25	mg/kg	2.5 mg/kg	101	80.0	120	----
Metals (QCLot: 1272160)									
Silver	7440-22-4	E472.Ag	0.005	mg/kg	1 mg/kg	87.3	80.0	120	----
Metals (QCLot: 1272161)									
Titanium	7440-32-6	E472.Ti	0.5	mg/kg	2.5 mg/kg	90.8	80.0	120	----
Metals (QCLot: 1272162)									
Mercury	7439-97-6	E511	0.005	mg/kg	0.02 mg/kg	91.1	80.0	120	----
Metals (QCLot: 1272163)									
Mercury	7439-97-6	E511A	0.001	mg/kg wwt	0.02 mg/kg wwt	91.1	80.0	120	----
Metals (QCLot: 1272164)									
Aluminum	7429-90-5	E472	5	mg/kg	20 mg/kg	100	80.0	120	----
Antimony	7440-36-0	E472	0.01	mg/kg	10 mg/kg	94.0	80.0	120	----



Sub-Matrix: Biota

Laboratory Control Sample (LCS) Report

Analyte	CAS Number	Method	LOR	Unit	Spike	Recovery (%)	Recovery Limits (%)		Qualifier
					Concentration	LCS	Low	High	
Metals (QCLot: 1272164) - continued									
Arsenic	7440-38-2	E472	0.03	mg/kg	10 mg/kg	96.9	80.0	120	----
Barium	7440-39-3	E472	0.05	mg/kg	2.5 mg/kg	98.8	80.0	120	----
Beryllium	7440-41-7	E472	0.01	mg/kg	1 mg/kg	97.6	80.0	120	----
Bismuth	7440-69-9	E472	0.01	mg/kg	10 mg/kg	98.8	80.0	120	----
Boron	7440-42-8	E472	1	mg/kg	10 mg/kg	87.6	80.0	120	----
Cadmium	7440-43-9	E472	0.01	mg/kg	1 mg/kg	92.9	80.0	120	----
Calcium	7440-70-2	E472	20	mg/kg	500 mg/kg	92.6	80.0	120	----
Cesium	7440-46-2	E472	0.005	mg/kg	0.5 mg/kg	99.0	80.0	120	----
Chromium	7440-47-3	E472	0.2	mg/kg	2.5 mg/kg	98.8	80.0	120	----
Cobalt	7440-48-4	E472	0.02	mg/kg	2.5 mg/kg	95.8	80.0	120	----
Copper	7440-50-8	E472	0.2	mg/kg	2.5 mg/kg	93.3	80.0	120	----
Iron	7439-89-6	E472	5	mg/kg	10 mg/kg	95.6	80.0	120	----
Lead	7439-92-1	E472	0.05	mg/kg	5 mg/kg	103	80.0	120	----
Lithium	7439-93-2	E472	0.5	mg/kg	2.5 mg/kg	99.0	80.0	120	----
Magnesium	7439-95-4	E472	2	mg/kg	500 mg/kg	94.5	80.0	120	----
Manganese	7439-96-5	E472	0.05	mg/kg	2.5 mg/kg	99.2	80.0	120	----
Molybdenum	7439-98-7	E472	0.04	mg/kg	2.5 mg/kg	91.6	80.0	120	----
Nickel	7440-02-0	E472	0.2	mg/kg	5 mg/kg	95.7	80.0	120	----
Phosphorus	7723-14-0	E472	10	mg/kg	100 mg/kg	96.7	80.0	120	----
Potassium	7440-09-7	E472	20	mg/kg	500 mg/kg	95.6	80.0	120	----
Rubidium	7440-17-7	E472	0.05	mg/kg	1 mg/kg	100	80.0	120	----
Selenium	7782-49-2	E472	0.1	mg/kg	10 mg/kg	87.0	80.0	120	----
Sodium	7440-23-5	E472	20	mg/kg	500 mg/kg	92.4	80.0	120	----
Strontium	7440-24-6	E472	0.1	mg/kg	2.5 mg/kg	96.3	80.0	120	----
Tellurium	13494-80-9	E472	0.02	mg/kg	1 mg/kg	89.4	80.0	120	----
Thallium	7440-28-0	E472	0.002	mg/kg	10 mg/kg	102	80.0	120	----
Tin	7440-31-5	E472	0.1	mg/kg	5 mg/kg	91.1	80.0	120	----
Uranium	7440-61-1	E472	0.002	mg/kg	0.05 mg/kg	104	80.0	120	----
Vanadium	7440-62-2	E472	0.1	mg/kg	5 mg/kg	100	80.0	120	----
Zinc	7440-66-6	E472	1	mg/kg	5 mg/kg	93.8	80.0	120	----
Zirconium	7440-67-7	E472	0.2	mg/kg	1 mg/kg	93.5	80.0	120	----
Metals (QCLot: 1272272)									
Silver	7440-22-4	E472.Ag	0.005	mg/kg	1 mg/kg	97.9	80.0	120	----
Metals (QCLot: 1272273)									
Titanium	7440-32-6	E472.Ti	0.5	mg/kg	2.5 mg/kg	114	80.0	120	----
Metals (QCLot: 1272274)									



Sub-Matrix: Biota

Laboratory Control Sample (LCS) Report

Analyte	CAS Number	Method	LOR	Unit	Spike	Recovery (%)	Recovery Limits (%)		Qualifier
					Concentration	LCS	Low	High	
Metals (QCLot: 1272274) - continued									
Mercury	7439-97-6	E511	0.005	mg/kg	0.02 mg/kg	97.6	80.0	120	---
Metals (QCLot: 1272275)									
Mercury	7439-97-6	E511A	0.001	mg/kg wwt	0.02 mg/kg wwt	97.6	80.0	120	---
Metals (QCLot: 1272276)									
Aluminum	7429-90-5	E472	5	mg/kg	20 mg/kg	# 122	80.0	120	MES
Antimony	7440-36-0	E472	0.01	mg/kg	10 mg/kg	109	80.0	120	---
Arsenic	7440-38-2	E472	0.03	mg/kg	10 mg/kg	# 121	80.0	120	MES
Barium	7440-39-3	E472	0.05	mg/kg	2.5 mg/kg	118	80.0	120	---
Beryllium	7440-41-7	E472	0.01	mg/kg	1 mg/kg	108	80.0	120	---
Bismuth	7440-69-9	E472	0.01	mg/kg	10 mg/kg	110	80.0	120	---
Boron	7440-42-8	E472	1	mg/kg	10 mg/kg	105	80.0	120	---
Cadmium	7440-43-9	E472	0.01	mg/kg	1 mg/kg	108	80.0	120	---
Calcium	7440-70-2	E472	20	mg/kg	500 mg/kg	103	80.0	120	---
Cesium	7440-46-2	E472	0.005	mg/kg	0.5 mg/kg	109	80.0	120	---
Chromium	7440-47-3	E472	0.2	mg/kg	2.5 mg/kg	117	80.0	120	---
Cobalt	7440-48-4	E472	0.02	mg/kg	2.5 mg/kg	113	80.0	120	---
Copper	7440-50-8	E472	0.2	mg/kg	2.5 mg/kg	109	80.0	120	---
Iron	7439-89-6	E472	5	mg/kg	10 mg/kg	112	80.0	120	---
Lead	7439-92-1	E472	0.05	mg/kg	5 mg/kg	113	80.0	120	---
Lithium	7439-93-2	E472	0.5	mg/kg	2.5 mg/kg	108	80.0	120	---
Magnesium	7439-95-4	E472	2	mg/kg	500 mg/kg	111	80.0	120	---
Manganese	7439-96-5	E472	0.05	mg/kg	2.5 mg/kg	116	80.0	120	---
Molybdenum	7439-98-7	E472	0.04	mg/kg	2.5 mg/kg	111	80.0	120	---
Nickel	7440-02-0	E472	0.2	mg/kg	5 mg/kg	112	80.0	120	---
Phosphorus	7723-14-0	E472	10	mg/kg	100 mg/kg	# 122	80.0	120	MES
Potassium	7440-09-7	E472	20	mg/kg	500 mg/kg	112	80.0	120	---
Rubidium	7440-17-7	E472	0.05	mg/kg	1 mg/kg	118	80.0	120	---
Selenium	7782-49-2	E472	0.1	mg/kg	10 mg/kg	108	80.0	120	---
Sodium	7440-23-5	E472	20	mg/kg	500 mg/kg	109	80.0	120	---
Strontium	7440-24-6	E472	0.1	mg/kg	2.5 mg/kg	116	80.0	120	---
Tellurium	13494-80-9	E472	0.02	mg/kg	1 mg/kg	106	80.0	120	---
Thallium	7440-28-0	E472	0.002	mg/kg	10 mg/kg	111	80.0	120	---
Tin	7440-31-5	E472	0.1	mg/kg	5 mg/kg	107	80.0	120	---
Uranium	7440-61-1	E472	0.002	mg/kg	0.05 mg/kg	115	80.0	120	---
Vanadium	7440-62-2	E472	0.1	mg/kg	5 mg/kg	119	80.0	120	---
Zinc	7440-66-6	E472	1	mg/kg	5 mg/kg	110	80.0	120	---



Sub-Matrix: Biota

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
Metals (QCLot: 1272276) - continued									
Zirconium	7440-67-7	E472	0.2	mg/kg	1 mg/kg	113	80.0	120	---
Metals (QCLot: 1275094)									
Silver	7440-22-4	E475.Ag	0.005	mg/kg	2.5 mg/kg	88.0	80.0	120	---
Metals (QCLot: 1275095)									
Titanium	7440-32-6	E475.Ti	0.5	mg/kg	6.25 mg/kg	99.8	80.0	120	---
Metals (QCLot: 1275096)									
Mercury	7439-97-6	E512	0.01	mg/kg	0.05 mg/kg	103	80.0	120	---
Metals (QCLot: 1275097)									
Mercury	7439-97-6	E512A	0.002	mg/kg wwt	0.05 mg/kg wwt	103	80.0	120	---
Metals (QCLot: 1275098)									
Aluminum	7429-90-5	E475	5	mg/kg	50 mg/kg	98.4	80.0	120	---
Antimony	7440-36-0	E475	0.02	mg/kg	25 mg/kg	101	80.0	120	---
Arsenic	7440-38-2	E475	0.05	mg/kg	25 mg/kg	108	80.0	120	---
Barium	7440-39-3	E475	0.05	mg/kg	6.25 mg/kg	105	80.0	120	---
Beryllium	7440-41-7	E475	0.01	mg/kg	2.5 mg/kg	98.1	80.0	120	---
Bismuth	7440-69-9	E475	0.01	mg/kg	25 mg/kg	97.8	80.0	120	---
Boron	7440-42-8	E475	1	mg/kg	25 mg/kg	95.2	80.0	120	---
Cadmium	7440-43-9	E475	0.01	mg/kg	2.5 mg/kg	97.5	80.0	120	---
Calcium	7440-70-2	E475	20	mg/kg	1250 mg/kg	95.6	80.0	120	---
Cesium	7440-46-2	E475	0.005	mg/kg	1.25 mg/kg	102	80.0	120	---
Chromium	7440-47-3	E475	0.2	mg/kg	6.25 mg/kg	101	80.0	120	---
Cobalt	7440-48-4	E475	0.02	mg/kg	6.25 mg/kg	99.2	80.0	120	---
Copper	7440-50-8	E475	0.2	mg/kg	6.25 mg/kg	95.8	80.0	120	---
Iron	7439-89-6	E475	5	mg/kg	25 mg/kg	101	80.0	120	---
Lead	7439-92-1	E475	0.05	mg/kg	12.5 mg/kg	100	80.0	120	---
Lithium	7439-93-2	E475	0.5	mg/kg	6.25 mg/kg	97.3	80.0	120	---
Magnesium	7439-95-4	E475	2	mg/kg	1250 mg/kg	95.1	80.0	120	---
Manganese	7439-96-5	E475	0.05	mg/kg	6.25 mg/kg	101	80.0	120	---
Molybdenum	7439-98-7	E475	0.04	mg/kg	6.25 mg/kg	103	80.0	120	---
Nickel	7440-02-0	E475	0.2	mg/kg	12.5 mg/kg	97.2	80.0	120	---
Phosphorus	7723-14-0	E475	20	mg/kg	250 mg/kg	108	80.0	120	---
Potassium	7440-09-7	E475	20	mg/kg	1250 mg/kg	102	80.0	120	---
Rubidium	7440-17-7	E475	0.05	mg/kg	2.5 mg/kg	103	80.0	120	---
Selenium	7782-49-2	E475	0.1	mg/kg	25 mg/kg	98.8	80.0	120	---
Sodium	7440-23-5	E475	20	mg/kg	1250 mg/kg	98.1	80.0	120	---
Strontium	7440-24-6	E475	0.1	mg/kg	6.25 mg/kg	98.8	80.0	120	---



Sub-Matrix: Biota

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
Metals (QCLot: 1275098) - continued									
Tellurium	13494-80-9	E475	0.02	mg/kg	2.5 mg/kg	96.8	80.0	120	----
Thallium	7440-28-0	E475	0.002	mg/kg	25 mg/kg	97.2	80.0	120	----
Tin	7440-31-5	E475	0.1	mg/kg	12.5 mg/kg	98.1	80.0	120	----
Uranium	7440-61-1	E475	0.002	mg/kg	0.125 mg/kg	100	80.0	120	----
Vanadium	7440-62-2	E475	0.1	mg/kg	12.5 mg/kg	103	80.0	120	----
Zinc	7440-66-6	E475	1	mg/kg	12.5 mg/kg	96.1	80.0	120	----
Zirconium	7440-67-7	E475	0.2	mg/kg	2.5 mg/kg	106	80.0	120	----

Qualifiers

Qualifier	Description
MES	Data Quality Objective was marginally exceeded (by < 10% absolute) for < 10% of analytes in a Multi-Element Scan / Multi-Parameter Scan (considered acceptable as per OMOE & CCME).



Reference Material (RM) Report

A Reference Material (RM) is a homogenous material with known and well-established analyte concentrations. RMs are processed in an identical manner to test samples, and are used to monitor and control the accuracy and precision of a test method for a typical sample matrix. RM results are expressed as percent recovery of the target analyte concentration. RM targets may be certified target concentrations provided by the RM supplier, or may be ALS long-term mean values (for empirical test methods).

Sub-Matrix:

Laboratory sample ID	Reference Material ID	Analyte	CAS Number	Method	Reference Material (RM) Report				
					RM Target Concentration	Recovery (%) RM	Recovery Limits (%)		Qualifier
							Low	High	
Metals (QCLot: 1267425)									
	RM	Aluminum	7429-90-5	E440	147 mg/kg	99.6	70.0	130	----
	RM	Arsenic	7440-38-2	E440	14.5 mg/kg	97.8	70.0	130	----
	RM	Barium	7440-39-3	E440	0.352 mg/kg	104	70.0	130	----
	RM	Boron	7440-42-8	E440	3.47 mg/kg	102	70.0	130	----
	RM	Cadmium	7440-43-9	E440	0.153 mg/kg	95.2	70.0	130	----
	RM	Calcium	7440-70-2	E440	2010 mg/kg	110	70.0	130	----
	RM	Cesium	7440-46-2	E440	0.0889 mg/kg	90.1	70.0	130	----
	RM	Chromium	7440-47-3	E440	0.453 mg/kg	95.0	70.0	130	----
	RM	Cobalt	7440-48-4	E440	0.0567 mg/kg	98.4	65.0	135	----
	RM	Copper	7440-50-8	E440	3.3 mg/kg	95.6	70.0	130	----
	RM	Iron	7439-89-6	E440	102 mg/kg	97.4	70.0	130	----
	RM	Lead	7439-92-1	E440	0.058 mg/kg	97.3	70.0	130	----
	RM	Magnesium	7439-95-4	E440	899 mg/kg	98.7	70.0	130	----
	RM	Manganese	7439-96-5	E440	0.948 mg/kg	99.6	70.0	130	----
	RM	Molybdenum	7439-98-7	E440	0.134 mg/kg	93.9	70.0	130	----
	RM	Nickel	7440-02-0	E440	0.33 mg/kg	93.4	40.0	160	----
	RM	Phosphorus	7723-14-0	E440	6700 mg/kg	102	70.0	130	----
	RM	Potassium	7440-09-7	E440	11600 mg/kg	101	70.0	130	----
	RM	Rubidium	7440-17-7	E440	2.53 mg/kg	96.7	70.0	130	----
	RM	Selenium	7782-49-2	E440	2.48 mg/kg	98.6	70.0	130	----
	RM	Sodium	7440-23-5	E440	9620 mg/kg	100	70.0	130	----
	RM	Strontium	7440-24-6	E440	10.6 mg/kg	96.1	70.0	130	----
	RM	Vanadium	7440-62-2	E440	0.269 mg/kg	95.7	70.0	130	----
	RM	Zinc	7440-66-6	E440	28.7 mg/kg	100.0	70.0	130	----
Metals (QCLot: 1267426)									
	RM	Mercury	7439-97-6	E510A	0.281 mg/kg wwt	102	70.0	130	----
Metals (QCLot: 1267427)									
	RM	Mercury	7439-97-6	E510	0.281 mg/kg	102	70.0	130	----



Sub-Matrix:

Laboratory sample ID	Reference Material ID	Analyte	CAS Number	Method	Reference Material (RM) Report				
					RM Target Concentration	Recovery (%) RM	Recovery Limits (%)		Qualifier
							Low	High	
Metals (QCLot: 1267428)									
	RM	Titanium	7440-32-6	E440.Ti	1.15 mg/kg	91.6	70.0	130	---
Metals (QCLot: 1267429)									
	RM	Silver	7440-22-4	E440.Ag	0.139 mg/kg	91.3	70.0	130	---
Metals (QCLot: 1269893)									
	RM	Aluminum	7429-90-5	E440	147 mg/kg	70.2	70.0	130	---
	RM	Arsenic	7440-38-2	E440	14.5 mg/kg	79.4	70.0	130	---
	RM	Barium	7440-39-3	E440	0.352 mg/kg	75.3	70.0	130	---
	RM	Boron	7440-42-8	E440	3.47 mg/kg	81.1	70.0	130	---
	RM	Cadmium	7440-43-9	E440	0.153 mg/kg	77.1	70.0	130	---
	RM	Calcium	7440-70-2	E440	2010 mg/kg	79.5	70.0	130	---
	RM	Cesium	7440-46-2	E440	0.0889 mg/kg	78.7	70.0	130	---
	RM	Chromium	7440-47-3	E440	0.453 mg/kg	94.9	70.0	130	---
	RM	Cobalt	7440-48-4	E440	0.0567 mg/kg	88.0	65.0	135	---
	RM	Copper	7440-50-8	E440	3.3 mg/kg	80.1	70.0	130	---
	RM	Iron	7439-89-6	E440	102 mg/kg	77.9	70.0	130	---
	RM	Lead	7439-92-1	E440	0.058 mg/kg	89.4	70.0	130	---
	RM	Magnesium	7439-95-4	E440	899 mg/kg	75.9	70.0	130	---
	RM	Manganese	7439-96-5	E440	0.948 mg/kg	82.6	70.0	130	---
	RM	Molybdenum	7439-98-7	E440	0.134 mg/kg	76.9	70.0	130	---
	RM	Nickel	7440-02-0	E440	0.33 mg/kg	92.8	40.0	160	---
	RM	Phosphorus	7723-14-0	E440	6700 mg/kg	80.8	70.0	130	---
	RM	Potassium	7440-09-7	E440	11600 mg/kg	81.4	70.0	130	---
	RM	Rubidium	7440-17-7	E440	2.53 mg/kg	80.6	70.0	130	---
	RM	Selenium	7782-49-2	E440	2.48 mg/kg	79.9	70.0	130	---
	RM	Sodium	7440-23-5	E440	9620 mg/kg	79.5	70.0	130	---
	RM	Strontium	7440-24-6	E440	10.6 mg/kg	80.1	70.0	130	---
	RM	Vanadium	7440-62-2	E440	0.269 mg/kg	72.4	70.0	130	---
	RM	Zinc	7440-66-6	E440	28.7 mg/kg	81.3	70.0	130	---
Metals (QCLot: 1269897)									
	RM	Silver	7440-22-4	E440.Ag	0.139 mg/kg	81.4	70.0	130	---
Metals (QCLot: 1269898)									



Sub-Matrix:

Laboratory sample ID	Reference Material ID	Analyte	CAS Number	Method	Reference Material (RM) Report				
					RM Target Concentration	Recovery (%) RM	Recovery Limits (%)		Qualifier
							Low	High	
Metals (QCLot: 1269898) - continued									
	RM	Mercury	7439-97-6	E510A	0.281 mg/kg wwt	92.8	70.0	130	---
Metals (QCLot: 1269899)									
	RM	Mercury	7439-97-6	E510	0.281 mg/kg	92.8	70.0	130	---
Metals (QCLot: 1269900)									
	RM	Titanium	7440-32-6	E440.Ti	1.15 mg/kg	# 61.9	70.0	130	LCS-L
Metals (QCLot: 1272160)									
	RM	Silver	7440-22-4	E472.Ag	0.139 mg/kg	93.0	70.0	130	---
Metals (QCLot: 1272161)									
	RM	Titanium	7440-32-6	E472.Ti	1.15 mg/kg	80.3	70.0	130	---
Metals (QCLot: 1272162)									
	RM	Mercury	7439-97-6	E511	0.281 mg/kg	99.0	70.0	130	---
Metals (QCLot: 1272163)									
	RM	Mercury	7439-97-6	E511A	0.281 mg/kg wwt	99.0	70.0	130	---
Metals (QCLot: 1272164)									
	RM	Aluminum	7429-90-5	E472	147 mg/kg	94.3	70.0	130	---
	RM	Arsenic	7440-38-2	E472	14.5 mg/kg	91.6	70.0	130	---
	RM	Barium	7440-39-3	E472	0.352 mg/kg	87.0	70.0	130	---
	RM	Boron	7440-42-8	E472	3.47 mg/kg	92.9	70.0	130	---
	RM	Cadmium	7440-43-9	E472	0.153 mg/kg	85.6	70.0	130	---
	RM	Calcium	7440-70-2	E472	2010 mg/kg	84.3	70.0	130	---
	RM	Cesium	7440-46-2	E472	0.0889 mg/kg	92.1	70.0	130	---
	RM	Chromium	7440-47-3	E472	0.453 mg/kg	88.3	50.0	150	---
	RM	Cobalt	7440-48-4	E472	0.0567 mg/kg	95.3	65.0	135	---
	RM	Copper	7440-50-8	E472	3.3 mg/kg	87.4	70.0	130	---
	RM	Iron	7439-89-6	E472	102 mg/kg	89.8	70.0	130	---
	RM	Lead	7439-92-1	E472	0.058 mg/kg	97.1	15.0	185	---
	RM	Magnesium	7439-95-4	E472	899 mg/kg	91.5	70.0	130	---
	RM	Manganese	7439-96-5	E472	0.948 mg/kg	90.6	70.0	130	---
	RM	Molybdenum	7439-98-7	E472	0.134 mg/kg	90.6	70.0	130	---
	RM	Nickel	7440-02-0	E472	0.33 mg/kg	100.0	40.0	160	---
	RM	Phosphorus	7723-14-0	E472	6700 mg/kg	94.6	70.0	130	---
	RM	Potassium	7440-09-7	E472	11600 mg/kg	91.0	70.0	130	---



Sub-Matrix:

Laboratory sample ID	Reference Material ID	Analyte	CAS Number	Method	Reference Material (RM) Report				
					RM Target Concentration	Recovery (%) RM	Recovery Limits (%)		Qualifier
							Low	High	
Metals (QCLot: 1272164) - continued									
	RM	Rubidium	7440-17-7	E472	2.53 mg/kg	91.8	70.0	130	----
	RM	Selenium	7782-49-2	E472	2.48 mg/kg	91.8	70.0	130	----
	RM	Sodium	7440-23-5	E472	9620 mg/kg	88.5	70.0	130	----
	RM	Strontium	7440-24-6	E472	10.6 mg/kg	89.1	70.0	130	----
	RM	Vanadium	7440-62-2	E472	0.269 mg/kg	89.5	70.0	130	----
	RM	Zinc	7440-66-6	E472	28.7 mg/kg	91.4	70.0	130	----
Metals (QCLot: 1272272)									
	RM	Silver	7440-22-4	E472.Ag	0.139 mg/kg	95.6	70.0	130	----
Metals (QCLot: 1272273)									
	RM	Titanium	7440-32-6	E472.Ti	1.15 mg/kg	89.6	70.0	130	----
Metals (QCLot: 1272274)									
	RM	Mercury	7439-97-6	E511	0.281 mg/kg	102	70.0	130	----
Metals (QCLot: 1272275)									
	RM	Mercury	7439-97-6	E511A	0.281 mg/kg wwt	102	70.0	130	----
Metals (QCLot: 1272276)									
	RM	Aluminum	7429-90-5	E472	147 mg/kg	103	70.0	130	----
	RM	Arsenic	7440-38-2	E472	14.5 mg/kg	98.7	70.0	130	----
	RM	Barium	7440-39-3	E472	0.352 mg/kg	106	70.0	130	----
	RM	Boron	7440-42-8	E472	3.47 mg/kg	105	70.0	130	----
	RM	Cadmium	7440-43-9	E472	0.153 mg/kg	94.7	70.0	130	----
	RM	Calcium	7440-70-2	E472	2010 mg/kg	115	70.0	130	----
	RM	Cesium	7440-46-2	E472	0.0889 mg/kg	92.3	70.0	130	----
	RM	Chromium	7440-47-3	E472	0.453 mg/kg	96.9	50.0	150	----
	RM	Cobalt	7440-48-4	E472	0.0567 mg/kg	100	65.0	135	----
	RM	Copper	7440-50-8	E472	3.3 mg/kg	94.0	70.0	130	----
	RM	Iron	7439-89-6	E472	102 mg/kg	99.7	70.0	130	----
	RM	Lead	7439-92-1	E472	0.058 mg/kg	98.0	15.0	185	----
	RM	Magnesium	7439-95-4	E472	899 mg/kg	99.9	70.0	130	----
	RM	Manganese	7439-96-5	E472	0.948 mg/kg	105	70.0	130	----
	RM	Molybdenum	7439-98-7	E472	0.134 mg/kg	94.1	70.0	130	----
	RM	Nickel	7440-02-0	E472	0.33 mg/kg	90.1	40.0	160	----
	RM	Phosphorus	7723-14-0	E472	6700 mg/kg	107	70.0	130	----



Sub-Matrix:

Laboratory sample ID	Reference Material ID	Analyte	CAS Number	Method	Reference Material (RM) Report				
					RM Target Concentration	Recovery (%) RM	Recovery Limits (%)		Qualifier
							Low	High	
Metals (QCLot: 1272276) - continued									
	RM	Potassium	7440-09-7	E472	11600 mg/kg	102	70.0	130	----
	RM	Rubidium	7440-17-7	E472	2.53 mg/kg	106	70.0	130	----
	RM	Selenium	7782-49-2	E472	2.48 mg/kg	101	70.0	130	----
	RM	Sodium	7440-23-5	E472	9620 mg/kg	97.2	70.0	130	----
	RM	Strontium	7440-24-6	E472	10.6 mg/kg	99.1	70.0	130	----
	RM	Vanadium	7440-62-2	E472	0.269 mg/kg	99.4	70.0	130	----
	RM	Zinc	7440-66-6	E472	28.7 mg/kg	102	70.0	130	----
Metals (QCLot: 1275094)									
	RM	Silver	7440-22-4	E475.Ag	0.139 mg/kg	86.9	70.0	130	----
Metals (QCLot: 1275095)									
	RM	Titanium	7440-32-6	E475.Ti	1.15 mg/kg	76.0	70.0	130	----
Metals (QCLot: 1275096)									
	RM	Mercury	7439-97-6	E512	0.281 mg/kg	95.9	70.0	130	----
Metals (QCLot: 1275097)									
	RM	Mercury	7439-97-6	E512A	0.281 mg/kg wwt	95.9	70.0	130	----
Metals (QCLot: 1275098)									
	RM	Aluminum	7429-90-5	E475	147 mg/kg	79.2	70.0	130	----
	RM	Arsenic	7440-38-2	E475	14.5 mg/kg	90.5	70.0	130	----
	RM	Barium	7440-39-3	E475	0.352 mg/kg	77.3	70.0	130	----
	RM	Boron	7440-42-8	E475	3.47 mg/kg	89.7	70.0	130	----
	RM	Cadmium	7440-43-9	E475	0.153 mg/kg	85.2	70.0	130	----
	RM	Calcium	7440-70-2	E475	2010 mg/kg	81.4	70.0	130	----
	RM	Cesium	7440-46-2	E475	0.0889 mg/kg	88.0	70.0	130	----
	RM	Chromium	7440-47-3	E475	0.453 mg/kg	74.1	50.0	150	----
	RM	Cobalt	7440-48-4	E475	0.0567 mg/kg	85.0	65.0	135	----
	RM	Copper	7440-50-8	E475	3.3 mg/kg	84.0	70.0	130	----
	RM	Iron	7439-89-6	E475	102 mg/kg	85.8	70.0	130	----
	RM	Lead	7439-92-1	E475	0.058 mg/kg	88.1	15.0	185	----
	RM	Magnesium	7439-95-4	E475	899 mg/kg	81.9	70.0	130	----
	RM	Manganese	7439-96-5	E475	0.948 mg/kg	83.8	70.0	130	----
	RM	Molybdenum	7439-98-7	E475	0.134 mg/kg	84.3	70.0	130	----
	RM	Nickel	7440-02-0	E475	0.33 mg/kg	76.6	40.0	160	----



Sub-Matrix:

Laboratory sample ID	Reference Material ID	Analyte	CAS Number	Method	Reference Material (RM) Report				
					RM Target Concentration	Recovery (%) RM	Recovery Limits (%)		Qualifier
							Low	High	
Metals (QCLot: 1275098) - continued									
	RM	Phosphorus	7723-14-0	E475	6700 mg/kg	88.8	70.0	130	----
	RM	Potassium	7440-09-7	E475	11600 mg/kg	88.4	70.0	130	----
	RM	Rubidium	7440-17-7	E475	2.53 mg/kg	87.5	70.0	130	----
	RM	Selenium	7782-49-2	E475	2.48 mg/kg	91.4	70.0	130	----
	RM	Sodium	7440-23-5	E475	9620 mg/kg	84.7	70.0	130	----
	RM	Strontium	7440-24-6	E475	10.6 mg/kg	84.2	70.0	130	----
	RM	Vanadium	7440-62-2	E475	0.269 mg/kg	82.1	70.0	130	----
	RM	Zinc	7440-66-6	E475	28.7 mg/kg	89.2	70.0	130	----

Qualifiers

Qualifier	Description
LCS-L	Lab Control Sample recovery was below ALS DQO. Reference Material and/or Matrix Spike results were acceptable. Non-detected sample results are considered reliable. Other results, if reported, have been qualified.



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Affix ALS barcode label here (lab use only)

COC Number 15 -

Page 1 of 3

Contact and company name below will appear on the final report

Report Format / Distribution

Select Service Level Below - Please confirm all S&D TATs with your AM - surcharges will apply

Company:	Mount Foley Mining Corporation	Select Report Format:	<input type="checkbox"/> PDF <input type="checkbox"/> Excel <input type="checkbox"/> Storyboard
Contact:	Gabriel Holmes	Quality Control (QC) Report with Report	<input type="checkbox"/> YES <input type="checkbox"/> NO
Phone:	236-317-4839	<input type="checkbox"/> Compare Results to Criteria on Report - provide details below if box checked	
Company address below will appear on the final report		Select Distribution:	<input type="checkbox"/> EMAIL <input type="checkbox"/> MAIL <input type="checkbox"/> FAX
Street:	PO Box 12	Email 1 or Fax:	khalchiar@minnow.ca
City/Province:	LEguy, BC	Email 2:	gabrielholmes@mountfoley.com
Postal Code:	V0L 1N0	Email 3:	shime@minnow.ca shime.dorsemon@minnow.ca
Invoice To:	Same as Report To	Invoice Distribution:	<input type="checkbox"/> YES <input type="checkbox"/> NO
Copy of Invoice with Report:	<input type="checkbox"/> YES <input type="checkbox"/> NO	Select Invoice Distribution:	<input checked="" type="checkbox"/> EMAIL <input type="checkbox"/> MAIL <input type="checkbox"/> FAX
Company:		Email 1 or Fax:	gabriel.holmes@mountfoley.com
Contact:		Email 2:	

ALS Account # / Quide #	VA22-MPMC100-002	ALS Contact:	Gas Dang	Sampler:	PE, JBT
Job #		AF/ECST Center		Date	(dd-mm-yy)
PO / AFE		Magellan/Coils		Time	(hh:mm)
LSD:		Requisitioner:		Sample Type	
ALS Lab Work Order # (lab use only)	41824	Location:			

ALS Sample # (lab use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mm-yy)	Time (hh:mm)	Sample Type	Moisture Content by Gravimetry (E144)	Mercury in Biota by CVAAS (DRY units, Routine) (E510)	Mercury in Biota by CVAAS (WET units, Routine) (E510A)	Metals in Biota by CRC ICPCS (DRY units, Routine) (E440)	Silver in Biota by CRC ICPCS (DRY units, Routine) (E440 Ag)	Titanium in Biota by CRC ICPCS (DRY units, Routine) (E440 Ti)
1	QUR_RB-M-1_2023-10	1-Oct-23	-	Tissue	R	R	R	R	R	R
2	QUR_RB-M-2_2023-10	1-Oct-23	-	Tissue	R	R	R	R	R	R
3	QUR_RB-M-3_2023-10	1-Oct-23	-	Tissue	R	R	R	R	R	R
4	QUR_RB-M-4_2023-10	1-Oct-23	-	Tissue	R	R	R	R	R	R
5	QUR_RB-M-5_2023-10	1-Oct-23	-	Tissue	R	R	R	R	R	R
6	QUR_RB-M-6_2023-10	1-Oct-23	-	Tissue	R	R	R	R	R	R
7	QUR_RB-M-7_2023-10	1-Oct-23	-	Tissue	R	R	R	R	R	R
8	QUR_RB-M-8_2023-10	1-Oct-23	-	Tissue	R	R	R	R	R	R
9	QUR_RB-L-1_2023-10	1-Oct-23	-	Tissue	R	R	R	R	R	R
10	QUR_RB-L-2_2023-10	1-Oct-23	-	Tissue	R	R	R	R	R	R
11	QUR_RB-L-3_2023-10	1-Oct-23	-	Tissue	R	R	R	R	R	R
12	QUR_RB-L-4_2023-10	1-Oct-23	-	Tissue	R	R	R	R	R	R

Drinking Water (DW) Samples (client use)	Special Instructions / Specify Criteria to add on report by clicking on the drop-down list below (electronic COC only)
Are samples taken from a Regulated DW System?	<input type="checkbox"/> YES <input type="checkbox"/> NO
Are samples for human drinking water use?	<input type="checkbox"/> YES <input type="checkbox"/> NO

SHIPMENT RELEASE (client use)	INITIAL SHIPMENT RECEPTION (lab use only)
Released by: <i>Shime</i>	Received by: <i>AS</i>
Date: Oct 6, 2023	Date: <i>11/30</i>

REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION	WHITE - LABORATORY COPY	YELLOW - CLIENT COPY
Failure to complete all portions of this form may delay analysis. Please fill in this form LEGIBLY. By the use of this form the user acknowledges and agrees with the Terms and Conditions as specified on the back page of the white report copy.		
1. If any water samples are taken from a Regulated Drinking Water (DW) System, please submit using an Authorized DW COC form.		

DATE AND TIME REQUIRED FOR ALL EXP. TATS:	REGULAR (R)	STANDARD (S)	EXPRESS (E)
4 day (P4)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3 day (P3)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2 day (P2)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
EMERGENCY	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1 Business day (E1)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Same Day, Weekend or Statutory holiday (E0)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

FOR USE THAT CAN NOT BE PERFORMED ACCORDING TO THE SERVICE LEVEL SPECIFIED	ANALYSIS REQUEST
Indicate Filtered (F), Preserved (P) or Filtered and Preserved	

SAMPLE CONDITION AS RECEIVED (lab use only)	FINAL SHIPMENT RECEPTION (lab use only)
Frozen <input type="checkbox"/>	Received by: <i>AS</i>
Ice Packs <input checked="" type="checkbox"/>	Date: <i>11/30</i>
Cooling Initiated <input type="checkbox"/>	
SIF Observations Yes <input type="checkbox"/> No <input type="checkbox"/>	
Custom seal intact Yes <input type="checkbox"/> No <input type="checkbox"/>	



Environmental Division
Vancouver
Work Order Reference
VA23C4184

Telephone : +1 604 263 4188



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Affix ALS barcode label here (lab use only)

COC Number: 15 -

Page 2 of 3

Contact and company name below will appear on the final report

Report Format / Distribution

Select Service Level Below - Please confirm all ESP TATs with your AM - surcharges will apply

Company	Mount Policy Mining Corporation	Report Format	PDF <input checked="" type="checkbox"/> EXCEL <input type="checkbox"/> EBC (Client's)
Contact	Gabriel Holmes	Quantity Control (COC) Report with Report	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
Phone	236-317-4839	Compare Results to Client on Report - provide details below if box checked	<input type="checkbox"/>
Company address below will appear on the final report			
Street	P.O. Box 12	Select Distribution	<input checked="" type="checkbox"/> EMAIL <input type="checkbox"/> MAIL <input type="checkbox"/> FAX
City/Province	Timber Lake, BC	Email 1 or Fax	khatchelar@minnow.ca
Postal Code	V0L 1N0	Email 2	gabriel.holmes@mountpolicy.com
Invoice To	Same as Report To	Email 3	skalmer@minnow.ca; simone.derosiermont@minnow.ca
Company	Copy of Invoice with Report	Invoice Distribution	<input checked="" type="checkbox"/> EMAIL <input type="checkbox"/> MAIL <input type="checkbox"/> FAX
Contact	<input type="checkbox"/> YES <input type="checkbox"/> NO	Select Invoice Distribution	<input checked="" type="checkbox"/> EMAIL <input type="checkbox"/> MAIL <input type="checkbox"/> FAX
Project Information			
ALS Account # / Quote #	VA22-M/PMC100-002	Oil and Gas Required Fields (client use)	
Job #		PC#	
PO / AFE		Manufacturer Code	
LSI		Requisitioner	
		Location	

ALS Sample # (lab use only)	Sample Identification and/or Coordinates (This description will appear on the report)	ALS Contact:	Can Dang	Sampler:	Date (dd-mm-yy)	Time (hh:mm)	Sample Type	Moisture Content by Gravimetry (E144)	Mercury in Biota by CVAAS (DRY units Routine) (E510)	Mercury in Biota by CVAAS (WET units, Routine) (E510A)	Metals in Biota by CRC ICPMS (DRY units, Routine) (E440)	Silver in Biota by CRC ICPMS (DRY units, Routine) (E440 Ag)	Titanium in Biota by CRC ICPMS (DRY units, Routine) (E440 Ti)	Number of Containers
13	QUR_RB-U-6_2023-10				1-Oct-23		Tissue							1
14	QUR_RB-U-6_2023-10				1-Oct-23		Tissue							1
15	QUR_RB-U-7_2023-10				2-Oct-23		Tissue							1
16	QUR_RB-U-8_2023-10				2-Oct-23		Tissue							1
17	QUR_RB-K1_2023-10				1-Oct-23		Tissue							1
18	QUR_RB-K1_2_2023-10				1-Oct-23		Tissue							1
19	QUR_RB-K1_3_2023-10				1-Oct-23		Tissue							1
20	QUR_RB-K1_4_2023-10				1-Oct-23		Tissue							1
21	QUR_RB-K1_5_2023-10				1-Oct-23		Tissue							1
22	QUR_RB-K1_6_2023-10				1-Oct-23		Tissue							1
23	QUR_RB-K1_7_2023-10				1-Oct-23		Tissue							1
24	QUR_RB-K1_8_2023-10				2-Oct-23		Tissue							1

Drinking Water (DW) Samples (client use)

Are samples taken from a Regulated DW System? YES NO

Are samples for human drinking water use? YES NO

Special Instructions / Specify Criteria to add on report by clicking on the drop-down list below (electronic COC only)

Shipping Water (DW) Samples (client use)

SHIPMENT RELEASE (client use) Date: Oct 6, 2023

Time: 1:30

Received By: INITIAL SHIPMENT RECEPTION (lab use only) Date: _____

Time: _____

Received By: FINAL SHIPMENT RECEPTION (lab use only) Date: OCT 11 2023

Time: 1:30

For tests that can not be performed according to the service level selected, you will be contacted.

Analysis Request

Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below

Regular (R) Standard (S) Expedited (E) Same Day (SD) (lab use only)

4 day (P4) 3 day (P3) 2 day (P2)

EMERGENCY

1 Business day (E1) Same Day Weekend or Statutory holiday (E0)

Date and Time Required for all ESP TATs:

Moisture Content by Gravimetry (E144)

Mercury in Biota by CVAAS (DRY units Routine) (E510)

Mercury in Biota by CVAAS (WET units, Routine) (E510A)

Metals in Biota by CRC ICPMS (DRY units, Routine) (E440)

Silver in Biota by CRC ICPMS (DRY units, Routine) (E440 Ag)

Titanium in Biota by CRC ICPMS (DRY units, Routine) (E440 Ti)

Number of Containers

White - Laboratory Copy Yellow - Client Copy

REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION

Failure to complete all portions of this form may delay analysis. Please fill in this form LEGIBLY. By the use of this form the user acknowledges and agrees with the Terms and Conditions as specified on the back page of the white report copy.

1. If any water samples are taken from a Regulated Drinking Water (DW) System, please submit using an Authorized DW COC form.

DRINKING WATER (DW) SAMPLES (CLIENT USE)

SHIPMENT RELEASE (CLIENT USE)

DATE: OCT 6, 2023

TIME: 1:30

RECEIVED BY: INITIAL SHIPMENT RECEPTION (LAB USE ONLY)

DATE: _____

TIME: _____

RECEIVED BY: FINAL SHIPMENT RECEPTION (LAB USE ONLY)

DATE: OCT 11 2023

TIME: 1:30

FOR TESTS THAT CAN NOT BE PERFORMED ACCORDING TO THE SERVICE LEVEL SELECTED, YOU WILL BE CONTACTED.

ANALYSIS REQUEST

INDICATE FILTERED (F), PRESERVED (P) OR FILTERED AND PRESERVED (F/P) BELOW

REGULAR (R) STANDARD (S) EXPEDITED (E) SAME DAY (SD) (LAB USE ONLY)

4 DAY (P4) 3 DAY (P3) 2 DAY (P2)

EMERGENCY

1 BUSINESS DAY (E1) SAME DAY WEEKEND OR STATUTORY HOLIDAY (E0)

DATE AND TIME REQUIRED FOR ALL ESP TATs:

MOISTURE CONTENT BY GRAVIMETRY (E144)

MERCURY IN BIOTA BY CVAAS (DRY UNITS ROUTINE) (E510)

MERCURY IN BIOTA BY CVAAS (WET UNITS, ROUTINE) (E510A)

METALS IN BIOTA BY CRC ICPMS (DRY UNITS, ROUTINE) (E440)

SILVER IN BIOTA BY CRC ICPMS (DRY UNITS, ROUTINE) (E440 AG)

TITANIUM IN BIOTA BY CRC ICPMS (DRY UNITS, ROUTINE) (E440 TI)

NUMBER OF CONTAINERS



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Affix ALS barcode label here (lab use only)

COC Number 15 - Page 3 of 3

Canada Toll Free: 1 800 668 9878

Contact and company name below will appear on the final report

Report Format / Distribution

Select Service Level Below. Please confirm all Exp. TAT's with your AV - surcharges will apply

Company:	Mical-Baylor-Helmig-Operations	Quality Control (QC) Report with Report	<input type="checkbox"/> YES <input type="checkbox"/> NO
Contact:	Gabriel Holmes	Compare Results to Criteria on Report - provide details below if box checked	<input type="checkbox"/> YES <input type="checkbox"/> NO
Phone:	236-317-4938	Select Distribution	<input checked="" type="checkbox"/> EMAIL <input type="checkbox"/> MAIL <input type="checkbox"/> FAX
Street:	P.O. Box 12	Email 1 or Fax	<input type="checkbox"/> KRoach@minnow.ca
City/Province:	Abby, BC	Email 2	<input type="checkbox"/> gabriel.holmes@minnow.ca
Postal Code:	V0L 1N0	Email 3	<input type="checkbox"/> alh@minnow.ca
Invoice To:	Same as Report To	Select Invoice Distribution:	<input type="checkbox"/> EMAIL <input checked="" type="checkbox"/> MAIL <input type="checkbox"/> FAX
Copy of Invoice with Report:	<input type="checkbox"/> YES <input type="checkbox"/> NO	Email 1 or Fax	<input type="checkbox"/> gabriel.holmes@minnow.ca
Company:		Email 2	
Contact:		Email 3	

ALS Account # / Quote #	VAA2-MPMC100-002	AF/AGS Center	PO#
Job #:		Major/Minor Code	Routing Code:
PO / A/E:		Requisition:	
LSI:		Location:	
ALS Lab Work Order # (lab use only)		ALS Contact:	Can Dating
Sample Identification and/or Coordinates (This description will appear on the report)		Date	Time
		(dd-mm-yy)	(h:mm)
			Sample Type

ALS Sample # (lab use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mm-yy)	Time (h:mm)	Sample Type	Moisture Content by Gravimetry (E144)	Mercury in Biota by CVAAS (DRY units, Routine) (E510)	Mercury in Biota by CVAAS (WET units, Routine) (E510A)	Metals in Biota by CRC ICPMS (DRY units, Routine) (E440)	Silver in Biota by CRC ICPMS (DRY units, Routine) (E440 Ag)	Titanium in Biota by CRC ICPMS (DRY units, Routine) (E440 Ti)	Number of Containers
25	QUR_RB-O-2_2023-10	1-Oct-23	-	Tissue	R	R	R	R	R	R	1
26	QUR_RB-O-3_2023-10	1-Oct-23	-	Tissue	R	R	R	R	R	R	1
27	QUR_RB-O-5_2023-10	1-Oct-23	-	Tissue	R	R	R	R	R	R	1
28	QUR_RB-O-6_2023-10	1-Oct-23	-	Tissue	R	R	R	R	R	R	1
29	QUR_RB-O-8_2023-10	1-Oct-23	-	Tissue	R	R	R	R	R	R	1
30	QUR_RB-M-2_X_2023-10	1-Oct-23	-	Tissue	R	R	R	R	R	R	1
31	QUR_RB-L-3_X_2023-10	1-Oct-23	-	Tissue	R	R	R	R	R	R	1
32	QUR_RB-K-3_X_2023-10	1-Oct-23	-	Tissue	R	R	R	R	R	R	1
33	QUR_RB-O-3_X_2023-10	1-Oct-23	-	Tissue	R	R	R	R	R	R	1

Drinking Water (DW) Samples ¹ (client use)	Special Instructions / Specify Criteria to add on report by clicking on the drop-down list below (electronic COC only)				
Are samples taken from a Regulated DW System? <input type="checkbox"/> YES <input type="checkbox"/> NO					
Are samples for human drinking water user? <input type="checkbox"/> YES <input type="checkbox"/> NO	If sample is insufficient for regular digestion and analysis, please contact kbochelar@minnow.ca or pslecko@minnow.ca to discuss analysis options.				
Released by: <i>S. Linnar</i>	Date: Oct-6-2023	Time: 7:30	Received by:	Date:	Time:
SHIPMENT RELEASE (client use)			INITIAL SHIPMENT RECEPTION (lab use only)		
REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION			WHITE - LABORATORY COPY YELLOW - CLIENT COPY		
Failure to complete all portions of this form may delay analysis. Please fill in this form LEGIBLY. By the use of this form the user acknowledges and agrees with the Terms and Conditions as specified on the back page of the white - report copy.			1. If any water samples are taken from a Regulated Drinking Water (DW) System, please submit using an Authorized DW COC form.		
SAMPLE CONDITION AS RECEIVED (lab use only)			INITIAL COOLER TEMPERATURES °C		
Frozen <input type="checkbox"/>			SIF Disinfectants Yes <input type="checkbox"/> No <input type="checkbox"/>		
Ice Packs <input type="checkbox"/>			Ice Cubes <input type="checkbox"/>		
Cooling Initiated <input type="checkbox"/>			Custody seal intact Yes <input type="checkbox"/> No <input type="checkbox"/>		
INITIAL SHIPMENT RECEPTION (lab use only)			FINAL SHIPMENT RECEPTION (lab use only)		
Date: OCT 11 2023			Date: OCT 11 2023		
Time: 11:30			Time: 11:30		

FISH TISSUE QUALITY

ALS Laboratory Report VA23C4190

(Finalized January 17, 2024)

CERTIFICATE OF ANALYSIS

Work Order : **VA23C4190**

Page : 1 of 61

Amendment : **1**

Client : **Mount Polley Mining Corporation**

Laboratory : ALS Environmental - Vancouver

Contact : Mr. Gabriel Holmes

Account Manager : Can Dang

Address : PO Box 12
Likely BC Canada V0L 1N0

Address : 8081 Lougheed Highway
Burnaby BC Canada V5A 1W9

Telephone : 250-790-2215 ext 2171

Telephone : +1 604 253 4188

Project : ----

Date Samples Received : 11-Oct-2023 11:30

PO : 5590012190

Date Analysis Commenced : 02-Dec-2023

C-O-C number : ----

Issue Date : 17-Jan-2024 17:45

Sampler : PLE, SLA

Site : ----

Quote number : VA22-MPMC100-002

No. of samples received : 127

No. of samples analysed : 107

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QC Interpretive report to assist with Quality Review and Sample Receipt Notification (SRN).

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

<i>Signatories</i>	<i>Position</i>	<i>Laboratory Department</i>
Aaron Jaurigue	Analsyt	Metals, Burnaby, British Columbia
Alex Thornton	Analyst	Metals, Burnaby, British Columbia
Angela Ren	Team Leader - Metals	Metals, Burnaby, British Columbia
Carla Vasquez	Lab Assistant	Metals, Burnaby, British Columbia
Kevin Duarte	Supervisor - Metals ICP Instrumentation	Metals, Burnaby, British Columbia
Kinny Wu	Lab Analyst	Metals, Burnaby, British Columbia
Maria Larrotta	Lab Assistant	Metals, Burnaby, British Columbia
Owen Cheng		Metals, Burnaby, British Columbia
Ragini Saini	Lab Assistant	Metals, Burnaby, British Columbia
Sam Silveira	Lab Assistant	Metals, Burnaby, British Columbia



General Comments

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Refer to the ALS Quality Control Interpretive report (QCI) for applicable references and methodology summaries. Reference methods may incorporate modifications to improve performance.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

Please refer to Quality Control Interpretive report (QCI) for information regarding Holding Time compliance.

Key : CAS Number: Chemical Abstracts Services number is a unique identifier assigned to discrete substances
LOR: Limit of Reporting (detection limit).

<i>Unit</i>	<i>Description</i>
%	percent
mg/kg	milligrams per kilogram
mg/kg wwt	milligrams per kilogram wet weight

<: less than.

>: greater than.

Surrogate: An analyte that is similar in behavior to target analyte(s), but that does not occur naturally in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery.

Test results reported relate only to the samples as received by the laboratory.

UNLESS OTHERWISE STATED on SRN or QCI Report, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

Workorder Comments

Amendment (17/01/2024): This report has been amended as a result of a request to change sample identification numbers for the samples ALS identify as VA23C4190-096 to -103.

All analysis results are as per the previous report.

Samples 41, 42, 47, 62, 73, 75, 77, 78, 79, 103: Contamination observed in method blank associated with these samples. Hg result may be biased high.

Qualifiers

<i>Qualifier</i>	<i>Description</i>
DLM	Detection Limit Adjusted due to sample matrix effects (e.g. chemical interference, colour, turbidity).
RRR	Refer to report comments for issues regarding this analysis.



Analytical Results

Sub-Matrix: Tissue

Client sample ID

(Matrix: Biota)

					QUL-NHC_NSC-WB-1_2023-09	QUL-NHC_NSC-WB-2_2023-09	QUL-NHC_NSC-WB-3_2023-09	QUL-NHC_NSC-WB-4_2023-09	QUL-NHC_NSC-WB-5_2023-09
Client sampling date / time					29-Sep-2023 00:00	29-Sep-2023 00:00	30-Sep-2023 00:00	30-Sep-2023 00:00	30-Sep-2023 00:00
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23C4190-001	VA23C4190-002	VA23C4190-003	VA23C4190-004	VA23C4190-005
					Result	Result	Result	Result	Result
Physical Tests									
Moisture	----	E144/VA	0.50	%	78.4	73.1	78.3	77.9	71.0
Metals									
Aluminum	7429-90-5	E440/VA	2.0	mg/kg	<2.0	2.0	4.8	<2.0	<2.0
Antimony	7440-36-0	E440/VA	0.010	mg/kg	<0.010	<0.010	<0.010	<0.010	<0.010
Arsenic	7440-38-2	E440/VA	0.020	mg/kg	0.078	0.049	0.191	0.091	0.249
Barium	7440-39-3	E440/VA	0.050	mg/kg	2.83	0.660	0.996	0.865	0.739
Beryllium	7440-41-7	E440/VA	0.010	mg/kg	<0.010	<0.010	<0.010	<0.010	<0.010
Bismuth	7440-69-9	E440/VA	0.010	mg/kg	<0.010	<0.010	<0.010	<0.010	<0.010
Boron	7440-42-8	E440/VA	1.0	mg/kg	<1.0	<1.0	<1.0	<1.0	<1.0
Cadmium	7440-43-9	E440/VA	0.0050	mg/kg	0.0866	0.0361	0.0698	0.111	0.0387
Calcium	7440-70-2	E440/VA	20	mg/kg	82100	15600	22000	14700	28800
Cesium	7440-46-2	E440/VA	0.0050	mg/kg	0.114	0.116	0.0559	0.0571	0.105
Chromium	7440-47-3	E440/VA	0.050	mg/kg	<0.050	<0.050	<0.050	<0.050	0.056
Cobalt	7440-48-4	E440/VA	0.020	mg/kg	0.042	0.046	0.310	0.112	0.021
Copper	7440-50-8	E440/VA	0.10	mg/kg	2.05	2.14	4.90	3.61	2.16
Iron	7439-89-6	E440/VA	3.0	mg/kg	39.4	28.9	51.8	56.8	21.5
Lead	7439-92-1	E440/VA	0.020	mg/kg	<0.020	<0.020	0.033	0.020	<0.020
Lithium	7439-93-2	E440/VA	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
Magnesium	7439-95-4	E440/VA	2.0	mg/kg	2570	1280	2780	1530	1470
Manganese	7439-96-5	E440/VA	0.050	mg/kg	15.2	3.59	8.63	4.39	5.77
Mercury	7439-97-6	E510/VA	0.0050	mg/kg	0.444	0.371	0.195	0.332	0.230
Mercury	7439-97-6	E510A/VA	0.0010	mg/kg wwt	0.0961	0.0997	0.0425	0.0733	0.0664
Molybdenum	7439-98-7	E440/VA	0.020	mg/kg	0.042	0.027	0.035	0.045	0.023
Nickel	7440-02-0	E440/VA	0.20	mg/kg	<0.20	<0.20	<0.20	<0.20	<0.20
Phosphorus	7723-14-0	E440/VA	10	mg/kg	54100	16600	22100	18400	23900
Potassium	7440-09-7	E440/VA	20	mg/kg	17800	13700	14700	17600	11900
Rubidium	7440-17-7	E440/VA	0.050	mg/kg	29.8	27.3	20.8	21.2	30.4
Selenium	7782-49-2	E440/VA	0.050	mg/kg	3.56	2.40	2.64	3.49	1.68
Silver	7440-22-4	E440.Ag/VA	0.0050	mg/kg	<0.0050	<0.0050	0.0086	<0.0050	<0.0050



Analytical Results

Sub-Matrix: Tissue

(Matrix: Biota)

					Client sample ID	QUL-NHC_NSC-WB-1_2023-09	QUL-NHC_NSC-WB-2_2023-09	QUL-NHC_NSC-WB-3_2023-09	QUL-NHC_NSC-WB-4_2023-09	QUL-NHC_NSC-WB-5_2023-09
					Client sampling date / time	29-Sep-2023 00:00	29-Sep-2023 00:00	30-Sep-2023 00:00	30-Sep-2023 00:00	30-Sep-2023 00:00
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23C4190-001	VA23C4190-002	VA23C4190-003	VA23C4190-004	VA23C4190-005	
					Result	Result	Result	Result	Result	
Metals										
Sodium	7440-23-5	E440/VA	20	mg/kg	3060	2140	2720	2870	2210	
Strontium	7440-24-6	E440/VA	0.050	mg/kg	103	21.6	35.6	24.0	43.2	
Tellurium	13494-80-9	E440/VA	0.020	mg/kg	<0.020	<0.020	<0.020	<0.020	<0.020	
Thallium	7440-28-0	E440/VA	0.0020	mg/kg	0.0069	0.0044	0.0161	0.0086	0.0107	
Tin	7440-31-5	E440/VA	0.10	mg/kg	<0.10	<0.10	<0.10	<0.10	<0.10	
Titanium	7440-32-6	E440.Ti/VA	0.25	mg/kg	<0.25	<0.25	<0.50 ^{DLM}	<0.25	<0.25	
Uranium	7440-61-1	E440/VA	0.0020	mg/kg	0.0066	0.0022	0.0026	0.0034	0.0021	
Vanadium	7440-62-2	E440/VA	0.10	mg/kg	<0.10	<0.10	<0.10	<0.10	<0.10	
Zinc	7440-66-6	E440/VA	0.50	mg/kg	131	77.8	122	92.1	88.9	
Zirconium	7440-67-7	E440/VA	0.20	mg/kg	<0.20	<0.20	<0.20	<0.20	<0.20	

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.



Analytical Results

Sub-Matrix: Tissue

Client sample ID

(Matrix: Biota)

					QUL-NHC_NSC-WB-6_2023-09	QUL-NHC_NSC-WB-7_2023-09	QUL-NHC_NSC-WB-8_2023-09	QUL-NGC_NSC-WB-1_2023-09	QUL-NGC_NSC-WB-2_2023-09
Client sampling date / time					30-Sep-2023 00:00	30-Sep-2023 00:00	30-Sep-2023 00:00	29-Sep-2023 00:00	29-Sep-2023 00:00
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23C4190-006	VA23C4190-007	VA23C4190-008	VA23C4190-009	VA23C4190-010
					Result	Result	Result	Result	Result
Physical Tests									
Moisture	---	E144/VA	0.50	%	76.1	75.0	73.3	74.0	75.8
Metals									
Aluminum	7429-90-5	E440/VA	2.0	mg/kg	2.6	<2.0	<2.0	<2.0	16.8
Antimony	7440-36-0	E440/VA	0.010	mg/kg	<0.010	<0.010	<0.010	<0.010	<0.010
Arsenic	7440-38-2	E440/VA	0.020	mg/kg	0.087	0.051	0.055	0.096	0.068
Barium	7440-39-3	E440/VA	0.050	mg/kg	1.21	0.460	1.06	0.662	0.830
Beryllium	7440-41-7	E440/VA	0.010	mg/kg	<0.010	<0.010	<0.010	<0.010	<0.010
Bismuth	7440-69-9	E440/VA	0.010	mg/kg	<0.010	<0.010	<0.010	<0.010	<0.010
Boron	7440-42-8	E440/VA	1.0	mg/kg	<1.0	<1.0	<1.0	<1.0	<1.0
Cadmium	7440-43-9	E440/VA	0.0050	mg/kg	0.0309	0.0494	0.0552	0.0344	0.0223
Calcium	7440-70-2	E440/VA	20	mg/kg	23400	19200	34100	17100	34200
Cesium	7440-46-2	E440/VA	0.0050	mg/kg	0.0233	0.156	0.150	0.120	0.194
Chromium	7440-47-3	E440/VA	0.050	mg/kg	<0.050	<0.050	0.068	<0.050	0.062
Cobalt	7440-48-4	E440/VA	0.020	mg/kg	0.369	0.041	0.044	0.037	0.082
Copper	7440-50-8	E440/VA	0.10	mg/kg	4.73	2.73	2.16	3.24	2.02
Iron	7439-89-6	E440/VA	3.0	mg/kg	44.0	46.2	37.7	38.3	73.4
Lead	7439-92-1	E440/VA	0.020	mg/kg	<0.020	<0.020	<0.020	<0.020	<0.020
Lithium	7439-93-2	E440/VA	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
Magnesium	7439-95-4	E440/VA	2.0	mg/kg	3200	1430	1630	1320	1660
Manganese	7439-96-5	E440/VA	0.050	mg/kg	14.2	3.96	5.55	3.45	6.91
Mercury	7439-97-6	E510/VA	0.0050	mg/kg	0.266	0.309	0.280	0.263	0.374
Mercury	7439-97-6	E510A/VA	0.0010	mg/kg wwt	0.0638	0.0771	0.0748	0.0682	0.0905
Molybdenum	7439-98-7	E440/VA	0.020	mg/kg	0.039	0.037	0.031	0.034	0.037
Nickel	7440-02-0	E440/VA	0.20	mg/kg	<0.20	<0.20	<0.20	<0.20	<0.20
Phosphorus	7723-14-0	E440/VA	10	mg/kg	22600	19700	28100	17800	27700
Potassium	7440-09-7	E440/VA	20	mg/kg	15200	16400	14500	13600	15300
Rubidium	7440-17-7	E440/VA	0.050	mg/kg	9.89	35.1	25.0	25.1	35.1
Selenium	7782-49-2	E440/VA	0.050	mg/kg	3.67	2.79	3.35	2.73	1.94
Silver	7440-22-4	E440.Ag/VA	0.0050	mg/kg	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Sodium	7440-23-5	E440/VA	20	mg/kg	2710	2650	2160	2390	3030



Analytical Results

Sub-Matrix: Tissue

(Matrix: Biota)

					Client sample ID	QUL-NHC_NSC-WB-6_2023-09	QUL-NHC_NSC-WB-7_2023-09	QUL-NHC_NSC-WB-8_2023-09	QUL-NGC_NSC-WB-1_2023-09	QUL-NGC_NSC-WB-2_2023-09
					Client sampling date / time	30-Sep-2023 00:00	30-Sep-2023 00:00	30-Sep-2023 00:00	29-Sep-2023 00:00	29-Sep-2023 00:00
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23C4190-006	VA23C4190-007	VA23C4190-008	VA23C4190-009	VA23C4190-010	
					Result	Result	Result	Result	Result	
Metals										
Strontium	7440-24-6	E440/VA	0.050	mg/kg	40.6	30.3	46.0	26.8	57.6	
Tellurium	13494-80-9	E440/VA	0.020	mg/kg	<0.020	<0.020	<0.020	<0.020	<0.020	
Thallium	7440-28-0	E440/VA	0.0020	mg/kg	0.0092	0.0082	0.0076	0.0077	0.0054	
Tin	7440-31-5	E440/VA	0.10	mg/kg	<0.10	<0.10	<0.10	<0.10	<0.10	
Titanium	7440-32-6	E440.Ti/VA	0.25	mg/kg	<0.25	<0.25	<0.25	<0.25	3.22	
Uranium	7440-61-1	E440/VA	0.0020	mg/kg	<0.0020	0.0052	0.0021	0.0072	0.0097	
Vanadium	7440-62-2	E440/VA	0.10	mg/kg	<0.10	<0.10	<0.10	<0.10	<0.10	
Zinc	7440-66-6	E440/VA	0.50	mg/kg	118	68.7	98.6	90.2	88.6	
Zirconium	7440-67-7	E440/VA	0.20	mg/kg	<0.20	<0.20	<0.20	<0.20	<0.20	

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.



Analytical Results

Sub-Matrix: Tissue

Client sample ID

(Matrix: Biota)

					QUL-NGC_NSC-WB-3_2023-09	QUL-NGC_NSC-WB-4_2023-09	QUL-NGC_NSC-WB-5_2023-09	QUL-NGC_NSC-WB-6_2023-09	QUL-NGC_NSC-WB-7_2023-09
Client sampling date / time					29-Sep-2023 00:00	29-Sep-2023 00:00	29-Sep-2023 00:00	29-Sep-2023 00:00	29-Sep-2023 00:00
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23C4190-011	VA23C4190-012	VA23C4190-013	VA23C4190-014	VA23C4190-015
					Result	Result	Result	Result	Result
Physical Tests									
Moisture	---	E144/VA	0.50	%	75.9	73.8	77.8	71.5	75.4
Metals									
Aluminum	7429-90-5	E440/VA	2.0	mg/kg	<2.0	<2.0	<2.0	<2.0	<2.0
Antimony	7440-36-0	E440/VA	0.010	mg/kg	<0.010	<0.010	<0.010	<0.010	<0.010
Arsenic	7440-38-2	E440/VA	0.020	mg/kg	0.055	0.038	0.027	0.168	0.077
Barium	7440-39-3	E440/VA	0.050	mg/kg	0.927	0.757	1.14	0.353	0.480
Beryllium	7440-41-7	E440/VA	0.010	mg/kg	<0.010	<0.010	<0.010	<0.010	<0.010
Bismuth	7440-69-9	E440/VA	0.010	mg/kg	<0.010	<0.010	<0.010	<0.010	<0.010
Boron	7440-42-8	E440/VA	1.0	mg/kg	<1.0	<1.0	<1.0	<1.0	<1.0
Cadmium	7440-43-9	E440/VA	0.0050	mg/kg	0.0836	0.0254	0.0325	0.0216	0.0436
Calcium	7440-70-2	E440/VA	20	mg/kg	31300	24600	40500	9630	11900
Cesium	7440-46-2	E440/VA	0.0050	mg/kg	0.0934	0.144	0.0716	0.138	0.161
Chromium	7440-47-3	E440/VA	0.050	mg/kg	0.078	<0.050	0.076	0.082	<0.050
Cobalt	7440-48-4	E440/VA	0.020	mg/kg	0.087	0.075	0.056	0.048	0.282
Copper	7440-50-8	E440/VA	0.10	mg/kg	3.50	2.59	3.13	2.12	2.47
Iron	7439-89-6	E440/VA	3.0	mg/kg	62.5	41.2	53.7	26.1	49.6
Lead	7439-92-1	E440/VA	0.020	mg/kg	<0.020	<0.020	<0.020	<0.020	<0.020
Lithium	7439-93-2	E440/VA	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
Magnesium	7439-95-4	E440/VA	2.0	mg/kg	1690	1410	1860	1060	1180
Manganese	7439-96-5	E440/VA	0.050	mg/kg	7.08	6.30	8.58	1.49	3.23
Mercury	7439-97-6	E510/VA	0.0050	mg/kg	0.266	0.334	0.315	0.355	0.599
Mercury	7439-97-6	E510A/VA	0.0010	mg/kg ww	0.0643	0.0874	0.0698	0.101	0.147
Molybdenum	7439-98-7	E440/VA	0.020	mg/kg	0.055	0.057	0.048	0.032	0.038
Nickel	7440-02-0	E440/VA	0.20	mg/kg	<0.20	<0.20	<0.20	<0.20	<0.20
Phosphorus	7723-14-0	E440/VA	10	mg/kg	27000	21700	31600	12700	15000
Potassium	7440-09-7	E440/VA	20	mg/kg	15000	14100	16600	12600	14600
Rubidium	7440-17-7	E440/VA	0.050	mg/kg	19.9	26.3	18.5	25.7	21.3
Selenium	7782-49-2	E440/VA	0.050	mg/kg	1.96	1.28	1.60	1.63	2.18
Silver	7440-22-4	E440.Ag/VA	0.0050	mg/kg	0.0076	<0.0050	0.0069	<0.0050	<0.0050
Sodium	7440-23-5	E440/VA	20	mg/kg	2830	2700	3130	2000	2750



Analytical Results

Sub-Matrix: Tissue

(Matrix: Biota)

					Client sample ID	QUL-NGC_NSC-WB-3_2023-09	QUL-NGC_NSC-WB-4_2023-09	QUL-NGC_NSC-WB-5_2023-09	QUL-NGC_NSC-WB-6_2023-09	QUL-NGC_NSC-WB-7_2023-09
					Client sampling date / time	29-Sep-2023 00:00	29-Sep-2023 00:00	29-Sep-2023 00:00	29-Sep-2023 00:00	29-Sep-2023 00:00
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23C4190-011	VA23C4190-012	VA23C4190-013	VA23C4190-014	VA23C4190-015	
					Result	Result	Result	Result	Result	
Metals										
Strontium	7440-24-6	E440/VA	0.050	mg/kg	52.2	40.1	63.2	15.2	18.2	
Tellurium	13494-80-9	E440/VA	0.020	mg/kg	<0.020	<0.020	<0.020	<0.020	<0.020	
Thallium	7440-28-0	E440/VA	0.0020	mg/kg	0.0086	0.0055	0.0049	0.0094	0.0063	
Tin	7440-31-5	E440/VA	0.10	mg/kg	<0.10	<0.10	0.29	0.11	<0.10	
Titanium	7440-32-6	E440.Ti/VA	0.25	mg/kg	<0.25	<0.25	<0.25	<0.25	<0.25	
Uranium	7440-61-1	E440/VA	0.0020	mg/kg	0.0117	0.0084	0.0076	0.0034	0.0035	
Vanadium	7440-62-2	E440/VA	0.10	mg/kg	<0.10	<0.10	<0.10	<0.10	<0.10	
Zinc	7440-66-6	E440/VA	0.50	mg/kg	107	83.0	117	53.3	69.6	
Zirconium	7440-67-7	E440/VA	0.20	mg/kg	<0.20	<0.20	<0.20	<0.20	<0.20	

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.



Analytical Results

Sub-Matrix: Tissue

Client sample ID

(Matrix: Biota)

					QUL-NGC_NSC-WB-8_2023-09	QUL-NHC_PCC-M-1_2023-09	QUL-NHC_PCC-M-2_2023-09	QUL-NHC_PCC-M-3_2023-09	QUL-NHC_PCC-M-4_2023-09
Client sampling date / time					29-Sep-2023 00:00	29-Sep-2023 00:00	30-Sep-2023 00:00	30-Sep-2023 00:00	30-Sep-2023 00:00
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23C4190-016	VA23C4190-017	VA23C4190-018	VA23C4190-019	VA23C4190-020
					Result	Result	Result	Result	Result
Physical Tests									
Moisture	---	E144/VA	0.50	%	76.8	78.9	77.2	77.9	78.6
Metals									
Aluminum	7429-90-5	E440/VA	2.0	mg/kg	<2.0	3.3	2.7	<2.0	<2.0
Antimony	7440-36-0	E440/VA	0.010	mg/kg	<0.010	<0.010	<0.010	<0.010	<0.010
Arsenic	7440-38-2	E440/VA	0.020	mg/kg	0.060	0.140	0.199	0.246	0.331
Barium	7440-39-3	E440/VA	0.050	mg/kg	0.629	1.63	2.00	2.42	1.46
Beryllium	7440-41-7	E440/VA	0.010	mg/kg	<0.010	<0.010	<0.010	<0.010	<0.010
Bismuth	7440-69-9	E440/VA	0.010	mg/kg	<0.010	<0.010	<0.010	<0.010	<0.010
Boron	7440-42-8	E440/VA	1.0	mg/kg	<1.0	<1.0	<1.0	<1.0	<1.0
Cadmium	7440-43-9	E440/VA	0.0050	mg/kg	0.0440	0.0090	0.0061	0.0102	0.0099
Calcium	7440-70-2	E440/VA	20	mg/kg	24000	4970	5820	8920	5720
Cesium	7440-46-2	E440/VA	0.0050	mg/kg	0.158	0.102	0.0839	0.0594	0.112
Chromium	7440-47-3	E440/VA	0.050	mg/kg	<0.050	0.107	0.150	<0.050	<0.050
Cobalt	7440-48-4	E440/VA	0.020	mg/kg	0.093	0.034	0.022	0.025	0.039
Copper	7440-50-8	E440/VA	0.10	mg/kg	3.30	2.42	2.08	2.38	1.89
Iron	7439-89-6	E440/VA	3.0	mg/kg	49.0	29.1	25.4	32.2	22.8
Lead	7439-92-1	E440/VA	0.020	mg/kg	<0.020	0.021	0.020	<0.020	<0.020
Lithium	7439-93-2	E440/VA	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
Magnesium	7439-95-4	E440/VA	2.0	mg/kg	1600	1460	1520	1610	1500
Manganese	7439-96-5	E440/VA	0.050	mg/kg	6.56	2.40	2.15	4.03	2.46
Mercury	7439-97-6	E510/VA	0.0050	mg/kg	0.256	0.707	0.876	1.20	1.04
Mercury	7439-97-6	E510A/VA	0.0010	mg/kg wwt	0.0593	0.149	0.199	0.265	0.223
Molybdenum	7439-98-7	E440/VA	0.020	mg/kg	0.044	<0.020	<0.020	<0.020	<0.020
Nickel	7440-02-0	E440/VA	0.20	mg/kg	<0.20	<0.20	<0.20	<0.20	<0.20
Phosphorus	7723-14-0	E440/VA	10	mg/kg	22500	14000	14300	16700	14400
Potassium	7440-09-7	E440/VA	20	mg/kg	15900	19700	20700	21000	21500
Rubidium	7440-17-7	E440/VA	0.050	mg/kg	26.4	18.5	18.7	13.6	29.5
Selenium	7782-49-2	E440/VA	0.050	mg/kg	2.22	3.54	2.28	3.29	2.97
Silver	7440-22-4	E440.Ag/VA	0.0050	mg/kg	0.0052	<0.0050	<0.0050	<0.0050	<0.0050
Sodium	7440-23-5	E440/VA	20	mg/kg	2880	1840	1810	1920	1600



Analytical Results

Sub-Matrix: Tissue

(Matrix: Biota)

					Client sample ID	QUL-NGC_NSC-WB-8_2023-09	QUL-NHC_PCC-M-1_2023-09	QUL-NHC_PCC-M-2_2023-09	QUL-NHC_PCC-M-3_2023-09	QUL-NHC_PCC-M-4_2023-09
					Client sampling date / time	29-Sep-2023 00:00	29-Sep-2023 00:00	30-Sep-2023 00:00	30-Sep-2023 00:00	30-Sep-2023 00:00
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23C4190-016	VA23C4190-017	VA23C4190-018	VA23C4190-019	VA23C4190-020	
					Result	Result	Result	Result	Result	
Metals										
Strontium	7440-24-6	E440/VA	0.050	mg/kg	39.5	9.24	13.5	19.8	11.5	
Tellurium	13494-80-9	E440/VA	0.020	mg/kg	<0.020	<0.020	<0.020	<0.020	<0.020	
Thallium	7440-28-0	E440/VA	0.0020	mg/kg	0.0067	0.0079	0.0062	0.0059	0.0081	
Tin	7440-31-5	E440/VA	0.10	mg/kg	0.23	<0.10	<0.10	<0.10	<0.10	
Titanium	7440-32-6	E440.Ti/VA	0.25	mg/kg	<0.25	<0.25	<0.25	<0.25	<0.25	
Uranium	7440-61-1	E440/VA	0.0020	mg/kg	0.0079	0.0023	0.0066	0.0141	0.0060	
Vanadium	7440-62-2	E440/VA	0.10	mg/kg	<0.10	<0.10	<0.10	<0.10	<0.10	
Zinc	7440-66-6	E440/VA	0.50	mg/kg	93.4	43.3	46.8	33.6	24.9	
Zirconium	7440-67-7	E440/VA	0.20	mg/kg	<0.20	<0.20	<0.20	<0.20	<0.20	

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.



Analytical Results

Sub-Matrix: Tissue
 (Matrix: Biota)

Client sample ID

					QUL-NHC_PCC-M-5_2023-09	QUL-NHC_PCC-M-6_2023-09	QUL-NHC_PCC-M-7_2023-09	QUL-NHC_PCC-M-8_2023-09	QUL-NHC_PCC-Li-1_2023-09
Client sampling date / time					30-Sep-2023 00:00	30-Sep-2023 00:00	30-Sep-2023 00:00	30-Sep-2023 00:00	29-Sep-2023 00:00
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23C4190-021	VA23C4190-022	VA23C4190-023	VA23C4190-024	VA23C4190-025
					Result	Result	Result	Result	Result
Physical Tests									
Moisture	---	E144/VA	0.50	%	78.5	78.8	77.3	---	---
Moisture	---	E144-H/VA	2.0	%	---	---	---	78.1	64.8
Metals									
Aluminum	7429-90-5	E440/VA	2.0	mg/kg	<2.0	<2.0	10.7	---	---
Aluminum	7429-90-5	E472/VA	5.0	mg/kg	---	---	---	<5.0	8.9
Antimony	7440-36-0	E472/VA	0.010	mg/kg	---	---	---	<0.010	<0.010
Antimony	7440-36-0	E440/VA	0.010	mg/kg	<0.010	<0.010	<0.010	---	---
Arsenic	7440-38-2	E440/VA	0.020	mg/kg	0.200	0.214	0.212	---	---
Arsenic	7440-38-2	E472/VA	0.030	mg/kg	---	---	---	0.154	0.198
Barium	7440-39-3	E472/VA	0.050	mg/kg	---	---	---	2.58	0.538
Barium	7440-39-3	E440/VA	0.050	mg/kg	1.28	2.05	2.24	---	---
Beryllium	7440-41-7	E472/VA	0.010	mg/kg	---	---	---	<0.010	<0.010
Beryllium	7440-41-7	E440/VA	0.010	mg/kg	<0.010	<0.010	<0.010	---	---
Bismuth	7440-69-9	E472/VA	0.010	mg/kg	---	---	---	<0.010	<0.010
Bismuth	7440-69-9	E440/VA	0.010	mg/kg	<0.010	<0.010	<0.010	---	---
Boron	7440-42-8	E472/VA	1.0	mg/kg	---	---	---	1.3	<1.0
Boron	7440-42-8	E440/VA	1.0	mg/kg	<1.0	<1.0	<1.0	---	---
Cadmium	7440-43-9	E440/VA	0.0050	mg/kg	0.0072	0.0140	0.0278	---	---
Cadmium	7440-43-9	E472/VA	0.010	mg/kg	---	---	---	0.020	0.252
Calcium	7440-70-2	E472/VA	20	mg/kg	---	---	---	1100	160
Calcium	7440-70-2	E440/VA	20	mg/kg	6010	6840	2200	---	---
Cesium	7440-46-2	E472/VA	0.0050	mg/kg	---	---	---	0.0615	0.0310
Cesium	7440-46-2	E440/VA	0.0050	mg/kg	0.0809	0.0807	0.0920	---	---
Chromium	7440-47-3	E440/VA	0.050	mg/kg	<0.050	0.064	0.110	---	---
Chromium	7440-47-3	E472/VA	0.20	mg/kg	---	---	---	<0.20	<0.20
Cobalt	7440-48-4	E472/VA	0.020	mg/kg	---	---	---	0.035	0.113
Cobalt	7440-48-4	E440/VA	0.020	mg/kg	<0.020	0.023	0.045	---	---
Copper	7440-50-8	E440/VA	0.10	mg/kg	1.63	2.63	4.82	---	---
Copper	7440-50-8	E472/VA	0.20	mg/kg	---	---	---	2.91	13.1
Iron	7439-89-6	E440/VA	3.0	mg/kg	16.0	33.8	77.3	---	---



Analytical Results

Sub-Matrix: Tissue					Client sample ID	QUL-NHC_PCC-M-5_2023-09	QUL-NHC_PCC-M-6_2023-09	QUL-NHC_PCC-M-7_2023-09	QUL-NHC_PCC-M-8_2023-09	QUL-NHC_PCC-Li-1_2023-09
(Matrix: Biota)					Client sampling date / time	30-Sep-2023 00:00	30-Sep-2023 00:00	30-Sep-2023 00:00	30-Sep-2023 00:00	29-Sep-2023 00:00
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23C4190-021	VA23C4190-022	VA23C4190-023	VA23C4190-024	VA23C4190-025	
					Result	Result	Result	Result	Result	
Metals										
Iron	7439-89-6	E472/VA	5.0	mg/kg	---	---	---	42.4	360	
Lead	7439-92-1	E440/VA	0.020	mg/kg	<0.020	<0.020	<0.020	---	---	
Lead	7439-92-1	E472/VA	0.050	mg/kg	---	---	---	<0.050	<0.050	
Lithium	7439-93-2	E472/VA	0.50	mg/kg	---	---	---	<0.50	<0.50	
Lithium	7439-93-2	E440/VA	0.50	mg/kg	<0.50	<0.50	<0.50	---	---	
Magnesium	7439-95-4	E472/VA	2.0	mg/kg	---	---	---	1240	558	
Magnesium	7439-95-4	E440/VA	2.0	mg/kg	1610	1530	1370	---	---	
Manganese	7439-96-5	E472/VA	0.050	mg/kg	---	---	---	0.857	4.48	
Manganese	7439-96-5	E440/VA	0.050	mg/kg	2.25	3.12	2.04	---	---	
Mercury	7439-97-6	E511/VA	0.0050	mg/kg	---	---	---	1.14	0.110	
Mercury	7439-97-6	E510/VA	0.0050	mg/kg	0.860	1.52	1.17	---	---	
Mercury	7439-97-6	E511A/VA	0.0010	mg/kg wwt	---	---	---	0.250	0.0386	
Mercury	7439-97-6	E510A/VA	0.0010	mg/kg wwt	0.185	0.322	0.265	---	---	
Molybdenum	7439-98-7	E440/VA	0.020	mg/kg	<0.020	<0.020	0.032	---	---	
Molybdenum	7439-98-7	E472/VA	0.040	mg/kg	---	---	---	<0.040	0.415	
Nickel	7440-02-0	E472/VA	0.20	mg/kg	---	---	---	<0.20	<0.20	
Nickel	7440-02-0	E440/VA	0.20	mg/kg	<0.20	<0.20	0.46	---	---	
Phosphorus	7723-14-0	E472/VA	10	mg/kg	---	---	---	10800	10800	
Phosphorus	7723-14-0	E440/VA	10	mg/kg	14800	15400	12400	---	---	
Potassium	7440-09-7	E472/VA	20	mg/kg	---	---	---	17900	7860	
Potassium	7440-09-7	E440/VA	20	mg/kg	22900	22100	20300	---	---	
Rubidium	7440-17-7	E472/VA	0.050	mg/kg	---	---	---	13.9	7.77	
Rubidium	7440-17-7	E440/VA	0.050	mg/kg	18.1	14.3	22.0	---	---	
Selenium	7782-49-2	E440/VA	0.050	mg/kg	3.21	3.39	2.59	---	---	
Selenium	7782-49-2	E472/VA	0.10	mg/kg	---	---	---	2.36	8.89	
Silver	7440-22-4	E472.Ag/VA	0.0050	mg/kg	---	---	---	<0.0050	0.0105	
Silver	7440-22-4	E440.Ag/VA	0.0050	mg/kg	<0.0050	<0.0050	<0.0050	---	---	
Sodium	7440-23-5	E472/VA	20	mg/kg	---	---	---	1440	2820	
Sodium	7440-23-5	E440/VA	20	mg/kg	1370	1560	1700	---	---	
Strontium	7440-24-6	E440/VA	0.050	mg/kg	11.7	15.2	4.33	---	---	



Analytical Results

Sub-Matrix: Tissue
 (Matrix: Biota)

Client sample ID

					QUL-NHC_PCC-M-5_2023-09	QUL-NHC_PCC-M-6_2023-09	QUL-NHC_PCC-M-7_2023-09	QUL-NHC_PCC-M-8_2023-09	QUL-NHC_PCC-Li-1_2023-09
Client sampling date / time					30-Sep-2023 00:00	30-Sep-2023 00:00	30-Sep-2023 00:00	30-Sep-2023 00:00	29-Sep-2023 00:00
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23C4190-021	VA23C4190-022	VA23C4190-023	VA23C4190-024	VA23C4190-025
					Result	Result	Result	Result	Result
Metals									
Strontium	7440-24-6	E472/VA	0.10	mg/kg	----	----	----	1.62	0.39
Tellurium	13494-80-9	E472/VA	0.020	mg/kg	----	----	----	<0.020	<0.020
Tellurium	13494-80-9	E440/VA	0.020	mg/kg	<0.020	<0.020	<0.020	----	----
Thallium	7440-28-0	E472/VA	0.0020	mg/kg	----	----	----	0.0076	0.0095
Thallium	7440-28-0	E440/VA	0.0020	mg/kg	0.0068	0.0058	0.0132	----	----
Tin	7440-31-5	E472/VA	0.10	mg/kg	----	----	----	<0.10	<0.10
Tin	7440-31-5	E440/VA	0.10	mg/kg	<0.10	<0.10	<0.10	----	----
Titanium	7440-32-6	E440.Ti/VA	0.25	mg/kg	<0.25	<0.25	0.73	----	----
Titanium	7440-32-6	E472.Ti/VA	0.50	mg/kg	----	----	----	<0.50	<0.50
Uranium	7440-61-1	E472/VA	0.0020	mg/kg	----	----	----	0.0021	0.0034
Uranium	7440-61-1	E440/VA	0.0020	mg/kg	0.0077	0.0060	0.0043	----	----
Vanadium	7440-62-2	E472/VA	0.10	mg/kg	----	----	----	<0.10	0.12
Vanadium	7440-62-2	E440/VA	0.10	mg/kg	<0.10	<0.10	<0.10	----	----
Zinc	7440-66-6	E440/VA	0.50	mg/kg	28.3	46.0	44.7	----	----
Zinc	7440-66-6	E472/VA	1.0	mg/kg	----	----	----	46.3	55.2
Zirconium	7440-67-7	E472/VA	0.20	mg/kg	----	----	----	<0.20	<0.20
Zirconium	7440-67-7	E440/VA	0.20	mg/kg	<0.20	<0.20	<0.20	----	----

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.



Analytical Results

Sub-Matrix: Tissue					Client sample ID				
(Matrix: Biota)					QUL-NHC_PCC-Li-2_2023-09	QUL-NHC_PCC-Li-3_2023-09	QUL-NHC_PCC-Li-4_2023-09	QUL-NHC_PCC-Li-5_2023-09	QUL-NHC_PCC-Li-6_2023-09
Client sampling date / time					30-Sep-2023 00:00	30-Sep-2023 00:00	30-Sep-2023 00:00	30-Sep-2023 00:00	30-Sep-2023 00:00
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23C4190-026	VA23C4190-027	VA23C4190-028	VA23C4190-029	VA23C4190-030
					Result	Result	Result	Result	Result
Physical Tests									
Moisture	----	E144-H/VA	2.0	%	74.3	71.7	74.5	73.9	74.7
Metals									
Aluminum	7429-90-5	E472/VA	5.0	mg/kg	8.6	19.3	12.7	13.3	8.9
Antimony	7440-36-0	E472/VA	0.010	mg/kg	<0.010	<0.010	<0.010	<0.010	0.012
Arsenic	7440-38-2	E472/VA	0.030	mg/kg	0.261	0.224	0.279	0.157	0.180
Barium	7440-39-3	E472/VA	0.050	mg/kg	0.454	0.236	0.364	0.136	0.230
Beryllium	7440-41-7	E472/VA	0.010	mg/kg	<0.010	<0.010	<0.010	<0.010	<0.010
Bismuth	7440-69-9	E472/VA	0.010	mg/kg	<0.010	0.013	<0.010	0.018	0.025
Boron	7440-42-8	E472/VA	1.0	mg/kg	<1.0	<1.0	<1.0	<1.0	<1.0
Cadmium	7440-43-9	E472/VA	0.010	mg/kg	0.536	0.886	0.612	1.65	1.24
Calcium	7440-70-2	E472/VA	20	mg/kg	199	152	416	241	184
Cesium	7440-46-2	E472/VA	0.0050	mg/kg	0.0218	0.0159	0.0300	0.0212	0.0256
Chromium	7440-47-3	E472/VA	0.20	mg/kg	0.23	0.38	0.20	0.36	0.28
Cobalt	7440-48-4	E472/VA	0.020	mg/kg	0.132	0.143	0.216	0.164	0.167
Copper	7440-50-8	E472/VA	0.20	mg/kg	13.9	8.72	9.87	13.5	14.9
Iron	7439-89-6	E472/VA	5.0	mg/kg	635	956	974	1430	989
Lead	7439-92-1	E472/VA	0.050	mg/kg	<0.050	<0.050	<0.050	<0.050	<0.050
Lithium	7439-93-2	E472/VA	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
Magnesium	7439-95-4	E472/VA	2.0	mg/kg	711	759	847	873	853
Manganese	7439-96-5	E472/VA	0.050	mg/kg	5.24	5.54	5.07	7.07	6.30
Mercury	7439-97-6	E511/VA	0.0050	mg/kg	0.361	0.515	0.352	0.397	0.674
Mercury	7439-97-6	E511/VA	0.0010	mg/kg wwt	0.0928	0.146	0.0896	0.104	0.170
Molybdenum	7439-98-7	E472/VA	0.040	mg/kg	0.687	0.679	0.628	1.03	0.835
Nickel	7440-02-0	E472/VA	0.20	mg/kg	0.25	<0.20	<0.20	0.22	<0.20
Phosphorus	7723-14-0	E472/VA	10	mg/kg	13000	12800	14100	15600	15000
Potassium	7440-09-7	E472/VA	20	mg/kg	10900	10000	11800	12300	11800
Rubidium	7440-17-7	E472/VA	0.050	mg/kg	11.9	8.39	19.4	12.0	9.59
Selenium	7782-49-2	E472/VA	0.10	mg/kg	8.00	7.61	6.39	9.39	8.54
Silver	7440-22-4	E472.Ag/VA	0.0050	mg/kg	0.0158	<0.0050	0.0147	0.0169	0.0330
Sodium	7440-23-5	E472/VA	20	mg/kg	3910	2700	4640	3580	4010



Analytical Results

Sub-Matrix: Tissue

Client sample ID

(Matrix: Biota)

					QUL-NHC_PCC-Li-2_2023-09	QUL-NHC_PCC-Li-3_2023-09	QUL-NHC_PCC-Li-4_2023-09	QUL-NHC_PCC-Li-5_2023-09	QUL-NHC_PCC-Li-6_2023-09
Client sampling date / time					30-Sep-2023 00:00	30-Sep-2023 00:00	30-Sep-2023 00:00	30-Sep-2023 00:00	30-Sep-2023 00:00
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23C4190-026	VA23C4190-027	VA23C4190-028	VA23C4190-029	VA23C4190-030
					Result	Result	Result	Result	Result
Metals									
Strontium	7440-24-6	E472/VA	0.10	mg/kg	0.53	0.35	1.22	0.50	0.52
Tellurium	13494-80-9	E472/VA	0.020	mg/kg	<0.020	<0.020	<0.020	<0.020	<0.020
Thallium	7440-28-0	E472/VA	0.0020	mg/kg	0.0126	0.0121	0.0170	0.0190	0.0101
Tin	7440-31-5	E472/VA	0.10	mg/kg	0.12	<0.10	<0.10	<0.10	<0.10
Titanium	7440-32-6	E472.Ti/VA	0.50	mg/kg	<1.00 ^{DLM}	<0.50	<0.50	<0.50	<0.50
Uranium	7440-61-1	E472/VA	0.0020	mg/kg	0.0192	0.0518	0.0324	0.0507	0.0411
Vanadium	7440-62-2	E472/VA	0.10	mg/kg	0.21	1.01	0.47	0.85	0.51
Zinc	7440-66-6	E472/VA	1.0	mg/kg	94.4	73.1	76.8	92.4	94.5
Zirconium	7440-67-7	E472/VA	0.20	mg/kg	<0.20	<0.20	<0.20	<0.20	<0.20

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.



Analytical Results

Sub-Matrix: Tissue

Client sample ID

(Matrix: Biota)

					QUL-NHC_PCC-Li-7_2023-09	QUL-NHC_PCC-Li-8_2023-09	QUL-NHC_PCC-O-1_2023-09	QUL-NHC_PCC-O-2_2023-09	QUL-NHC_PCC-O-3_2023-09
Client sampling date / time					30-Sep-2023 00:00	30-Sep-2023 00:00	29-Sep-2023 00:00	30-Sep-2023 00:00	30-Sep-2023 00:00
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23C4190-031	VA23C4190-032	VA23C4190-033	VA23C4190-034	VA23C4190-035
					Result	Result	Result	Result	Result
Physical Tests									
Moisture	---	E144/VA	0.50	%	---	---	---	---	67.0
Moisture	---	E144-H/VA	2.0	%	73.2	70.6	64.1	75.7	---
Metals									
Aluminum	7429-90-5	E440/VA	2.0	mg/kg	---	---	---	---	<2.0
Aluminum	7429-90-5	E472/VA	5.0	mg/kg	34.0	19.8	<5.0	<5.0	---
Antimony	7440-36-0	E472/VA	0.010	mg/kg	0.013	0.013	<0.010	<0.010	---
Antimony	7440-36-0	E440/VA	0.010	mg/kg	---	---	---	---	<0.010
Arsenic	7440-38-2	E440/VA	0.020	mg/kg	---	---	---	---	0.111
Arsenic	7440-38-2	E472/VA	0.030	mg/kg	0.261	0.199	0.092	0.146	---
Barium	7440-39-3	E472/VA	0.050	mg/kg	1.19	0.192	0.736	1.44	---
Barium	7440-39-3	E440/VA	0.050	mg/kg	---	---	---	---	0.942
Beryllium	7440-41-7	E472/VA	0.010	mg/kg	<0.010	<0.010	<0.010	<0.010	---
Beryllium	7440-41-7	E440/VA	0.010	mg/kg	---	---	---	---	<0.010
Bismuth	7440-69-9	E472/VA	0.010	mg/kg	0.011	<0.010	<0.010	<0.010	---
Bismuth	7440-69-9	E440/VA	0.010	mg/kg	---	---	---	---	<0.010
Boron	7440-42-8	E472/VA	1.0	mg/kg	<1.0	<1.0	<1.0	<1.0	---
Boron	7440-42-8	E440/VA	1.0	mg/kg	---	---	---	---	<1.0
Cadmium	7440-43-9	E440/VA	0.0050	mg/kg	---	---	---	---	0.0276
Cadmium	7440-43-9	E472/VA	0.010	mg/kg	1.58	1.57	<0.010	0.027	---
Calcium	7440-70-2	E472/VA	20	mg/kg	204	194	359	868	---
Calcium	7440-70-2	E440/VA	20	mg/kg	---	---	---	---	439
Cesium	7440-46-2	E472/VA	0.0050	mg/kg	0.0195	0.0148	0.0458	0.0568	---
Cesium	7440-46-2	E440/VA	0.0050	mg/kg	---	---	---	---	0.0227
Chromium	7440-47-3	E440/VA	0.050	mg/kg	---	---	---	---	<0.050
Chromium	7440-47-3	E472/VA	0.20	mg/kg	0.38	0.44	<0.20	<0.20	---
Cobalt	7440-48-4	E472/VA	0.020	mg/kg	0.171	0.227	0.073	0.092	---
Cobalt	7440-48-4	E440/VA	0.020	mg/kg	---	---	---	---	0.078
Copper	7440-50-8	E440/VA	0.10	mg/kg	---	---	---	---	5.17
Copper	7440-50-8	E472/VA	0.20	mg/kg	13.2	16.1	4.56	5.74	---
Iron	7439-89-6	E440/VA	3.0	mg/kg	---	---	---	---	57.7



Analytical Results

Sub-Matrix: Tissue					Client sample ID	QUL-NHC_PCC-Li-7_2023-09	QUL-NHC_PCC-Li-8_2023-09	QUL-NHC_PCC-O-1_2023-09	QUL-NHC_PCC-O-2_2023-09	QUL-NHC_PCC-O-3_2023-09
(Matrix: Biota)					Client sampling date / time	30-Sep-2023 00:00	30-Sep-2023 00:00	29-Sep-2023 00:00	30-Sep-2023 00:00	30-Sep-2023 00:00
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23C4190-031	VA23C4190-032	VA23C4190-033	VA23C4190-034	VA23C4190-035	
					Result	Result	Result	Result	Result	
Metals										
Iron	7439-89-6	E472/VA	5.0	mg/kg	489	1800	63.6	97.5	---	
Lead	7439-92-1	E440/VA	0.020	mg/kg	---	---	---	---	<0.020	
Lead	7439-92-1	E472/VA	0.050	mg/kg	<0.050	<0.050	<0.050	<0.050	---	
Lithium	7439-93-2	E472/VA	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	---	
Lithium	7439-93-2	E440/VA	0.50	mg/kg	---	---	---	---	<0.50	
Magnesium	7439-95-4	E472/VA	2.0	mg/kg	762	884	709	1130	---	
Magnesium	7439-95-4	E440/VA	2.0	mg/kg	---	---	---	---	846	
Manganese	7439-96-5	E472/VA	0.050	mg/kg	6.29	6.46	9.60	21.2	---	
Manganese	7439-96-5	E440/VA	0.050	mg/kg	---	---	---	---	16.8	
Mercury	7439-97-6	E511/VA	0.0050	mg/kg	0.592	0.664	0.0359	0.0637	---	
Mercury	7439-97-6	E510/VA	0.0050	mg/kg	---	---	---	---	0.0573	
Mercury	7439-97-6	E511A/VA	0.0010	mg/kg wwt	0.158	0.195	0.0129	0.0155	---	
Mercury	7439-97-6	E510A/VA	0.0010	mg/kg wwt	---	---	---	---	0.0189	
Molybdenum	7439-98-7	E440/VA	0.020	mg/kg	---	---	---	---	0.132	
Molybdenum	7439-98-7	E472/VA	0.040	mg/kg	0.828	1.06	0.113	0.244	---	
Nickel	7440-02-0	E472/VA	0.20	mg/kg	<0.20	<0.20	<0.20	<0.20	---	
Nickel	7440-02-0	E440/VA	0.20	mg/kg	---	---	---	---	<0.20	
Phosphorus	7723-14-0	E472/VA	10	mg/kg	13400	15500	11500	12700	---	
Phosphorus	7723-14-0	E440/VA	10	mg/kg	---	---	---	---	11200	
Potassium	7440-09-7	E472/VA	20	mg/kg	10900	13000	8240	14900	---	
Potassium	7440-09-7	E440/VA	20	mg/kg	---	---	---	---	8890	
Rubidium	7440-17-7	E472/VA	0.050	mg/kg	13.1	10.1	9.03	17.1	---	
Rubidium	7440-17-7	E440/VA	0.050	mg/kg	---	---	---	---	7.27	
Selenium	7782-49-2	E440/VA	0.050	mg/kg	---	---	---	---	10.0	
Selenium	7782-49-2	E472/VA	0.10	mg/kg	7.36	7.77	15.6	14.2	---	
Silver	7440-22-4	E472.Ag/VA	0.0050	mg/kg	0.0241	0.0152	0.0101	<0.0050	---	
Silver	7440-22-4	E440.Ag/VA	0.0050	mg/kg	---	---	---	---	0.0064	
Sodium	7440-23-5	E472/VA	20	mg/kg	3300	2380	1640	3980	---	
Sodium	7440-23-5	E440/VA	20	mg/kg	---	---	---	---	1990	
Strontium	7440-24-6	E440/VA	0.050	mg/kg	---	---	---	---	0.612	



Analytical Results

Sub-Matrix: Tissue

Client sample ID

(Matrix: Biota)

					Client sampling date / time	QUL-NHC_PCC-Li-7_2023-09	QUL-NHC_PCC-Li-8_2023-09	QUL-NHC_PCC-O-1_2023-09	QUL-NHC_PCC-O-2_2023-09	QUL-NHC_PCC-O-3_2023-09
Analyte	CAS Number	Method/Lab	LOR	Unit	30-Sep-2023 00:00	30-Sep-2023 00:00	29-Sep-2023 00:00	30-Sep-2023 00:00	30-Sep-2023 00:00	
					VA23C4190-031	VA23C4190-032	VA23C4190-033	VA23C4190-034	VA23C4190-035	
					Result	Result	Result	Result	Result	
Metals										
Strontium	7440-24-6	E472/VA	0.10	mg/kg	0.52	0.43	0.43	1.16	----	
Tellurium	13494-80-9	E472/VA	0.020	mg/kg	<0.020	<0.020	<0.020	<0.020	----	
Tellurium	13494-80-9	E440/VA	0.020	mg/kg	----	----	----	----	<0.020	
Thallium	7440-28-0	E472/VA	0.0020	mg/kg	0.0166	0.0158	0.0058	0.0097	----	
Thallium	7440-28-0	E440/VA	0.0020	mg/kg	----	----	----	----	0.0045	
Tin	7440-31-5	E472/VA	0.10	mg/kg	0.10	<0.10	<0.10	0.13	----	
Tin	7440-31-5	E440/VA	0.10	mg/kg	----	----	----	----	<0.10	
Titanium	7440-32-6	E440.Ti/VA	0.25	mg/kg	----	----	----	----	<0.25	
Titanium	7440-32-6	E472.Ti/VA	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	----	
Uranium	7440-61-1	E472/VA	0.0020	mg/kg	0.0644	0.101	0.0031	0.0056	----	
Uranium	7440-61-1	E440/VA	0.0020	mg/kg	----	----	----	----	0.0094	
Vanadium	7440-62-2	E472/VA	0.10	mg/kg	0.62	0.82	<0.10	<0.10	----	
Vanadium	7440-62-2	E440/VA	0.10	mg/kg	----	----	----	----	<0.10	
Zinc	7440-66-6	E440/VA	0.50	mg/kg	----	----	----	----	112	
Zinc	7440-66-6	E472/VA	1.0	mg/kg	85.0	95.2	113	209	----	
Zirconium	7440-67-7	E472/VA	0.20	mg/kg	<0.20	<0.20	<0.20	<0.20	----	
Zirconium	7440-67-7	E440/VA	0.20	mg/kg	----	----	----	----	<0.20	

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.



Analytical Results

Sub-Matrix: Tissue (Matrix: Biota)					Client sample ID	QUL-NHC_PCC-O-4_2023-09	QUL-NHC_PCC-O-5_2023-09	QUL-NHC_PCC-O-6_2023-09	QUL-NHC_PCC-O-7_2023-09	QUL-NHC_PCC-O-8_2023-09
Client sampling date / time					30-Sep-2023 00:00	30-Sep-2023 00:00	30-Sep-2023 00:00	30-Sep-2023 00:00	30-Sep-2023 00:00	
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23C4190-036	VA23C4190-037	VA23C4190-038	VA23C4190-039	VA23C4190-040	
					Result	Result	Result	Result	Result	
Physical Tests										
Moisture	---	E144/VA	0.50	%	69.9	70.0	70.5	71.5	68.0	
Metals										
Aluminum	7429-90-5	E440/VA	2.0	mg/kg	<2.0	<2.0	<2.0	2.0	<2.0	
Antimony	7440-36-0	E440/VA	0.010	mg/kg	<0.010	<0.010	<0.010	<0.010	<0.010	
Arsenic	7440-38-2	E440/VA	0.020	mg/kg	0.220	0.102	0.105	0.159	0.140	
Barium	7440-39-3	E440/VA	0.050	mg/kg	0.958	0.873	0.906	0.835	1.28	
Beryllium	7440-41-7	E440/VA	0.010	mg/kg	<0.010	<0.010	<0.010	<0.010	<0.010	
Bismuth	7440-69-9	E440/VA	0.010	mg/kg	<0.010	<0.010	<0.010	<0.010	<0.010	
Boron	7440-42-8	E440/VA	1.0	mg/kg	<1.0	<1.0	<1.0	<1.0	<1.0	
Cadmium	7440-43-9	E440/VA	0.0050	mg/kg	0.0270	0.0244	0.0430	0.0377	0.0311	
Calcium	7440-70-2	E440/VA	20	mg/kg	540	488	496	564	370	
Cesium	7440-46-2	E440/VA	0.0050	mg/kg	0.0475	0.0327	0.0333	0.0432	0.0203	
Chromium	7440-47-3	E440/VA	0.050	mg/kg	<0.050	<0.050	<0.050	0.076	0.053	
Cobalt	7440-48-4	E440/VA	0.020	mg/kg	0.169	0.077	0.084	0.110	0.093	
Copper	7440-50-8	E440/VA	0.10	mg/kg	5.02	4.79	5.64	5.14	5.48	
Iron	7439-89-6	E440/VA	3.0	mg/kg	69.8	77.3	86.7	78.3	83.2	
Lead	7439-92-1	E440/VA	0.020	mg/kg	<0.020	<0.020	<0.020	<0.020	<0.020	
Lithium	7439-93-2	E440/VA	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50	
Magnesium	7439-95-4	E440/VA	2.0	mg/kg	882	839	918	930	799	
Manganese	7439-96-5	E440/VA	0.050	mg/kg	12.1	12.3	12.1	17.8	12.8	
Mercury	7439-97-6	E510/VA	0.0050	mg/kg	0.0530	0.0424	0.103	0.0861	0.0766	
Mercury	7439-97-6	E510A/VA	0.0010	mg/kg wwt	0.0160	0.0127	0.0304	0.0246	0.0245	
Molybdenum	7439-98-7	E440/VA	0.020	mg/kg	0.144	0.152	0.139	0.176	0.117	
Nickel	7440-02-0	E440/VA	0.20	mg/kg	<0.20	<0.20	<0.20	<0.20	<0.20	
Phosphorus	7723-14-0	E440/VA	10	mg/kg	11200	10700	11600	10500	11200	
Potassium	7440-09-7	E440/VA	20	mg/kg	9910	9460	10300	10600	9460	
Rubidium	7440-17-7	E440/VA	0.050	mg/kg	17.3	10.2	8.36	14.1	9.35	
Selenium	7782-49-2	E440/VA	0.050	mg/kg	10.5	11.8	14.7	13.4	8.33	
Silver	7440-22-4	E440.Ag/VA	0.0050	mg/kg	0.0108	0.0103	0.0115	<0.0050	<0.0050	
Sodium	7440-23-5	E440/VA	20	mg/kg	2390	2350	2530	2750	2230	



Analytical Results

Sub-Matrix: Tissue

Client sample ID

(Matrix: Biota)

					QUL-NHC_PCC-O-4_2023-09	QUL-NHC_PCC-O-5_2023-09	QUL-NHC_PCC-O-6_2023-09	QUL-NHC_PCC-O-7_2023-09	QUL-NHC_PCC-O-8_2023-09
Client sampling date / time					30-Sep-2023 00:00	30-Sep-2023 00:00	30-Sep-2023 00:00	30-Sep-2023 00:00	30-Sep-2023 00:00
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23C4190-036	VA23C4190-037	VA23C4190-038	VA23C4190-039	VA23C4190-040
					Result	Result	Result	Result	Result
Metals									
Strontium	7440-24-6	E440/VA	0.050	mg/kg	0.601	0.531	0.686	0.676	0.480
Tellurium	13494-80-9	E440/VA	0.020	mg/kg	<0.020	<0.020	<0.020	<0.020	<0.020
Thallium	7440-28-0	E440/VA	0.0020	mg/kg	0.0072	0.0061	0.0032	0.0064	0.0025
Tin	7440-31-5	E440/VA	0.10	mg/kg	<0.10	<0.10	<0.10	<0.10	<0.10
Titanium	7440-32-6	E440.Ti/VA	0.25	mg/kg	<0.25	<0.25	<0.25	<0.25	<0.25
Uranium	7440-61-1	E440/VA	0.0020	mg/kg	0.0069	0.0112	0.0065	0.0071	0.0082
Vanadium	7440-62-2	E440/VA	0.10	mg/kg	<0.10	<0.10	<0.10	<0.10	<0.10
Zinc	7440-66-6	E440/VA	0.50	mg/kg	118	122	126	125	125
Zirconium	7440-67-7	E440/VA	0.20	mg/kg	<0.20	<0.20	<0.20	<0.20	<0.20

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.



Analytical Results

Sub-Matrix: Tissue

Client sample ID

(Matrix: Biota)

					QUL-NHC_PCC-Ki-1_2023-09	QUL-NHC_PCC-Ki-2_2023-09	QUL-NHC_PCC-Ki-3_2023-09	QUL-NHC_PCC-Ki-4_2023-09	QUL-NHC_PCC-Ki-5_2023-09
Client sampling date / time					29-Sep-2023 00:00	30-Sep-2023 00:00	30-Sep-2023 00:00	30-Sep-2023 00:00	30-Sep-2023 00:00
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23C4190-041	VA23C4190-042	VA23C4190-043	VA23C4190-044	VA23C4190-045
					Result	Result	Result	Result	Result
Physical Tests									
Moisture	---	E144A/VA	2.0	%	61.0	77.7	---	---	---
Moisture	---	E144-H/VA	2.0	%	---	---	72.6	76.6	77.7
Metals									
Aluminum	7429-90-5	E475/VA	5.0	mg/kg	15.8	6.6	---	---	---
Aluminum	7429-90-5	E472/VA	5.0	mg/kg	---	---	<5.0	<5.0	<5.0
Antimony	7440-36-0	E472/VA	0.010	mg/kg	---	---	<0.010	<0.010	<0.010
Antimony	7440-36-0	E475/VA	0.020	mg/kg	<0.020	<0.020	---	---	---
Arsenic	7440-38-2	E472/VA	0.030	mg/kg	---	---	0.325	0.448	0.282
Arsenic	7440-38-2	E475/VA	0.050	mg/kg	0.344	0.300	---	---	---
Barium	7440-39-3	E475/VA	0.050	mg/kg	2.57	3.84	---	---	---
Barium	7440-39-3	E472/VA	0.050	mg/kg	---	---	1.93	1.78	2.61
Beryllium	7440-41-7	E475/VA	0.010	mg/kg	<0.010	<0.010	---	---	---
Beryllium	7440-41-7	E472/VA	0.010	mg/kg	---	---	<0.010	<0.010	<0.010
Bismuth	7440-69-9	E475/VA	0.010	mg/kg	<0.010	<0.010	---	---	---
Bismuth	7440-69-9	E472/VA	0.010	mg/kg	---	---	0.016	0.011	0.016
Boron	7440-42-8	E475/VA	1.0	mg/kg	3.0	4.2	---	---	---
Boron	7440-42-8	E472/VA	1.0	mg/kg	---	---	<1.0	<1.0	<1.0
Cadmium	7440-43-9	E475/VA	0.010	mg/kg	6.05	5.48	---	---	---
Cadmium	7440-43-9	E472/VA	0.010	mg/kg	---	---	10.6	22.1	14.8
Calcium	7440-70-2	E475/VA	20	mg/kg	319	408	---	---	---
Calcium	7440-70-2	E472/VA	20	mg/kg	---	---	366	391	379
Cesium	7440-46-2	E475/VA	0.0050	mg/kg	0.0557	0.0430	---	---	---
Cesium	7440-46-2	E472/VA	0.0050	mg/kg	---	---	0.0237	0.0500	0.0344
Chromium	7440-47-3	E475/VA	0.20	mg/kg	1.00	0.53	---	---	---
Chromium	7440-47-3	E472/VA	0.20	mg/kg	---	---	0.38	0.22	0.23
Cobalt	7440-48-4	E475/VA	0.020	mg/kg	2.12	1.81	---	---	---
Cobalt	7440-48-4	E472/VA	0.020	mg/kg	---	---	0.765	3.81	1.93
Copper	7440-50-8	E475/VA	0.20	mg/kg	5.37	6.33	---	---	---
Copper	7440-50-8	E472/VA	0.20	mg/kg	---	---	4.12	5.90	5.65
Iron	7439-89-6	E475/VA	5.0	mg/kg	266	395	---	---	---



Analytical Results

Sub-Matrix: Tissue

Client sample ID

(Matrix: Biota)

					QUL-NHC_PCC-Ki-1_2023-09	QUL-NHC_PCC-Ki-2_2023-09	QUL-NHC_PCC-Ki-3_2023-09	QUL-NHC_PCC-Ki-4_2023-09	QUL-NHC_PCC-Ki-5_2023-09
Client sampling date / time					29-Sep-2023 00:00	30-Sep-2023 00:00	30-Sep-2023 00:00	30-Sep-2023 00:00	30-Sep-2023 00:00
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23C4190-041	VA23C4190-042	VA23C4190-043	VA23C4190-044	VA23C4190-045
					Result	Result	Result	Result	Result
Metals									
Iron	7439-89-6	E472/VA	5.0	mg/kg	---	---	396	365	402
Lead	7439-92-1	E475/VA	0.050	mg/kg	0.118	0.059	---	---	---
Lead	7439-92-1	E472/VA	0.050	mg/kg	---	---	<0.050	<0.050	<0.050
Lithium	7439-93-2	E475/VA	0.50	mg/kg	<0.50	<0.50	---	---	---
Lithium	7439-93-2	E472/VA	0.50	mg/kg	---	---	<0.50	<0.50	<0.50
Magnesium	7439-95-4	E475/VA	2.0	mg/kg	464	704	---	---	---
Magnesium	7439-95-4	E472/VA	2.0	mg/kg	---	---	505	623	628
Manganese	7439-96-5	E475/VA	0.050	mg/kg	5.19	4.61	---	---	---
Manganese	7439-96-5	E472/VA	0.050	mg/kg	---	---	3.22	4.10	4.37
Mercury	7439-97-6	E511/VA	0.0050	mg/kg	---	---	0.266	0.347	0.287
Mercury	7439-97-6	E512/VA	0.010	mg/kg	0.136 ^{RRR}	0.230 ^{RRR}	---	---	---
Mercury	7439-97-6	E511A/VA	0.0010	mg/kg wwt	---	---	0.0728	0.0812	0.0640
Mercury	7439-97-6	E512A/VA	0.0020	mg/kg wwt	0.0530 ^{RRR}	0.0514 ^{RRR}	---	---	---
Molybdenum	7439-98-7	E475/VA	0.040	mg/kg	0.505	0.447	---	---	---
Molybdenum	7439-98-7	E472/VA	0.040	mg/kg	---	---	0.443	0.565	0.581
Nickel	7440-02-0	E475/VA	0.20	mg/kg	1.00	1.04	---	---	---
Nickel	7440-02-0	E472/VA	0.20	mg/kg	---	---	0.97	1.45	1.33
Phosphorus	7723-14-0	E472/VA	10	mg/kg	---	---	9360	12100	11900
Phosphorus	7723-14-0	E475/VA	20	mg/kg	8820	12800	---	---	---
Potassium	7440-09-7	E475/VA	20	mg/kg	8740	13200	---	---	---
Potassium	7440-09-7	E472/VA	20	mg/kg	---	---	8630	10600	10600
Rubidium	7440-17-7	E475/VA	0.050	mg/kg	9.92	14.1	---	---	---
Rubidium	7440-17-7	E472/VA	0.050	mg/kg	---	---	7.07	18.8	10.7
Selenium	7782-49-2	E475/VA	0.10	mg/kg	5.51	5.33	---	---	---
Selenium	7782-49-2	E472/VA	0.10	mg/kg	---	---	5.76	6.53	7.31
Silver	7440-22-4	E475.Ag/VA	0.0050	mg/kg	<0.0050	<0.0050	---	---	---
Silver	7440-22-4	E472.Ag/VA	0.0050	mg/kg	---	---	<0.0050	<0.0050	<0.0050
Sodium	7440-23-5	E475/VA	20	mg/kg	4230	7360	---	---	---
Sodium	7440-23-5	E472/VA	20	mg/kg	---	---	4950	6100	6140
Strontium	7440-24-6	E475/VA	0.10	mg/kg	0.67	1.00	---	---	---



Analytical Results

Sub-Matrix: Tissue

Client sample ID

(Matrix: Biota)

					QUL-NHC_PCC-Ki-1_2023-09	QUL-NHC_PCC-Ki-2_2023-09	QUL-NHC_PCC-Ki-3_2023-09	QUL-NHC_PCC-Ki-4_2023-09	QUL-NHC_PCC-Ki-5_2023-09
Client sampling date / time					29-Sep-2023 00:00	30-Sep-2023 00:00	30-Sep-2023 00:00	30-Sep-2023 00:00	30-Sep-2023 00:00
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23C4190-041	VA23C4190-042	VA23C4190-043	VA23C4190-044	VA23C4190-045
					Result	Result	Result	Result	Result
Metals									
Strontium	7440-24-6	E472/VA	0.10	mg/kg	---	---	0.85	0.89	0.86
Tellurium	13494-80-9	E475/VA	0.020	mg/kg	<0.020	<0.020	---	---	---
Tellurium	13494-80-9	E472/VA	0.020	mg/kg	---	---	0.038	0.035	0.034
Thallium	7440-28-0	E475/VA	0.0020	mg/kg	0.0210	0.0271	---	---	---
Thallium	7440-28-0	E472/VA	0.0020	mg/kg	---	---	0.0180	0.0405	0.0362
Tin	7440-31-5	E475/VA	0.10	mg/kg	0.15	<0.10	---	---	---
Tin	7440-31-5	E472/VA	0.10	mg/kg	---	---	<0.10	<0.10	<0.10
Titanium	7440-32-6	E475.Ti/VA	0.50	mg/kg	2.04	<0.57	---	---	---
Titanium	7440-32-6	E472.Ti/VA	0.50	mg/kg	---	---	<0.50	<0.50	<0.50
Uranium	7440-61-1	E475/VA	0.0020	mg/kg	0.0146	0.0324	---	---	---
Uranium	7440-61-1	E472/VA	0.0020	mg/kg	---	---	0.0994	0.0887	0.0847
Vanadium	7440-62-2	E475/VA	0.10	mg/kg	0.30	0.22	---	---	---
Vanadium	7440-62-2	E472/VA	0.10	mg/kg	---	---	0.93	0.56	0.64
Zinc	7440-66-6	E475/VA	1.0	mg/kg	153	187	---	---	---
Zinc	7440-66-6	E472/VA	1.0	mg/kg	---	---	106	169	187
Zirconium	7440-67-7	E475/VA	0.20	mg/kg	<0.20	<0.20	---	---	---
Zirconium	7440-67-7	E472/VA	0.20	mg/kg	---	---	<0.20	<0.20	<0.20

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.



Analytical Results

Sub-Matrix: Tissue

Client sample ID

(Matrix: Biota)

					QUL-NHC_PCC-Ki-6_2023-09	QUL-NHC_PCC-Ki-7_2023-09	QUL-NHC_PCC-Ki-8_2023-09	QUL-NGC_PCC-M-1_2023-09	QUL-NGC_PCC-M-2_2023-09
Client sampling date / time					30-Sep-2023 00:00	30-Sep-2023 00:00	30-Sep-2023 00:00	29-Sep-2023 00:00	29-Sep-2023 00:00
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23C4190-046	VA23C4190-047	VA23C4190-048	VA23C4190-049	VA23C4190-050
					Result	Result	Result	Result	Result
Physical Tests									
Moisture	---	E144/VA	0.50	%	---	---	---	76.3	76.4
Moisture	---	E144A/VA	2.0	%	---	69.5	74.3	---	---
Moisture	---	E144-H/VA	2.0	%	78.9	---	---	---	---
Metals									
Aluminum	7429-90-5	E440/VA	2.0	mg/kg	---	---	---	<2.0	<2.0
Aluminum	7429-90-5	E475/VA	5.0	mg/kg	---	12.9	5.4	---	---
Aluminum	7429-90-5	E472/VA	5.0	mg/kg	5.8	---	---	---	---
Antimony	7440-36-0	E472/VA	0.010	mg/kg	<0.010	---	---	---	---
Antimony	7440-36-0	E440/VA	0.010	mg/kg	---	---	---	<0.010	<0.010
Antimony	7440-36-0	E475/VA	0.020	mg/kg	---	<0.020	<0.020	---	---
Arsenic	7440-38-2	E440/VA	0.020	mg/kg	---	---	---	0.257	0.197
Arsenic	7440-38-2	E472/VA	0.030	mg/kg	0.444	---	---	---	---
Arsenic	7440-38-2	E475/VA	0.050	mg/kg	---	0.345	0.345	---	---
Barium	7440-39-3	E475/VA	0.050	mg/kg	---	1.03	2.47	---	---
Barium	7440-39-3	E472/VA	0.050	mg/kg	2.53	---	---	---	---
Barium	7440-39-3	E440/VA	0.050	mg/kg	---	---	---	1.80	0.768
Beryllium	7440-41-7	E475/VA	0.010	mg/kg	---	<0.010	<0.010	---	---
Beryllium	7440-41-7	E472/VA	0.010	mg/kg	<0.010	---	---	---	---
Beryllium	7440-41-7	E440/VA	0.010	mg/kg	---	---	---	<0.010	<0.010
Bismuth	7440-69-9	E475/VA	0.010	mg/kg	---	<0.010	0.011	---	---
Bismuth	7440-69-9	E472/VA	0.010	mg/kg	0.028	---	---	---	---
Bismuth	7440-69-9	E440/VA	0.010	mg/kg	---	---	---	<0.010	<0.010
Boron	7440-42-8	E475/VA	1.0	mg/kg	---	2.1	1.8	---	---
Boron	7440-42-8	E472/VA	1.0	mg/kg	<1.0	---	---	---	---
Boron	7440-42-8	E440/VA	1.0	mg/kg	---	---	---	<1.0	<1.0
Cadmium	7440-43-9	E440/VA	0.0050	mg/kg	---	---	---	0.0348	0.0170
Cadmium	7440-43-9	E475/VA	0.010	mg/kg	---	1.12	12.8	---	---
Cadmium	7440-43-9	E472/VA	0.010	mg/kg	19.2	---	---	---	---
Calcium	7440-70-2	E475/VA	20	mg/kg	---	380	364	---	---
Calcium	7440-70-2	E472/VA	20	mg/kg	448	---	---	---	---



Analytical Results

Sub-Matrix: Tissue					Client sample ID	QUL-NHC_PCC-Ki-6_2023-09	QUL-NHC_PCC-Ki-7_2023-09	QUL-NHC_PCC-Ki-8_2023-09	QUL-NGC_PCC-M-1_2023-09	QUL-NGC_PCC-M-2_2023-09
(Matrix: Biota)					Client sampling date / time	30-Sep-2023 00:00	30-Sep-2023 00:00	30-Sep-2023 00:00	29-Sep-2023 00:00	29-Sep-2023 00:00
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23C4190-046	VA23C4190-047	VA23C4190-048	VA23C4190-049	VA23C4190-050	
					Result	Result	Result	Result	Result	
Metals										
Calcium	7440-70-2	E440/VA	20	mg/kg	---	---	---	10900	1860	
Cesium	7440-46-2	E475/VA	0.0050	mg/kg	---	0.0415	0.0225	---	---	
Cesium	7440-46-2	E472/VA	0.0050	mg/kg	0.0486	---	---	---	---	
Cesium	7440-46-2	E440/VA	0.0050	mg/kg	---	---	---	0.159	0.178	
Chromium	7440-47-3	E440/VA	0.050	mg/kg	---	---	---	0.198	<0.050	
Chromium	7440-47-3	E475/VA	0.20	mg/kg	---	0.28	0.38	---	---	
Chromium	7440-47-3	E472/VA	0.20	mg/kg	0.33	---	---	---	---	
Cobalt	7440-48-4	E475/VA	0.020	mg/kg	---	0.260	1.07	---	---	
Cobalt	7440-48-4	E472/VA	0.020	mg/kg	3.20	---	---	---	---	
Cobalt	7440-48-4	E440/VA	0.020	mg/kg	---	---	---	0.051	0.043	
Copper	7440-50-8	E440/VA	0.10	mg/kg	---	---	---	1.63	2.03	
Copper	7440-50-8	E475/VA	0.20	mg/kg	---	6.07	5.64	---	---	
Copper	7440-50-8	E472/VA	0.20	mg/kg	6.44	---	---	---	---	
Iron	7439-89-6	E440/VA	3.0	mg/kg	---	---	---	30.3	27.5	
Iron	7439-89-6	E475/VA	5.0	mg/kg	---	470	984	---	---	
Iron	7439-89-6	E472/VA	5.0	mg/kg	348	---	---	---	---	
Lead	7439-92-1	E440/VA	0.020	mg/kg	---	---	---	0.048	<0.020	
Lead	7439-92-1	E475/VA	0.050	mg/kg	---	<0.050	<0.050	---	---	
Lead	7439-92-1	E472/VA	0.050	mg/kg	<0.050	---	---	---	---	
Lithium	7439-93-2	E475/VA	0.50	mg/kg	---	<0.50	<0.50	---	---	
Lithium	7439-93-2	E472/VA	0.50	mg/kg	<0.50	---	---	---	---	
Lithium	7439-93-2	E440/VA	0.50	mg/kg	---	---	---	<0.50	<0.50	
Magnesium	7439-95-4	E475/VA	2.0	mg/kg	---	462	611	---	---	
Magnesium	7439-95-4	E472/VA	2.0	mg/kg	760	---	---	---	---	
Magnesium	7439-95-4	E440/VA	2.0	mg/kg	---	---	---	1720	1390	
Manganese	7439-96-5	E475/VA	0.050	mg/kg	---	2.20	4.32	---	---	
Manganese	7439-96-5	E472/VA	0.050	mg/kg	6.48	---	---	---	---	
Manganese	7439-96-5	E440/VA	0.050	mg/kg	---	---	---	4.67	1.10	
Mercury	7439-97-6	E511/VA	0.0050	mg/kg	0.593	---	---	---	---	
Mercury	7439-97-6	E510/VA	0.0050	mg/kg	---	---	---	0.465	0.609	



Analytical Results

Sub-Matrix: Tissue

Client sample ID

(Matrix: Biota)

					QUL-NHC_PCC-Ki-6_2023-09	QUL-NHC_PCC-Ki-7_2023-09	QUL-NHC_PCC-Ki-8_2023-09	QUL-NGC_PCC-M-1_2023-09	QUL-NGC_PCC-M-2_2023-09
Client sampling date / time					30-Sep-2023 00:00	30-Sep-2023 00:00	30-Sep-2023 00:00	29-Sep-2023 00:00	29-Sep-2023 00:00
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23C4190-046	VA23C4190-047	VA23C4190-048	VA23C4190-049	VA23C4190-050
					Result	Result	Result	Result	Result
Metals									
Mercury	7439-97-6	E512/VA	0.010	mg/kg	---	0.204 ^{RRR}	0.345	---	---
Mercury	7439-97-6	E511A/VA	0.0010	mg/kg wwt	0.125	---	---	---	---
Mercury	7439-97-6	E510A/VA	0.0010	mg/kg wwt	---	---	---	0.110	0.144
Mercury	7439-97-6	E512A/VA	0.0020	mg/kg wwt	---	0.0621 ^{RRR}	0.0886	---	---
Molybdenum	7439-98-7	E440/VA	0.020	mg/kg	---	---	---	<0.020	<0.020
Molybdenum	7439-98-7	E475/VA	0.040	mg/kg	---	0.213	0.658	---	---
Molybdenum	7439-98-7	E472/VA	0.040	mg/kg	0.488	---	---	---	---
Nickel	7440-02-0	E475/VA	0.20	mg/kg	---	0.37	1.59	---	---
Nickel	7440-02-0	E472/VA	0.20	mg/kg	1.23	---	---	---	---
Nickel	7440-02-0	E440/VA	0.20	mg/kg	---	---	---	<0.20	<0.20
Phosphorus	7723-14-0	E472/VA	10	mg/kg	14500	---	---	---	---
Phosphorus	7723-14-0	E440/VA	10	mg/kg	---	---	---	17400	11600
Phosphorus	7723-14-0	E475/VA	20	mg/kg	---	7380	10500	---	---
Potassium	7440-09-7	E475/VA	20	mg/kg	---	8220	10800	---	---
Potassium	7440-09-7	E472/VA	20	mg/kg	13100	---	---	---	---
Potassium	7440-09-7	E440/VA	20	mg/kg	---	---	---	19800	19200
Rubidium	7440-17-7	E475/VA	0.050	mg/kg	---	9.96	9.32	---	---
Rubidium	7440-17-7	E472/VA	0.050	mg/kg	11.4	---	---	---	---
Rubidium	7440-17-7	E440/VA	0.050	mg/kg	---	---	---	31.7	29.2
Selenium	7782-49-2	E440/VA	0.050	mg/kg	---	---	---	2.51	1.69
Selenium	7782-49-2	E475/VA	0.10	mg/kg	---	3.40	5.42	---	---
Selenium	7782-49-2	E472/VA	0.10	mg/kg	8.22	---	---	---	---
Silver	7440-22-4	E475.Ag/VA	0.0050	mg/kg	---	<0.0050	<0.0050	---	---
Silver	7440-22-4	E472.Ag/VA	0.0050	mg/kg	<0.0050	---	---	---	---
Silver	7440-22-4	E440.Ag/VA	0.0050	mg/kg	---	---	---	<0.0050	<0.0050
Sodium	7440-23-5	E475/VA	20	mg/kg	---	3740	4860	---	---
Sodium	7440-23-5	E472/VA	20	mg/kg	6660	---	---	---	---
Sodium	7440-23-5	E440/VA	20	mg/kg	---	---	---	1600	1200
Strontium	7440-24-6	E440/VA	0.050	mg/kg	---	---	---	20.8	3.78
Strontium	7440-24-6	E475/VA	0.10	mg/kg	---	0.89	0.81	---	---



Analytical Results

Sub-Matrix: Tissue

Client sample ID

(Matrix: Biota)

					QUL-NHC_PCC-Ki-6_2023-09	QUL-NHC_PCC-Ki-7_2023-09	QUL-NHC_PCC-Ki-8_2023-09	QUL-NGC_PCC-M-1_2023-09	QUL-NGC_PCC-M-2_2023-09
Client sampling date / time					30-Sep-2023 00:00	30-Sep-2023 00:00	30-Sep-2023 00:00	29-Sep-2023 00:00	29-Sep-2023 00:00
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23C4190-046	VA23C4190-047	VA23C4190-048	VA23C4190-049	VA23C4190-050
					Result	Result	Result	Result	Result
Metals									
Strontium	7440-24-6	E472/VA	0.10	mg/kg	1.12	---	---	---	---
Tellurium	13494-80-9	E475/VA	0.020	mg/kg	---	<0.020	0.025	---	---
Tellurium	13494-80-9	E472/VA	0.020	mg/kg	0.054	---	---	---	---
Tellurium	13494-80-9	E440/VA	0.020	mg/kg	---	---	---	<0.020	<0.020
Thallium	7440-28-0	E475/VA	0.0020	mg/kg	---	0.0285	0.0204	---	---
Thallium	7440-28-0	E472/VA	0.0020	mg/kg	0.0237	---	---	---	---
Thallium	7440-28-0	E440/VA	0.0020	mg/kg	---	---	---	0.0065	0.0100
Tin	7440-31-5	E475/VA	0.10	mg/kg	---	<0.10	<0.10	---	---
Tin	7440-31-5	E472/VA	0.10	mg/kg	<0.10	---	---	---	---
Tin	7440-31-5	E440/VA	0.10	mg/kg	---	---	---	<0.10	<0.10
Titanium	7440-32-6	E440.Ti/VA	0.25	mg/kg	---	---	---	<0.25	<0.25
Titanium	7440-32-6	E475.Ti/VA	0.50	mg/kg	---	1.05	<0.50	---	---
Titanium	7440-32-6	E472.Ti/VA	0.50	mg/kg	<0.50	---	---	---	---
Uranium	7440-61-1	E475/VA	0.0020	mg/kg	---	0.0247	0.122	---	---
Uranium	7440-61-1	E472/VA	0.0020	mg/kg	0.0610	---	---	---	---
Uranium	7440-61-1	E440/VA	0.0020	mg/kg	---	---	---	0.0084	0.0025
Vanadium	7440-62-2	E475/VA	0.10	mg/kg	---	0.17	0.55	---	---
Vanadium	7440-62-2	E472/VA	0.10	mg/kg	0.57	---	---	---	---
Vanadium	7440-62-2	E440/VA	0.10	mg/kg	---	---	---	<0.10	<0.10
Zinc	7440-66-6	E440/VA	0.50	mg/kg	---	---	---	35.4	29.3
Zinc	7440-66-6	E475/VA	1.0	mg/kg	---	65.8	141	---	---
Zinc	7440-66-6	E472/VA	1.0	mg/kg	194	---	---	---	---
Zirconium	7440-67-7	E475/VA	0.20	mg/kg	---	0.78	<0.20	---	---
Zirconium	7440-67-7	E472/VA	0.20	mg/kg	<0.20	---	---	---	---
Zirconium	7440-67-7	E440/VA	0.20	mg/kg	---	---	---	<0.20	<0.20

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.



Analytical Results

Sub-Matrix: Tissue

Client sample ID

(Matrix: Biota)

					QUL-NGC_PCC-M-3_2023-09	QUL-NGC_PCC-M-4_2023-09	QUL-NGC_PCC-M-5_2023-09	QUL-NGC_PCC-M-6_2023-09	QUL-NGC_PCC-M-7_2023-09
Client sampling date / time					30-Sep-2023 00:00	30-Sep-2023 00:00	30-Sep-2023 00:00	30-Sep-2023 00:00	30-Sep-2023 00:00
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23C4190-051	VA23C4190-052	VA23C4190-053	VA23C4190-054	VA23C4190-055
					Result	Result	Result	Result	Result
Physical Tests									
Moisture	---	E144/VA	0.50	%	77.4	76.6	77.3	78.1	78.5
Metals									
Aluminum	7429-90-5	E440/VA	2.0	mg/kg	2.1	2.4	<2.0	<2.0	<2.0
Antimony	7440-36-0	E440/VA	0.010	mg/kg	<0.010	<0.010	<0.010	<0.010	<0.010
Arsenic	7440-38-2	E440/VA	0.020	mg/kg	0.140	0.306	0.146	0.299	0.212
Barium	7440-39-3	E440/VA	0.050	mg/kg	0.846	1.73	1.23	0.746	0.642
Beryllium	7440-41-7	E440/VA	0.010	mg/kg	<0.010	<0.010	<0.010	<0.010	<0.010
Bismuth	7440-69-9	E440/VA	0.010	mg/kg	<0.010	<0.010	<0.010	<0.010	0.010
Boron	7440-42-8	E440/VA	1.0	mg/kg	<1.0	<1.0	<1.0	<1.0	<1.0
Cadmium	7440-43-9	E440/VA	0.0050	mg/kg	0.0087	0.0107	<0.0050	<0.0050	0.0080
Calcium	7440-70-2	E440/VA	20	mg/kg	1460	10400	6160	10200	4870
Cesium	7440-46-2	E440/VA	0.0050	mg/kg	0.152	0.148	0.211	0.214	0.196
Chromium	7440-47-3	E440/VA	0.050	mg/kg	0.051	0.104	0.224	0.342	0.056
Cobalt	7440-48-4	E440/VA	0.020	mg/kg	<0.020	0.041	0.034	0.047	0.026
Copper	7440-50-8	E440/VA	0.10	mg/kg	1.72	1.09	1.94	1.42	1.68
Iron	7439-89-6	E440/VA	3.0	mg/kg	16.0	22.2	23.1	20.2	22.6
Lead	7439-92-1	E440/VA	0.020	mg/kg	0.079	0.082	0.029	0.024	<0.020
Lithium	7439-93-2	E440/VA	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
Magnesium	7439-95-4	E440/VA	2.0	mg/kg	1460	1710	1610	1660	1540
Manganese	7439-96-5	E440/VA	0.050	mg/kg	0.788	3.79	2.53	3.52	1.52
Mercury	7439-97-6	E510/VA	0.0050	mg/kg	0.854	1.15	0.696	0.678	0.726
Mercury	7439-97-6	E510A/VA	0.0010	mg/kg wwt	0.193	0.269	0.158	0.148	0.156
Molybdenum	7439-98-7	E440/VA	0.020	mg/kg	<0.020	0.022	<0.020	<0.020	<0.020
Nickel	7440-02-0	E440/VA	0.20	mg/kg	<0.20	<0.20	<0.20	<0.20	<0.20
Phosphorus	7723-14-0	E440/VA	10	mg/kg	11500	17900	15100	17500	14500
Potassium	7440-09-7	E440/VA	20	mg/kg	20300	21300	21200	21400	21200
Rubidium	7440-17-7	E440/VA	0.050	mg/kg	19.8	28.0	32.4	30.6	28.6
Selenium	7782-49-2	E440/VA	0.050	mg/kg	1.67	2.44	1.79	1.60	1.54
Silver	7440-22-4	E440.Ag/VA	0.0050	mg/kg	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Sodium	7440-23-5	E440/VA	20	mg/kg	1320	1710	1310	1420	1730



Analytical Results

Sub-Matrix: Tissue

(Matrix: Biota)

					Client sample ID	QUL-NGC_PCC-M-3_2023-09	QUL-NGC_PCC-M-4_2023-09	QUL-NGC_PCC-M-5_2023-09	QUL-NGC_PCC-M-6_2023-09	QUL-NGC_PCC-M-7_2023-09
					Client sampling date / time	30-Sep-2023 00:00	30-Sep-2023 00:00	30-Sep-2023 00:00	30-Sep-2023 00:00	30-Sep-2023 00:00
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23C4190-051	VA23C4190-052	VA23C4190-053	VA23C4190-054	VA23C4190-055	
					Result	Result	Result	Result	Result	
Metals										
Strontium	7440-24-6	E440/VA	0.050	mg/kg	2.58	25.9	13.8	23.0	10.2	
Tellurium	13494-80-9	E440/VA	0.020	mg/kg	<0.020	<0.020	<0.020	<0.020	<0.020	
Thallium	7440-28-0	E440/VA	0.0020	mg/kg	0.0023	0.0030	0.0060	0.0047	0.0040	
Tin	7440-31-5	E440/VA	0.10	mg/kg	<0.10	<0.10	<0.10	<0.10	<0.10	
Titanium	7440-32-6	E440.Ti/VA	0.25	mg/kg	<0.25	<0.25	<0.25	<0.25	<0.25	
Uranium	7440-61-1	E440/VA	0.0020	mg/kg	0.0021	0.0121	0.0053	0.0085	<0.0020	
Vanadium	7440-62-2	E440/VA	0.10	mg/kg	<0.10	<0.10	<0.10	<0.10	<0.10	
Zinc	7440-66-6	E440/VA	0.50	mg/kg	29.8	32.8	39.2	28.8	37.5	
Zirconium	7440-67-7	E440/VA	0.20	mg/kg	<0.20	<0.20	<0.20	<0.20	<0.20	

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.



Analytical Results

Sub-Matrix: Tissue (Matrix: Biota)					Client sample ID	QUL-NGC_PCC- M-8_2023-09	QUL-NGC_PCC- Li-1_2023-09	QUL-NGC_PCC- Li-2_2023-09	QUL-NGC_PCC- Li-3_2023-09	QUL-NGC_PCC- Li-4_2023-09
Client sampling date / time					30-Sep-2023 00:00	29-Sep-2023 00:00	29-Sep-2023 00:00	30-Sep-2023 00:00	30-Sep-2023 00:00	
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23C4190-056	VA23C4190-057	VA23C4190-058	VA23C4190-059	VA23C4190-060	
					Result	Result	Result	Result	Result	
Physical Tests										
Moisture	---	E144/VA	0.50	%	76.4	---	---	---	---	
Moisture	---	E144-H/VA	2.0	%	---	67.6	70.6	75.1	75.1	
Metals										
Aluminum	7429-90-5	E440/VA	2.0	mg/kg	<2.0	---	---	---	---	
Aluminum	7429-90-5	E472/VA	5.0	mg/kg	---	<5.0	6.0	16.3	11.1	
Antimony	7440-36-0	E472/VA	0.010	mg/kg	---	<0.010	<0.010	<0.010	<0.010	
Antimony	7440-36-0	E440/VA	0.010	mg/kg	<0.010	---	---	---	---	
Arsenic	7440-38-2	E440/VA	0.020	mg/kg	0.330	---	---	---	---	
Arsenic	7440-38-2	E472/VA	0.030	mg/kg	---	0.439	0.371	0.142	0.279	
Barium	7440-39-3	E472/VA	0.050	mg/kg	---	0.173	0.101	0.144	0.130	
Barium	7440-39-3	E440/VA	0.050	mg/kg	0.671	---	---	---	---	
Beryllium	7440-41-7	E472/VA	0.010	mg/kg	---	<0.010	<0.010	<0.010	<0.010	
Beryllium	7440-41-7	E440/VA	0.010	mg/kg	<0.010	---	---	---	---	
Bismuth	7440-69-9	E472/VA	0.010	mg/kg	---	0.031	0.022	0.046	0.042	
Bismuth	7440-69-9	E440/VA	0.010	mg/kg	<0.010	---	---	---	---	
Boron	7440-42-8	E472/VA	1.0	mg/kg	---	<1.0	<1.0	<1.0	<1.0	
Boron	7440-42-8	E440/VA	1.0	mg/kg	<1.0	---	---	---	---	
Cadmium	7440-43-9	E440/VA	0.0050	mg/kg	0.0078	---	---	---	---	
Cadmium	7440-43-9	E472/VA	0.010	mg/kg	---	0.619	0.479	0.428	0.466	
Calcium	7440-70-2	E472/VA	20	mg/kg	---	161	164	153	178	
Calcium	7440-70-2	E440/VA	20	mg/kg	4760	---	---	---	---	
Cesium	7440-46-2	E472/VA	0.0050	mg/kg	---	0.0352	0.0386	0.0306	0.0379	
Cesium	7440-46-2	E440/VA	0.0050	mg/kg	0.141	---	---	---	---	
Chromium	7440-47-3	E440/VA	0.050	mg/kg	<0.050	---	---	---	---	
Chromium	7440-47-3	E472/VA	0.20	mg/kg	---	0.67	0.38	0.38	0.34	
Cobalt	7440-48-4	E472/VA	0.020	mg/kg	---	0.187	0.223	0.127	0.246	
Cobalt	7440-48-4	E440/VA	0.020	mg/kg	<0.020	---	---	---	---	
Copper	7440-50-8	E440/VA	0.10	mg/kg	1.04	---	---	---	---	
Copper	7440-50-8	E472/VA	0.20	mg/kg	---	17.0	9.02	8.97	26.4	
Iron	7439-89-6	E440/VA	3.0	mg/kg	12.9	---	---	---	---	



Analytical Results

Sub-Matrix: Tissue

Client sample ID

(Matrix: Biota)

					QUL-NGC_PCC-M-8_2023-09	QUL-NGC_PCC-Li-1_2023-09	QUL-NGC_PCC-Li-2_2023-09	QUL-NGC_PCC-Li-3_2023-09	QUL-NGC_PCC-Li-4_2023-09
Client sampling date / time					30-Sep-2023 00:00	29-Sep-2023 00:00	29-Sep-2023 00:00	30-Sep-2023 00:00	30-Sep-2023 00:00
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23C4190-056	VA23C4190-057	VA23C4190-058	VA23C4190-059	VA23C4190-060
					Result	Result	Result	Result	Result
Metals									
Iron	7439-89-6	E472/VA	5.0	mg/kg	---	982	602	246	590
Lead	7439-92-1	E440/VA	0.020	mg/kg	<0.020	---	---	---	---
Lead	7439-92-1	E472/VA	0.050	mg/kg	---	<0.050	<0.050	0.111	0.062
Lithium	7439-93-2	E472/VA	0.50	mg/kg	---	<0.50	<0.50	<0.50	<0.50
Lithium	7439-93-2	E440/VA	0.50	mg/kg	<0.50	---	---	---	---
Magnesium	7439-95-4	E472/VA	2.0	mg/kg	---	612	652	800	819
Magnesium	7439-95-4	E440/VA	2.0	mg/kg	1460	---	---	---	---
Manganese	7439-96-5	E472/VA	0.050	mg/kg	---	4.58	4.45	6.12	5.68
Manganese	7439-96-5	E440/VA	0.050	mg/kg	1.56	---	---	---	---
Mercury	7439-97-6	E511/VA	0.0050	mg/kg	---	0.146	0.223	0.360	0.420
Mercury	7439-97-6	E510/VA	0.0050	mg/kg	0.817	---	---	---	---
Mercury	7439-97-6	E511A/VA	0.0010	mg/kg wwt	---	0.0471	0.0656	0.0895	0.105
Mercury	7439-97-6	E510A/VA	0.0010	mg/kg wwt	0.193	---	---	---	---
Molybdenum	7439-98-7	E440/VA	0.020	mg/kg	<0.020	---	---	---	---
Molybdenum	7439-98-7	E472/VA	0.040	mg/kg	---	0.436	0.515	0.634	0.784
Nickel	7440-02-0	E472/VA	0.20	mg/kg	---	<0.20	<0.20	<0.20	0.20
Nickel	7440-02-0	E440/VA	0.20	mg/kg	<0.20	---	---	---	---
Phosphorus	7723-14-0	E472/VA	10	mg/kg	---	11200	11800	14600	14600
Phosphorus	7723-14-0	E440/VA	10	mg/kg	13400	---	---	---	---
Potassium	7440-09-7	E472/VA	20	mg/kg	---	8800	9660	12500	12500
Potassium	7440-09-7	E440/VA	20	mg/kg	19900	---	---	---	---
Rubidium	7440-17-7	E472/VA	0.050	mg/kg	---	14.6	15.7	12.8	18.0
Rubidium	7440-17-7	E440/VA	0.050	mg/kg	27.7	---	---	---	---
Selenium	7782-49-2	E440/VA	0.050	mg/kg	2.78	---	---	---	---
Selenium	7782-49-2	E472/VA	0.10	mg/kg	---	5.08	5.29	6.56	8.90
Silver	7440-22-4	E472.Ag/VA	0.0050	mg/kg	---	0.0664	0.0147	0.0104	0.147
Silver	7440-22-4	E440.Ag/VA	0.0050	mg/kg	<0.0050	---	---	---	---
Sodium	7440-23-5	E472/VA	20	mg/kg	---	2480	3180	3780	3790
Sodium	7440-23-5	E440/VA	20	mg/kg	1190	---	---	---	---
Strontium	7440-24-6	E440/VA	0.050	mg/kg	9.02	---	---	---	---



Analytical Results

Sub-Matrix: Tissue
 (Matrix: Biota)

Client sample ID

					QUL-NGC_PCC-M-8_2023-09	QUL-NGC_PCC-Li-1_2023-09	QUL-NGC_PCC-Li-2_2023-09	QUL-NGC_PCC-Li-3_2023-09	QUL-NGC_PCC-Li-4_2023-09
Client sampling date / time					30-Sep-2023 00:00	29-Sep-2023 00:00	29-Sep-2023 00:00	30-Sep-2023 00:00	30-Sep-2023 00:00
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23C4190-056	VA23C4190-057	VA23C4190-058	VA23C4190-059	VA23C4190-060
					Result	Result	Result	Result	Result
Metals									
Strontium	7440-24-6	E472/VA	0.10	mg/kg	----	0.44	0.44	0.42	0.49
Tellurium	13494-80-9	E472/VA	0.020	mg/kg	----	<0.020	<0.020	<0.020	<0.020
Tellurium	13494-80-9	E440/VA	0.020	mg/kg	<0.020	----	----	----	----
Thallium	7440-28-0	E472/VA	0.0020	mg/kg	----	0.0097	0.0127	0.0125	0.0117
Thallium	7440-28-0	E440/VA	0.0020	mg/kg	0.0052	----	----	----	----
Tin	7440-31-5	E472/VA	0.10	mg/kg	----	<0.10	<0.10	<0.10	<0.10
Tin	7440-31-5	E440/VA	0.10	mg/kg	<0.10	----	----	----	----
Titanium	7440-32-6	E440.Ti/VA	0.25	mg/kg	<0.25	----	----	----	----
Titanium	7440-32-6	E472.Ti/VA	0.50	mg/kg	----	<0.50	<0.50	<0.50	<0.50
Uranium	7440-61-1	E472/VA	0.0020	mg/kg	----	0.0089	0.0289	0.0582	0.0413
Uranium	7440-61-1	E440/VA	0.0020	mg/kg	0.0023	----	----	----	----
Vanadium	7440-62-2	E472/VA	0.10	mg/kg	----	0.17	0.24	0.32	0.32
Vanadium	7440-62-2	E440/VA	0.10	mg/kg	<0.10	----	----	----	----
Zinc	7440-66-6	E440/VA	0.50	mg/kg	24.6	----	----	----	----
Zinc	7440-66-6	E472/VA	1.0	mg/kg	----	66.8	68.1	84.3	85.9
Zirconium	7440-67-7	E472/VA	0.20	mg/kg	----	<0.20	<0.20	<0.20	<0.20
Zirconium	7440-67-7	E440/VA	0.20	mg/kg	<0.20	----	----	----	----

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.



Analytical Results

Sub-Matrix: Tissue (Matrix: Biota)					Client sample ID	QUL-NGC_PCC- Li-5_2023-09	QUL-NGC_PCC- Li-6_2023-09	QUL-NGC_PCC- Li-7_2023-09	QUL-NGC_PCC- Li-8_2023-09	QUL-NGC_PCC- O-1_2023-09
Client sampling date / time					30-Sep-2023 00:00	30-Sep-2023 00:00	30-Sep-2023 00:00	30-Sep-2023 00:00	29-Sep-2023 00:00	
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23C4190-061	VA23C4190-062	VA23C4190-063	VA23C4190-064	VA23C4190-065	
					Result	Result	Result	Result	Result	
Physical Tests										
Moisture	---	E144/VA	0.50	%	---	---	---	---	64.4	
Moisture	---	E144A/VA	2.0	%	69.5	71.3	74.3	---	---	
Moisture	---	E144-H/VA	2.0	%	---	---	---	69.8	---	
Metals										
Aluminum	7429-90-5	E440/VA	2.0	mg/kg	---	---	---	---	<2.0	
Aluminum	7429-90-5	E475/VA	5.0	mg/kg	11.3	<5.0	10.1	---	---	
Aluminum	7429-90-5	E472/VA	5.0	mg/kg	---	---	---	5.2	---	
Antimony	7440-36-0	E472/VA	0.010	mg/kg	---	---	---	<0.010	---	
Antimony	7440-36-0	E440/VA	0.010	mg/kg	---	---	---	---	<0.010	
Antimony	7440-36-0	E475/VA	0.020	mg/kg	<0.020	<0.020	<0.020	---	---	
Arsenic	7440-38-2	E440/VA	0.020	mg/kg	---	---	---	---	0.254	
Arsenic	7440-38-2	E472/VA	0.030	mg/kg	---	---	---	0.295	---	
Arsenic	7440-38-2	E475/VA	0.050	mg/kg	0.293	0.232	0.193	---	---	
Barium	7440-39-3	E475/VA	0.050	mg/kg	0.154	1.66	0.192	---	---	
Barium	7440-39-3	E472/VA	0.050	mg/kg	---	---	---	0.109	---	
Barium	7440-39-3	E440/VA	0.050	mg/kg	---	---	---	---	0.460	
Beryllium	7440-41-7	E475/VA	0.010	mg/kg	<0.010	<0.010	<0.010	---	---	
Beryllium	7440-41-7	E472/VA	0.010	mg/kg	---	---	---	<0.010	---	
Beryllium	7440-41-7	E440/VA	0.010	mg/kg	---	---	---	---	<0.010	
Bismuth	7440-69-9	E475/VA	0.010	mg/kg	0.065	0.062	0.097	---	---	
Bismuth	7440-69-9	E472/VA	0.010	mg/kg	---	---	---	0.021	---	
Bismuth	7440-69-9	E440/VA	0.010	mg/kg	---	---	---	---	<0.010	
Boron	7440-42-8	E475/VA	1.0	mg/kg	1.1	2.3	1.2	---	---	
Boron	7440-42-8	E472/VA	1.0	mg/kg	---	---	---	<1.0	---	
Boron	7440-42-8	E440/VA	1.0	mg/kg	---	---	---	---	<1.0	
Cadmium	7440-43-9	E440/VA	0.0050	mg/kg	---	---	---	---	0.0236	
Cadmium	7440-43-9	E475/VA	0.010	mg/kg	0.561	4.07	0.637	---	---	
Cadmium	7440-43-9	E472/VA	0.010	mg/kg	---	---	---	0.543	---	
Calcium	7440-70-2	E475/VA	20	mg/kg	134	345	1690	---	---	
Calcium	7440-70-2	E472/VA	20	mg/kg	---	---	---	328	---	



Analytical Results

Sub-Matrix: Tissue					Client sample ID	QUL-NGC_PCC-Li-5_2023-09	QUL-NGC_PCC-Li-6_2023-09	QUL-NGC_PCC-Li-7_2023-09	QUL-NGC_PCC-Li-8_2023-09	QUL-NGC_PCC-O-1_2023-09
(Matrix: Biota)					Client sampling date / time	30-Sep-2023 00:00	30-Sep-2023 00:00	30-Sep-2023 00:00	30-Sep-2023 00:00	29-Sep-2023 00:00
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23C4190-061	VA23C4190-062	VA23C4190-063	VA23C4190-064	VA23C4190-065	
					Result	Result	Result	Result	Result	
Metals										
Calcium	7440-70-2	E440/VA	20	mg/kg	---	---	---	---	---	315
Cesium	7440-46-2	E475/VA	0.0050	mg/kg	0.0471	0.0854	0.0486	---	---	---
Cesium	7440-46-2	E472/VA	0.0050	mg/kg	---	---	---	0.0270	---	---
Cesium	7440-46-2	E440/VA	0.0050	mg/kg	---	---	---	---	---	0.0651
Chromium	7440-47-3	E440/VA	0.050	mg/kg	---	---	---	---	---	0.052
Chromium	7440-47-3	E475/VA	0.20	mg/kg	0.30	0.42	0.24	---	---	---
Chromium	7440-47-3	E472/VA	0.20	mg/kg	---	---	---	0.20	---	---
Cobalt	7440-48-4	E475/VA	0.020	mg/kg	0.257	3.96	0.239	---	---	---
Cobalt	7440-48-4	E472/VA	0.020	mg/kg	---	---	---	0.151	---	---
Cobalt	7440-48-4	E440/VA	0.020	mg/kg	---	---	---	---	---	0.140
Copper	7440-50-8	E440/VA	0.10	mg/kg	---	---	---	---	---	5.58
Copper	7440-50-8	E475/VA	0.20	mg/kg	17.0	5.17	18.3	---	---	---
Copper	7440-50-8	E472/VA	0.20	mg/kg	---	---	---	17.9	---	---
Iron	7439-89-6	E440/VA	3.0	mg/kg	---	---	---	---	---	69.2
Iron	7439-89-6	E475/VA	5.0	mg/kg	886	381	751	---	---	---
Iron	7439-89-6	E472/VA	5.0	mg/kg	---	---	---	534	---	---
Lead	7439-92-1	E440/VA	0.020	mg/kg	---	---	---	---	---	<0.020
Lead	7439-92-1	E475/VA	0.050	mg/kg	0.050	0.082	0.052	---	---	---
Lead	7439-92-1	E472/VA	0.050	mg/kg	---	---	---	<0.050	---	---
Lithium	7439-93-2	E475/VA	0.50	mg/kg	<0.50	<0.50	<0.50	---	---	---
Lithium	7439-93-2	E472/VA	0.50	mg/kg	---	---	---	<0.50	---	---
Lithium	7439-93-2	E440/VA	0.50	mg/kg	---	---	---	---	---	<0.50
Magnesium	7439-95-4	E475/VA	2.0	mg/kg	688	624	826	---	---	---
Magnesium	7439-95-4	E472/VA	2.0	mg/kg	---	---	---	622	---	---
Magnesium	7439-95-4	E440/VA	2.0	mg/kg	---	---	---	---	---	709
Manganese	7439-96-5	E475/VA	0.050	mg/kg	5.10	4.33	6.38	---	---	---
Manganese	7439-96-5	E472/VA	0.050	mg/kg	---	---	---	3.75	---	---
Manganese	7439-96-5	E440/VA	0.050	mg/kg	---	---	---	---	---	10.9
Mercury	7439-97-6	E511/VA	0.0050	mg/kg	---	---	---	0.295	---	---
Mercury	7439-97-6	E510/VA	0.0050	mg/kg	---	---	---	---	---	0.0190



Analytical Results

Sub-Matrix: Tissue					Client sample ID	QUL-NGC_PCC-Li-5_2023-09	QUL-NGC_PCC-Li-6_2023-09	QUL-NGC_PCC-Li-7_2023-09	QUL-NGC_PCC-Li-8_2023-09	QUL-NGC_PCC-O-1_2023-09
(Matrix: Biota)					Client sampling date / time	30-Sep-2023 00:00	30-Sep-2023 00:00	30-Sep-2023 00:00	30-Sep-2023 00:00	29-Sep-2023 00:00
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23C4190-061	VA23C4190-062	VA23C4190-063	VA23C4190-064	VA23C4190-065	
					Result	Result	Result	Result	Result	
Metals										
Mercury	7439-97-6	E512/VA	0.010	mg/kg	0.312	0.215 ^{RRR}	0.346	---	---	
Mercury	7439-97-6	E511A/VA	0.0010	mg/kg wwt	---	---	---	0.0891	---	
Mercury	7439-97-6	E510A/VA	0.0010	mg/kg wwt	---	---	---	---	0.0068	
Mercury	7439-97-6	E512A/VA	0.0020	mg/kg wwt	0.0952	0.0617 ^{RRR}	0.0890	---	---	
Molybdenum	7439-98-7	E440/VA	0.020	mg/kg	---	---	---	---	0.114	
Molybdenum	7439-98-7	E475/VA	0.040	mg/kg	0.783	0.469	0.815	---	---	
Molybdenum	7439-98-7	E472/VA	0.040	mg/kg	---	---	---	0.598	---	
Nickel	7440-02-0	E475/VA	0.20	mg/kg	0.23	1.74	0.21	---	---	
Nickel	7440-02-0	E472/VA	0.20	mg/kg	---	---	---	<0.20	---	
Nickel	7440-02-0	E440/VA	0.20	mg/kg	---	---	---	---	<0.20	
Phosphorus	7723-14-0	E472/VA	10	mg/kg	---	---	---	10900	---	
Phosphorus	7723-14-0	E440/VA	10	mg/kg	---	---	---	---	11400	
Phosphorus	7723-14-0	E475/VA	20	mg/kg	12400	12000	14400	---	---	
Potassium	7440-09-7	E475/VA	20	mg/kg	9700	10800	11400	---	---	
Potassium	7440-09-7	E472/VA	20	mg/kg	---	---	---	9960	---	
Potassium	7440-09-7	E440/VA	20	mg/kg	---	---	---	---	8240	
Rubidium	7440-17-7	E475/VA	0.050	mg/kg	17.3	18.7	16.1	---	---	
Rubidium	7440-17-7	E472/VA	0.050	mg/kg	---	---	---	13.6	---	
Rubidium	7440-17-7	E440/VA	0.050	mg/kg	---	---	---	---	15.3	
Selenium	7782-49-2	E440/VA	0.050	mg/kg	---	---	---	---	9.58	
Selenium	7782-49-2	E475/VA	0.10	mg/kg	6.78	5.28	8.81	---	---	
Selenium	7782-49-2	E472/VA	0.10	mg/kg	---	---	---	7.37	---	
Silver	7440-22-4	E475.Ag/VA	0.0050	mg/kg	0.0515	<0.0050	0.0909	---	---	
Silver	7440-22-4	E472.Ag/VA	0.0050	mg/kg	---	---	---	0.0722	---	
Silver	7440-22-4	E440.Ag/VA	0.0050	mg/kg	---	---	---	---	0.0175	
Sodium	7440-23-5	E475/VA	20	mg/kg	3290	4430	3820	---	---	
Sodium	7440-23-5	E472/VA	20	mg/kg	---	---	---	3140	---	
Sodium	7440-23-5	E440/VA	20	mg/kg	---	---	---	---	1690	
Strontium	7440-24-6	E440/VA	0.050	mg/kg	---	---	---	---	0.422	
Strontium	7440-24-6	E475/VA	0.10	mg/kg	0.32	0.90	2.55	---	---	



Analytical Results

Sub-Matrix: Tissue					Client sample ID	QUL-NGC_PCC-Li-5_2023-09	QUL-NGC_PCC-Li-6_2023-09	QUL-NGC_PCC-Li-7_2023-09	QUL-NGC_PCC-Li-8_2023-09	QUL-NGC_PCC-O-1_2023-09
(Matrix: Biota)					Client sampling date / time	30-Sep-2023 00:00	30-Sep-2023 00:00	30-Sep-2023 00:00	30-Sep-2023 00:00	29-Sep-2023 00:00
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23C4190-061	VA23C4190-062	VA23C4190-063	VA23C4190-064	VA23C4190-065	
					Result	Result	Result	Result	Result	
Metals										
Strontium	7440-24-6	E472/VA	0.10	mg/kg	---	---	---	0.90	---	
Tellurium	13494-80-9	E475/VA	0.020	mg/kg	<0.020	0.038	<0.020	---	---	
Tellurium	13494-80-9	E472/VA	0.020	mg/kg	---	---	---	<0.020	---	
Tellurium	13494-80-9	E440/VA	0.020	mg/kg	---	---	---	---	<0.020	
Thallium	7440-28-0	E475/VA	0.0020	mg/kg	0.0214	0.0378	0.0131	---	---	
Thallium	7440-28-0	E472/VA	0.0020	mg/kg	---	---	---	0.0213	---	
Thallium	7440-28-0	E440/VA	0.0020	mg/kg	---	---	---	---	0.0049	
Tin	7440-31-5	E475/VA	0.10	mg/kg	<0.10	<0.10	<0.10	---	---	
Tin	7440-31-5	E472/VA	0.10	mg/kg	---	---	---	<0.10	---	
Tin	7440-31-5	E440/VA	0.10	mg/kg	---	---	---	---	<0.10	
Titanium	7440-32-6	E440.Ti/VA	0.25	mg/kg	---	---	---	---	<0.25	
Titanium	7440-32-6	E475.Ti/VA	0.50	mg/kg	<0.50	<0.52	<1.00 ^{DLM}	---	---	
Titanium	7440-32-6	E472.Ti/VA	0.50	mg/kg	---	---	---	<0.50	---	
Uranium	7440-61-1	E475/VA	0.0020	mg/kg	0.0237	0.0595	0.0148	---	---	
Uranium	7440-61-1	E472/VA	0.0020	mg/kg	---	---	---	0.0110	---	
Uranium	7440-61-1	E440/VA	0.0020	mg/kg	---	---	---	---	0.0028	
Vanadium	7440-62-2	E475/VA	0.10	mg/kg	0.33	0.27	0.17	---	---	
Vanadium	7440-62-2	E472/VA	0.10	mg/kg	---	---	---	0.12	---	
Vanadium	7440-62-2	E440/VA	0.10	mg/kg	---	---	---	---	<0.10	
Zinc	7440-66-6	E440/VA	0.50	mg/kg	---	---	---	---	100	
Zinc	7440-66-6	E475/VA	1.0	mg/kg	93.2	194	99.2	---	---	
Zinc	7440-66-6	E472/VA	1.0	mg/kg	---	---	---	79.7	---	
Zirconium	7440-67-7	E475/VA	0.20	mg/kg	<0.20	<0.20	<0.20	---	---	
Zirconium	7440-67-7	E472/VA	0.20	mg/kg	---	---	---	<0.20	---	
Zirconium	7440-67-7	E440/VA	0.20	mg/kg	---	---	---	---	<0.20	

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.



Analytical Results

Sub-Matrix: Tissue
 (Matrix: Biota)

Client sample ID

					QUL-NGC_PCC-O-2_2023-09	QUL-NGC_PCC-O-3_2023-09	QUL-NGC_PCC-O-4_2023-09	QUL-NGC_PCC-O-5_2023-09	QUL-NGC_PCC-O-6_2023-09
Client sampling date / time					29-Sep-2023 00:00	30-Sep-2023 00:00	30-Sep-2023 00:00	30-Sep-2023 00:00	30-Sep-2023 00:00
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23C4190-066	VA23C4190-067	VA23C4190-068	VA23C4190-069	VA23C4190-070
					Result	Result	Result	Result	Result
Physical Tests									
Moisture	---	E144/VA	0.50	%	62.8	69.1	67.9	---	62.8
Moisture	---	E144-H/VA	2.0	%	---	---	---	72.2	---
Metals									
Aluminum	7429-90-5	E440/VA	2.0	mg/kg	<2.0	3.0	<2.0	---	<2.0
Aluminum	7429-90-5	E472/VA	5.0	mg/kg	---	---	---	<5.0	---
Antimony	7440-36-0	E472/VA	0.010	mg/kg	---	---	---	<0.010	---
Antimony	7440-36-0	E440/VA	0.010	mg/kg	<0.010	<0.010	<0.010	---	<0.010
Arsenic	7440-38-2	E440/VA	0.020	mg/kg	0.357	0.228	0.126	---	0.110
Arsenic	7440-38-2	E472/VA	0.030	mg/kg	---	---	---	0.093	---
Barium	7440-39-3	E472/VA	0.050	mg/kg	---	---	---	0.333	---
Barium	7440-39-3	E440/VA	0.050	mg/kg	0.650	0.672	0.897	---	0.400
Beryllium	7440-41-7	E472/VA	0.010	mg/kg	---	---	---	<0.010	---
Beryllium	7440-41-7	E440/VA	0.010	mg/kg	<0.010	<0.010	<0.010	---	<0.010
Bismuth	7440-69-9	E472/VA	0.010	mg/kg	---	---	---	<0.010	---
Bismuth	7440-69-9	E440/VA	0.010	mg/kg	<0.010	<0.010	<0.010	---	<0.010
Boron	7440-42-8	E472/VA	1.0	mg/kg	---	---	---	<1.0	---
Boron	7440-42-8	E440/VA	1.0	mg/kg	<1.0	<1.0	<1.0	---	<1.0
Cadmium	7440-43-9	E440/VA	0.0050	mg/kg	0.0095	0.0206	0.0200	---	0.0074
Cadmium	7440-43-9	E472/VA	0.010	mg/kg	---	---	---	0.013	---
Calcium	7440-70-2	E472/VA	20	mg/kg	---	---	---	715	---
Calcium	7440-70-2	E440/VA	20	mg/kg	437	501	1820	---	482
Cesium	7440-46-2	E472/VA	0.0050	mg/kg	---	---	---	0.110	---
Cesium	7440-46-2	E440/VA	0.0050	mg/kg	0.0643	0.0535	0.0653	---	0.0757
Chromium	7440-47-3	E440/VA	0.050	mg/kg	0.087	0.102	<0.050	---	<0.050
Chromium	7440-47-3	E472/VA	0.20	mg/kg	---	---	---	<0.20	---
Cobalt	7440-48-4	E472/VA	0.020	mg/kg	---	---	---	0.142	---
Cobalt	7440-48-4	E440/VA	0.020	mg/kg	0.122	0.091	0.146	---	0.161
Copper	7440-50-8	E440/VA	0.10	mg/kg	4.02	4.21	4.20	---	3.92
Copper	7440-50-8	E472/VA	0.20	mg/kg	---	---	---	4.48	---
Iron	7439-89-6	E440/VA	3.0	mg/kg	57.3	79.8	64.3	---	65.2



Analytical Results

Sub-Matrix: Tissue					Client sample ID				
(Matrix: Biota)					QUL-NGC_PCC-O-2_2023-09	QUL-NGC_PCC-O-3_2023-09	QUL-NGC_PCC-O-4_2023-09	QUL-NGC_PCC-O-5_2023-09	QUL-NGC_PCC-O-6_2023-09
Client sampling date / time					29-Sep-2023 00:00	30-Sep-2023 00:00	30-Sep-2023 00:00	30-Sep-2023 00:00	30-Sep-2023 00:00
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23C4190-066	VA23C4190-067	VA23C4190-068	VA23C4190-069	VA23C4190-070
					Result	Result	Result	Result	Result
Metals									
Iron	7439-89-6	E472/VA	5.0	mg/kg	---	---	---	79.7	---
Lead	7439-92-1	E440/VA	0.020	mg/kg	<0.020	0.068	0.026	---	<0.020
Lead	7439-92-1	E472/VA	0.050	mg/kg	---	---	---	<0.050	---
Lithium	7439-93-2	E472/VA	0.50	mg/kg	---	---	---	<0.50	---
Lithium	7439-93-2	E440/VA	0.50	mg/kg	<0.50	<0.50	<0.50	---	<0.50
Magnesium	7439-95-4	E472/VA	2.0	mg/kg	---	---	---	1070	---
Magnesium	7439-95-4	E440/VA	2.0	mg/kg	640	877	781	---	703
Manganese	7439-96-5	E472/VA	0.050	mg/kg	---	---	---	15.7	---
Manganese	7439-96-5	E440/VA	0.050	mg/kg	9.64	12.2	12.1	---	14.0
Mercury	7439-97-6	E511/VA	0.0050	mg/kg	---	---	---	0.0444	---
Mercury	7439-97-6	E510/VA	0.0050	mg/kg	0.0251	0.0504	0.0605	---	0.0303
Mercury	7439-97-6	E511A/VA	0.0010	mg/kg wwt	---	---	---	0.0123	---
Mercury	7439-97-6	E510A/VA	0.0010	mg/kg wwt	0.0093	0.0156	0.0194	---	0.0112
Molybdenum	7439-98-7	E440/VA	0.020	mg/kg	0.109	0.155	0.153	---	0.126
Molybdenum	7439-98-7	E472/VA	0.040	mg/kg	---	---	---	0.158	---
Nickel	7440-02-0	E472/VA	0.20	mg/kg	---	---	---	<0.20	---
Nickel	7440-02-0	E440/VA	0.20	mg/kg	<0.20	<0.20	<0.20	---	<0.20
Phosphorus	7723-14-0	E472/VA	10	mg/kg	---	---	---	10300	---
Phosphorus	7723-14-0	E440/VA	10	mg/kg	8710	10400	10300	---	8580
Potassium	7440-09-7	E472/VA	20	mg/kg	---	---	---	11100	---
Potassium	7440-09-7	E440/VA	20	mg/kg	7640	9720	9490	---	7860
Rubidium	7440-17-7	E472/VA	0.050	mg/kg	---	---	---	20.8	---
Rubidium	7440-17-7	E440/VA	0.050	mg/kg	14.3	11.7	14.9	---	13.7
Selenium	7782-49-2	E440/VA	0.050	mg/kg	6.04	10.8	14.4	---	7.05
Selenium	7782-49-2	E472/VA	0.10	mg/kg	---	---	---	13.8	---
Silver	7440-22-4	E472.Ag/VA	0.0050	mg/kg	---	---	---	0.0122	---
Silver	7440-22-4	E440.Ag/VA	0.0050	mg/kg	0.0119	0.0128	0.0124	---	0.0134
Sodium	7440-23-5	E472/VA	20	mg/kg	---	---	---	2270	---
Sodium	7440-23-5	E440/VA	20	mg/kg	1510	2430	2040	---	1780
Strontium	7440-24-6	E440/VA	0.050	mg/kg	0.564	0.769	3.05	---	0.702



Analytical Results

Sub-Matrix: Tissue
 (Matrix: Biota)

Client sample ID

					QUL-NGC_PCC-O-2_2023-09	QUL-NGC_PCC-O-3_2023-09	QUL-NGC_PCC-O-4_2023-09	QUL-NGC_PCC-O-5_2023-09	QUL-NGC_PCC-O-6_2023-09
Client sampling date / time					29-Sep-2023 00:00	30-Sep-2023 00:00	30-Sep-2023 00:00	30-Sep-2023 00:00	30-Sep-2023 00:00
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23C4190-066	VA23C4190-067	VA23C4190-068	VA23C4190-069	VA23C4190-070
					Result	Result	Result	Result	Result
Metals									
Strontium	7440-24-6	E472/VA	0.10	mg/kg	---	---	---	0.80	---
Tellurium	13494-80-9	E472/VA	0.020	mg/kg	---	---	---	<0.020	---
Tellurium	13494-80-9	E440/VA	0.020	mg/kg	<0.020	<0.020	<0.020	---	<0.020
Thallium	7440-28-0	E472/VA	0.0020	mg/kg	---	---	---	0.0052	---
Thallium	7440-28-0	E440/VA	0.0020	mg/kg	0.0042	0.0031	0.0048	---	0.0052
Tin	7440-31-5	E472/VA	0.10	mg/kg	---	---	---	<0.10	---
Tin	7440-31-5	E440/VA	0.10	mg/kg	<0.10	<0.10	<0.10	---	<0.10
Titanium	7440-32-6	E440.Ti/VA	0.25	mg/kg	<0.25	<0.25	<0.25	---	<0.25
Titanium	7440-32-6	E472.Ti/VA	0.50	mg/kg	---	---	---	<0.50	---
Uranium	7440-61-1	E472/VA	0.0020	mg/kg	---	---	---	0.0034	---
Uranium	7440-61-1	E440/VA	0.0020	mg/kg	0.0048	0.0086	0.0063	---	0.0059
Vanadium	7440-62-2	E472/VA	0.10	mg/kg	---	---	---	<0.10	---
Vanadium	7440-62-2	E440/VA	0.10	mg/kg	<0.10	<0.10	<0.10	---	<0.10
Zinc	7440-66-6	E440/VA	0.50	mg/kg	101	122	115	---	108
Zinc	7440-66-6	E472/VA	1.0	mg/kg	---	---	---	156	---
Zirconium	7440-67-7	E472/VA	0.20	mg/kg	---	---	---	<0.20	---
Zirconium	7440-67-7	E440/VA	0.20	mg/kg	<0.20	<0.20	<0.20	---	<0.20

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.



Analytical Results

Sub-Matrix: Tissue

Client sample ID

(Matrix: Biota)

					QUL-NGC_PCC-O-7_2023-09	QUL-NGC_PCC-O-8_2023-09	QUL-NGC_PCC-Ki-1_2023-09	QUL-NGC_PCC-Ki-2_2023-09	QUL-NGC_PCC-Ki-3_2023-09
Client sampling date / time					30-Sep-2023 00:00	30-Sep-2023 00:00	29-Sep-2023 00:00	29-Sep-2023 00:00	30-Sep-2023 00:00
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23C4190-071	VA23C4190-072	VA23C4190-073	VA23C4190-074	VA23C4190-075
					Result	Result	Result	Result	Result
Physical Tests									
Moisture	---	E144/VA	0.50	%	70.2	71.1	---	---	---
Moisture	---	E144A/VA	2.0	%	---	---	52.7	68.5	70.5
Metals									
Aluminum	7429-90-5	E440/VA	2.0	mg/kg	8.8	<2.0	---	---	---
Aluminum	7429-90-5	E475/VA	5.0	mg/kg	---	---	<5.0	<5.0	8.8
Antimony	7440-36-0	E440/VA	0.010	mg/kg	<0.010	<0.010	---	---	---
Antimony	7440-36-0	E475/VA	0.020	mg/kg	---	---	<0.020	<0.020	<0.020
Arsenic	7440-38-2	E440/VA	0.020	mg/kg	0.126	0.253	---	---	---
Arsenic	7440-38-2	E475/VA	0.050	mg/kg	---	---	0.640	0.579	0.295
Barium	7440-39-3	E475/VA	0.050	mg/kg	---	---	1.43	1.12	1.09
Barium	7440-39-3	E440/VA	0.050	mg/kg	0.538	0.857	---	---	---
Beryllium	7440-41-7	E475/VA	0.010	mg/kg	---	---	<0.010	<0.010	<0.010
Beryllium	7440-41-7	E440/VA	0.010	mg/kg	<0.010	<0.010	---	---	---
Bismuth	7440-69-9	E475/VA	0.010	mg/kg	---	---	0.017	0.022	0.051
Bismuth	7440-69-9	E440/VA	0.010	mg/kg	<0.010	<0.010	---	---	---
Boron	7440-42-8	E475/VA	1.0	mg/kg	---	---	1.4	<1.0	<1.1
Boron	7440-42-8	E440/VA	1.0	mg/kg	<1.0	<1.0	---	---	---
Cadmium	7440-43-9	E440/VA	0.0050	mg/kg	0.0242	0.0329	---	---	---
Cadmium	7440-43-9	E475/VA	0.010	mg/kg	---	---	4.73	3.72	4.35
Calcium	7440-70-2	E475/VA	20	mg/kg	---	---	1510	332	326
Calcium	7440-70-2	E440/VA	20	mg/kg	1840	517	---	---	---
Cesium	7440-46-2	E475/VA	0.0050	mg/kg	---	---	0.0380	0.0646	0.0555
Cesium	7440-46-2	E440/VA	0.0050	mg/kg	0.100	0.0951	---	---	---
Chromium	7440-47-3	E440/VA	0.050	mg/kg	0.070	0.107	---	---	---
Chromium	7440-47-3	E475/VA	0.20	mg/kg	---	---	0.49	0.26	0.60
Cobalt	7440-48-4	E475/VA	0.020	mg/kg	---	---	0.966	1.25	1.30
Cobalt	7440-48-4	E440/VA	0.020	mg/kg	0.109	0.133	---	---	---
Copper	7440-50-8	E440/VA	0.10	mg/kg	5.20	5.81	---	---	---
Copper	7440-50-8	E475/VA	0.20	mg/kg	---	---	2.89	3.88	5.09
Iron	7439-89-6	E440/VA	3.0	mg/kg	102	82.1	---	---	---



Analytical Results

Sub-Matrix: Tissue					Client sample ID				
(Matrix: Biota)					QUL-NGC_PCC-O-7_2023-09	QUL-NGC_PCC-O-8_2023-09	QUL-NGC_PCC-Ki-1_2023-09	QUL-NGC_PCC-Ki-2_2023-09	QUL-NGC_PCC-Ki-3_2023-09
Client sampling date / time					30-Sep-2023 00:00	30-Sep-2023 00:00	29-Sep-2023 00:00	29-Sep-2023 00:00	30-Sep-2023 00:00
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23C4190-071	VA23C4190-072	VA23C4190-073	VA23C4190-074	VA23C4190-075
					Result	Result	Result	Result	Result
Metals									
Iron	7439-89-6	E475/VA	5.0	mg/kg	---	---	251	250	216
Lead	7439-92-1	E440/VA	0.020	mg/kg	<0.020	<0.020	---	---	---
Lead	7439-92-1	E475/VA	0.050	mg/kg	---	---	<0.050	<0.050	0.169
Lithium	7439-93-2	E475/VA	0.50	mg/kg	---	---	<0.50	<0.50	<0.50
Lithium	7439-93-2	E440/VA	0.50	mg/kg	<0.50	<0.50	---	---	---
Magnesium	7439-95-4	E475/VA	2.0	mg/kg	---	---	327	476	614
Magnesium	7439-95-4	E440/VA	2.0	mg/kg	1020	962	---	---	---
Manganese	7439-96-5	E475/VA	0.050	mg/kg	---	---	3.11	2.92	4.37
Manganese	7439-96-5	E440/VA	0.050	mg/kg	13.5	11.2	---	---	---
Mercury	7439-97-6	E510/VA	0.0050	mg/kg	0.0447	0.0448	---	---	---
Mercury	7439-97-6	E512/VA	0.010	mg/kg	---	---	0.129 ^{RRR}	0.119	0.200 ^{RRR}
Mercury	7439-97-6	E510A/VA	0.0010	mg/kg wwt	0.0133	0.0130	---	---	---
Mercury	7439-97-6	E512A/VA	0.0020	mg/kg wwt	---	---	0.0610 ^{RRR}	0.0374	0.0590 ^{RRR}
Molybdenum	7439-98-7	E440/VA	0.020	mg/kg	0.163	0.190	---	---	---
Molybdenum	7439-98-7	E475/VA	0.040	mg/kg	---	---	0.210	0.302	0.677
Nickel	7440-02-0	E475/VA	0.20	mg/kg	---	---	0.64	0.82	0.99
Nickel	7440-02-0	E440/VA	0.20	mg/kg	<0.20	<0.20	---	---	---
Phosphorus	7723-14-0	E440/VA	10	mg/kg	10500	11300	---	---	---
Phosphorus	7723-14-0	E475/VA	20	mg/kg	---	---	6100	9000	11500
Potassium	7440-09-7	E475/VA	20	mg/kg	---	---	4720	7960	10300
Potassium	7440-09-7	E440/VA	20	mg/kg	10600	11900	---	---	---
Rubidium	7440-17-7	E475/VA	0.050	mg/kg	---	---	9.12	14.1	12.4
Rubidium	7440-17-7	E440/VA	0.050	mg/kg	17.0	20.4	---	---	---
Selenium	7782-49-2	E440/VA	0.050	mg/kg	11.4	11.7	---	---	---
Selenium	7782-49-2	E475/VA	0.10	mg/kg	---	---	3.10	3.62	4.79
Silver	7440-22-4	E475.Ag/VA	0.0050	mg/kg	---	---	<0.0050	<0.0050	<0.0050
Silver	7440-22-4	E440.Ag/VA	0.0050	mg/kg	0.0146	0.0109	---	---	---
Sodium	7440-23-5	E475/VA	20	mg/kg	---	---	2280	3660	3580
Sodium	7440-23-5	E440/VA	20	mg/kg	2340	2690	---	---	---
Strontium	7440-24-6	E440/VA	0.050	mg/kg	2.81	0.661	---	---	---



Analytical Results

Sub-Matrix: Tissue

Client sample ID

(Matrix: Biota)

					QUL-NGC_PCC-O-7_2023-09	QUL-NGC_PCC-O-8_2023-09	QUL-NGC_PCC-Ki-1_2023-09	QUL-NGC_PCC-Ki-2_2023-09	QUL-NGC_PCC-Ki-3_2023-09
Client sampling date / time					30-Sep-2023 00:00	30-Sep-2023 00:00	29-Sep-2023 00:00	29-Sep-2023 00:00	30-Sep-2023 00:00
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23C4190-071	VA23C4190-072	VA23C4190-073	VA23C4190-074	VA23C4190-075
					Result	Result	Result	Result	Result
Metals									
Strontium	7440-24-6	E475/VA	0.10	mg/kg	----	----	2.63	0.78	0.70
Tellurium	13494-80-9	E475/VA	0.020	mg/kg	----	----	<0.020	<0.020	0.021
Tellurium	13494-80-9	E440/VA	0.020	mg/kg	<0.020	<0.020	----	----	----
Thallium	7440-28-0	E475/VA	0.0020	mg/kg	----	----	0.0172	0.0233	0.0207
Thallium	7440-28-0	E440/VA	0.0020	mg/kg	0.0061	0.0083	----	----	----
Tin	7440-31-5	E475/VA	0.10	mg/kg	----	----	<0.10	<0.10	<0.10
Tin	7440-31-5	E440/VA	0.10	mg/kg	<0.10	<0.10	----	----	----
Titanium	7440-32-6	E440.Ti/VA	0.25	mg/kg	0.64	<0.25	----	----	----
Titanium	7440-32-6	E475.Ti/VA	0.50	mg/kg	----	----	<0.50	<0.50	0.58
Uranium	7440-61-1	E475/VA	0.0020	mg/kg	----	----	0.0159	0.0435	0.0919
Uranium	7440-61-1	E440/VA	0.0020	mg/kg	0.0026	0.0027	----	----	----
Vanadium	7440-62-2	E475/VA	0.10	mg/kg	----	----	0.16	0.20	0.46
Vanadium	7440-62-2	E440/VA	0.10	mg/kg	<0.10	<0.10	----	----	----
Zinc	7440-66-6	E440/VA	0.50	mg/kg	144	162	----	----	----
Zinc	7440-66-6	E475/VA	1.0	mg/kg	----	----	93.5	101	152
Zirconium	7440-67-7	E475/VA	0.20	mg/kg	----	----	<0.20	<0.20	<0.20
Zirconium	7440-67-7	E440/VA	0.20	mg/kg	<0.20	<0.20	----	----	----

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.



Analytical Results

Sub-Matrix: Tissue

Client sample ID

(Matrix: Biota)

					QUL-NGC_PCC-Ki-4_2023-09	QUL-NGC_PCC-Ki-5_2023-09	QUL-NGC_PCC-Ki-6_2023-09	QUL-NGC_PCC-Ki-7_2023-09	QUL-NGC_PCC-Ki-8_2023-09
Client sampling date / time					30-Sep-2023 00:00	30-Sep-2023 00:00	30-Sep-2023 00:00	30-Sep-2023 00:00	30-Sep-2023 00:00
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23C4190-076	VA23C4190-077	VA23C4190-078	VA23C4190-079	VA23C4190-080
					Result	Result	Result	Result	Result
Physical Tests									
Moisture	---	E144A/VA	2.0	%	74.3	67.8	71.9	73.7	70.3
Metals									
Aluminum	7429-90-5	E475/VA	5.0	mg/kg	7.6	5.8	6.6	<5.0	<5.0
Antimony	7440-36-0	E475/VA	0.020	mg/kg	<0.020	<0.020	<0.020	<0.020	<0.020
Arsenic	7440-38-2	E475/VA	0.050	mg/kg	0.339	0.427	0.143	0.294	0.435
Barium	7440-39-3	E475/VA	0.050	mg/kg	3.13	1.97	0.214	1.01	2.52
Beryllium	7440-41-7	E475/VA	0.010	mg/kg	<0.010	<0.010	<0.010	<0.010	<0.010
Bismuth	7440-69-9	E475/VA	0.010	mg/kg	0.058	0.074	0.062	0.066	0.017
Boron	7440-42-8	E475/VA	1.0	mg/kg	2.4	<1.1	<1.2	<1.0	<1.0
Cadmium	7440-43-9	E475/VA	0.010	mg/kg	14.0	7.60	0.469	5.18	10.3
Calcium	7440-70-2	E475/VA	20	mg/kg	480	303	172	314	10100
Cesium	7440-46-2	E475/VA	0.0050	mg/kg	0.0706	0.0816	0.0451	0.0928	0.0584
Chromium	7440-47-3	E475/VA	0.20	mg/kg	0.58	0.27	0.33	0.29	0.36
Cobalt	7440-48-4	E475/VA	0.020	mg/kg	3.68	1.98	0.360	2.74	1.31
Copper	7440-50-8	E475/VA	0.20	mg/kg	7.20	6.44	14.1	5.19	5.23
Iron	7439-89-6	E475/VA	5.0	mg/kg	398	297	919	291	410
Lead	7439-92-1	E475/VA	0.050	mg/kg	0.198	0.073	0.061	<0.050	0.068
Lithium	7439-93-2	E475/VA	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
Magnesium	7439-95-4	E475/VA	2.0	mg/kg	640	569	698	553	643
Manganese	7439-96-5	E475/VA	0.050	mg/kg	4.43	3.89	4.92	3.30	7.54
Mercury	7439-97-6	E512/VA	0.010	mg/kg	0.337	0.216 ^{RRR}	0.224 ^{RRR}	0.245 ^{RRR}	0.224
Mercury	7439-97-6	E512A/VA	0.0020	mg/kg wwt	0.0868	0.0695 ^{RRR}	0.0630 ^{RRR}	0.0644 ^{RRR}	0.0667
Molybdenum	7439-98-7	E475/VA	0.040	mg/kg	0.591	0.516	0.680	0.391	0.415
Nickel	7440-02-0	E475/VA	0.20	mg/kg	1.87	1.73	0.24	1.02	0.86
Phosphorus	7723-14-0	E475/VA	20	mg/kg	11900	11200	12800	10900	14700
Potassium	7440-09-7	E475/VA	20	mg/kg	10800	9090	10400	10400	8380
Rubidium	7440-17-7	E475/VA	0.050	mg/kg	17.6	18.0	15.7	15.9	14.4
Selenium	7782-49-2	E475/VA	0.10	mg/kg	6.74	6.30	6.29	5.00	5.25
Silver	7440-22-4	E475.Ag/VA	0.0050	mg/kg	0.0074	<0.0050	0.0504	<0.0050	<0.0050
Sodium	7440-23-5	E475/VA	20	mg/kg	5880	3810	4000	4470	4620



Analytical Results

Sub-Matrix: Tissue

(Matrix: Biota)

					Client sample ID	QUL-NGC_PCC-Ki-4_2023-09	QUL-NGC_PCC-Ki-5_2023-09	QUL-NGC_PCC-Ki-6_2023-09	QUL-NGC_PCC-Ki-7_2023-09	QUL-NGC_PCC-Ki-8_2023-09
					Client sampling date / time	30-Sep-2023 00:00	30-Sep-2023 00:00	30-Sep-2023 00:00	30-Sep-2023 00:00	30-Sep-2023 00:00
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23C4190-076	VA23C4190-077	VA23C4190-078	VA23C4190-079	VA23C4190-080	
					Result	Result	Result	Result	Result	
Metals										
Strontium	7440-24-6	E475/VA	0.10	mg/kg	1.20	0.65	0.45	0.64	21.1	
Tellurium	13494-80-9	E475/VA	0.020	mg/kg	0.042	0.023	<0.020	0.032	0.026	
Thallium	7440-28-0	E475/VA	0.0020	mg/kg	0.0355	0.0468	0.0132	0.0305	0.0328	
Tin	7440-31-5	E475/VA	0.10	mg/kg	0.72	<0.10	<0.10	<0.10	<0.10	
Titanium	7440-32-6	E475.Ti/VA	0.50	mg/kg	<0.58	<0.55	<0.62	<0.51	<0.50	
Uranium	7440-61-1	E475/VA	0.0020	mg/kg	0.125	0.0699	0.0306	0.0309	0.0332	
Vanadium	7440-62-2	E475/VA	0.10	mg/kg	0.54	0.46	0.17	0.24	0.18	
Zinc	7440-66-6	E475/VA	1.0	mg/kg	200	210	82.9	149	248	
Zirconium	7440-67-7	E475/VA	0.20	mg/kg	<0.20	<0.20	<0.20	<0.20	<0.20	

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.



Analytical Results

Sub-Matrix: Tissue					Client sample ID				
(Matrix: Biota)					QUL-NCP_LT-M -1_2023-10	QUL-NCP_LT-M -2_2023-10	QUL-NCP_LT-M -3_2023-10	QUL-NCP_LT-M -4_2023-10	QUL-NCP_LT-Li -1_2023-10
Client sampling date / time					01-Oct-2023 00:00	01-Oct-2023 00:00	05-Oct-2023 00:00	05-Oct-2023 00:00	01-Oct-2023 00:00
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23C4190-081	VA23C4190-082	VA23C4190-083	VA23C4190-084	VA23C4190-085
					Result	Result	Result	Result	Result
Physical Tests									
Moisture	---	E144/VA	0.50	%	79.2	79.1	77.8	76.7	77.1
Metals									
Aluminum	7429-90-5	E440/VA	2.0	mg/kg	3.1	2.4	<2.0	<2.0	2.1
Antimony	7440-36-0	E440/VA	0.010	mg/kg	<0.010	<0.010	<0.010	<0.010	<0.010
Arsenic	7440-38-2	E440/VA	0.020	mg/kg	0.030	0.560	0.063	0.106	0.162
Barium	7440-39-3	E440/VA	0.050	mg/kg	<0.050	0.053	<0.050	<0.050	<0.050
Beryllium	7440-41-7	E440/VA	0.010	mg/kg	<0.010	<0.010	<0.010	<0.010	<0.010
Bismuth	7440-69-9	E440/VA	0.010	mg/kg	<0.010	<0.010	<0.010	<0.010	<0.010
Boron	7440-42-8	E440/VA	1.0	mg/kg	<1.0	<1.0	<1.0	<1.0	<1.0
Cadmium	7440-43-9	E440/VA	0.0050	mg/kg	<0.0050	<0.0050	<0.0050	<0.0050	0.258
Calcium	7440-70-2	E440/VA	20	mg/kg	291	652	444	418	276
Cesium	7440-46-2	E440/VA	0.0050	mg/kg	0.425	0.309	0.237	0.266	0.366
Chromium	7440-47-3	E440/VA	0.050	mg/kg	<0.050	<0.050	<0.050	<0.050	0.336
Cobalt	7440-48-4	E440/VA	0.020	mg/kg	<0.020	<0.020	<0.020	<0.020	0.101
Copper	7440-50-8	E440/VA	0.10	mg/kg	1.86	1.12	0.88	0.72	26.4
Iron	7439-89-6	E440/VA	3.0	mg/kg	32.7	20.6	17.1	11.4	1280
Lead	7439-92-1	E440/VA	0.020	mg/kg	<0.020	<0.020	<0.020	<0.020	<0.020
Lithium	7439-93-2	E440/VA	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
Magnesium	7439-95-4	E440/VA	2.0	mg/kg	1060	1190	1270	1090	978
Manganese	7439-96-5	E440/VA	0.050	mg/kg	0.329	0.358	0.330	0.318	3.98
Mercury	7439-97-6	E510/VA	0.0050	mg/kg	7.28	5.35	1.92	2.09	8.00
Mercury	7439-97-6	E510A/VA	0.0010	mg/kg ww	1.51	1.12	0.428	0.487	1.83
Molybdenum	7439-98-7	E440/VA	0.020	mg/kg	0.022	0.032	<0.020	<0.020	0.386
Nickel	7440-02-0	E440/VA	0.20	mg/kg	<0.20	<0.20	<0.20	<0.20	<0.20
Phosphorus	7723-14-0	E440/VA	10	mg/kg	11000	12000	11100	10100	18500
Potassium	7440-09-7	E440/VA	20	mg/kg	18200	20600	20400	19200	17800
Rubidium	7440-17-7	E440/VA	0.050	mg/kg	41.2	38.4	35.4	34.9	83.8
Selenium	7782-49-2	E440/VA	0.050	mg/kg	2.02	2.42	1.80	1.90	6.95
Silver	7440-22-4	E440.Ag/VA	0.0050	mg/kg	<0.0050	<0.0050	<0.0050	<0.0050	0.0772
Sodium	7440-23-5	E440/VA	20	mg/kg	2400	1850	1350	1140	3960



Analytical Results

Sub-Matrix: Tissue

Client sample ID

(Matrix: Biota)

					QUL-NCP_LT-M -1_2023-10	QUL-NCP_LT-M -2_2023-10	QUL-NCP_LT-M -3_2023-10	QUL-NCP_LT-M -4_2023-10	QUL-NCP_LT-Li -1_2023-10
Client sampling date / time					01-Oct-2023 00:00	01-Oct-2023 00:00	05-Oct-2023 00:00	05-Oct-2023 00:00	01-Oct-2023 00:00
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23C4190-081	VA23C4190-082	VA23C4190-083	VA23C4190-084	VA23C4190-085
					Result	Result	Result	Result	Result
Metals									
Strontium	7440-24-6	E440/VA	0.050	mg/kg	0.304	0.648	0.306	0.290	0.278
Tellurium	13494-80-9	E440/VA	0.020	mg/kg	<0.020	<0.020	<0.020	<0.020	<0.020
Thallium	7440-28-0	E440/VA	0.0020	mg/kg	0.0289	0.0381	0.0361	0.0166	0.514
Tin	7440-31-5	E440/VA	0.10	mg/kg	0.23	0.27	0.27	0.27	0.16
Titanium	7440-32-6	E440.Ti/VA	0.25	mg/kg	<0.25	<0.25	<0.25	<0.25	<0.25
Uranium	7440-61-1	E440/VA	0.0020	mg/kg	<0.0020	<0.0020	<0.0020	<0.0020	0.0022
Vanadium	7440-62-2	E440/VA	0.10	mg/kg	<0.10	<0.10	<0.10	<0.10	0.14
Zinc	7440-66-6	E440/VA	0.50	mg/kg	19.3	15.5	11.2	9.98	120
Zirconium	7440-67-7	E440/VA	0.20	mg/kg	<0.20	<0.20	<0.20	<0.20	<0.20

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.



Analytical Results

Sub-Matrix: Tissue

Client sample ID

(Matrix: Biota)

					QUL-NCP_LT-Li -2_2023-10	QUL-NCP_LT-Li -3_2023-10	QUL-NCP_LT-Li -4_2023-10	QUL-NCP_LT-O- 1_2023-10	QUL-NCP_LT-O- 2_2023-10
Client sampling date / time					01-Oct-2023 00:00	05-Oct-2023 00:00	05-Oct-2023 00:00	01-Oct-2023 00:00	01-Oct-2023 00:00
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23C4190-086	VA23C4190-087	VA23C4190-088	VA23C4190-089	VA23C4190-090
					Result	Result	Result	Result	Result
Physical Tests									
Moisture	---	E144/VA	0.50	%	77.4	75.9	74.6	67.4	82.9
Metals									
Aluminum	7429-90-5	E440/VA	2.0	mg/kg	7.3	2.5	2.8	<2.0	2.0
Antimony	7440-36-0	E440/VA	0.010	mg/kg	<0.010	<0.010	<0.010	<0.010	<0.010
Arsenic	7440-38-2	E440/VA	0.020	mg/kg	0.911	0.606	0.325	0.021	0.173
Barium	7440-39-3	E440/VA	0.050	mg/kg	<0.050	<0.050	<0.050	<0.050	<0.050
Beryllium	7440-41-7	E440/VA	0.010	mg/kg	<0.010	<0.010	<0.010	<0.010	<0.010
Bismuth	7440-69-9	E440/VA	0.010	mg/kg	<0.010	<0.010	<0.010	<0.010	<0.010
Boron	7440-42-8	E440/VA	1.0	mg/kg	<1.0	<1.0	<1.0	<1.0	<1.0
Cadmium	7440-43-9	E440/VA	0.0050	mg/kg	1.50	0.721	0.259	<0.0050	0.0779
Calcium	7440-70-2	E440/VA	20	mg/kg	316	169	182	1270	1450
Cesium	7440-46-2	E440/VA	0.0050	mg/kg	0.101	0.0726	0.209	0.0939	0.262
Chromium	7440-47-3	E440/VA	0.050	mg/kg	0.808	0.334	0.136	<0.050	0.204
Cobalt	7440-48-4	E440/VA	0.020	mg/kg	0.217	0.159	0.061	0.029	0.277
Copper	7440-50-8	E440/VA	0.10	mg/kg	90.7	188	20.6	9.10	20.4
Iron	7439-89-6	E440/VA	3.0	mg/kg	1440	1400	276	61.1	377
Lead	7439-92-1	E440/VA	0.020	mg/kg	0.098	<0.020	<0.020	<0.020	0.033
Lithium	7439-93-2	E440/VA	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
Magnesium	7439-95-4	E440/VA	2.0	mg/kg	743	532	792	1120	678
Manganese	7439-96-5	E440/VA	0.050	mg/kg	4.72	4.77	5.12	0.249	2.87
Mercury	7439-97-6	E510/VA	0.0050	mg/kg	8.72	2.24	3.35	0.949	1.79
Mercury	7439-97-6	E510A/VA	0.0010	mg/kg wwt	1.97	0.539	0.850	0.310	0.307
Molybdenum	7439-98-7	E440/VA	0.020	mg/kg	0.784	0.628	0.260	<0.020	0.079
Nickel	7440-02-0	E440/VA	0.20	mg/kg	<0.20	<0.20	<0.20	<0.20	<0.20
Phosphorus	7723-14-0	E440/VA	10	mg/kg	16100	11400	15600	9640	8790
Potassium	7440-09-7	E440/VA	20	mg/kg	13600	10600	14200	5870	12300
Rubidium	7440-17-7	E440/VA	0.050	mg/kg	30.8	22.1	45.8	12.8	30.0
Selenium	7782-49-2	E440/VA	0.050	mg/kg	14.8	8.98	3.92	3.45	7.11
Silver	7440-22-4	E440.Ag/VA	0.0050	mg/kg	0.425	1.44	0.0906	0.0118	0.0154
Sodium	7440-23-5	E440/VA	20	mg/kg	5560	5860	3480	3920	13600



Analytical Results

Sub-Matrix: Tissue

Client sample ID

(Matrix: Biota)

					QUL-NCP_LT-Li -2_2023-10	QUL-NCP_LT-Li -3_2023-10	QUL-NCP_LT-Li -4_2023-10	QUL-NCP_LT-O- 1_2023-10	QUL-NCP_LT-O- 2_2023-10
Client sampling date / time					01-Oct-2023 00:00	05-Oct-2023 00:00	05-Oct-2023 00:00	01-Oct-2023 00:00	01-Oct-2023 00:00
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23C4190-086	VA23C4190-087	VA23C4190-088	VA23C4190-089	VA23C4190-090
					Result	Result	Result	Result	Result
Metals									
Strontium	7440-24-6	E440/VA	0.050	mg/kg	0.548	0.260	0.190	2.32	1.41
Tellurium	13494-80-9	E440/VA	0.020	mg/kg	<0.020	<0.020	<0.020	<0.020	<0.020
Thallium	7440-28-0	E440/VA	0.0020	mg/kg	0.232	0.190	0.458	0.0142	0.0621
Tin	7440-31-5	E440/VA	0.10	mg/kg	0.20	0.13	0.12	<0.10	0.22
Titanium	7440-32-6	E440.Ti/VA	0.25	mg/kg	<0.25	<0.25	<0.25	<0.25	<0.25
Uranium	7440-61-1	E440/VA	0.0020	mg/kg	0.0064	<0.0020	<0.0020	<0.0020	<0.0020
Vanadium	7440-62-2	E440/VA	0.10	mg/kg	0.42	0.16	<0.10	<0.10	<0.10
Zinc	7440-66-6	E440/VA	0.50	mg/kg	149	167	96.8	59.7	232
Zirconium	7440-67-7	E440/VA	0.20	mg/kg	<0.20	<0.20	<0.20	<0.20	<0.20

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.



Analytical Results

Sub-Matrix: Tissue					Client sample ID				
(Matrix: Biota)					QUL-NCP_LT-O-4_2023-10	QUL-NCP_LT-Ki-1_2023-10	QUL-NCP_LT-Ki-2_2023-10	QUL-NCP_LT-Ki-3_2023-10	QUL-NCP_LT-Ki-4_2023-10
Client sampling date / time					05-Oct-2023 00:00	01-Oct-2023 00:00	01-Oct-2023 00:00	05-Oct-2023 00:00	05-Oct-2023 00:00
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23C4190-091	VA23C4190-092	VA23C4190-093	VA23C4190-094	VA23C4190-095
					Result	Result	Result	Result	Result
Physical Tests									
Moisture	---	E144/VA	0.50	%	65.5	79.8	81.5	---	81.0
Moisture	---	E144-H/VA	2.0	%	---	---	---	81.5	---
Metals									
Aluminum	7429-90-5	E440/VA	2.0	mg/kg	<2.0	15.2	41.6	---	25.3
Aluminum	7429-90-5	E472/VA	5.0	mg/kg	---	---	---	5.3	---
Antimony	7440-36-0	E472/VA	0.010	mg/kg	---	---	---	<0.010	---
Antimony	7440-36-0	E440/VA	0.010	mg/kg	<0.010	<0.010	0.030	---	<0.010
Arsenic	7440-38-2	E440/VA	0.020	mg/kg	0.051	0.193	0.480	---	0.279
Arsenic	7440-38-2	E472/VA	0.030	mg/kg	---	---	---	0.180	---
Barium	7440-39-3	E472/VA	0.050	mg/kg	---	---	---	0.100	---
Barium	7440-39-3	E440/VA	0.050	mg/kg	<0.050	0.145	0.331	---	0.409
Beryllium	7440-41-7	E472/VA	0.010	mg/kg	---	---	---	<0.010	---
Beryllium	7440-41-7	E440/VA	0.010	mg/kg	<0.010	<0.010	<0.010	---	<0.010
Bismuth	7440-69-9	E472/VA	0.010	mg/kg	---	---	---	<0.010	---
Bismuth	7440-69-9	E440/VA	0.010	mg/kg	<0.010	<0.010	<0.010	---	<0.010
Boron	7440-42-8	E472/VA	1.0	mg/kg	---	---	---	<1.0	---
Boron	7440-42-8	E440/VA	1.0	mg/kg	<1.0	<1.0	<1.0	---	<1.0
Cadmium	7440-43-9	E440/VA	0.0050	mg/kg	<0.0050	4.92	10.9	---	2.63
Cadmium	7440-43-9	E472/VA	0.010	mg/kg	---	---	---	1.91	---
Calcium	7440-70-2	E472/VA	20	mg/kg	---	---	---	494	---
Calcium	7440-70-2	E440/VA	20	mg/kg	1040	1160	943	---	665
Cesium	7440-46-2	E472/VA	0.0050	mg/kg	---	---	---	0.108	---
Cesium	7440-46-2	E440/VA	0.0050	mg/kg	0.0672	0.384	0.248	---	0.181
Chromium	7440-47-3	E440/VA	0.050	mg/kg	<0.050	1.45	1.64	---	0.654
Chromium	7440-47-3	E472/VA	0.20	mg/kg	---	---	---	0.47	---
Cobalt	7440-48-4	E472/VA	0.020	mg/kg	---	---	---	0.349	---
Cobalt	7440-48-4	E440/VA	0.020	mg/kg	0.025	0.166	0.293	---	0.128
Copper	7440-50-8	E440/VA	0.10	mg/kg	9.06	6.06	5.12	---	3.74
Copper	7440-50-8	E472/VA	0.20	mg/kg	---	---	---	3.01	---
Iron	7439-89-6	E440/VA	3.0	mg/kg	50.5	1820	1200	---	908



Analytical Results

Sub-Matrix: Tissue					Client sample ID	QUL-NCP_LT-O-4_2023-10	QUL-NCP_LT-Ki-1_2023-10	QUL-NCP_LT-Ki-2_2023-10	QUL-NCP_LT-Ki-3_2023-10	QUL-NCP_LT-Ki-4_2023-10
(Matrix: Biota)					Client sampling date / time	05-Oct-2023 00:00	01-Oct-2023 00:00	01-Oct-2023 00:00	05-Oct-2023 00:00	05-Oct-2023 00:00
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23C4190-091	VA23C4190-092	VA23C4190-093	VA23C4190-094	VA23C4190-095	
					Result	Result	Result	Result	Result	
Metals										
Iron	7439-89-6	E472/VA	5.0	mg/kg	---	---	---	1290	---	
Lead	7439-92-1	E440/VA	0.020	mg/kg	<0.020	<0.020	0.142	---	0.023	
Lead	7439-92-1	E472/VA	0.050	mg/kg	---	---	---	<0.050	---	
Lithium	7439-93-2	E472/VA	0.50	mg/kg	---	---	---	<0.50	---	
Lithium	7439-93-2	E440/VA	0.50	mg/kg	<0.50	<0.50	<0.50	---	<0.50	
Magnesium	7439-95-4	E472/VA	2.0	mg/kg	---	---	---	513	---	
Magnesium	7439-95-4	E440/VA	2.0	mg/kg	1240	697	763	---	641	
Manganese	7439-96-5	E472/VA	0.050	mg/kg	---	---	---	0.737	---	
Manganese	7439-96-5	E440/VA	0.050	mg/kg	1.01	1.18	2.05	---	1.74	
Mercury	7439-97-6	E511/VA	0.0050	mg/kg	---	---	---	4.53	---	
Mercury	7439-97-6	E510/VA	0.0050	mg/kg	0.256	17.3	13.0	---	6.46	
Mercury	7439-97-6	E511A/VA	0.0010	mg/kg wwt	---	---	---	0.839	---	
Mercury	7439-97-6	E510A/VA	0.0010	mg/kg wwt	0.0883	3.49	2.40	---	1.23	
Molybdenum	7439-98-7	E440/VA	0.020	mg/kg	<0.020	0.494	0.521	---	0.270	
Molybdenum	7439-98-7	E472/VA	0.040	mg/kg	---	---	---	0.193	---	
Nickel	7440-02-0	E472/VA	0.20	mg/kg	---	---	---	0.26	---	
Nickel	7440-02-0	E440/VA	0.20	mg/kg	<0.20	0.85	1.19	---	0.50	
Phosphorus	7723-14-0	E472/VA	10	mg/kg	---	---	---	10300	---	
Phosphorus	7723-14-0	E440/VA	10	mg/kg	9640	12500	14000	---	12700	
Potassium	7440-09-7	E472/VA	20	mg/kg	---	---	---	9690	---	
Potassium	7440-09-7	E440/VA	20	mg/kg	6400	11500	11600	---	10800	
Rubidium	7440-17-7	E472/VA	0.050	mg/kg	---	---	---	21.6	---	
Rubidium	7440-17-7	E440/VA	0.050	mg/kg	11.6	35.9	32.4	---	27.6	
Selenium	7782-49-2	E440/VA	0.050	mg/kg	3.76	23.5	27.4	---	10.4	
Selenium	7782-49-2	E472/VA	0.10	mg/kg	---	---	---	8.85	---	
Silver	7440-22-4	E472.Ag/VA	0.0050	mg/kg	---	---	---	0.0077	---	
Silver	7440-22-4	E440.Ag/VA	0.0050	mg/kg	0.0206	0.0222	0.0166	---	0.0138	
Sodium	7440-23-5	E472/VA	20	mg/kg	---	---	---	11300	---	
Sodium	7440-23-5	E440/VA	20	mg/kg	3560	11600	12000	---	11600	
Strontium	7440-24-6	E440/VA	0.050	mg/kg	2.13	3.84	3.26	---	1.72	



Analytical Results

Sub-Matrix: Tissue					Client sample ID	QUL-NCP_LT-O-4_2023-10	QUL-NCP_LT-Ki-1_2023-10	QUL-NCP_LT-Ki-2_2023-10	QUL-NCP_LT-Ki-3_2023-10	QUL-NCP_LT-Ki-4_2023-10
(Matrix: Biota)					Client sampling date / time	05-Oct-2023 00:00	01-Oct-2023 00:00	01-Oct-2023 00:00	05-Oct-2023 00:00	05-Oct-2023 00:00
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23C4190-091	VA23C4190-092	VA23C4190-093	VA23C4190-094	VA23C4190-095	
					Result	Result	Result	Result	Result	
Metals										
Strontium	7440-24-6	E472/VA	0.10	mg/kg	---	---	---	1.32	---	
Tellurium	13494-80-9	E472/VA	0.020	mg/kg	---	---	---	<0.020	---	
Tellurium	13494-80-9	E440/VA	0.020	mg/kg	<0.020	<0.020	0.038	---	<0.020	
Thallium	7440-28-0	E472/VA	0.0020	mg/kg	---	---	---	0.0829	---	
Thallium	7440-28-0	E440/VA	0.0020	mg/kg	0.0167	0.154	0.207	---	0.100	
Tin	7440-31-5	E472/VA	0.10	mg/kg	---	---	---	0.35	---	
Tin	7440-31-5	E440/VA	0.10	mg/kg	<0.10	0.48	0.74	---	<0.10	
Titanium	7440-32-6	E440.Ti/VA	0.25	mg/kg	<0.25	0.78	1.84	---	1.53	
Titanium	7440-32-6	E472.Ti/VA	0.50	mg/kg	---	---	---	<0.50	---	
Uranium	7440-61-1	E472/VA	0.0020	mg/kg	---	---	---	0.0043	---	
Uranium	7440-61-1	E440/VA	0.0020	mg/kg	<0.0020	0.0116	0.0185	---	0.0064	
Vanadium	7440-62-2	E472/VA	0.10	mg/kg	---	---	---	<0.10	---	
Vanadium	7440-62-2	E440/VA	0.10	mg/kg	<0.10	0.24	0.42	---	0.14	
Zinc	7440-66-6	E440/VA	0.50	mg/kg	60.1	83.0	96.9	---	76.9	
Zinc	7440-66-6	E472/VA	1.0	mg/kg	---	---	---	90.1	---	
Zirconium	7440-67-7	E472/VA	0.20	mg/kg	---	---	---	<0.20	---	
Zirconium	7440-67-7	E440/VA	0.20	mg/kg	<0.20	<0.20	<0.20	---	<0.20	

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.



Analytical Results

Sub-Matrix: Tissue					Client sample ID				
(Matrix: Biota)					QUL-NHC_PCC-M-8x_2023-09	QUL-NHC_PCC-Li-8x_2023-09	QUL-NHC_PCC-O-8x_2023-09	QUL-NHC_PCC-Ki-8x_2023-09	QUL-NGC_PCC-M-5x_2023-09
Client sampling date / time					30-Sep-2023 00:00	30-Sep-2023 00:00	30-Sep-2023 00:00	30-Sep-2023 00:00	30-Sep-2023 00:00
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23C4190-096	VA23C4190-097	VA23C4190-098	VA23C4190-099	VA23C4190-100
					Result	Result	Result	Result	Result
Physical Tests									
Moisture	---	E144/VA	0.50	%	---	---	68.0	---	76.7
Moisture	---	E144A/VA	2.0	%	---	---	---	74.8	---
Moisture	---	E144-H/VA	2.0	%	77.7	70.3	---	---	---
Metals									
Aluminum	7429-90-5	E440/VA	2.0	mg/kg	---	---	<2.0	---	<2.0
Aluminum	7429-90-5	E475/VA	5.0	mg/kg	---	---	---	14.8	---
Aluminum	7429-90-5	E472/VA	5.0	mg/kg	<5.0	20.3	---	---	---
Antimony	7440-36-0	E472/VA	0.010	mg/kg	<0.010	0.012	---	---	---
Antimony	7440-36-0	E440/VA	0.010	mg/kg	---	---	<0.010	---	<0.010
Antimony	7440-36-0	E475/VA	0.020	mg/kg	---	---	---	<0.020	---
Arsenic	7440-38-2	E440/VA	0.020	mg/kg	---	---	0.152	---	0.144
Arsenic	7440-38-2	E472/VA	0.030	mg/kg	0.131	0.212	---	---	---
Arsenic	7440-38-2	E475/VA	0.050	mg/kg	---	---	---	0.176	---
Barium	7440-39-3	E475/VA	0.050	mg/kg	---	---	---	1.86	---
Barium	7440-39-3	E472/VA	0.050	mg/kg	0.527	0.313	---	---	---
Barium	7440-39-3	E440/VA	0.050	mg/kg	---	---	0.804	---	0.465
Beryllium	7440-41-7	E475/VA	0.010	mg/kg	---	---	---	<0.010	---
Beryllium	7440-41-7	E472/VA	0.010	mg/kg	<0.010	<0.010	---	---	---
Beryllium	7440-41-7	E440/VA	0.010	mg/kg	---	---	<0.010	---	<0.010
Bismuth	7440-69-9	E475/VA	0.010	mg/kg	---	---	---	<0.010	---
Bismuth	7440-69-9	E472/VA	0.010	mg/kg	<0.010	<0.010	---	---	---
Bismuth	7440-69-9	E440/VA	0.010	mg/kg	---	---	<0.010	---	<0.010
Boron	7440-42-8	E475/VA	1.0	mg/kg	---	---	---	<1.0	---
Boron	7440-42-8	E472/VA	1.0	mg/kg	<1.0	<1.0	---	---	---
Boron	7440-42-8	E440/VA	1.0	mg/kg	---	---	<1.0	---	<1.0
Cadmium	7440-43-9	E440/VA	0.0050	mg/kg	---	---	0.0344	---	0.0063
Cadmium	7440-43-9	E475/VA	0.010	mg/kg	---	---	---	10.2	---
Cadmium	7440-43-9	E472/VA	0.010	mg/kg	0.025	1.50	---	---	---
Calcium	7440-70-2	E475/VA	20	mg/kg	---	---	---	770	---
Calcium	7440-70-2	E472/VA	20	mg/kg	398	246	---	---	---



Analytical Results

Sub-Matrix: Tissue					Client sample ID	QUL-NHC_PCC-M-8x_2023-09	QUL-NHC_PCC-Li-8x_2023-09	QUL-NHC_PCC-O-8x_2023-09	QUL-NHC_PCC-Ki-8x_2023-09	QUL-NGC_PCC-M-5x_2023-09
(Matrix: Biota)					Client sampling date / time	30-Sep-2023 00:00	30-Sep-2023 00:00	30-Sep-2023 00:00	30-Sep-2023 00:00	30-Sep-2023 00:00
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23C4190-096	VA23C4190-097	VA23C4190-098	VA23C4190-099	VA23C4190-100	
					Result	Result	Result	Result	Result	
Metals										
Calcium	7440-70-2	E440/VA	20	mg/kg	---	---	444	---	3030	
Cesium	7440-46-2	E475/VA	0.0050	mg/kg	---	---	---	0.0292	---	
Cesium	7440-46-2	E472/VA	0.0050	mg/kg	0.0704	0.0167	---	---	---	
Cesium	7440-46-2	E440/VA	0.0050	mg/kg	---	---	0.0246	---	0.200	
Chromium	7440-47-3	E440/VA	0.050	mg/kg	---	---	<0.050	---	0.076	
Chromium	7440-47-3	E475/VA	0.20	mg/kg	---	---	---	0.39	---	
Chromium	7440-47-3	E472/VA	0.20	mg/kg	<0.20	0.41	---	---	---	
Cobalt	7440-48-4	E475/VA	0.020	mg/kg	---	---	---	0.876	---	
Cobalt	7440-48-4	E472/VA	0.020	mg/kg	0.032	0.232	---	---	---	
Cobalt	7440-48-4	E440/VA	0.020	mg/kg	---	---	0.088	---	0.035	
Copper	7440-50-8	E440/VA	0.10	mg/kg	---	---	5.09	---	1.43	
Copper	7440-50-8	E475/VA	0.20	mg/kg	---	---	---	8.49	---	
Copper	7440-50-8	E472/VA	0.20	mg/kg	2.56	15.0	---	---	---	
Iron	7439-89-6	E440/VA	3.0	mg/kg	---	---	71.6	---	20.8	
Iron	7439-89-6	E475/VA	5.0	mg/kg	---	---	---	1060	---	
Iron	7439-89-6	E472/VA	5.0	mg/kg	65.9	1730	---	---	---	
Lead	7439-92-1	E440/VA	0.020	mg/kg	---	---	<0.020	---	0.042	
Lead	7439-92-1	E475/VA	0.050	mg/kg	---	---	---	<0.050	---	
Lead	7439-92-1	E472/VA	0.050	mg/kg	<0.050	<0.050	---	---	---	
Lithium	7439-93-2	E475/VA	0.50	mg/kg	---	---	---	<0.50	---	
Lithium	7439-93-2	E472/VA	0.50	mg/kg	<0.50	<0.50	---	---	---	
Lithium	7439-93-2	E440/VA	0.50	mg/kg	---	---	<0.50	---	<0.50	
Magnesium	7439-95-4	E475/VA	2.0	mg/kg	---	---	---	672	---	
Magnesium	7439-95-4	E472/VA	2.0	mg/kg	1200	906	---	---	---	
Magnesium	7439-95-4	E440/VA	2.0	mg/kg	---	---	760	---	1480	
Manganese	7439-96-5	E475/VA	0.050	mg/kg	---	---	---	4.80	---	
Manganese	7439-96-5	E472/VA	0.050	mg/kg	0.597	6.32	---	---	---	
Manganese	7439-96-5	E440/VA	0.050	mg/kg	---	---	12.0	---	1.66	
Mercury	7439-97-6	E511/VA	0.0050	mg/kg	1.56	0.686	---	---	---	
Mercury	7439-97-6	E510/VA	0.0050	mg/kg	---	---	0.0763	---	0.683	



Analytical Results

Sub-Matrix: Tissue
 (Matrix: Biota)

Client sample ID

					QUL-NHC_PCC-M-8x_2023-09	QUL-NHC_PCC-Li-8x_2023-09	QUL-NHC_PCC-O-8x_2023-09	QUL-NHC_PCC-Ki-8x_2023-09	QUL-NGC_PCC-M-5x_2023-09
Client sampling date / time					30-Sep-2023 00:00	30-Sep-2023 00:00	30-Sep-2023 00:00	30-Sep-2023 00:00	30-Sep-2023 00:00
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23C4190-096	VA23C4190-097	VA23C4190-098	VA23C4190-099	VA23C4190-100
					Result	Result	Result	Result	Result
Metals									
Mercury	7439-97-6	E512/VA	0.010	mg/kg	---	---	---	0.391	---
Mercury	7439-97-6	E511A/VA	0.0010	mg/kg wwt	0.348	0.204	---	---	---
Mercury	7439-97-6	E510A/VA	0.0010	mg/kg wwt	---	---	0.0244	---	0.159
Mercury	7439-97-6	E512A/VA	0.0020	mg/kg wwt	---	---	---	0.0983	---
Molybdenum	7439-98-7	E440/VA	0.020	mg/kg	---	---	0.133	---	<0.020
Molybdenum	7439-98-7	E475/VA	0.040	mg/kg	---	---	---	0.482	---
Molybdenum	7439-98-7	E472/VA	0.040	mg/kg	<0.040	1.01	---	---	---
Nickel	7440-02-0	E475/VA	0.20	mg/kg	---	---	---	1.18	---
Nickel	7440-02-0	E472/VA	0.20	mg/kg	<0.20	<0.20	---	---	---
Nickel	7440-02-0	E440/VA	0.20	mg/kg	---	---	<0.20	---	<0.20
Phosphorus	7723-14-0	E472/VA	10	mg/kg	9850	15500	---	---	---
Phosphorus	7723-14-0	E440/VA	10	mg/kg	---	---	10100	---	11300
Phosphorus	7723-14-0	E475/VA	20	mg/kg	---	---	---	11300	---
Potassium	7440-09-7	E475/VA	20	mg/kg	---	---	---	11400	---
Potassium	7440-09-7	E472/VA	20	mg/kg	17600	13500	---	---	---
Potassium	7440-09-7	E440/VA	20	mg/kg	---	---	8990	---	19000
Rubidium	7440-17-7	E475/VA	0.050	mg/kg	---	---	---	10.1	---
Rubidium	7440-17-7	E472/VA	0.050	mg/kg	16.0	10.8	---	---	---
Rubidium	7440-17-7	E440/VA	0.050	mg/kg	---	---	8.84	---	29.9
Selenium	7782-49-2	E440/VA	0.050	mg/kg	---	---	7.58	---	1.82
Selenium	7782-49-2	E475/VA	0.10	mg/kg	---	---	---	5.06	---
Selenium	7782-49-2	E472/VA	0.10	mg/kg	2.40	7.43	---	---	---
Silver	7440-22-4	E475.Ag/VA	0.0050	mg/kg	---	---	---	<0.0050	---
Silver	7440-22-4	E472.Ag/VA	0.0050	mg/kg	<0.0050	0.0124	---	---	---
Silver	7440-22-4	E440.Ag/VA	0.0050	mg/kg	---	---	<0.0050	---	<0.0050
Sodium	7440-23-5	E475/VA	20	mg/kg	---	---	---	4770	---
Sodium	7440-23-5	E472/VA	20	mg/kg	1510	2310	---	---	---
Sodium	7440-23-5	E440/VA	20	mg/kg	---	---	2140	---	1440
Strontium	7440-24-6	E440/VA	0.050	mg/kg	---	---	0.568	---	6.52
Strontium	7440-24-6	E475/VA	0.10	mg/kg	---	---	---	1.64	---



Analytical Results

Sub-Matrix: Tissue
 (Matrix: Biota)

Client sample ID

					QUL-NHC_PCC-M-8x_2023-09	QUL-NHC_PCC-Li-8x_2023-09	QUL-NHC_PCC-O-8x_2023-09	QUL-NHC_PCC-Ki-8x_2023-09	QUL-NGC_PCC-M-5x_2023-09
Client sampling date / time					30-Sep-2023 00:00	30-Sep-2023 00:00	30-Sep-2023 00:00	30-Sep-2023 00:00	30-Sep-2023 00:00
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23C4190-096	VA23C4190-097	VA23C4190-098	VA23C4190-099	VA23C4190-100
					Result	Result	Result	Result	Result
Metals									
Strontium	7440-24-6	E472/VA	0.10	mg/kg	0.35	0.63	----	----	----
Tellurium	13494-80-9	E475/VA	0.020	mg/kg	----	----	----	<0.020	----
Tellurium	13494-80-9	E472/VA	0.020	mg/kg	<0.020	<0.020	----	----	----
Tellurium	13494-80-9	E440/VA	0.020	mg/kg	----	----	<0.020	----	<0.020
Thallium	7440-28-0	E475/VA	0.0020	mg/kg	----	----	----	0.0347	----
Thallium	7440-28-0	E472/VA	0.0020	mg/kg	0.0162	0.0174	----	----	----
Thallium	7440-28-0	E440/VA	0.0020	mg/kg	----	----	0.0032	----	0.0042
Tin	7440-31-5	E475/VA	0.10	mg/kg	----	----	----	<0.10	----
Tin	7440-31-5	E472/VA	0.10	mg/kg	<0.10	<0.10	----	----	----
Tin	7440-31-5	E440/VA	0.10	mg/kg	----	----	<0.10	----	<0.10
Titanium	7440-32-6	E440.Ti/VA	0.25	mg/kg	----	----	<0.25	----	<0.25
Titanium	7440-32-6	E475.Ti/VA	0.50	mg/kg	----	----	----	<1.00 ^{DLM}	----
Titanium	7440-32-6	E472.Ti/VA	0.50	mg/kg	<0.50	<0.50	----	----	----
Uranium	7440-61-1	E475/VA	0.0020	mg/kg	----	----	----	0.0845	----
Uranium	7440-61-1	E472/VA	0.0020	mg/kg	<0.0020	0.0937	----	----	----
Uranium	7440-61-1	E440/VA	0.0020	mg/kg	----	----	0.0088	----	0.0032
Vanadium	7440-62-2	E475/VA	0.10	mg/kg	----	----	----	0.42	----
Vanadium	7440-62-2	E472/VA	0.10	mg/kg	<0.10	0.81	----	----	----
Vanadium	7440-62-2	E440/VA	0.10	mg/kg	----	----	<0.10	----	<0.10
Zinc	7440-66-6	E440/VA	0.50	mg/kg	----	----	114	----	30.3
Zinc	7440-66-6	E475/VA	1.0	mg/kg	----	----	----	142	----
Zinc	7440-66-6	E472/VA	1.0	mg/kg	33.8	93.8	----	----	----
Zirconium	7440-67-7	E475/VA	0.20	mg/kg	----	----	----	<0.20	----
Zirconium	7440-67-7	E472/VA	0.20	mg/kg	<0.20	<0.20	----	----	----
Zirconium	7440-67-7	E440/VA	0.20	mg/kg	----	----	<0.20	----	<0.20

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.



Analytical Results

Sub-Matrix: Tissue

Client sample ID

(Matrix: Biota)

					QUL-NGC_PCC-Li-5x_2023-09	QUL-NGC_PCC-O-5x_2023-09	QUL-NGC_PCC-Ki-5x_2023-09	QUL-NCP_LT-M-1x_2023-10	QUL-NCP_LT-Li-1x_2023-10
Client sampling date / time					30-Sep-2023 00:00	30-Sep-2023 00:00	30-Sep-2023 00:00	01-Oct-2023 00:00	01-Oct-2023 00:00
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23C4190-101	VA23C4190-102	VA23C4190-103	VA23C4190-104	VA23C4190-105
					Result	Result	Result	Result	Result
Physical Tests									
Moisture	---	E144/VA	0.50	%	---	---	---	78.7	76.8
Moisture	---	E144A/VA	2.0	%	71.2	---	66.9	---	---
Moisture	---	E144-H/VA	2.0	%	---	69.6	---	---	---
Metals									
Aluminum	7429-90-5	E440/VA	2.0	mg/kg	---	---	---	<2.0	3.1
Aluminum	7429-90-5	E475/VA	5.0	mg/kg	9.8	---	<5.0	---	---
Aluminum	7429-90-5	E472/VA	5.0	mg/kg	---	<5.0	---	---	---
Antimony	7440-36-0	E472/VA	0.010	mg/kg	---	<0.010	---	---	---
Antimony	7440-36-0	E440/VA	0.010	mg/kg	---	---	---	<0.010	<0.010
Antimony	7440-36-0	E475/VA	0.020	mg/kg	<0.020	---	<0.020	---	---
Arsenic	7440-38-2	E440/VA	0.020	mg/kg	---	---	---	0.031	0.276
Arsenic	7440-38-2	E472/VA	0.030	mg/kg	---	0.170	---	---	---
Arsenic	7440-38-2	E475/VA	0.050	mg/kg	0.199	---	0.366	---	---
Barium	7440-39-3	E475/VA	0.050	mg/kg	0.249	---	1.83	---	---
Barium	7440-39-3	E472/VA	0.050	mg/kg	---	0.411	---	---	---
Barium	7440-39-3	E440/VA	0.050	mg/kg	---	---	---	<0.050	<0.050
Beryllium	7440-41-7	E475/VA	0.010	mg/kg	<0.010	---	<0.010	---	---
Beryllium	7440-41-7	E472/VA	0.010	mg/kg	---	<0.010	---	---	---
Beryllium	7440-41-7	E440/VA	0.010	mg/kg	---	---	---	<0.010	<0.010
Bismuth	7440-69-9	E475/VA	0.010	mg/kg	0.052	---	0.055	---	---
Bismuth	7440-69-9	E472/VA	0.010	mg/kg	---	<0.010	---	---	---
Bismuth	7440-69-9	E440/VA	0.010	mg/kg	---	---	---	<0.010	<0.010
Boron	7440-42-8	E475/VA	1.0	mg/kg	<1.0	---	2.6	---	---
Boron	7440-42-8	E472/VA	1.0	mg/kg	---	<1.0	---	---	---
Boron	7440-42-8	E440/VA	1.0	mg/kg	---	---	---	<1.0	<1.0
Cadmium	7440-43-9	E440/VA	0.0050	mg/kg	---	---	---	<0.0050	0.234
Cadmium	7440-43-9	E475/VA	0.010	mg/kg	0.528	---	5.71	---	---
Cadmium	7440-43-9	E472/VA	0.010	mg/kg	---	0.015	---	---	---
Calcium	7440-70-2	E475/VA	20	mg/kg	502	---	281	---	---
Calcium	7440-70-2	E472/VA	20	mg/kg	---	640	---	---	---



Analytical Results

Sub-Matrix: Tissue					Client sample ID	QUL-NGC_PCC-Li-5x_2023-09	QUL-NGC_PCC-O-5x_2023-09	QUL-NGC_PCC-Ki-5x_2023-09	QUL-NCP_LT-M-1x_2023-10	QUL-NCP_LT-Li-1x_2023-10
(Matrix: Biota)					Client sampling date / time	30-Sep-2023 00:00	30-Sep-2023 00:00	30-Sep-2023 00:00	01-Oct-2023 00:00	01-Oct-2023 00:00
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23C4190-101	VA23C4190-102	VA23C4190-103	VA23C4190-104	VA23C4190-105	
					Result	Result	Result	Result	Result	
Metals										
Calcium	7440-70-2	E440/VA	20	mg/kg	---	---	---	200	340	
Cesium	7440-46-2	E475/VA	0.0050	mg/kg	0.0720	---	0.0639	---	---	
Cesium	7440-46-2	E472/VA	0.0050	mg/kg	---	0.0958	---	---	---	
Cesium	7440-46-2	E440/VA	0.0050	mg/kg	---	---	---	0.504	0.353	
Chromium	7440-47-3	E440/VA	0.050	mg/kg	---	---	---	<0.050	0.424	
Chromium	7440-47-3	E475/VA	0.20	mg/kg	0.26	---	0.36	---	---	
Chromium	7440-47-3	E472/VA	0.20	mg/kg	---	<0.20	---	---	---	
Cobalt	7440-48-4	E475/VA	0.020	mg/kg	0.268	---	1.52	---	---	
Cobalt	7440-48-4	E472/VA	0.020	mg/kg	---	0.137	---	---	---	
Cobalt	7440-48-4	E440/VA	0.020	mg/kg	---	---	---	<0.020	0.114	
Copper	7440-50-8	E440/VA	0.10	mg/kg	---	---	---	1.50	26.4	
Copper	7440-50-8	E475/VA	0.20	mg/kg	18.8	---	5.13	---	---	
Copper	7440-50-8	E472/VA	0.20	mg/kg	---	4.33	---	---	---	
Iron	7439-89-6	E440/VA	3.0	mg/kg	---	---	---	28.6	1440	
Iron	7439-89-6	E475/VA	5.0	mg/kg	994	---	285	---	---	
Iron	7439-89-6	E472/VA	5.0	mg/kg	---	78.9	---	---	---	
Lead	7439-92-1	E440/VA	0.020	mg/kg	---	---	---	<0.020	<0.020	
Lead	7439-92-1	E475/VA	0.050	mg/kg	0.051	---	0.058	---	---	
Lead	7439-92-1	E472/VA	0.050	mg/kg	---	<0.050	---	---	---	
Lithium	7439-93-2	E475/VA	0.50	mg/kg	<0.50	---	<0.50	---	---	
Lithium	7439-93-2	E472/VA	0.50	mg/kg	---	<0.50	---	---	---	
Lithium	7439-93-2	E440/VA	0.50	mg/kg	---	---	---	<0.50	<0.50	
Magnesium	7439-95-4	E475/VA	2.0	mg/kg	744	---	457	---	---	
Magnesium	7439-95-4	E472/VA	2.0	mg/kg	---	918	---	---	---	
Magnesium	7439-95-4	E440/VA	2.0	mg/kg	---	---	---	1060	1080	
Manganese	7439-96-5	E475/VA	0.050	mg/kg	5.98	---	3.00	---	---	
Manganese	7439-96-5	E472/VA	0.050	mg/kg	---	13.7	---	---	---	
Manganese	7439-96-5	E440/VA	0.050	mg/kg	---	---	---	0.289	5.10	
Mercury	7439-97-6	E511/VA	0.0050	mg/kg	---	0.0415	---	---	---	
Mercury	7439-97-6	E510/VA	0.0050	mg/kg	---	---	---	7.31	8.82	



Analytical Results

Sub-Matrix: Tissue

Client sample ID

(Matrix: Biota)

					QUL-NGC_PCC-Li-5x_2023-09	QUL-NGC_PCC-O-5x_2023-09	QUL-NGC_PCC-Ki-5x_2023-09	QUL-NCP_LT-M-1x_2023-10	QUL-NCP_LT-Li-1x_2023-10
Client sampling date / time					30-Sep-2023 00:00	30-Sep-2023 00:00	30-Sep-2023 00:00	01-Oct-2023 00:00	01-Oct-2023 00:00
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23C4190-101	VA23C4190-102	VA23C4190-103	VA23C4190-104	VA23C4190-105
					Result	Result	Result	Result	Result
Metals									
Mercury	7439-97-6	E512/VA	0.010	mg/kg	0.286	---	0.195 ^{RRR}	---	---
Mercury	7439-97-6	E511A/VA	0.0010	mg/kg wwt	---	0.0126	---	---	---
Mercury	7439-97-6	E510A/VA	0.0010	mg/kg wwt	---	---	---	1.56	2.04
Mercury	7439-97-6	E512A/VA	0.0020	mg/kg wwt	0.0825	---	0.0644 ^{RRR}	---	---
Molybdenum	7439-98-7	E440/VA	0.020	mg/kg	---	---	---	<0.020	0.433
Molybdenum	7439-98-7	E475/VA	0.040	mg/kg	0.604	---	0.392	---	---
Molybdenum	7439-98-7	E472/VA	0.040	mg/kg	---	0.167	---	---	---
Nickel	7440-02-0	E475/VA	0.20	mg/kg	0.21	---	1.34	---	---
Nickel	7440-02-0	E472/VA	0.20	mg/kg	---	<0.20	---	---	---
Nickel	7440-02-0	E440/VA	0.20	mg/kg	---	---	---	<0.20	<0.20
Phosphorus	7723-14-0	E472/VA	10	mg/kg	---	9110	---	---	---
Phosphorus	7723-14-0	E440/VA	10	mg/kg	---	---	---	10400	21300
Phosphorus	7723-14-0	E475/VA	20	mg/kg	12400	---	8660	---	---
Potassium	7440-09-7	E475/VA	20	mg/kg	10800	---	7240	---	---
Potassium	7440-09-7	E472/VA	20	mg/kg	---	9750	---	---	---
Potassium	7440-09-7	E440/VA	20	mg/kg	---	---	---	18800	17400
Rubidium	7440-17-7	E475/VA	0.050	mg/kg	18.8	---	14.0	---	---
Rubidium	7440-17-7	E472/VA	0.050	mg/kg	---	18.4	---	---	---
Rubidium	7440-17-7	E440/VA	0.050	mg/kg	---	---	---	41.7	79.4
Selenium	7782-49-2	E440/VA	0.050	mg/kg	---	---	---	2.02	9.01
Selenium	7782-49-2	E475/VA	0.10	mg/kg	5.96	---	4.87	---	---
Selenium	7782-49-2	E472/VA	0.10	mg/kg	---	11.2	---	---	---
Silver	7440-22-4	E475.Ag/VA	0.0050	mg/kg	0.0651	---	<0.0050	---	---
Silver	7440-22-4	E472.Ag/VA	0.0050	mg/kg	---	0.0106	---	---	---
Silver	7440-22-4	E440.Ag/VA	0.0050	mg/kg	---	---	---	<0.0050	0.0778
Sodium	7440-23-5	E475/VA	20	mg/kg	3430	---	3620	---	---
Sodium	7440-23-5	E472/VA	20	mg/kg	---	2110	---	---	---
Sodium	7440-23-5	E440/VA	20	mg/kg	---	---	---	2140	4130
Strontium	7440-24-6	E440/VA	0.050	mg/kg	---	---	---	0.196	0.339
Strontium	7440-24-6	E475/VA	0.10	mg/kg	1.17	---	0.60	---	---



Analytical Results

Sub-Matrix: Tissue

Client sample ID

(Matrix: Biota)

					QUL-NGC_PCC-Li-5x_2023-09	QUL-NGC_PCC-O-5x_2023-09	QUL-NGC_PCC-Ki-5x_2023-09	QUL-NCP_LT-M-1x_2023-10	QUL-NCP_LT-Li-1x_2023-10
Client sampling date / time					30-Sep-2023 00:00	30-Sep-2023 00:00	30-Sep-2023 00:00	01-Oct-2023 00:00	01-Oct-2023 00:00
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23C4190-101	VA23C4190-102	VA23C4190-103	VA23C4190-104	VA23C4190-105
					Result	Result	Result	Result	Result
Metals									
Strontium	7440-24-6	E472/VA	0.10	mg/kg	---	0.77	---	---	---
Tellurium	13494-80-9	E475/VA	0.020	mg/kg	<0.020	---	<0.020	---	---
Tellurium	13494-80-9	E472/VA	0.020	mg/kg	---	<0.020	---	---	---
Tellurium	13494-80-9	E440/VA	0.020	mg/kg	---	---	---	<0.020	<0.020
Thallium	7440-28-0	E475/VA	0.0020	mg/kg	0.0262	---	0.0345	---	---
Thallium	7440-28-0	E472/VA	0.0020	mg/kg	---	0.0047	---	---	---
Thallium	7440-28-0	E440/VA	0.0020	mg/kg	---	---	---	0.0299	0.534
Tin	7440-31-5	E475/VA	0.10	mg/kg	<0.10	---	<0.10	---	---
Tin	7440-31-5	E472/VA	0.10	mg/kg	---	<0.10	---	---	---
Tin	7440-31-5	E440/VA	0.10	mg/kg	---	---	---	0.31	0.13
Titanium	7440-32-6	E440.Ti/VA	0.25	mg/kg	---	---	---	<0.25	<0.25
Titanium	7440-32-6	E475.Ti/VA	0.50	mg/kg	<0.50	---	<0.54	---	---
Titanium	7440-32-6	E472.Ti/VA	0.50	mg/kg	---	<0.50	---	---	---
Uranium	7440-61-1	E475/VA	0.0020	mg/kg	0.0212	---	0.0529	---	---
Uranium	7440-61-1	E472/VA	0.0020	mg/kg	---	0.0031	---	---	---
Uranium	7440-61-1	E440/VA	0.0020	mg/kg	---	---	---	<0.0020	0.0030
Vanadium	7440-62-2	E475/VA	0.10	mg/kg	0.28	---	0.33	---	---
Vanadium	7440-62-2	E472/VA	0.10	mg/kg	---	<0.10	---	---	---
Vanadium	7440-62-2	E440/VA	0.10	mg/kg	---	---	---	<0.10	0.20
Zinc	7440-66-6	E440/VA	0.50	mg/kg	---	---	---	17.8	126
Zinc	7440-66-6	E475/VA	1.0	mg/kg	103	---	175	---	---
Zinc	7440-66-6	E472/VA	1.0	mg/kg	---	139	---	---	---
Zirconium	7440-67-7	E475/VA	0.20	mg/kg	<0.20	---	<0.20	---	---
Zirconium	7440-67-7	E472/VA	0.20	mg/kg	---	<0.20	---	---	---
Zirconium	7440-67-7	E440/VA	0.20	mg/kg	---	---	---	<0.20	<0.20

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.



Analytical Results

Sub-Matrix: Tissue					Client sample ID				
(Matrix: Biota)					QUL-NCP_LT-O-1x_2023-10	QUL-NCP_LT-Ki-1x_2023-10	----	----	----
Client sampling date / time					01-Oct-2023 00:00	01-Oct-2023 00:00	---	---	---
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23C4190-106	VA23C4190-107	-----	-----	-----
					Result	Result	---	---	---
Physical Tests									
Moisture	---	E144/VA	0.50	%	68.4	81.2	---	---	---
Metals									
Aluminum	7429-90-5	E440/VA	2.0	mg/kg	<2.0	14.9	---	---	---
Antimony	7440-36-0	E440/VA	0.010	mg/kg	<0.010	<0.010	---	---	---
Arsenic	7440-38-2	E440/VA	0.020	mg/kg	0.026	0.208	---	---	---
Barium	7440-39-3	E440/VA	0.050	mg/kg	<0.050	0.190	---	---	---
Beryllium	7440-41-7	E440/VA	0.010	mg/kg	<0.010	<0.010	---	---	---
Bismuth	7440-69-9	E440/VA	0.010	mg/kg	<0.010	<0.010	---	---	---
Boron	7440-42-8	E440/VA	1.0	mg/kg	<1.0	<1.0	---	---	---
Cadmium	7440-43-9	E440/VA	0.0050	mg/kg	<0.0050	4.89	---	---	---
Calcium	7440-70-2	E440/VA	20	mg/kg	1360	1220	---	---	---
Cesium	7440-46-2	E440/VA	0.0050	mg/kg	0.0914	0.380	---	---	---
Chromium	7440-47-3	E440/VA	0.050	mg/kg	0.119	1.48	---	---	---
Cobalt	7440-48-4	E440/VA	0.020	mg/kg	0.031	0.171	---	---	---
Copper	7440-50-8	E440/VA	0.10	mg/kg	9.19	6.57	---	---	---
Iron	7439-89-6	E440/VA	3.0	mg/kg	83.2	1750	---	---	---
Lead	7439-92-1	E440/VA	0.020	mg/kg	<0.020	0.021	---	---	---
Lithium	7439-93-2	E440/VA	0.50	mg/kg	<0.50	<0.50	---	---	---
Magnesium	7439-95-4	E440/VA	2.0	mg/kg	1130	691	---	---	---
Manganese	7439-96-5	E440/VA	0.050	mg/kg	0.257	1.17	---	---	---
Mercury	7439-97-6	E510/VA	0.0050	mg/kg	1.11	18.0	---	---	---
Mercury	7439-97-6	E510A/VA	0.0010	mg/kg wwt	0.350	3.38	---	---	---
Molybdenum	7439-98-7	E440/VA	0.020	mg/kg	<0.020	0.492	---	---	---
Nickel	7440-02-0	E440/VA	0.20	mg/kg	<0.20	0.92	---	---	---
Phosphorus	7723-14-0	E440/VA	10	mg/kg	10400	12900	---	---	---
Potassium	7440-09-7	E440/VA	20	mg/kg	5970	11600	---	---	---
Rubidium	7440-17-7	E440/VA	0.050	mg/kg	13.3	36.9	---	---	---
Selenium	7782-49-2	E440/VA	0.050	mg/kg	3.56	24.6	---	---	---
Silver	7440-22-4	E440.Ag/VA	0.0050	mg/kg	0.0125	0.0215	---	---	---
Sodium	7440-23-5	E440/VA	20	mg/kg	4710	12700	---	---	---



Analytical Results

Sub-Matrix: Tissue					Client sample ID	QUL-NCP_LT-O-1x_2023-10	QUL-NCP_LT-Ki-1x_2023-10	----	----	----
(Matrix: Biota)					Client sampling date / time	01-Oct-2023 00:00	01-Oct-2023 00:00	----	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23C4190-106	VA23C4190-107	-----	-----	-----	
					Result	Result	---	---	---	
Metals										
Strontium	7440-24-6	E440/VA	0.050	mg/kg	2.46	3.98	----	----	----	
Tellurium	13494-80-9	E440/VA	0.020	mg/kg	<0.020	<0.020	----	----	----	
Thallium	7440-28-0	E440/VA	0.0020	mg/kg	0.0145	0.157	----	----	----	
Tin	7440-31-5	E440/VA	0.10	mg/kg	0.14	0.60	----	----	----	
Titanium	7440-32-6	E440.Ti/VA	0.25	mg/kg	<0.25	0.82	----	----	----	
Uranium	7440-61-1	E440/VA	0.0020	mg/kg	<0.0020	0.0113	----	----	----	
Vanadium	7440-62-2	E440/VA	0.10	mg/kg	<0.10	0.24	----	----	----	
Zinc	7440-66-6	E440/VA	0.50	mg/kg	63.7	88.3	----	----	----	
Zirconium	7440-67-7	E440/VA	0.20	mg/kg	<0.20	<0.20	----	----	----	

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.

QUALITY CONTROL INTERPRETIVE REPORT

<p>Work Order : VA23C4190</p> <p>Amendment : 1</p> <p>Client : Mount Polley Mining Corporation</p> <p>Contact : Mr. Gabriel Holmes</p> <p>Address : PO Box 12 Likely BC Canada V0L 1N0</p> <p>Telephone : 250-790-2215 ext 2171</p> <p>Project : ----</p> <p>PO : 5590012190</p> <p>C-O-C number : ----</p> <p>Sampler : PLE, SLA</p> <p>Site : ----</p> <p>Quote number : VA22-MPMC100-002</p> <p>No. of samples received : 127</p> <p>No. of samples analysed : 107</p>	<p style="text-align: right;">Page : 1 of 80</p> <p>Laboratory : ALS Environmental - Vancouver</p> <p>Account Manager : Can Dang</p> <p>Address : 8081 Lougheed Highway Burnaby, British Columbia Canada V5A 1W9</p> <p>Telephone : +1 604 253 4188</p> <p>Date Samples Received : 11-Oct-2023 11:30</p> <p>Issue Date : 17-Jan-2024 17:45</p>
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This report is automatically generated by the ALS LIMS (Laboratory Information Management System) through evaluation of Quality Control (QC) results and other QA parameters associated with this submission, and is intended to facilitate rapid data validation by auditors or reviewers. The report highlights any exceptions and outliers to ALS Data Quality Objectives, provides holding time details and exceptions, summarizes QC sample frequencies, and lists applicable methodology references and summaries.

Key

- Anonymous: Refers to samples which are not part of this work order, but which formed part of the QC process lot.
- CAS Number: Chemical Abstracts Service number is a unique identifier assigned to discrete substances.
- DQO: Data Quality Objective.
- LOR: Limit of Reporting (detection limit).
- RPD: Relative Percent Difference.

Workorder Comments

Holding times are displayed as "----" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

Summary of Outliers

Outliers : Quality Control Samples

- No Duplicate outliers occur.
- Method Blank value outliers occur - please see following pages for full details.
- Laboratory Control Sample (LCS) outliers occur - please see following pages for full details.
- No Test sample Surrogate recovery outliers exist.

Outliers: Reference Material (RM) Samples

- No Reference Material (RM) Sample outliers occur.

Outliers : Analysis Holding Time Compliance (Breaches)

- No Analysis Holding Time Outliers exist.

Outliers : Frequency of Quality Control Samples

- No Quality Control Sample Frequency Outliers occur.



Outliers : Quality Control Samples

Duplicates, Method Blanks, Laboratory Control Samples and Matrix Spikes

Matrix: **Biota**

Analyte Group	Laboratory sample ID	Client/Ref Sample ID	Analyte	CAS Number	Method	Result	Limits	Comment
Method Blank (MB) Values								
Metals	QC-MRG5-1264862 001	----	Manganese	7439-96-5	E440	0.057 ^B mg/kg	0.05 mg/kg	Blank result exceeds permitted value
Metals	QC-MRG5-1272137 001	----	Mercury	7439-97-6	E512	0.025 ^{RRQC} mg/kg	0.01 mg/kg	Blank result exceeds permitted value
Metals	QC-MRG5-1272137 001	----	Mercury	7439-97-6	E512A	0.0050 ^{RRQC} mg/kg wwt	0.002 mg/kg wwt	Blank result exceeds permitted value

Result Qualifiers

Qualifier Description

B Method Blank exceeds ALS DQO. Associated sample results which are < Limit of Reporting or > 5 times blank level are considered reliable.

RRQC Refer to report comments for information regarding this QC result.

Laboratory Control Sample (LCS) Recoveries

Metals	QC-MRG5-1264879 002	----	Antimony	7440-36-0	E440	122 % ^{MES}	80.0-120%	Recovery greater than upper control limit
Metals	QC-MRG5-1264879 002	----	Arsenic	7440-38-2	E440	122 % ^{MES}	80.0-120%	Recovery greater than upper control limit
Metals	QC-MRG5-1264879 002	----	Rubidium	7440-17-7	E440	121 % ^{MES}	80.0-120%	Recovery greater than upper control limit
Metals	QC-MRG5-1272148 002	----	Aluminum	7429-90-5	E472	121 % ^{MES}	80.0-120%	Recovery greater than upper control limit
Metals	QC-MRG5-1272148 002	----	Arsenic	7440-38-2	E472	122 % ^{MES}	80.0-120%	Recovery greater than upper control limit

Result Qualifiers

Qualifier Description

MES Data Quality Objective was marginally exceeded (by < 10% absolute) for < 10% of analytes in a Multi-Element Scan / Multi-Parameter Scan (considered acceptable as per OMOE & CCME).



Analysis Holding Time Compliance

This report summarizes extraction / preparation and analysis times and compares each with ALS recommended holding times, which are selected to meet known provincial and /or federal requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by organizations such as CCME, US EPA, APHA Standard Methods, ASTM, or Environment Canada (where available). Dates and holding times reported below represent the first dates of extraction or analysis. If subsequent tests or dilutions exceeded holding times, qualifiers are added (refer to COA).

If samples are identified below as having been analyzed or extracted outside of recommended holding times, measurement uncertainties may be increased, and this should be taken into consideration when interpreting results.

Where actual sampling date is not provided on the chain of custody, the date of receipt with time at 00:00 is used for calculation purposes.

Where only the sample date without time is provided on the chain of custody, the sampling date at 00:00 is used for calculation purposes.

Matrix: **Biota** Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Metals : Mercury in Biota by CVAAS (DRY units, Biopsy)										
LDPE bag QUL-NGC_PCC-Ki-3_2023-09	E512	30-Sep-2023	11-Dec-2023	365 days	72 days	✔	12-Dec-2023	365 days	73 days	✔
Metals : Mercury in Biota by CVAAS (DRY units, Biopsy)										
LDPE bag QUL-NGC_PCC-Ki-4_2023-09	E512	30-Sep-2023	11-Dec-2023	365 days	72 days	✔	12-Dec-2023	365 days	73 days	✔
Metals : Mercury in Biota by CVAAS (DRY units, Biopsy)										
LDPE bag QUL-NGC_PCC-Ki-5_2023-09	E512	30-Sep-2023	11-Dec-2023	365 days	72 days	✔	12-Dec-2023	365 days	73 days	✔
Metals : Mercury in Biota by CVAAS (DRY units, Biopsy)										
LDPE bag QUL-NGC_PCC-Ki-6_2023-09	E512	30-Sep-2023	11-Dec-2023	365 days	72 days	✔	12-Dec-2023	365 days	73 days	✔
Metals : Mercury in Biota by CVAAS (DRY units, Biopsy)										
LDPE bag QUL-NGC_PCC-Ki-7_2023-09	E512	30-Sep-2023	11-Dec-2023	365 days	72 days	✔	12-Dec-2023	365 days	73 days	✔
Metals : Mercury in Biota by CVAAS (DRY units, Biopsy)										
LDPE bag QUL-NGC_PCC-Ki-8_2023-09	E512	30-Sep-2023	11-Dec-2023	365 days	72 days	✔	12-Dec-2023	365 days	73 days	✔
Metals : Mercury in Biota by CVAAS (DRY units, Biopsy)										
LDPE bag QUL-NGC_PCC-Li-5_2023-09	E512	30-Sep-2023	11-Dec-2023	365 days	72 days	✔	12-Dec-2023	365 days	73 days	✔



Matrix: **Biota** Evaluation: * = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Metals : Mercury in Biota by CVAAS (DRY units, Biopsy)											
LDPE bag QUL-NGC_PCC-Li-6_2023-09	E512	30-Sep-2023	11-Dec-2023	365 days	72 days	✓	12-Dec-2023	365 days	73 days	✓	
Metals : Mercury in Biota by CVAAS (DRY units, Biopsy)											
LDPE bag QUL-NGC_PCC-Li-7_2023-09	E512	30-Sep-2023	11-Dec-2023	365 days	72 days	✓	12-Dec-2023	365 days	73 days	✓	
Metals : Mercury in Biota by CVAAS (DRY units, Biopsy)											
LDPE bag QUL-NHC_PCC-Ki-2_2023-09	E512	30-Sep-2023	11-Dec-2023	365 days	72 days	✓	12-Dec-2023	365 days	73 days	✓	
Metals : Mercury in Biota by CVAAS (DRY units, Biopsy)											
LDPE bag QUL-NHC_PCC-Ki-7_2023-09	E512	30-Sep-2023	11-Dec-2023	365 days	72 days	✓	12-Dec-2023	365 days	73 days	✓	
Metals : Mercury in Biota by CVAAS (DRY units, Biopsy)											
LDPE bag QUL-NHC_PCC-Ki-8_2023-09	E512	30-Sep-2023	11-Dec-2023	365 days	72 days	✓	12-Dec-2023	365 days	73 days	✓	
Metals : Mercury in Biota by CVAAS (DRY units, Biopsy)											
LDPE bag QUL-NGC_PCC-Ki-5x_2023-09	E512	30-Sep-2023	11-Dec-2023	365 days	73 days	✓	12-Dec-2023	365 days	74 days	✓	
Metals : Mercury in Biota by CVAAS (DRY units, Biopsy)											
LDPE bag QUL-NGC_PCC-Li-5x_2023-09	E512	30-Sep-2023	11-Dec-2023	365 days	73 days	✓	12-Dec-2023	365 days	74 days	✓	
Metals : Mercury in Biota by CVAAS (DRY units, Biopsy)											
LDPE bag QUL-NHC_PCC-Ki-8x_2023-09	E512	30-Sep-2023	11-Dec-2023	365 days	73 days	✓	12-Dec-2023	365 days	74 days	✓	
Metals : Mercury in Biota by CVAAS (DRY units, Biopsy)											
LDPE bag QUL-NGC_PCC-Ki-1_2023-09	E512	29-Sep-2023	11-Dec-2023	365 days	74 days	✓	12-Dec-2023	365 days	75 days	✓	



Matrix: **Biota** Evaluation: * = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Metals : Mercury in Biota by CVAAS (DRY units, Biopsy)											
LDPE bag QUL-NGC_PCC-Ki-2_2023-09	E512	29-Sep-2023	11-Dec-2023	365 days	74 days	✓	12-Dec-2023	365 days	75 days	✓	
Metals : Mercury in Biota by CVAAS (DRY units, Biopsy)											
LDPE bag QUL-NHC_PCC-Ki-1_2023-09	E512	29-Sep-2023	11-Dec-2023	365 days	74 days	✓	12-Dec-2023	365 days	75 days	✓	
Metals : Mercury in Biota by CVAAS (DRY units, Micro)											
LDPE bag QUL-NCP_LT-Ki-3_2023-10	E511	05-Oct-2023	11-Dec-2023	365 days	68 days	✓	12-Dec-2023	365 days	68 days	✓	
Metals : Mercury in Biota by CVAAS (DRY units, Micro)											
LDPE bag QUL-NGC_PCC-Li-3_2023-09	E511	30-Sep-2023	11-Dec-2023	365 days	72 days	✓	12-Dec-2023	365 days	73 days	✓	
Metals : Mercury in Biota by CVAAS (DRY units, Micro)											
LDPE bag QUL-NGC_PCC-Li-4_2023-09	E511	30-Sep-2023	11-Dec-2023	365 days	72 days	✓	12-Dec-2023	365 days	73 days	✓	
Metals : Mercury in Biota by CVAAS (DRY units, Micro)											
LDPE bag QUL-NGC_PCC-Li-8_2023-09	E511	30-Sep-2023	11-Dec-2023	365 days	72 days	✓	12-Dec-2023	365 days	73 days	✓	
Metals : Mercury in Biota by CVAAS (DRY units, Micro)											
LDPE bag QUL-NGC_PCC-O-5_2023-09	E511	30-Sep-2023	11-Dec-2023	365 days	72 days	✓	12-Dec-2023	365 days	73 days	✓	
Metals : Mercury in Biota by CVAAS (DRY units, Micro)											
LDPE bag QUL-NHC_PCC-Ki-3_2023-09	E511	30-Sep-2023	11-Dec-2023	365 days	72 days	✓	12-Dec-2023	365 days	73 days	✓	
Metals : Mercury in Biota by CVAAS (DRY units, Micro)											
LDPE bag QUL-NHC_PCC-Ki-4_2023-09	E511	30-Sep-2023	11-Dec-2023	365 days	72 days	✓	12-Dec-2023	365 days	73 days	✓	



Matrix: **Biota** Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Metals : Mercury in Biota by CVAAS (DRY units, Micro)											
LDPE bag QUL-NHC_PCC-Ki-5_2023-09	E511	30-Sep-2023	11-Dec-2023	365 days	72 days	✔	12-Dec-2023	365 days	73 days	✔	
Metals : Mercury in Biota by CVAAS (DRY units, Micro)											
LDPE bag QUL-NHC_PCC-Ki-6_2023-09	E511	30-Sep-2023	11-Dec-2023	365 days	72 days	✔	12-Dec-2023	365 days	73 days	✔	
Metals : Mercury in Biota by CVAAS (DRY units, Micro)											
LDPE bag QUL-NHC_PCC-Li-2_2023-09	E511	30-Sep-2023	11-Dec-2023	365 days	72 days	✔	12-Dec-2023	365 days	73 days	✔	
Metals : Mercury in Biota by CVAAS (DRY units, Micro)											
LDPE bag QUL-NHC_PCC-Li-3_2023-09	E511	30-Sep-2023	11-Dec-2023	365 days	72 days	✔	12-Dec-2023	365 days	73 days	✔	
Metals : Mercury in Biota by CVAAS (DRY units, Micro)											
LDPE bag QUL-NHC_PCC-Li-4_2023-09	E511	30-Sep-2023	11-Dec-2023	365 days	72 days	✔	12-Dec-2023	365 days	73 days	✔	
Metals : Mercury in Biota by CVAAS (DRY units, Micro)											
LDPE bag QUL-NHC_PCC-Li-5_2023-09	E511	30-Sep-2023	11-Dec-2023	365 days	72 days	✔	12-Dec-2023	365 days	73 days	✔	
Metals : Mercury in Biota by CVAAS (DRY units, Micro)											
LDPE bag QUL-NHC_PCC-Li-6_2023-09	E511	30-Sep-2023	11-Dec-2023	365 days	72 days	✔	12-Dec-2023	365 days	73 days	✔	
Metals : Mercury in Biota by CVAAS (DRY units, Micro)											
LDPE bag QUL-NHC_PCC-Li-7_2023-09	E511	30-Sep-2023	11-Dec-2023	365 days	72 days	✔	12-Dec-2023	365 days	73 days	✔	
Metals : Mercury in Biota by CVAAS (DRY units, Micro)											
LDPE bag QUL-NHC_PCC-Li-8_2023-09	E511	30-Sep-2023	11-Dec-2023	365 days	72 days	✔	12-Dec-2023	365 days	73 days	✔	



Matrix: **Biota** Evaluation: * = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Metals : Mercury in Biota by CVAAS (DRY units, Micro)											
LDPE bag QUL-NHC_PCC-M-8_2023-09	E511	30-Sep-2023	11-Dec-2023	365 days	72 days	✓	12-Dec-2023	365 days	73 days	✓	
Metals : Mercury in Biota by CVAAS (DRY units, Micro)											
LDPE bag QUL-NHC_PCC-O-2_2023-09	E511	30-Sep-2023	11-Dec-2023	365 days	72 days	✓	12-Dec-2023	365 days	73 days	✓	
Metals : Mercury in Biota by CVAAS (DRY units, Micro)											
LDPE bag QUL-NGC_PCC-O-5x_2023-09	E511	30-Sep-2023	11-Dec-2023	365 days	73 days	✓	12-Dec-2023	365 days	73 days	✓	
Metals : Mercury in Biota by CVAAS (DRY units, Micro)											
LDPE bag QUL-NHC_PCC-Li-8x_2023-09	E511	30-Sep-2023	11-Dec-2023	365 days	73 days	✓	12-Dec-2023	365 days	73 days	✓	
Metals : Mercury in Biota by CVAAS (DRY units, Micro)											
LDPE bag QUL-NHC_PCC-M-8x_2023-09	E511	30-Sep-2023	11-Dec-2023	365 days	73 days	✓	12-Dec-2023	365 days	73 days	✓	
Metals : Mercury in Biota by CVAAS (DRY units, Micro)											
LDPE bag QUL-NGC_PCC-Li-1_2023-09	E511	29-Sep-2023	11-Dec-2023	365 days	74 days	✓	12-Dec-2023	365 days	74 days	✓	
Metals : Mercury in Biota by CVAAS (DRY units, Micro)											
LDPE bag QUL-NGC_PCC-Li-2_2023-09	E511	29-Sep-2023	11-Dec-2023	365 days	74 days	✓	12-Dec-2023	365 days	74 days	✓	
Metals : Mercury in Biota by CVAAS (DRY units, Micro)											
LDPE bag QUL-NHC_PCC-Li-1_2023-09	E511	29-Sep-2023	11-Dec-2023	365 days	74 days	✓	12-Dec-2023	365 days	74 days	✓	
Metals : Mercury in Biota by CVAAS (DRY units, Micro)											
LDPE bag QUL-NHC_PCC-O-1_2023-09	E511	29-Sep-2023	11-Dec-2023	365 days	74 days	✓	12-Dec-2023	365 days	74 days	✓	



Matrix: **Biota** Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Metals : Mercury in Biota by CVAAS (DRY units, Routine)											
LDPE bag QUL-NCP_LT-Ki-4_2023-10	E510	05-Oct-2023	06-Dec-2023	365 days	63 days	✔	06-Dec-2023	365 days	63 days	✔	
Metals : Mercury in Biota by CVAAS (DRY units, Routine)											
LDPE bag QUL-NCP_LT-Li-3_2023-10	E510	05-Oct-2023	06-Dec-2023	365 days	63 days	✔	06-Dec-2023	365 days	63 days	✔	
Metals : Mercury in Biota by CVAAS (DRY units, Routine)											
LDPE bag QUL-NCP_LT-Li-4_2023-10	E510	05-Oct-2023	06-Dec-2023	365 days	63 days	✔	06-Dec-2023	365 days	63 days	✔	
Metals : Mercury in Biota by CVAAS (DRY units, Routine)											
LDPE bag QUL-NCP_LT-M-3_2023-10	E510	05-Oct-2023	06-Dec-2023	365 days	63 days	✔	06-Dec-2023	365 days	63 days	✔	
Metals : Mercury in Biota by CVAAS (DRY units, Routine)											
LDPE bag QUL-NCP_LT-M-4_2023-10	E510	05-Oct-2023	06-Dec-2023	365 days	63 days	✔	06-Dec-2023	365 days	63 days	✔	
Metals : Mercury in Biota by CVAAS (DRY units, Routine)											
LDPE bag QUL-NCP_LT-O-4_2023-10	E510	05-Oct-2023	06-Dec-2023	365 days	63 days	✔	06-Dec-2023	365 days	63 days	✔	
Metals : Mercury in Biota by CVAAS (DRY units, Routine)											
LDPE bag QUL-NCP_LT-Ki-1_2023-10	E510	01-Oct-2023	06-Dec-2023	365 days	67 days	✔	06-Dec-2023	365 days	67 days	✔	
Metals : Mercury in Biota by CVAAS (DRY units, Routine)											
LDPE bag QUL-NCP_LT-Ki-1x_2023-10	E510	01-Oct-2023	06-Dec-2023	365 days	67 days	✔	06-Dec-2023	365 days	67 days	✔	
Metals : Mercury in Biota by CVAAS (DRY units, Routine)											
LDPE bag QUL-NCP_LT-Ki-2_2023-10	E510	01-Oct-2023	06-Dec-2023	365 days	67 days	✔	06-Dec-2023	365 days	67 days	✔	



Matrix: **Biota** Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Metals : Mercury in Biota by CVAAS (DRY units, Routine)											
LDPE bag QUL-NCP_LT-Li-1_2023-10	E510	01-Oct-2023	06-Dec-2023	365 days	67 days	✔	06-Dec-2023	365 days	67 days	✔	
Metals : Mercury in Biota by CVAAS (DRY units, Routine)											
LDPE bag QUL-NCP_LT-Li-1x_2023-10	E510	01-Oct-2023	06-Dec-2023	365 days	67 days	✔	06-Dec-2023	365 days	67 days	✔	
Metals : Mercury in Biota by CVAAS (DRY units, Routine)											
LDPE bag QUL-NCP_LT-Li-2_2023-10	E510	01-Oct-2023	06-Dec-2023	365 days	67 days	✔	06-Dec-2023	365 days	67 days	✔	
Metals : Mercury in Biota by CVAAS (DRY units, Routine)											
LDPE bag QUL-NCP_LT-M-1_2023-10	E510	01-Oct-2023	06-Dec-2023	365 days	67 days	✔	06-Dec-2023	365 days	67 days	✔	
Metals : Mercury in Biota by CVAAS (DRY units, Routine)											
LDPE bag QUL-NCP_LT-M-1x_2023-10	E510	01-Oct-2023	06-Dec-2023	365 days	67 days	✔	06-Dec-2023	365 days	67 days	✔	
Metals : Mercury in Biota by CVAAS (DRY units, Routine)											
LDPE bag QUL-NCP_LT-M-2_2023-10	E510	01-Oct-2023	06-Dec-2023	365 days	67 days	✔	06-Dec-2023	365 days	67 days	✔	
Metals : Mercury in Biota by CVAAS (DRY units, Routine)											
LDPE bag QUL-NCP_LT-O-1_2023-10	E510	01-Oct-2023	06-Dec-2023	365 days	67 days	✔	06-Dec-2023	365 days	67 days	✔	
Metals : Mercury in Biota by CVAAS (DRY units, Routine)											
LDPE bag QUL-NCP_LT-O-1x_2023-10	E510	01-Oct-2023	06-Dec-2023	365 days	67 days	✔	06-Dec-2023	365 days	67 days	✔	
Metals : Mercury in Biota by CVAAS (DRY units, Routine)											
LDPE bag QUL-NCP_LT-O-2_2023-10	E510	01-Oct-2023	06-Dec-2023	365 days	67 days	✔	06-Dec-2023	365 days	67 days	✔	



Matrix: **Biota** Evaluation: * = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Metals : Mercury in Biota by CVAAS (DRY units, Routine)											
LDPE bag QUL-NGC_PCC-M-3_2023-09	E510	30-Sep-2023	06-Dec-2023	365 days	67 days	✓	06-Dec-2023	365 days	67 days	✓	
Metals : Mercury in Biota by CVAAS (DRY units, Routine)											
LDPE bag QUL-NGC_PCC-M-4_2023-09	E510	30-Sep-2023	06-Dec-2023	365 days	67 days	✓	06-Dec-2023	365 days	67 days	✓	
Metals : Mercury in Biota by CVAAS (DRY units, Routine)											
LDPE bag QUL-NGC_PCC-M-5_2023-09	E510	30-Sep-2023	06-Dec-2023	365 days	67 days	✓	06-Dec-2023	365 days	67 days	✓	
Metals : Mercury in Biota by CVAAS (DRY units, Routine)											
LDPE bag QUL-NGC_PCC-M-6_2023-09	E510	30-Sep-2023	06-Dec-2023	365 days	67 days	✓	06-Dec-2023	365 days	67 days	✓	
Metals : Mercury in Biota by CVAAS (DRY units, Routine)											
LDPE bag QUL-NGC_PCC-M-7_2023-09	E510	30-Sep-2023	06-Dec-2023	365 days	67 days	✓	06-Dec-2023	365 days	67 days	✓	
Metals : Mercury in Biota by CVAAS (DRY units, Routine)											
LDPE bag QUL-NGC_PCC-M-8_2023-09	E510	30-Sep-2023	06-Dec-2023	365 days	67 days	✓	06-Dec-2023	365 days	67 days	✓	
Metals : Mercury in Biota by CVAAS (DRY units, Routine)											
LDPE bag QUL-NGC_PCC-O-3_2023-09	E510	30-Sep-2023	06-Dec-2023	365 days	67 days	✓	06-Dec-2023	365 days	67 days	✓	
Metals : Mercury in Biota by CVAAS (DRY units, Routine)											
LDPE bag QUL-NGC_PCC-O-4_2023-09	E510	30-Sep-2023	06-Dec-2023	365 days	67 days	✓	06-Dec-2023	365 days	67 days	✓	
Metals : Mercury in Biota by CVAAS (DRY units, Routine)											
LDPE bag QUL-NGC_PCC-O-6_2023-09	E510	30-Sep-2023	06-Dec-2023	365 days	67 days	✓	06-Dec-2023	365 days	67 days	✓	



Matrix: **Biota** Evaluation: * = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Metals : Mercury in Biota by CVAAS (DRY units, Routine)											
LDPE bag QUL-NGC_PCC-O-7_2023-09	E510	30-Sep-2023	06-Dec-2023	365 days	67 days	✓	06-Dec-2023	365 days	67 days	✓	
Metals : Mercury in Biota by CVAAS (DRY units, Routine)											
LDPE bag QUL-NGC_PCC-O-8_2023-09	E510	30-Sep-2023	06-Dec-2023	365 days	67 days	✓	06-Dec-2023	365 days	67 days	✓	
Metals : Mercury in Biota by CVAAS (DRY units, Routine)											
LDPE bag QUL-NHC_NSC-WB-3_2023-09	E510	30-Sep-2023	06-Dec-2023	365 days	67 days	✓	06-Dec-2023	365 days	67 days	✓	
Metals : Mercury in Biota by CVAAS (DRY units, Routine)											
LDPE bag QUL-NHC_NSC-WB-4_2023-09	E510	30-Sep-2023	06-Dec-2023	365 days	67 days	✓	06-Dec-2023	365 days	67 days	✓	
Metals : Mercury in Biota by CVAAS (DRY units, Routine)											
LDPE bag QUL-NHC_NSC-WB-5_2023-09	E510	30-Sep-2023	06-Dec-2023	365 days	67 days	✓	06-Dec-2023	365 days	67 days	✓	
Metals : Mercury in Biota by CVAAS (DRY units, Routine)											
LDPE bag QUL-NHC_NSC-WB-6_2023-09	E510	30-Sep-2023	06-Dec-2023	365 days	67 days	✓	06-Dec-2023	365 days	67 days	✓	
Metals : Mercury in Biota by CVAAS (DRY units, Routine)											
LDPE bag QUL-NHC_NSC-WB-7_2023-09	E510	30-Sep-2023	06-Dec-2023	365 days	67 days	✓	06-Dec-2023	365 days	67 days	✓	
Metals : Mercury in Biota by CVAAS (DRY units, Routine)											
LDPE bag QUL-NHC_NSC-WB-8_2023-09	E510	30-Sep-2023	06-Dec-2023	365 days	67 days	✓	06-Dec-2023	365 days	67 days	✓	
Metals : Mercury in Biota by CVAAS (DRY units, Routine)											
LDPE bag QUL-NHC_PCC-M-2_2023-09	E510	30-Sep-2023	06-Dec-2023	365 days	67 days	✓	06-Dec-2023	365 days	67 days	✓	



Matrix: **Biota** Evaluation: * = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Metals : Mercury in Biota by CVAAS (DRY units, Routine)											
LDPE bag QUL-NHC_PCC-M-3_2023-09	E510	30-Sep-2023	06-Dec-2023	365 days	67 days	✓	06-Dec-2023	365 days	67 days	✓	
Metals : Mercury in Biota by CVAAS (DRY units, Routine)											
LDPE bag QUL-NHC_PCC-M-4_2023-09	E510	30-Sep-2023	06-Dec-2023	365 days	67 days	✓	06-Dec-2023	365 days	67 days	✓	
Metals : Mercury in Biota by CVAAS (DRY units, Routine)											
LDPE bag QUL-NHC_PCC-M-5_2023-09	E510	30-Sep-2023	06-Dec-2023	365 days	67 days	✓	06-Dec-2023	365 days	67 days	✓	
Metals : Mercury in Biota by CVAAS (DRY units, Routine)											
LDPE bag QUL-NHC_PCC-M-6_2023-09	E510	30-Sep-2023	06-Dec-2023	365 days	67 days	✓	06-Dec-2023	365 days	67 days	✓	
Metals : Mercury in Biota by CVAAS (DRY units, Routine)											
LDPE bag QUL-NHC_PCC-M-7_2023-09	E510	30-Sep-2023	06-Dec-2023	365 days	67 days	✓	06-Dec-2023	365 days	67 days	✓	
Metals : Mercury in Biota by CVAAS (DRY units, Routine)											
LDPE bag QUL-NHC_PCC-O-3_2023-09	E510	30-Sep-2023	06-Dec-2023	365 days	67 days	✓	06-Dec-2023	365 days	67 days	✓	
Metals : Mercury in Biota by CVAAS (DRY units, Routine)											
LDPE bag QUL-NHC_PCC-O-4_2023-09	E510	30-Sep-2023	06-Dec-2023	365 days	67 days	✓	06-Dec-2023	365 days	67 days	✓	
Metals : Mercury in Biota by CVAAS (DRY units, Routine)											
LDPE bag QUL-NHC_PCC-O-5_2023-09	E510	30-Sep-2023	06-Dec-2023	365 days	67 days	✓	06-Dec-2023	365 days	67 days	✓	
Metals : Mercury in Biota by CVAAS (DRY units, Routine)											
LDPE bag QUL-NHC_PCC-O-6_2023-09	E510	30-Sep-2023	06-Dec-2023	365 days	67 days	✓	06-Dec-2023	365 days	67 days	✓	



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Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Metals : Mercury in Biota by CVAAS (DRY units, Routine)											
LDPE bag QUL-NHC_PCC-O-7_2023-09	E510	30-Sep-2023	06-Dec-2023	365 days	67 days	✓	06-Dec-2023	365 days	67 days	✓	
Metals : Mercury in Biota by CVAAS (DRY units, Routine)											
LDPE bag QUL-NHC_PCC-O-8_2023-09	E510	30-Sep-2023	06-Dec-2023	365 days	67 days	✓	06-Dec-2023	365 days	67 days	✓	
Metals : Mercury in Biota by CVAAS (DRY units, Routine)											
LDPE bag QUL-NGC_PCC-M-5x_2023-09	E510	30-Sep-2023	06-Dec-2023	365 days	68 days	✓	06-Dec-2023	365 days	68 days	✓	
Metals : Mercury in Biota by CVAAS (DRY units, Routine)											
LDPE bag QUL-NHC_PCC-O-8x_2023-09	E510	30-Sep-2023	06-Dec-2023	365 days	68 days	✓	06-Dec-2023	365 days	68 days	✓	
Metals : Mercury in Biota by CVAAS (DRY units, Routine)											
LDPE bag QUL-NGC_NSC-WB-1_2023-09	E510	29-Sep-2023	06-Dec-2023	365 days	69 days	✓	06-Dec-2023	365 days	69 days	✓	
Metals : Mercury in Biota by CVAAS (DRY units, Routine)											
LDPE bag QUL-NGC_NSC-WB-2_2023-09	E510	29-Sep-2023	06-Dec-2023	365 days	69 days	✓	06-Dec-2023	365 days	69 days	✓	
Metals : Mercury in Biota by CVAAS (DRY units, Routine)											
LDPE bag QUL-NGC_NSC-WB-3_2023-09	E510	29-Sep-2023	06-Dec-2023	365 days	69 days	✓	06-Dec-2023	365 days	69 days	✓	
Metals : Mercury in Biota by CVAAS (DRY units, Routine)											
LDPE bag QUL-NGC_NSC-WB-4_2023-09	E510	29-Sep-2023	06-Dec-2023	365 days	69 days	✓	06-Dec-2023	365 days	69 days	✓	
Metals : Mercury in Biota by CVAAS (DRY units, Routine)											
LDPE bag QUL-NGC_NSC-WB-5_2023-09	E510	29-Sep-2023	06-Dec-2023	365 days	69 days	✓	06-Dec-2023	365 days	69 days	✓	



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Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Metals : Mercury in Biota by CVAAS (DRY units, Routine)											
LDPE bag QUL-NGC_NSC-WB-6_2023-09	E510	29-Sep-2023	06-Dec-2023	365 days	69 days	✓	06-Dec-2023	365 days	69 days	✓	
Metals : Mercury in Biota by CVAAS (DRY units, Routine)											
LDPE bag QUL-NGC_NSC-WB-7_2023-09	E510	29-Sep-2023	06-Dec-2023	365 days	69 days	✓	06-Dec-2023	365 days	69 days	✓	
Metals : Mercury in Biota by CVAAS (DRY units, Routine)											
LDPE bag QUL-NGC_NSC-WB-8_2023-09	E510	29-Sep-2023	06-Dec-2023	365 days	69 days	✓	06-Dec-2023	365 days	69 days	✓	
Metals : Mercury in Biota by CVAAS (DRY units, Routine)											
LDPE bag QUL-NGC_PCC-M-1_2023-09	E510	29-Sep-2023	06-Dec-2023	365 days	69 days	✓	06-Dec-2023	365 days	69 days	✓	
Metals : Mercury in Biota by CVAAS (DRY units, Routine)											
LDPE bag QUL-NGC_PCC-M-2_2023-09	E510	29-Sep-2023	06-Dec-2023	365 days	69 days	✓	06-Dec-2023	365 days	69 days	✓	
Metals : Mercury in Biota by CVAAS (DRY units, Routine)											
LDPE bag QUL-NGC_PCC-O-1_2023-09	E510	29-Sep-2023	06-Dec-2023	365 days	69 days	✓	06-Dec-2023	365 days	69 days	✓	
Metals : Mercury in Biota by CVAAS (DRY units, Routine)											
LDPE bag QUL-NGC_PCC-O-2_2023-09	E510	29-Sep-2023	06-Dec-2023	365 days	69 days	✓	06-Dec-2023	365 days	69 days	✓	
Metals : Mercury in Biota by CVAAS (DRY units, Routine)											
LDPE bag QUL-NHC_NSC-WB-1_2023-09	E510	29-Sep-2023	06-Dec-2023	365 days	69 days	✓	06-Dec-2023	365 days	69 days	✓	
Metals : Mercury in Biota by CVAAS (DRY units, Routine)											
LDPE bag QUL-NHC_NSC-WB-2_2023-09	E510	29-Sep-2023	06-Dec-2023	365 days	69 days	✓	06-Dec-2023	365 days	69 days	✓	



Matrix: **Biota** Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Metals : Mercury in Biota by CVAAS (DRY units, Routine)											
LDPE bag QUL-NHC_PCC-M-1_2023-09	E510	29-Sep-2023	06-Dec-2023	365 days	69 days	✔	06-Dec-2023	365 days	69 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Biopsy)											
LDPE bag QUL-NGC_PCC-Ki-3_2023-09	E512A	30-Sep-2023	11-Dec-2023	365 days	72 days	✔	12-Dec-2023	365 days	73 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Biopsy)											
LDPE bag QUL-NGC_PCC-Ki-4_2023-09	E512A	30-Sep-2023	11-Dec-2023	365 days	72 days	✔	12-Dec-2023	365 days	73 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Biopsy)											
LDPE bag QUL-NGC_PCC-Ki-5_2023-09	E512A	30-Sep-2023	11-Dec-2023	365 days	72 days	✔	12-Dec-2023	365 days	73 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Biopsy)											
LDPE bag QUL-NGC_PCC-Ki-6_2023-09	E512A	30-Sep-2023	11-Dec-2023	365 days	72 days	✔	12-Dec-2023	365 days	73 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Biopsy)											
LDPE bag QUL-NGC_PCC-Ki-7_2023-09	E512A	30-Sep-2023	11-Dec-2023	365 days	72 days	✔	12-Dec-2023	365 days	73 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Biopsy)											
LDPE bag QUL-NGC_PCC-Ki-8_2023-09	E512A	30-Sep-2023	11-Dec-2023	365 days	72 days	✔	12-Dec-2023	365 days	73 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Biopsy)											
LDPE bag QUL-NGC_PCC-Li-5_2023-09	E512A	30-Sep-2023	11-Dec-2023	365 days	72 days	✔	12-Dec-2023	365 days	73 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Biopsy)											
LDPE bag QUL-NGC_PCC-Li-6_2023-09	E512A	30-Sep-2023	11-Dec-2023	365 days	72 days	✔	12-Dec-2023	365 days	73 days	✔	



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Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Metals : Mercury in Biota by CVAAS (WET units, Biopsy)											
LDPE bag QUL-NGC_PCC-Li-7_2023-09	E512A	30-Sep-2023	11-Dec-2023	365 days	72 days	✓	12-Dec-2023	365 days	73 days	✓	
Metals : Mercury in Biota by CVAAS (WET units, Biopsy)											
LDPE bag QUL-NHC_PCC-Ki-2_2023-09	E512A	30-Sep-2023	11-Dec-2023	365 days	72 days	✓	12-Dec-2023	365 days	73 days	✓	
Metals : Mercury in Biota by CVAAS (WET units, Biopsy)											
LDPE bag QUL-NHC_PCC-Ki-7_2023-09	E512A	30-Sep-2023	11-Dec-2023	365 days	72 days	✓	12-Dec-2023	365 days	73 days	✓	
Metals : Mercury in Biota by CVAAS (WET units, Biopsy)											
LDPE bag QUL-NHC_PCC-Ki-8_2023-09	E512A	30-Sep-2023	11-Dec-2023	365 days	72 days	✓	12-Dec-2023	365 days	73 days	✓	
Metals : Mercury in Biota by CVAAS (WET units, Biopsy)											
LDPE bag QUL-NGC_PCC-Ki-5x_2023-09	E512A	30-Sep-2023	11-Dec-2023	365 days	73 days	✓	12-Dec-2023	365 days	74 days	✓	
Metals : Mercury in Biota by CVAAS (WET units, Biopsy)											
LDPE bag QUL-NGC_PCC-Li-5x_2023-09	E512A	30-Sep-2023	11-Dec-2023	365 days	73 days	✓	12-Dec-2023	365 days	74 days	✓	
Metals : Mercury in Biota by CVAAS (WET units, Biopsy)											
LDPE bag QUL-NHC_PCC-Ki-8x_2023-09	E512A	30-Sep-2023	11-Dec-2023	365 days	73 days	✓	12-Dec-2023	365 days	74 days	✓	
Metals : Mercury in Biota by CVAAS (WET units, Biopsy)											
LDPE bag QUL-NGC_PCC-Ki-1_2023-09	E512A	29-Sep-2023	11-Dec-2023	365 days	74 days	✓	12-Dec-2023	365 days	75 days	✓	
Metals : Mercury in Biota by CVAAS (WET units, Biopsy)											
LDPE bag QUL-NGC_PCC-Ki-2_2023-09	E512A	29-Sep-2023	11-Dec-2023	365 days	74 days	✓	12-Dec-2023	365 days	75 days	✓	



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Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Metals : Mercury in Biota by CVAAS (WET units, Biopsy)											
LDPE bag QUL-NHC_PCC-Ki-1_2023-09	E512A	29-Sep-2023	11-Dec-2023	365 days	74 days	✔	12-Dec-2023	365 days	75 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Micro)											
LDPE bag QUL-NCP_LT-Ki-3_2023-10	E511A	05-Oct-2023	11-Dec-2023	365 days	68 days	✔	12-Dec-2023	365 days	68 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Micro)											
LDPE bag QUL-NGC_PCC-Li-3_2023-09	E511A	30-Sep-2023	11-Dec-2023	365 days	72 days	✔	12-Dec-2023	365 days	73 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Micro)											
LDPE bag QUL-NGC_PCC-Li-4_2023-09	E511A	30-Sep-2023	11-Dec-2023	365 days	72 days	✔	12-Dec-2023	365 days	73 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Micro)											
LDPE bag QUL-NGC_PCC-Li-8_2023-09	E511A	30-Sep-2023	11-Dec-2023	365 days	72 days	✔	12-Dec-2023	365 days	73 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Micro)											
LDPE bag QUL-NGC_PCC-O-5_2023-09	E511A	30-Sep-2023	11-Dec-2023	365 days	72 days	✔	12-Dec-2023	365 days	73 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Micro)											
LDPE bag QUL-NHC_PCC-Ki-3_2023-09	E511A	30-Sep-2023	11-Dec-2023	365 days	72 days	✔	12-Dec-2023	365 days	73 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Micro)											
LDPE bag QUL-NHC_PCC-Ki-4_2023-09	E511A	30-Sep-2023	11-Dec-2023	365 days	72 days	✔	12-Dec-2023	365 days	73 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Micro)											
LDPE bag QUL-NHC_PCC-Ki-5_2023-09	E511A	30-Sep-2023	11-Dec-2023	365 days	72 days	✔	12-Dec-2023	365 days	73 days	✔	



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Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Metals : Mercury in Biota by CVAAS (WET units, Micro)											
LDPE bag QUL-NHC_PCC-Ki-6_2023-09	E511A	30-Sep-2023	11-Dec-2023	365 days	72 days	✔	12-Dec-2023	365 days	73 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Micro)											
LDPE bag QUL-NHC_PCC-Li-2_2023-09	E511A	30-Sep-2023	11-Dec-2023	365 days	72 days	✔	12-Dec-2023	365 days	73 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Micro)											
LDPE bag QUL-NHC_PCC-Li-3_2023-09	E511A	30-Sep-2023	11-Dec-2023	365 days	72 days	✔	12-Dec-2023	365 days	73 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Micro)											
LDPE bag QUL-NHC_PCC-Li-4_2023-09	E511A	30-Sep-2023	11-Dec-2023	365 days	72 days	✔	12-Dec-2023	365 days	73 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Micro)											
LDPE bag QUL-NHC_PCC-Li-5_2023-09	E511A	30-Sep-2023	11-Dec-2023	365 days	72 days	✔	12-Dec-2023	365 days	73 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Micro)											
LDPE bag QUL-NHC_PCC-Li-6_2023-09	E511A	30-Sep-2023	11-Dec-2023	365 days	72 days	✔	12-Dec-2023	365 days	73 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Micro)											
LDPE bag QUL-NHC_PCC-Li-7_2023-09	E511A	30-Sep-2023	11-Dec-2023	365 days	72 days	✔	12-Dec-2023	365 days	73 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Micro)											
LDPE bag QUL-NHC_PCC-Li-8_2023-09	E511A	30-Sep-2023	11-Dec-2023	365 days	72 days	✔	12-Dec-2023	365 days	73 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Micro)											
LDPE bag QUL-NHC_PCC-M-8_2023-09	E511A	30-Sep-2023	11-Dec-2023	365 days	72 days	✔	12-Dec-2023	365 days	73 days	✔	



Matrix: **Biota** Evaluation: * = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Metals : Mercury in Biota by CVAAS (WET units, Micro)											
LDPE bag QUL-NHC_PCC-O-2_2023-09	E511A	30-Sep-2023	11-Dec-2023	365 days	72 days	✓	12-Dec-2023	365 days	73 days	✓	
Metals : Mercury in Biota by CVAAS (WET units, Micro)											
LDPE bag QUL-NGC_PCC-O-5x_2023-09	E511A	30-Sep-2023	11-Dec-2023	365 days	73 days	✓	12-Dec-2023	365 days	73 days	✓	
Metals : Mercury in Biota by CVAAS (WET units, Micro)											
LDPE bag QUL-NHC_PCC-Li-8x_2023-09	E511A	30-Sep-2023	11-Dec-2023	365 days	73 days	✓	12-Dec-2023	365 days	73 days	✓	
Metals : Mercury in Biota by CVAAS (WET units, Micro)											
LDPE bag QUL-NHC_PCC-M-8x_2023-09	E511A	30-Sep-2023	11-Dec-2023	365 days	73 days	✓	12-Dec-2023	365 days	73 days	✓	
Metals : Mercury in Biota by CVAAS (WET units, Micro)											
LDPE bag QUL-NGC_PCC-Li-1_2023-09	E511A	29-Sep-2023	11-Dec-2023	365 days	74 days	✓	12-Dec-2023	365 days	74 days	✓	
Metals : Mercury in Biota by CVAAS (WET units, Micro)											
LDPE bag QUL-NGC_PCC-Li-2_2023-09	E511A	29-Sep-2023	11-Dec-2023	365 days	74 days	✓	12-Dec-2023	365 days	74 days	✓	
Metals : Mercury in Biota by CVAAS (WET units, Micro)											
LDPE bag QUL-NHC_PCC-Li-1_2023-09	E511A	29-Sep-2023	11-Dec-2023	365 days	74 days	✓	12-Dec-2023	365 days	74 days	✓	
Metals : Mercury in Biota by CVAAS (WET units, Micro)											
LDPE bag QUL-NHC_PCC-O-1_2023-09	E511A	29-Sep-2023	11-Dec-2023	365 days	74 days	✓	12-Dec-2023	365 days	74 days	✓	
Metals : Mercury in Biota by CVAAS (WET units, Routine)											
LDPE bag QUL-NCP_LT-Ki-4_2023-10	E510A	05-Oct-2023	06-Dec-2023	365 days	63 days	✓	06-Dec-2023	365 days	63 days	✓	



Matrix: **Biota** Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Metals : Mercury in Biota by CVAAS (WET units, Routine)											
LDPE bag QUL-NCP_LT-Li-3_2023-10	E510A	05-Oct-2023	06-Dec-2023	365 days	63 days	✔	06-Dec-2023	365 days	63 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Routine)											
LDPE bag QUL-NCP_LT-Li-4_2023-10	E510A	05-Oct-2023	06-Dec-2023	365 days	63 days	✔	06-Dec-2023	365 days	63 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Routine)											
LDPE bag QUL-NCP_LT-M-3_2023-10	E510A	05-Oct-2023	06-Dec-2023	365 days	63 days	✔	06-Dec-2023	365 days	63 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Routine)											
LDPE bag QUL-NCP_LT-M-4_2023-10	E510A	05-Oct-2023	06-Dec-2023	365 days	63 days	✔	06-Dec-2023	365 days	63 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Routine)											
LDPE bag QUL-NCP_LT-O-4_2023-10	E510A	05-Oct-2023	06-Dec-2023	365 days	63 days	✔	06-Dec-2023	365 days	63 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Routine)											
LDPE bag QUL-NCP_LT-Ki-1_2023-10	E510A	01-Oct-2023	06-Dec-2023	365 days	67 days	✔	06-Dec-2023	365 days	67 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Routine)											
LDPE bag QUL-NCP_LT-Ki-1x_2023-10	E510A	01-Oct-2023	06-Dec-2023	365 days	67 days	✔	06-Dec-2023	365 days	67 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Routine)											
LDPE bag QUL-NCP_LT-Ki-2_2023-10	E510A	01-Oct-2023	06-Dec-2023	365 days	67 days	✔	06-Dec-2023	365 days	67 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Routine)											
LDPE bag QUL-NCP_LT-Li-1_2023-10	E510A	01-Oct-2023	06-Dec-2023	365 days	67 days	✔	06-Dec-2023	365 days	67 days	✔	



Matrix: **Biota** Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Metals : Mercury in Biota by CVAAS (WET units, Routine)											
LDPE bag QUL-NCP_LT-Li-1x_2023-10	E510A	01-Oct-2023	06-Dec-2023	365 days	67 days	✔	06-Dec-2023	365 days	67 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Routine)											
LDPE bag QUL-NCP_LT-Li-2_2023-10	E510A	01-Oct-2023	06-Dec-2023	365 days	67 days	✔	06-Dec-2023	365 days	67 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Routine)											
LDPE bag QUL-NCP_LT-M-1_2023-10	E510A	01-Oct-2023	06-Dec-2023	365 days	67 days	✔	06-Dec-2023	365 days	67 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Routine)											
LDPE bag QUL-NCP_LT-M-1x_2023-10	E510A	01-Oct-2023	06-Dec-2023	365 days	67 days	✔	06-Dec-2023	365 days	67 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Routine)											
LDPE bag QUL-NCP_LT-M-2_2023-10	E510A	01-Oct-2023	06-Dec-2023	365 days	67 days	✔	06-Dec-2023	365 days	67 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Routine)											
LDPE bag QUL-NCP_LT-O-1_2023-10	E510A	01-Oct-2023	06-Dec-2023	365 days	67 days	✔	06-Dec-2023	365 days	67 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Routine)											
LDPE bag QUL-NCP_LT-O-1x_2023-10	E510A	01-Oct-2023	06-Dec-2023	365 days	67 days	✔	06-Dec-2023	365 days	67 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Routine)											
LDPE bag QUL-NCP_LT-O-2_2023-10	E510A	01-Oct-2023	06-Dec-2023	365 days	67 days	✔	06-Dec-2023	365 days	67 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Routine)											
LDPE bag QUL-NGC_PCC-M-3_2023-09	E510A	30-Sep-2023	06-Dec-2023	365 days	67 days	✔	06-Dec-2023	365 days	67 days	✔	



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Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Metals : Mercury in Biota by CVAAS (WET units, Routine)											
LDPE bag QUL-NGC_PCC-M-4_2023-09	E510A	30-Sep-2023	06-Dec-2023	365 days	67 days	✔	06-Dec-2023	365 days	67 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Routine)											
LDPE bag QUL-NGC_PCC-M-5_2023-09	E510A	30-Sep-2023	06-Dec-2023	365 days	67 days	✔	06-Dec-2023	365 days	67 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Routine)											
LDPE bag QUL-NGC_PCC-M-6_2023-09	E510A	30-Sep-2023	06-Dec-2023	365 days	67 days	✔	06-Dec-2023	365 days	67 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Routine)											
LDPE bag QUL-NGC_PCC-M-7_2023-09	E510A	30-Sep-2023	06-Dec-2023	365 days	67 days	✔	06-Dec-2023	365 days	67 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Routine)											
LDPE bag QUL-NGC_PCC-M-8_2023-09	E510A	30-Sep-2023	06-Dec-2023	365 days	67 days	✔	06-Dec-2023	365 days	67 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Routine)											
LDPE bag QUL-NGC_PCC-O-3_2023-09	E510A	30-Sep-2023	06-Dec-2023	365 days	67 days	✔	06-Dec-2023	365 days	67 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Routine)											
LDPE bag QUL-NGC_PCC-O-4_2023-09	E510A	30-Sep-2023	06-Dec-2023	365 days	67 days	✔	06-Dec-2023	365 days	67 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Routine)											
LDPE bag QUL-NGC_PCC-O-6_2023-09	E510A	30-Sep-2023	06-Dec-2023	365 days	67 days	✔	06-Dec-2023	365 days	67 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Routine)											
LDPE bag QUL-NGC_PCC-O-7_2023-09	E510A	30-Sep-2023	06-Dec-2023	365 days	67 days	✔	06-Dec-2023	365 days	67 days	✔	



Matrix: **Biota** Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Metals : Mercury in Biota by CVAAS (WET units, Routine)											
LDPE bag QUL-NGC_PCC-O-8_2023-09	E510A	30-Sep-2023	06-Dec-2023	365 days	67 days	✔	06-Dec-2023	365 days	67 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Routine)											
LDPE bag QUL-NHC_NSC-WB-3_2023-09	E510A	30-Sep-2023	06-Dec-2023	365 days	67 days	✔	06-Dec-2023	365 days	67 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Routine)											
LDPE bag QUL-NHC_NSC-WB-4_2023-09	E510A	30-Sep-2023	06-Dec-2023	365 days	67 days	✔	06-Dec-2023	365 days	67 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Routine)											
LDPE bag QUL-NHC_NSC-WB-5_2023-09	E510A	30-Sep-2023	06-Dec-2023	365 days	67 days	✔	06-Dec-2023	365 days	67 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Routine)											
LDPE bag QUL-NHC_NSC-WB-6_2023-09	E510A	30-Sep-2023	06-Dec-2023	365 days	67 days	✔	06-Dec-2023	365 days	67 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Routine)											
LDPE bag QUL-NHC_NSC-WB-7_2023-09	E510A	30-Sep-2023	06-Dec-2023	365 days	67 days	✔	06-Dec-2023	365 days	67 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Routine)											
LDPE bag QUL-NHC_NSC-WB-8_2023-09	E510A	30-Sep-2023	06-Dec-2023	365 days	67 days	✔	06-Dec-2023	365 days	67 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Routine)											
LDPE bag QUL-NHC_PCC-M-2_2023-09	E510A	30-Sep-2023	06-Dec-2023	365 days	67 days	✔	06-Dec-2023	365 days	67 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Routine)											
LDPE bag QUL-NHC_PCC-M-3_2023-09	E510A	30-Sep-2023	06-Dec-2023	365 days	67 days	✔	06-Dec-2023	365 days	67 days	✔	



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Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Metals : Mercury in Biota by CVAAS (WET units, Routine)											
LDPE bag QUL-NHC_PCC-M-4_2023-09	E510A	30-Sep-2023	06-Dec-2023	365 days	67 days	✔	06-Dec-2023	365 days	67 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Routine)											
LDPE bag QUL-NHC_PCC-M-5_2023-09	E510A	30-Sep-2023	06-Dec-2023	365 days	67 days	✔	06-Dec-2023	365 days	67 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Routine)											
LDPE bag QUL-NHC_PCC-M-6_2023-09	E510A	30-Sep-2023	06-Dec-2023	365 days	67 days	✔	06-Dec-2023	365 days	67 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Routine)											
LDPE bag QUL-NHC_PCC-M-7_2023-09	E510A	30-Sep-2023	06-Dec-2023	365 days	67 days	✔	06-Dec-2023	365 days	67 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Routine)											
LDPE bag QUL-NHC_PCC-O-3_2023-09	E510A	30-Sep-2023	06-Dec-2023	365 days	67 days	✔	06-Dec-2023	365 days	67 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Routine)											
LDPE bag QUL-NHC_PCC-O-4_2023-09	E510A	30-Sep-2023	06-Dec-2023	365 days	67 days	✔	06-Dec-2023	365 days	67 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Routine)											
LDPE bag QUL-NHC_PCC-O-5_2023-09	E510A	30-Sep-2023	06-Dec-2023	365 days	67 days	✔	06-Dec-2023	365 days	67 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Routine)											
LDPE bag QUL-NHC_PCC-O-6_2023-09	E510A	30-Sep-2023	06-Dec-2023	365 days	67 days	✔	06-Dec-2023	365 days	67 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Routine)											
LDPE bag QUL-NHC_PCC-O-7_2023-09	E510A	30-Sep-2023	06-Dec-2023	365 days	67 days	✔	06-Dec-2023	365 days	67 days	✔	



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Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Metals : Mercury in Biota by CVAAS (WET units, Routine)											
LDPE bag QUL-NHC_PCC-O-8_2023-09	E510A	30-Sep-2023	06-Dec-2023	365 days	67 days	✓	06-Dec-2023	365 days	67 days	✓	
Metals : Mercury in Biota by CVAAS (WET units, Routine)											
LDPE bag QUL-NGC_PCC-M-5x_2023-09	E510A	30-Sep-2023	06-Dec-2023	365 days	68 days	✓	06-Dec-2023	365 days	68 days	✓	
Metals : Mercury in Biota by CVAAS (WET units, Routine)											
LDPE bag QUL-NHC_PCC-O-8x_2023-09	E510A	30-Sep-2023	06-Dec-2023	365 days	68 days	✓	06-Dec-2023	365 days	68 days	✓	
Metals : Mercury in Biota by CVAAS (WET units, Routine)											
LDPE bag QUL-NGC_NSC-WB-1_2023-09	E510A	29-Sep-2023	06-Dec-2023	365 days	69 days	✓	06-Dec-2023	365 days	69 days	✓	
Metals : Mercury in Biota by CVAAS (WET units, Routine)											
LDPE bag QUL-NGC_NSC-WB-2_2023-09	E510A	29-Sep-2023	06-Dec-2023	365 days	69 days	✓	06-Dec-2023	365 days	69 days	✓	
Metals : Mercury in Biota by CVAAS (WET units, Routine)											
LDPE bag QUL-NGC_NSC-WB-3_2023-09	E510A	29-Sep-2023	06-Dec-2023	365 days	69 days	✓	06-Dec-2023	365 days	69 days	✓	
Metals : Mercury in Biota by CVAAS (WET units, Routine)											
LDPE bag QUL-NGC_NSC-WB-4_2023-09	E510A	29-Sep-2023	06-Dec-2023	365 days	69 days	✓	06-Dec-2023	365 days	69 days	✓	
Metals : Mercury in Biota by CVAAS (WET units, Routine)											
LDPE bag QUL-NGC_NSC-WB-5_2023-09	E510A	29-Sep-2023	06-Dec-2023	365 days	69 days	✓	06-Dec-2023	365 days	69 days	✓	
Metals : Mercury in Biota by CVAAS (WET units, Routine)											
LDPE bag QUL-NGC_NSC-WB-6_2023-09	E510A	29-Sep-2023	06-Dec-2023	365 days	69 days	✓	06-Dec-2023	365 days	69 days	✓	



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Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Metals : Mercury in Biota by CVAAS (WET units, Routine)											
LDPE bag QUL-NGC_NSC-WB-7_2023-09	E510A	29-Sep-2023	06-Dec-2023	365 days	69 days	✔	06-Dec-2023	365 days	69 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Routine)											
LDPE bag QUL-NGC_NSC-WB-8_2023-09	E510A	29-Sep-2023	06-Dec-2023	365 days	69 days	✔	06-Dec-2023	365 days	69 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Routine)											
LDPE bag QUL-NGC_PCC-M-1_2023-09	E510A	29-Sep-2023	06-Dec-2023	365 days	69 days	✔	06-Dec-2023	365 days	69 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Routine)											
LDPE bag QUL-NGC_PCC-M-2_2023-09	E510A	29-Sep-2023	06-Dec-2023	365 days	69 days	✔	06-Dec-2023	365 days	69 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Routine)											
LDPE bag QUL-NGC_PCC-O-1_2023-09	E510A	29-Sep-2023	06-Dec-2023	365 days	69 days	✔	06-Dec-2023	365 days	69 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Routine)											
LDPE bag QUL-NGC_PCC-O-2_2023-09	E510A	29-Sep-2023	06-Dec-2023	365 days	69 days	✔	06-Dec-2023	365 days	69 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Routine)											
LDPE bag QUL-NHC_NSC-WB-1_2023-09	E510A	29-Sep-2023	06-Dec-2023	365 days	69 days	✔	06-Dec-2023	365 days	69 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Routine)											
LDPE bag QUL-NHC_NSC-WB-2_2023-09	E510A	29-Sep-2023	06-Dec-2023	365 days	69 days	✔	06-Dec-2023	365 days	69 days	✔	
Metals : Mercury in Biota by CVAAS (WET units, Routine)											
LDPE bag QUL-NHC_PCC-M-1_2023-09	E510A	29-Sep-2023	06-Dec-2023	365 days	69 days	✔	06-Dec-2023	365 days	69 days	✔	



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Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Metals : Metals by CRC ICPMS (DRY units, Biopsy)											
LDPE bag QUL-NGC_PCC-Ki-3_2023-09	E475	30-Sep-2023	11-Dec-2023	730 days	72 days	✔	12-Dec-2023	730 days	73 days	✔	
Metals : Metals by CRC ICPMS (DRY units, Biopsy)											
LDPE bag QUL-NGC_PCC-Ki-4_2023-09	E475	30-Sep-2023	11-Dec-2023	730 days	72 days	✔	12-Dec-2023	730 days	73 days	✔	
Metals : Metals by CRC ICPMS (DRY units, Biopsy)											
LDPE bag QUL-NGC_PCC-Ki-5_2023-09	E475	30-Sep-2023	11-Dec-2023	730 days	72 days	✔	12-Dec-2023	730 days	73 days	✔	
Metals : Metals by CRC ICPMS (DRY units, Biopsy)											
LDPE bag QUL-NGC_PCC-Ki-6_2023-09	E475	30-Sep-2023	11-Dec-2023	730 days	72 days	✔	12-Dec-2023	730 days	73 days	✔	
Metals : Metals by CRC ICPMS (DRY units, Biopsy)											
LDPE bag QUL-NGC_PCC-Ki-7_2023-09	E475	30-Sep-2023	11-Dec-2023	730 days	72 days	✔	12-Dec-2023	730 days	73 days	✔	
Metals : Metals by CRC ICPMS (DRY units, Biopsy)											
LDPE bag QUL-NGC_PCC-Ki-8_2023-09	E475	30-Sep-2023	11-Dec-2023	730 days	72 days	✔	12-Dec-2023	730 days	73 days	✔	
Metals : Metals by CRC ICPMS (DRY units, Biopsy)											
LDPE bag QUL-NGC_PCC-Li-5_2023-09	E475	30-Sep-2023	11-Dec-2023	730 days	72 days	✔	12-Dec-2023	730 days	73 days	✔	
Metals : Metals by CRC ICPMS (DRY units, Biopsy)											
LDPE bag QUL-NGC_PCC-Li-6_2023-09	E475	30-Sep-2023	11-Dec-2023	730 days	72 days	✔	12-Dec-2023	730 days	73 days	✔	
Metals : Metals by CRC ICPMS (DRY units, Biopsy)											
LDPE bag QUL-NGC_PCC-Li-7_2023-09	E475	30-Sep-2023	11-Dec-2023	730 days	72 days	✔	12-Dec-2023	730 days	73 days	✔	



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Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Metals : Metals by CRC ICPMS (DRY units, Biopsy)											
LDPE bag QUL-NHC_PCC-Ki-2_2023-09	E475	30-Sep-2023	11-Dec-2023	730 days	72 days	✓	12-Dec-2023	730 days	73 days	✓	
Metals : Metals by CRC ICPMS (DRY units, Biopsy)											
LDPE bag QUL-NHC_PCC-Ki-7_2023-09	E475	30-Sep-2023	11-Dec-2023	730 days	72 days	✓	12-Dec-2023	730 days	73 days	✓	
Metals : Metals by CRC ICPMS (DRY units, Biopsy)											
LDPE bag QUL-NHC_PCC-Ki-8_2023-09	E475	30-Sep-2023	11-Dec-2023	730 days	72 days	✓	12-Dec-2023	730 days	73 days	✓	
Metals : Metals by CRC ICPMS (DRY units, Biopsy)											
LDPE bag QUL-NGC_PCC-Ki-5x_2023-09	E475	30-Sep-2023	11-Dec-2023	730 days	73 days	✓	12-Dec-2023	730 days	73 days	✓	
Metals : Metals by CRC ICPMS (DRY units, Biopsy)											
LDPE bag QUL-NGC_PCC-Li-5x_2023-09	E475	30-Sep-2023	11-Dec-2023	730 days	73 days	✓	12-Dec-2023	730 days	73 days	✓	
Metals : Metals by CRC ICPMS (DRY units, Biopsy)											
LDPE bag QUL-NHC_PCC-Ki-8x_2023-09	E475	30-Sep-2023	11-Dec-2023	730 days	73 days	✓	12-Dec-2023	730 days	73 days	✓	
Metals : Metals by CRC ICPMS (DRY units, Biopsy)											
LDPE bag QUL-NGC_PCC-Ki-1_2023-09	E475	29-Sep-2023	11-Dec-2023	730 days	74 days	✓	12-Dec-2023	730 days	74 days	✓	
Metals : Metals by CRC ICPMS (DRY units, Biopsy)											
LDPE bag QUL-NGC_PCC-Ki-2_2023-09	E475	29-Sep-2023	11-Dec-2023	730 days	74 days	✓	12-Dec-2023	730 days	74 days	✓	
Metals : Metals by CRC ICPMS (DRY units, Biopsy)											
LDPE bag QUL-NHC_PCC-Ki-1_2023-09	E475	29-Sep-2023	11-Dec-2023	730 days	74 days	✓	12-Dec-2023	730 days	74 days	✓	



Matrix: **Biota** Evaluation: * = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag QUL-NCP_LT-Ki-3_2023-10	E472	05-Oct-2023	11-Dec-2023	730 days	68 days	✓	12-Dec-2023	730 days	68 days	✓	
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag QUL-NGC_PCC-Li-3_2023-09	E472	30-Sep-2023	11-Dec-2023	730 days	72 days	✓	12-Dec-2023	730 days	73 days	✓	
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag QUL-NGC_PCC-Li-4_2023-09	E472	30-Sep-2023	11-Dec-2023	730 days	72 days	✓	12-Dec-2023	730 days	73 days	✓	
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag QUL-NGC_PCC-Li-8_2023-09	E472	30-Sep-2023	11-Dec-2023	730 days	72 days	✓	12-Dec-2023	730 days	73 days	✓	
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag QUL-NGC_PCC-O-5_2023-09	E472	30-Sep-2023	11-Dec-2023	730 days	72 days	✓	12-Dec-2023	730 days	73 days	✓	
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag QUL-NHC_PCC-Ki-3_2023-09	E472	30-Sep-2023	11-Dec-2023	730 days	72 days	✓	12-Dec-2023	730 days	73 days	✓	
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag QUL-NHC_PCC-Ki-4_2023-09	E472	30-Sep-2023	11-Dec-2023	730 days	72 days	✓	12-Dec-2023	730 days	73 days	✓	
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag QUL-NHC_PCC-Ki-5_2023-09	E472	30-Sep-2023	11-Dec-2023	730 days	72 days	✓	12-Dec-2023	730 days	73 days	✓	
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag QUL-NHC_PCC-Ki-6_2023-09	E472	30-Sep-2023	11-Dec-2023	730 days	72 days	✓	12-Dec-2023	730 days	73 days	✓	



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Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag QUL-NHC_PCC-Li-2_2023-09	E472	30-Sep-2023	11-Dec-2023	730 days	72 days	✓	12-Dec-2023	730 days	73 days	✓	
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag QUL-NHC_PCC-Li-3_2023-09	E472	30-Sep-2023	11-Dec-2023	730 days	72 days	✓	12-Dec-2023	730 days	73 days	✓	
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag QUL-NHC_PCC-Li-4_2023-09	E472	30-Sep-2023	11-Dec-2023	730 days	72 days	✓	12-Dec-2023	730 days	73 days	✓	
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag QUL-NHC_PCC-Li-5_2023-09	E472	30-Sep-2023	11-Dec-2023	730 days	72 days	✓	12-Dec-2023	730 days	73 days	✓	
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag QUL-NHC_PCC-Li-6_2023-09	E472	30-Sep-2023	11-Dec-2023	730 days	72 days	✓	12-Dec-2023	730 days	73 days	✓	
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag QUL-NHC_PCC-Li-7_2023-09	E472	30-Sep-2023	11-Dec-2023	730 days	72 days	✓	12-Dec-2023	730 days	73 days	✓	
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag QUL-NHC_PCC-Li-8_2023-09	E472	30-Sep-2023	11-Dec-2023	730 days	72 days	✓	12-Dec-2023	730 days	73 days	✓	
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag QUL-NHC_PCC-M-8_2023-09	E472	30-Sep-2023	11-Dec-2023	730 days	72 days	✓	12-Dec-2023	730 days	73 days	✓	
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag QUL-NHC_PCC-O-2_2023-09	E472	30-Sep-2023	11-Dec-2023	730 days	72 days	✓	12-Dec-2023	730 days	73 days	✓	



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Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag QUL-NGC_PCC-O-5x_2023-09	E472	30-Sep-2023	11-Dec-2023	730 days	73 days	✓	12-Dec-2023	730 days	73 days	✓	
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag QUL-NHC_PCC-Li-8x_2023-09	E472	30-Sep-2023	11-Dec-2023	730 days	73 days	✓	12-Dec-2023	730 days	73 days	✓	
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag QUL-NHC_PCC-M-8x_2023-09	E472	30-Sep-2023	11-Dec-2023	730 days	73 days	✓	12-Dec-2023	730 days	73 days	✓	
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag QUL-NGC_PCC-Li-1_2023-09	E472	29-Sep-2023	11-Dec-2023	730 days	74 days	✓	12-Dec-2023	730 days	74 days	✓	
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag QUL-NGC_PCC-Li-2_2023-09	E472	29-Sep-2023	11-Dec-2023	730 days	74 days	✓	12-Dec-2023	730 days	74 days	✓	
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag QUL-NHC_PCC-Li-1_2023-09	E472	29-Sep-2023	11-Dec-2023	730 days	74 days	✓	12-Dec-2023	730 days	74 days	✓	
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag QUL-NHC_PCC-O-1_2023-09	E472	29-Sep-2023	11-Dec-2023	730 days	74 days	✓	12-Dec-2023	730 days	74 days	✓	
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag QUL-NCP_LT-Ki-4_2023-10	E440	05-Oct-2023	06-Dec-2023	730 days	63 days	✓	07-Dec-2023	730 days	63 days	✓	
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag QUL-NCP_LT-Li-3_2023-10	E440	05-Oct-2023	06-Dec-2023	730 days	63 days	✓	07-Dec-2023	730 days	63 days	✓	



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Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag QUL-NCP_LT-Li-4_2023-10	E440	05-Oct-2023	06-Dec-2023	730 days	63 days	✔	07-Dec-2023	730 days	63 days	✔	
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag QUL-NCP_LT-M-3_2023-10	E440	05-Oct-2023	06-Dec-2023	730 days	63 days	✔	07-Dec-2023	730 days	63 days	✔	
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag QUL-NCP_LT-M-4_2023-10	E440	05-Oct-2023	06-Dec-2023	730 days	63 days	✔	07-Dec-2023	730 days	63 days	✔	
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag QUL-NCP_LT-O-4_2023-10	E440	05-Oct-2023	06-Dec-2023	730 days	63 days	✔	07-Dec-2023	730 days	63 days	✔	
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag QUL-NCP_LT-Ki-1_2023-10	E440	01-Oct-2023	06-Dec-2023	730 days	67 days	✔	07-Dec-2023	730 days	67 days	✔	
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag QUL-NCP_LT-Ki-1x_2023-10	E440	01-Oct-2023	06-Dec-2023	730 days	67 days	✔	07-Dec-2023	730 days	67 days	✔	
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag QUL-NCP_LT-Ki-2_2023-10	E440	01-Oct-2023	06-Dec-2023	730 days	67 days	✔	07-Dec-2023	730 days	67 days	✔	
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag QUL-NCP_LT-Li-1_2023-10	E440	01-Oct-2023	06-Dec-2023	730 days	67 days	✔	07-Dec-2023	730 days	67 days	✔	
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag QUL-NCP_LT-Li-1x_2023-10	E440	01-Oct-2023	06-Dec-2023	730 days	67 days	✔	07-Dec-2023	730 days	67 days	✔	



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Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag QUL-NCP_LT-Li-2_2023-10	E440	01-Oct-2023	06-Dec-2023	730 days	67 days	✓	07-Dec-2023	730 days	67 days	✓	
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag QUL-NCP_LT-M-1_2023-10	E440	01-Oct-2023	06-Dec-2023	730 days	67 days	✓	07-Dec-2023	730 days	67 days	✓	
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag QUL-NCP_LT-M-1x_2023-10	E440	01-Oct-2023	06-Dec-2023	730 days	67 days	✓	07-Dec-2023	730 days	67 days	✓	
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag QUL-NCP_LT-M-2_2023-10	E440	01-Oct-2023	06-Dec-2023	730 days	67 days	✓	07-Dec-2023	730 days	67 days	✓	
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag QUL-NCP_LT-O-1_2023-10	E440	01-Oct-2023	06-Dec-2023	730 days	67 days	✓	07-Dec-2023	730 days	67 days	✓	
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag QUL-NCP_LT-O-1x_2023-10	E440	01-Oct-2023	06-Dec-2023	730 days	67 days	✓	07-Dec-2023	730 days	67 days	✓	
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag QUL-NCP_LT-O-2_2023-10	E440	01-Oct-2023	06-Dec-2023	730 days	67 days	✓	07-Dec-2023	730 days	67 days	✓	
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag QUL-NGC_PCC-M-3_2023-09	E440	30-Sep-2023	06-Dec-2023	730 days	67 days	✓	07-Dec-2023	730 days	68 days	✓	
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag QUL-NGC_PCC-M-4_2023-09	E440	30-Sep-2023	06-Dec-2023	730 days	67 days	✓	07-Dec-2023	730 days	68 days	✓	



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Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag QUL-NGC_PCC-M-5_2023-09	E440	30-Sep-2023	06-Dec-2023	730 days	67 days	✔	07-Dec-2023	730 days	68 days	✔
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag QUL-NGC_PCC-M-6_2023-09	E440	30-Sep-2023	06-Dec-2023	730 days	67 days	✔	07-Dec-2023	730 days	68 days	✔
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag QUL-NGC_PCC-M-7_2023-09	E440	30-Sep-2023	06-Dec-2023	730 days	67 days	✔	07-Dec-2023	730 days	68 days	✔
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag QUL-NGC_PCC-M-8_2023-09	E440	30-Sep-2023	06-Dec-2023	730 days	67 days	✔	07-Dec-2023	730 days	68 days	✔
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag QUL-NGC_PCC-O-3_2023-09	E440	30-Sep-2023	06-Dec-2023	730 days	67 days	✔	07-Dec-2023	730 days	68 days	✔
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag QUL-NGC_PCC-O-4_2023-09	E440	30-Sep-2023	06-Dec-2023	730 days	67 days	✔	07-Dec-2023	730 days	68 days	✔
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag QUL-NGC_PCC-O-6_2023-09	E440	30-Sep-2023	06-Dec-2023	730 days	67 days	✔	07-Dec-2023	730 days	68 days	✔
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag QUL-NGC_PCC-O-7_2023-09	E440	30-Sep-2023	06-Dec-2023	730 days	67 days	✔	07-Dec-2023	730 days	68 days	✔
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag QUL-NGC_PCC-O-8_2023-09	E440	30-Sep-2023	06-Dec-2023	730 days	67 days	✔	07-Dec-2023	730 days	68 days	✔



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Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag QUL-NHC_NSC-WB-3_2023-09	E440	30-Sep-2023	06-Dec-2023	730 days	67 days	✓	07-Dec-2023	730 days	68 days	✓	
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag QUL-NHC_NSC-WB-4_2023-09	E440	30-Sep-2023	06-Dec-2023	730 days	67 days	✓	07-Dec-2023	730 days	68 days	✓	
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag QUL-NHC_NSC-WB-5_2023-09	E440	30-Sep-2023	06-Dec-2023	730 days	67 days	✓	07-Dec-2023	730 days	68 days	✓	
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag QUL-NHC_NSC-WB-6_2023-09	E440	30-Sep-2023	06-Dec-2023	730 days	67 days	✓	07-Dec-2023	730 days	68 days	✓	
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag QUL-NHC_NSC-WB-7_2023-09	E440	30-Sep-2023	06-Dec-2023	730 days	67 days	✓	07-Dec-2023	730 days	68 days	✓	
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag QUL-NHC_NSC-WB-8_2023-09	E440	30-Sep-2023	06-Dec-2023	730 days	67 days	✓	07-Dec-2023	730 days	68 days	✓	
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag QUL-NHC_PCC-M-2_2023-09	E440	30-Sep-2023	06-Dec-2023	730 days	67 days	✓	07-Dec-2023	730 days	68 days	✓	
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag QUL-NHC_PCC-M-3_2023-09	E440	30-Sep-2023	06-Dec-2023	730 days	67 days	✓	07-Dec-2023	730 days	68 days	✓	
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag QUL-NHC_PCC-M-4_2023-09	E440	30-Sep-2023	06-Dec-2023	730 days	67 days	✓	07-Dec-2023	730 days	68 days	✓	



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			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag QUL-NHC_PCC-M-5_2023-09	E440	30-Sep-2023	06-Dec-2023	730 days	67 days	✓	07-Dec-2023	730 days	68 days	✓	
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag QUL-NHC_PCC-M-6_2023-09	E440	30-Sep-2023	06-Dec-2023	730 days	67 days	✓	07-Dec-2023	730 days	68 days	✓	
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag QUL-NHC_PCC-M-7_2023-09	E440	30-Sep-2023	06-Dec-2023	730 days	67 days	✓	07-Dec-2023	730 days	68 days	✓	
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag QUL-NHC_PCC-O-3_2023-09	E440	30-Sep-2023	06-Dec-2023	730 days	67 days	✓	07-Dec-2023	730 days	68 days	✓	
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag QUL-NHC_PCC-O-4_2023-09	E440	30-Sep-2023	06-Dec-2023	730 days	67 days	✓	07-Dec-2023	730 days	68 days	✓	
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag QUL-NHC_PCC-O-5_2023-09	E440	30-Sep-2023	06-Dec-2023	730 days	67 days	✓	07-Dec-2023	730 days	68 days	✓	
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag QUL-NHC_PCC-O-6_2023-09	E440	30-Sep-2023	06-Dec-2023	730 days	67 days	✓	07-Dec-2023	730 days	68 days	✓	
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag QUL-NHC_PCC-O-7_2023-09	E440	30-Sep-2023	06-Dec-2023	730 days	67 days	✓	07-Dec-2023	730 days	68 days	✓	
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag QUL-NHC_PCC-O-8_2023-09	E440	30-Sep-2023	06-Dec-2023	730 days	67 days	✓	07-Dec-2023	730 days	68 days	✓	



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Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag QUL-NGC_PCC-M-5x_2023-09	E440	30-Sep-2023	06-Dec-2023	730 days	68 days	✓	07-Dec-2023	730 days	68 days	✓	
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag QUL-NHC_PCC-O-8x_2023-09	E440	30-Sep-2023	06-Dec-2023	730 days	68 days	✓	07-Dec-2023	730 days	68 days	✓	
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag QUL-NGC_NSC-WB-1_2023-09	E440	29-Sep-2023	06-Dec-2023	730 days	69 days	✓	07-Dec-2023	730 days	69 days	✓	
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag QUL-NGC_NSC-WB-2_2023-09	E440	29-Sep-2023	06-Dec-2023	730 days	69 days	✓	07-Dec-2023	730 days	69 days	✓	
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag QUL-NGC_NSC-WB-3_2023-09	E440	29-Sep-2023	06-Dec-2023	730 days	69 days	✓	07-Dec-2023	730 days	69 days	✓	
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag QUL-NGC_NSC-WB-4_2023-09	E440	29-Sep-2023	06-Dec-2023	730 days	69 days	✓	07-Dec-2023	730 days	69 days	✓	
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag QUL-NGC_NSC-WB-5_2023-09	E440	29-Sep-2023	06-Dec-2023	730 days	69 days	✓	07-Dec-2023	730 days	69 days	✓	
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag QUL-NGC_NSC-WB-6_2023-09	E440	29-Sep-2023	06-Dec-2023	730 days	69 days	✓	07-Dec-2023	730 days	69 days	✓	
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag QUL-NGC_NSC-WB-7_2023-09	E440	29-Sep-2023	06-Dec-2023	730 days	69 days	✓	07-Dec-2023	730 days	69 days	✓	



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Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag QUL-NGC_NSC-WB-8_2023-09	E440	29-Sep-2023	06-Dec-2023	730 days	69 days	✓	07-Dec-2023	730 days	69 days	✓	
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag QUL-NGC_PCC-M-1_2023-09	E440	29-Sep-2023	06-Dec-2023	730 days	69 days	✓	07-Dec-2023	730 days	69 days	✓	
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag QUL-NGC_PCC-M-2_2023-09	E440	29-Sep-2023	06-Dec-2023	730 days	69 days	✓	07-Dec-2023	730 days	69 days	✓	
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag QUL-NGC_PCC-O-1_2023-09	E440	29-Sep-2023	06-Dec-2023	730 days	69 days	✓	07-Dec-2023	730 days	69 days	✓	
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag QUL-NGC_PCC-O-2_2023-09	E440	29-Sep-2023	06-Dec-2023	730 days	69 days	✓	07-Dec-2023	730 days	69 days	✓	
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag QUL-NHC_NSC-WB-1_2023-09	E440	29-Sep-2023	06-Dec-2023	730 days	69 days	✓	07-Dec-2023	730 days	69 days	✓	
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag QUL-NHC_NSC-WB-2_2023-09	E440	29-Sep-2023	06-Dec-2023	730 days	69 days	✓	07-Dec-2023	730 days	69 days	✓	
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag QUL-NHC_PCC-M-1_2023-09	E440	29-Sep-2023	06-Dec-2023	730 days	69 days	✓	07-Dec-2023	730 days	69 days	✓	
Metals : Silver in Biota by CRC ICPMS (DRY units, Biopsy)											
LDPE bag QUL-NGC_PCC-Ki-3_2023-09	E475.Ag	30-Sep-2023	11-Dec-2023	730 days	72 days	✓	12-Dec-2023	730 days	73 days	✓	



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Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Metals : Silver in Biota by CRC ICPMS (DRY units, Biopsy)											
LDPE bag QUL-NGC_PCC-Ki-4_2023-09	E475.Ag	30-Sep-2023	11-Dec-2023	730 days	72 days	✓	12-Dec-2023	730 days	73 days	✓	
Metals : Silver in Biota by CRC ICPMS (DRY units, Biopsy)											
LDPE bag QUL-NGC_PCC-Ki-5_2023-09	E475.Ag	30-Sep-2023	11-Dec-2023	730 days	72 days	✓	12-Dec-2023	730 days	73 days	✓	
Metals : Silver in Biota by CRC ICPMS (DRY units, Biopsy)											
LDPE bag QUL-NGC_PCC-Ki-6_2023-09	E475.Ag	30-Sep-2023	11-Dec-2023	730 days	72 days	✓	12-Dec-2023	730 days	73 days	✓	
Metals : Silver in Biota by CRC ICPMS (DRY units, Biopsy)											
LDPE bag QUL-NGC_PCC-Ki-7_2023-09	E475.Ag	30-Sep-2023	11-Dec-2023	730 days	72 days	✓	12-Dec-2023	730 days	73 days	✓	
Metals : Silver in Biota by CRC ICPMS (DRY units, Biopsy)											
LDPE bag QUL-NGC_PCC-Ki-8_2023-09	E475.Ag	30-Sep-2023	11-Dec-2023	730 days	72 days	✓	12-Dec-2023	730 days	73 days	✓	
Metals : Silver in Biota by CRC ICPMS (DRY units, Biopsy)											
LDPE bag QUL-NGC_PCC-Li-5_2023-09	E475.Ag	30-Sep-2023	11-Dec-2023	730 days	72 days	✓	12-Dec-2023	730 days	73 days	✓	
Metals : Silver in Biota by CRC ICPMS (DRY units, Biopsy)											
LDPE bag QUL-NGC_PCC-Li-6_2023-09	E475.Ag	30-Sep-2023	11-Dec-2023	730 days	72 days	✓	12-Dec-2023	730 days	73 days	✓	
Metals : Silver in Biota by CRC ICPMS (DRY units, Biopsy)											
LDPE bag QUL-NGC_PCC-Li-7_2023-09	E475.Ag	30-Sep-2023	11-Dec-2023	730 days	72 days	✓	12-Dec-2023	730 days	73 days	✓	
Metals : Silver in Biota by CRC ICPMS (DRY units, Biopsy)											
LDPE bag QUL-NHC_PCC-Ki-2_2023-09	E475.Ag	30-Sep-2023	11-Dec-2023	730 days	72 days	✓	12-Dec-2023	730 days	73 days	✓	



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Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Metals : Silver in Biota by CRC ICPMS (DRY units, Biopsy)											
LDPE bag QUL-NHC_PCC-Ki-7_2023-09	E475.Ag	30-Sep-2023	11-Dec-2023	730 days	72 days	✓	12-Dec-2023	730 days	73 days	✓	
Metals : Silver in Biota by CRC ICPMS (DRY units, Biopsy)											
LDPE bag QUL-NHC_PCC-Ki-8_2023-09	E475.Ag	30-Sep-2023	11-Dec-2023	730 days	72 days	✓	12-Dec-2023	730 days	73 days	✓	
Metals : Silver in Biota by CRC ICPMS (DRY units, Biopsy)											
LDPE bag QUL-NGC_PCC-Ki-5x_2023-09	E475.Ag	30-Sep-2023	11-Dec-2023	730 days	73 days	✓	12-Dec-2023	730 days	73 days	✓	
Metals : Silver in Biota by CRC ICPMS (DRY units, Biopsy)											
LDPE bag QUL-NGC_PCC-Li-5x_2023-09	E475.Ag	30-Sep-2023	11-Dec-2023	730 days	73 days	✓	12-Dec-2023	730 days	73 days	✓	
Metals : Silver in Biota by CRC ICPMS (DRY units, Biopsy)											
LDPE bag QUL-NHC_PCC-Ki-8x_2023-09	E475.Ag	30-Sep-2023	11-Dec-2023	730 days	73 days	✓	12-Dec-2023	730 days	73 days	✓	
Metals : Silver in Biota by CRC ICPMS (DRY units, Biopsy)											
LDPE bag QUL-NGC_PCC-Ki-1_2023-09	E475.Ag	29-Sep-2023	11-Dec-2023	730 days	74 days	✓	12-Dec-2023	730 days	74 days	✓	
Metals : Silver in Biota by CRC ICPMS (DRY units, Biopsy)											
LDPE bag QUL-NGC_PCC-Ki-2_2023-09	E475.Ag	29-Sep-2023	11-Dec-2023	730 days	74 days	✓	12-Dec-2023	730 days	74 days	✓	
Metals : Silver in Biota by CRC ICPMS (DRY units, Biopsy)											
LDPE bag QUL-NHC_PCC-Ki-1_2023-09	E475.Ag	29-Sep-2023	11-Dec-2023	730 days	74 days	✓	12-Dec-2023	730 days	74 days	✓	
Metals : Silver in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag QUL-NCP_LT-Ki-3_2023-10	E472.Ag	05-Oct-2023	11-Dec-2023	730 days	68 days	✓	12-Dec-2023	730 days	68 days	✓	



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Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Metals : Silver in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag QUL-NGC_PCC-Li-3_2023-09	E472.Ag	30-Sep-2023	11-Dec-2023	730 days	72 days	✓	12-Dec-2023	730 days	73 days	✓	
Metals : Silver in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag QUL-NGC_PCC-Li-4_2023-09	E472.Ag	30-Sep-2023	11-Dec-2023	730 days	72 days	✓	12-Dec-2023	730 days	73 days	✓	
Metals : Silver in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag QUL-NGC_PCC-Li-8_2023-09	E472.Ag	30-Sep-2023	11-Dec-2023	730 days	72 days	✓	12-Dec-2023	730 days	73 days	✓	
Metals : Silver in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag QUL-NGC_PCC-O-5_2023-09	E472.Ag	30-Sep-2023	11-Dec-2023	730 days	72 days	✓	12-Dec-2023	730 days	73 days	✓	
Metals : Silver in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag QUL-NHC_PCC-Ki-3_2023-09	E472.Ag	30-Sep-2023	11-Dec-2023	730 days	72 days	✓	12-Dec-2023	730 days	73 days	✓	
Metals : Silver in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag QUL-NHC_PCC-Ki-4_2023-09	E472.Ag	30-Sep-2023	11-Dec-2023	730 days	72 days	✓	12-Dec-2023	730 days	73 days	✓	
Metals : Silver in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag QUL-NHC_PCC-Ki-5_2023-09	E472.Ag	30-Sep-2023	11-Dec-2023	730 days	72 days	✓	12-Dec-2023	730 days	73 days	✓	
Metals : Silver in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag QUL-NHC_PCC-Ki-6_2023-09	E472.Ag	30-Sep-2023	11-Dec-2023	730 days	72 days	✓	12-Dec-2023	730 days	73 days	✓	
Metals : Silver in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag QUL-NHC_PCC-Li-2_2023-09	E472.Ag	30-Sep-2023	11-Dec-2023	730 days	72 days	✓	12-Dec-2023	730 days	73 days	✓	



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Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Metals : Silver in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag QUL-NHC_PCC-Li-3_2023-09	E472.Ag	30-Sep-2023	11-Dec-2023	730 days	72 days	✓	12-Dec-2023	730 days	73 days	✓	
Metals : Silver in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag QUL-NHC_PCC-Li-4_2023-09	E472.Ag	30-Sep-2023	11-Dec-2023	730 days	72 days	✓	12-Dec-2023	730 days	73 days	✓	
Metals : Silver in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag QUL-NHC_PCC-Li-5_2023-09	E472.Ag	30-Sep-2023	11-Dec-2023	730 days	72 days	✓	12-Dec-2023	730 days	73 days	✓	
Metals : Silver in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag QUL-NHC_PCC-Li-6_2023-09	E472.Ag	30-Sep-2023	11-Dec-2023	730 days	72 days	✓	12-Dec-2023	730 days	73 days	✓	
Metals : Silver in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag QUL-NHC_PCC-Li-7_2023-09	E472.Ag	30-Sep-2023	11-Dec-2023	730 days	72 days	✓	12-Dec-2023	730 days	73 days	✓	
Metals : Silver in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag QUL-NHC_PCC-Li-8_2023-09	E472.Ag	30-Sep-2023	11-Dec-2023	730 days	72 days	✓	12-Dec-2023	730 days	73 days	✓	
Metals : Silver in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag QUL-NHC_PCC-M-8_2023-09	E472.Ag	30-Sep-2023	11-Dec-2023	730 days	72 days	✓	12-Dec-2023	730 days	73 days	✓	
Metals : Silver in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag QUL-NHC_PCC-O-2_2023-09	E472.Ag	30-Sep-2023	11-Dec-2023	730 days	72 days	✓	12-Dec-2023	730 days	73 days	✓	
Metals : Silver in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag QUL-NGC_PCC-O-5x_2023-09	E472.Ag	30-Sep-2023	11-Dec-2023	730 days	73 days	✓	12-Dec-2023	730 days	73 days	✓	



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			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Metals : Silver in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag QUL-NHC_PCC-Li-8x_2023-09	E472.Ag	30-Sep-2023	11-Dec-2023	730 days	73 days	✓	12-Dec-2023	730 days	73 days	✓	
Metals : Silver in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag QUL-NHC_PCC-M-8x_2023-09	E472.Ag	30-Sep-2023	11-Dec-2023	730 days	73 days	✓	12-Dec-2023	730 days	73 days	✓	
Metals : Silver in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag QUL-NGC_PCC-Li-1_2023-09	E472.Ag	29-Sep-2023	11-Dec-2023	730 days	74 days	✓	12-Dec-2023	730 days	74 days	✓	
Metals : Silver in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag QUL-NGC_PCC-Li-2_2023-09	E472.Ag	29-Sep-2023	11-Dec-2023	730 days	74 days	✓	12-Dec-2023	730 days	74 days	✓	
Metals : Silver in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag QUL-NHC_PCC-Li-1_2023-09	E472.Ag	29-Sep-2023	11-Dec-2023	730 days	74 days	✓	12-Dec-2023	730 days	74 days	✓	
Metals : Silver in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag QUL-NHC_PCC-O-1_2023-09	E472.Ag	29-Sep-2023	11-Dec-2023	730 days	74 days	✓	12-Dec-2023	730 days	74 days	✓	
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag QUL-NCP_LT-Ki-4_2023-10	E440.Ag	05-Oct-2023	06-Dec-2023	730 days	63 days	✓	07-Dec-2023	730 days	63 days	✓	
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag QUL-NCP_LT-Li-3_2023-10	E440.Ag	05-Oct-2023	06-Dec-2023	730 days	63 days	✓	07-Dec-2023	730 days	63 days	✓	
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag QUL-NCP_LT-Li-4_2023-10	E440.Ag	05-Oct-2023	06-Dec-2023	730 days	63 days	✓	07-Dec-2023	730 days	63 days	✓	



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				Rec	Actual			Rec	Actual		
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag QUL-NCP_LT-M-3_2023-10	E440.Ag	05-Oct-2023	06-Dec-2023	730 days	63 days	✔	07-Dec-2023	730 days	63 days	✔	
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag QUL-NCP_LT-M-4_2023-10	E440.Ag	05-Oct-2023	06-Dec-2023	730 days	63 days	✔	07-Dec-2023	730 days	63 days	✔	
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag QUL-NCP_LT-O-4_2023-10	E440.Ag	05-Oct-2023	06-Dec-2023	730 days	63 days	✔	07-Dec-2023	730 days	63 days	✔	
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag QUL-NCP_LT-Ki-1_2023-10	E440.Ag	01-Oct-2023	06-Dec-2023	730 days	67 days	✔	07-Dec-2023	730 days	67 days	✔	
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag QUL-NCP_LT-Ki-1x_2023-10	E440.Ag	01-Oct-2023	06-Dec-2023	730 days	67 days	✔	07-Dec-2023	730 days	67 days	✔	
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag QUL-NCP_LT-Ki-2_2023-10	E440.Ag	01-Oct-2023	06-Dec-2023	730 days	67 days	✔	07-Dec-2023	730 days	67 days	✔	
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag QUL-NCP_LT-Li-1_2023-10	E440.Ag	01-Oct-2023	06-Dec-2023	730 days	67 days	✔	07-Dec-2023	730 days	67 days	✔	
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag QUL-NCP_LT-Li-1x_2023-10	E440.Ag	01-Oct-2023	06-Dec-2023	730 days	67 days	✔	07-Dec-2023	730 days	67 days	✔	
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag QUL-NCP_LT-Li-2_2023-10	E440.Ag	01-Oct-2023	06-Dec-2023	730 days	67 days	✔	07-Dec-2023	730 days	67 days	✔	



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				Rec	Actual			Rec	Actual		
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag QUL-NCP_LT-M-1_2023-10	E440.Ag	01-Oct-2023	06-Dec-2023	730 days	67 days	✔	07-Dec-2023	730 days	67 days	✔	
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag QUL-NCP_LT-M-1x_2023-10	E440.Ag	01-Oct-2023	06-Dec-2023	730 days	67 days	✔	07-Dec-2023	730 days	67 days	✔	
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag QUL-NCP_LT-M-2_2023-10	E440.Ag	01-Oct-2023	06-Dec-2023	730 days	67 days	✔	07-Dec-2023	730 days	67 days	✔	
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag QUL-NCP_LT-O-1_2023-10	E440.Ag	01-Oct-2023	06-Dec-2023	730 days	67 days	✔	07-Dec-2023	730 days	67 days	✔	
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag QUL-NCP_LT-O-1x_2023-10	E440.Ag	01-Oct-2023	06-Dec-2023	730 days	67 days	✔	07-Dec-2023	730 days	67 days	✔	
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LDPE bag QUL-NCP_LT-O-2_2023-10	E440.Ag	01-Oct-2023	06-Dec-2023	730 days	67 days	✔	07-Dec-2023	730 days	67 days	✔	
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag QUL-NGC_PCC-M-3_2023-09	E440.Ag	30-Sep-2023	06-Dec-2023	730 days	67 days	✔	07-Dec-2023	730 days	68 days	✔	
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag QUL-NGC_PCC-M-4_2023-09	E440.Ag	30-Sep-2023	06-Dec-2023	730 days	67 days	✔	07-Dec-2023	730 days	68 days	✔	
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag QUL-NGC_PCC-M-5_2023-09	E440.Ag	30-Sep-2023	06-Dec-2023	730 days	67 days	✔	07-Dec-2023	730 days	68 days	✔	



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Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag QUL-NGC_PCC-M-6_2023-09	E440.Ag	30-Sep-2023	06-Dec-2023	730 days	67 days	✔	07-Dec-2023	730 days	68 days	✔	
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag QUL-NGC_PCC-M-7_2023-09	E440.Ag	30-Sep-2023	06-Dec-2023	730 days	67 days	✔	07-Dec-2023	730 days	68 days	✔	
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag QUL-NGC_PCC-M-8_2023-09	E440.Ag	30-Sep-2023	06-Dec-2023	730 days	67 days	✔	07-Dec-2023	730 days	68 days	✔	
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag QUL-NGC_PCC-O-3_2023-09	E440.Ag	30-Sep-2023	06-Dec-2023	730 days	67 days	✔	07-Dec-2023	730 days	68 days	✔	
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag QUL-NGC_PCC-O-4_2023-09	E440.Ag	30-Sep-2023	06-Dec-2023	730 days	67 days	✔	07-Dec-2023	730 days	68 days	✔	
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag QUL-NGC_PCC-O-6_2023-09	E440.Ag	30-Sep-2023	06-Dec-2023	730 days	67 days	✔	07-Dec-2023	730 days	68 days	✔	
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag QUL-NGC_PCC-O-7_2023-09	E440.Ag	30-Sep-2023	06-Dec-2023	730 days	67 days	✔	07-Dec-2023	730 days	68 days	✔	
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag QUL-NGC_PCC-O-8_2023-09	E440.Ag	30-Sep-2023	06-Dec-2023	730 days	67 days	✔	07-Dec-2023	730 days	68 days	✔	
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag QUL-NHC_NSC-WB-3_2023-09	E440.Ag	30-Sep-2023	06-Dec-2023	730 days	67 days	✔	07-Dec-2023	730 days	68 days	✔	



Matrix: **Biota** Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag QUL-NHC_NSC-WB-4_2023-09	E440.Ag	30-Sep-2023	06-Dec-2023	730 days	67 days	✔	07-Dec-2023	730 days	68 days	✔	
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag QUL-NHC_NSC-WB-5_2023-09	E440.Ag	30-Sep-2023	06-Dec-2023	730 days	67 days	✔	07-Dec-2023	730 days	68 days	✔	
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag QUL-NHC_NSC-WB-6_2023-09	E440.Ag	30-Sep-2023	06-Dec-2023	730 days	67 days	✔	07-Dec-2023	730 days	68 days	✔	
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag QUL-NHC_NSC-WB-7_2023-09	E440.Ag	30-Sep-2023	06-Dec-2023	730 days	67 days	✔	07-Dec-2023	730 days	68 days	✔	
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag QUL-NHC_NSC-WB-8_2023-09	E440.Ag	30-Sep-2023	06-Dec-2023	730 days	67 days	✔	07-Dec-2023	730 days	68 days	✔	
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag QUL-NHC_PCC-M-2_2023-09	E440.Ag	30-Sep-2023	06-Dec-2023	730 days	67 days	✔	07-Dec-2023	730 days	68 days	✔	
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag QUL-NHC_PCC-M-3_2023-09	E440.Ag	30-Sep-2023	06-Dec-2023	730 days	67 days	✔	07-Dec-2023	730 days	68 days	✔	
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag QUL-NHC_PCC-M-4_2023-09	E440.Ag	30-Sep-2023	06-Dec-2023	730 days	67 days	✔	07-Dec-2023	730 days	68 days	✔	
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag QUL-NHC_PCC-M-5_2023-09	E440.Ag	30-Sep-2023	06-Dec-2023	730 days	67 days	✔	07-Dec-2023	730 days	68 days	✔	



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Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag QUL-NHC_PCC-M-6_2023-09	E440.Ag	30-Sep-2023	06-Dec-2023	730 days	67 days	✔	07-Dec-2023	730 days	68 days	✔	
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag QUL-NHC_PCC-M-7_2023-09	E440.Ag	30-Sep-2023	06-Dec-2023	730 days	67 days	✔	07-Dec-2023	730 days	68 days	✔	
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag QUL-NHC_PCC-O-3_2023-09	E440.Ag	30-Sep-2023	06-Dec-2023	730 days	67 days	✔	07-Dec-2023	730 days	68 days	✔	
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag QUL-NHC_PCC-O-4_2023-09	E440.Ag	30-Sep-2023	06-Dec-2023	730 days	67 days	✔	07-Dec-2023	730 days	68 days	✔	
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag QUL-NHC_PCC-O-5_2023-09	E440.Ag	30-Sep-2023	06-Dec-2023	730 days	67 days	✔	07-Dec-2023	730 days	68 days	✔	
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag QUL-NHC_PCC-O-6_2023-09	E440.Ag	30-Sep-2023	06-Dec-2023	730 days	67 days	✔	07-Dec-2023	730 days	68 days	✔	
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag QUL-NHC_PCC-O-7_2023-09	E440.Ag	30-Sep-2023	06-Dec-2023	730 days	67 days	✔	07-Dec-2023	730 days	68 days	✔	
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag QUL-NHC_PCC-O-8_2023-09	E440.Ag	30-Sep-2023	06-Dec-2023	730 days	67 days	✔	07-Dec-2023	730 days	68 days	✔	
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag QUL-NGC_PCC-M-5x_2023-09	E440.Ag	30-Sep-2023	06-Dec-2023	730 days	68 days	✔	07-Dec-2023	730 days	68 days	✔	



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Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag QUL-NHC_PCC-O-8x_2023-09	E440.Ag	30-Sep-2023	06-Dec-2023	730 days	68 days	✔	07-Dec-2023	730 days	68 days	✔	
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag QUL-NGC_NSC-WB-1_2023-09	E440.Ag	29-Sep-2023	06-Dec-2023	730 days	69 days	✔	07-Dec-2023	730 days	69 days	✔	
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag QUL-NGC_NSC-WB-2_2023-09	E440.Ag	29-Sep-2023	06-Dec-2023	730 days	69 days	✔	07-Dec-2023	730 days	69 days	✔	
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag QUL-NGC_NSC-WB-3_2023-09	E440.Ag	29-Sep-2023	06-Dec-2023	730 days	69 days	✔	07-Dec-2023	730 days	69 days	✔	
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag QUL-NGC_NSC-WB-4_2023-09	E440.Ag	29-Sep-2023	06-Dec-2023	730 days	69 days	✔	07-Dec-2023	730 days	69 days	✔	
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag QUL-NGC_NSC-WB-5_2023-09	E440.Ag	29-Sep-2023	06-Dec-2023	730 days	69 days	✔	07-Dec-2023	730 days	69 days	✔	
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag QUL-NGC_NSC-WB-6_2023-09	E440.Ag	29-Sep-2023	06-Dec-2023	730 days	69 days	✔	07-Dec-2023	730 days	69 days	✔	
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag QUL-NGC_NSC-WB-7_2023-09	E440.Ag	29-Sep-2023	06-Dec-2023	730 days	69 days	✔	07-Dec-2023	730 days	69 days	✔	
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag QUL-NGC_NSC-WB-8_2023-09	E440.Ag	29-Sep-2023	06-Dec-2023	730 days	69 days	✔	07-Dec-2023	730 days	69 days	✔	



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Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag QUL-NGC_PCC-M-1_2023-09	E440.Ag	29-Sep-2023	06-Dec-2023	730 days	69 days	✓	07-Dec-2023	730 days	69 days	✓	
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag QUL-NGC_PCC-M-2_2023-09	E440.Ag	29-Sep-2023	06-Dec-2023	730 days	69 days	✓	07-Dec-2023	730 days	69 days	✓	
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag QUL-NGC_PCC-O-1_2023-09	E440.Ag	29-Sep-2023	06-Dec-2023	730 days	69 days	✓	07-Dec-2023	730 days	69 days	✓	
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag QUL-NGC_PCC-O-2_2023-09	E440.Ag	29-Sep-2023	06-Dec-2023	730 days	69 days	✓	07-Dec-2023	730 days	69 days	✓	
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag QUL-NHC_NSC-WB-1_2023-09	E440.Ag	29-Sep-2023	06-Dec-2023	730 days	69 days	✓	07-Dec-2023	730 days	69 days	✓	
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag QUL-NHC_NSC-WB-2_2023-09	E440.Ag	29-Sep-2023	06-Dec-2023	730 days	69 days	✓	07-Dec-2023	730 days	69 days	✓	
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag QUL-NHC_PCC-M-1_2023-09	E440.Ag	29-Sep-2023	06-Dec-2023	730 days	69 days	✓	07-Dec-2023	730 days	69 days	✓	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Biopsy)											
LDPE bag QUL-NGC_PCC-Ki-3_2023-09	E475.Ti	30-Sep-2023	11-Dec-2023	730 days	72 days	✓	12-Dec-2023	730 days	73 days	✓	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Biopsy)											
LDPE bag QUL-NGC_PCC-Ki-4_2023-09	E475.Ti	30-Sep-2023	11-Dec-2023	730 days	72 days	✓	12-Dec-2023	730 days	73 days	✓	



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Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Metals : Titanium in Biota by CRC ICPMS (DRY units, Biopsy)											
LDPE bag QUL-NGC_PCC-Ki-5_2023-09	E475.Ti	30-Sep-2023	11-Dec-2023	730 days	72 days	✓	12-Dec-2023	730 days	73 days	✓	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Biopsy)											
LDPE bag QUL-NGC_PCC-Ki-6_2023-09	E475.Ti	30-Sep-2023	11-Dec-2023	730 days	72 days	✓	12-Dec-2023	730 days	73 days	✓	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Biopsy)											
LDPE bag QUL-NGC_PCC-Ki-7_2023-09	E475.Ti	30-Sep-2023	11-Dec-2023	730 days	72 days	✓	12-Dec-2023	730 days	73 days	✓	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Biopsy)											
LDPE bag QUL-NGC_PCC-Ki-8_2023-09	E475.Ti	30-Sep-2023	11-Dec-2023	730 days	72 days	✓	12-Dec-2023	730 days	73 days	✓	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Biopsy)											
LDPE bag QUL-NGC_PCC-Li-5_2023-09	E475.Ti	30-Sep-2023	11-Dec-2023	730 days	72 days	✓	12-Dec-2023	730 days	73 days	✓	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Biopsy)											
LDPE bag QUL-NGC_PCC-Li-6_2023-09	E475.Ti	30-Sep-2023	11-Dec-2023	730 days	72 days	✓	12-Dec-2023	730 days	73 days	✓	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Biopsy)											
LDPE bag QUL-NGC_PCC-Li-7_2023-09	E475.Ti	30-Sep-2023	11-Dec-2023	730 days	72 days	✓	12-Dec-2023	730 days	73 days	✓	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Biopsy)											
LDPE bag QUL-NHC_PCC-Ki-2_2023-09	E475.Ti	30-Sep-2023	11-Dec-2023	730 days	72 days	✓	12-Dec-2023	730 days	73 days	✓	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Biopsy)											
LDPE bag QUL-NHC_PCC-Ki-7_2023-09	E475.Ti	30-Sep-2023	11-Dec-2023	730 days	72 days	✓	12-Dec-2023	730 days	73 days	✓	



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Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Metals : Titanium in Biota by CRC ICPMS (DRY units, Biopsy)											
LDPE bag QUL-NHC_PCC-Ki-8_2023-09	E475.Ti	30-Sep-2023	11-Dec-2023	730 days	72 days	✓	12-Dec-2023	730 days	73 days	✓	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Biopsy)											
LDPE bag QUL-NGC_PCC-Ki-5x_2023-09	E475.Ti	30-Sep-2023	11-Dec-2023	730 days	73 days	✓	12-Dec-2023	730 days	73 days	✓	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Biopsy)											
LDPE bag QUL-NGC_PCC-Li-5x_2023-09	E475.Ti	30-Sep-2023	11-Dec-2023	730 days	73 days	✓	12-Dec-2023	730 days	73 days	✓	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Biopsy)											
LDPE bag QUL-NHC_PCC-Ki-8x_2023-09	E475.Ti	30-Sep-2023	11-Dec-2023	730 days	73 days	✓	12-Dec-2023	730 days	73 days	✓	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Biopsy)											
LDPE bag QUL-NGC_PCC-Ki-1_2023-09	E475.Ti	29-Sep-2023	11-Dec-2023	730 days	74 days	✓	12-Dec-2023	730 days	74 days	✓	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Biopsy)											
LDPE bag QUL-NGC_PCC-Ki-2_2023-09	E475.Ti	29-Sep-2023	11-Dec-2023	730 days	74 days	✓	12-Dec-2023	730 days	74 days	✓	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Biopsy)											
LDPE bag QUL-NHC_PCC-Ki-1_2023-09	E475.Ti	29-Sep-2023	11-Dec-2023	730 days	74 days	✓	12-Dec-2023	730 days	74 days	✓	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag QUL-NCP_LT-Ki-3_2023-10	E472.Ti	05-Oct-2023	11-Dec-2023	730 days	68 days	✓	12-Dec-2023	730 days	68 days	✓	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag QUL-NGC_PCC-Li-3_2023-09	E472.Ti	30-Sep-2023	11-Dec-2023	730 days	72 days	✓	12-Dec-2023	730 days	73 days	✓	



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Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Metals : Titanium in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag QUL-NGC_PCC-Li-4_2023-09	E472.Ti	30-Sep-2023	11-Dec-2023	730 days	72 days	✓	12-Dec-2023	730 days	73 days	✓	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag QUL-NGC_PCC-Li-8_2023-09	E472.Ti	30-Sep-2023	11-Dec-2023	730 days	72 days	✓	12-Dec-2023	730 days	73 days	✓	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag QUL-NGC_PCC-O-5_2023-09	E472.Ti	30-Sep-2023	11-Dec-2023	730 days	72 days	✓	12-Dec-2023	730 days	73 days	✓	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag QUL-NHC_PCC-Ki-3_2023-09	E472.Ti	30-Sep-2023	11-Dec-2023	730 days	72 days	✓	12-Dec-2023	730 days	73 days	✓	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag QUL-NHC_PCC-Ki-4_2023-09	E472.Ti	30-Sep-2023	11-Dec-2023	730 days	72 days	✓	12-Dec-2023	730 days	73 days	✓	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag QUL-NHC_PCC-Ki-5_2023-09	E472.Ti	30-Sep-2023	11-Dec-2023	730 days	72 days	✓	12-Dec-2023	730 days	73 days	✓	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag QUL-NHC_PCC-Ki-6_2023-09	E472.Ti	30-Sep-2023	11-Dec-2023	730 days	72 days	✓	12-Dec-2023	730 days	73 days	✓	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag QUL-NHC_PCC-Li-2_2023-09	E472.Ti	30-Sep-2023	11-Dec-2023	730 days	72 days	✓	12-Dec-2023	730 days	73 days	✓	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag QUL-NHC_PCC-Li-3_2023-09	E472.Ti	30-Sep-2023	11-Dec-2023	730 days	72 days	✓	12-Dec-2023	730 days	73 days	✓	



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Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Metals : Titanium in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag QUL-NHC_PCC-Li-4_2023-09	E472.Ti	30-Sep-2023	11-Dec-2023	730 days	72 days	✓	12-Dec-2023	730 days	73 days	✓	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag QUL-NHC_PCC-Li-5_2023-09	E472.Ti	30-Sep-2023	11-Dec-2023	730 days	72 days	✓	12-Dec-2023	730 days	73 days	✓	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag QUL-NHC_PCC-Li-6_2023-09	E472.Ti	30-Sep-2023	11-Dec-2023	730 days	72 days	✓	12-Dec-2023	730 days	73 days	✓	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag QUL-NHC_PCC-Li-7_2023-09	E472.Ti	30-Sep-2023	11-Dec-2023	730 days	72 days	✓	12-Dec-2023	730 days	73 days	✓	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag QUL-NHC_PCC-Li-8_2023-09	E472.Ti	30-Sep-2023	11-Dec-2023	730 days	72 days	✓	12-Dec-2023	730 days	73 days	✓	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag QUL-NHC_PCC-M-8_2023-09	E472.Ti	30-Sep-2023	11-Dec-2023	730 days	72 days	✓	12-Dec-2023	730 days	73 days	✓	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag QUL-NHC_PCC-O-2_2023-09	E472.Ti	30-Sep-2023	11-Dec-2023	730 days	72 days	✓	12-Dec-2023	730 days	73 days	✓	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag QUL-NGC_PCC-O-5x_2023-09	E472.Ti	30-Sep-2023	11-Dec-2023	730 days	73 days	✓	12-Dec-2023	730 days	73 days	✓	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag QUL-NHC_PCC-Li-8x_2023-09	E472.Ti	30-Sep-2023	11-Dec-2023	730 days	73 days	✓	12-Dec-2023	730 days	73 days	✓	



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Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Metals : Titanium in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag QUL-NHC_PCC-M-8x_2023-09	E472.Ti	30-Sep-2023	11-Dec-2023	730 days	73 days	✔	12-Dec-2023	730 days	73 days	✔	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag QUL-NGC_PCC-Li-1_2023-09	E472.Ti	29-Sep-2023	11-Dec-2023	730 days	74 days	✔	12-Dec-2023	730 days	74 days	✔	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag QUL-NGC_PCC-Li-2_2023-09	E472.Ti	29-Sep-2023	11-Dec-2023	730 days	74 days	✔	12-Dec-2023	730 days	74 days	✔	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag QUL-NHC_PCC-Li-1_2023-09	E472.Ti	29-Sep-2023	11-Dec-2023	730 days	74 days	✔	12-Dec-2023	730 days	74 days	✔	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Micro)											
LDPE bag QUL-NHC_PCC-O-1_2023-09	E472.Ti	29-Sep-2023	11-Dec-2023	730 days	74 days	✔	12-Dec-2023	730 days	74 days	✔	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag QUL-NCP_LT-Ki-4_2023-10	E440.Ti	05-Oct-2023	06-Dec-2023	730 days	63 days	✔	07-Dec-2023	730 days	63 days	✔	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag QUL-NCP_LT-Li-3_2023-10	E440.Ti	05-Oct-2023	06-Dec-2023	730 days	63 days	✔	07-Dec-2023	730 days	63 days	✔	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag QUL-NCP_LT-Li-4_2023-10	E440.Ti	05-Oct-2023	06-Dec-2023	730 days	63 days	✔	07-Dec-2023	730 days	63 days	✔	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag QUL-NCP_LT-M-3_2023-10	E440.Ti	05-Oct-2023	06-Dec-2023	730 days	63 days	✔	07-Dec-2023	730 days	63 days	✔	



Matrix: **Biota** Evaluation: * = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag QUL-NCP_LT-M-4_2023-10	E440.Ti	05-Oct-2023	06-Dec-2023	730 days	63 days	✓	07-Dec-2023	730 days	63 days	✓	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag QUL-NCP_LT-O-4_2023-10	E440.Ti	05-Oct-2023	06-Dec-2023	730 days	63 days	✓	07-Dec-2023	730 days	63 days	✓	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag QUL-NCP_LT-Ki-1_2023-10	E440.Ti	01-Oct-2023	06-Dec-2023	730 days	67 days	✓	07-Dec-2023	730 days	67 days	✓	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag QUL-NCP_LT-Ki-1x_2023-10	E440.Ti	01-Oct-2023	06-Dec-2023	730 days	67 days	✓	07-Dec-2023	730 days	67 days	✓	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag QUL-NCP_LT-Ki-2_2023-10	E440.Ti	01-Oct-2023	06-Dec-2023	730 days	67 days	✓	07-Dec-2023	730 days	67 days	✓	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag QUL-NCP_LT-Li-1_2023-10	E440.Ti	01-Oct-2023	06-Dec-2023	730 days	67 days	✓	07-Dec-2023	730 days	67 days	✓	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag QUL-NCP_LT-Li-1x_2023-10	E440.Ti	01-Oct-2023	06-Dec-2023	730 days	67 days	✓	07-Dec-2023	730 days	67 days	✓	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag QUL-NCP_LT-Li-2_2023-10	E440.Ti	01-Oct-2023	06-Dec-2023	730 days	67 days	✓	07-Dec-2023	730 days	67 days	✓	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag QUL-NCP_LT-M-1_2023-10	E440.Ti	01-Oct-2023	06-Dec-2023	730 days	67 days	✓	07-Dec-2023	730 days	67 days	✓	



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Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag QUL-NCP_LT-M-1x_2023-10	E440.Ti	01-Oct-2023	06-Dec-2023	730 days	67 days	✔	07-Dec-2023	730 days	67 days	✔
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag QUL-NCP_LT-M-2_2023-10	E440.Ti	01-Oct-2023	06-Dec-2023	730 days	67 days	✔	07-Dec-2023	730 days	67 days	✔
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag QUL-NCP_LT-O-1_2023-10	E440.Ti	01-Oct-2023	06-Dec-2023	730 days	67 days	✔	07-Dec-2023	730 days	67 days	✔
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag QUL-NCP_LT-O-1x_2023-10	E440.Ti	01-Oct-2023	06-Dec-2023	730 days	67 days	✔	07-Dec-2023	730 days	67 days	✔
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag QUL-NCP_LT-O-2_2023-10	E440.Ti	01-Oct-2023	06-Dec-2023	730 days	67 days	✔	07-Dec-2023	730 days	67 days	✔
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag QUL-NGC_PCC-M-3_2023-09	E440.Ti	30-Sep-2023	06-Dec-2023	730 days	67 days	✔	07-Dec-2023	730 days	68 days	✔
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag QUL-NGC_PCC-M-4_2023-09	E440.Ti	30-Sep-2023	06-Dec-2023	730 days	67 days	✔	07-Dec-2023	730 days	68 days	✔
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag QUL-NGC_PCC-M-5_2023-09	E440.Ti	30-Sep-2023	06-Dec-2023	730 days	67 days	✔	07-Dec-2023	730 days	68 days	✔
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag QUL-NGC_PCC-M-6_2023-09	E440.Ti	30-Sep-2023	06-Dec-2023	730 days	67 days	✔	07-Dec-2023	730 days	68 days	✔



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Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag QUL-NGC_PCC-M-7_2023-09	E440.Ti	30-Sep-2023	06-Dec-2023	730 days	67 days	✓	07-Dec-2023	730 days	68 days	✓	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag QUL-NGC_PCC-M-8_2023-09	E440.Ti	30-Sep-2023	06-Dec-2023	730 days	67 days	✓	07-Dec-2023	730 days	68 days	✓	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag QUL-NGC_PCC-O-3_2023-09	E440.Ti	30-Sep-2023	06-Dec-2023	730 days	67 days	✓	07-Dec-2023	730 days	68 days	✓	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag QUL-NGC_PCC-O-4_2023-09	E440.Ti	30-Sep-2023	06-Dec-2023	730 days	67 days	✓	07-Dec-2023	730 days	68 days	✓	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag QUL-NGC_PCC-O-6_2023-09	E440.Ti	30-Sep-2023	06-Dec-2023	730 days	67 days	✓	07-Dec-2023	730 days	68 days	✓	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag QUL-NGC_PCC-O-7_2023-09	E440.Ti	30-Sep-2023	06-Dec-2023	730 days	67 days	✓	07-Dec-2023	730 days	68 days	✓	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag QUL-NGC_PCC-O-8_2023-09	E440.Ti	30-Sep-2023	06-Dec-2023	730 days	67 days	✓	07-Dec-2023	730 days	68 days	✓	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag QUL-NHC_NSC-WB-3_2023-09	E440.Ti	30-Sep-2023	06-Dec-2023	730 days	67 days	✓	07-Dec-2023	730 days	68 days	✓	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag QUL-NHC_NSC-WB-4_2023-09	E440.Ti	30-Sep-2023	06-Dec-2023	730 days	67 days	✓	07-Dec-2023	730 days	68 days	✓	



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Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag QUL-NHC_NSC-WB-5_2023-09	E440.Ti	30-Sep-2023	06-Dec-2023	730 days	67 days	✔	07-Dec-2023	730 days	68 days	✔	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag QUL-NHC_NSC-WB-6_2023-09	E440.Ti	30-Sep-2023	06-Dec-2023	730 days	67 days	✔	07-Dec-2023	730 days	68 days	✔	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag QUL-NHC_NSC-WB-7_2023-09	E440.Ti	30-Sep-2023	06-Dec-2023	730 days	67 days	✔	07-Dec-2023	730 days	68 days	✔	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag QUL-NHC_NSC-WB-8_2023-09	E440.Ti	30-Sep-2023	06-Dec-2023	730 days	67 days	✔	07-Dec-2023	730 days	68 days	✔	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag QUL-NHC_PCC-M-2_2023-09	E440.Ti	30-Sep-2023	06-Dec-2023	730 days	67 days	✔	07-Dec-2023	730 days	68 days	✔	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag QUL-NHC_PCC-M-3_2023-09	E440.Ti	30-Sep-2023	06-Dec-2023	730 days	67 days	✔	07-Dec-2023	730 days	68 days	✔	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag QUL-NHC_PCC-M-4_2023-09	E440.Ti	30-Sep-2023	06-Dec-2023	730 days	67 days	✔	07-Dec-2023	730 days	68 days	✔	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag QUL-NHC_PCC-M-5_2023-09	E440.Ti	30-Sep-2023	06-Dec-2023	730 days	67 days	✔	07-Dec-2023	730 days	68 days	✔	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag QUL-NHC_PCC-M-6_2023-09	E440.Ti	30-Sep-2023	06-Dec-2023	730 days	67 days	✔	07-Dec-2023	730 days	68 days	✔	



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Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag QUL-NHC_PCC-M-7_2023-09	E440.Ti	30-Sep-2023	06-Dec-2023	730 days	67 days	✓	07-Dec-2023	730 days	68 days	✓	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag QUL-NHC_PCC-O-3_2023-09	E440.Ti	30-Sep-2023	06-Dec-2023	730 days	67 days	✓	07-Dec-2023	730 days	68 days	✓	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag QUL-NHC_PCC-O-4_2023-09	E440.Ti	30-Sep-2023	06-Dec-2023	730 days	67 days	✓	07-Dec-2023	730 days	68 days	✓	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag QUL-NHC_PCC-O-5_2023-09	E440.Ti	30-Sep-2023	06-Dec-2023	730 days	67 days	✓	07-Dec-2023	730 days	68 days	✓	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag QUL-NHC_PCC-O-6_2023-09	E440.Ti	30-Sep-2023	06-Dec-2023	730 days	67 days	✓	07-Dec-2023	730 days	68 days	✓	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag QUL-NHC_PCC-O-7_2023-09	E440.Ti	30-Sep-2023	06-Dec-2023	730 days	67 days	✓	07-Dec-2023	730 days	68 days	✓	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag QUL-NHC_PCC-O-8_2023-09	E440.Ti	30-Sep-2023	06-Dec-2023	730 days	67 days	✓	07-Dec-2023	730 days	68 days	✓	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag QUL-NGC_PCC-M-5x_2023-09	E440.Ti	30-Sep-2023	06-Dec-2023	730 days	68 days	✓	07-Dec-2023	730 days	68 days	✓	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag QUL-NHC_PCC-O-8x_2023-09	E440.Ti	30-Sep-2023	06-Dec-2023	730 days	68 days	✓	07-Dec-2023	730 days	68 days	✓	



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Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag QUL-NGC_NSC-WB-1_2023-09	E440.Ti	29-Sep-2023	06-Dec-2023	730 days	69 days	✓	07-Dec-2023	730 days	69 days	✓	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag QUL-NGC_NSC-WB-2_2023-09	E440.Ti	29-Sep-2023	06-Dec-2023	730 days	69 days	✓	07-Dec-2023	730 days	69 days	✓	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag QUL-NGC_NSC-WB-3_2023-09	E440.Ti	29-Sep-2023	06-Dec-2023	730 days	69 days	✓	07-Dec-2023	730 days	69 days	✓	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag QUL-NGC_NSC-WB-4_2023-09	E440.Ti	29-Sep-2023	06-Dec-2023	730 days	69 days	✓	07-Dec-2023	730 days	69 days	✓	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag QUL-NGC_NSC-WB-5_2023-09	E440.Ti	29-Sep-2023	06-Dec-2023	730 days	69 days	✓	07-Dec-2023	730 days	69 days	✓	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag QUL-NGC_NSC-WB-6_2023-09	E440.Ti	29-Sep-2023	06-Dec-2023	730 days	69 days	✓	07-Dec-2023	730 days	69 days	✓	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag QUL-NGC_NSC-WB-7_2023-09	E440.Ti	29-Sep-2023	06-Dec-2023	730 days	69 days	✓	07-Dec-2023	730 days	69 days	✓	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag QUL-NGC_NSC-WB-8_2023-09	E440.Ti	29-Sep-2023	06-Dec-2023	730 days	69 days	✓	07-Dec-2023	730 days	69 days	✓	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag QUL-NGC_PCC-M-1_2023-09	E440.Ti	29-Sep-2023	06-Dec-2023	730 days	69 days	✓	07-Dec-2023	730 days	69 days	✓	



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Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag QUL-NGC_PCC-M-2_2023-09	E440.Ti	29-Sep-2023	06-Dec-2023	730 days	69 days	✔	07-Dec-2023	730 days	69 days	✔	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag QUL-NGC_PCC-O-1_2023-09	E440.Ti	29-Sep-2023	06-Dec-2023	730 days	69 days	✔	07-Dec-2023	730 days	69 days	✔	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag QUL-NGC_PCC-O-2_2023-09	E440.Ti	29-Sep-2023	06-Dec-2023	730 days	69 days	✔	07-Dec-2023	730 days	69 days	✔	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag QUL-NHC_NSC-WB-1_2023-09	E440.Ti	29-Sep-2023	06-Dec-2023	730 days	69 days	✔	07-Dec-2023	730 days	69 days	✔	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag QUL-NHC_NSC-WB-2_2023-09	E440.Ti	29-Sep-2023	06-Dec-2023	730 days	69 days	✔	07-Dec-2023	730 days	69 days	✔	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)											
LDPE bag QUL-NHC_PCC-M-1_2023-09	E440.Ti	29-Sep-2023	06-Dec-2023	730 days	69 days	✔	07-Dec-2023	730 days	69 days	✔	
Physical Tests : Moisture Content by Gravimetry (Biopsy)											
LDPE bag QUL-NGC_PCC-Ki-3_2023-09	E144A	30-Sep-2023	----	----	----		11-Dec-2023	----	72 days		
Physical Tests : Moisture Content by Gravimetry (Biopsy)											
LDPE bag QUL-NGC_PCC-Ki-4_2023-09	E144A	30-Sep-2023	----	----	----		11-Dec-2023	----	72 days		
Physical Tests : Moisture Content by Gravimetry (Biopsy)											
LDPE bag QUL-NGC_PCC-Ki-5_2023-09	E144A	30-Sep-2023	----	----	----		11-Dec-2023	----	72 days		



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			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Physical Tests : Moisture Content by Gravimetry (Biopsy)										
LDPE bag QUL-NGC_PCC-Ki-6_2023-09	E144A	30-Sep-2023	----	----	----		11-Dec-2023	----	72 days	
Physical Tests : Moisture Content by Gravimetry (Biopsy)										
LDPE bag QUL-NGC_PCC-Ki-7_2023-09	E144A	30-Sep-2023	----	----	----		11-Dec-2023	----	72 days	
Physical Tests : Moisture Content by Gravimetry (Biopsy)										
LDPE bag QUL-NGC_PCC-Ki-8_2023-09	E144A	30-Sep-2023	----	----	----		11-Dec-2023	----	72 days	
Physical Tests : Moisture Content by Gravimetry (Biopsy)										
LDPE bag QUL-NGC_PCC-Li-5_2023-09	E144A	30-Sep-2023	----	----	----		11-Dec-2023	----	72 days	
Physical Tests : Moisture Content by Gravimetry (Biopsy)										
LDPE bag QUL-NGC_PCC-Li-6_2023-09	E144A	30-Sep-2023	----	----	----		11-Dec-2023	----	72 days	
Physical Tests : Moisture Content by Gravimetry (Biopsy)										
LDPE bag QUL-NGC_PCC-Li-7_2023-09	E144A	30-Sep-2023	----	----	----		11-Dec-2023	----	72 days	
Physical Tests : Moisture Content by Gravimetry (Biopsy)										
LDPE bag QUL-NHC_PCC-Ki-2_2023-09	E144A	30-Sep-2023	----	----	----		11-Dec-2023	----	72 days	
Physical Tests : Moisture Content by Gravimetry (Biopsy)										
LDPE bag QUL-NHC_PCC-Ki-7_2023-09	E144A	30-Sep-2023	----	----	----		11-Dec-2023	----	72 days	
Physical Tests : Moisture Content by Gravimetry (Biopsy)										
LDPE bag QUL-NHC_PCC-Ki-8_2023-09	E144A	30-Sep-2023	----	----	----		11-Dec-2023	----	72 days	



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			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Physical Tests : Moisture Content by Gravimetry (Biopsy)										
LDPE bag QUL-NGC_PCC-Ki-5x_2023-09	E144A	30-Sep-2023	----	----	----		11-Dec-2023	----	73 days	
Physical Tests : Moisture Content by Gravimetry (Biopsy)										
LDPE bag QUL-NGC_PCC-Li-5x_2023-09	E144A	30-Sep-2023	----	----	----		11-Dec-2023	----	73 days	
Physical Tests : Moisture Content by Gravimetry (Biopsy)										
LDPE bag QUL-NHC_PCC-Ki-8x_2023-09	E144A	30-Sep-2023	----	----	----		11-Dec-2023	----	73 days	
Physical Tests : Moisture Content by Gravimetry (Biopsy)										
LDPE bag QUL-NGC_PCC-Ki-1_2023-09	E144A	29-Sep-2023	----	----	----		11-Dec-2023	----	74 days	
Physical Tests : Moisture Content by Gravimetry (Biopsy)										
LDPE bag QUL-NGC_PCC-Ki-2_2023-09	E144A	29-Sep-2023	----	----	----		11-Dec-2023	----	74 days	
Physical Tests : Moisture Content by Gravimetry (Biopsy)										
LDPE bag QUL-NHC_PCC-Ki-1_2023-09	E144A	29-Sep-2023	----	----	----		11-Dec-2023	----	74 days	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag QUL-NCP_LT-Ki-3_2023-10	E144-H	05-Oct-2023	----	----	----		11-Dec-2023	----	68 days	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag QUL-NGC_PCC-Li-3_2023-09	E144-H	30-Sep-2023	----	----	----		11-Dec-2023	----	72 days	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag QUL-NGC_PCC-Li-4_2023-09	E144-H	30-Sep-2023	----	----	----		11-Dec-2023	----	72 days	



Matrix: **Biota** Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag QUL-NGC_PCC-Li-8_2023-09	E144-H	30-Sep-2023	----	----	----		11-Dec-2023	----	72 days	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag QUL-NGC_PCC-O-5_2023-09	E144-H	30-Sep-2023	----	----	----		11-Dec-2023	----	72 days	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag QUL-NHC_PCC-Ki-3_2023-09	E144-H	30-Sep-2023	----	----	----		11-Dec-2023	----	72 days	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag QUL-NHC_PCC-Ki-4_2023-09	E144-H	30-Sep-2023	----	----	----		11-Dec-2023	----	72 days	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag QUL-NHC_PCC-Ki-5_2023-09	E144-H	30-Sep-2023	----	----	----		11-Dec-2023	----	72 days	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag QUL-NHC_PCC-Ki-6_2023-09	E144-H	30-Sep-2023	----	----	----		11-Dec-2023	----	72 days	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag QUL-NHC_PCC-Li-2_2023-09	E144-H	30-Sep-2023	----	----	----		11-Dec-2023	----	72 days	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag QUL-NHC_PCC-Li-3_2023-09	E144-H	30-Sep-2023	----	----	----		11-Dec-2023	----	72 days	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag QUL-NHC_PCC-Li-4_2023-09	E144-H	30-Sep-2023	----	----	----		11-Dec-2023	----	72 days	



Matrix: **Biota** Evaluation: * = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag QUL-NHC_PCC-Li-5_2023-09	E144-H	30-Sep-2023	----	----	----		11-Dec-2023	----	72 days	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag QUL-NHC_PCC-Li-6_2023-09	E144-H	30-Sep-2023	----	----	----		11-Dec-2023	----	72 days	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag QUL-NHC_PCC-Li-7_2023-09	E144-H	30-Sep-2023	----	----	----		11-Dec-2023	----	72 days	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag QUL-NHC_PCC-Li-8_2023-09	E144-H	30-Sep-2023	----	----	----		11-Dec-2023	----	72 days	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag QUL-NHC_PCC-M-8_2023-09	E144-H	30-Sep-2023	----	----	----		11-Dec-2023	----	72 days	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag QUL-NHC_PCC-O-2_2023-09	E144-H	30-Sep-2023	----	----	----		11-Dec-2023	----	72 days	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag QUL-NGC_PCC-O-5x_2023-09	E144-H	30-Sep-2023	----	----	----		11-Dec-2023	----	73 days	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag QUL-NHC_PCC-Li-8x_2023-09	E144-H	30-Sep-2023	----	----	----		11-Dec-2023	----	73 days	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag QUL-NHC_PCC-M-8x_2023-09	E144-H	30-Sep-2023	----	----	----		11-Dec-2023	----	73 days	



Matrix: **Biota** Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag QUL-NGC_PCC-Li-1_2023-09	E144-H	29-Sep-2023	----	----	----		11-Dec-2023	----	74 days	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag QUL-NGC_PCC-Li-2_2023-09	E144-H	29-Sep-2023	----	----	----		11-Dec-2023	----	74 days	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag QUL-NHC_PCC-Li-1_2023-09	E144-H	29-Sep-2023	----	----	----		11-Dec-2023	----	74 days	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag QUL-NHC_PCC-O-1_2023-09	E144-H	29-Sep-2023	----	----	----		11-Dec-2023	----	74 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag QUL-NCP_LT-Ki-4_2023-10	E144	05-Oct-2023	----	----	----		02-Dec-2023	----	58 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag QUL-NCP_LT-Li-3_2023-10	E144	05-Oct-2023	----	----	----		02-Dec-2023	----	58 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag QUL-NCP_LT-Li-4_2023-10	E144	05-Oct-2023	----	----	----		02-Dec-2023	----	58 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag QUL-NCP_LT-M-3_2023-10	E144	05-Oct-2023	----	----	----		02-Dec-2023	----	58 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag QUL-NCP_LT-M-4_2023-10	E144	05-Oct-2023	----	----	----		02-Dec-2023	----	58 days	



Matrix: **Biota** Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag QUL-NCP_LT-O-4_2023-10	E144	05-Oct-2023	----	----	----		02-Dec-2023	----	58 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag QUL-NCP_LT-Ki-1_2023-10	E144	01-Oct-2023	----	----	----		02-Dec-2023	----	62 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag QUL-NCP_LT-Ki-1x_2023-10	E144	01-Oct-2023	----	----	----		02-Dec-2023	----	62 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag QUL-NCP_LT-Ki-2_2023-10	E144	01-Oct-2023	----	----	----		02-Dec-2023	----	62 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag QUL-NCP_LT-Li-1_2023-10	E144	01-Oct-2023	----	----	----		02-Dec-2023	----	62 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag QUL-NCP_LT-Li-1x_2023-10	E144	01-Oct-2023	----	----	----		02-Dec-2023	----	62 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag QUL-NCP_LT-Li-2_2023-10	E144	01-Oct-2023	----	----	----		02-Dec-2023	----	62 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag QUL-NCP_LT-M-1_2023-10	E144	01-Oct-2023	----	----	----		02-Dec-2023	----	62 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag QUL-NCP_LT-M-1x_2023-10	E144	01-Oct-2023	----	----	----		02-Dec-2023	----	62 days	



Matrix: **Biota** Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag QUL-NCP_LT-M-2_2023-10	E144	01-Oct-2023	----	----	----		02-Dec-2023	----	62 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag QUL-NCP_LT-O-1_2023-10	E144	01-Oct-2023	----	----	----		02-Dec-2023	----	62 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag QUL-NCP_LT-O-1x_2023-10	E144	01-Oct-2023	----	----	----		02-Dec-2023	----	62 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag QUL-NCP_LT-O-2_2023-10	E144	01-Oct-2023	----	----	----		02-Dec-2023	----	62 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag QUL-NGC_PCC-M-3_2023-09	E144	30-Sep-2023	----	----	----		02-Dec-2023	----	63 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag QUL-NGC_PCC-M-4_2023-09	E144	30-Sep-2023	----	----	----		02-Dec-2023	----	63 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag QUL-NGC_PCC-M-5_2023-09	E144	30-Sep-2023	----	----	----		02-Dec-2023	----	63 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag QUL-NGC_PCC-M-5x_2023-09	E144	30-Sep-2023	----	----	----		02-Dec-2023	----	63 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag QUL-NGC_PCC-M-6_2023-09	E144	30-Sep-2023	----	----	----		02-Dec-2023	----	63 days	



Matrix: **Biota** Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag QUL-NGC_PCC-M-7_2023-09	E144	30-Sep-2023	----	----	----		02-Dec-2023	----	63 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag QUL-NGC_PCC-M-8_2023-09	E144	30-Sep-2023	----	----	----		02-Dec-2023	----	63 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag QUL-NGC_PCC-O-3_2023-09	E144	30-Sep-2023	----	----	----		02-Dec-2023	----	63 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag QUL-NGC_PCC-O-4_2023-09	E144	30-Sep-2023	----	----	----		02-Dec-2023	----	63 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag QUL-NGC_PCC-O-6_2023-09	E144	30-Sep-2023	----	----	----		02-Dec-2023	----	63 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag QUL-NGC_PCC-O-7_2023-09	E144	30-Sep-2023	----	----	----		02-Dec-2023	----	63 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag QUL-NGC_PCC-O-8_2023-09	E144	30-Sep-2023	----	----	----		02-Dec-2023	----	63 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag QUL-NHC_NSC-WB-3_2023-09	E144	30-Sep-2023	----	----	----		02-Dec-2023	----	63 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag QUL-NHC_NSC-WB-4_2023-09	E144	30-Sep-2023	----	----	----		02-Dec-2023	----	63 days	



Matrix: **Biota** Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag QUL-NHC_NSC-WB-5_2023-09	E144	30-Sep-2023	----	----	----		02-Dec-2023	----	63 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag QUL-NHC_NSC-WB-6_2023-09	E144	30-Sep-2023	----	----	----		02-Dec-2023	----	63 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag QUL-NHC_NSC-WB-7_2023-09	E144	30-Sep-2023	----	----	----		02-Dec-2023	----	63 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag QUL-NHC_NSC-WB-8_2023-09	E144	30-Sep-2023	----	----	----		02-Dec-2023	----	63 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag QUL-NHC_PCC-M-2_2023-09	E144	30-Sep-2023	----	----	----		02-Dec-2023	----	63 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag QUL-NHC_PCC-M-3_2023-09	E144	30-Sep-2023	----	----	----		02-Dec-2023	----	63 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag QUL-NHC_PCC-M-4_2023-09	E144	30-Sep-2023	----	----	----		02-Dec-2023	----	63 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag QUL-NHC_PCC-M-5_2023-09	E144	30-Sep-2023	----	----	----		02-Dec-2023	----	63 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag QUL-NHC_PCC-M-6_2023-09	E144	30-Sep-2023	----	----	----		02-Dec-2023	----	63 days	



Matrix: **Biota** Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag QUL-NHC_PCC-M-7_2023-09	E144	30-Sep-2023	----	----	----		02-Dec-2023	----	63 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag QUL-NHC_PCC-O-3_2023-09	E144	30-Sep-2023	----	----	----		02-Dec-2023	----	63 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag QUL-NHC_PCC-O-4_2023-09	E144	30-Sep-2023	----	----	----		02-Dec-2023	----	63 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag QUL-NHC_PCC-O-5_2023-09	E144	30-Sep-2023	----	----	----		02-Dec-2023	----	63 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag QUL-NHC_PCC-O-6_2023-09	E144	30-Sep-2023	----	----	----		02-Dec-2023	----	63 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag QUL-NHC_PCC-O-7_2023-09	E144	30-Sep-2023	----	----	----		02-Dec-2023	----	63 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag QUL-NHC_PCC-O-8_2023-09	E144	30-Sep-2023	----	----	----		02-Dec-2023	----	63 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag QUL-NHC_PCC-O-8x_2023-09	E144	30-Sep-2023	----	----	----		02-Dec-2023	----	63 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag QUL-NGC_NSC-WB-1_2023-09	E144	29-Sep-2023	----	----	----		02-Dec-2023	----	64 days	



Matrix: **Biota** Evaluation: * = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag QUL-NGC_NSC-WB-2_2023-09	E144	29-Sep-2023	----	----	----		02-Dec-2023	----	64 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag QUL-NGC_NSC-WB-3_2023-09	E144	29-Sep-2023	----	----	----		02-Dec-2023	----	64 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag QUL-NGC_NSC-WB-4_2023-09	E144	29-Sep-2023	----	----	----		02-Dec-2023	----	64 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag QUL-NGC_NSC-WB-5_2023-09	E144	29-Sep-2023	----	----	----		02-Dec-2023	----	64 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag QUL-NGC_NSC-WB-6_2023-09	E144	29-Sep-2023	----	----	----		02-Dec-2023	----	64 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag QUL-NGC_NSC-WB-7_2023-09	E144	29-Sep-2023	----	----	----		02-Dec-2023	----	64 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag QUL-NGC_NSC-WB-8_2023-09	E144	29-Sep-2023	----	----	----		02-Dec-2023	----	64 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag QUL-NGC_PCC-M-1_2023-09	E144	29-Sep-2023	----	----	----		02-Dec-2023	----	64 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag QUL-NGC_PCC-M-2_2023-09	E144	29-Sep-2023	----	----	----		02-Dec-2023	----	64 days	



Matrix: **Biota** Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		
				Rec	Actual			Rec	Actual	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag QUL-NGC_PCC-O-1_2023-09	E144	29-Sep-2023	----	----	----		02-Dec-2023	----	64 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag QUL-NGC_PCC-O-2_2023-09	E144	29-Sep-2023	----	----	----		02-Dec-2023	----	64 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag QUL-NHC_NSC-WB-1_2023-09	E144	29-Sep-2023	----	----	----		02-Dec-2023	----	64 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag QUL-NHC_NSC-WB-2_2023-09	E144	29-Sep-2023	----	----	----		02-Dec-2023	----	64 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag QUL-NHC_PCC-M-1_2023-09	E144	29-Sep-2023	----	----	----		02-Dec-2023	----	64 days	

Legend & Qualifier Definitions

Rec. HT: ALS recommended hold time (see units).



Quality Control Parameter Frequency Compliance

The following report summarizes the frequency of laboratory QC samples analyzed within the analytical batches (QC lots) in which the submitted samples were processed. The actual frequency should be greater than or equal to the expected frequency.

Matrix: **Biota** Evaluation: ✖ = QC frequency outside specification; ✔ = QC frequency within specification.

Quality Control Sample Type	Method	QC Lot #	Count		Frequency (%)		Evaluation
			QC	Regular	Actual	Expected	
Analytical Methods							
Laboratory Duplicates (DUP)							
Mercury in Biota by CVAAS (DRY units, Micro)	E511	1272038	2	25	8.0	5.0	✔
Mercury in Biota by CVAAS (DRY units, Routine)	E510	1264851	4	64	6.2	5.0	✔
Mercury in Biota by CVAAS (WET units, Micro)	E511A	1272039	2	25	8.0	5.0	✔
Mercury in Biota by CVAAS (WET units, Routine)	E510A	1264849	4	64	6.2	5.0	✔
Metals in Biota by CRC ICPMS (DRY units, Micro)	E472	1272040	2	25	8.0	5.0	✔
Metals in Biota by CRC ICPMS (DRY units, Routine)	E440	1264848	5	64	7.8	5.0	✔
Moisture Content by Gravimetry	E144	1261532	4	64	6.2	5.0	✔
Moisture Content by Gravimetry (Micro)	E144-H	1272042	2	25	8.0	5.0	✔
Silver in Biota by CRC ICPMS (DRY units, Micro)	E472.Ag	1272036	2	25	8.0	5.0	✔
Silver in Biota by CRC ICPMS (DRY units, Routine)	E440.Ag	1264850	4	64	6.2	5.0	✔
Titanium in Biota by CRC ICPMS (DRY units, Micro)	E472.Ti	1272037	2	25	8.0	5.0	✔
Titanium in Biota by CRC ICPMS (DRY units, Routine)	E440.Ti	1264852	4	64	6.2	5.0	✔
Laboratory Control Samples (LCS)							
Mercury in Biota by CVAAS (DRY units, Biopsy)	E512	1272139	2	18	11.1	10.0	✔
Mercury in Biota by CVAAS (DRY units, Micro)	E511	1272038	6	25	24.0	10.0	✔
Mercury in Biota by CVAAS (DRY units, Routine)	E510	1264851	8	64	12.5	10.0	✔
Mercury in Biota by CVAAS (WET units, Biopsy)	E512A	1272140	2	18	11.1	10.0	✔
Mercury in Biota by CVAAS (WET units, Micro)	E511A	1272039	6	25	24.0	10.0	✔
Mercury in Biota by CVAAS (WET units, Routine)	E510A	1264849	8	64	12.5	10.0	✔
Metals by CRC ICPMS (DRY units, Biopsy)	E475	1272141	2	18	11.1	10.0	✔
Metals in Biota by CRC ICPMS (DRY units, Micro)	E472	1272040	6	25	24.0	10.0	✔
Metals in Biota by CRC ICPMS (DRY units, Routine)	E440	1264848	8	64	12.5	10.0	✔
Moisture Content by Gravimetry	E144	1261532	4	64	6.2	5.0	✔
Moisture Content by Gravimetry (Biopsy)	E144A	1272119	1	18	5.5	5.0	✔
Moisture Content by Gravimetry (Micro)	E144-H	1272042	3	25	12.0	5.0	✔
Silver in Biota by CRC ICPMS (DRY units, Biopsy)	E475.Ag	1272137	2	18	11.1	10.0	✔
Silver in Biota by CRC ICPMS (DRY units, Micro)	E472.Ag	1272036	6	25	24.0	10.0	✔
Silver in Biota by CRC ICPMS (DRY units, Routine)	E440.Ag	1264850	8	64	12.5	10.0	✔
Titanium in Biota by CRC ICPMS (DRY units, Biopsy)	E475.Ti	1272138	2	18	11.1	10.0	✔
Titanium in Biota by CRC ICPMS (DRY units, Micro)	E472.Ti	1272037	6	25	24.0	10.0	✔
Titanium in Biota by CRC ICPMS (DRY units, Routine)	E440.Ti	1264852	8	64	12.5	10.0	✔
Method Blanks (MB)							
Mercury in Biota by CVAAS (DRY units, Biopsy)	E512	1272139	1	18	5.5	5.0	✔
Mercury in Biota by CVAAS (DRY units, Micro)	E511	1272038	3	25	12.0	5.0	✔
Mercury in Biota by CVAAS (DRY units, Routine)	E510	1264851	4	64	6.2	5.0	✔



Matrix: **Biota**

Evaluation: ✖ = QC frequency outside specification; ✔ = QC frequency within specification.

Quality Control Sample Type	Method	QC Lot #	Count		Frequency (%)		
			QC	Regular	Actual	Expected	Evaluation
<i>Analytical Methods</i>							
Method Blanks (MB) - Continued							
Mercury in Biota by CVAAS (WET units, Biopsy)	E512A	1272140	1	18	5.5	5.0	✔
Mercury in Biota by CVAAS (WET units, Micro)	E511A	1272039	3	25	12.0	5.0	✔
Mercury in Biota by CVAAS (WET units, Routine)	E510A	1264849	4	64	6.2	5.0	✔
Metals by CRC ICPMS (DRY units, Biopsy)	E475	1272141	1	18	5.5	5.0	✔
Metals in Biota by CRC ICPMS (DRY units, Micro)	E472	1272040	3	25	12.0	5.0	✔
Metals in Biota by CRC ICPMS (DRY units, Routine)	E440	1264848	4	64	6.2	5.0	✔
Moisture Content by Gravimetry	E144	1261532	4	64	6.2	5.0	✔
Moisture Content by Gravimetry (Biopsy)	E144A	1272119	1	18	5.5	5.0	✔
Moisture Content by Gravimetry (Micro)	E144-H	1272042	3	25	12.0	5.0	✔
Silver in Biota by CRC ICPMS (DRY units, Biopsy)	E475.Ag	1272137	1	18	5.5	5.0	✔
Silver in Biota by CRC ICPMS (DRY units, Micro)	E472.Ag	1272036	3	25	12.0	5.0	✔
Silver in Biota by CRC ICPMS (DRY units, Routine)	E440.Ag	1264850	4	64	6.2	5.0	✔
Titanium in Biota by CRC ICPMS (DRY units, Biopsy)	E475.Ti	1272138	1	18	5.5	5.0	✔
Titanium in Biota by CRC ICPMS (DRY units, Micro)	E472.Ti	1272037	3	25	12.0	5.0	✔
Titanium in Biota by CRC ICPMS (DRY units, Routine)	E440.Ti	1264852	4	64	6.2	5.0	✔



Methodology References and Summaries

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Reference methods may incorporate modifications to improve performance (indicated by "mod").

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Moisture Content by Gravimetry	E144 ALS Environmental - Vancouver	Biota	Puget Sound Water Quality Authority/CCME PHC in Soil - Tier 1	Moisture is measured gravimetrically by drying the sample at 105°C. Moisture content is calculated as the weight loss (due to water) divided by the wet weight of the sample, expressed as a percentage.
Moisture Content by Gravimetry (Biopsy)	E144A ALS Environmental - Vancouver	Biota	Puget Sound Water Quality Authority/CCME PHC in Soil - Tier 1	This analysis is carried out gravimetrically by drying the sample at <60 deg. C for a minimum of three days.
Moisture Content by Gravimetry (Micro)	E144-H ALS Environmental - Vancouver	Biota	Puget Sound Water Quality Authority/BC MOE Lab Manual	Moisture is measured gravimetrically by drying the sample at <60°C for a minimum of 3 days to constant weight. Moisture content is calculated as the weight loss (due to water) divided by the wet weight of soil, expressed as a percentage.
Metals in Biota by CRC ICPMS (DRY units, Routine)	E440 ALS Environmental - Vancouver	Biota	EPA 200.3/6020B (mod)	Tissue samples are homogenized and sub-sampled prior to hotblock digestion with HNO ₃ , HCl, and H ₂ O ₂ . Analysis is by Collision/Reaction Cell ICPMS. Method Limitation: This method employs a strong acid/peroxide digestion, and is intended to provide a conservative estimate of bio-available metals. Near complete recoveries are achieved for most toxicologically important metals, but elements associated with recalcitrant minerals may be only partially recovered.
Silver in Biota by CRC ICPMS (DRY units, Routine)	E440.Ag ALS Environmental - Vancouver	Biota	EPA 200.3/6020B (mod)	Tissue samples are homogenized and sub-sampled prior to hotblock digestion with HNO ₃ , HCl, and H ₂ O ₂ . Analysis is by Collision/Reaction Cell ICPMS. Method Limitation: This method employs a strong acid/peroxide digestion, and is intended to provide a conservative estimate of bio-available metals. Near complete recoveries are achieved for most toxicologically important metals, but elements associated with recalcitrant minerals may be only partially recovered.
Titanium in Biota by CRC ICPMS (DRY units, Routine)	E440.Ti ALS Environmental - Vancouver	Biota	EPA 200.3/6020B (mod)	Tissue samples are homogenized and sub-sampled prior to hotblock digestion with HNO ₃ , HCl, and H ₂ O ₂ . Analysis is by Collision/Reaction Cell ICPMS. Method Limitation: This method employs a strong acid/peroxide digestion, and is intended to provide a conservative estimate of bio-available metals. Near complete recoveries are achieved for most toxicologically important metals, but elements associated with recalcitrant minerals may be only partially recovered.
Metals in Biota by CRC ICPMS (DRY units, Micro)	E472 ALS Environmental - Vancouver	Biota	EPA 200.3/6020B (mod)	Tissue samples are homogenized and sub-sampled prior to hotblock digestion with HNO ₃ , HCl, and H ₂ O ₂ . Analysis is by Collision/Reaction Cell ICPMS. Method Limitation: This method employs a strong acid/peroxide digestion, and is intended to provide a conservative estimate of bio-available metals. Near complete recoveries are achieved for most toxicologically important metals, but elements associated with recalcitrant minerals may be only partially recovered.



Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Silver in Biota by CRC ICPMS (DRY units, Micro)	E472.Ag ALS Environmental - Vancouver	Biota	EPA 200.3/6020B (mod)	Tissue samples are homogenized and sub-sampled prior to hotblock digestion with HNO ₃ , HCl, and H ₂ O ₂ . Analysis is by Collision/Reaction Cell ICPMS. Method Limitation: This method employs a strong acid/peroxide digestion, and is intended to provide a conservative estimate of bio-available metals. Near complete recoveries are achieved for most toxicologically important metals, but elements associated with recalcitrant minerals may be only partially recovered.
Titanium in Biota by CRC ICPMS (DRY units, Micro)	E472.Ti ALS Environmental - Vancouver	Biota	EPA 200.3/6020B (mod)	Tissue samples are homogenized and sub-sampled prior to hotblock digestion with HNO ₃ , HCl, and H ₂ O ₂ . Analysis is by Collision/Reaction Cell ICPMS. Method Limitation: This method employs a strong acid/peroxide digestion, and is intended to provide a conservative estimate of bio-available metals. Near complete recoveries are achieved for most toxicologically important metals, but elements associated with recalcitrant minerals may be only partially recovered.
Metals by CRC ICPMS (DRY units, Biopsy)	E475 ALS Environmental - Vancouver	Biota	EPA 200.3/6020B (mod)	Samples are digested with nitric acid, hydrochloric acid, and hydrogen peroxide. Analysis is by Collision/Reaction Cell ICPMS: This method employs a strong acid/peroxide digestion, and is intended to provide a conservative estimate of bio-available metals. Near complete recoveries are achieved for most toxicologically important metals, but elements associated with recalcitrant minerals may be only partially recovered.
Silver in Biota by CRC ICPMS (DRY units, Biopsy)	E475.Ag ALS Environmental - Vancouver	Biota	EPA 200.3/6020B (mod)	Samples are digested with nitric acid, hydrochloric acid, and hydrogen peroxide. Analysis is by Collision/Reaction Cell ICPMS. Method Limitation: This method employs a strong acid/peroxide digestion, and is intended to provide a conservative estimate of bio-available metals. Near complete recoveries are achieved for most toxicologically important metals, but elements associated with recalcitrant minerals may be only partially recovered.
Titanium in Biota by CRC ICPMS (DRY units, Biopsy)	E475.Ti ALS Environmental - Vancouver	Biota	EPA 200.3/6020B (mod)	Samples are digested with nitric acid, hydrochloric acid, and hydrogen peroxide. Analysis is by Collision/Reaction Cell ICPMS. Method Limitation: This method employs a strong acid/peroxide digestion, and is intended to provide a conservative estimate of bio-available metals. Near complete recoveries are achieved for most toxicologically important metals, but elements associated with recalcitrant minerals may be only partially recovered.
Mercury in Biota by CVAAS (DRY units, Routine)	E510 ALS Environmental - Vancouver	Biota	EPA 200.3/1631 Appendix (mod)	Samples are homogenized and sub-sampled prior to hotblock digestion with HNO ₃ , HCl, and H ₂ O ₂ . Analysis is by CVAAS.
Mercury in Biota by CVAAS (WET units, Routine)	E510A ALS Environmental - Vancouver	Biota	EPA 200.3/1631 Appendix (mod)	Samples are homogenized and sub-sampled prior to hotblock digestion with HNO ₃ , HCl, and H ₂ O ₂ . Analysis is by CVAAS.
Mercury in Biota by CVAAS (DRY units, Micro)	E511 ALS Environmental - Vancouver	Biota	EPA 200.3/1631 Appendix (mod)	Samples are homogenized and sub-sampled prior to hotblock digestion with nitric acid, hydrochloric acid, and hydrogen peroxide. Analysis is by CVAAS.



Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Mercury in Biota by CVAAS (WET units, Micro)	E511A ALS Environmental - Vancouver	Biota	EPA 200.3/1631 Appendix (mod)	Samples are homogenized and sub-sampled prior to hotblock digestion with nitric acid, hydrochloric acid, and hydrogen peroxide. Analysis is by CVAAS.
Mercury in Biota by CVAAS (DRY units, Biopsy)	E512 ALS Environmental - Vancouver	Biota	EPA 200.3/1631 Appendix (mod)	Samples are digested with nitric acid, hydrochloric acid, and hydrogen peroxide. Analysis is by CVAAS.
Mercury in Biota by CVAAS (WET units, Biopsy)	E512A ALS Environmental - Vancouver	Biota	EPA 200.3/1631 Appendix (mod)	Samples are homogenized digested with nitric acid, hydrochloric acid, and hydrogen peroxide. Analysis is by CVAAS.

Preparation Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Metals and Mercury Biota Digestion	EP440 ALS Environmental - Vancouver	Biota	EPA 200.3	This method uses a heated strong acid digestion with HNO ₃ , HCl, and H ₂ O ₂ and is intended to provide a conservative estimate of bio-available metals.
Metals and Mercury Biota Digestion (Micro)	EP472 ALS Environmental - Vancouver	Biota	EPA 200.3	This method, designed for small sample amounts, uses a heated strong acid digestion with HNO ₃ , HCl, and H ₂ O ₂ and is intended to provide a conservative estimate of bio-available metals.
Metals and Mercury Biota Digestion (Biopsy)	EP475 ALS Environmental - Vancouver	Biota	EPA 200.3/200.8 (mod)	Samples are digested with nitric acid, hydrochloric acid, and hydrogen peroxide. Method Limitation: This method employs a strong acid/peroxide digestion, and is intended to provide a conservative estimate of bio-available metals. Near complete recoveries are achieved for most toxicologically important metals, but elements associated with recalcitrant minerals may be only partially recovered.

QUALITY CONTROL REPORT

Work Order	: VA23C4190	Page	: 1 of 42
Amendment	: 1		
Client	: Mount Polley Mining Corporation	Laboratory	: ALS Environmental - Vancouver
Contact	: Mr. Gabriel Holmes	Account Manager	: Can Dang
Address	: PO Box 12 Likely BC Canada V0L 1N0	Address	: 8081 Lougheed Highway Burnaby, British Columbia Canada V5A 1W9
Telephone	:	Telephone	: +1 604 253 4188
Project	: ----	Date Samples Received	: 11-Oct-2023 11:30
PO	: 5590012190	Date Analysis Commenced	: 02-Dec-2023
C-O-C number	: ----	Issue Date	: 17-Jan-2024 17:46
Sampler	: PLE, SLA 250-790-2215 ext 2171		
Site	: ----		
Quote number	: VA22-MPMC100-002		
No. of samples received	: 127		
No. of samples analysed	: 107		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Quality Control Report contains the following information:

- Laboratory Duplicate (DUP) Report; Relative Percent Difference (RPD) and Data Quality Objectives
- Reference Material (RM) Report; Recovery and Data Quality Objectives
- Method Blank (MB) Report; Recovery and Data Quality Objectives
- Laboratory Control Sample (LCS) Report; Recovery and Data Quality Objectives

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

<i>Signatories</i>	<i>Position</i>	<i>Laboratory Department</i>
Aaron Jaurigue	Analyst	Vancouver Metals, Burnaby, British Columbia
Alex Thornton	Analyst	Vancouver Metals, Burnaby, British Columbia
Angela Ren	Team Leader - Metals	Vancouver Metals, Burnaby, British Columbia
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Owen Cheng		Vancouver Metals, Burnaby, British Columbia
Ragini Saini	Lab Assistant	Vancouver Metals, Burnaby, British Columbia
Sam Silveira	Lab Assistant	Vancouver Metals, Burnaby, British Columbia



General Comments

The ALS Quality Control (QC) report is optionally provided to ALS clients upon request. ALS test methods include comprehensive QC checks with every analysis to ensure our high standards of quality are met. Each QC result has a known or expected target value, which is compared against predetermined Data Quality Objectives (DQOs) to provide confidence in the accuracy of associated test results. This report contains detailed results for all QC results applicable to this sample submission. Please refer to the ALS Quality Control Interpretation report (QCI) for applicable method references and methodology summaries.

Key :

Anonymous = Refers to samples which are not part of this work order, but which formed part of the QC process lot.

CAS Number = Chemical Abstracts Service number is a unique identifier assigned to discrete substances.

DQO = Data Quality Objective.

LOR = Limit of Reporting (detection limit).

RPD = Relative Percent Difference

= Indicates a QC result that did not meet the ALS DQO.

Workorder Comments

Holding times are displayed as "---" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.



Laboratory Duplicate (DUP) Report

A Laboratory Duplicate (DUP) is a randomly selected intralaboratory replicate sample. Laboratory Duplicates provide information regarding method precision and sample heterogeneity. ALS DQOs for Laboratory Duplicates are expressed as test-specific limits for Relative Percent Difference (RPD), or as an absolute difference limit of 2 times the LOR for low concentration duplicates within ~ 4-10 times the LOR (cut-off is test-specific).

Sub-Matrix: Biota					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	LOR	Unit	Original Result	Duplicate Result	RPD(%) or Difference	Duplicate Limits	Qualifier
Physical Tests (QC Lot: 1261532)											
VA23C4190-001	QUL-NHC_NSC-WB-1_2023-09	Moisture	----	E144	0.50	%	78.4	79.8	1.84%	20%	----
Physical Tests (QC Lot: 1261533)											
VA23C4190-021	QUL-NHC_PCC-M-5_2023-09	Moisture	----	E144	0.50	%	78.5	77.1	1.85%	20%	----
Physical Tests (QC Lot: 1261534)											
VA23C4190-068	QUL-NGC_PCC-O-4_2023-09	Moisture	----	E144	0.50	%	67.9	67.2	1.12%	20%	----
Physical Tests (QC Lot: 1261535)											
VA23C4190-089	QUL-NCP_LT-O-1_2023-10	Moisture	----	E144	0.50	%	67.4	67.8	0.657%	20%	----
Physical Tests (QC Lot: 1272042)											
VA23C4190-033	QUL-NHC_PCC-O-1_2023-09	Moisture	----	E144-H	2.0	%	64.1	63.0	1.77%	20%	----
Physical Tests (QC Lot: 1272147)											
VA23C4190-094	QUL-NCP_LT-Ki-3_2023-10	Moisture	----	E144-H	2.0	%	81.5	81.1	0.450%	20%	----
Metals (QC Lot: 1264848)											
VA23C4190-020	QUL-NHC_PCC-M-4_2023-09	Aluminum	7429-90-5	E440	2.0	mg/kg	<2.0	<2.0	0	Diff <2x LOR	----
		Antimony	7440-36-0	E440	0.010	mg/kg	<0.010	<0.010	0	Diff <2x LOR	----
		Arsenic	7440-38-2	E440	0.020	mg/kg	0.331	0.324	2.20%	40%	----
		Barium	7440-39-3	E440	0.050	mg/kg	1.46	1.58	8.08%	40%	----
		Beryllium	7440-41-7	E440	0.010	mg/kg	<0.010	<0.010	0	Diff <2x LOR	----
		Bismuth	7440-69-9	E440	0.010	mg/kg	<0.010	<0.010	0	Diff <2x LOR	----
		Boron	7440-42-8	E440	1.0	mg/kg	<1.0	<1.0	0	Diff <2x LOR	----
		Cadmium	7440-43-9	E440	0.0050	mg/kg	0.0099	0.0121	0.0022	Diff <2x LOR	----
		Calcium	7440-70-2	E440	20	mg/kg	5720	7010	20.4%	60%	----
		Cesium	7440-46-2	E440	0.0050	mg/kg	0.112	0.113	0.155%	40%	----
		Chromium	7440-47-3	E440	0.050	mg/kg	<0.050	0.050	0.0005	Diff <2x LOR	----
		Cobalt	7440-48-4	E440	0.020	mg/kg	0.039	0.039	0.00008	Diff <2x LOR	----
		Copper	7440-50-8	E440	0.10	mg/kg	1.89	1.92	1.94%	40%	----
Iron	7439-89-6	E440	3.0	mg/kg	22.8	26.6	15.4%	40%	----		
Lead	7439-92-1	E440	0.020	mg/kg	<0.020	<0.020	0	Diff <2x LOR	----		



Sub-Matrix: Biota					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	LOR	Unit	Original Result	Duplicate Result	RPD(%) or Difference	Duplicate Limits	Qualifier
Metals (QC Lot: 1264848) - continued											
VA23C4190-020	QUL-NHC_PCC-M-4_2023-09	Lithium	7439-93-2	E440	0.50	mg/kg	<0.50	<0.50	0	Diff <2x LOR	----
		Magnesium	7439-95-4	E440	2.0	mg/kg	1500	1590	5.40%	40%	----
		Manganese	7439-96-5	E440	0.050	mg/kg	2.46	2.87	15.3%	40%	----
		Molybdenum	7439-98-7	E440	0.020	mg/kg	<0.020	<0.020	0	Diff <2x LOR	----
		Nickel	7440-02-0	E440	0.20	mg/kg	<0.20	<0.20	0	Diff <2x LOR	----
		Phosphorus	7723-14-0	E440	10	mg/kg	14400	15100	4.90%	40%	----
		Potassium	7440-09-7	E440	20	mg/kg	21500	21800	1.57%	40%	----
		Rubidium	7440-17-7	E440	0.050	mg/kg	29.5	29.5	0.269%	40%	----
		Selenium	7782-49-2	E440	0.050	mg/kg	2.97	2.98	0.432%	40%	----
		Sodium	7440-23-5	E440	20	mg/kg	1600	1680	5.16%	40%	----
		Strontium	7440-24-6	E440	0.050	mg/kg	11.5	14.4	23.0%	60%	----
		Tellurium	13494-80-9	E440	0.020	mg/kg	<0.020	<0.020	0	Diff <2x LOR	----
		Thallium	7440-28-0	E440	0.0020	mg/kg	0.0081	0.0088	0.0007	Diff <2x LOR	----
		Tin	7440-31-5	E440	0.10	mg/kg	<0.10	<0.10	0	Diff <2x LOR	----
		Uranium	7440-61-1	E440	0.0020	mg/kg	0.0060	0.0068	0.0008	Diff <2x LOR	----
		Vanadium	7440-62-2	E440	0.10	mg/kg	<0.10	<0.10	0	Diff <2x LOR	----
Zinc	7440-66-6	E440	0.50	mg/kg	24.9	27.2	9.09%	40%	----		
Zirconium	7440-67-7	E440	0.20	mg/kg	<0.20	<0.20	0	Diff <2x LOR	----		
Metals (QC Lot: 1264849)											
VA23C4190-020	QUL-NHC_PCC-M-4_2023-09	Mercury	7439-97-6	E510A	0.0014	mg/kg wwt	0.223	0.222	0.380%	40%	----
Metals (QC Lot: 1264850)											
VA23C4190-020	QUL-NHC_PCC-M-4_2023-09	Silver	7440-22-4	E440.Ag	0.0050	mg/kg	<0.0050	<0.0050	0	Diff <2x LOR	----
Metals (QC Lot: 1264851)											
VA23C4190-020	QUL-NHC_PCC-M-4_2023-09	Mercury	7439-97-6	E510	0.0063	mg/kg	1.04	1.04	0.380%	40%	----
Metals (QC Lot: 1264852)											
VA23C4190-020	QUL-NHC_PCC-M-4_2023-09	Titanium	7440-32-6	E440.Ti	0.25	mg/kg	<0.25	<0.25	0	Diff <2x LOR	----
Metals (QC Lot: 1264862)											
VA23C4190-035	QUL-NHC_PCC-O-3_2023-09	Aluminum	7429-90-5	E440	2.0	mg/kg	<2.0	3.0	1.0	Diff <2x LOR	----
		Antimony	7440-36-0	E440	0.010	mg/kg	<0.010	<0.010	0	Diff <2x LOR	----
		Arsenic	7440-38-2	E440	0.020	mg/kg	0.111	0.114	3.37%	40%	----
		Barium	7440-39-3	E440	0.050	mg/kg	0.942	1.01	7.15%	40%	----



Sub-Matrix: Biota					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	LOR	Unit	Original Result	Duplicate Result	RPD(%) or Difference	Duplicate Limits	Qualifier
Metals (QC Lot: 1264862) - continued											
VA23C4190-035	QUL-NHC_PCC-O-3_2023-09	Beryllium	7440-41-7	E440	0.010	mg/kg	<0.010	<0.010	0	Diff <2x LOR	----
		Bismuth	7440-69-9	E440	0.010	mg/kg	<0.010	<0.010	0	Diff <2x LOR	----
		Boron	7440-42-8	E440	1.0	mg/kg	<1.0	<1.0	0	Diff <2x LOR	----
		Cadmium	7440-43-9	E440	0.0050	mg/kg	0.0276	0.0274	0.496%	40%	----
		Calcium	7440-70-2	E440	20	mg/kg	439	451	2.70%	60%	----
		Cesium	7440-46-2	E440	0.0050	mg/kg	0.0227	0.0230	0.0004	Diff <2x LOR	----
		Chromium	7440-47-3	E440	0.050	mg/kg	<0.050	<0.050	0	Diff <2x LOR	----
		Cobalt	7440-48-4	E440	0.020	mg/kg	0.078	0.078	0.0005	Diff <2x LOR	----
		Copper	7440-50-8	E440	0.10	mg/kg	5.17	5.09	1.66%	40%	----
		Iron	7439-89-6	E440	3.0	mg/kg	57.7	64.3	10.7%	40%	----
		Lead	7439-92-1	E440	0.020	mg/kg	<0.020	<0.020	0	Diff <2x LOR	----
		Lithium	7439-93-2	E440	0.50	mg/kg	<0.50	<0.50	0	Diff <2x LOR	----
		Magnesium	7439-95-4	E440	2.0	mg/kg	846	823	2.68%	40%	----
		Manganese	7439-96-5	E440	0.050	mg/kg	16.8	16.8	0.408%	40%	----
		Molybdenum	7439-98-7	E440	0.020	mg/kg	0.132	0.138	3.81%	40%	----
		Nickel	7440-02-0	E440	0.20	mg/kg	<0.20	<0.20	0	Diff <2x LOR	----
		Phosphorus	7723-14-0	E440	10	mg/kg	11200	10800	3.37%	40%	----
		Potassium	7440-09-7	E440	20	mg/kg	8890	8920	0.411%	40%	----
		Rubidium	7440-17-7	E440	0.050	mg/kg	7.27	7.29	0.281%	40%	----
		Selenium	7782-49-2	E440	0.050	mg/kg	10.0	10.0	0.173%	40%	----
		Sodium	7440-23-5	E440	20	mg/kg	1990	1960	1.98%	40%	----
		Strontium	7440-24-6	E440	0.050	mg/kg	0.612	0.635	3.71%	60%	----
		Tellurium	13494-80-9	E440	0.020	mg/kg	<0.020	<0.020	0	Diff <2x LOR	----
Thallium	7440-28-0	E440	0.0020	mg/kg	0.0045	0.0042	0.0002	Diff <2x LOR	----		
Tin	7440-31-5	E440	0.10	mg/kg	<0.10	<0.10	0	Diff <2x LOR	----		
Uranium	7440-61-1	E440	0.0020	mg/kg	0.0094	0.0099	0.0005	Diff <2x LOR	----		
Vanadium	7440-62-2	E440	0.10	mg/kg	<0.10	<0.10	0	Diff <2x LOR	----		
Zinc	7440-66-6	E440	0.50	mg/kg	112	111	0.924%	40%	----		
Zirconium	7440-67-7	E440	0.20	mg/kg	<0.20	<0.20	0	Diff <2x LOR	----		
Metals (QC Lot: 1264863)											
VA23C4190-035	QUL-NHC_PCC-O-3_2023-09	Silver	7440-22-4	E440.Ag	0.0050	mg/kg	0.0064	0.0065	0.00008	Diff <2x LOR	----
Metals (QC Lot: 1264864)											
VA23C4190-035	QUL-NHC_PCC-O-3_2023-09	Mercury	7439-97-6	E510A	0.0022	mg/kg wwt	0.0189	0.0179	5.33%	40%	----



Sub-Matrix: Biota					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	LOR	Unit	Original Result	Duplicate Result	RPD(%) or Difference	Duplicate Limits	Qualifier
Metals (QC Lot: 1264865)											
VA23C4190-035	QUL-NHC_PCC-O-3_2023-09	Mercury	7439-97-6	E510	0.0067	mg/kg	0.0573	0.0543	5.33%	40%	---
Metals (QC Lot: 1264866)											
VA23C4190-035	QUL-NHC_PCC-O-3_2023-09	Titanium	7440-32-6	E440.TI	0.25	mg/kg	<0.25	<0.25	0	Diff <2x LOR	---
Metals (QC Lot: 1264868)											
VA23C4190-081	QUL-NCP_LT-M-1_2023-10	Calcium	7440-70-2	E440	20	mg/kg	291	252	14.3%	60%	---
		Chromium	7440-47-3	E440	0.050	mg/kg	<0.050	<0.050	0	Diff <2x LOR	---
		Manganese	7439-96-5	E440	0.050	mg/kg	0.329	0.295	10.9%	40%	---
		Strontium	7440-24-6	E440	0.050	mg/kg	0.304	0.264	14.3%	60%	---
VA23C4190-081	QUL-NCP_LT-M-1_2023-10	Aluminum	7429-90-5	E440	2.0	mg/kg	3.1	6.7	3.6	Diff <2x LOR	---
		Antimony	7440-36-0	E440	0.010	mg/kg	<0.010	<0.010	0	Diff <2x LOR	---
		Arsenic	7440-38-2	E440	0.020	mg/kg	0.030	0.029	0.001	Diff <2x LOR	---
		Barium	7440-39-3	E440	0.050	mg/kg	<0.050	<0.050	0	Diff <2x LOR	---
		Beryllium	7440-41-7	E440	0.010	mg/kg	<0.010	<0.010	0	Diff <2x LOR	---
		Bismuth	7440-69-9	E440	0.010	mg/kg	<0.010	<0.010	0	Diff <2x LOR	---
		Boron	7440-42-8	E440	1.0	mg/kg	<1.0	<1.0	0	Diff <2x LOR	---
		Cadmium	7440-43-9	E440	0.0050	mg/kg	<0.0050	<0.0050	0	Diff <2x LOR	---
		Cesium	7440-46-2	E440	0.0050	mg/kg	0.425	0.496	15.3%	40%	---
		Cobalt	7440-48-4	E440	0.020	mg/kg	<0.020	<0.020	0	Diff <2x LOR	---
		Copper	7440-50-8	E440	0.10	mg/kg	1.86	1.59	15.3%	40%	---
		Iron	7439-89-6	E440	3.0	mg/kg	32.7	47.8	37.7%	40%	---
		Lead	7439-92-1	E440	0.020	mg/kg	<0.020	<0.020	0	Diff <2x LOR	---
		Lithium	7439-93-2	E440	0.50	mg/kg	<0.50	<0.50	0	Diff <2x LOR	---
		Magnesium	7439-95-4	E440	2.0	mg/kg	1060	1090	2.67%	40%	---
		Molybdenum	7439-98-7	E440	0.020	mg/kg	0.022	<0.020	0.002	Diff <2x LOR	---
		Nickel	7440-02-0	E440	0.20	mg/kg	<0.20	<0.20	0	Diff <2x LOR	---
		Phosphorus	7723-14-0	E440	10	mg/kg	11000	11400	4.39%	40%	---
		Potassium	7440-09-7	E440	20	mg/kg	18200	18200	0.181%	40%	---
		Rubidium	7440-17-7	E440	0.050	mg/kg	41.2	40.6	1.44%	40%	---
		Selenium	7782-49-2	E440	0.050	mg/kg	2.02	1.99	1.58%	40%	---
		Sodium	7440-23-5	E440	20	mg/kg	2400	2360	1.45%	40%	---
		Tellurium	13494-80-9	E440	0.020	mg/kg	<0.020	<0.020	0	Diff <2x LOR	---
		Thallium	7440-28-0	E440	0.0020	mg/kg	0.0289	0.0314	8.28%	40%	---



Sub-Matrix: Biota					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	LOR	Unit	Original Result	Duplicate Result	RPD(%) or Difference	Duplicate Limits	Qualifier
Metals (QC Lot: 1264868) - continued											
VA23C4190-081	QUL-NCP_LT-M-1_2023-10	Tin	7440-31-5	E440	0.10	mg/kg	0.23	0.38	0.15	Diff <2x LOR	---
		Uranium	7440-61-1	E440	0.0020	mg/kg	<0.0020	<0.0020	0	Diff <2x LOR	---
		Vanadium	7440-62-2	E440	0.10	mg/kg	<0.10	<0.10	0	Diff <2x LOR	---
		Zinc	7440-66-6	E440	0.50	mg/kg	19.3	19.4	0.613%	40%	---
		Zirconium	7440-67-7	E440	0.20	mg/kg	<0.20	<0.20	0	Diff <2x LOR	---
Metals (QC Lot: 1264869)											
VA23C4190-081	QUL-NCP_LT-M-1_2023-10	Silver	7440-22-4	E440.Ag	0.0050	mg/kg	<0.0050	<0.0050	0	Diff <2x LOR	---
Metals (QC Lot: 1264870)											
VA23C4190-081	QUL-NCP_LT-M-1_2023-10	Mercury	7439-97-6	E510A	0.0178	mg/kg wwt	1.51	1.51	0.0756%	40%	---
Metals (QC Lot: 1264871)											
VA23C4190-081	QUL-NCP_LT-M-1_2023-10	Mercury	7439-97-6	E510	0.0855	mg/kg	7.28	7.28	0.0756%	40%	---
Metals (QC Lot: 1264872)											
VA23C4190-081	QUL-NCP_LT-M-1_2023-10	Titanium	7440-32-6	E440.Ti	0.25	mg/kg	<0.25	0.36	0.10	Diff <2x LOR	---
Metals (QC Lot: 1264879)											
VA23C4190-090	QUL-NCP_LT-O-2_2023-10	Aluminum	7429-90-5	E440	2.0	mg/kg	2.0	2.2	0.1	Diff <2x LOR	---
		Antimony	7440-36-0	E440	0.010	mg/kg	<0.010	<0.010	0	Diff <2x LOR	---
		Arsenic	7440-38-2	E440	0.020	mg/kg	0.173	0.180	3.90%	40%	---
		Barium	7440-39-3	E440	0.050	mg/kg	<0.050	<0.050	0	Diff <2x LOR	---
		Beryllium	7440-41-7	E440	0.010	mg/kg	<0.010	<0.010	0	Diff <2x LOR	---
		Bismuth	7440-69-9	E440	0.010	mg/kg	<0.010	<0.010	0	Diff <2x LOR	---
		Boron	7440-42-8	E440	1.0	mg/kg	<1.0	<1.0	0	Diff <2x LOR	---
		Cadmium	7440-43-9	E440	0.0050	mg/kg	0.0779	0.0856	9.43%	40%	---
		Calcium	7440-70-2	E440	20	mg/kg	1450	1950	29.6%	60%	---
		Cesium	7440-46-2	E440	0.0050	mg/kg	0.262	0.266	1.21%	40%	---
		Chromium	7440-47-3	E440	0.050	mg/kg	0.204	0.224	0.021	Diff <2x LOR	---
		Cobalt	7440-48-4	E440	0.020	mg/kg	0.277	0.296	6.76%	40%	---
		Copper	7440-50-8	E440	0.10	mg/kg	20.4	21.0	2.77%	40%	---
		Iron	7439-89-6	E440	3.0	mg/kg	377	388	2.76%	40%	---
		Lead	7439-92-1	E440	0.020	mg/kg	0.033	<0.020	0.013	Diff <2x LOR	---
Lithium	7439-93-2	E440	0.50	mg/kg	<0.50	<0.50	0	Diff <2x LOR	---		
Magnesium	7439-95-4	E440	2.0	mg/kg	678	706	4.03%	40%	---		



Sub-Matrix: Biota					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	LOR	Unit	Original Result	Duplicate Result	RPD(%) or Difference	Duplicate Limits	Qualifier
Metals (QC Lot: 1264879) - continued											
VA23C4190-090	QUL-NCP_LT-O-2_2023-10	Manganese	7439-96-5	E440	0.050	mg/kg	2.87	3.09	7.42%	40%	---
		Molybdenum	7439-98-7	E440	0.020	mg/kg	0.079	0.087	0.008	Diff <2x LOR	---
		Nickel	7440-02-0	E440	0.20	mg/kg	<0.20	<0.20	0	Diff <2x LOR	---
		Phosphorus	7723-14-0	E440	10	mg/kg	8790	9460	7.28%	40%	---
		Potassium	7440-09-7	E440	20	mg/kg	12300	12300	0.412%	40%	---
		Rubidium	7440-17-7	E440	0.050	mg/kg	30.0	30.0	0.00198%	40%	---
		Selenium	7782-49-2	E440	0.050	mg/kg	7.11	7.91	10.6%	40%	---
		Sodium	7440-23-5	E440	20	mg/kg	13600	13400	1.60%	40%	---
		Strontium	7440-24-6	E440	0.050	mg/kg	1.41	1.82	25.7%	60%	---
		Tellurium	13494-80-9	E440	0.020	mg/kg	<0.020	<0.020	0	Diff <2x LOR	---
		Thallium	7440-28-0	E440	0.0020	mg/kg	0.0621	0.0634	2.06%	40%	---
		Tin	7440-31-5	E440	0.10	mg/kg	0.22	0.20	0.02	Diff <2x LOR	---
		Uranium	7440-61-1	E440	0.0020	mg/kg	<0.0020	<0.0020	0	Diff <2x LOR	---
		Vanadium	7440-62-2	E440	0.10	mg/kg	<0.10	<0.10	0	Diff <2x LOR	---
		Zinc	7440-66-6	E440	0.50	mg/kg	232	251	8.07%	40%	---
Zirconium	7440-67-7	E440	0.20	mg/kg	<0.20	<0.20	0	Diff <2x LOR	---		
Metals (QC Lot: 1264880)											
VA23C4190-090	QUL-NCP_LT-O-2_2023-10	Silver	7440-22-4	E440.Ag	0.0050	mg/kg	0.0154	0.0149	0.0006	Diff <2x LOR	---
Metals (QC Lot: 1264881)											
VA23C4190-090	QUL-NCP_LT-O-2_2023-10	Mercury	7439-97-6	E510A	0.0019	mg/kg wwt	0.307	0.335	8.55%	40%	---
Metals (QC Lot: 1264882)											
VA23C4190-090	QUL-NCP_LT-O-2_2023-10	Mercury	7439-97-6	E510	0.0110	mg/kg	1.79	1.95	8.55%	40%	---
Metals (QC Lot: 1264883)											
VA23C4190-090	QUL-NCP_LT-O-2_2023-10	Titanium	7440-32-6	E440.Ti	0.25	mg/kg	<0.25	<0.25	0	Diff <2x LOR	---
Metals (QC Lot: 1272036)											
VA23C4190-033	QUL-NHC_PCC-O-1_2023-09	Silver	7440-22-4	E472.Ag	0.0050	mg/kg	0.0101	0.0100	0.0001	Diff <2x LOR	---
Metals (QC Lot: 1272037)											
VA23C4190-033	QUL-NHC_PCC-O-1_2023-09	Titanium	7440-32-6	E472.Ti	0.50	mg/kg	<0.50	<0.50	0	Diff <2x LOR	---
Metals (QC Lot: 1272038)											
VA23C4190-033	QUL-NHC_PCC-O-1_2023-09	Mercury	7439-97-6	E511	0.0050	mg/kg	0.0359	0.0344	4.36%	40%	---



Sub-Matrix: Biota					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	LOR	Unit	Original Result	Duplicate Result	RPD(%) or Difference	Duplicate Limits	Qualifier
Metals (QC Lot: 1272039)											
VA23C4190-033	QUL-NHC_PCC-O-1_2023-09	Mercury	7439-97-6	E511A	0.0010	mg/kg wwt	0.0129	0.0123	4.36%	40%	---
Metals (QC Lot: 1272040)											
VA23C4190-033	QUL-NHC_PCC-O-1_2023-09	Aluminum	7429-90-5	E472	5.0	mg/kg	<5.0	<5.0	0	Diff <2x LOR	---
		Antimony	7440-36-0	E472	0.010	mg/kg	<0.010	<0.010	0	Diff <2x LOR	---
		Arsenic	7440-38-2	E472	0.030	mg/kg	0.092	0.108	0.016	Diff <2x LOR	---
		Barium	7440-39-3	E472	0.050	mg/kg	0.736	0.868	16.5%	40%	---
		Beryllium	7440-41-7	E472	0.010	mg/kg	<0.010	<0.010	0	Diff <2x LOR	---
		Bismuth	7440-69-9	E472	0.010	mg/kg	<0.010	<0.010	0	Diff <2x LOR	---
		Boron	7440-42-8	E472	1.0	mg/kg	<1.0	<1.0	0	Diff <2x LOR	---
		Cadmium	7440-43-9	E472	0.010	mg/kg	<0.010	0.010	0.0001	Diff <2x LOR	---
		Calcium	7440-70-2	E472	20	mg/kg	359	340	5.30%	60%	---
		Cesium	7440-46-2	E472	0.0050	mg/kg	0.0458	0.0438	4.48%	40%	---
		Chromium	7440-47-3	E472	0.20	mg/kg	<0.20	<0.20	0	Diff <2x LOR	---
		Cobalt	7440-48-4	E472	0.020	mg/kg	0.073	0.073	0.0002	Diff <2x LOR	---
		Copper	7440-50-8	E472	0.20	mg/kg	4.56	4.60	0.776%	40%	---
		Iron	7439-89-6	E472	5.0	mg/kg	63.6	64.5	1.40%	40%	---
		Lead	7439-92-1	E472	0.050	mg/kg	<0.050	<0.050	0	Diff <2x LOR	---
		Lithium	7439-93-2	E472	0.50	mg/kg	<0.50	<0.50	0	Diff <2x LOR	---
		Magnesium	7439-95-4	E472	2.0	mg/kg	709	701	1.15%	40%	---
		Manganese	7439-96-5	E472	0.050	mg/kg	9.60	9.72	1.17%	40%	---
		Molybdenum	7439-98-7	E472	0.040	mg/kg	0.113	0.116	0.003	Diff <2x LOR	---
		Nickel	7440-02-0	E472	0.20	mg/kg	<0.20	<0.20	0	Diff <2x LOR	---
		Phosphorus	7723-14-0	E472	10	mg/kg	11500	11400	0.748%	40%	---
		Potassium	7440-09-7	E472	20	mg/kg	8240	8380	1.79%	40%	---
		Rubidium	7440-17-7	E472	0.050	mg/kg	9.03	9.02	0.134%	40%	---
		Selenium	7782-49-2	E472	0.10	mg/kg	15.6	15.1	3.39%	40%	---
		Sodium	7440-23-5	E472	20	mg/kg	1640	1620	0.902%	40%	---
		Strontium	7440-24-6	E472	0.10	mg/kg	0.43	0.43	0.0209%	60%	---
		Tellurium	13494-80-9	E472	0.020	mg/kg	<0.020	<0.020	0	Diff <2x LOR	---
		Thallium	7440-28-0	E472	0.0020	mg/kg	0.0058	0.0055	0.0004	Diff <2x LOR	---
		Tin	7440-31-5	E472	0.10	mg/kg	<0.10	<0.10	0	Diff <2x LOR	---
		Uranium	7440-61-1	E472	0.0020	mg/kg	0.0031	0.0030	0.0002	Diff <2x LOR	---
		Vanadium	7440-62-2	E472	0.10	mg/kg	<0.10	<0.10	0	Diff <2x LOR	---



Sub-Matrix: Biota					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	LOR	Unit	Original Result	Duplicate Result	RPD(%) or Difference	Duplicate Limits	Qualifier
Metals (QC Lot: 1272040) - continued											
VA23C4190-033	QUL-NHC_PCC-O-1_2023-09	Zinc	7440-66-6	E472	1.0	mg/kg	113	114	0.879%	40%	----
		Zirconium	7440-67-7	E472	0.20	mg/kg	<0.20	<0.20	0	Diff <2x LOR	----
Metals (QC Lot: 1272148)											
VA23C4190-094	QUL-NCP_LT-Ki-3_2023-10	Silver	7440-22-4	E472.Ag	0.0050	mg/kg	0.0077	0.0096	0.0018	Diff <2x LOR	----
Metals (QC Lot: 1272149)											
VA23C4190-094	QUL-NCP_LT-Ki-3_2023-10	Titanium	7440-32-6	E472.Ti	0.50	mg/kg	<0.50	<0.50	0	Diff <2x LOR	----
Metals (QC Lot: 1272150)											
VA23C4190-094	QUL-NCP_LT-Ki-3_2023-10	Mercury	7439-97-6	E511	0.0284	mg/kg	4.53	4.94	8.50%	40%	----
Metals (QC Lot: 1272151)											
VA23C4190-094	QUL-NCP_LT-Ki-3_2023-10	Mercury	7439-97-6	E511A	0.0052	mg/kg wwt	0.839	0.913	8.50%	40%	----
Metals (QC Lot: 1272152)											
VA23C4190-094	QUL-NCP_LT-Ki-3_2023-10	Aluminum	7429-90-5	E472	5.0	mg/kg	5.3	5.8	0.6	Diff <2x LOR	----
		Antimony	7440-36-0	E472	0.010	mg/kg	<0.010	<0.010	0	Diff <2x LOR	----
		Arsenic	7440-38-2	E472	0.030	mg/kg	0.180	0.199	10.2%	40%	----
		Barium	7440-39-3	E472	0.050	mg/kg	0.100	0.117	0.017	Diff <2x LOR	----
		Beryllium	7440-41-7	E472	0.010	mg/kg	<0.010	<0.010	0	Diff <2x LOR	----
		Bismuth	7440-69-9	E472	0.010	mg/kg	<0.010	<0.010	0	Diff <2x LOR	----
		Boron	7440-42-8	E472	1.0	mg/kg	<1.0	<1.0	0	Diff <2x LOR	----
		Cadmium	7440-43-9	E472	0.010	mg/kg	1.91	2.23	15.6%	40%	----
		Calcium	7440-70-2	E472	20	mg/kg	494	552	11.1%	60%	----
		Cesium	7440-46-2	E472	0.0050	mg/kg	0.108	0.116	7.70%	40%	----
		Chromium	7440-47-3	E472	0.20	mg/kg	0.47	0.53	0.05	Diff <2x LOR	----
		Cobalt	7440-48-4	E472	0.020	mg/kg	0.349	0.389	10.8%	40%	----
		Copper	7440-50-8	E472	0.20	mg/kg	3.01	3.25	7.74%	40%	----
		Iron	7439-89-6	E472	5.0	mg/kg	1290	1500	15.1%	40%	----
		Lead	7439-92-1	E472	0.050	mg/kg	<0.050	<0.050	0	Diff <2x LOR	----
		Lithium	7439-93-2	E472	0.50	mg/kg	<0.50	<0.50	0	Diff <2x LOR	----
		Magnesium	7439-95-4	E472	2.0	mg/kg	513	546	6.19%	40%	----
Manganese	7439-96-5	E472	0.050	mg/kg	0.737	0.870	16.6%	40%	----		
Molybdenum	7439-98-7	E472	0.040	mg/kg	0.193	0.214	10.6%	40%	----		
Nickel	7440-02-0	E472	0.20	mg/kg	0.26	0.43	0.16	Diff <2x LOR	----		



Sub-Matrix: Biota					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	LOR	Unit	Original Result	Duplicate Result	RPD(%) or Difference	Duplicate Limits	Qualifier
Metals (QC Lot: 1272152) - continued											
VA23C4190-094	QUL-NCP_LT-Ki-3_2023-10	Phosphorus	7723-14-0	E472	10	mg/kg	10300	11300	9.26%	40%	---
		Potassium	7440-09-7	E472	20	mg/kg	9690	10500	8.43%	40%	---
		Rubidium	7440-17-7	E472	0.050	mg/kg	21.6	23.4	8.42%	40%	---
		Selenium	7782-49-2	E472	0.10	mg/kg	8.85	10.7	18.7%	40%	---
		Sodium	7440-23-5	E472	20	mg/kg	11300	12000	5.34%	40%	---
		Strontium	7440-24-6	E472	0.10	mg/kg	1.32	1.51	13.4%	60%	---
		Tellurium	13494-80-9	E472	0.020	mg/kg	<0.020	<0.020	0	Diff <2x LOR	---
		Thallium	7440-28-0	E472	0.0020	mg/kg	0.0829	0.0989	17.6%	40%	---
		Tin	7440-31-5	E472	0.10	mg/kg	0.35	0.44	0.09	Diff <2x LOR	---
		Uranium	7440-61-1	E472	0.0020	mg/kg	0.0043	0.0047	0.0004	Diff <2x LOR	---
		Vanadium	7440-62-2	E472	0.10	mg/kg	<0.10	<0.10	0	Diff <2x LOR	---
		Zinc	7440-66-6	E472	1.0	mg/kg	90.1	103	13.6%	40%	---
		Zirconium	7440-67-7	E472	0.20	mg/kg	<0.20	<0.20	0	Diff <2x LOR	---



Method Blank (MB) Report

A Method Blank is an analyte-free matrix that undergoes sample processing identical to that carried out for test samples. Method Blank results are used to monitor and control for potential contamination from the laboratory environment and reagents. For most tests, the DQO for Method Blanks is for the result to be < LOR.

Sub-Matrix: Biota

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Physical Tests (QCLot: 1261532)						
Moisture	---	E144	0.5	%	<0.50	---
Physical Tests (QCLot: 1261533)						
Moisture	---	E144	0.5	%	<0.50	---
Physical Tests (QCLot: 1261534)						
Moisture	---	E144	0.5	%	<0.50	---
Physical Tests (QCLot: 1261535)						
Moisture	---	E144	0.5	%	<0.50	---
Physical Tests (QCLot: 1272042)						
Moisture	---	E144-H	2	%	<2.0	---
Physical Tests (QCLot: 1272119)						
Moisture	---	E144A	2	%	<2.0	---
Physical Tests (QCLot: 1272121)						
Moisture	---	E144-H	2	%	<2.0	---
Physical Tests (QCLot: 1272147)						
Moisture	---	E144-H	2	%	<2.0	---
Metals (QCLot: 1264848)						
Aluminum	7429-90-5	E440	2	mg/kg	<2.0	---
Antimony	7440-36-0	E440	0.01	mg/kg	<0.010	---
Arsenic	7440-38-2	E440	0.02	mg/kg	<0.020	---
Barium	7440-39-3	E440	0.05	mg/kg	<0.050	---
Beryllium	7440-41-7	E440	0.01	mg/kg	<0.010	---
Bismuth	7440-69-9	E440	0.01	mg/kg	<0.010	---
Boron	7440-42-8	E440	1	mg/kg	<1.0	---
Cadmium	7440-43-9	E440	0.005	mg/kg	<0.0050	---
Calcium	7440-70-2	E440	20	mg/kg	<20	---
Cesium	7440-46-2	E440	0.005	mg/kg	<0.0050	---
Chromium	7440-47-3	E440	0.05	mg/kg	<0.050	---
Cobalt	7440-48-4	E440	0.02	mg/kg	<0.020	---
Copper	7440-50-8	E440	0.1	mg/kg	<0.10	---
Iron	7439-89-6	E440	3	mg/kg	<3.0	---
Lead	7439-92-1	E440	0.02	mg/kg	<0.020	---
Lithium	7439-93-2	E440	0.5	mg/kg	<0.50	---



Sub-Matrix: **Biota**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Metals (QCLot: 1264848) - continued						
Magnesium	7439-95-4	E440	2	mg/kg	<2.0	---
Manganese	7439-96-5	E440	0.05	mg/kg	<0.050	---
Molybdenum	7439-98-7	E440	0.02	mg/kg	<0.020	---
Nickel	7440-02-0	E440	0.2	mg/kg	<0.20	---
Phosphorus	7723-14-0	E440	10	mg/kg	<10	---
Potassium	7440-09-7	E440	20	mg/kg	<20	---
Rubidium	7440-17-7	E440	0.05	mg/kg	<0.050	---
Selenium	7782-49-2	E440	0.05	mg/kg	<0.050	---
Sodium	7440-23-5	E440	20	mg/kg	<20	---
Strontium	7440-24-6	E440	0.05	mg/kg	<0.050	---
Tellurium	13494-80-9	E440	0.02	mg/kg	<0.020	---
Thallium	7440-28-0	E440	0.002	mg/kg	<0.0020	---
Tin	7440-31-5	E440	0.1	mg/kg	<0.10	---
Uranium	7440-61-1	E440	0.002	mg/kg	<0.0020	---
Vanadium	7440-62-2	E440	0.1	mg/kg	<0.10	---
Zinc	7440-66-6	E440	0.5	mg/kg	<0.50	---
Zirconium	7440-67-7	E440	0.2	mg/kg	<0.20	---
Metals (QCLot: 1264849)						
Mercury	7439-97-6	E510A	0.001	mg/kg wwt	<0.0010	---
Metals (QCLot: 1264850)						
Silver	7440-22-4	E440.Ag	0.005	mg/kg	<0.0050	---
Metals (QCLot: 1264851)						
Mercury	7439-97-6	E510	0.005	mg/kg	<0.0050	---
Metals (QCLot: 1264852)						
Titanium	7440-32-6	E440.Ti	0.25	mg/kg	<0.25	---
Metals (QCLot: 1264862)						
Aluminum	7429-90-5	E440	2	mg/kg	<2.0	---
Antimony	7440-36-0	E440	0.01	mg/kg	<0.010	---
Arsenic	7440-38-2	E440	0.02	mg/kg	<0.020	---
Barium	7440-39-3	E440	0.05	mg/kg	<0.050	---
Beryllium	7440-41-7	E440	0.01	mg/kg	<0.010	---
Bismuth	7440-69-9	E440	0.01	mg/kg	<0.010	---
Boron	7440-42-8	E440	1	mg/kg	<1.0	---
Cadmium	7440-43-9	E440	0.005	mg/kg	<0.0050	---
Calcium	7440-70-2	E440	20	mg/kg	<20	---



Sub-Matrix: **Biota**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Metals (QCLot: 1264862) - continued						
Cesium	7440-46-2	E440	0.005	mg/kg	<0.0050	---
Chromium	7440-47-3	E440	0.05	mg/kg	<0.050	---
Cobalt	7440-48-4	E440	0.02	mg/kg	<0.020	---
Copper	7440-50-8	E440	0.1	mg/kg	<0.10	---
Iron	7439-89-6	E440	3	mg/kg	<3.0	---
Lead	7439-92-1	E440	0.02	mg/kg	<0.020	---
Lithium	7439-93-2	E440	0.5	mg/kg	<0.50	---
Magnesium	7439-95-4	E440	2	mg/kg	<2.0	---
Manganese	7439-96-5	E440	0.05	mg/kg	# 0.057	B
Molybdenum	7439-98-7	E440	0.02	mg/kg	<0.020	---
Nickel	7440-02-0	E440	0.2	mg/kg	<0.20	---
Phosphorus	7723-14-0	E440	10	mg/kg	<10	---
Potassium	7440-09-7	E440	20	mg/kg	<20	---
Rubidium	7440-17-7	E440	0.05	mg/kg	<0.050	---
Selenium	7782-49-2	E440	0.05	mg/kg	<0.050	---
Sodium	7440-23-5	E440	20	mg/kg	<20	---
Strontium	7440-24-6	E440	0.05	mg/kg	<0.050	---
Tellurium	13494-80-9	E440	0.02	mg/kg	<0.020	---
Thallium	7440-28-0	E440	0.002	mg/kg	<0.0020	---
Tin	7440-31-5	E440	0.1	mg/kg	<0.10	---
Uranium	7440-61-1	E440	0.002	mg/kg	<0.0020	---
Vanadium	7440-62-2	E440	0.1	mg/kg	<0.10	---
Zinc	7440-66-6	E440	0.5	mg/kg	<0.50	---
Zirconium	7440-67-7	E440	0.2	mg/kg	<0.20	---
Metals (QCLot: 1264863)						
Silver	7440-22-4	E440.Ag	0.005	mg/kg	<0.0050	---
Metals (QCLot: 1264864)						
Mercury	7439-97-6	E510A	0.001	mg/kg wwt	<0.0010	---
Metals (QCLot: 1264865)						
Mercury	7439-97-6	E510	0.005	mg/kg	<0.0050	---
Metals (QCLot: 1264866)						
Titanium	7440-32-6	E440.Ti	0.25	mg/kg	<0.25	---
Metals (QCLot: 1264868)						
Aluminum	7429-90-5	E440	2	mg/kg	<2.0	---
Antimony	7440-36-0	E440	0.01	mg/kg	<0.010	---



Sub-Matrix: Biota

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Metals (QCLot: 1264868) - continued						
Arsenic	7440-38-2	E440	0.02	mg/kg	<0.020	---
Barium	7440-39-3	E440	0.05	mg/kg	<0.050	---
Beryllium	7440-41-7	E440	0.01	mg/kg	<0.010	---
Bismuth	7440-69-9	E440	0.01	mg/kg	<0.010	---
Boron	7440-42-8	E440	1	mg/kg	<1.0	---
Cadmium	7440-43-9	E440	0.005	mg/kg	<0.0050	---
Calcium	7440-70-2	E440	20	mg/kg	<20	---
Cesium	7440-46-2	E440	0.005	mg/kg	<0.0050	---
Chromium	7440-47-3	E440	0.05	mg/kg	<0.050	---
Cobalt	7440-48-4	E440	0.02	mg/kg	<0.020	---
Copper	7440-50-8	E440	0.1	mg/kg	<0.10	---
Iron	7439-89-6	E440	3	mg/kg	<3.0	---
Lead	7439-92-1	E440	0.02	mg/kg	<0.020	---
Lithium	7439-93-2	E440	0.5	mg/kg	<0.50	---
Magnesium	7439-95-4	E440	2	mg/kg	<2.0	---
Manganese	7439-96-5	E440	0.05	mg/kg	<0.050	---
Molybdenum	7439-98-7	E440	0.02	mg/kg	<0.020	---
Nickel	7440-02-0	E440	0.2	mg/kg	<0.20	---
Phosphorus	7723-14-0	E440	10	mg/kg	<10	---
Potassium	7440-09-7	E440	20	mg/kg	<20	---
Rubidium	7440-17-7	E440	0.05	mg/kg	<0.050	---
Selenium	7782-49-2	E440	0.05	mg/kg	<0.050	---
Sodium	7440-23-5	E440	20	mg/kg	<20	---
Strontium	7440-24-6	E440	0.05	mg/kg	<0.050	---
Tellurium	13494-80-9	E440	0.02	mg/kg	<0.020	---
Thallium	7440-28-0	E440	0.002	mg/kg	<0.0020	---
Tin	7440-31-5	E440	0.1	mg/kg	<0.10	---
Uranium	7440-61-1	E440	0.002	mg/kg	<0.0020	---
Vanadium	7440-62-2	E440	0.1	mg/kg	<0.10	---
Zinc	7440-66-6	E440	0.5	mg/kg	<0.50	---
Zirconium	7440-67-7	E440	0.2	mg/kg	<0.20	---
Metals (QCLot: 1264869)						
Silver	7440-22-4	E440.Ag	0.005	mg/kg	<0.0050	---
Metals (QCLot: 1264870)						
Mercury	7439-97-6	E510A	0.001	mg/kg wwt	<0.0010	---



Sub-Matrix: Biota

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Metals (QCLot: 1264871)						
Mercury	7439-97-6	E510	0.005	mg/kg	<0.0050	---
Metals (QCLot: 1264872)						
Titanium	7440-32-6	E440.Ti	0.25	mg/kg	<0.25	---
Metals (QCLot: 1264879)						
Aluminum	7429-90-5	E440	2	mg/kg	<2.0	---
Antimony	7440-36-0	E440	0.01	mg/kg	<0.010	---
Arsenic	7440-38-2	E440	0.02	mg/kg	<0.020	---
Barium	7440-39-3	E440	0.05	mg/kg	<0.050	---
Beryllium	7440-41-7	E440	0.01	mg/kg	<0.010	---
Bismuth	7440-69-9	E440	0.01	mg/kg	<0.010	---
Boron	7440-42-8	E440	1	mg/kg	<1.0	---
Cadmium	7440-43-9	E440	0.005	mg/kg	<0.0050	---
Calcium	7440-70-2	E440	20	mg/kg	<20	---
Cesium	7440-46-2	E440	0.005	mg/kg	<0.0050	---
Chromium	7440-47-3	E440	0.05	mg/kg	<0.050	---
Cobalt	7440-48-4	E440	0.02	mg/kg	<0.020	---
Copper	7440-50-8	E440	0.1	mg/kg	<0.10	---
Iron	7439-89-6	E440	3	mg/kg	<3.0	---
Lead	7439-92-1	E440	0.02	mg/kg	<0.020	---
Lithium	7439-93-2	E440	0.5	mg/kg	<0.50	---
Magnesium	7439-95-4	E440	2	mg/kg	<2.0	---
Manganese	7439-96-5	E440	0.05	mg/kg	<0.050	---
Molybdenum	7439-98-7	E440	0.02	mg/kg	<0.020	---
Nickel	7440-02-0	E440	0.2	mg/kg	<0.20	---
Phosphorus	7723-14-0	E440	10	mg/kg	<10	---
Potassium	7440-09-7	E440	20	mg/kg	<20	---
Rubidium	7440-17-7	E440	0.05	mg/kg	<0.050	---
Selenium	7782-49-2	E440	0.05	mg/kg	<0.050	---
Sodium	7440-23-5	E440	20	mg/kg	<20	---
Strontium	7440-24-6	E440	0.05	mg/kg	<0.050	---
Tellurium	13494-80-9	E440	0.02	mg/kg	<0.020	---
Thallium	7440-28-0	E440	0.002	mg/kg	<0.0020	---
Tin	7440-31-5	E440	0.1	mg/kg	<0.10	---
Uranium	7440-61-1	E440	0.002	mg/kg	<0.0020	---
Vanadium	7440-62-2	E440	0.1	mg/kg	<0.10	---



Sub-Matrix: **Biota**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Metals (QCLot: 1264879) - continued						
Zinc	7440-66-6	E440	0.5	mg/kg	<0.50	---
Zirconium	7440-67-7	E440	0.2	mg/kg	<0.20	---
Metals (QCLot: 1264880)						
Silver	7440-22-4	E440.Ag	0.005	mg/kg	<0.0050	---
Metals (QCLot: 1264881)						
Mercury	7439-97-6	E510A	0.001	mg/kg wwt	<0.0010	---
Metals (QCLot: 1264882)						
Mercury	7439-97-6	E510	0.005	mg/kg	<0.0050	---
Metals (QCLot: 1264883)						
Titanium	7440-32-6	E440.Ti	0.25	mg/kg	<0.25	---
Metals (QCLot: 1272036)						
Silver	7440-22-4	E472.Ag	0.005	mg/kg	<0.0050	---
Metals (QCLot: 1272037)						
Titanium	7440-32-6	E472.Ti	0.5	mg/kg	<0.50	---
Metals (QCLot: 1272038)						
Mercury	7439-97-6	E511	0.005	mg/kg	<0.0050	---
Metals (QCLot: 1272039)						
Mercury	7439-97-6	E511A	0.001	mg/kg wwt	<0.0010	---
Metals (QCLot: 1272040)						
Aluminum	7429-90-5	E472	5	mg/kg	<5.0	---
Antimony	7440-36-0	E472	0.01	mg/kg	<0.010	---
Arsenic	7440-38-2	E472	0.03	mg/kg	<0.030	---
Barium	7440-39-3	E472	0.05	mg/kg	<0.050	---
Beryllium	7440-41-7	E472	0.01	mg/kg	<0.010	---
Bismuth	7440-69-9	E472	0.01	mg/kg	<0.010	---
Boron	7440-42-8	E472	1	mg/kg	<1.0	---
Cadmium	7440-43-9	E472	0.01	mg/kg	<0.010	---
Calcium	7440-70-2	E472	20	mg/kg	<20	---
Cesium	7440-46-2	E472	0.005	mg/kg	<0.0050	---
Chromium	7440-47-3	E472	0.2	mg/kg	<0.20	---
Cobalt	7440-48-4	E472	0.02	mg/kg	<0.020	---
Copper	7440-50-8	E472	0.2	mg/kg	<0.20	---
Iron	7439-89-6	E472	5	mg/kg	<5.0	---
Lead	7439-92-1	E472	0.05	mg/kg	<0.050	---
Lithium	7439-93-2	E472	0.5	mg/kg	<0.50	---



Sub-Matrix: Biota

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Metals (QCLot: 1272040) - continued						
Magnesium	7439-95-4	E472	2	mg/kg	<2.0	---
Manganese	7439-96-5	E472	0.05	mg/kg	<0.050	---
Molybdenum	7439-98-7	E472	0.04	mg/kg	<0.040	---
Nickel	7440-02-0	E472	0.2	mg/kg	<0.20	---
Phosphorus	7723-14-0	E472	10	mg/kg	<10	---
Potassium	7440-09-7	E472	20	mg/kg	<20	---
Rubidium	7440-17-7	E472	0.05	mg/kg	<0.050	---
Selenium	7782-49-2	E472	0.1	mg/kg	<0.10	---
Sodium	7440-23-5	E472	20	mg/kg	<20	---
Strontium	7440-24-6	E472	0.1	mg/kg	<0.10	---
Tellurium	13494-80-9	E472	0.02	mg/kg	<0.020	---
Thallium	7440-28-0	E472	0.002	mg/kg	<0.0020	---
Tin	7440-31-5	E472	0.1	mg/kg	<0.10	---
Uranium	7440-61-1	E472	0.002	mg/kg	<0.0020	---
Vanadium	7440-62-2	E472	0.1	mg/kg	<0.10	---
Zinc	7440-66-6	E472	1	mg/kg	<1.0	---
Zirconium	7440-67-7	E472	0.2	mg/kg	<0.20	---
Metals (QCLot: 1272126)						
Silver	7440-22-4	E472.Ag	0.005	mg/kg	<0.0050	---
Metals (QCLot: 1272127)						
Titanium	7440-32-6	E472.Ti	0.5	mg/kg	<0.50	---
Metals (QCLot: 1272128)						
Mercury	7439-97-6	E511	0.005	mg/kg	<0.0050	---
Metals (QCLot: 1272129)						
Mercury	7439-97-6	E511A	0.001	mg/kg wwt	<0.0010	---
Metals (QCLot: 1272130)						
Aluminum	7429-90-5	E472	5	mg/kg	<5.0	---
Antimony	7440-36-0	E472	0.01	mg/kg	<0.010	---
Arsenic	7440-38-2	E472	0.03	mg/kg	<0.030	---
Barium	7440-39-3	E472	0.05	mg/kg	<0.050	---
Beryllium	7440-41-7	E472	0.01	mg/kg	<0.010	---
Bismuth	7440-69-9	E472	0.01	mg/kg	<0.010	---
Boron	7440-42-8	E472	1	mg/kg	<1.0	---
Cadmium	7440-43-9	E472	0.01	mg/kg	<0.010	---
Calcium	7440-70-2	E472	20	mg/kg	<20	---



Sub-Matrix: Biota

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Metals (QCLot: 1272130) - continued						
Cesium	7440-46-2	E472	0.005	mg/kg	<0.0050	---
Chromium	7440-47-3	E472	0.2	mg/kg	<0.20	---
Cobalt	7440-48-4	E472	0.02	mg/kg	<0.020	---
Copper	7440-50-8	E472	0.2	mg/kg	<0.20	---
Iron	7439-89-6	E472	5	mg/kg	<5.0	---
Lead	7439-92-1	E472	0.05	mg/kg	<0.050	---
Lithium	7439-93-2	E472	0.5	mg/kg	<0.50	---
Magnesium	7439-95-4	E472	2	mg/kg	<2.0	---
Manganese	7439-96-5	E472	0.05	mg/kg	<0.050	---
Molybdenum	7439-98-7	E472	0.04	mg/kg	<0.040	---
Nickel	7440-02-0	E472	0.2	mg/kg	<0.20	---
Phosphorus	7723-14-0	E472	10	mg/kg	<10	---
Potassium	7440-09-7	E472	20	mg/kg	<20	---
Rubidium	7440-17-7	E472	0.05	mg/kg	<0.050	---
Selenium	7782-49-2	E472	0.1	mg/kg	<0.10	---
Sodium	7440-23-5	E472	20	mg/kg	<20	---
Strontium	7440-24-6	E472	0.1	mg/kg	<0.10	---
Tellurium	13494-80-9	E472	0.02	mg/kg	<0.020	---
Thallium	7440-28-0	E472	0.002	mg/kg	<0.0020	---
Tin	7440-31-5	E472	0.1	mg/kg	<0.10	---
Uranium	7440-61-1	E472	0.002	mg/kg	<0.0020	---
Vanadium	7440-62-2	E472	0.1	mg/kg	<0.10	---
Zinc	7440-66-6	E472	1	mg/kg	<1.0	---
Zirconium	7440-67-7	E472	0.2	mg/kg	<0.20	---
Metals (QCLot: 1272137)						
Silver	7440-22-4	E475.Ag	0.005	mg/kg	<0.0050	---
Metals (QCLot: 1272138)						
Titanium	7440-32-6	E475.Ti	0.5	mg/kg	<0.50	---
Metals (QCLot: 1272139)						
Mercury	7439-97-6	E512	0.01	mg/kg	# 0.025	RRQC
Metals (QCLot: 1272140)						
Mercury	7439-97-6	E512A	0.002	mg/kg wwt	# 0.0050	RRQC
Metals (QCLot: 1272141)						
Aluminum	7429-90-5	E475	5	mg/kg	<5.0	---
Antimony	7440-36-0	E475	0.02	mg/kg	<0.020	---



Sub-Matrix: Biota

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Metals (QCLot: 1272141) - continued						
Arsenic	7440-38-2	E475	0.05	mg/kg	<0.050	---
Barium	7440-39-3	E475	0.05	mg/kg	<0.050	---
Beryllium	7440-41-7	E475	0.01	mg/kg	<0.010	---
Bismuth	7440-69-9	E475	0.01	mg/kg	<0.010	---
Boron	7440-42-8	E475	1	mg/kg	<1.0	---
Cadmium	7440-43-9	E475	0.01	mg/kg	<0.010	---
Calcium	7440-70-2	E475	20	mg/kg	<20	---
Cesium	7440-46-2	E475	0.005	mg/kg	<0.0050	---
Chromium	7440-47-3	E475	0.2	mg/kg	<0.20	---
Cobalt	7440-48-4	E475	0.02	mg/kg	<0.020	---
Copper	7440-50-8	E475	0.2	mg/kg	<0.20	---
Iron	7439-89-6	E475	5	mg/kg	<5.0	---
Lead	7439-92-1	E475	0.05	mg/kg	<0.050	---
Lithium	7439-93-2	E475	0.5	mg/kg	<0.50	---
Magnesium	7439-95-4	E475	2	mg/kg	<2.0	---
Manganese	7439-96-5	E475	0.05	mg/kg	<0.050	---
Molybdenum	7439-98-7	E475	0.04	mg/kg	<0.040	---
Nickel	7440-02-0	E475	0.2	mg/kg	<0.20	---
Phosphorus	7723-14-0	E475	20	mg/kg	<20	---
Potassium	7440-09-7	E475	20	mg/kg	<20	---
Rubidium	7440-17-7	E475	0.05	mg/kg	<0.050	---
Selenium	7782-49-2	E475	0.1	mg/kg	<0.10	---
Sodium	7440-23-5	E475	20	mg/kg	<20	---
Strontium	7440-24-6	E475	0.1	mg/kg	<0.10	---
Tellurium	13494-80-9	E475	0.02	mg/kg	<0.020	---
Thallium	7440-28-0	E475	0.002	mg/kg	<0.0020	---
Tin	7440-31-5	E475	0.1	mg/kg	<0.10	---
Uranium	7440-61-1	E475	0.002	mg/kg	<0.0020	---
Vanadium	7440-62-2	E475	0.1	mg/kg	<0.10	---
Zinc	7440-66-6	E475	1	mg/kg	<1.0	---
Zirconium	7440-67-7	E475	0.2	mg/kg	<0.20	---
Metals (QCLot: 1272148)						
Silver	7440-22-4	E472.Ag	0.005	mg/kg	<0.0050	---
Metals (QCLot: 1272149)						
Titanium	7440-32-6	E472.Ti	0.5	mg/kg	<0.50	---



Sub-Matrix: **Biota**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Metals (QCLot: 1272150)						
Mercury	7439-97-6	E511	0.005	mg/kg	<0.0050	---
Metals (QCLot: 1272151)						
Mercury	7439-97-6	E511A	0.001	mg/kg wwt	<0.0010	---
Metals (QCLot: 1272152)						
Aluminum	7429-90-5	E472	5	mg/kg	<5.0	---
Antimony	7440-36-0	E472	0.01	mg/kg	<0.010	---
Arsenic	7440-38-2	E472	0.03	mg/kg	<0.030	---
Barium	7440-39-3	E472	0.05	mg/kg	<0.050	---
Beryllium	7440-41-7	E472	0.01	mg/kg	<0.010	---
Bismuth	7440-69-9	E472	0.01	mg/kg	<0.010	---
Boron	7440-42-8	E472	1	mg/kg	<1.0	---
Cadmium	7440-43-9	E472	0.01	mg/kg	<0.010	---
Calcium	7440-70-2	E472	20	mg/kg	<20	---
Cesium	7440-46-2	E472	0.005	mg/kg	<0.0050	---
Chromium	7440-47-3	E472	0.2	mg/kg	<0.20	---
Cobalt	7440-48-4	E472	0.02	mg/kg	<0.020	---
Copper	7440-50-8	E472	0.2	mg/kg	<0.20	---
Iron	7439-89-6	E472	5	mg/kg	<5.0	---
Lead	7439-92-1	E472	0.05	mg/kg	<0.050	---
Lithium	7439-93-2	E472	0.5	mg/kg	<0.50	---
Magnesium	7439-95-4	E472	2	mg/kg	<2.0	---
Manganese	7439-96-5	E472	0.05	mg/kg	<0.050	---
Molybdenum	7439-98-7	E472	0.04	mg/kg	<0.040	---
Nickel	7440-02-0	E472	0.2	mg/kg	<0.20	---
Phosphorus	7723-14-0	E472	10	mg/kg	<10	---
Potassium	7440-09-7	E472	20	mg/kg	<20	---
Rubidium	7440-17-7	E472	0.05	mg/kg	<0.050	---
Selenium	7782-49-2	E472	0.1	mg/kg	<0.10	---
Sodium	7440-23-5	E472	20	mg/kg	<20	---
Strontium	7440-24-6	E472	0.1	mg/kg	<0.10	---
Tellurium	13494-80-9	E472	0.02	mg/kg	<0.020	---
Thallium	7440-28-0	E472	0.002	mg/kg	<0.0020	---
Tin	7440-31-5	E472	0.1	mg/kg	<0.10	---
Uranium	7440-61-1	E472	0.002	mg/kg	<0.0020	---
Vanadium	7440-62-2	E472	0.1	mg/kg	<0.10	---



Sub-Matrix: **Biota**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Metals (QCLot: 1272152) - continued						
Zinc	7440-66-6	E472	1	mg/kg	<1.0	---
Zirconium	7440-67-7	E472	0.2	mg/kg	<0.20	---

Qualifiers

Qualifier	Description
B	Method Blank exceeds ALS DQO. Associated sample results which are < Limit of Reporting or > 5 times blank level are considered reliable.
RRQC	Refer to report comments for information regarding this QC result.



Laboratory Control Sample (LCS) Report

A Laboratory Control Sample (LCS) is an analyte-free matrix that has been fortified (spiked) with test analytes at known concentration and processed in an identical manner to test samples. LCS results are expressed as percent recovery, and are used to monitor and control test method accuracy and precision, independent of test sample matrix.

Sub-Matrix: Biota					Laboratory Control Sample (LCS) Report				
					Spike Concentration	Recovery (%) LCS	Recovery Limits (%)		Qualifier
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
Physical Tests (QCLot: 1261532)									
Moisture	---	E144	0.5	%	50 %	99.9	90.0	110	---
Physical Tests (QCLot: 1261533)									
Moisture	---	E144	0.5	%	50 %	100	90.0	110	---
Physical Tests (QCLot: 1261534)									
Moisture	---	E144	0.5	%	50 %	99.9	90.0	110	---
Physical Tests (QCLot: 1261535)									
Moisture	---	E144	0.5	%	50 %	100	90.0	110	---
Physical Tests (QCLot: 1272042)									
Moisture	---	E144-H	2	%	100 %	100	90.0	110	---
Physical Tests (QCLot: 1272119)									
Moisture	---	E144A	2	%	100 %	100	90.0	110	---
Physical Tests (QCLot: 1272121)									
Moisture	---	E144-H	2	%	100 %	100	90.0	110	---
Physical Tests (QCLot: 1272147)									
Moisture	---	E144-H	2	%	100 %	100	90.0	110	---
Metals (QCLot: 1264848)									
Aluminum	7429-90-5	E440	2	mg/kg	20 mg/kg	101	80.0	120	---
Antimony	7440-36-0	E440	0.01	mg/kg	10 mg/kg	109	80.0	120	---
Arsenic	7440-38-2	E440	0.02	mg/kg	10 mg/kg	106	80.0	120	---
Barium	7440-39-3	E440	0.05	mg/kg	2.5 mg/kg	104	80.0	120	---
Beryllium	7440-41-7	E440	0.01	mg/kg	1 mg/kg	100	80.0	120	---
Bismuth	7440-69-9	E440	0.01	mg/kg	10 mg/kg	102	80.0	120	---
Boron	7440-42-8	E440	1	mg/kg	10 mg/kg	99.1	80.0	120	---
Cadmium	7440-43-9	E440	0.005	mg/kg	1 mg/kg	106	80.0	120	---
Calcium	7440-70-2	E440	20	mg/kg	500 mg/kg	103	80.0	120	---
Cesium	7440-46-2	E440	0.005	mg/kg	0.5 mg/kg	107	80.0	120	---
Chromium	7440-47-3	E440	0.05	mg/kg	2.5 mg/kg	102	80.0	120	---
Cobalt	7440-48-4	E440	0.02	mg/kg	2.5 mg/kg	100	80.0	120	---
Copper	7440-50-8	E440	0.1	mg/kg	2.5 mg/kg	99.6	80.0	120	---
Iron	7439-89-6	E440	3	mg/kg	10 mg/kg	101	80.0	120	---
Lead	7439-92-1	E440	0.02	mg/kg	5 mg/kg	102	80.0	120	---



Sub-Matrix: Biota

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
Metals (QCLot: 1264848) - continued									
Lithium	7439-93-2	E440	0.5	mg/kg	2.5 mg/kg	109	80.0	120	---
Magnesium	7439-95-4	E440	2	mg/kg	500 mg/kg	101	80.0	120	---
Manganese	7439-96-5	E440	0.05	mg/kg	2.5 mg/kg	100	80.0	120	---
Molybdenum	7439-98-7	E440	0.02	mg/kg	2.5 mg/kg	106	80.0	120	---
Nickel	7440-02-0	E440	0.2	mg/kg	5 mg/kg	101	80.0	120	---
Phosphorus	7723-14-0	E440	10	mg/kg	100 mg/kg	109	80.0	120	---
Potassium	7440-09-7	E440	20	mg/kg	500 mg/kg	101	80.0	120	---
Rubidium	7440-17-7	E440	0.05	mg/kg	1 mg/kg	104	80.0	120	---
Selenium	7782-49-2	E440	0.05	mg/kg	10 mg/kg	104	80.0	120	---
Sodium	7440-23-5	E440	20	mg/kg	500 mg/kg	100	80.0	120	---
Strontium	7440-24-6	E440	0.05	mg/kg	2.5 mg/kg	110	80.0	120	---
Tellurium	13494-80-9	E440	0.02	mg/kg	1 mg/kg	107	80.0	120	---
Thallium	7440-28-0	E440	0.002	mg/kg	10 mg/kg	102	80.0	120	---
Tin	7440-31-5	E440	0.1	mg/kg	5 mg/kg	106	80.0	120	---
Uranium	7440-61-1	E440	0.002	mg/kg	0.05 mg/kg	101	80.0	120	---
Vanadium	7440-62-2	E440	0.1	mg/kg	5 mg/kg	102	80.0	120	---
Zinc	7440-66-6	E440	0.5	mg/kg	5 mg/kg	99.1	80.0	120	---
Zirconium	7440-67-7	E440	0.2	mg/kg	1 mg/kg	106	80.0	120	---
Metals (QCLot: 1264849)									
Mercury	7439-97-6	E510A	0.001	mg/kg wwt	0.02 mg/kg wwt	98.2	80.0	120	---
Metals (QCLot: 1264850)									
Silver	7440-22-4	E440.Ag	0.005	mg/kg	1 mg/kg	96.7	80.0	120	---
Metals (QCLot: 1264851)									
Mercury	7439-97-6	E510	0.005	mg/kg	0.02 mg/kg	98.2	80.0	120	---
Metals (QCLot: 1264852)									
Titanium	7440-32-6	E440.Ti	0.25	mg/kg	2.5 mg/kg	100	80.0	120	---
Metals (QCLot: 1264862)									
Aluminum	7429-90-5	E440	2	mg/kg	20 mg/kg	108	80.0	120	---
Antimony	7440-36-0	E440	0.01	mg/kg	10 mg/kg	90.9	80.0	120	---
Arsenic	7440-38-2	E440	0.02	mg/kg	10 mg/kg	109	80.0	120	---
Barium	7440-39-3	E440	0.05	mg/kg	2.5 mg/kg	108	80.0	120	---
Beryllium	7440-41-7	E440	0.01	mg/kg	1 mg/kg	84.5	80.0	120	---
Bismuth	7440-69-9	E440	0.01	mg/kg	10 mg/kg	90.5	80.0	120	---
Boron	7440-42-8	E440	1	mg/kg	10 mg/kg	84.3	80.0	120	---
Cadmium	7440-43-9	E440	0.005	mg/kg	1 mg/kg	106	80.0	120	---
Calcium	7440-70-2	E440	20	mg/kg	500 mg/kg	88.2	80.0	120	---



Sub-Matrix: Biota

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
Metals (QCLot: 1264862) - continued									
Cesium	7440-46-2	E440	0.005	mg/kg	0.5 mg/kg	91.0	80.0	120	----
Chromium	7440-47-3	E440	0.05	mg/kg	2.5 mg/kg	109	80.0	120	----
Cobalt	7440-48-4	E440	0.02	mg/kg	2.5 mg/kg	107	80.0	120	----
Copper	7440-50-8	E440	0.1	mg/kg	2.5 mg/kg	106	80.0	120	----
Iron	7439-89-6	E440	3	mg/kg	10 mg/kg	108	80.0	120	----
Lead	7439-92-1	E440	0.02	mg/kg	5 mg/kg	90.3	80.0	120	----
Lithium	7439-93-2	E440	0.5	mg/kg	2.5 mg/kg	90.1	80.0	120	----
Magnesium	7439-95-4	E440	2	mg/kg	500 mg/kg	106	80.0	120	----
Manganese	7439-96-5	E440	0.05	mg/kg	2.5 mg/kg	108	80.0	120	----
Molybdenum	7439-98-7	E440	0.02	mg/kg	2.5 mg/kg	89.0	80.0	120	----
Nickel	7440-02-0	E440	0.2	mg/kg	5 mg/kg	107	80.0	120	----
Phosphorus	7723-14-0	E440	10	mg/kg	100 mg/kg	114	80.0	120	----
Potassium	7440-09-7	E440	20	mg/kg	500 mg/kg	109	80.0	120	----
Rubidium	7440-17-7	E440	0.05	mg/kg	1 mg/kg	112	80.0	120	----
Selenium	7782-49-2	E440	0.05	mg/kg	10 mg/kg	102	80.0	120	----
Sodium	7440-23-5	E440	20	mg/kg	500 mg/kg	108	80.0	120	----
Strontium	7440-24-6	E440	0.05	mg/kg	2.5 mg/kg	93.3	80.0	120	----
Tellurium	13494-80-9	E440	0.02	mg/kg	1 mg/kg	91.2	80.0	120	----
Thallium	7440-28-0	E440	0.002	mg/kg	10 mg/kg	88.6	80.0	120	----
Tin	7440-31-5	E440	0.1	mg/kg	5 mg/kg	89.7	80.0	120	----
Uranium	7440-61-1	E440	0.002	mg/kg	0.05 mg/kg	92.4	80.0	120	----
Vanadium	7440-62-2	E440	0.1	mg/kg	5 mg/kg	110	80.0	120	----
Zinc	7440-66-6	E440	0.5	mg/kg	5 mg/kg	101	80.0	120	----
Zirconium	7440-67-7	E440	0.2	mg/kg	1 mg/kg	88.9	80.0	120	----
Metals (QCLot: 1264863)									
Silver	7440-22-4	E440.Ag	0.005	mg/kg	1 mg/kg	82.0	80.0	120	----
Metals (QCLot: 1264864)									
Mercury	7439-97-6	E510A	0.001	mg/kg wwt	0.02 mg/kg wwt	97.0	80.0	120	----
Metals (QCLot: 1264865)									
Mercury	7439-97-6	E510	0.005	mg/kg	0.02 mg/kg	97.0	80.0	120	----
Metals (QCLot: 1264866)									
Titanium	7440-32-6	E440.Ti	0.25	mg/kg	2.5 mg/kg	106	80.0	120	----
Metals (QCLot: 1264868)									
Aluminum	7429-90-5	E440	2	mg/kg	20 mg/kg	102	80.0	120	----
Antimony	7440-36-0	E440	0.01	mg/kg	10 mg/kg	96.2	80.0	120	----
Arsenic	7440-38-2	E440	0.02	mg/kg	10 mg/kg	108	80.0	120	----



Sub-Matrix: Biota

Laboratory Control Sample (LCS) Report

Analyte	CAS Number	Method	LOR	Unit	Spike	Recovery (%)	Recovery Limits (%)		Qualifier
					Concentration	LCS	Low	High	
Metals (QCLot: 1264868) - continued									
Barium	7440-39-3	E440	0.05	mg/kg	2.5 mg/kg	103	80.0	120	----
Beryllium	7440-41-7	E440	0.01	mg/kg	1 mg/kg	90.8	80.0	120	----
Bismuth	7440-69-9	E440	0.01	mg/kg	10 mg/kg	91.3	80.0	120	----
Boron	7440-42-8	E440	1	mg/kg	10 mg/kg	86.4	80.0	120	----
Cadmium	7440-43-9	E440	0.005	mg/kg	1 mg/kg	107	80.0	120	----
Calcium	7440-70-2	E440	20	mg/kg	500 mg/kg	91.0	80.0	120	----
Cesium	7440-46-2	E440	0.005	mg/kg	0.5 mg/kg	91.0	80.0	120	----
Chromium	7440-47-3	E440	0.05	mg/kg	2.5 mg/kg	105	80.0	120	----
Cobalt	7440-48-4	E440	0.02	mg/kg	2.5 mg/kg	103	80.0	120	----
Copper	7440-50-8	E440	0.1	mg/kg	2.5 mg/kg	102	80.0	120	----
Iron	7439-89-6	E440	3	mg/kg	10 mg/kg	102	80.0	120	----
Lead	7439-92-1	E440	0.02	mg/kg	5 mg/kg	91.8	80.0	120	----
Lithium	7439-93-2	E440	0.5	mg/kg	2.5 mg/kg	95.8	80.0	120	----
Magnesium	7439-95-4	E440	2	mg/kg	500 mg/kg	102	80.0	120	----
Manganese	7439-96-5	E440	0.05	mg/kg	2.5 mg/kg	102	80.0	120	----
Molybdenum	7439-98-7	E440	0.02	mg/kg	2.5 mg/kg	91.0	80.0	120	----
Nickel	7440-02-0	E440	0.2	mg/kg	5 mg/kg	103	80.0	120	----
Phosphorus	7723-14-0	E440	10	mg/kg	100 mg/kg	108	80.0	120	----
Potassium	7440-09-7	E440	20	mg/kg	500 mg/kg	103	80.0	120	----
Rubidium	7440-17-7	E440	0.05	mg/kg	1 mg/kg	105	80.0	120	----
Selenium	7782-49-2	E440	0.05	mg/kg	10 mg/kg	102	80.0	120	----
Sodium	7440-23-5	E440	20	mg/kg	500 mg/kg	103	80.0	120	----
Strontium	7440-24-6	E440	0.05	mg/kg	2.5 mg/kg	94.6	80.0	120	----
Tellurium	13494-80-9	E440	0.02	mg/kg	1 mg/kg	95.1	80.0	120	----
Thallium	7440-28-0	E440	0.002	mg/kg	10 mg/kg	91.2	80.0	120	----
Tin	7440-31-5	E440	0.1	mg/kg	5 mg/kg	95.0	80.0	120	----
Uranium	7440-61-1	E440	0.002	mg/kg	0.05 mg/kg	91.2	80.0	120	----
Vanadium	7440-62-2	E440	0.1	mg/kg	5 mg/kg	104	80.0	120	----
Zinc	7440-66-6	E440	0.5	mg/kg	5 mg/kg	103	80.0	120	----
Zirconium	7440-67-7	E440	0.2	mg/kg	1 mg/kg	90.7	80.0	120	----
Metals (QCLot: 1264869)									
Silver	7440-22-4	E440.Ag	0.005	mg/kg	1 mg/kg	84.7	80.0	120	----
Metals (QCLot: 1264870)									
Mercury	7439-97-6	E510A	0.001	mg/kg wwt	0.02 mg/kg wwt	98.0	80.0	120	----
Metals (QCLot: 1264871)									
Mercury	7439-97-6	E510	0.005	mg/kg	0.02 mg/kg	98.0	80.0	120	----



Sub-Matrix: Biota

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
Metals (QCLot: 1264872)									
Titanium	7440-32-6	E440.Ti	0.25	mg/kg	2.5 mg/kg	101	80.0	120	---
Metals (QCLot: 1264879)									
Aluminum	7429-90-5	E440	2	mg/kg	20 mg/kg	115	80.0	120	---
Antimony	7440-36-0	E440	0.01	mg/kg	10 mg/kg	# 122	80.0	120	MES
Arsenic	7440-38-2	E440	0.02	mg/kg	10 mg/kg	# 122	80.0	120	MES
Barium	7440-39-3	E440	0.05	mg/kg	2.5 mg/kg	117	80.0	120	---
Beryllium	7440-41-7	E440	0.01	mg/kg	1 mg/kg	111	80.0	120	---
Bismuth	7440-69-9	E440	0.01	mg/kg	10 mg/kg	115	80.0	120	---
Boron	7440-42-8	E440	1	mg/kg	10 mg/kg	114	80.0	120	---
Cadmium	7440-43-9	E440	0.005	mg/kg	1 mg/kg	117	80.0	120	---
Calcium	7440-70-2	E440	20	mg/kg	500 mg/kg	114	80.0	120	---
Cesium	7440-46-2	E440	0.005	mg/kg	0.5 mg/kg	117	80.0	120	---
Chromium	7440-47-3	E440	0.05	mg/kg	2.5 mg/kg	117	80.0	120	---
Cobalt	7440-48-4	E440	0.02	mg/kg	2.5 mg/kg	116	80.0	120	---
Copper	7440-50-8	E440	0.1	mg/kg	2.5 mg/kg	114	80.0	120	---
Iron	7439-89-6	E440	3	mg/kg	10 mg/kg	116	80.0	120	---
Lead	7439-92-1	E440	0.02	mg/kg	5 mg/kg	114	80.0	120	---
Lithium	7439-93-2	E440	0.5	mg/kg	2.5 mg/kg	116	80.0	120	---
Magnesium	7439-95-4	E440	2	mg/kg	500 mg/kg	115	80.0	120	---
Manganese	7439-96-5	E440	0.05	mg/kg	2.5 mg/kg	118	80.0	120	---
Molybdenum	7439-98-7	E440	0.02	mg/kg	2.5 mg/kg	119	80.0	120	---
Nickel	7440-02-0	E440	0.2	mg/kg	5 mg/kg	117	80.0	120	---
Phosphorus	7723-14-0	E440	10	mg/kg	100 mg/kg	120	80.0	120	---
Potassium	7440-09-7	E440	20	mg/kg	500 mg/kg	119	80.0	120	---
Rubidium	7440-17-7	E440	0.05	mg/kg	1 mg/kg	# 121	80.0	120	MES
Selenium	7782-49-2	E440	0.05	mg/kg	10 mg/kg	116	80.0	120	---
Sodium	7440-23-5	E440	20	mg/kg	500 mg/kg	118	80.0	120	---
Strontium	7440-24-6	E440	0.05	mg/kg	2.5 mg/kg	120	80.0	120	---
Tellurium	13494-80-9	E440	0.02	mg/kg	1 mg/kg	116	80.0	120	---
Thallium	7440-28-0	E440	0.002	mg/kg	10 mg/kg	112	80.0	120	---
Tin	7440-31-5	E440	0.1	mg/kg	5 mg/kg	120	80.0	120	---
Uranium	7440-61-1	E440	0.002	mg/kg	0.05 mg/kg	112	80.0	120	---
Vanadium	7440-62-2	E440	0.1	mg/kg	5 mg/kg	119	80.0	120	---
Zinc	7440-66-6	E440	0.5	mg/kg	5 mg/kg	111	80.0	120	---
Zirconium	7440-67-7	E440	0.2	mg/kg	1 mg/kg	119	80.0	120	---
Metals (QCLot: 1264880)									



Sub-Matrix: Biota

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
Metals (QCLot: 1264880) - continued									
Silver	7440-22-4	E440.Ag	0.005	mg/kg	1 mg/kg	108	80.0	120	---
Metals (QCLot: 1264881)									
Mercury	7439-97-6	E510A	0.001	mg/kg wwt	0.02 mg/kg wwt	99.3	80.0	120	---
Metals (QCLot: 1264882)									
Mercury	7439-97-6	E510	0.005	mg/kg	0.02 mg/kg	99.3	80.0	120	---
Metals (QCLot: 1264883)									
Titanium	7440-32-6	E440.Ti	0.25	mg/kg	2.5 mg/kg	118	80.0	120	---
Metals (QCLot: 1272036)									
Silver	7440-22-4	E472.Ag	0.005	mg/kg	1 mg/kg	84.6	80.0	120	---
Metals (QCLot: 1272037)									
Titanium	7440-32-6	E472.Ti	0.5	mg/kg	2.5 mg/kg	98.7	80.0	120	---
Metals (QCLot: 1272038)									
Mercury	7439-97-6	E511	0.005	mg/kg	0.02 mg/kg	90.0	80.0	120	---
Metals (QCLot: 1272039)									
Mercury	7439-97-6	E511A	0.001	mg/kg wwt	0.02 mg/kg wwt	90.0	80.0	120	---
Metals (QCLot: 1272040)									
Aluminum	7429-90-5	E472	5	mg/kg	20 mg/kg	95.2	80.0	120	---
Antimony	7440-36-0	E472	0.01	mg/kg	10 mg/kg	103	80.0	120	---
Arsenic	7440-38-2	E472	0.03	mg/kg	10 mg/kg	105	80.0	120	---
Barium	7440-39-3	E472	0.05	mg/kg	2.5 mg/kg	91.2	80.0	120	---
Beryllium	7440-41-7	E472	0.01	mg/kg	1 mg/kg	94.5	80.0	120	---
Bismuth	7440-69-9	E472	0.01	mg/kg	10 mg/kg	94.6	80.0	120	---
Boron	7440-42-8	E472	1	mg/kg	10 mg/kg	98.8	80.0	120	---
Cadmium	7440-43-9	E472	0.01	mg/kg	1 mg/kg	89.7	80.0	120	---
Calcium	7440-70-2	E472	20	mg/kg	500 mg/kg	87.9	80.0	120	---
Cesium	7440-46-2	E472	0.005	mg/kg	0.5 mg/kg	96.9	80.0	120	---
Chromium	7440-47-3	E472	0.2	mg/kg	2.5 mg/kg	93.6	80.0	120	---
Cobalt	7440-48-4	E472	0.02	mg/kg	2.5 mg/kg	92.0	80.0	120	---
Copper	7440-50-8	E472	0.2	mg/kg	2.5 mg/kg	88.8	80.0	120	---
Iron	7439-89-6	E472	5	mg/kg	10 mg/kg	88.0	80.0	120	---
Lead	7439-92-1	E472	0.05	mg/kg	5 mg/kg	96.6	80.0	120	---
Lithium	7439-93-2	E472	0.5	mg/kg	2.5 mg/kg	93.5	80.0	120	---
Magnesium	7439-95-4	E472	2	mg/kg	500 mg/kg	90.0	80.0	120	---
Manganese	7439-96-5	E472	0.05	mg/kg	2.5 mg/kg	93.5	80.0	120	---
Molybdenum	7439-98-7	E472	0.04	mg/kg	2.5 mg/kg	101	80.0	120	---
Nickel	7440-02-0	E472	0.2	mg/kg	5 mg/kg	91.1	80.0	120	---



Sub-Matrix: Biota

Laboratory Control Sample (LCS) Report

Analyte	CAS Number	Method	LOR	Unit	Spike	Recovery (%)	Recovery Limits (%)		Qualifier
					Concentration	LCS	Low	High	
Metals (QCLot: 1272040) - continued									
Phosphorus	7723-14-0	E472	10	mg/kg	100 mg/kg	105	80.0	120	---
Potassium	7440-09-7	E472	20	mg/kg	500 mg/kg	87.7	80.0	120	---
Rubidium	7440-17-7	E472	0.05	mg/kg	1 mg/kg	94.0	80.0	120	---
Selenium	7782-49-2	E472	0.1	mg/kg	10 mg/kg	92.3	80.0	120	---
Sodium	7440-23-5	E472	20	mg/kg	500 mg/kg	85.4	80.0	120	---
Strontium	7440-24-6	E472	0.1	mg/kg	2.5 mg/kg	92.8	80.0	120	---
Tellurium	13494-80-9	E472	0.02	mg/kg	1 mg/kg	99.5	80.0	120	---
Thallium	7440-28-0	E472	0.002	mg/kg	10 mg/kg	95.0	80.0	120	---
Tin	7440-31-5	E472	0.1	mg/kg	5 mg/kg	98.7	80.0	120	---
Uranium	7440-61-1	E472	0.002	mg/kg	0.05 mg/kg	98.6	80.0	120	---
Vanadium	7440-62-2	E472	0.1	mg/kg	5 mg/kg	93.7	80.0	120	---
Zinc	7440-66-6	E472	1	mg/kg	5 mg/kg	89.8	80.0	120	---
Zirconium	7440-67-7	E472	0.2	mg/kg	1 mg/kg	103	80.0	120	---
Metals (QCLot: 1272126)									
Silver	7440-22-4	E472.Ag	0.005	mg/kg	1 mg/kg	92.2	80.0	120	---
Metals (QCLot: 1272127)									
Titanium	7440-32-6	E472.Ti	0.5	mg/kg	2.5 mg/kg	110	80.0	120	---
Metals (QCLot: 1272128)									
Mercury	7439-97-6	E511	0.005	mg/kg	0.02 mg/kg	105	80.0	120	---
Metals (QCLot: 1272129)									
Mercury	7439-97-6	E511A	0.001	mg/kg wwt	0.02 mg/kg wwt	105	80.0	120	---
Metals (QCLot: 1272130)									
Aluminum	7429-90-5	E472	5	mg/kg	20 mg/kg	117	80.0	120	---
Antimony	7440-36-0	E472	0.01	mg/kg	10 mg/kg	105	80.0	120	---
Arsenic	7440-38-2	E472	0.03	mg/kg	10 mg/kg	116	80.0	120	---
Barium	7440-39-3	E472	0.05	mg/kg	2.5 mg/kg	114	80.0	120	---
Beryllium	7440-41-7	E472	0.01	mg/kg	1 mg/kg	109	80.0	120	---
Bismuth	7440-69-9	E472	0.01	mg/kg	10 mg/kg	104	80.0	120	---
Boron	7440-42-8	E472	1	mg/kg	10 mg/kg	108	80.0	120	---
Cadmium	7440-43-9	E472	0.01	mg/kg	1 mg/kg	102	80.0	120	---
Calcium	7440-70-2	E472	20	mg/kg	500 mg/kg	102	80.0	120	---
Cesium	7440-46-2	E472	0.005	mg/kg	0.5 mg/kg	102	80.0	120	---
Chromium	7440-47-3	E472	0.2	mg/kg	2.5 mg/kg	112	80.0	120	---
Cobalt	7440-48-4	E472	0.02	mg/kg	2.5 mg/kg	105	80.0	120	---
Copper	7440-50-8	E472	0.2	mg/kg	2.5 mg/kg	105	80.0	120	---
Iron	7439-89-6	E472	5	mg/kg	10 mg/kg	104	80.0	120	---



Sub-Matrix: Biota

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
Metals (QCLot: 1272130) - continued									
Lead	7439-92-1	E472	0.05	mg/kg	5 mg/kg	108	80.0	120	----
Lithium	7439-93-2	E472	0.5	mg/kg	2.5 mg/kg	109	80.0	120	----
Magnesium	7439-95-4	E472	2	mg/kg	500 mg/kg	109	80.0	120	----
Manganese	7439-96-5	E472	0.05	mg/kg	2.5 mg/kg	112	80.0	120	----
Molybdenum	7439-98-7	E472	0.04	mg/kg	2.5 mg/kg	108	80.0	120	----
Nickel	7440-02-0	E472	0.2	mg/kg	5 mg/kg	108	80.0	120	----
Phosphorus	7723-14-0	E472	10	mg/kg	100 mg/kg	119	80.0	120	----
Potassium	7440-09-7	E472	20	mg/kg	500 mg/kg	108	80.0	120	----
Rubidium	7440-17-7	E472	0.05	mg/kg	1 mg/kg	111	80.0	120	----
Selenium	7782-49-2	E472	0.1	mg/kg	10 mg/kg	100	80.0	120	----
Sodium	7440-23-5	E472	20	mg/kg	500 mg/kg	109	80.0	120	----
Strontium	7440-24-6	E472	0.1	mg/kg	2.5 mg/kg	105	80.0	120	----
Tellurium	13494-80-9	E472	0.02	mg/kg	1 mg/kg	102	80.0	120	----
Thallium	7440-28-0	E472	0.002	mg/kg	10 mg/kg	106	80.0	120	----
Tin	7440-31-5	E472	0.1	mg/kg	5 mg/kg	103	80.0	120	----
Uranium	7440-61-1	E472	0.002	mg/kg	0.05 mg/kg	109	80.0	120	----
Vanadium	7440-62-2	E472	0.1	mg/kg	5 mg/kg	114	80.0	120	----
Zinc	7440-66-6	E472	1	mg/kg	5 mg/kg	106	80.0	120	----
Zirconium	7440-67-7	E472	0.2	mg/kg	1 mg/kg	107	80.0	120	----
Metals (QCLot: 1272137)									
Silver	7440-22-4	E475.Ag	0.005	mg/kg	2.5 mg/kg	90.7	80.0	120	----
Metals (QCLot: 1272138)									
Titanium	7440-32-6	E475.Ti	0.5	mg/kg	6.25 mg/kg	103	80.0	120	----
Metals (QCLot: 1272139)									
Mercury	7439-97-6	E512	0.01	mg/kg	0.05 mg/kg	98.8	80.0	120	----
Metals (QCLot: 1272140)									
Mercury	7439-97-6	E512A	0.002	mg/kg wwt	0.05 mg/kg wwt	98.8	80.0	120	----
Metals (QCLot: 1272141)									
Aluminum	7429-90-5	E475	5	mg/kg	50 mg/kg	107	80.0	120	----
Antimony	7440-36-0	E475	0.02	mg/kg	25 mg/kg	107	80.0	120	----
Arsenic	7440-38-2	E475	0.05	mg/kg	25 mg/kg	110	80.0	120	----
Barium	7440-39-3	E475	0.05	mg/kg	6.25 mg/kg	106	80.0	120	----
Beryllium	7440-41-7	E475	0.01	mg/kg	2.5 mg/kg	105	80.0	120	----
Bismuth	7440-69-9	E475	0.01	mg/kg	25 mg/kg	100	80.0	120	----
Boron	7440-42-8	E475	1	mg/kg	25 mg/kg	107	80.0	120	----
Cadmium	7440-43-9	E475	0.01	mg/kg	2.5 mg/kg	96.5	80.0	120	----



Sub-Matrix: Biota

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
Metals (QCLot: 1272141) - continued									
Calcium	7440-70-2	E475	20	mg/kg	1250 mg/kg	98.5	80.0	120	----
Cesium	7440-46-2	E475	0.005	mg/kg	1.25 mg/kg	105	80.0	120	----
Chromium	7440-47-3	E475	0.2	mg/kg	6.25 mg/kg	105	80.0	120	----
Cobalt	7440-48-4	E475	0.02	mg/kg	6.25 mg/kg	101	80.0	120	----
Copper	7440-50-8	E475	0.2	mg/kg	6.25 mg/kg	98.3	80.0	120	----
Iron	7439-89-6	E475	5	mg/kg	25 mg/kg	97.2	80.0	120	----
Lead	7439-92-1	E475	0.05	mg/kg	12.5 mg/kg	103	80.0	120	----
Lithium	7439-93-2	E475	0.5	mg/kg	6.25 mg/kg	107	80.0	120	----
Magnesium	7439-95-4	E475	2	mg/kg	1250 mg/kg	101	80.0	120	----
Manganese	7439-96-5	E475	0.05	mg/kg	6.25 mg/kg	104	80.0	120	----
Molybdenum	7439-98-7	E475	0.04	mg/kg	6.25 mg/kg	107	80.0	120	----
Nickel	7440-02-0	E475	0.2	mg/kg	12.5 mg/kg	100	80.0	120	----
Phosphorus	7723-14-0	E475	20	mg/kg	250 mg/kg	113	80.0	120	----
Potassium	7440-09-7	E475	20	mg/kg	1250 mg/kg	98.9	80.0	120	----
Rubidium	7440-17-7	E475	0.05	mg/kg	2.5 mg/kg	103	80.0	120	----
Selenium	7782-49-2	E475	0.1	mg/kg	25 mg/kg	95.8	80.0	120	----
Sodium	7440-23-5	E475	20	mg/kg	1250 mg/kg	98.1	80.0	120	----
Strontium	7440-24-6	E475	0.1	mg/kg	6.25 mg/kg	105	80.0	120	----
Tellurium	13494-80-9	E475	0.02	mg/kg	2.5 mg/kg	104	80.0	120	----
Thallium	7440-28-0	E475	0.002	mg/kg	25 mg/kg	101	80.0	120	----
Tin	7440-31-5	E475	0.1	mg/kg	12.5 mg/kg	101	80.0	120	----
Uranium	7440-61-1	E475	0.002	mg/kg	0.125 mg/kg	104	80.0	120	----
Vanadium	7440-62-2	E475	0.1	mg/kg	12.5 mg/kg	105	80.0	120	----
Zinc	7440-66-6	E475	1	mg/kg	12.5 mg/kg	98.8	80.0	120	----
Zirconium	7440-67-7	E475	0.2	mg/kg	2.5 mg/kg	106	80.0	120	----
Metals (QCLot: 1272148)									
Silver	7440-22-4	E472.Ag	0.005	mg/kg	1 mg/kg	97.9	80.0	120	----
Metals (QCLot: 1272149)									
Titanium	7440-32-6	E472.Ti	0.5	mg/kg	2.5 mg/kg	116	80.0	120	----
Metals (QCLot: 1272150)									
Mercury	7439-97-6	E511	0.005	mg/kg	0.02 mg/kg	99.8	80.0	120	----
Metals (QCLot: 1272151)									
Mercury	7439-97-6	E511A	0.001	mg/kg wwt	0.02 mg/kg wwt	99.8	80.0	120	----
Metals (QCLot: 1272152)									
Aluminum	7429-90-5	E472	5	mg/kg	20 mg/kg	# 121	80.0	120	MES
Antimony	7440-36-0	E472	0.01	mg/kg	10 mg/kg	112	80.0	120	----



Sub-Matrix: Biota

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
Metals (QCLot: 1272152) - continued									
Arsenic	7440-38-2	E472	0.03	mg/kg	10 mg/kg	# 122	80.0	120	MES
Barium	7440-39-3	E472	0.05	mg/kg	2.5 mg/kg	120	80.0	120	----
Beryllium	7440-41-7	E472	0.01	mg/kg	1 mg/kg	109	80.0	120	----
Bismuth	7440-69-9	E472	0.01	mg/kg	10 mg/kg	106	80.0	120	----
Boron	7440-42-8	E472	1	mg/kg	10 mg/kg	106	80.0	120	----
Cadmium	7440-43-9	E472	0.01	mg/kg	1 mg/kg	108	80.0	120	----
Calcium	7440-70-2	E472	20	mg/kg	500 mg/kg	104	80.0	120	----
Cesium	7440-46-2	E472	0.005	mg/kg	0.5 mg/kg	114	80.0	120	----
Chromium	7440-47-3	E472	0.2	mg/kg	2.5 mg/kg	117	80.0	120	----
Cobalt	7440-48-4	E472	0.02	mg/kg	2.5 mg/kg	112	80.0	120	----
Copper	7440-50-8	E472	0.2	mg/kg	2.5 mg/kg	110	80.0	120	----
Iron	7439-89-6	E472	5	mg/kg	10 mg/kg	107	80.0	120	----
Lead	7439-92-1	E472	0.05	mg/kg	5 mg/kg	109	80.0	120	----
Lithium	7439-93-2	E472	0.5	mg/kg	2.5 mg/kg	108	80.0	120	----
Magnesium	7439-95-4	E472	2	mg/kg	500 mg/kg	111	80.0	120	----
Manganese	7439-96-5	E472	0.05	mg/kg	2.5 mg/kg	117	80.0	120	----
Molybdenum	7439-98-7	E472	0.04	mg/kg	2.5 mg/kg	111	80.0	120	----
Nickel	7440-02-0	E472	0.2	mg/kg	5 mg/kg	112	80.0	120	----
Phosphorus	7723-14-0	E472	10	mg/kg	100 mg/kg	119	80.0	120	----
Potassium	7440-09-7	E472	20	mg/kg	500 mg/kg	110	80.0	120	----
Rubidium	7440-17-7	E472	0.05	mg/kg	1 mg/kg	116	80.0	120	----
Selenium	7782-49-2	E472	0.1	mg/kg	10 mg/kg	104	80.0	120	----
Sodium	7440-23-5	E472	20	mg/kg	500 mg/kg	110	80.0	120	----
Strontium	7440-24-6	E472	0.1	mg/kg	2.5 mg/kg	111	80.0	120	----
Tellurium	13494-80-9	E472	0.02	mg/kg	1 mg/kg	108	80.0	120	----
Thallium	7440-28-0	E472	0.002	mg/kg	10 mg/kg	107	80.0	120	----
Tin	7440-31-5	E472	0.1	mg/kg	5 mg/kg	108	80.0	120	----
Uranium	7440-61-1	E472	0.002	mg/kg	0.05 mg/kg	109	80.0	120	----
Vanadium	7440-62-2	E472	0.1	mg/kg	5 mg/kg	118	80.0	120	----
Zinc	7440-66-6	E472	1	mg/kg	5 mg/kg	109	80.0	120	----
Zirconium	7440-67-7	E472	0.2	mg/kg	1 mg/kg	113	80.0	120	----



Qualifiers

<i>Qualifier</i>	<i>Description</i>
MES	<i>Data Quality Objective was marginally exceeded (by < 10% absolute) for < 10% of analytes in a Multi-Element Scan / Multi-Parameter Scan (considered acceptable as per OMOE & CCME).</i>



Reference Material (RM) Report

A Reference Material (RM) is a homogenous material with known and well-established analyte concentrations. RMs are processed in an identical manner to test samples, and are used to monitor and control the accuracy and precision of a test method for a typical sample matrix. RM results are expressed as percent recovery of the target analyte concentration. RM targets may be certified target concentrations provided by the RM supplier, or may be ALS long-term mean values (for empirical test methods).

Sub-Matrix:

Laboratory sample ID	Reference Material ID	Analyte	CAS Number	Method	Reference Material (RM) Report				
					RM Target Concentration	Recovery (%) RM	Recovery Limits (%)		Qualifier
							Low	High	
Metals (QCLot: 1264848)									
	RM	Aluminum	7429-90-5	E440	147 mg/kg	95.4	70.0	130	----
	RM	Arsenic	7440-38-2	E440	14.5 mg/kg	96.9	70.0	130	----
	RM	Barium	7440-39-3	E440	0.352 mg/kg	96.9	70.0	130	----
	RM	Boron	7440-42-8	E440	3.47 mg/kg	97.7	70.0	130	----
	RM	Cadmium	7440-43-9	E440	0.153 mg/kg	103	70.0	130	----
	RM	Calcium	7440-70-2	E440	2010 mg/kg	104	70.0	130	----
	RM	Cesium	7440-46-2	E440	0.0889 mg/kg	99.5	70.0	130	----
	RM	Chromium	7440-47-3	E440	0.453 mg/kg	93.2	70.0	130	----
	RM	Cobalt	7440-48-4	E440	0.0567 mg/kg	107	65.0	135	----
	RM	Copper	7440-50-8	E440	3.3 mg/kg	98.4	70.0	130	----
	RM	Iron	7439-89-6	E440	102 mg/kg	97.8	70.0	130	----
	RM	Lead	7439-92-1	E440	0.058 mg/kg	99.0	70.0	130	----
	RM	Magnesium	7439-95-4	E440	899 mg/kg	100	70.0	130	----
	RM	Manganese	7439-96-5	E440	0.948 mg/kg	123	70.0	130	----
	RM	Molybdenum	7439-98-7	E440	0.134 mg/kg	99.4	70.0	130	----
	RM	Nickel	7440-02-0	E440	0.33 mg/kg	98.4	40.0	160	----
	RM	Phosphorus	7723-14-0	E440	6700 mg/kg	99.6	70.0	130	----
	RM	Potassium	7440-09-7	E440	11600 mg/kg	101	70.0	130	----
	RM	Rubidium	7440-17-7	E440	2.53 mg/kg	99.4	70.0	130	----
	RM	Selenium	7782-49-2	E440	2.48 mg/kg	100	70.0	130	----
	RM	Sodium	7440-23-5	E440	9620 mg/kg	103	70.0	130	----
	RM	Strontium	7440-24-6	E440	10.6 mg/kg	102	70.0	130	----
	RM	Vanadium	7440-62-2	E440	0.269 mg/kg	97.7	70.0	130	----
	RM	Zinc	7440-66-6	E440	28.7 mg/kg	98.3	70.0	130	----
Metals (QCLot: 1264849)									
	RM	Mercury	7439-97-6	E510A	0.281 mg/kg wwt	107	70.0	130	----
Metals (QCLot: 1264850)									
	RM	Silver	7440-22-4	E440.Ag	0.139 mg/kg	101	70.0	130	----



Sub-Matrix:

Laboratory sample ID	Reference Material ID	Analyte	CAS Number	Method	Reference Material (RM) Report				
					RM Target Concentration	Recovery (%) RM	Recovery Limits (%)		Qualifier
							Low	High	
Metals (QCLot: 1264851)									
	RM	Mercury	7439-97-6	E510	0.281 mg/kg	107	70.0	130	----
Metals (QCLot: 1264852)									
	RM	Titanium	7440-32-6	E440.Ti	1.15 mg/kg	90.3	70.0	130	----
Metals (QCLot: 1264862)									
	RM	Aluminum	7429-90-5	E440	147 mg/kg	106	70.0	130	----
	RM	Arsenic	7440-38-2	E440	14.5 mg/kg	110	70.0	130	----
	RM	Barium	7440-39-3	E440	0.352 mg/kg	108	70.0	130	----
	RM	Boron	7440-42-8	E440	3.47 mg/kg	107	70.0	130	----
	RM	Cadmium	7440-43-9	E440	0.153 mg/kg	111	70.0	130	----
	RM	Calcium	7440-70-2	E440	2010 mg/kg	107	70.0	130	----
	RM	Cesium	7440-46-2	E440	0.0889 mg/kg	104	70.0	130	----
	RM	Chromium	7440-47-3	E440	0.453 mg/kg	115	70.0	130	----
	RM	Cobalt	7440-48-4	E440	0.0567 mg/kg	122	65.0	135	----
	RM	Copper	7440-50-8	E440	3.3 mg/kg	110	70.0	130	----
	RM	Iron	7439-89-6	E440	102 mg/kg	108	70.0	130	----
	RM	Lead	7439-92-1	E440	0.058 mg/kg	103	70.0	130	----
	RM	Magnesium	7439-95-4	E440	899 mg/kg	110	70.0	130	----
	RM	Manganese	7439-96-5	E440	0.948 mg/kg	120	70.0	130	----
	RM	Molybdenum	7439-98-7	E440	0.134 mg/kg	104	70.0	130	----
	RM	Nickel	7440-02-0	E440	0.33 mg/kg	118	40.0	160	----
	RM	Phosphorus	7723-14-0	E440	6700 mg/kg	112	70.0	130	----
	RM	Potassium	7440-09-7	E440	11600 mg/kg	115	70.0	130	----
	RM	Rubidium	7440-17-7	E440	2.53 mg/kg	116	70.0	130	----
	RM	Selenium	7782-49-2	E440	2.48 mg/kg	108	70.0	130	----
	RM	Sodium	7440-23-5	E440	9620 mg/kg	113	70.0	130	----
	RM	Strontium	7440-24-6	E440	10.6 mg/kg	108	70.0	130	----
	RM	Vanadium	7440-62-2	E440	0.269 mg/kg	106	70.0	130	----
	RM	Zinc	7440-66-6	E440	28.7 mg/kg	108	70.0	130	----
Metals (QCLot: 1264863)									
	RM	Silver	7440-22-4	E440.Ag	0.139 mg/kg	110	70.0	130	----
Metals (QCLot: 1264864)									



Sub-Matrix:

Laboratory sample ID	Reference Material ID	Analyte	CAS Number	Method	Reference Material (RM) Report				
					RM Target Concentration	Recovery (%) RM	Recovery Limits (%)		Qualifier
							Low	High	
Metals (QCLot: 1264864) - continued									
	RM	Mercury	7439-97-6	E510A	0.281 mg/kg wwt	97.9	70.0	130	---
Metals (QCLot: 1264865)									
	RM	Mercury	7439-97-6	E510	0.281 mg/kg	97.9	70.0	130	---
Metals (QCLot: 1264866)									
	RM	Titanium	7440-32-6	E440.Ti	1.15 mg/kg	99.2	70.0	130	---
Metals (QCLot: 1264868)									
	RM	Aluminum	7429-90-5	E440	147 mg/kg	104	70.0	130	---
	RM	Arsenic	7440-38-2	E440	14.5 mg/kg	94.5	70.0	130	---
	RM	Barium	7440-39-3	E440	0.352 mg/kg	97.6	70.0	130	---
	RM	Boron	7440-42-8	E440	3.47 mg/kg	92.4	70.0	130	---
	RM	Cadmium	7440-43-9	E440	0.153 mg/kg	98.3	70.0	130	---
	RM	Calcium	7440-70-2	E440	2010 mg/kg	95.2	70.0	130	---
	RM	Cesium	7440-46-2	E440	0.0889 mg/kg	96.6	70.0	130	---
	RM	Chromium	7440-47-3	E440	0.453 mg/kg	104	70.0	130	---
	RM	Cobalt	7440-48-4	E440	0.0567 mg/kg	92.9	65.0	135	---
	RM	Copper	7440-50-8	E440	3.3 mg/kg	95.0	70.0	130	---
	RM	Iron	7439-89-6	E440	102 mg/kg	93.6	70.0	130	---
	RM	Lead	7439-92-1	E440	0.058 mg/kg	95.0	70.0	130	---
	RM	Magnesium	7439-95-4	E440	899 mg/kg	96.0	70.0	130	---
	RM	Manganese	7439-96-5	E440	0.948 mg/kg	113	70.0	130	---
	RM	Molybdenum	7439-98-7	E440	0.134 mg/kg	96.1	70.0	130	---
	RM	Nickel	7440-02-0	E440	0.33 mg/kg	96.0	40.0	160	---
	RM	Phosphorus	7723-14-0	E440	6700 mg/kg	96.1	70.0	130	---
	RM	Potassium	7440-09-7	E440	11600 mg/kg	96.4	70.0	130	---
	RM	Rubidium	7440-17-7	E440	2.53 mg/kg	98.7	70.0	130	---
	RM	Selenium	7782-49-2	E440	2.48 mg/kg	96.0	70.0	130	---
	RM	Sodium	7440-23-5	E440	9620 mg/kg	96.0	70.0	130	---
	RM	Strontium	7440-24-6	E440	10.6 mg/kg	101	70.0	130	---
	RM	Vanadium	7440-62-2	E440	0.269 mg/kg	98.3	70.0	130	---
	RM	Zinc	7440-66-6	E440	28.7 mg/kg	95.7	70.0	130	---
Metals (QCLot: 1264869)									



Sub-Matrix:

Laboratory sample ID	Reference Material ID	Analyte	CAS Number	Method	Reference Material (RM) Report				
					RM Target Concentration	Recovery (%) RM	Recovery Limits (%)		Qualifier
							Low	High	
Metals (QCLot: 1264869) - continued									
	RM	Silver	7440-22-4	E440.Ag	0.139 mg/kg	99.9	70.0	130	---
Metals (QCLot: 1264870)									
	RM	Mercury	7439-97-6	E510A	0.281 mg/kg wwt	99.4	70.0	130	---
Metals (QCLot: 1264871)									
	RM	Mercury	7439-97-6	E510	0.281 mg/kg	99.4	70.0	130	---
Metals (QCLot: 1264872)									
	RM	Titanium	7440-32-6	E440.Ti	1.15 mg/kg	89.3	70.0	130	---
Metals (QCLot: 1264879)									
	RM	Aluminum	7429-90-5	E440	147 mg/kg	100	70.0	130	---
	RM	Arsenic	7440-38-2	E440	14.5 mg/kg	100	70.0	130	---
	RM	Barium	7440-39-3	E440	0.352 mg/kg	97.7	70.0	130	---
	RM	Boron	7440-42-8	E440	3.47 mg/kg	106	70.0	130	---
	RM	Cadmium	7440-43-9	E440	0.153 mg/kg	101	70.0	130	---
	RM	Calcium	7440-70-2	E440	2010 mg/kg	103	70.0	130	---
	RM	Cesium	7440-46-2	E440	0.0889 mg/kg	98.2	70.0	130	---
	RM	Chromium	7440-47-3	E440	0.453 mg/kg	94.9	70.0	130	---
	RM	Cobalt	7440-48-4	E440	0.0567 mg/kg	103	65.0	135	---
	RM	Copper	7440-50-8	E440	3.3 mg/kg	101	70.0	130	---
	RM	Iron	7439-89-6	E440	102 mg/kg	102	70.0	130	---
	RM	Lead	7439-92-1	E440	0.058 mg/kg	96.8	70.0	130	---
	RM	Magnesium	7439-95-4	E440	899 mg/kg	103	70.0	130	---
	RM	Manganese	7439-96-5	E440	0.948 mg/kg	111	70.0	130	---
	RM	Molybdenum	7439-98-7	E440	0.134 mg/kg	101	70.0	130	---
	RM	Nickel	7440-02-0	E440	0.33 mg/kg	99.5	40.0	160	---
	RM	Phosphorus	7723-14-0	E440	6700 mg/kg	99.2	70.0	130	---
	RM	Potassium	7440-09-7	E440	11600 mg/kg	105	70.0	130	---
	RM	Rubidium	7440-17-7	E440	2.53 mg/kg	104	70.0	130	---
	RM	Selenium	7782-49-2	E440	2.48 mg/kg	103	70.0	130	---
	RM	Sodium	7440-23-5	E440	9620 mg/kg	105	70.0	130	---
	RM	Strontium	7440-24-6	E440	10.6 mg/kg	101	70.0	130	---
	RM	Vanadium	7440-62-2	E440	0.269 mg/kg	104	70.0	130	---



Sub-Matrix:

Laboratory sample ID	Reference Material ID	Analyte	CAS Number	Method	Reference Material (RM) Report				
					RM Target Concentration	Recovery (%) RM	Recovery Limits (%)		Qualifier
							Low	High	
Metals (QCLot: 1264879) - continued									
	RM	Zinc	7440-66-6	E440	28.7 mg/kg	100	70.0	130	----
Metals (QCLot: 1264880)									
	RM	Silver	7440-22-4	E440.Ag	0.139 mg/kg	104	70.0	130	----
Metals (QCLot: 1264881)									
	RM	Mercury	7439-97-6	E510A	0.281 mg/kg wwt	102	70.0	130	----
Metals (QCLot: 1264882)									
	RM	Mercury	7439-97-6	E510	0.281 mg/kg	102	70.0	130	----
Metals (QCLot: 1264883)									
	RM	Titanium	7440-32-6	E440.Ti	1.15 mg/kg	96.6	70.0	130	----
Metals (QCLot: 1272036)									
	RM	Silver	7440-22-4	E472.Ag	0.139 mg/kg	94.9	70.0	130	----
Metals (QCLot: 1272037)									
	RM	Titanium	7440-32-6	E472.Ti	1.15 mg/kg	81.5	70.0	130	----
Metals (QCLot: 1272038)									
	RM	Mercury	7439-97-6	E511	0.281 mg/kg	97.1	70.0	130	----
Metals (QCLot: 1272039)									
	RM	Mercury	7439-97-6	E511A	0.281 mg/kg wwt	97.1	70.0	130	----
Metals (QCLot: 1272040)									
	RM	Aluminum	7429-90-5	E472	147 mg/kg	108	70.0	130	----
	RM	Arsenic	7440-38-2	E472	14.5 mg/kg	97.6	70.0	130	----
	RM	Barium	7440-39-3	E472	0.352 mg/kg	99.8	70.0	130	----
	RM	Boron	7440-42-8	E472	3.47 mg/kg	102	70.0	130	----
	RM	Cadmium	7440-43-9	E472	0.153 mg/kg	88.1	70.0	130	----
	RM	Calcium	7440-70-2	E472	2010 mg/kg	102	70.0	130	----
	RM	Cesium	7440-46-2	E472	0.0889 mg/kg	91.7	70.0	130	----
	RM	Chromium	7440-47-3	E472	0.453 mg/kg	92.9	50.0	150	----
	RM	Cobalt	7440-48-4	E472	0.0567 mg/kg	94.5	65.0	135	----
	RM	Copper	7440-50-8	E472	3.3 mg/kg	93.2	70.0	130	----
	RM	Iron	7439-89-6	E472	102 mg/kg	91.3	70.0	130	----
	RM	Lead	7439-92-1	E472	0.058 mg/kg	96.4	15.0	185	----
	RM	Magnesium	7439-95-4	E472	899 mg/kg	99.4	70.0	130	----
	RM	Manganese	7439-96-5	E472	0.948 mg/kg	98.6	70.0	130	----



Sub-Matrix:

Laboratory sample ID	Reference Material ID	Analyte	CAS Number	Method	Reference Material (RM) Report				
					RM Target Concentration	Recovery (%) RM	Recovery Limits (%)		Qualifier
							Low	High	
Metals (QCLot: 1272040) - continued									
	RM	Molybdenum	7439-98-7	E472	0.134 mg/kg	91.9	70.0	130	----
	RM	Nickel	7440-02-0	E472	0.33 mg/kg	92.0	40.0	160	----
	RM	Phosphorus	7723-14-0	E472	6700 mg/kg	102	70.0	130	----
	RM	Potassium	7440-09-7	E472	11600 mg/kg	97.0	70.0	130	----
	RM	Rubidium	7440-17-7	E472	2.53 mg/kg	99.0	70.0	130	----
	RM	Selenium	7782-49-2	E472	2.48 mg/kg	91.5	70.0	130	----
	RM	Sodium	7440-23-5	E472	9620 mg/kg	92.4	70.0	130	----
	RM	Strontium	7440-24-6	E472	10.6 mg/kg	95.4	70.0	130	----
	RM	Vanadium	7440-62-2	E472	0.269 mg/kg	101	70.0	130	----
	RM	Zinc	7440-66-6	E472	28.7 mg/kg	98.6	70.0	130	----
Metals (QCLot: 1272126)									
	RM	Silver	7440-22-4	E472.Ag	0.139 mg/kg	95.3	70.0	130	----
Metals (QCLot: 1272127)									
	RM	Titanium	7440-32-6	E472.Ti	1.15 mg/kg	80.2	70.0	130	----
Metals (QCLot: 1272128)									
	RM	Mercury	7439-97-6	E511	0.281 mg/kg	107	70.0	130	----
Metals (QCLot: 1272129)									
	RM	Mercury	7439-97-6	E511A	0.281 mg/kg wwt	107	70.0	130	----
Metals (QCLot: 1272130)									
	RM	Aluminum	7429-90-5	E472	147 mg/kg	101	70.0	130	----
	RM	Arsenic	7440-38-2	E472	14.5 mg/kg	102	70.0	130	----
	RM	Barium	7440-39-3	E472	0.352 mg/kg	101	70.0	130	----
	RM	Boron	7440-42-8	E472	3.47 mg/kg	102	70.0	130	----
	RM	Cadmium	7440-43-9	E472	0.153 mg/kg	96.1	70.0	130	----
	RM	Calcium	7440-70-2	E472	2010 mg/kg	99.6	70.0	130	----
	RM	Cesium	7440-46-2	E472	0.0889 mg/kg	93.9	70.0	130	----
	RM	Chromium	7440-47-3	E472	0.453 mg/kg	96.4	50.0	150	----
	RM	Cobalt	7440-48-4	E472	0.0567 mg/kg	101	65.0	135	----
	RM	Copper	7440-50-8	E472	3.3 mg/kg	96.1	70.0	130	----
	RM	Iron	7439-89-6	E472	102 mg/kg	96.3	70.0	130	----
	RM	Lead	7439-92-1	E472	0.058 mg/kg	99.6	15.0	185	----
	RM	Magnesium	7439-95-4	E472	899 mg/kg	101	70.0	130	----



Sub-Matrix:

Laboratory sample ID	Reference Material ID	Analyte	CAS Number	Method	Reference Material (RM) Report				
					RM Target Concentration	Recovery (%) RM	Recovery Limits (%)		Qualifier
							Low	High	
Metals (QCLot: 1272130) - continued									
	RM	Manganese	7439-96-5	E472	0.948 mg/kg	99.7	70.0	130	----
	RM	Molybdenum	7439-98-7	E472	0.134 mg/kg	90.8	70.0	130	----
	RM	Nickel	7440-02-0	E472	0.33 mg/kg	121	40.0	160	----
	RM	Phosphorus	7723-14-0	E472	6700 mg/kg	106	70.0	130	----
	RM	Potassium	7440-09-7	E472	11600 mg/kg	102	70.0	130	----
	RM	Rubidium	7440-17-7	E472	2.53 mg/kg	103	70.0	130	----
	RM	Selenium	7782-49-2	E472	2.48 mg/kg	99.8	70.0	130	----
	RM	Sodium	7440-23-5	E472	9620 mg/kg	97.6	70.0	130	----
	RM	Strontium	7440-24-6	E472	10.6 mg/kg	91.8	70.0	130	----
	RM	Vanadium	7440-62-2	E472	0.269 mg/kg	96.7	70.0	130	----
	RM	Zinc	7440-66-6	E472	28.7 mg/kg	101	70.0	130	----
Metals (QCLot: 1272137)									
	RM	Silver	7440-22-4	E475.Ag	0.139 mg/kg	89.4	70.0	130	----
Metals (QCLot: 1272138)									
	RM	Titanium	7440-32-6	E475.Ti	1.15 mg/kg	77.5	70.0	130	----
Metals (QCLot: 1272139)									
	RM	Mercury	7439-97-6	E512	0.281 mg/kg	92.9	70.0	130	----
Metals (QCLot: 1272140)									
	RM	Mercury	7439-97-6	E512A	0.281 mg/kg wwt	92.9	70.0	130	----
Metals (QCLot: 1272141)									
	RM	Aluminum	7429-90-5	E475	147 mg/kg	92.7	70.0	130	----
	RM	Arsenic	7440-38-2	E475	14.5 mg/kg	94.8	70.0	130	----
	RM	Barium	7440-39-3	E475	0.352 mg/kg	96.4	70.0	130	----
	RM	Boron	7440-42-8	E475	3.47 mg/kg	104	70.0	130	----
	RM	Cadmium	7440-43-9	E475	0.153 mg/kg	87.2	70.0	130	----
	RM	Calcium	7440-70-2	E475	2010 mg/kg	92.7	70.0	130	----
	RM	Cesium	7440-46-2	E475	0.0889 mg/kg	88.8	70.0	130	----
	RM	Chromium	7440-47-3	E475	0.453 mg/kg	87.4	50.0	150	----
	RM	Cobalt	7440-48-4	E475	0.0567 mg/kg	101	65.0	135	----
	RM	Copper	7440-50-8	E475	3.3 mg/kg	91.0	70.0	130	----
	RM	Iron	7439-89-6	E475	102 mg/kg	89.3	70.0	130	----
	RM	Lead	7439-92-1	E475	0.058 mg/kg	91.6	15.0	185	----



Sub-Matrix:

Laboratory sample ID	Reference Material ID	Analyte	CAS Number	Method	Reference Material (RM) Report				
					RM Target Concentration	Recovery (%) RM	Recovery Limits (%)		Qualifier
							Low	High	
Metals (QCLot: 1272141) - continued									
	RM	Magnesium	7439-95-4	E475	899 mg/kg	90.6	70.0	130	----
	RM	Manganese	7439-96-5	E475	0.948 mg/kg	92.6	70.0	130	----
	RM	Molybdenum	7439-98-7	E475	0.134 mg/kg	86.0	70.0	130	----
	RM	Nickel	7440-02-0	E475	0.33 mg/kg	89.2	40.0	160	----
	RM	Phosphorus	7723-14-0	E475	6700 mg/kg	98.4	70.0	130	----
	RM	Potassium	7440-09-7	E475	11600 mg/kg	93.0	70.0	130	----
	RM	Rubidium	7440-17-7	E475	2.53 mg/kg	95.7	70.0	130	----
	RM	Selenium	7782-49-2	E475	2.48 mg/kg	91.3	70.0	130	----
	RM	Sodium	7440-23-5	E475	9620 mg/kg	89.6	70.0	130	----
	RM	Strontium	7440-24-6	E475	10.6 mg/kg	90.4	70.0	130	----
	RM	Vanadium	7440-62-2	E475	0.269 mg/kg	89.0	70.0	130	----
	RM	Zinc	7440-66-6	E475	28.7 mg/kg	95.0	70.0	130	----
Metals (QCLot: 1272148)									
	RM	Silver	7440-22-4	E472.Ag	0.139 mg/kg	103	70.0	130	----
Metals (QCLot: 1272149)									
	RM	Titanium	7440-32-6	E472.Ti	1.15 mg/kg	100	70.0	130	----
Metals (QCLot: 1272150)									
	RM	Mercury	7439-97-6	E511	0.281 mg/kg	109	70.0	130	----
Metals (QCLot: 1272151)									
	RM	Mercury	7439-97-6	E511A	0.281 mg/kg wwt	109	70.0	130	----
Metals (QCLot: 1272152)									
	RM	Aluminum	7429-90-5	E472	147 mg/kg	111	70.0	130	----
	RM	Arsenic	7440-38-2	E472	14.5 mg/kg	114	70.0	130	----
	RM	Barium	7440-39-3	E472	0.352 mg/kg	105	70.0	130	----
	RM	Boron	7440-42-8	E472	3.47 mg/kg	112	70.0	130	----
	RM	Cadmium	7440-43-9	E472	0.153 mg/kg	104	70.0	130	----
	RM	Calcium	7440-70-2	E472	2010 mg/kg	101	70.0	130	----
	RM	Cesium	7440-46-2	E472	0.0889 mg/kg	101	70.0	130	----
	RM	Chromium	7440-47-3	E472	0.453 mg/kg	121	50.0	150	----
	RM	Cobalt	7440-48-4	E472	0.0567 mg/kg	108	65.0	135	----
	RM	Copper	7440-50-8	E472	3.3 mg/kg	105	70.0	130	----
	RM	Iron	7439-89-6	E472	102 mg/kg	98.7	70.0	130	----



Sub-Matrix:

Laboratory sample ID	Reference Material ID	Analyte	CAS Number	Method	Reference Material (RM) Report				
					RM Target Concentration	Recovery (%) RM	Recovery Limits (%)		Qualifier
							Low	High	
Metals (QCLot: 1272152) - continued									
RM		Lead	7439-92-1	E472	0.058 mg/kg	106	15.0	185	----
RM		Magnesium	7439-95-4	E472	899 mg/kg	108	70.0	130	----
RM		Manganese	7439-96-5	E472	0.948 mg/kg	114	70.0	130	----
RM		Molybdenum	7439-98-7	E472	0.134 mg/kg	101	70.0	130	----
RM		Nickel	7440-02-0	E472	0.33 mg/kg	109	40.0	160	----
RM		Phosphorus	7723-14-0	E472	6700 mg/kg	117	70.0	130	----
RM		Potassium	7440-09-7	E472	11600 mg/kg	112	70.0	130	----
RM		Rubidium	7440-17-7	E472	2.53 mg/kg	115	70.0	130	----
RM		Selenium	7782-49-2	E472	2.48 mg/kg	106	70.0	130	----
RM		Sodium	7440-23-5	E472	9620 mg/kg	106	70.0	130	----
RM		Strontium	7440-24-6	E472	10.6 mg/kg	104	70.0	130	----
RM		Vanadium	7440-62-2	E472	0.269 mg/kg	107	70.0	130	----
RM		Zinc	7440-66-6	E472	28.7 mg/kg	112	70.0	130	----



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Canada Toll Free: 1 800 668 9878

Affix ALS barcode label here (lab use only)

COC Number 15 -

Page 1 of 10

Select Service Level Below - Please confirm all CAP TATS with your AM - surcharges will apply

Regular [X]	Standard []	Emergency []
4 day [P4]	3 day [P3]	2 day [P2]
1 Business day [E1]	Same Day, Weekend or Statutory h/w []	

Date and Time Required for all E&P TATS:

Environmental Division
Vancouver

Work Order Reference
VA23C4190



Telephone: +1 604 253 4198

Report To: Contact and company name below will appear on the final report

Company: Habitat-Peak-Holding-Corporation
 Contact: Gabriel Holmes
 Phone: 256-317-4939
 Street: PO Box 172
 City/Province: Likely BC
 Postal Code: V0L 1N0
 Invoice To: Same as Report To
 Copy of Invoice with Report: YES NO
 Company:
 Contact:
 Project Information: VA22-WP/MG-100-002
 ALS Account # / Quote #: VA22-WP/MG-100-002
 Job #:
 PO / AFE:
 LSD:
 ALS Lab Work Order # (lab use only): 4190

Report Format / Distribution: PDF EXCEL SPREADSHEET
 Select Report Format:
 Quality Control (QC) Report with Report: YES NO
 Compare Results to Criteria on Report - provide details below if box checked
 Select Distribution: EMAIL MAIL FAX
 Email 1 or Fax: keachhalar@minnow.ca
 Email 2: georaholmes@mounipolity.com
 Email 3: salmer@minnow.ca
 Invoice Distribution:
 Select Invoice Distribution: EMAIL MAIL FAX
 Email 1 or Fax: georaholmes@mounipolity.com
 Email 2:
 Oil and Gas Required Fields (client use):
 AFE/Cost Center:
 Major/Minor Code:
 Requisitioner:
 Location:
 ALS Contact:
 Can Dang:
 Sampler:
 S/LA PLE

ALS Sample # (lab use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mm-yy)	Time (hh:mm)	Sample Type	Moisture Content by Gravimetry (E144)	Mercury in Biota by CVAAS (DRY units, Routine) (E510)	Mercury in Biota by CVAAS (WET units, Routine) (E510A)	Metals in Biota by CRC IC/PMS (DRY units, Routine) (E440)	Silver in Biota by CRC IC/PMS (DRY units, Routine) (E440.Ag)	Titanium in Biota by CRC IC/PMS (DRY units, Routine) (E440.Ti)
1	QUL-NHC_NSC-WB-1_2023-09-09	20-Sept-23		Tissue	R	R	R	R	R	R
2	QUL-NHC_NSC-WB-2_2023-09-09	20-Sept-23		Tissue	R	R	R	R	R	R
3	QUL-NHC_NSC-WB-3_2023-09-09	20-Sept-23		Tissue	R	R	R	R	R	R
4	QUL-NHC_NSC-WB-4_2023-09-09	20-Sept-23		Tissue	R	R	R	R	R	R
5	QUL-NHC_NSC-WB-5_2023-09-09	20-Sept-23		Tissue	R	R	R	R	R	R
6	QUL-NHC_NSC-WB-6_2023-09-09	20-Sept-23		Tissue	R	R	R	R	R	R
7	QUL-NHC_NSC-WB-7_2023-09-09	20-Sept-23		Tissue	R	R	R	R	R	R
8	QUL-NHC_NSC-WB-8_2023-09-09	20-Sept-23		Tissue	R	R	R	R	R	R
9	QUL-NSC_NSC-WB-1_2023-09-09	20-Sept-23		Tissue	R	R	R	R	R	R
10	QUL-NSC_NSC-WB-2_2023-09-09	20-Sept-23		Tissue	R	R	R	R	R	R
11	QUL-NSC_NSC-WB-3_2023-09-09	20-Sept-23		Tissue	R	R	R	R	R	R
12	QUL-NSC_NSC-WB-4_2023-09-09	20-Sept-23		Tissue	R	R	R	R	R	R

Drinking Water (DW) Samples (client use)
 Are samples taken from a Regulated DW System? YES NO
 Are samples for human drinking water use? YES NO
 If sample is insufficient for regular digestion and analysis, please contact kbachhalar@minnow.ca or psalacko@minnow.ca to discuss analysis options.

Special Instructions / Specify Criteria to add on report by clicking on the drop-down list below (electronic COC only)

SHIPMENT RELEASE (client use)
 Released by: S. Lettner
 Date: Oct-6-2023
 Time: 7:30

INITIAL SHIPMENT RECEPTION (lab use only)
 Received by:
 Date:
 Time:
 WHITE - LABORATORY COPY
 YELLOW - CLIENT COPY

SHIPMENT RECEIPT (lab use only)
 Received by:
 Date:
 Time:
 FINAL COOLER TEMPERATURES:
 INITIAL COOLER TEMPERATURES:
 SIF Observations: Yes No
 Ice Packs:
 Ice Cubes:
 Custody seal intact: Yes No
 Cooling initiated:

REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION

Failure to complete all portions of this form may delay analysis. Please fill in this form LEGIBLY by the use of this form the user acknowledges and agrees with the Terms and Conditions as specified on the back page of the white - report copy

If any water samples are taken from a Regulated Drinking Water (DW) System, please submit using an Authorized DW COC form

Environmental Division
 Vancouver
 Work Order Reference
 VA23C4190



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Canada Toll Free: 1 800 668 9878

Affix ALS barcode label here (lab use only)

COC Number 15-

Page 2 of 2



Contact and company name below will appear on the final report

Report Format / Distribution

Send Service Level Below - Please confirm all EAP 141's with your Mgr - surcharges will apply

Company: MOUNTAINVIEW-HIGHING-SEPARATION Select Report Format: PDF EXCEL CSV (CUSTOMARY)

Contact: Gabriel Holmes Quality Control (QC) Report with Report: YES NO

Phone: 236-317-4939 Compare Results to Criteria on Report: Provide details below if box checked

Company address below will appear on the final report

Street: PO Box 12 Email 1 or Fax: EMAIL MAIL FAX

City/Province: ELYSEE-BE Email 2: gabrielholmes@mountainview.ca

Postal Code: V0L 1N0 Email 3: shimmer@minnow.ca shimmer@minnow.ca shimmer.derosson@minnow.ca

Invoice To: Same as Report To YES NO Invoice Distribution: EMAIL MAIL FAX

Copy of Invoice with Report: YES NO Select Invoice Distribution: EMAIL MAIL FAX

Company: Project Information Email 1 or Fax: gabrielholmes@mountainview.com

Contact: Project Information Email 2: Email 2

ALS Account # / Quote #: VA224/PMC100-002 Oil and Gas Required Fields (client use)

Lab #: ASFCOSL Center PO#:

PO / AFE: Map/Station Code Routing Code:

LSD: Requisitioner: Location:

ALS Lab Work Order # (lab use only): ALS Contract: Can Dang Sampler: SLA PLE

ALS Sample # (lab use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	Moisture Content by Gravimetry (E144)	Mercury in Biota by CVAAS (DRY units, Routine) (E510)	Mercury in Biota by CVAAS (WET units, Routine) (E510A)	Metals in Biota by CRC ICPMS (DRY units, Routine) (E440)	Silver in Biota by CRC ICPMS (DRY units, Routine) (E440 Ag)	Titanium in Biota by CRC ICPMS (DRY units, Routine) (E440 Ti)	Number of Containers
13	QU-NGC_NSC-WB-5_2023-09	29-Sep-23		Tissue	R	R	R	R	R	R	1
14	QU-NGC_NSC-WB-6_2023-09	04-23		Tissue	R	R	R	R	R	R	1
15	QU-NGC_NSC-WB-7_2023-09	04-23		Tissue	R	R	R	R	R	R	1
16	QU-NGC_NSC-WB-8_2023-09	04-23		Tissue	R	R	R	R	R	R	1
17	QU-NHC_PCC-M-1_2023-09	29-Sep-23		Tissue	R	R	R	R	R	R	1
18	QU-NHC_PCC-M-2_2023-09	30-Sep-23		Tissue	R	R	R	R	R	R	1
19	QU-NHC_PCC-M-3_2023-09	04-23		Tissue	R	R	R	R	R	R	1
20	QU-NHC_PCC-M-4_2023-09	04-23		Tissue	R	R	R	R	R	R	1
21	QU-NHC_PCC-M-5_2023-09	04-23		Tissue	R	R	R	R	R	R	1
22	QU-NHC_PCC-M-6_2023-09	04-23		Tissue	R	R	R	R	R	R	1
23	QU-NHC_PCC-M-7_2023-09	04-23		Tissue	R	R	R	R	R	R	1
24	QU-NHC_PCC-M-8_2023-09	30-Sep-23		Tissue	R	R	R	R	R	R	1

Drinking Water (DW) Samples (client use)

Are samples taken from a Regulated DW System? YES NO

Are samples for human drinking water use? YES NO

Special Instructions / Specify Criteria to add on report by clicking on the drop-down list below (electronic COC only)

Shipping Information: Released by: S. Lallimer Date: Oct 0 2023 Time: 7:30

Initial Shipment Reception (lab use only): Received by: AS Date: Oct 1 2023 Time: 11:30

Final Shipment Reception (lab use only): Received by: AS Date: Oct 1 2023 Time: 11:30

REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION

WHITE - LABORATORY COPY YELLOW - CLIENT COPY

Failure to complete all portions of this form may delay analysis. Please fill in this form LEGIBLY. By the use of this form the user acknowledges and agrees with the Terms and Conditions as specified on the back page of the white report copy.

If any water samples are taken from a Regulated Drinking Water (DW) System, please submit using an Authorized DW COC form.

For tests that can not be performed according to the service level selected, you will be contacted.

Regular (R) 4 day (p4) Same Day (SD) 1 Business day (E1) Same Day Weekend or Statutory holiday (E0) 3 day (p3) 2 day (p2)

Emergency:

Sample Condition as Received (lab use only): Frozen Ice Packs Ice Cubes Cooling Initiated SIF Observations: Yes No Custody seal intact: Yes No



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Canada Toll Free: 1 800 668 9878

Affix ALS barcode label here (lab use only)

COC Number: 15 -

Page 3 of 4



Contract and company name below will appear on the final report

Report To	Accounting/Finance/Compassion	Report Format / Distribution	Select Report Format: <input type="checkbox"/> PDF <input type="checkbox"/> EXCEL <input type="checkbox"/> EDD (Contract)
Contact:	Gabriel Holmes	Quality Control (QC) Report with Report	<input type="checkbox"/> YES <input type="checkbox"/> NO
Phone:	256-317-4939	Compare Results to Criteria on Report - provide details below if box checked	<input type="checkbox"/> YES <input type="checkbox"/> NO
Street:	PO Box 12	Select Distribution:	<input type="checkbox"/> EMAIL <input type="checkbox"/> MAIL <input type="checkbox"/> FAX
City/State:	Key: BC	Email 1 or Fax:	khatcheler@minnow.ca
Postal Code:	V0L 1N0	Email 2:	gabrielholmes@mountpolley.com
Invoice To:	Same as Report To	Email 3:	slatimer@minnow.ca; simone.derosiermond@minnow.ca
Company:	Copy of Invoice with Report <input type="checkbox"/> YES <input type="checkbox"/> NO	Invoice Distribution:	<input checked="" type="checkbox"/> EMAIL <input type="checkbox"/> MAIL <input type="checkbox"/> FAX
Contact:		Select Invoice Distribution:	<input checked="" type="checkbox"/> EMAIL <input type="checkbox"/> MAIL <input type="checkbox"/> FAX
		Email 1 or Fax:	gabrielholmes@mountpolley.com
		Email 2:	

ALS Account # / Quote #	VA22-AMPVC-100-002	Affected Center:	PO#
Job #:		Major/minor Code:	Routing Code:
PO / AFE:		Request/liner:	
LSID:		Location:	
ALS Lab Work Order # (lab use only)		ALS Contract:	Can Dang
			Sampler:
			SLA PUE

ALS Sample # (lab use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mm-yy)	Time (hh:mm)	Sample Type	Moisture Content by Gravimetry (E144)	Mercury in Biota by CVAAS (DRY units, Routine) (E510)	Mercury in Biota by CVAAS (WET units, Routine) (E510A)	Metals in Biota by CRC ICPMS (DRY units, Routine) (E440)	Silver in Biota by CRC ICPMS (DRY units, Routine) (E440 Ag)	Titanium in Biota by CRC ICPMS (DRY units, Routine) (E440 Ti)	Number of Containers
25	QUL-NHC_PCC-U1_2023-09	20-Sep-23		Tissue	R	R	R	R	R	R	1
26	QUL-NHC_PCC-U2_2023-09	30-Sep-23		Tissue	R	R	R	R	R	R	1
27	QUL-NHC_PCC-U3_2023-09	30-Sep-23		Tissue	R	R	R	R	R	R	1
28	QUL-NHC_PCC-U4_2023-09	30-Sep-23		Tissue	R	R	R	R	R	R	1
29	QUL-NHC_PCC-U5_2023-09	30-Sep-23		Tissue	R	R	R	R	R	R	1
30	QUL-NHC_PCC-U6_2023-09	30-Sep-23		Tissue	R	R	R	R	R	R	1
31	QUL-NHC_PCC-U7_2023-09	30-Sep-23		Tissue	R	R	R	R	R	R	1
32	QUL-NHC_PCC-U8_2023-09	30-Sep-23		Tissue	R	R	R	R	R	R	1
33	QUL-NHC_PCC-O-1_2023-09	29-Sep-23		Tissue	R	R	R	R	R	R	1
34	QUL-NHC_PCC-O-2_2023-09	30-Sep-23		Tissue	R	R	R	R	R	R	1
35	QUL-NHC_PCC-O-3_2023-09	30-Sep-23		Tissue	R	R	R	R	R	R	1
36	QUL-NHC_PCC-O-4_2023-09	30-Sep-23		Tissue	R	R	R	R	R	R	1

Drinking Water (DW) Samples (client use)

Are samples taken from a Regulated DW System? YES NO

Special Instructions / Specify Criteria to add on report by clicking on the drop-down list below (electronic COC only)

Are samples for human drinking water use? YES NO

If sample is insufficient for regular digestion and analysis, please contact khatcheler@minnow.ca or pstecko@minnow.ca to discuss analysis options.

SHIPMENT RELEASE (client use)

Released by: S Slatimer Date: Oct 5 2023

INITIAL SHIPMENT RECEPTION (lab use only)

Received by: [Signature] Date: [Blank]

REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION

WHITE - LABORATORY COPY YELLOW - CLIENT COPY

FINAL SHIPMENT RECEPTION (lab use only)

Received by: [Signature] Date: OCT 11 2023 11:30

Time: 11:30

Failure to complete all portions of this form may delay analysis. Please fill in this form LEGIBLY. By the use of this form the user acknowledges and agrees with the Terms and Conditions as specified on the back page of the white - report copy.

1. If any water samples are taken from a Regulated Drinking Water (DW) System, please submit using an Authorized DW COC form.



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Affix ALS barcode label here (lab use only)

COC Number 15 -

Page 4 of 10

Contact and company name below will appear on the final report

Report To	Mount-Poly-Milling-Consolidation	Report Format / Distribution	<input type="checkbox"/> PDF <input type="checkbox"/> EXCEL <input type="checkbox"/> WORD <input type="checkbox"/> Report with Report <input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> Compare Results to Criteria on Report - provide details below if box checked <input type="checkbox"/> Selected Distribution: <input type="checkbox"/> EMAIL <input type="checkbox"/> MAIL <input type="checkbox"/> FAX
Contact	Gabriel Holmes	ALS Account # / Quote #	VA22-MNHC100-002
Phone	236-317-4939	Job #	
Company address below will appear on the final report		PO / A/E:	Requestioner
Street	PO Box 12	LSD:	Location
City/Province	Likely, BC	ALS Lab Work Order # (lab use only)	ALS Contact: Can Dang
Postal Code	V0L 1N0		Date (dd-mm-yy)
Invoice To	Same as Report To <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO		Time (hh:mm)
Company:	Copy of Invoice with Report <input type="checkbox"/> YES <input type="checkbox"/> NO		Sample Type
Contact:	Selected Invoice Distribution: <input type="checkbox"/> EMAIL <input type="checkbox"/> MAIL <input type="checkbox"/> FAX		Moisture Content by Gravimetry (E144)
	Selected Invoice Distribution: <input type="checkbox"/> EMAIL <input type="checkbox"/> MAIL <input type="checkbox"/> FAX		Mercury in Biota by CVAAS (DRY units, Routine) (E510)
	Selected Invoice Distribution: <input type="checkbox"/> EMAIL <input type="checkbox"/> MAIL <input type="checkbox"/> FAX		Mercury in Biota by CVAAS (WET units, Routine) (E510A)
	Selected Invoice Distribution: <input type="checkbox"/> EMAIL <input type="checkbox"/> MAIL <input type="checkbox"/> FAX		Metals in Biota by CRC ICPMS (DRY units, Routine) (E440)
	Selected Invoice Distribution: <input type="checkbox"/> EMAIL <input type="checkbox"/> MAIL <input type="checkbox"/> FAX		Silver in Biota by CRC ICPMS (DRY units, Routine) (E440 Ag)
	Selected Invoice Distribution: <input type="checkbox"/> EMAIL <input type="checkbox"/> MAIL <input type="checkbox"/> FAX		Titanium in Biota by CRC ICPMS (DRY units, Routine) (E440 Ti)

For tests that can not be performed according to the service level selected, you will be contacted.

Analysis Request

Indicate Filtered (F), Preserved (P) or Filtered and Preserved (FP) below

Number of Containers

ALS Sample # (lab use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mm-yy)	Time (hh:mm)	Sample Type	Moisture Content by Gravimetry (E144)	Mercury in Biota by CVAAS (DRY units, Routine) (E510)	Mercury in Biota by CVAAS (WET units, Routine) (E510A)	Metals in Biota by CRC ICPMS (DRY units, Routine) (E440)	Silver in Biota by CRC ICPMS (DRY units, Routine) (E440 Ag)	Titanium in Biota by CRC ICPMS (DRY units, Routine) (E440 Ti)	
37	QUL-NHC_PCC-O-5_2023-09	30-Sep-23	09:28	Tissue	R	R	R	R	R	R	1
38	QUL-NHC_PCC-O-6_2023-09	30-Sep-23	09:28	Tissue	R	R	R	R	R	R	1
39	QUL-NHC_PCC-O-7_2023-09	30-Sep-23	09:28	Tissue	R	R	R	R	R	R	1
40	QUL-NHC_PCC-O-8_2023-09	30-Sep-23	09:28	Tissue	R	R	R	R	R	R	1
41	QUL-NHC_PCC-K1-1_2023-09	30-Sep-23	09:28	Tissue	R	R	R	R	R	R	1
42	QUL-NHC_PCC-K1-2_2023-09	30-Sep-23	09:28	Tissue	R	R	R	R	R	R	1
43	QUL-NHC_PCC-K1-3_2023-09	30-Sep-23	09:28	Tissue	R	R	R	R	R	R	1
44	QUL-NHC_PCC-K1-4_2023-09	30-Sep-23	09:28	Tissue	R	R	R	R	R	R	1
45	QUL-NHC_PCC-K1-5_2023-09	30-Sep-23	09:28	Tissue	R	R	R	R	R	R	1
46	QUL-NHC_PCC-K1-6_2023-09	30-Sep-23	09:28	Tissue	R	R	R	R	R	R	1
47	QUL-NHC_PCC-K1-7_2023-09	30-Sep-23	09:28	Tissue	R	R	R	R	R	R	1
48	QUL-NHC_PCC-K1-8_2023-09	30-Sep-23	09:28	Tissue	R	R	R	R	R	R	1

Special Instructions / Specify Criteria to add on report by clicking on the drop-down list below (electronic COC only)

Drinking Water (DW) Samples: (client use)

Are samples taken from a Regulated DW System?

Are samples for human drinking water use?

If sample is insufficient for regular digestion and analysis, please contact kbscheelar@minnow.ca or pslesock@minnow.ca to discuss analysis options.

Released by: S. Latimer Date: Oct 6 2023

Time: 7:30

SHIPMENT RELEASE (client use)

INITIAL SHIPMENT RECEPTION (lab use only)

Time: 7:30

Received by: [Signature]

Standard Turnaround Time: 3 business days - no surcharges apply	Regular Turnaround Time: 4 day (p4)	Emergency Turnaround Time: 1 Business day (E1)
Same Day Turnaround Time: 3 day (p3)	Emergency Turnaround Time: 2 day (p2)	Same Day Weekend or Statutory holiday (E0)
Emergency Turnaround Time: 2 day (p2)	Emergency Turnaround Time: 2 day (p2)	Emergency Turnaround Time: 2 day (p2)

Sample Condition AS RECEIVED (lab use only)	Yes	No
Frozen	<input type="checkbox"/>	<input type="checkbox"/>
Ice Packs	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Cooling Initiated	<input type="checkbox"/>	<input type="checkbox"/>
Ice Cubes	<input type="checkbox"/>	<input type="checkbox"/>
Custody seal intact	<input type="checkbox"/>	<input type="checkbox"/>
Final Cooler Temperatures °C	5	
Final Shipment Reception (lab use only)		
Time: 1:30		

REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION

WHILE - LABORATORY COPY YELLOW - CLIENT COPY

Failure to complete all sections of this form may delay analysis. Please fill in this form LEGIBLY. By the use of this form the user acknowledges and agrees with the Terms and Conditions as specified on the back page of the white - report copy.

1. If any water samples are taken from a Regulated Drinking Water (DW) system, please submit using an Authorized DW COC form.



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Chain of Custody (COC) / Analytical Request Form

Canada Toll Free: 1 800 668 9878

Affix ALS barcode label here (lab use only)

COC Number: 15 -

Page 5 of 10

Contact and company name below will appear on the final report

Select Service Level Below - Please confirm all E&P TAT's with your AM - surcharges will apply

Company: **Water Valley Mining Corporation** Select Report Format: PDF EXCEL PDF (WEB)

Contact: **Gabriel Holmes** Quality Control (QC) Report with Report YES NO

Phone: **236-317-4936** Compare Results to Criteria on Report - provide details below if box checked

Company address below will appear on the final report

Street: **PO Box 12** Select Distribution: EMAIL MAIL FAX

City/Province: **Edmonton, BC** Email 1 or Fax: **khatchelar@minnow.ca**

Postal Code: **V0L 1N0** Email 2: **gabriel.holmes@minnow.ca**

Invoice To: **Same as Report To** Invoice Distribution: YES NO

Copy of Invoice with Report YES NO Select Invoice Distribution: EMAIL MAIL FAX

Company: Email 1 or Fax: **gabriel.holmes@minnow.ca**

Contact: Email 2

Project Information

ALS Account # / Quote #: **VA22-MP/MC/100-002**

Job #: AF/Cell Center: POC#

PO / AFE: Major/Minor Code: Rolling Code:

LSD: Requisitioner: Location:

ALS Lab Work Order # (lab use only): ALS Contact: Can Dang Sampler: SIA PLE

ALS Sample # (lab use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	Moisture Content by Gravimetry (E144)	Mercury in Biota by CVAAS (DRY units, Routine) (E510)	Mercury in Biota by CVAAS (WET units, Routine) (E510A)	Metals in Biota by CRC ICPMS (DRY units, Routine) (E440)	Silver in Biota by CRC ICPMS (DRY units, Routine) (E440 Ag)	Titanium in Biota by CRC ICPMS (DRY units, Routine) (E440 Ti)	Number of Containers
499	QUL-NGC_PCC-M-1_2023-09	20-SEP-23	-	Tissue							1
500	QUL-NGC_PCC-M-2_2023-09	20-SEP-23	-	Tissue							1
501	QUL-NGC_PCC-M-3_2023-09	20-SEP-23	-	Tissue							1
502	QUL-NGC_PCC-M-4_2023-09	20-SEP-23	-	Tissue							1
503	QUL-NGC_PCC-M-5_2023-09	20-SEP-23	-	Tissue							1
504	QUL-NGC_PCC-M-6_2023-09	20-SEP-23	-	Tissue							1
505	QUL-NGC_PCC-M-7_2023-09	20-SEP-23	-	Tissue							1
506	QUL-NGC_PCC-M-8_2023-09	20-SEP-23	-	Tissue							1
507	QUL-NGC_PCC-L-1_2023-09	20-SEP-23	-	Tissue							1
508	QUL-NGC_PCC-L-2_2023-09	20-SEP-23	-	Tissue							1
509	QUL-NGC_PCC-L-3_2023-09	20-SEP-23	-	Tissue							1
510	QUL-NGC_PCC-L-4_2023-09	20-SEP-23	-	Tissue							1

Drinking Water (DW) Samples (client use)

Are samples taken from a Regulated DW System? YES NO

Are samples for human drinking water use? YES NO

Special Instructions / Specify Criteria to add on report by clicking on the drop-down list below (Electronic COC only)

Shipping Release (client use) Date: **Oct 6, 2023**

Initial Shipment Reception (lab use only) Date: Time: Received by: SIA PLE

Final Shipment Reception (lab use only) Date: Time: Received by: SIA PLE

White - Laboratory Copy Yellow - Client Copy

Ice Packs Ice Cubes Custody seal intact Yes No

Cooling Inletted Final Cooler Temperatures °C: **5**

Final Cooler Temperatures °C: Time: **11:20**

REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION

Failure to complete all portions of this form may delay analysis. Please fill in this form LEGIBLY. By the use of this form the user acknowledges and agrees with the Terms and Conditions as specified on the back page of the white - report copy.

1. If any water samples are taken from a Regulated Drinking Water (DW) System, please submit using an Authorized DW COC form.



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Chain of Custody (COC) / Analytical Request Form

Canada Toll Free: 1 800 668 9878

Affix ALS barcode label here (lab use only)

COC Number: 15 -

Page 6 of 10

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Contact and company name below will appear on the final report

Report Format / Distribution

Select Service Level Below - Please confirm all EAP TATs with your AM - s/changes will apply

Company:	Planet Policy Mining Corporation	Select Report Format:	PDF <input checked="" type="checkbox"/> EXCEL <input type="checkbox"/> WORD/SMART
Contact:	Gabriel Holmes	Quality Control (QC) Report with Report:	<input type="checkbox"/> YES <input type="checkbox"/> NO
Phone:	226-317-4939	Compare Results to Criteria on Report - provide details below if box checked:	
	Company address below will appear on the final report	Select Distribution:	<input checked="" type="checkbox"/> EMAIL <input type="checkbox"/> MAIL <input type="checkbox"/> FAX
Street:	PO Box 12	Email 1 or Fax:	kbalcheiar@minnow.ca
City/Province:	Quebec, QC	Email 2:	gabriel.holmes@planetpolicy.com
Postal Code:	V6L 1N0	Email 3:	stallner@minnow.ca; simone.droese@minnow.ca
Invoice To:	Same as Report To	Invoice Distribution:	<input checked="" type="checkbox"/> EMAIL <input type="checkbox"/> MAIL <input type="checkbox"/> FAX
Copy of Invoice with Report:	<input type="checkbox"/> YES <input type="checkbox"/> NO	Select Invoice Distribution:	<input checked="" type="checkbox"/> EMAIL <input type="checkbox"/> MAIL <input type="checkbox"/> FAX
Company:		Email 1 or Fax:	gabriel.holmes@planetpolicy.com
Contact:		Email 2:	

ALS Account # / Quote #:	VA22-APM/C-100-002	AF/CAI Center:		PO#:	
Job #:		Major/Minor Code:		Routing Code:	
PO / AFE:		Requisitioner:			
LSID:		Location:			
ALS Lab Work Order # (lab use only):		ALS Contact:	Can Dang	Sampler:	SLA_PLE

ALS Sample # (lab use only)	Sample Identification and/or Coordinates (This description will appear on the report)	ALS Contact:	Can Dang	Sampler:	SLA_PLE
C1	QUL-NGC_PCC-U-5_2023-09		30-50-23	30-50-23	Tissue
C2	QUL-NGC_PCC-U-5_2023-09		30-50-23	30-50-23	Tissue
C3	QUL-NGC_PCC-U-7_2023-09		30-50-23	30-50-23	Tissue
C4	QUL-NGC_PCC-U-8_2023-09		30-50-23	30-50-23	Tissue
C5	QUL-NGC_PCC-O-1_2023-09		30-50-23	30-50-23	Tissue
C6	QUL-NGC_PCC-O-2_2023-09		30-50-23	30-50-23	Tissue
C7	QUL-NGC_PCC-O-3_2023-09		30-50-23	30-50-23	Tissue
C8	QUL-NGC_PCC-O-4_2023-09		30-50-23	30-50-23	Tissue
C9	QUL-NGC_PCC-O-5_2023-09		30-50-23	30-50-23	Tissue
C10	QUL-NGC_PCC-O-6_2023-09		30-50-23	30-50-23	Tissue
C11	QUL-NGC_PCC-O-7_2023-09		30-50-23	30-50-23	Tissue
C12	QUL-NGC_PCC-O-8_2023-09		30-50-23	30-50-23	Tissue

Moisture Content by Gravimetry (E144)	Mercury in Biota by CVAAS (DRY units, Routine) (E510)	Mercury in Biota by CVAAS (WET units, Routine) (E510A)	Metals in Biota by CRC ICPMS (DRY units, Routine) (E440)	Silver in Biota by CRC ICPMS (DRY units, Routine) (E440 Ag)	Titanium in Biota by CRC ICPMS (DRY units, Routine) (E440 Ti)
R	R	R	R	R	R
R	R	R	R	R	R
R	R	R	R	R	R
R	R	R	R	R	R
R	R	R	R	R	R
R	R	R	R	R	R
R	R	R	R	R	R
R	R	R	R	R	R
R	R	R	R	R	R
R	R	R	R	R	R
R	R	R	R	R	R
R	R	R	R	R	R

Drinking Water (DW) Samples (client use)	Special Instructions / Specify Criteria to add on report by clicking on the drop-down list below (electronic COC only)	Moisture Content by Gravimetry (E144)	Mercury in Biota by CVAAS (DRY units, Routine) (E510)	Mercury in Biota by CVAAS (WET units, Routine) (E510A)	Metals in Biota by CRC ICPMS (DRY units, Routine) (E440)	Silver in Biota by CRC ICPMS (DRY units, Routine) (E440 Ag)	Titanium in Biota by CRC ICPMS (DRY units, Routine) (E440 Ti)
Are samples taken from a Regulated DW System? <input type="checkbox"/> YES <input type="checkbox"/> NO							
Are samples for human drinking water use? <input type="checkbox"/> YES <input type="checkbox"/> NO							

Released by: S. Lallier	Date: Oct 6 2023	Time: 7:30	Received by:	Date:	Time:
SHIPMENT RELEASE (client use)			INITIAL SHIPMENT RECEPTION (lab use only)		
If sample is insufficient for regular digestion and analysis, please contact kbalcheiar@minnow.ca or pstlecko@minnow.ca to discuss analysis options.			SAMPLE CONDITION AS RECEIVED (lab use only)		
Frozen <input type="checkbox"/>			SIF Observations Yes <input type="checkbox"/> No <input type="checkbox"/>		
Ice Packs <input checked="" type="checkbox"/>			Ice Culture <input type="checkbox"/> Custody seal intact Yes <input type="checkbox"/> No <input type="checkbox"/>		
Cooling Initiated <input type="checkbox"/>			INITIAL COOLER TEMPERATURES °C		
			FINAL COOLER TEMPERATURES °C		

REFER TO BACK-PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION

WHITE - LABORATORY COPY YELLOW - CLIENT COPY

Failure to complete all portions of this form may delay analysis. Please fill in this form LEGIBLY. By the use of this form the user acknowledges and agrees with the Terms and Conditions as specified on the back page of the white - report copy.

1. If any water samples are taken from a Regulated Drinking Water (DW) System, please submit using an Authorized DW COC form.

DC-0683-2023-1007



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Canada Toll Free: 1 800 668 9878

Affix ALS barcode label here

(lab use only)

COC Number: 15 -

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10/24/23

Contact and company name will appear on the final report

Report Format / Distribution

Select Service Level Below - Please confirm all ESP TATs with your A/E - surcharges will apply

Company:	Mohatt Energy Mining Corporation	Select Report Format:	<input type="checkbox"/> PDF <input checked="" type="checkbox"/> EXCEL <input type="checkbox"/> WORD
Contact:	Gabriel Holmes	Quality Control (QC) Report with Report:	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
Phone:	236-317-4539	Compare Results to Criteria on Report - provide details below if box checked	<input type="checkbox"/>
Street:	PO Box 12	Select Distribution:	<input checked="" type="checkbox"/> EMAIL <input type="checkbox"/> MAIL <input type="checkbox"/> FAX
City/Province:	Edmonton, BC	Email 1 or Fax:	Khalchalar@minnow.ca
Postal Code:	T6L 1N9	Email 2:	gabriel.holmes@minnow.ca
Invoice To:	Same as Report To	Email 3:	slatimer@minnow.ca
Copy of Invoice with Report:	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	Invoice Distribution:	<input checked="" type="checkbox"/> EMAIL <input type="checkbox"/> MAIL <input type="checkbox"/> FAX
Company:		Select Invoice Distribution:	<input checked="" type="checkbox"/> EMAIL <input type="checkbox"/> MAIL <input type="checkbox"/> FAX
Contact:		Email 1 or Fax:	gabriel.holmes@minnow.ca
		Email 2:	

ALS Account # / Quote #:	VA22-WF/M/C-100-002	Oil and Gas Required Fields (client use)	
Job #:		AGE/Coal Center:	
PO / A/E:		Major/Minor Code:	
LSD:		Requisitioner:	
		Location:	

ALS Sample # (lab use only)	Sample Identification and/or Coordinates (This description will appear on the report)	ALS Contact:	Can Darg	Sampler:	SLA FILE
			(dd-mmm-yy)	(hh:mm)	
13	QU-NGC_PCC-K1-2023-09		29-10-23		Tissue
14	QU-NGC_PCC-K1-2023-09		29-10-23		Tissue
15	QU-NGC_PCC-K1-2023-09		29-10-23		Tissue
16	QU-NGC_PCC-K1-2023-09		29-10-23		Tissue
17	QU-NGC_PCC-K1-2023-09		29-10-23		Tissue
18	QU-NGC_PCC-K1-2023-09		29-10-23		Tissue
19	QU-NGC_PCC-K1-2023-09		29-10-23		Tissue
20	QU-NGC_PCC-K1-2023-09		29-10-23		Tissue
21	QU-NGC_PCC-K1-2023-09		29-10-23		Tissue
22	QU-NGC_PCC-K1-2023-09		29-10-23		Tissue
23	QU-NGC_PCC-K1-2023-09		29-10-23		Tissue
24	QU-NGC_PCC-K1-2023-09		29-10-23		Tissue
25	QU-NGC_PCC-K1-2023-09		29-10-23		Tissue
26	QU-NGC_PCC-K1-2023-09		29-10-23		Tissue
27	QU-NGC_PCC-K1-2023-09		29-10-23		Tissue
28	QU-NGC_PCC-K1-2023-09		29-10-23		Tissue
29	QU-NGC_PCC-K1-2023-09		29-10-23		Tissue
30	QU-NGC_PCC-K1-2023-09		29-10-23		Tissue

Moisture Content by Gravimetry (E144)					
Mercury in Biota by CVAAS (DRY units, Routine) (E510)					
Mercury in Biota by CVAAS (WET units, Routine) (E510A)					
Metals in Biota by CRC ICPMS (DRY units, Routine) (E440)					
Silver in Biota by CRC ICPMS (DRY units, Routine) (E440 Ag)					
Titanium in Biota by CRC ICPMS (DRY units, Routine) (E440 Ti)					

Regular [P1]	4 day [P4]	Standard Rate Received by 3 pm - Business days - 10 surcharges apply	1 Business day [E1]
Emergency	3 day [P3]		Same Day, Weekend or Statutory holiday [E0]
	2 day [P2]		

Drinking Water (DW) Samples (client use)	Special Instructions / Specify Criteria to add on report by clicking on the drop-down list below (electronic COC only)
Are samples taken from a Regulated DW System?	<input type="checkbox"/> YES <input type="checkbox"/> NO
Are samples for human drinking water use?	<input type="checkbox"/> YES <input type="checkbox"/> NO

Released by:	S. Lattimer	Date:	Oct-6-2023	Time:	7:20
Received by:		Date:		Time:	

SHIPPING RELEASE (client use)	INITIAL SHIPMENT RECEPTION (lab use only)
Time:	7:20

WHITE - LABORATORY COPY	YELLOW - CLIENT COPY
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Sample Condition AS RECEIVED (lab use only)	Freezer	SIF Observations	Yes	No
	Ice Packs	Ice Calipers	Yes	No
	Cooling Initiated	Custody seal intact	Yes	No

INITIAL COOLER TEMPERATURES - C	FINAL COOLER TEMPERATURES - C

Released by:	S. Lattimer	Date:	Oct-11-2023	Time:	11:30
Received by:		Date:		Time:	

REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION

Failure to complete all portions of this form may delay analysis. Please fill in this form LEGIBLY. By the use of this form the user acknowledges and agrees with the Terms and Conditions as specified on the back page of the white - report copy

1. If any water samples are taken from a Regulated Drinking Water (DW) System, please submit using an Authorized DW COC form.



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Chain of Custody (COC) / Analytical Request Form

Affix ALS barcode label here (lab use only)

COC Number 15 -

Page 8 of 10

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Contact and company name below will appear on the final report

Report Format / Distribution

Select Service Level Below - Please confirm all ESP TATs with your AM - service levels will apply

Company: HEALTH POLICY HANDBOOK CORPORATION Select Report Format: PDF EXCEL DOC (FOR LAB)

Contact: Gabriel Holmes Quality Control (QC) Report with Report: YES NO

Phone: 236-317-4939 Compare Results to Criteria on Report - provide details below if box checked

Company address below will appear on the final report

Street: PO Box 172 Email 1 or Fax: khatchalar@minnow.ca

City/Province: ELYRIE BC Email 2: gabriel.holmes@mountpolicy.com

Postal Code: V0L 1N0 Email 3: shallmer@minnow.ca; simone.derosier@minnow.ca

Invoice To: Same as Report To YES NO Invoice Distribution: EMAIL MAIL FAX

Copy of Invoice with Report: YES NO Select Invoice Distributor: EMAIL MAIL FAX

Company: Project Information Email 1 or Fax: gabriel.holmes@mountpolicy.com

Contact: Enroll 2

ALS Account # / Quote #: VA22-MPMC10D-002 Oil and Gas Required Fields (client use)

Job #: AF/ECOL Center PO#

PO / A/E: Magellan Code Routing Code:

LSD: Requisitioner: Location:

ALS Sample # (lab use only)	Sample Identification and/or Coordinates (This description will appear on the report)	ALS Contact:	Can Dang	Sampler:	SLA PLE	Moisture Content by Gravimetry (E144)	Mercury in Biota by CVAAS (DRY units, Routine) (E510)	Mercury in Biota by CVAAS (WET units, Routine) (E510A)	Metals in Biota by CRC ICPMS (DRY units, Routine) (E440)	Silver in Biota by CRC ICPMS (DRY units, Routine) (E440 Ag)	Titanium in Biota by CRC ICPMS (DRY units, Routine) (E440.Ti)	Analysis Request	Number of Containers
			Date (dd-mmm-yy)	Time (hh:mm)	Sample Type								
	QU-MCP-LEM5-2023-10		06-23	-	Tissue								
	QU-MCP-LEM6-2023-10		06-23	-	Tissue								
	QU-MCP-LEM7-2023-10		06-23	-	Tissue								
	QU-MCP-LEM8-2023-10		06-23	-	Tissue								
	QU-MCP-LEM9-2023-10		06-23	-	Tissue								
	QU-MCP-LEM10-2023-10		06-23	-	Tissue								
	QU-MCP-LEM11-2023-10		06-23	-	Tissue								
	QU-MCP-LEM12-2023-10		06-23	-	Tissue								
	QU-MCP-LEM13-2023-10		06-23	-	Tissue								
	QU-MCP-LEM14-2023-10		06-23	-	Tissue								
	QU-MCP-LEM15-2023-10		06-23	-	Tissue								
	QU-MCP-LEM16-2023-10		06-23	-	Tissue								
	QU-MCP-LEM17-2023-10		06-23	-	Tissue								
	QU-MCP-LEM18-2023-10		06-23	-	Tissue								

Drinking Water (DW) Samples (client use)

Are samples taken from a Regulated DW System? YES NO

Are samples for human drinking water use? YES NO

Special Instructions / Specify Criteria to add on report by clicking on the drop-down list below (electronic COC only)

Shipping and Receiving Information

Released by: S. Latimer Date: Oct 2023 Time: 7:30 Received by: [Signature] Date: [Signature] Time: [Signature]

SHIPMENT RELEASE (client use)

INITIAL SHIPMENT RECEPTION (lab use only)

FINAL SHIPMENT RECEPTION (lab use only)

WHITE - LABORATORY COPY YELLOW - CLIENT COPY

REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION

Failure to complete all portions of this form may delay analysis. Please fill in this form LEGIBLY. By the use of this form, the user acknowledges and agrees with the Terms and Conditions as specified on the back page of this white - report copy.

If any water samples are taken from a Regulated Drinking Water (DW) System, please submit using an Authorized DW COC form.

FOR USE BY THE CLIENT: Indicate Filtered (F), Preserved (P) or Filtered and Preserved (FP) below

REGULAR: 4 day [P4], 3 day [P3], 2 day [P2]

EMERGENCY: 1 Business day [E1], Same Day Weekend or Statutory holiday [E0]

DATE AND TIME REQUIRED FOR ALL ESP TATs:

COOLING INITIATED: Yes No

COOLING INITIATED: Yes No

COOLING INITIATED: Yes No

COOLING INITIATED: Yes No



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Chain of Custody (COC) / Analytical Request Form

Canada Toll Free: 1 800 668 9878

Affix ALS barcode label here (lab use only)

COC Number: 15 -

Page 9 of 10

Contact and company name below will appear on the final report

Report Format / Distribution

Select Service Level Below - please confirm all EAP TATs with your A.M. - surcharges will apply

Company:	Hydrex Energy Services Corporation	Select Report Format:	PDF <input checked="" type="checkbox"/> EXCEL <input type="checkbox"/> CUSTOMARY <input type="checkbox"/>
Contact:	Gabriel Holmes	Quality Control (QC) Report with Report:	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
Phone:	236-317-4539	Compare Results to Criteria on Report - provide details below if box checked:	<input type="checkbox"/>
Street:	PO Box 12	Select Distribution:	<input checked="" type="checkbox"/> EMAIL <input type="checkbox"/> MAIL <input type="checkbox"/> FAX
City/Province:	Likely, BC	Email 1 or Fax:	kbalchela@minnow.ca
Partial Code:	VOL-1ND	Email 2:	gabrielholmes@minnow.ca
Invoice To:	Same as Report To	Email 3:	staimmer@minnow.ca
Company:	Copy of Invoice with Report <input type="checkbox"/> YES <input type="checkbox"/> NO	Invoice Distribution:	EMAIL <input checked="" type="checkbox"/> MAIL <input type="checkbox"/> FAX
Contact:		Select Invoice Distribution:	EMAIL <input checked="" type="checkbox"/> MAIL <input type="checkbox"/> FAX

ALS Account # / Quote #:	VA22-MP/MC100-002	AFE/Cost Center:	
Job #:		Major/Minor Code:	
PO / AFE:		Requisitioner:	
LSD:		Location:	
ALS Lab Work Order # (lab use only):		ALS Contact:	Can Dang
		ALS Contact:	Samir
		ALS Contact:	SLA PUE

ALS Sample # (lab use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	Moisture Content by Gravimetry (E144)	Mercury in Biota by CVAAS (DRY units, Routine) (E510)	Mercury in Biota by CVAAS (WET units, Routine) (E510A)	Metals in Biota by CRC ICPMS (DRY units, Routine) (E440)	Silver in Biota by CRC ICPMS (DRY units, Routine) (E440.Ag)	Titanium in Biota by CRC ICPMS (DRY units, Routine) (E440.Ti)	Number of Containers
99	QUL-NCP_LT-O-1_2023-10	1-Oct-23	-	Tissue	R	R	R	R	R	R	1
910	QUL-NCP_LT-O-2_2023-10	1-Oct-23	-	Tissue	R	R	R	R	R	R	1
91	QUL-NCP_LT-O-3_2023-10	1-Oct-23	-	Tissue	R	R	R	R	R	R	1
	QUL-NCP_LT-O-4_2023-10	1-Oct-23	-	Tissue	R	R	R	R	R	R	1
	QUL-NCP_LT-O-5_2023-10	1-Oct-23	-	Tissue	R	R	R	R	R	R	1
	QUL-NCP_LT-O-6_2023-10	1-Oct-23	-	Tissue	R	R	R	R	R	R	1
	QUL-NCP_LT-O-7_2023-10	1-Oct-23	-	Tissue	R	R	R	R	R	R	1
	QUL-NCP_LT-O-8_2023-10	1-Oct-23	-	Tissue	R	R	R	R	R	R	1
	QUL-NCP_LT-O-9_2023-10	1-Oct-23	-	Tissue	R	R	R	R	R	R	1
	QUL-NCP_LT-O-10_2023-10	1-Oct-23	-	Tissue	R	R	R	R	R	R	1

Drinking Water (DW) Samples: (client use)	Special Instructions / Specify Criteria to add on report by clicking on the drop-down list below (electronic COC only)
Are samples taken from a Regulated DW System? <input type="checkbox"/> YES <input type="checkbox"/> NO	
Are samples for human drinking water use? <input type="checkbox"/> YES <input type="checkbox"/> NO	If sample is insufficient for regular digestion and analysis, please contact kbalchela@minnow.ca or psteecko@minnow.ca to discuss analysis options.

Released by:	S Laitner	Date:	Oct-6-2023	Time:	1:30	Received by:	INITIAL SHIPMENT RECEPTION (lab use only)	Date:		Time:	
SHIPMENT RELEASE (client use)						INITIAL SHIPMENT RECEPTION (lab use only)					

Released by:	S Laitner	Date:	Oct-6-2023	Time:	1:30	Received by:	INITIAL SHIPMENT RECEPTION (lab use only)	Date:		Time:	
SHIPMENT RELEASE (client use)						INITIAL SHIPMENT RECEPTION (lab use only)					

REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION

WHITE - LABORATORY COPY YELLOW - CLIENT COPY

Failure to complete all portions of this form may result in analysis. Please fill in this form LEGIBLY. By the use of this form the user acknowledges and agrees with the Terms and Conditions as specified on the back page of the white - report copy.

1. If any water samples are taken from a Regulated Drinking Water (DW) System, please submit using an Authorized DW COC form.

DATE: 2023-10-06



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Chain of Custody (COC) / Analytical Request Form

Canada Toll Free: 1 800 668 9878

Affix ALS barcode label here (lab use only)

COC Number: 15 -

Page 10 of 10

Contact and company name below will appear on the final report

Select Service Level Below - Please confirm all EAP TATs with your AAL - surcharges will apply

Client Name:	Edmonton Building Corporation	Report Format / Distribution:	<input type="checkbox"/> PDF <input type="checkbox"/> EXCEL <input type="checkbox"/> DOC (optional)
Contact:	Gabriel Holmes	Quality Control (COC) Report with Report:	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
Phone:	256-317-4939	Complete Results to Criteria on Report - provide details below if box checked	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
Company address below will appear on the final report		Select Distribution:	<input checked="" type="checkbox"/> EMAIL <input type="checkbox"/> MAIL <input type="checkbox"/> FAX
Street:	PO BOX 172	Email 1 or Fax:	ksalchauer@minnow.ca
City/Town:	Edmonton	Email 2:	gabriel.holmes@mountainpolicy.com
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Contact:		Email 2:	

ALS Account # / Quote #:	VA22-MF/MC/100-002	AFE/Case Center:	
Lab #:		Major/Minor Code:	
PO / AFE:		Requisitioner:	
LSD:		Location:	

ALS Lab Work Order # (lab use only):		ALS Contact:	Can Dang	Sampler:	SLA PLE
Sample Identification and/or Coordinates (This description will appear on the report):		Date (dd-mm-yy):		Time (hh:mm):	

ALS Sample # (lab use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mm-yy)	Time (hh:mm)	Sample Type	Moisture Content by Gravimetry (E144)	Mercury in Biota by CVAAS (DRY units, Routine) (E510)	Mercury in Biota by CVAAS (WET units, Routine) (E510A)	Metals in Biota by CRC IC/PMS (DRY units, Routine) (E440)	Silver in Biota by CRC IC/PMS (DRY units, Routine) (E440 Ag)	Titanium in Biota by CRC IC/PMS (DRY units, Routine) (E440 Ti)	Analysis Request	Number of Containers
96	QUL-NHC_PCC-M-8 X 2023-09	2023-09-28		Tissue	R	R	R	R	R	R		1
97	QUL-NHC_PCC-LI-8 X 2023-09	2023-09-28		Tissue	R	R	R	R	R	R		1
98	QUL-NHC_PCC-O-8 X 2023-09	2023-09-28		Tissue	R	R	R	R	R	R		1
99	QUL-NHC_PCC-KI-8 X 2023-09	2023-09-28		Tissue	R	R	R	R	R	R		1
100	QUL-NHC_PCC-M-5 X 2023-09	2023-09-28		Tissue	R	R	R	R	R	R		1
101	QUL-NHC_PCC-LI-5 X 2023-09	2023-09-28		Tissue	R	R	R	R	R	R		1
102	QUL-NHC_PCC-O-5 X 2023-09	2023-09-28		Tissue	R	R	R	R	R	R		1
103	QUL-NHC_PCC-KI-5 X 2023-09	2023-09-28		Tissue	R	R	R	R	R	R		1
104	QUL-NHC_PCC-LI-1 X 2023-10	2023-10-23		Tissue	R	R	R	R	R	R		1
105	QUL-NHC_PCC-LI-1 X 2023-10	2023-10-23		Tissue	R	R	R	R	R	R		1
106	QUL-NHC_PCC-LI-1 X 2023-10	2023-10-23		Tissue	R	R	R	R	R	R		1
107	QUL-NHC_PCC-LI-1 X 2023-10	2023-10-23		Tissue	R	R	R	R	R	R		1

Drinking Water (DW) Samples (client use)

Special Instructions / Specify Criteria to add on report by clicking on the drop-down list below (electronic COC only)

Are samples taken from a Regulated DW System? YES NO

Are samples for human drinking water use? YES NO

If sample is insufficient for regular digestion and analysis, please contact ksalchauer@minnow.ca or pstelcko@minnow.ca to discuss analysis options.

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Received by:		Date:		Time:	

REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION

Failure to complete all portions of this form may delay analysis. Please fill in this form LEGIBLY. By the use of this form the user acknowledges and agrees with the Terms and Conditions as specified on the back page of the white - report copy.

1 If any water samples are taken from a Regulated Drinking Water (DW) System, please submit using an Authorized DW COC form.

WHITE - LABORATORY COPY YELLOW - CLIENT COPY

FISH AGING

**AAE Laboratory Report 23-01-3
(Finalized June 16, 2023)**

1. SAMPLE SET

AAE Tech Services Inc. (AAE) was contracted by Minnow Environmental to provide ageing structure processing and age estimation services for samples collected under Project 23-01 Task 3, received May 24, 2023. This included 16 pairs of Rainbow Trout otoliths, 15 Longnose Sucker fin rays, and 1 set of Longnose Sucker scales. A full data spreadsheet, including sample ID, structure type, ageing process used, and age estimation results, is provided in the data sheets accompanying this report.

2. AGEING METHOD: OTOLITHS

Sagittal otolith pairs were provided for Rainbow Trout in individual enumerated sample envelopes, along with sets of scales as the secondary ageing structure, for a total of 15 samples.

All otoliths in this sample set were analyzed using the “Sectioning” method. This method is used primarily for larger otoliths with a deep sulcus or irregular shape. This method was selected only after the “Read Whole” method (non-destructive, often used in smaller otoliths) was found to be inaccurate.

OTOLITH PREPARATION

Otolith pairs were examined under magnification and evaluated for any issues related to structural integrity (e.g. cracks, fractures, chips, pieces missing) and deformation (crystallization, misshapen lobes). One otolith is selected for processing and is embedded in Cold Cure epoxy resin. Samples are allowed to cure for 48 hours before sectioning. Samples are marked for sectioning under magnification using a fine tip marker to identify the nucleus (centre) and section plane (cut edge to be examined) for each otolith. Using the marks as a guide, a Buehler Isomet low speed dual-blade saw is used to cut a single section, with the section plane passing through the nucleus. This surface is then polished with a series of lapping film (30, 12, and 0.3 microns) to improve clarity of the section plane.

To carry out age estimation, an otolith section is submerged in water under magnification with the polished surface facing up.

AGE ESTIMATION

Annuli are counted outward from the nucleus. Checking (false-annuli) is common in many species, including Rainbow Trout, particularly within the first 1-3 years of growth. Annuli are assessed for density (contrast between summer and winter growth), clarity (ability to differentiate individual annuli) and continuity (e.g. segmentation, merging, fading). Photographs under magnification are taken of each sample for reference and revision. Ages are recorded with a Confidence Index (CI) based on the condition of the otolith, annuli assessment, and the confidence of the reader in the age recorded, as described in Table 1.

Table 1. Confidence Index (CI) table; applied to each age estimate, reflecting the reader’s confidence in the age recorded.

Confidence Index (CI)	Abbreviation	Qualitative Meaning	Quantitative Meaning
Good	G	Pattern very clear with no interpretational problems	Reader would always get the same age
Fairly Good	FG	Pattern is clear with few easy interpretational problems	Reader would get the same age most of the time for fish <20 years
Fair	F	Pattern is fairly clear with some areas presenting easy and moderate interpretational problems	Reader would be within one year most of the time for fish <20 years
Fairly Poor	FP	Pattern is fairly unclear, presenting a number of difficult interpretational problems	Reader would be within 2-3 years for fish <20 years
Poor	P	Pattern is very unclear, presenting significant interpretational problems	Reader has little confidence in repeatability of age

3. AGEING METHOD: FIN RAYS

Fin ray clips for Longnose Sucker samples were provided in individual enumerated sample envelopes, along with sets of scales as the secondary ageing structure.

Fin rays are often used instead of otoliths for age estimation (e.g. non-lethal sampling). Fin rays are the preferred ageing structure in instances where otolith samples are not available; the accuracy and precision of age estimation from fin clips or dorsal spines is much higher than scales. When sampling fish species known to have a consistently low-quality otolith (e.g. Northern Pike, *Catostomidae* spp.), fin rays are the preferred structure with which to derive age estimates. When possible, AAE should be consulted prior to sample collection or shipment to determine the ideal ageing structure for a particular fish species.

All fin ray clips in this sample set were processed and analyzed using the “Sectioning” method, similar to that used for the otoliths.

FIN RAY PREPARATION

Fin rays are embedded in Cold Cure epoxy resin to increase the structural integrity of the sample and prevent damage or degradation of the sample during processing. Samples are cured for 48 hours before sectioning. A fine-tip marker is used to mark a cut line on the sample, following the base of the fin rays and perpendicular to the primary (1st) ray. A Buehler Isomet low speed single-blade saw is used to cut three successive sections beginning at the marked base of the rays. Three sections (minimum) are taken to compensate for misalignment or staggering of the rays or spines, due to shifting during the embedding process, or the inherent shape of the structure; the first section may not pass through the base of all three (or more) rays. Each section is enumerated by the order of cut (I, II, III, etc.) directly onto the sample using a fine-tip pencil. The analysis of multiple spines enables age verification and improves the reliability of the age estimate, especially in the case of heavy checking or faint/thin annuli.

The three sections are submerged in a dish of water under magnification with the ageing surface facing up. Orientation is matched across all three sections to ensure accurate comparison.

AGE ESTIMATION

Annuli are counted out from the nucleus (center ring) in the first cut section, followed by the second and third; age estimation is based on analysis of all available sections. Photographs under magnification are

taken of each sample for reference and revision. Ages are recorded with a Confidence Index (CI) based on the condition of the fin ray section, and the confidence of the reader in the age recorded (Table 1).

4. AGEING METHOD: SCALES

Scales were used to age one of the Longnose Sucker samples, POL_LSU-2_2023-05, where scales were indicated as the only structure provided.

SCALE PREPARATION

Scales were submerged in water and examined under magnification. Individual scales were isolated, examined for completeness and placed on a standard microscope slide. Between six and twelve scales were mounted and pressed between two microscope slides and examined under magnification.

AGE ESTIMATION

Annuli were identified as a zone of crowded circuli, particularly around the central part of the scale, and were associated with crossovers of circuli.

5. AGEING RESULTS

Age estimates were provided in June 2023 based on the otolith, fin ray, and scale samples provided.

Rainbow Trout age estimates ranged from 4 to 6 years of age, with a modal 5 years. CI values were fairly high, with five samples recorded as FG, 10 samples recorded as F, and one sample recorded as FP.

Longnose Sucker age estimates ranged from 5 to 11 years of age, with a modal age of 9 years. CI values were also fairly high, with the majority of samples recorded as either F or FG. Noted difficulties included checking, as well as the outer annuli of older fish becoming faint.

Samples were photographed under magnification for reference and revision. Representative photographs of each species are presented in Section 7.

6. QA/QC PROTOCOL

AAE's QA/QC protocols have been developed in consultation with Fisheries and Oceans Canada ageing experts to ensure accurate age estimations while addressing potential issues related to confidence index, reader bias, and human error. For this project 25% of samples were aged for QA/QC.

7. REPRESENTATIVE SAMPLE PHOTOGRAPHS



Figure 1. Rainbow Trout (sagittal otolith), showing counted annuli for age estimate.



Figure 2. Longnose Sucker (fin rays), showing counted annuli for age estimate.



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AAE Fish Ageing, Polley Lake and Bootjack Lake, May 2023

Sample ID	Date	Species	Plus Growth	Ageing Structure	Ageing Method	Primary Ager	Age Estimate	CI	QA/QC Ager	Age Estimate	CI	Final Age
POL_RB-1_2023-05	12-May-23	Rainbow Trout	-	Otolith	Section	JL	5	F	JS	5	F	5
POL_RB-2_2023-05	12-May-23	Rainbow Trout	-	Otolith	Section	JL	5	F				5
POL_RB-3_2023-05	12-May-23	Rainbow Trout	-	Otolith	Section	JL	6	F				6
POL_RB-4_2023-05	12-May-23	Rainbow Trout	-	Otolith	Section	JL	5	F				5
POL_RB-5_2023-05	12-May-23	Rainbow Trout	-	Otolith	Section	JL	4	FG	JS	4	F	4
POL_RB-6_2023-05	13-May-23	Rainbow Trout	-	Otolith	Section	JL	4	FG				4
POL_RB-7_2023-05	13-May-23	Rainbow Trout	-	Otolith	Section	JL	5	F				5
POL_RB-8_2023-05	13-May-23	Rainbow Trout	-	Otolith	Section	JL	6	FP				6
BOL_RB-1_2023-05	14-May-23	Rainbow Trout	-	Otolith	Section	JL	5	F	JS	5	F	5
BOL_RB-2_2023-05	14-May-23	Rainbow Trout	-	Otolith	Section	JL	5	F				5
BOL_RB-3_2023-05	14-May-23	Rainbow Trout	-	Otolith	Section	JL	5	F				5
BOL_RB-4_2023-05	14-May-23	Rainbow Trout	-	Otolith	Section	JL	5	FG				5
BOL_RB-5_2023-05	14-May-23	Rainbow Trout	-	Otolith	Section	JL	5	F	JS	5	F	5
BOL_RB-6_2023-05	14-May-23	Rainbow Trout	-	Otolith	Section	JL	5	FP				5
BOL_RB-7_2023-05	15-May-23	Rainbow Trout	-	Otolith	Section	JL	4	FG				4
BOL_RB-8_2023-05	15-May-23	Rainbow Trout	-	Otolith	Section	JL	4	FG				4
POL_LSU-1_2023-05	13-May-23	Longnose Sucker	-	Fin ray	Section	JL	6	F	JS	6	F	6
POL_LSU-2_2023-05	16-May-23	Longnose Sucker	-	Scales	Whole	JL	5	FP				5
POL_LSU-3_2023-05	16-May-23	Longnose Sucker	-	Fin ray	Section	JL	8	F				8
POL_LSU-4_2023-05	16-May-23	Longnose Sucker	-	Fin ray	Section	JL	7	F				7
POL_LSU-5_2023-05	16-May-23	Longnose Sucker	-	Fin ray	Section	JL	7	F	JS	7	F	7
POL_LSU-6_2023-05	16-May-23	Longnose Sucker	-	Fin ray	Section	JL	6	F				6
POL_LSU-7_2023-05	16-May-23	Longnose Sucker	-	Fin ray	Section	JL	6	FG				6
POL_LSU-8_2023-05	16-May-23	Longnose Sucker	-	Fin ray	Section	JL	10	F				10
BOL_LSU-1_2023-05	14-May-23	Longnose Sucker	-	Fin ray	Section	JL	9	F	JS	9	F	9
BOL_LSU-2_2023-05	14-May-23	Longnose Sucker	-	Fin ray	Section	JL	9	FP				9
BOL_LSU-3_2023-05	14-May-23	Longnose Sucker	-	Fin ray	Section	JL	9	FP				9
BOL_LSU-4_2023-05	14-May-23	Longnose Sucker	-	Fin ray	Section	JL	9	F				9
BOL_LSU-5_2023-05	14-May-23	Longnose Sucker	-	Fin ray	Section	JL	8	F	JS	8	F	8
BOL_LSU-6_2023-05	14-May-23	Longnose Sucker	-	Fin ray	Section	JL	10	FP				10
BOL_LSU-7_2023-05	14-May-23	Longnose Sucker	-	Fin ray	Section	JL	8	FP				8
BOL_LSU-8_2023-05	14-May-23	Longnose Sucker	-	Fin ray	Section	JL	11	F				11

FISH AGING

**AAE Laboratory Report 23-01-9
(Finalized November 21, 2023)**

1. SAMPLE SET

AAE Tech Services Inc. (AAE) was contracted by Minnow Environmental to provide ageing structure processing and age estimation services for samples collected under Project 23-01 Task 9, received October 23, 2023. This included 7 Rainbow Trout heads, provided for otolith extraction. A full data spreadsheet, including sample ID, structure type, ageing process used, and age estimation results, is provided in the data sheets accompanying this report.

2. AGEING METHOD: OTOLITHS

Sagittal otolith pairs were extracted from Rainbow Trout heads and placed in individual enumerated sample envelopes, for a total of 7 samples.

All otoliths in this sample set were analyzed using the “Sectioning” method. This method is used primarily for larger otoliths with a deep sulcus or irregular shape. This method was selected only after the “Read Whole” method (non-destructive, often used in smaller otoliths) was found to be inaccurate.

OTOLITH PREPARATION

Otolith pairs were examined under magnification and evaluated for any issues related to structural integrity (e.g. cracks, fractures, chips, pieces missing) and deformation (crystallization, misshapen lobes). One otolith is selected for processing and is embedded in Cold Cure epoxy resin. Samples are allowed to cure for 48 hours before sectioning. Samples are marked for sectioning under magnification using a fine tip marker to identify the nucleus (centre) and section plane (cut edge to be examined) for each otolith. Using the marks as a guide, a Buehler Isomet low speed dual-blade saw is used to cut a single section, with the section plane passing through the nucleus. This surface is then polished with a series of lapping film (30, 12, and 0.3 microns) to improve clarity of the section plane.

To carry out age estimation, an otolith section is submerged in water under magnification with the polished surface facing up.

AGE ESTIMATION

Annuli are counted outward from the nucleus. Checking (false-annuli) is common in many species, including Rainbow Trout, particularly within the first 1-3 years of growth. Annuli are assessed for density (contrast between summer and winter growth), clarity (ability to differentiate individual annuli) and continuity (e.g. segmentation, merging, fading). Photographs under magnification are taken of each sample for reference and revision. Ages are recorded with a Confidence Index (CI) based on the condition of the otolith, annuli assessment, and the confidence of the reader in the age recorded, as described in Table 1.

Table 1. Confidence Index (CI) table; applied to each age estimate, reflecting the reader’s confidence in the age recorded.

Confidence Index (CI)	Abbreviation	Qualitative Meaning	Quantitative Meaning
Good	G	Pattern very clear with no interpretational problems	Reader would always get the same age
Fairly Good	FG	Pattern is clear with few easy interpretational problems	Reader would get the same age most of the time for fish <20 years
Fair	F	Pattern is fairly clear with some areas presenting easy and moderate interpretational problems	Reader would be within one year most of the time for fish <20 years
Fairly Poor	FP	Pattern is fairly unclear, presenting a number of difficult interpretational problems	Reader would be within 2-3 years for fish <20 years
Poor	P	Pattern is very unclear, presenting significant interpretational problems	Reader has little confidence in repeatability of age

3. AGEING RESULTS

Age estimates were provided in November 2023 based on the otoliths extracted from the samples provided.

Rainbow Trout age estimates ranged from 1 to 2 years of age, with a modal age of 1 year. CI values were fair, with one sample recorded as FG, 4 samples recorded as F, and two samples recorded as FP.

Samples were photographed under magnification for reference and revision. Representative photographs of each species are presented in Section 5.

4. QA/QC PROTOCOL

AAE’s QA/QC protocols have been developed in consultation with Fisheries and Oceans Canada ageing experts to ensure accurate age estimations while addressing potential issues related to confidence index, reader bias, and human error. For this project 50% of samples were aged for QA/QC.

5. REPRESENTATIVE SAMPLE PHOTOGRAPHS



Figure 1. Rainbow Trout (sagittal otolith), showing counted annuli for age estimate (2 years).



Figure 2. Rainbow Trout (sagittal otolith), showing counted annuli for age estimate (1 year).



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AAE Fish Ageing, Polley Lake, September 2023

Sample ID	Date	Species	Plus Growth	Ageing Structure	Ageing Method	Primary Ager	Age Estimate	CI	QA/QC Ager	Age Estimate	CI	Final Age
POL_RB-19_2023-09	21-Sep-23	Rainbow Trout	+	Otolith	Whole	JS	1	F	JL	1	F	1
POL_RB-75_2023-09	22-Sep-23	Rainbow Trout	+	Otolith	Whole	JS	1	FG				1
POL_RB-76_2023-09	22-Sep-23	Rainbow Trout	+	Otolith	Whole	JS	1	F	JL	1	F	1
POL_RB-88_2023-09	22-Sep-23	Rainbow Trout	+	Otolith	Whole	JS	1	F				1
POL_RB-101_2023-09	23-Sep-23	Rainbow Trout	+	Otolith	Whole	JS	2	FP	JL	2	FP	2
POL_RB-117_2023-09	23-Sep-23	Rainbow Trout	+	Otolith	Whole	JS	2	F				2
POL_RB-161_2023-09	24-Sep-23	Rainbow Trout	+	Otolith	Whole	JS	2	FP	JL	2	FP	2

FISH AGING

**AAE Laboratory Report 23-01-8
(Finalized November 21, 2023)**

1. SAMPLE SET

AAE Tech Services Inc. (AAE) was contracted by Minnow Environmental to provide ageing structure processing and age estimation services for samples collected under Project 23-01 Task 8, received October 23, 2023. This included 16 Northern Pikeminnow heads, 16 Peamouth Chub otoliths, 4 Lake Trout otoliths, and 8 Rainbow Trout otoliths. A full data spreadsheet, including sample ID, structure type, ageing process used, and age estimation results, is provided in the data sheets accompanying this report.

2. AGEING METHOD: OTOLITHS

Lapillus and asterisci otolith pairs were provided for Peamouth Chub, and sagittal otolith pairs were provided for Lake Trout and Rainbow Trout in enumerated sample envelopes, along with sets of scales as the secondary ageing structure, for a total of 44 samples. Along with scales as the secondary ageing structure, frozen heads were provided for Northern Pikeminnow samples. The lapillus otoliths were extracted and placed in individual enumerated sample envelopes.

Most otoliths in this sample set were analyzed using the “Sectioning” method. This method is used primarily for larger otoliths with a deep sulcus or irregular shape. This method was selected only after the “Read Whole” method (non-destructive, often used in smaller otoliths) was found to be inaccurate. Some of the Peamouth Chub and Rainbow Trout otolith samples arrived broken and needed to be aged whole and the scales were used for verification. Some of the Peamouth Chub envelopes contained no otoliths, so scales were used as the primary ageing structure. In addition, a few of the Peamouth Chub envelopes contained asterisci otoliths, which made the confidence lower due to being more challenging to interpret.

OTOLITH PREPARATION

Otolith pairs were examined under magnification and evaluated for any issues related to structural integrity (e.g. cracks, fractures, chips, pieces missing) and deformation (crystallization, misshapen lobes). One otolith is selected for processing and is embedded in Cold Cure epoxy resin. Samples are allowed to cure for 48 hours before sectioning. Samples are marked for sectioning under magnification using a fine tip marker to identify the nucleus (centre) and section plane (cut edge to be examined) for each otolith. Using the marks as a guide, a Buehler Isomet low speed dual-blade saw is used to cut a single section, with the section plane passing through the nucleus. This surface is then polished with a series of lapping film (30, 12, and 0.3 microns) to improve clarity of the section plane.

To carry out age estimation, an otolith section is submerged in water under magnification with the polished surface facing up.

AGE ESTIMATION

Annuli are counted outward from the nucleus. Checking (false-annuli) is common in many species, including Rainbow Trout, particularly within the first 1-3 years of growth. Annuli are assessed for density (contrast between summer and winter growth), clarity (ability to differentiate individual annuli) and continuity (e.g. segmentation, merging, fading). Photographs under magnification are taken of each sample for reference and revision. Ages are recorded with a Confidence Index (CI) based on the condition

of the otolith, annuli assessment, and the confidence of the reader in the age recorded, as described in Table 1.

Table 1. Confidence Index (CI) table; applied to each age estimate, reflecting the reader’s confidence in the age recorded.

Confidence Index (CI)	Abbreviation	Qualitative Meaning	Quantitative Meaning
Good	G	Pattern very clear with no interpretational problems	Reader would always get the same age
Fairly Good	FG	Pattern is clear with few easy interpretational problems	Reader would get the same age most of the time for fish <20 years
Fair	F	Pattern is fairly clear with some areas presenting easy and moderate interpretational problems	Reader would be within one year most of the time for fish <20 years
Fairly Poor	FP	Pattern is fairly unclear, presenting a number of difficult interpretational problems	Reader would be within 2-3 years for fish <20 years
Poor	P	Pattern is very unclear, presenting significant interpretational problems	Reader has little confidence in repeatability of age

3. AGEING METHOD: SCALES

Scales were used to age a few of the Peamouth Chub where scales were indicated as the only structure provided.

SCALE PREPARATION

Scales were examined under magnification, while remaining dry. Individual scales were isolated, examined for completeness and placed on a standard microscope slide. Between six and twelve scales were examined under magnification to determine age estimation.

AGE ESTIMATION

Annuli were identified as a zone of crowded circuli, particularly around the central part of the scale, and were associated with crossovers of circuli.

4. AGEING RESULTS

Age estimates were provided in November 2023 based on the otolith and scale samples provided.

Northern Pikeminnow age estimates ranged from 1 to 8 years of age, with a modal age of 2 years. CI values were fairly high, with all samples recorded as either F or FG.

Peamouth Chub age estimates ranged from 5 to 16 years of age, with a modal age of 8 years. CI values were fairly poor due to broken, incorrect and missing otoliths.

Lake Trout age estimates ranged from 22 to 31 years of age. CI values were fair, with 3 samples recorded as F and one sample recorded as FP. Noted difficulties included the outer annuli of older fish becoming faint on samples.

Rainbow Trout age estimates ranged from 4 to 6 years of age, with a modal 4 years. CI values were fairly high, with all samples recorded as either F or FG.

Samples were photographed under magnification for reference and revision. Representative photographs of each species are presented in Section 6.

5. QA/QC PROTOCOL

AAE's QA/QC protocols have been developed in consultation with Fisheries and Oceans Canada ageing experts to ensure accurate age estimations while addressing potential issues related to confidence index, reader bias, and human error. For this project 34% of samples were aged for QA/QC.

6. REPRESENTATIVE SAMPLE PHOTOGRAPHS

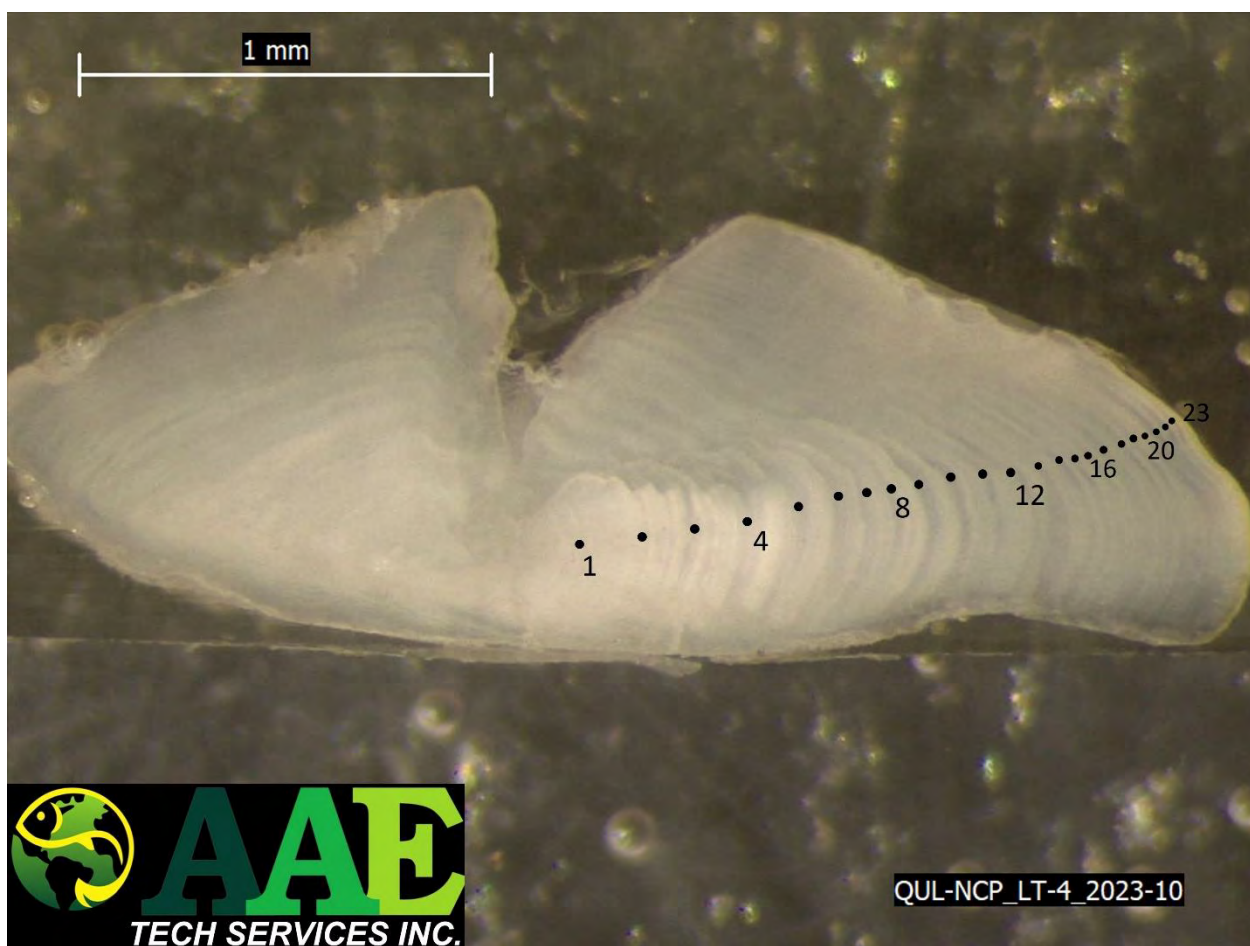


Figure 1. Lake Trout (sagittal otolith), showing counted annuli for age estimate.

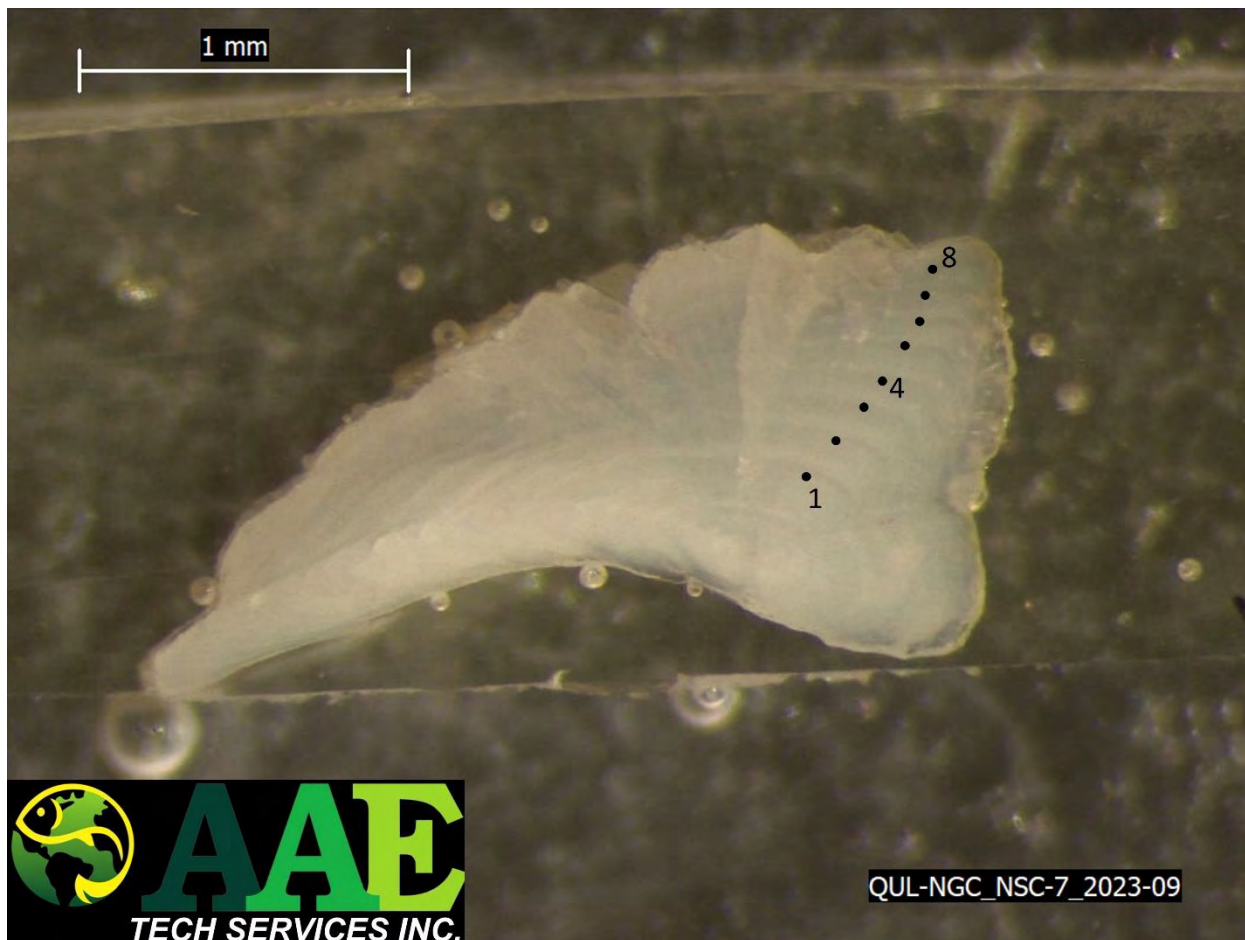


Figure 2. Northern Pikeminnow (lapillus otolith), showing counted annuli for age estimate.



Figure 3. Peamouth Chub (lapillus otolith), showing counted annuli for age estimate.



Figure 4. Peamouth Chub (asteriscus otolith), showing counted annuli for age estimate.



Figure 5. Rainbow Trout (sagittal otolith), showing counted annuli for age estimate.



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AAE Fish Aging, Quesnel Lake and Quesnel River, Fall 2023

Sample ID	Date	Species	Sex	Plus Growth	Ageing Structure	Ageing Method	Primary Ager	Age Estimate	CI	QA/QC Ager	Age Estimate	CI	Final Age	Notes
QUL-NHC_NSC-1_2023-09	29-Sep-23	Northern Pike minnow	Unknown	+	Otolith	Section	JS	4	FG	JL	4	FG	4	
QUL-NHC_NSC-2_2023-09	29-Sep-23	Northern Pike minnow	Unknown	+	Otolith	Section	JS	2	F				2	
QUL-NHC_NSC-3_2023-09	30-Sep-23	Northern Pike minnow	Unknown	+	Otolith	Section	JS	3	F				3	
QUL-NHC_NSC-4_2023-09	30-Sep-23	Northern Pike minnow	Unknown	+	Otolith	Section	JS	2	F	JL	2	F	2	
QUL-NHC_NSC-5_2023-09	30-Sep-23	Northern Pike minnow	Unknown	+	Otolith	Section	JS	1	F				1	
QUL-NHC_NSC-6_2023-09	30-Sep-23	Northern Pike minnow	Unknown	+	Otolith	Section	JS	2	F				2	
QUL-NHC_NSC-7_2023-09	30-Sep-23	Northern Pike minnow	Unknown	+	Otolith	Section	JS	4	F	JL	4	F	4	
QUL-NHC_NSC-8_2023-09	30-Sep-23	Northern Pike minnow	Unknown	+	Otolith	Section	JS	2	F				2	
QUL-NGC_NSC-1_2023-09	30-Sep-23	Northern Pike minnow	Unknown	+	Otolith	Section	JS	4	FG				4	
QUL-NGC_NSC-2_2023-09	30-Sep-23	Northern Pike minnow	Unknown	+	Otolith	Section	JS	4	FG	JL	4	F	4	
QUL-NGC_NSC-3_2023-09	30-Sep-23	Northern Pike minnow	Unknown	+	Otolith	Section	JS	1	F				1	
QUL-NGC_NSC-4_2023-09	30-Sep-23	Northern Pike minnow	Unknown	+	Otolith	Section	JS	4	F				4	
QUL-NGC_NSC-5_2023-09	30-Sep-23	Northern Pike minnow	Unknown	+	Otolith	Section	JS	2	FG	JL	2	FG	2	
QUL-NGC_NSC-6_2023-09	30-Sep-23	Northern Pike minnow	Unknown	+	Otolith	Section	JS	5	F				5	
QUL-NGC_NSC-7_2023-09	30-Sep-23	Northern Pike minnow	Unknown	+	Otolith	Section	JS	8	FG				8	
QUL-NGC_NSC-8_2023-09	30-Sep-23	Northern Pike minnow	Unknown	+	Otolith	Section	JS	2	F	JL	2	F	2	
QUL-NHC_PCC-1_2023-10	29-Sep-23	Peamouth Chub	Female	+	Otolith	Section	JS	5	FG				5	
QUL-NHC_PCC-2_2023-10	30-Sep-23	Peamouth Chub	Female	+	Otolith	Section	JS	7	F				7	
QUL-NHC_PCC-3_2023-10	30-Sep-23	Peamouth Chub	Female	+	Otolith	Section	JS	16	F	JL	16	F	16	
QUL-NHC_PCC-4_2023-10	30-Sep-23	Peamouth Chub	Female	+	Otolith	Section	JS	7	FP				7	
QUL-NHC_PCC-5_2023-10	30-Sep-23	Peamouth Chub	Female	+	Otolith	Section	JS	10	F				10	
QUL-NHC_PCC-6_2023-10	30-Sep-23	Peamouth Chub	Female	+	Otolith	Section	JS	11	FP	JL	11	FP	11	
QUL-NHC_PCC-7_2023-10	30-Sep-23	Peamouth Chub	Female	+	Otolith	Whole	JS	7	F				7	Wrong otolith.
QUL-NHC_PCC-8_2023-10	30-Sep-23	Peamouth Chub	Female	+	Otolith	Section	JS	16	F				16	



57 First Avenue
 La Salle, MB
 R0G 0A2

AAE Fish Aging, Quesnel Lake and Quesnel River, Fall 2023

Sample ID	Date	Species	Sex	Plus Growth	Ageing Structure	Ageing Method	Primary Ager	Age Estimate	CI	QA/QC Ager	Age Estimate	CI	Final Age	Notes
QUL-NGC_PCC-1_2023-10	29-Sep-23	Peamouth Chub	Female	+	Otolith	Whole	JS	9	FP	JL	8	FP	9	Wrong otolith.
QUL-NGC_PCC-2_2023-10	29-Sep-23	Peamouth Chub	Female	+	Scales	Whole	JS	8	FP				8	No Otoliths - only scales.
QUL-NGC_PCC-3_2023-10	30-Sep-23	Peamouth Chub	Female	+	Scales	Whole	JS	8	F				8	No Otoliths - only scales.
QUL-NGC_PCC-4_2023-10	30-Sep-23	Peamouth Chub	Female	+	Otolith	Whole	JS	11	F	JL	11	F	11	Wrong otolith.
QUL-NGC_PCC-5_2023-10	30-Sep-23	Peamouth Chub	Female	+	Otolith	Whole	JS	8	FP				8	Wrong otolith and broken.
QUL-NGC_PCC-6_2023-10	30-Sep-23	Peamouth Chub	Female	+	Otolith	Whole	JS	11	FP				11	Wrong otolith.
QUL-NGC_PCC-7_2023-10	30-Sep-23	Peamouth Chub	Female	+	Scales	Whole	JS	5	F	JL	5	F	5	No Otoliths - only scales.
QUL-NGC_PCC-8_2023-10	30-Sep-23	Peamouth Chub	Female	+	Otolith	Whole	JS	8	FP				8	Wrong otolith.
QUL-NCP_LT-1_2023-10	1-Oct-23	Lake Trout	Female	+	Otolith	Section	JS	30	FP				30	
QUL-NCP_LT-2_2023-10	1-Oct-23	Lake Trout	Female	+	Otolith	Section	JS	31	F	JL	31	F	31	
QUL-NCP_LT-3_2023-10	5-Oct-23	Lake Trout	Male	+	Otolith	Section	JS	23	F				23	
QUL-NCP_LT-4_2023-10	5-Oct-23	Lake Trout	Female	+	Otolith	Section	JS	22	F				22	
QUR_RB-1_2023-10	1-Oct-23	Rainbow Trout	Male	+	Otolith	Whole	JS	4	F	JL	4	F	4	Otoliths broken.
QUR_RB-2_2023-10	1-Oct-23	Rainbow Trout	Female	+	Otolith	Section	JS	4	F				4	
QUR_RB-3_2023-10	1-Oct-23	Rainbow Trout	Female	+	Otolith	Section	JS	4	FG				4	
QUR_RB-4_2023-10	1-Oct-23	Rainbow Trout	Male	+	Otolith	Whole	JS	4	F	JL	4	F	4	Otoliths broken
QUR_RB-5_2023-10	1-Oct-23	Rainbow Trout	Female	+	Otolith	Section	JS	6	F				6	
QUR_RB-6_2023-10	1-Oct-23	Rainbow Trout	Female	+	Otolith	Section	JS	5	FG				5	
QUR_RB-7_2023-10	2-Oct-23	Rainbow Trout	Male	+	Otolith	Section	JS	4	F	JL	4	F	4	
QUR_RB-8_2023-10	2-Oct-23	Rainbow Trout	Female	+	Otolith	Section	JS	5	F				5	

Appendix L

Hydrological Monitoring

(Results in Electronic format only)



Hazeltine Creek Hydrology

Site Hydrology: H1 – Upper Hazeltine

Table 1. Discharge measurements for H1 in 2023

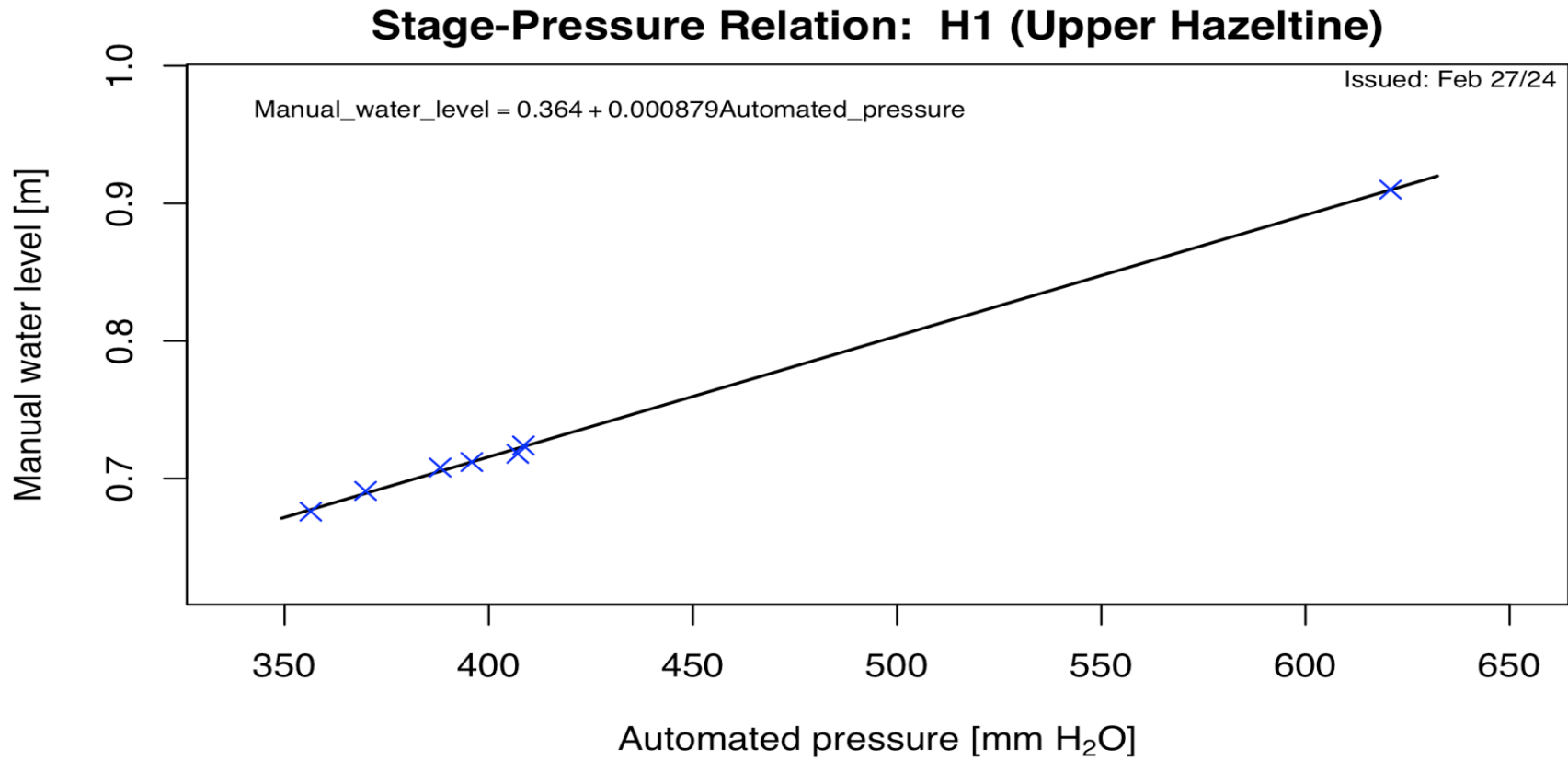
Date & Time	Manual water level (m)	Measured Q (m ³ /s)	Calculated Q (m ³ /s)	Difference [calc. Q - meas. Q] (m ³ /s)	Difference (% of meas. Q)	Method
09-07-19 15:15	0.704	0.152	0.128	-0.024	-15.7%	tracer
29-08-19 9:33	0.739	0.216	0.189	-0.027	-12.3%	velocity
25-09-19 14:58	0.725	0.189	0.163	-0.026	-13.7%	velocity
21-10-19 14:32	0.822	0.367	0.390	0.023	6.3%	velocity
12-11-19 13:50	0.822	0.396	0.390	-0.006	-1.6%	velocity
30-04-20 10:40	0.916	0.626	0.720	0.094	15.0%	velocity
25-05-20 10:05	0.946	0.730	0.849	0.119	16.3%	velocity
18-06-20 10:07	0.824	0.370	0.396	0.026	6.9%	velocity
20-07-20 10:20	0.918	0.614	0.728	0.114	18.5%	velocity
17-08-20 11:15	0.707	0.165	0.133	-0.032	-19.6%	velocity
24-08-20 13:17	0.704	0.164	0.128	-0.036	-21.9%	tracer
25-09-20 9:30	0.728	0.189	0.169	-0.020	-10.6%	velocity
15-10-20 12:45	0.766	0.247	0.247	-0.001	-0.3%	velocity
04-12-20 9:40	0.887	0.577	0.606	0.029	5.1%	velocity
25-05-21 10:45	0.928	0.726	0.770	0.044	6.1%	velocity
22-06-21 11:37	0.742	0.253	0.195	-0.058	-22.9%	tracer
22-07-21 11:23	0.680	0.089	0.094	0.005	5.4%	velocity
24-08-21 12:00	0.652	0.049	0.061	0.012	25.5%	velocity
09-09-21 12:30	0.580	0.008	0.011	0.003	34.6%	velocity
21-06-22 15:39	0.851	0.5	0.480	-0.020	-4.0%	tracer
22-06-22 11:42	0.895	0.66	0.636	-0.024	-3.6%	tracer
11-07-22 12:55	0.703	0.1382	0.127	-0.012	-8.4%	velocity
22-08-22 11:53	0.623	0.0254	0.035	0.010	39.0%	velocity
03-10-22 13:15	0.546	0.0022	0.002	0.000	-12.5%	velocity
04-05-23 15:11	0.91	0.720	0.767	0.047	6.5%	tracer
05-05-23 12:40	0.718	0.160	0.149	-0.011	-7.1%	tracer

Hazeltine Creek Hydrology

19-07-23 13:45	0.712	0.160	0.138	-0.022	-13.6%	tracer
18-09-23 11:21	0.691	0.110	0.105	-0.005	-4.4%	velocity
12-10-23 15:41	0.676	0.084	0.085	0.001	1.0%	velocity
			Mean of abs. diff.	0.030	11.8%	
			St. dev.	0.042	14.9%	

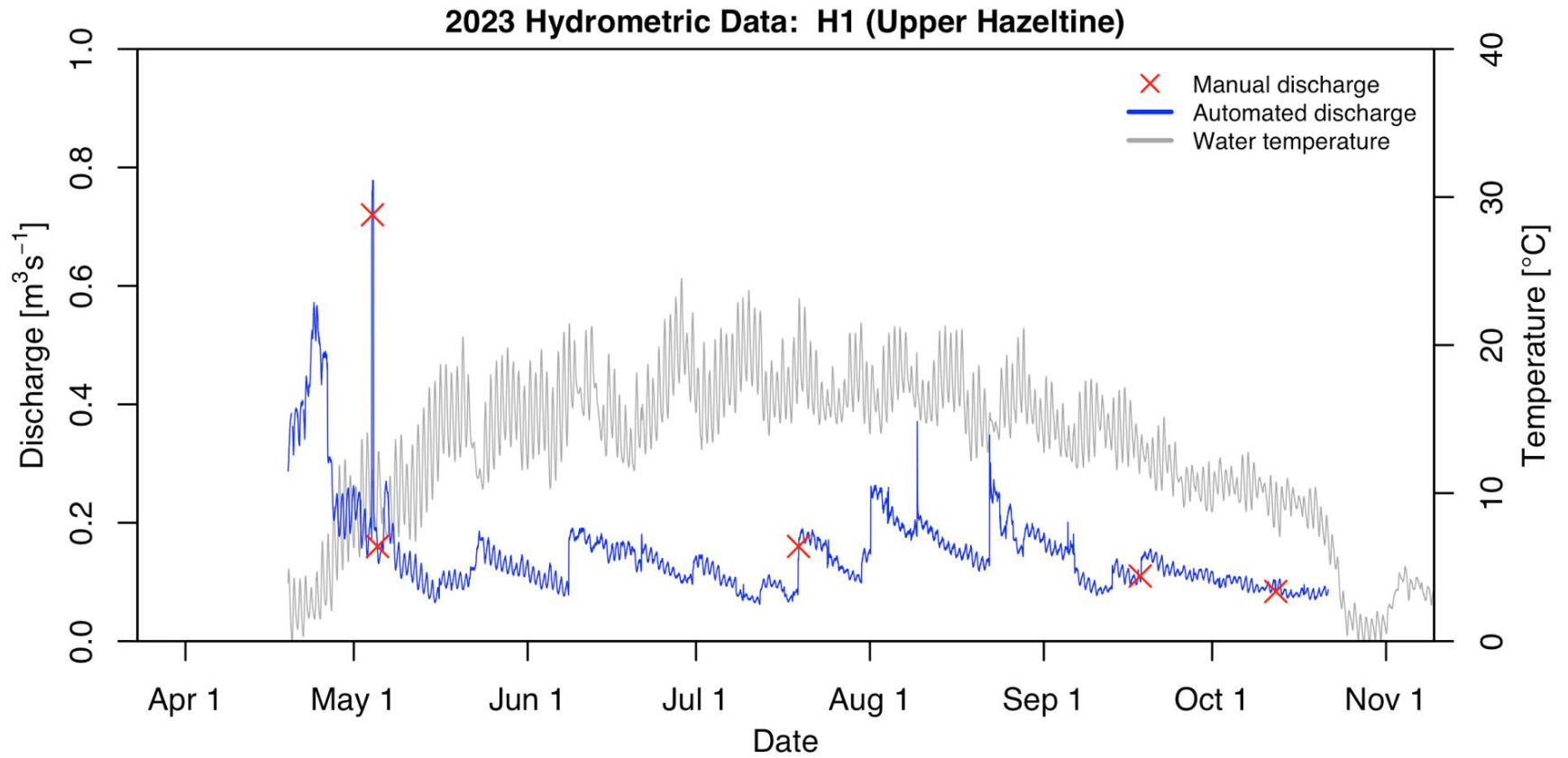
Hazeltine Creek Hydrology

Figure 1. Stage-Pressure Relation at H1 in 2023



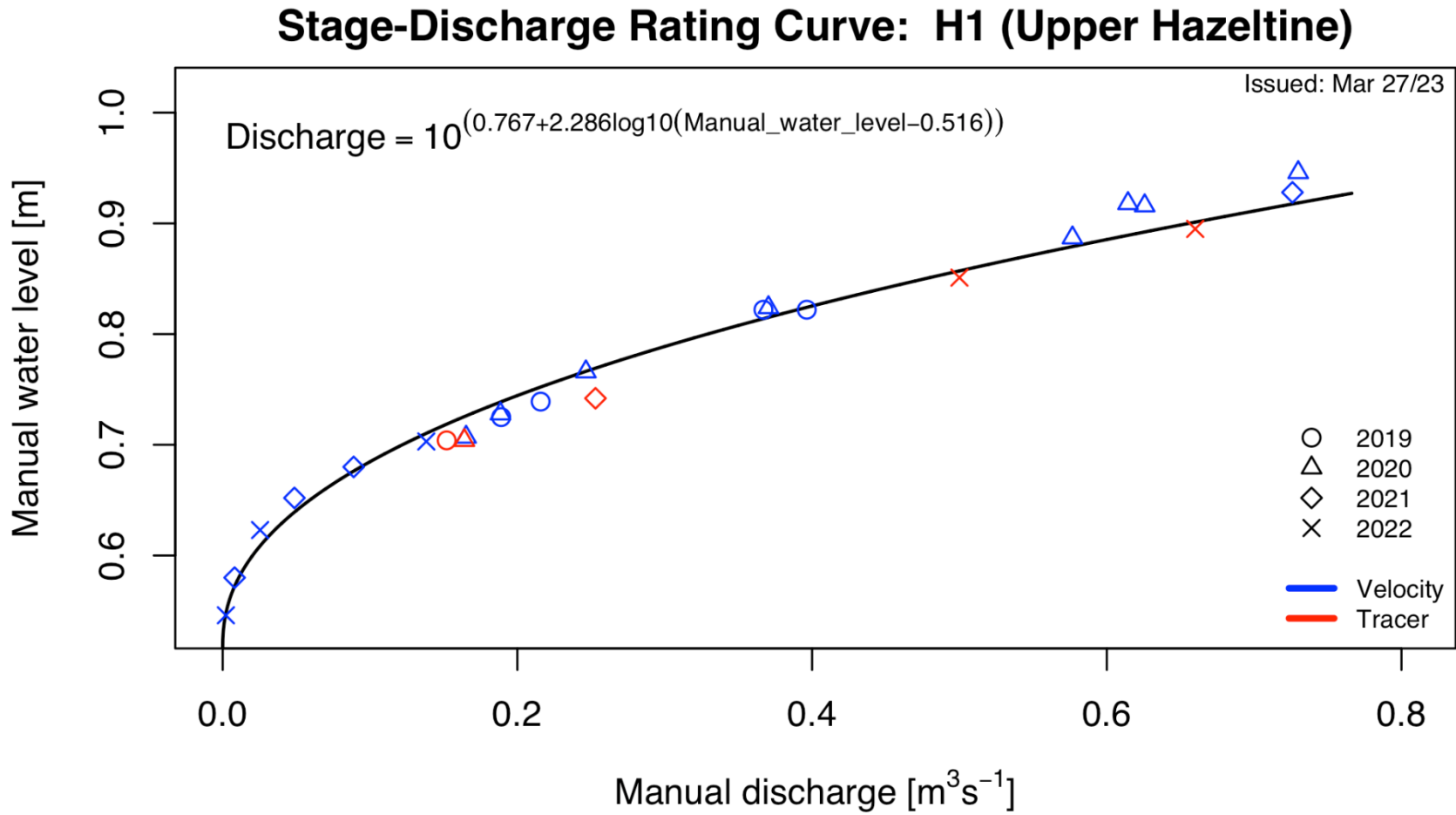
Hazeltine Creek Hydrology

Figure 2. Hydrograph at H1 from 2023



Hazeltine Creek Hydrology

Figure 3. Stage-discharge rating curve at H1 from 2023



Hazeltine Creek Hydrology

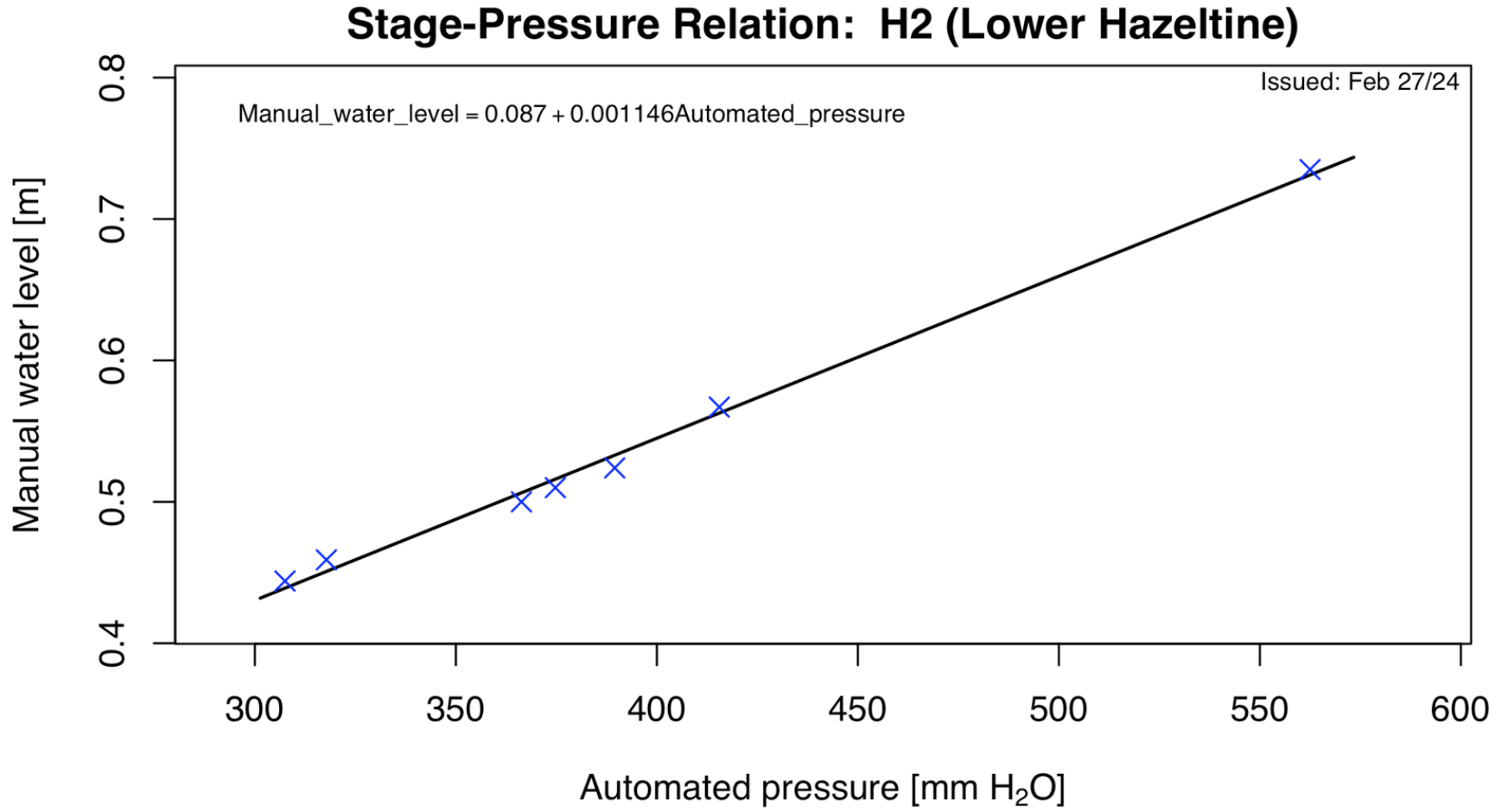
Site Hydrology: H2 – Lower Hazeltine

Table 1. Provisional discharge measurements for H2 in 2023

Date & Time	Manual water level (m)	Measured Q (m ³ /s)	Calculated Q (m ³ /s)	Difference [calc. Q - meas. Q] (m ³ /s)	Difference (% of meas. Q)	Method
21-06-22 13:50	0.626	0.52	0.478	-0.042	-8.1%	tracer
22-06-22 10:49	0.73	0.9267	0.922	-0.005	-0.5%	tracer
04-05-23 16:46	0.735	0.920	0.949	0.029	3.2%	tracer
05-05-23 13:26	0.567	0.300	0.311	0.011	3.8%	tracer
19-07-23 16:44	0.524	0.210	0.221	0.011	5.1%	tracer
18-09-23 13:00	0.459	0.128	0.123	-0.005	-4.1%	velocity
12-10-23 14:26	0.444	0.105	0.106	0.001	1.4%	velocity
			Mean of abs. diff.	0.013	3.3%	
			St. dev.	0.020	4.4%	

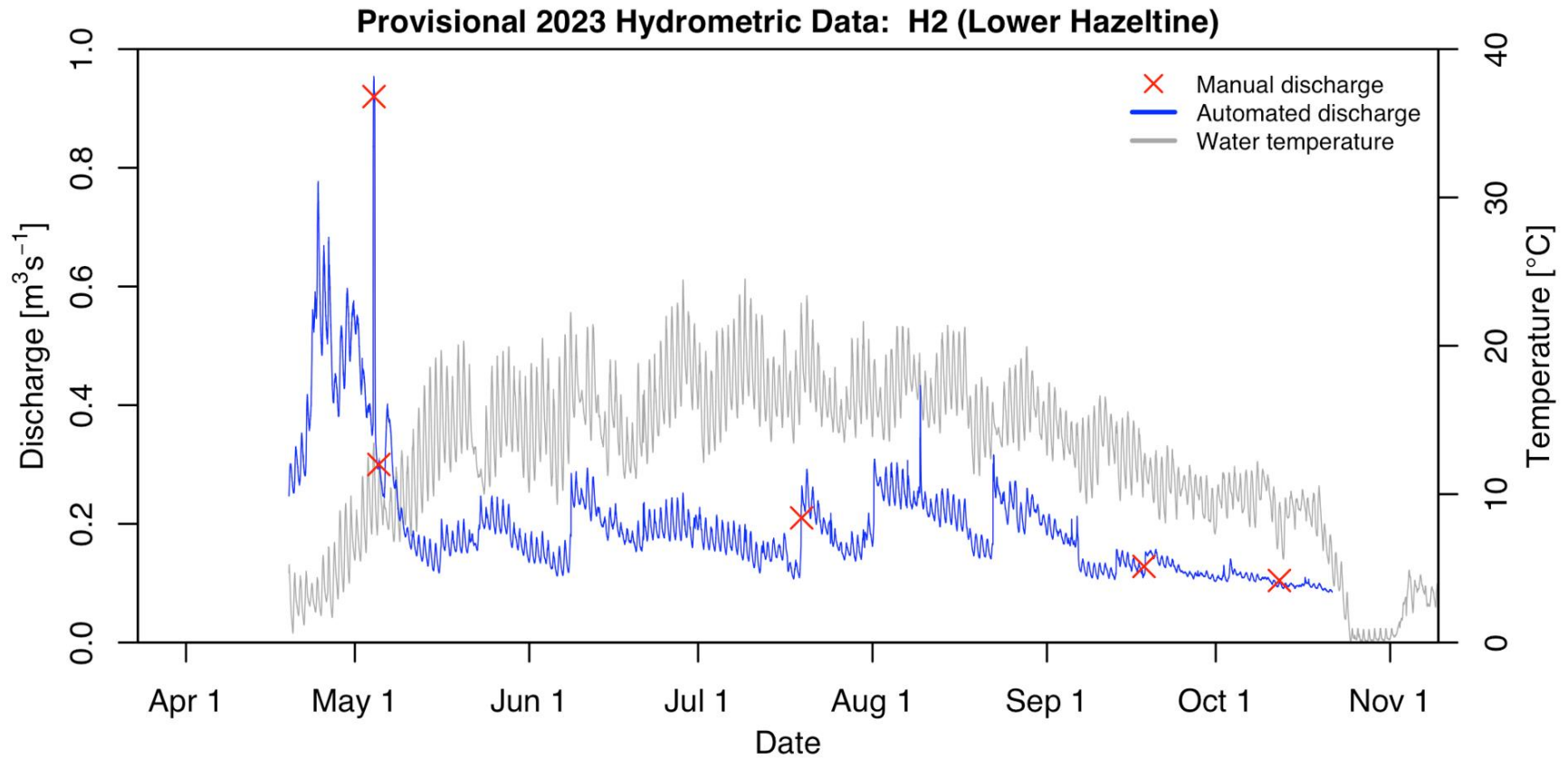
Hazeltine Creek Hydrology

Figure 1. Stage-Pressure Relation at H2 in 2023



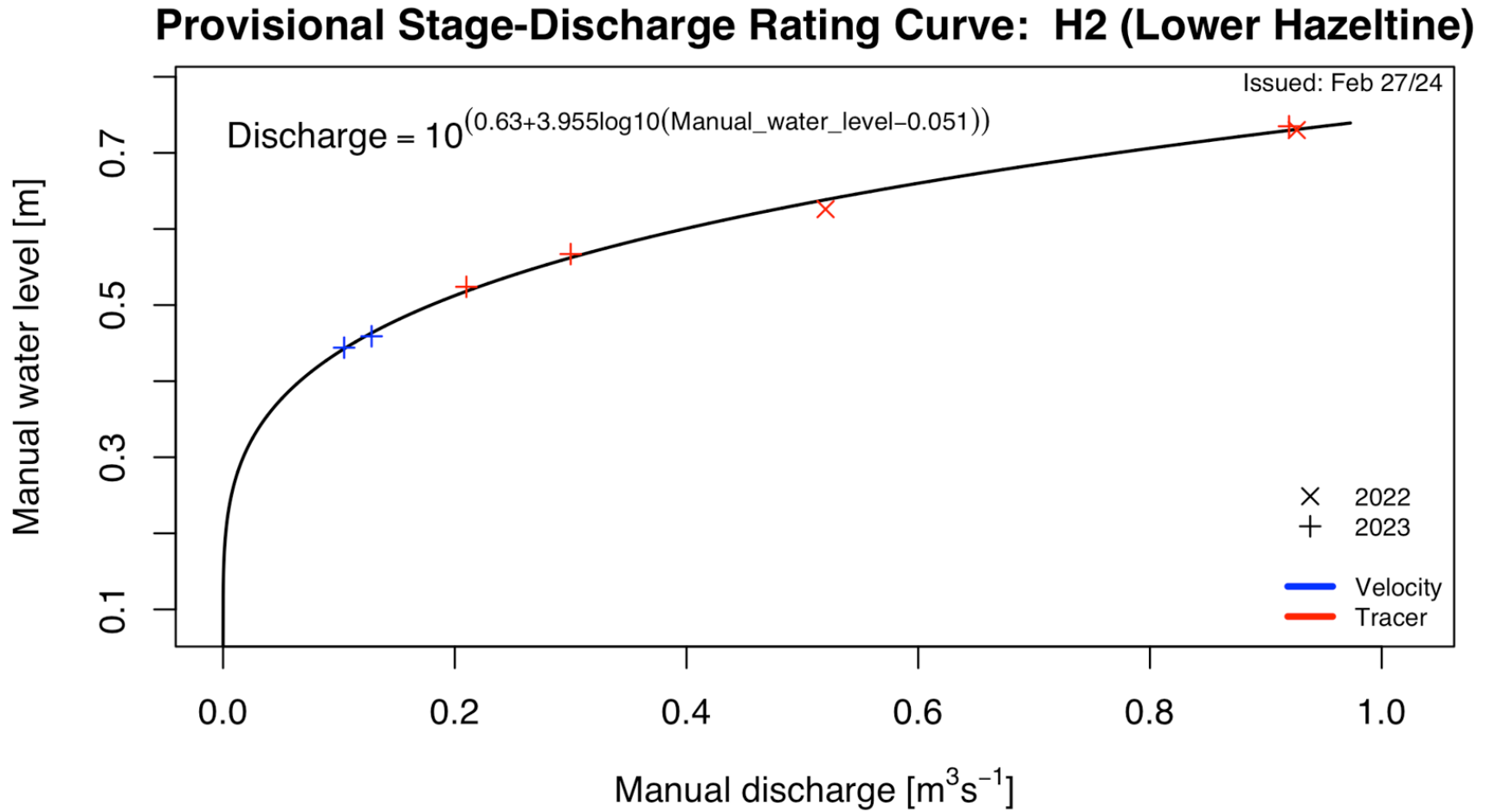
Hazeltine Creek Hydrology

Figure 2. Hydrograph at H2 from 2023



Hazeltine Creek Hydrology

Figure 3. Stage-discharge rating curve at H2 from 2023



Hazeltine Creek Hydrology

Site Hydrology: H3a – Lower Edney

Table 1. In situ discharge measurements for H3a in 2023

Date & Time	Manual water level (m)	Measured Q (m ³ /s)	Calculated Q (m ³ /s)	Difference [calc. Q - meas. Q] (m ³ /s)	Difference (% of meas. Q)	Method
22-06-22 09:19	0.562	1.140	1.216	0.076	6.6%	tracer
23-06-22 13:31	0.638	2.450	2.320	-0.130	-5.3%	tracer
11-07-22 10:20	0.414	0.035	0.035	0.000	-1.0%	velocity
19-07-23 15:50	0.259	0.015	NA	NA	NA	tracer
18-09-23 14:30	0.25	0.004	NA	NA	NA	velocity
12-10-23 13:12	0.262	0.006	NA	NA	NA	velocity
			Mean of abs. diff.	0.069	30.0%	
			St. dev.	0.065	41.6%	

Hazeltine Creek Hydrology

Site Hydrology: H4 – Polley Lake Weir

Table 1. Provisional discharge measurements for H4 in 2023

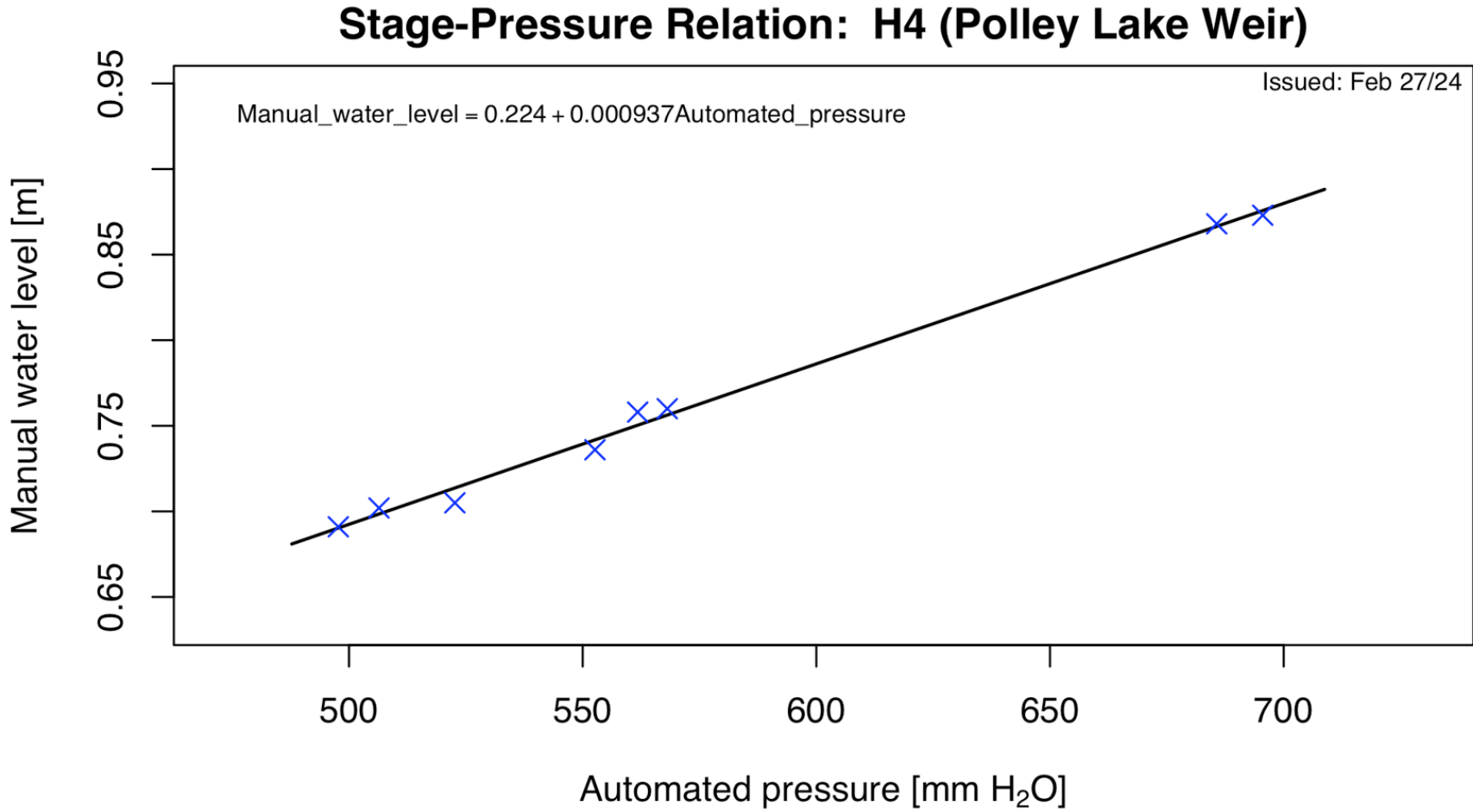
Date	Time	Manual water level (m)	Measured Q (m ³ /s)	Calculated Q (m ³ /s)	Difference [calc. Q - meas. Q] (m ³ /s)	Difference (% of meas. Q)	Q method
13-May-19	15:21	0.742	0.0635	0.079	0.015	24.0%	Velocity
12-Jun-19	14:48	0.784	0.2088	0.227	0.018	8.8%	Velocity
09-Jul-19	15:40	0.752	0.1049	0.114	0.009	8.7%	Tracer
30-Sep-19	15:44	0.762	0.1487	0.149	0.001	0.5%	Velocity
12-Nov-19	15:05	0.832	0.3685	0.397	0.028	7.6%	Velocity
06-Apr-20	14:45	0.784	0.2059	0.227	0.021	10.3%	Velocity
30-Apr-20	09:00	0.842	0.3941	0.432	0.038	9.6%	Velocity
18-Jun-20	08:34	0.831	0.3849	0.393	0.008	2.1%	Velocity
20-Jul-20	08:50	0.888	0.6326	0.594	-0.038	-6.0%	Velocity
25-Sep-20	08:20	0.769	0.1741	0.174	0.000	0.0%	Velocity
15-Oct-20	11:30	0.788	0.2404	0.241	0.001	0.3%	Velocity
04-Dec-20	08:15	0.878	0.5733	0.559	-0.014	-2.5%	Velocity
25-May-21	09:25	0.898	0.7254	0.663	-0.062	-8.6%	Velocity
22-Jun-21	09:24	0.776	0.2029	0.188	-0.015	-7.2%	Velocity
22-Jun-21	14:12	0.772	0.203	0.173	-0.030	-14.9%	Tracer
30-Jun-21	13:57	0.782	0.2426	0.212	-0.031	-12.7%	velocity
04-May-22	9:30	0.724	0.150	0.152	0.002	1.3%	velocity
22-Jun-22	014:11	0.847	0.590	0.597	0.007	1.2%	tracer
23-Aug-22	09:20	0.747	0.0695	0.075	0.006	8.5%	velocity
03-Oct-22	14:50	0.778	0.1478	0.196	0.048	32.7%	velocity
04-May-23	13:15	0.868	0.700	0.690	-0.010	-1.4%	tracer
05-May-23	15:37	0.691	0.070	0.070	0.000	-0.3%	tracer
19-Jul-23	17:46	0.76	0.260	0.262	0.002	0.8%	tracer
18-Sep-23	09:24	0.705	0.117	0.102	-0.015	-12.8%	velocity

Hazeltine Creek Hydrology

12-Oct-23	16:35	0.702	0.084	0.095	0.011	12.9%	velocity
				Mean	0.018	8.0%	
				St Dev	0.024	10.7%	

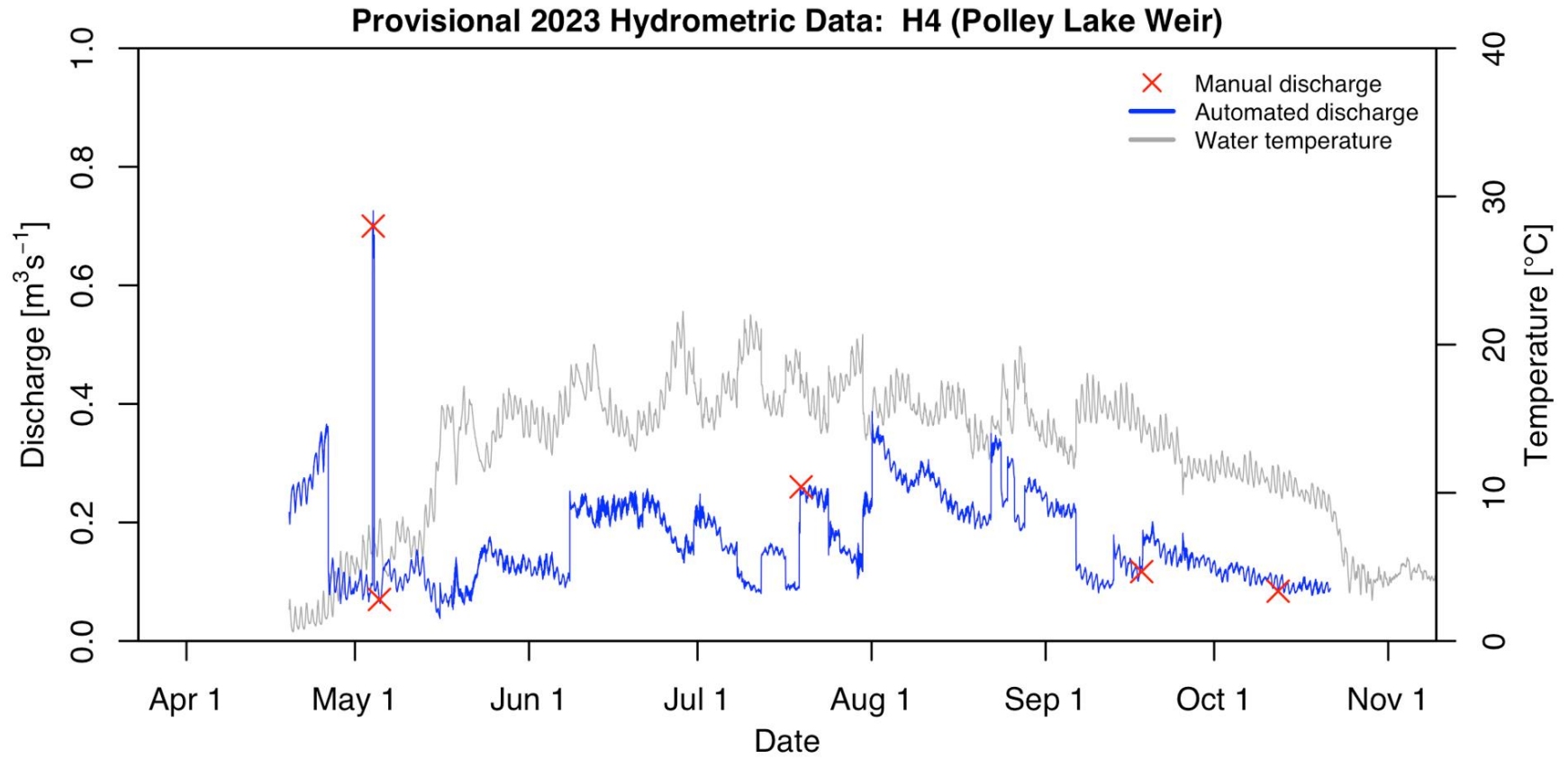
Hazeltine Creek Hydrology

Figure 1. Stage-Pressure Relation at H4 in 2023



Hazeltine Creek Hydrology

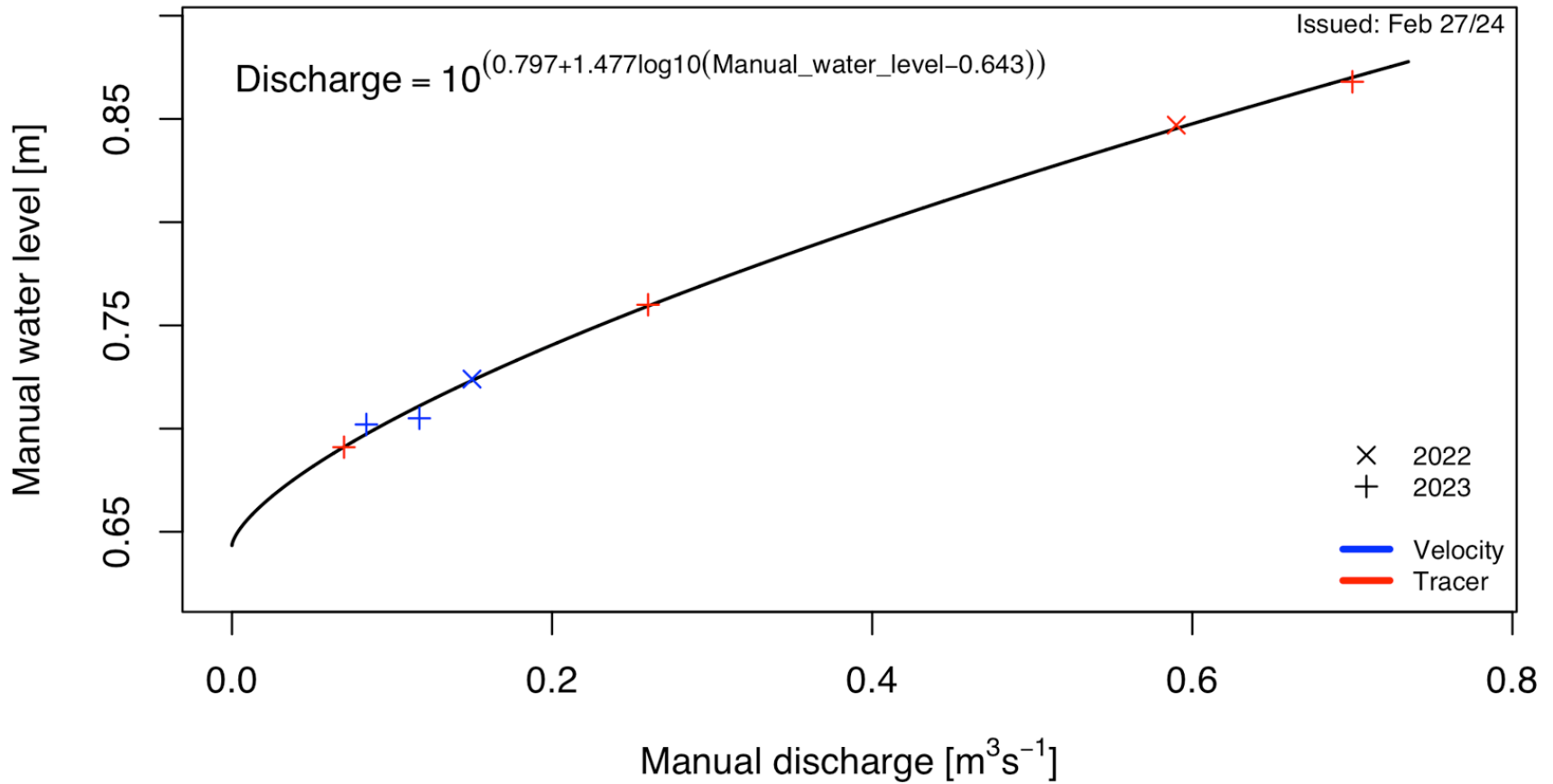
Figure 2. Provisional Hydrograph at H4 from 2023



Hazeltine Creek Hydrology

Figure 3. Provisional stage-discharge rating curve at H4 from 2023

Provisional Stage-Discharge Rating Curve: H4 (Polley Lake Weir)



Site Hydrology

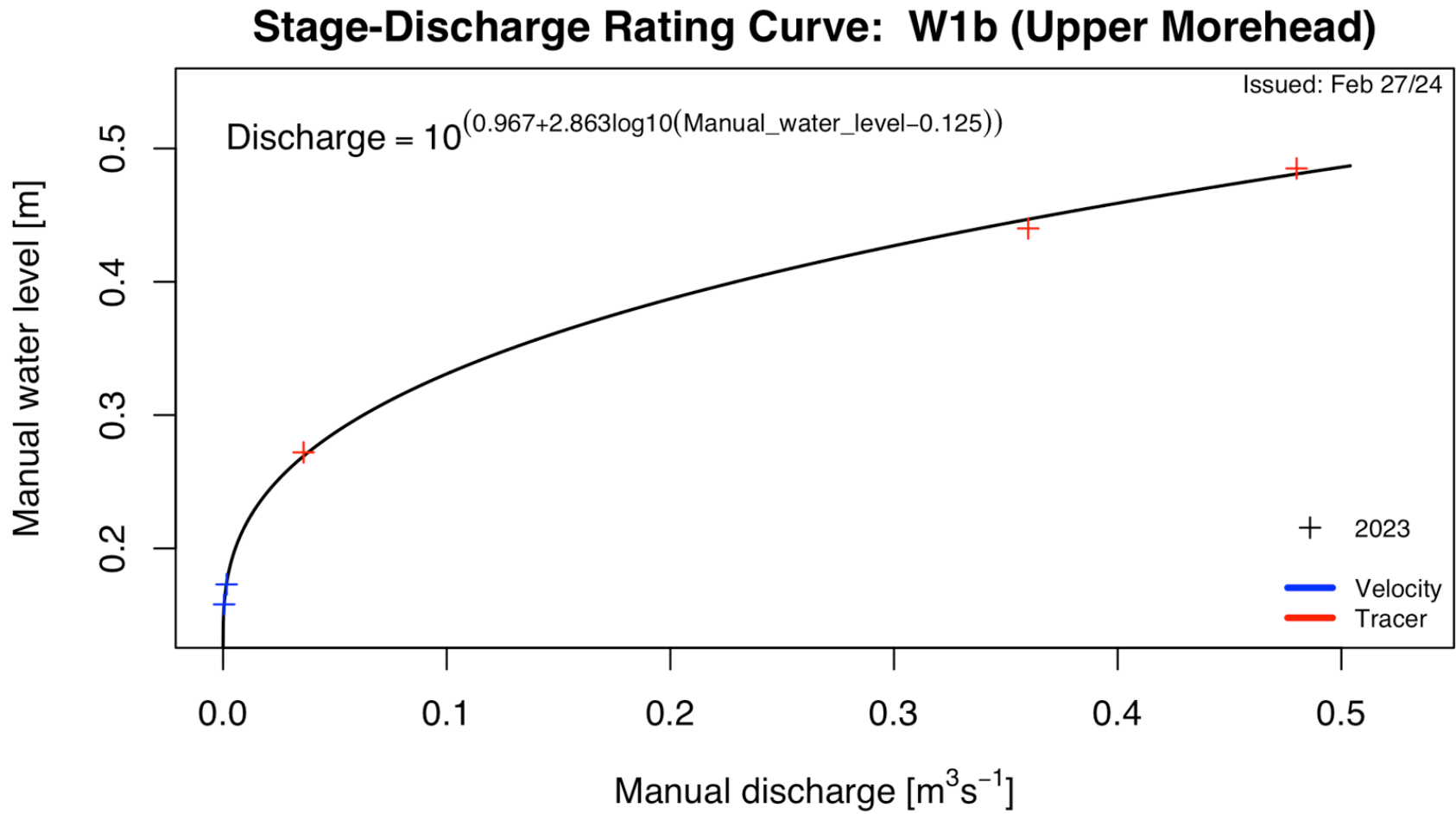
Site Hydrology: W1b – Morehead Creek

Table 1. Discharge measurements for W1b in 2023

Date & Time	Manual water level (m)	Measured Q (m ³ /s)	Calculated Q (m ³ /s)	Difference [calc. Q - meas. Q] (m ³ /s)	Difference (% of meas. Q)	Method
23-06-22 08:11	0.380	0.390	0.317	-0.073	-18.6%	tracer
26-05-22 11:40	0.460	0.543	0.740	0.197	36.2%	velocity
15-06-22 13:35	0.376	0.340	0.303	-0.037	-10.9%	velocity
12-07-22 08:45	0.314	0.150	0.136	-0.014	-9.5%	velocity
27-07-22 11:20	0.126	0.002	0.002	0.000	13.2%	velocity
23-08-22 11:35	0.135	0.003	0.003	0.000	13.1%	velocity
15-09-22 08:40	0.117	0.001	0.001	0.001	58.7%	velocity
04-10-22 11:51	0.112	0.002	0.001	-0.001	-44.9%	velocity
03-05-23 18:55	0.44	0.360	0.338	-0.022	-6.0%	tracer
05-05-23 10:20	0.485	0.480	0.496	0.016	3.3%	tracer
19-07-23 10:30	0.272	0.036	0.038	0.002	5.6%	tracer
19-09-23 10:55	0.173	0.002	0.002	0.000	-5.1%	velocity
12-10-23 10:20	0.158	0.001	0.001	0.000	2.8%	velocity
			Mean of abs. diff.	0.028	17.5%	
			St. dev.	0.062	25.3%	

Site Hydrology

Figure 1. Stage-discharge rating curve at W1b from 2023



Site Hydrology

Site Hydrology: W5 – Bootjack Creek

Table 2. Discharge measurements for W5 in 2023

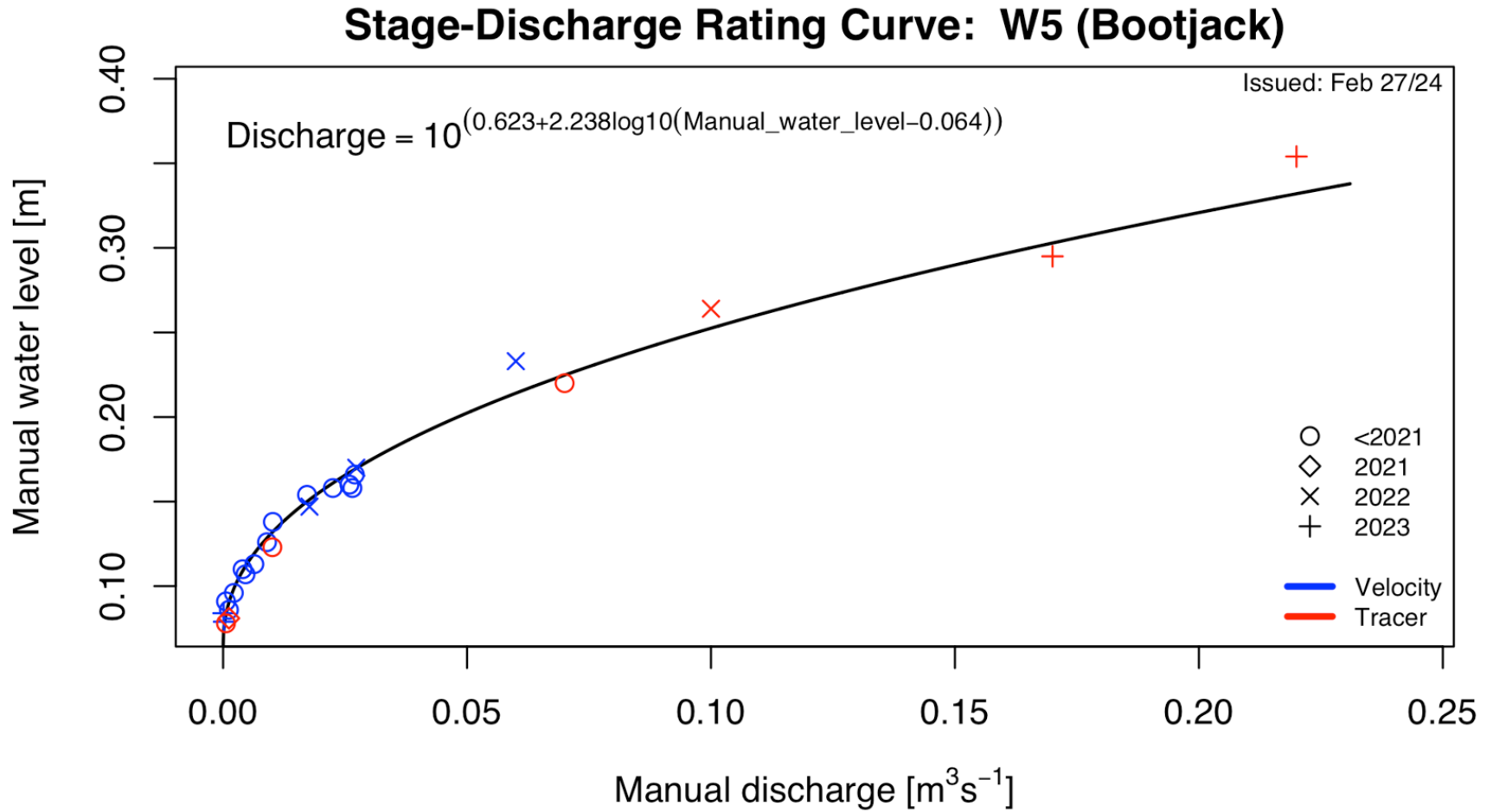
Date & Time	Manual water level (m)	Measured Q (m ³ /s)	Calculated Q (m ³ /s)	Difference [calc. Q - meas. Q] (m ³ /s)	Difference (% of meas. Q)	Method
13-04-16 12:00	0.220	0.070	0.080	0.010	14.2%	tracer
04-05-16 12:00	0.107	0.005	0.004	-0.001	-16.6%	velocity
23-06-16 12:00	0.113	0.006	0.005	-0.001	-21.4%	velocity
13-07-16 12:00	0.126	0.009	0.008	-0.001	-6.7%	velocity
08-10-16 12:00	0.158	0.027	0.022	-0.004	-16.1%	velocity
27-10-16 12:00	0.160	0.026	0.023	-0.002	-9.6%	velocity
28-05-18 13:13	0.096	0.002	0.002	0.000	-1.7%	velocity
09-07-18 14:30	0.110	0.004	0.004	0.000	10.1%	velocity
10-07-19 14:18	0.123	0.010	0.008	-0.003	-25.6%	tracer
29-10-19 09:20	0.154	0.017	0.020	0.003	16.4%	velocity
13-11-19 12:46	0.158	0.023	0.022	0.000	-1.1%	velocity
18-06-20 15:05	0.138	0.010	0.013	0.002	23.3%	velocity
20-07-20 15:10	0.166	0.027	0.027	0.000	0.6%	velocity
18-08-20 09:05	0.086	0.001	0.001	0.000	-5.0%	velocity
24-08-20 16:18	0.078	0.001	0.001	0.000	0.3%	tracer
25-09-20 11:40	0.091	0.001	0.002	0.001	166.3%	velocity
23-06-21 8:26	0.081	0.001	0.001	0.000	-35.2%	tracer
26-05-22 09:30	0.233	0.060	0.078	0.018	29.5%	velocity
15-06-22 12:10	0.147	0.018	0.016	-0.002	-9.9%	velocity
22-06-22 15:30	0.264	0.100	0.114	0.014	14.3%	tracer
12-07-22 10:30	0.170	0.027	0.027	0.000	-0.2%	velocity
04-05-23 18:19	0.354	0.220	0.263	0.043	19.3%	tracer
05-05-23 11:50	0.295	0.170	0.158	-0.012	-7.2%	tracer
19-09-23 09:19	0.079	0.000	0.000	0.000	66.2%	velocity
12-10-23 11:32	0.084	0.000	0.001	0.001	540.3%	velocity

Site Hydrology

			Mean of abs. diff.	0.005	45.5%	
			St. dev.	0.010	113.9%	

Site Hydrology

Figure 2. Stage-discharge rating curve at W5 from 2023



Site Hydrology

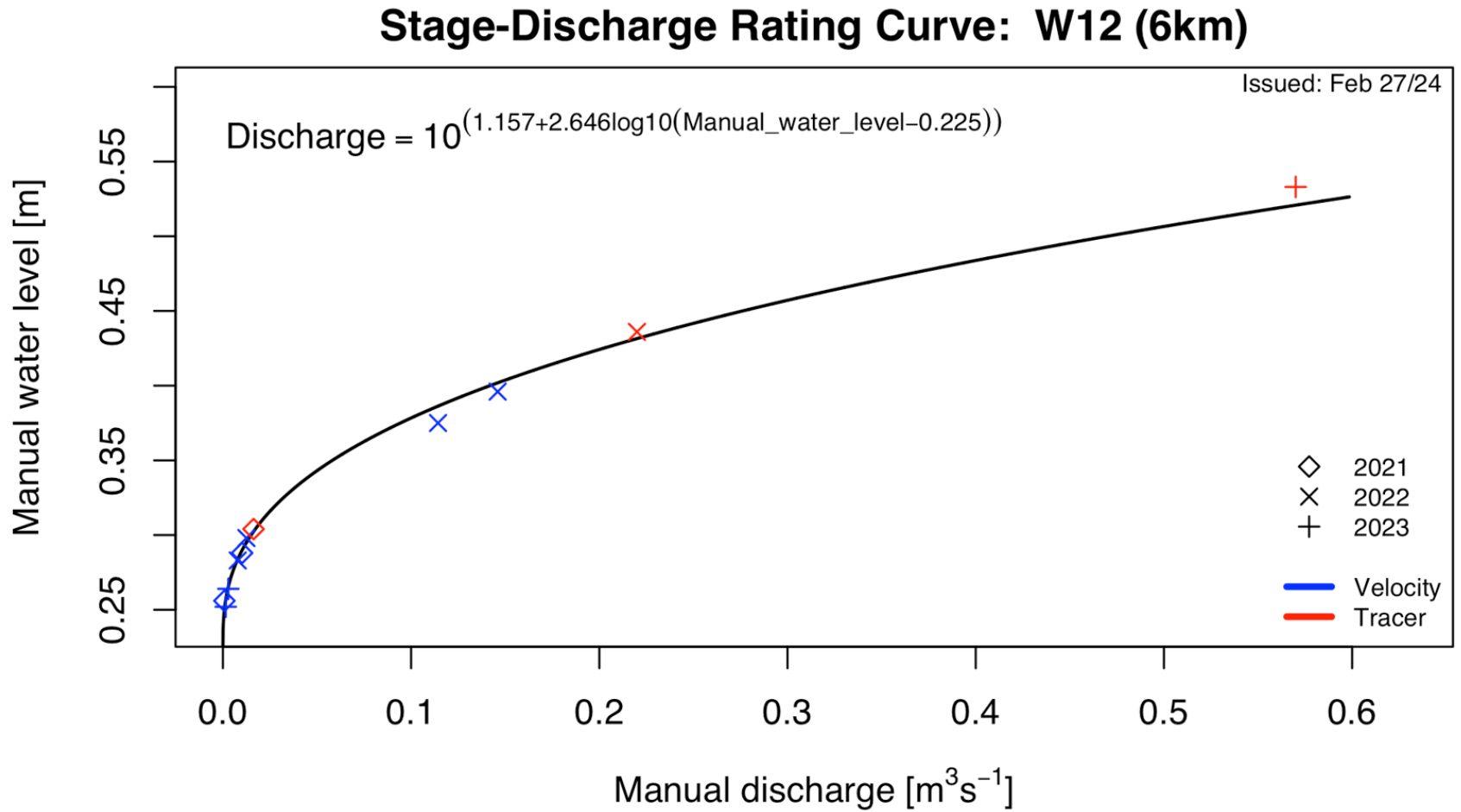
Site Hydrology: W12 – 6km Creek

Table 3. Discharge measurements for W12 from 2023

Date & Time	Manual water level (m)	Measured Q (m ³ /s)	Calculated Q (m ³ /s)	Difference [calc. Q - meas. Q] (m ³ /s)	Difference (% of meas. Q)	Method
23-06-21 13:43	0.304	0.016	0.018	0.002	10.6%	Tracer
26-07-21 13:27	0.256	0.001	0.001	0.000	0.8%	Velocity
12-10-21 10:33	0.288	0.010	0.009	-0.001	-8.4%	Velocity
26-05-22 12:30	0.396	0.146	0.141	-0.005	-3.6%	Velocity
15-06-22 14:40	0.375	0.114	0.101	-0.014	-11.9%	Velocity
23-06-22 09:19	0.436	0.220	0.239	0.019	8.7%	Tracer
12-07-22 07:40	0.298	0.013	0.014	0.002	15.1%	Velocity
27-07-22 09:55	0.283	0.008	0.007	-0.001	-7.9%	Velocity
04-05-23 20:29	0.533	0.570	0.634	0.064	11.3%	tracer
19-09-23 12:15	0.252	0.002	0.001	-0.001	-34.0%	velocity
12-10-23 09:04	0.264	0.003	0.003	0.000	-9.0%	velocity
			Mean of abs. diff.	0.010	17.6%	
			St. dev.	0.022	28.5%	

Site Hydrology

Figure 3. Stage-discharge rating curve at W12 in 2023



Site Hydrology

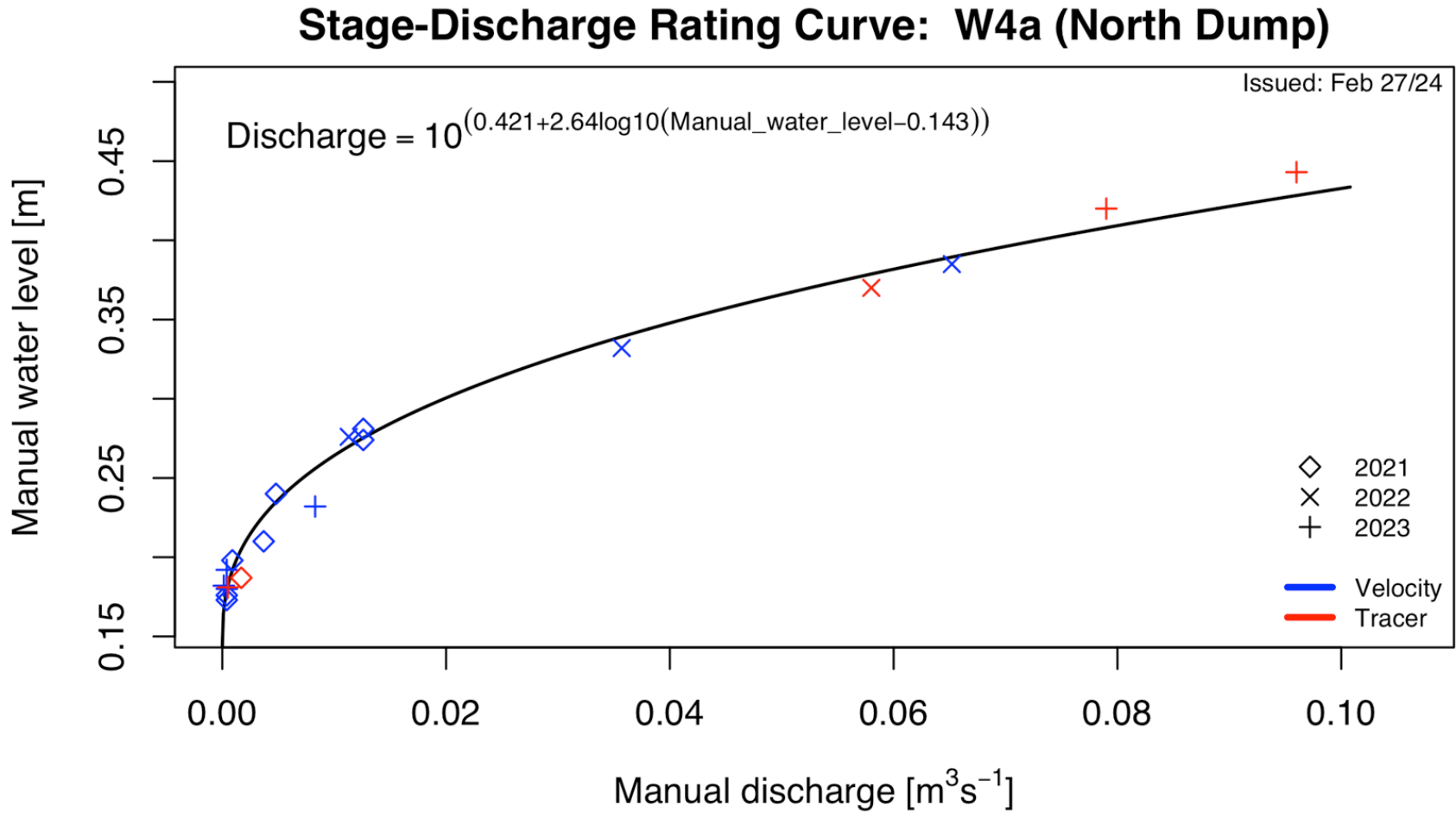
Site Hydrology: W4a- North Dump Creek

Table 4. Discharge measurements for W4a from 2023

Date & Time	Manual water level (m)	Measured Q (m ³ /s)	Calculated Q (m ³ /s)	Difference [calc. Q - meas. Q] (m ³ /s)	Difference (% of meas. Q)	Method
27-04-21 11:09	0.281	0.013	0.008	-0.004	-34.8%	bucket
10-05-21 14:57	0.274	0.013	0.008	-0.005	-38.9%	bucket
17-05-21 13:00	0.240	0.005	0.005	0.000	9.0%	bucket
02-06-21 11:10	0.210	0.004	0.003	-0.001	-17.5%	bucket
22-06-21 16:13	0.187	0.002	0.001	0.000	-18.7%	tracer
05-08-21 11:07	0.176	0.000	0.001	0.000	45.8%	bucket
06-10-21 12:12	0.173	0.000	0.000	0.000	-8.7%	bucket
09-11-21 11:00	0.198	0.001	0.002	0.001	142.4%	bucket
18-05-22 13:21	0.385	0.0652	0.0639	-0.0013	-2.0%	bucket
25-05-22 13:08	0.332	0.0357	0.0328	-0.0029	-8.1%	bucket
08-06-22 12:32	0.276	0.0113	0.0130	0.0017	15.0%	bucket
22-06-22 16:02	0.370	0.0580	0.0537	-0.0043	-7.4%	tracer
04-05-23 19:16	0.443	0.096	0.110	0.0136	14.2%	tracer
05-05-23 11:14	0.42	0.079	0.089	0.0098	12.4%	tracer
15-05-23 13:48	0.232	0.008	0.004	-0.0039	-46.7%	bucket
18-07-23 17:10	0.181	0.001	0.000	0.0000	-6.7%	tracer
01-08-23 11:52	0.182	0.000	0.000	0.0004	257.0%	bucket
05-09-23 12:33	0.18	0.000	0.000	0.0000	8.7%	bucket
05-10-23 11:27	0.192	0.000	0.001	0.0005	128.5%	bucket
			Mean of abs. diff.	0.0025	38.9%	
			St. dev.	0.0044	71.1%	

Site Hydrology

Figure 4. Stage-discharge rating curve at W4a from 2023



Supplemental Hydrology

Supplemental Hydrology: South Toe Drain

Table 1. Discharge measurements for South Toe Drain in 2023

Date	Manual water level (m)	Discharge, Q (m ³ /s)	Method
2023-01-09 13:58		0.0074	Bucket Flow
2023-01-18 14:56		0.0120	Bucket Flow
2023-02-06 15:06		0.0112	Bucket Flow
2023-02-07 12:52		0.0128	Bucket Flow
2023-03-08 12:59		0.0072	Bucket Flow
2023-04-11 12:29		0.0074	Bucket Flow
2023-05-04 13:42		0.0091	Bucket Flow
2023-06-07 11:00		0.0073	Bucket Flow
2023-07-11 9:47		0.0112	Bucket Flow
2023-07-31 13:10		0.0080	Bucket Flow
2023-08-08 11:50		0.0082	Bucket Flow
2023-09-06 14:44		0.0106	Bucket Flow
2023-09-26 11:55		0.0096	Bucket Flow
2023-10-04 10:27		0.0078	Bucket Flow
2023-10-11 8:50		0.0090	Bucket Flow
2023-10-24 12:51		0.0079	Bucket Flow
2023-11-07 10:50		0.0086	Bucket Flow
2023-11-20 11:56		0.0099	Bucket Flow
2023-12-05 11:22		0.0091	Bucket Flow
2023-12-20 11:28		0.0090	Bucket Flow

Supplemental Hydrology: East Main Toe Drain

Table 2. Discharge measurements for East Main Toe Drain in 2023

Date	Manual water level (m)	Discharge, Q (m ³ /s)	Method
2023-01-09 14:34		0.0024	Bucket Flow
2023-01-19 12:06		0.0023	Bucket Flow
2023-02-07 13:27		0.0022	Bucket Flow
2023-03-08 13:20		0.002	Bucket Flow
2023-04-11 13:09		0.0033	Bucket Flow
2023-05-04 13:49		0.0032	Bucket Flow
2023-07-11 10:12		0.0019	Bucket Flow
2023-07-31 14:17		0.0023	Bucket Flow
2023-08-08 12:19		0.0025	Bucket Flow
2023-09-06 15:08		0.002	Bucket Flow
2023-09-26 12:30		0.002	Bucket Flow
2023-10-04 11:29		0.0023	Bucket Flow
2023-10-11 9:17		0.0021	Bucket Flow
2023-10-24 13:24		0.0018	Bucket Flow
2023-11-07 11:27		0.0021	Bucket Flow

2023-11-20 12:35		0.0022	Bucket Flow
2023-12-05 11:54		0.0021	Bucket Flow
2023-12-20 12:04		0.002	Bucket Flow

Supplemental Hydrology: SERDS Ditch

Note: Hydrology site not measured in 2023

Supplemental Hydrology: West Main Toe Drain

Table 3. Discharge measurements for West Main Toe Drain in 2023

Date	Manual water level (m)	Discharge, Q (m3/s)	Method
2023-01-09 14:25		0.0012	Bucket Flow
2023-01-19 11:50		0.0012	Bucket Flow
2023-02-07 13:16		0.0011	Bucket Flow
2023-03-08 13:30		0.0012	Bucket Flow
2023-04-11 12:54		0.0009	Bucket Flow
2023-05-04 14:01		0.001	Bucket Flow
2023-06-07 9:55		0.0011	Bucket Flow
2023-07-11 10:01		0.0008	Bucket Flow
2023-07-31 13:57		0.0012	Bucket Flow
2023-08-08 12:09		0.0012	Bucket Flow
2023-09-06 15:00		0.001	Bucket Flow
2023-09-26 12:18		0.0011	Bucket Flow
2023-10-04 11:09		0.0013	Bucket Flow
2023-10-11 8:56		0.0011	Bucket Flow
2023-10-24 13:13		0.001	Bucket Flow
2023-11-07 11:15		0.001	Bucket Flow
2023-11-20 12:23		0.001	Bucket Flow
2023-12-05 11:42		0.0011	Bucket Flow
2023-12-20 11:52		0.0011	Bucket Flow

Supplemental Hydrology: Joe's Creek Pipe

Table 4. Discharge measurements for Joe's Creek Pipe in 2023

Date	Manual water level (m)	Discharge, Q (m3/s)	Method
2023-01-11 14:42		0.0017	Bucket Flow
2023-01-18 11:05		0.0018	Bucket Flow
2023-02-06 12:08		0.0014	Bucket Flow
2023-02-07 14:33		0.0014	Bucket Flow
2023-03-09 13:17		0.0011	Bucket Flow
2023-04-05 10:57		0.0015	Bucket Flow
2023-06-07 12:42		0.0056	Bucket Flow
2023-07-11 11:29		0.0041	Bucket Flow
2023-08-01 11:37		0.0029	Bucket Flow
2023-09-11 12:48		0.0024	Bucket Flow
2023-10-05 11:06		0.0022	Bucket Flow

2023-11-16 11:07		0.0016	Bucket Flow
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Supplemental Hydrology: Junction Zone Ditch

Table 5. Discharge measurements for Junction Zone Ditch in 2023

Date	Manual water level (m)	Discharge, Q (m ³ /s)	Method
2023-08-03 11:15		0.005	Bucket Flow
2023-09-11 15:12		0.004	Bucket Flow

Supplemental Hydrology: Northwest Ditch

Table 6. Discharge measurements for Northwest Ditch in 2023

Date	Manual water level (m)	Discharge, Q (m ³ /s)	Method
2023-01-23 11:15		0.0008	Bucket Flow
2023-04-13 11:25		0.0064	Bucket Flow
2023-05-03 13:21		0.0052	Bucket Flow
2023-06-07 13:30		0.0018	Bucket Flow
2023-07-13 11:45		0.002	Bucket Flow
2023-08-03 10:57		0.0017	Bucket Flow
2023-09-11 15:04		0.0014	Bucket Flow
2023-10-04 13:57		0.0012	Bucket Flow
2023-11-16 10:40		0.0007	Bucket Flow
2023-12-05 13:20		0.0007	Bucket Flow

Grid Format Report : H1 - Upper Hazeltine Hydrology

From 1 Jan 2023 to 31 Dec 2023

Printed : 2024-03-06



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	: H1 Up HAC Hydrology			
	20-Jun-23	15-Aug-23	18-Sep-23	12-Oct-23
Q (m3/s)	0.042		0.1099	0.0839
Staff Gauge (m)	0.708	0.724	0.671	0.656

Grid Format Report : H1 - Upper Hazeltine Hydrology

From 1 Jan 2023 to 31 Dec 2023

Printed : 2024-03-06



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	: H1 Up HAC Hydrology						
	Sample (n)	Count >MDL	Min	Max	Mean	95th Percentile	St Dev
Q (m3/s)	3	3	0.04200	0.10990	0.07860	0.58990	0.03426
Staff Gauge (m)	4	4	0.65600	0.72400	0.68975	0.91310	0.03161

Grid Format Report : H2 - Lower Hazeltine Creek Hydrology

From 1 Jan 2023 to 31 Dec 2023

Printed : 2024-03-06



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	: H2 Low HAC Hydrology			
	20-Jun-23	15-Aug-23	18-Sep-23	12-Oct-23
Q (m3/s)	0.1177		0.1282	0.1045
Staff Gauge (m)	0.5	0.51	0.459	0.444

Grid Format Report : H2 - Lower Hazeltine Creek Hydrology

From 1 Jan 2023 to 31 Dec 2023

Printed : 2024-03-06



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	: H2 Low HAC Hydrology						
	Sample (n)	Count >MDL	Min	Max	Mean	95th Percentile	St Dev
Q (m3/s)	3	3	0.10450	0.12820	0.11680	0.73687	0.01188
Staff Gauge (m)	4	4	0.44400	0.51000	0.47825	0.63200	0.03175

Grid Format Report : H3a- Lower Edney Creek Hydrology

From 1 Jan 2023 to 31 Dec 2023

Printed : 2024-03-06



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	: H3a- Lower Edney Cre			
	20-Jun-23	15-Aug-23	18-Sep-23	12-Oct-23
Q (m3/s)	0.0556		0.0042	0.0059
Staff Gauge (m)	0.19	0.254	0.25	0.262

Grid Format Report : H3a- Lower Edney Creek Hydrology

From 1 Jan 2023 to 31 Dec 2023

Printed : 2024-03-06



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	: H3a- Lower Edney Cre						
	Sample (n)	Count >MDL	Min	Max	Mean	95th Percentile	St Dev
Q (m3/s)	3	3	0.00420	0.05560	0.02190	0.70262	0.02920
Staff Gauge (m)	4	4	0.19000	0.26200	0.23900	0.44685	0.03305

Grid Format Report : H4 - Polley Lake Weir Hydrology

From 1 Jan 2023 to 31 Dec 2023

Printed : 2024-03-06



Mount Polley

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IMPERIAL METALS CORPORATION

	: H4 POL Weir Hydrolog				
	4-May-23	21-Jun-23	15-Aug-23	18-Sep-23	12-Oct-23
Q (m3/s)	0.1375	0.0169		0.1171	0.084
Staff Gauge (m)	0.873	0.736	0.758	0.705	0.702

Grid Format Report : H4 - Polley Lake Weir Hydrology

From 1 Jan 2023 to 31 Dec 2023

Printed : 2024-03-06



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	: H4 POL Weir Hydrolog						
	Sample (n)	Count >MDL	Min	Max	Mean	95th Percentile	St Dev
Q (m3/s)	4	4	0.01690	0.13750	0.08888	0.54423	0.05281
Staff Gauge (m)	5	5	0.70200	0.87300	0.75480	0.98810	0.07000

Grid Format Report : W12 - 6k Creek

From 1 Jan 2023 to 31 Dec 2023

Printed : 2024-03-06



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	E216744 : W12				
	21-Jun-23	19-Jul-23	16-Aug-23	19-Sep-23	12-Oct-23
Q (m3/s)	-0.0148			0.0015	0.0029
Staff Gauge (m)	0.272	0.206	0.228	0.252	0.264

Grid Format Report : W12 - 6k Creek

From 1 Jan 2023 to 31 Dec 2023

Printed : 2024-03-06



Mount Polley

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	E216744 : W12						
	Sample (n)	Count >MDL	Min	Max	Mean	95th Percentile	St Dev
Q (m3/s)	3	3	-0.01480	0.00290	-0.00347	0.35255	0.00984
Staff Gauge (m)	5	5	0.20600	0.27200	0.24440	0.95510	0.02714

Grid Format Report : W1b - Morehead Creek Downstream

From 1 Jan 2023 to 31 Dec 2023

Printed : 2024-03-06



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	E291449 : W1b - Morehead Creek				
	21-Jun-23	19-Jul-23	16-Aug-23	19-Sep-23	12-Oct-23
Q (m3/s)	0.0027			0.0016	0.0005
Staff Gauge (m)	0.336	0.27	0.208	0.173	0.158

Grid Format Report : W1b - Morehead Creek Downstream

From 1 Jan 2023 to 31 Dec 2023

Printed : 2024-03-06



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	E291449 : W1b - Morehead Creek						
	Sample (n)	Count >MDL	Min	Max	Mean	95th Percentile	St Dev
Q (m3/s)	3	3	0.00050	0.00270	0.00160	0.63344	0.00110
Staff Gauge (m)	5	5	0.15800	0.33600	0.22900	0.66900	0.07374

Grid Format Report : W4a - North Dump Creek below Wight Pit

From 1 Jan 2023 to 31 Dec 2023

Printed : 2024-03-06



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E298551 : W4a

	12-Apr-23	24-Apr-23	2-May-23	8-May-23	15-May-23	23-May-23	8-Jun-23	10-Jul-23	1-Aug-23	5-Sep-23	5-Oct-23	8-Nov-23	11-Dec-23
Q (m3/s)	0.0025		0.01	0.01	0.0083	0.0081	0.0015	0.0006	0.00014	0.0004	0.0004	0.0004	0.0003
Staff Gauge (m)	0.218	3.69	4.75	0.318	0.232	0.299			0.182	0.18	0.192	0.193	0.188

Grid Format Report : W4a - North Dump Creek below Wight Pit

From 1 Jan 2023 to 31 Dec 2023

Printed : 2024-03-06



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	E298551 : W4a						
	Sample (n)	Count >MDL	Min	Max	Mean	95th Percentile	St Dev
Q (m3/s)	12	12	0.00014	0.01000	0.00355	0.01294	0.00418
Staff Gauge (m)	11	11	0.18000	4.75000	0.94927	2.89200	1.63503

Grid Format Report : W5 - Bootjack Creek above Hazeltine Creek

From 1 Jan 2023 to 31 Dec 2023

Printed : 2024-03-06



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	E208039 : W5		
	10-Jul-23	19-Sep-23	12-Oct-23
Q (m3/s)		0.0002	0
Staff Gauge (m)	0.0	0.179	0.184

Grid Format Report : W5 - Bootjack Creek above Hazeltine Creek

From 1 Jan 2023 to 31 Dec 2023

Printed : 2024-03-06



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	E208039 : W5						
	Sample (n)	Count >MDL	Min	Max	Mean	95th Percentile	St Dev
Q (m3/s)	2	2	0.00000	0.00020	0.00010	0.17350	0.00014
Staff Gauge (m)	3	3	0.00000	0.18400	0.12100	0.34660	0.10482

Hydrological Station Site Photos

Figure 1. W1b- Morehead Creek Hydrology Station, July 2023



Figure 2. W12- 6km Creek Hydrology Station, June 2023



Figure 3. W4a- North Dump Creek Hydrology Station, July 2023



Figure 4. W5- Bootjack Creek Hydrology Station, July 2023



Figure 5. H1- Upper Hazeltine Hydrology Station, October 2023



Figure 6. H2- Lower Hazeltine Hydrology Station, July 2023



Figure 7. H3a- Edney Creek Hydrology Station, July 2023



Figure 8. H4- Polley Lake Weir Hydrology Station, October 2023



March 18, 2024

Gabriel Holmes
Mount Polley Mining Corporation
200 – 580 Hornby Street
Vancouver, BC, V6C 3B6

Re: Data processing & reporting for the 2023 hydrometric monitoring program

Dear Mr. Holmes,

As a qualified professional hydrologist (QP), I was retained by Mount Polley Mining Corporation (MPMC) to process hydrometric data from the 2023 monitoring season, and prepare a draft of the hydrology sections for MPMC's annual report. This letter outlines my involvement, and provides recommendations for future implementation.

1 Data processing completed by WaterSmith

I completed the following data processing for stations H1 (Upper Hazeltine), H2 (Lower Hazeltine), H3a (Lower Edney), H4 (Polley Lake Weir), W1b (Upper Morehead), W4a (North Dump Creek below Wight Pit Road), W5 (Bootjack), and W12 (6 km Creek).

- Reviewed manual stage readings and manual discharge measurements for errors, and removed erroneous data points.
- Developed stage-discharge rating curves statistically using least-squares regression.
- Reviewed the continuous water temperature and pressure (i.e., water level) data for errors, removed erroneous data, and infilled short gaps (<2 hours) in the water level data (H1, H2, H3a, H4).
- Developed relations between the continuous water pressure data and the manual stage readings.
- Applied the stage-pressure relations and stage-discharge rating curves to the continuous water pressure data to generate continuous discharge data.
- Calculated goodness of fit statistics for the stage-discharge rating curves.

2 Reporting completed by WaterSmith

WaterSmith prepared a draft of the hydrology sections for MPMC's 2023/24 annual report, following the general structure of previous annual reports. This scope included production of relevant figures for appendices (stage-discharge rating curves, stage-pressure relations, hydrographs).

3 Recommendations

The following recommendations are provided for implementation in the 2024 hydrometric monitoring season.

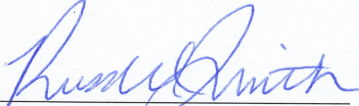
1. Discharge measurements at low, moderate, and high flows are necessary to develop and/or assess the stability of a stage-discharge rating curve. Bearing in-mind safety limitations, effort should be made in 2024 to acquire manual discharge measurements over a large range of flows for further development and/or validation of the rating curves. The following flow ranges should be specifically targeted to fill gaps in the existing stage-discharge rating curves (see additional recommendations below).
 - a. H1: moderate flows (0.2-0.6 m³/s)
 - b. H2: low flows (<0.1 m³/s)
 - c. H3a: full range of flows
 - d. H4: full range of flows
 - e. W1b: full range of flows
 - f. W4a: moderate flows (0.02-0.08 m³/s)
 - g. W5: moderate flows (0.05-0.15 m³/s)
 - h. W12: moderate flows (0.1-0.5 m³/s)
2. The H2, H3a, and H4 stage-discharge rating curves are incomplete or provisional. It is important to complete regular manual discharge measurements spanning a large range of flows to further develop these rating curves. After the rating curves are revised in the future, the new curves should be applied retroactively to the continuous pressure recordings from previous years, extending back to the dates when the rating curves became provisional (e.g., when the existing stations were initially constructed or modified).

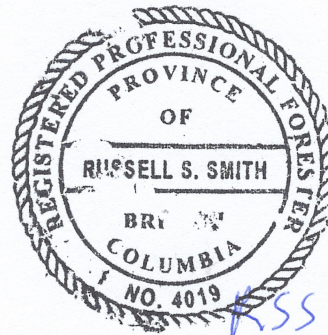
3. Up to 5 cm (water depth) of drift in the PT2x recordings occurred at H4 throughout the 2023 monitoring season. To the greatest extent practicable, adjustments were made to correct the drift; however, the drift likely generated unknown errors in the continuous discharge dataset, even after correction. For all automated hydrometric stations, it is important to confirm during each site visit that the PT2x vent tube is functioning properly. The tubes should be inspected to confirm they are not pinched or obstructed in any way, and should be maintained free of moisture. If the drift problem persists, the associated PT2x data logger (SN 21102016) should be replaced or sent to the manufacturer for repair.
4. Further to Recommendation 3, consider replacing all remaining yellow metal box housings on the tops of the stilling wells with a more waterproof option, to protect the PT2x vent tubes from exposure to moisture.
5. Notwithstanding the data drift described in Recommendation 3, the discharge data show higher flows at H4 than H1 for most of the late spring, summer, and fall of 2023 (as well as 2022). It is unclear whether the apparent loss of surface flow between H4 and H1 is a real phenomenon, or caused by a data irregularity (e.g., bias in the stage-discharge rating curve or stage-pressure relation, and/or additional uncorrected drift in the PT2x readings). It is important to complete several manual discharge measurements in quick succession at H4 and H1 (starting at H4, then moving in a downstream direction to H1) during periods of steady outflow from Polley Lake, to help with identifying the cause of the apparent flow loss. If the flow loss is determined to be an artifact of a data irregularity, the continuous discharge data should be revised for 2023 and prior years, as relevant.
6. Care should be taken during deployment and downloading of the PT2x loggers to ensure a consistent recording frequency (e.g., 10 minutes) and timestamp format are employed.
7. Whenever a PT2x logger is re-installed in a stilling well, it should be positively confirmed that the logger is properly seated at the bottom of the well.
8. Consider adding a pipe extension to the top of the stilling well at H3a, as there is potential for the logger housing to be inundated during an extreme high flow.
9. The weir pond at W4a should be cleaned out during each site visit, prior to measuring flows and making staff gauge readings. It is particularly important to remove any gravel or debris deposited on the crest of the rock weir.
10. Tracer-based methods should be considered at all stations for measuring extreme high and low flows, due to challenges with implementing velocity based measurements under these conditions (e.g., under-representation of discharge at low flow; safety limitations at high flow).

11. When making manual staff gauge readings, care should be taken to read the increments on the staff gauge precisely. It is important to always read the stage level from the bottom of the meniscus, and average any vertical fluctuation caused by flow turbulence.
12. For enhancing development of the stage-pressure relations, manual stage readings should be acquired during every site visit, whether or not discharge is being measured manually.
13. Build-up of sediment, debris, vegetation (e.g., algae), and/or ice on the crest of a weir can elevate the water level and bias the stage-discharge rating curve. Weir crests should be inspected during each site visit and cleared of any foreign material.

Please do not hesitate to contact me if you have questions or require additional information.

Sincerely,


Russell Smith, PhD, RPF
Senior Hydrologist

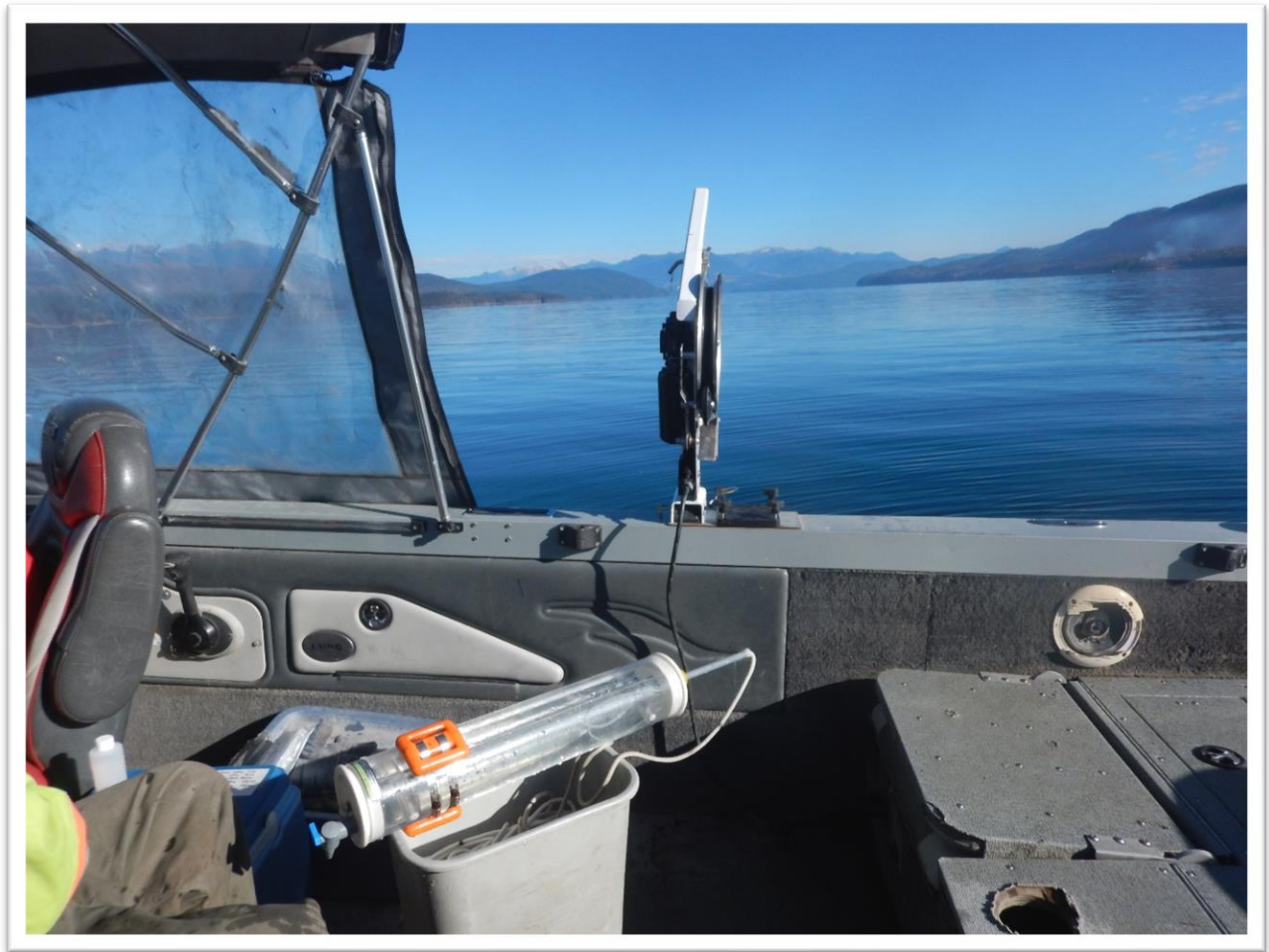


March 18/24

Appendix M

Lake Water Quality and Zooplankton Data

(Results in Electronic format only)



Water Quality Report

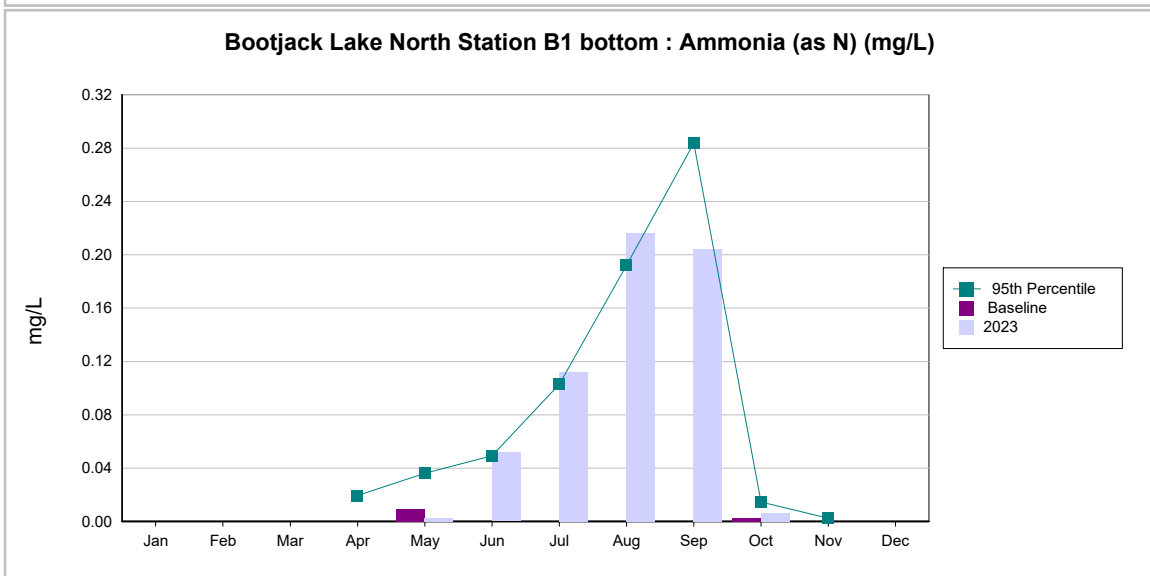
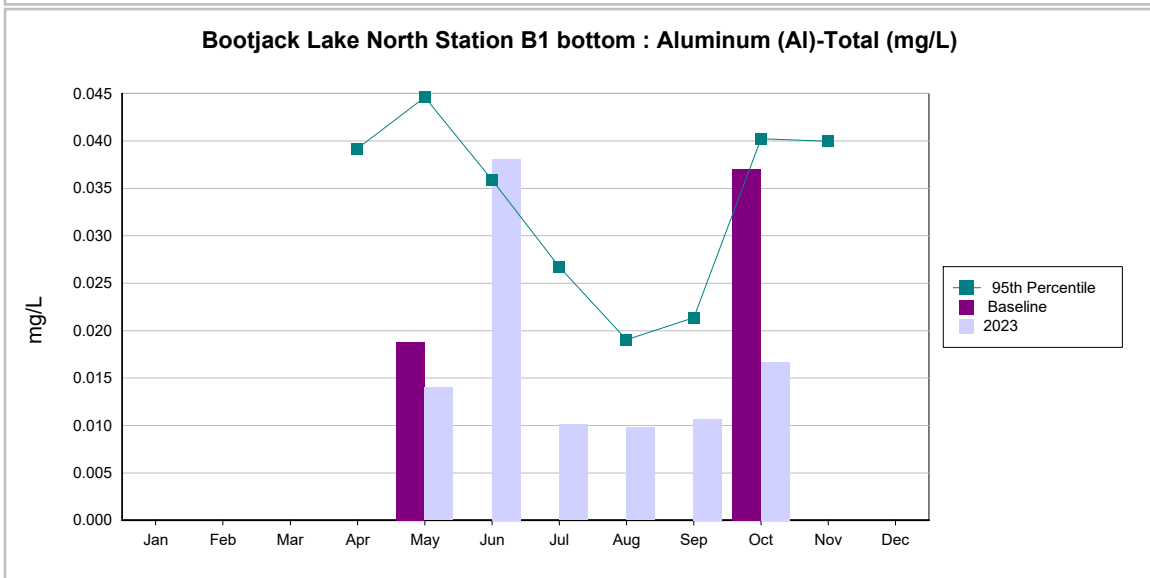
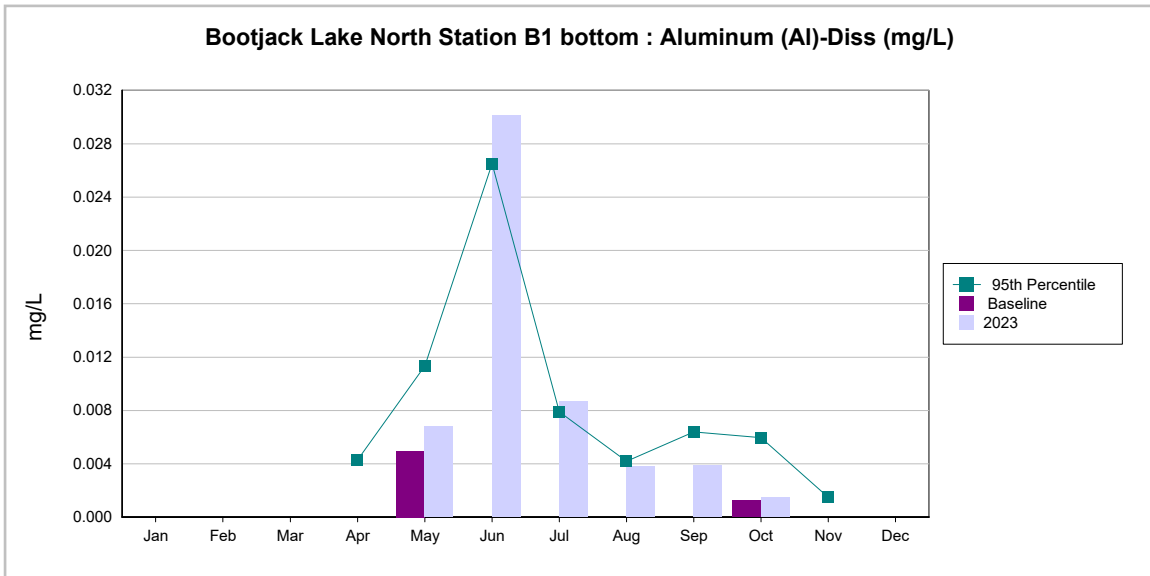
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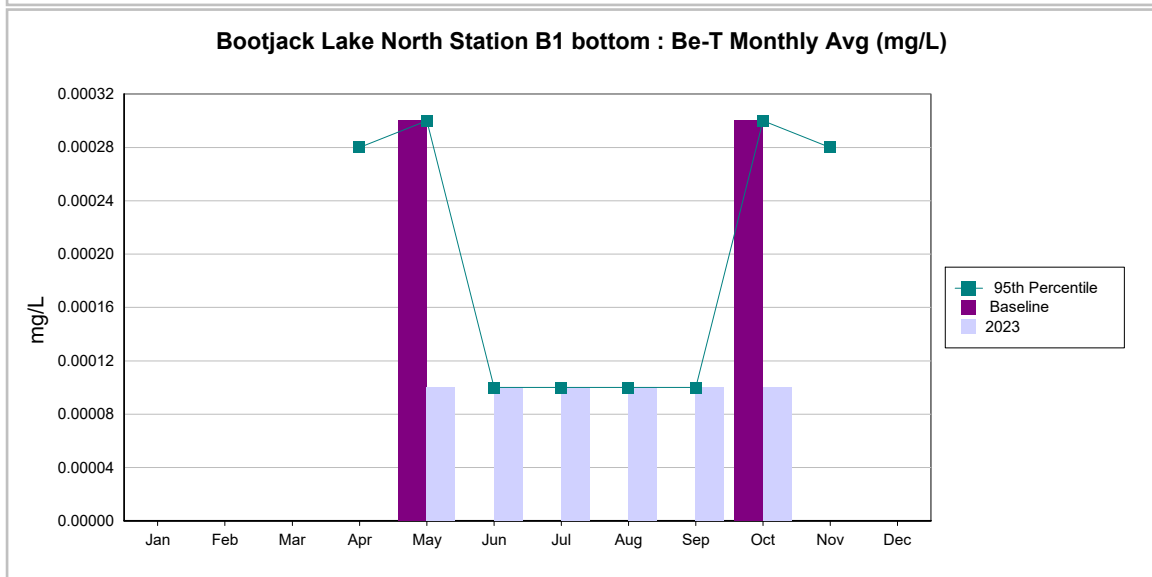
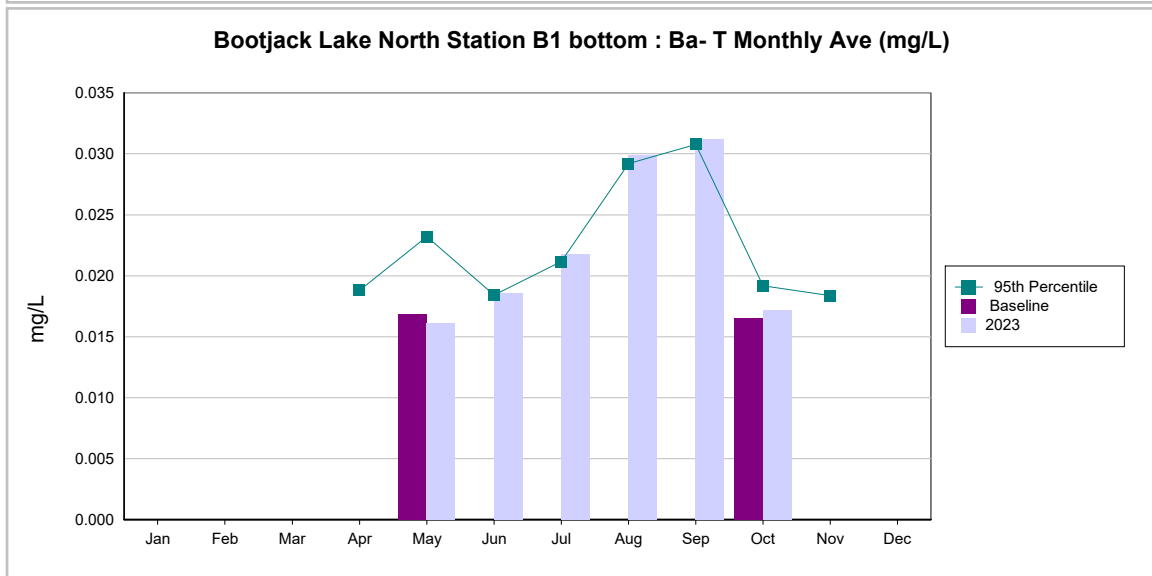
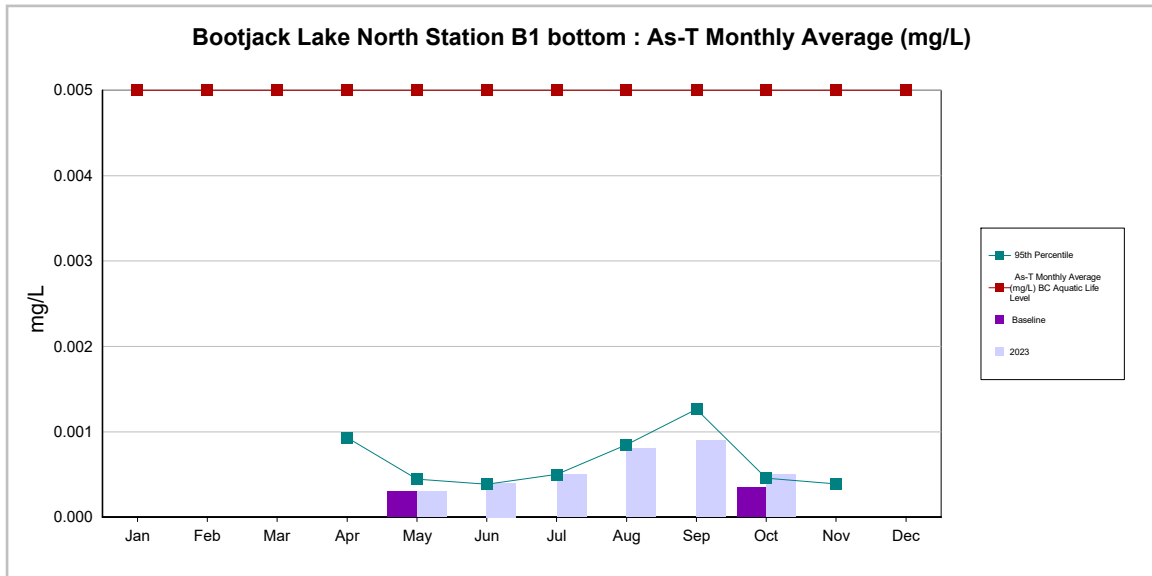
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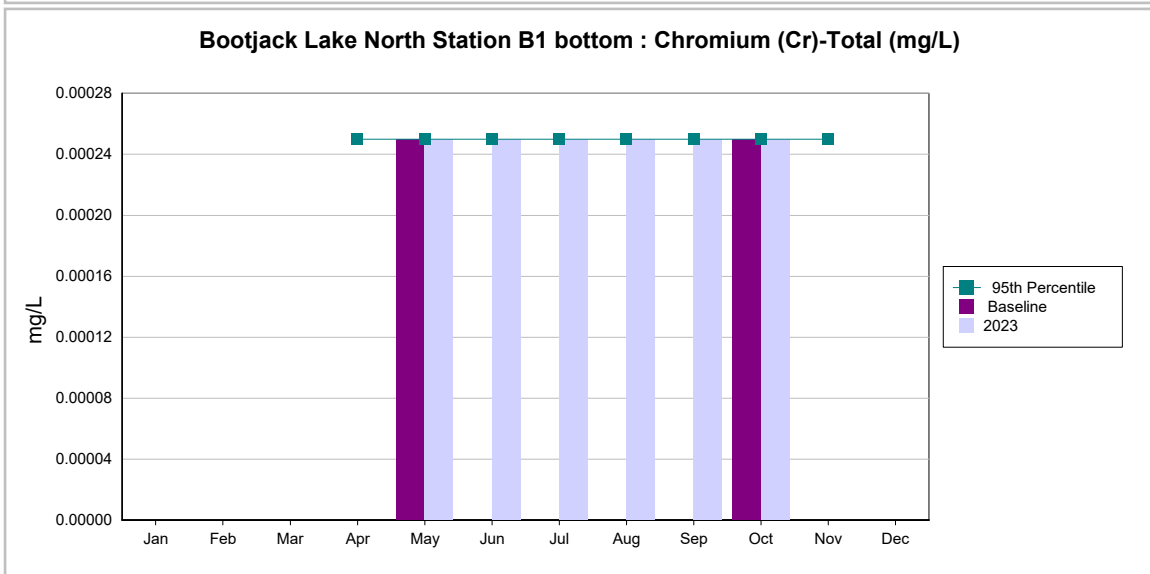
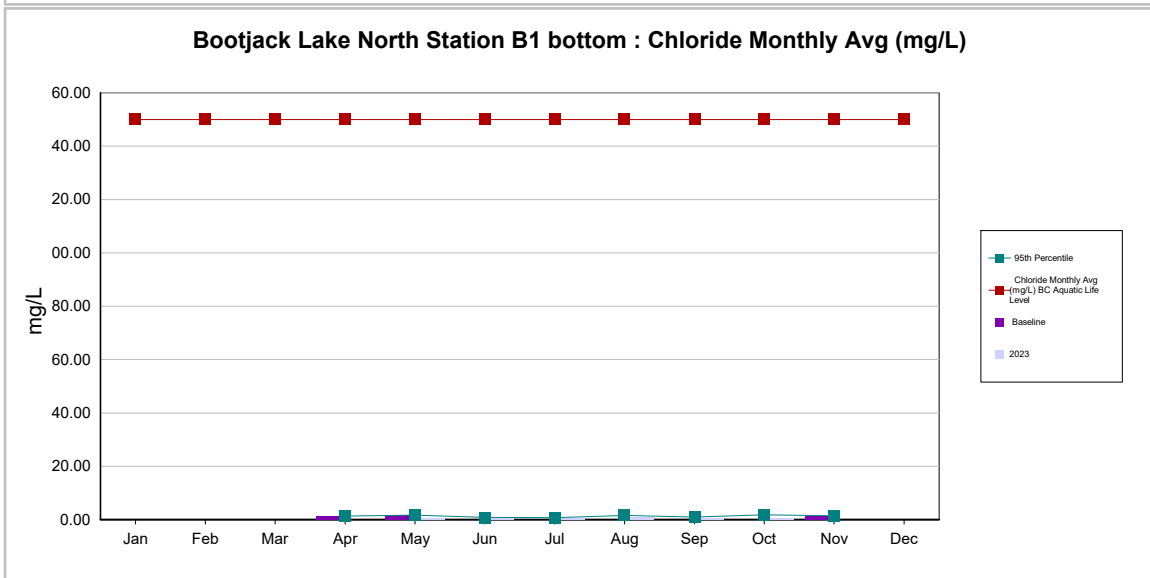
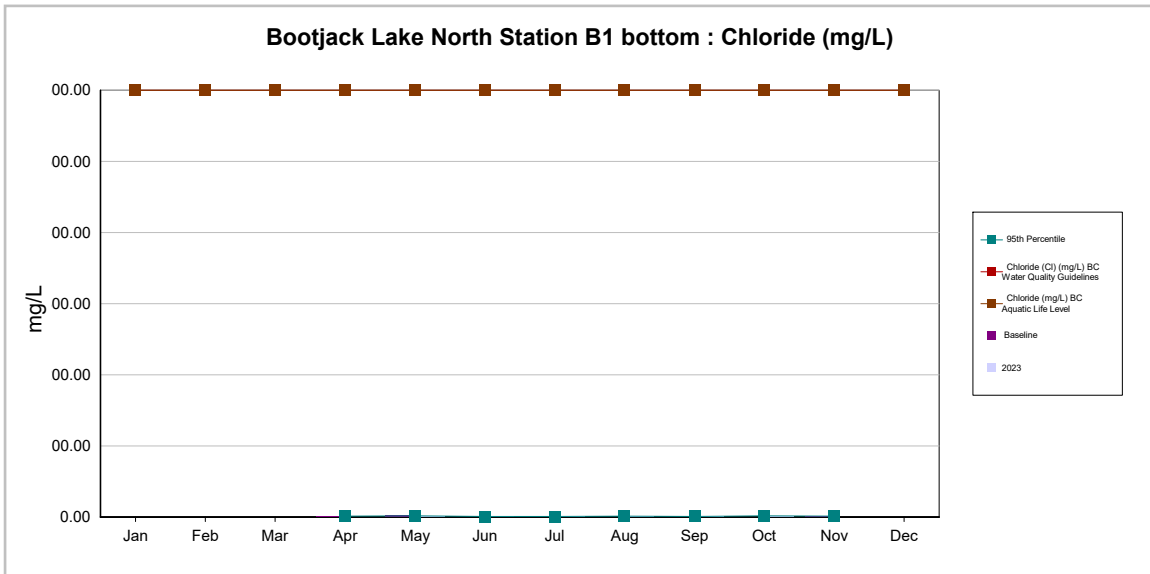
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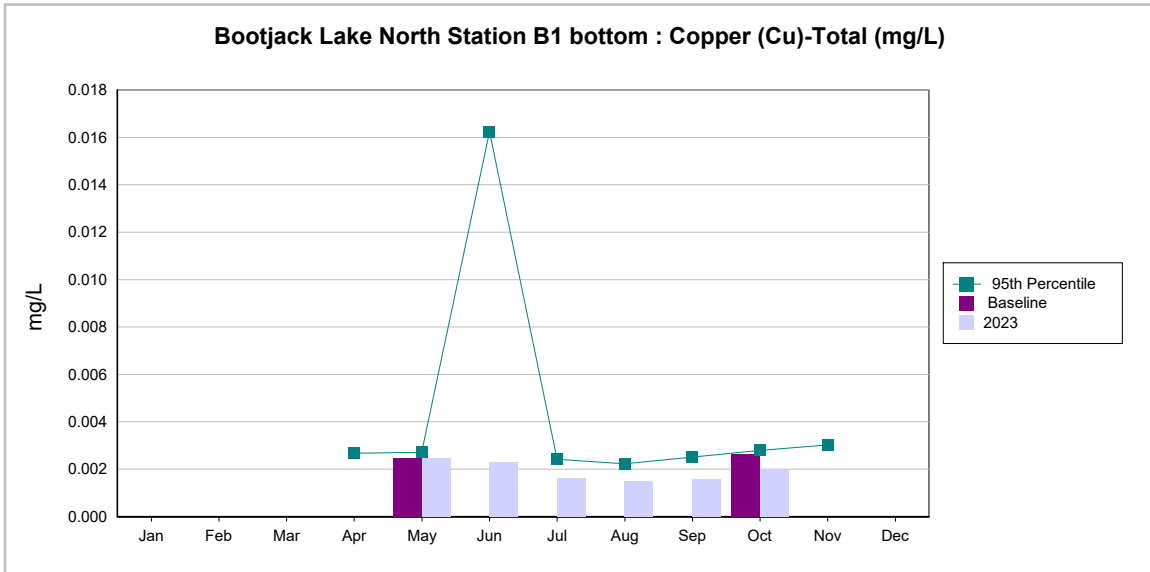
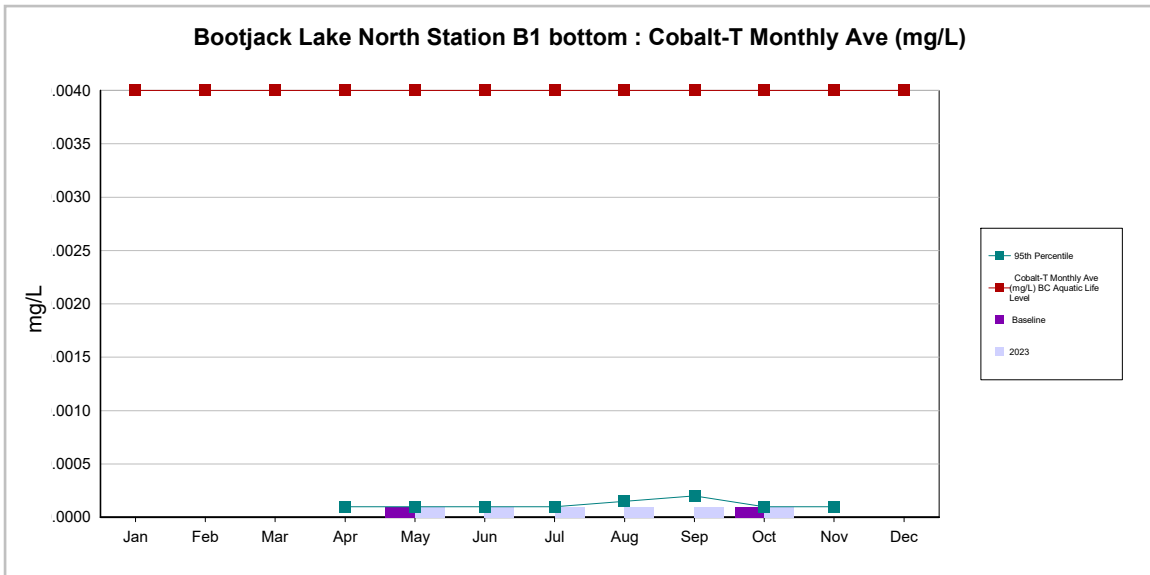
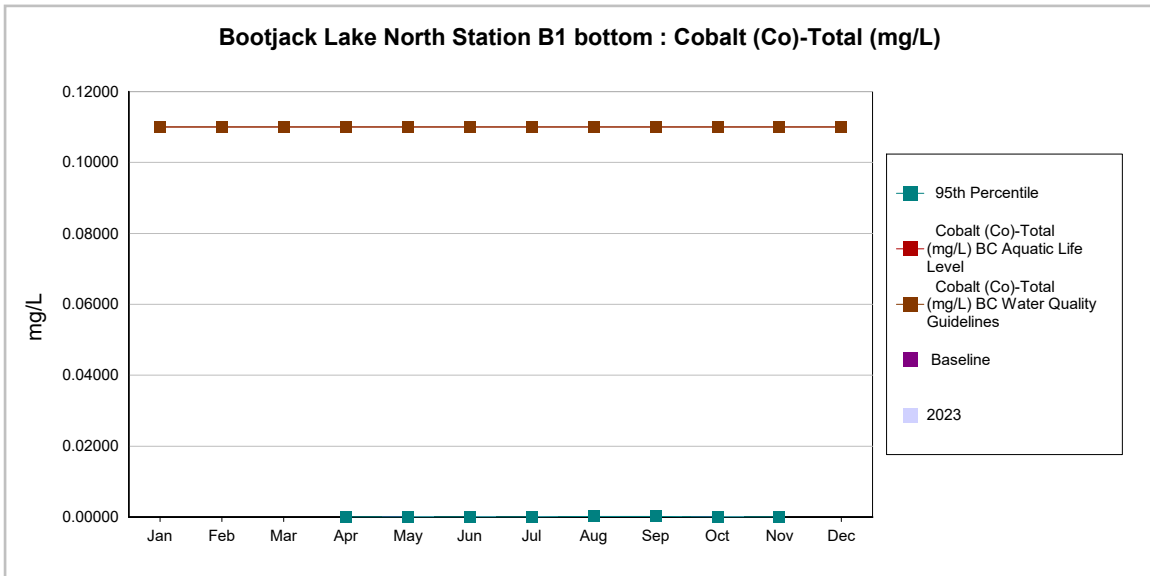
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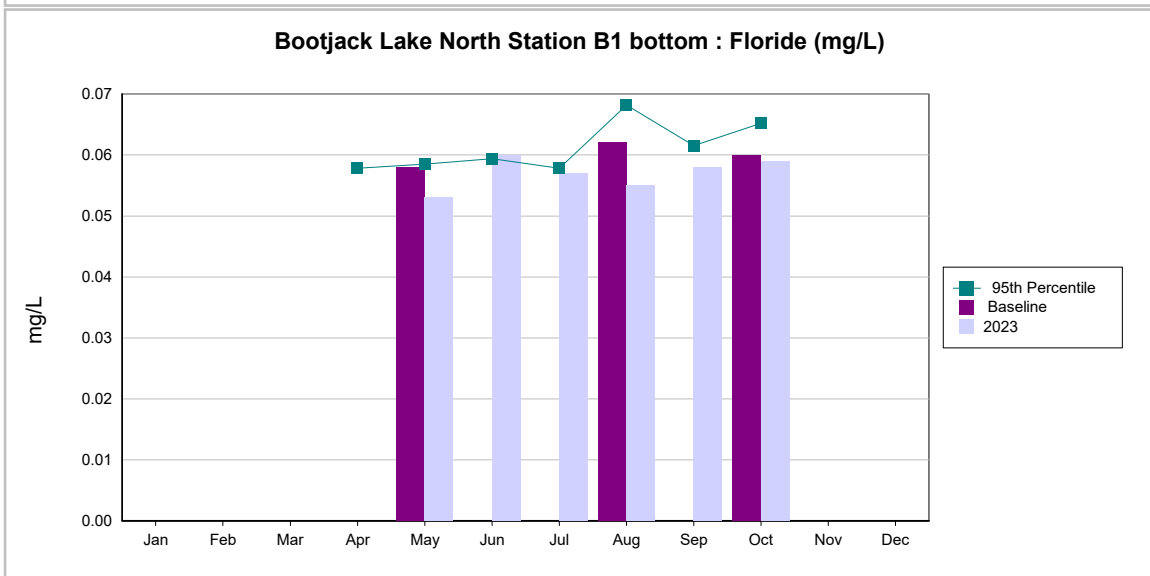
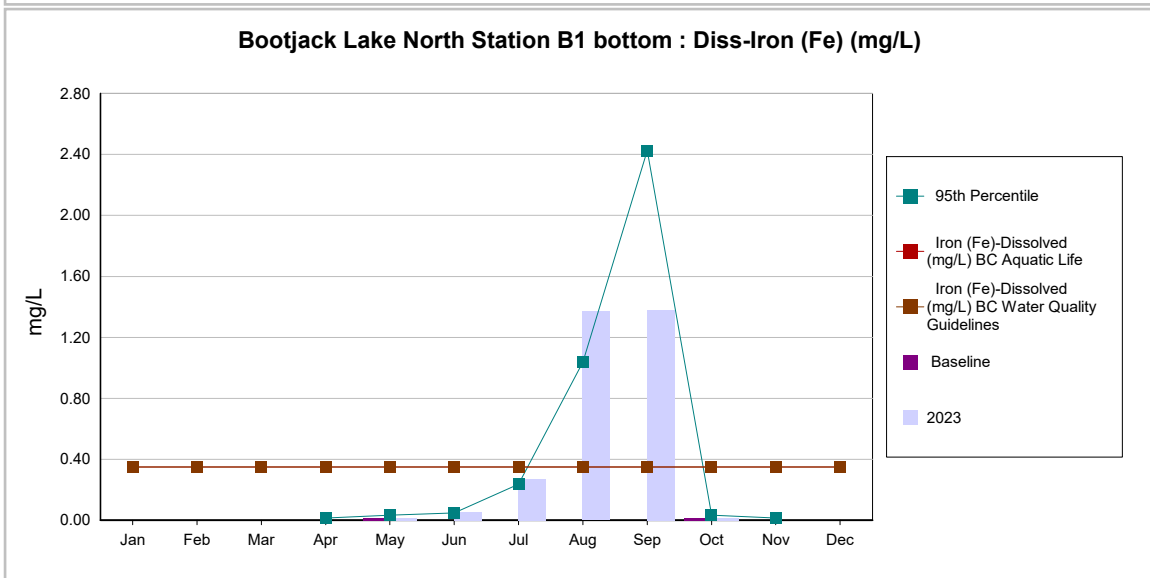
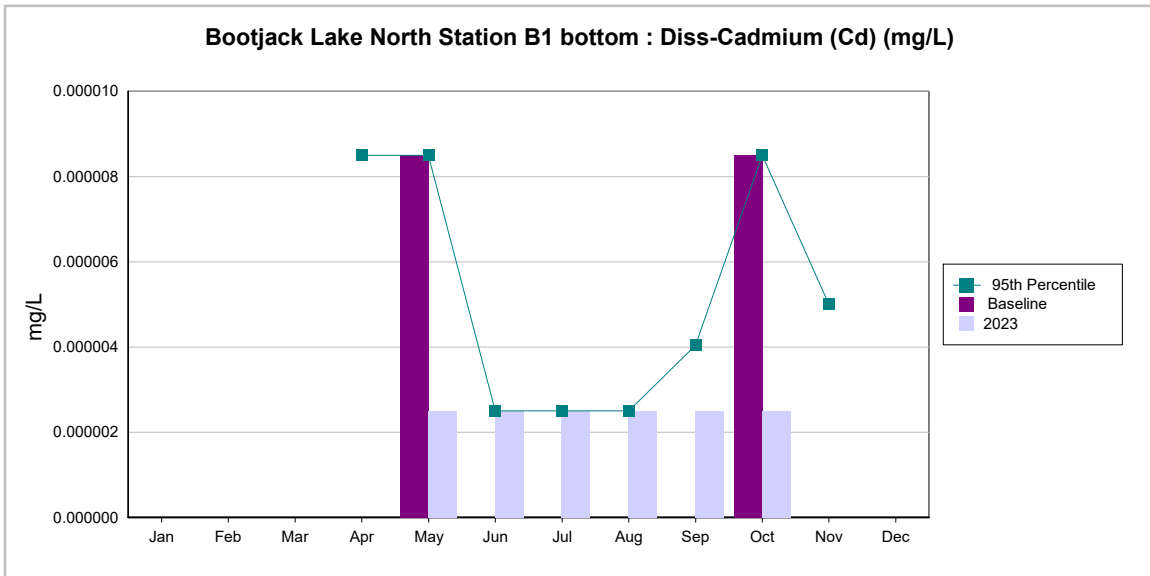
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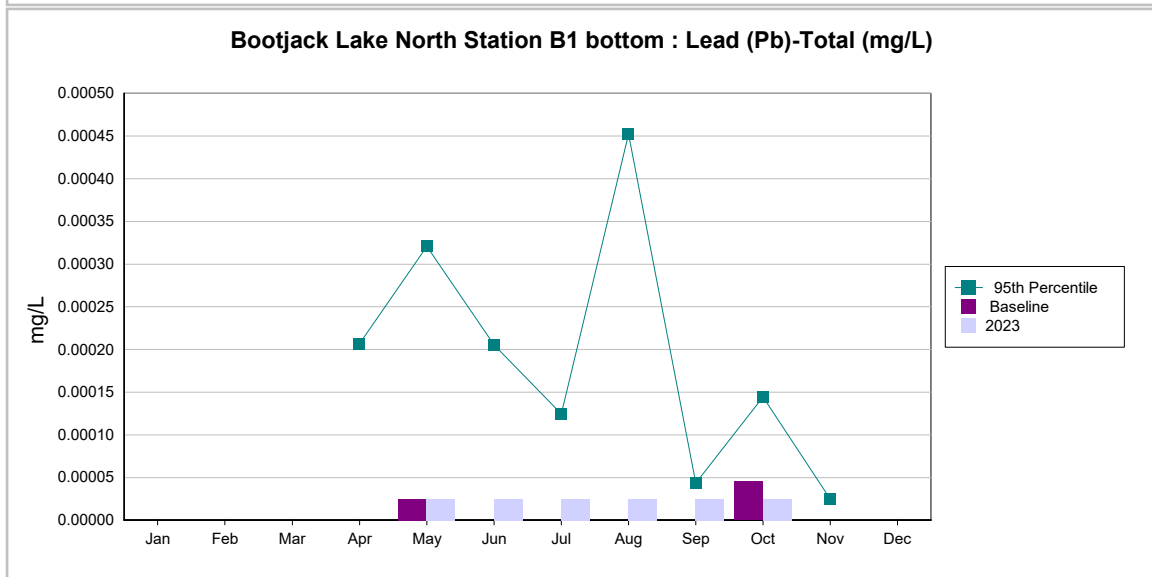
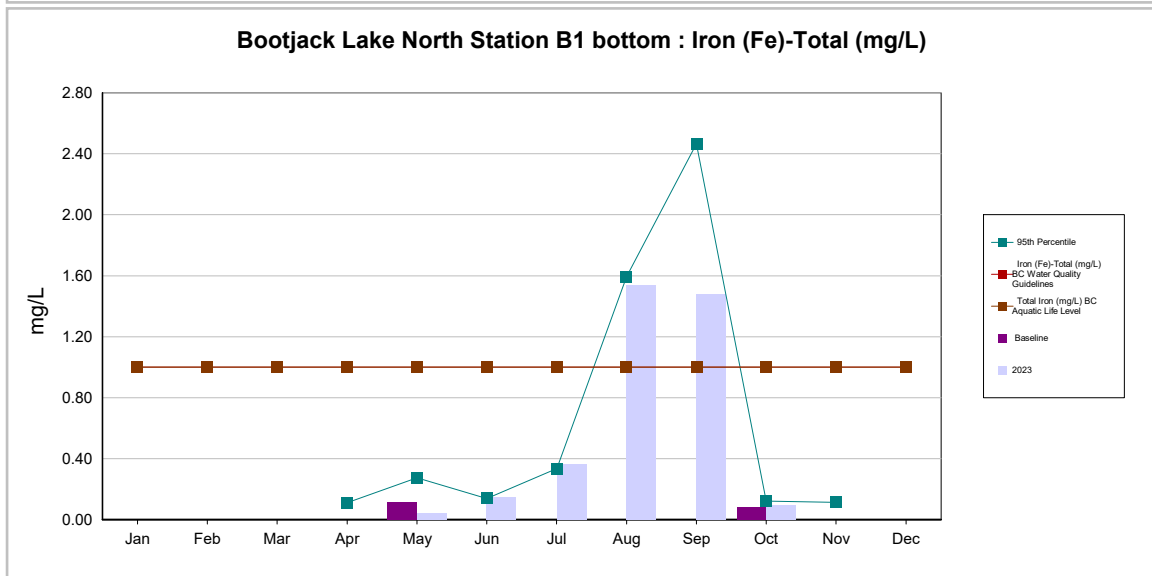
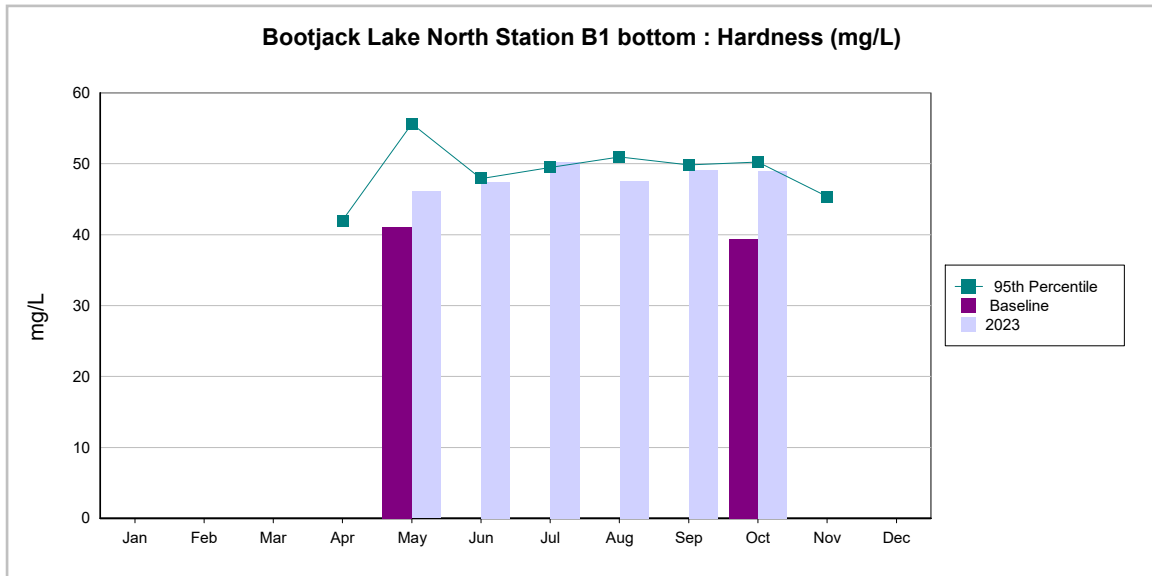
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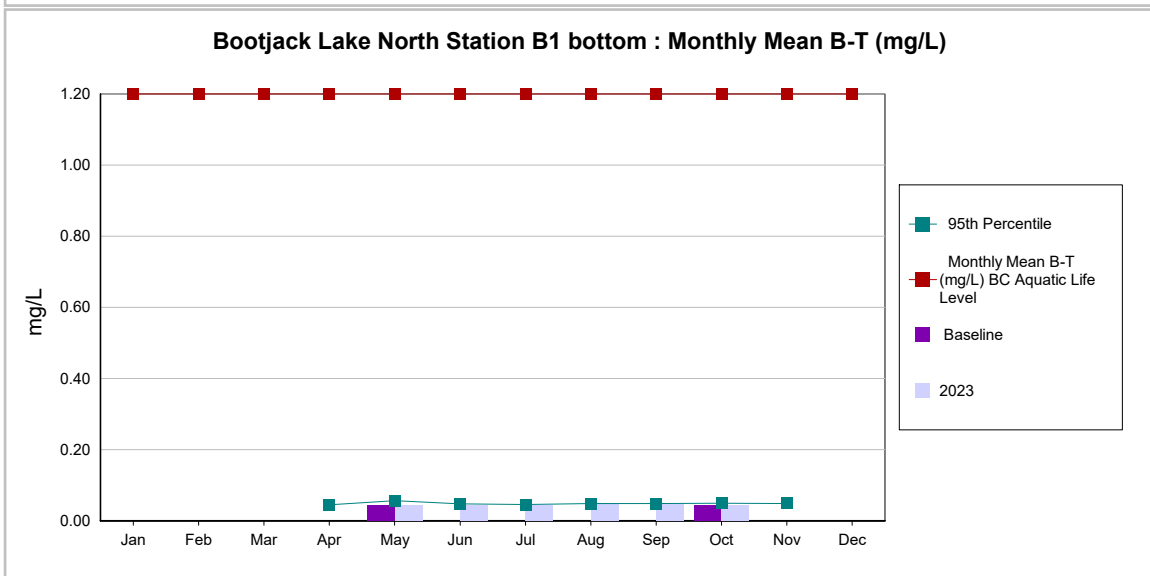
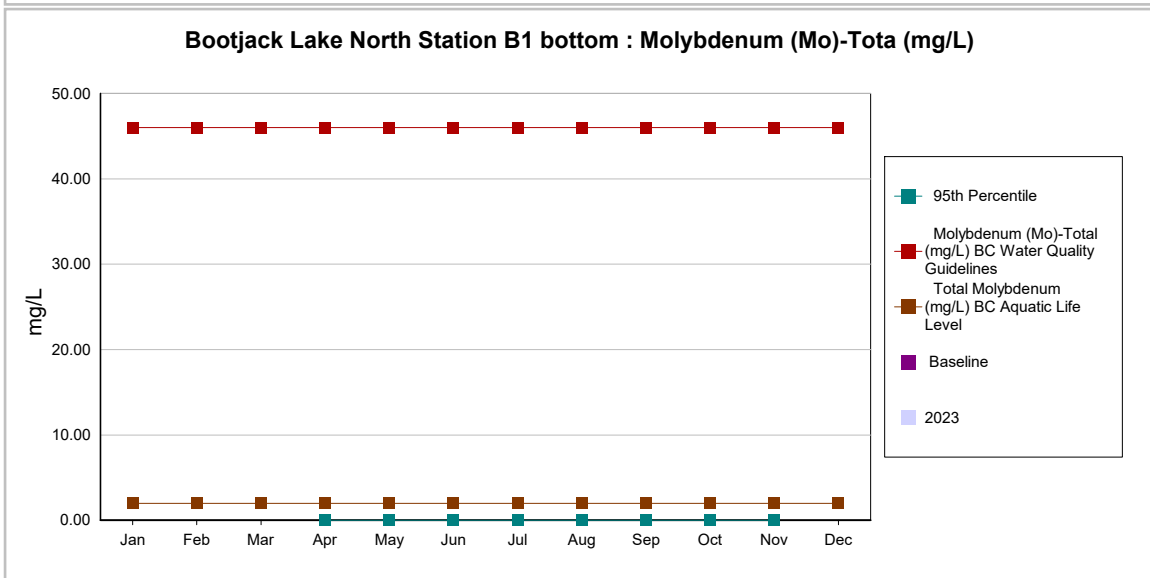
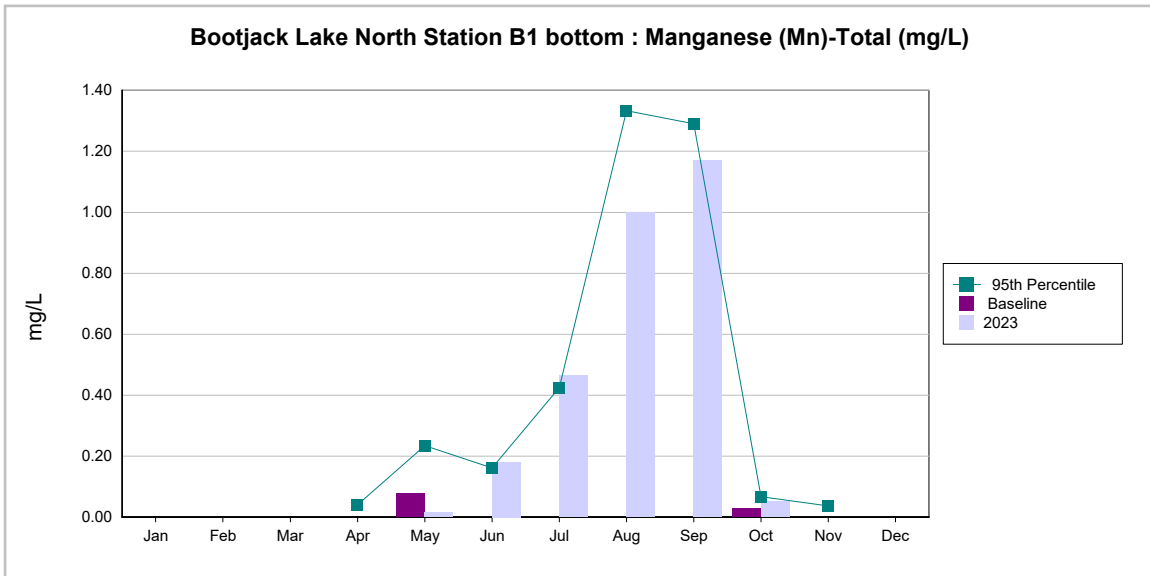
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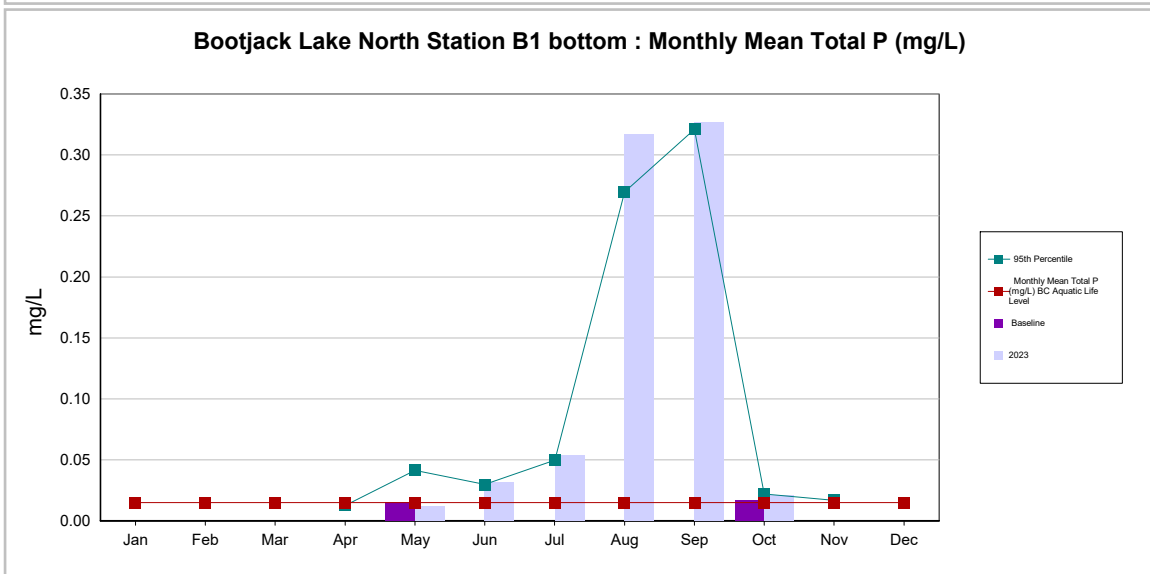
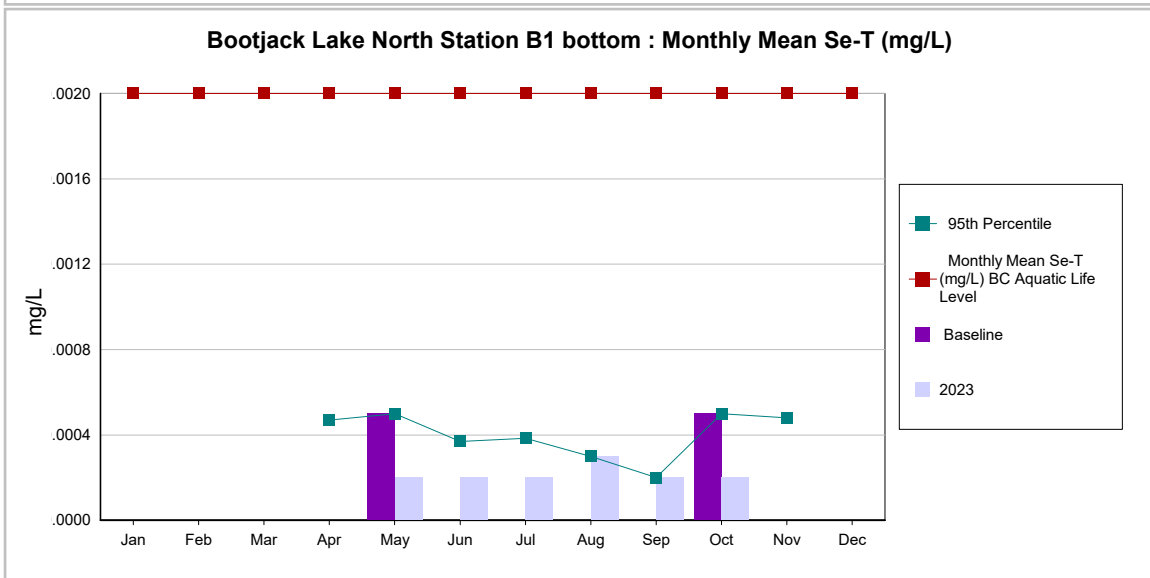
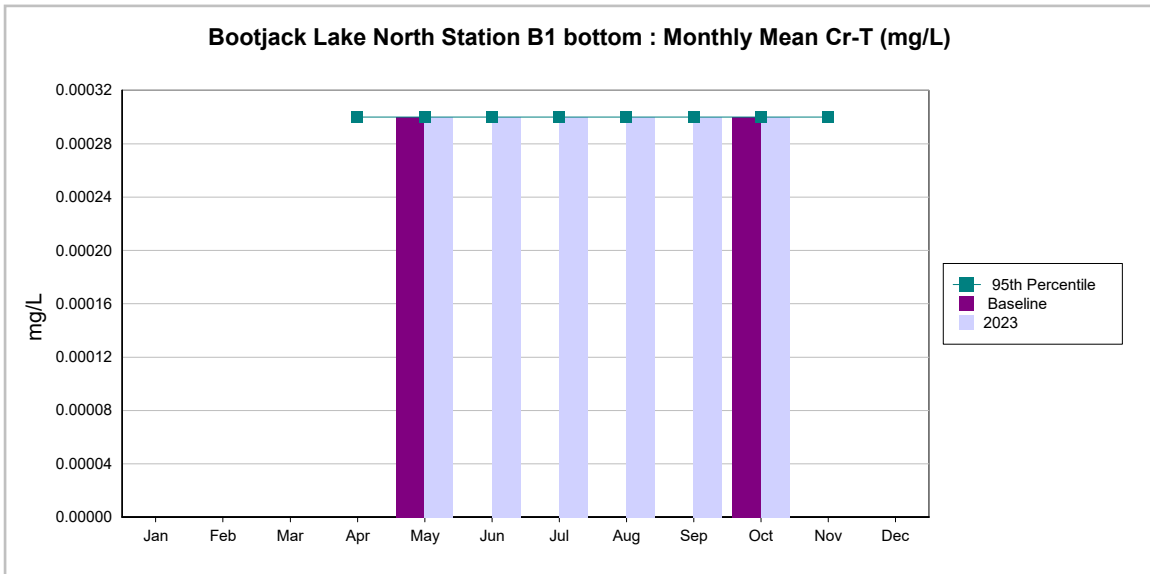
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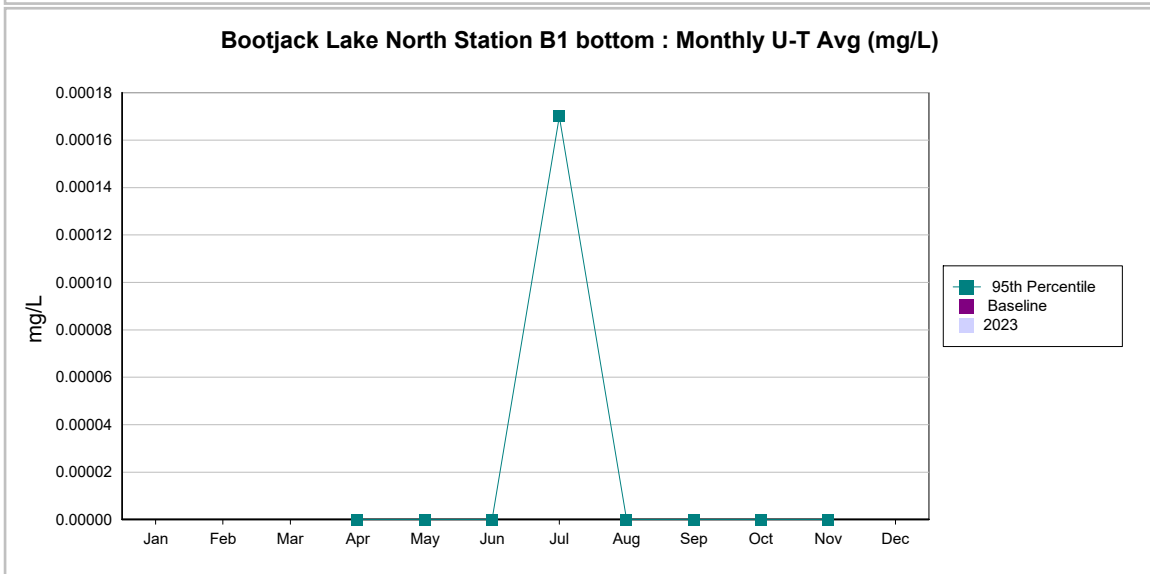
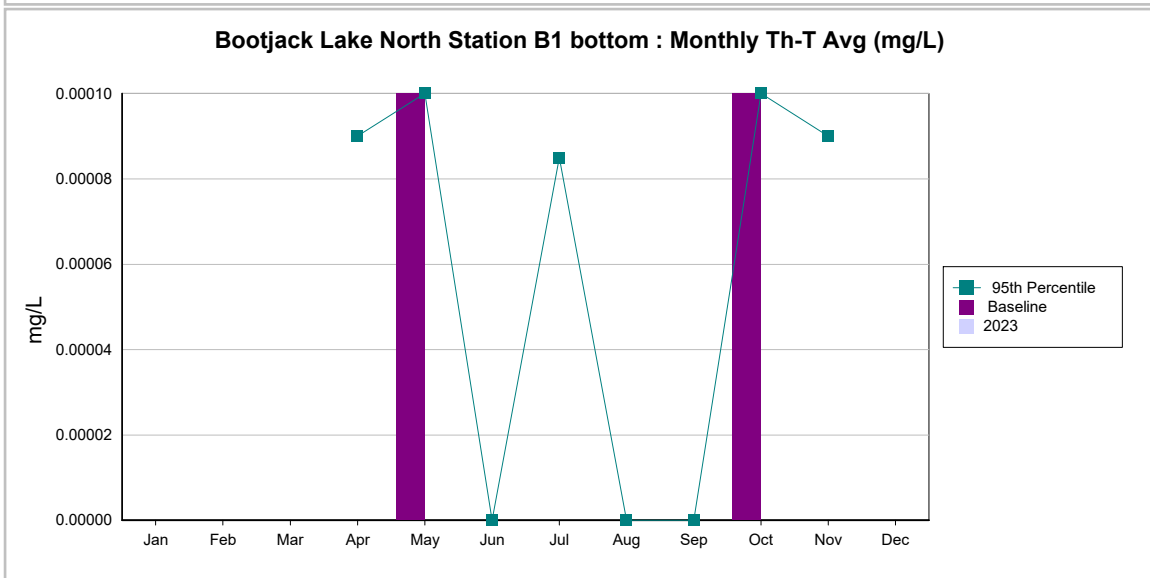
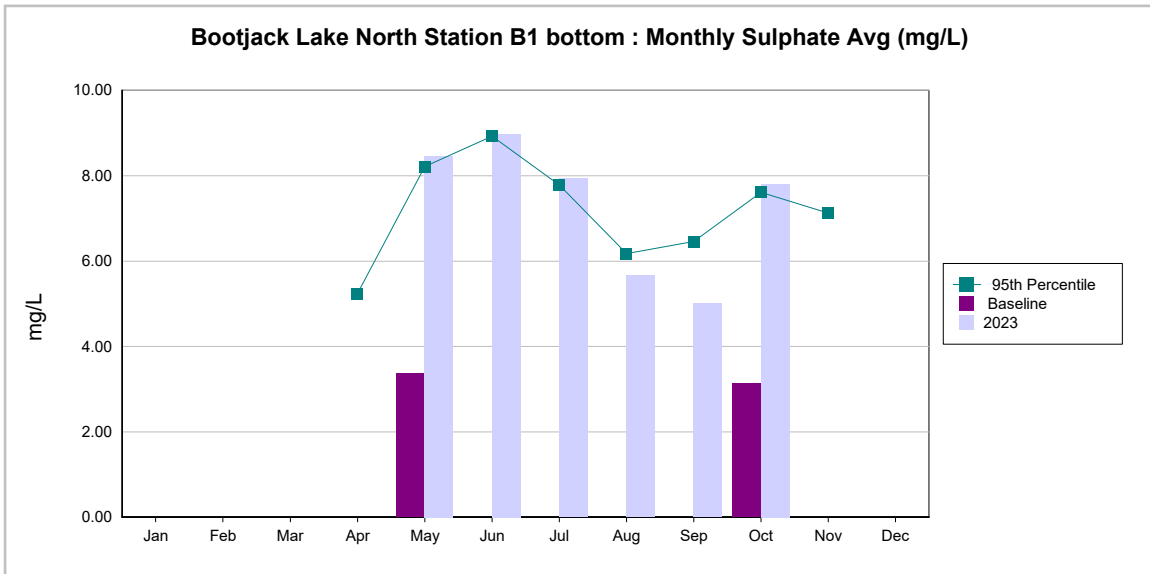
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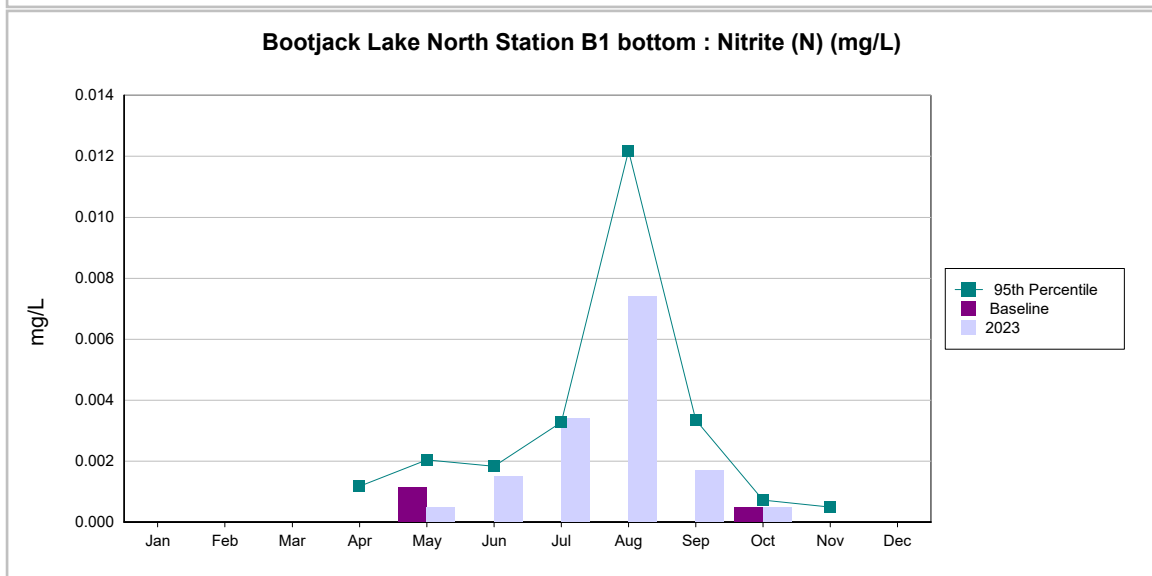
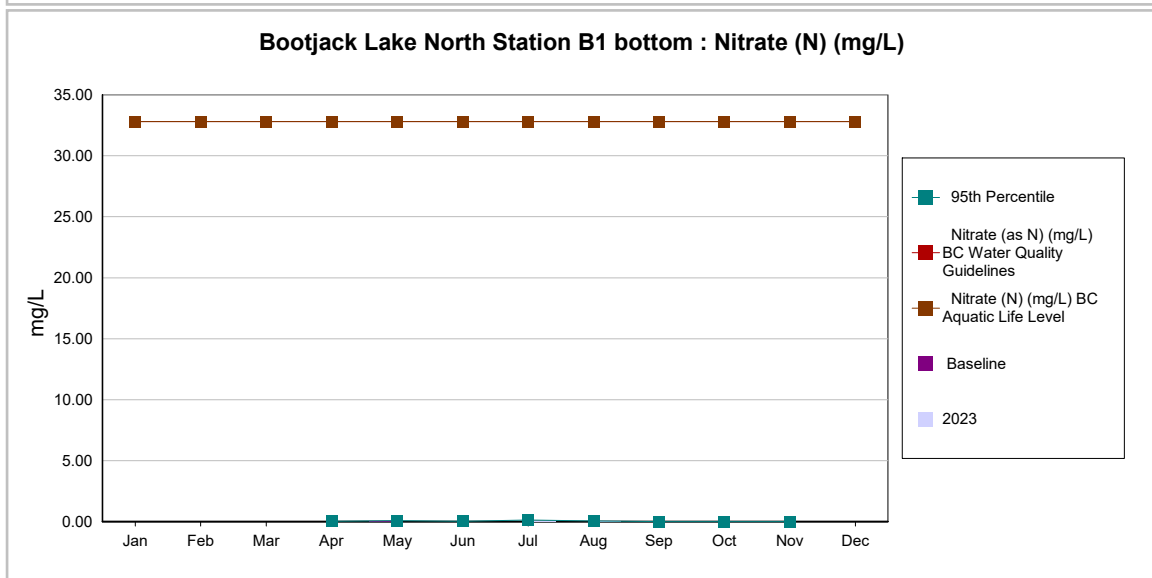
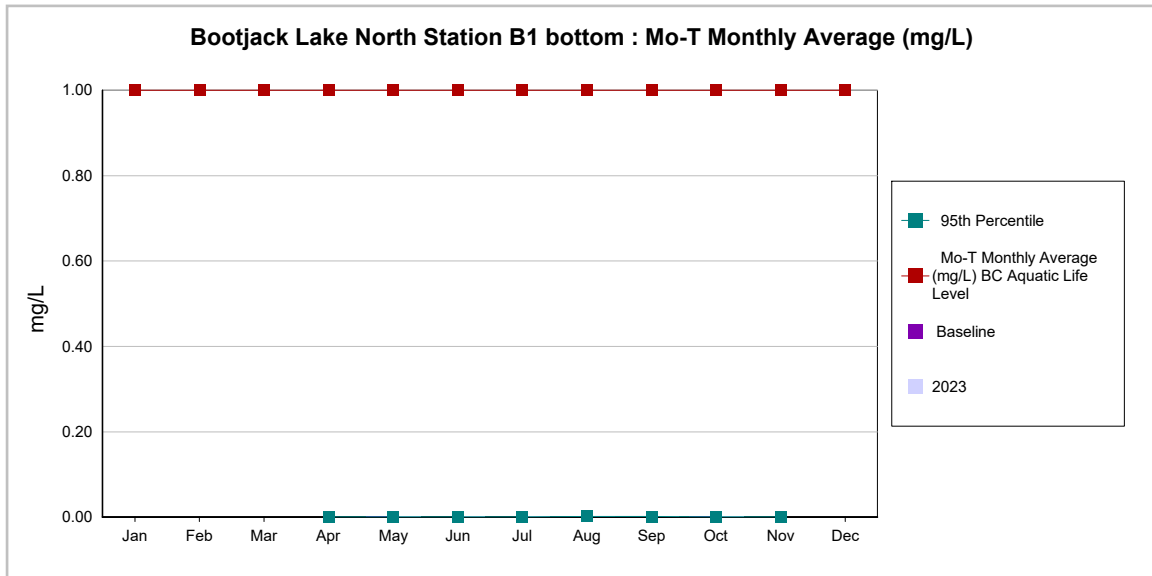
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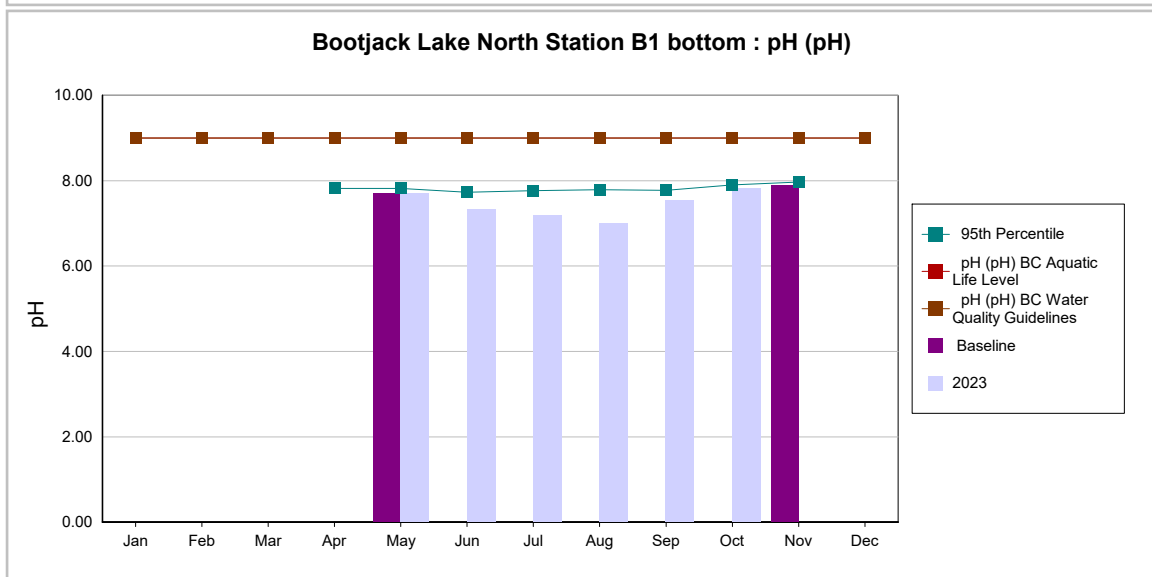
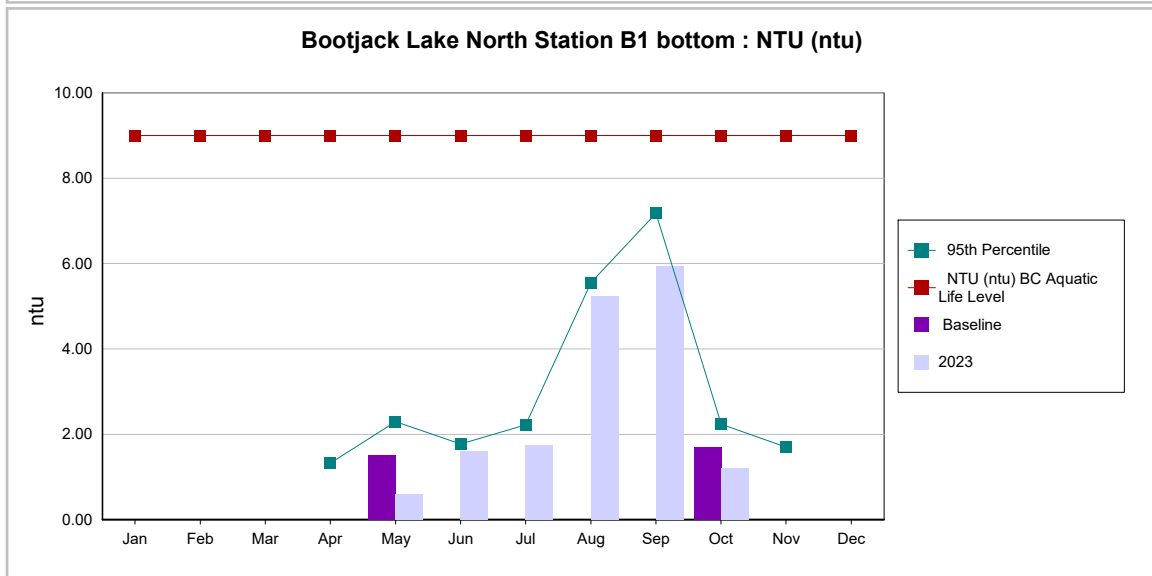
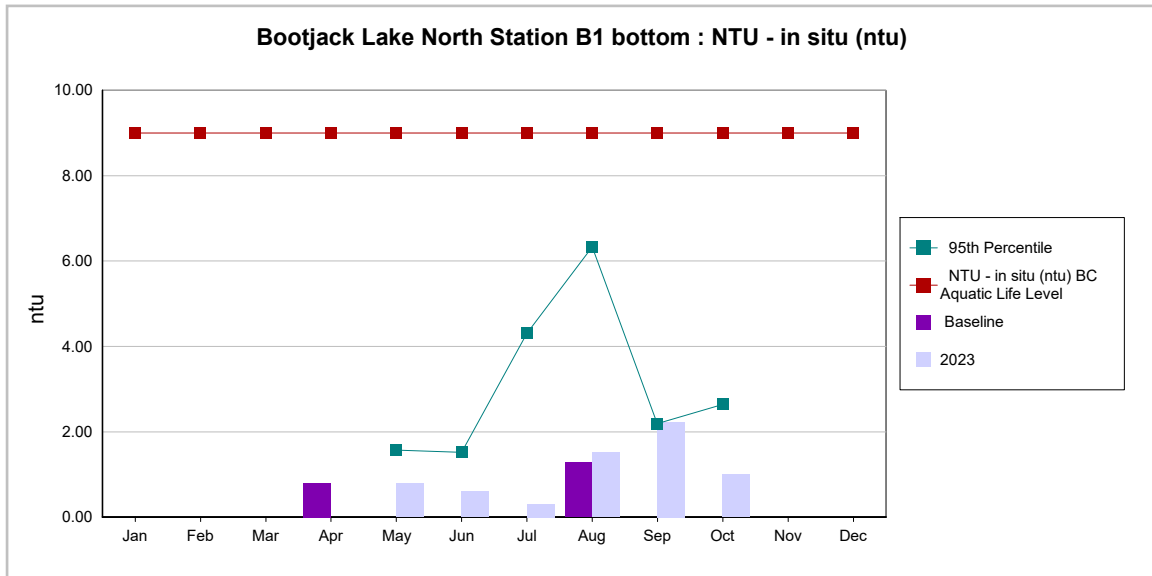
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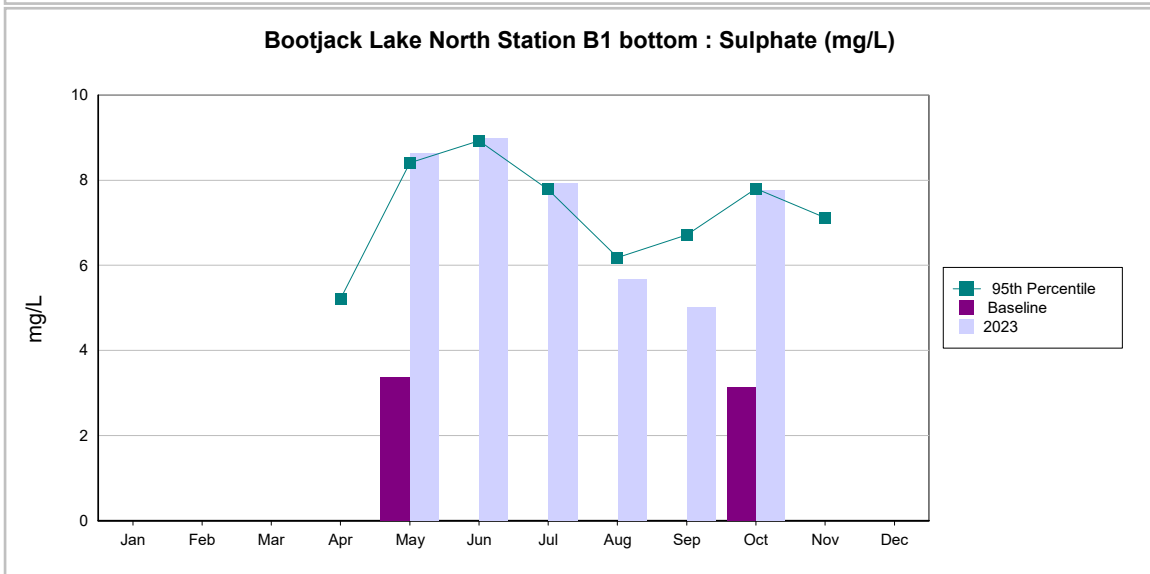
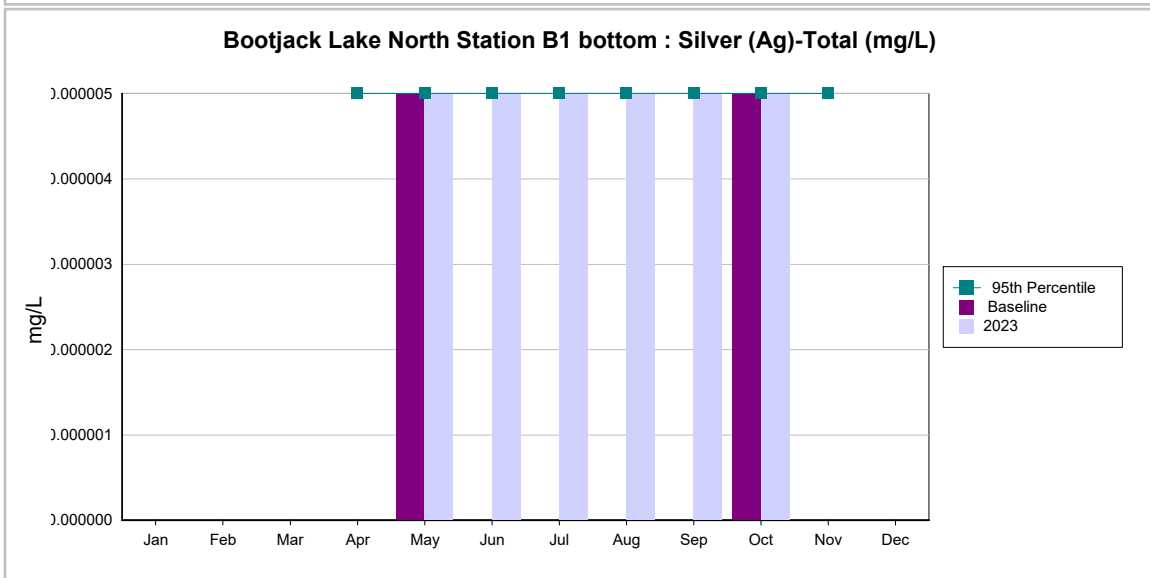
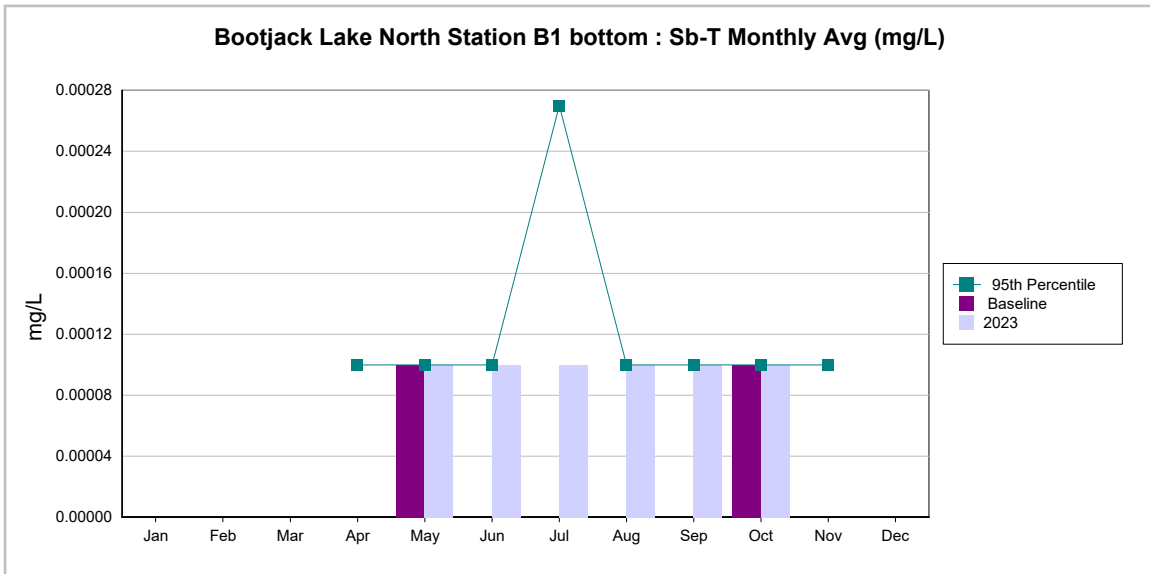
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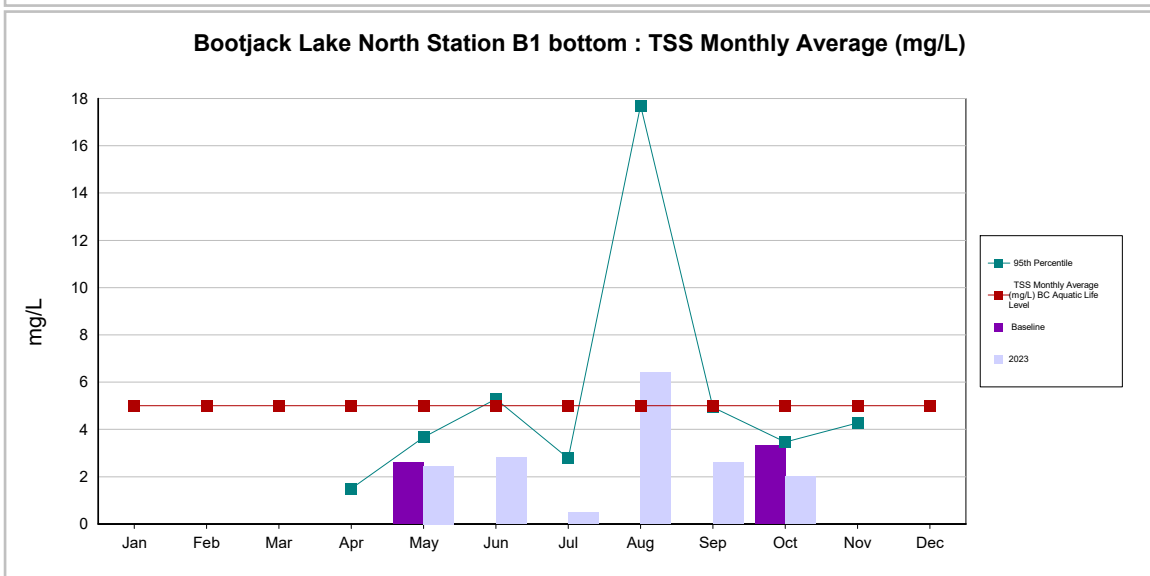
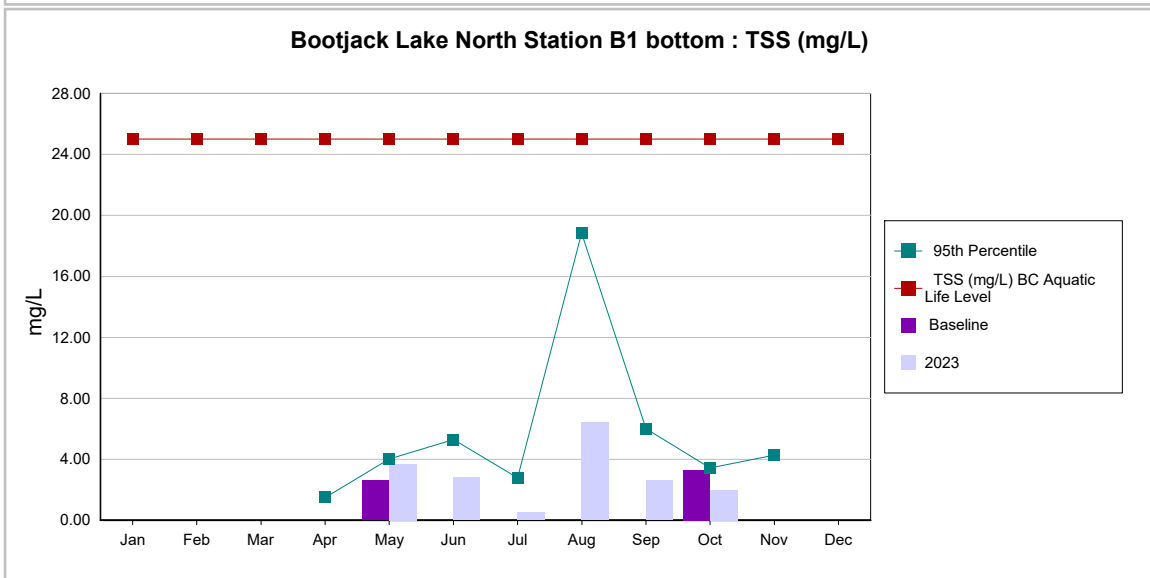
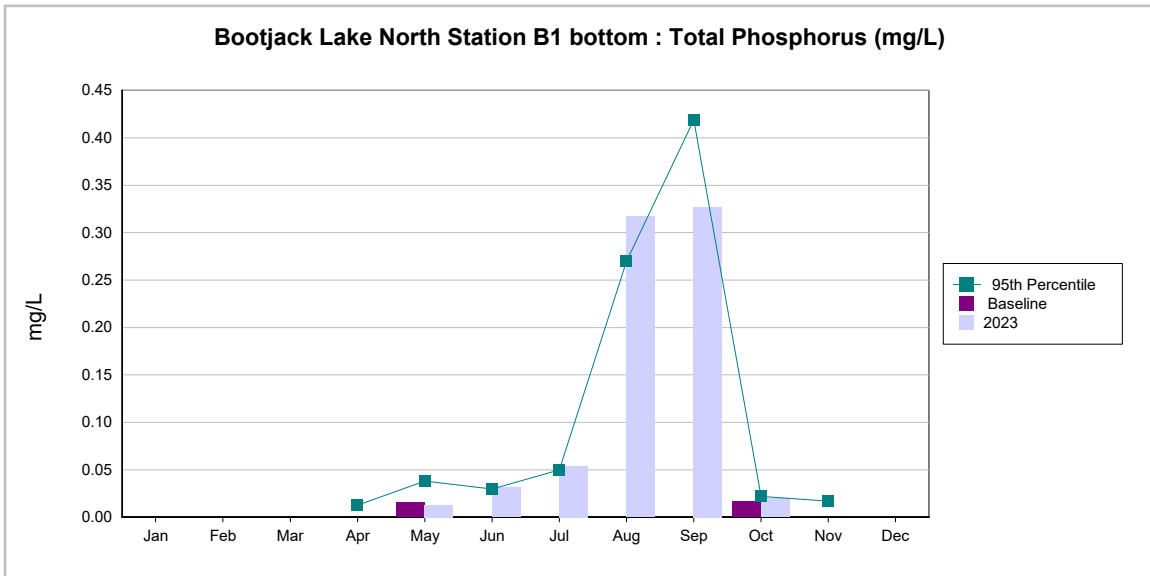
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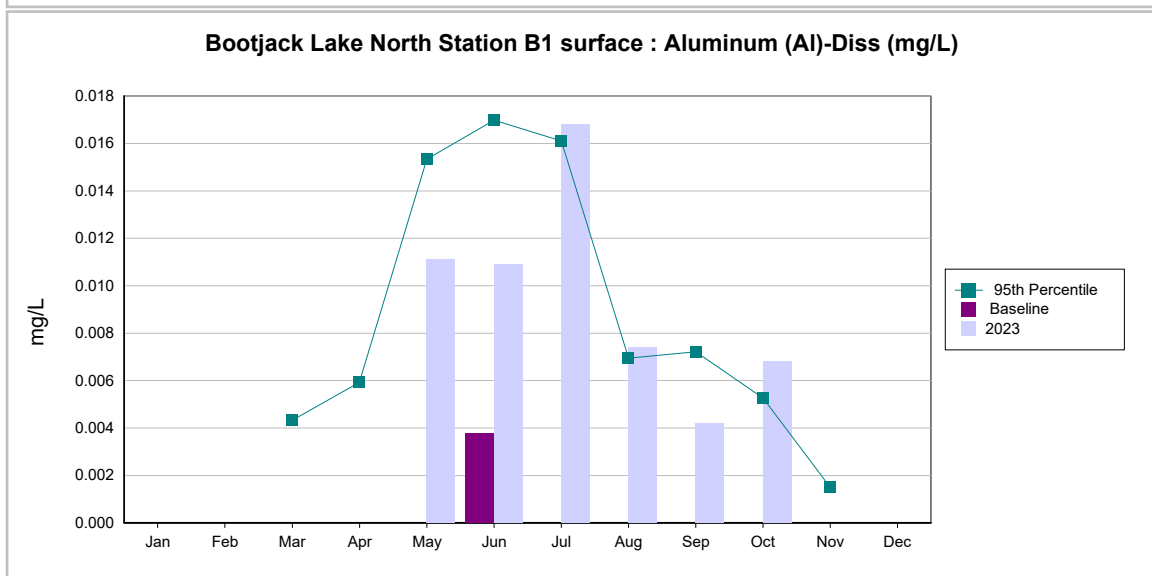
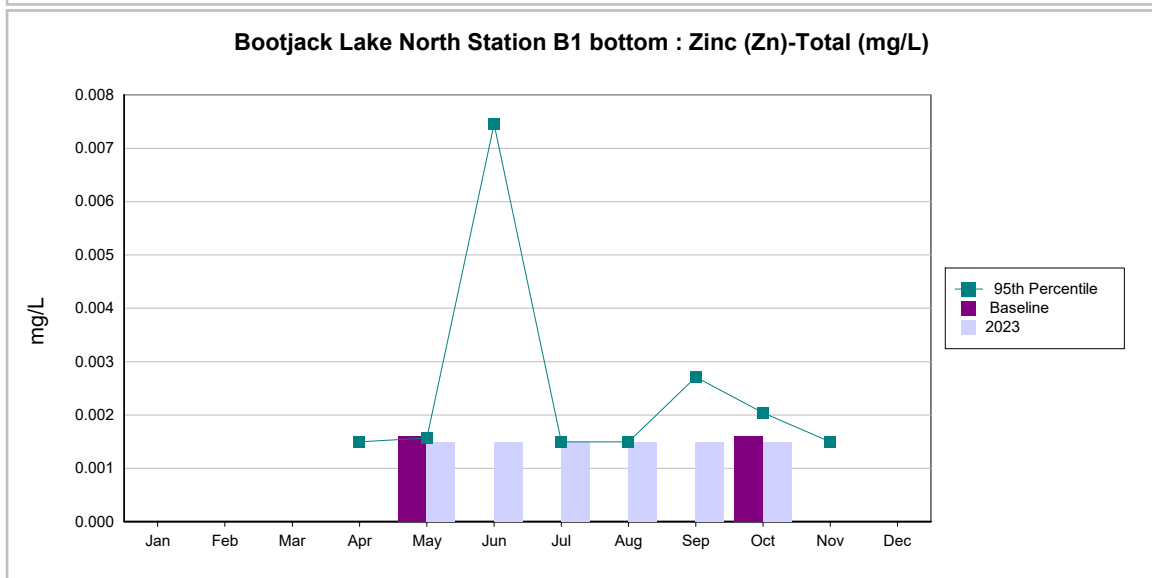
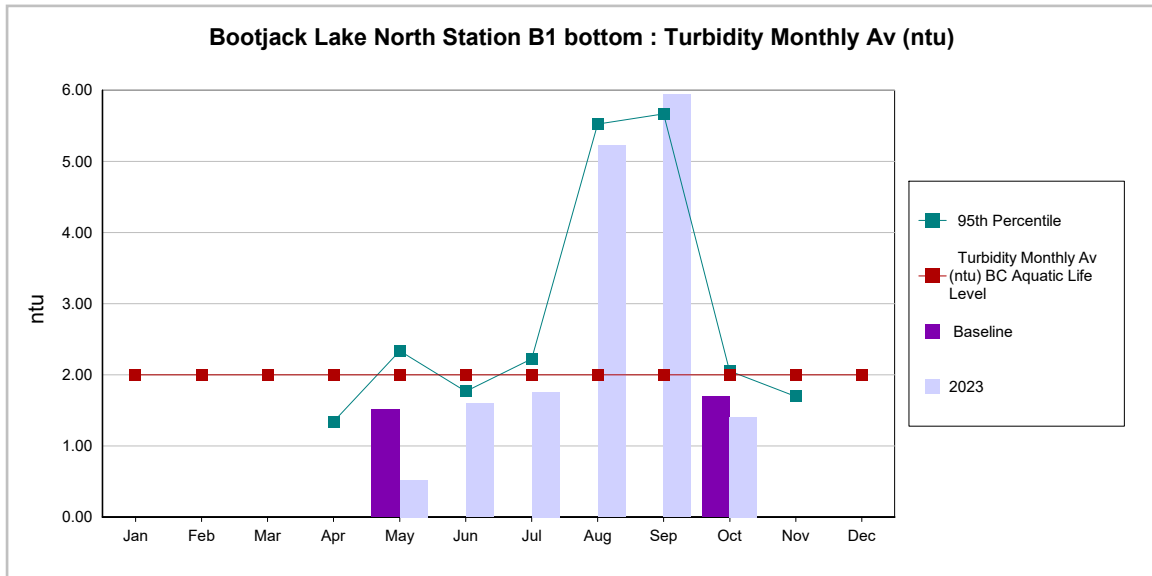
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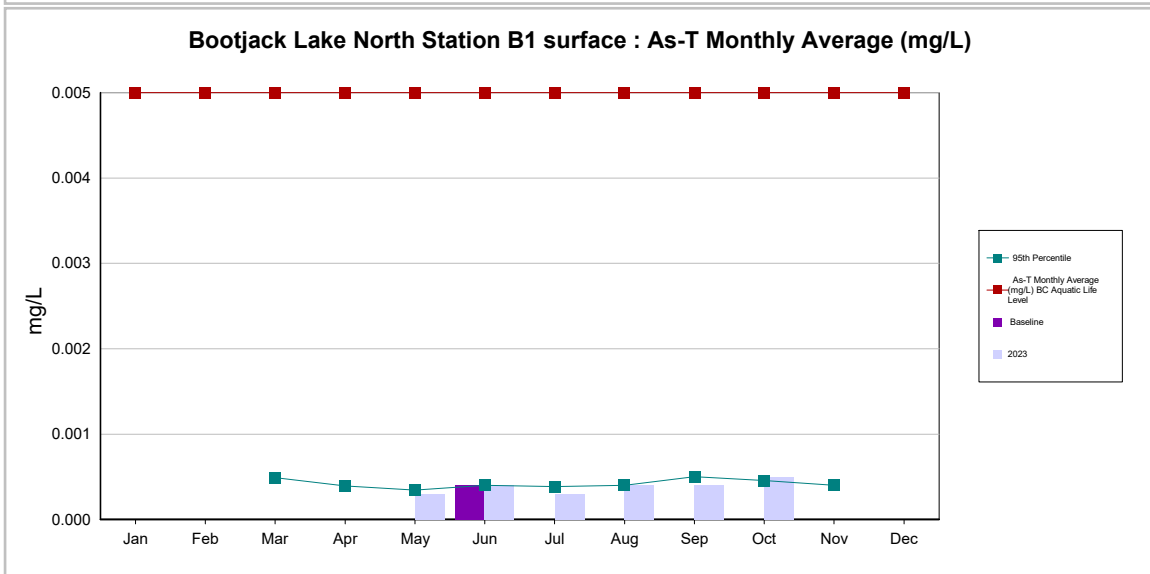
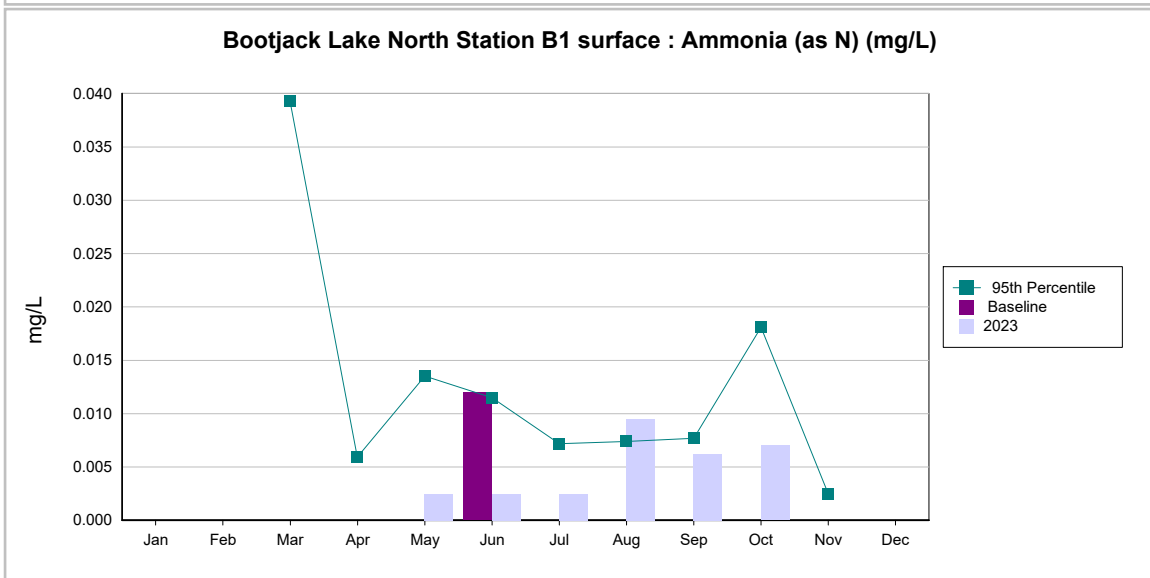
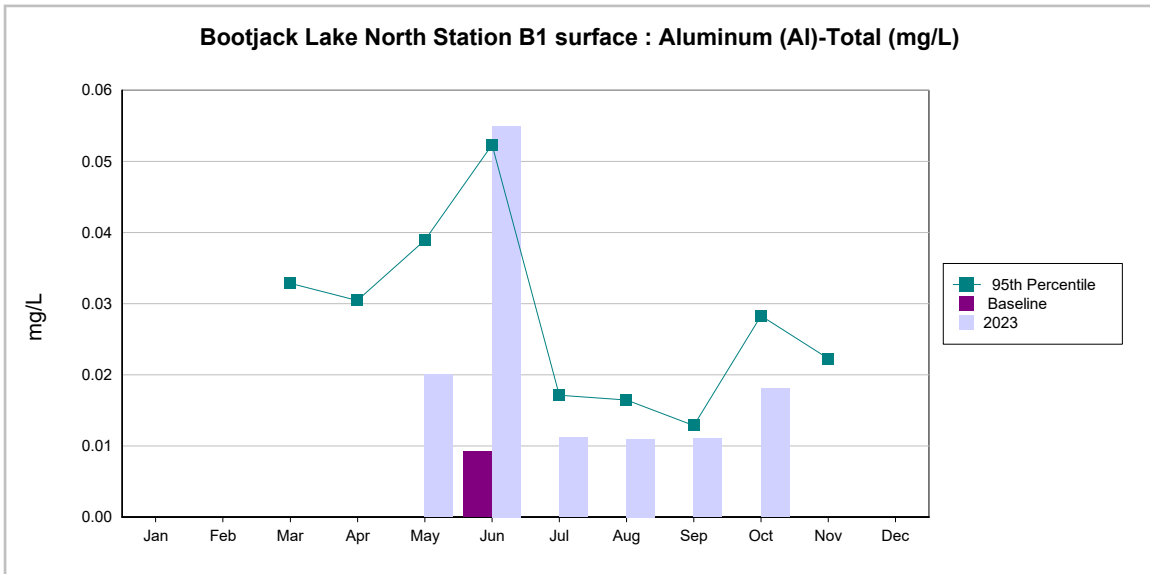
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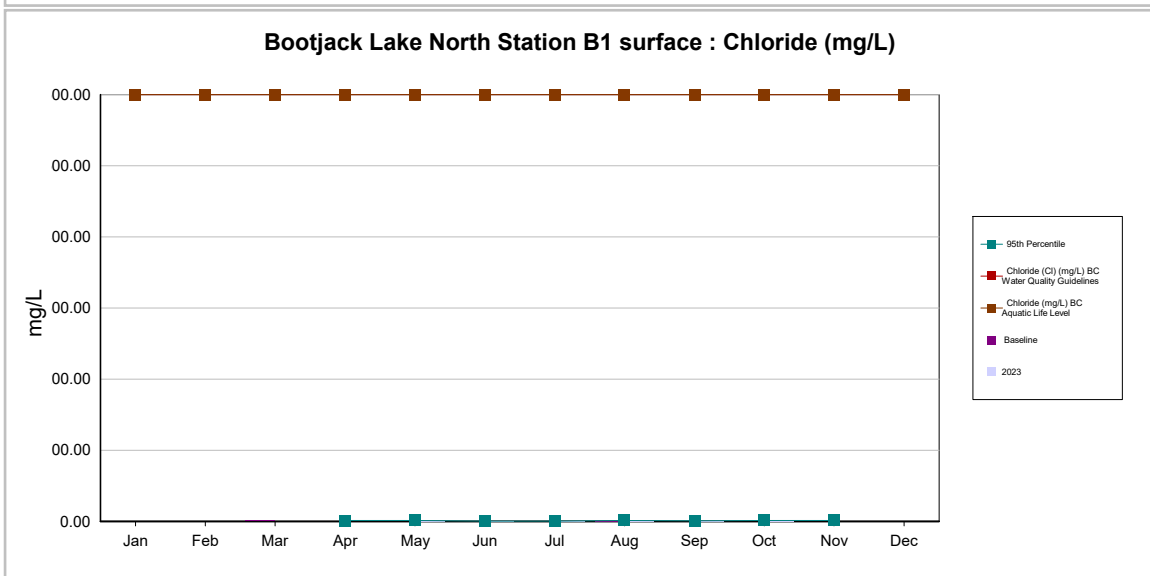
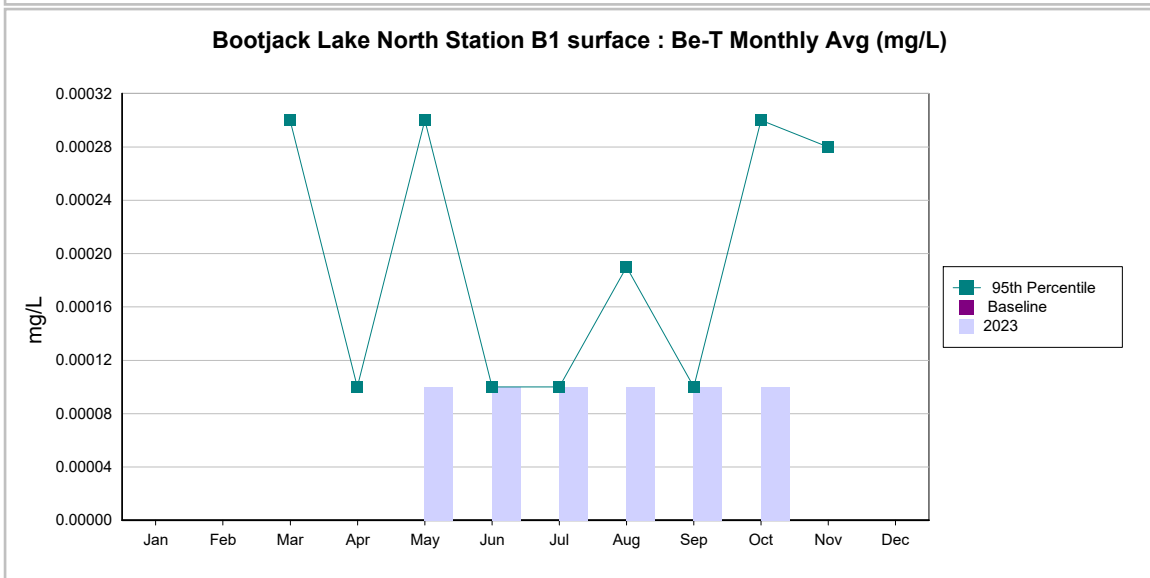
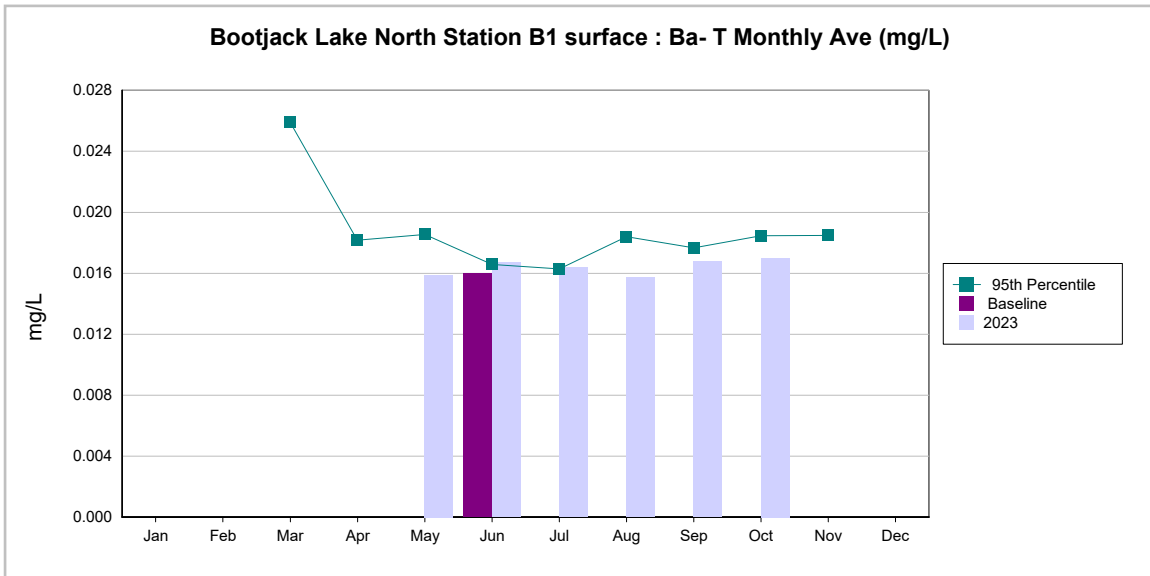
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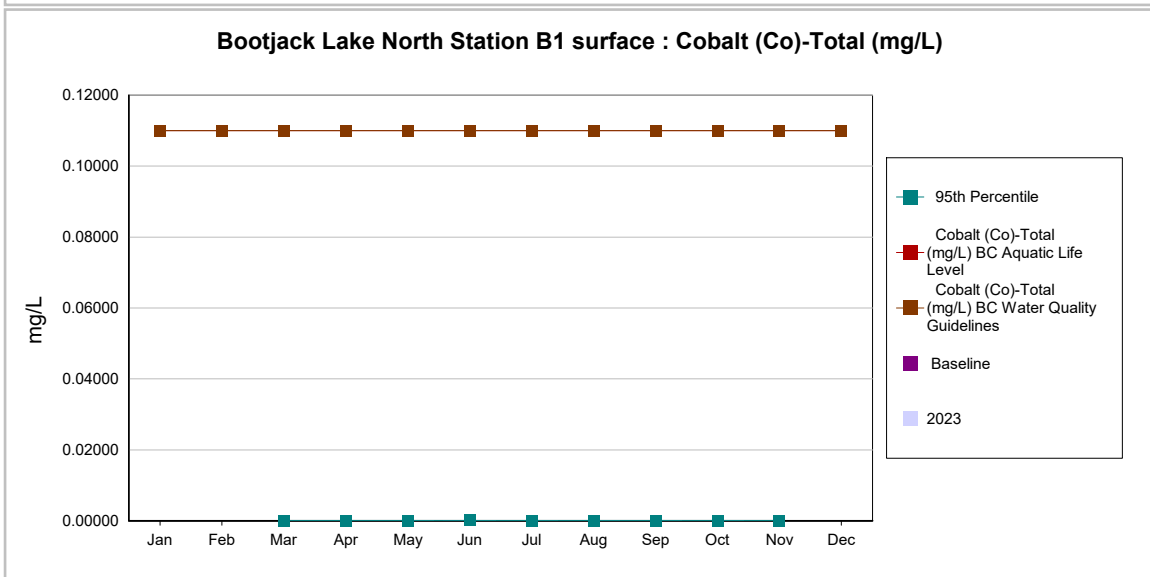
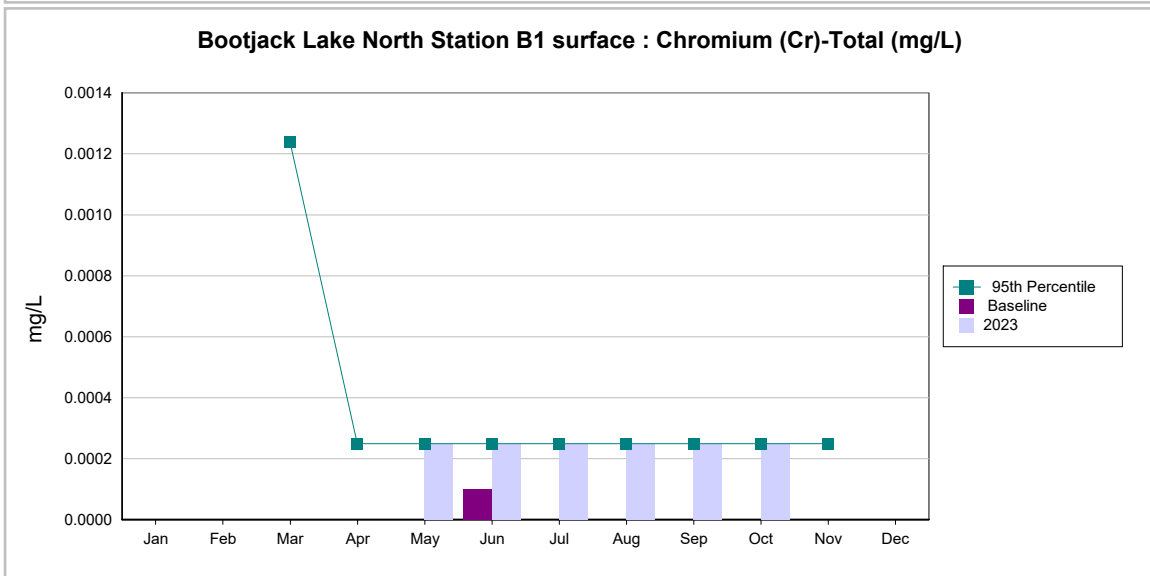
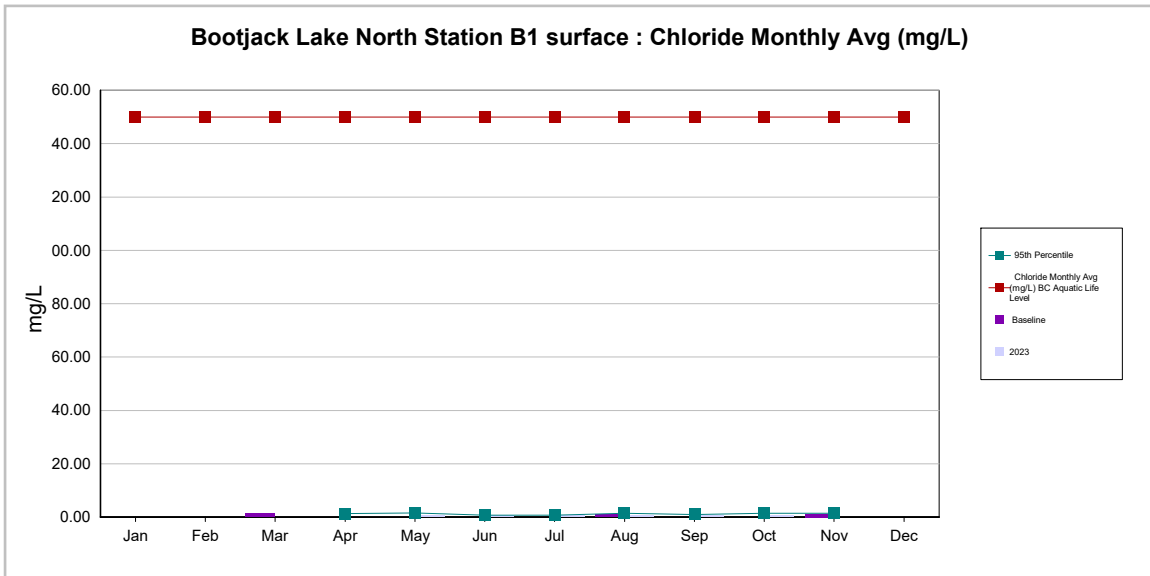
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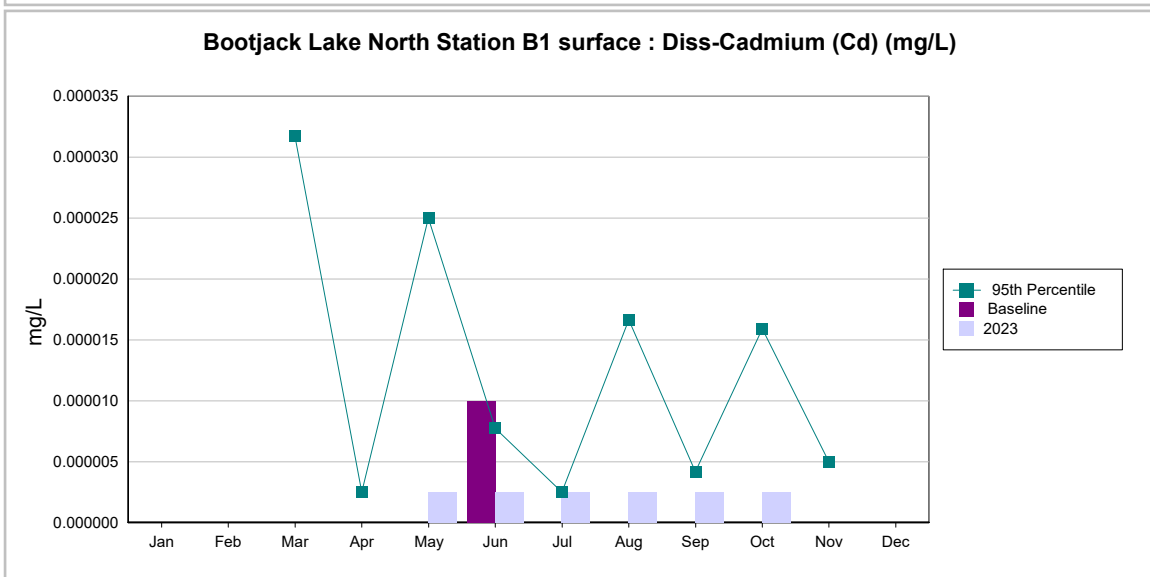
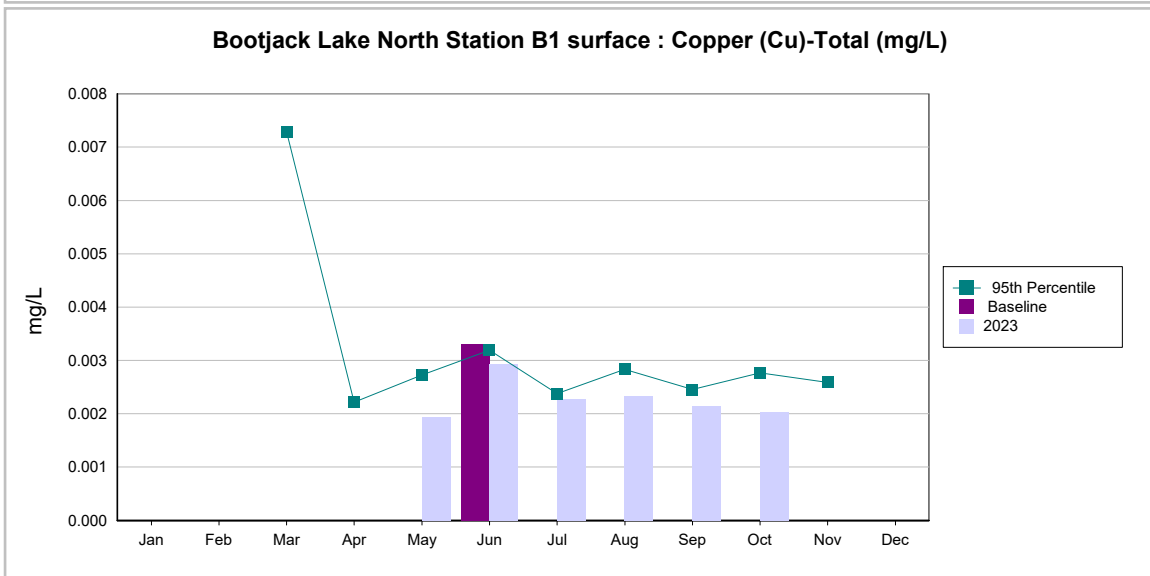
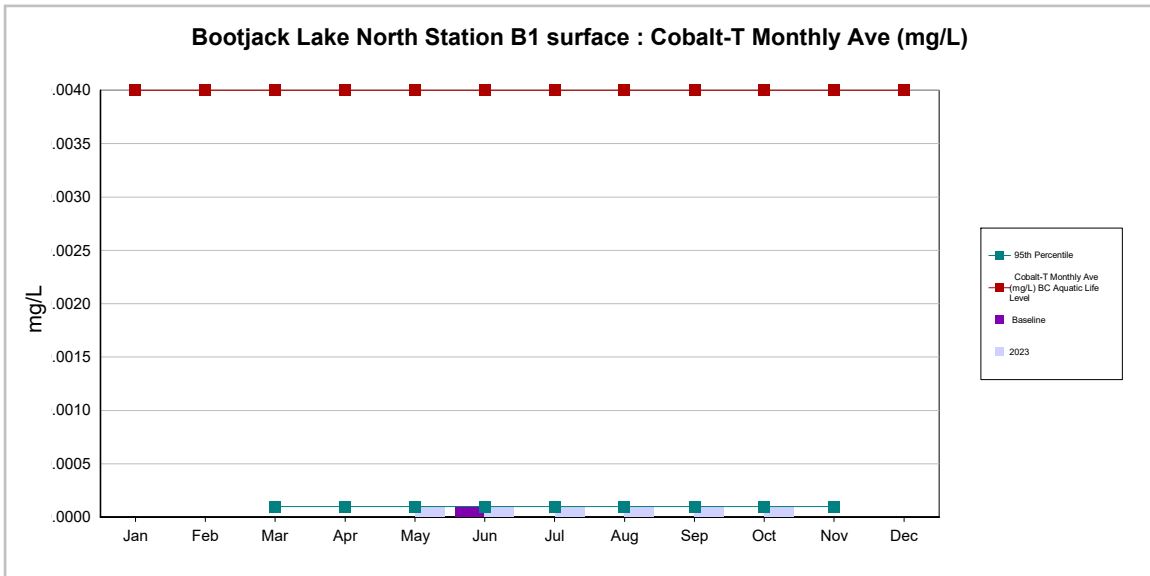
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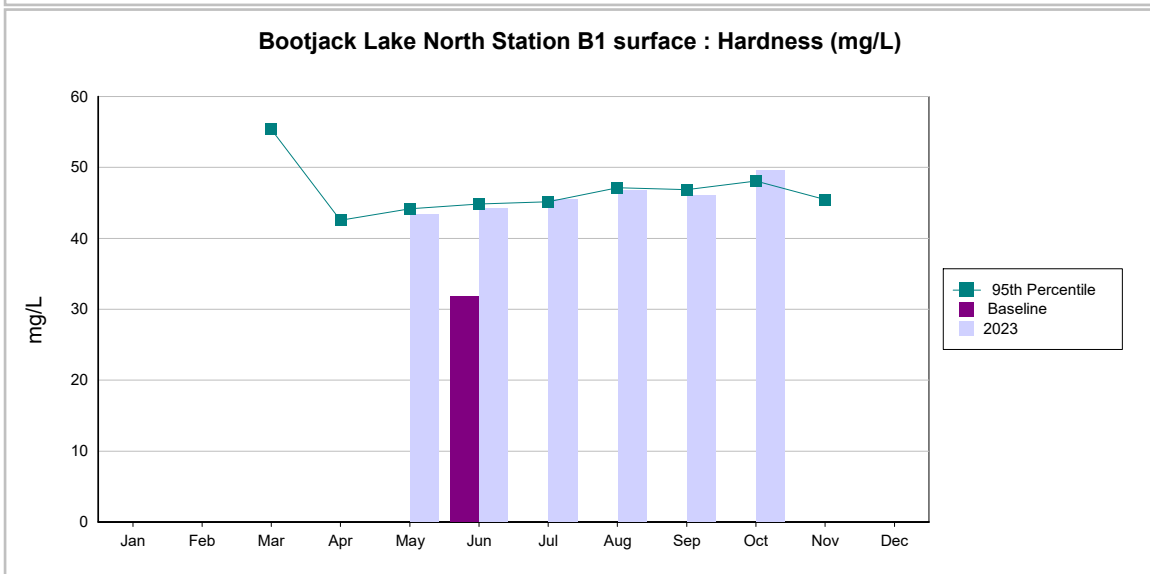
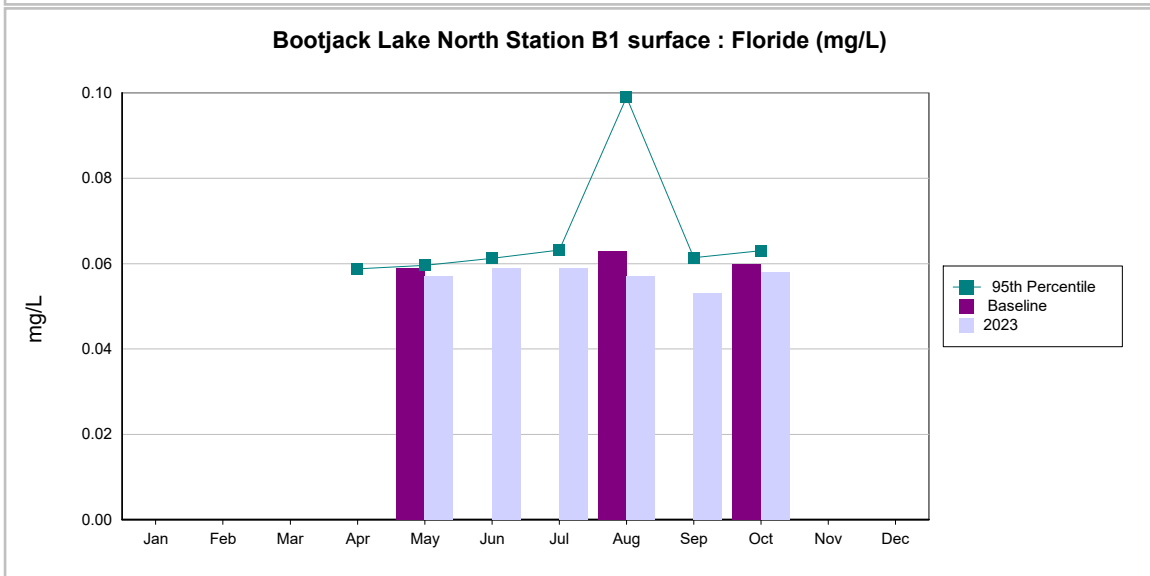
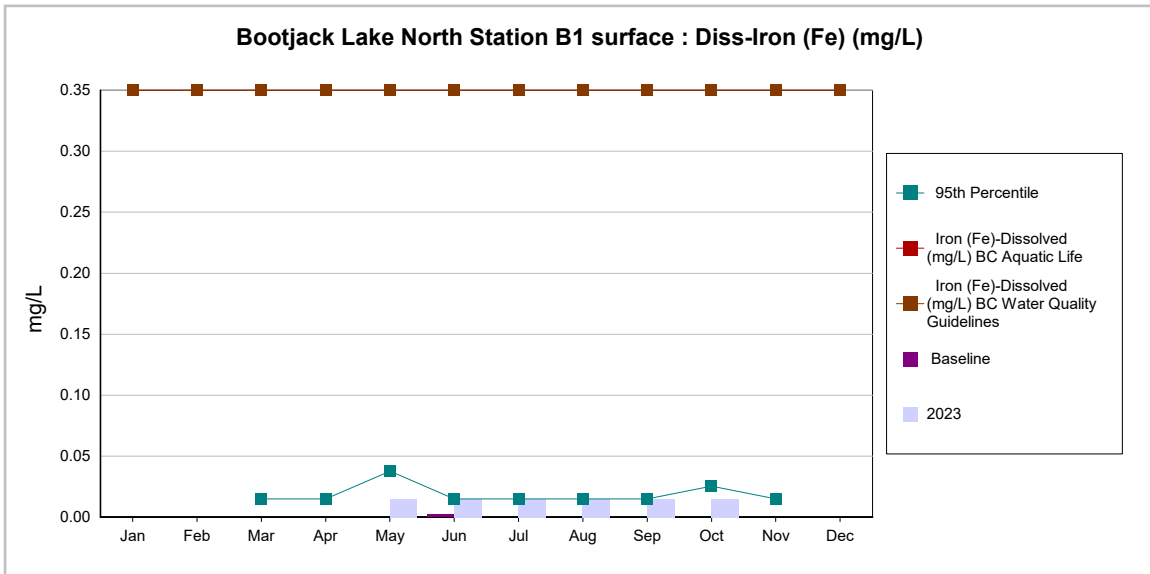
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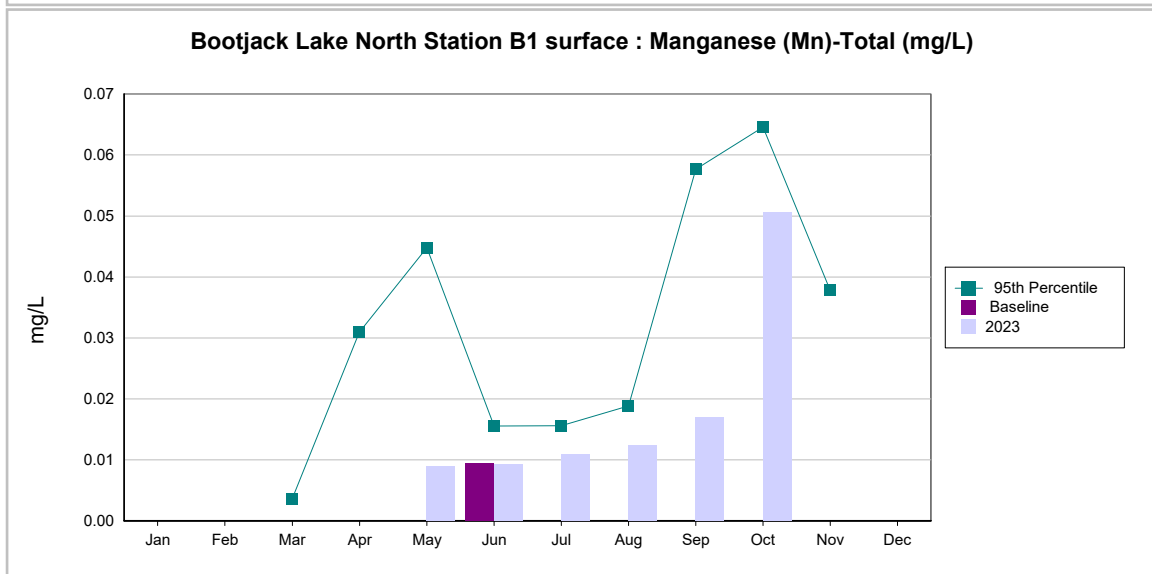
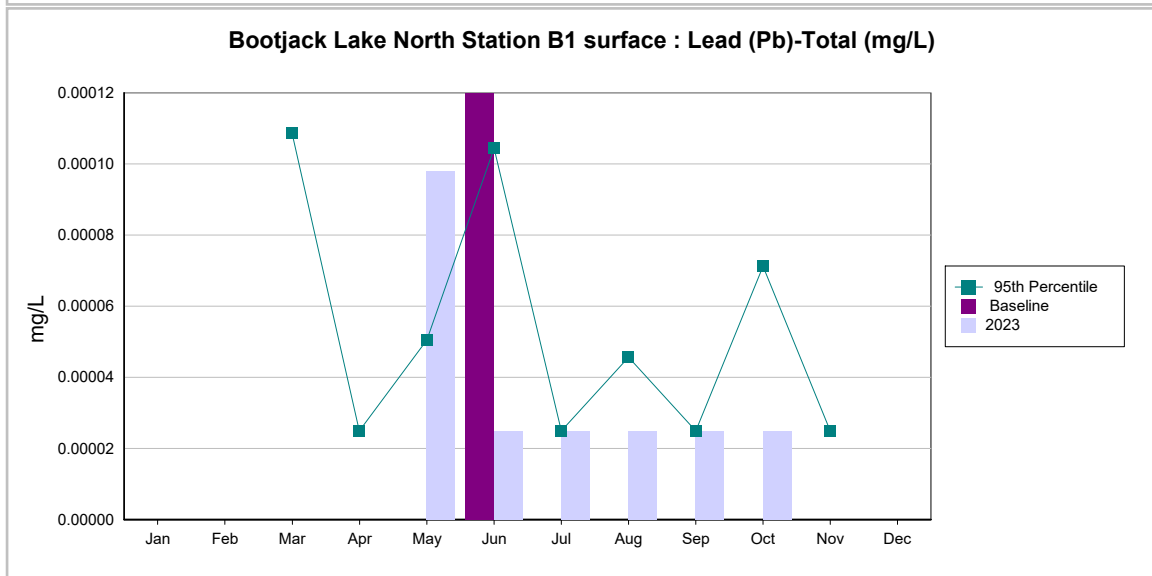
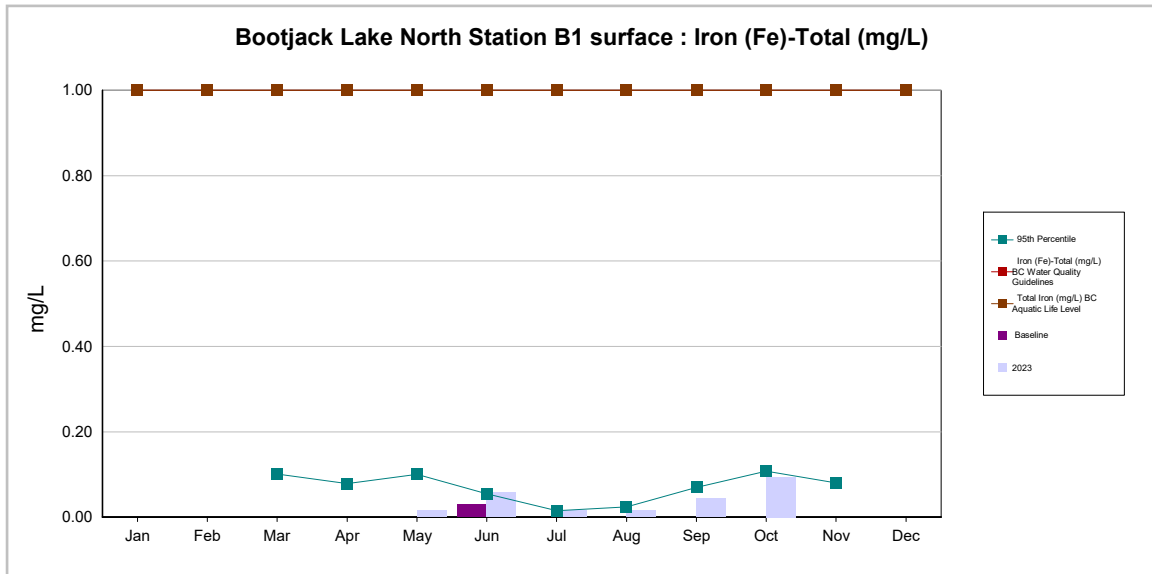
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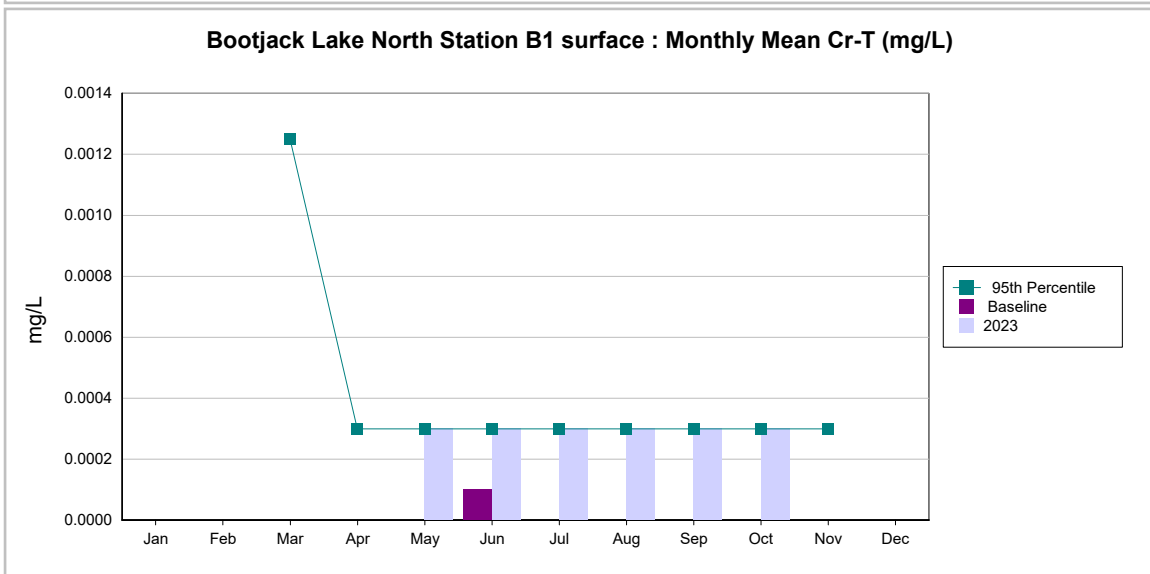
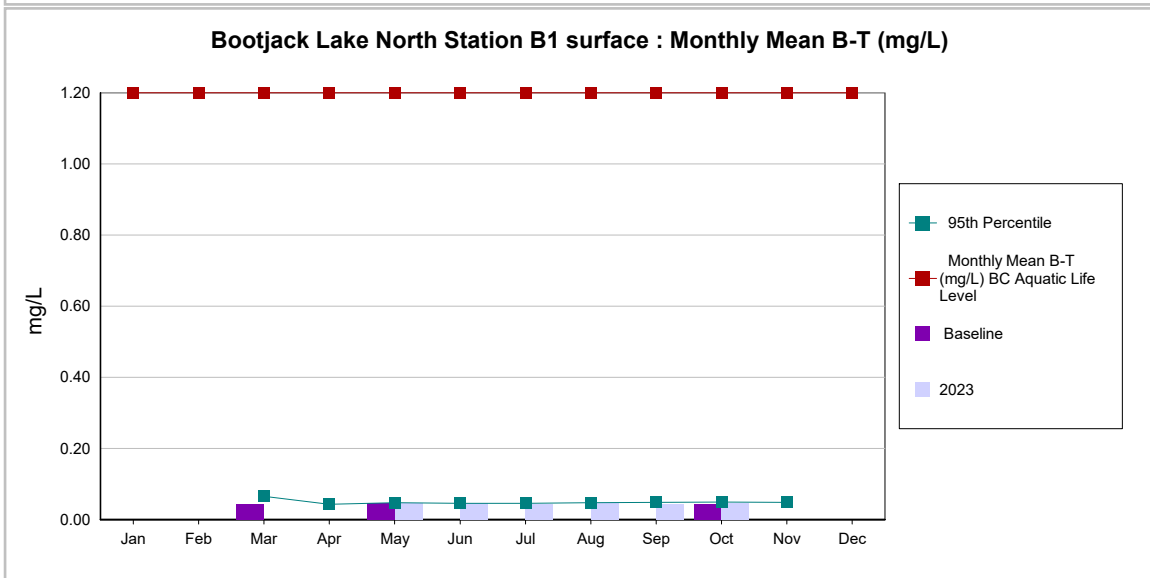
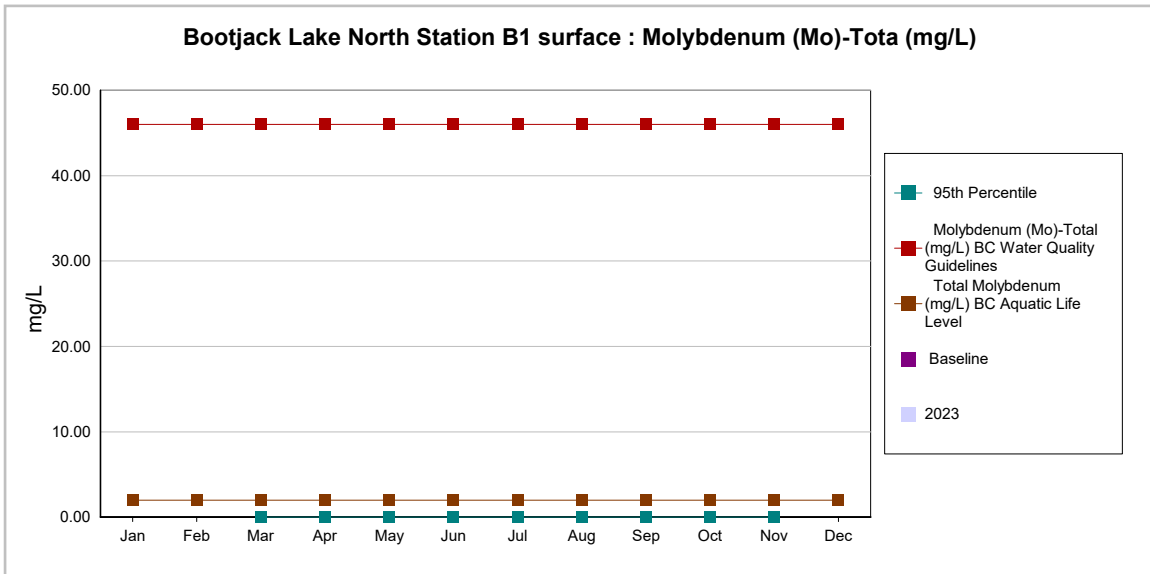
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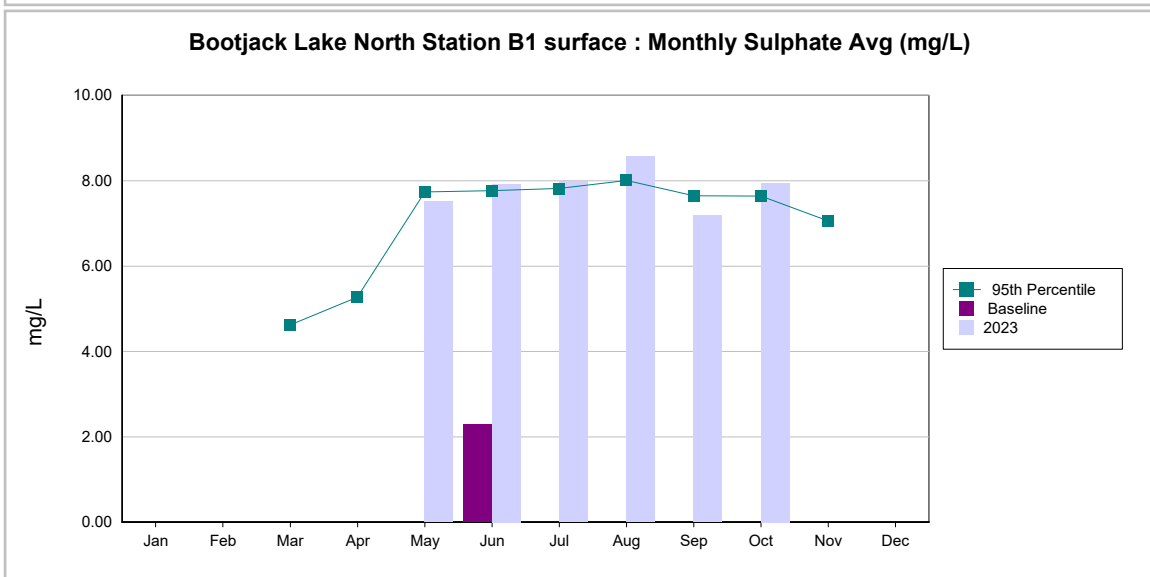
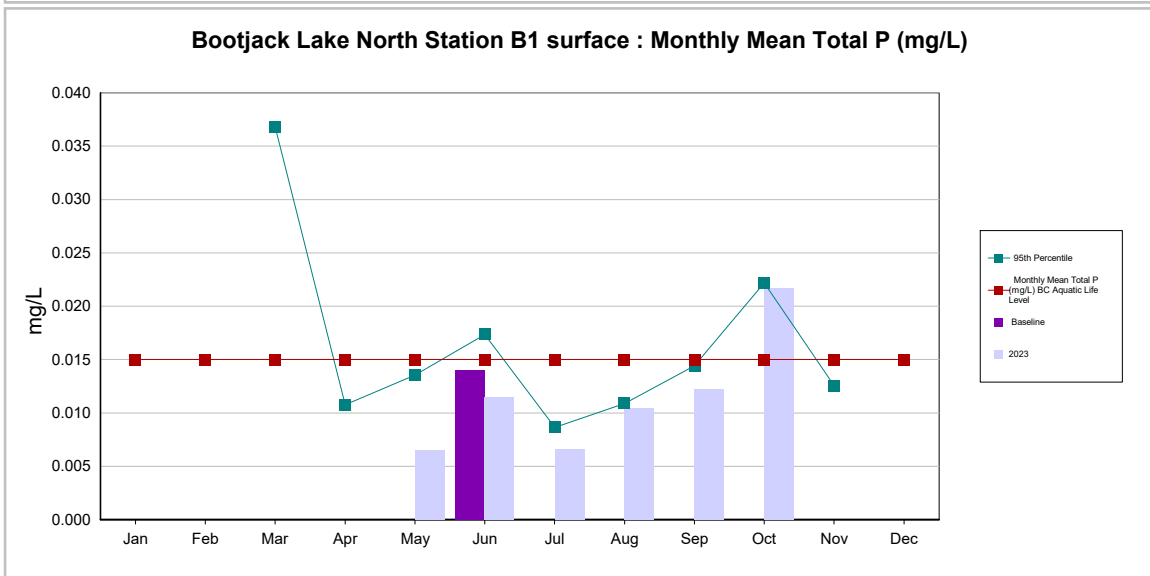
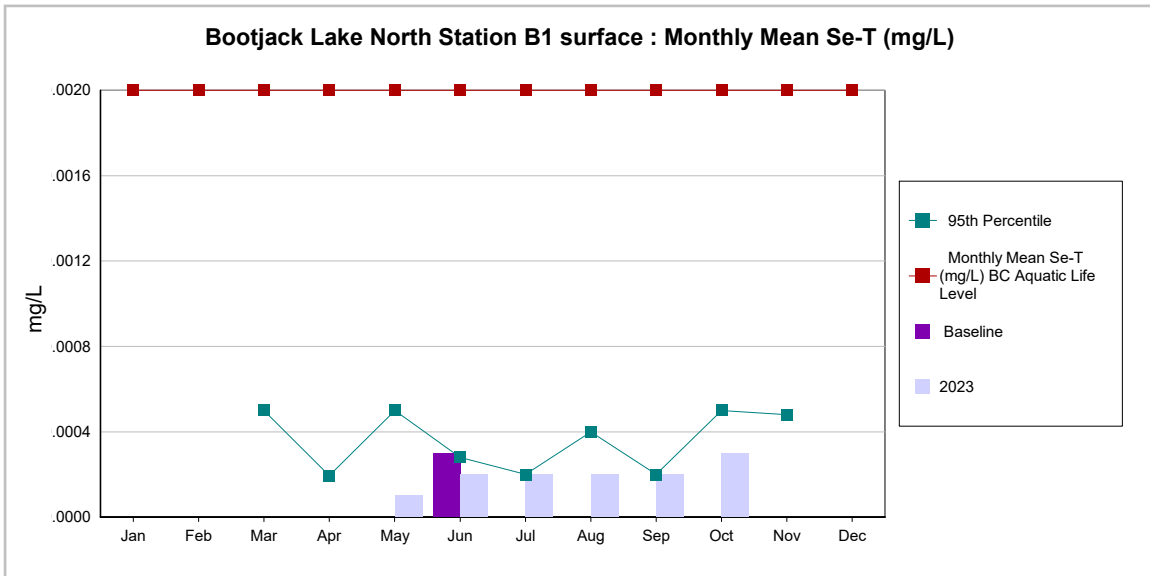
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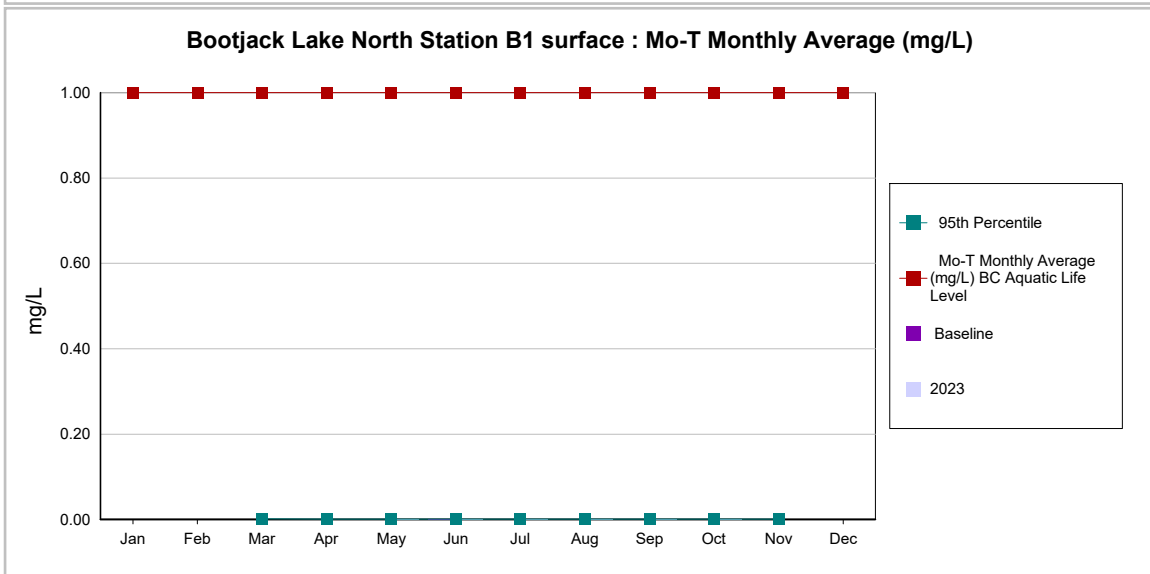
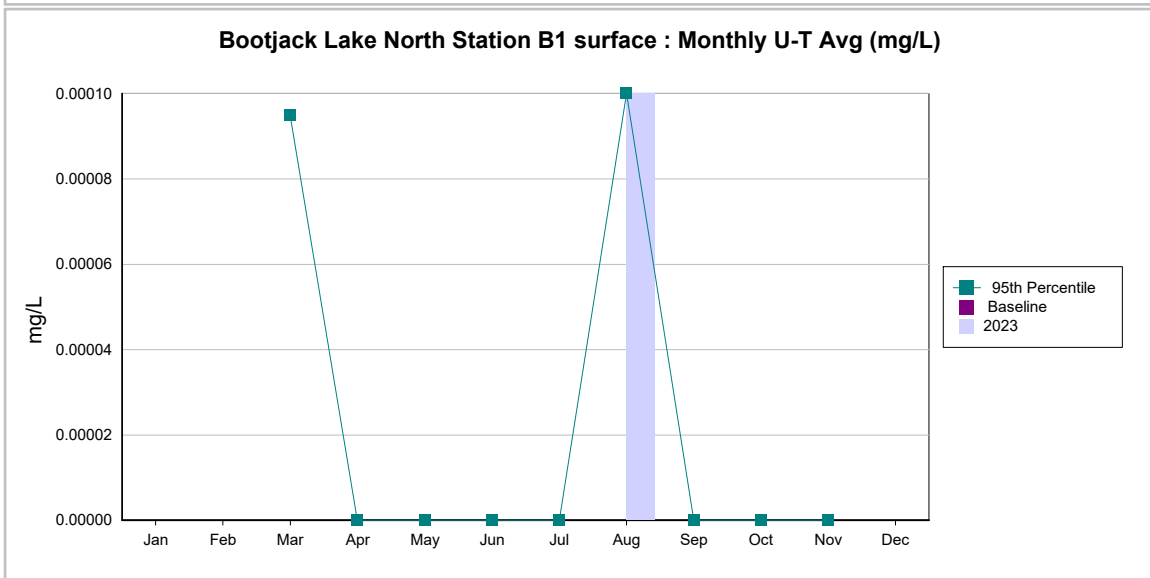
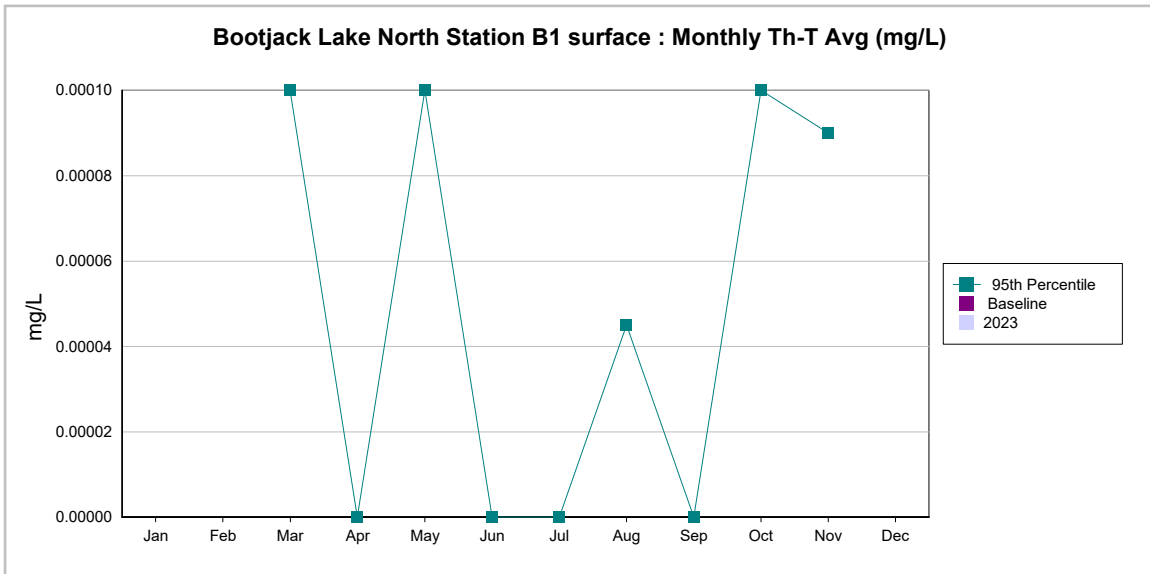
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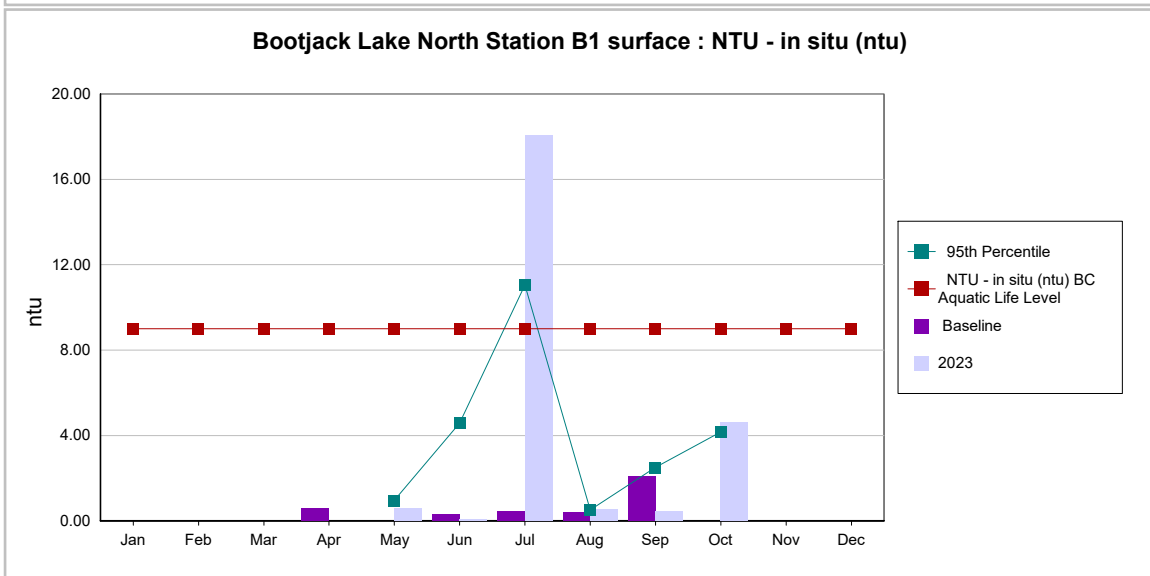
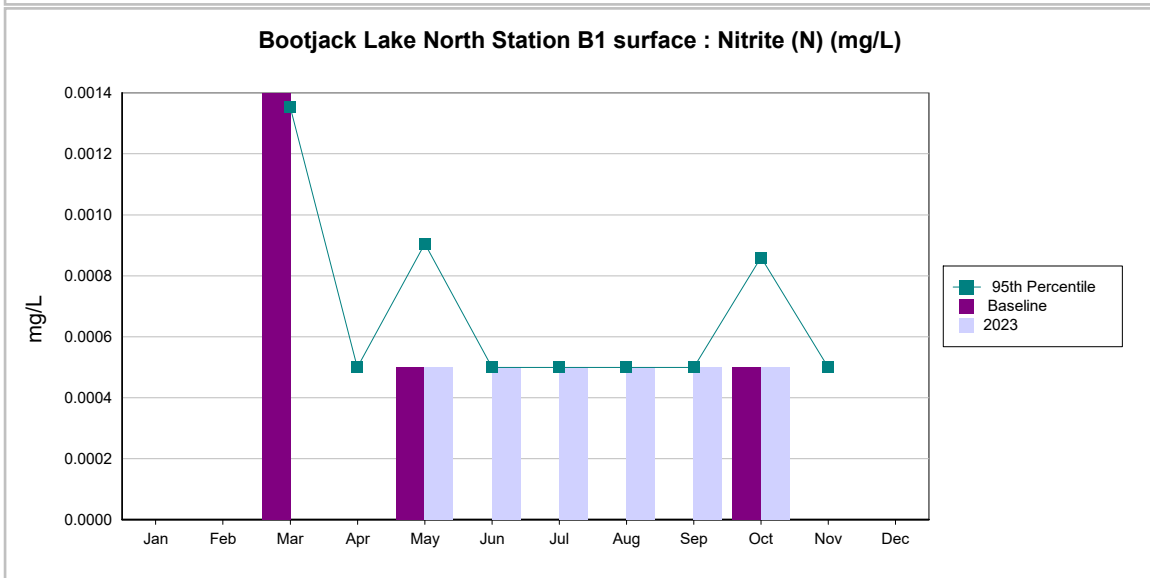
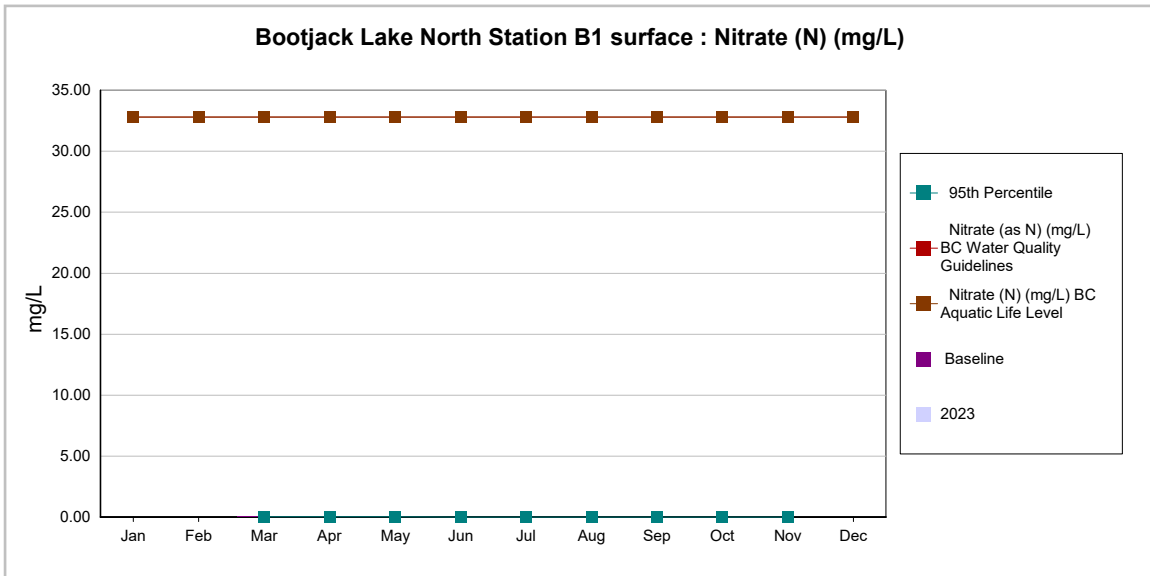
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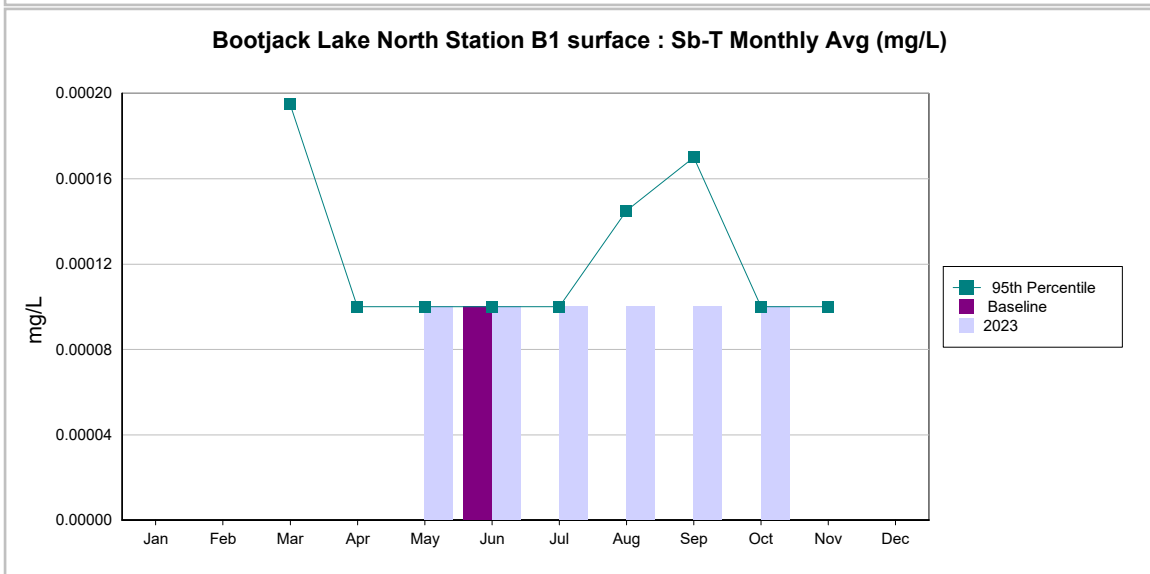
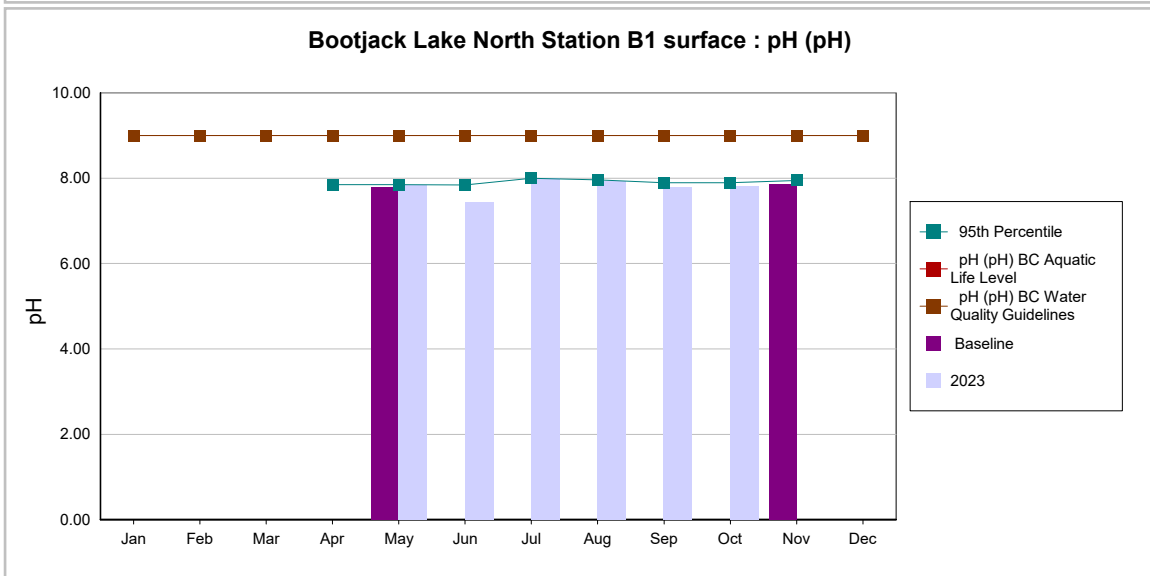
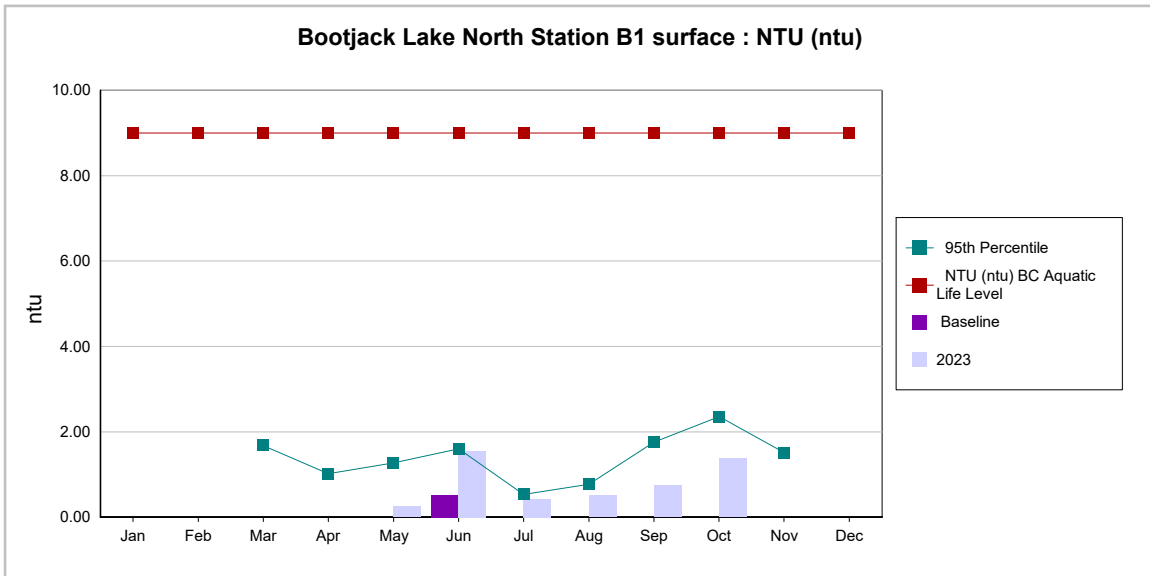
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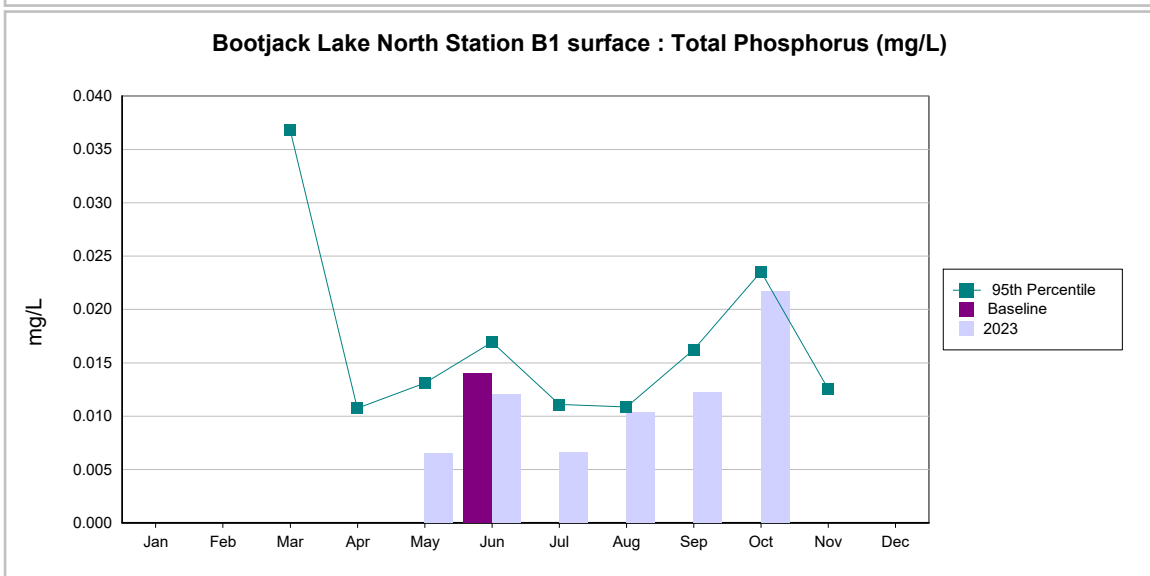
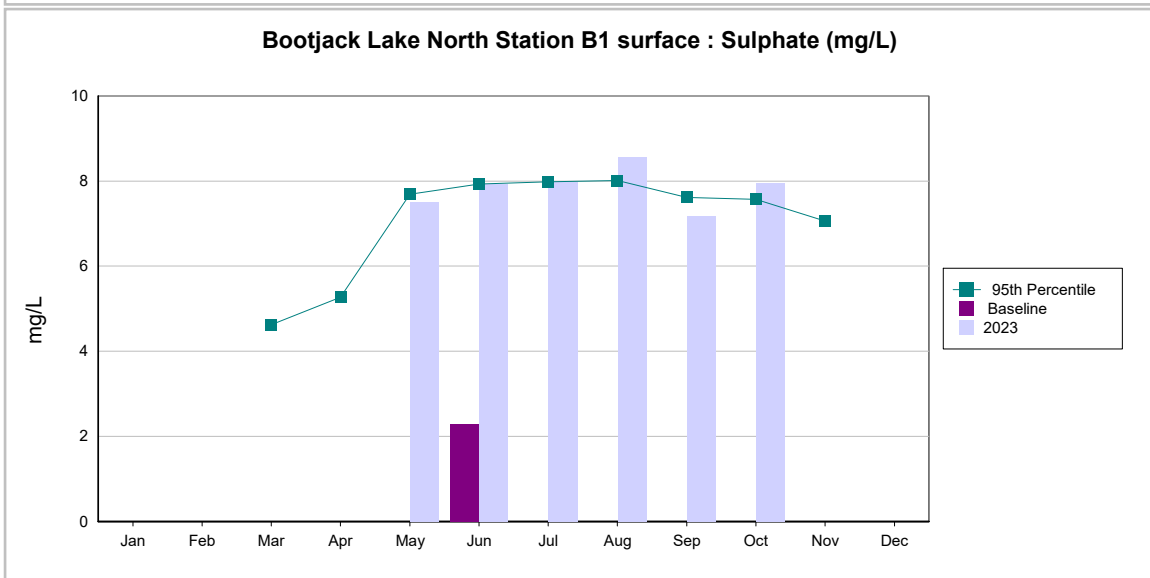
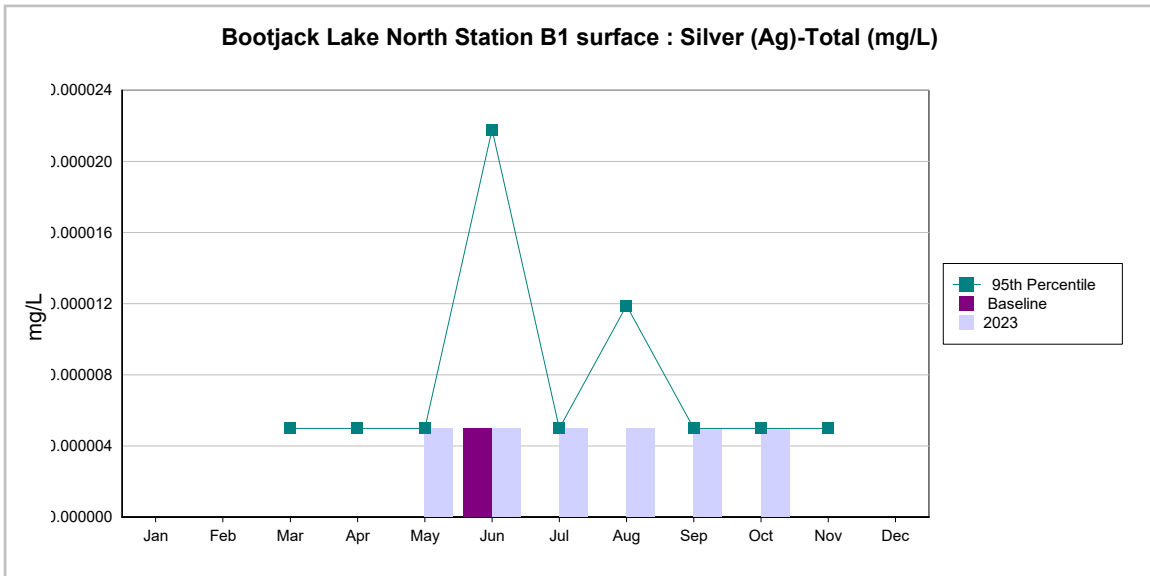
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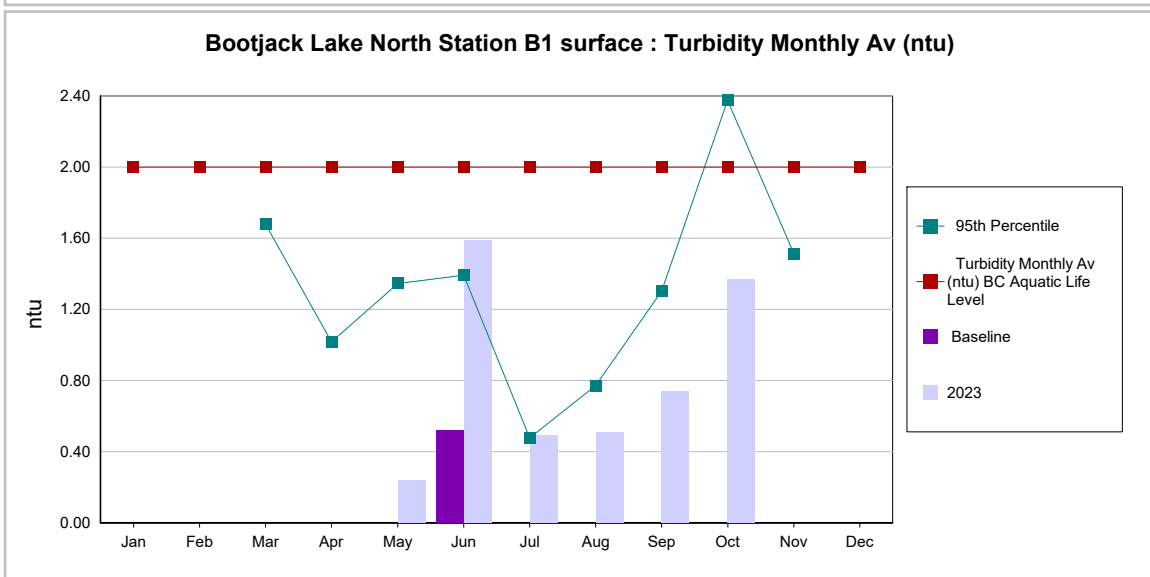
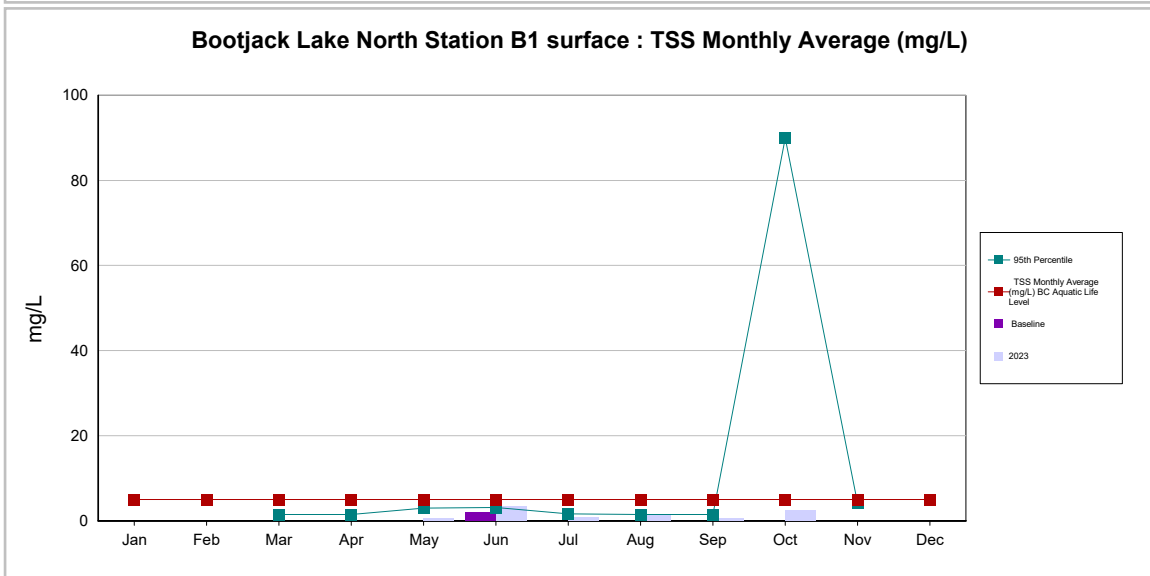
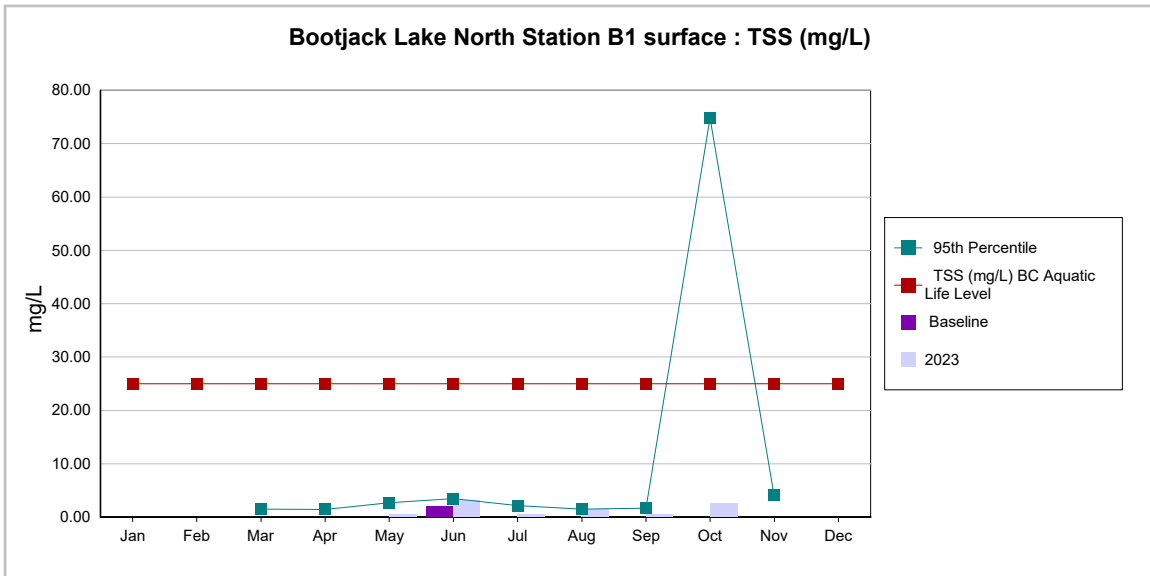
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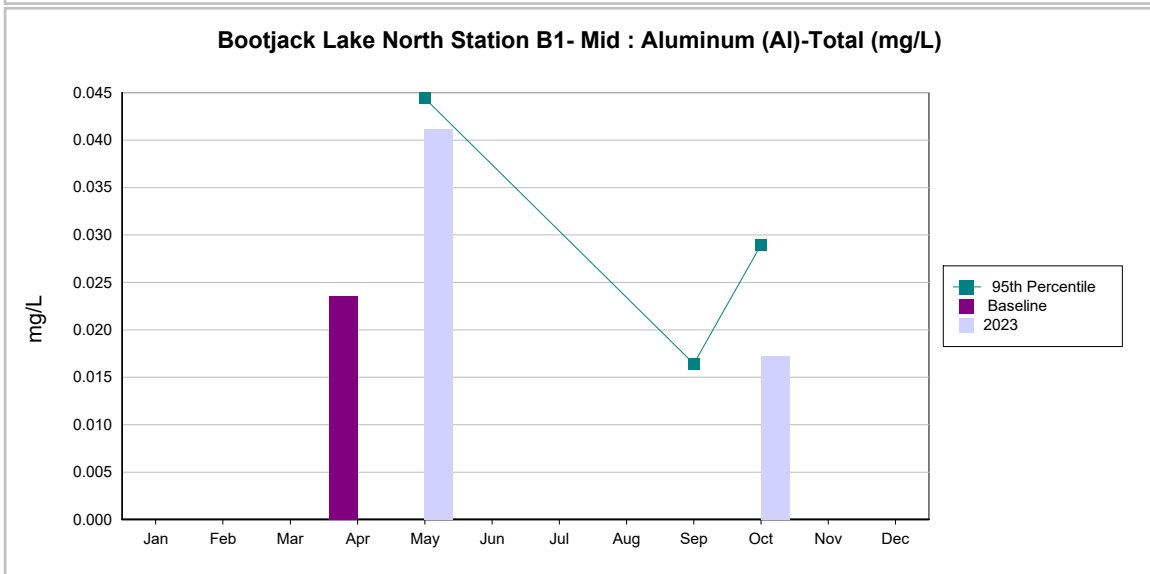
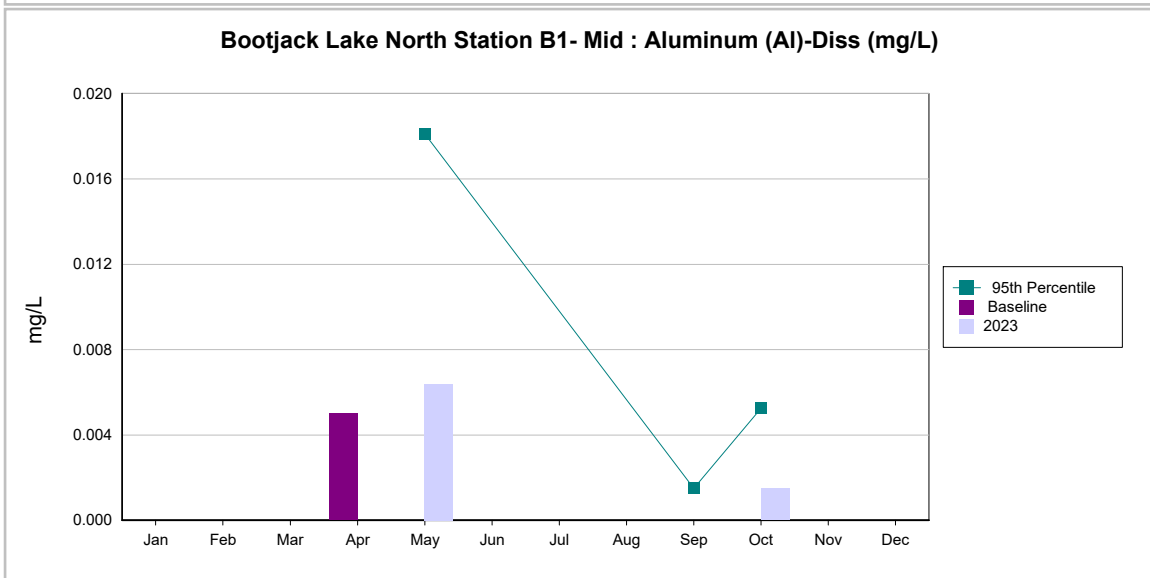
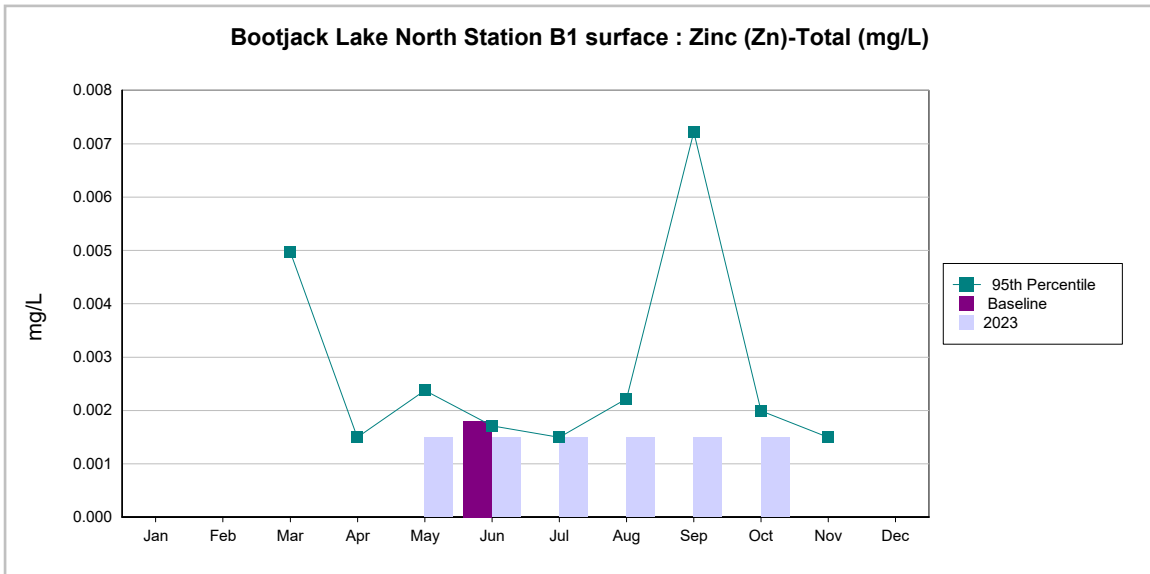
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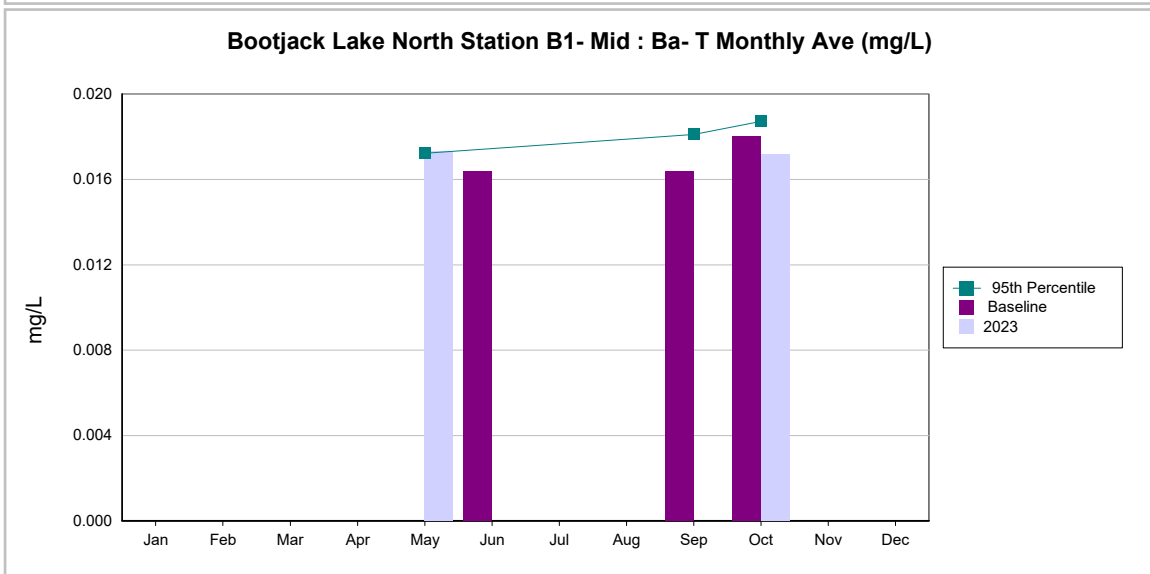
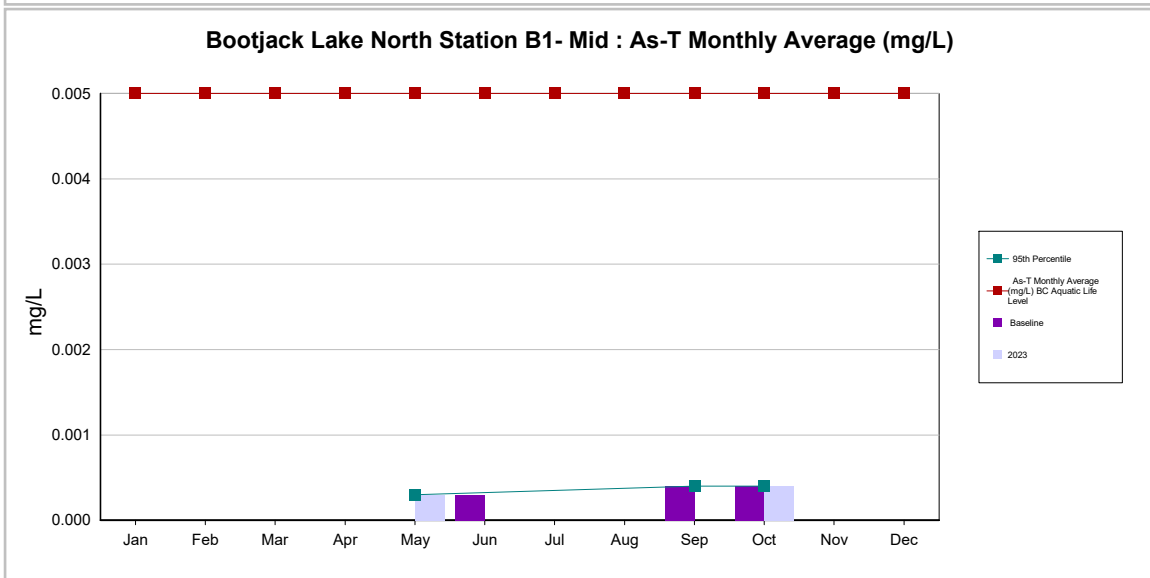
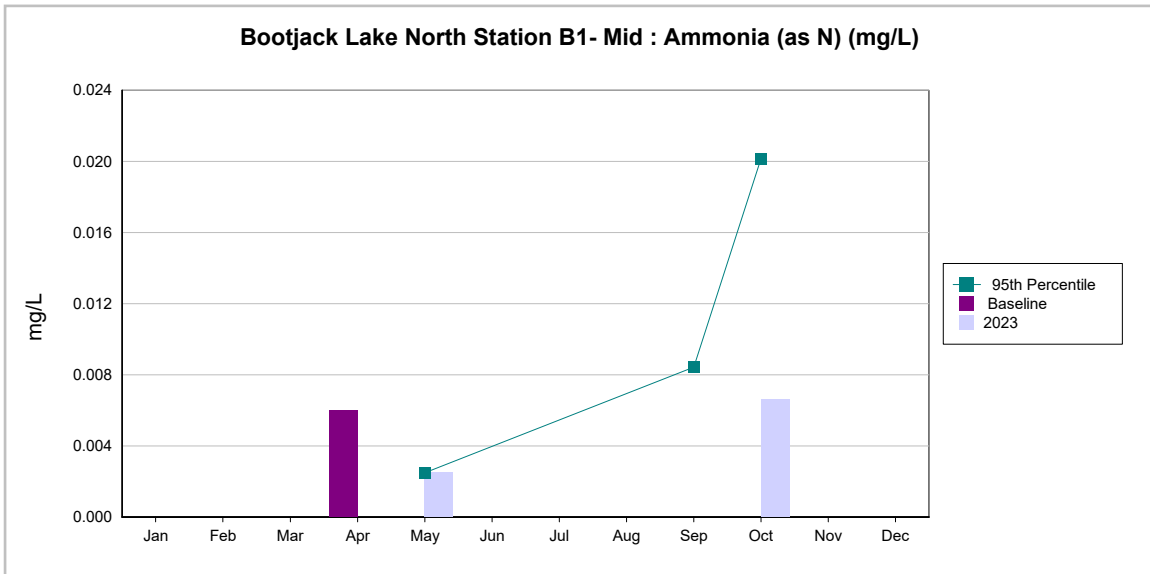
Annual Report Lake vs BCWQG



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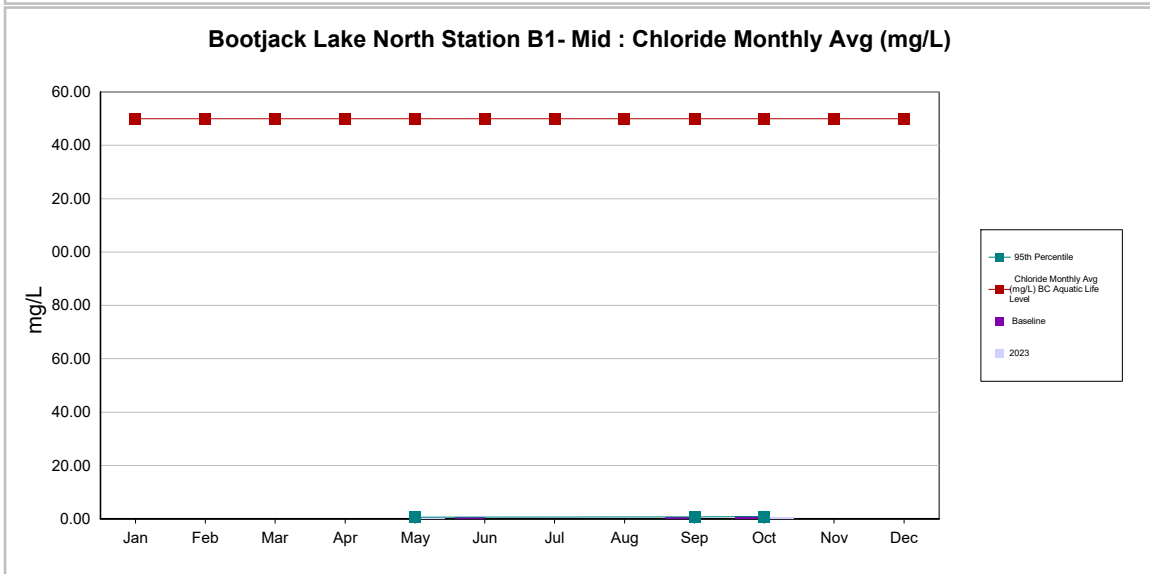
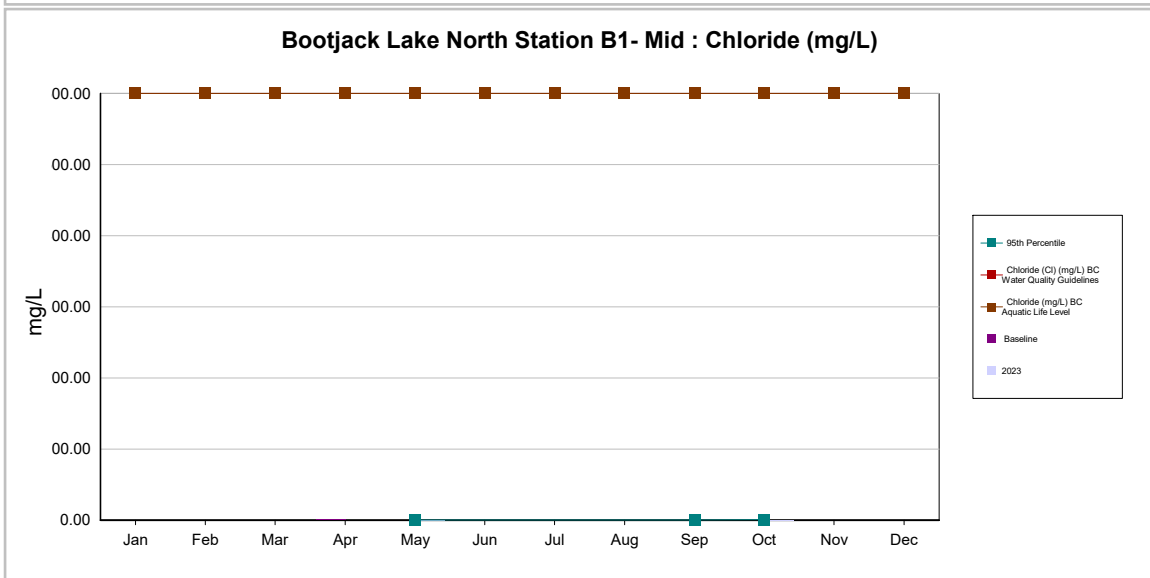
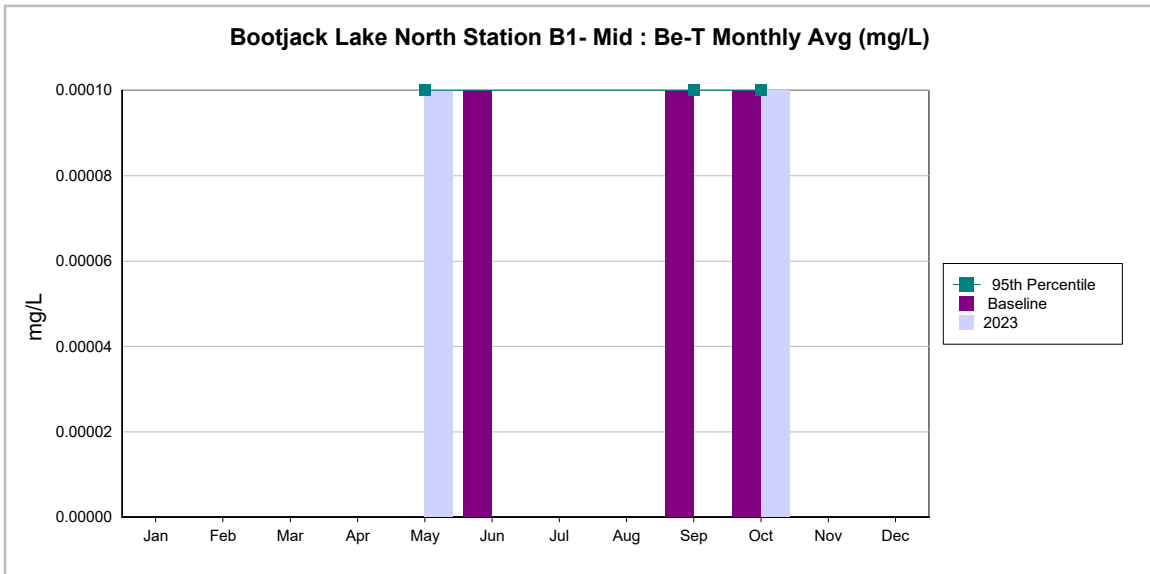
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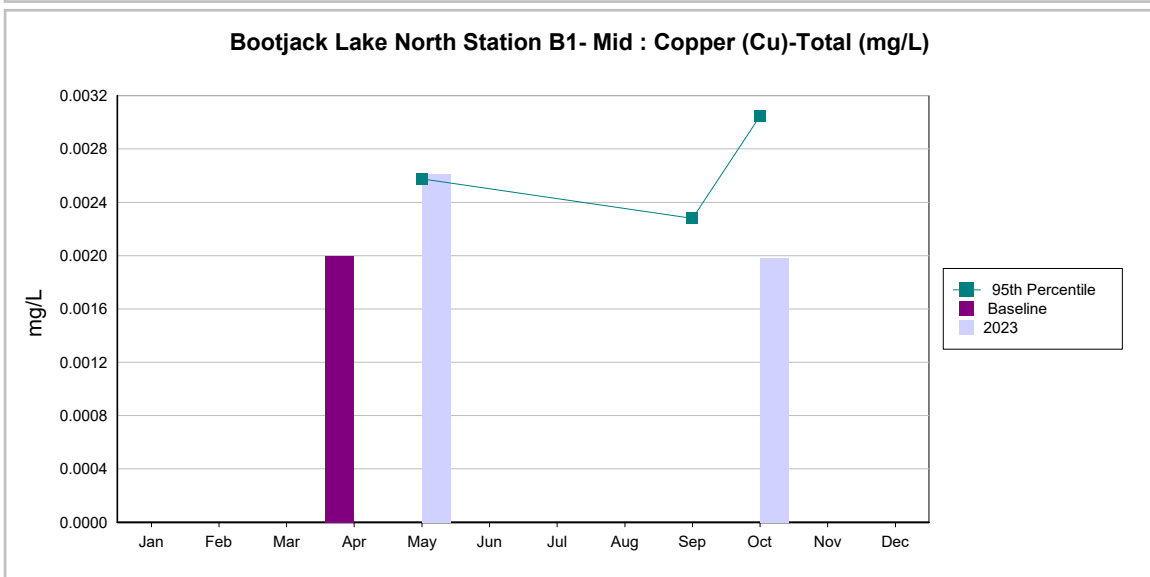
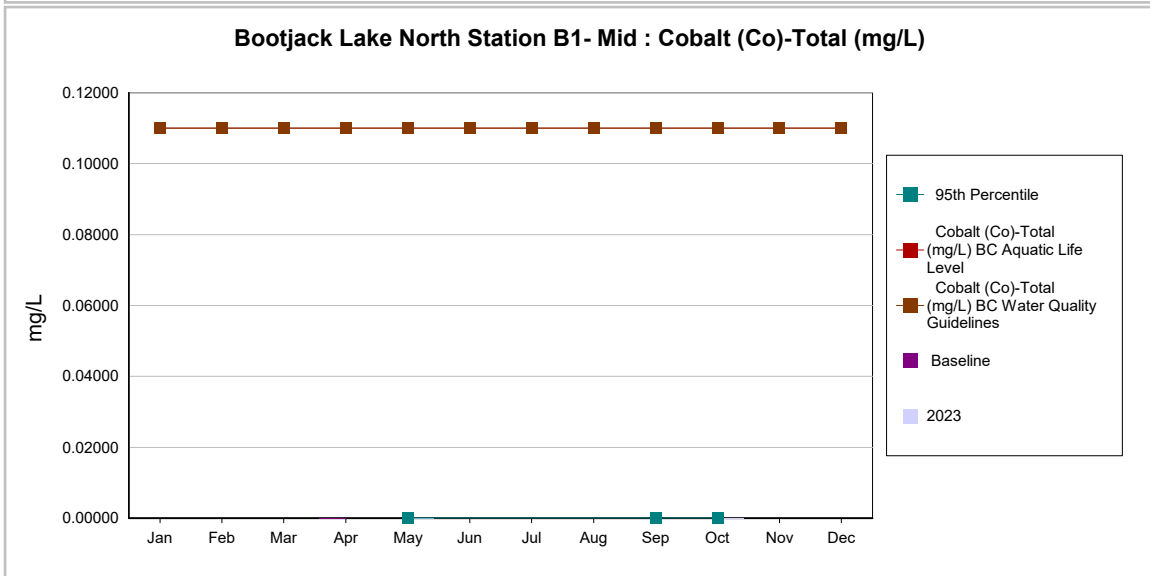
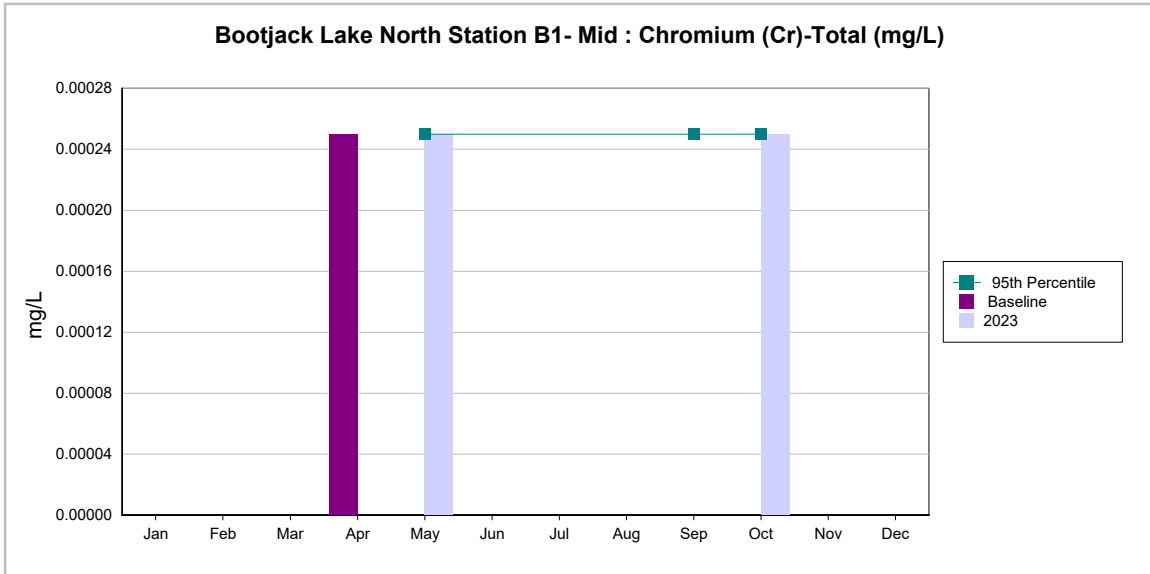
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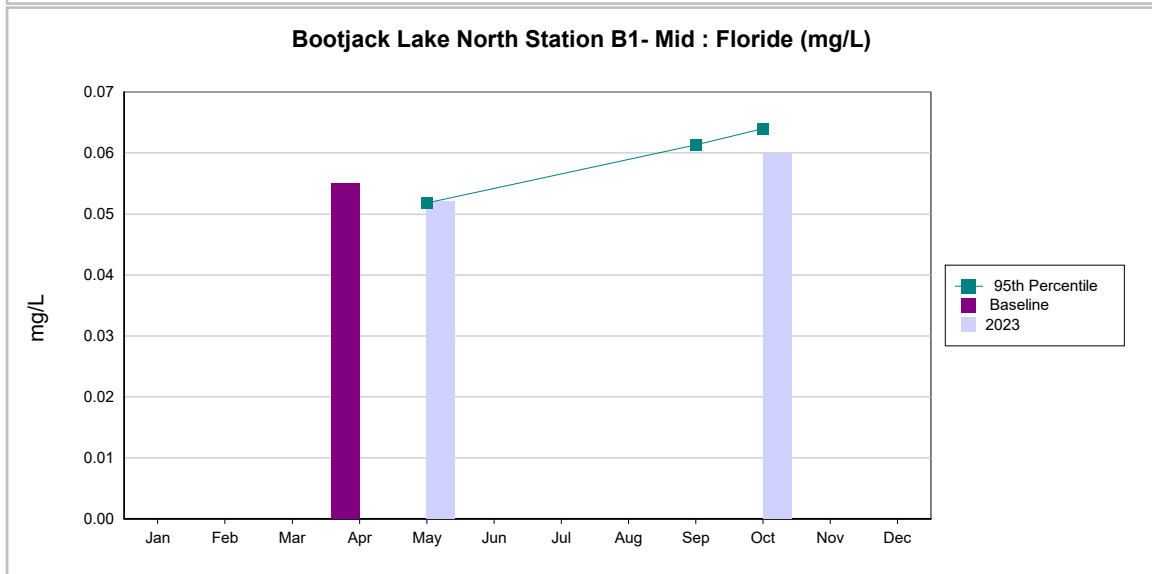
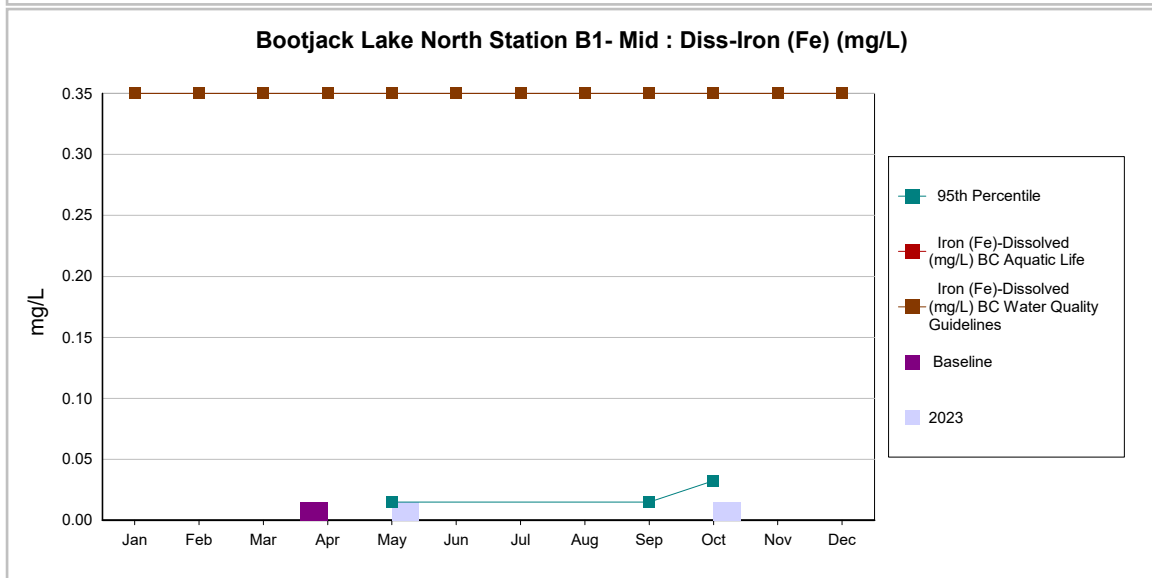
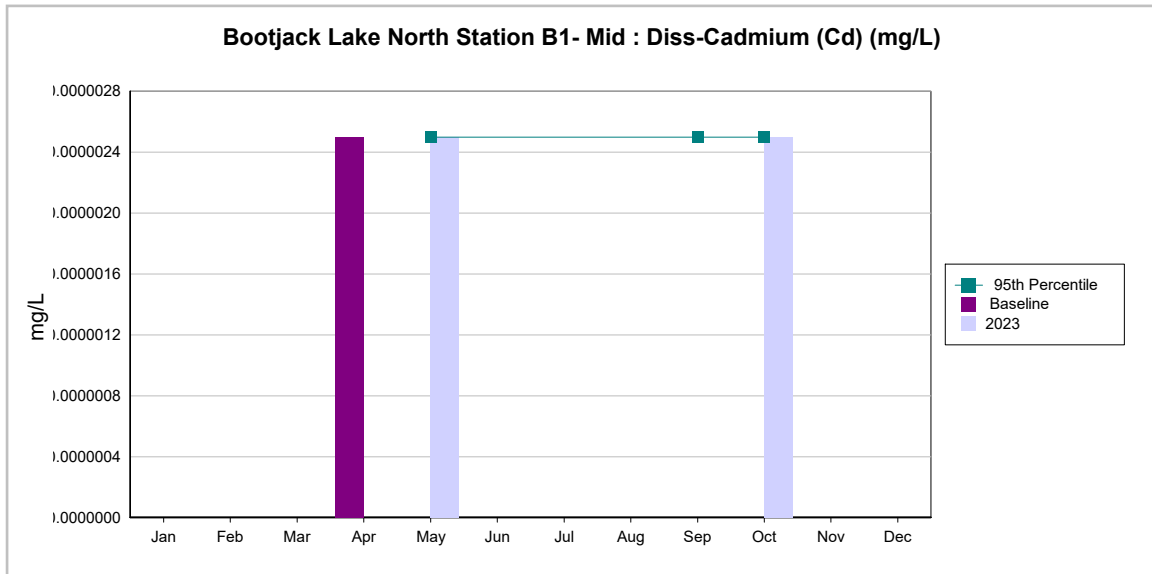
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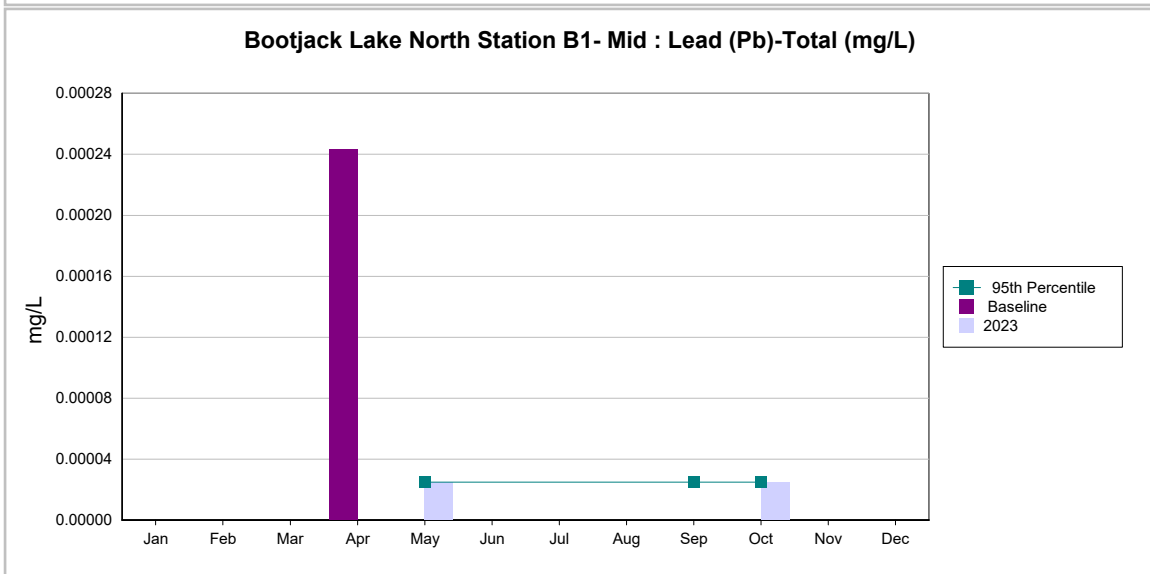
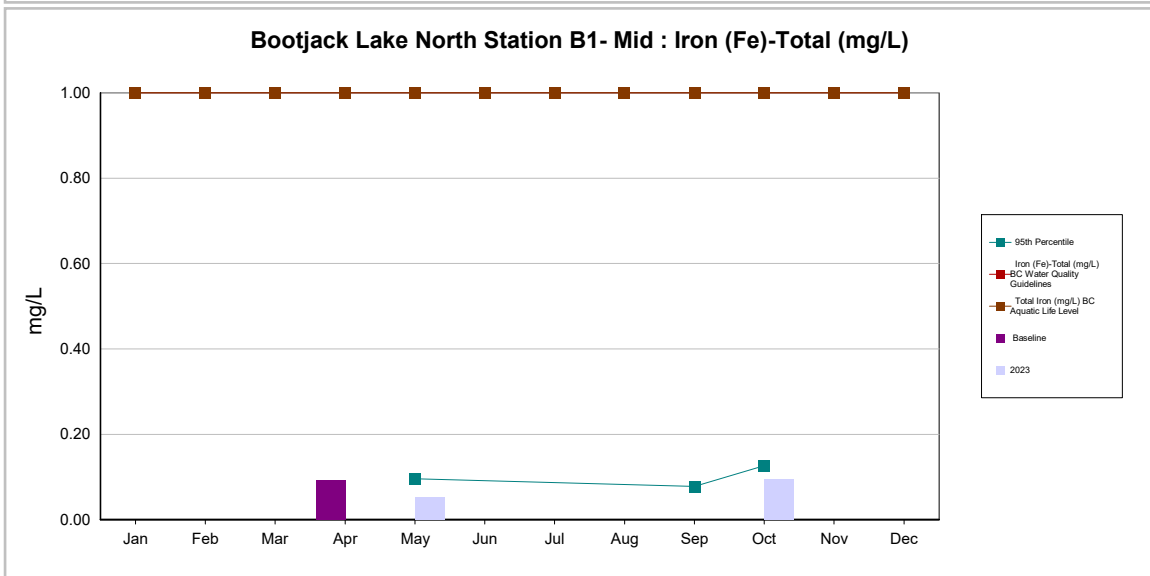
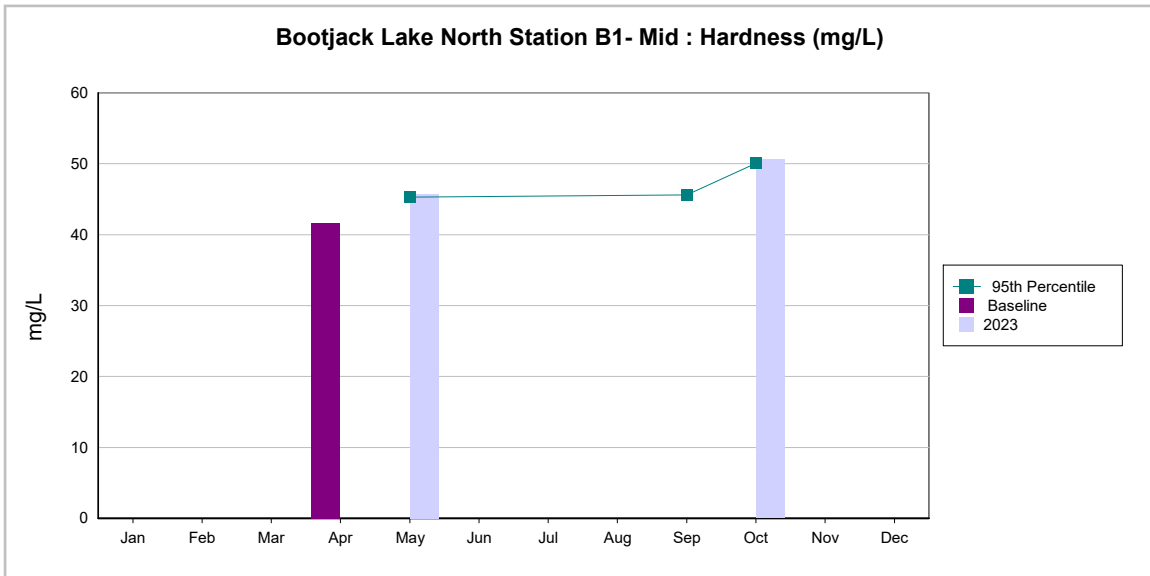
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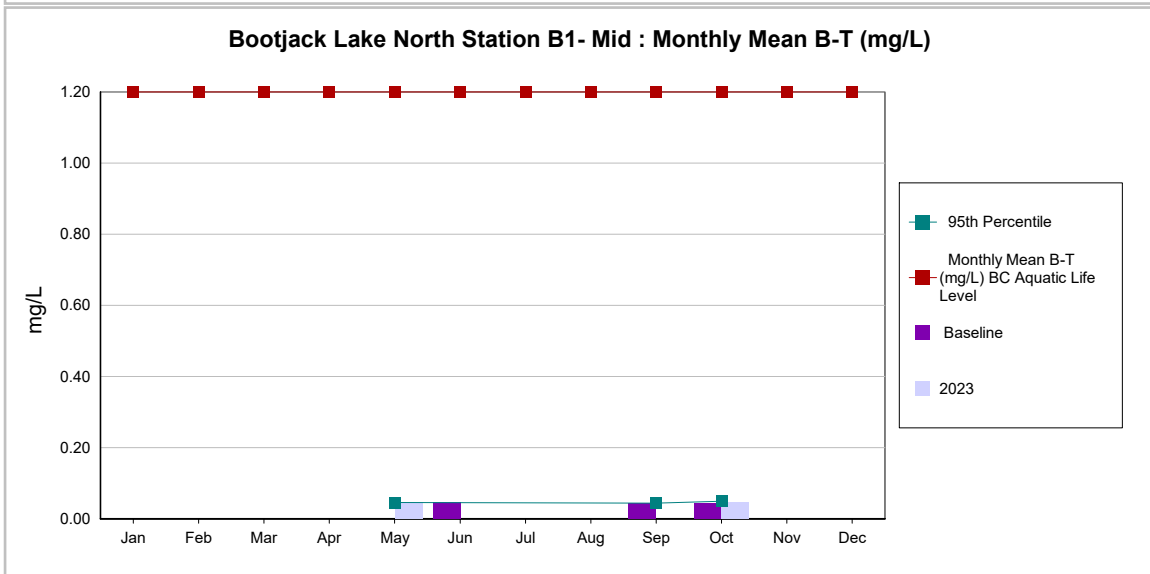
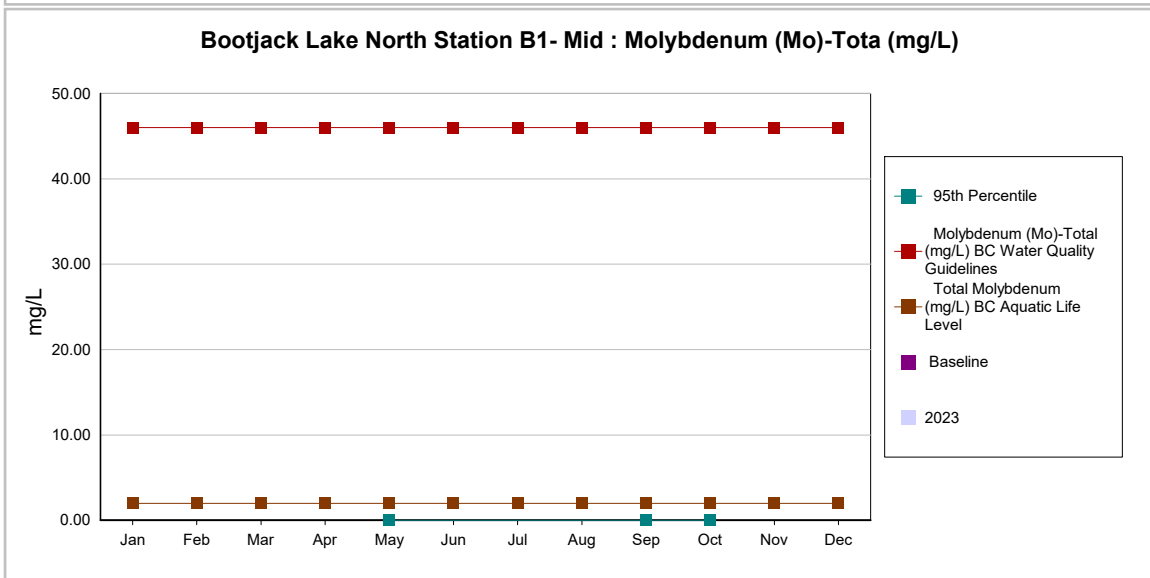
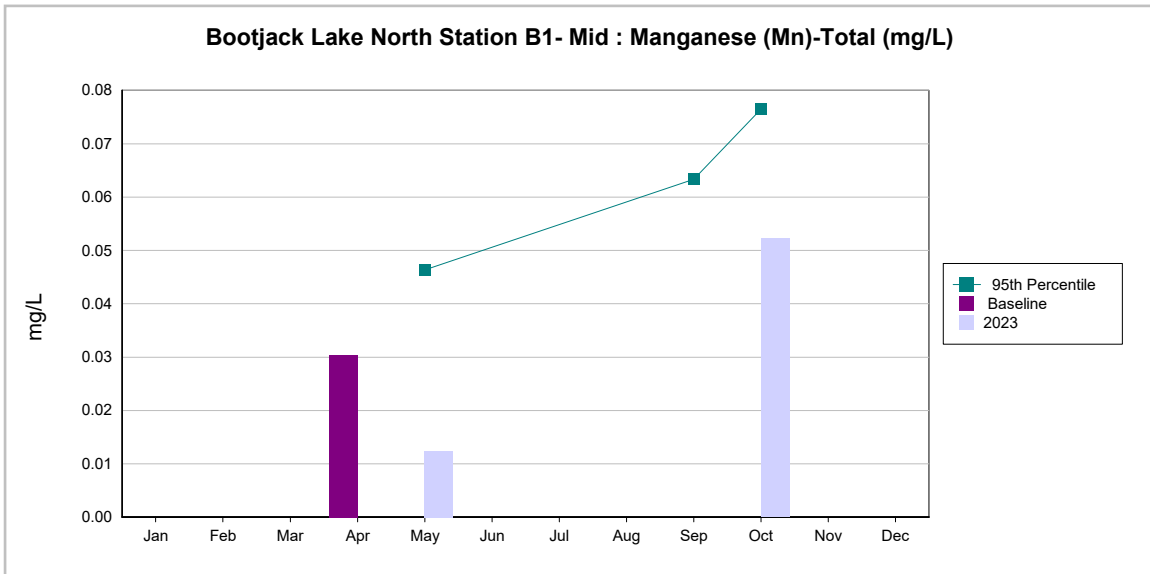
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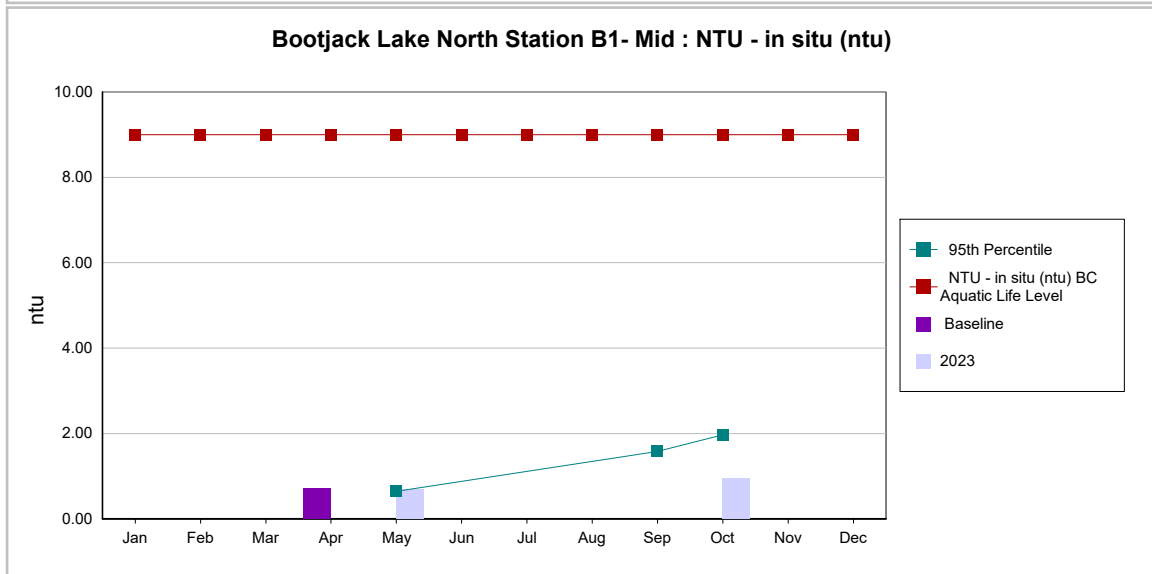
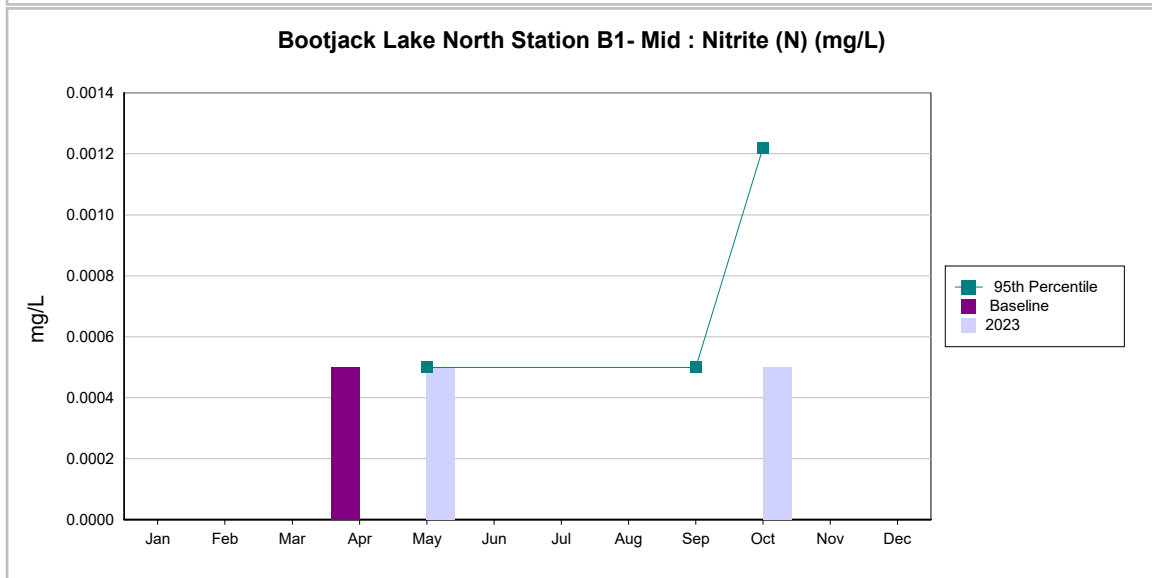
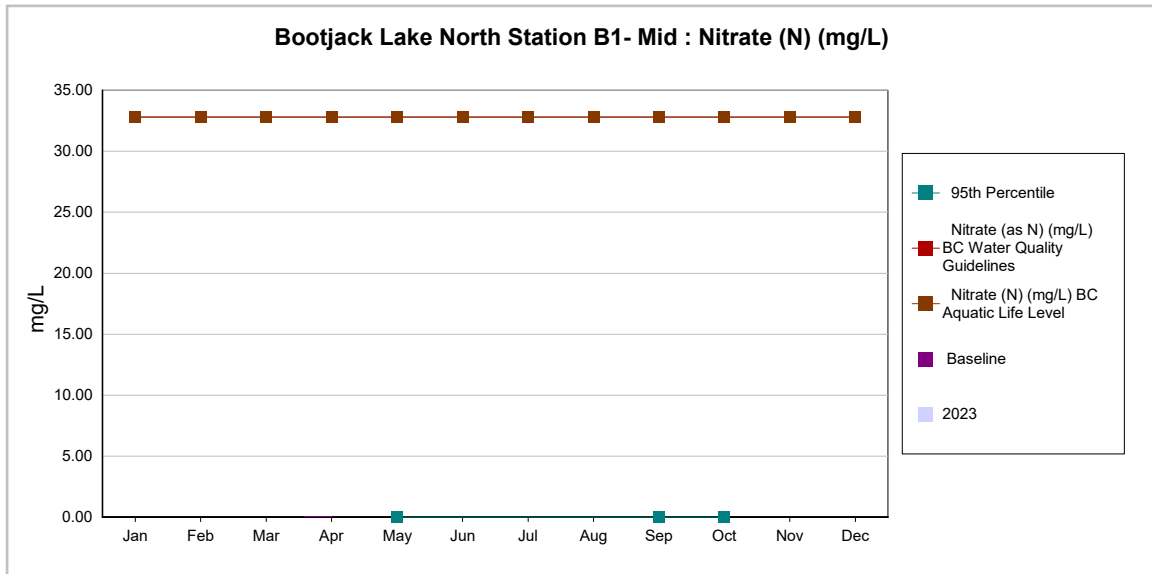
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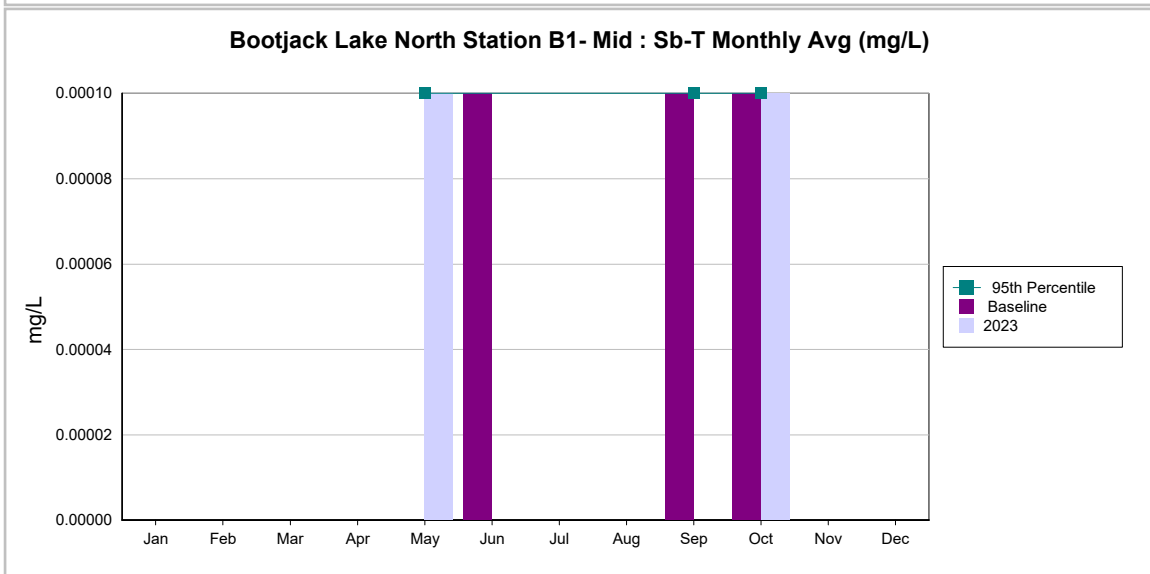
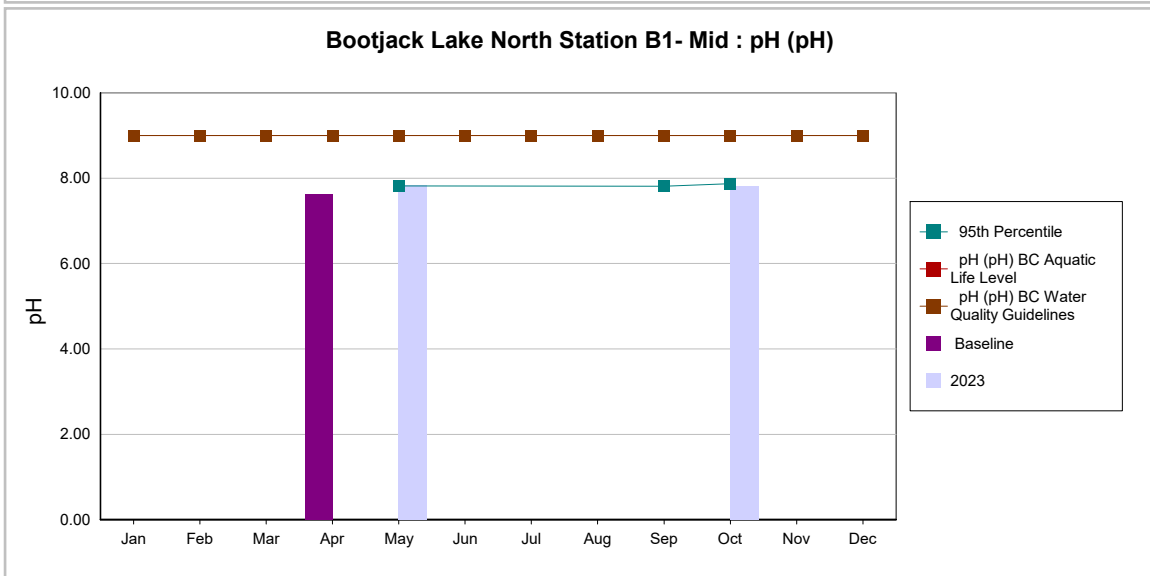
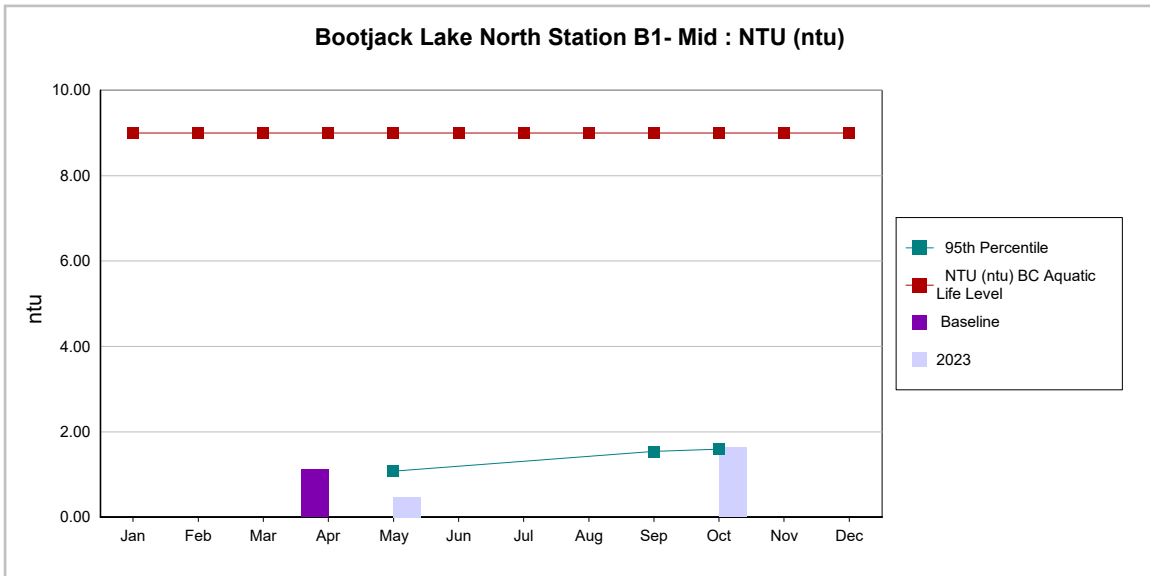
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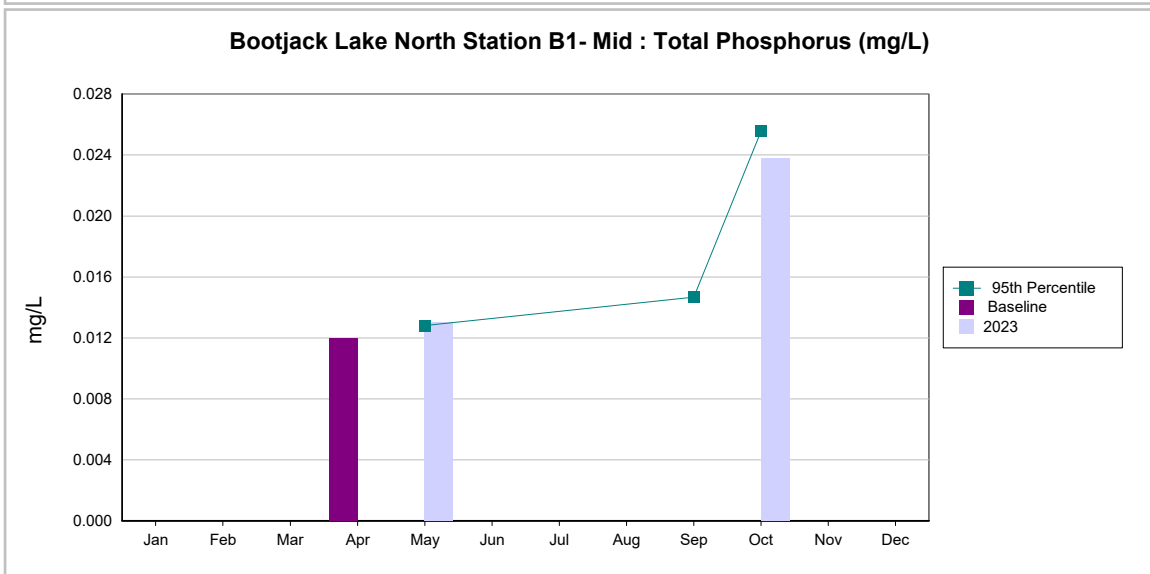
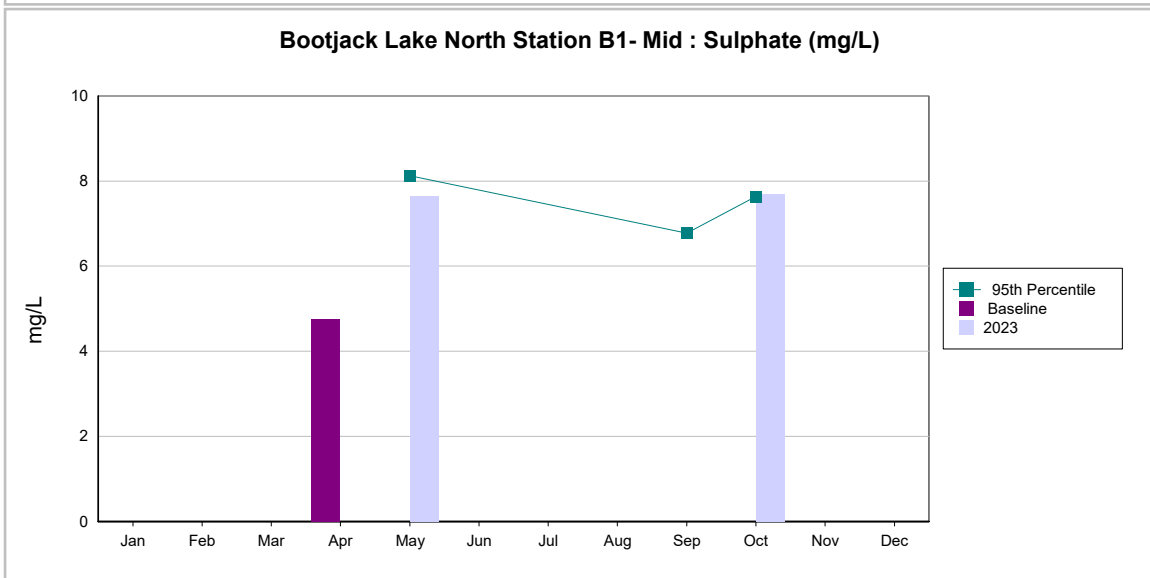
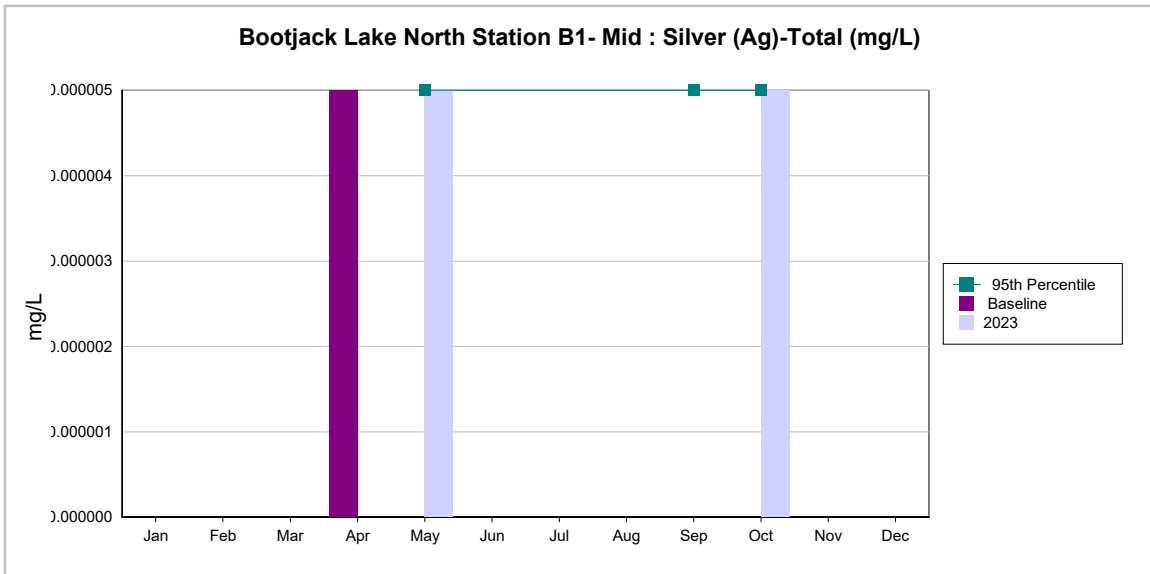
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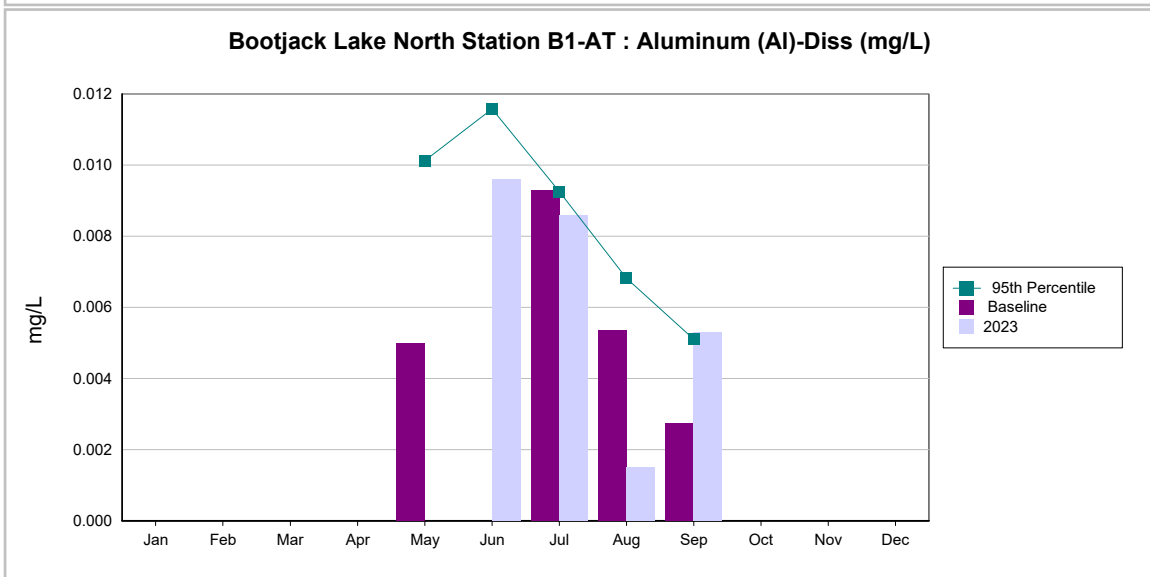
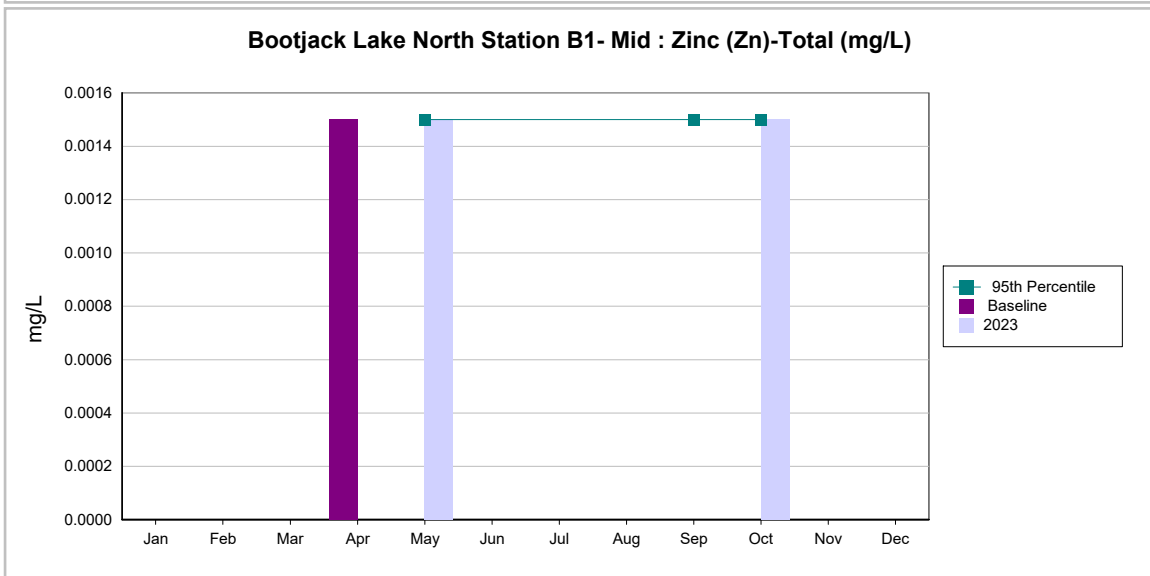
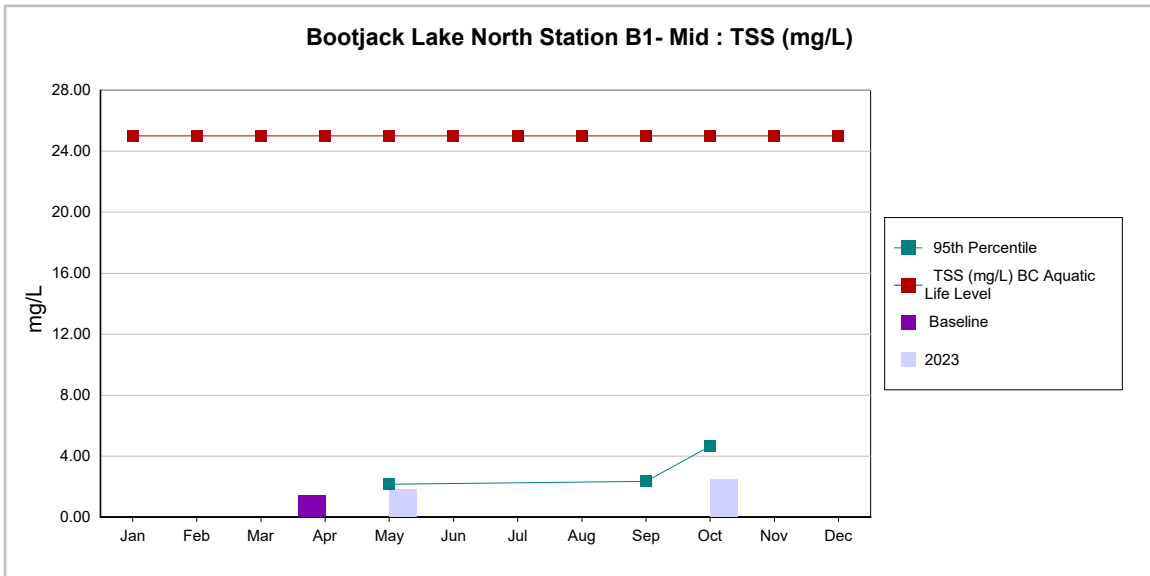
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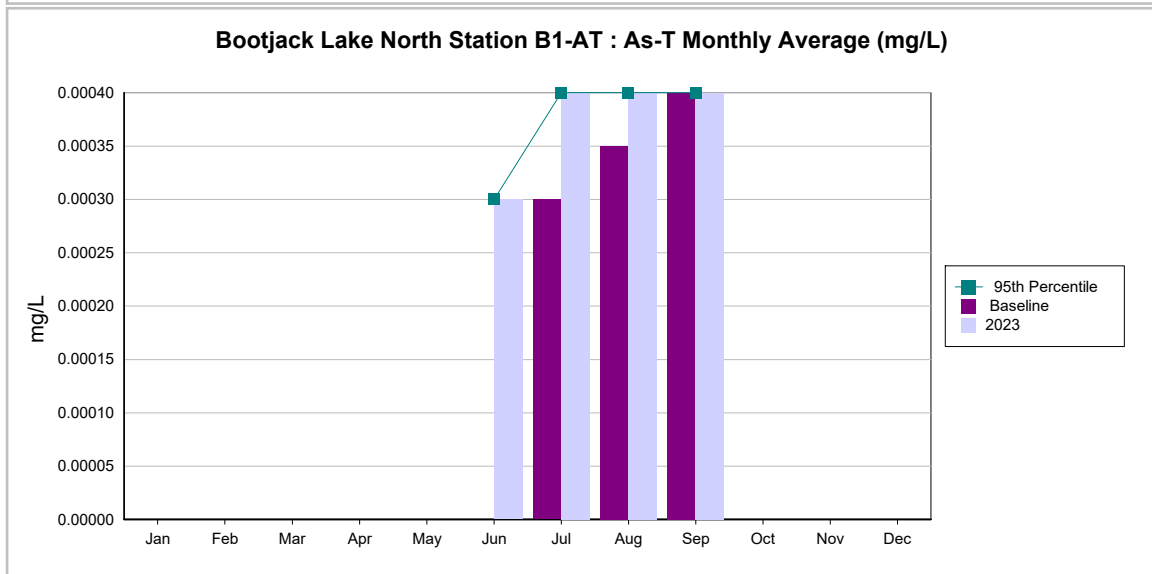
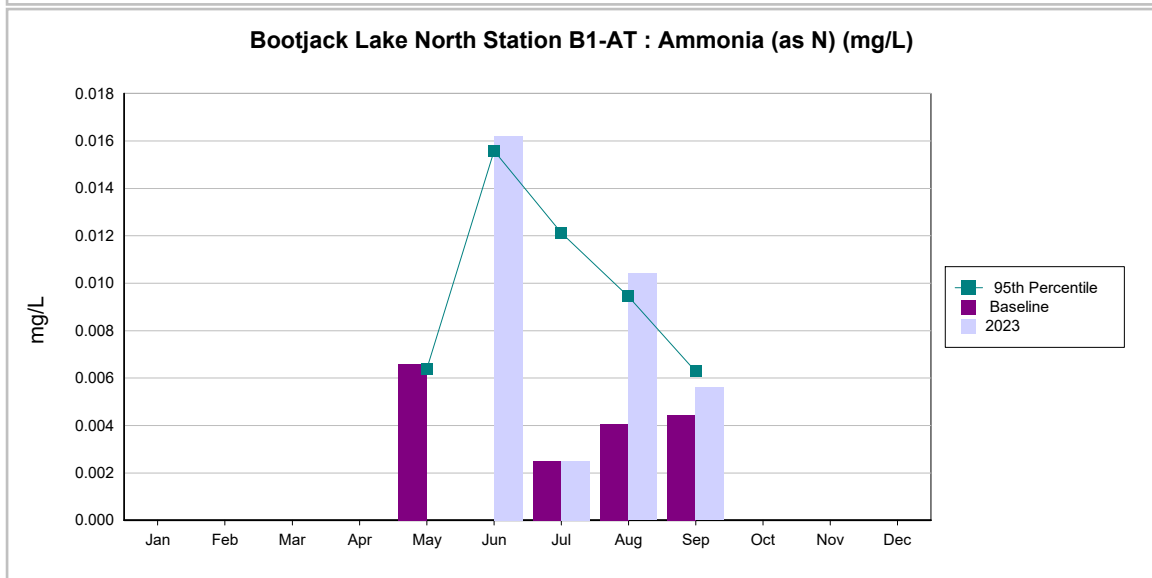
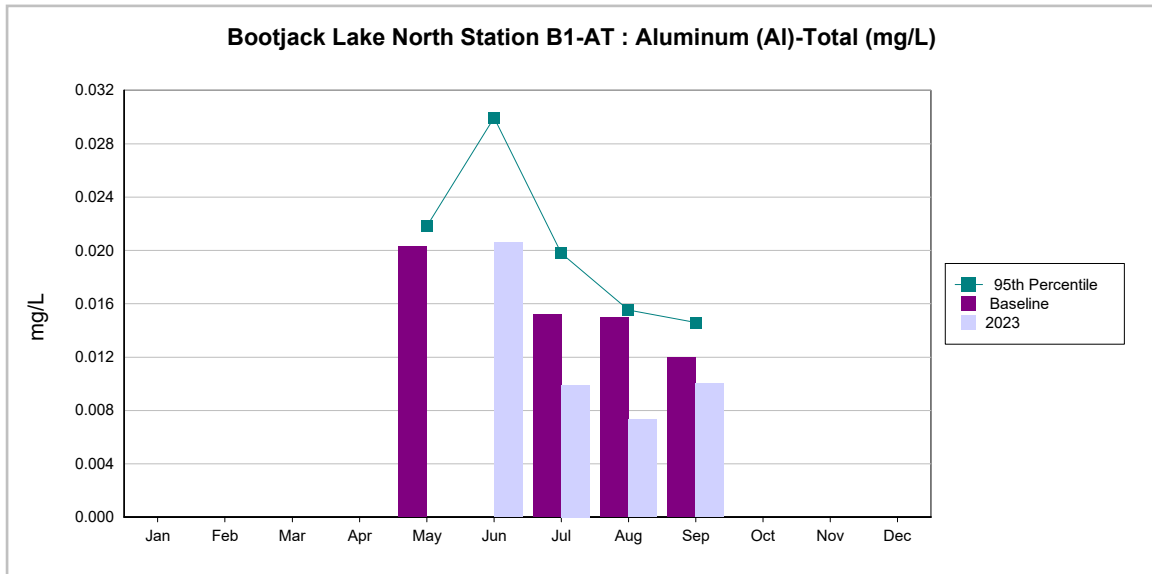
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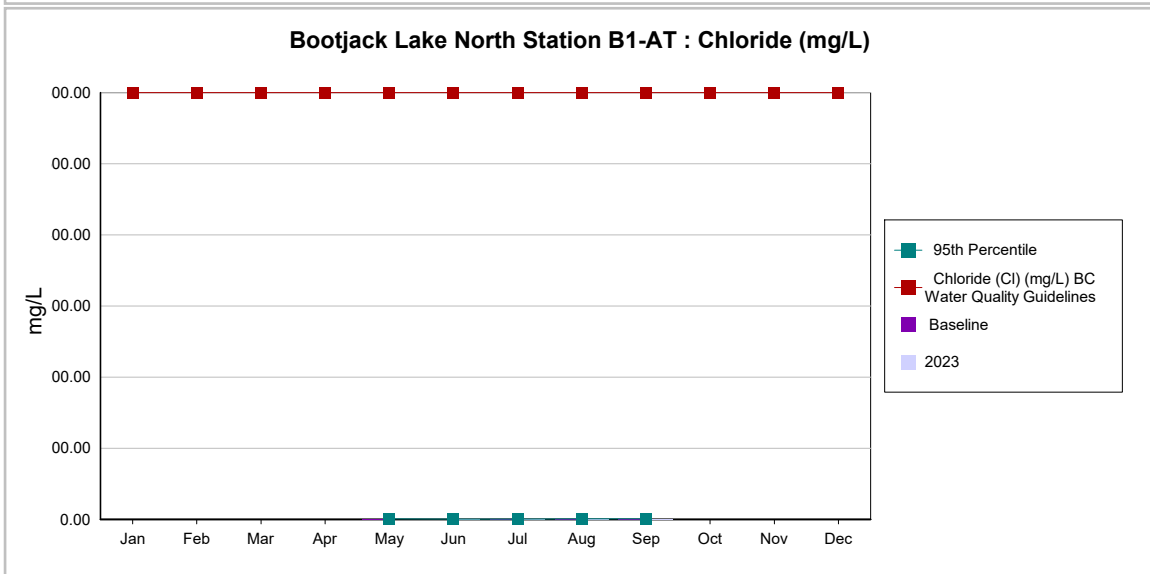
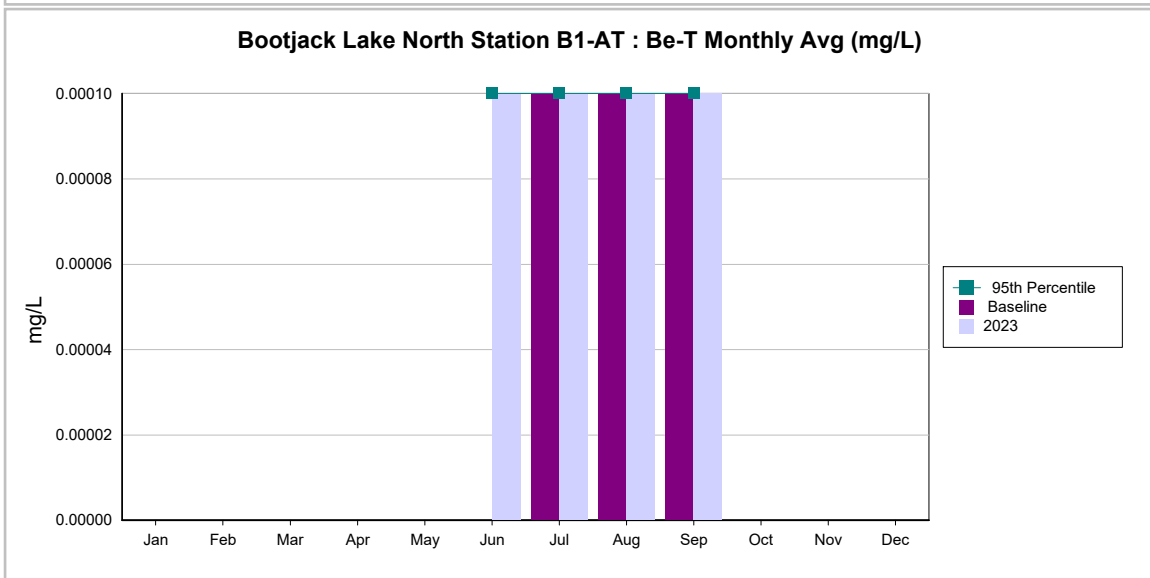
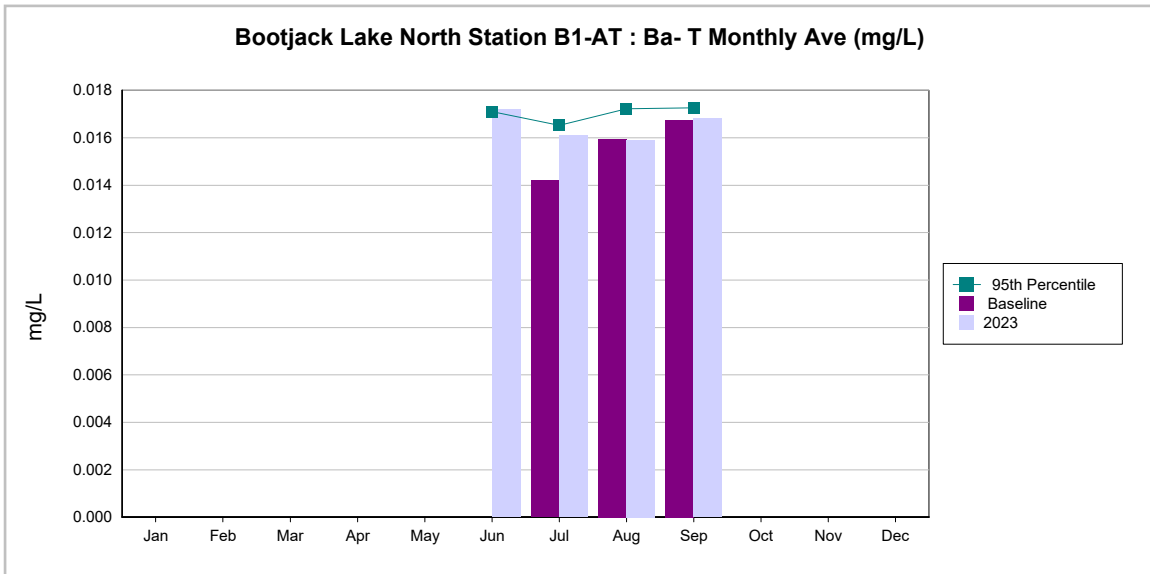
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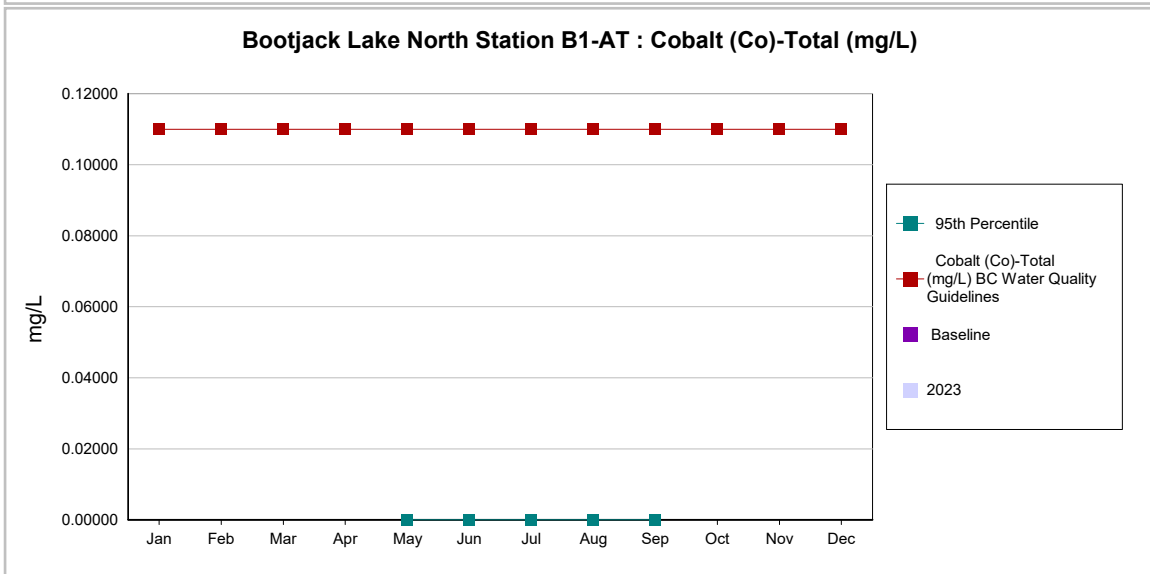
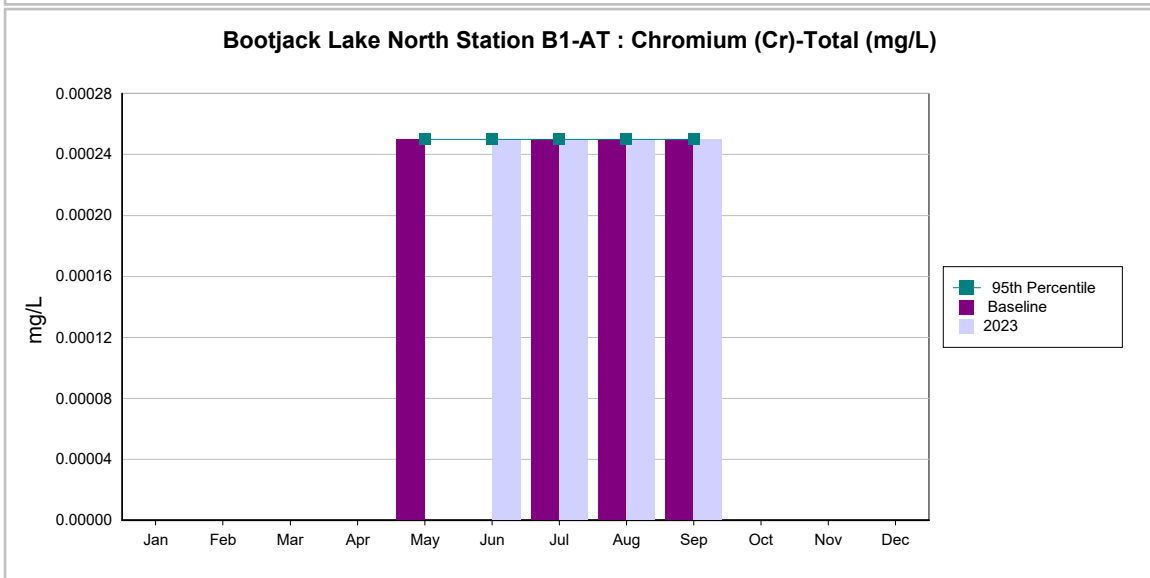
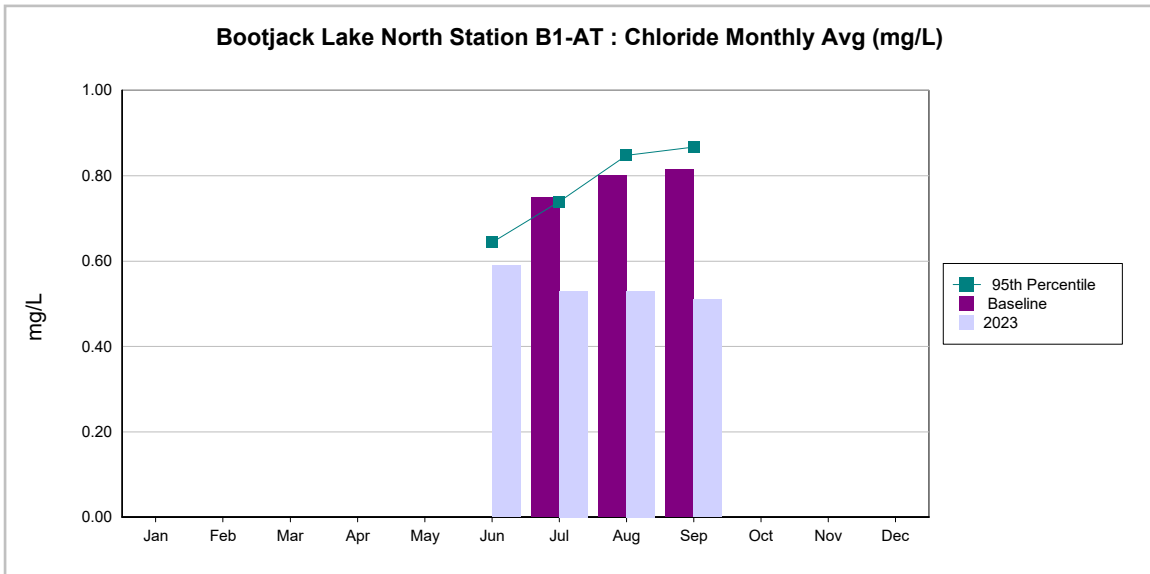
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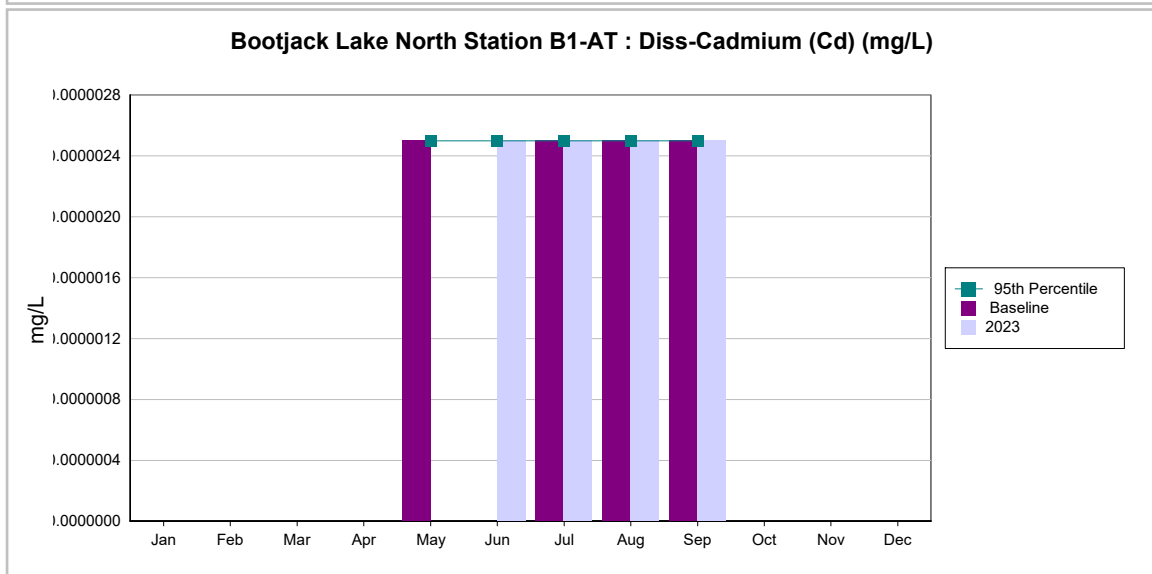
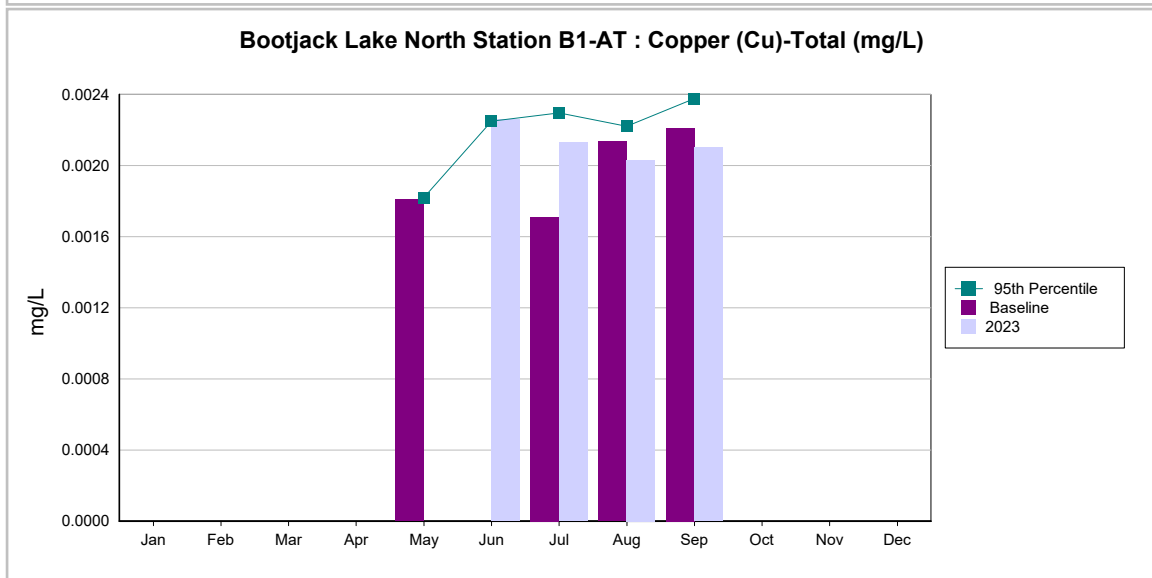
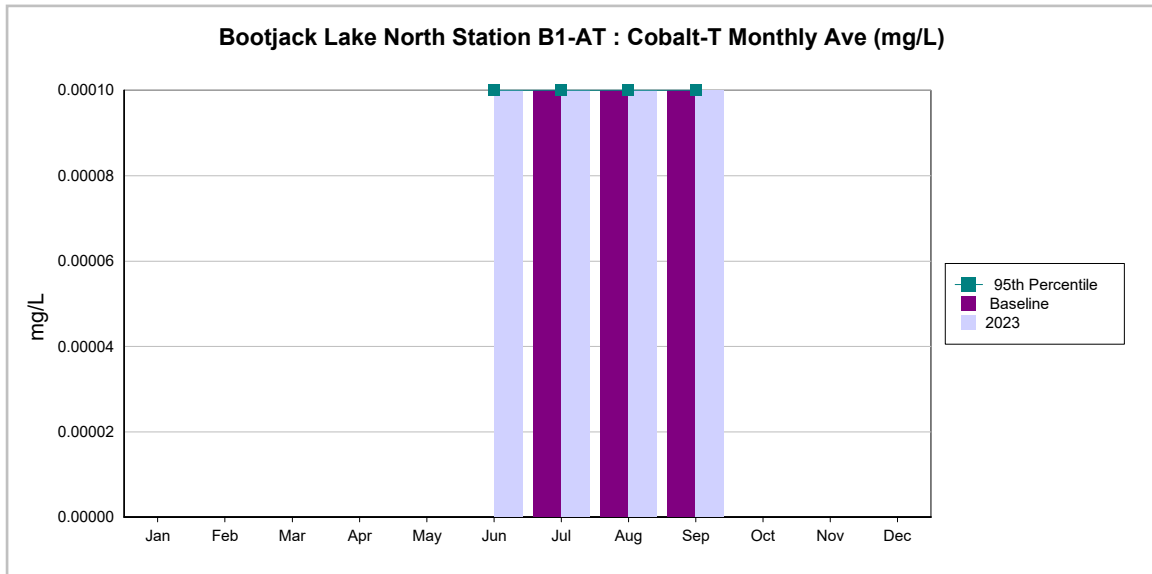
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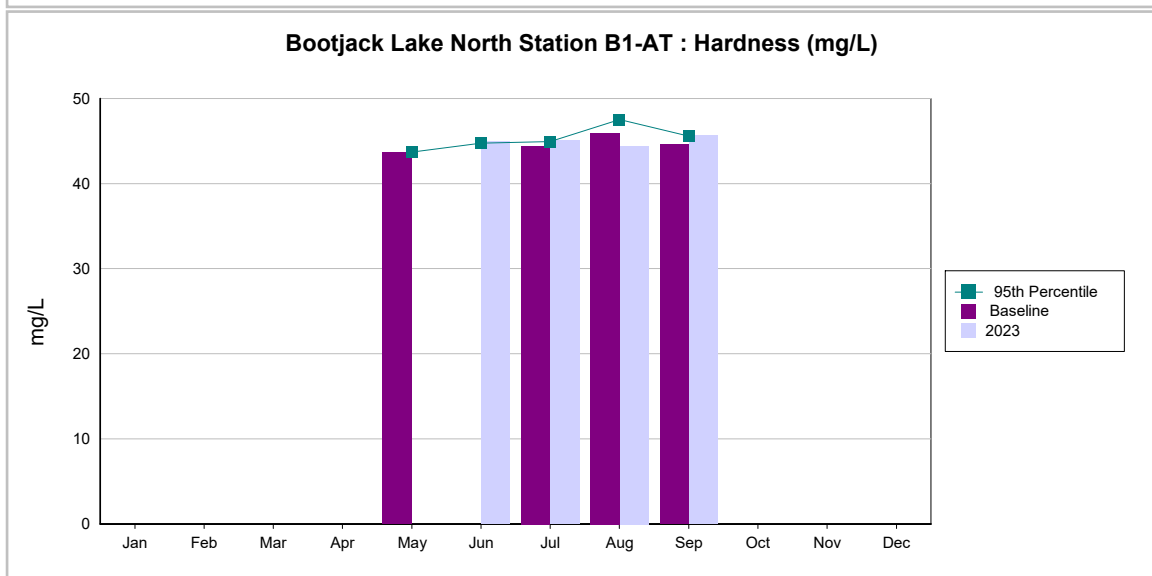
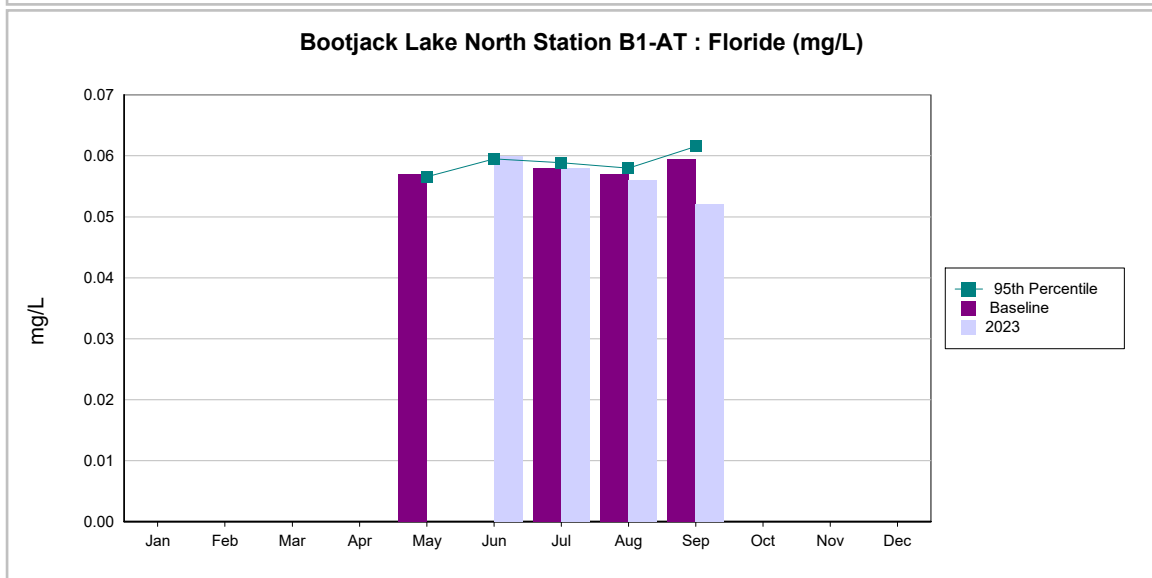
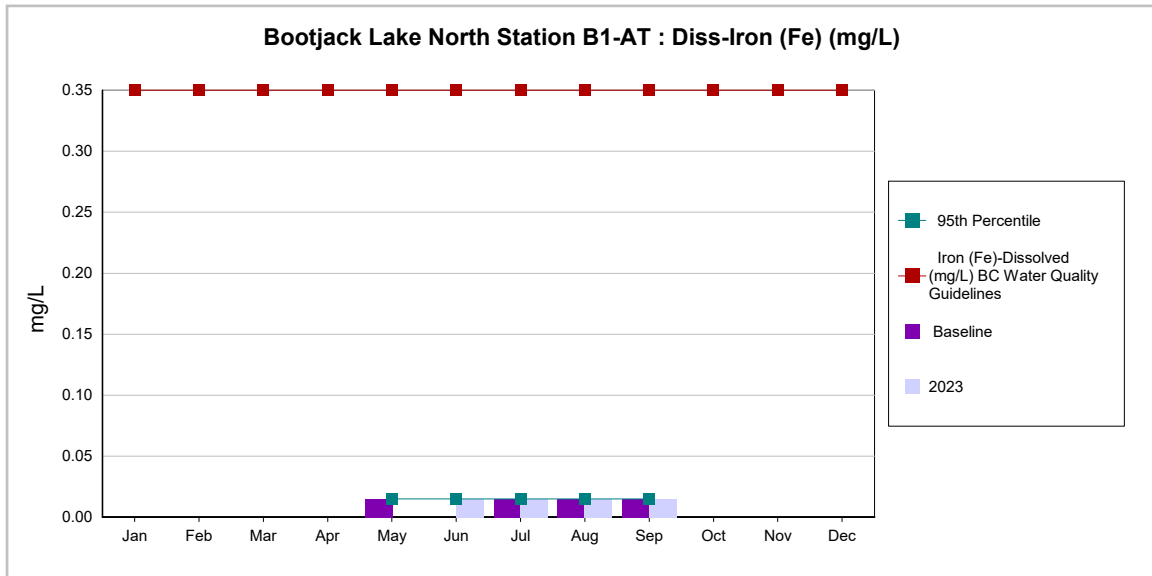
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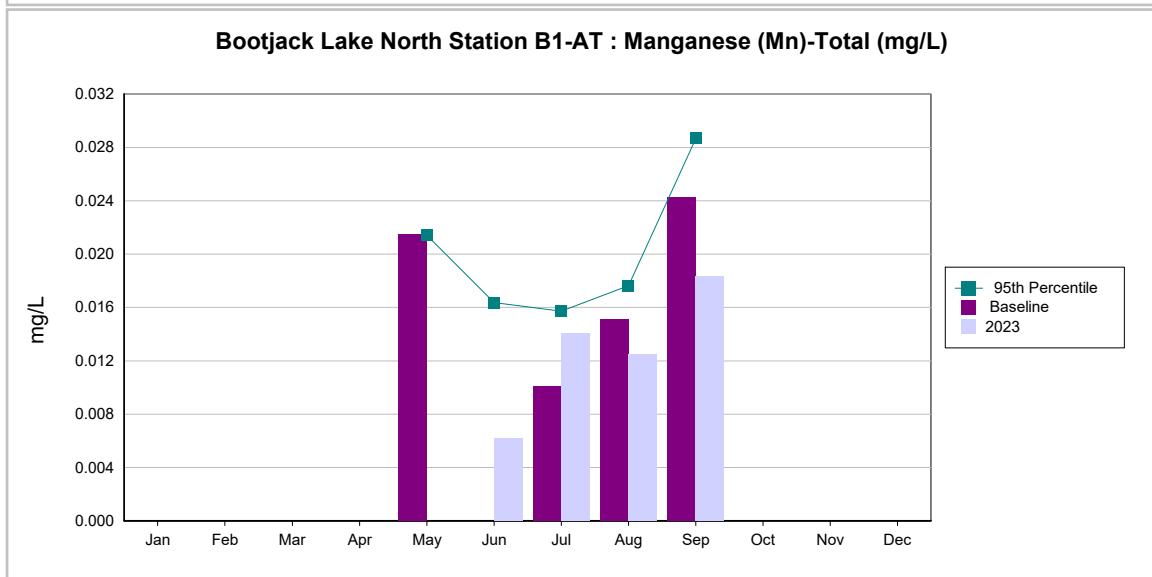
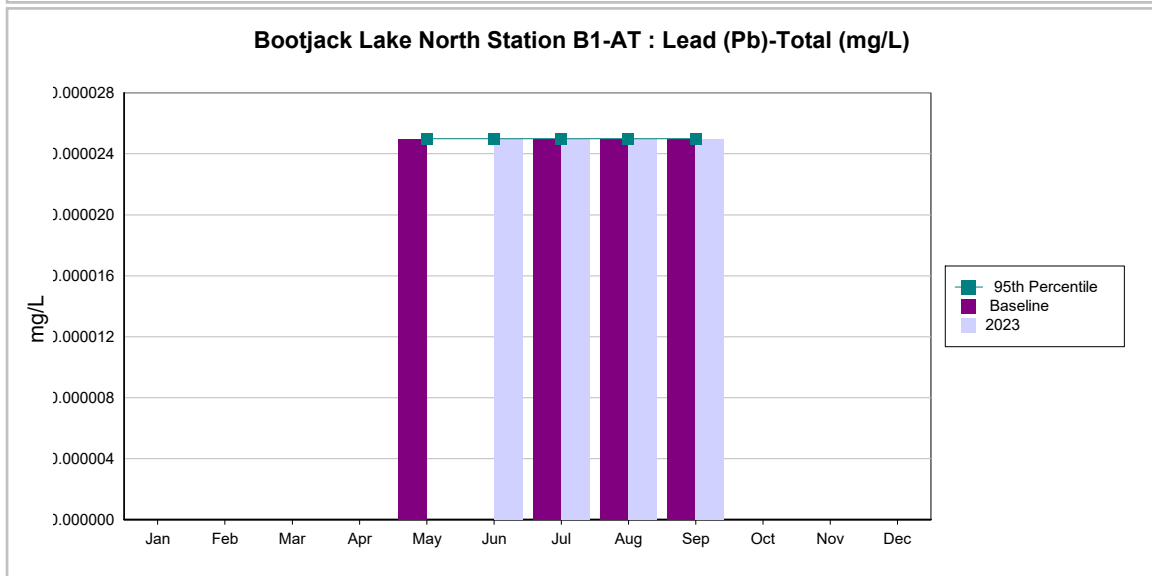
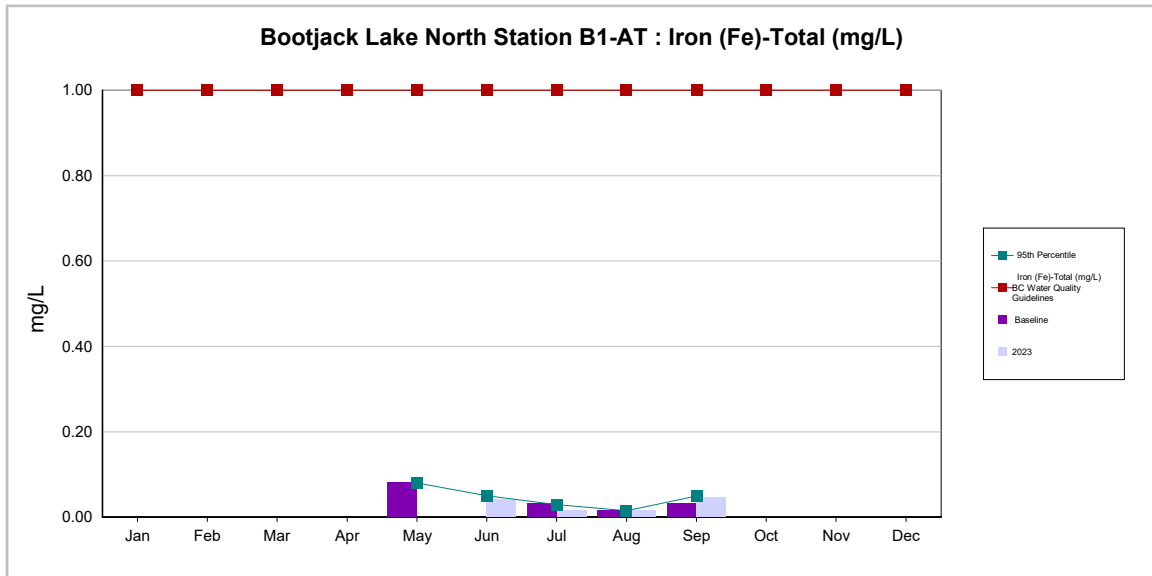
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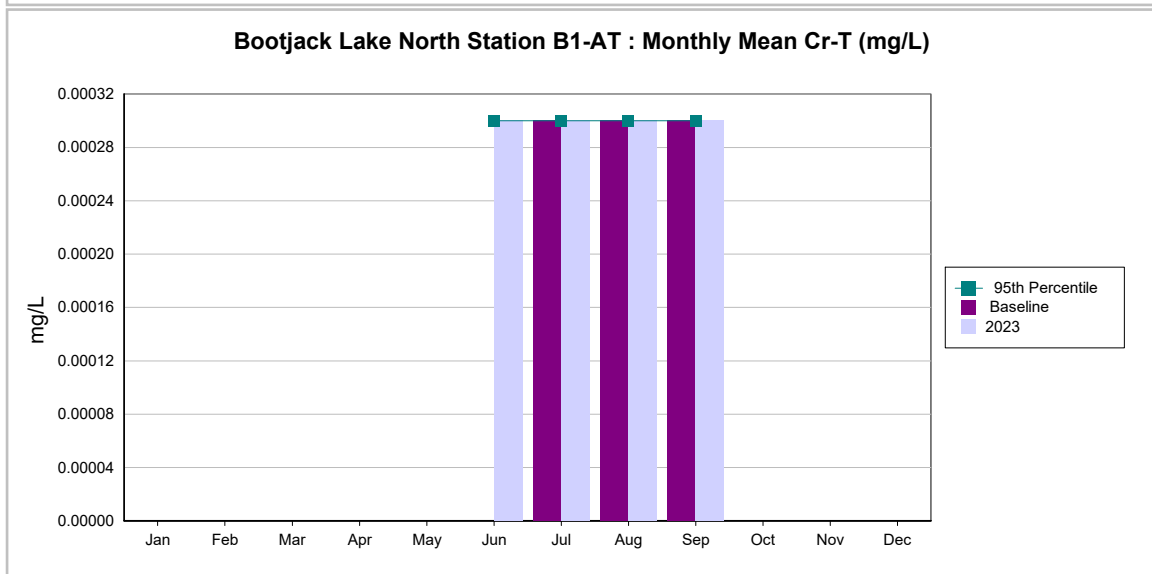
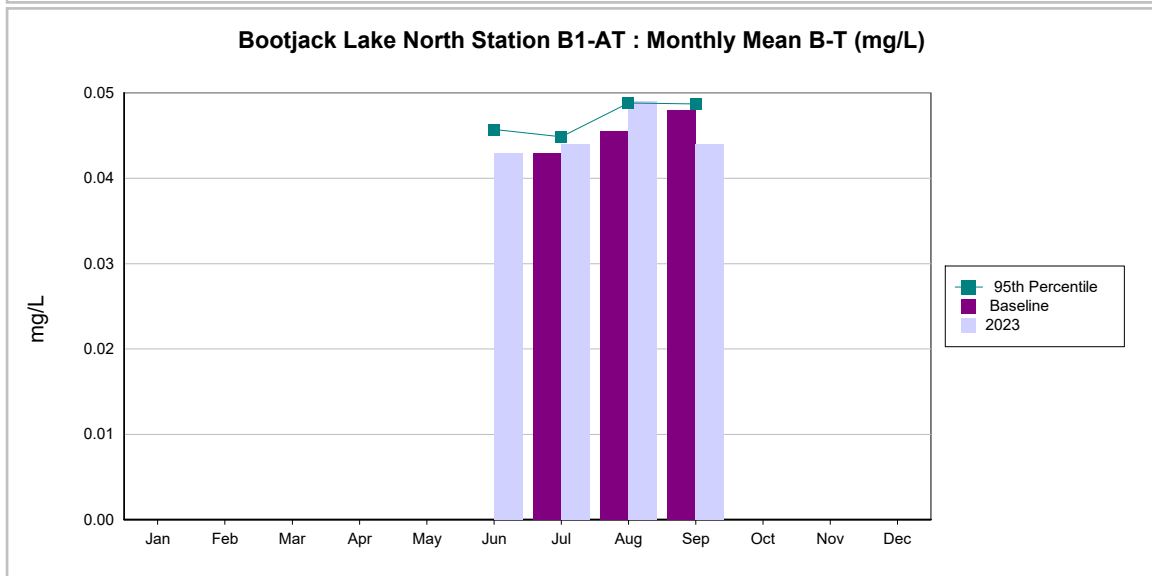
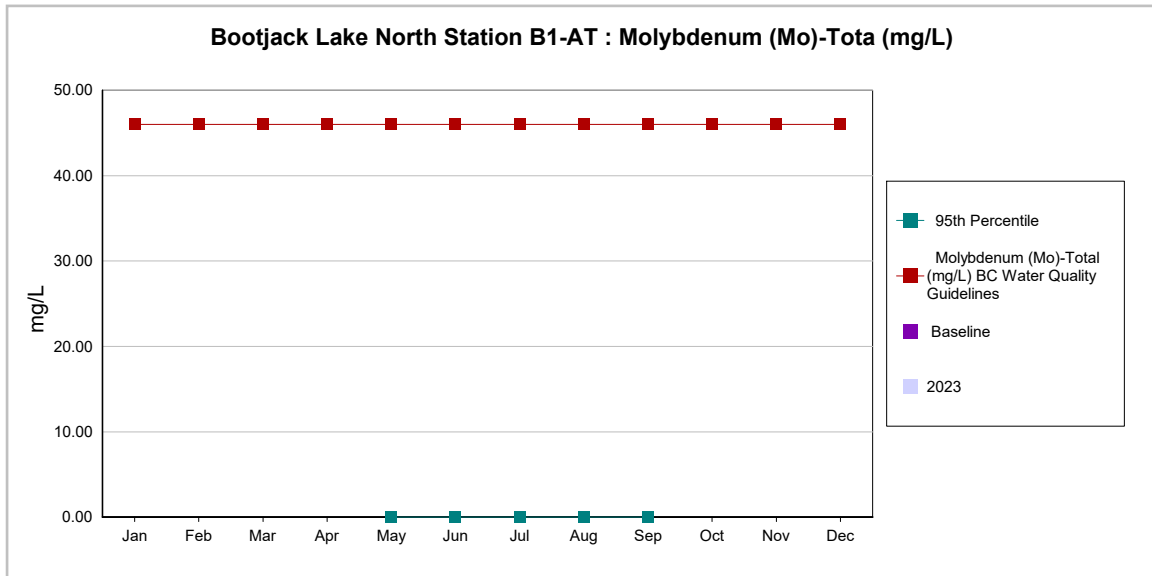
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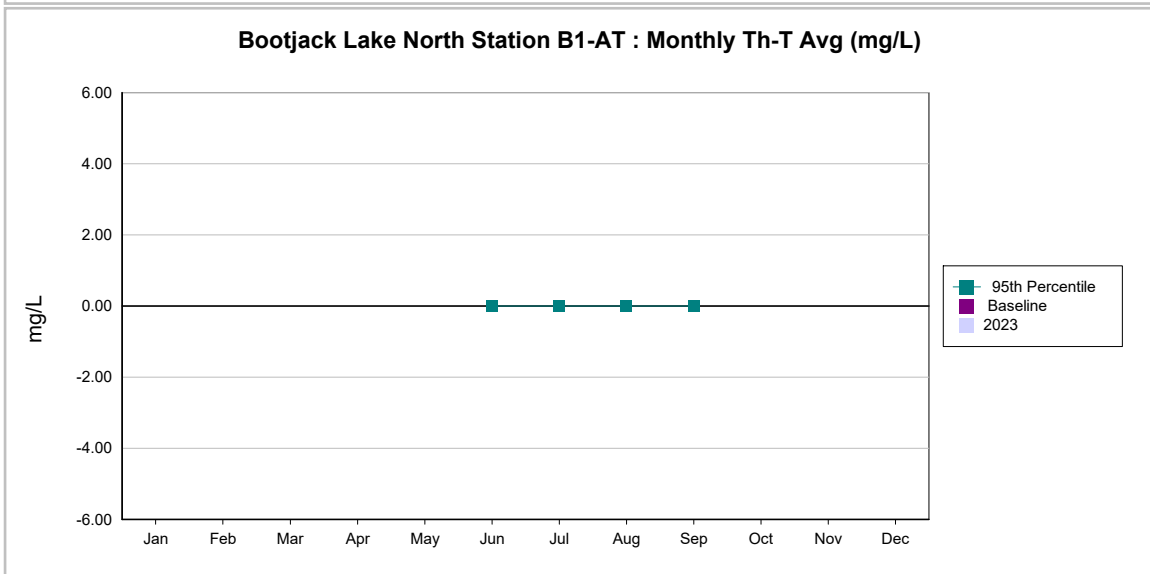
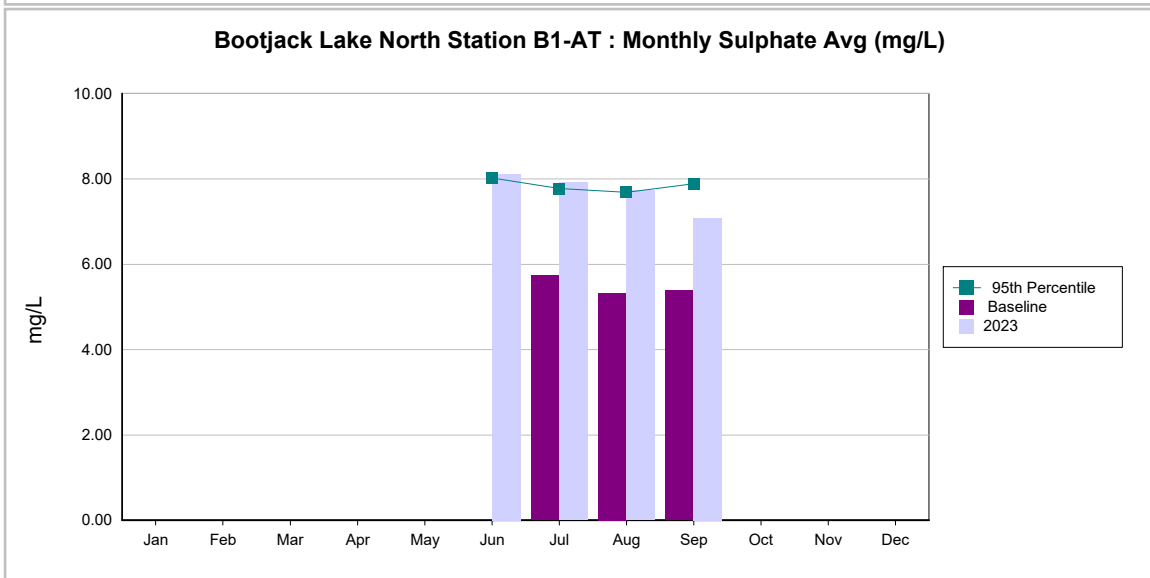
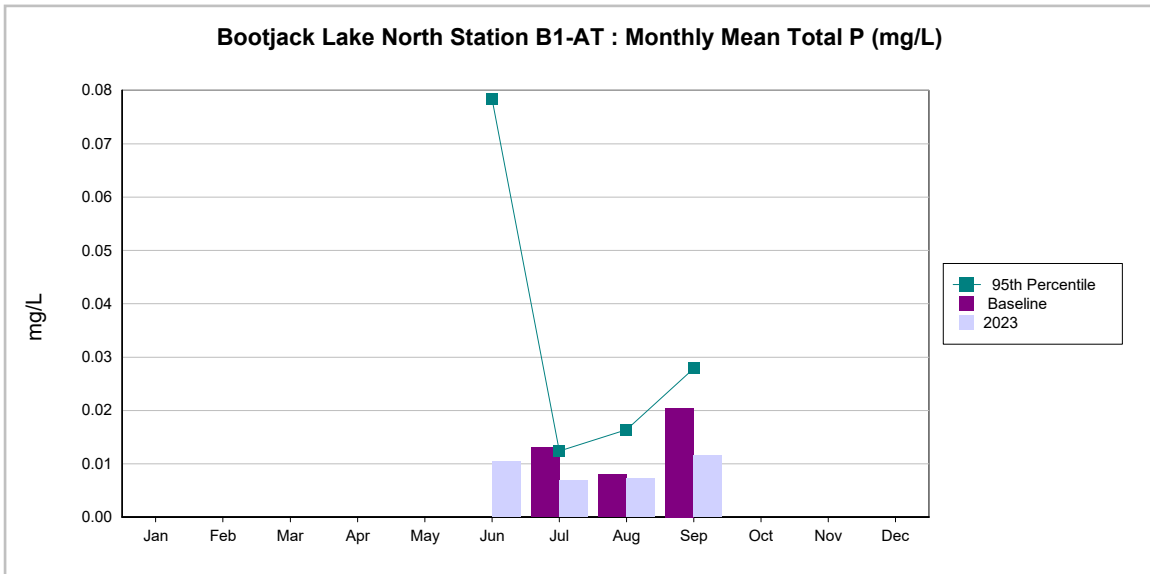
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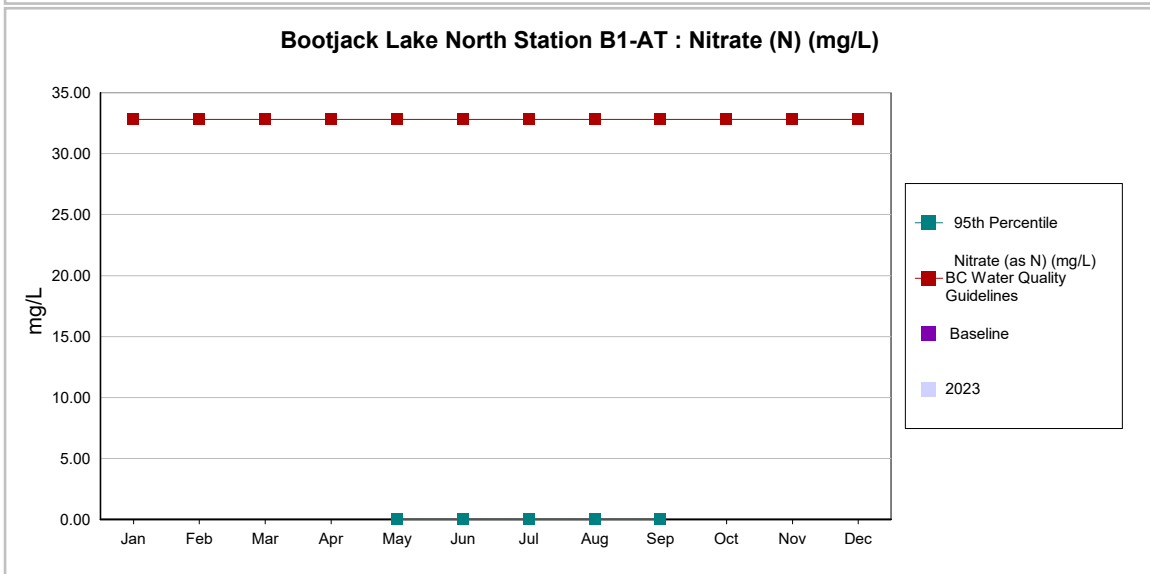
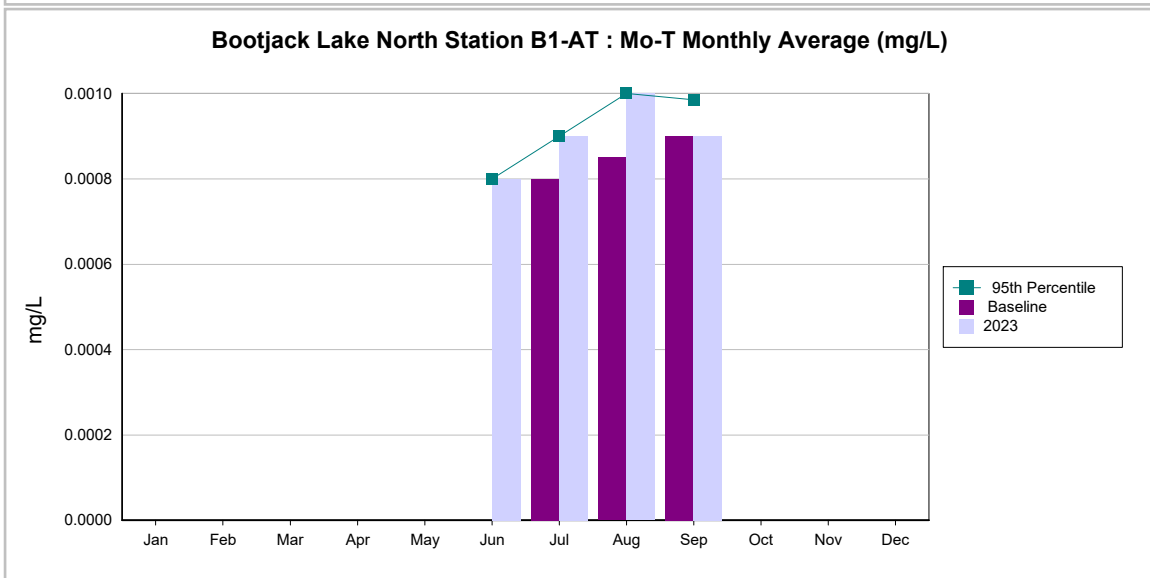
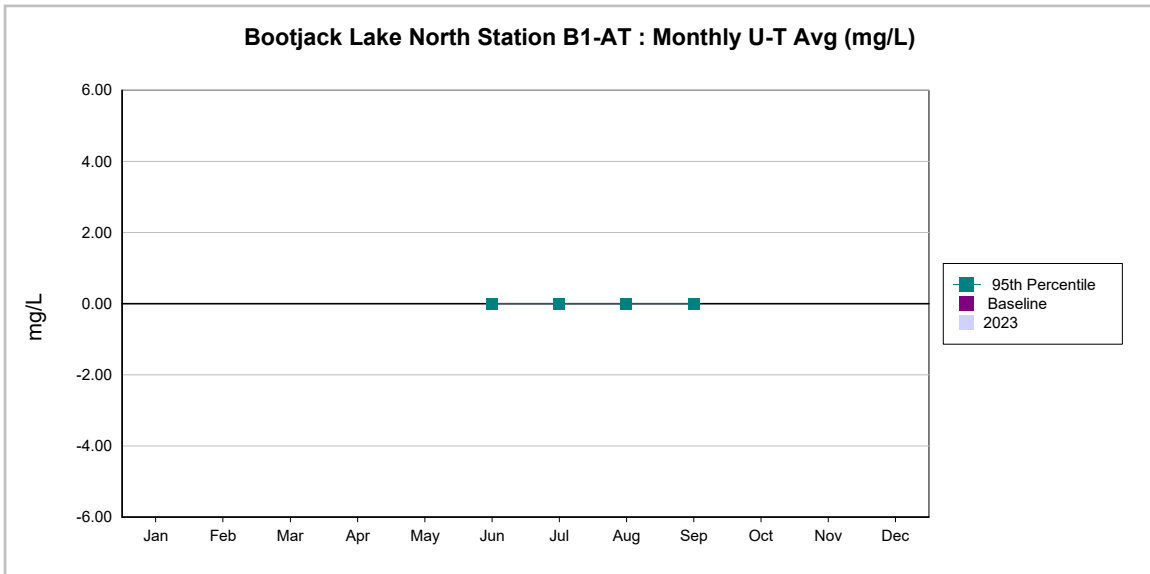
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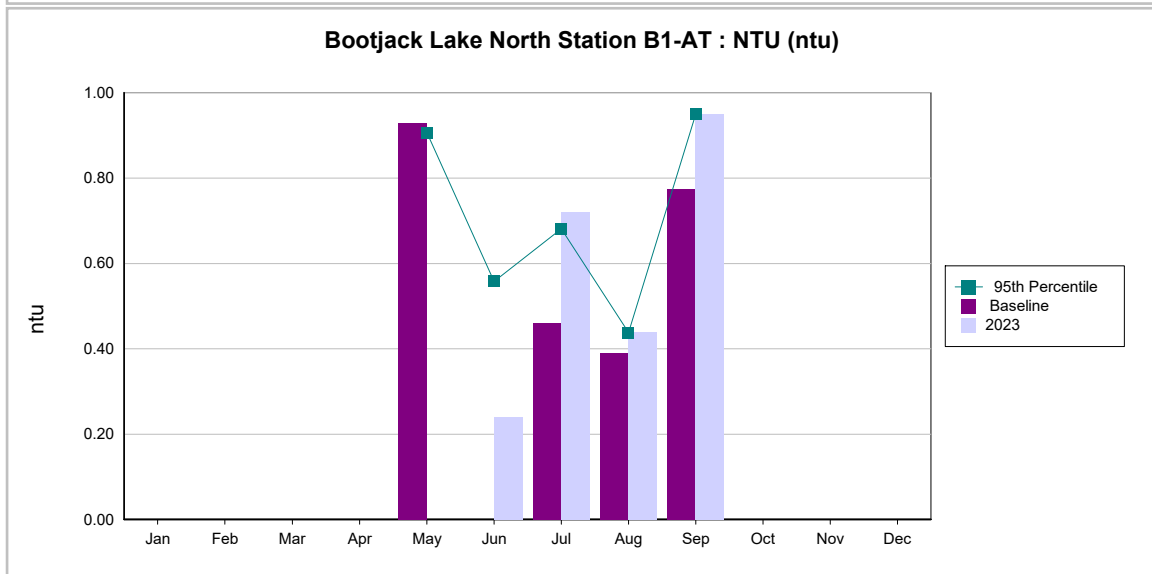
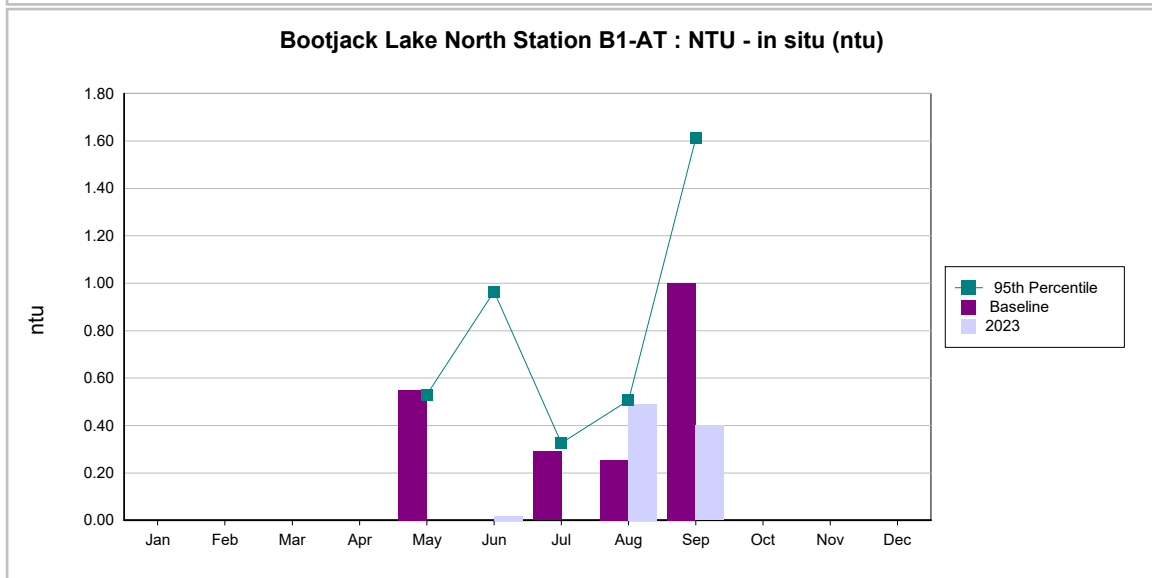
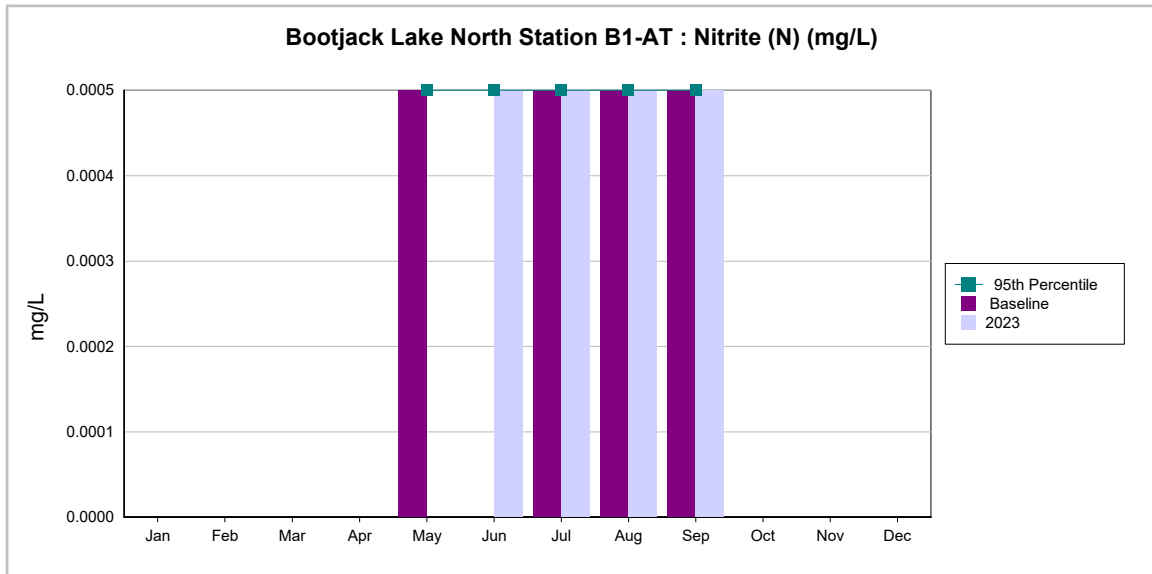
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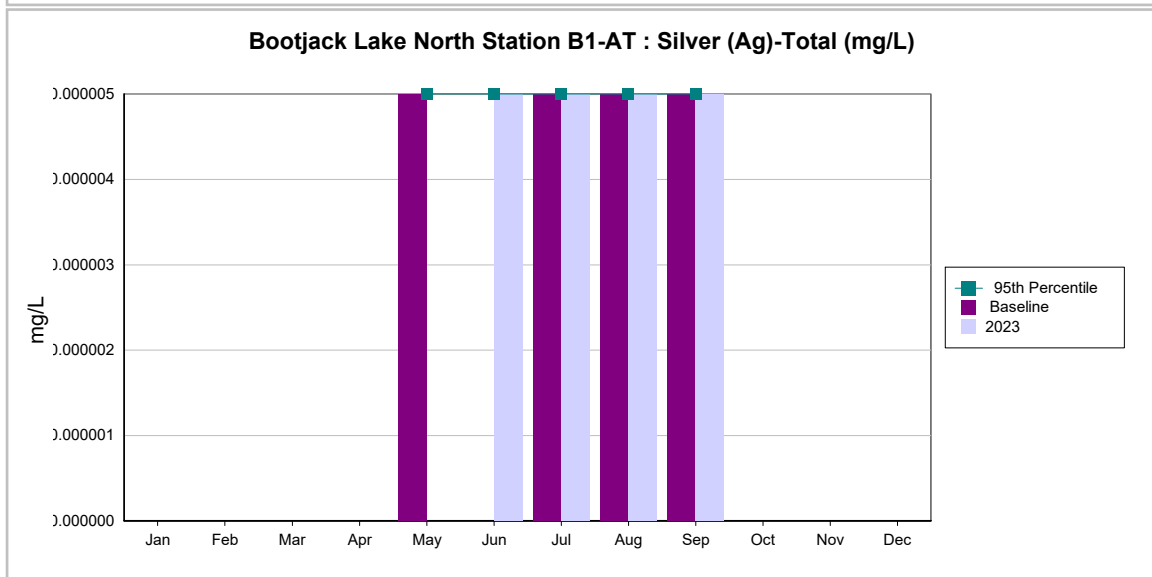
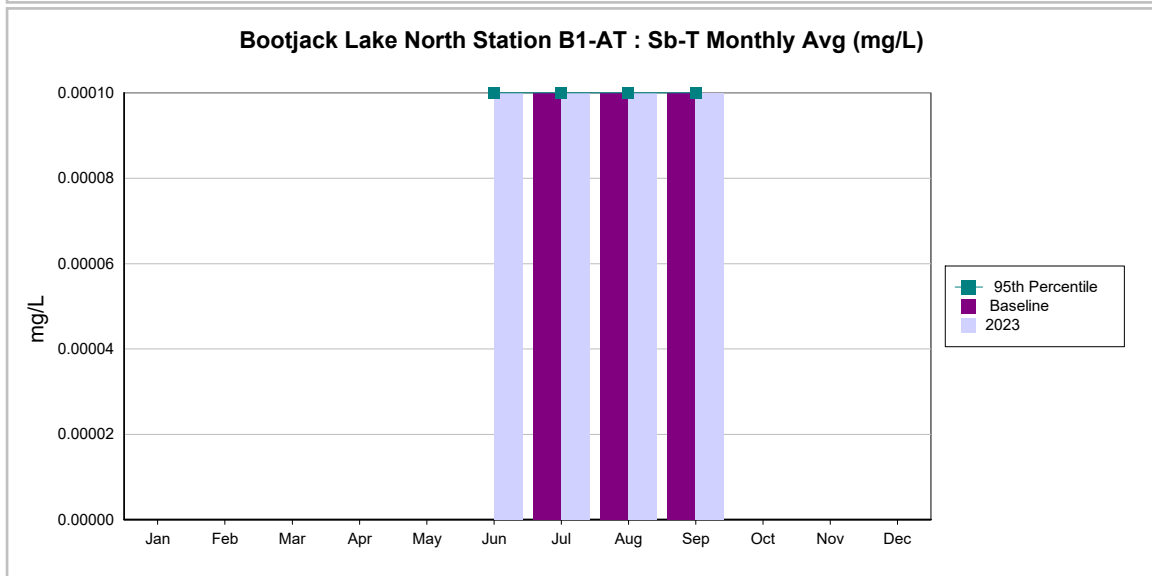
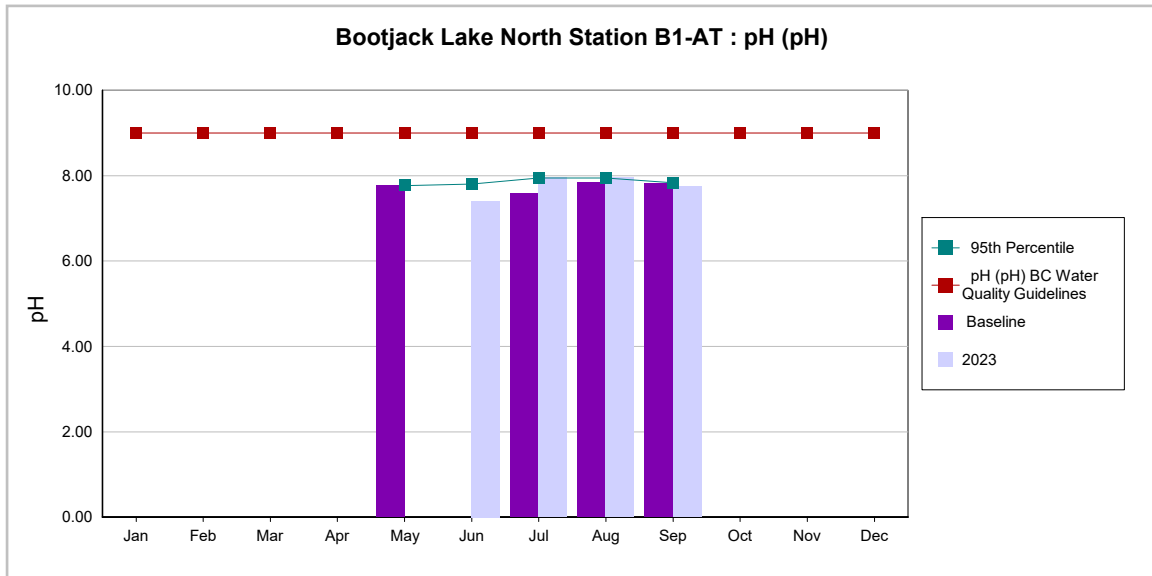
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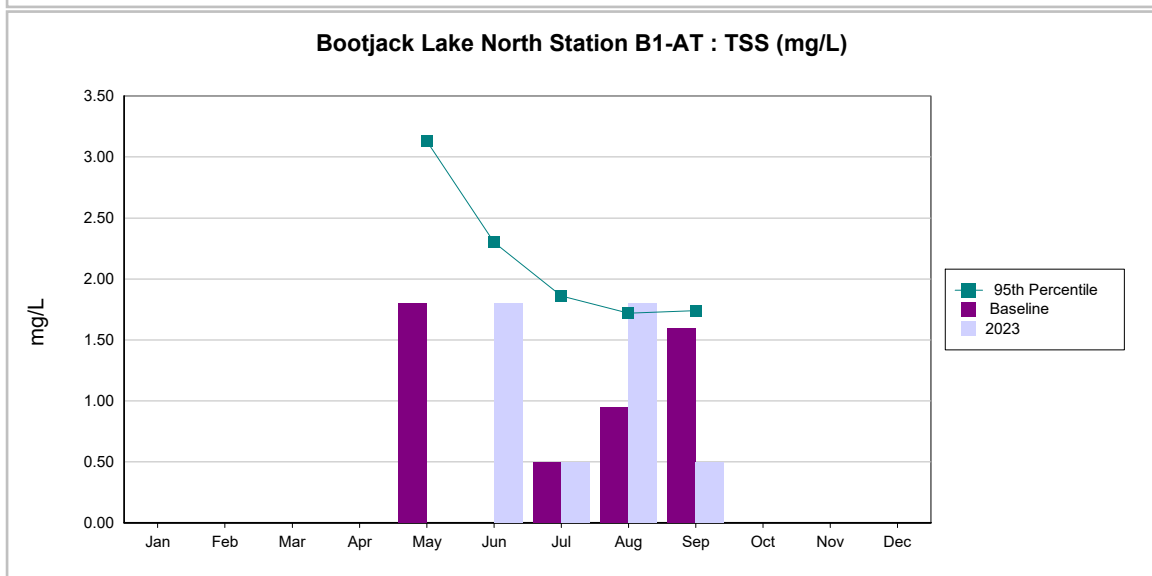
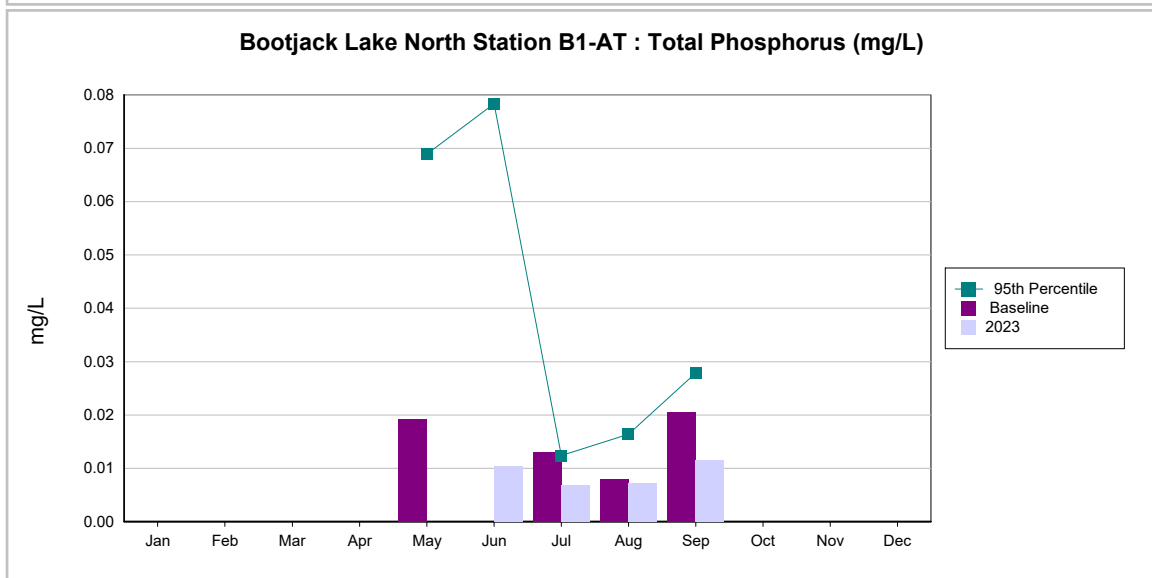
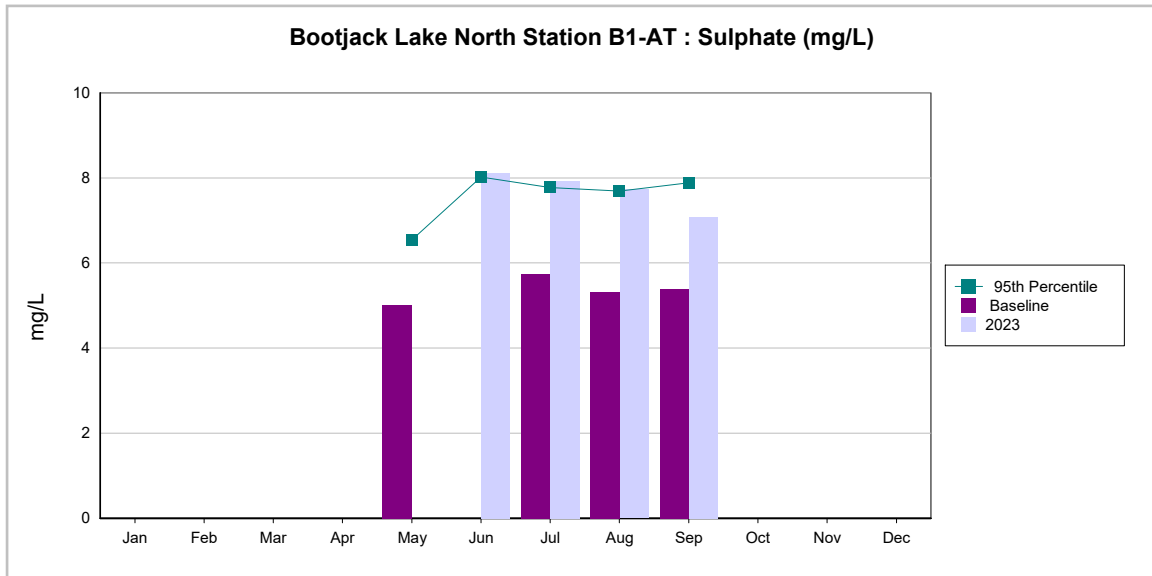
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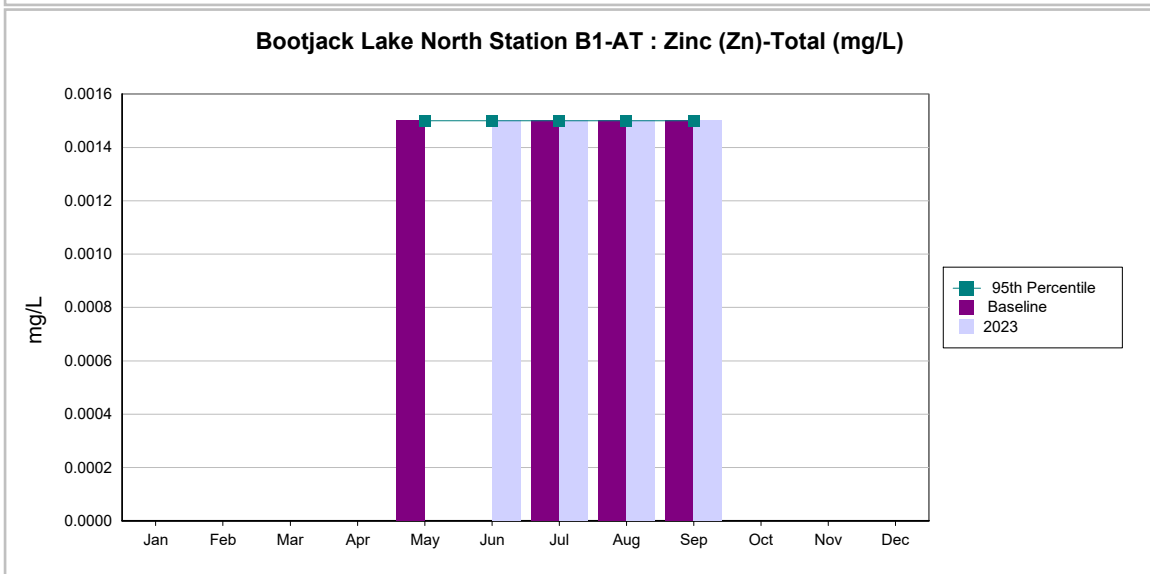
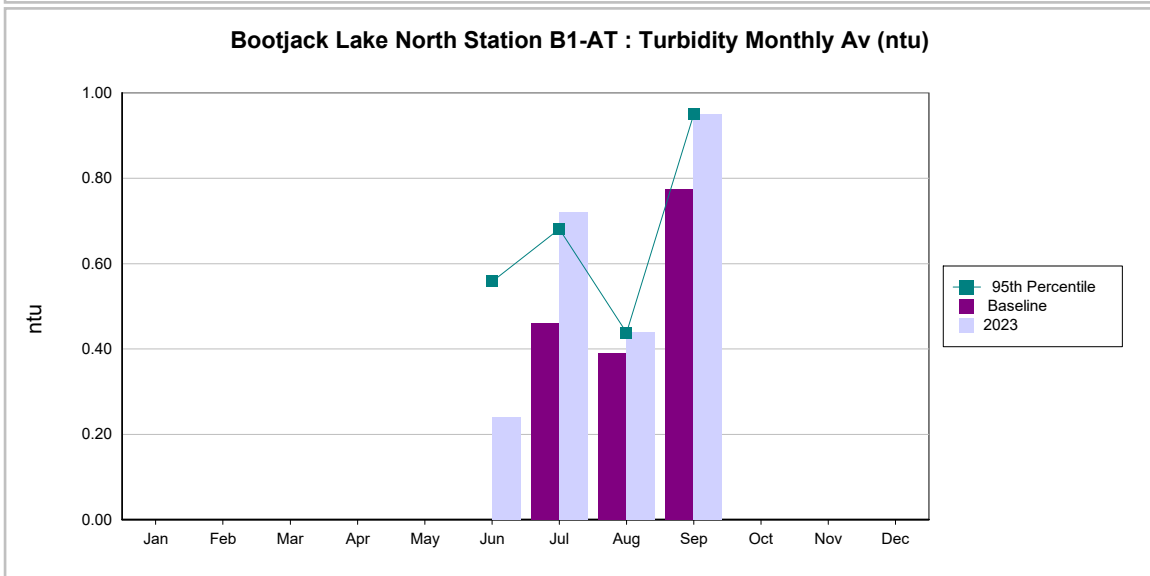
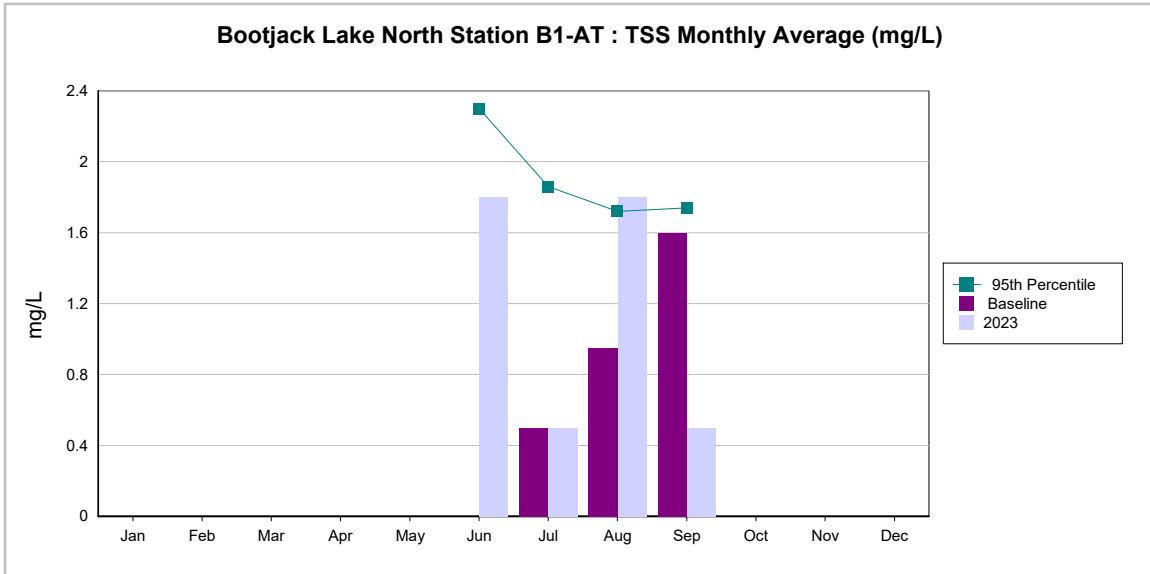
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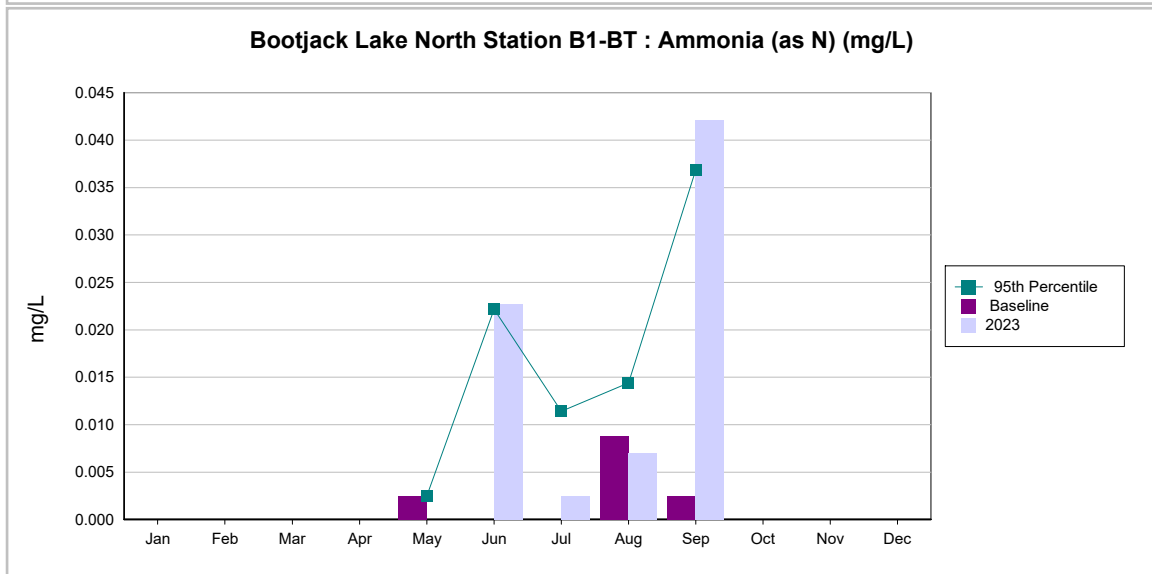
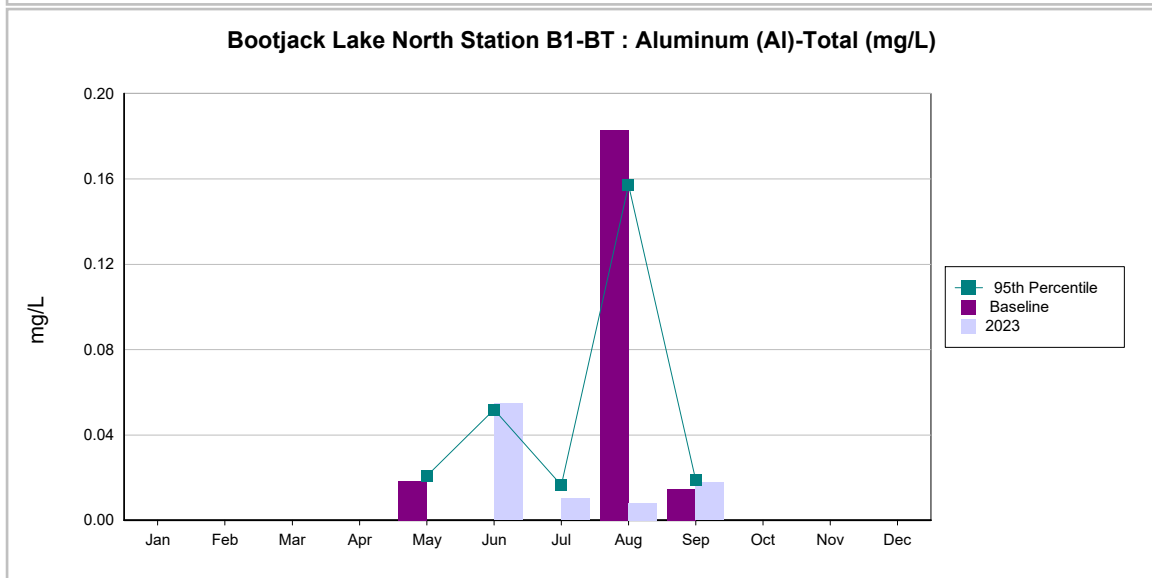
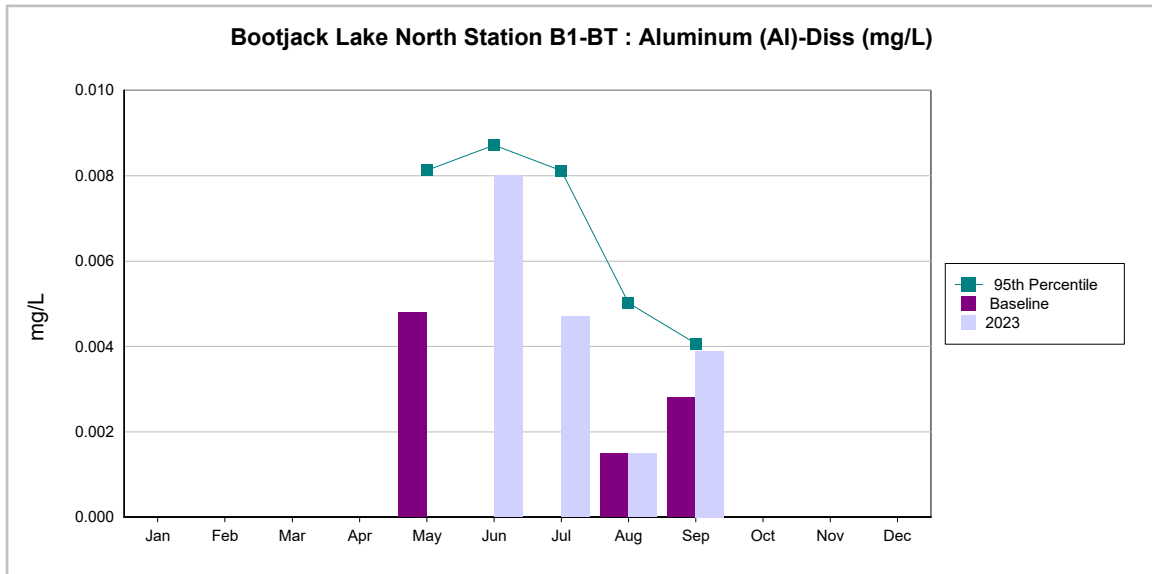
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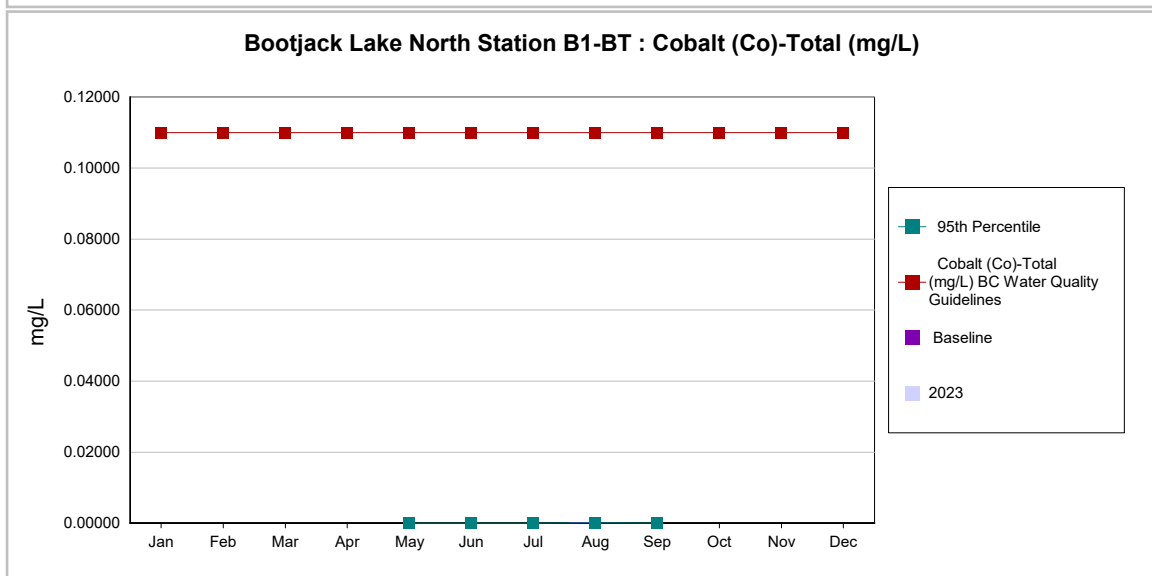
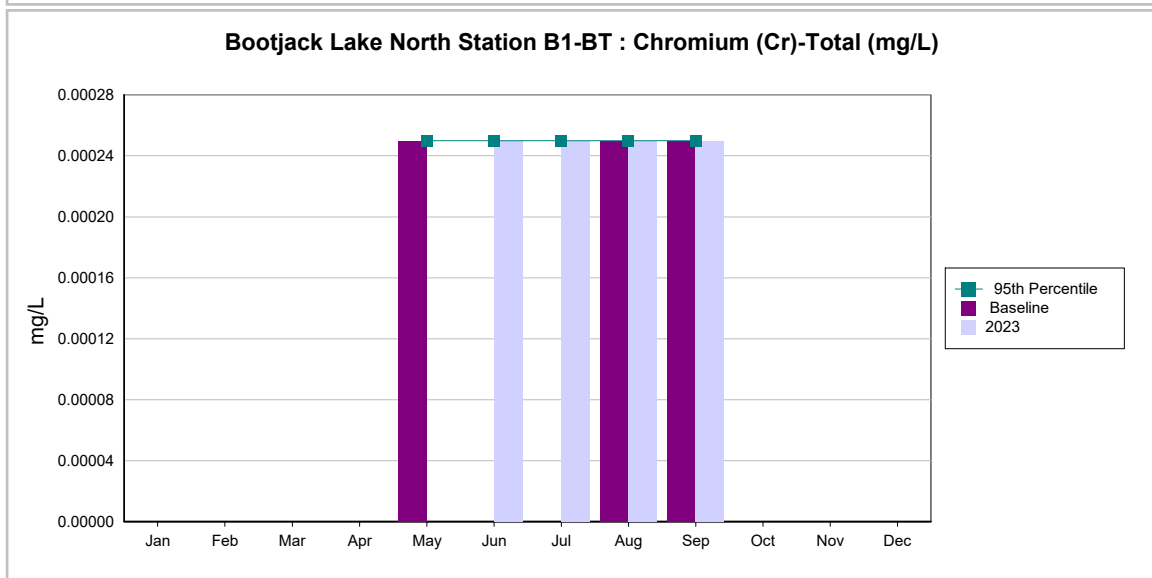
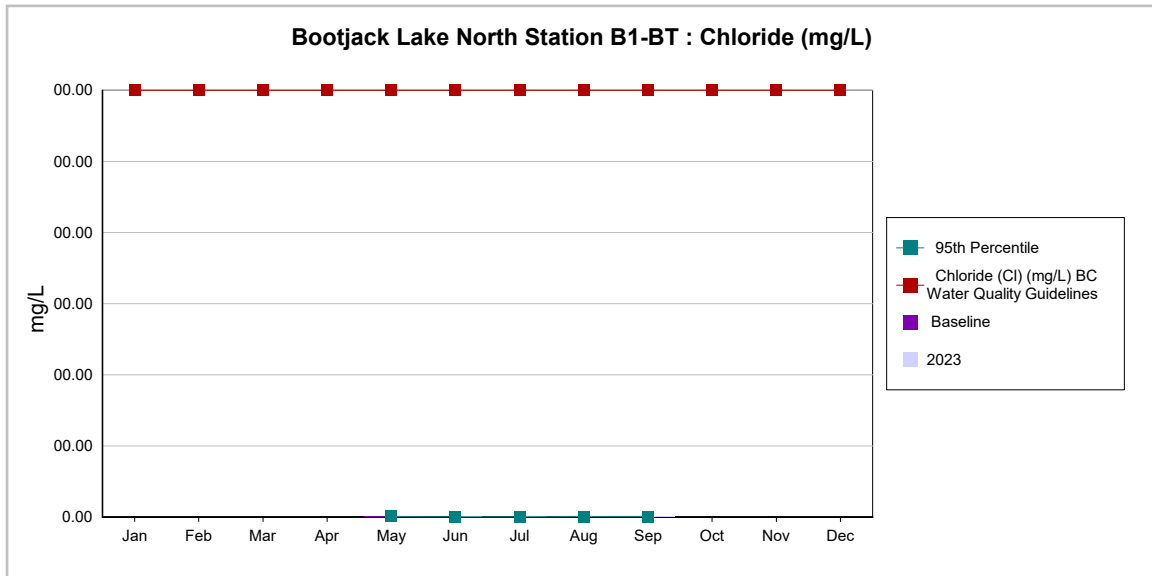
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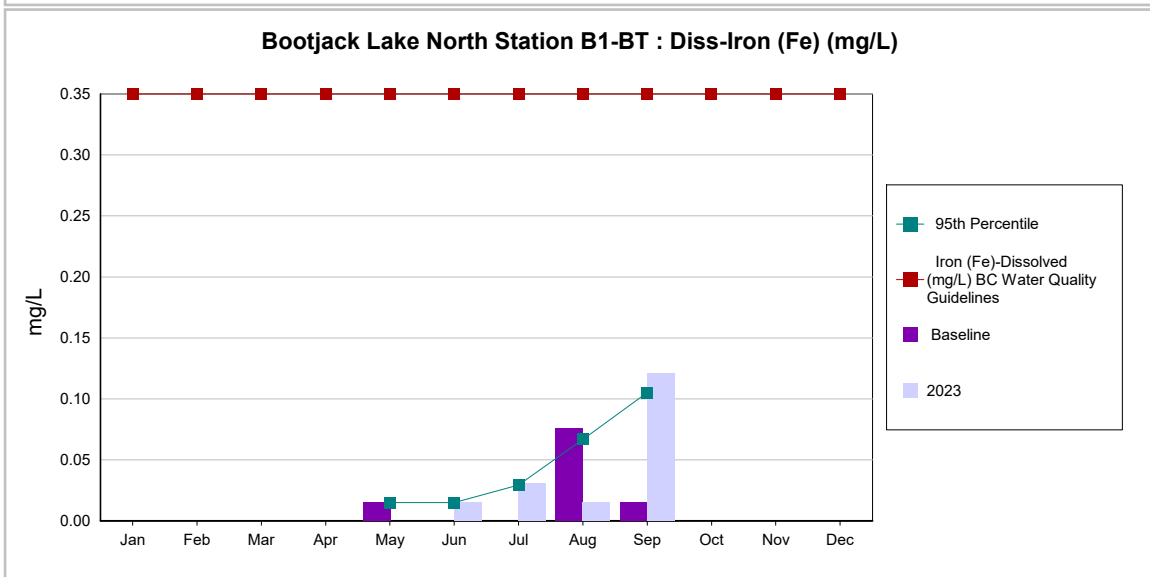
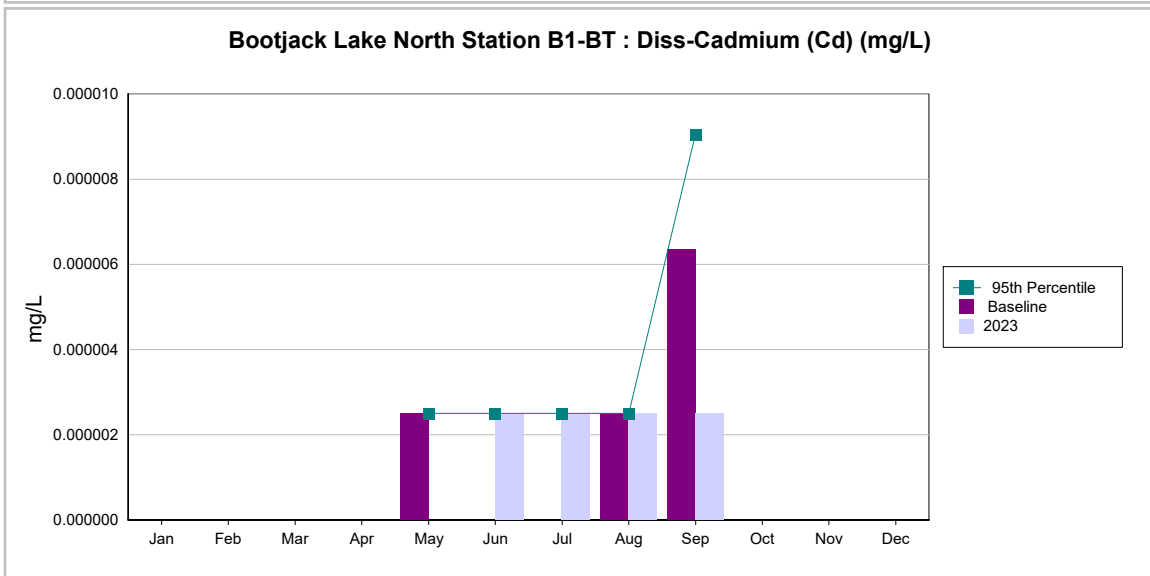
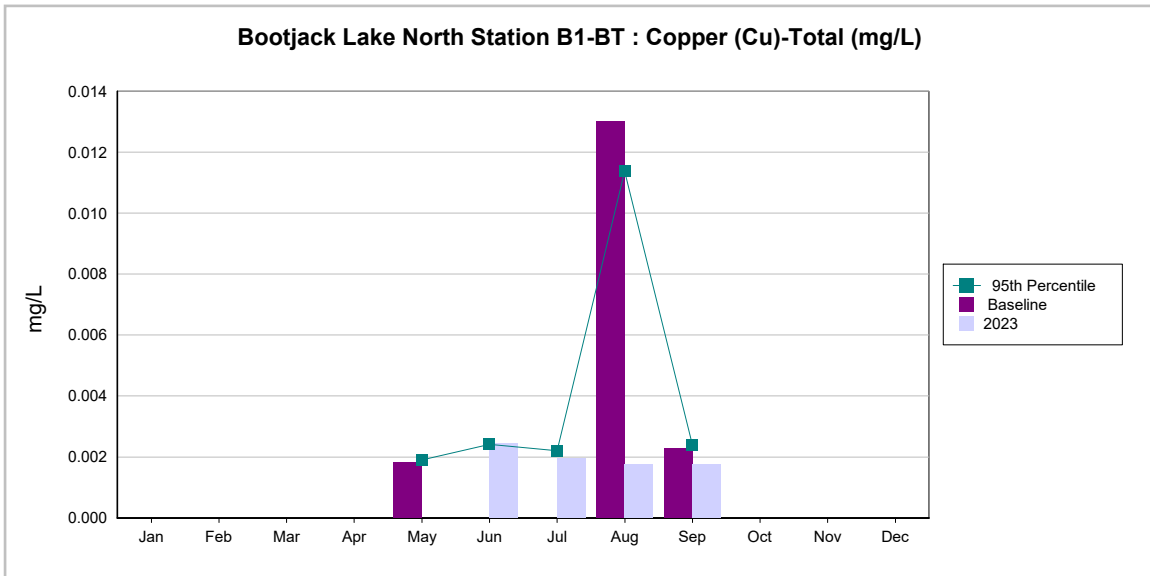
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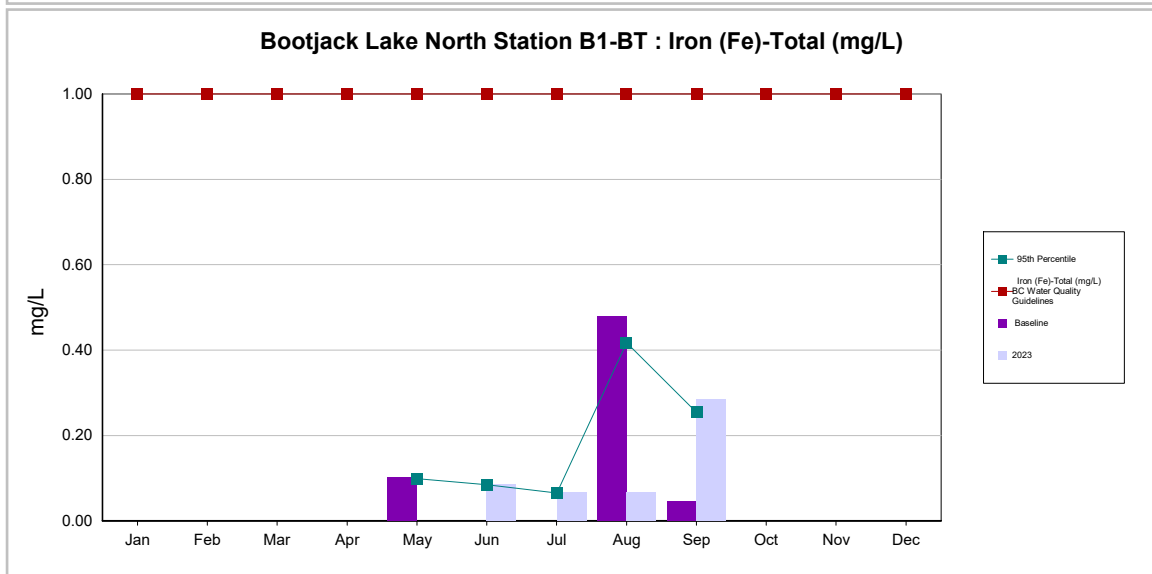
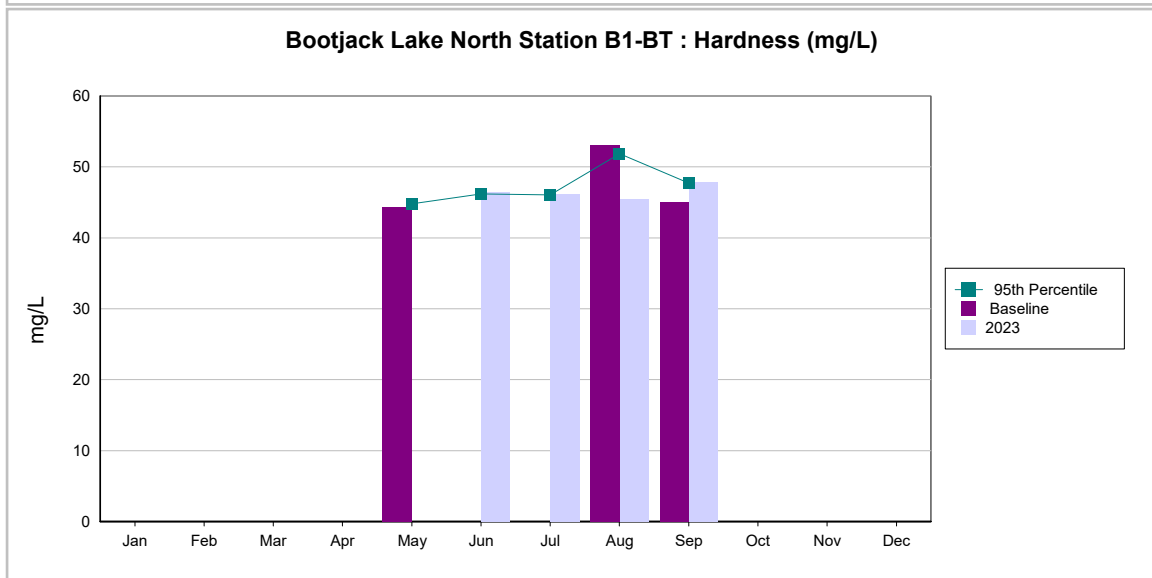
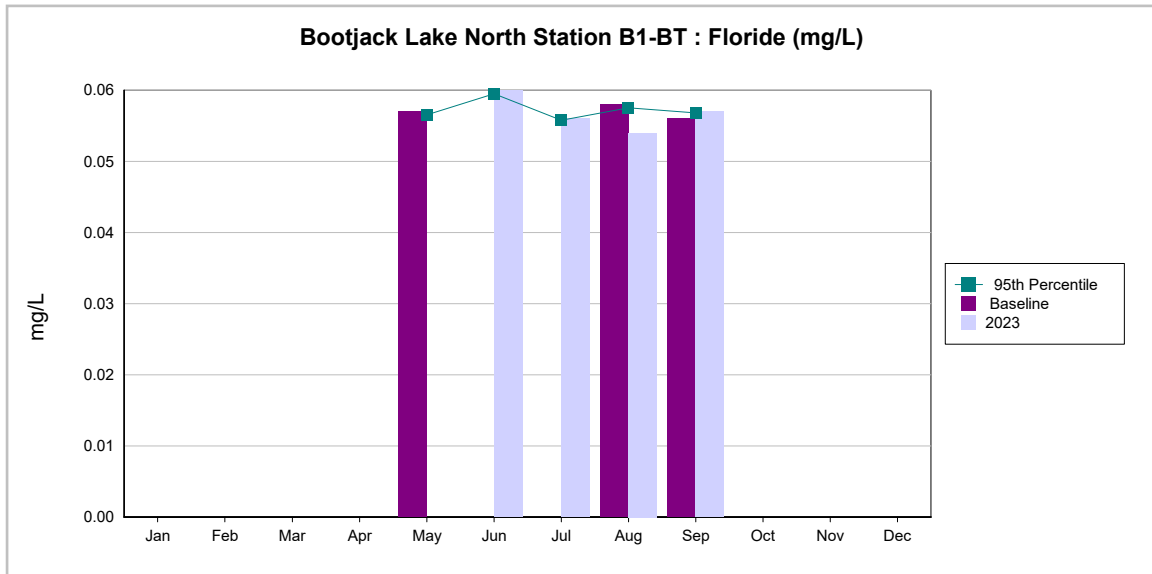
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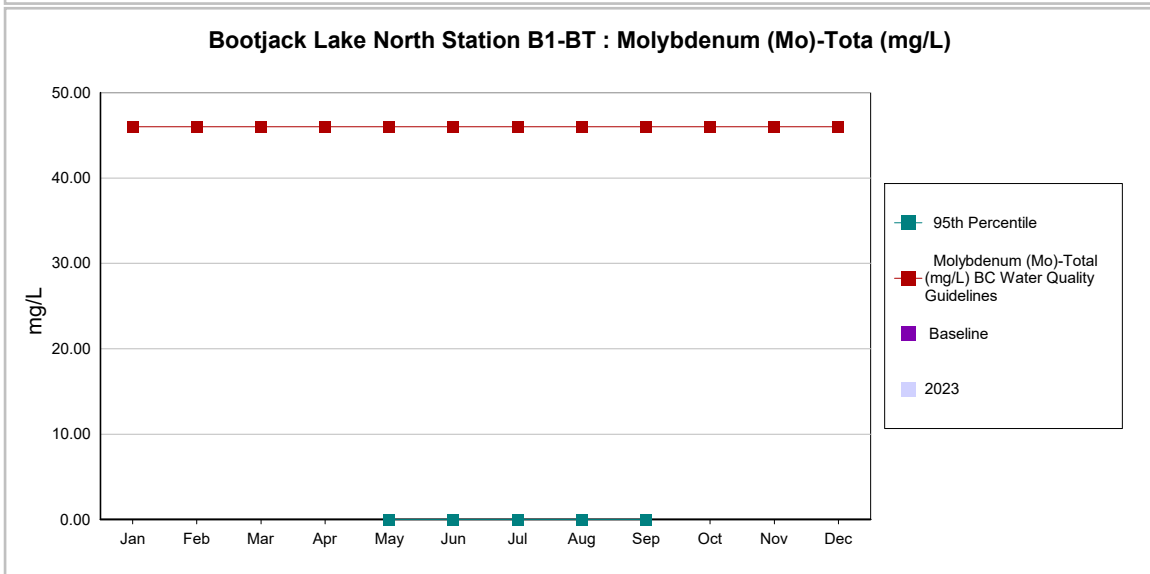
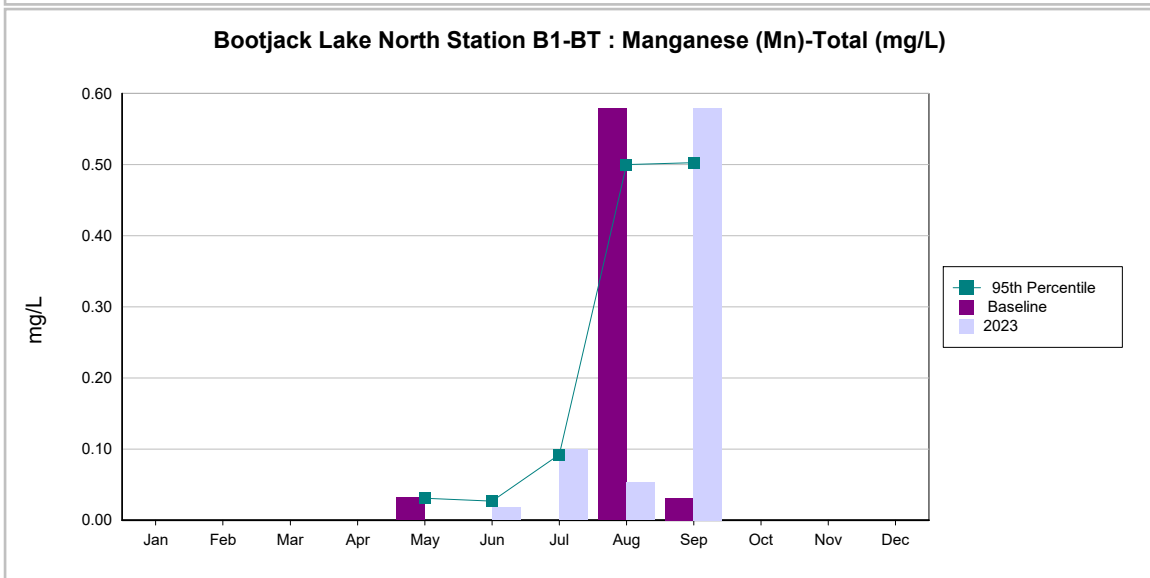
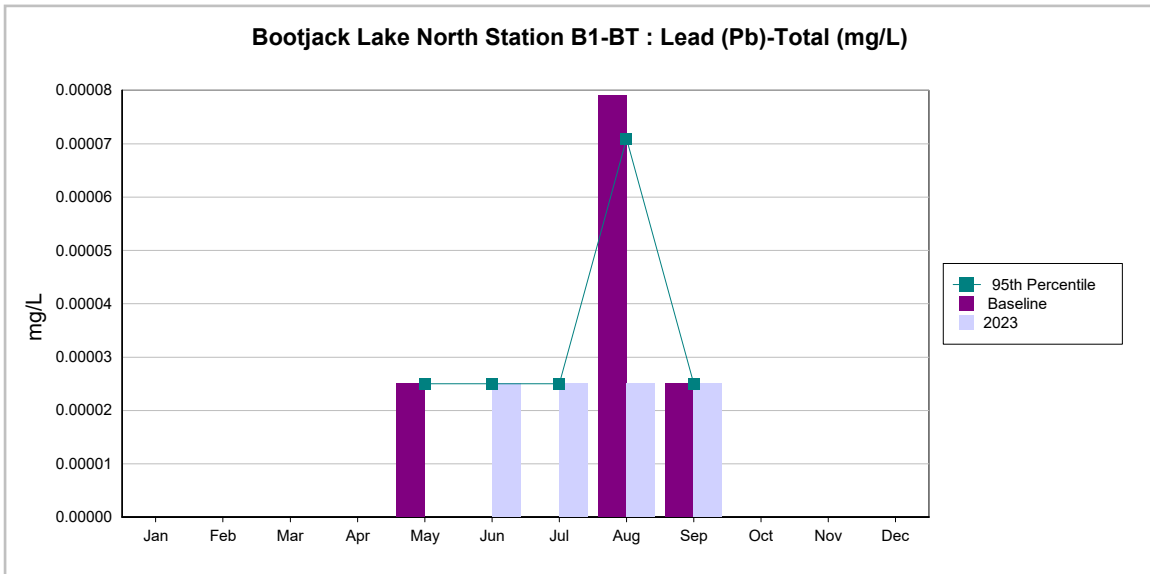
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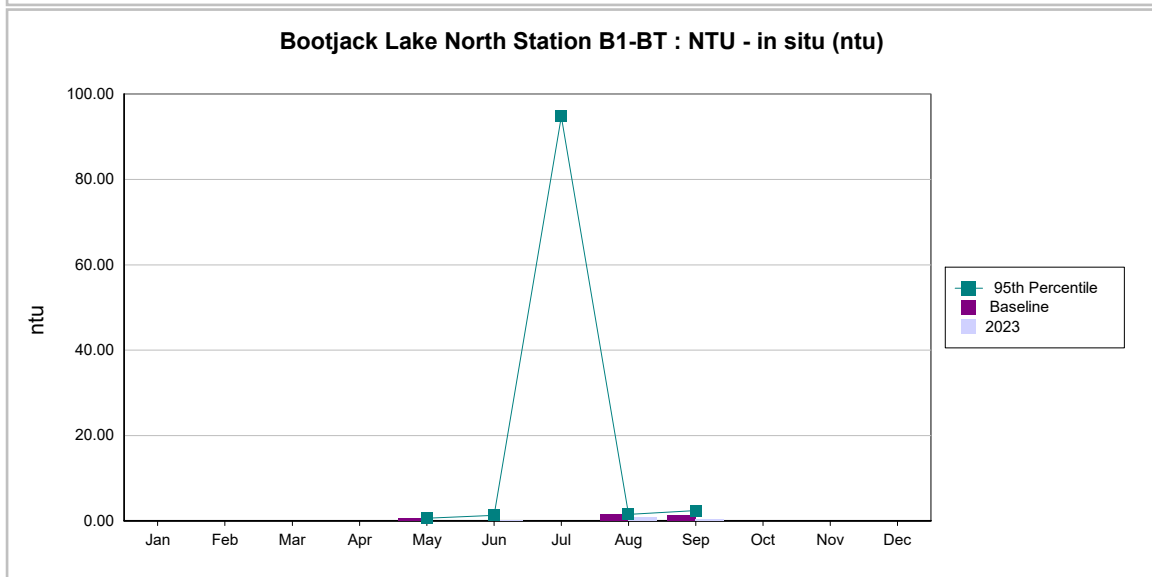
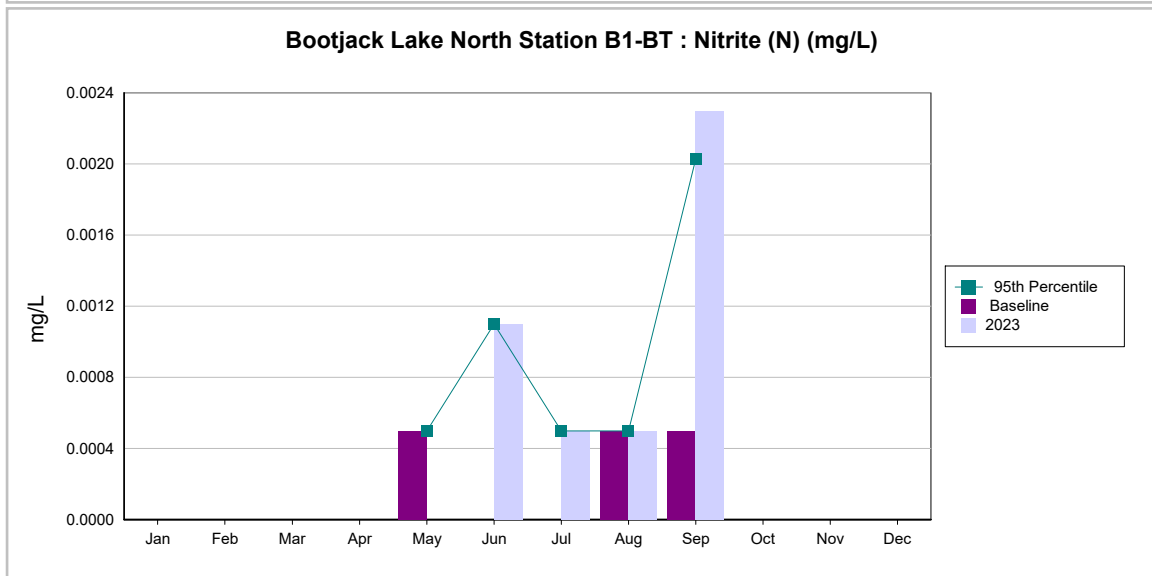
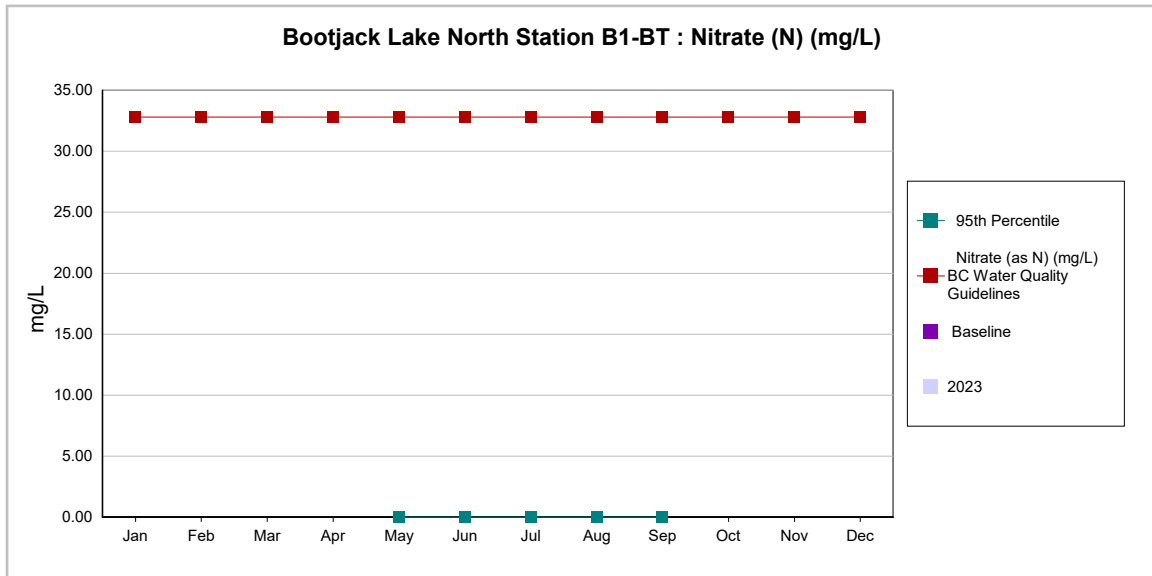
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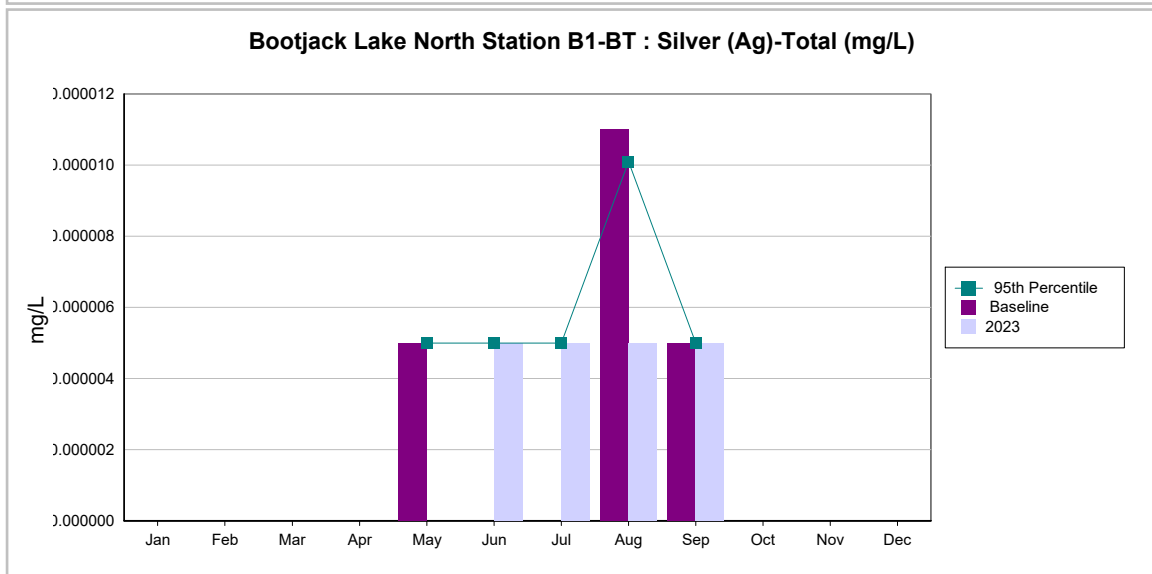
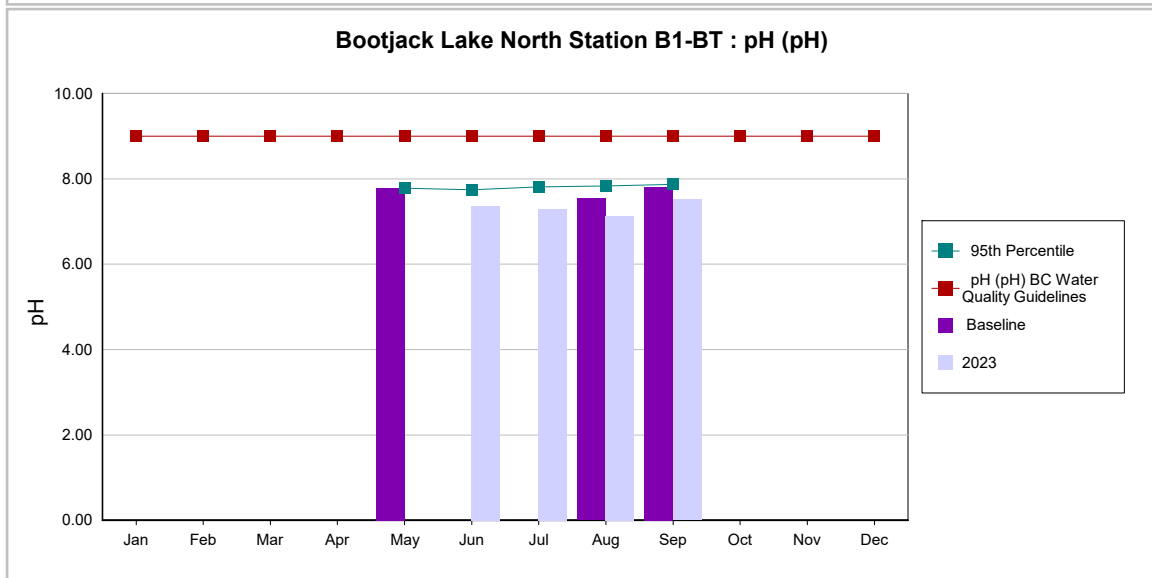
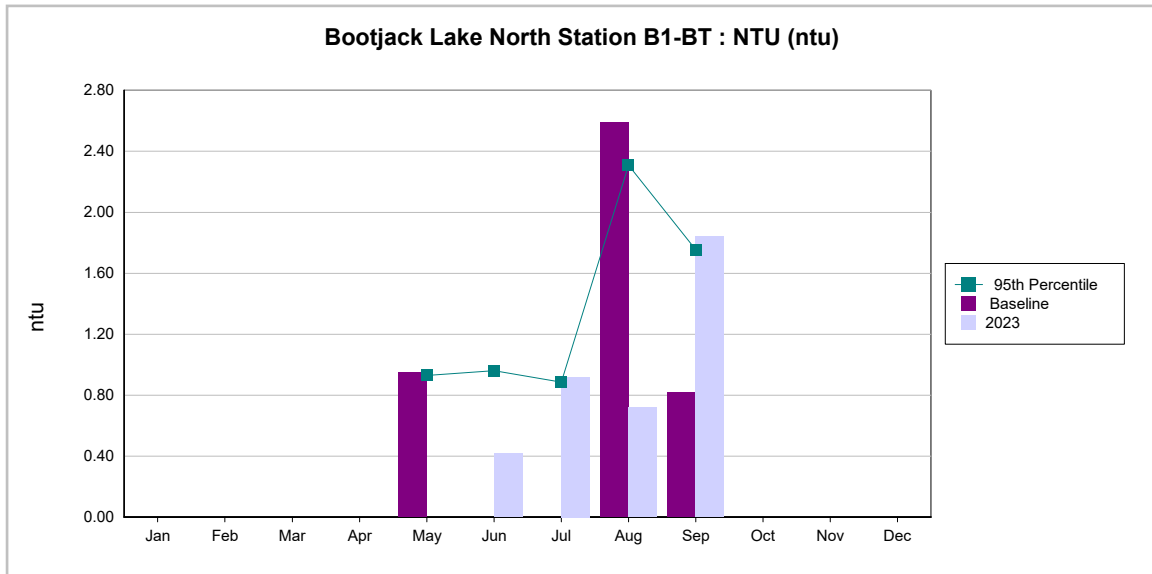
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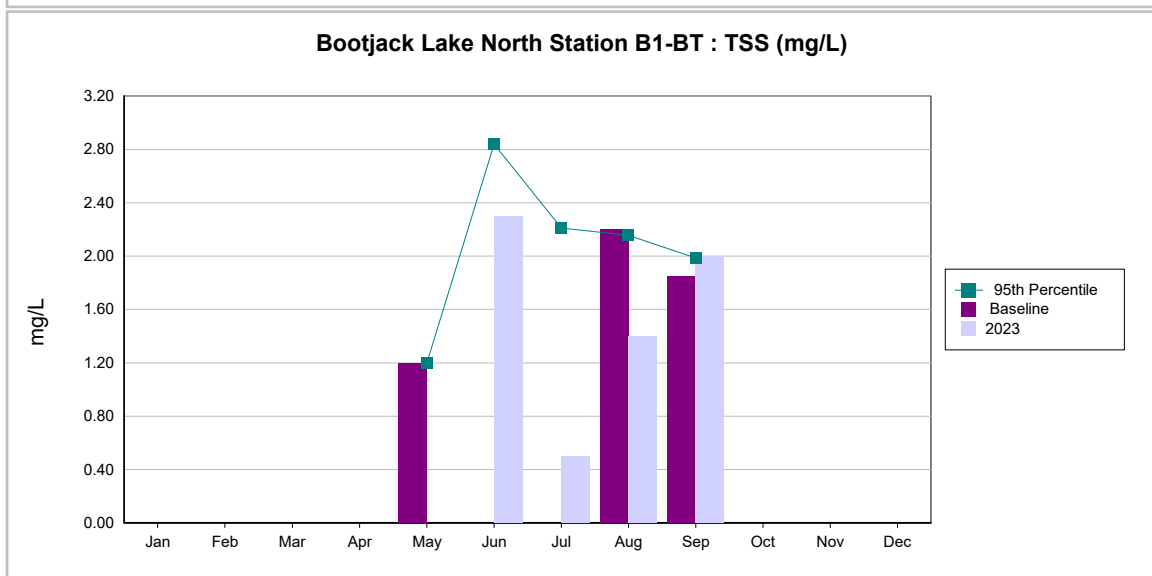
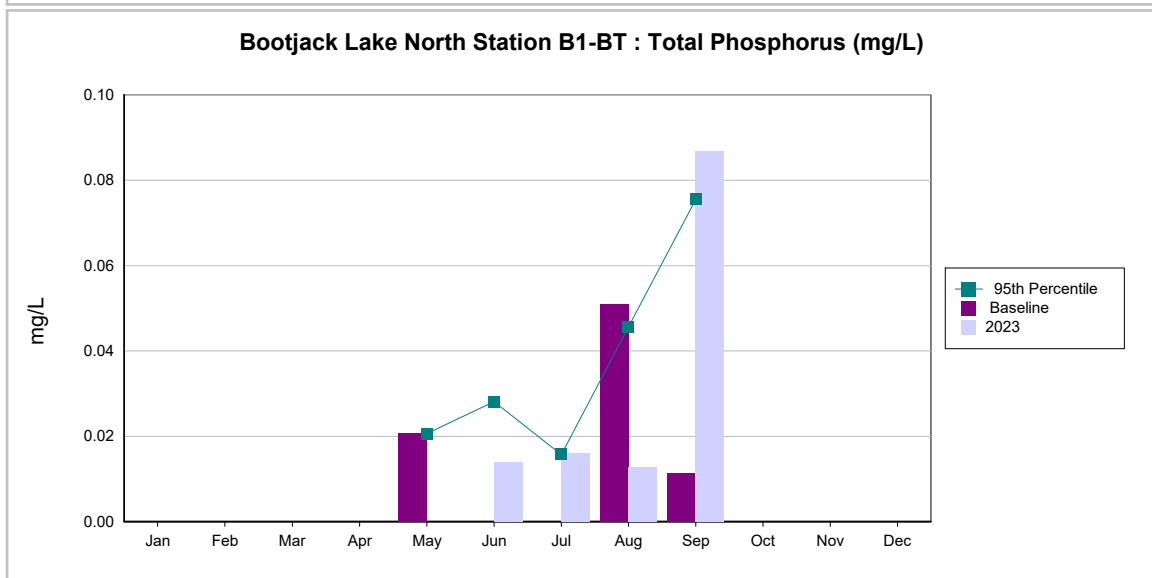
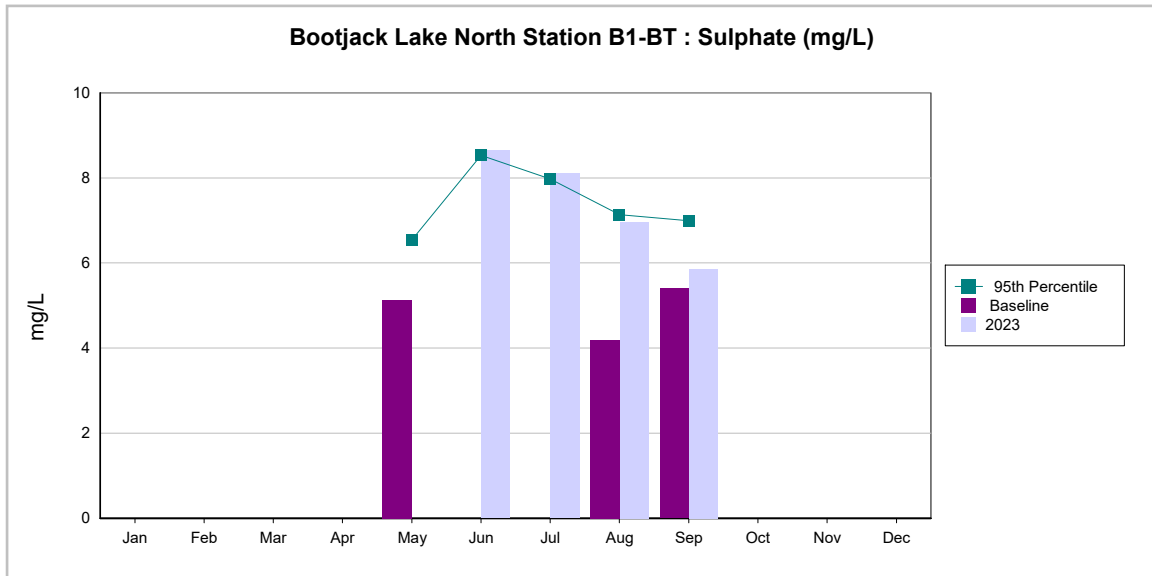
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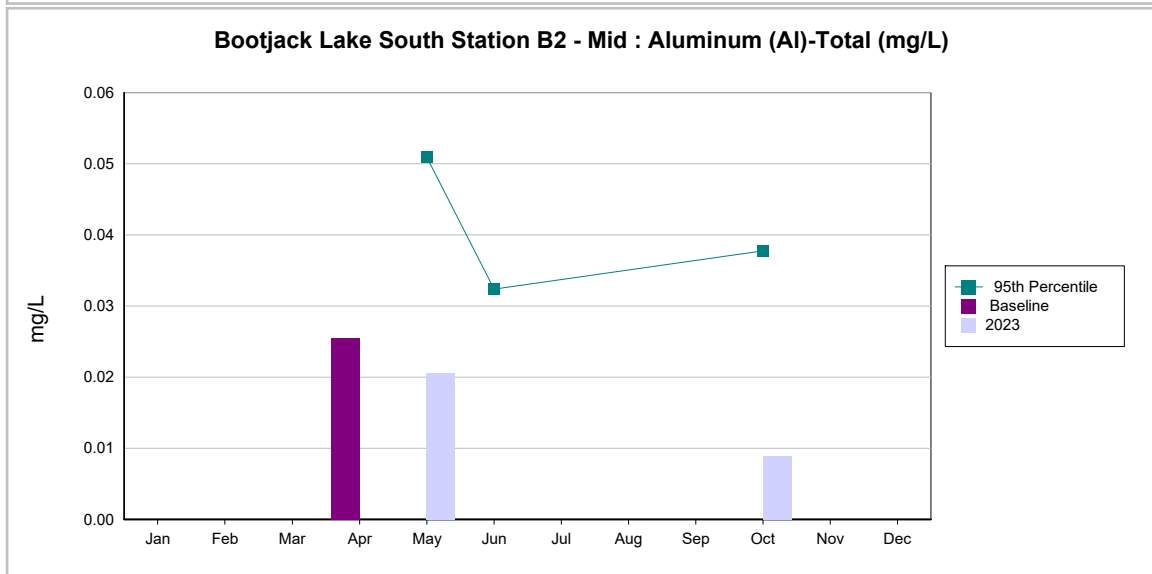
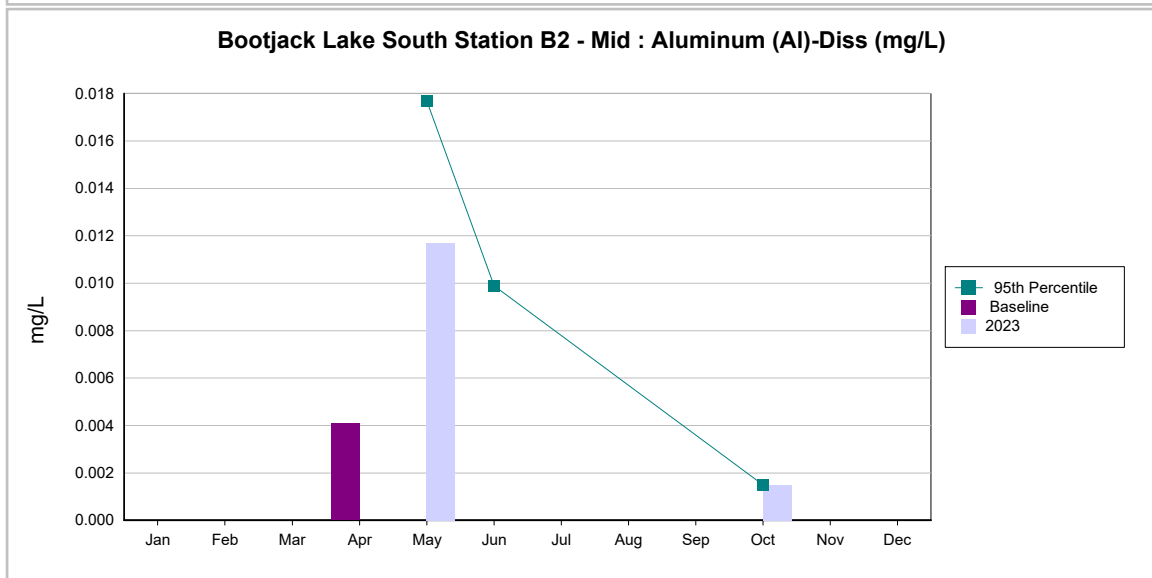
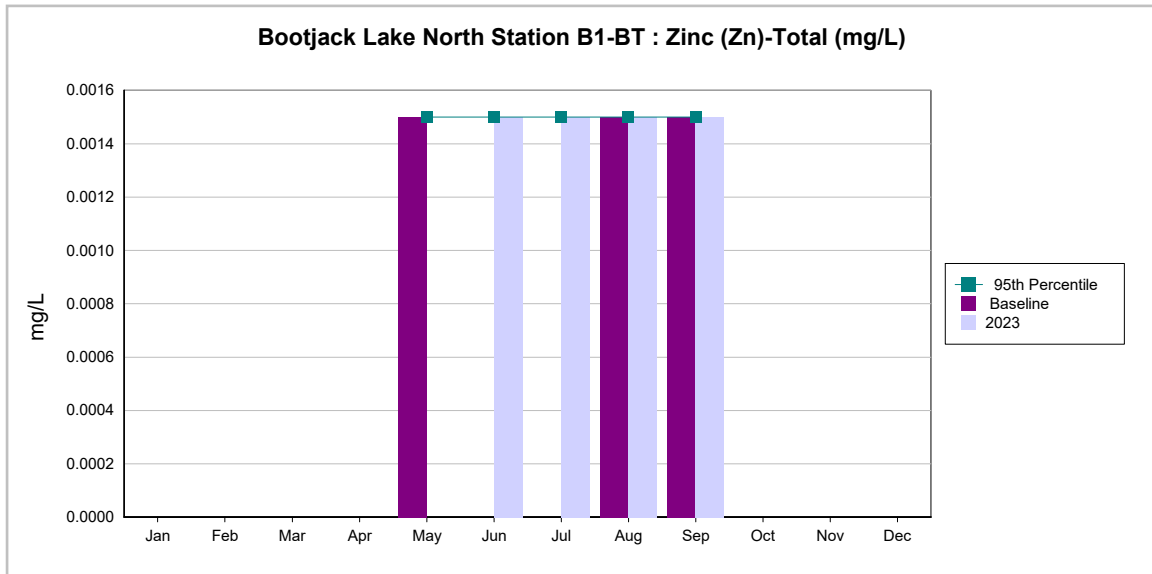
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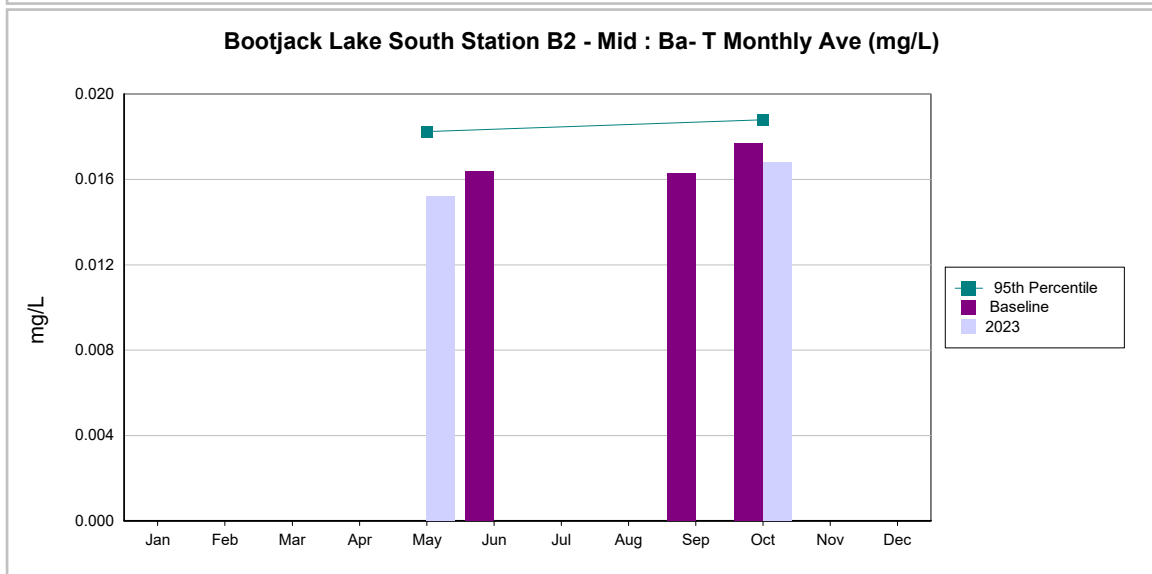
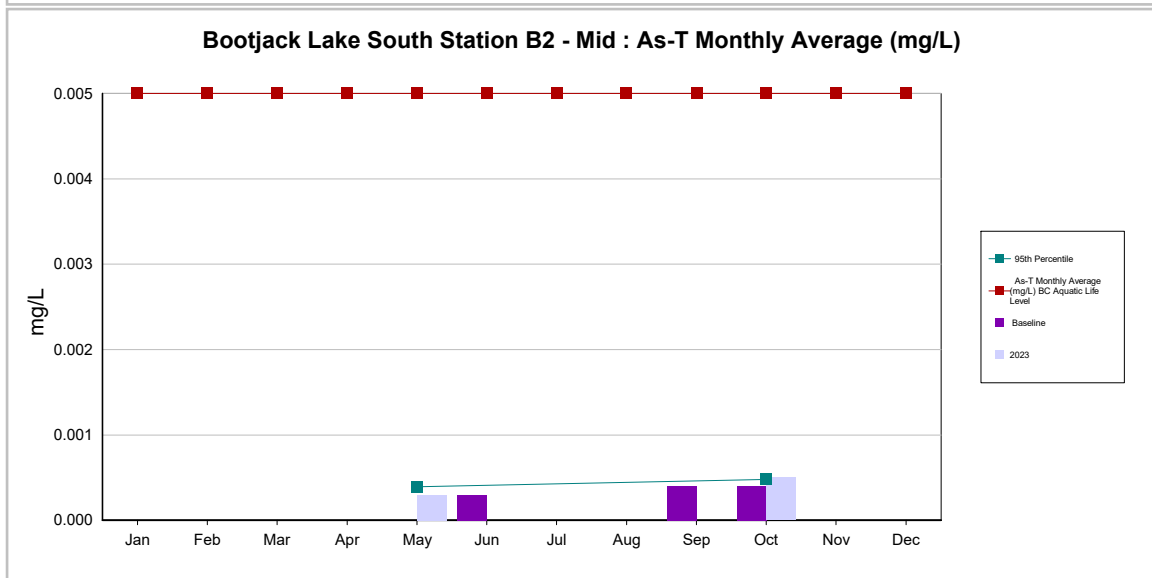
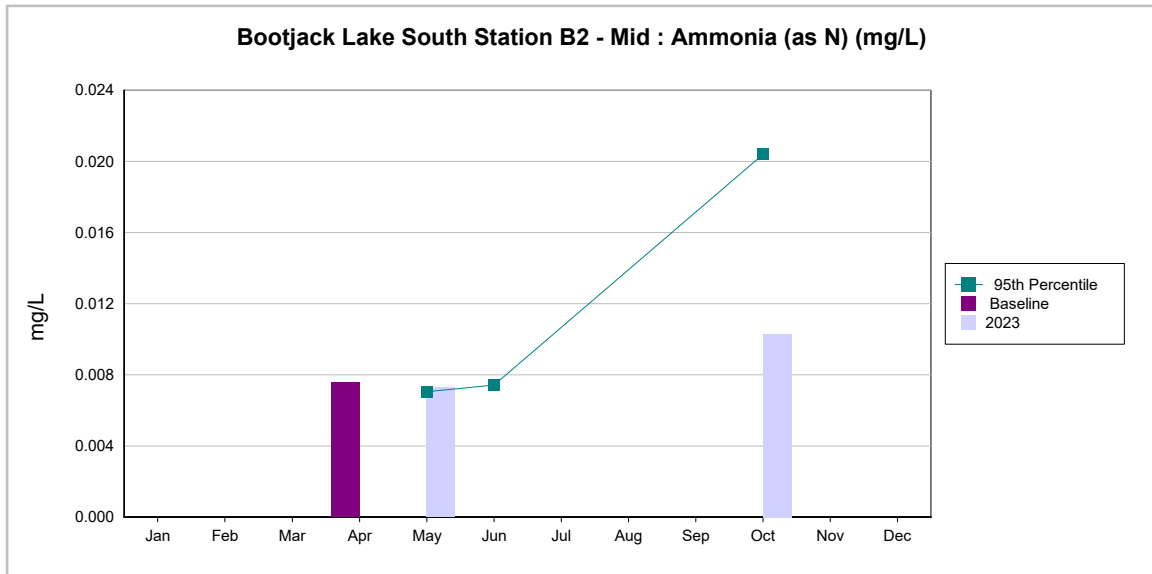
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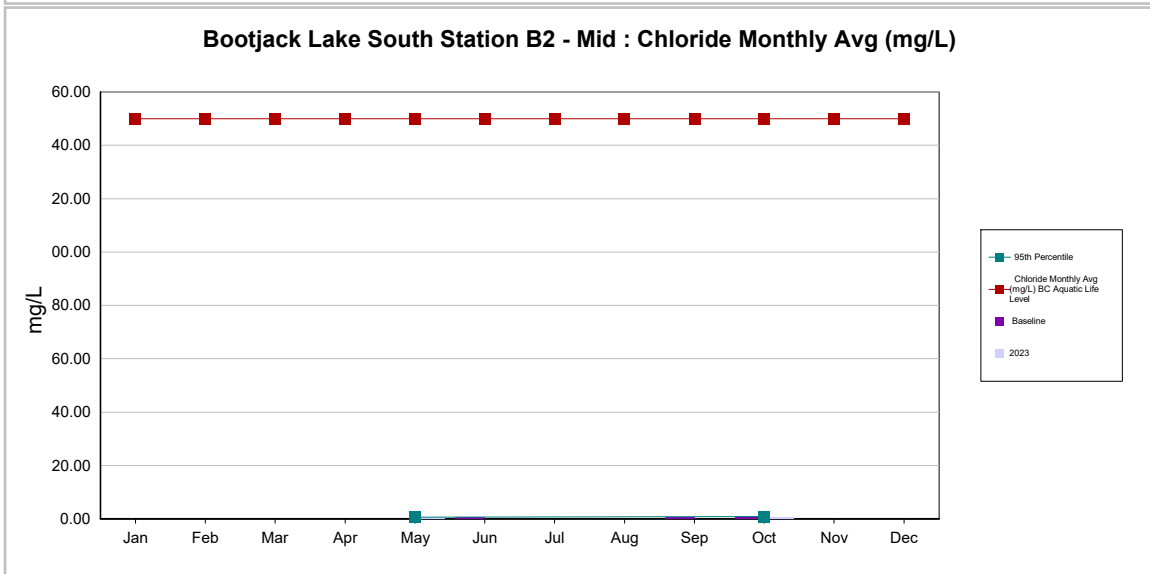
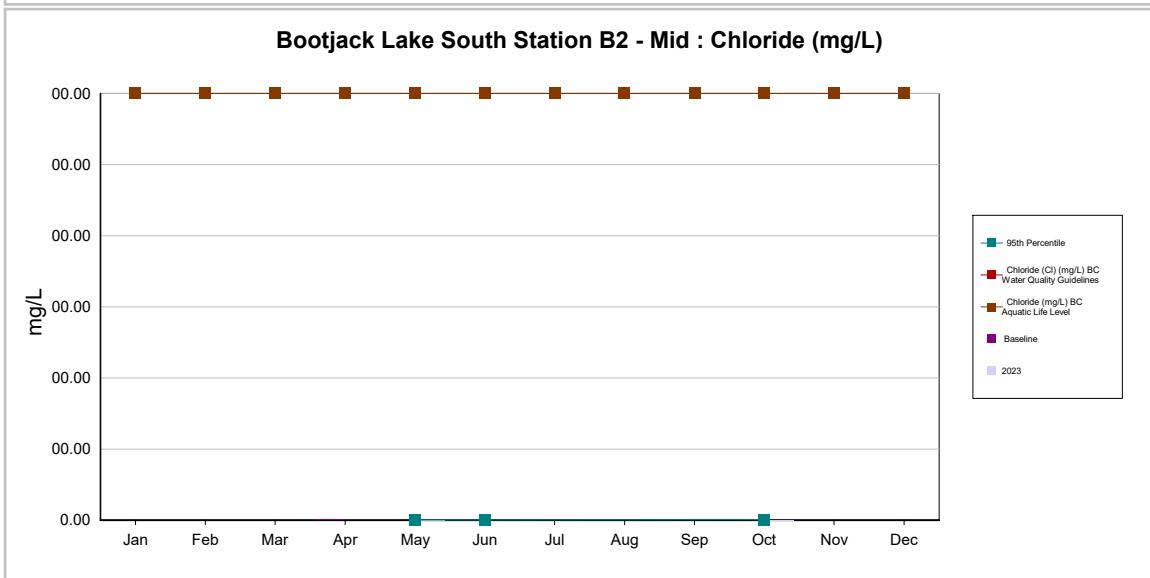
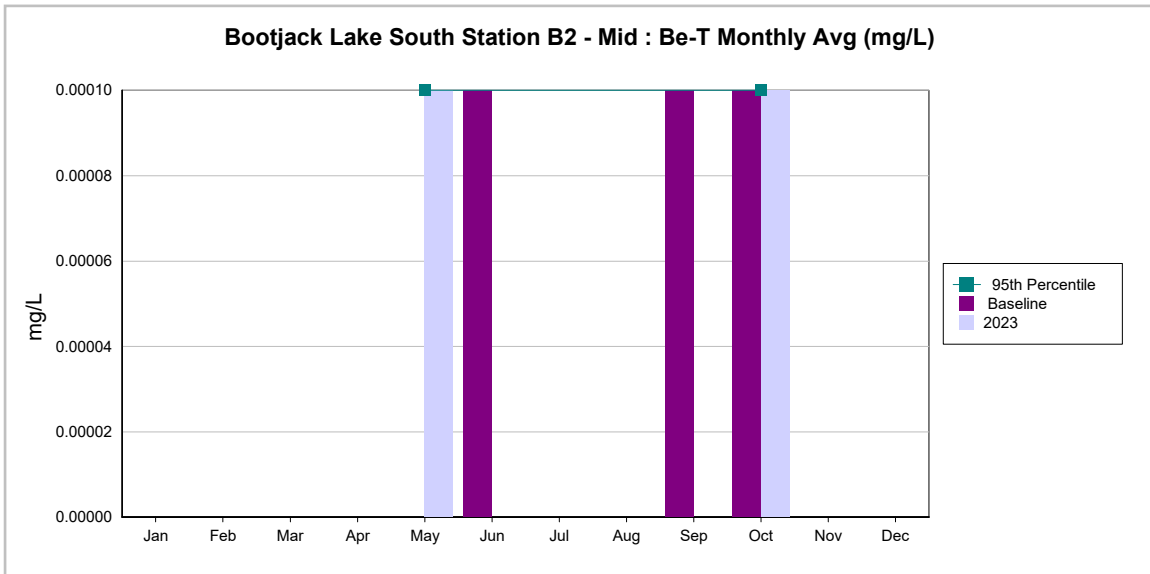
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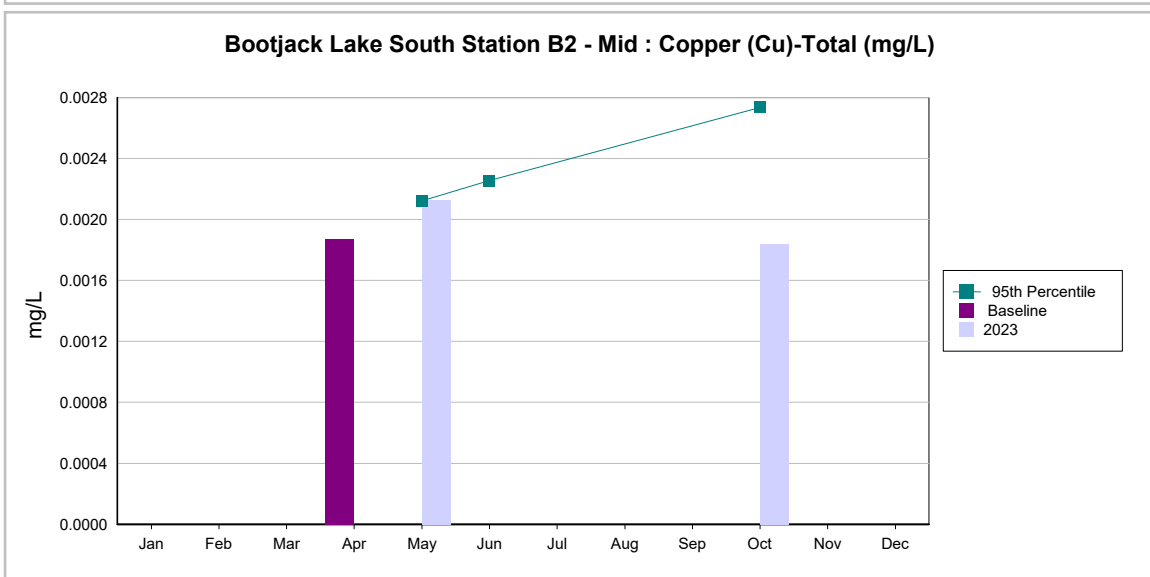
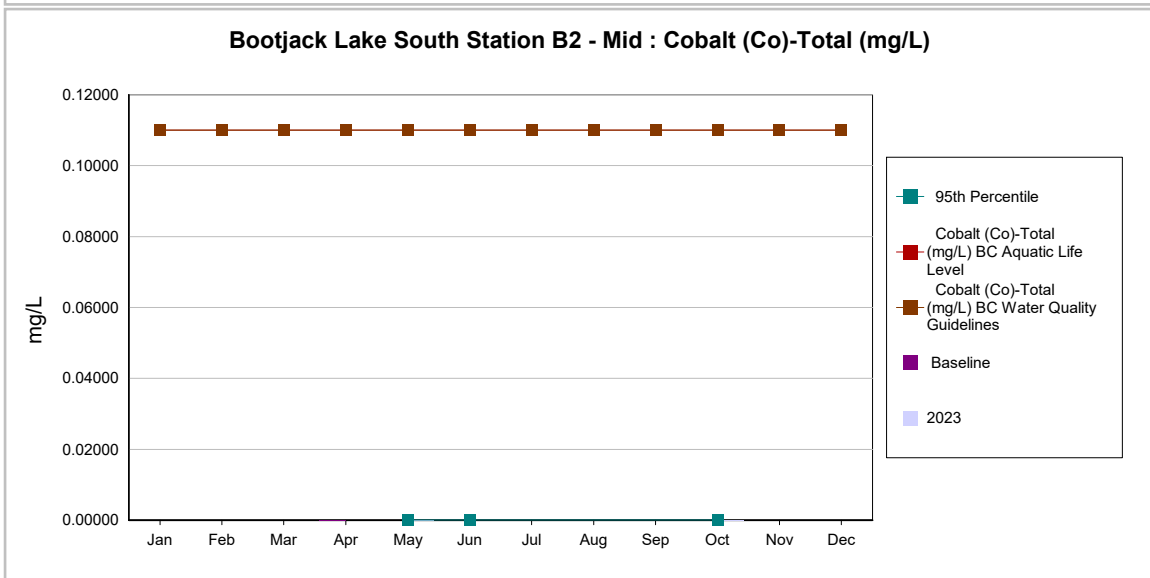
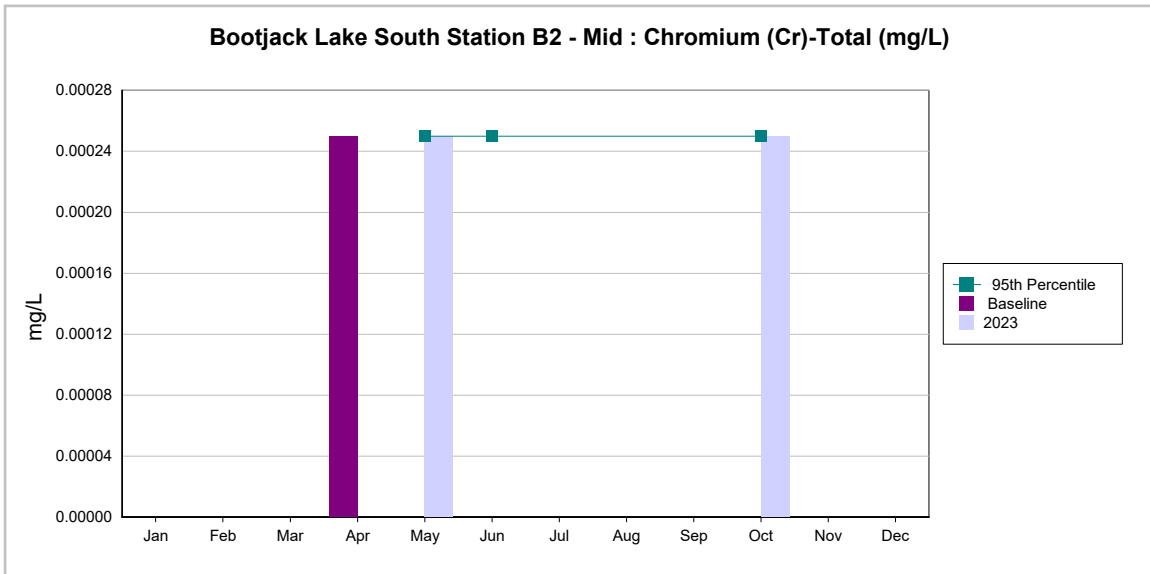
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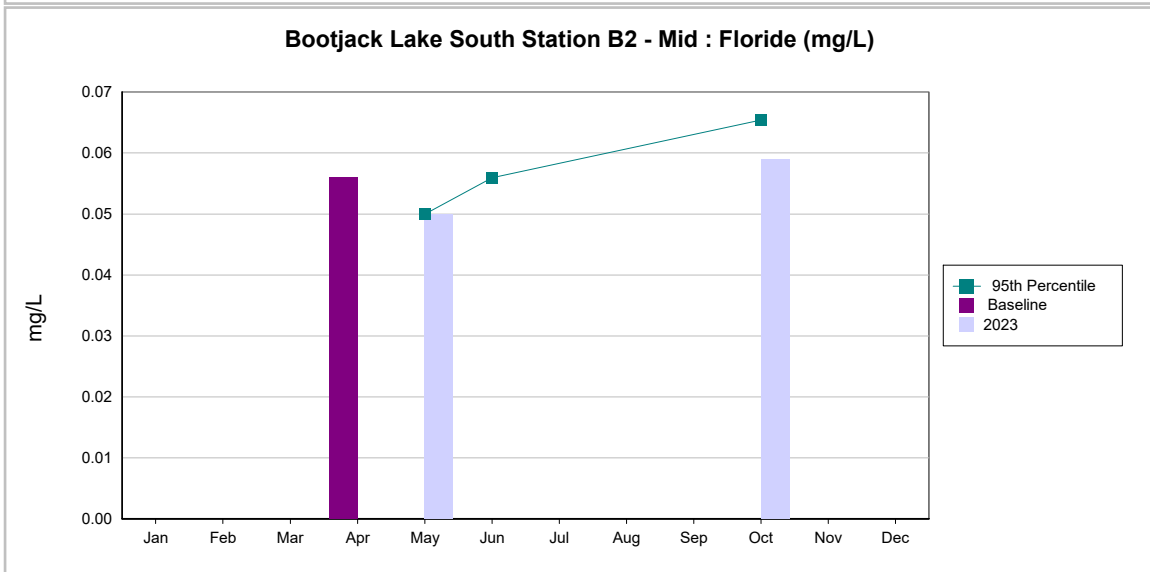
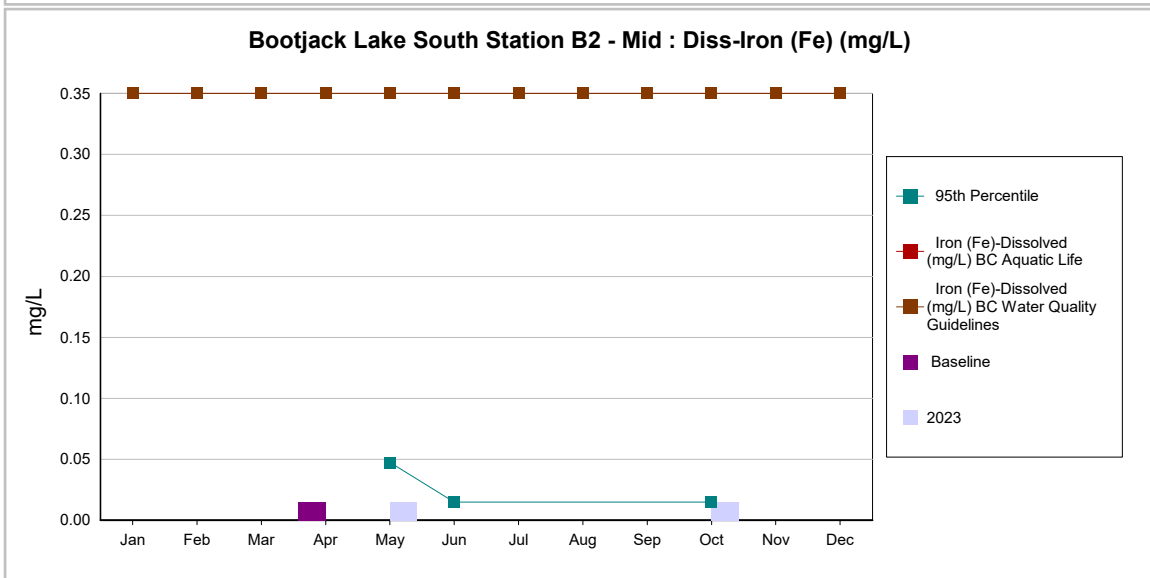
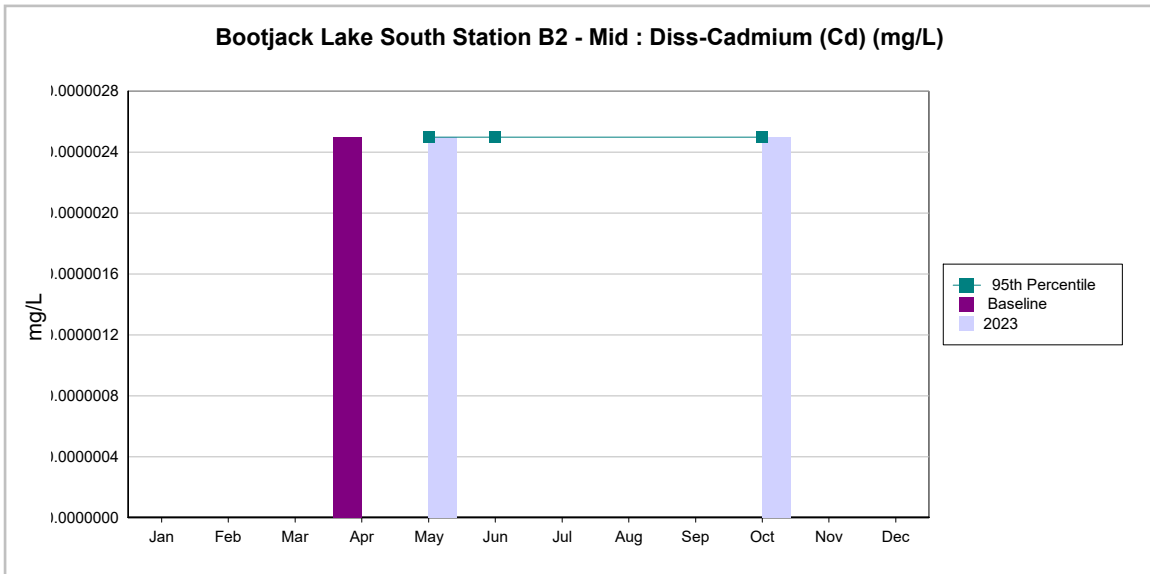
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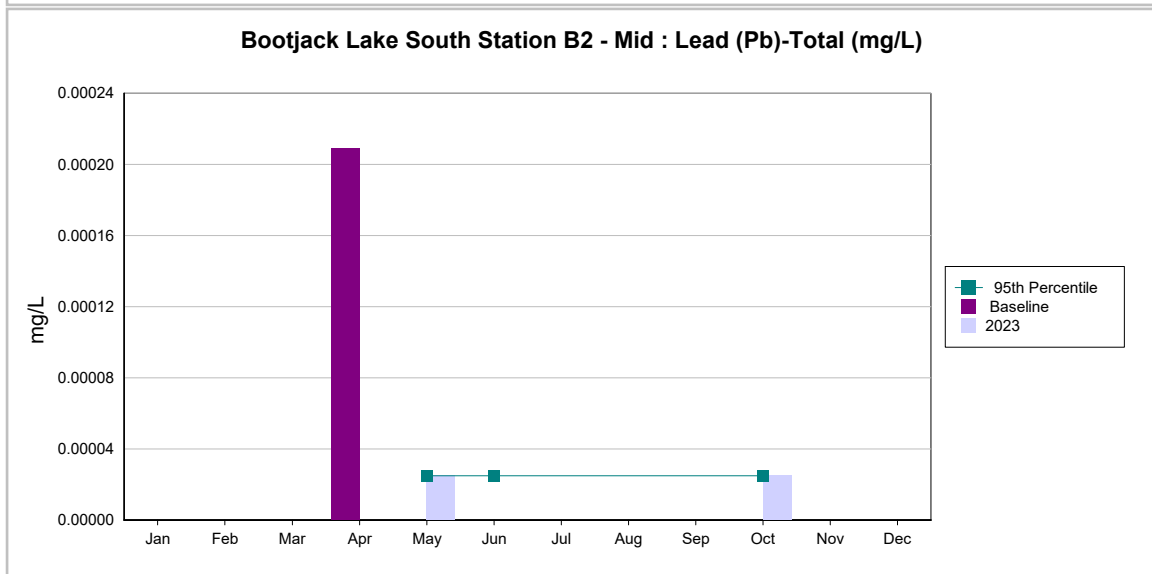
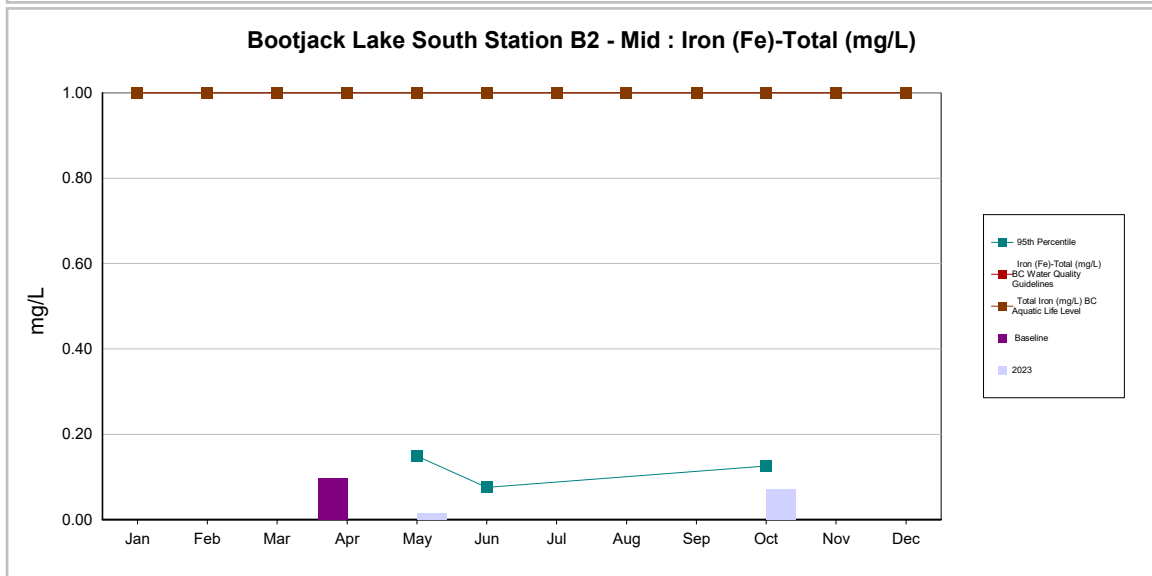
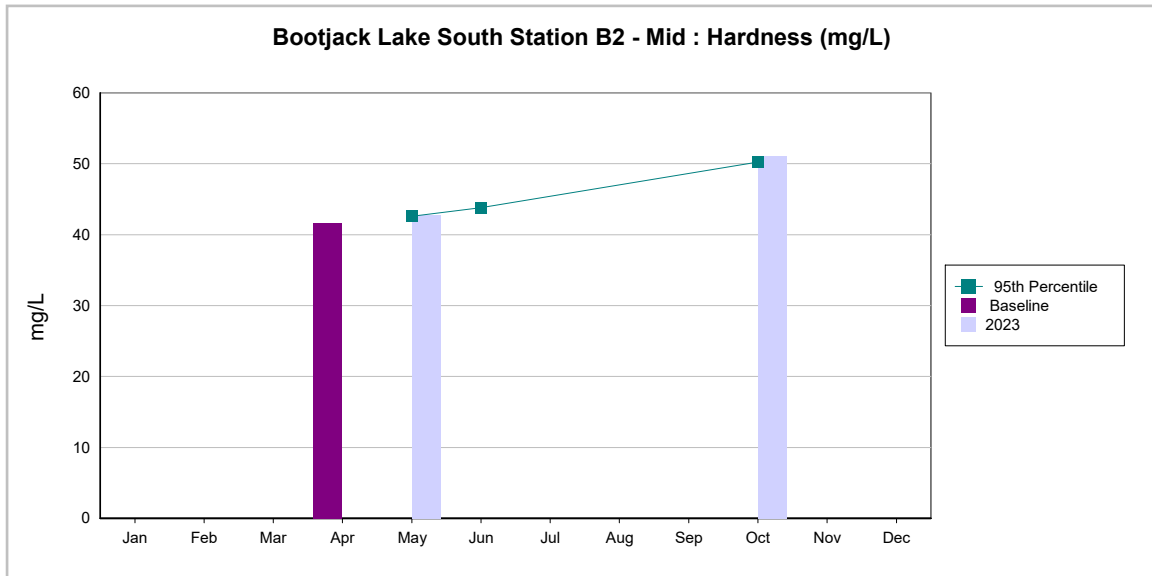
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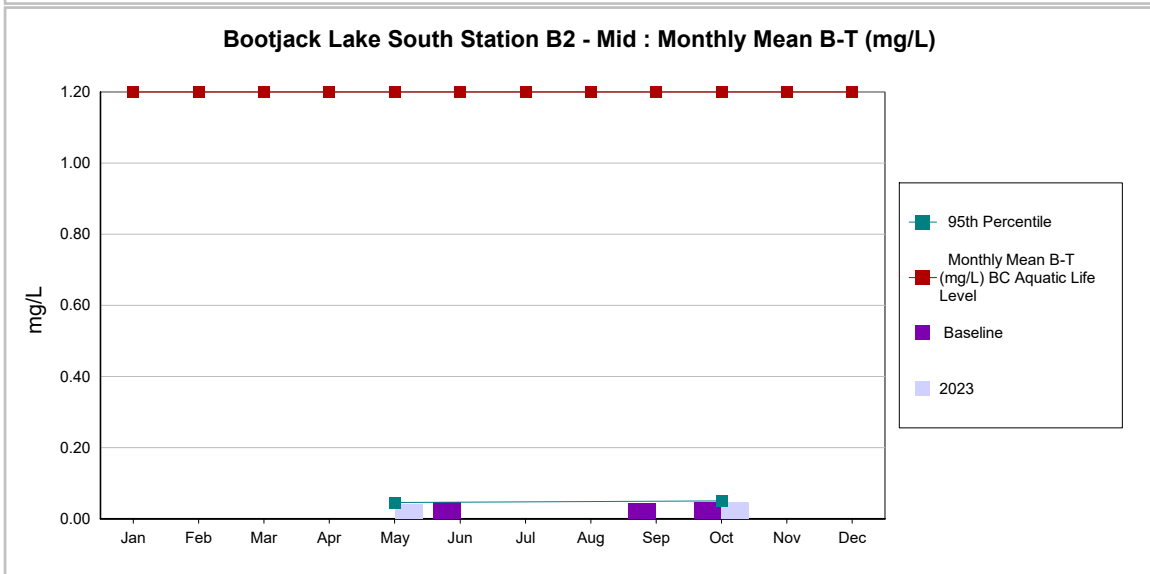
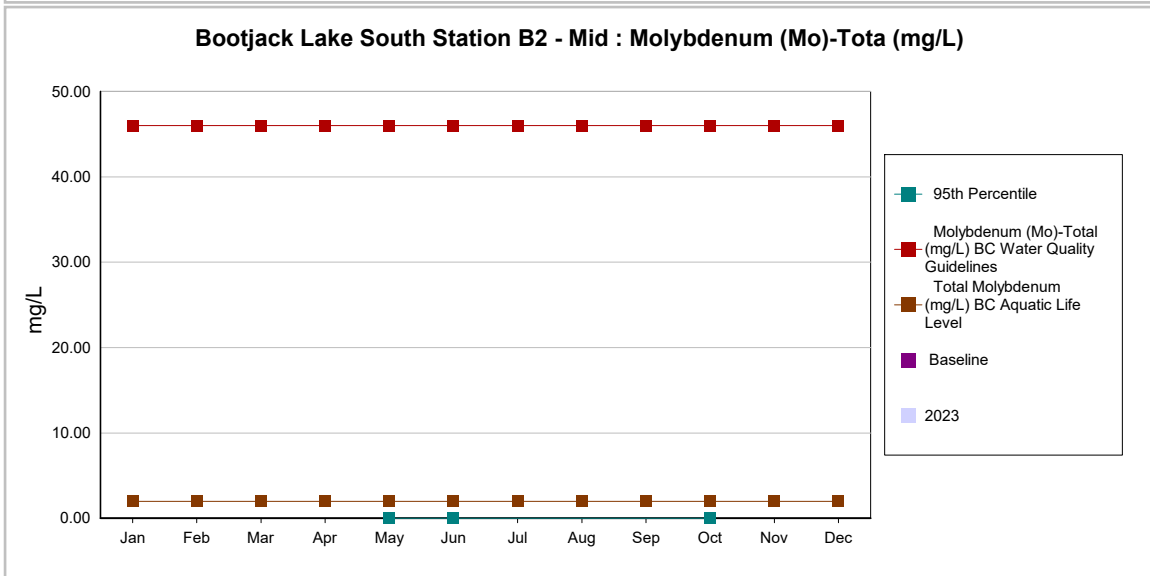
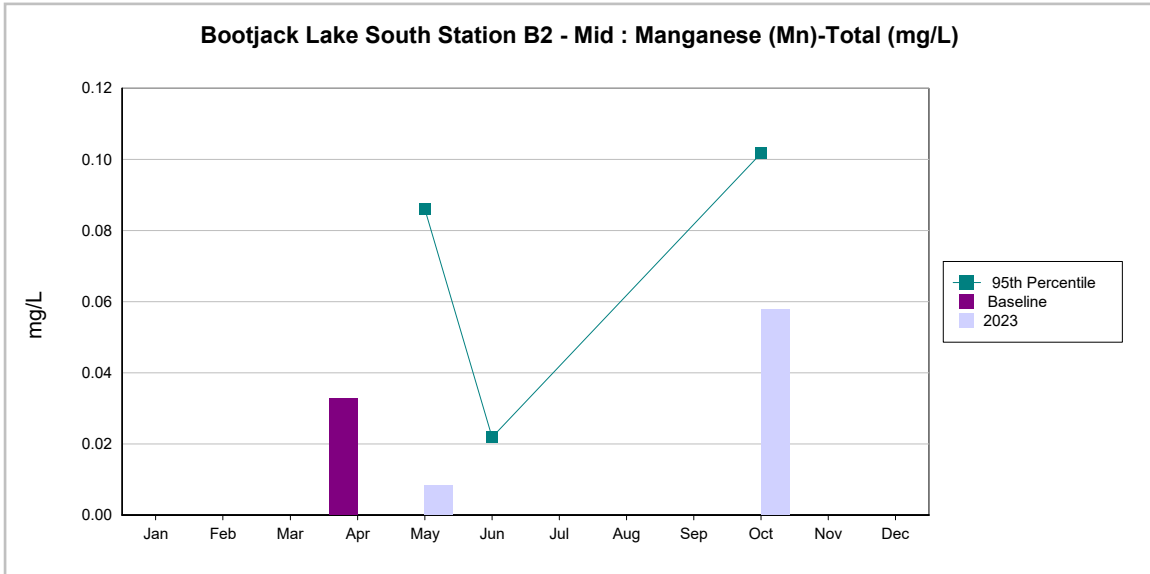
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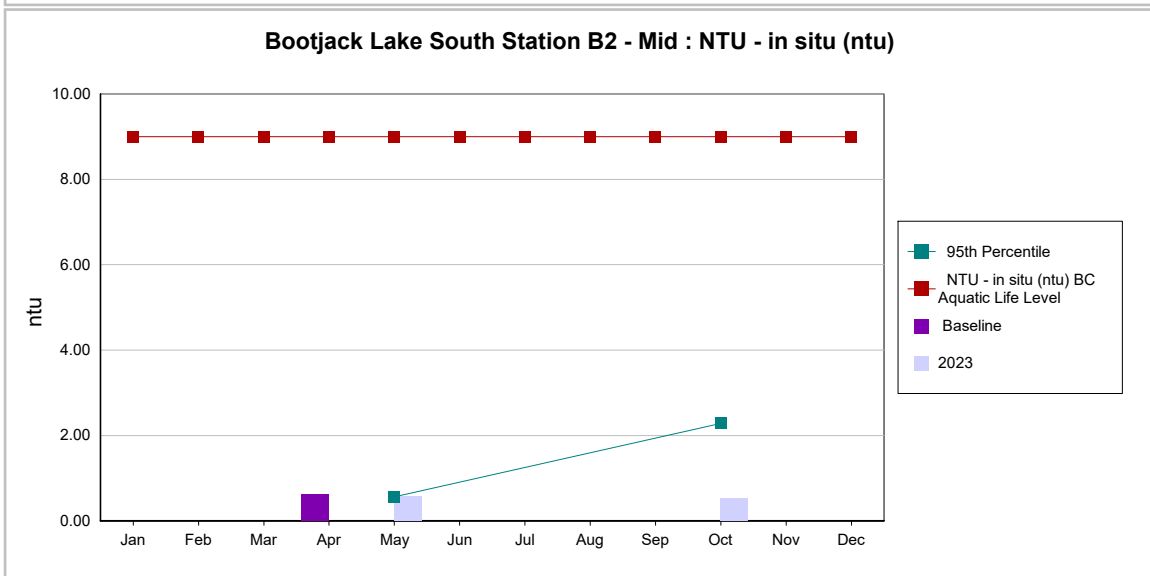
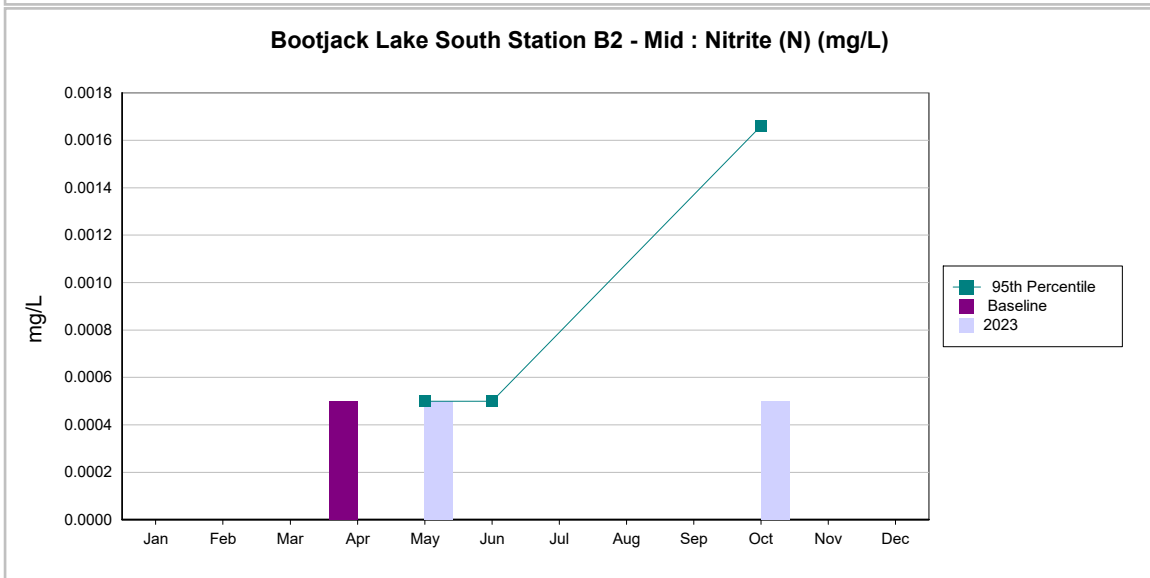
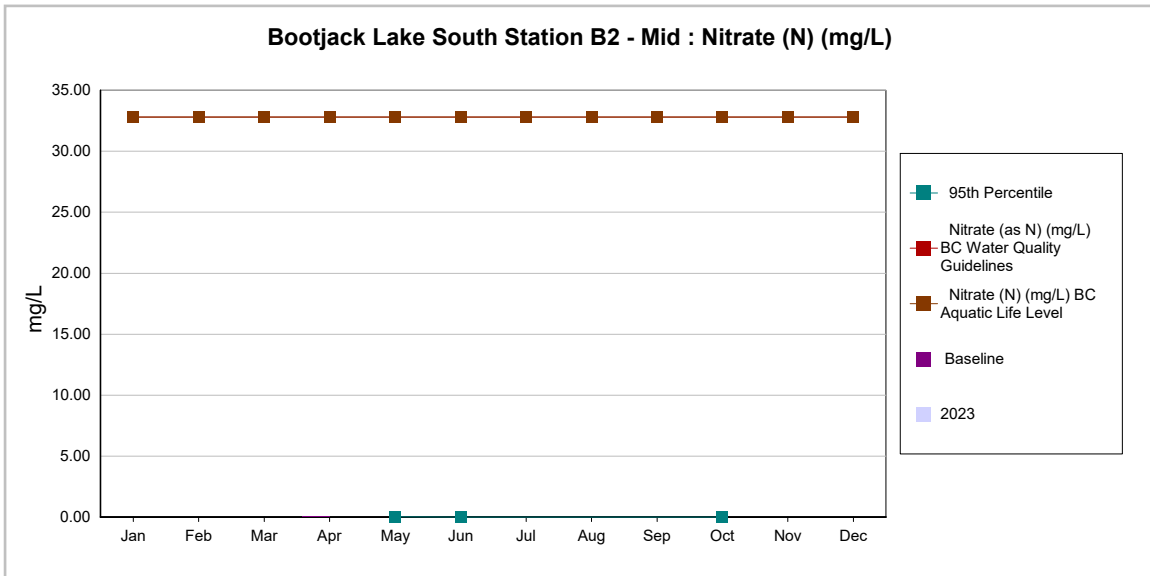
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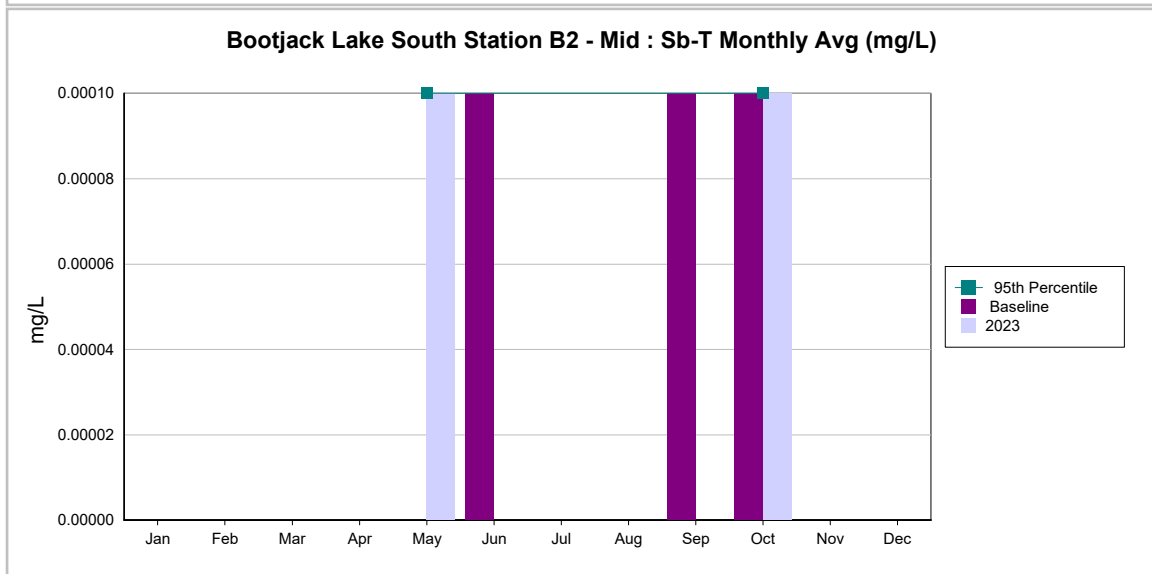
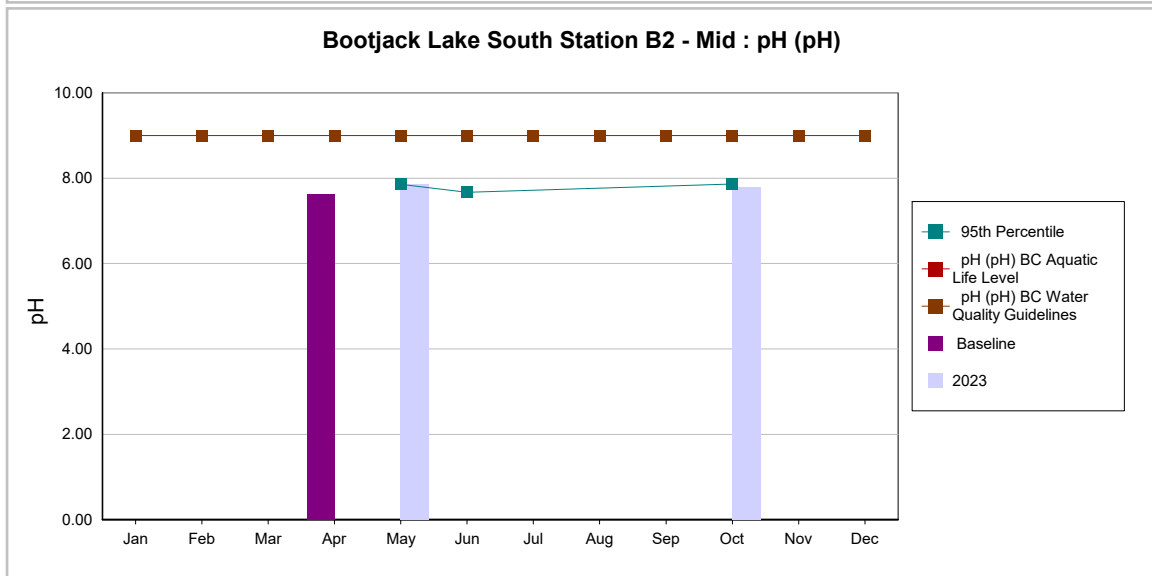
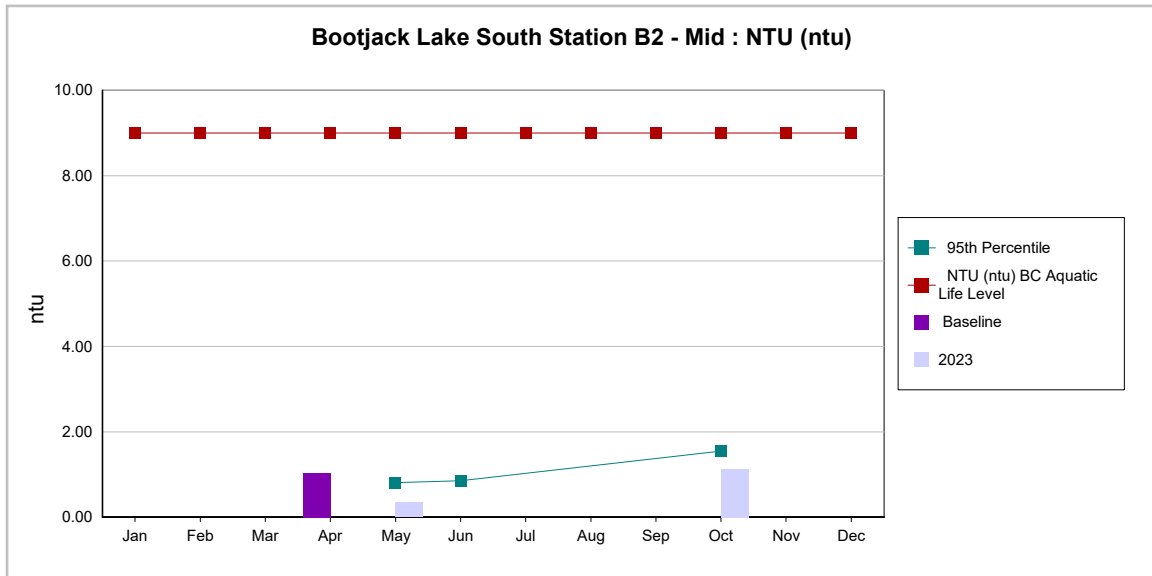
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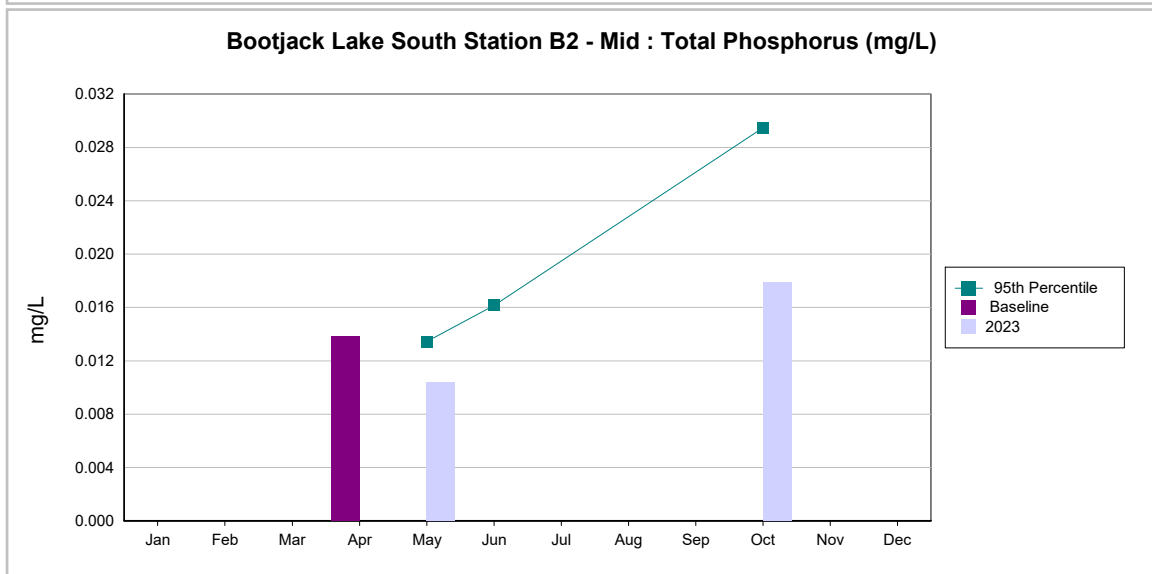
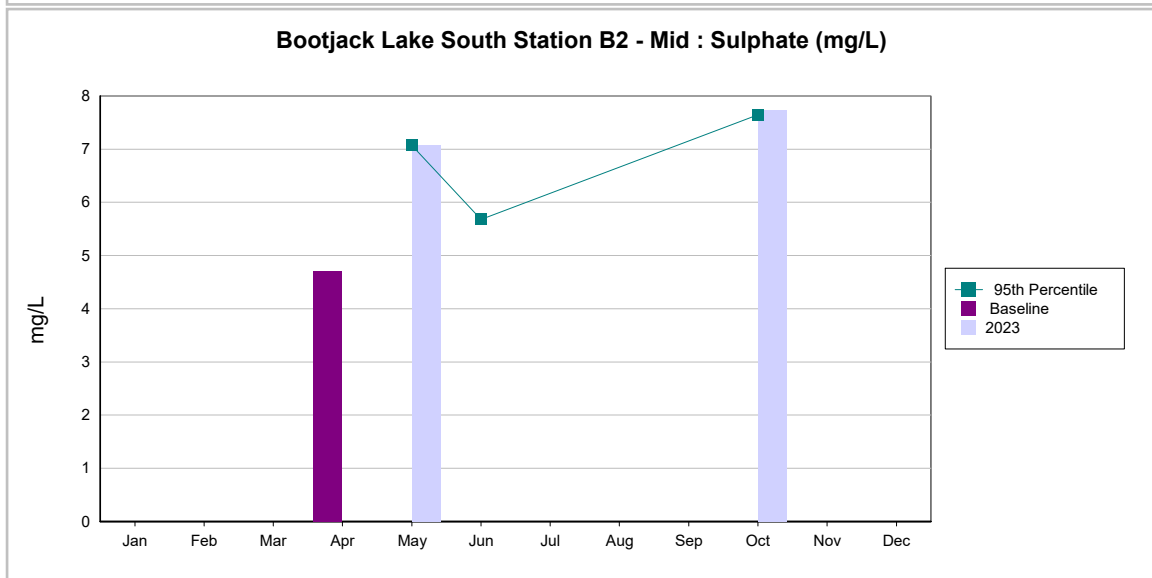
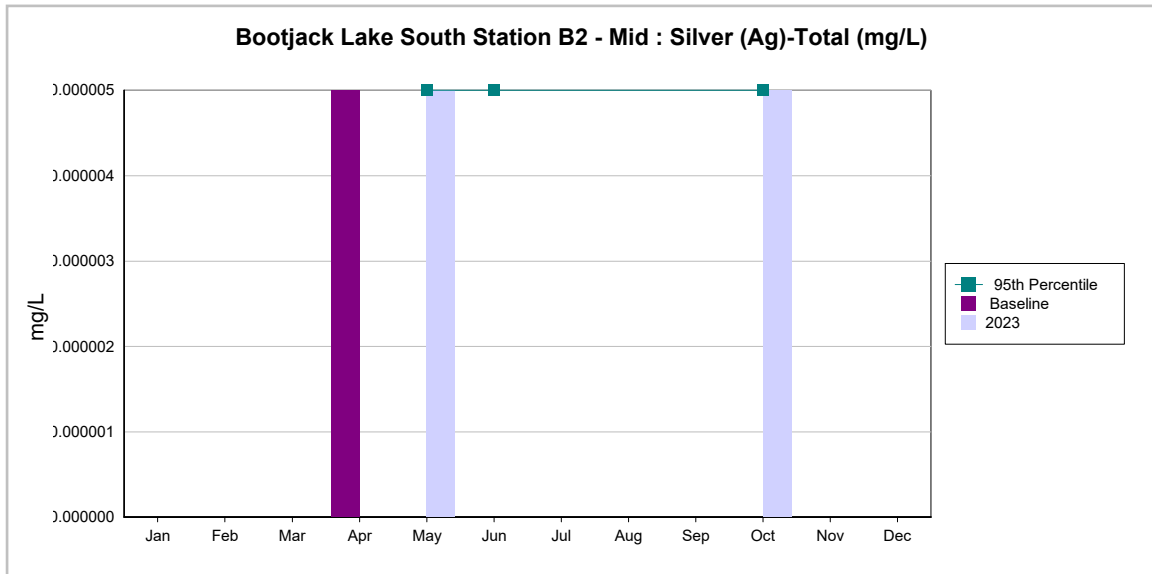
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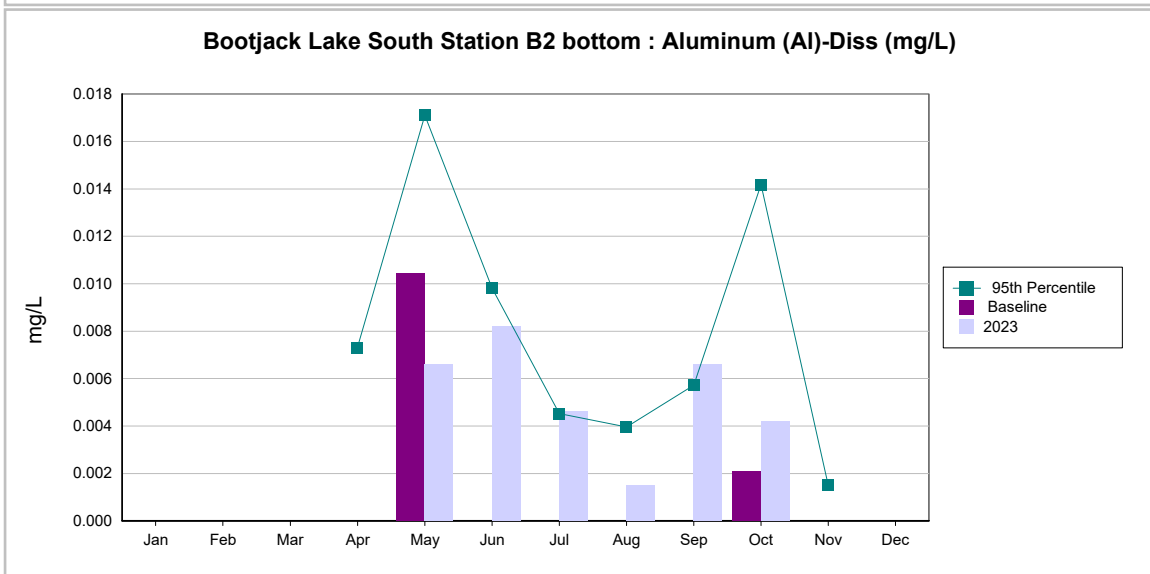
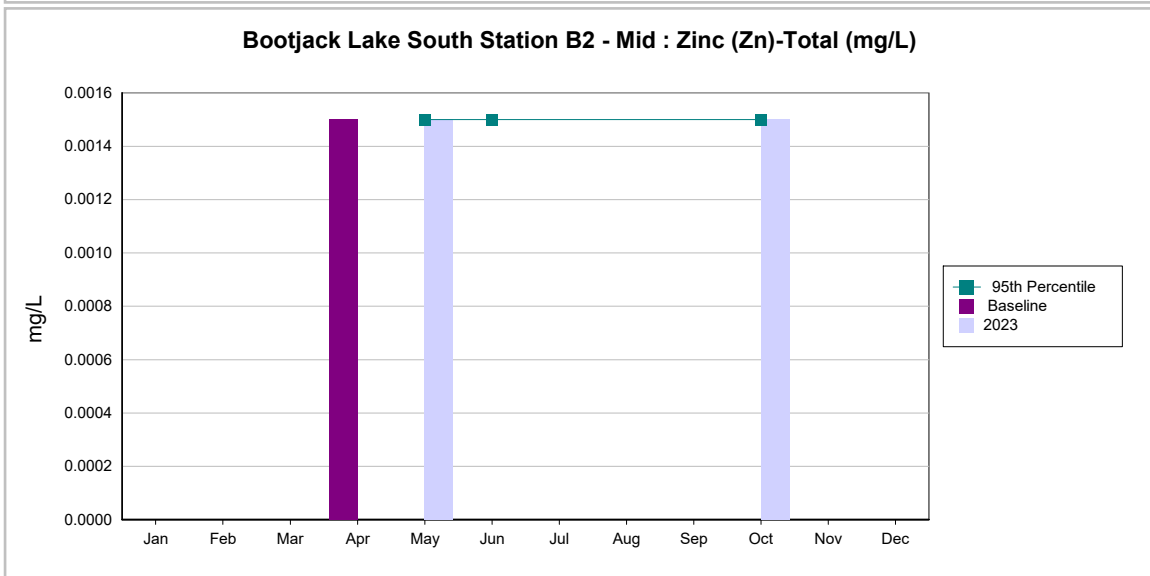
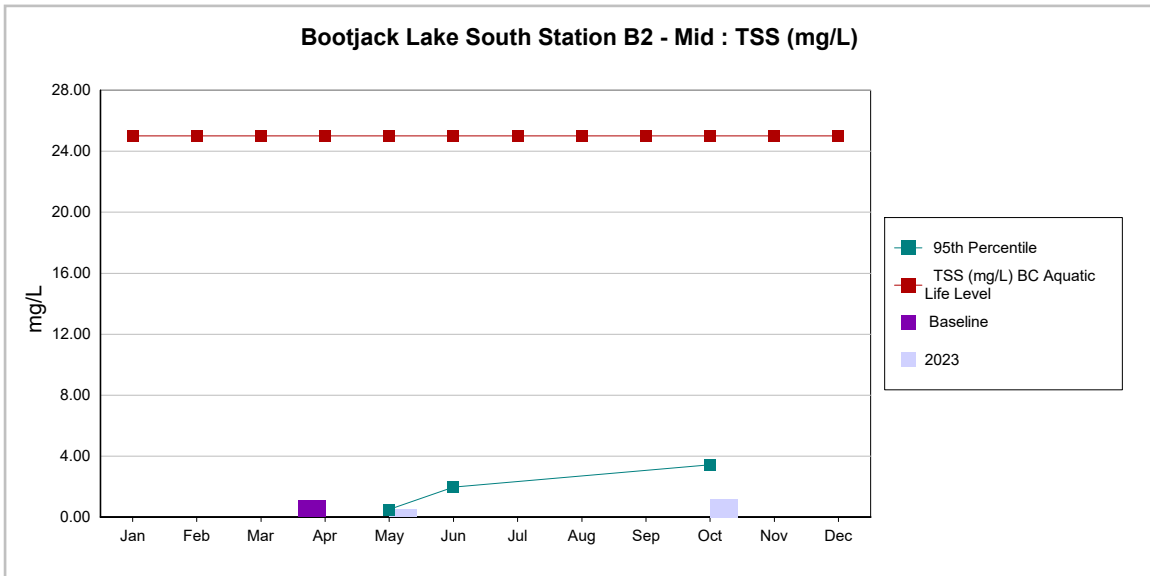
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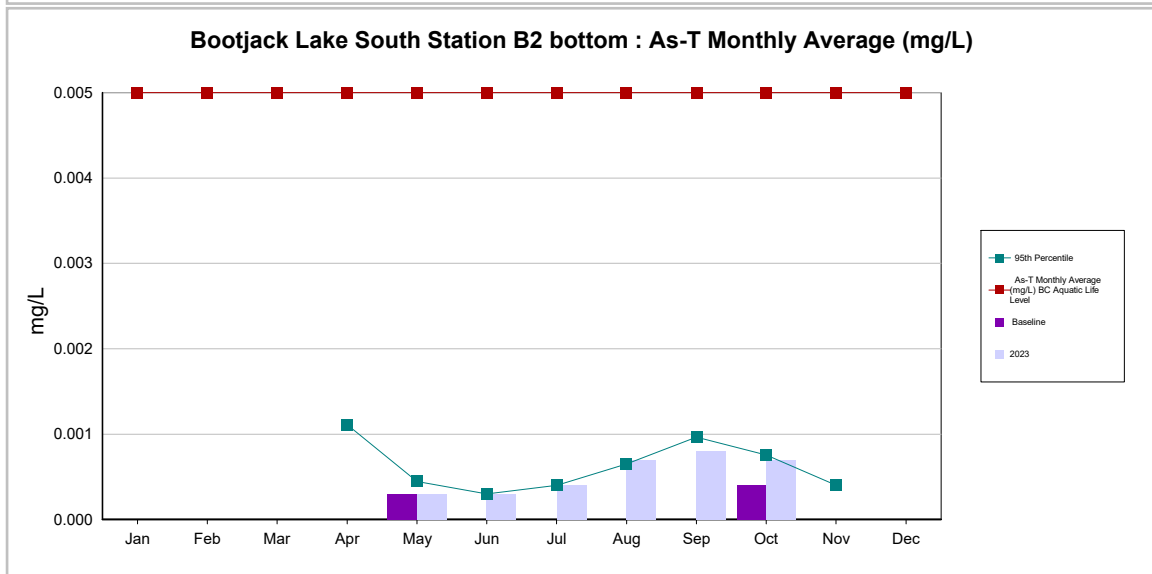
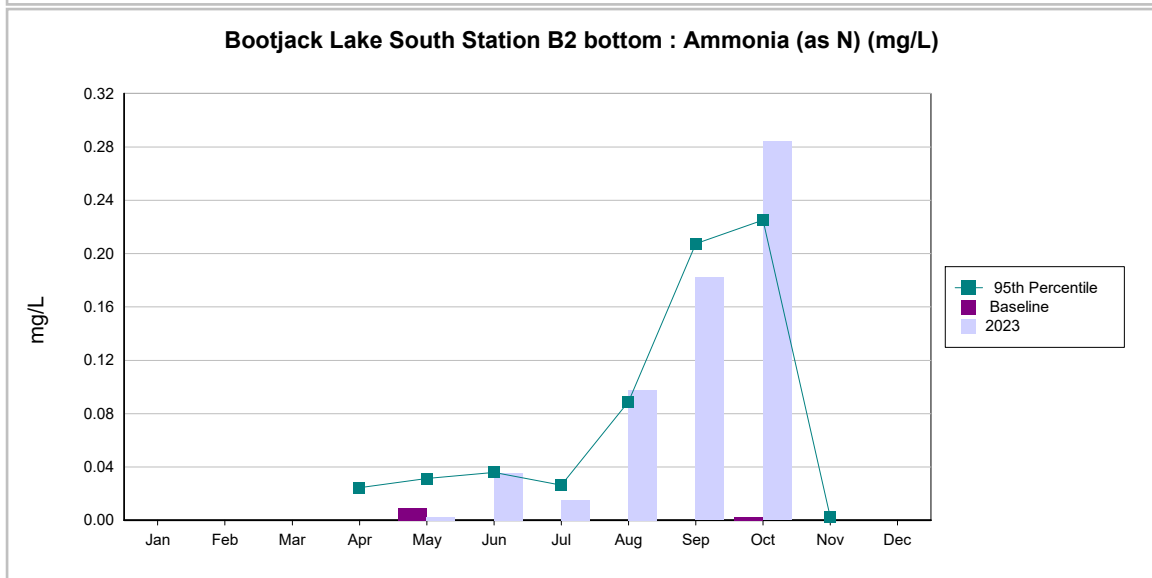
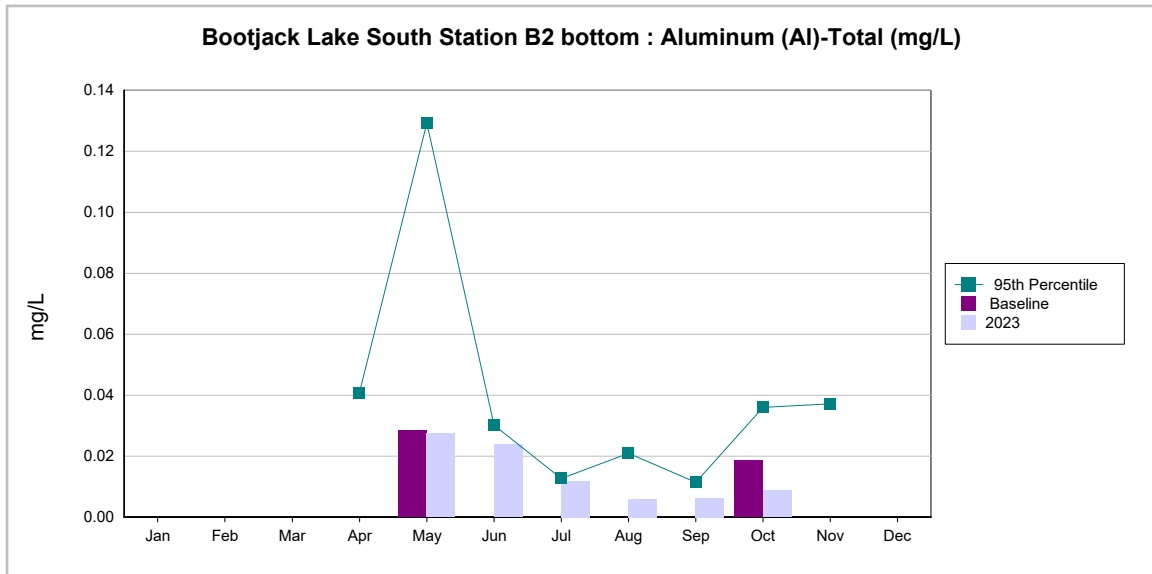
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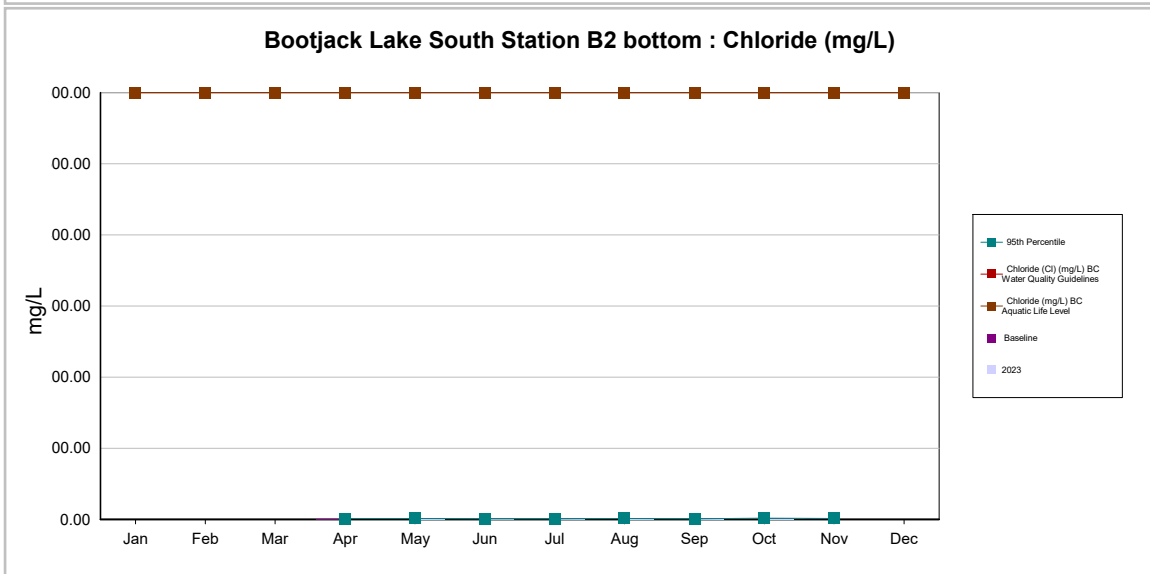
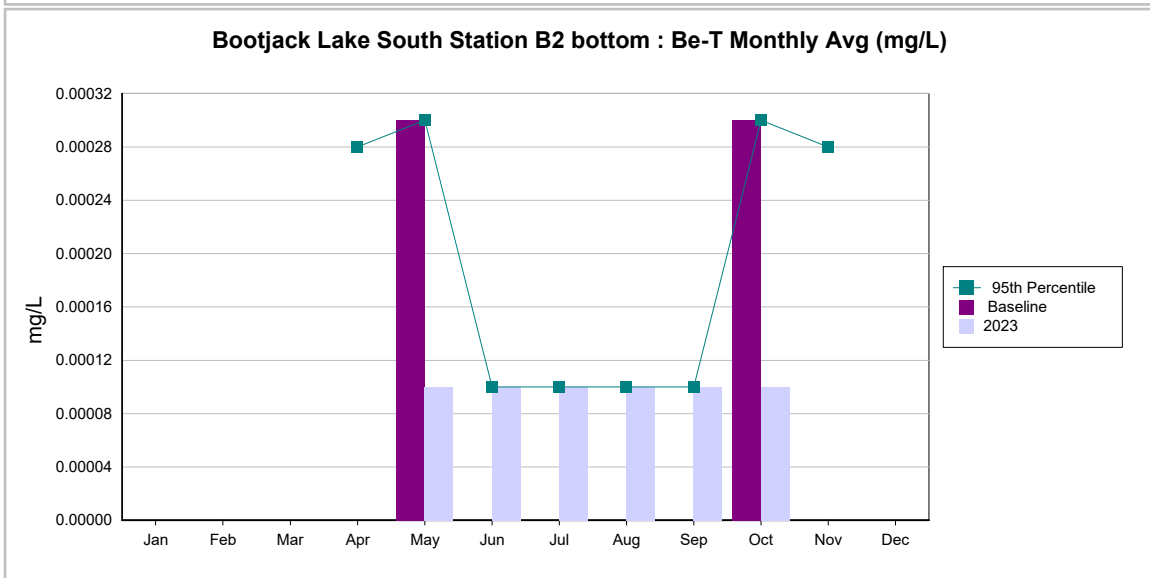
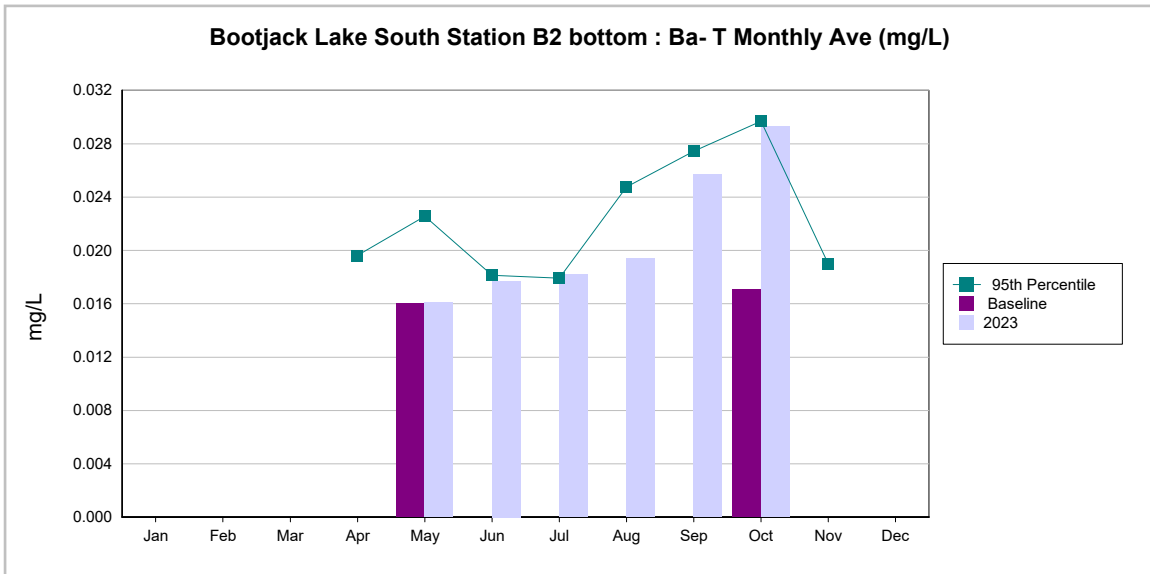
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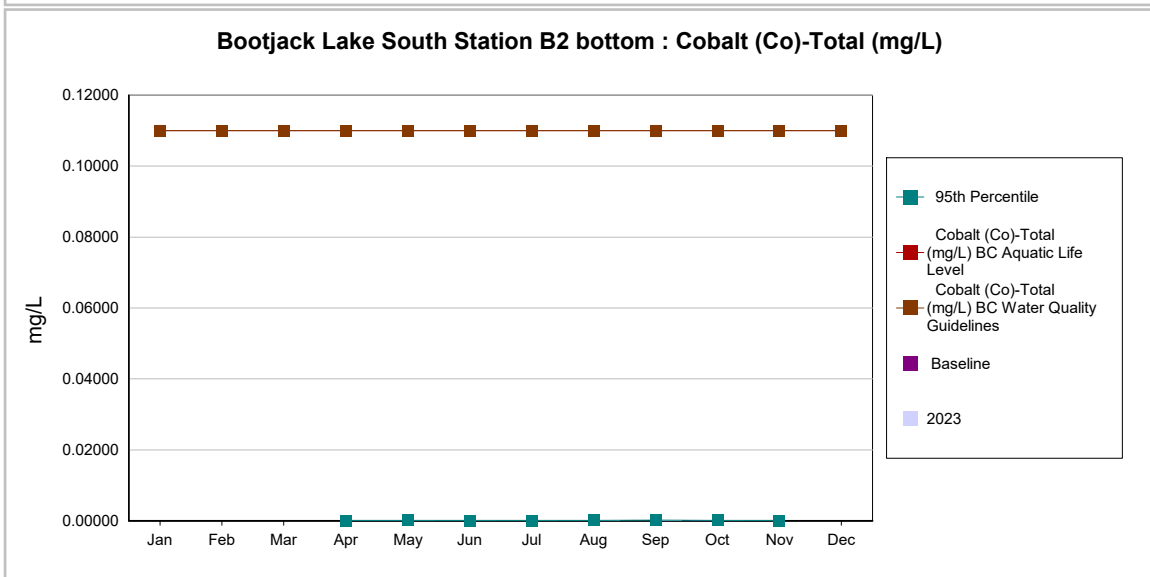
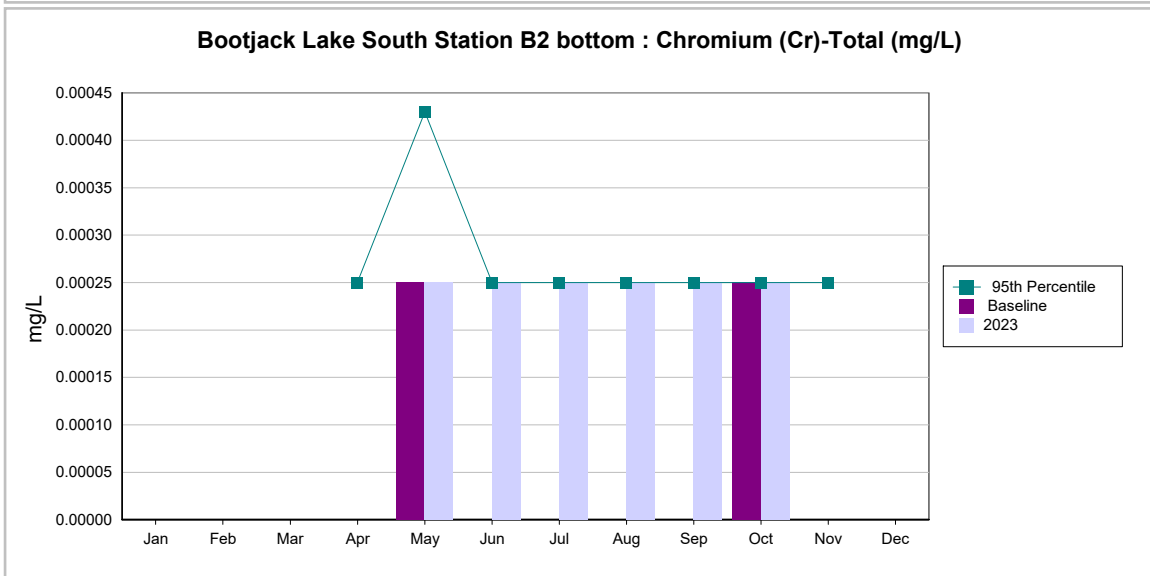
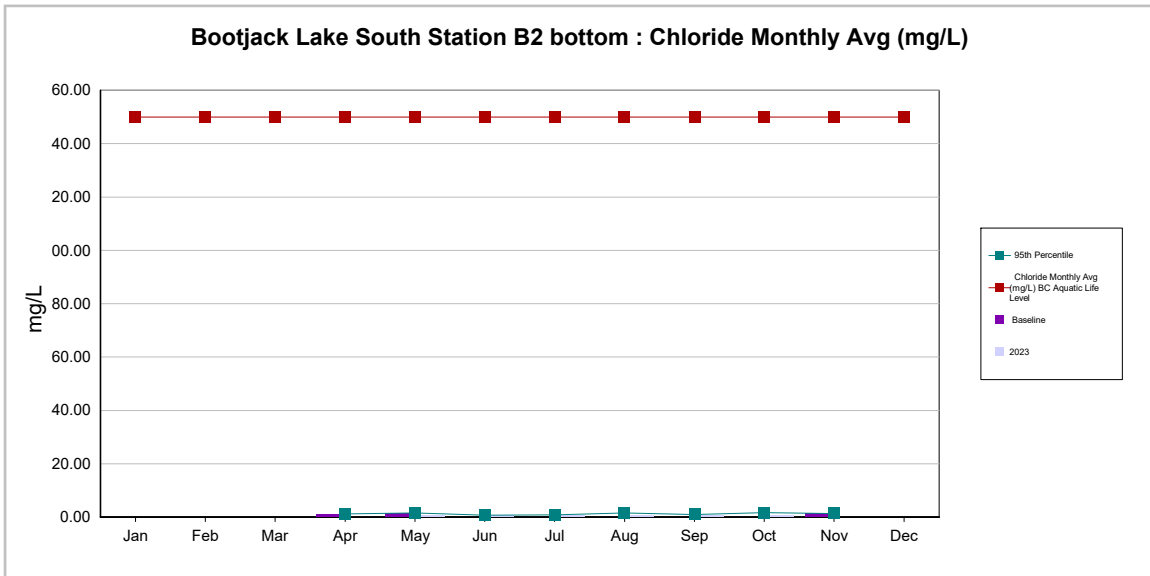
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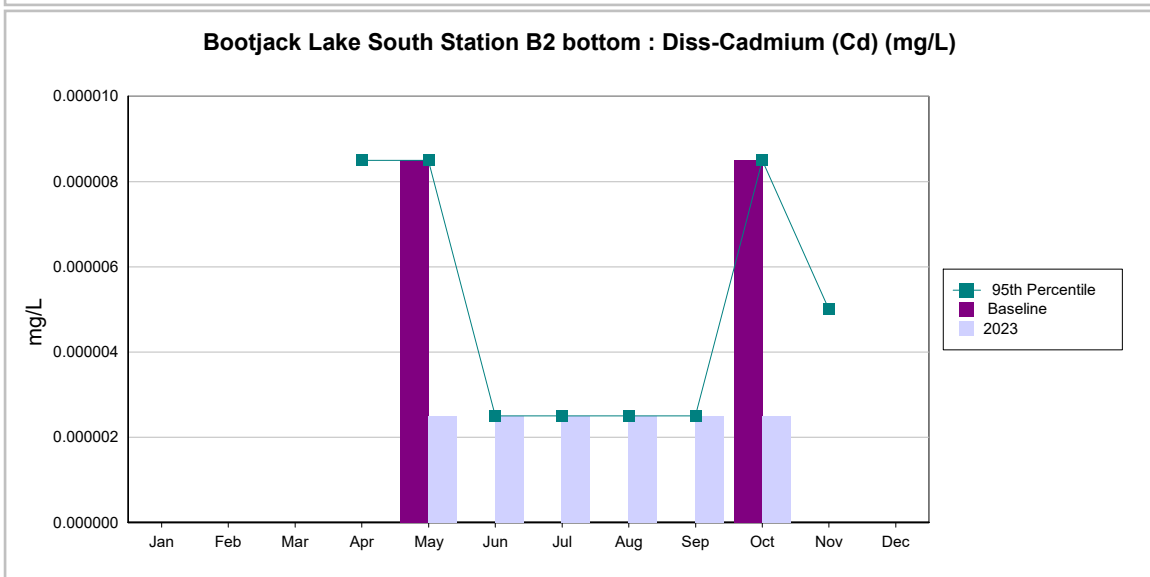
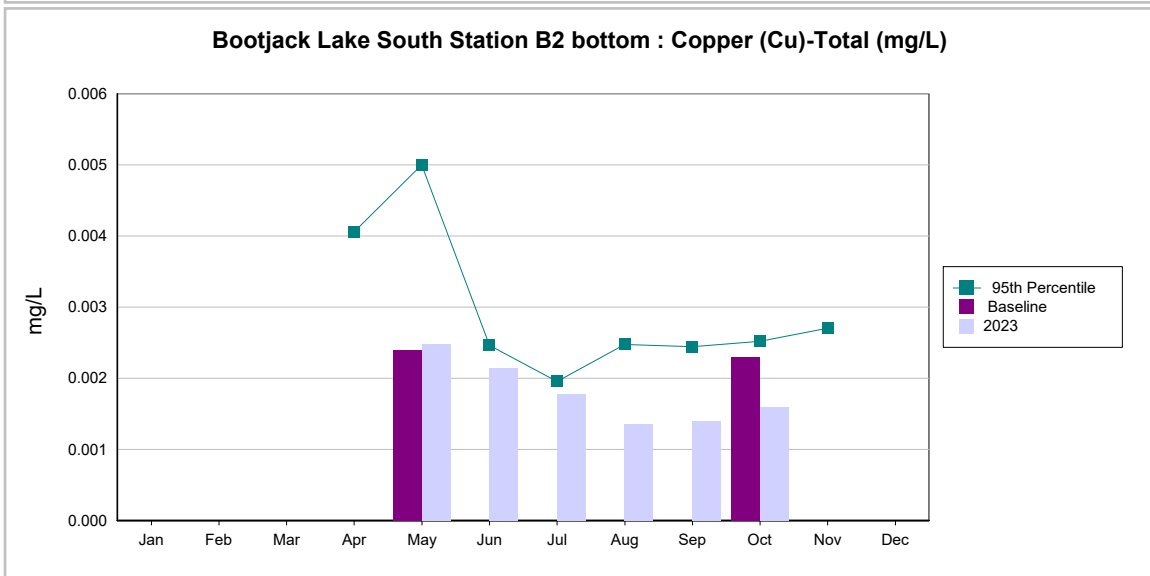
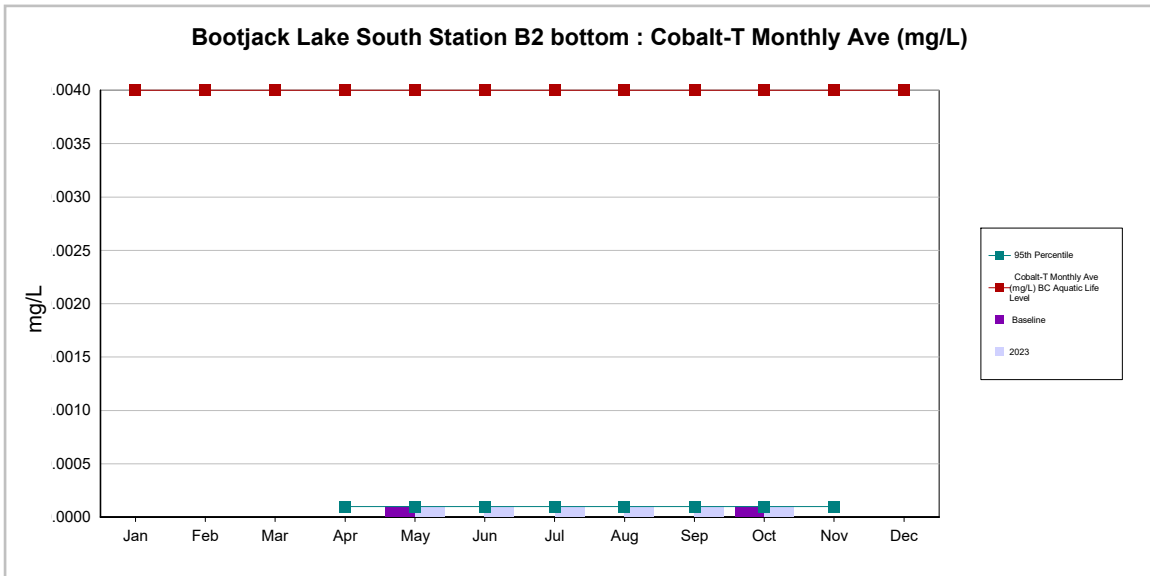
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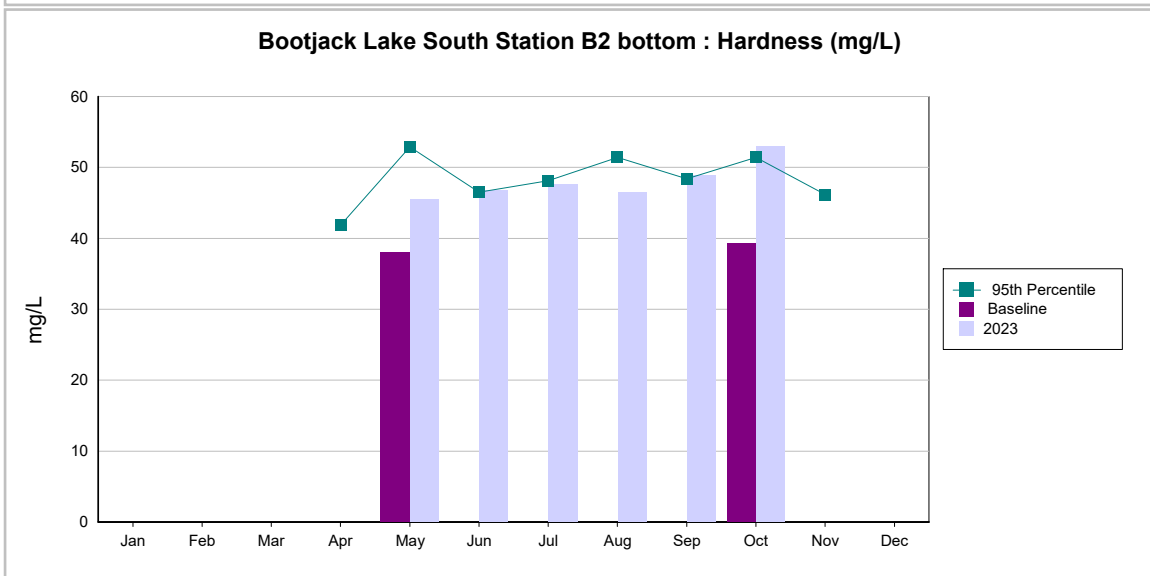
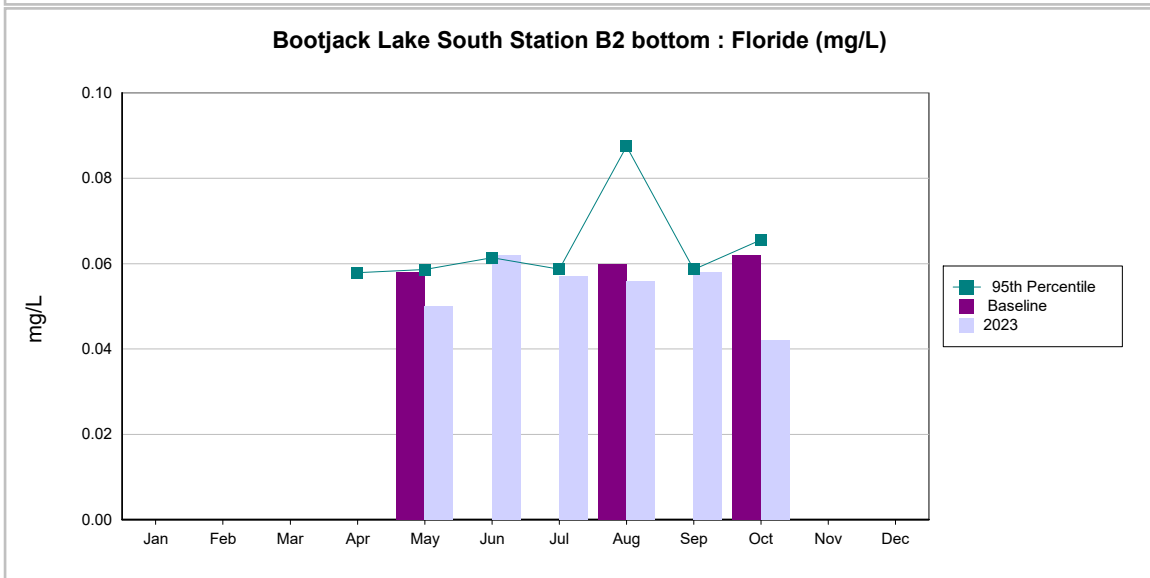
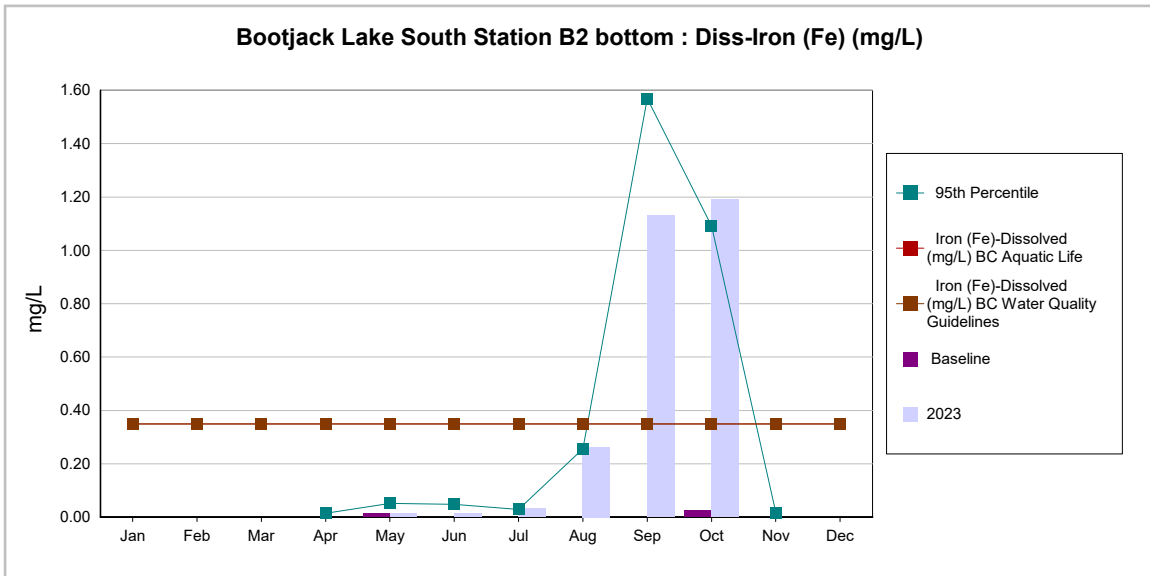
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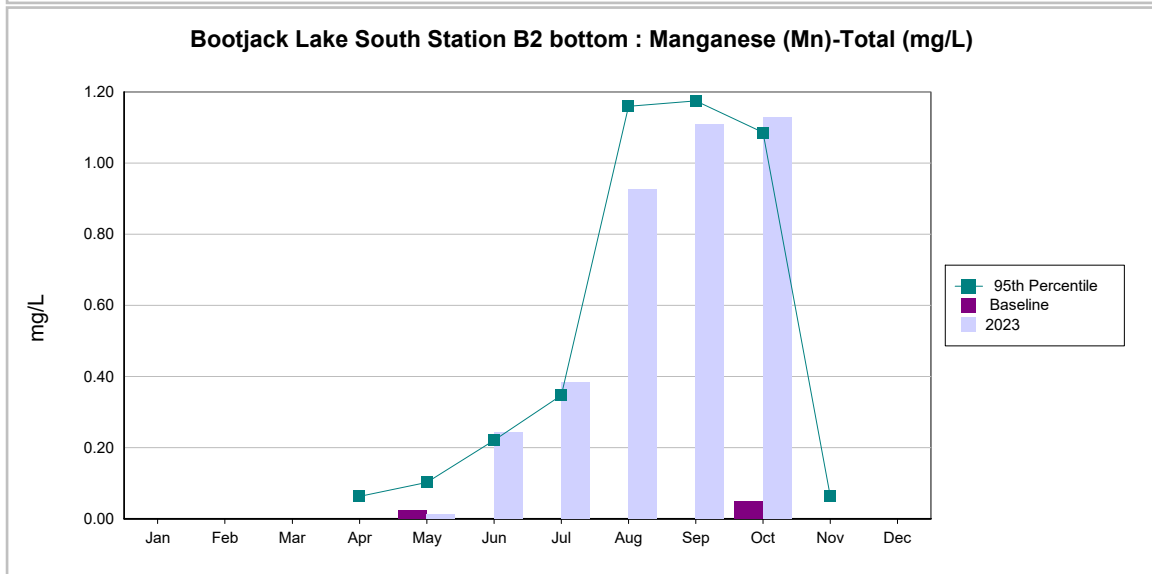
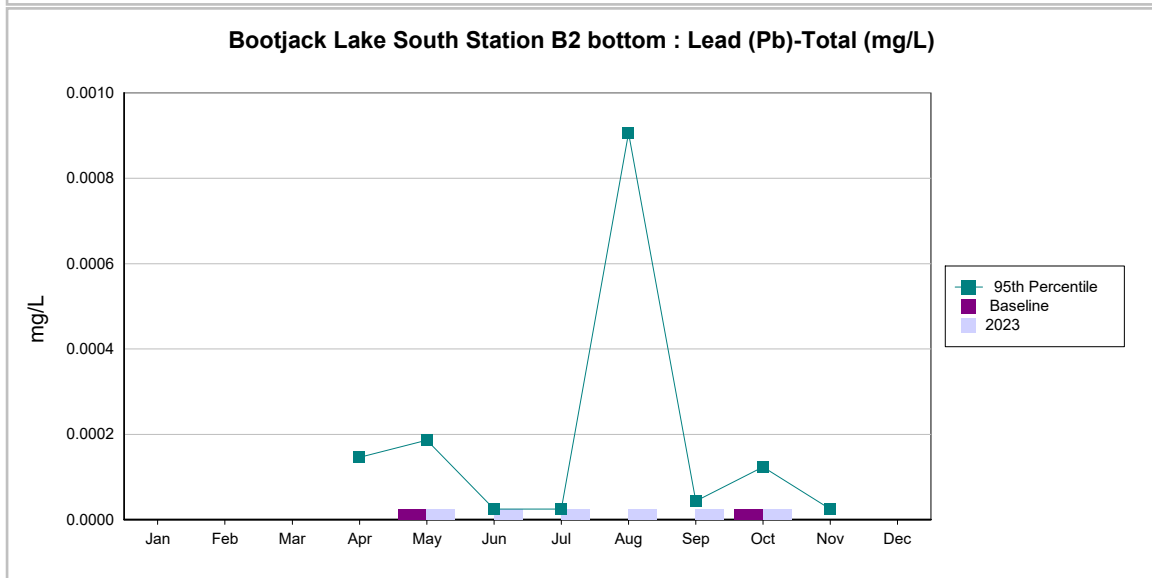
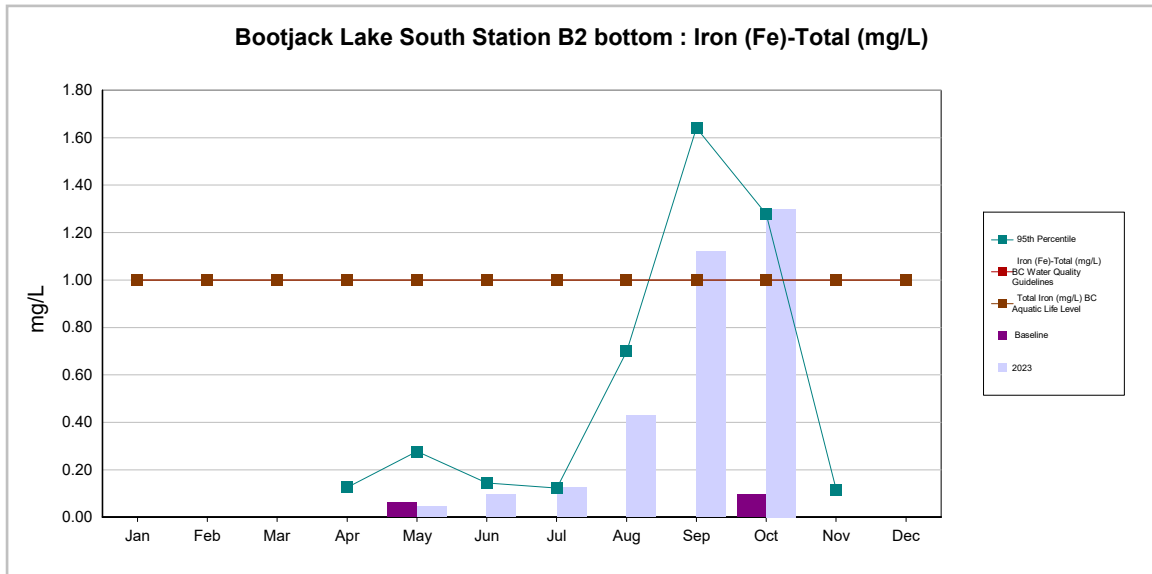
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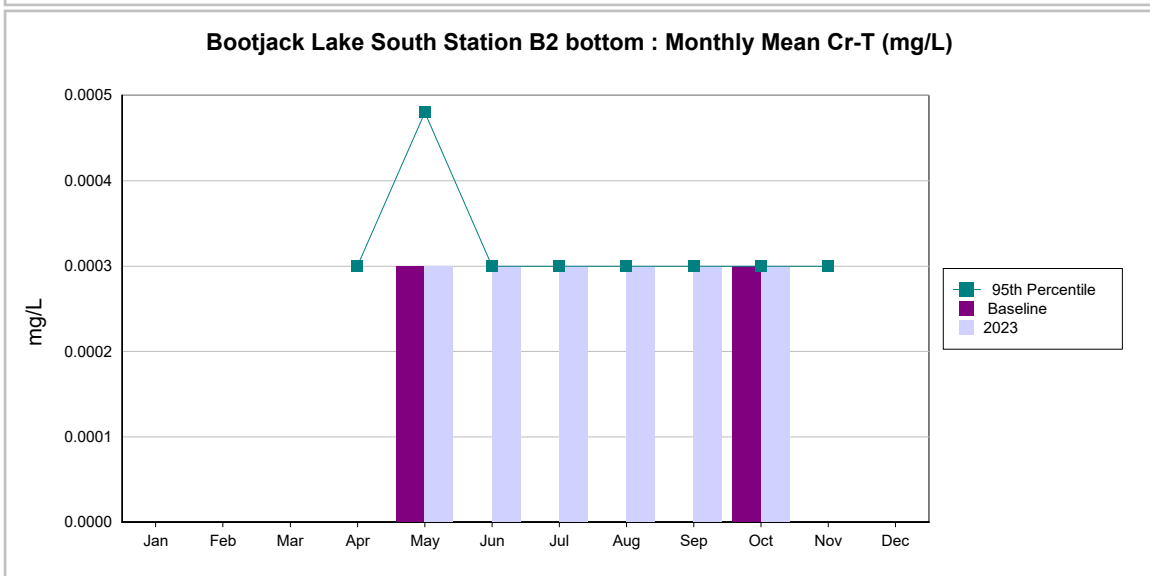
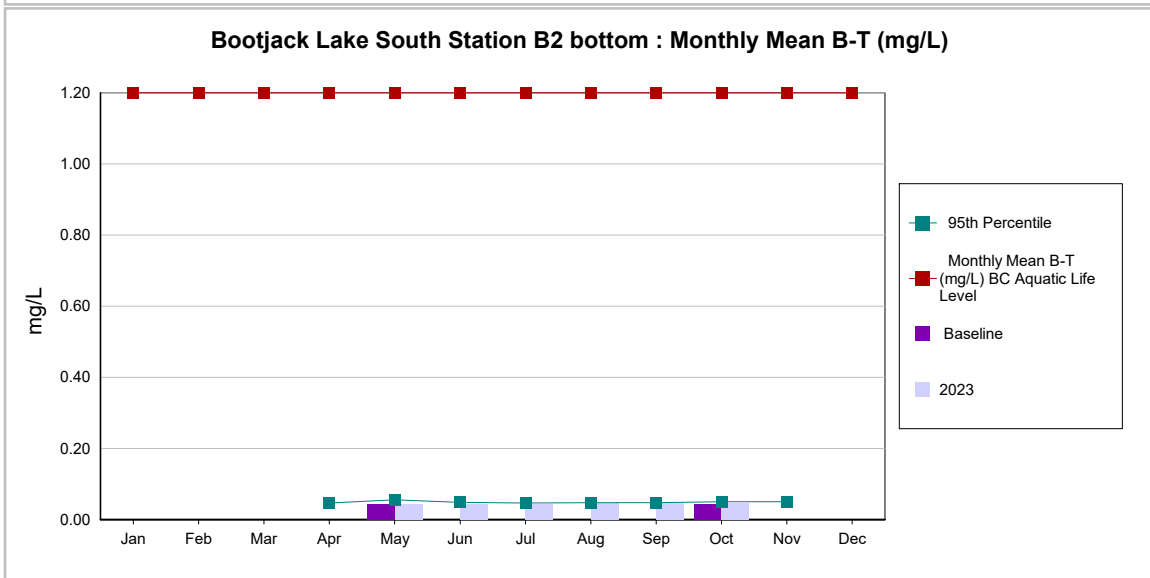
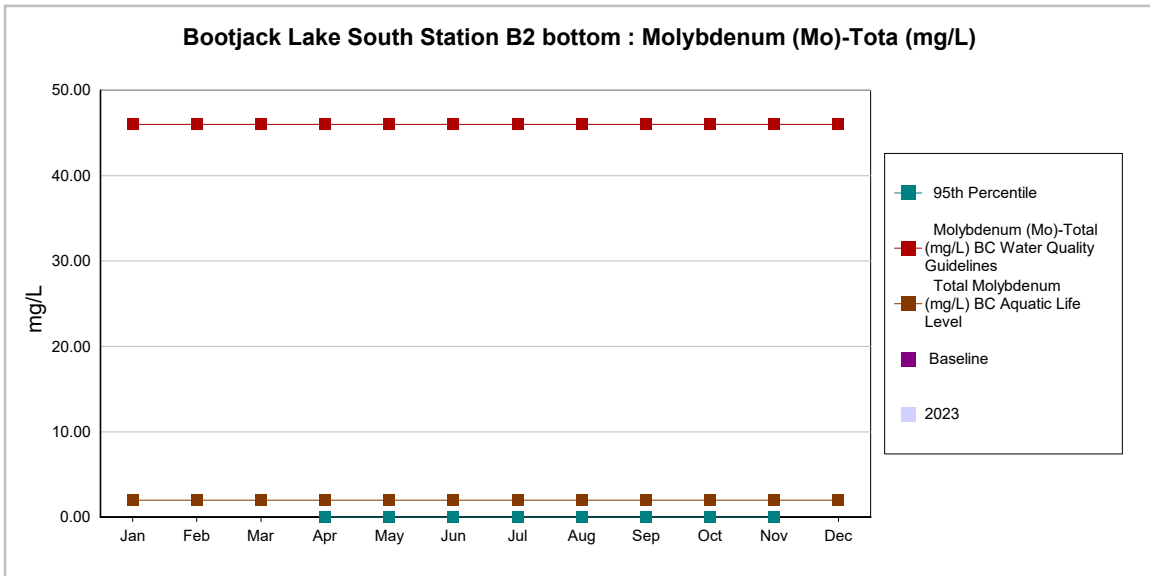
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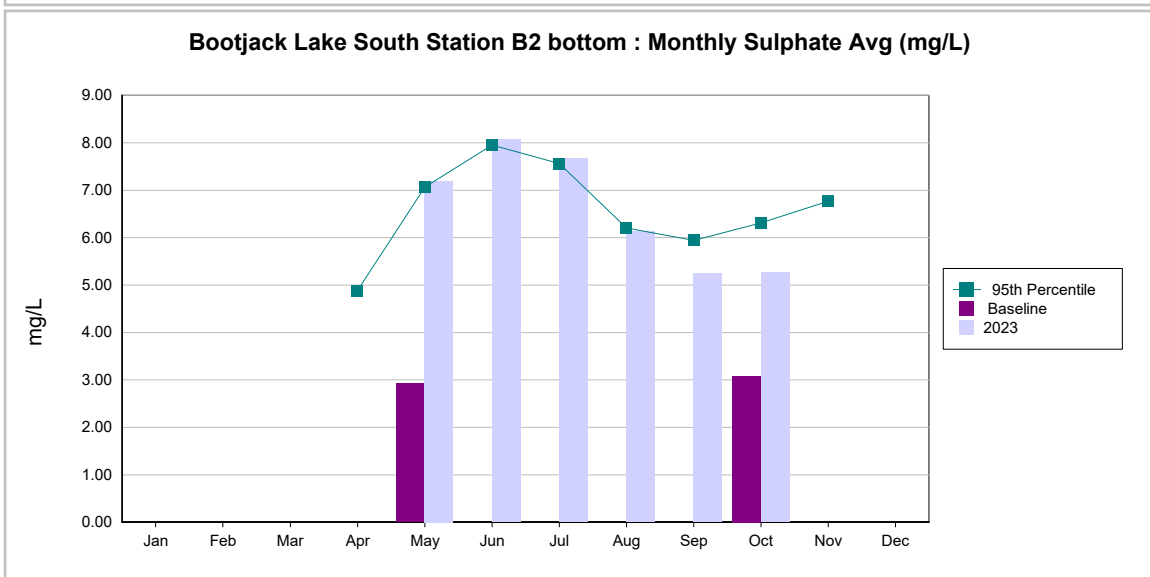
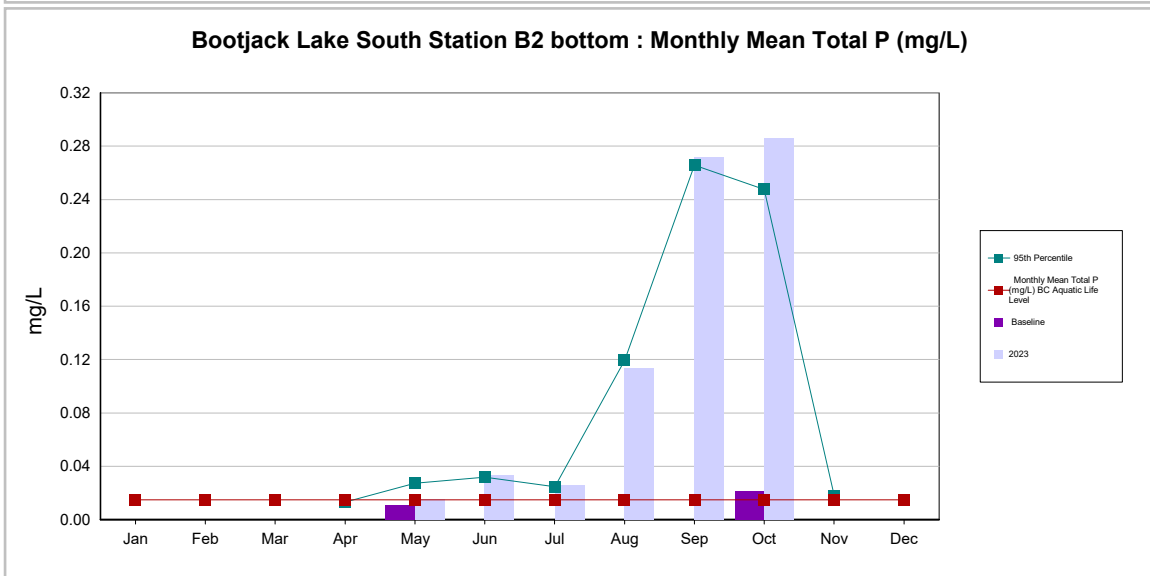
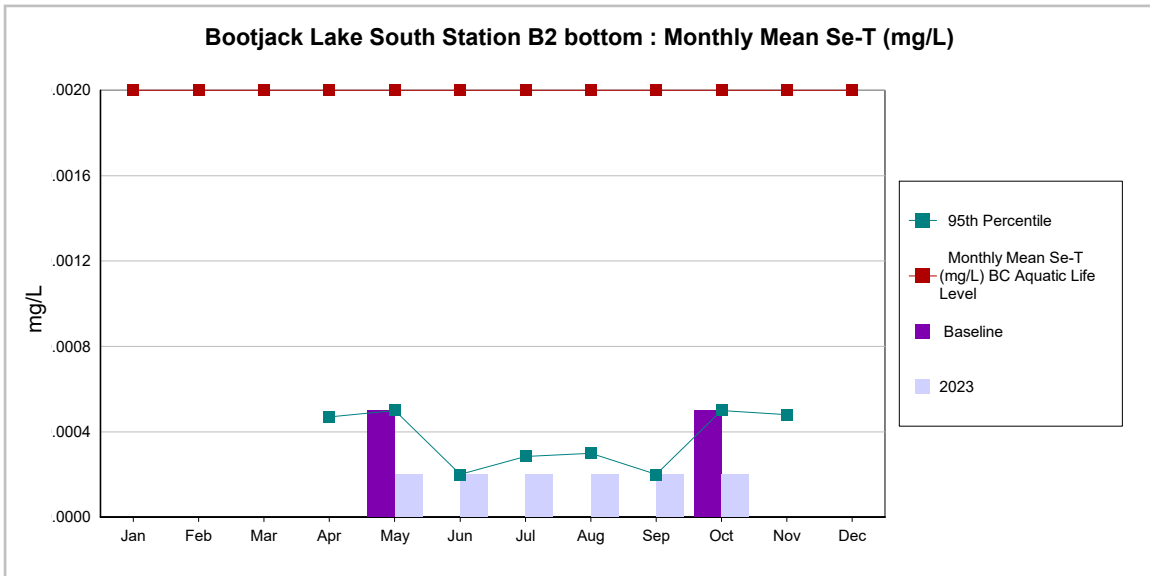
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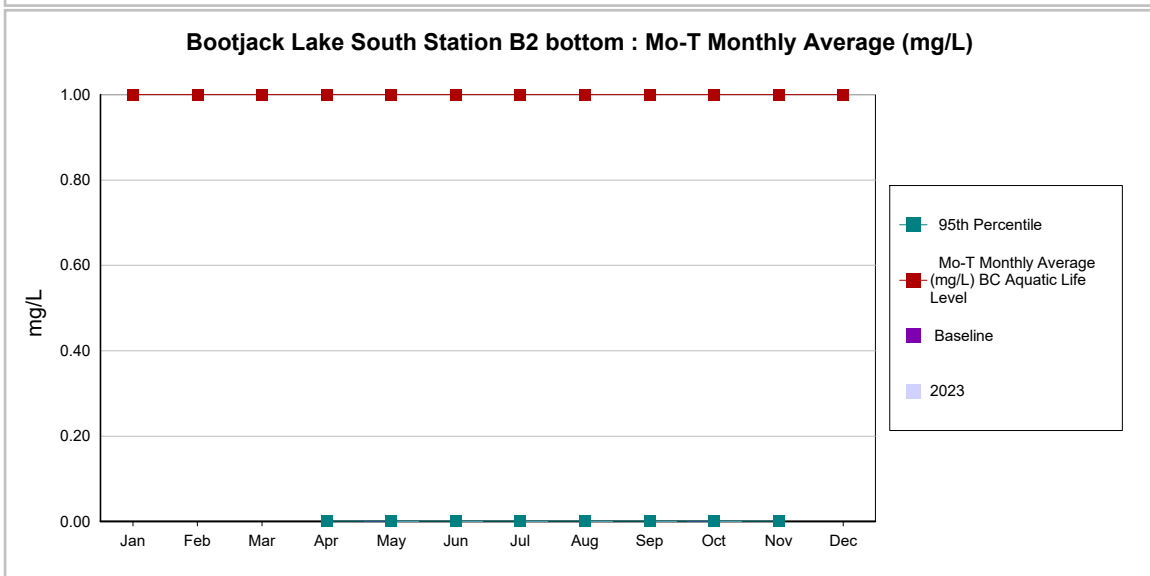
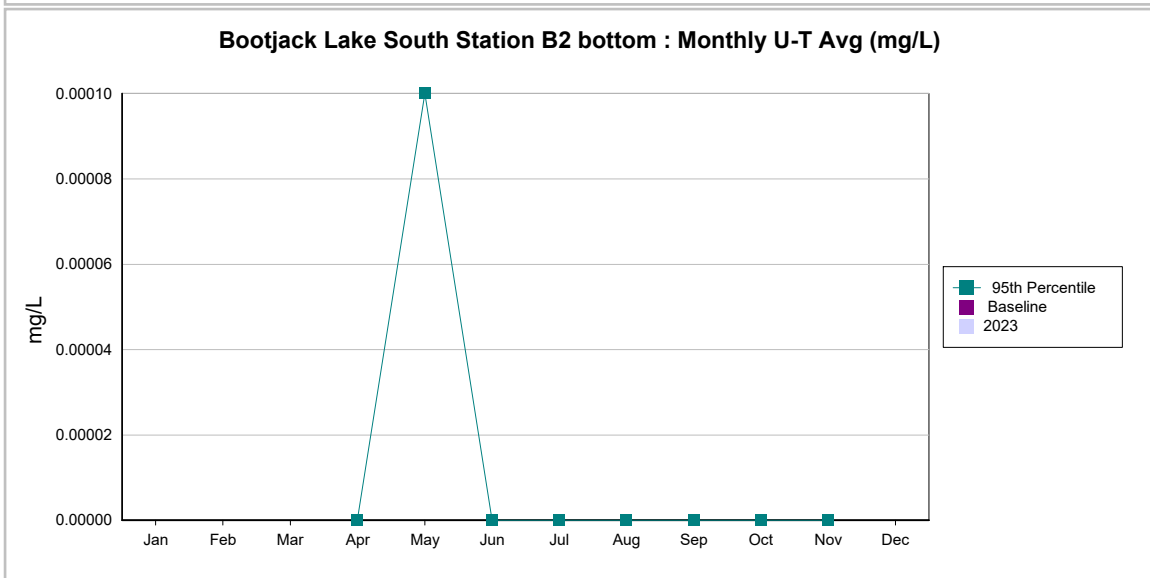
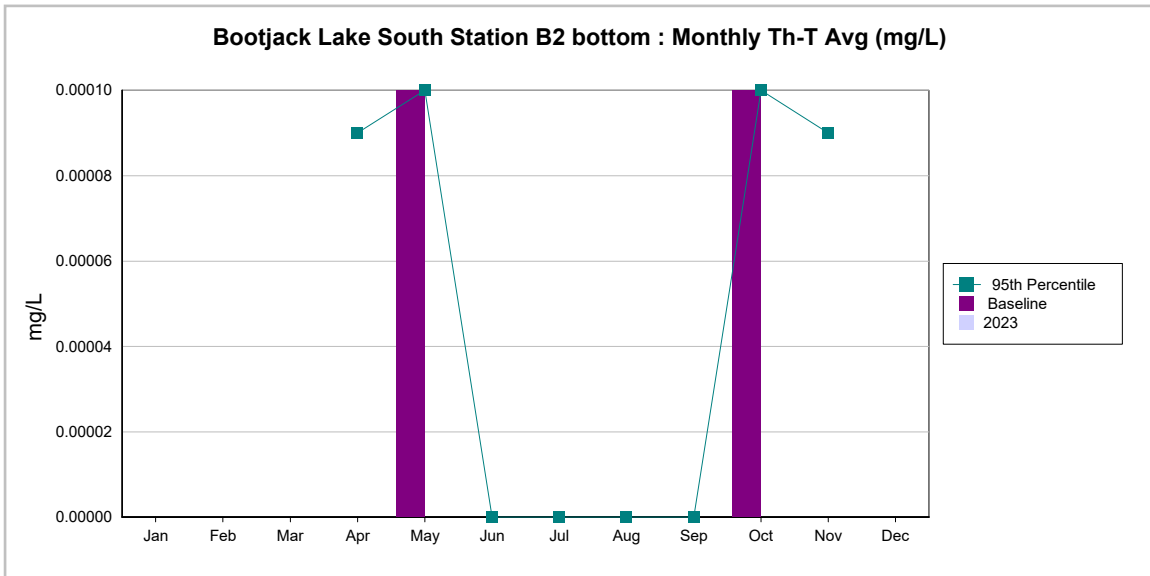
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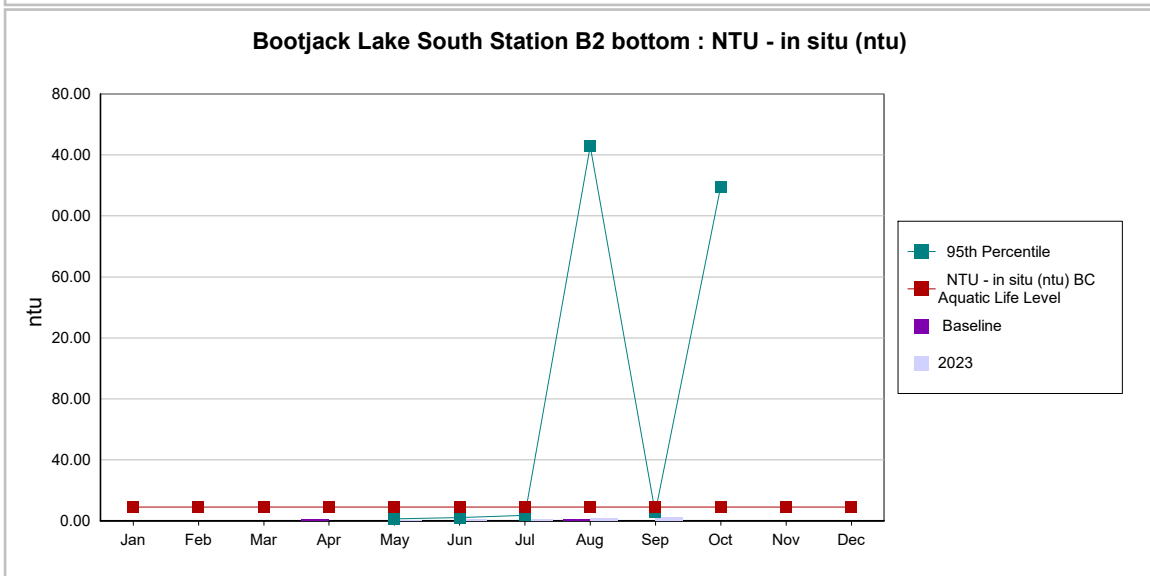
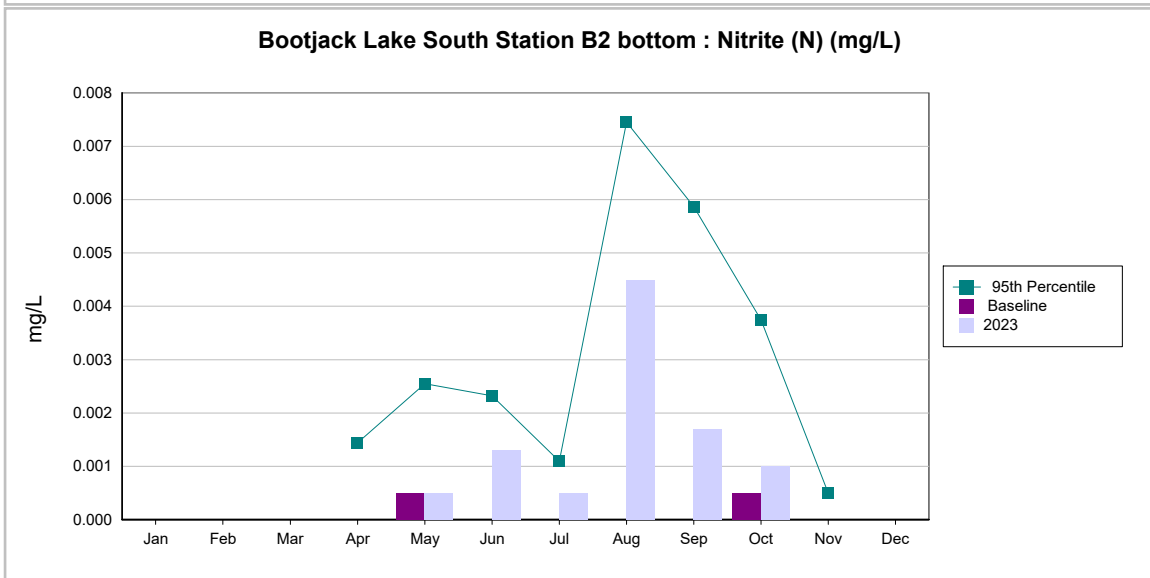
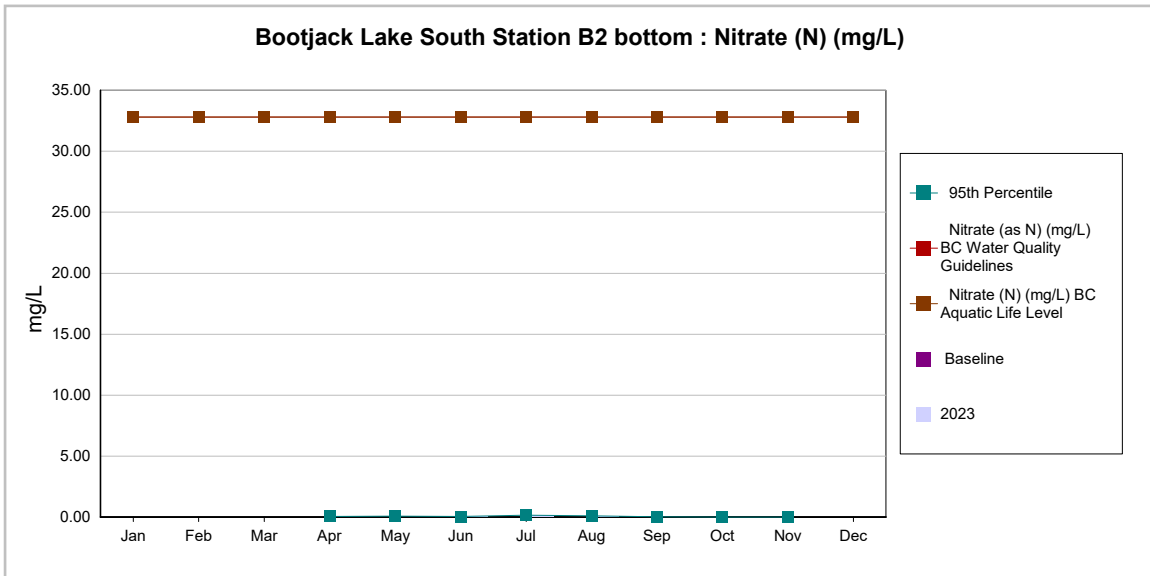
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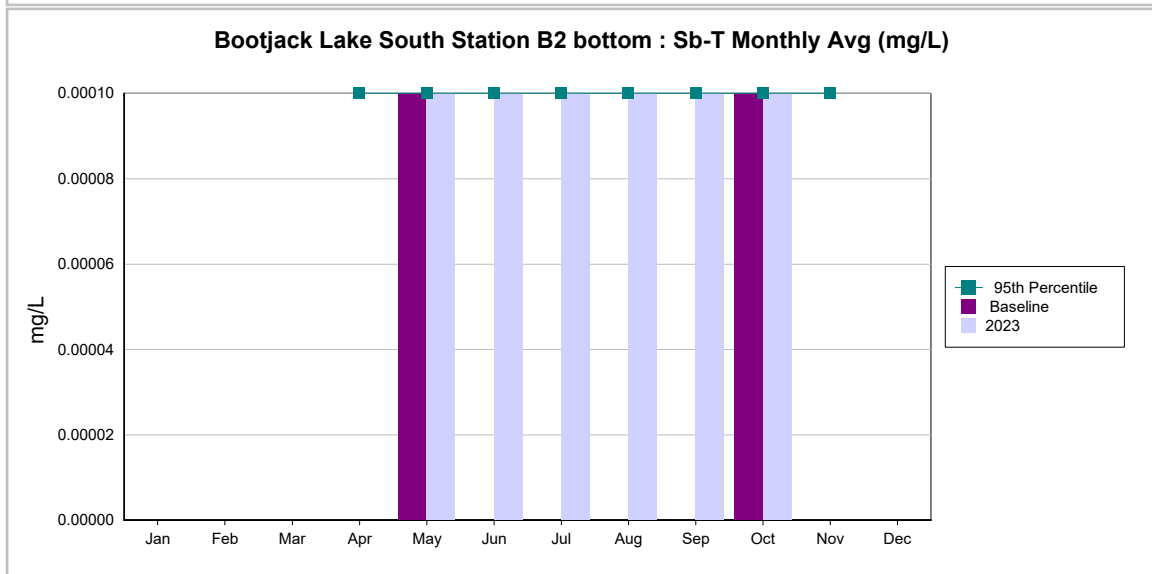
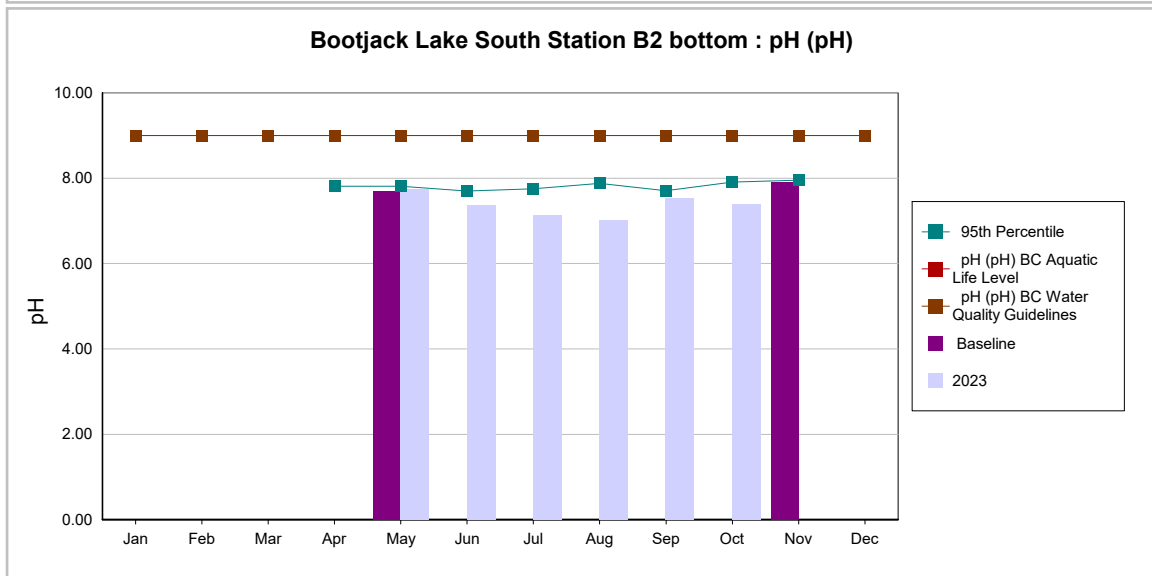
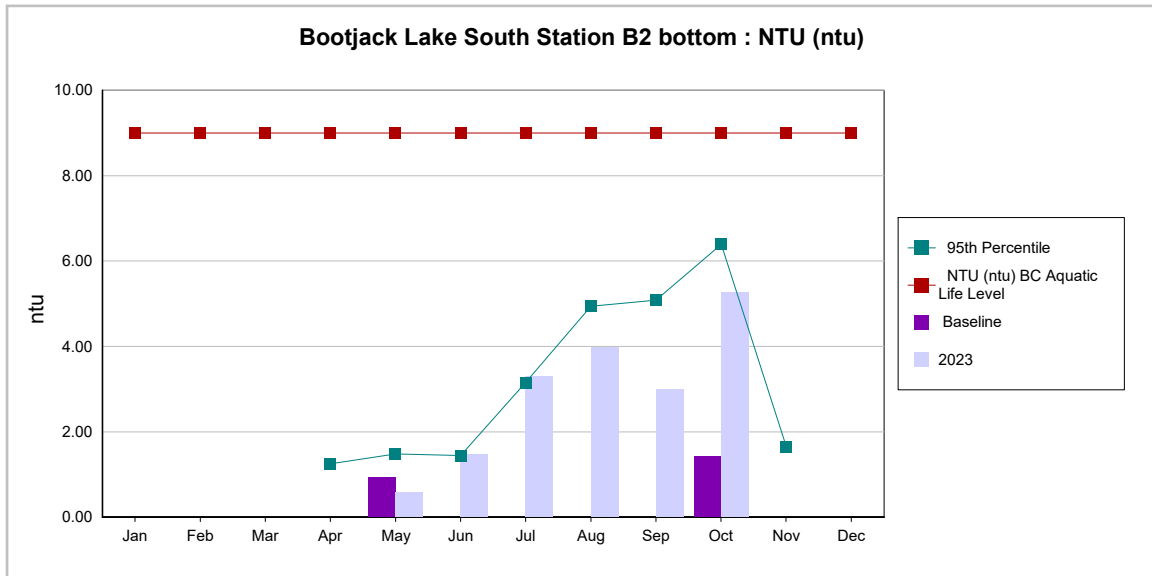
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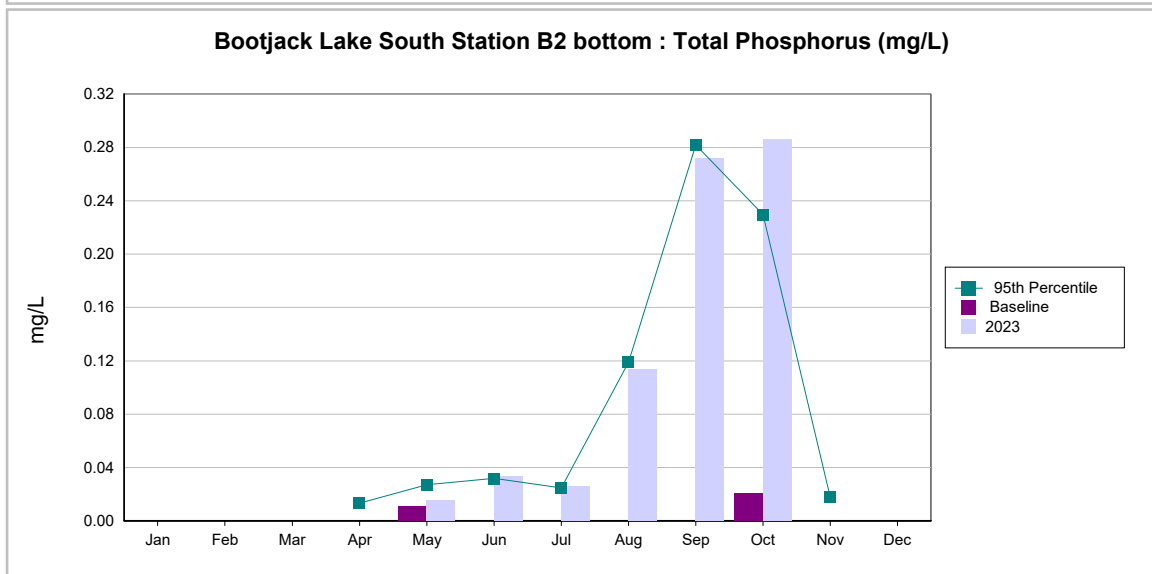
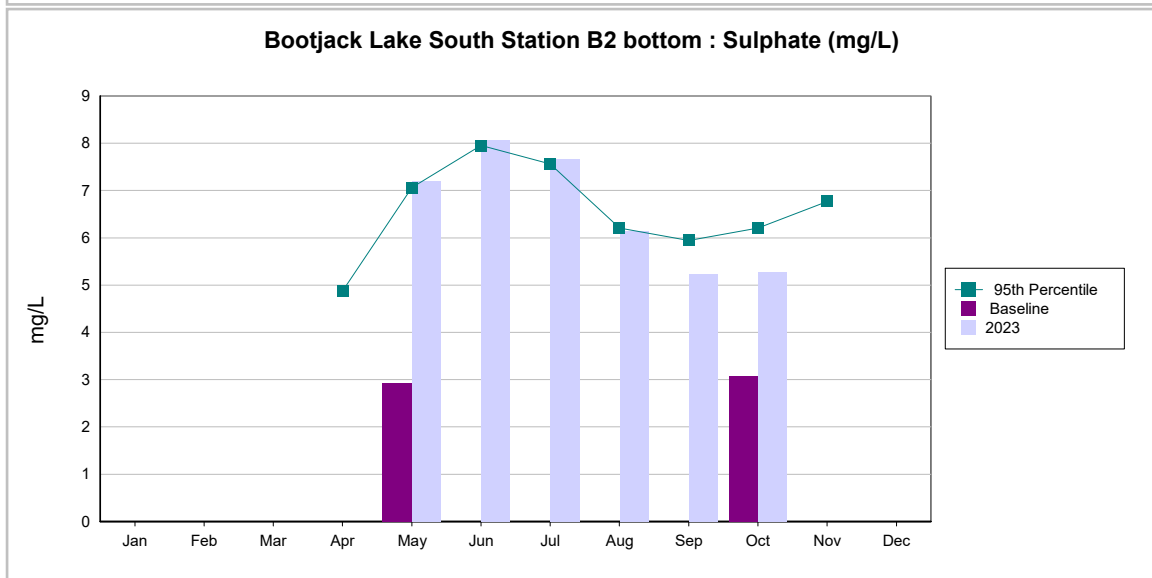
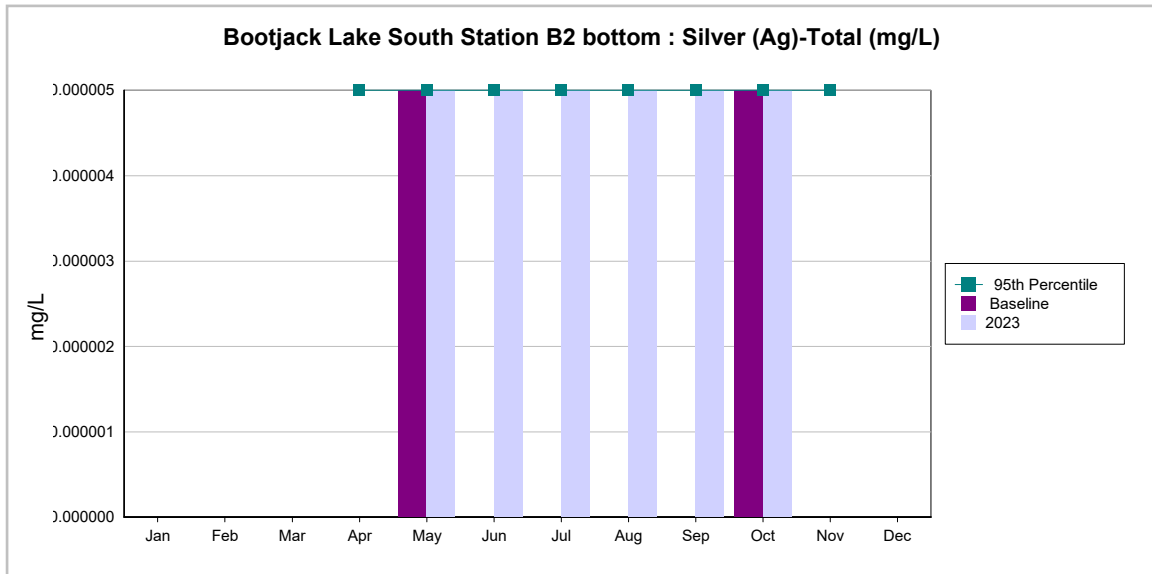
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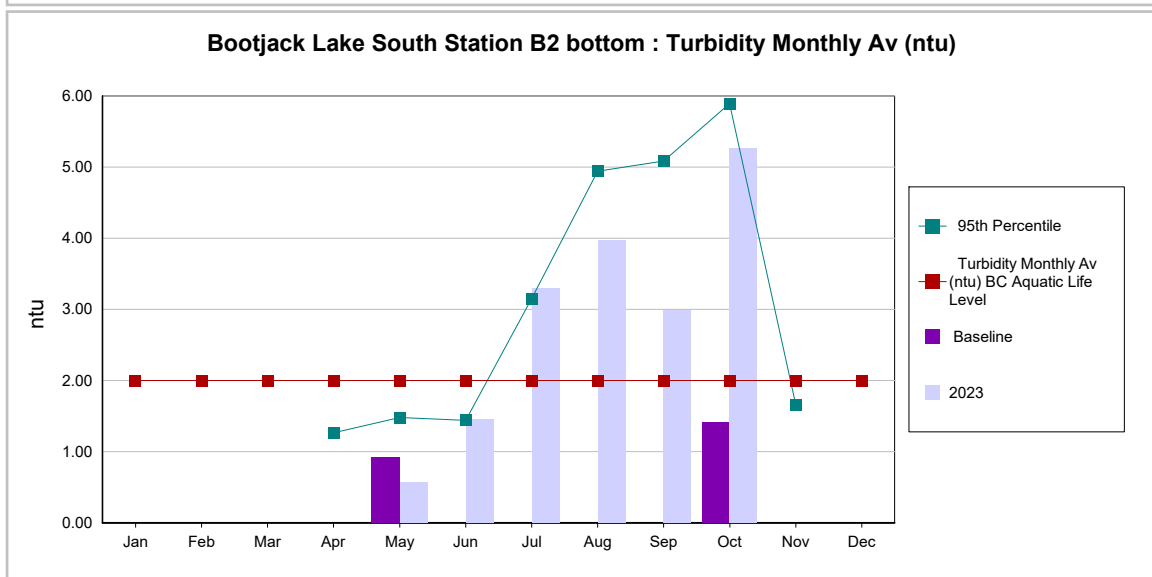
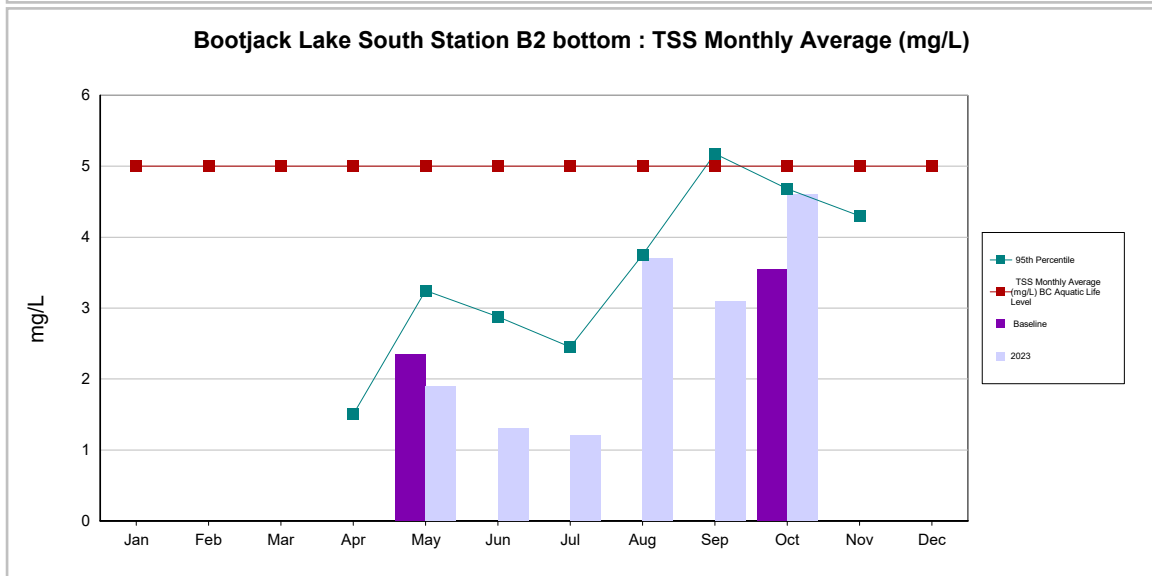
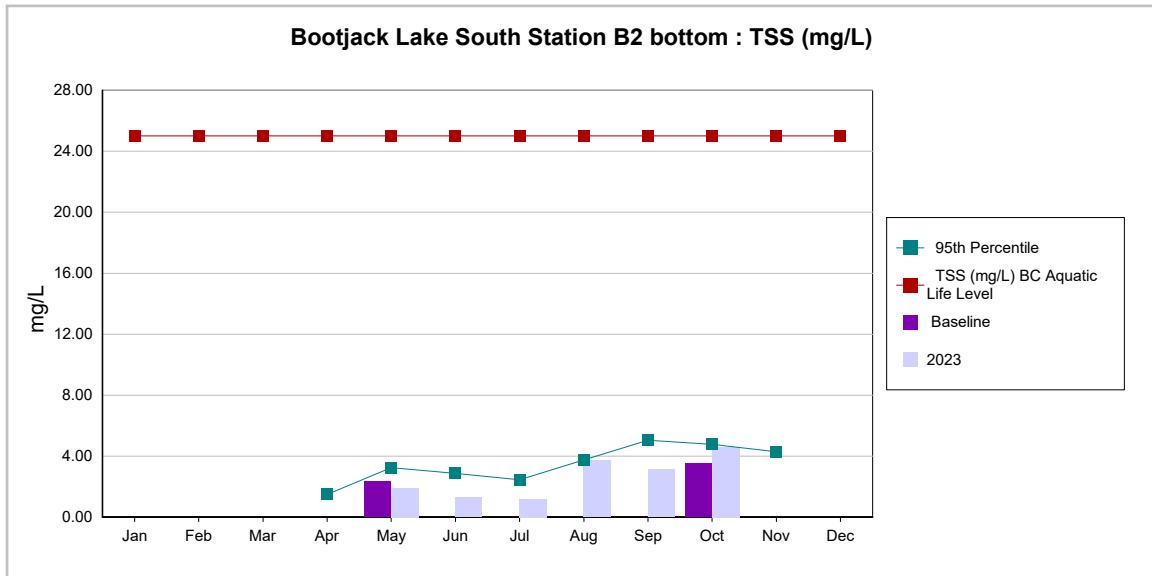
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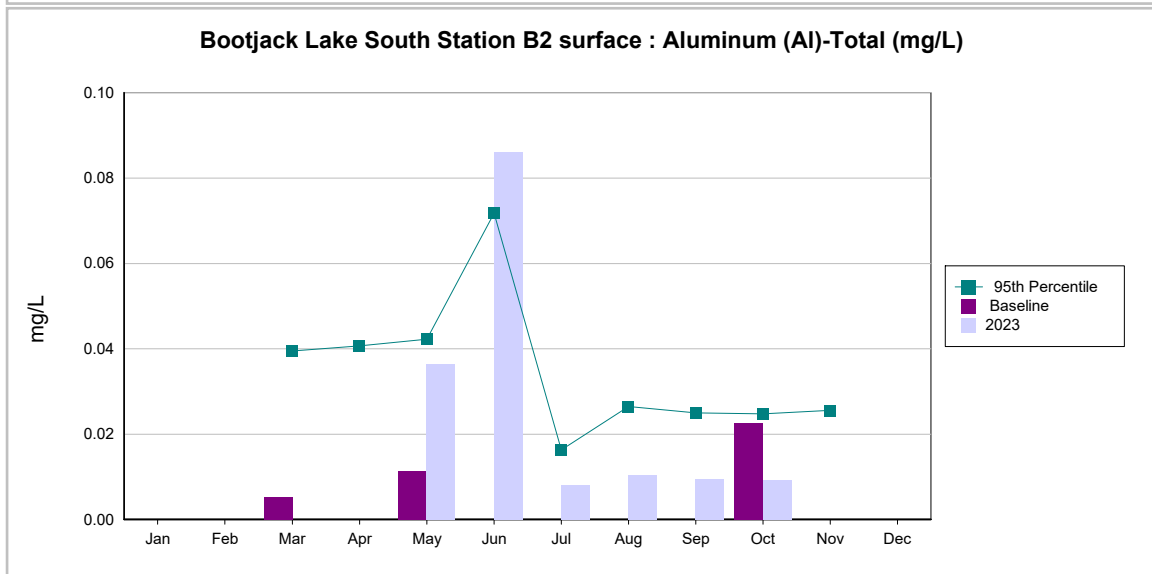
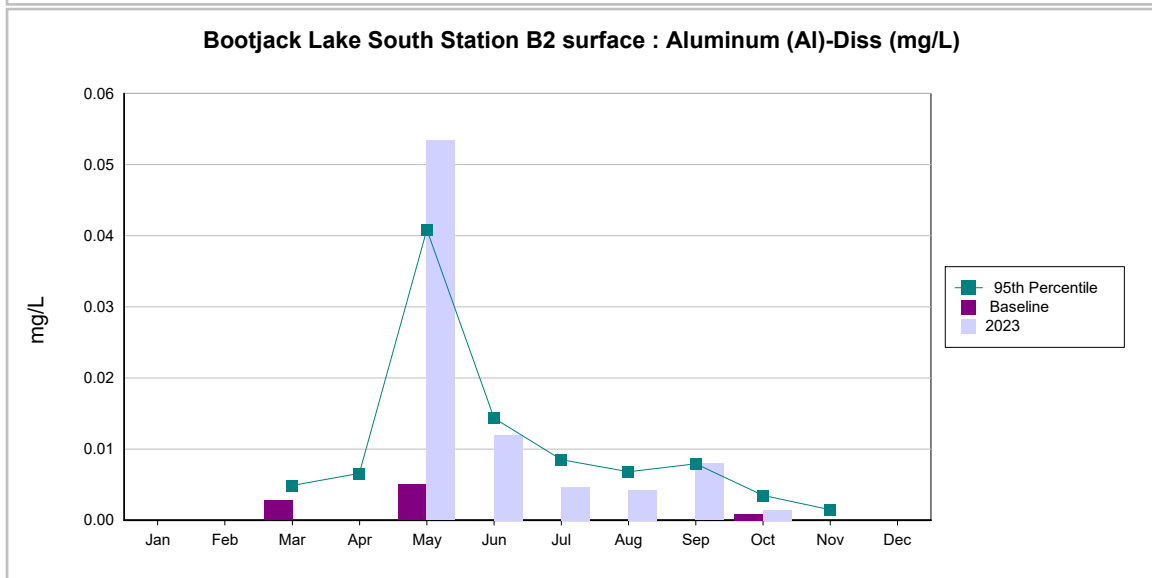
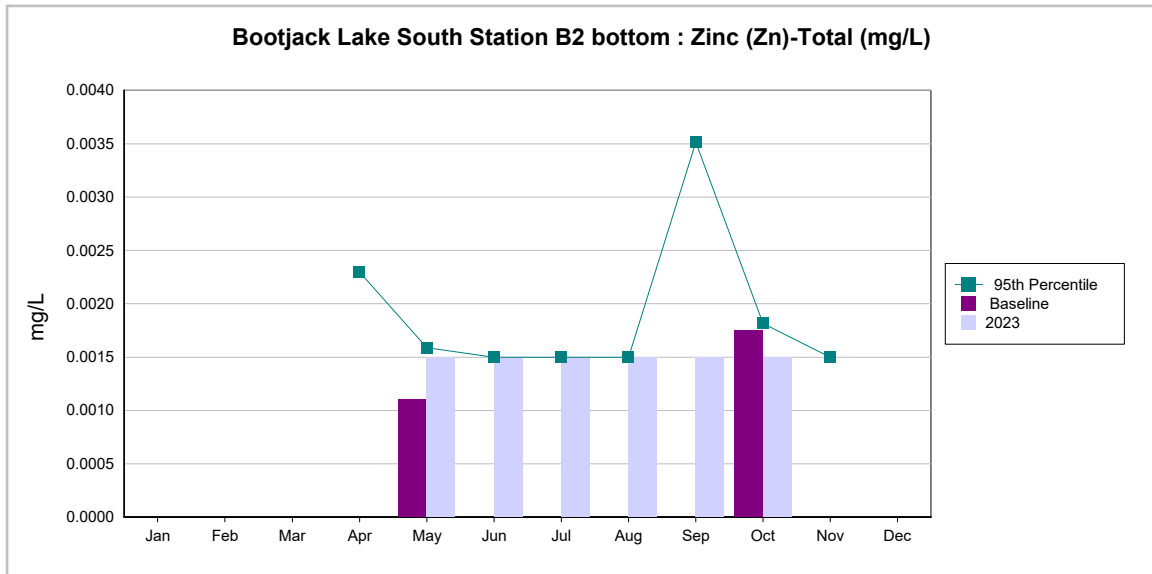
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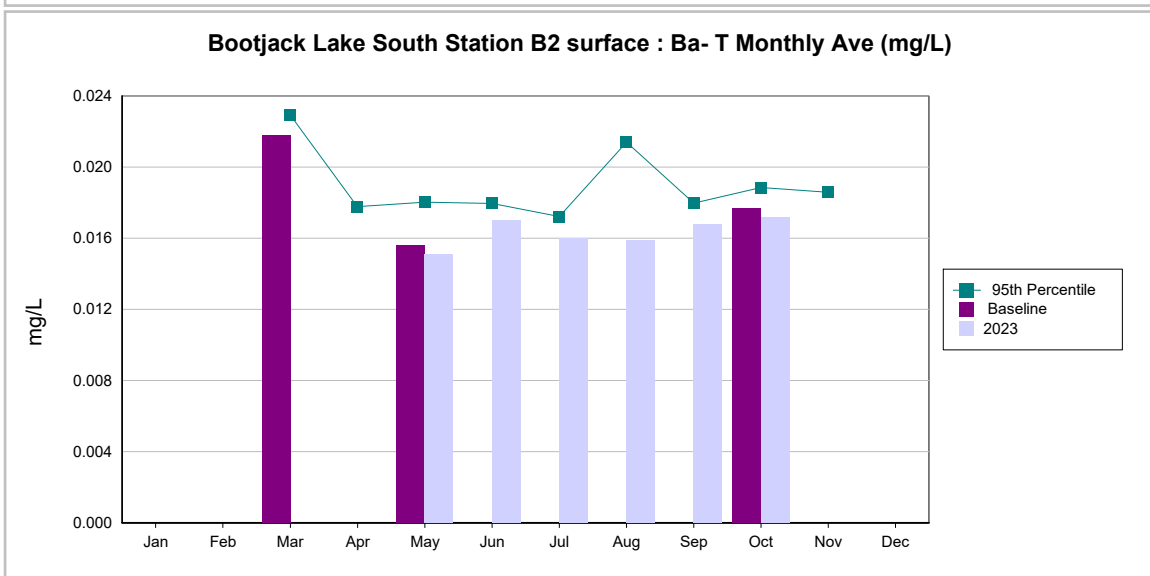
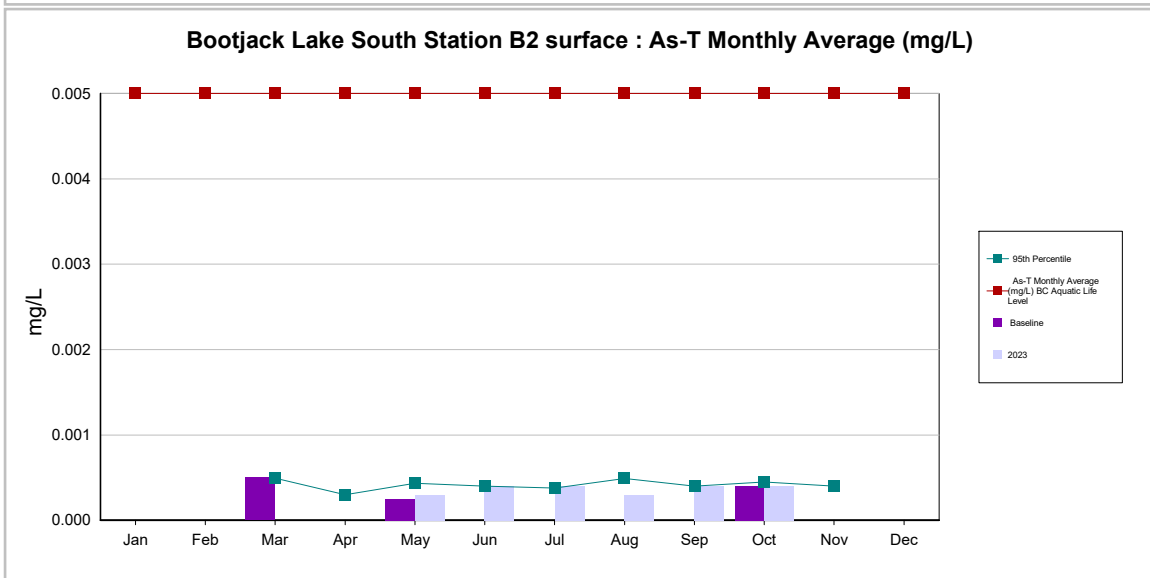
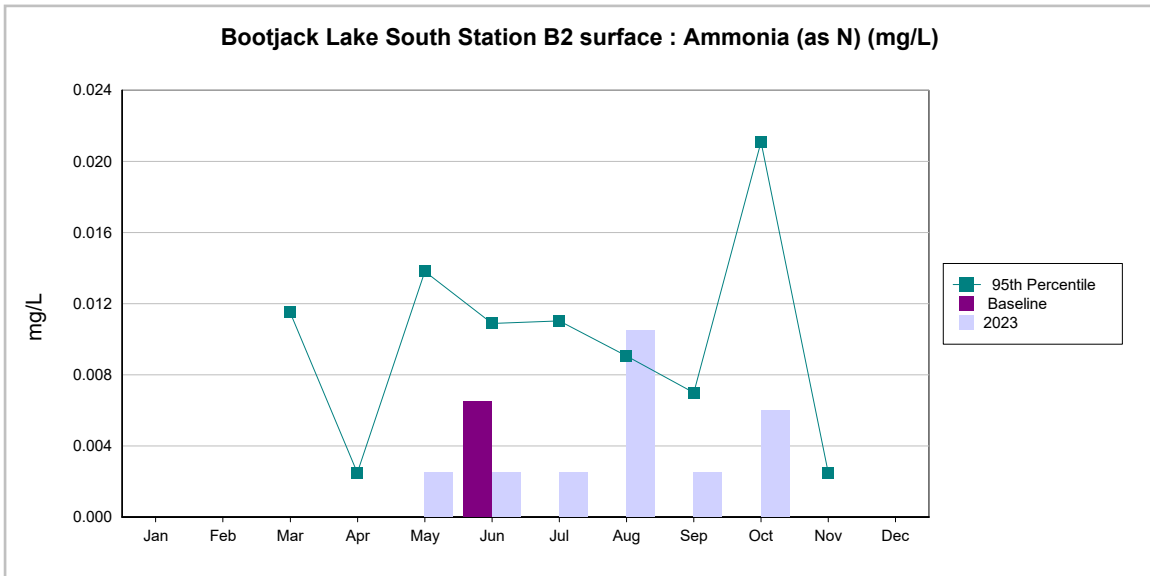
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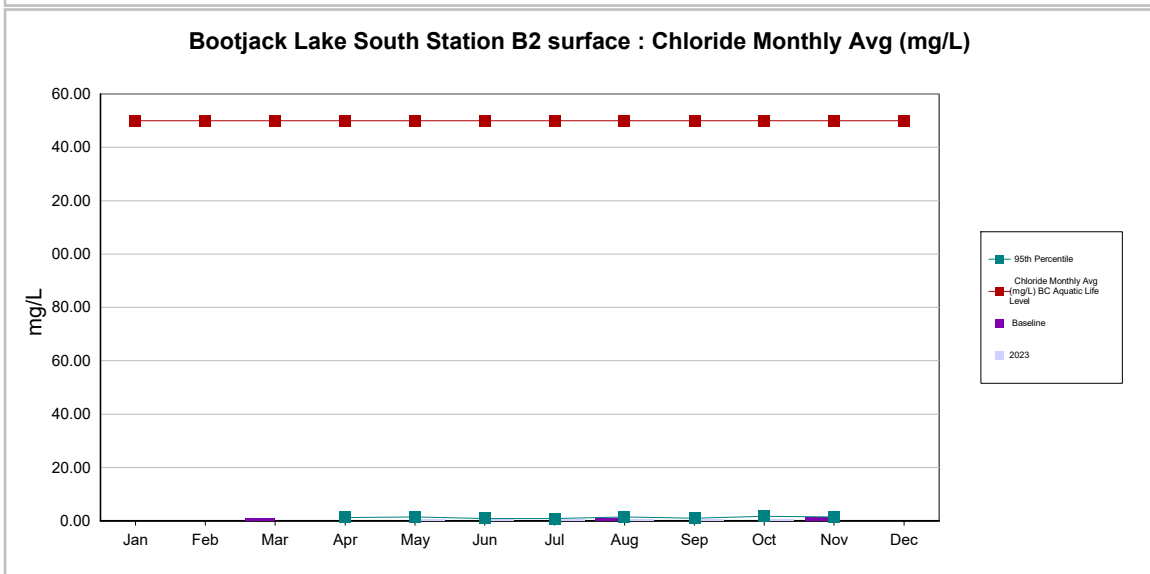
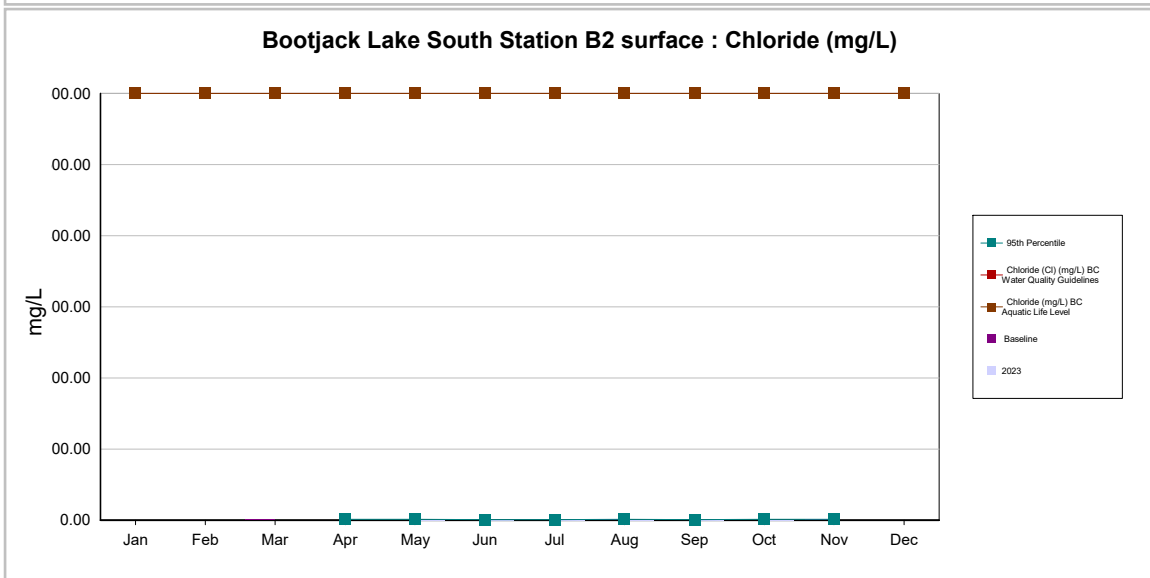
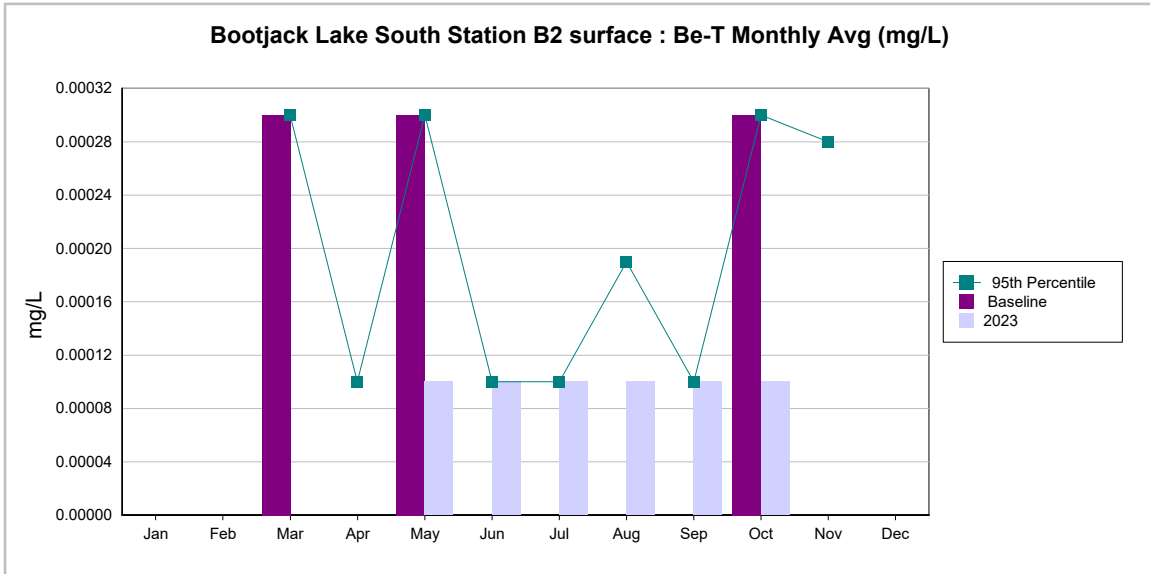
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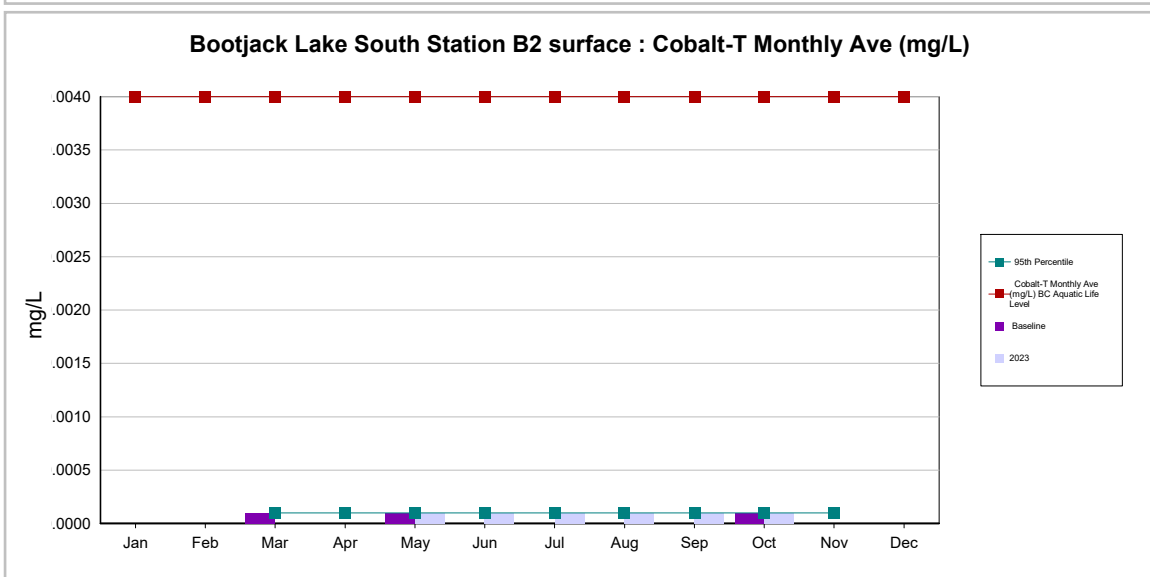
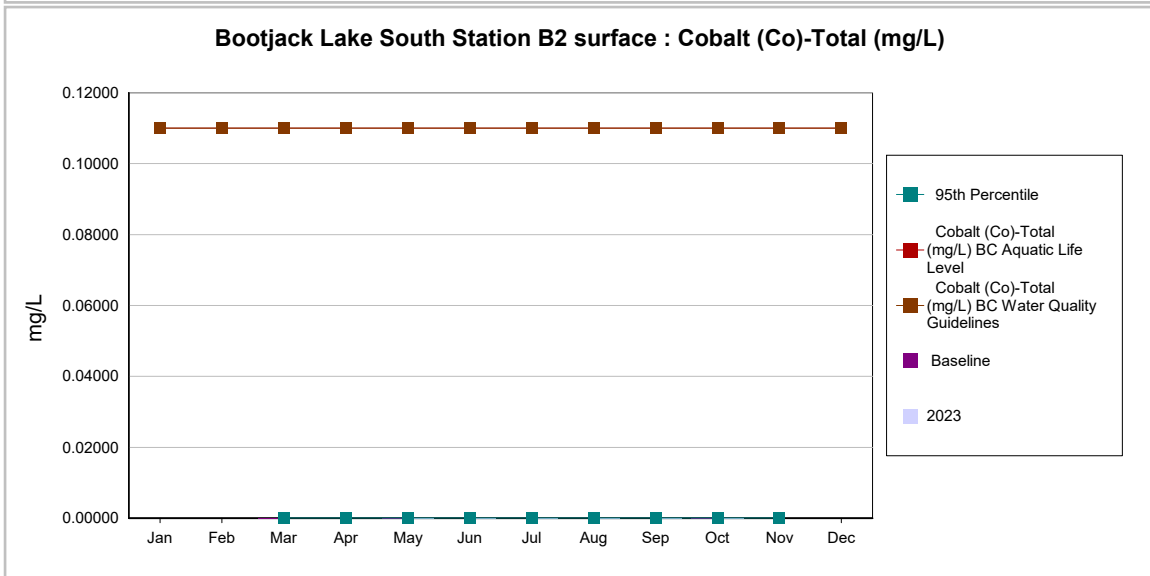
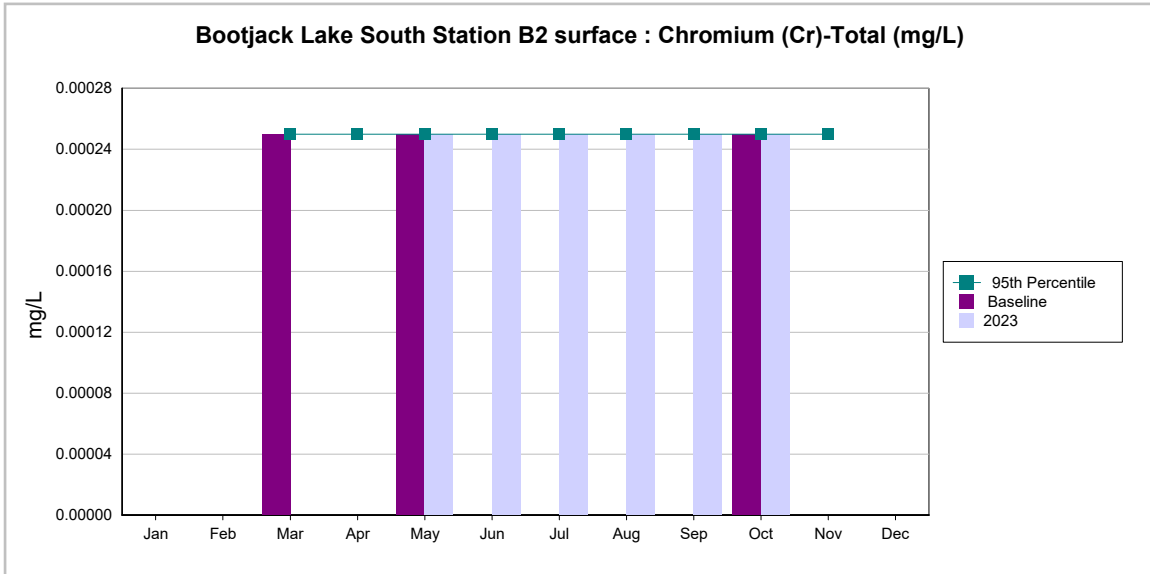
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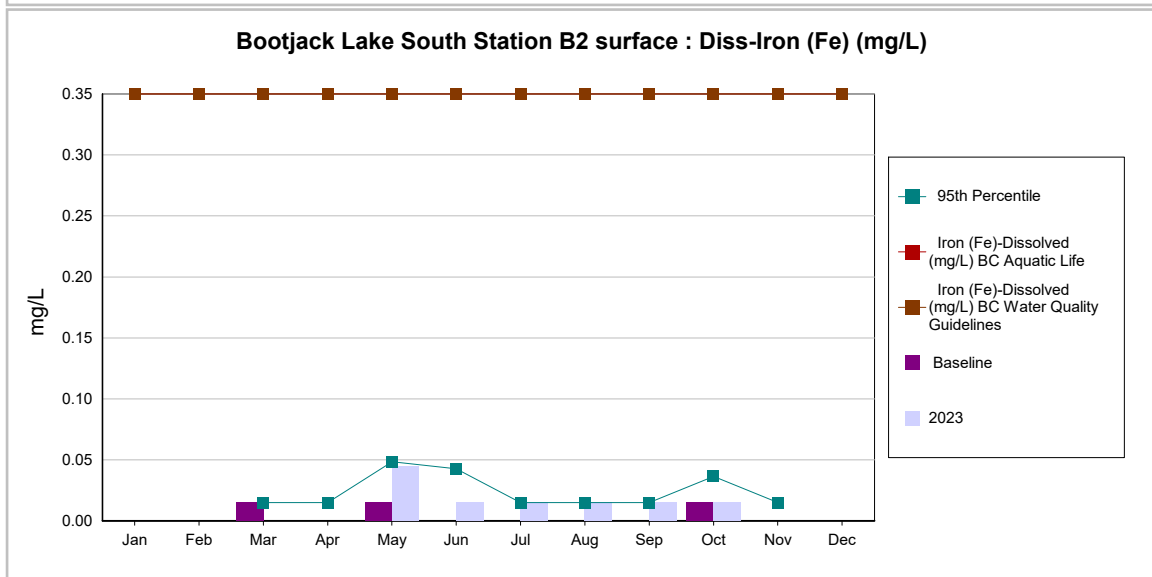
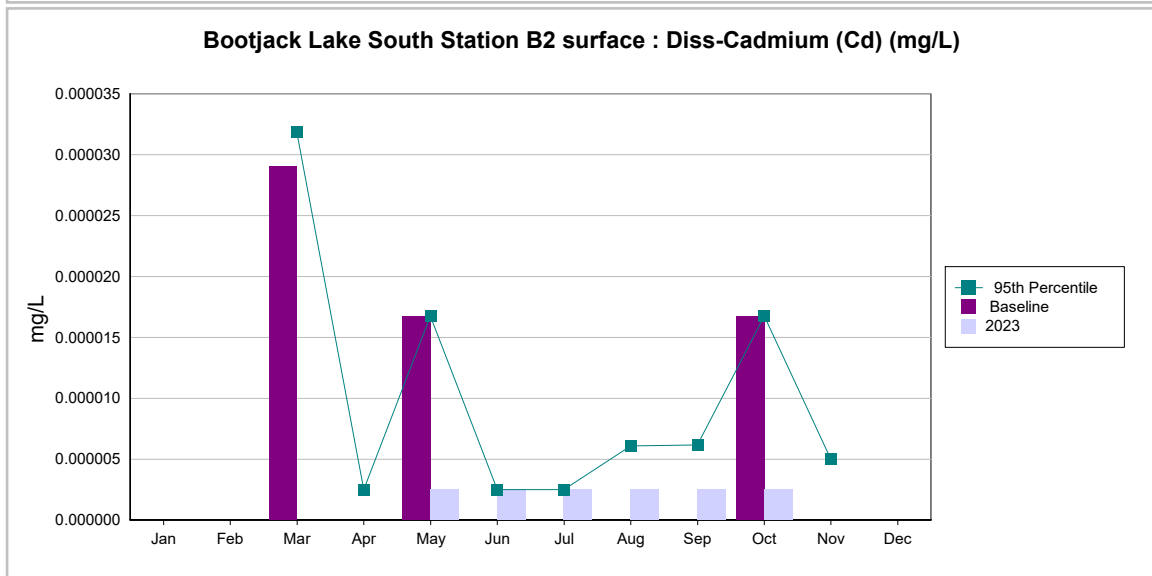
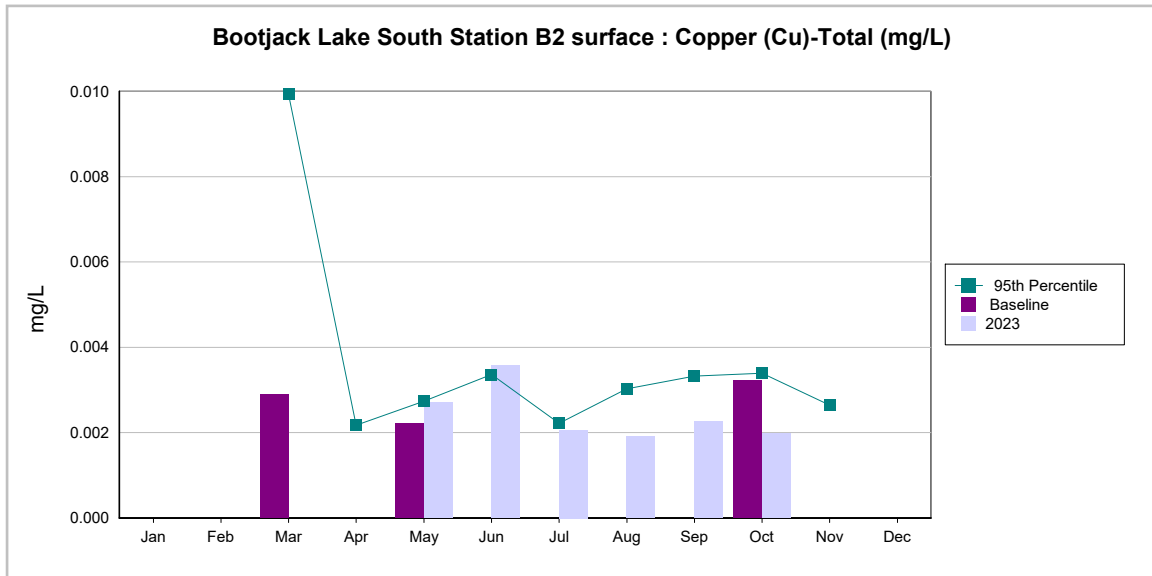
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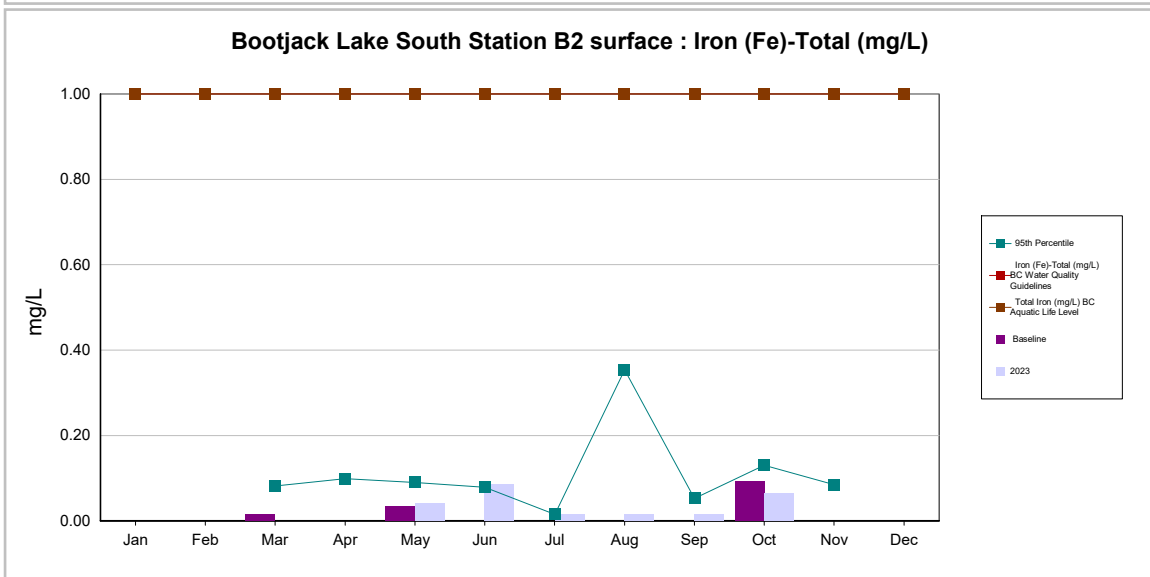
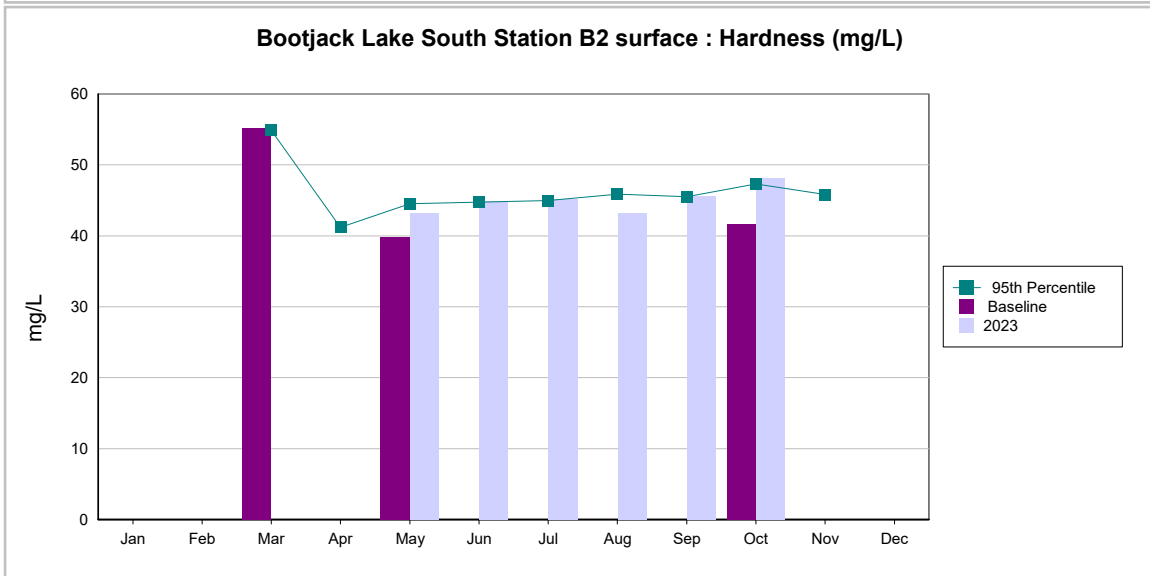
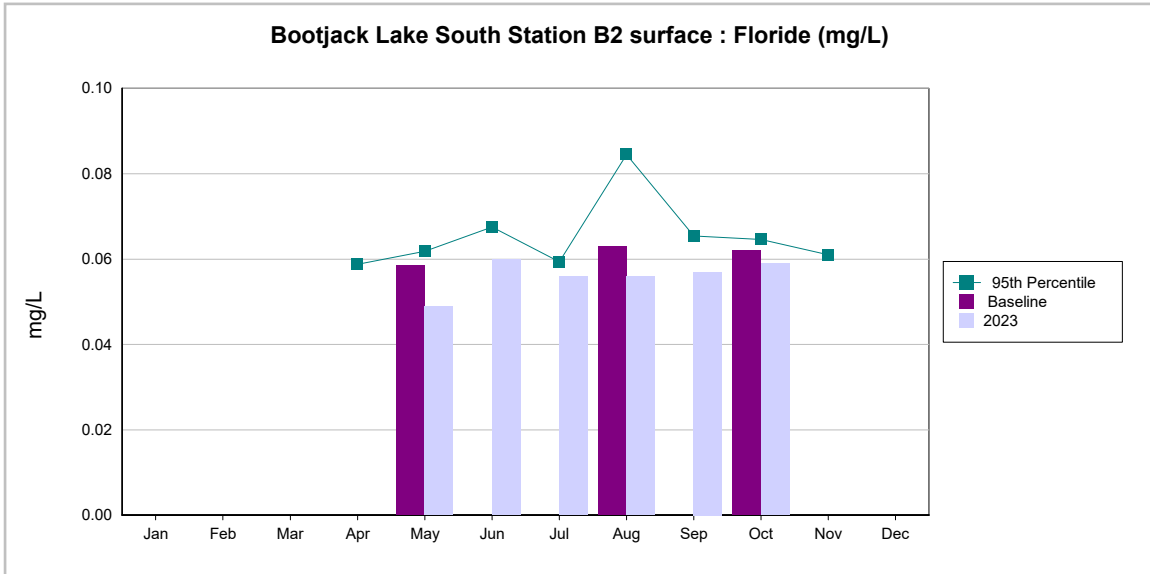
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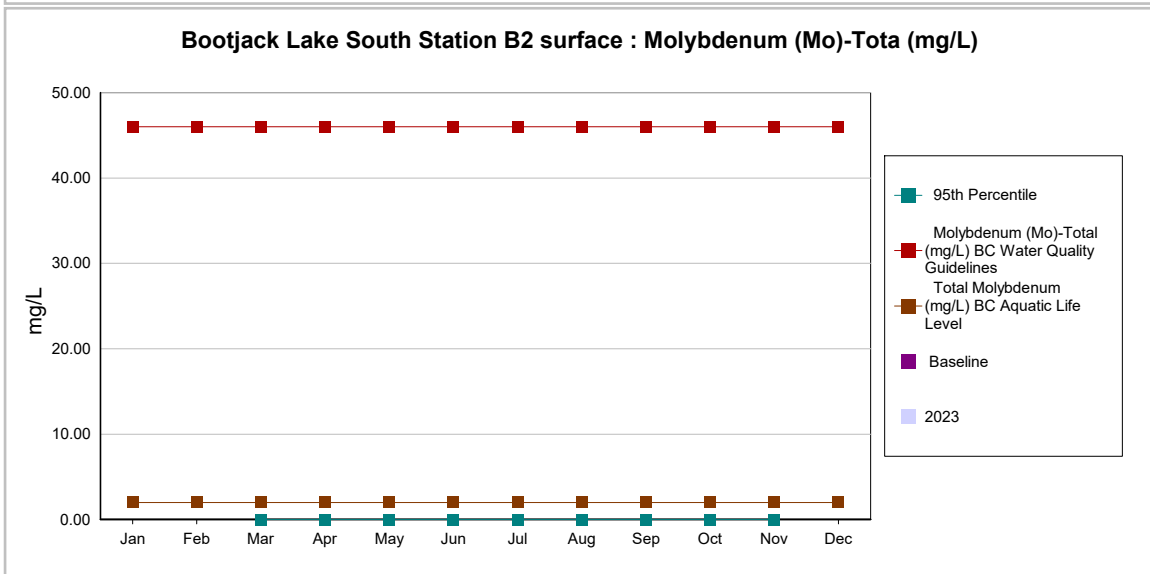
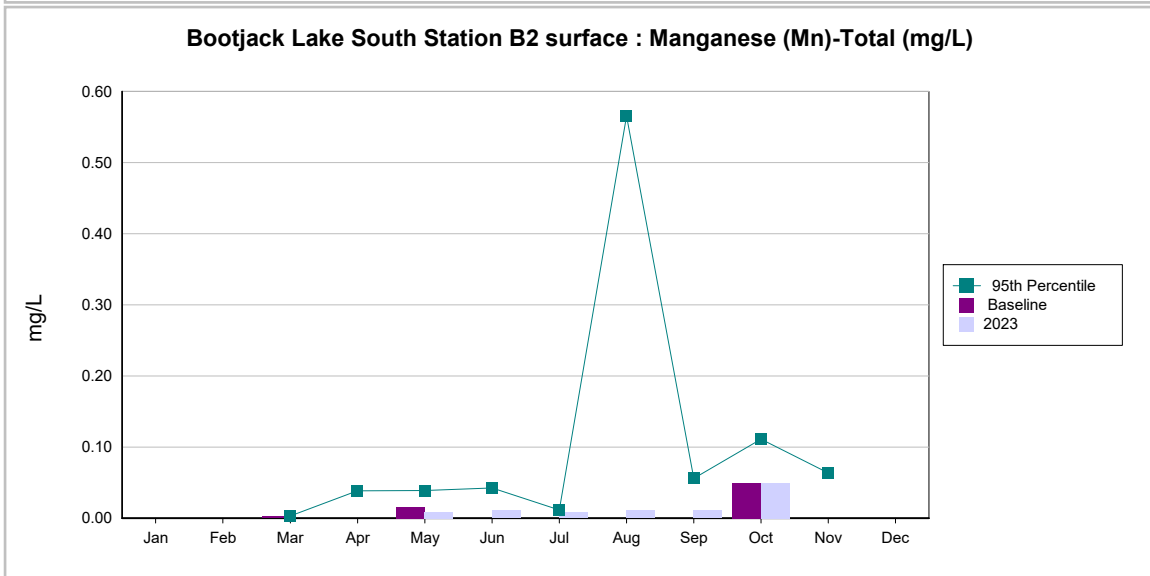
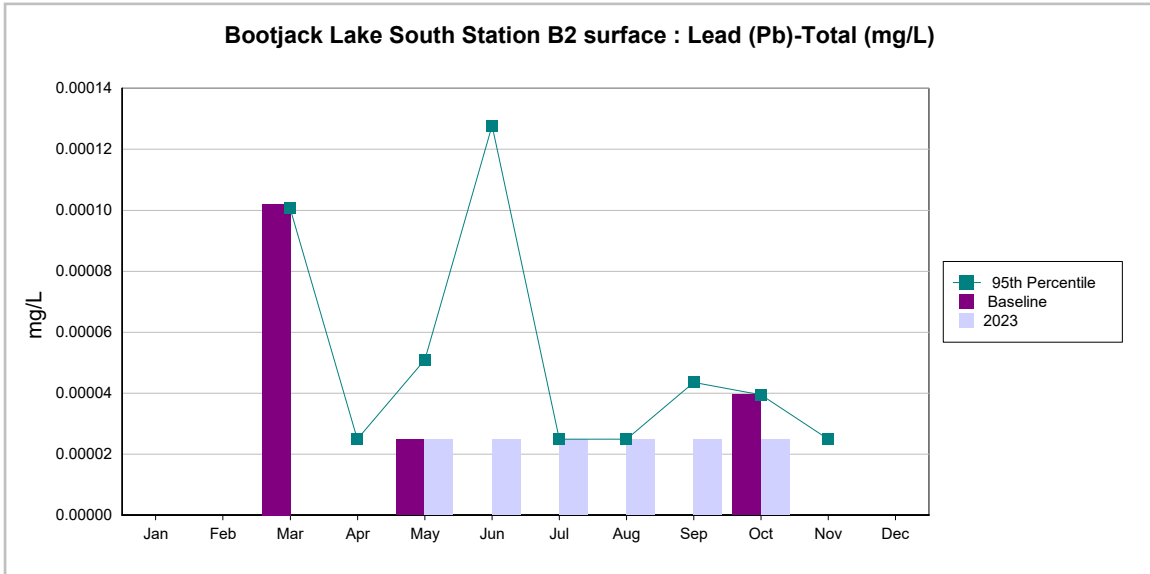
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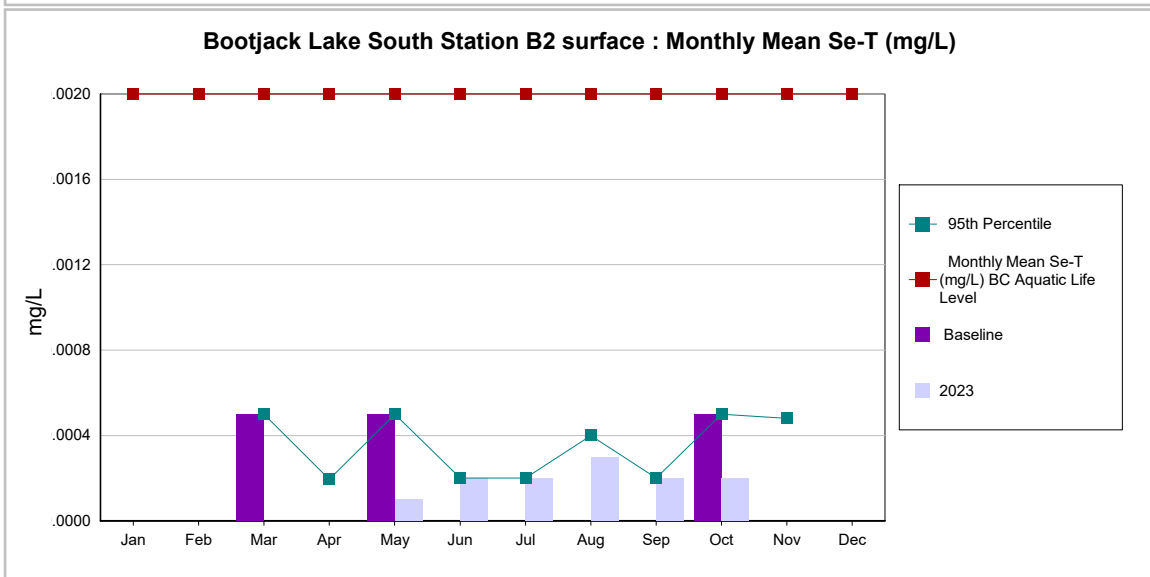
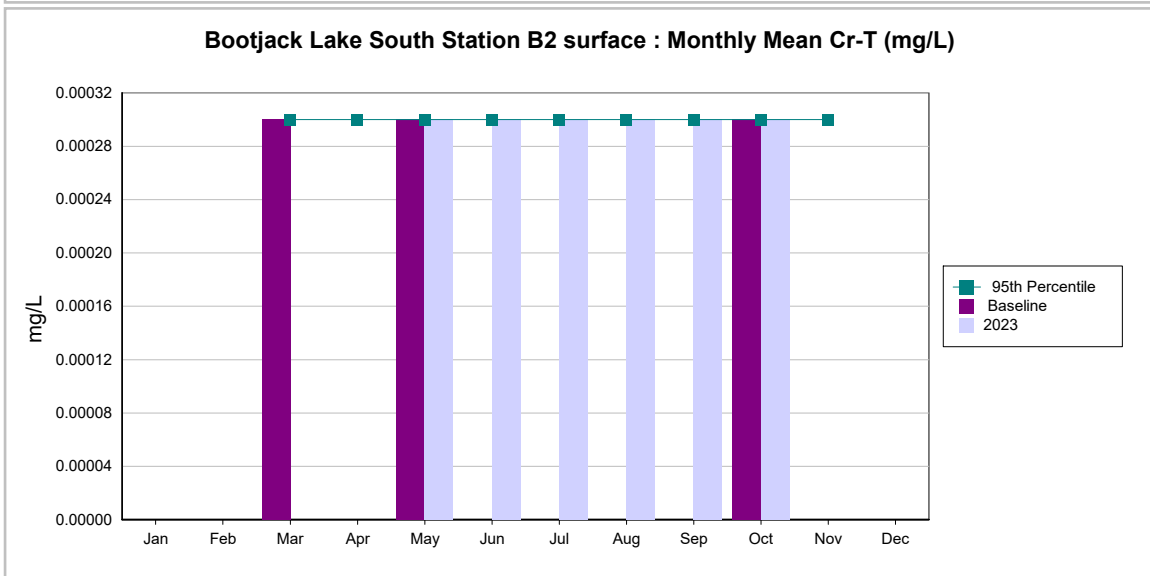
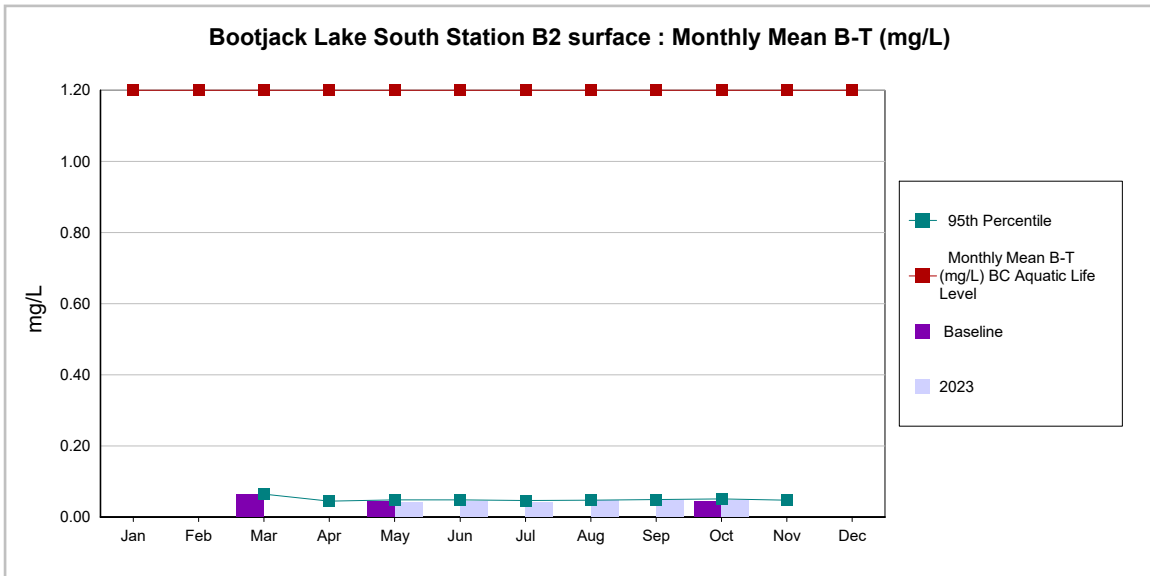
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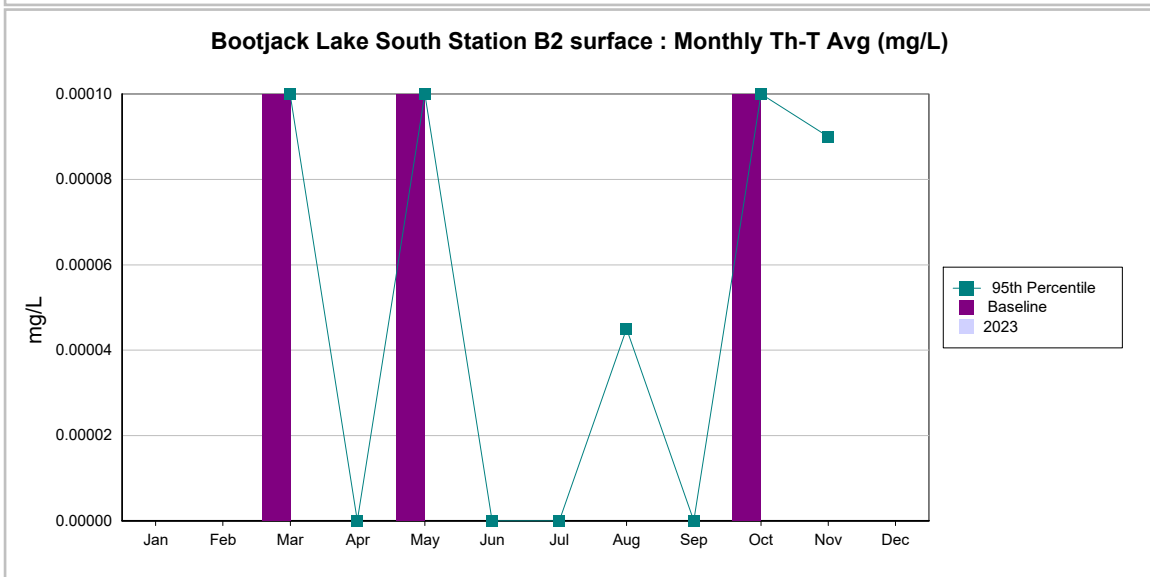
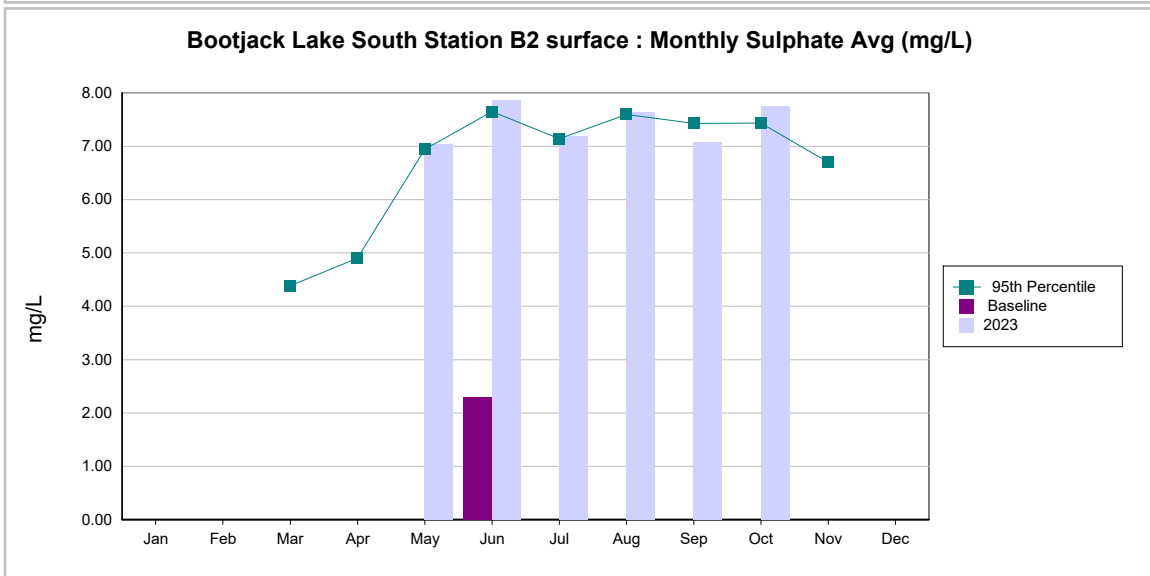
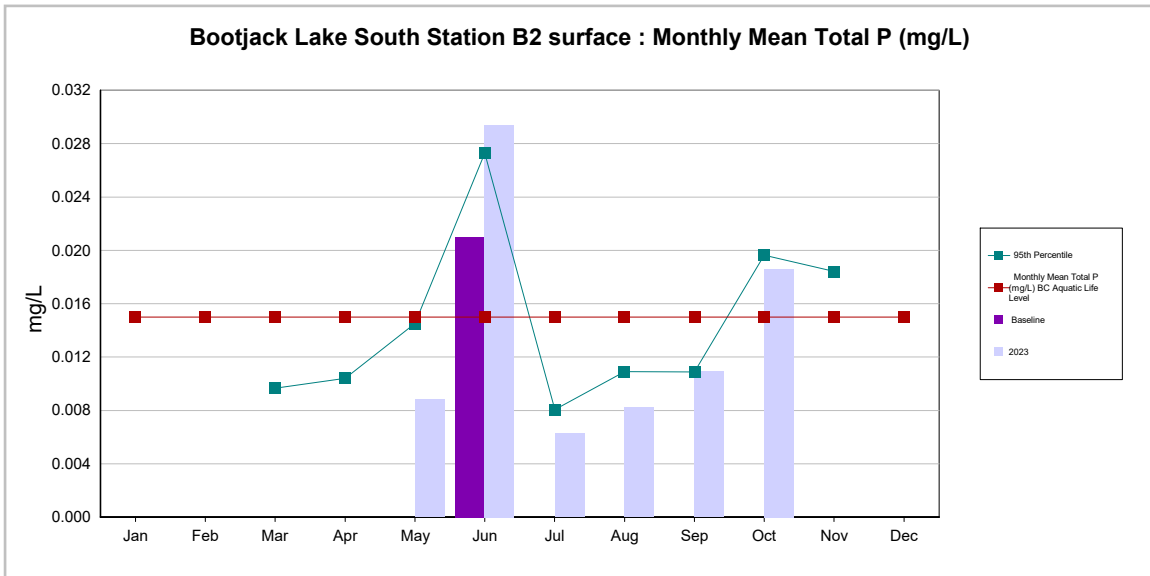
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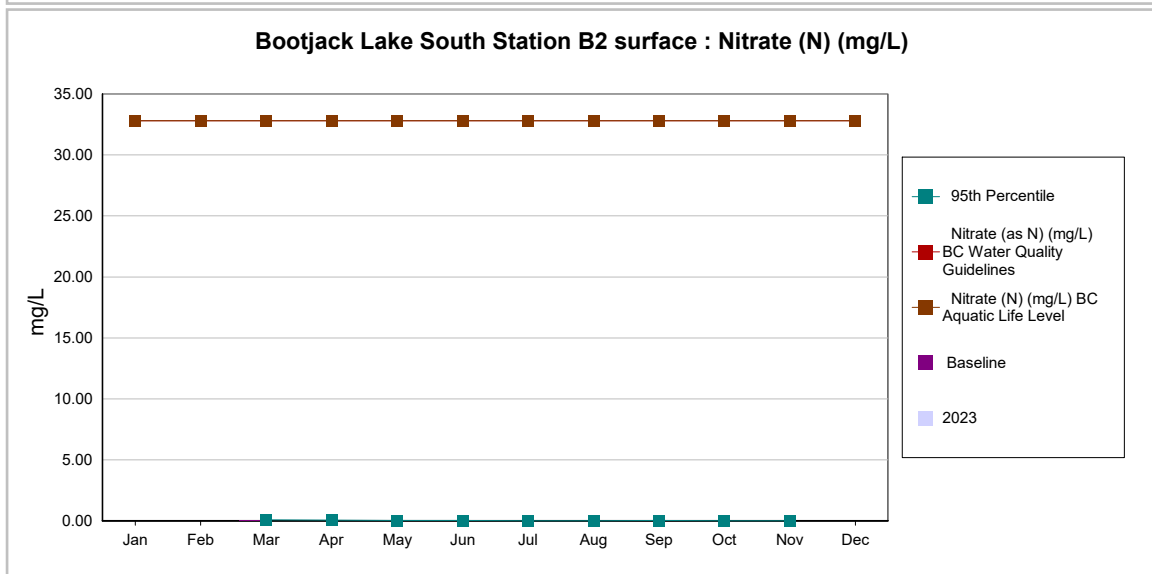
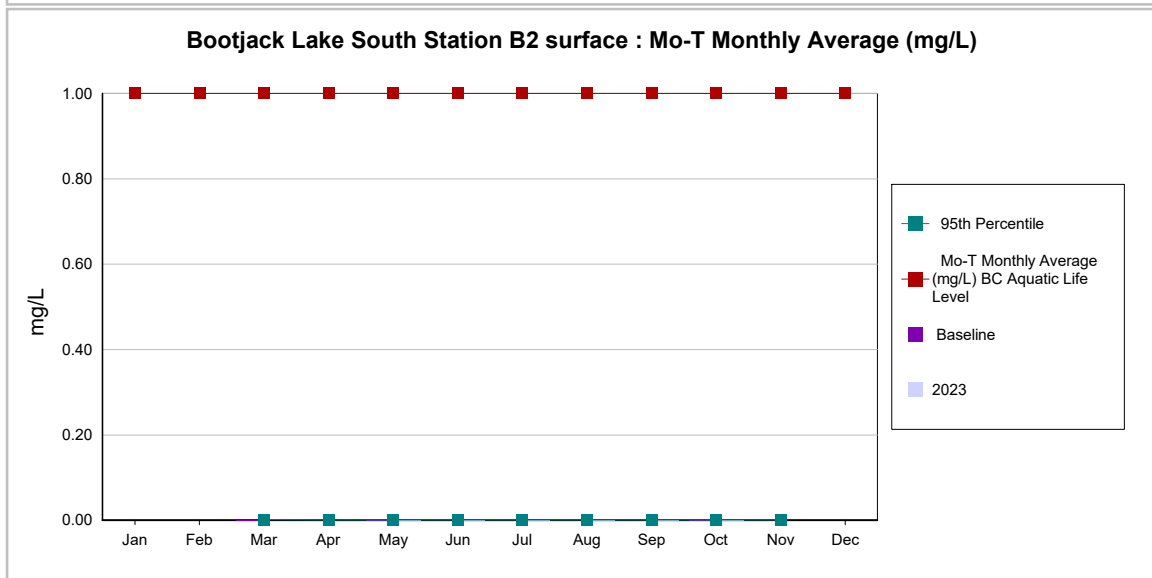
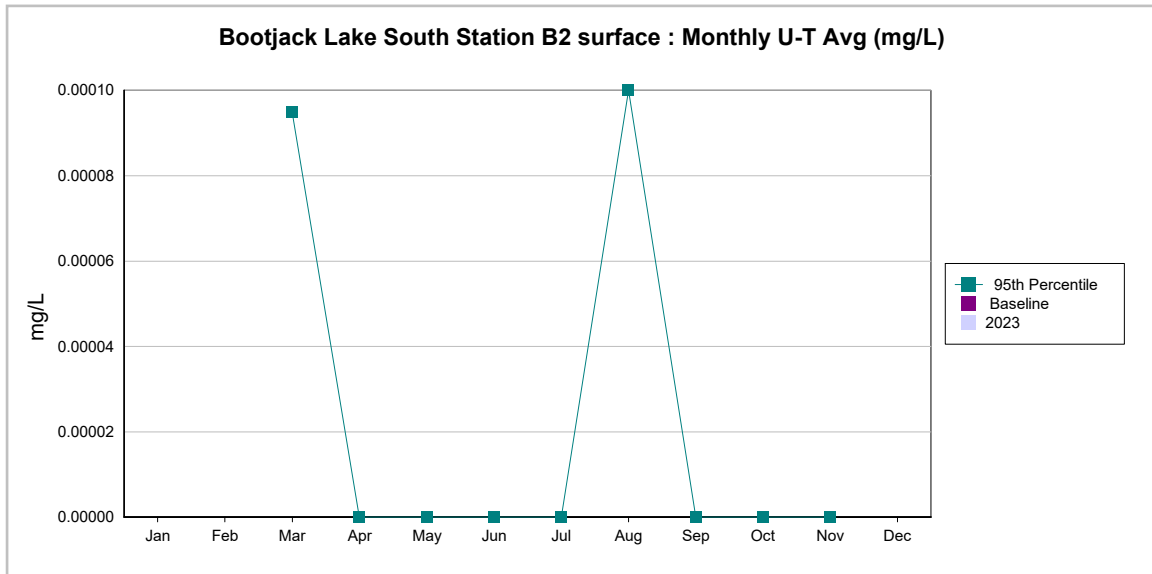
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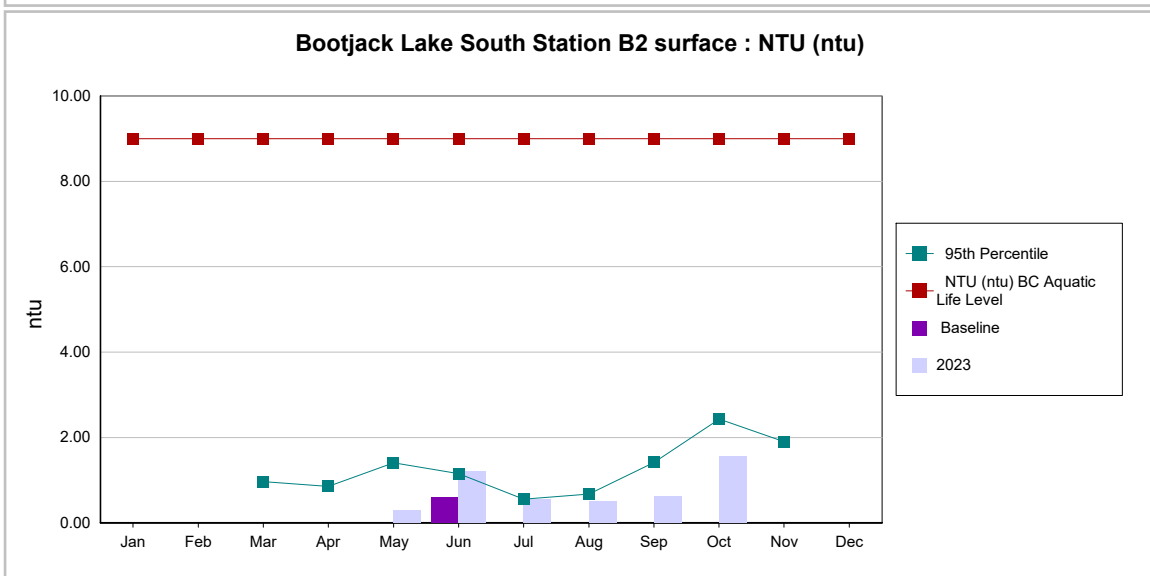
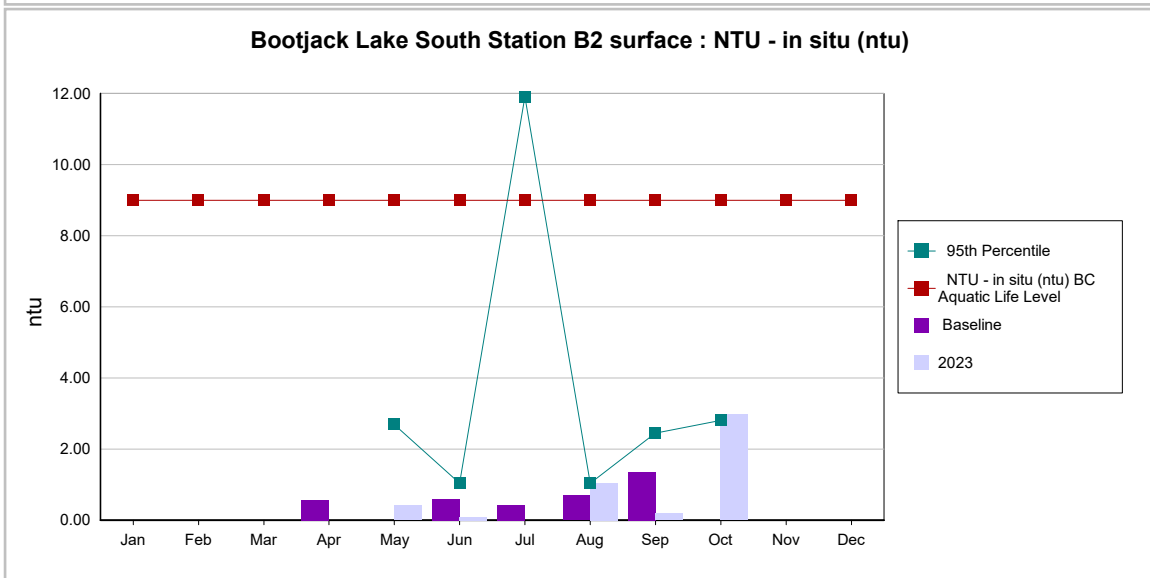
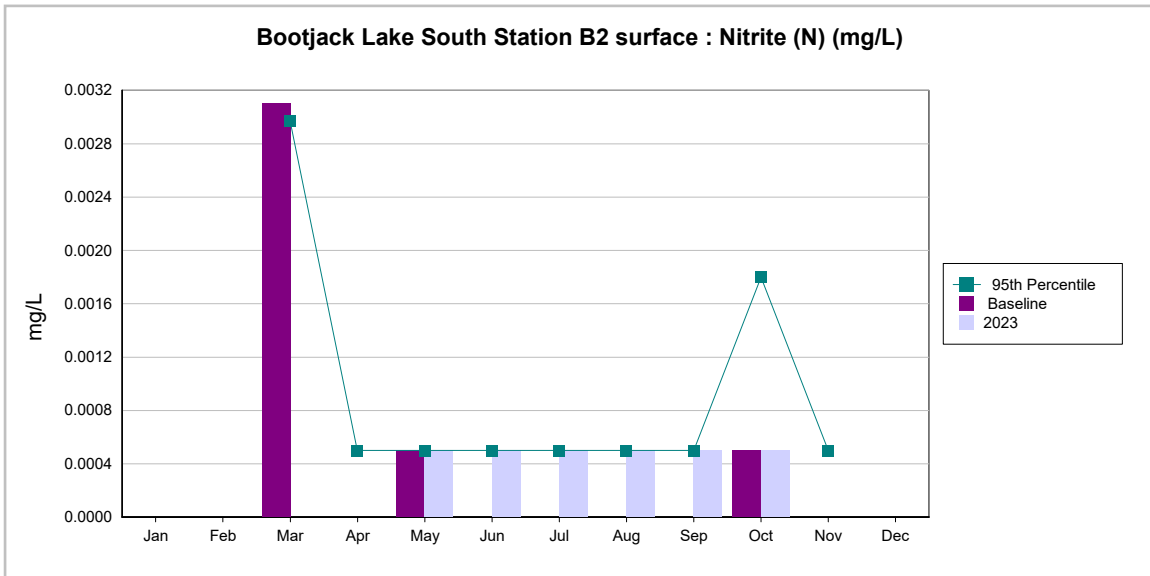
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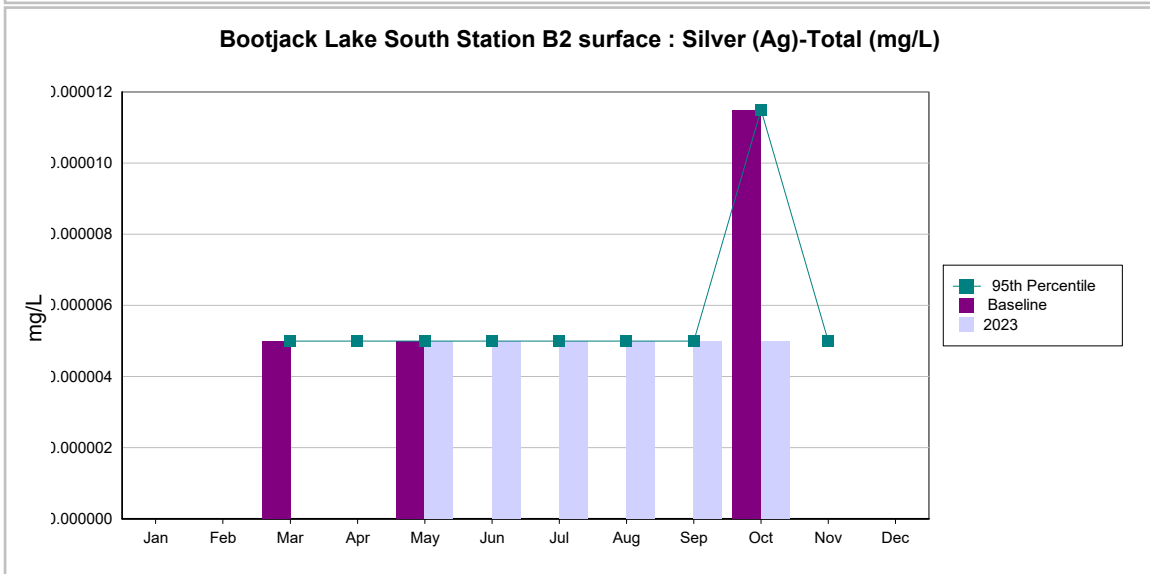
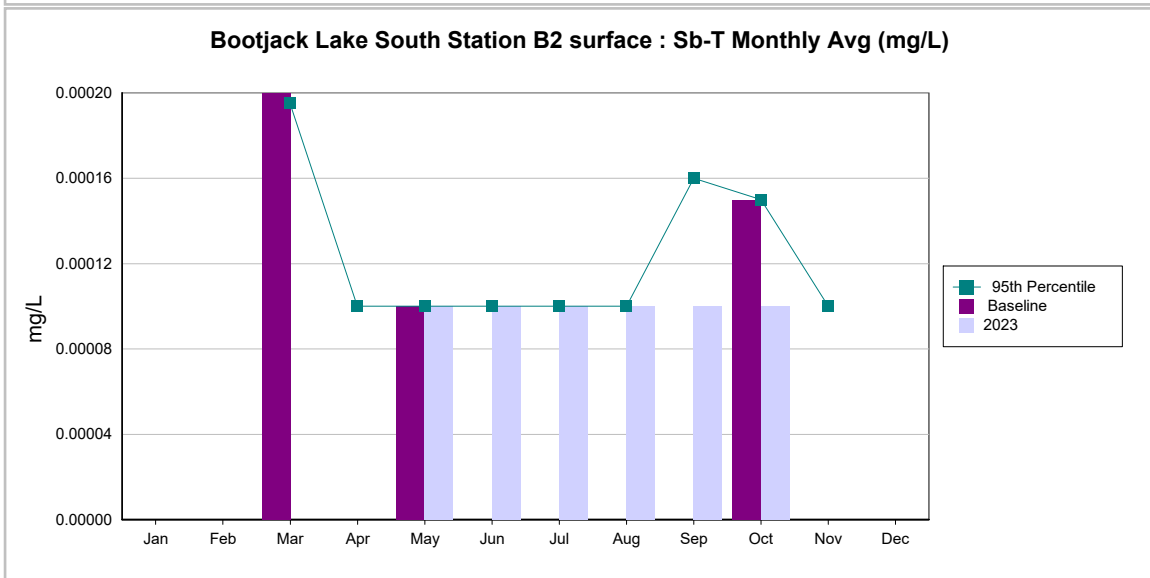
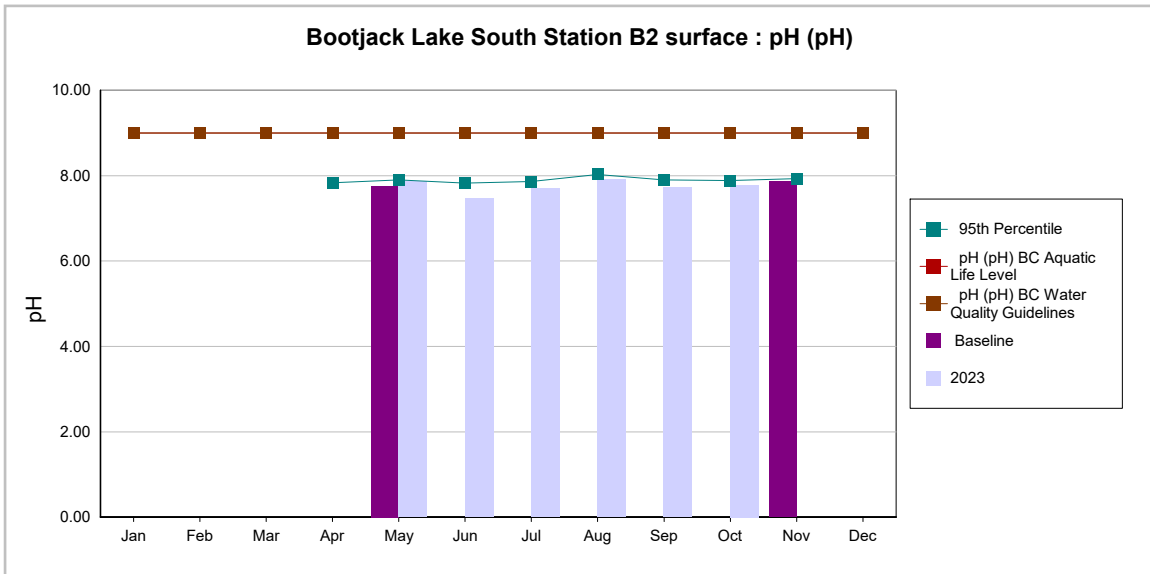
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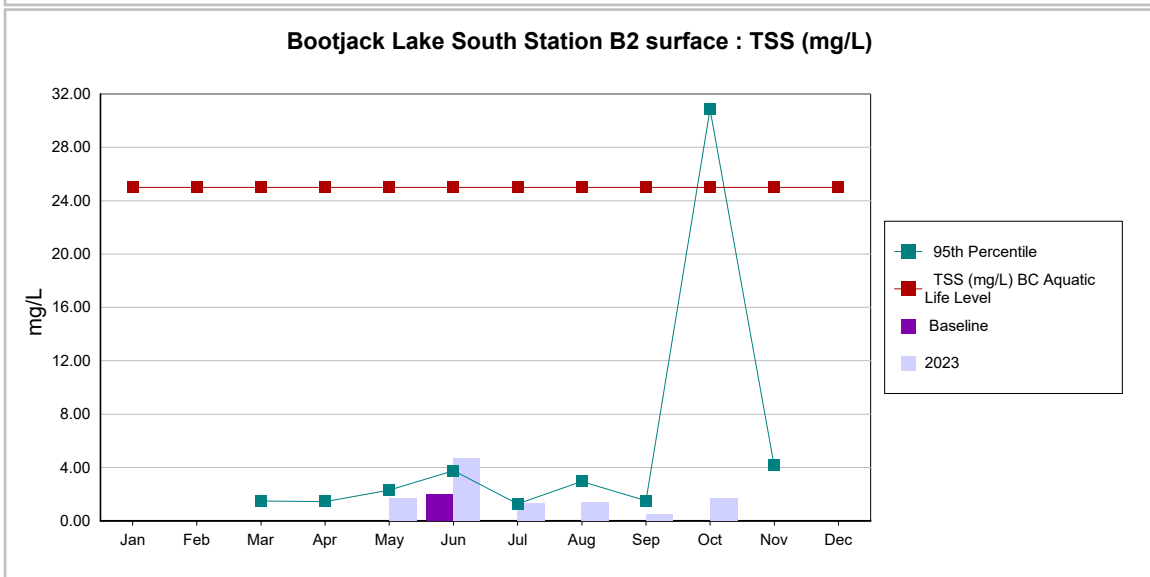
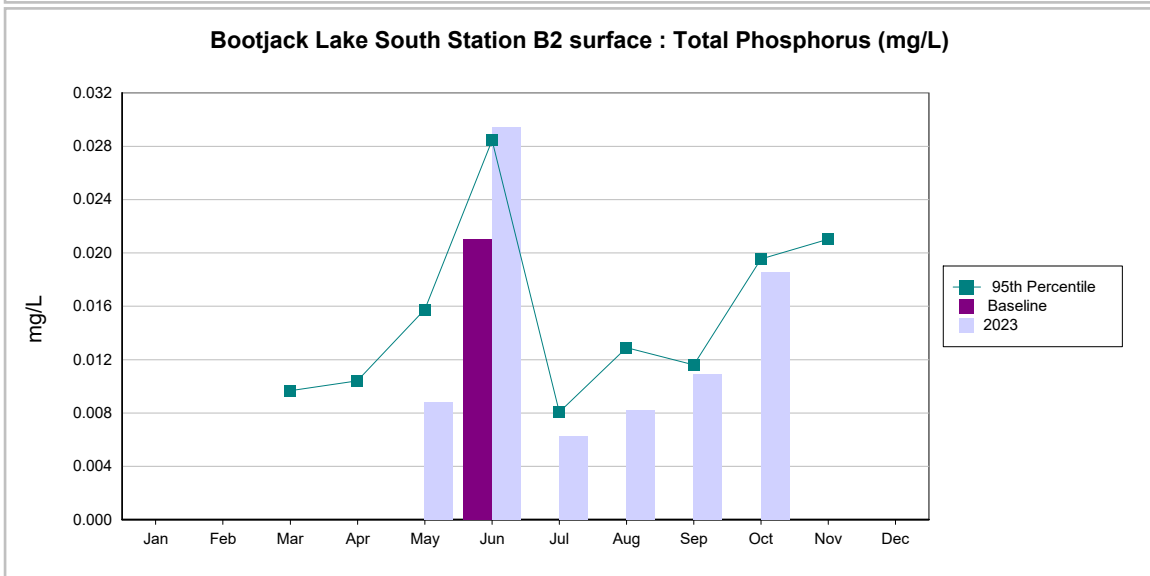
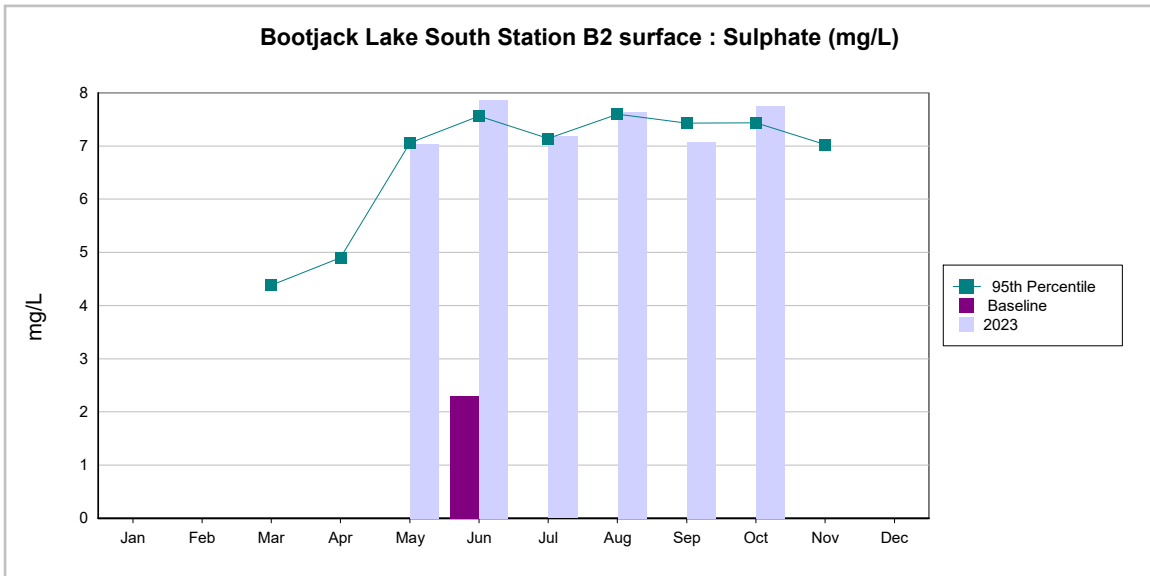
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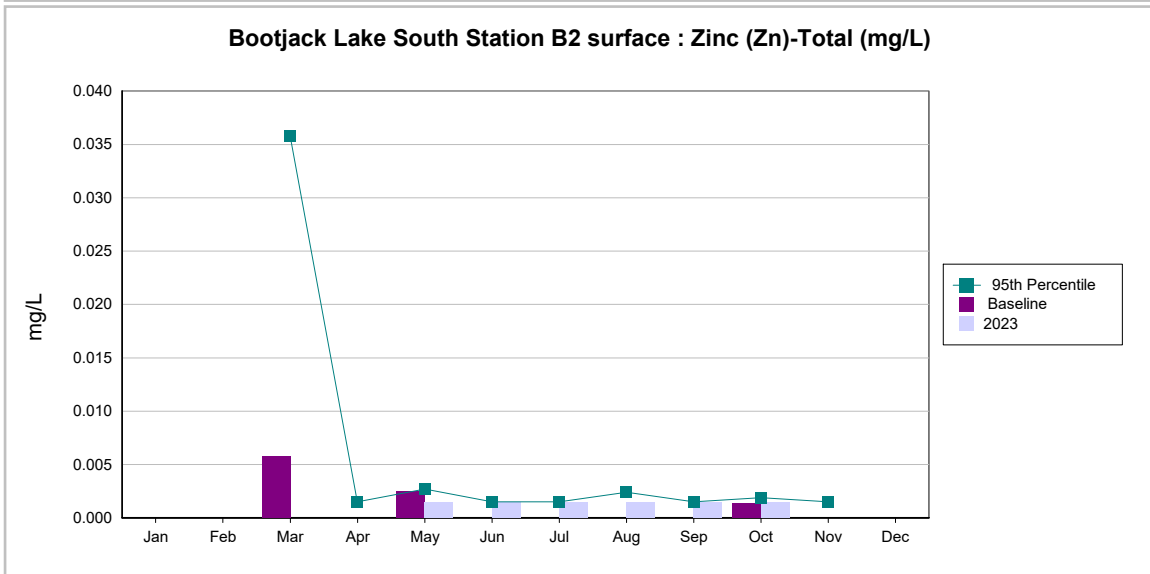
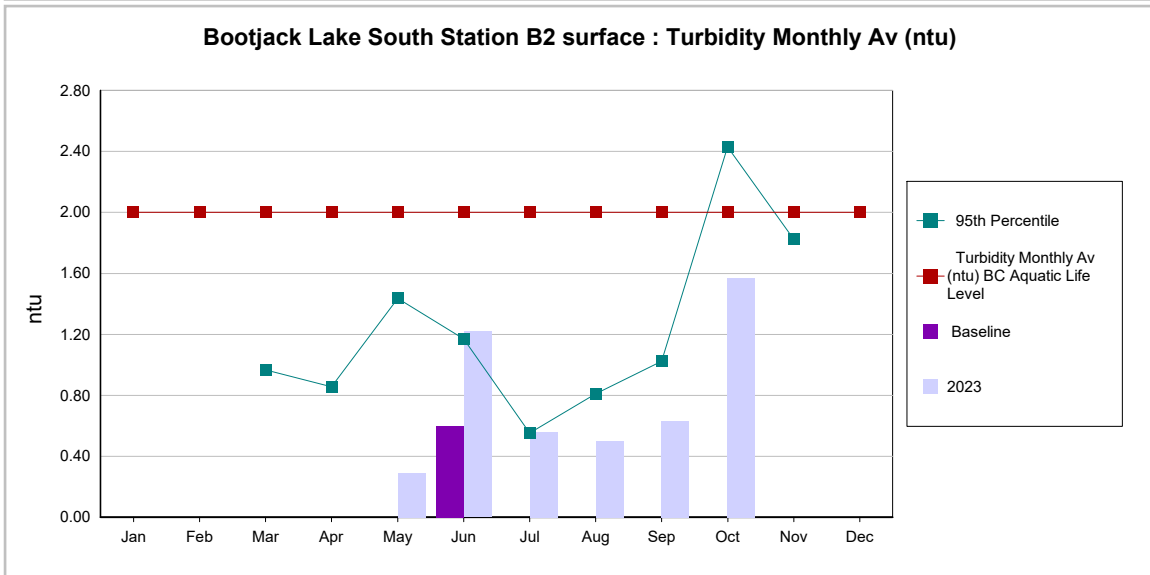
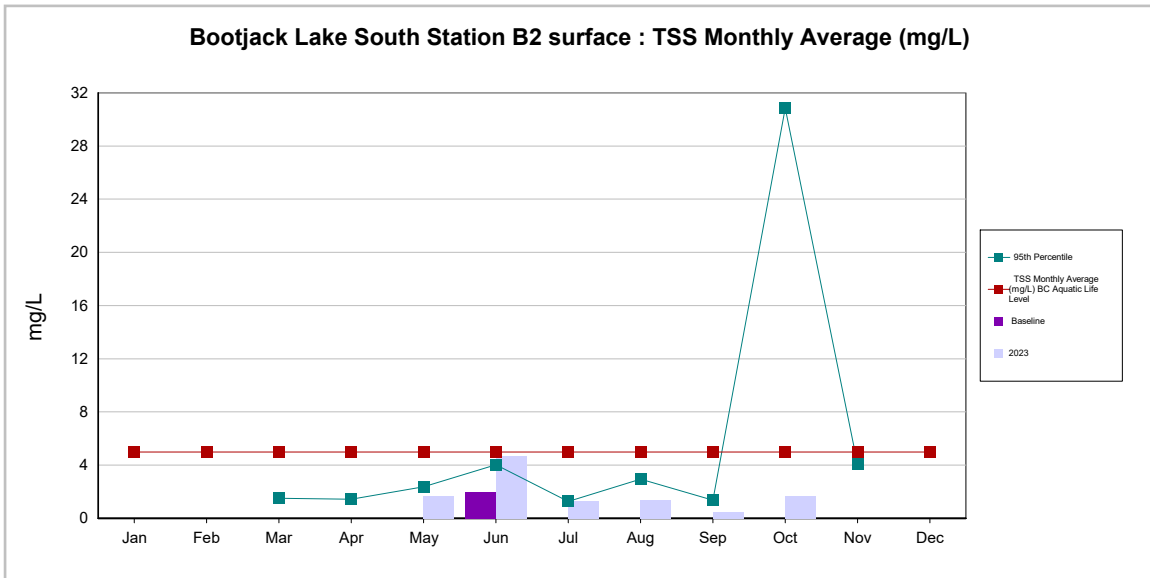
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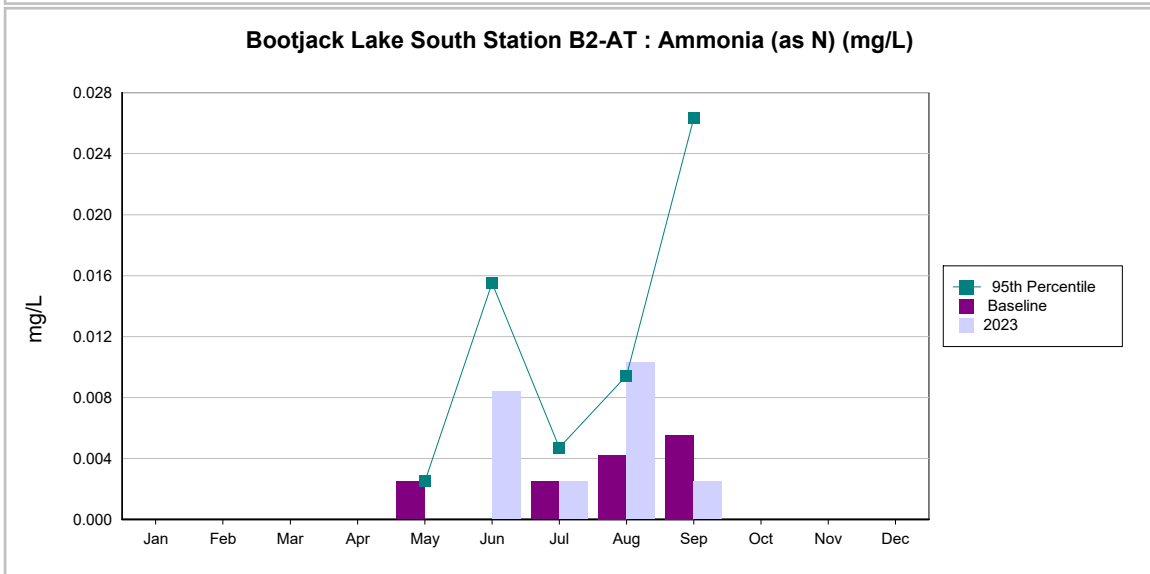
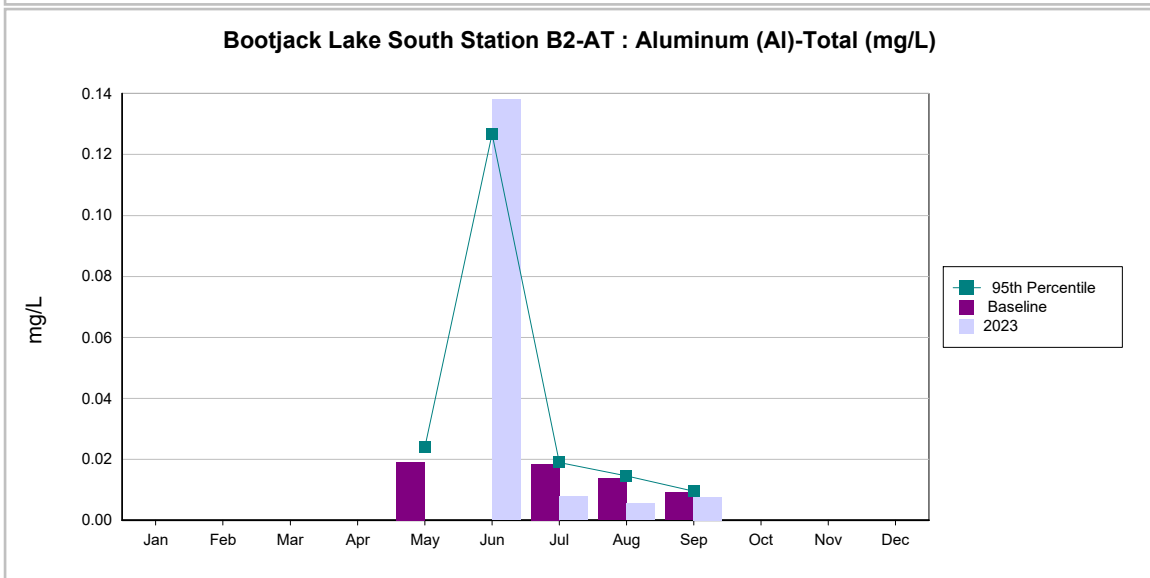
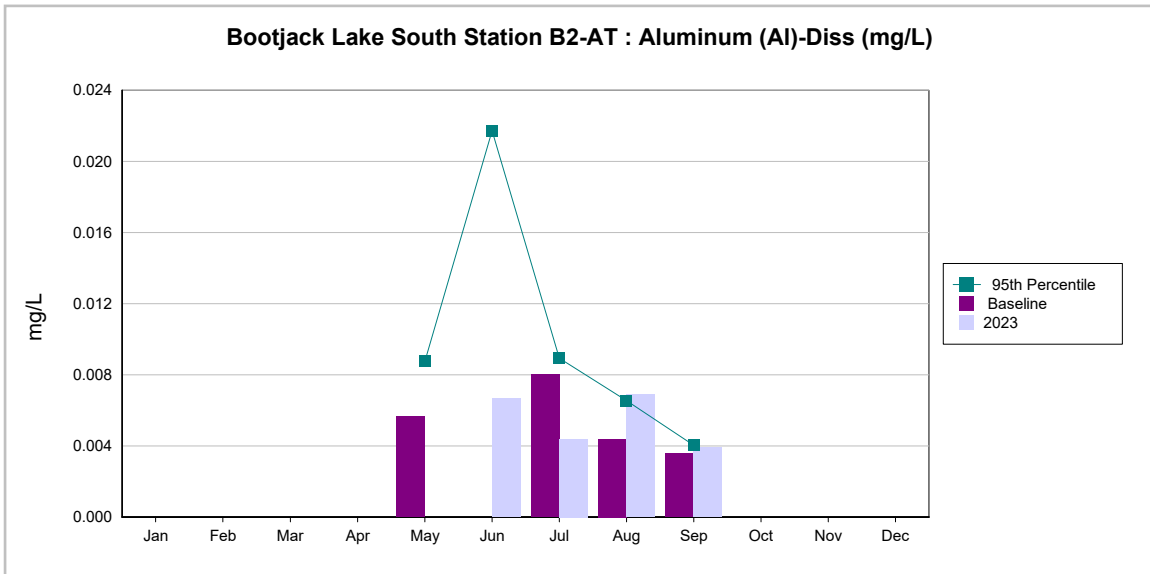
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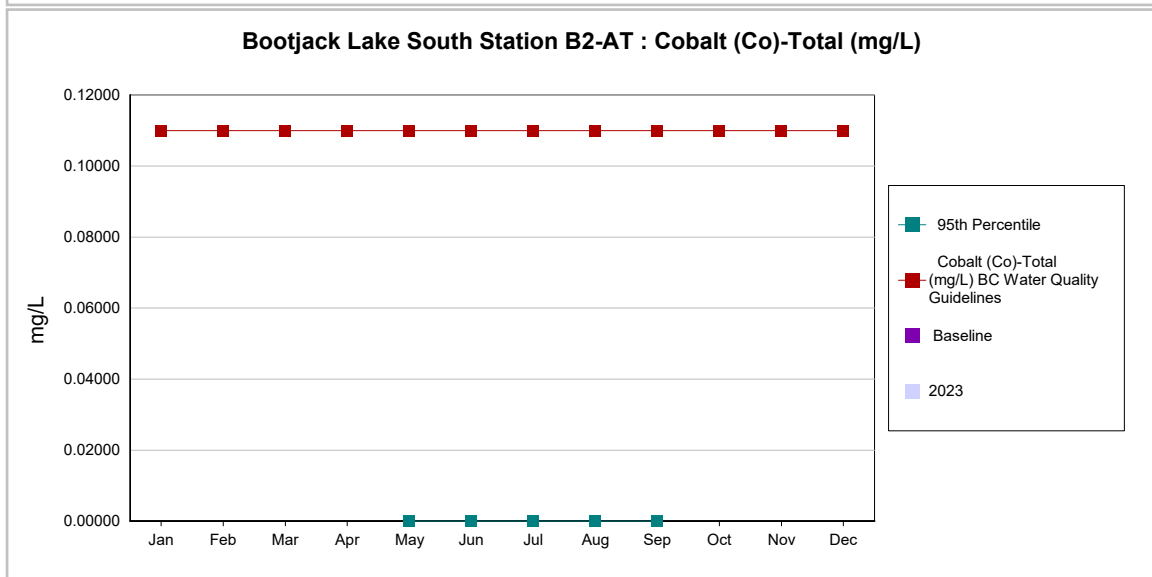
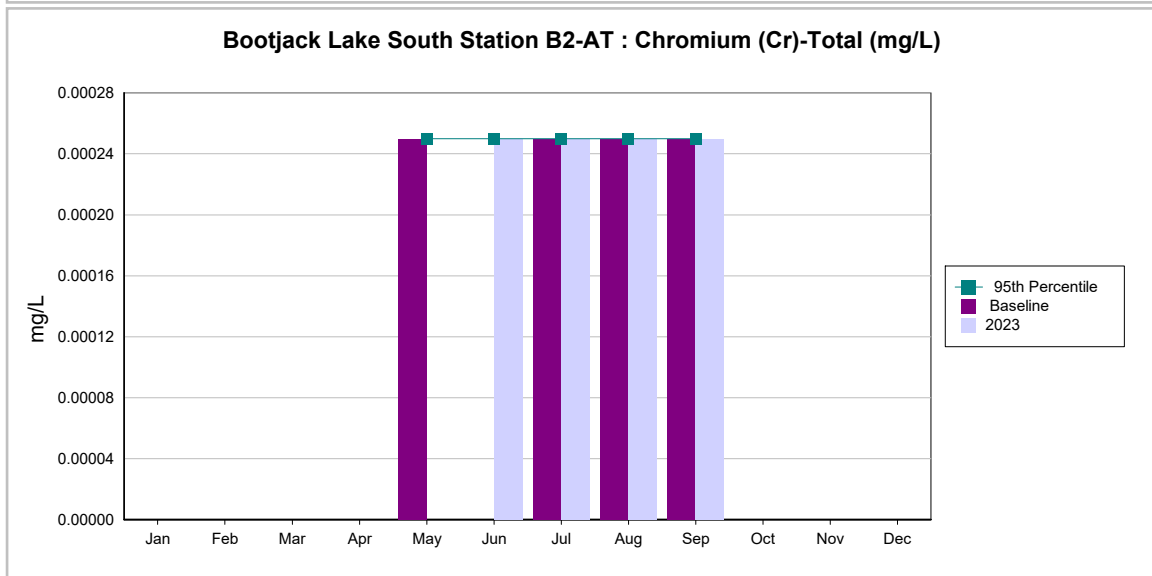
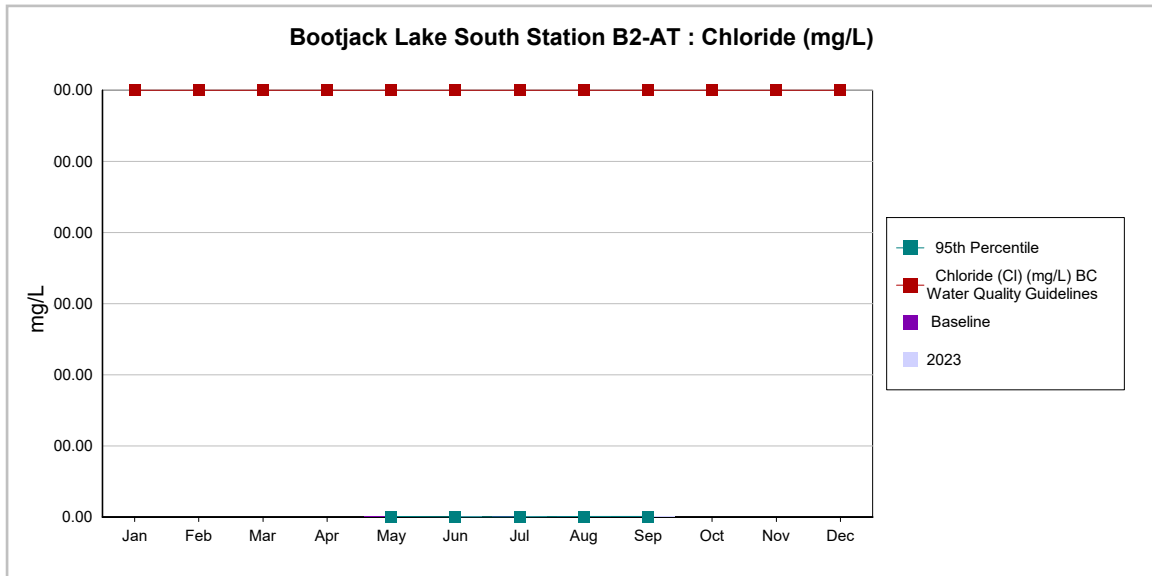
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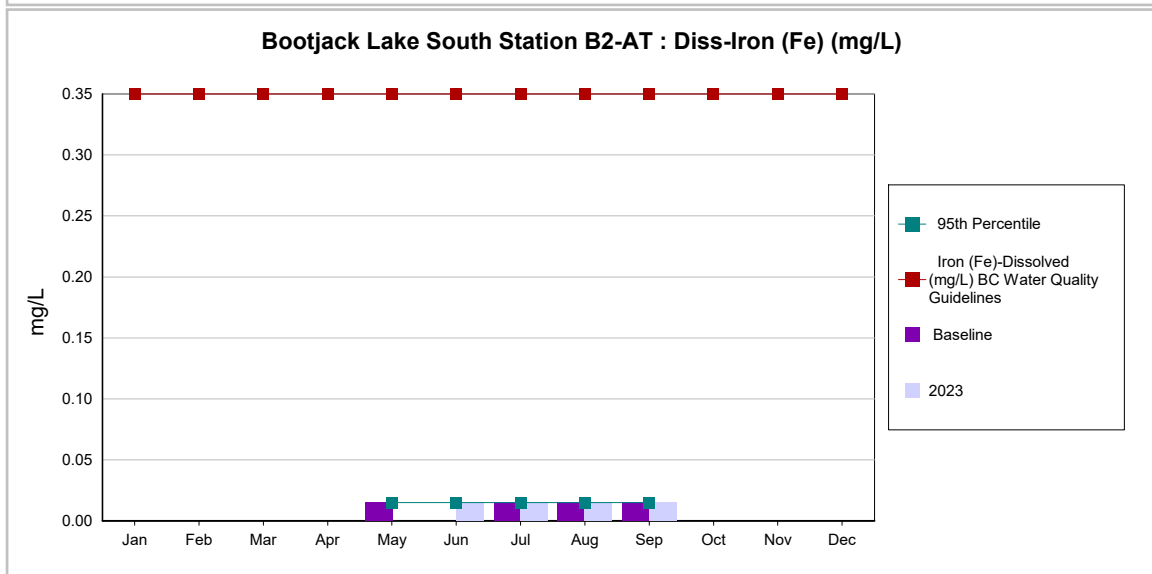
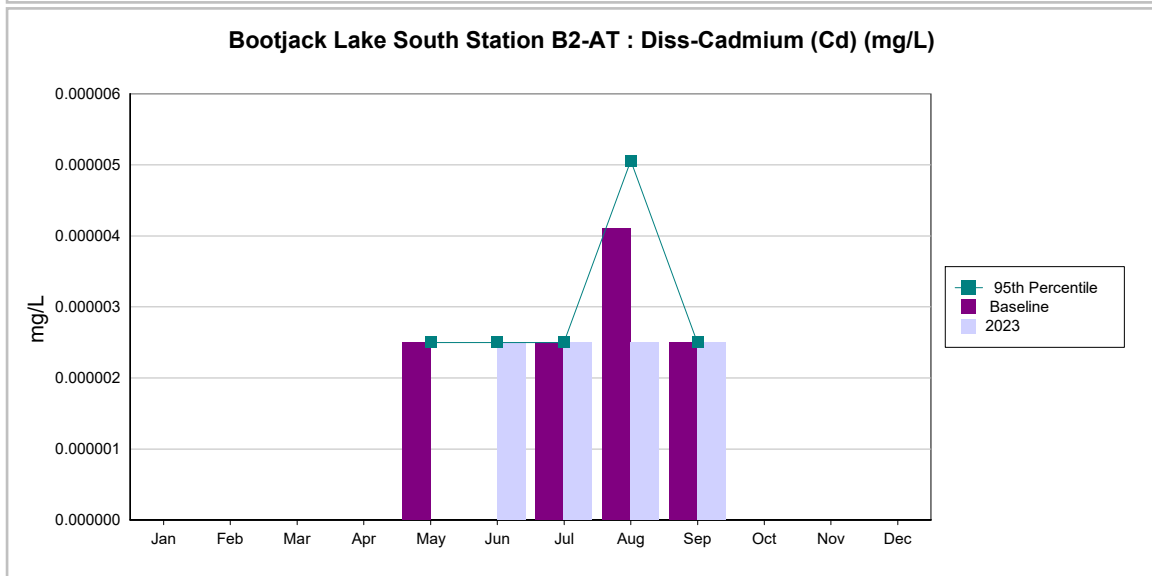
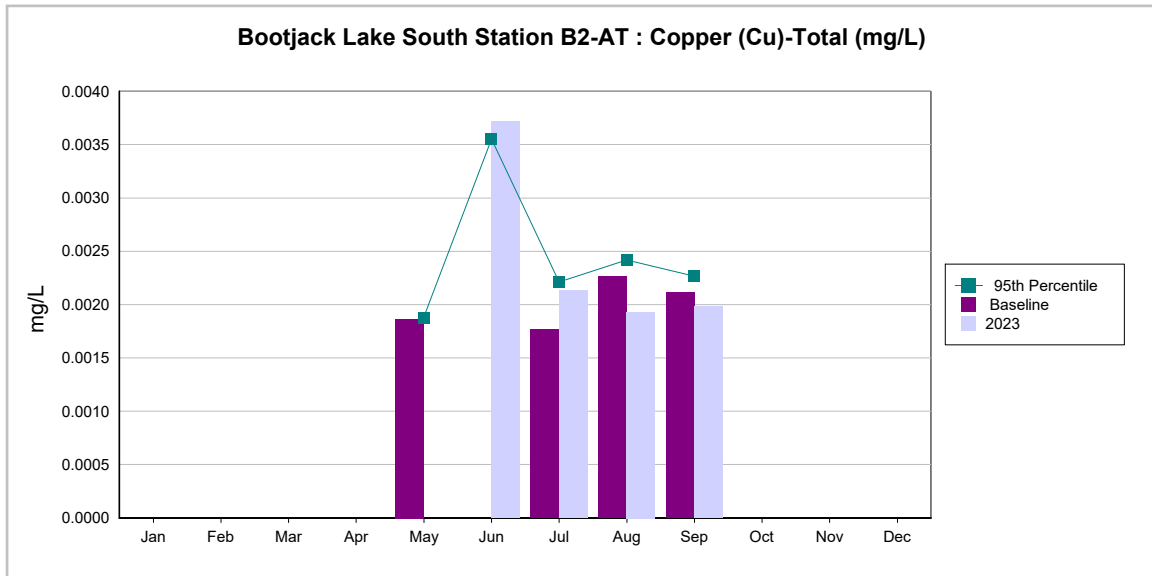
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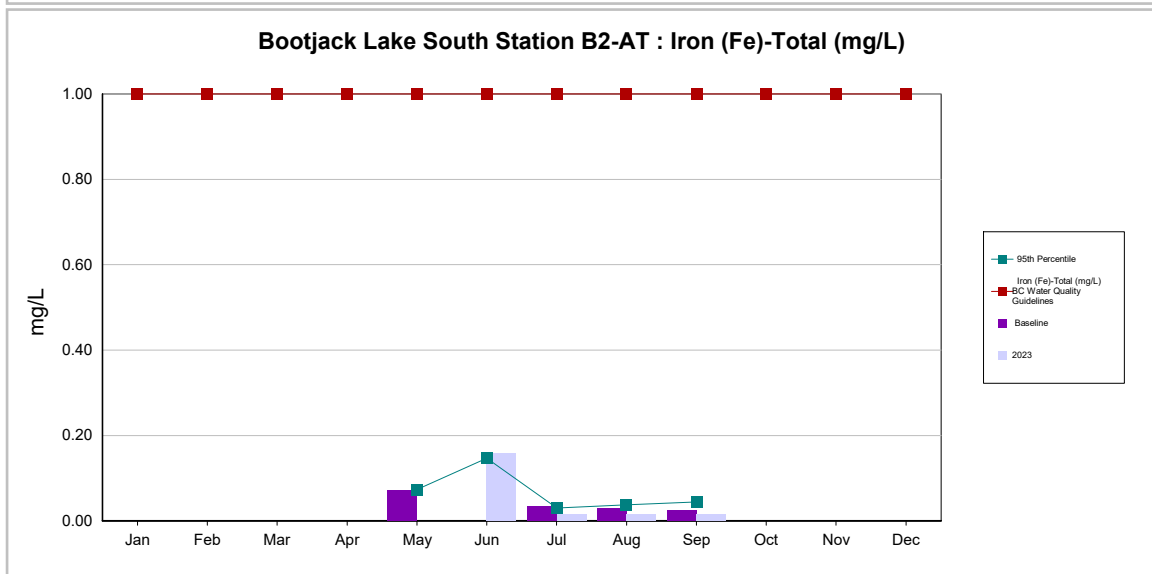
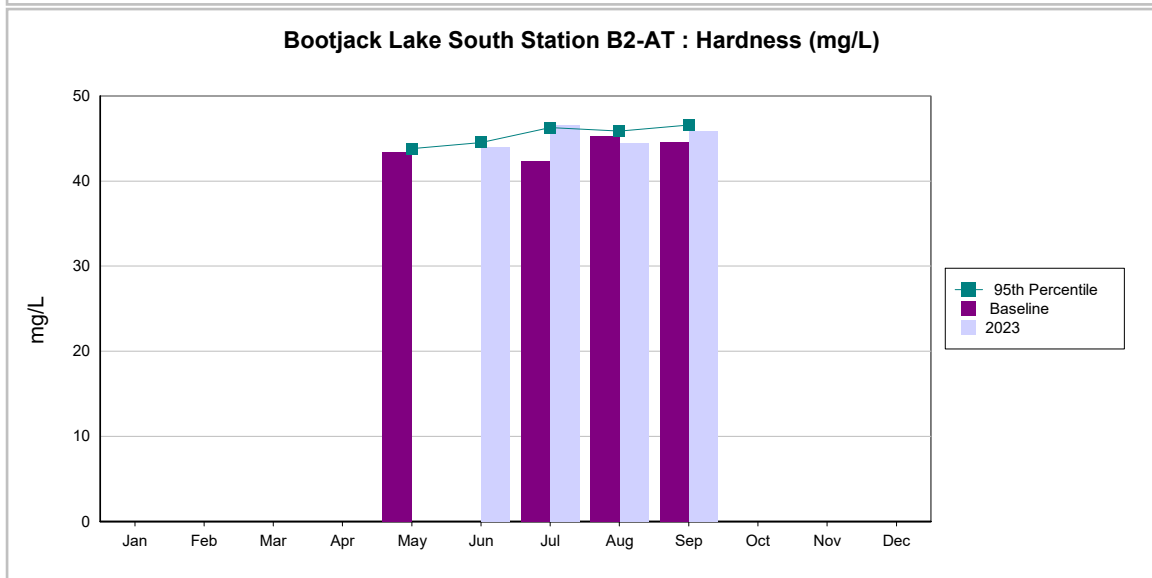
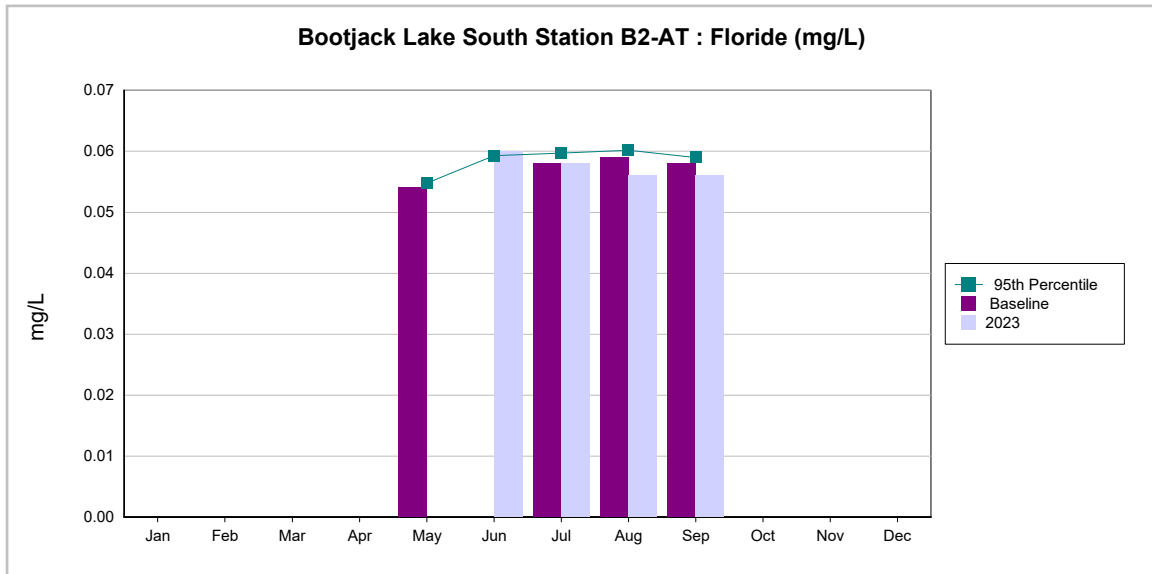
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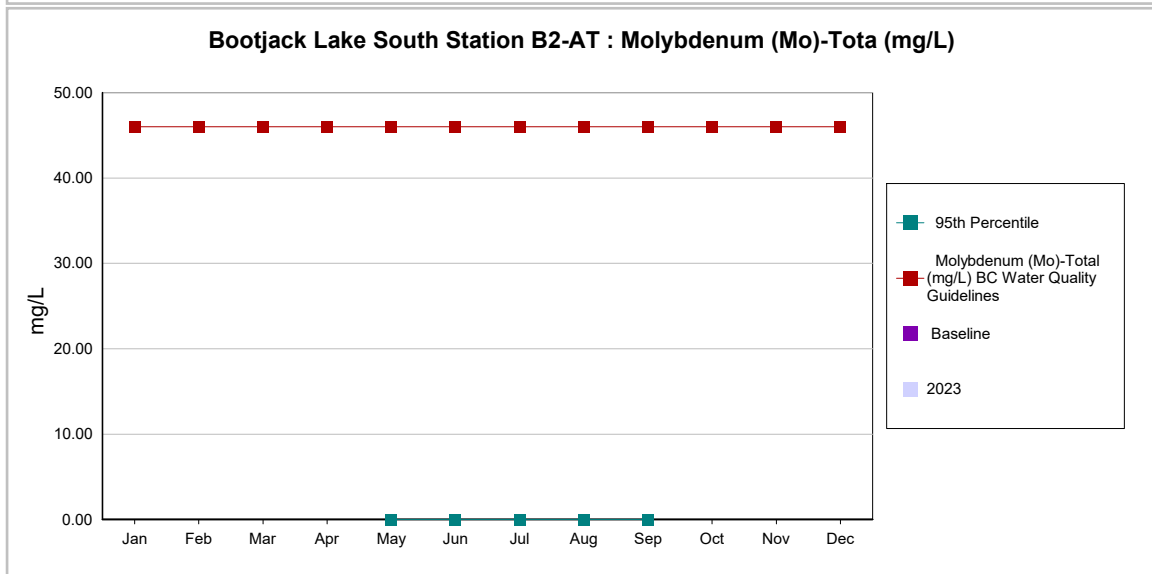
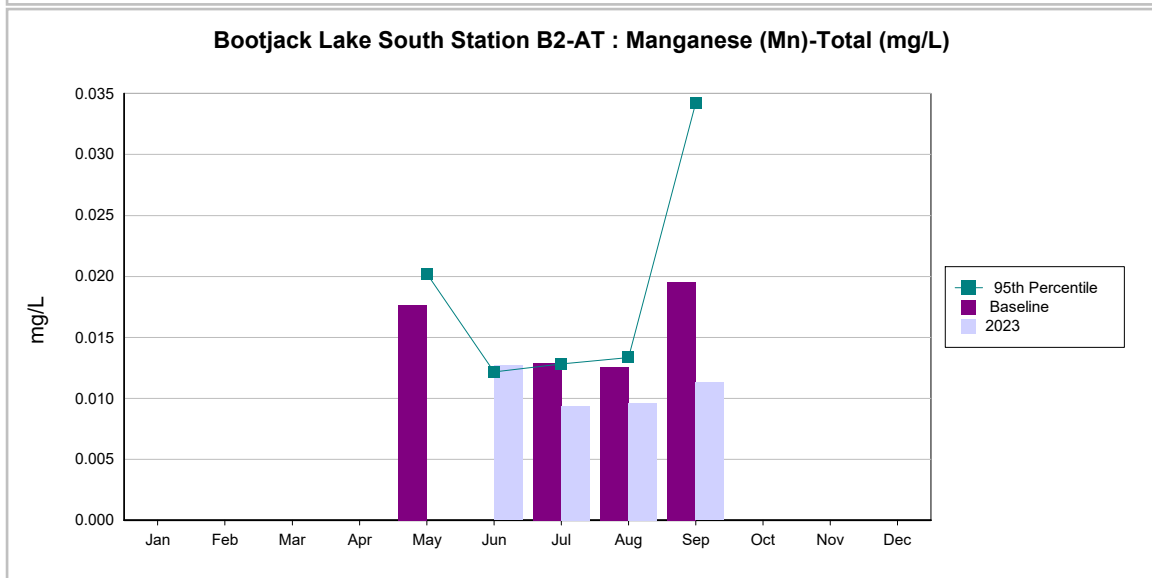
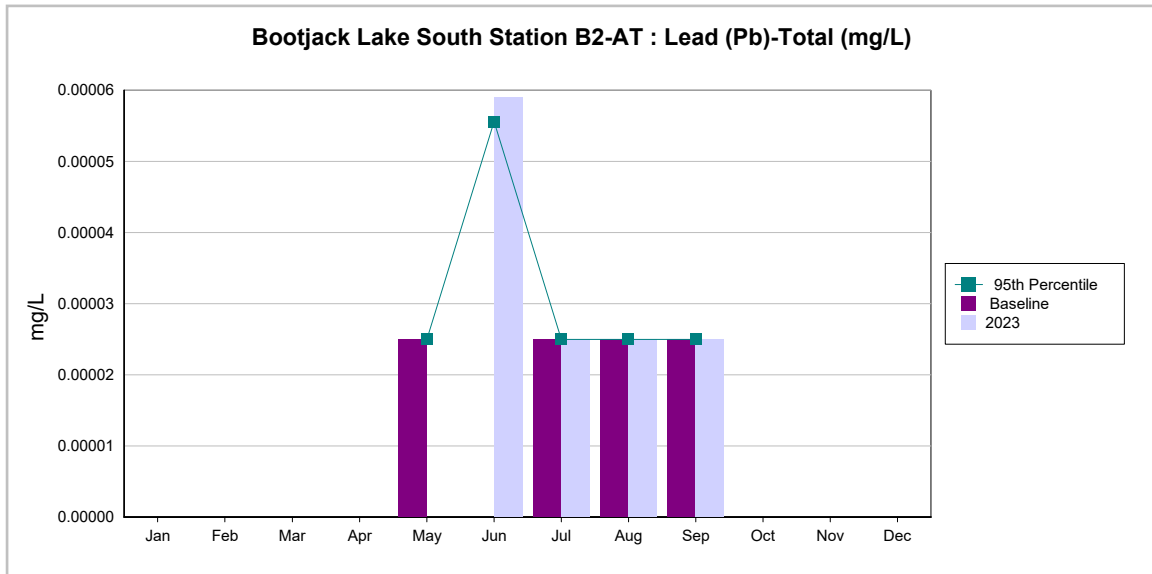
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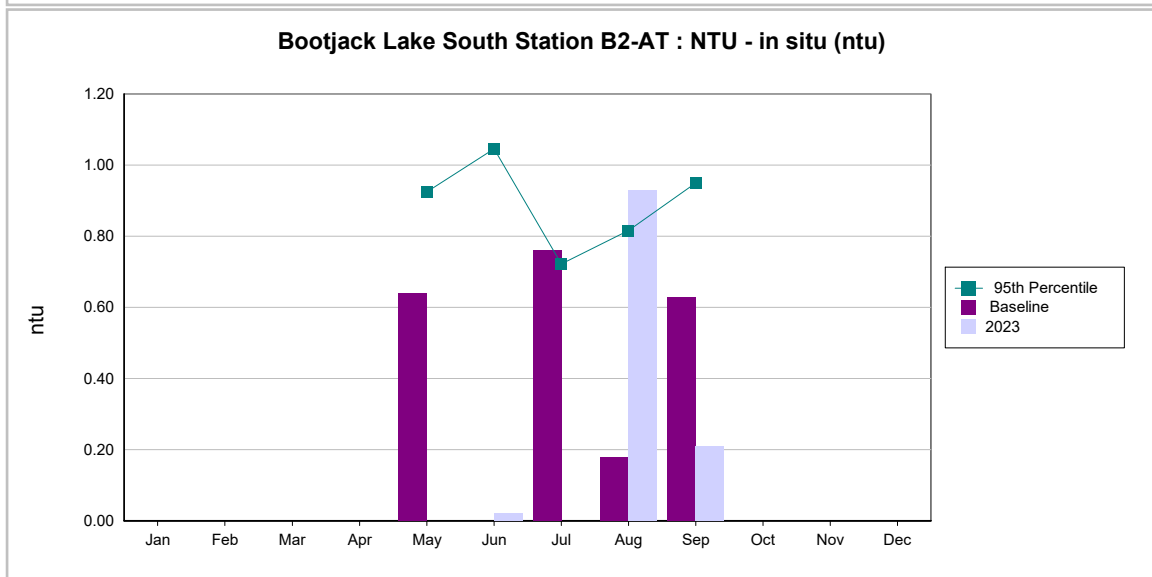
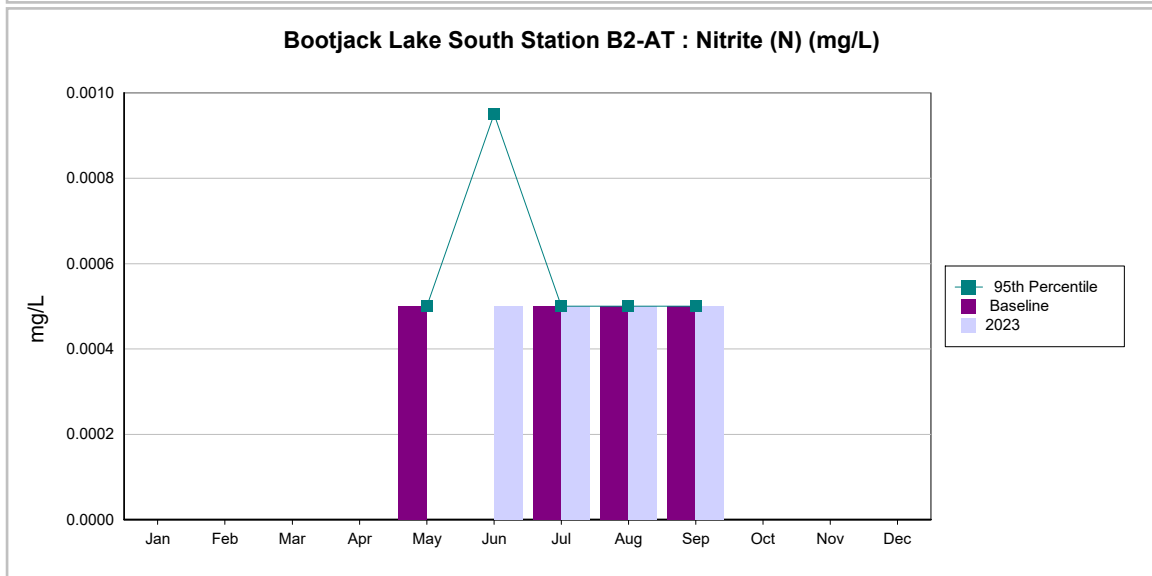
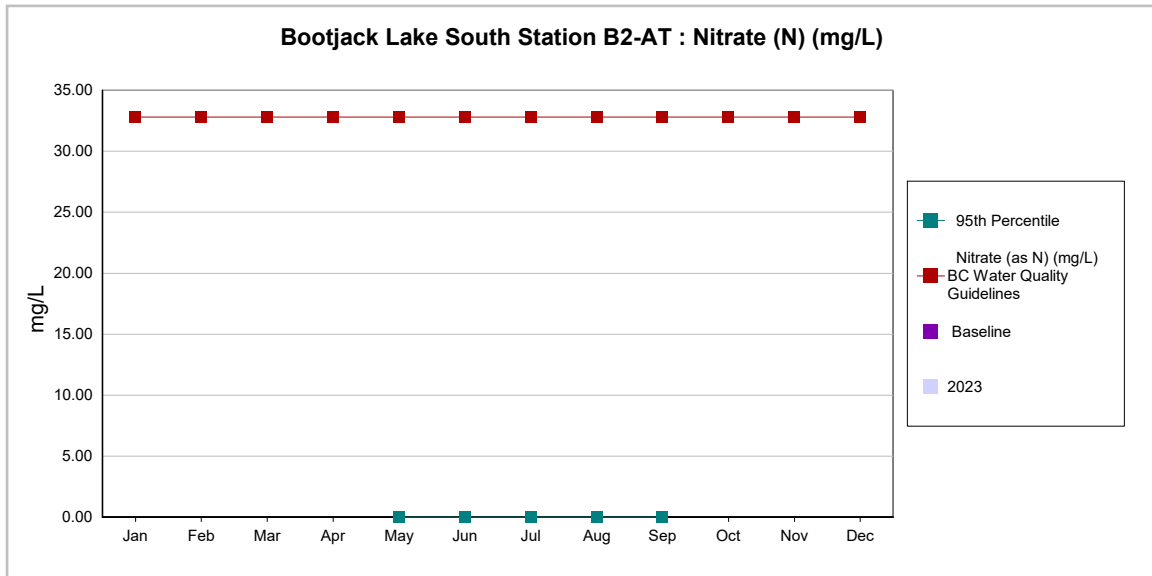
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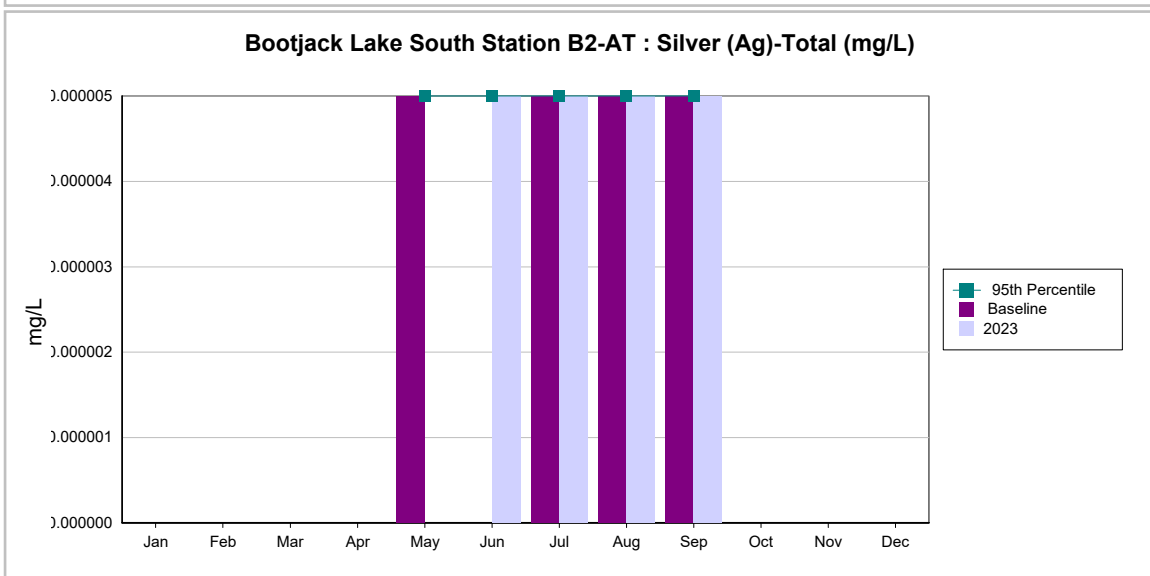
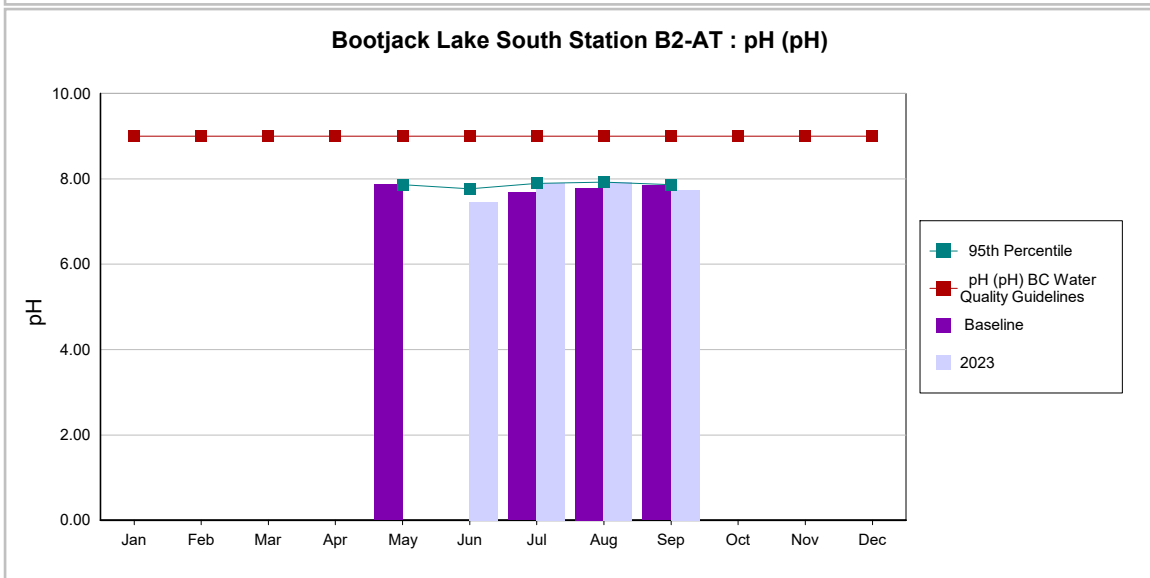
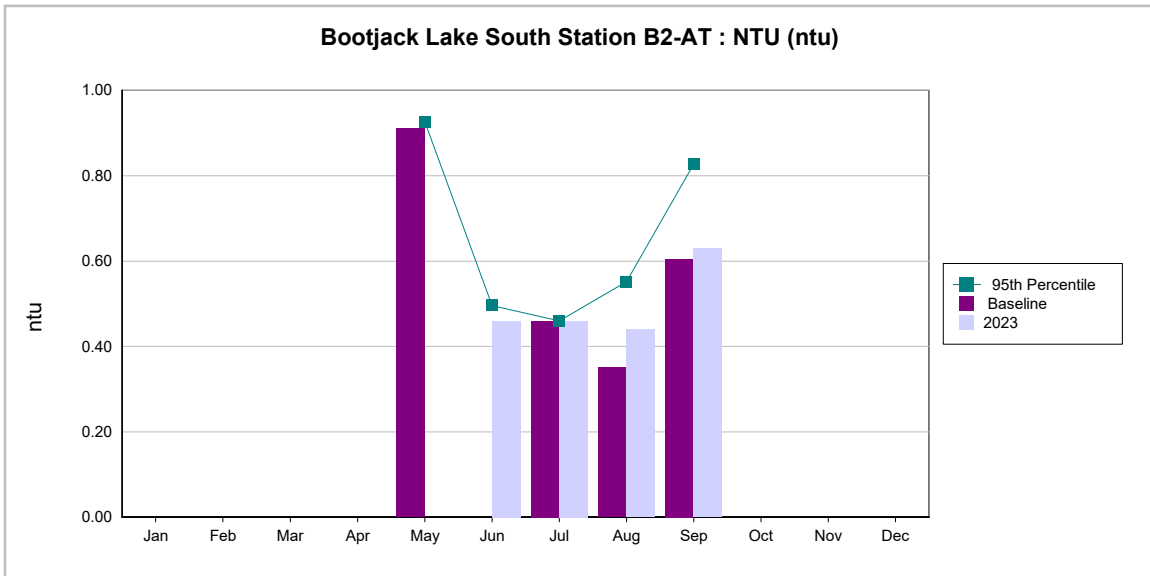
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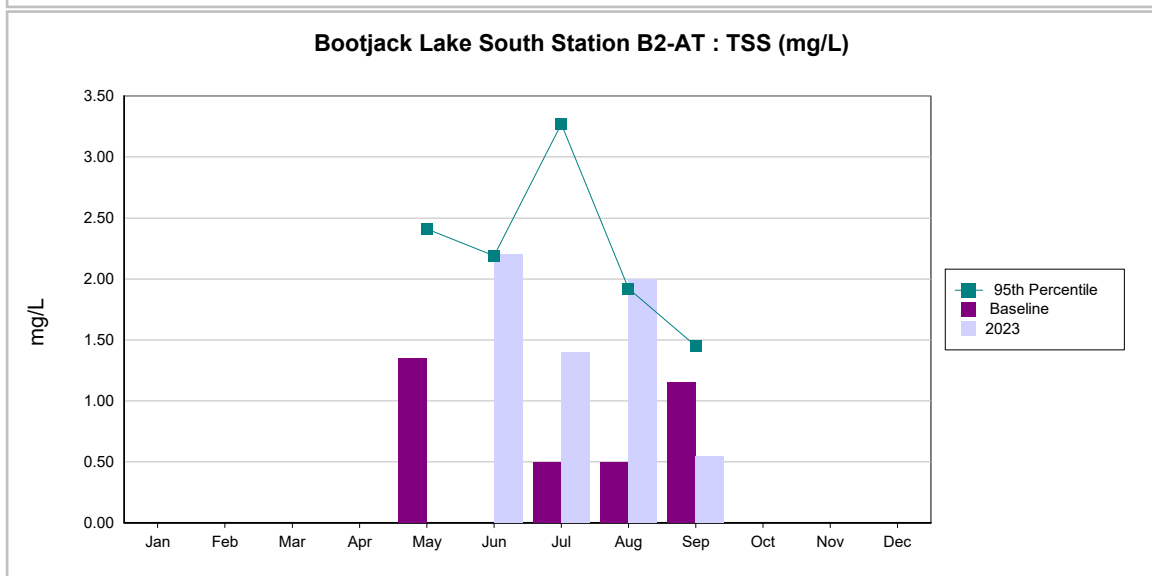
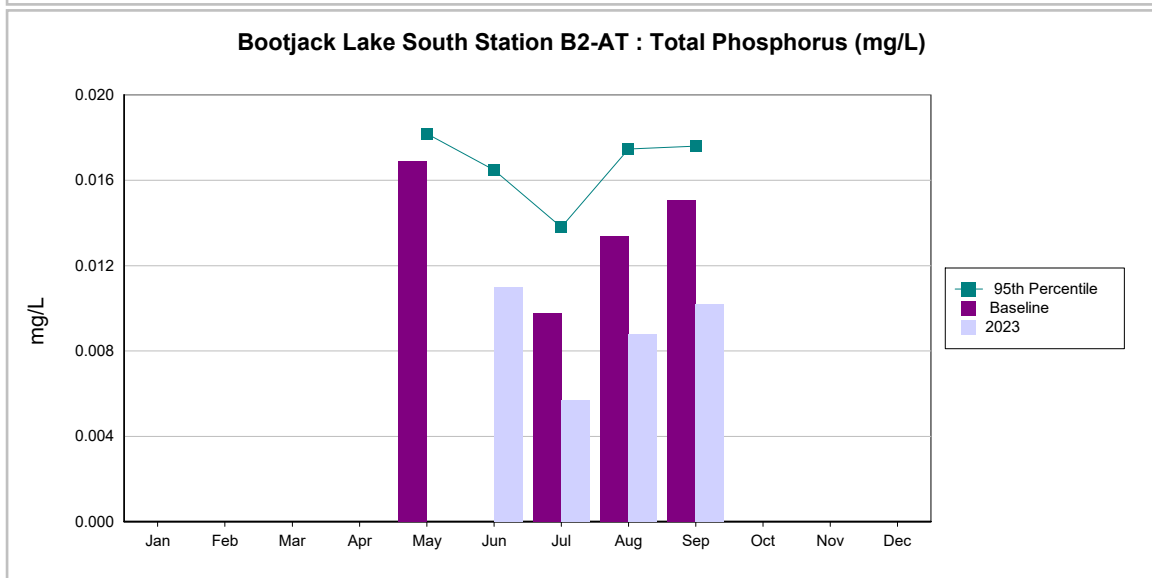
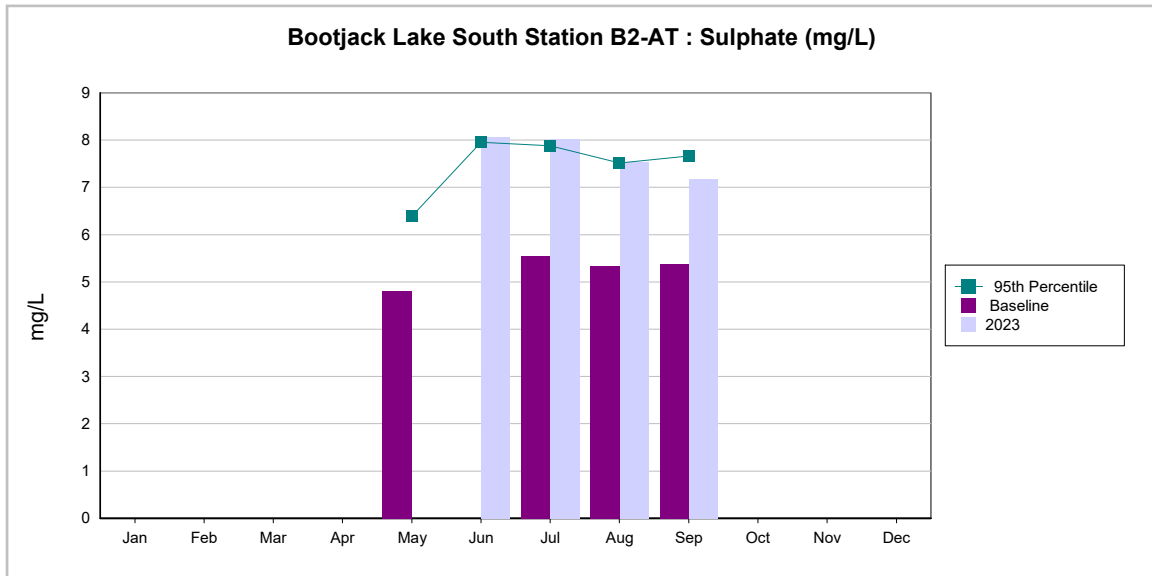
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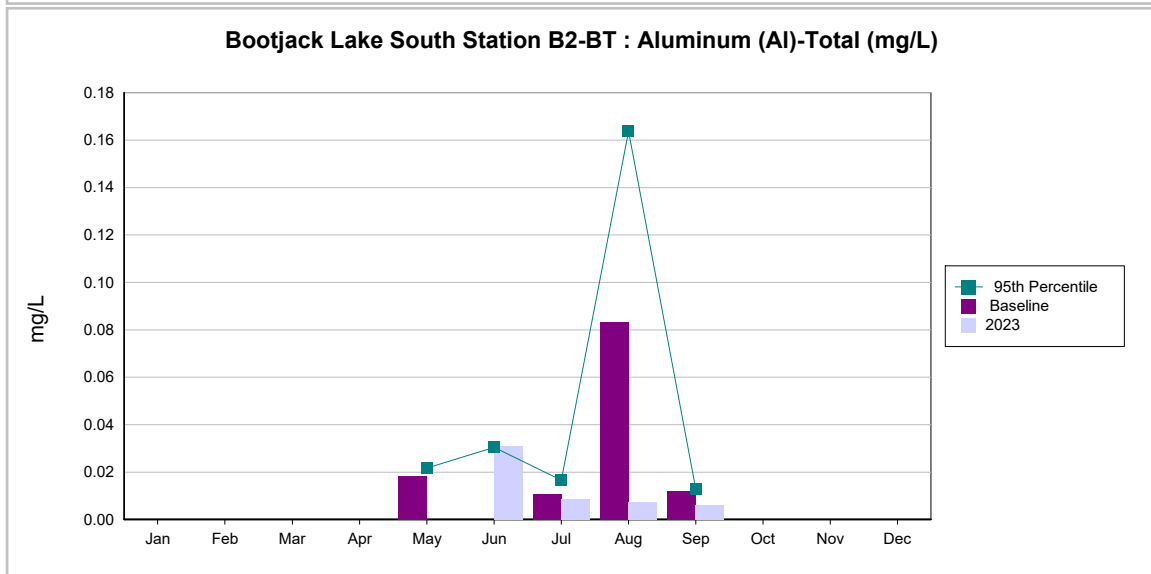
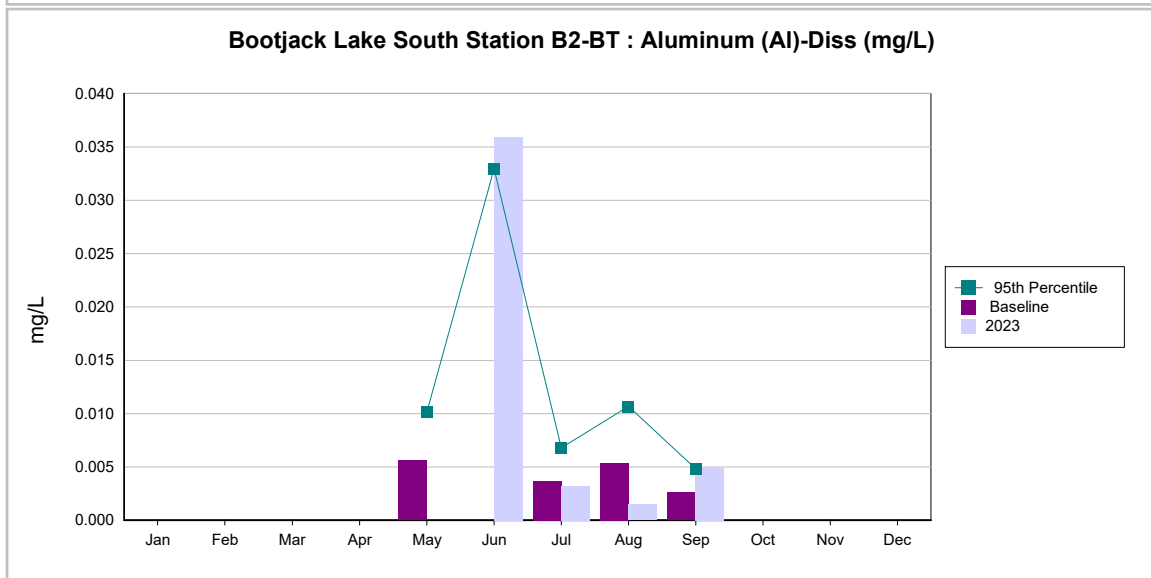
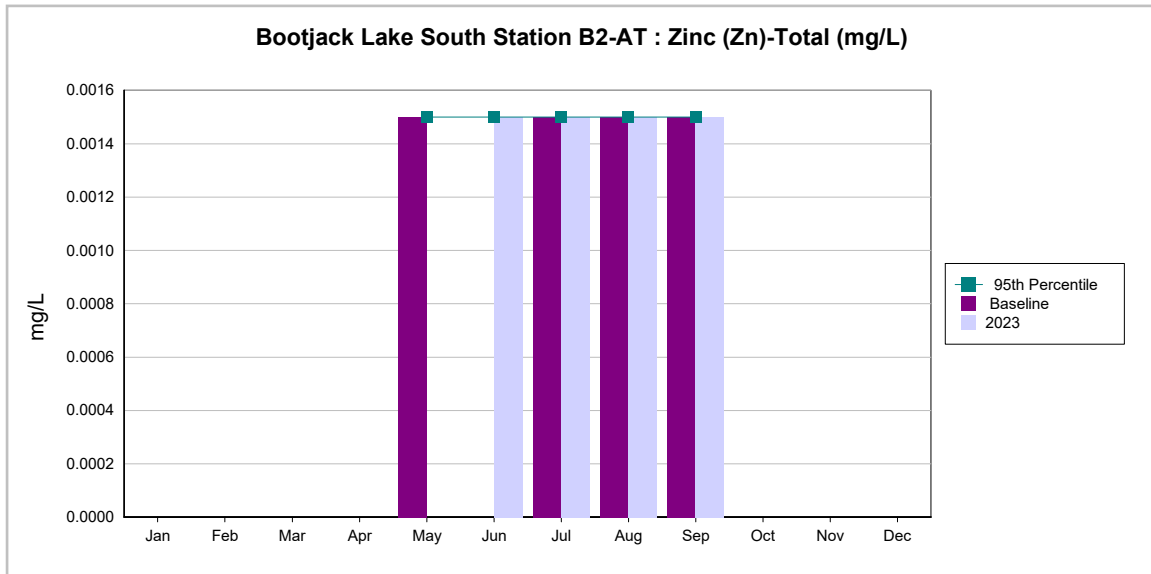
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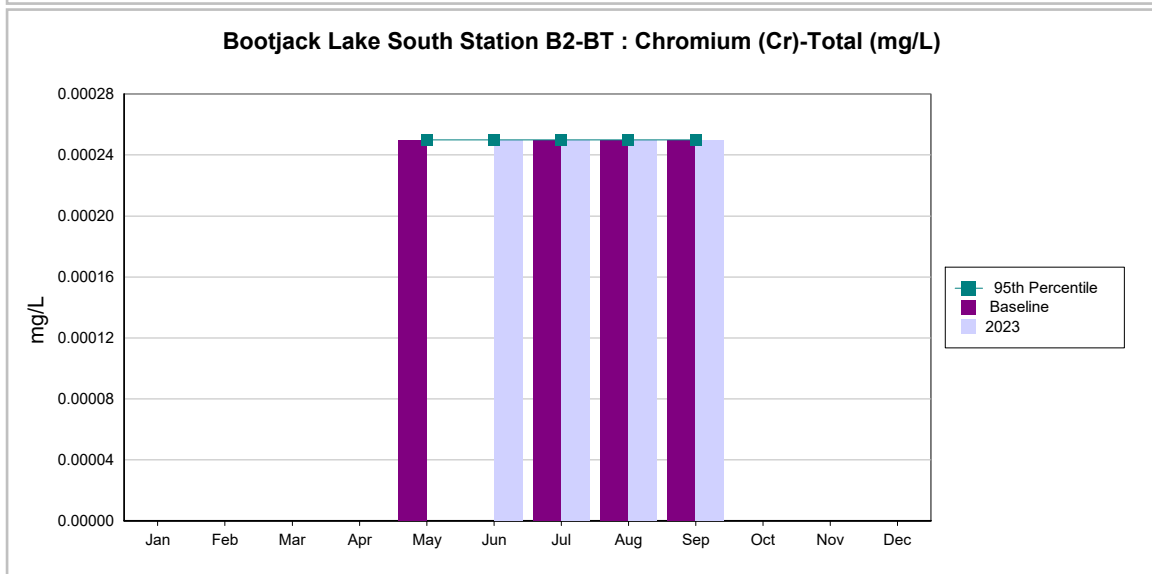
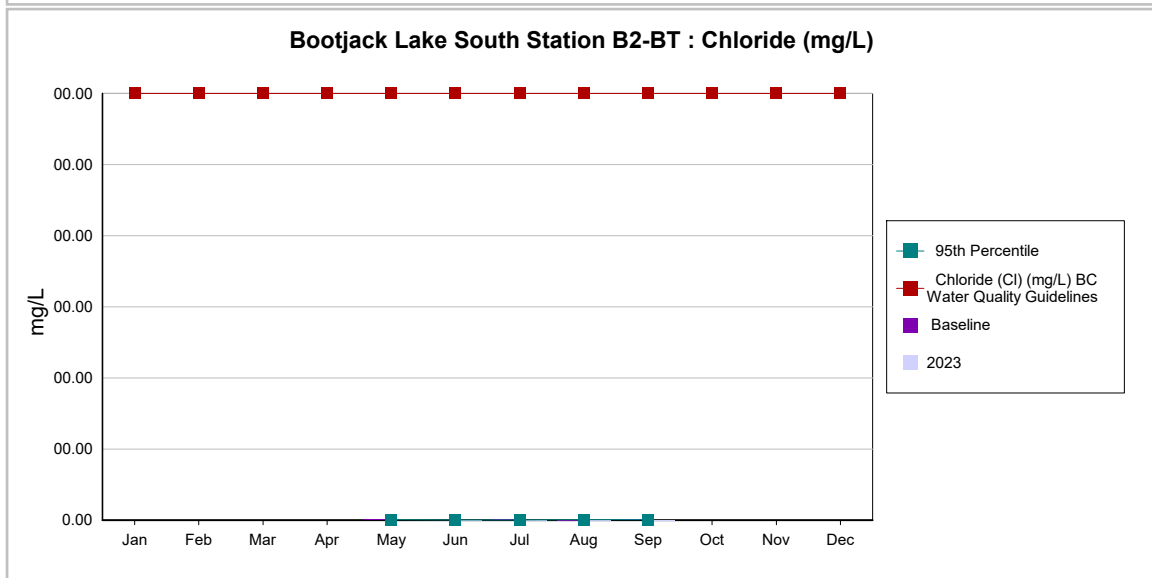
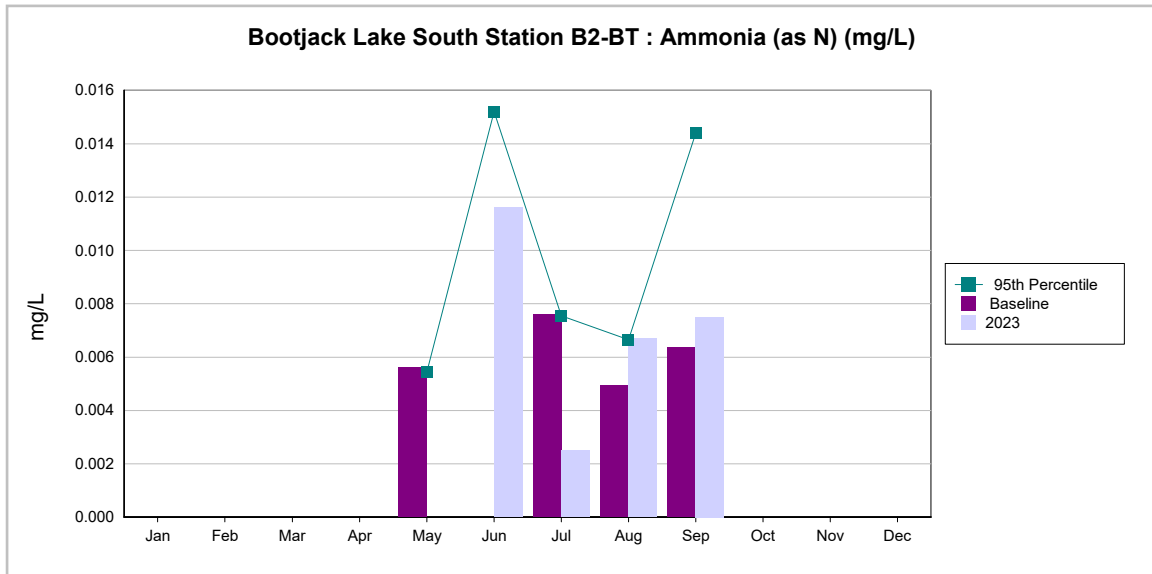
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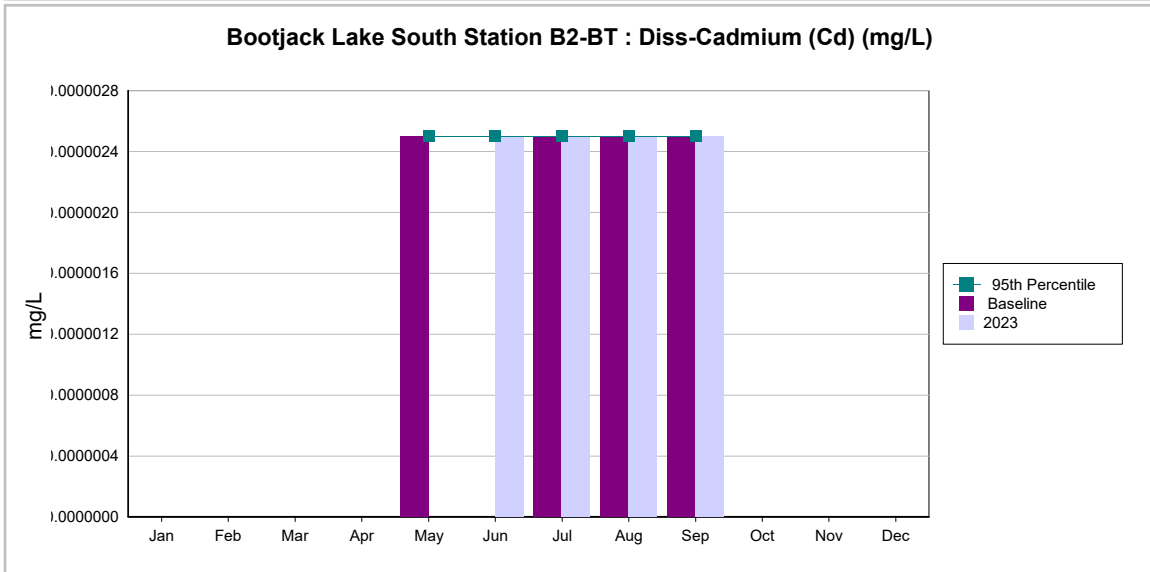
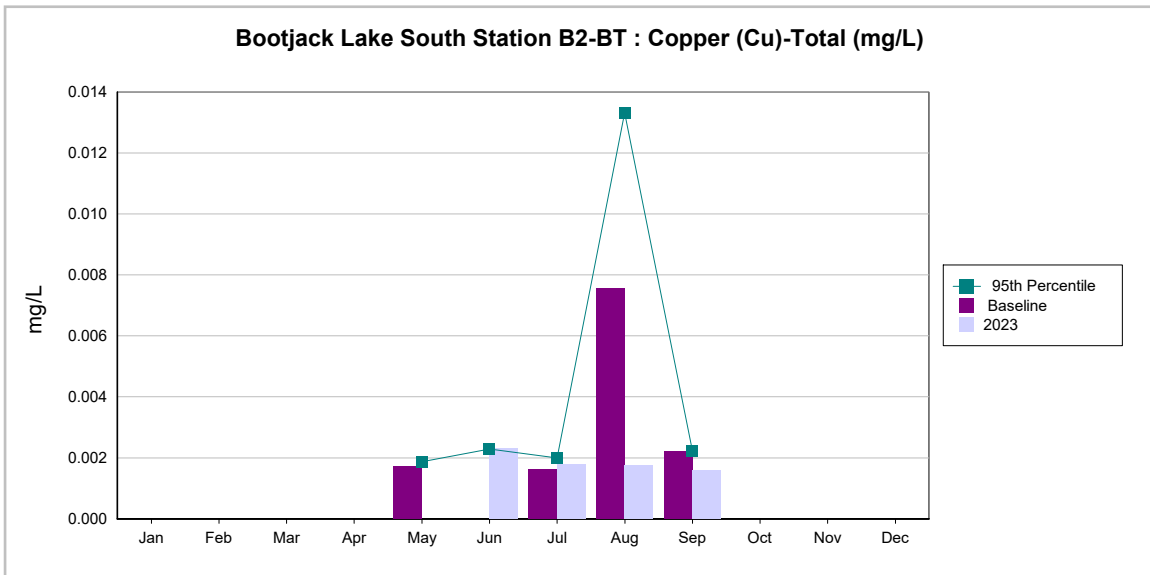
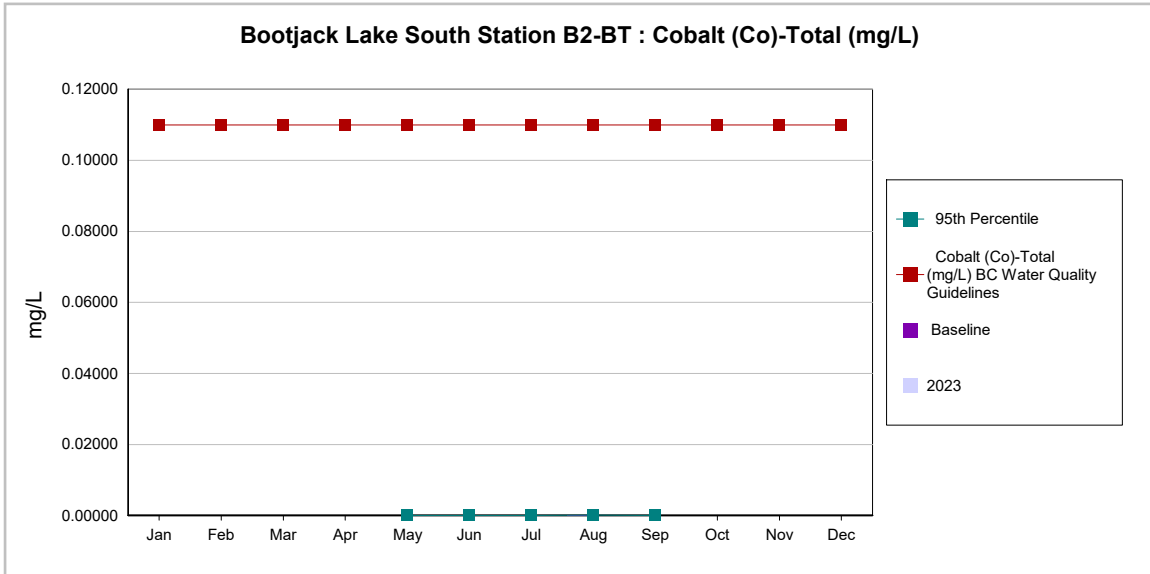
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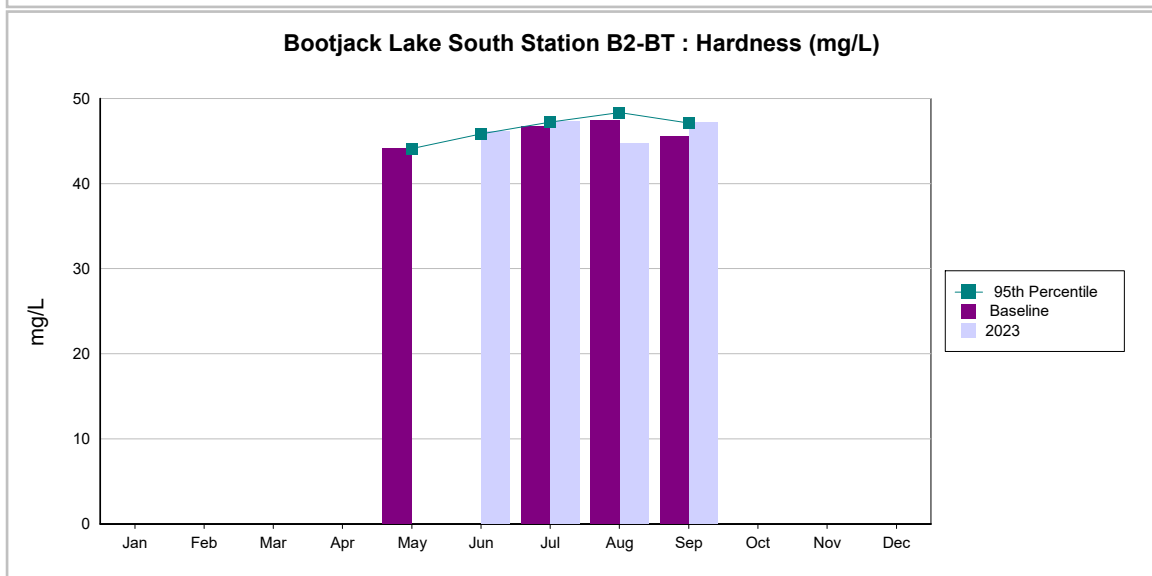
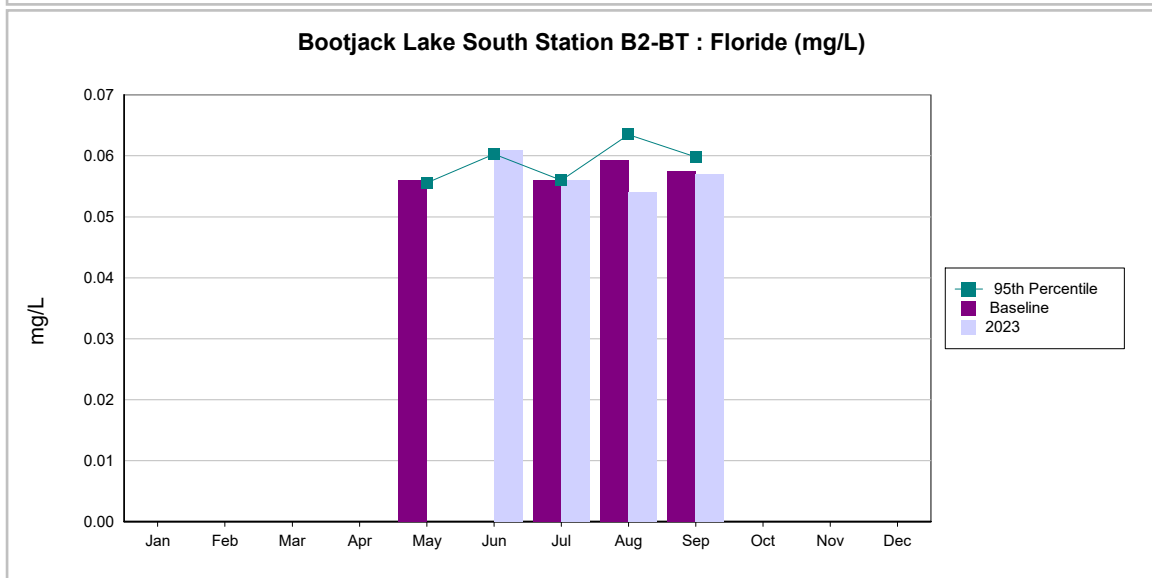
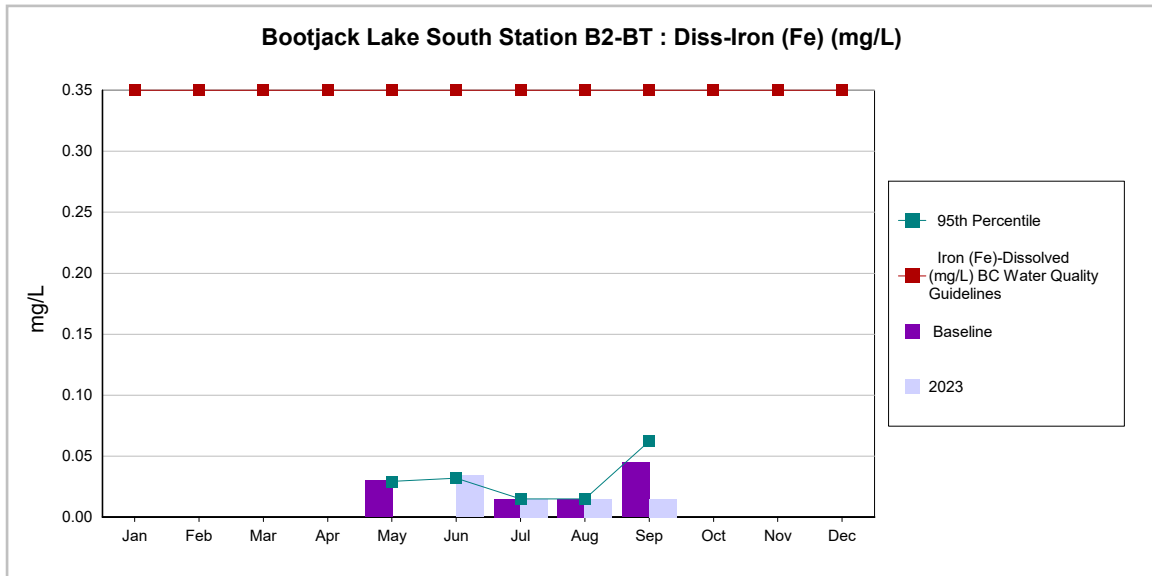
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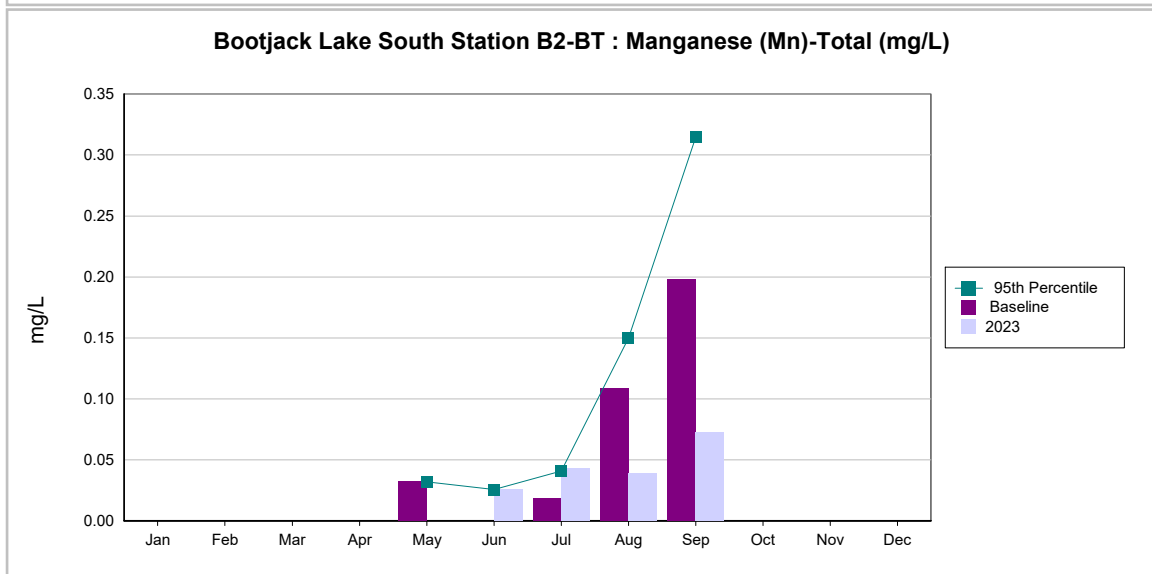
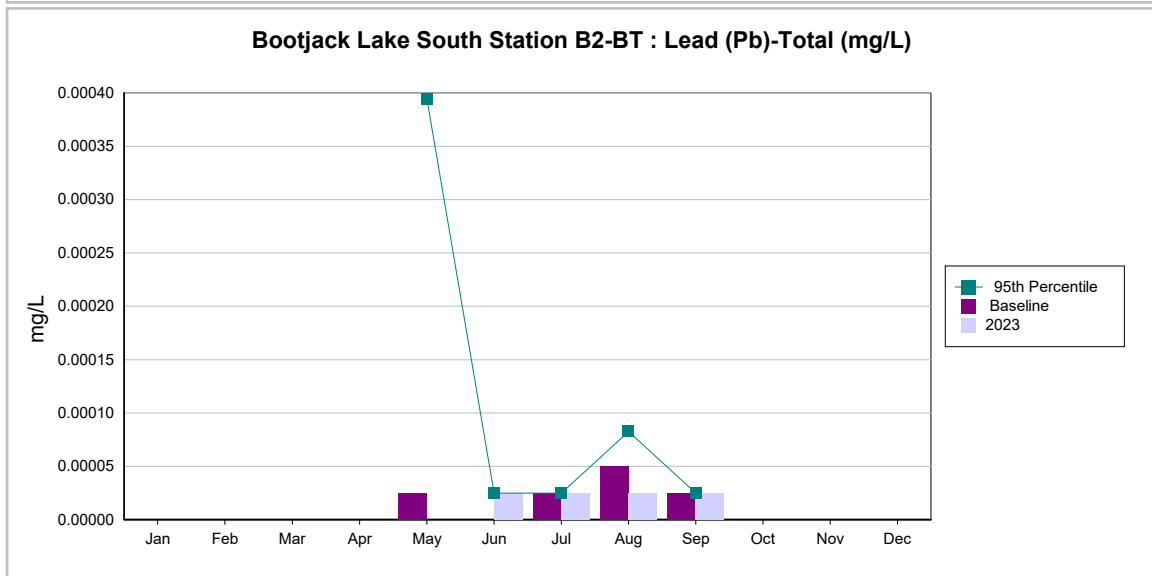
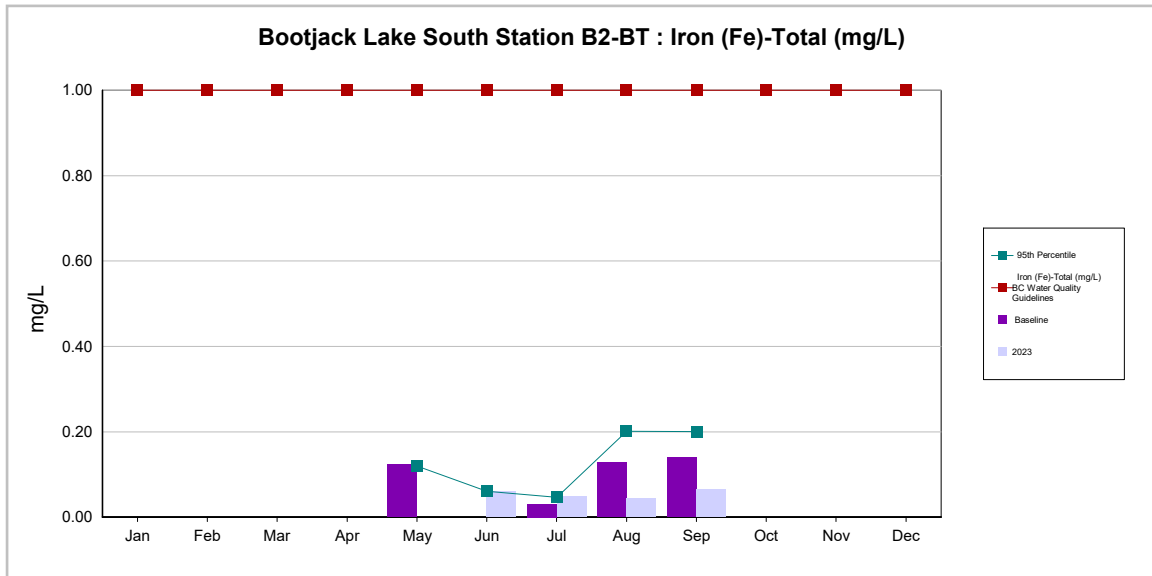
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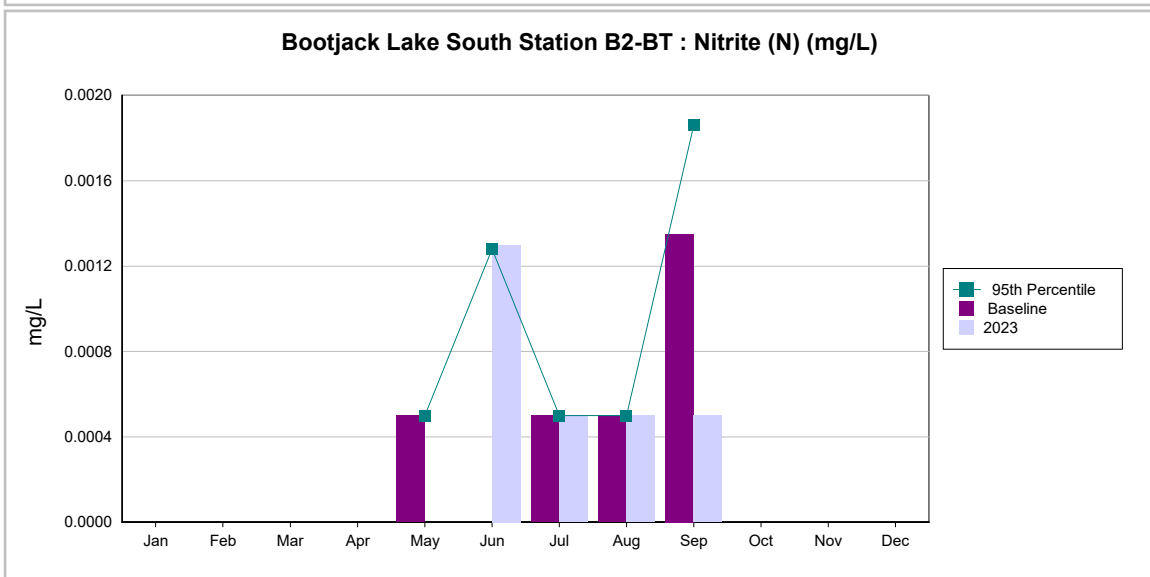
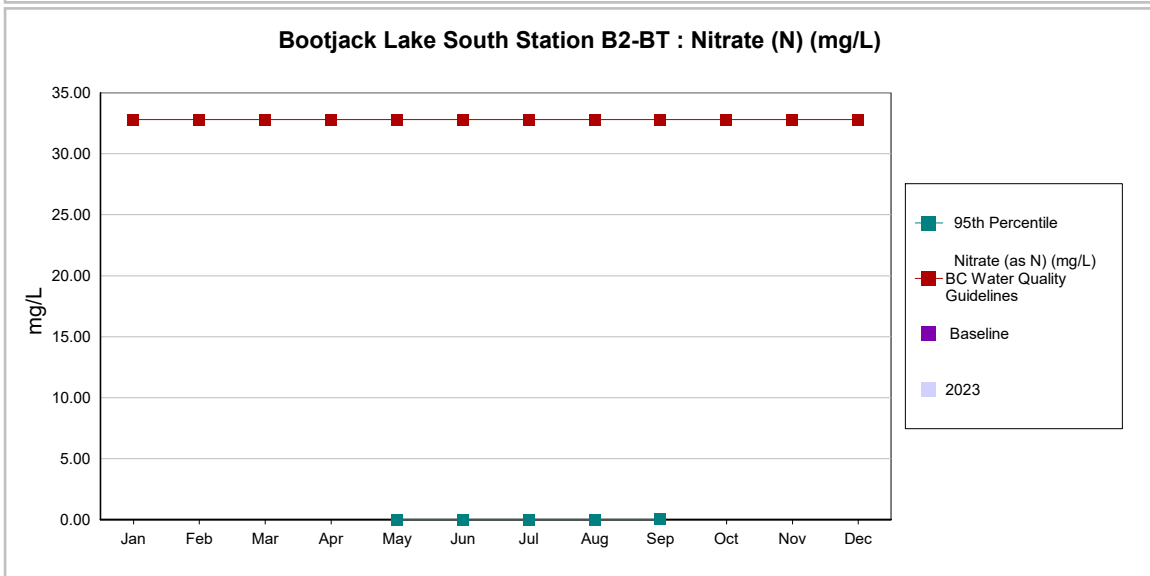
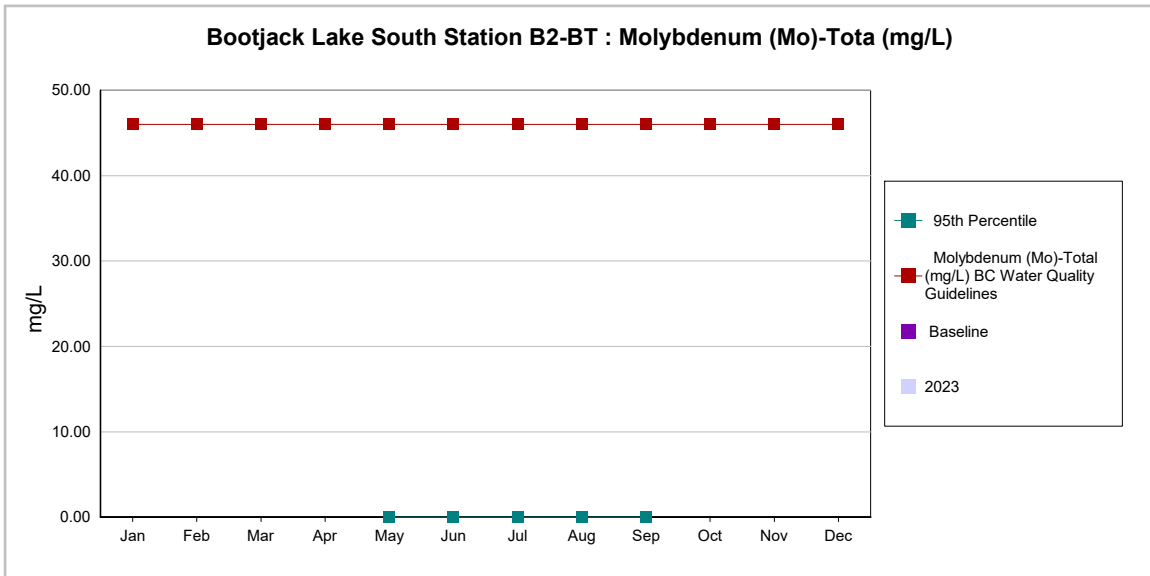
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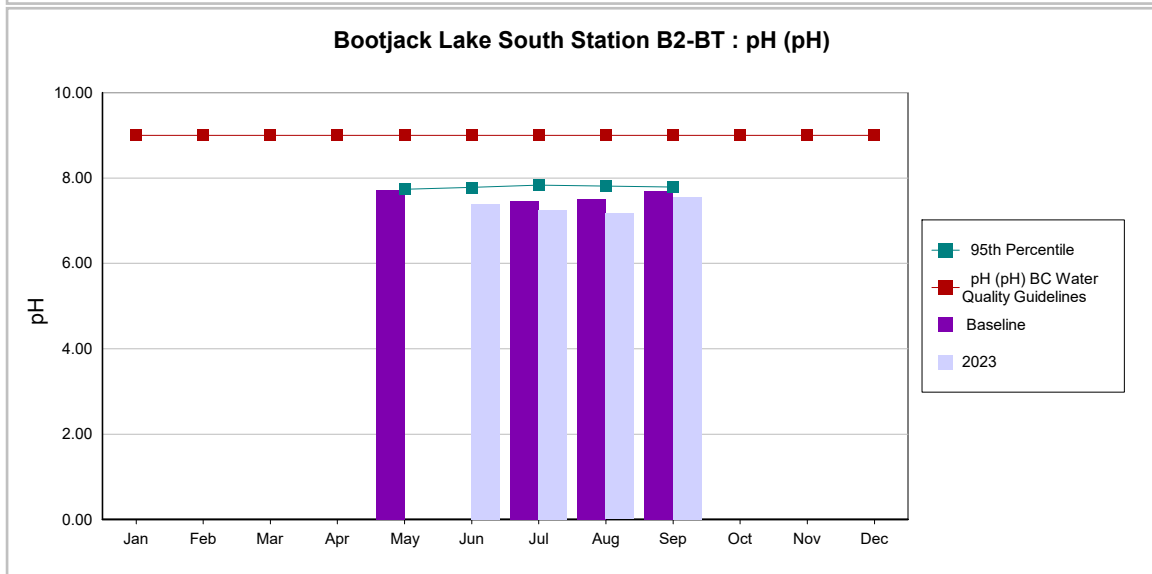
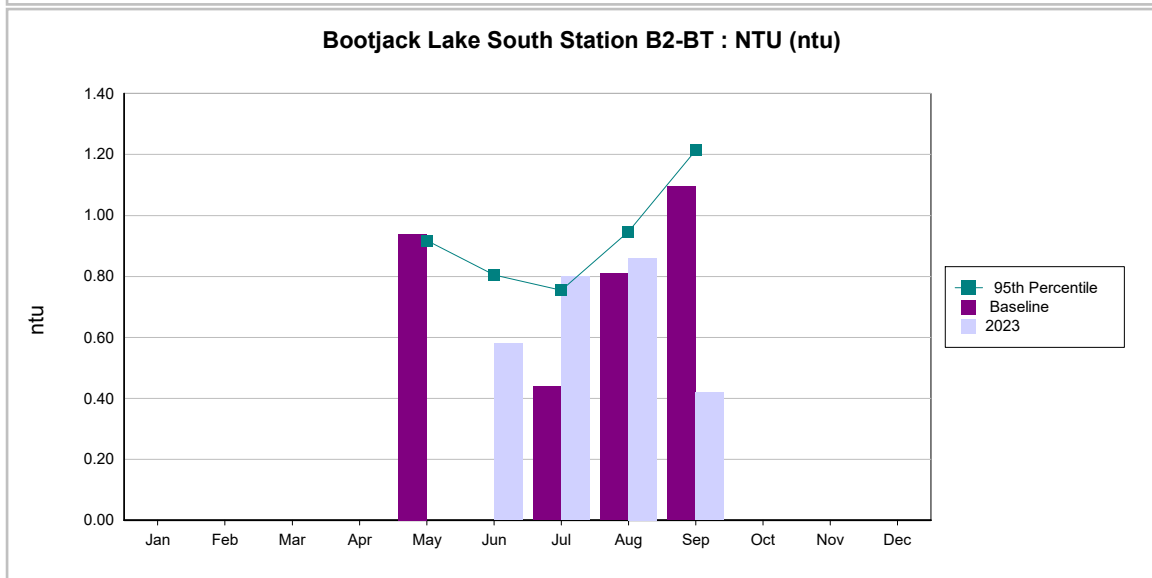
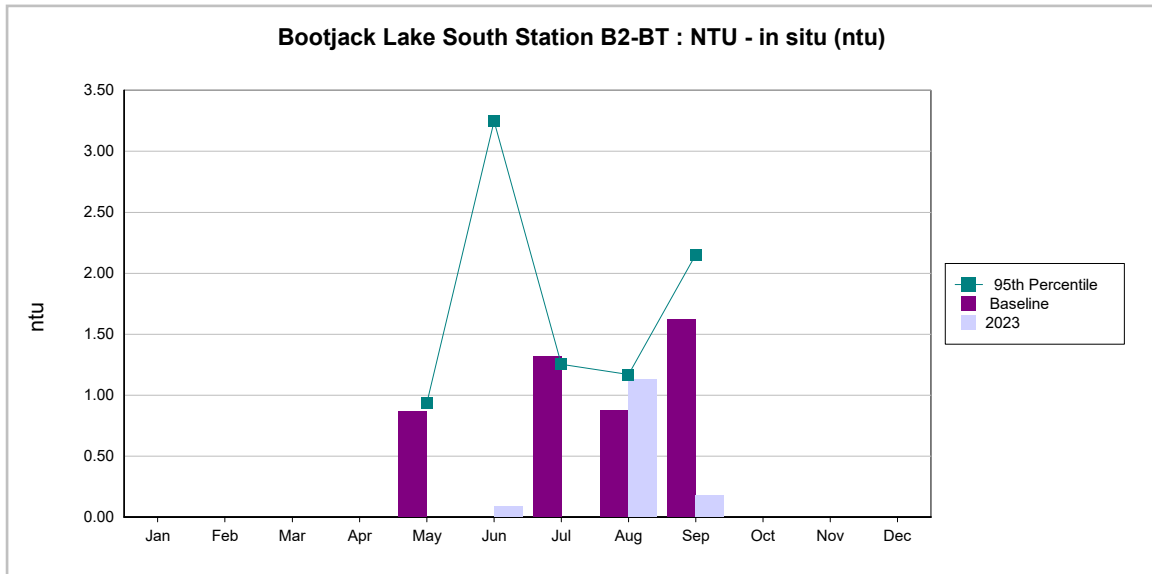
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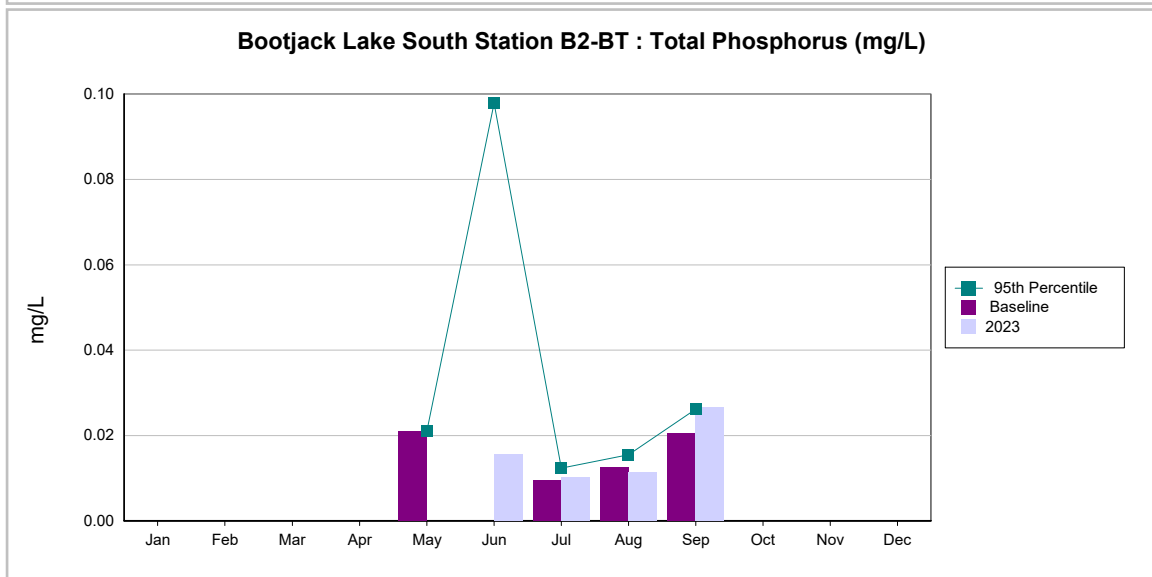
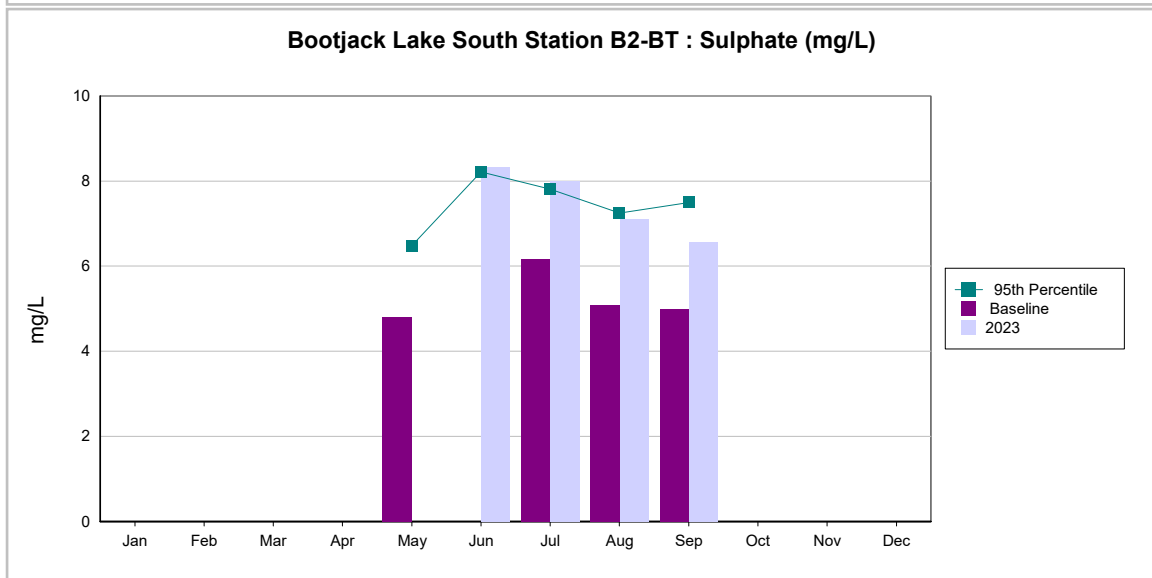
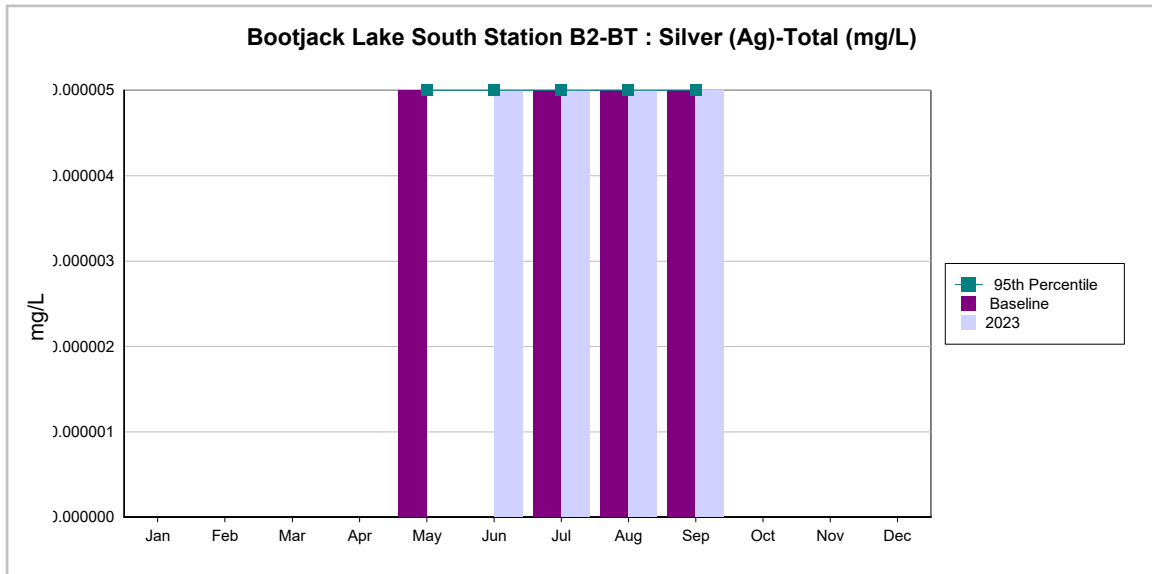
Annual Report Lake vs BCWQG



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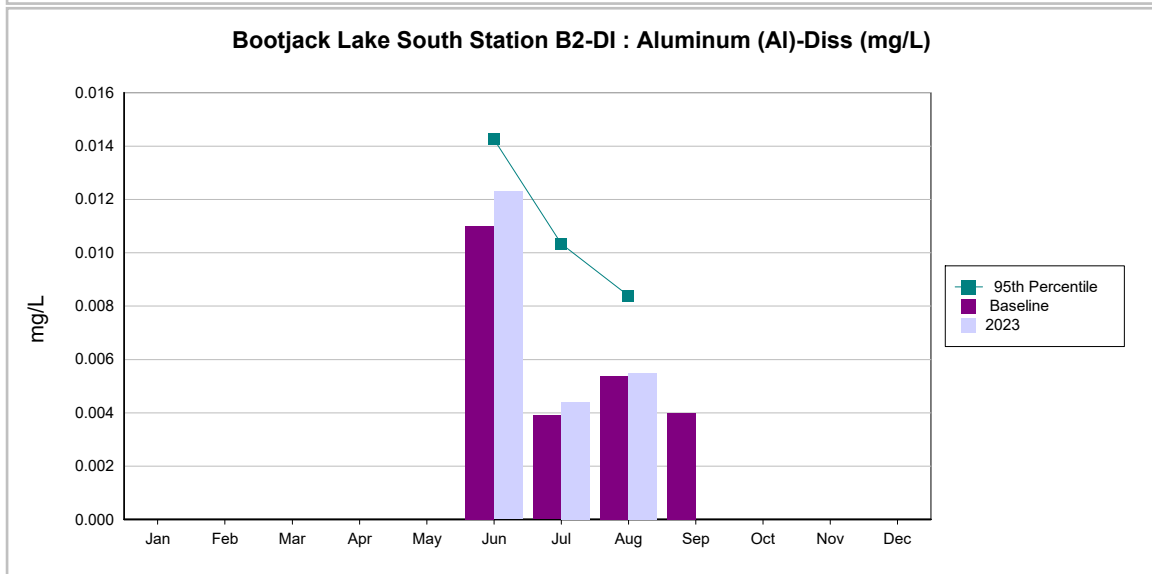
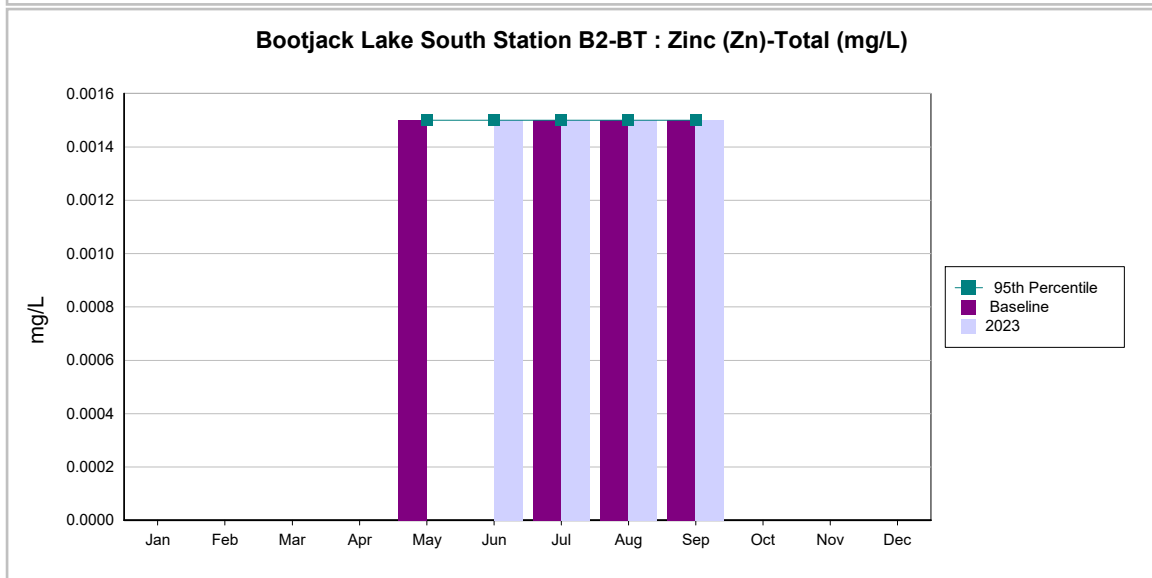
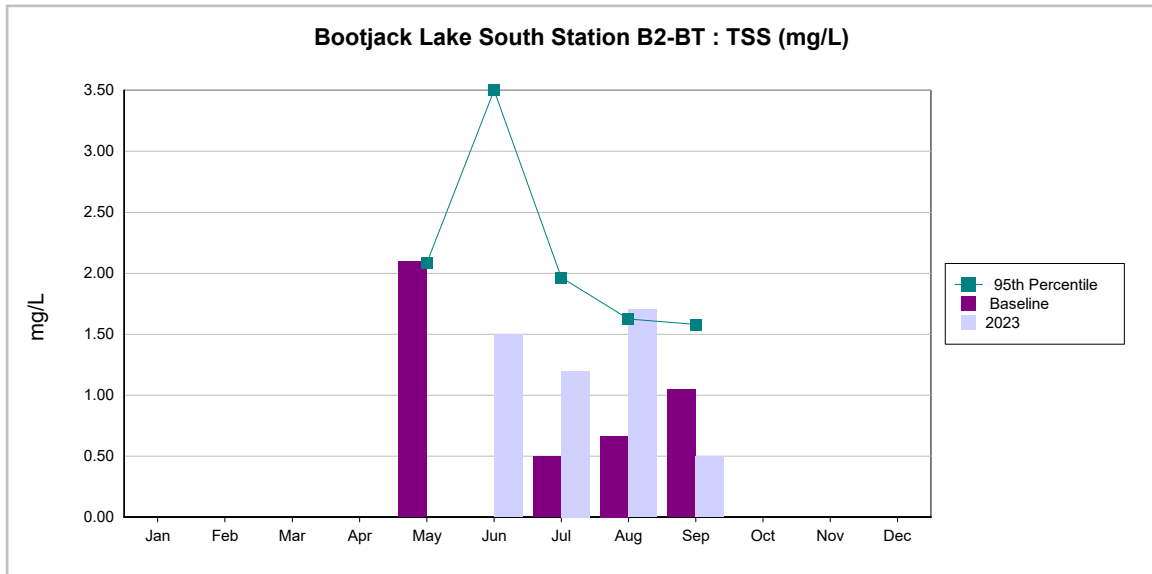
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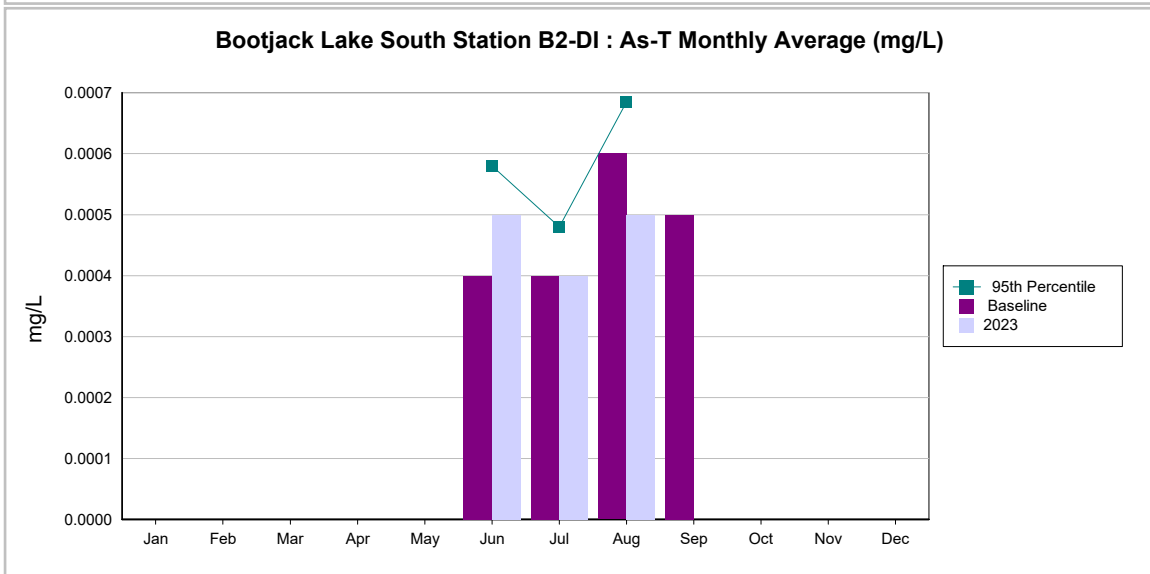
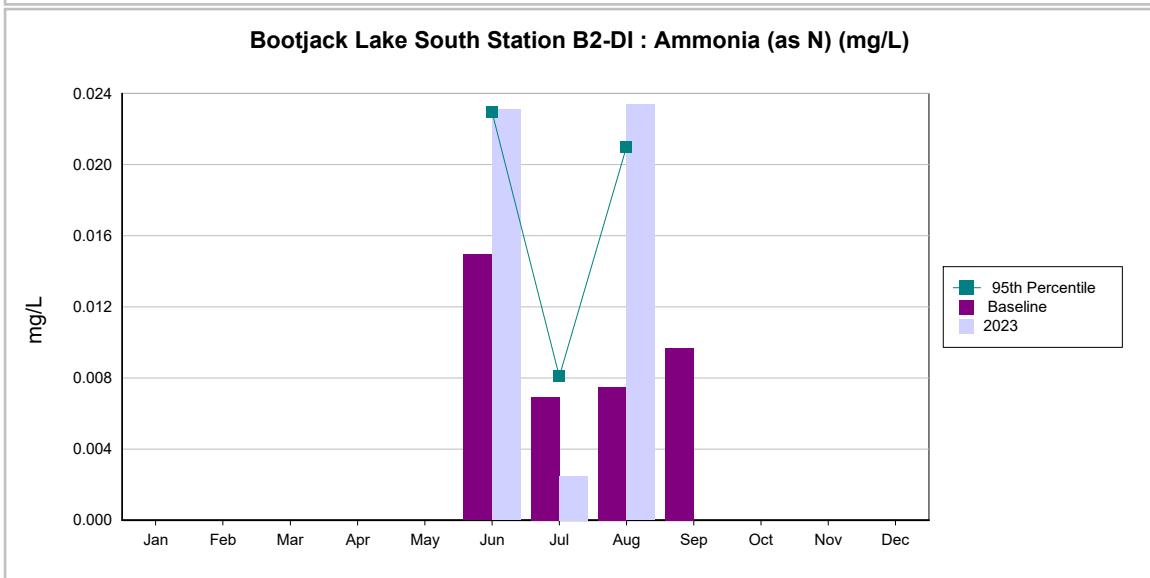
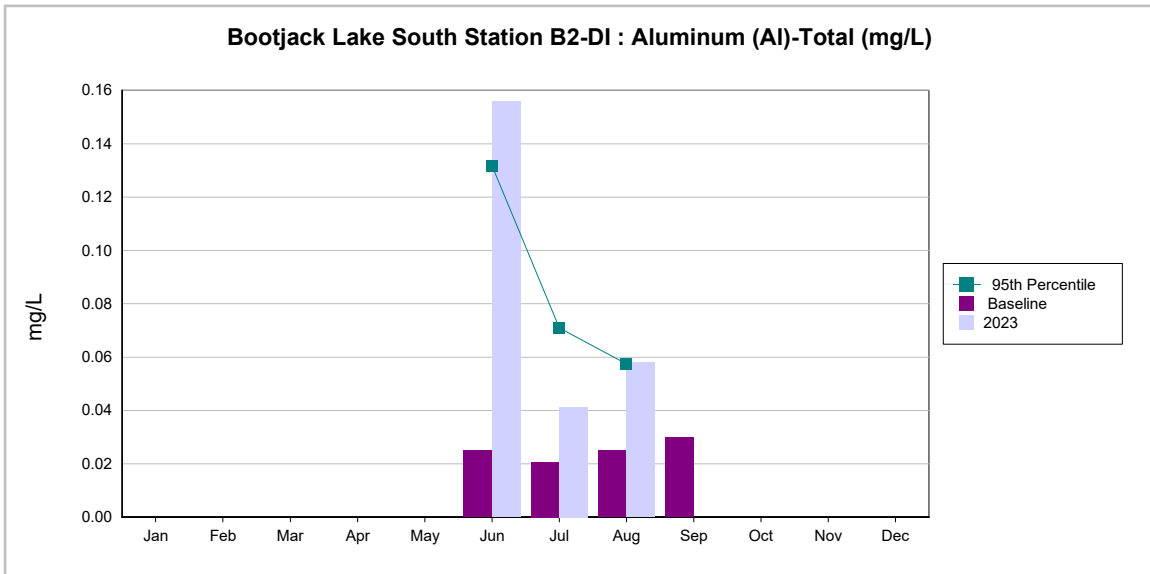
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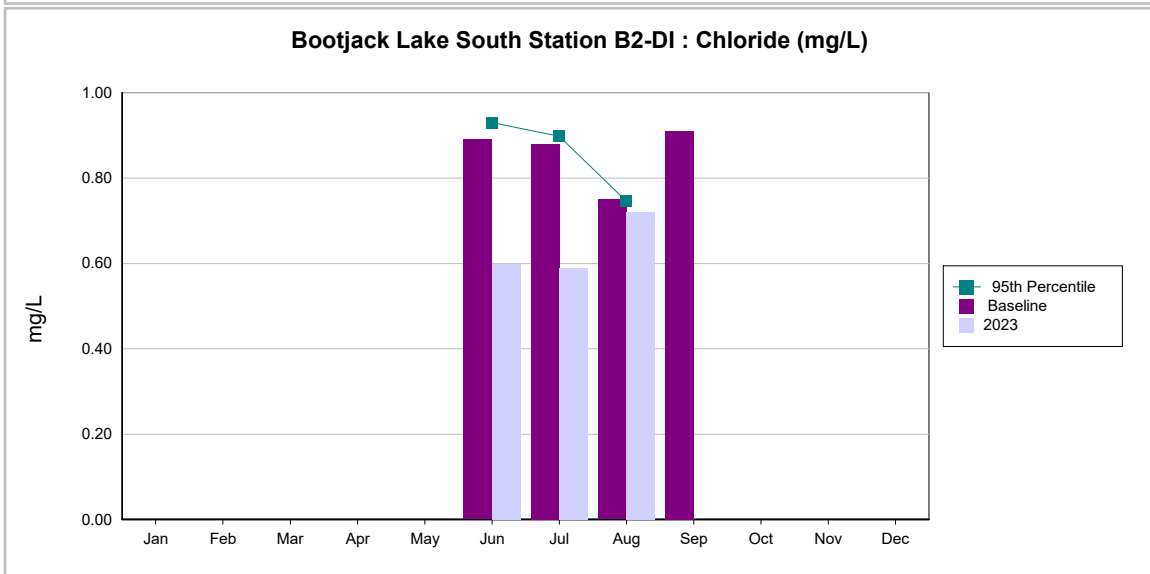
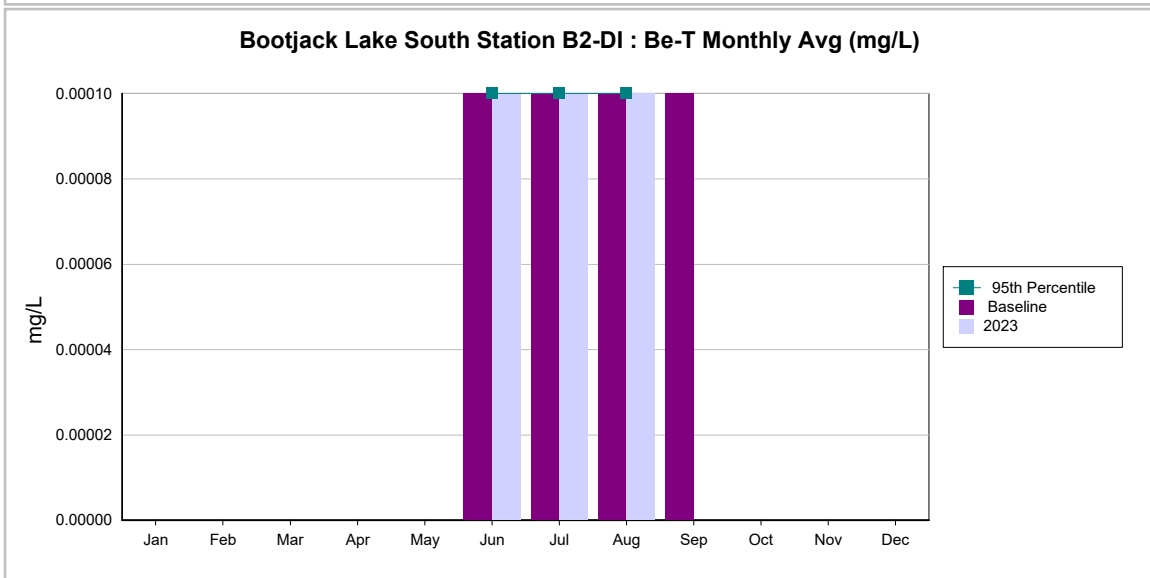
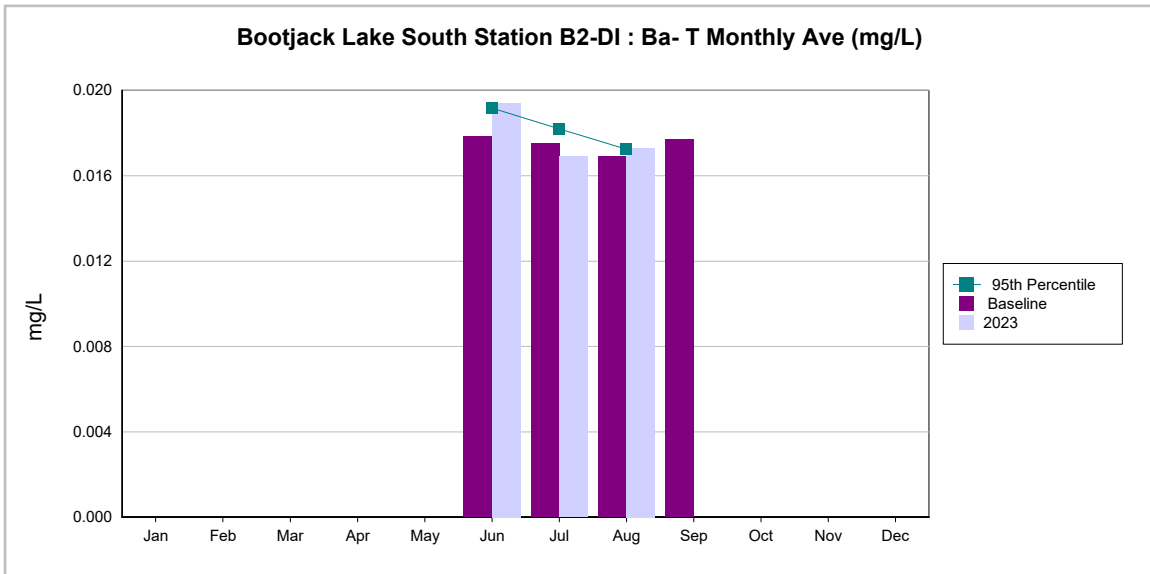
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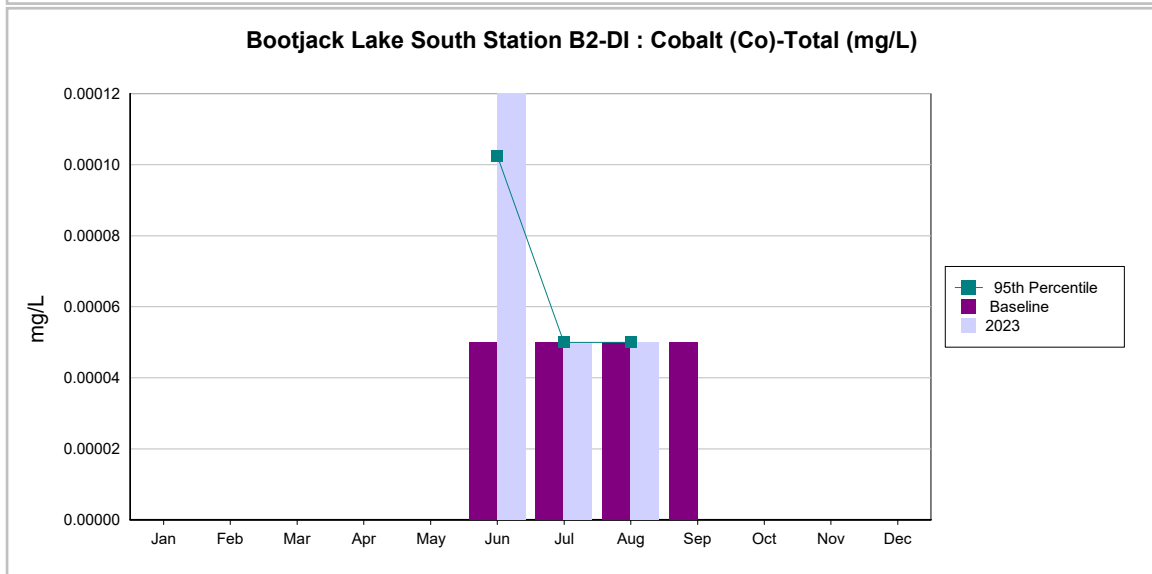
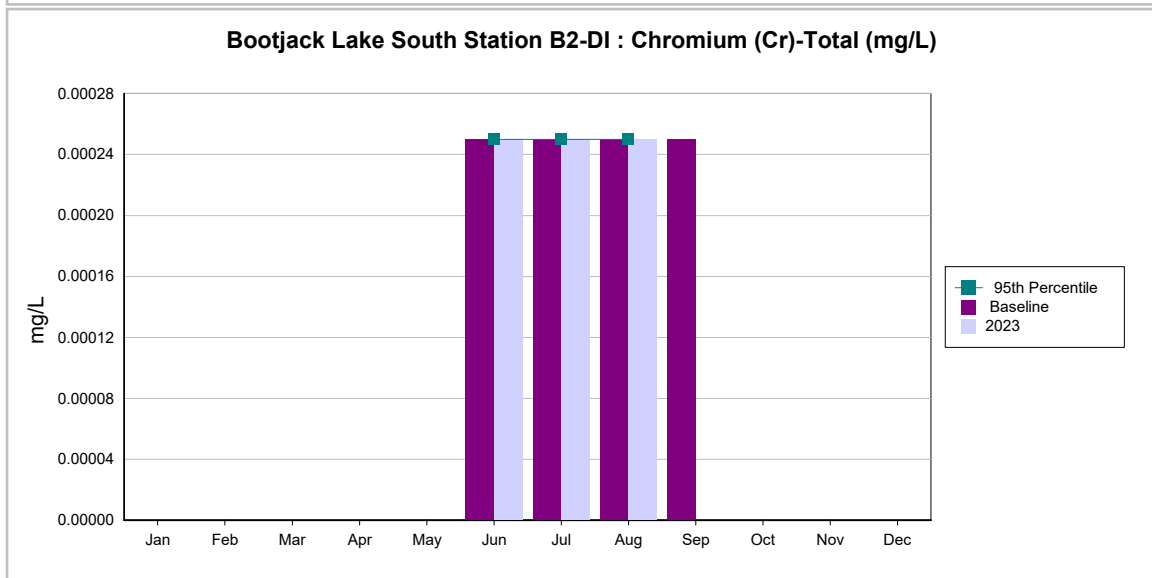
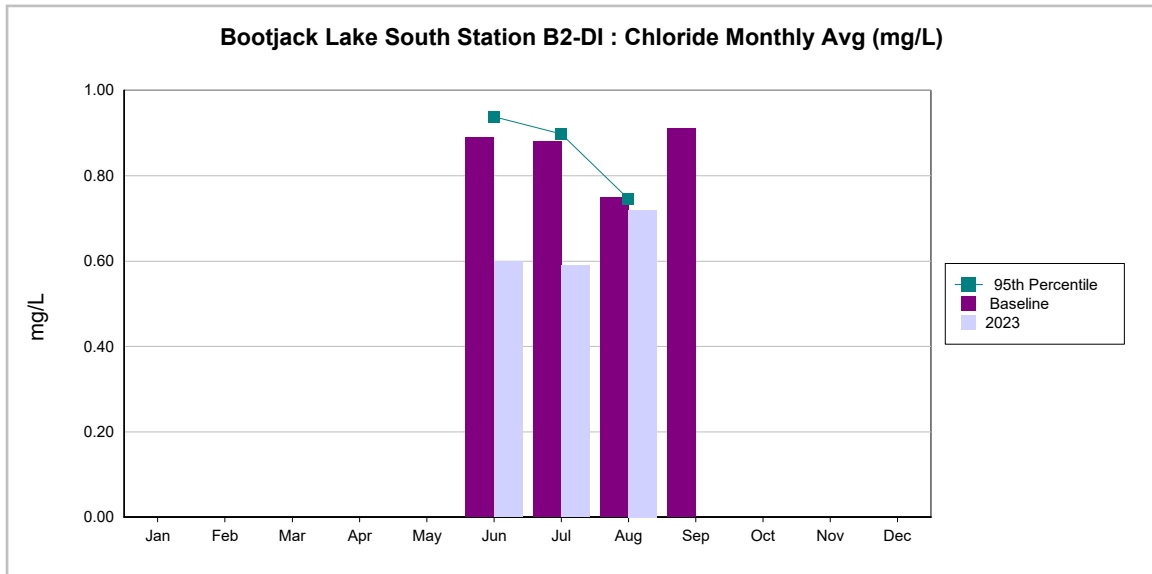
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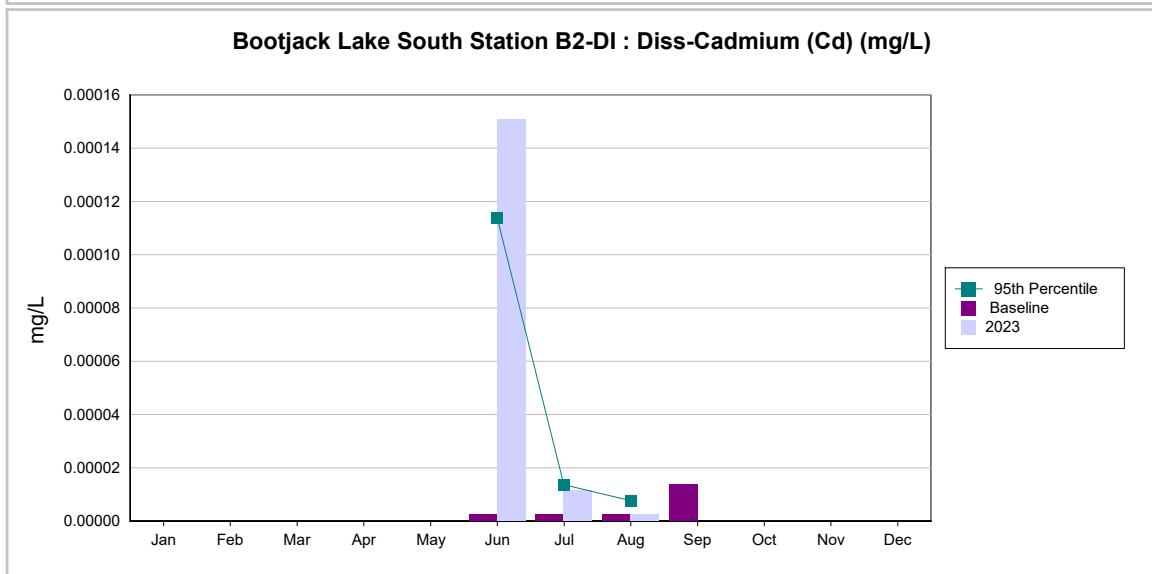
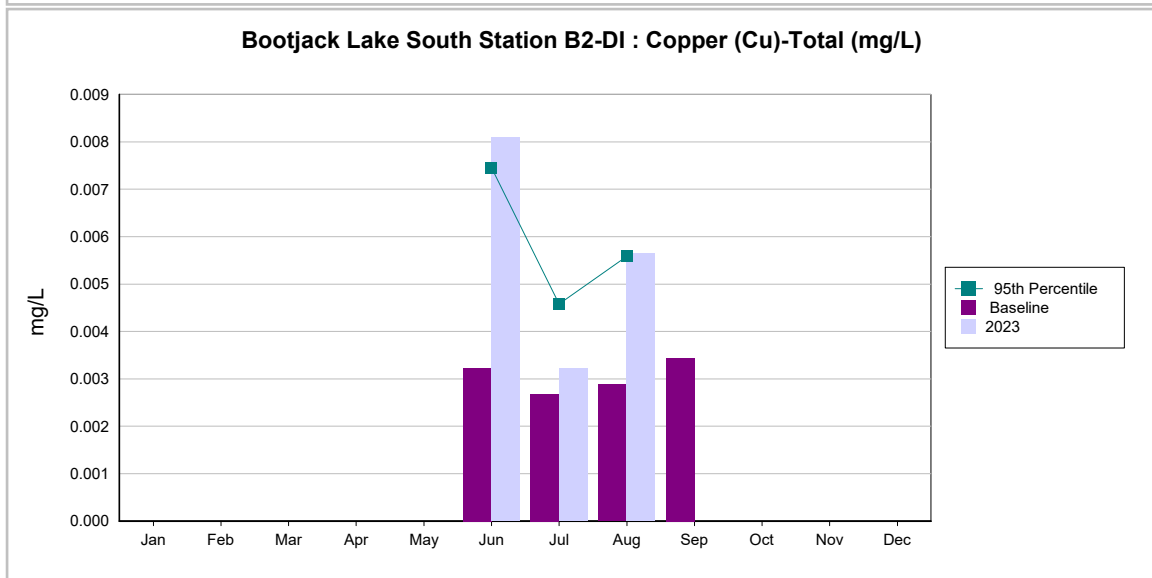
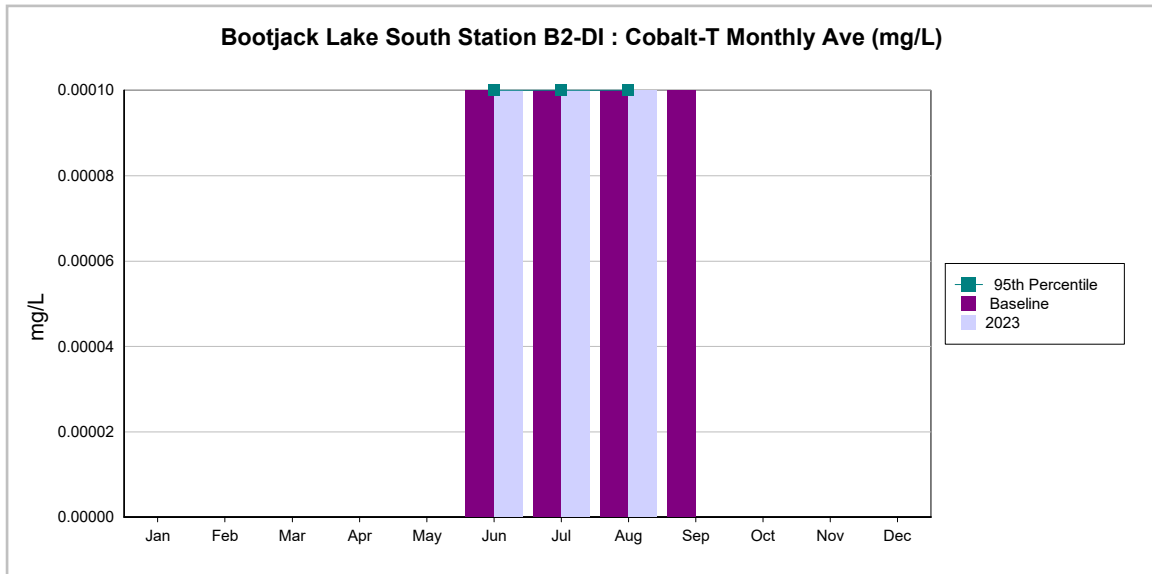
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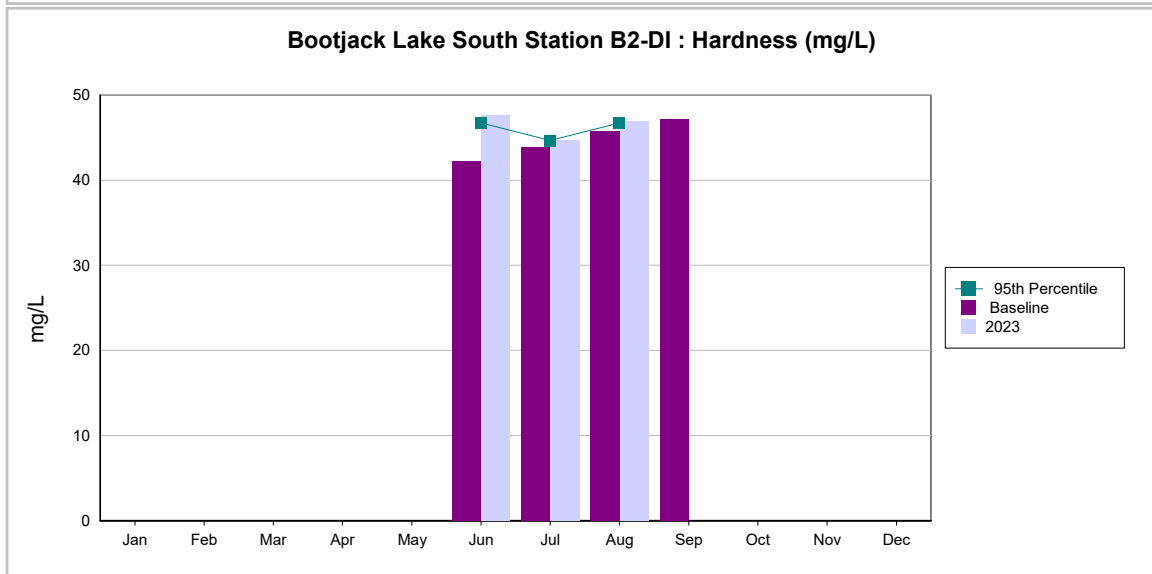
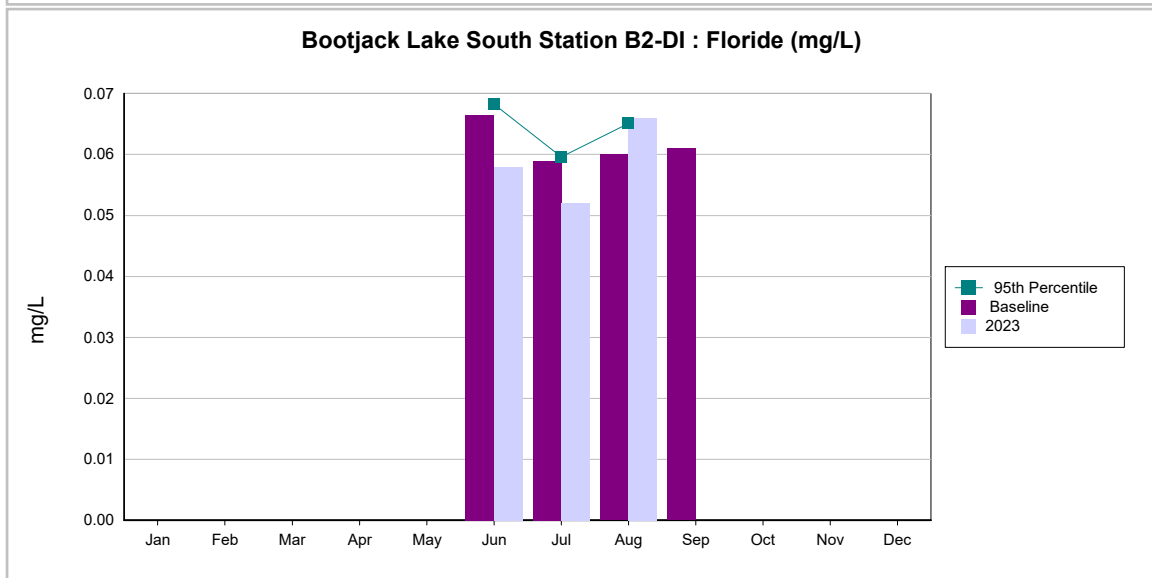
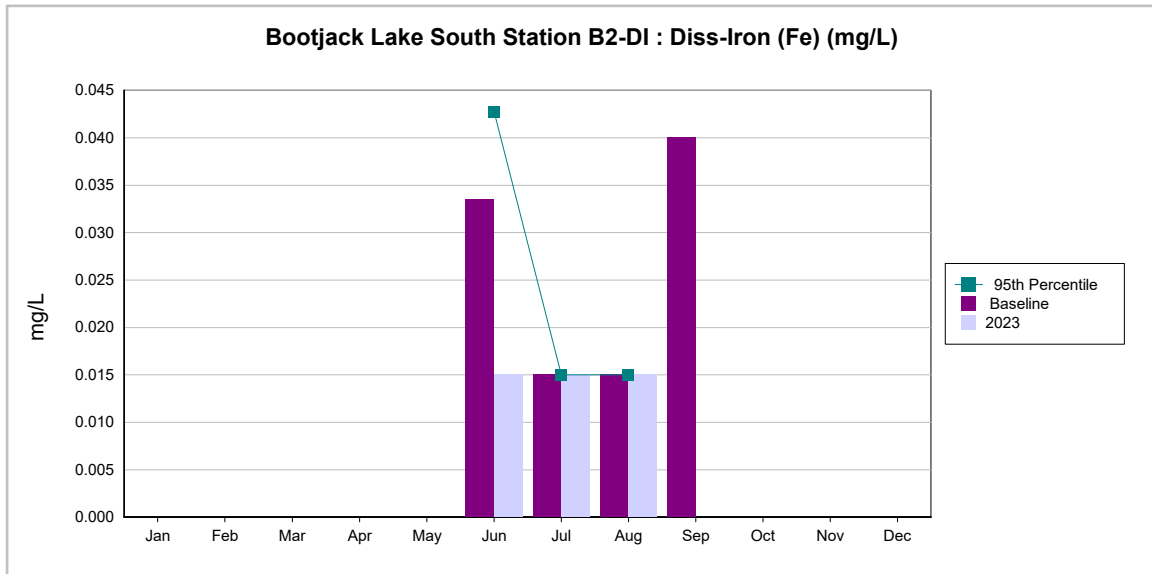
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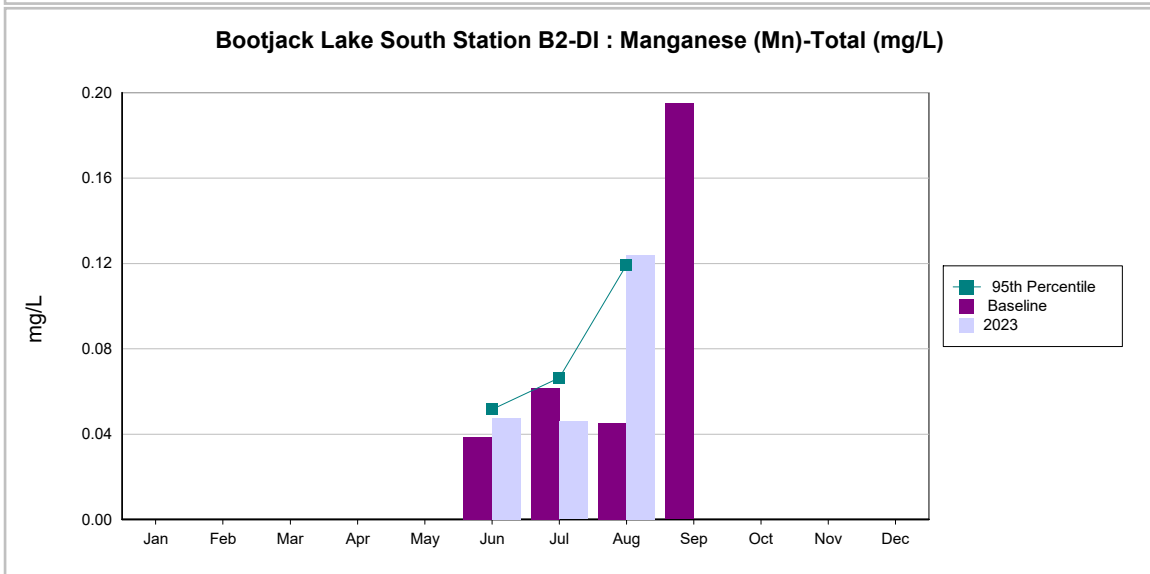
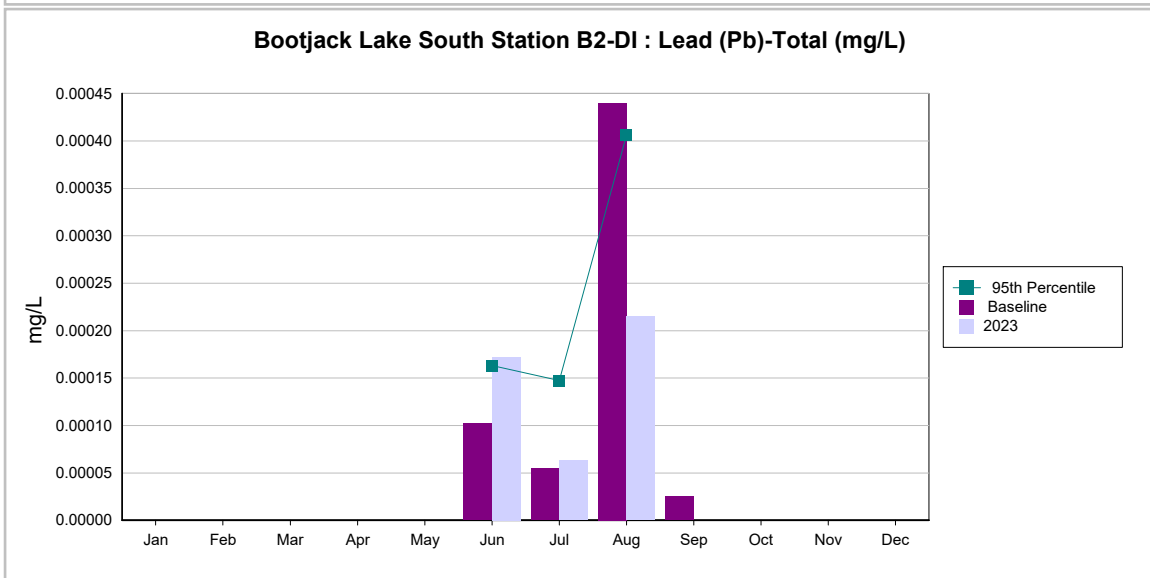
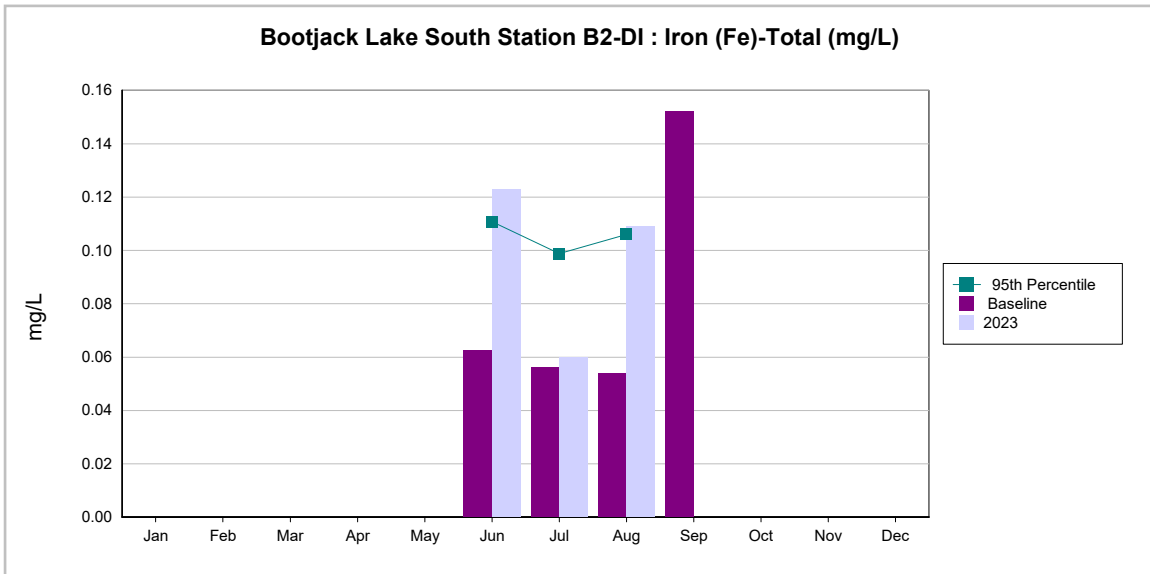
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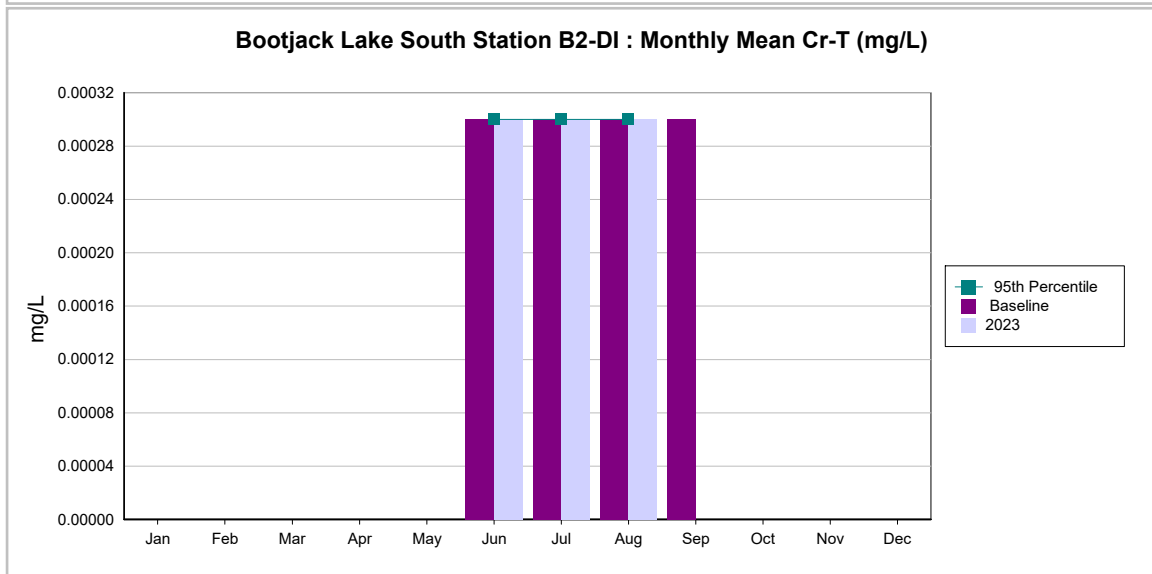
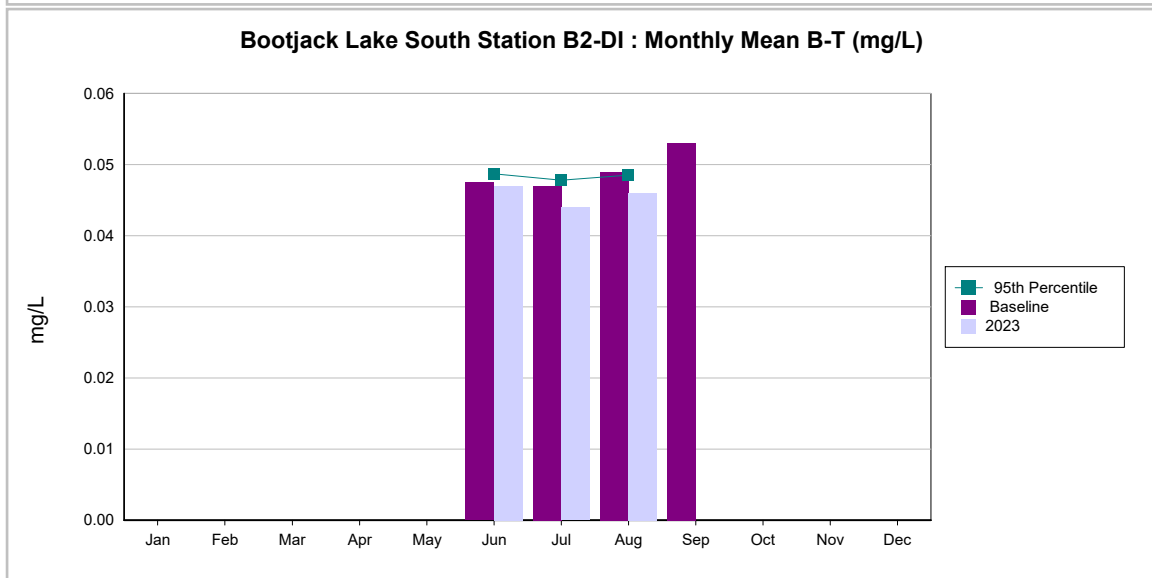
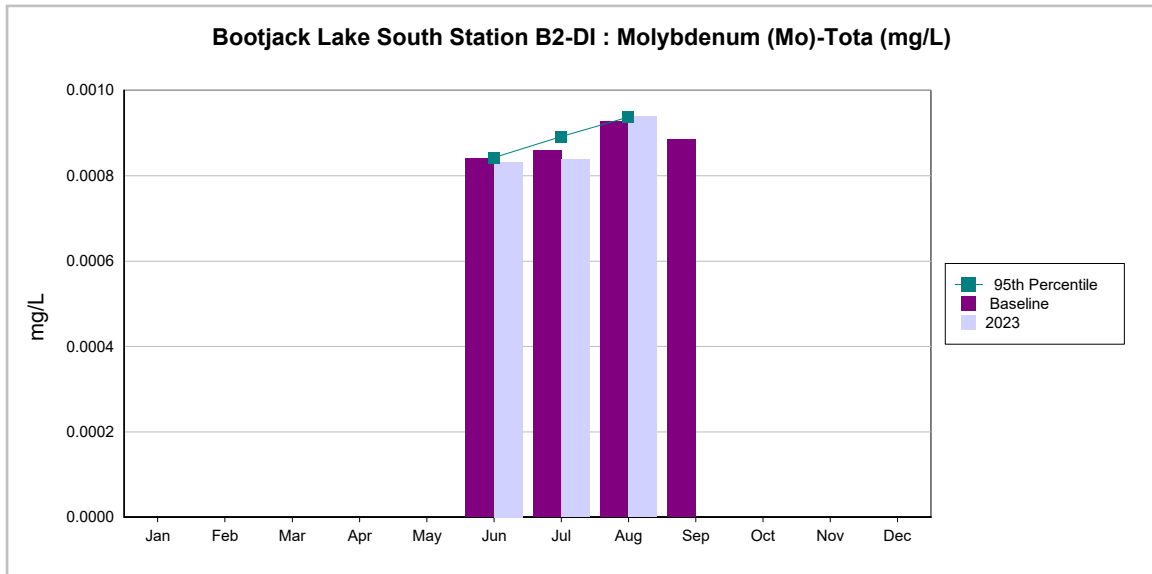
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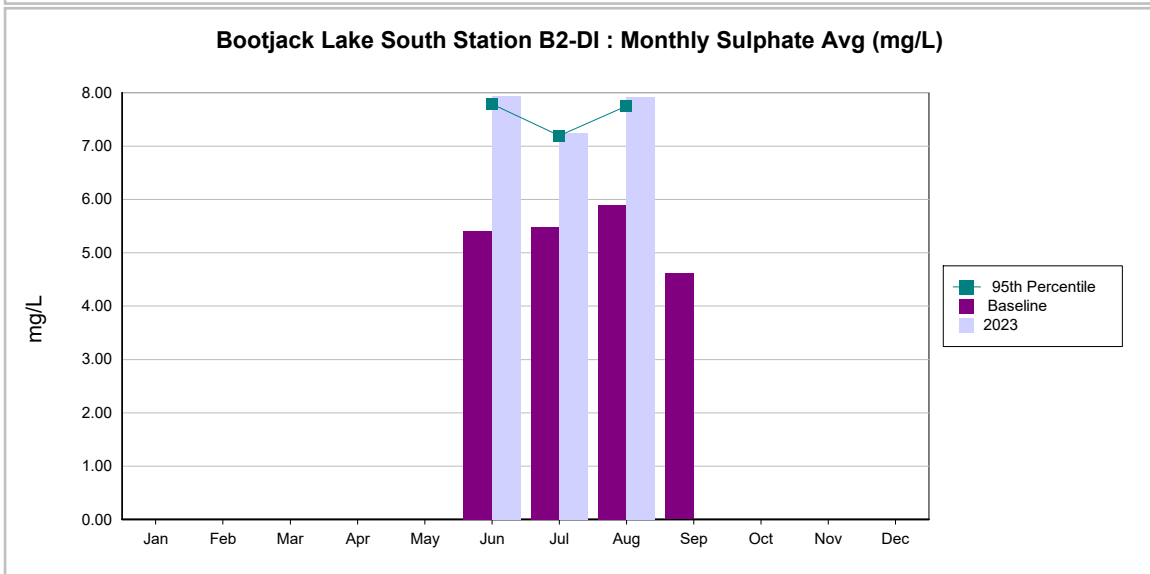
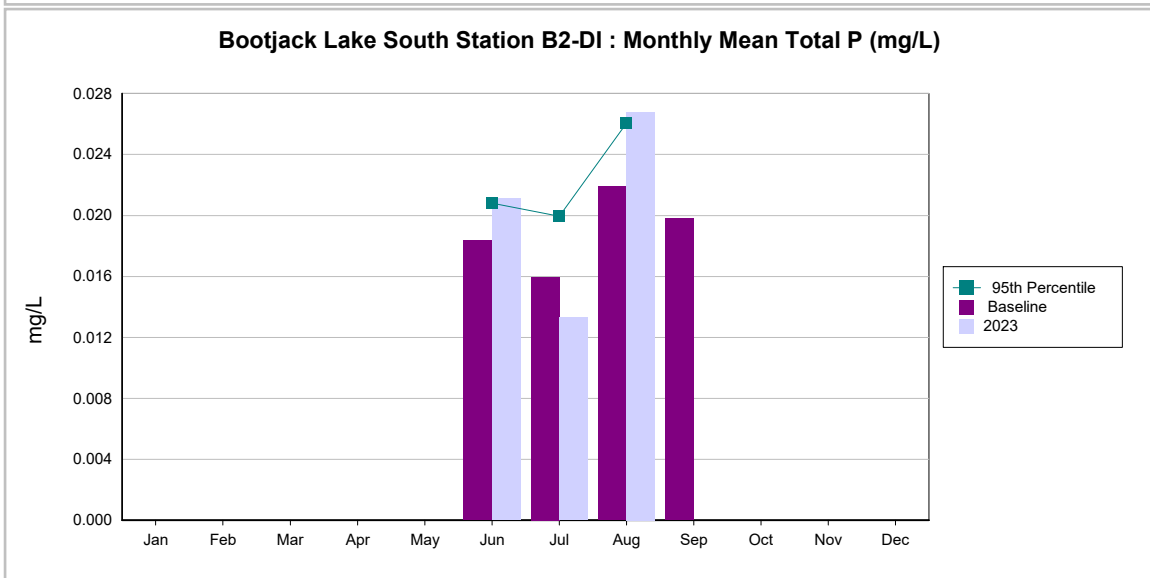
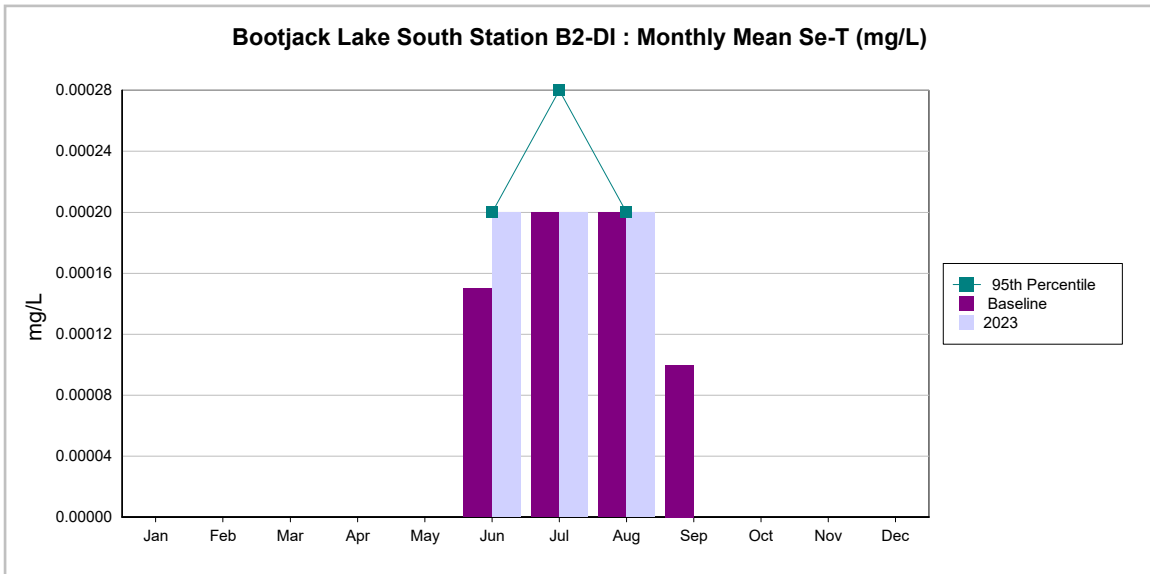
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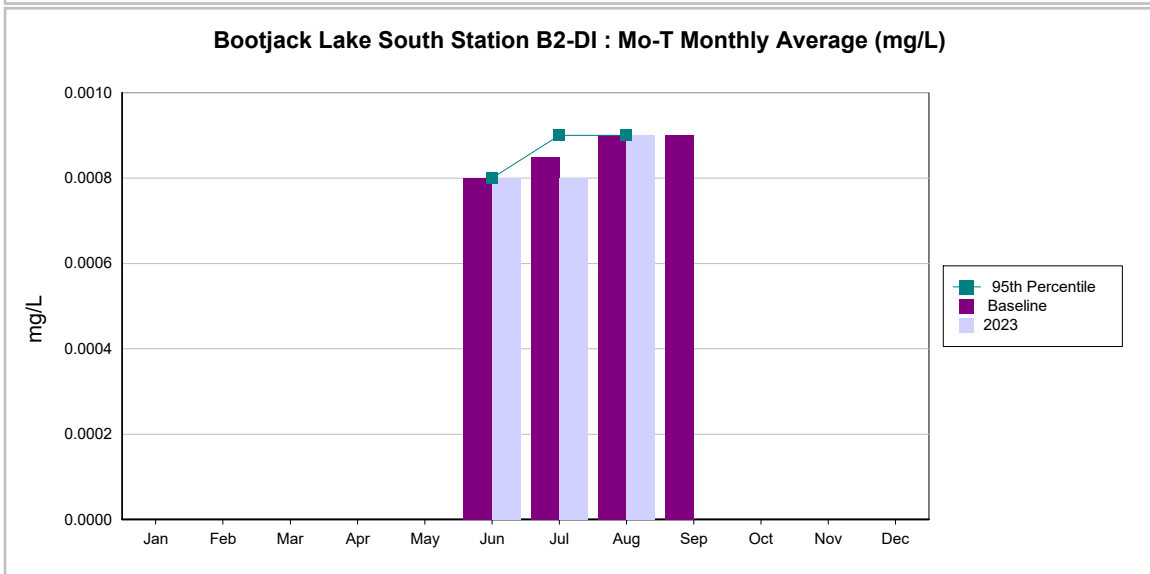
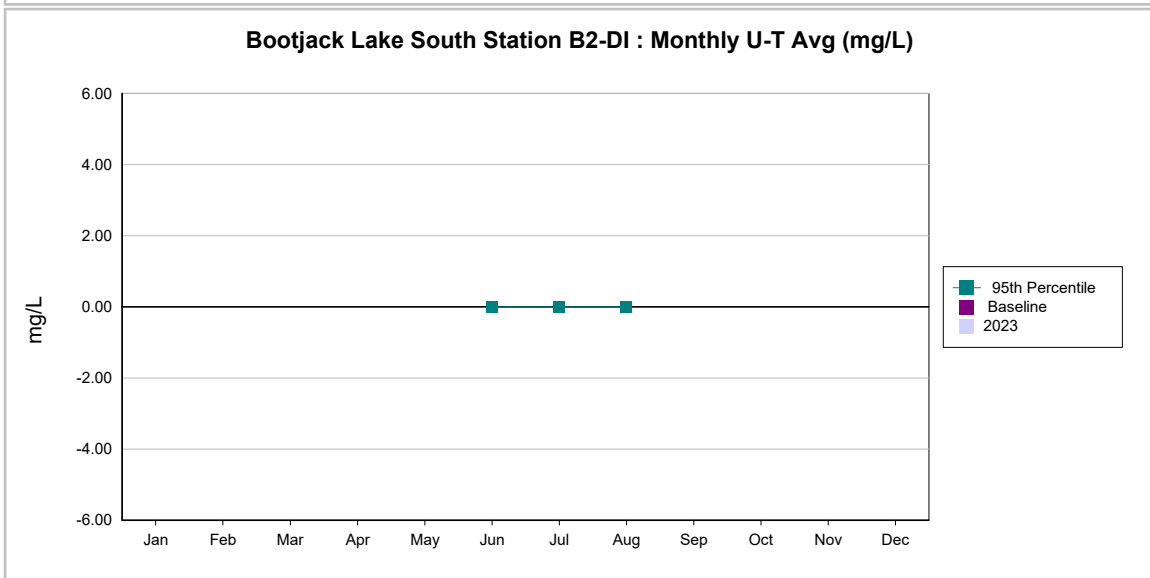
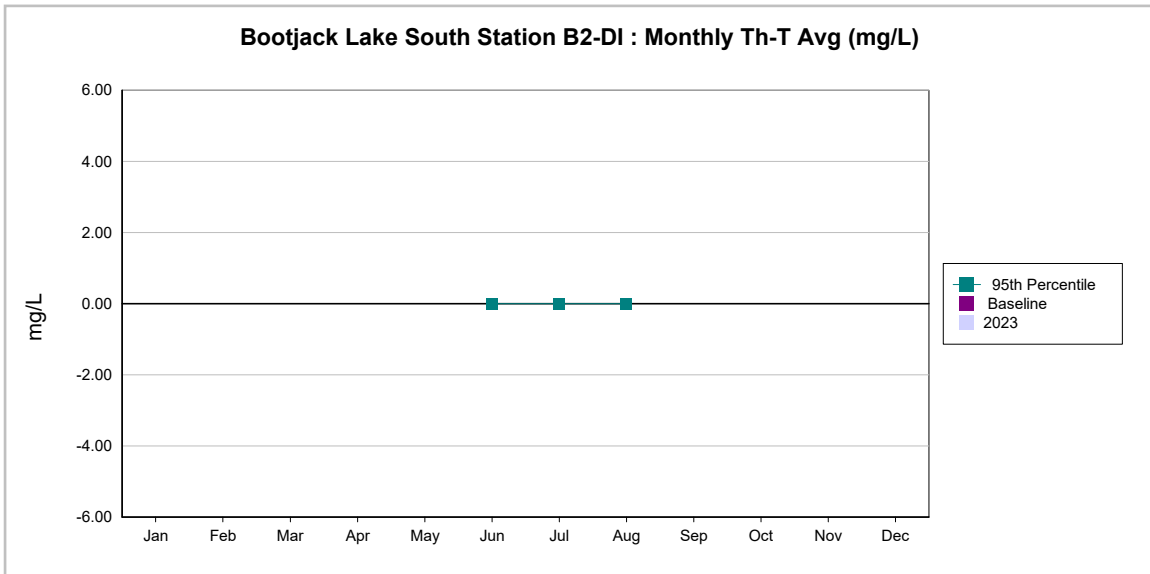
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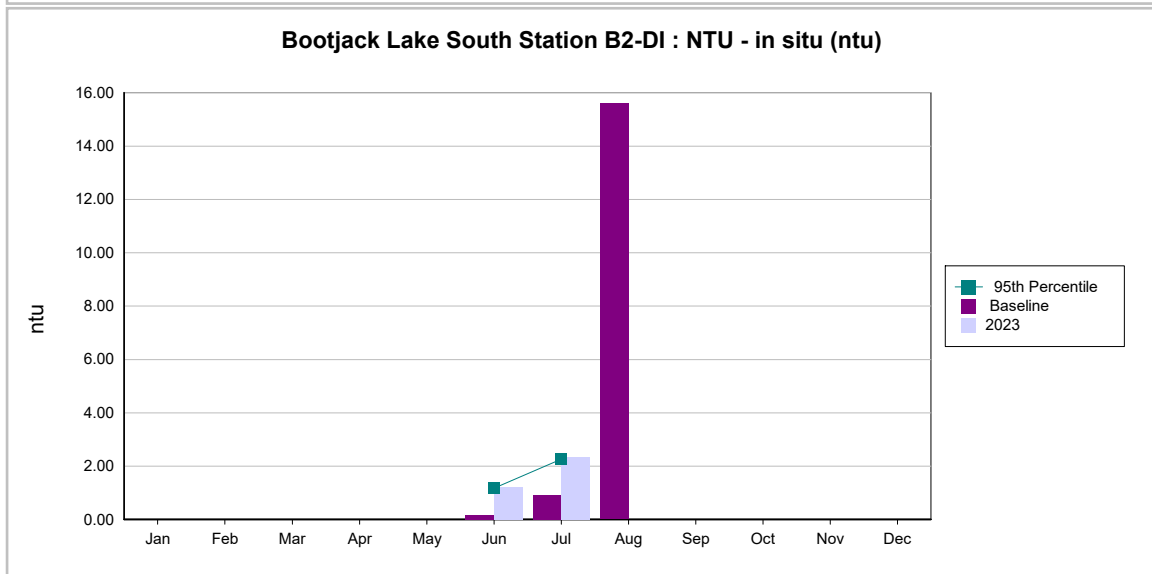
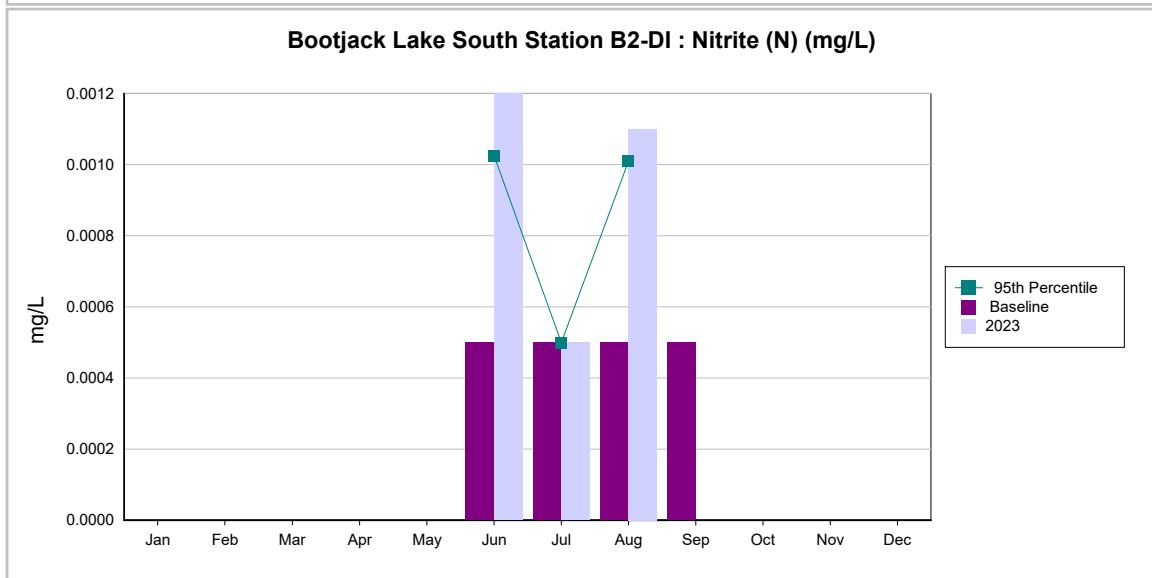
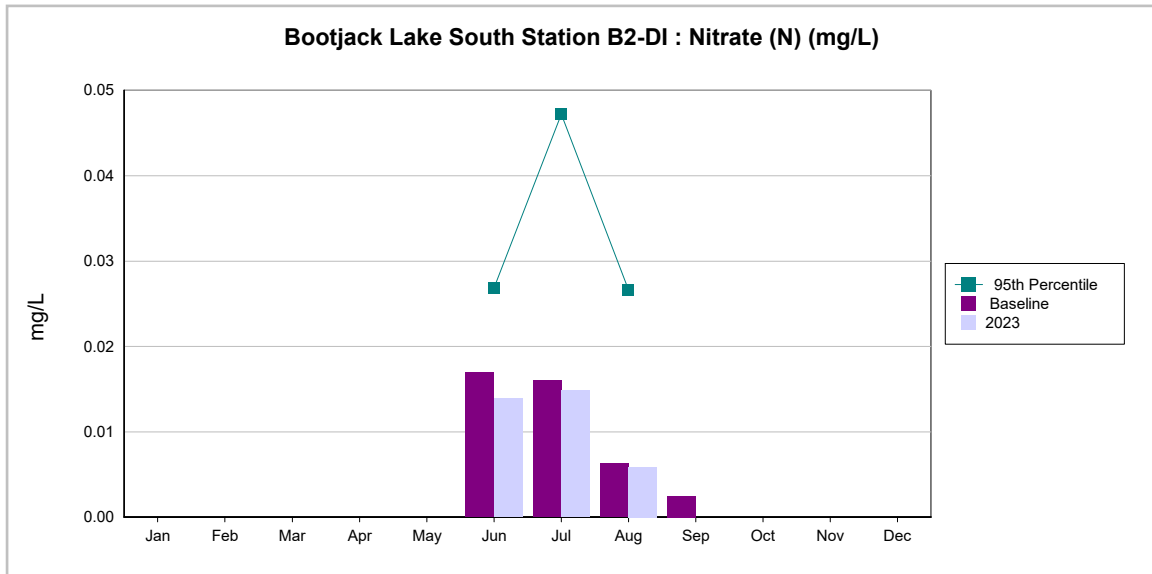
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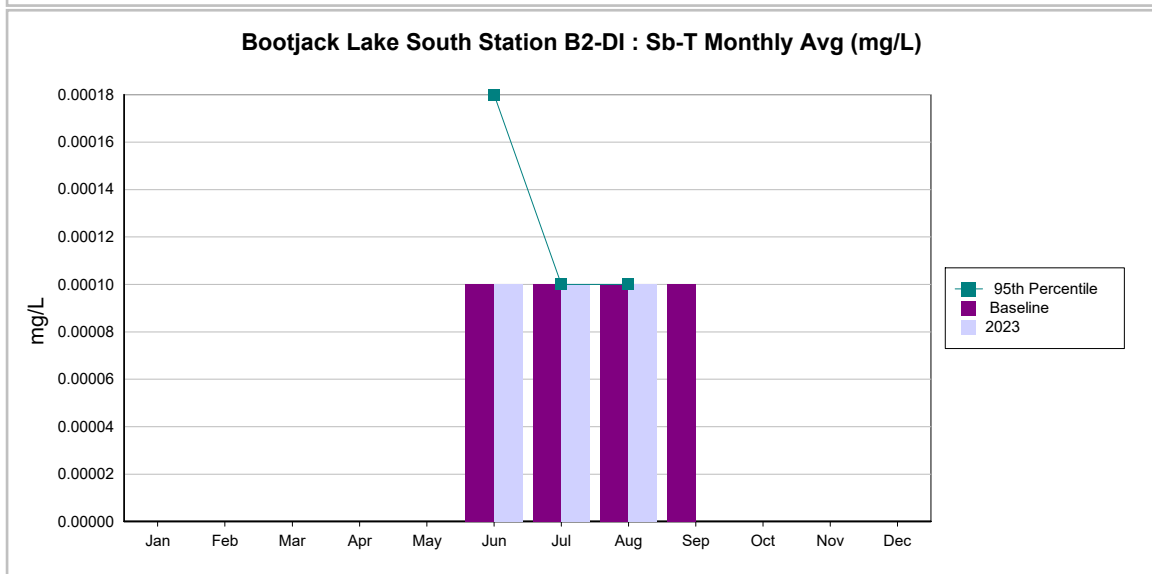
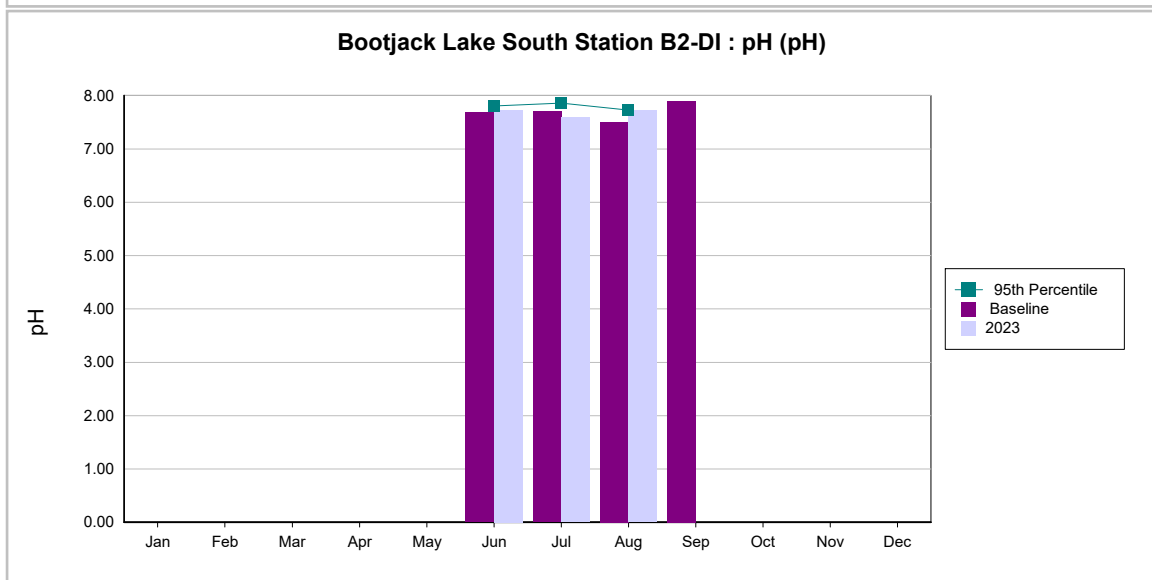
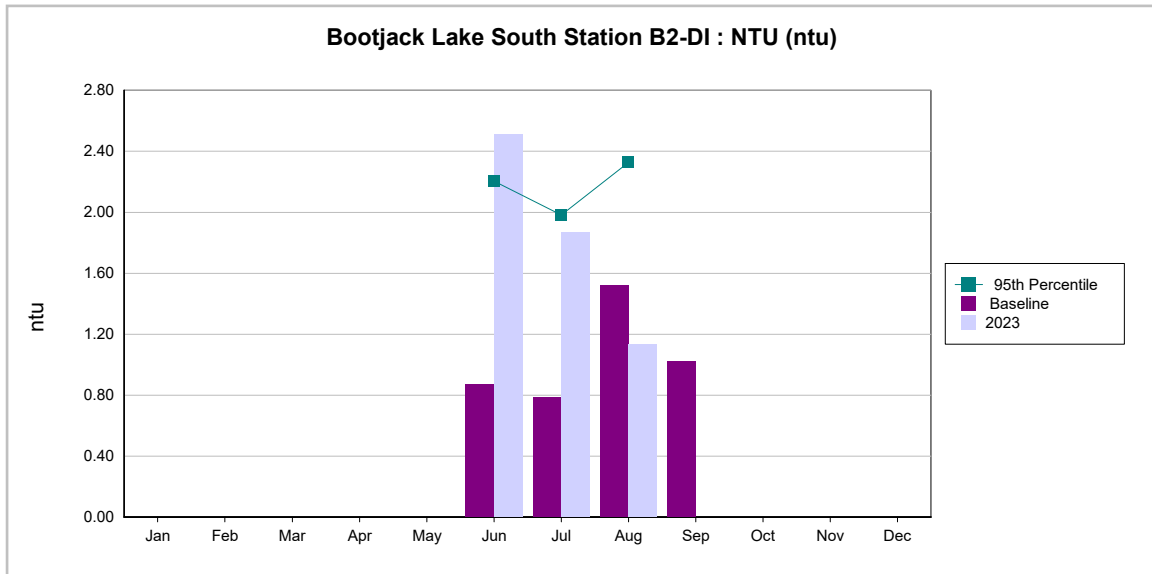
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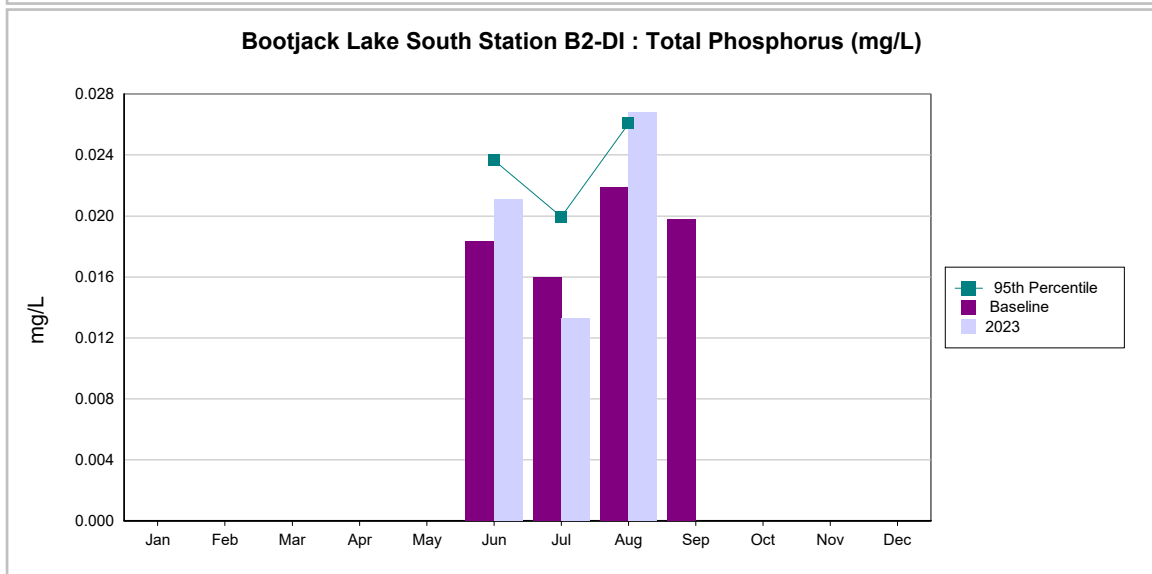
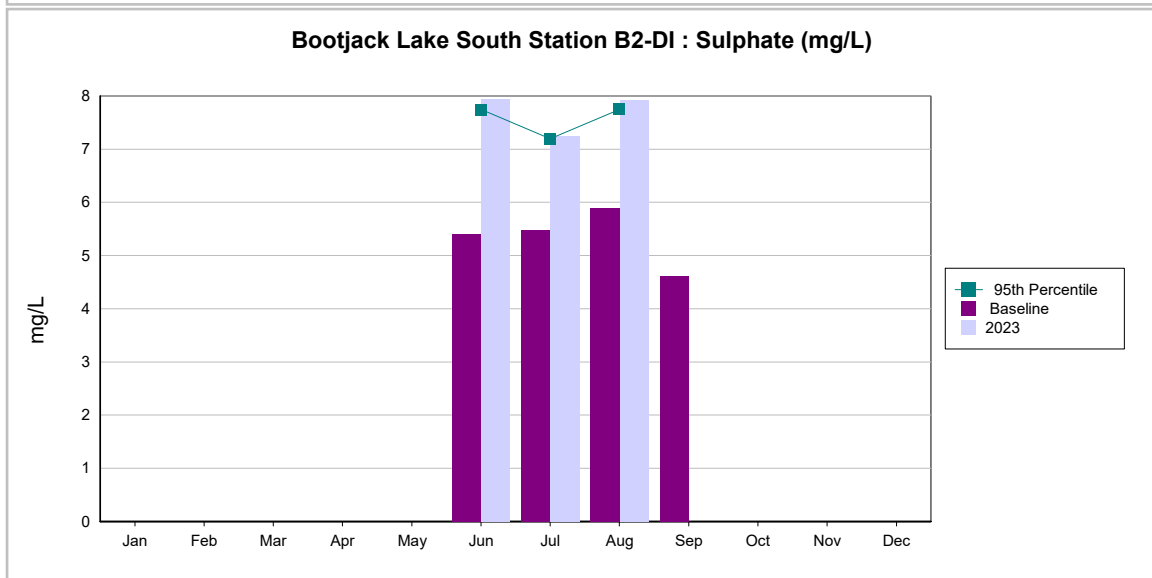
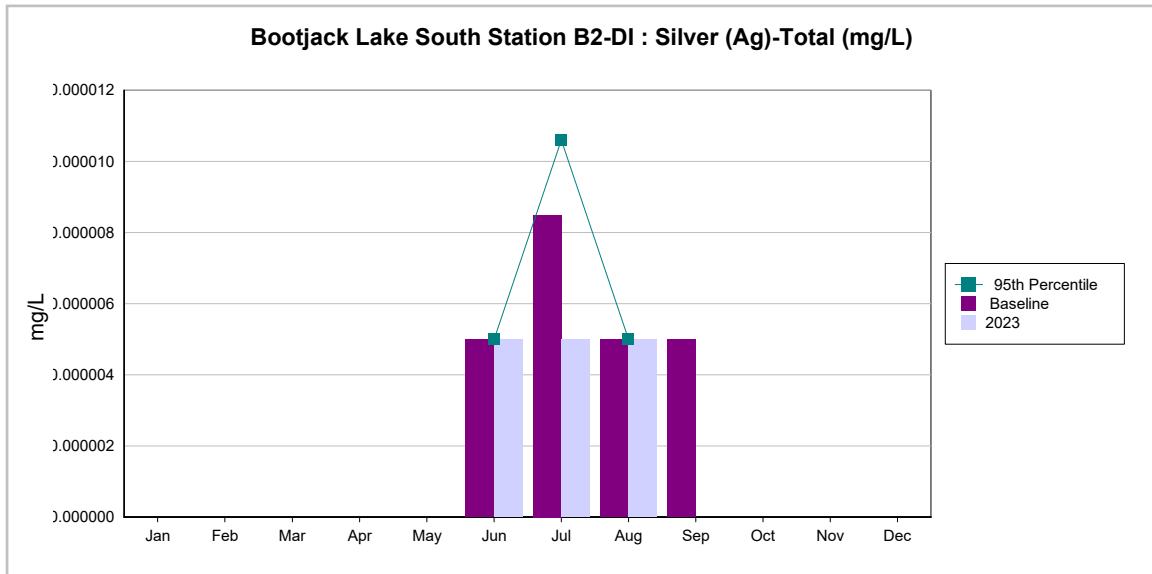
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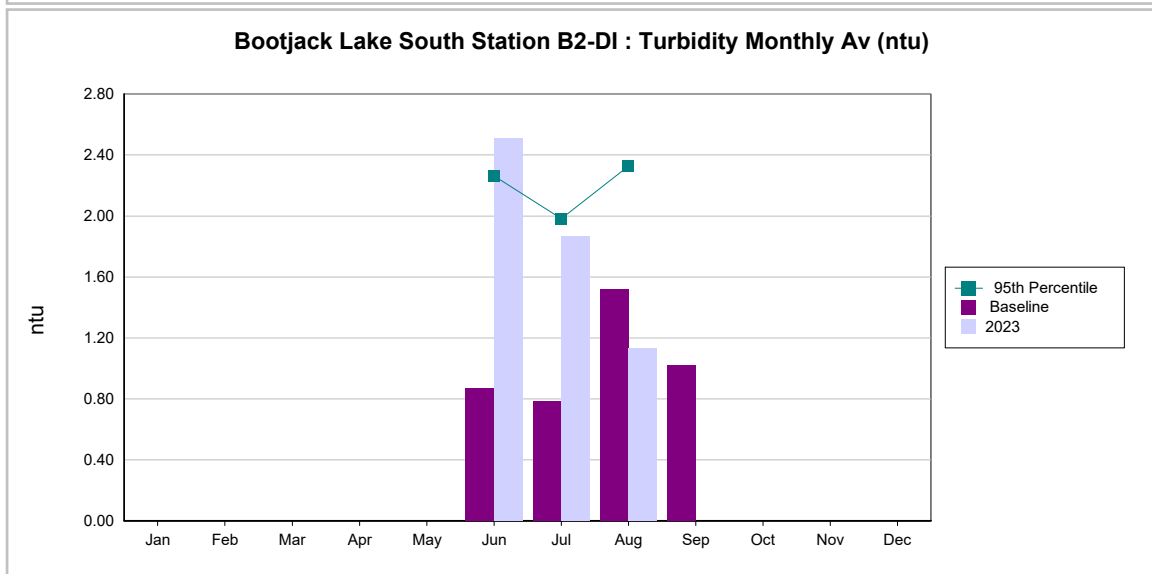
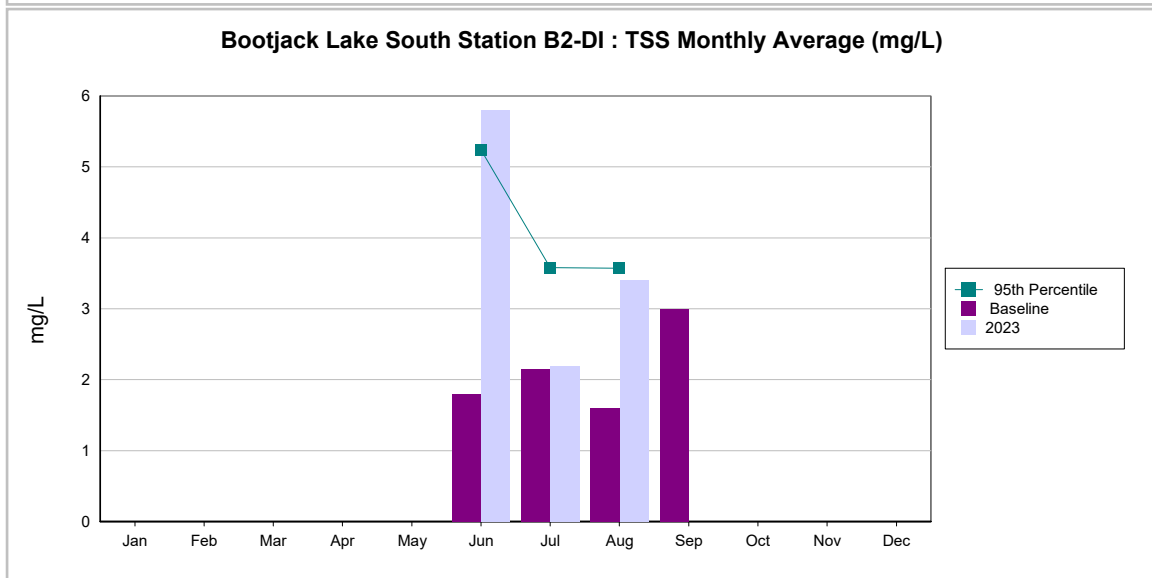
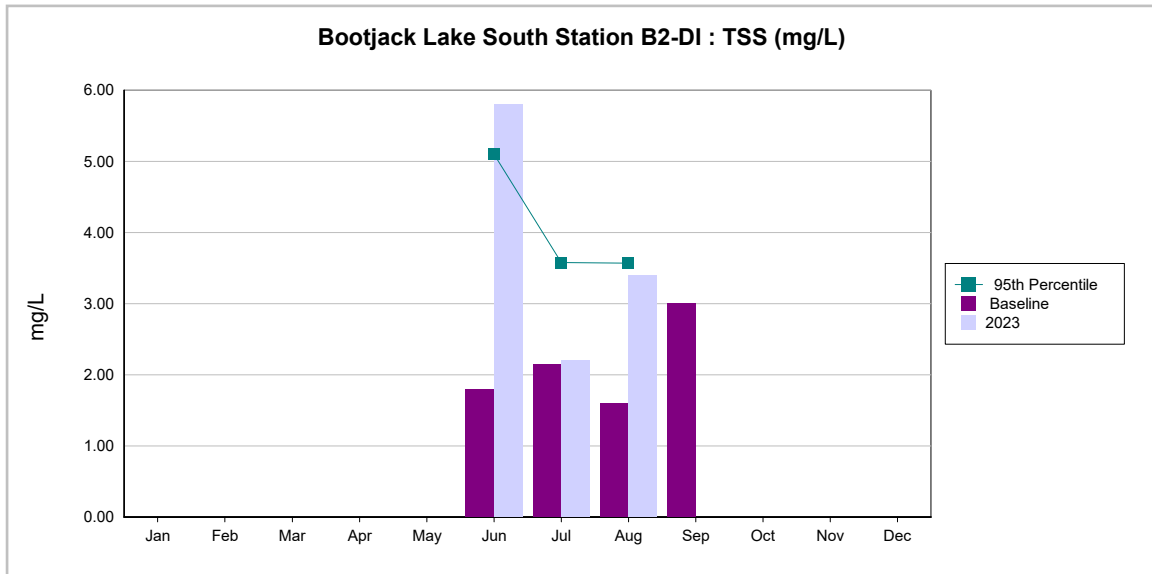
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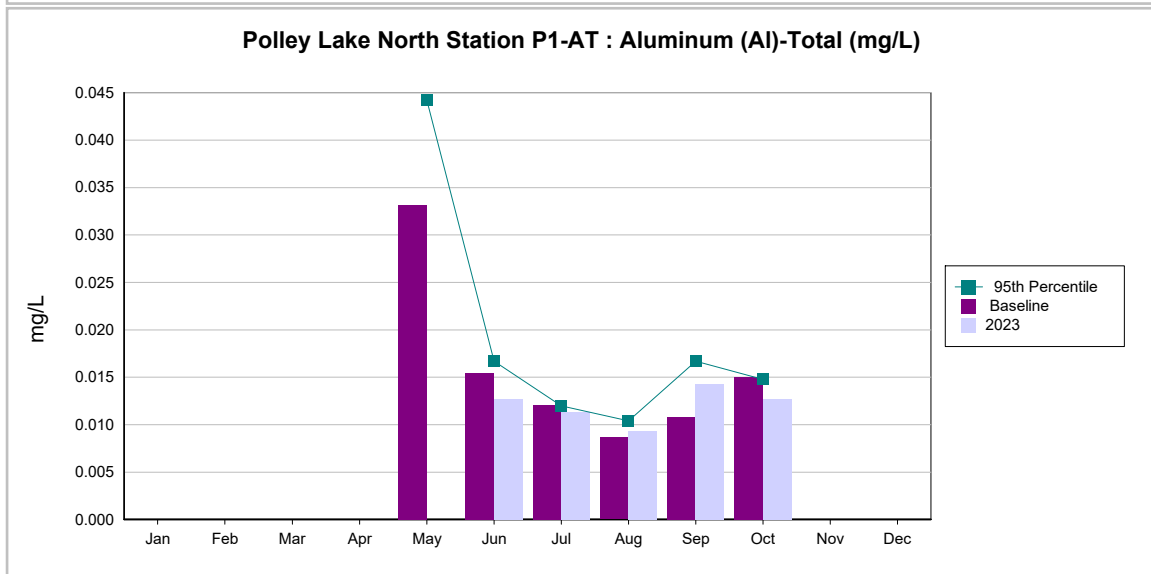
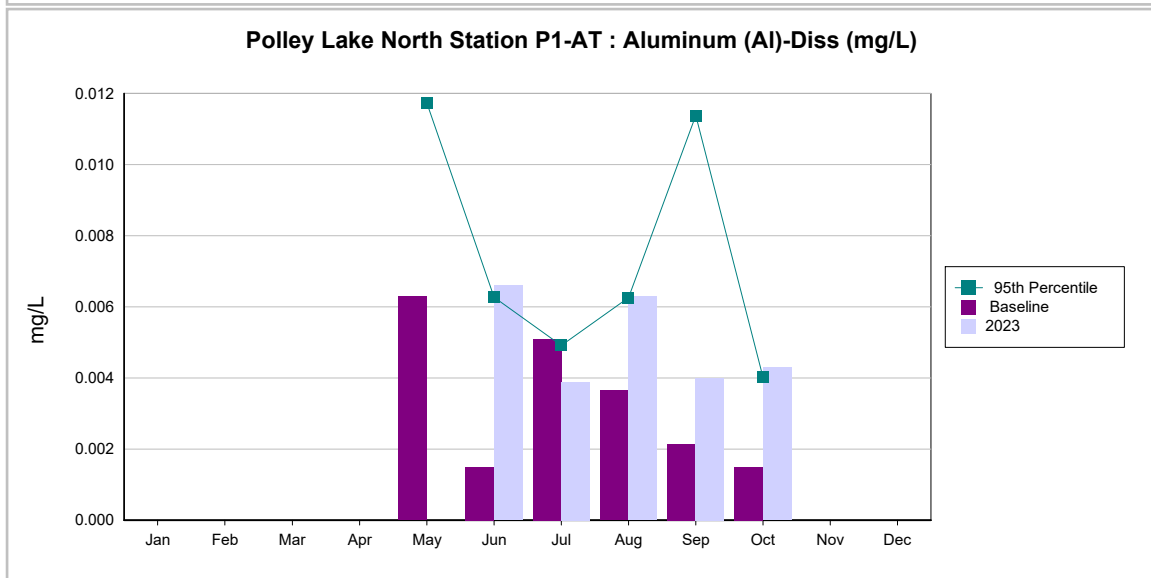
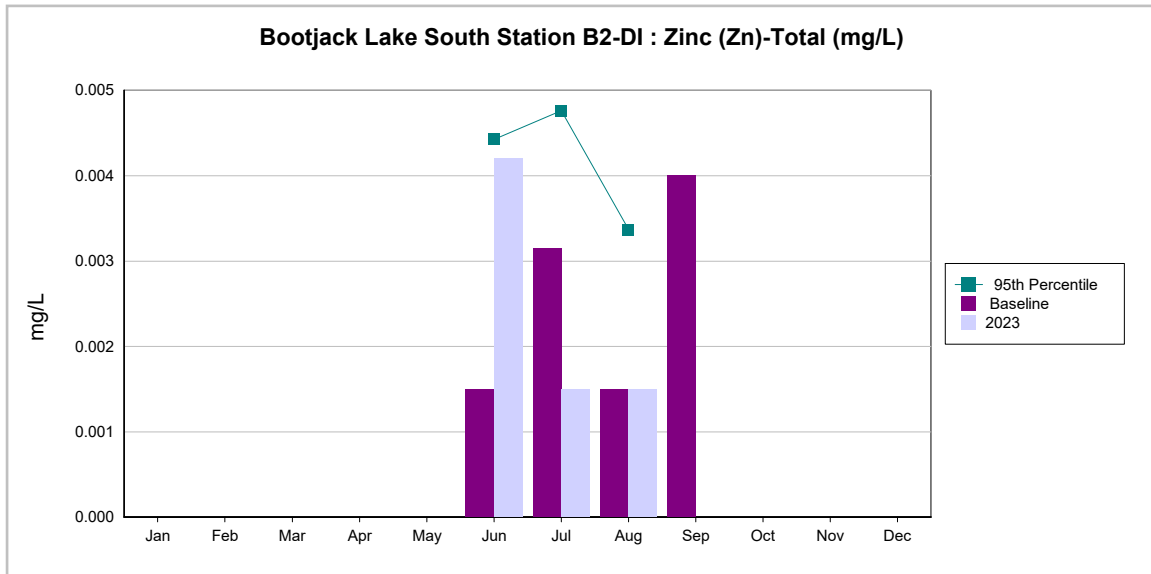
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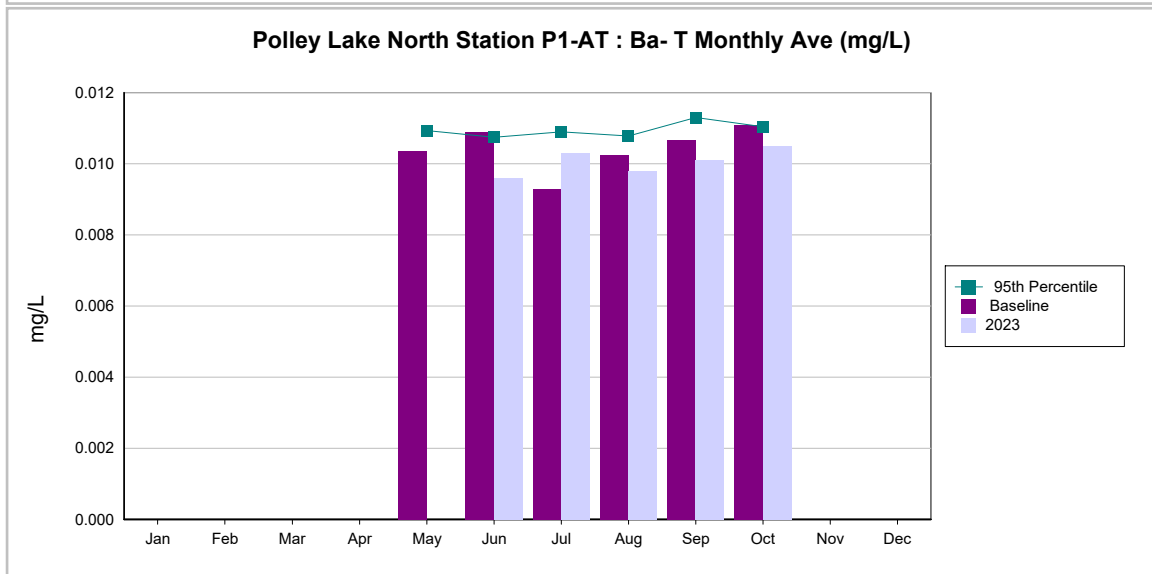
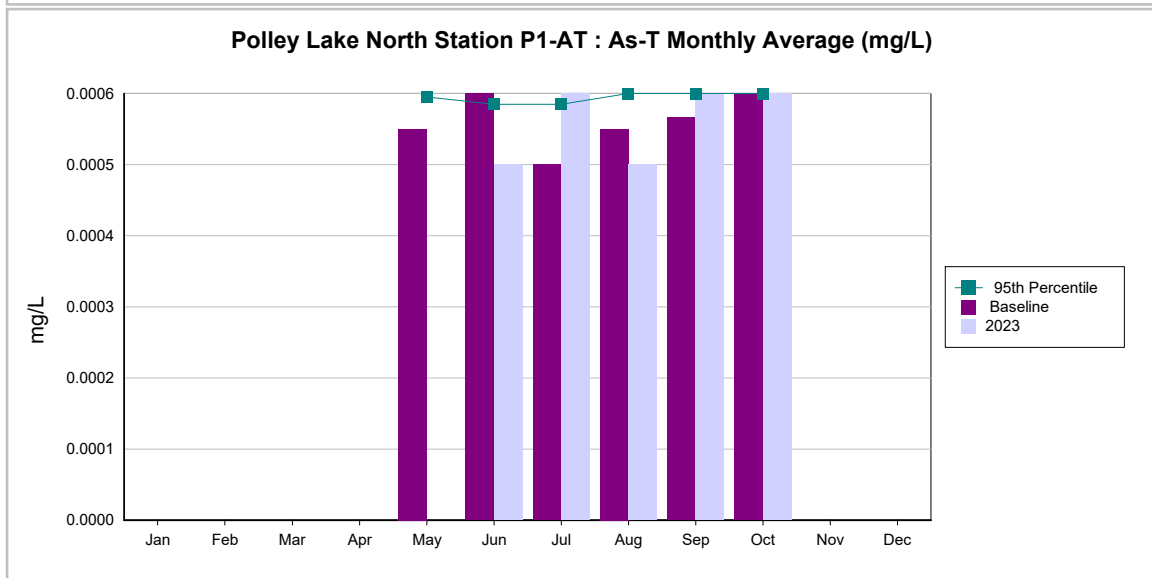
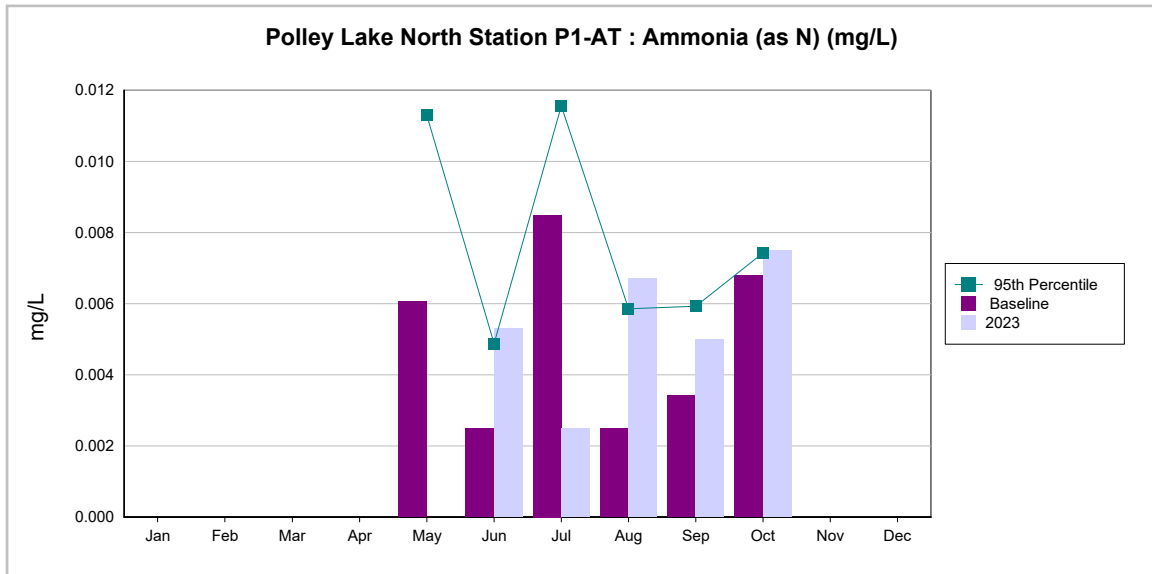
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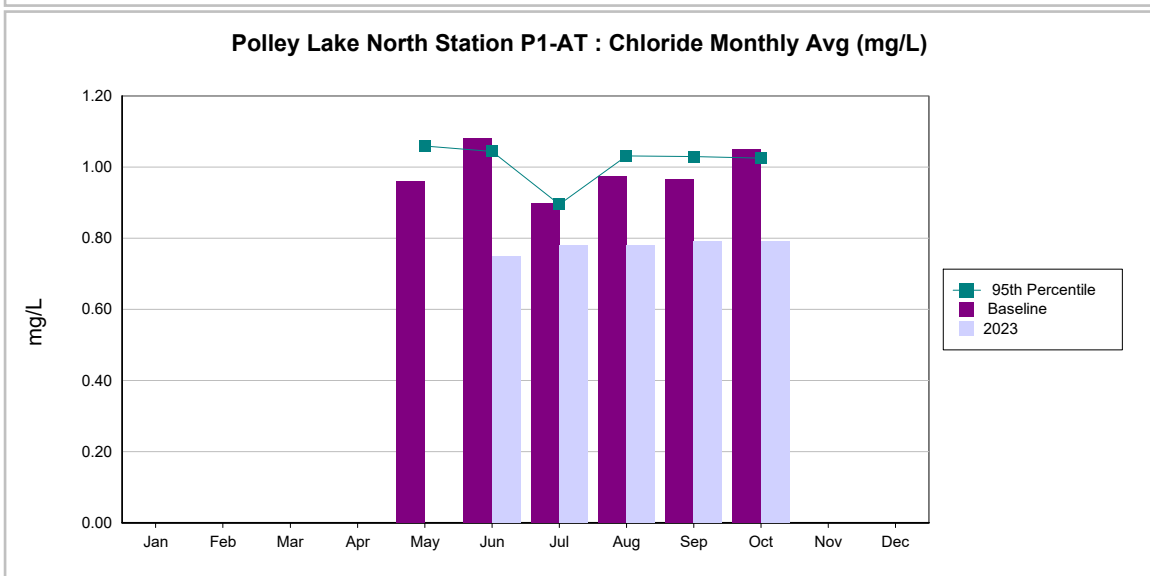
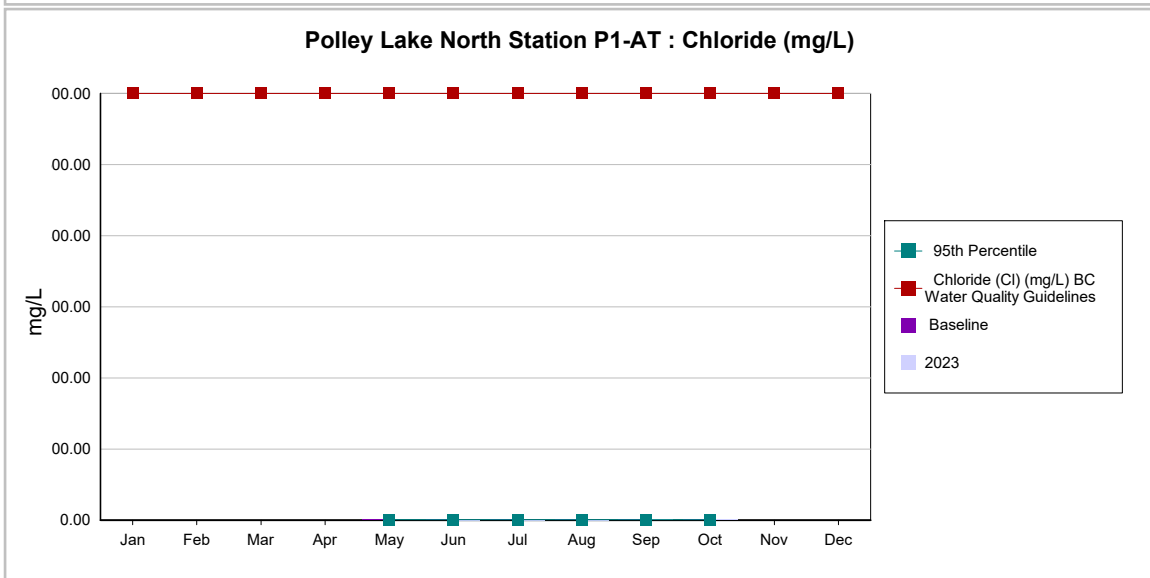
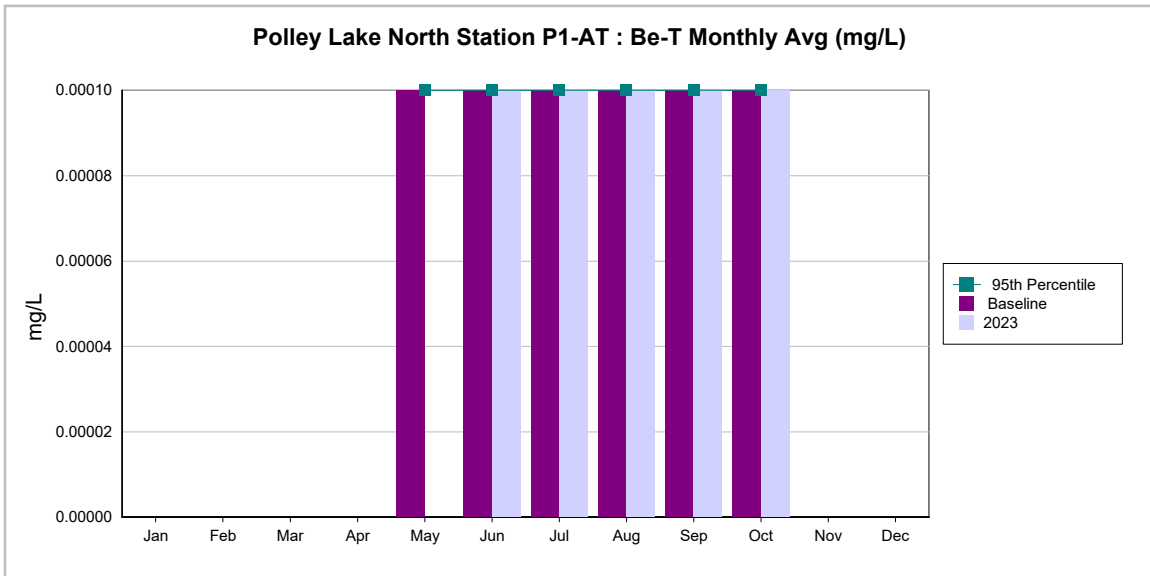
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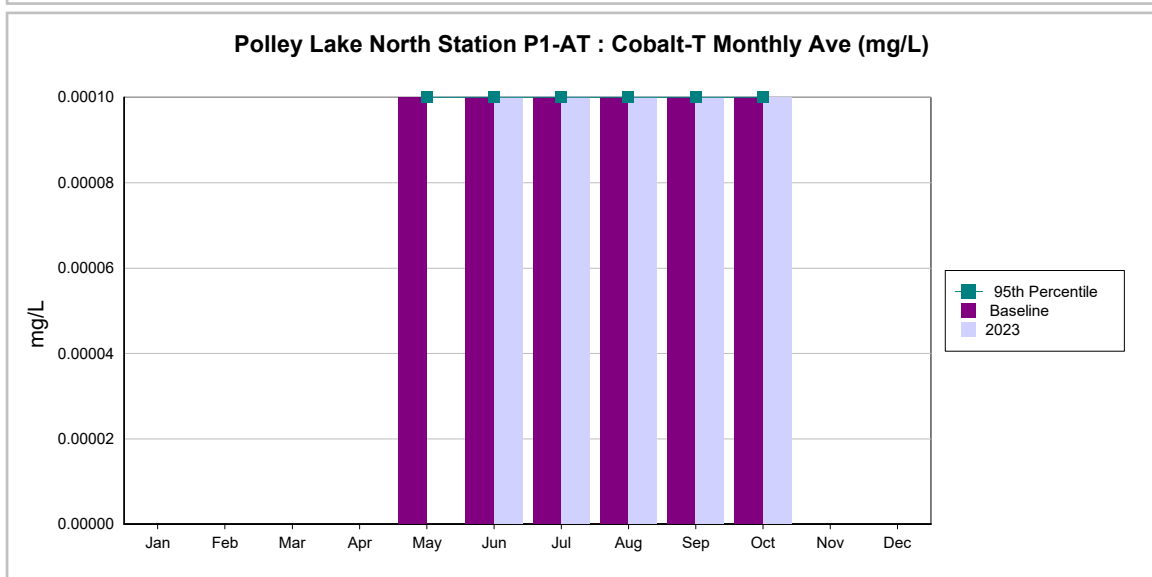
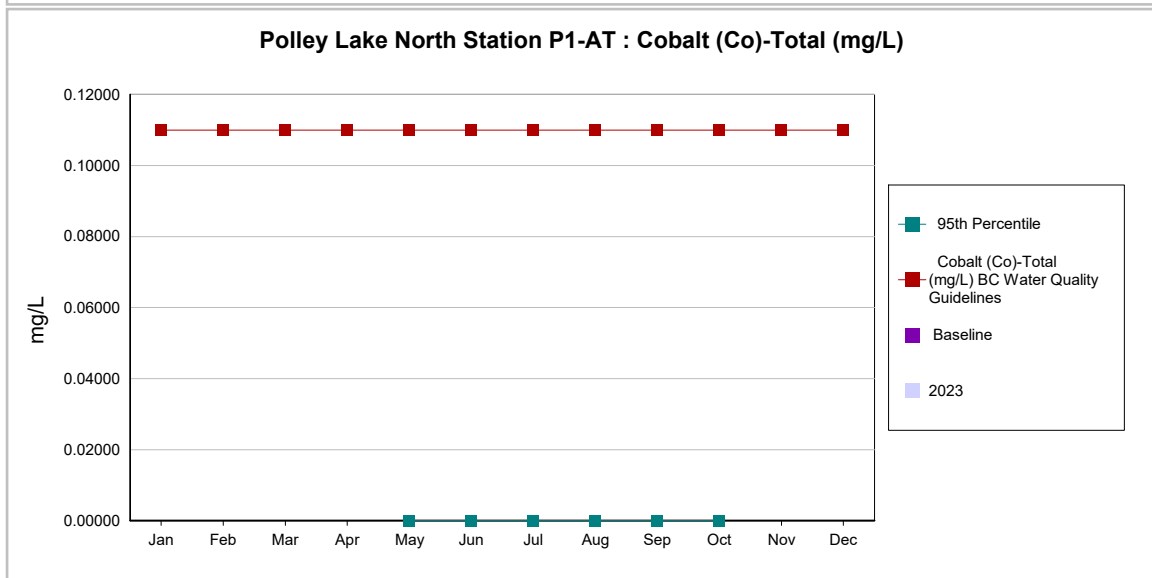
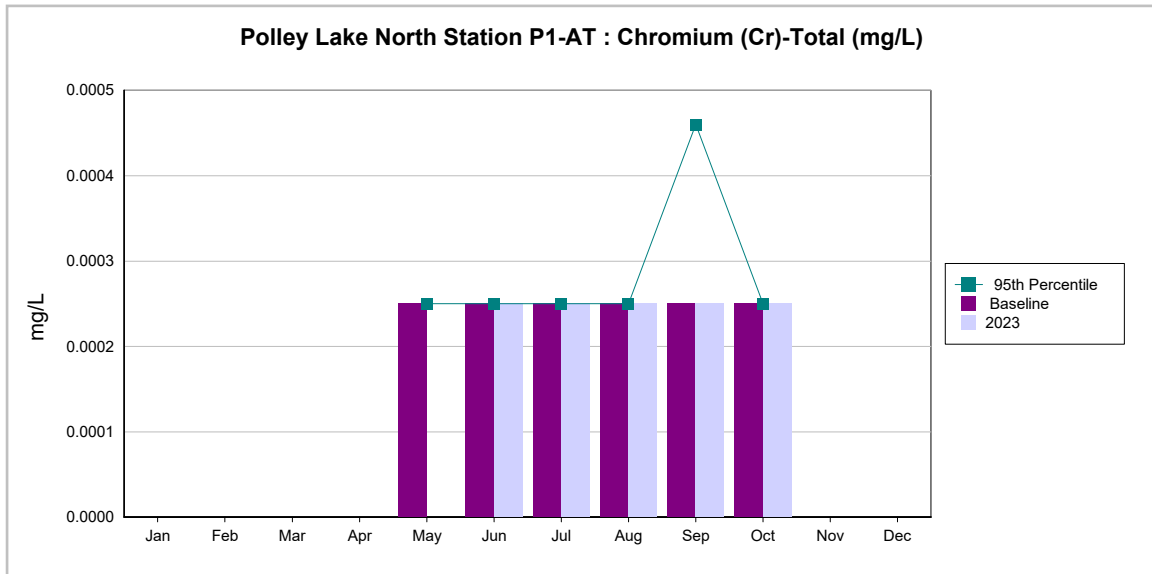
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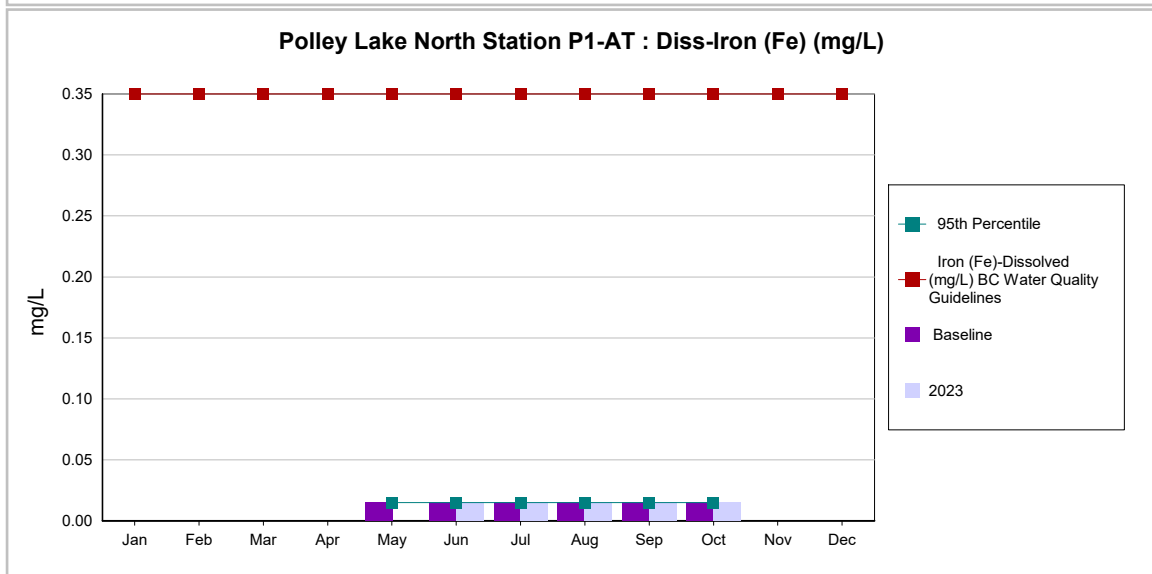
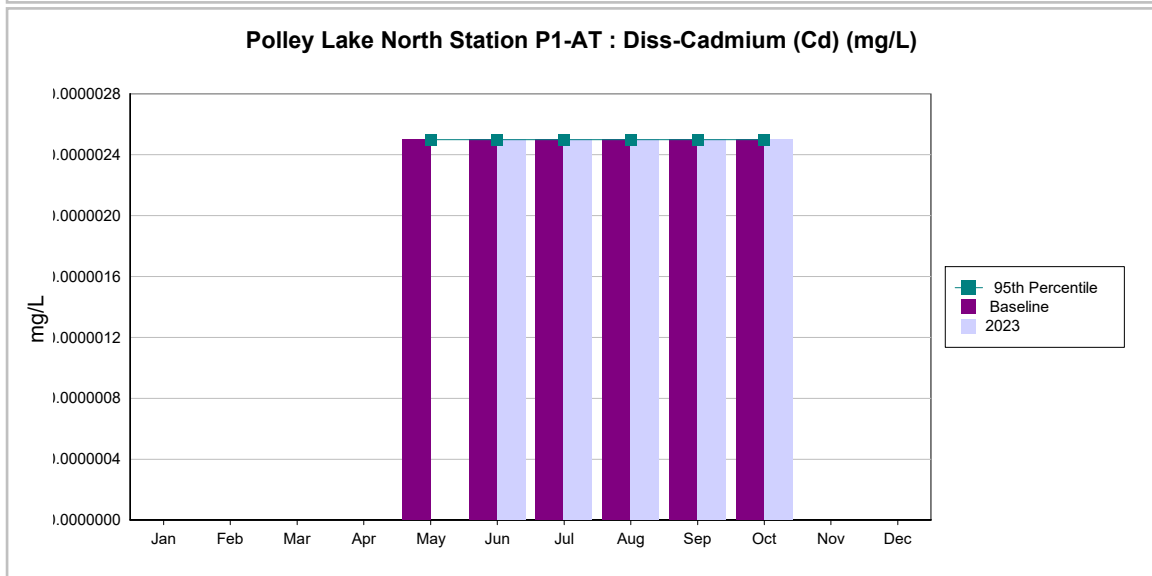
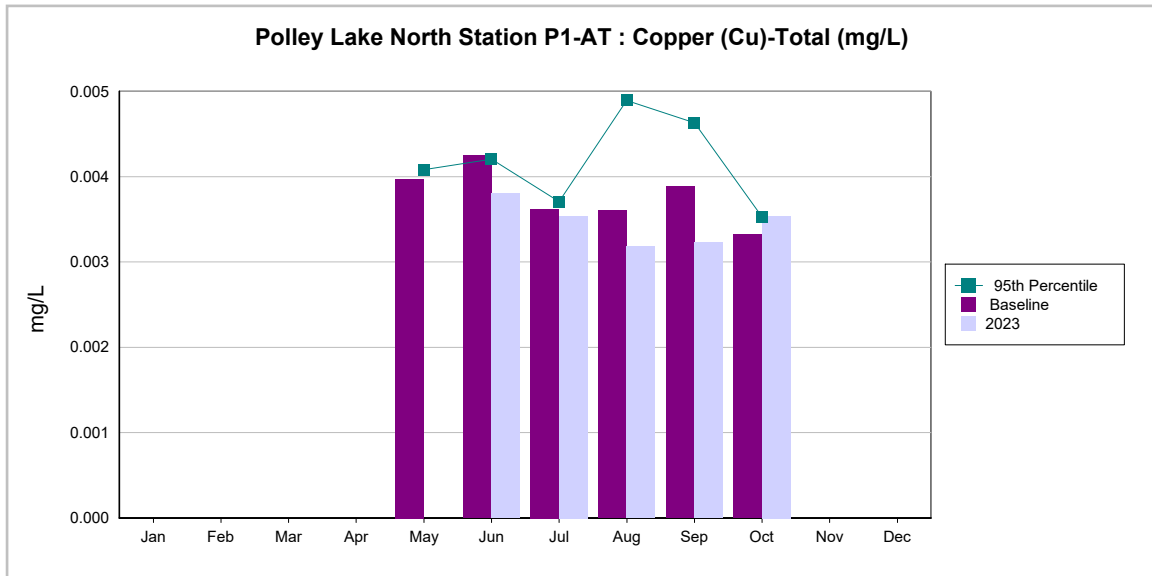
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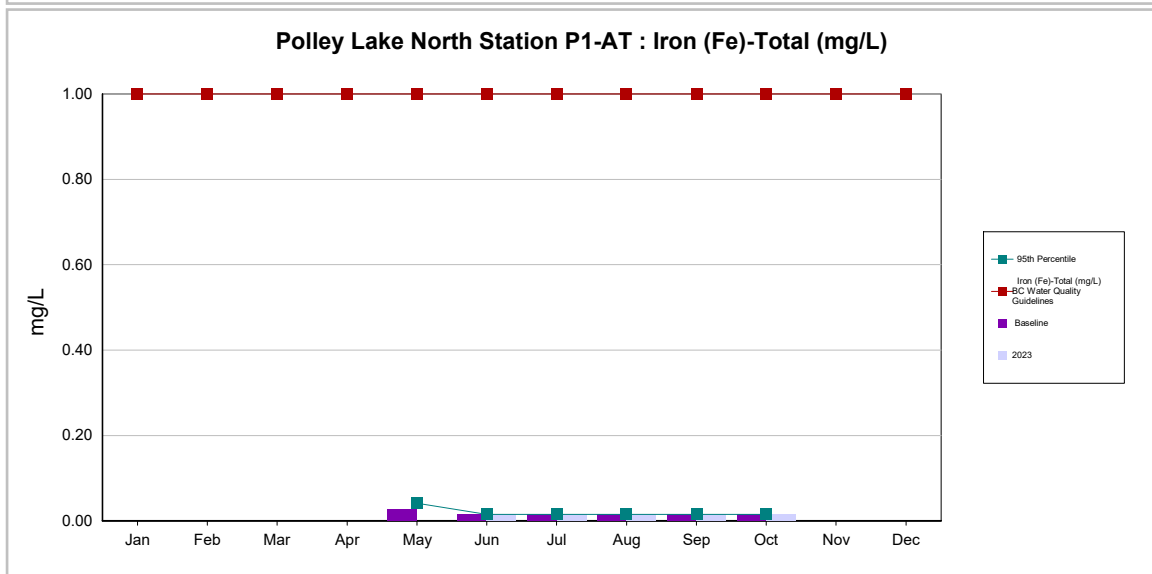
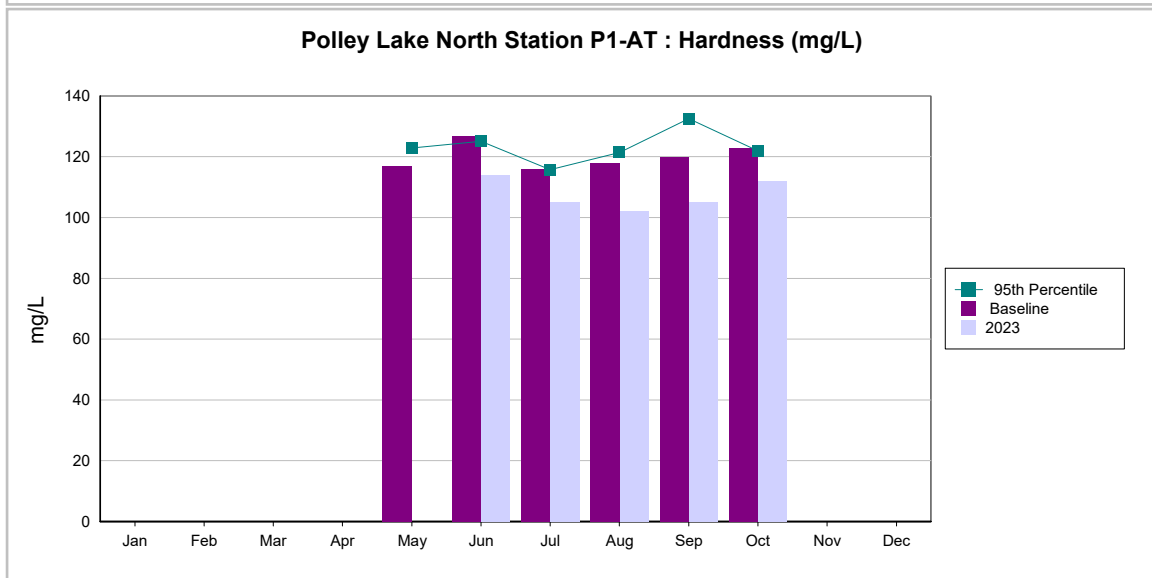
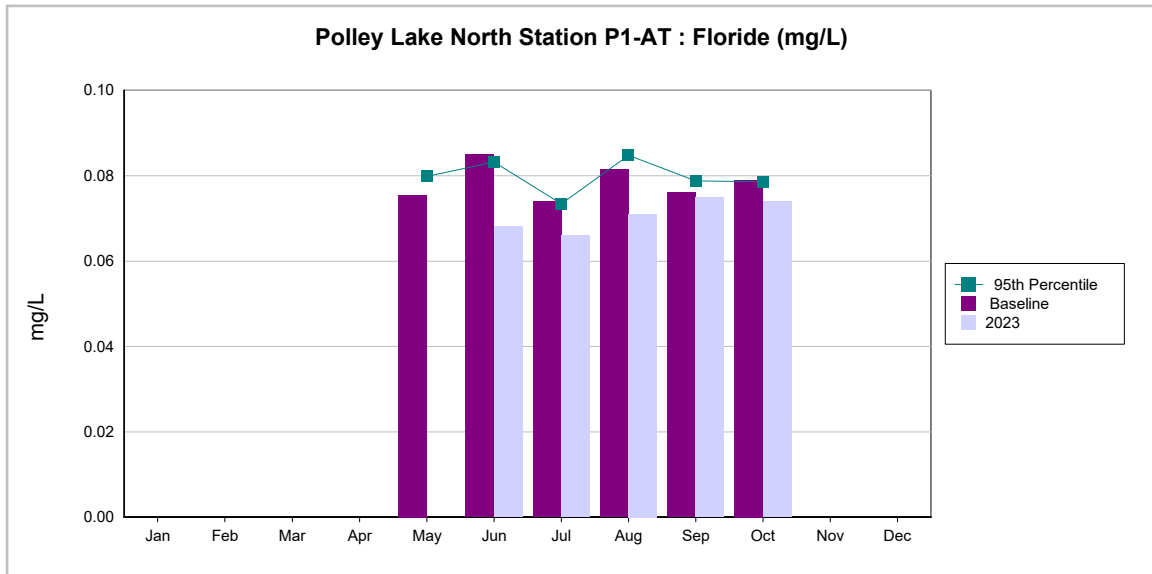
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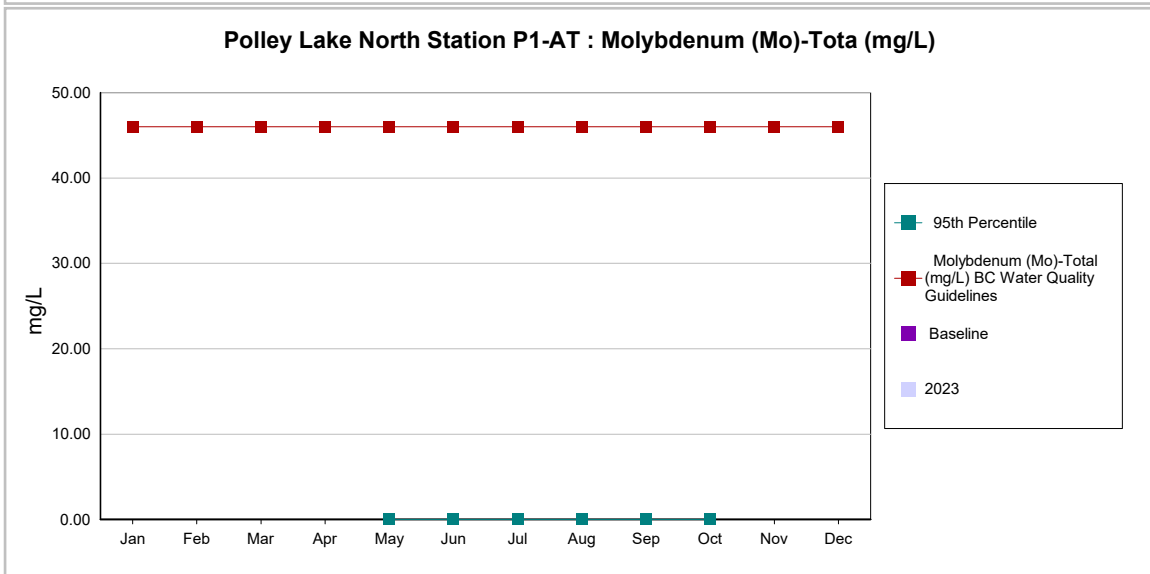
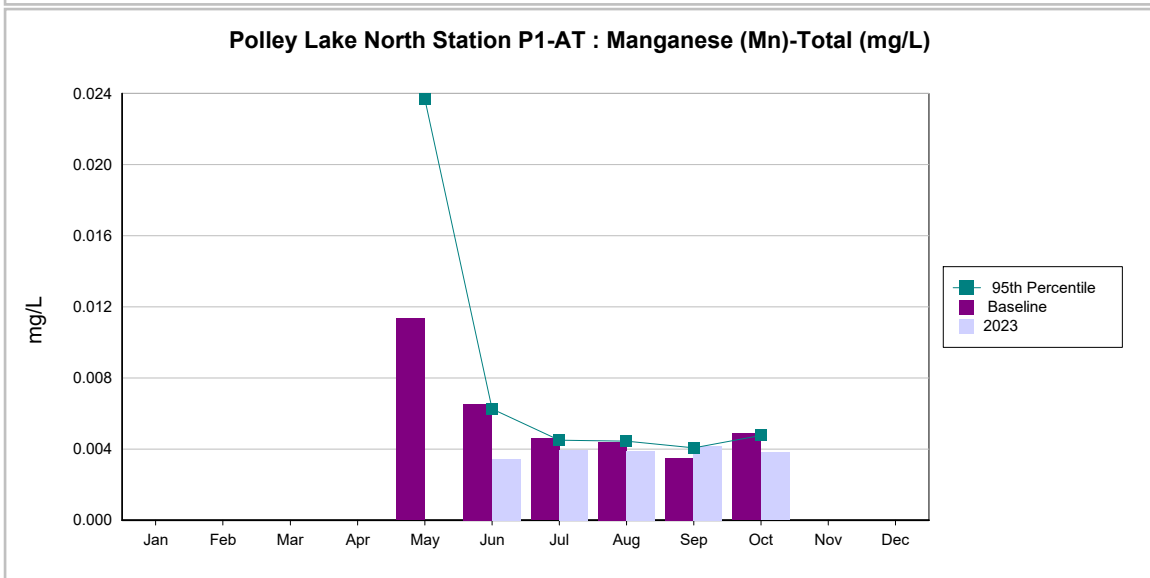
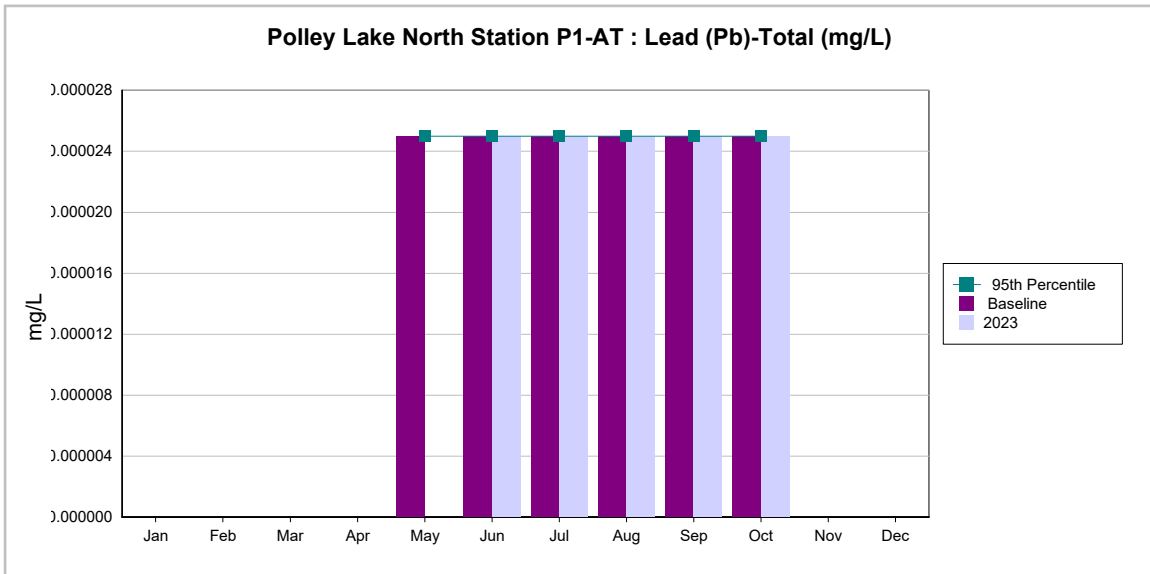
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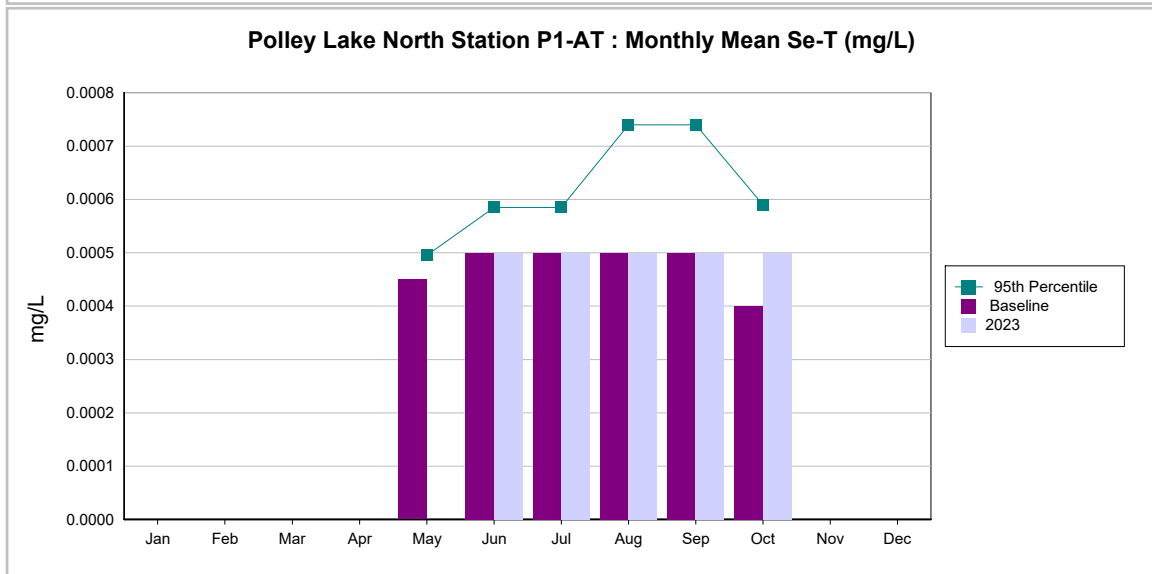
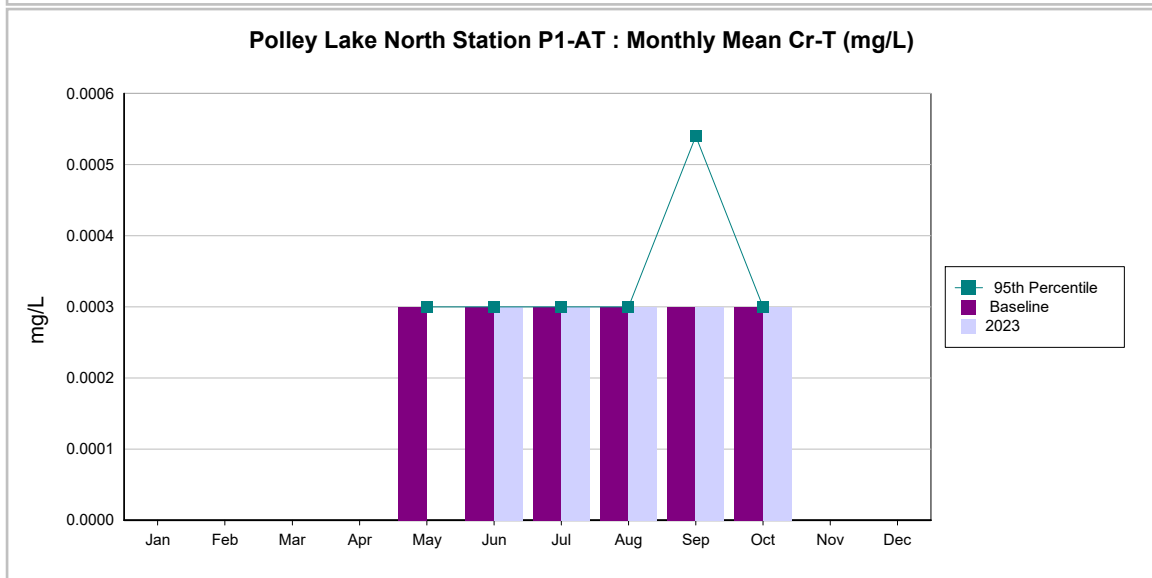
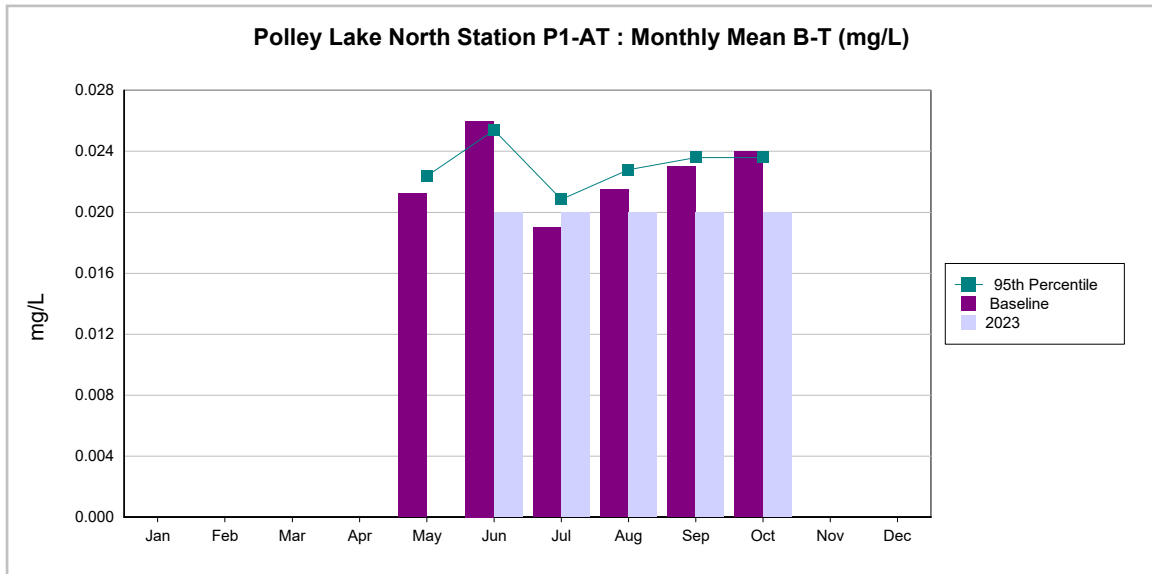
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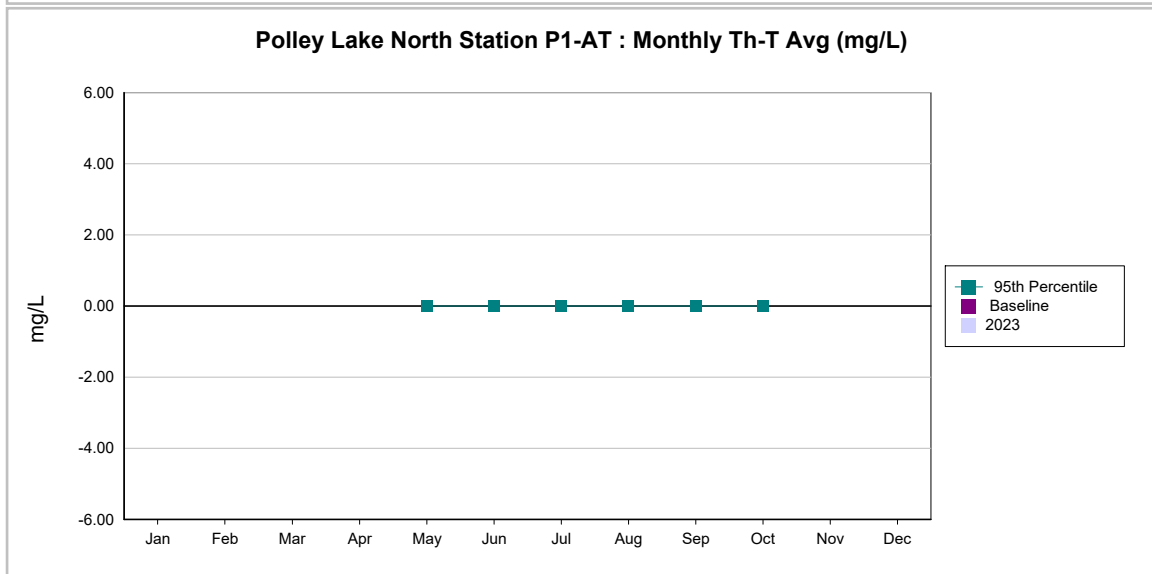
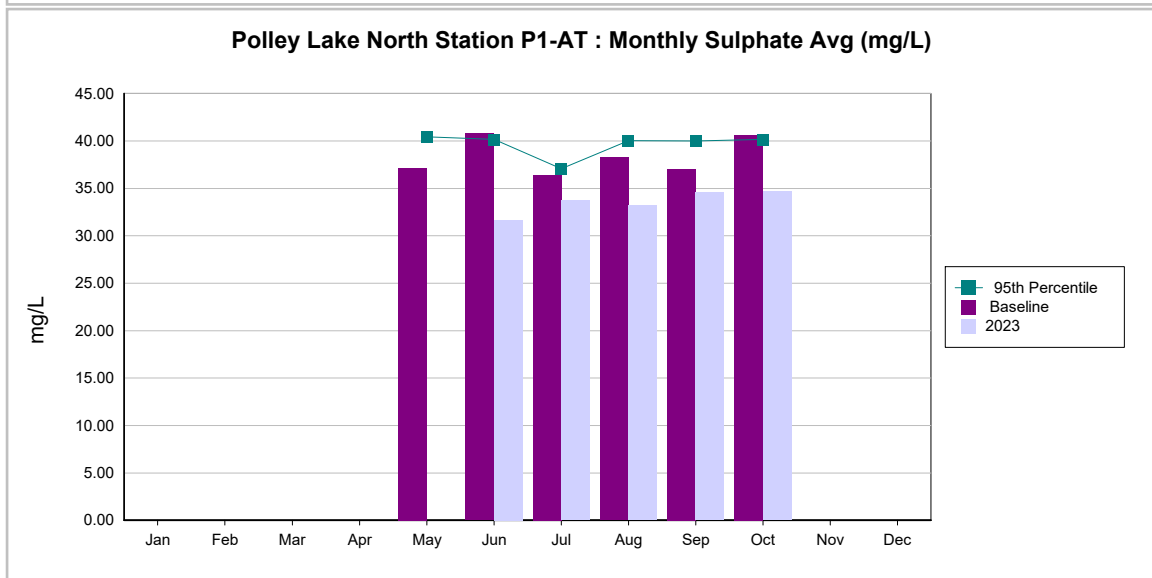
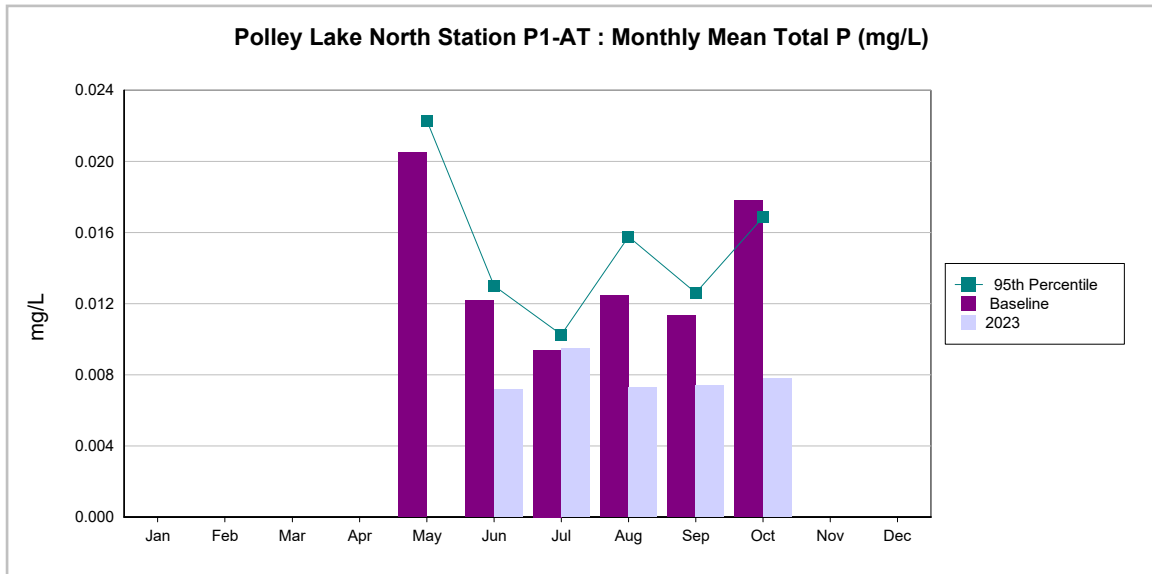
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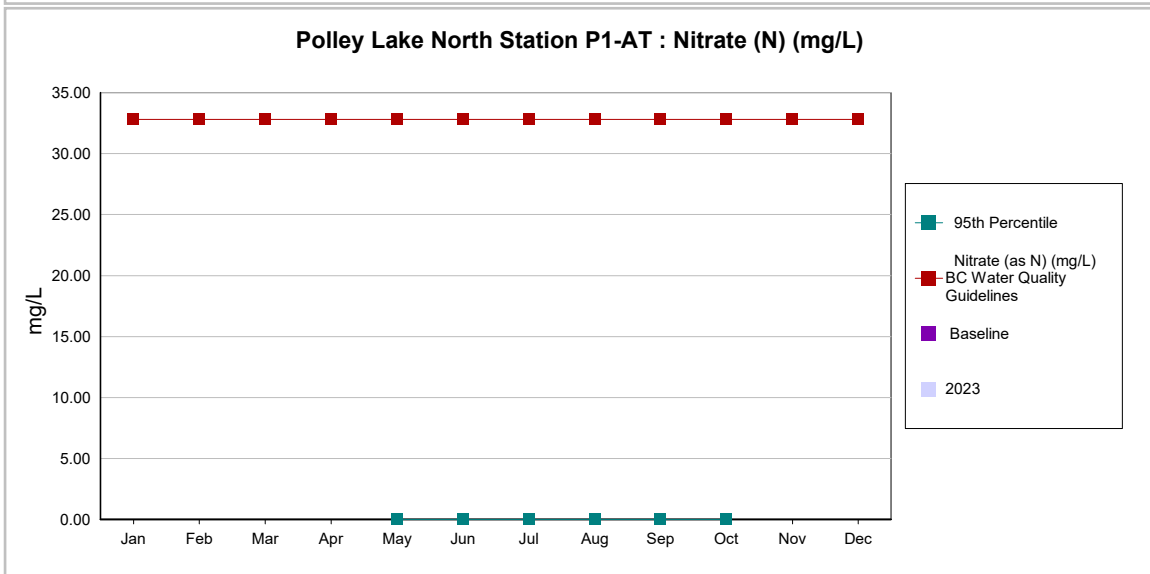
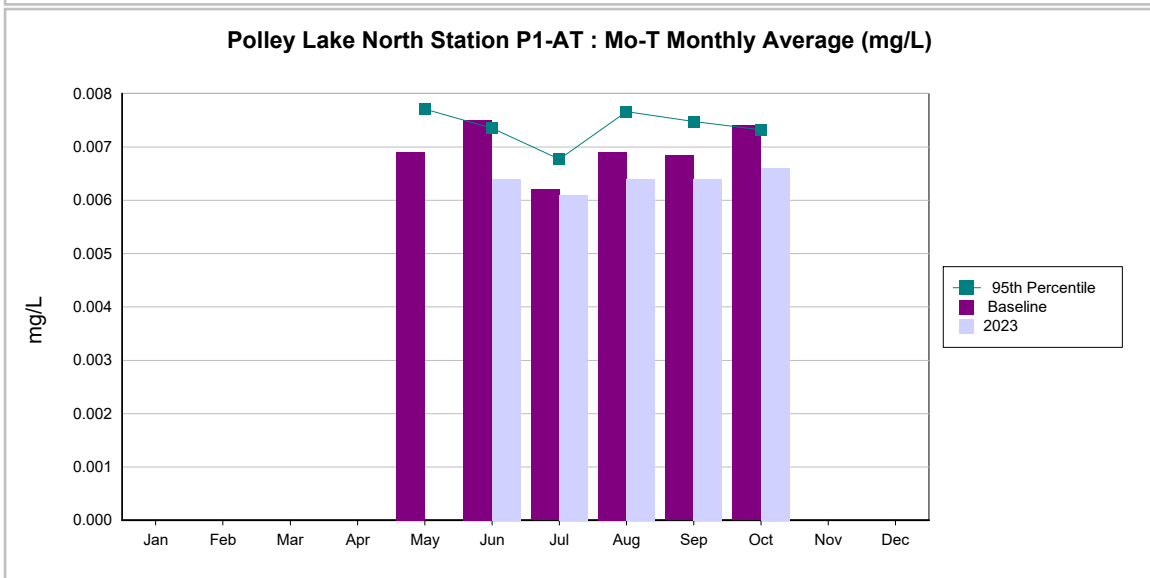
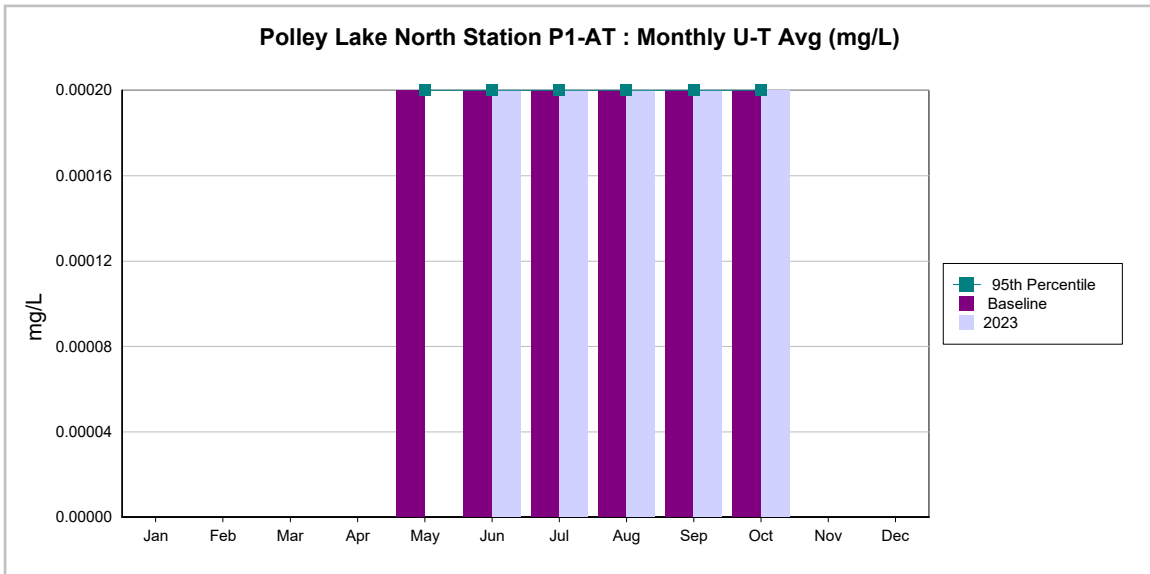
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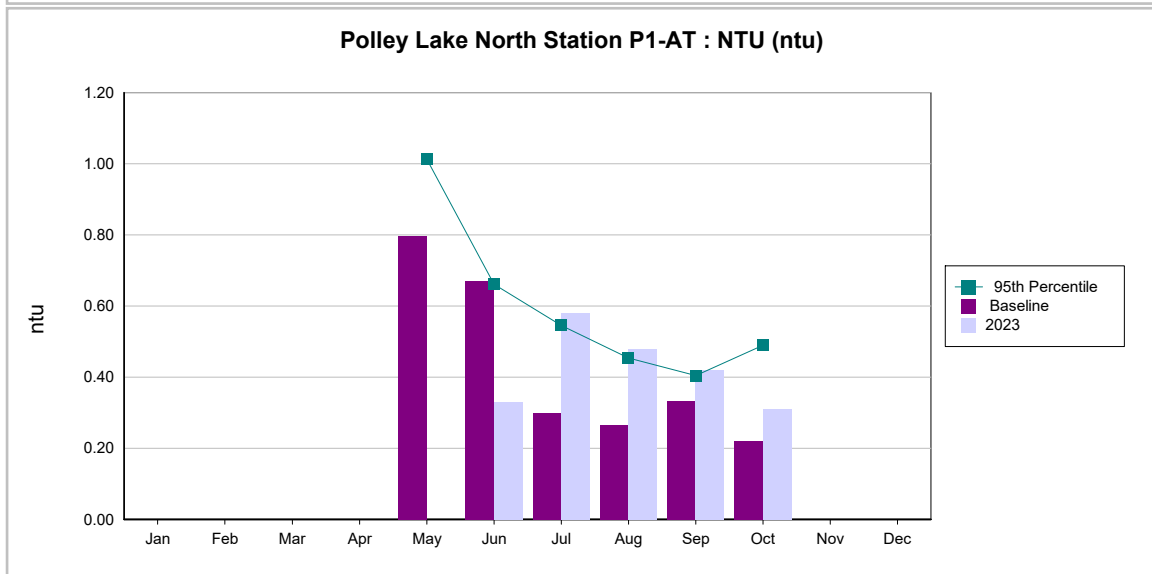
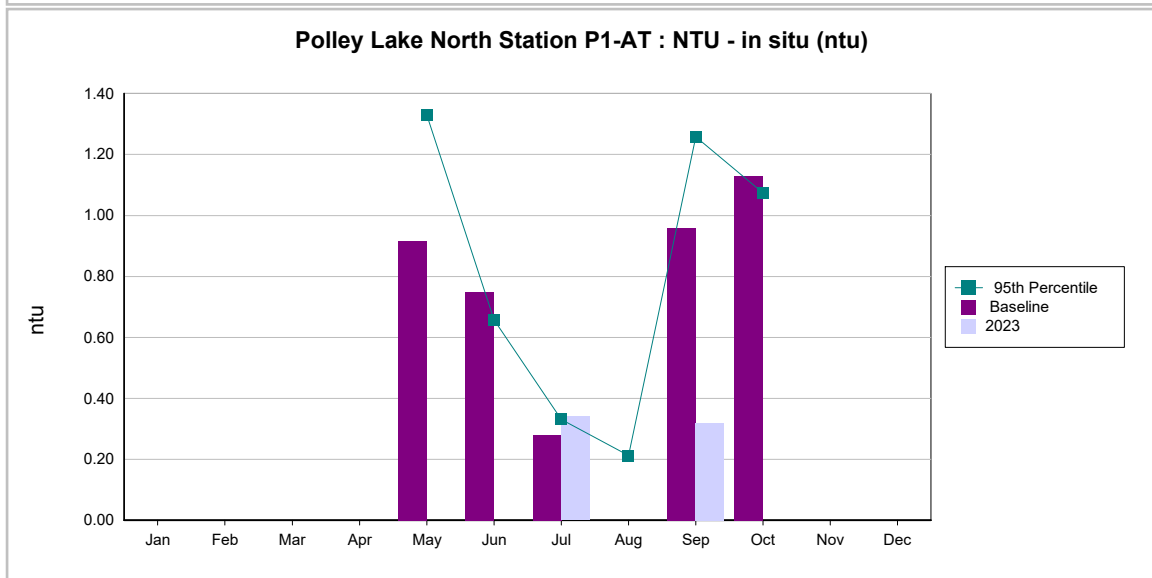
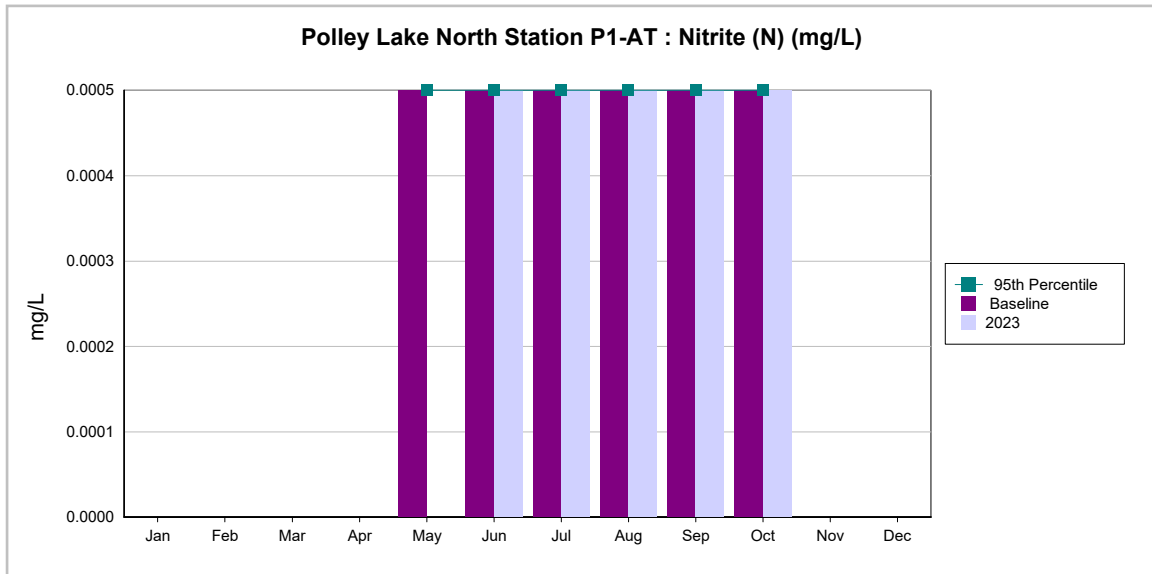
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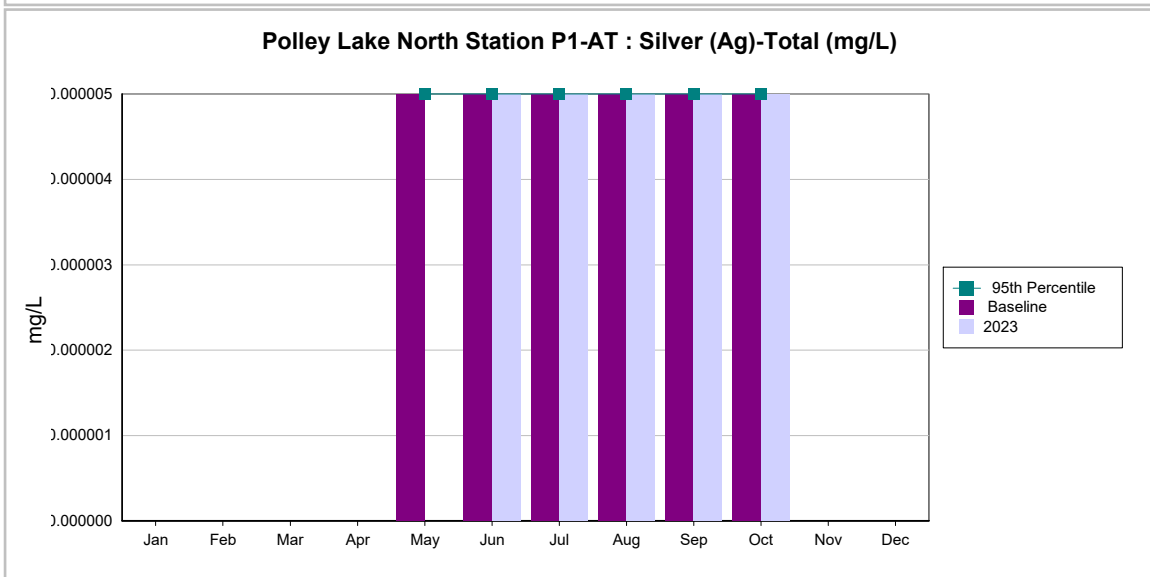
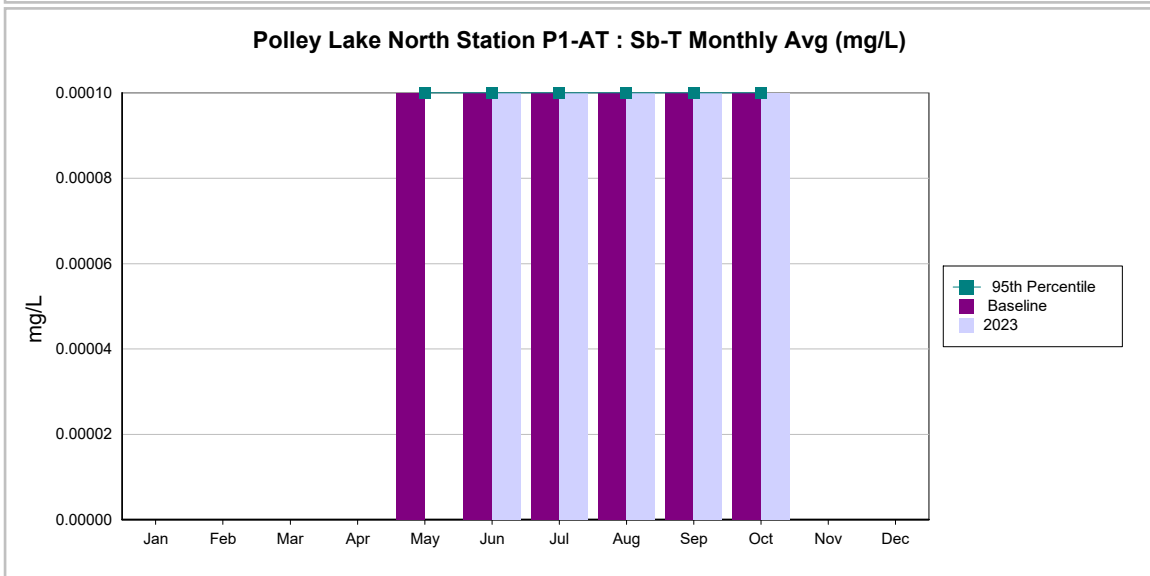
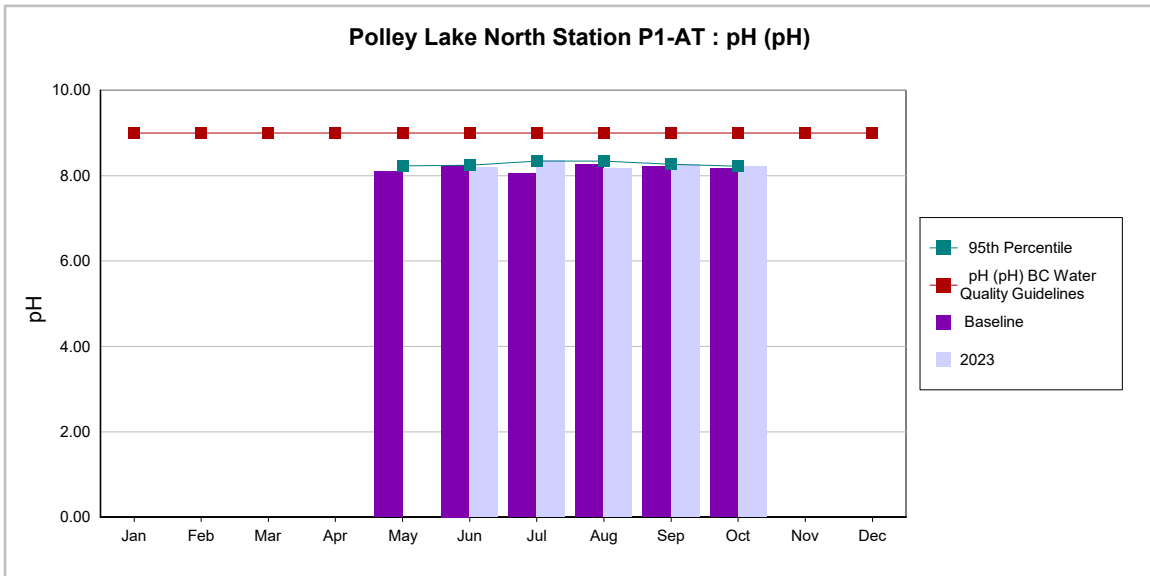
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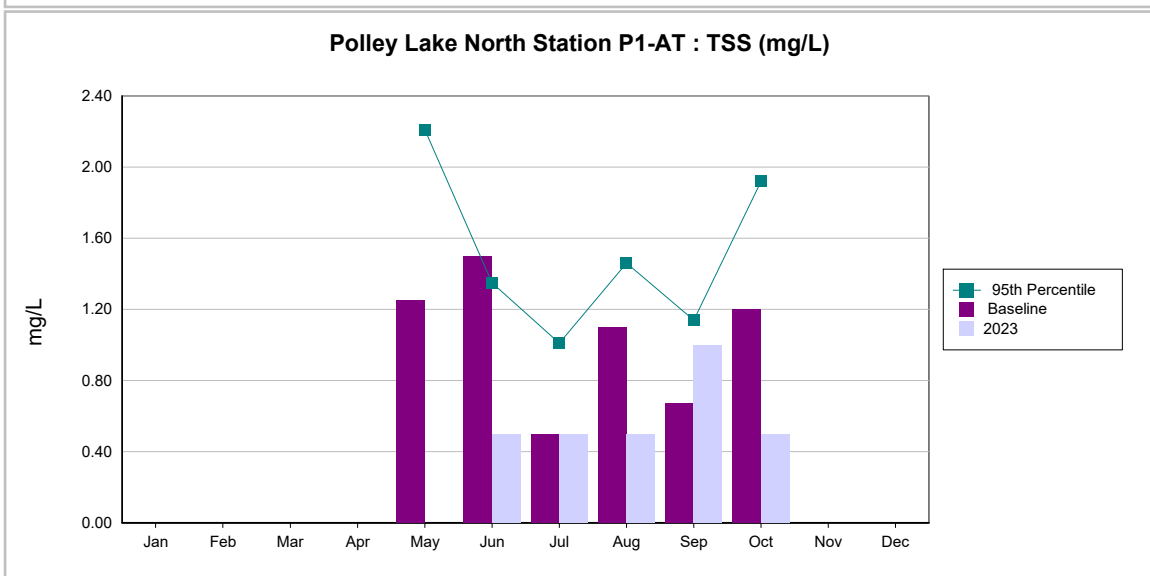
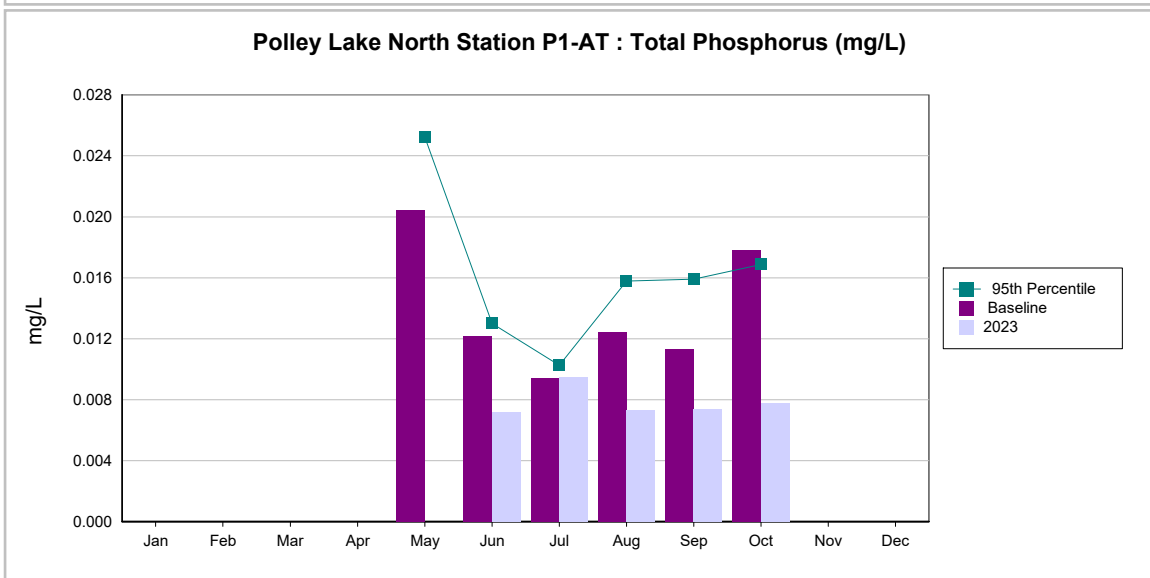
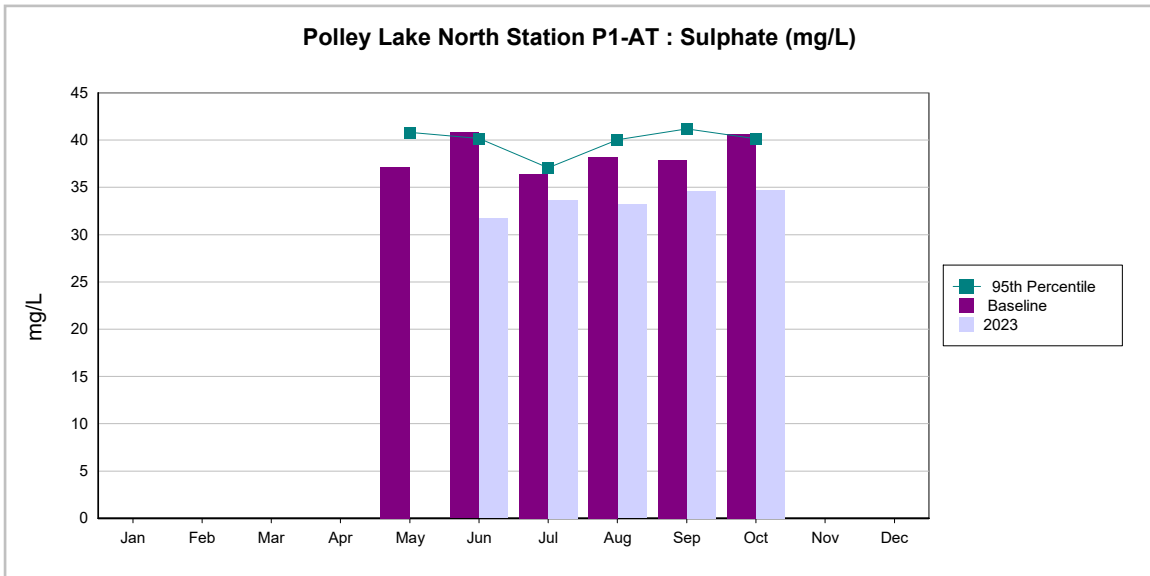
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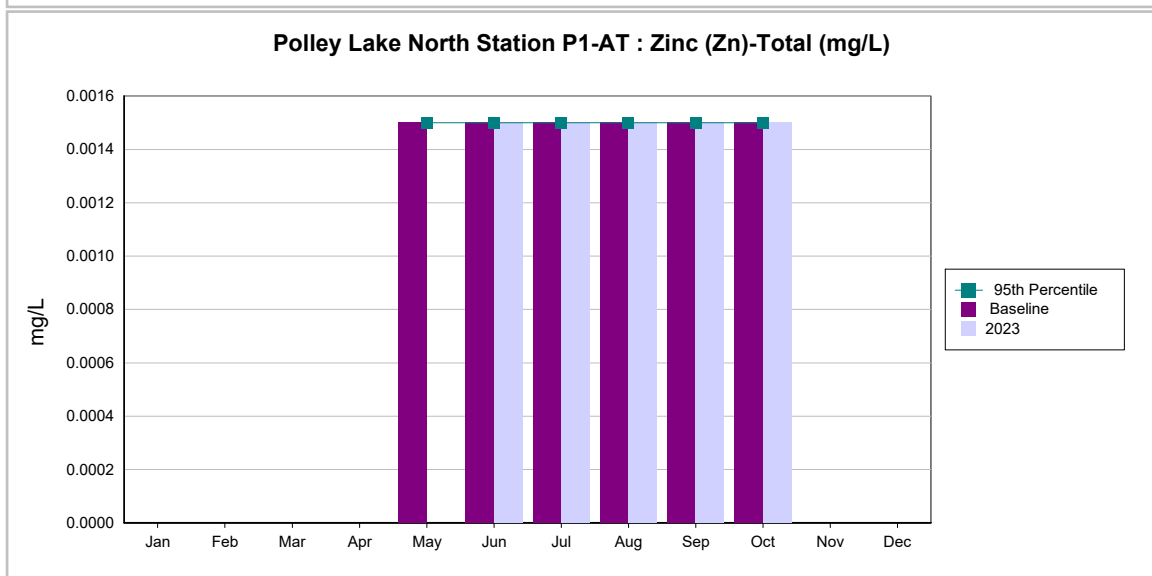
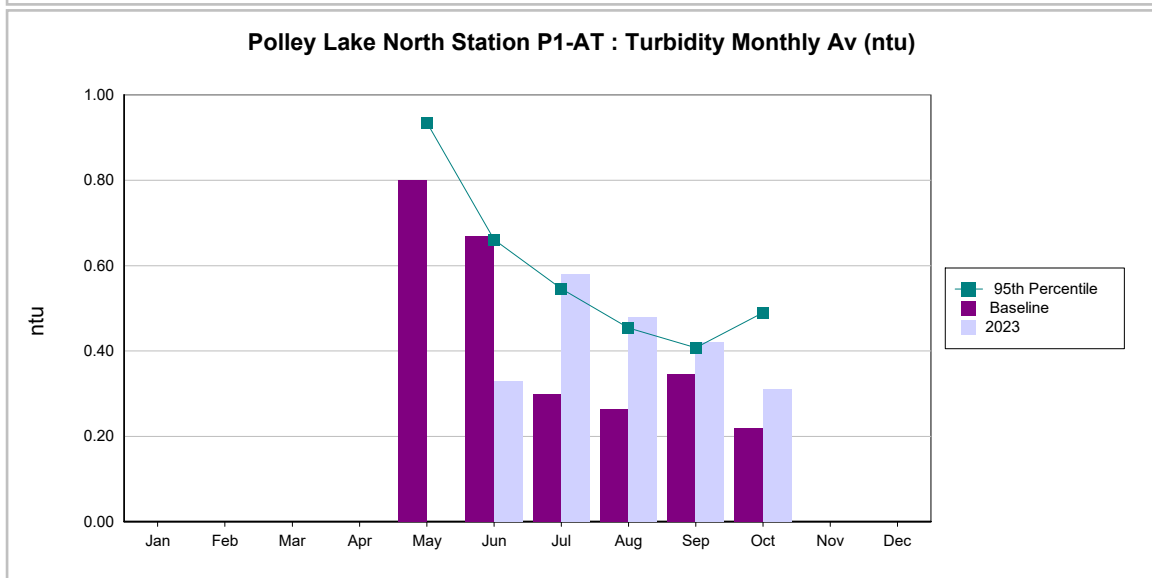
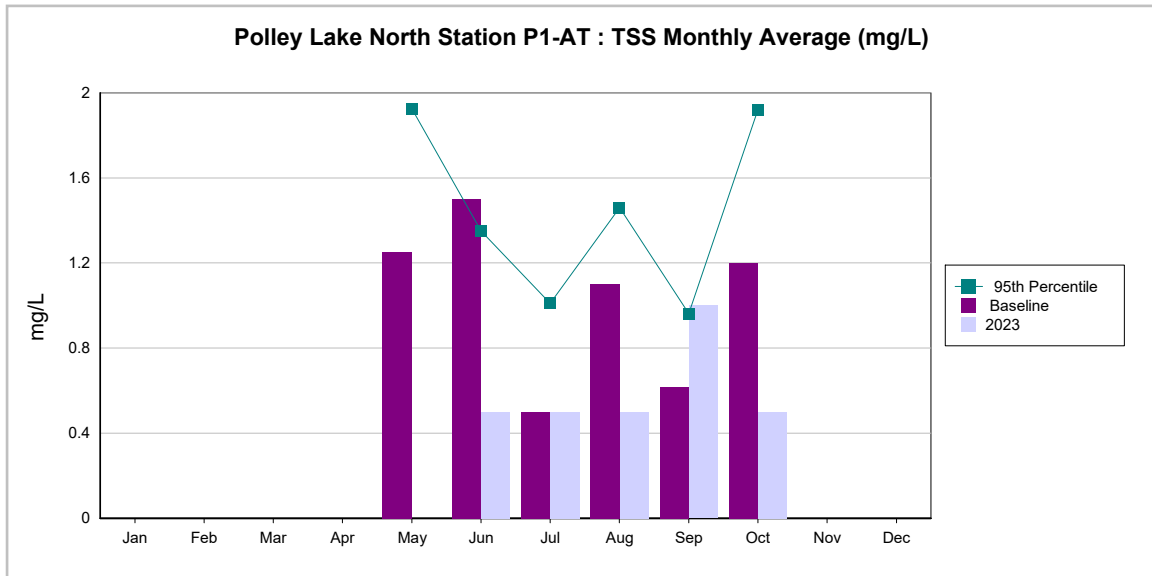
Annual Report Lake vs BCWQG



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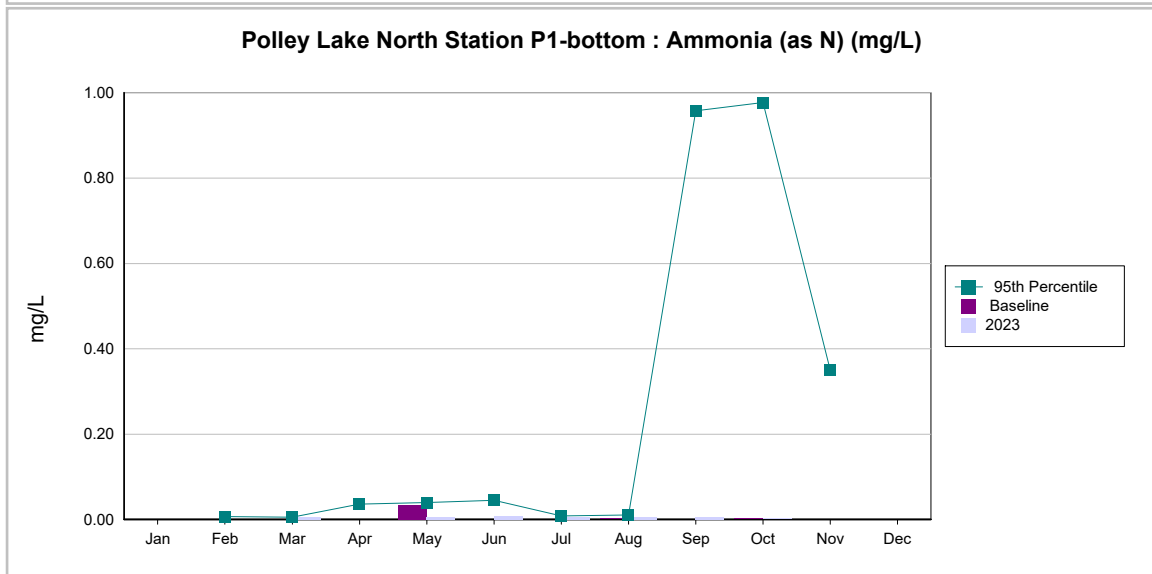
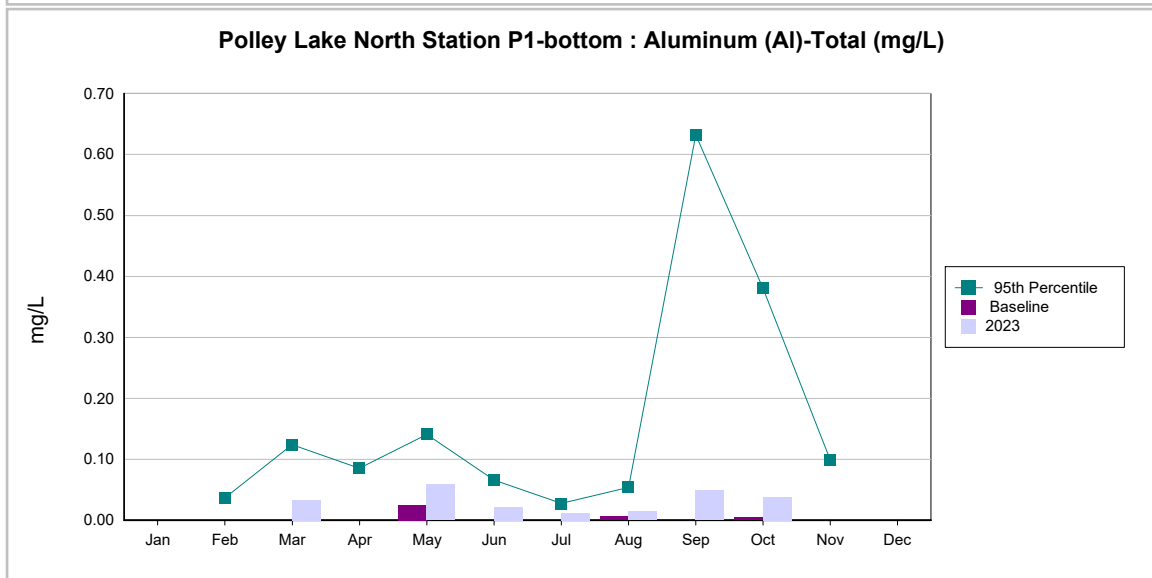
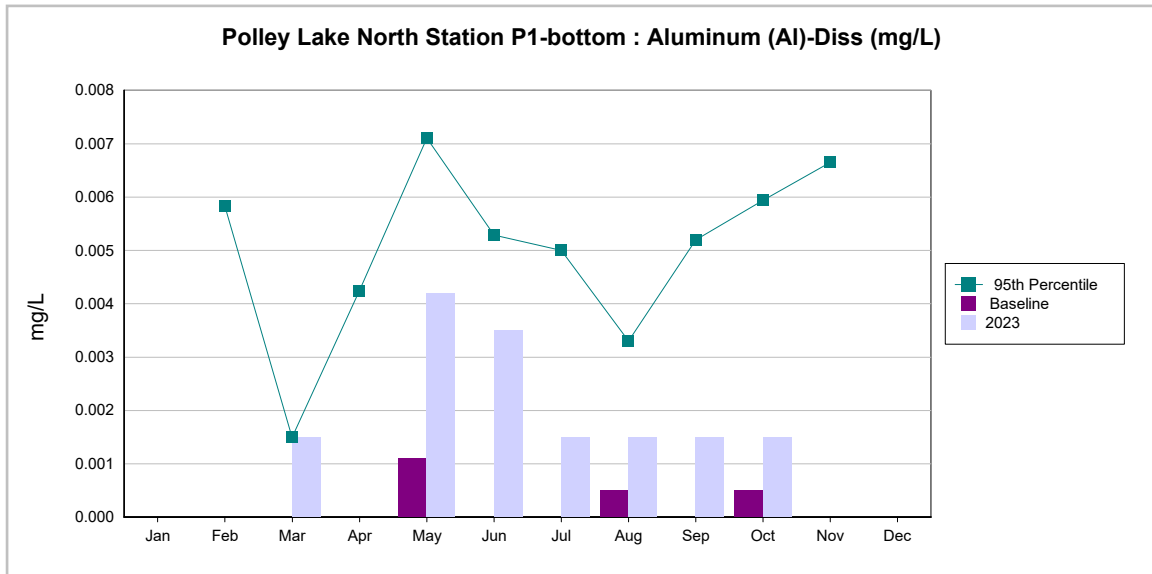
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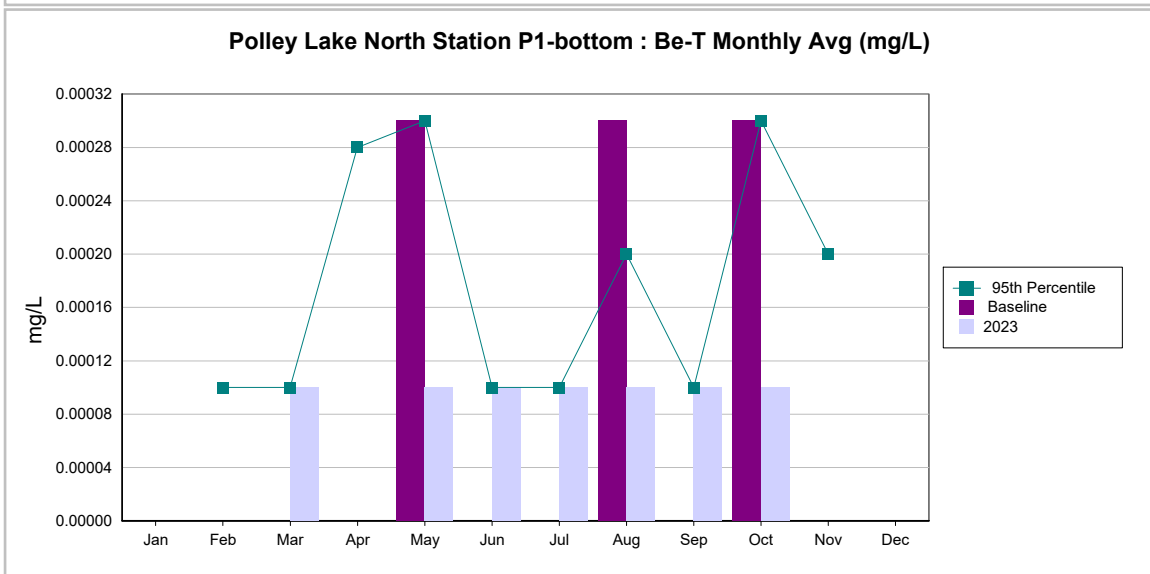
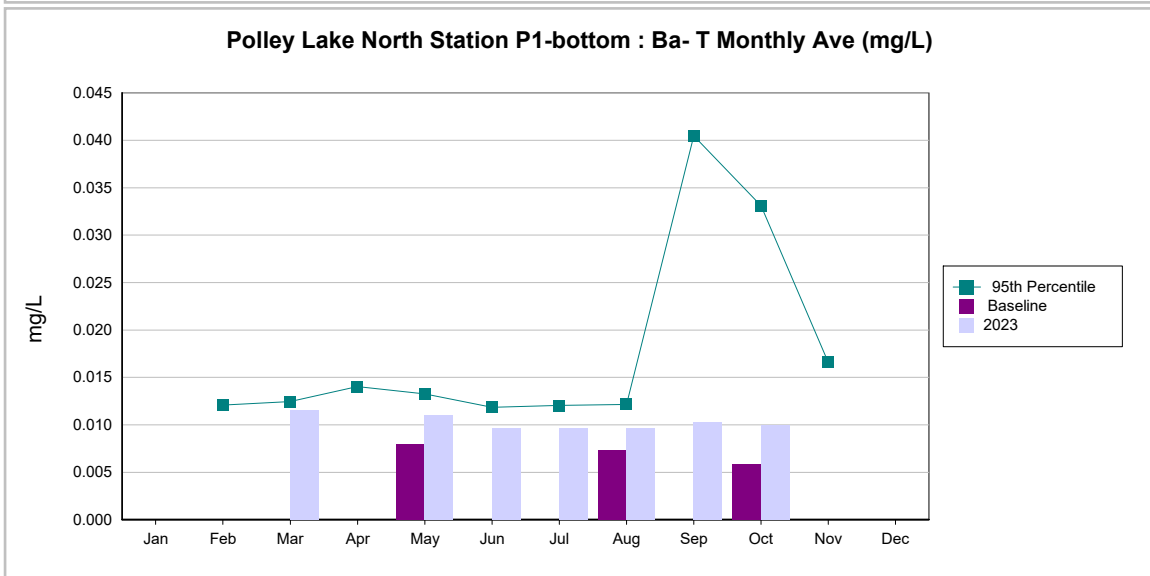
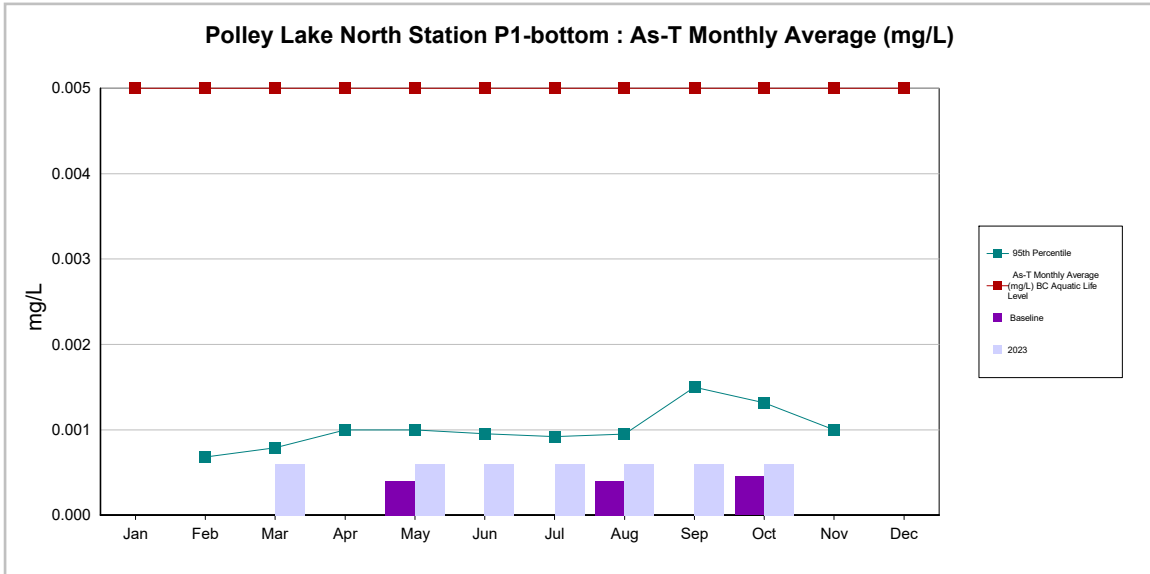
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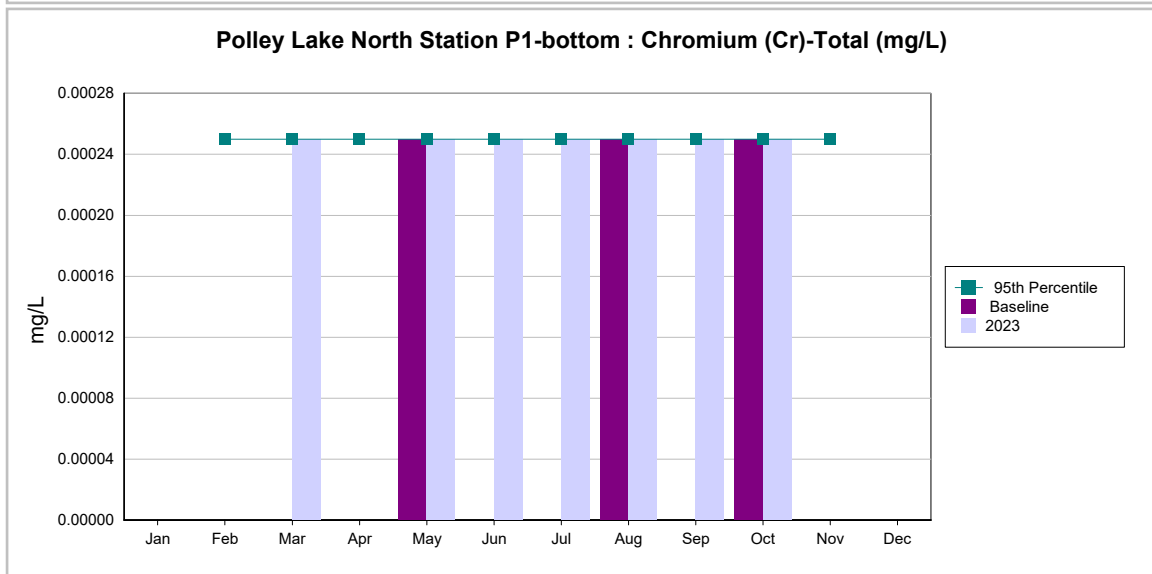
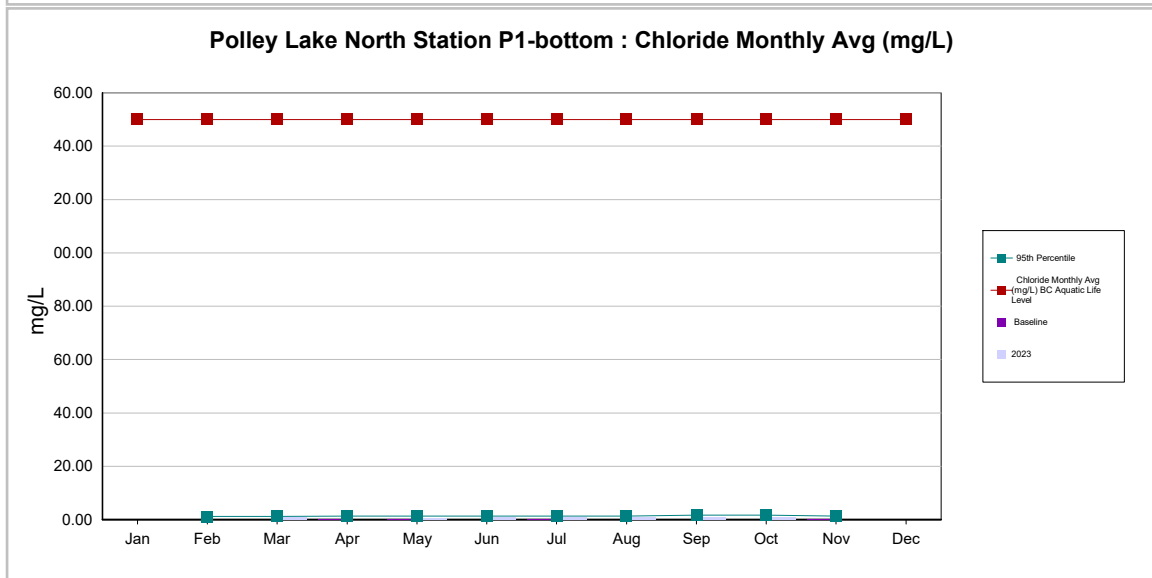
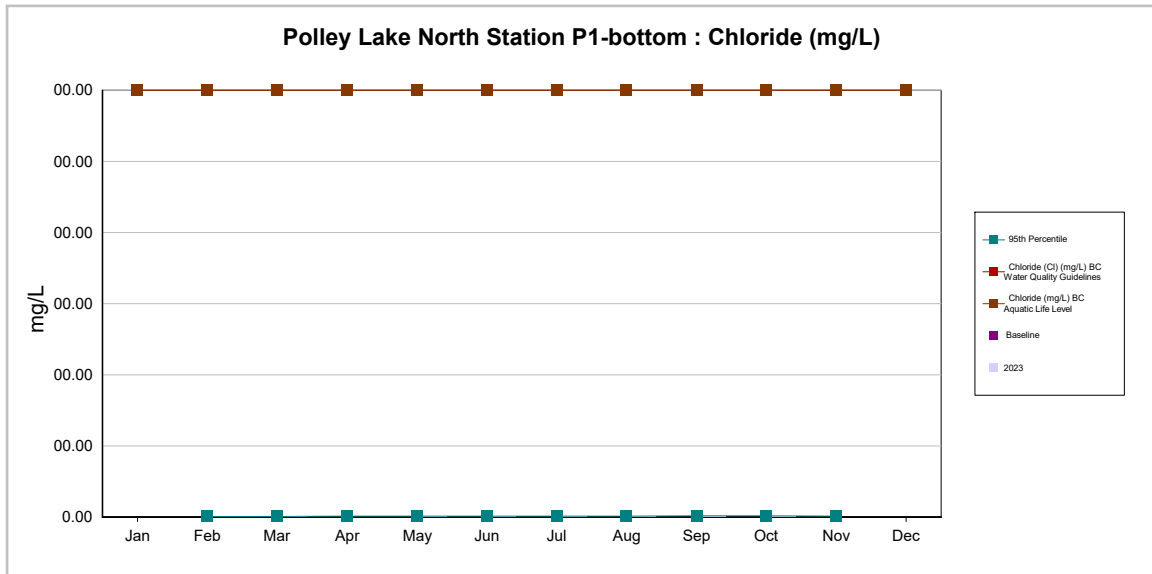
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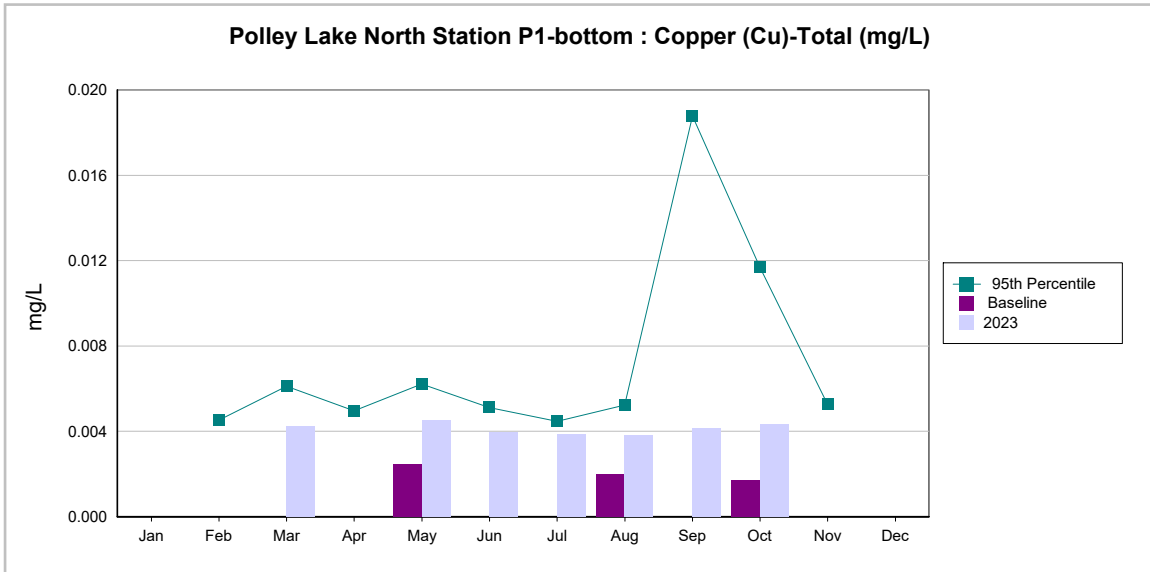
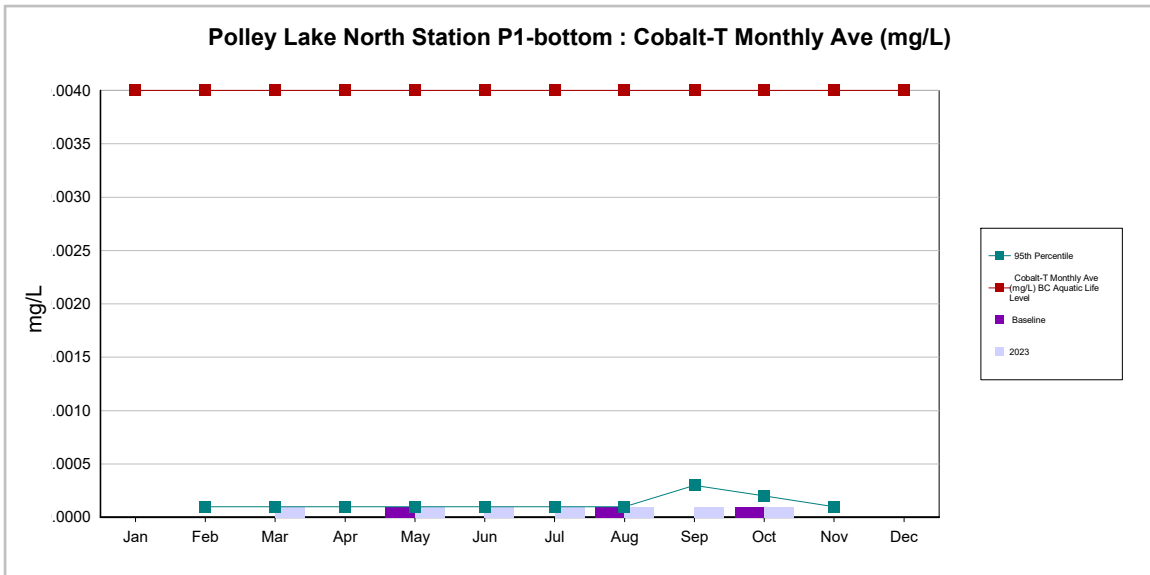
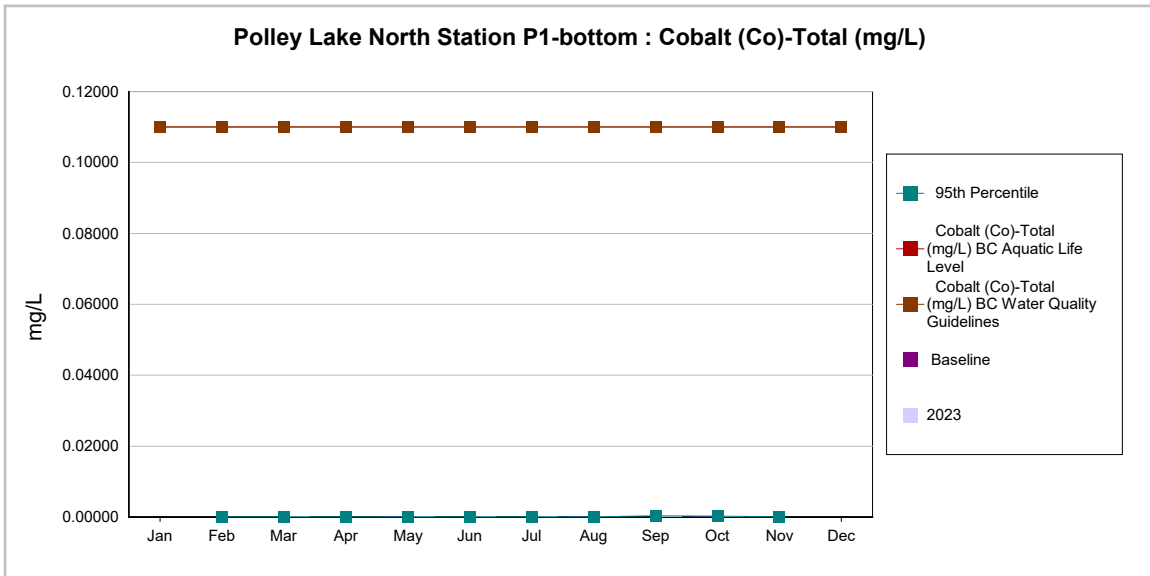
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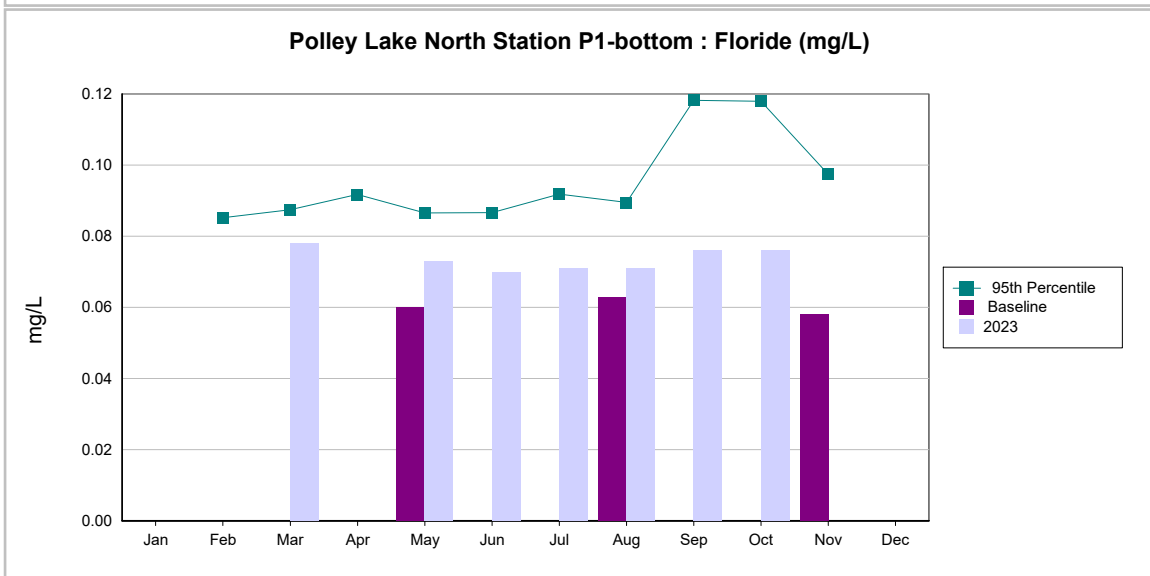
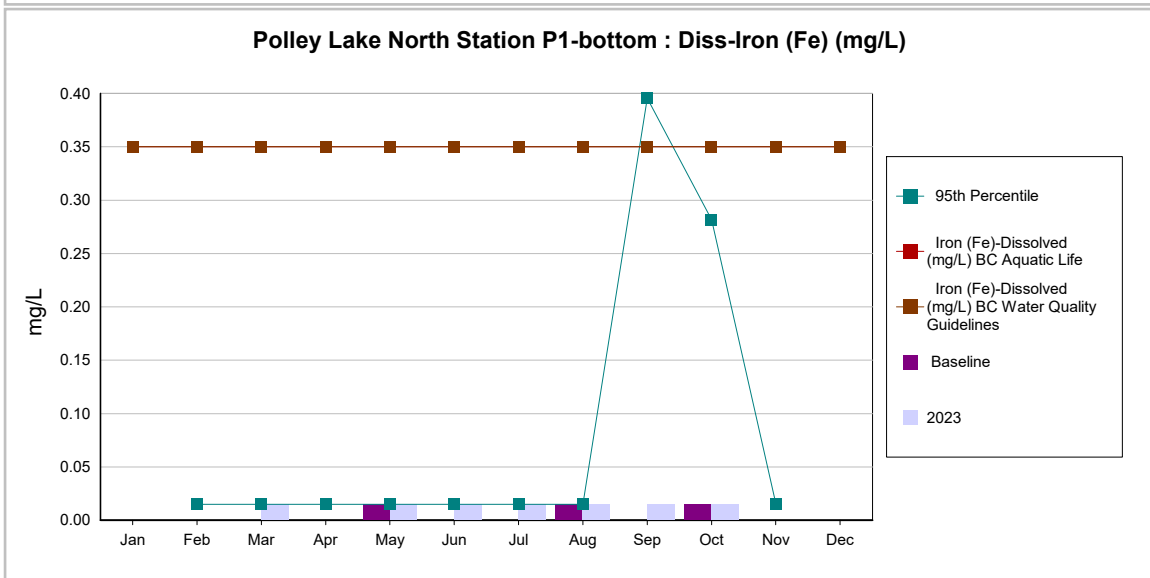
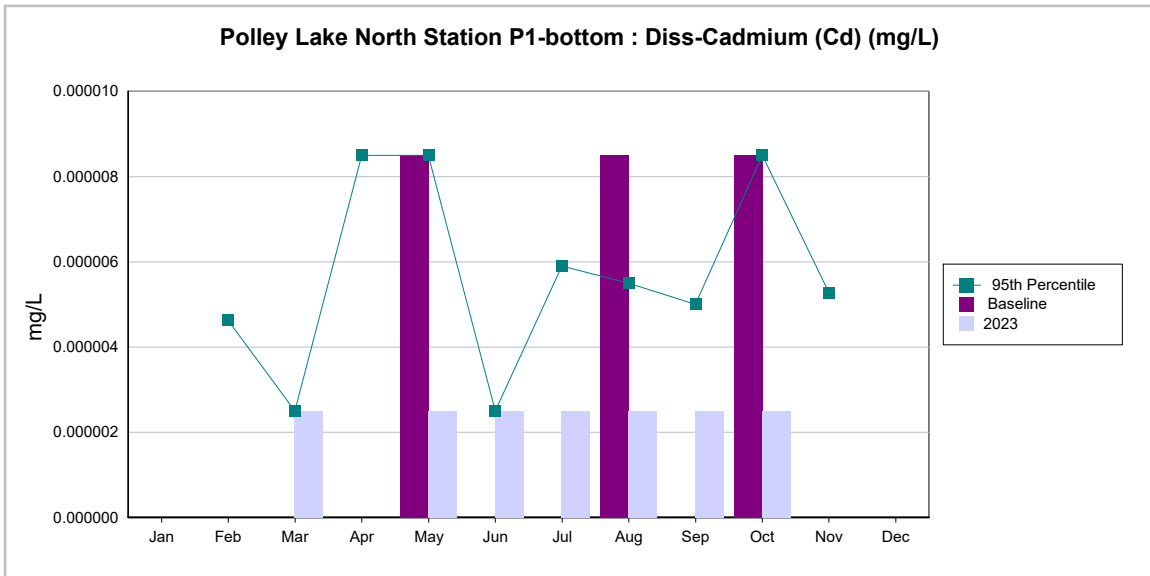
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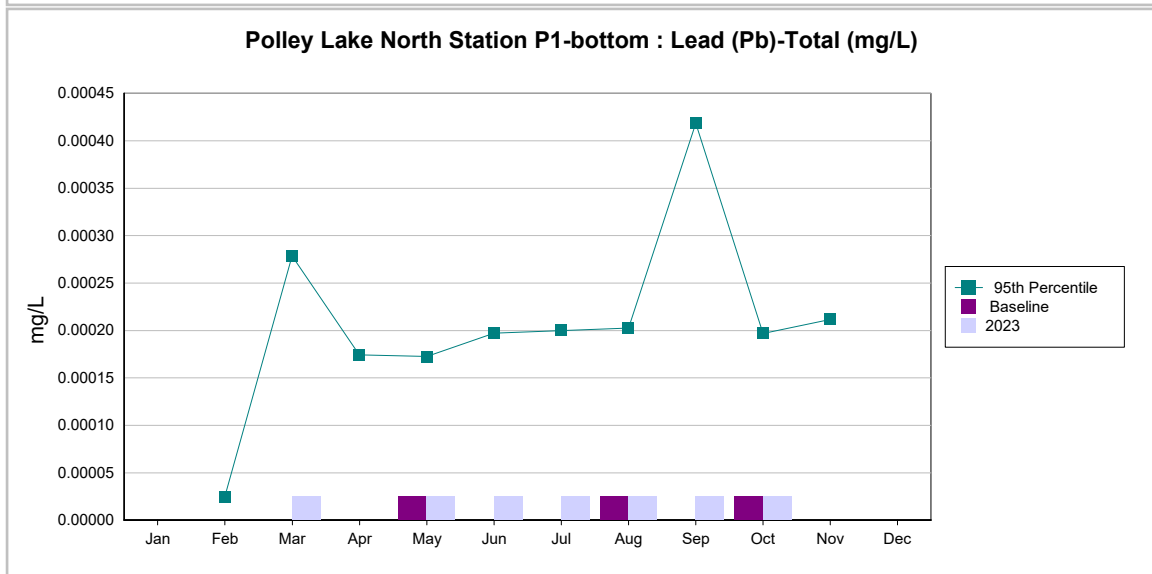
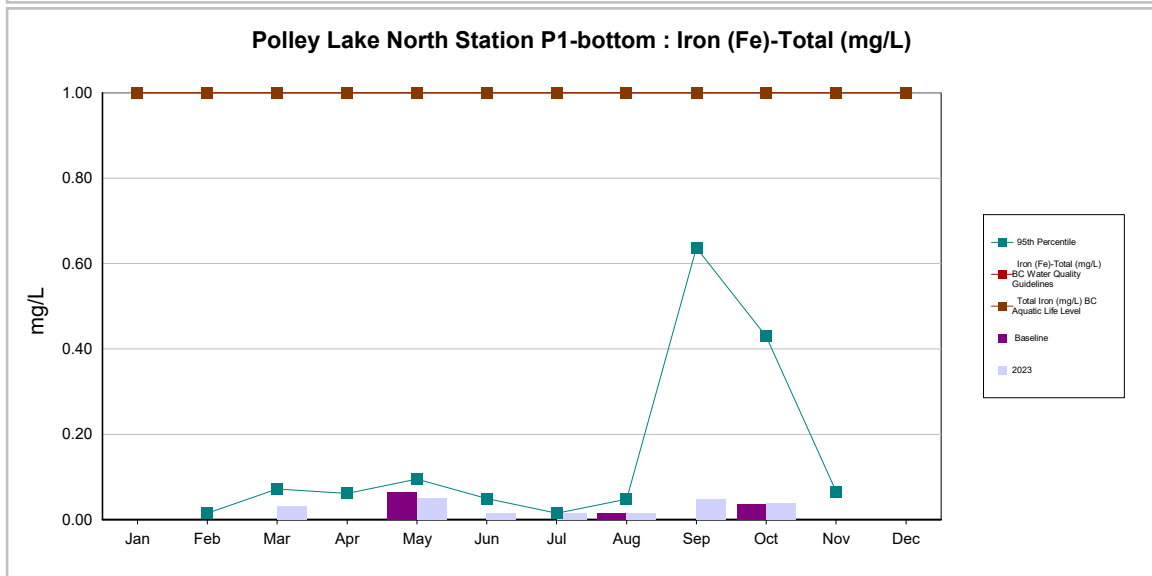
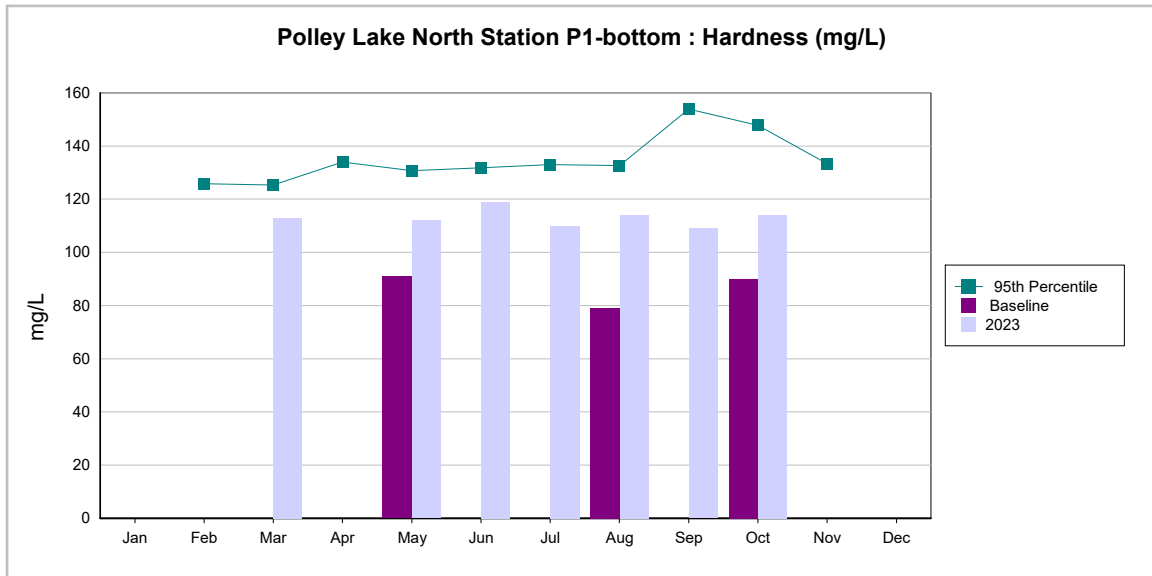
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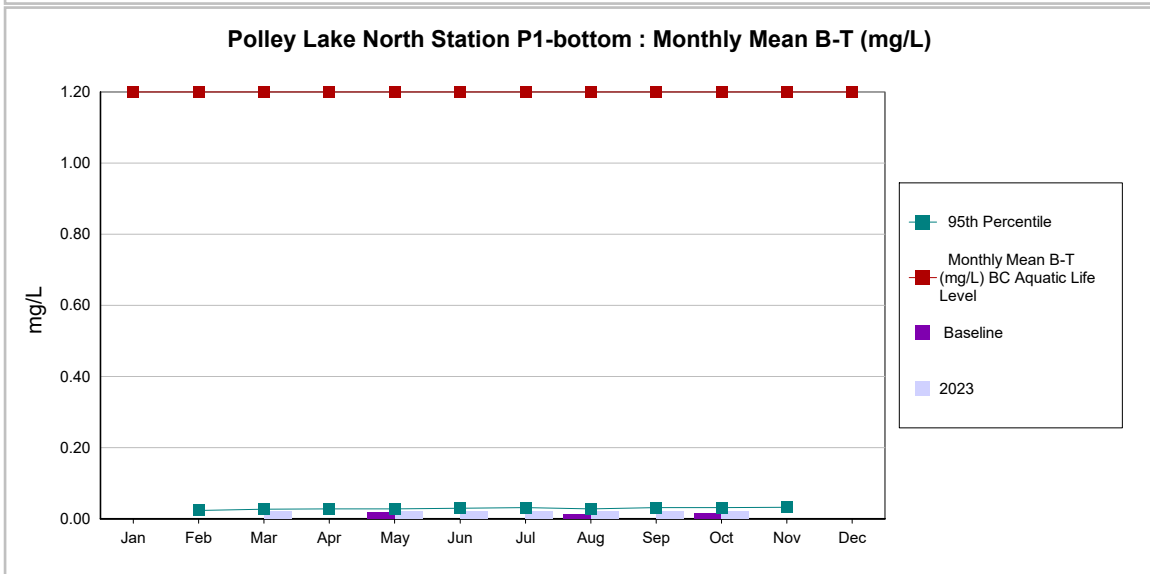
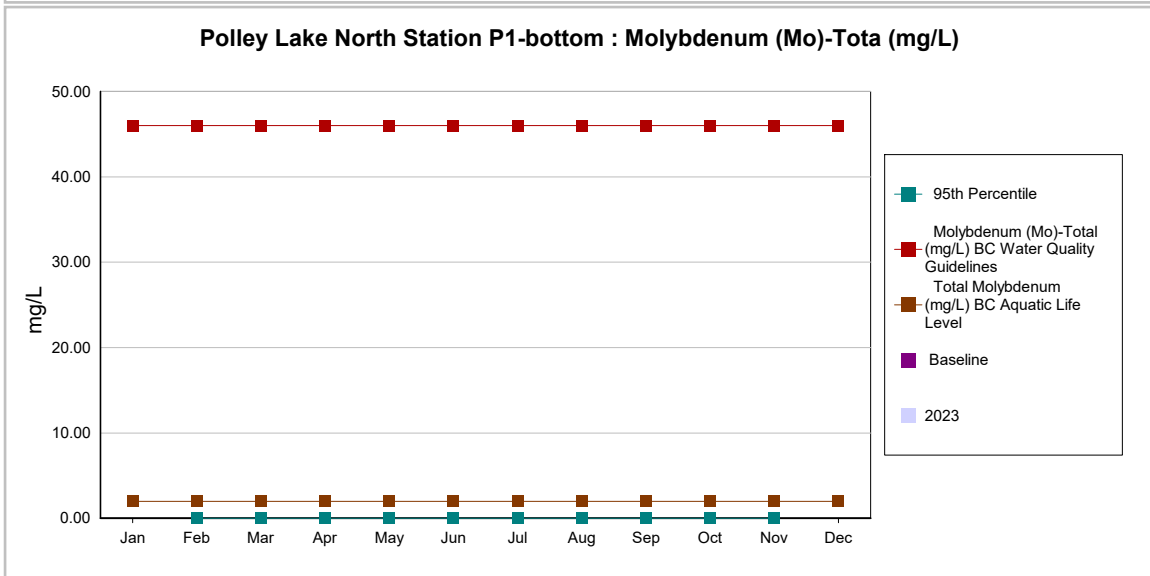
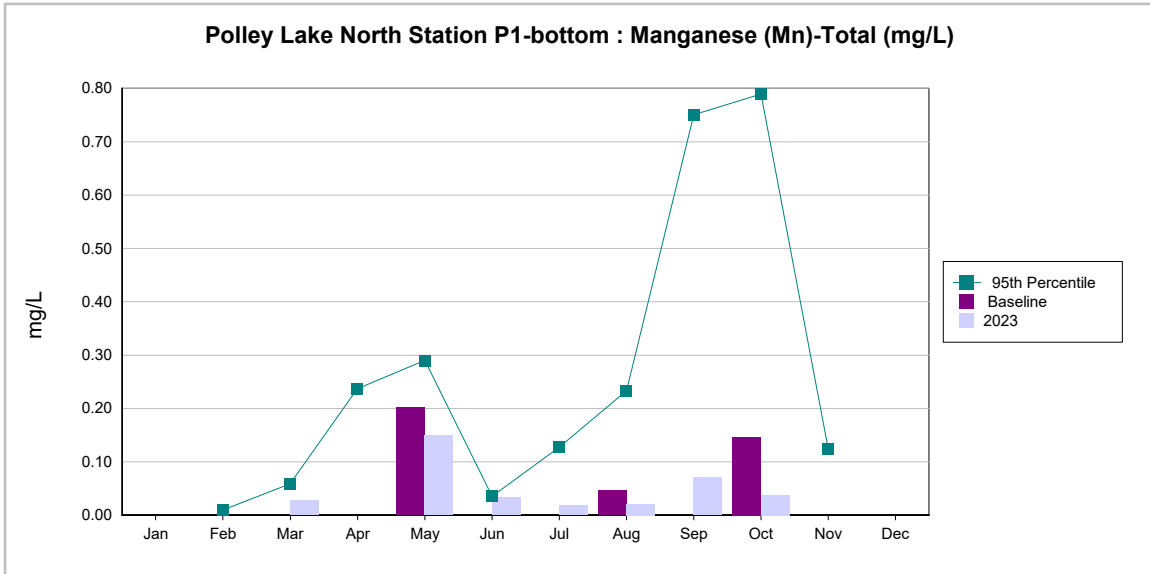
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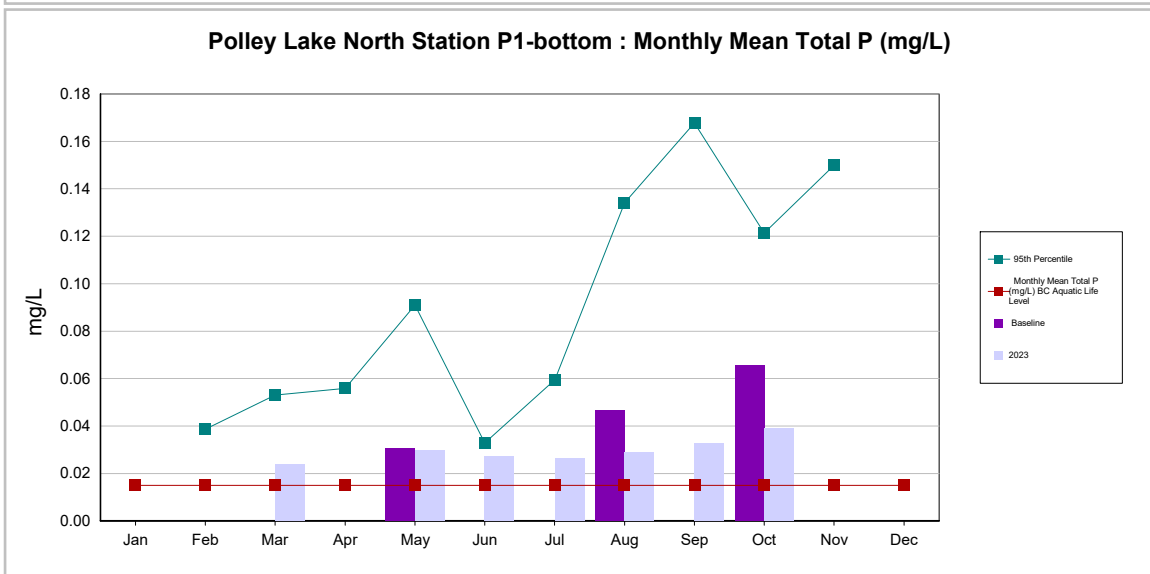
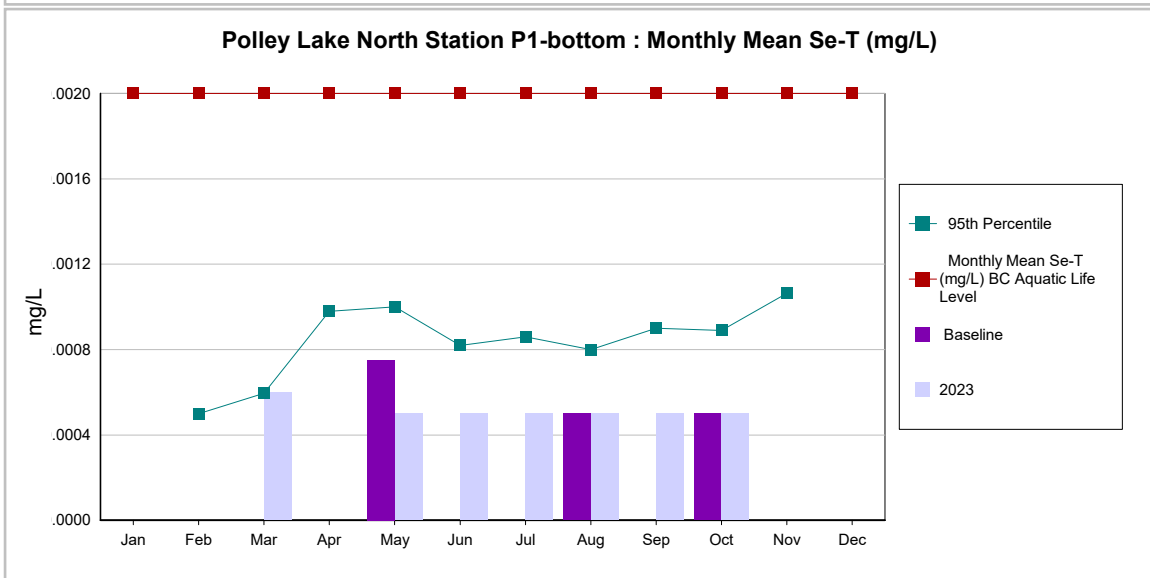
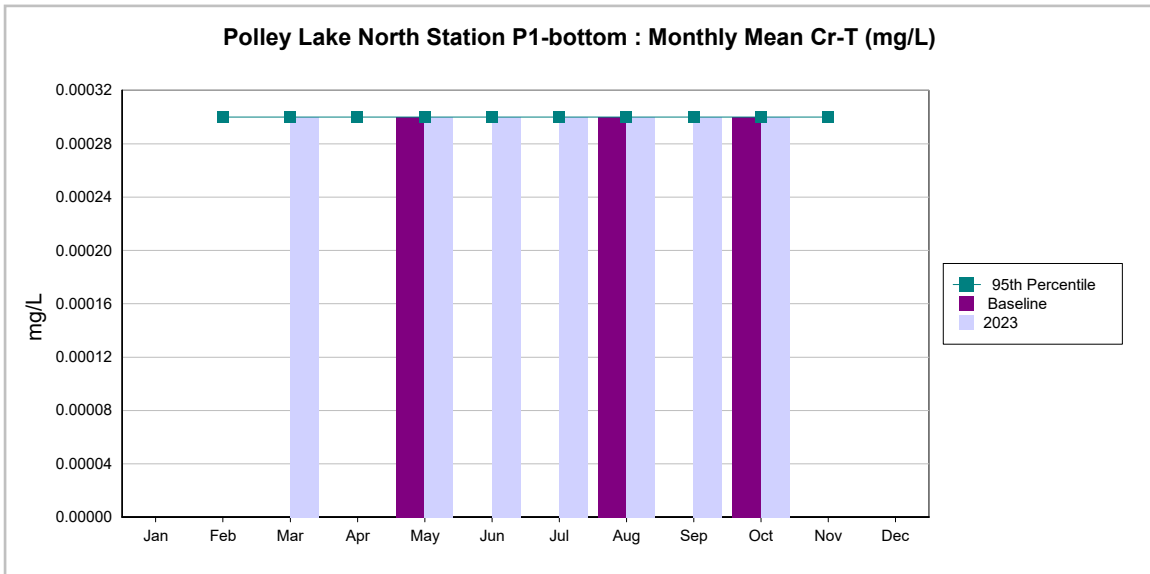
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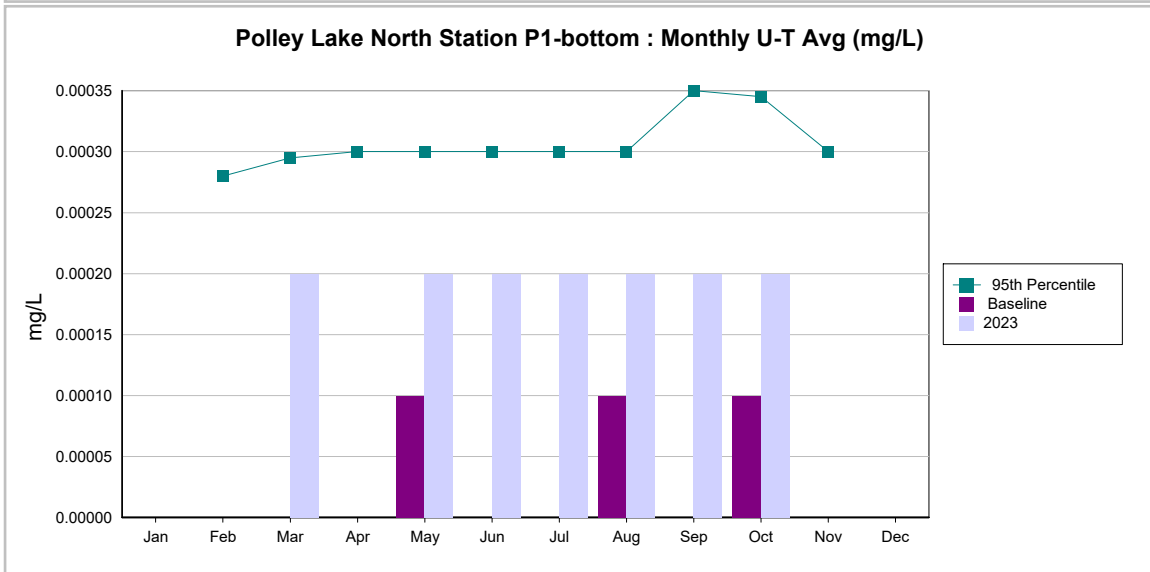
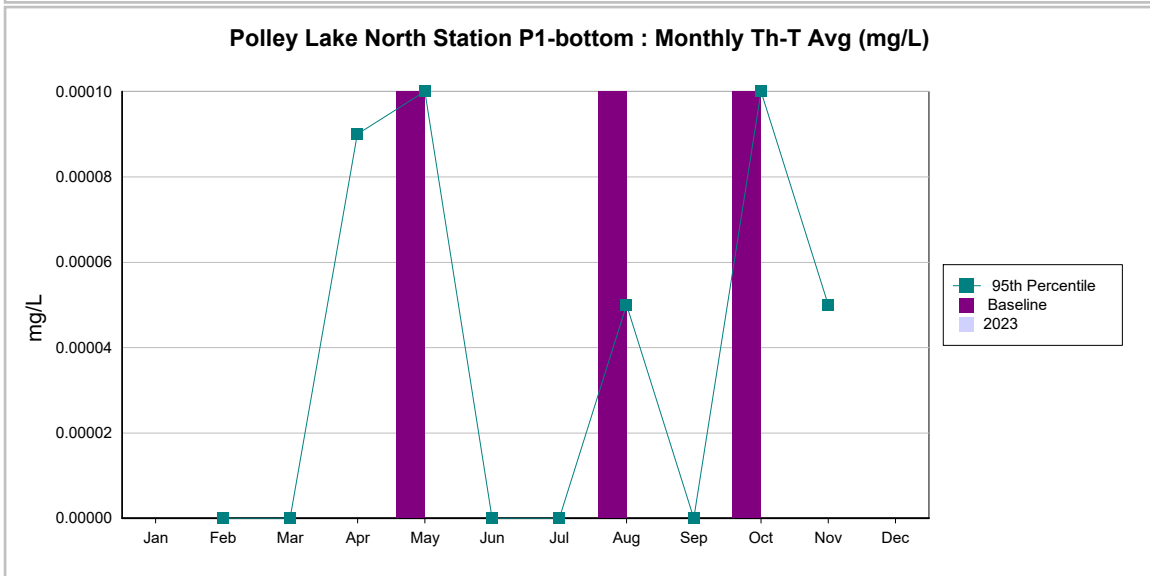
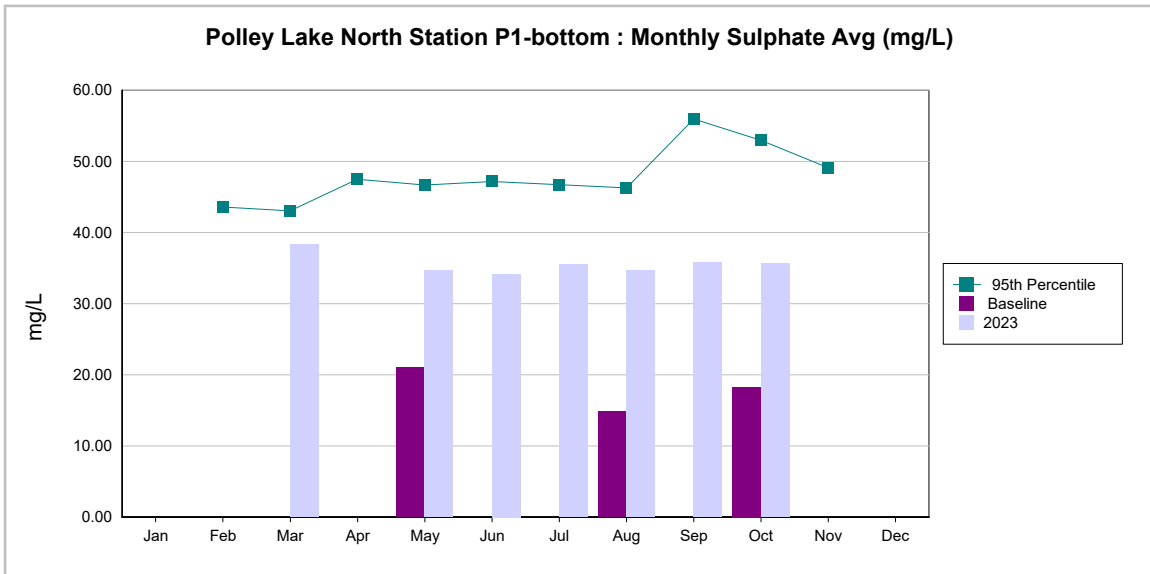
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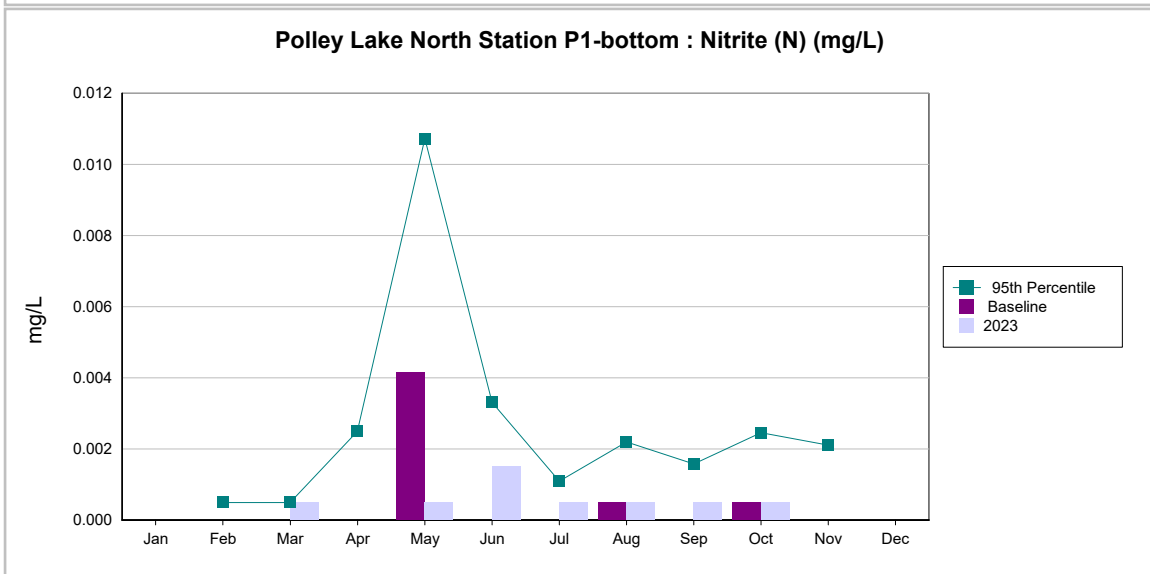
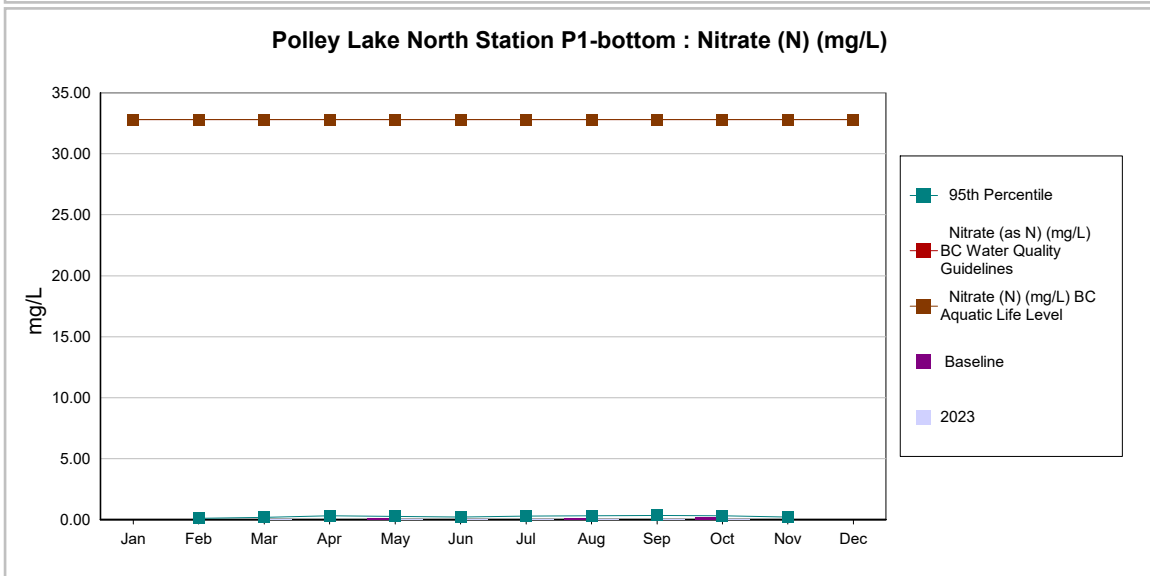
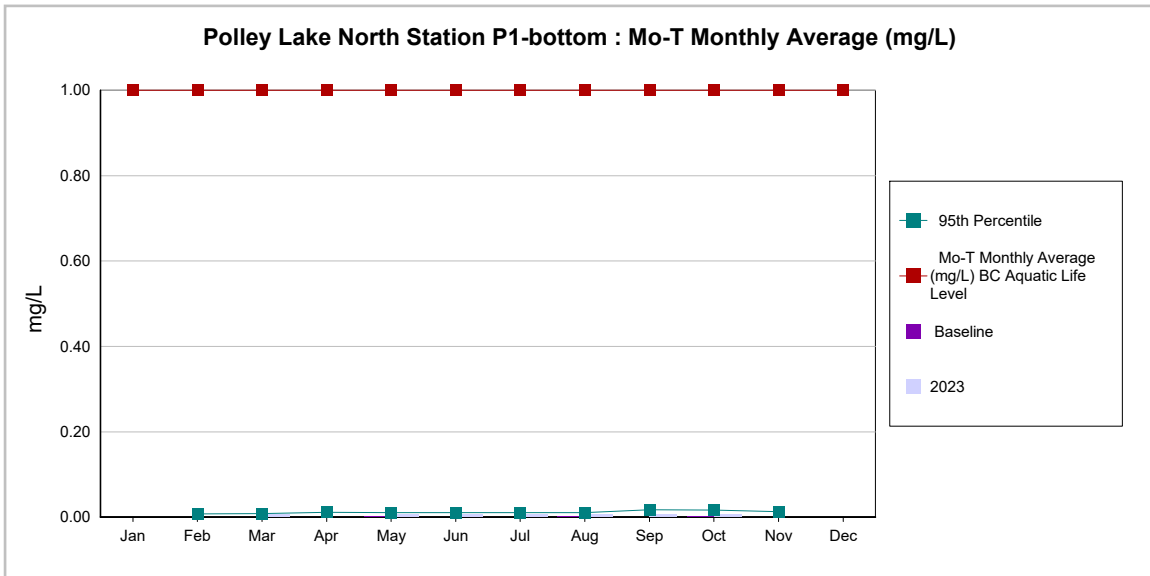
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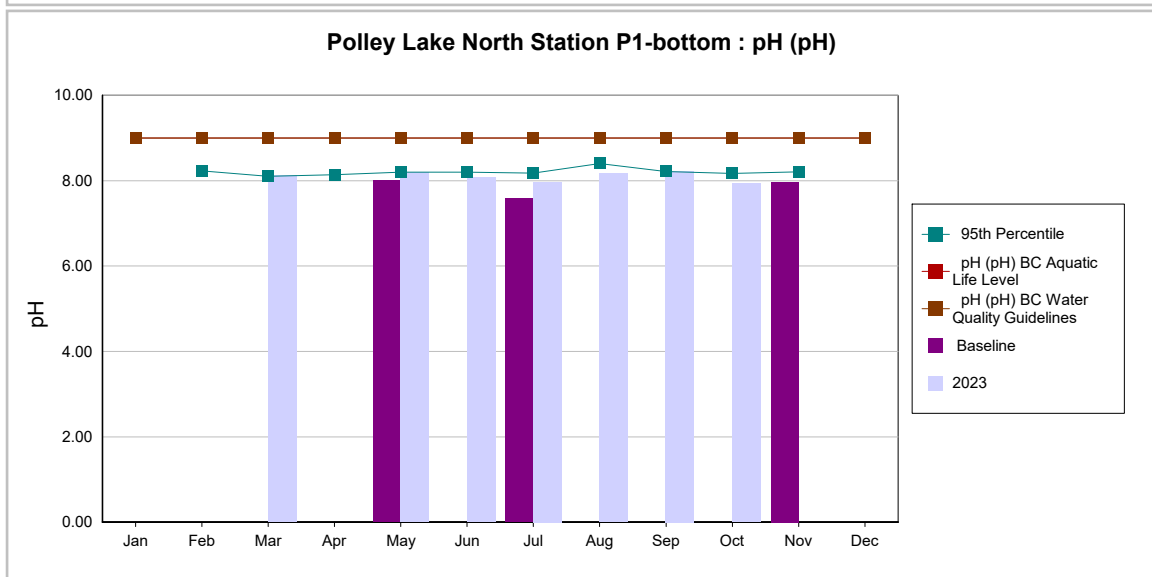
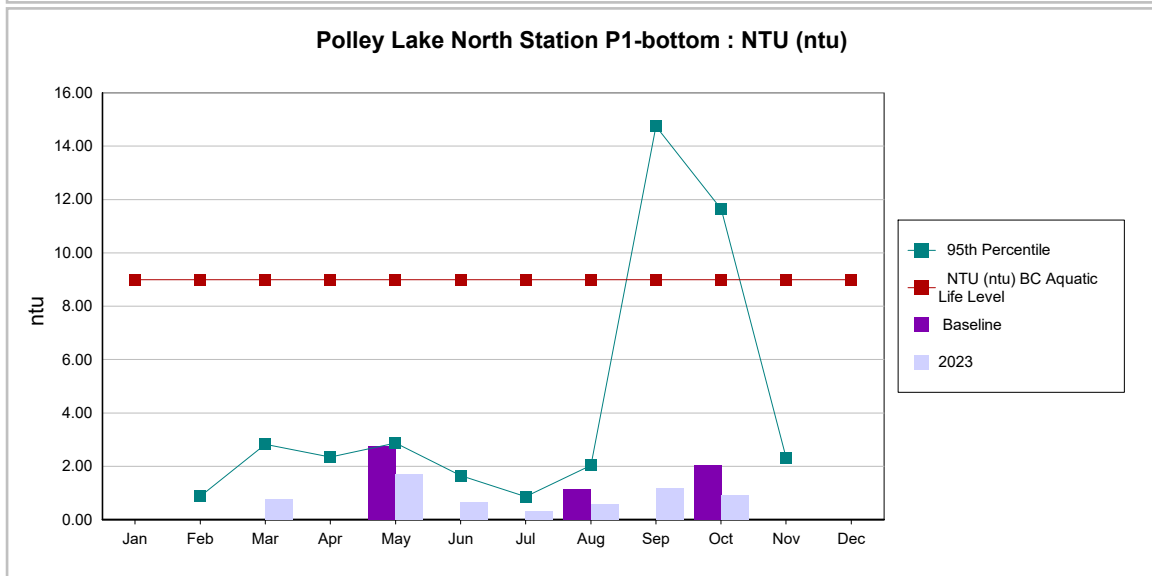
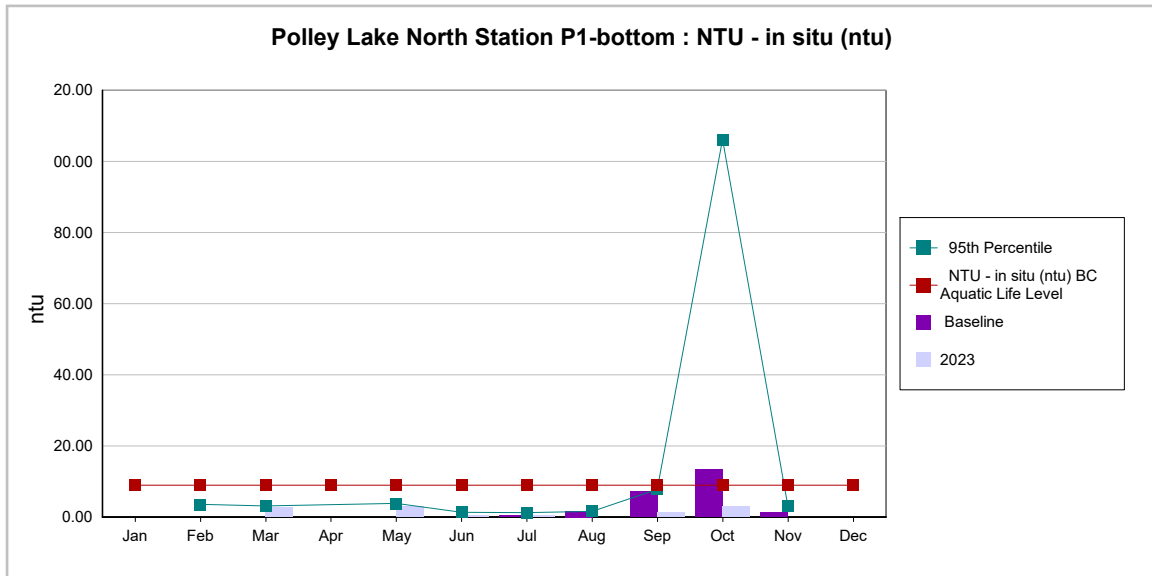
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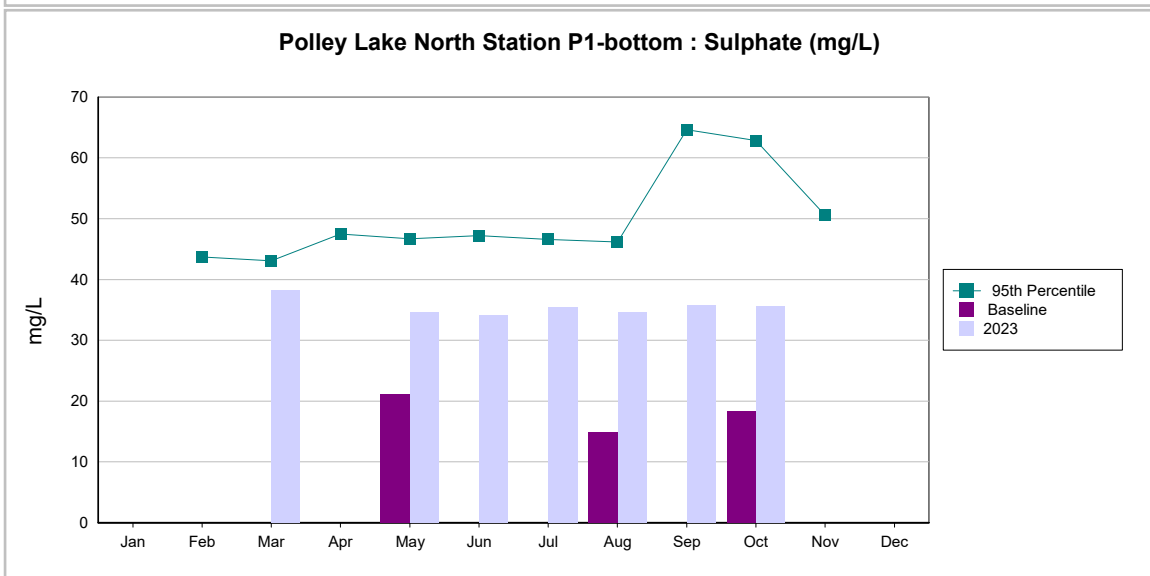
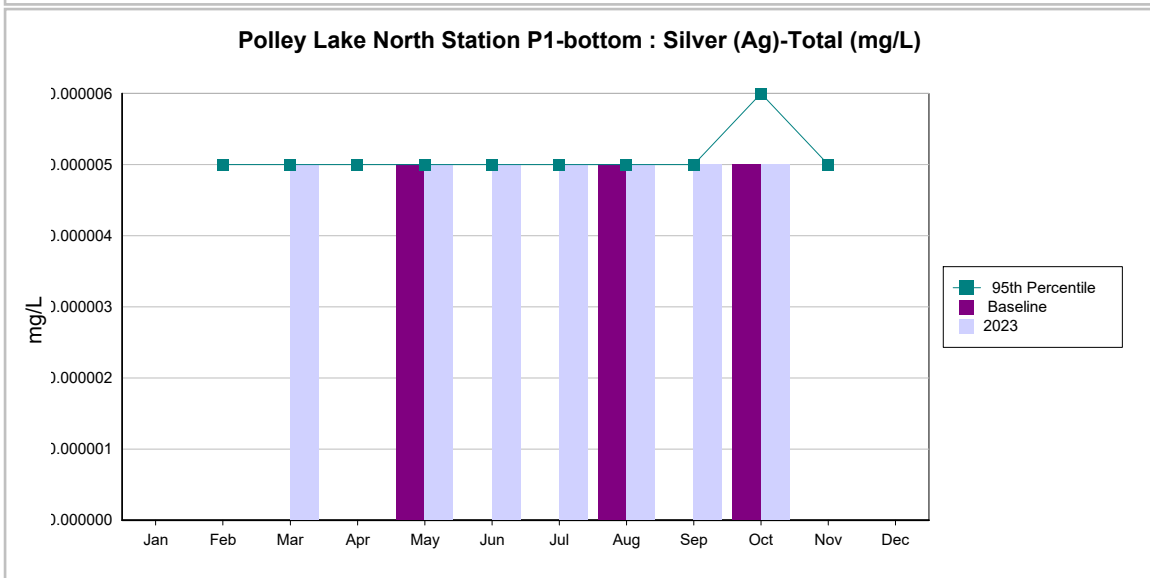
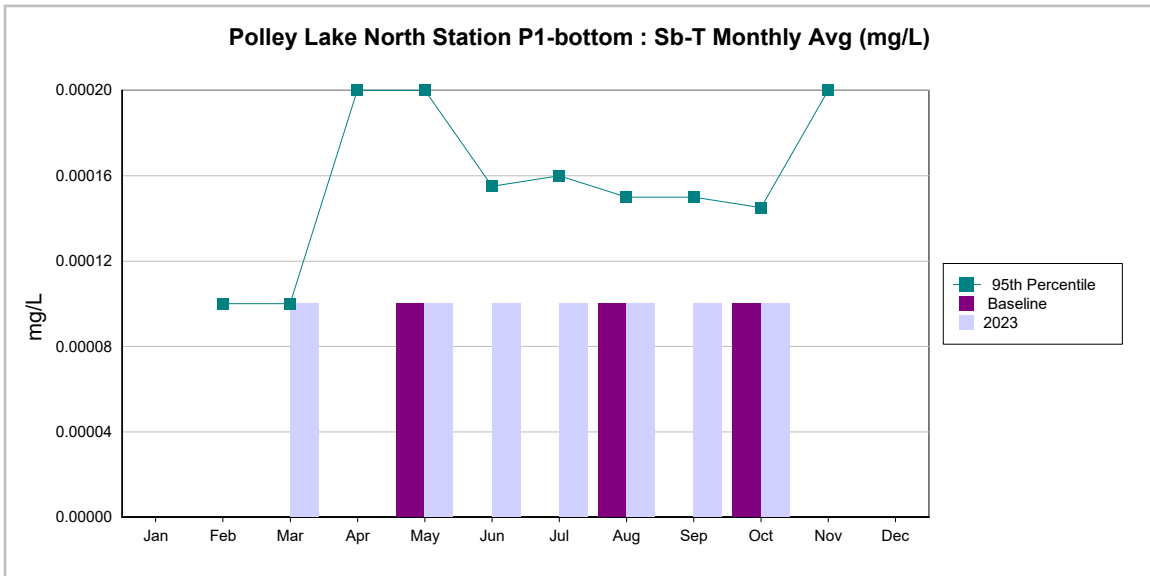
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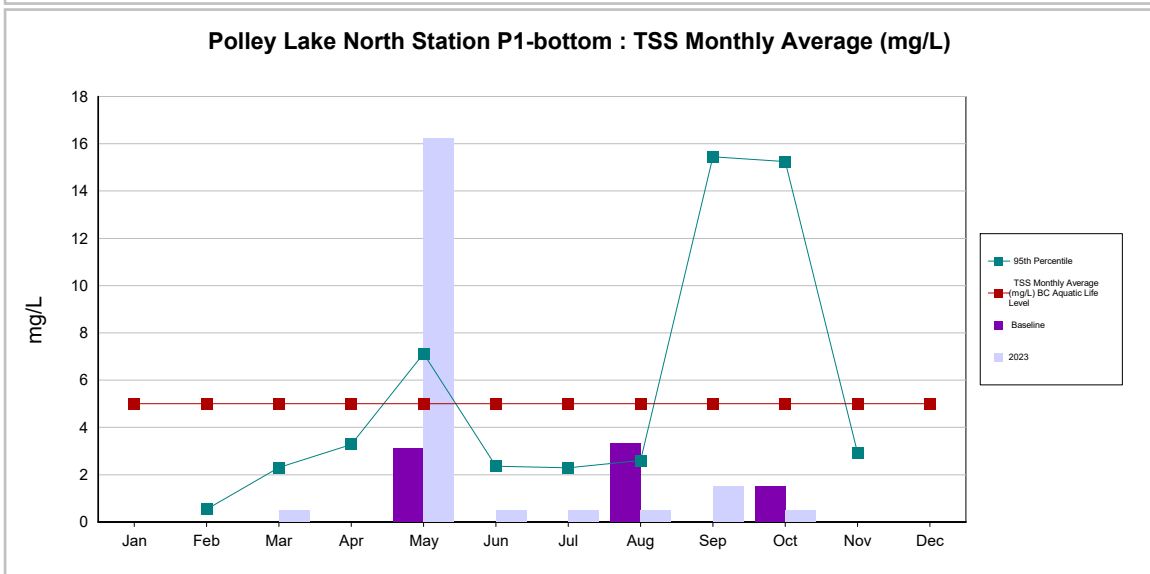
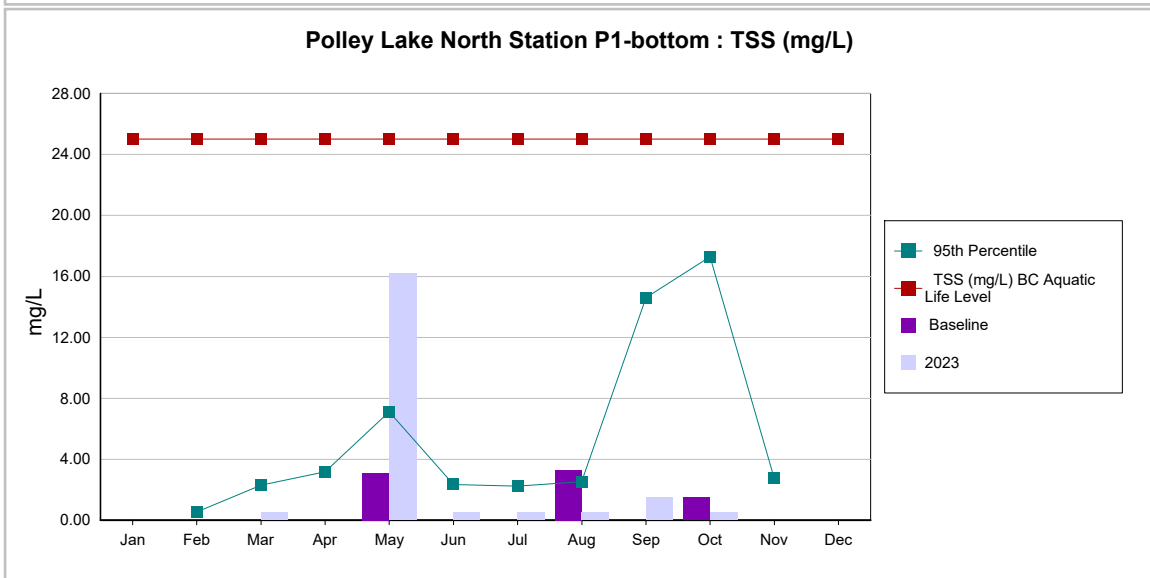
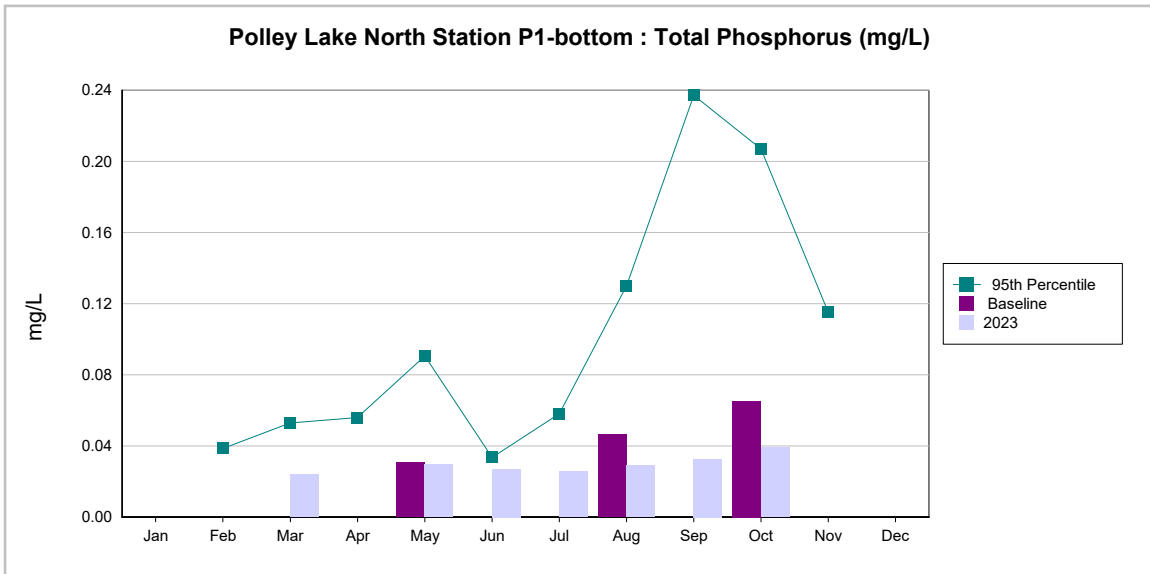
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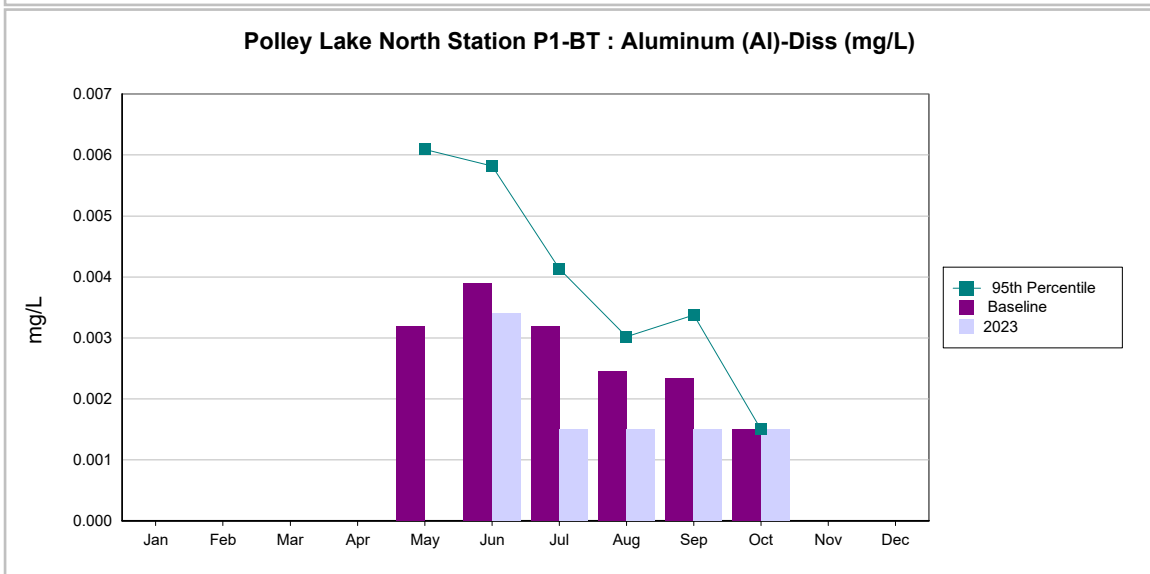
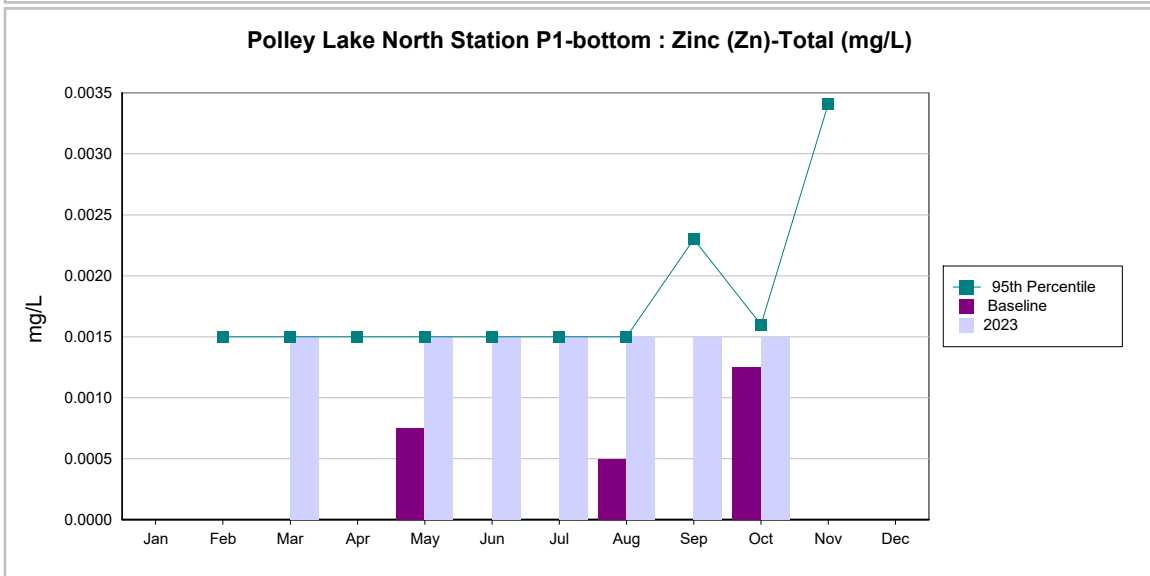
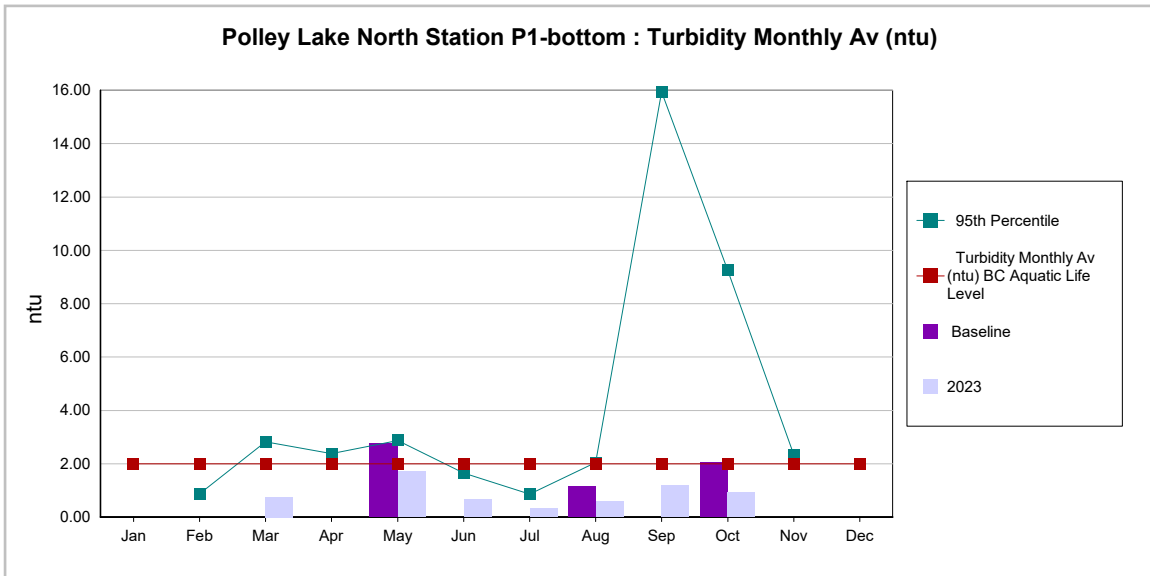
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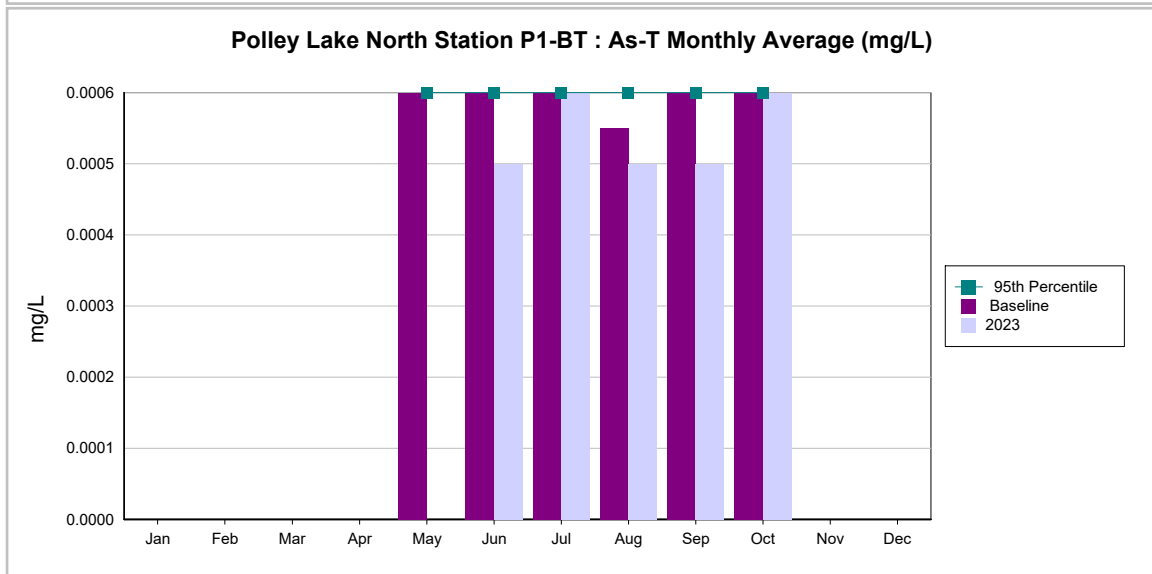
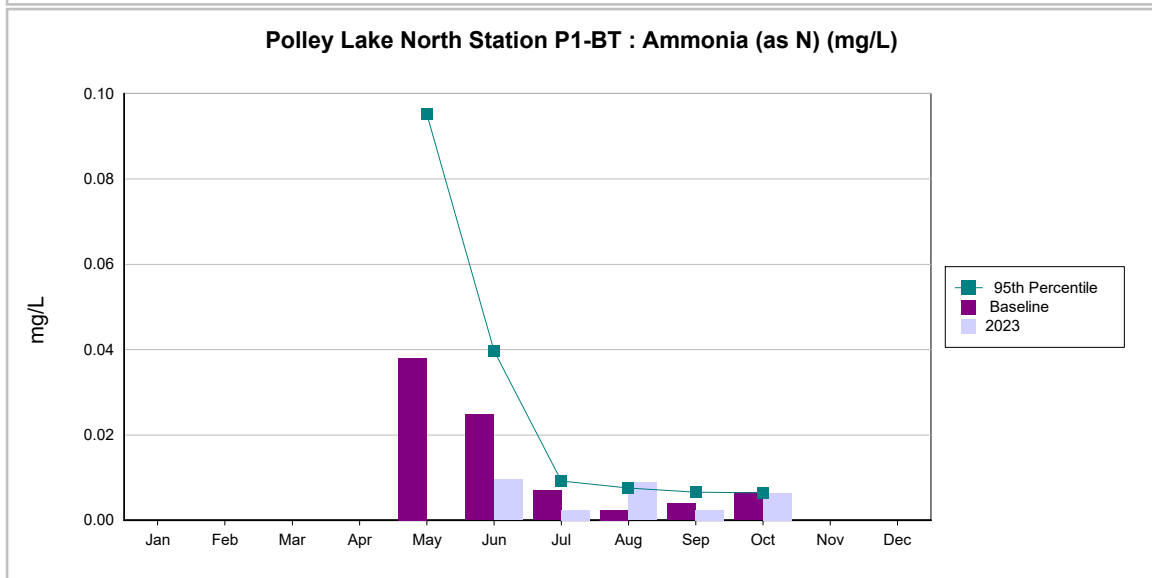
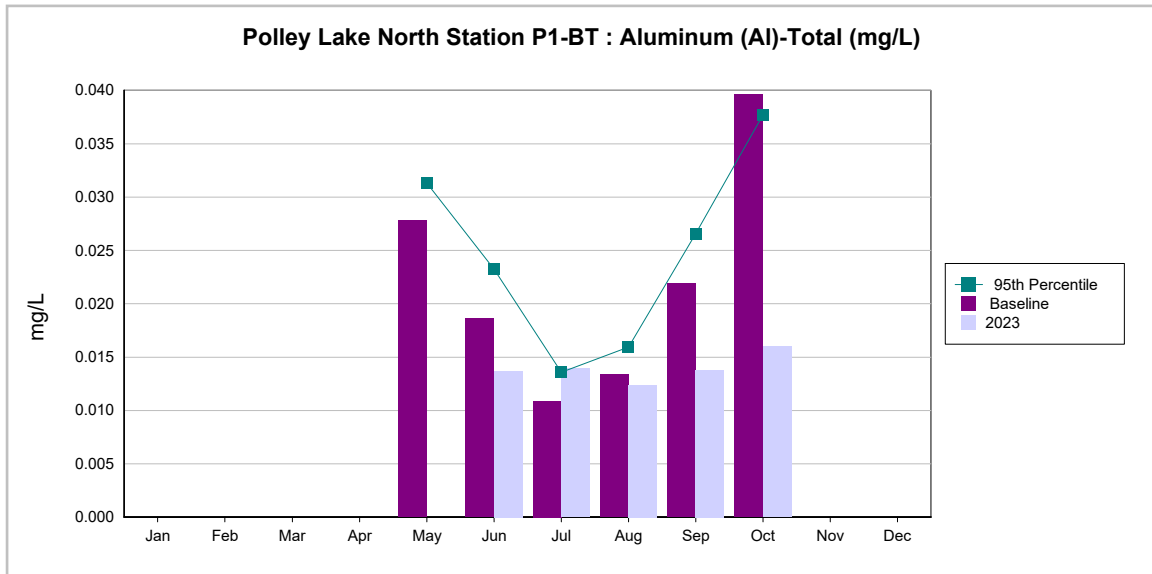
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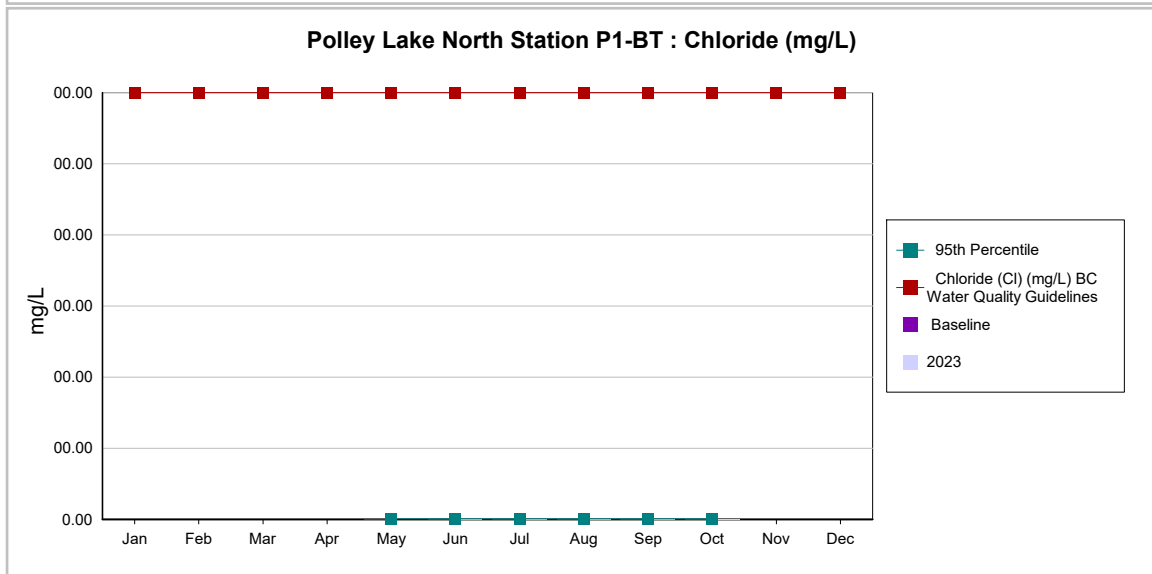
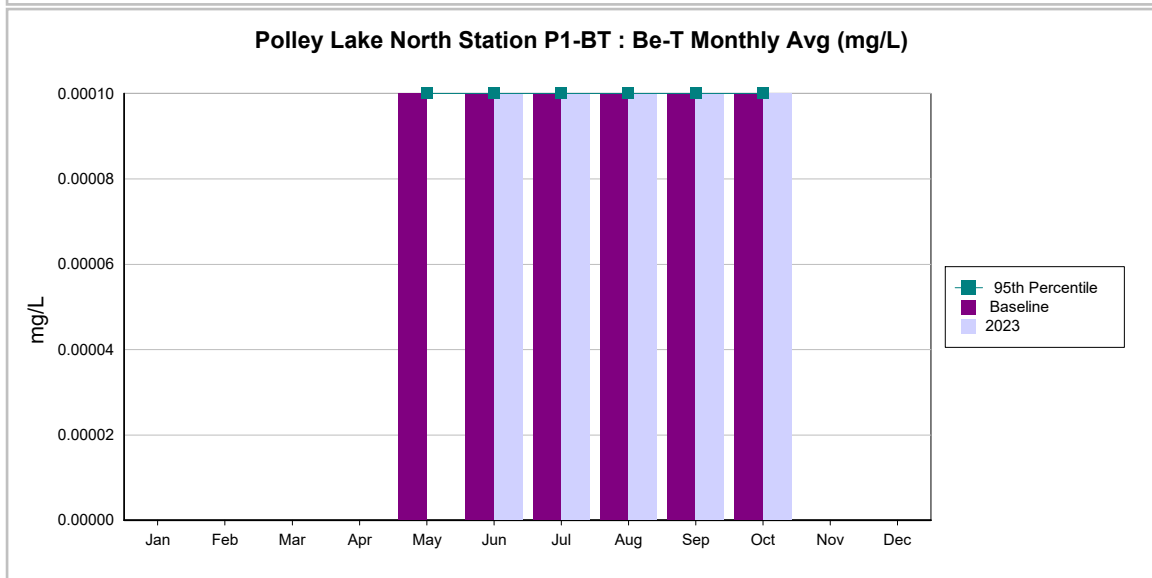
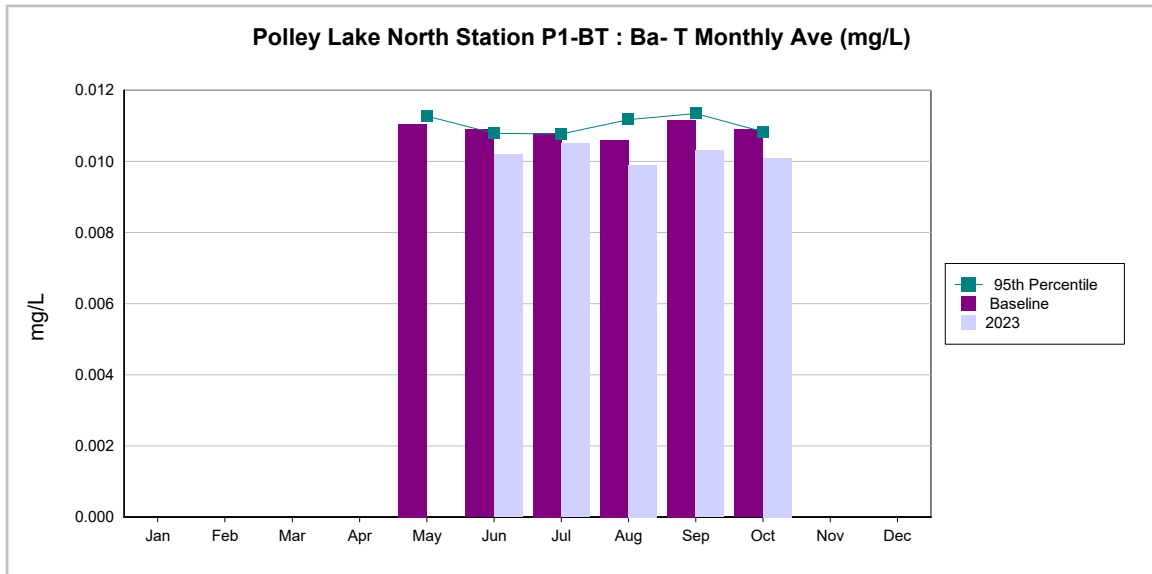
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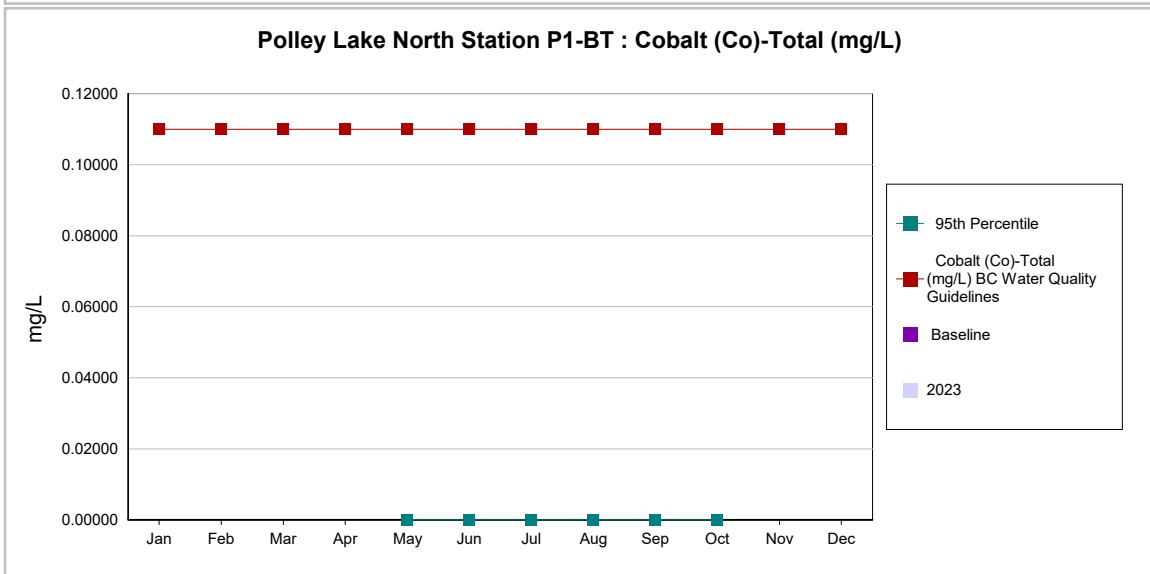
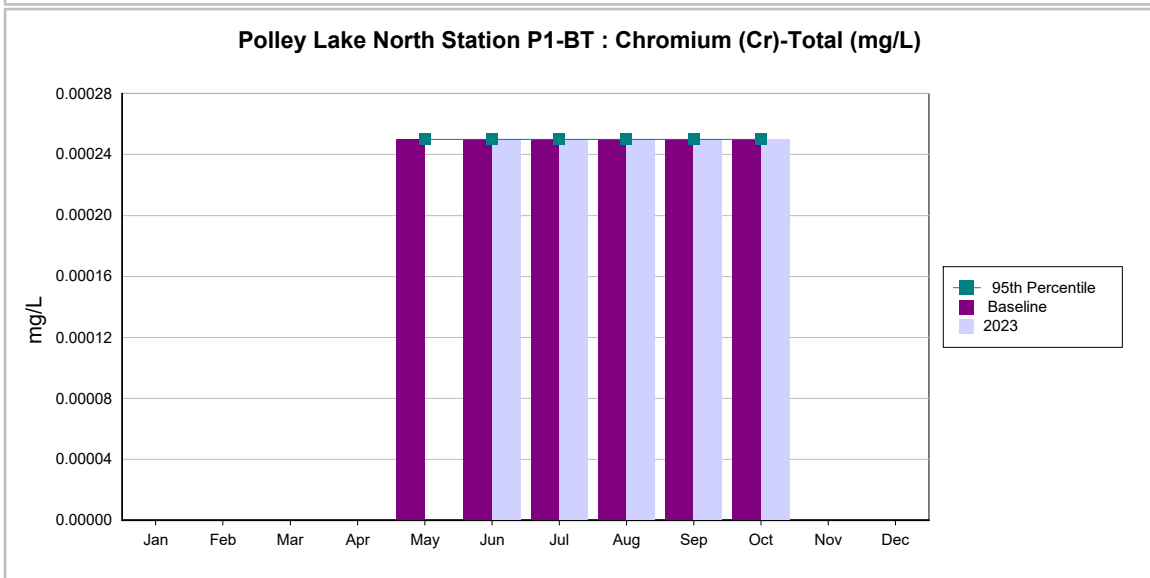
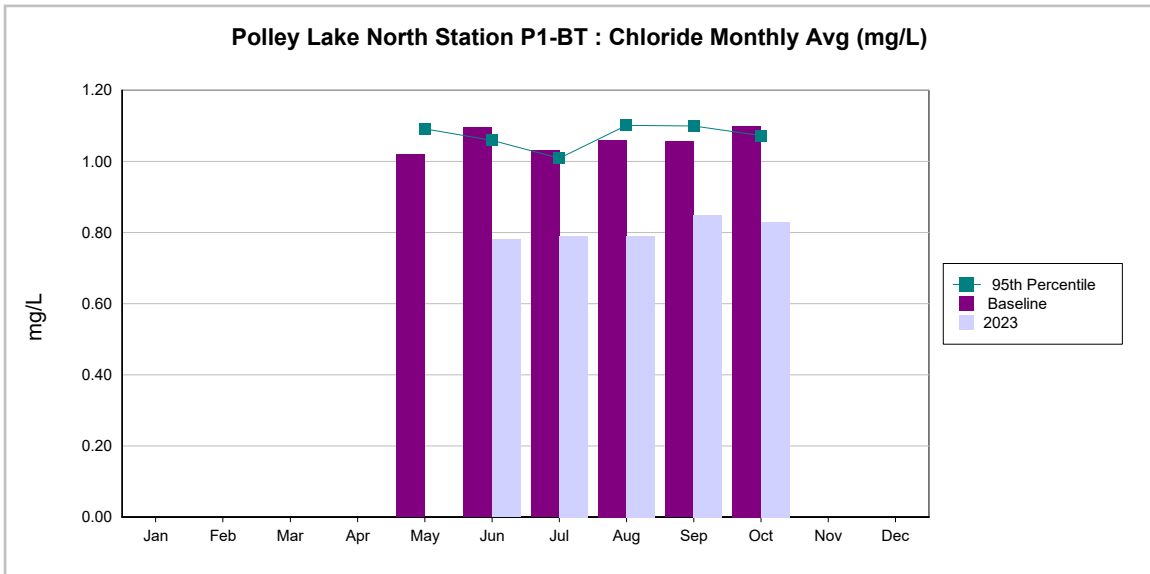
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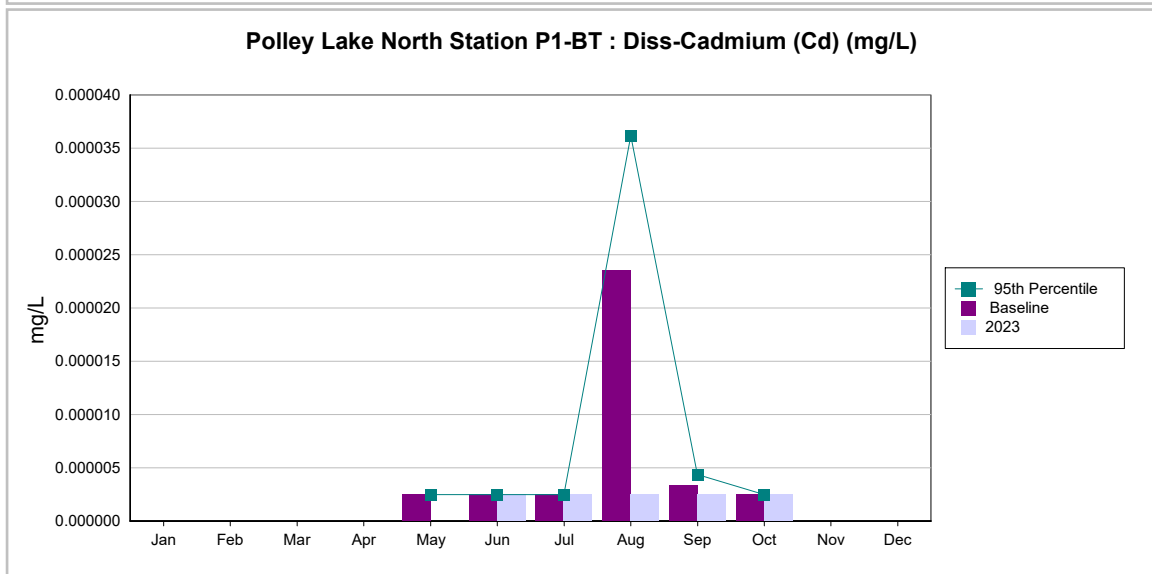
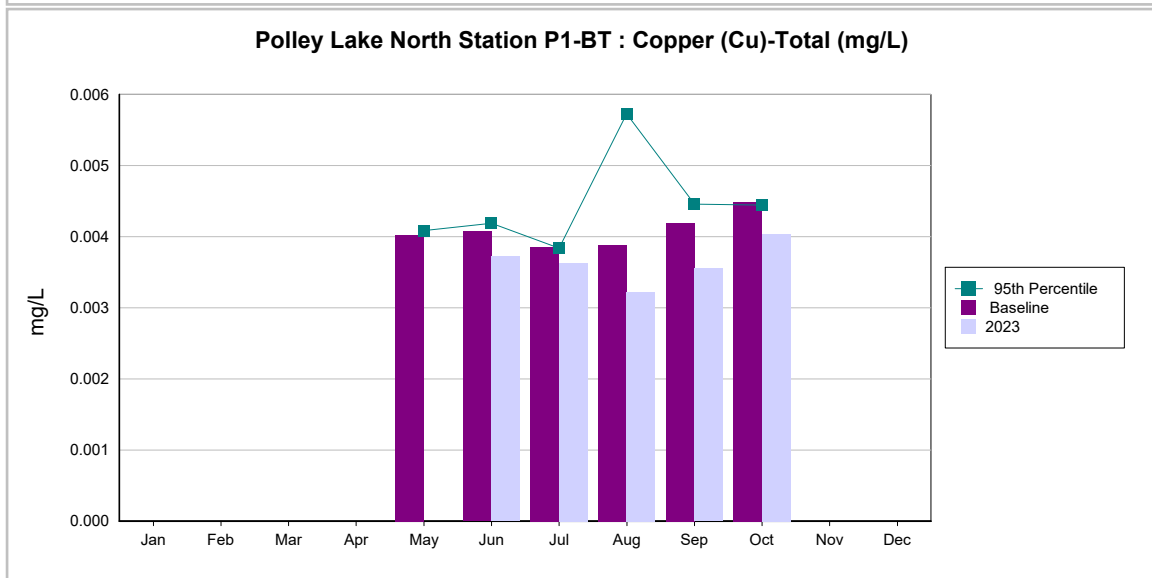
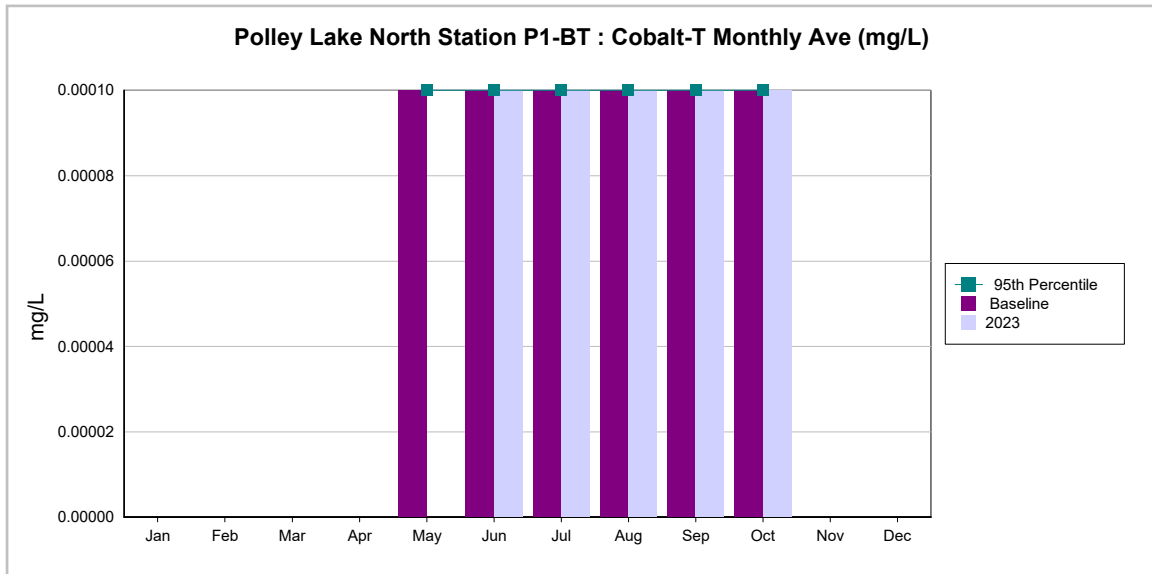
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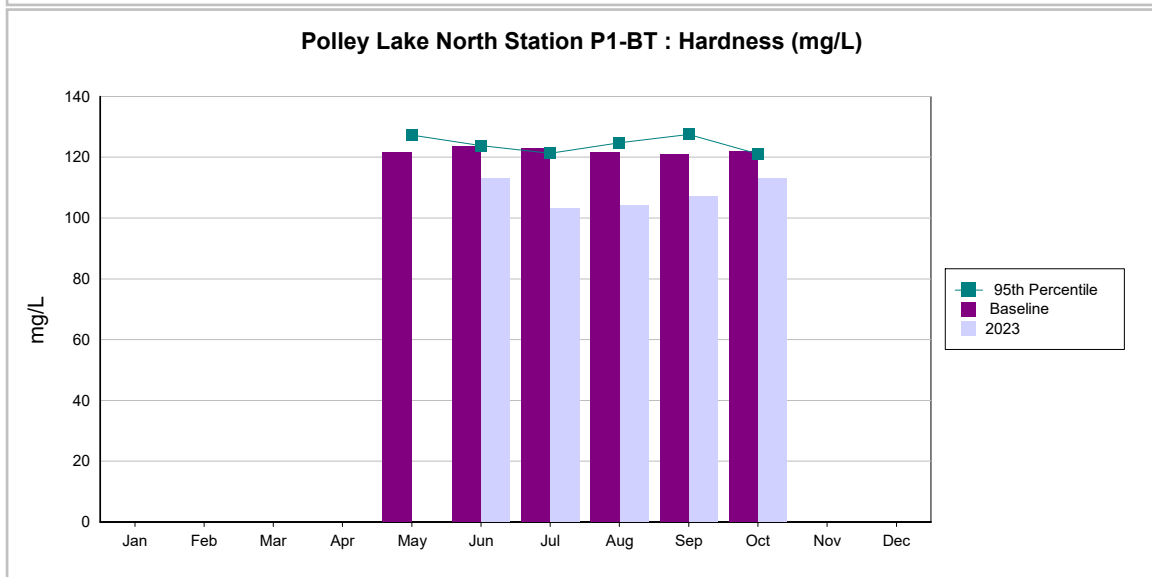
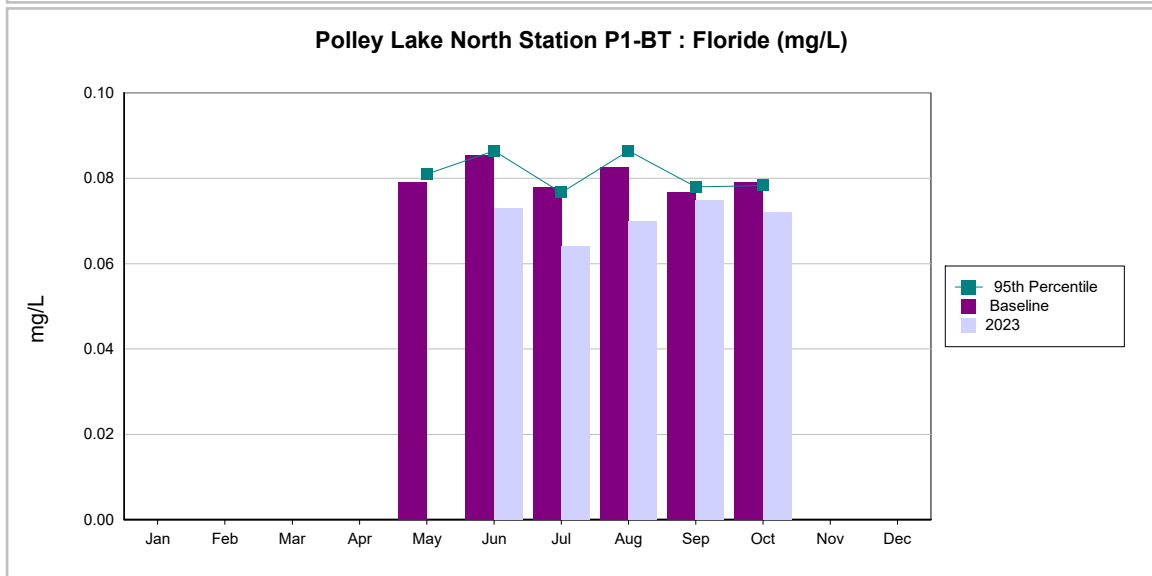
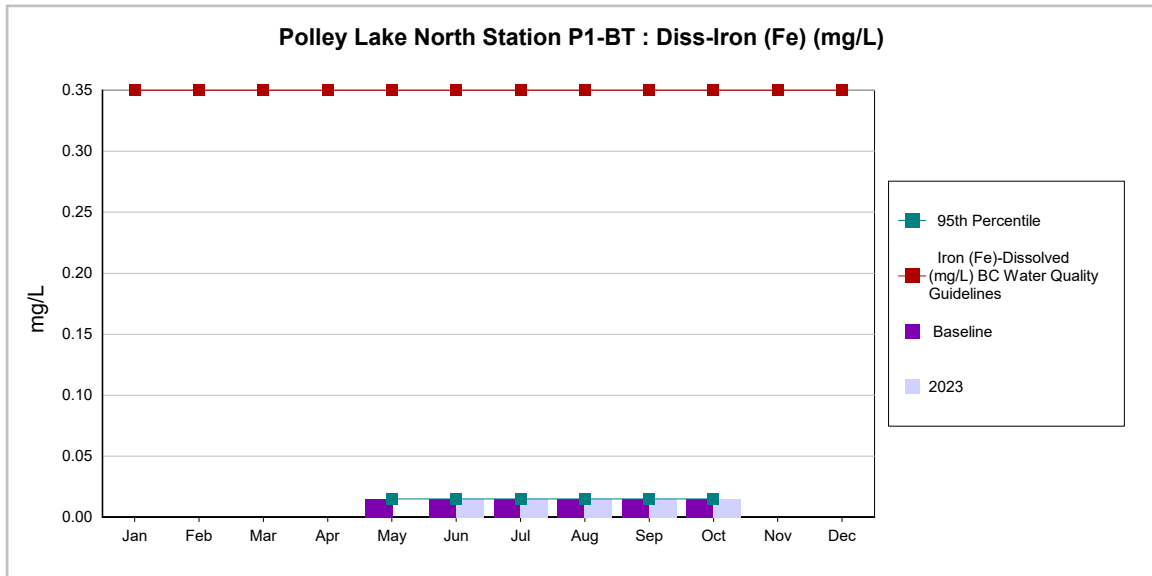
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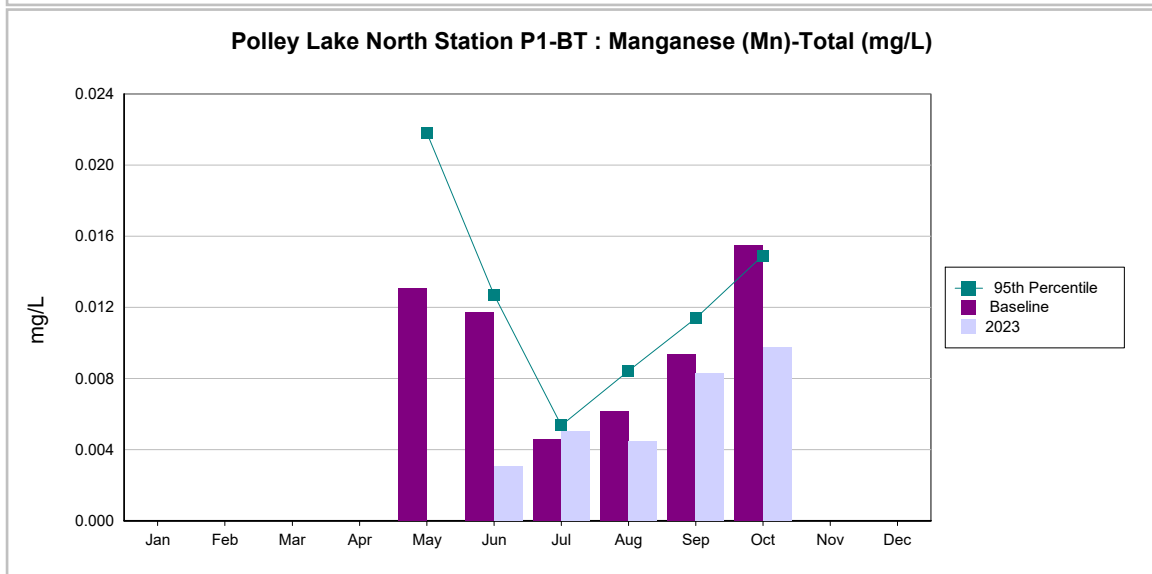
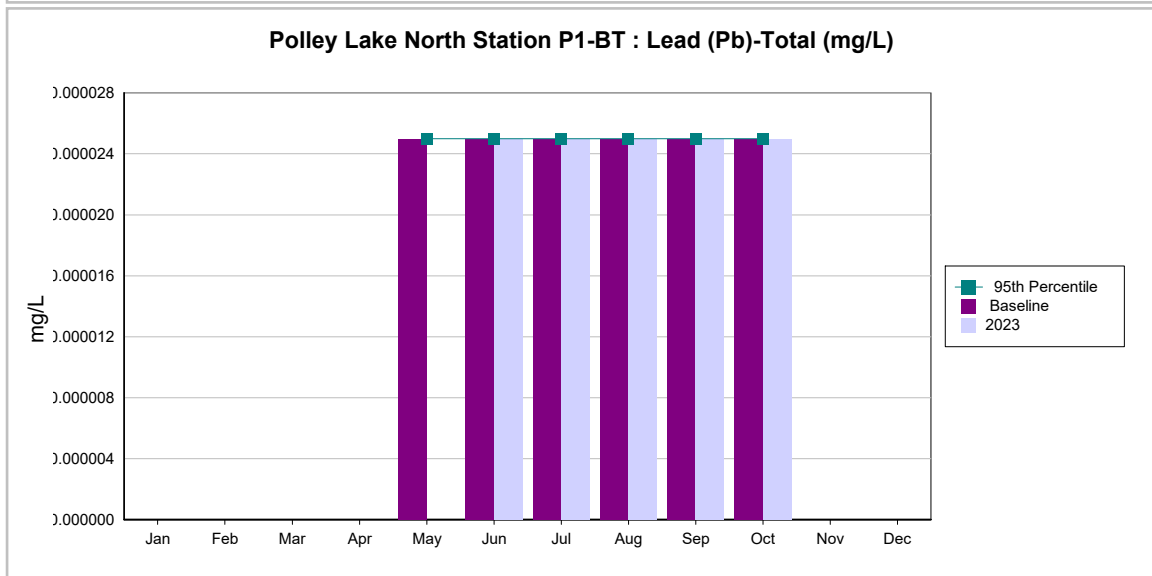
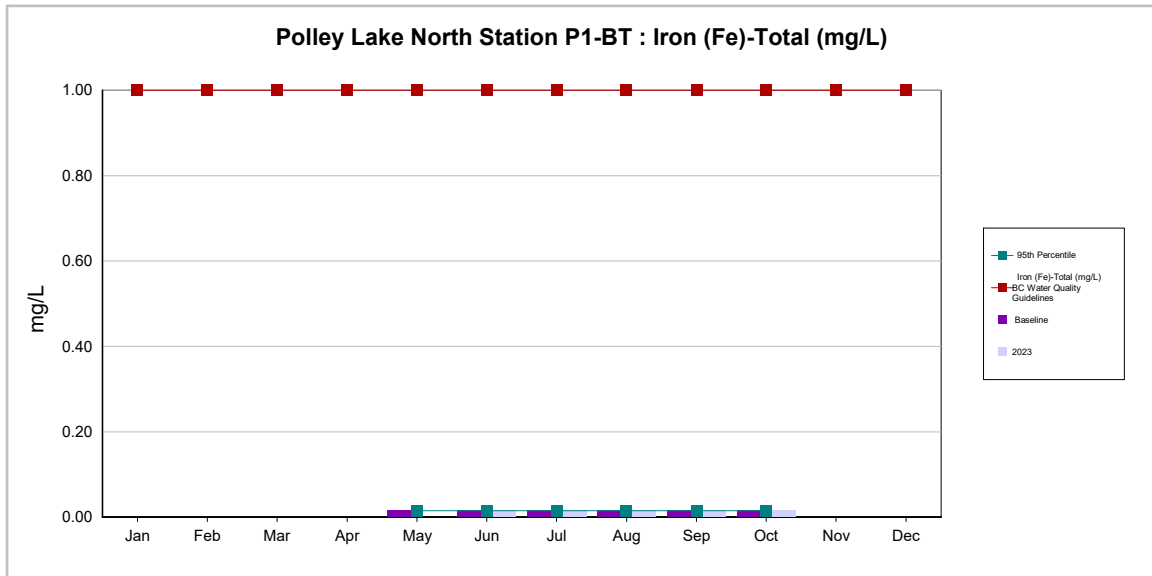
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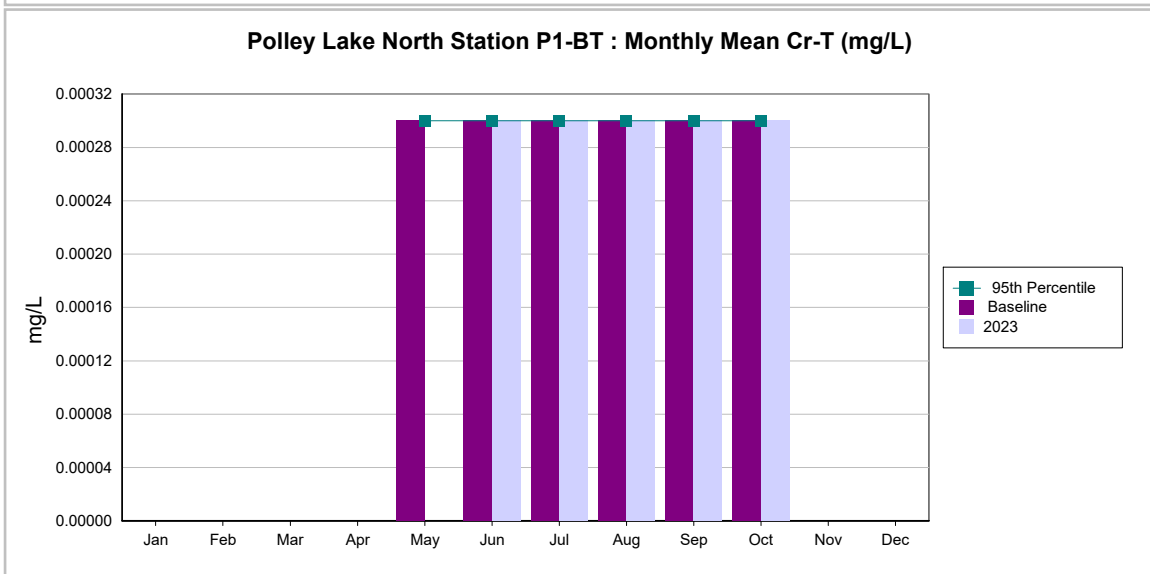
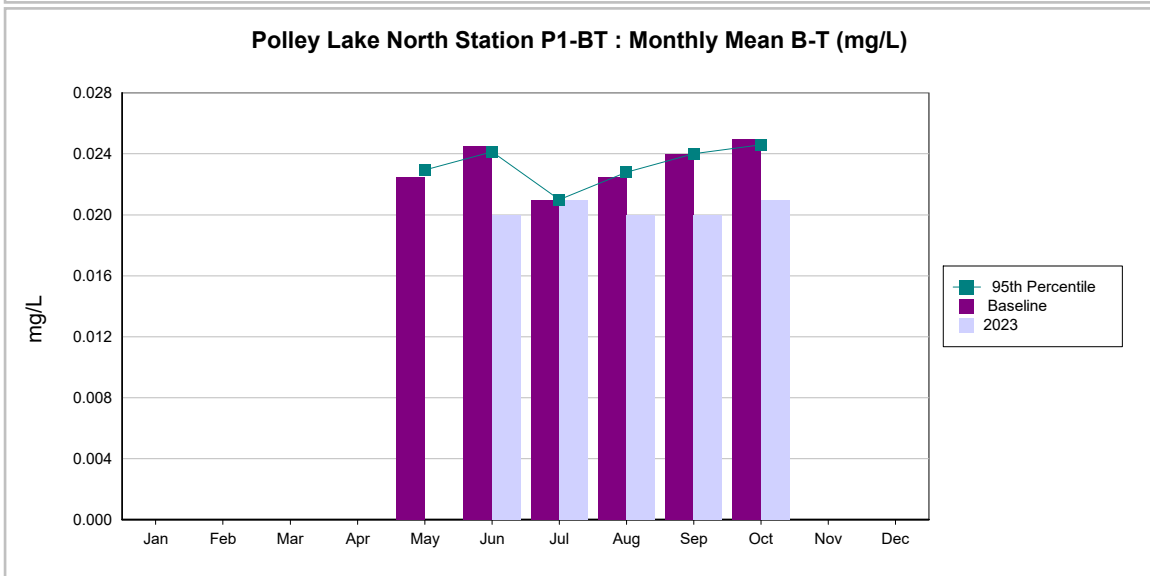
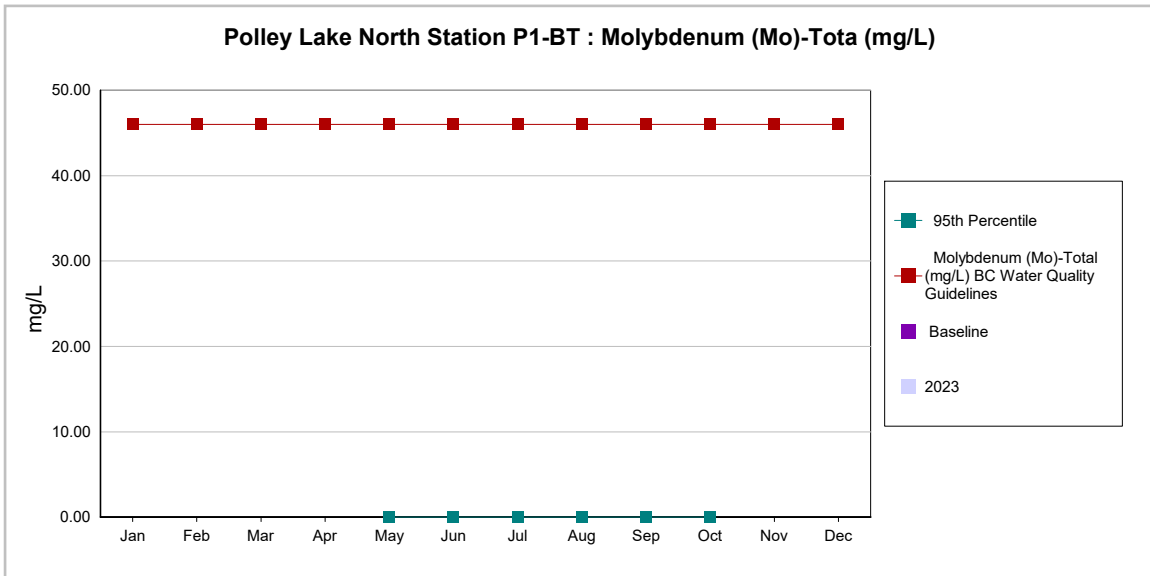
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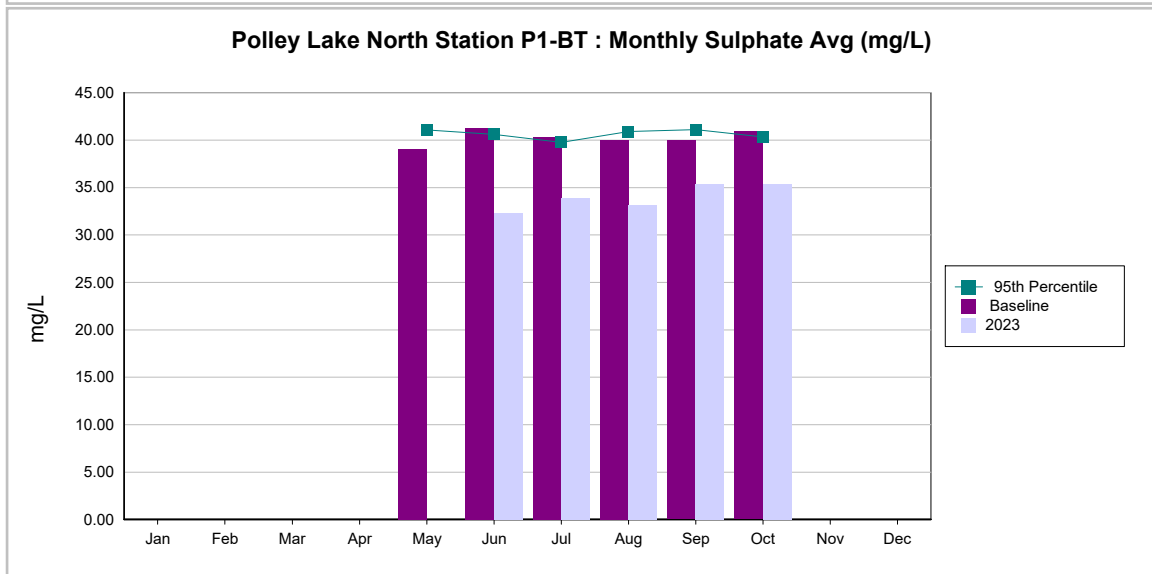
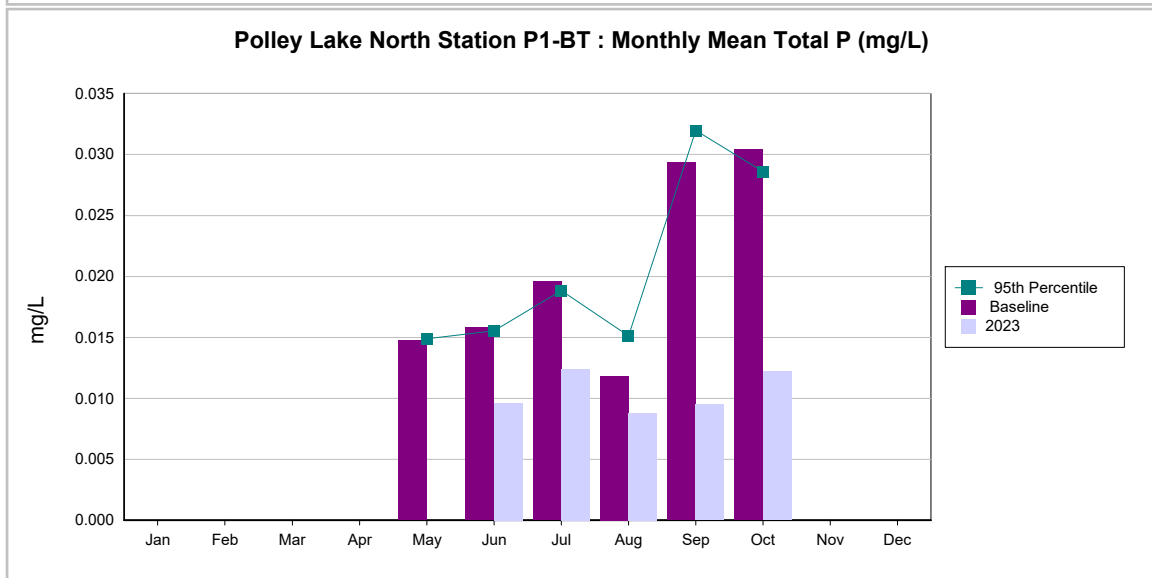
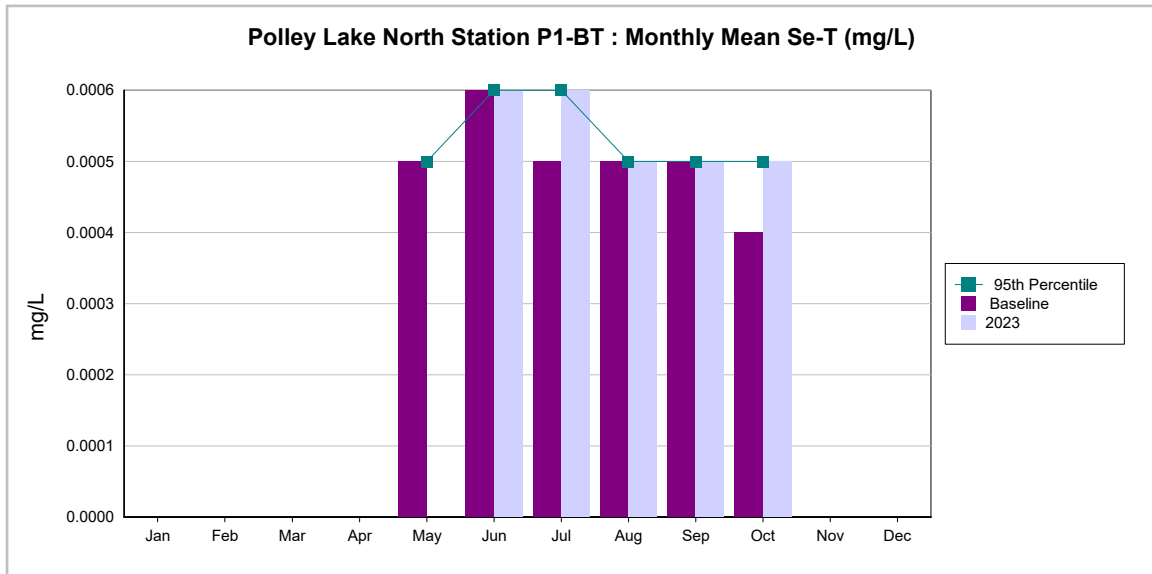
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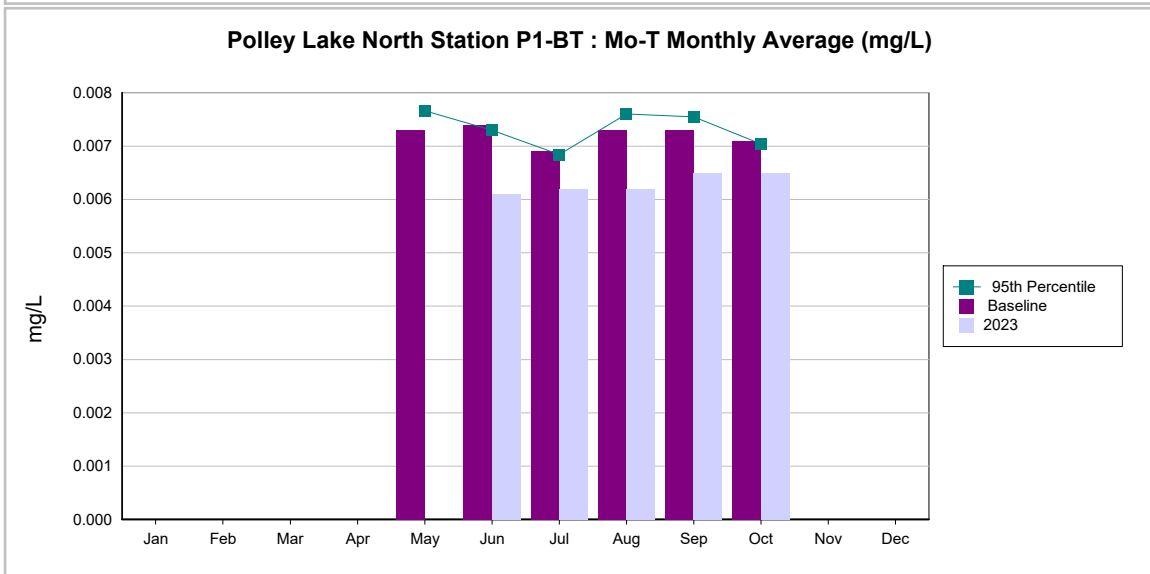
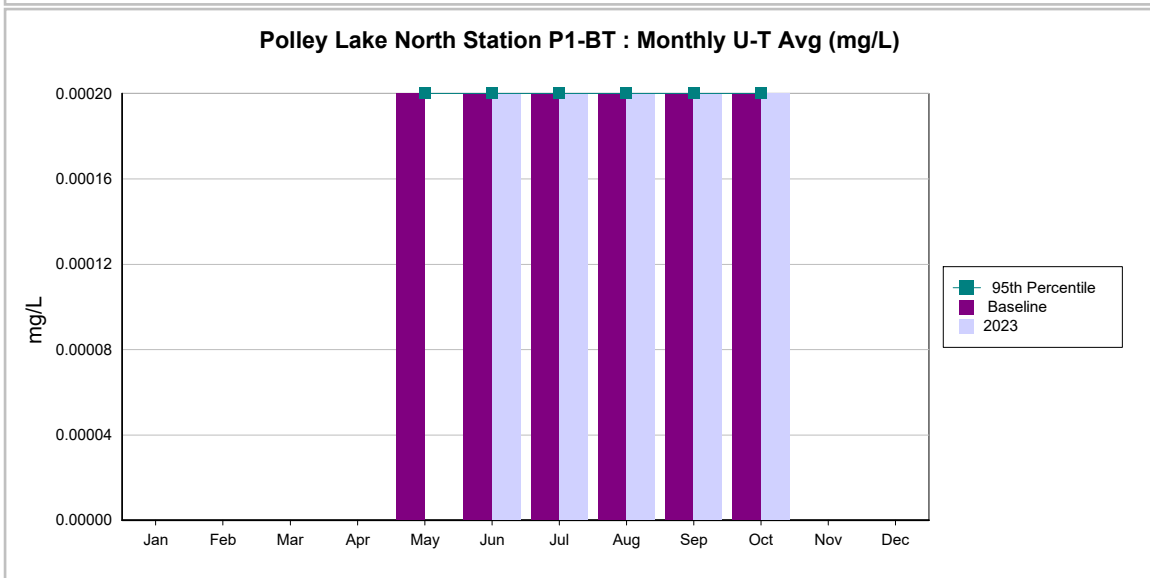
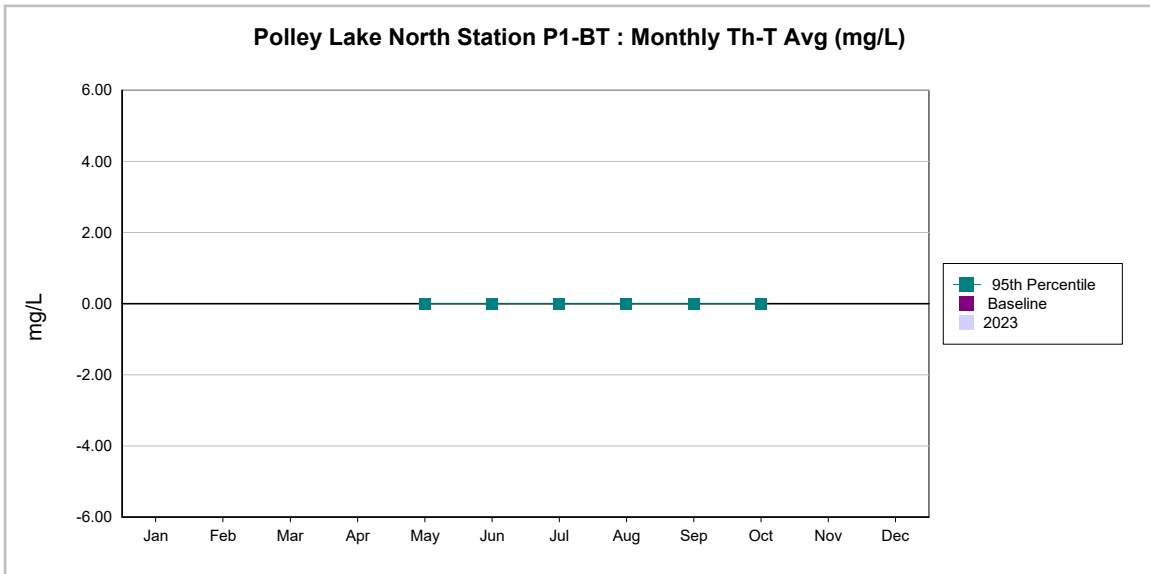
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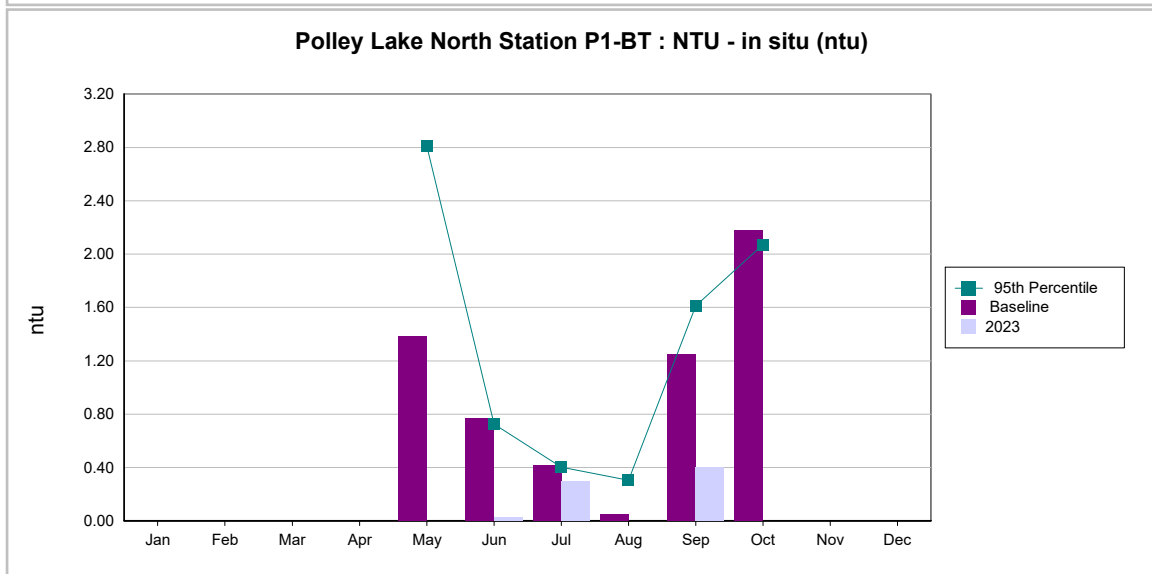
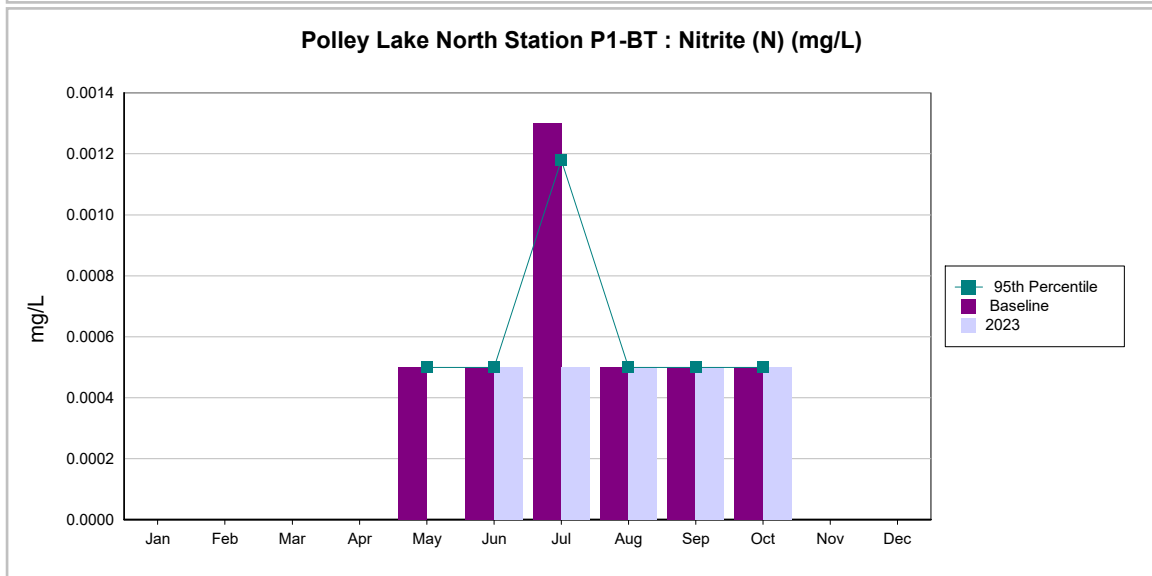
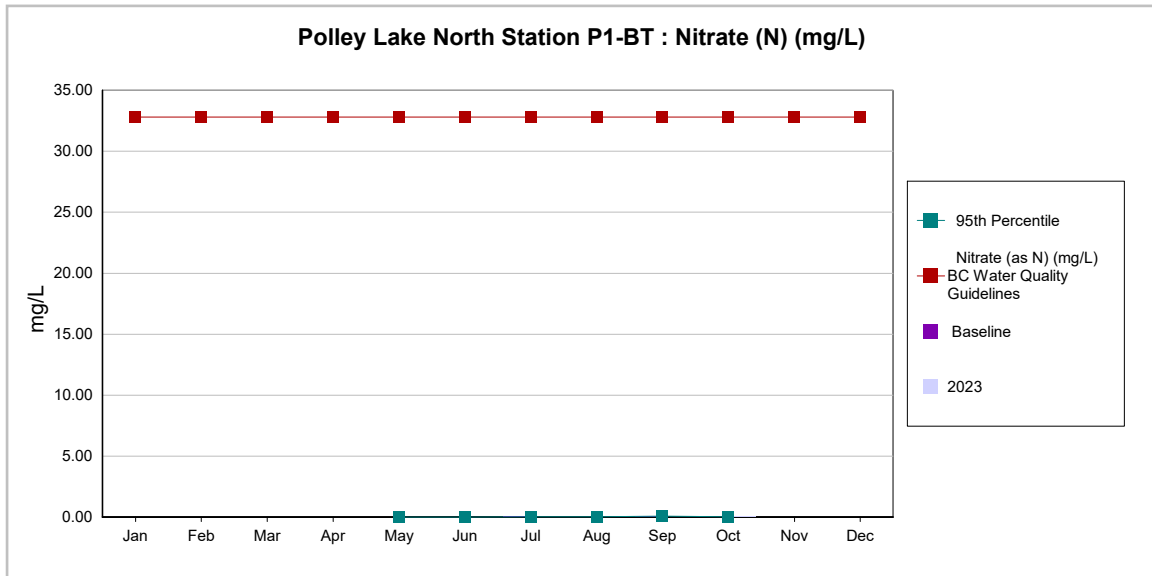
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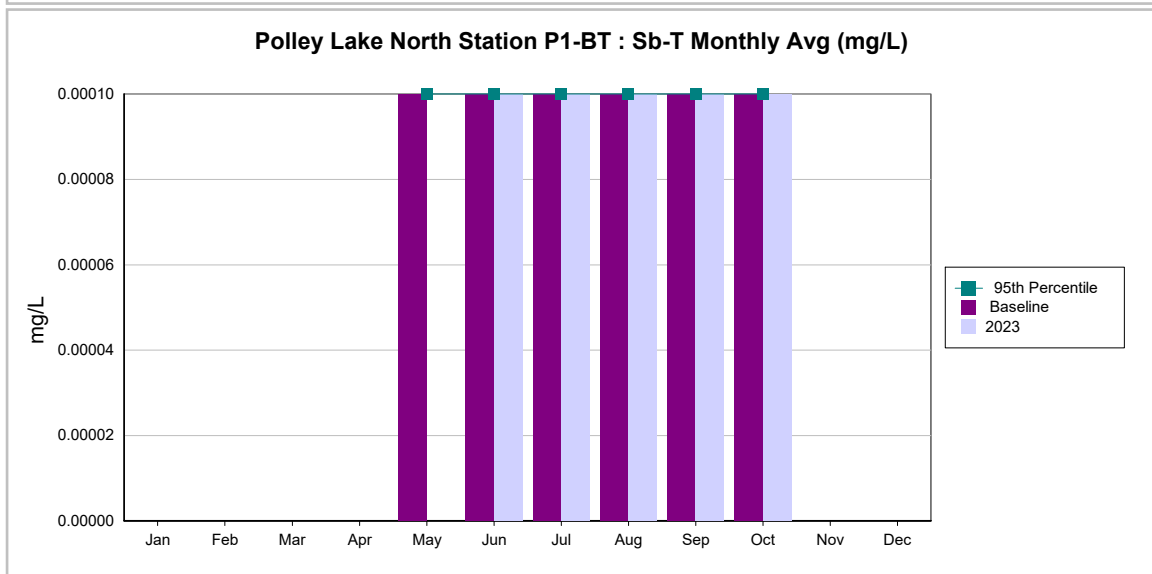
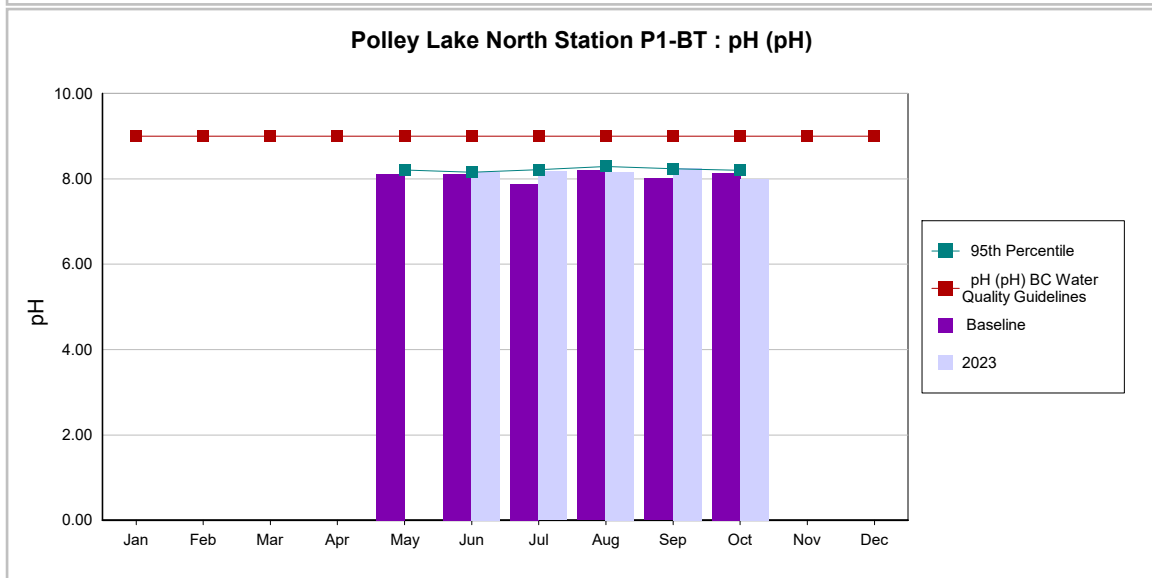
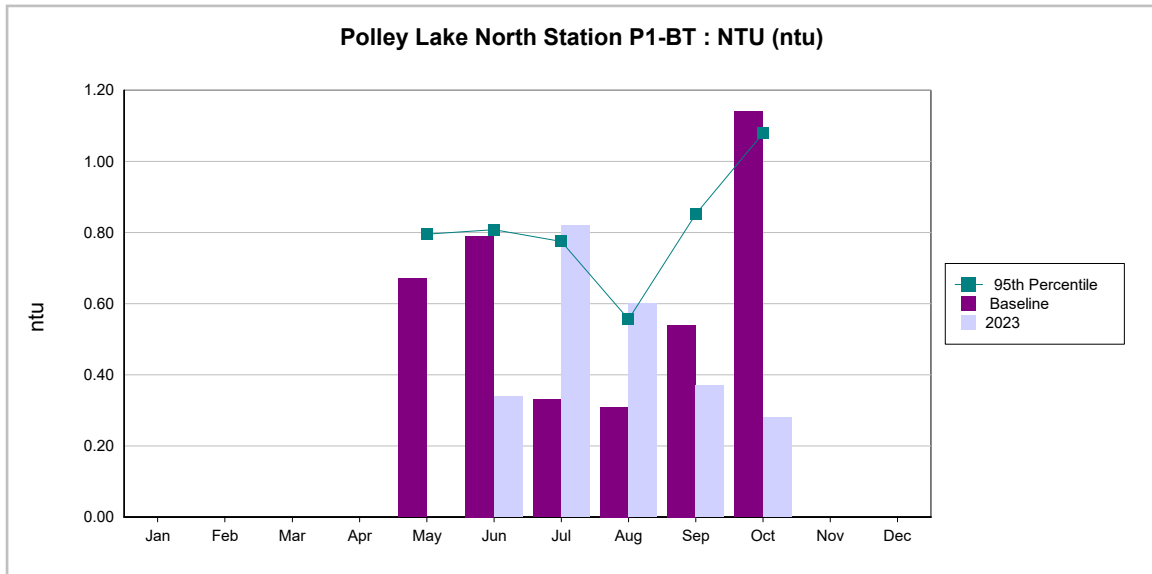
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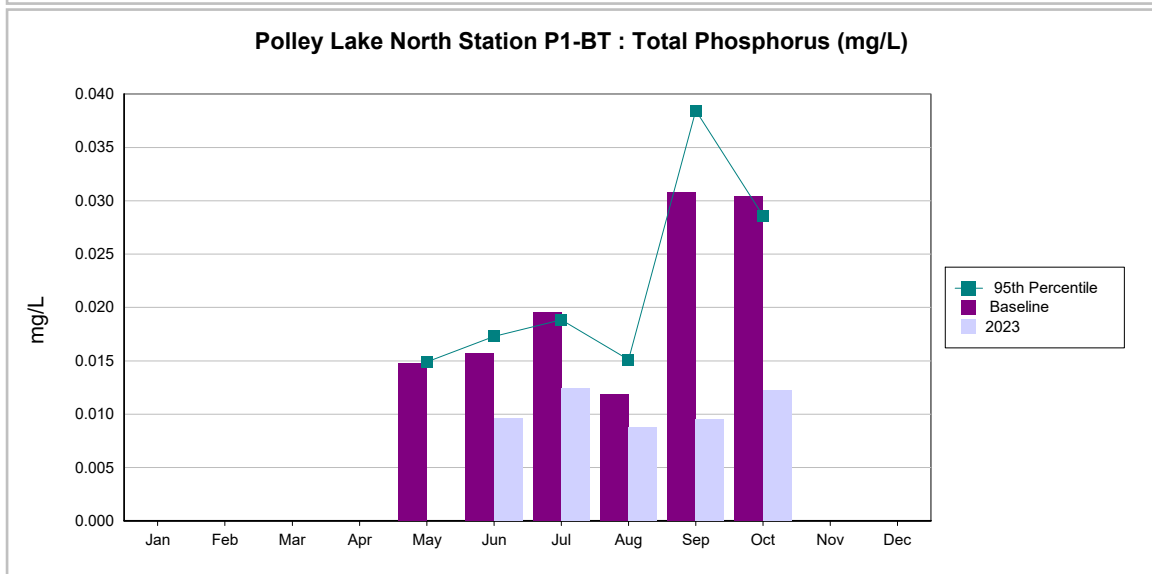
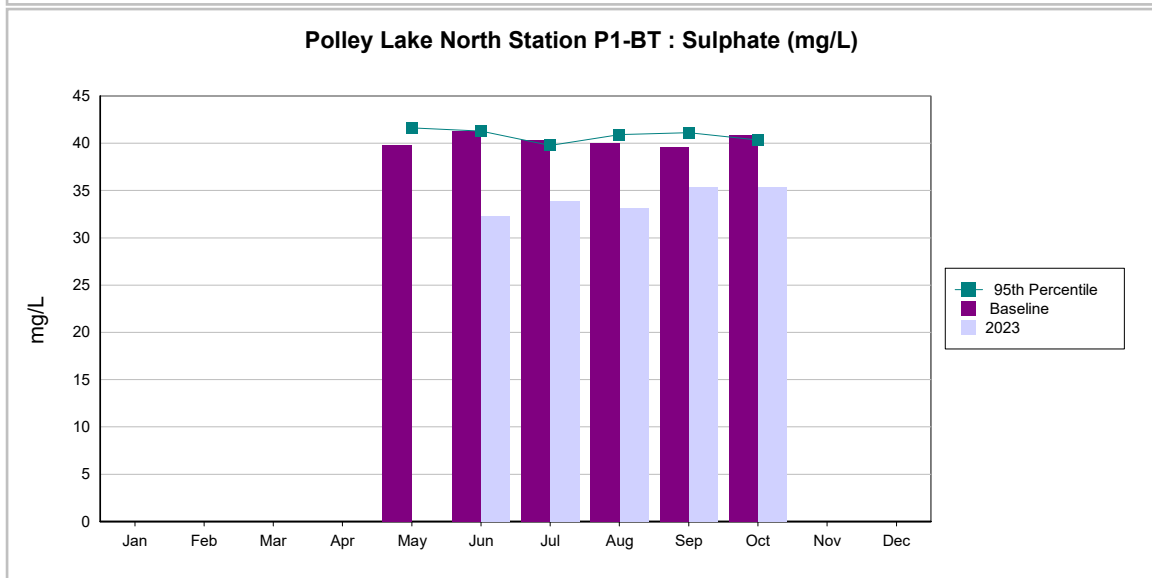
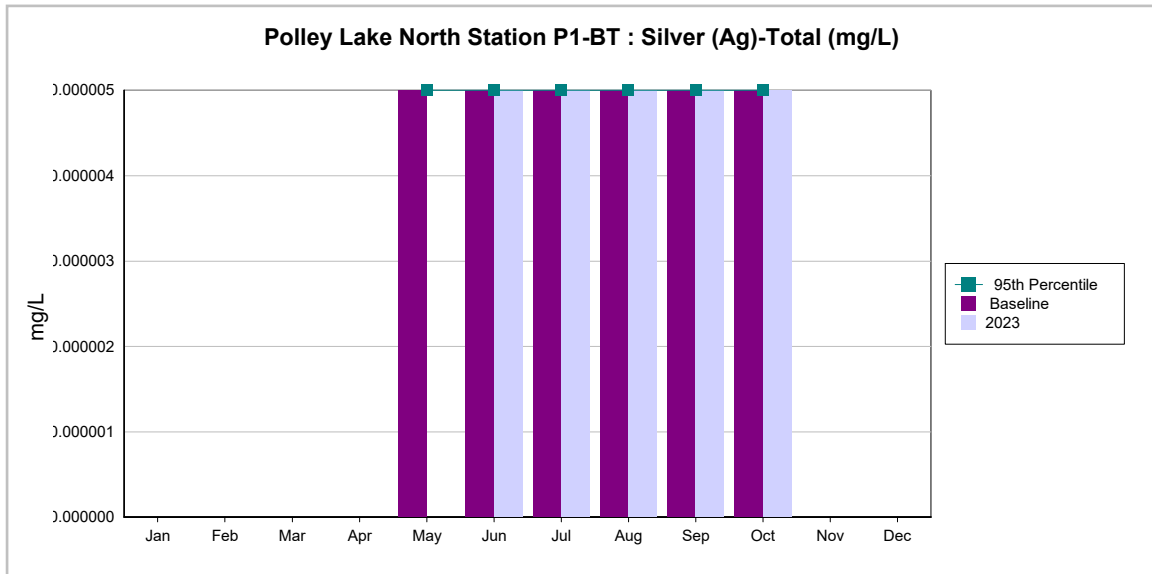
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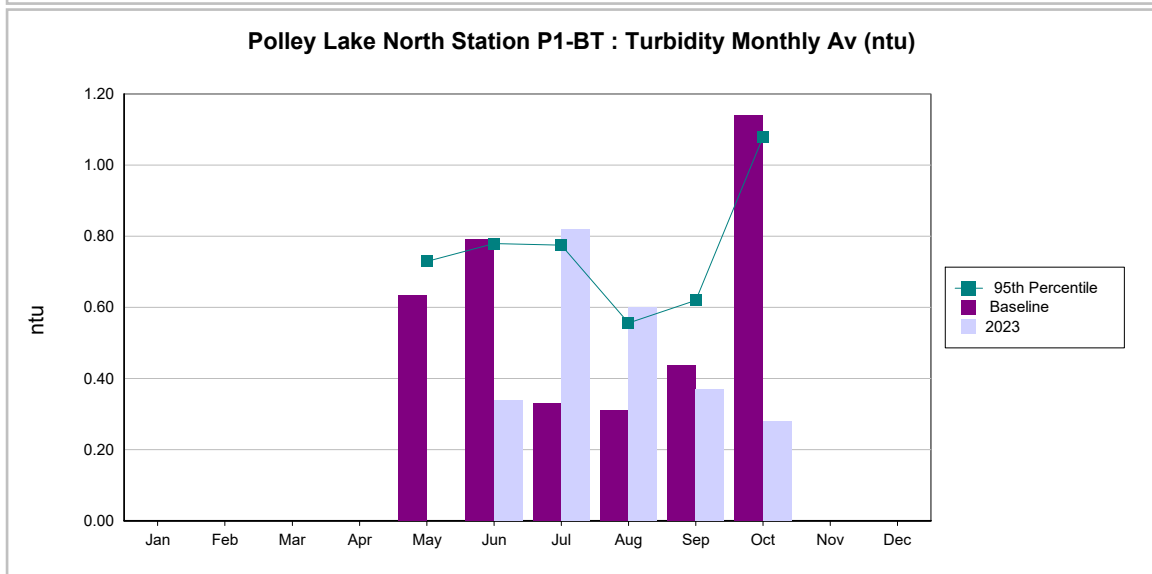
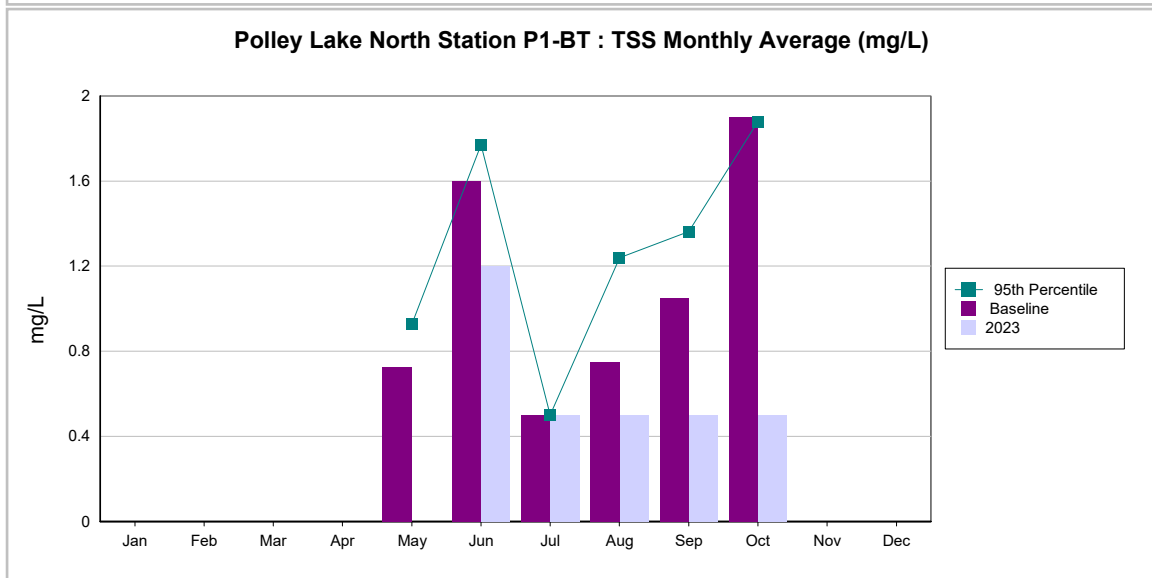
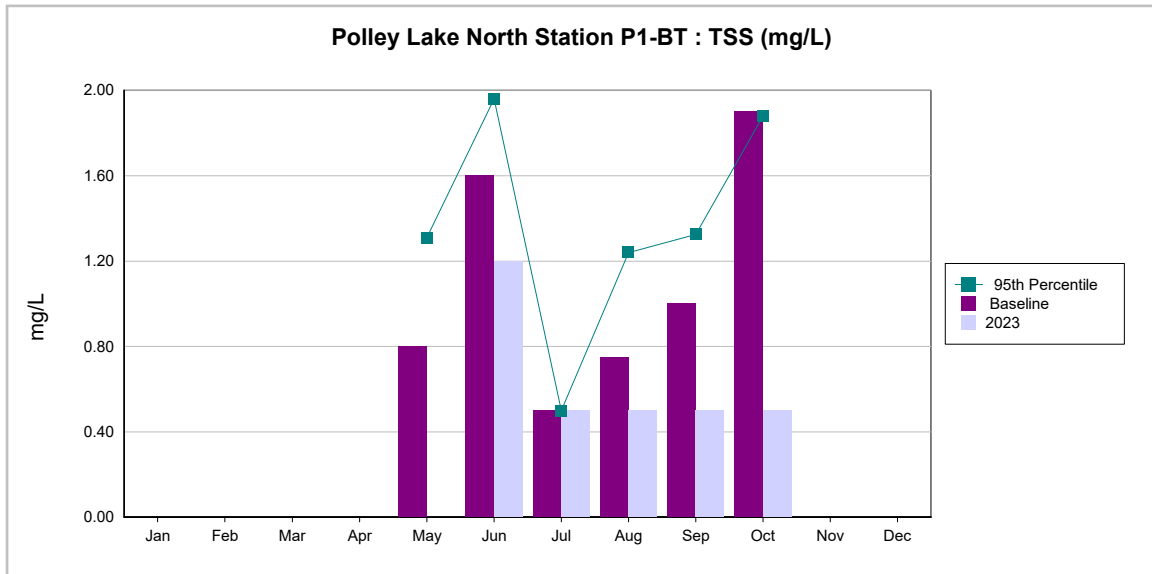
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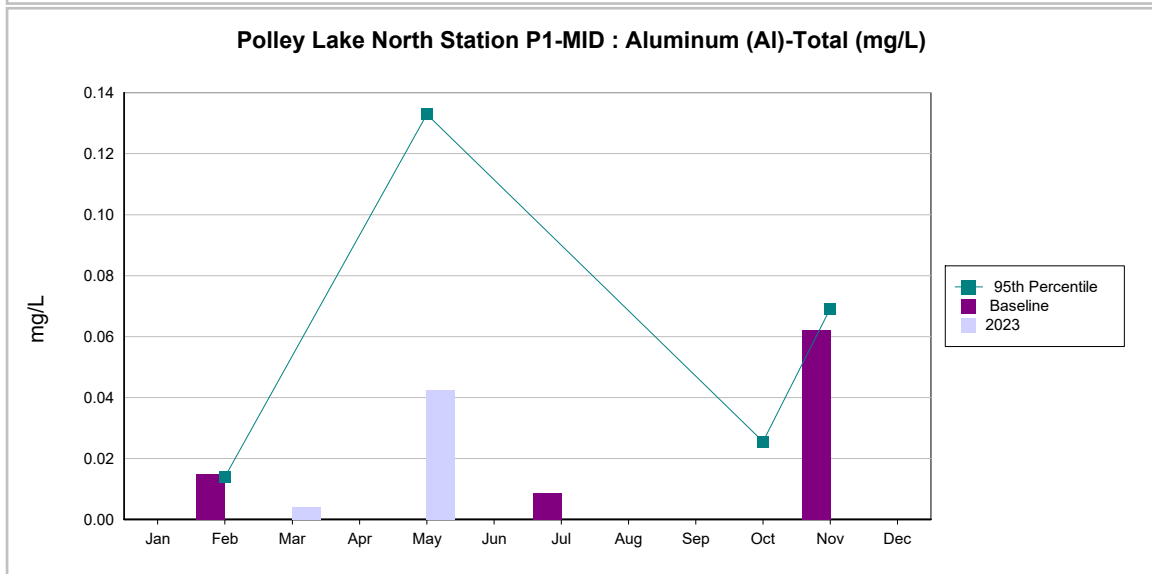
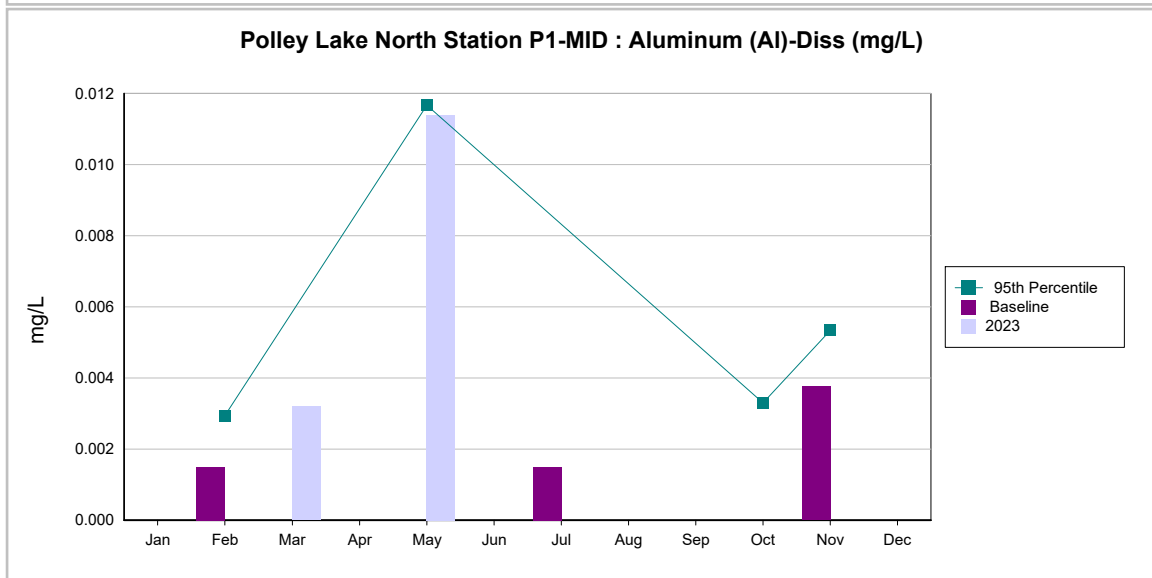
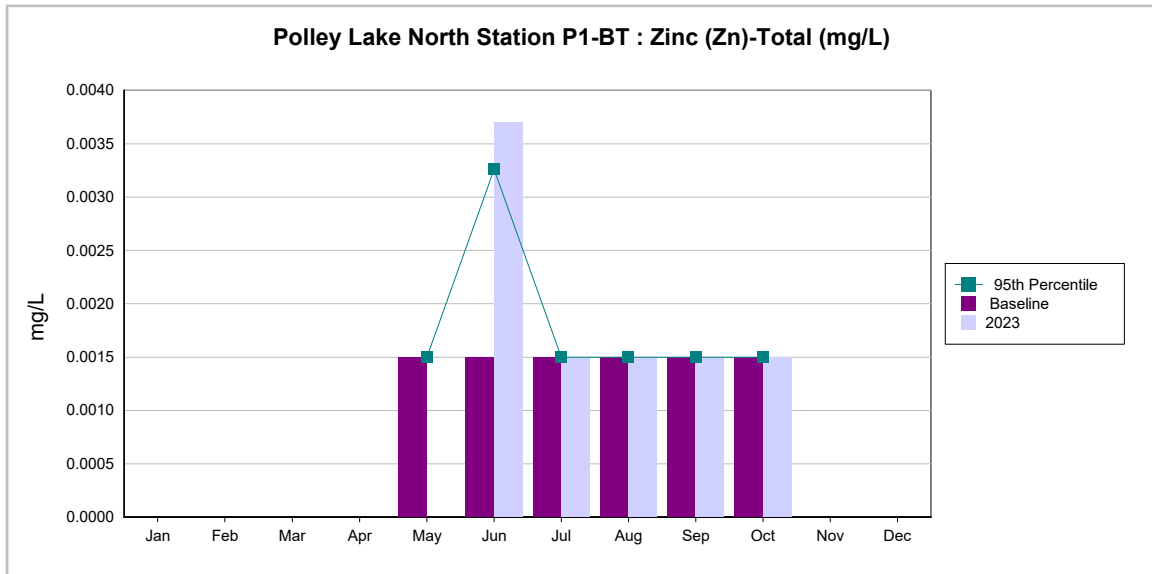
Annual Report Lake vs BCWQG



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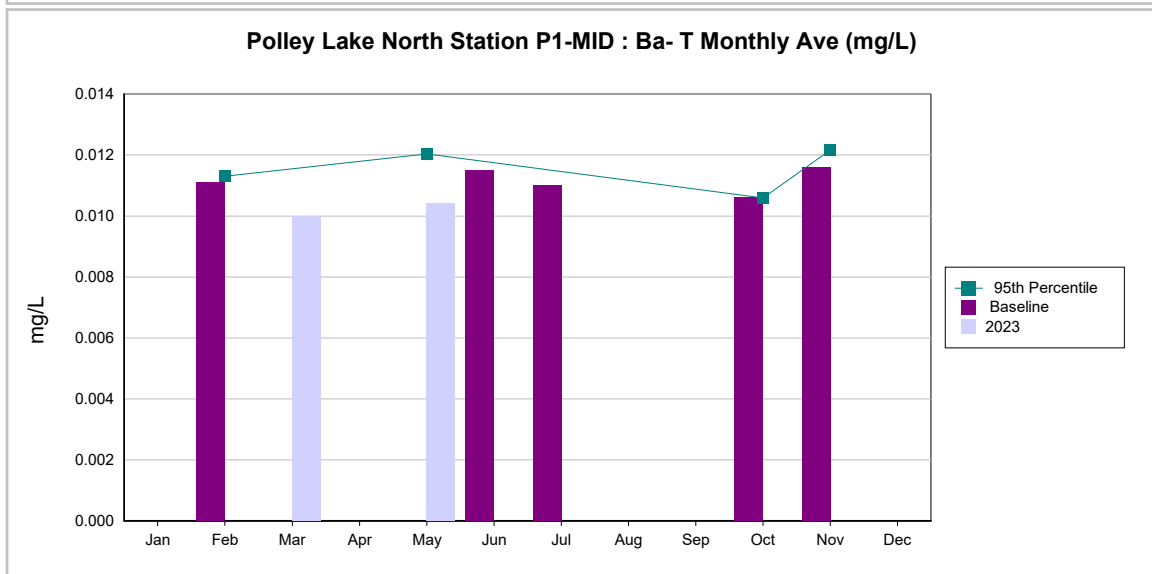
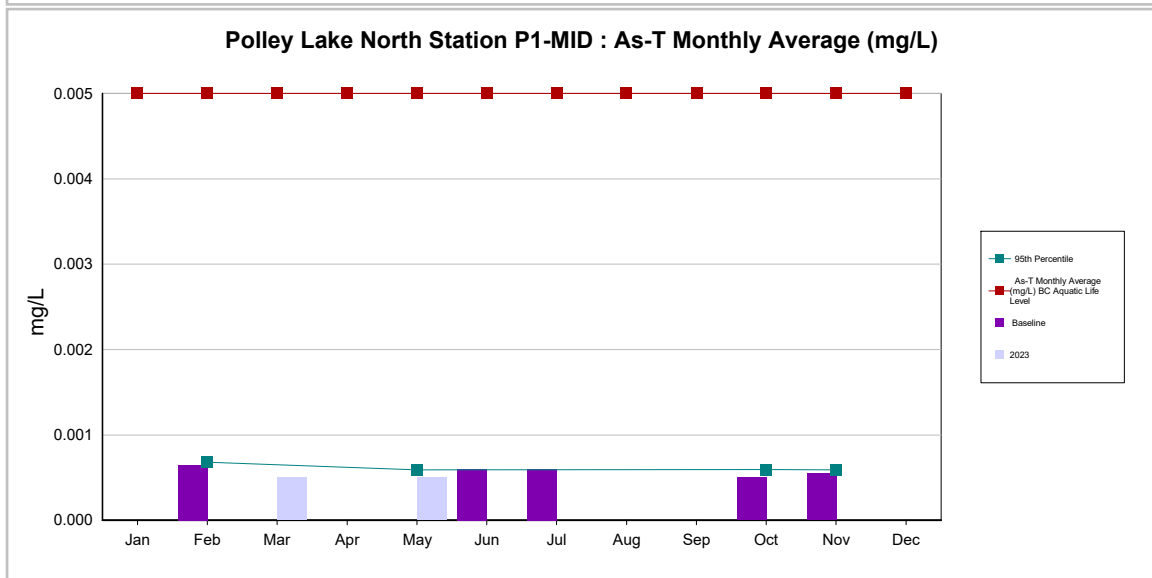
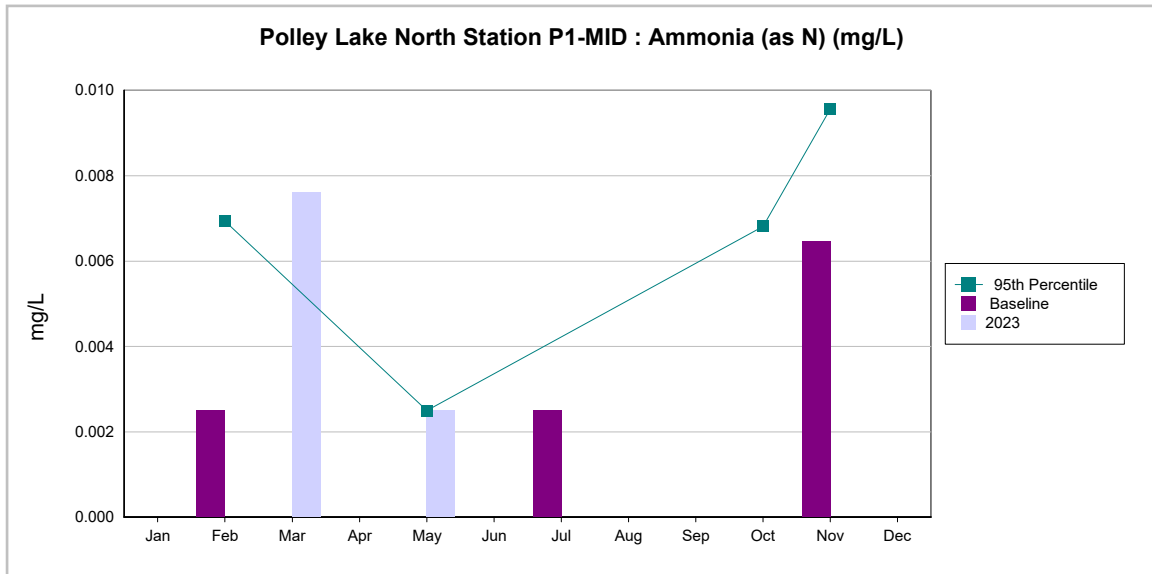
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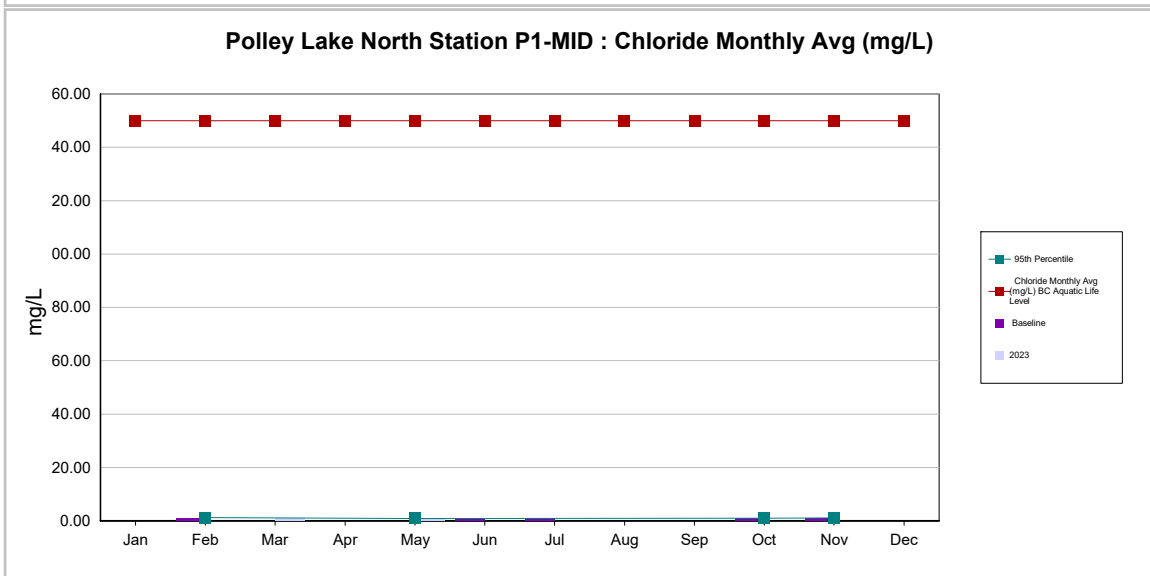
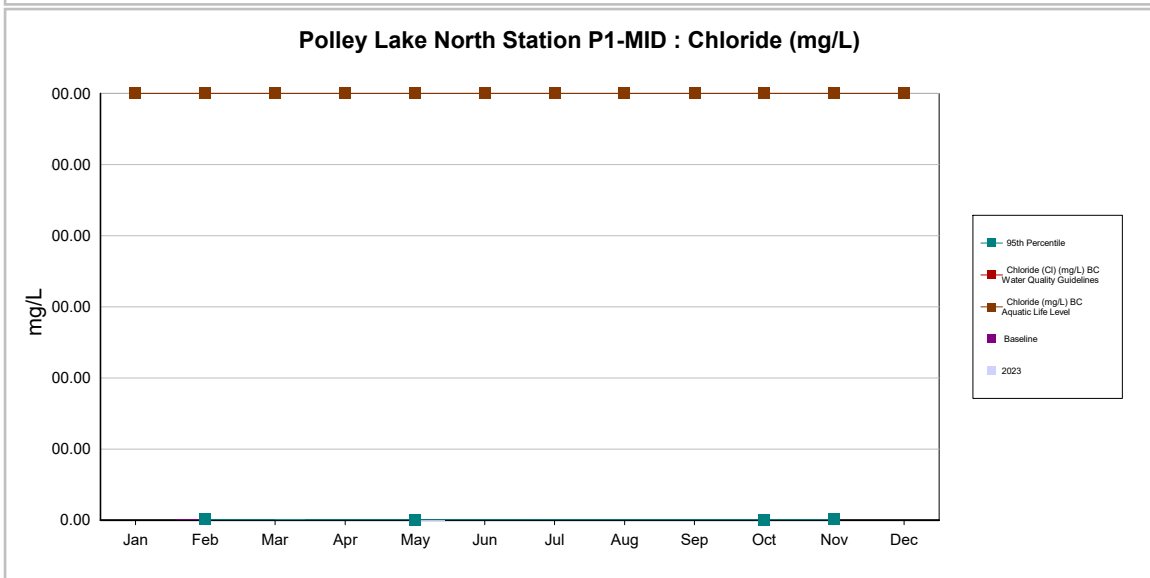
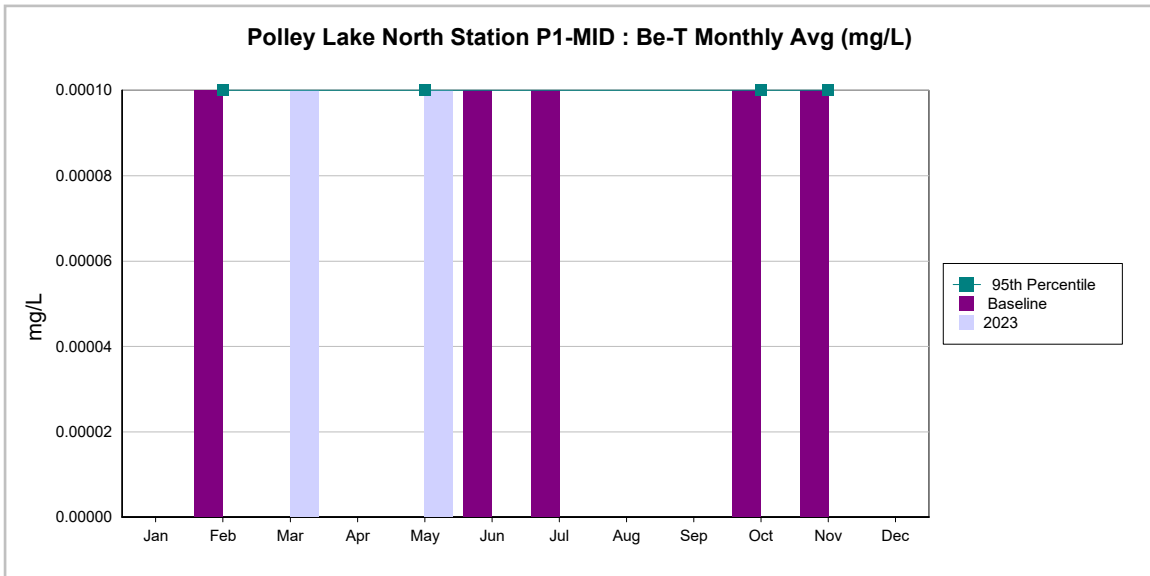
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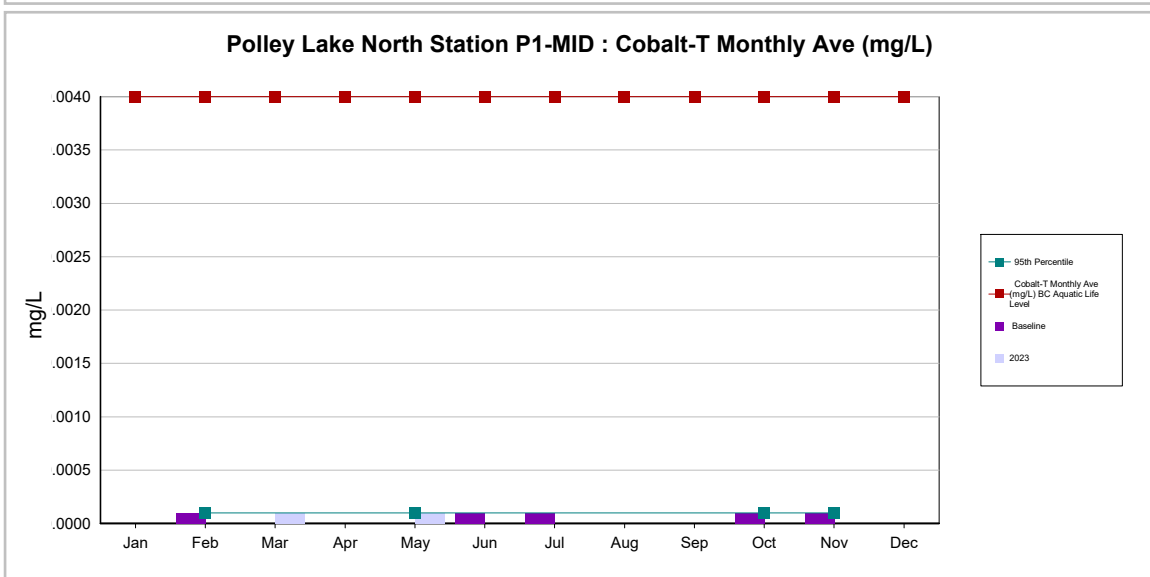
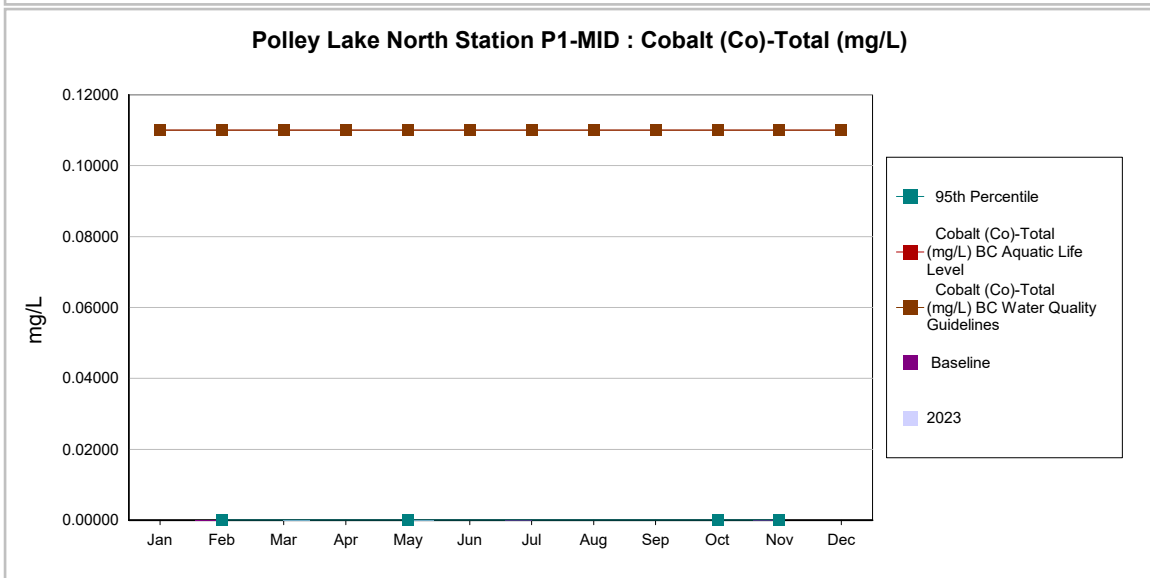
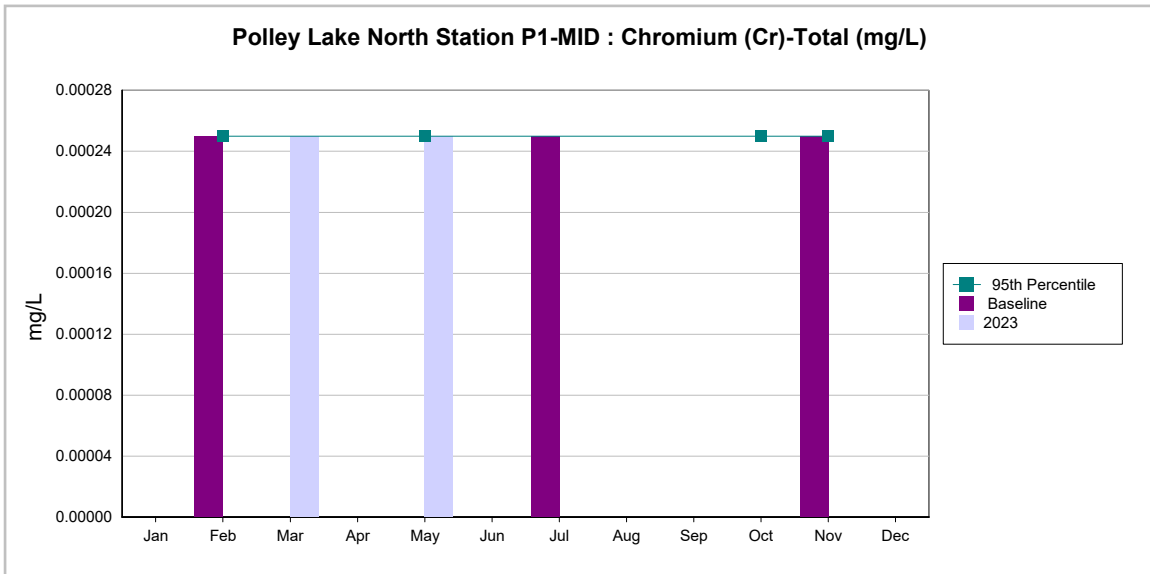
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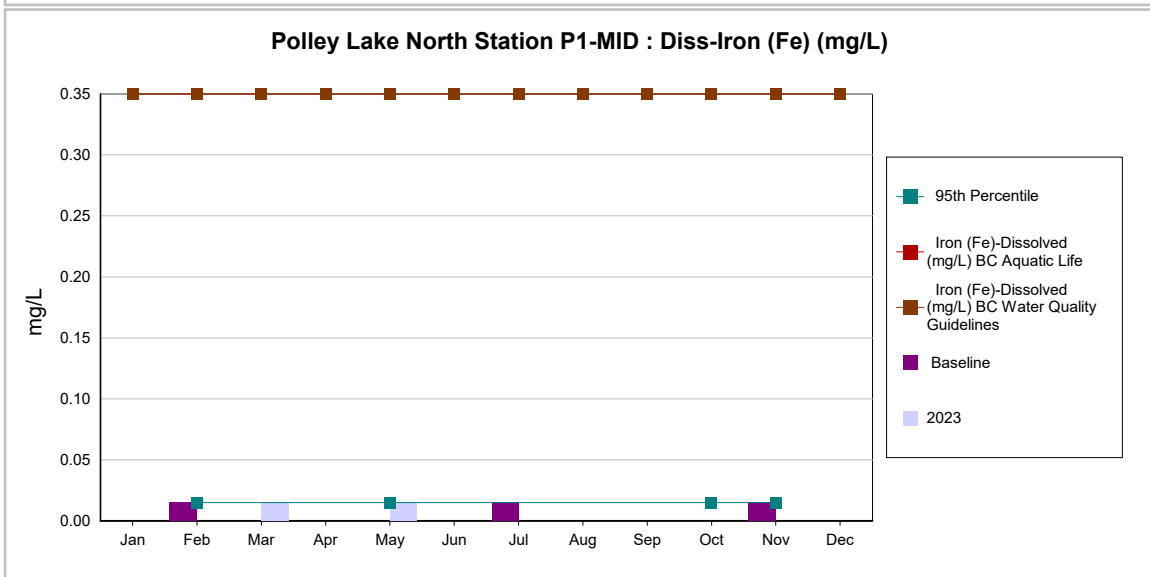
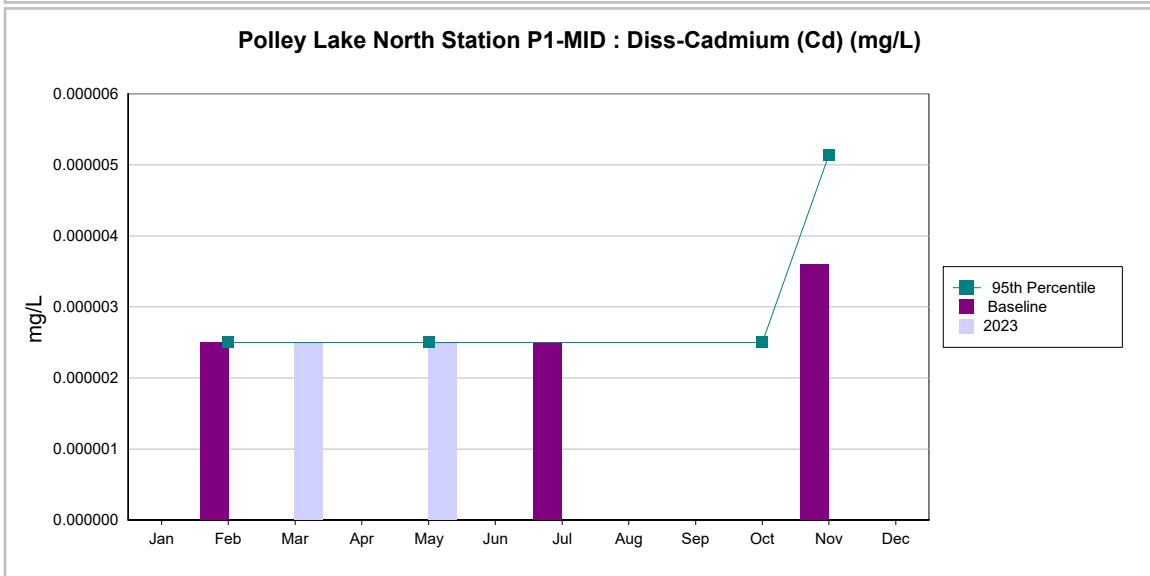
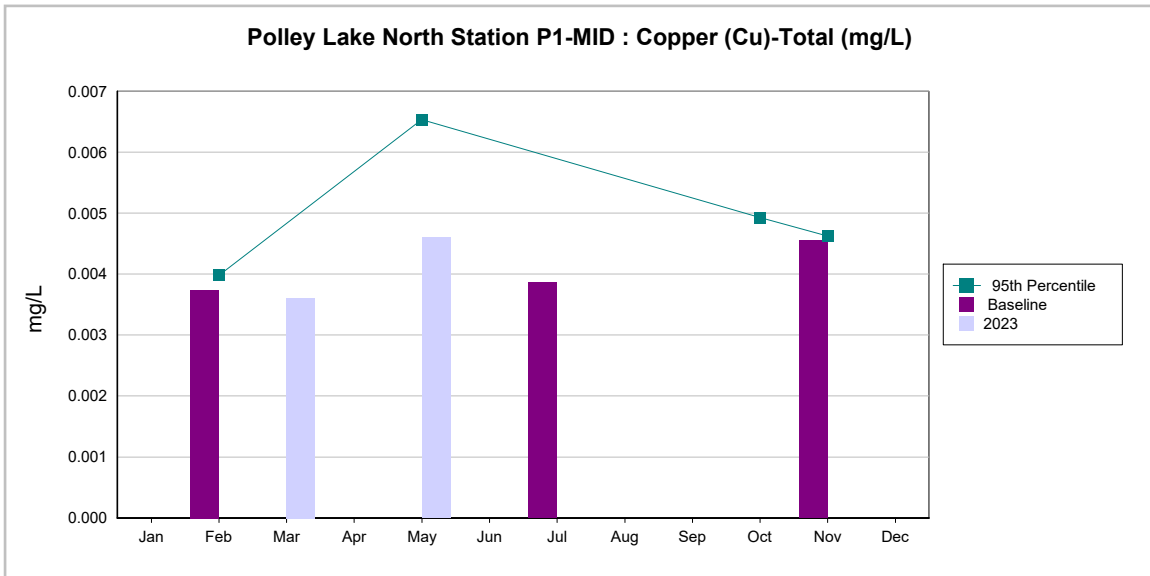
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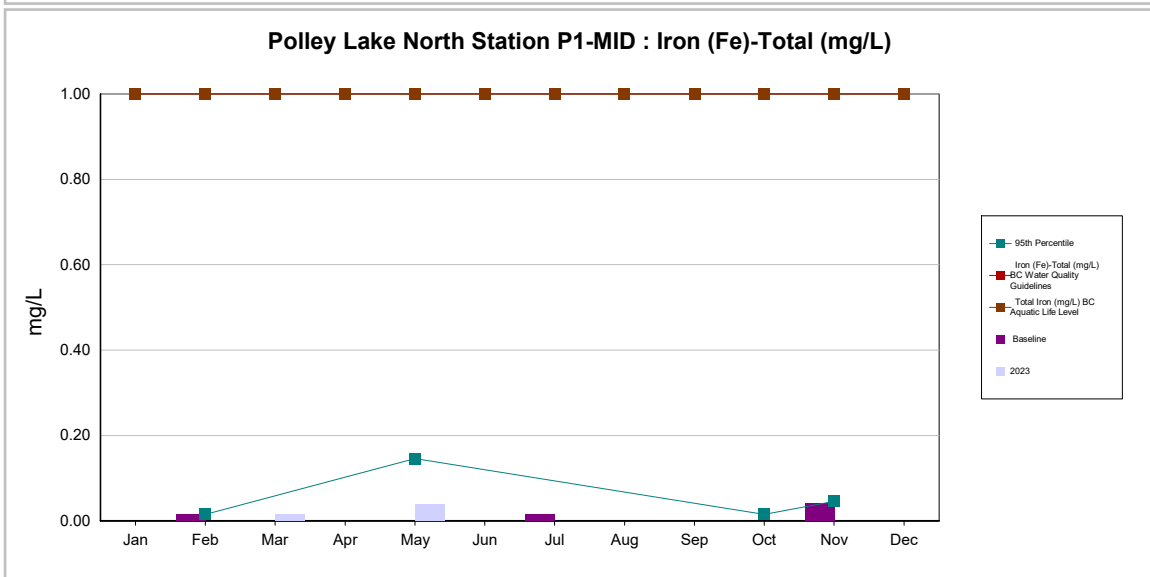
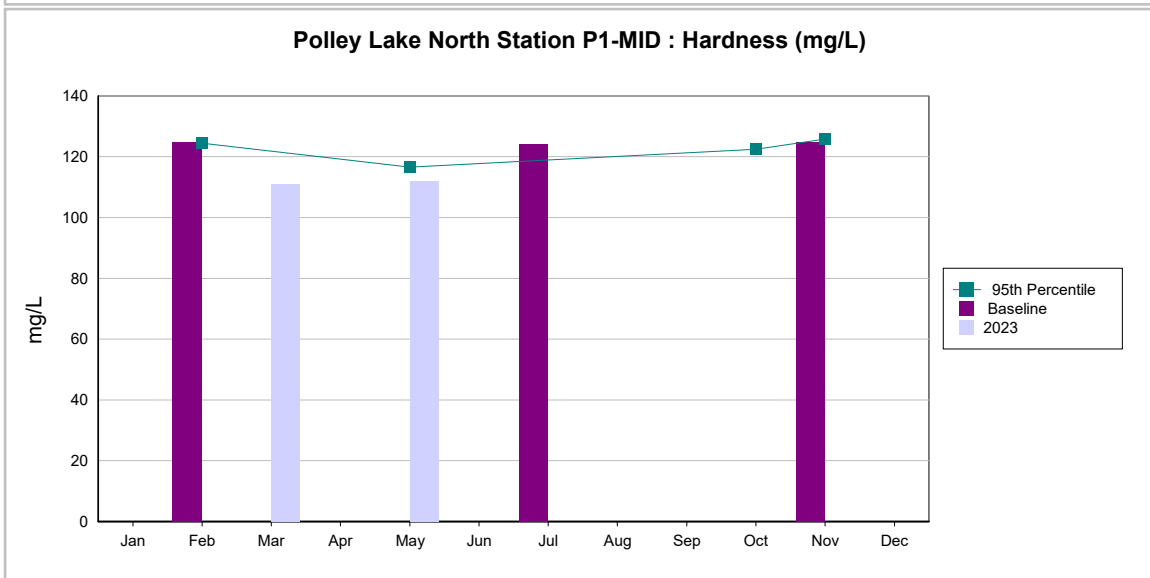
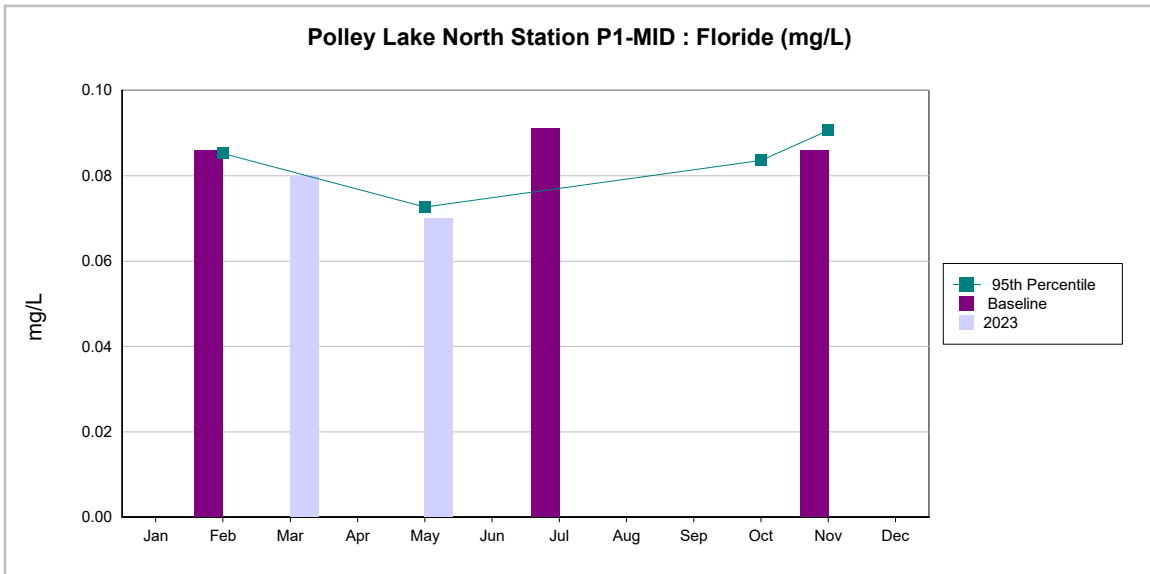
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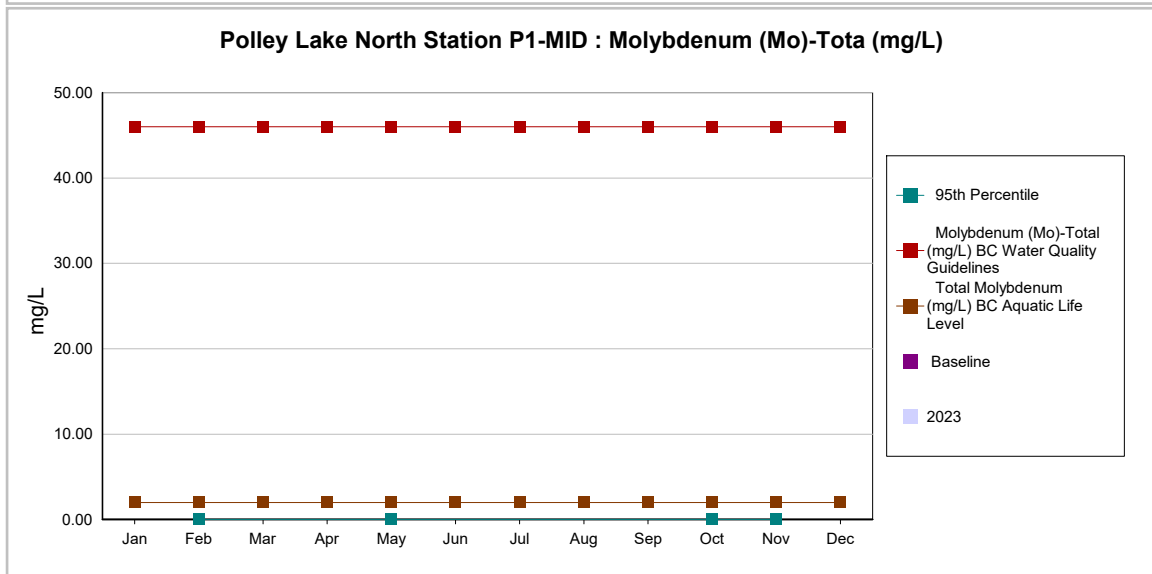
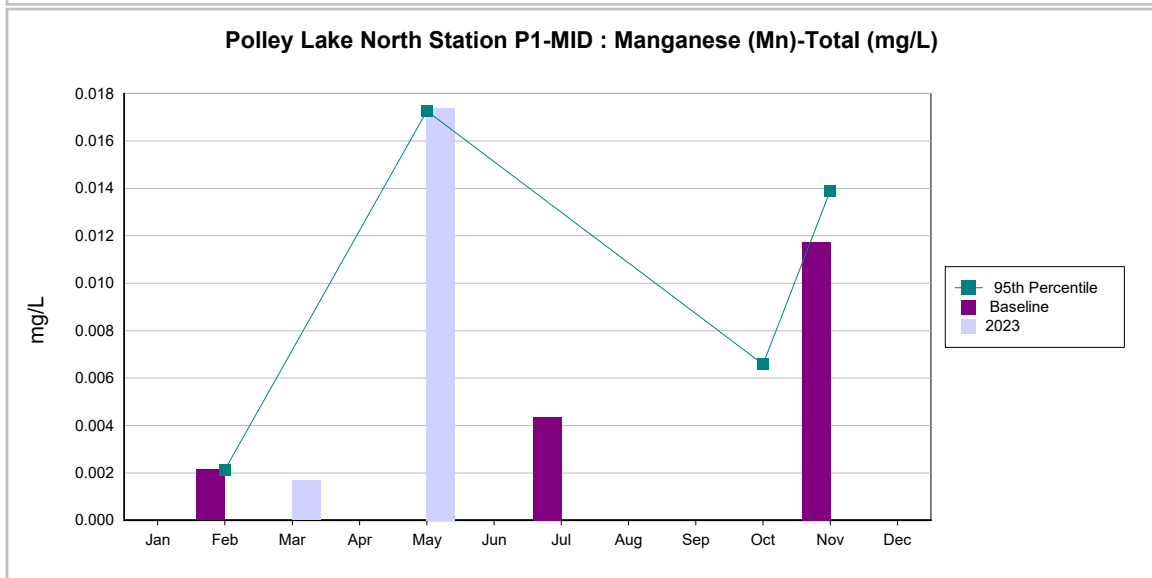
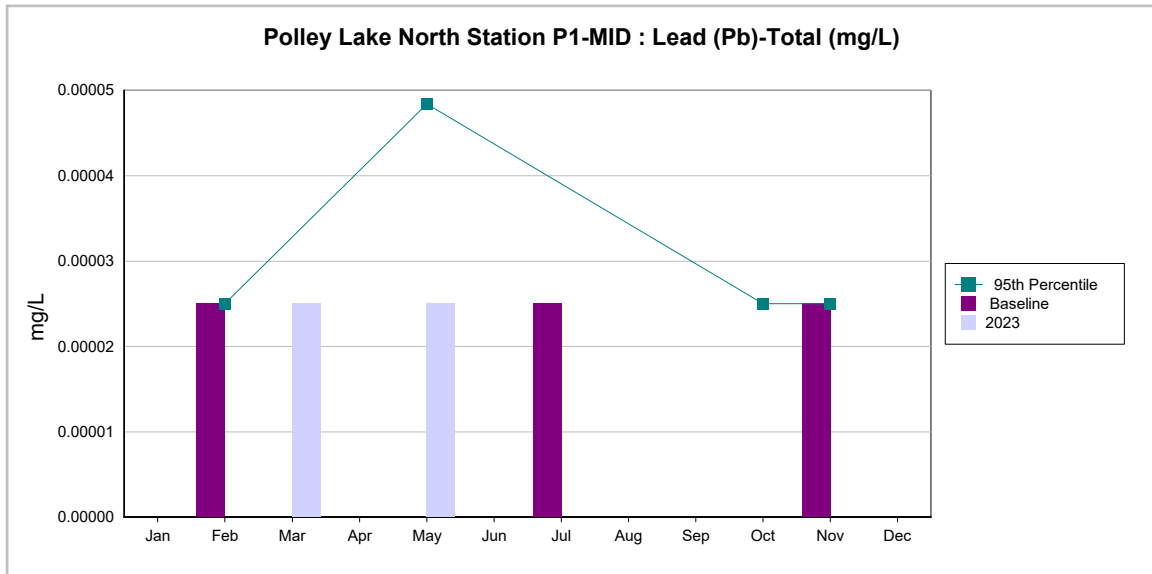
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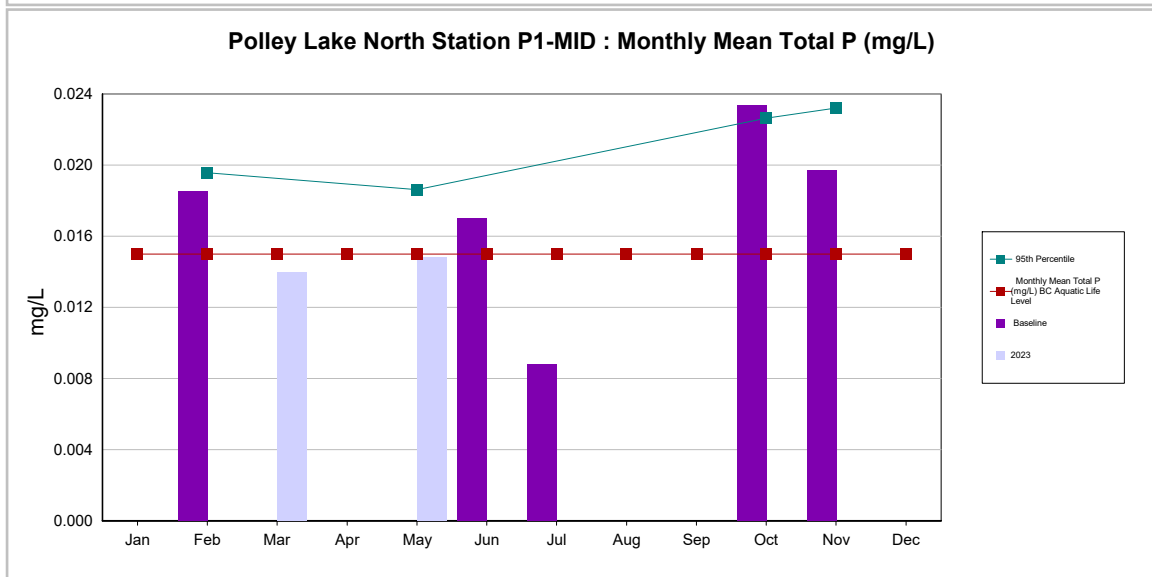
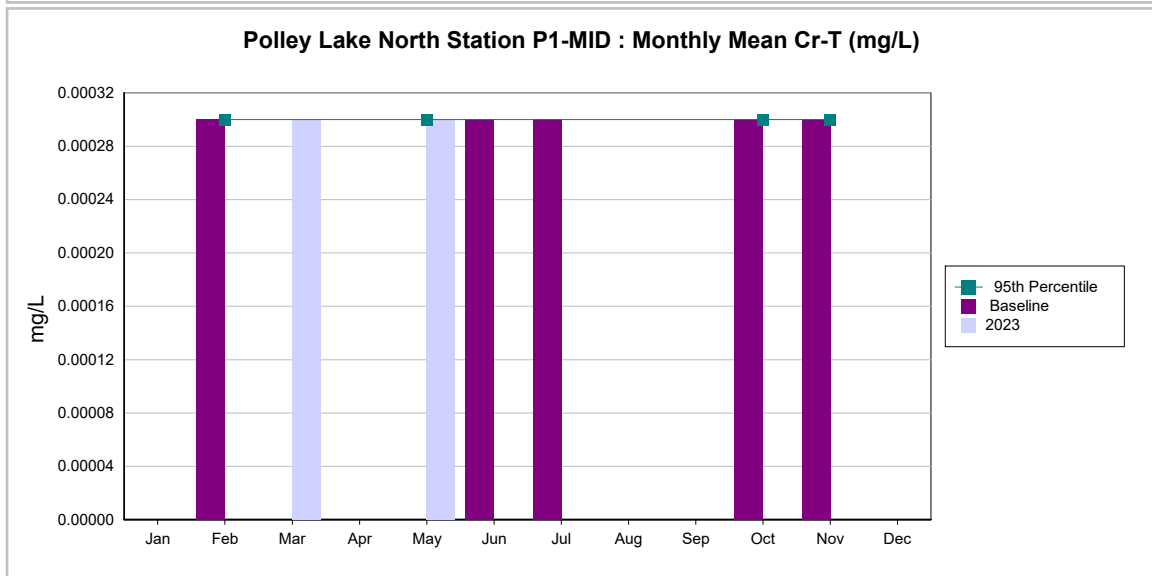
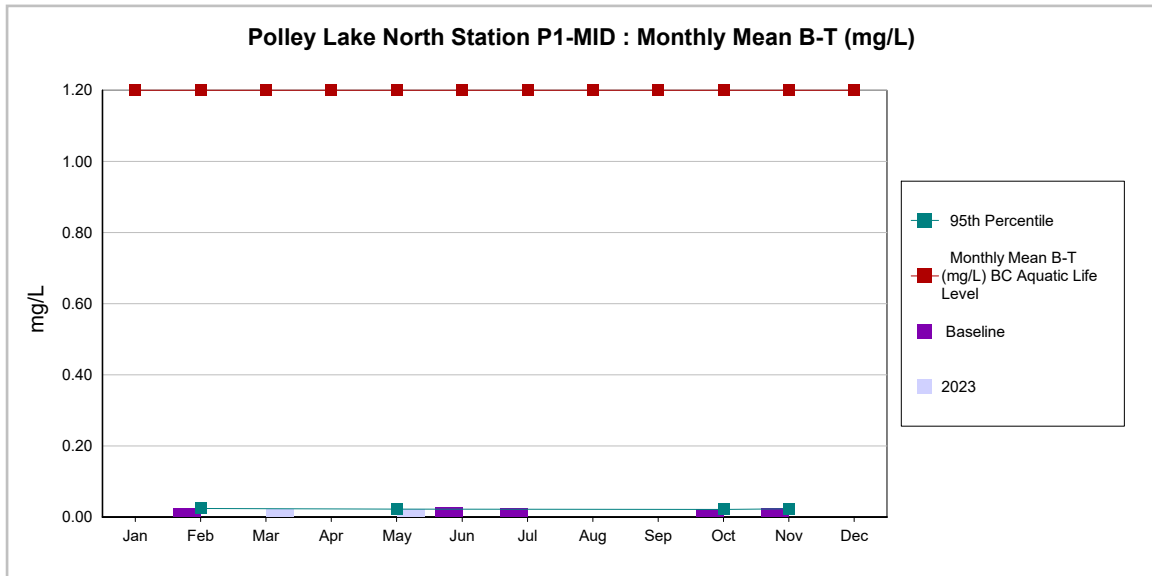
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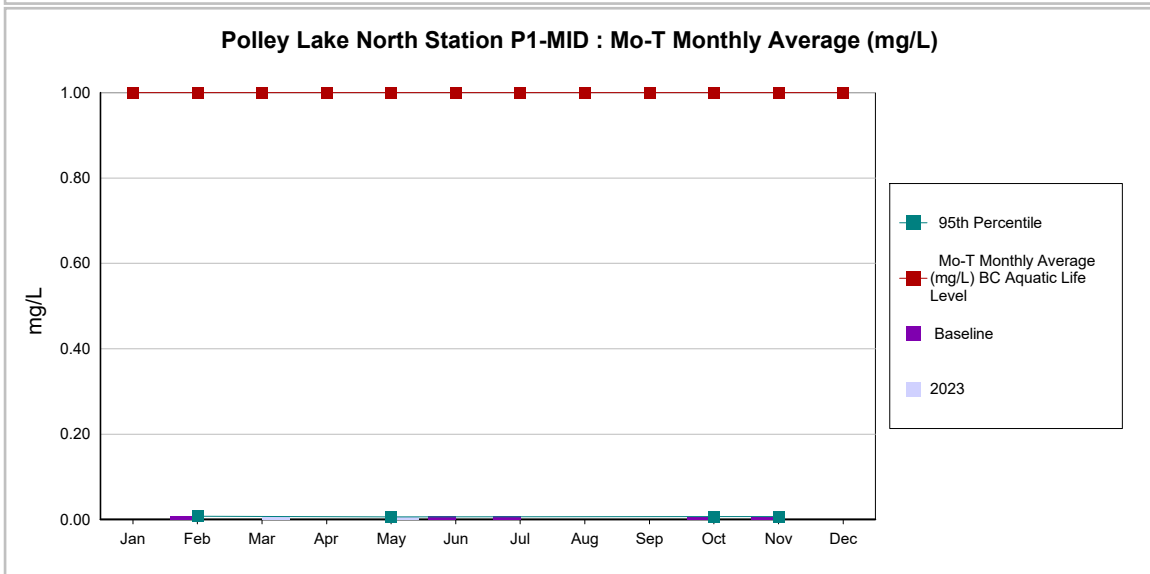
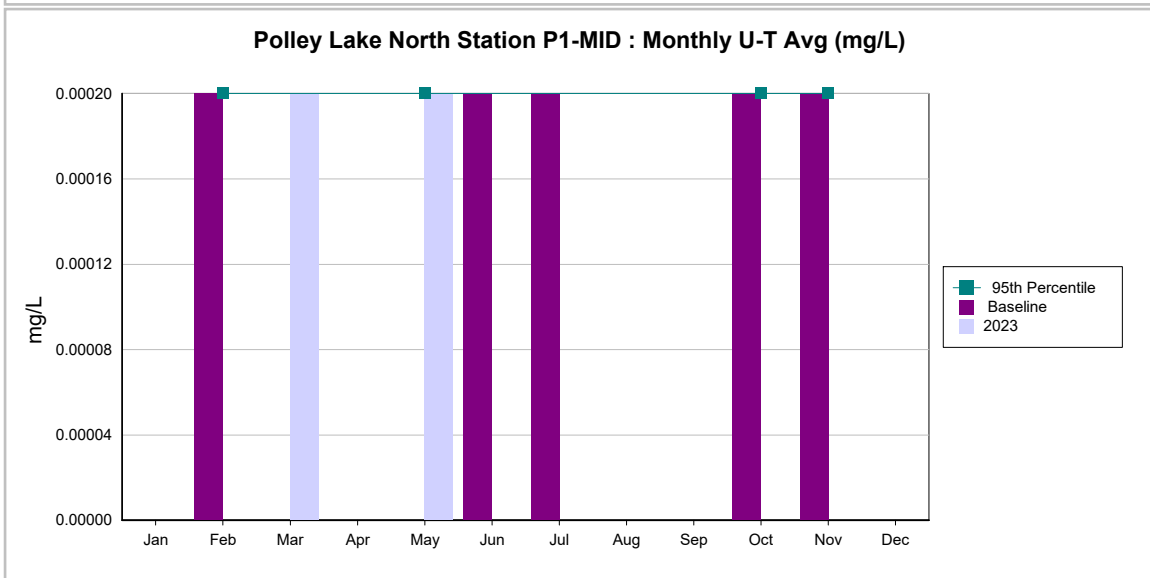
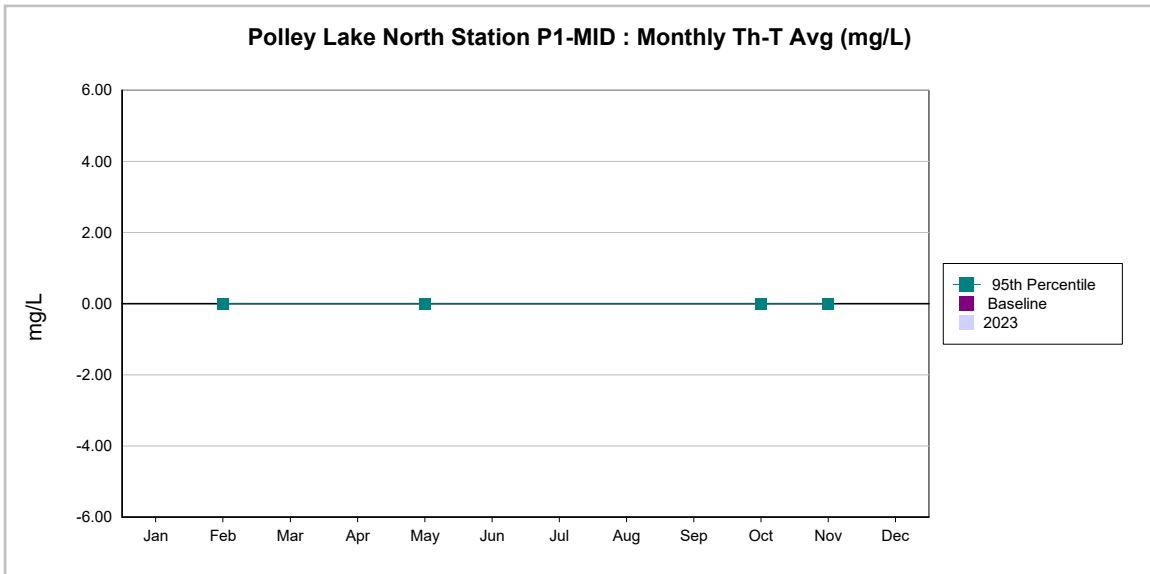
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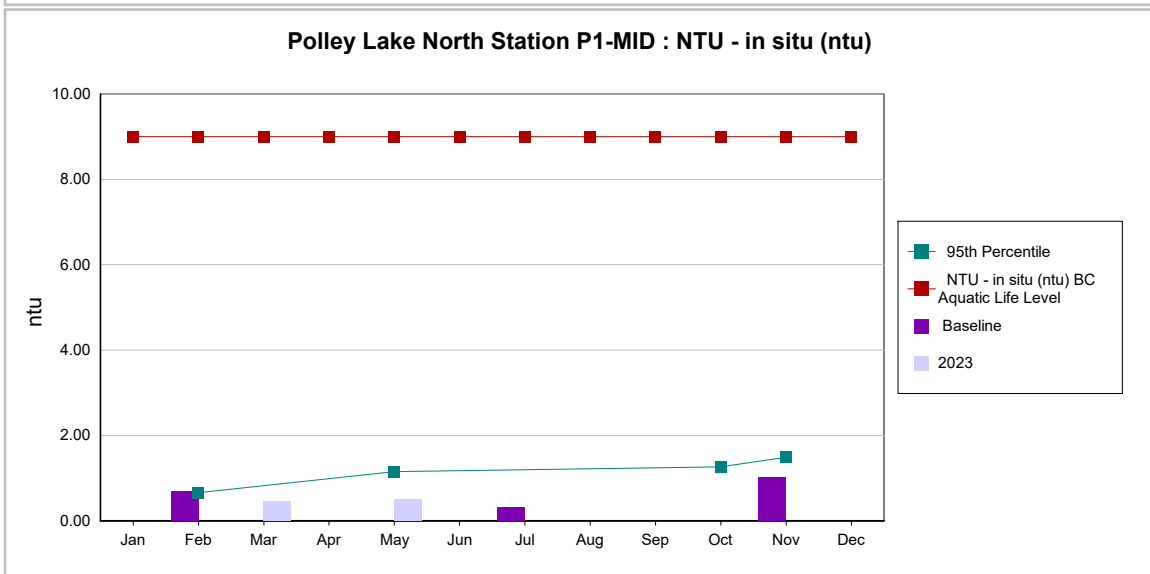
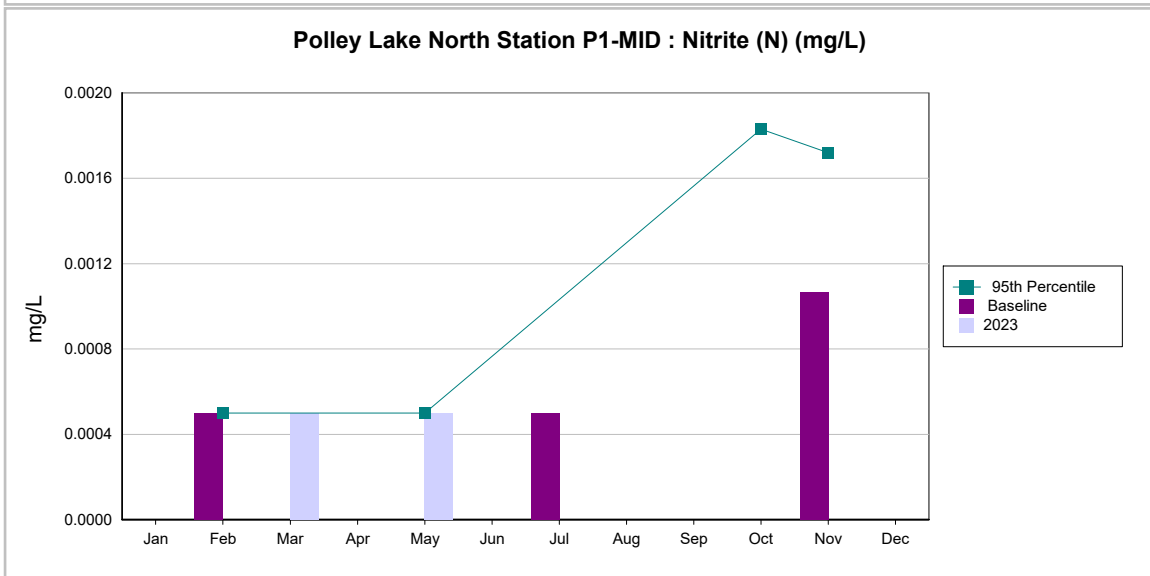
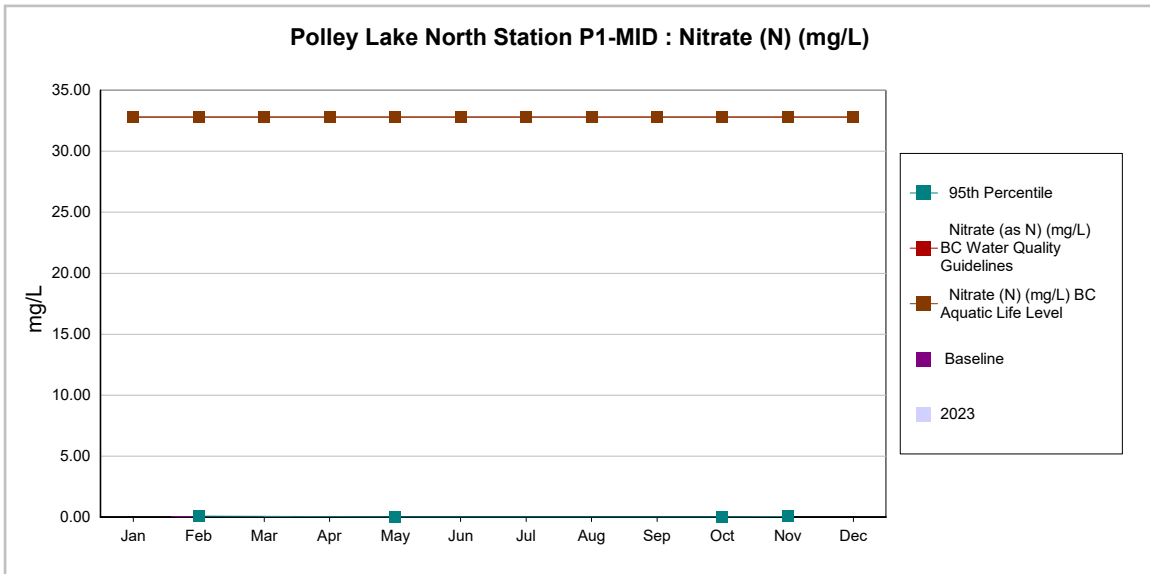
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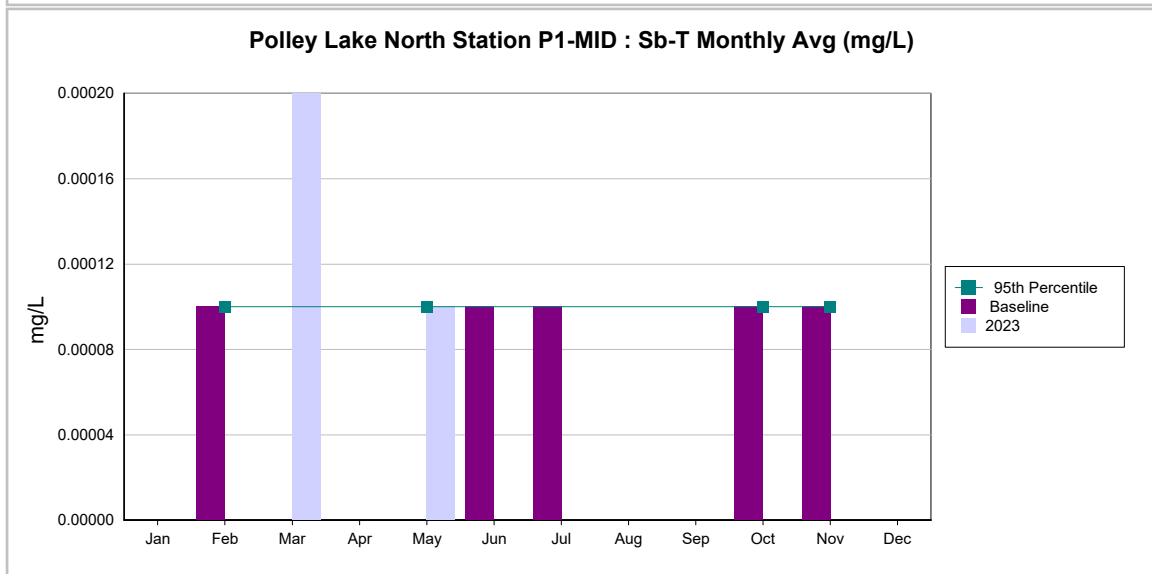
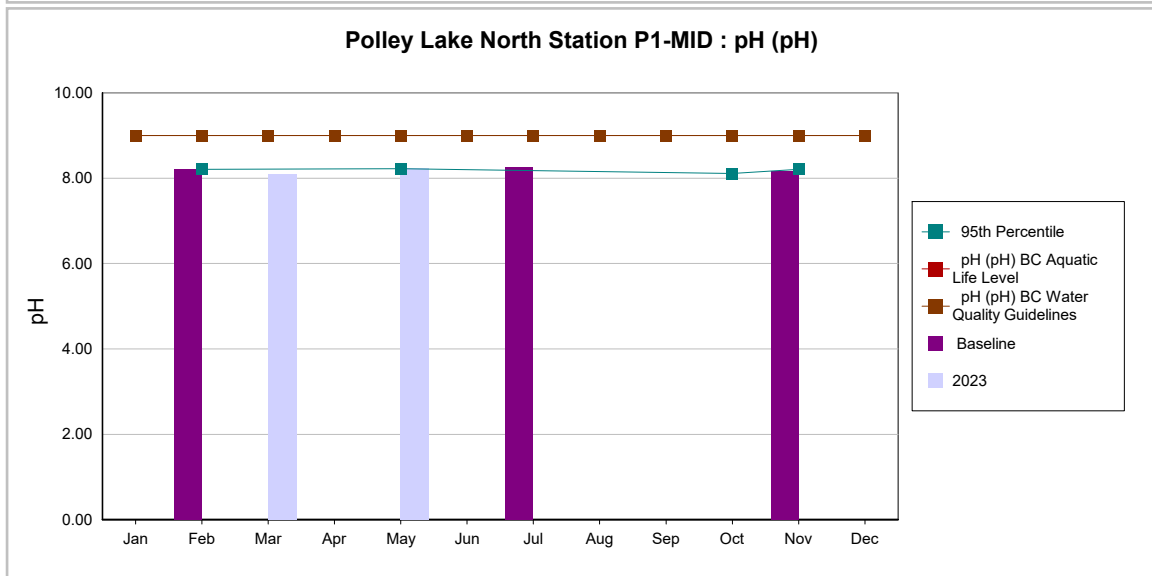
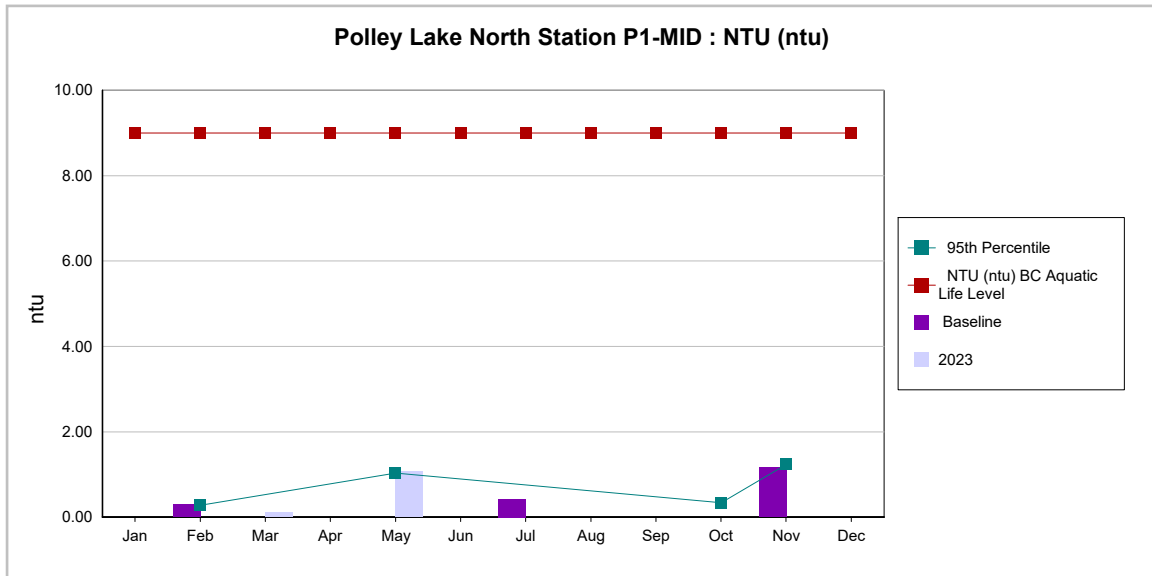
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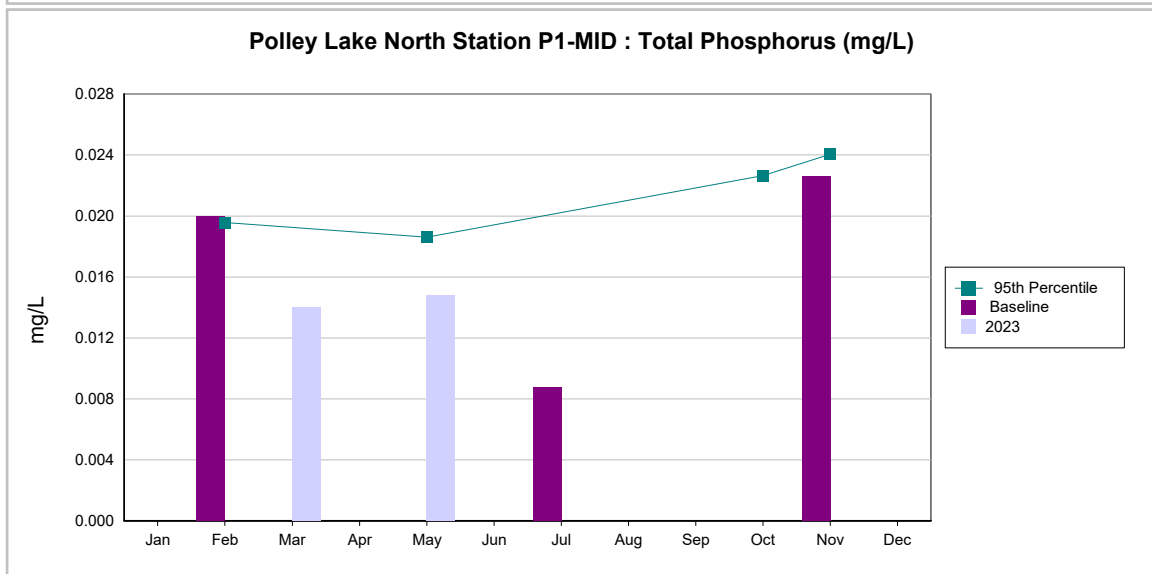
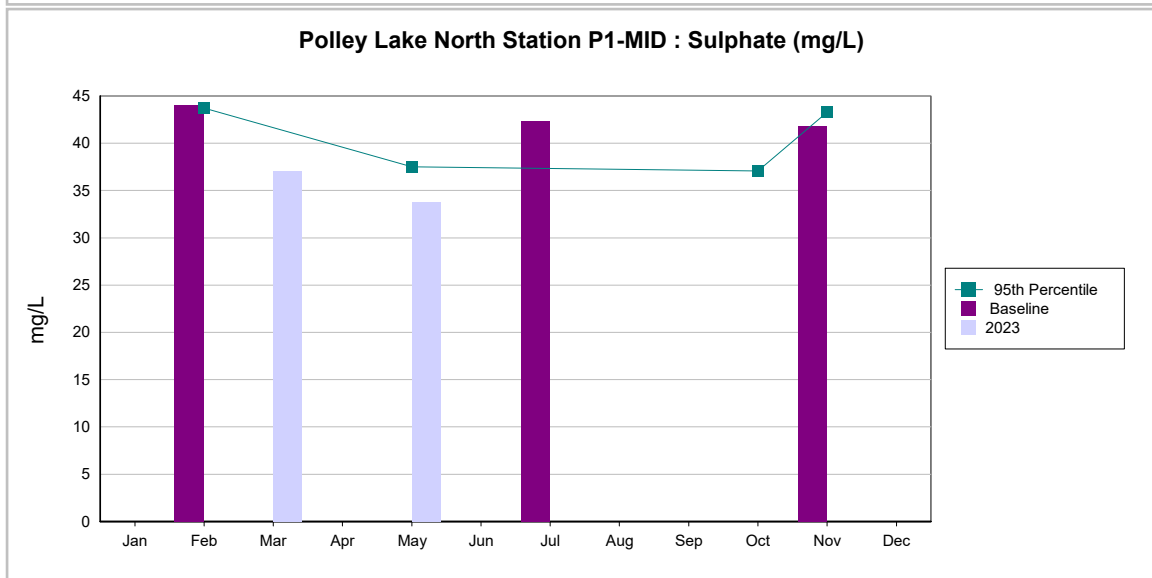
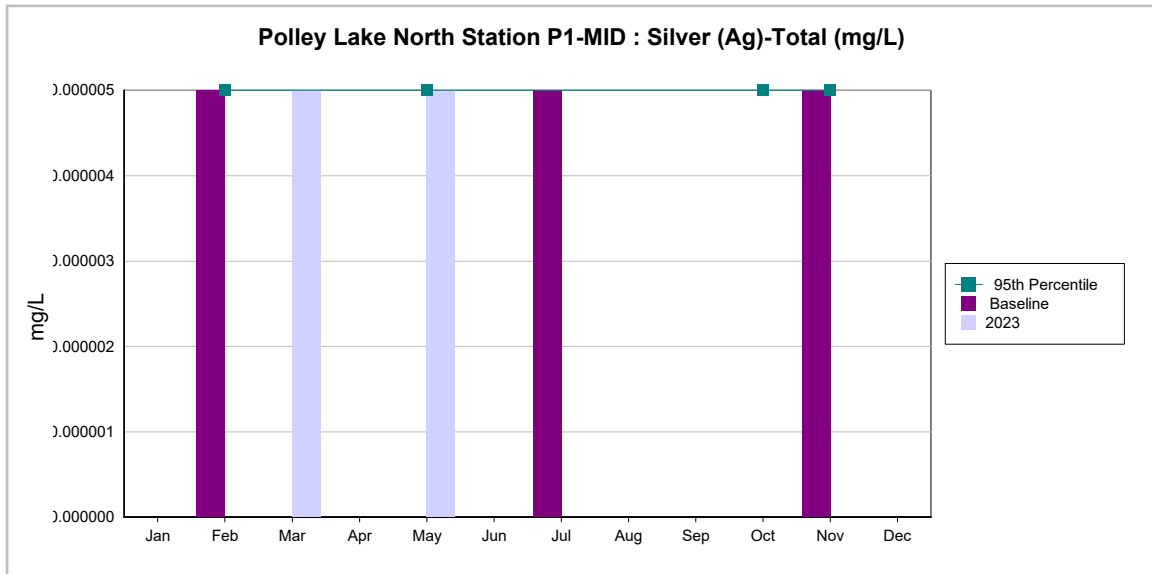
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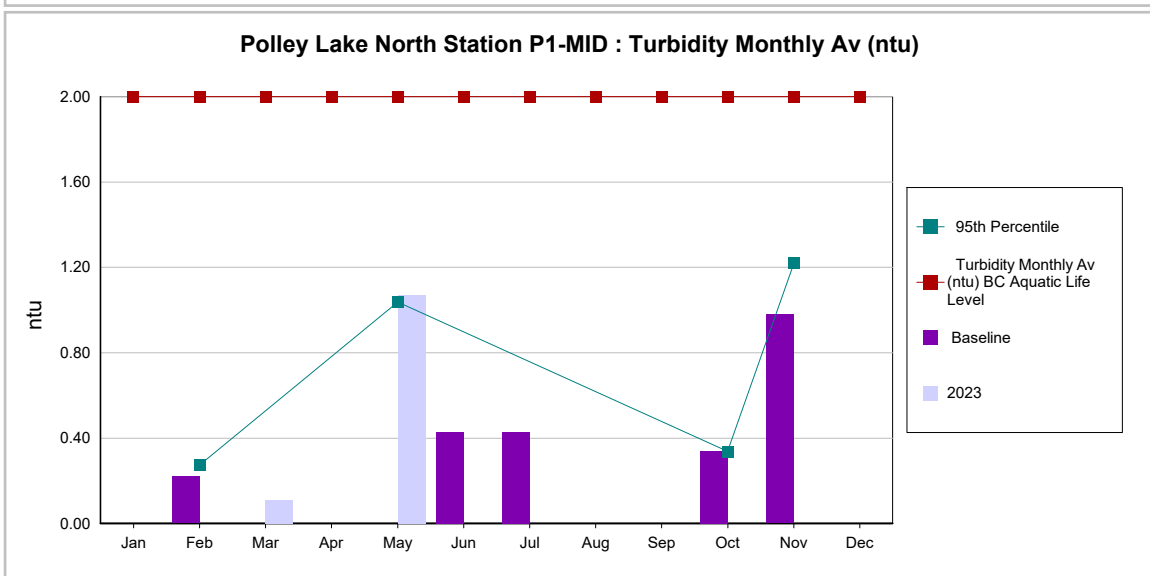
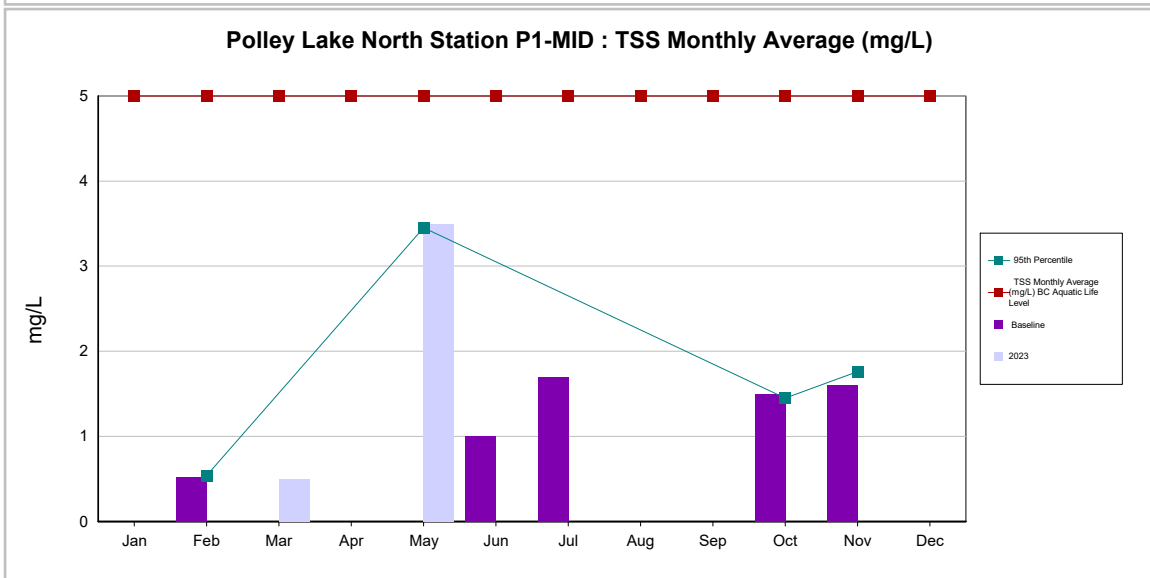
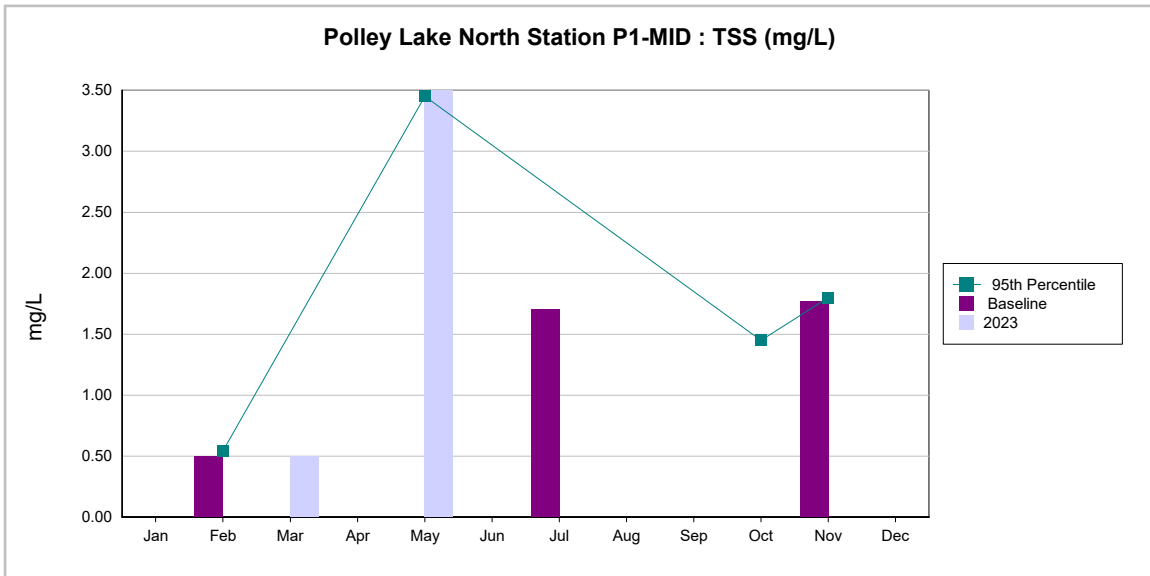
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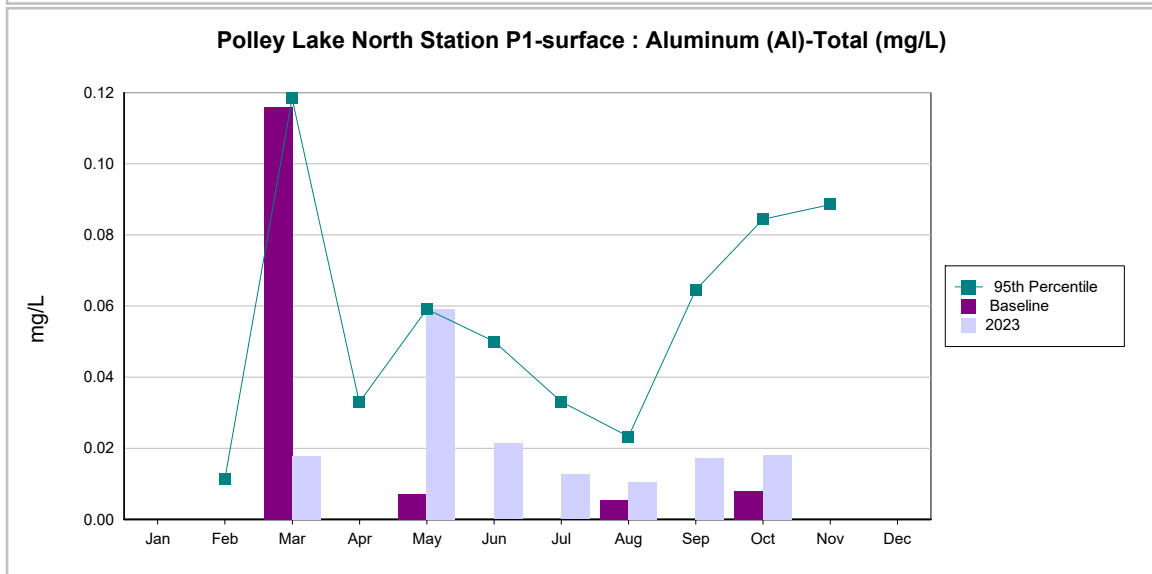
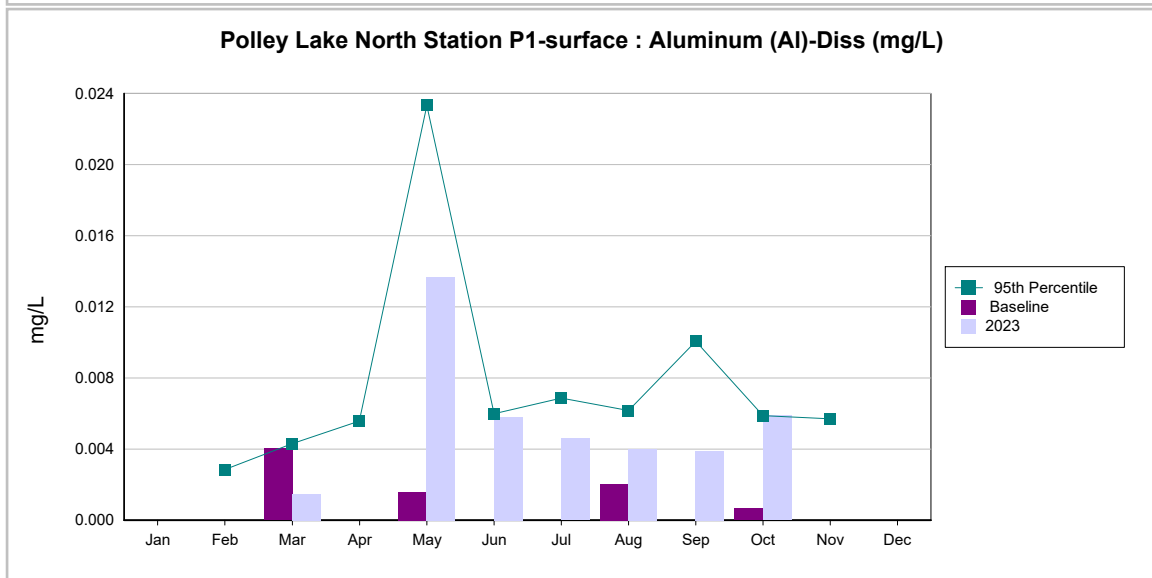
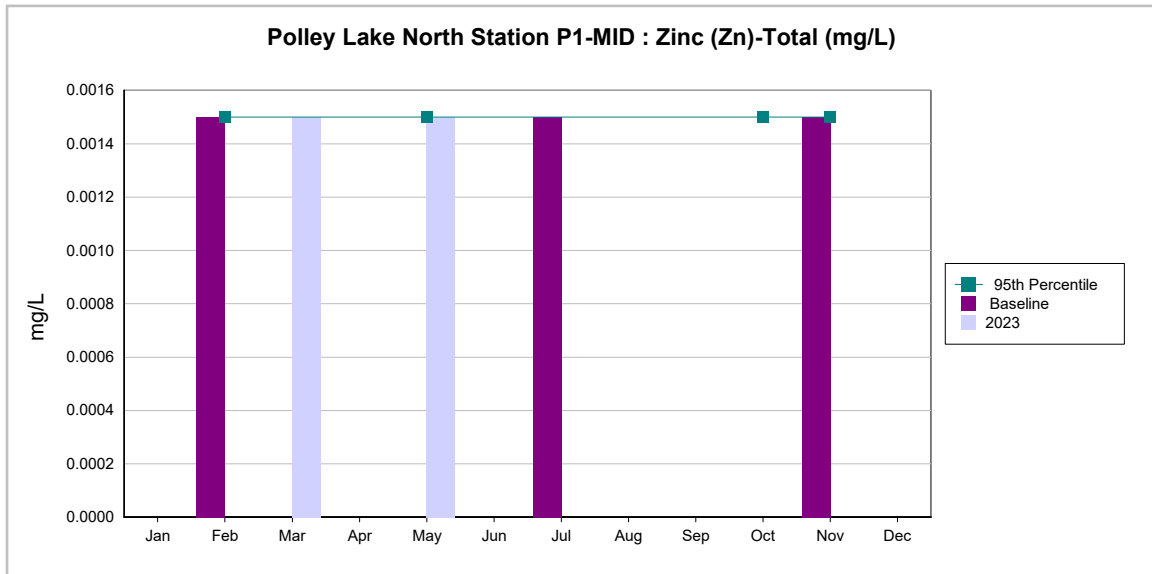
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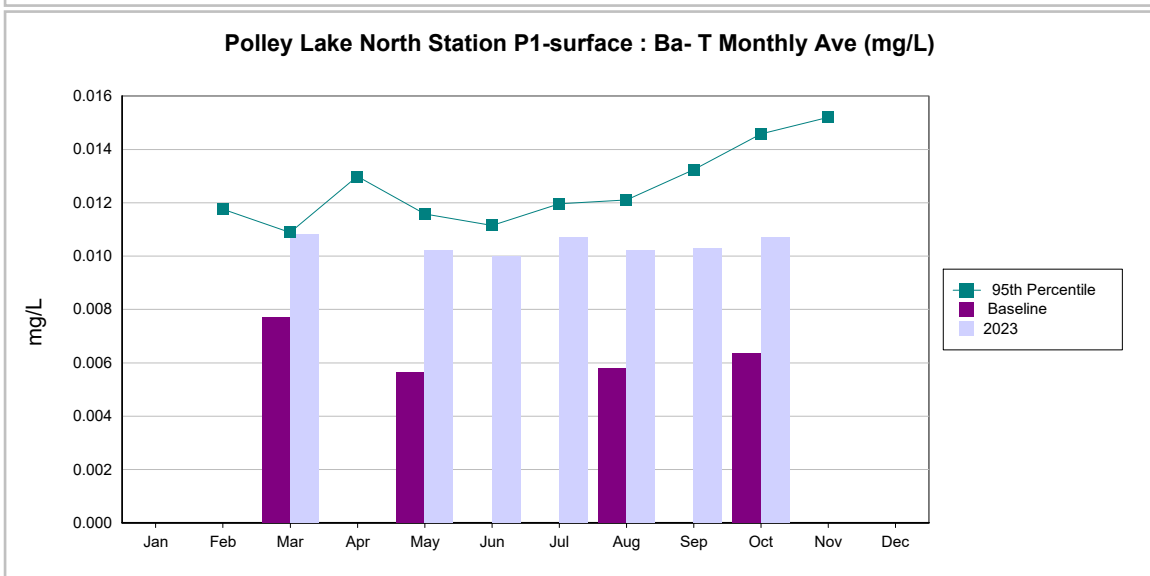
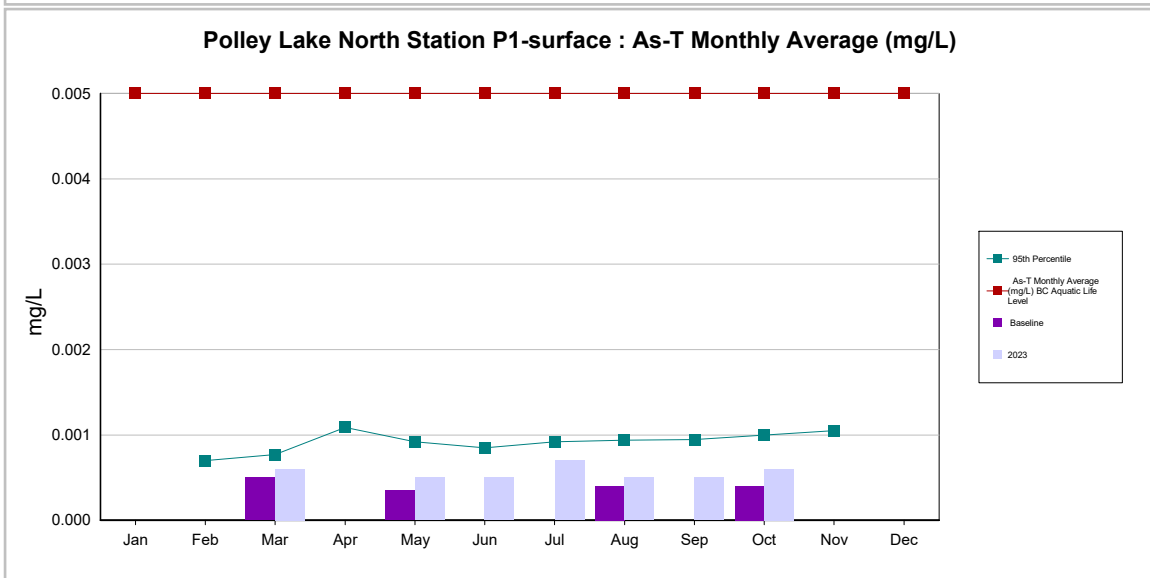
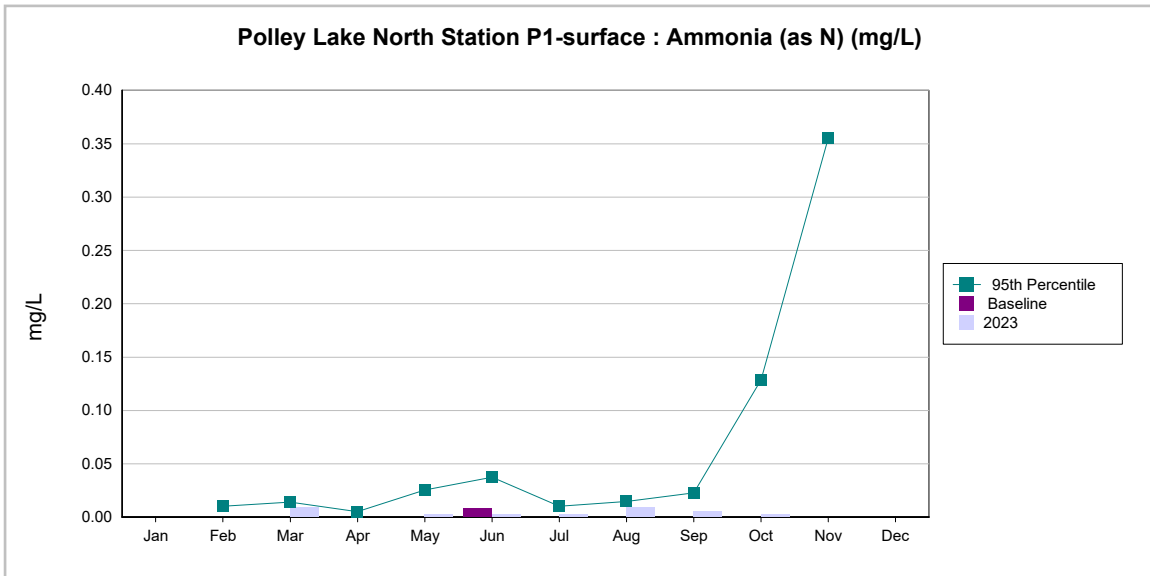
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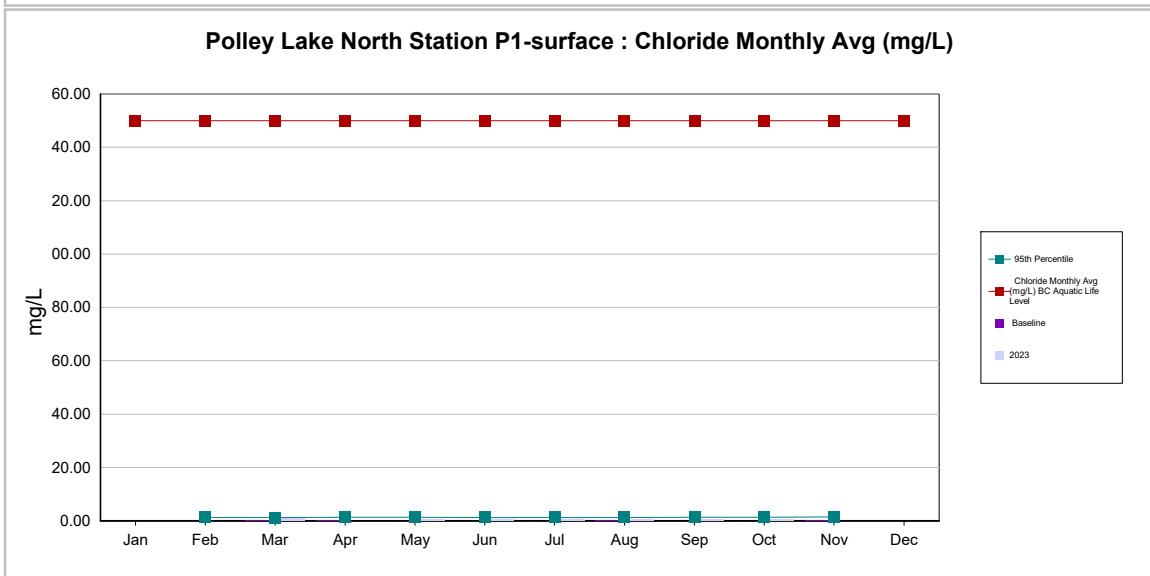
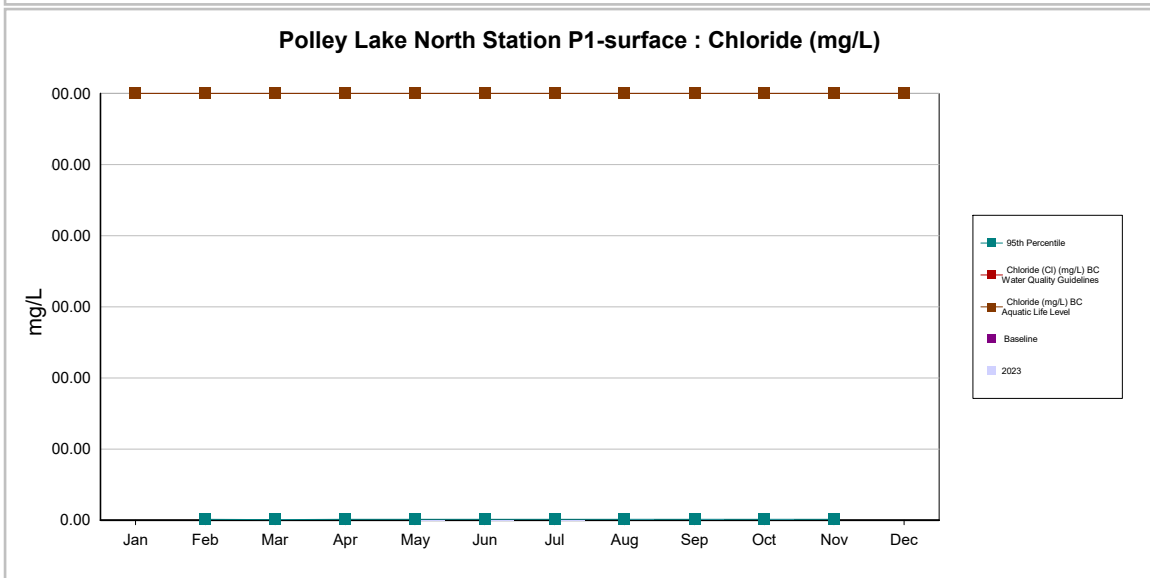
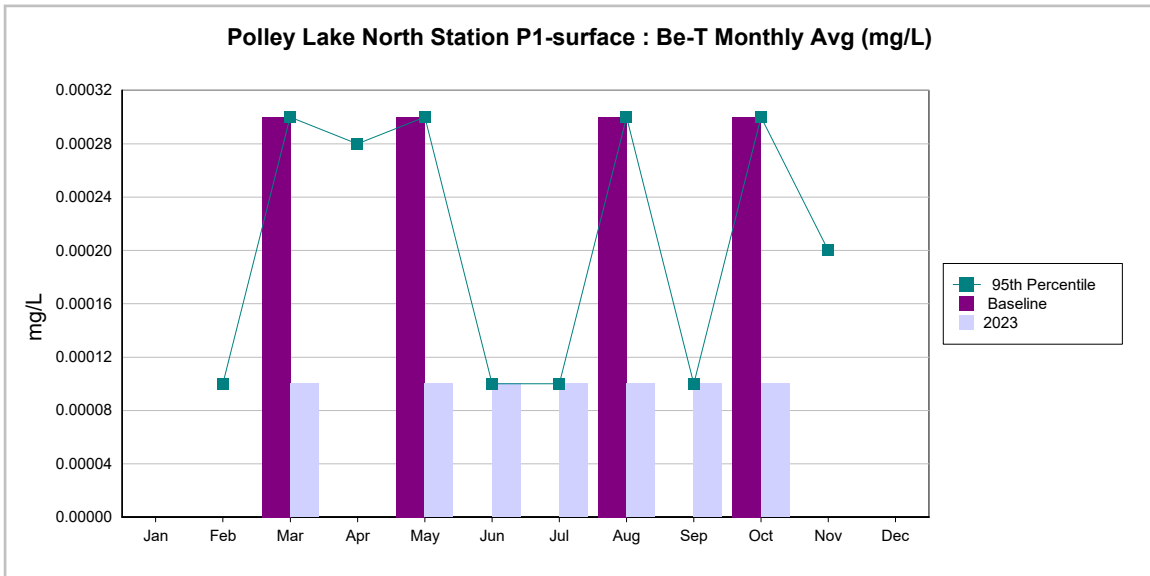
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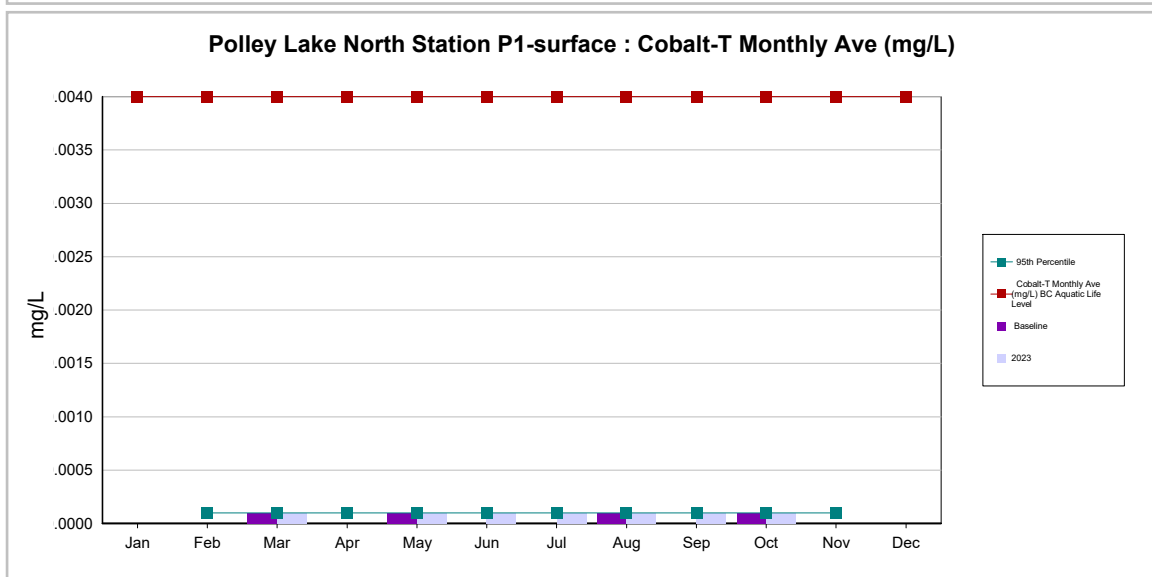
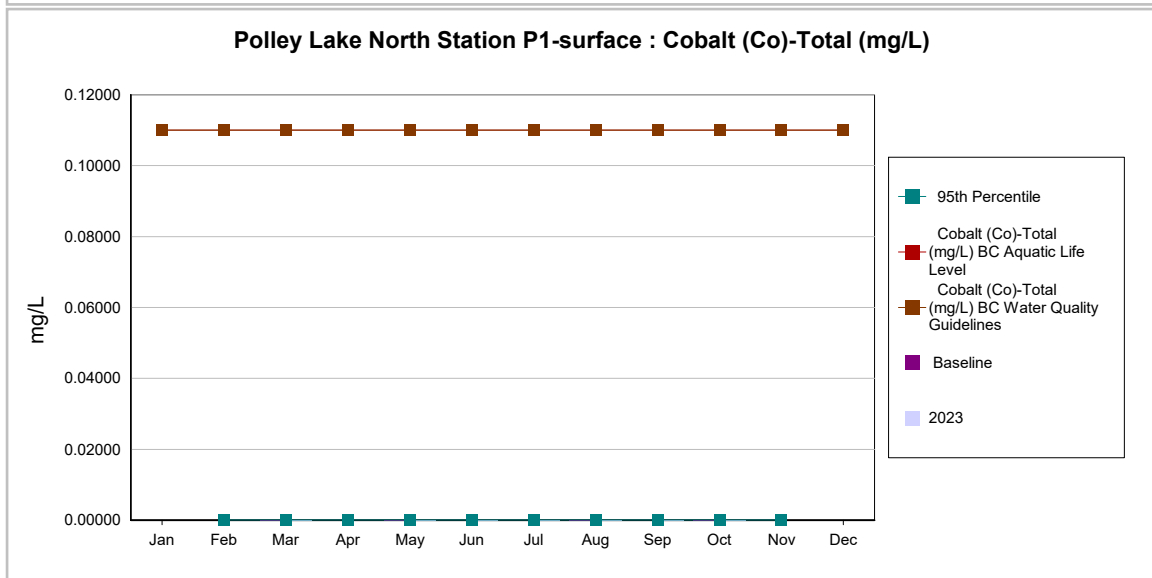
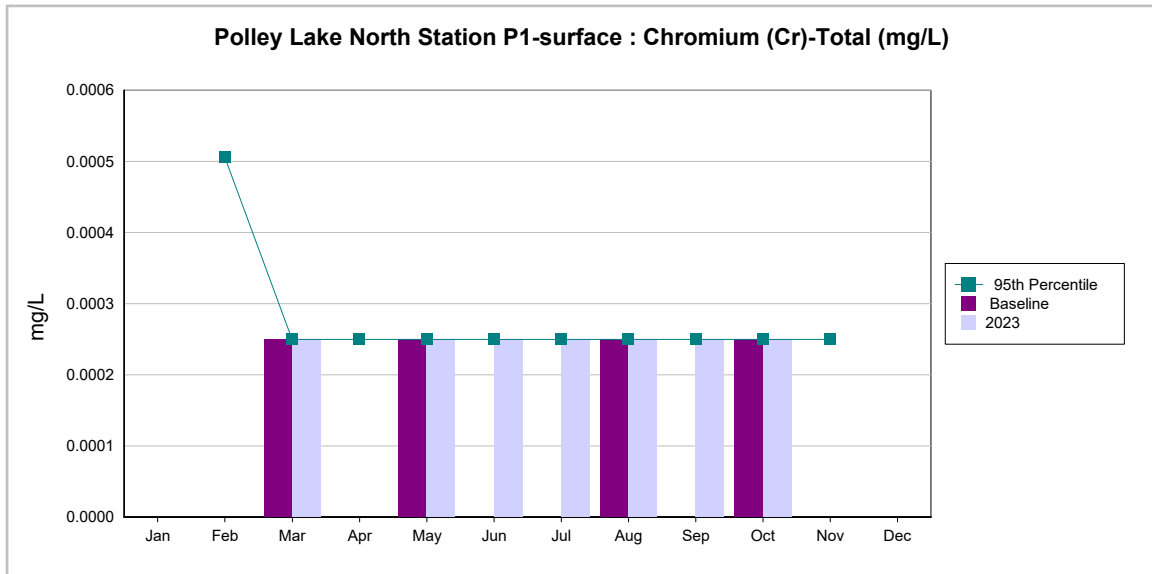
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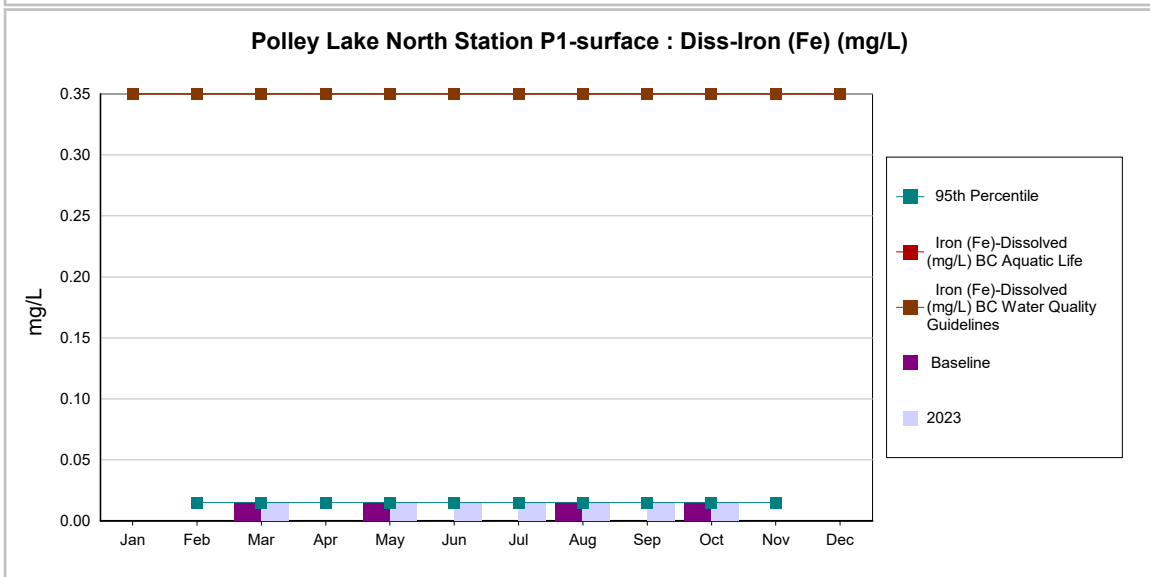
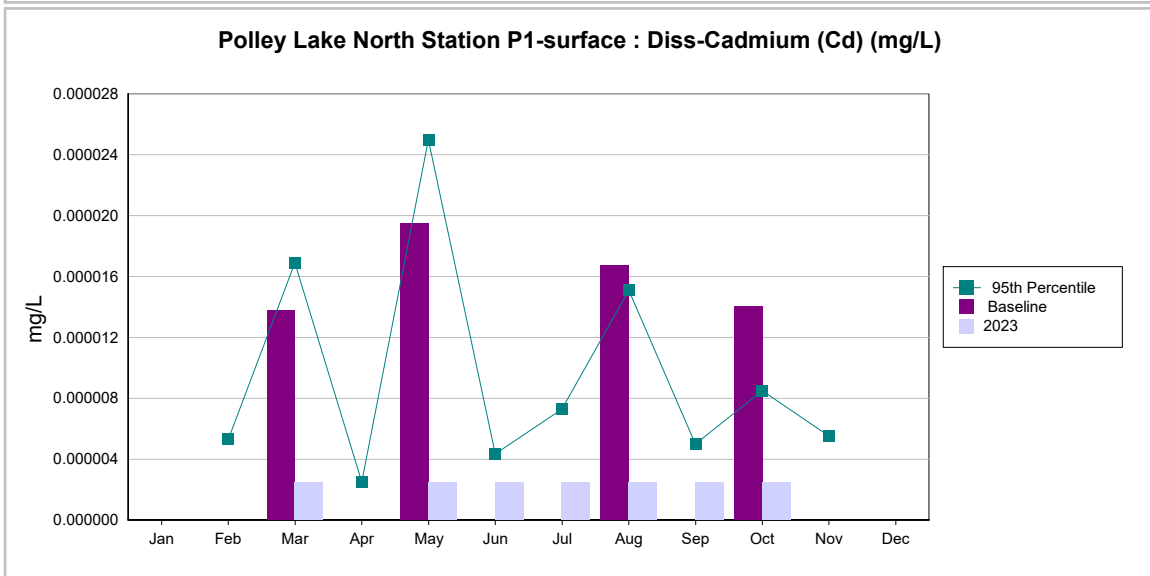
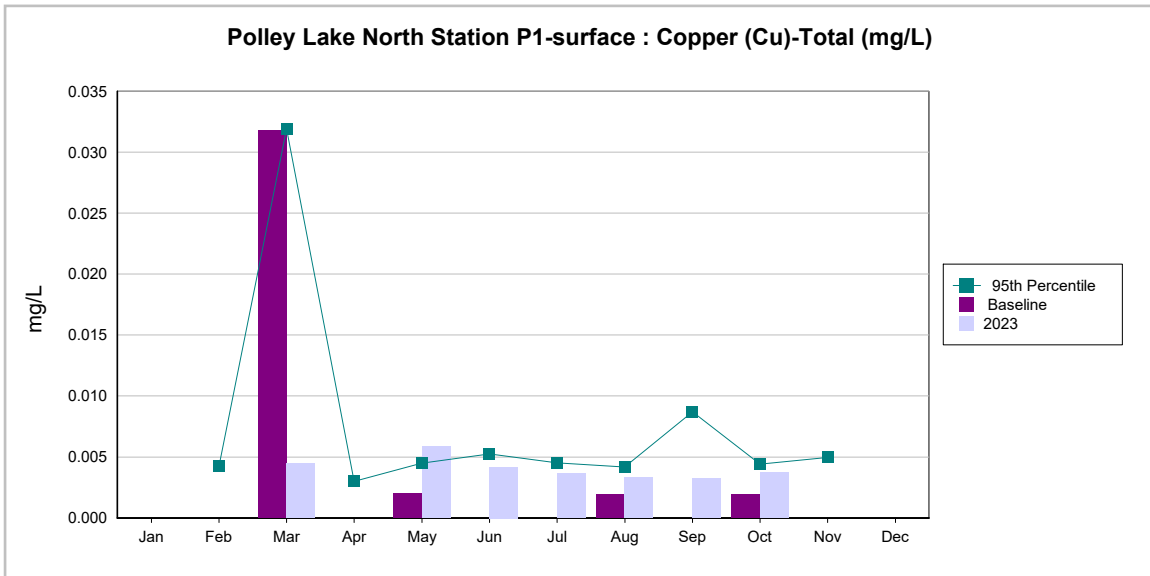
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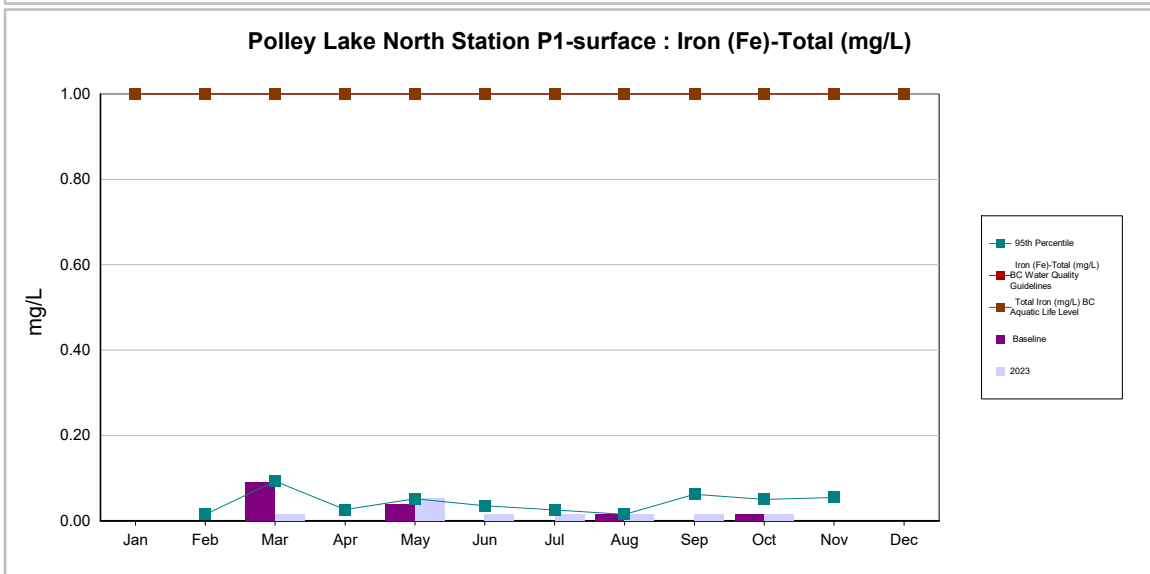
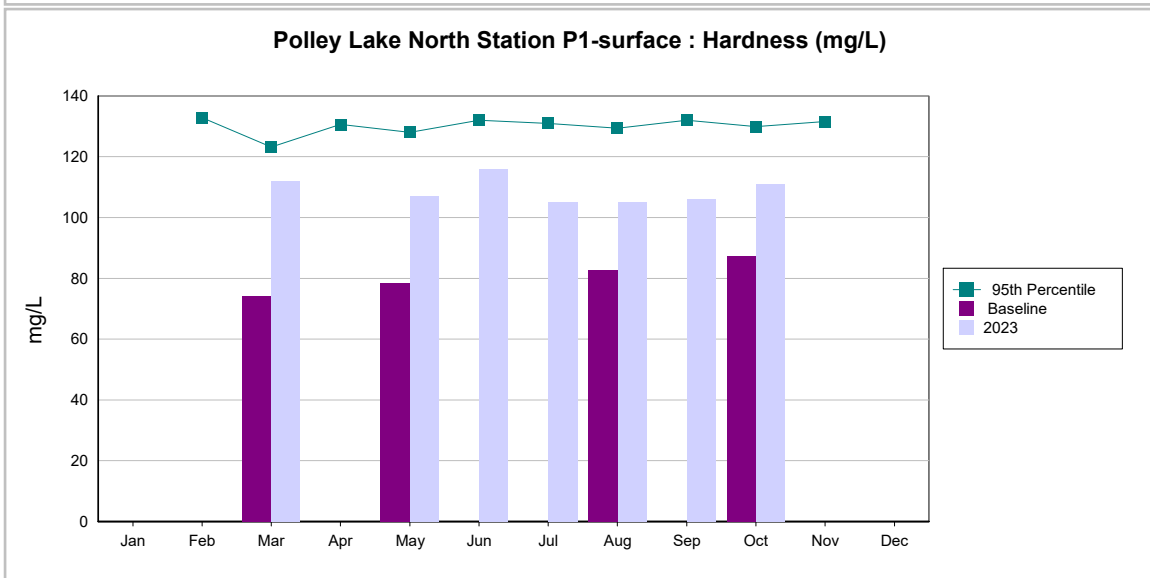
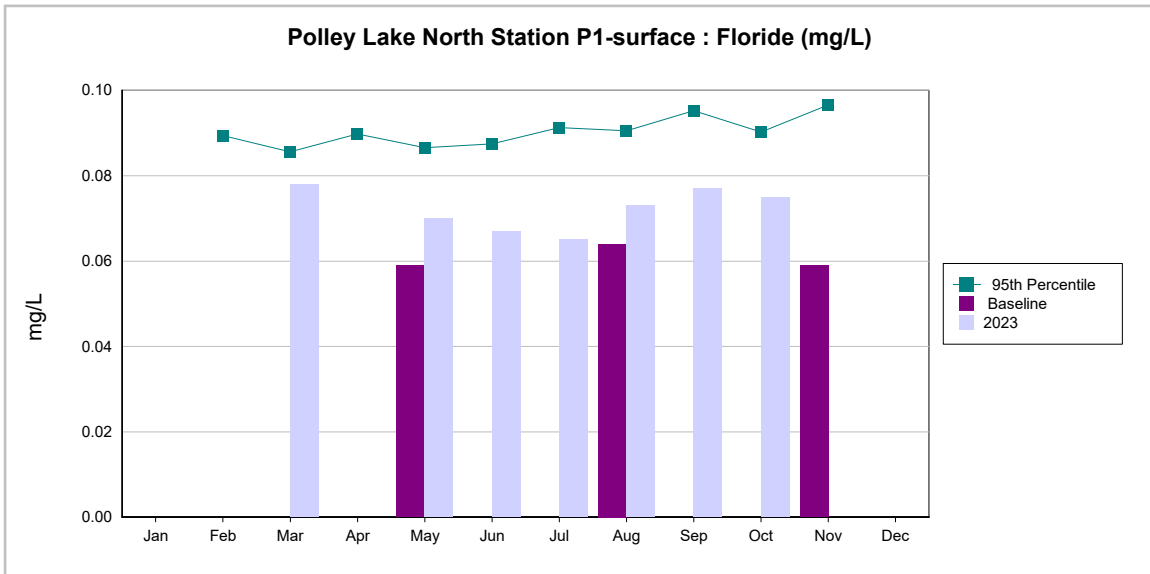
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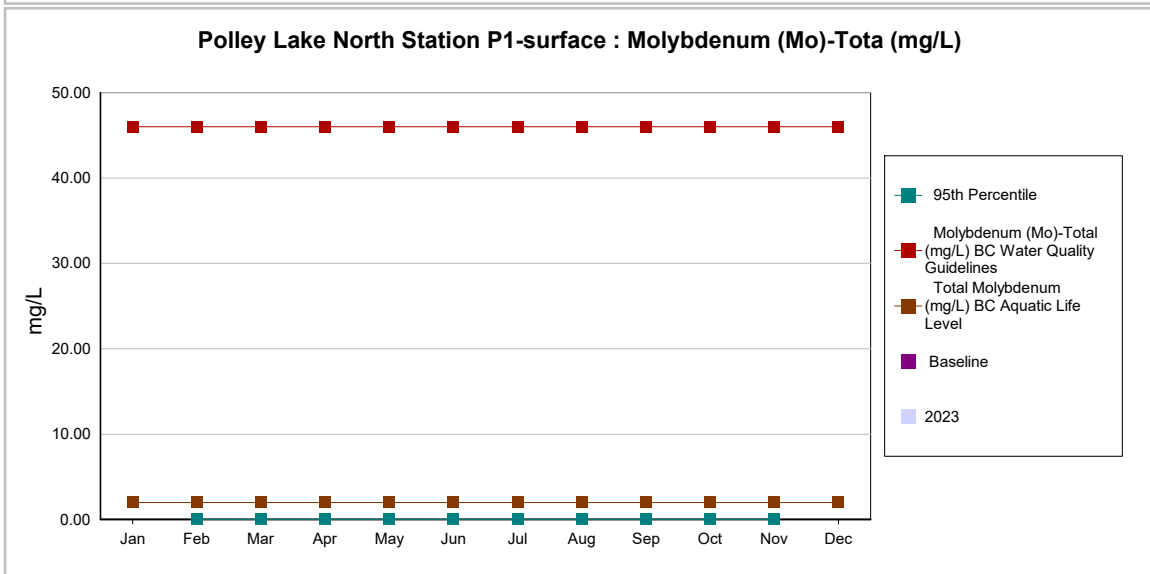
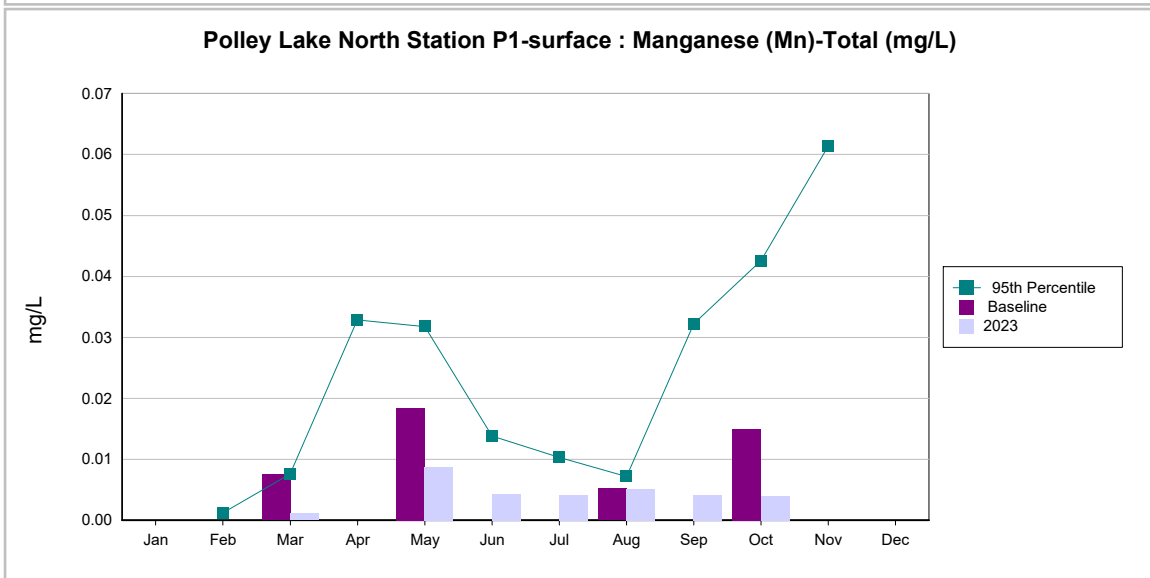
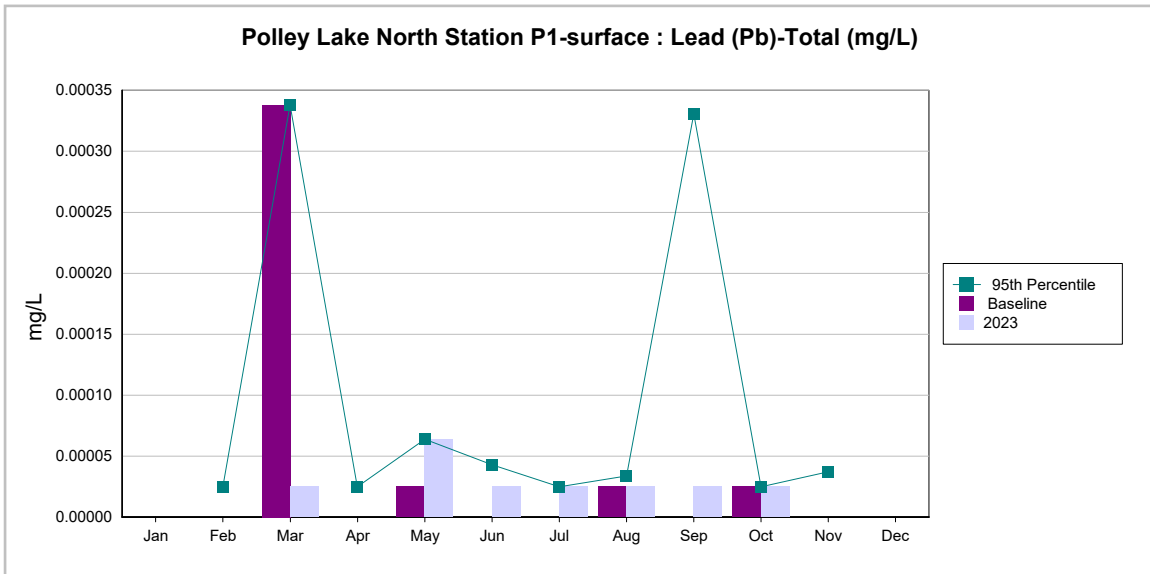
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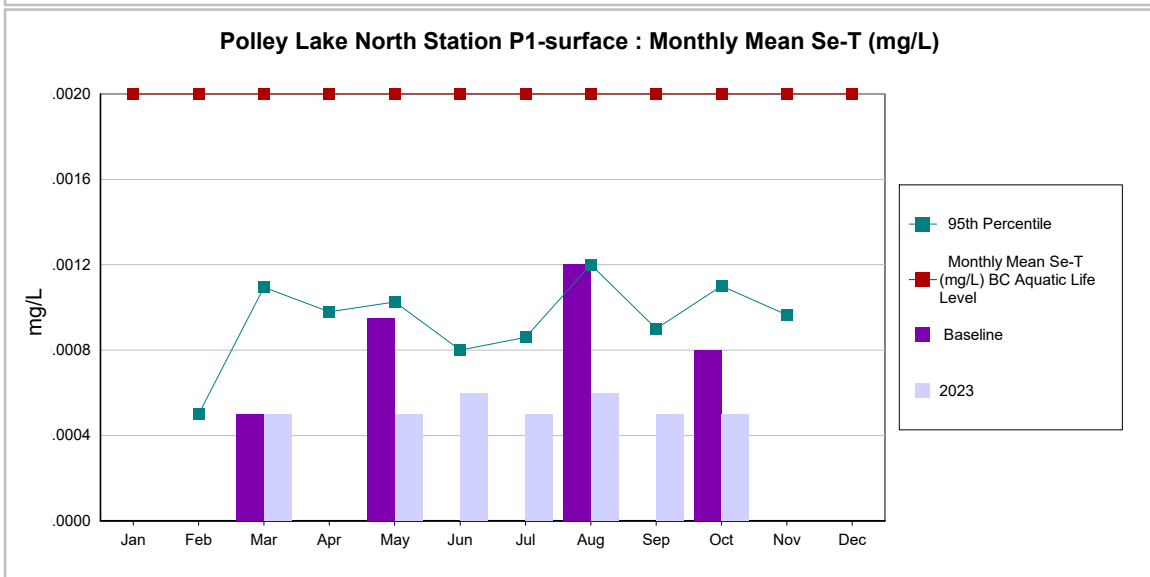
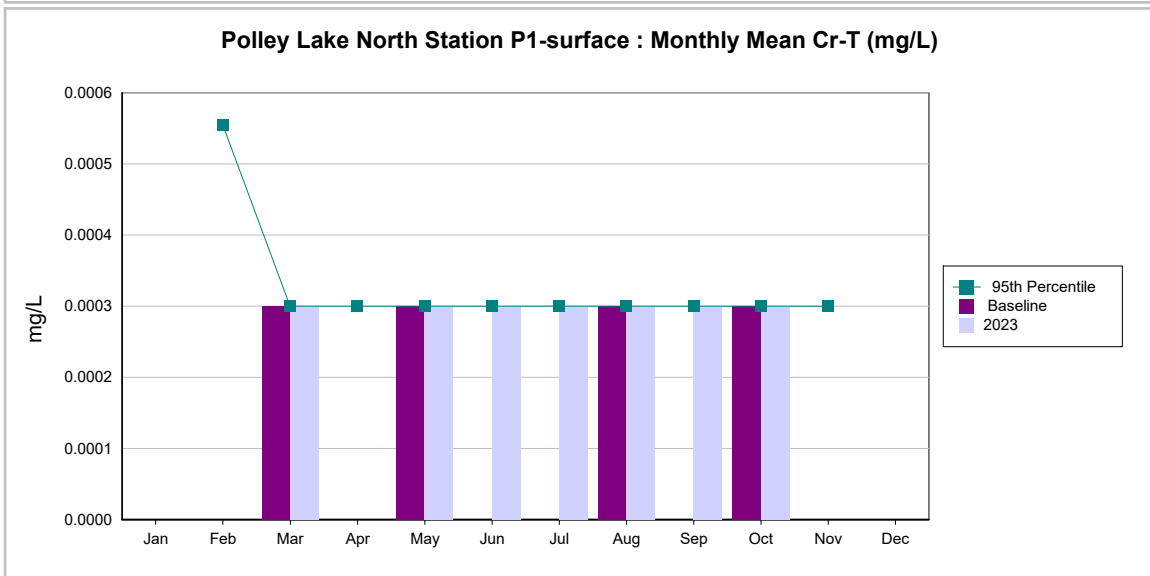
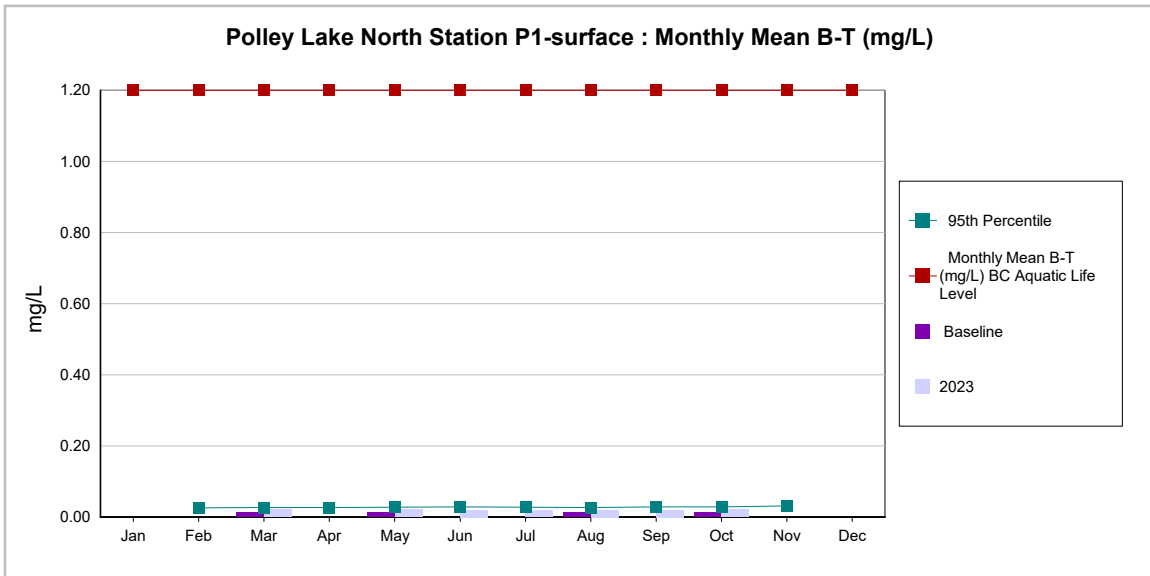
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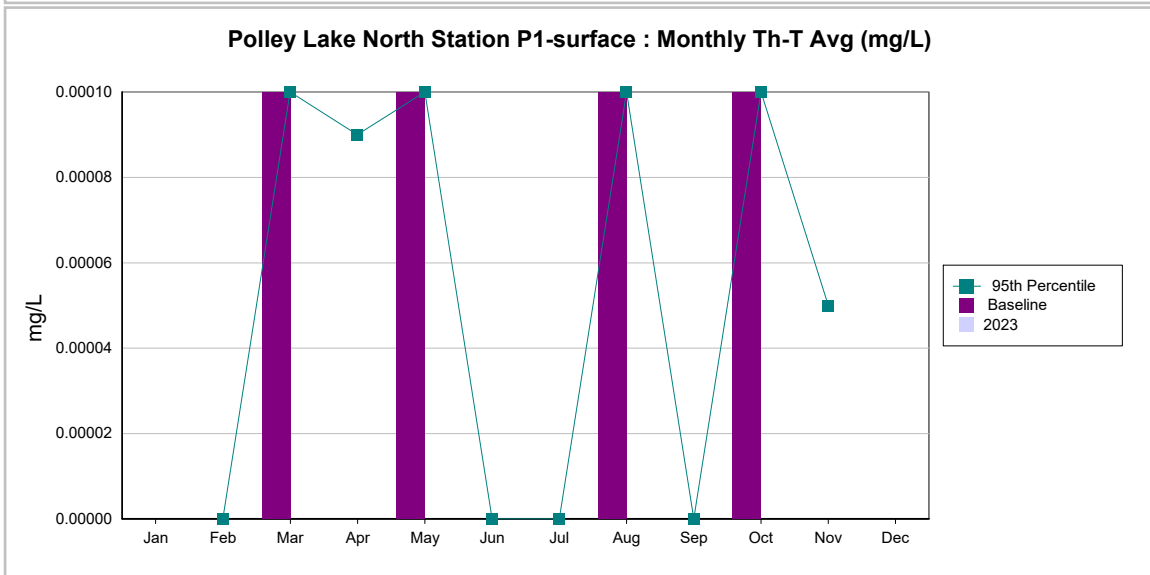
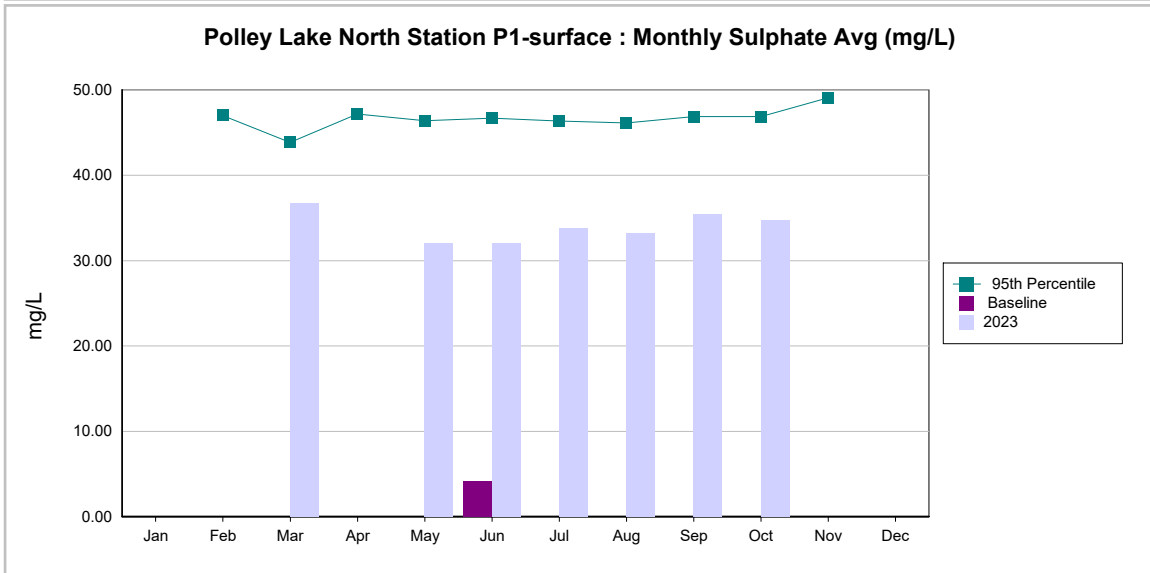
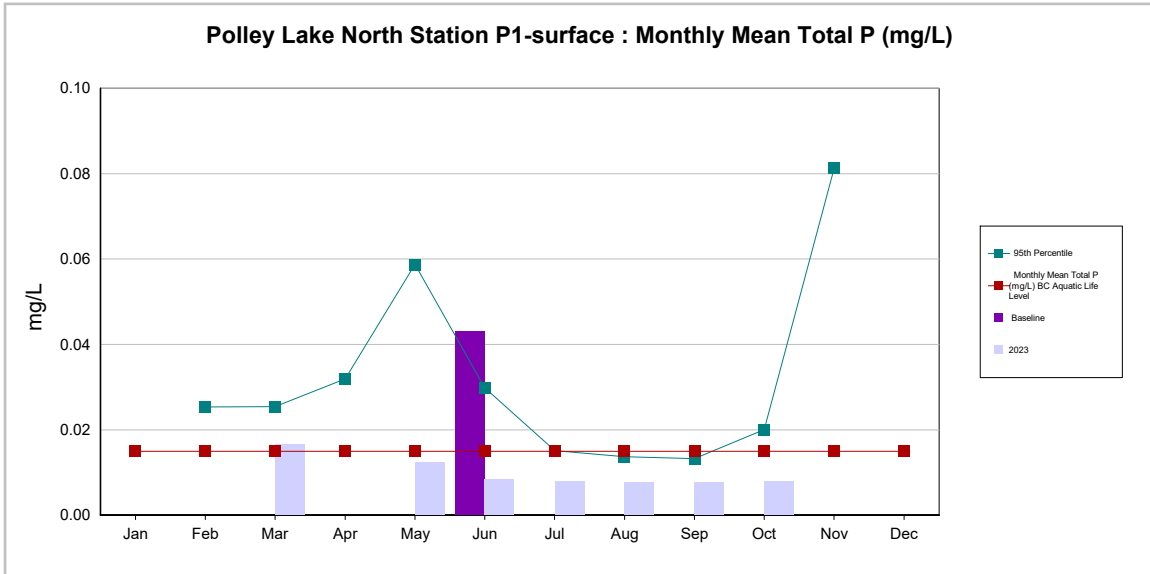
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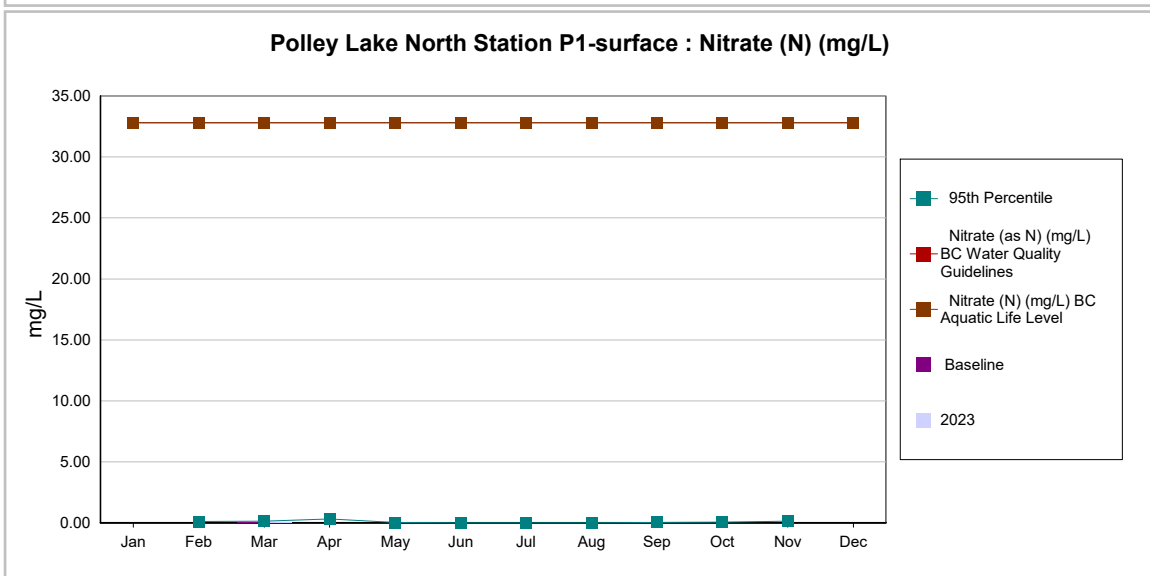
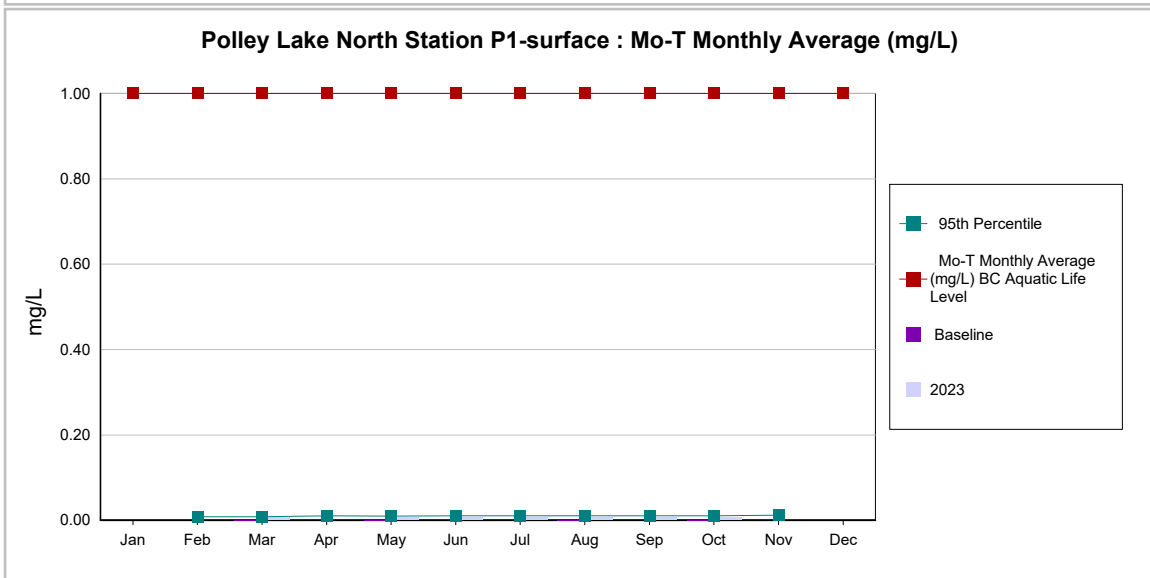
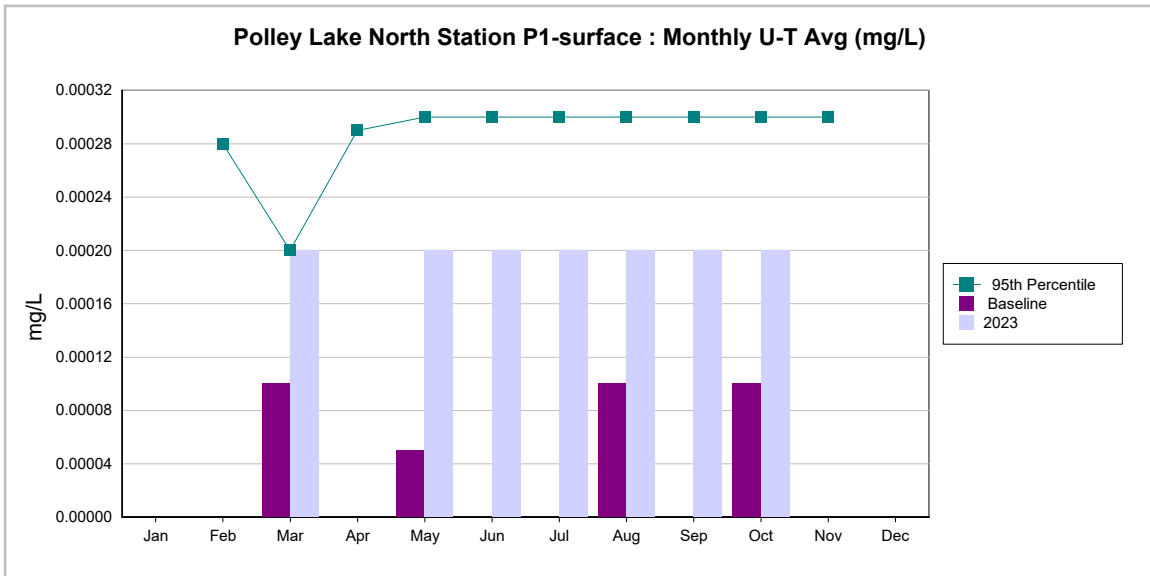
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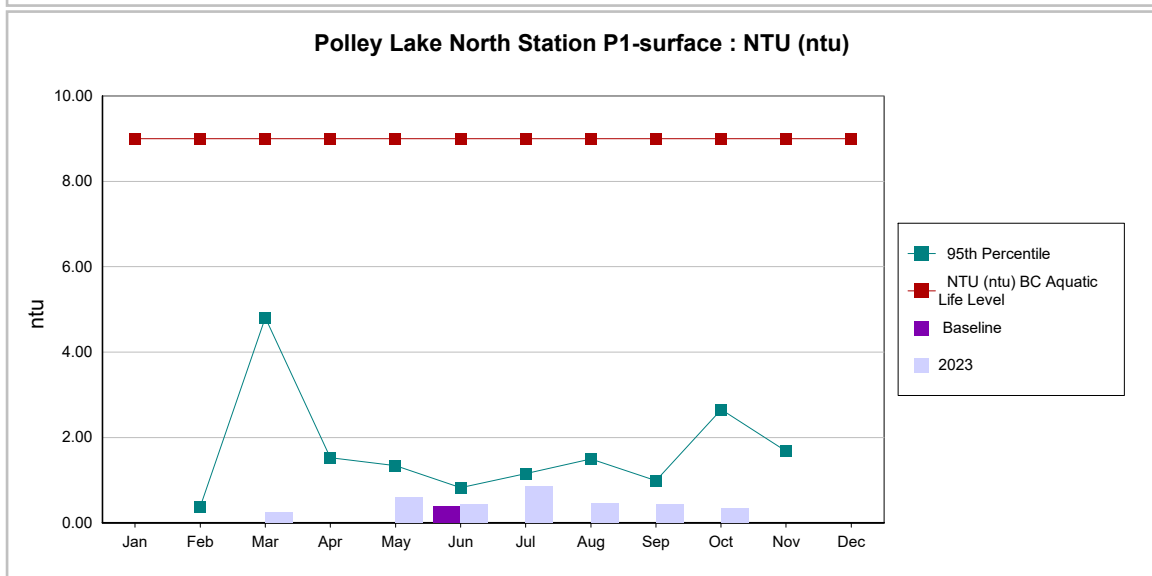
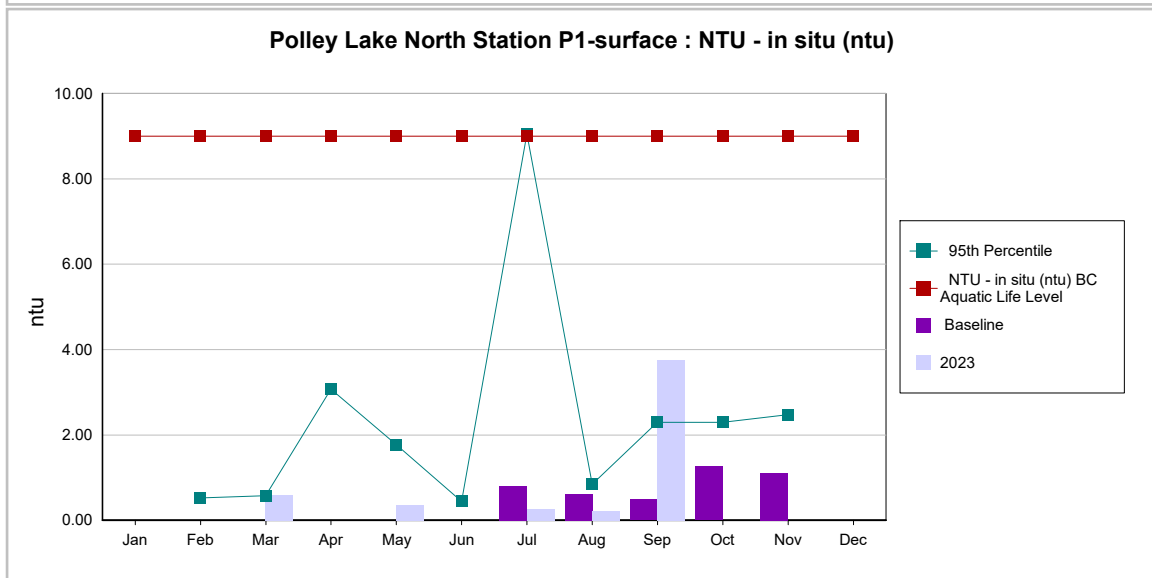
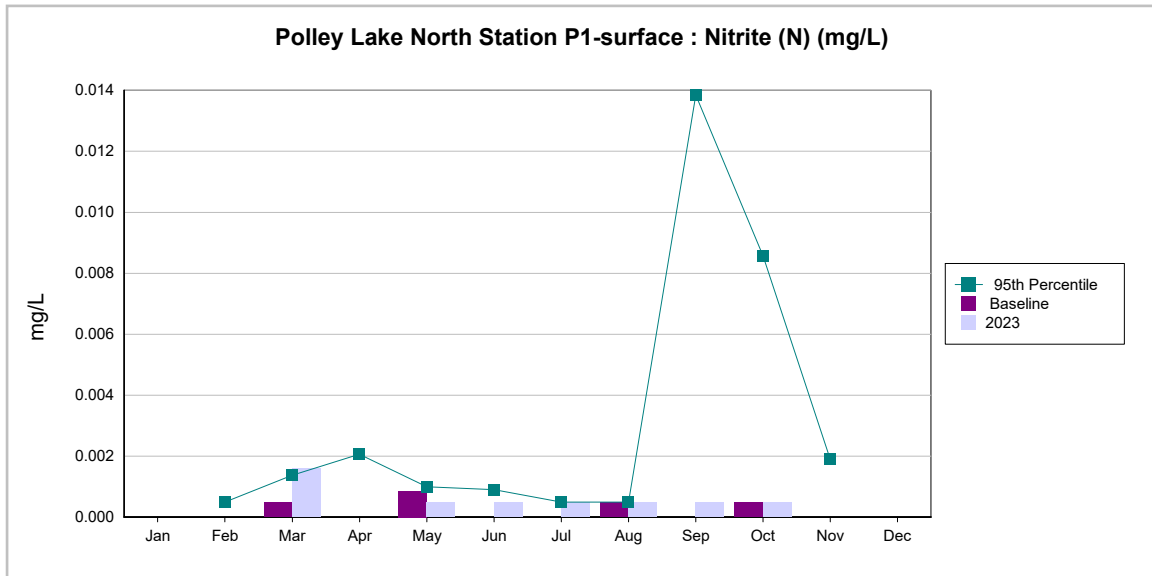
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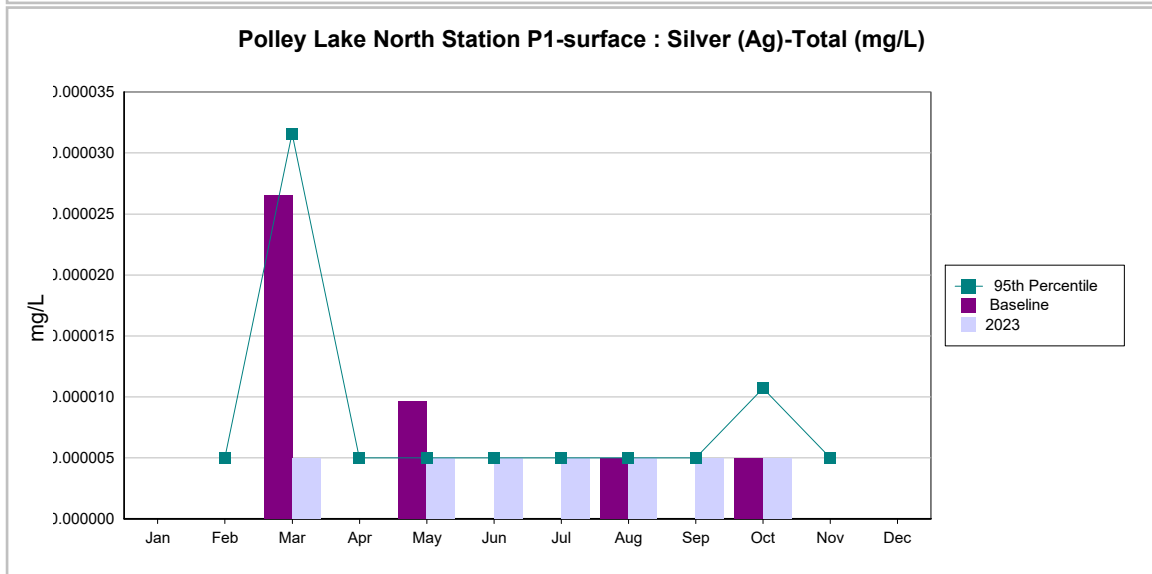
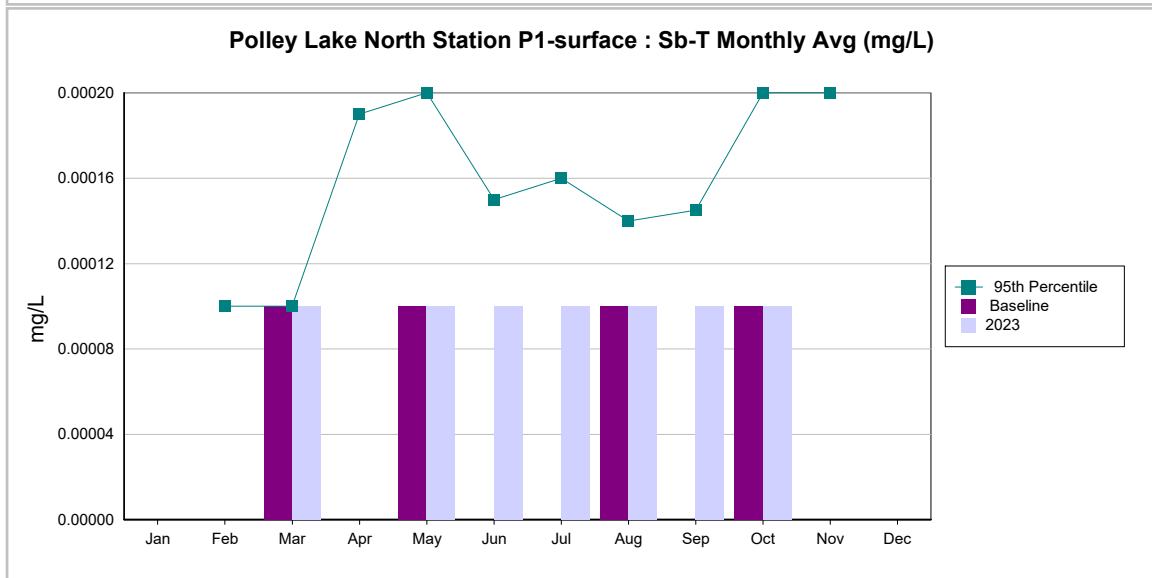
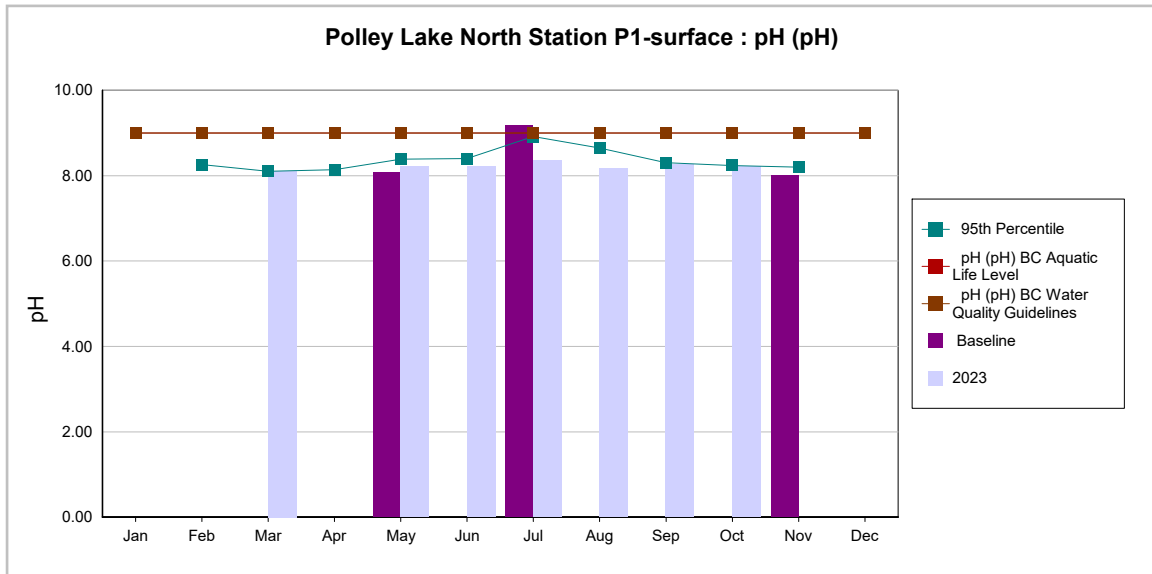
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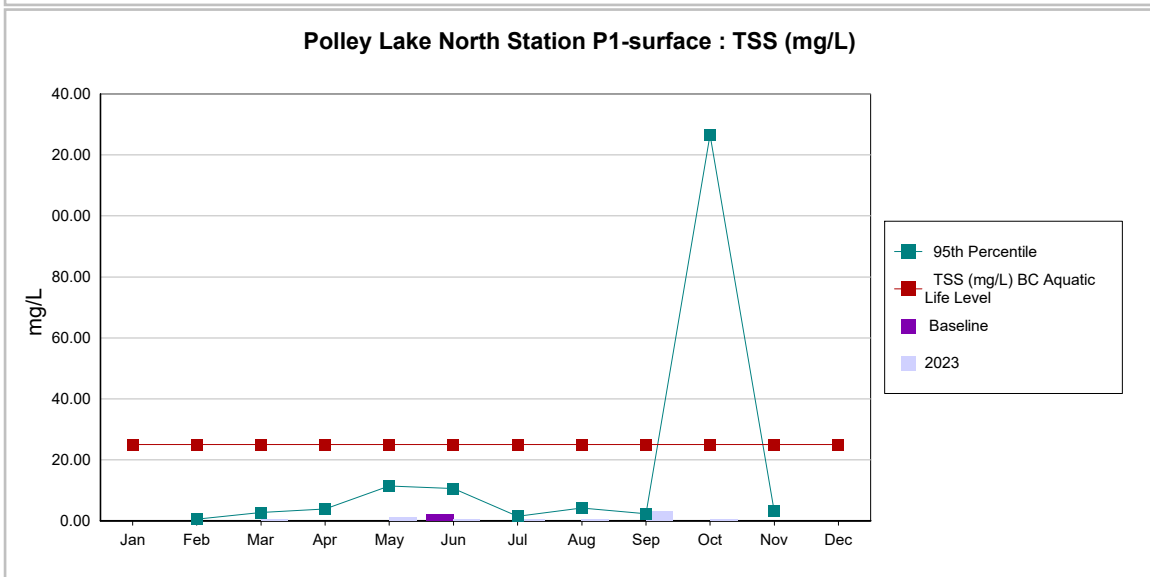
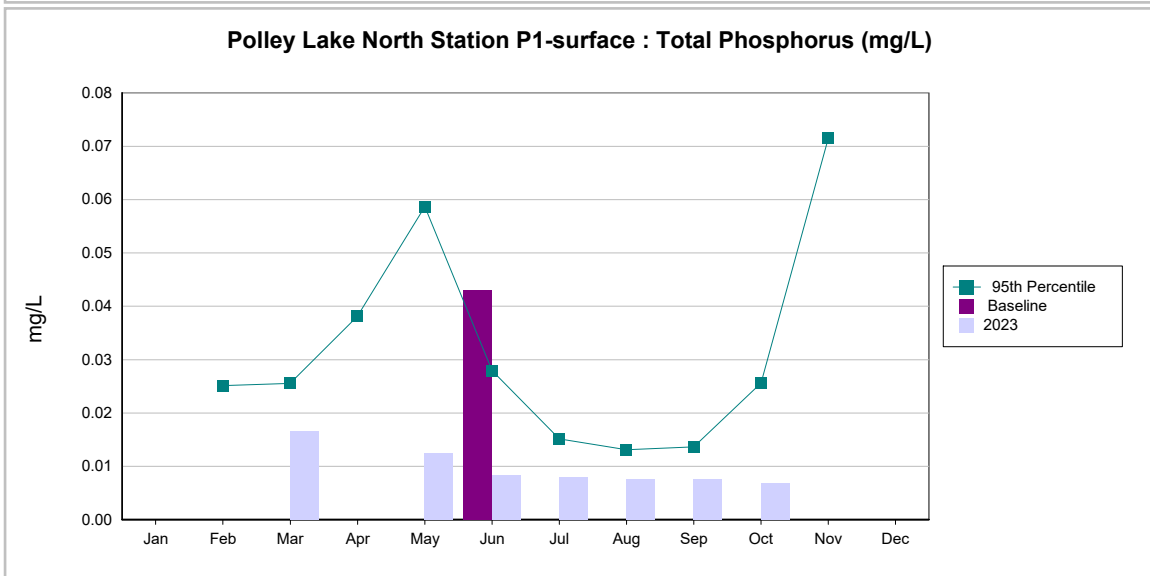
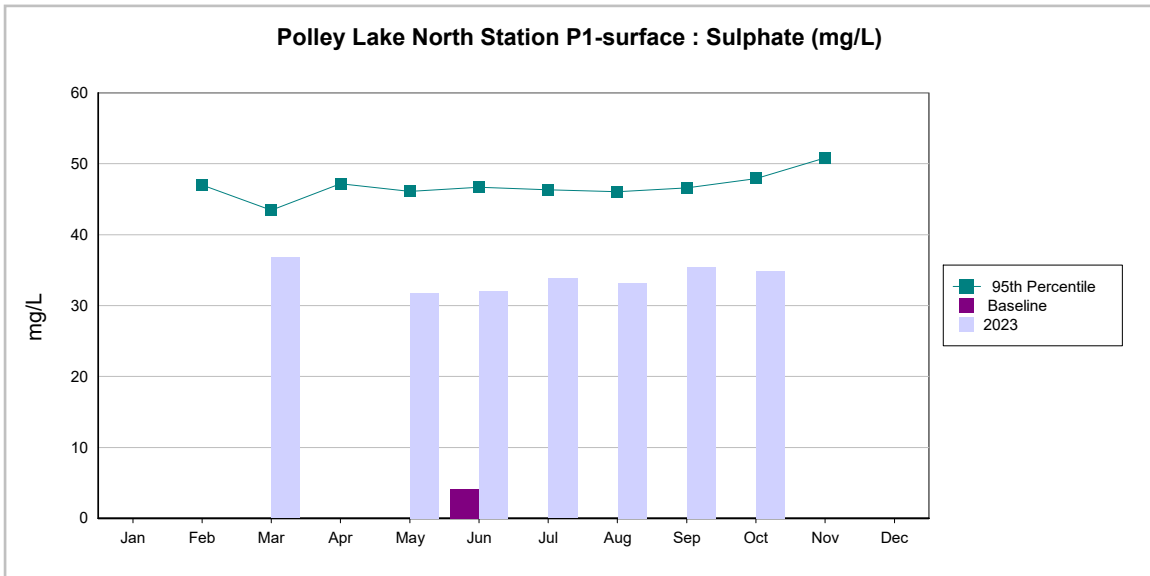
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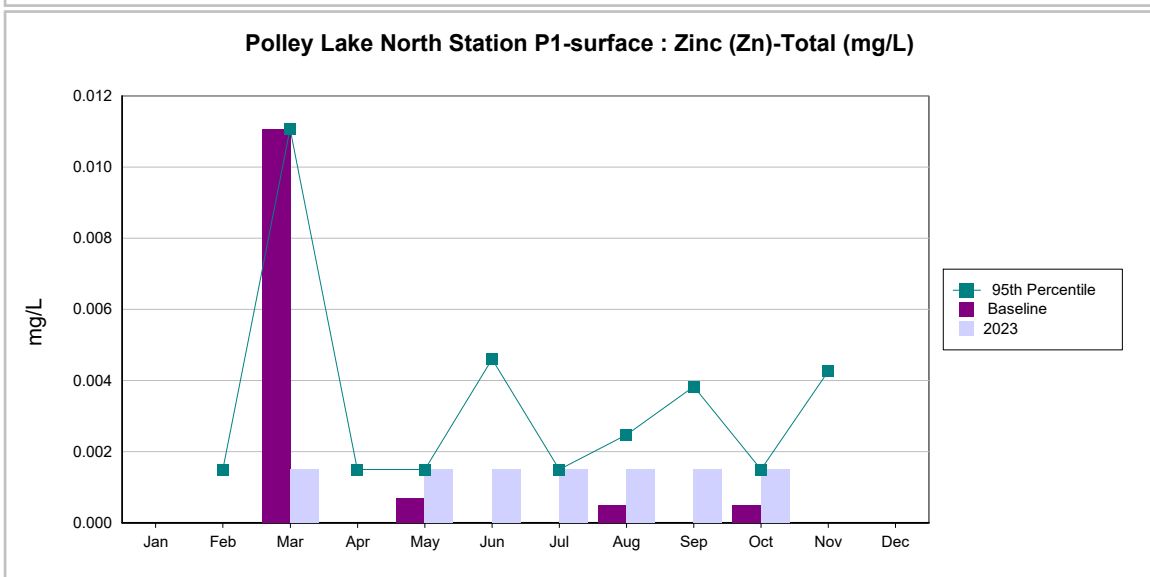
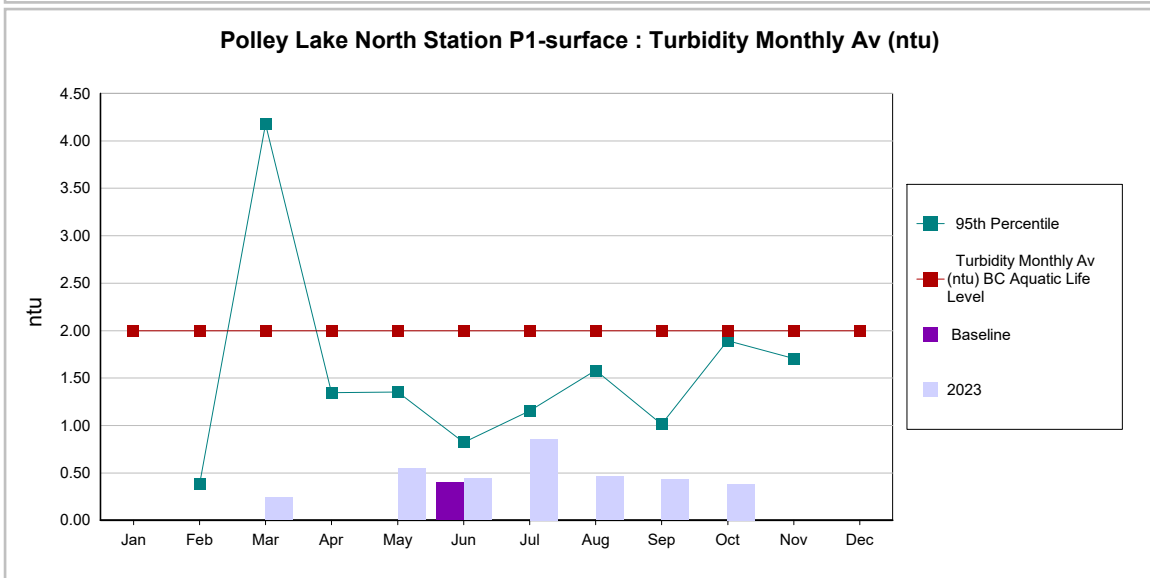
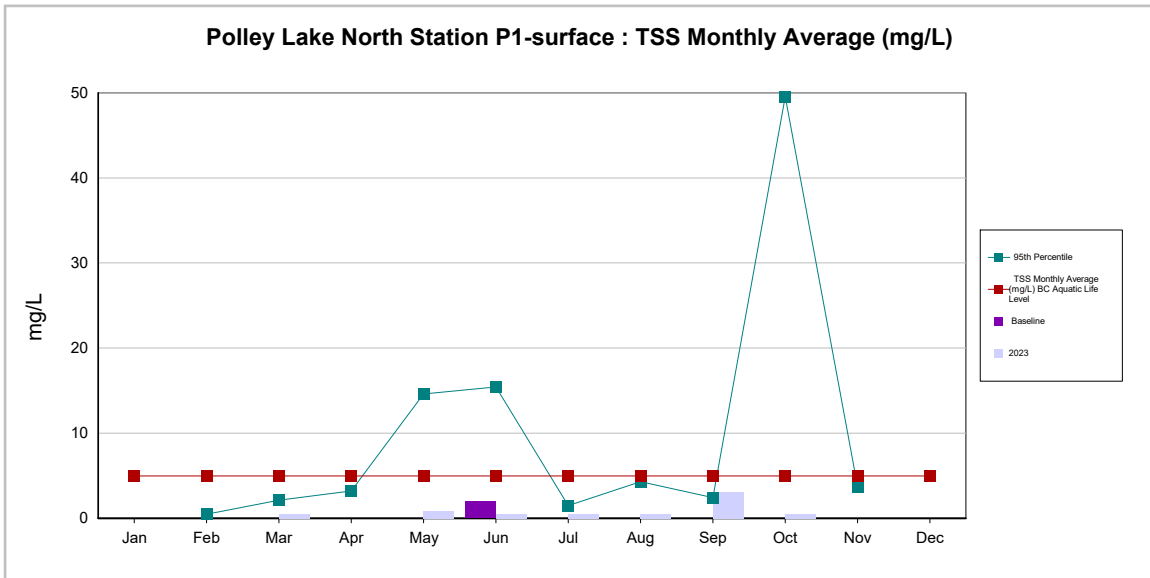
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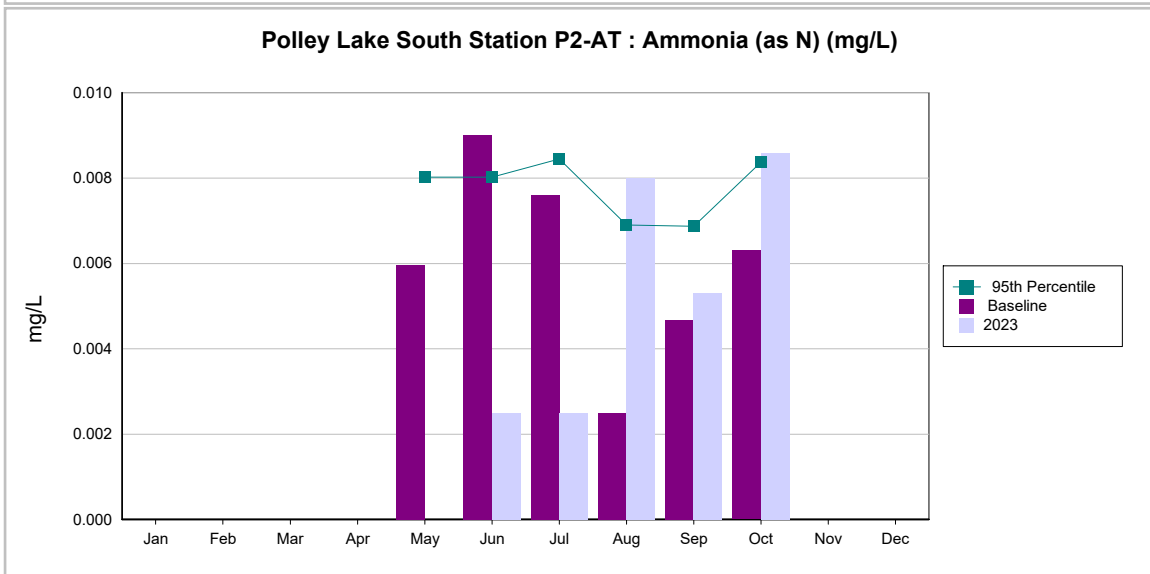
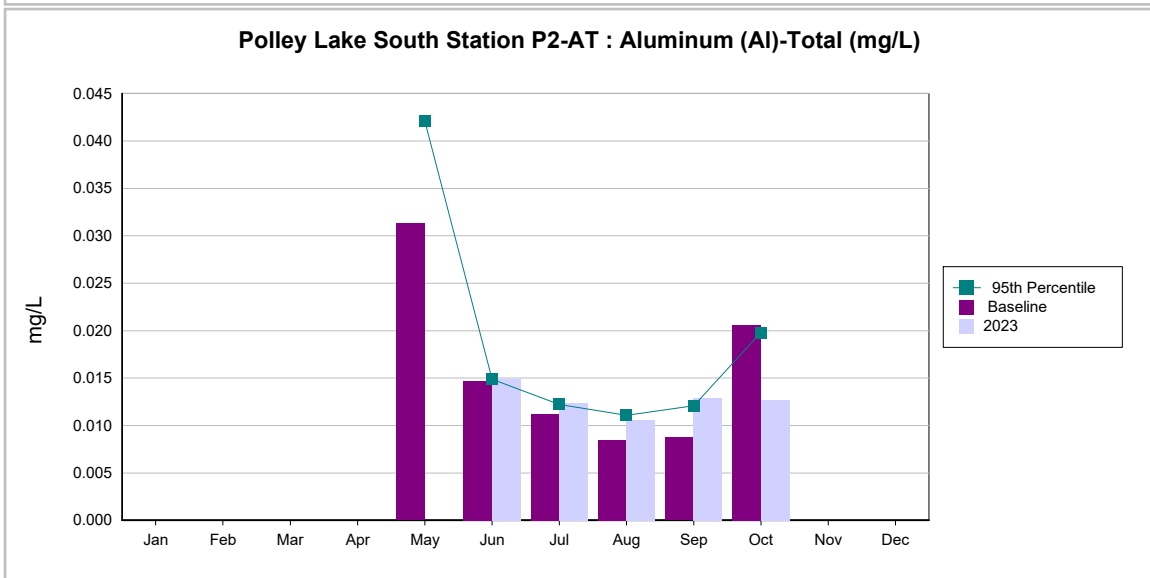
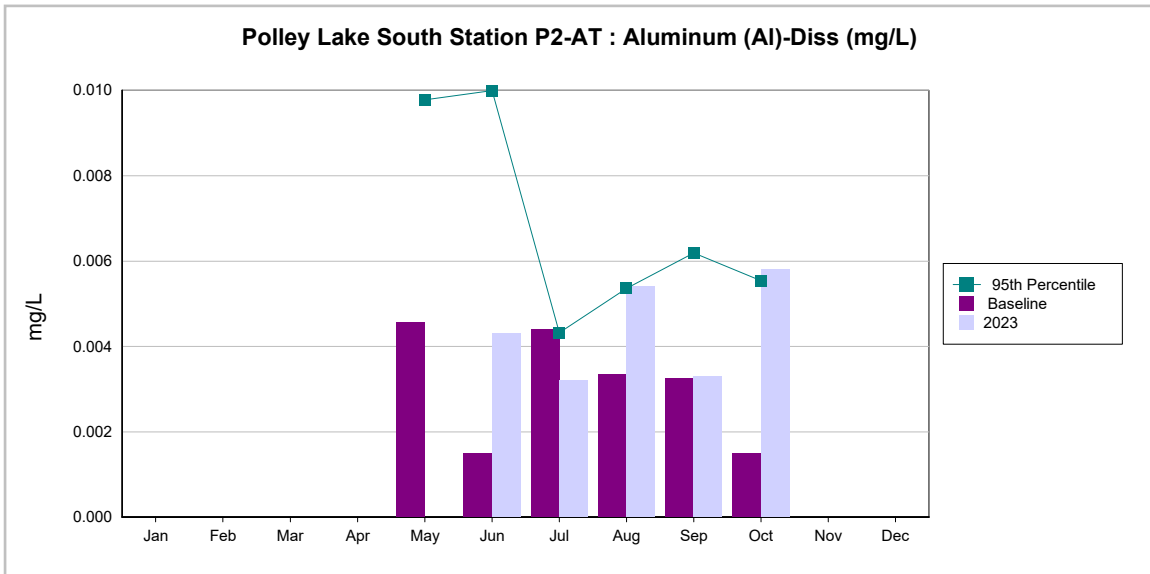
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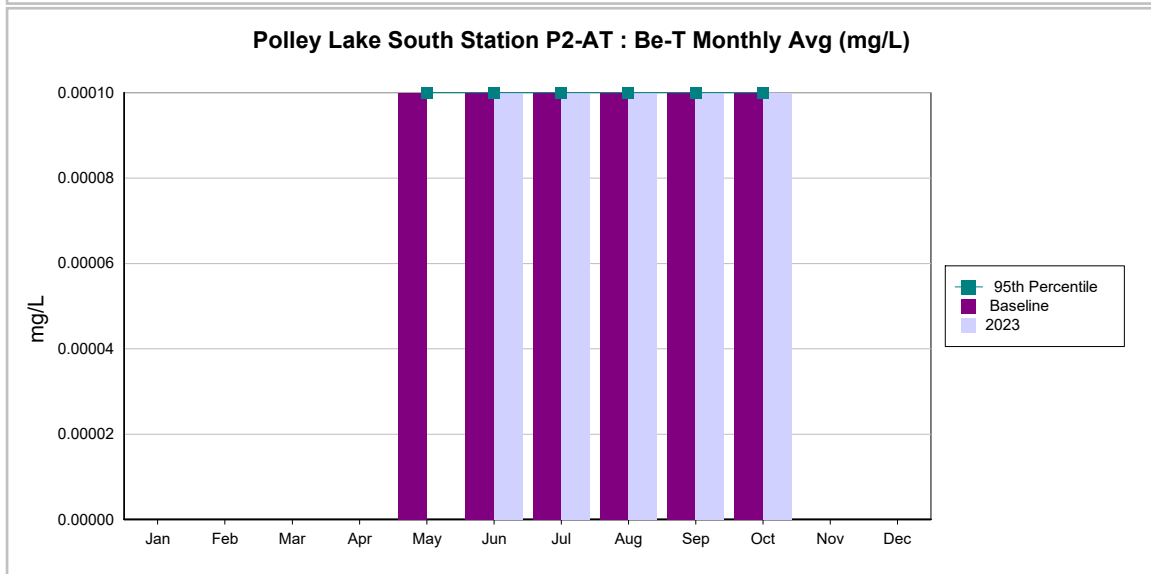
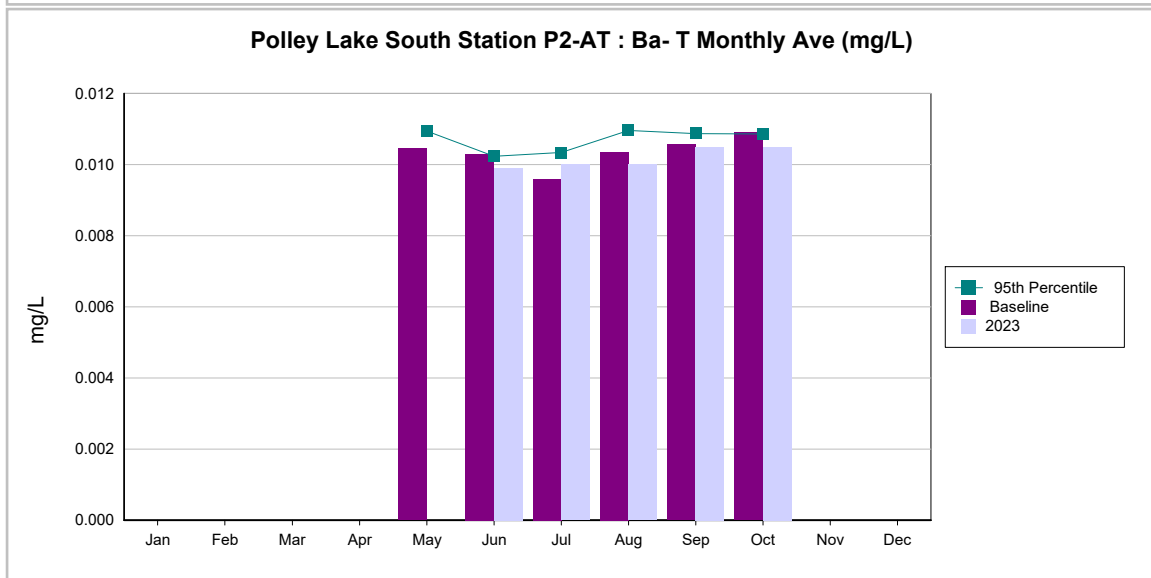
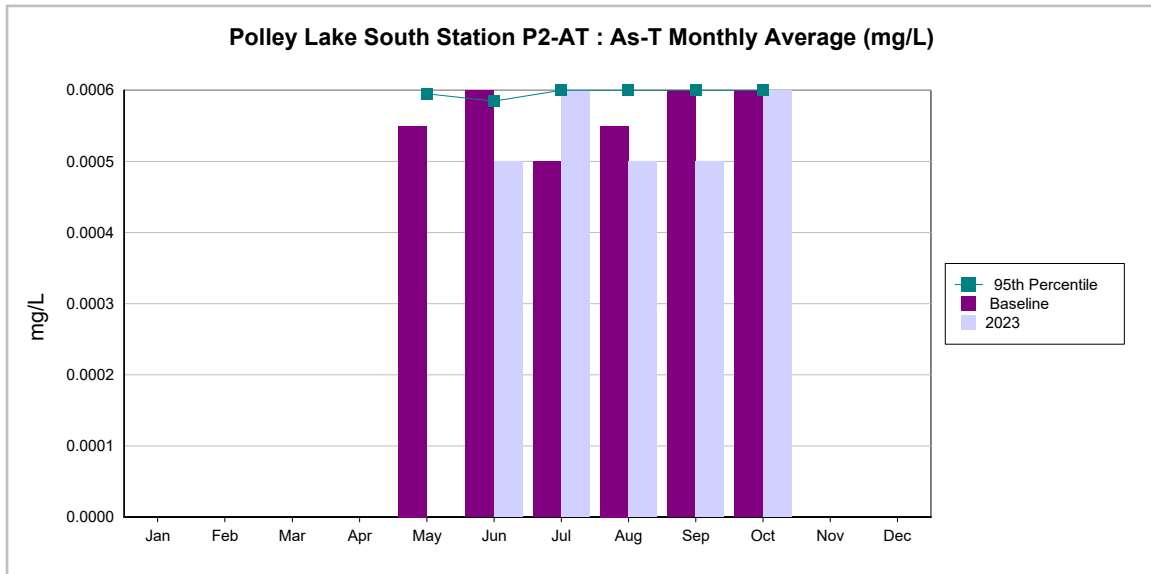
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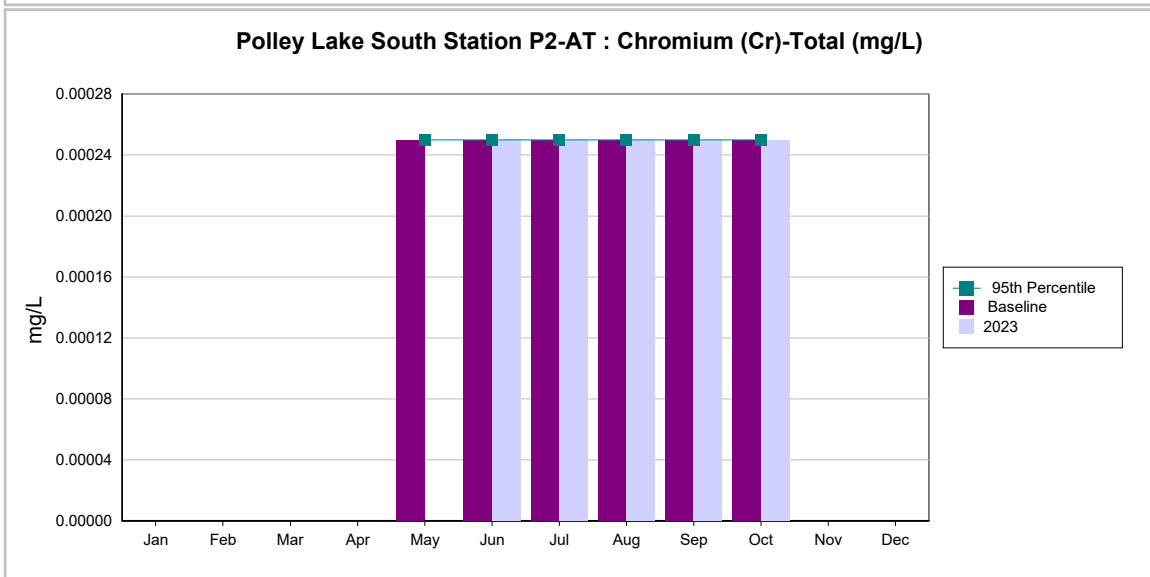
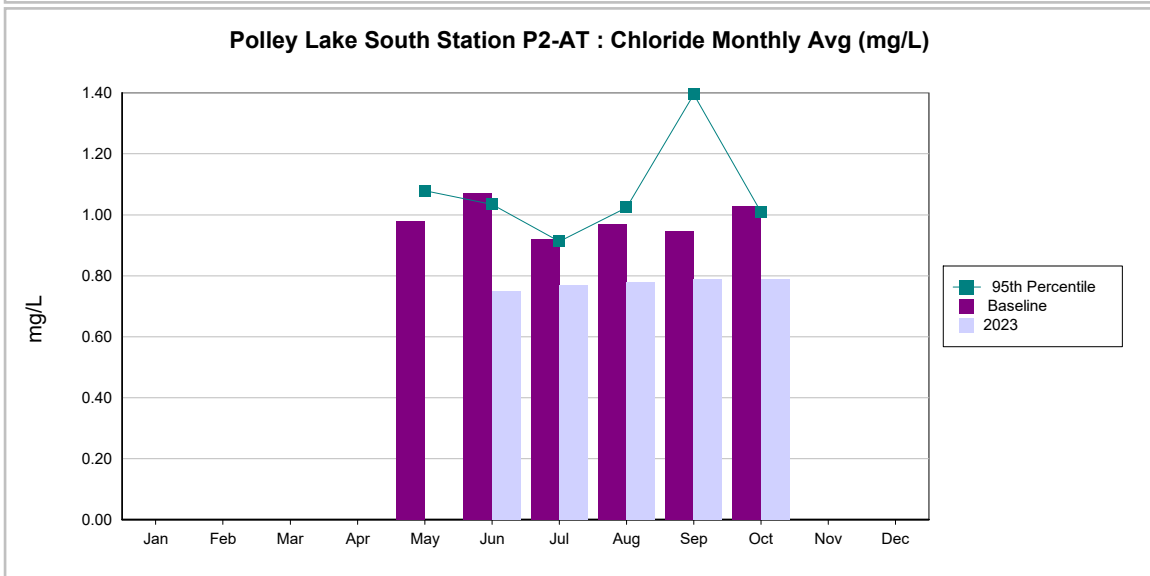
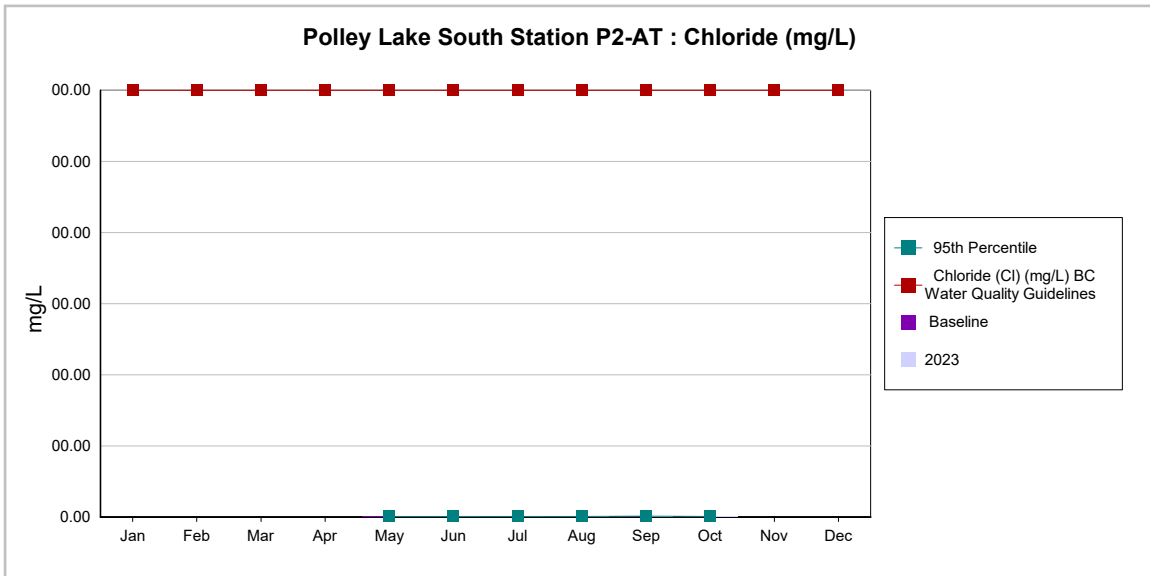
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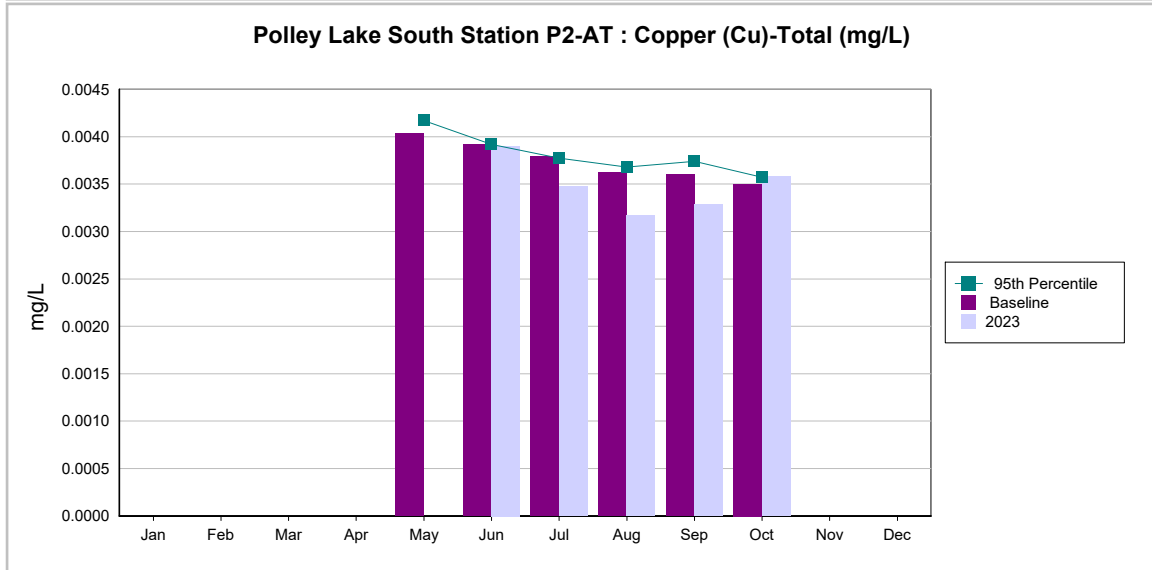
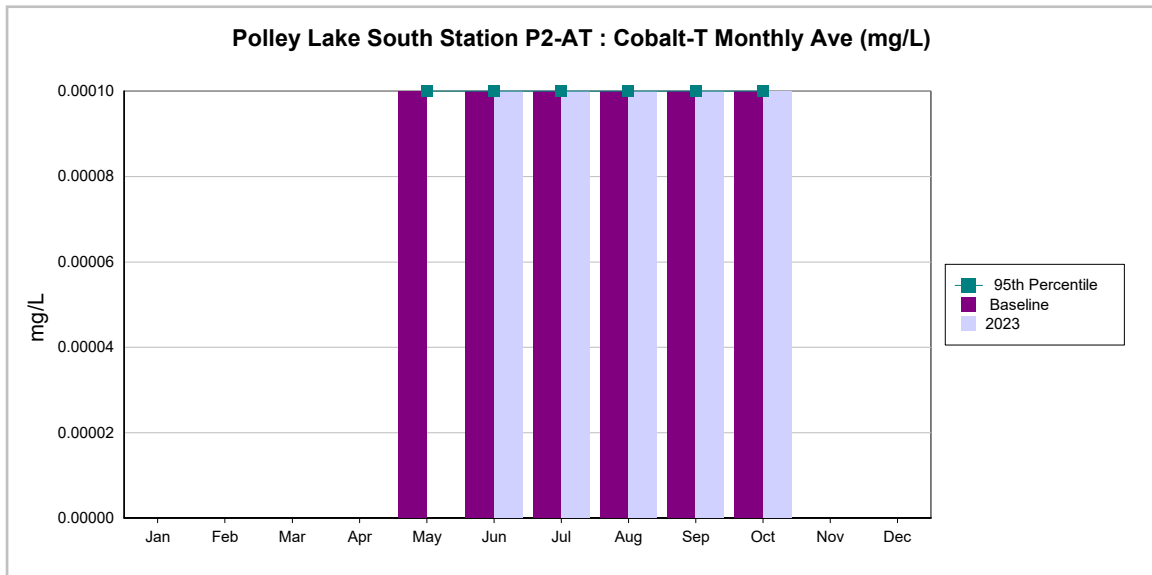
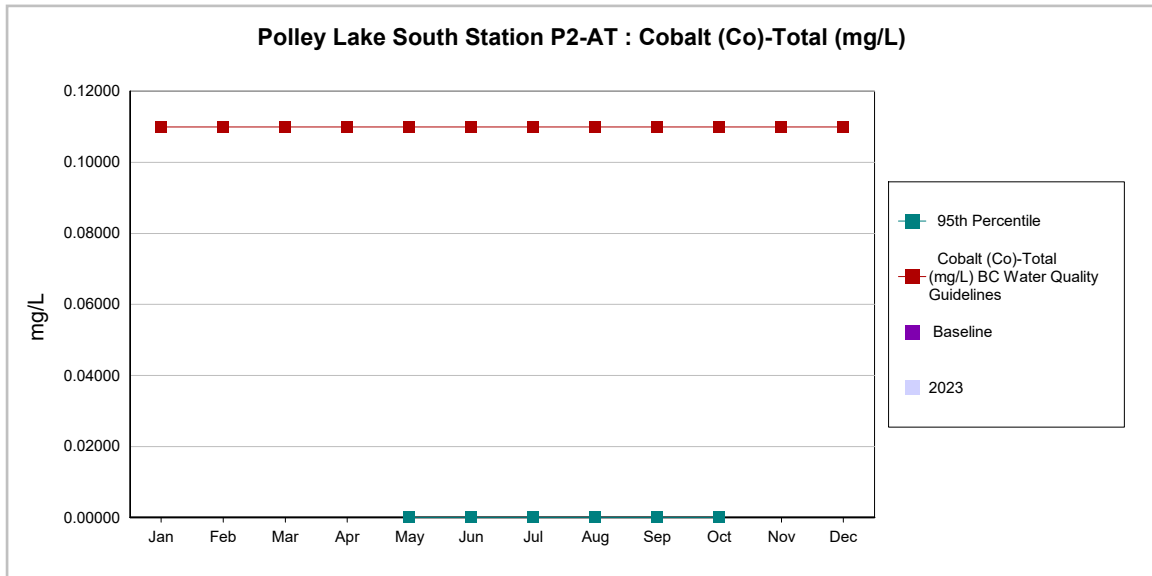
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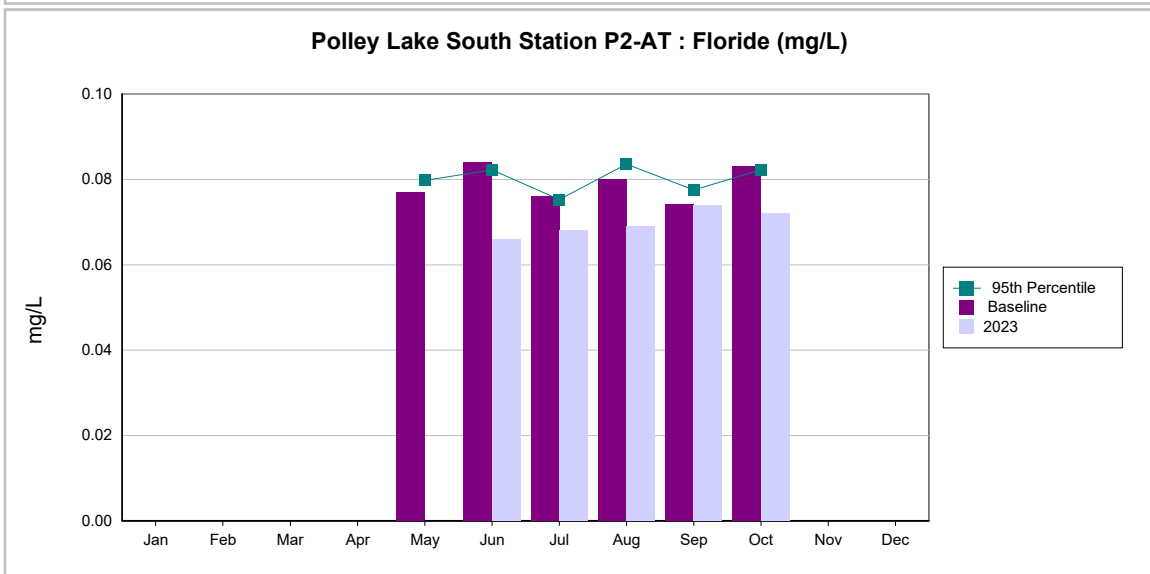
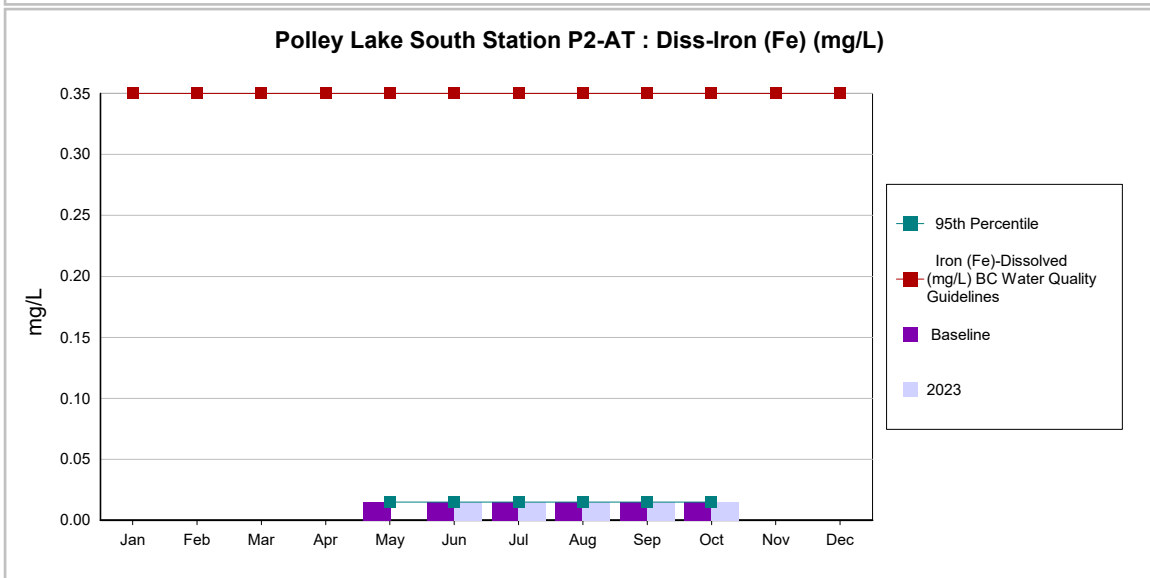
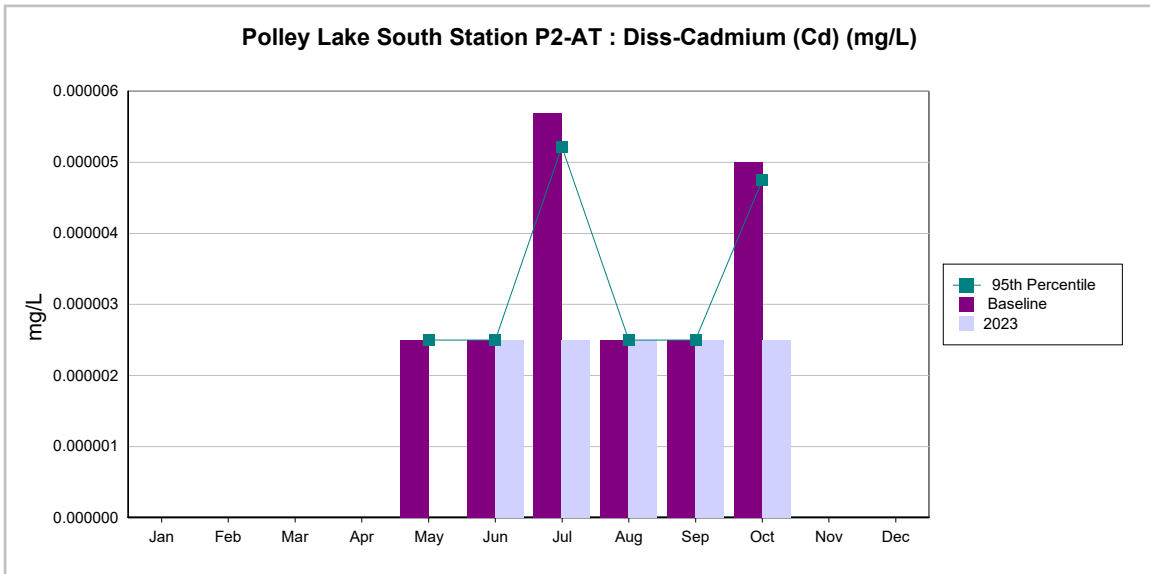
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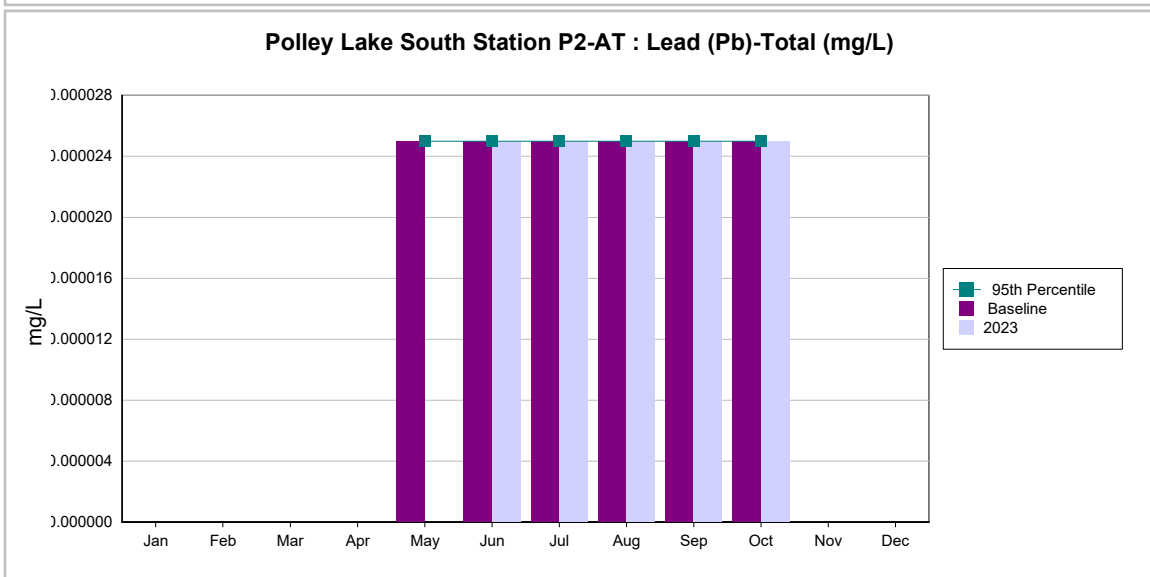
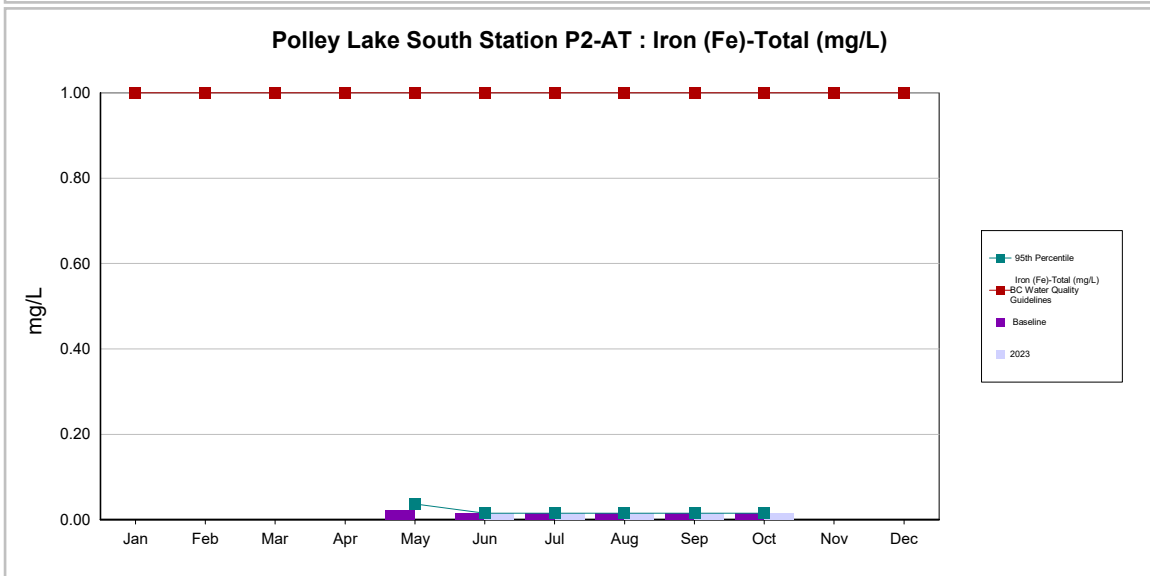
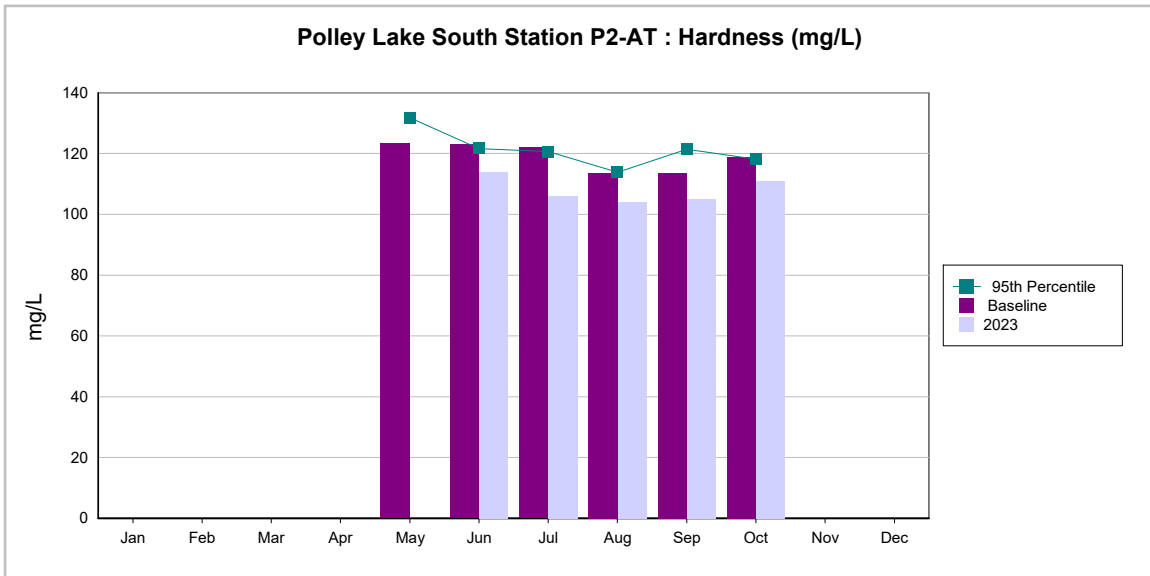
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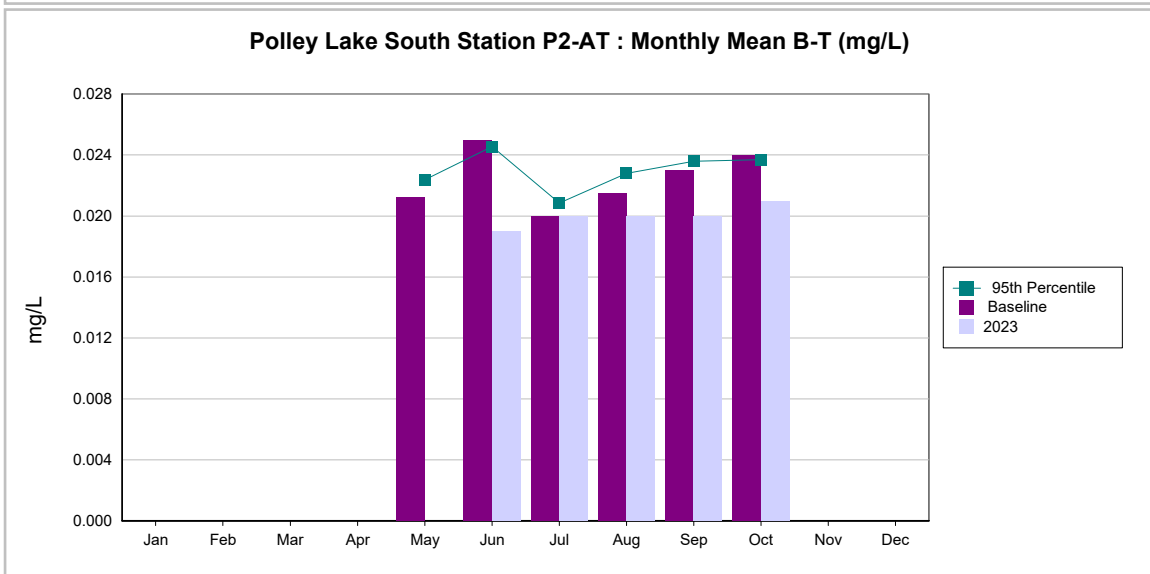
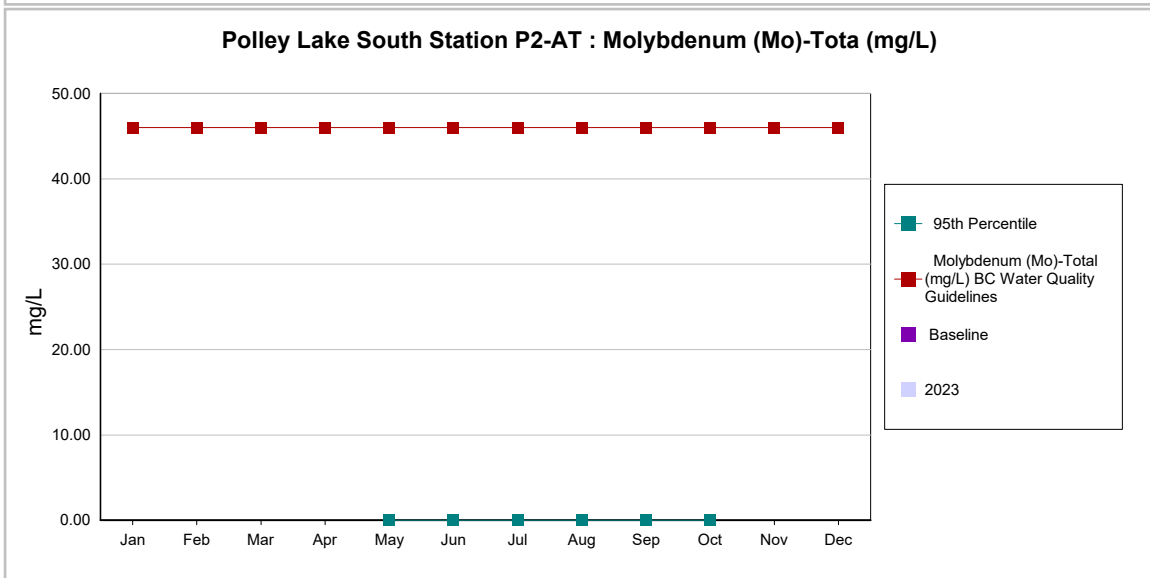
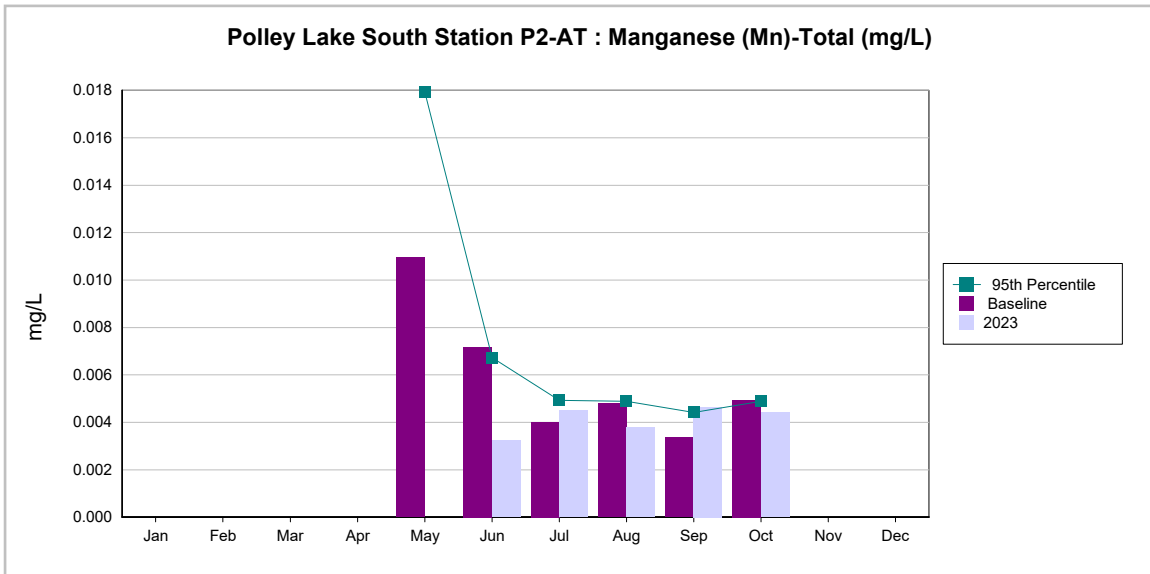
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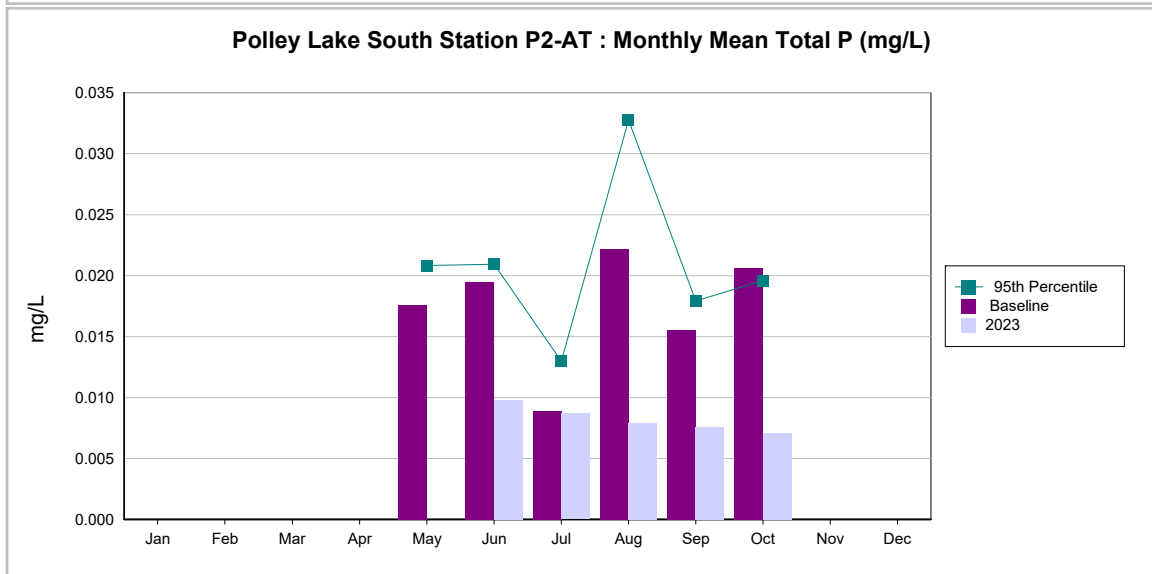
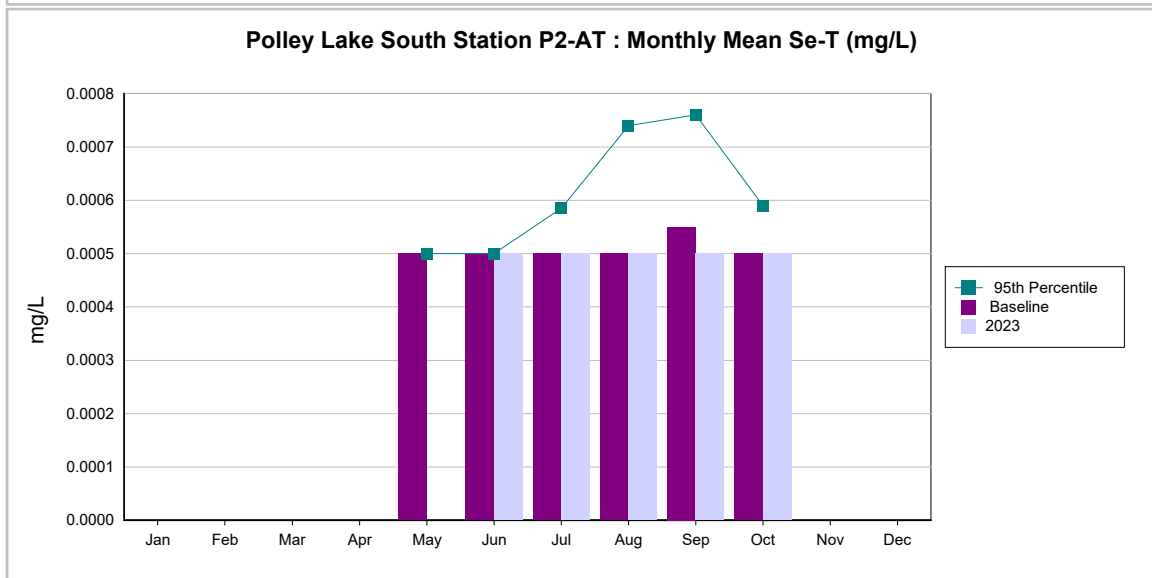
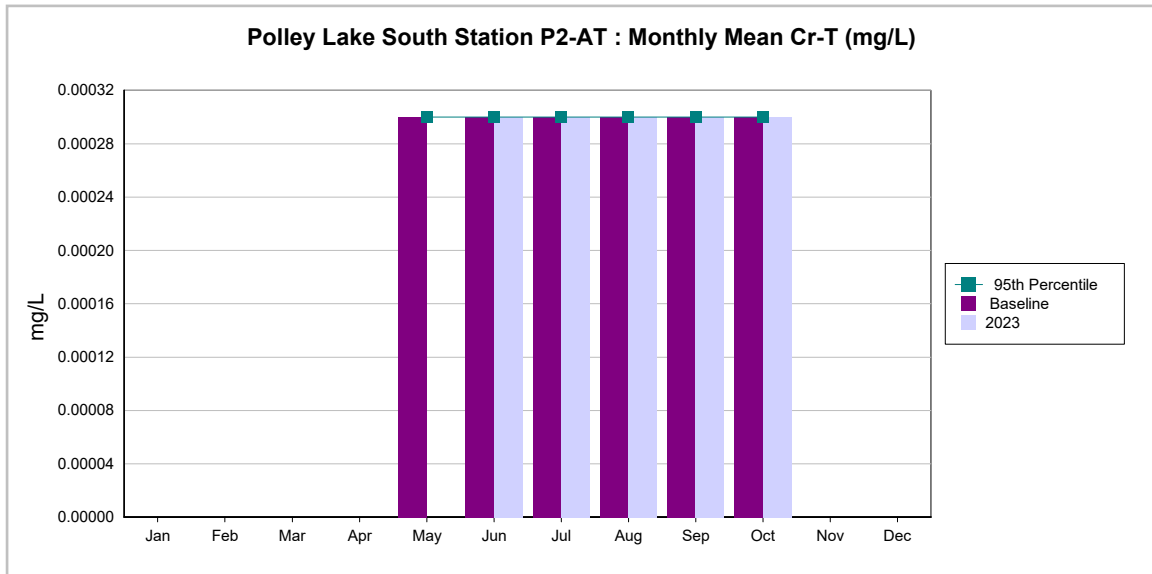
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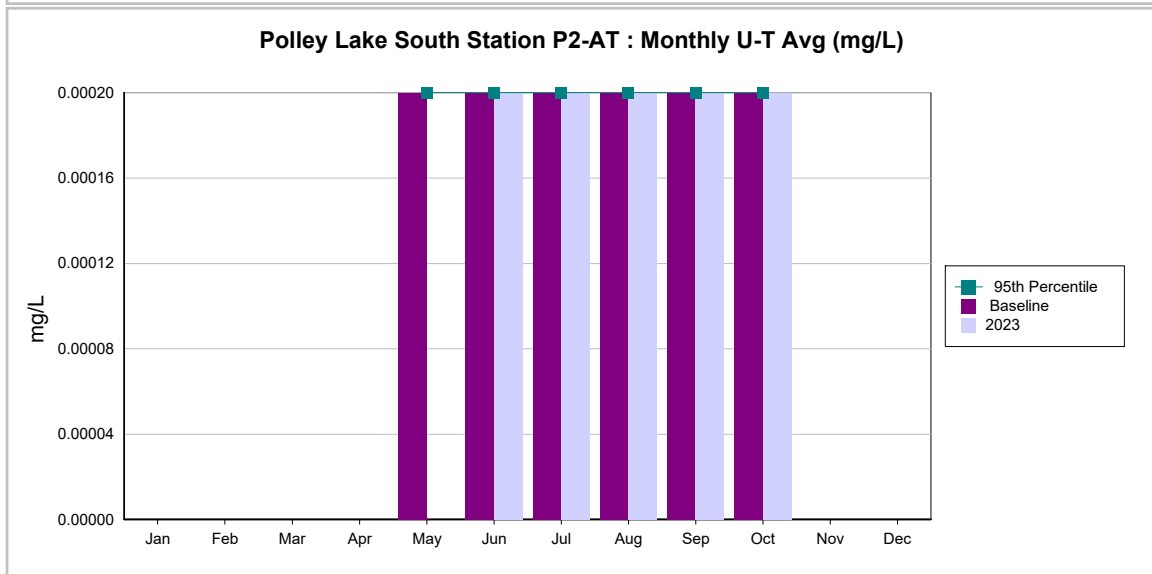
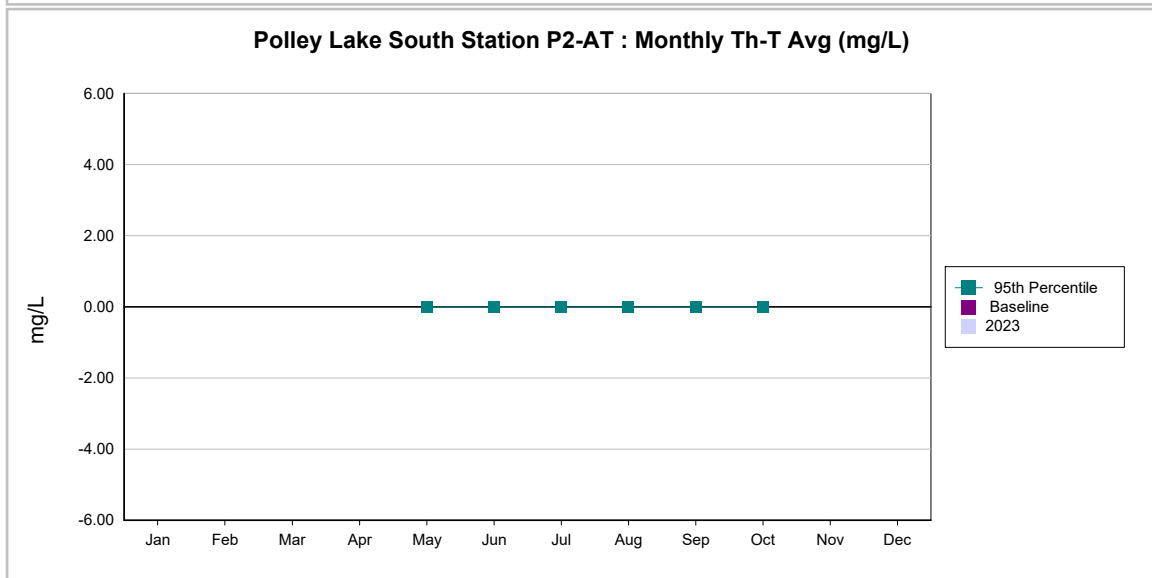
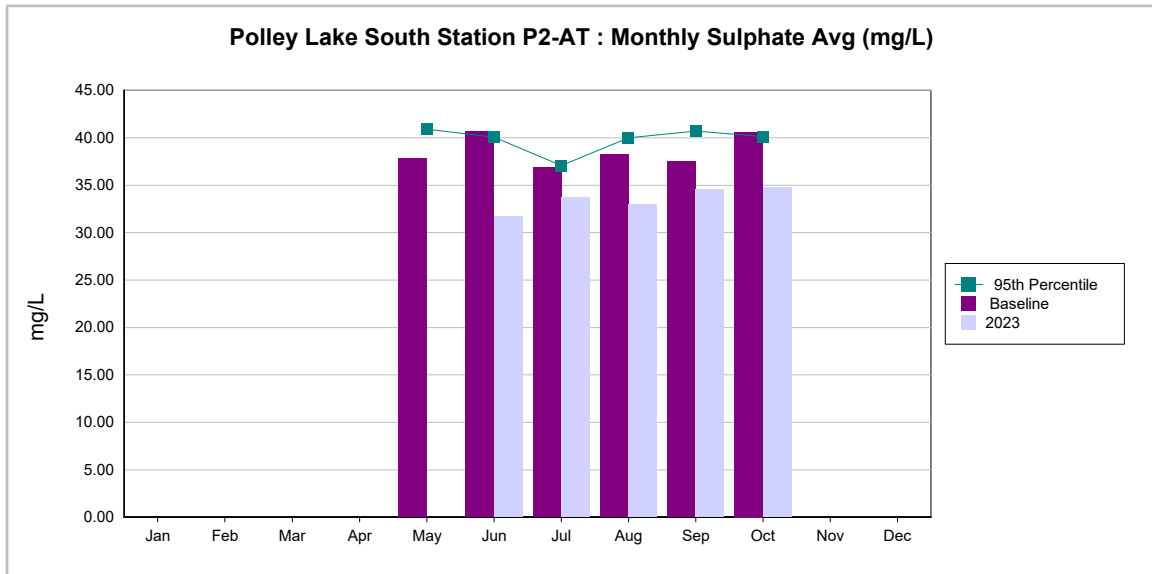
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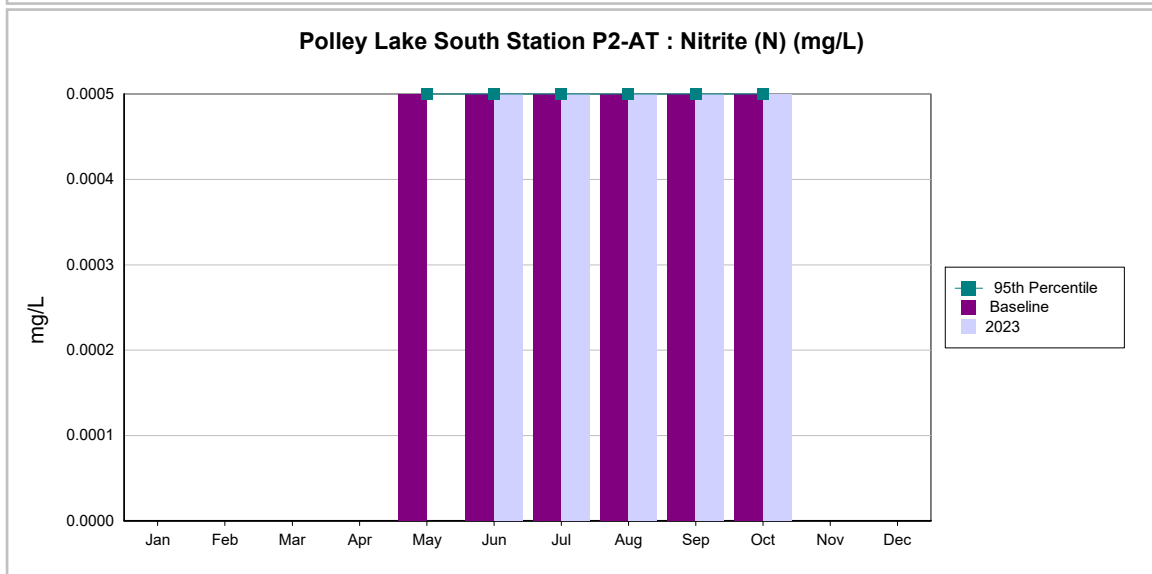
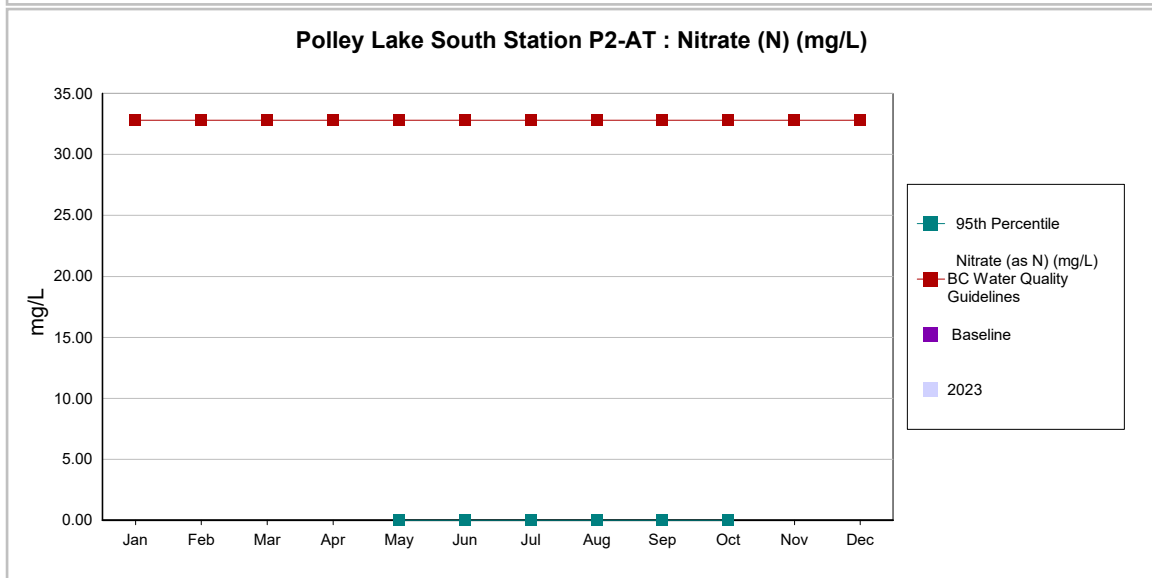
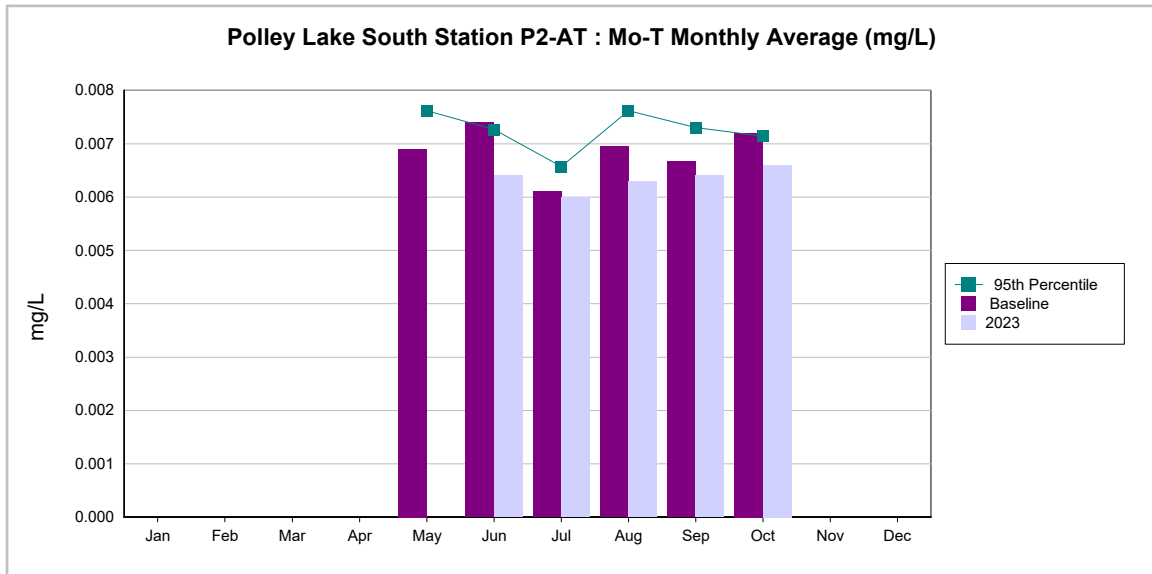
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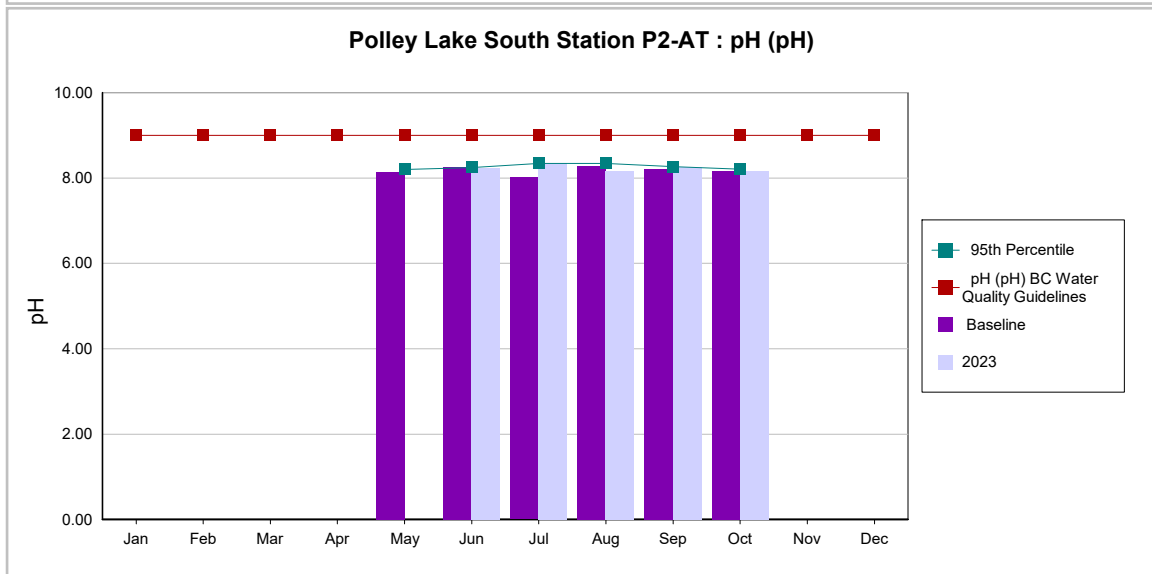
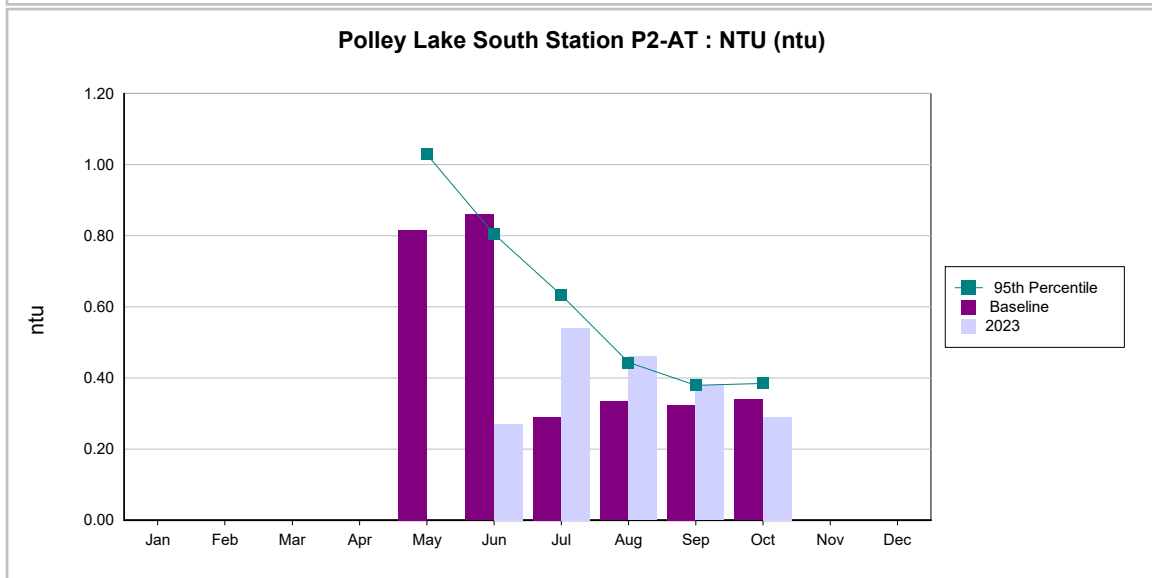
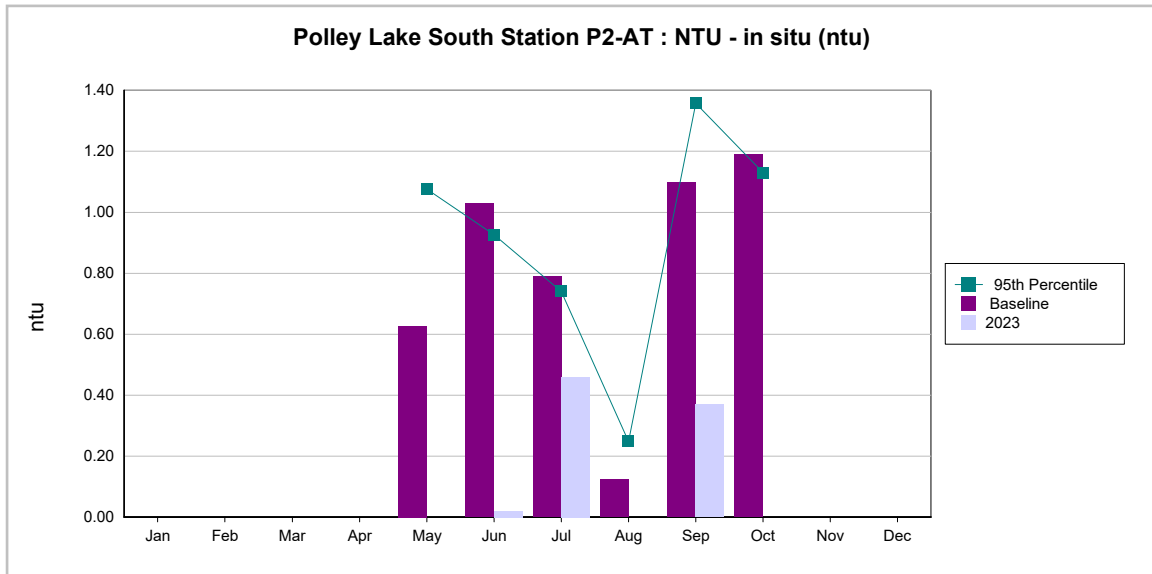
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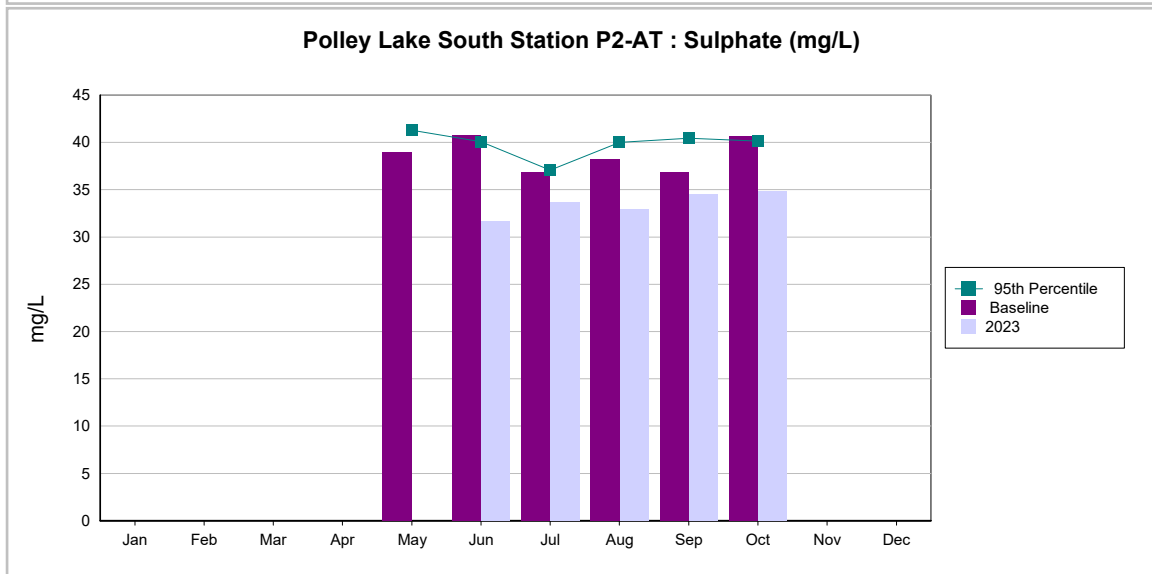
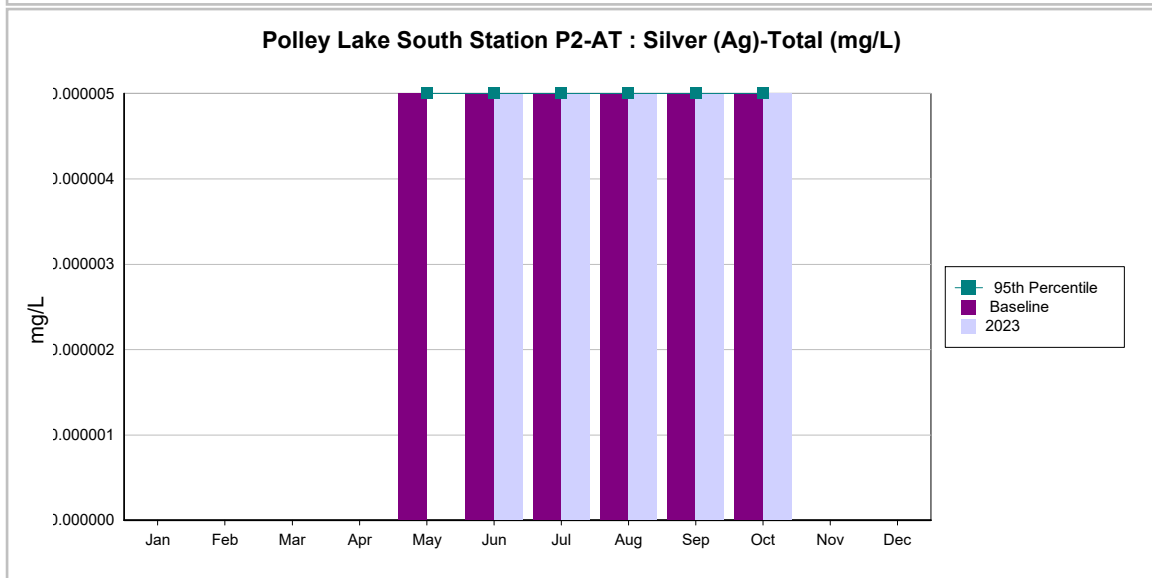
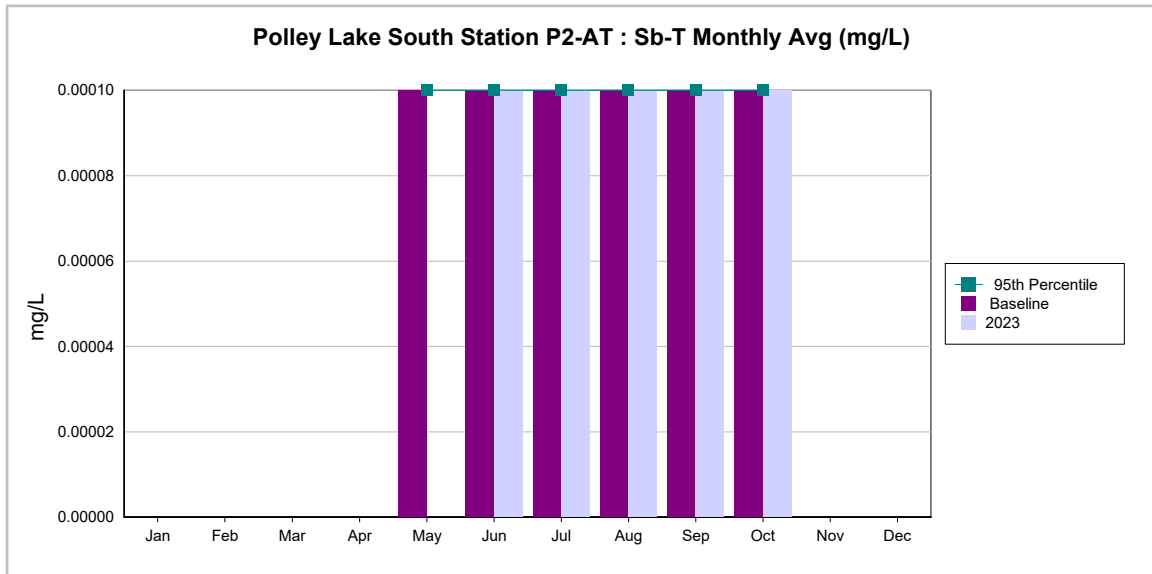
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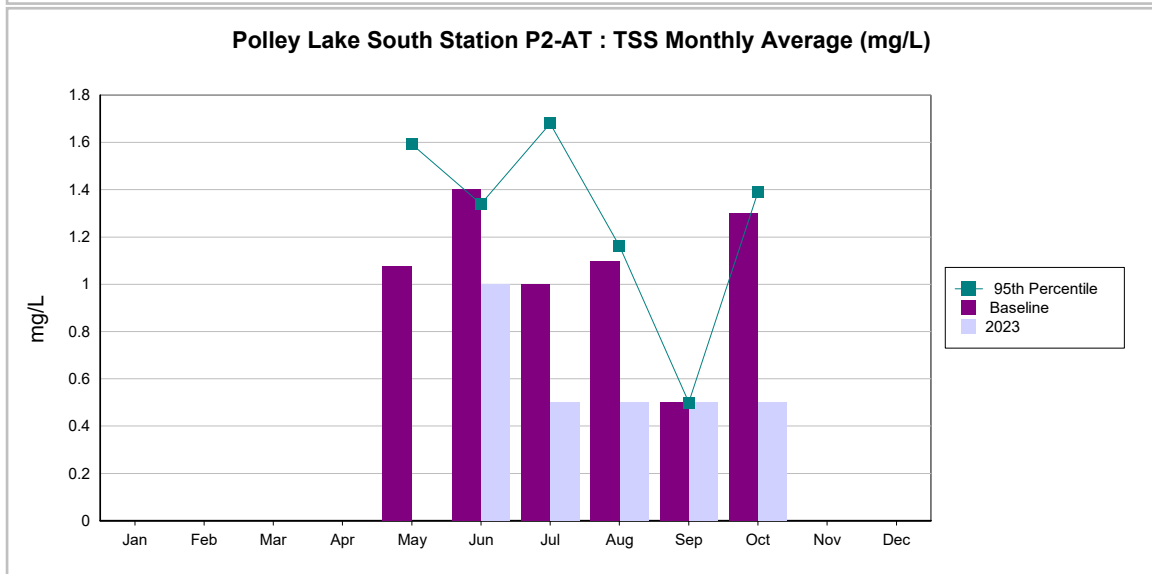
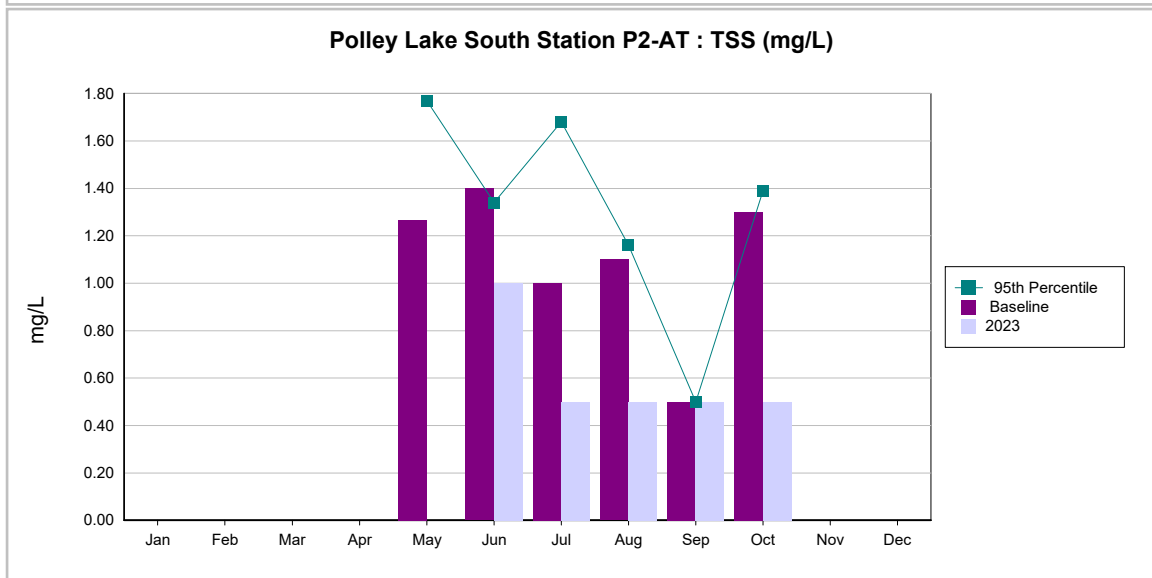
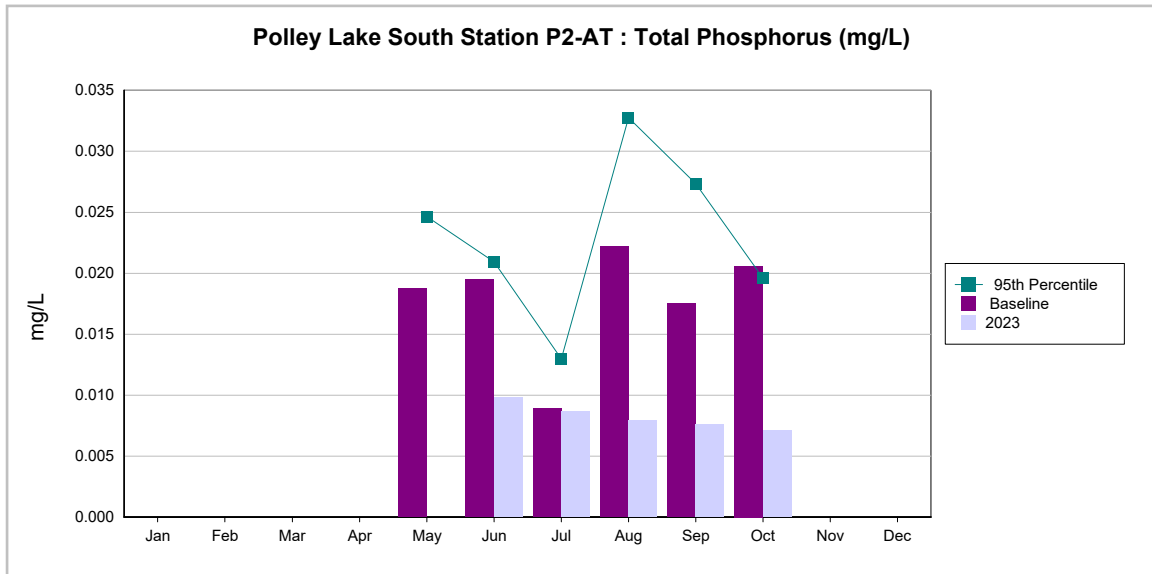
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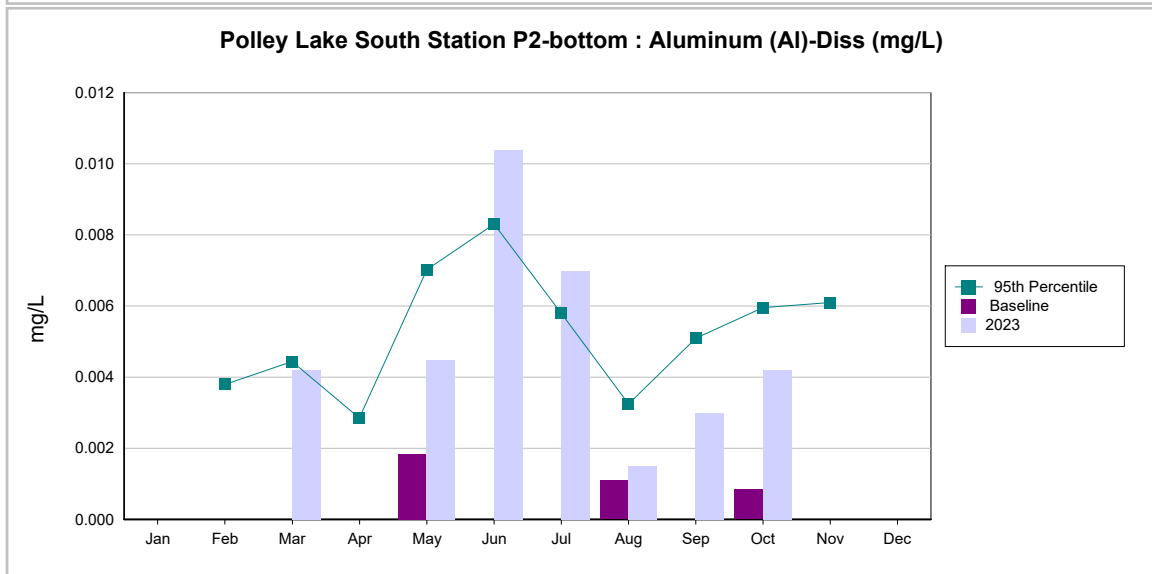
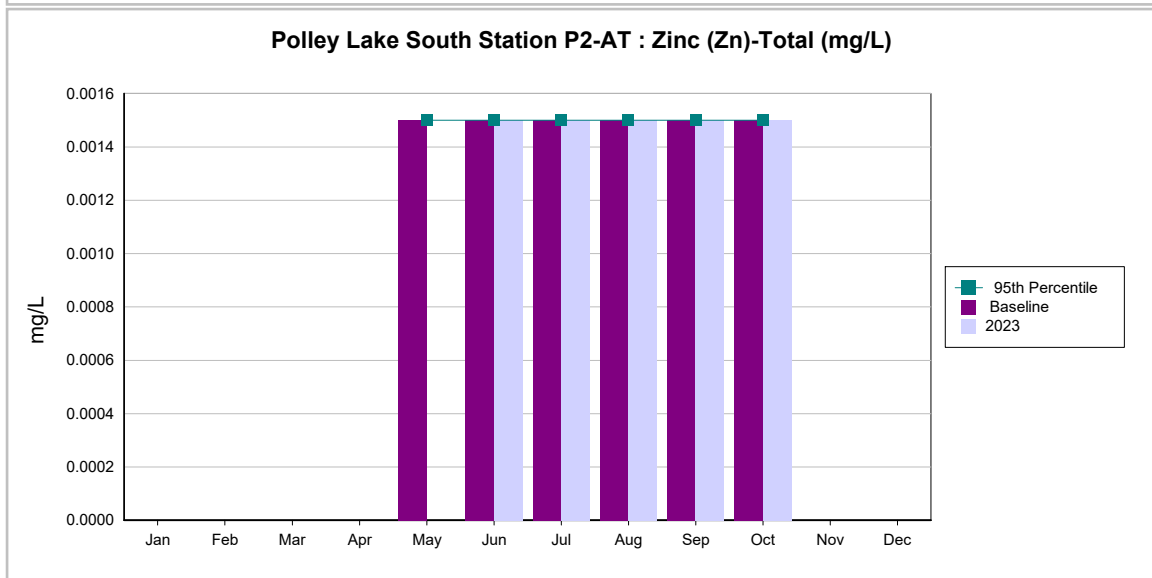
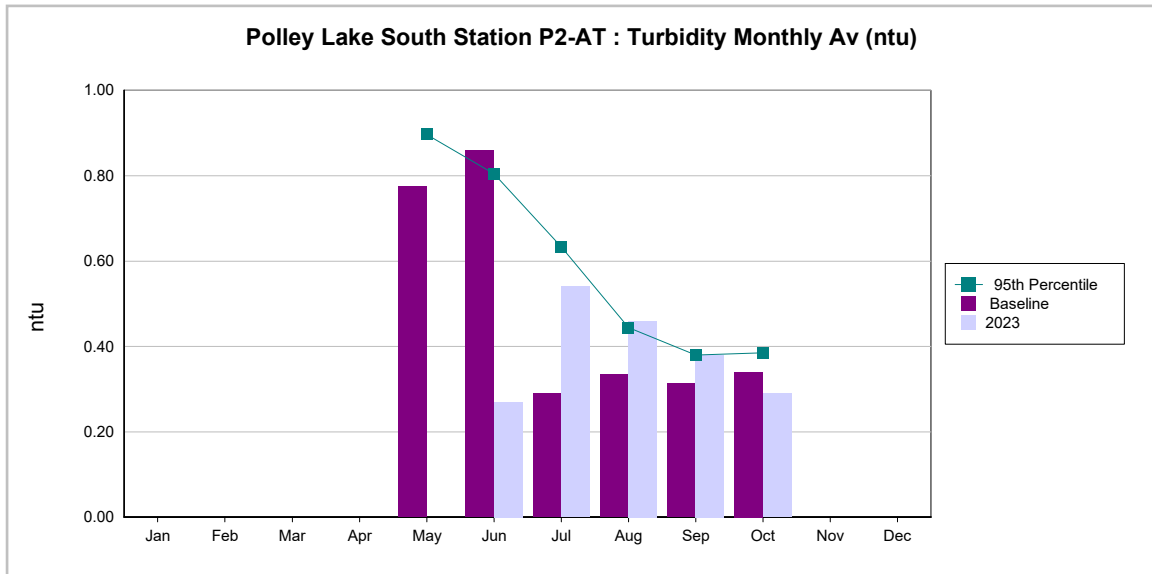
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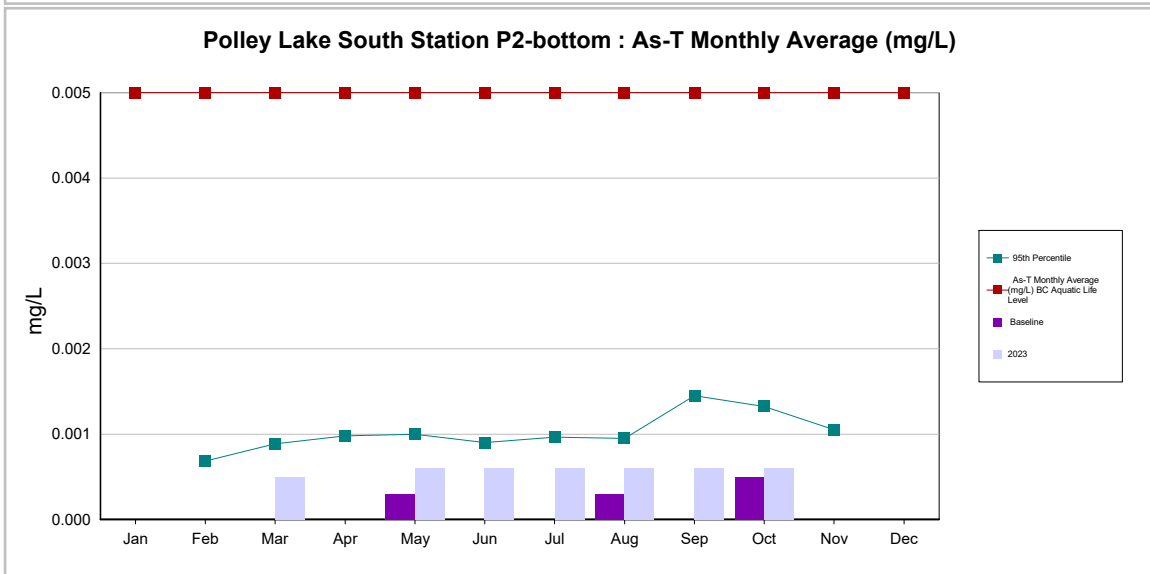
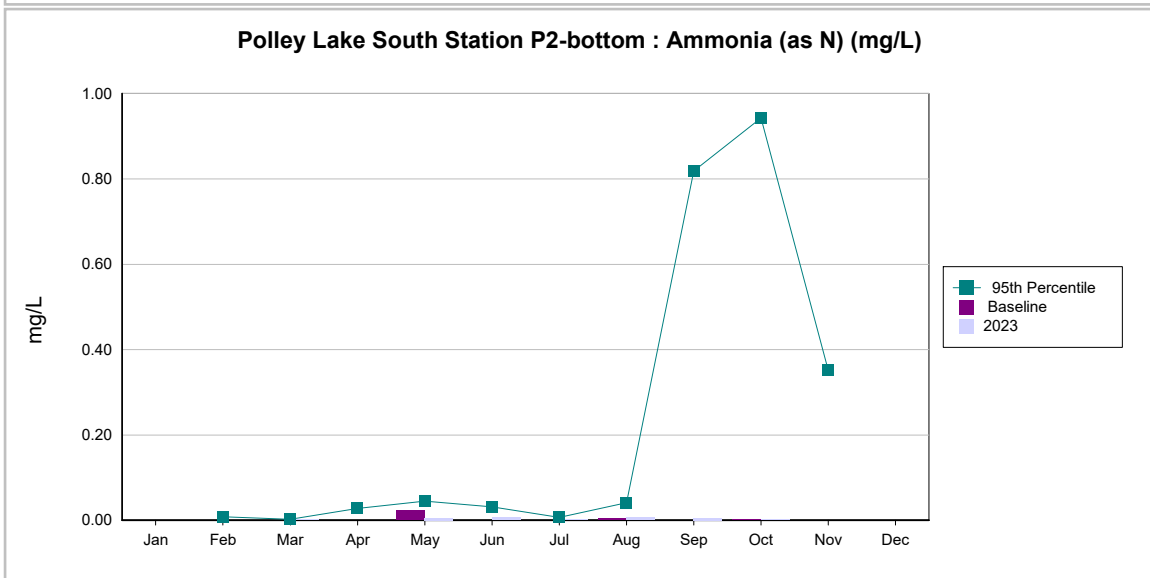
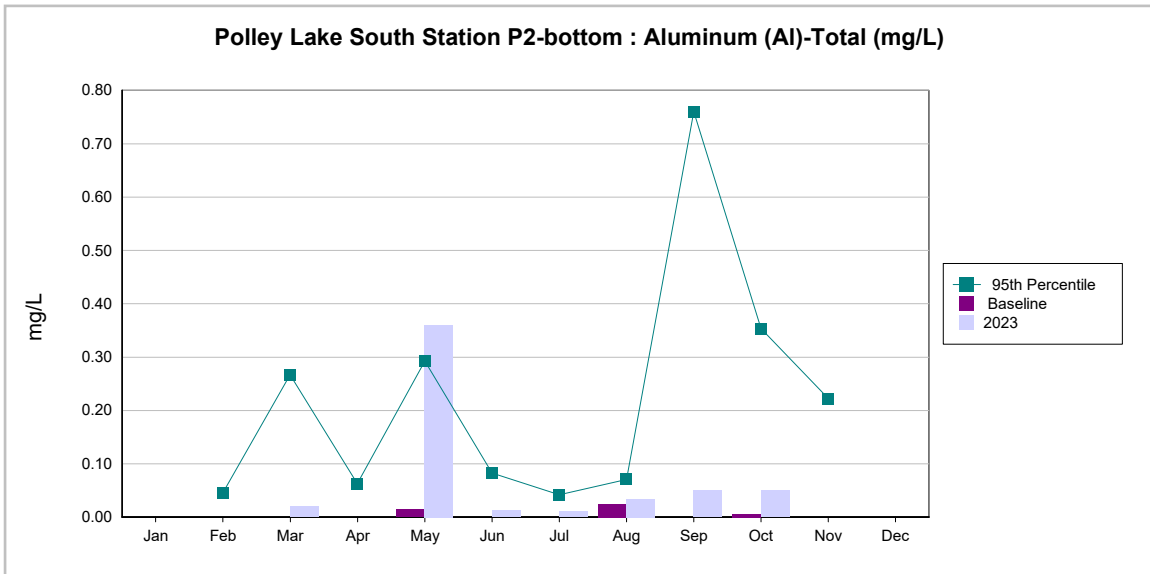
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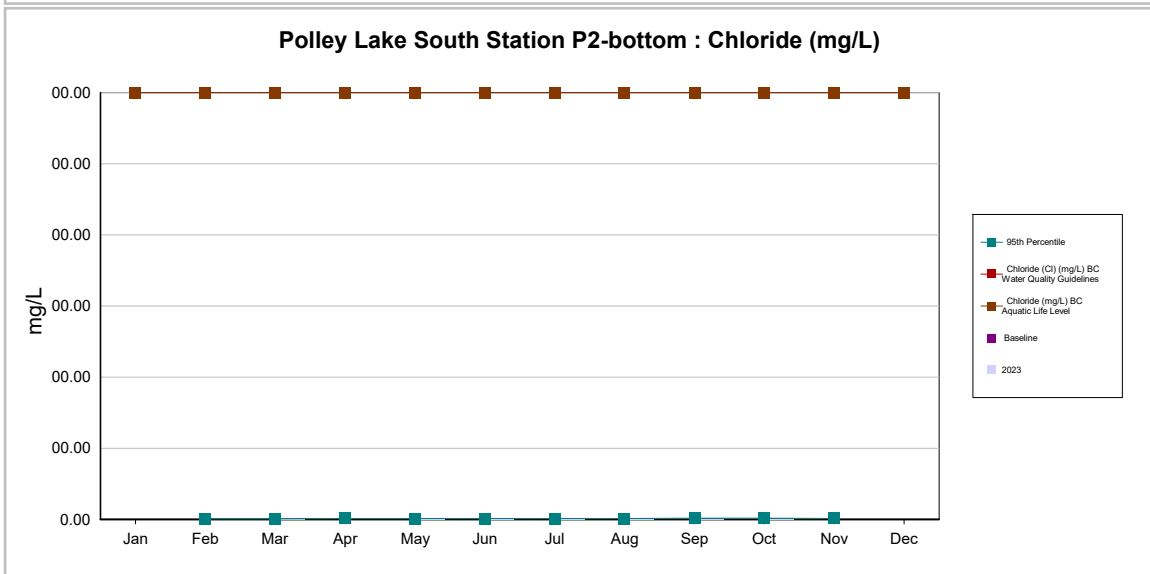
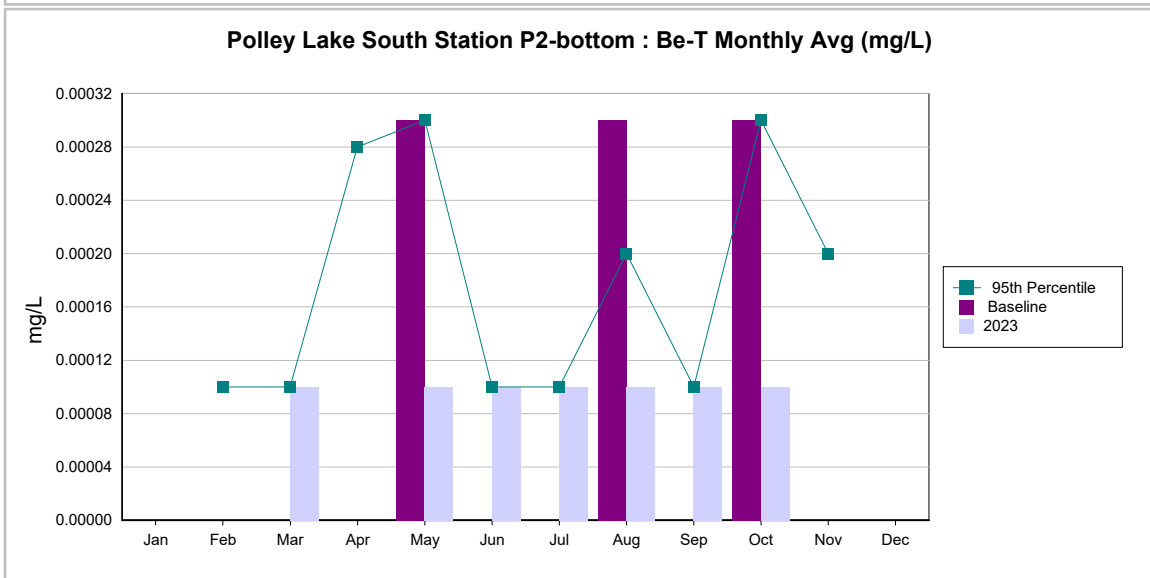
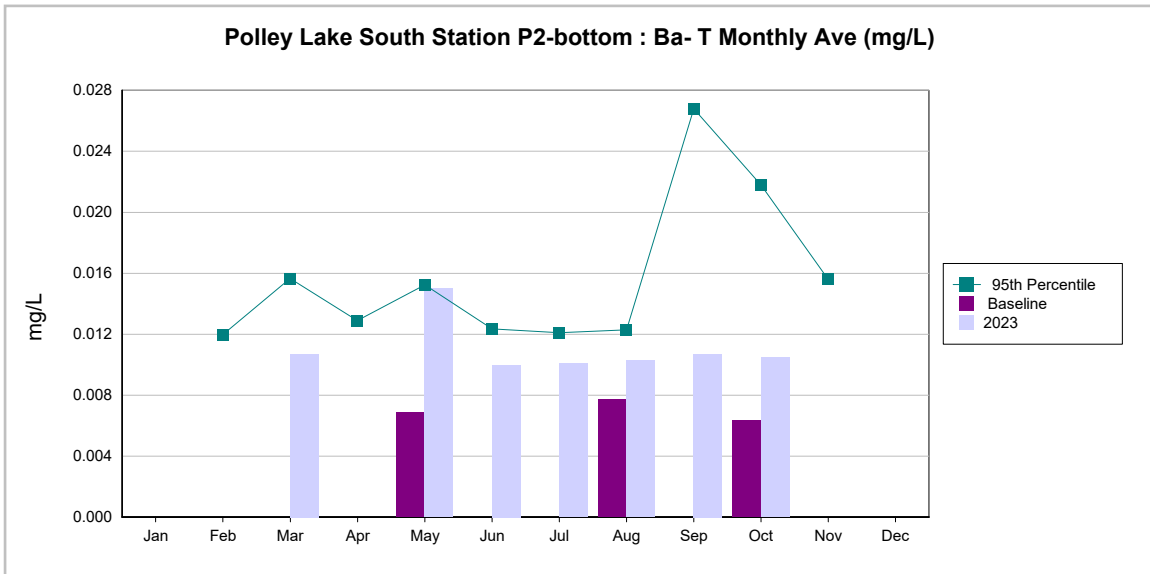
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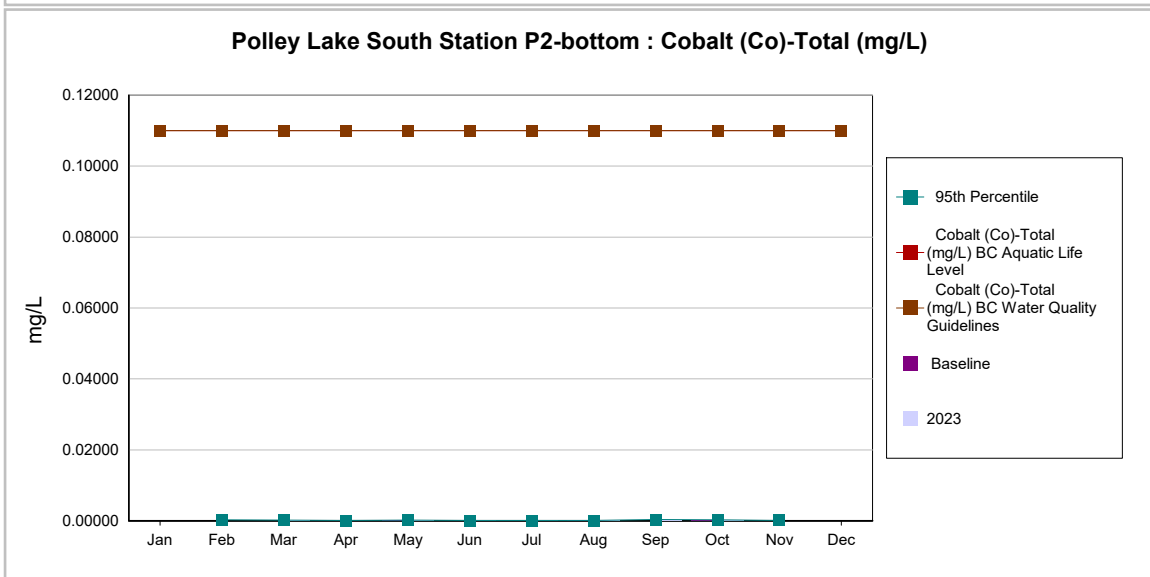
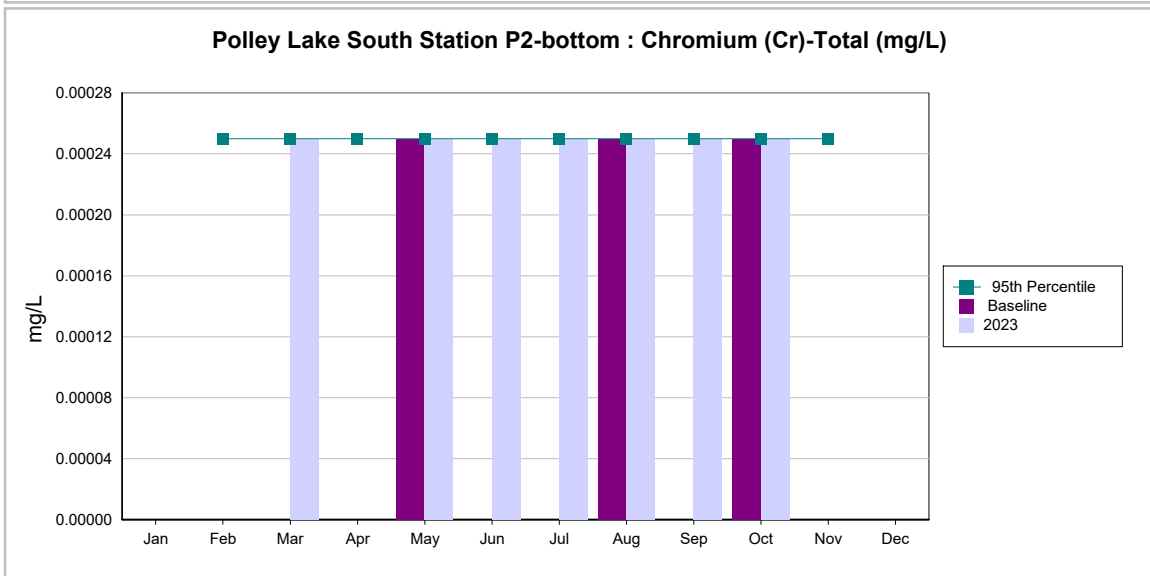
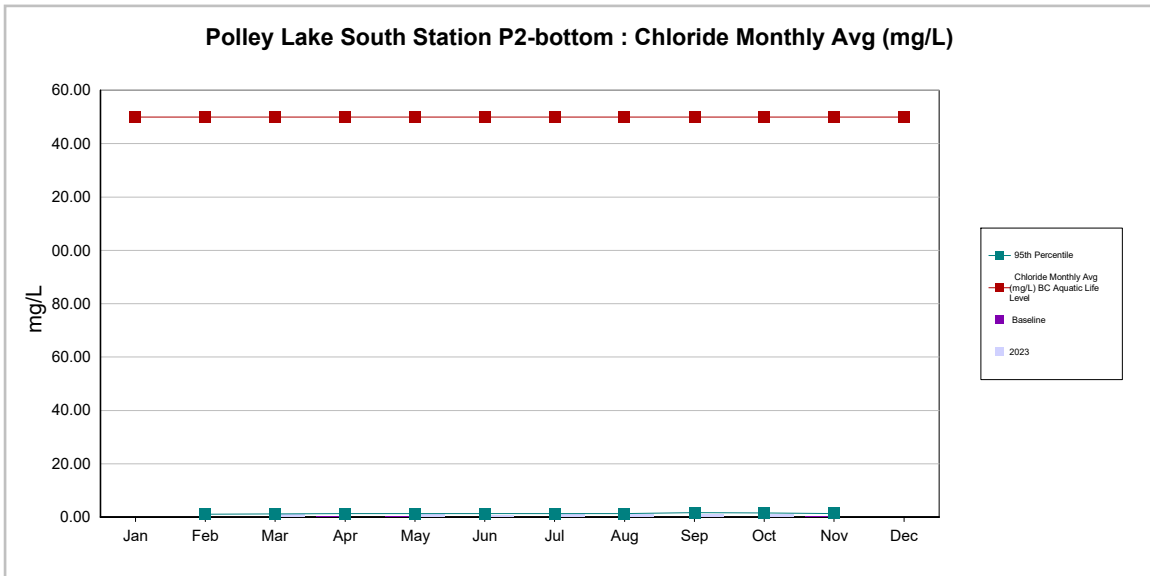
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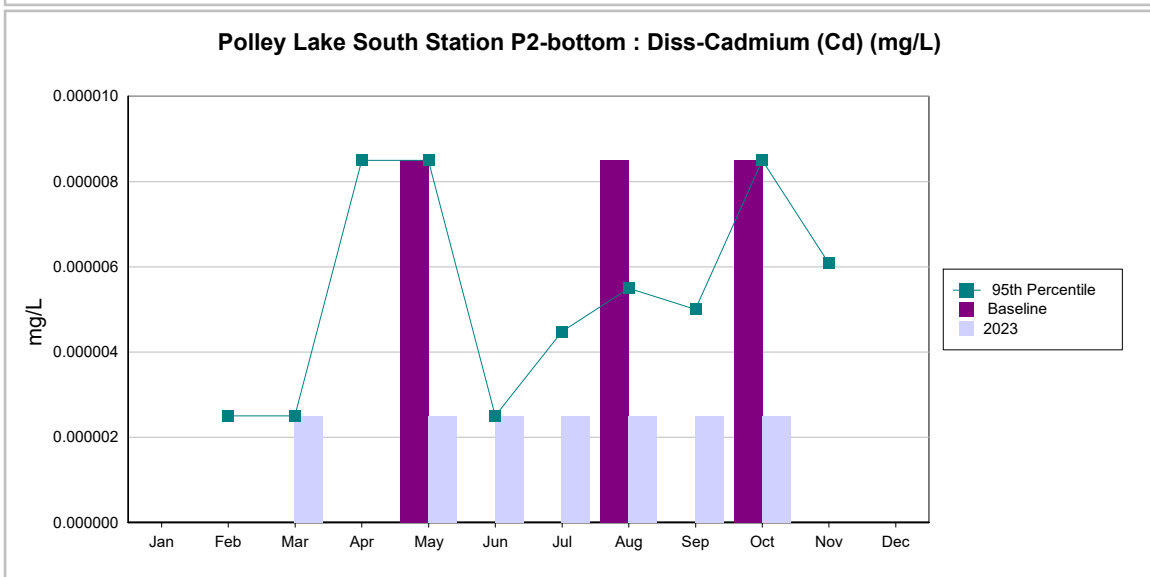
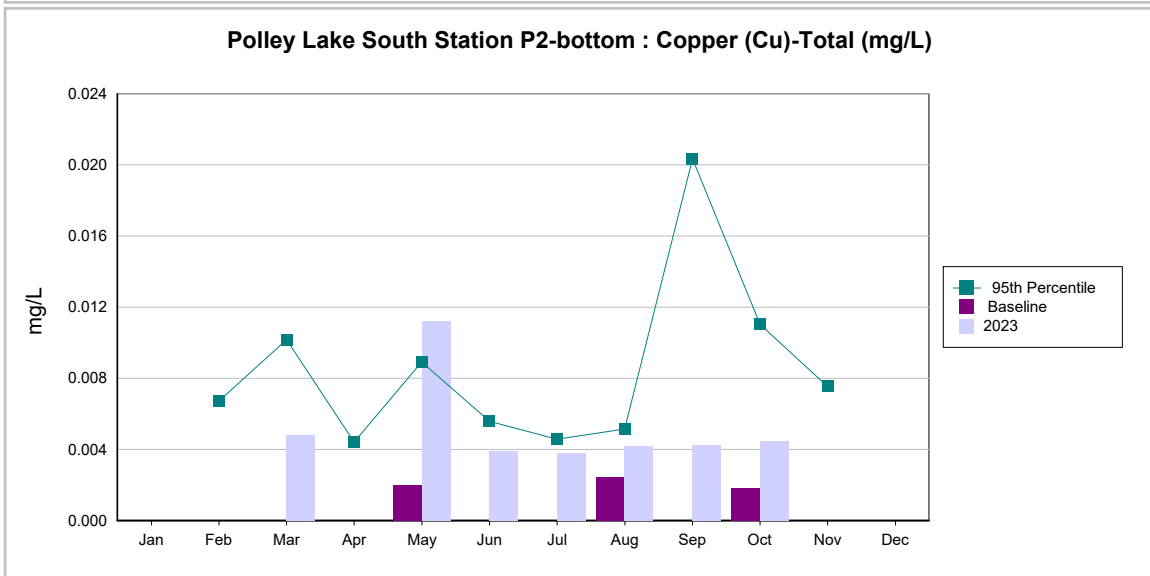
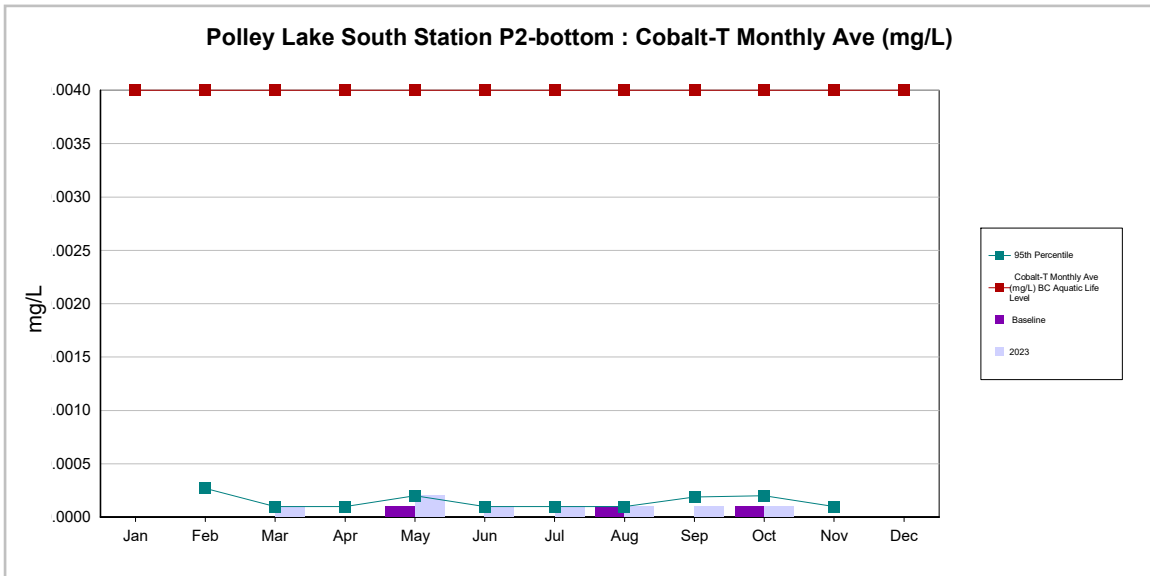
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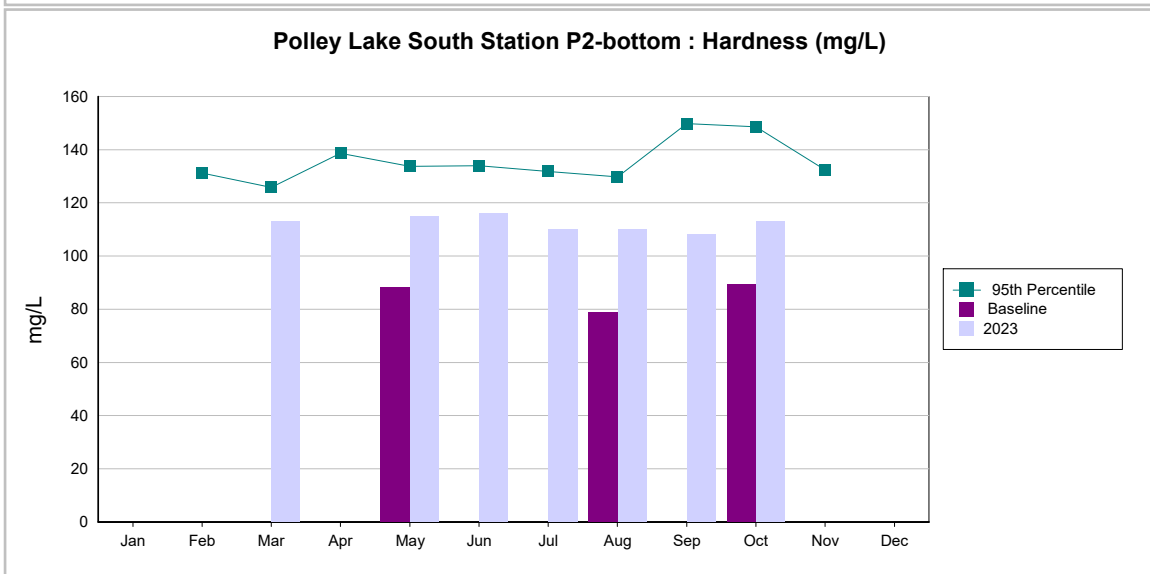
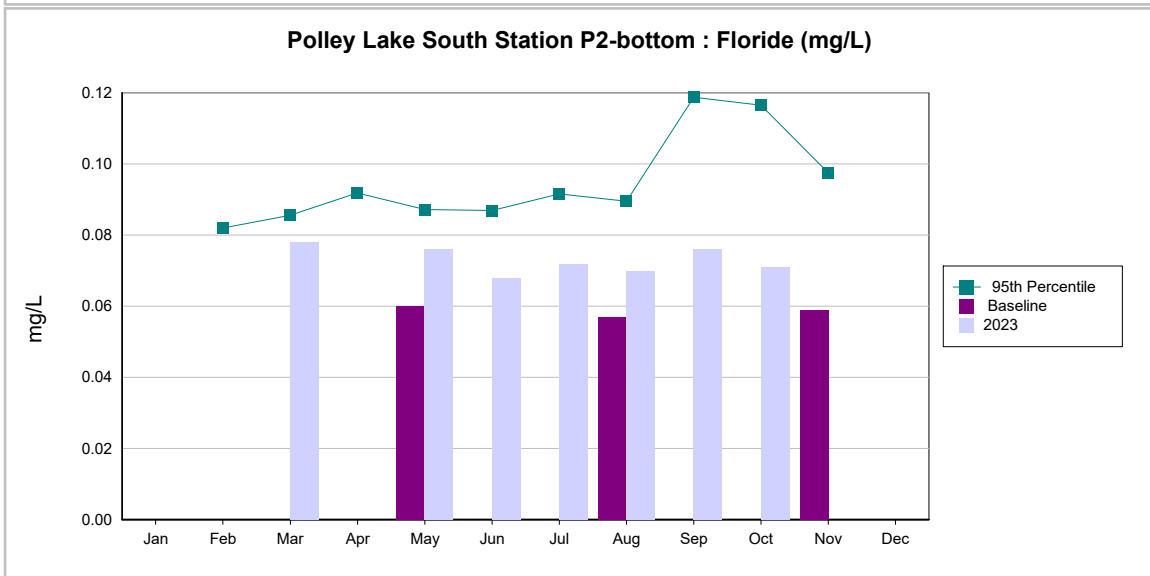
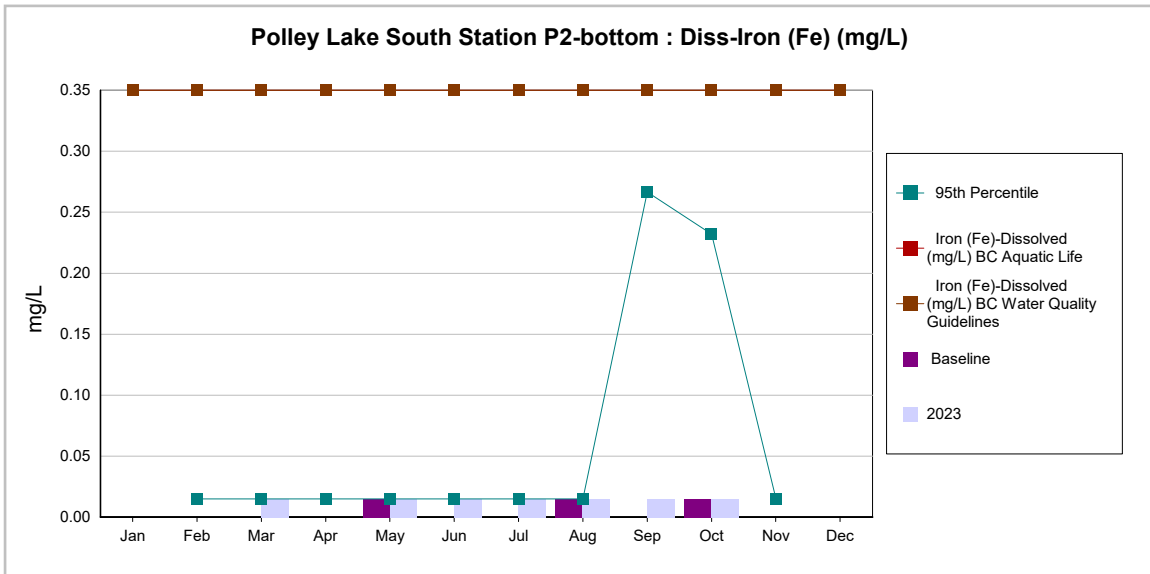
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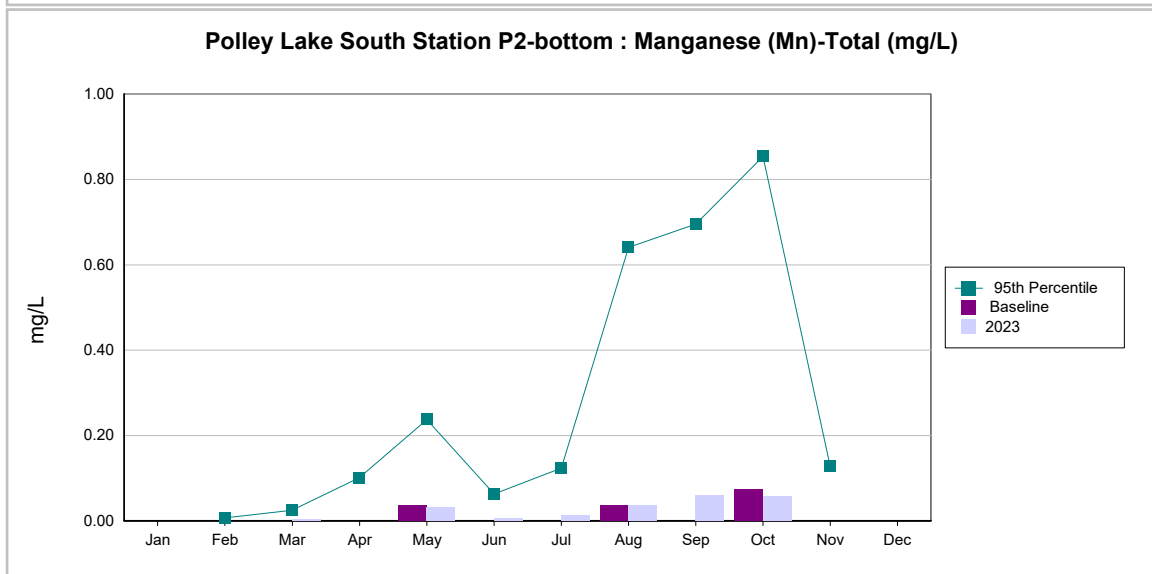
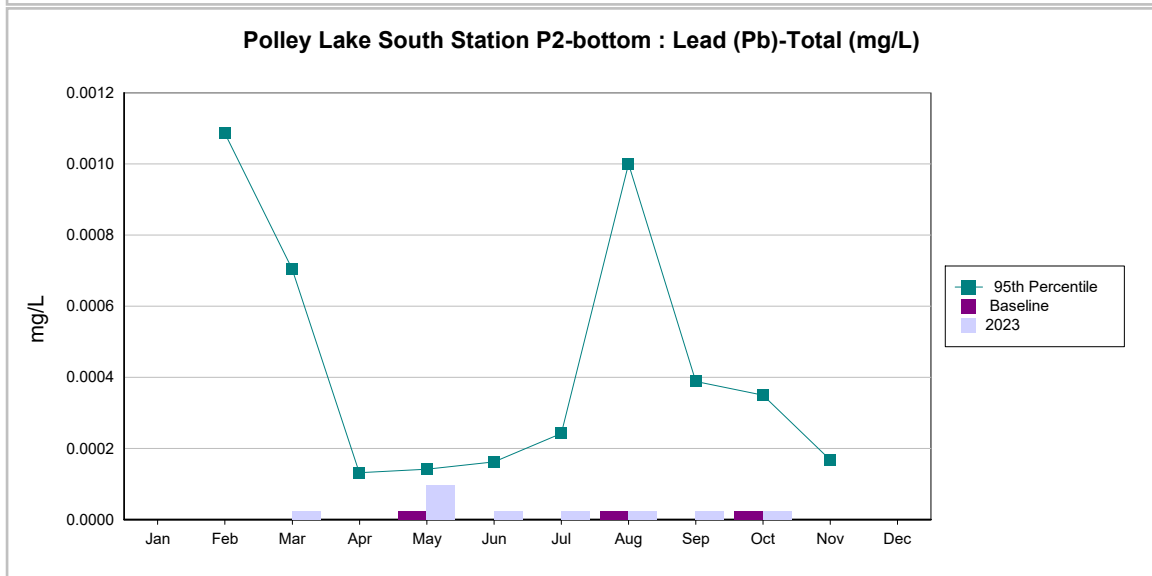
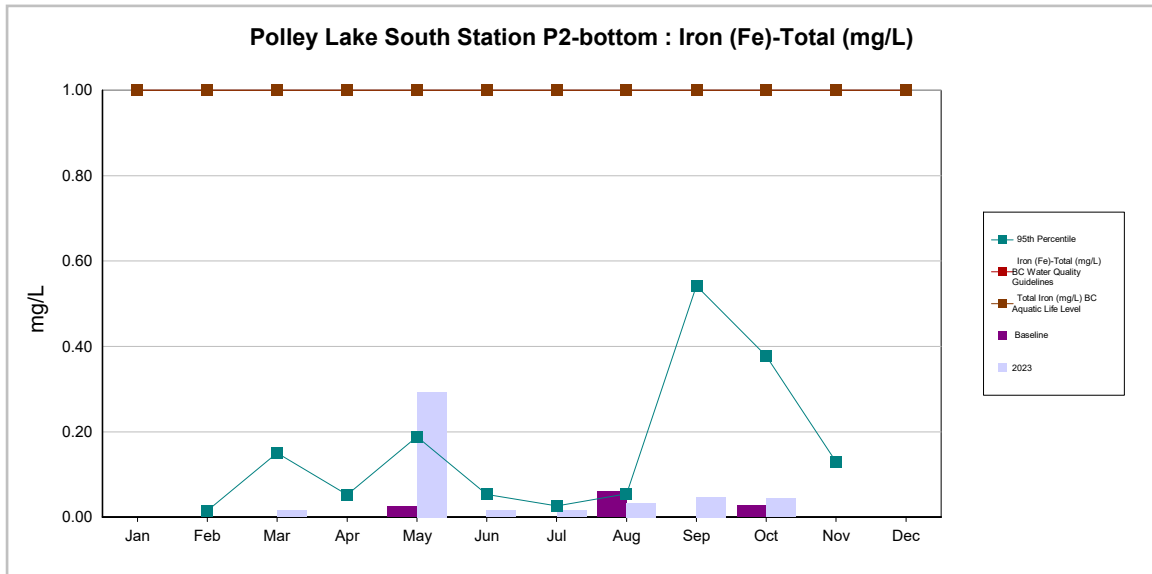
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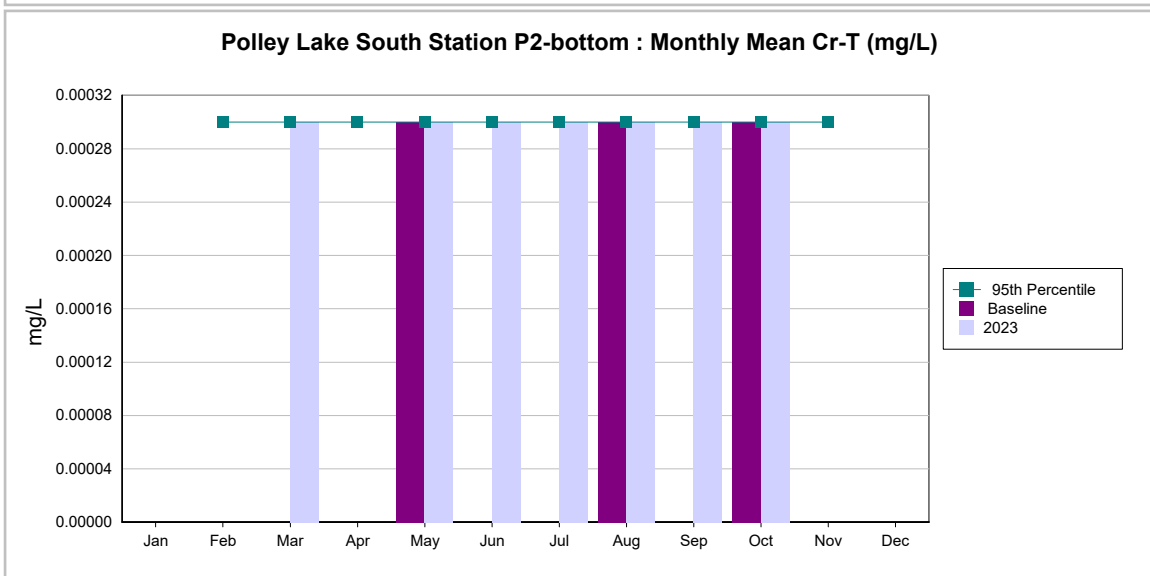
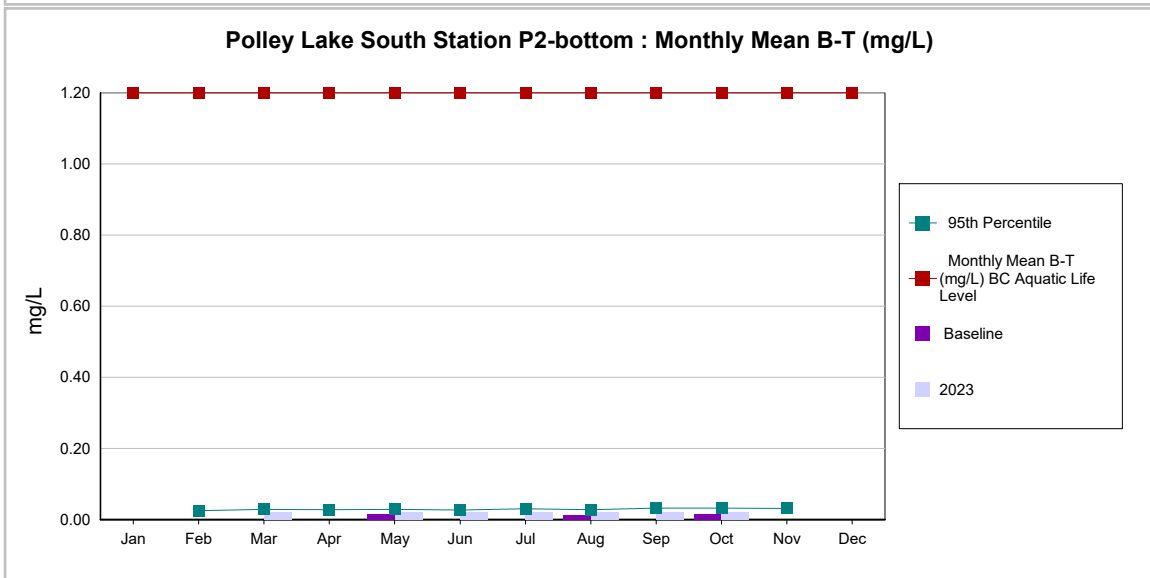
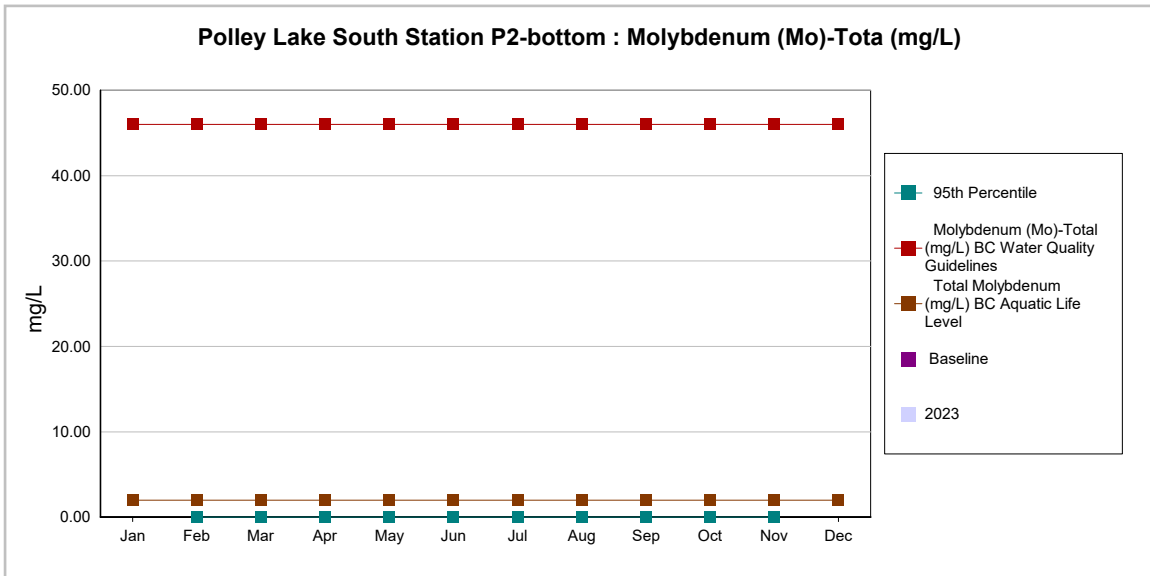
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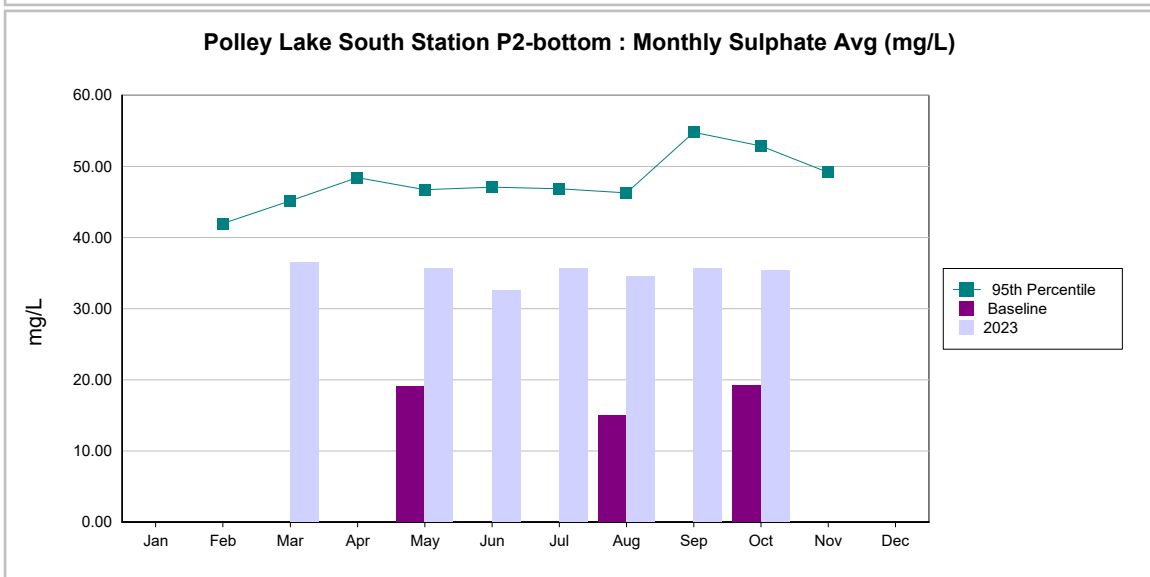
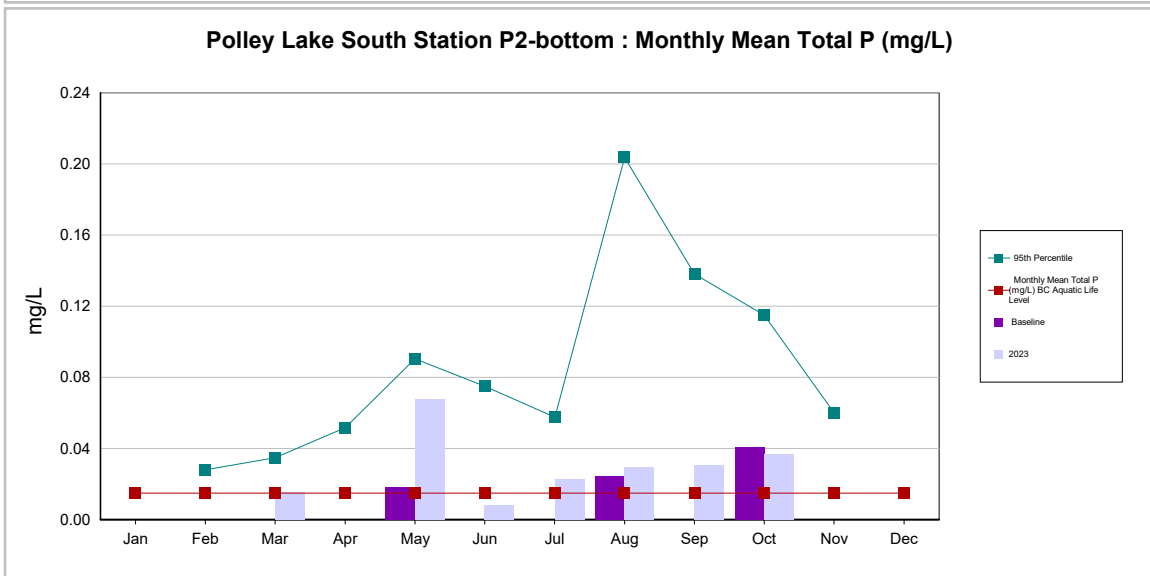
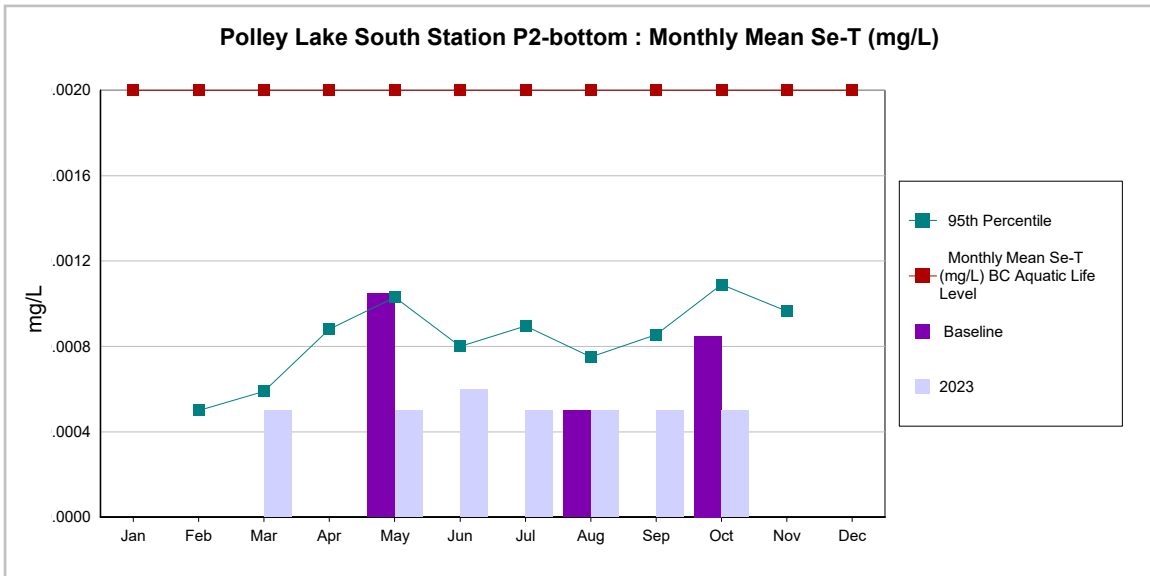
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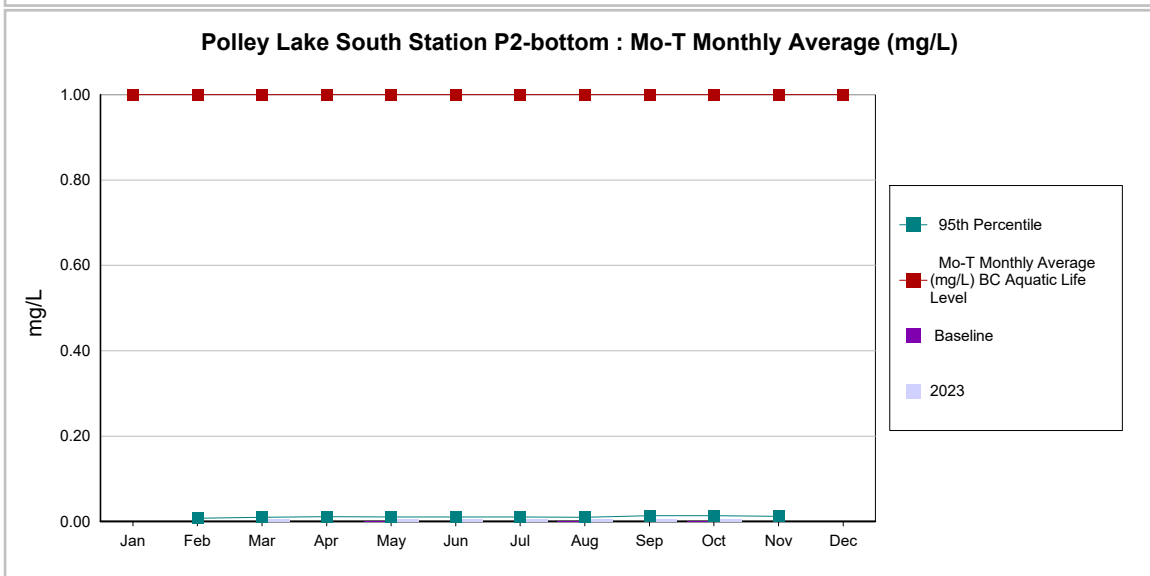
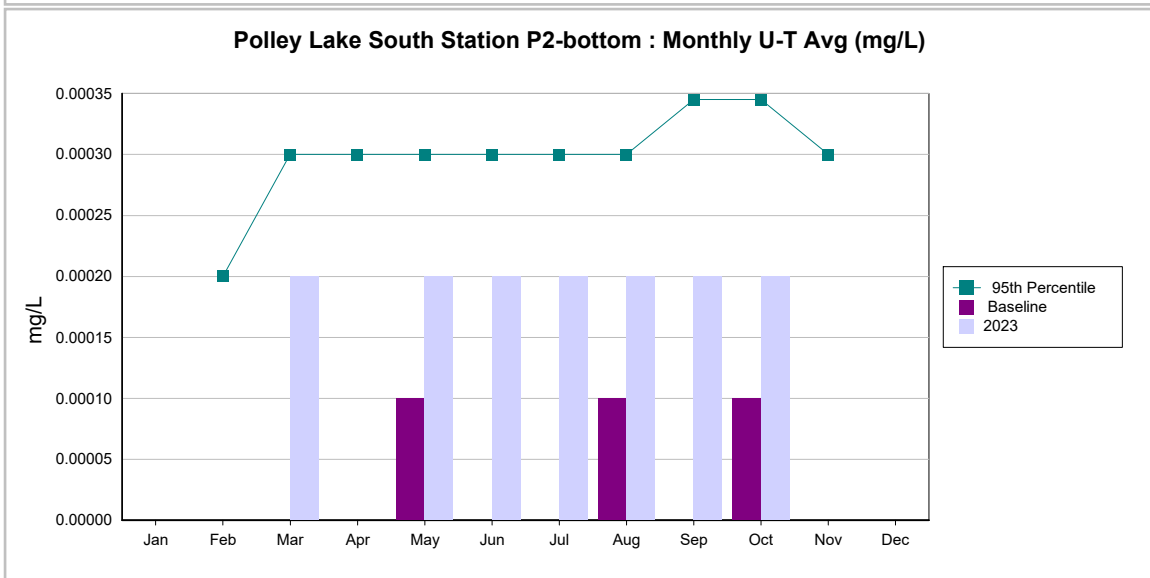
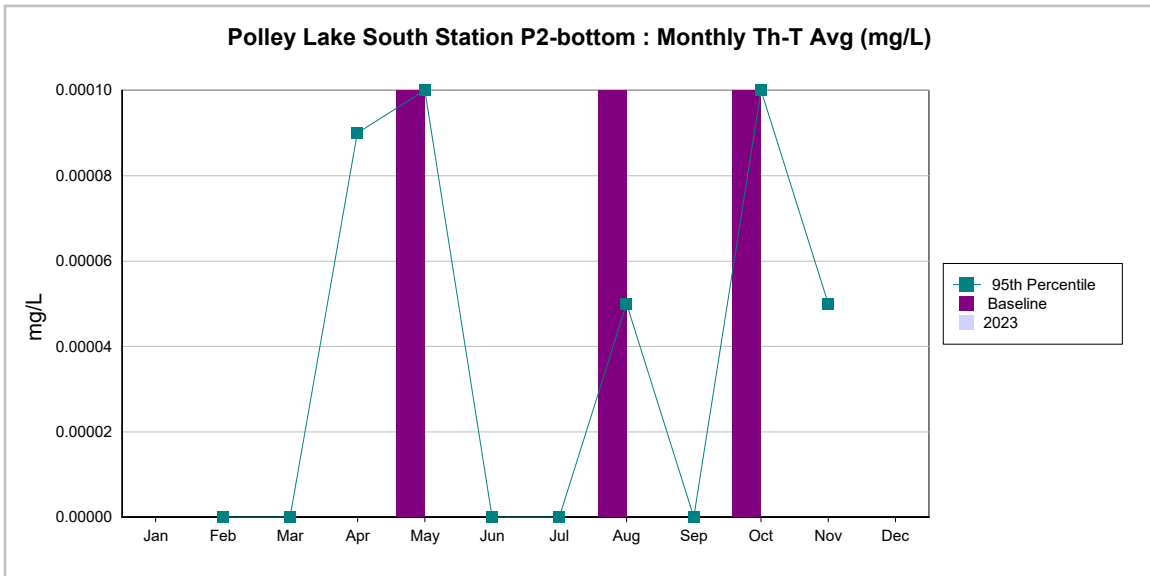
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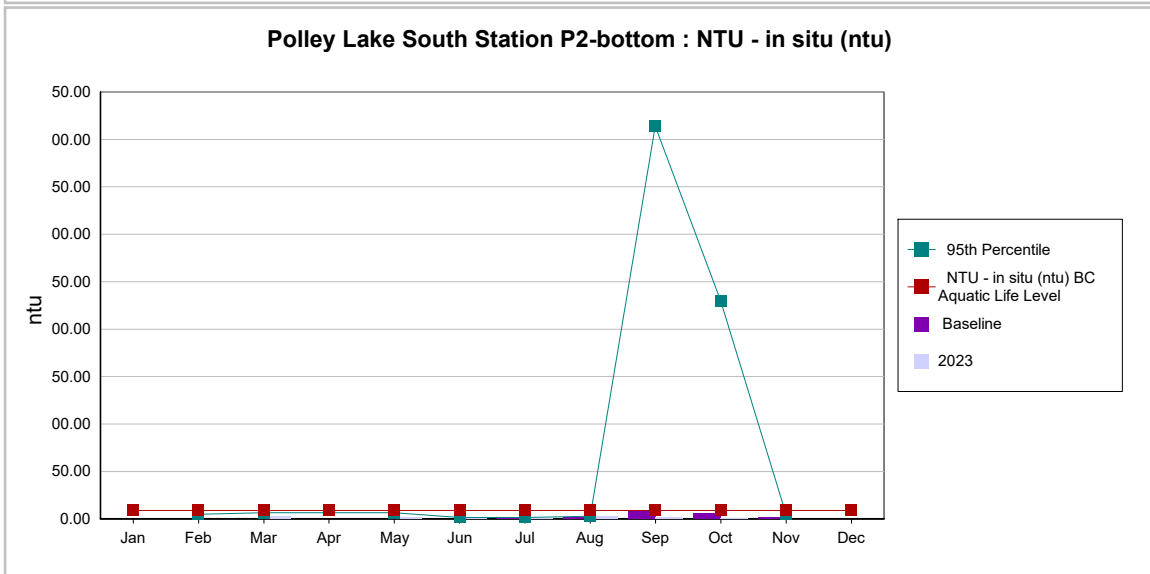
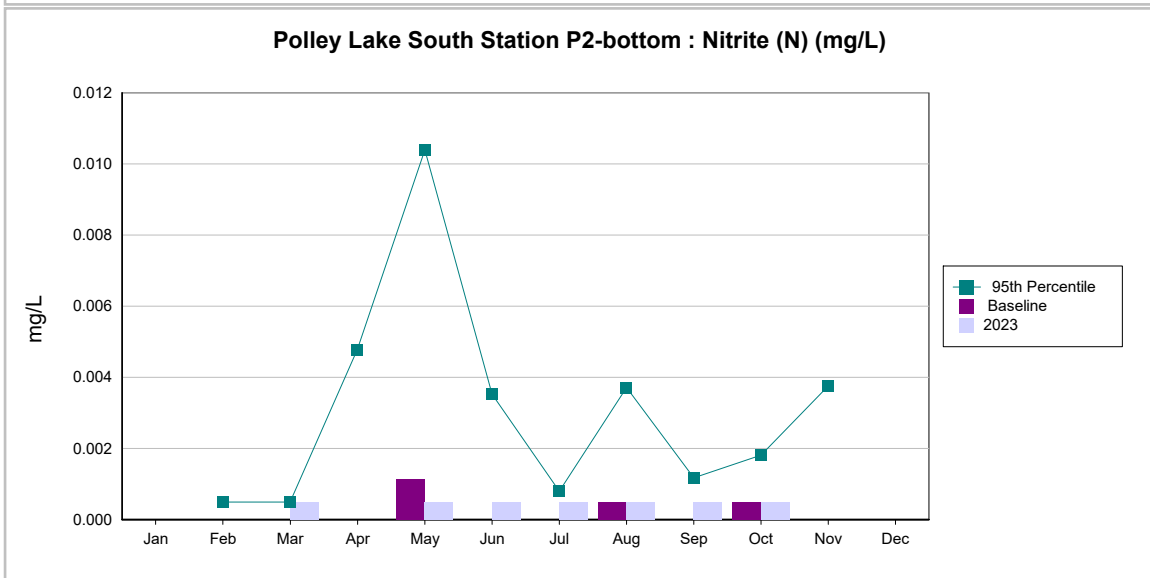
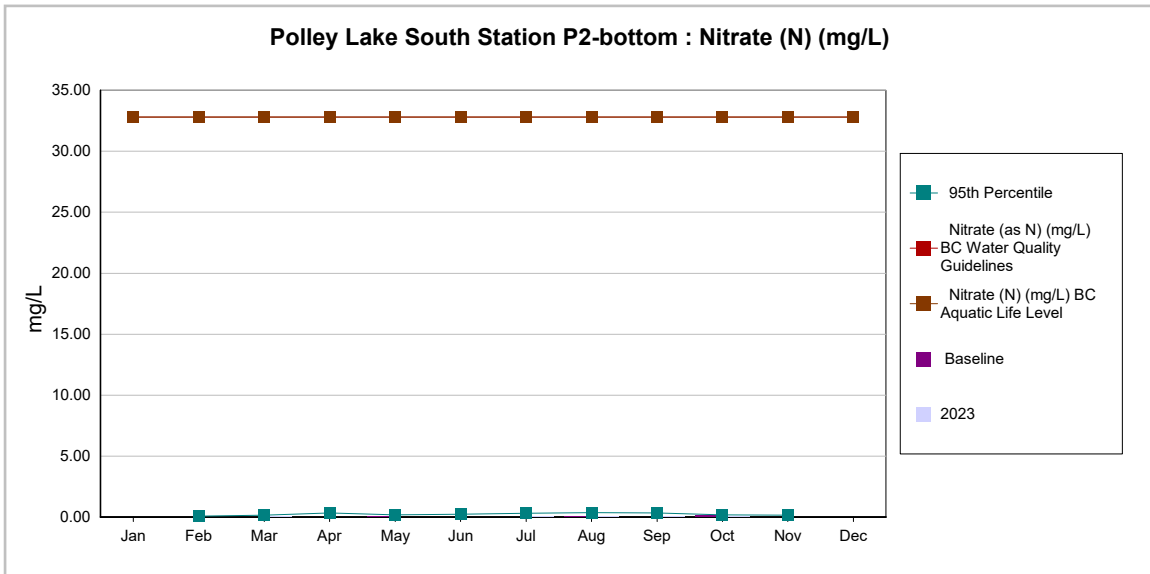
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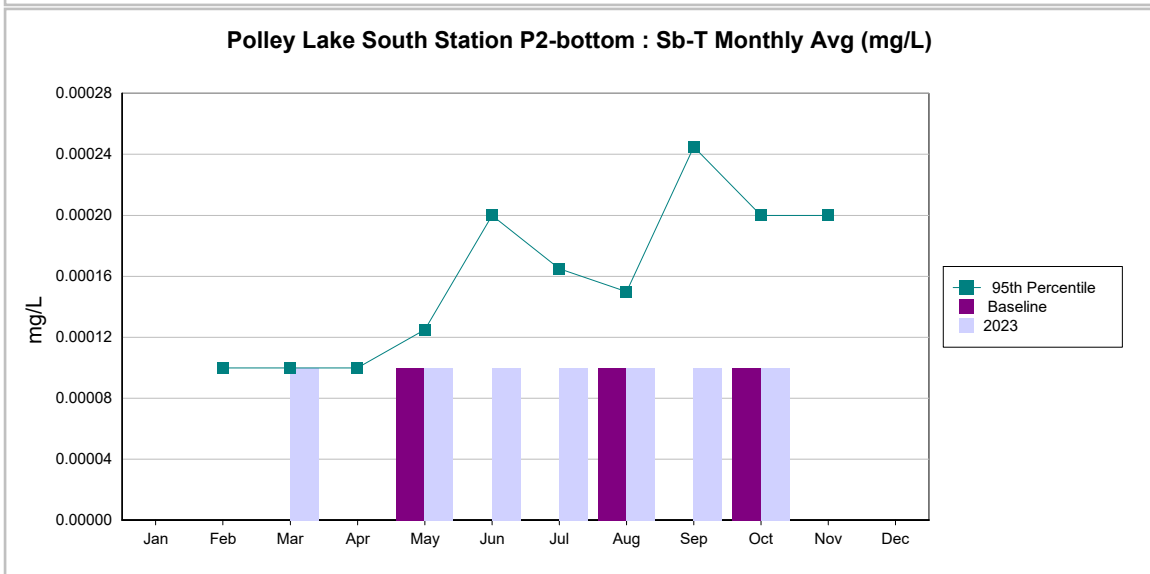
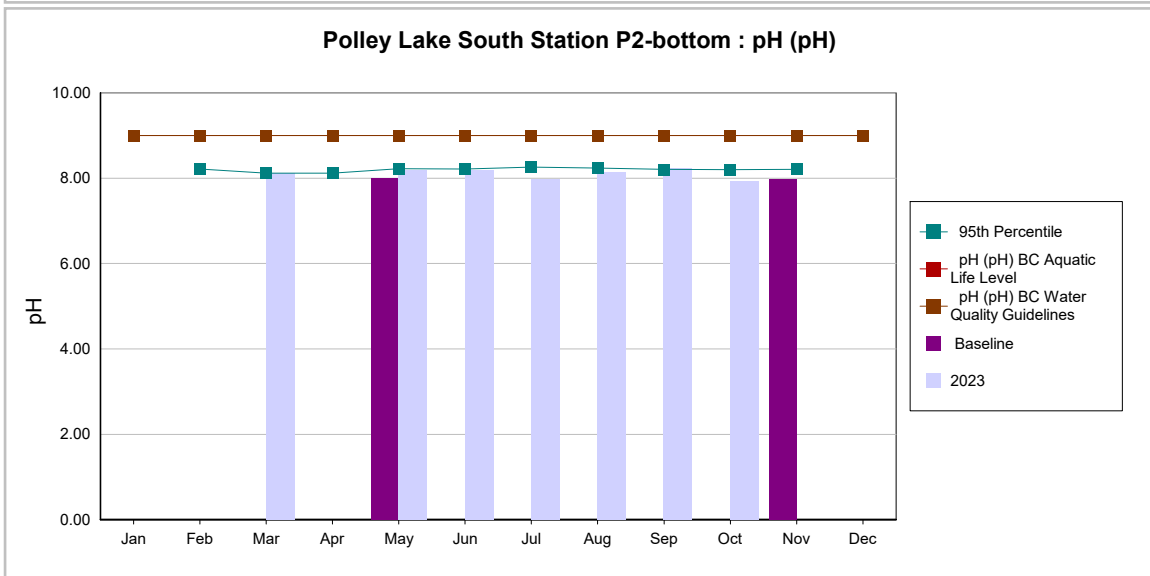
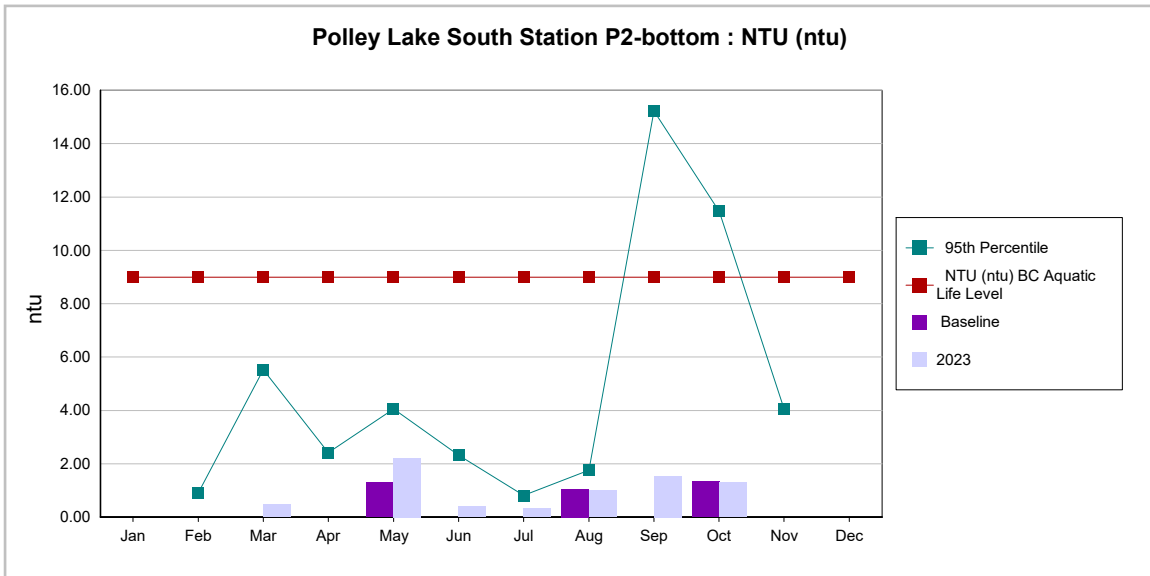
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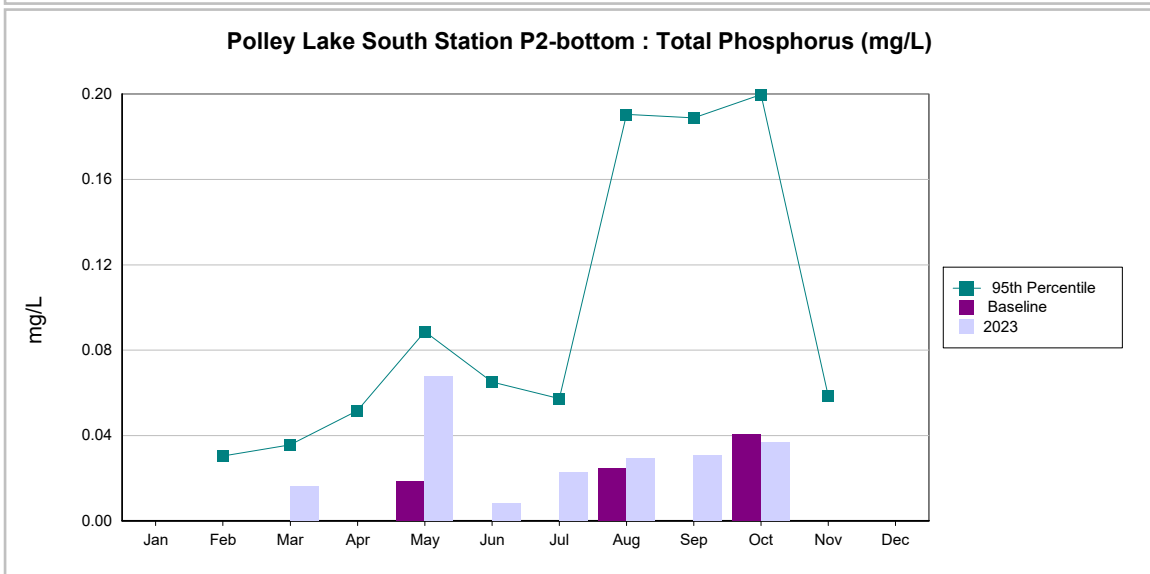
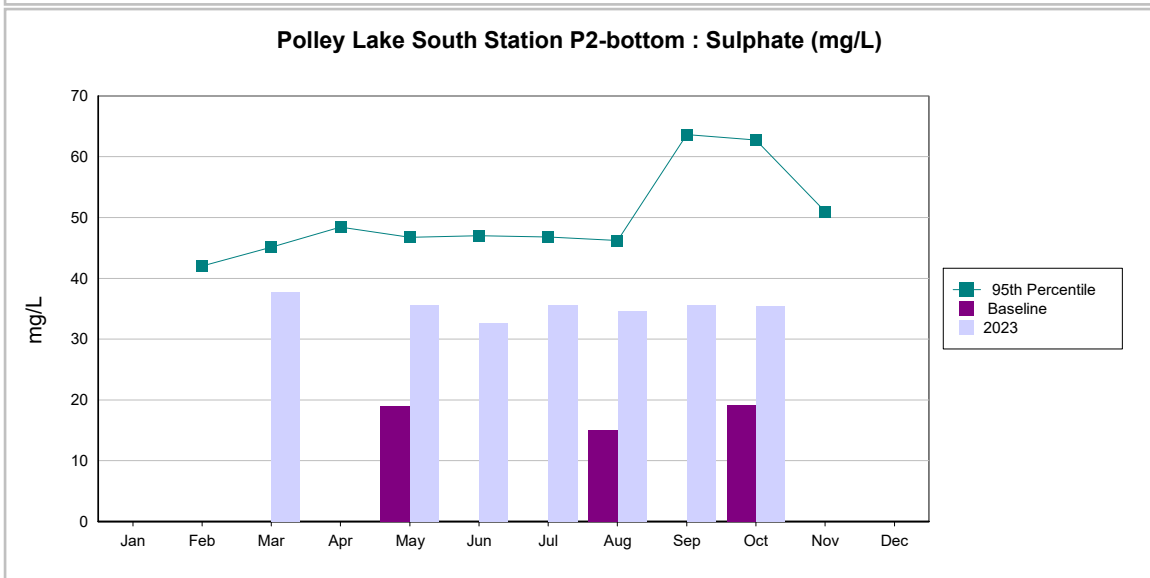
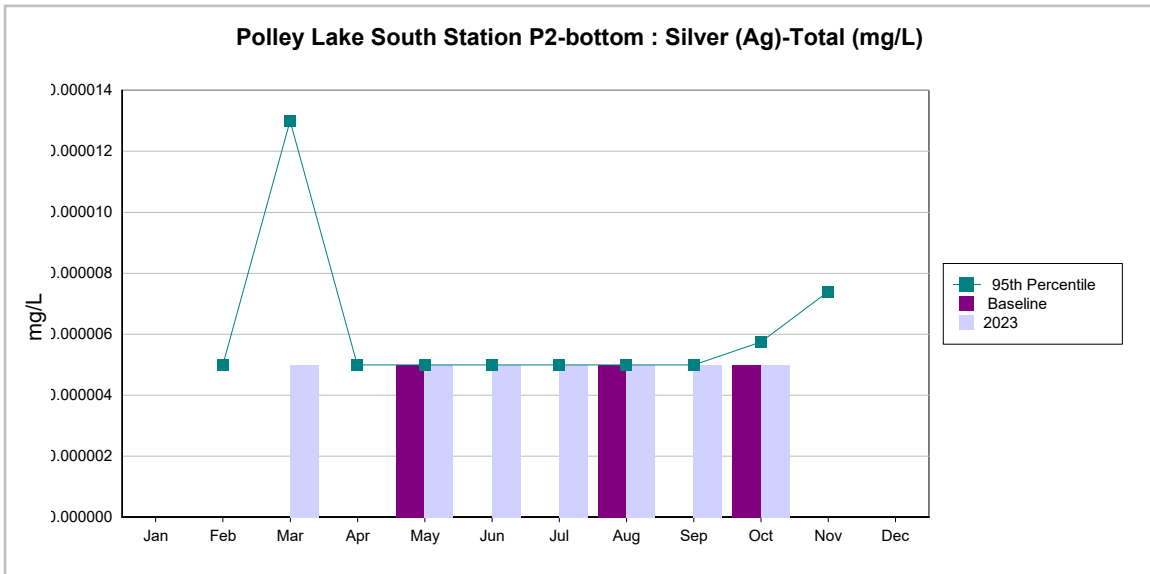
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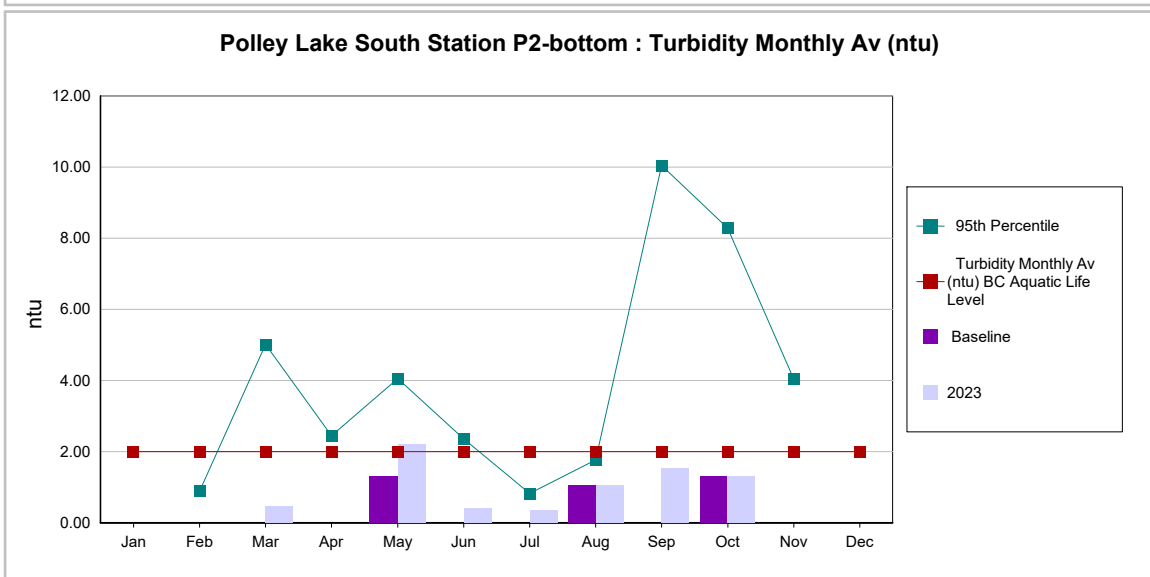
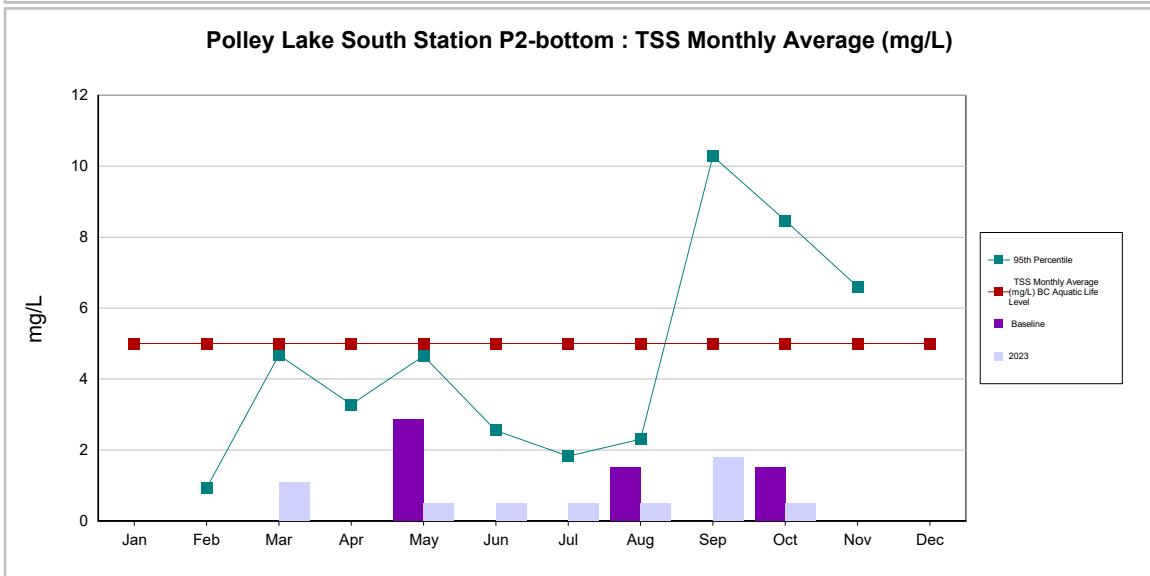
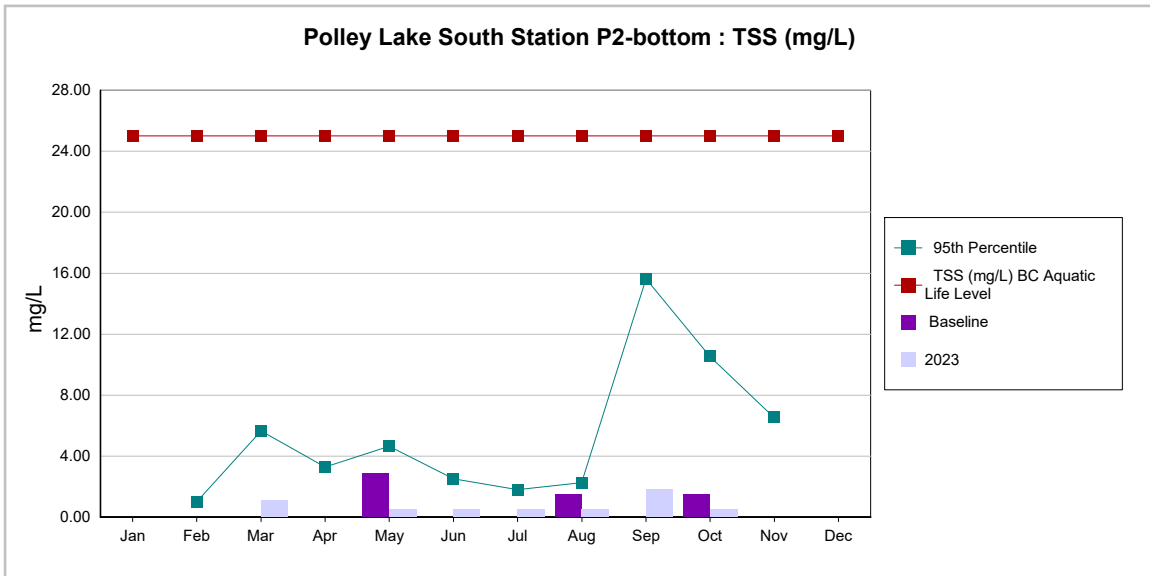
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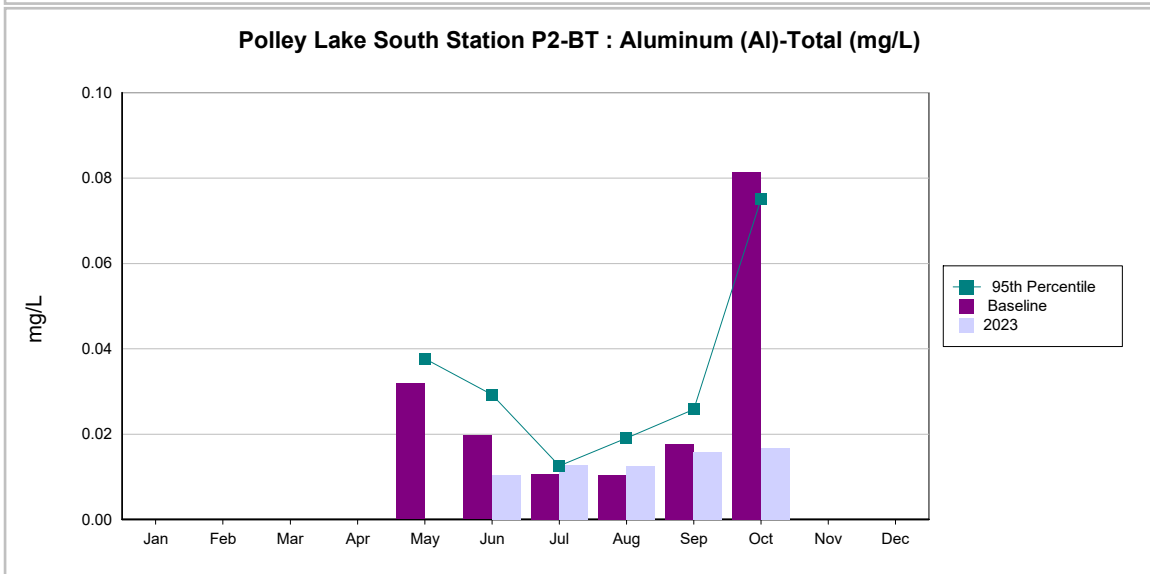
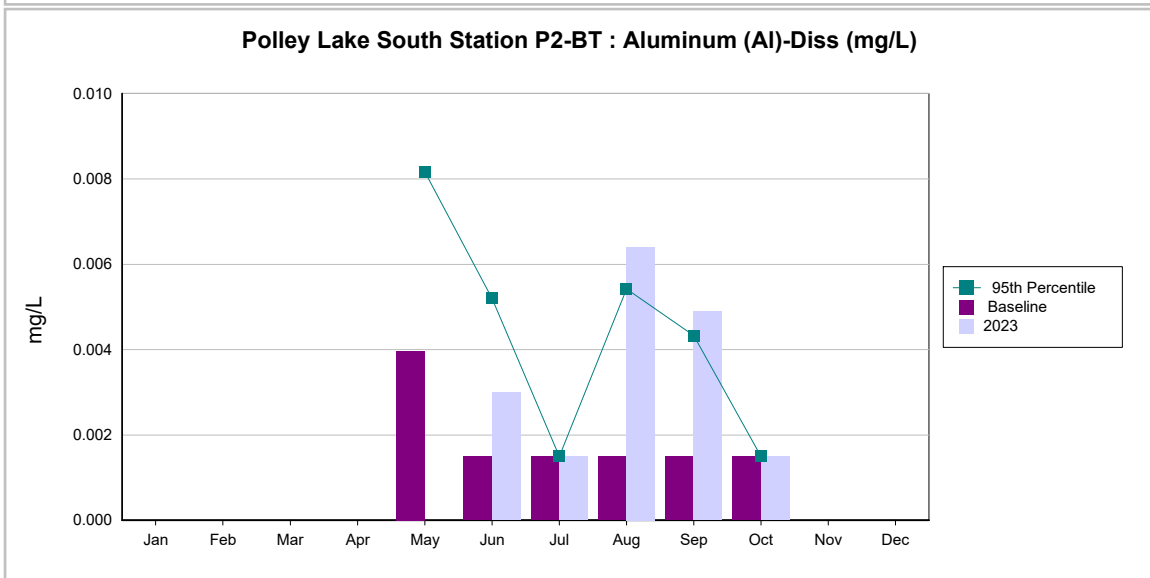
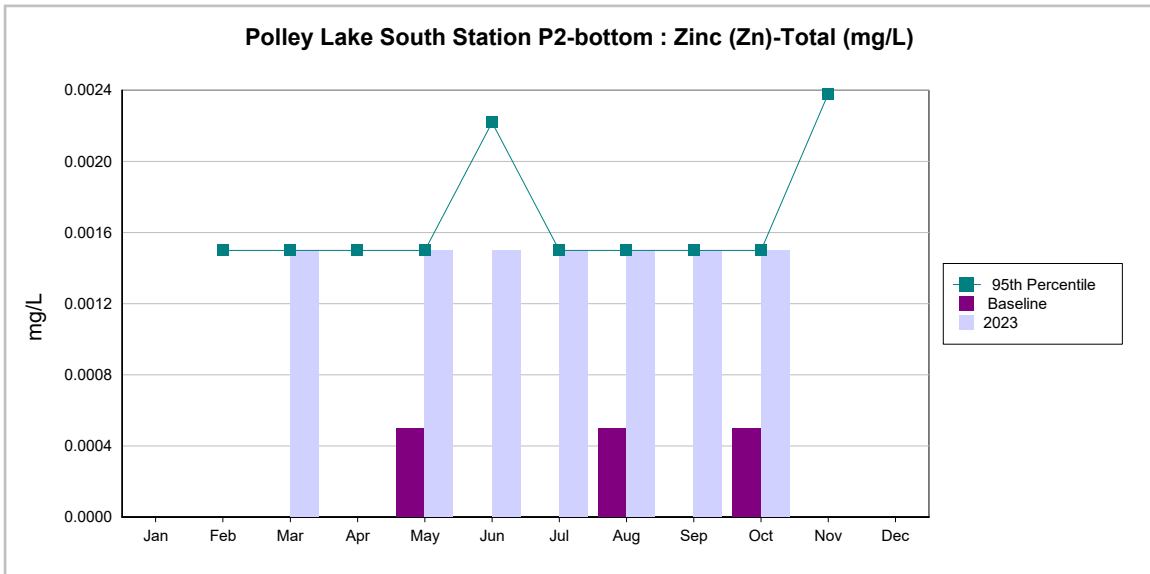
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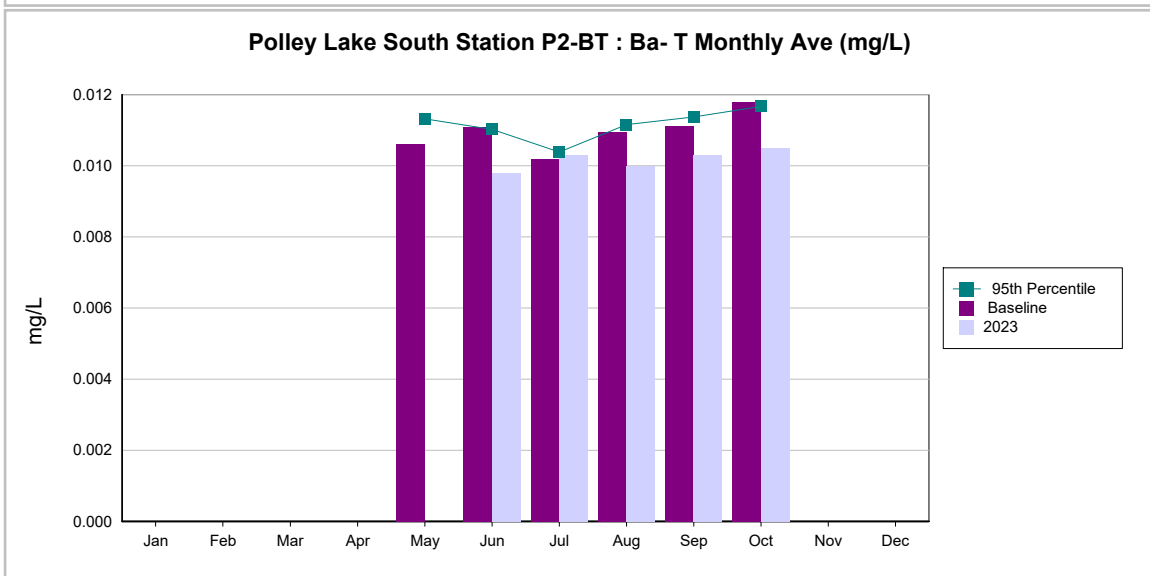
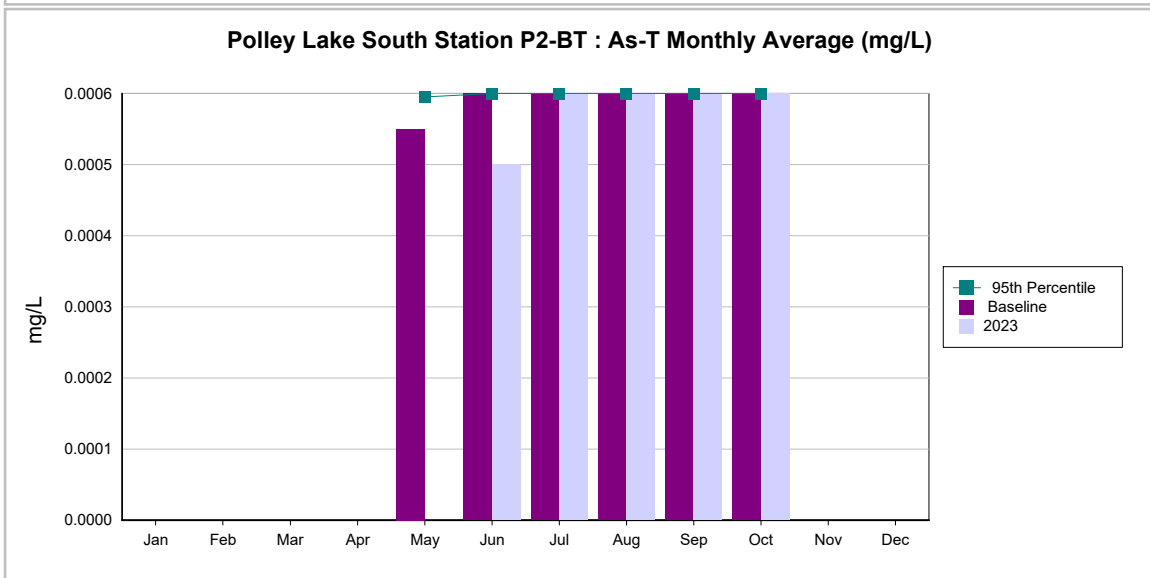
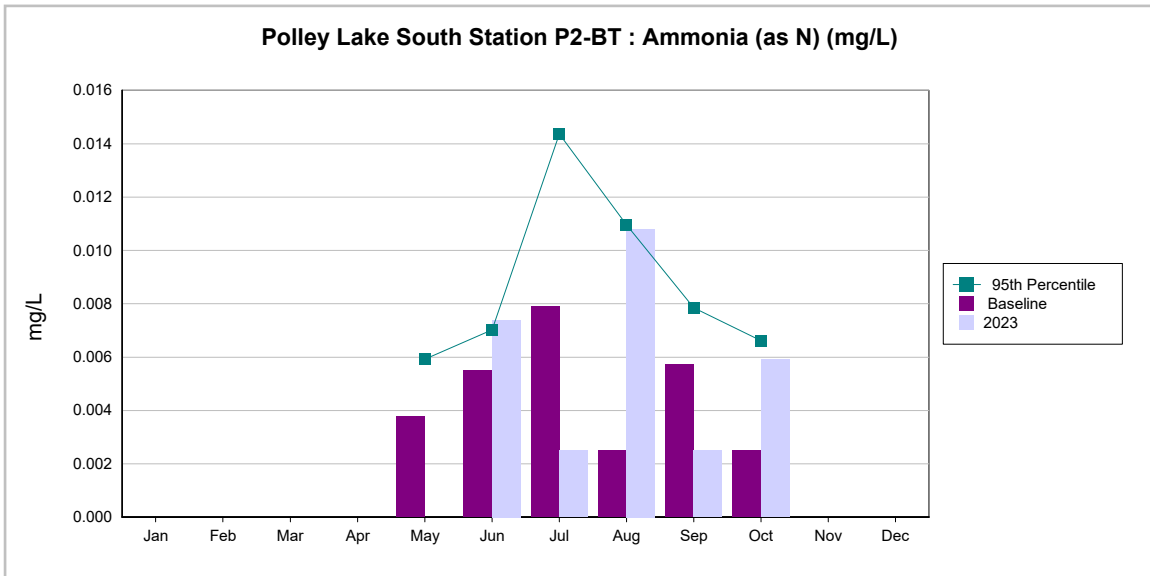
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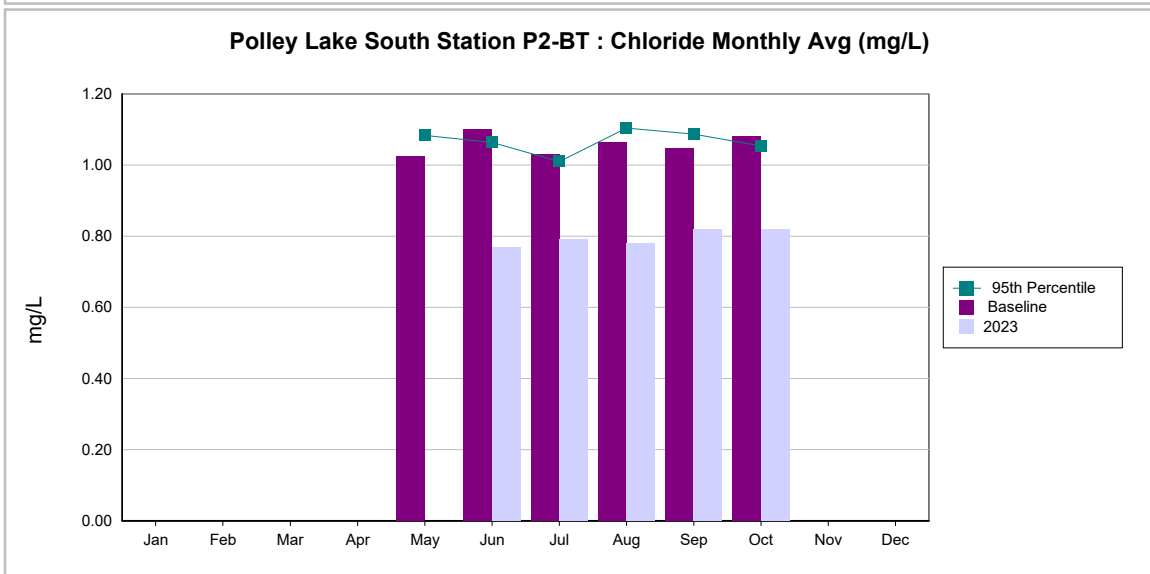
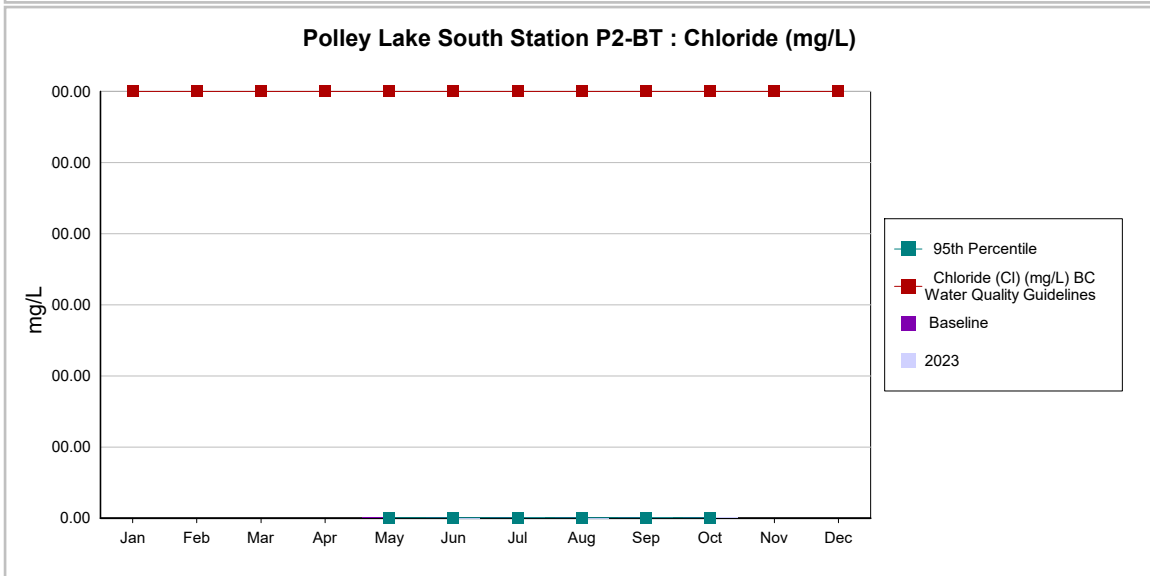
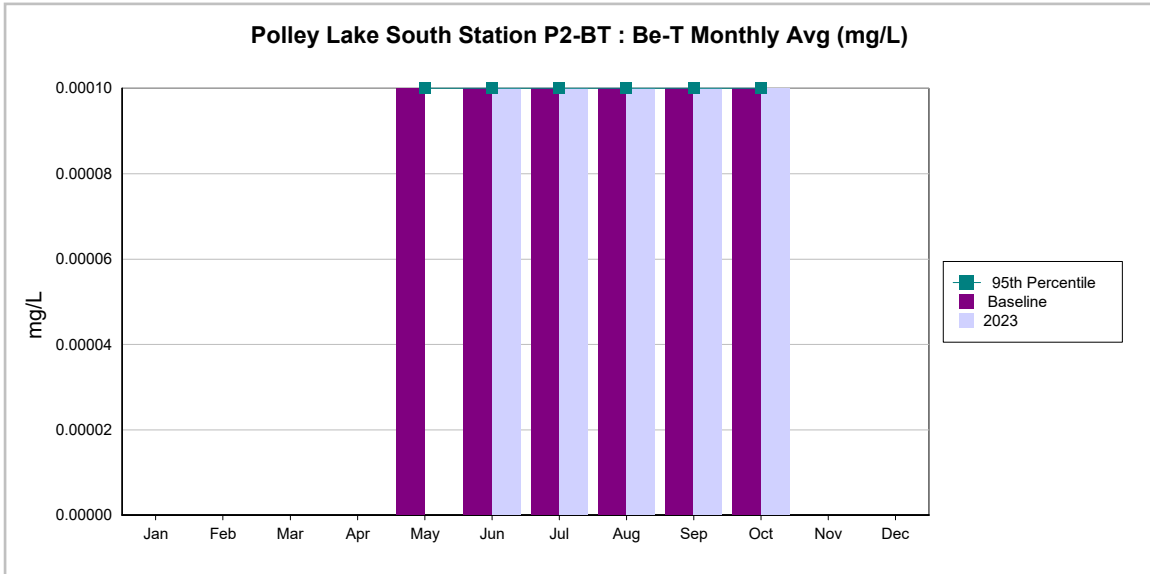
Annual Report Lake vs BCWQG



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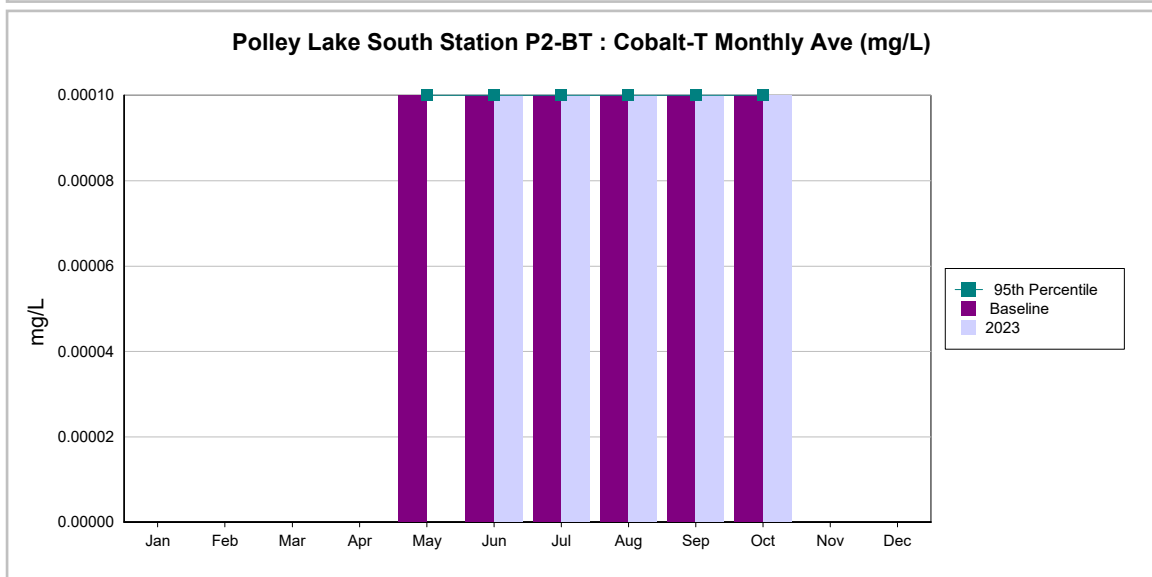
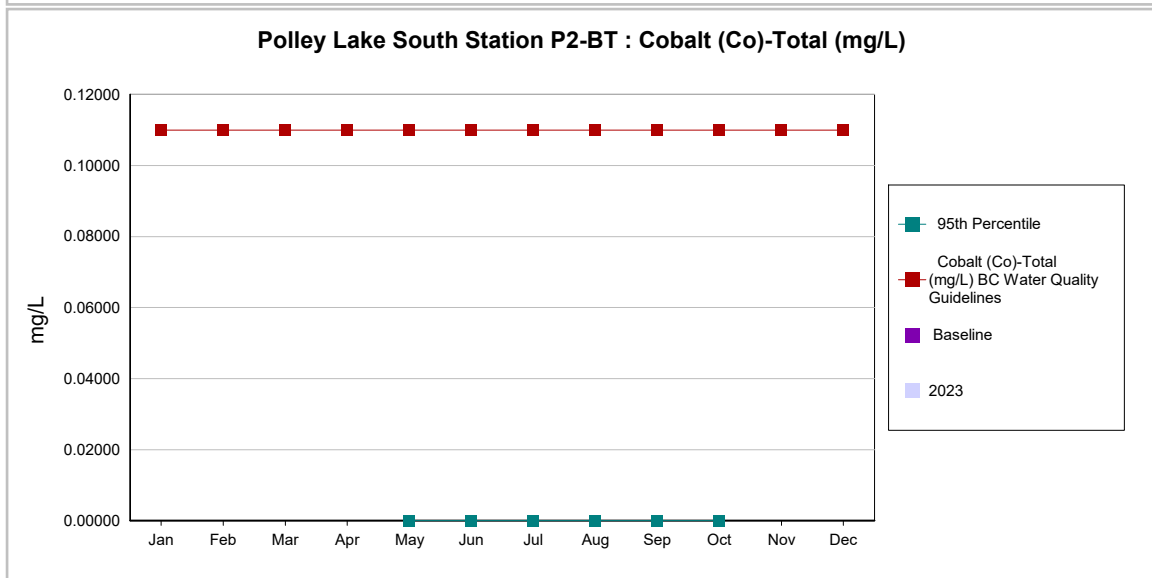
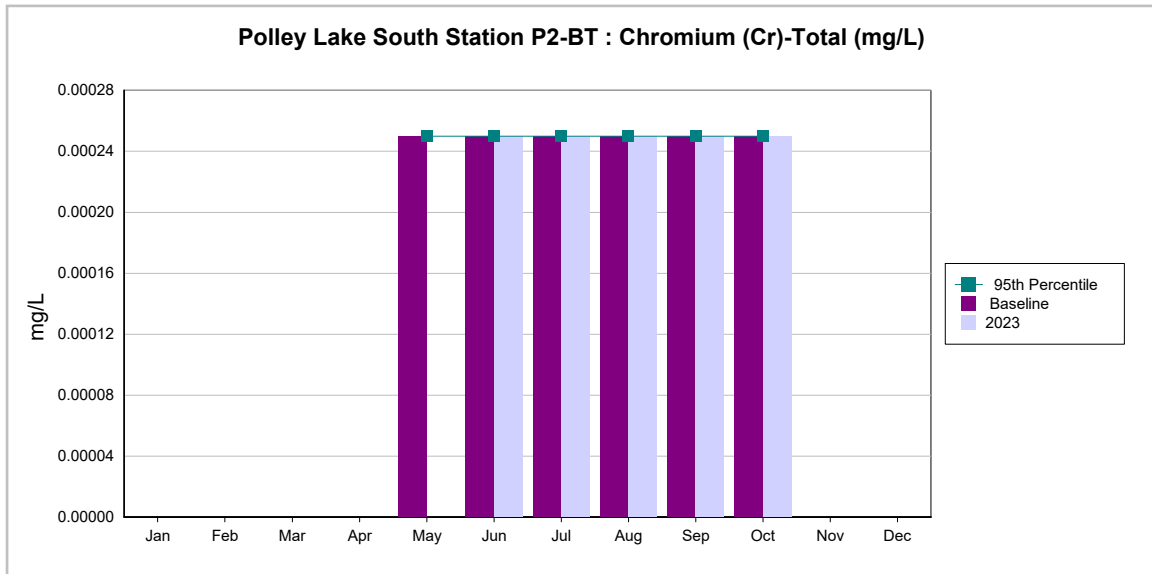
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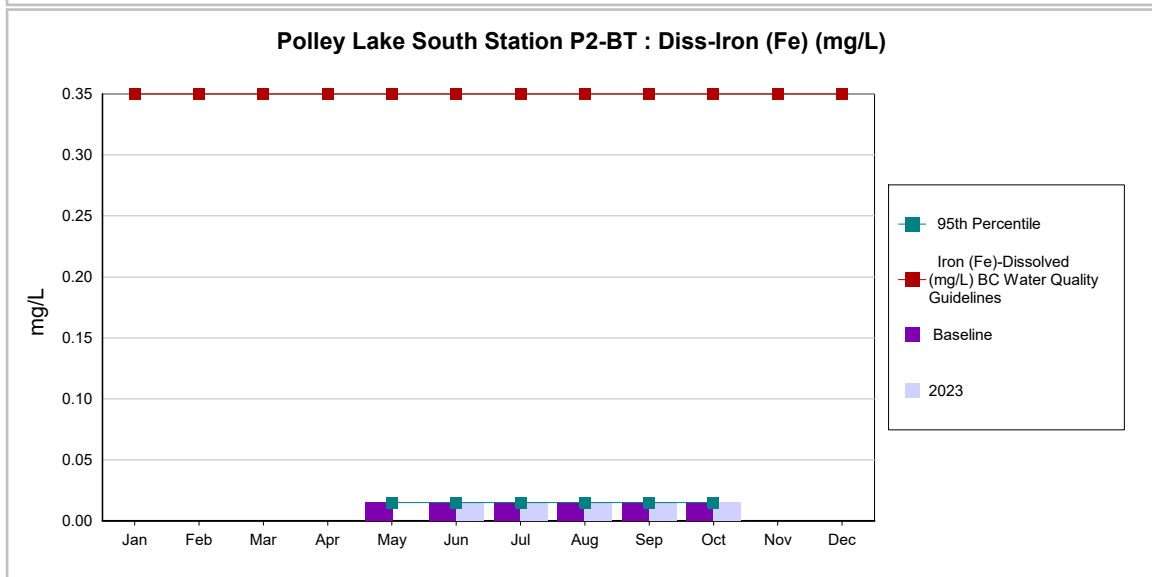
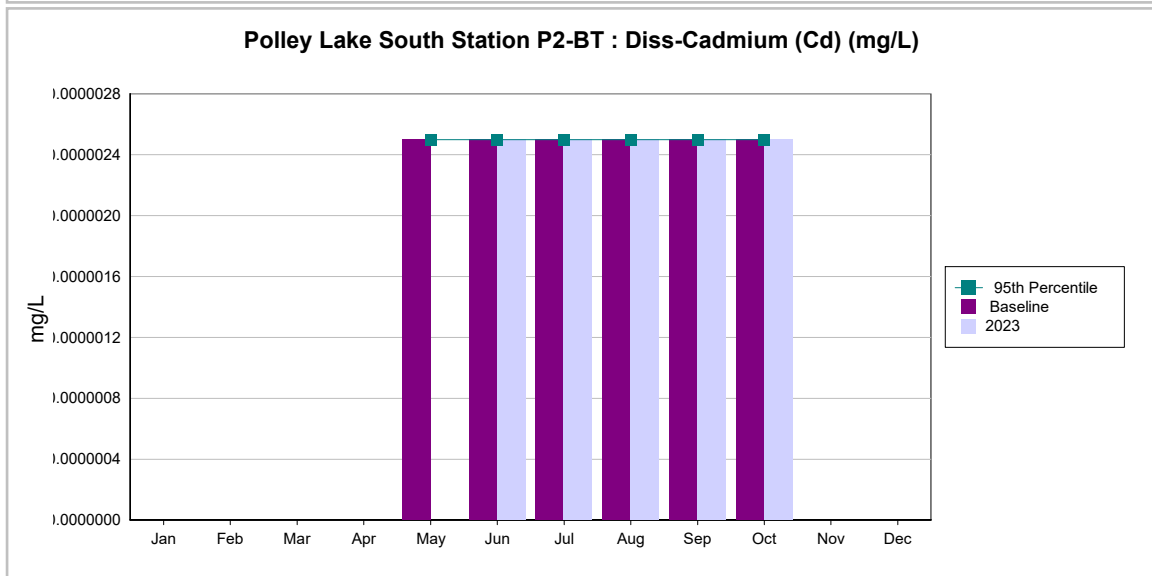
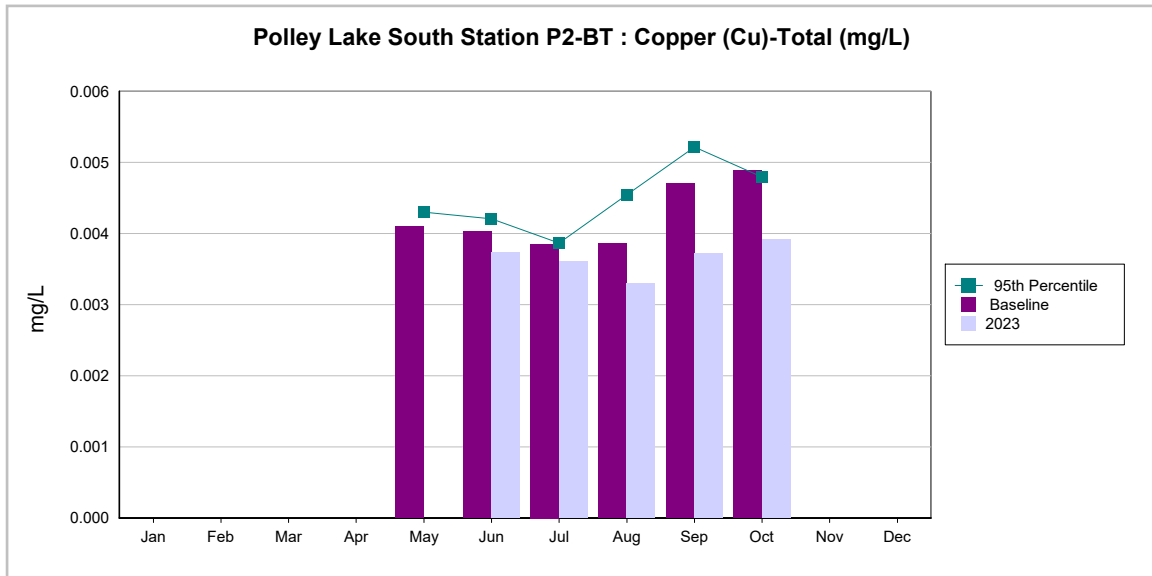
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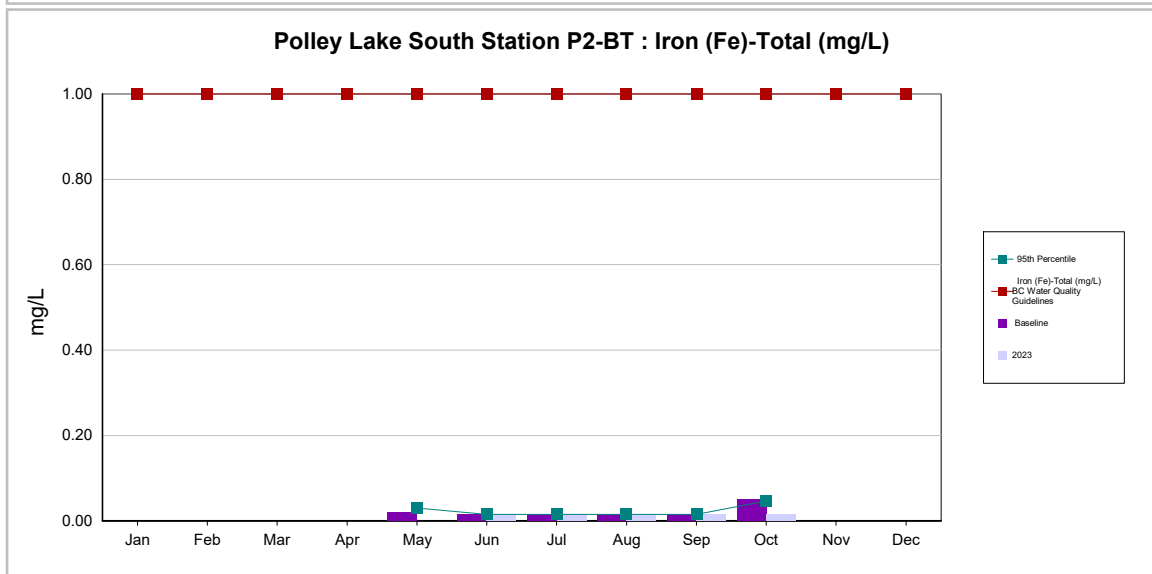
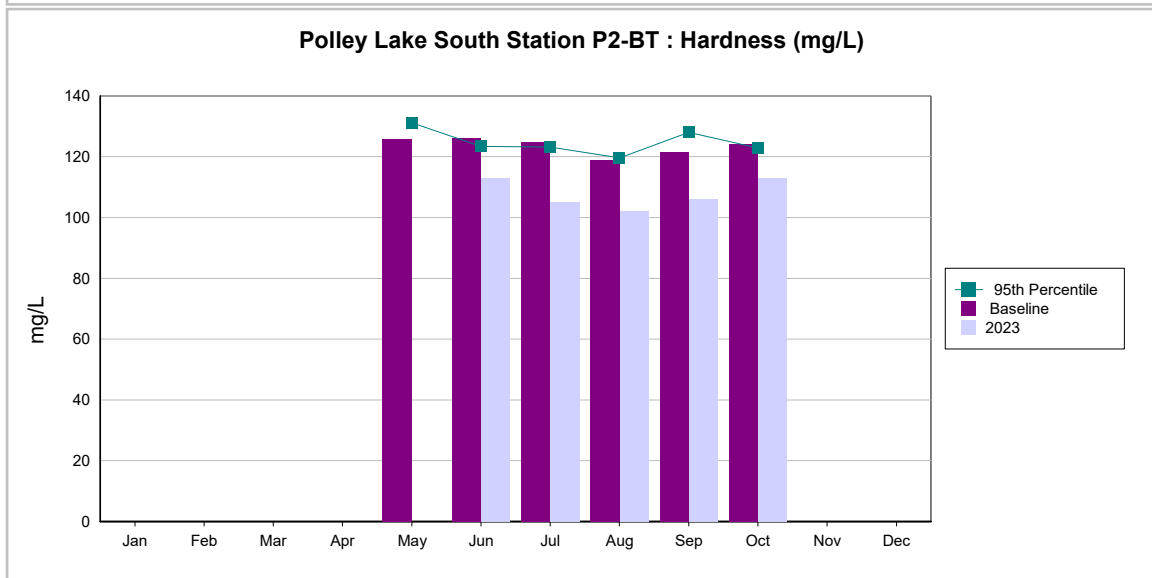
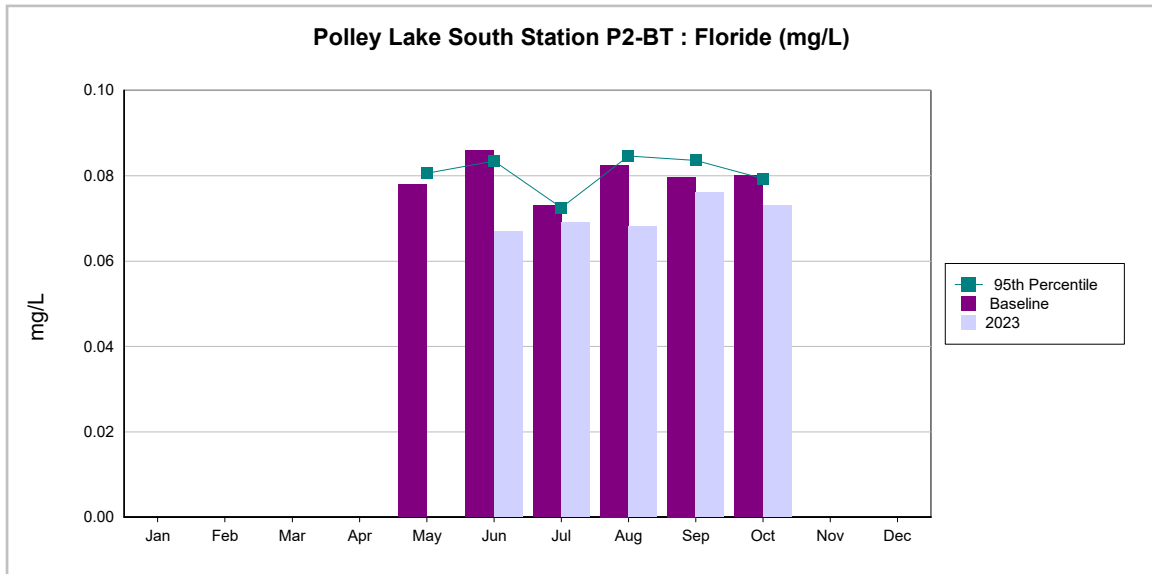
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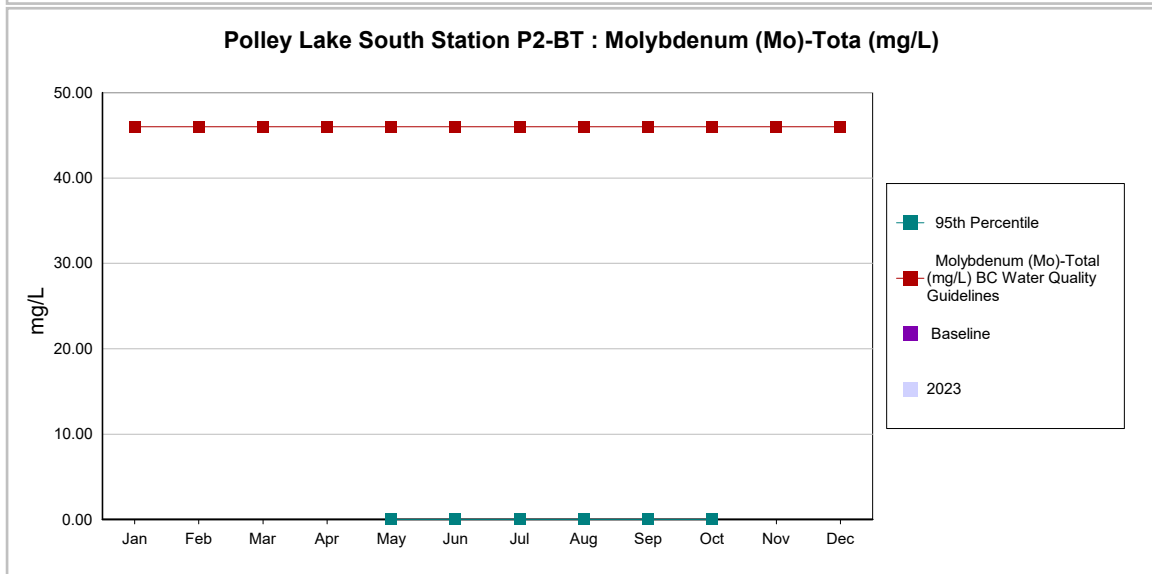
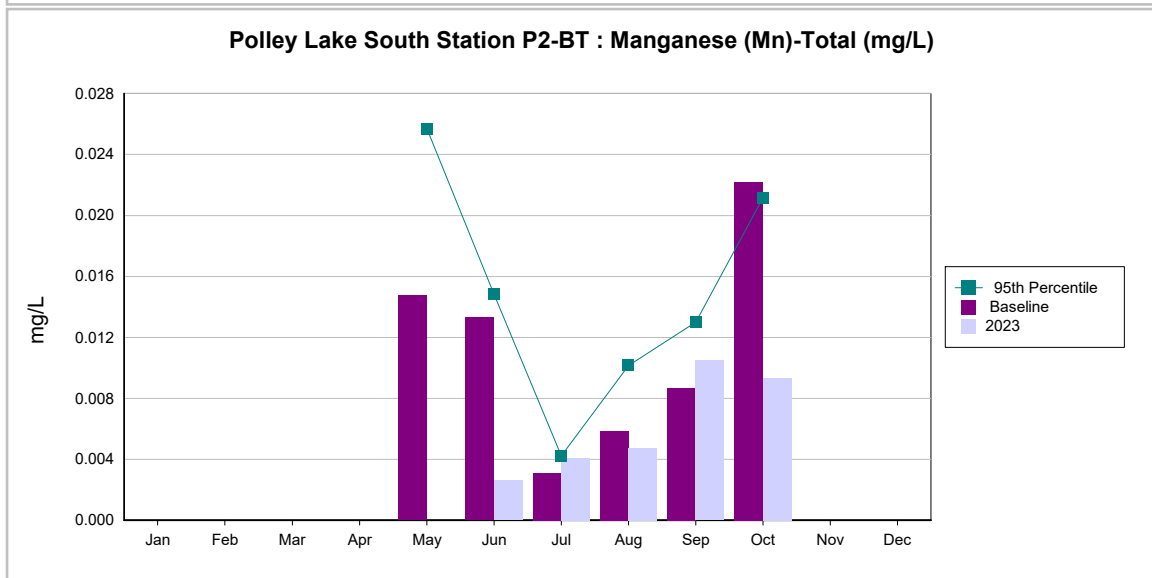
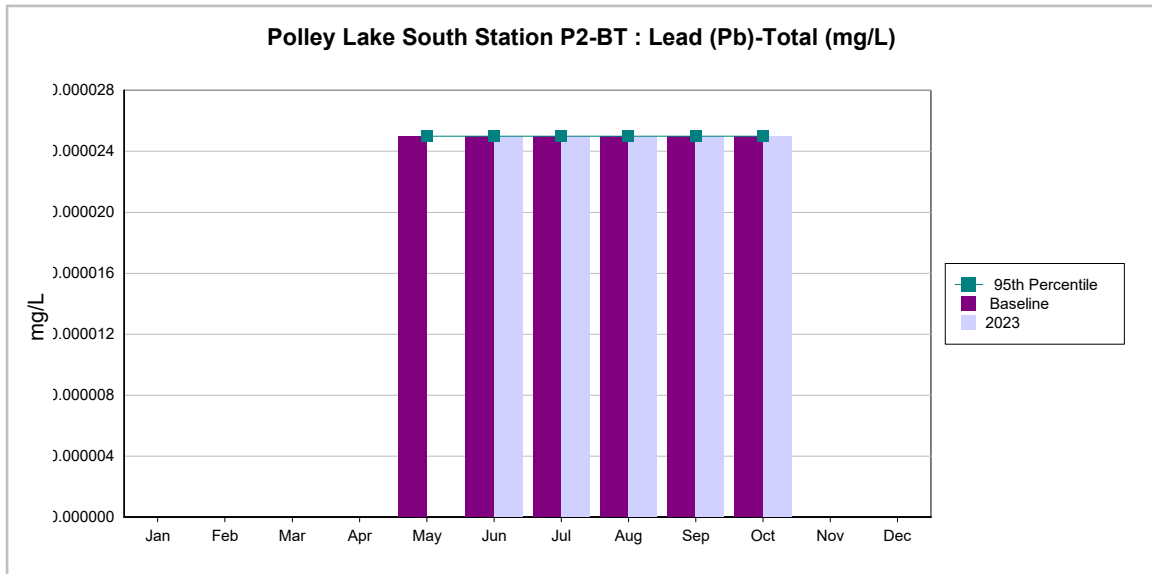
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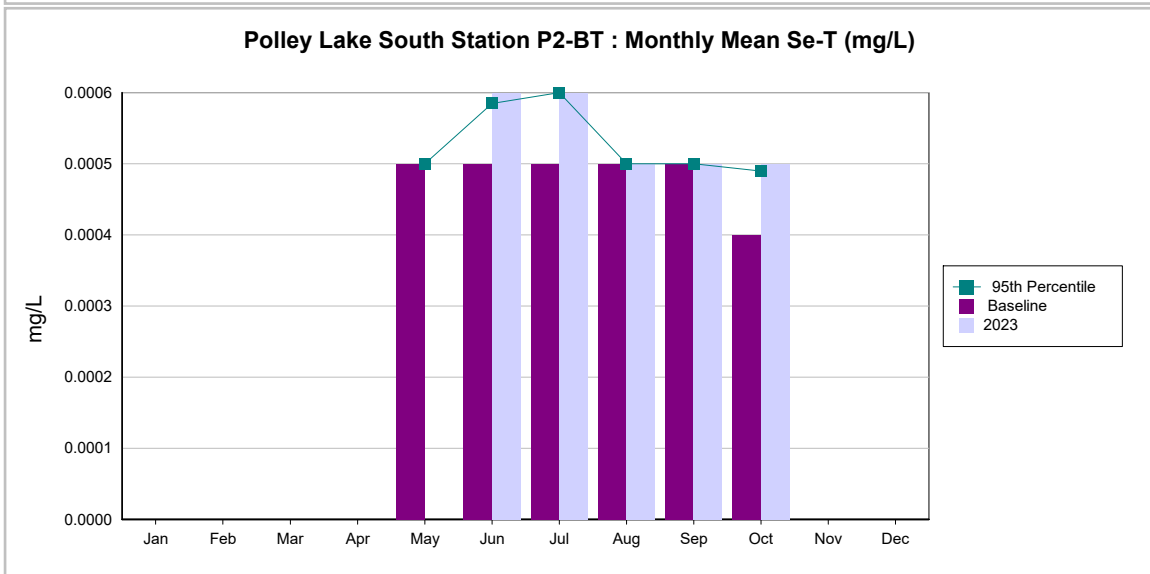
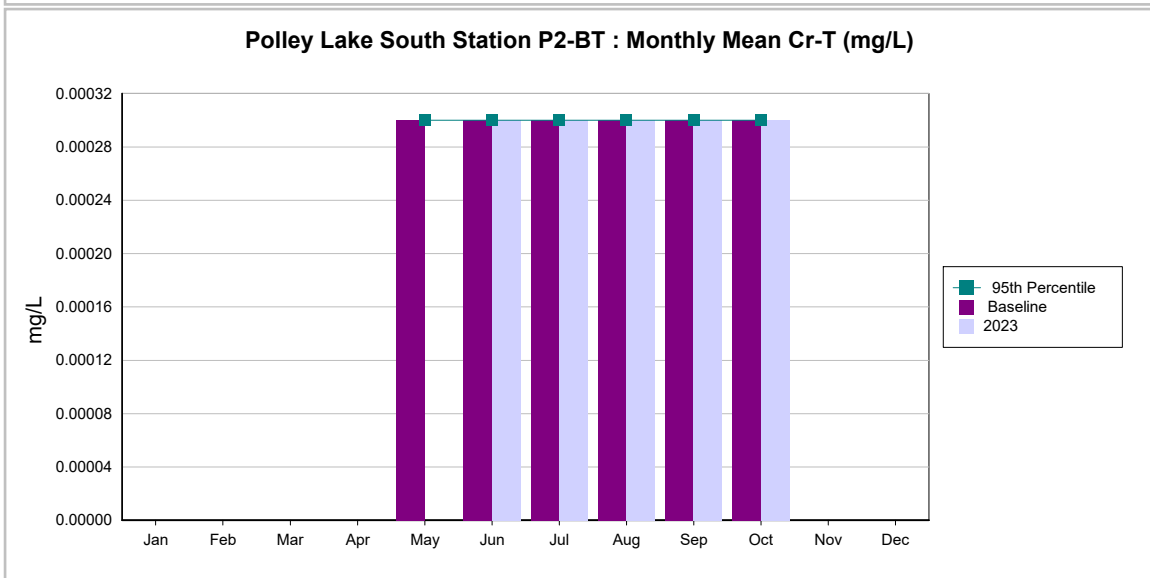
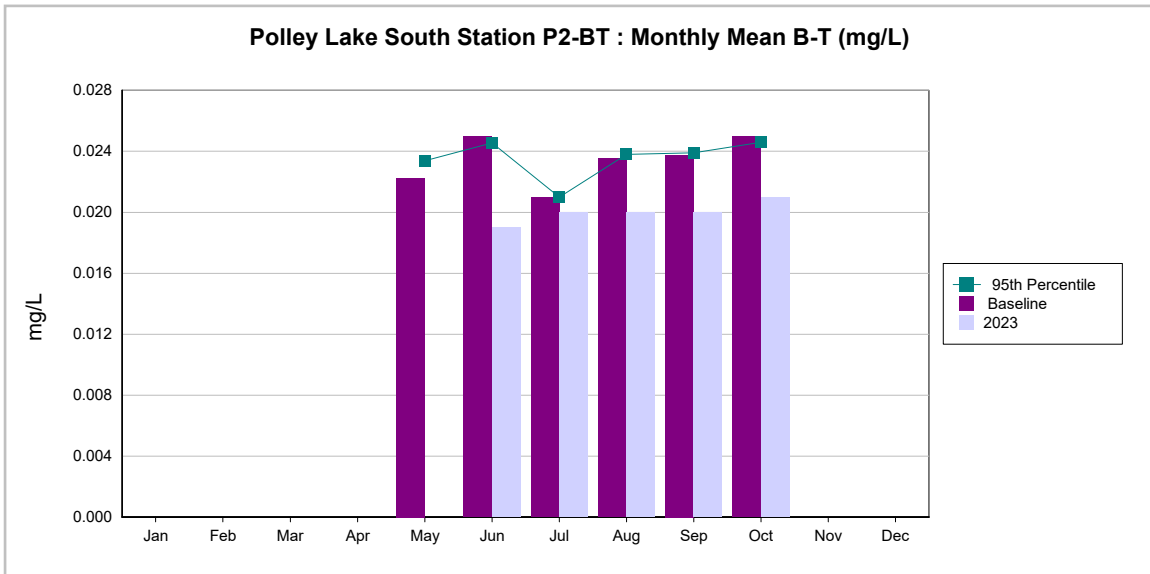
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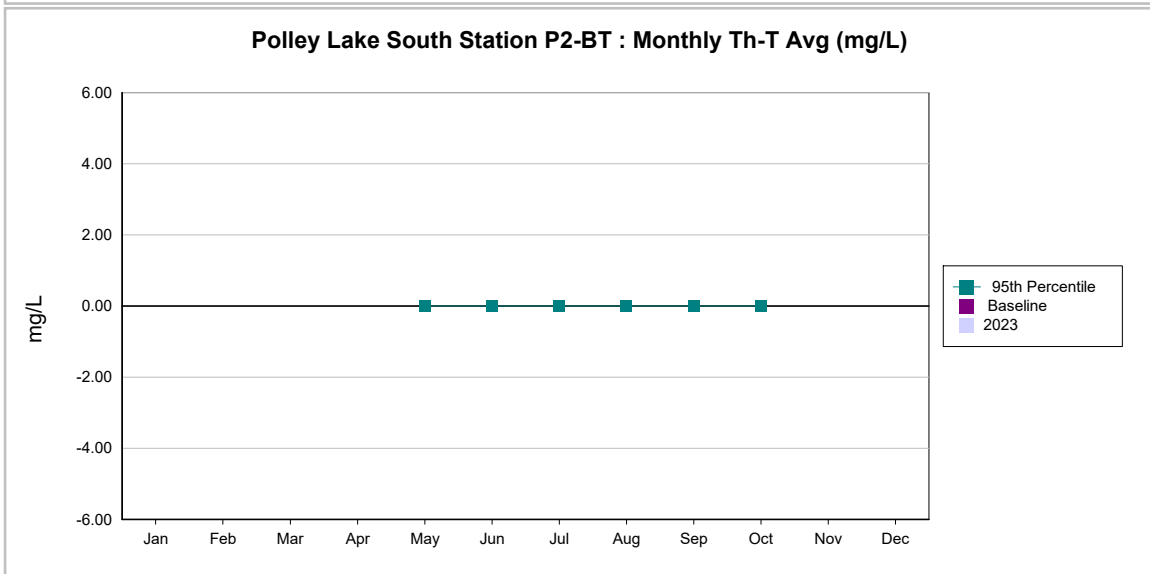
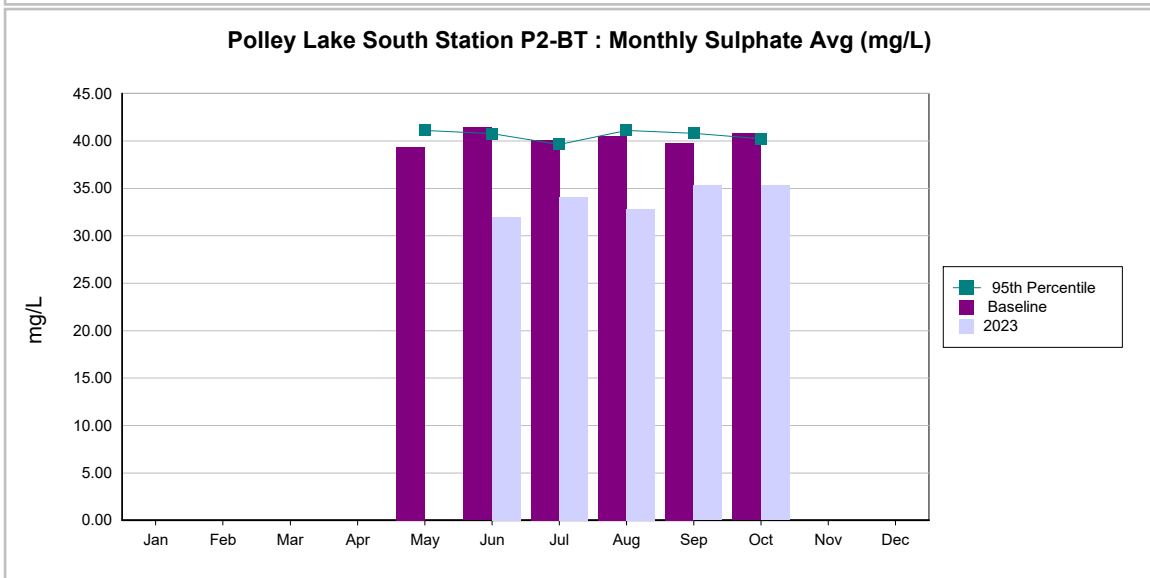
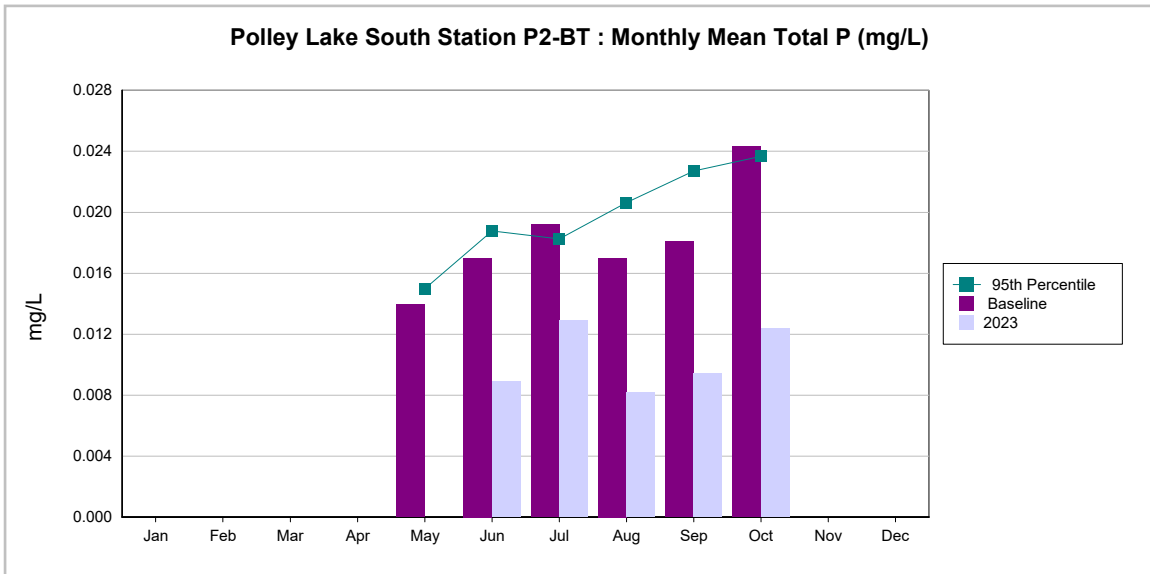
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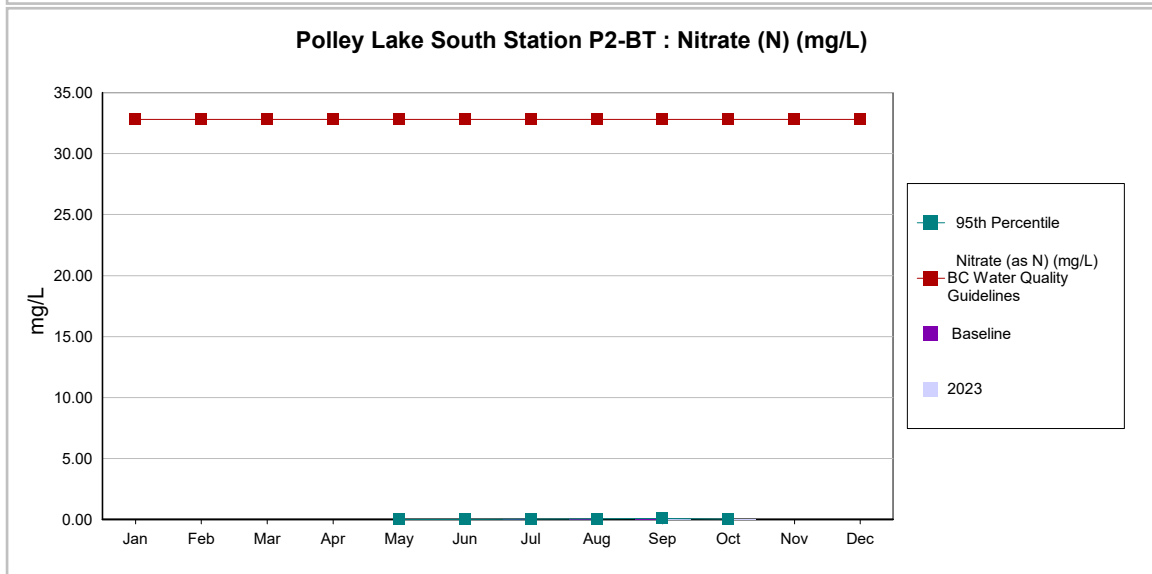
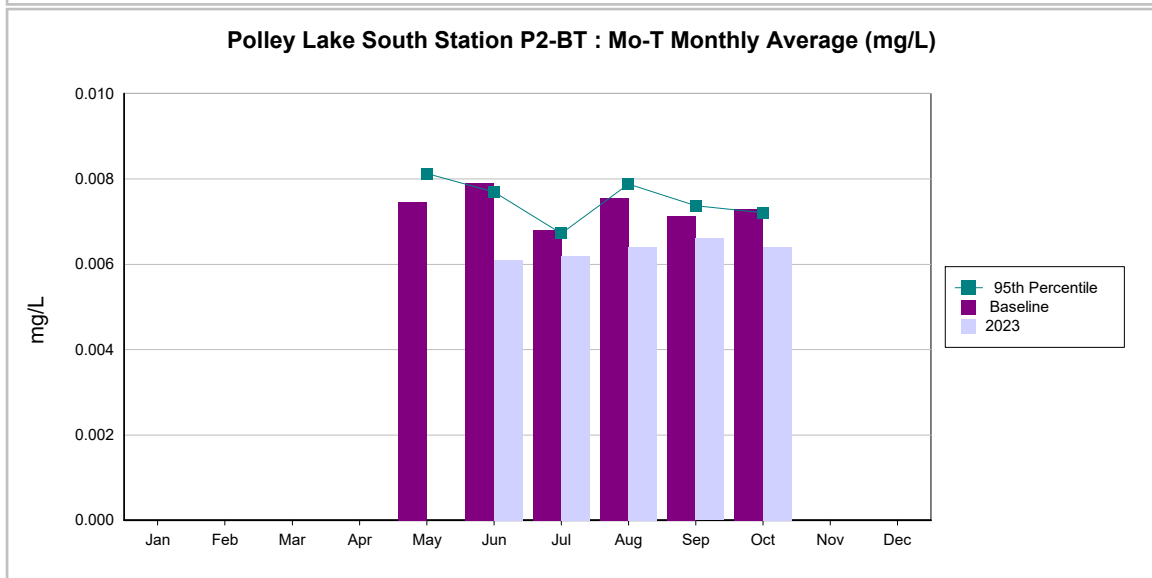
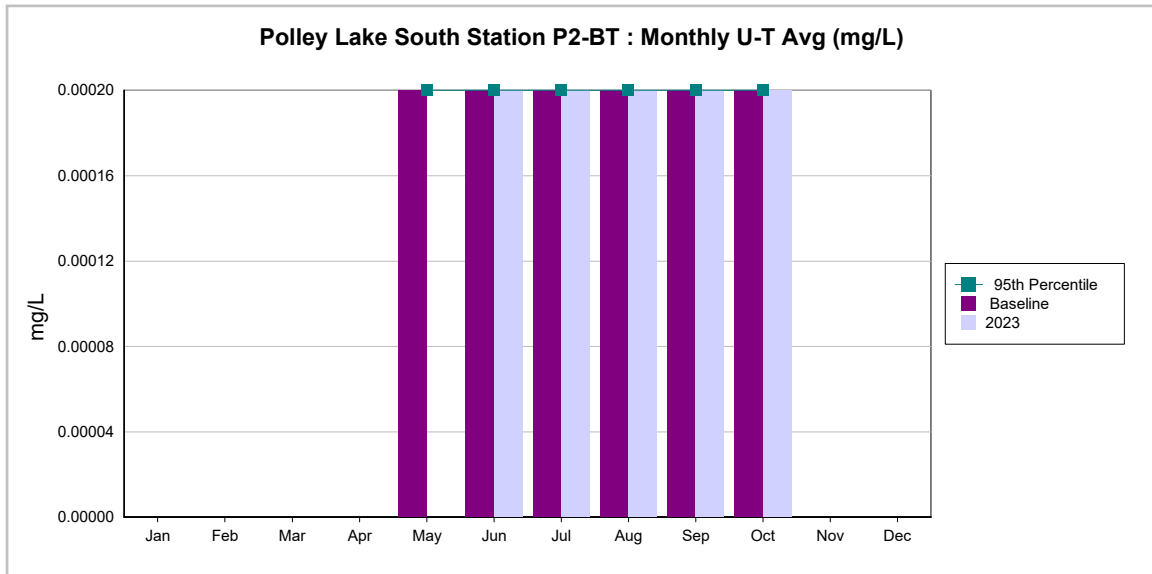
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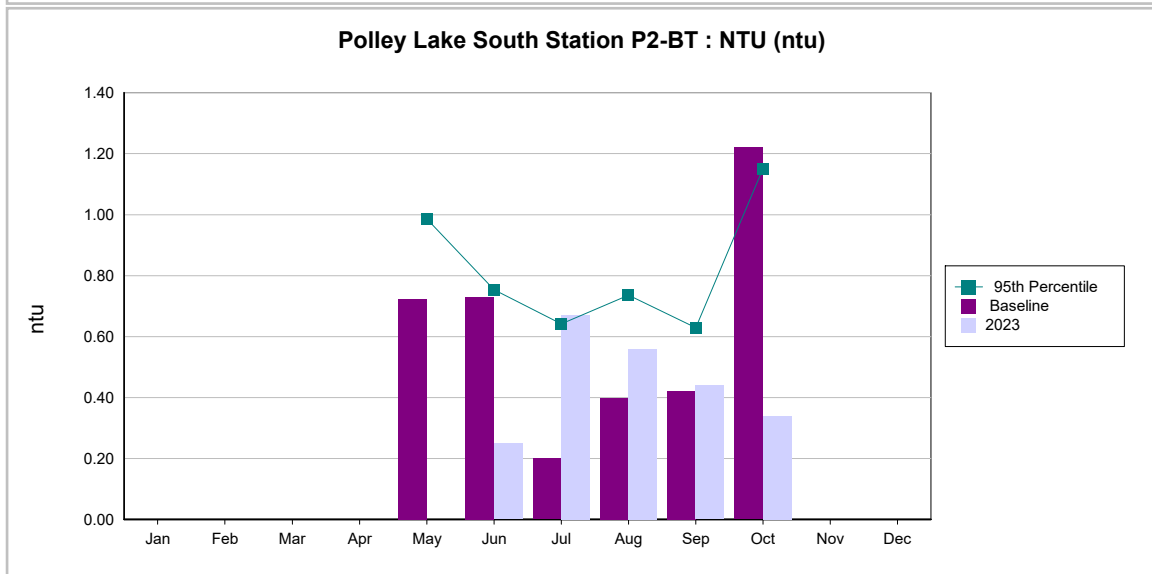
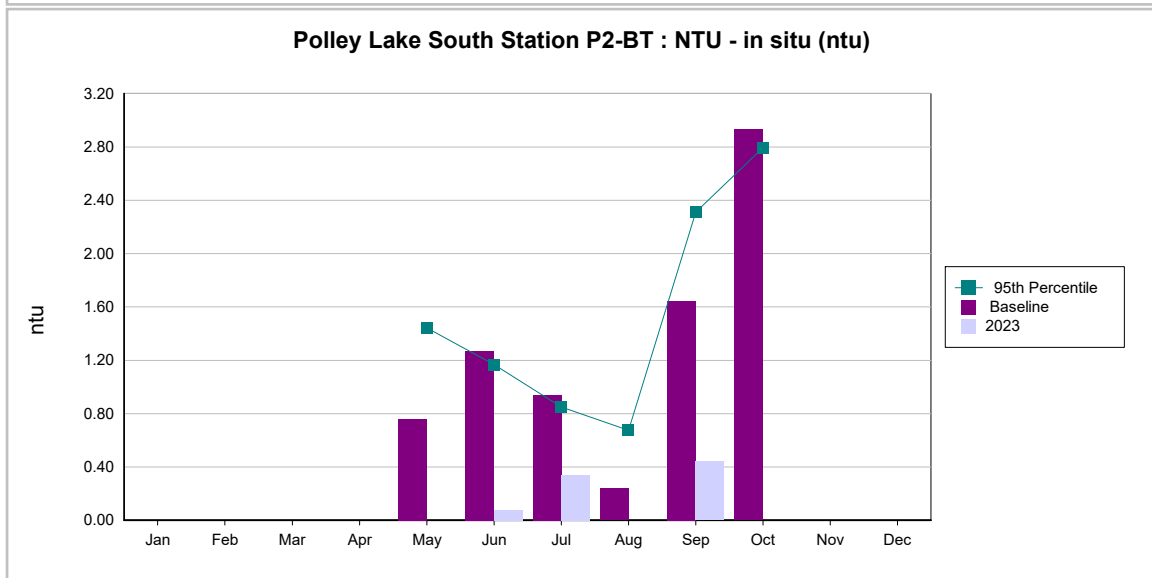
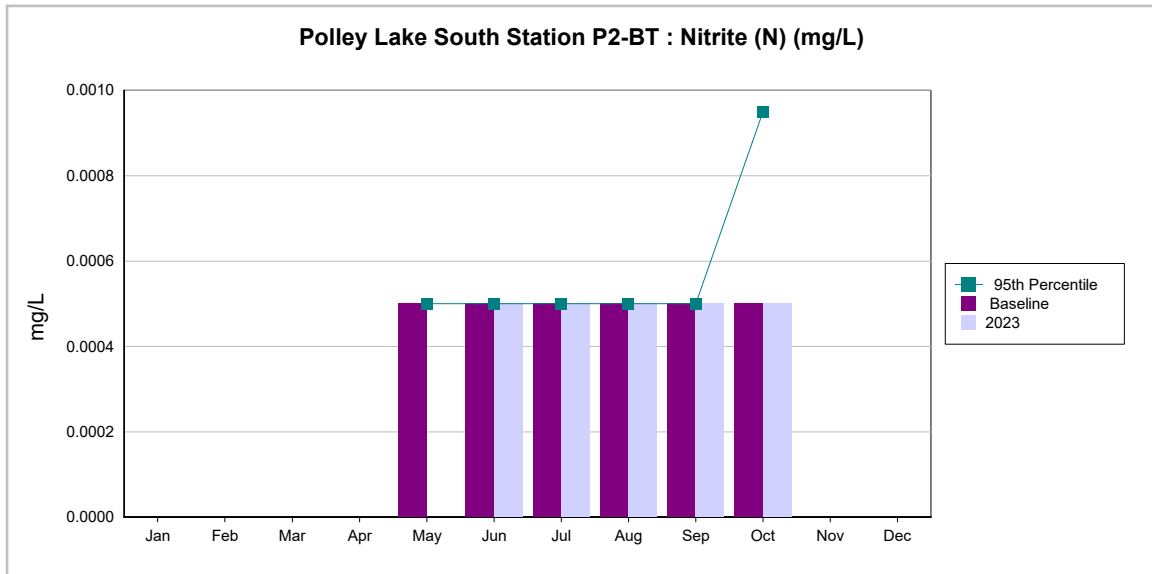
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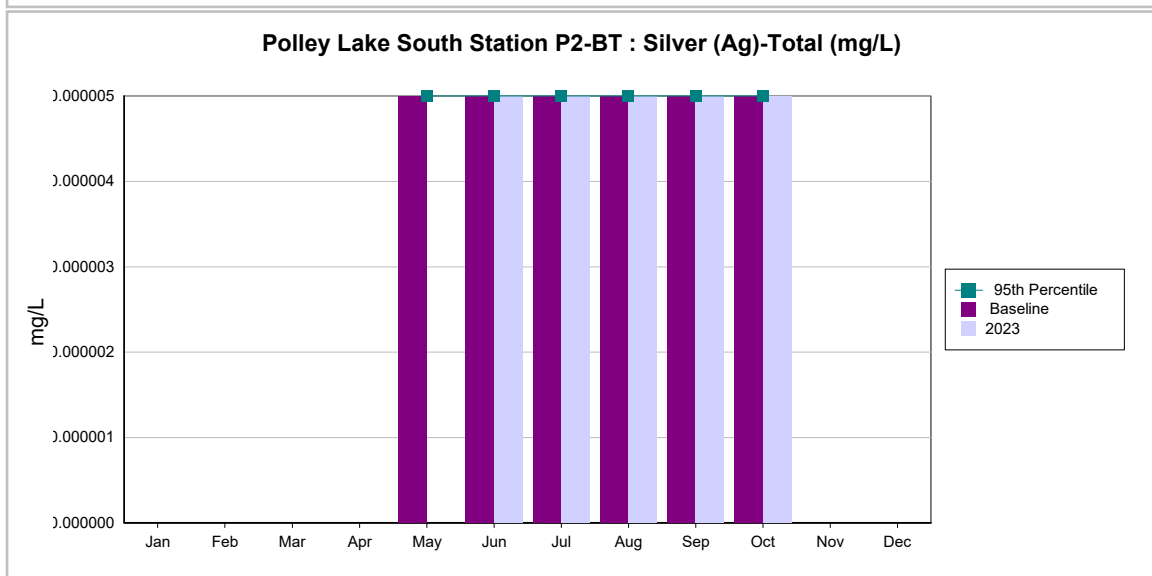
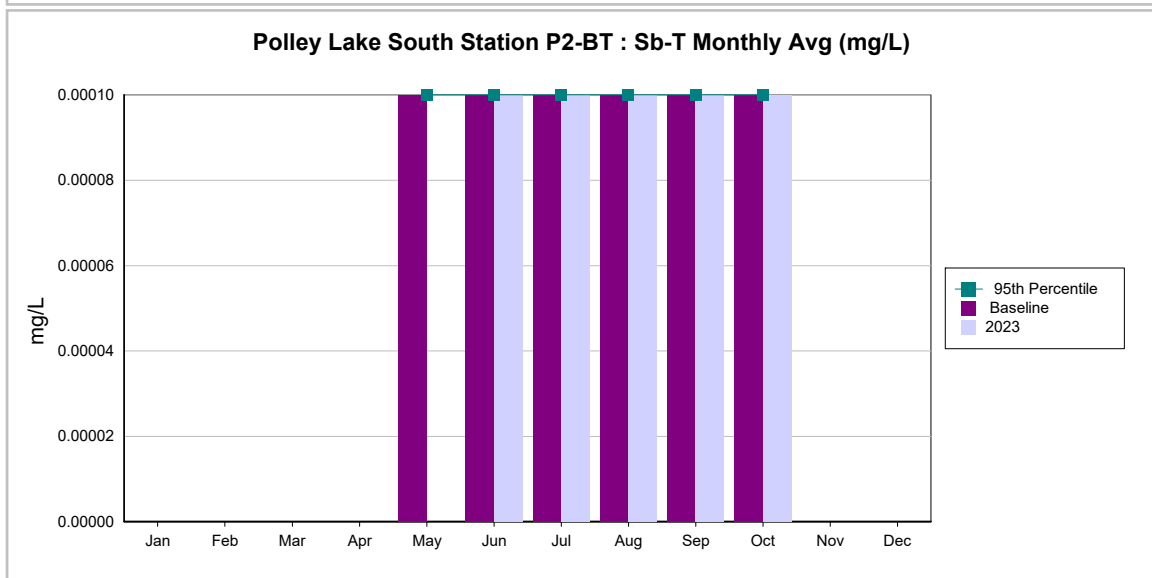
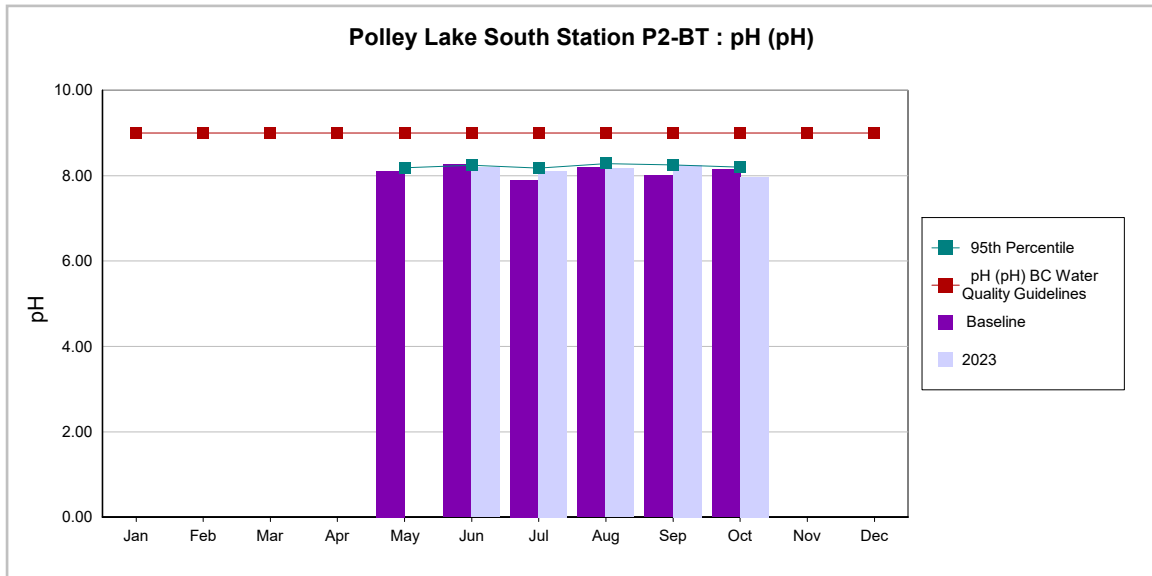
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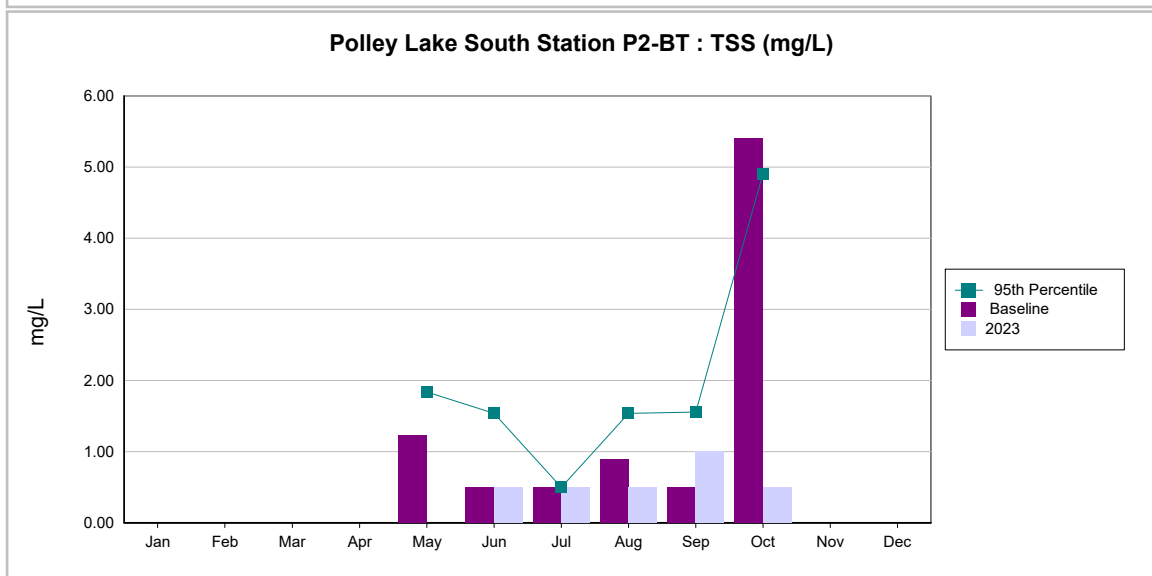
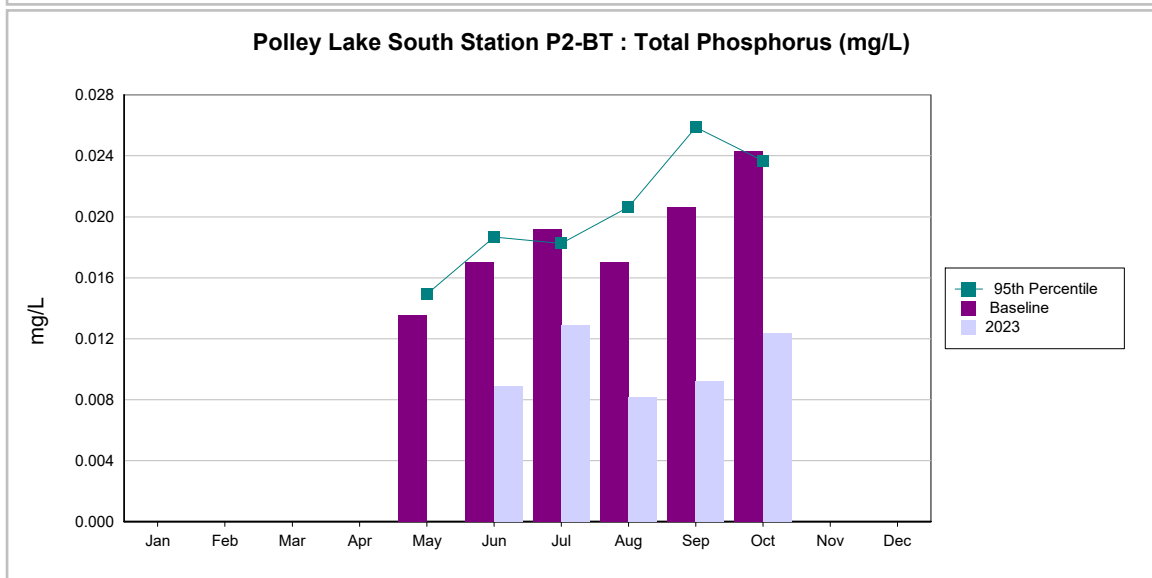
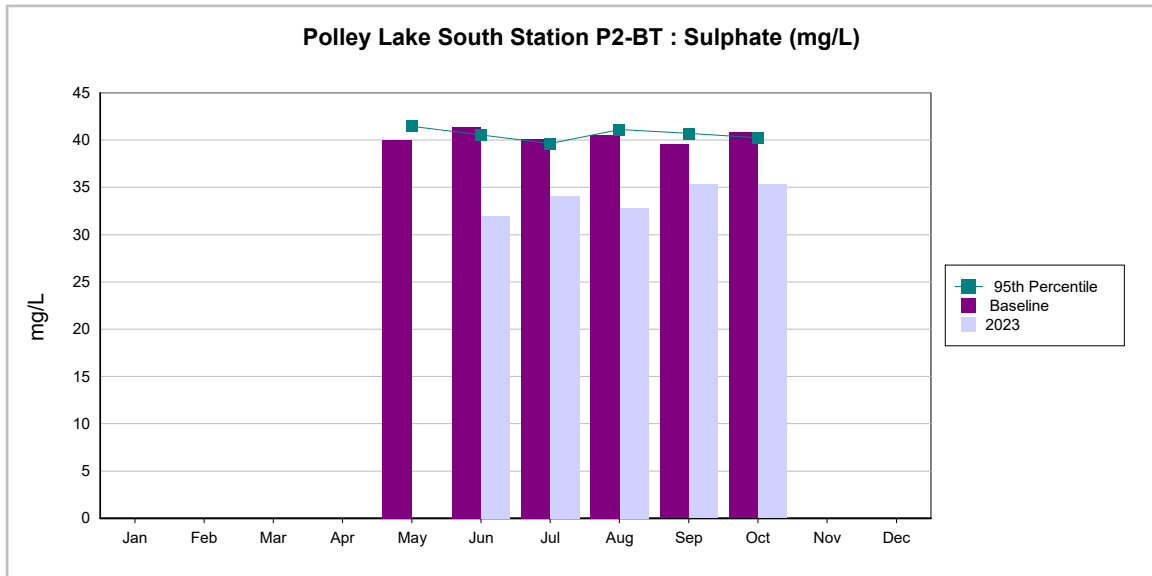
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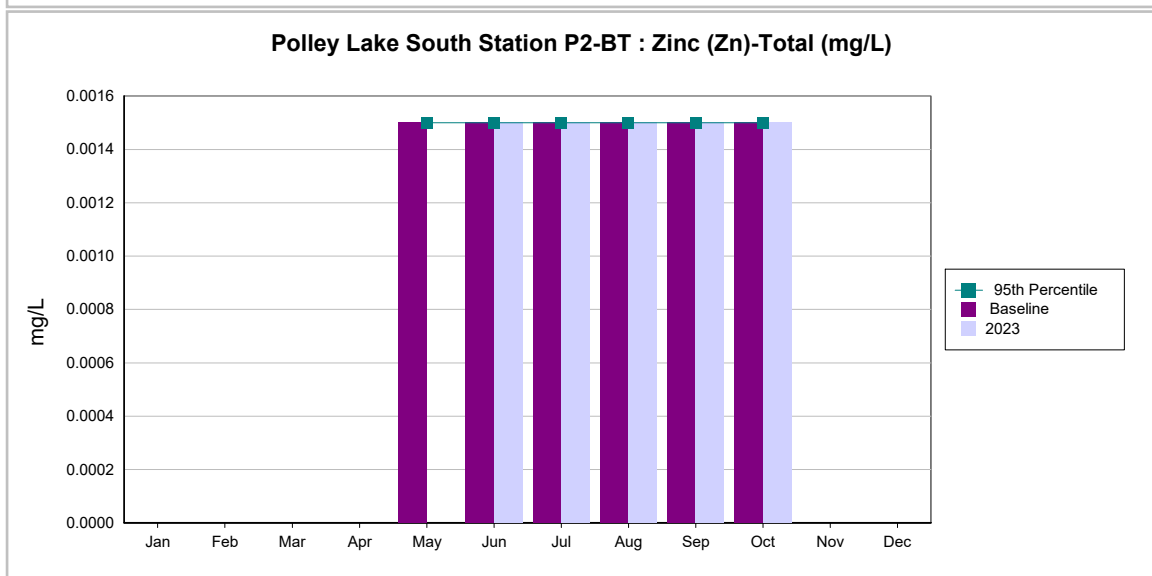
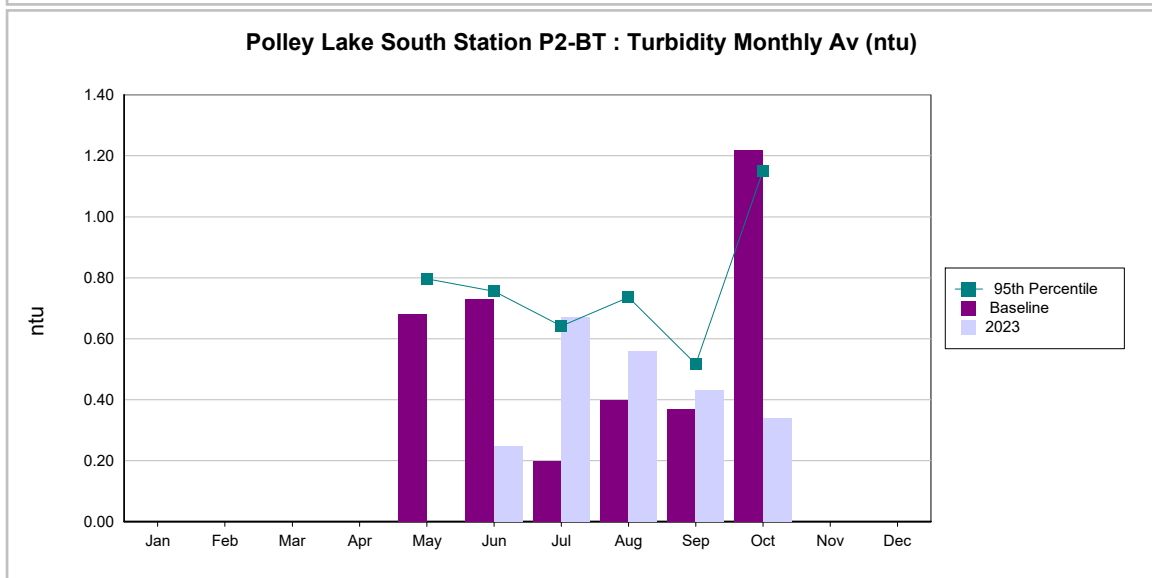
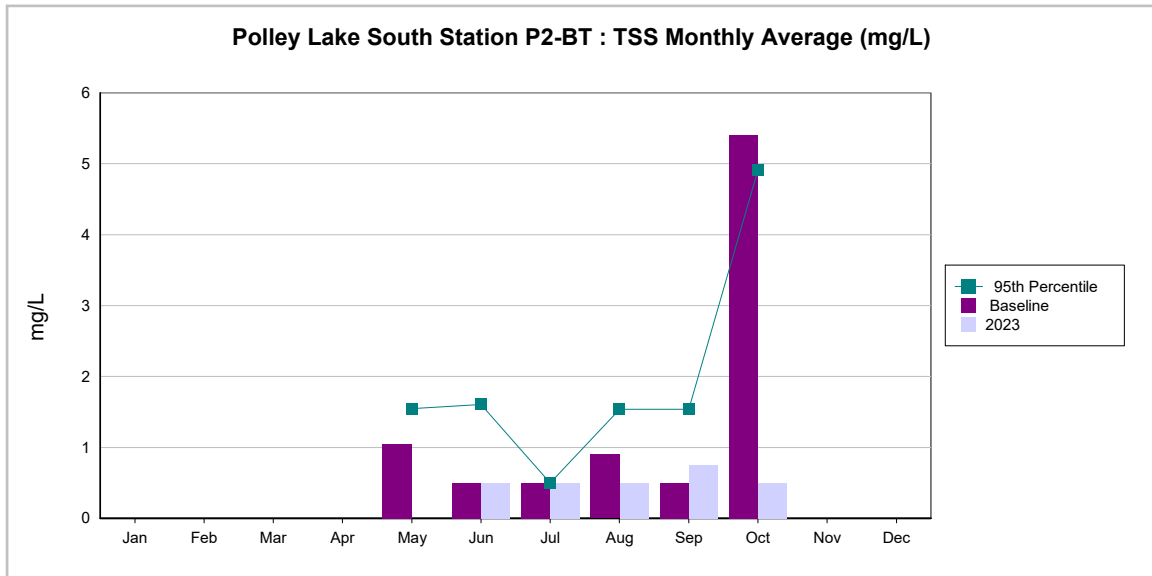
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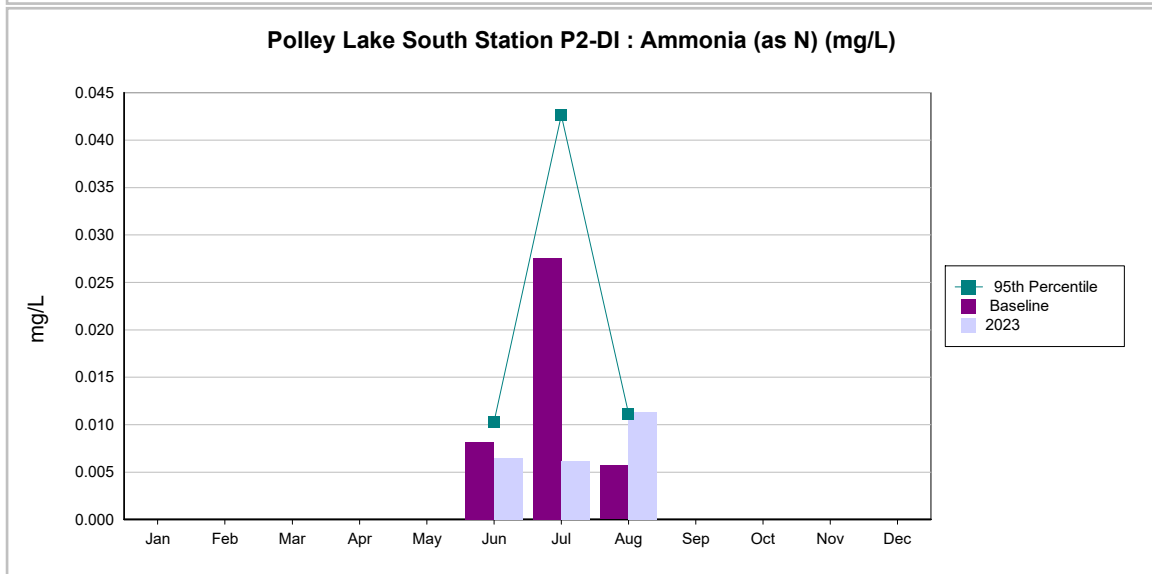
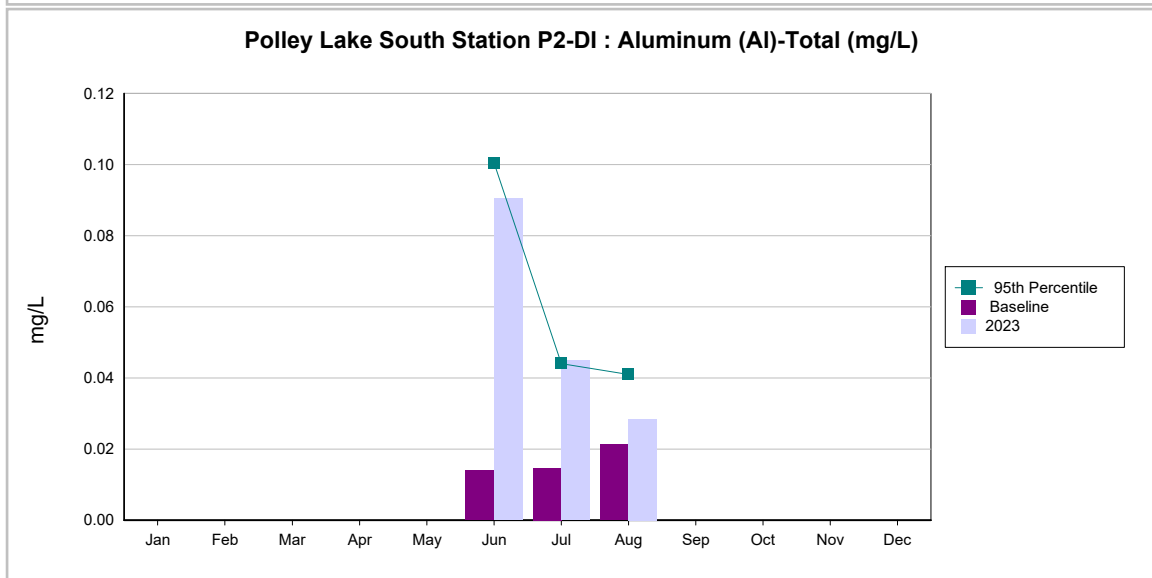
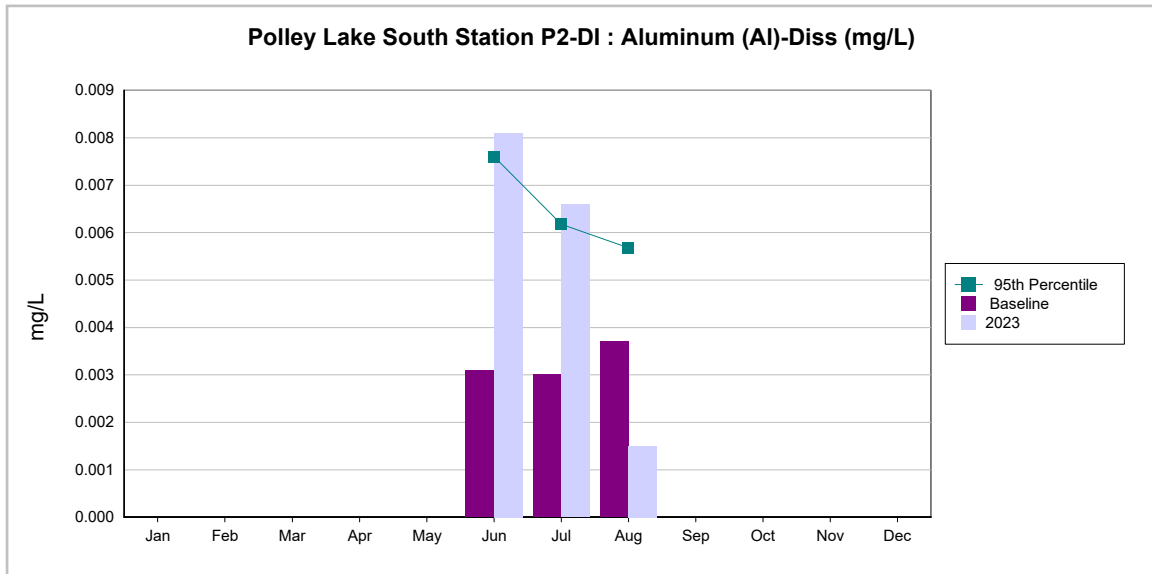
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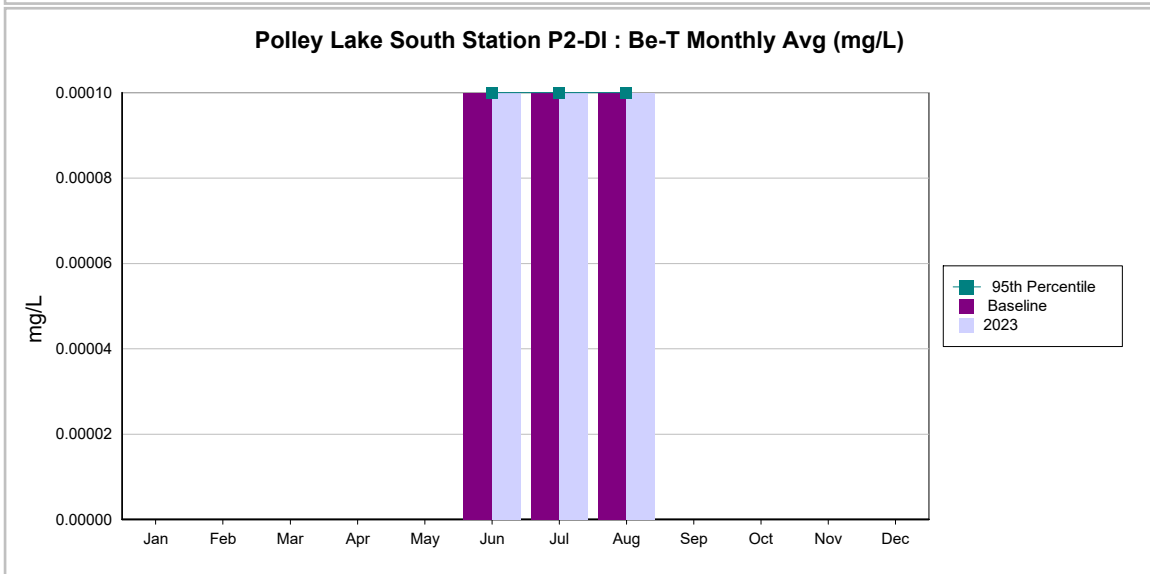
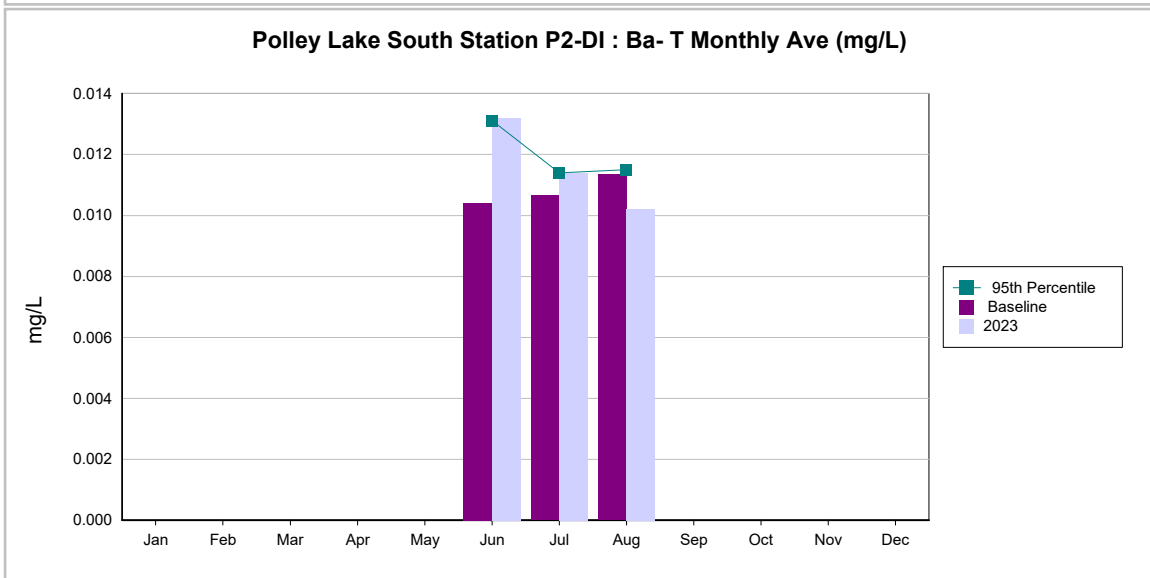
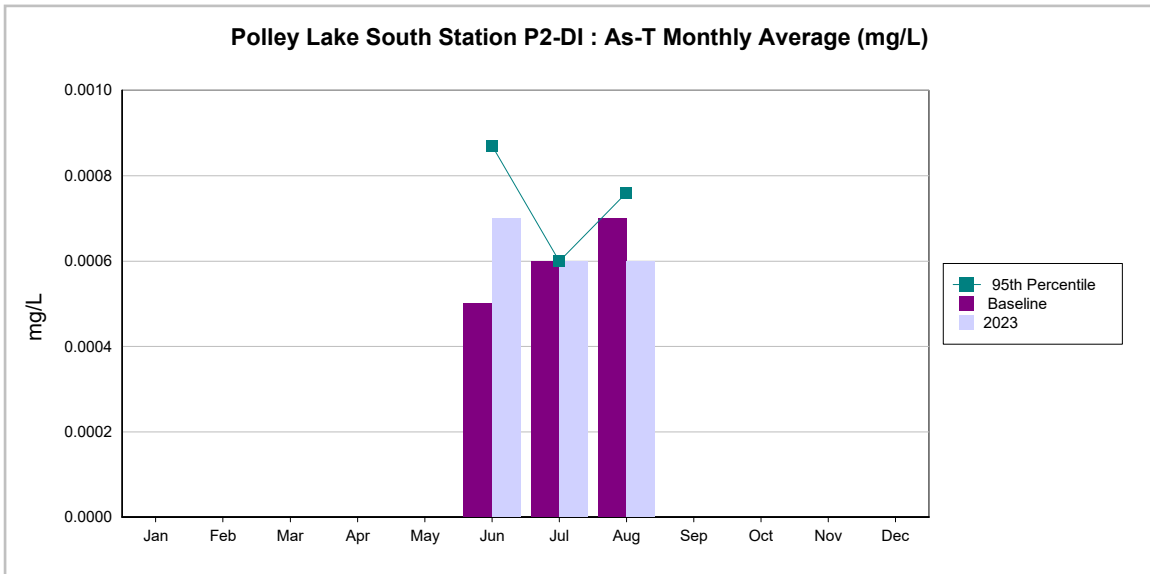
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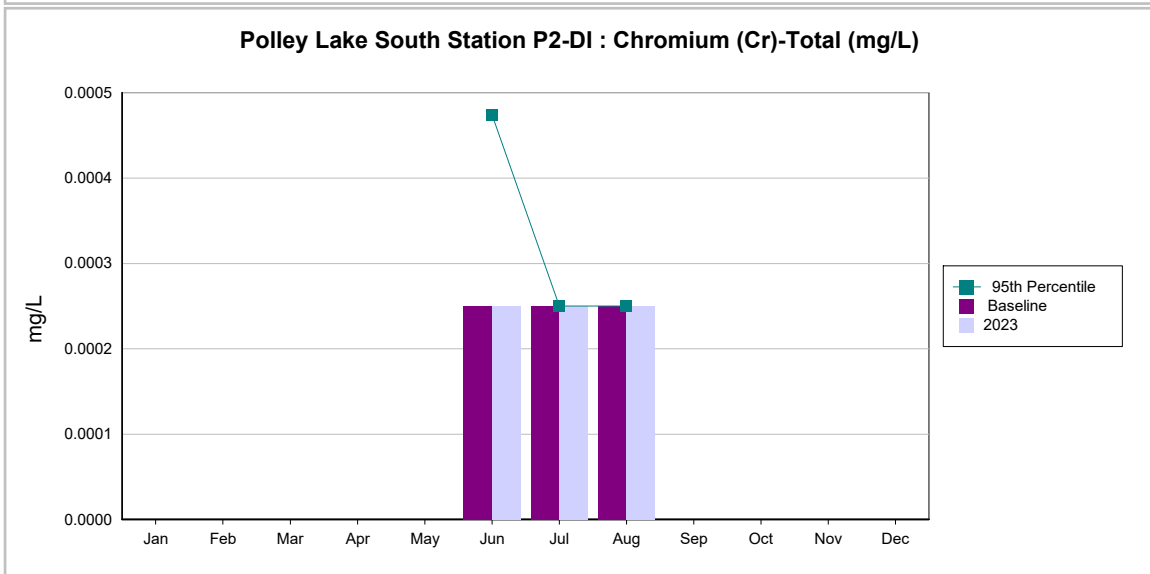
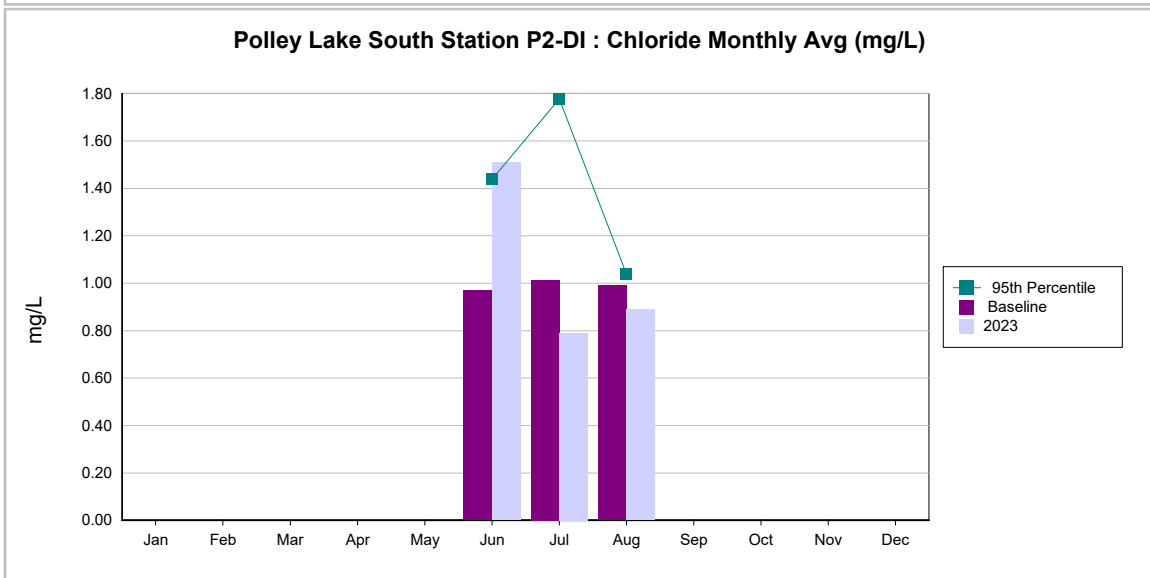
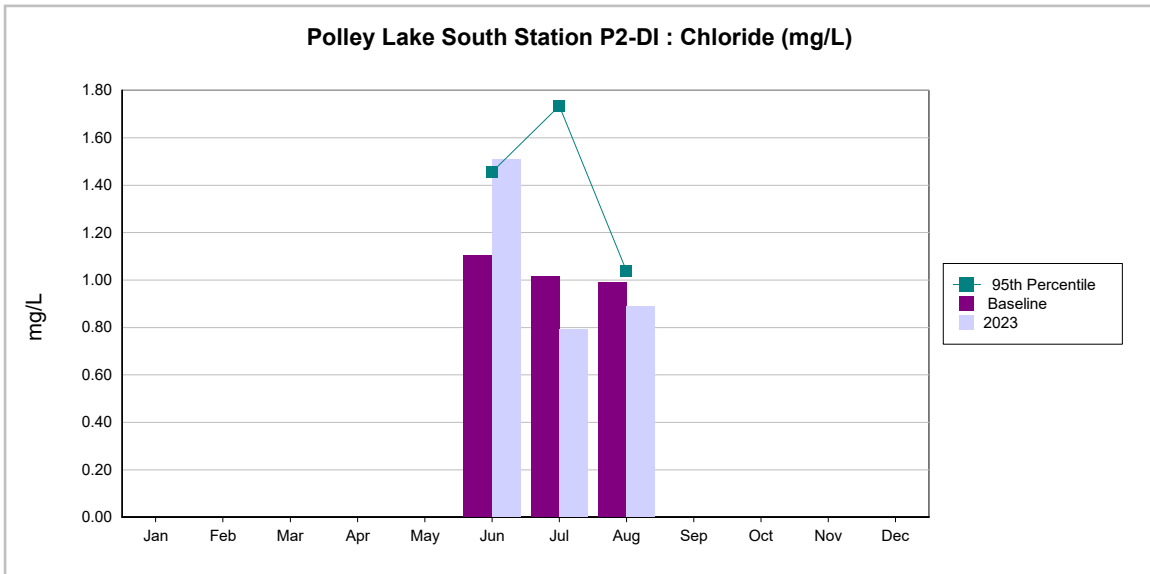
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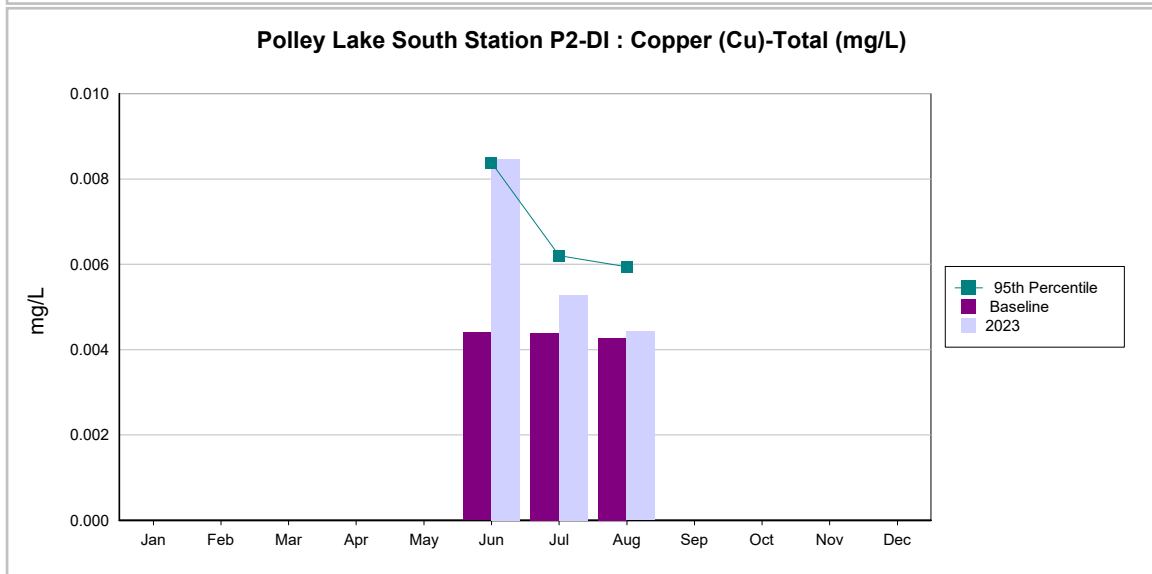
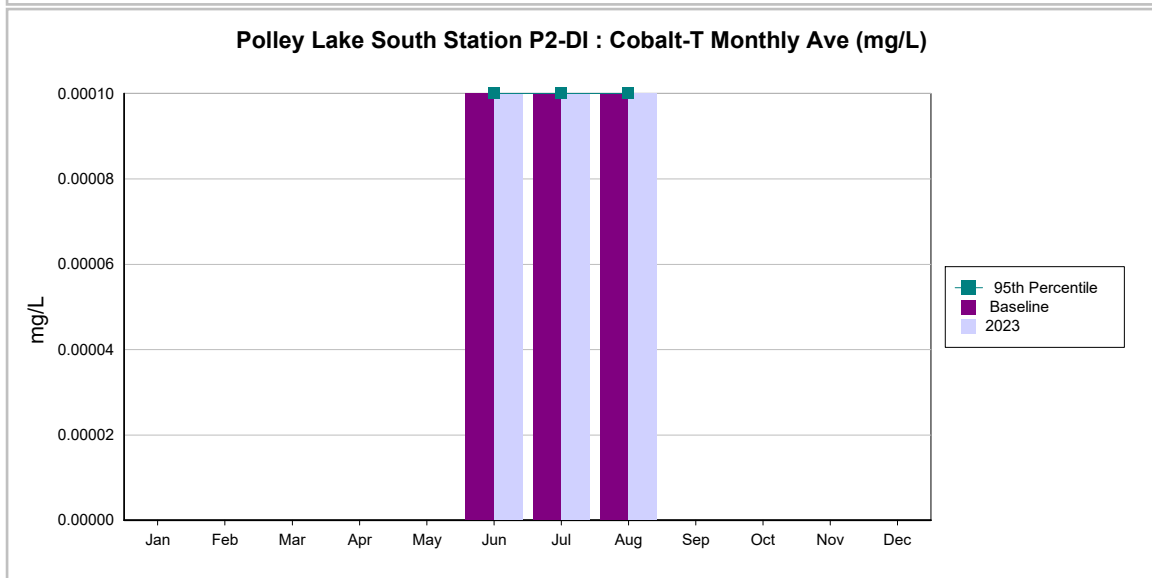
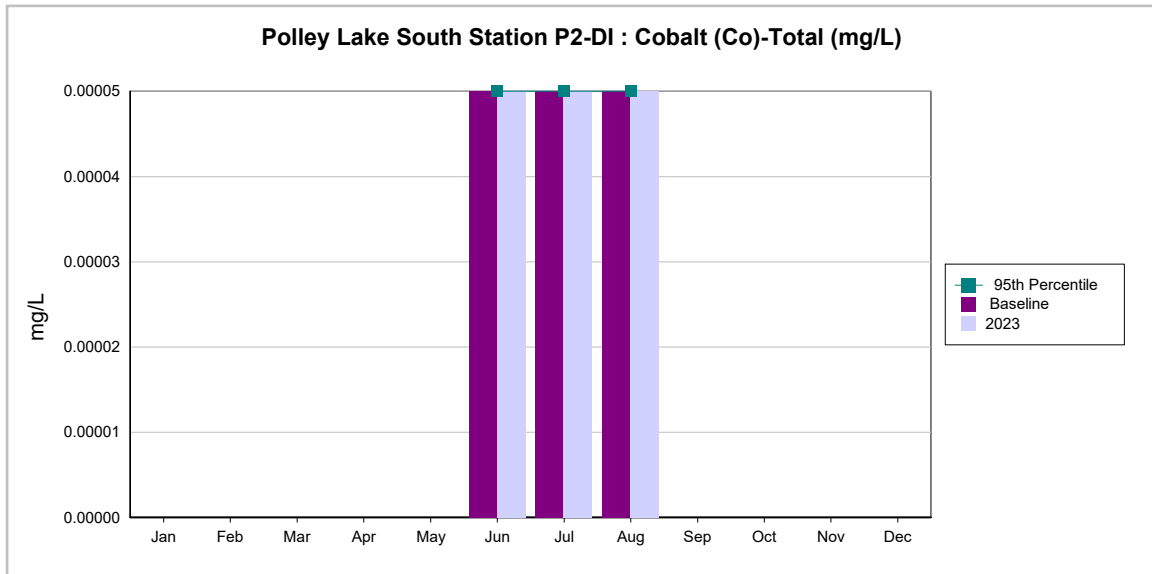
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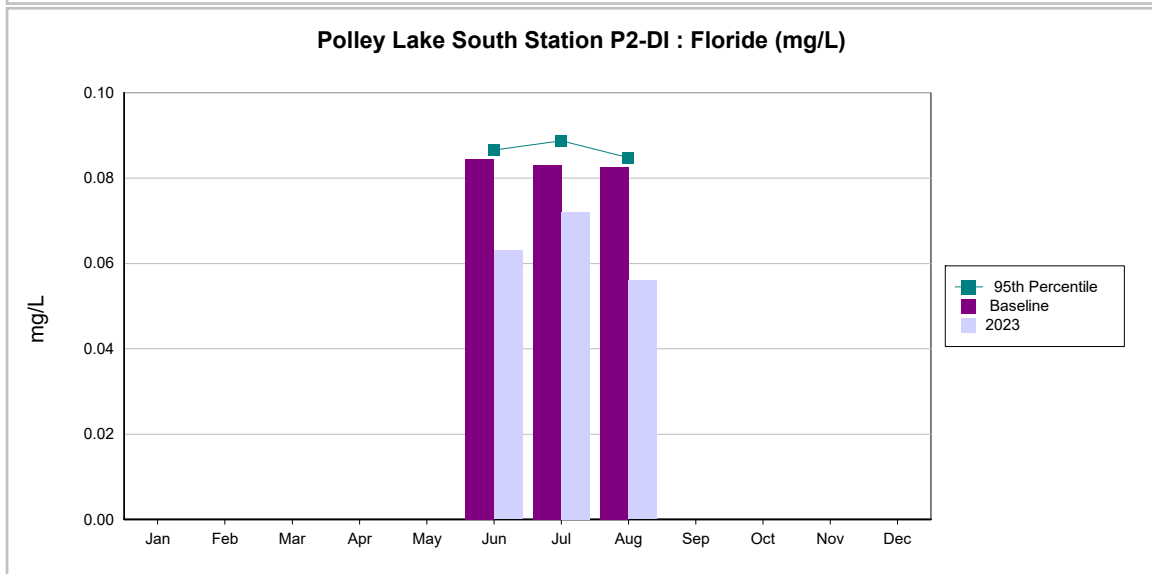
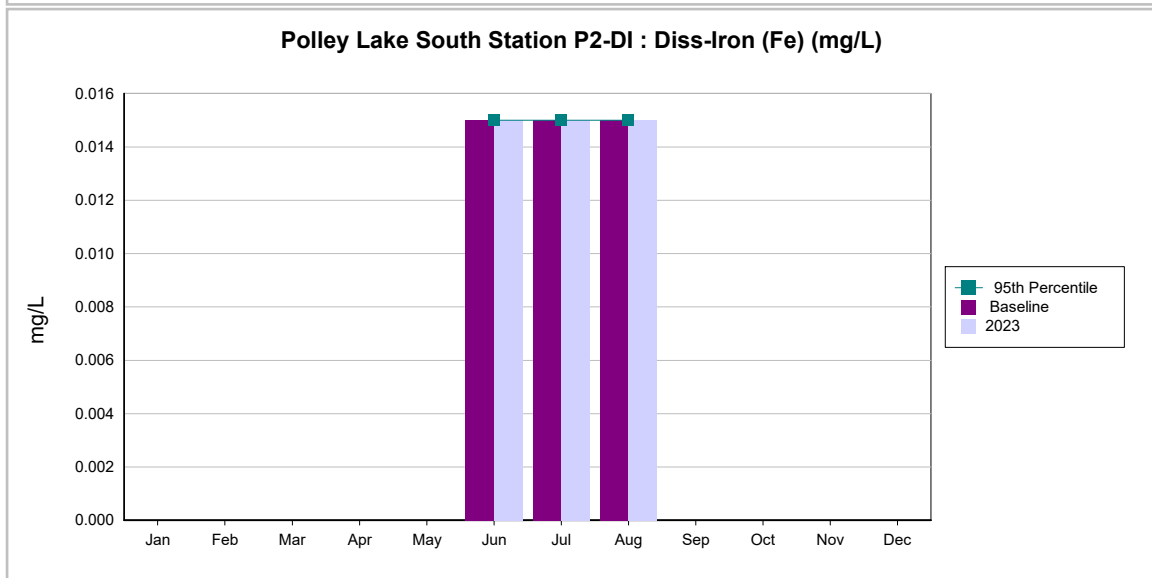
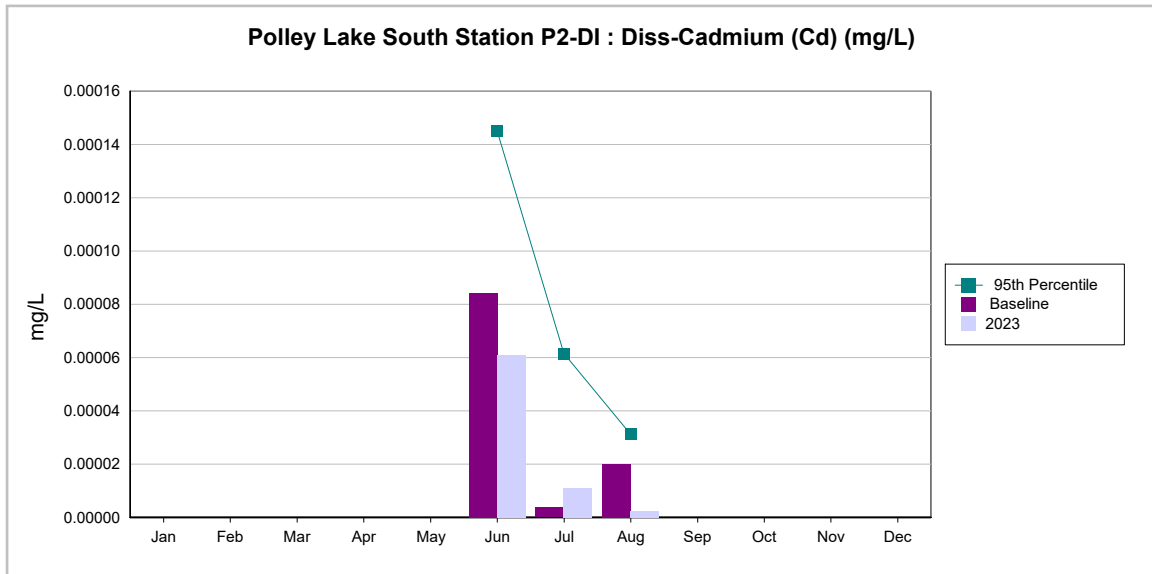
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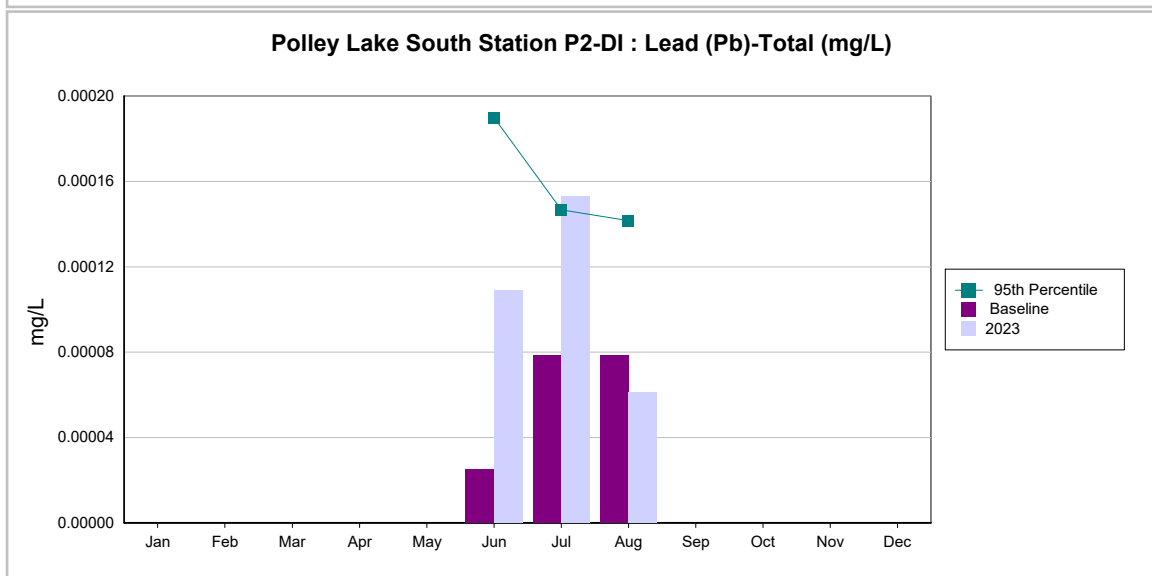
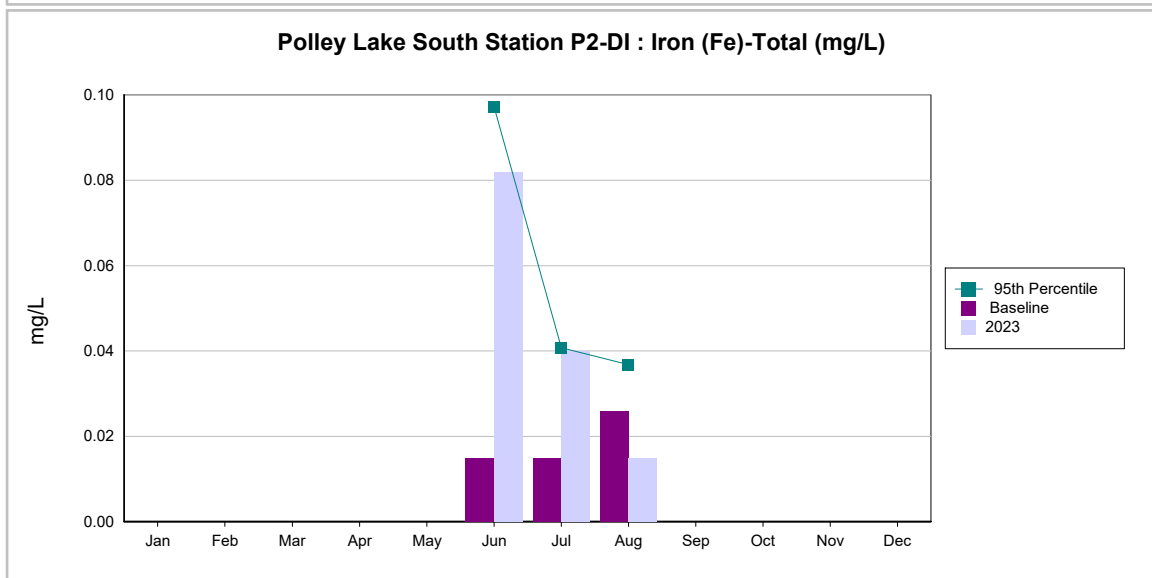
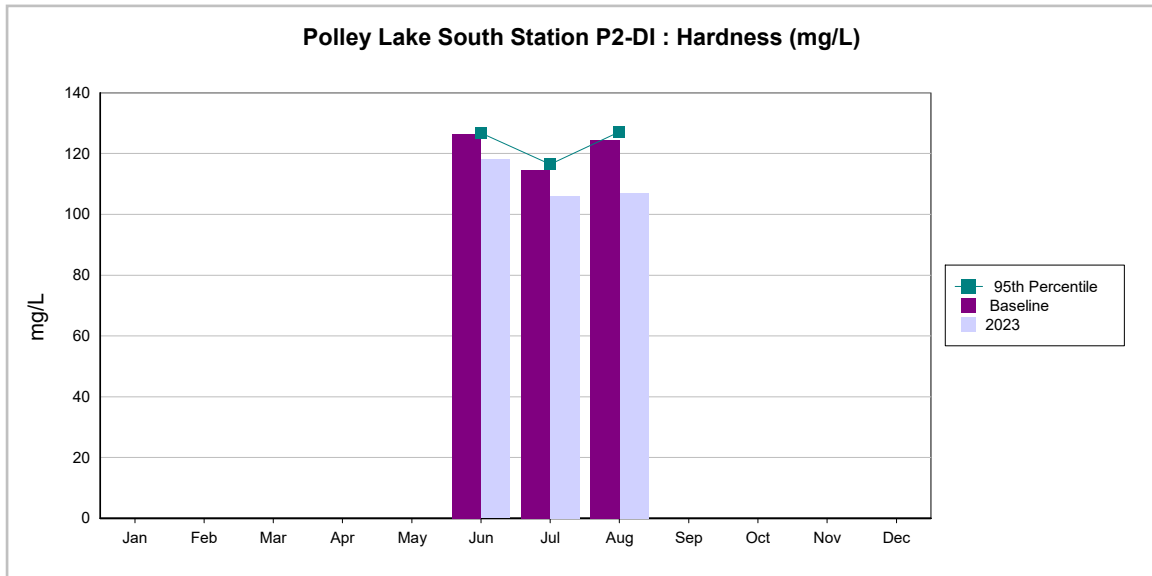
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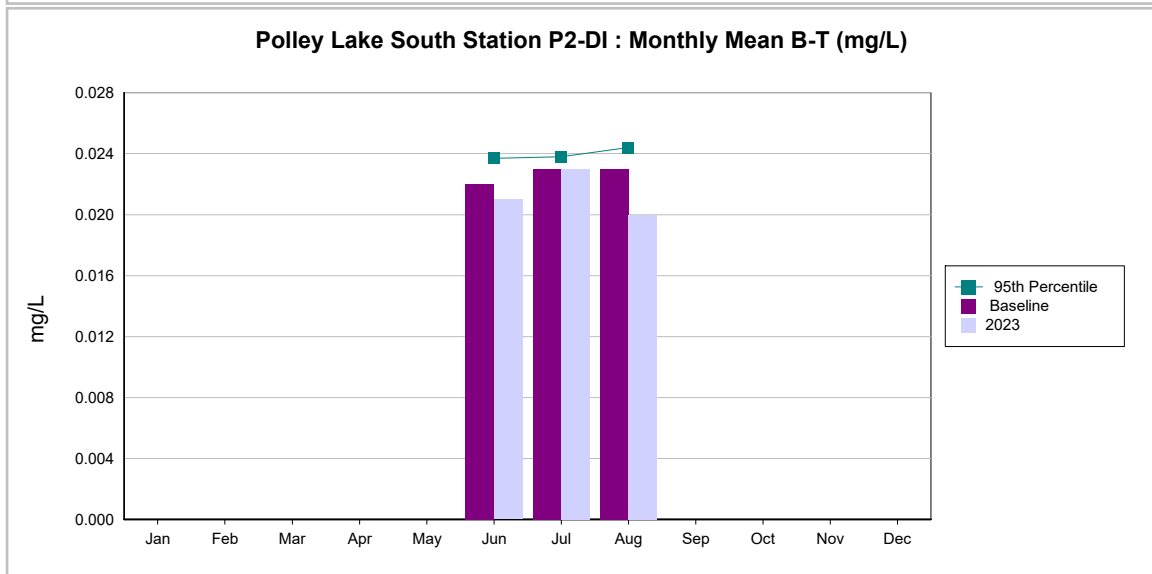
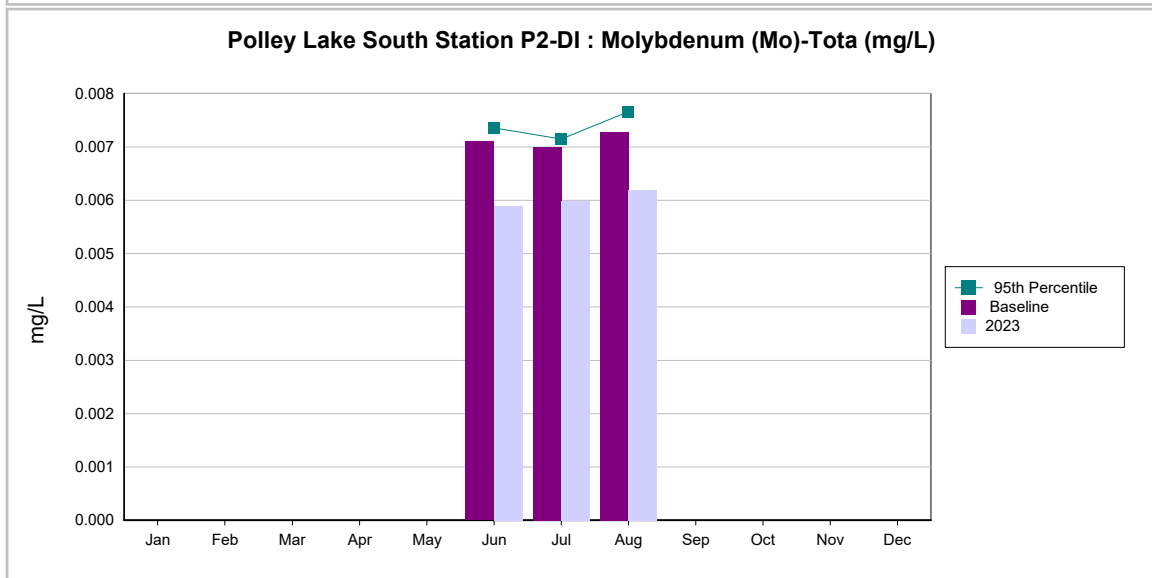
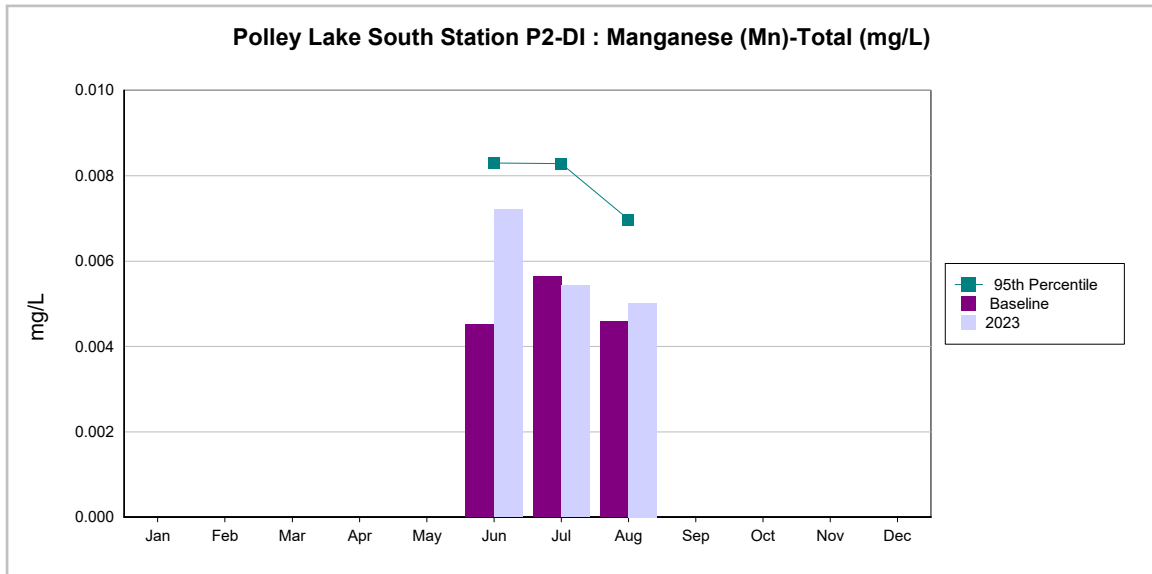
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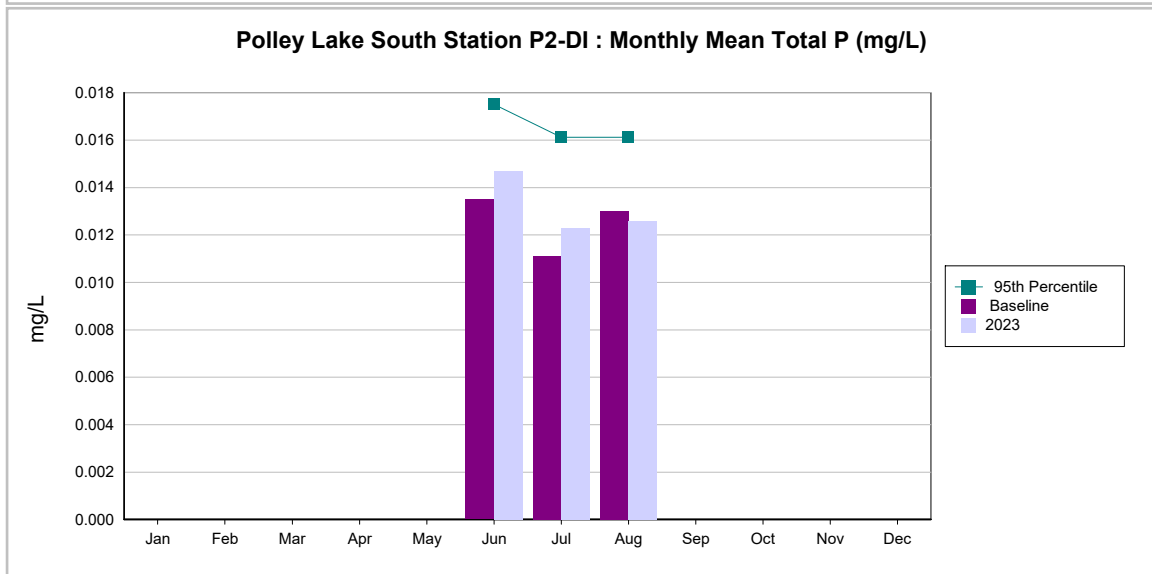
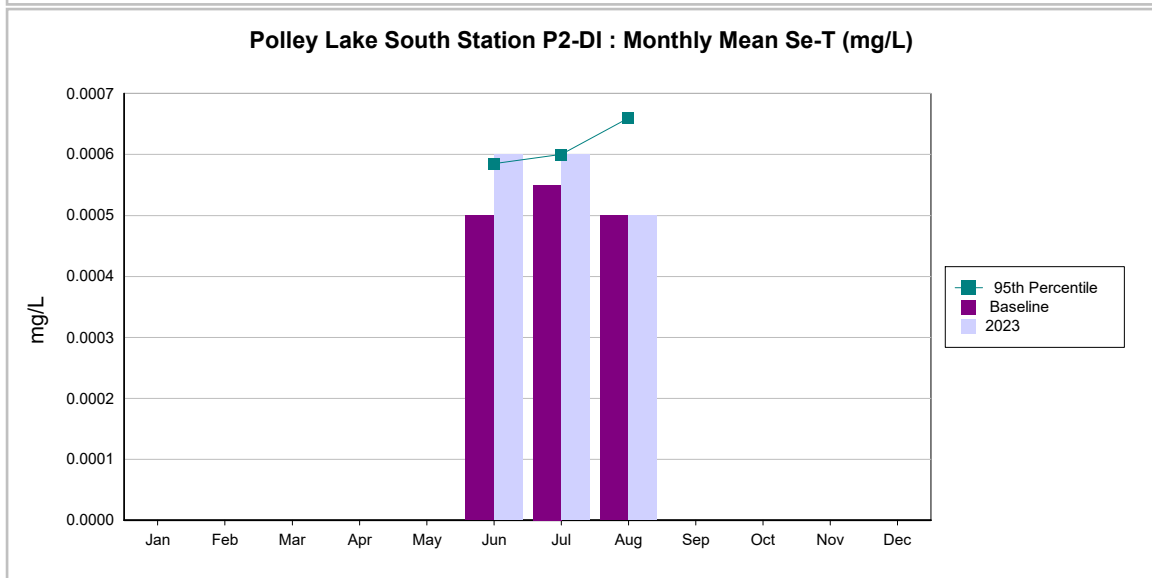
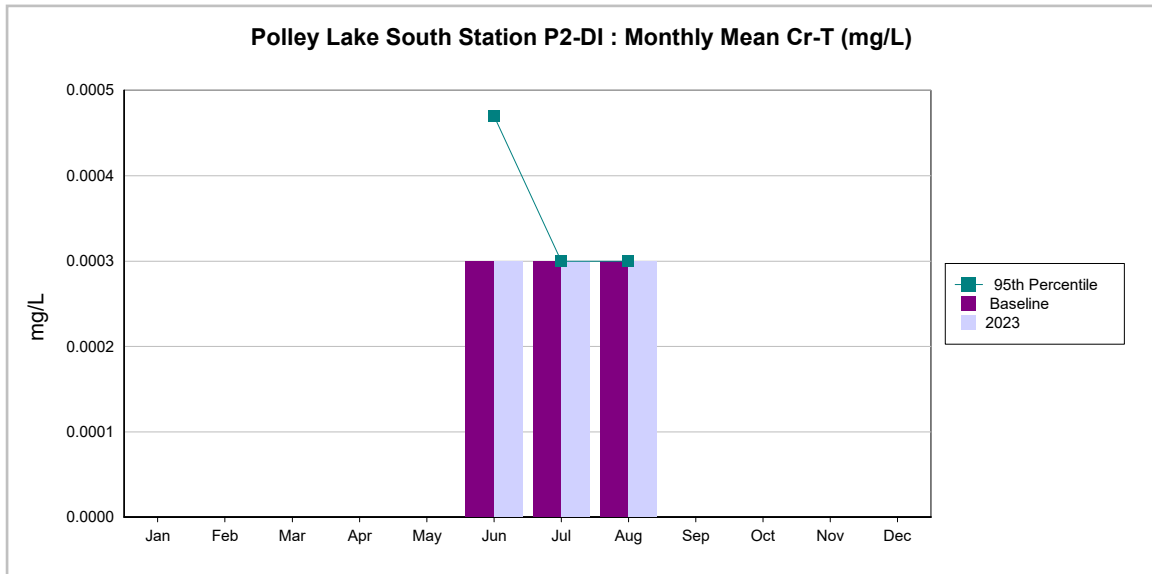
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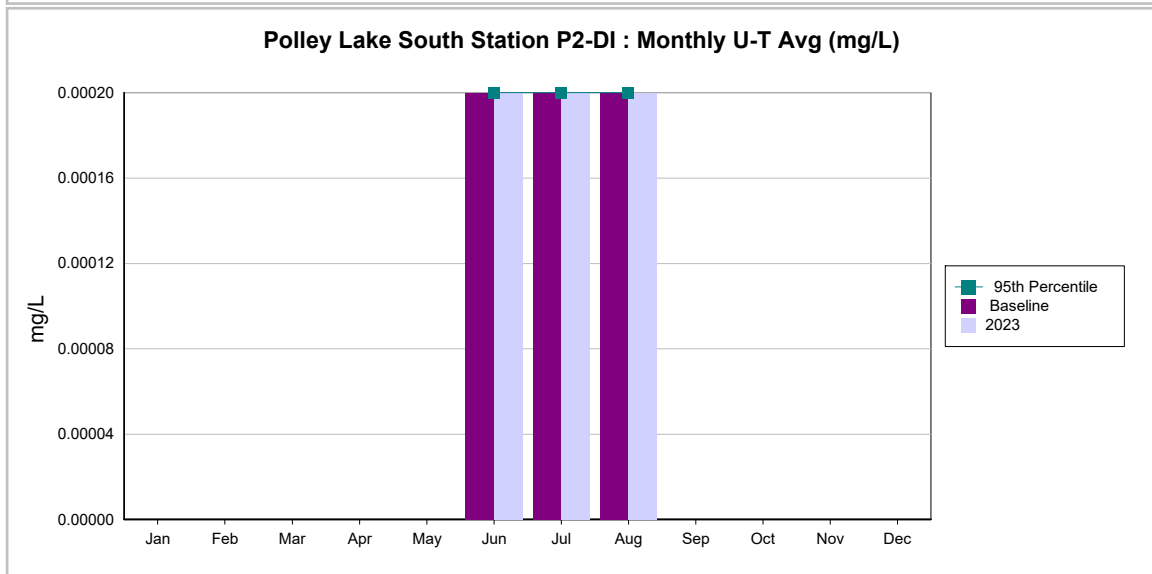
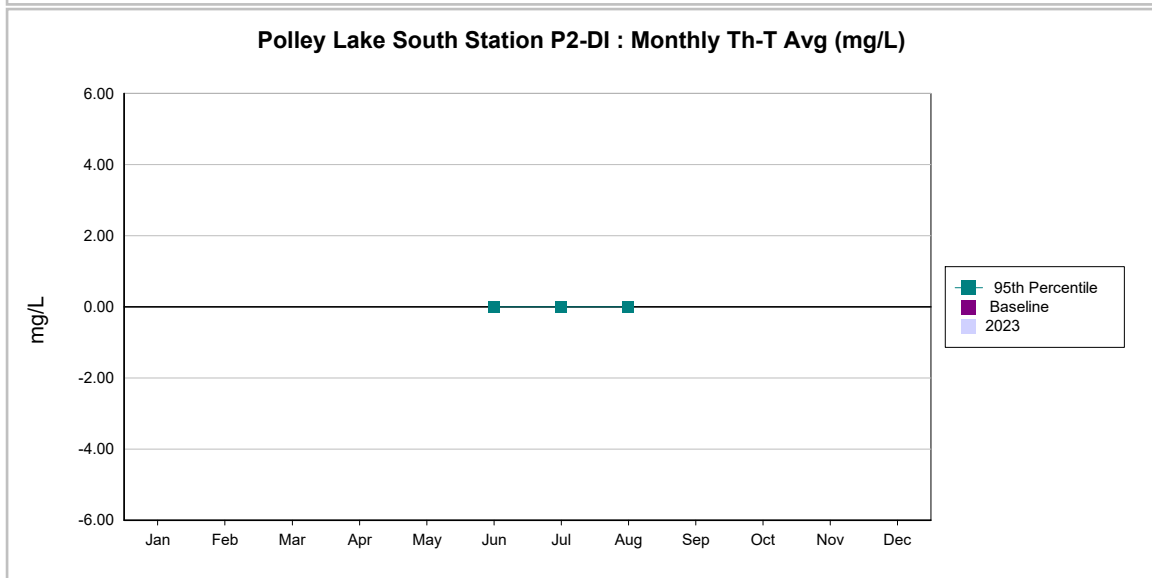
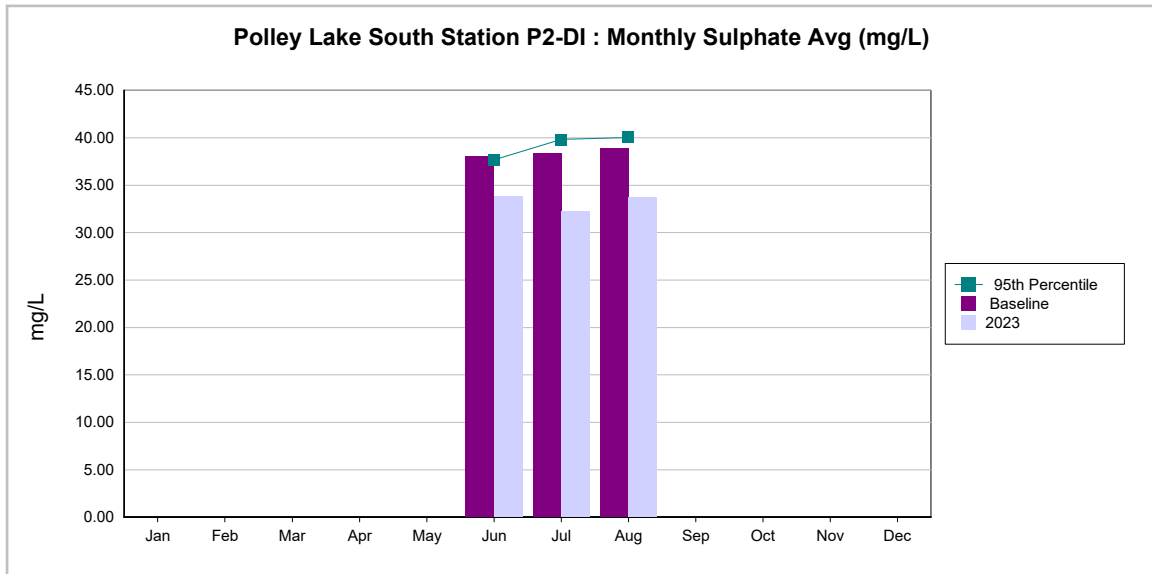
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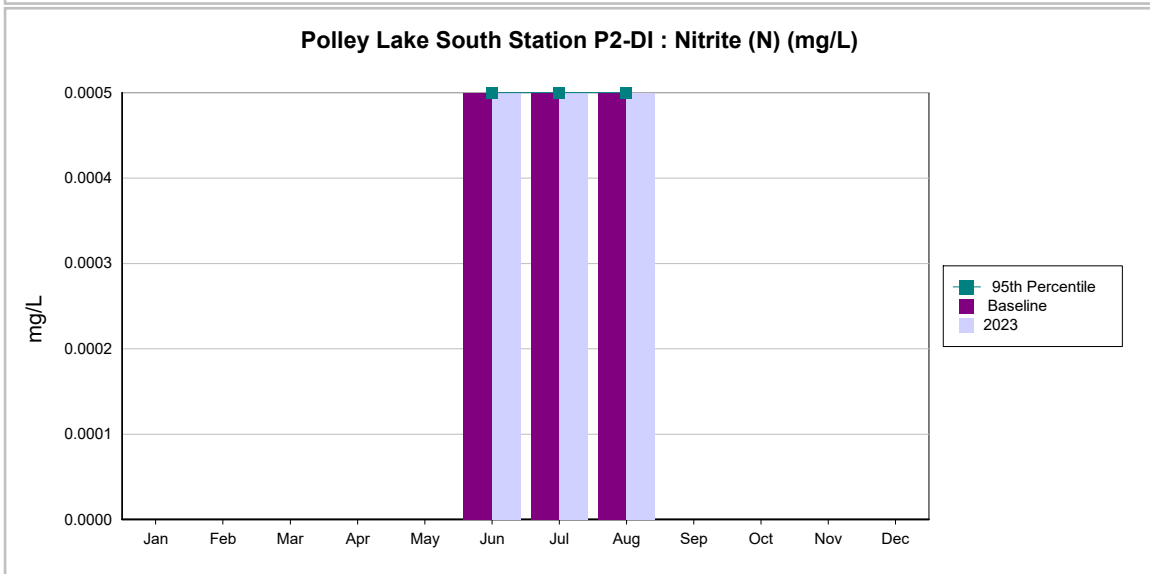
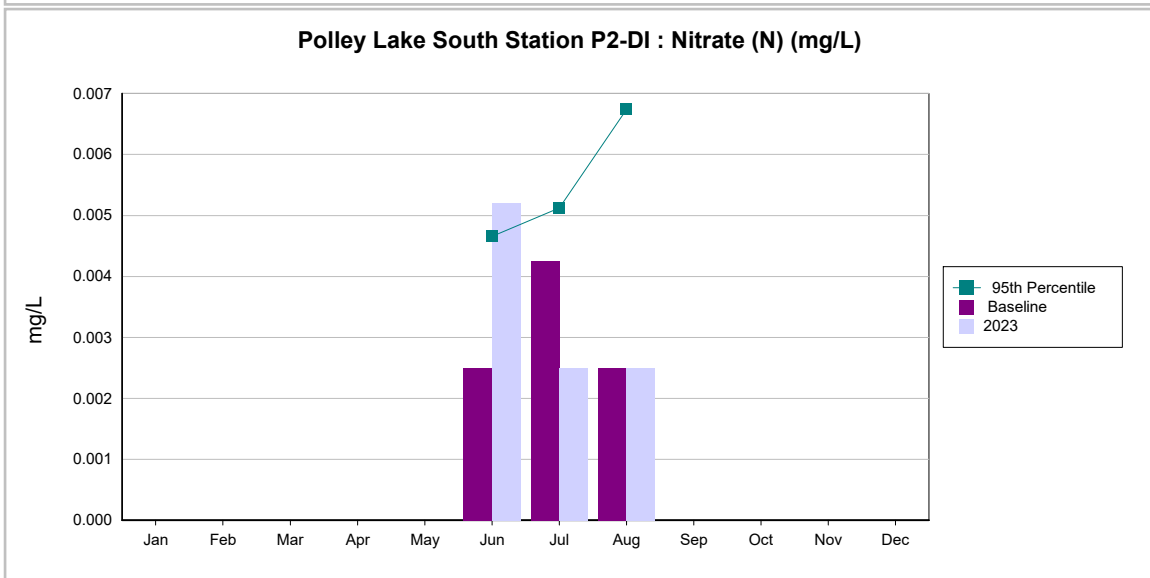
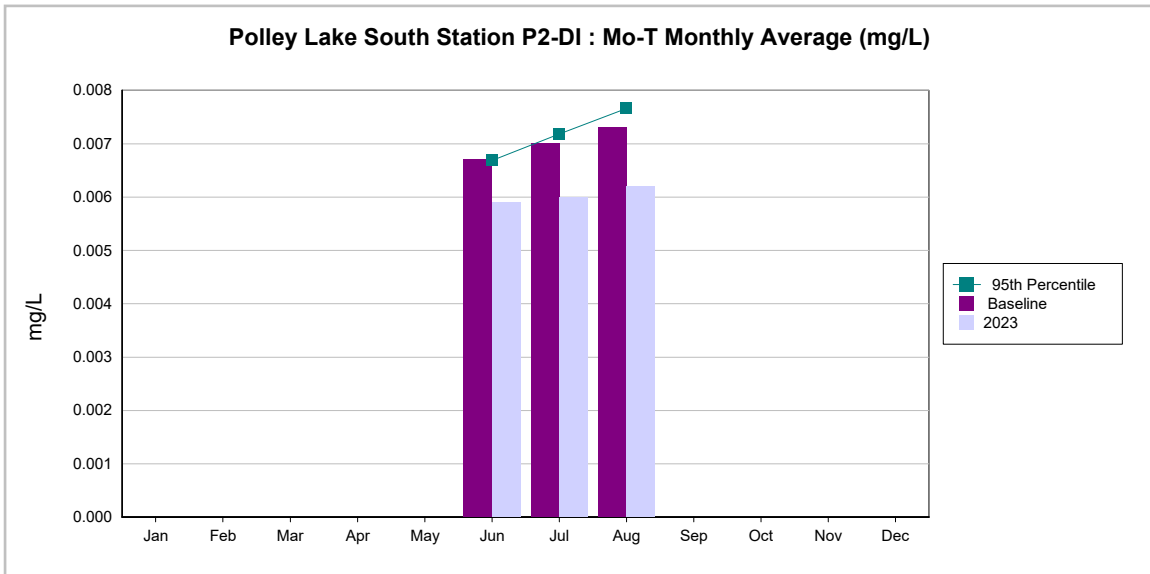
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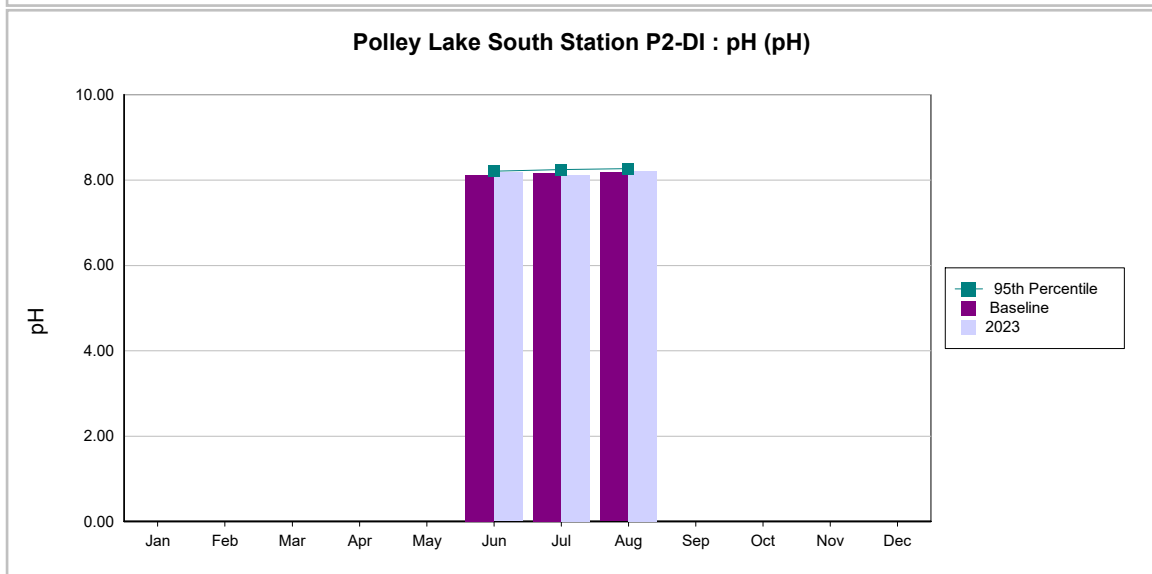
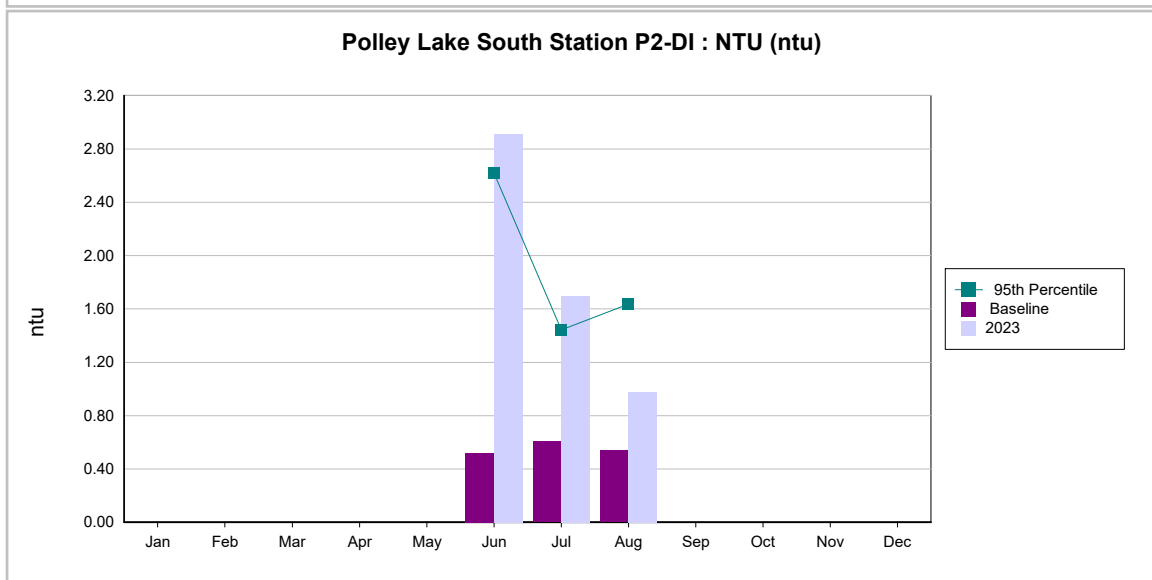
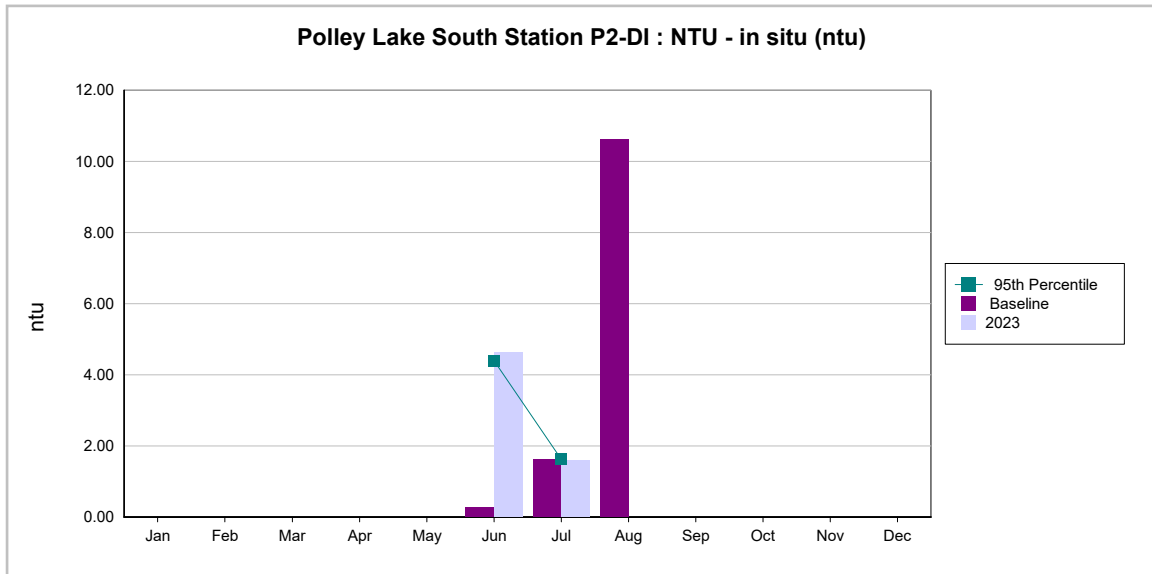
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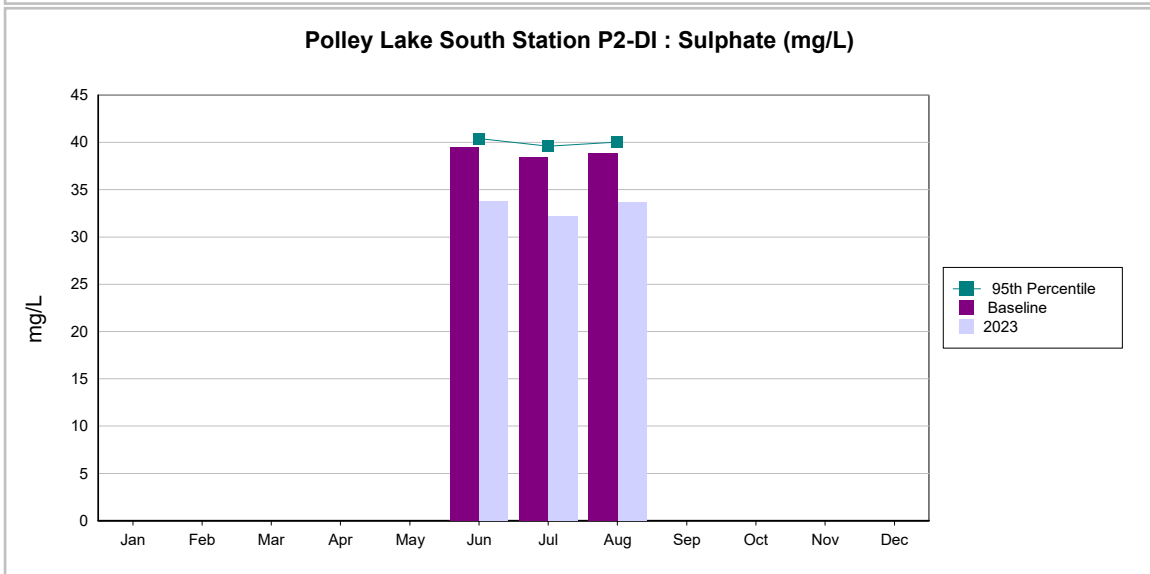
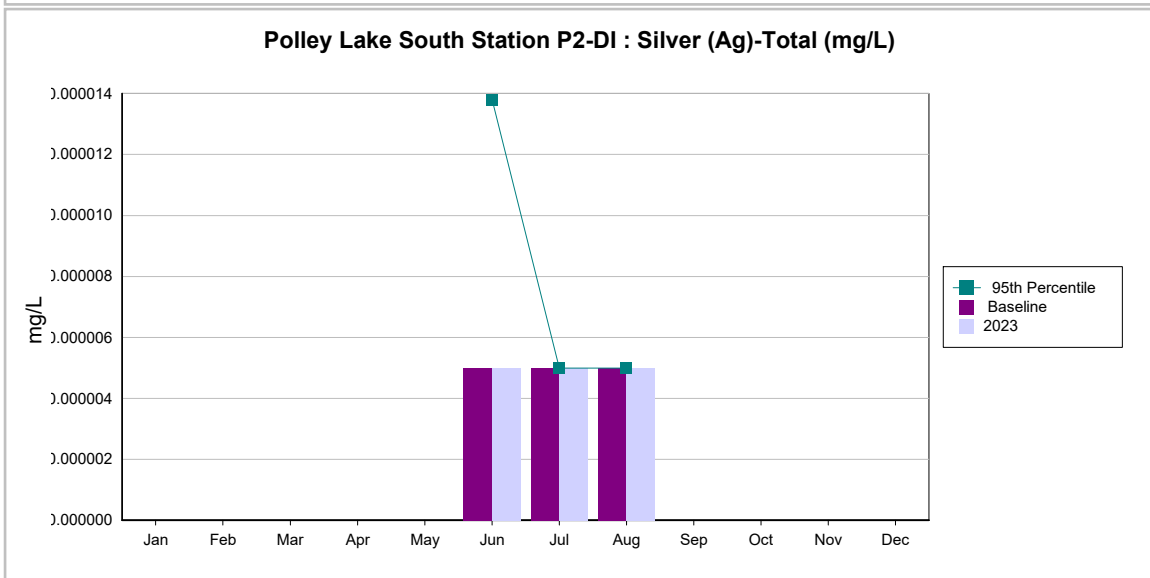
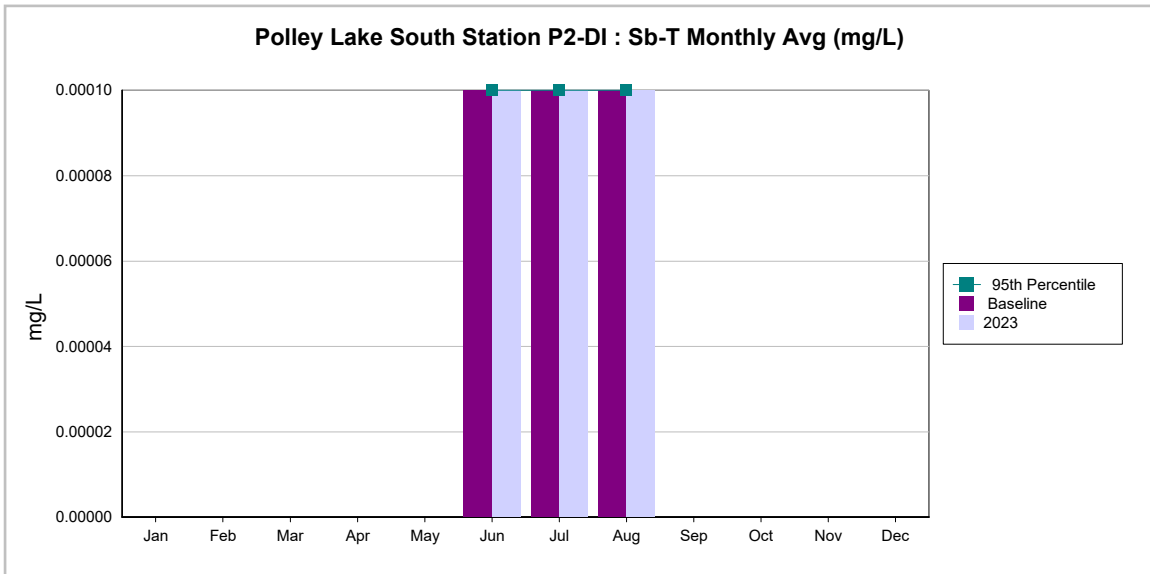
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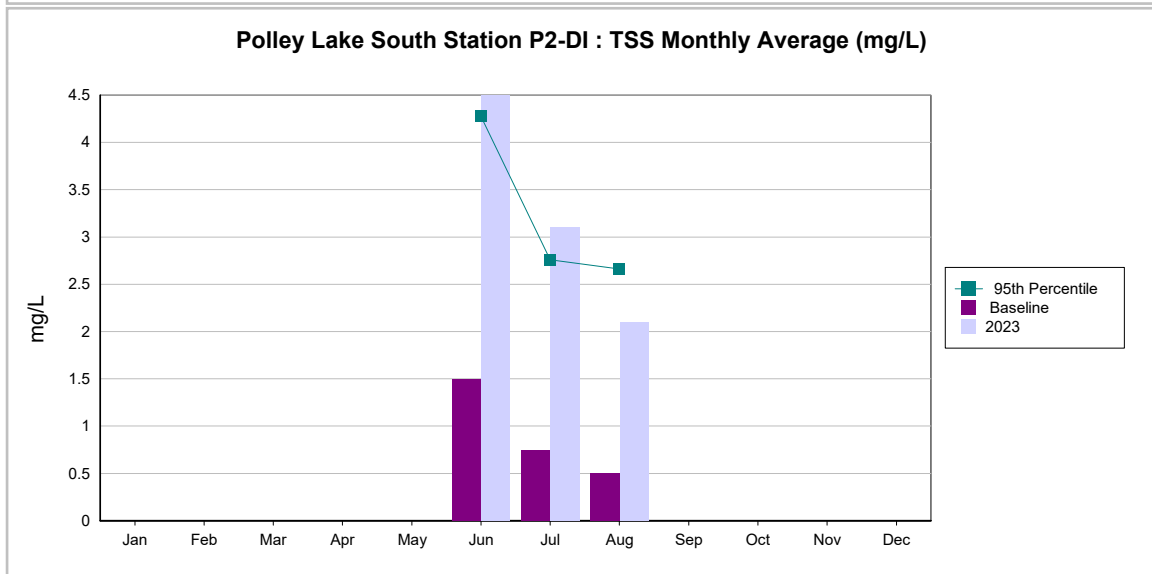
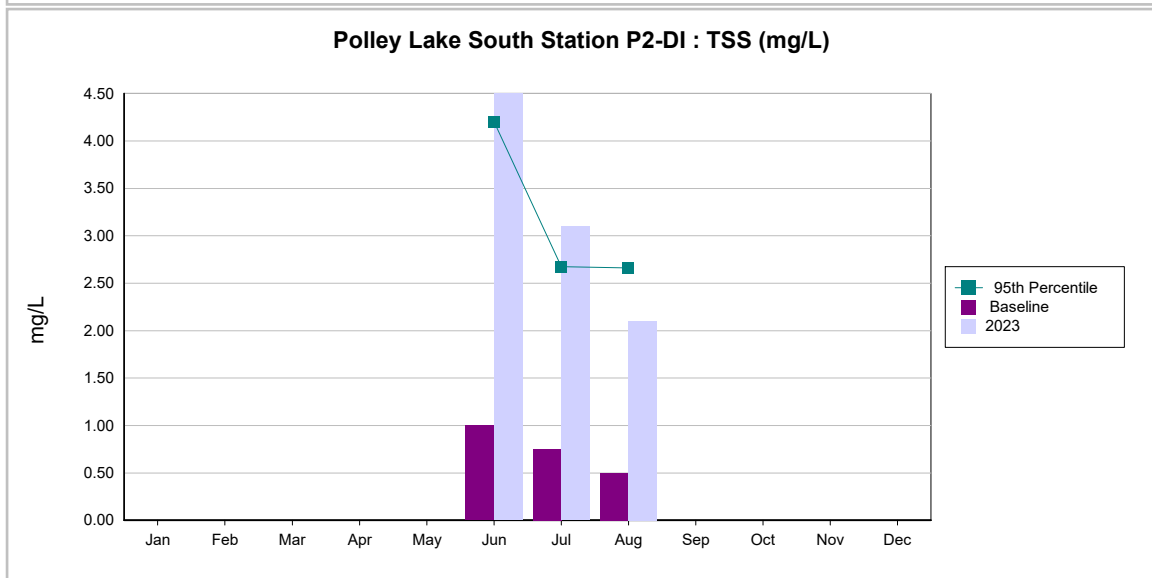
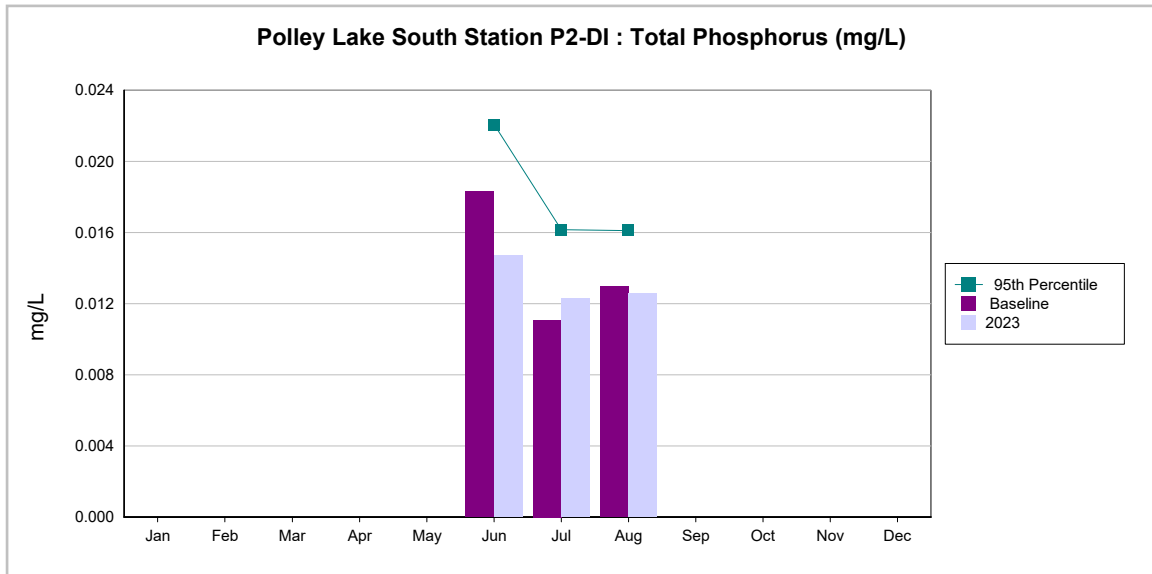
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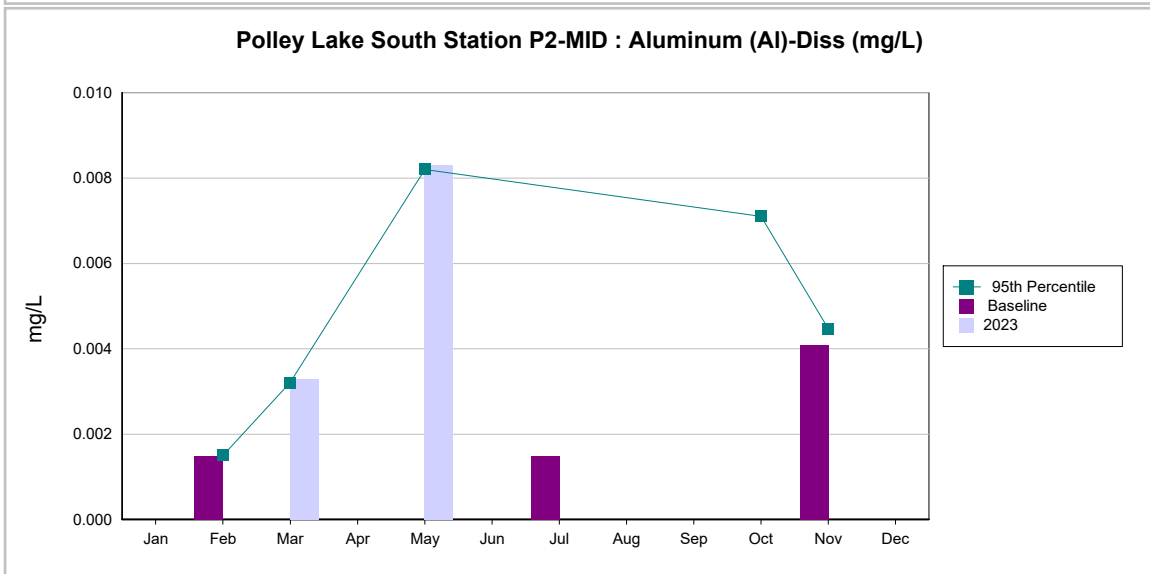
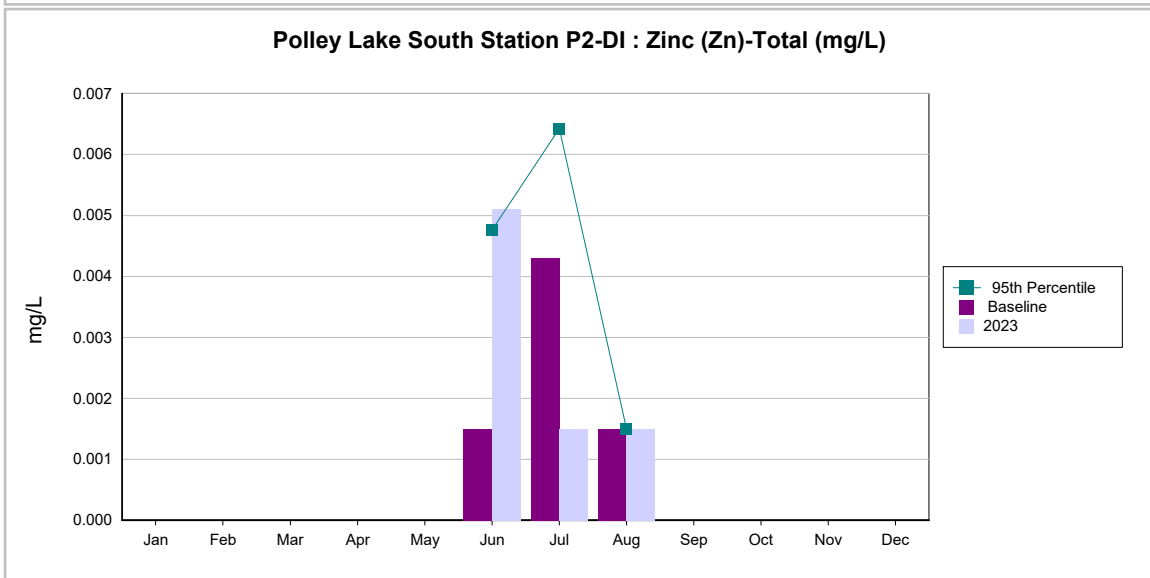
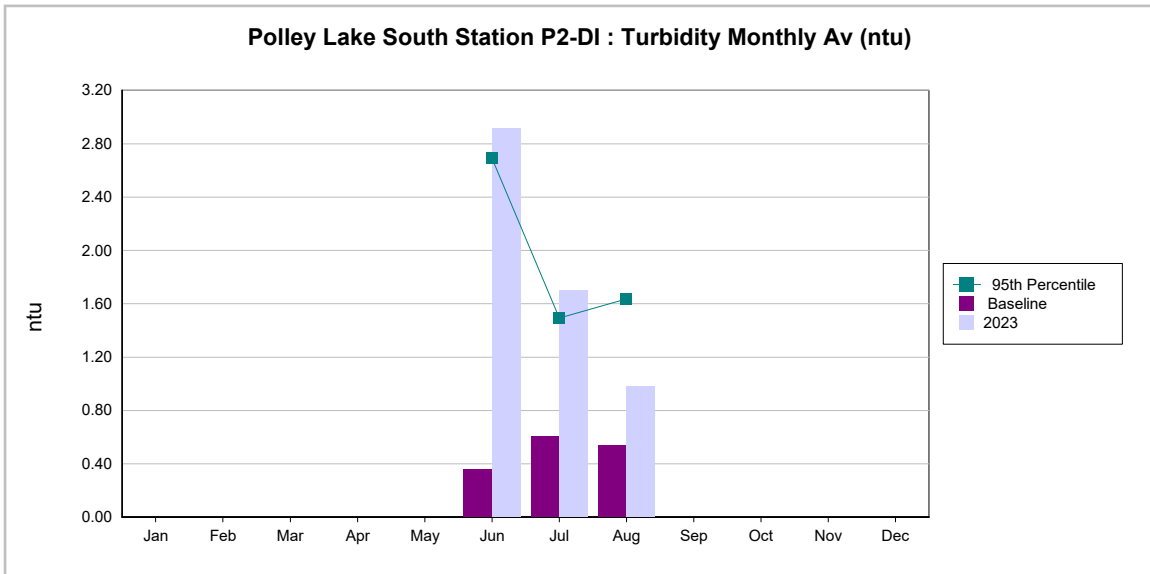
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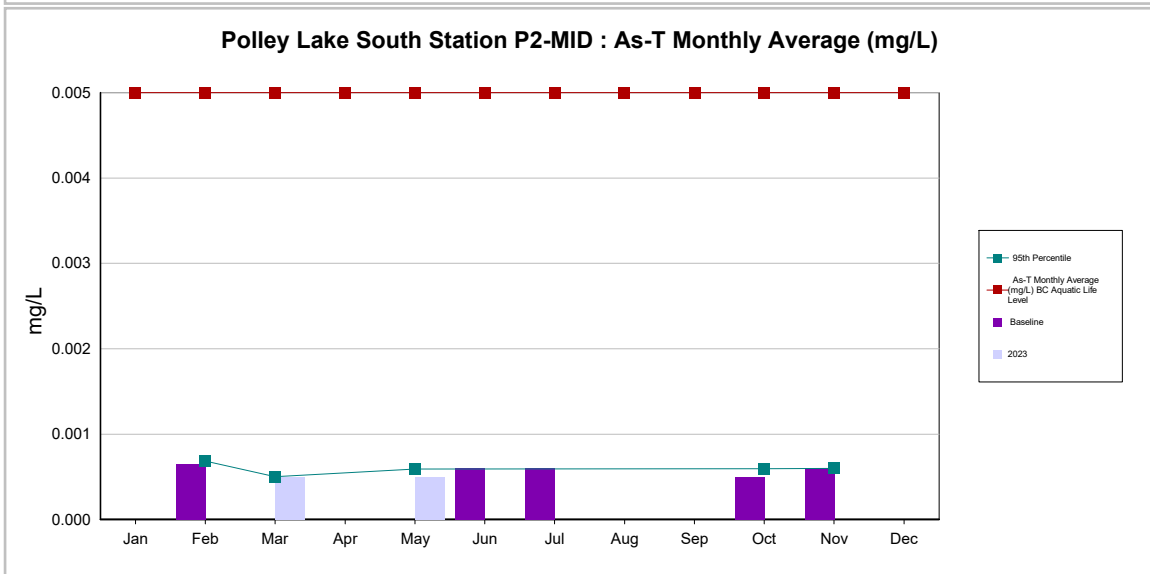
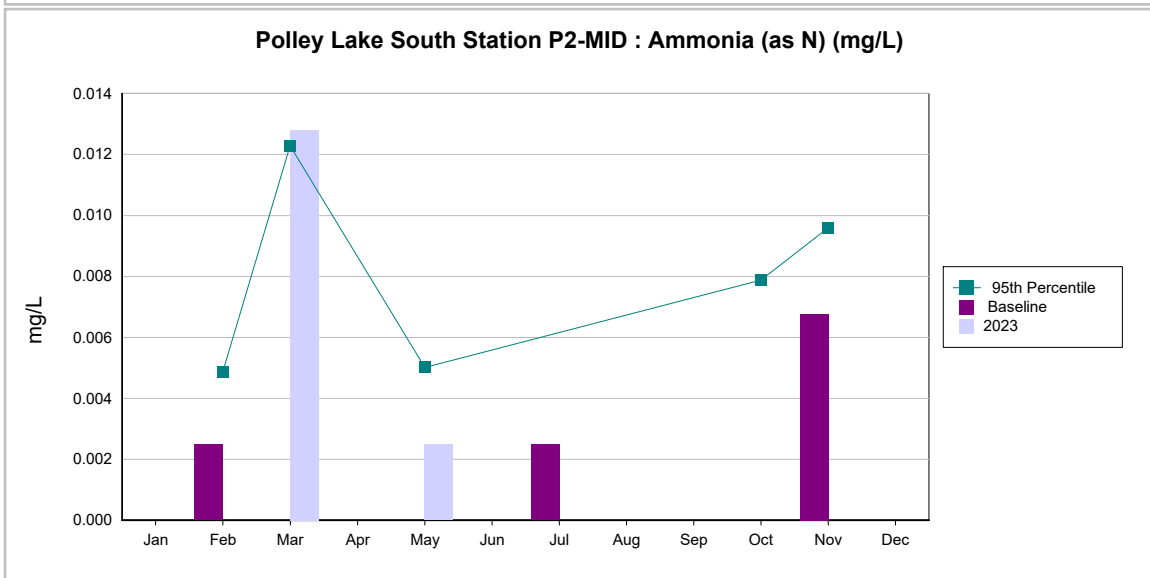
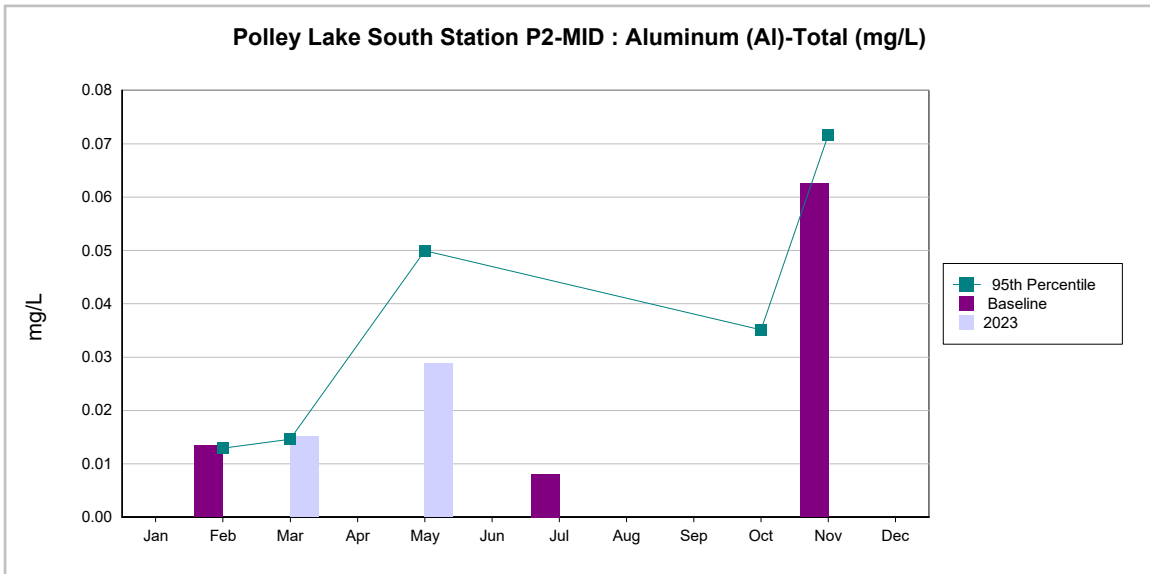
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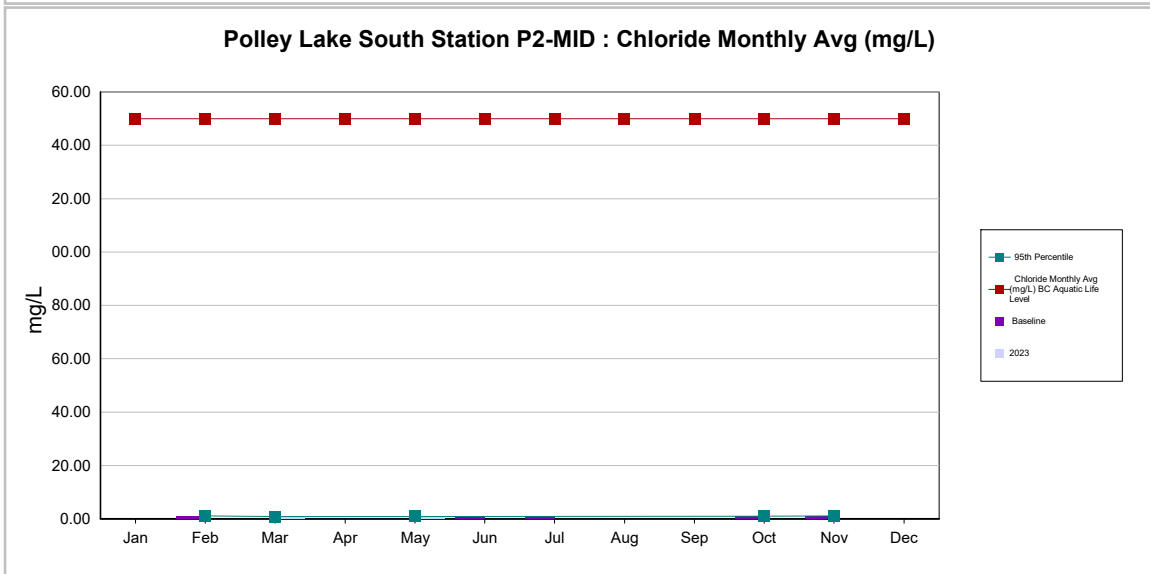
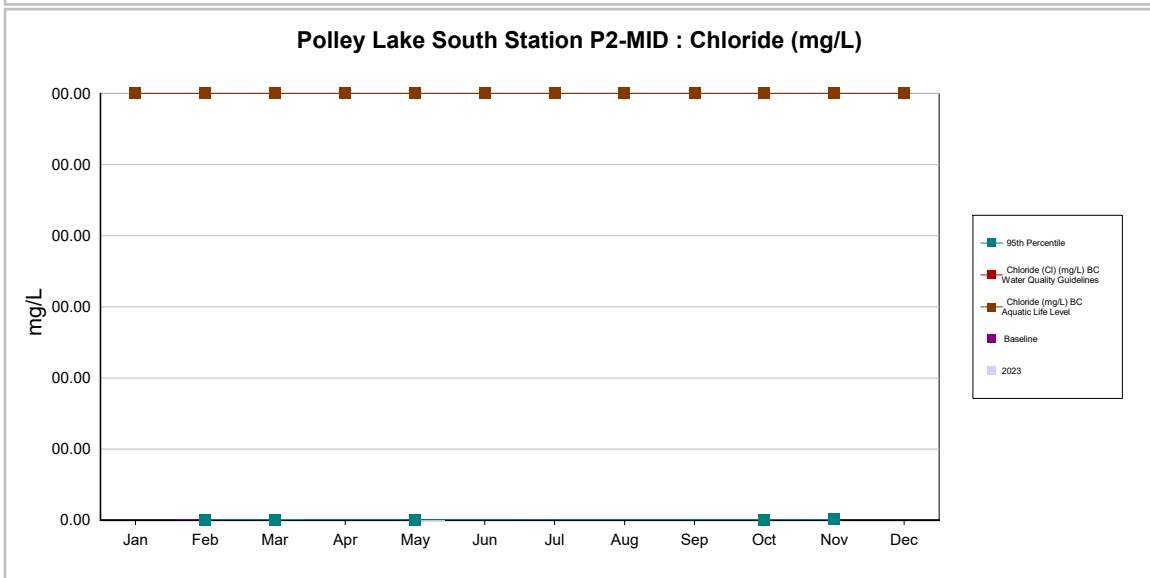
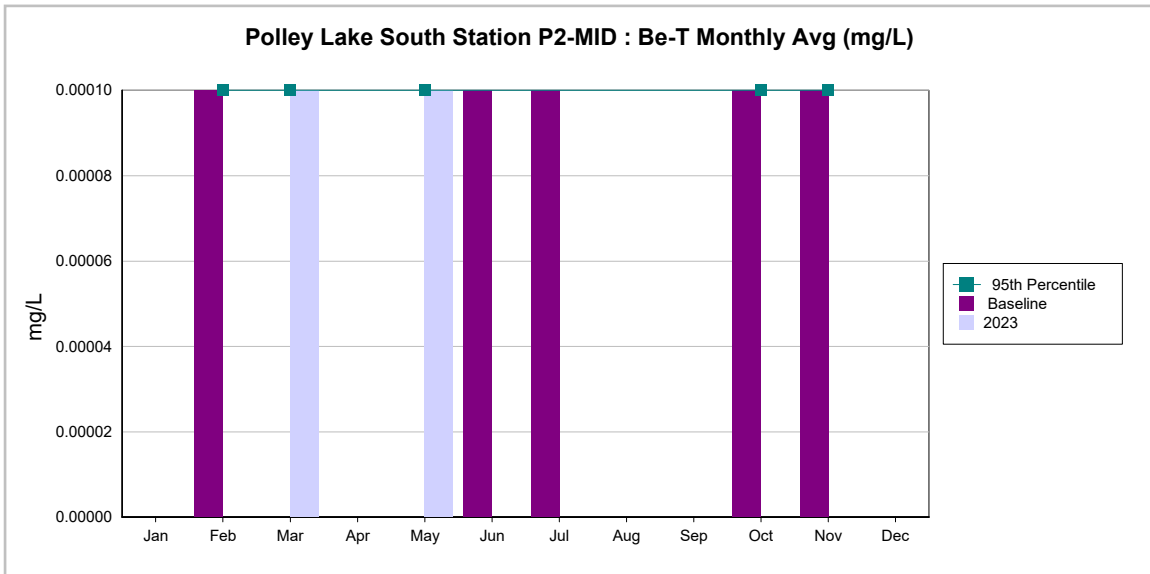
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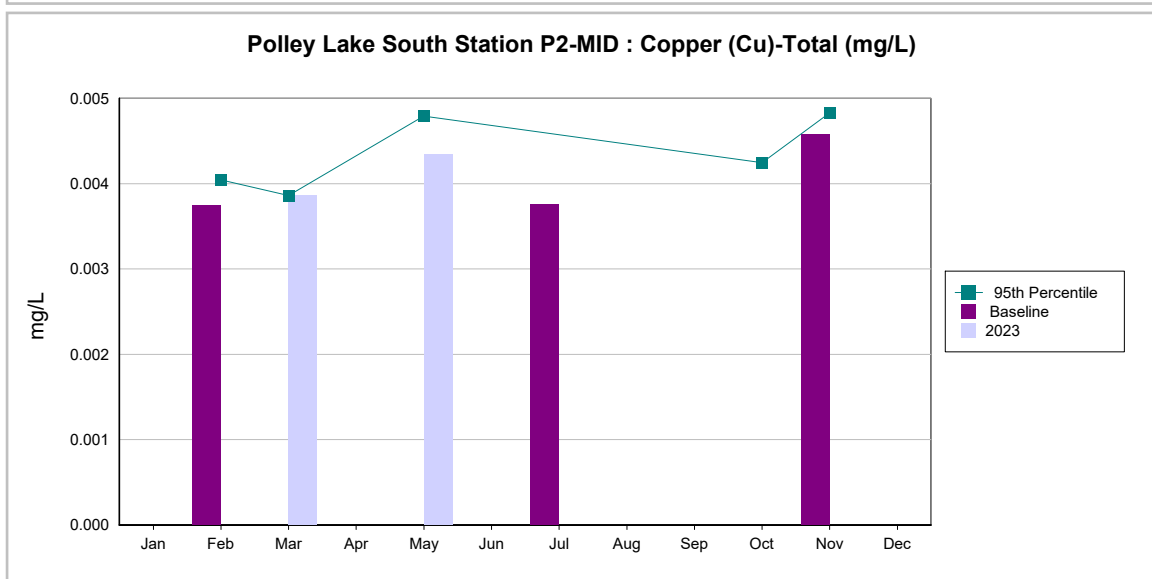
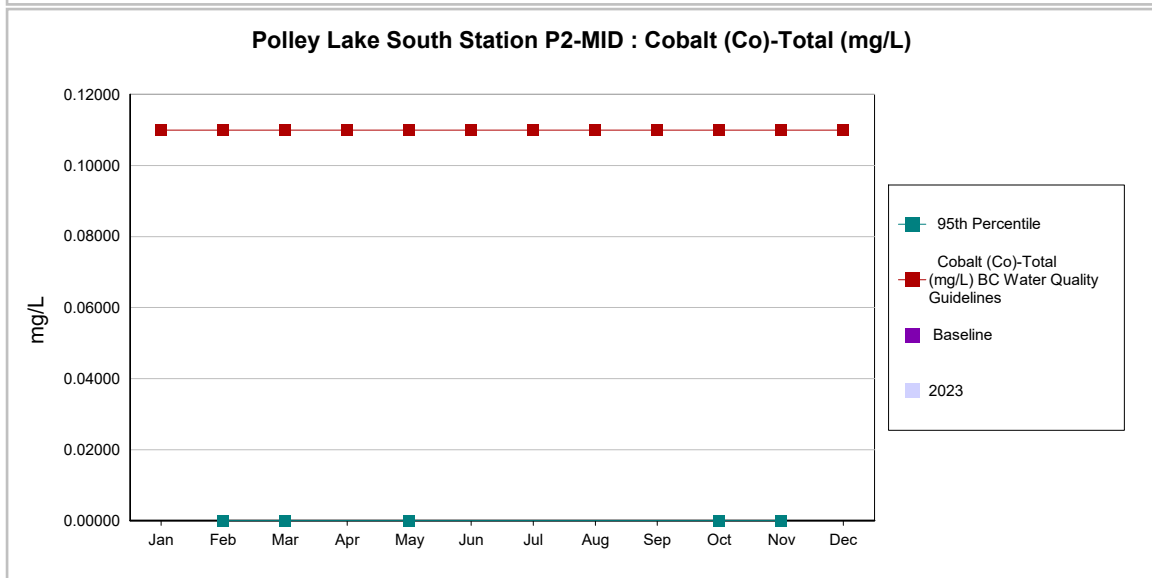
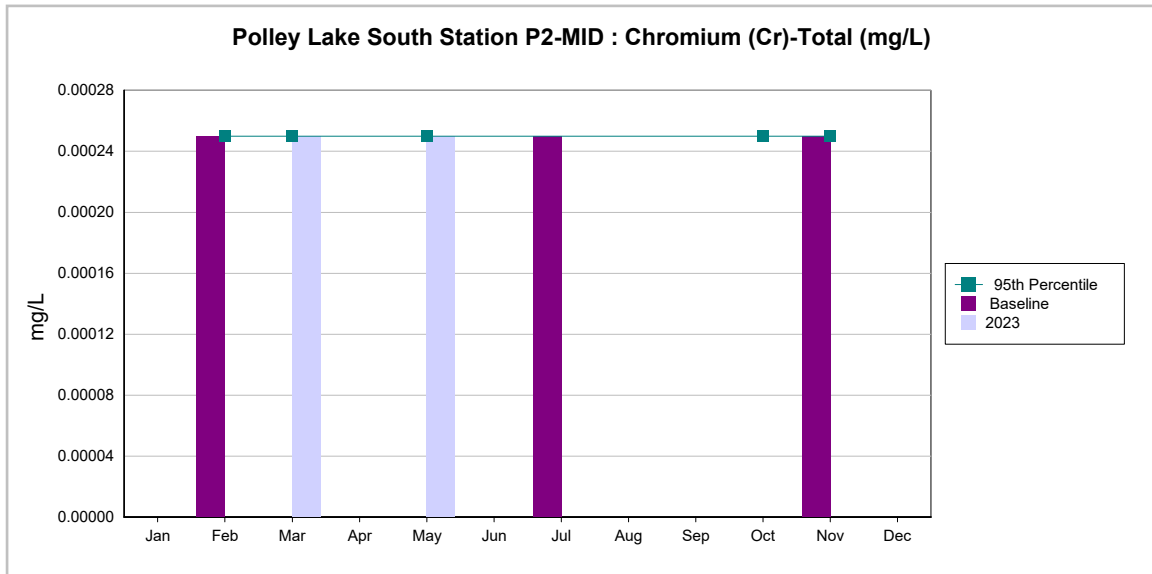
Annual Report Lake vs BCWQG



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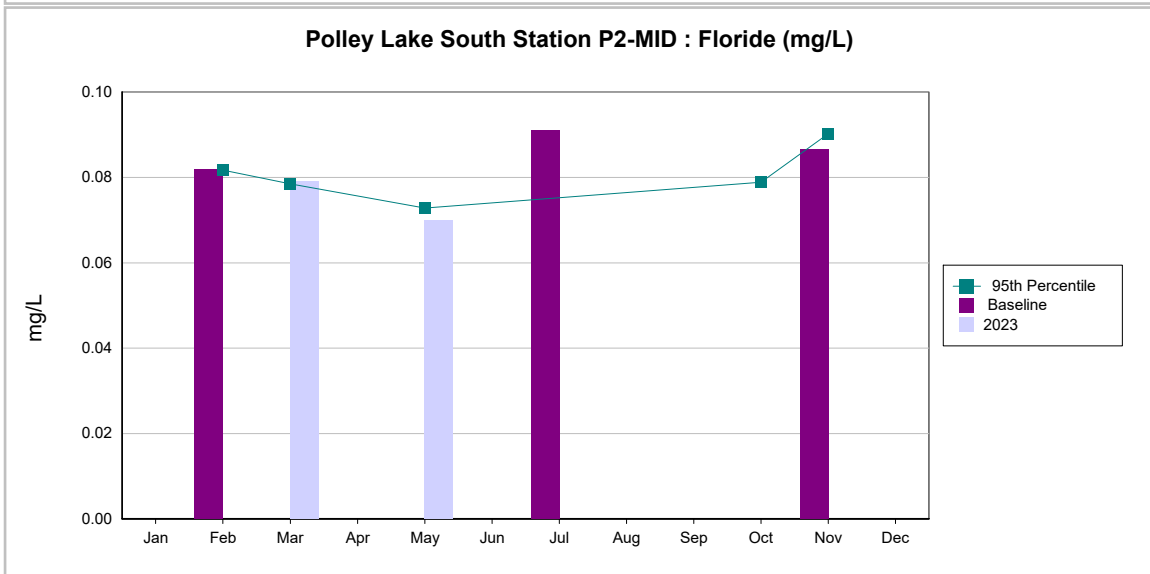
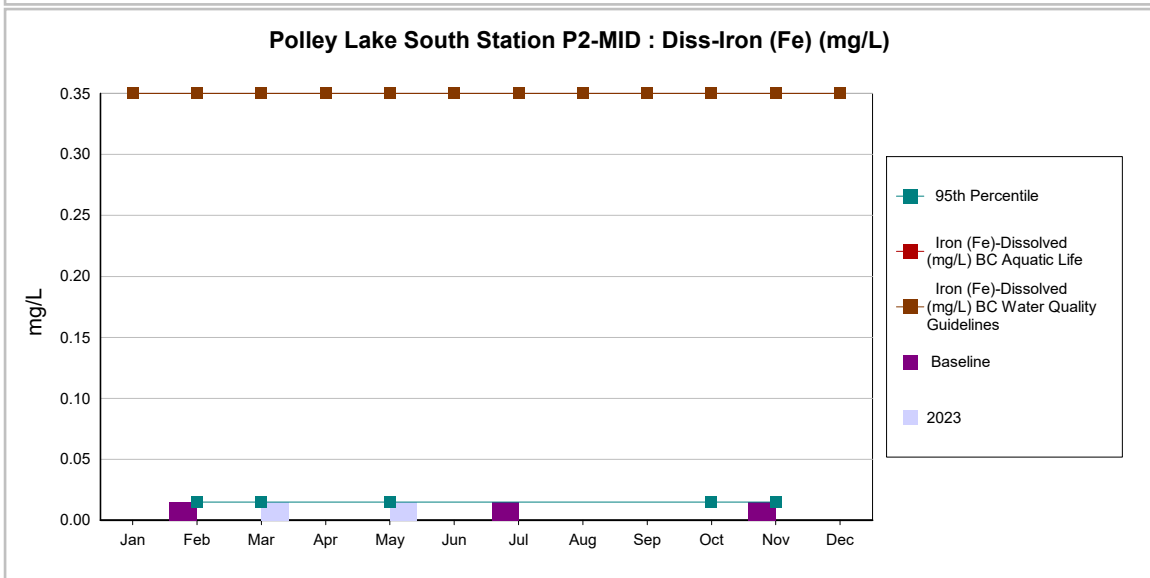
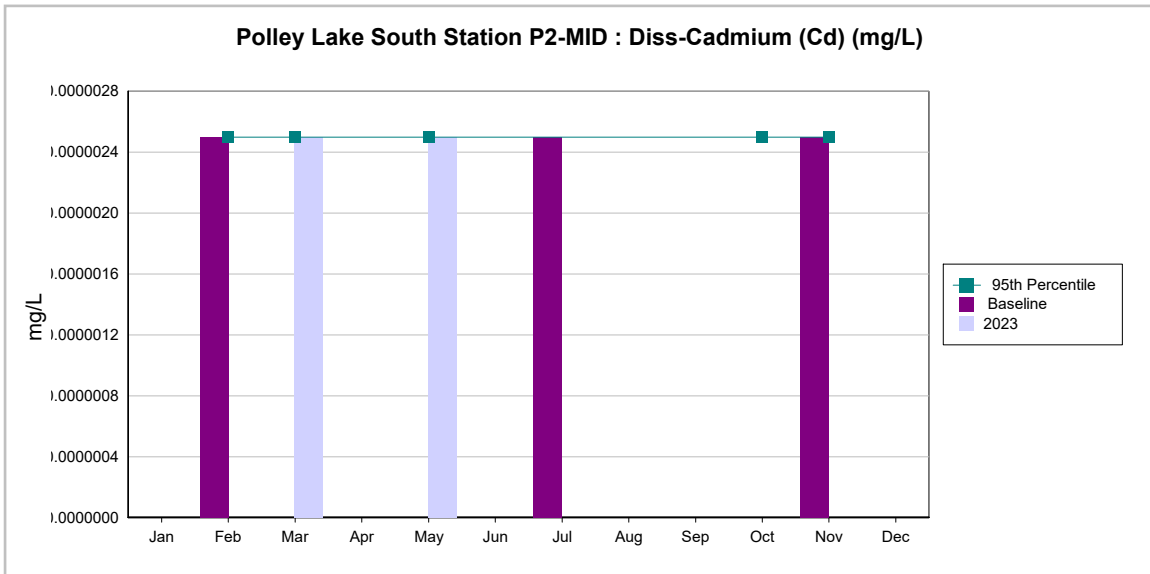
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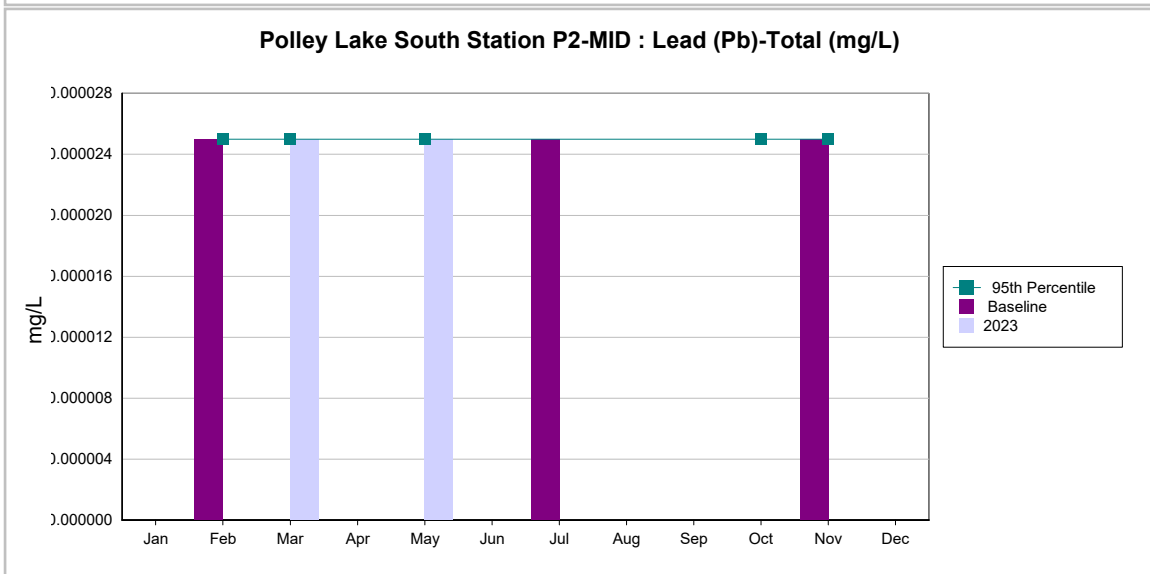
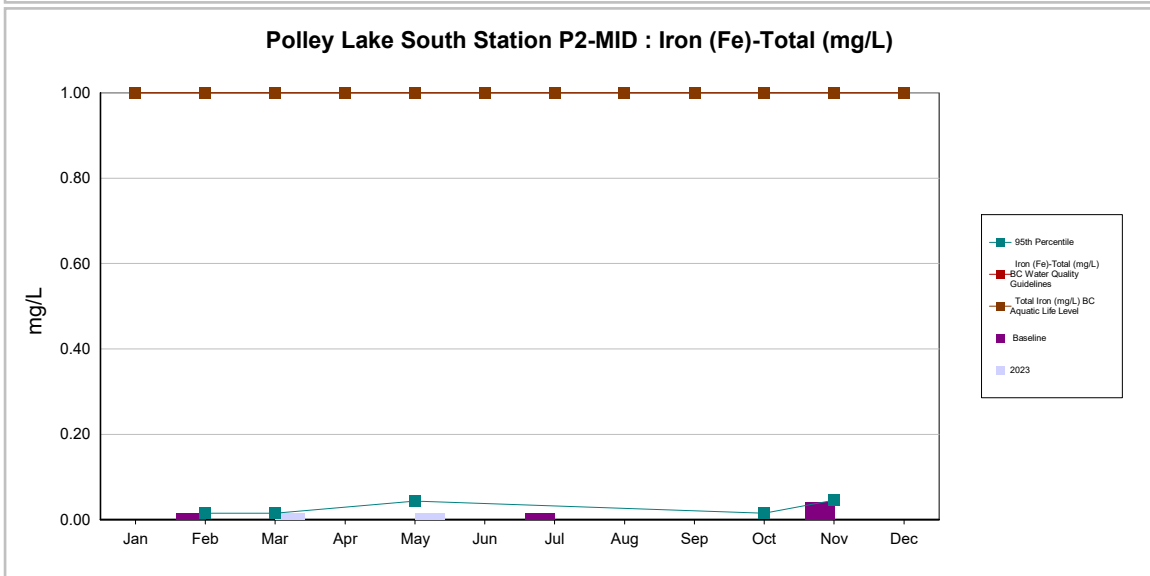
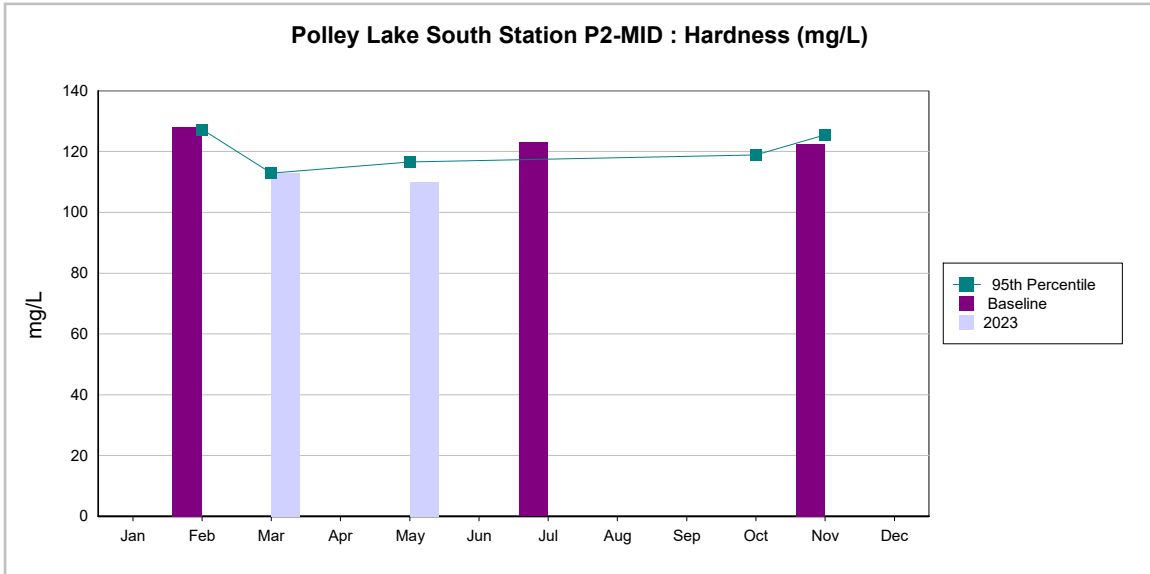
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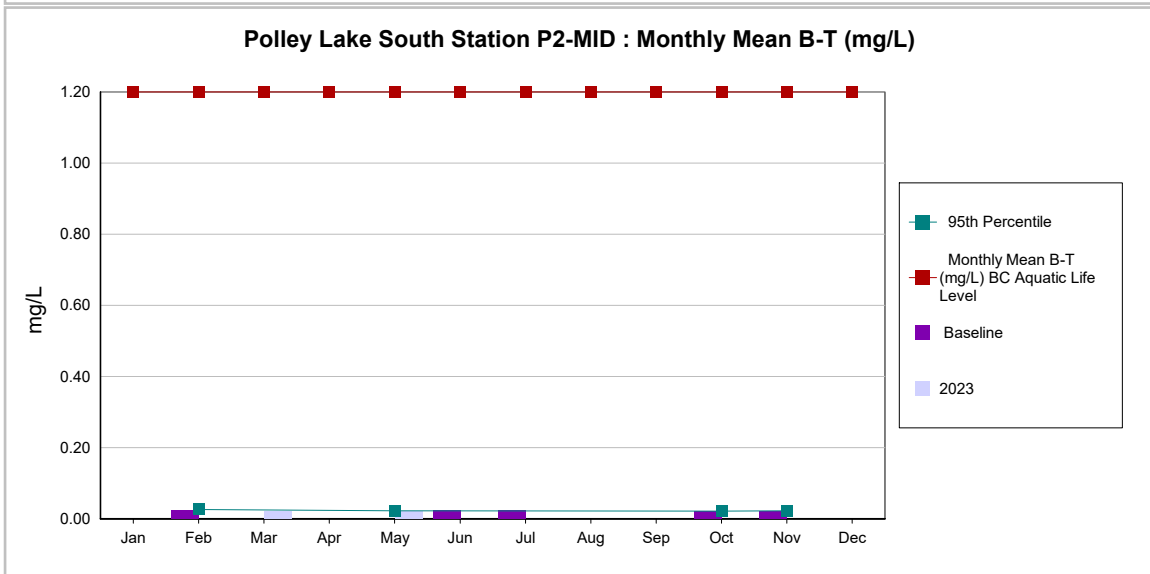
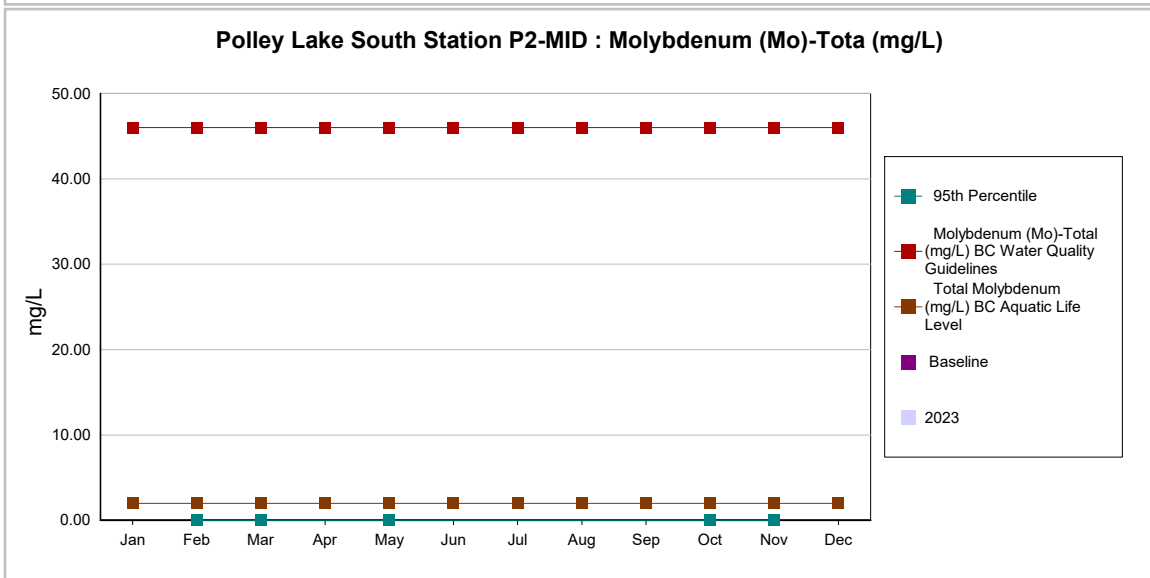
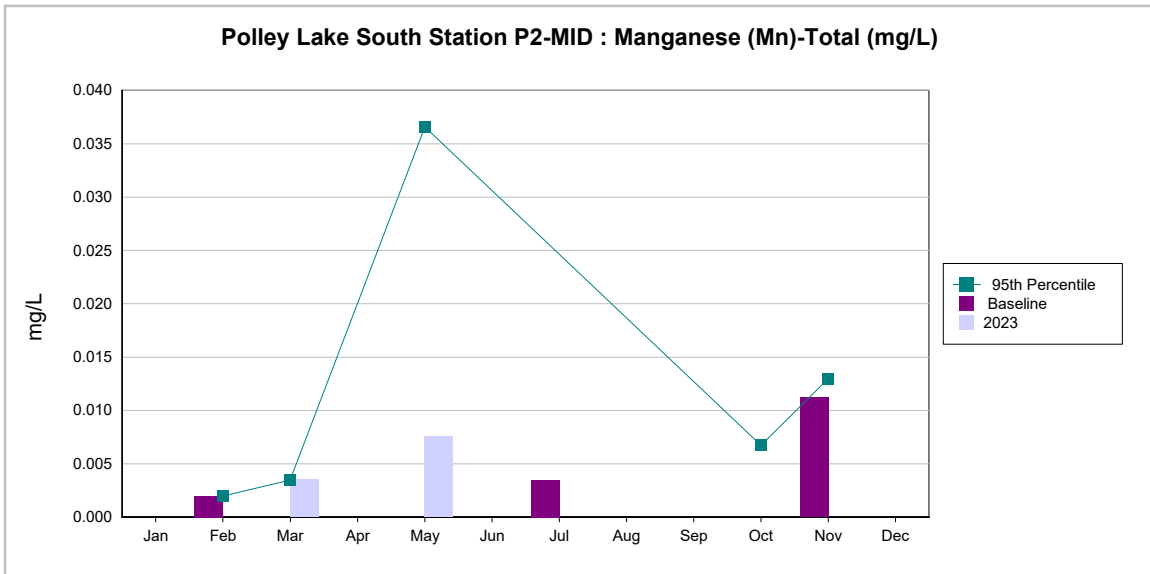
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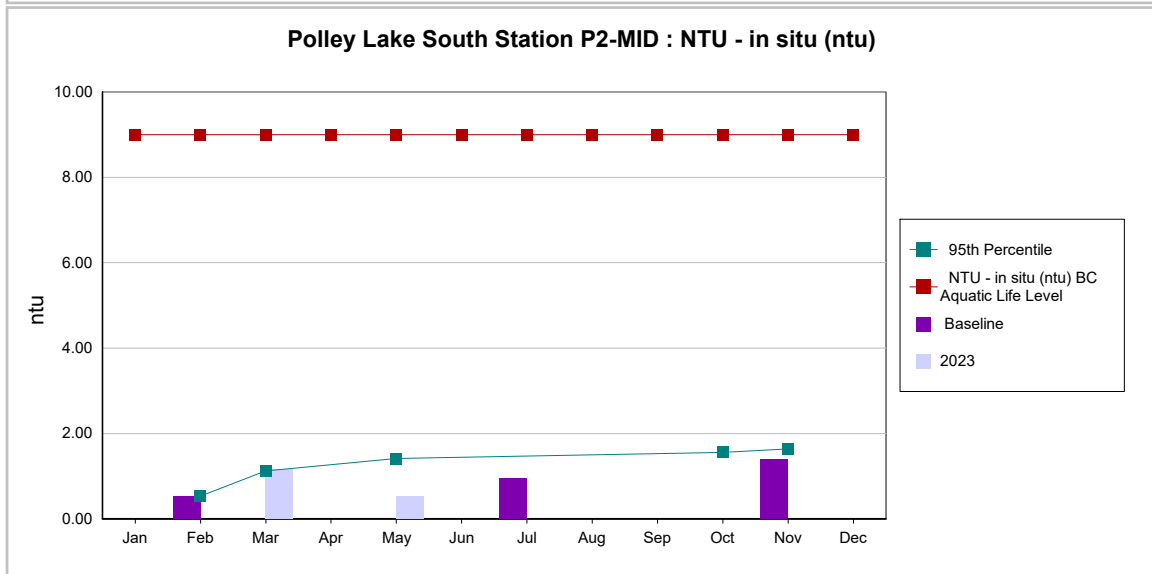
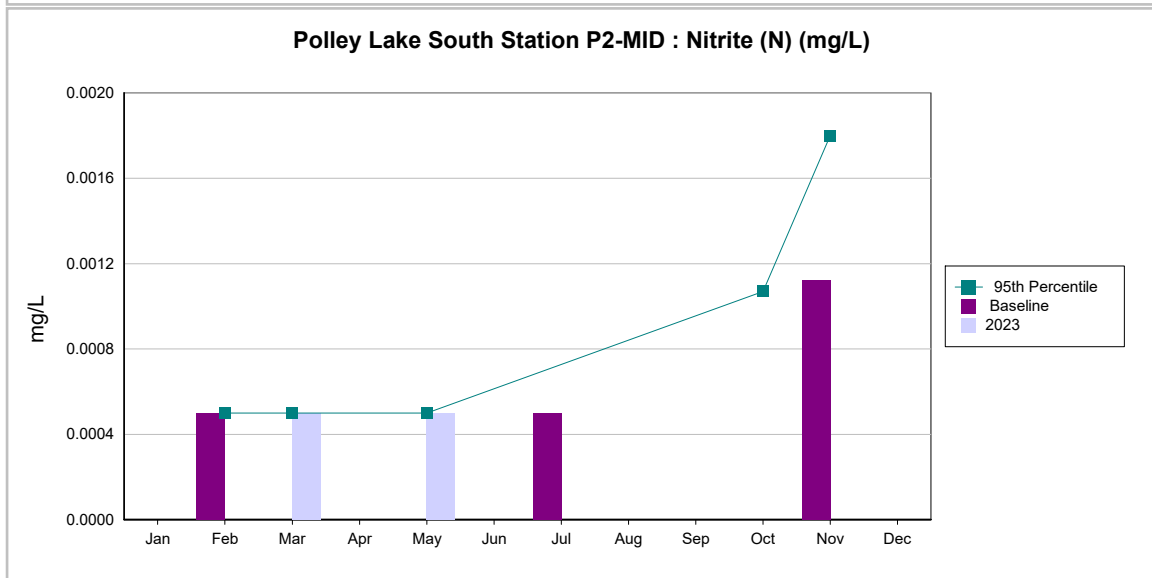
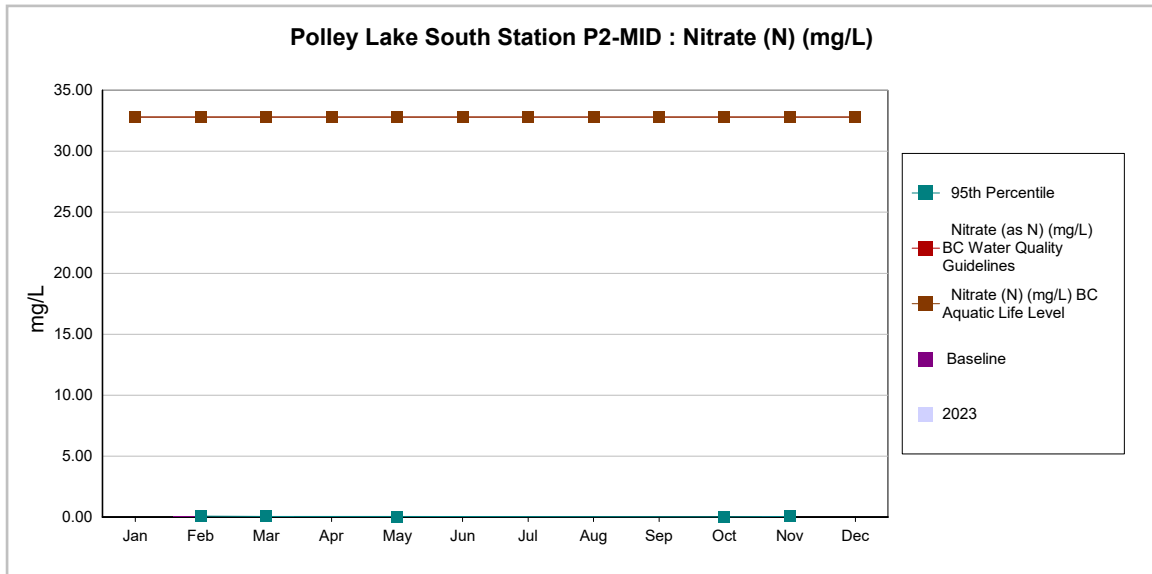
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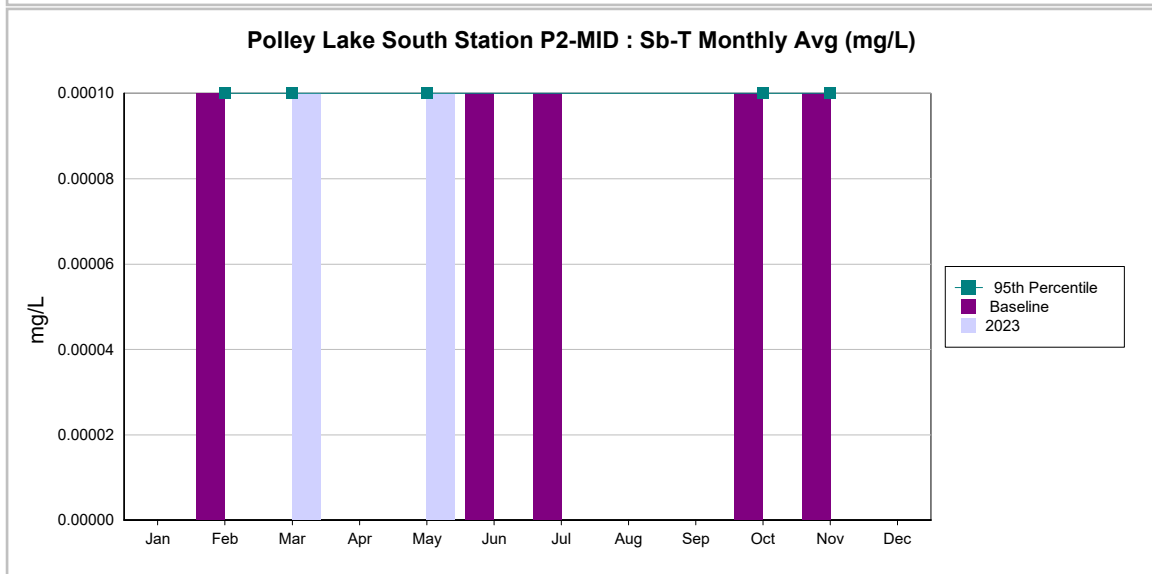
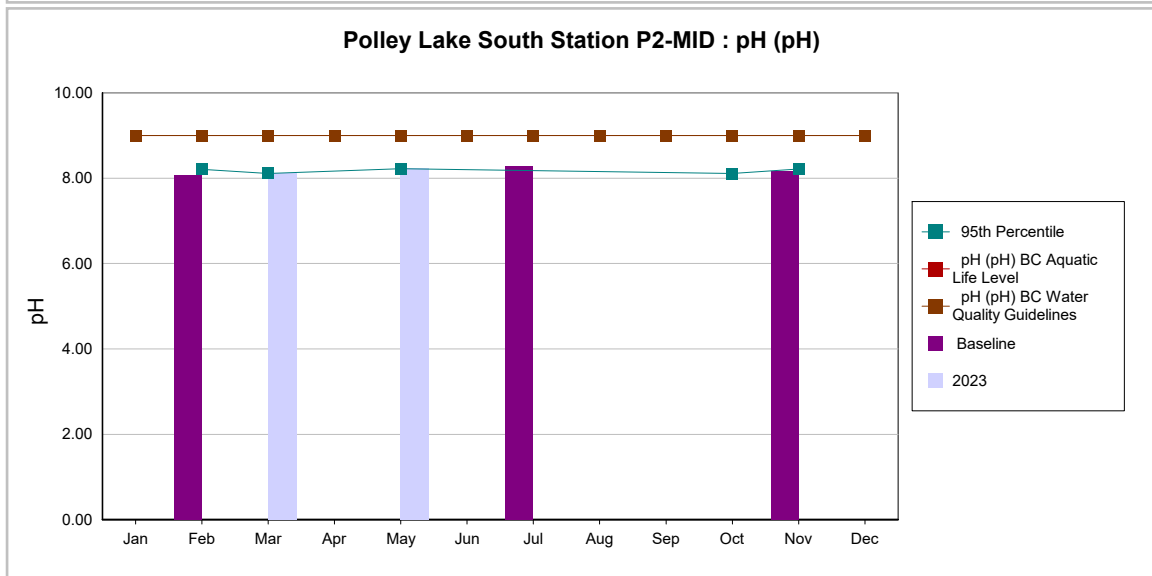
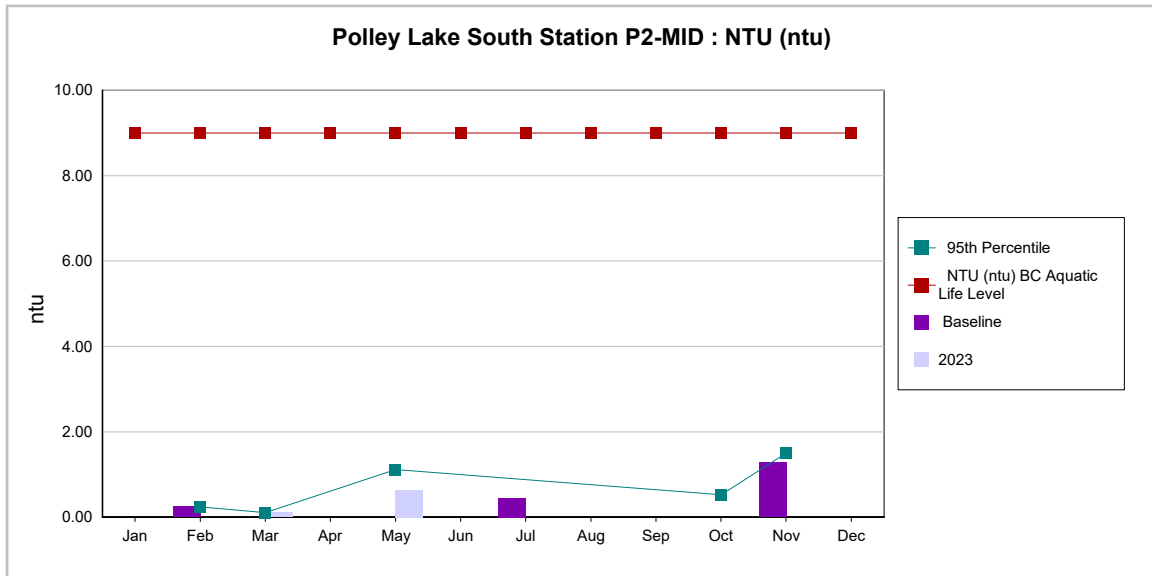
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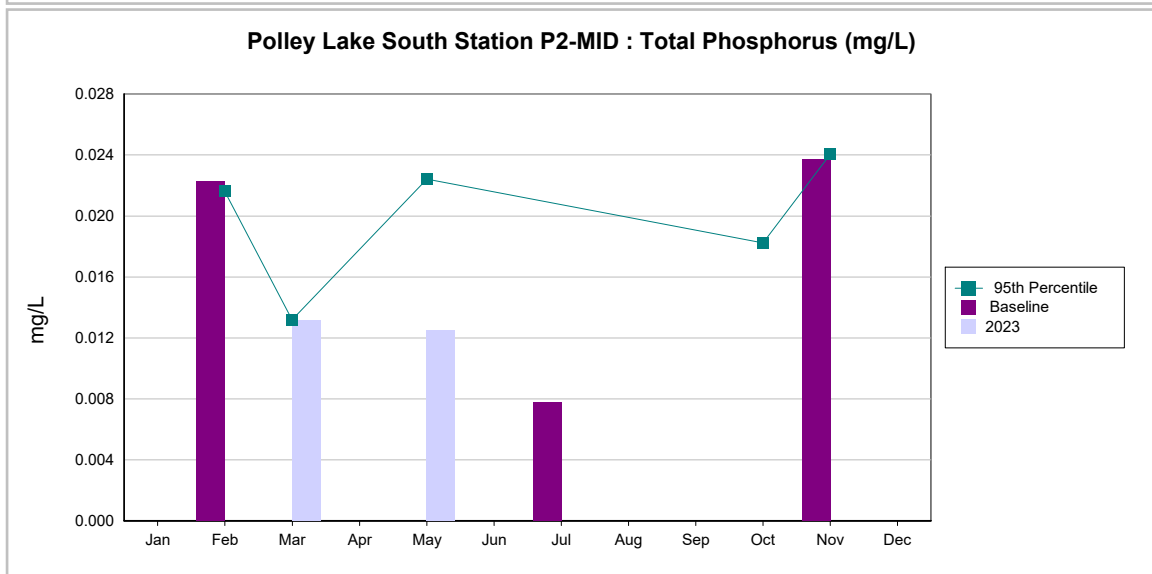
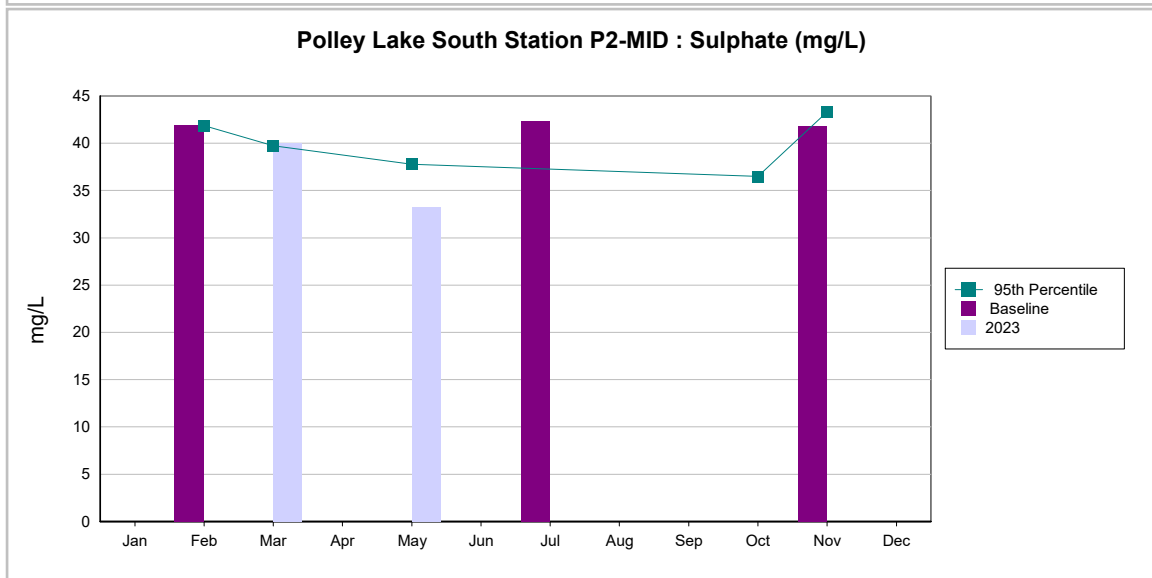
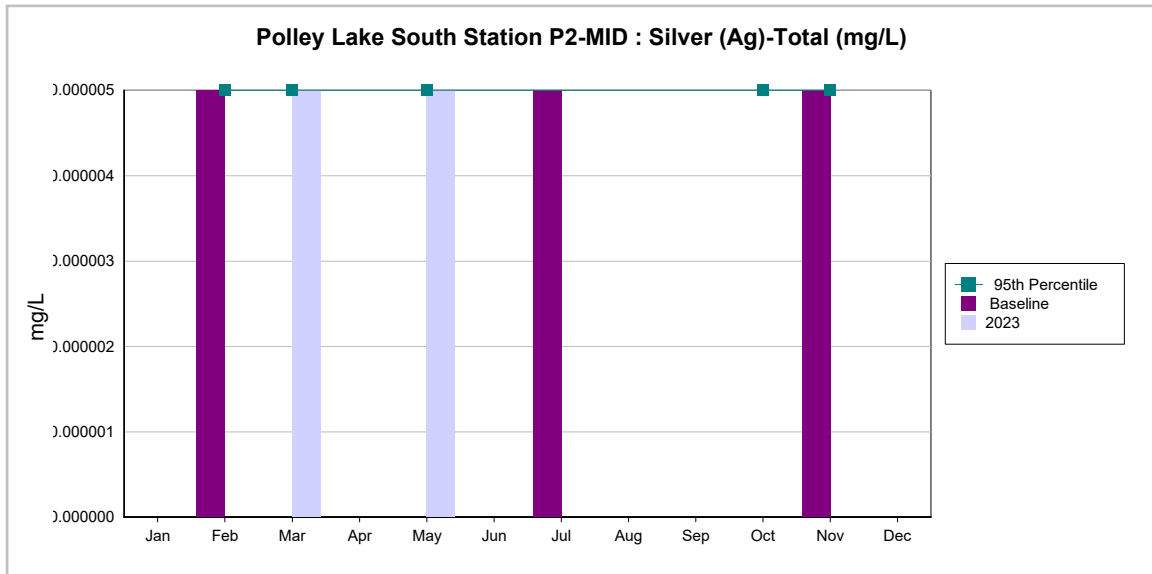
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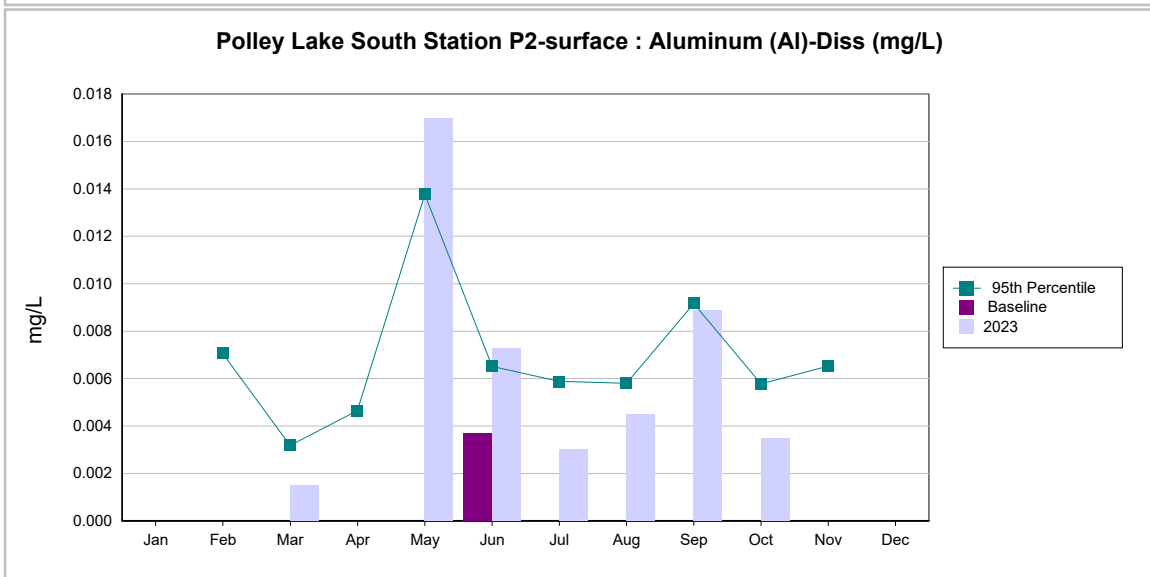
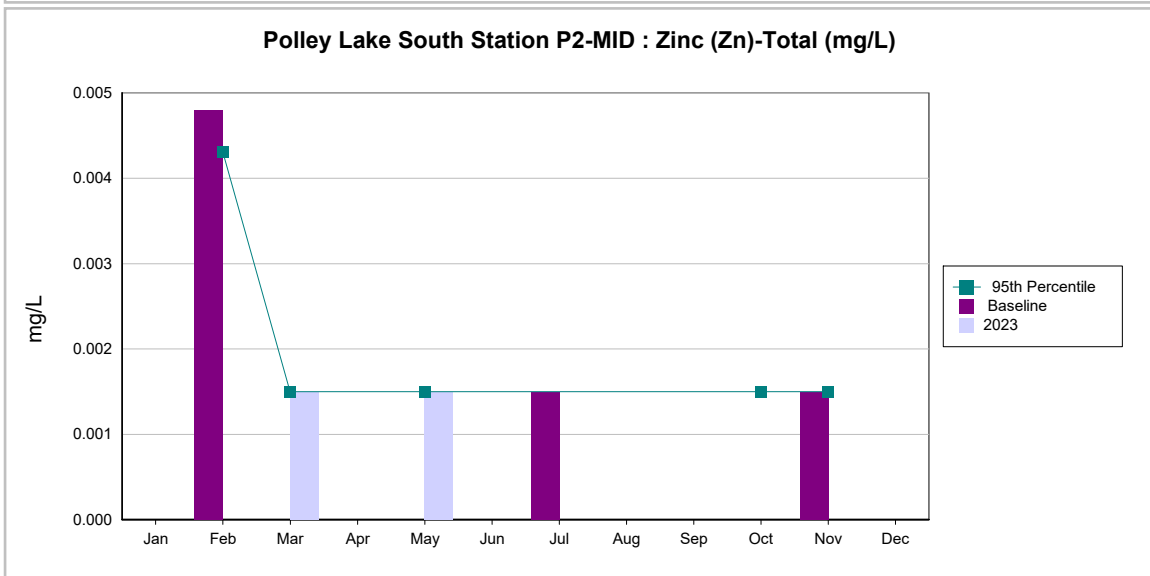
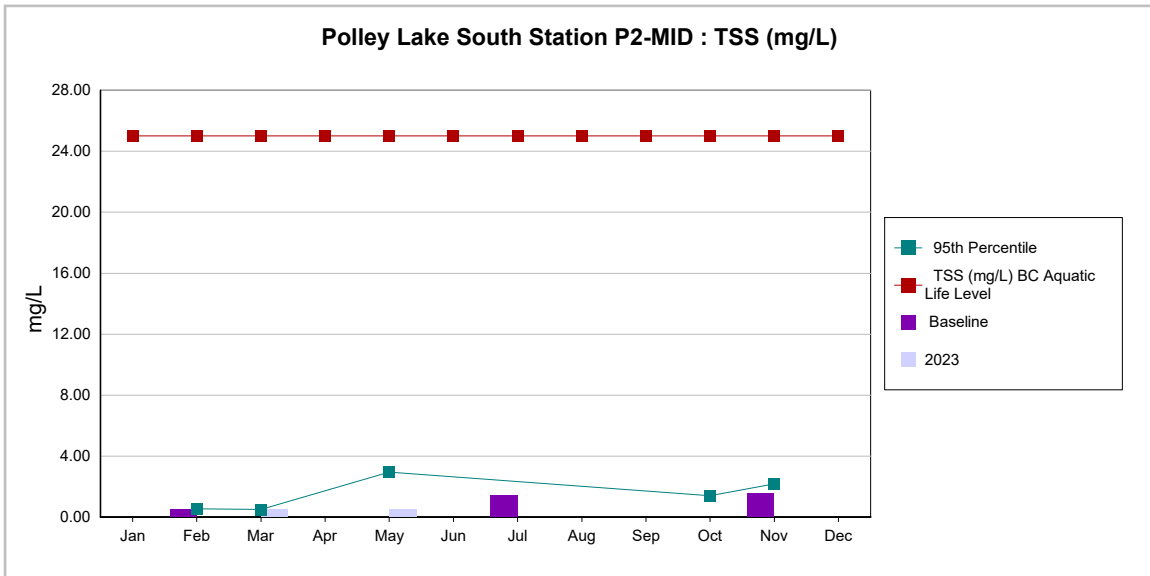
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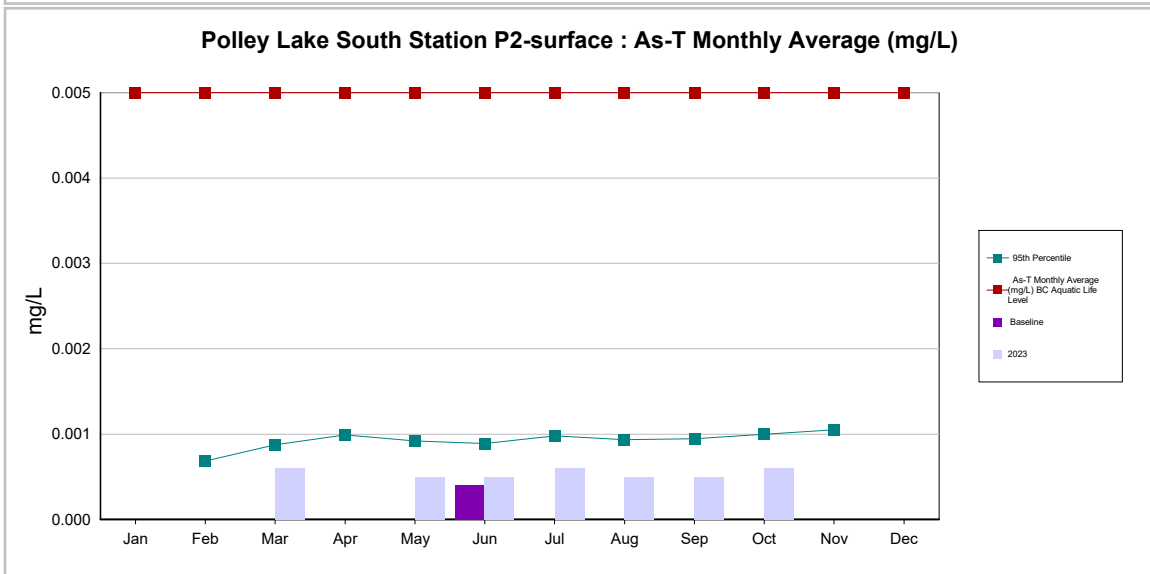
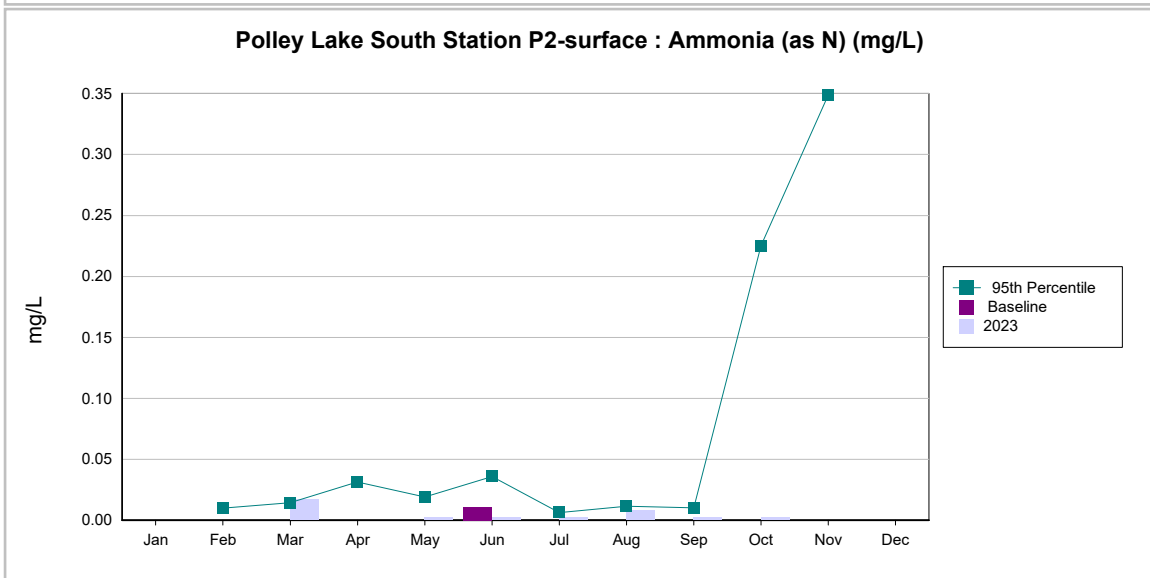
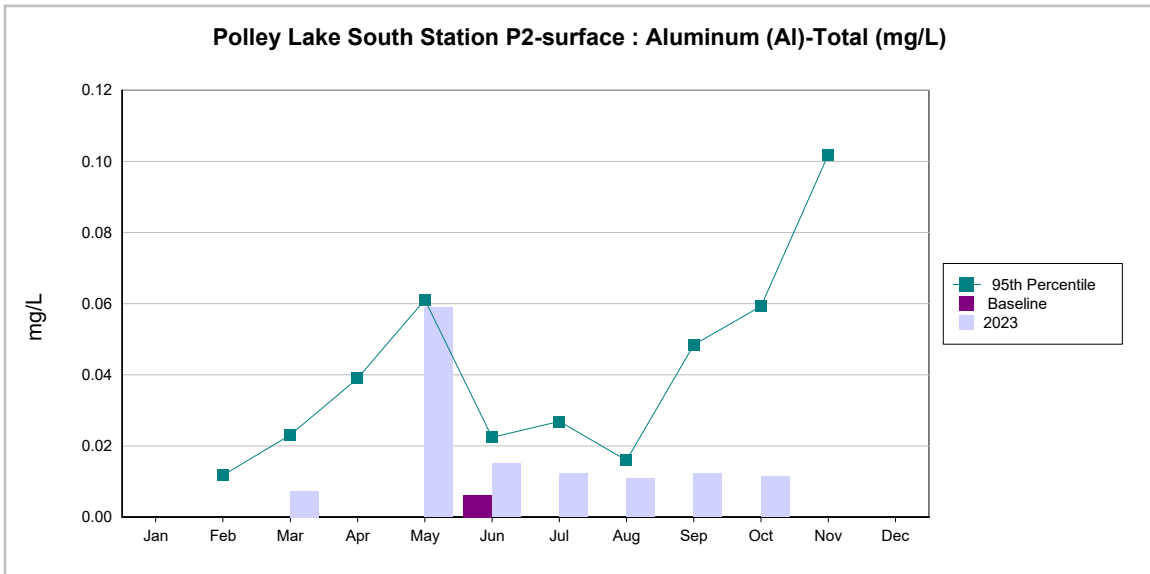
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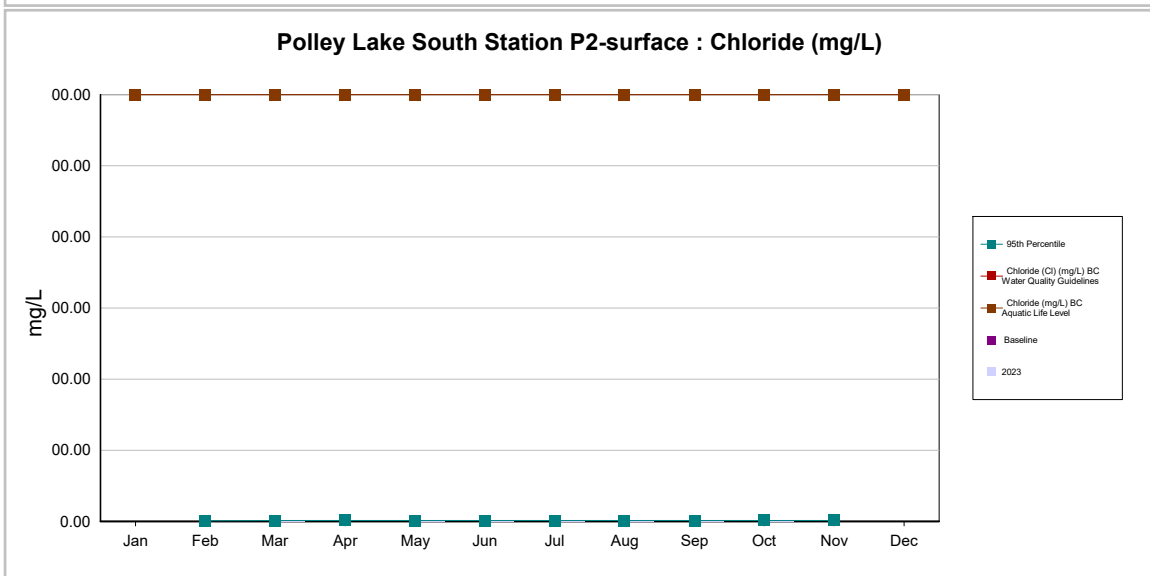
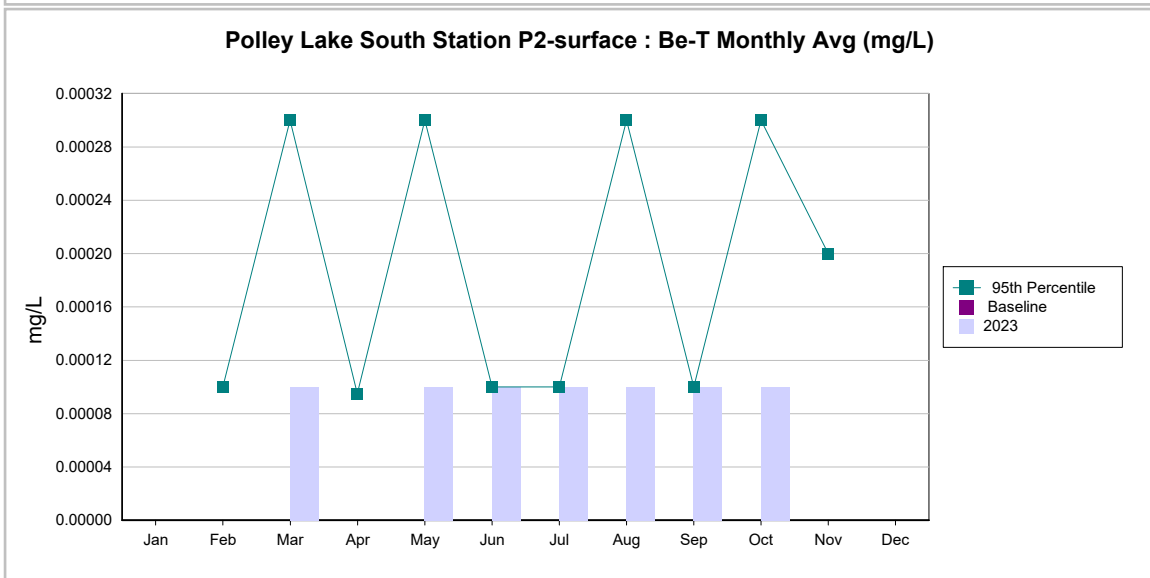
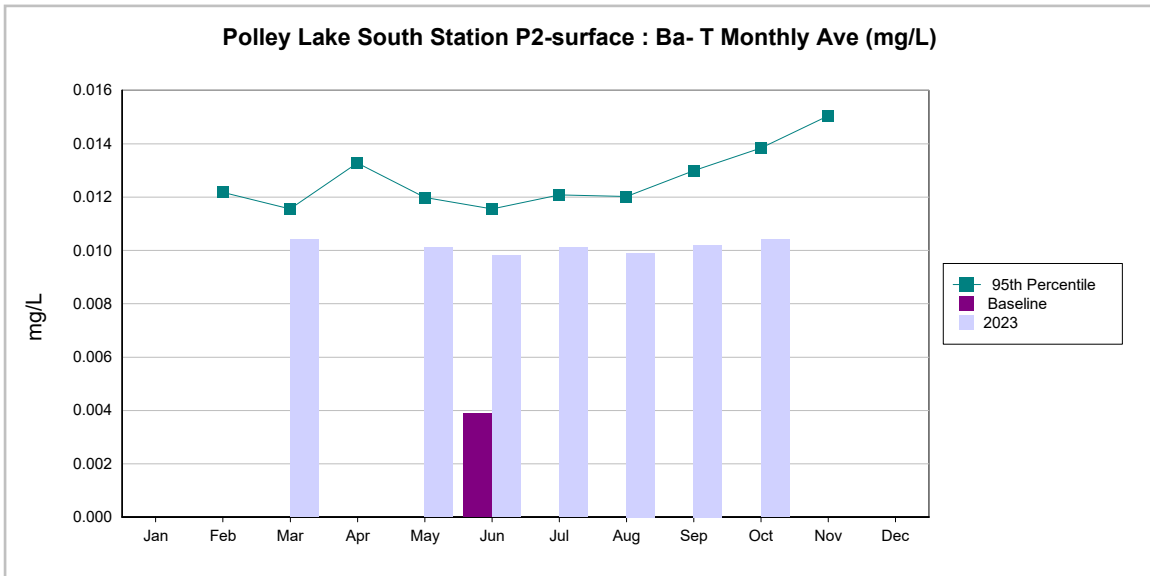
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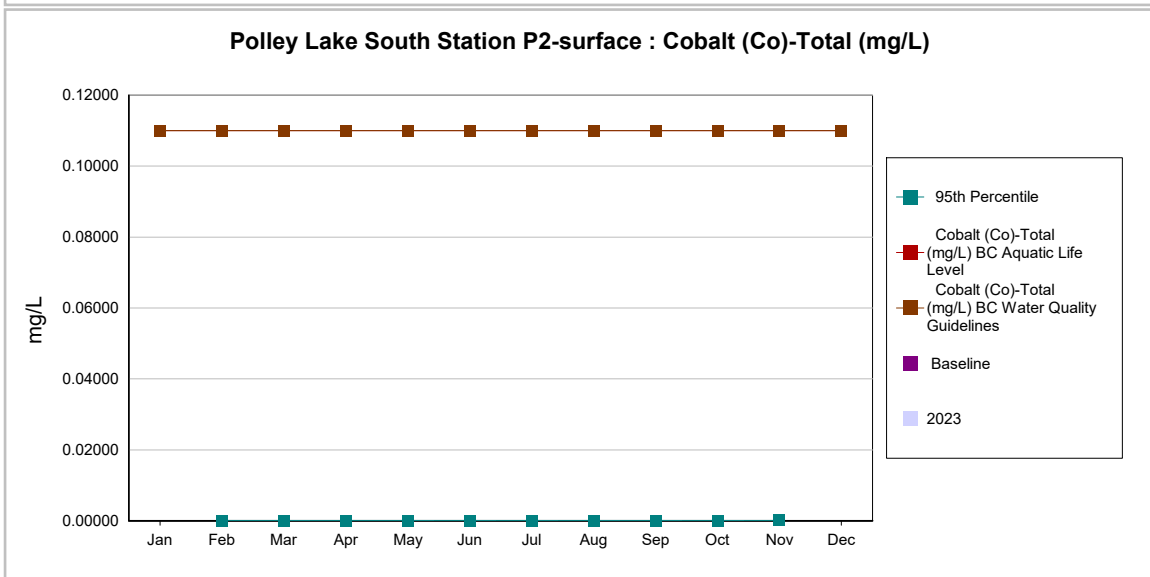
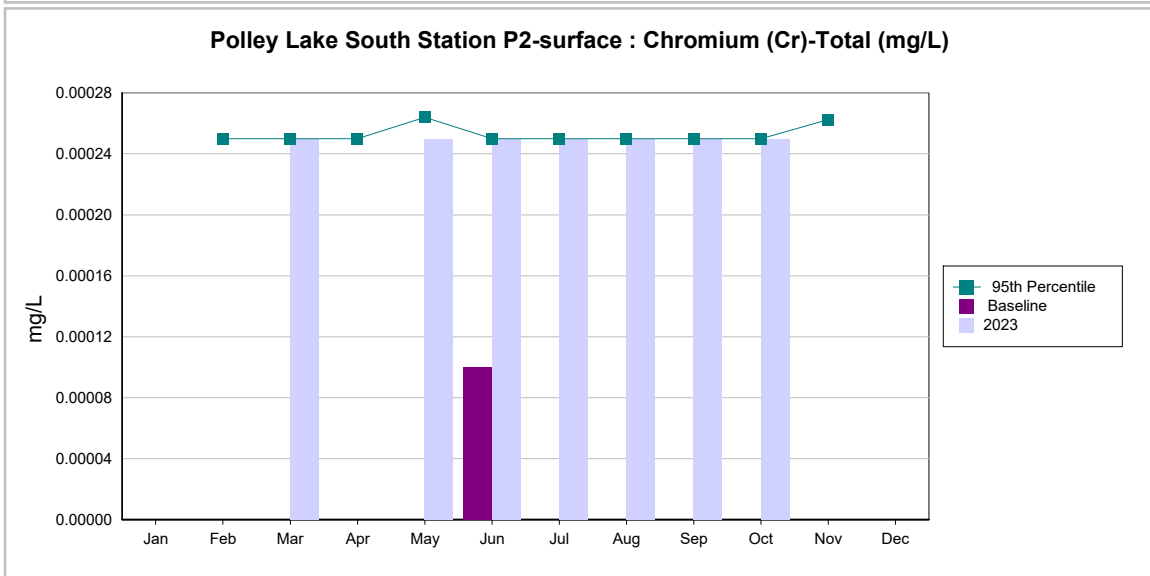
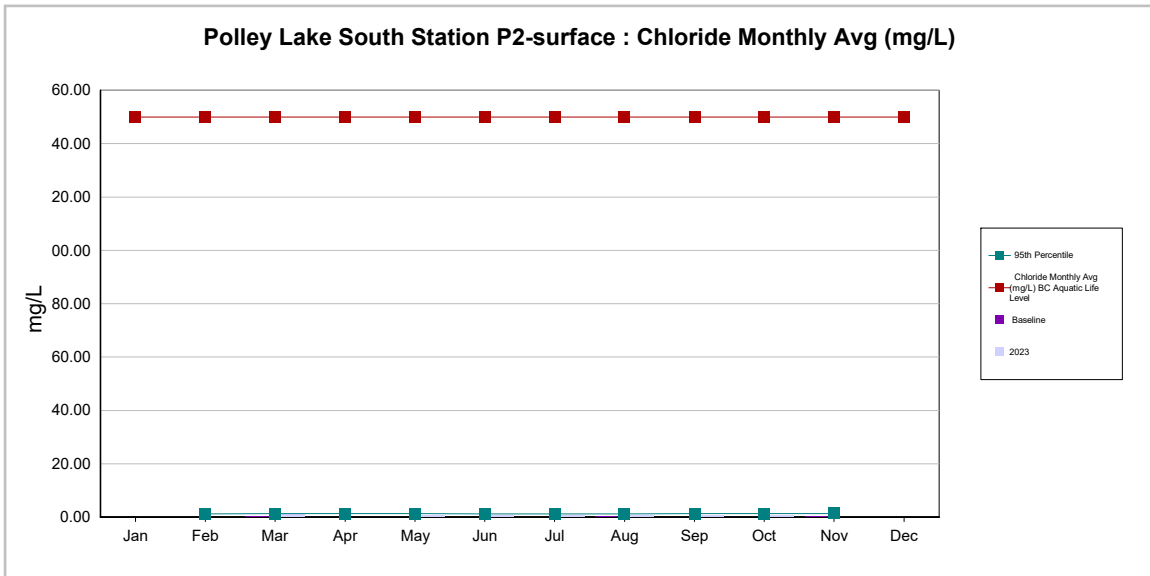
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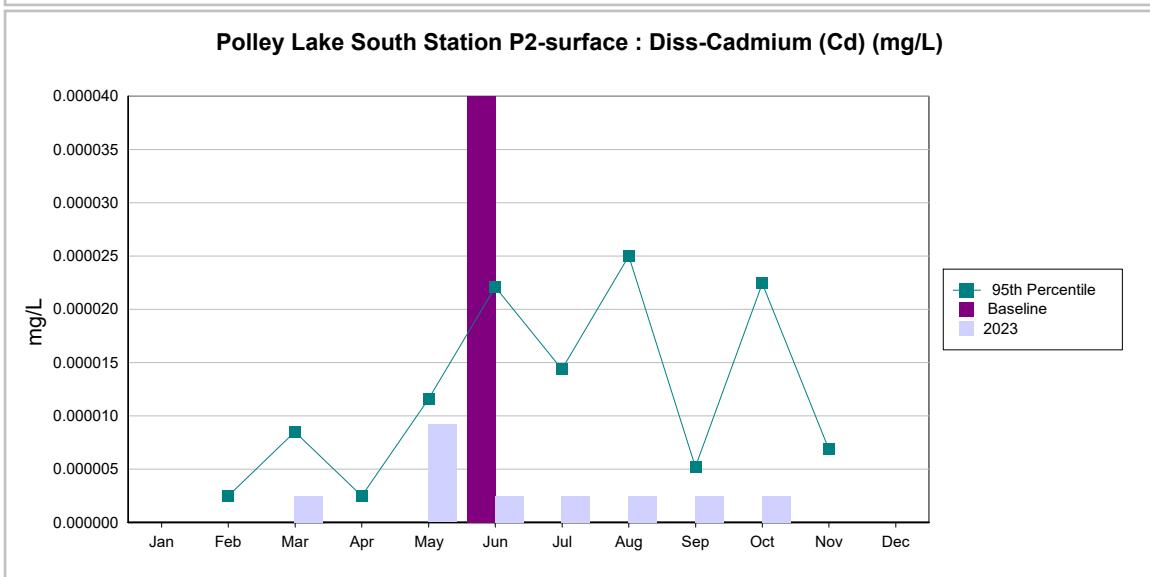
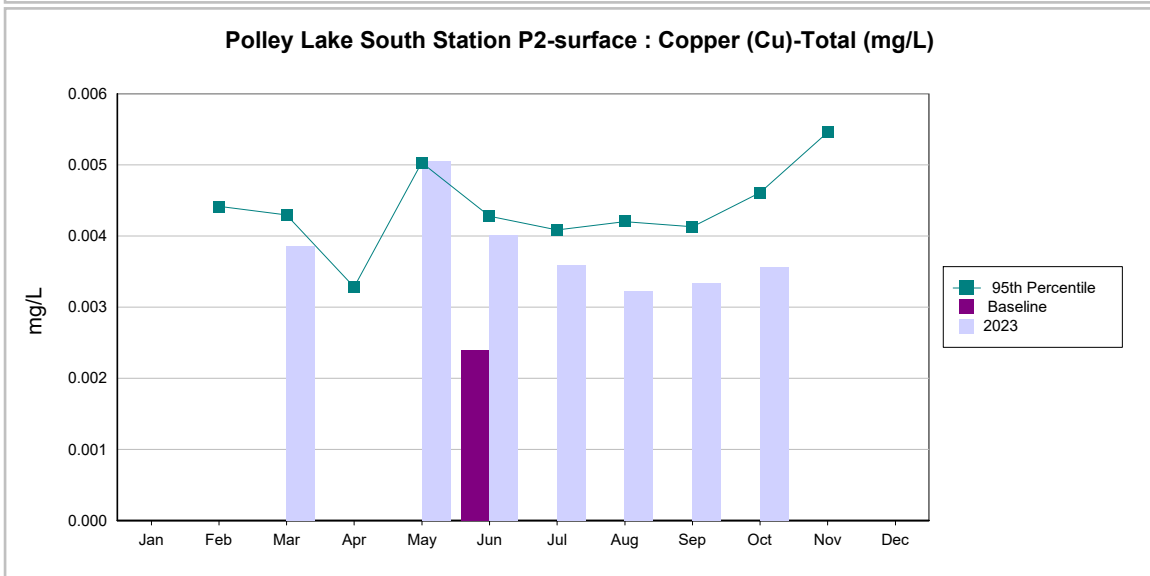
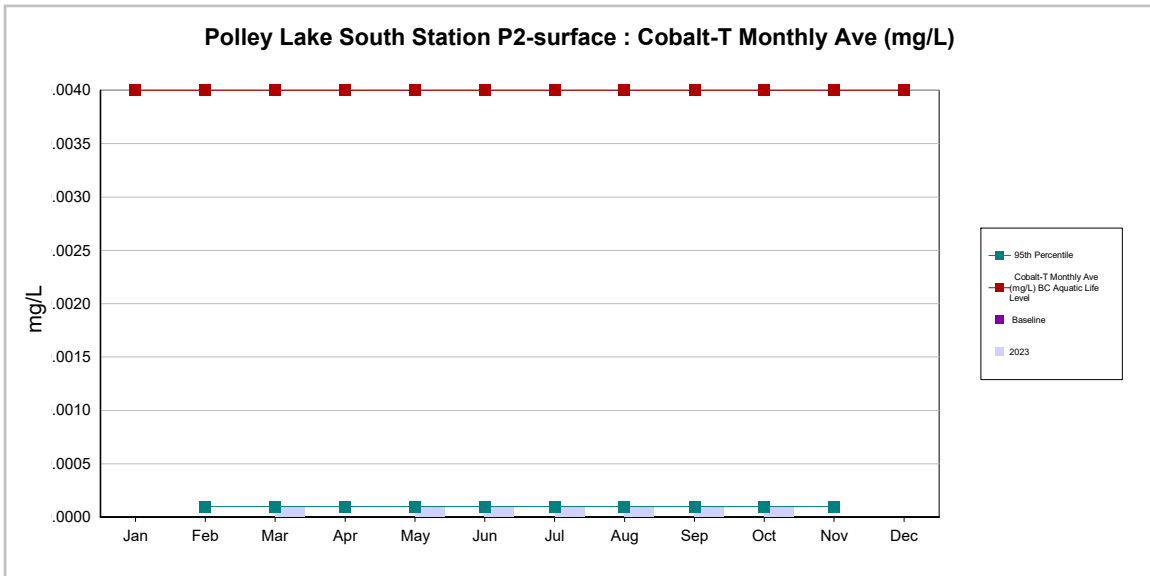
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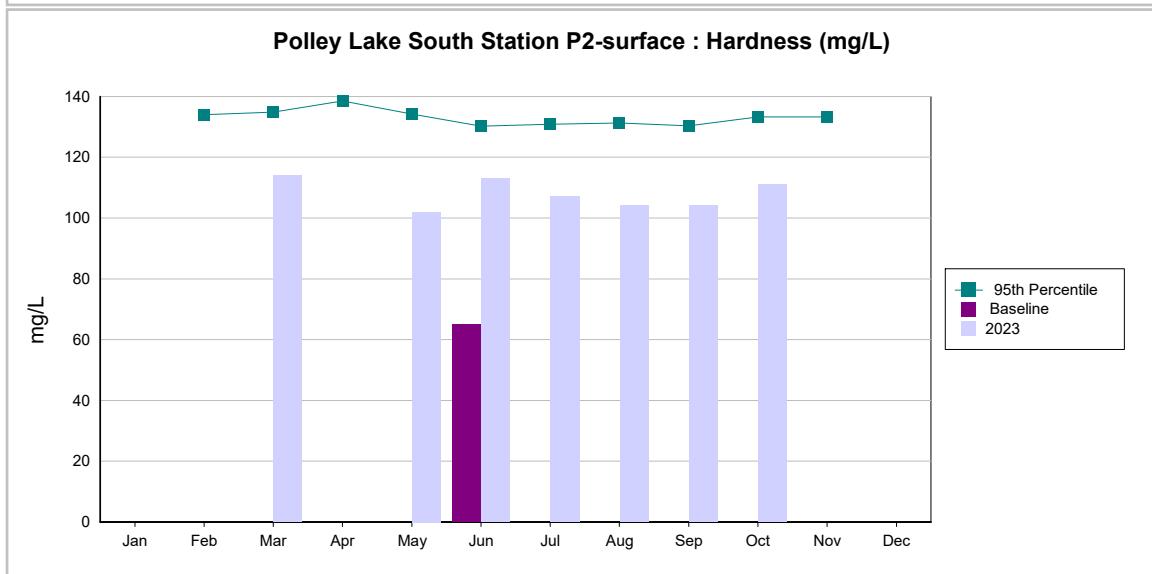
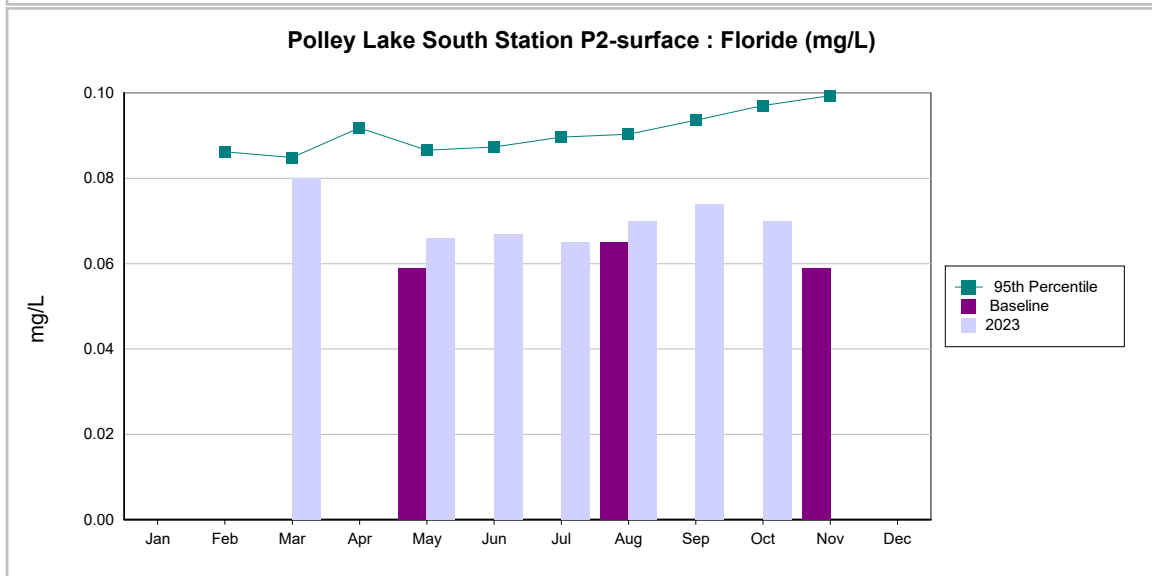
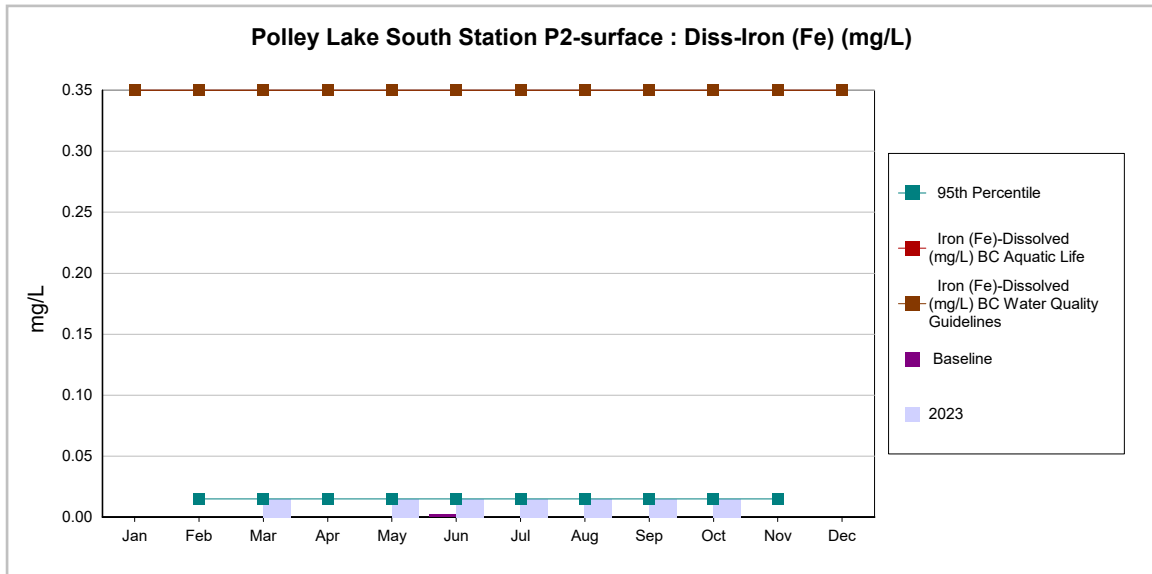
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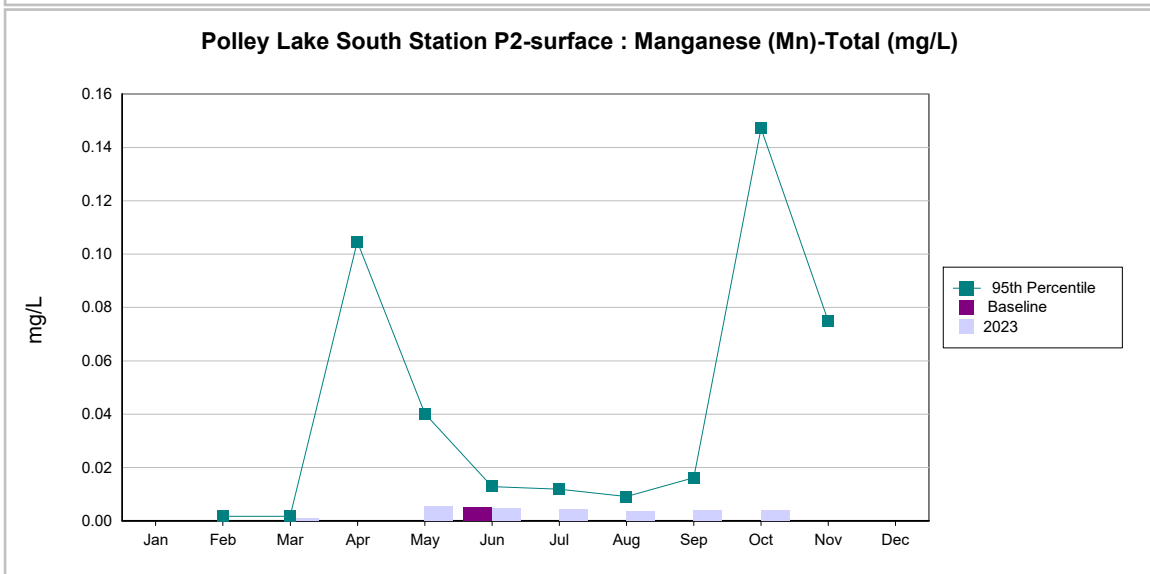
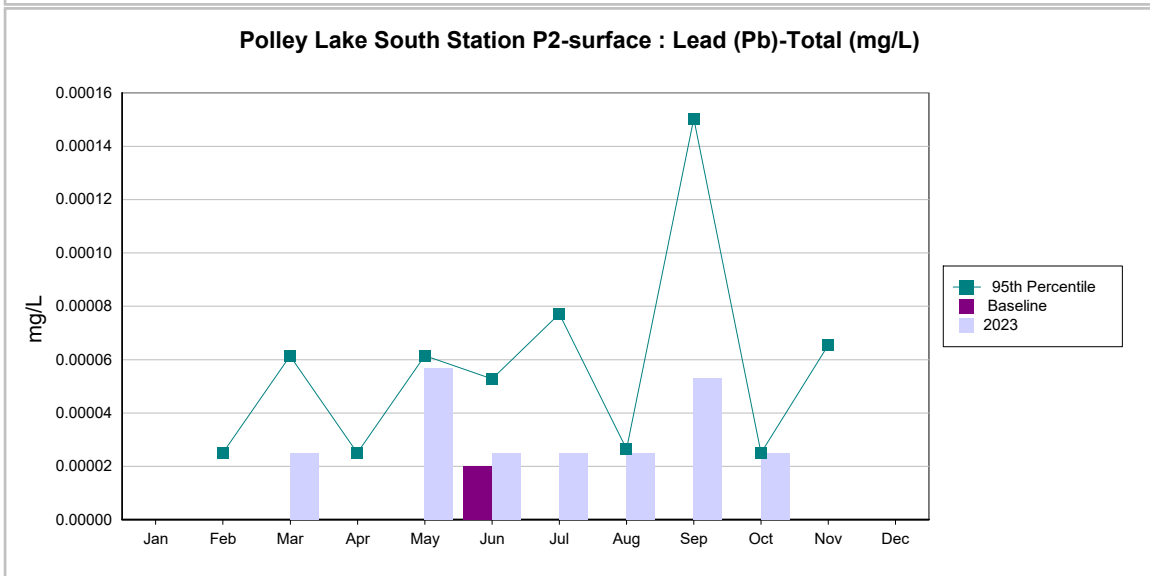
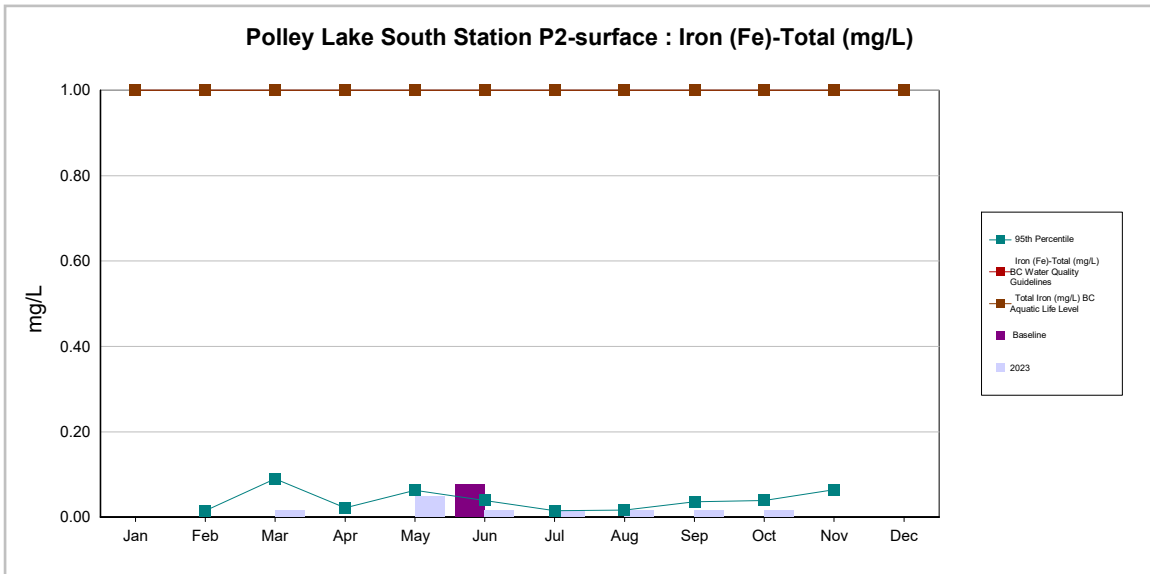
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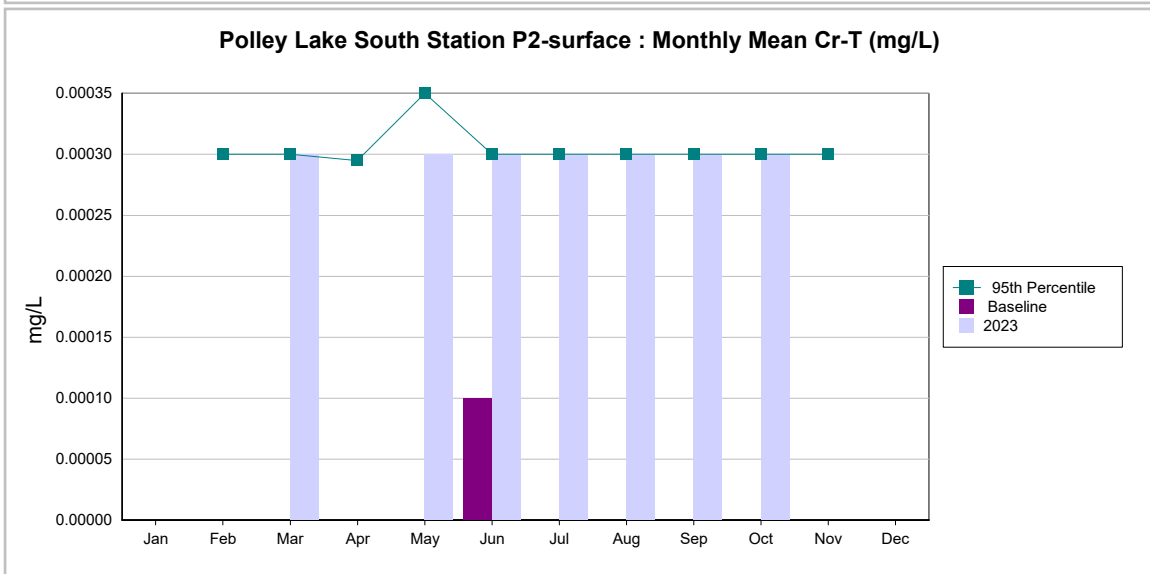
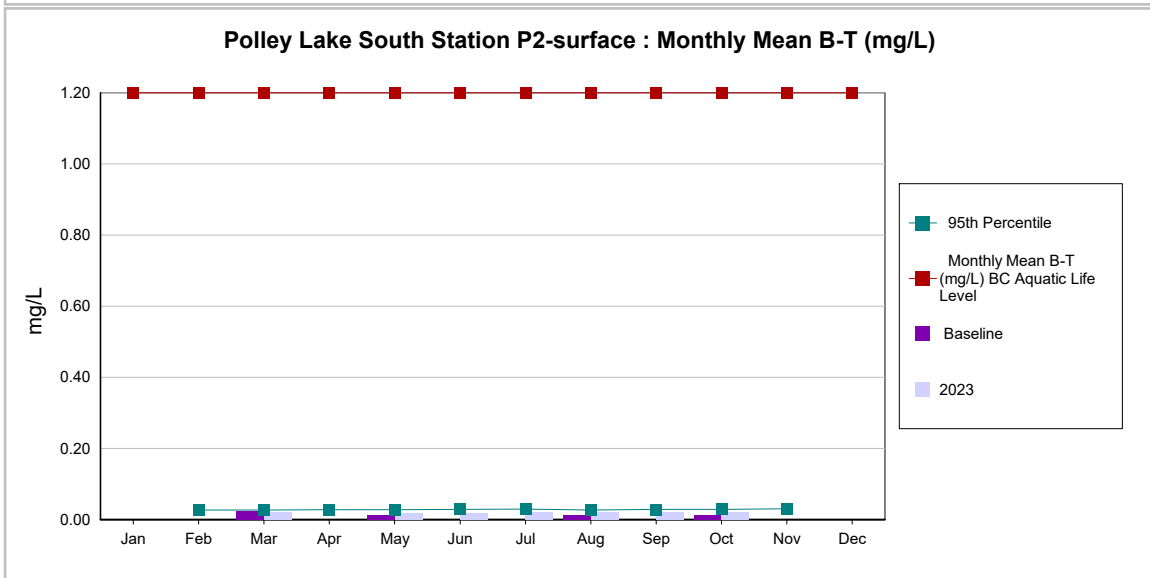
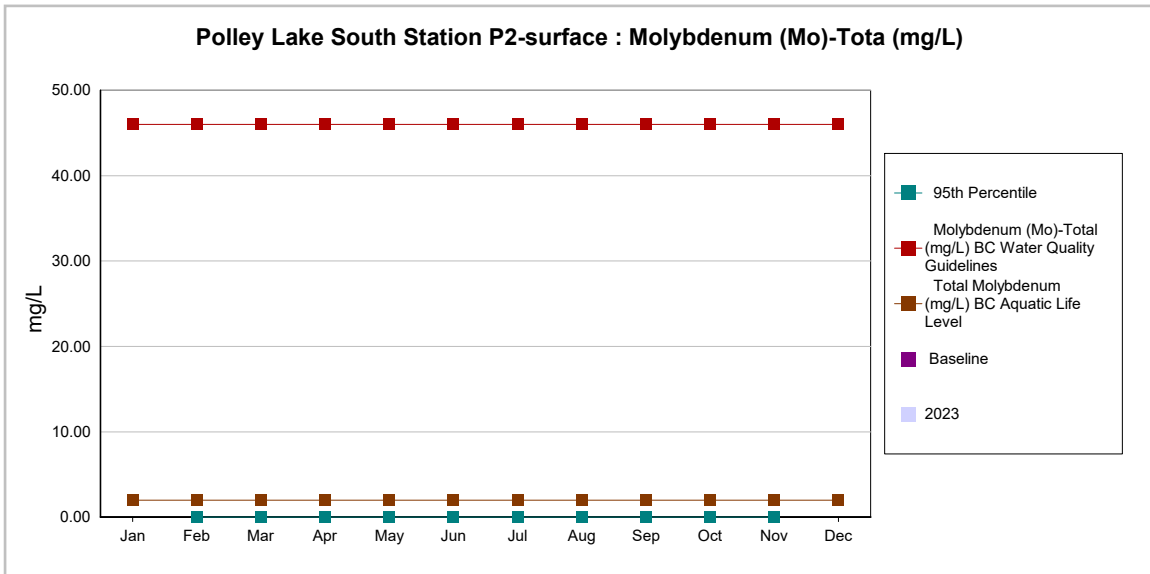
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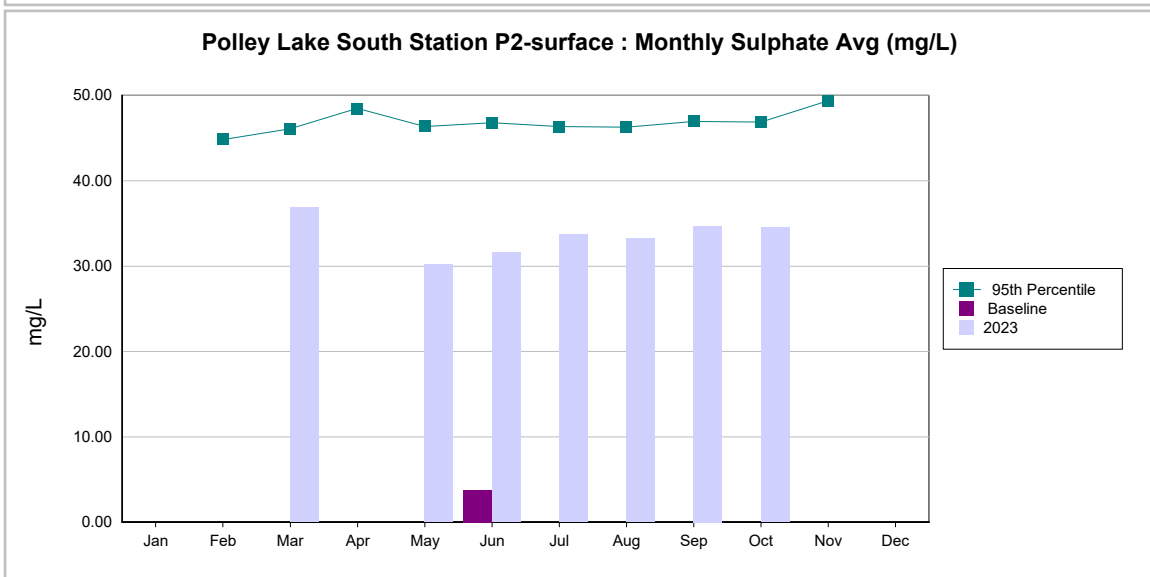
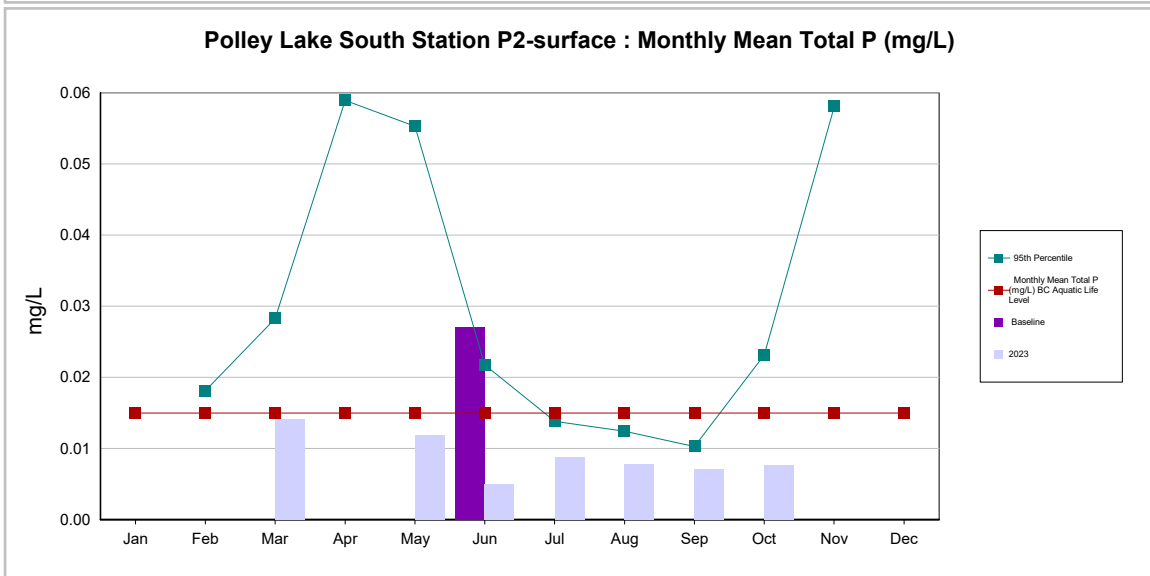
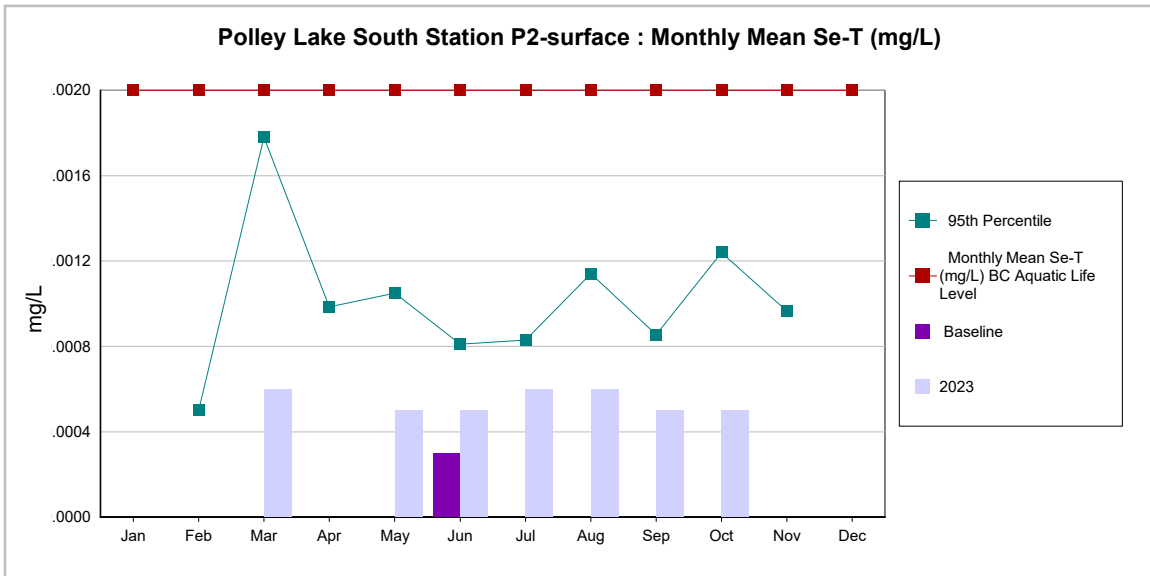
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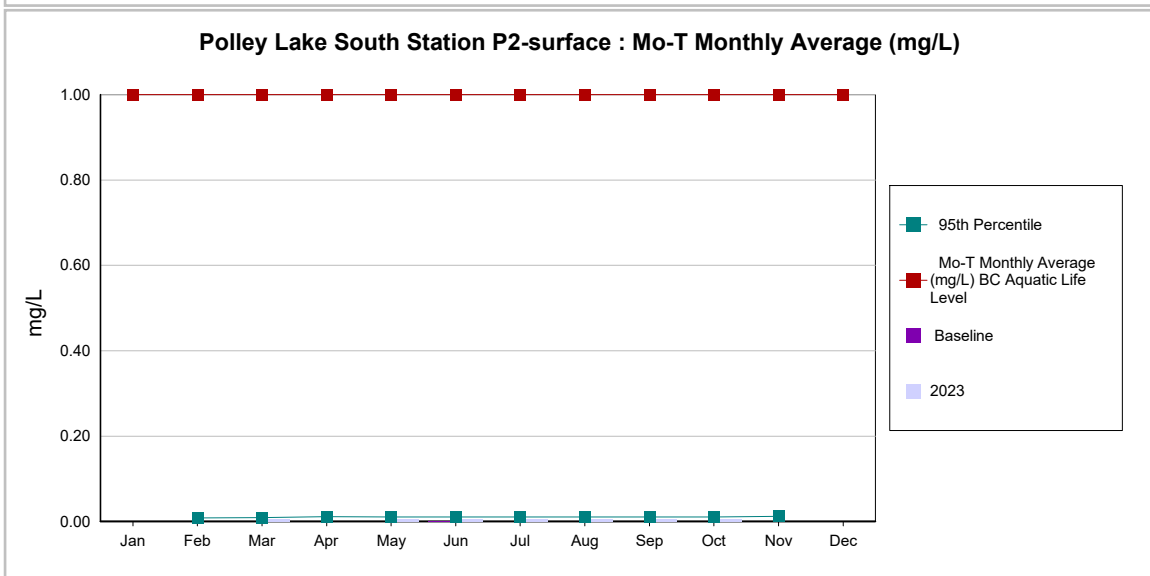
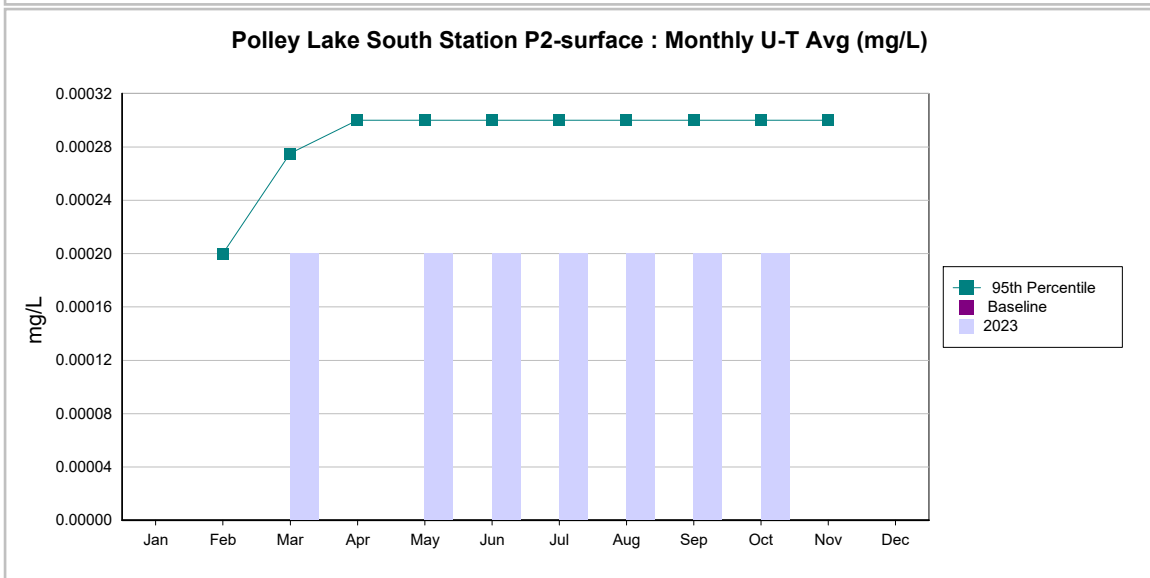
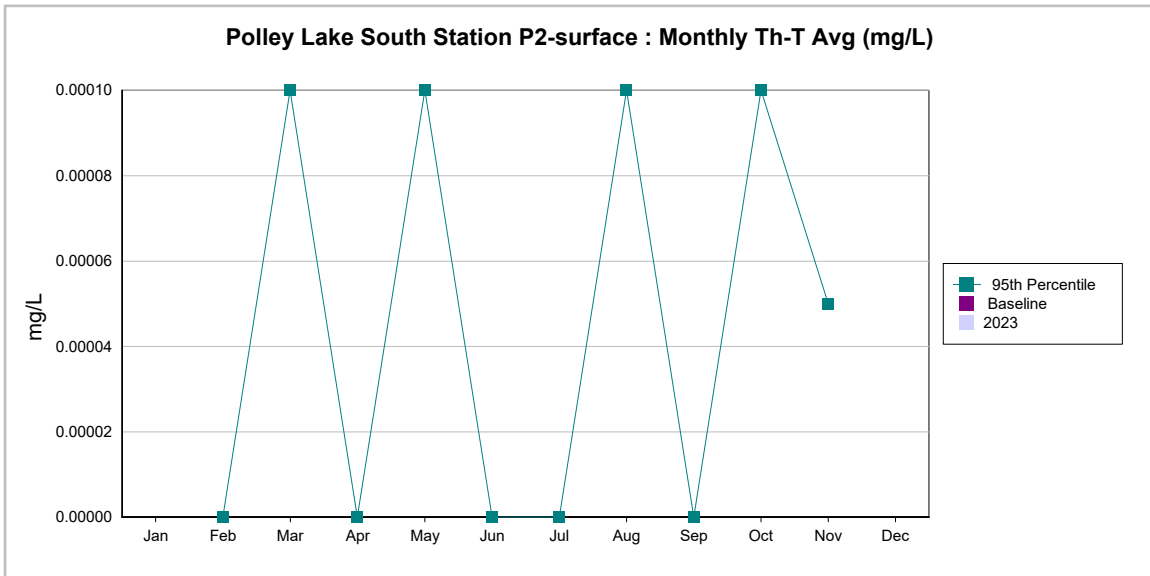
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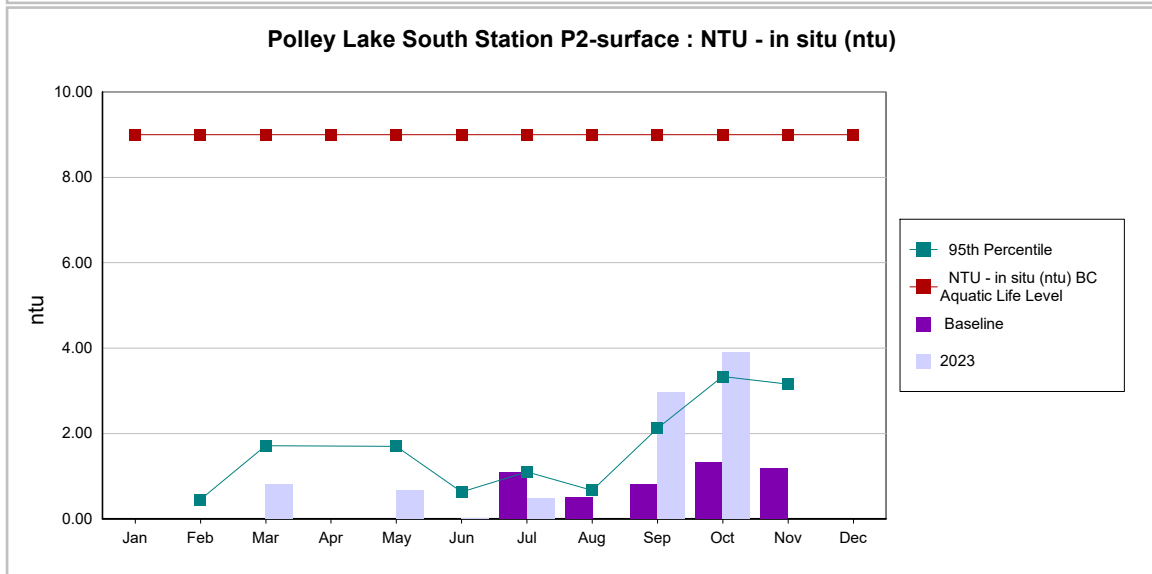
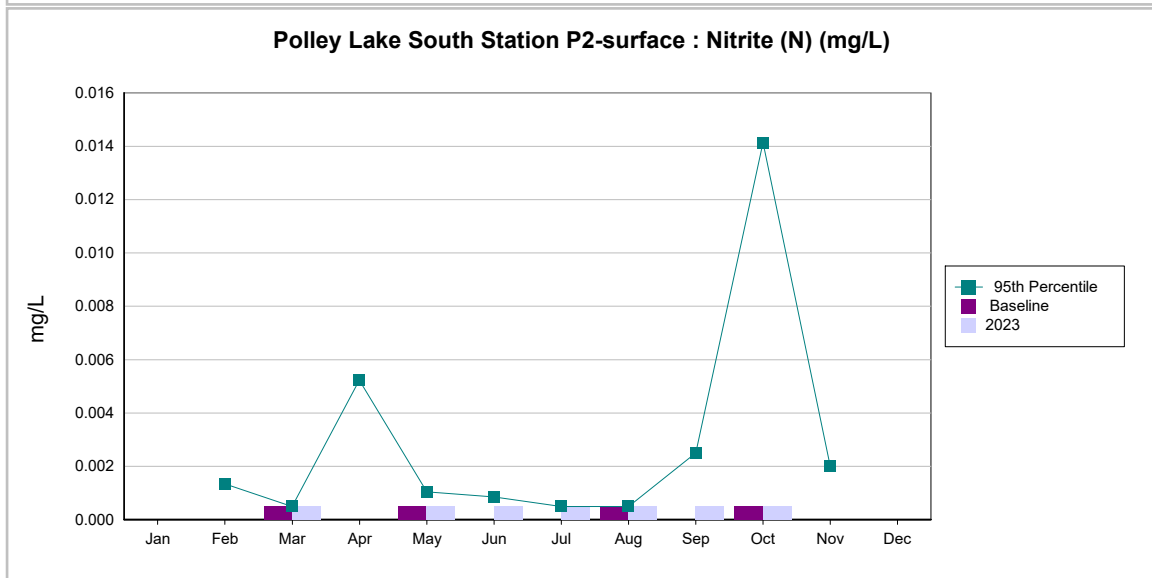
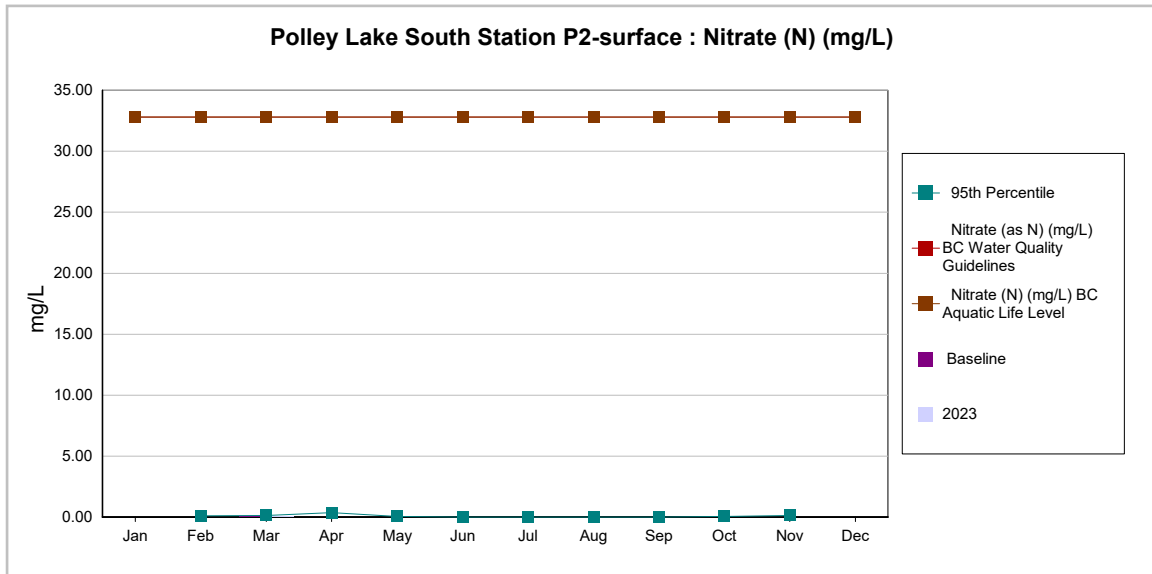
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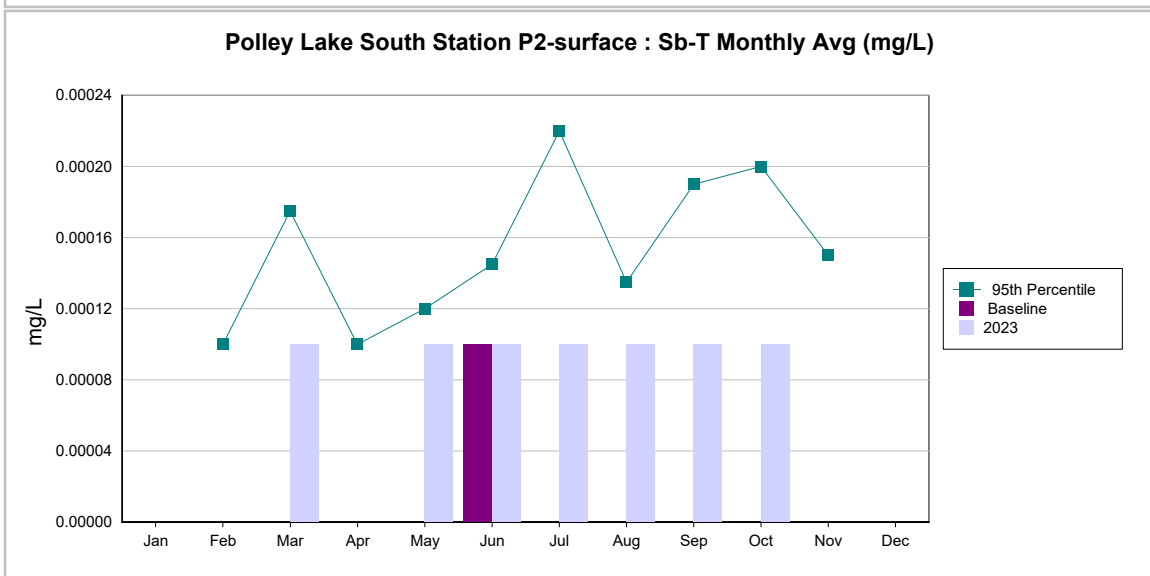
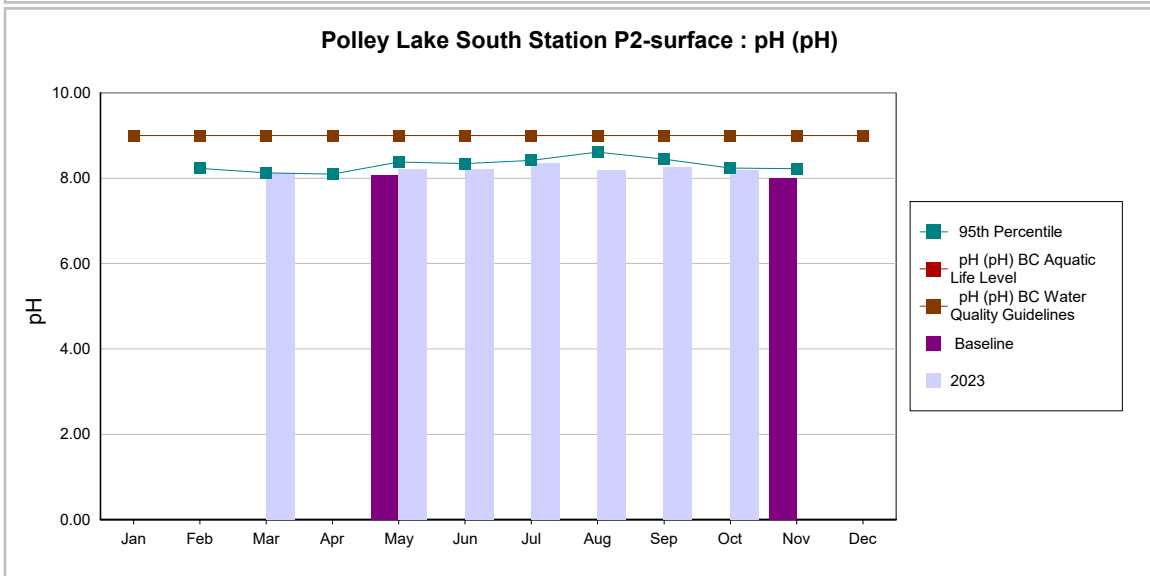
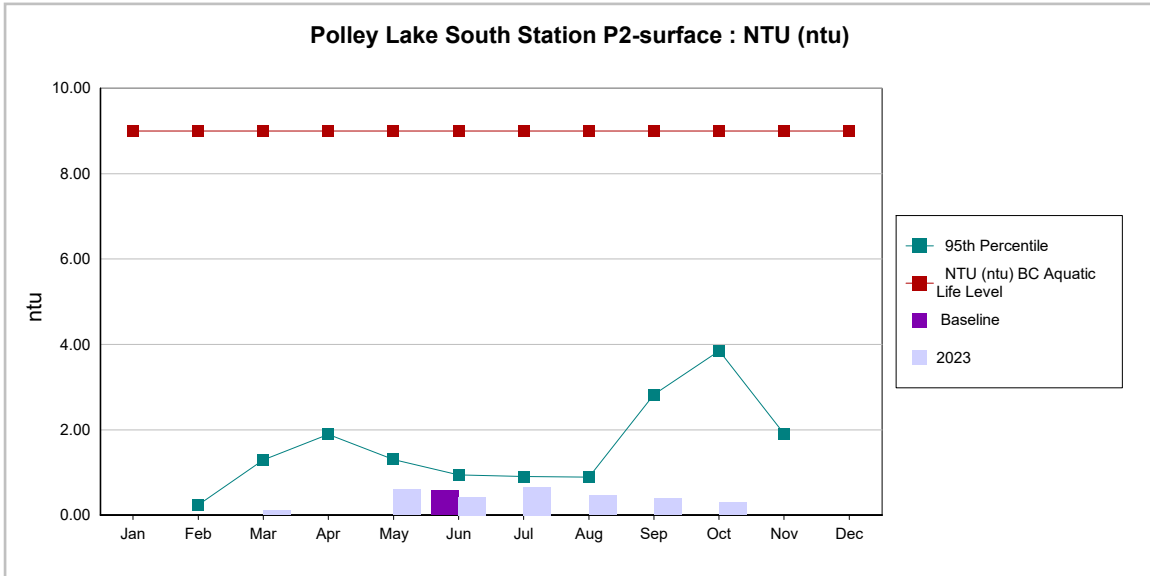
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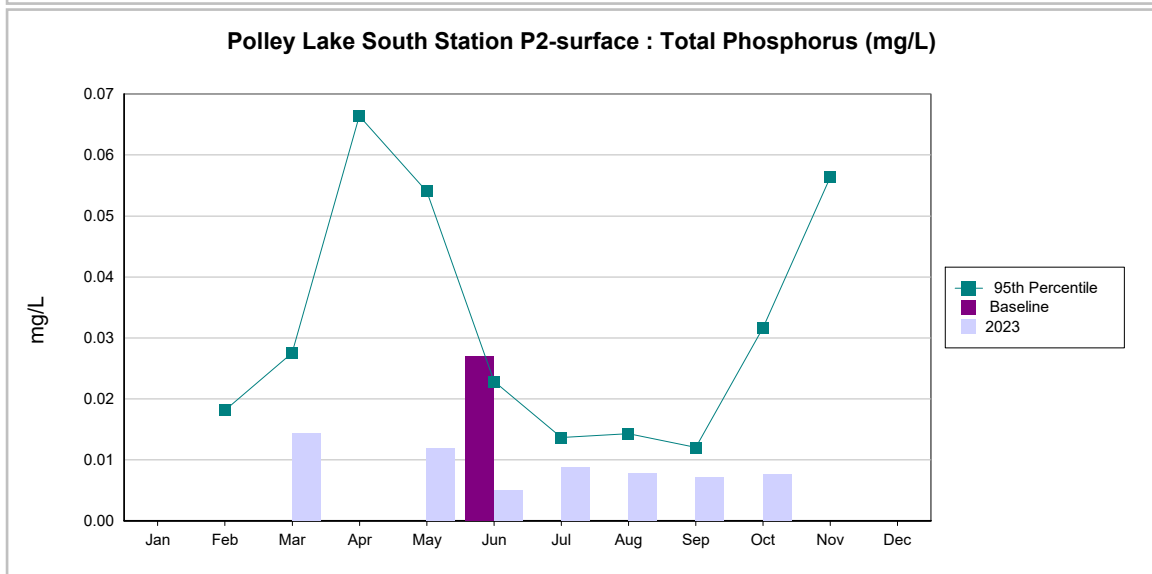
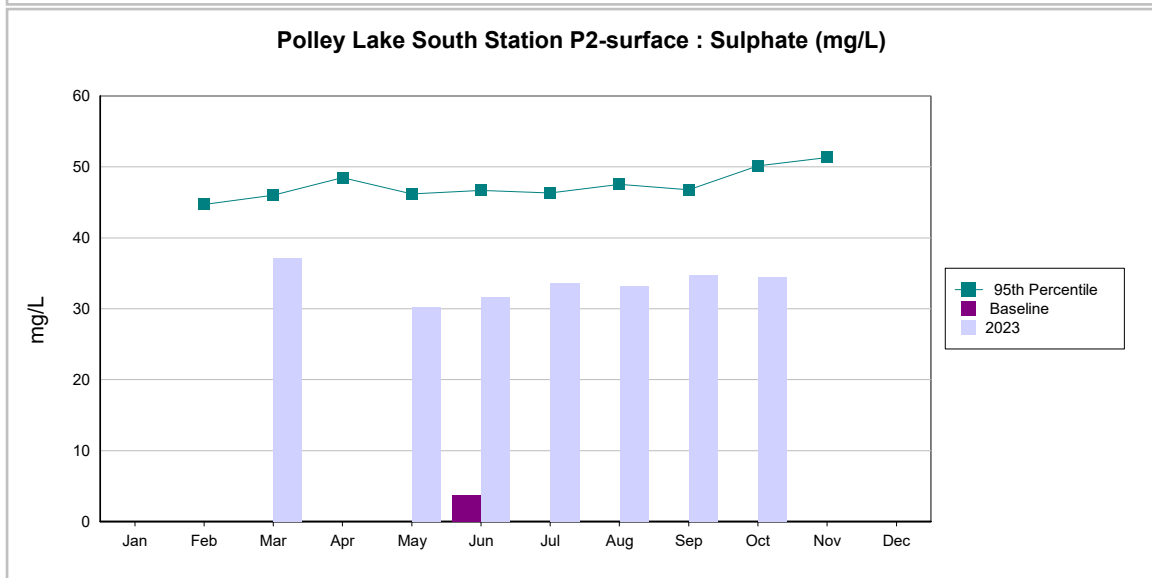
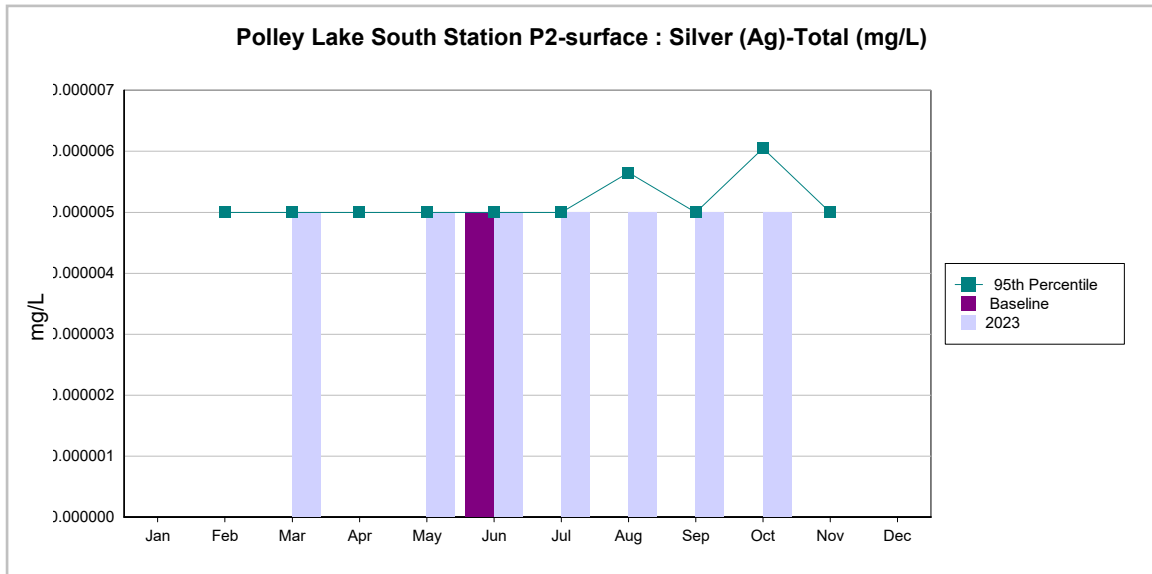
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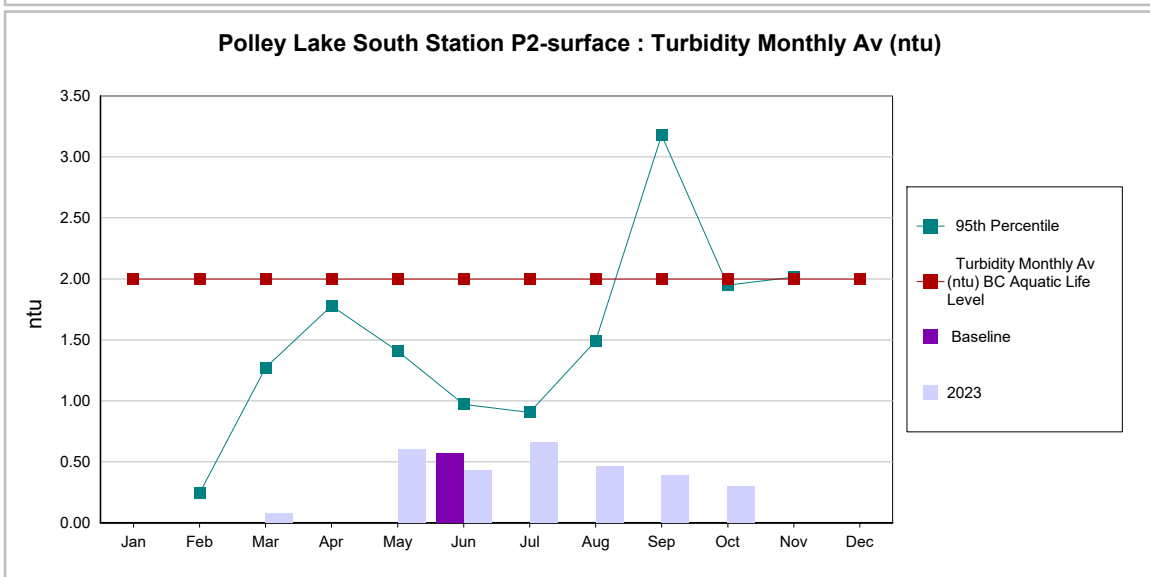
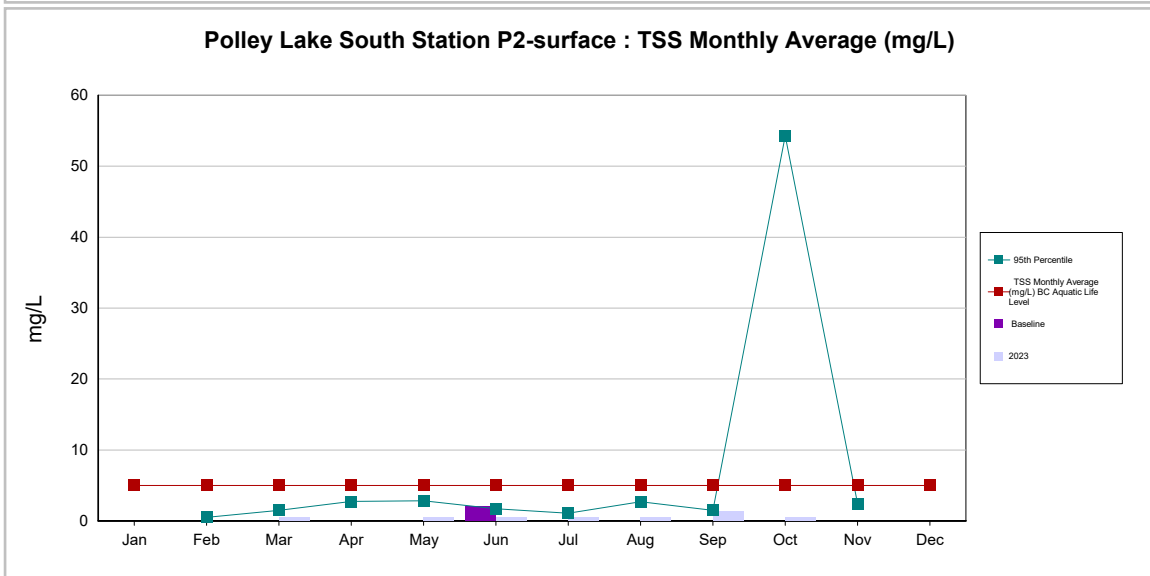
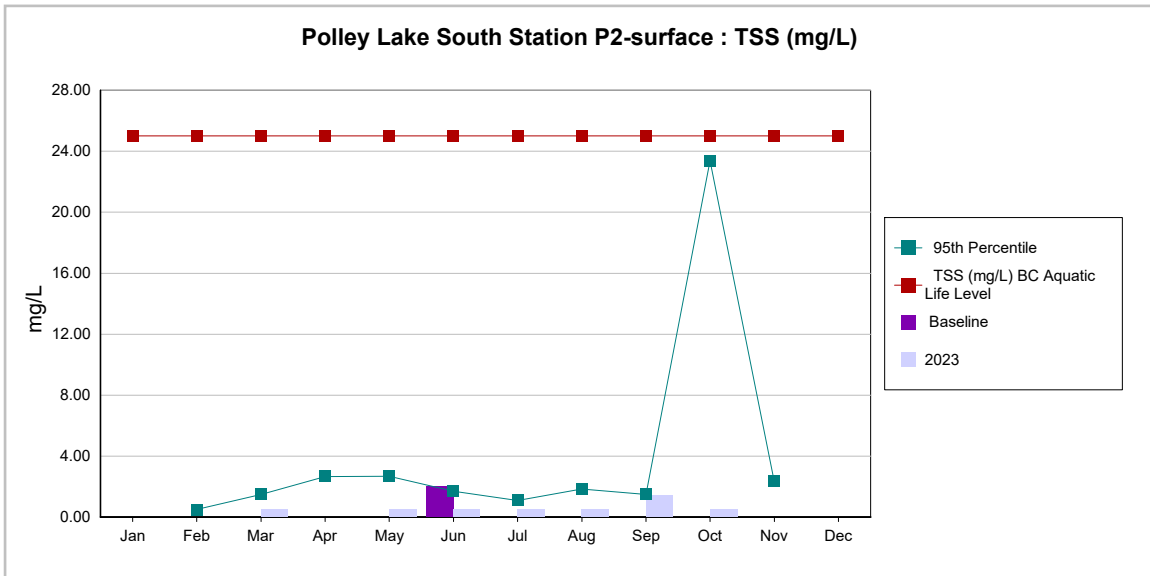
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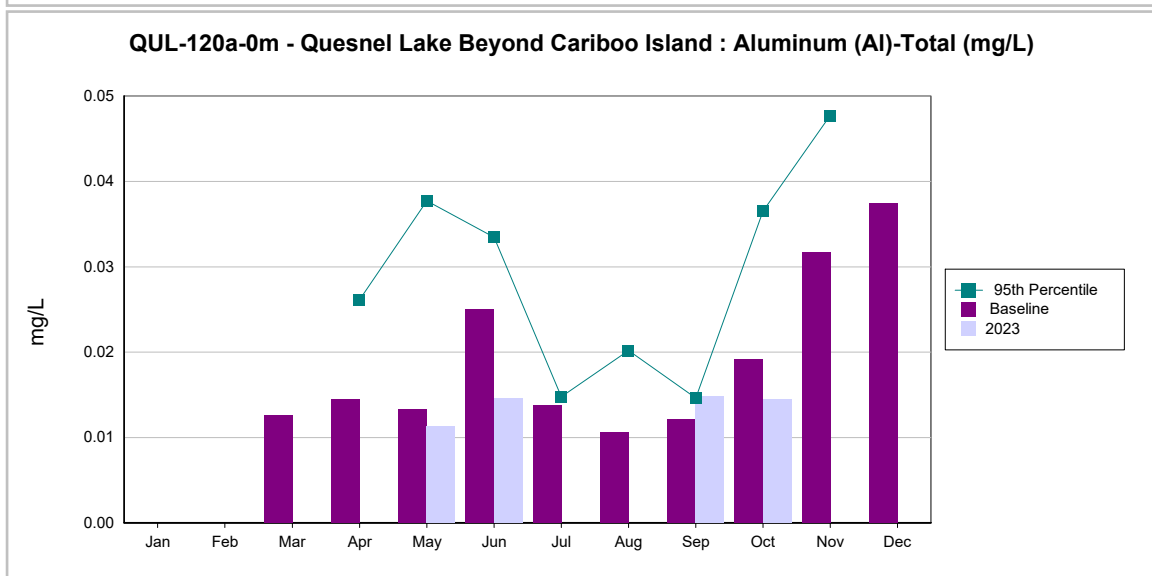
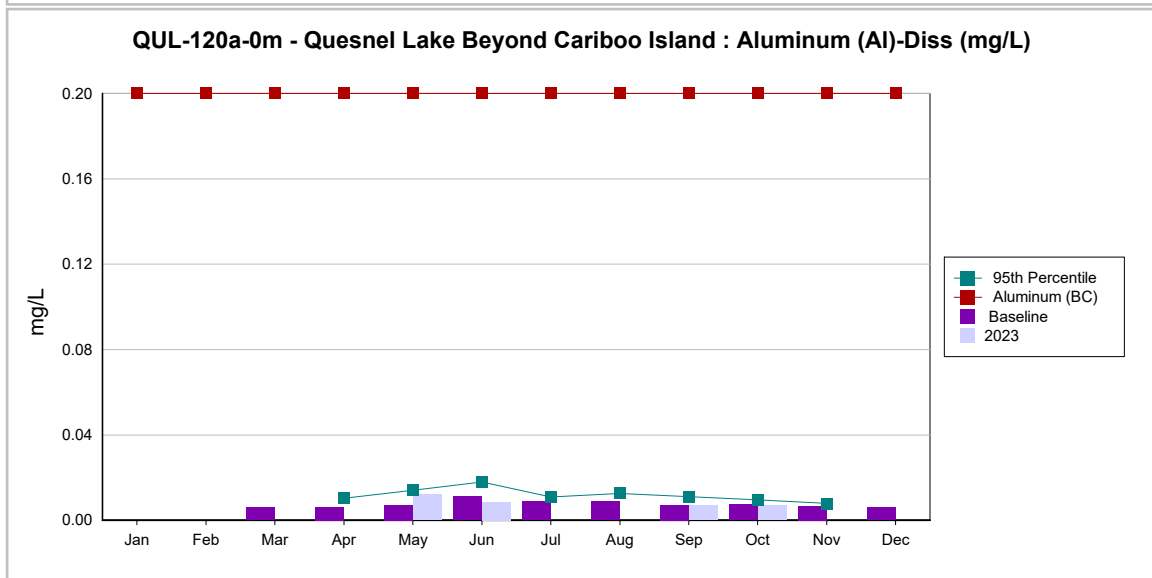
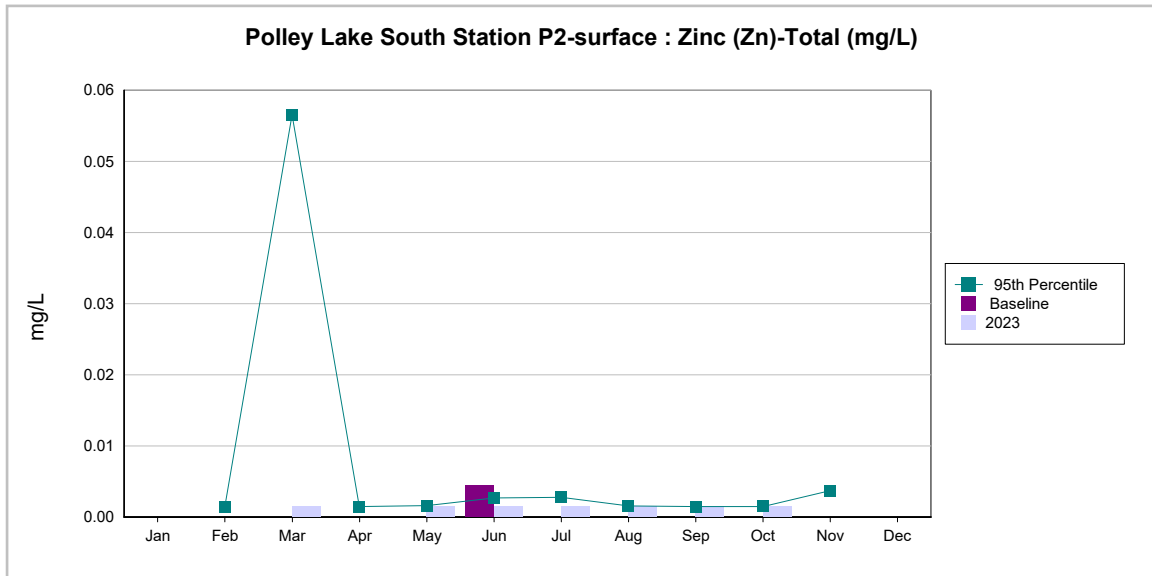
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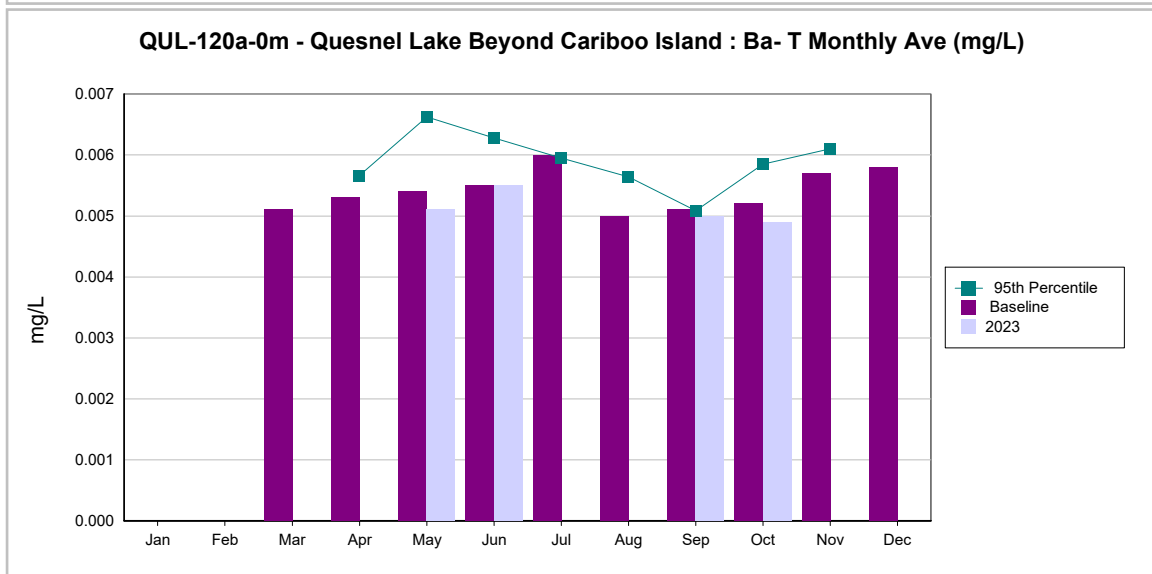
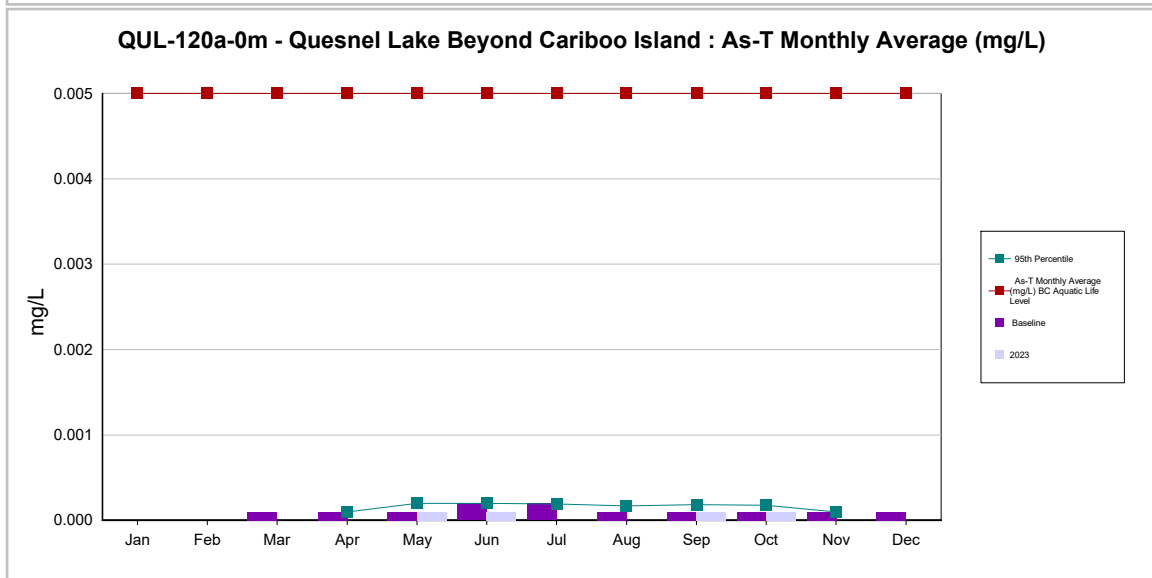
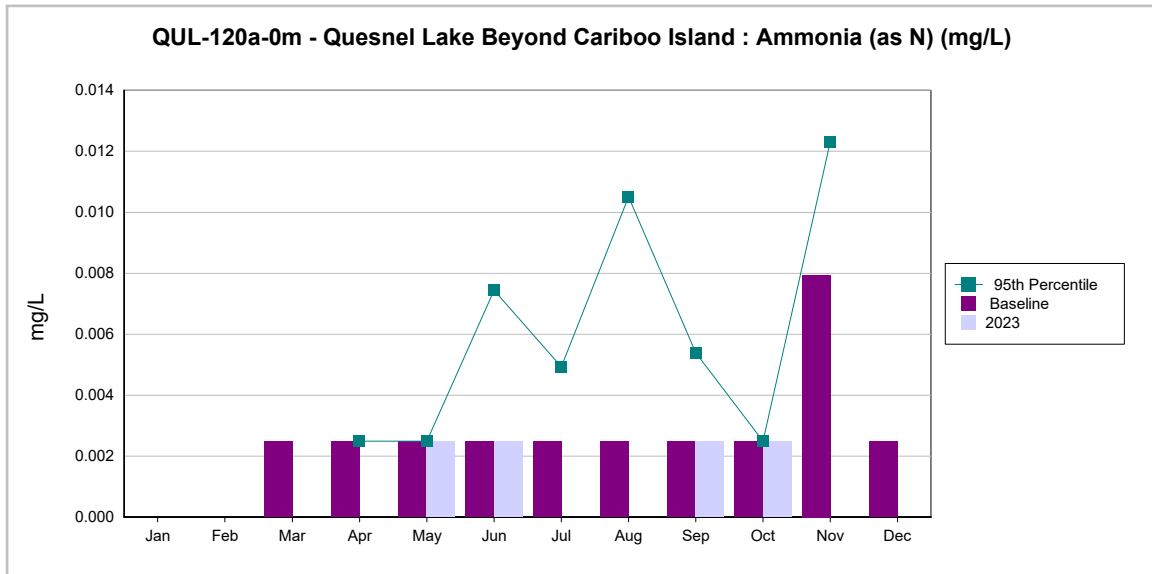
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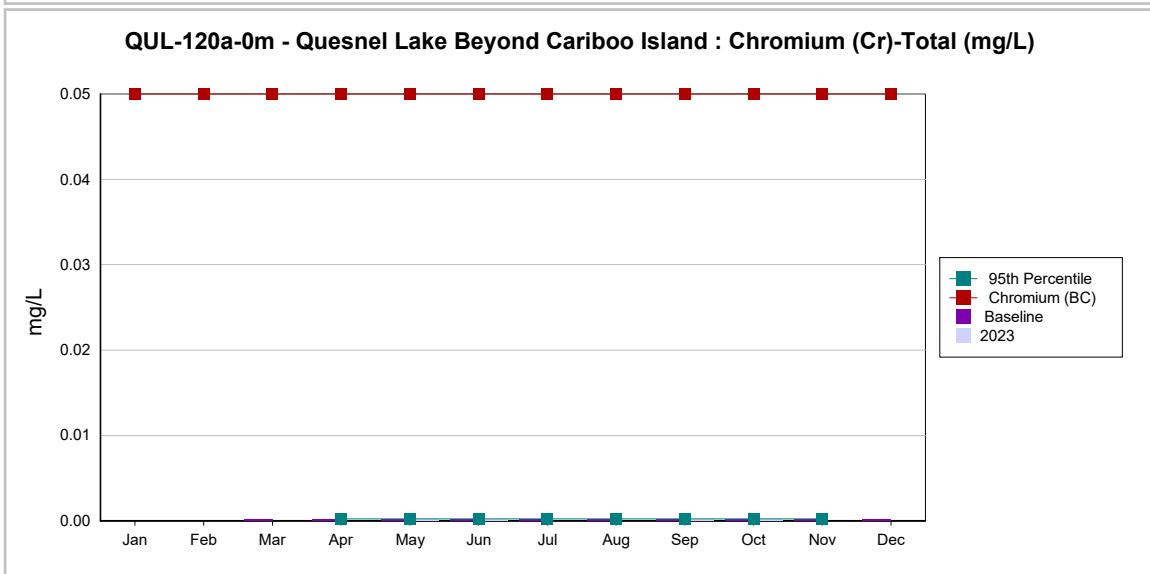
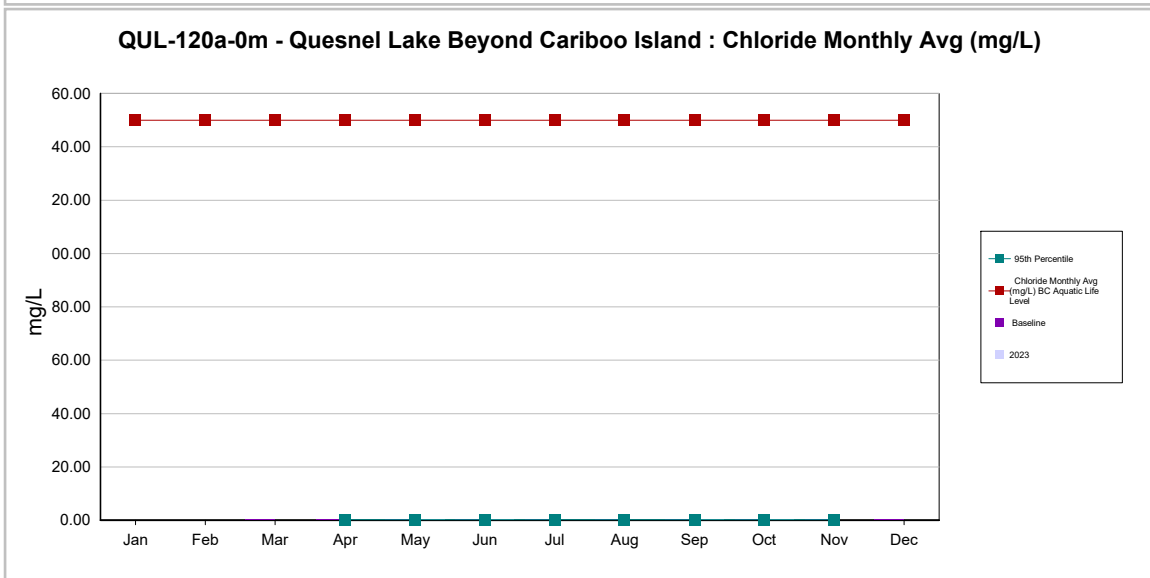
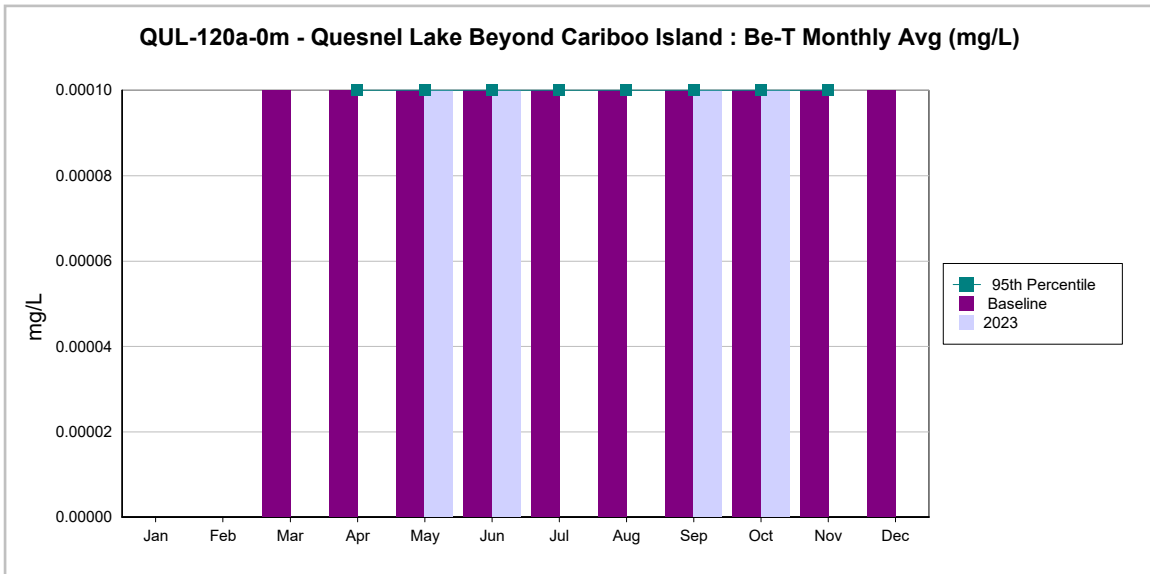
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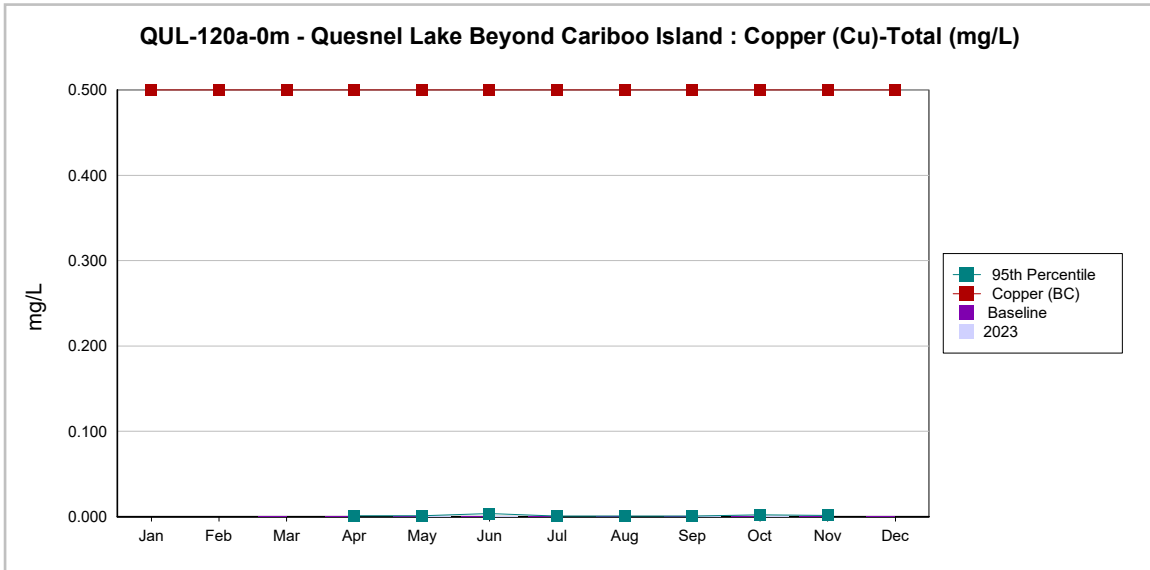
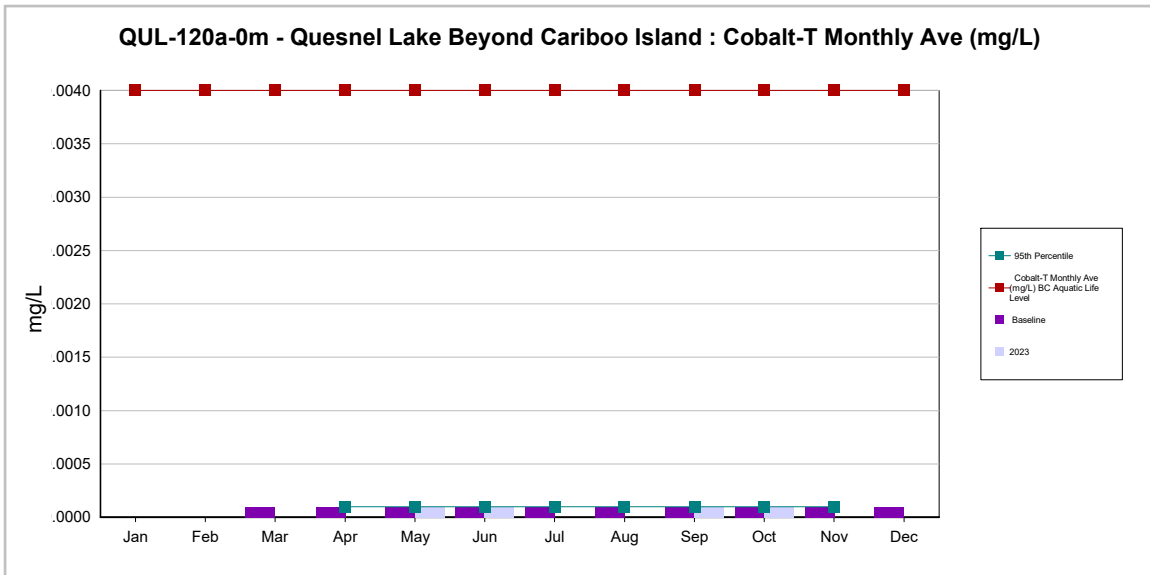
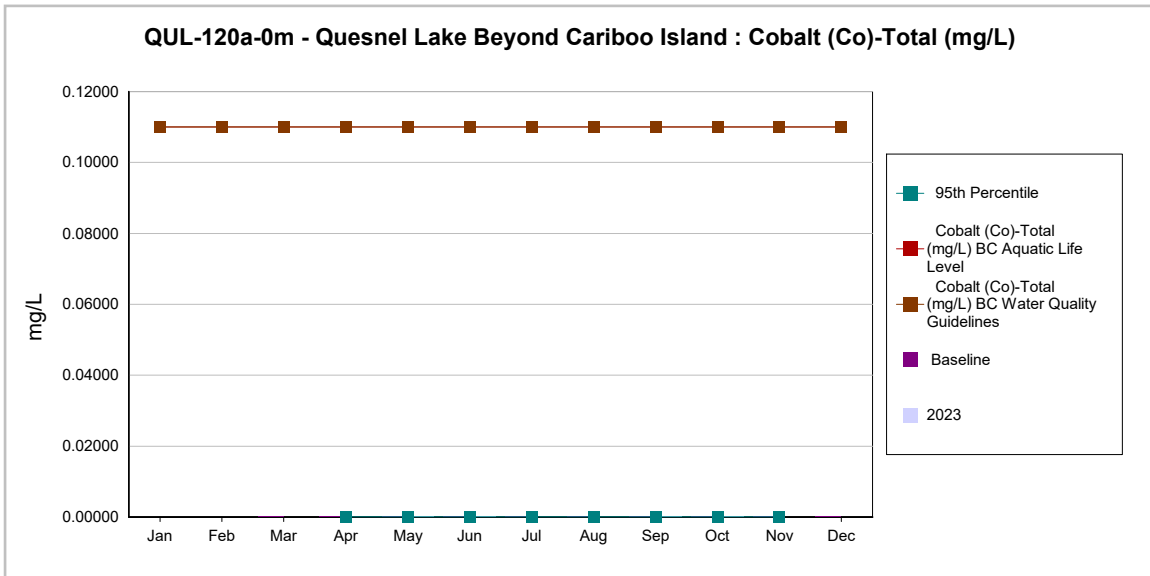
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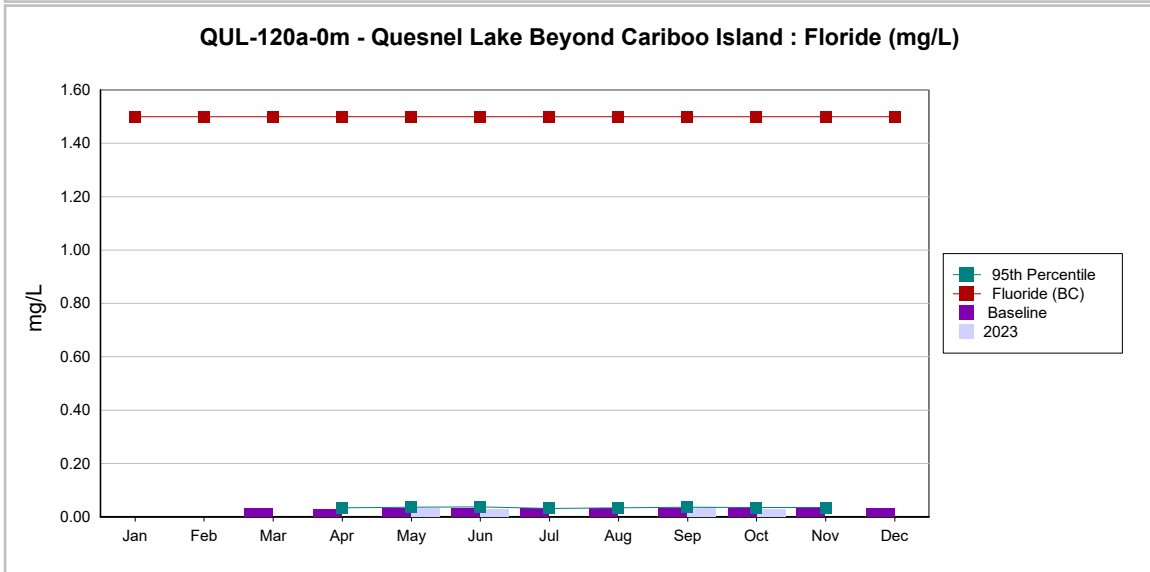
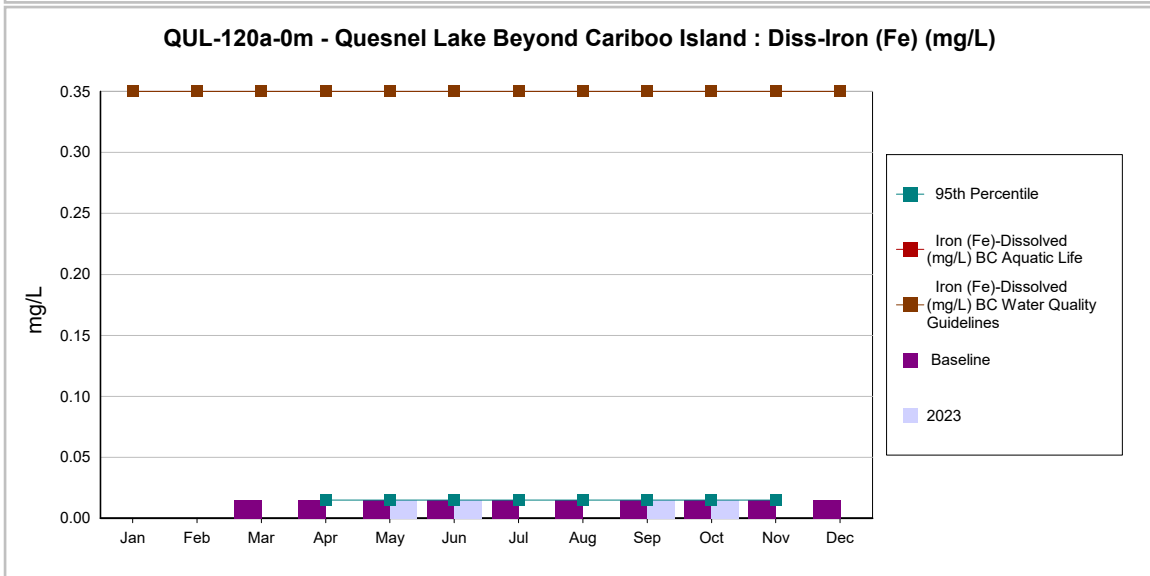
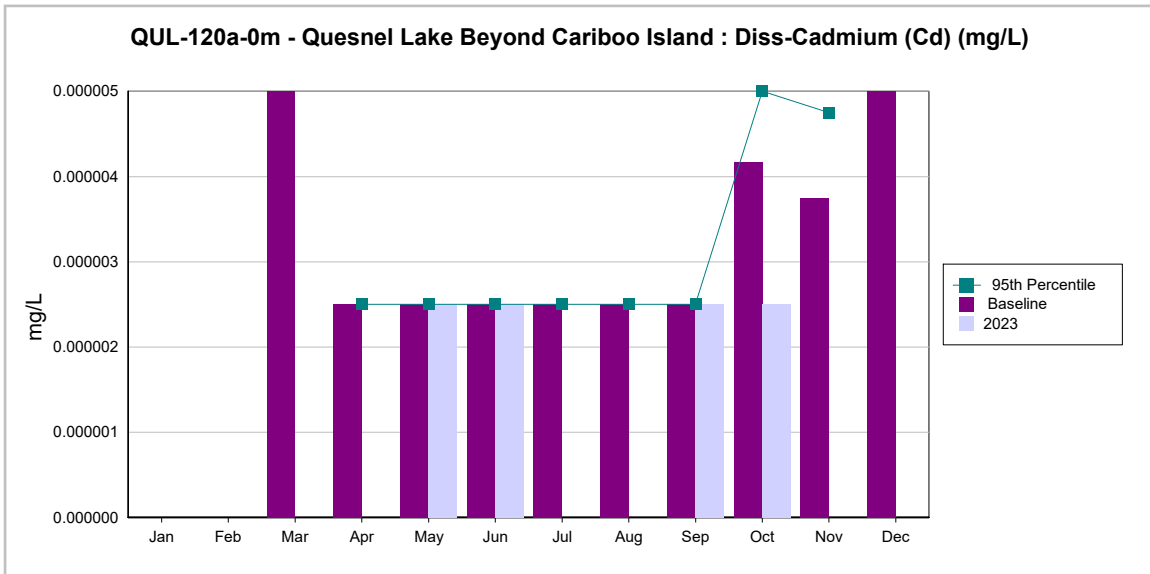
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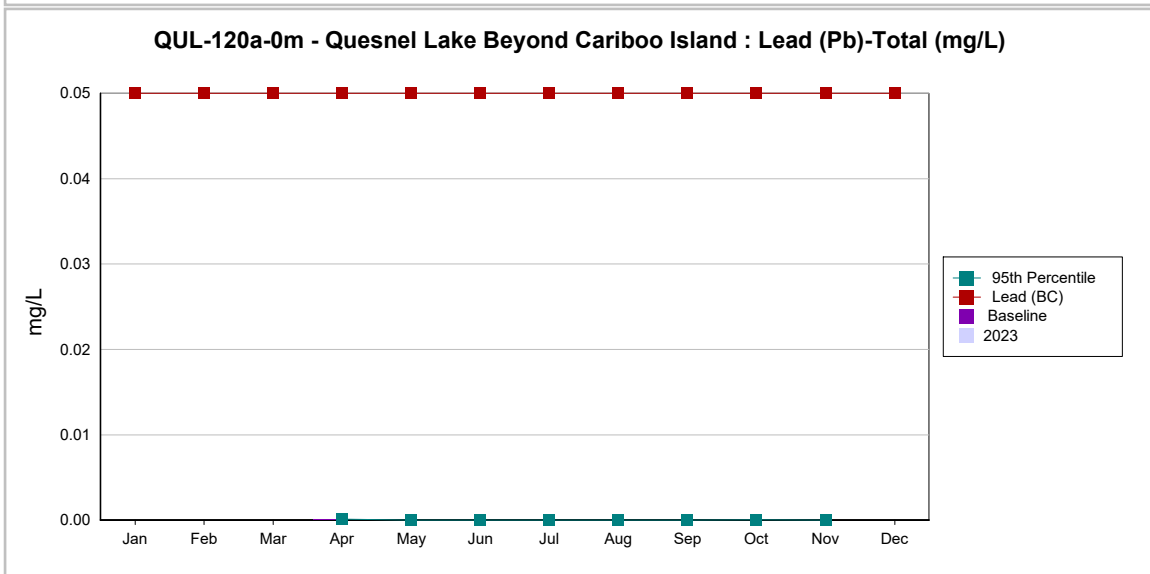
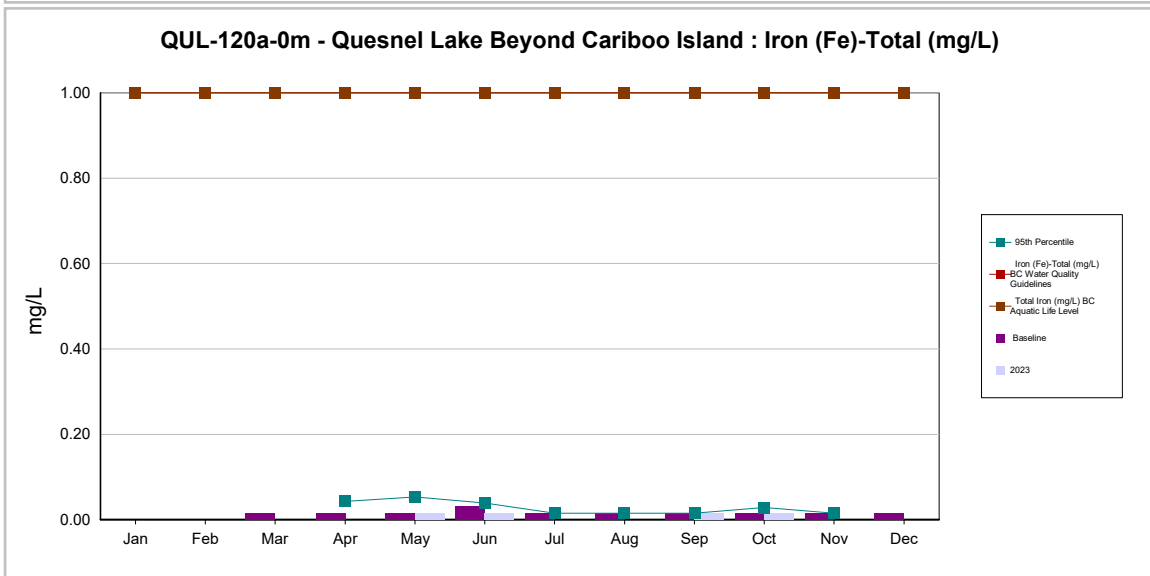
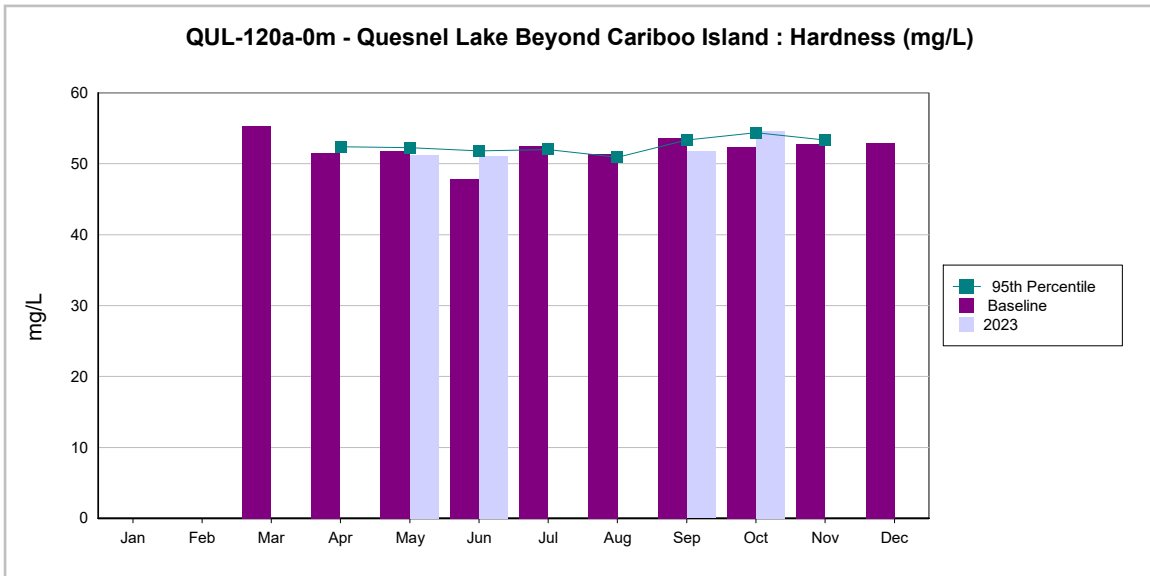
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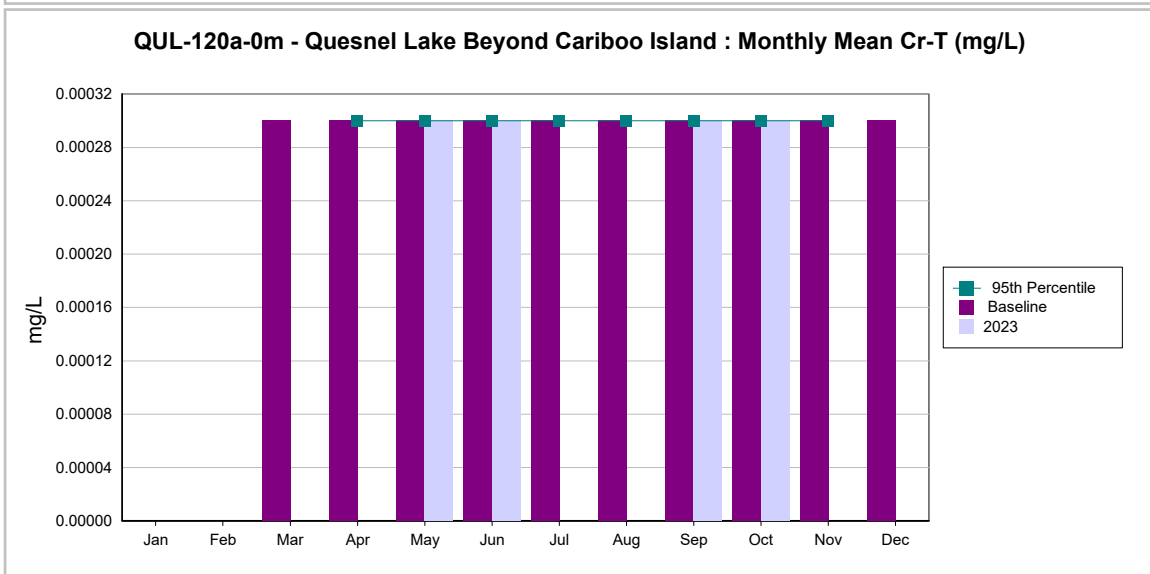
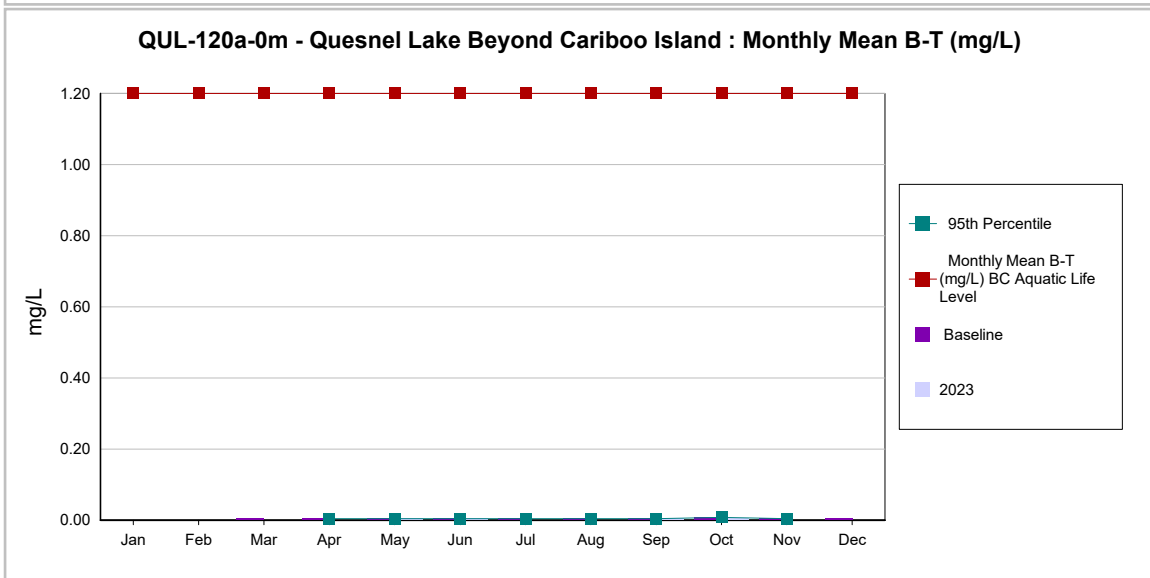
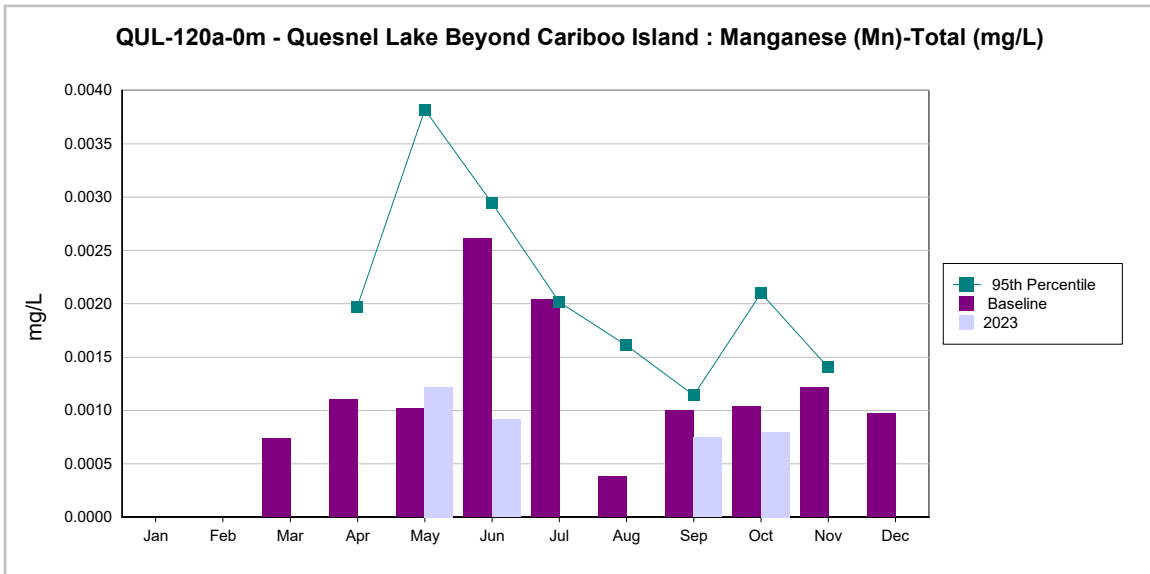
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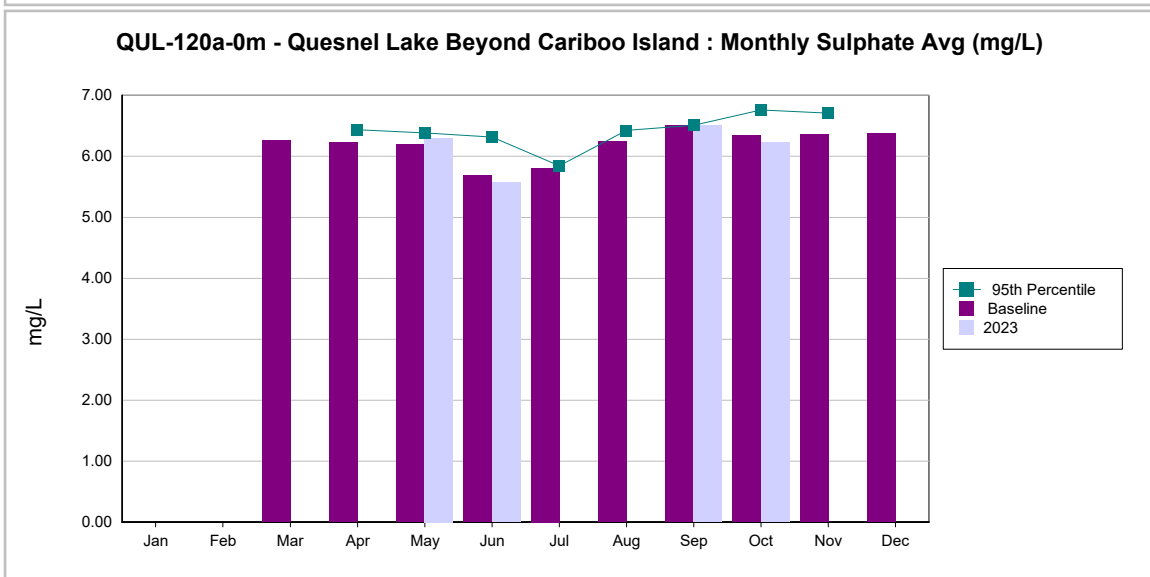
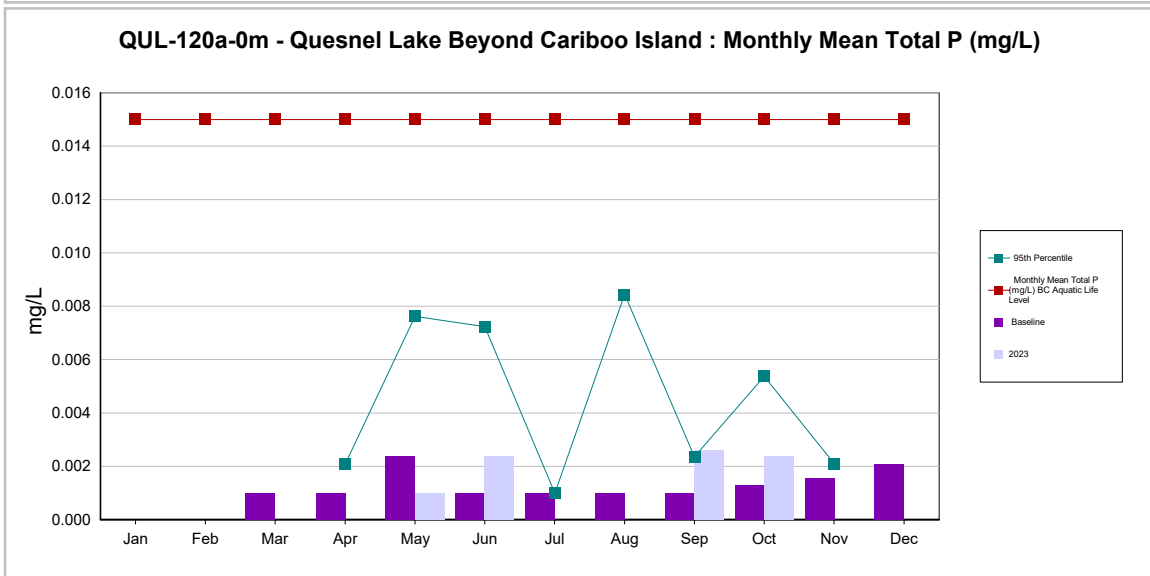
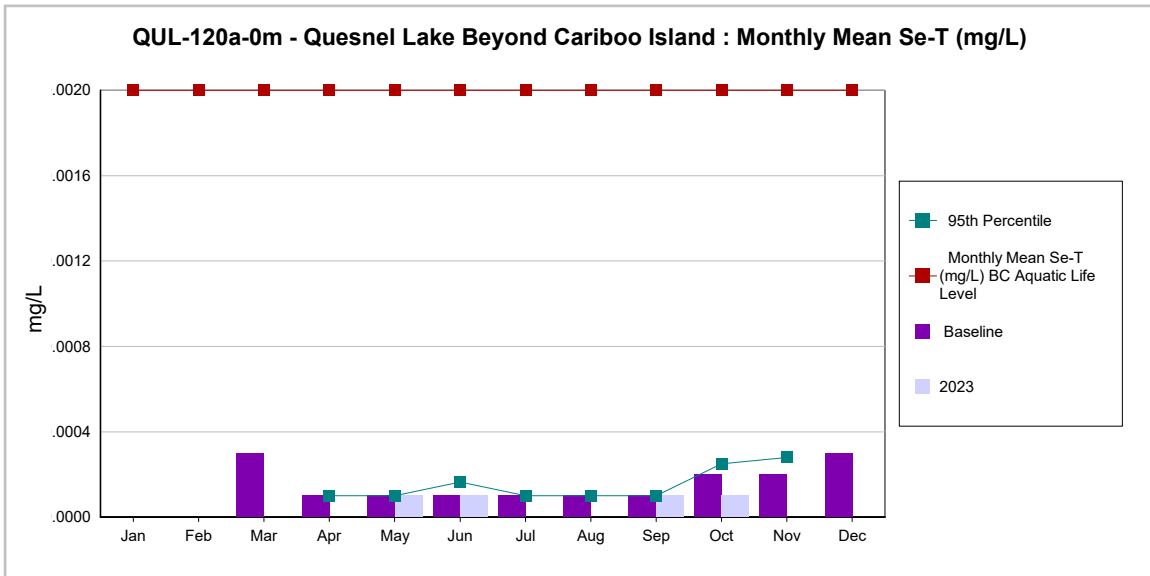
Annual Report Lake vs BCWQG



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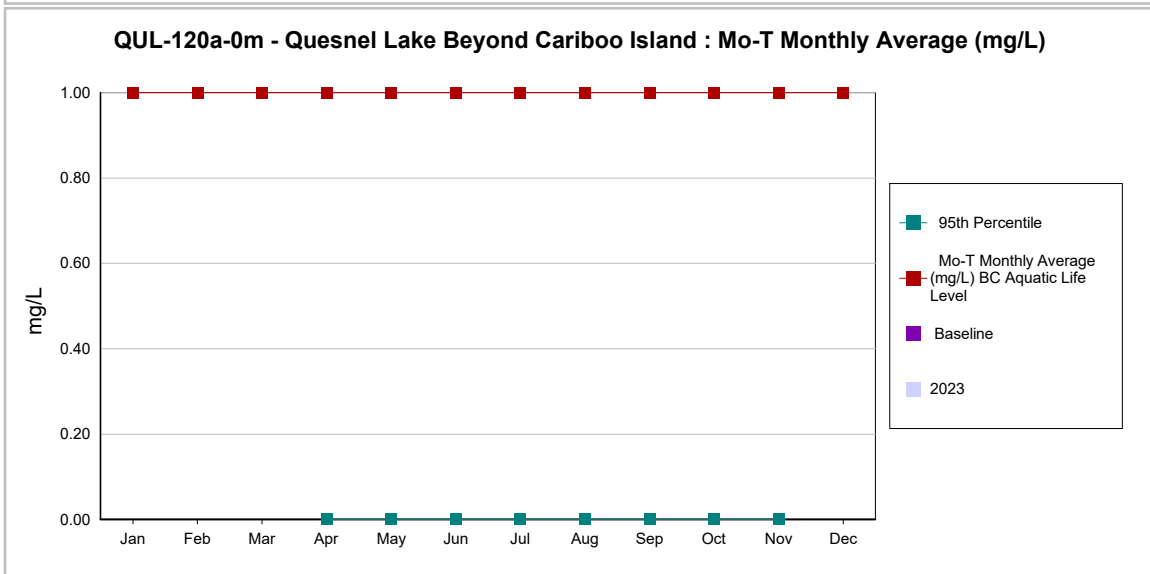
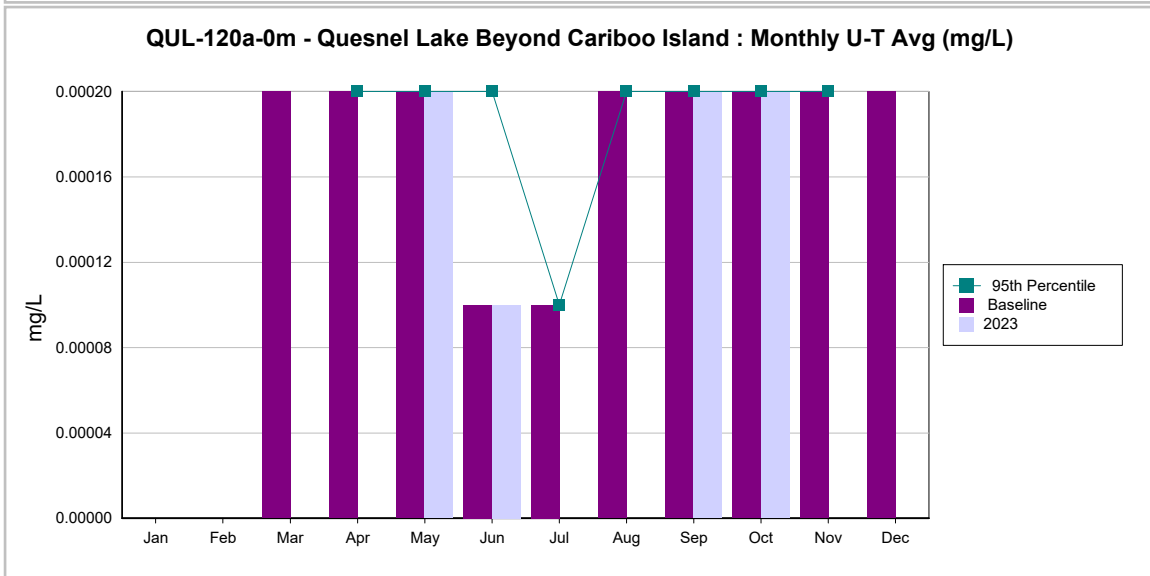
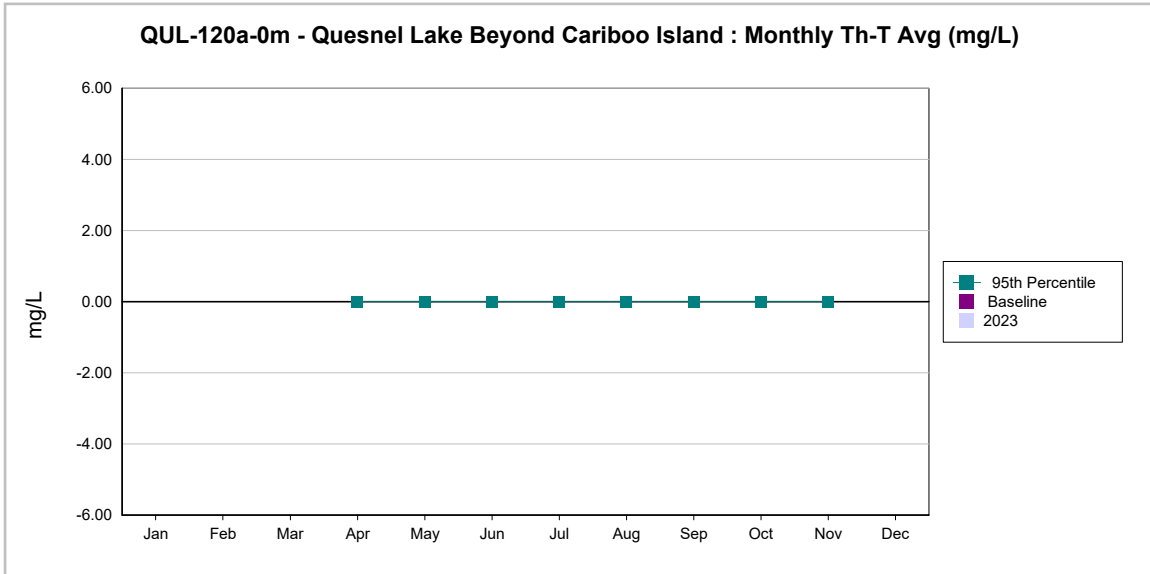
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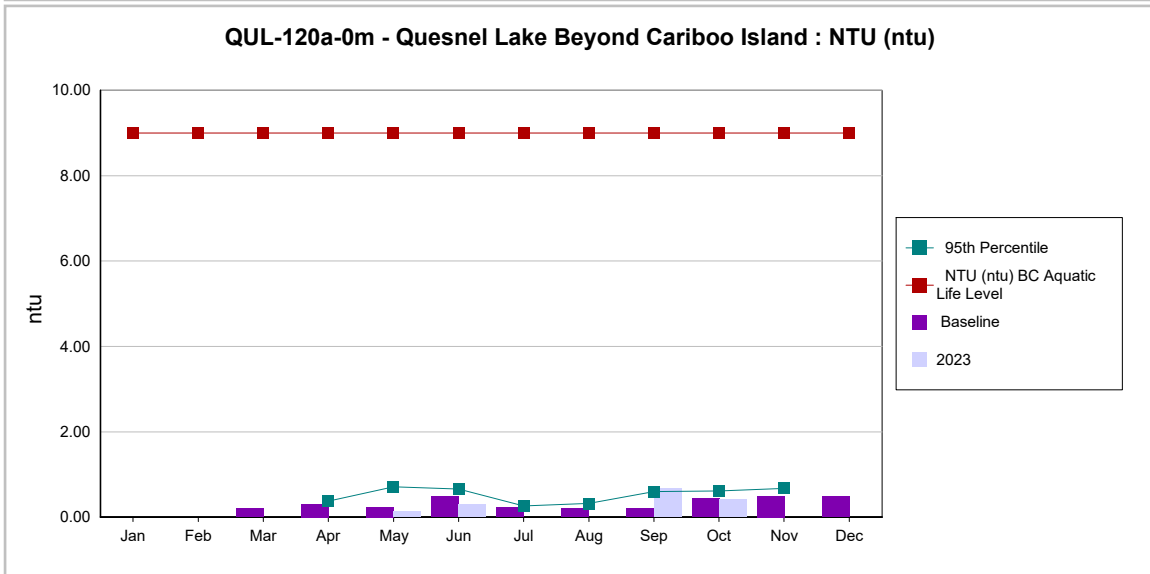
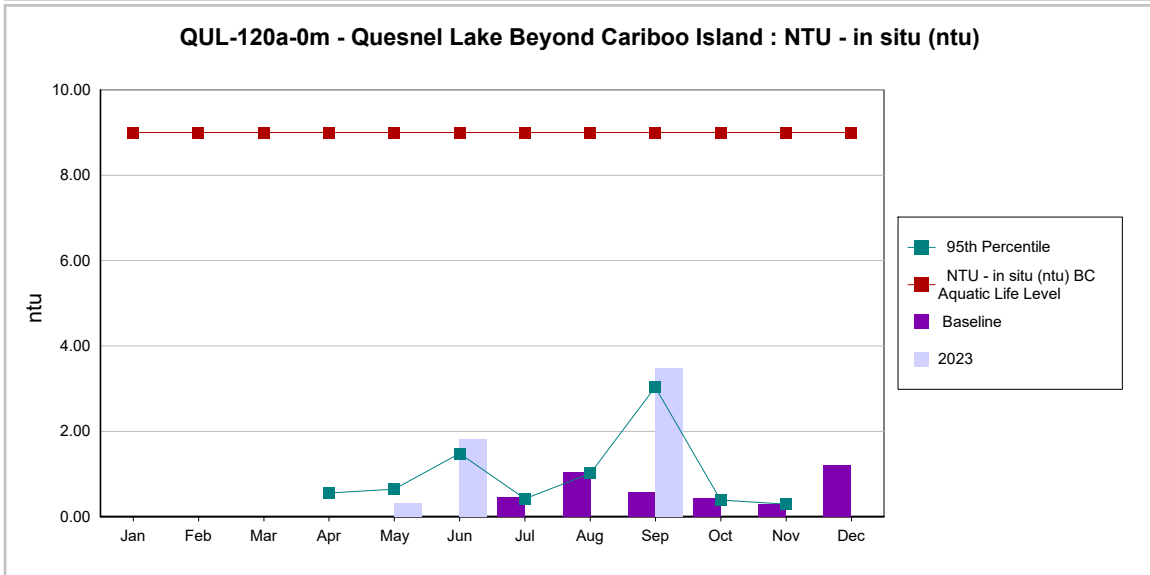
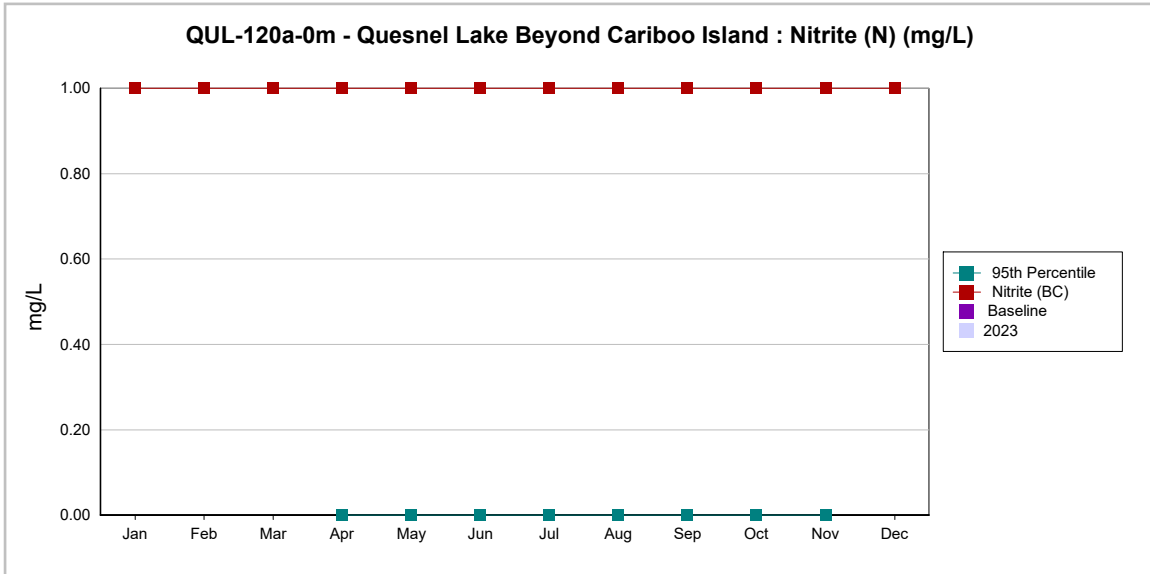
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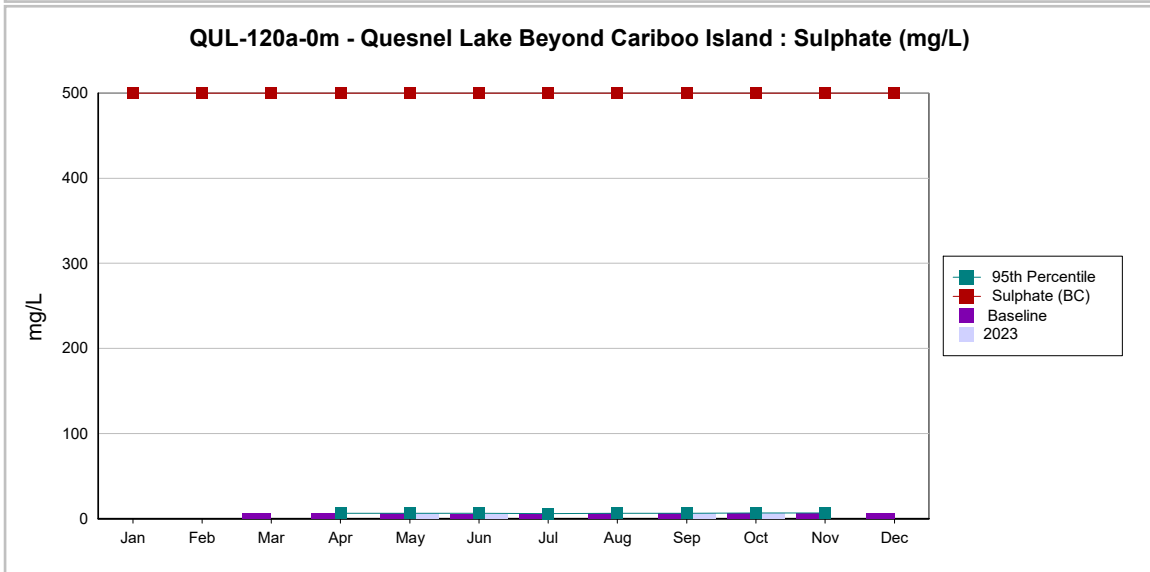
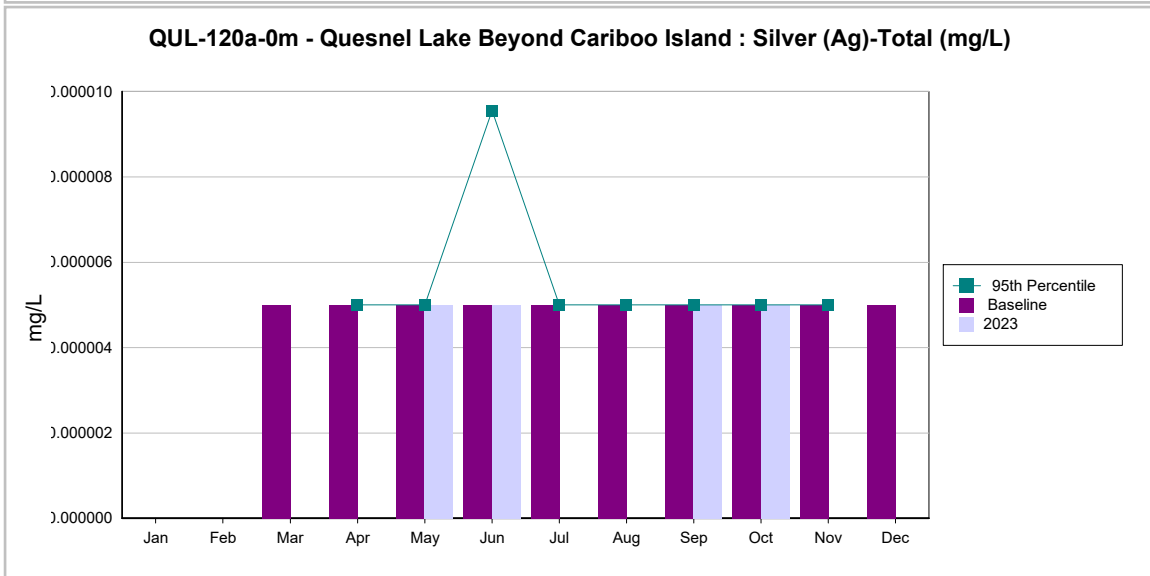
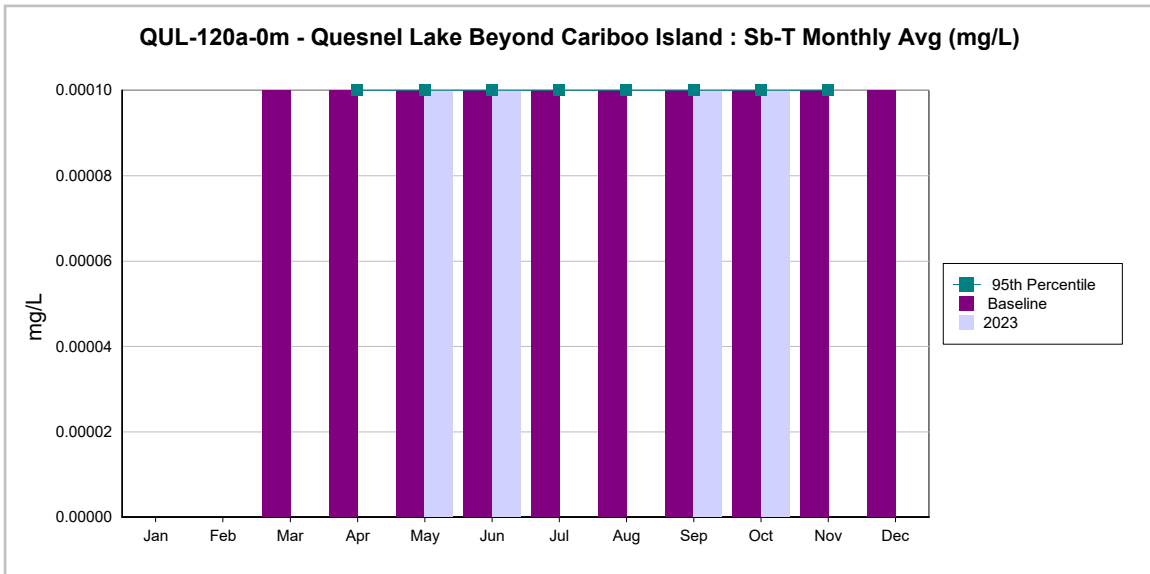
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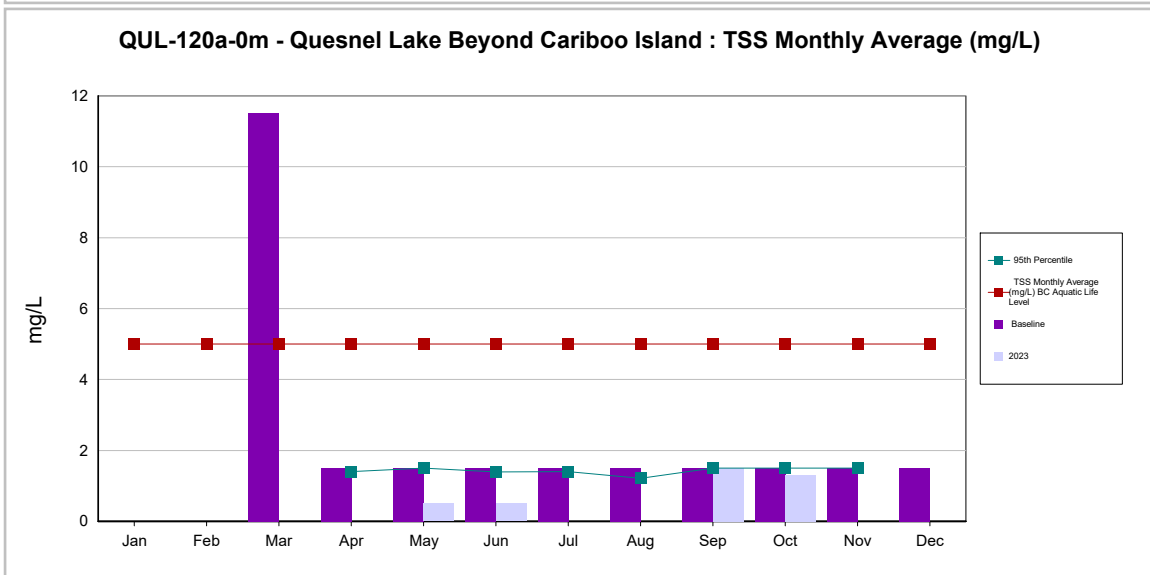
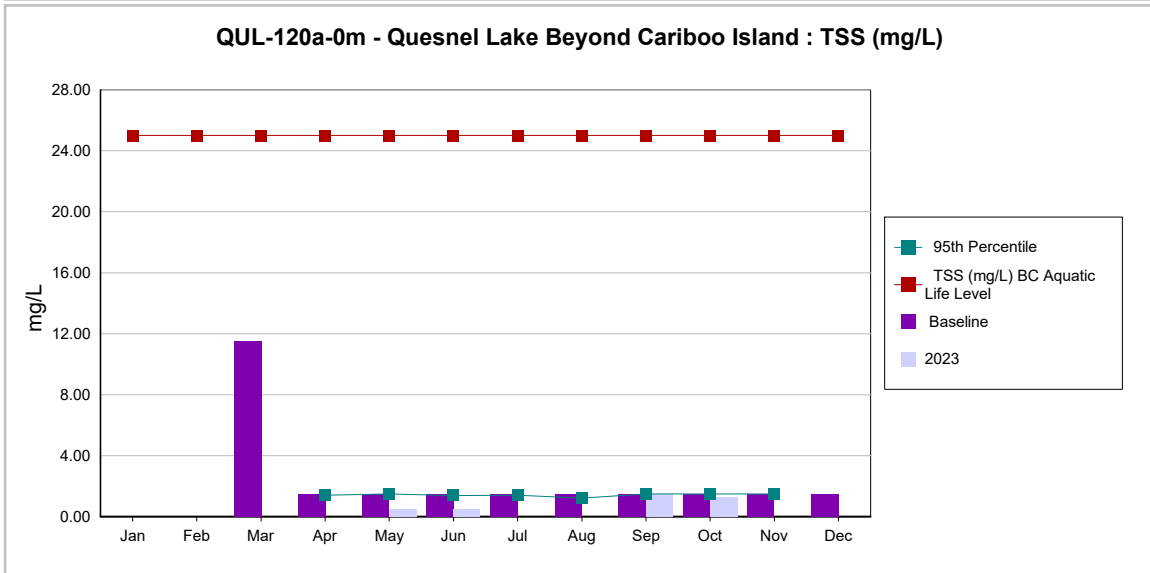
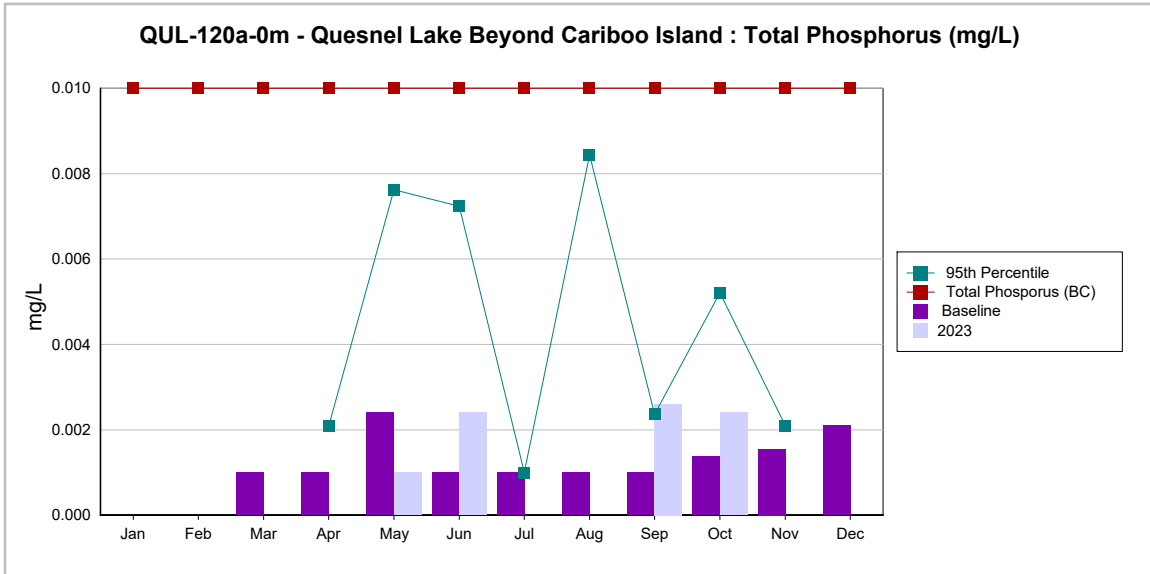
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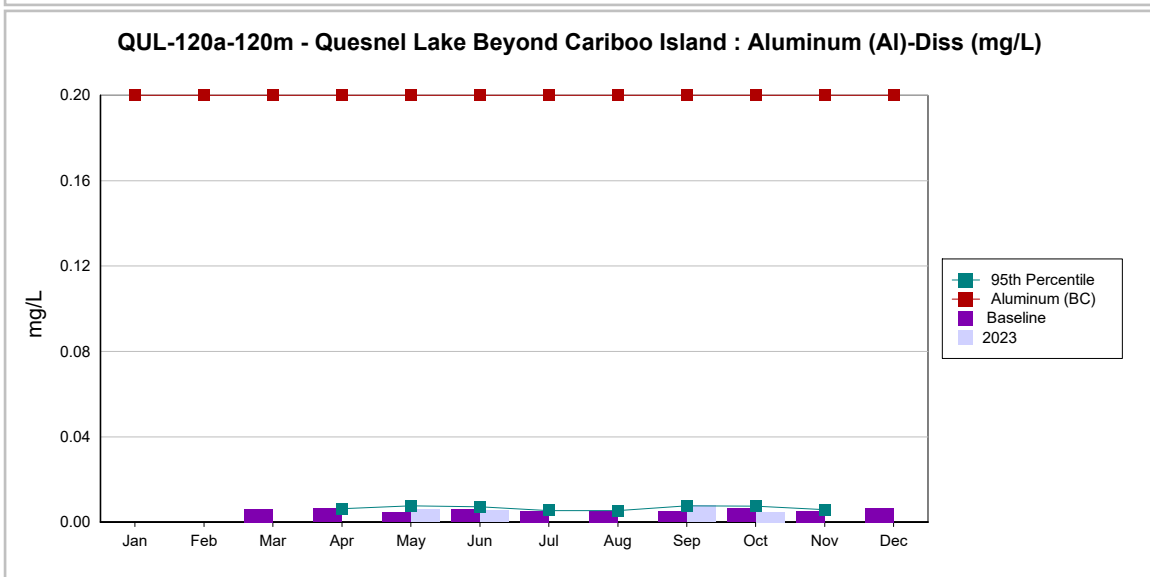
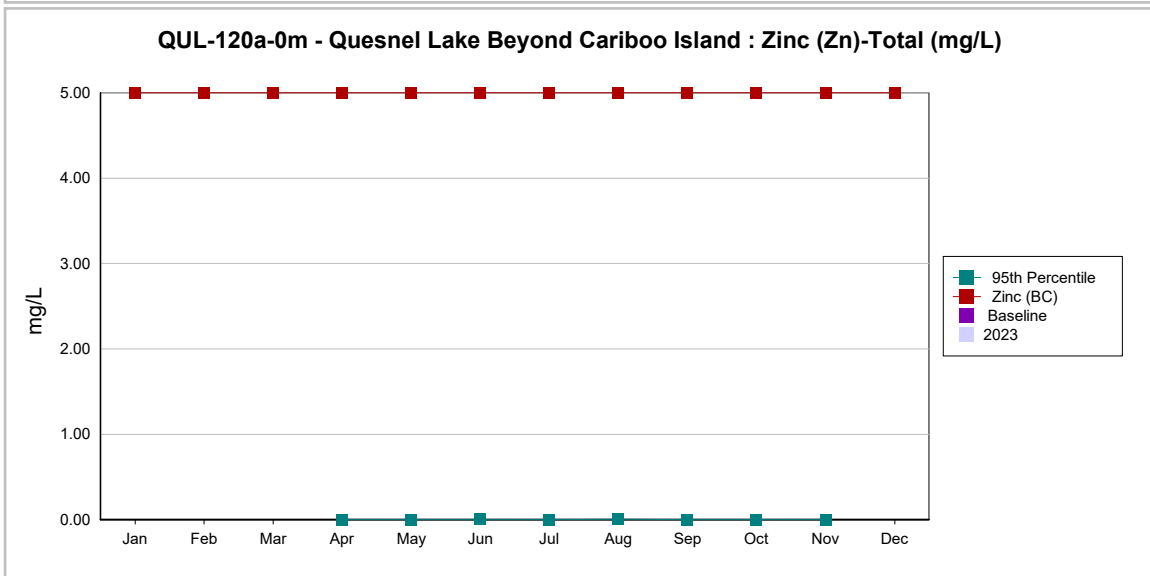
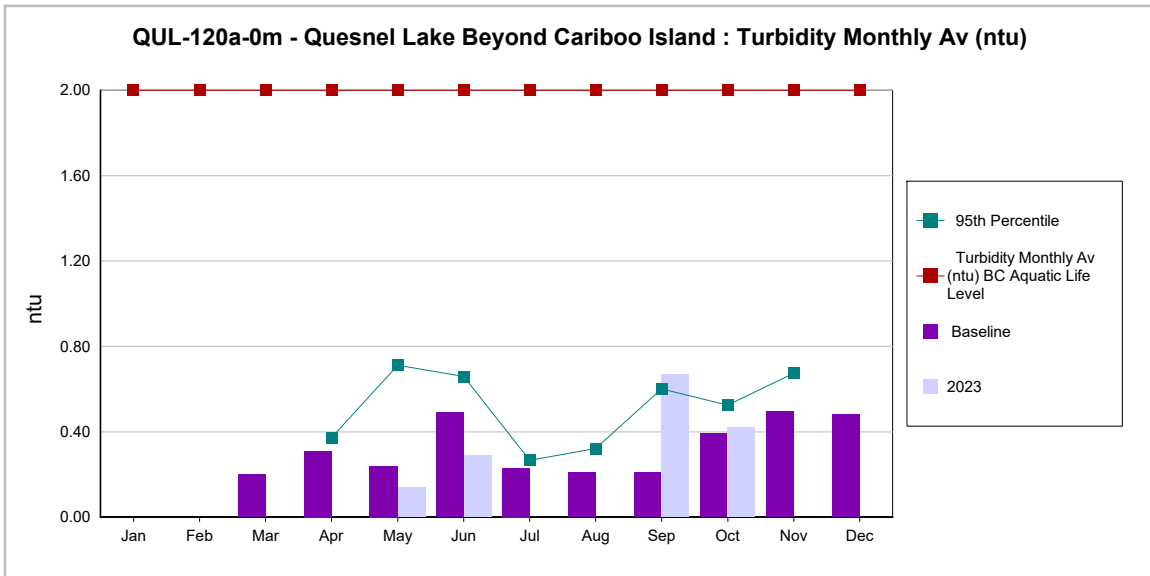
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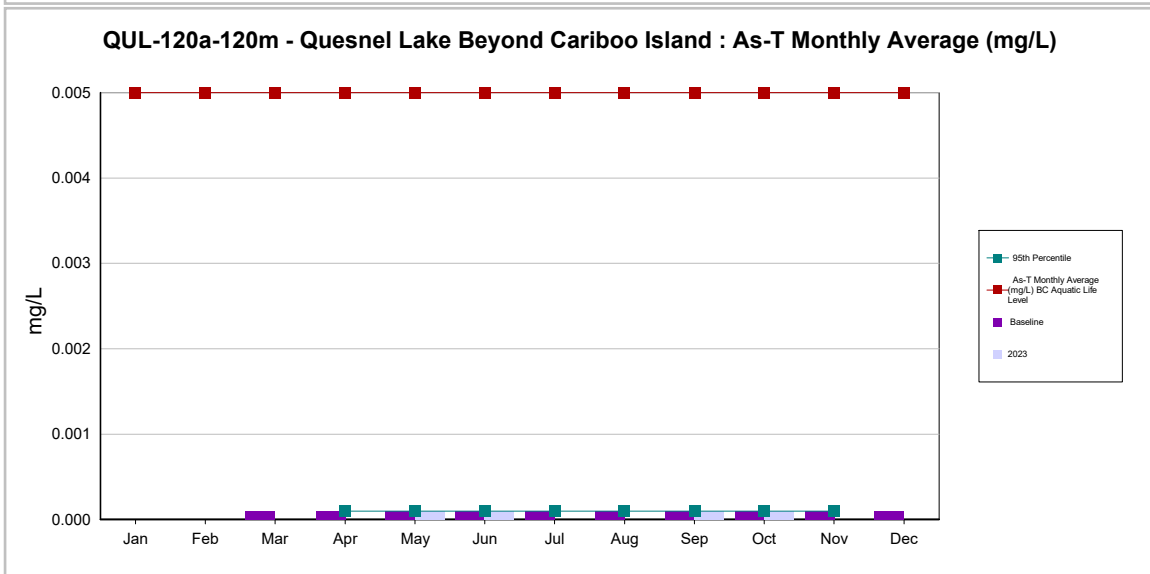
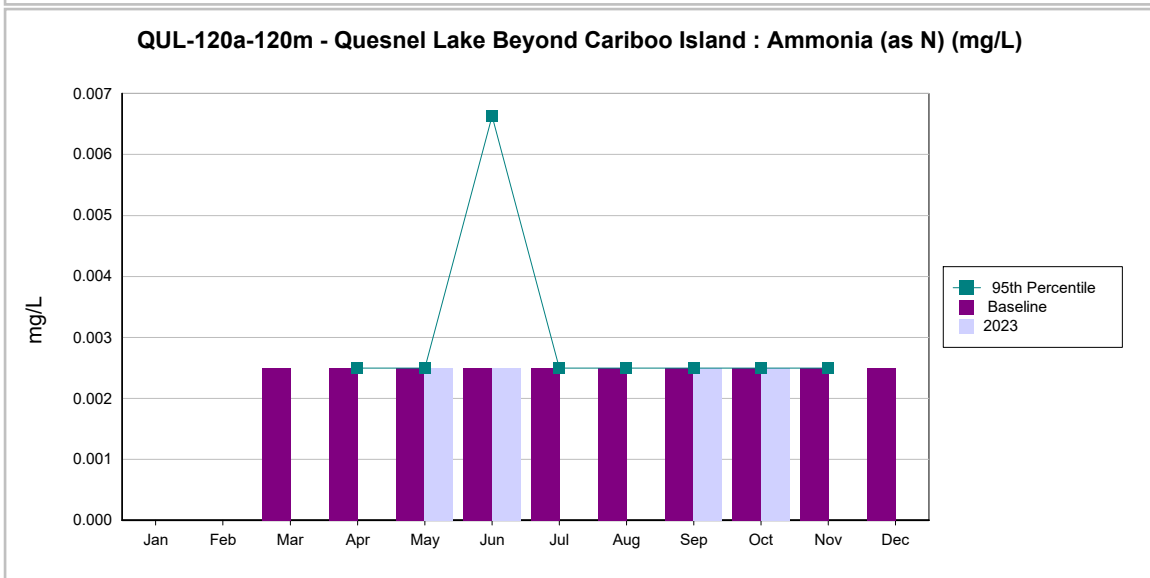
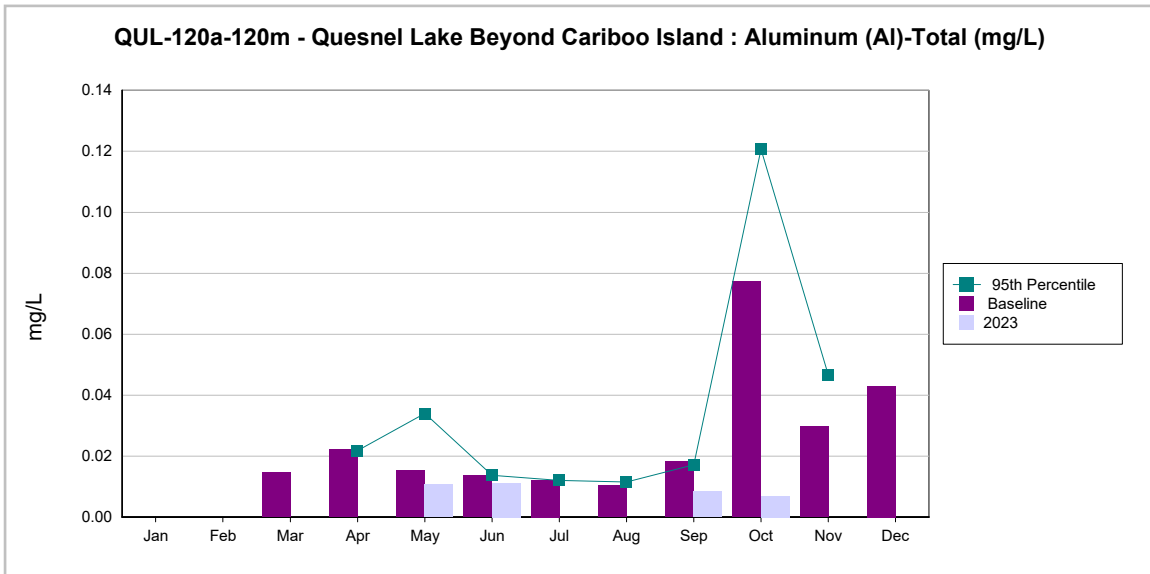
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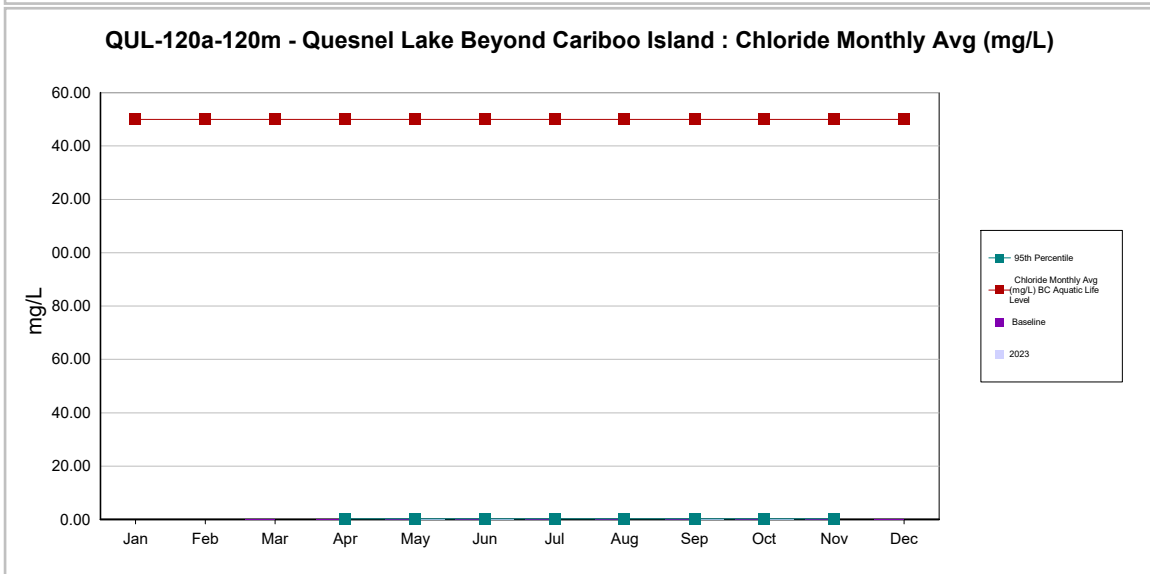
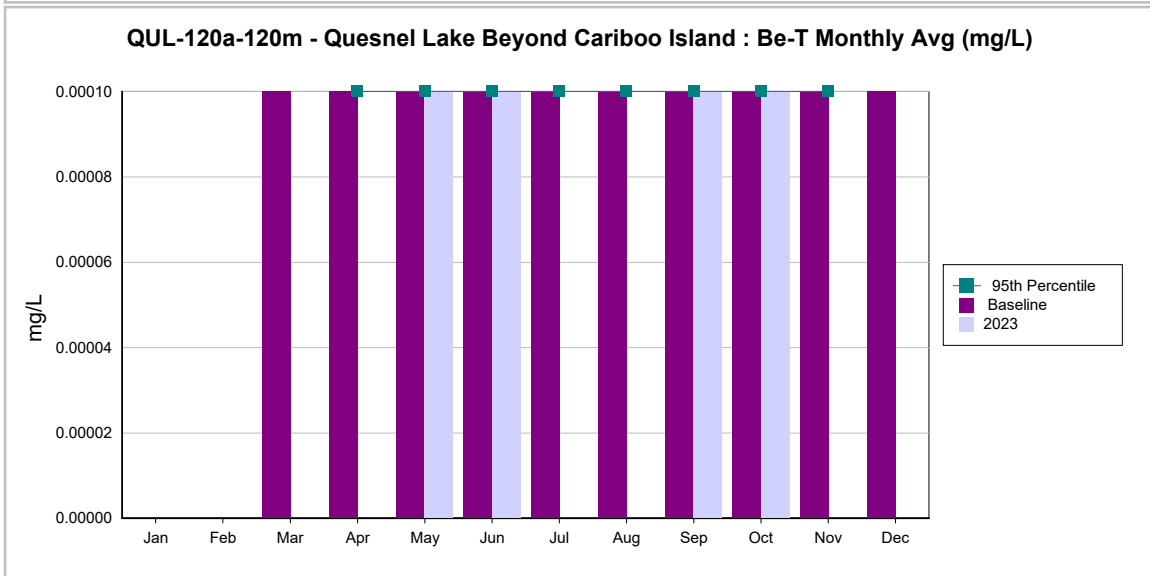
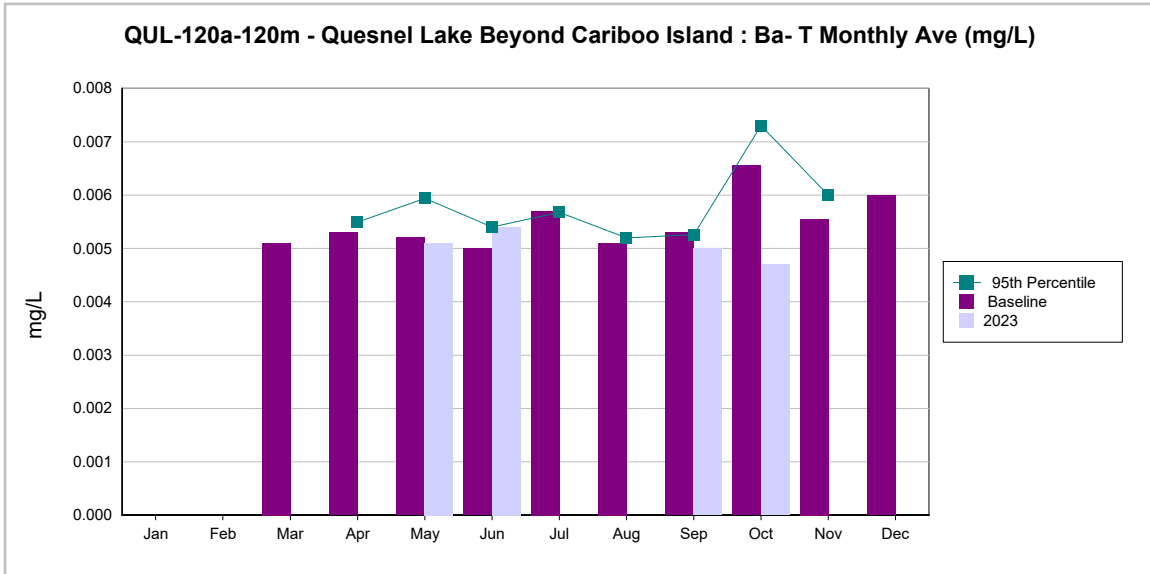
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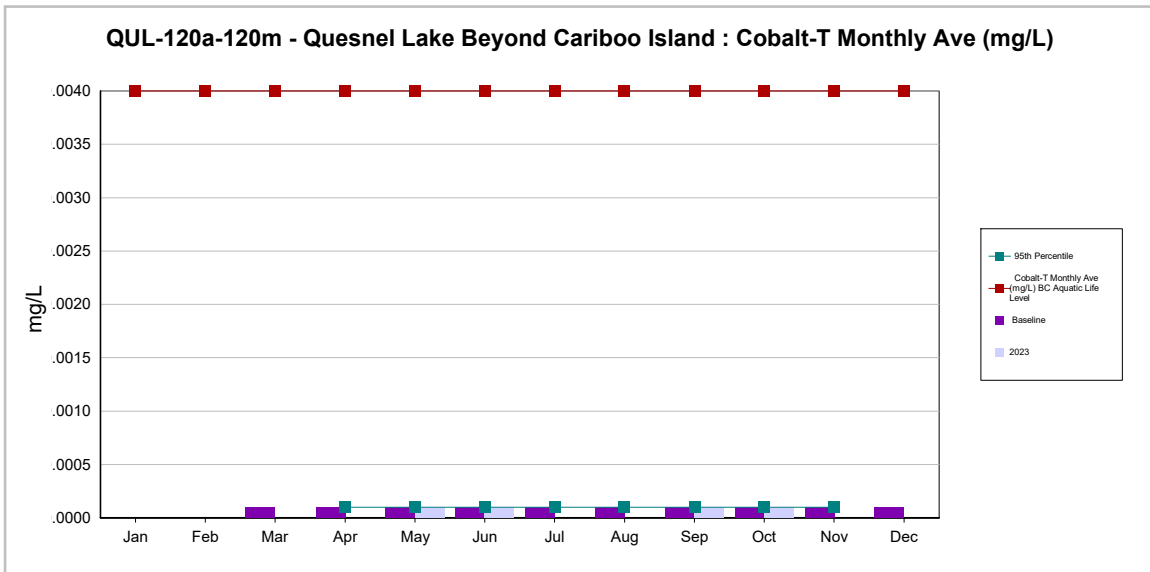
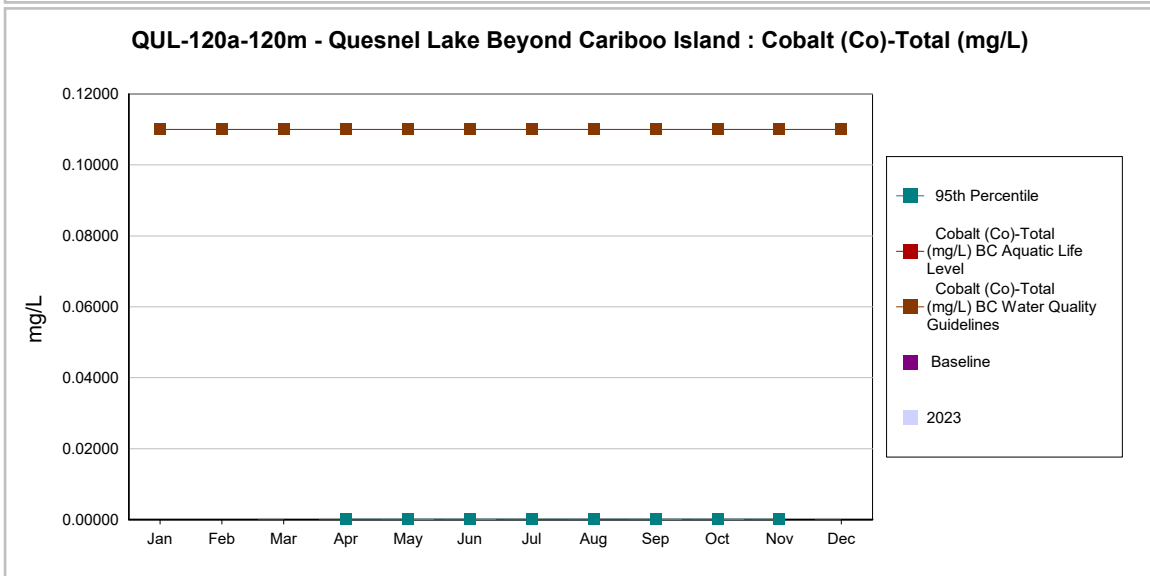
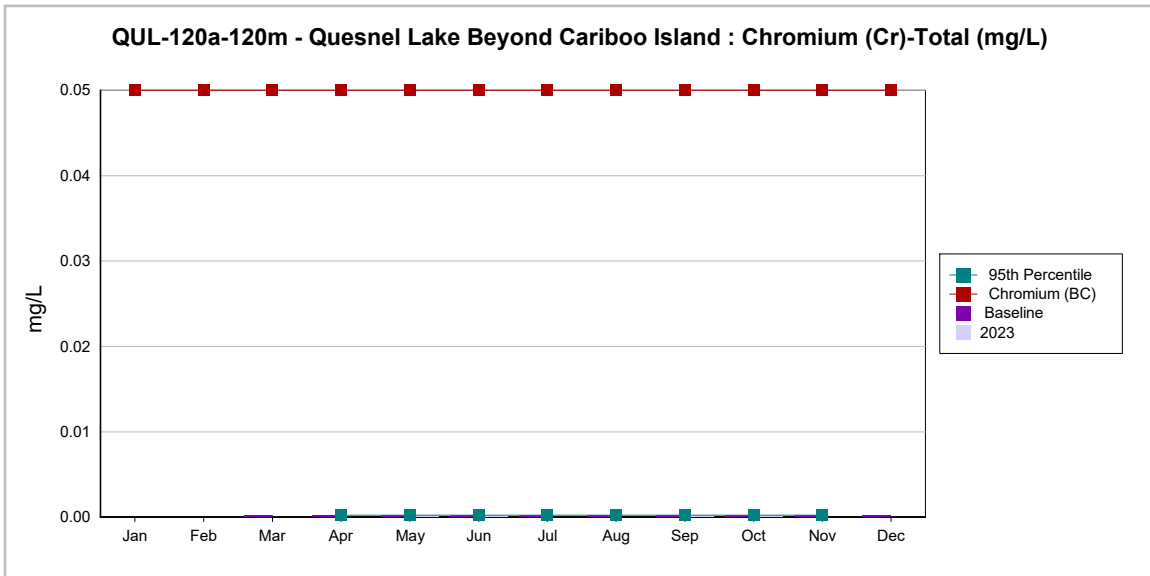
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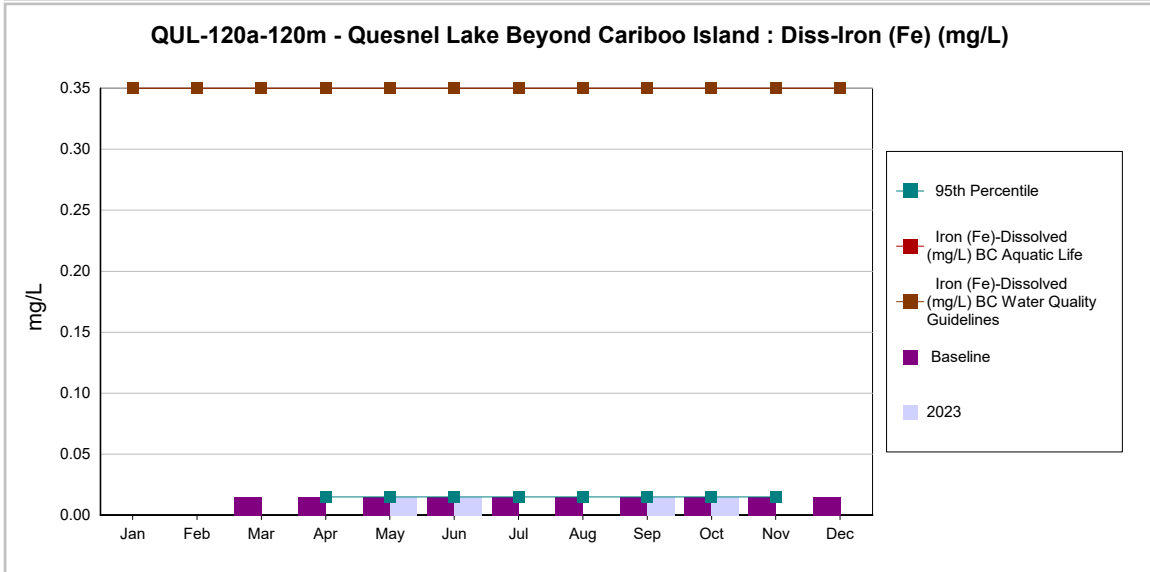
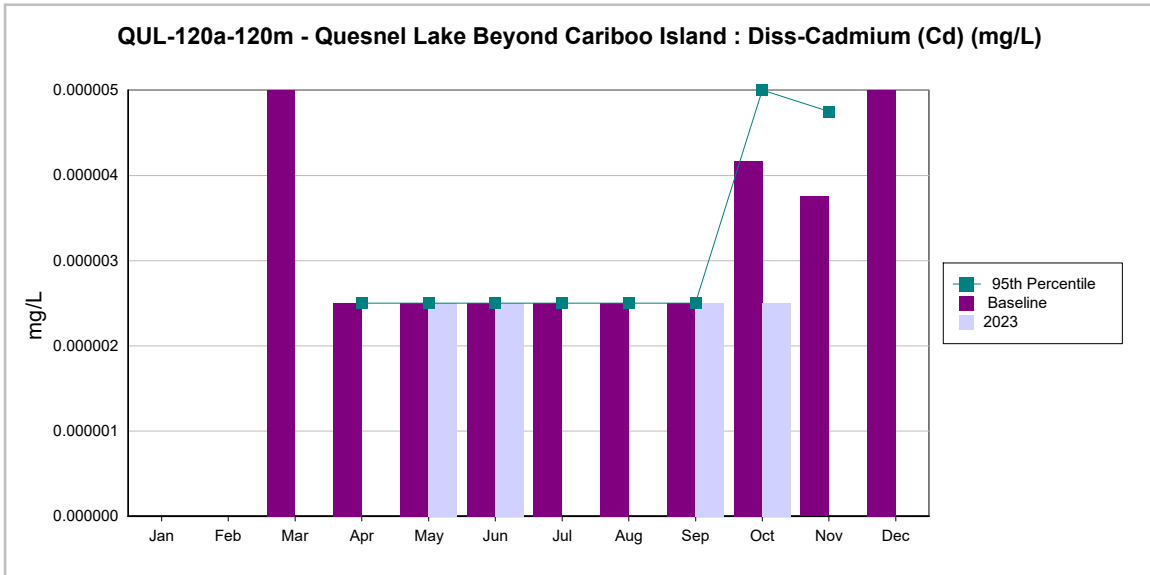
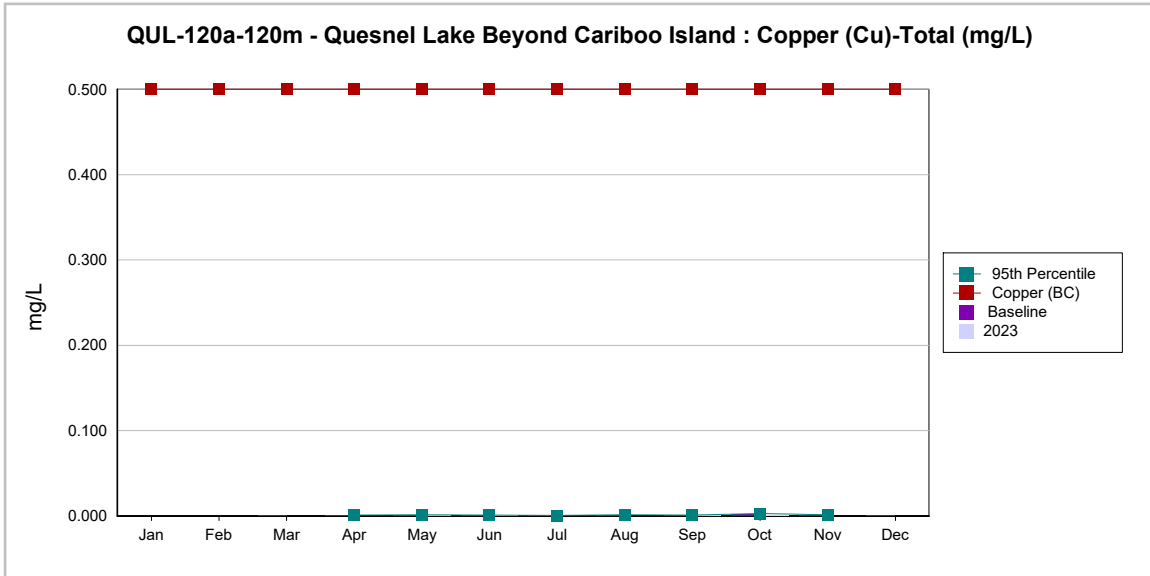
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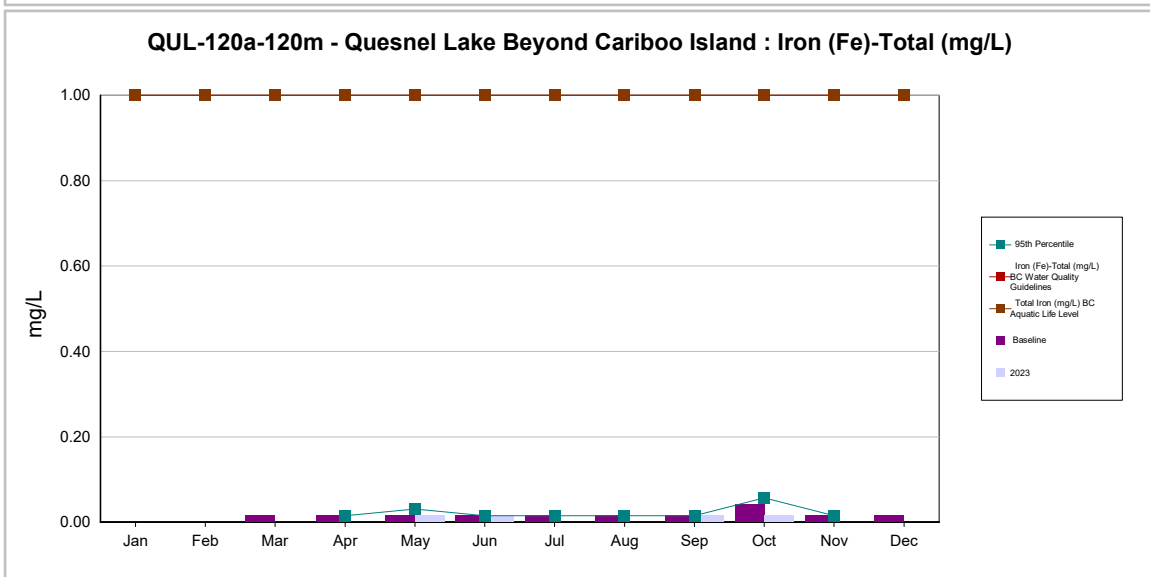
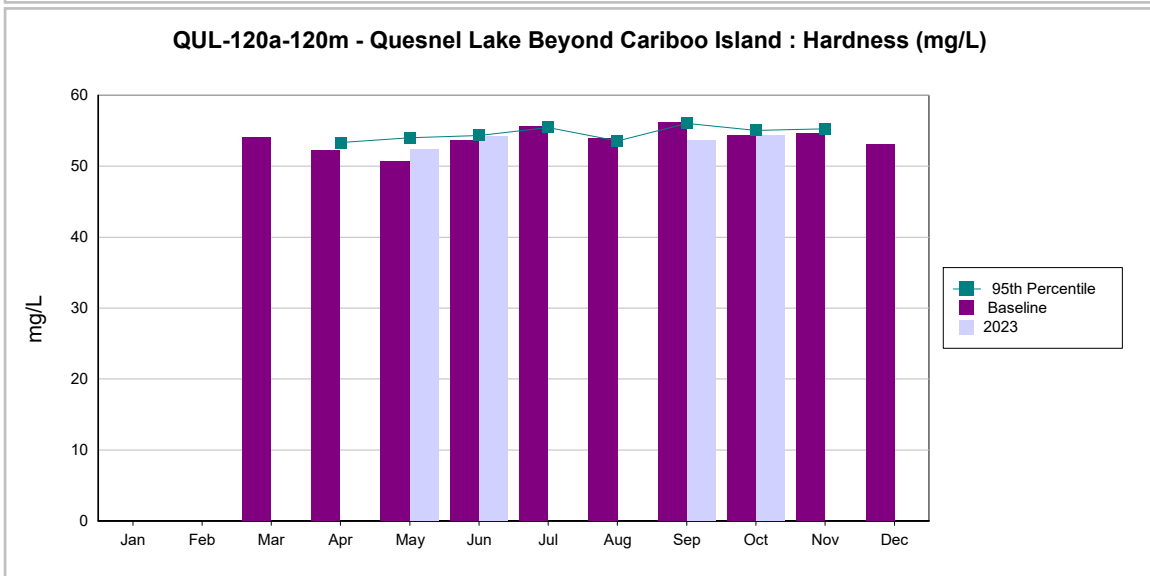
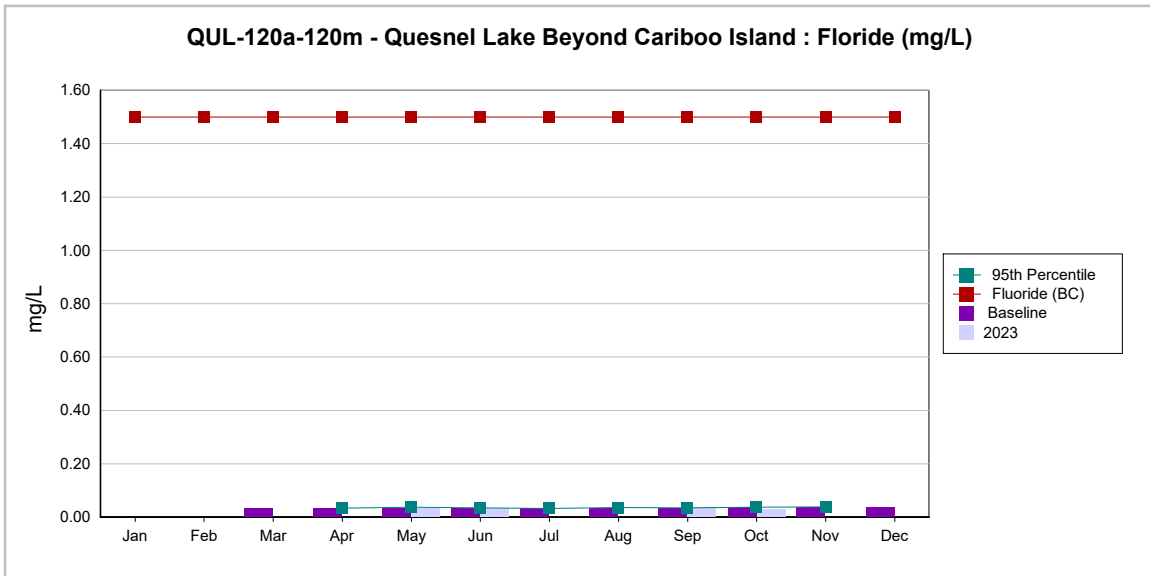
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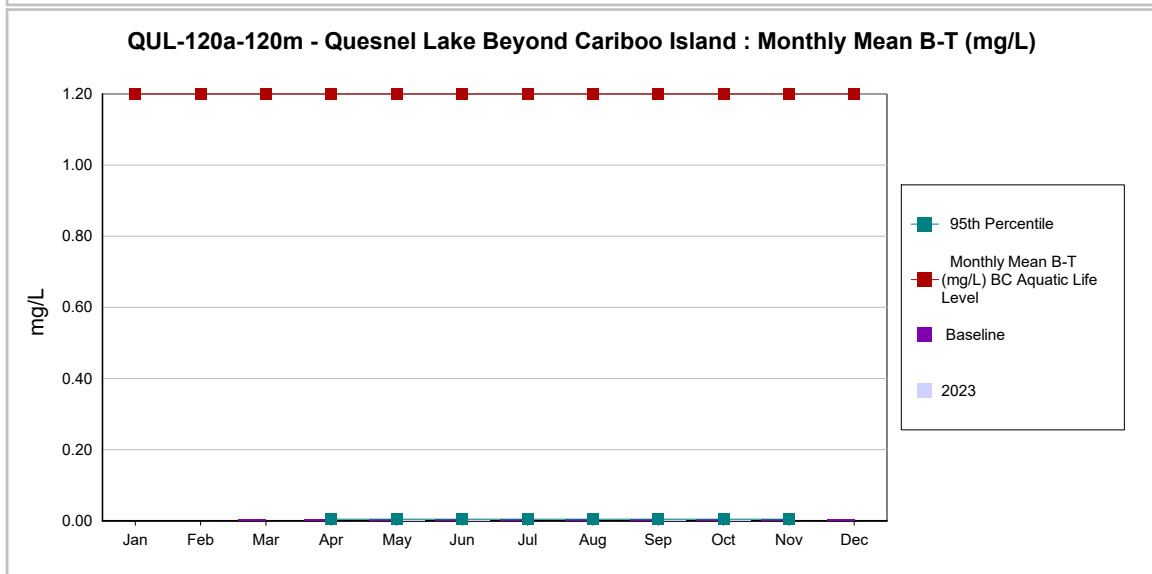
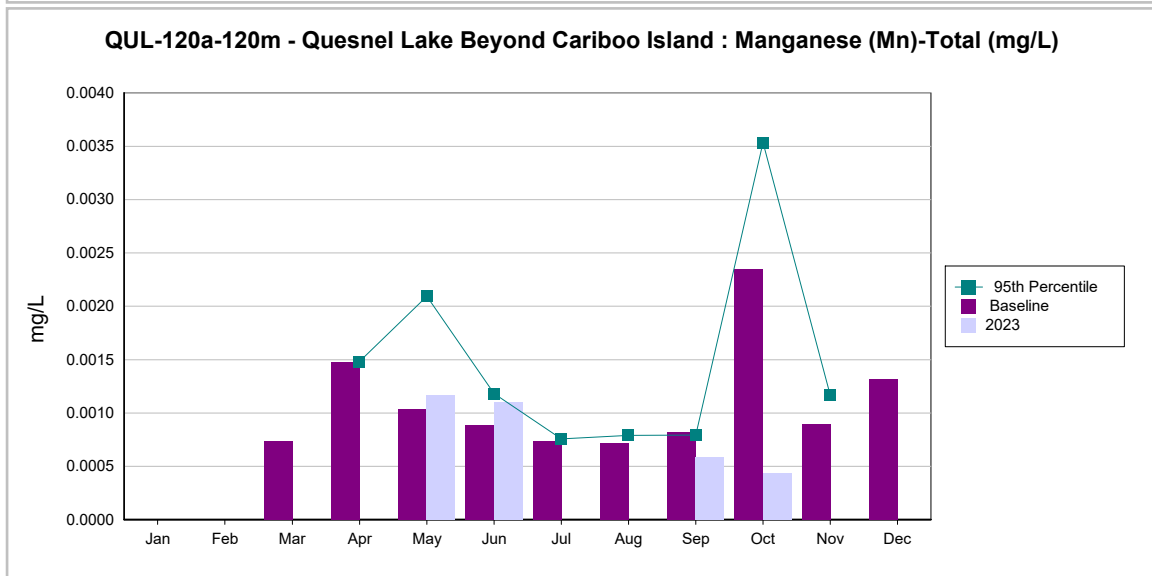
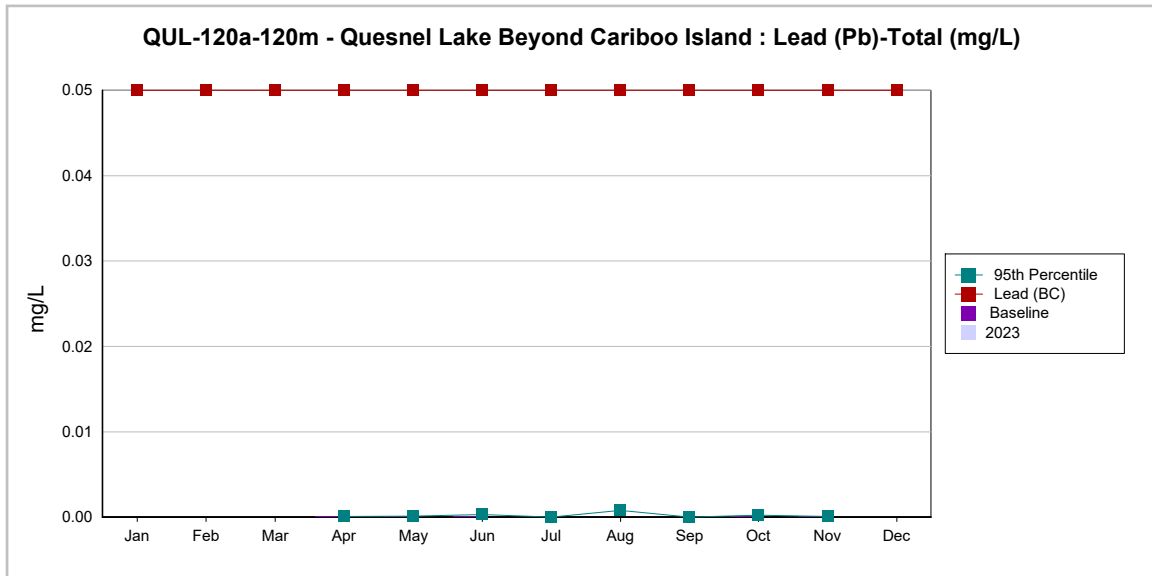
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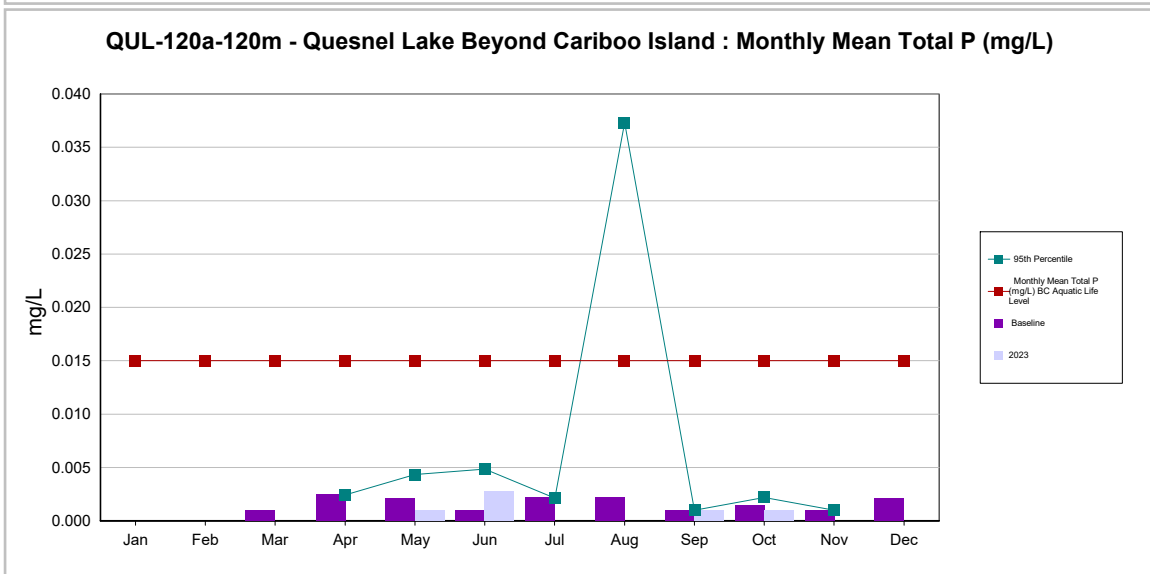
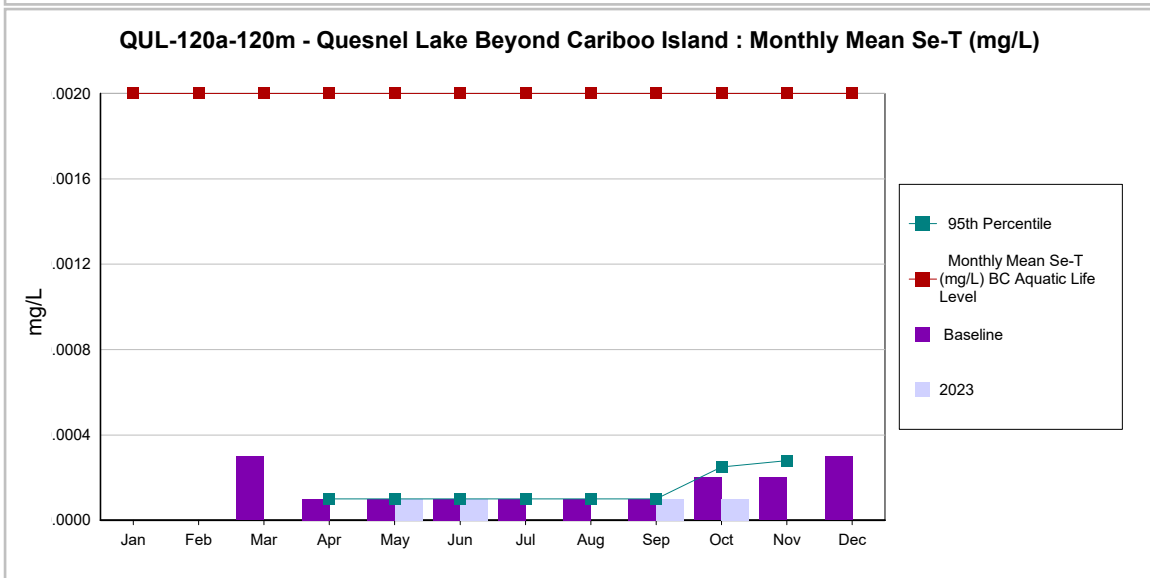
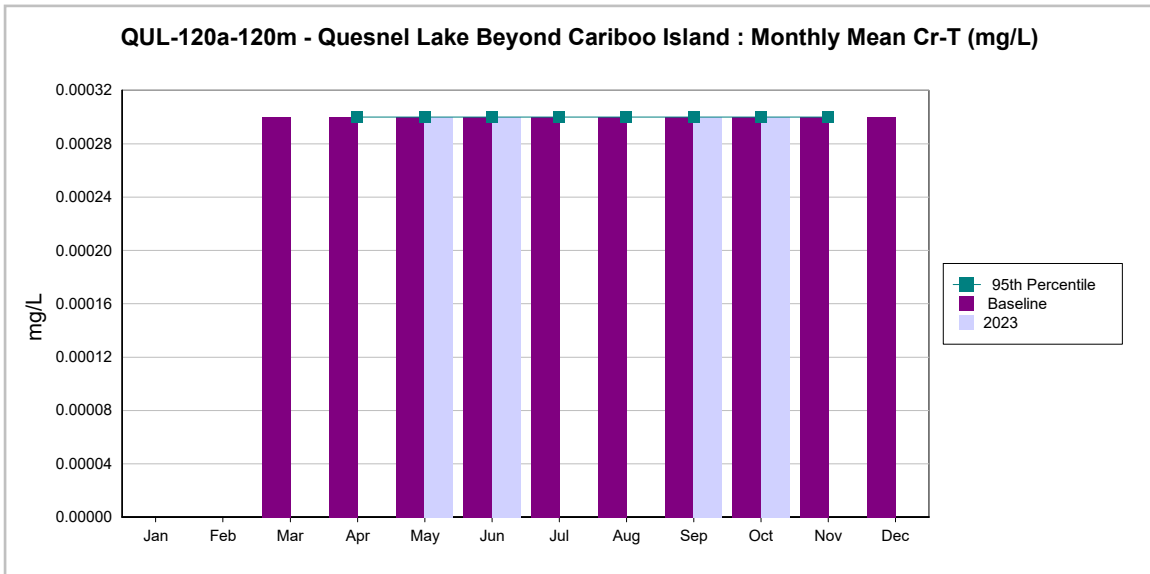
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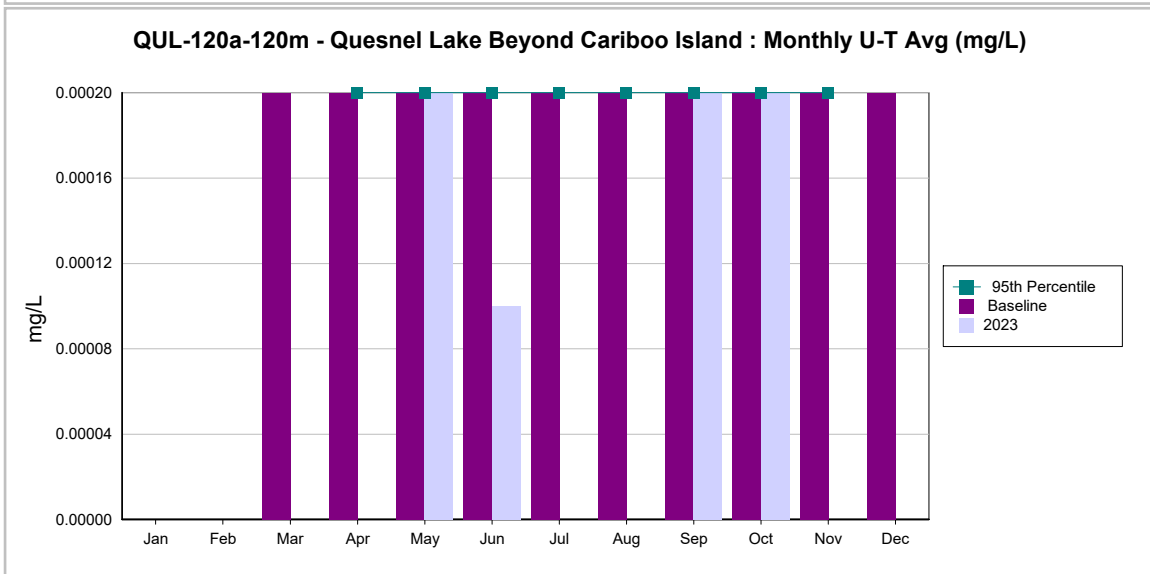
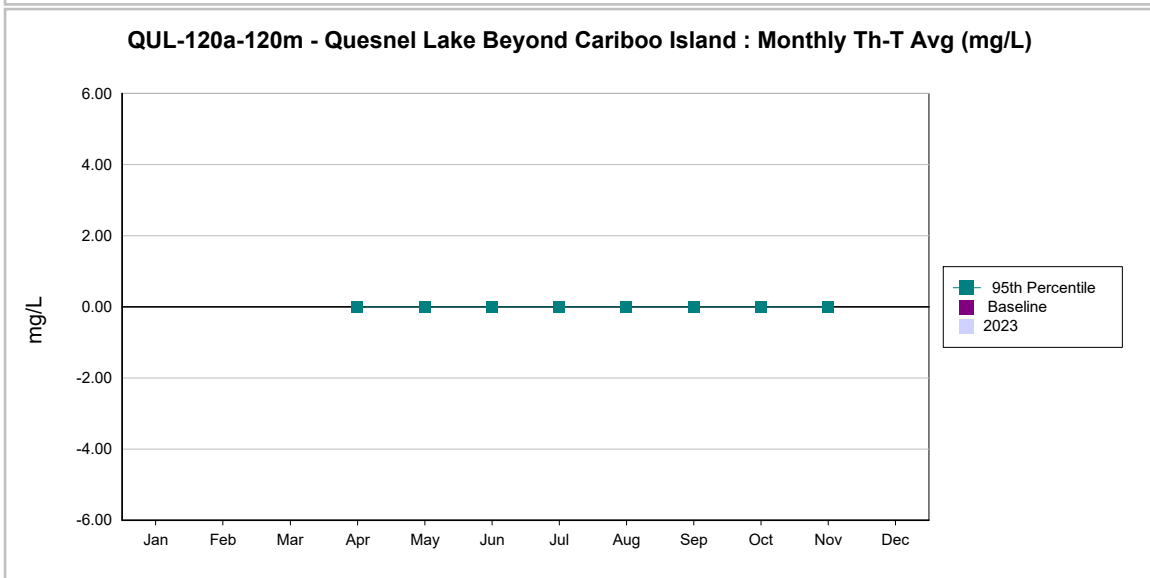
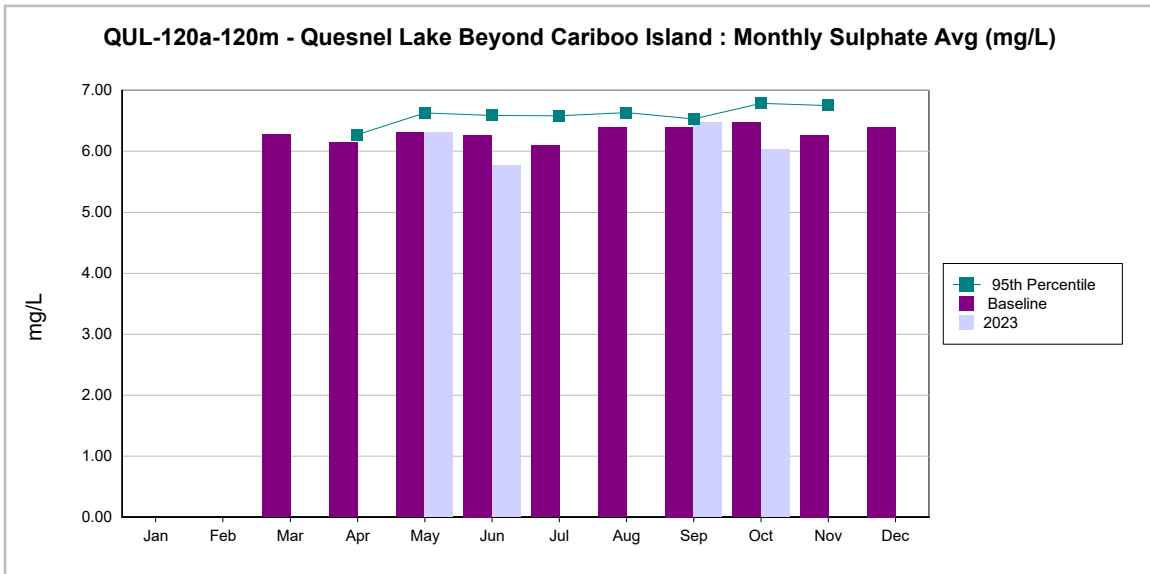
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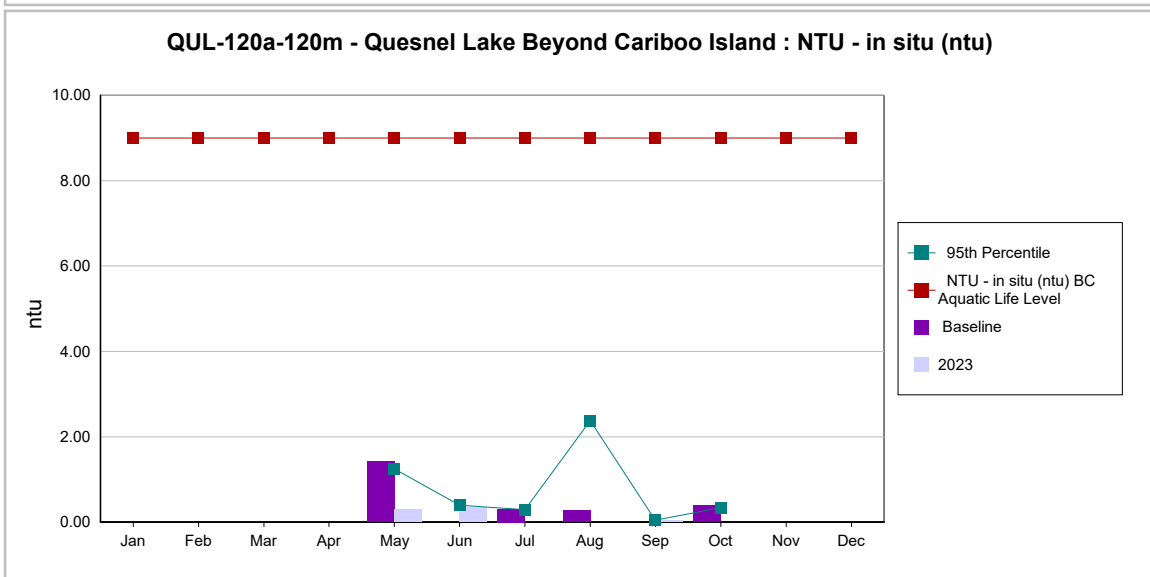
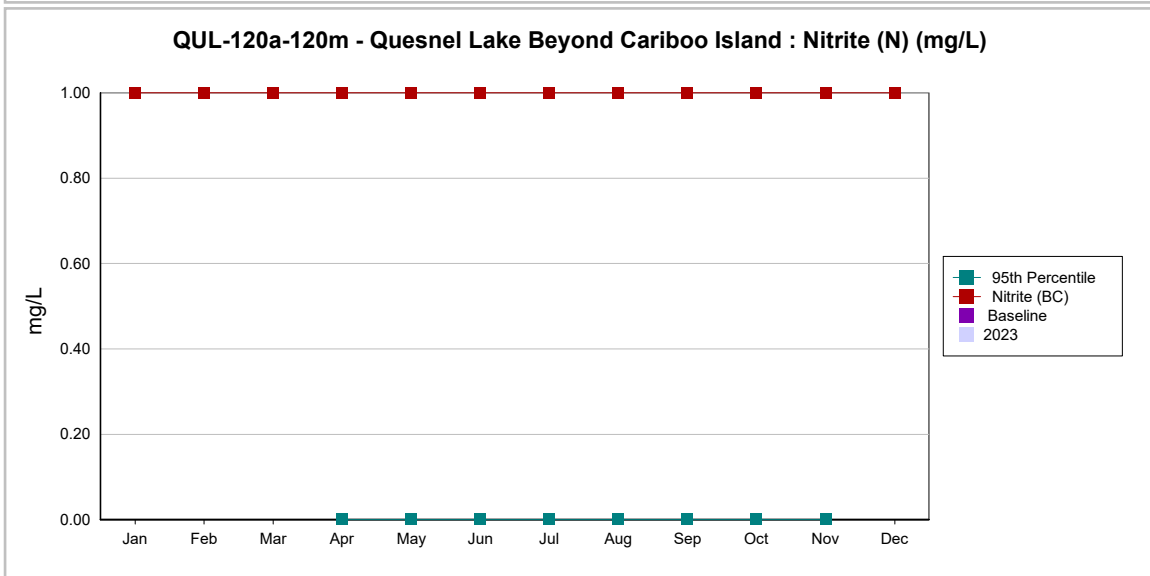
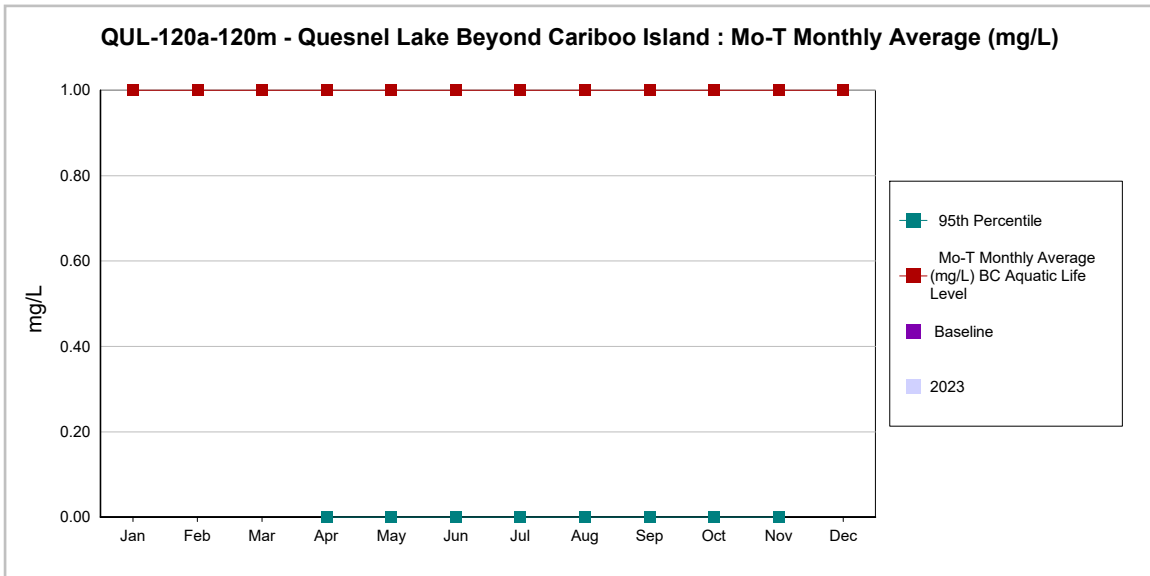
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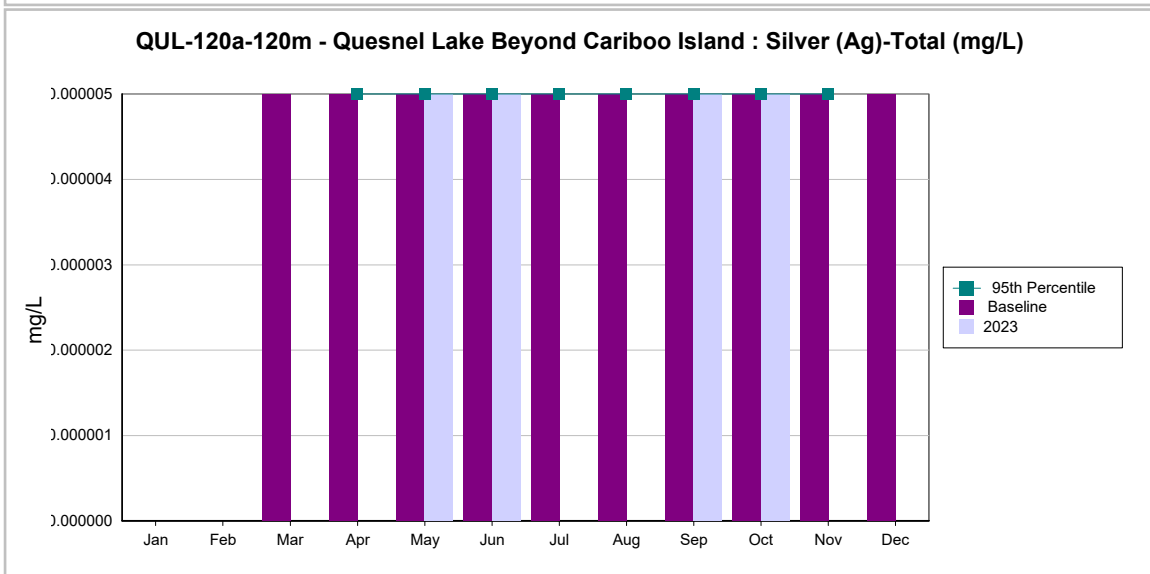
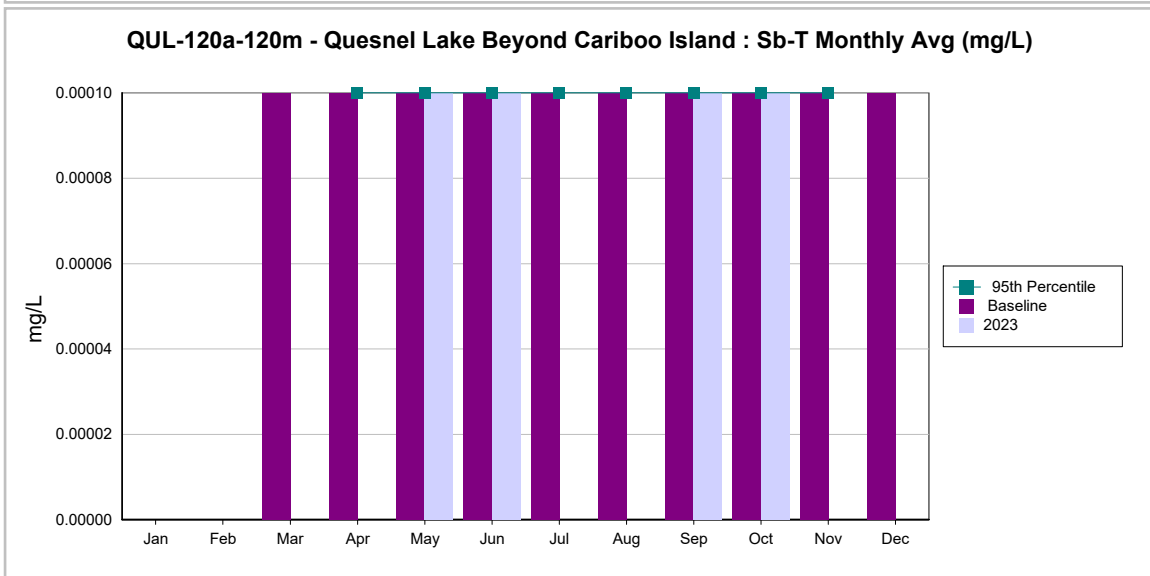
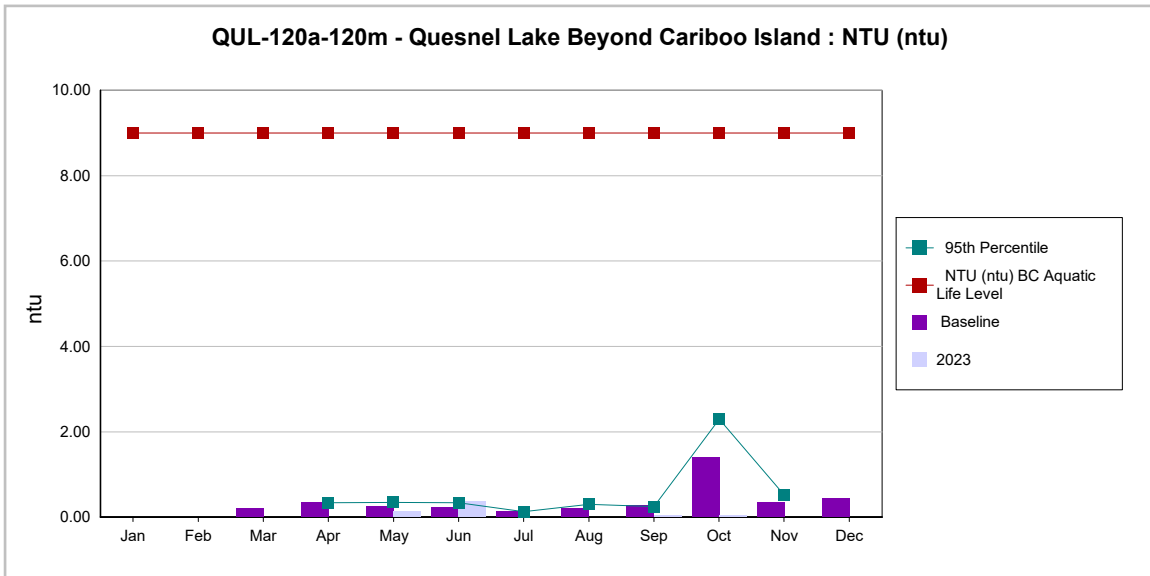
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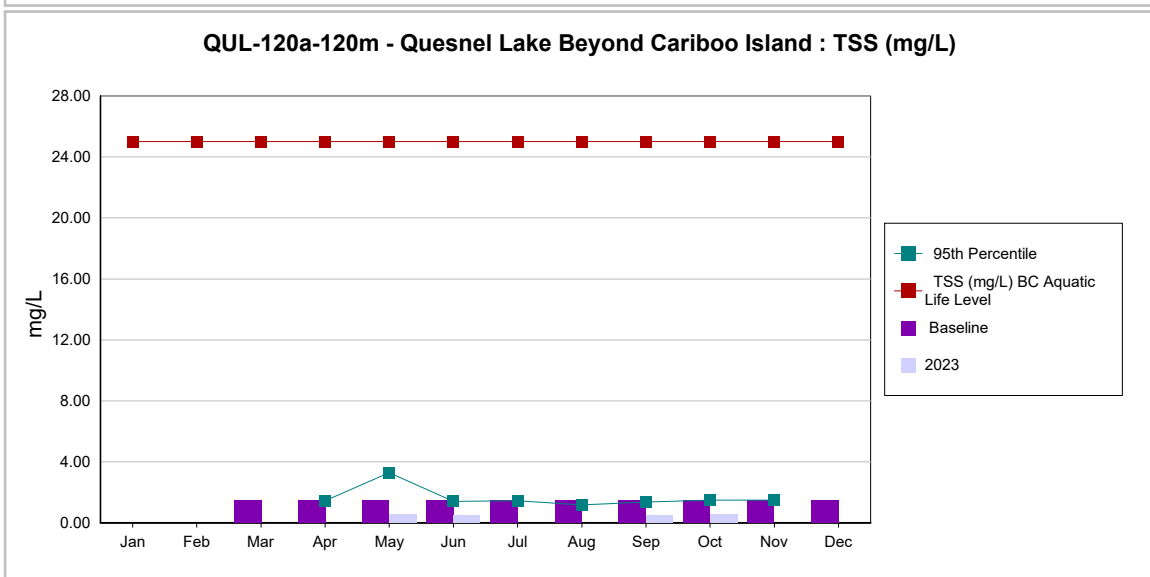
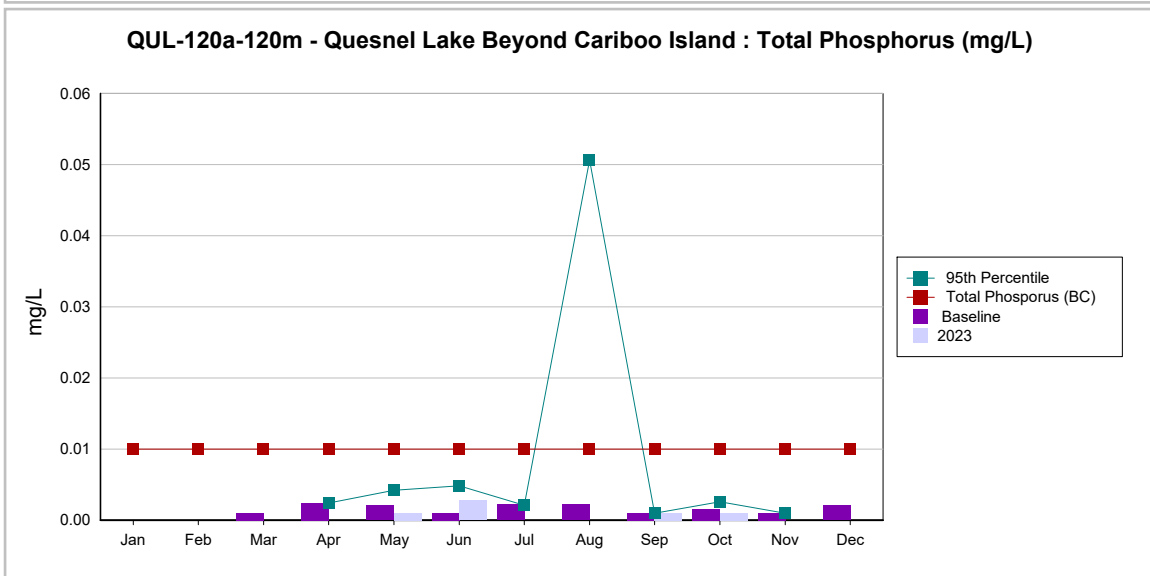
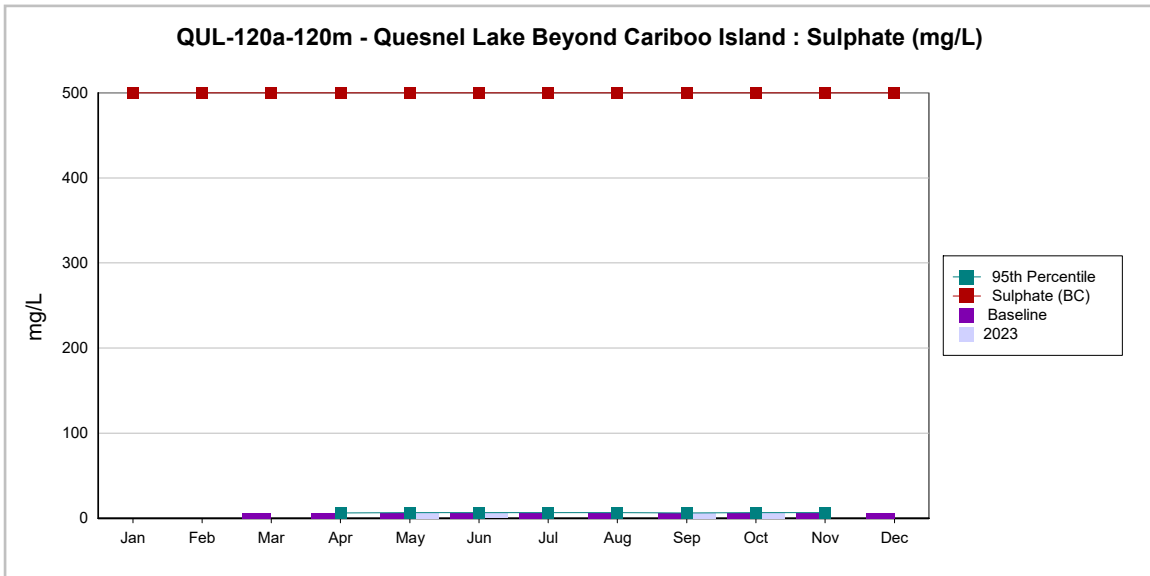
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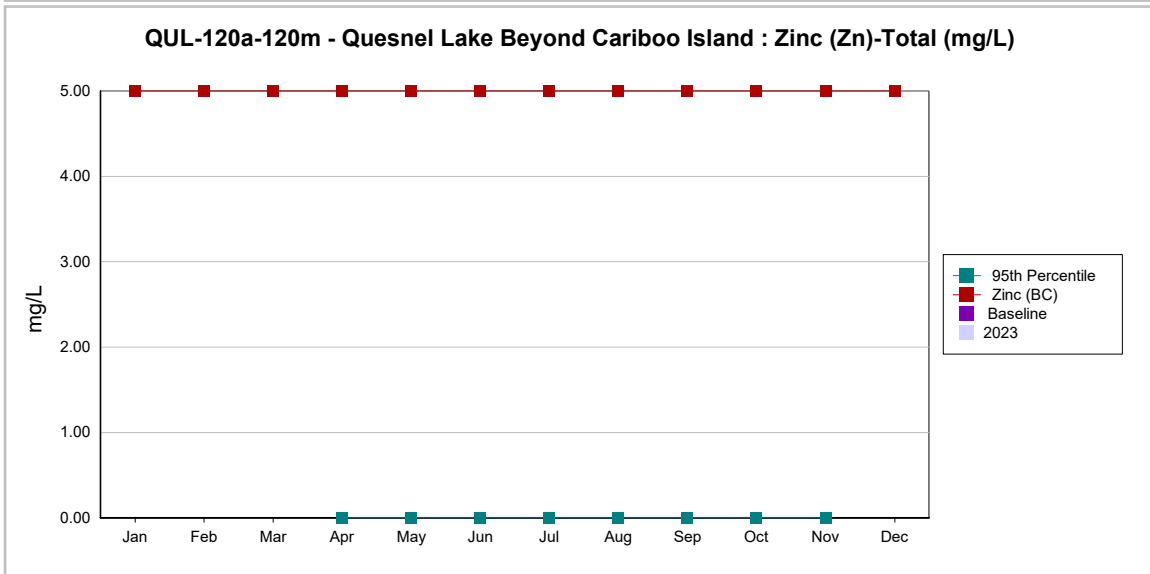
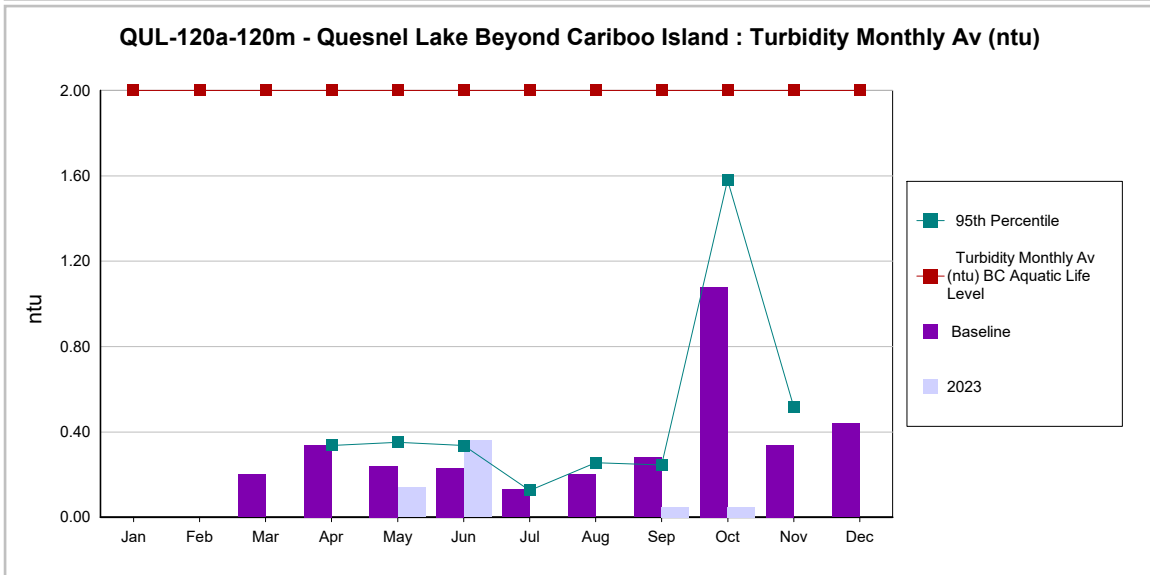
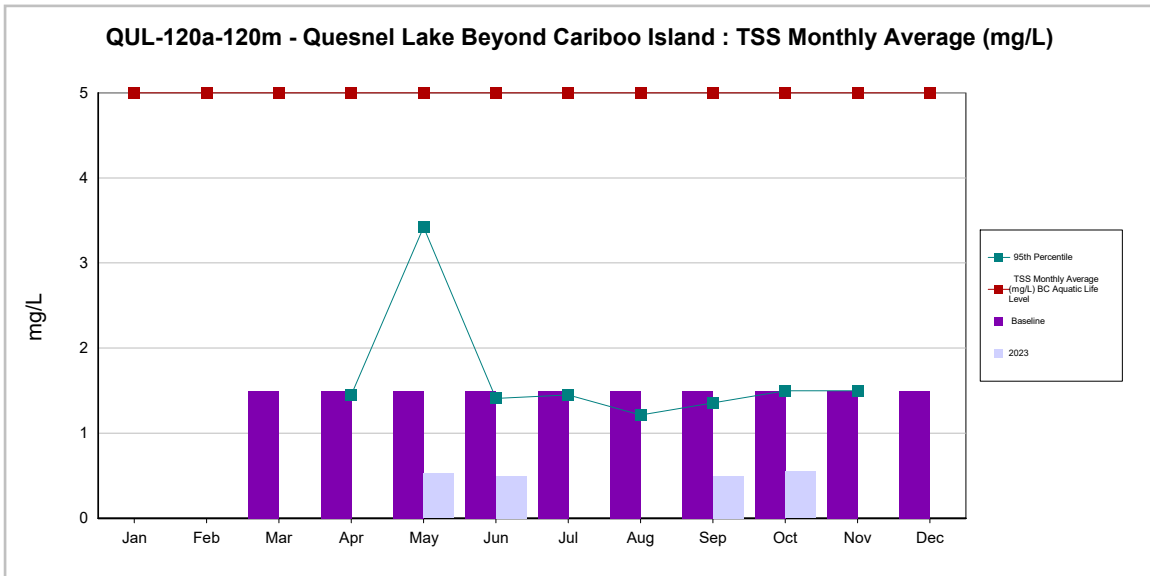
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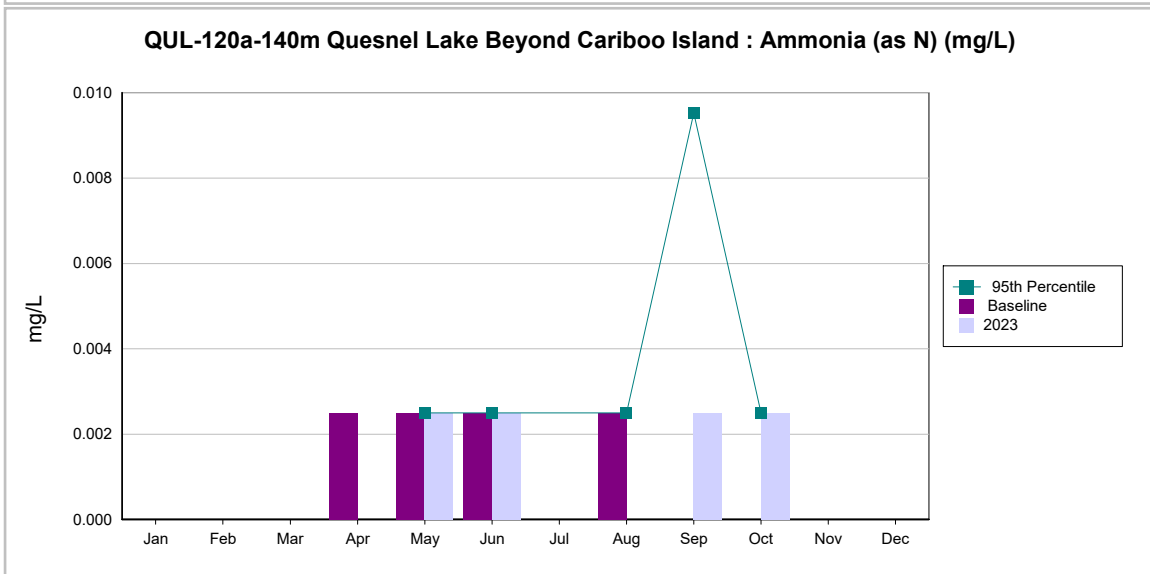
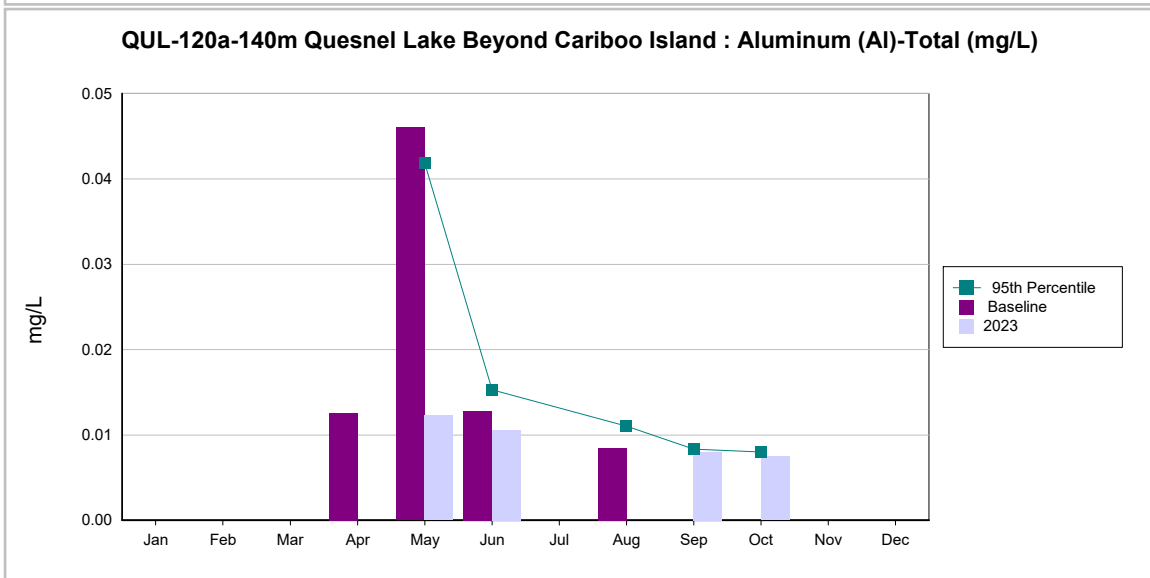
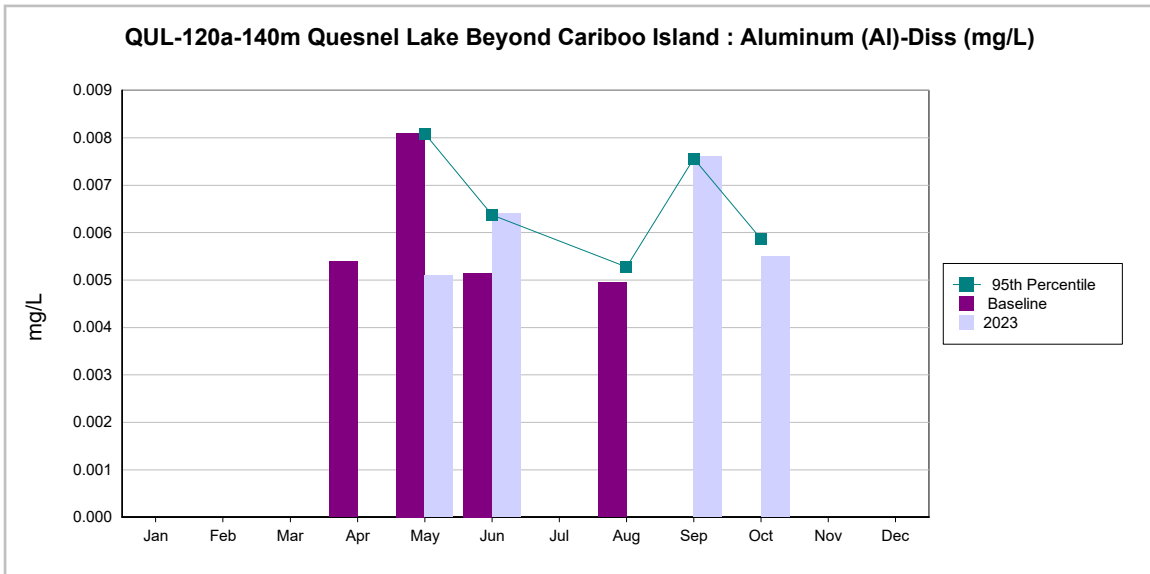
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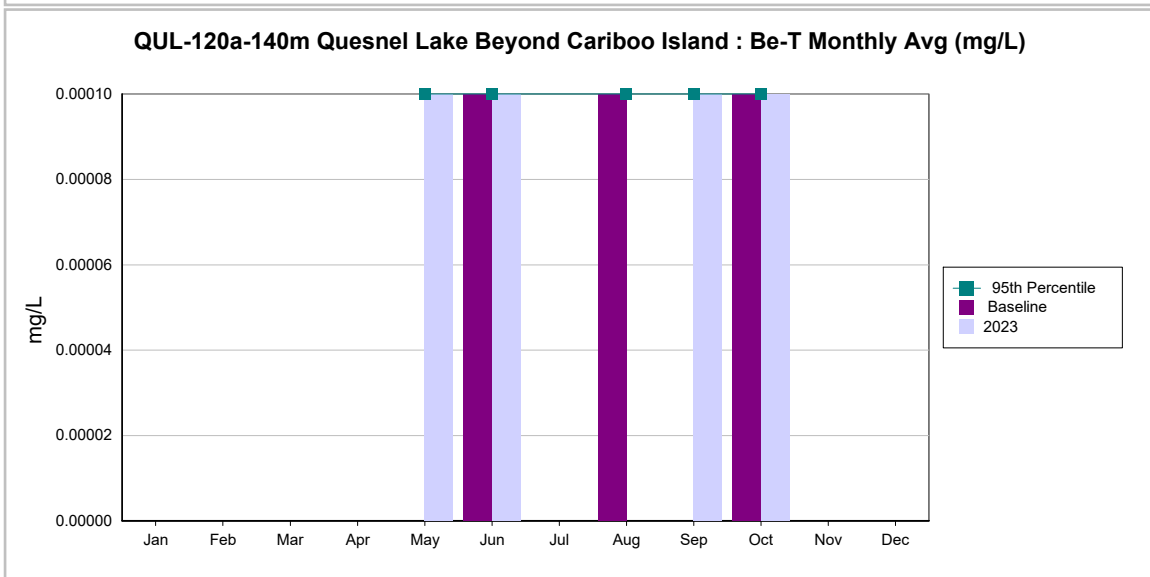
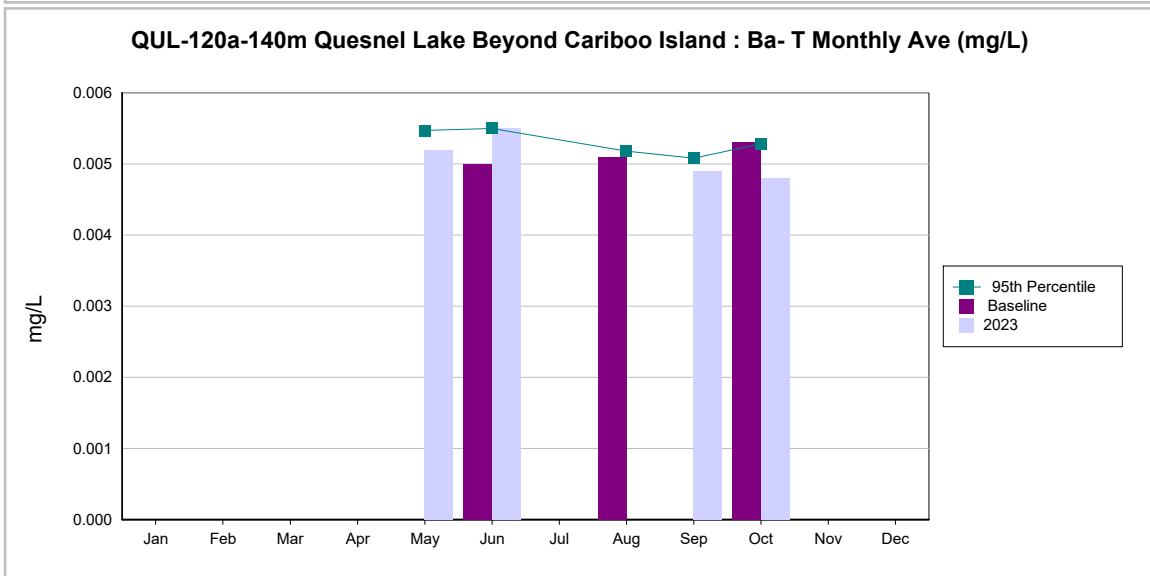
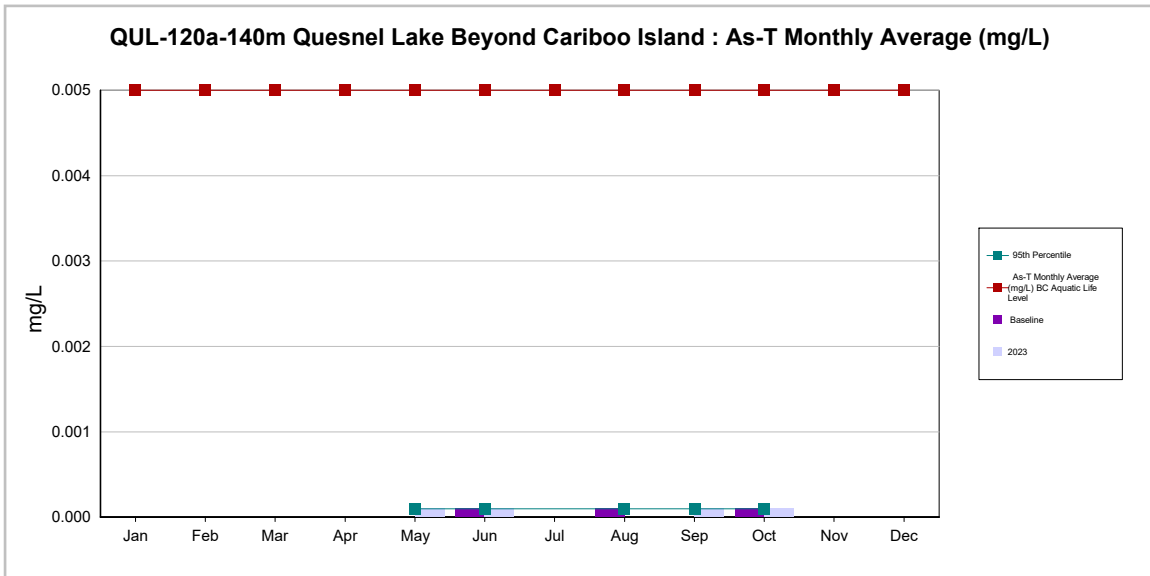
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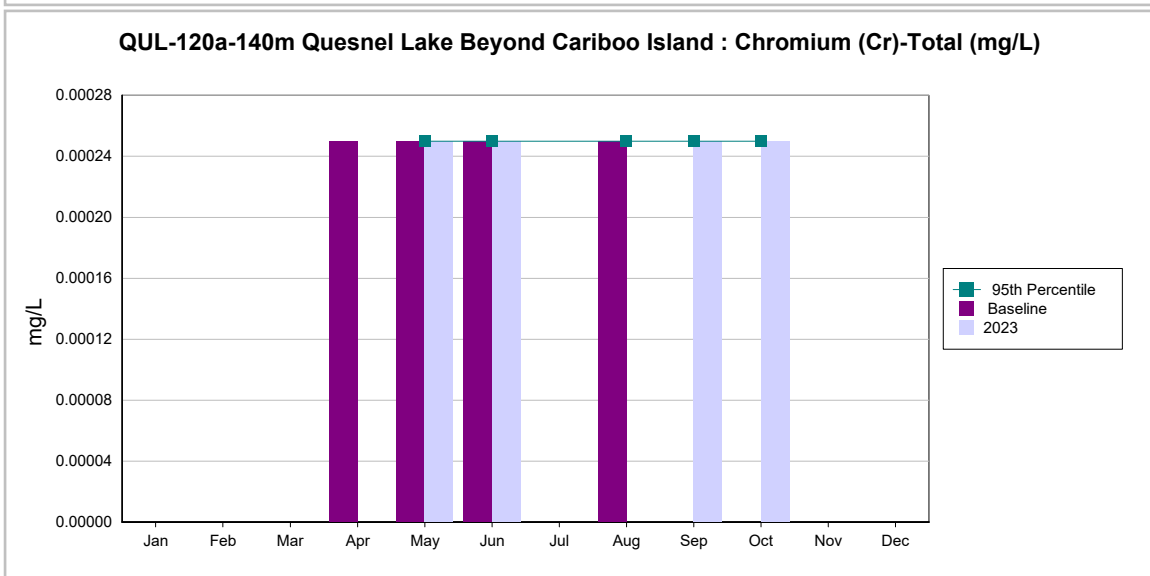
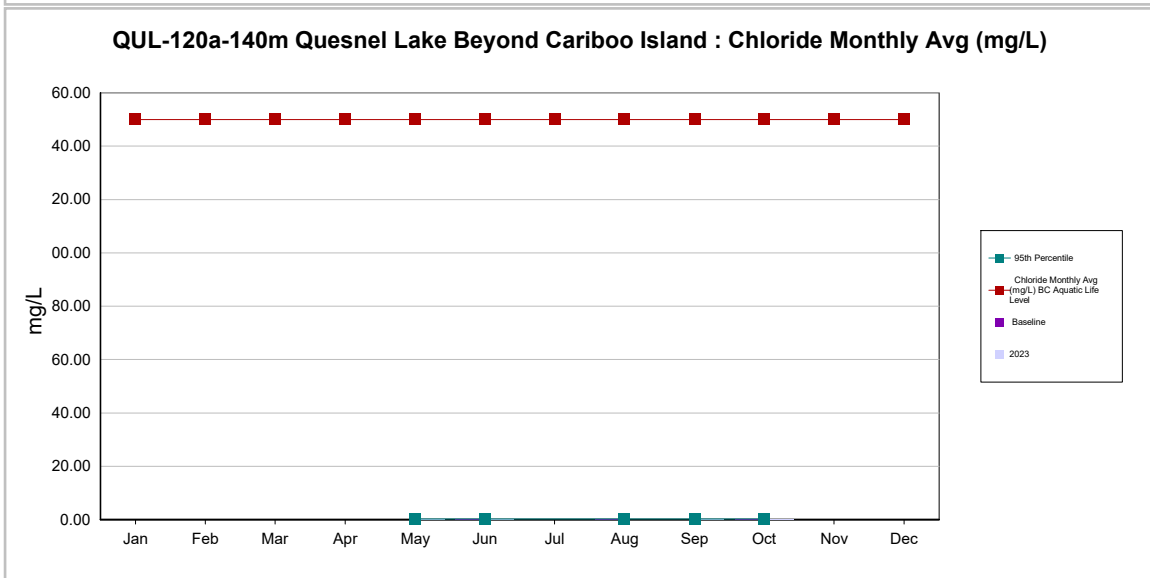
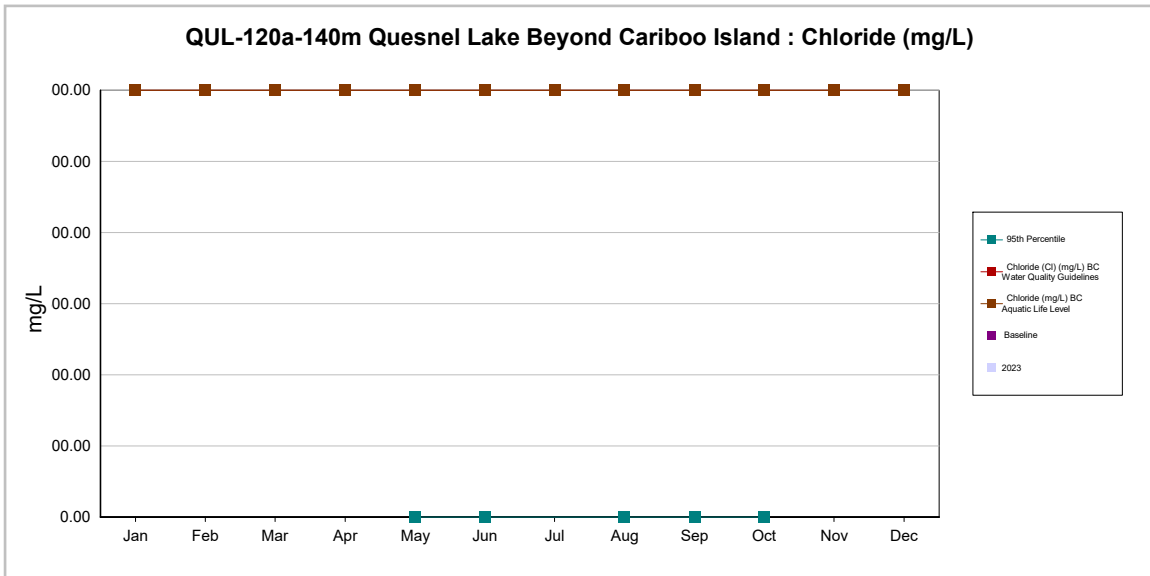
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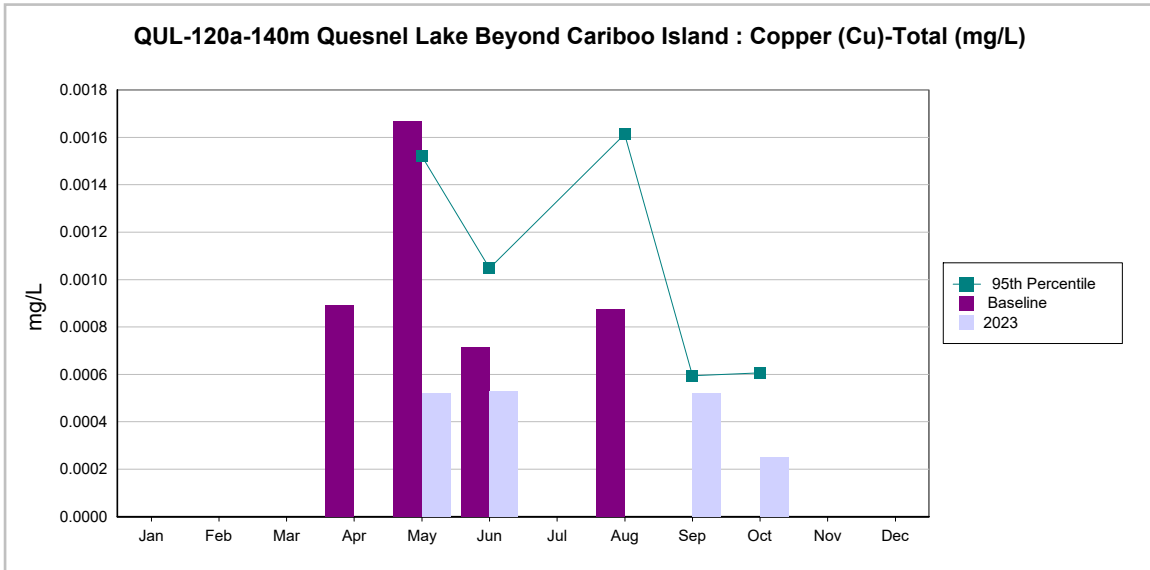
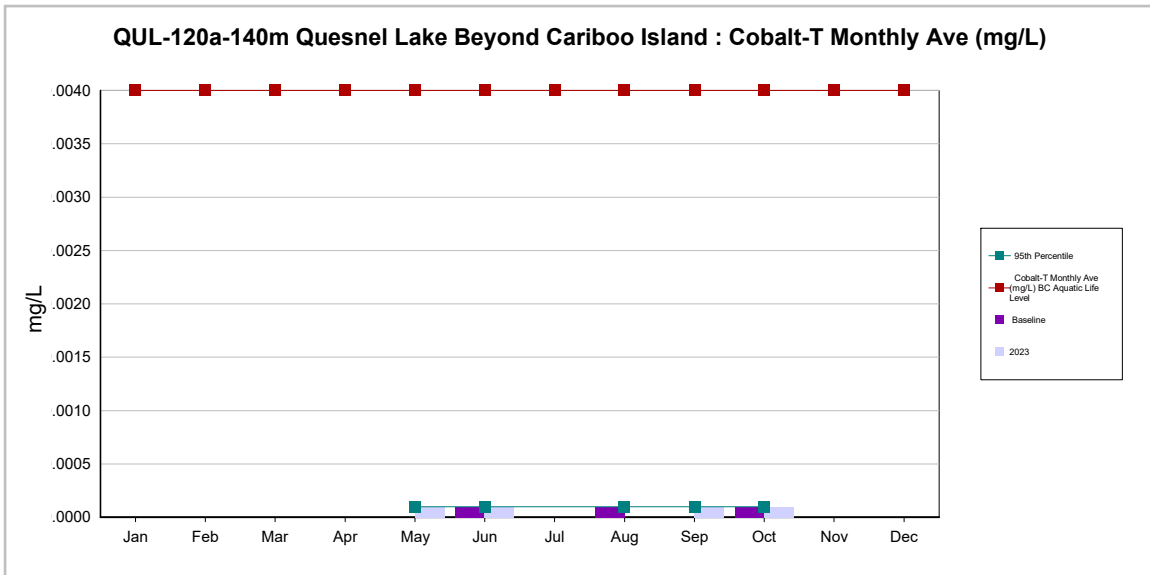
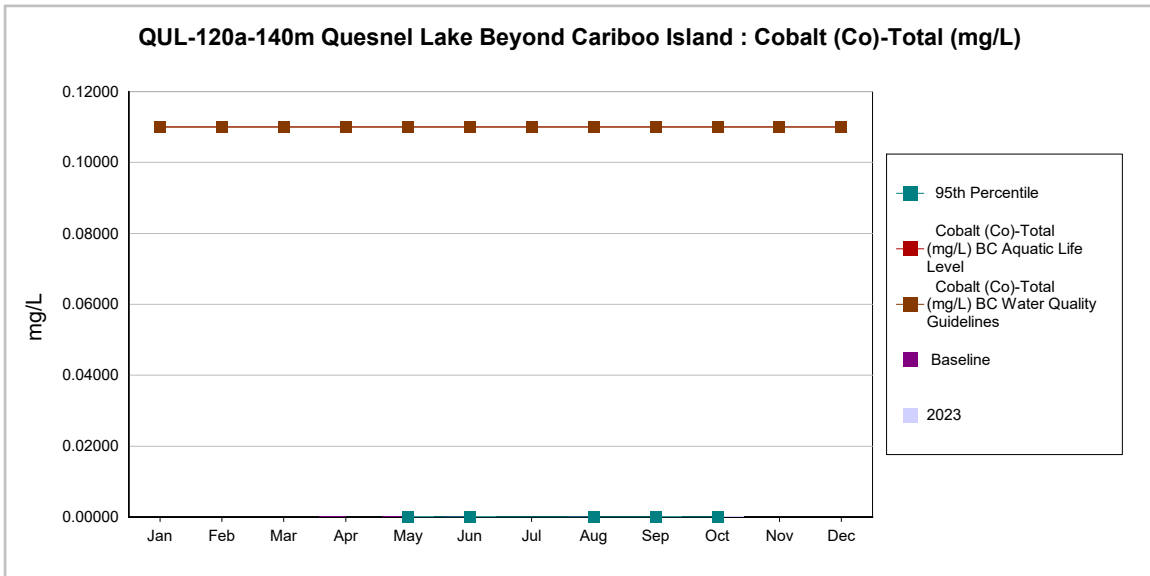
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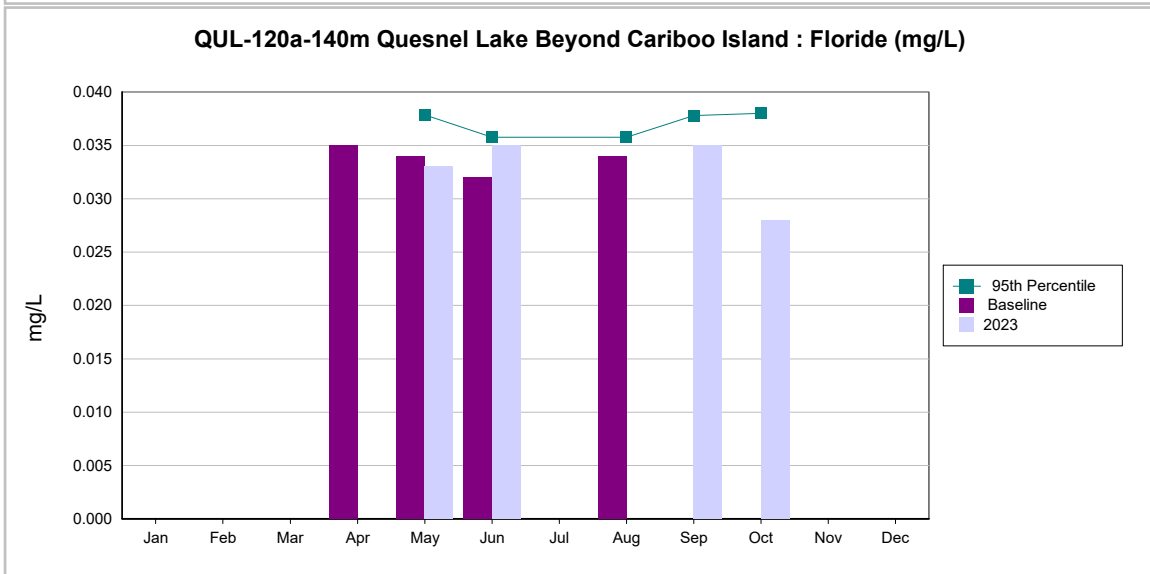
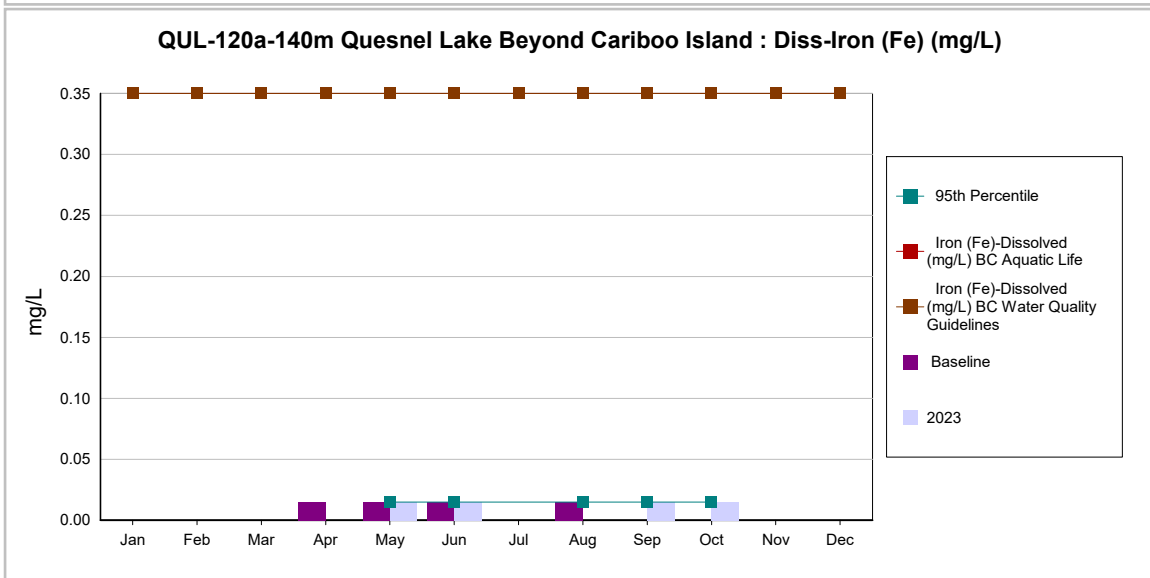
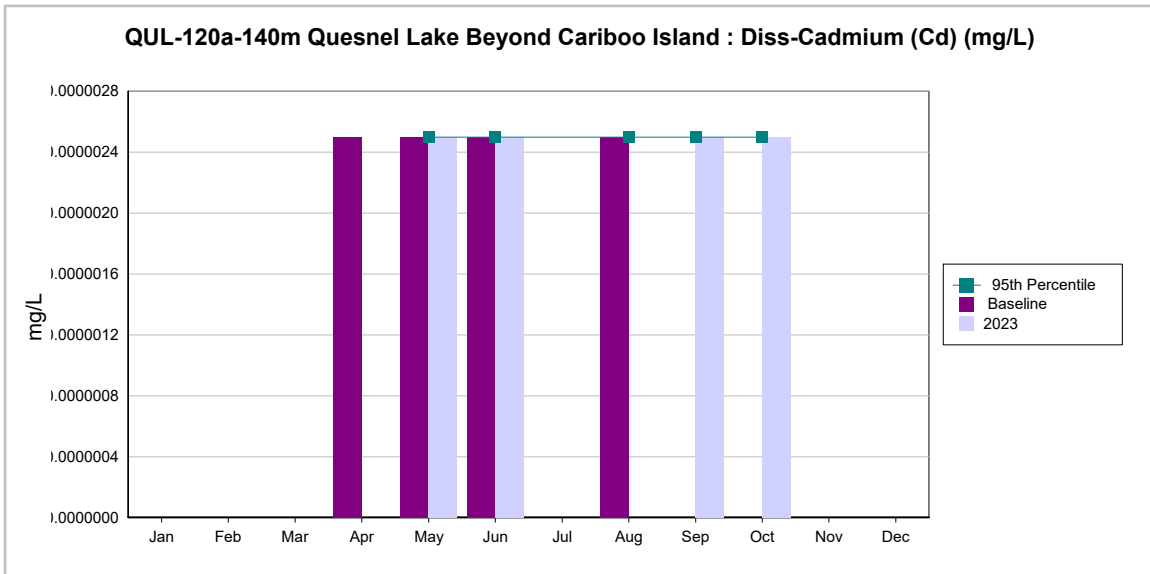
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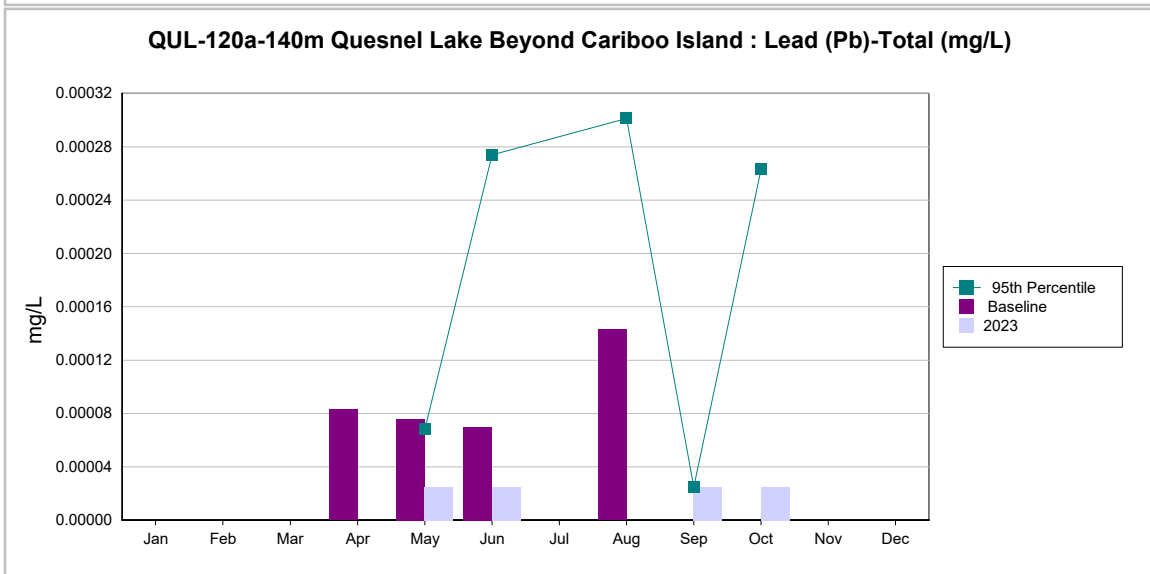
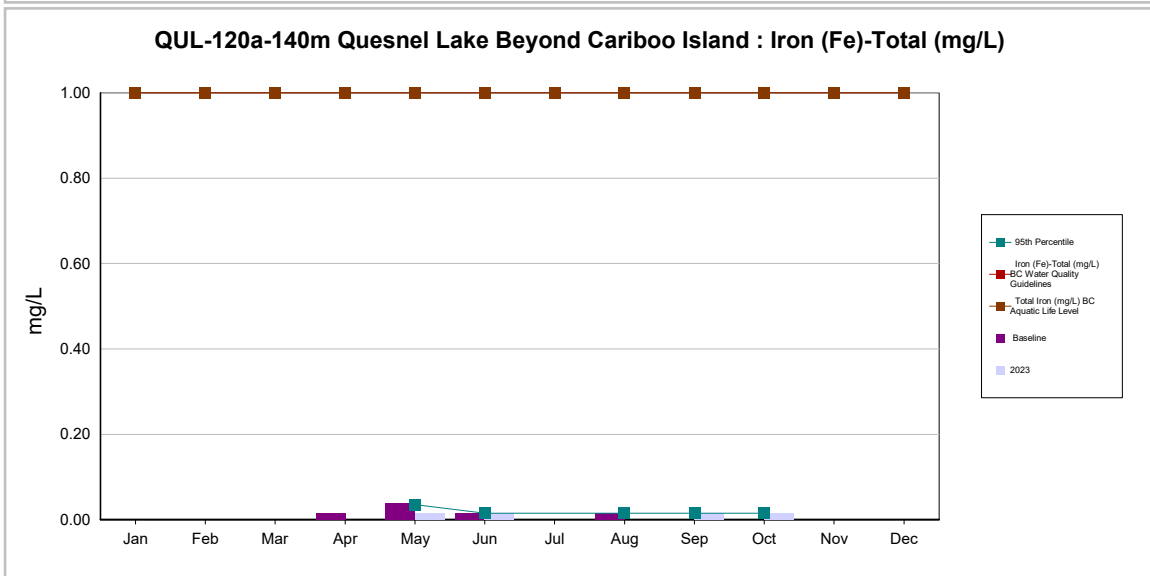
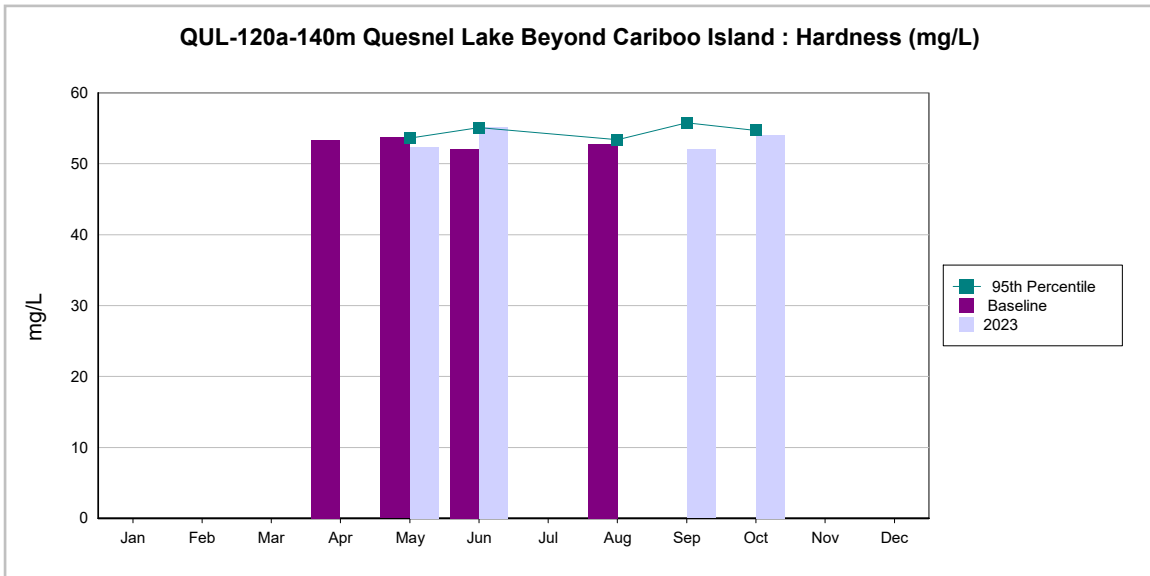
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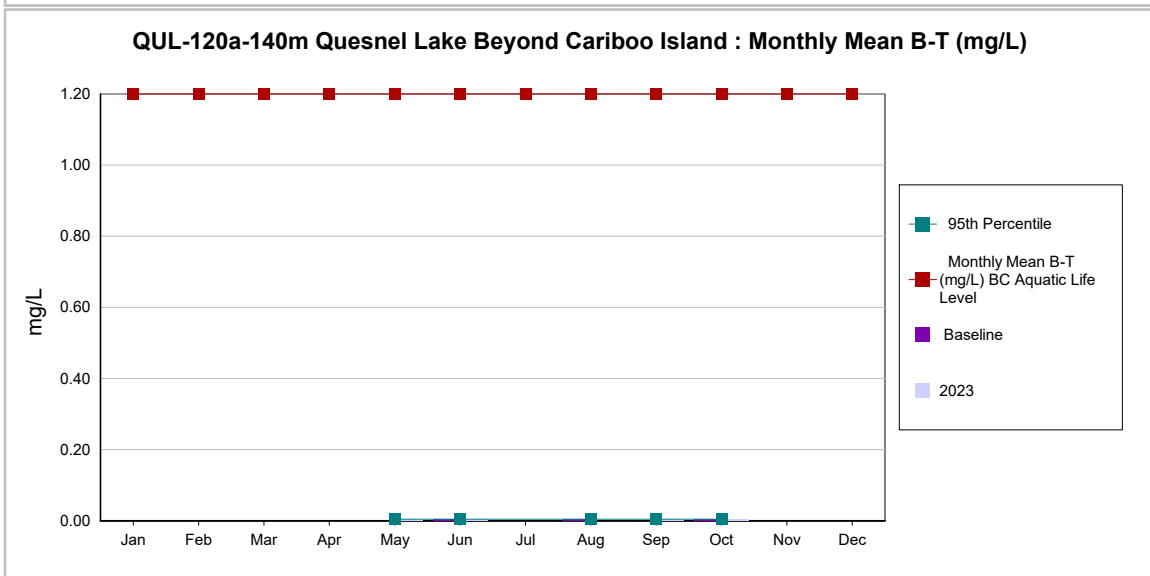
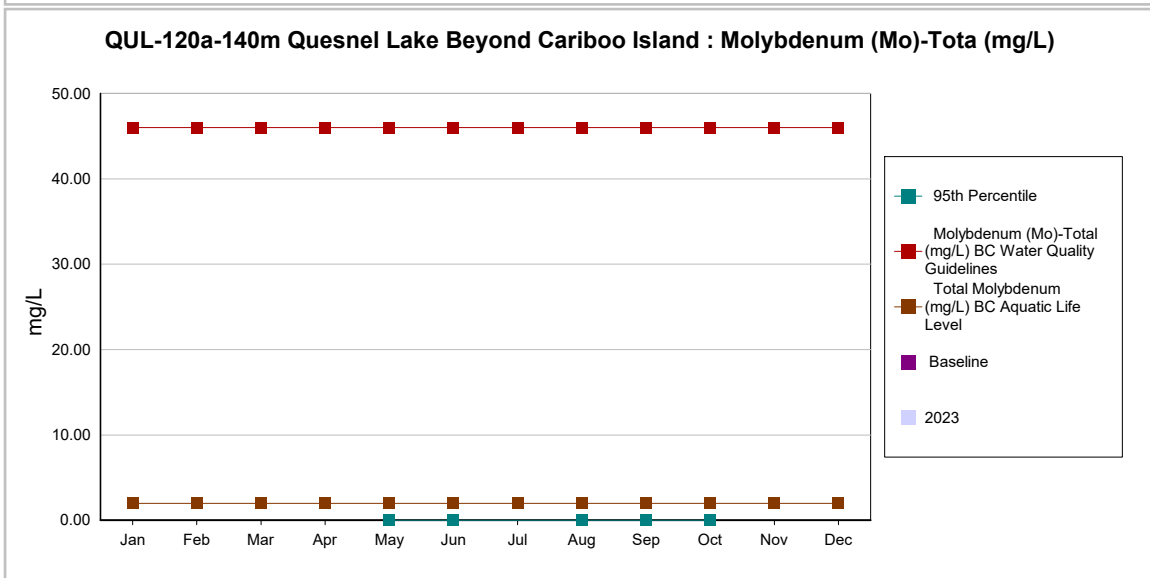
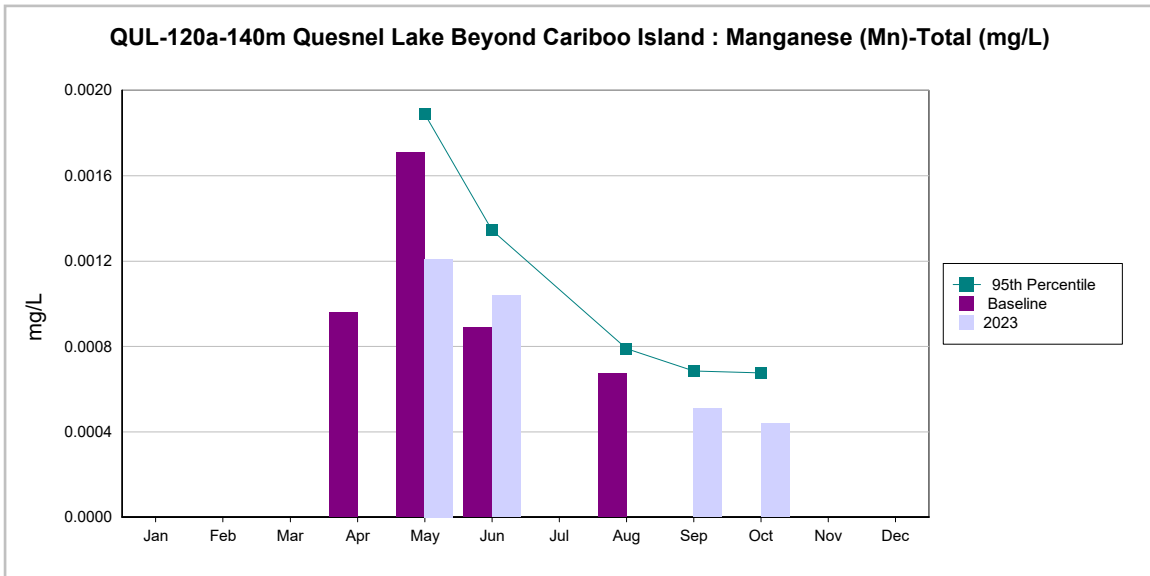
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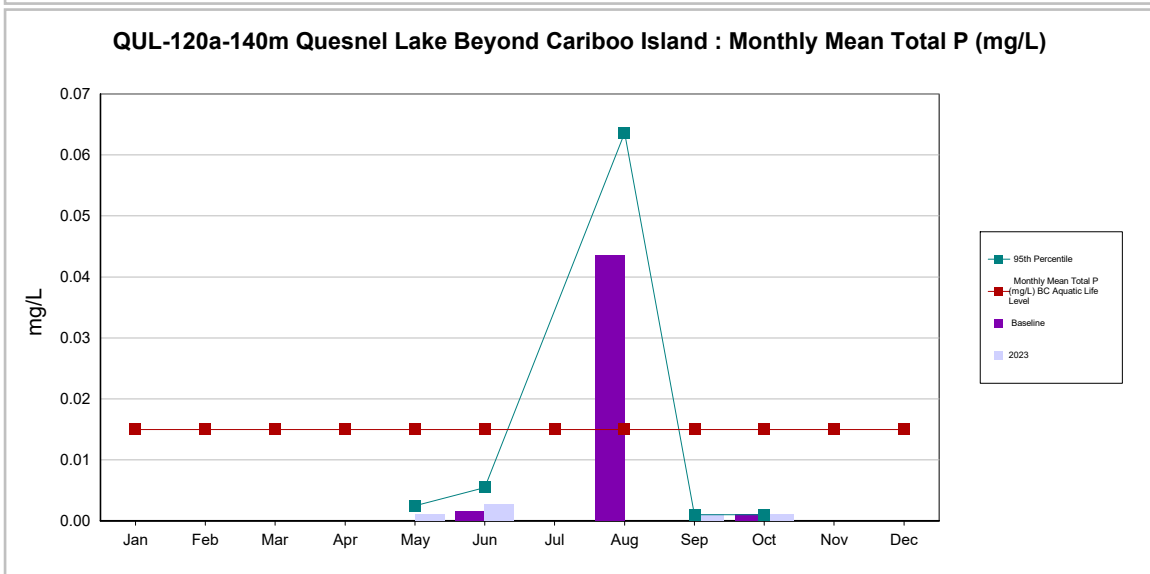
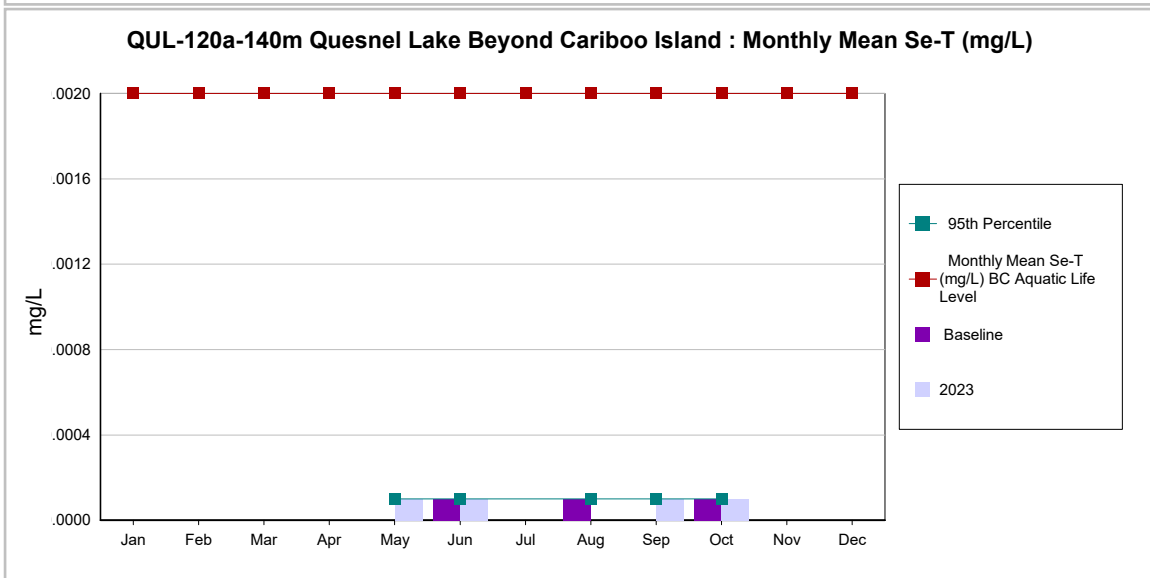
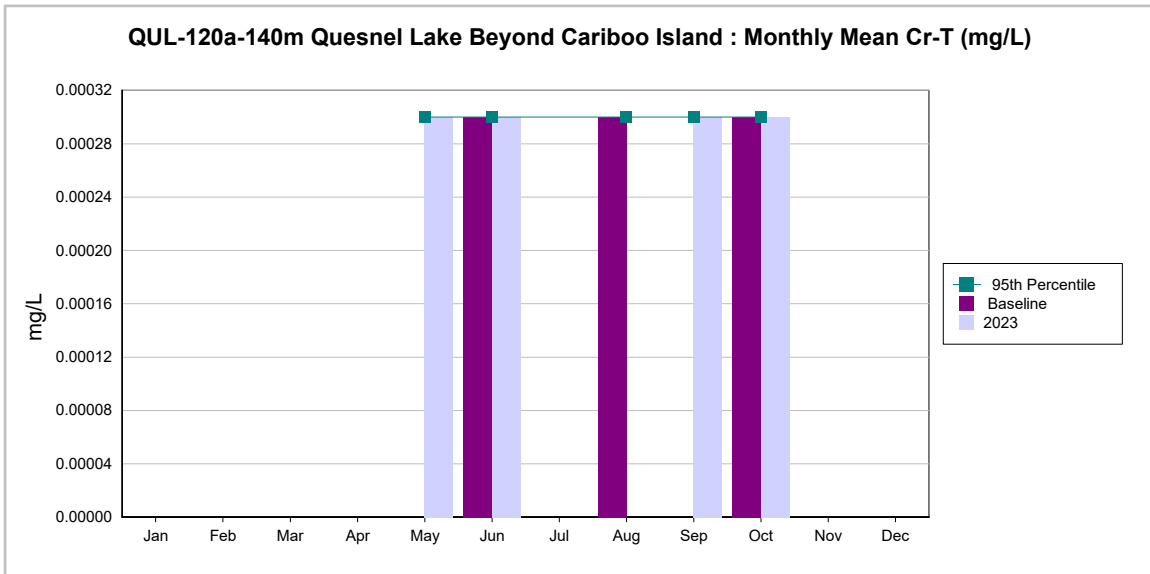
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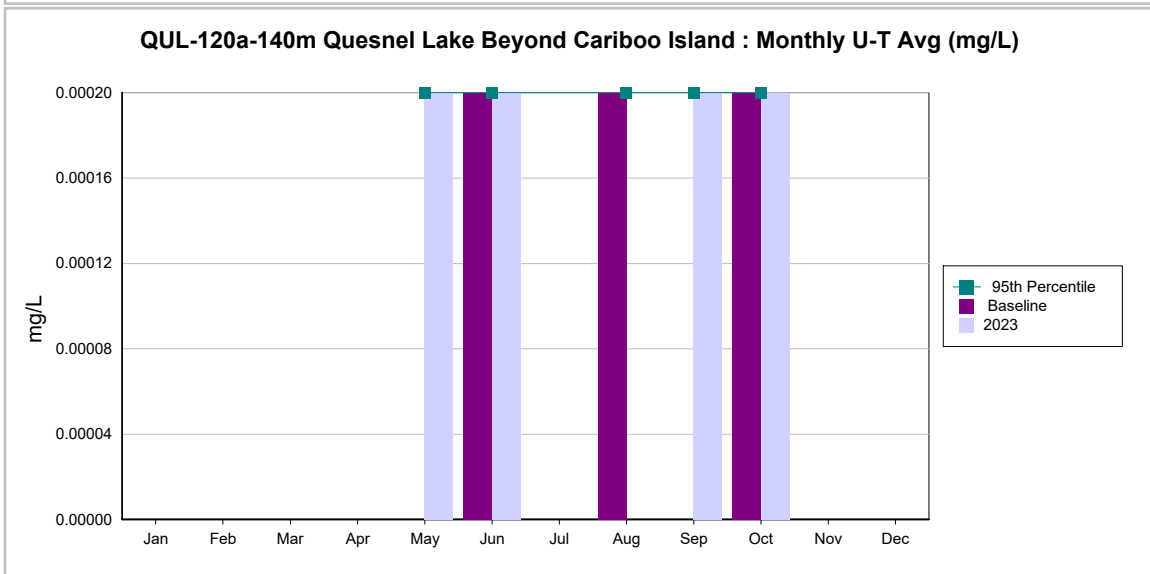
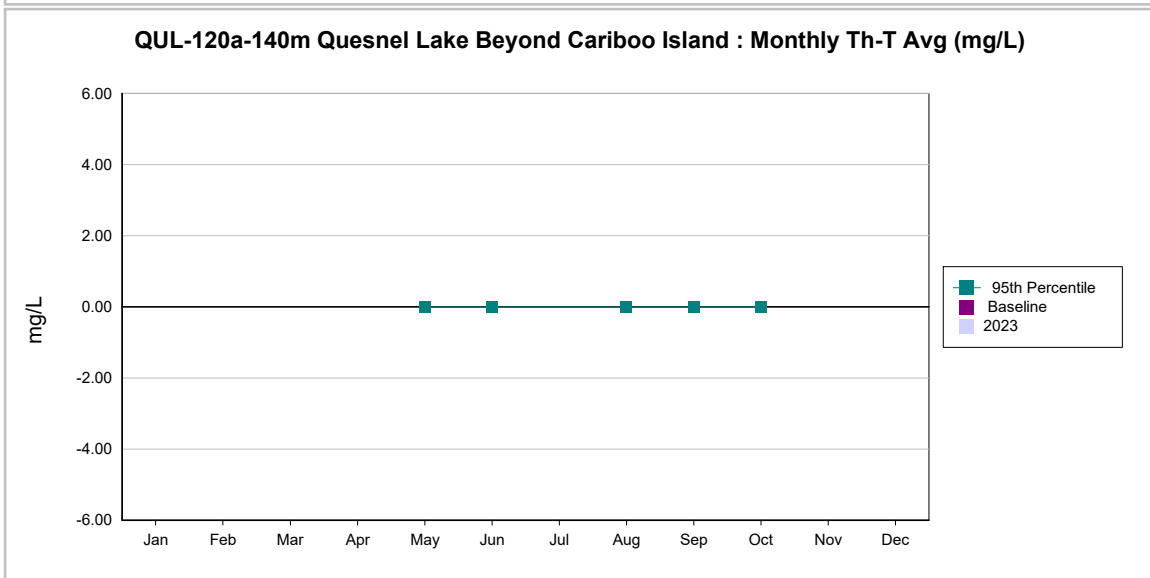
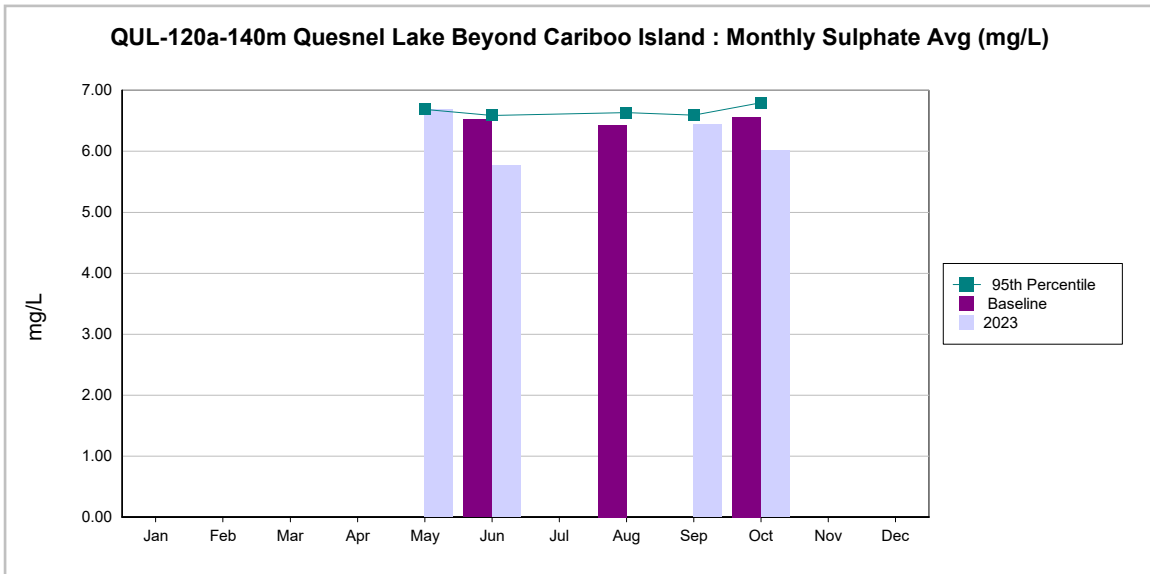
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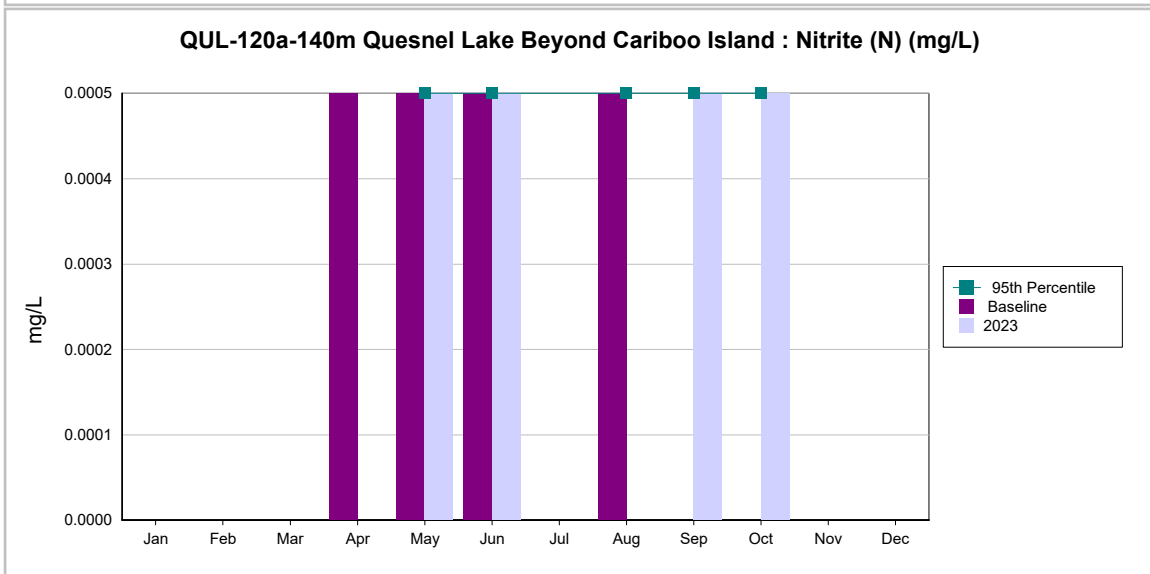
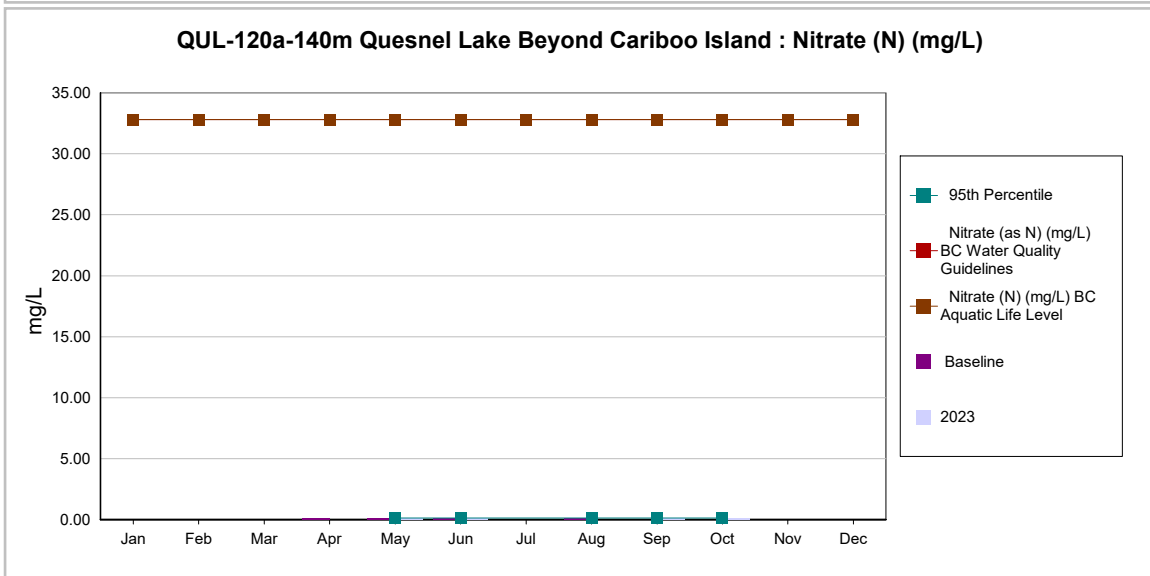
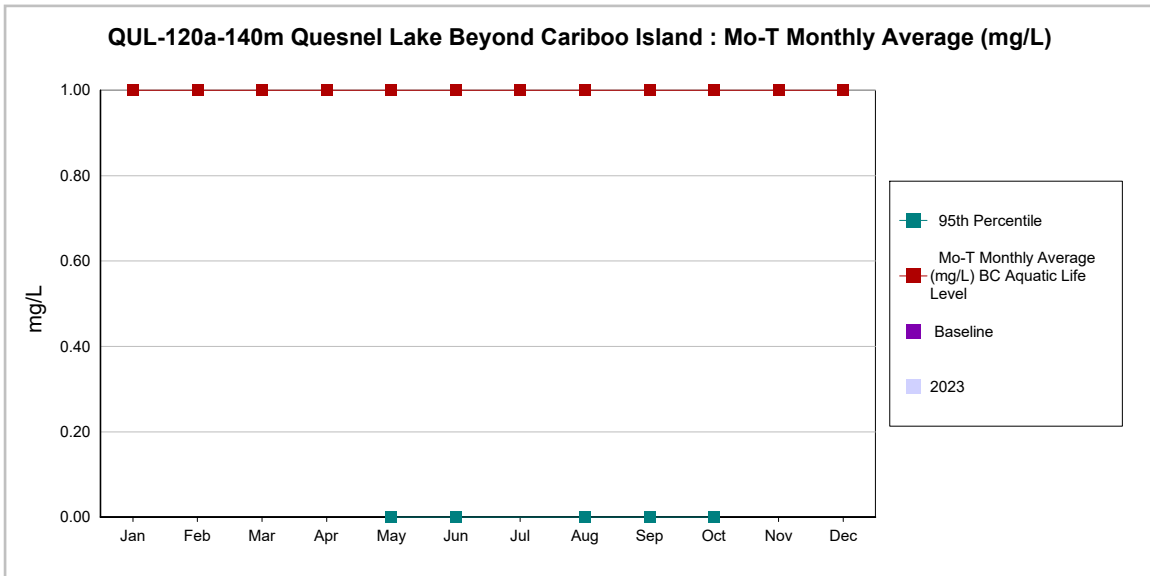
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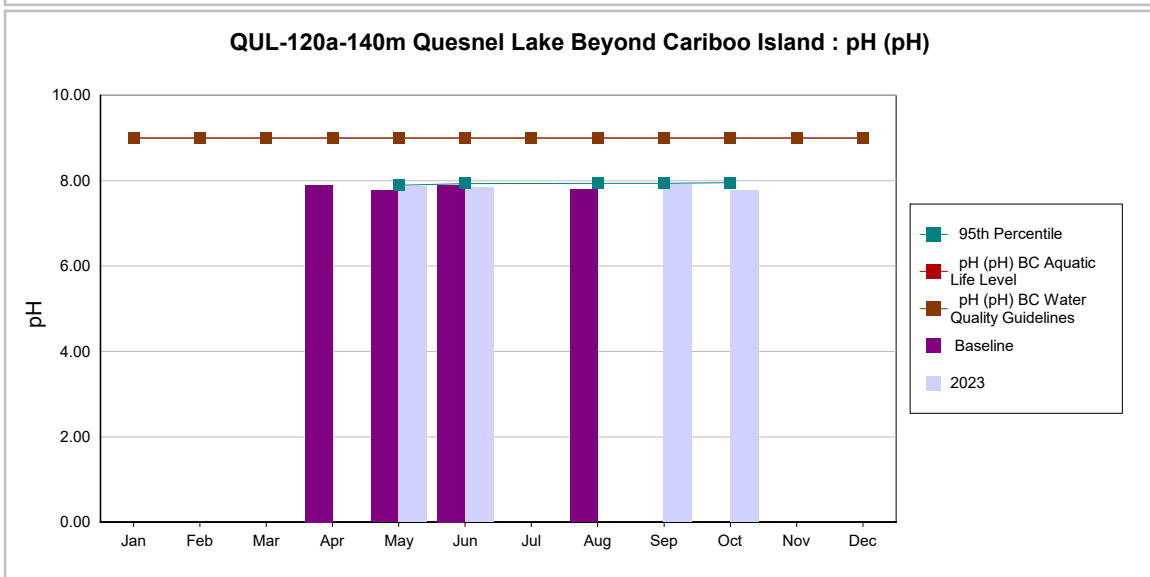
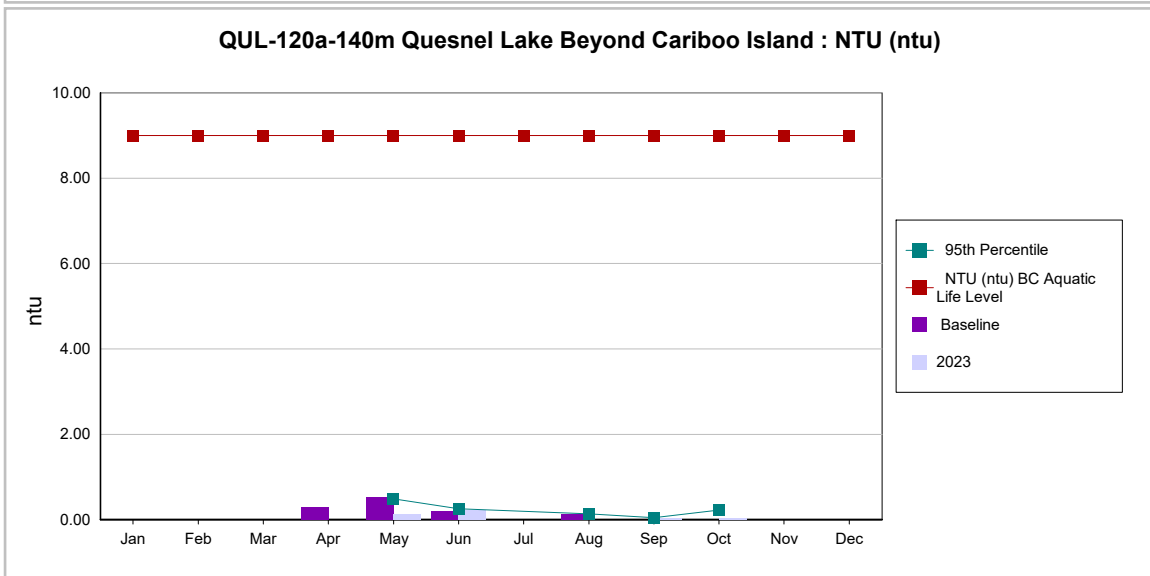
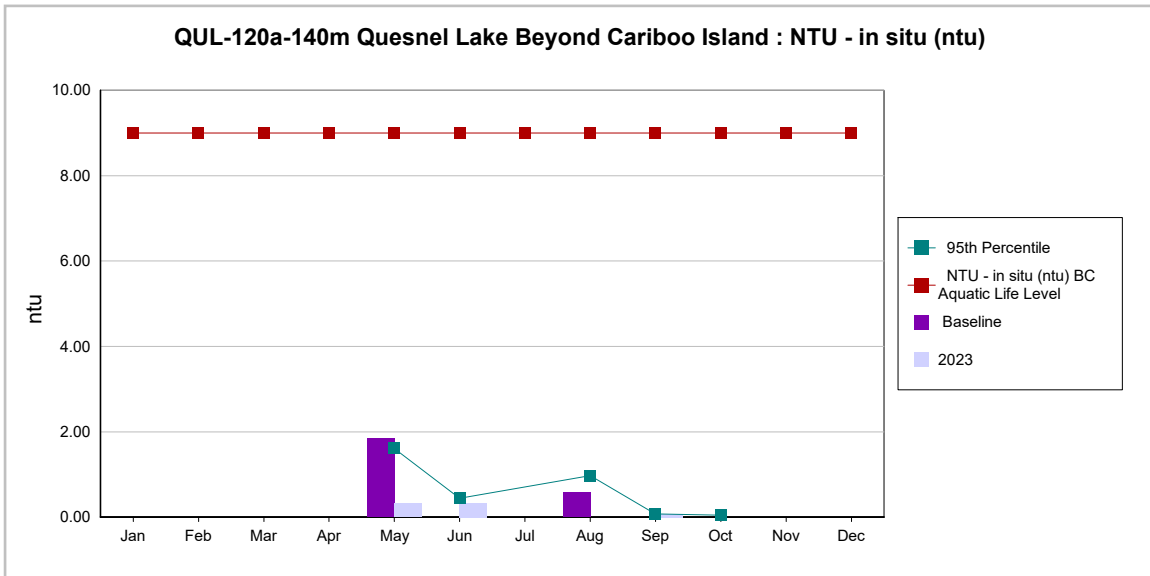
Annual Report Lake vs BCWQG



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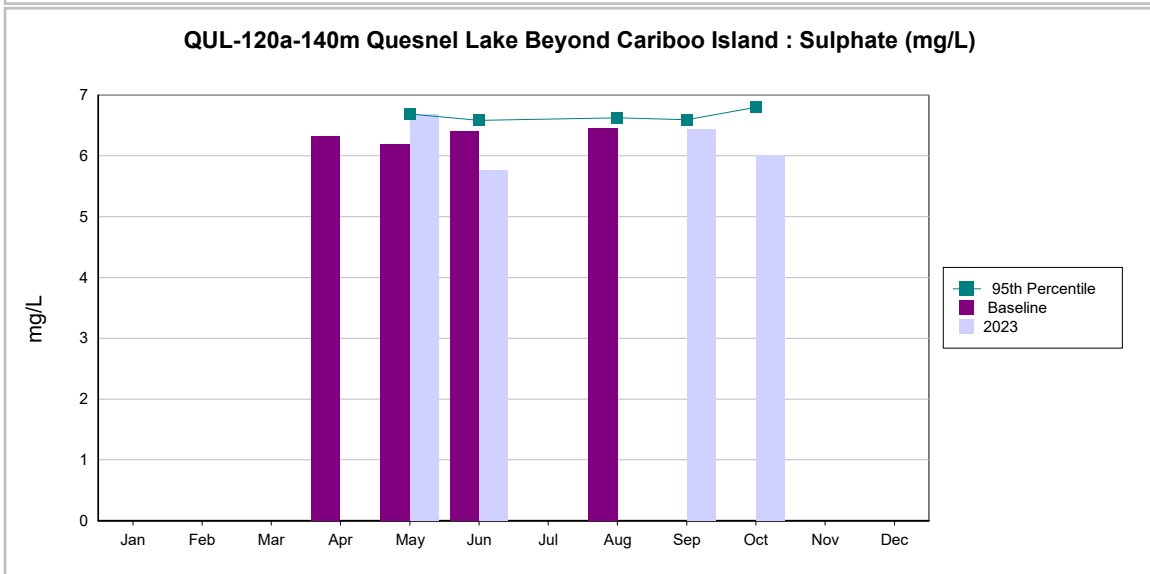
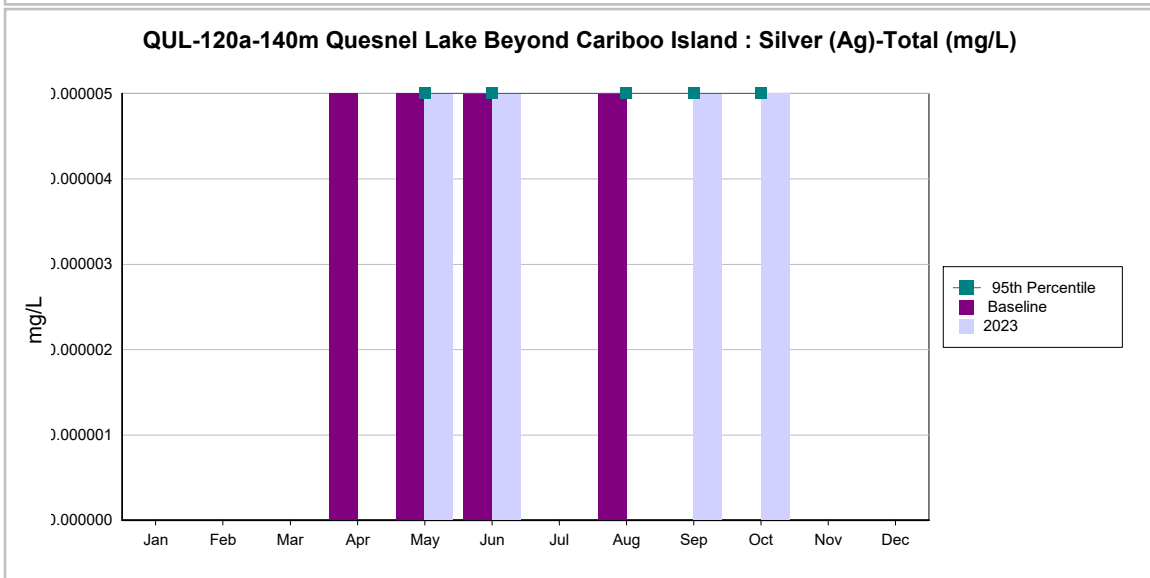
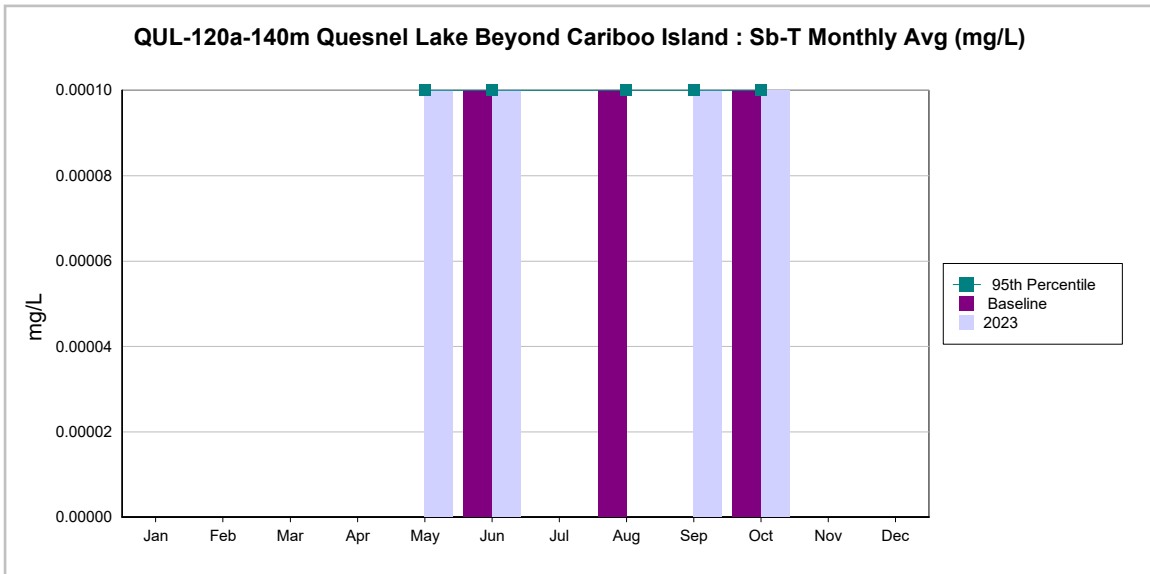
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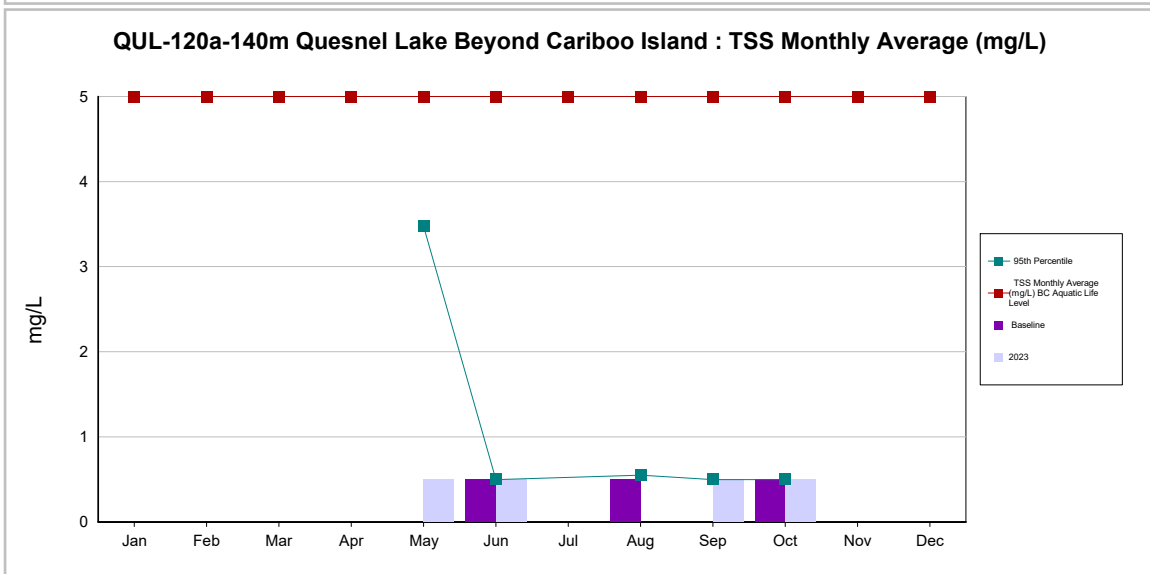
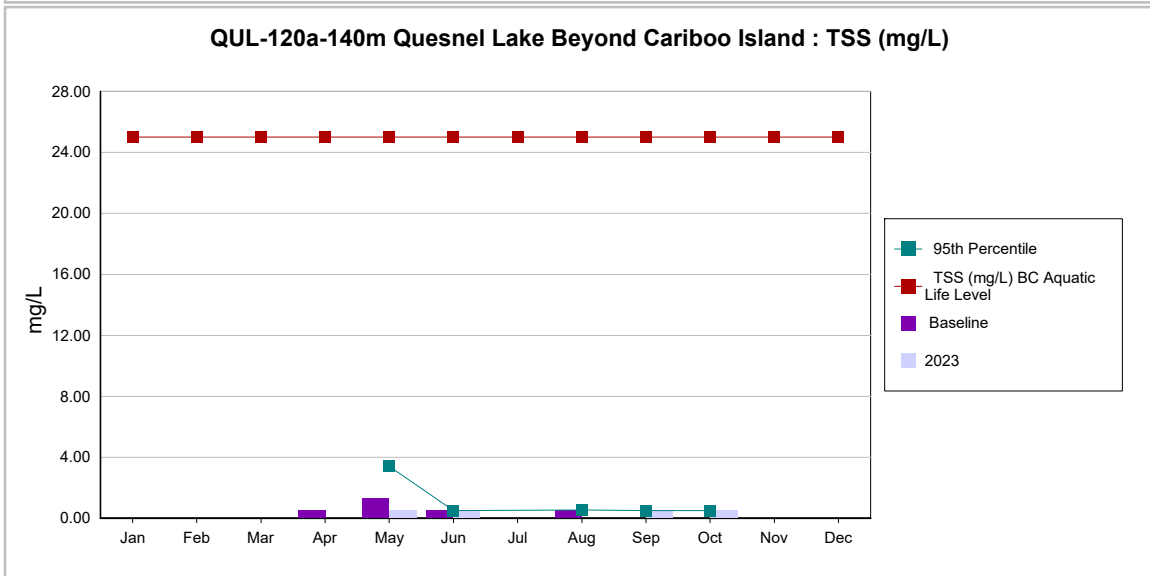
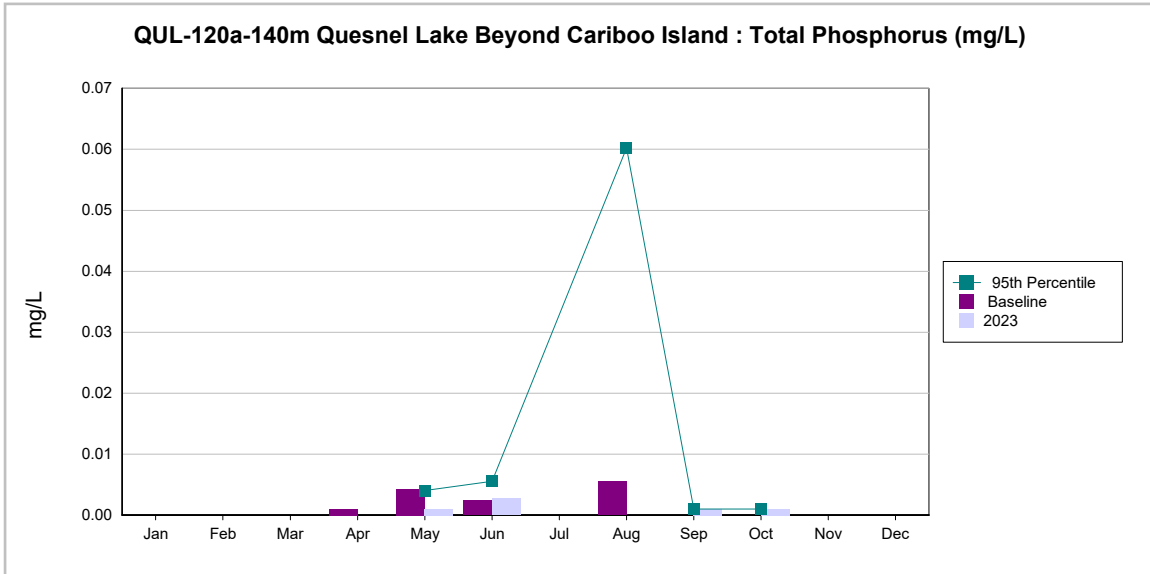
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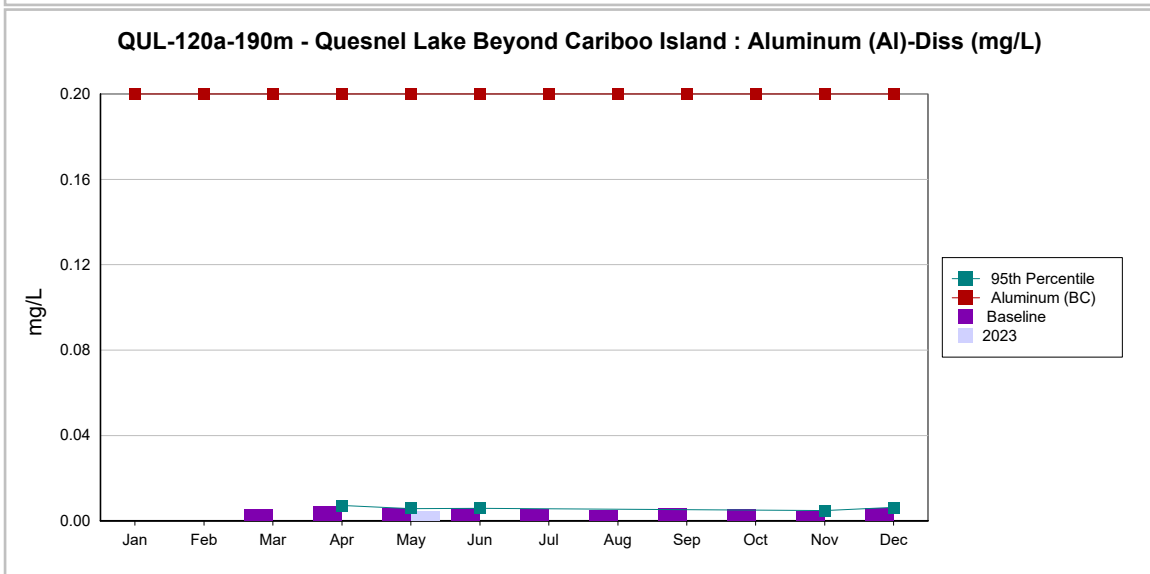
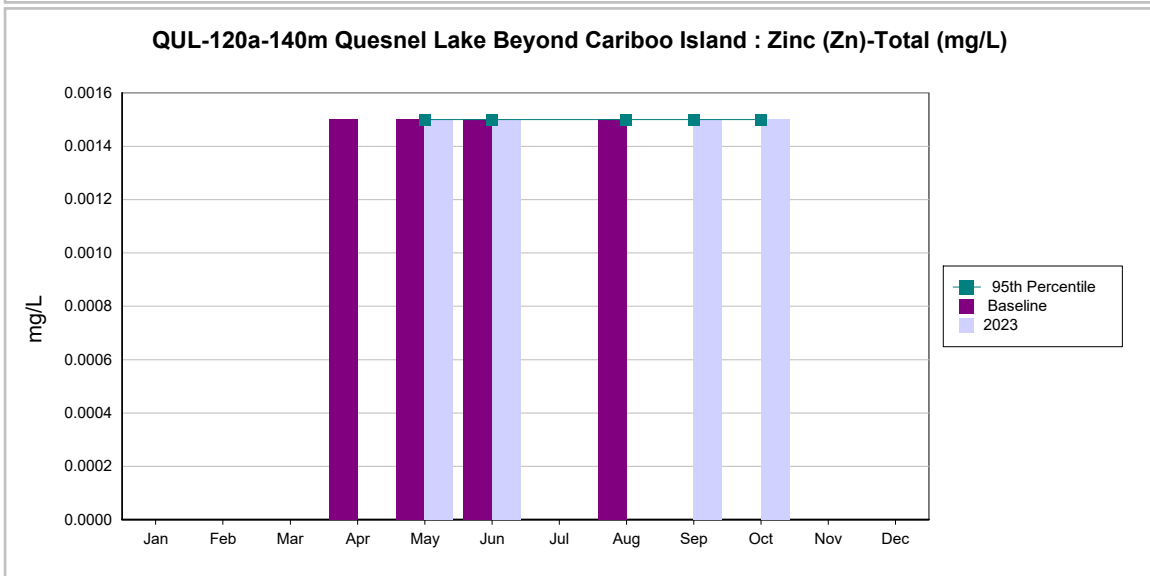
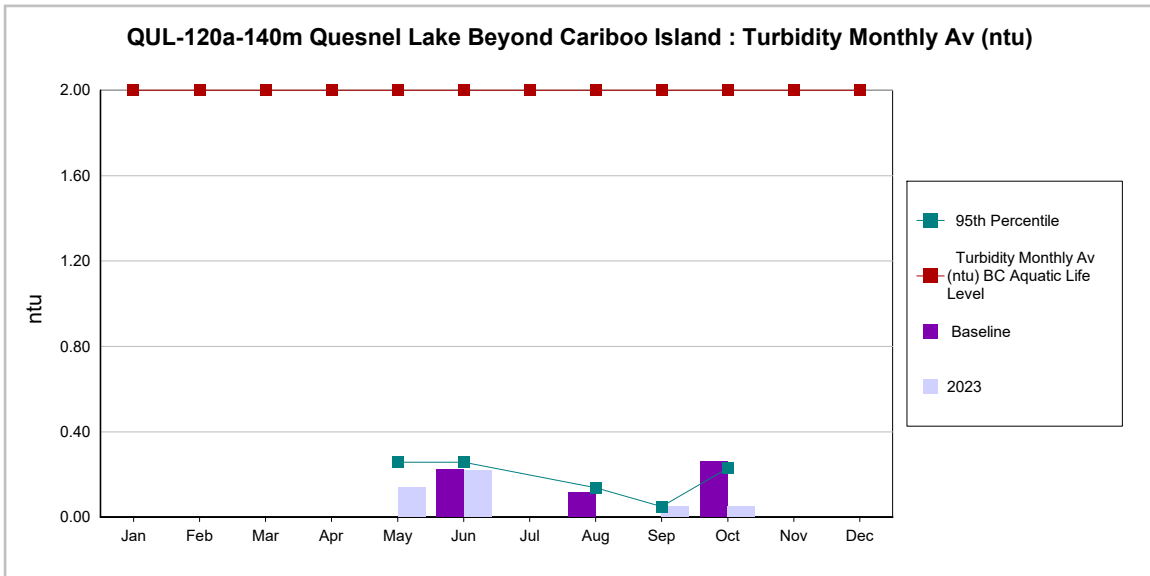
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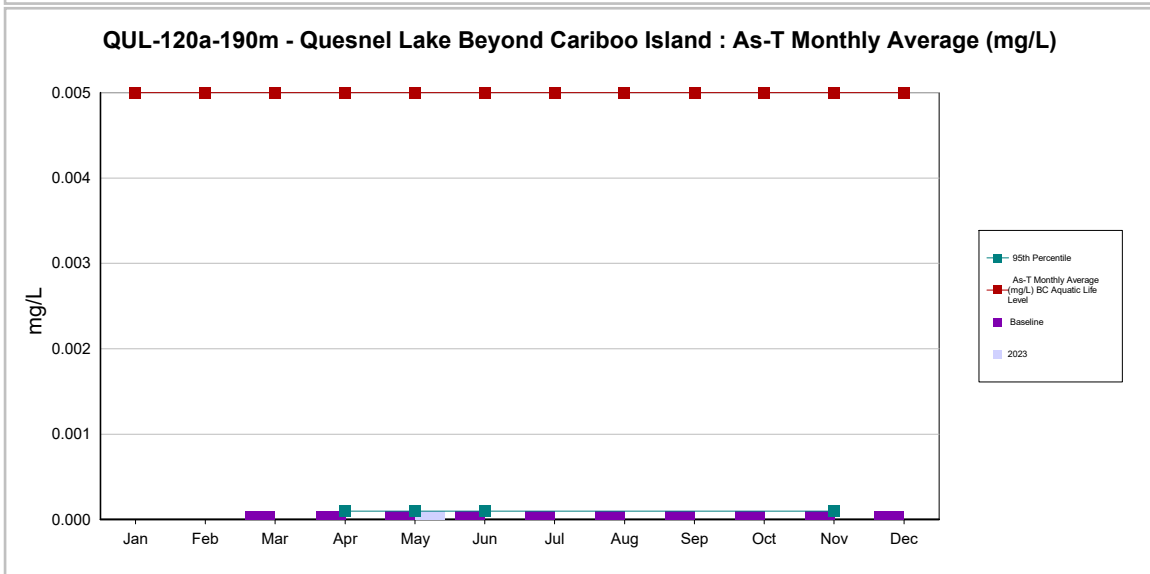
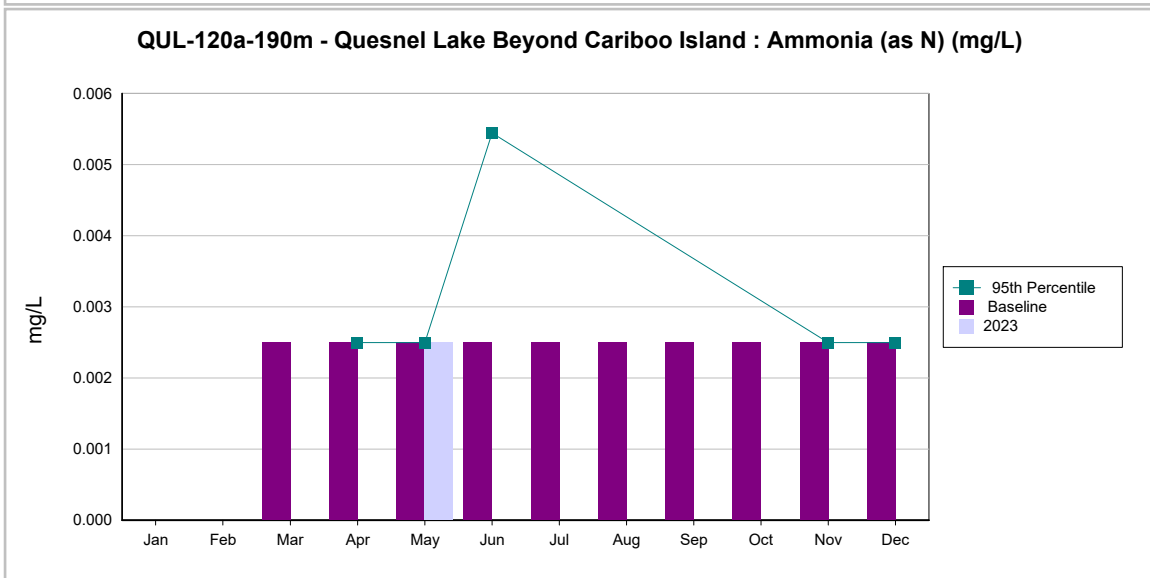
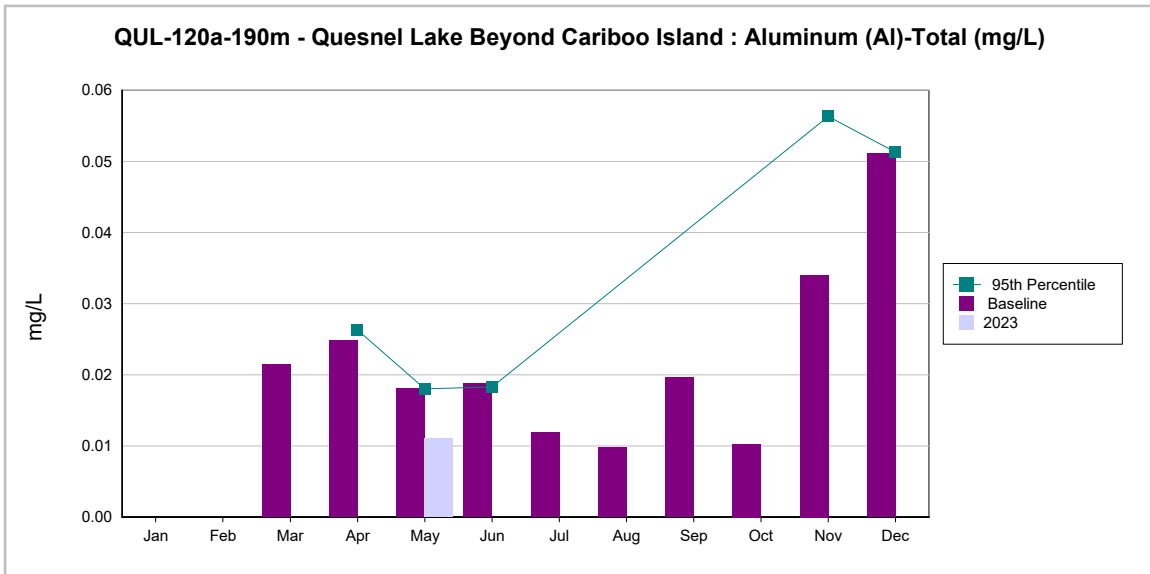
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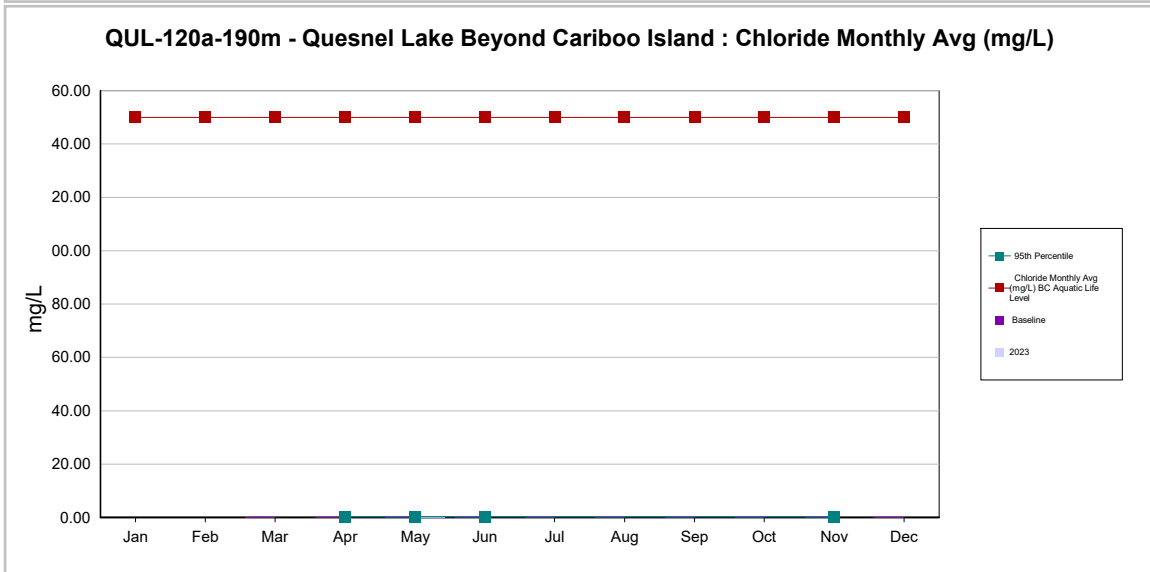
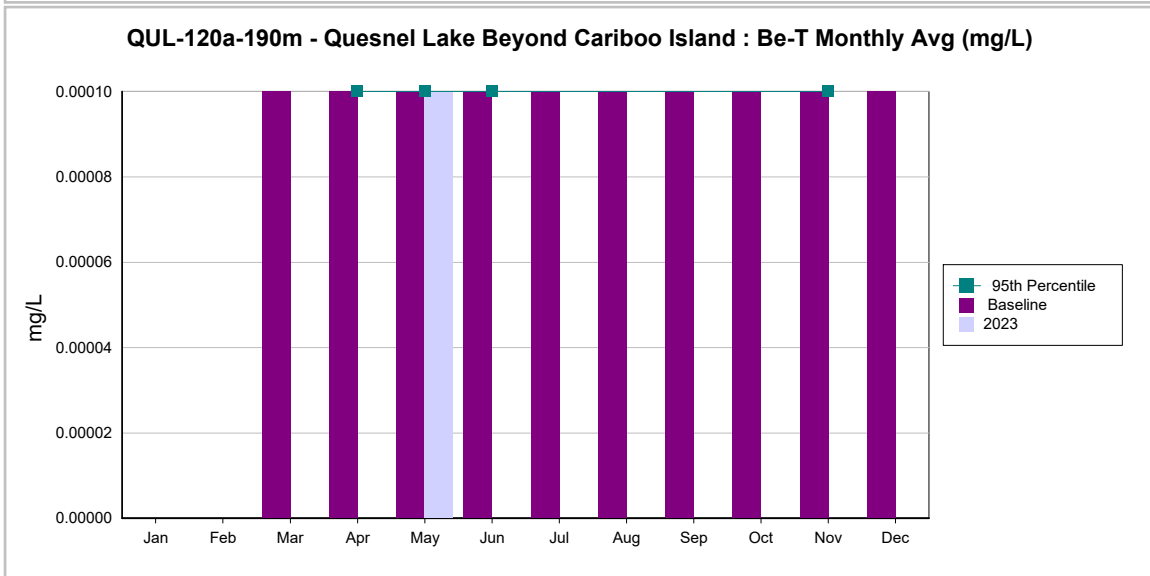
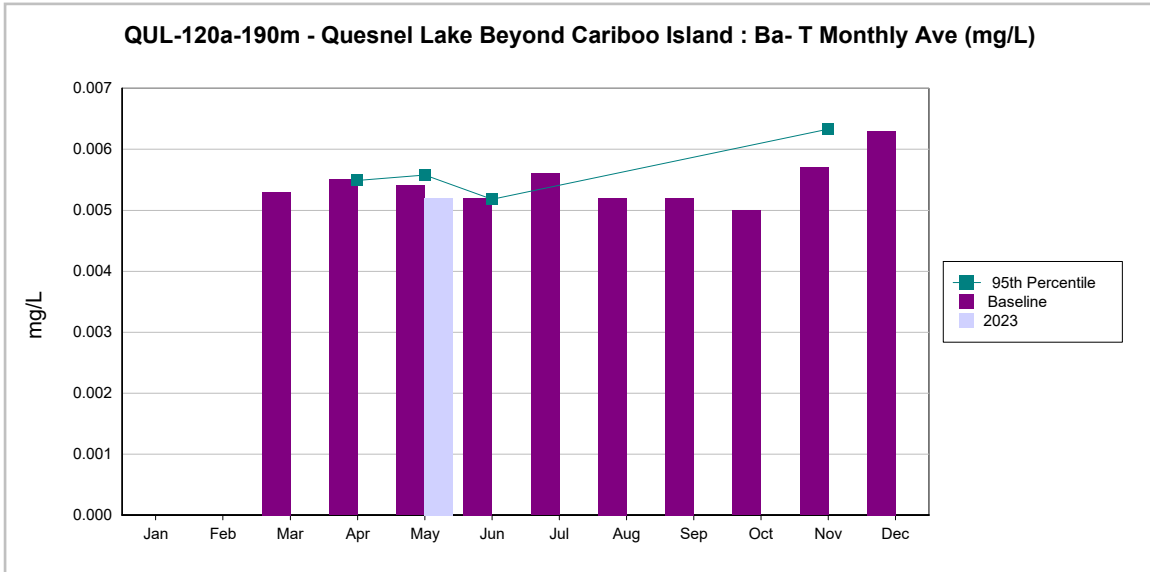
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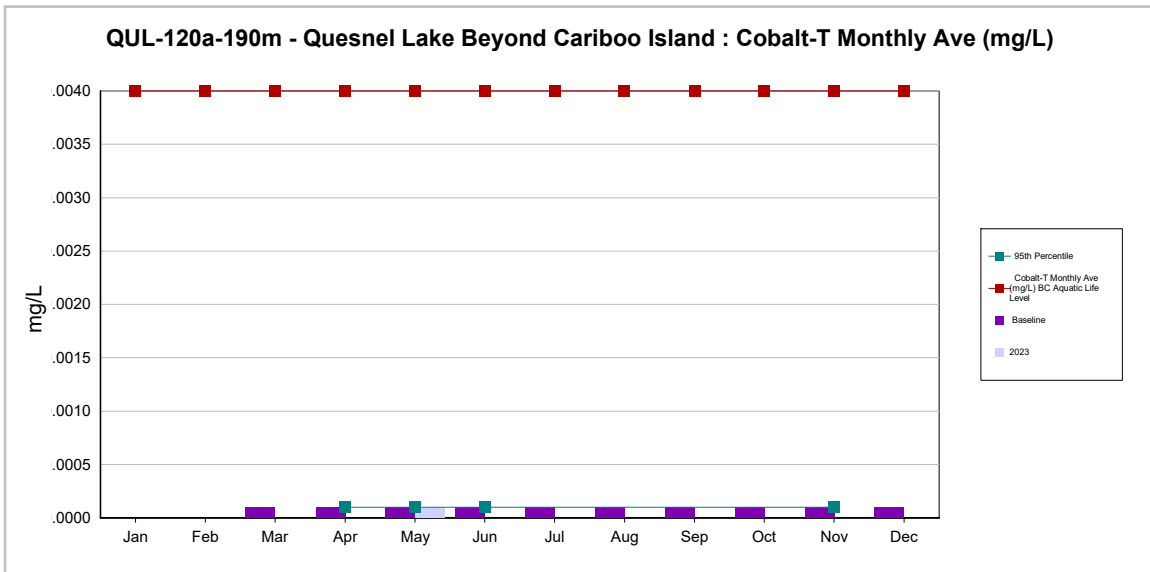
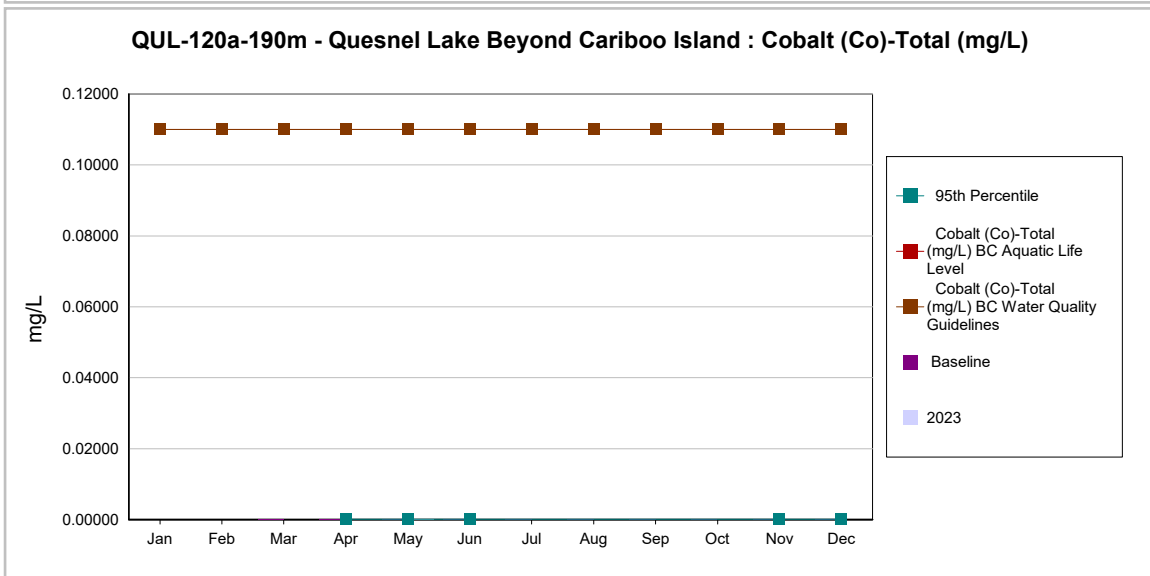
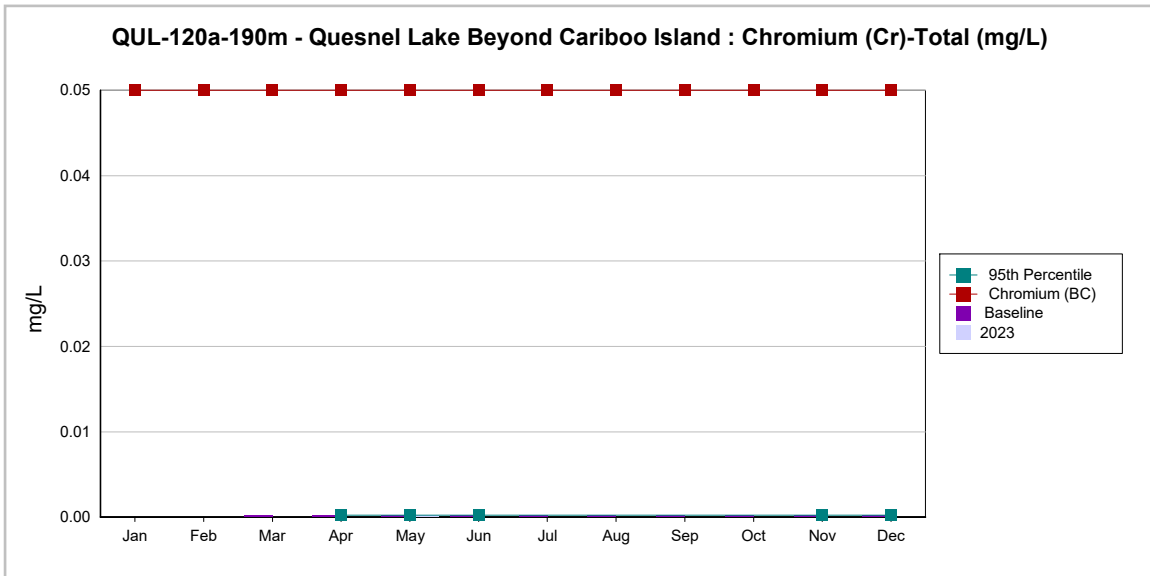
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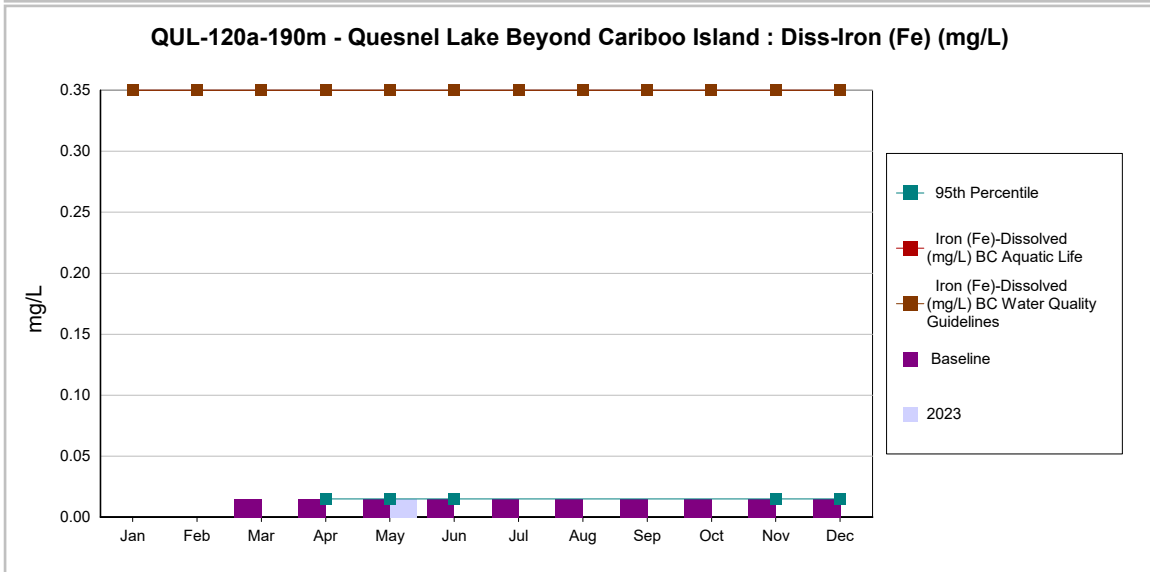
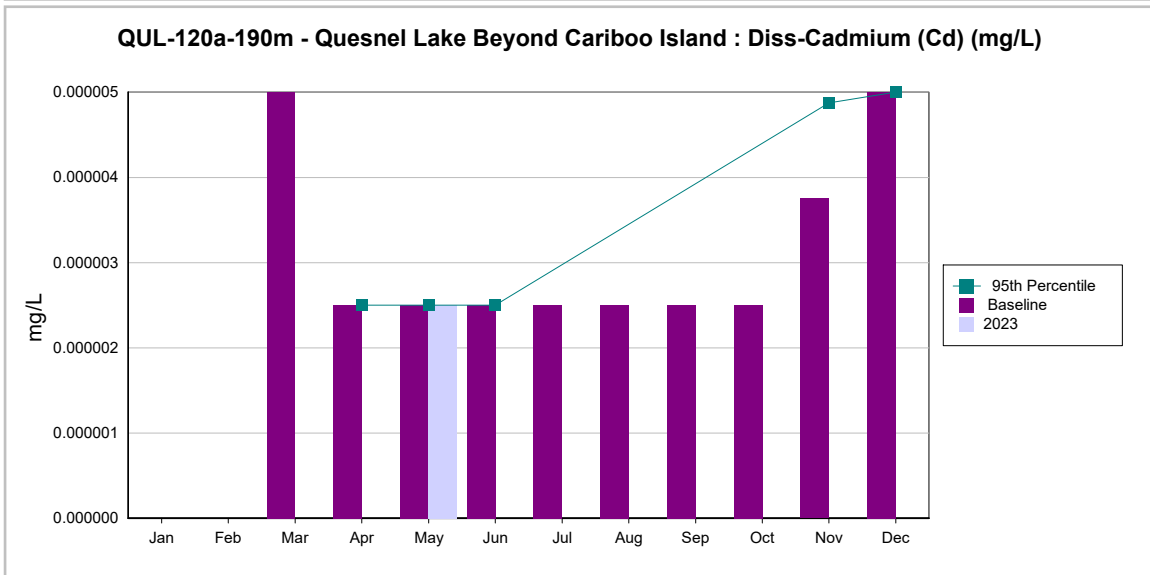
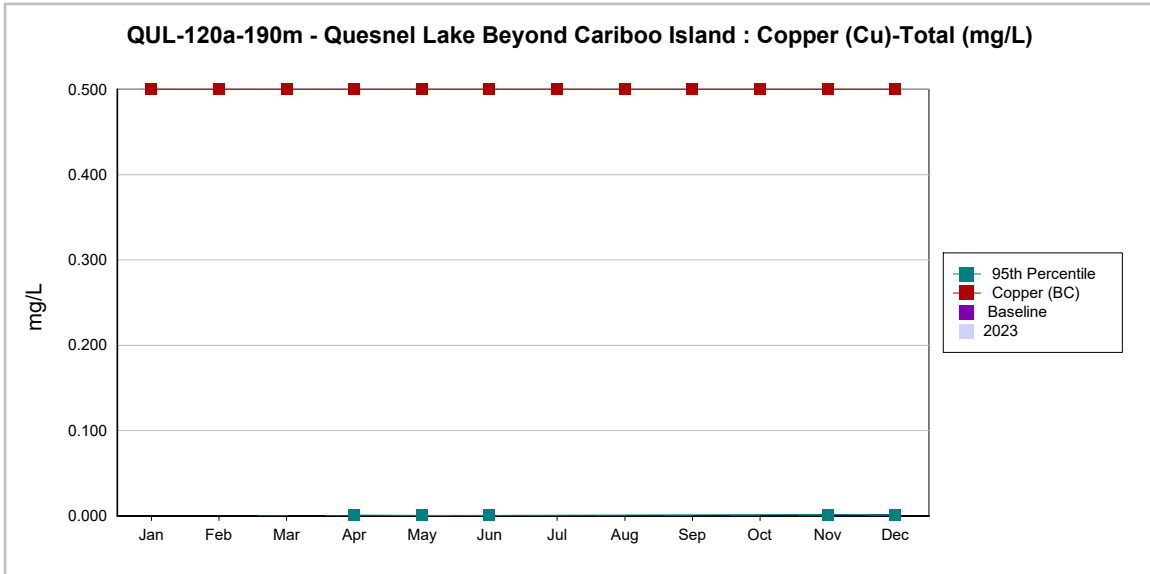
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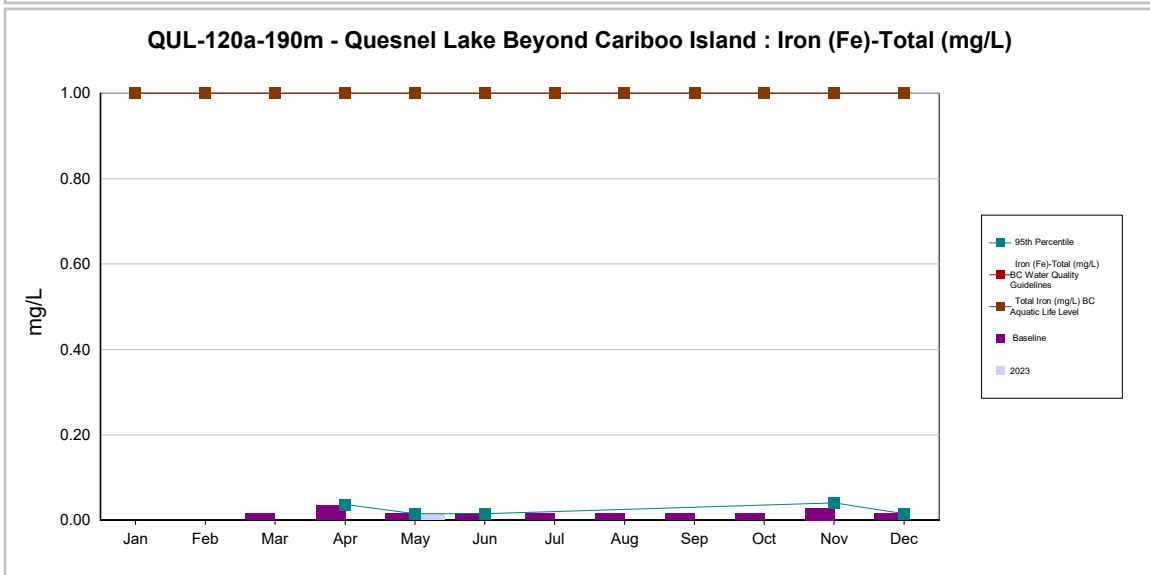
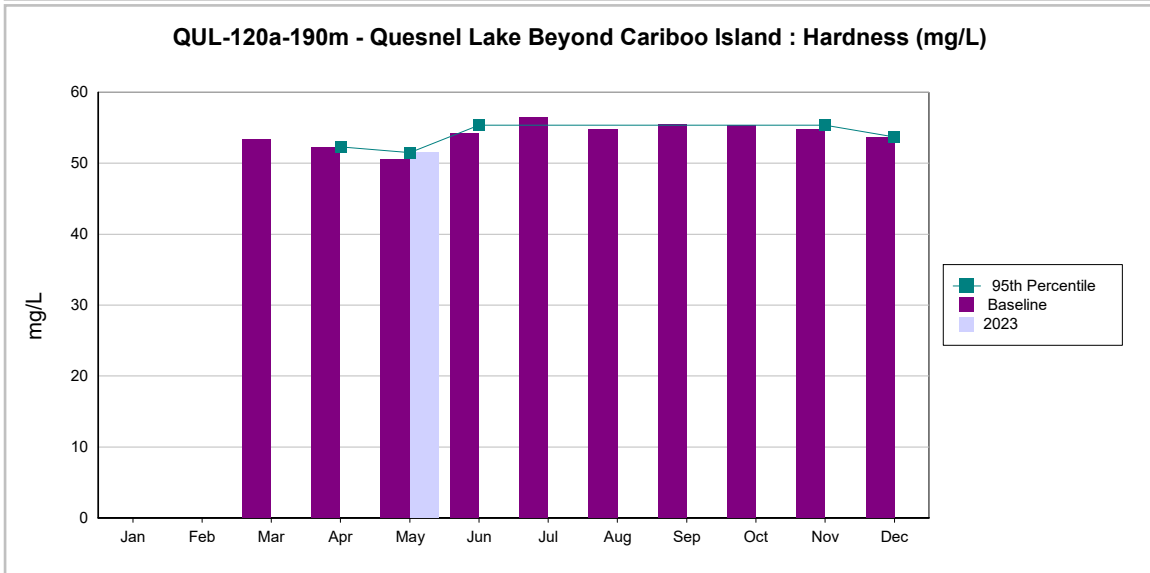
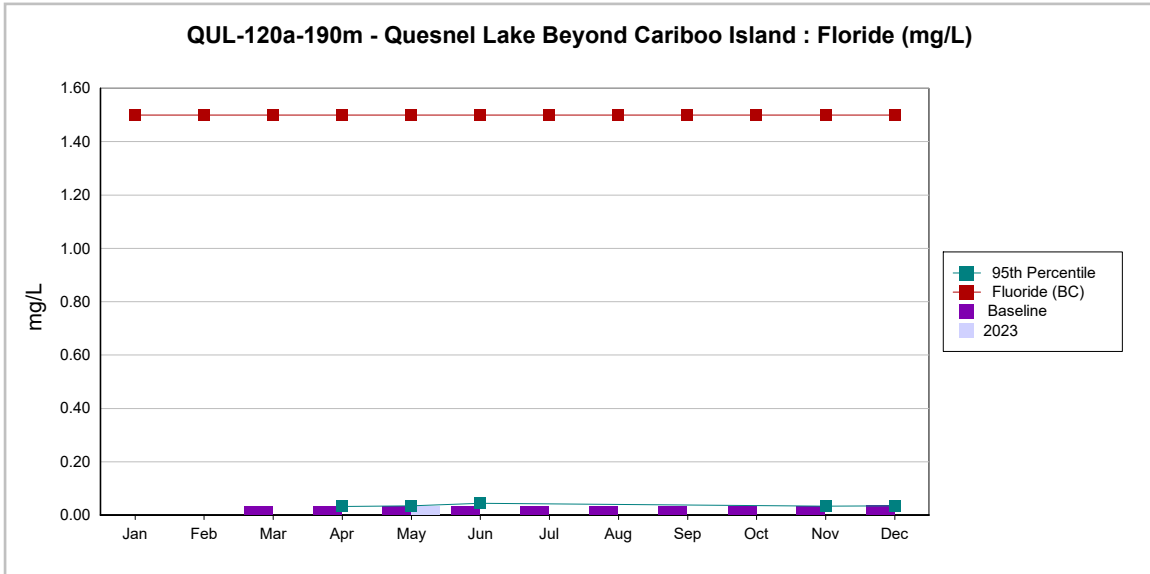
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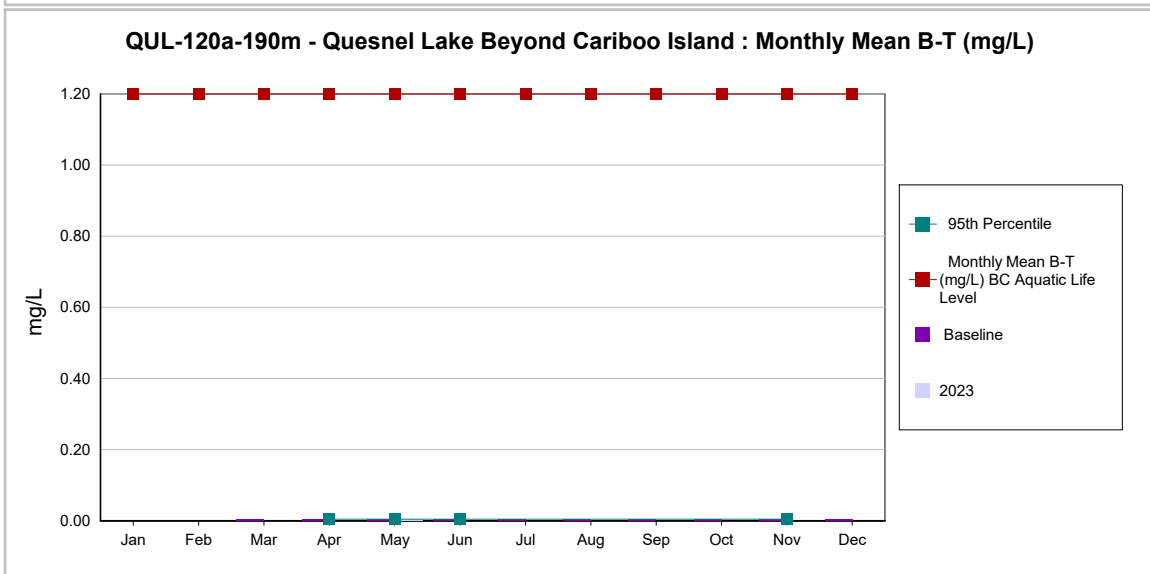
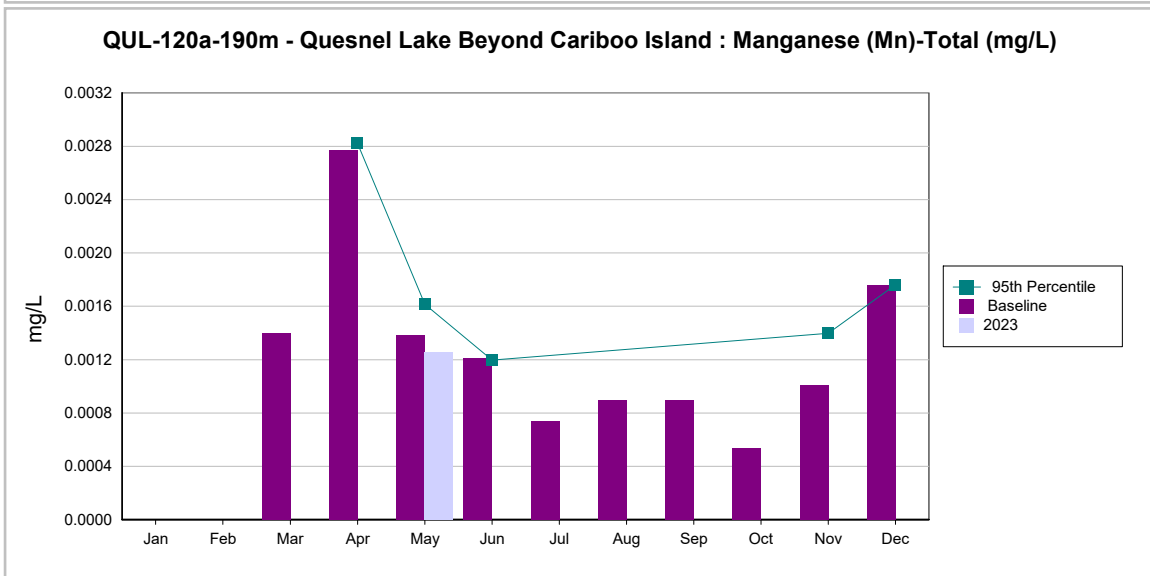
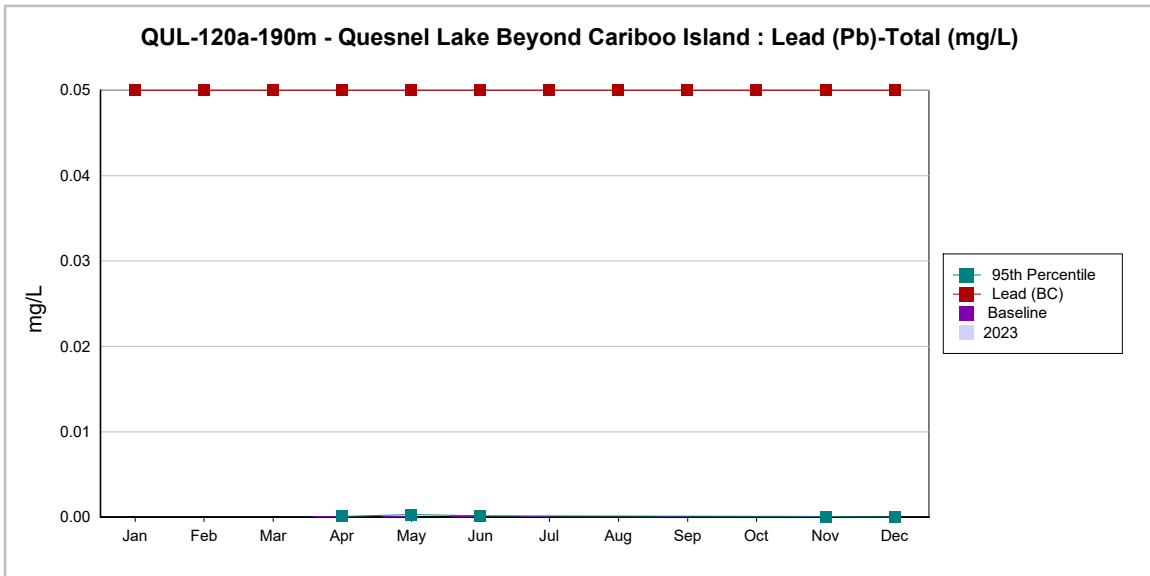
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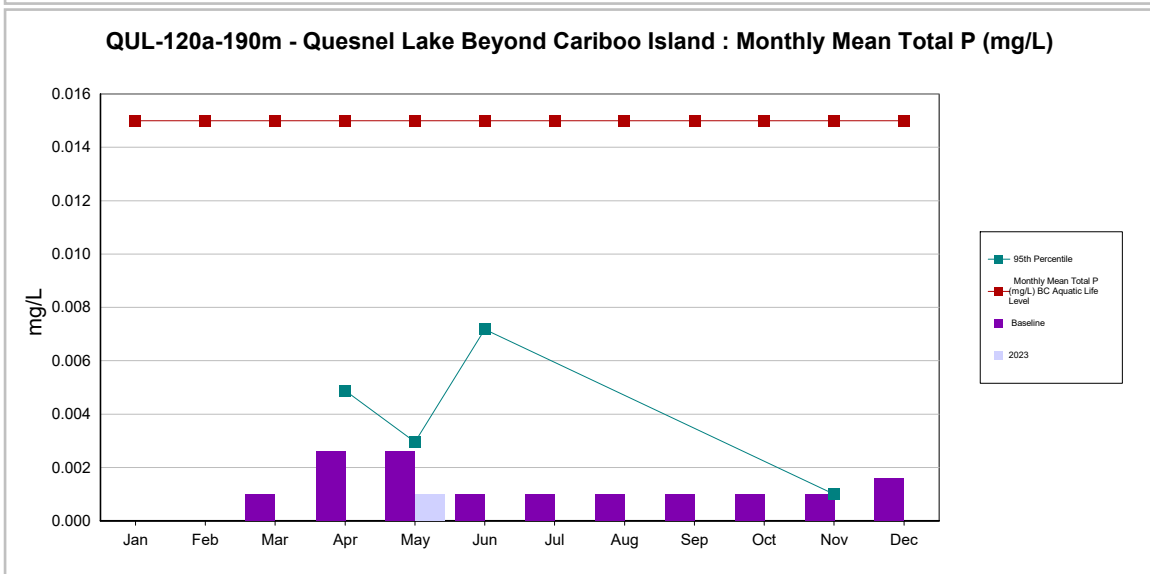
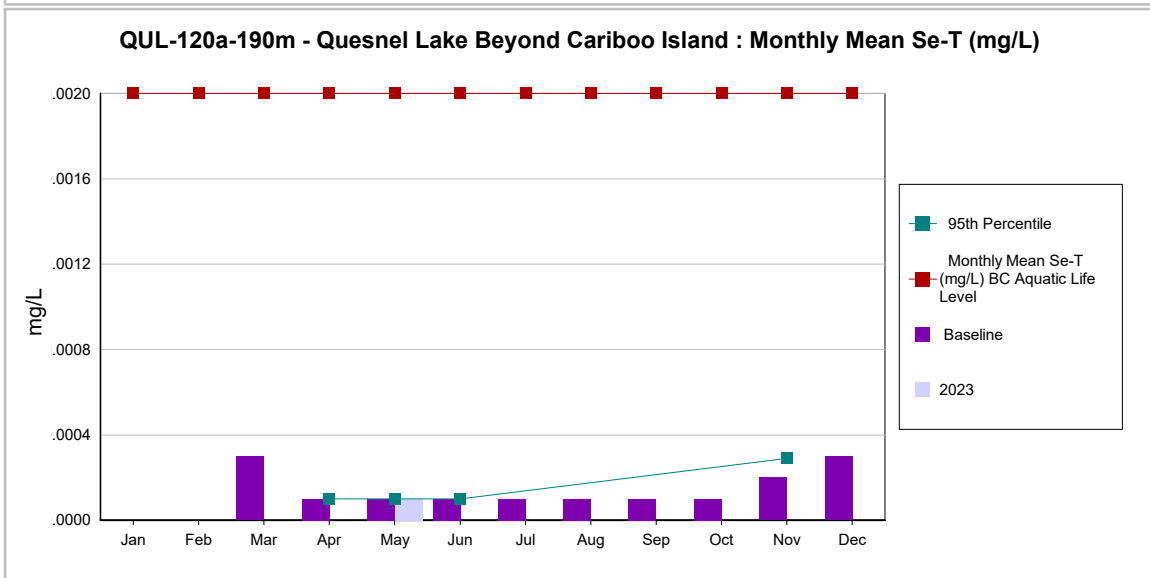
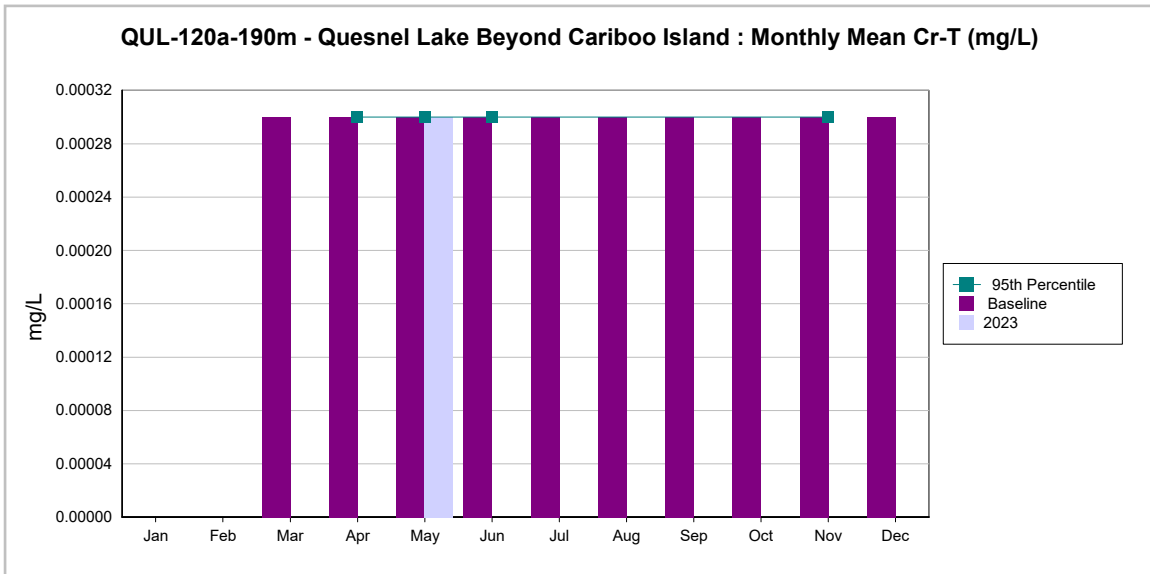
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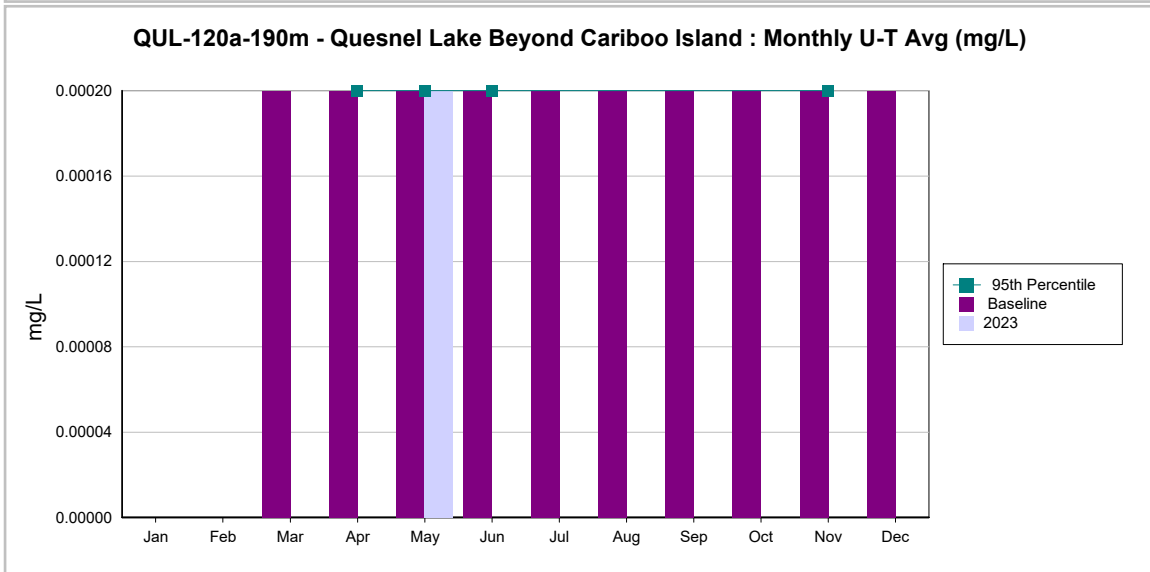
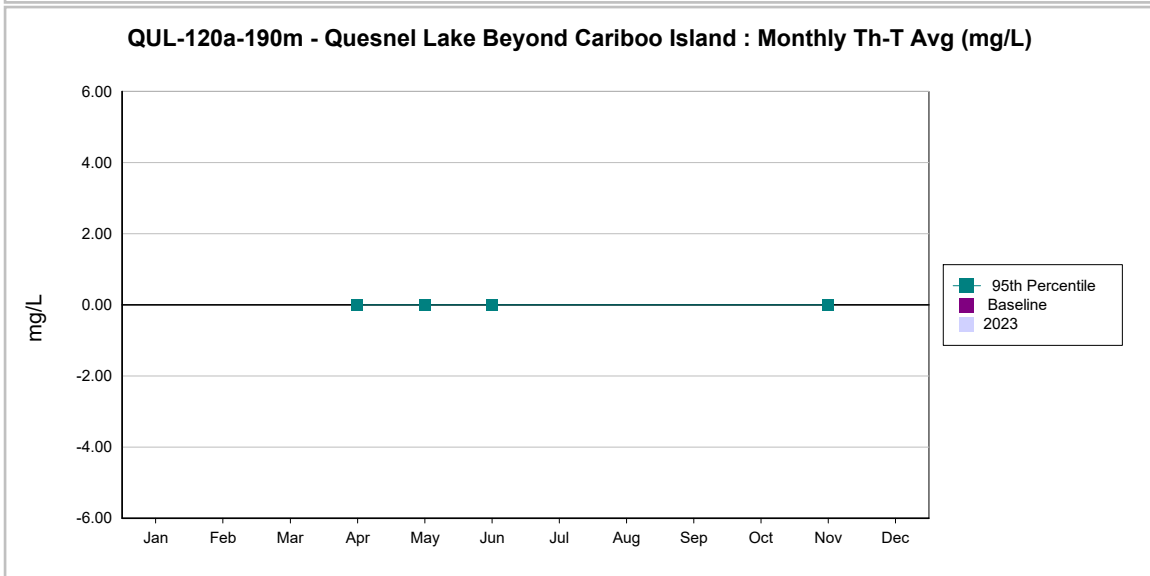
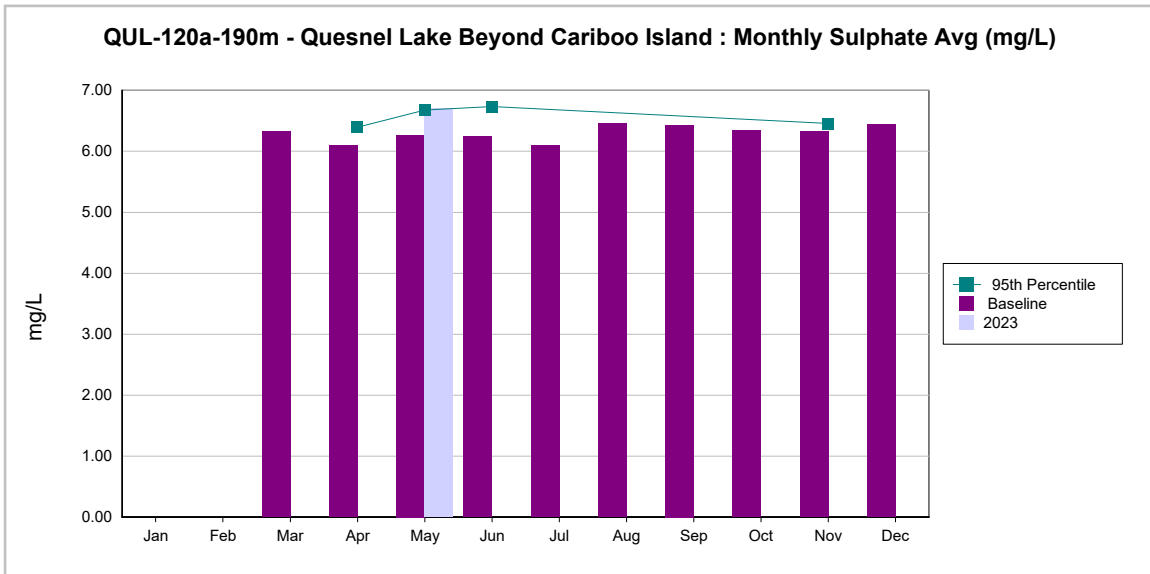
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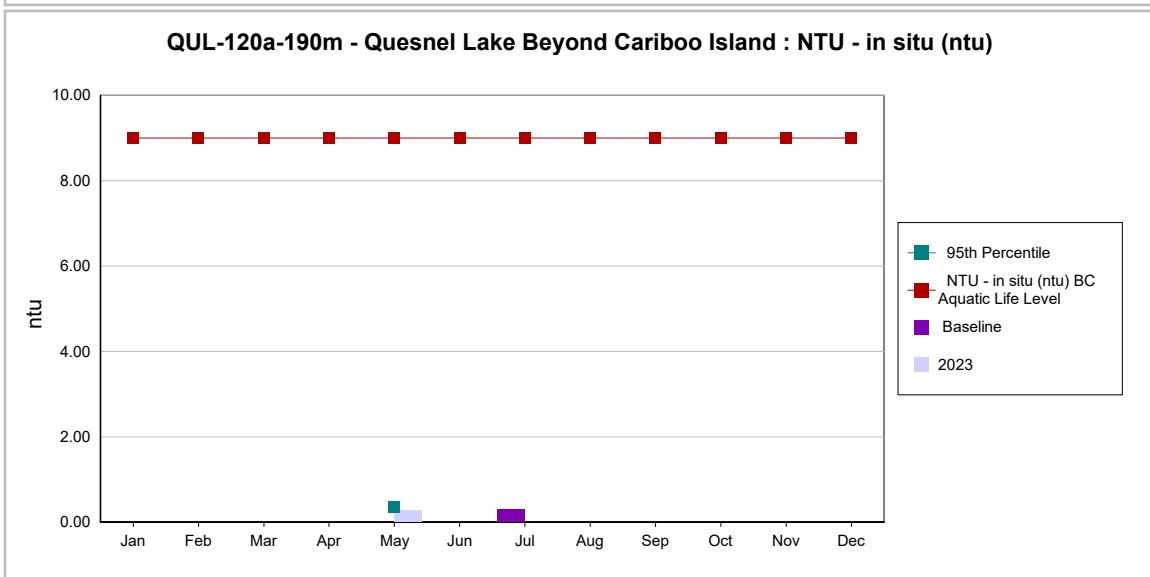
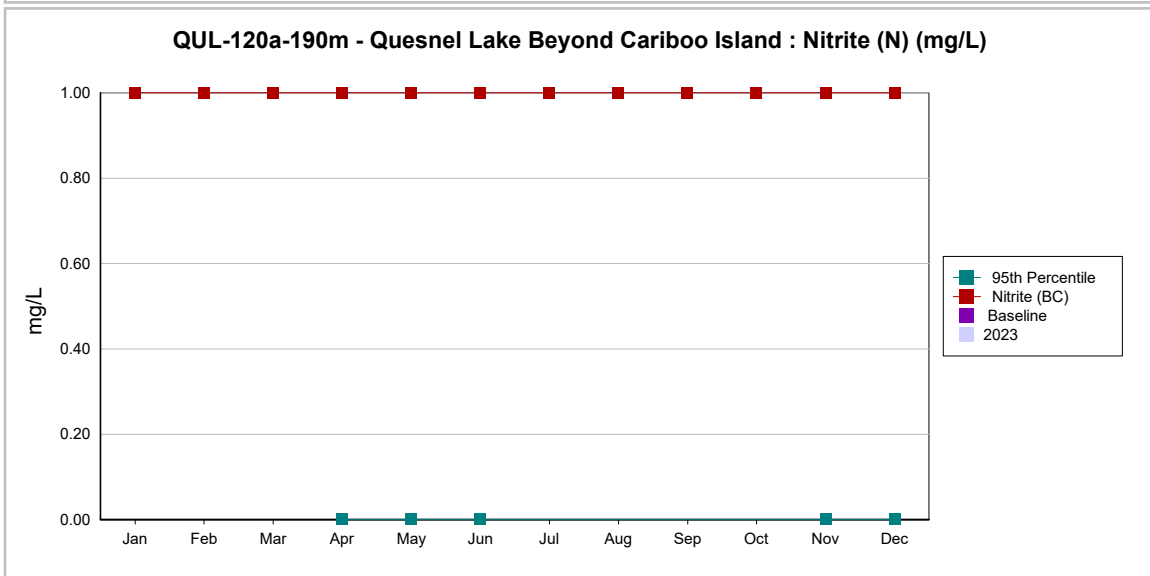
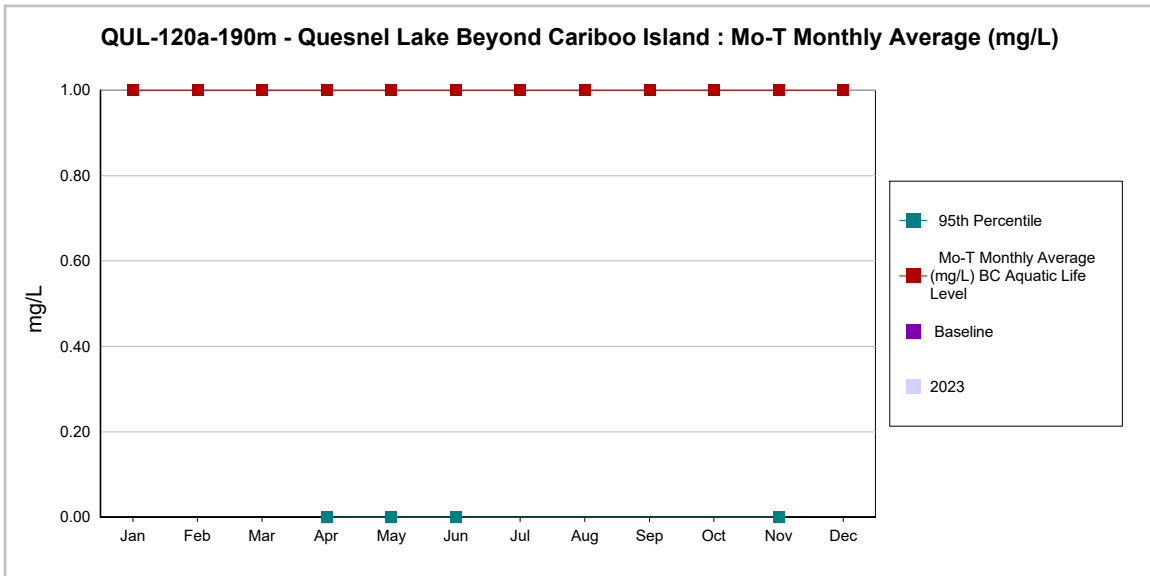
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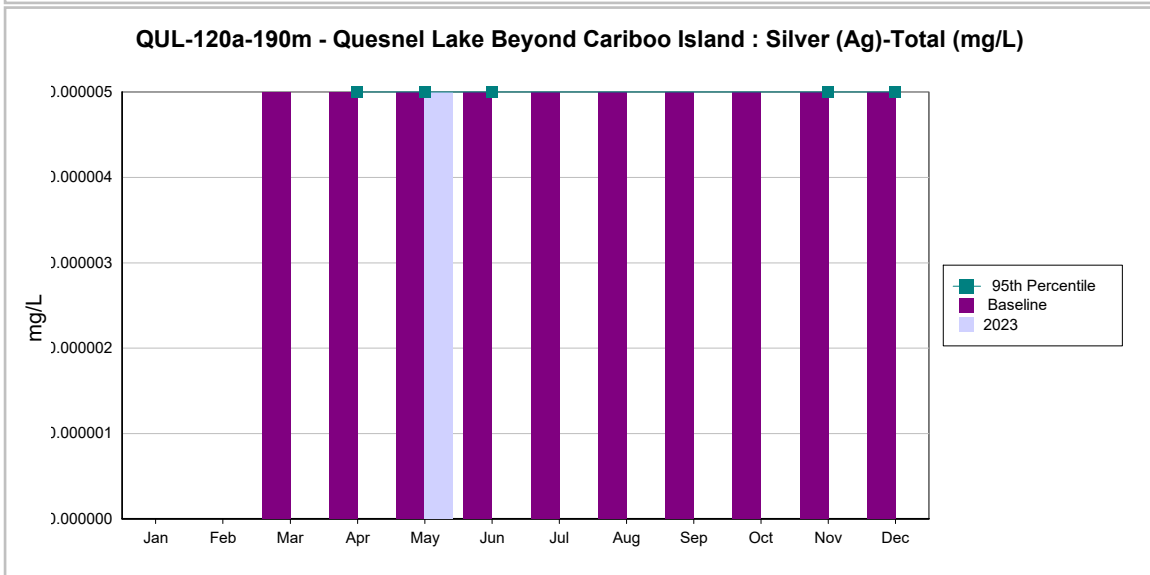
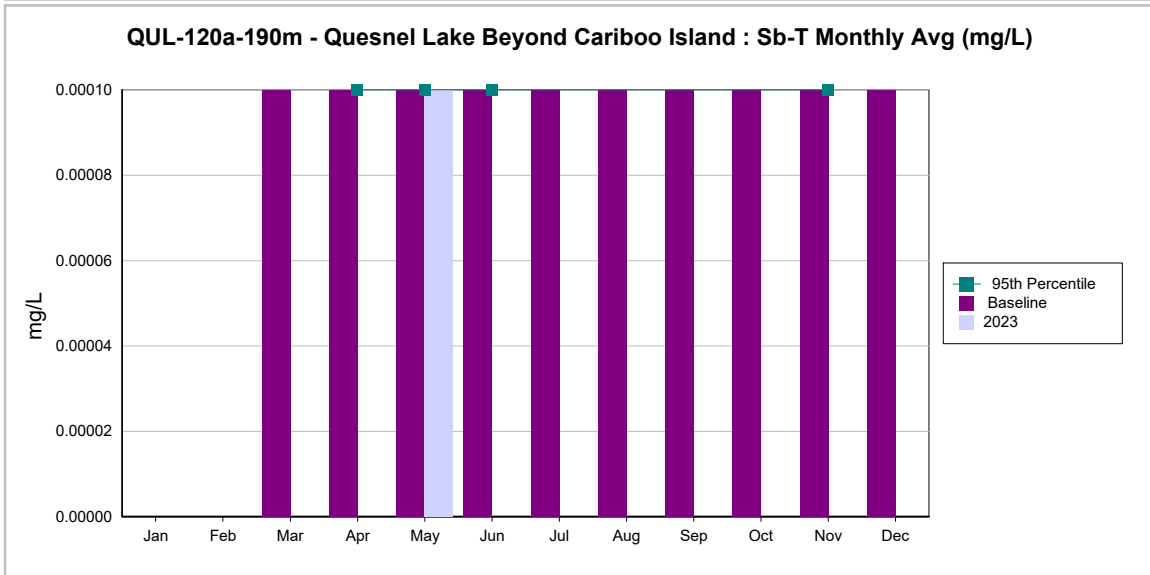
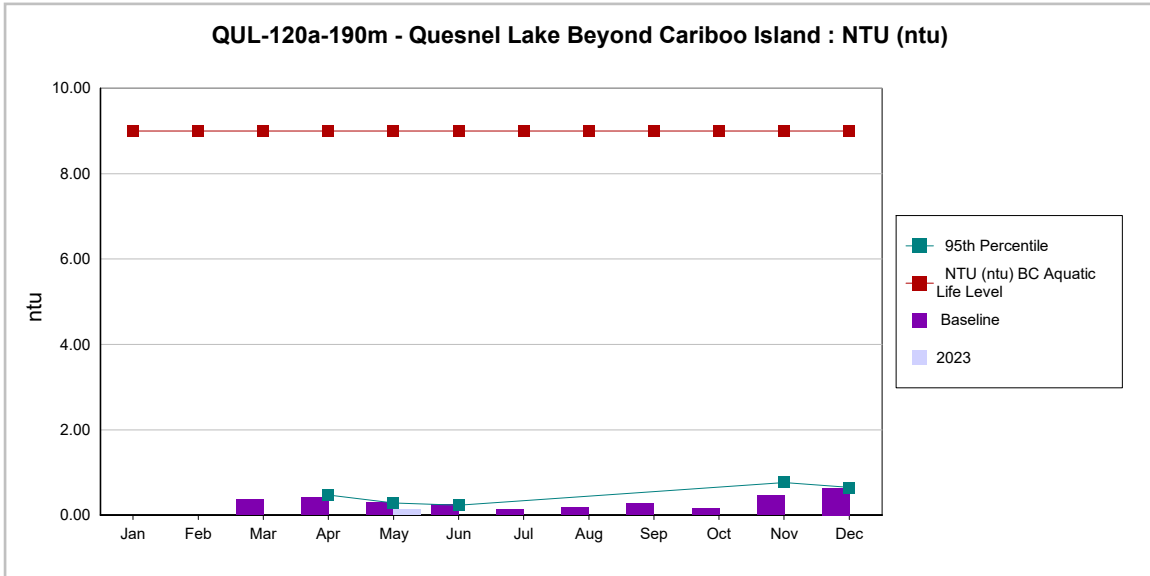
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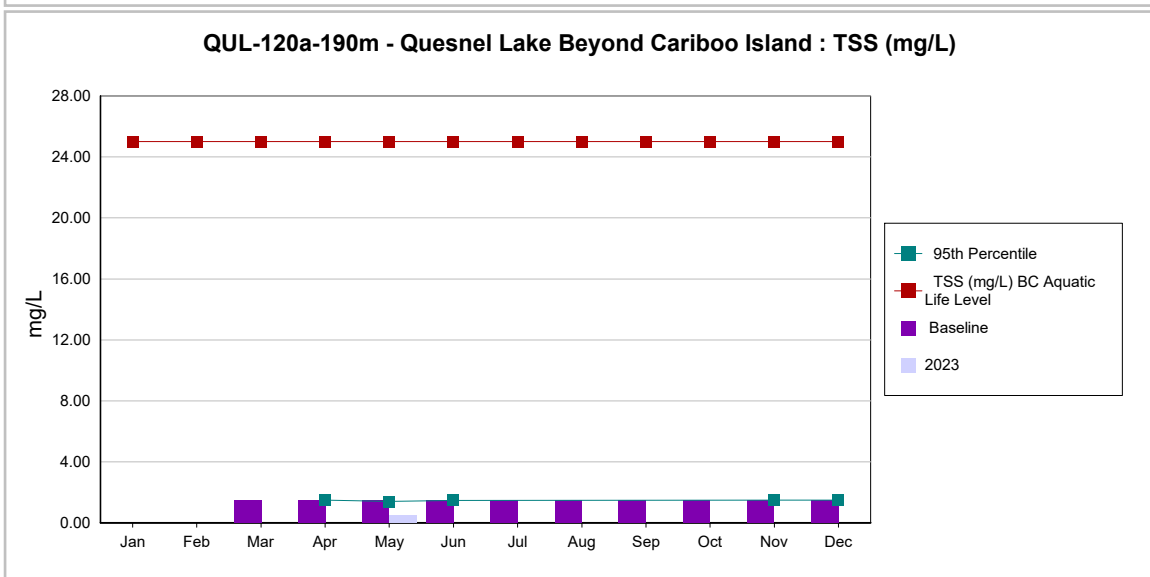
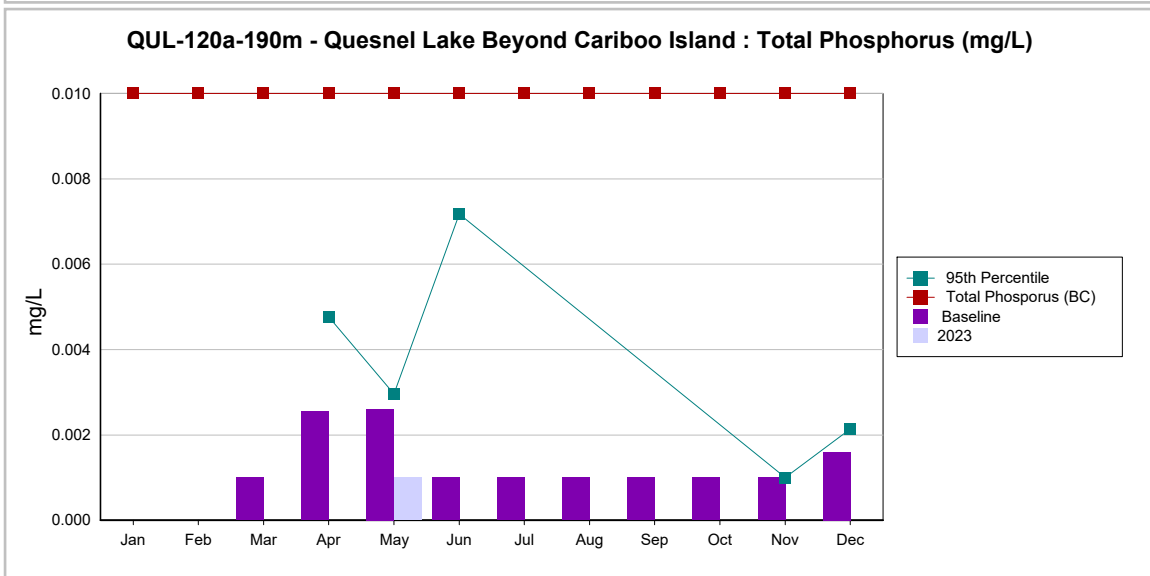
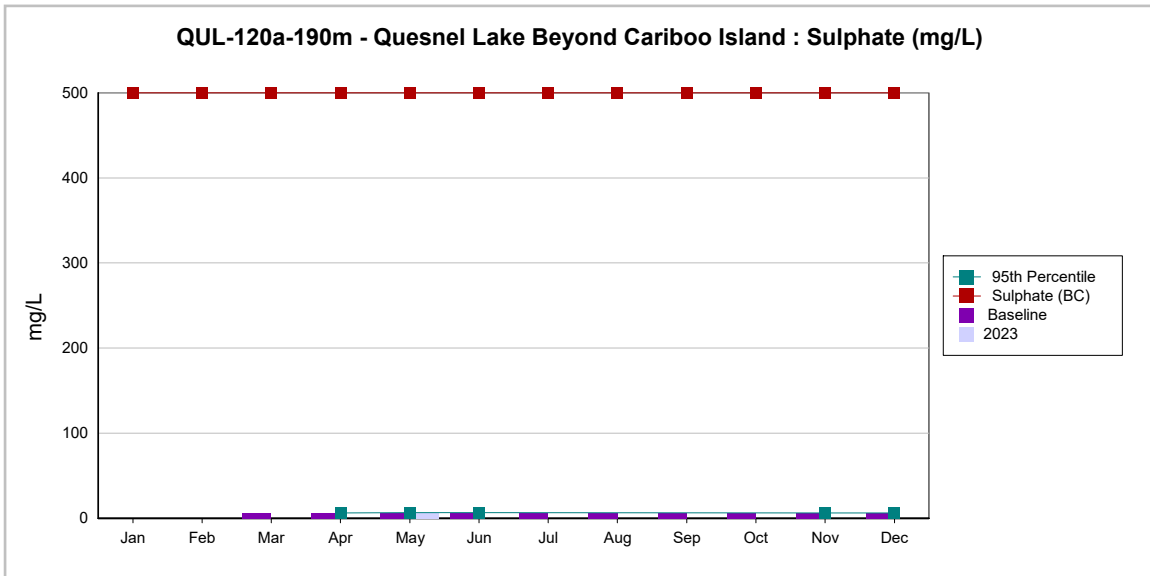
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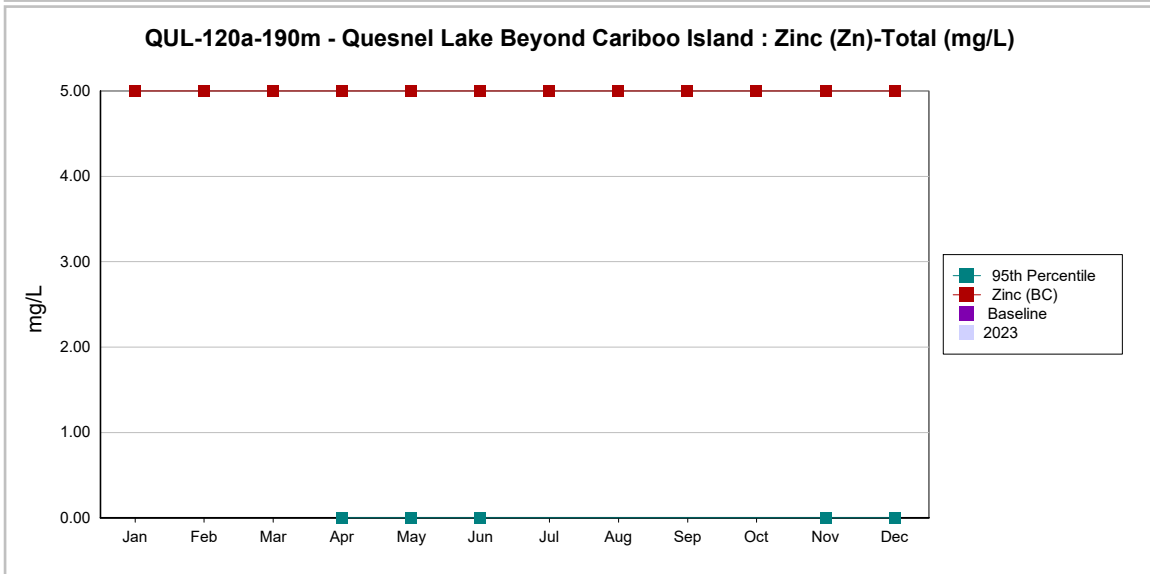
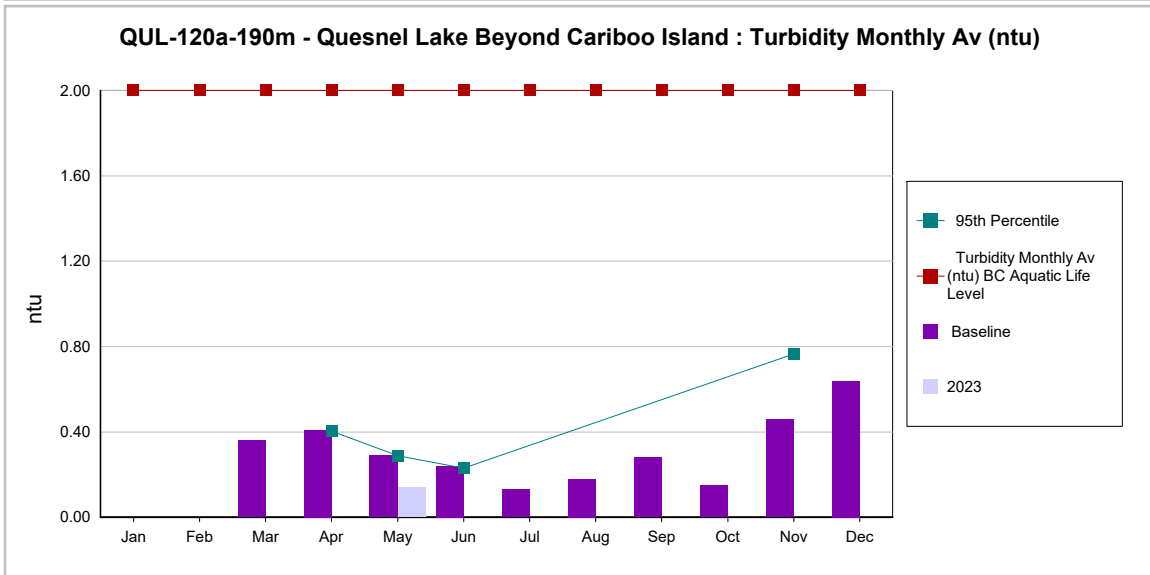
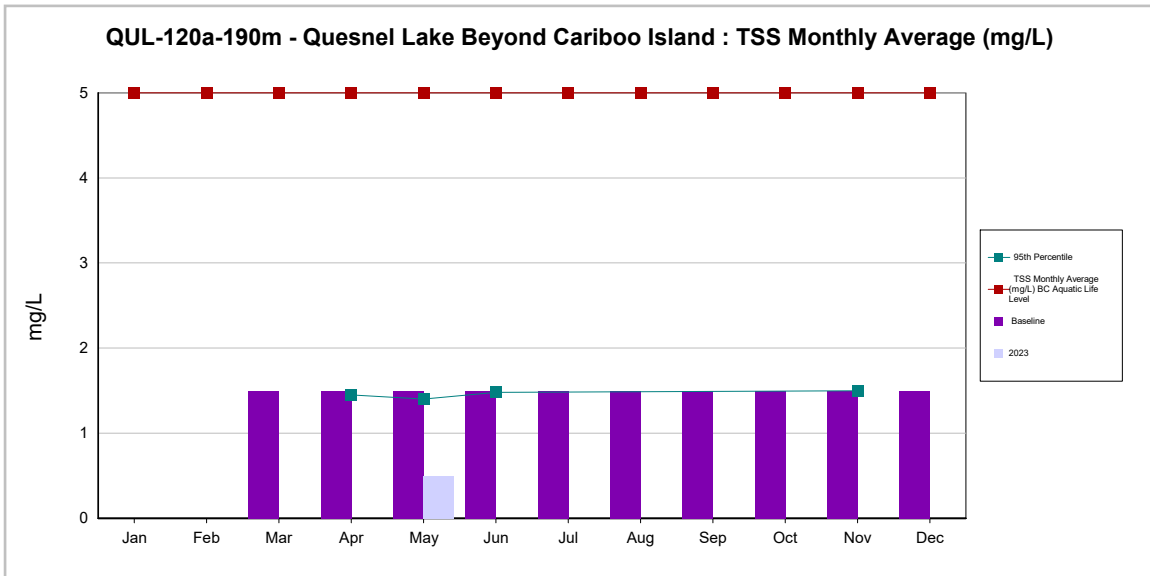
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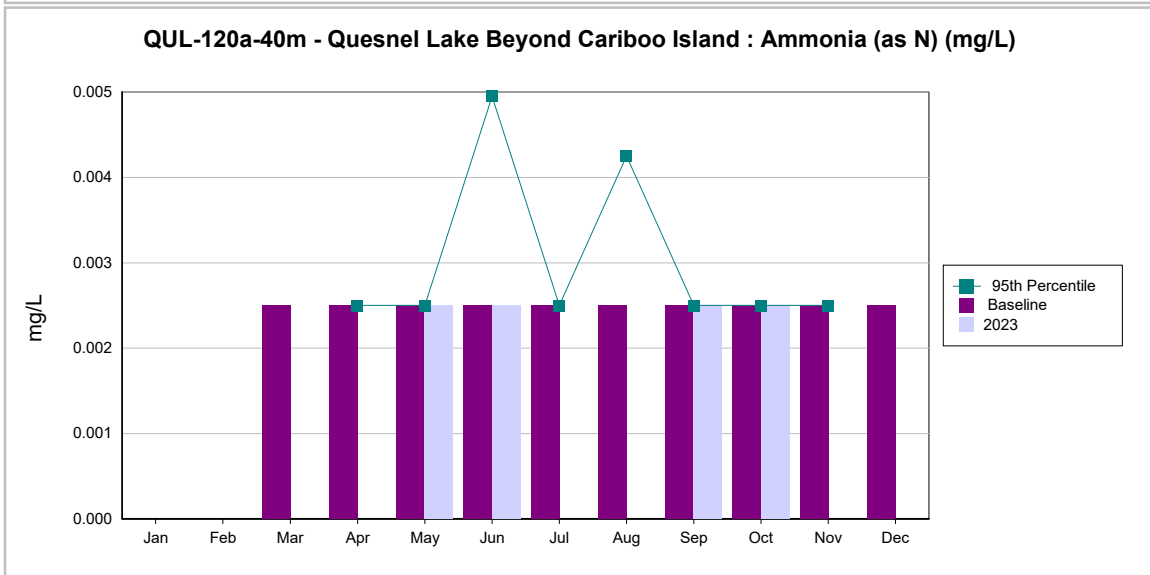
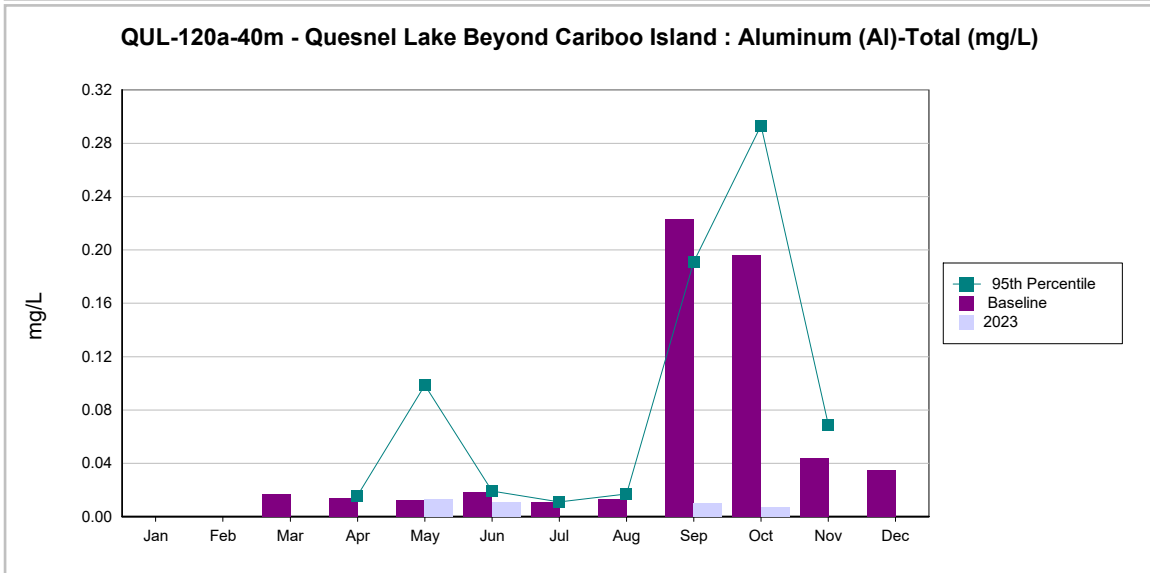
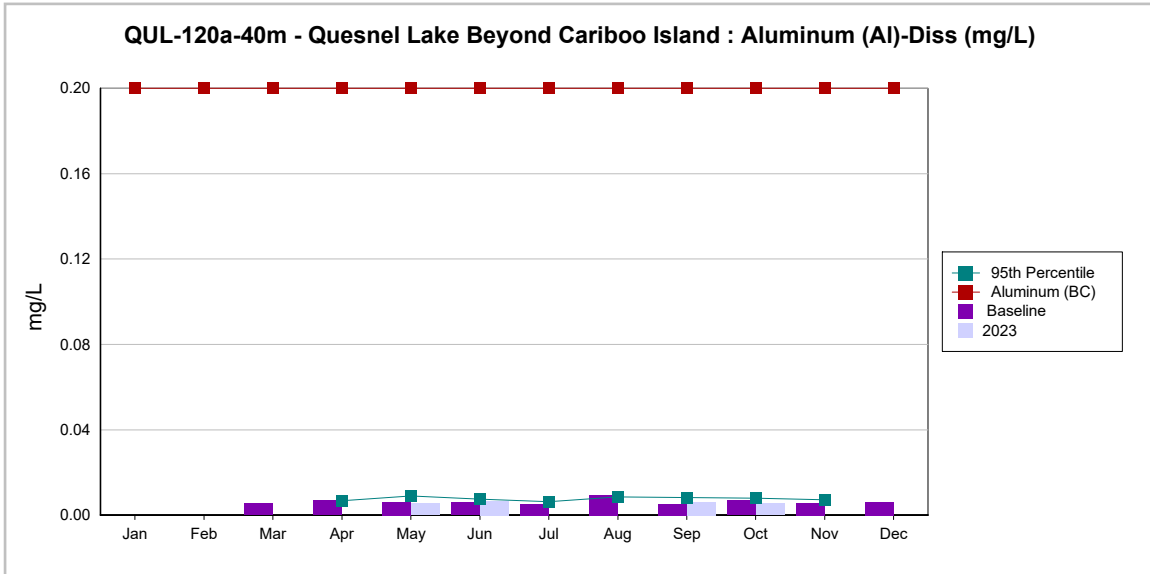
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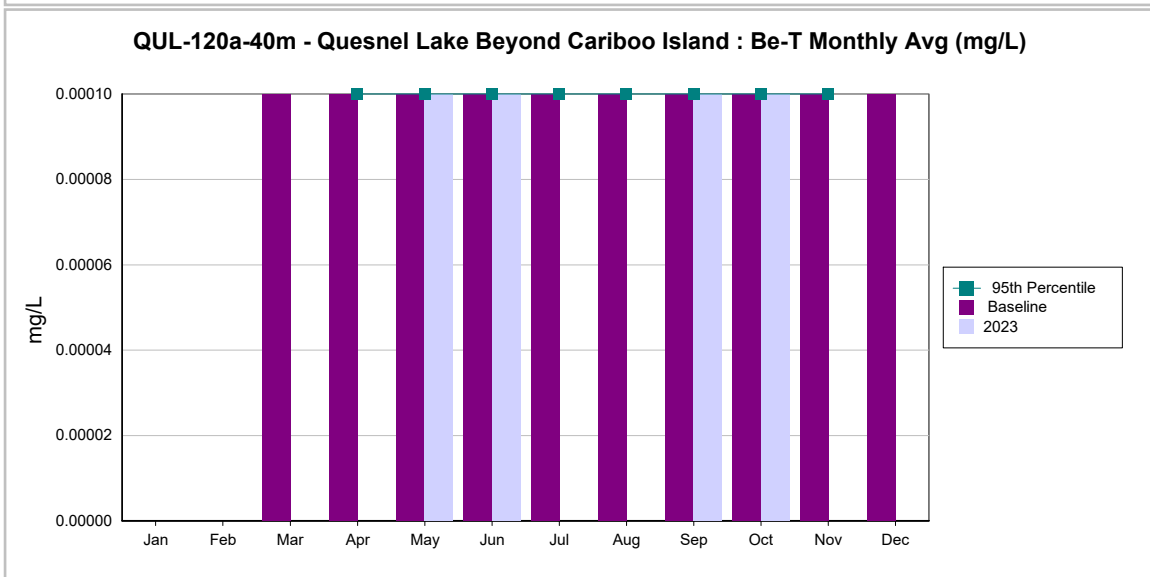
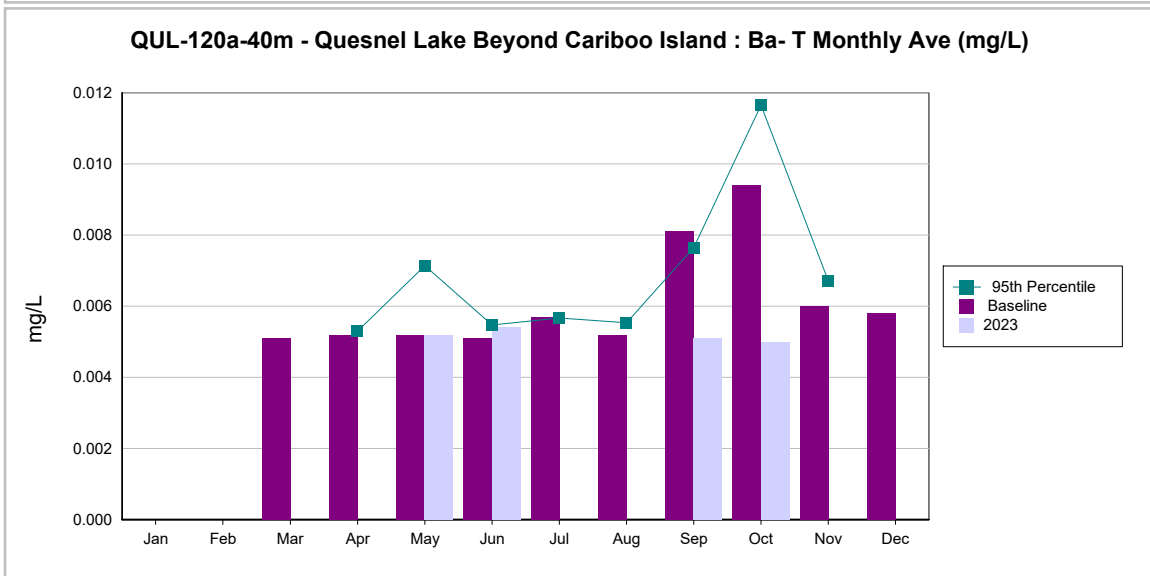
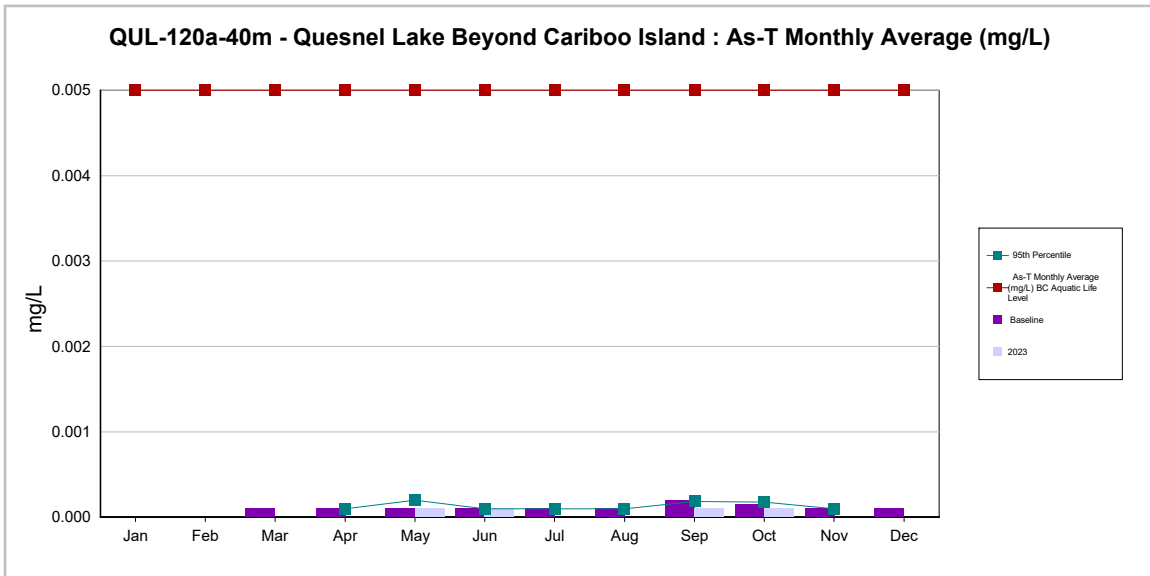
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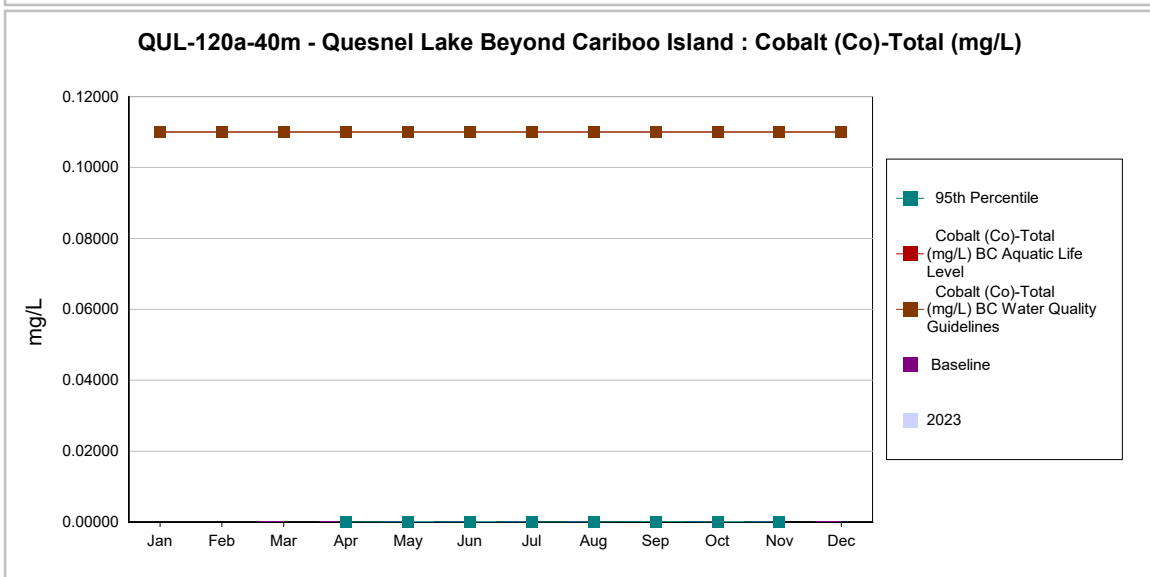
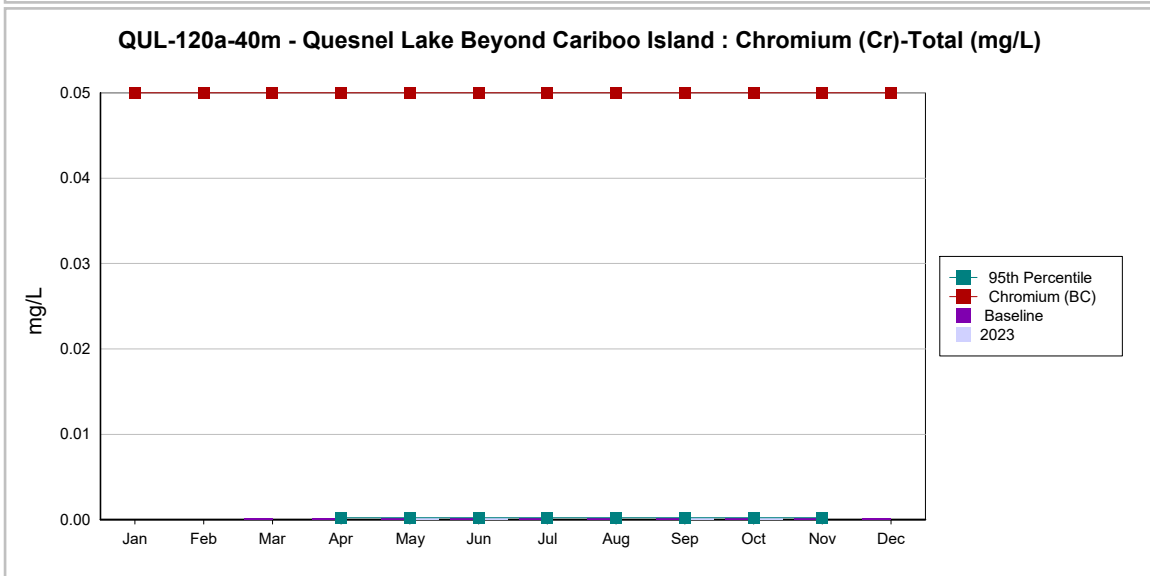
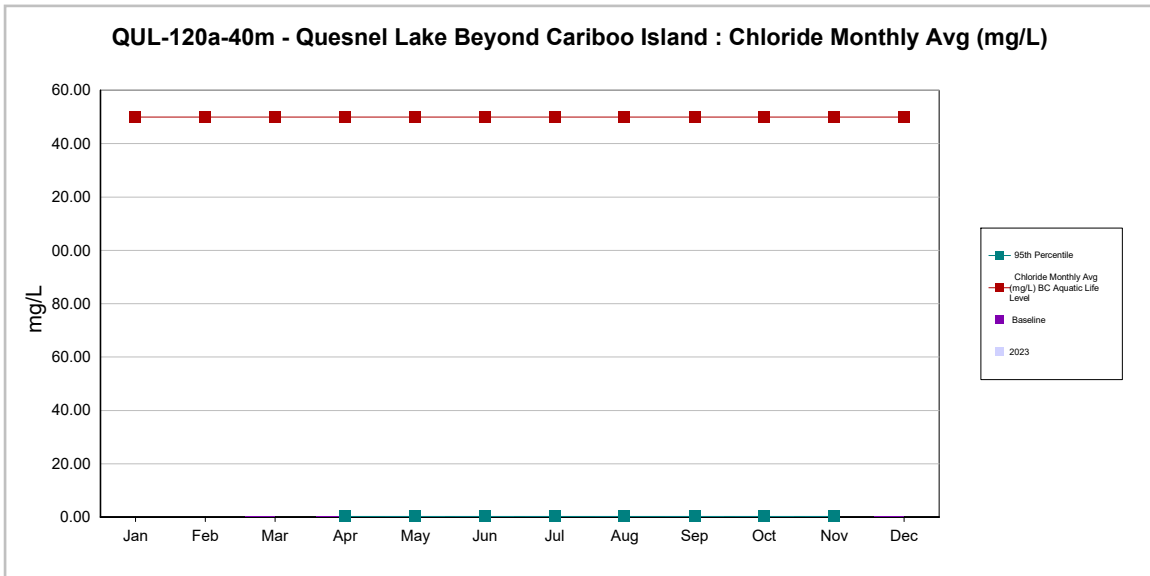
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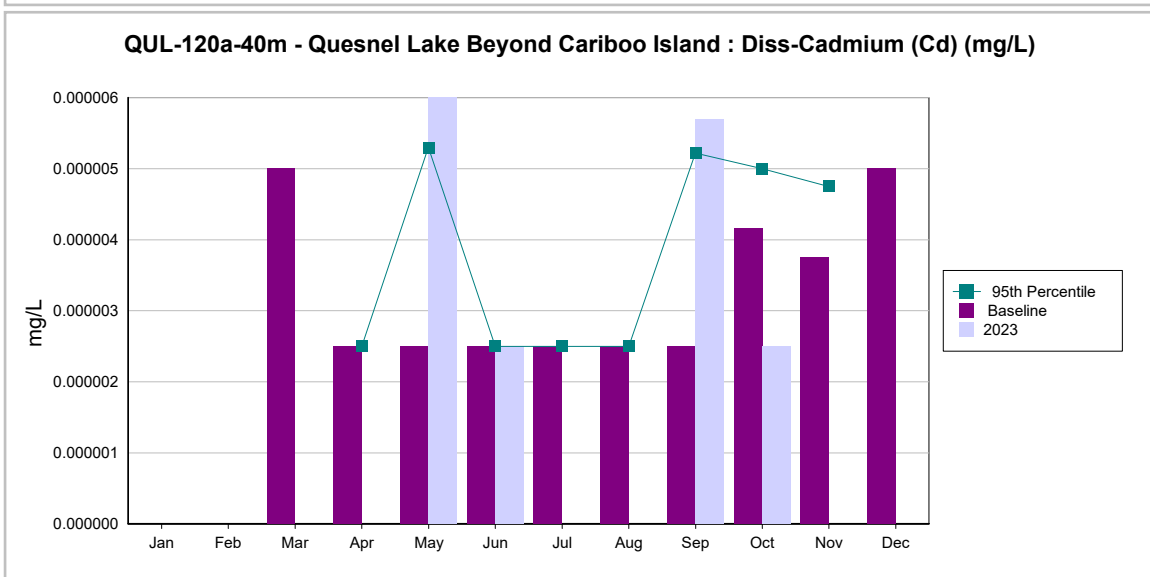
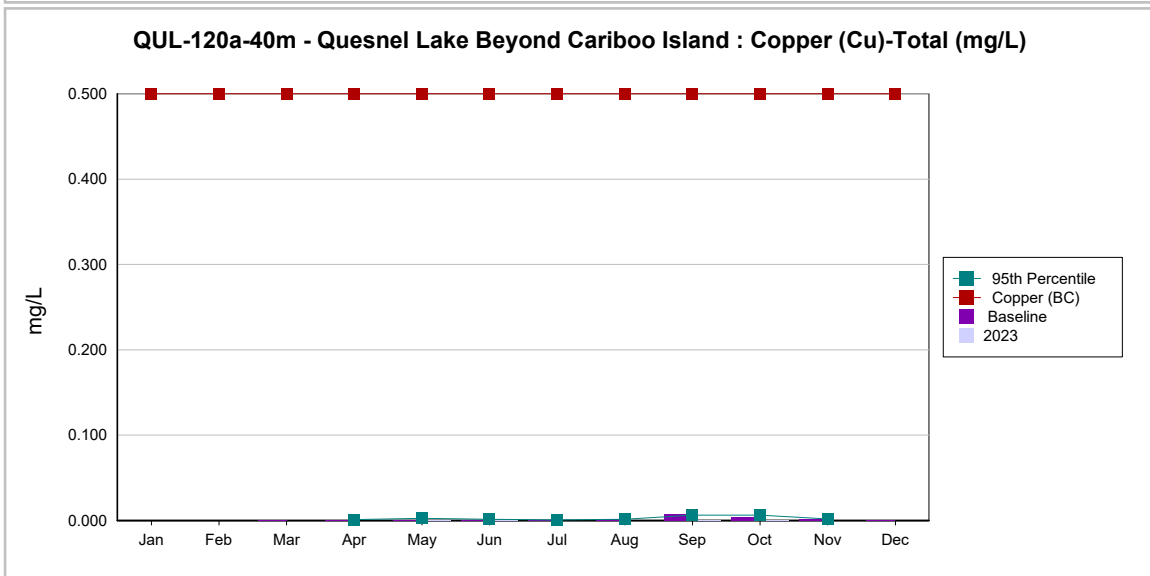
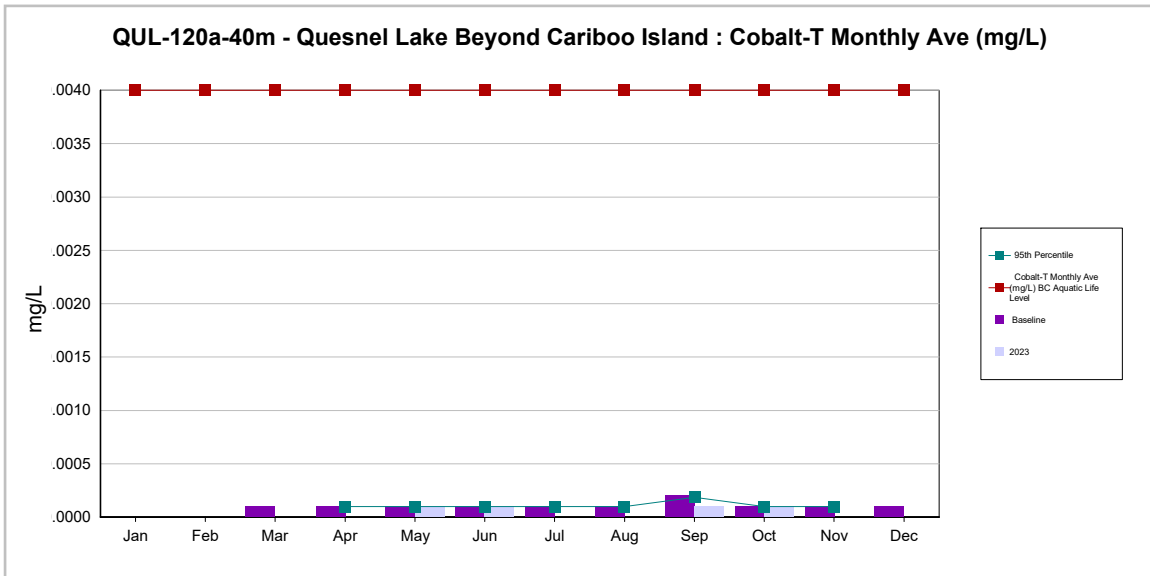
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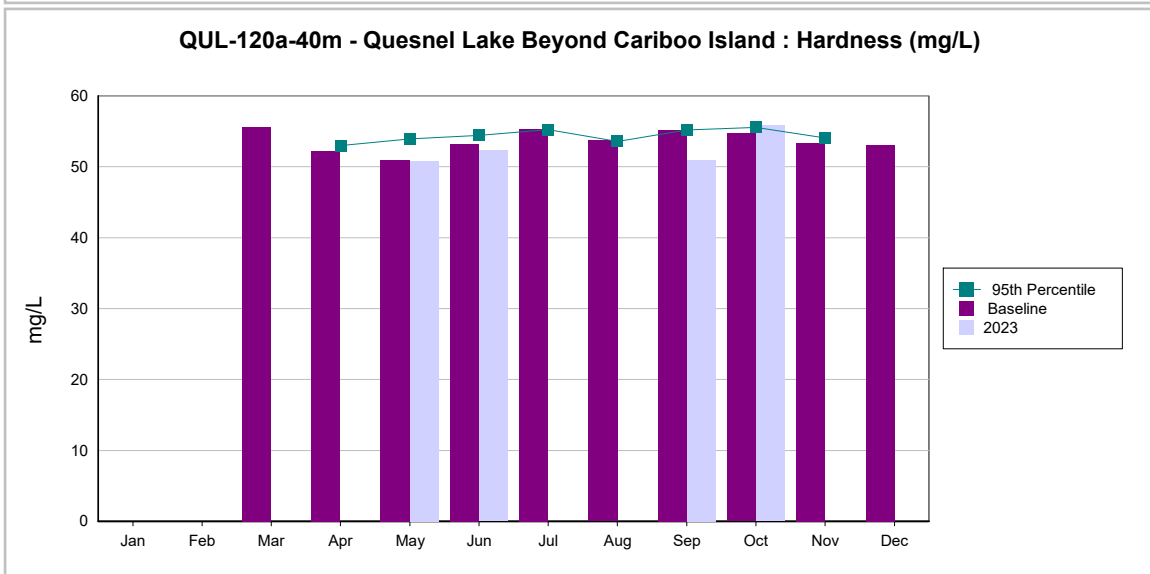
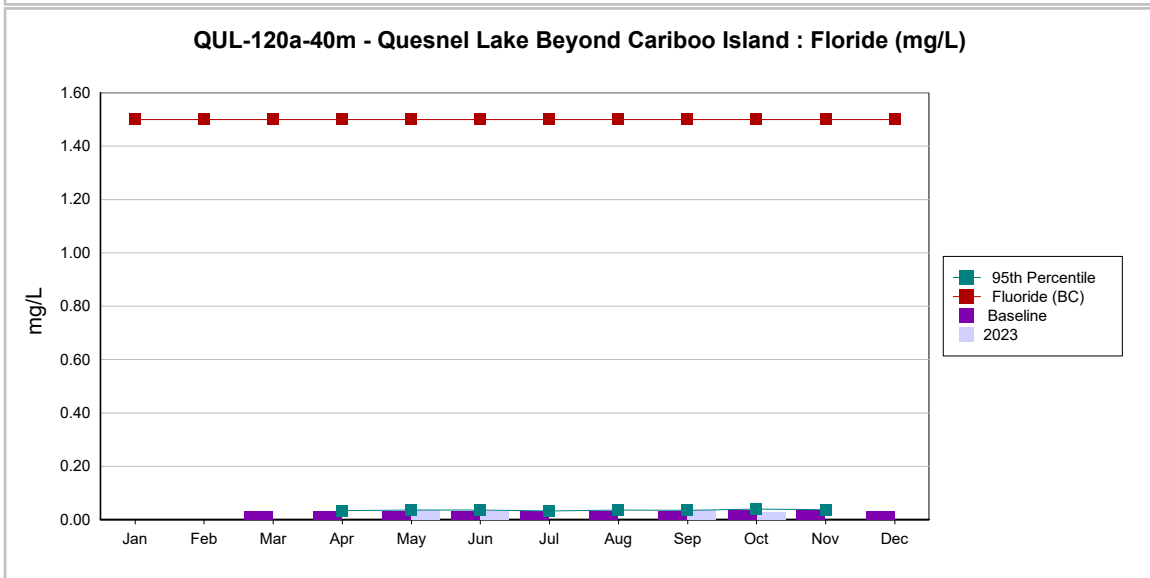
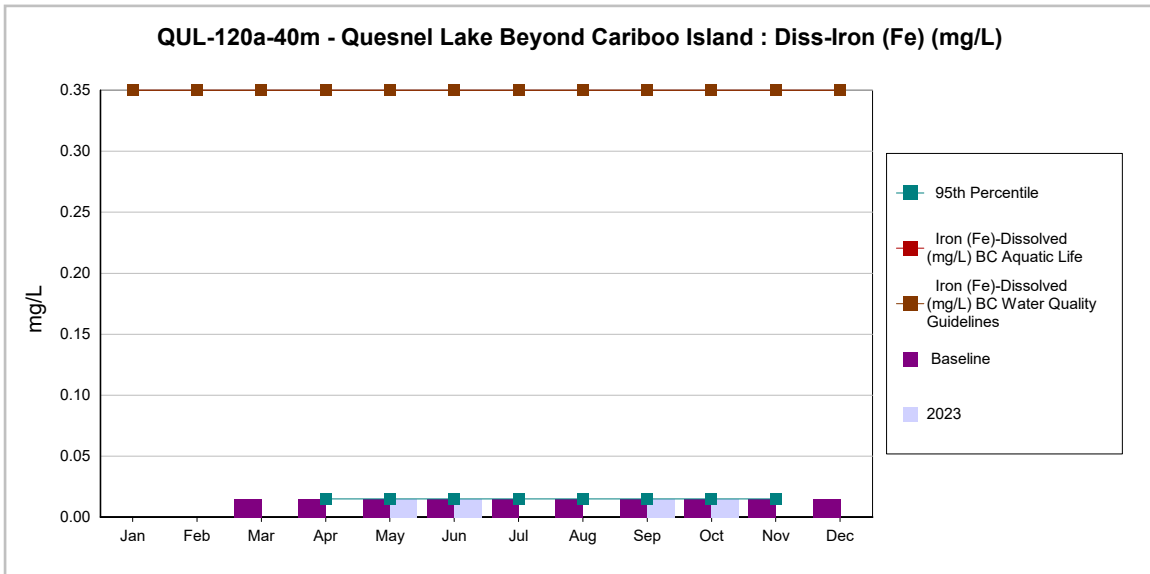
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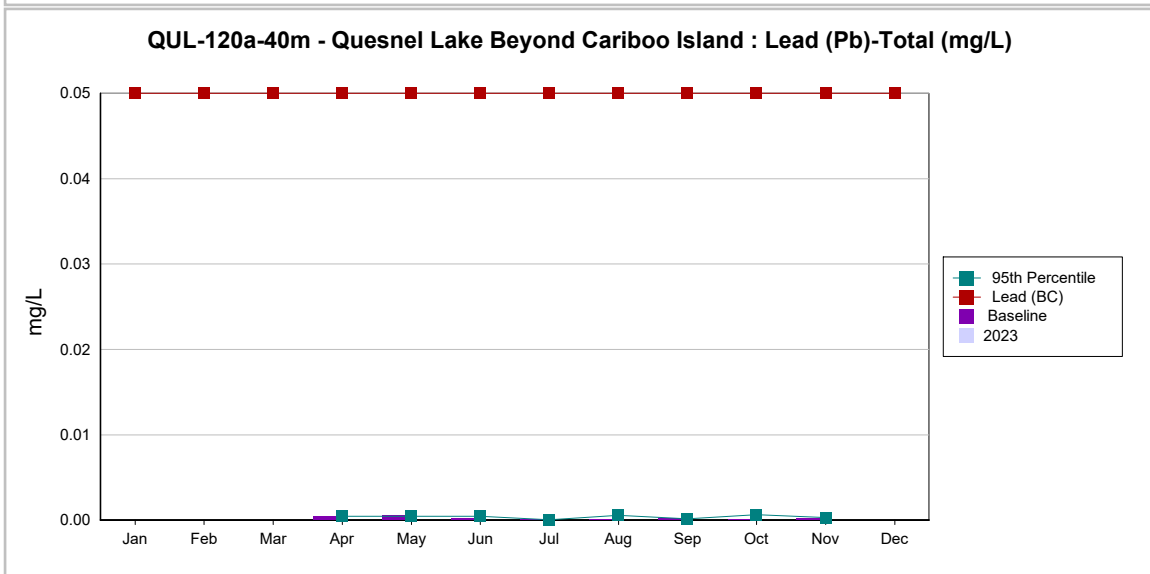
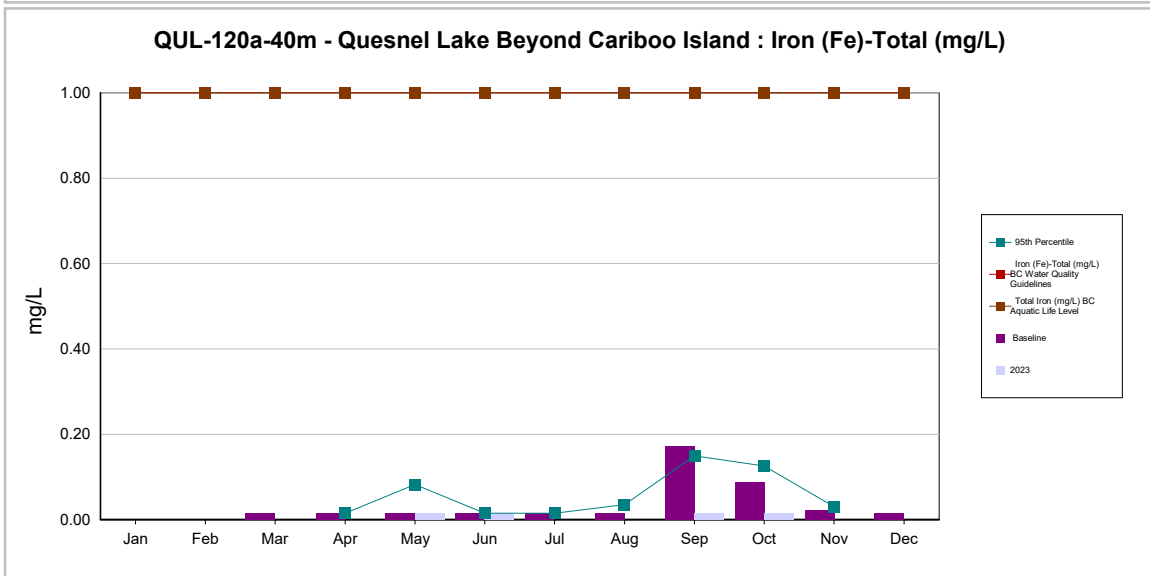
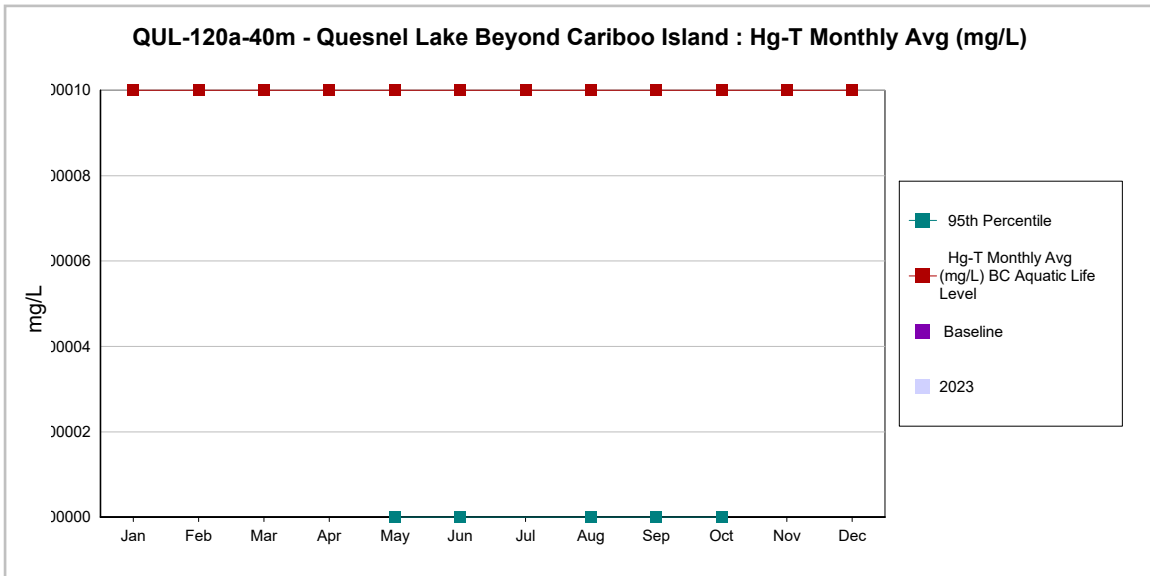
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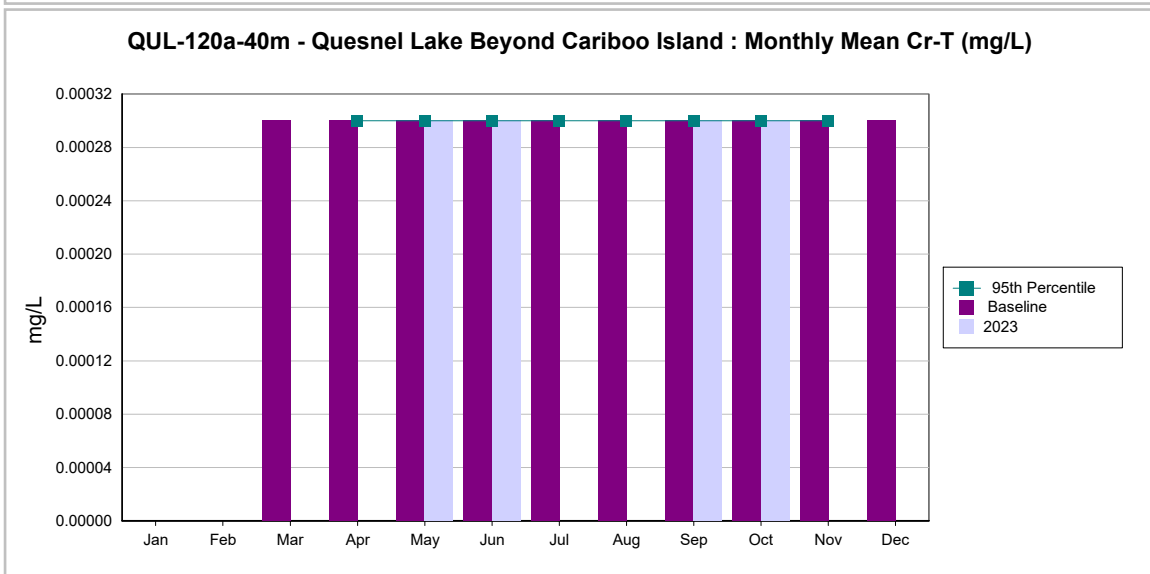
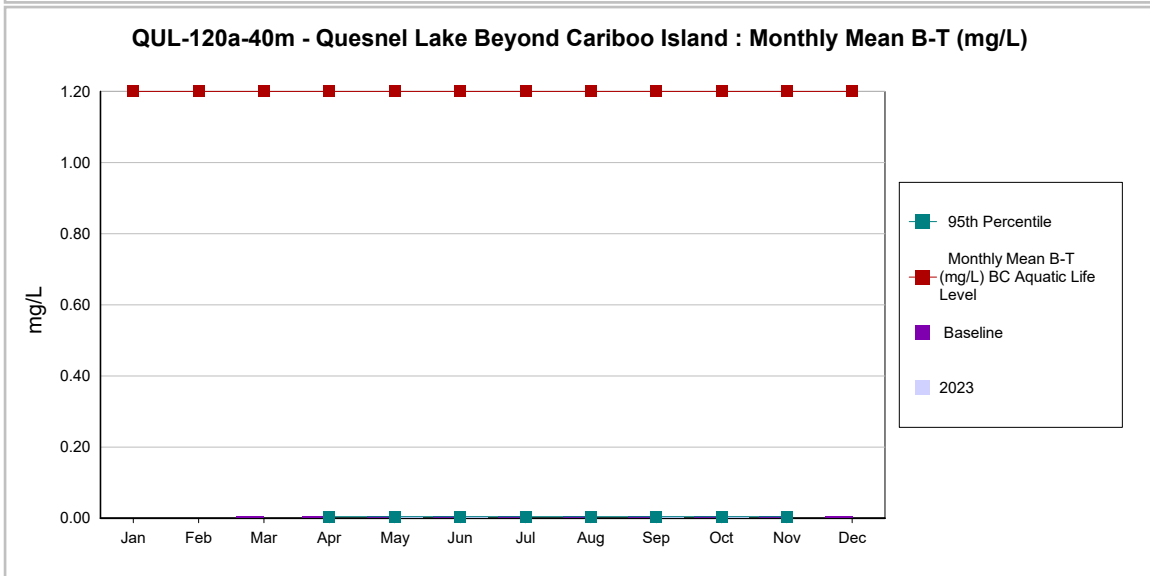
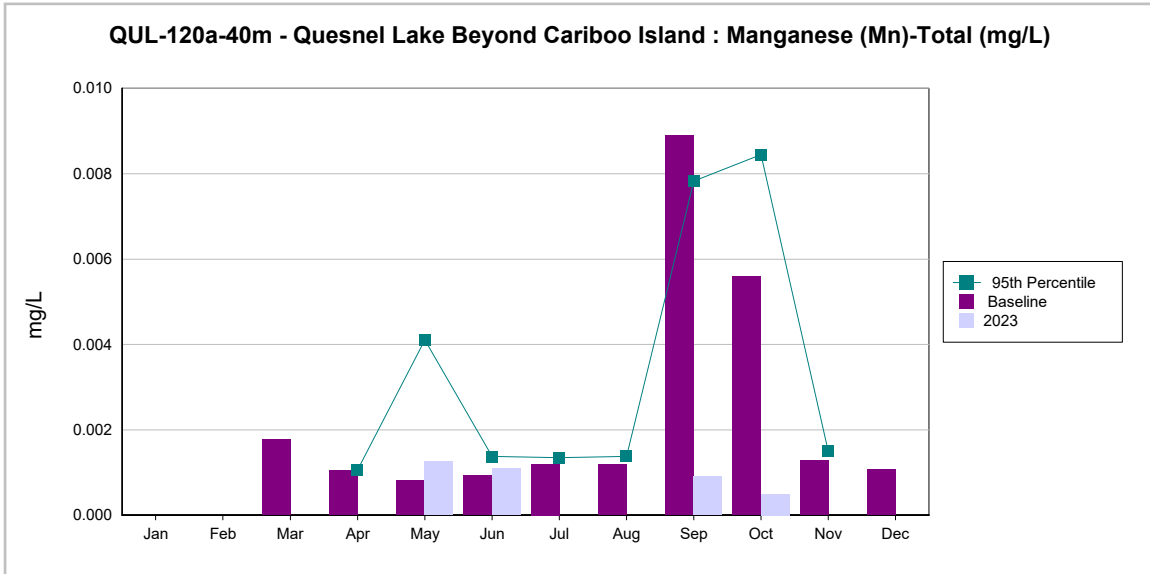
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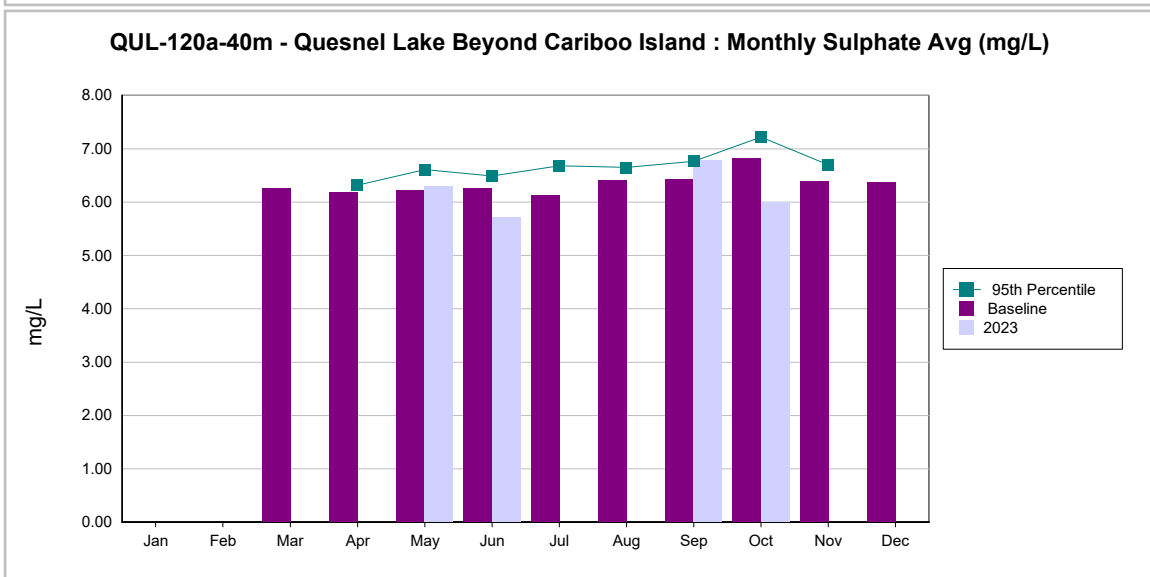
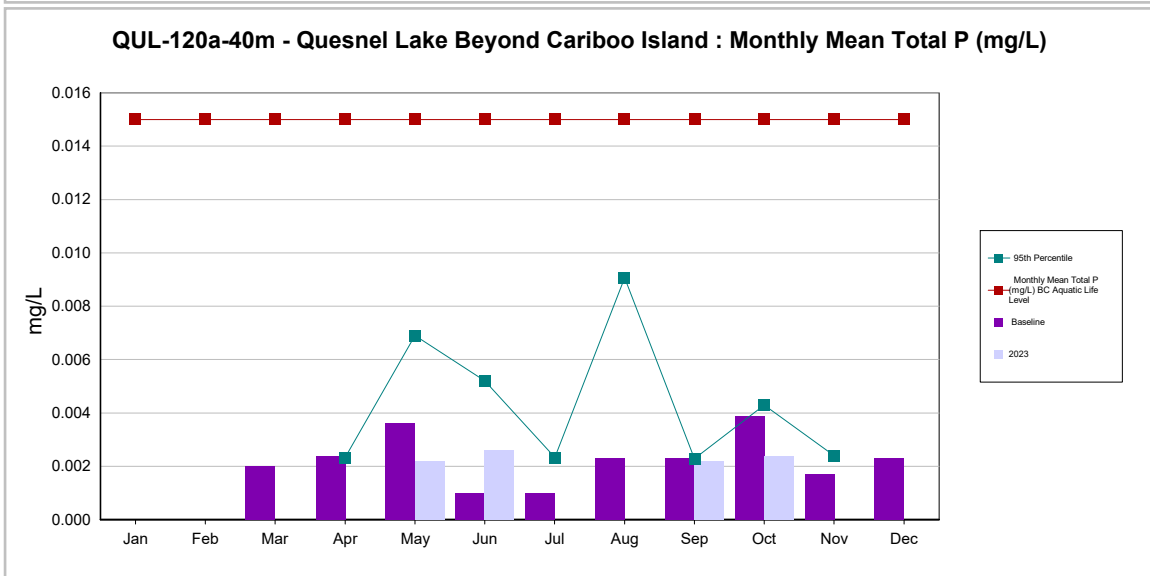
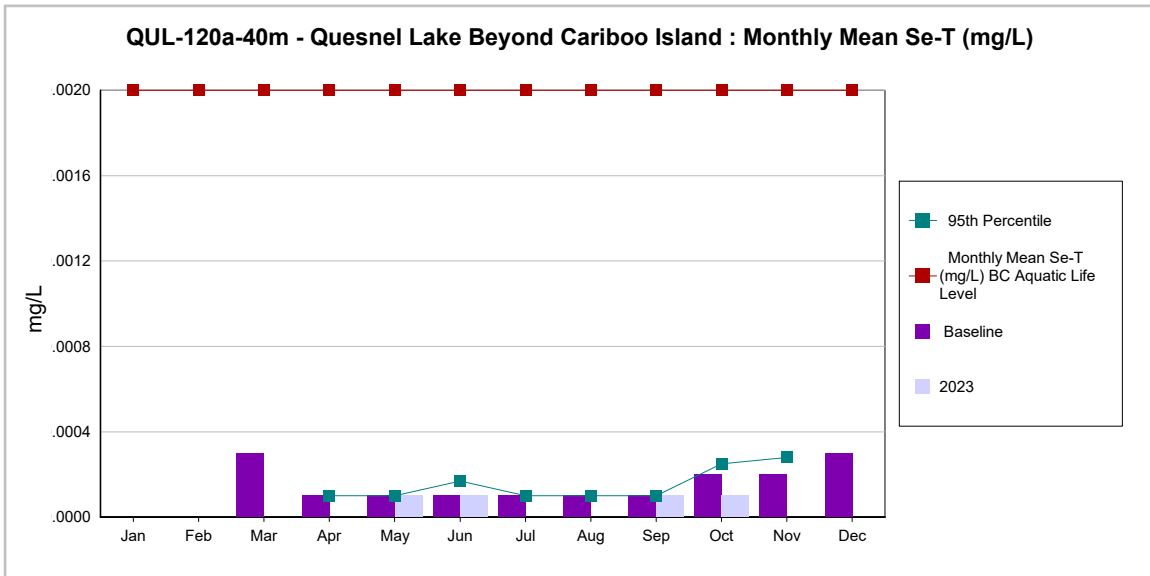
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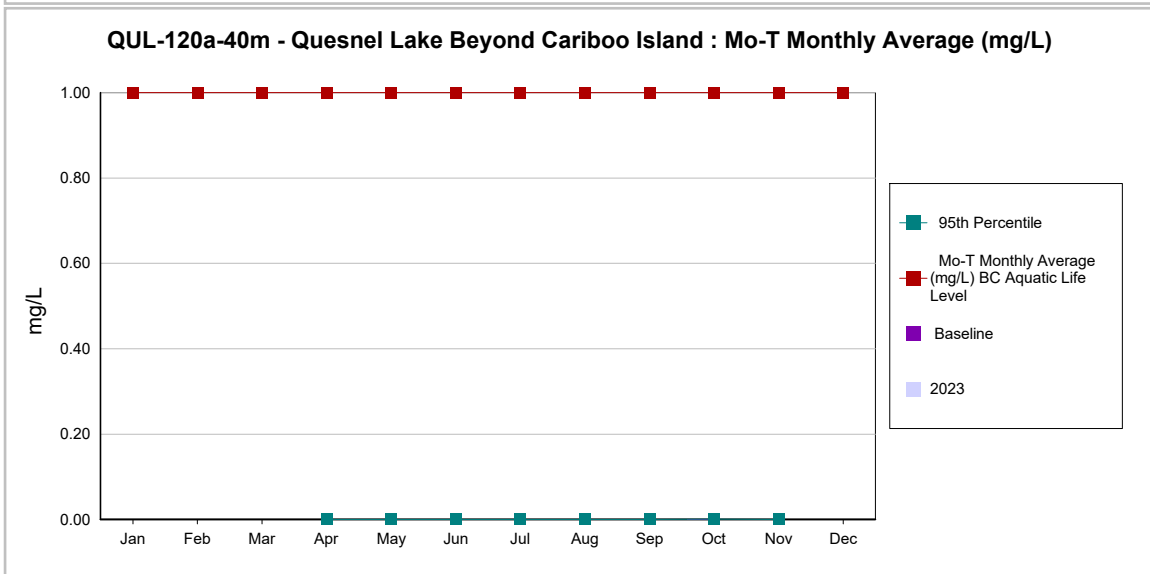
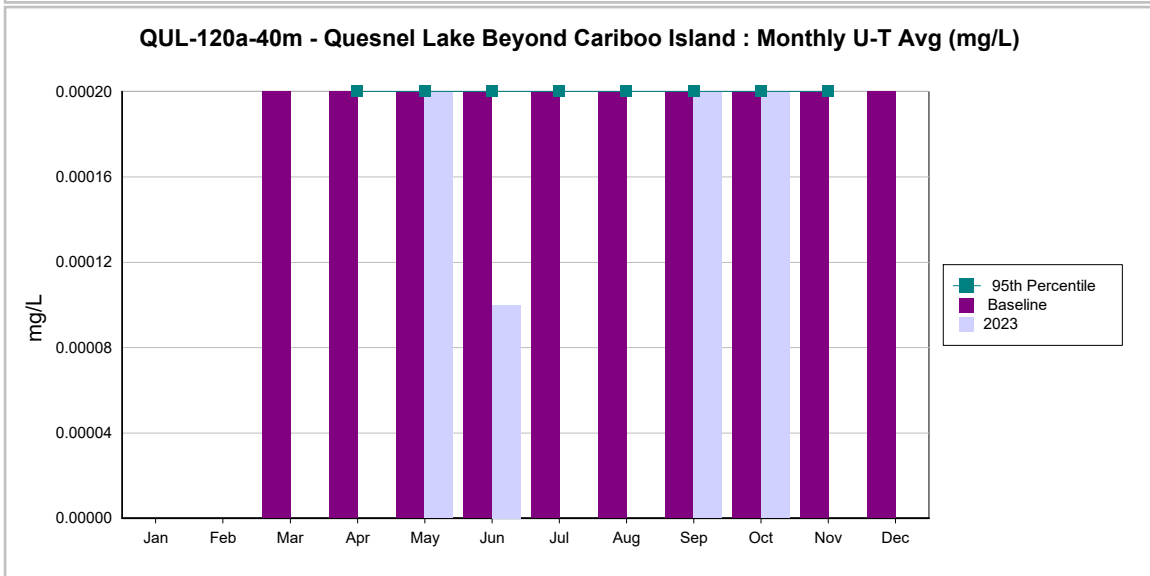
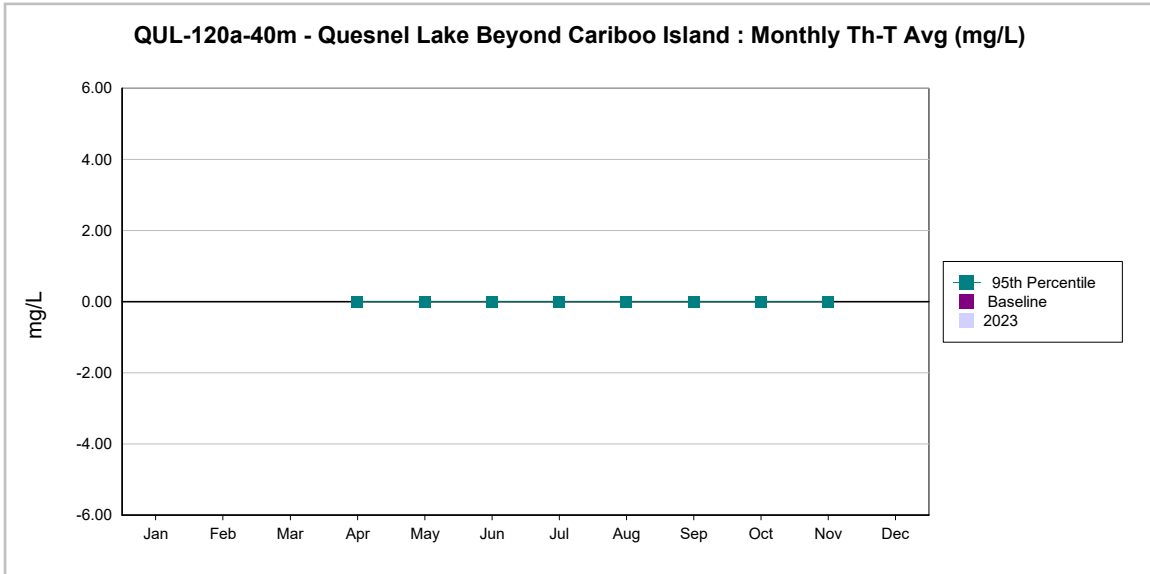
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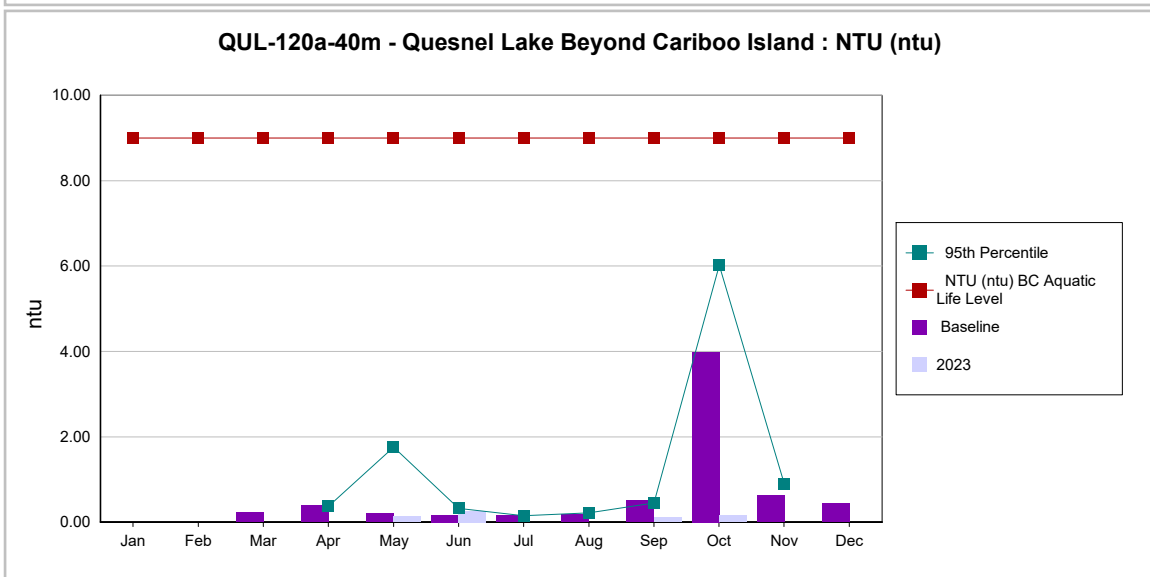
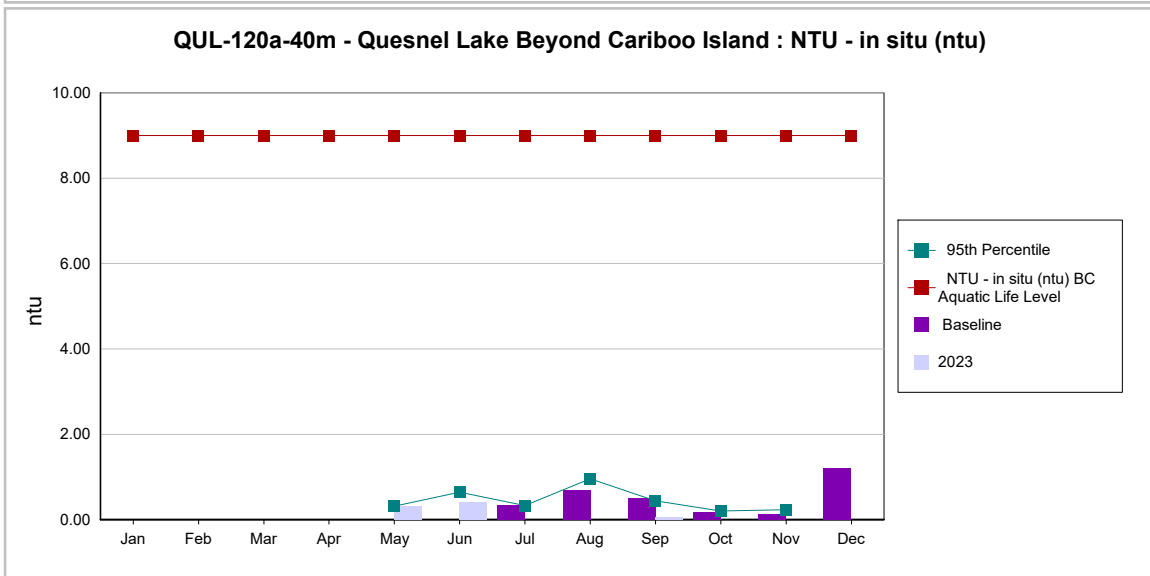
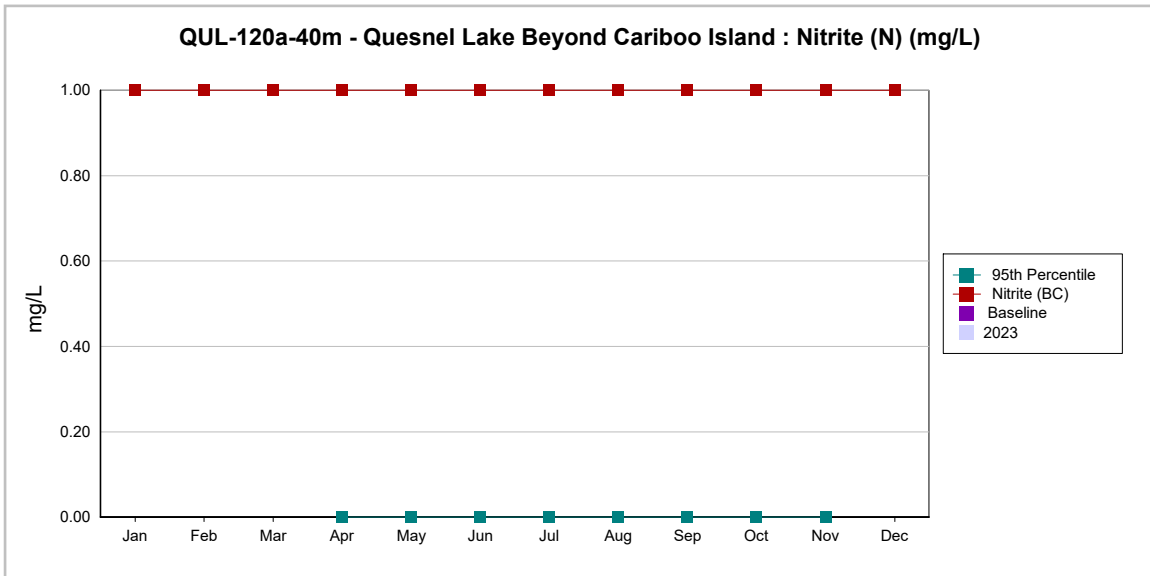
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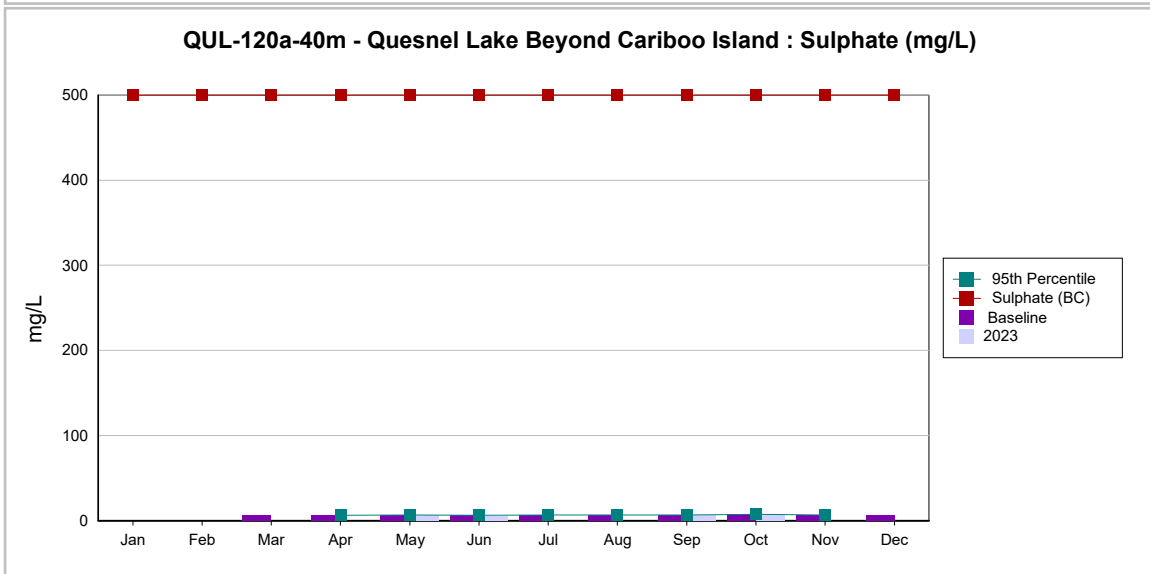
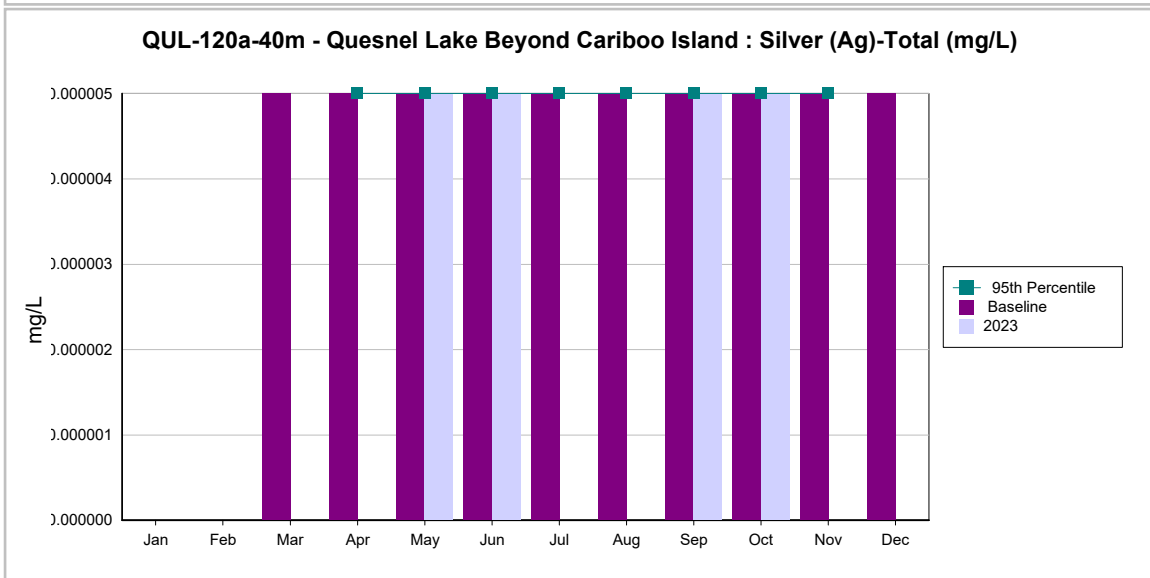
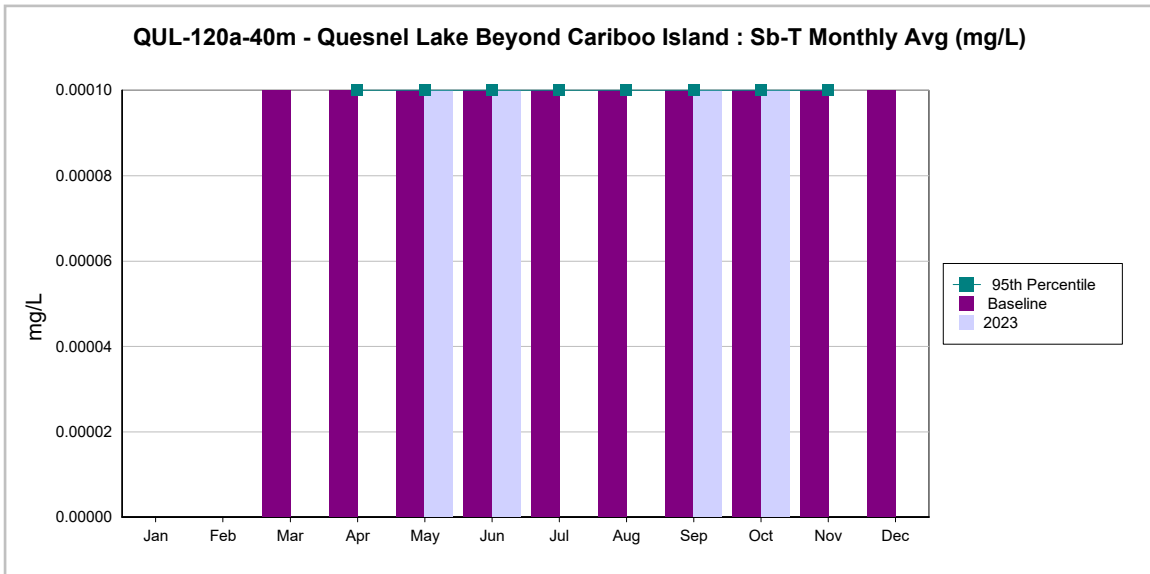
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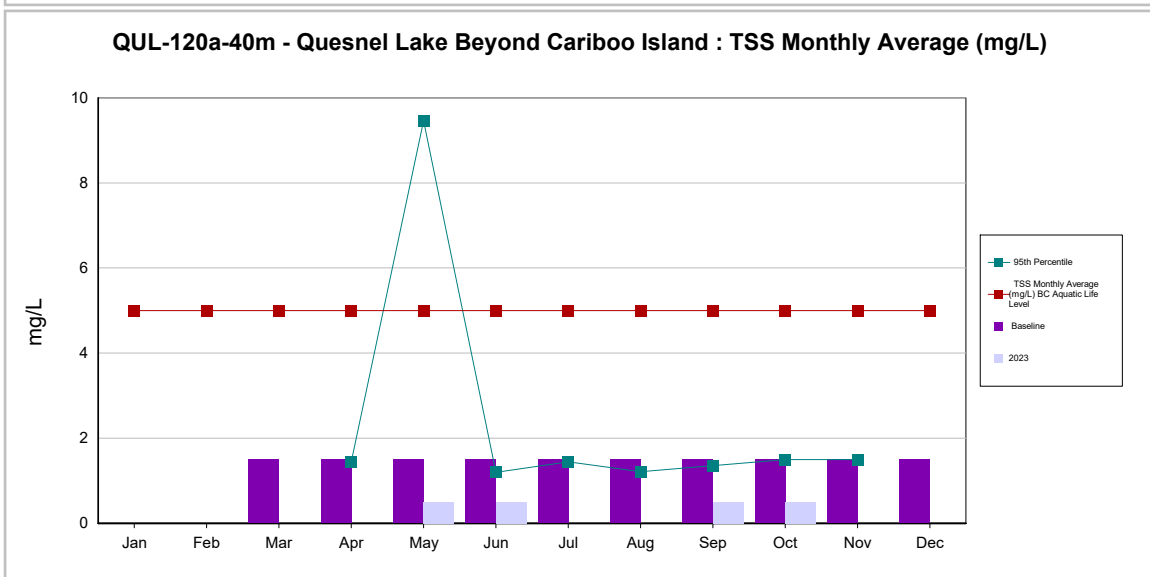
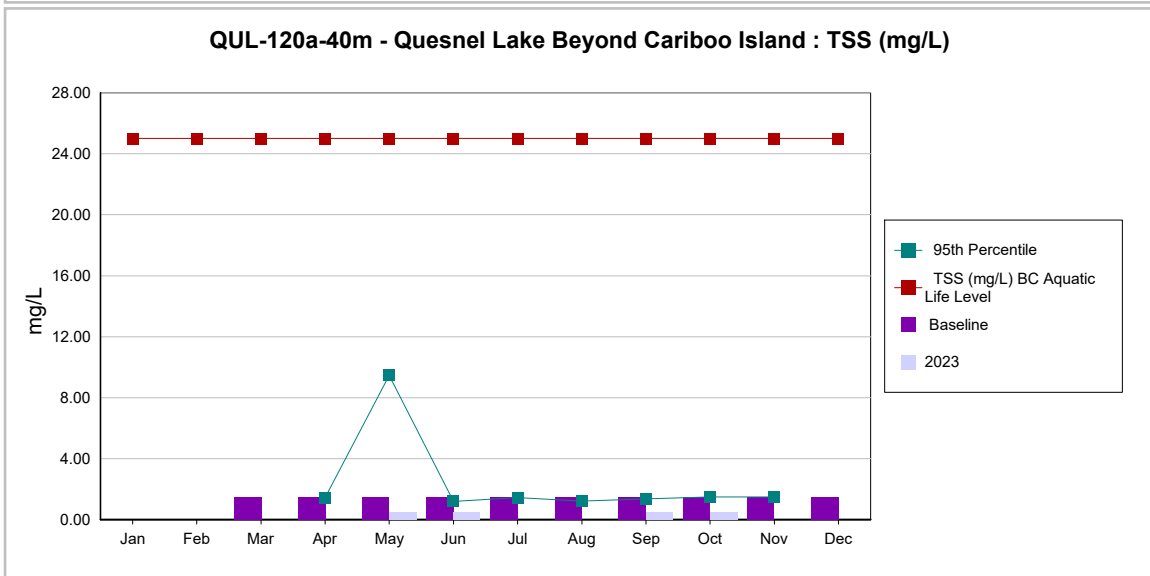
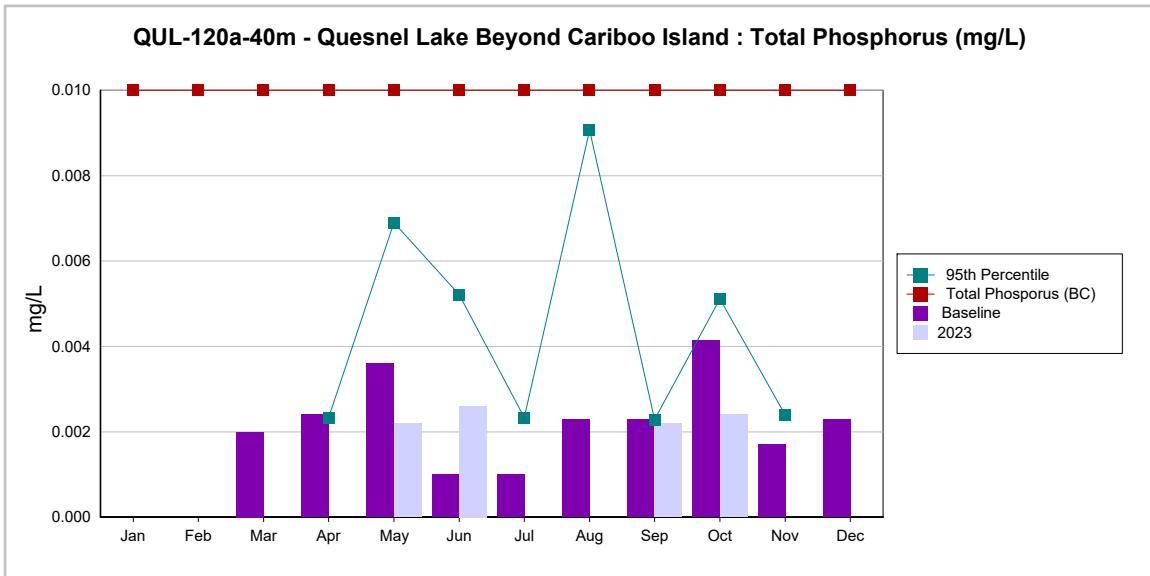
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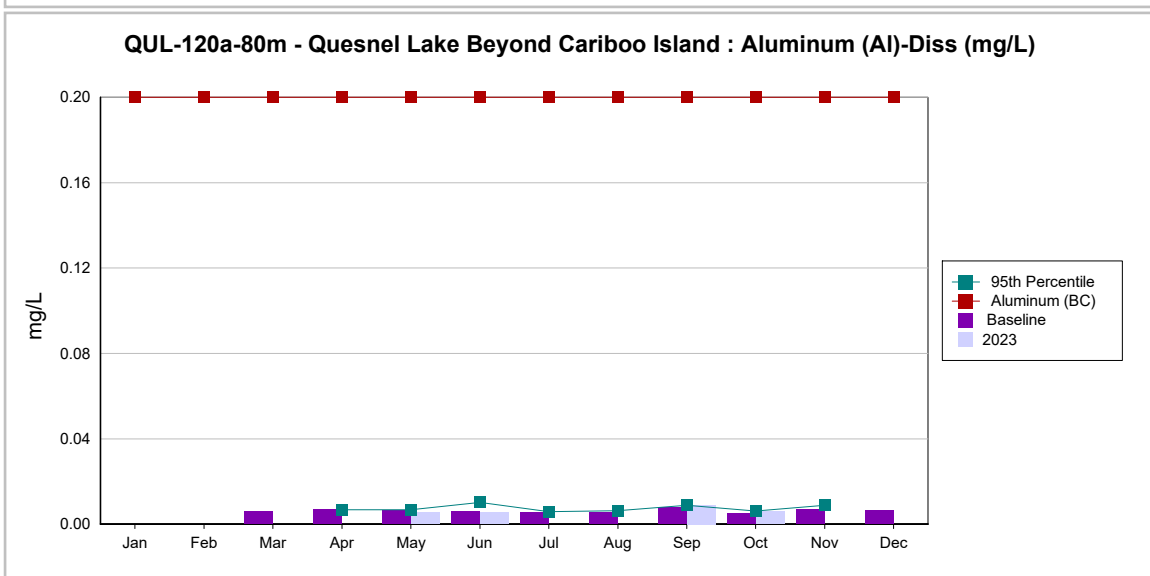
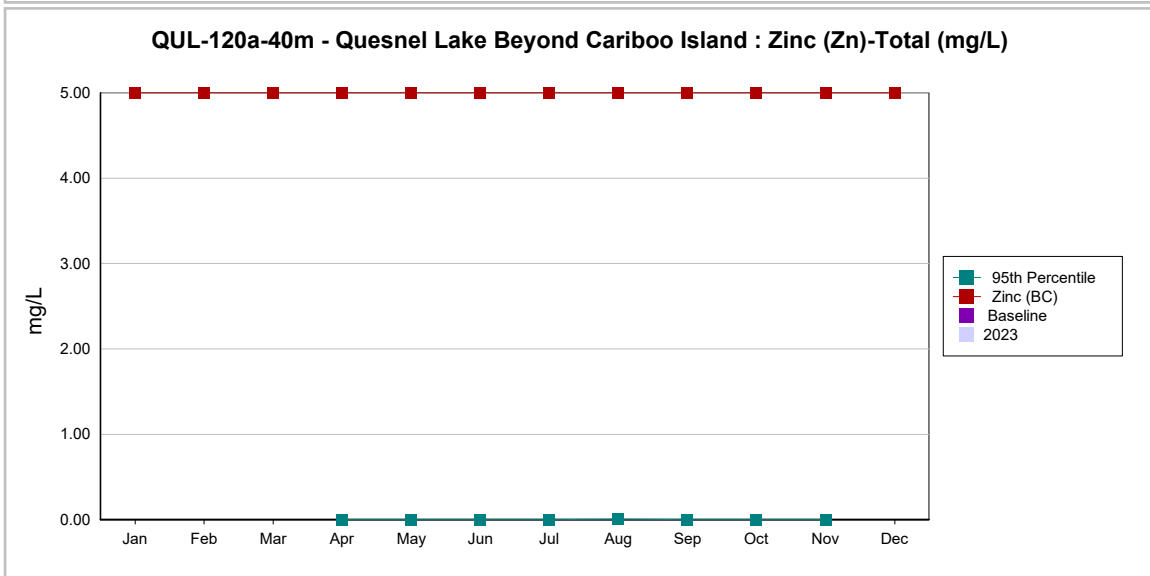
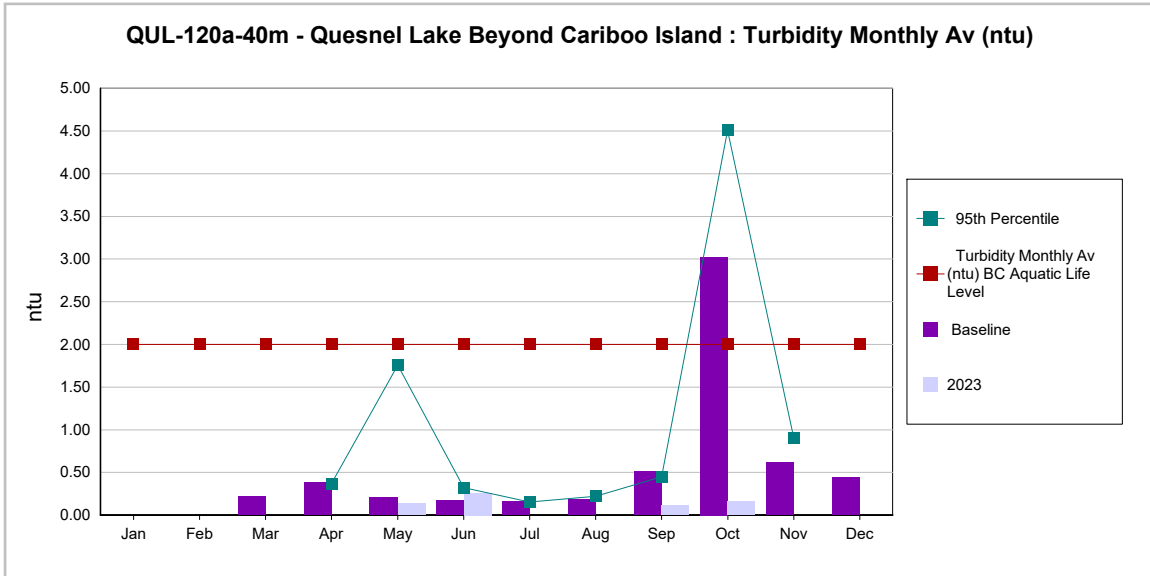
Annual Report Lake vs BCWQG



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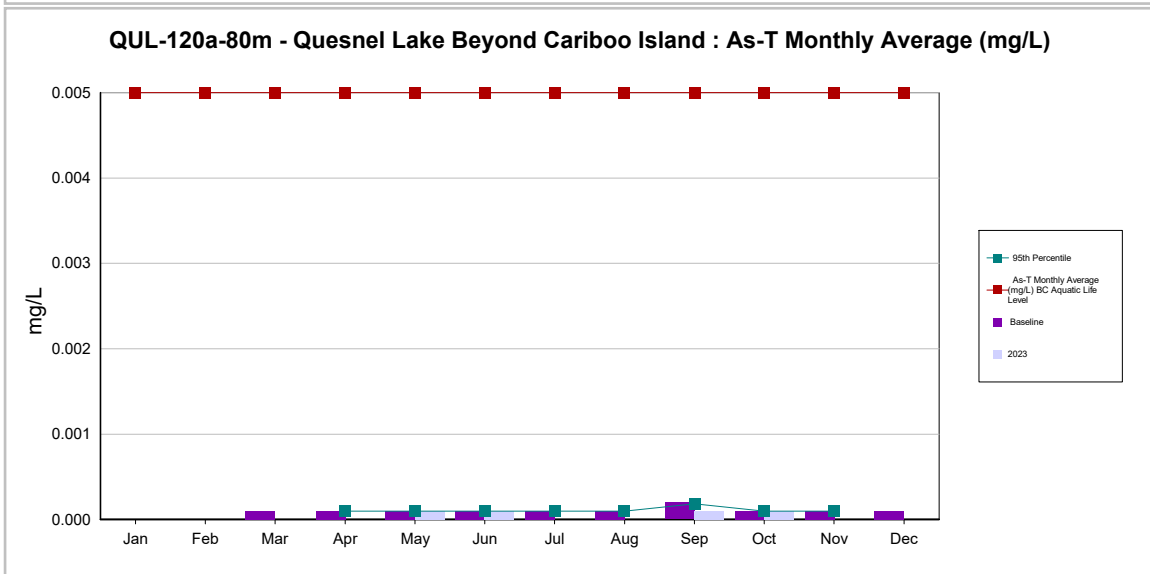
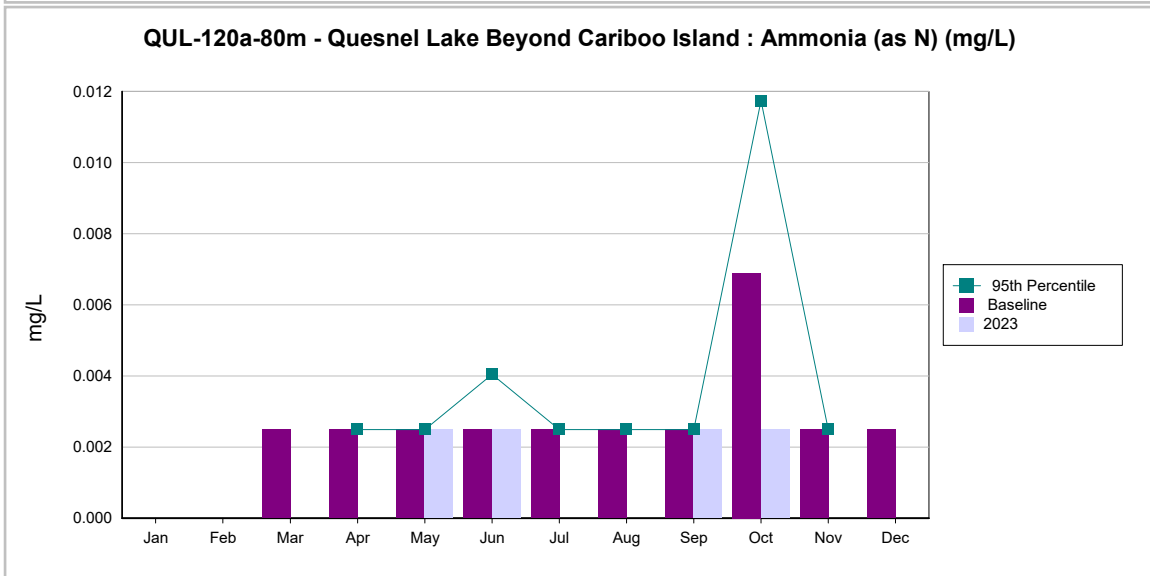
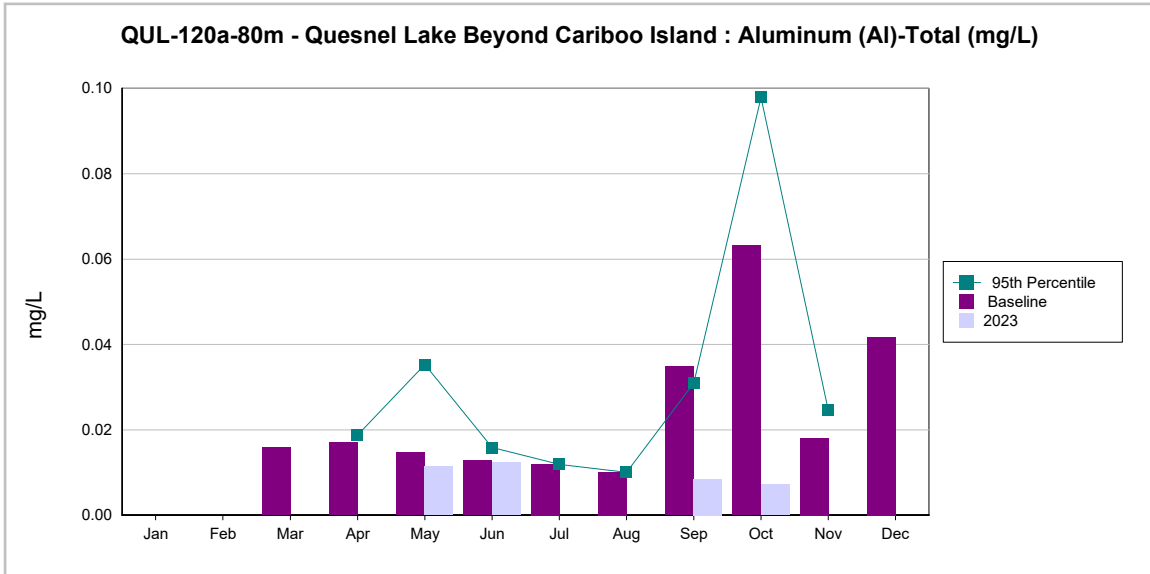
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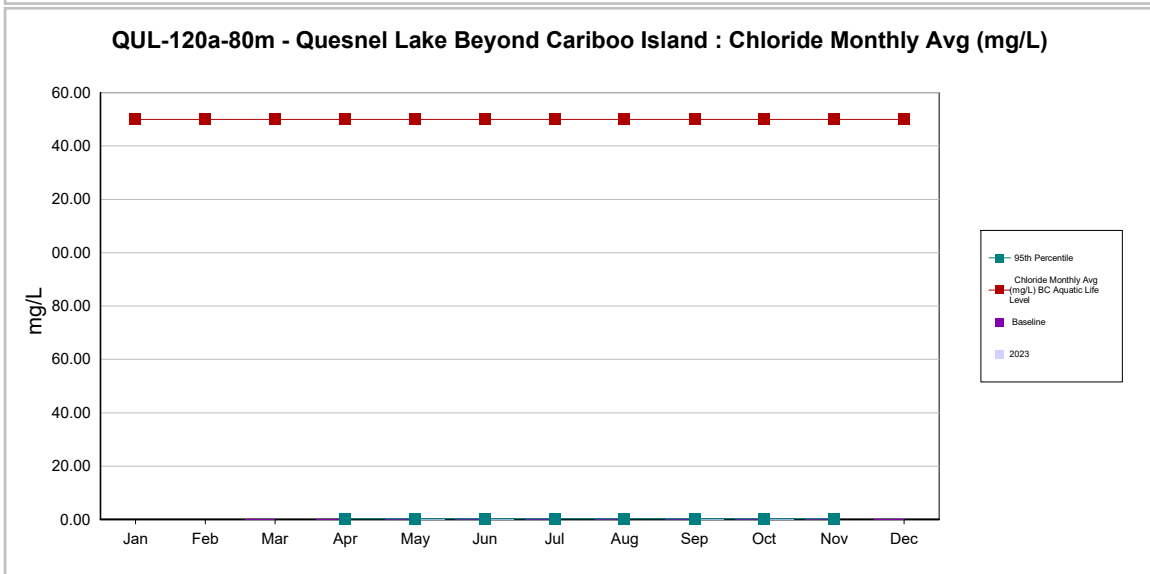
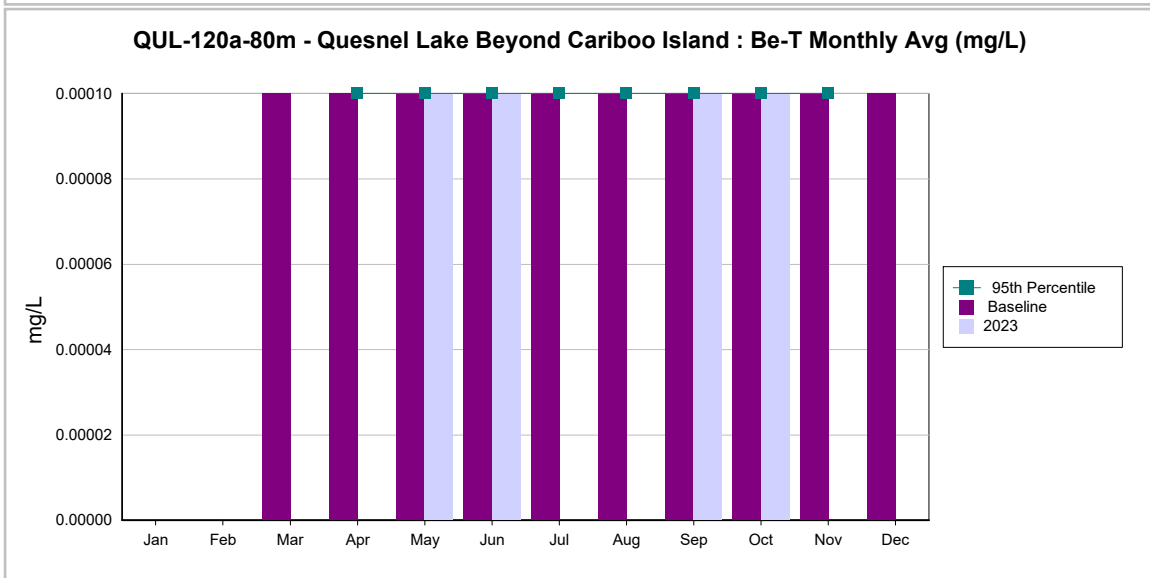
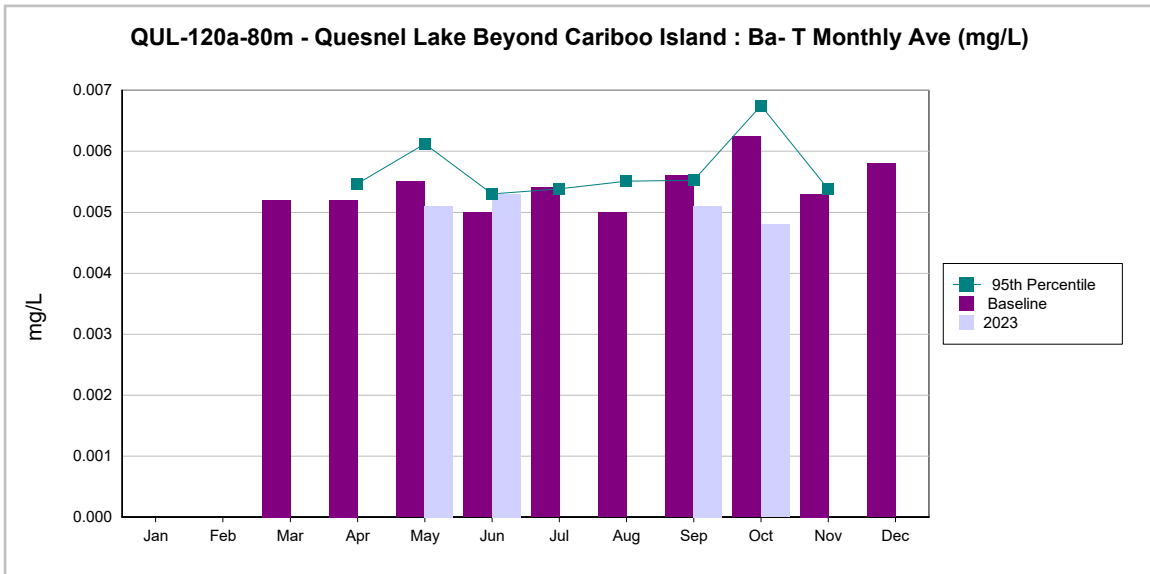
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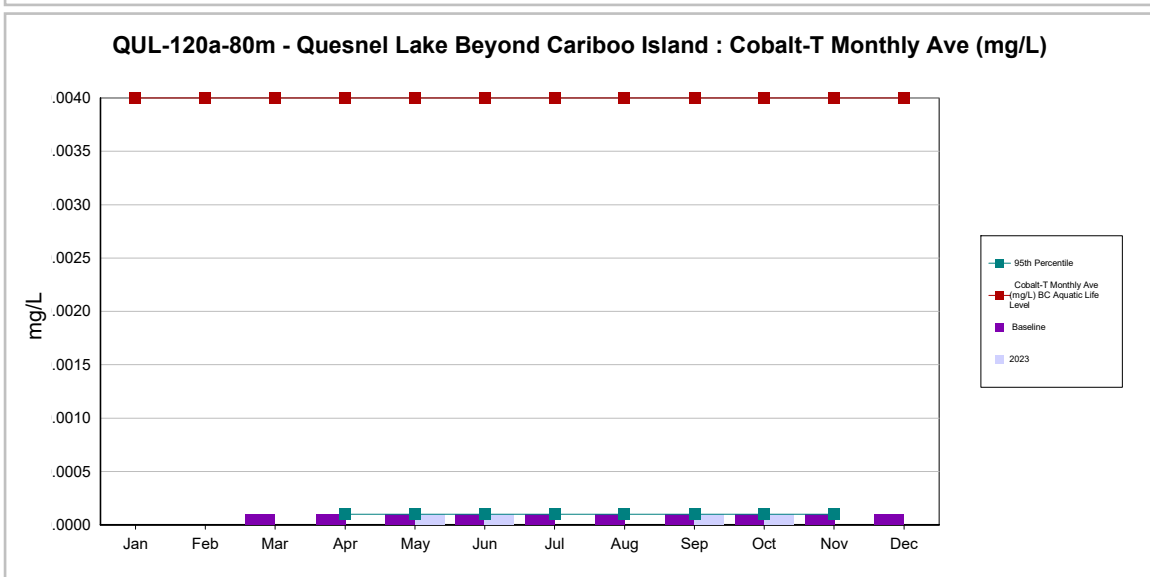
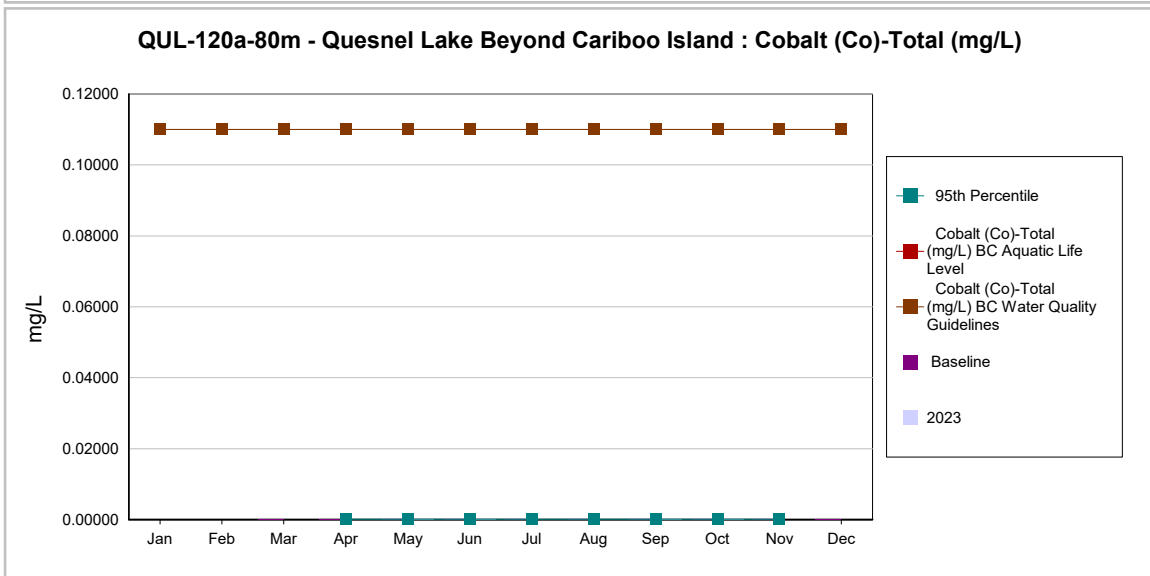
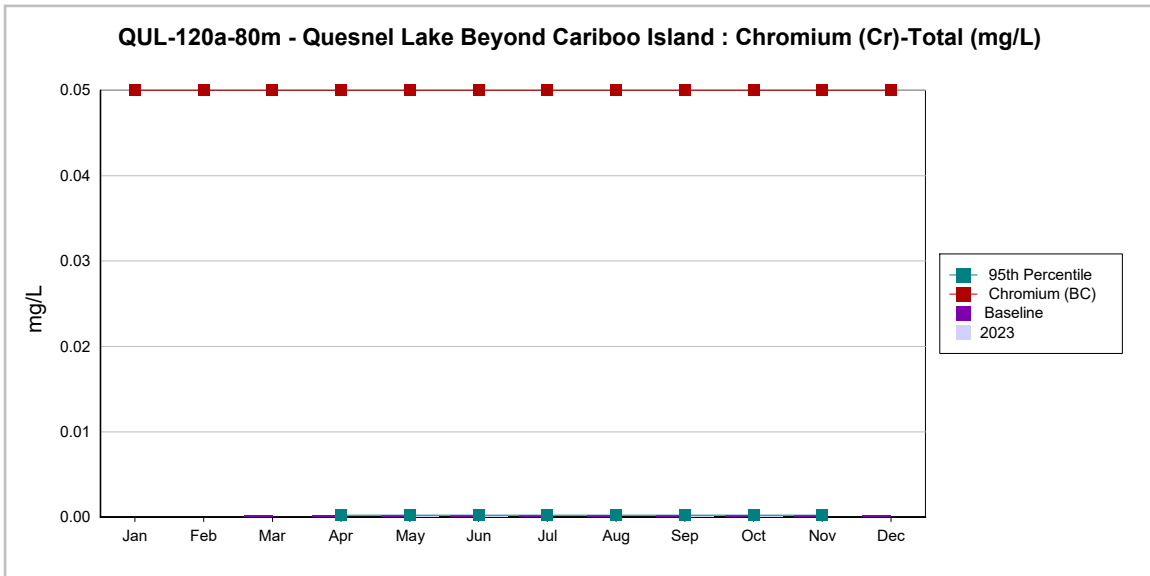
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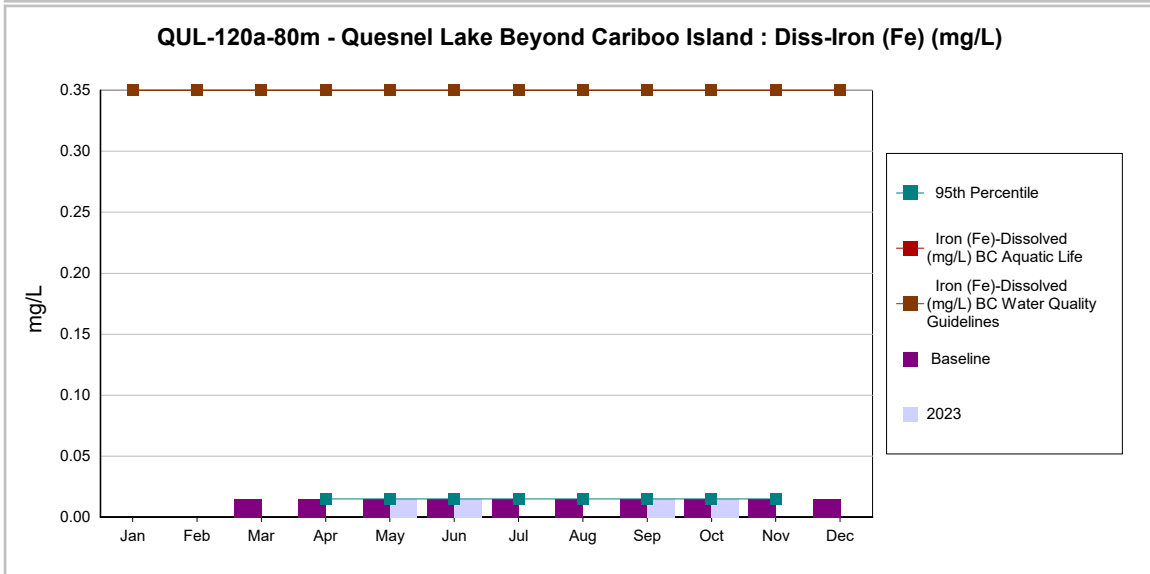
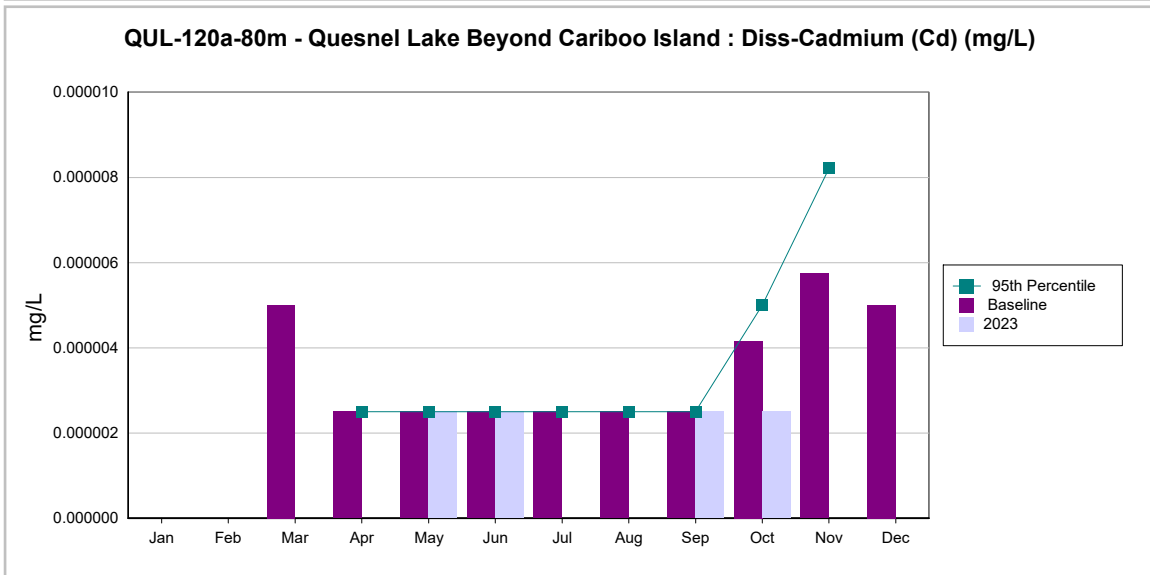
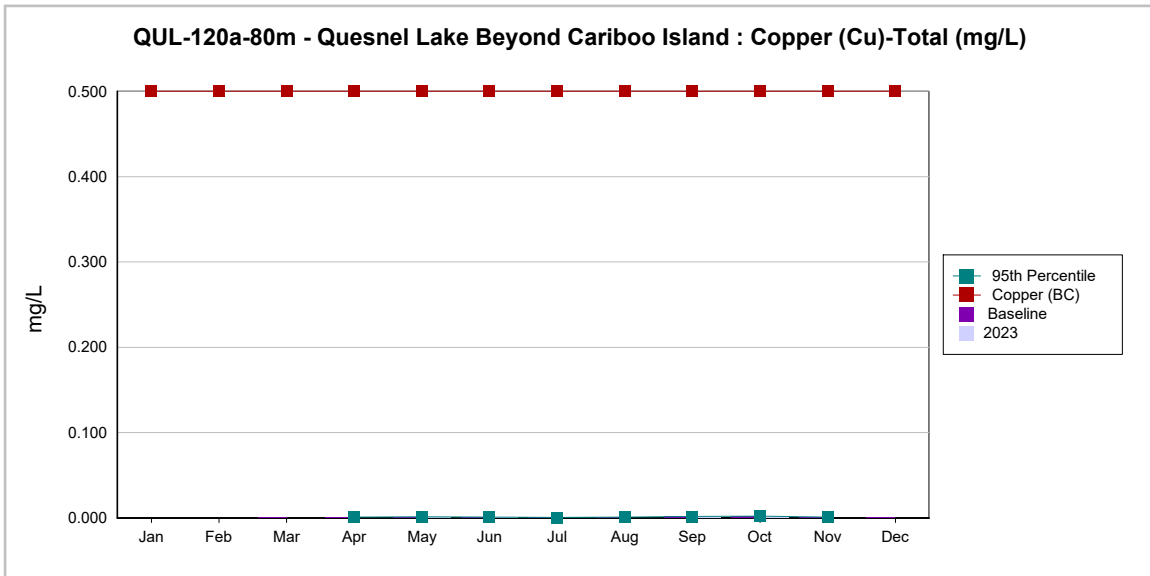
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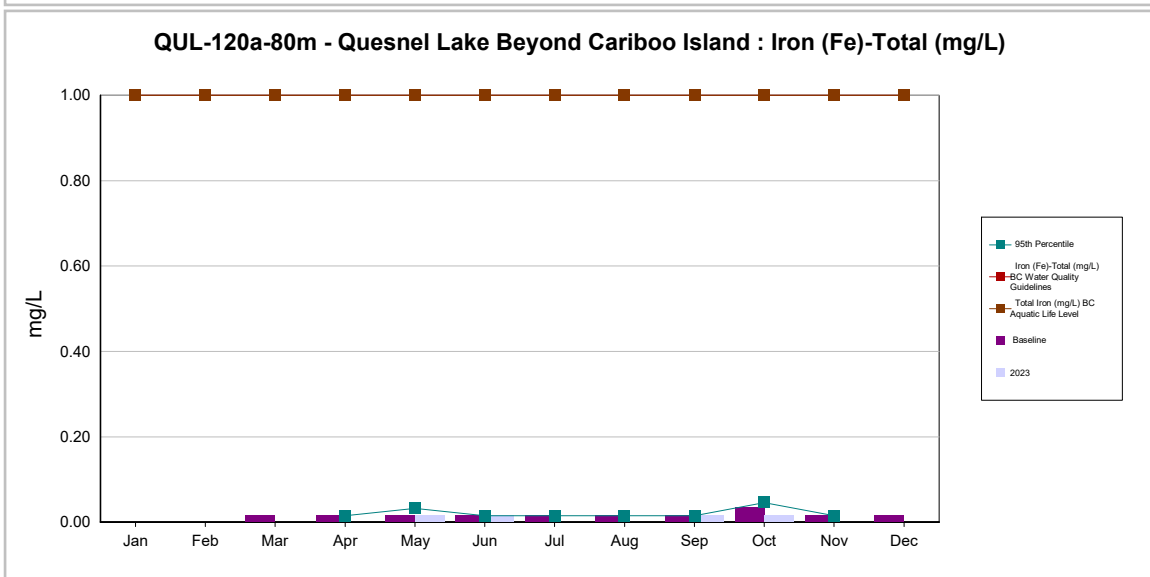
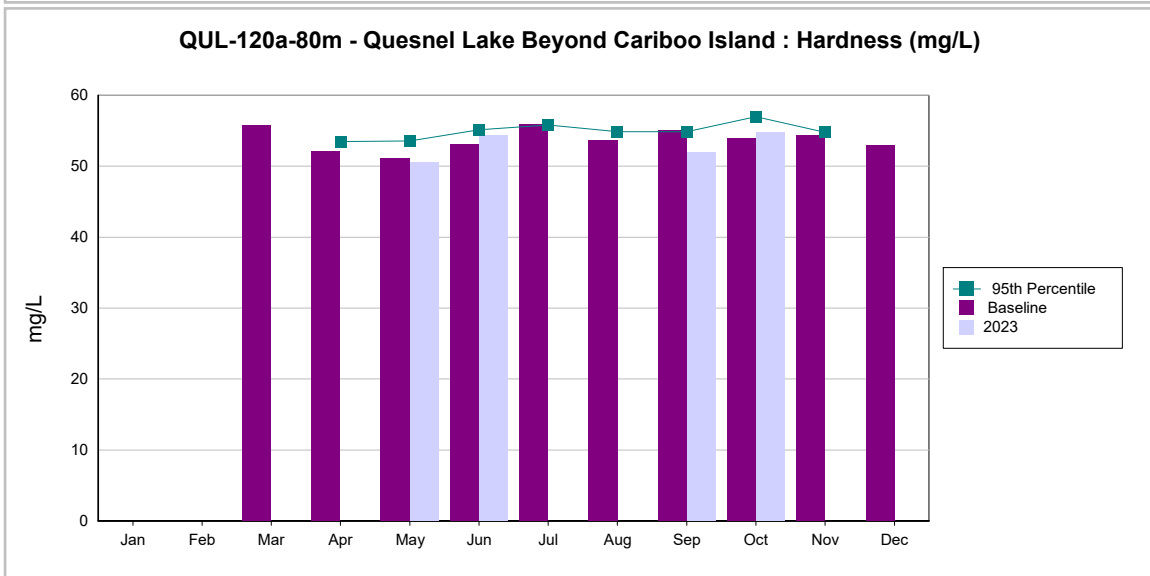
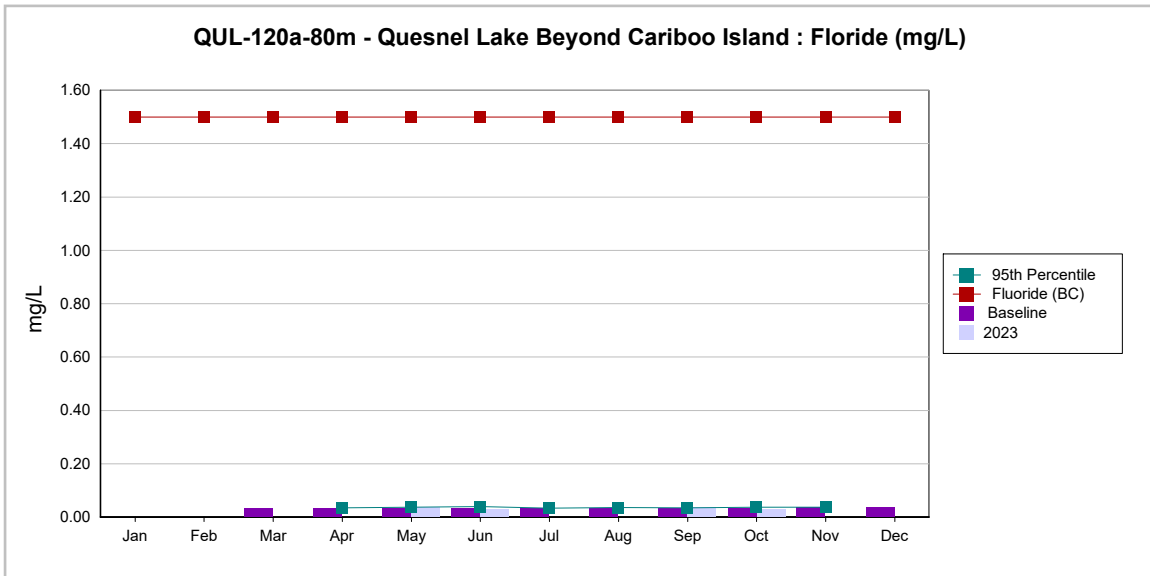
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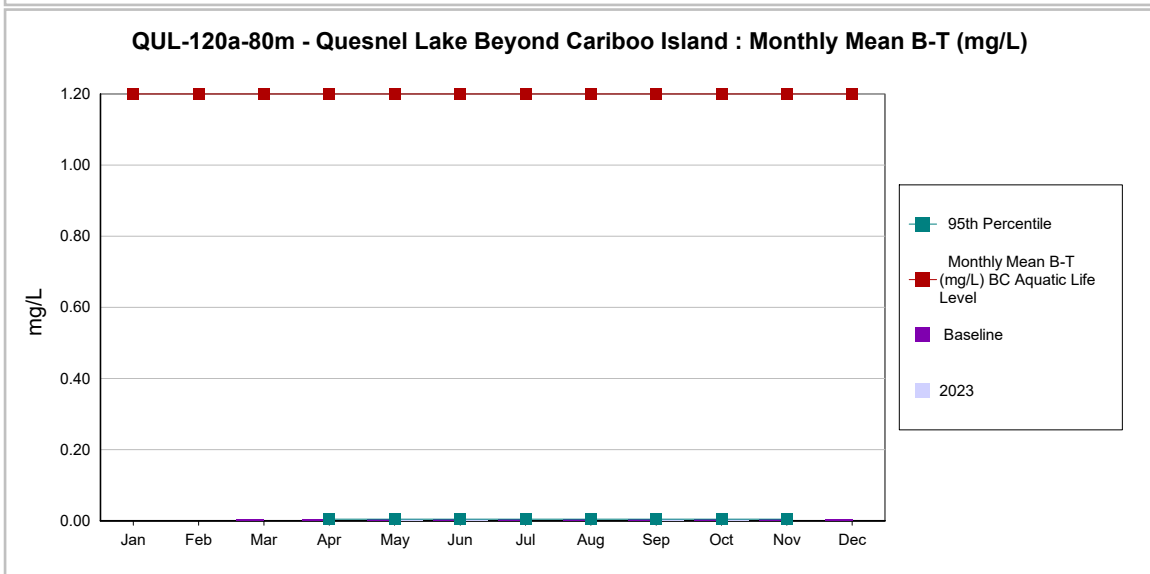
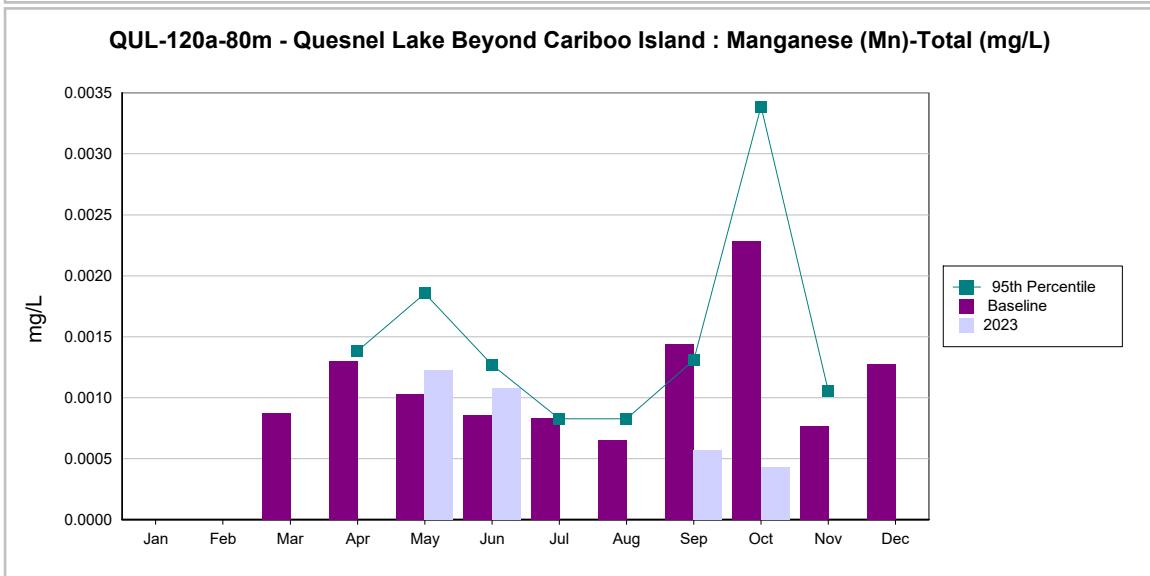
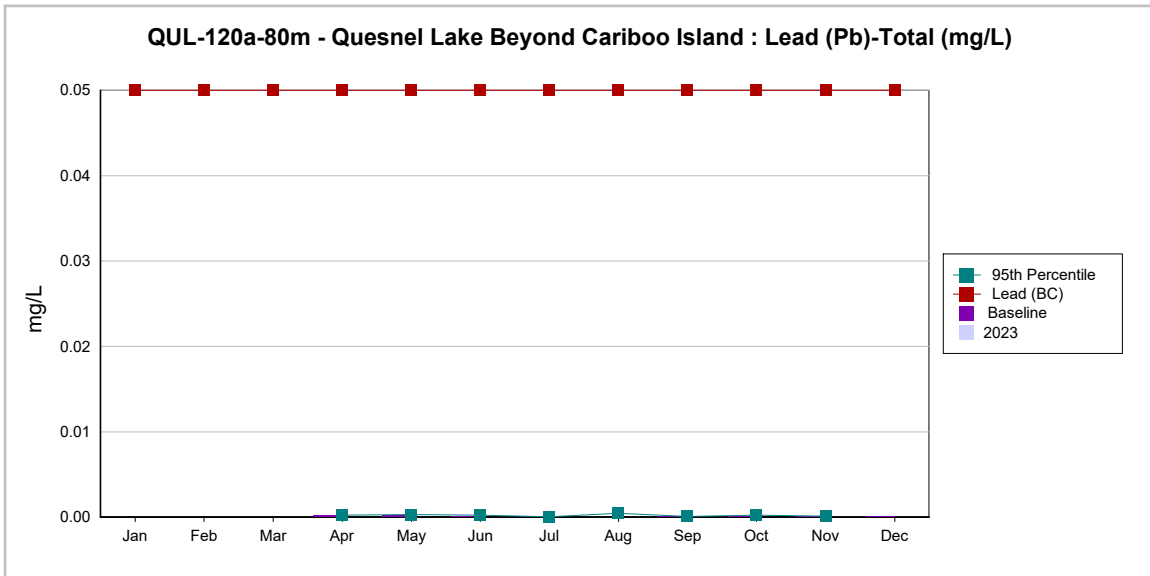
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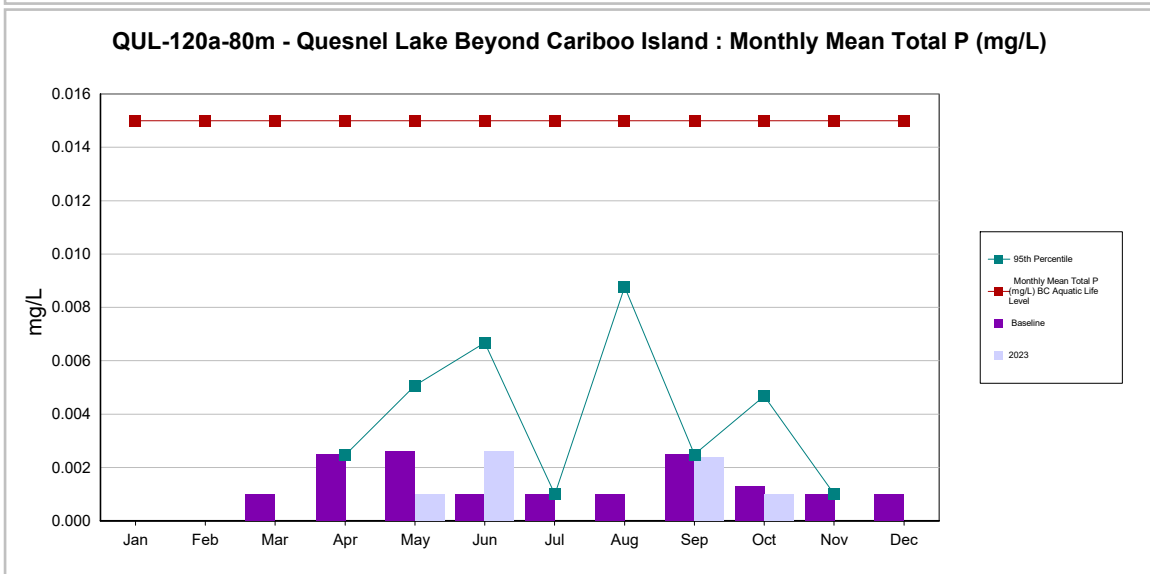
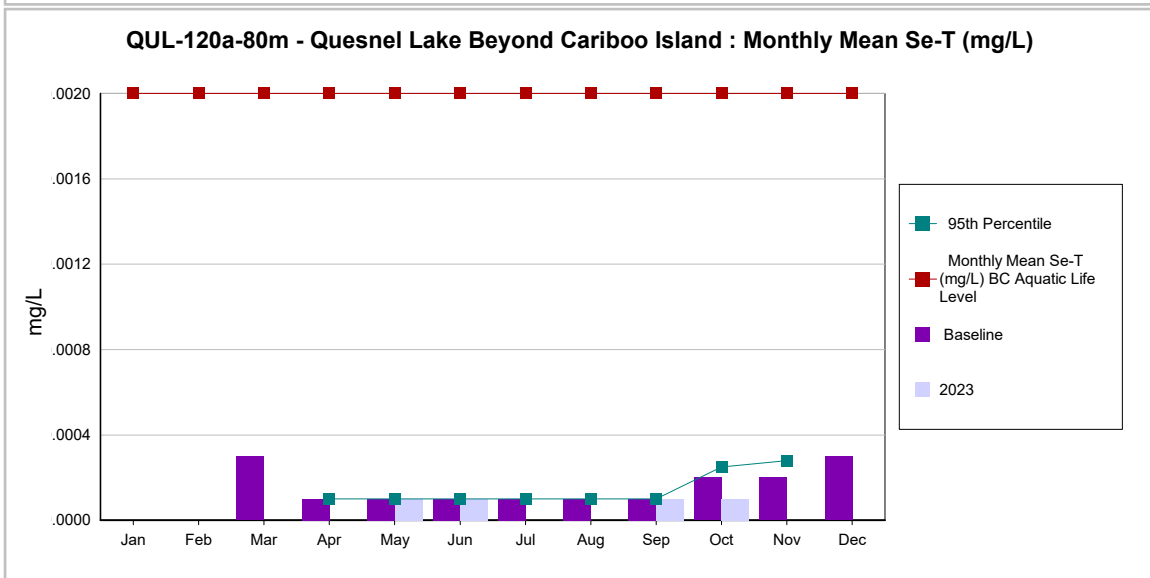
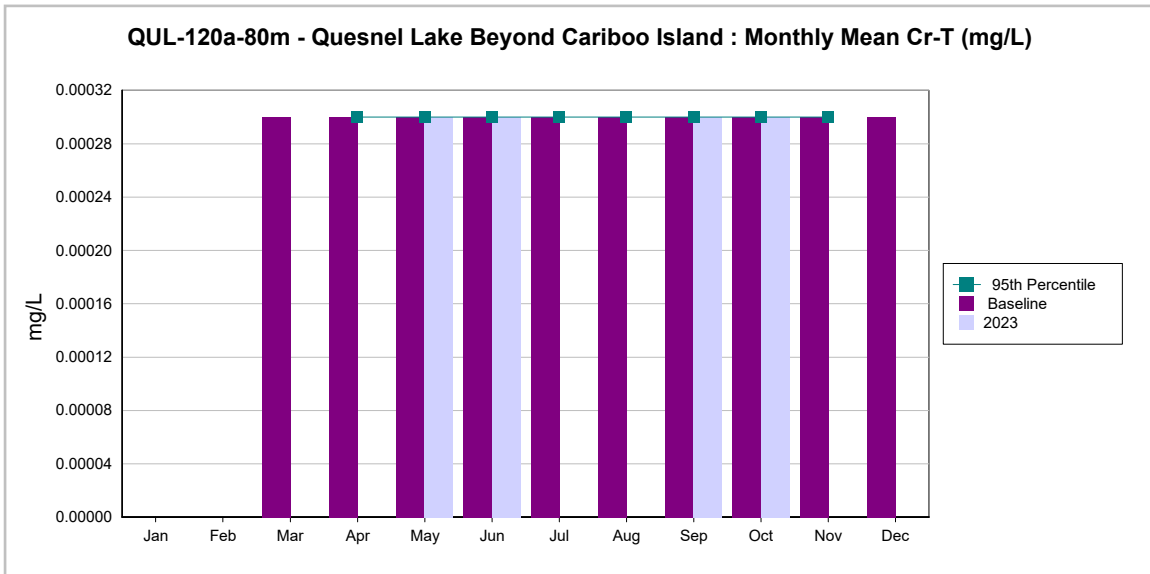
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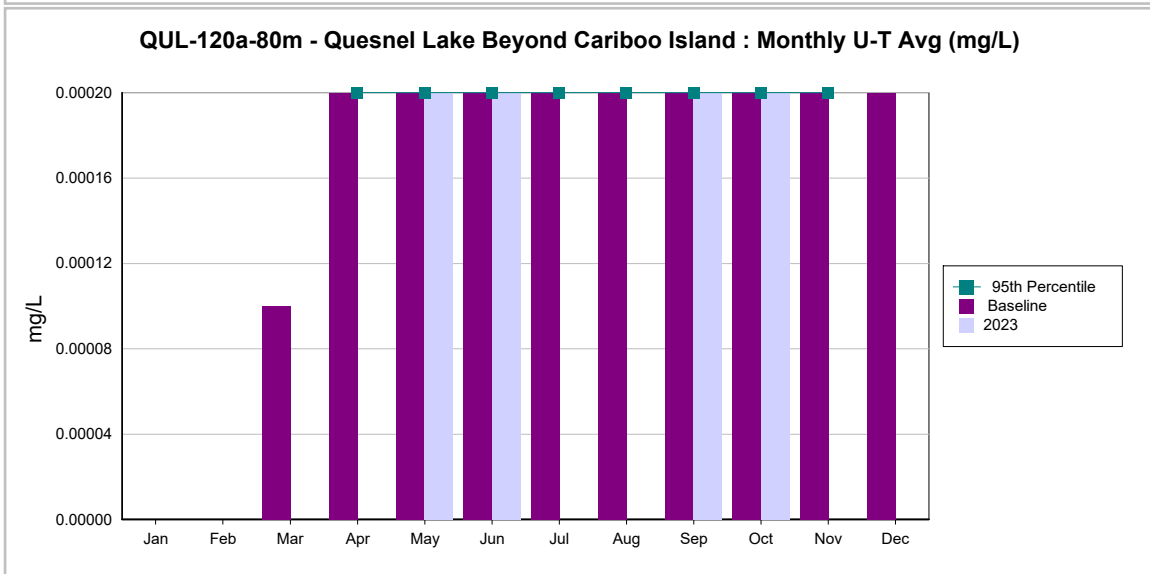
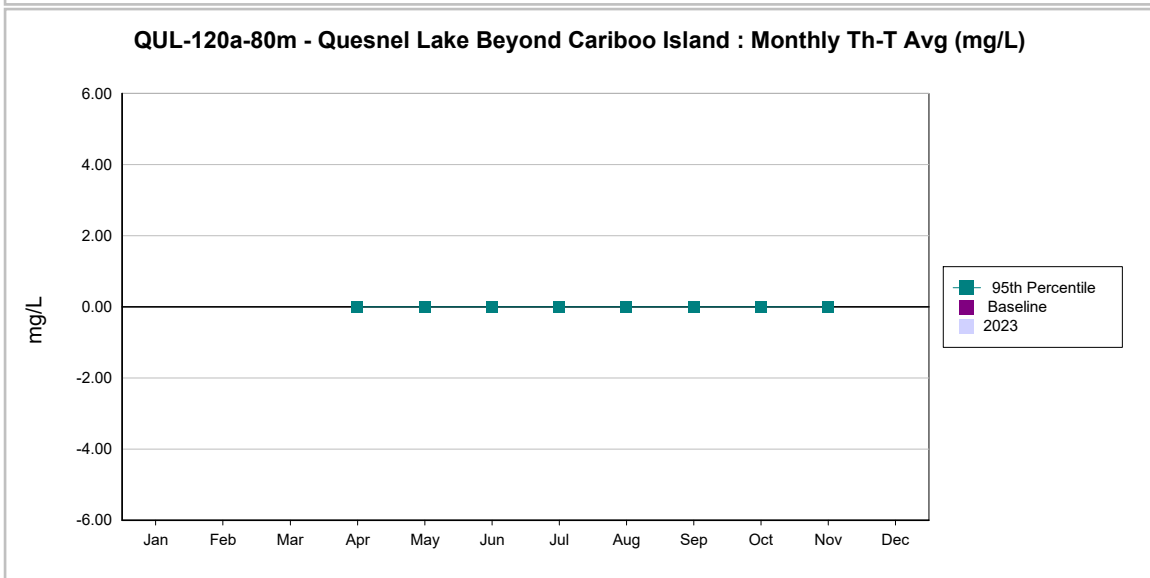
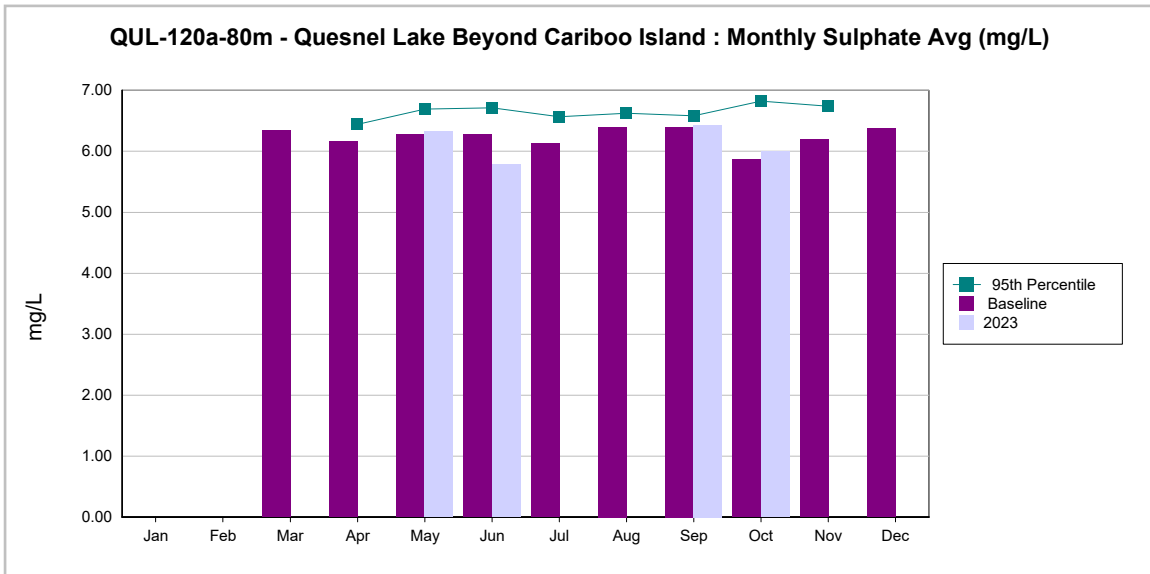
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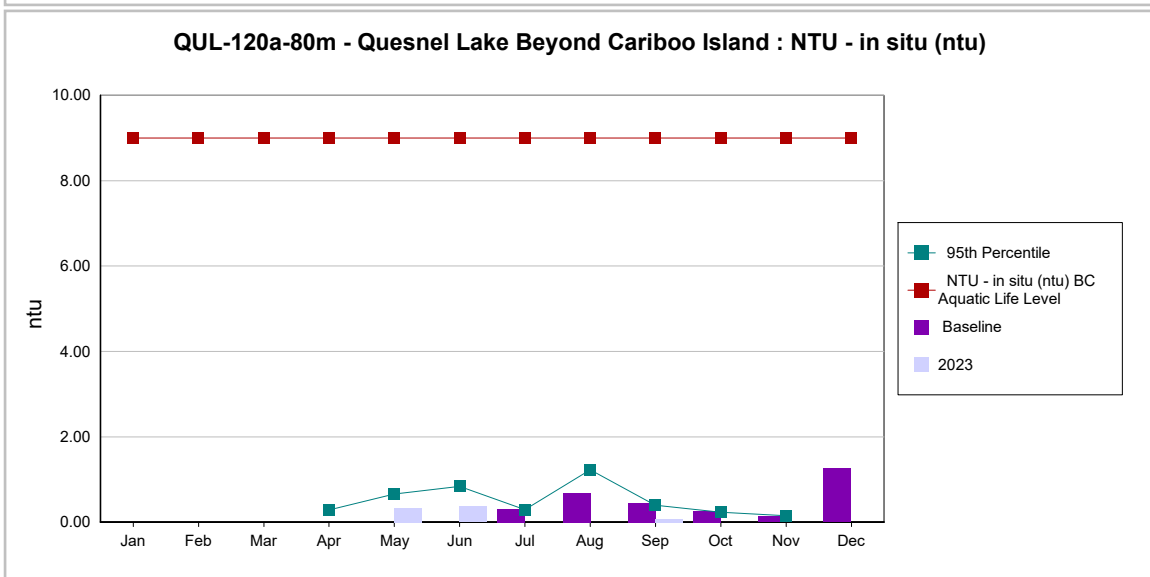
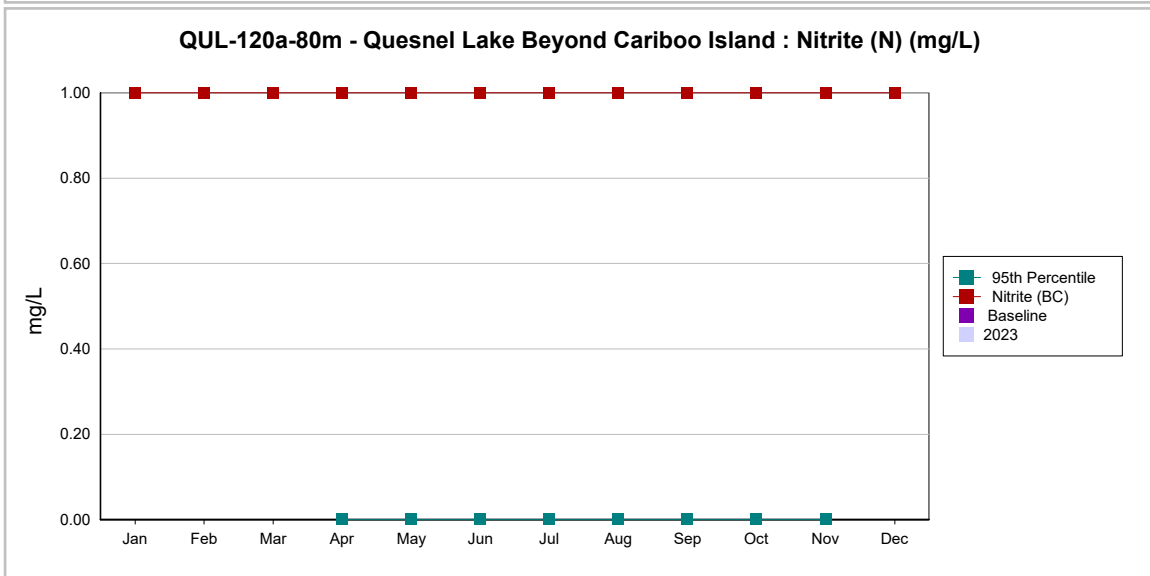
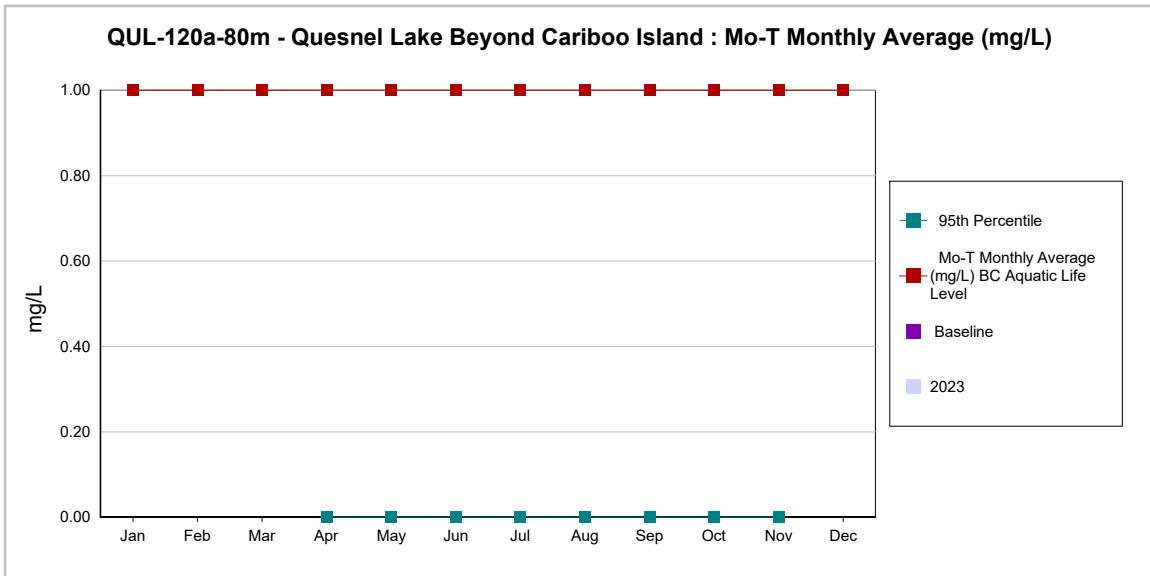
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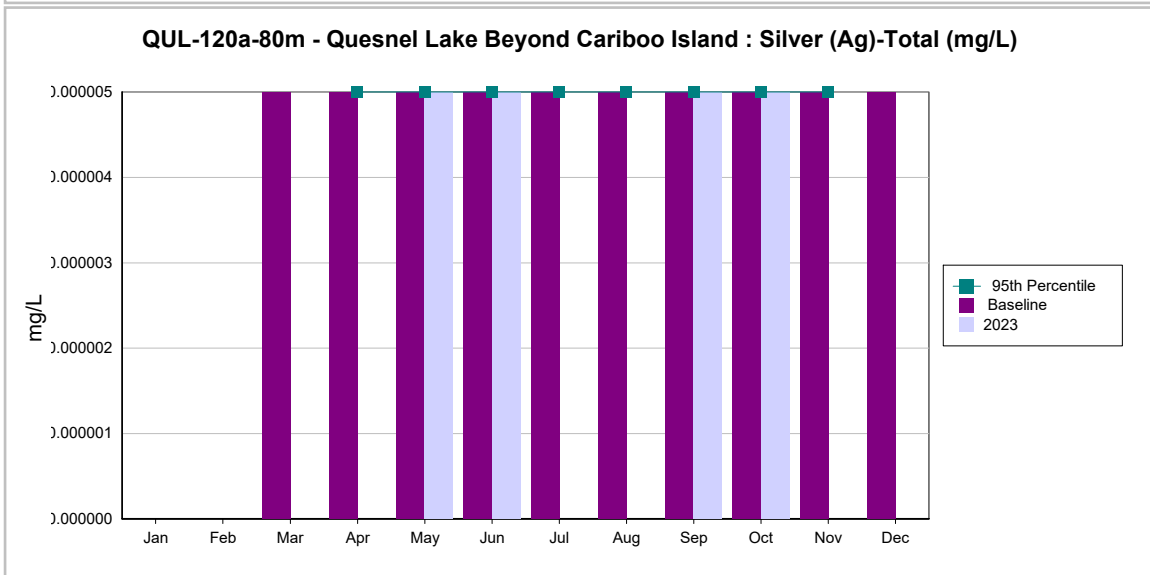
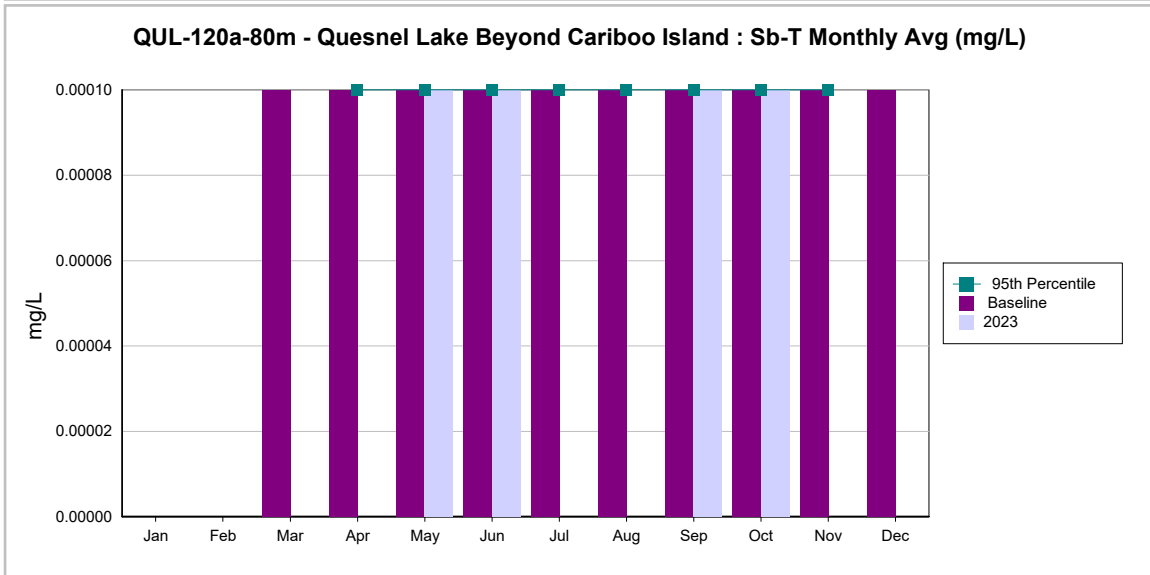
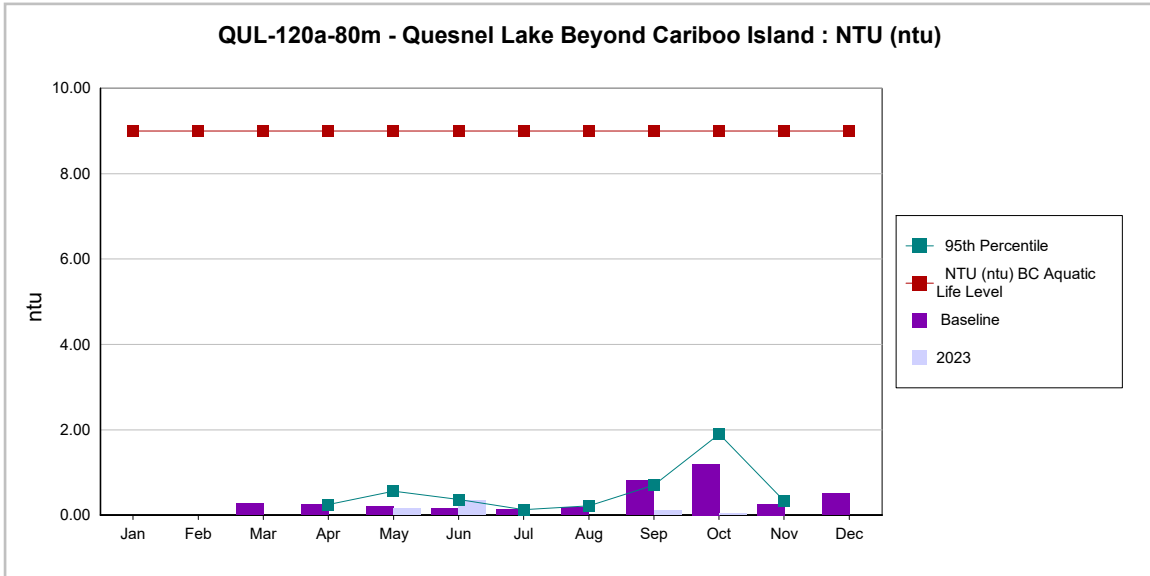
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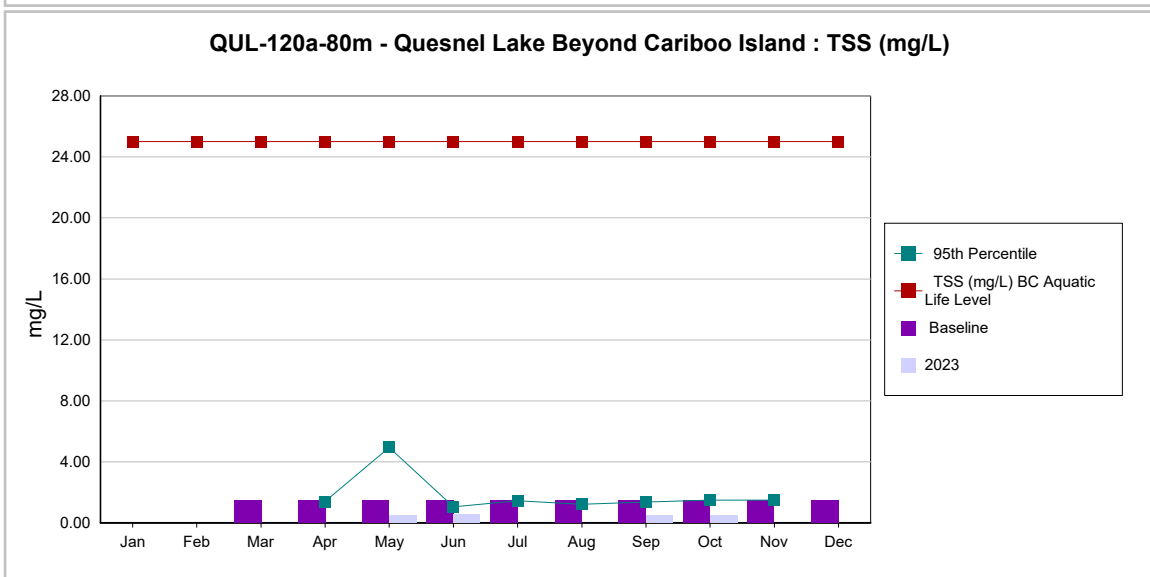
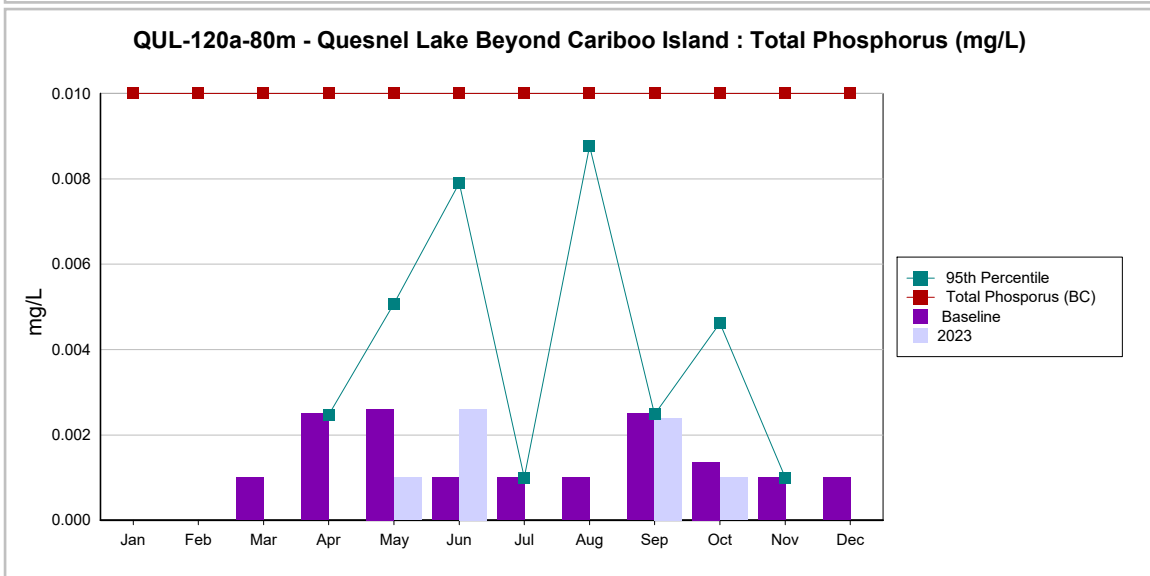
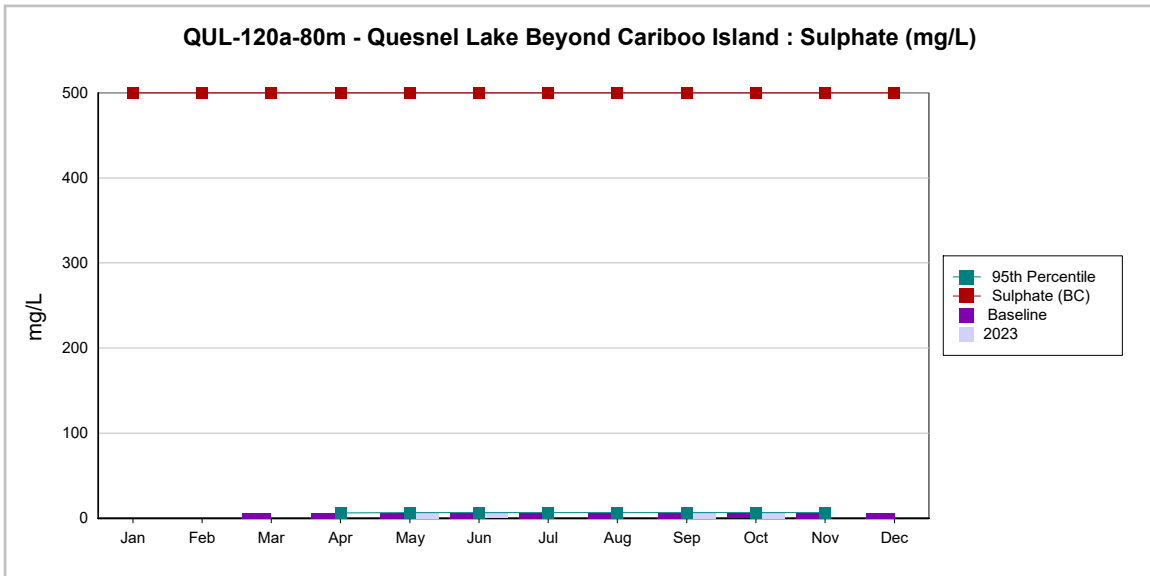
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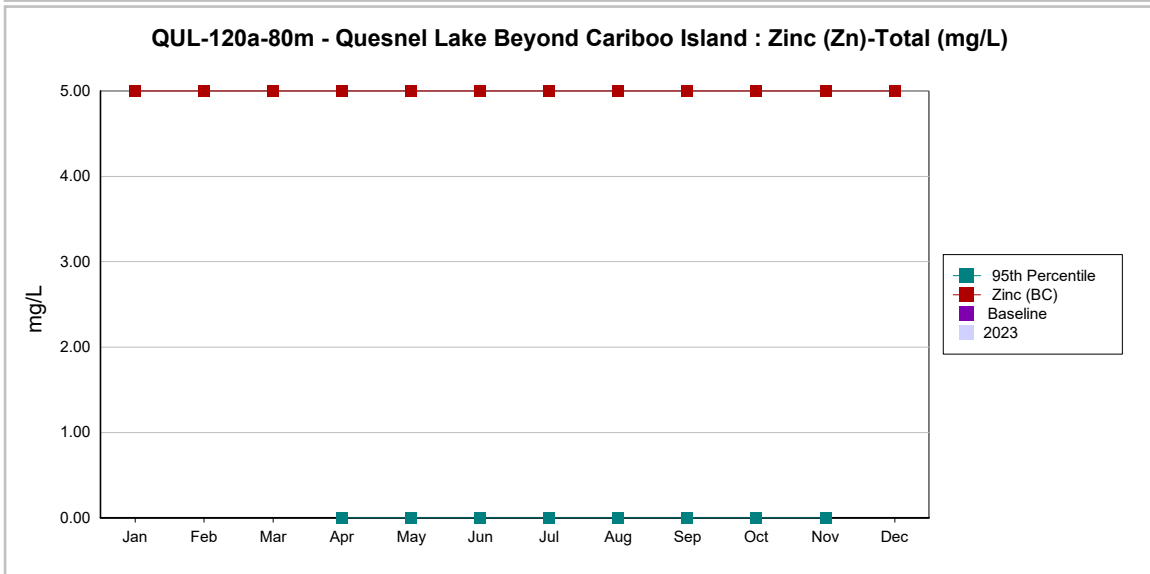
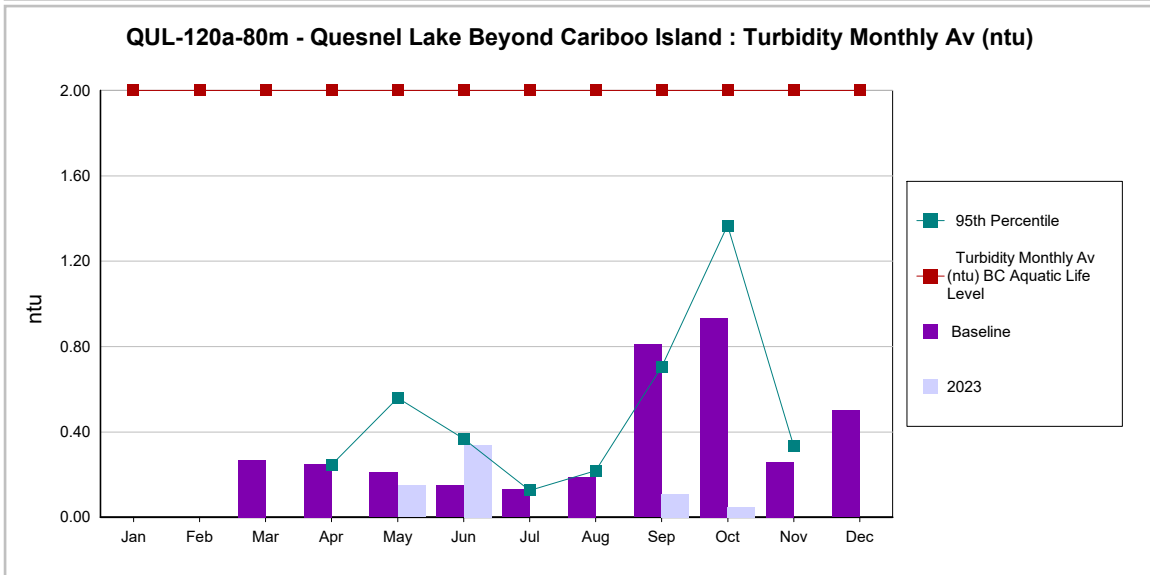
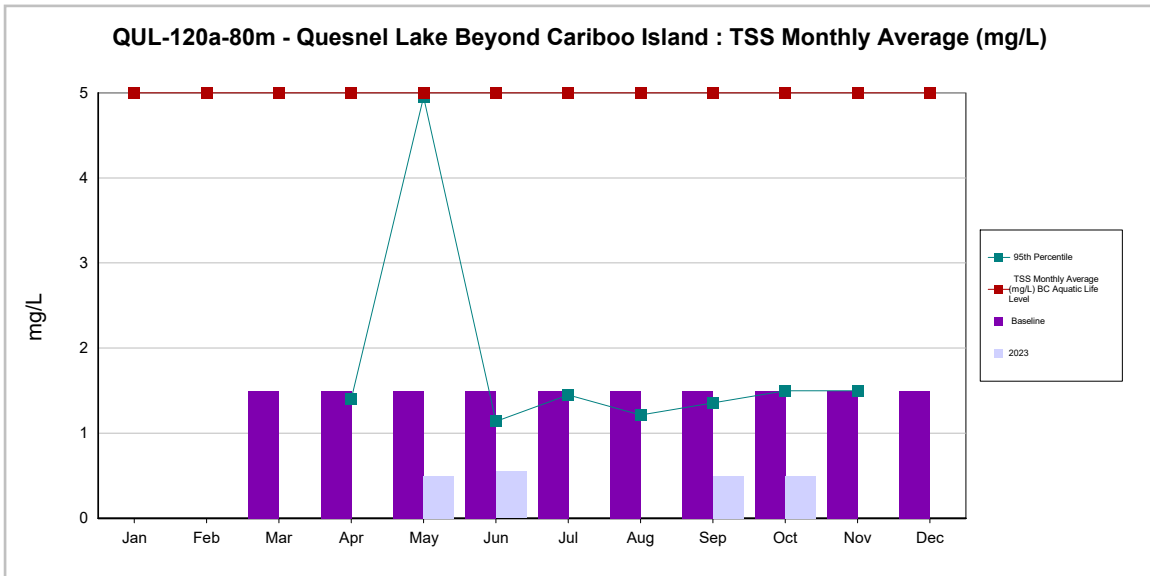
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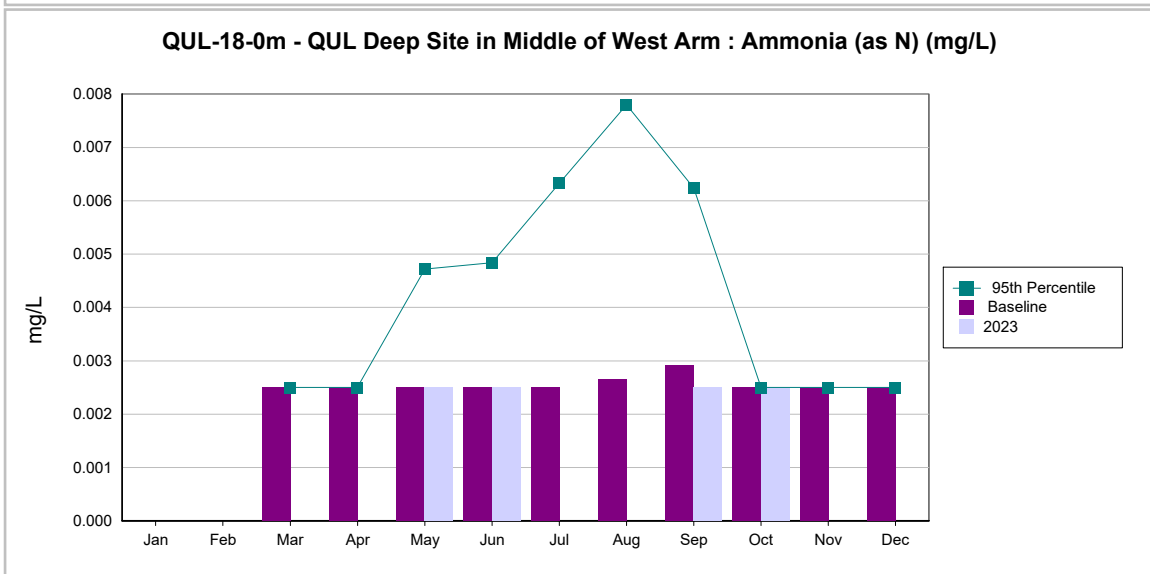
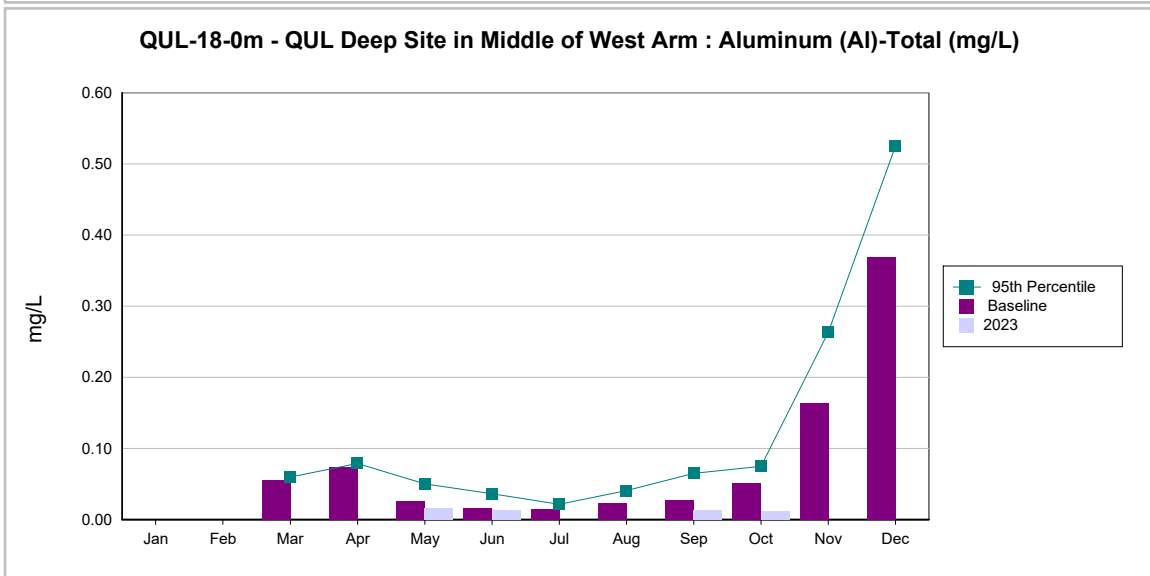
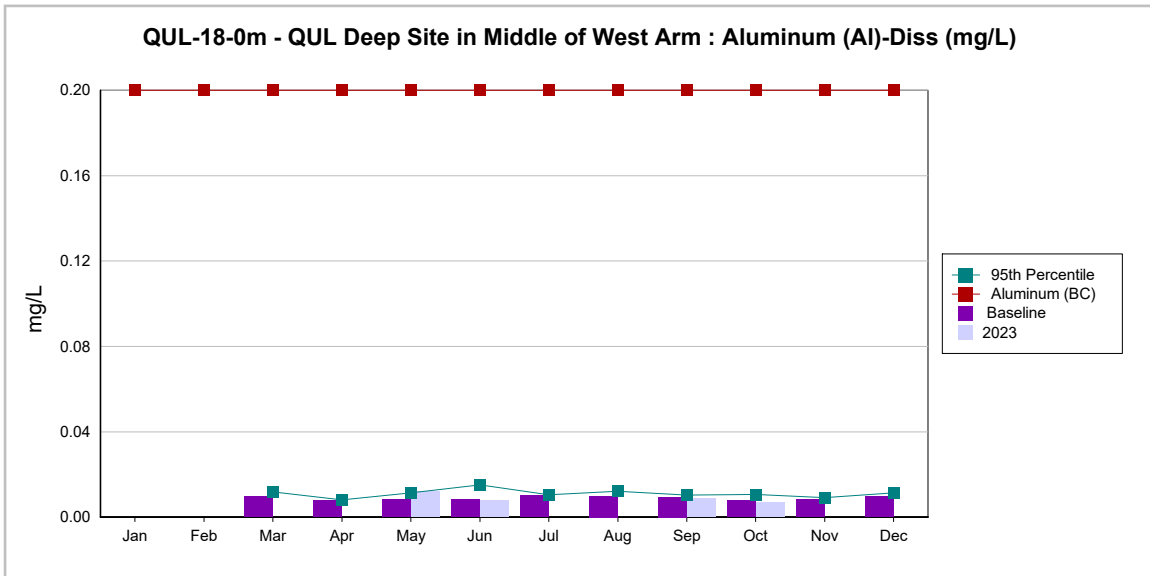
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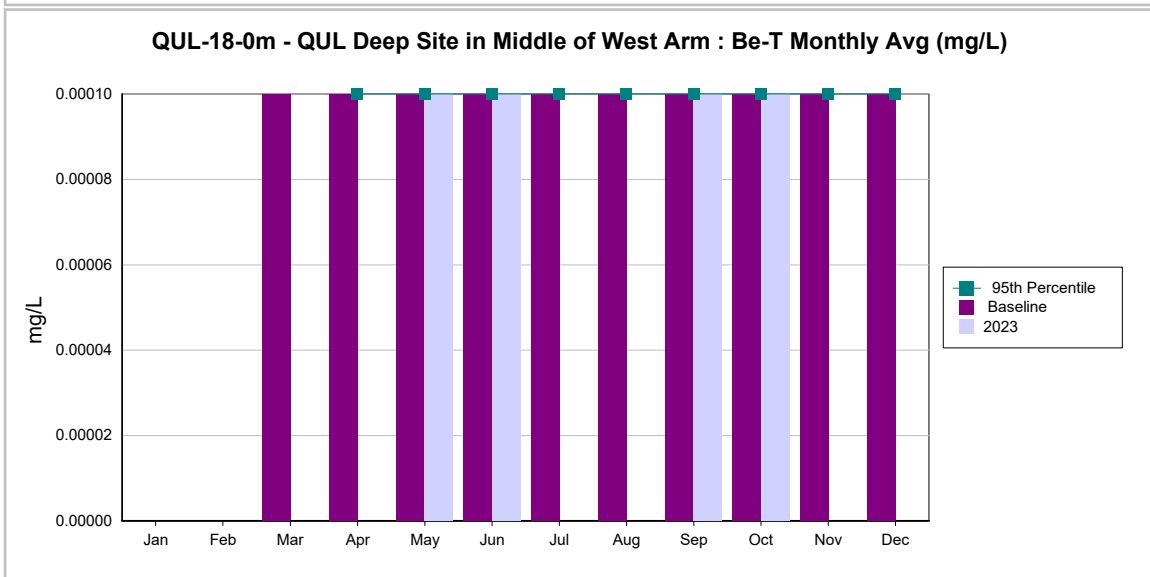
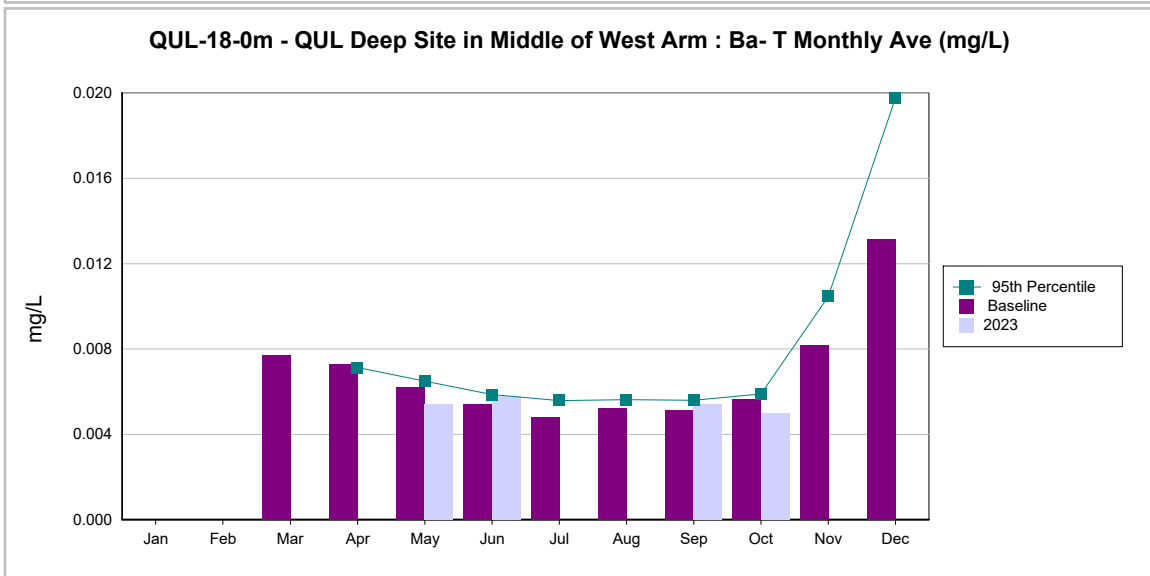
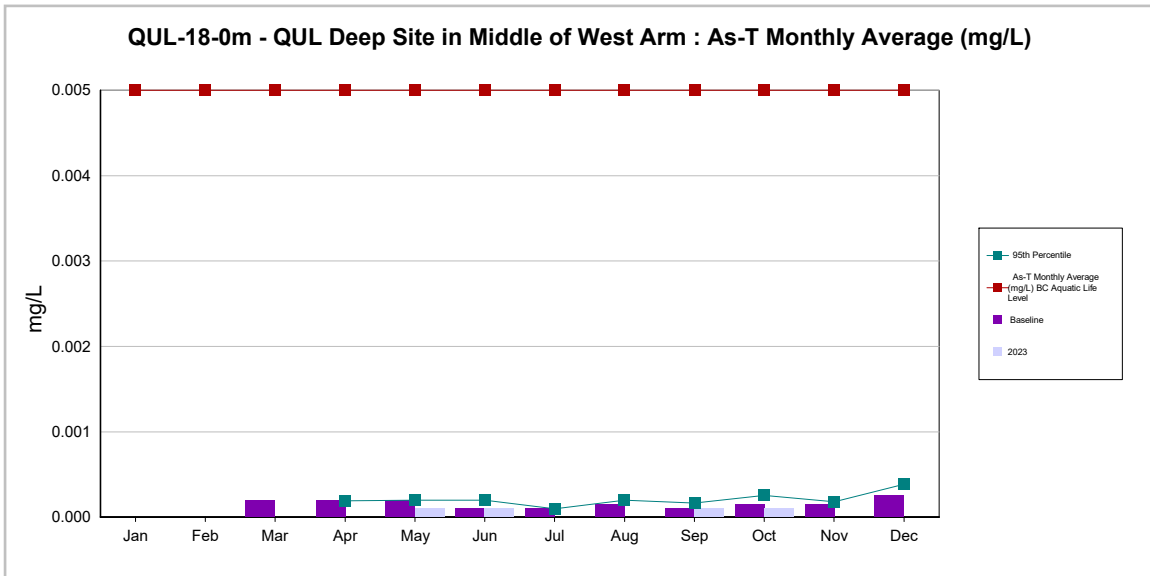
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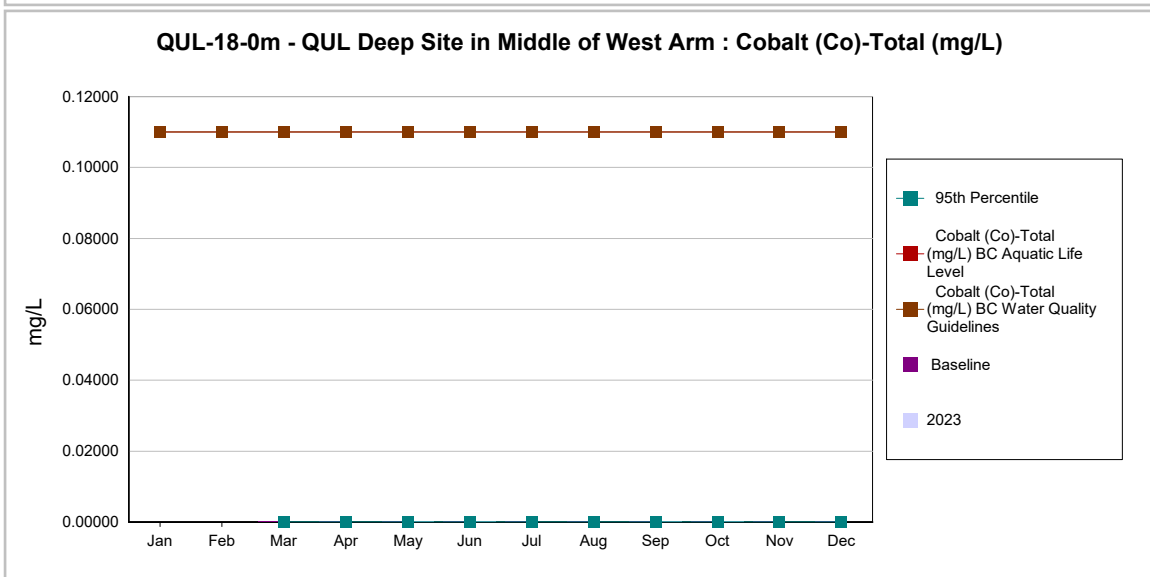
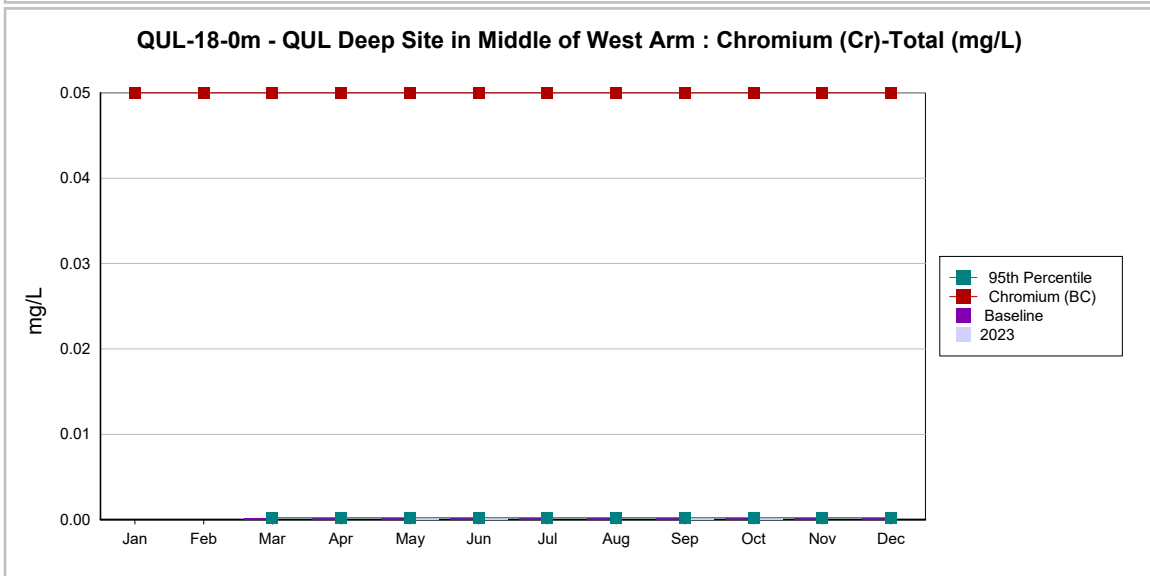
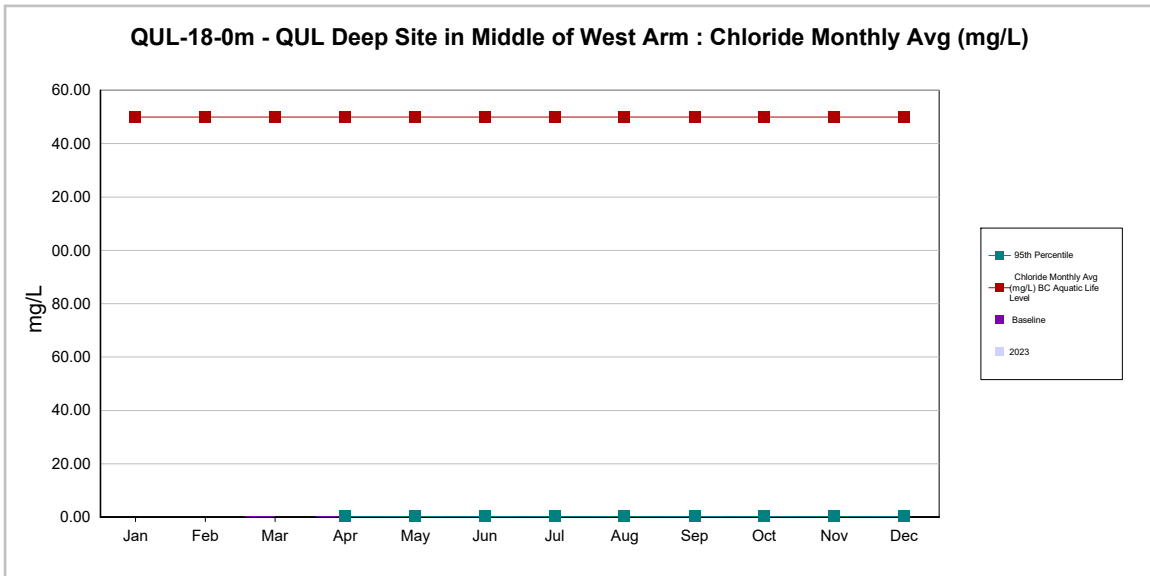
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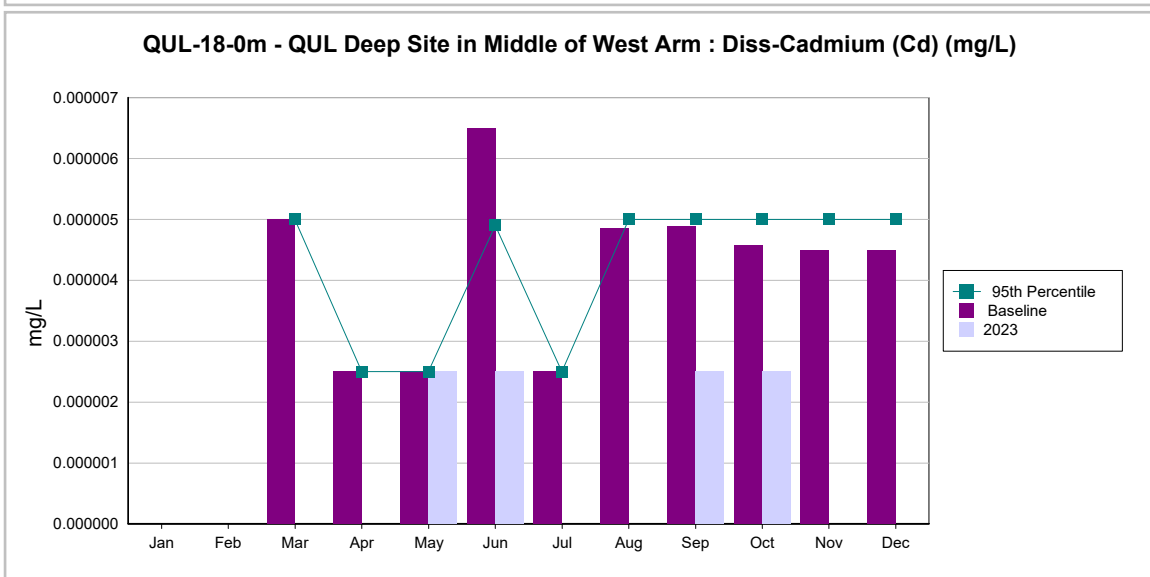
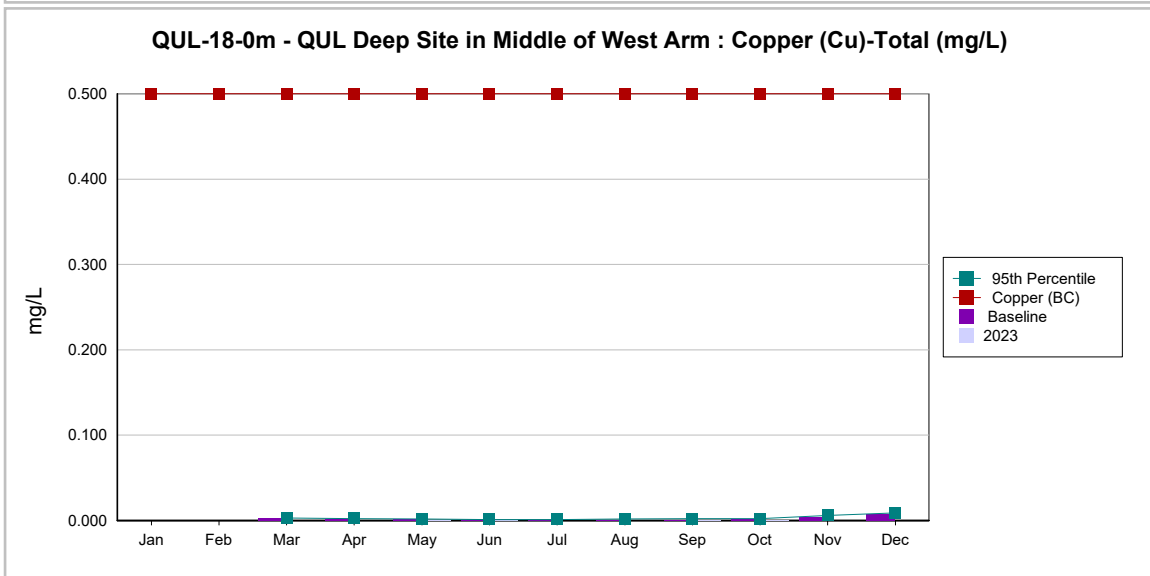
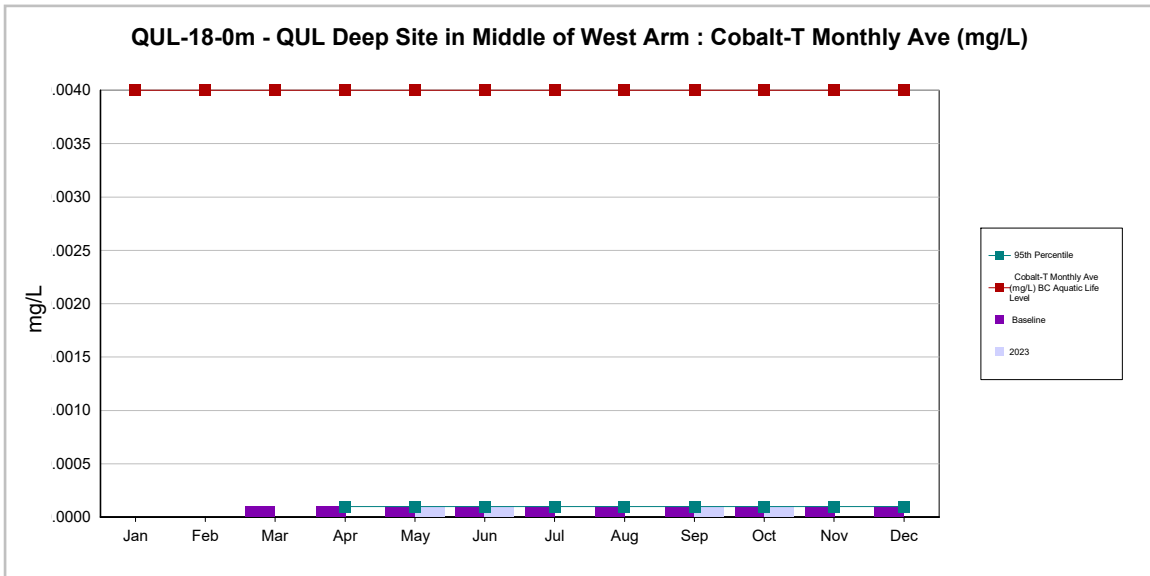
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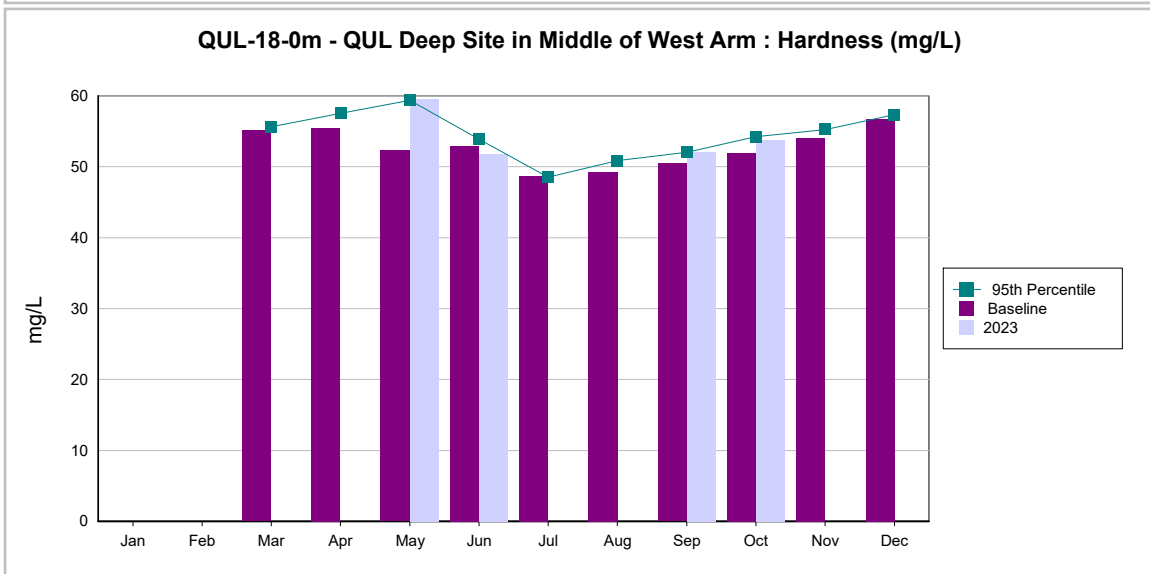
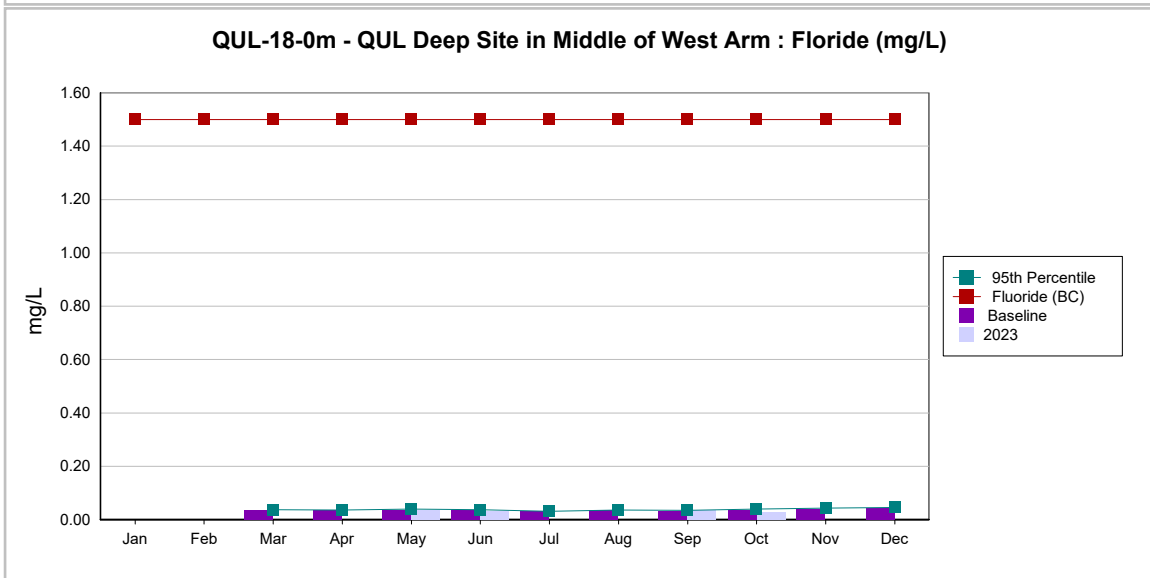
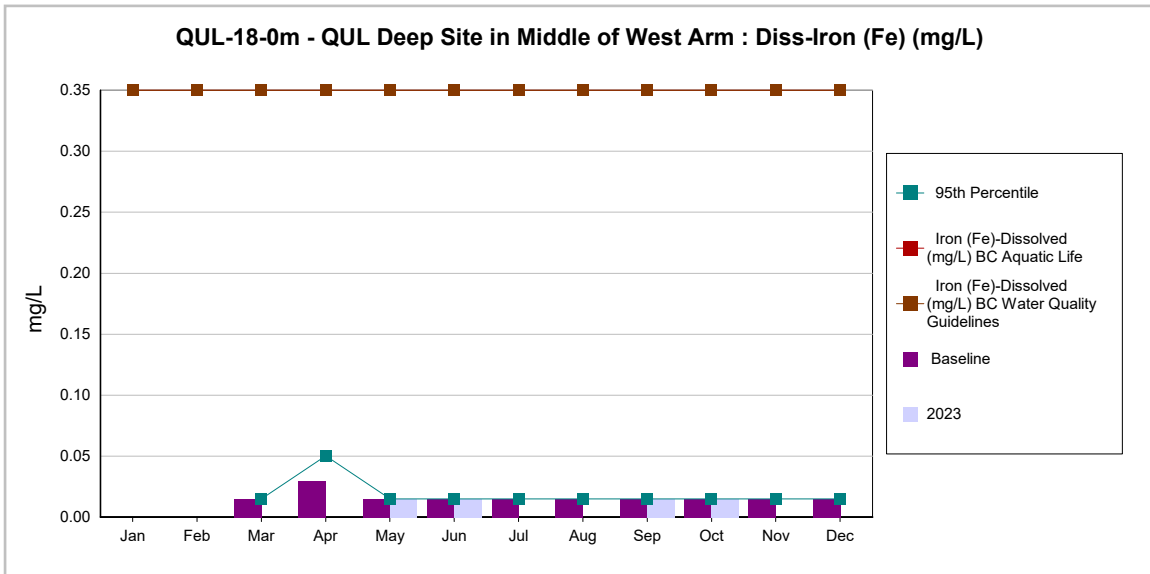
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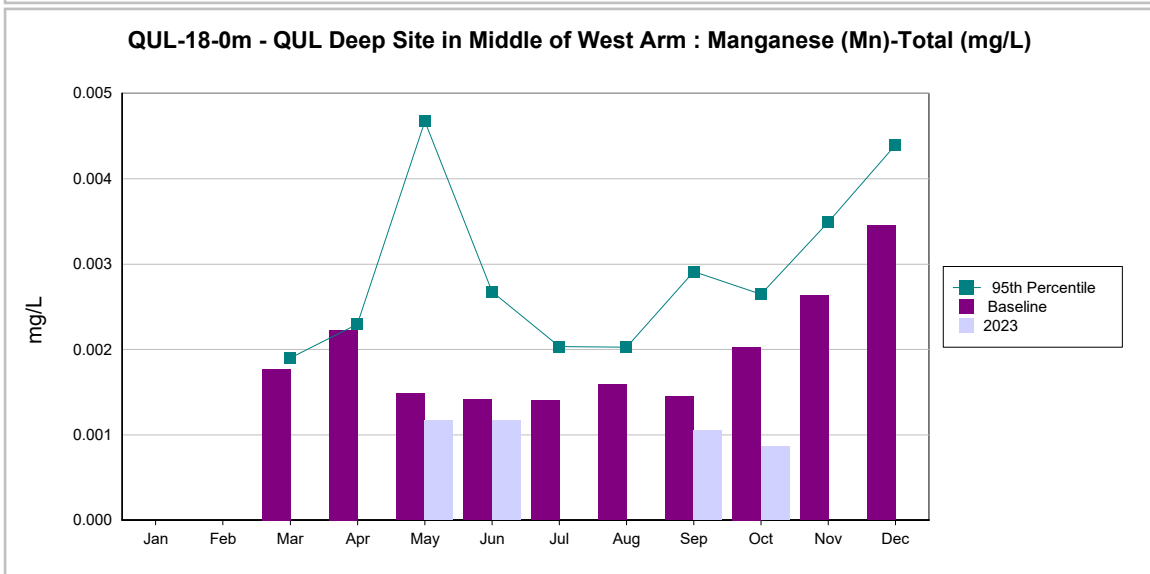
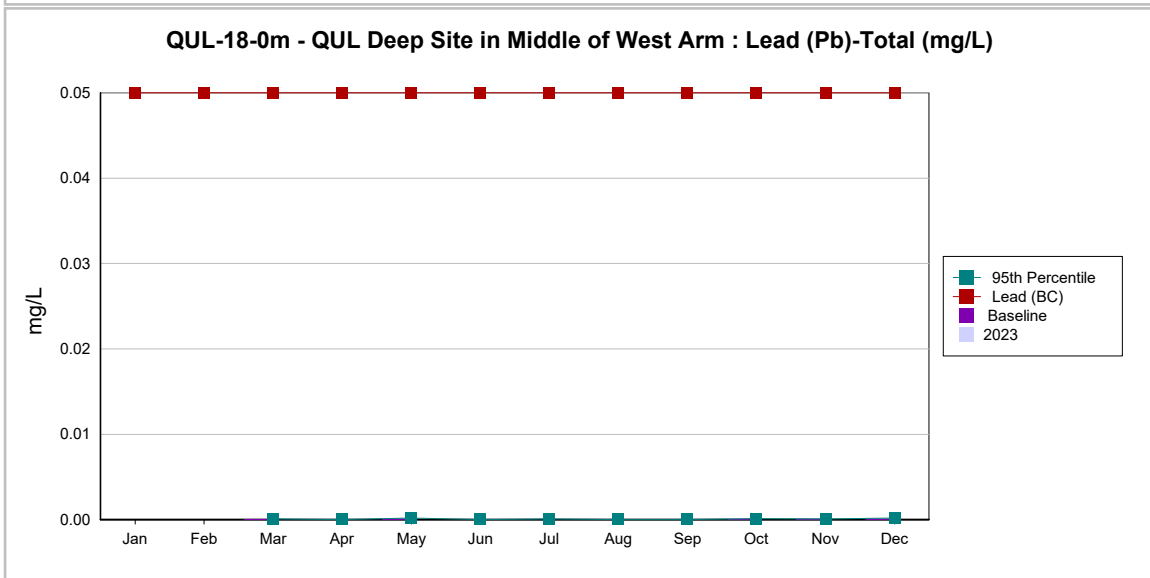
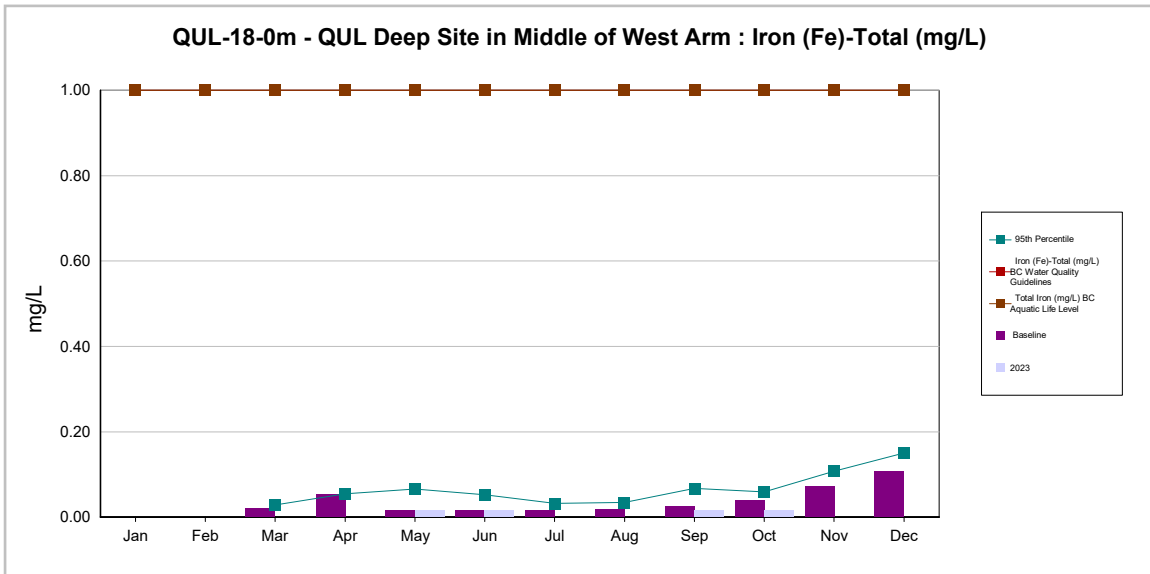
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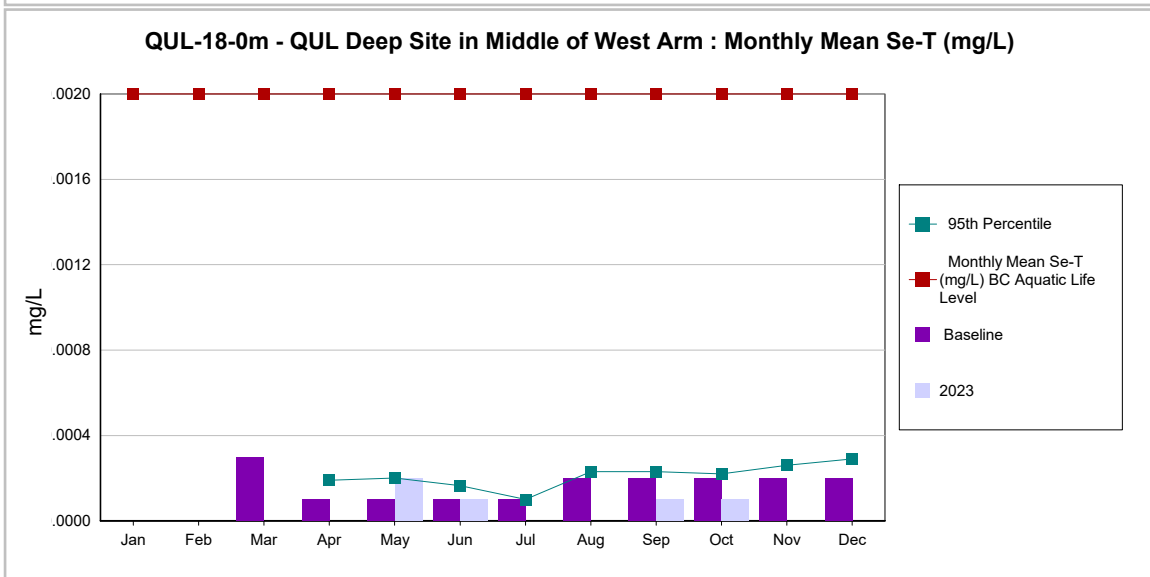
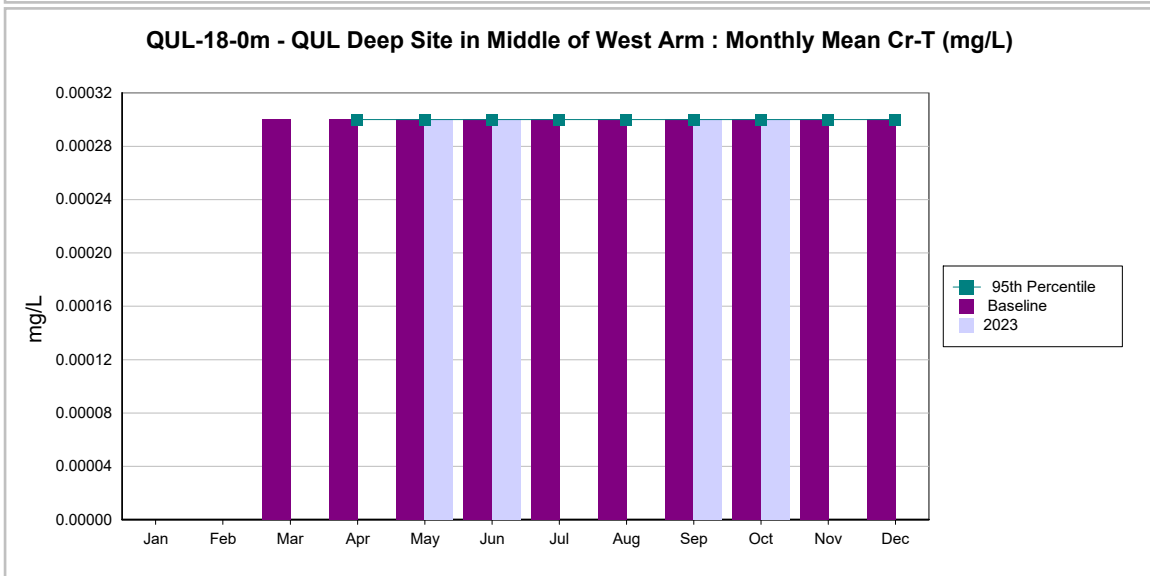
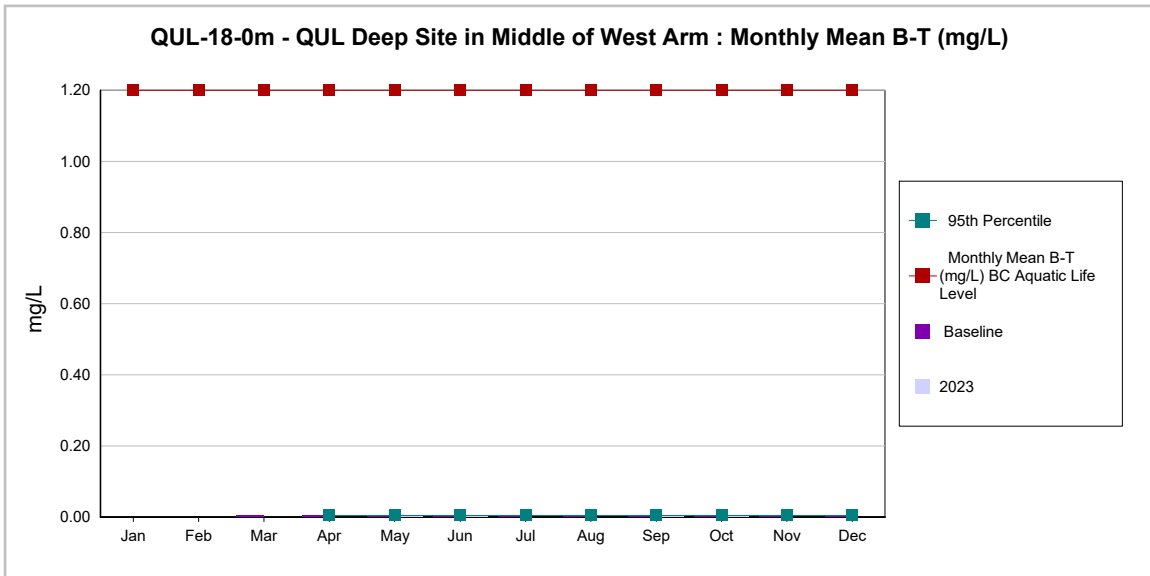
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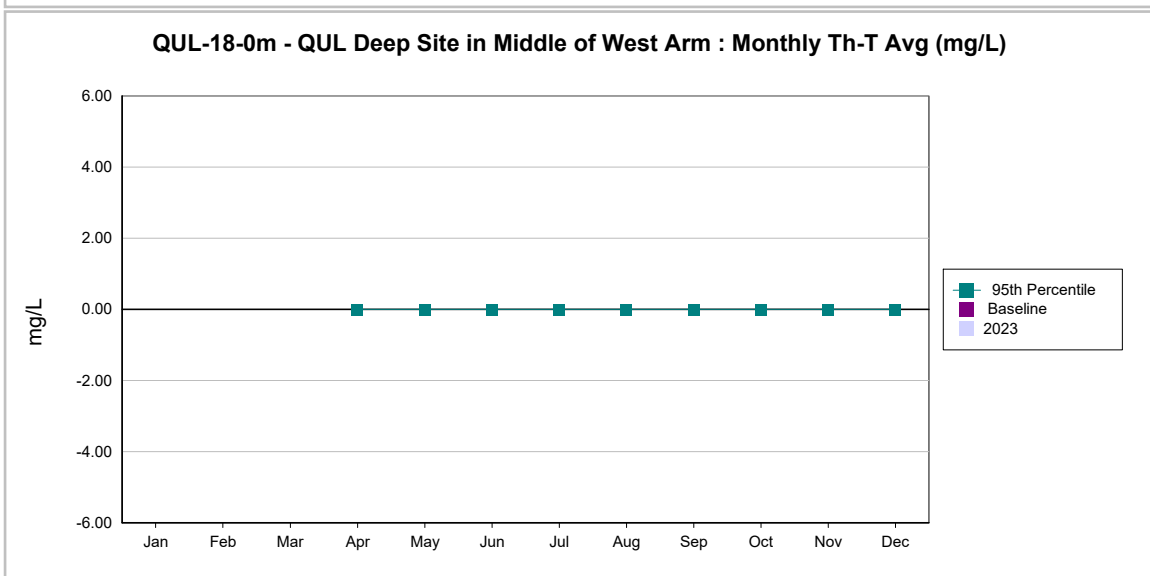
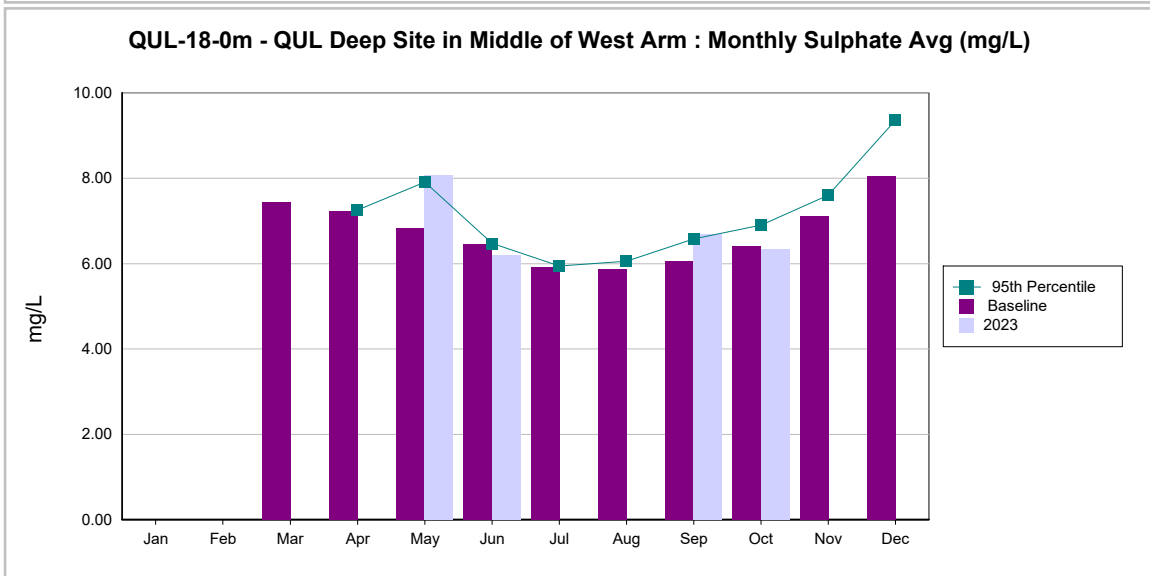
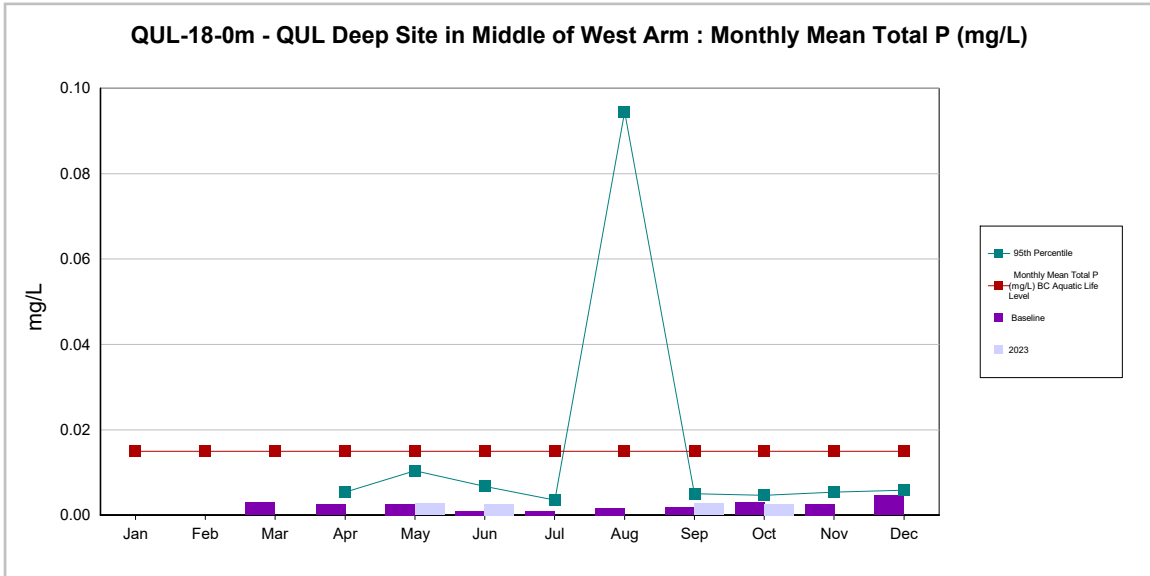
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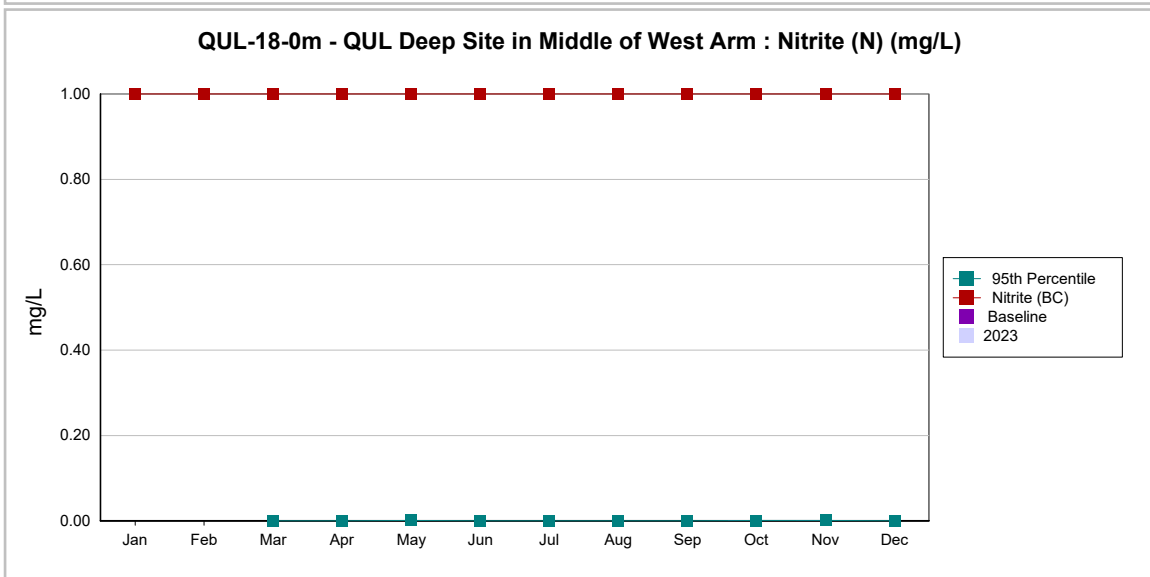
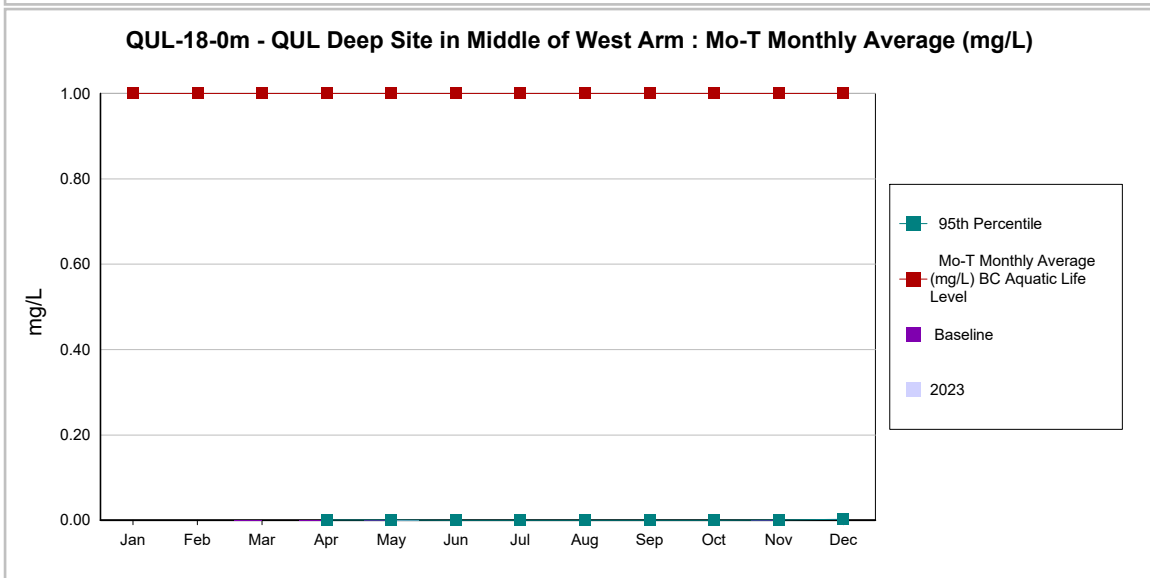
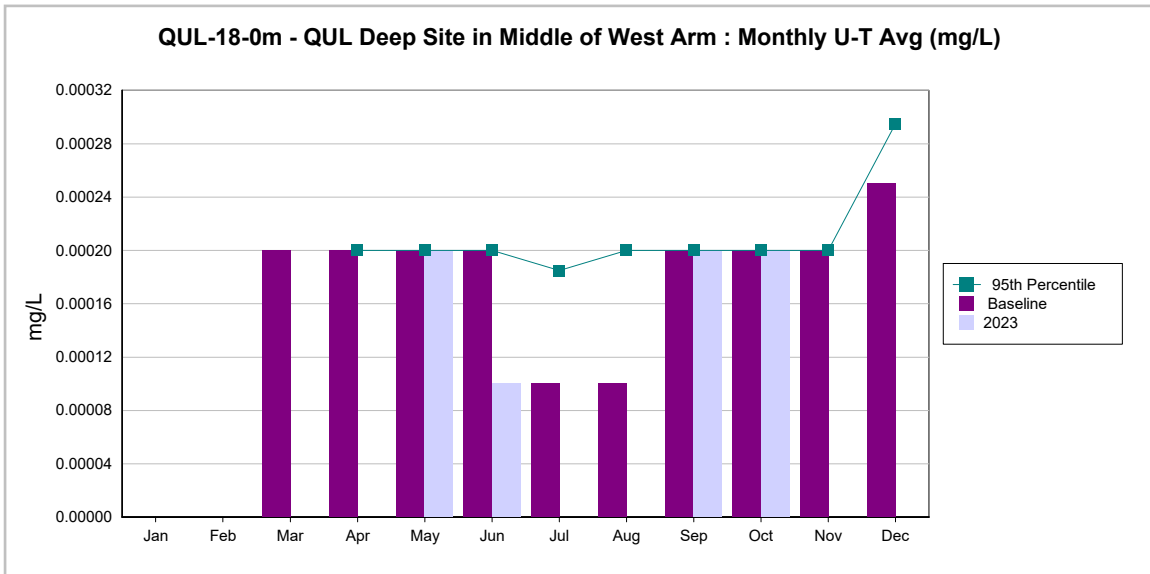
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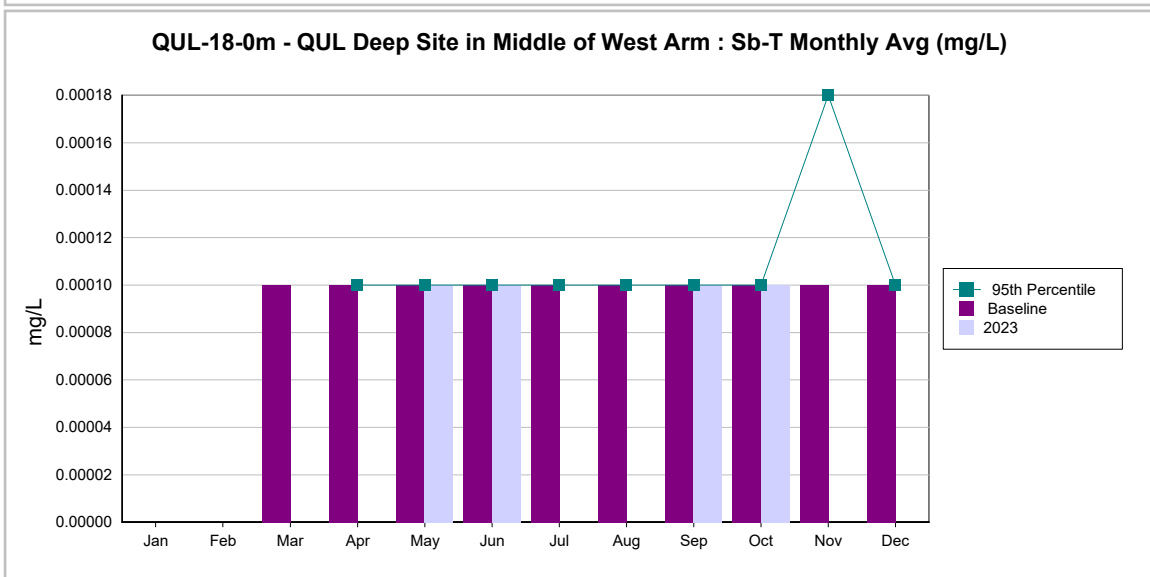
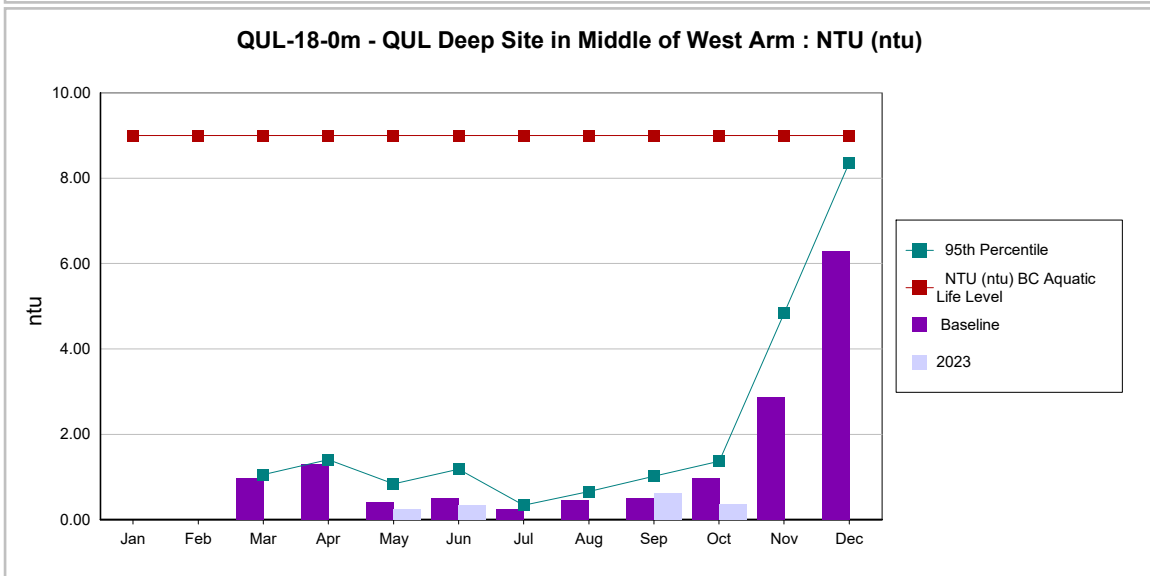
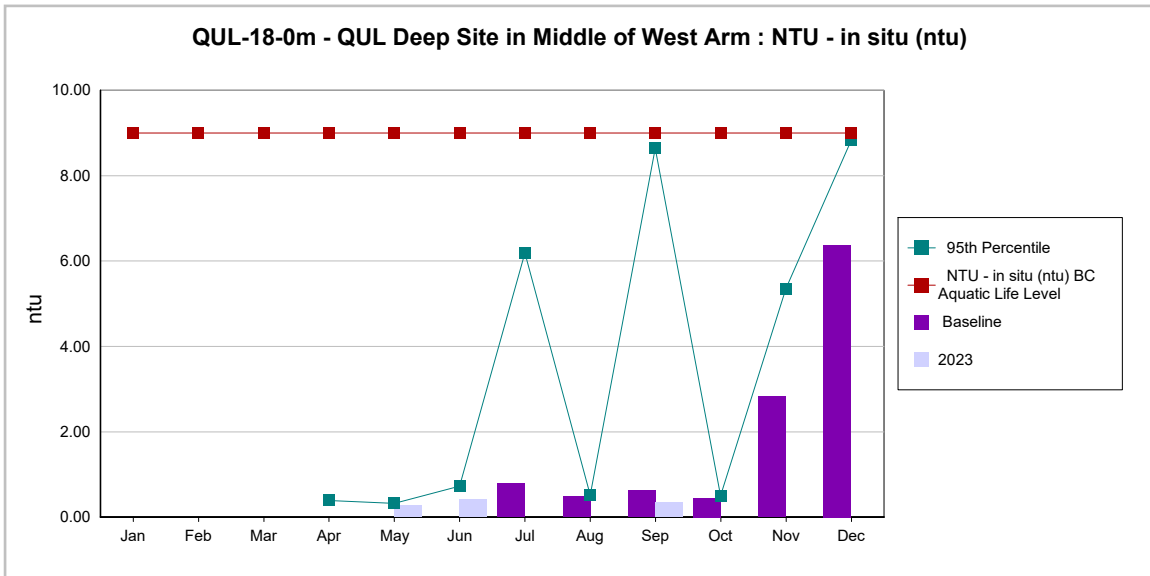
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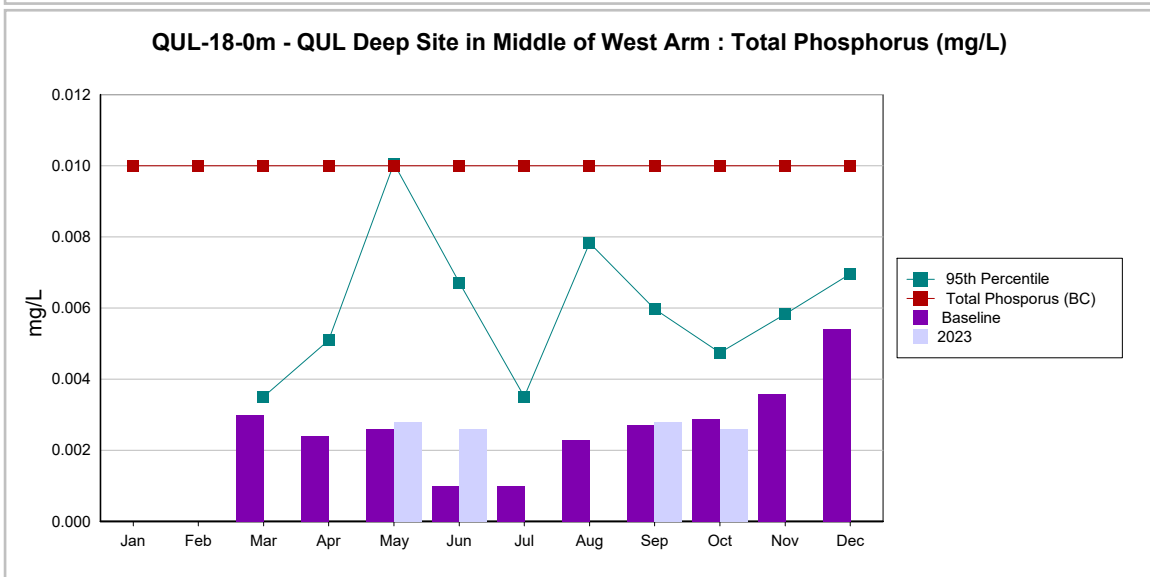
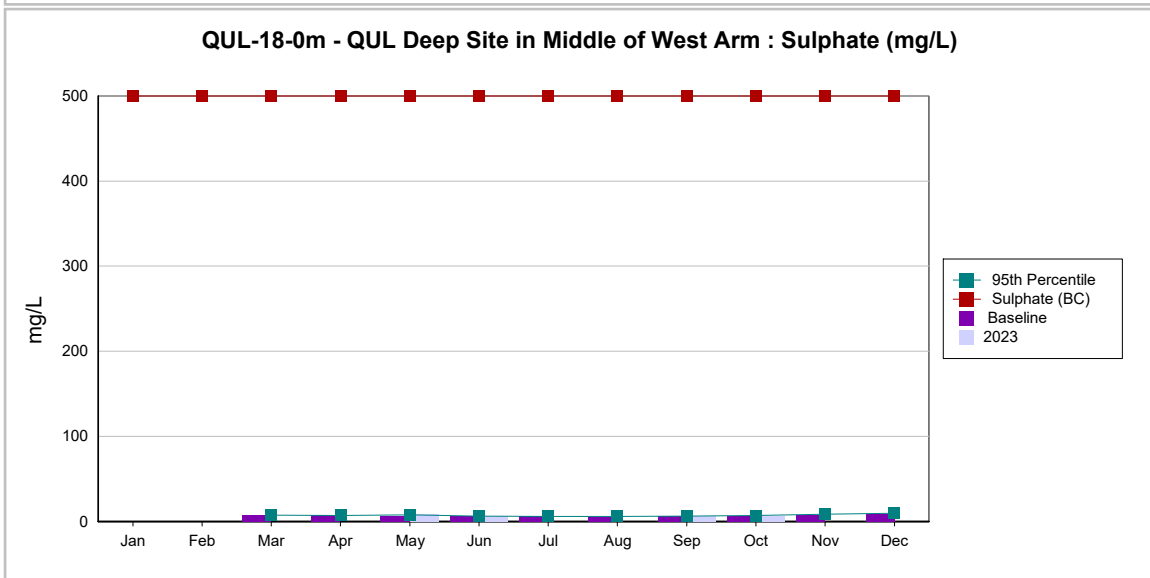
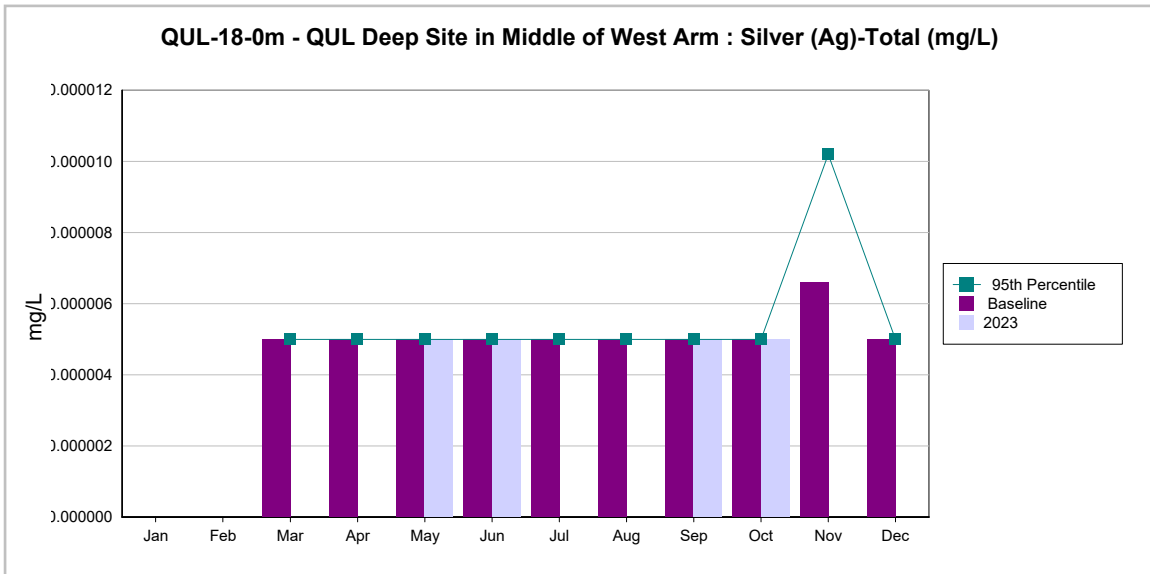
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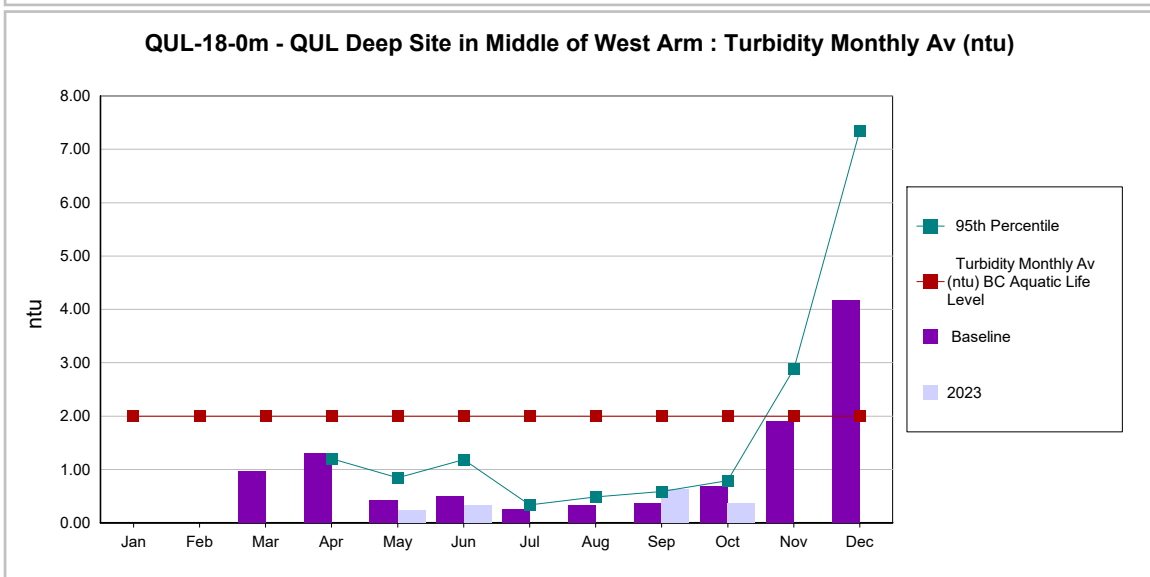
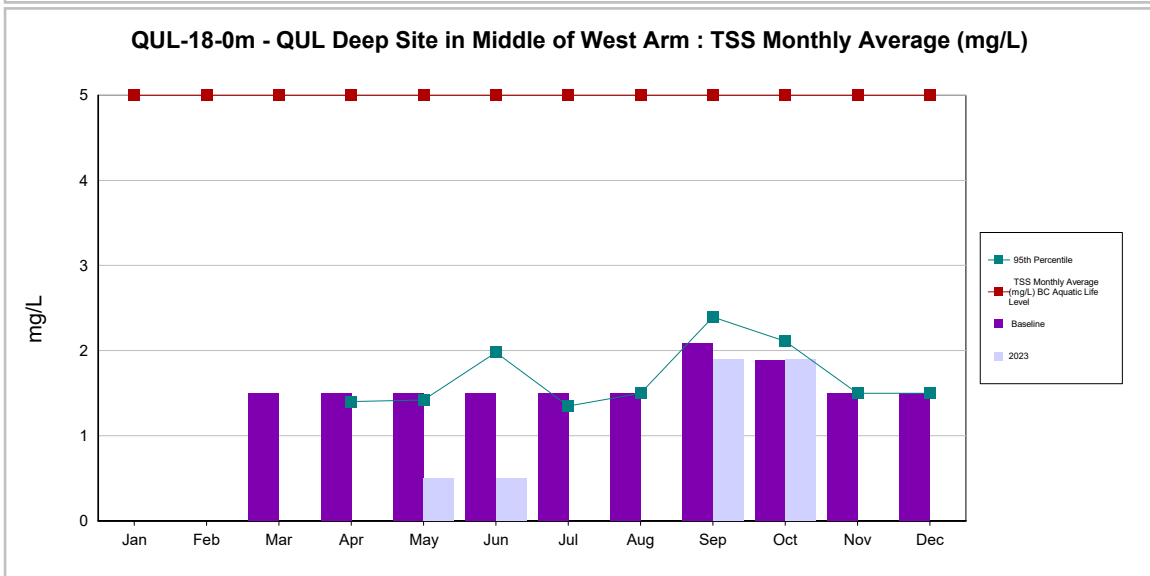
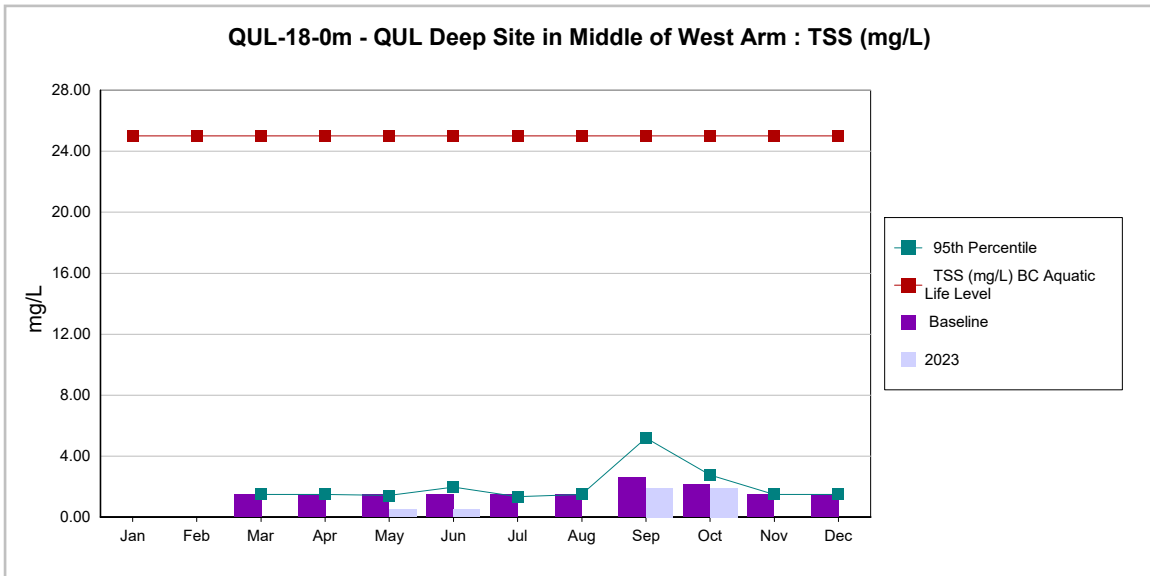
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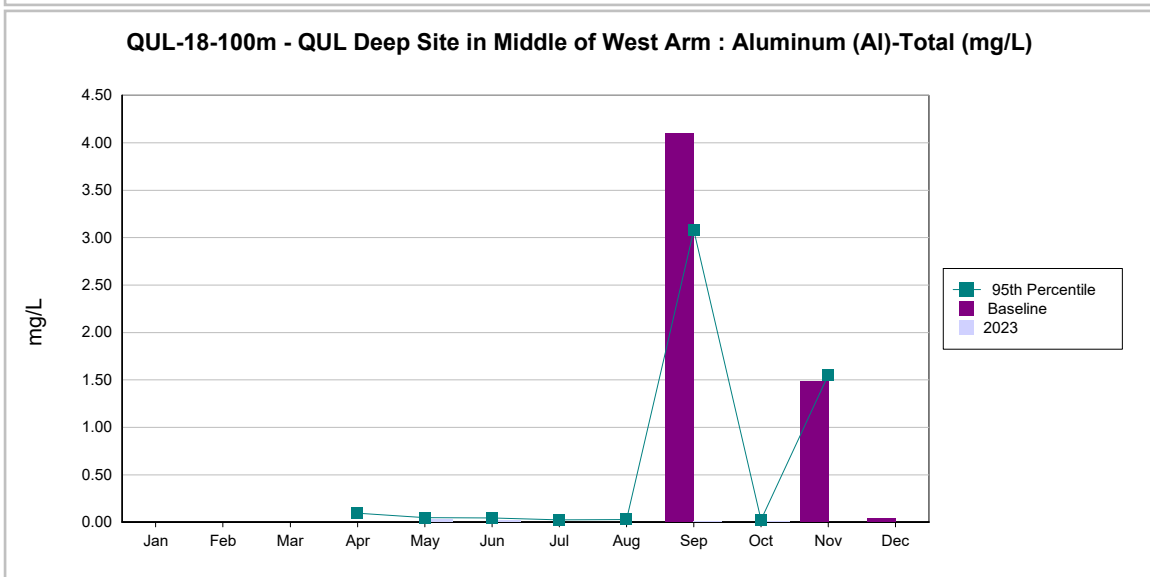
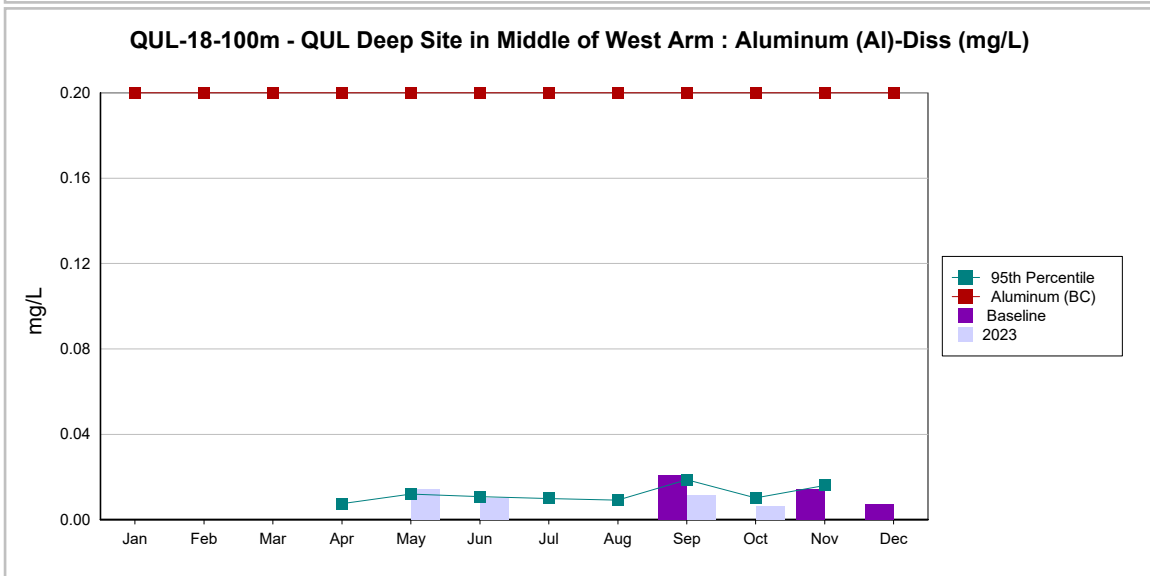
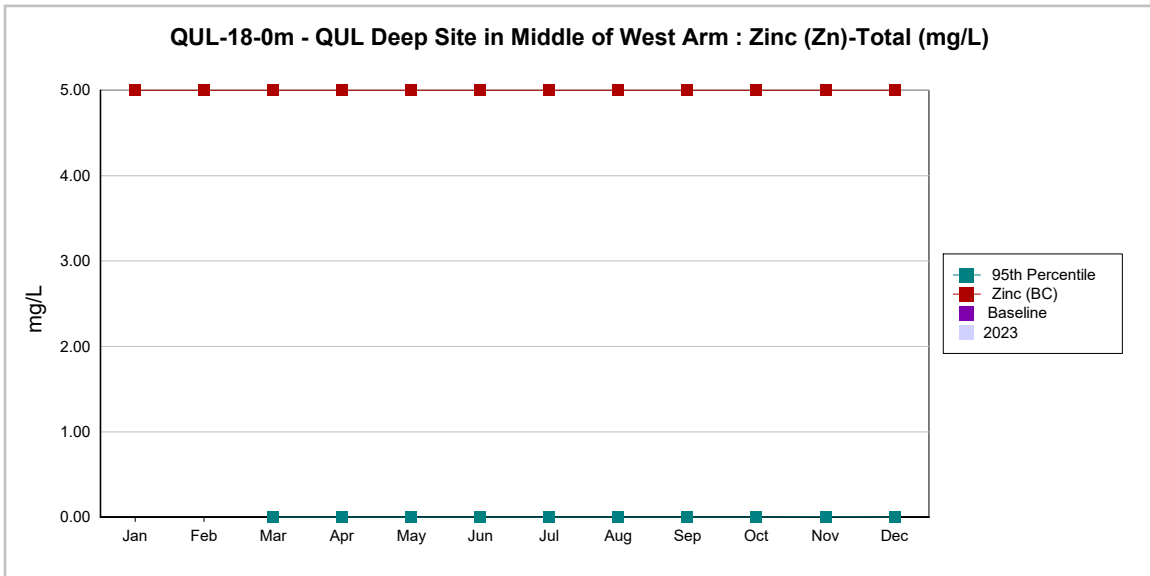
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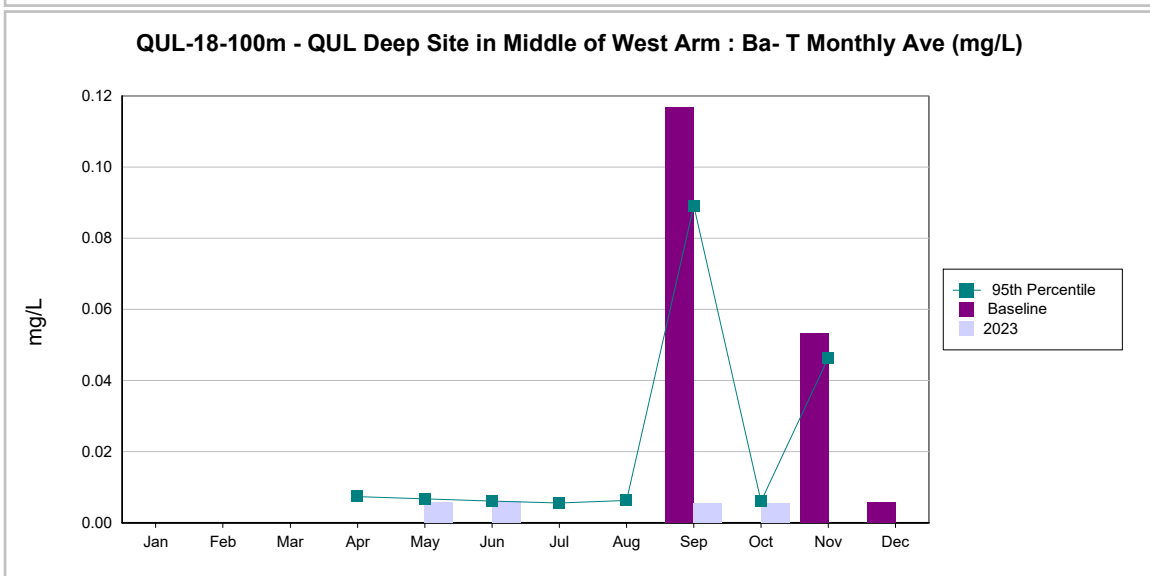
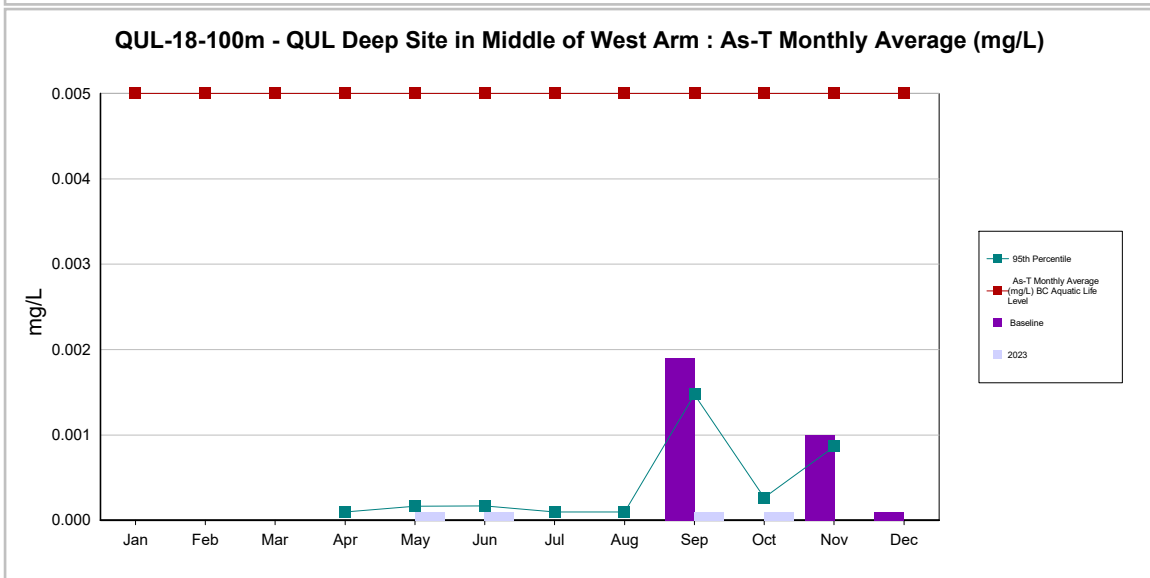
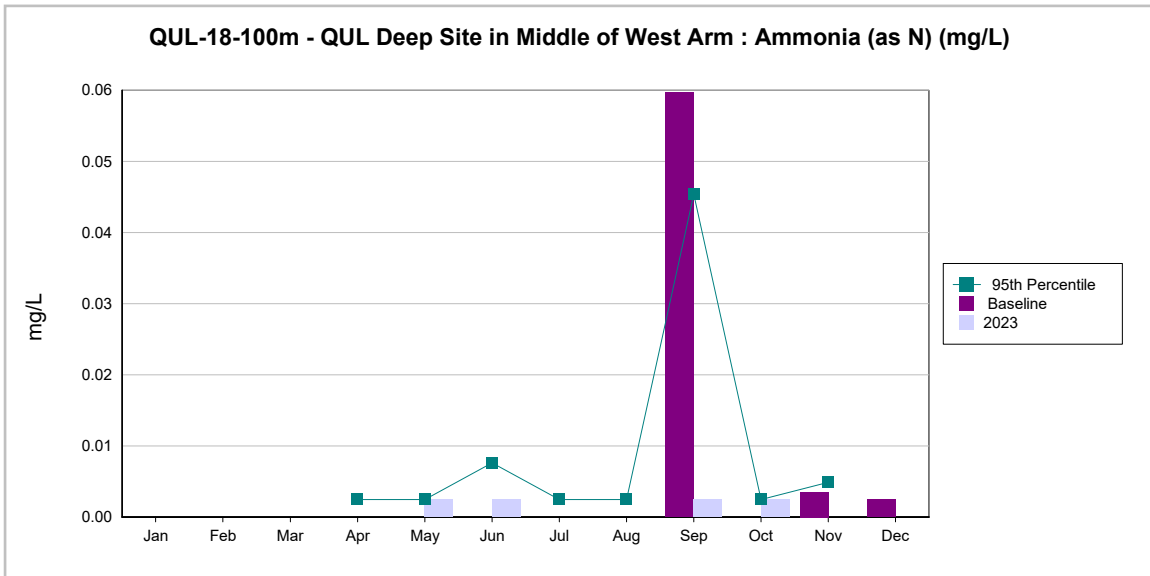
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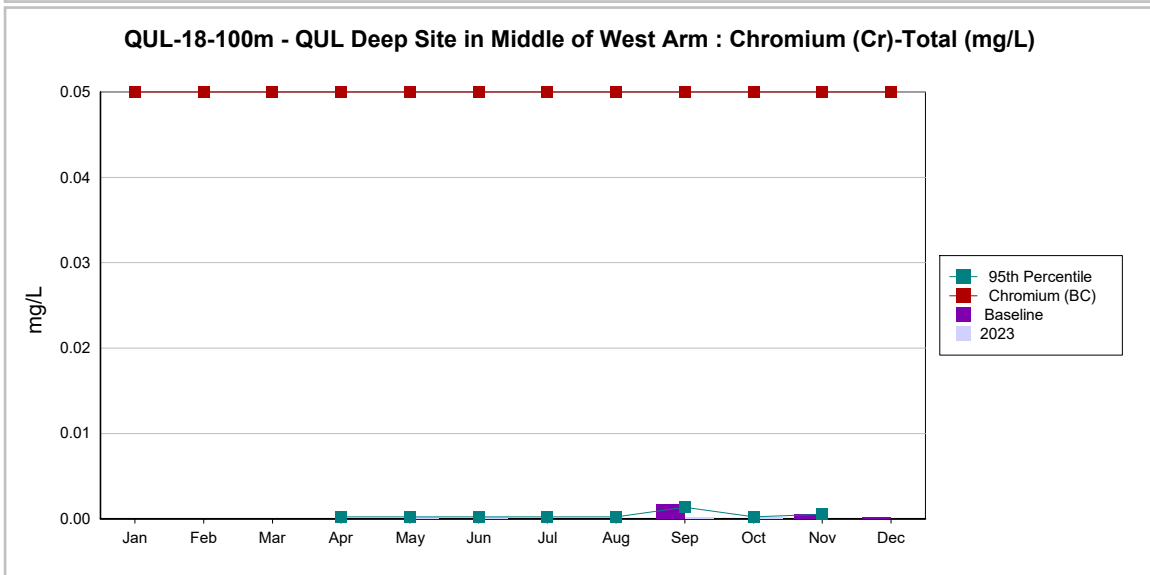
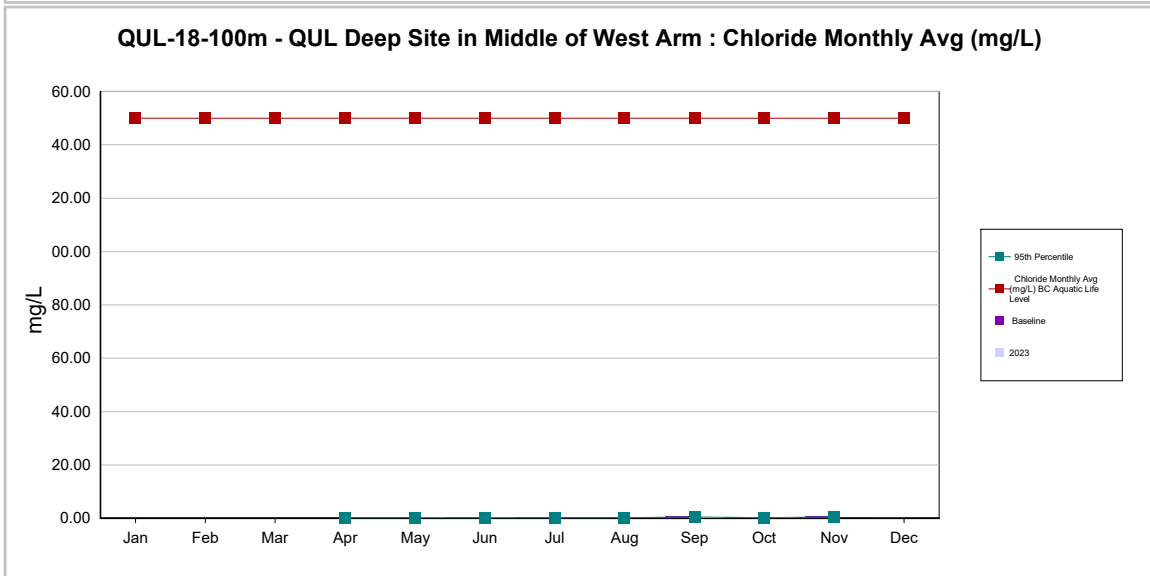
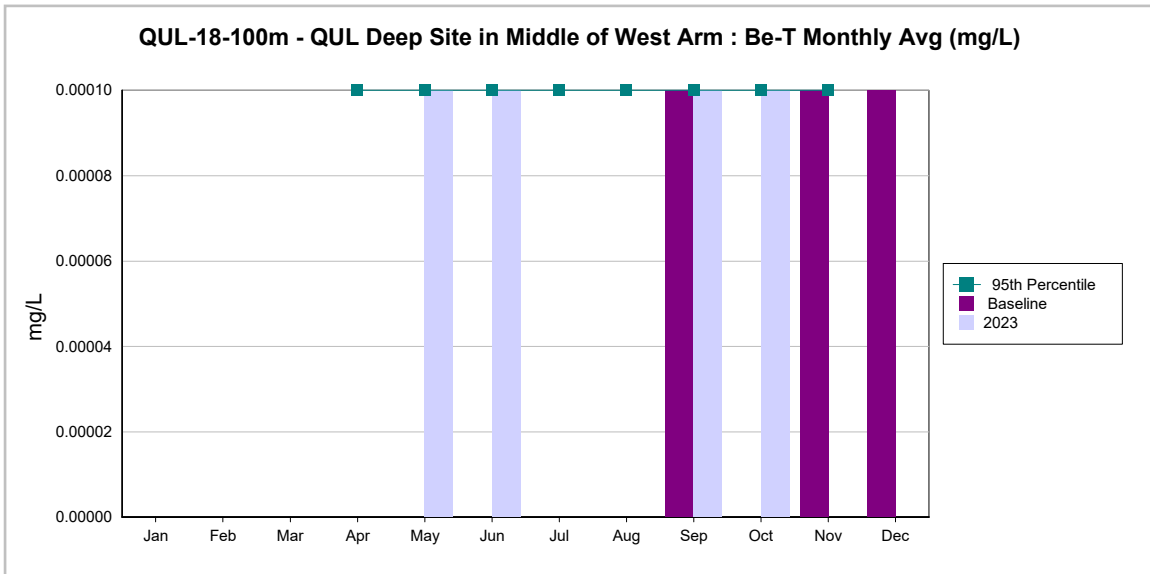
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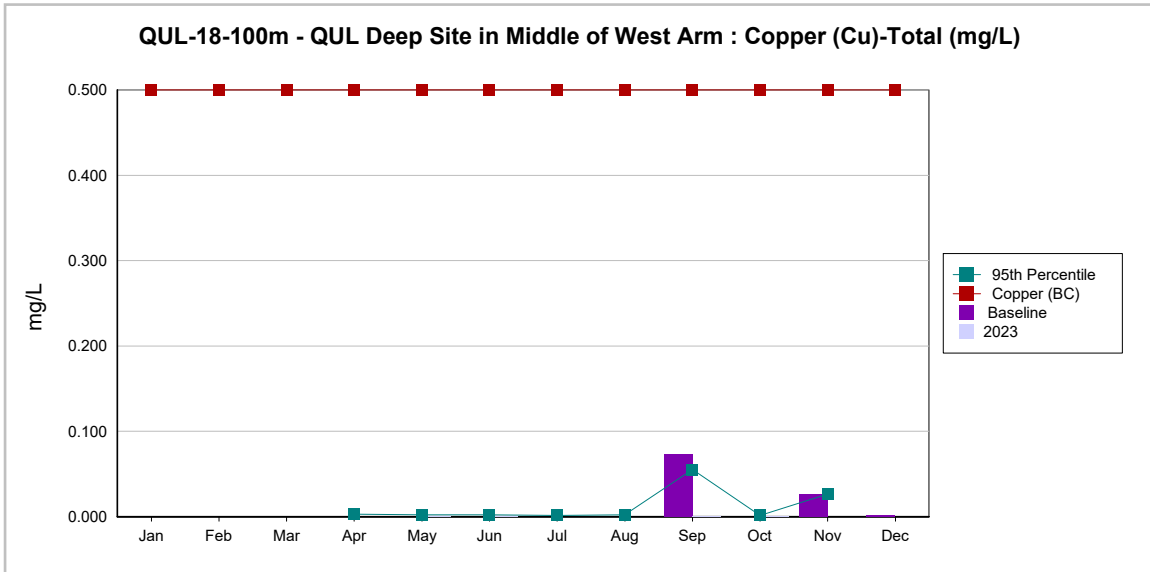
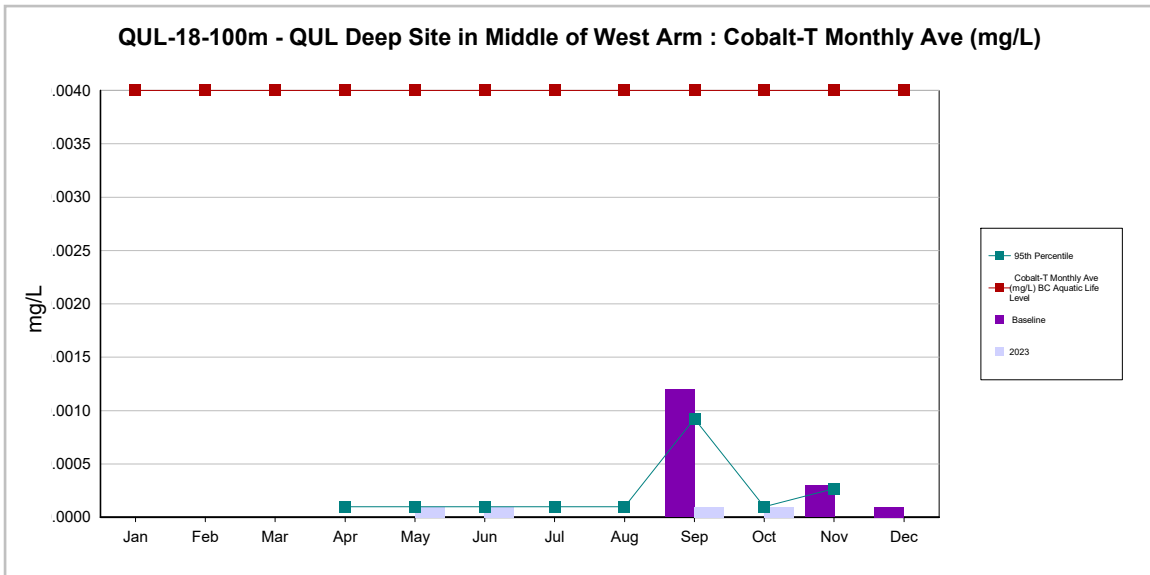
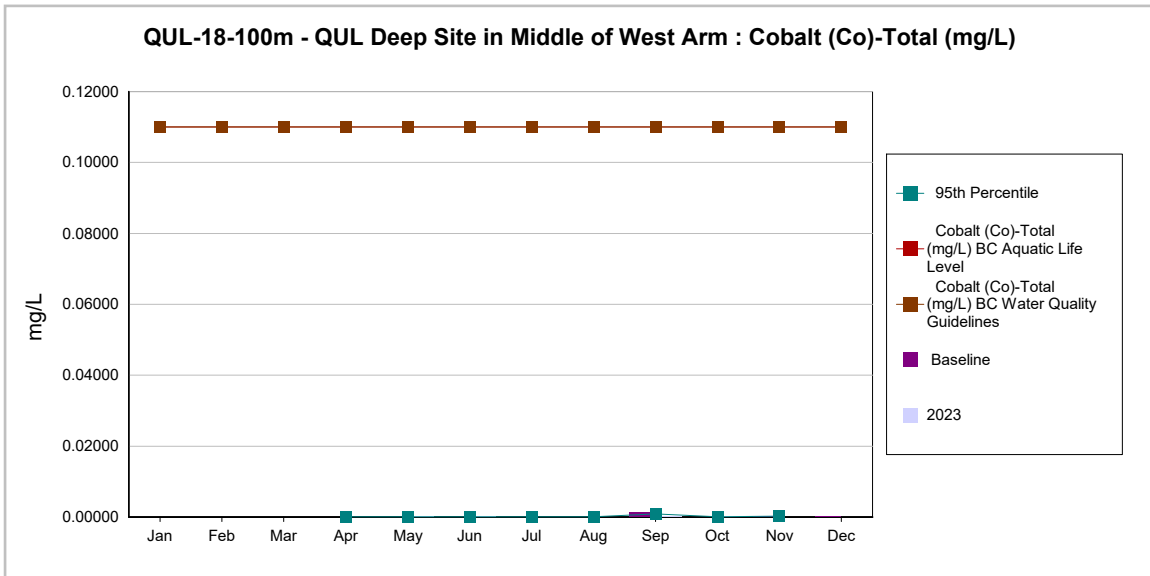
Annual Report Lake vs BCWQG



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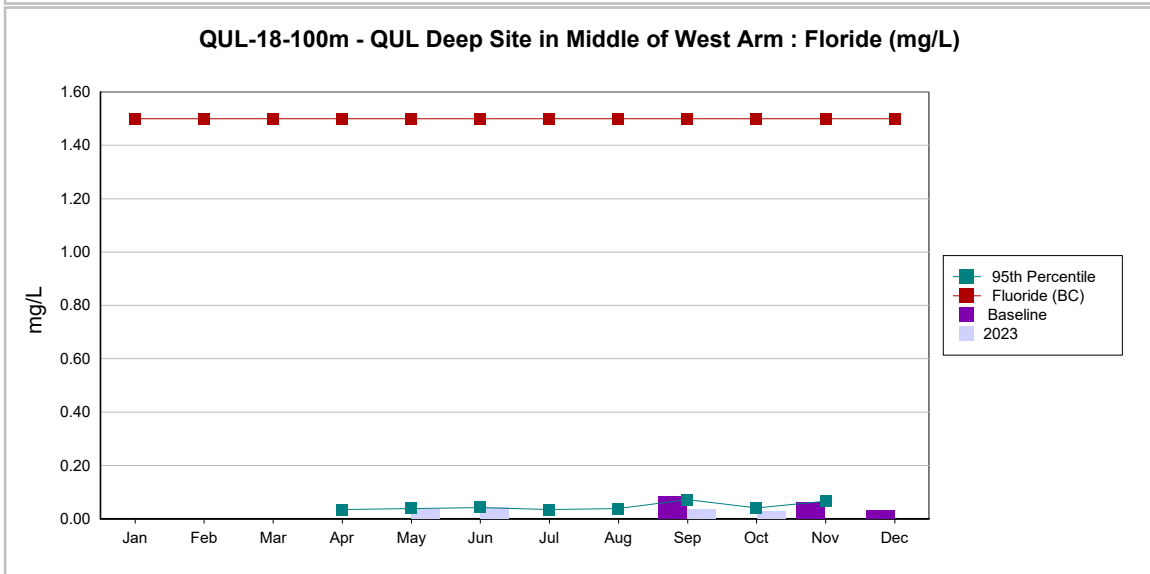
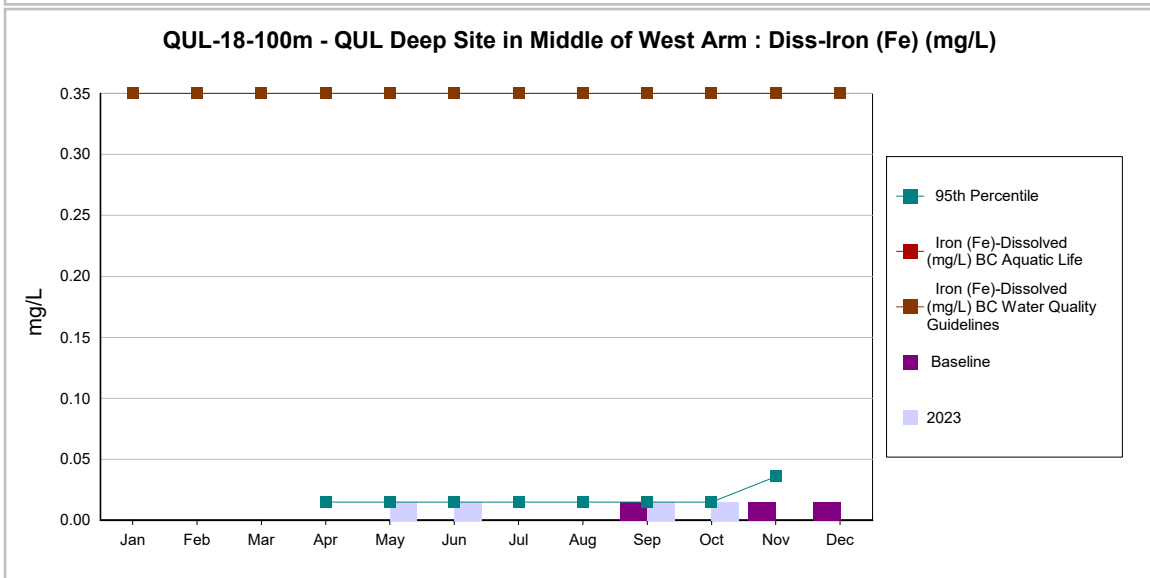
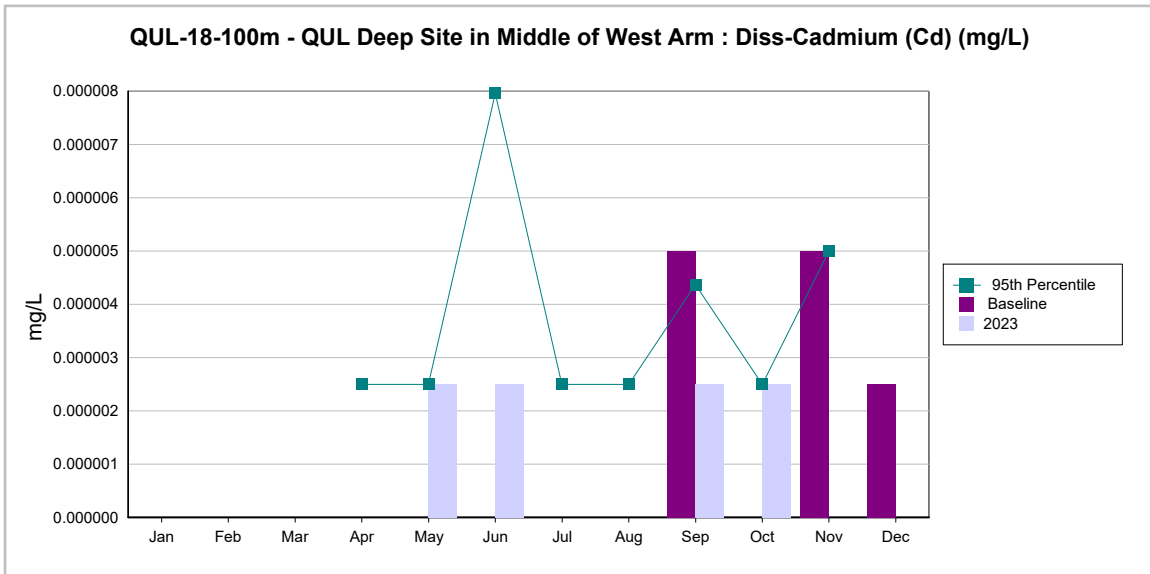
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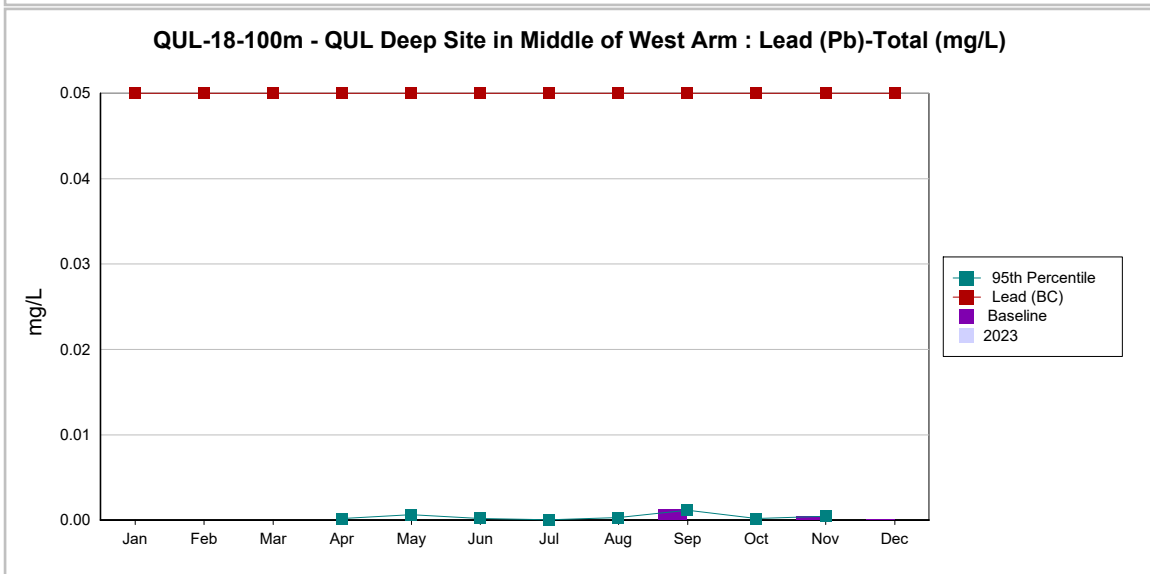
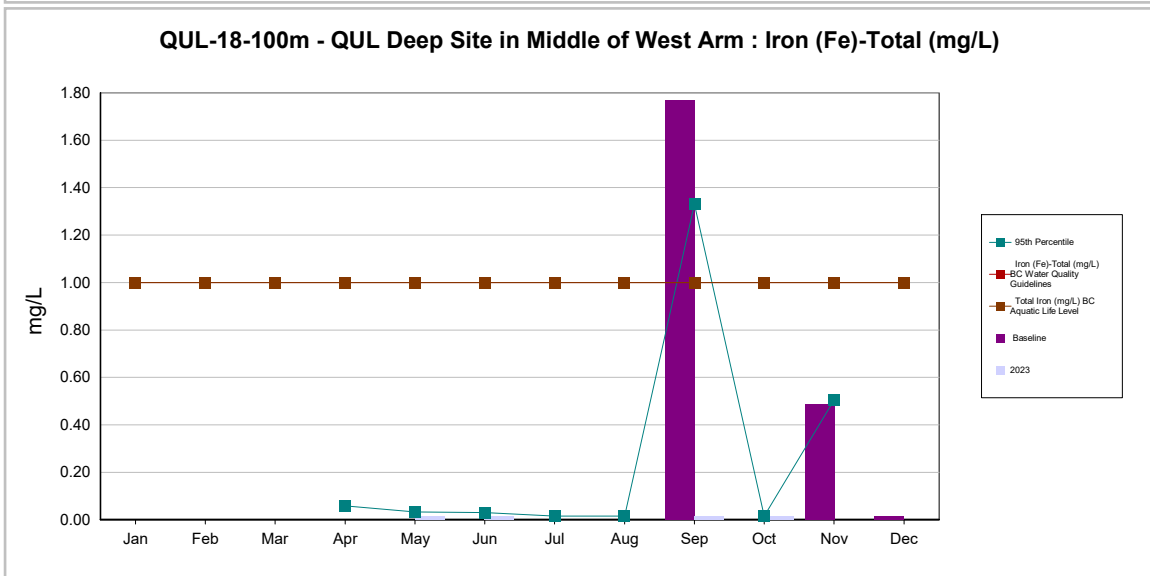
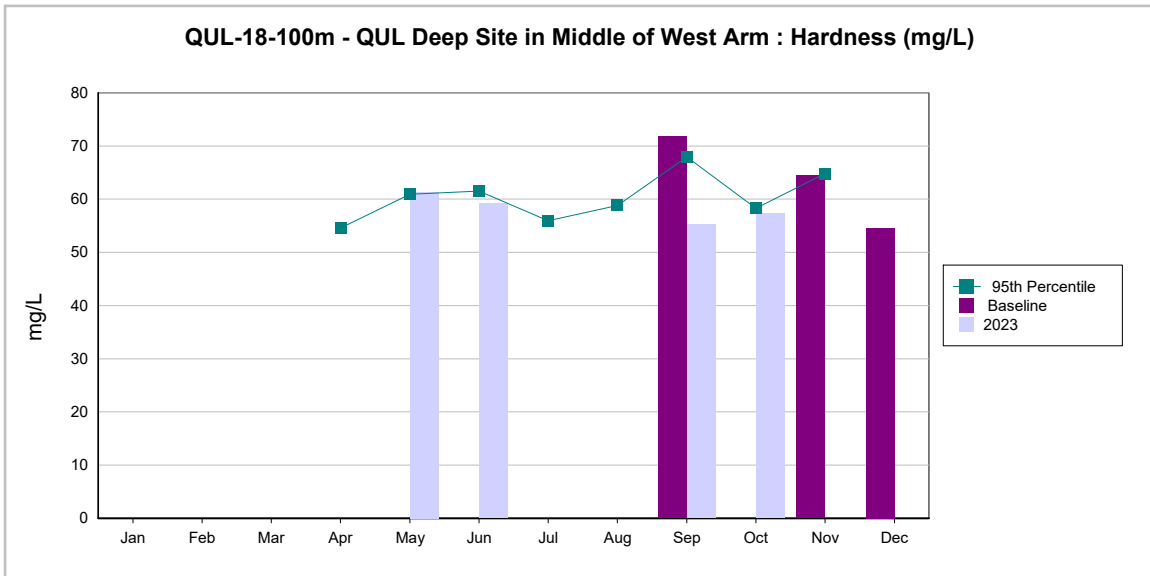
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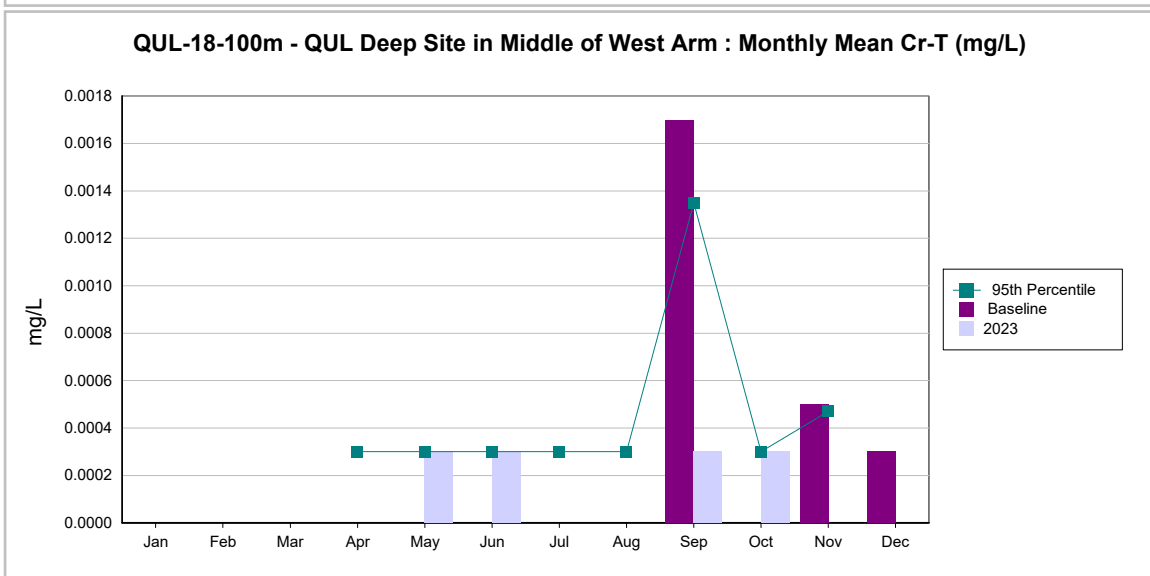
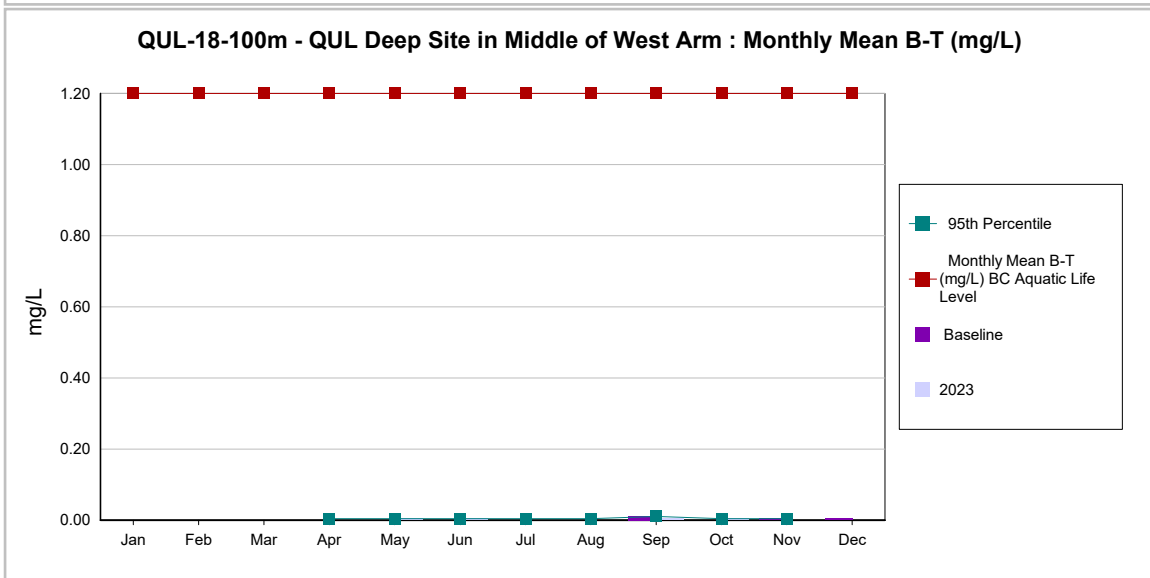
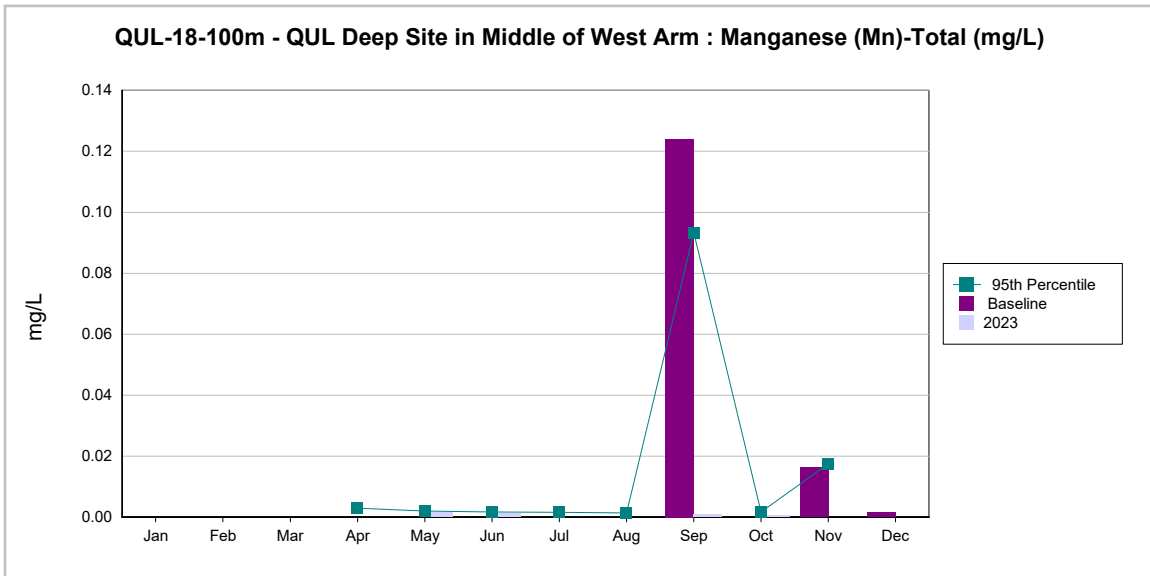
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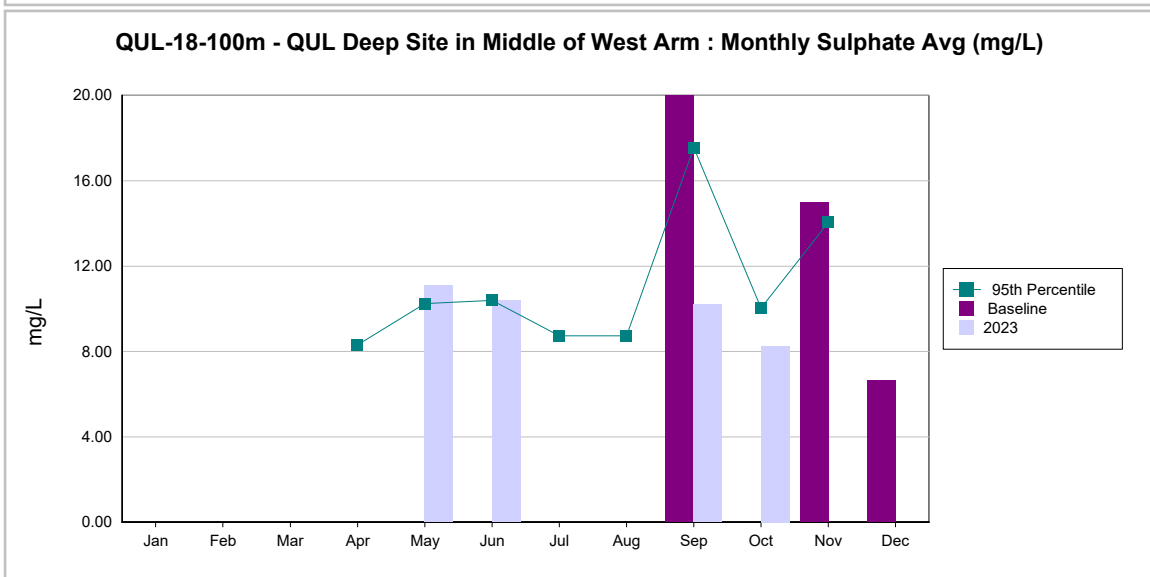
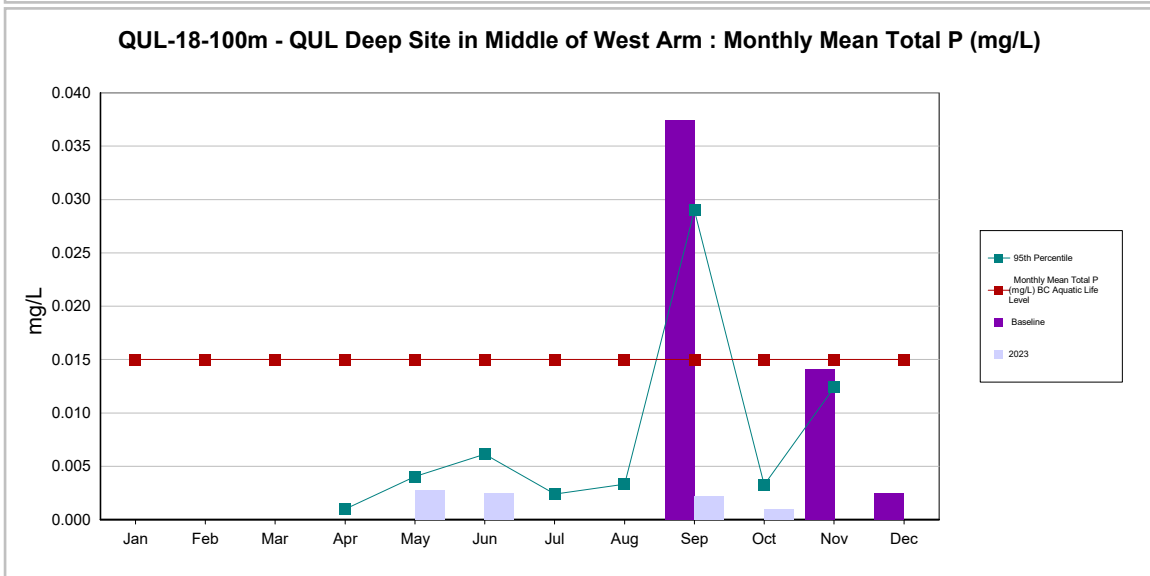
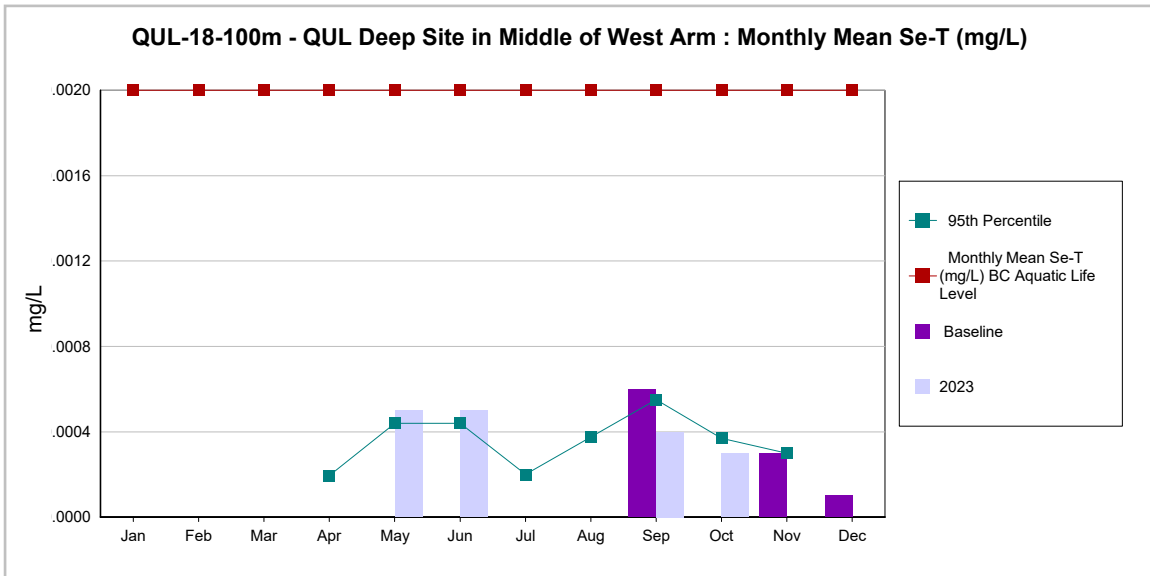
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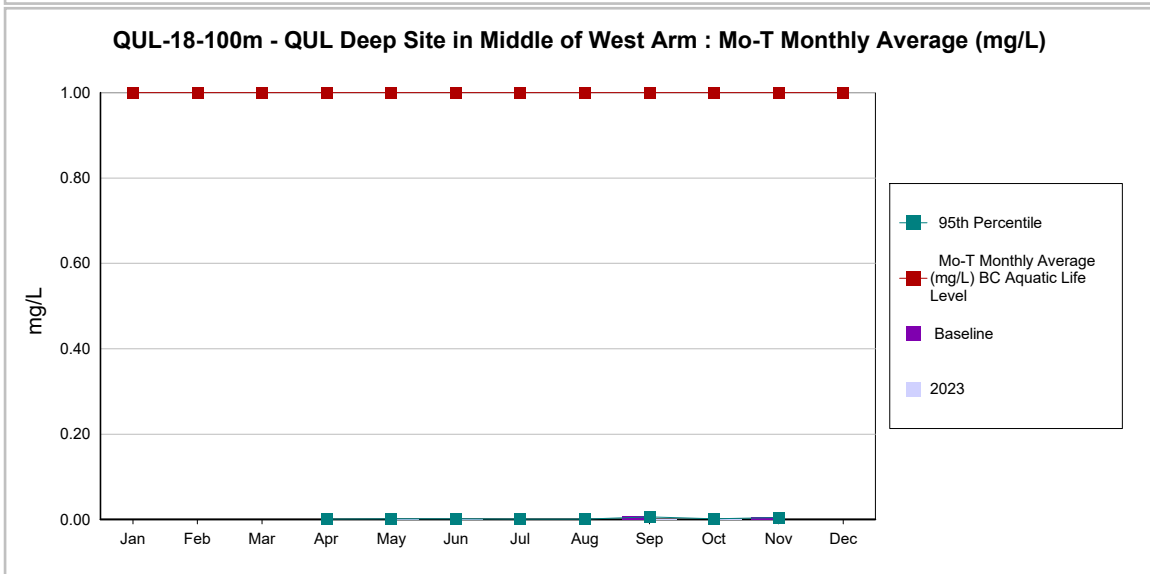
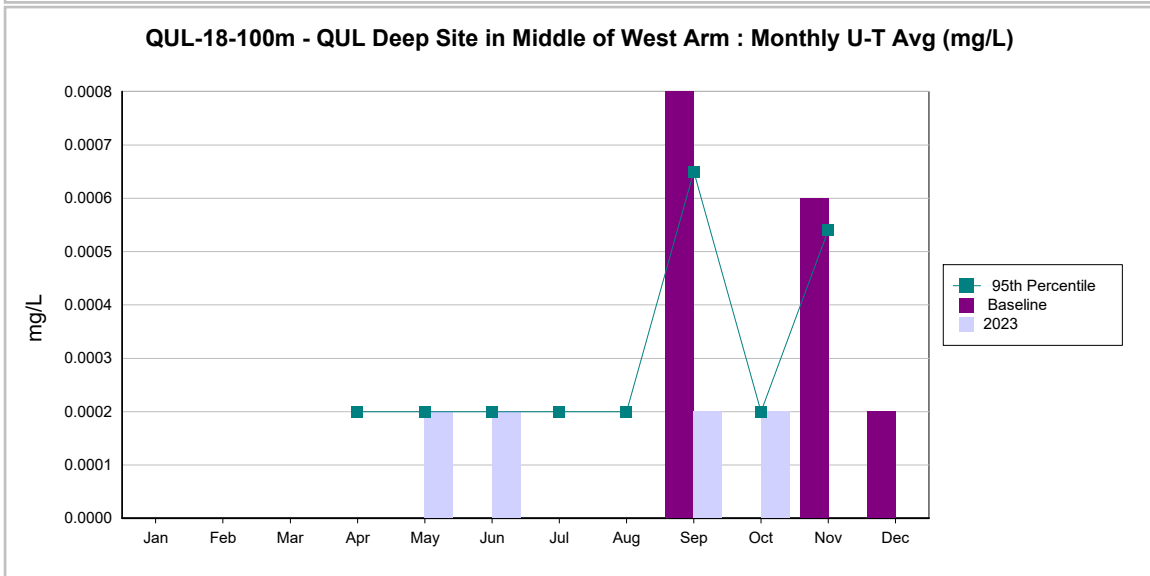
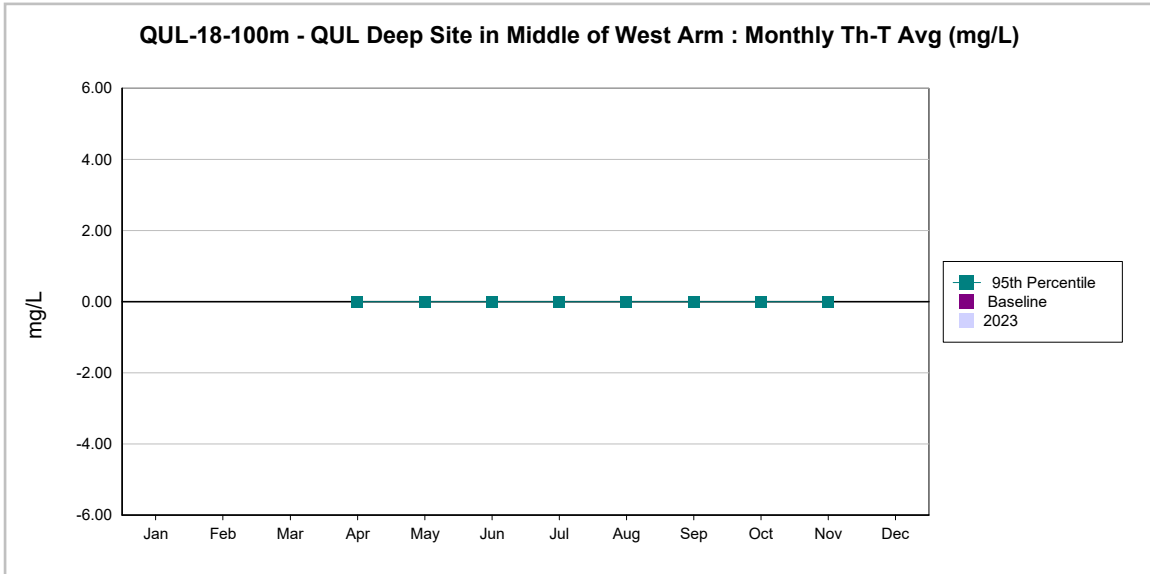
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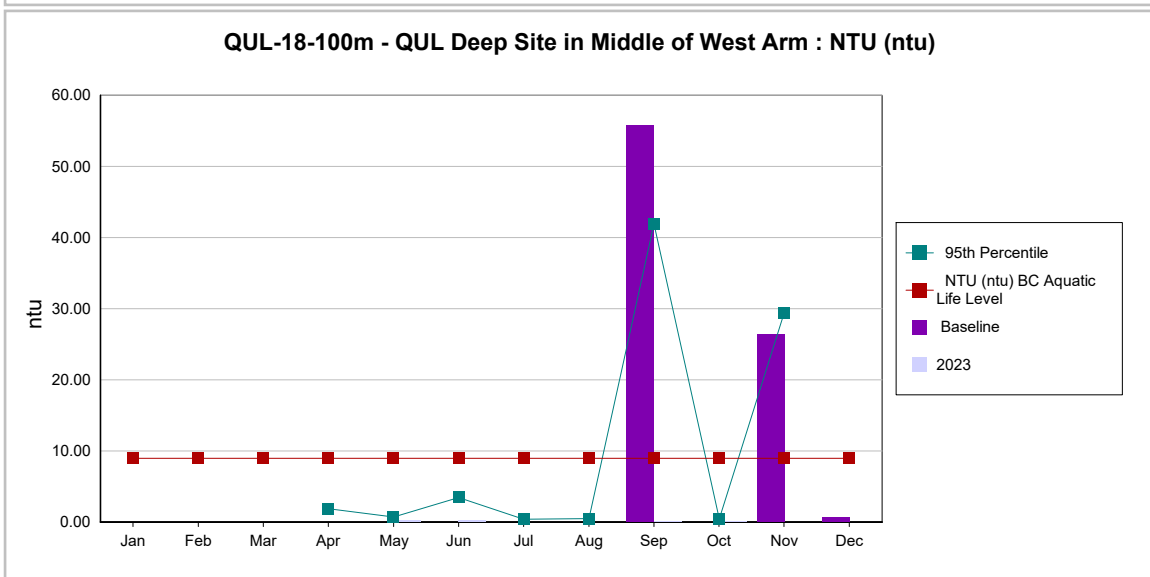
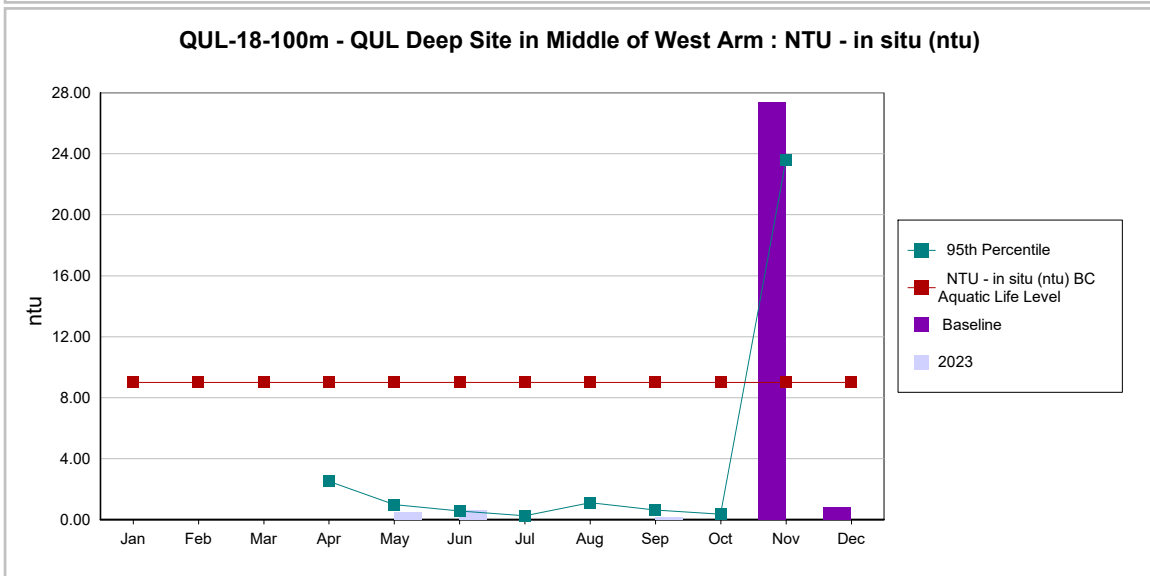
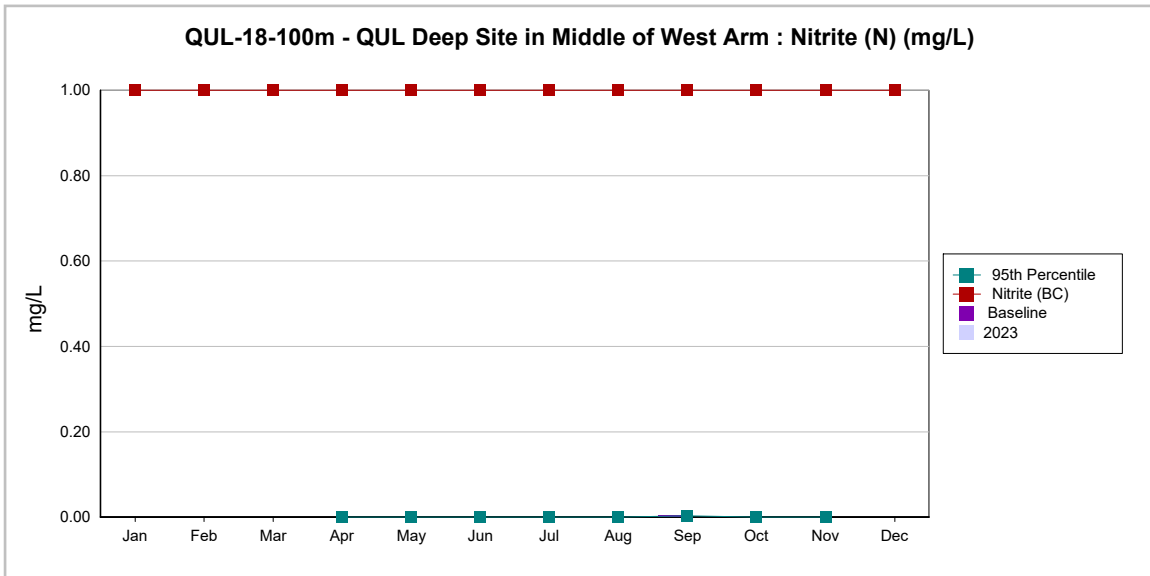
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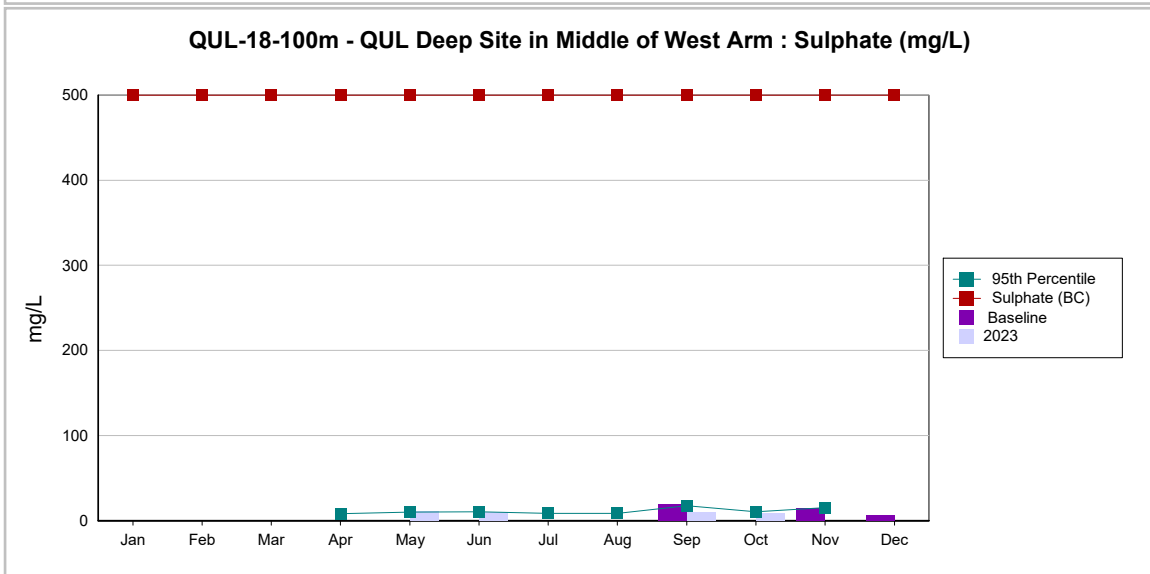
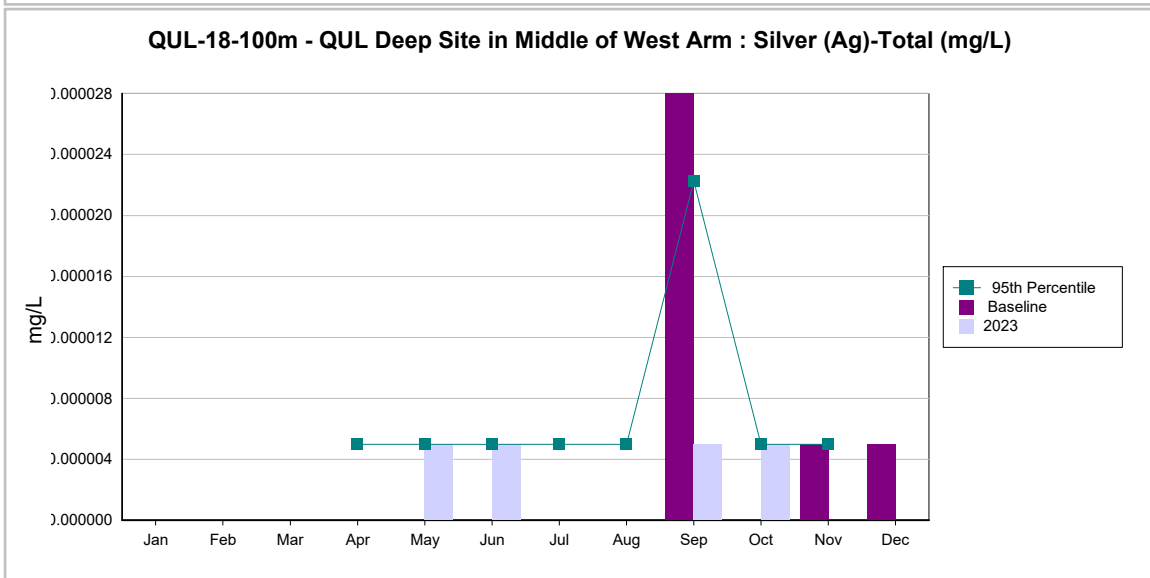
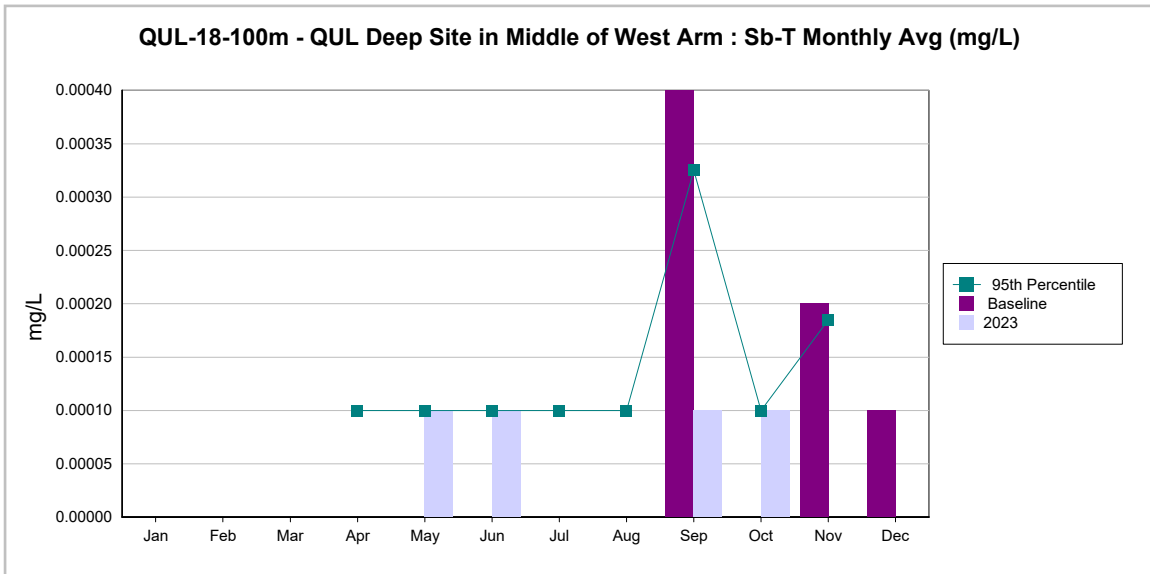
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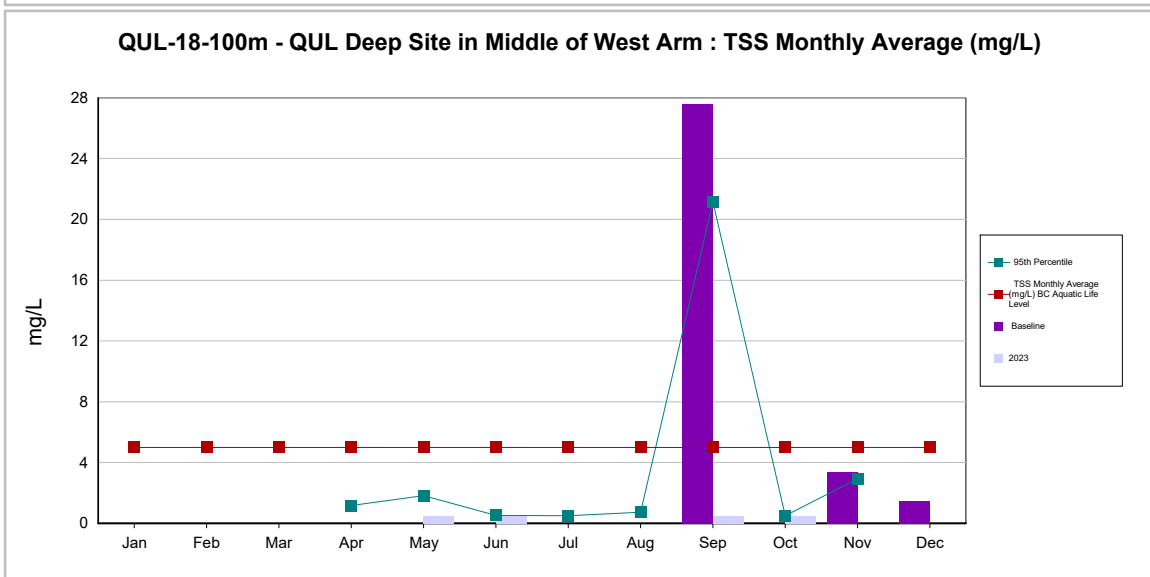
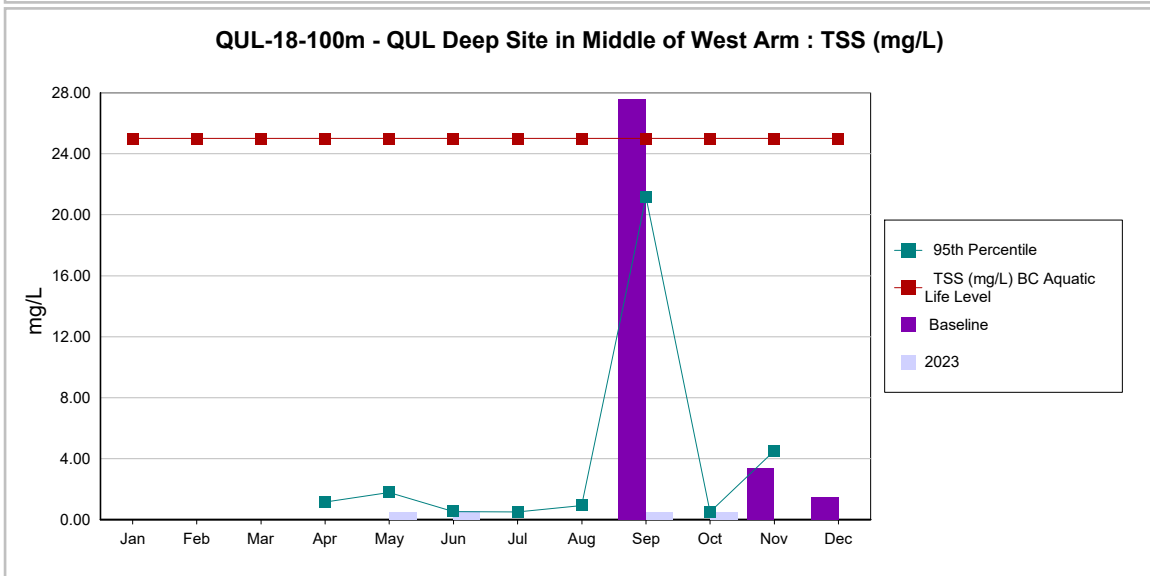
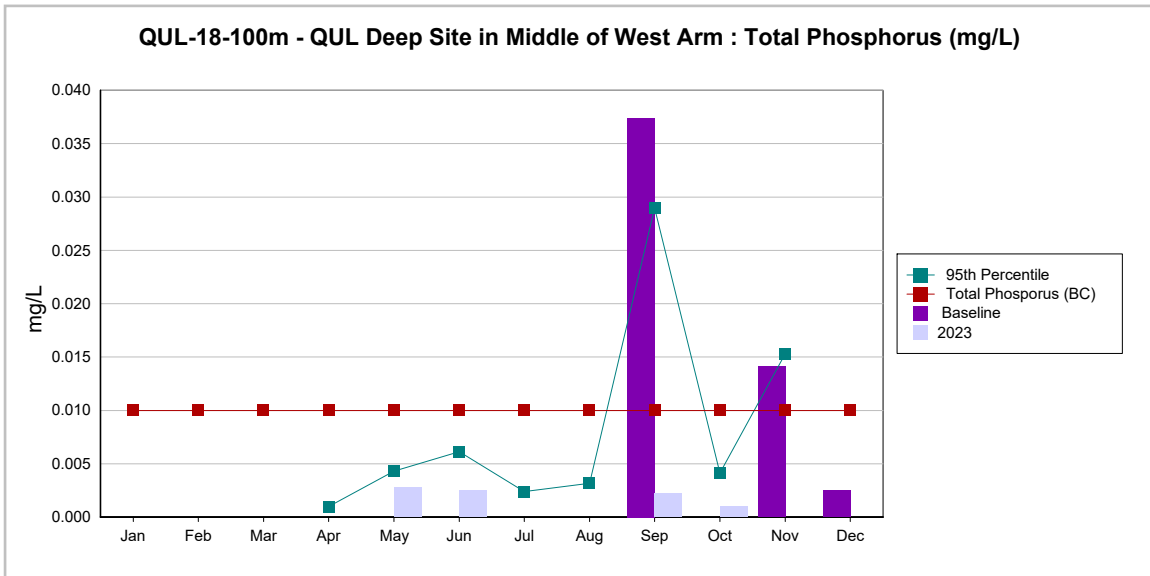
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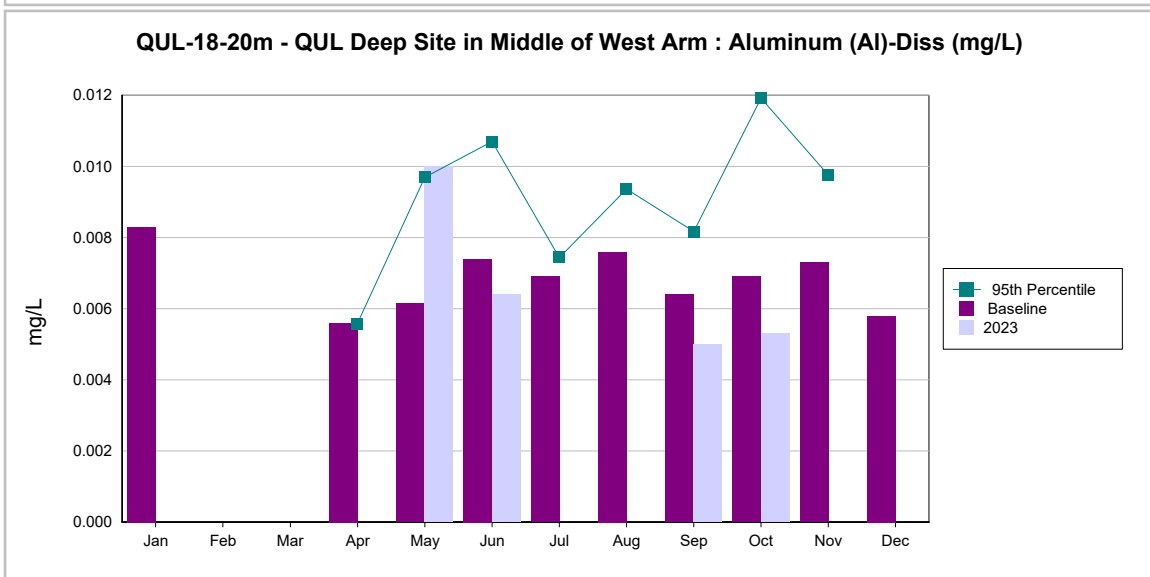
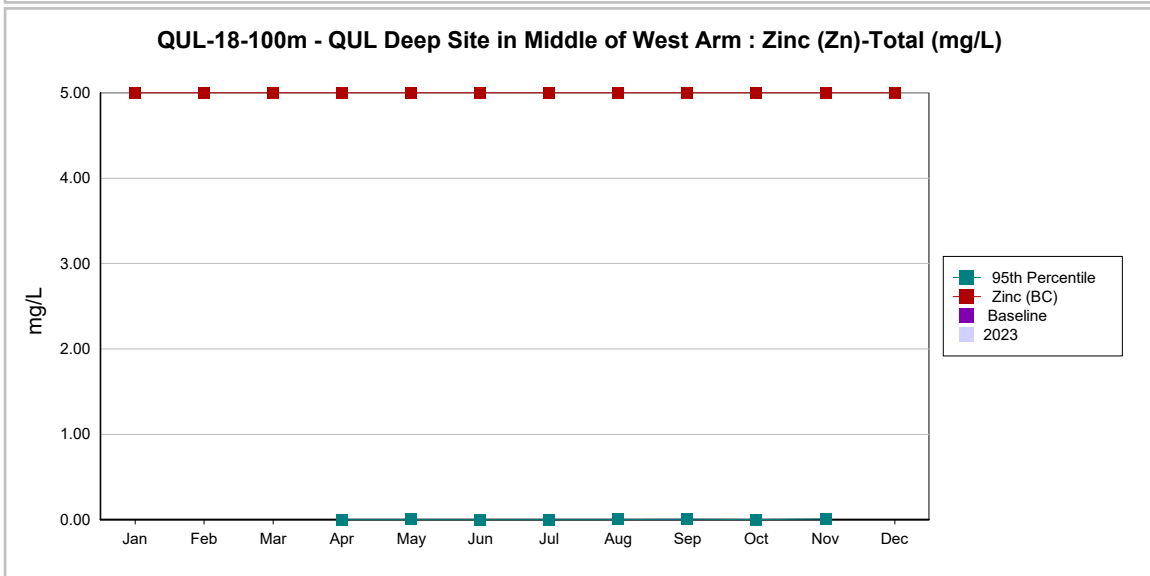
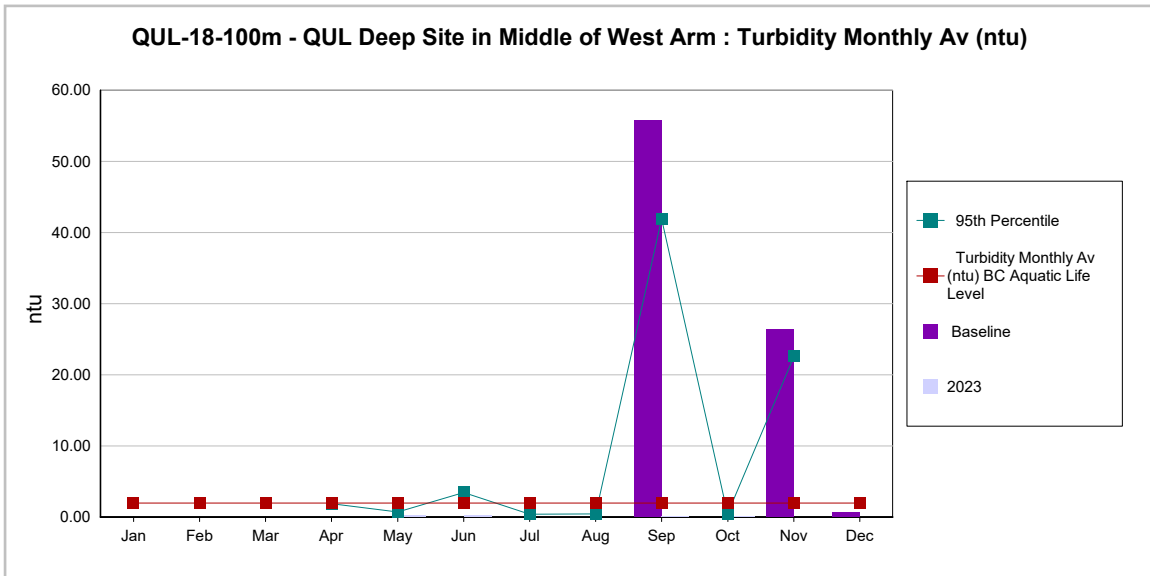
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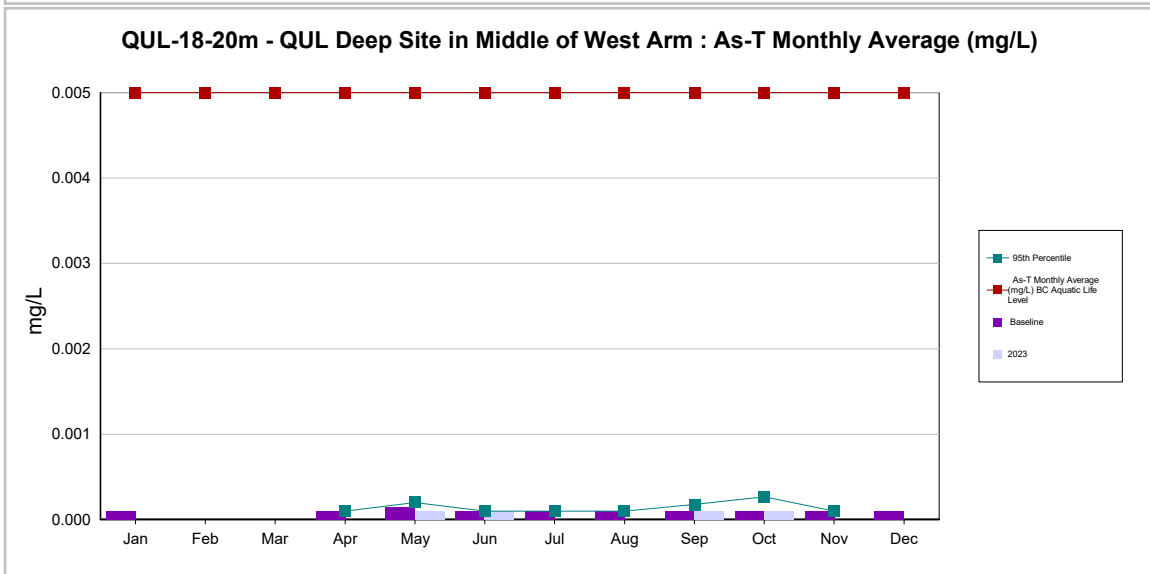
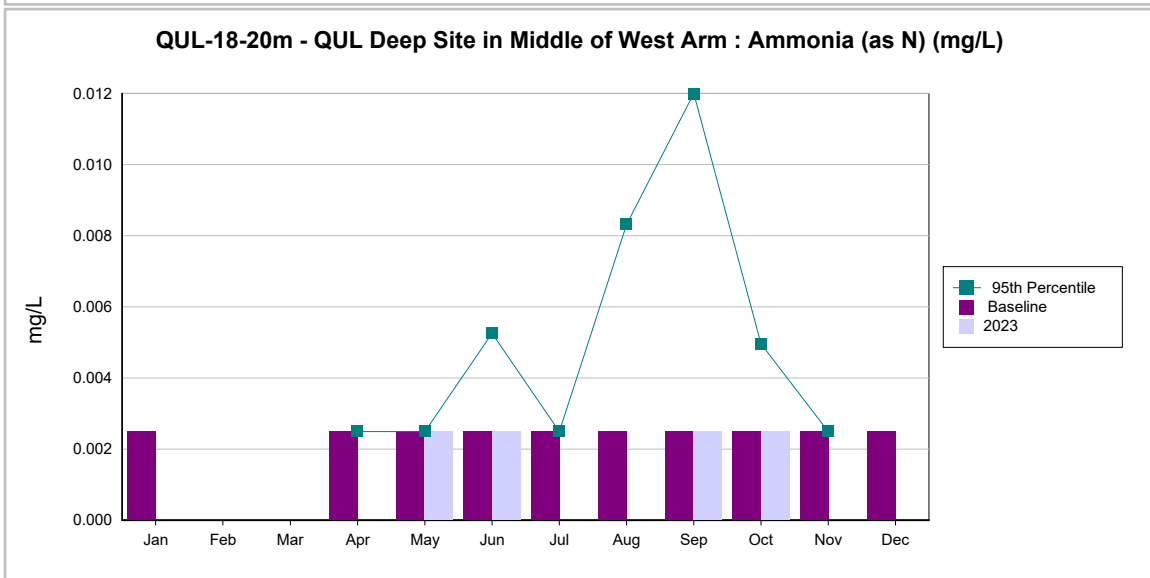
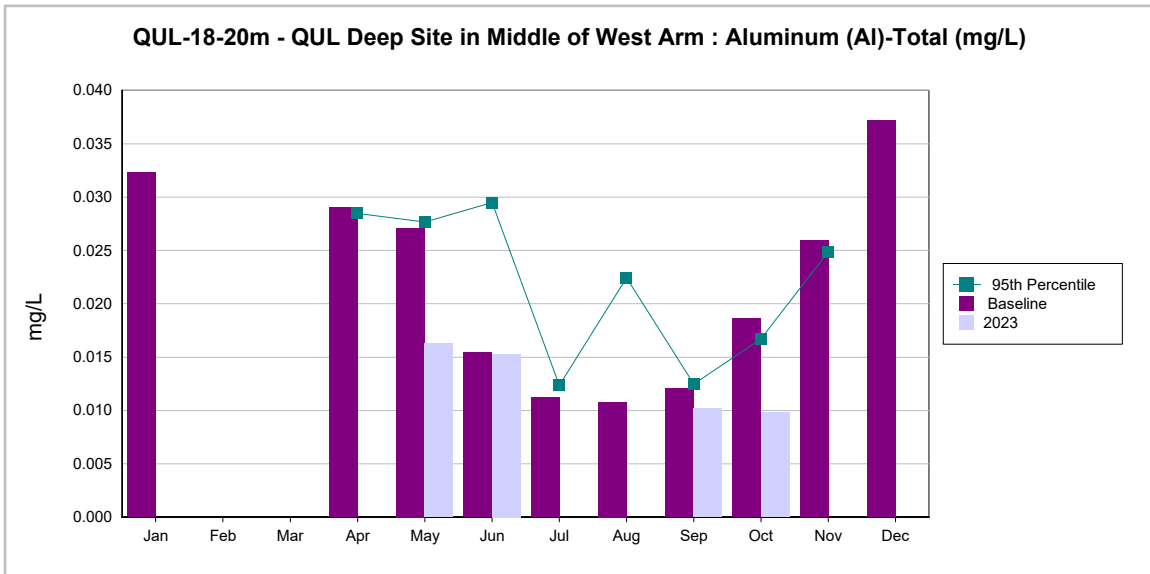
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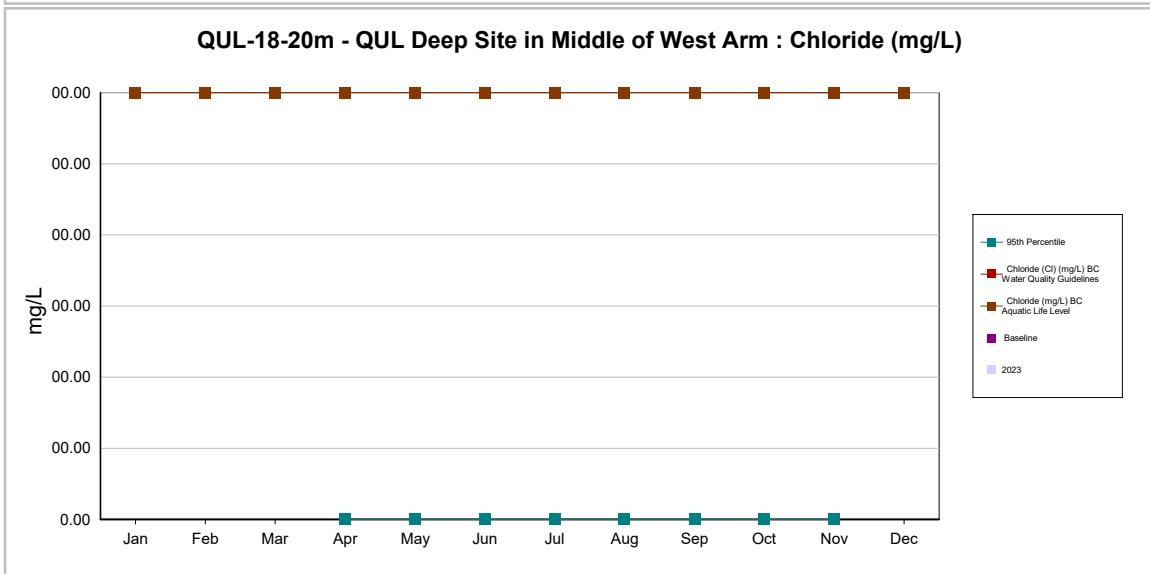
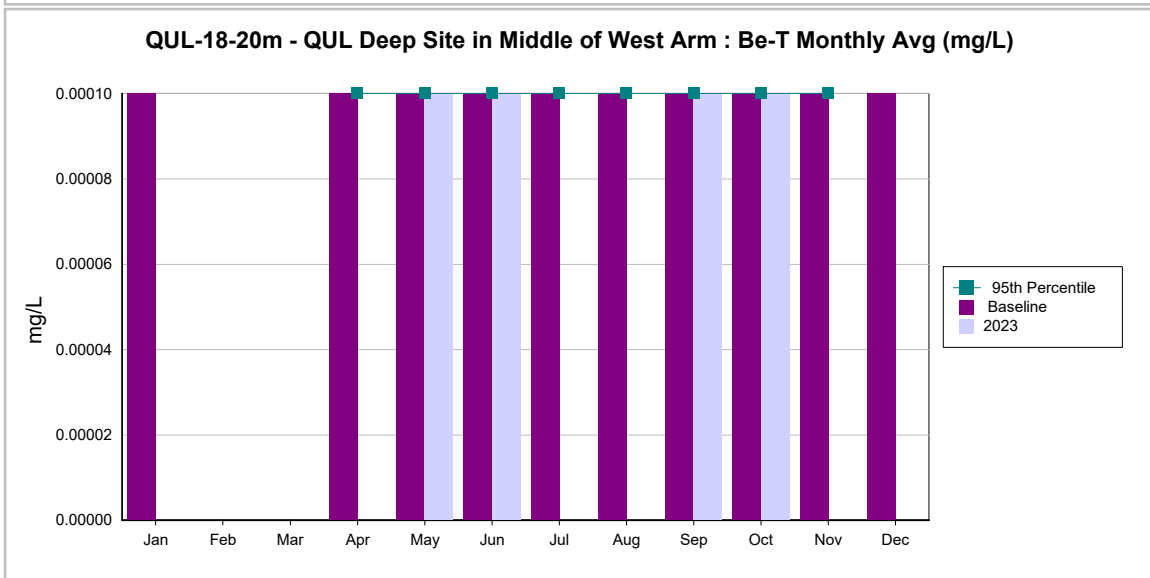
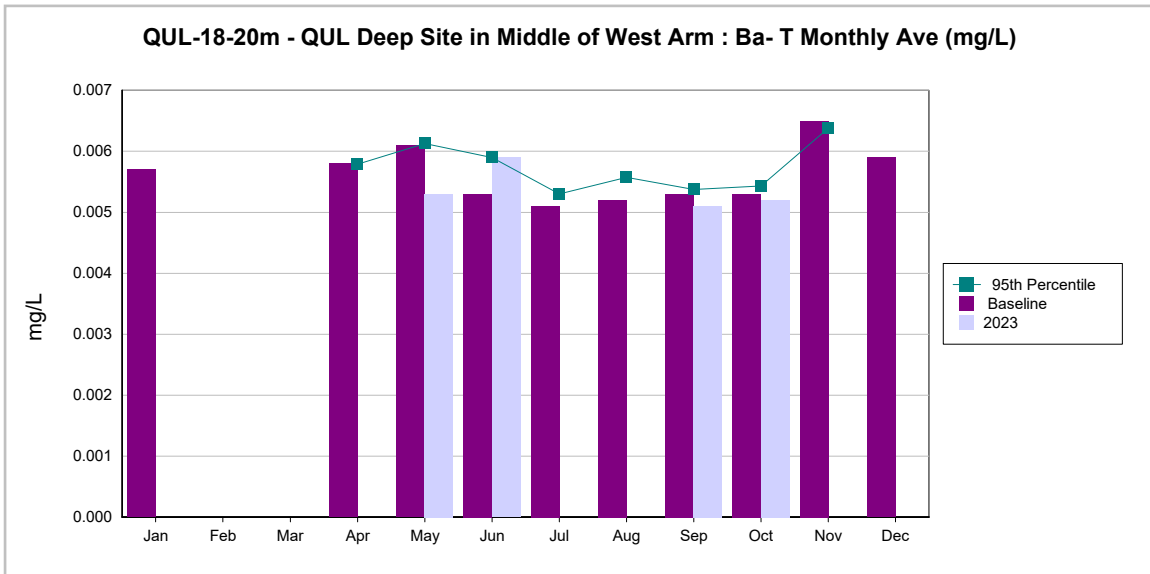
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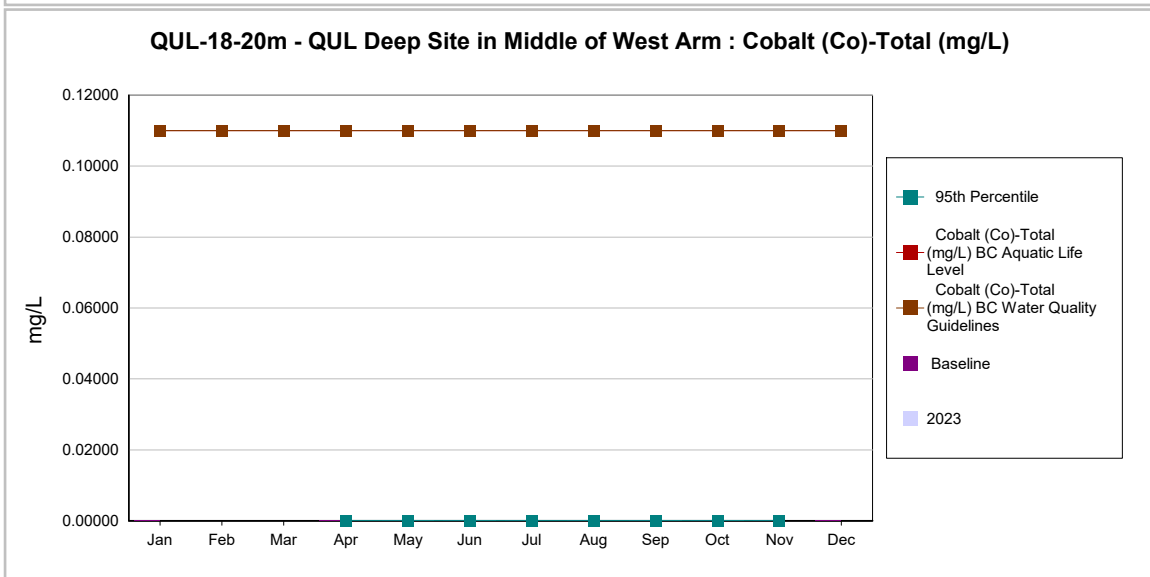
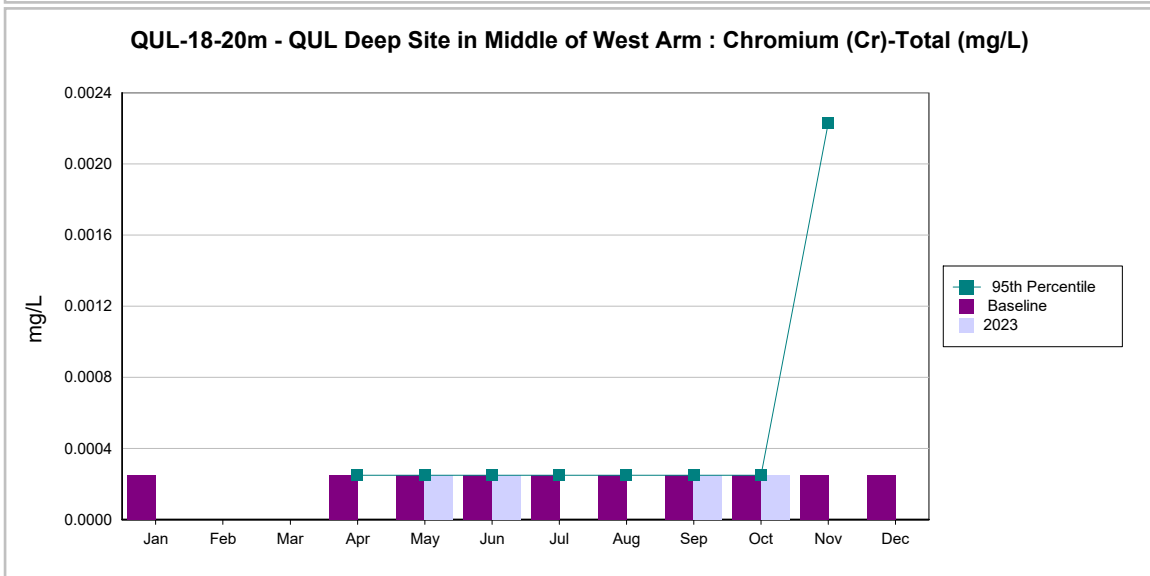
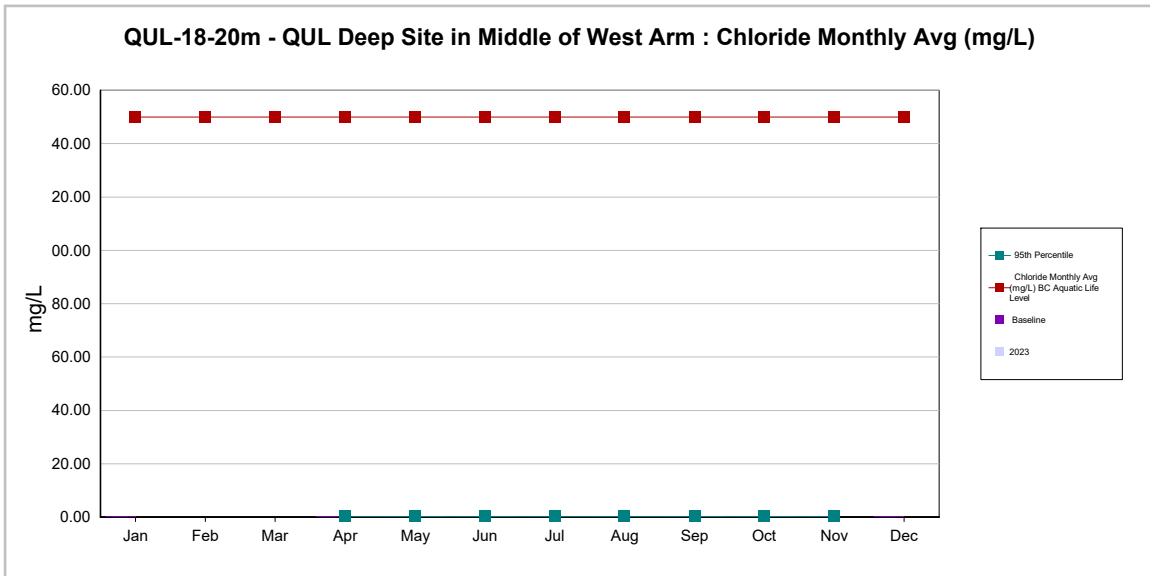
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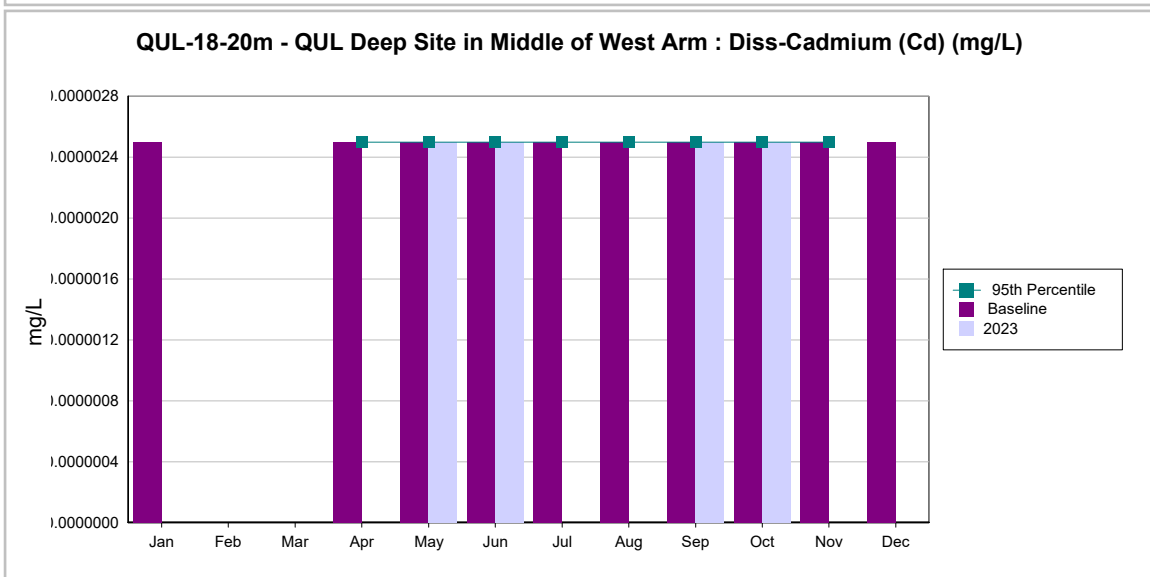
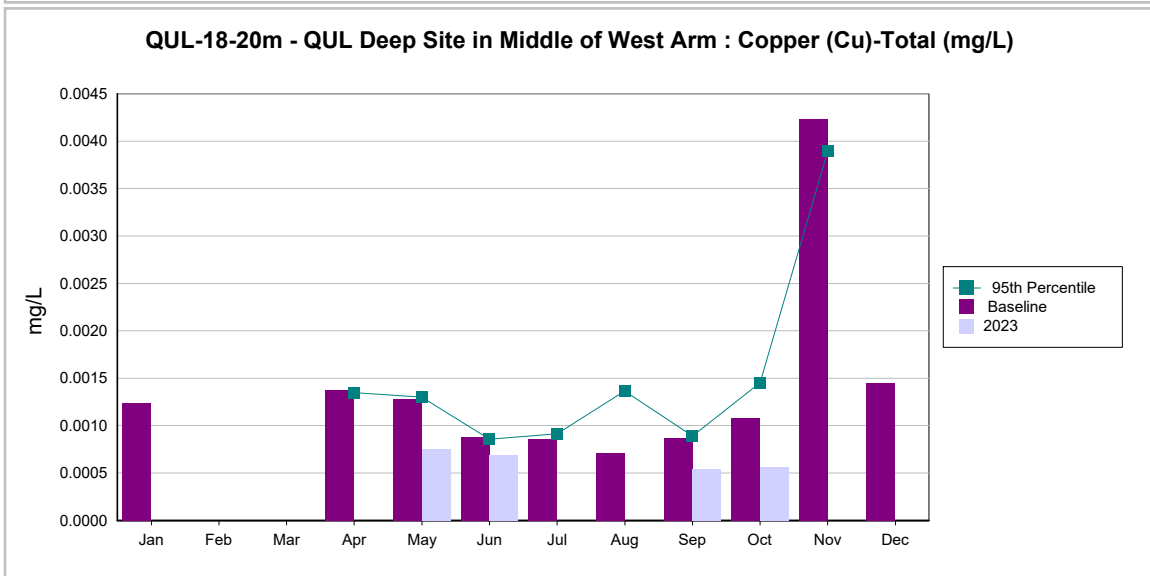
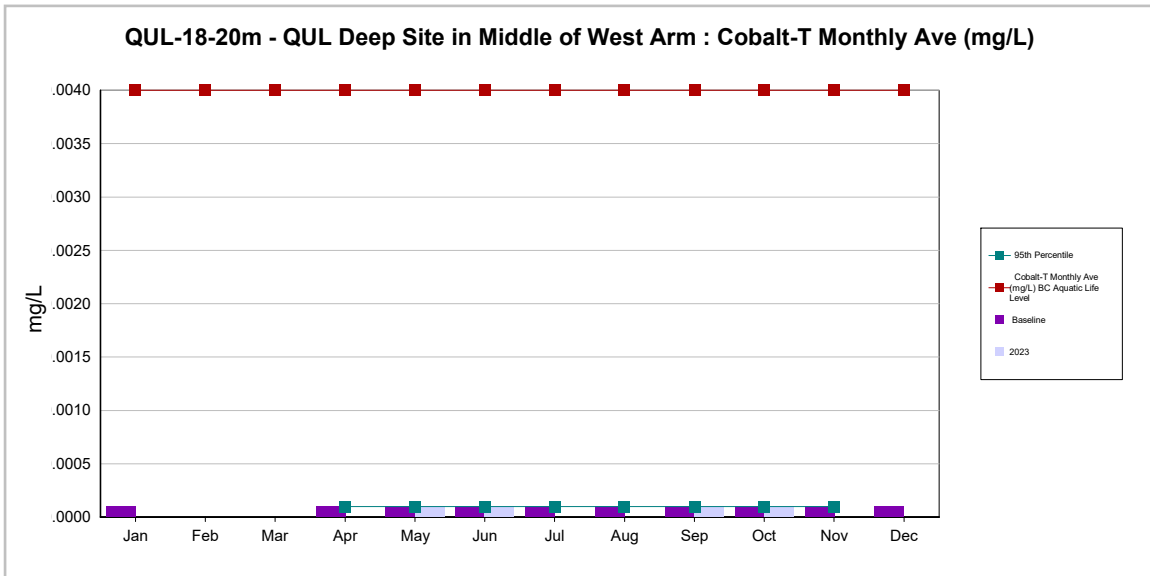
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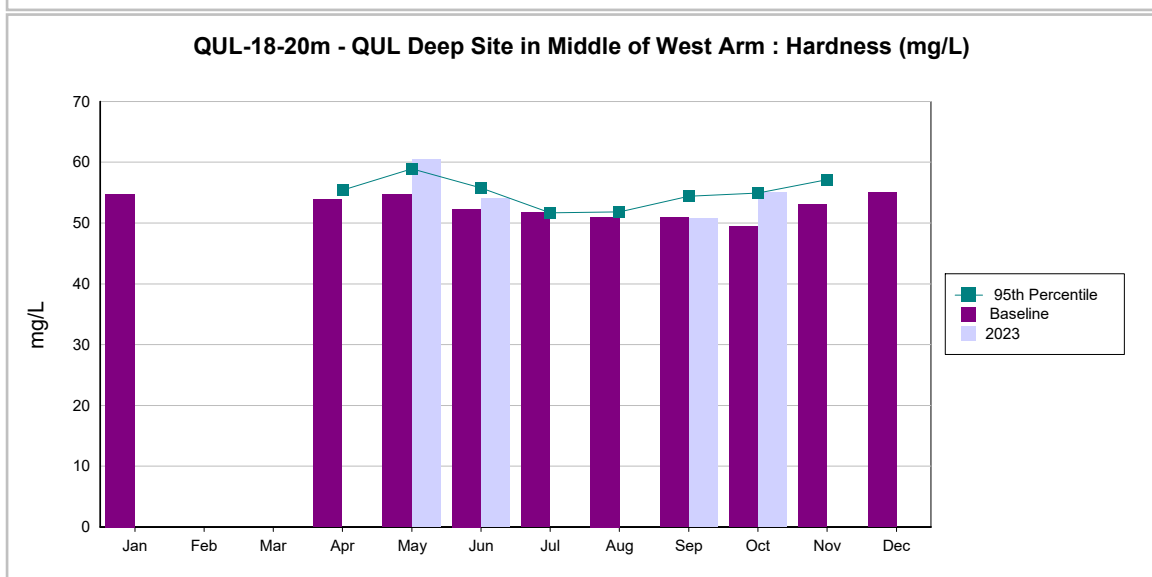
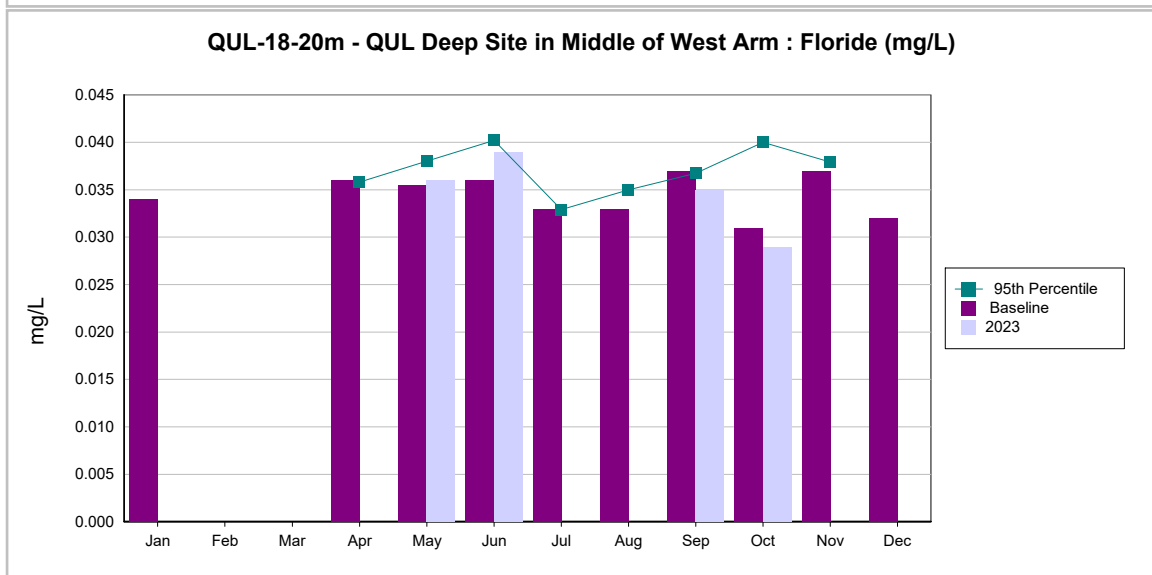
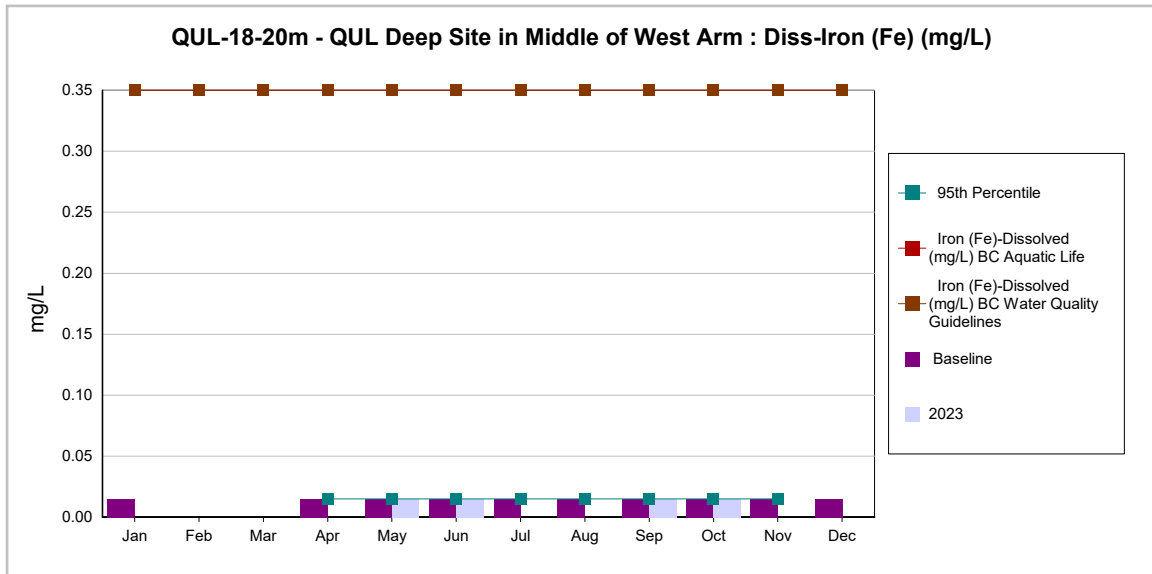
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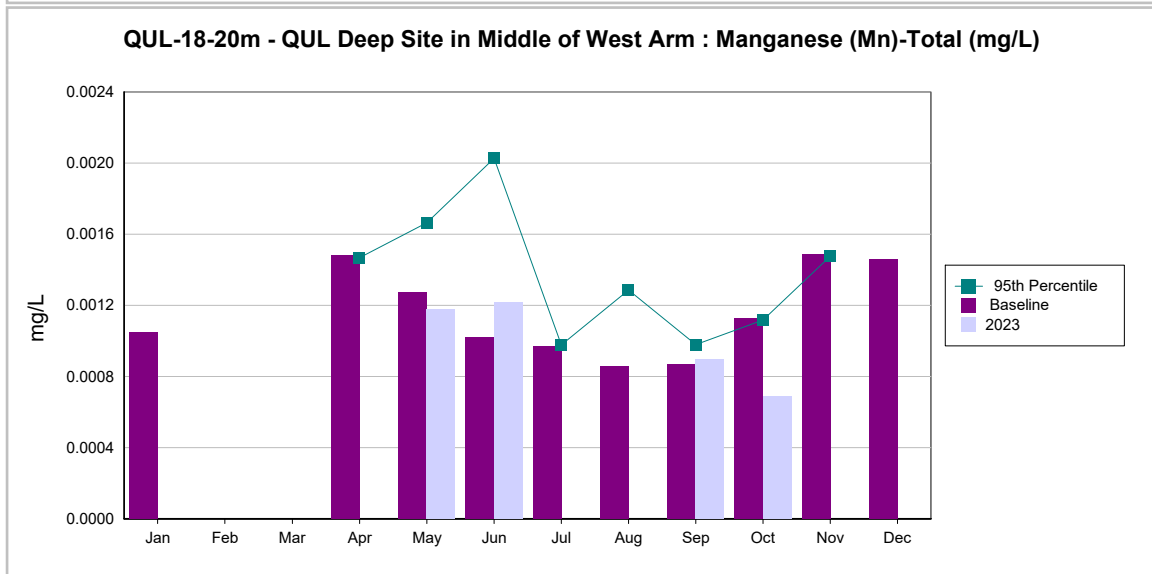
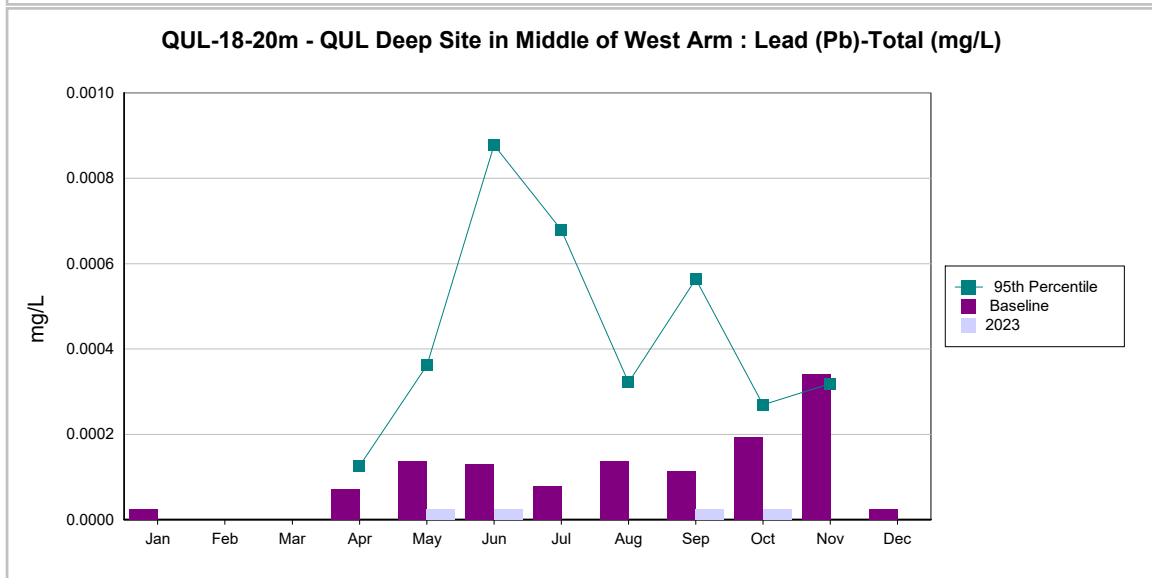
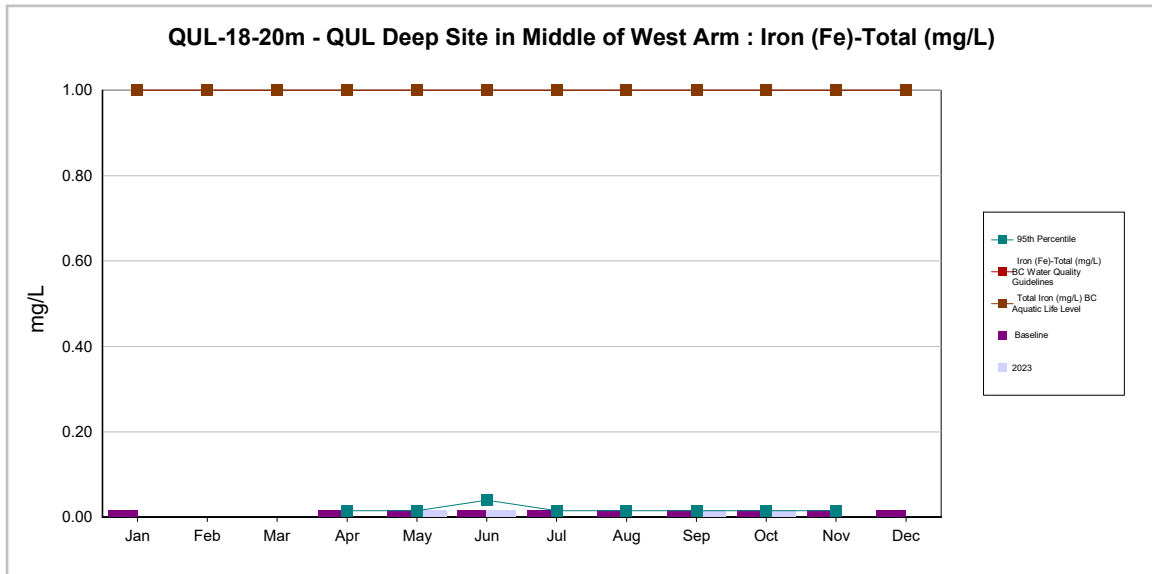
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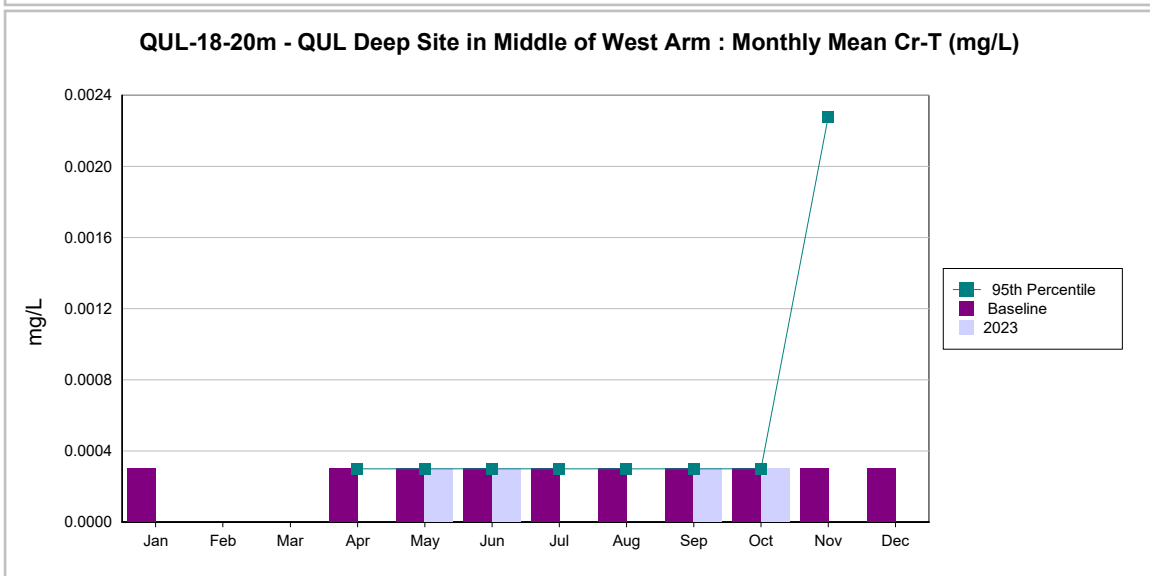
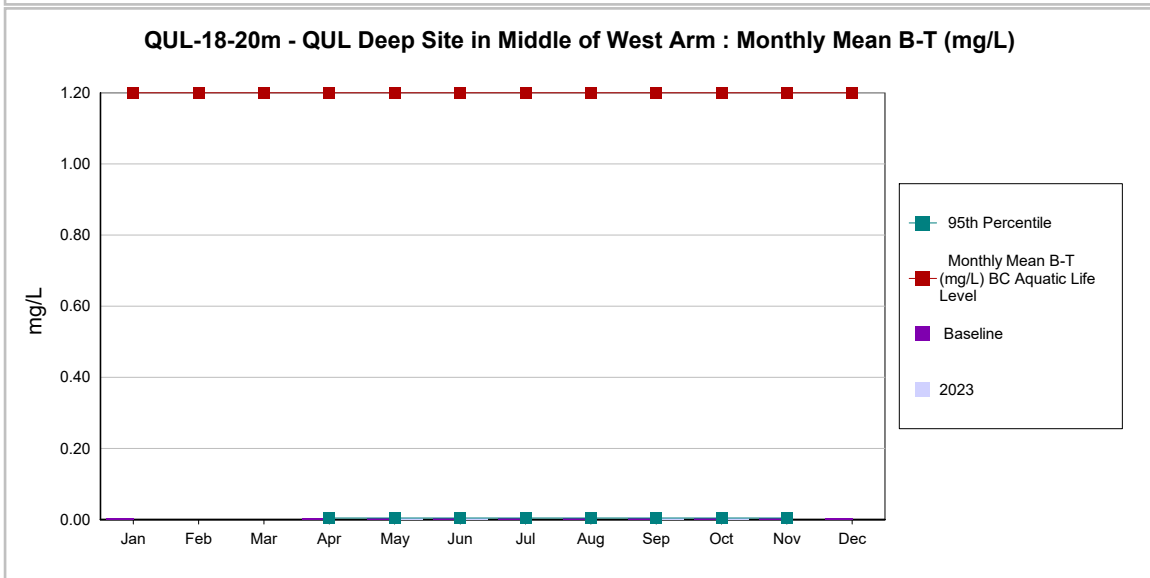
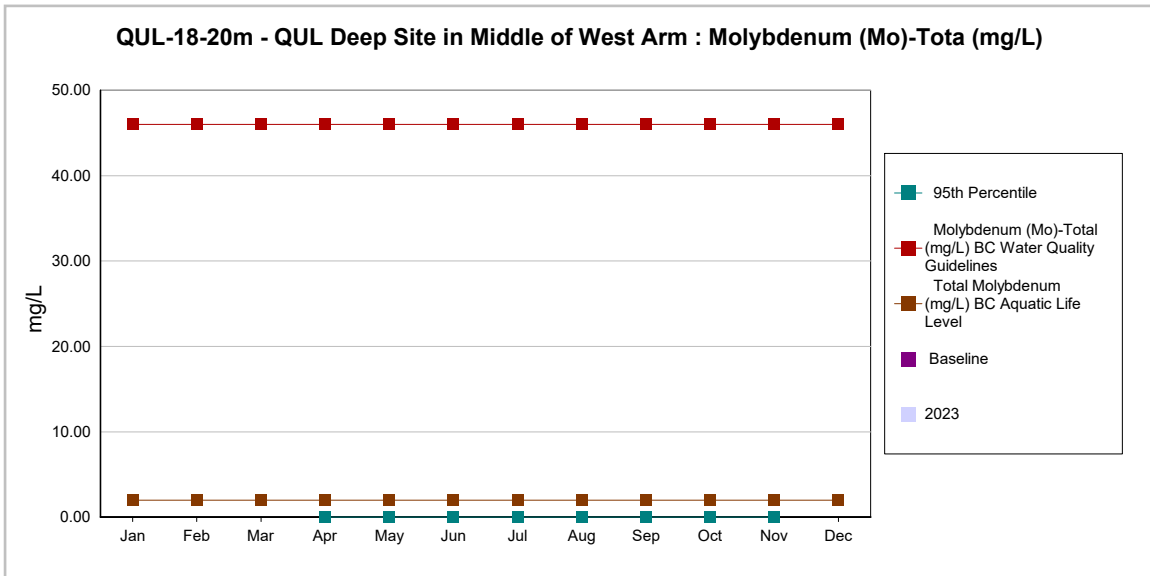
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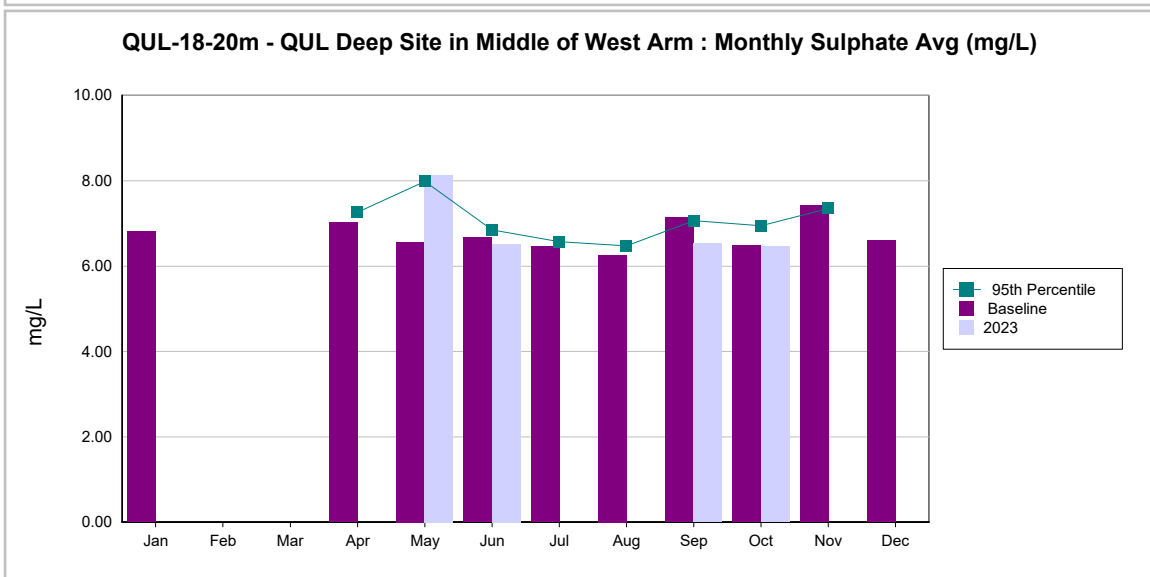
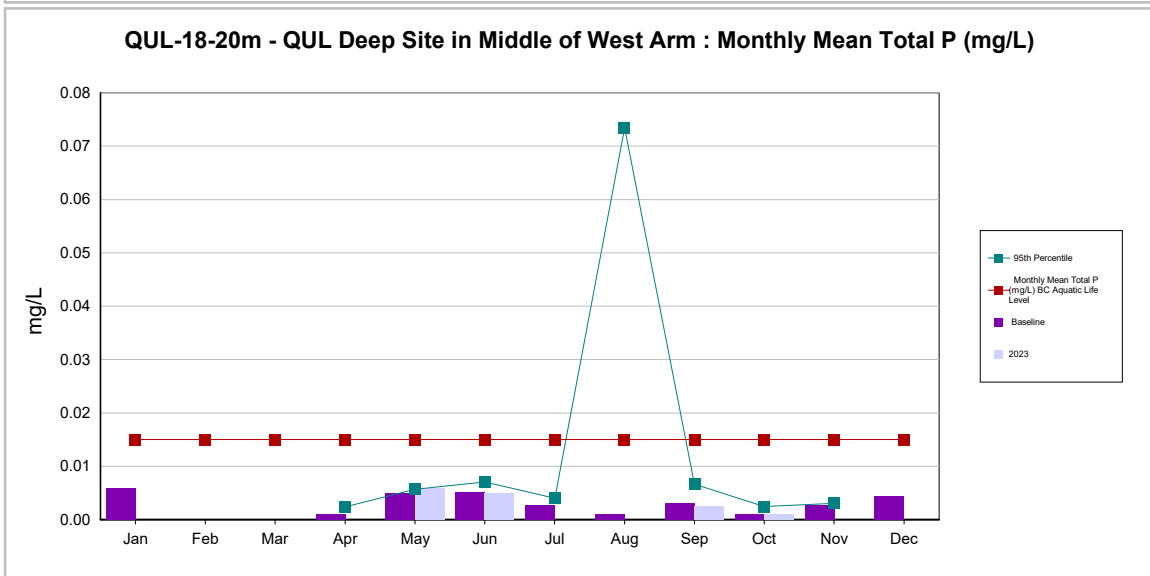
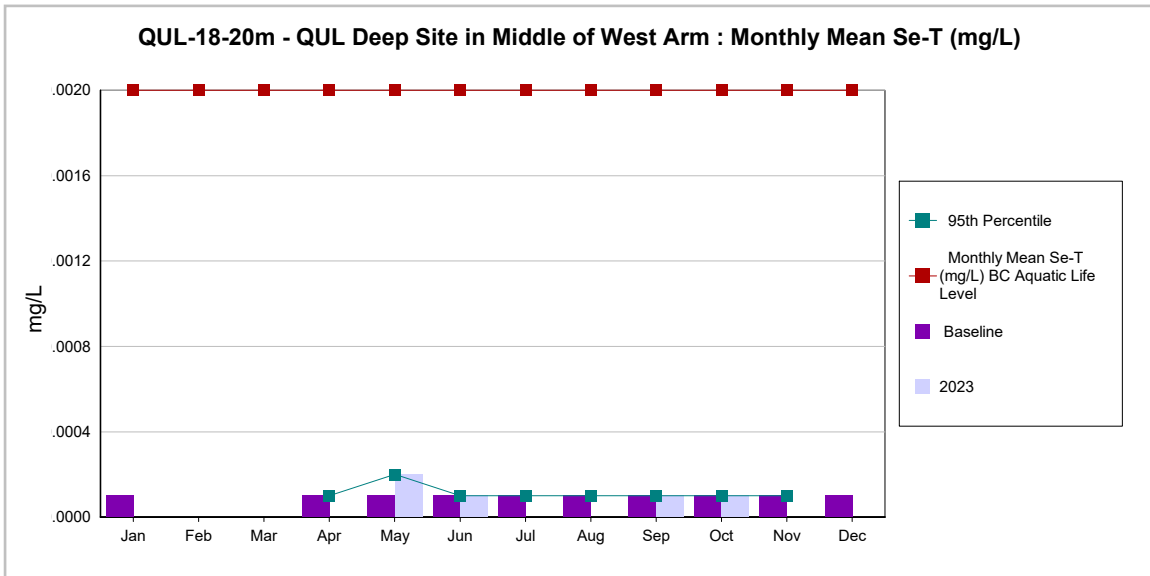
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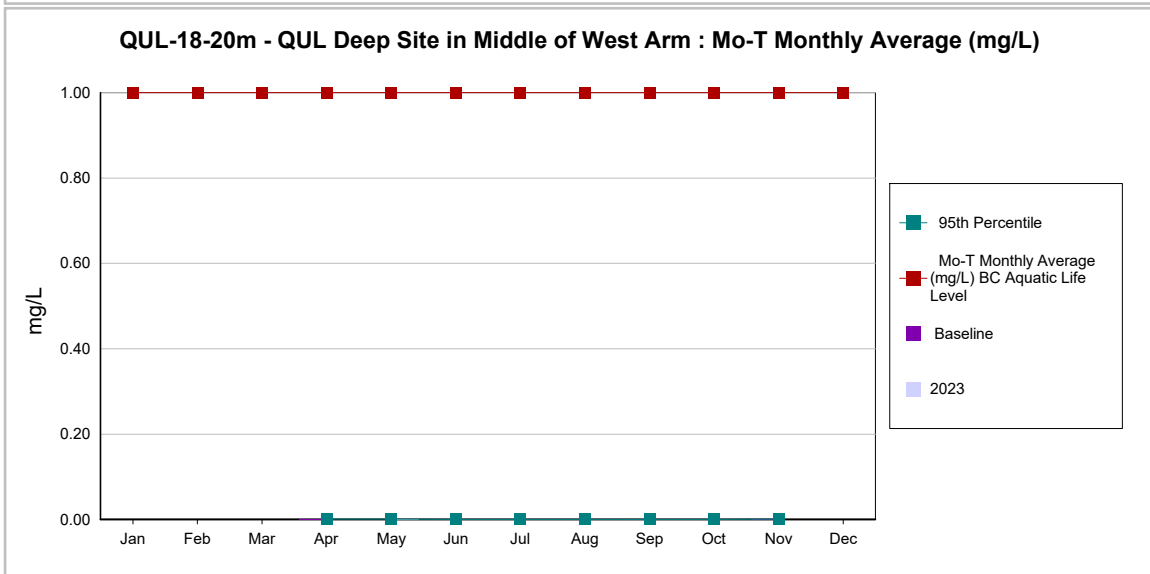
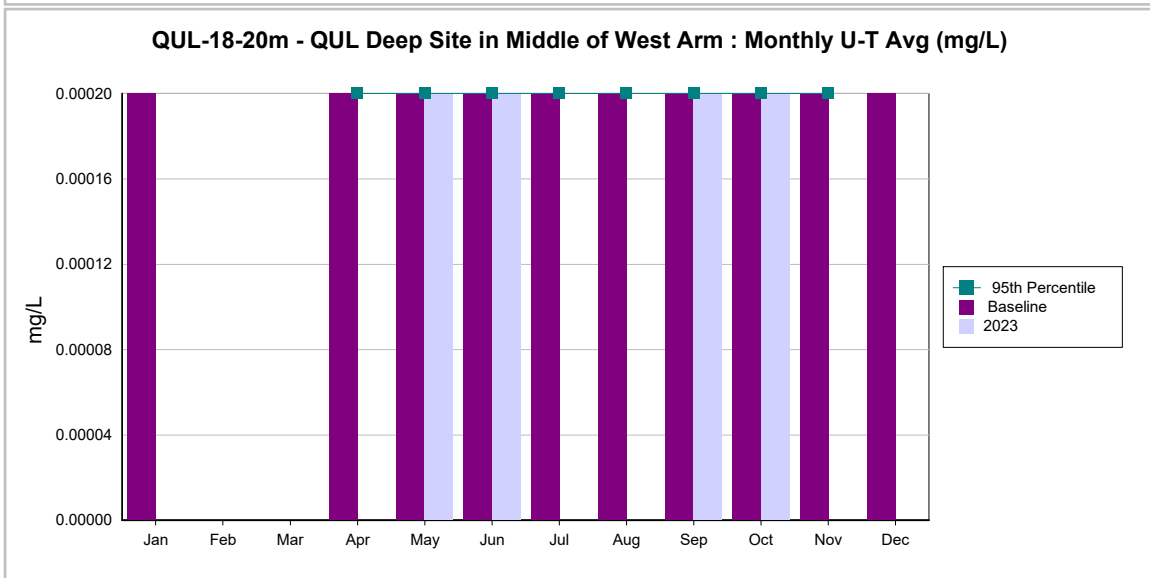
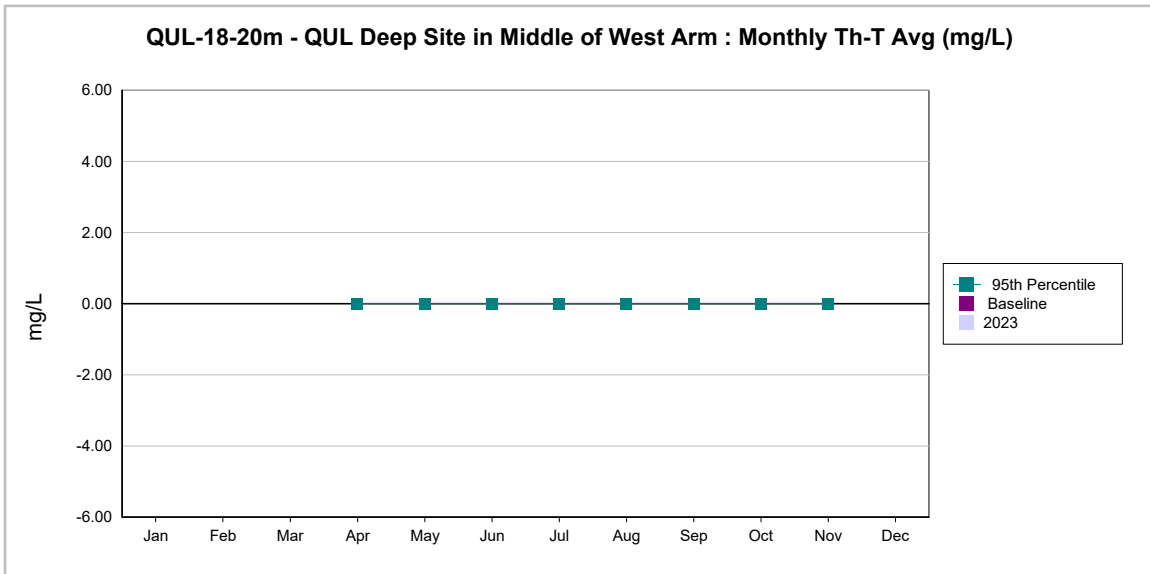
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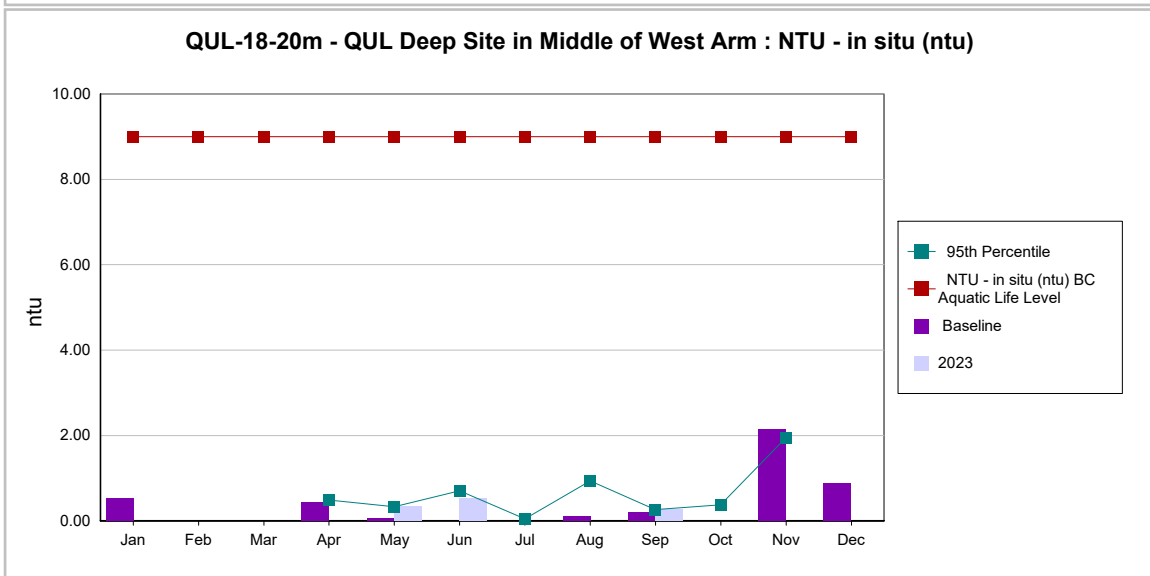
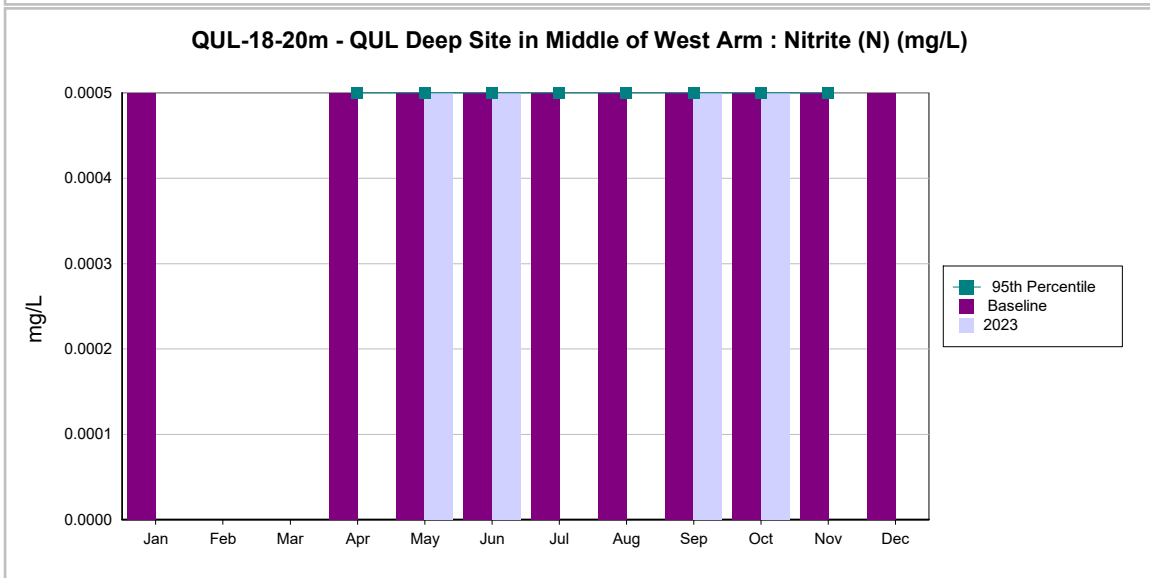
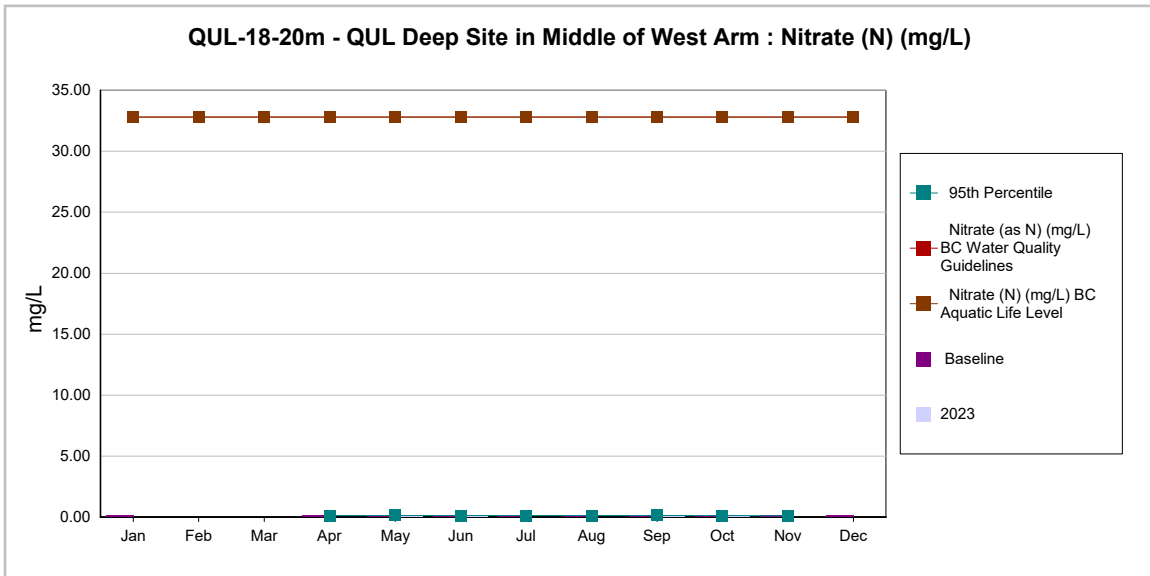
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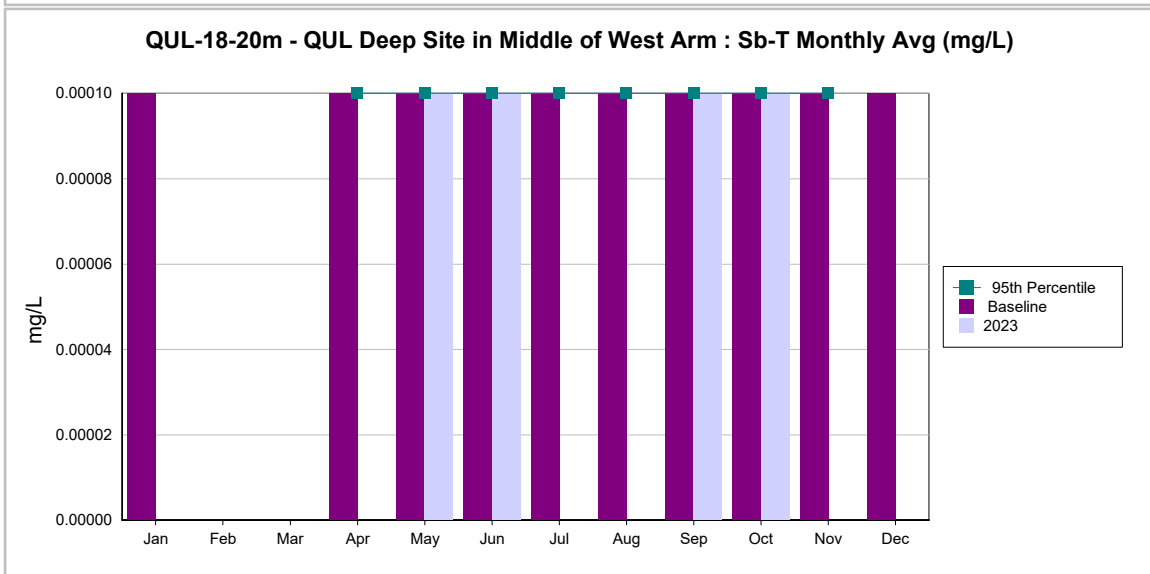
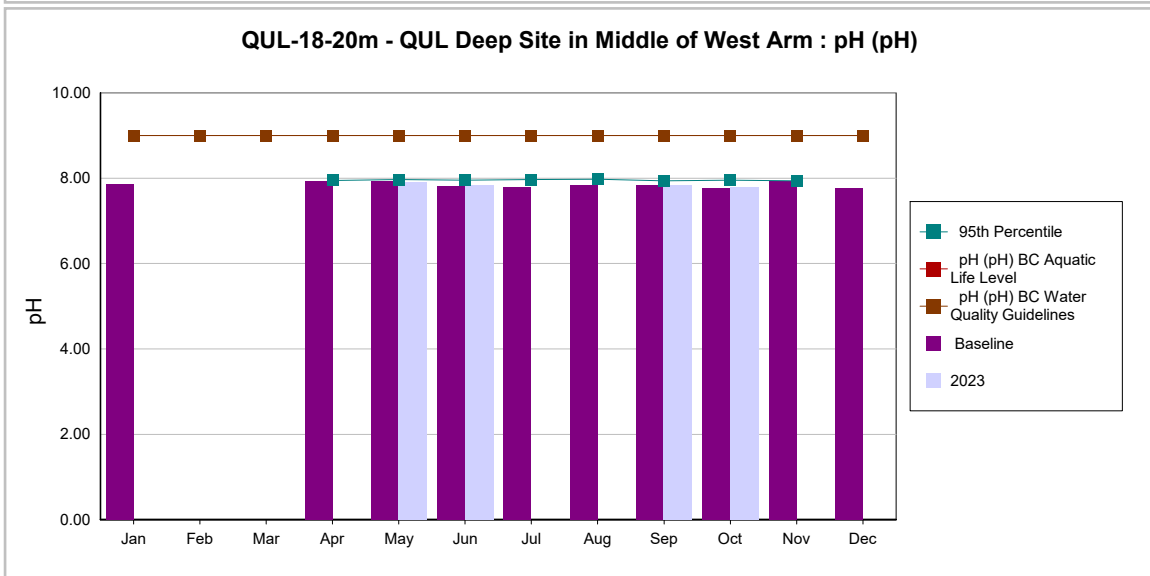
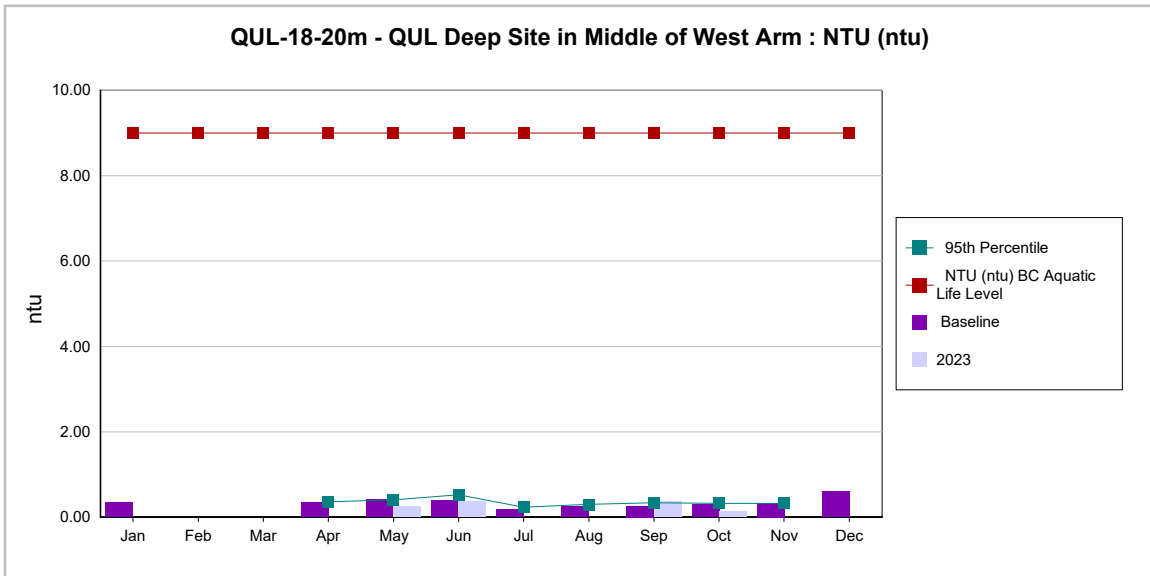
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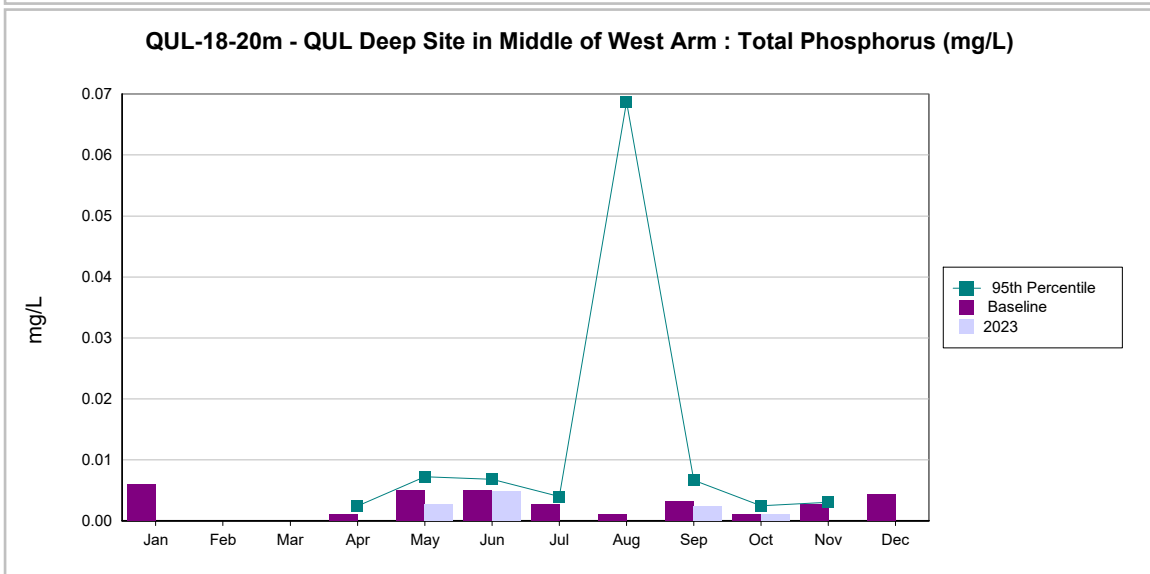
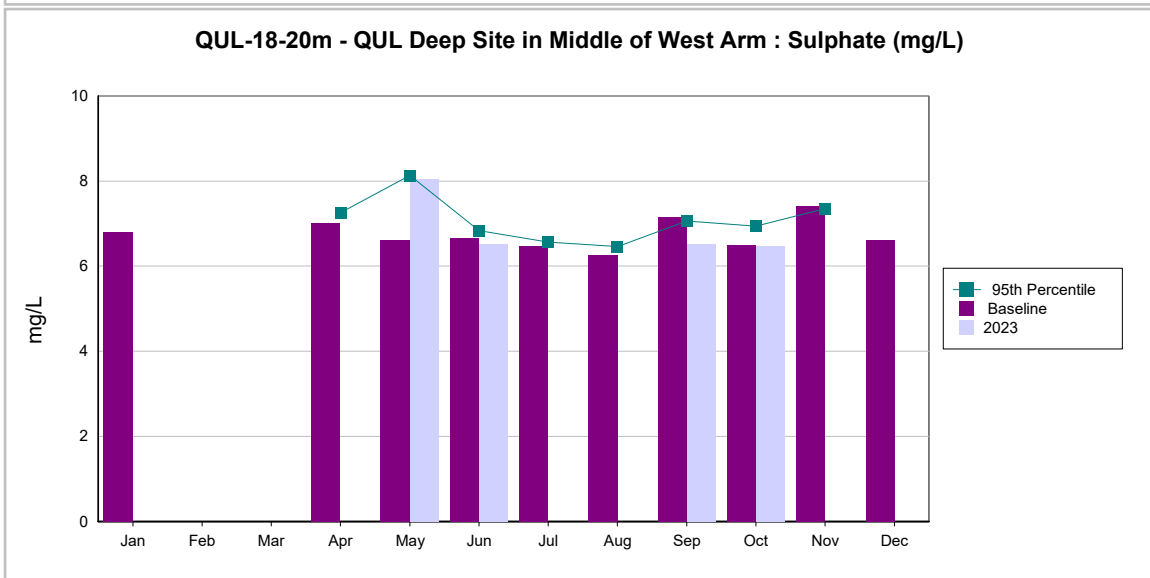
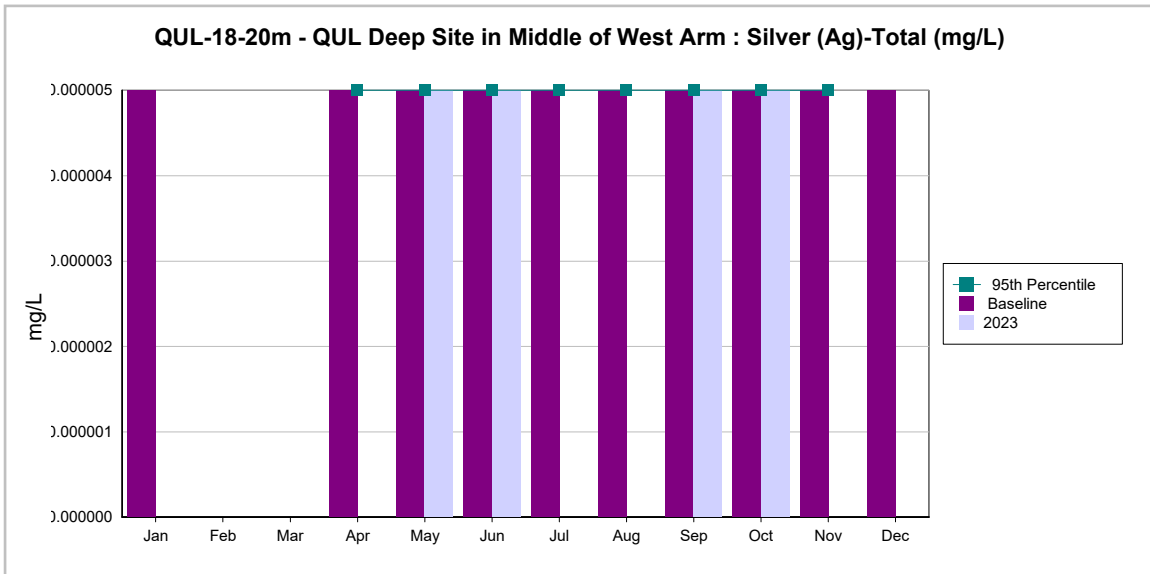
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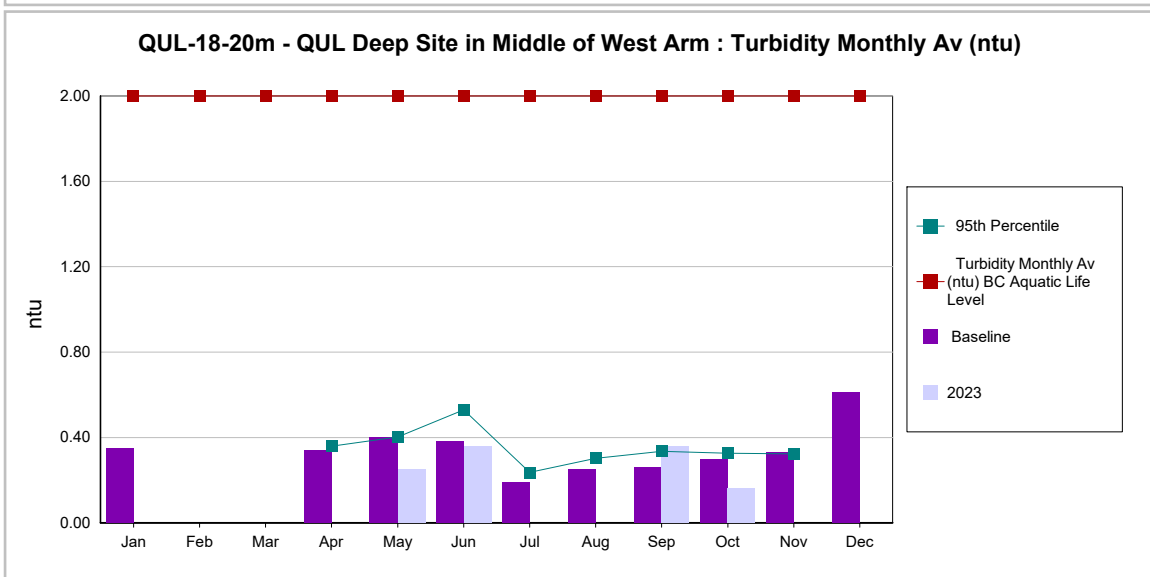
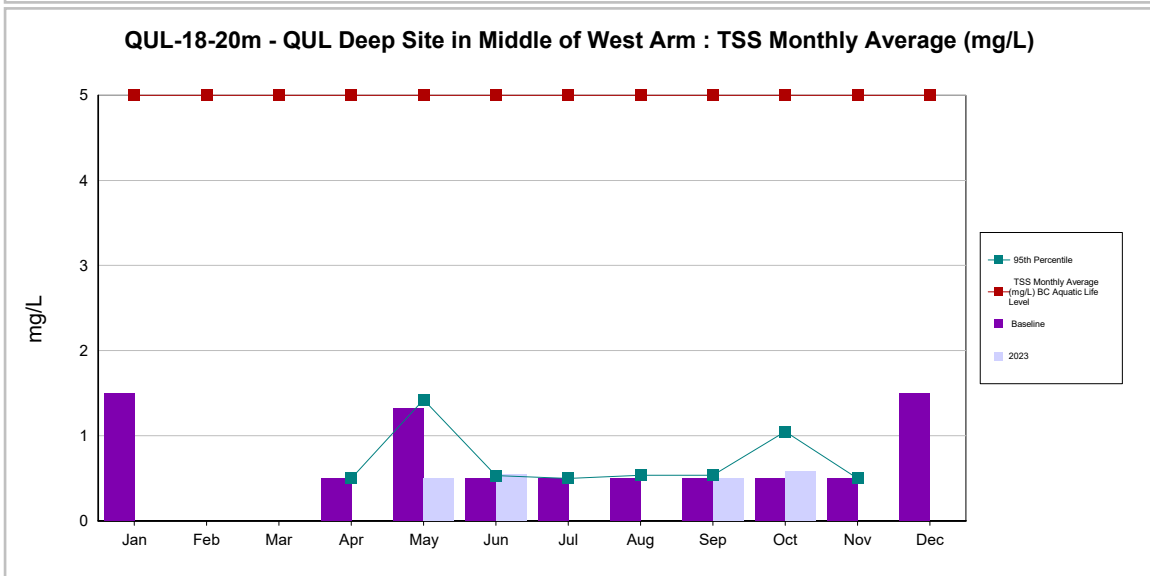
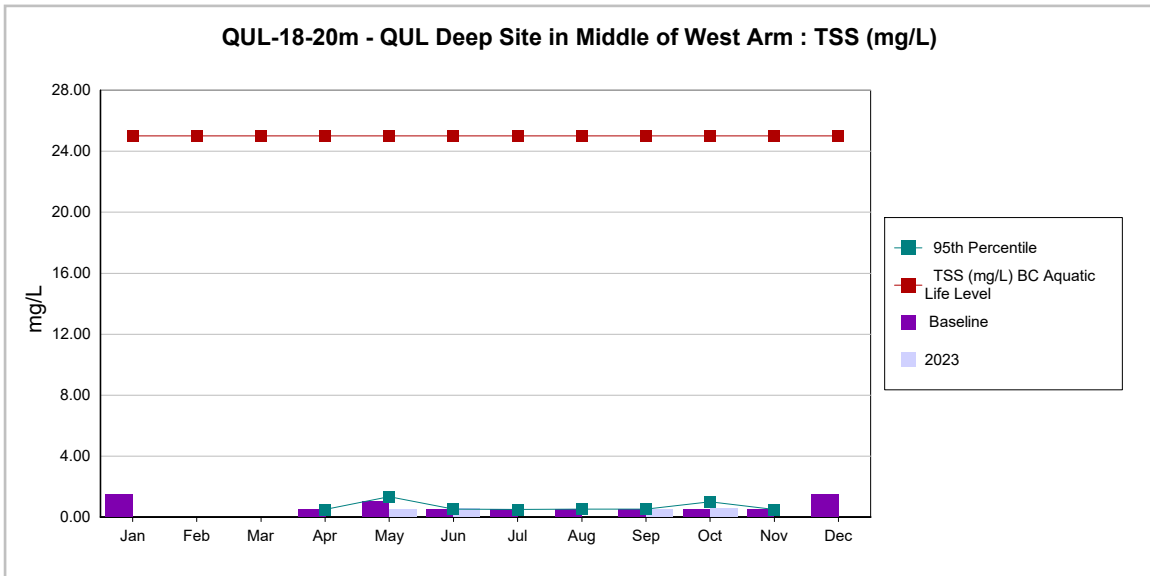
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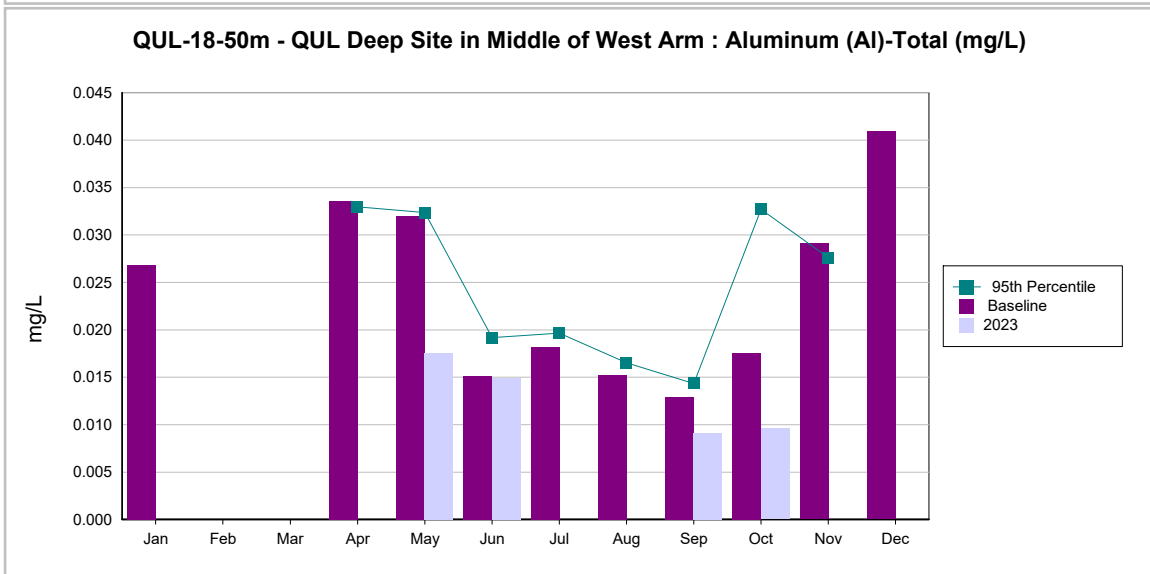
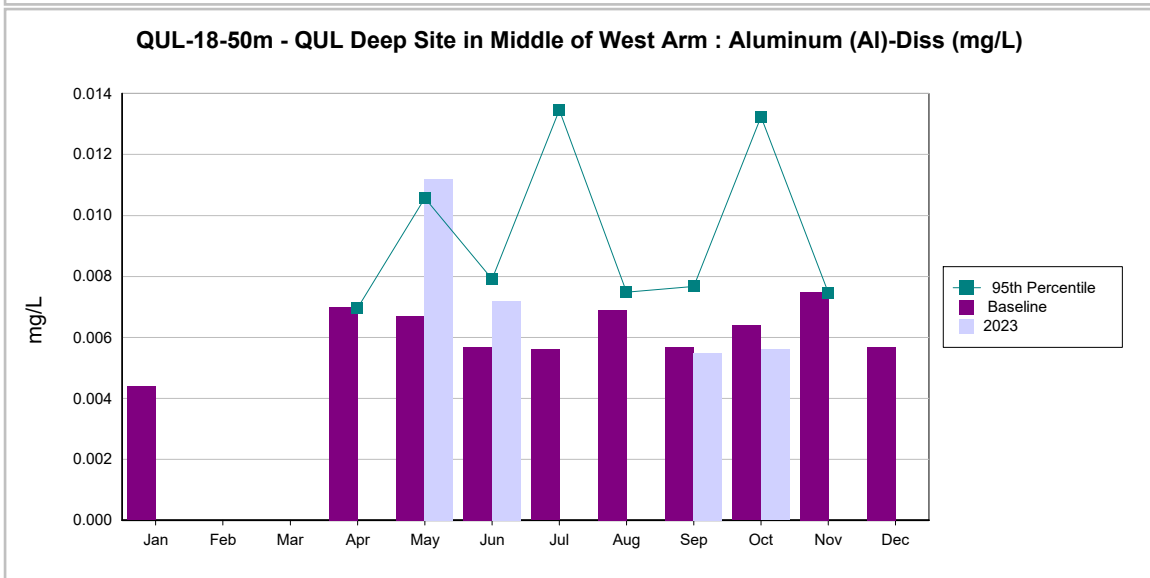
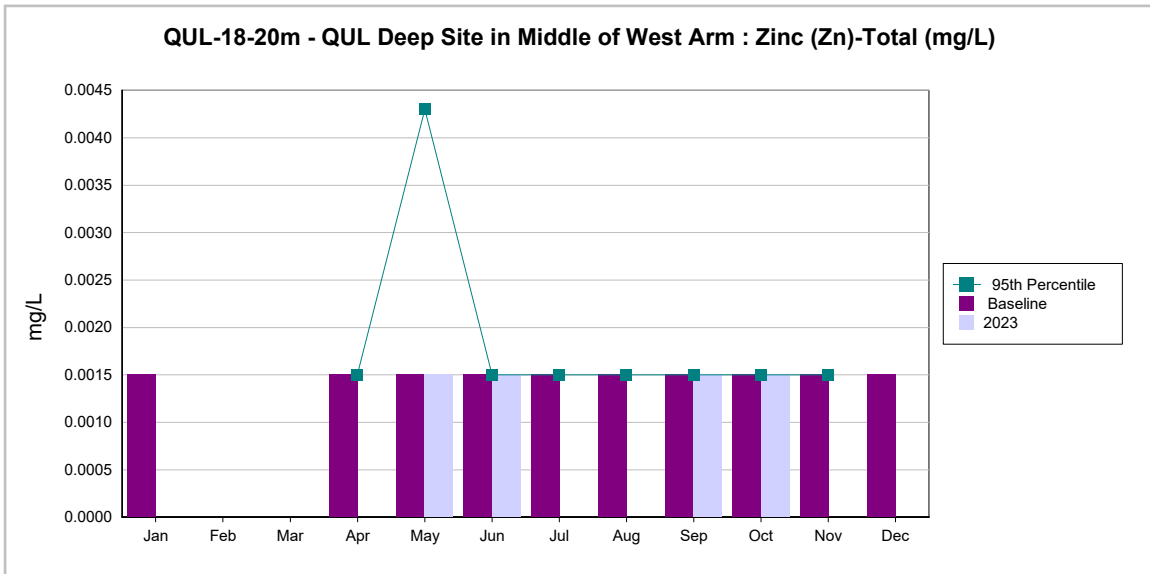
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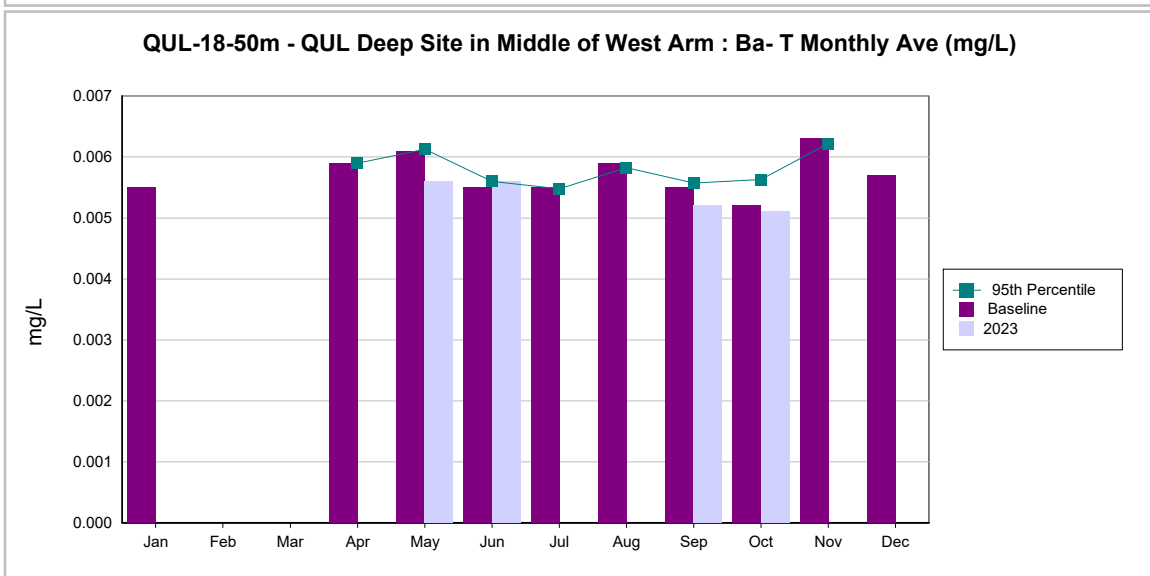
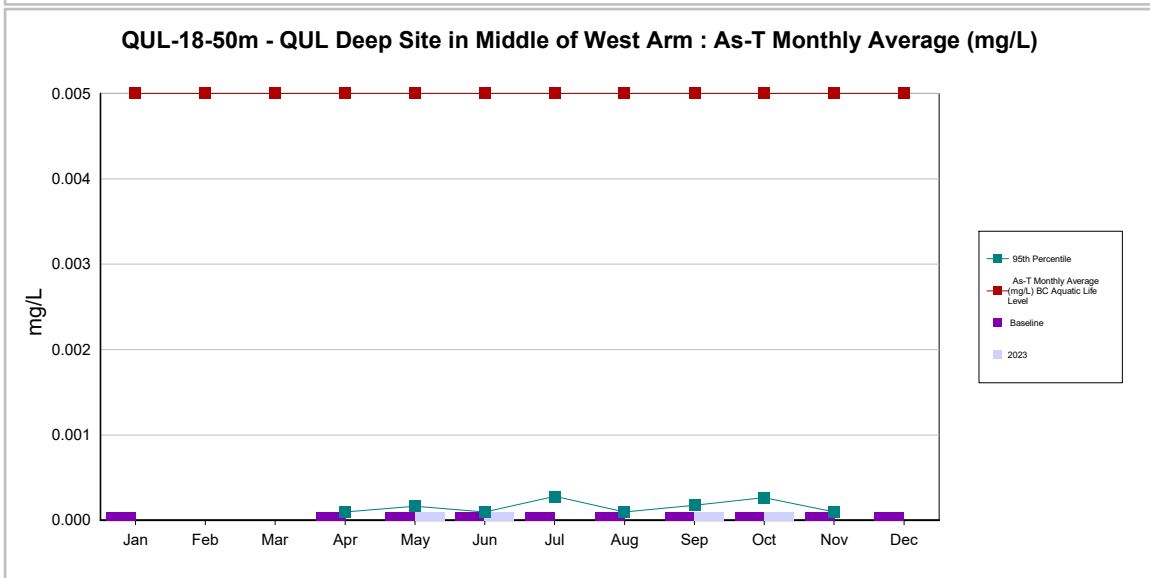
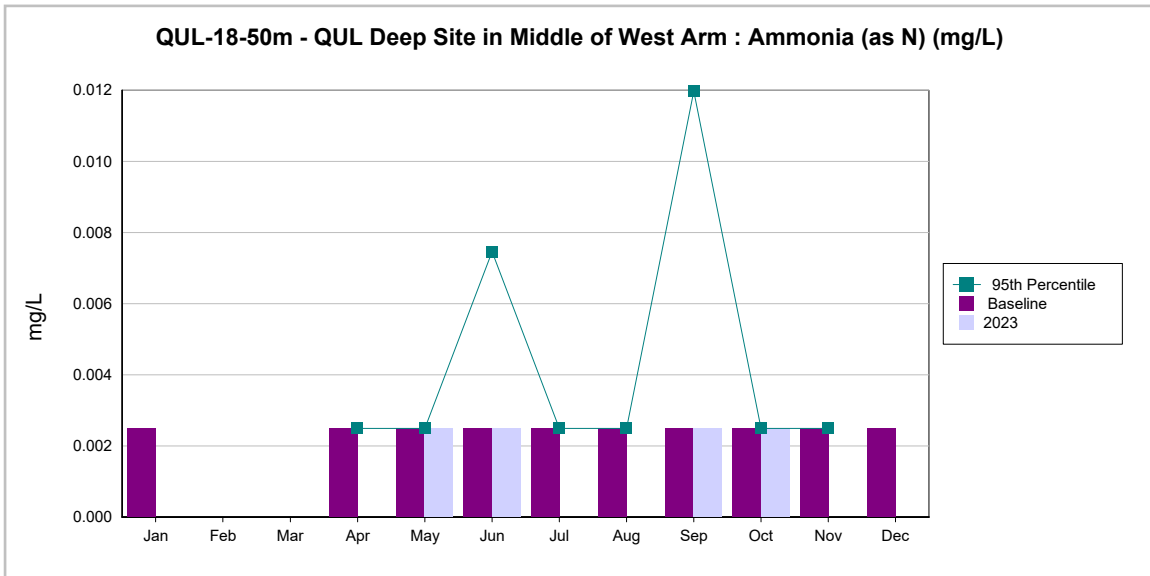
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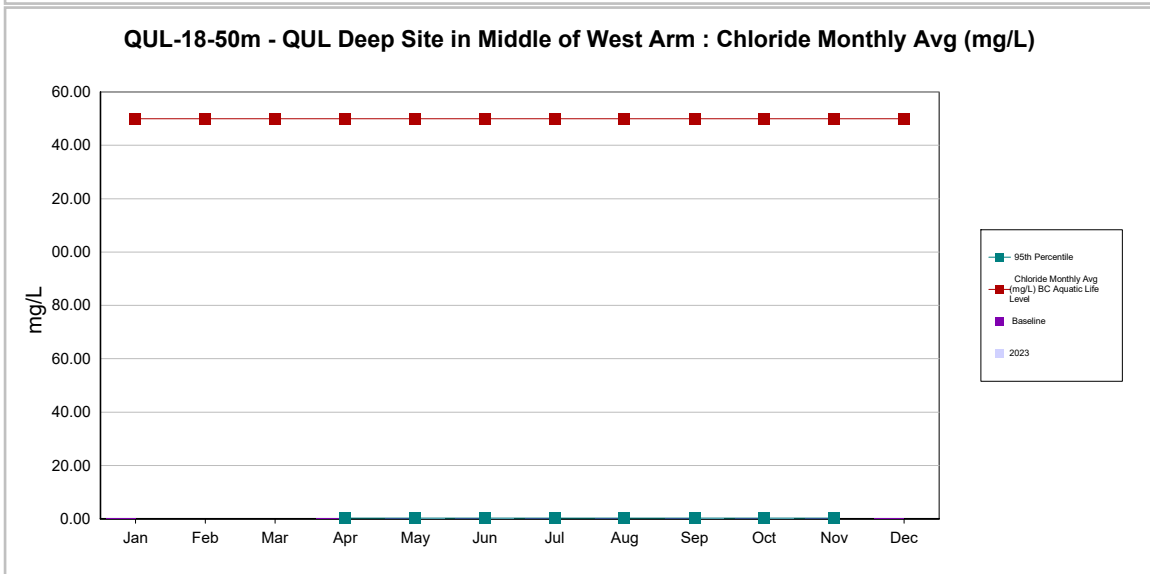
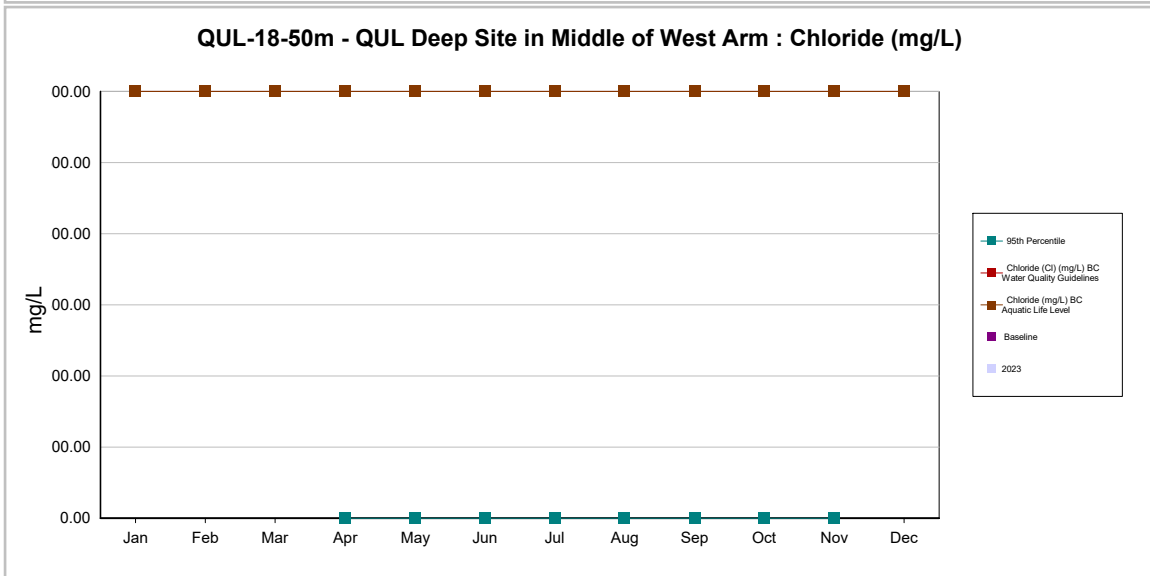
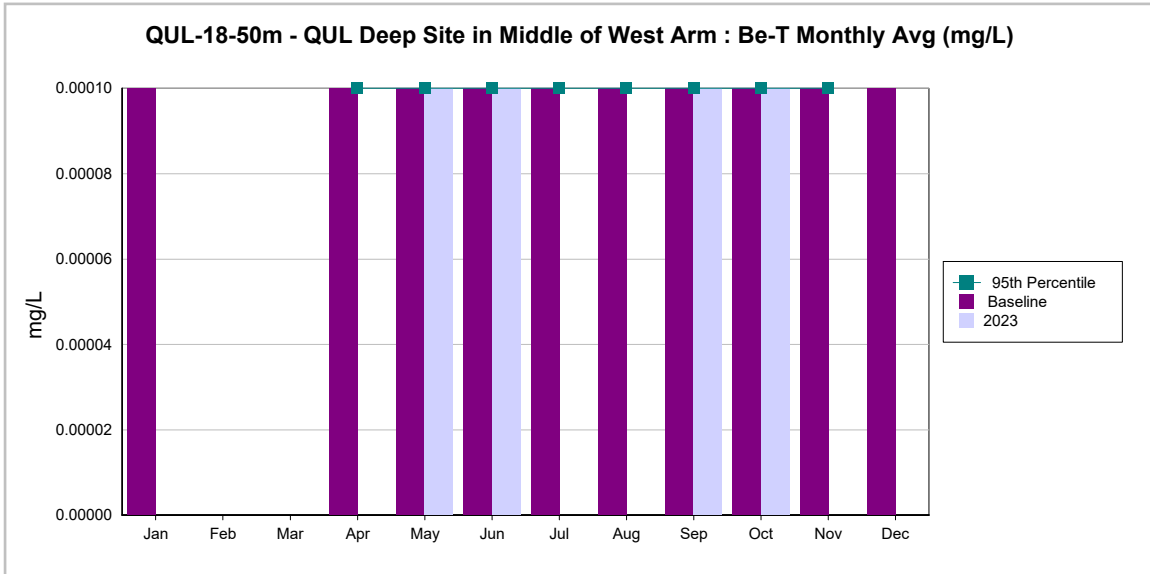
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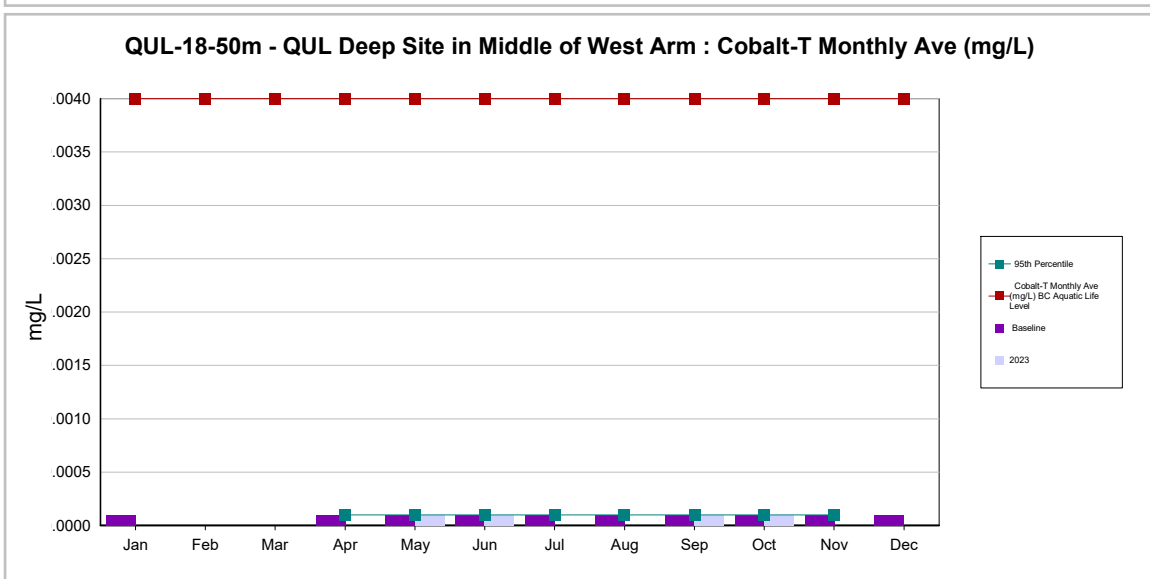
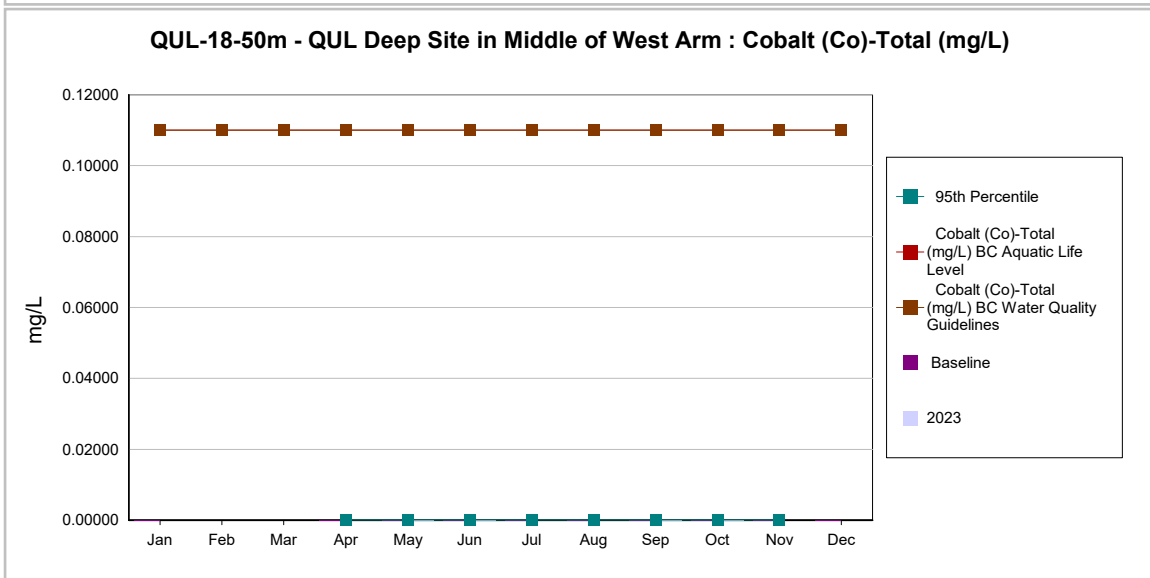
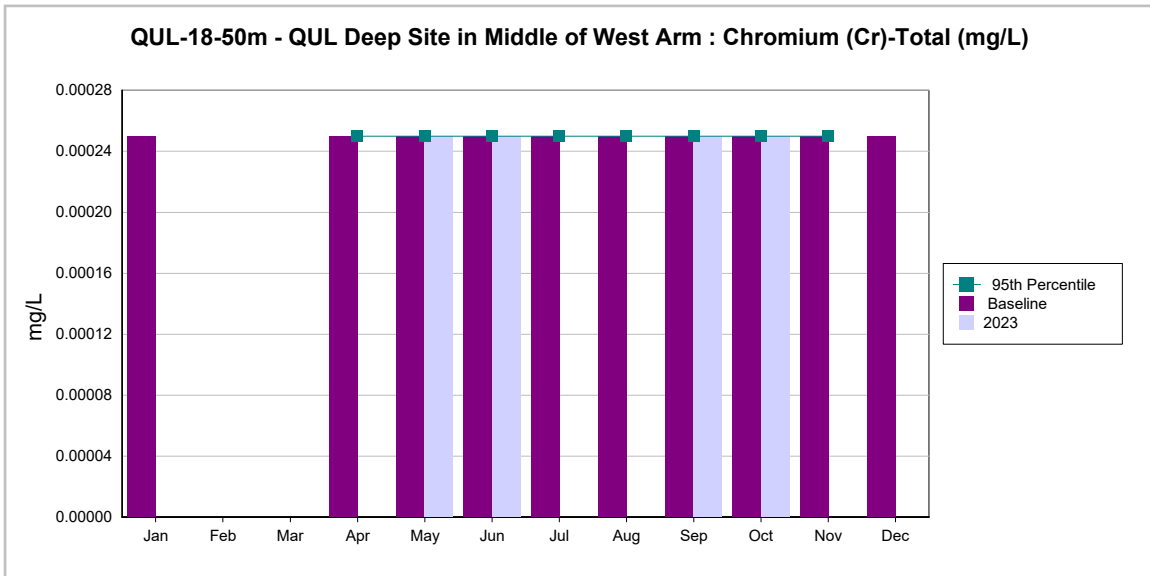
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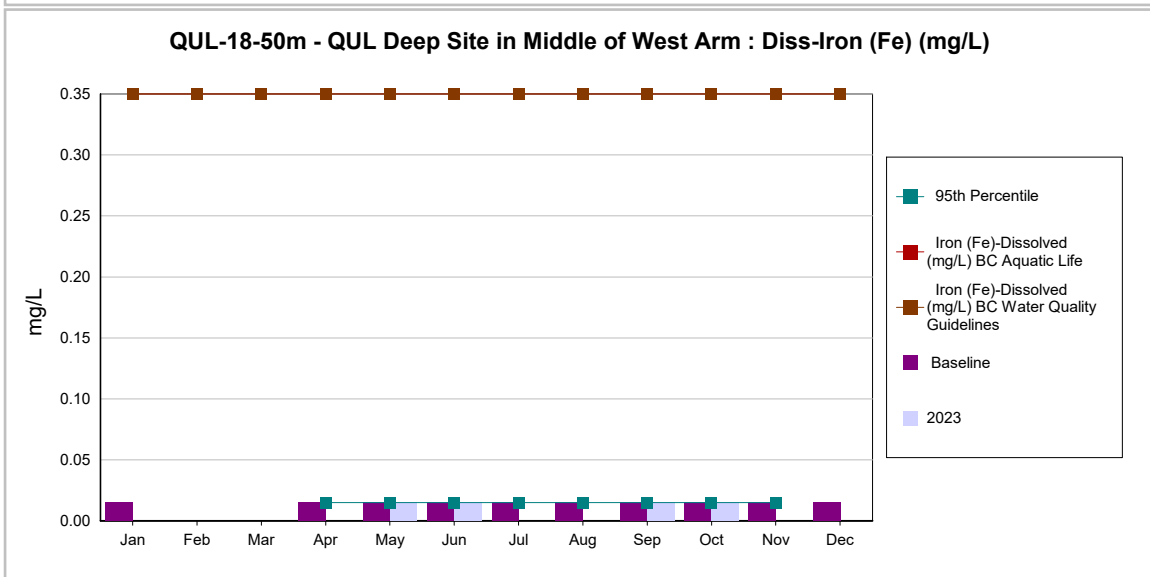
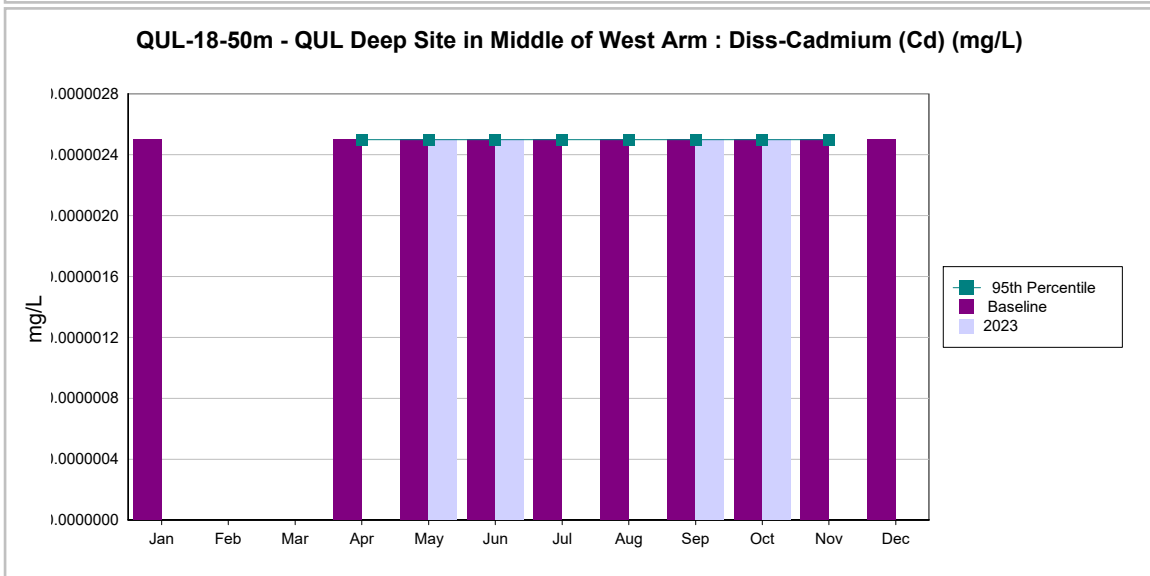
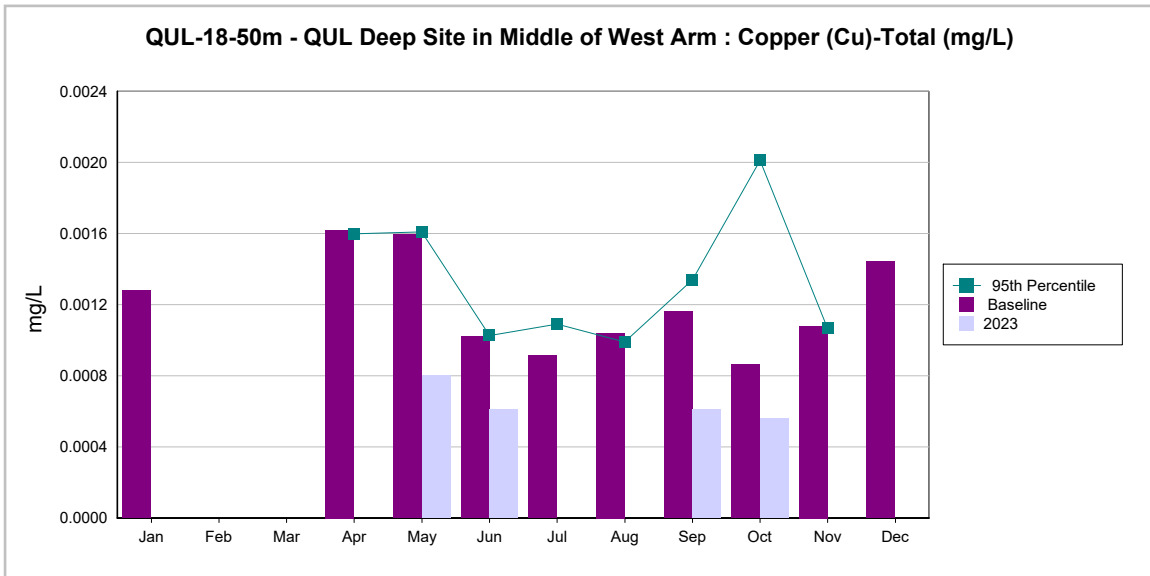
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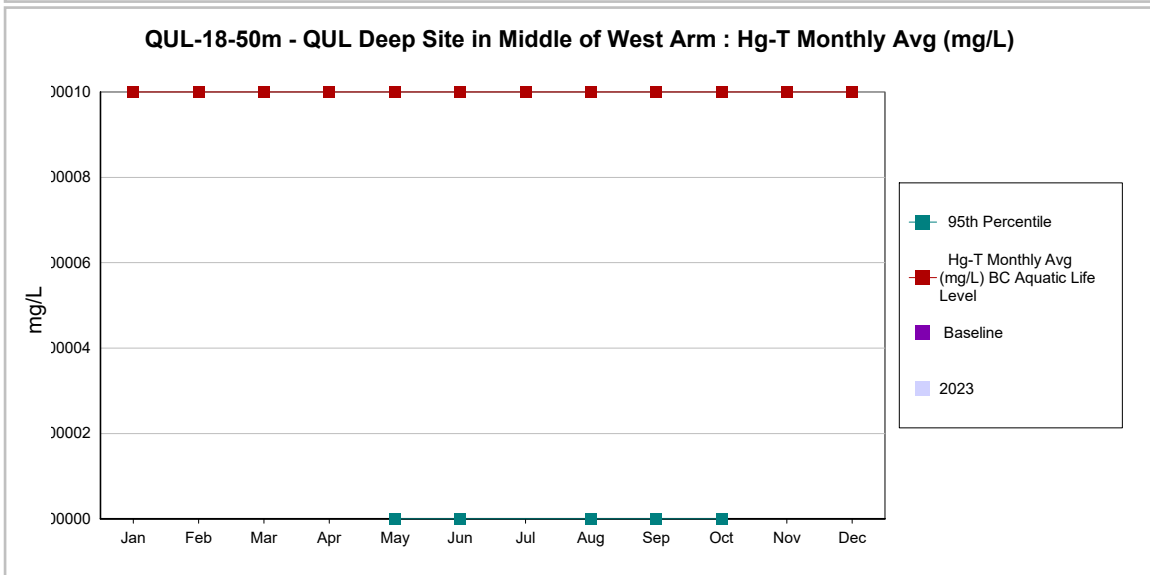
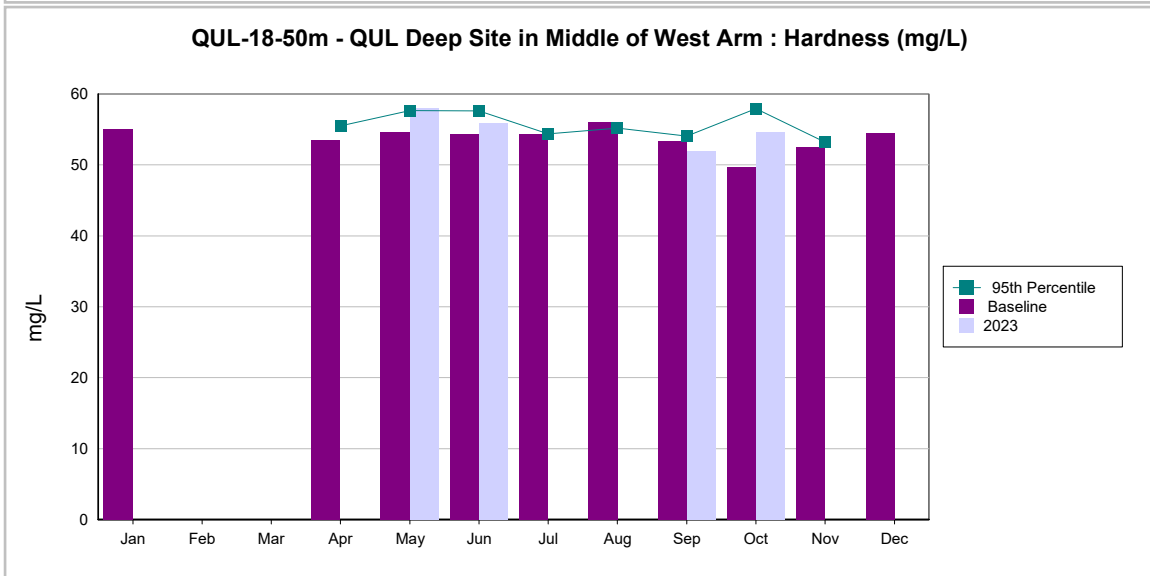
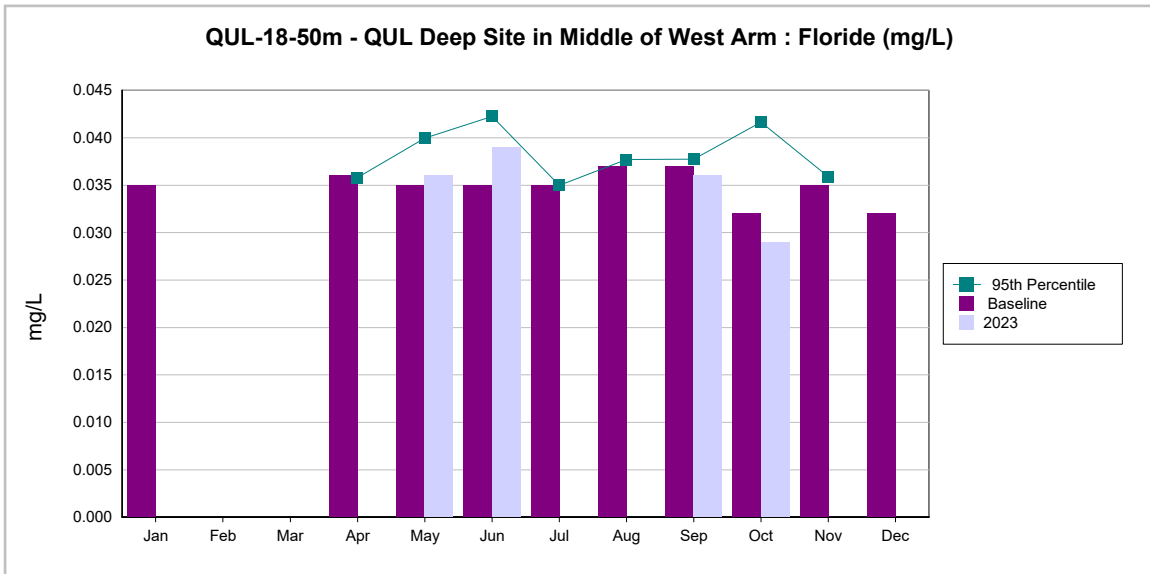
Annual Report Lake vs BCWQG



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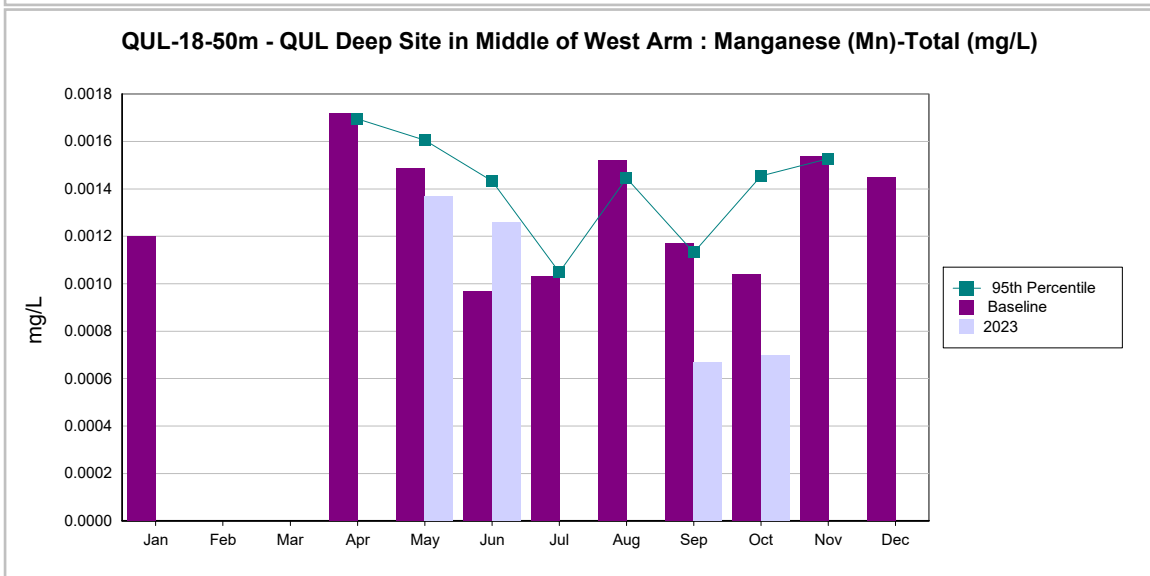
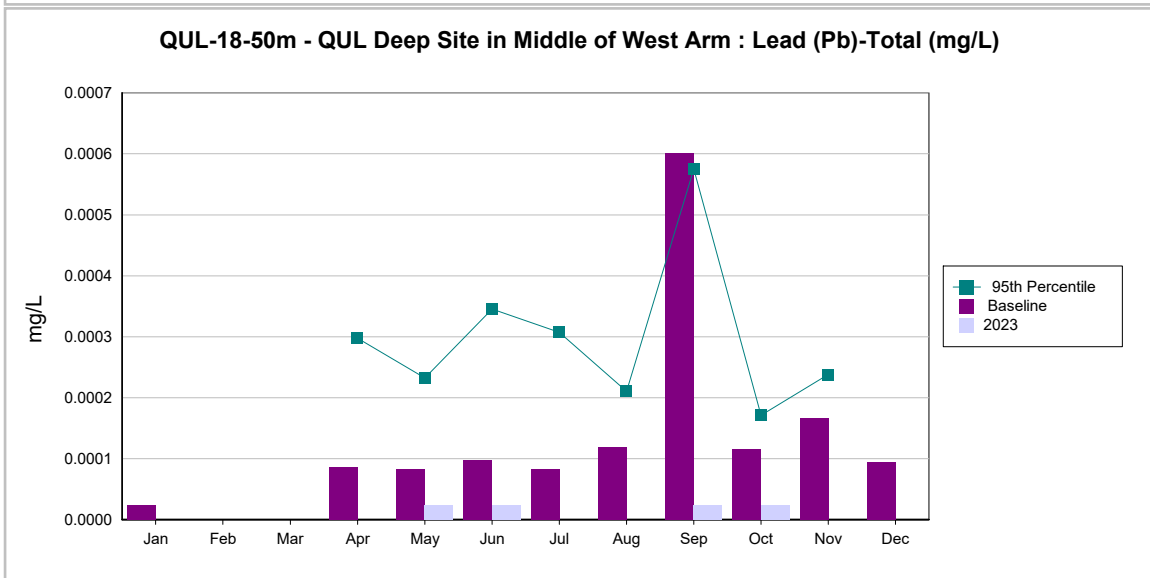
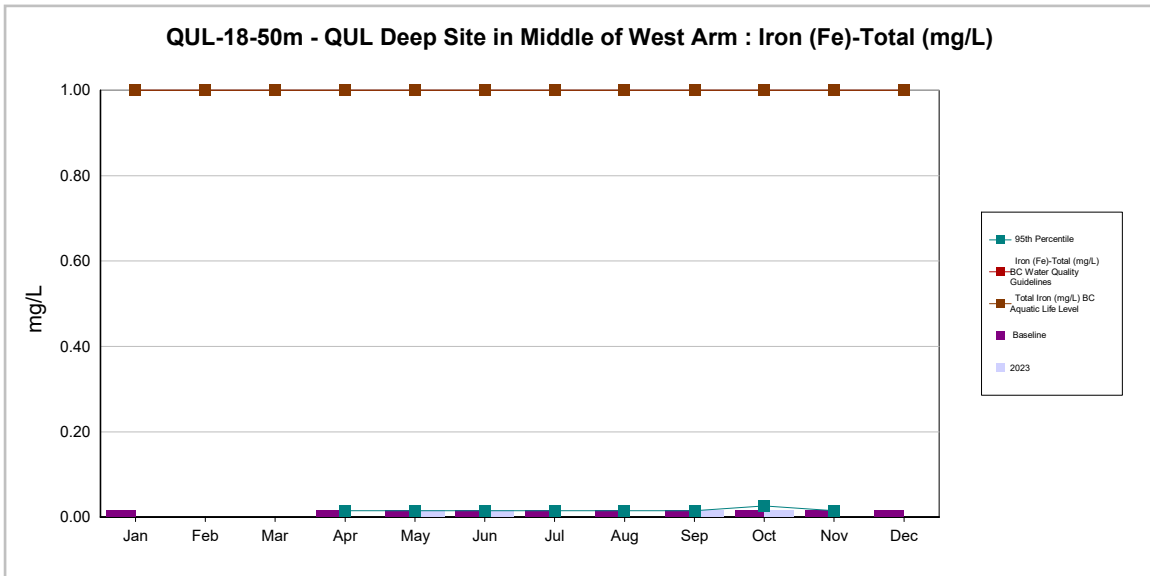
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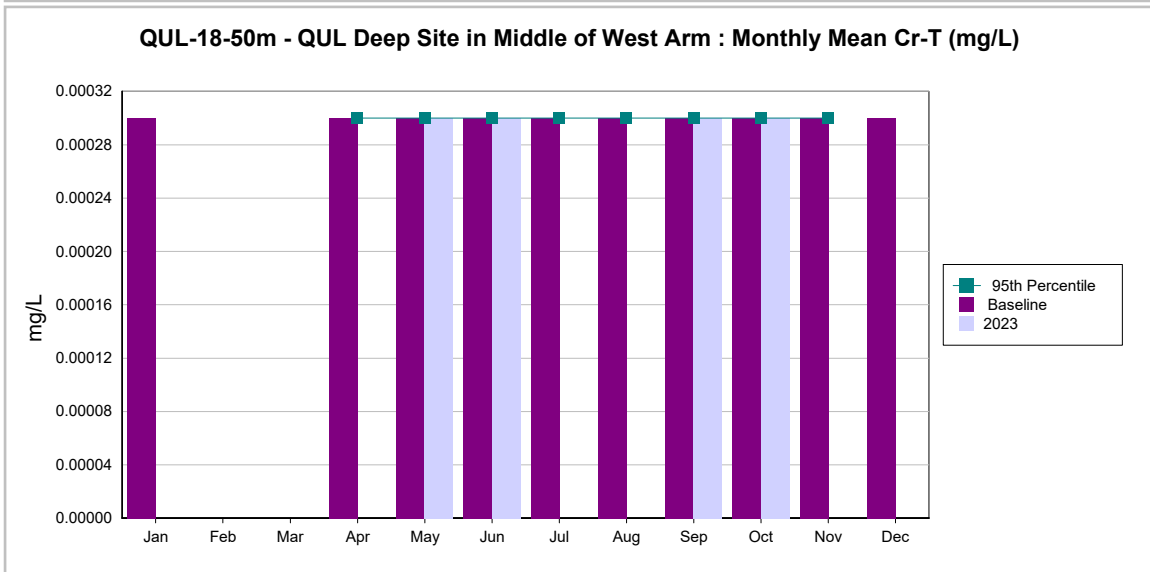
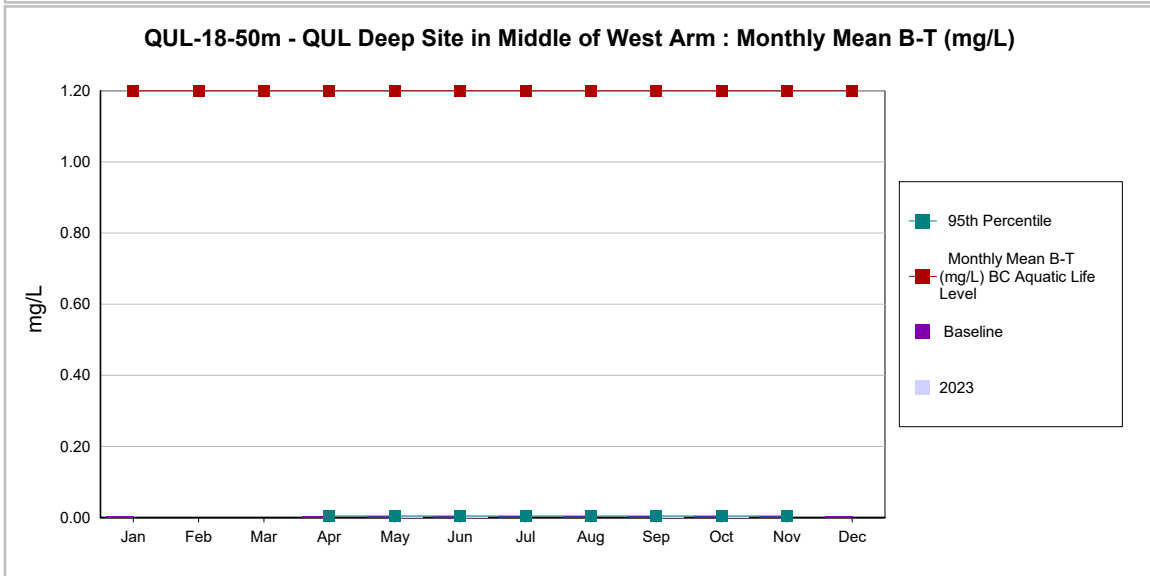
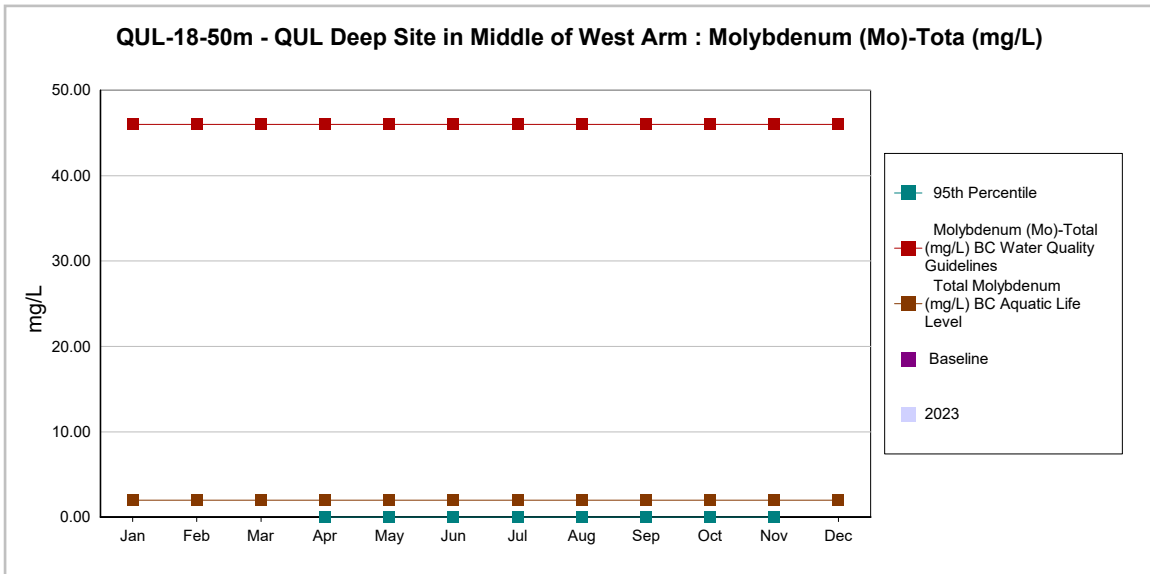
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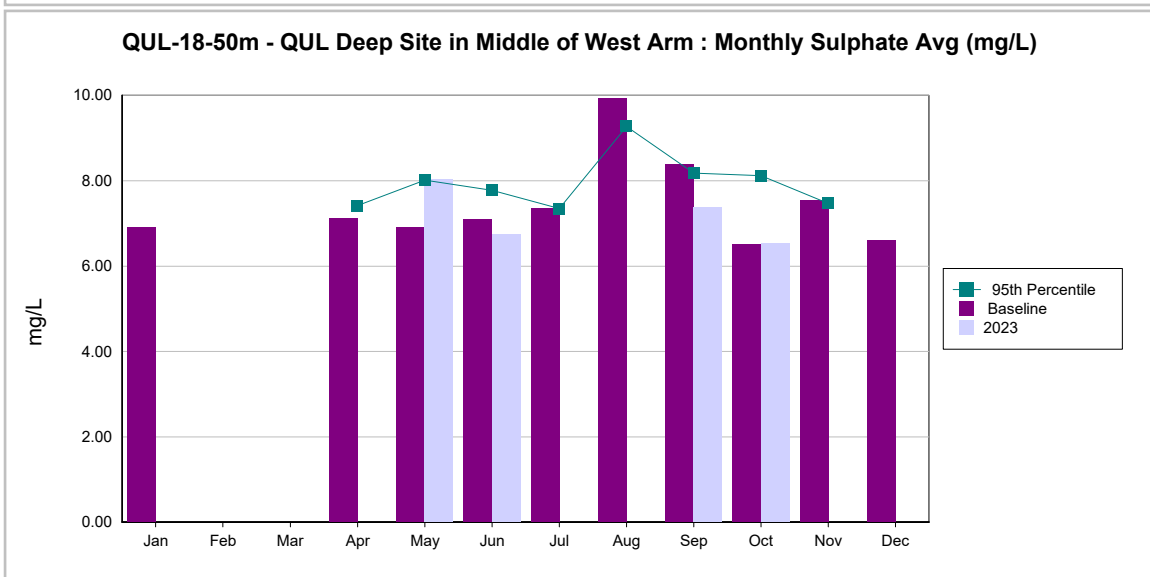
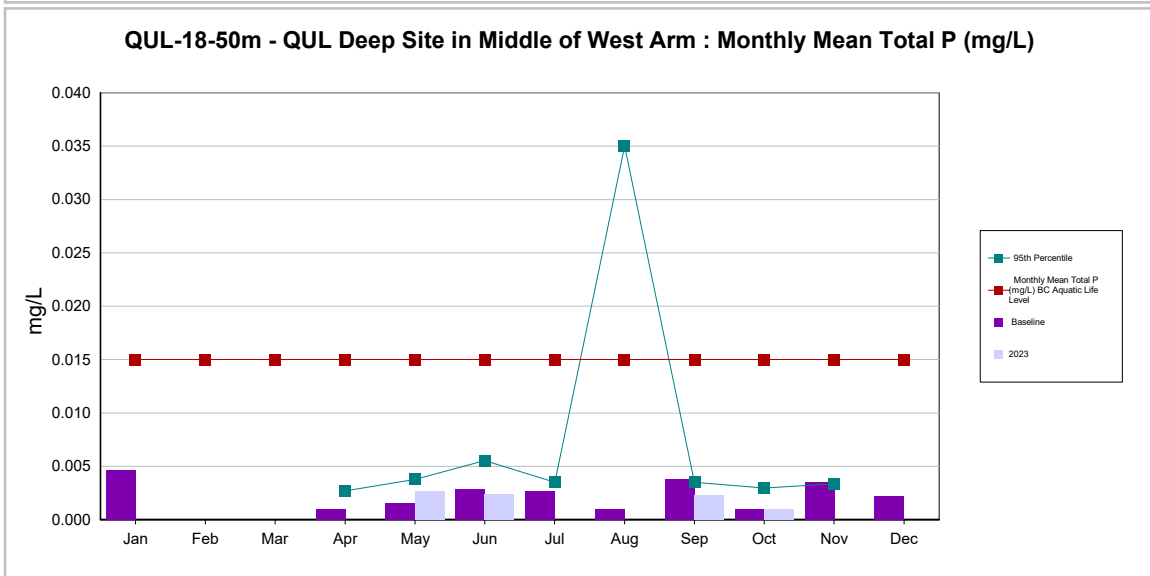
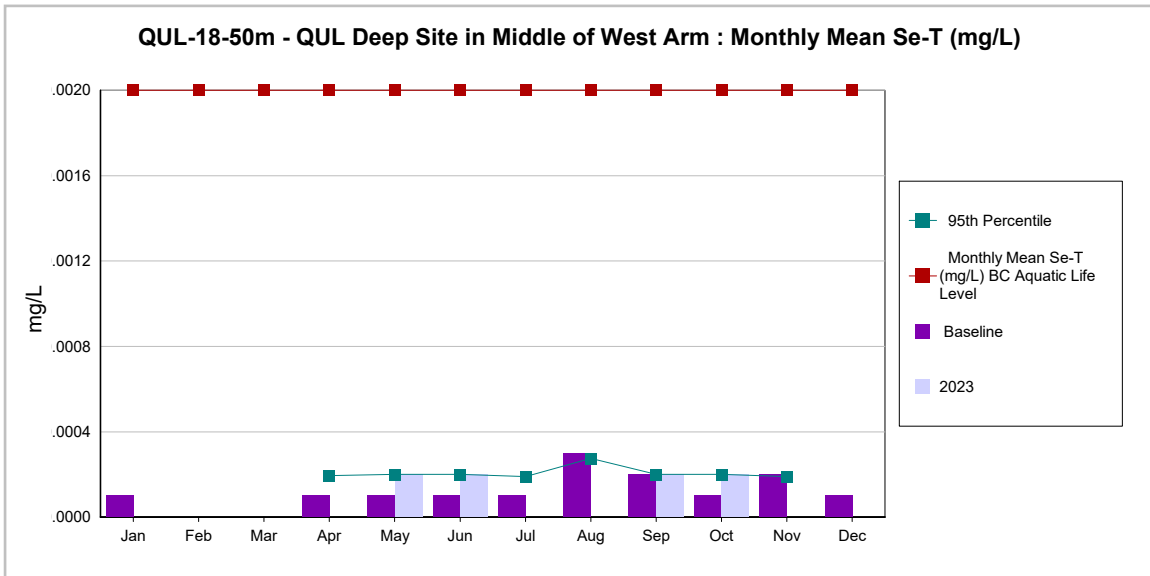
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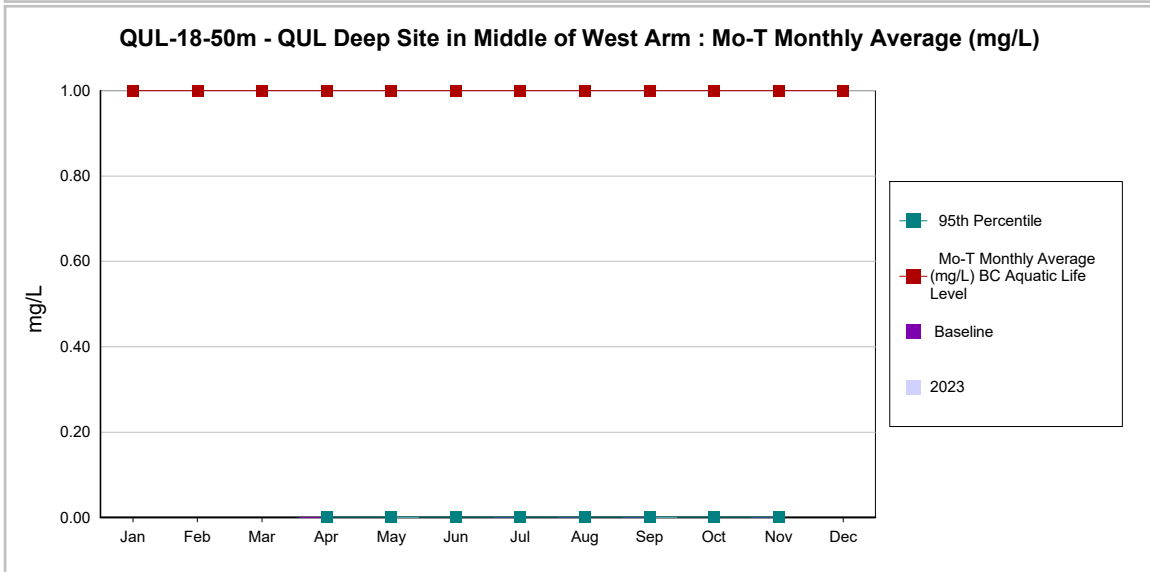
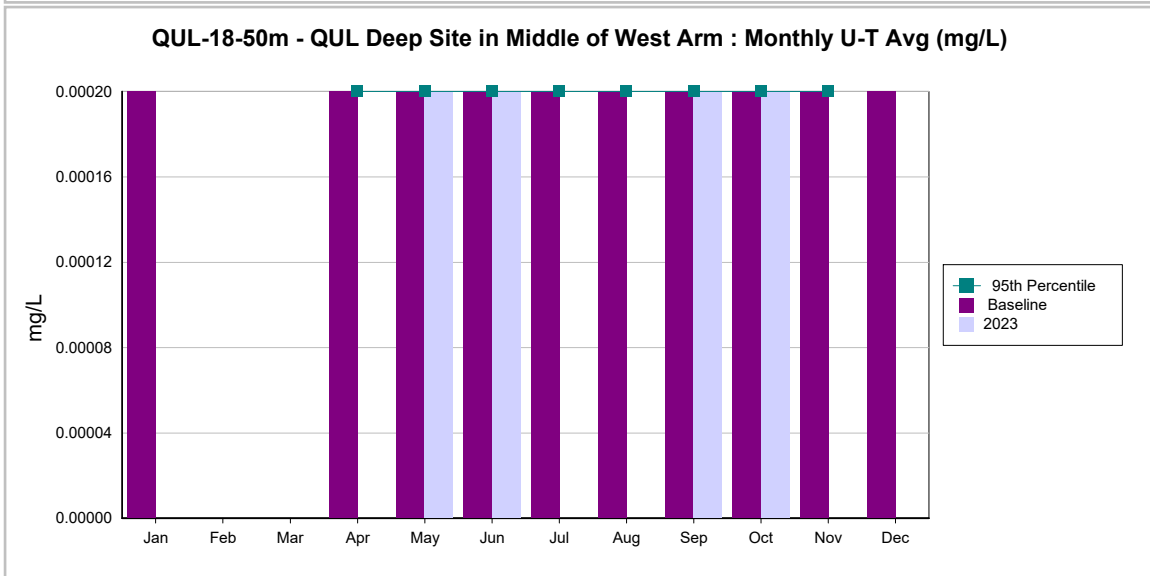
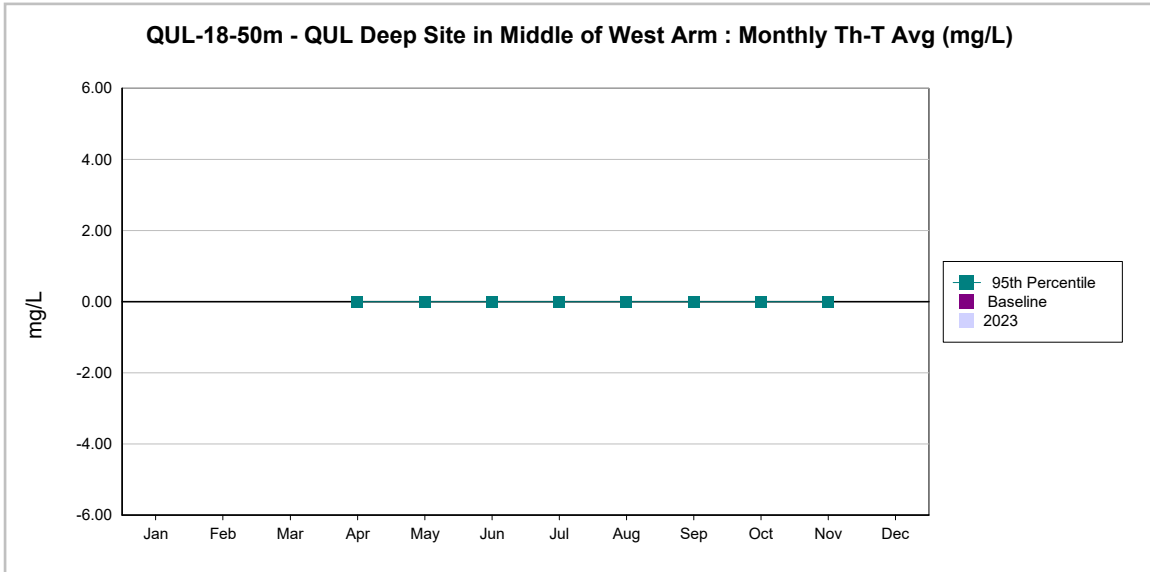
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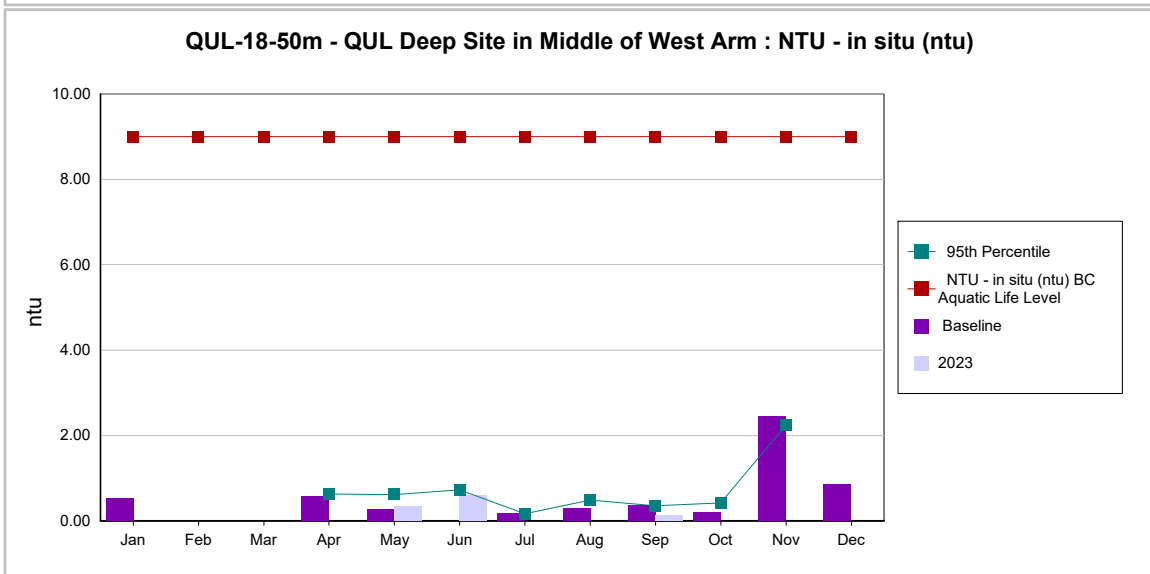
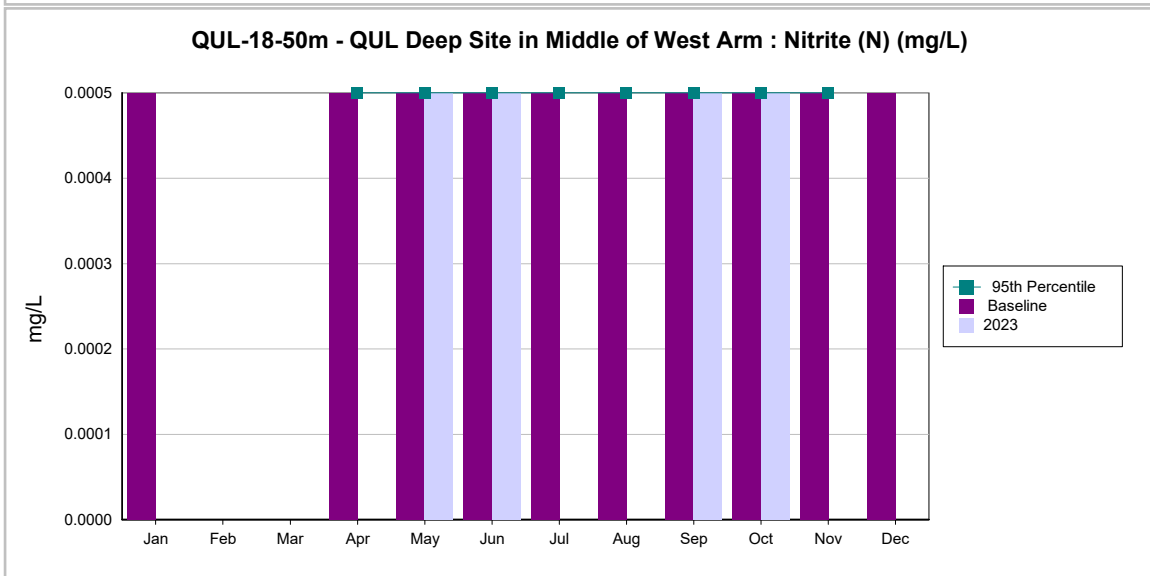
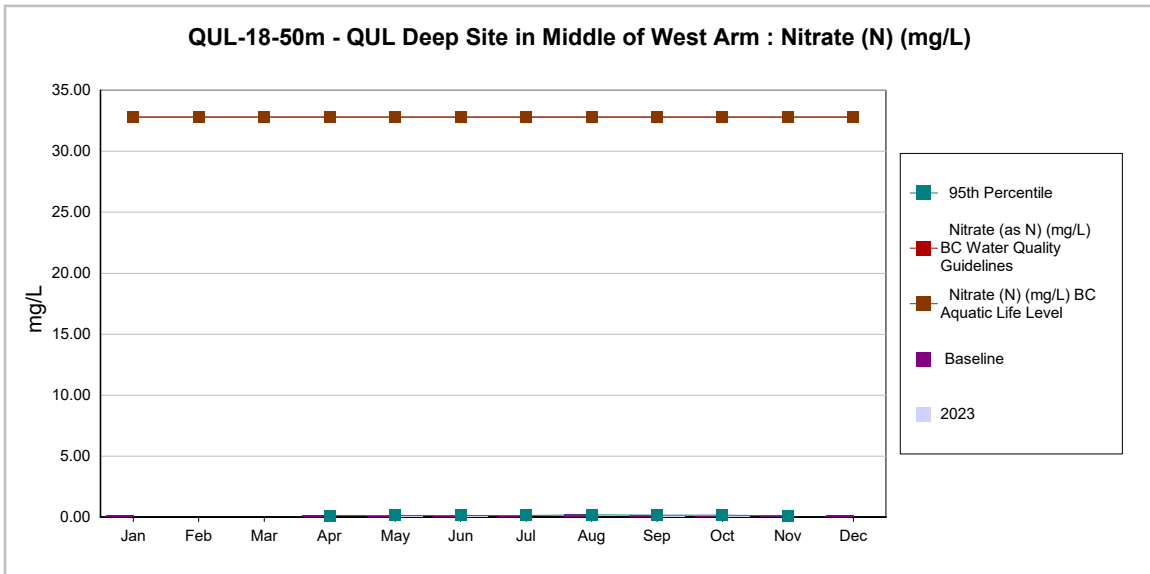
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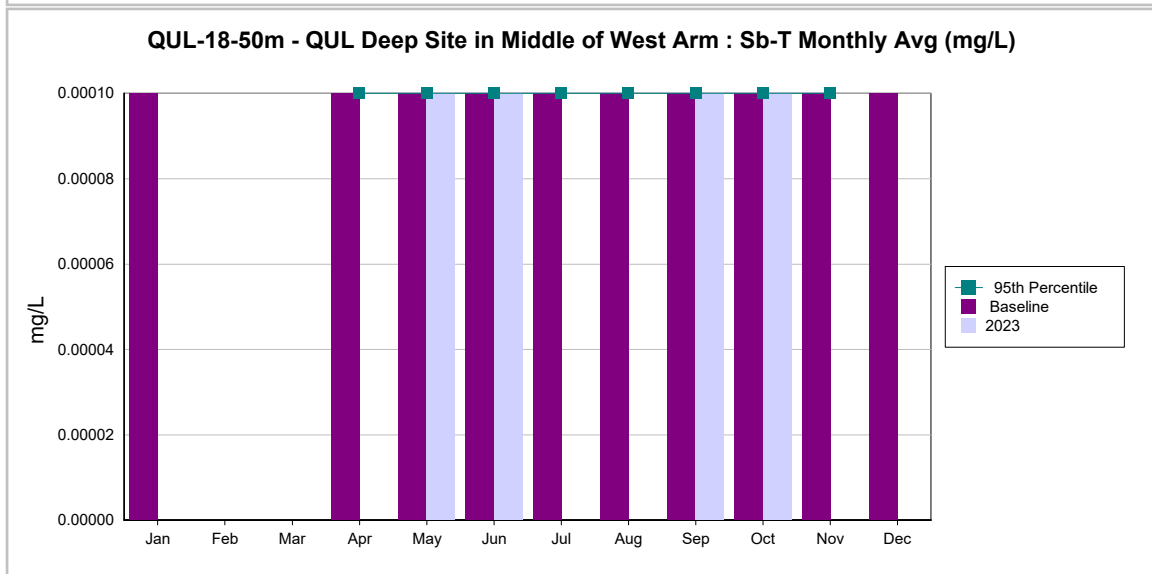
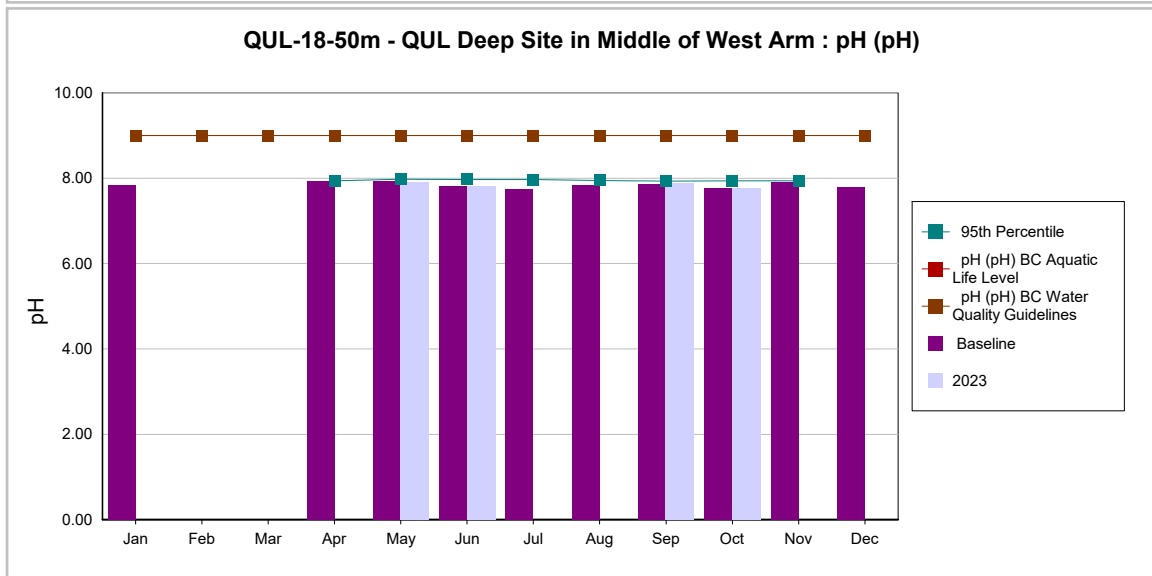
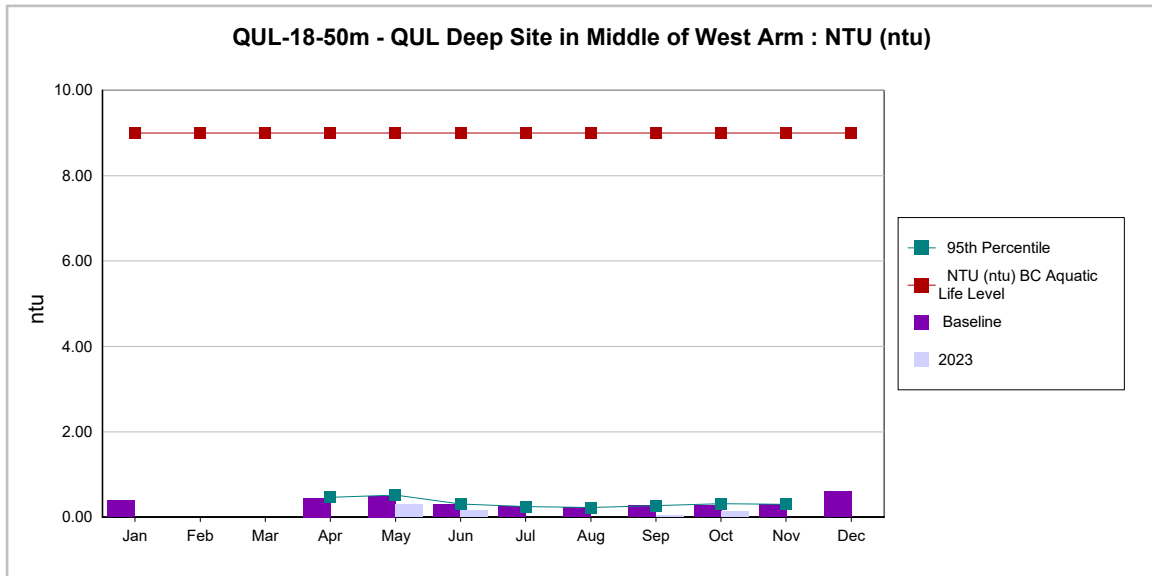
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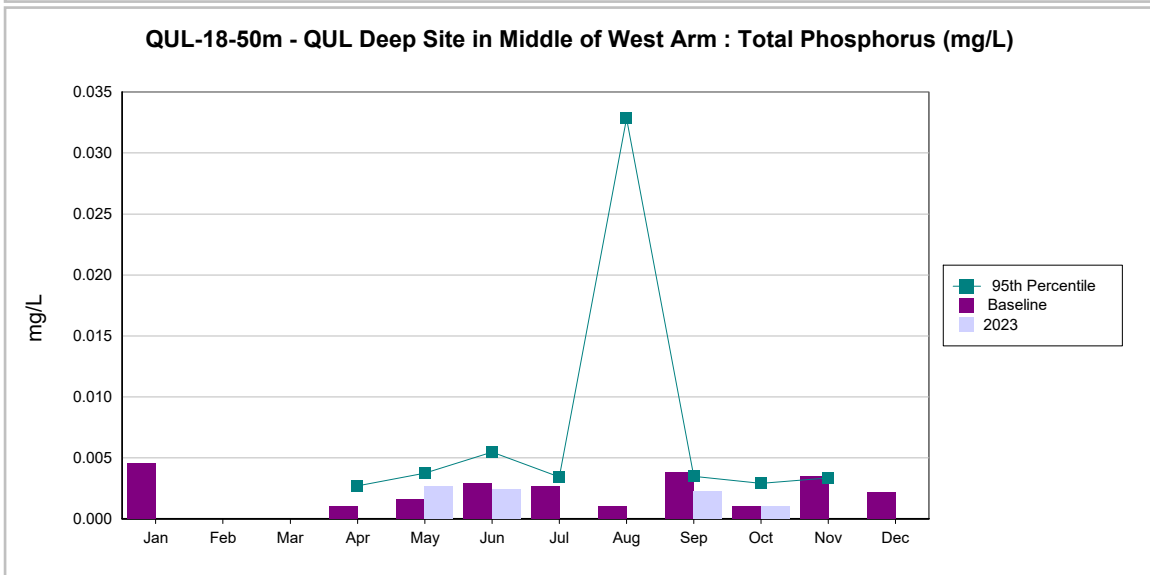
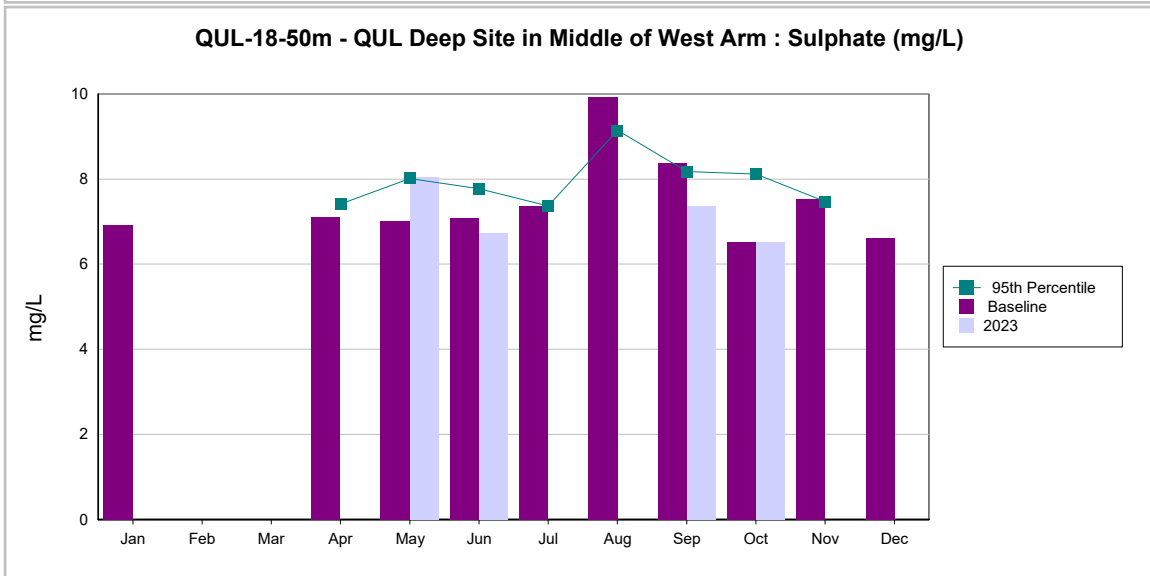
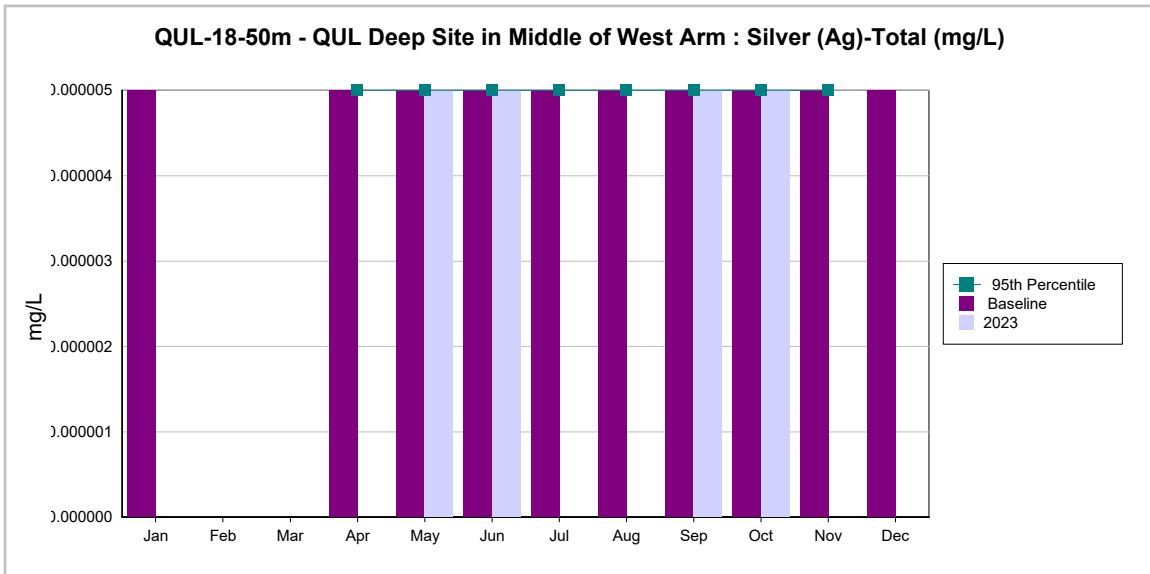
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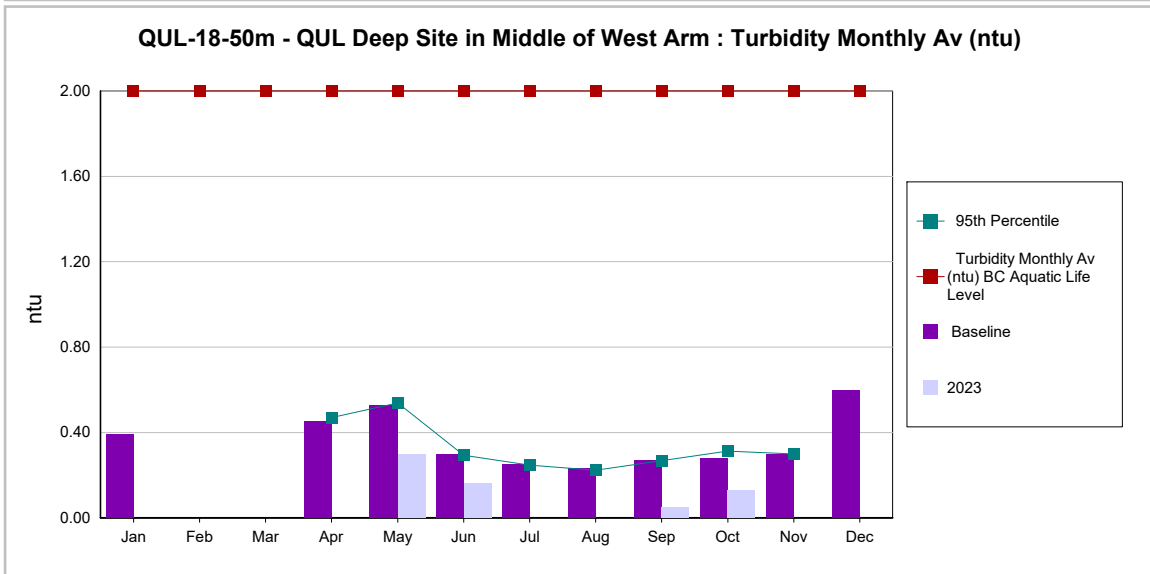
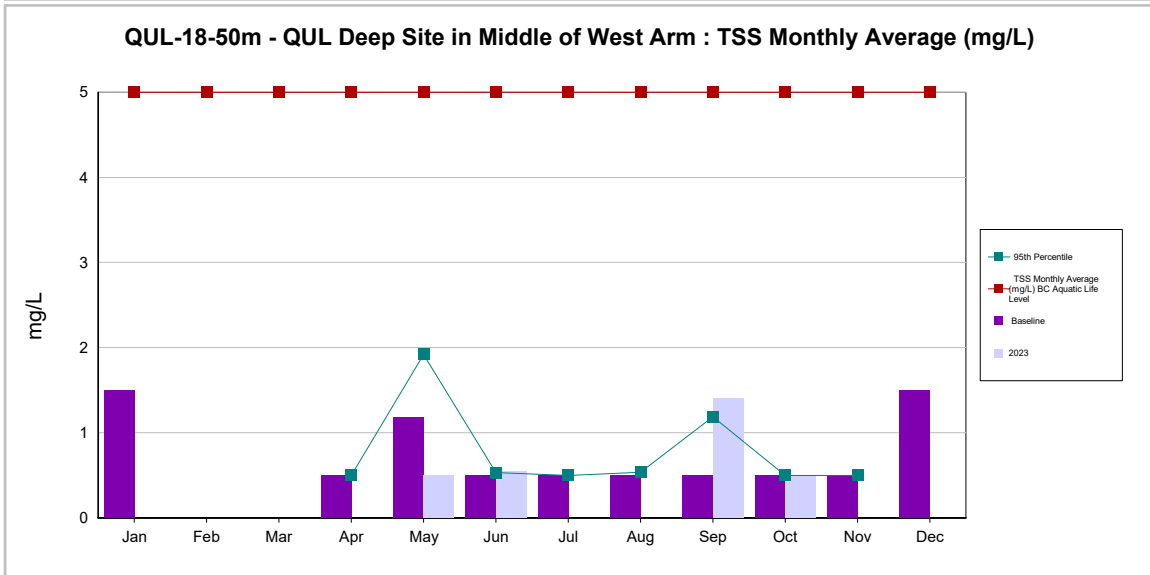
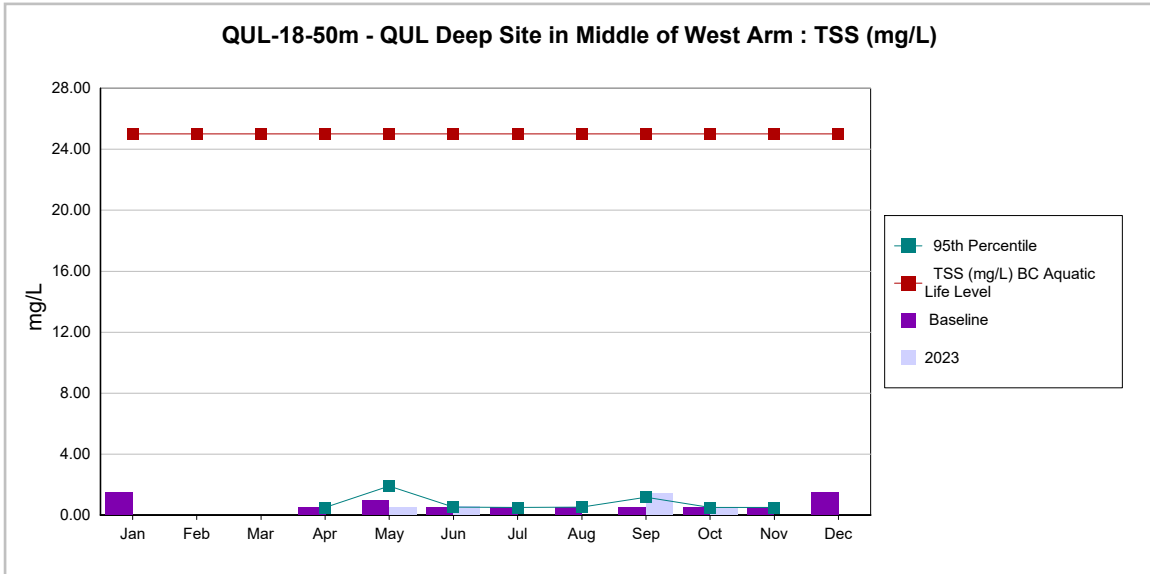
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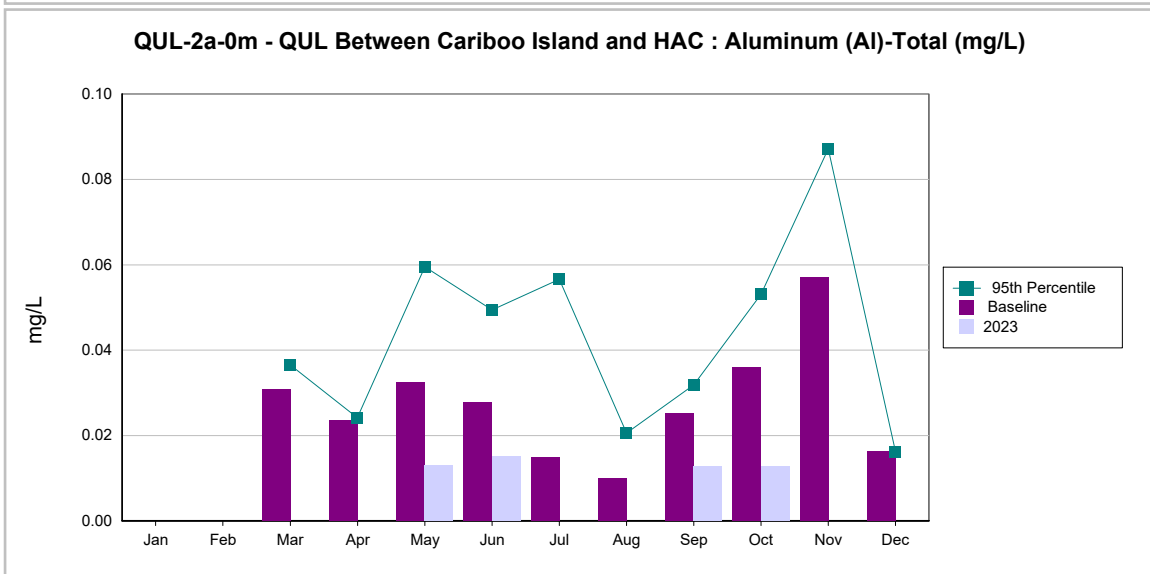
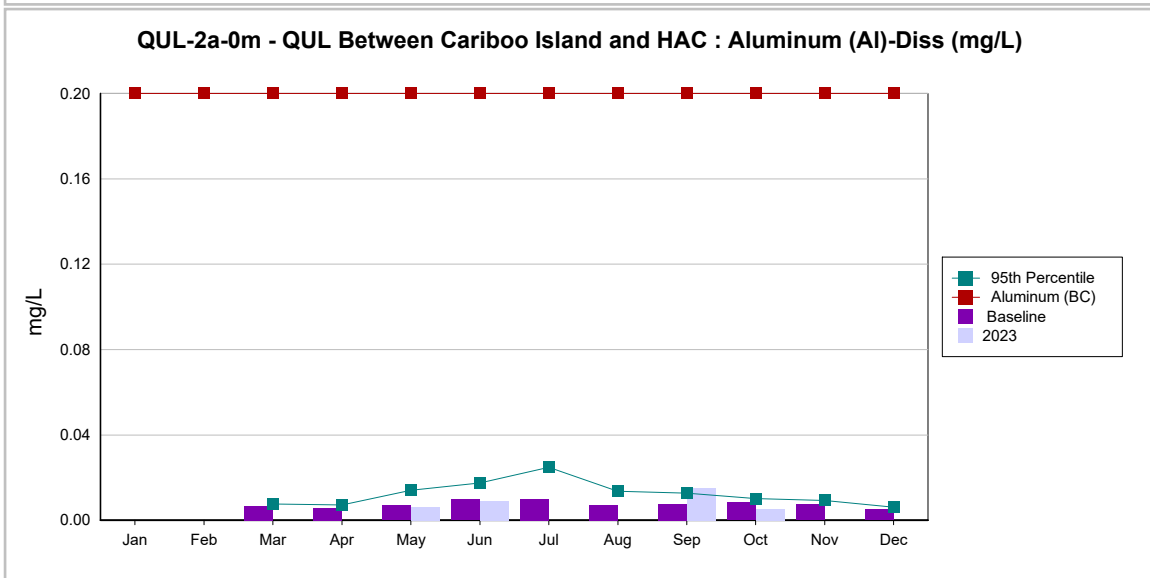
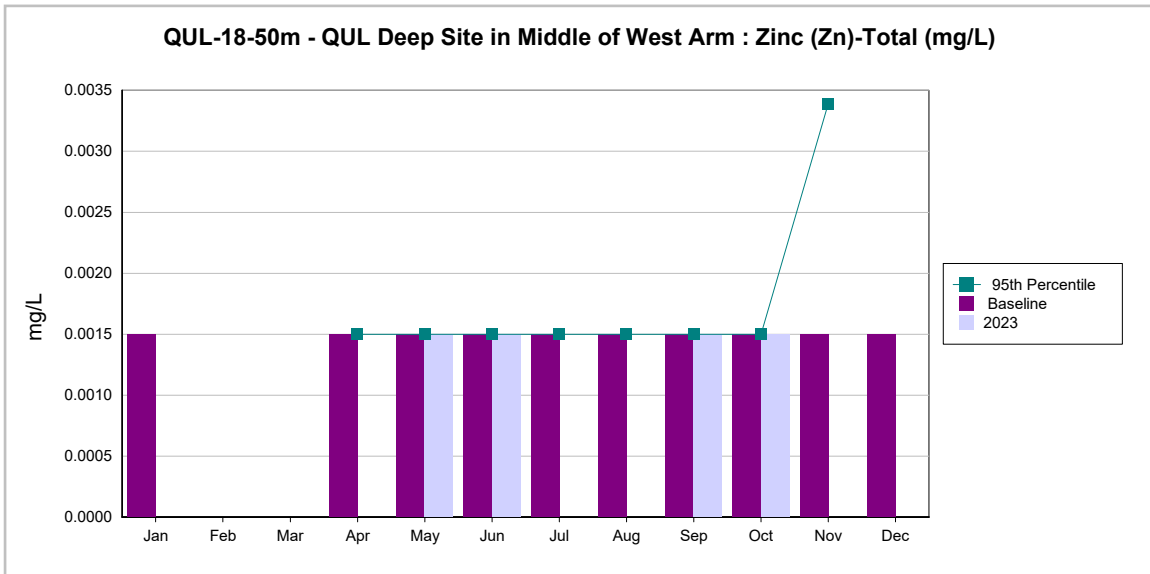
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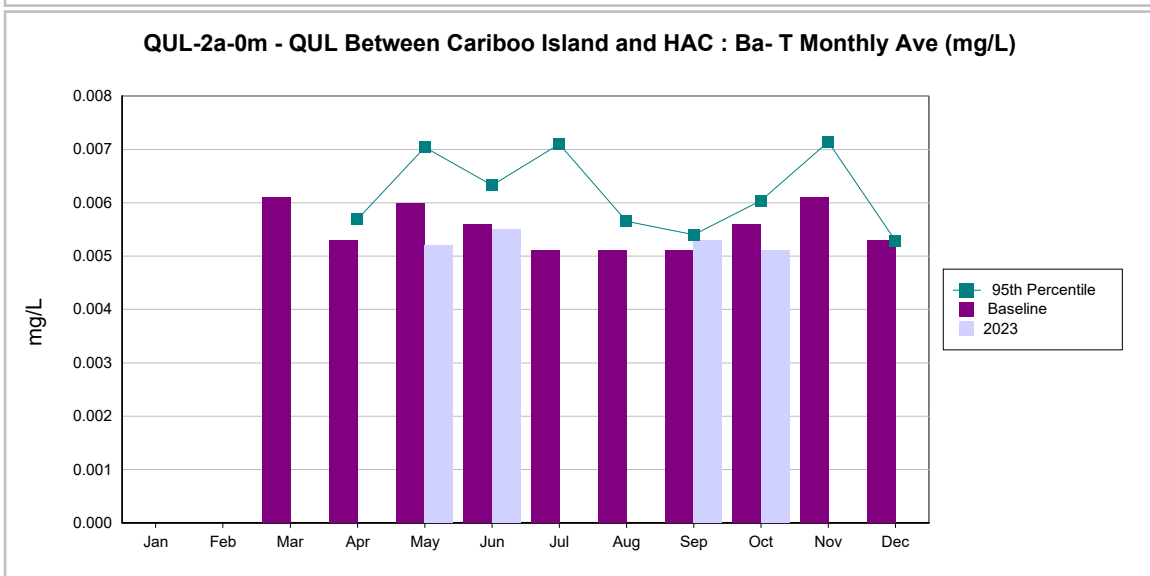
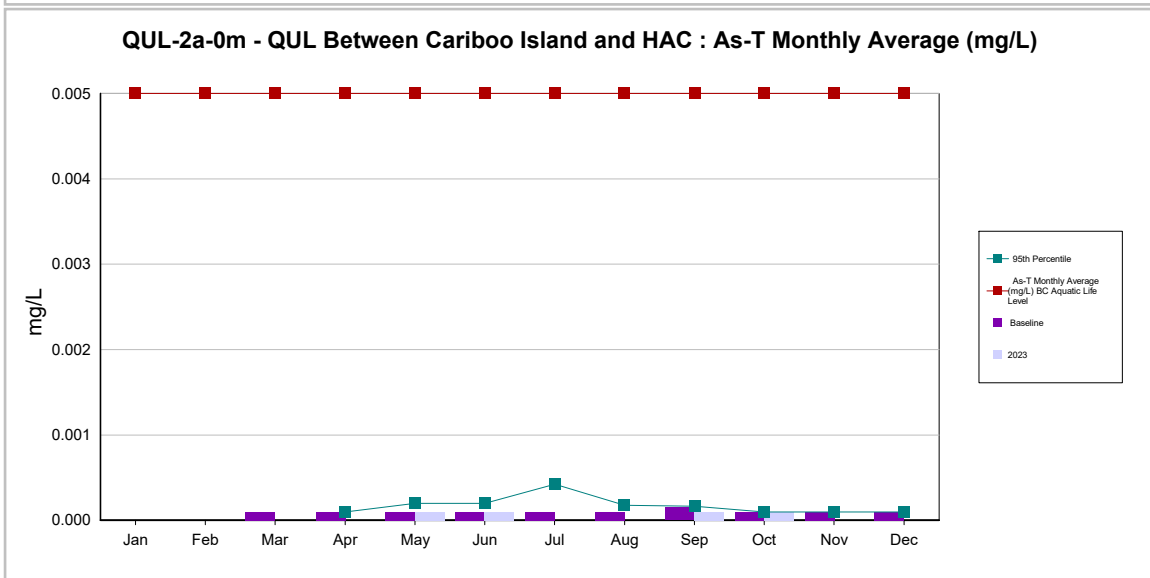
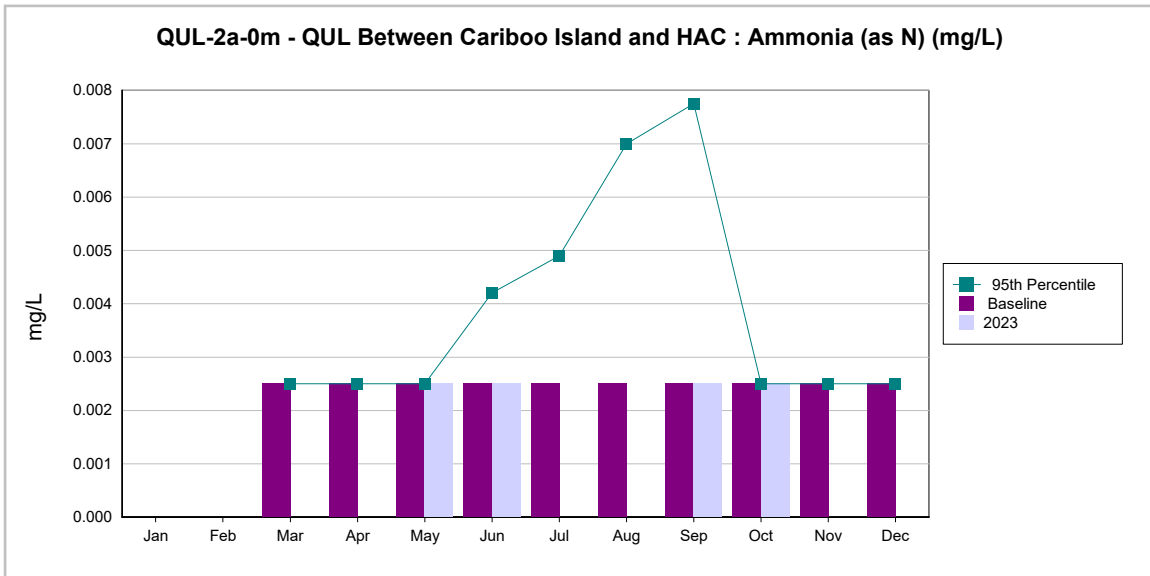
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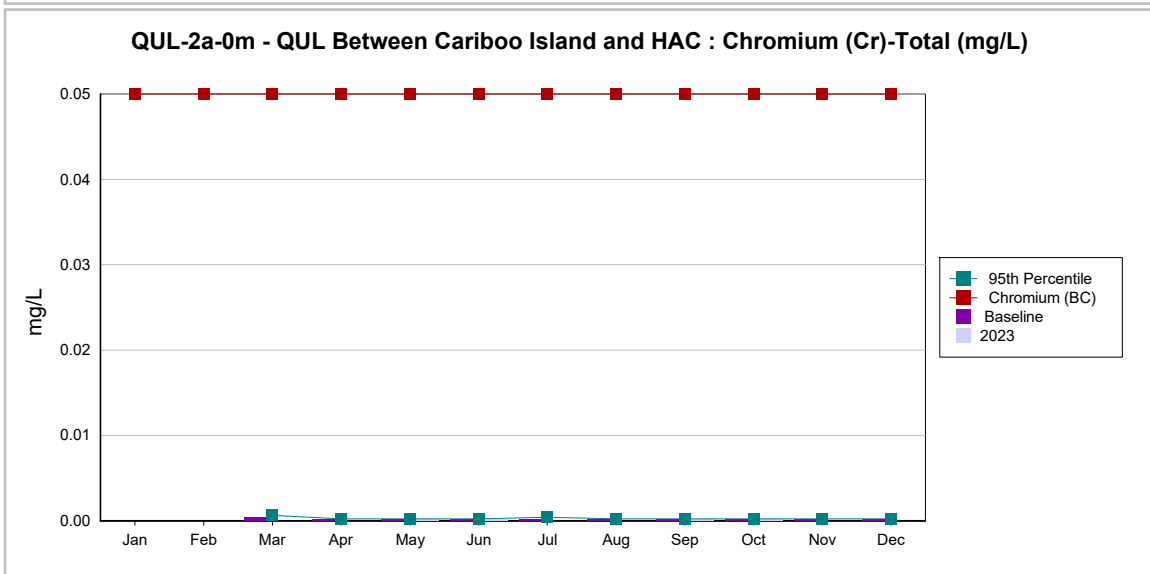
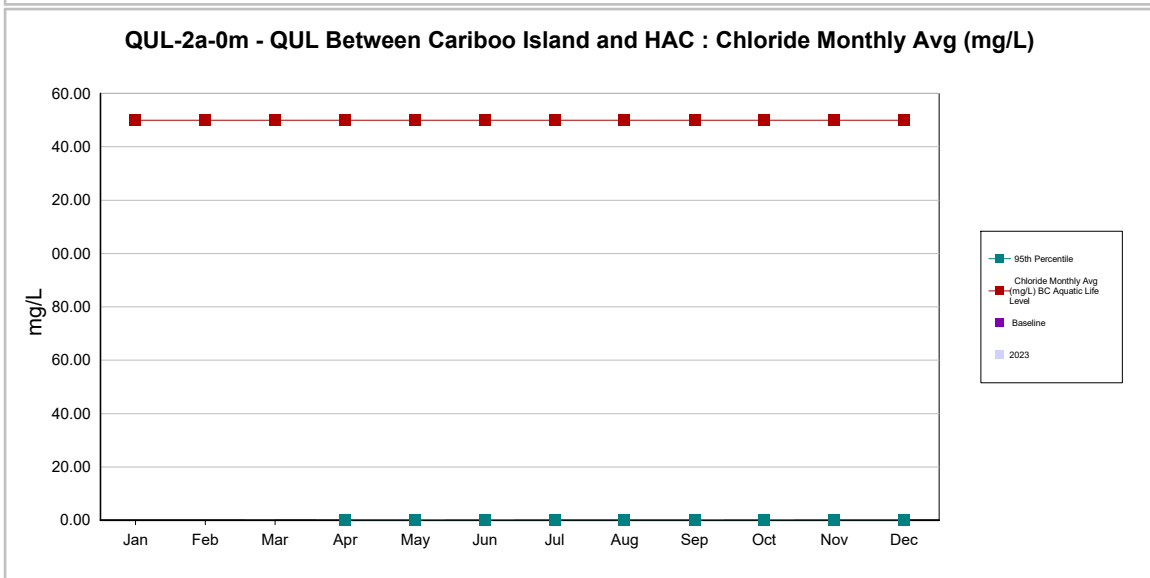
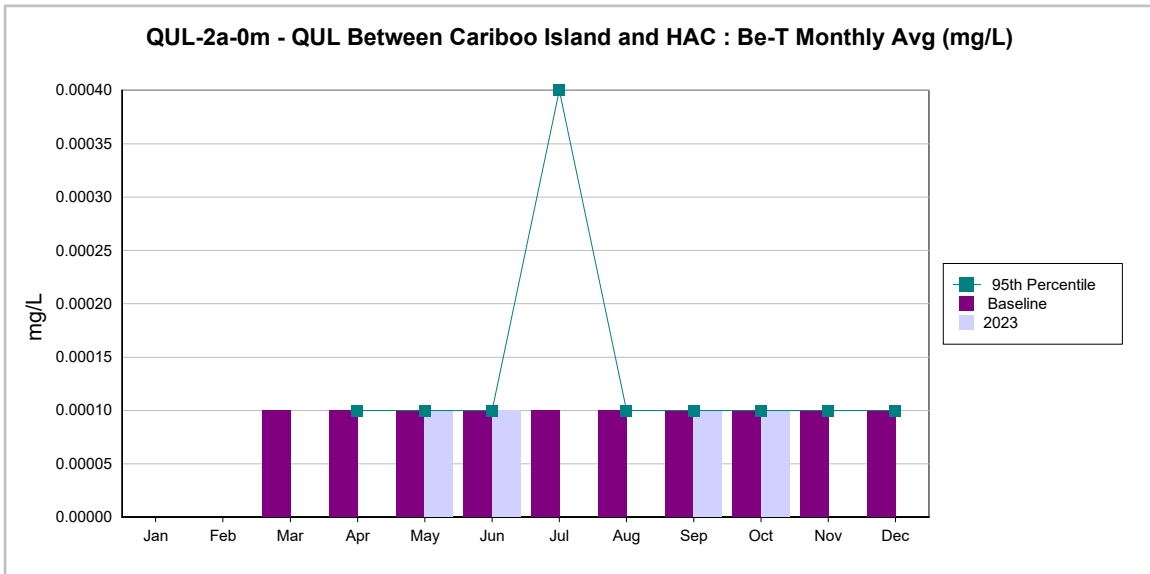
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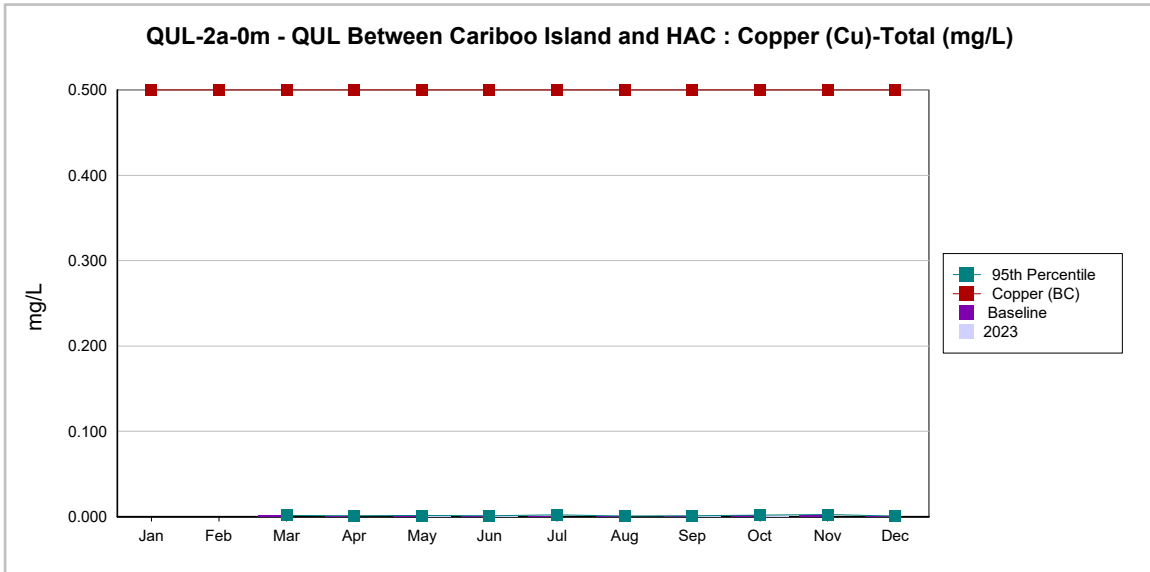
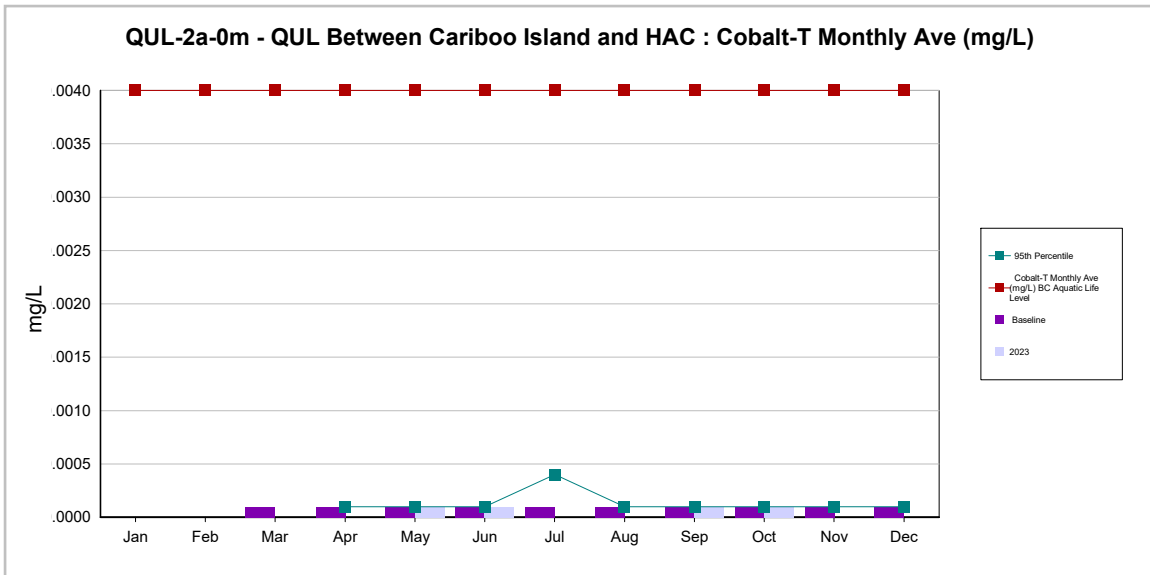
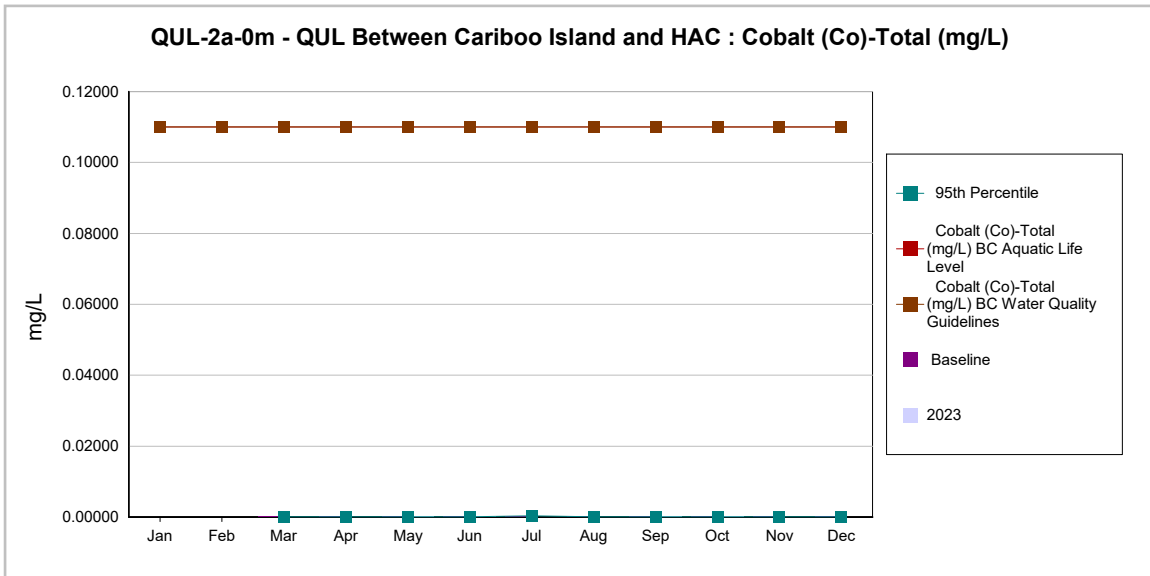
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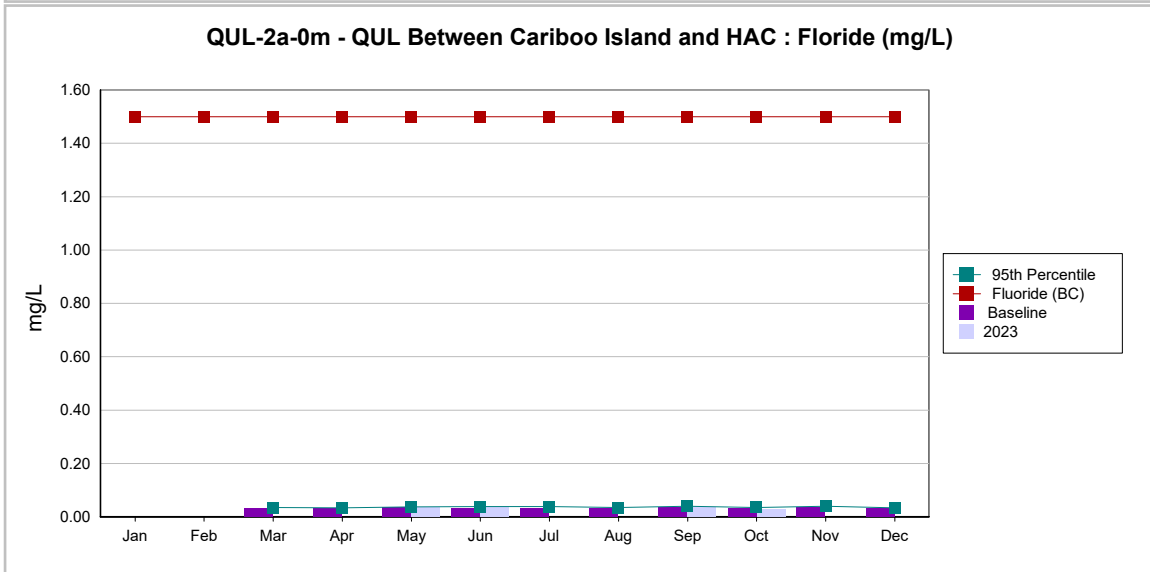
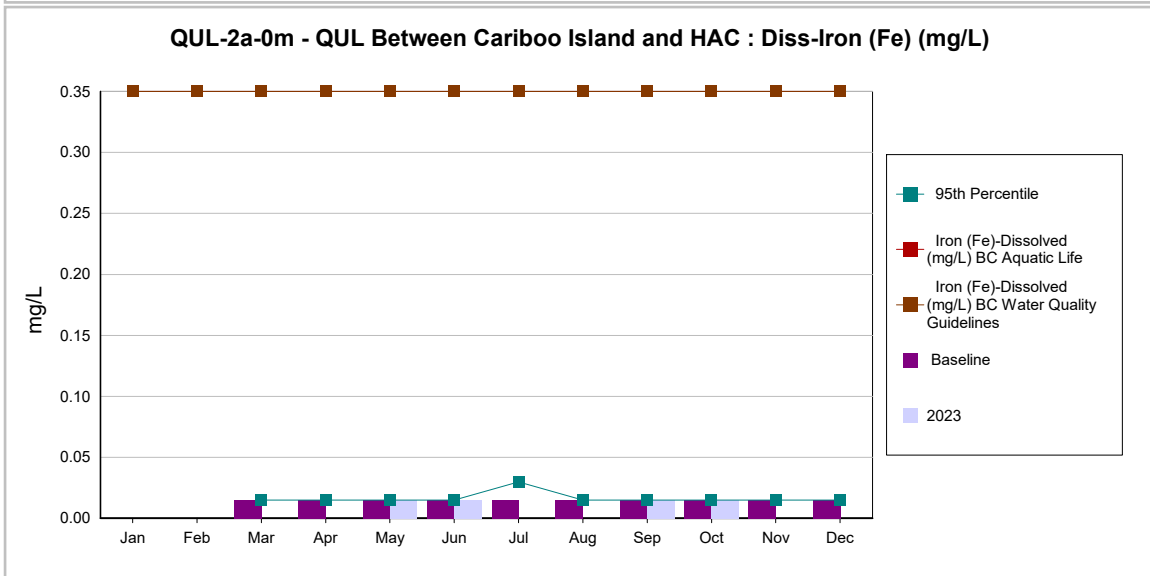
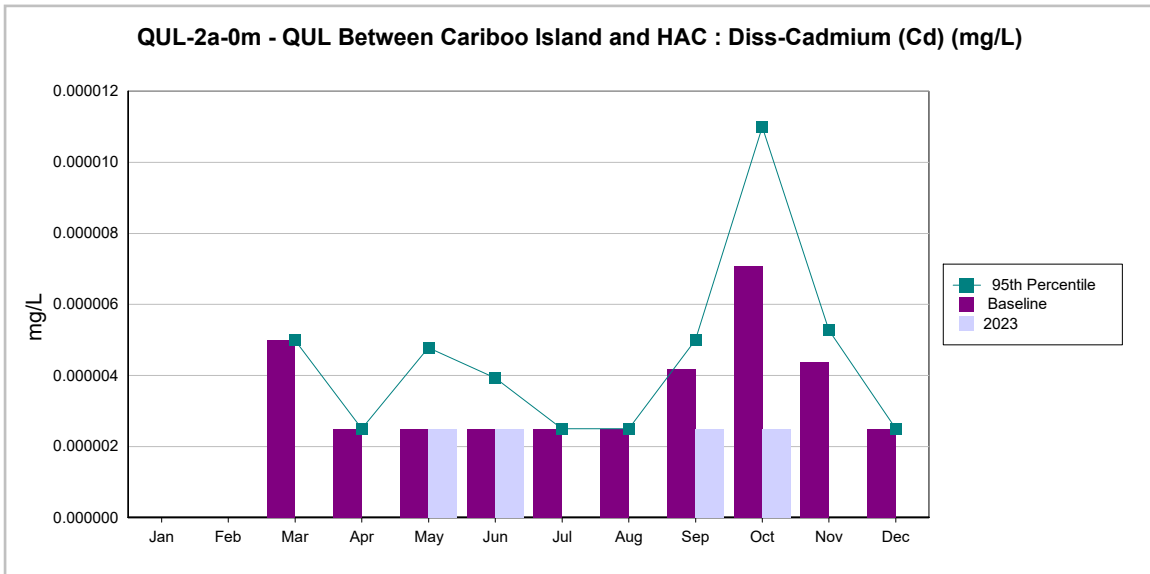
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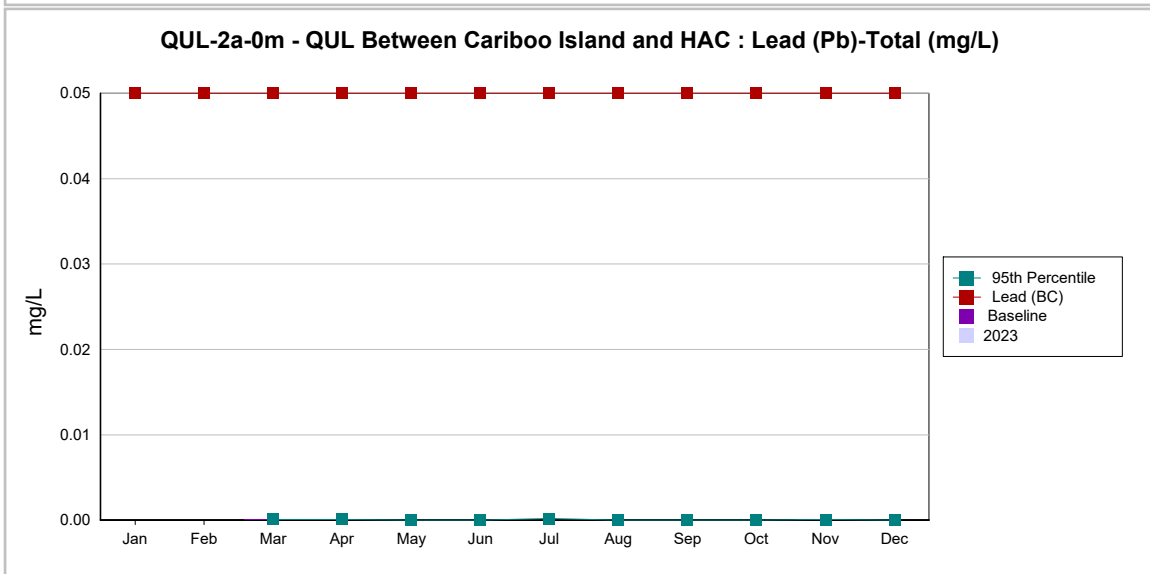
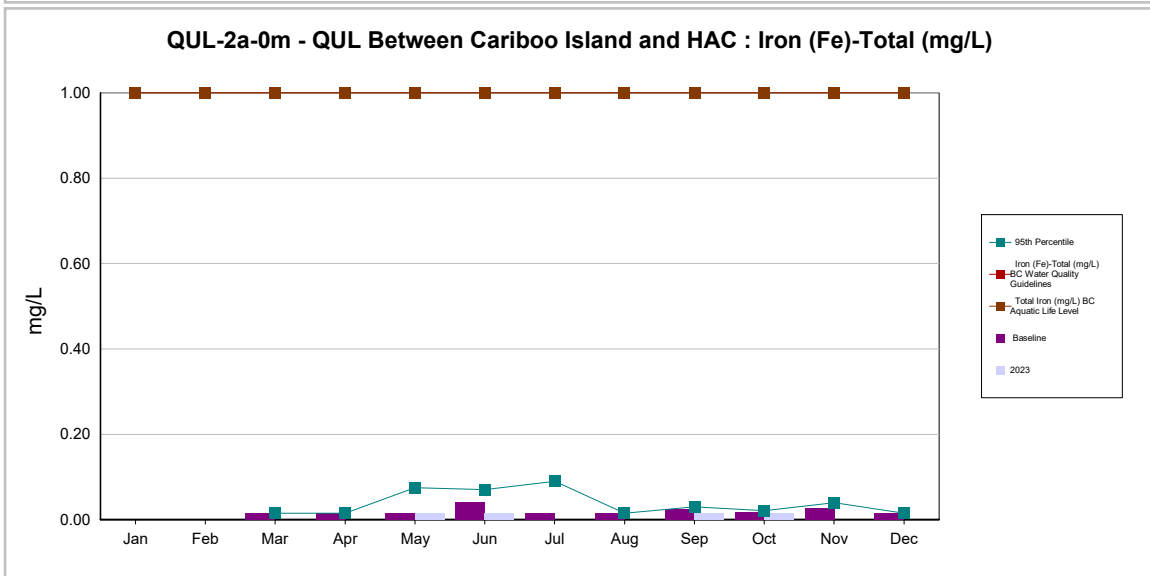
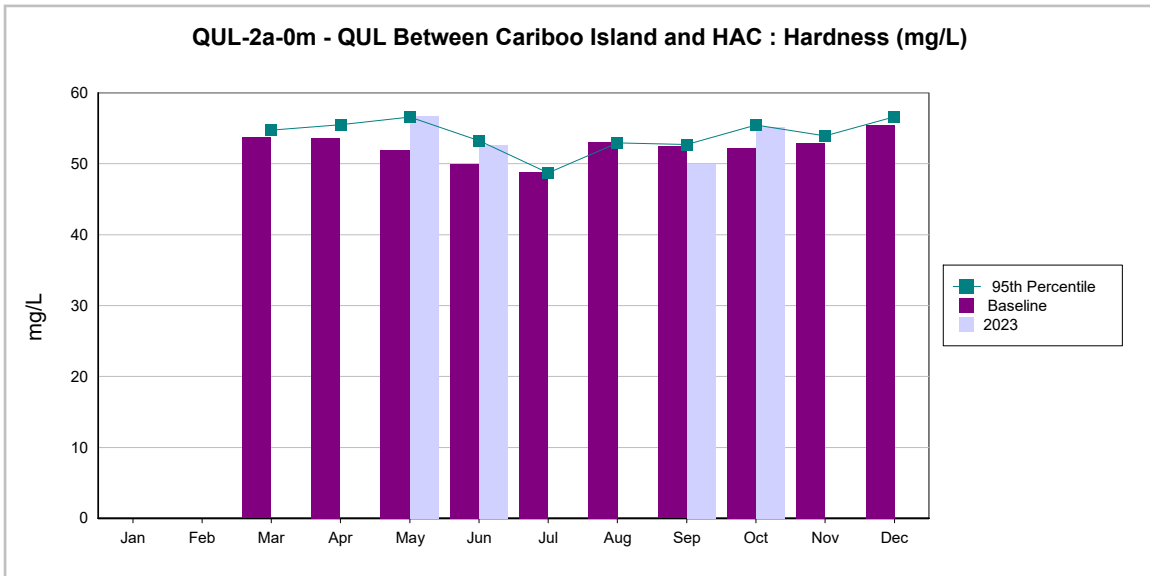
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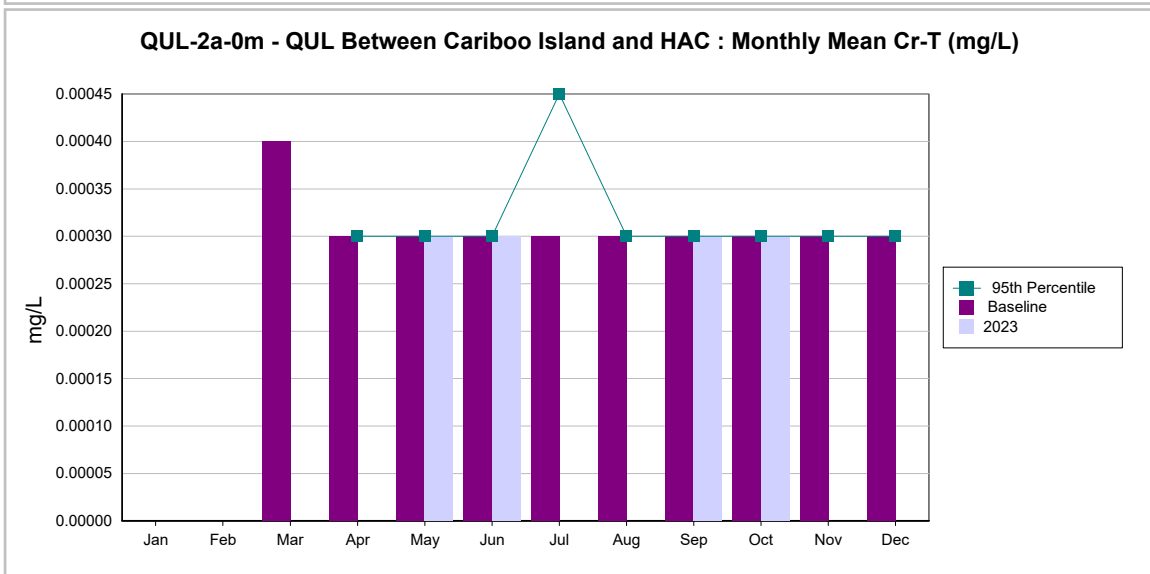
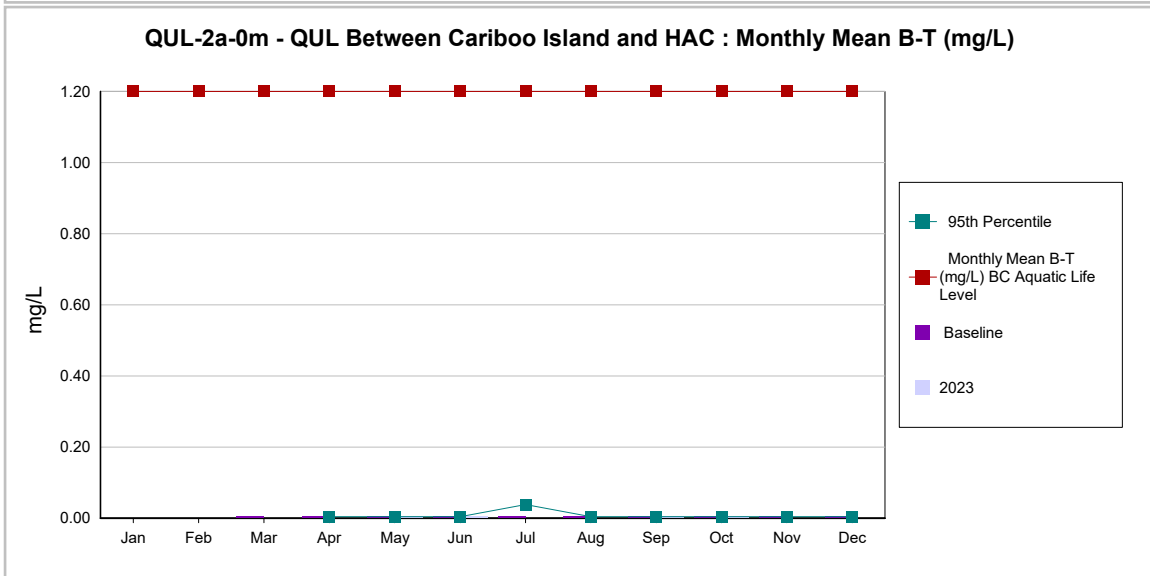
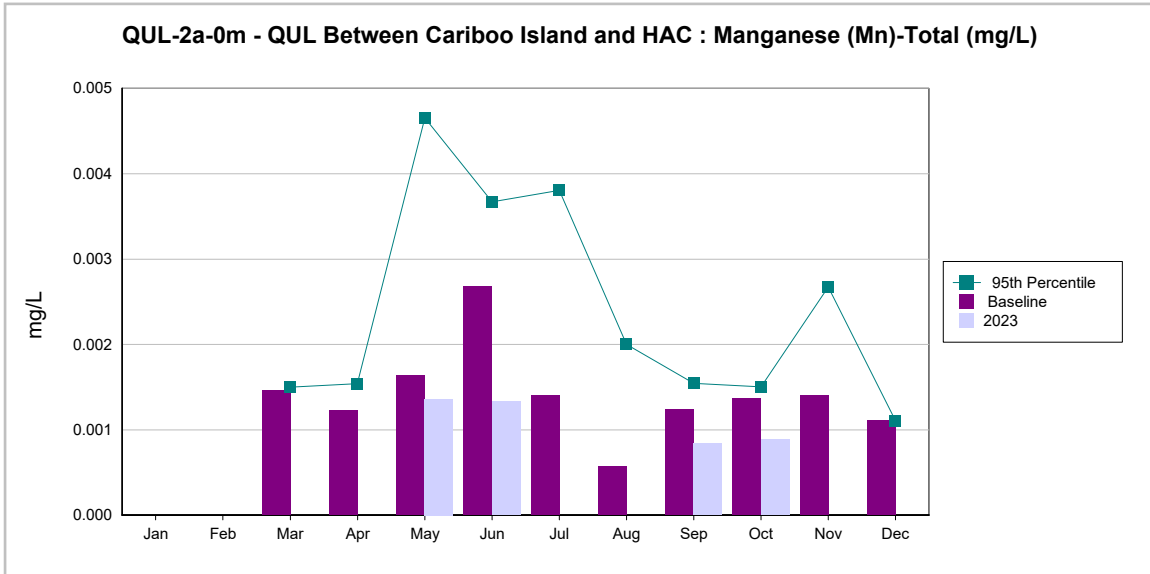
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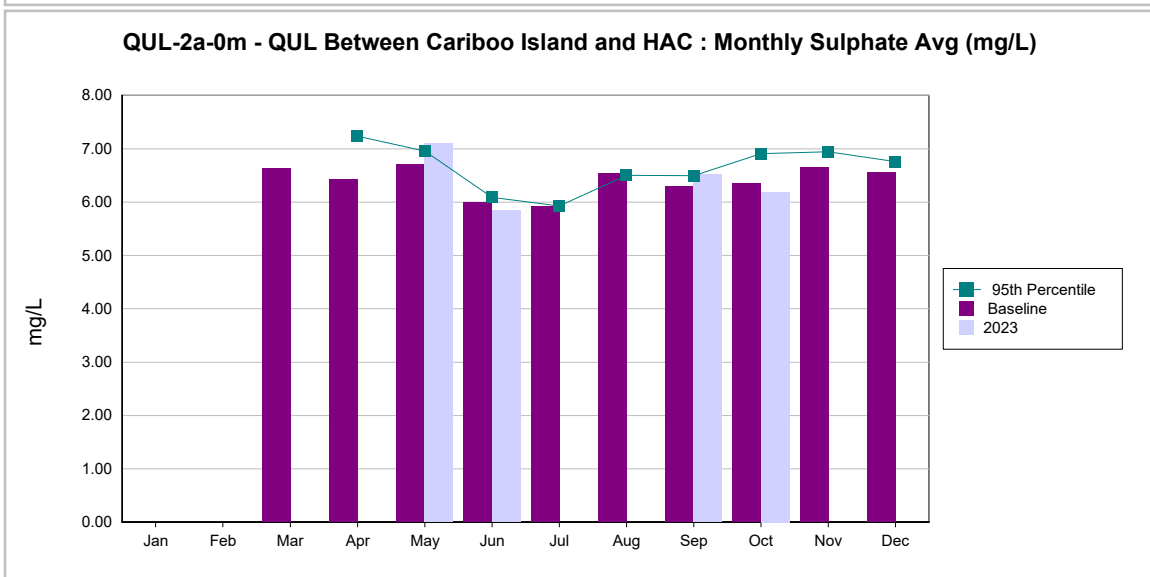
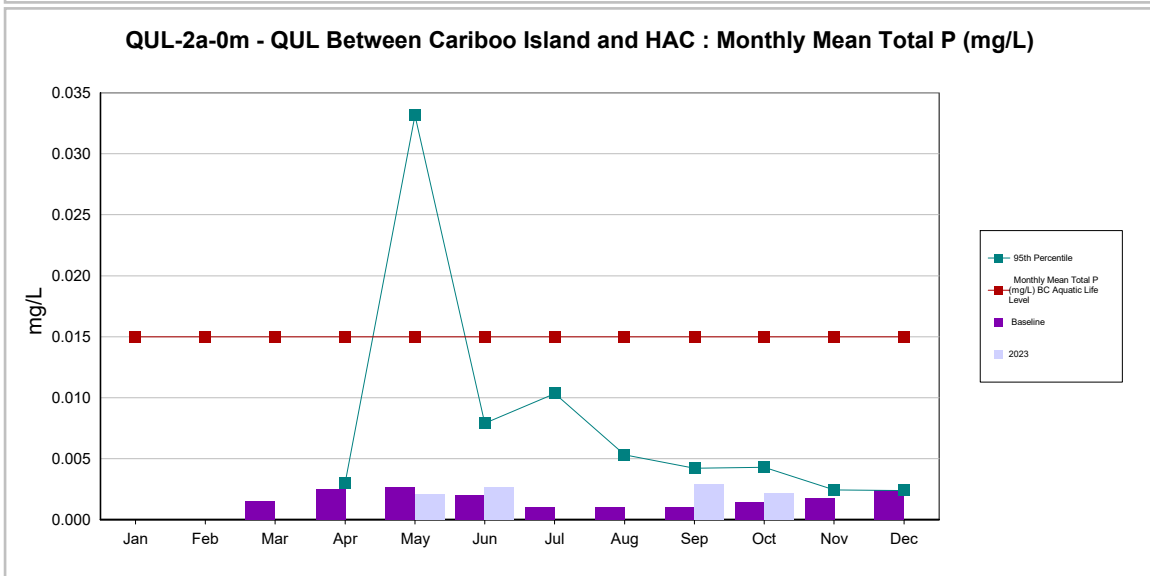
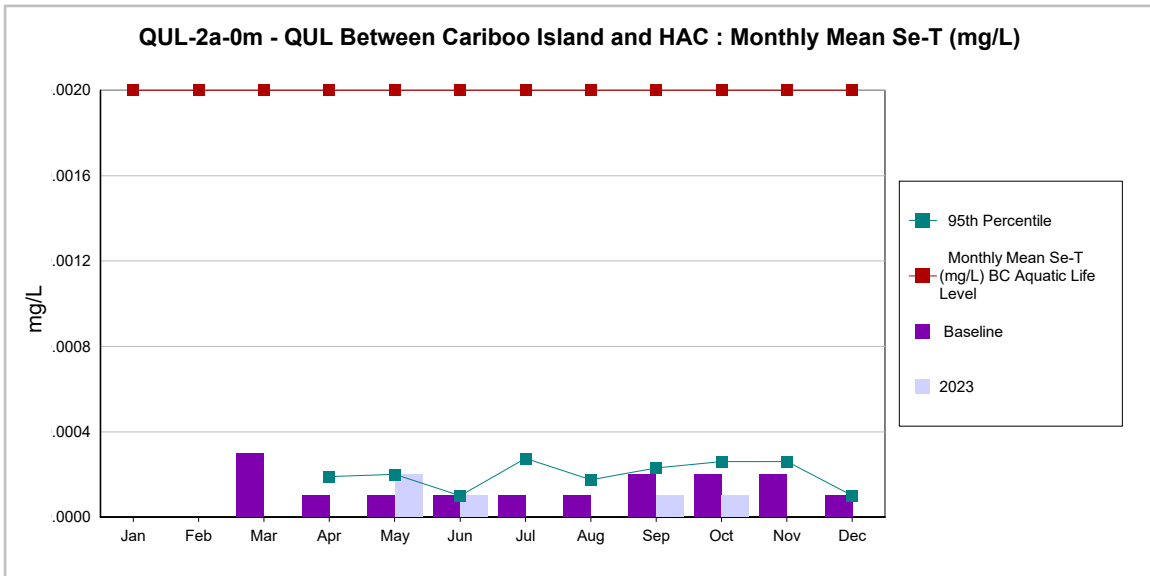
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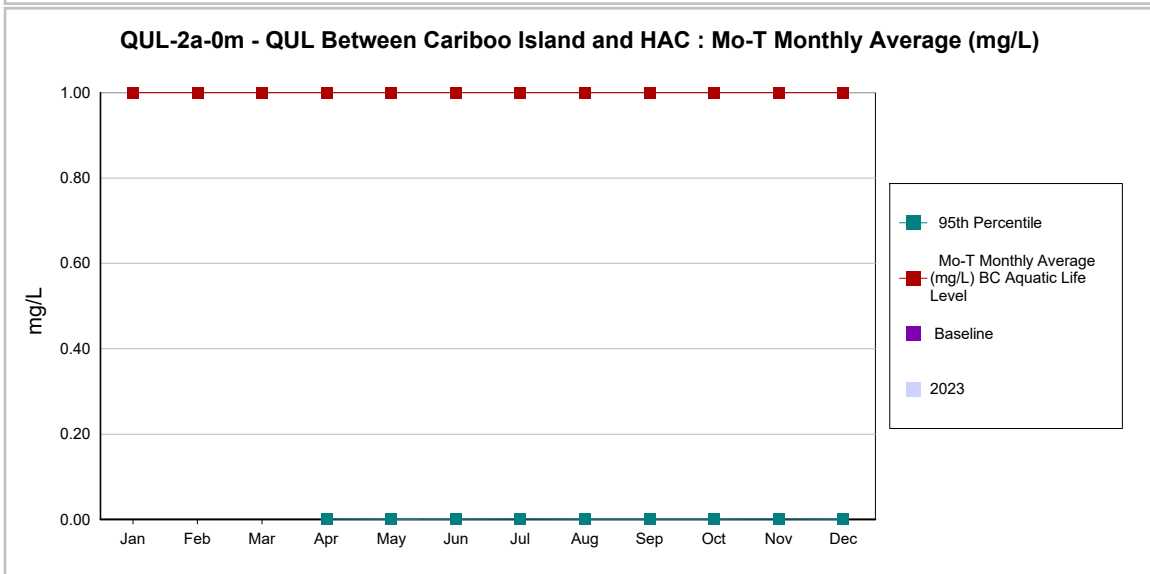
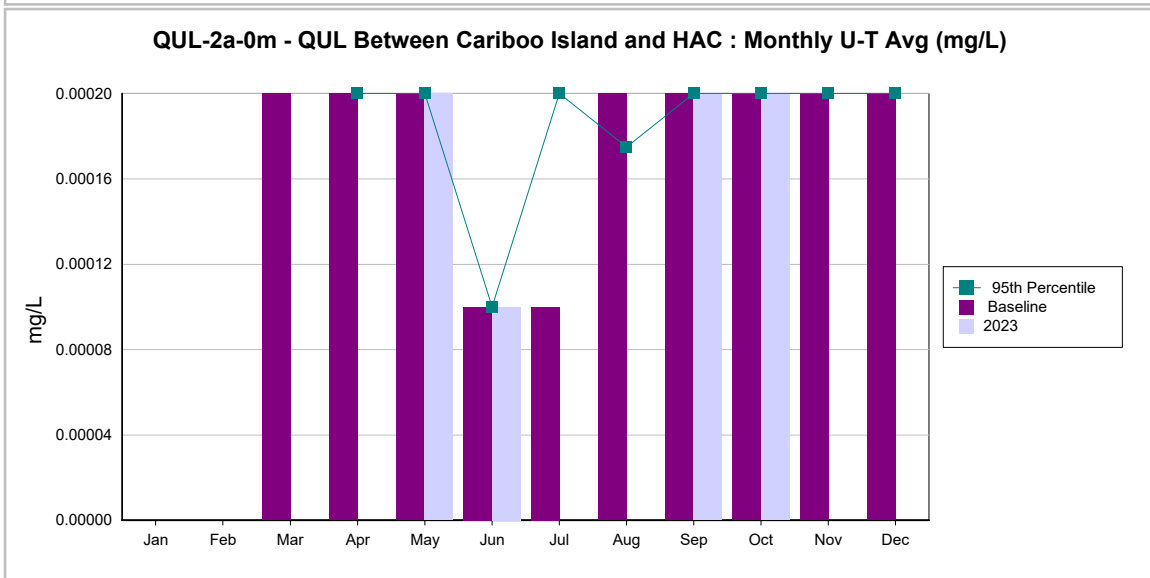
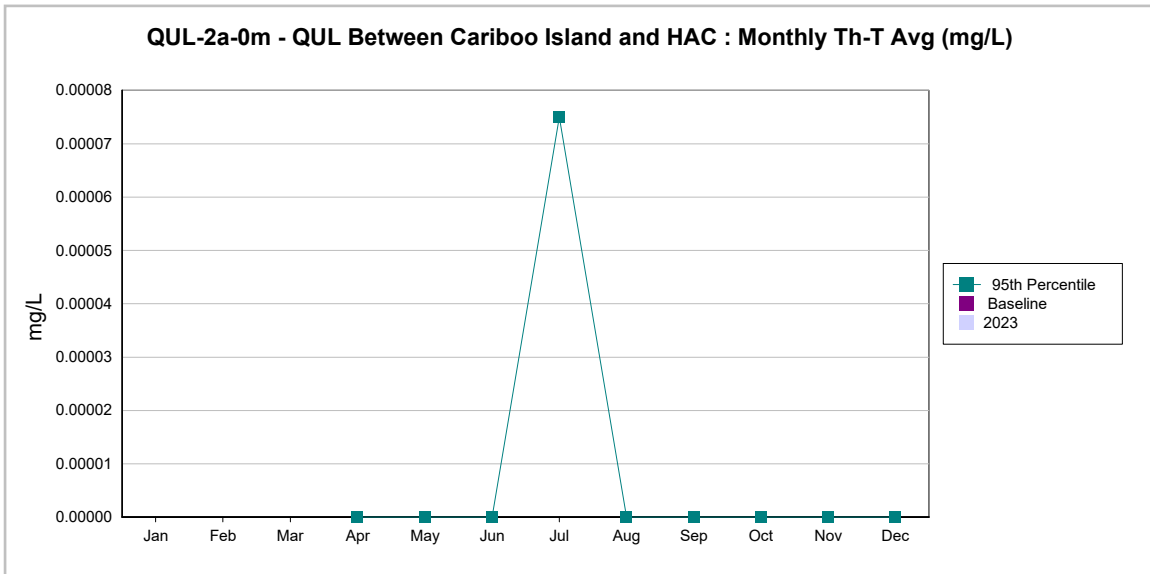
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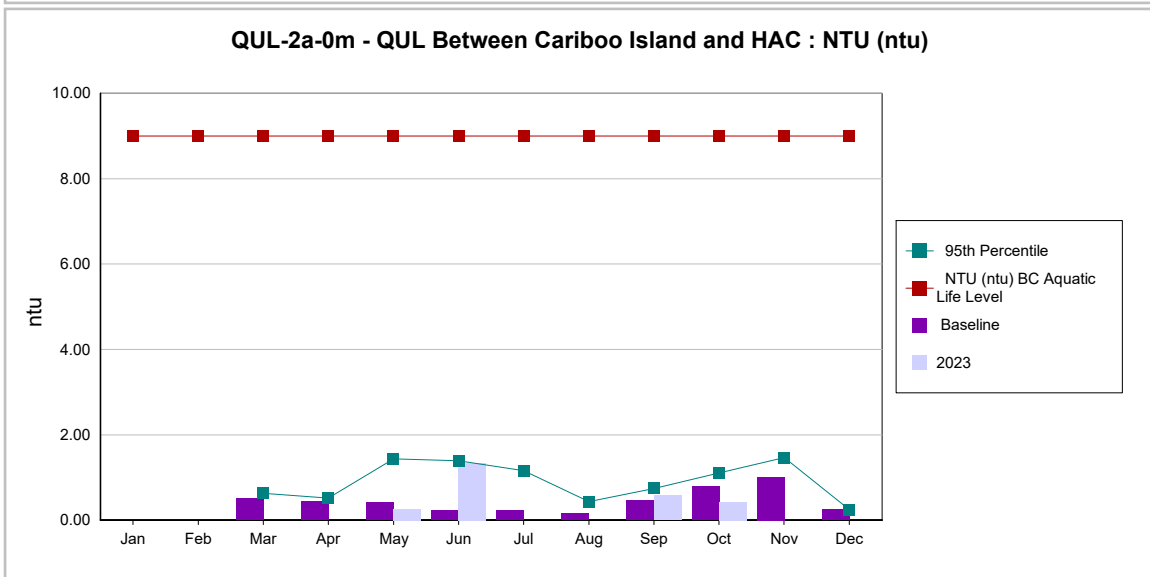
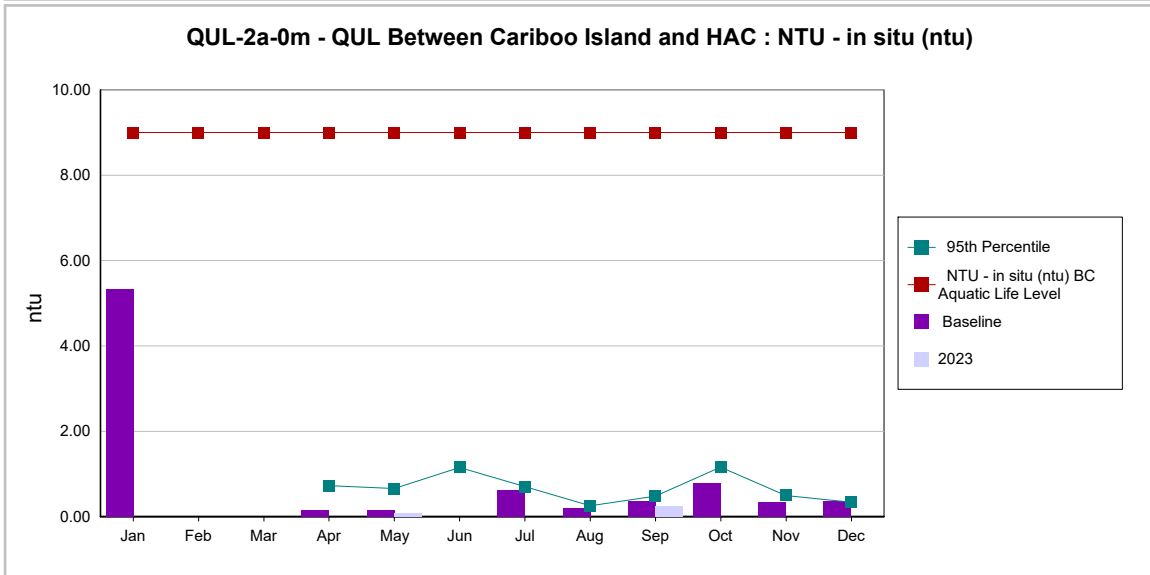
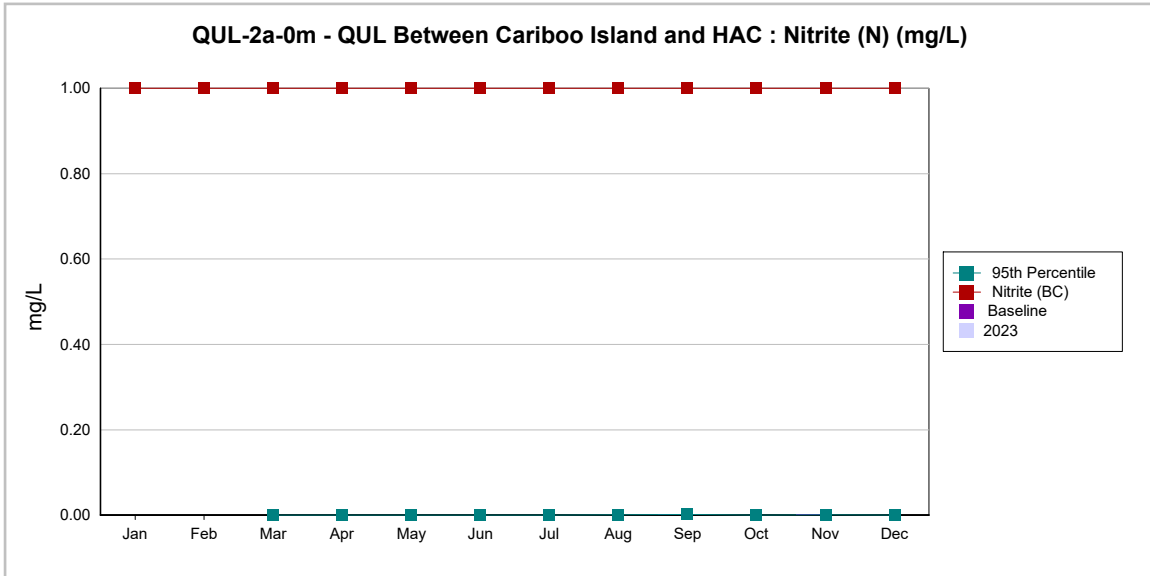
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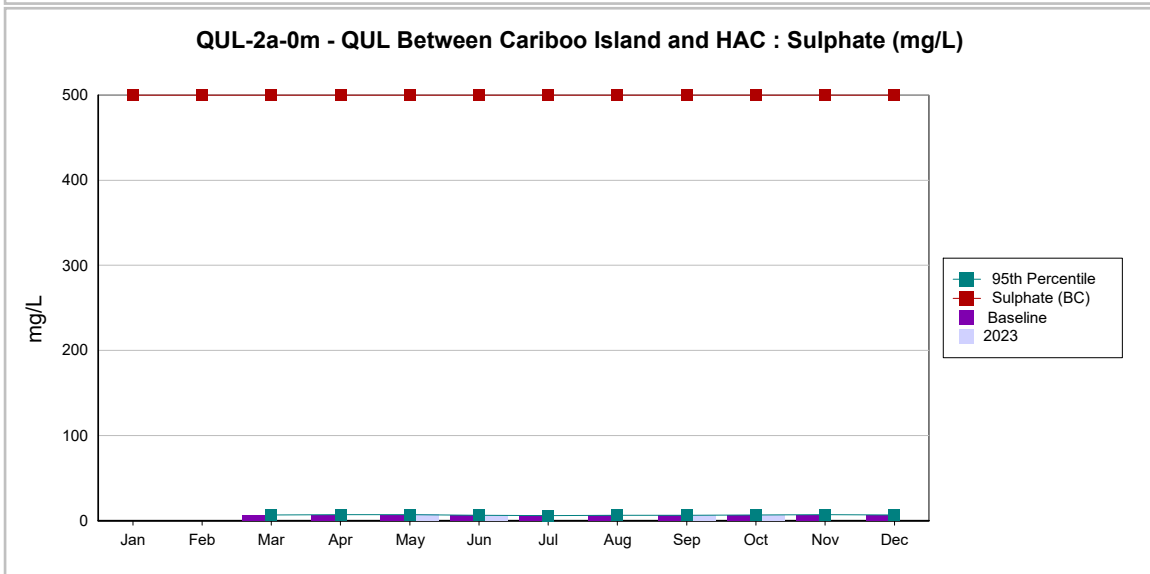
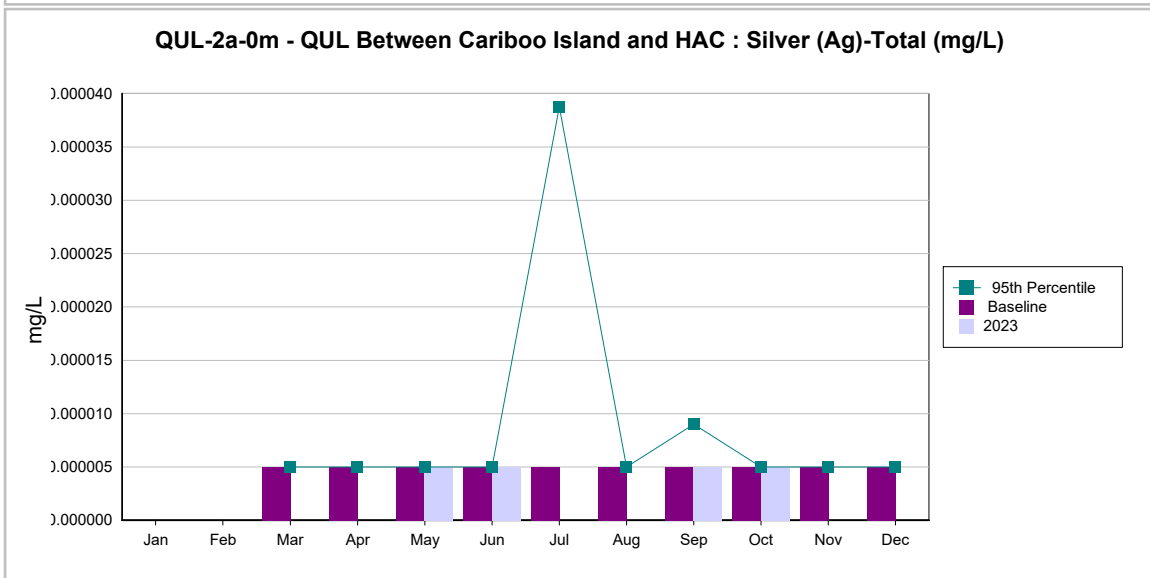
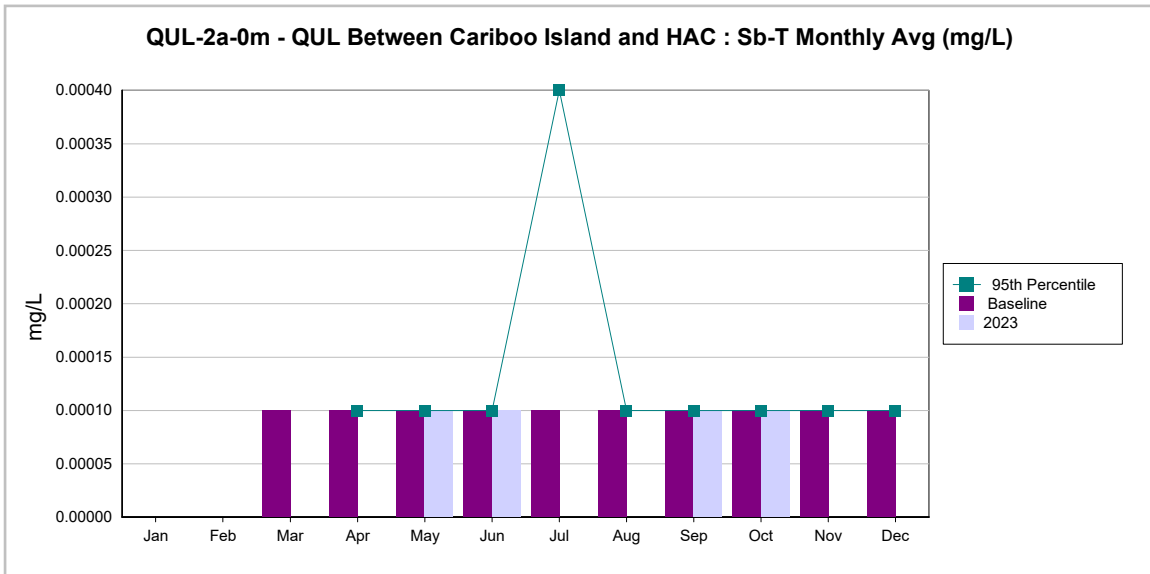
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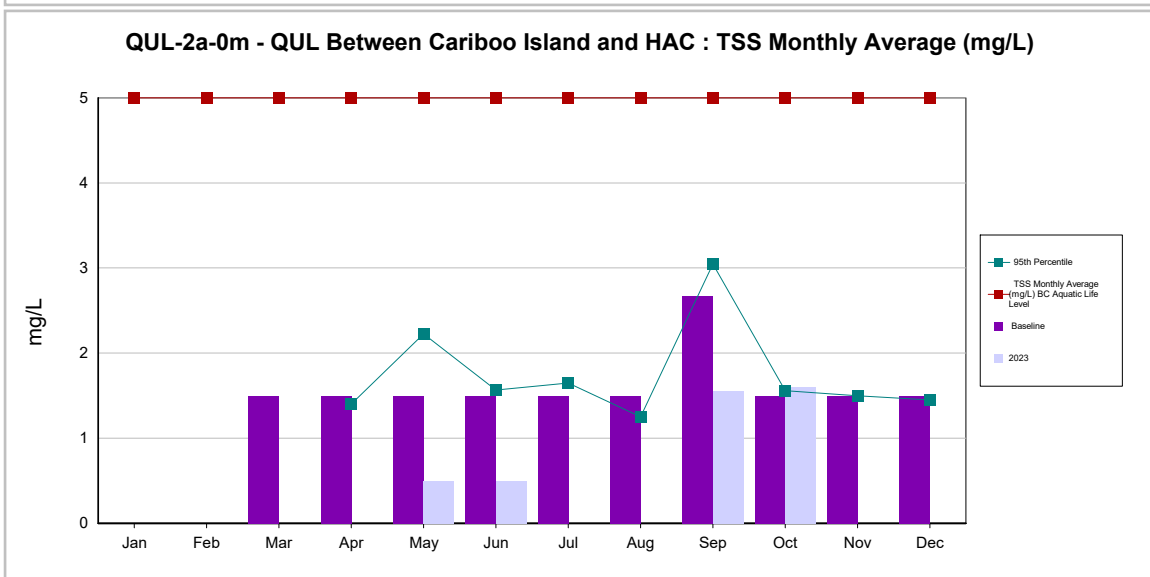
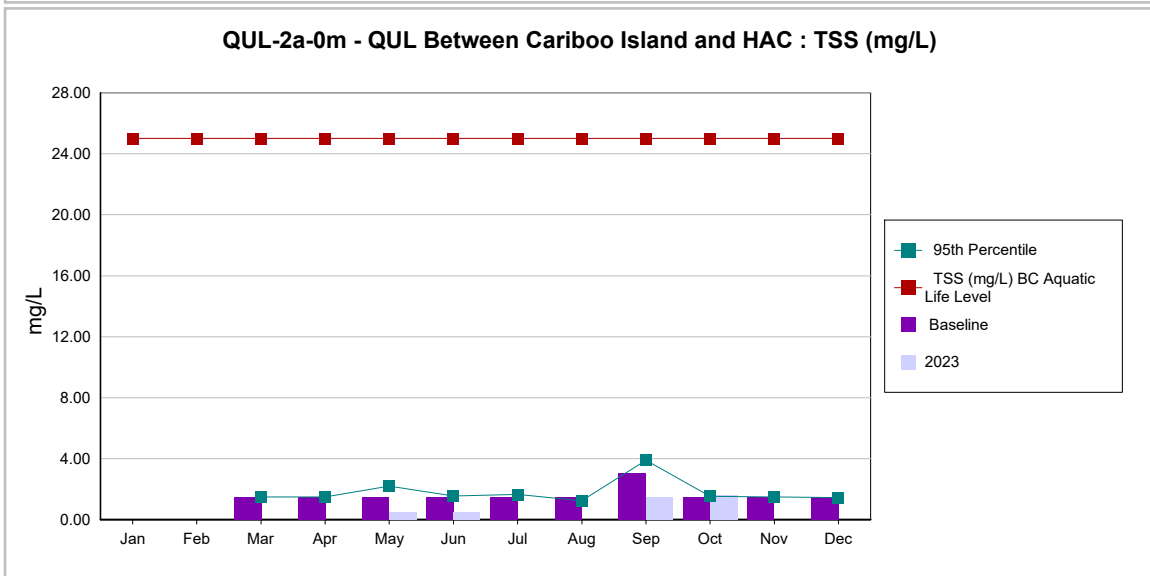
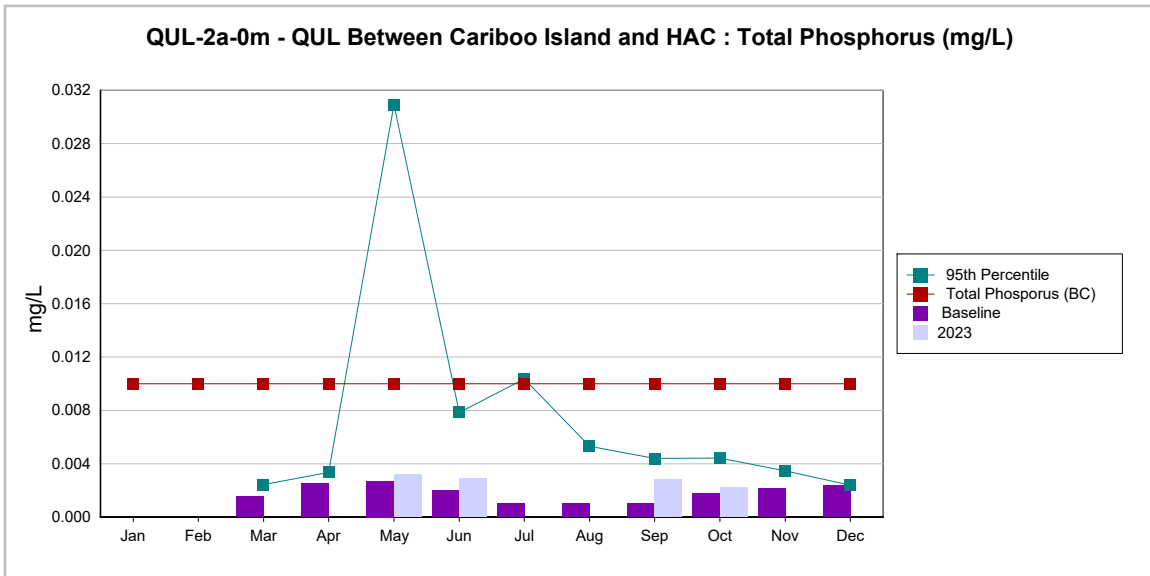
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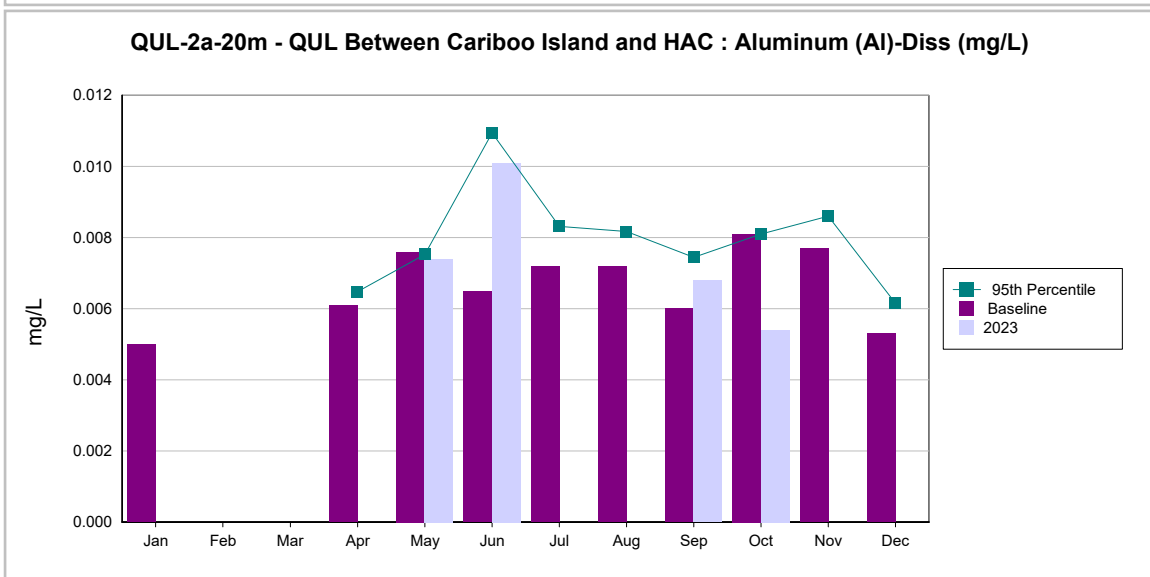
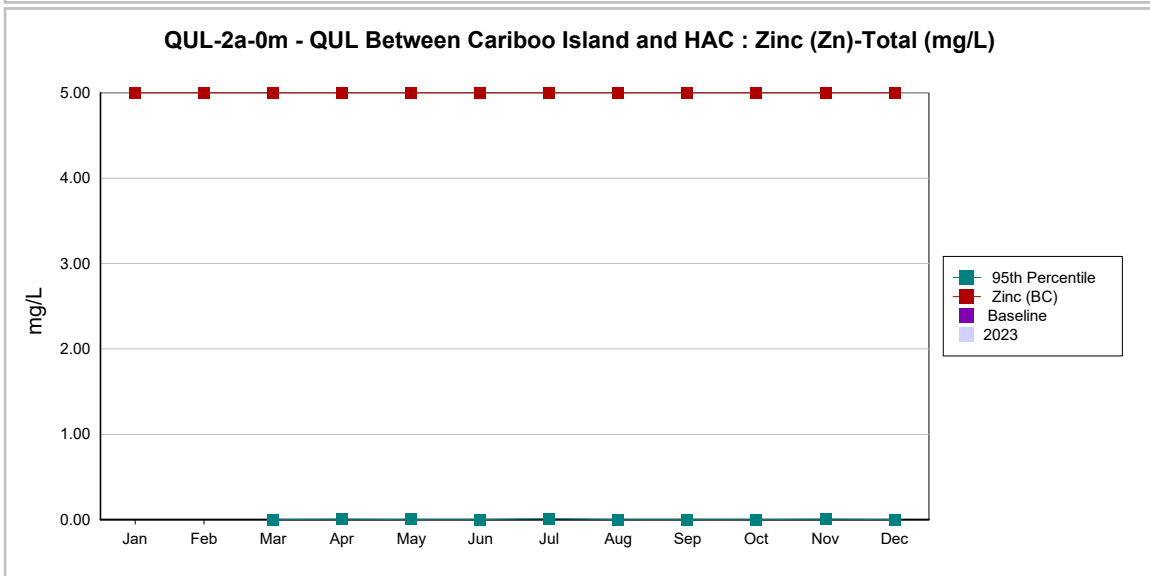
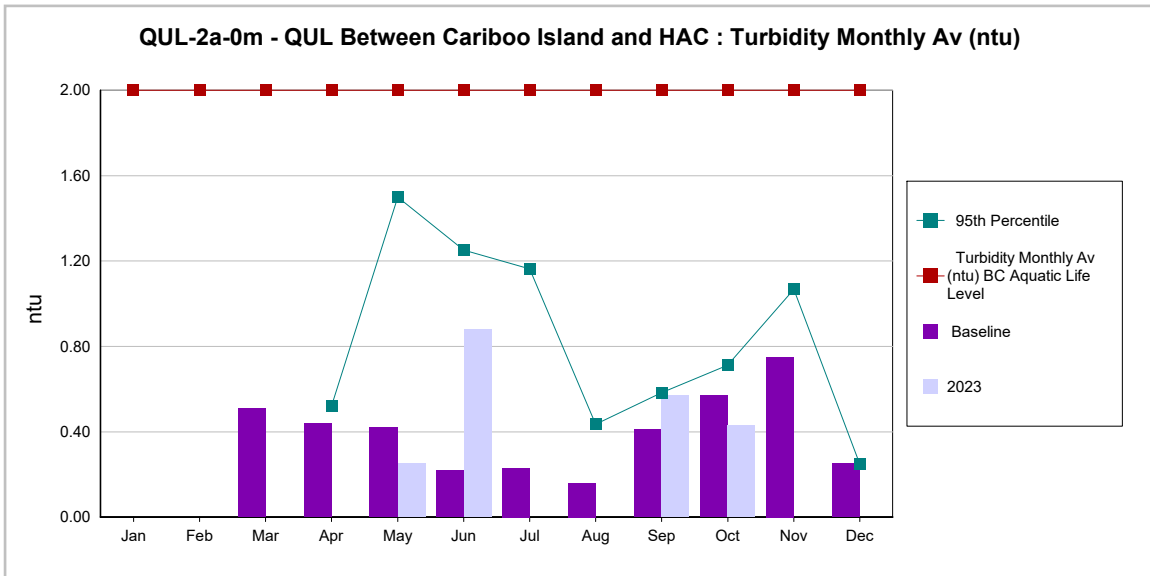
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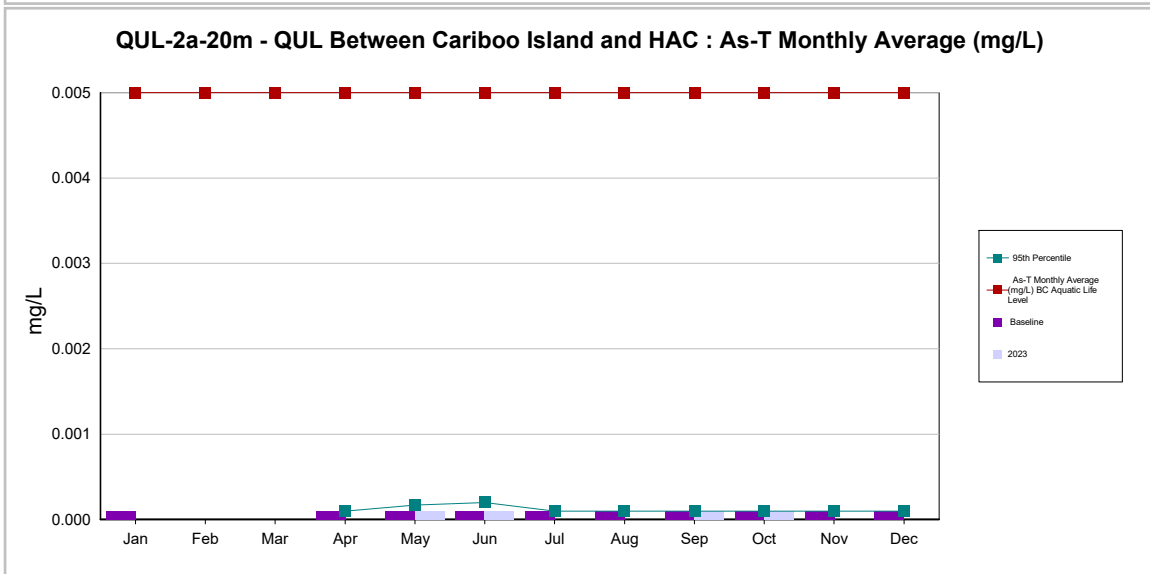
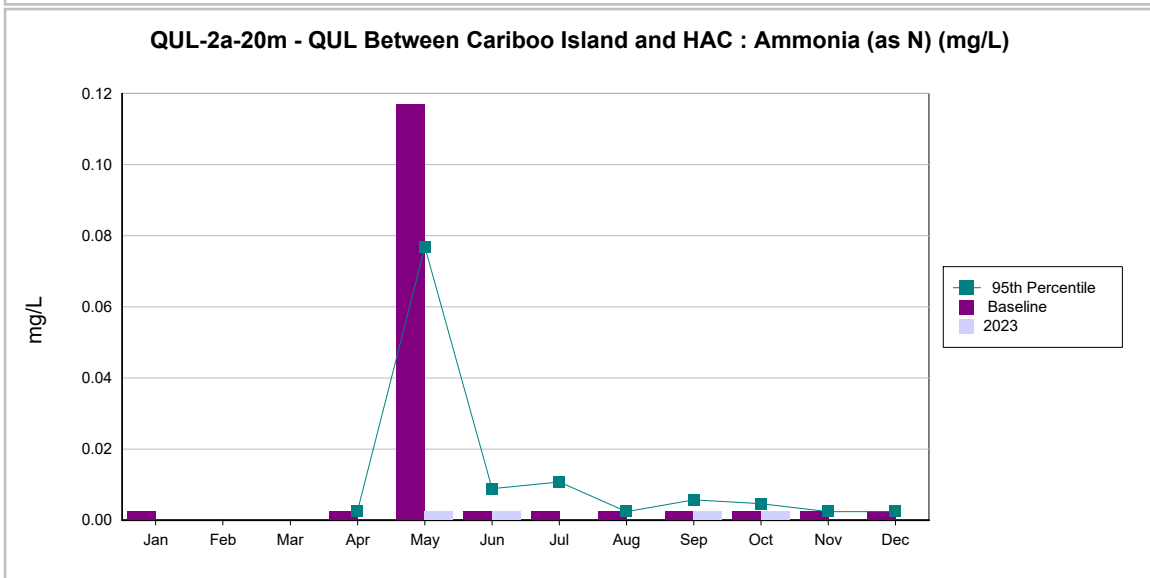
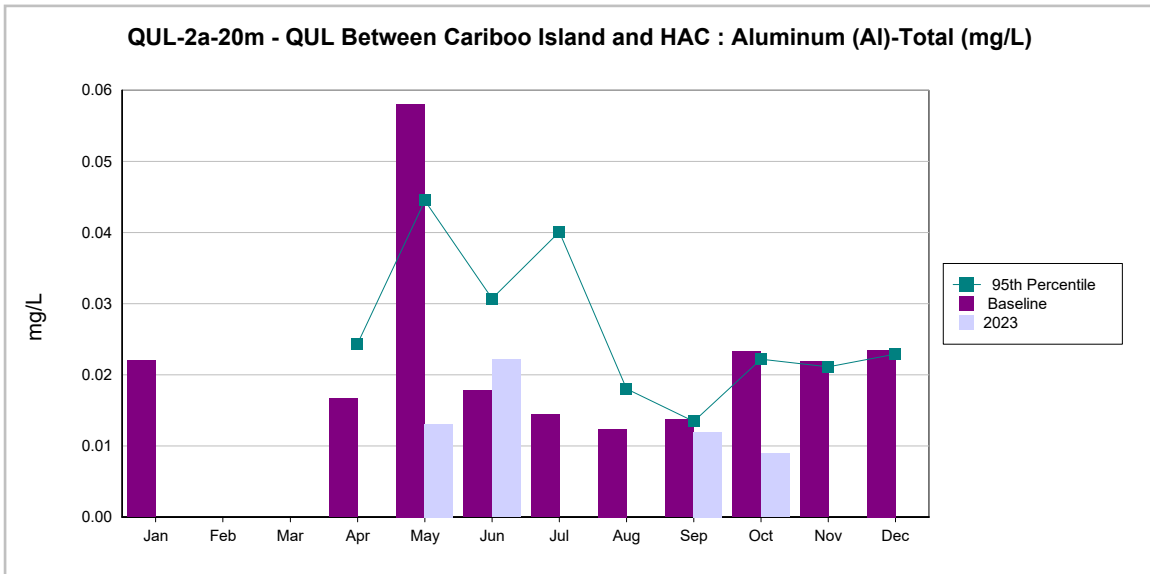
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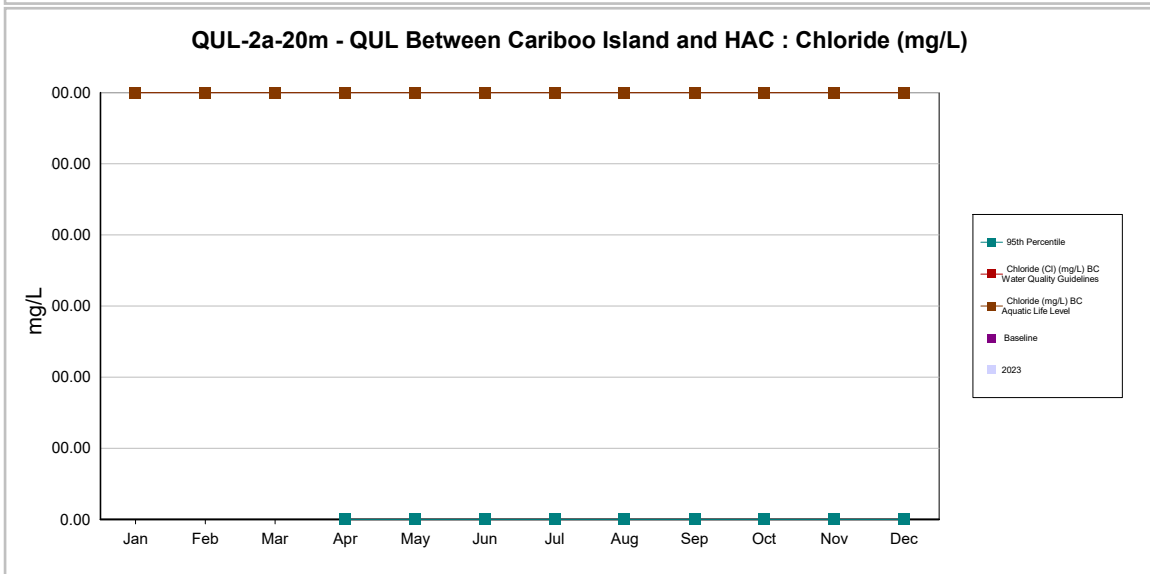
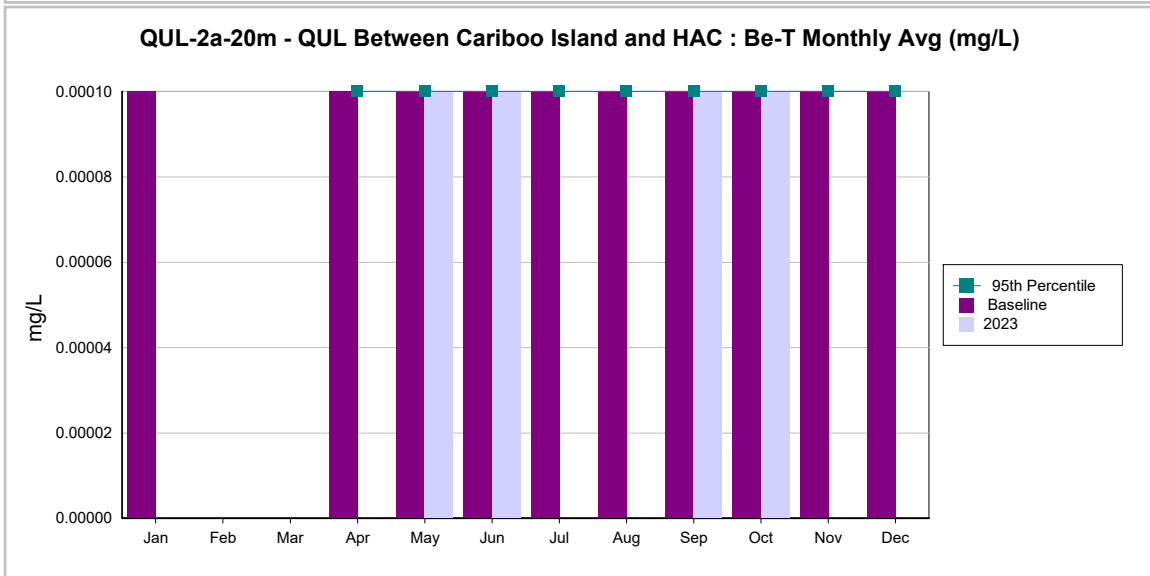
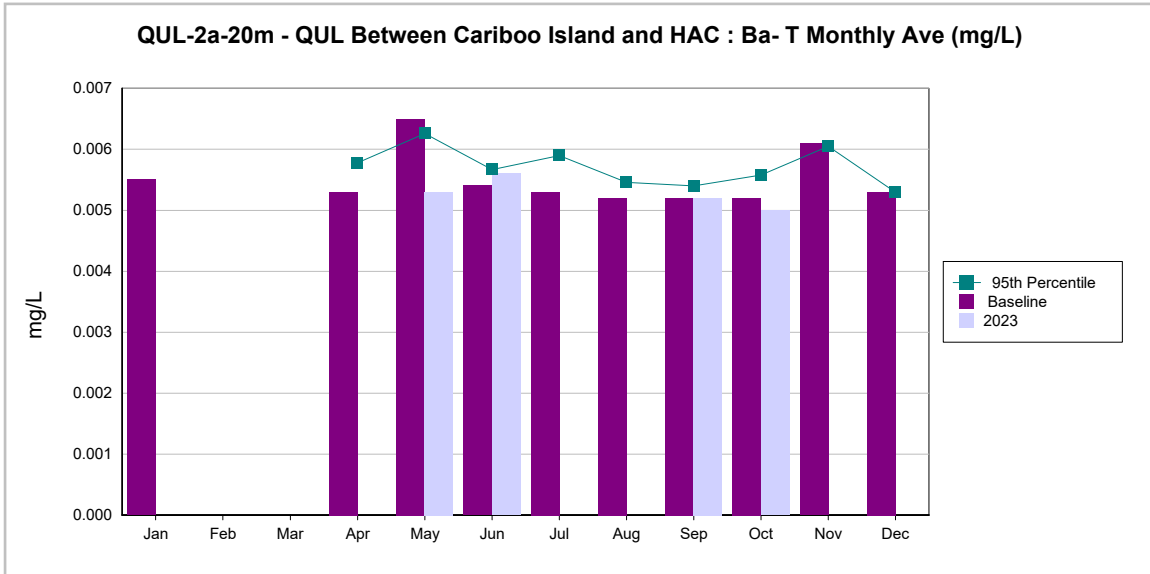
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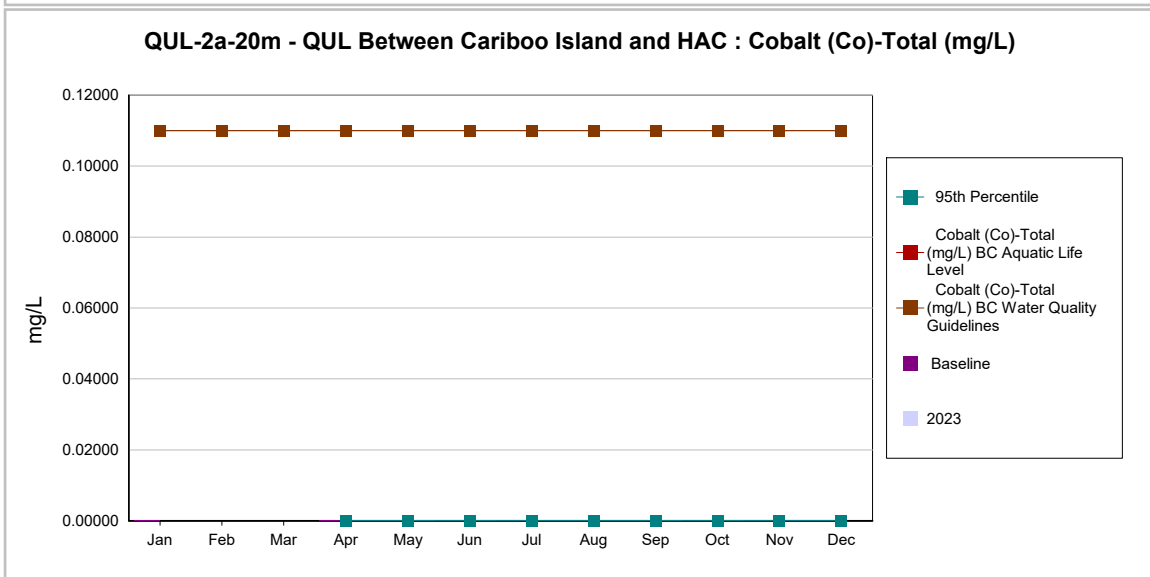
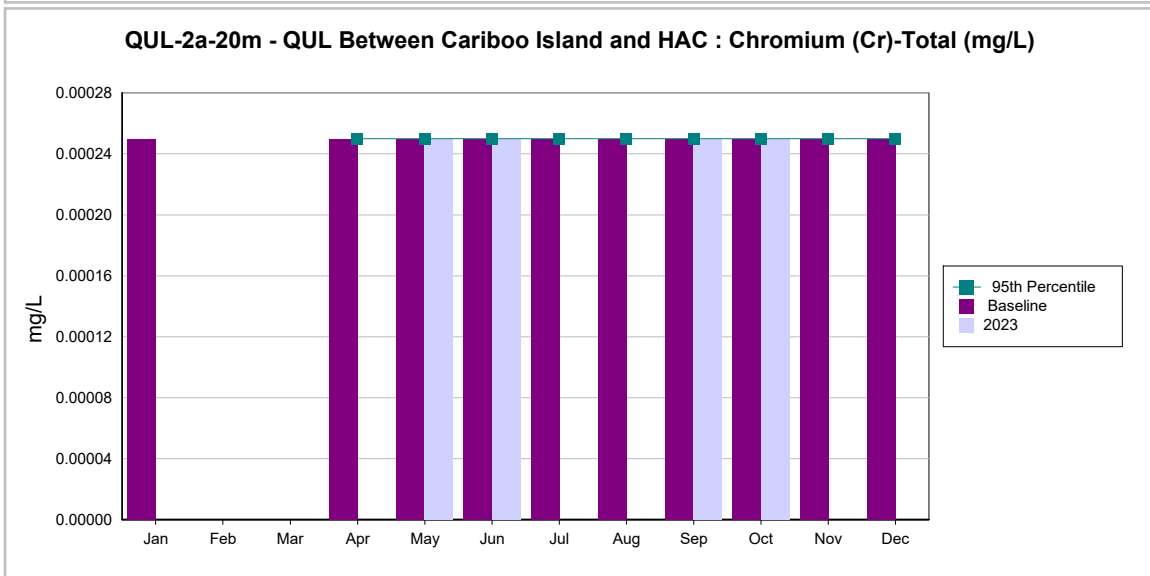
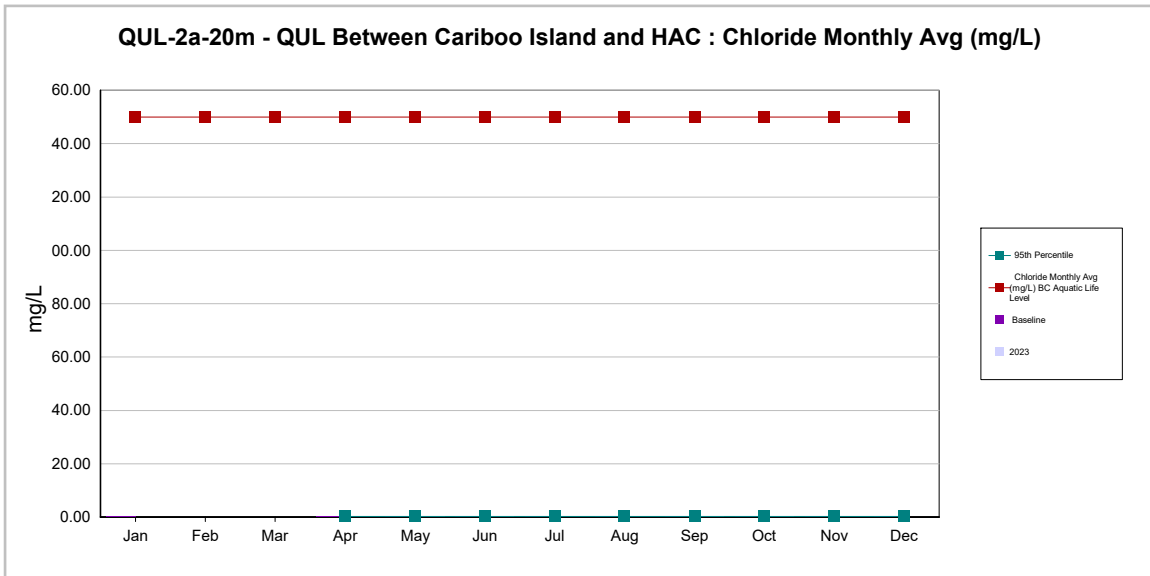
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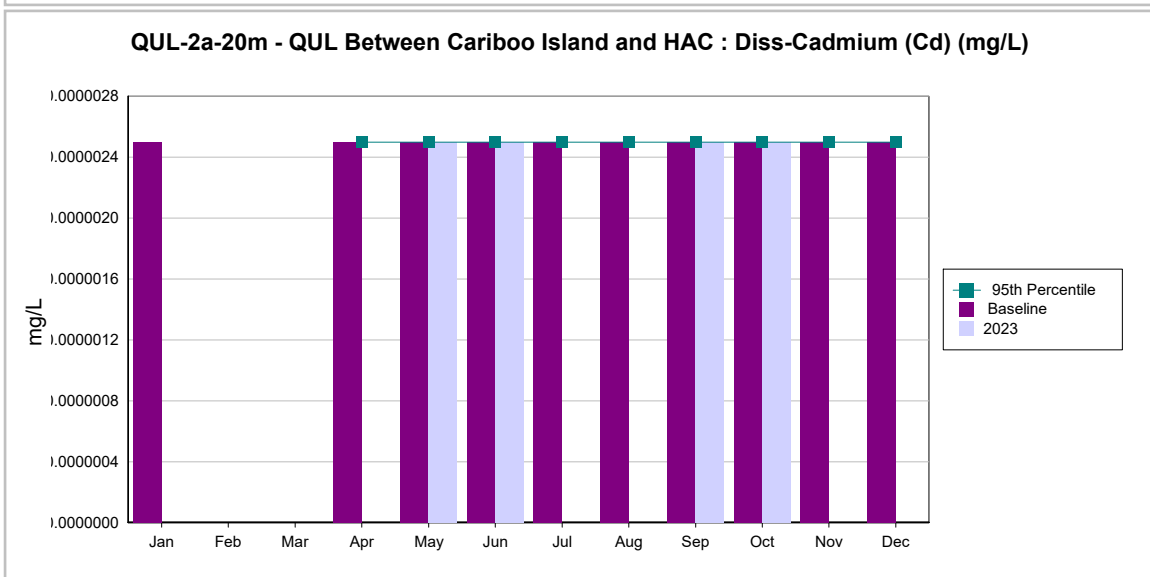
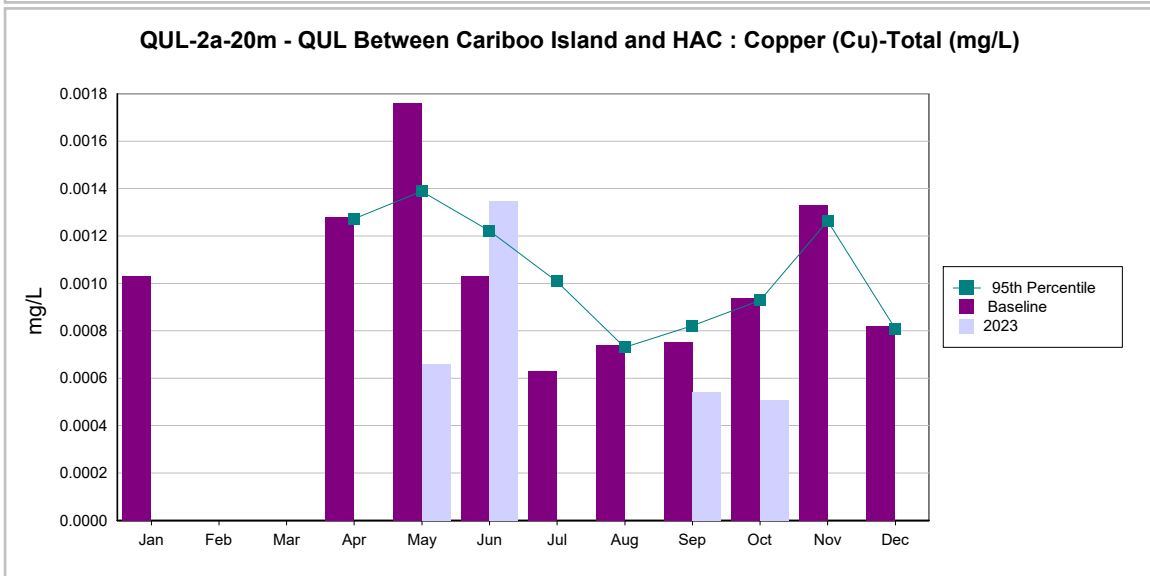
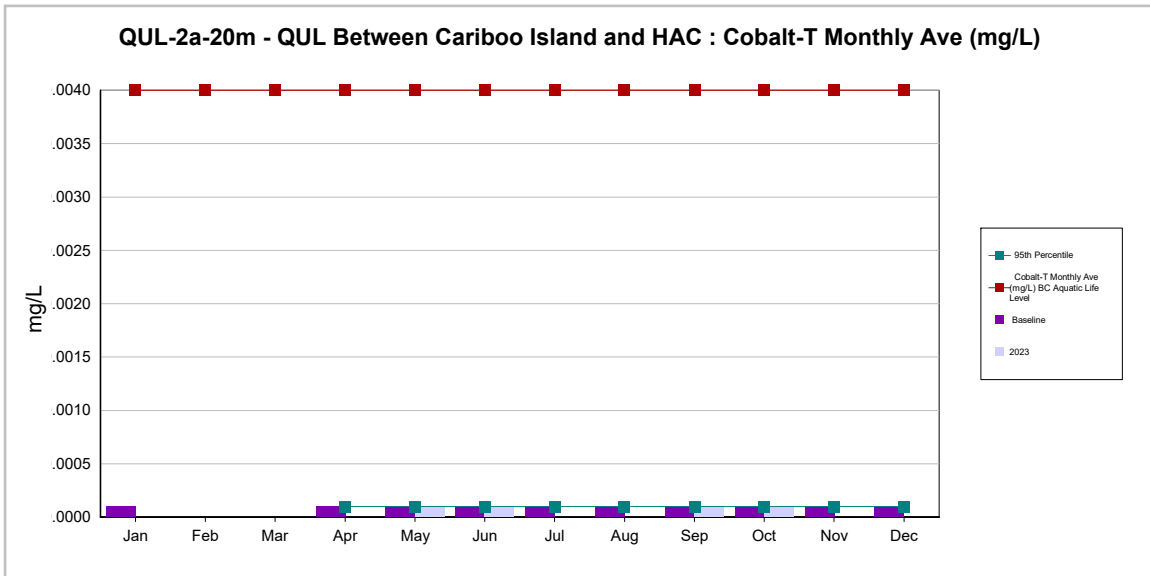
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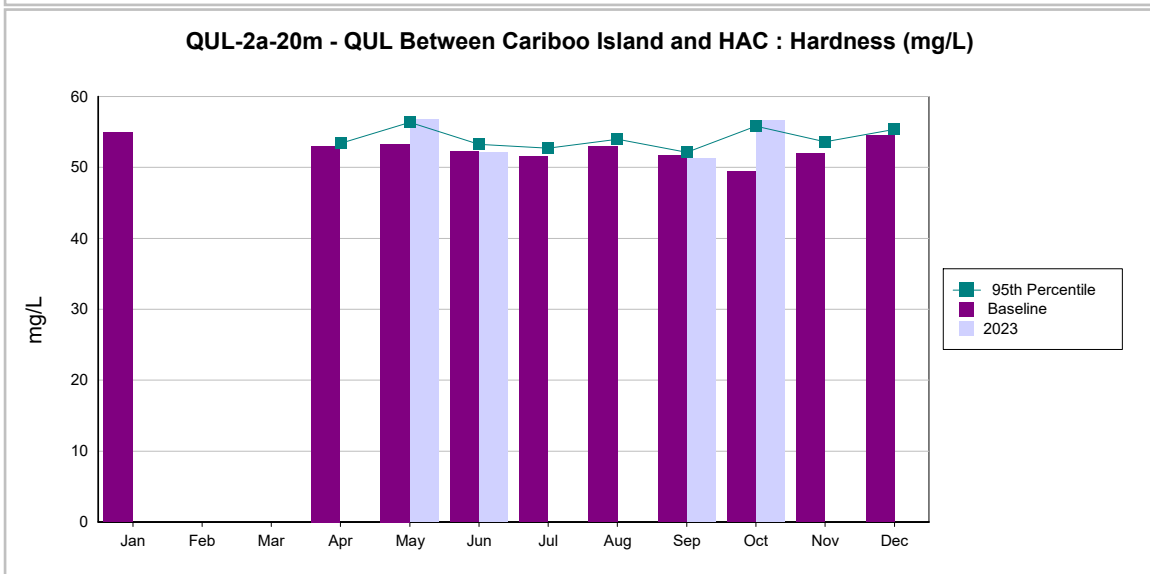
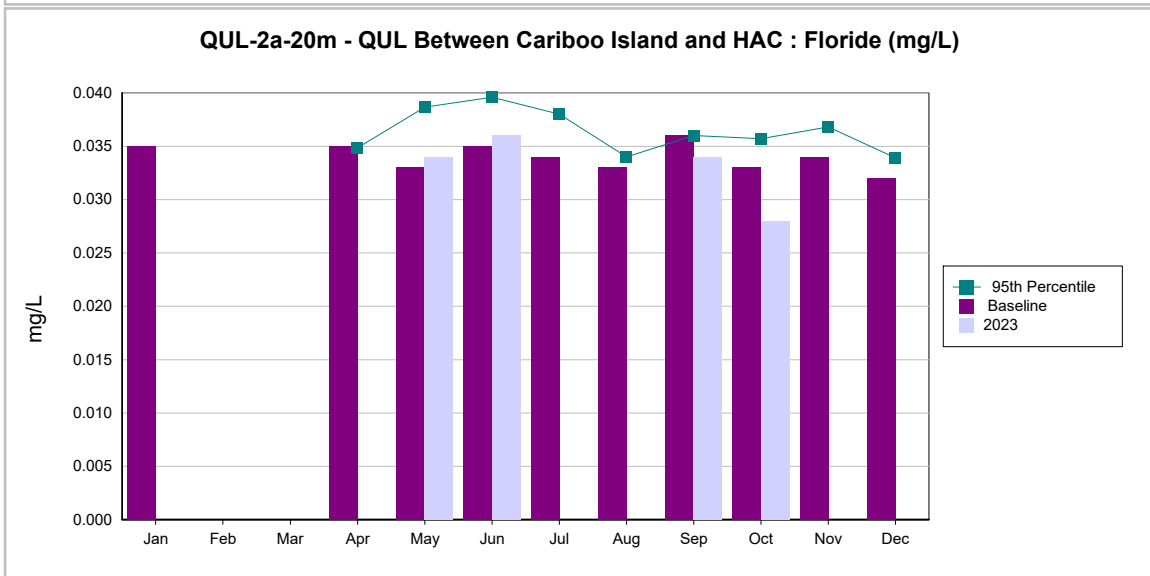
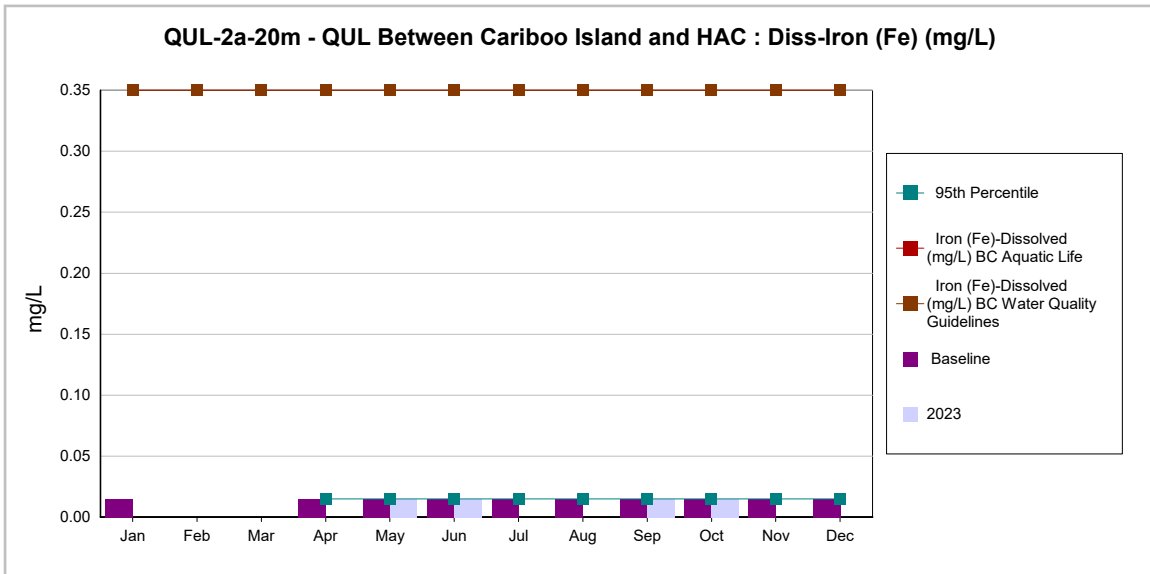
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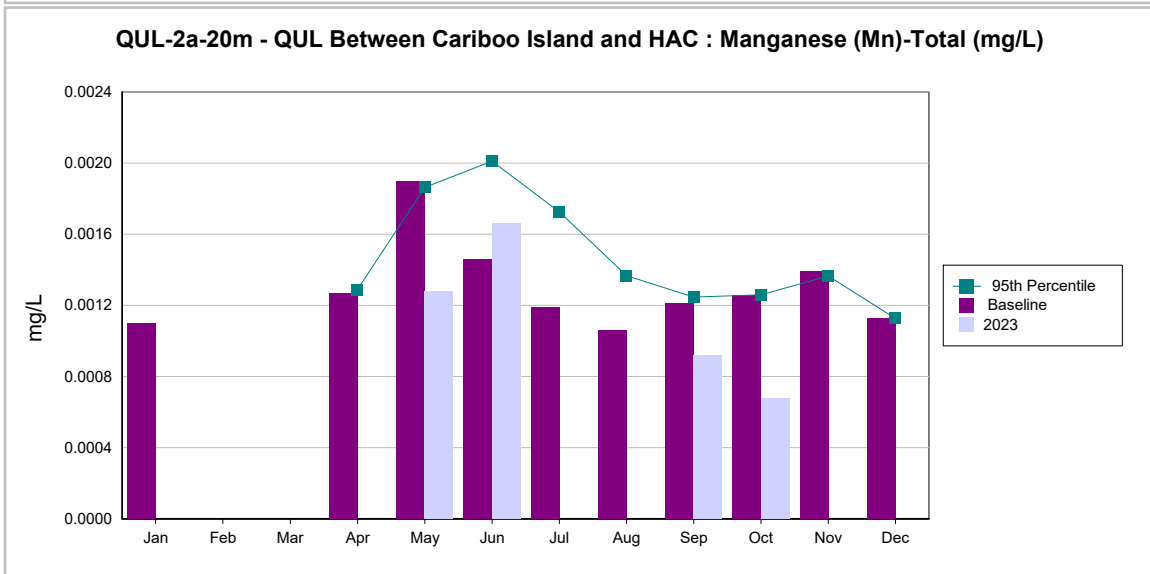
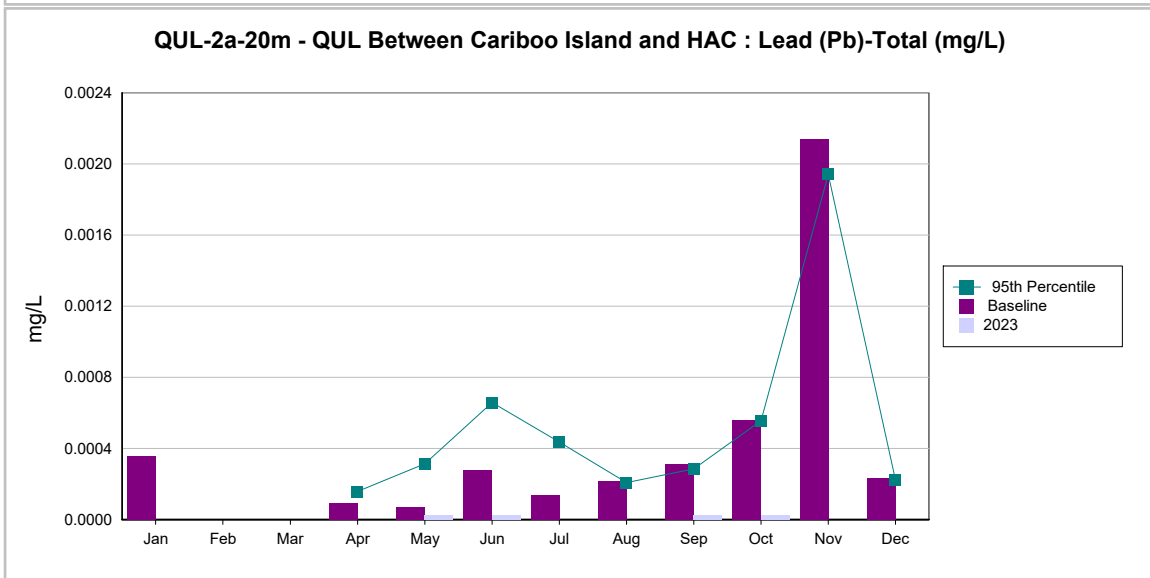
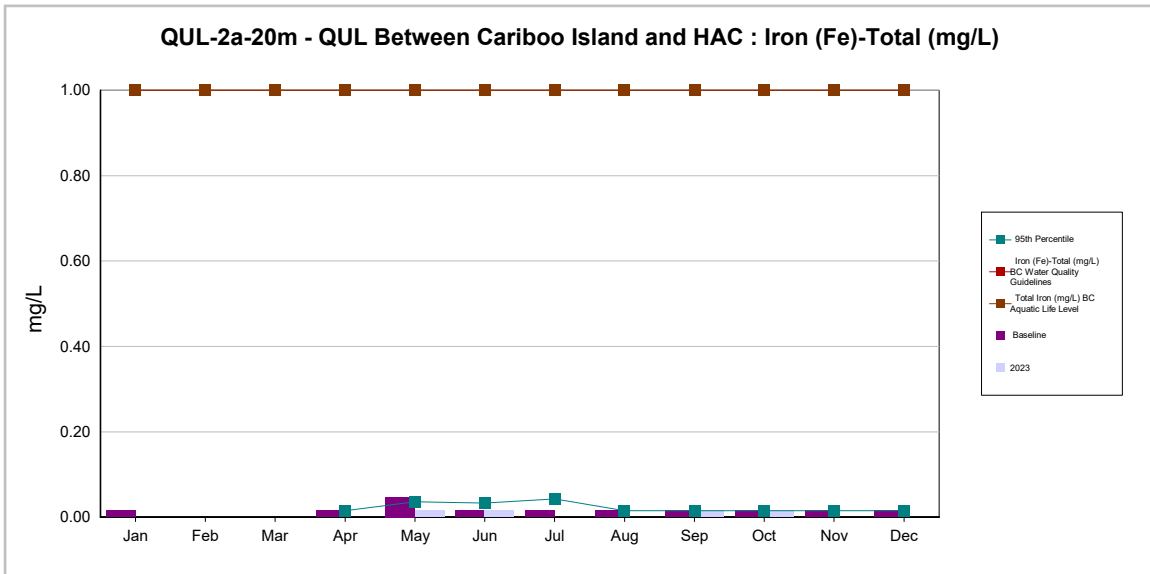
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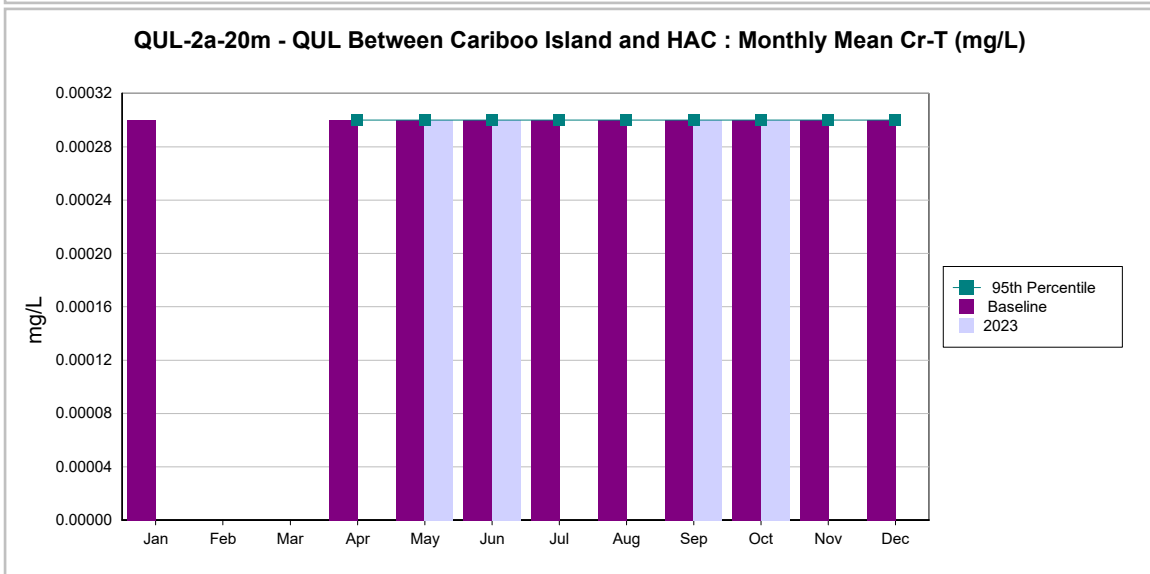
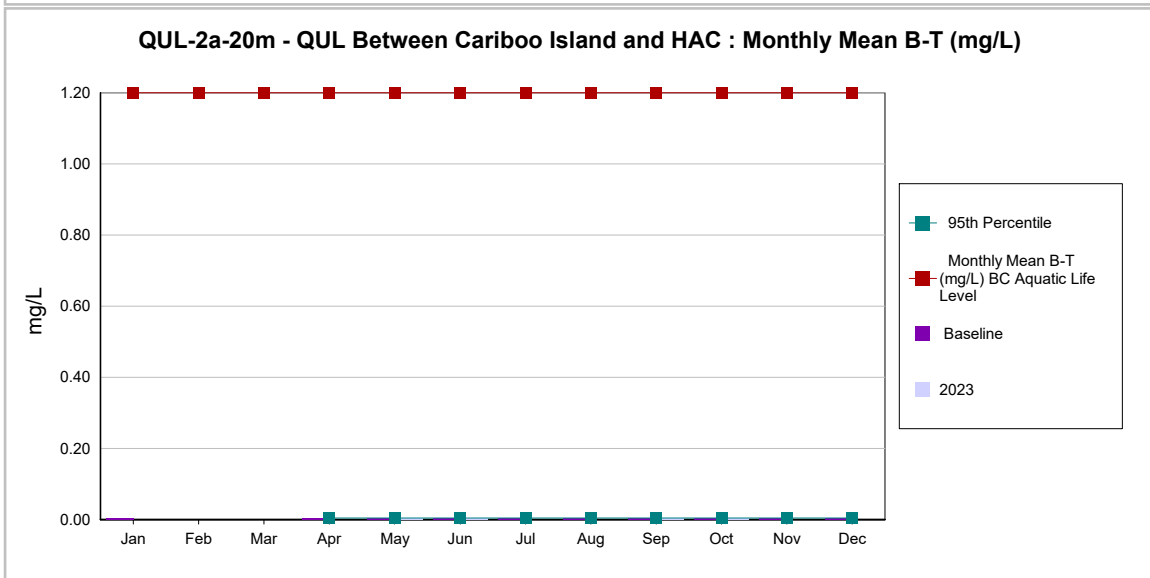
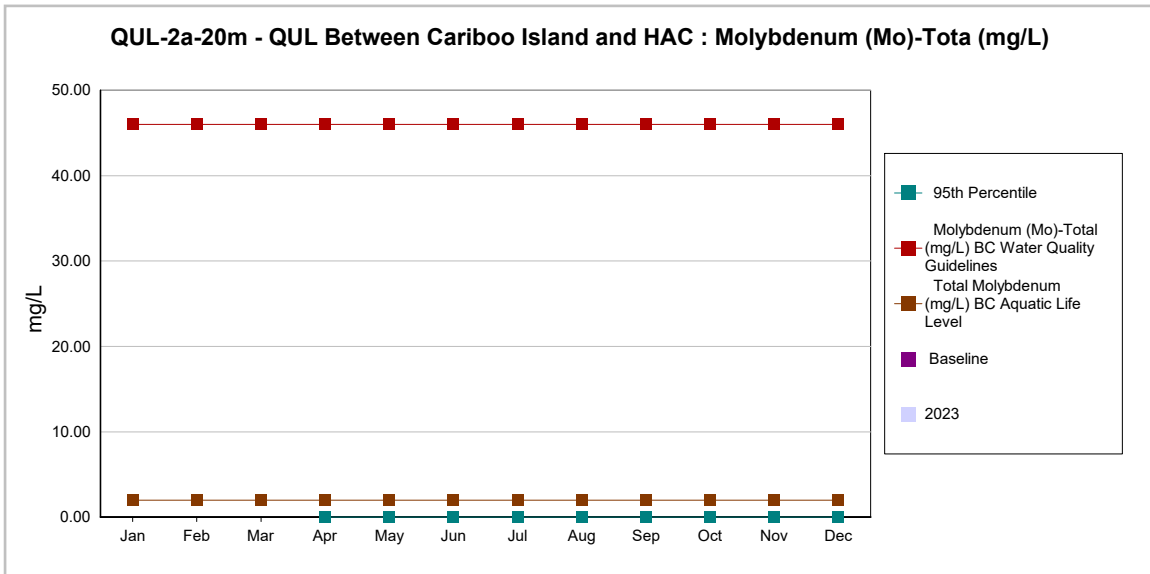
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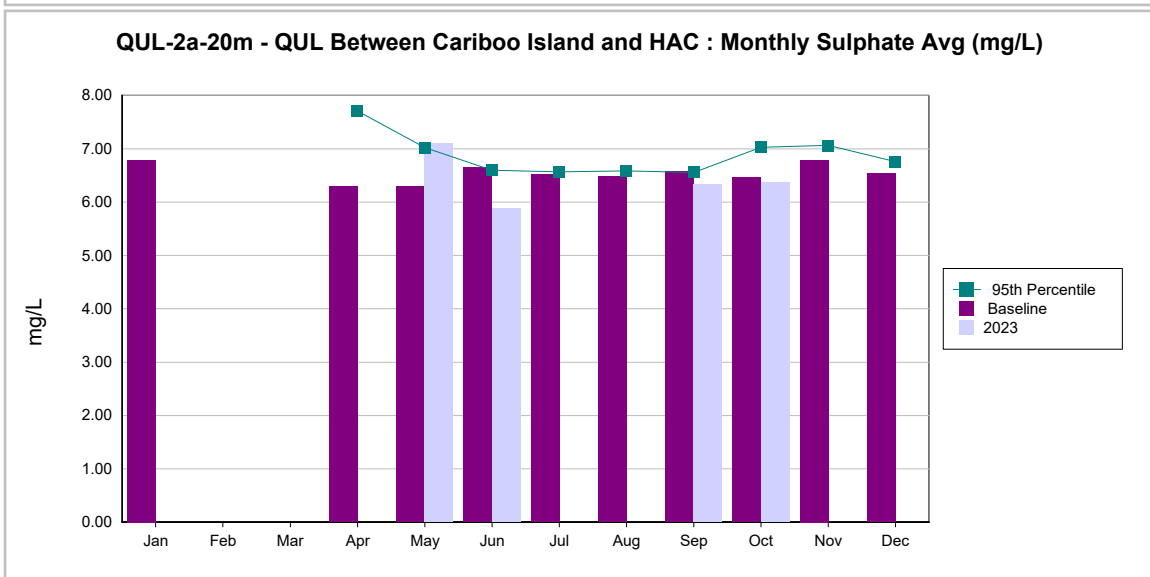
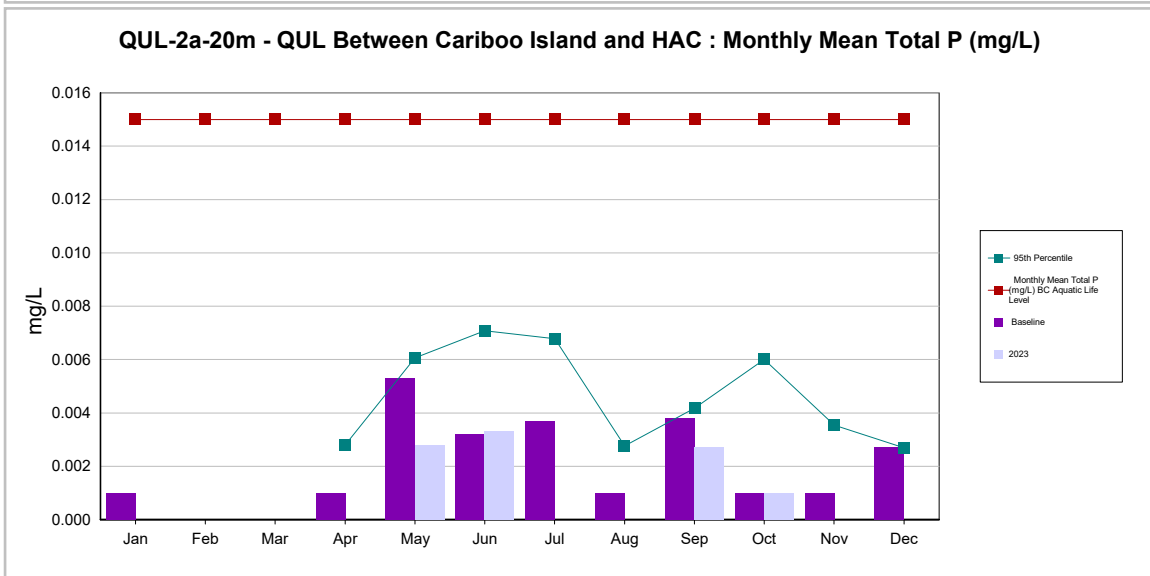
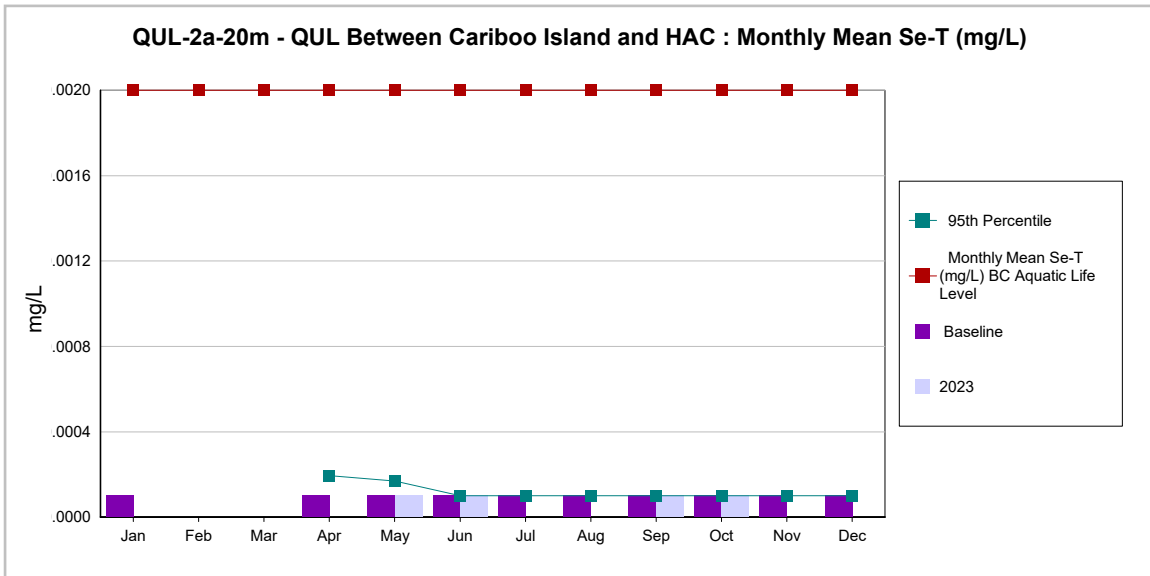
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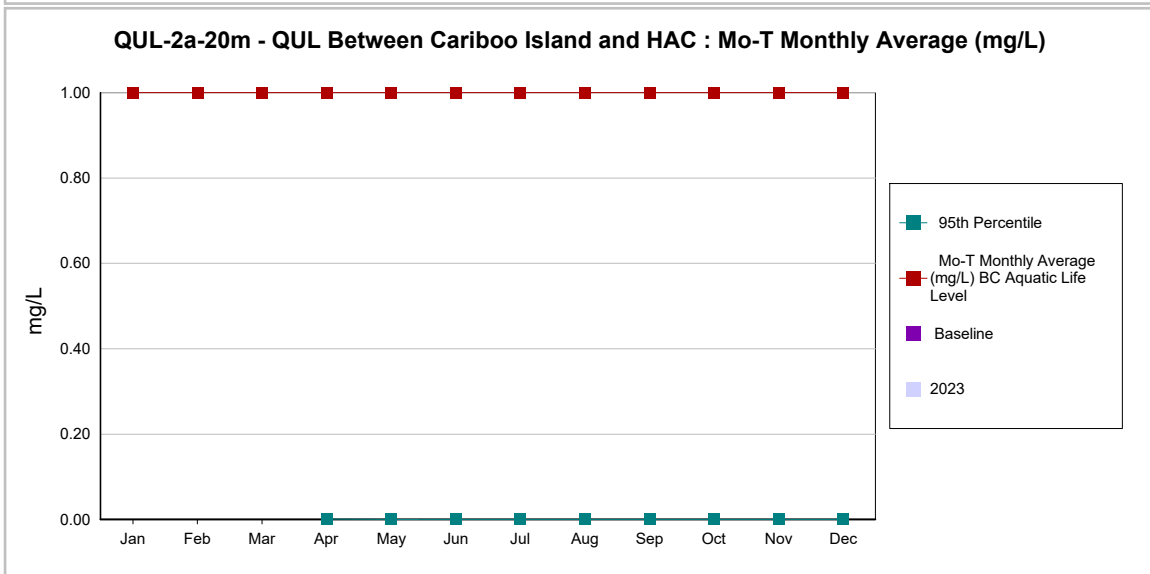
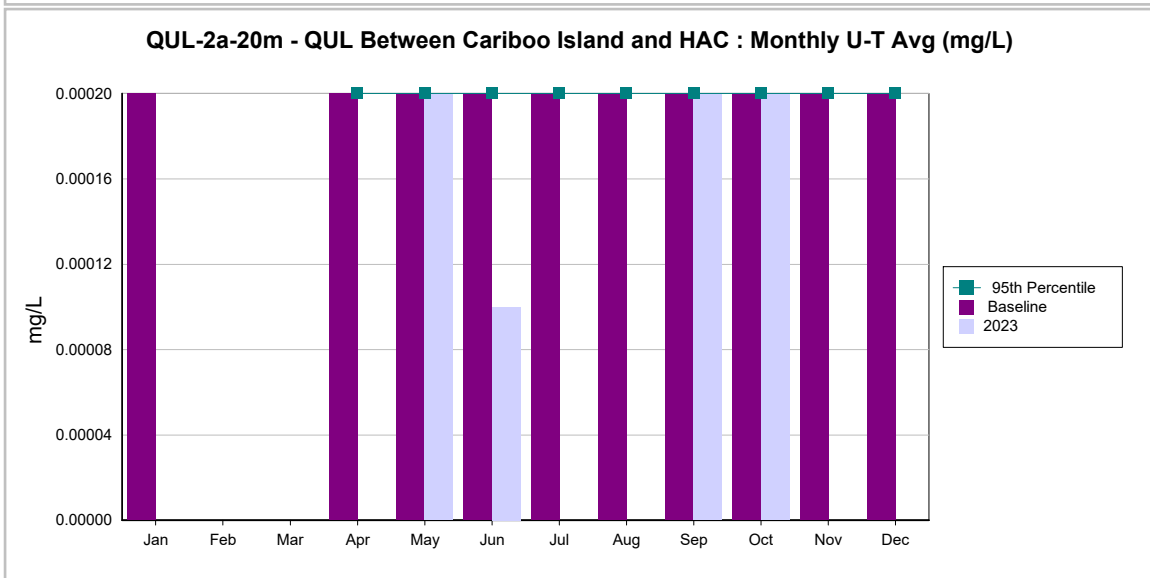
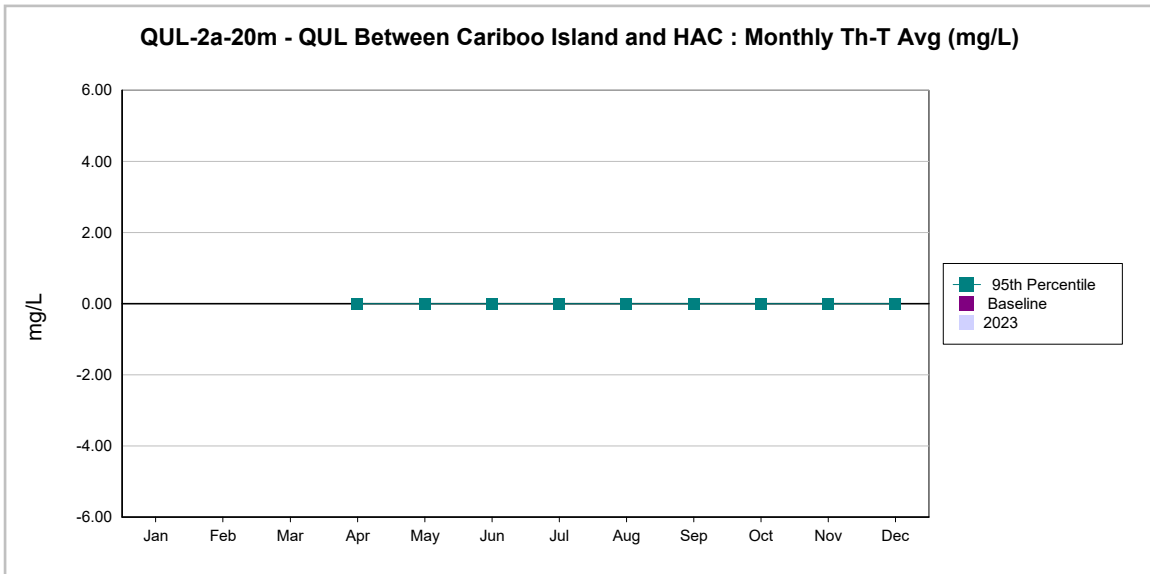
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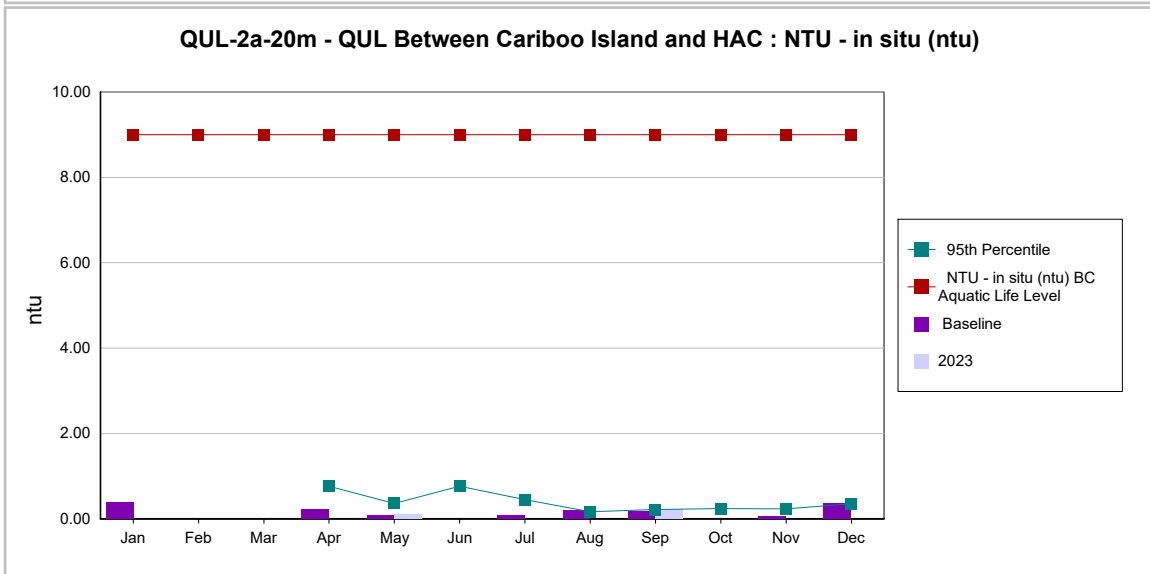
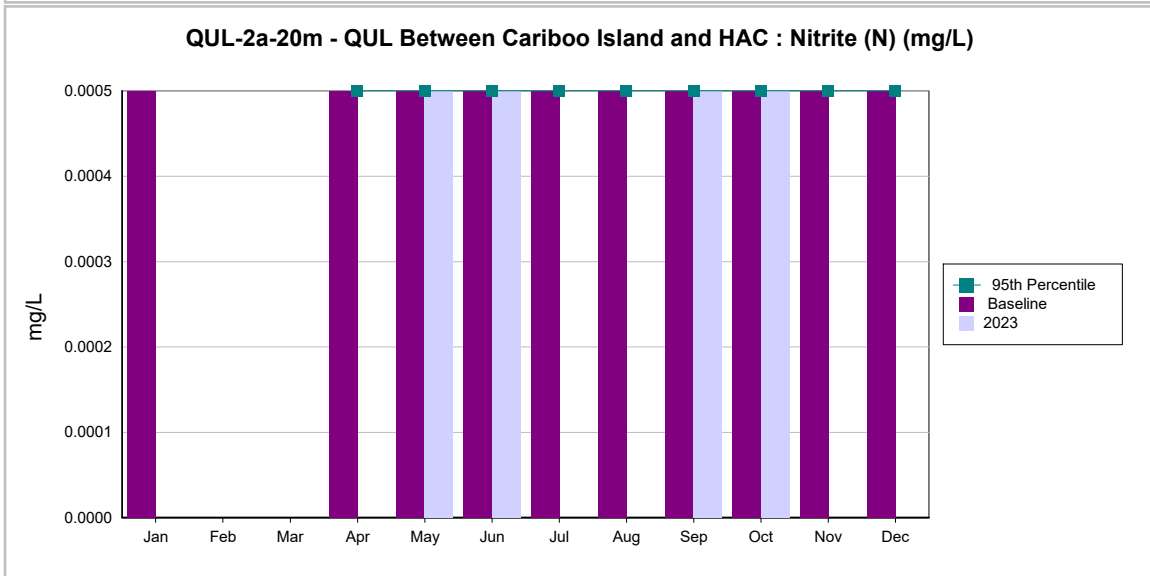
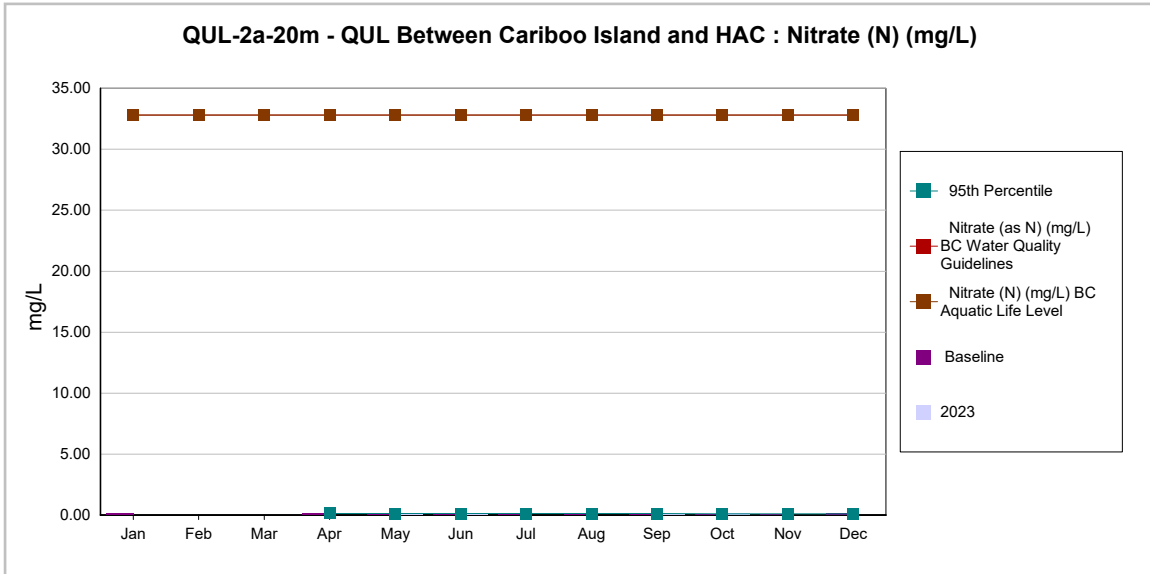
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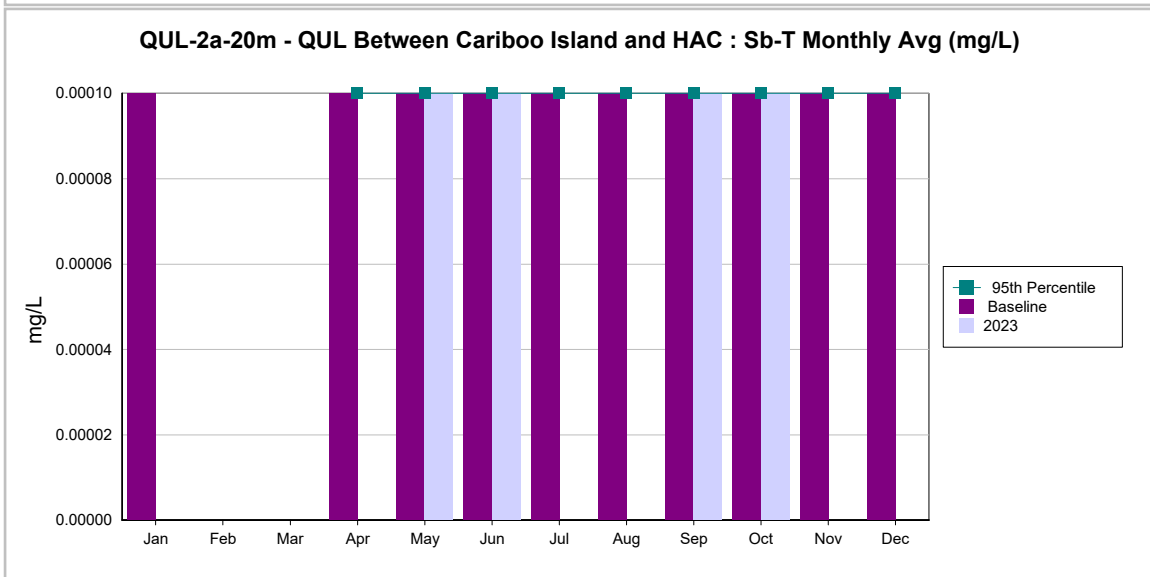
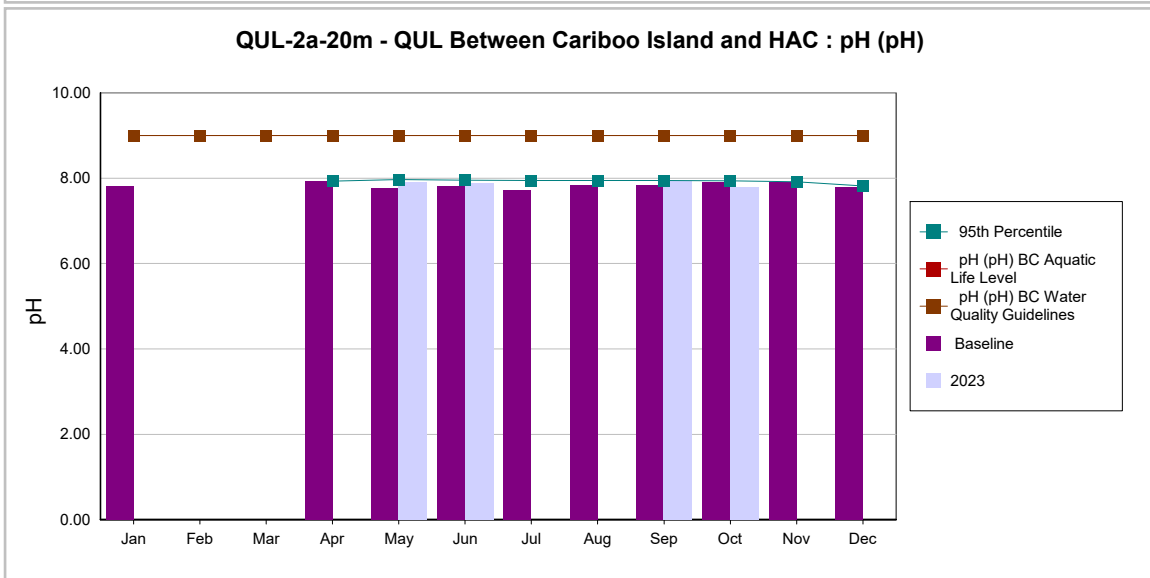
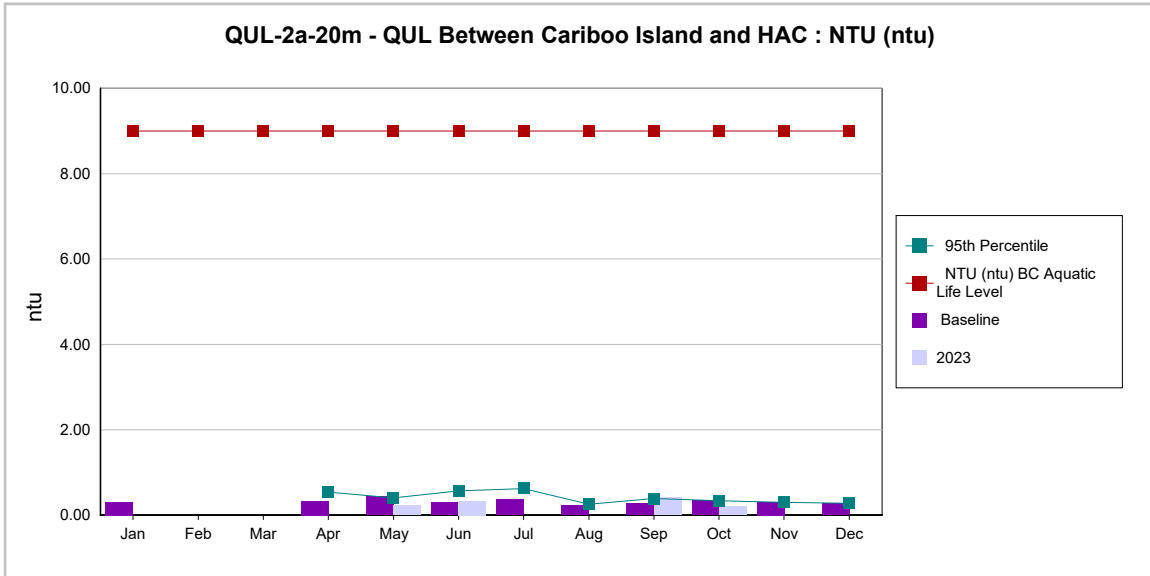
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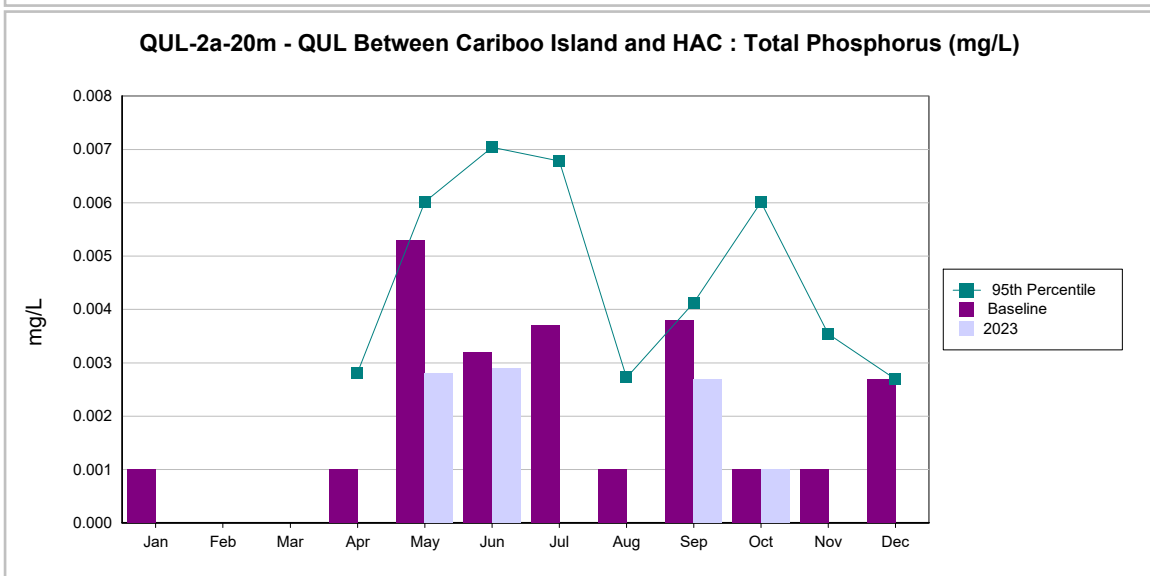
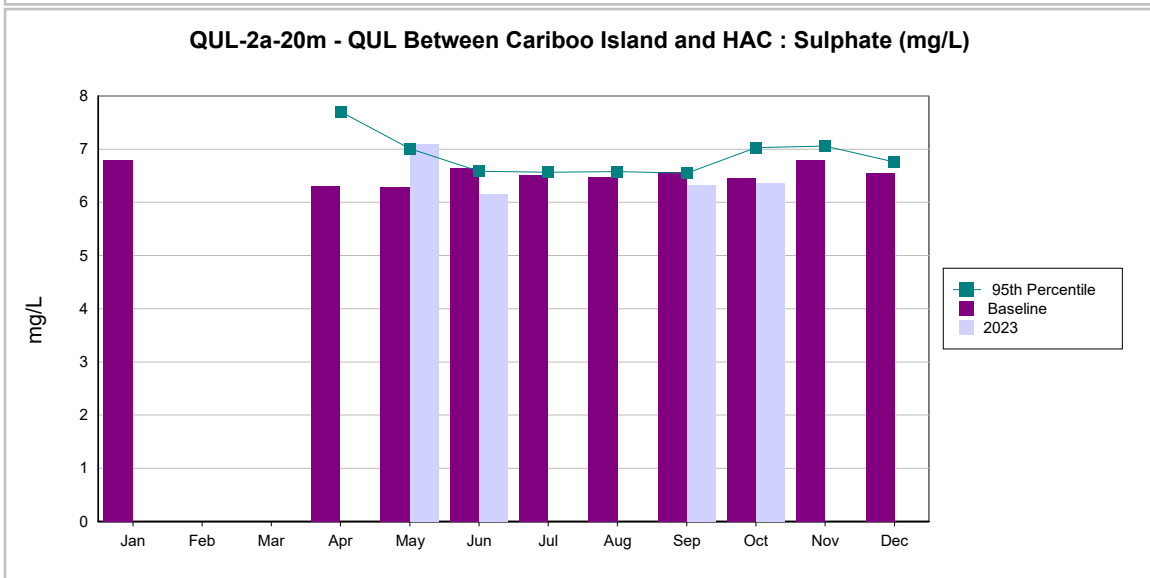
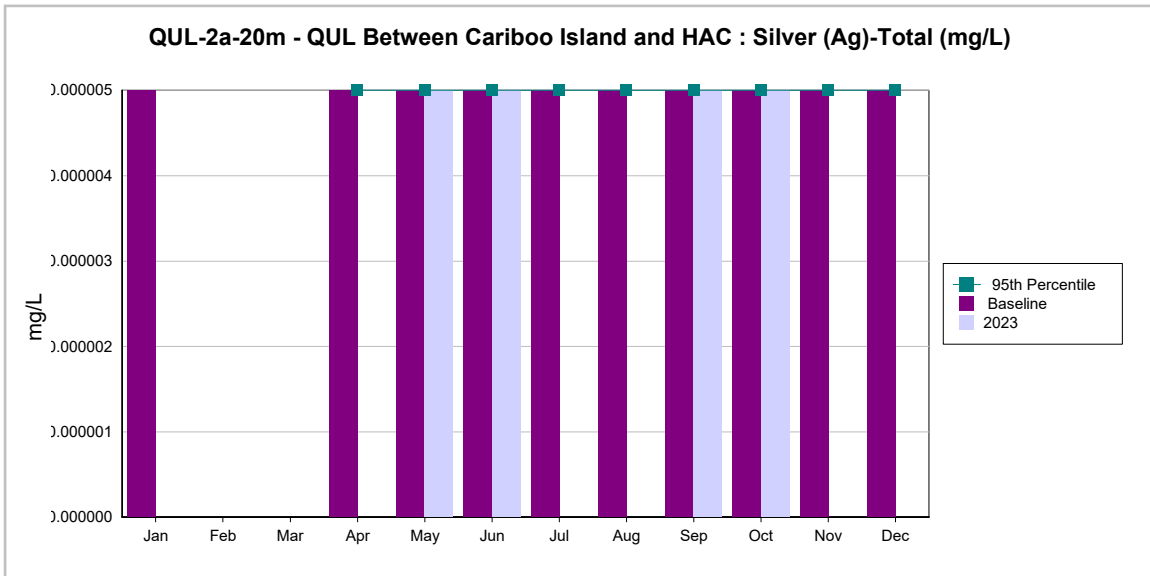
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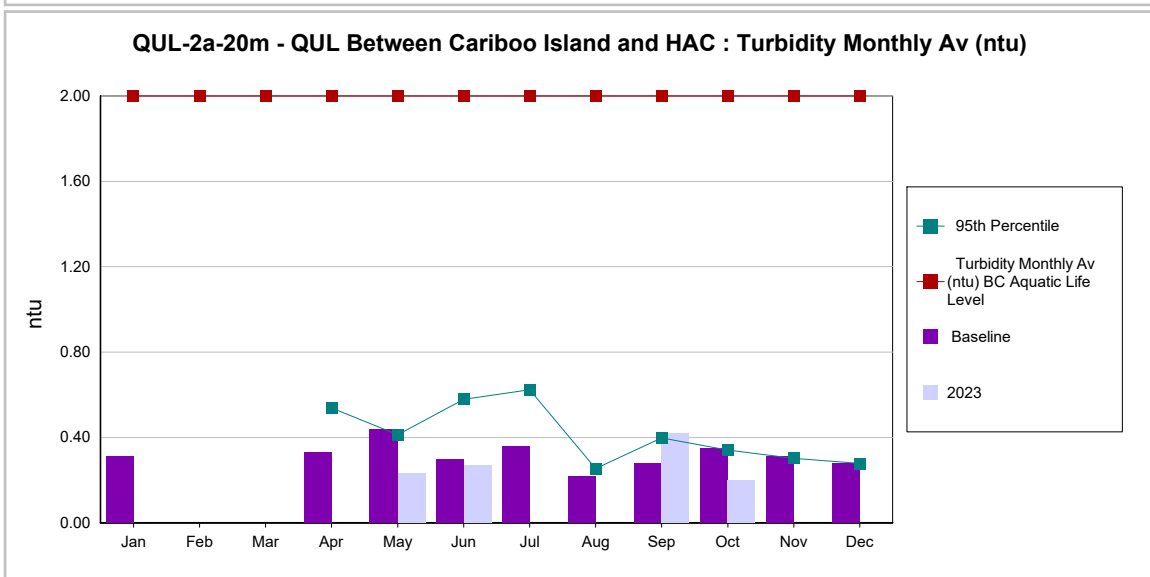
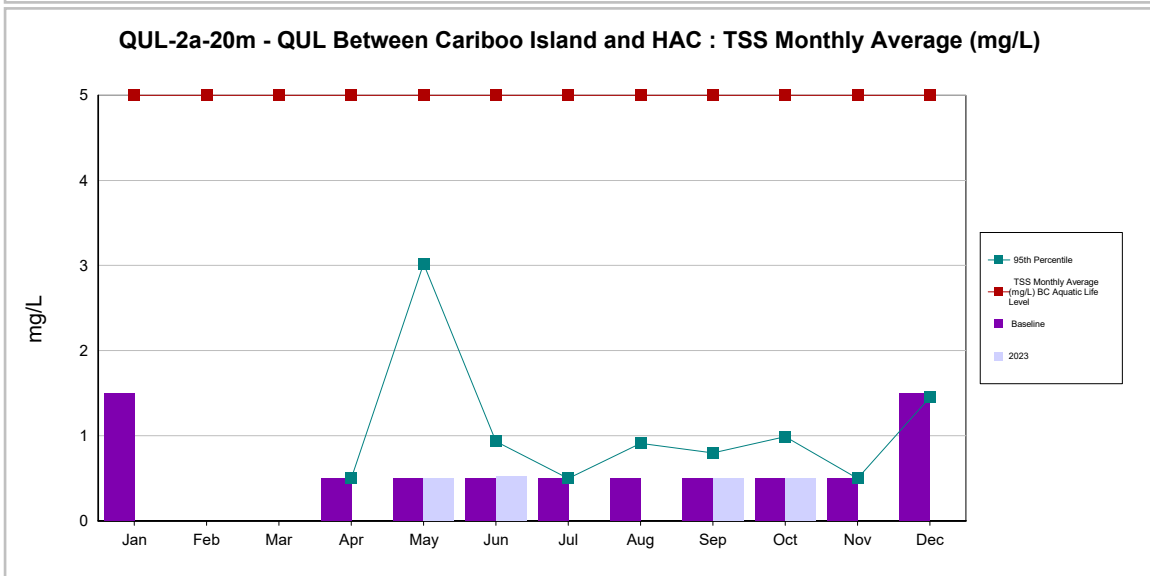
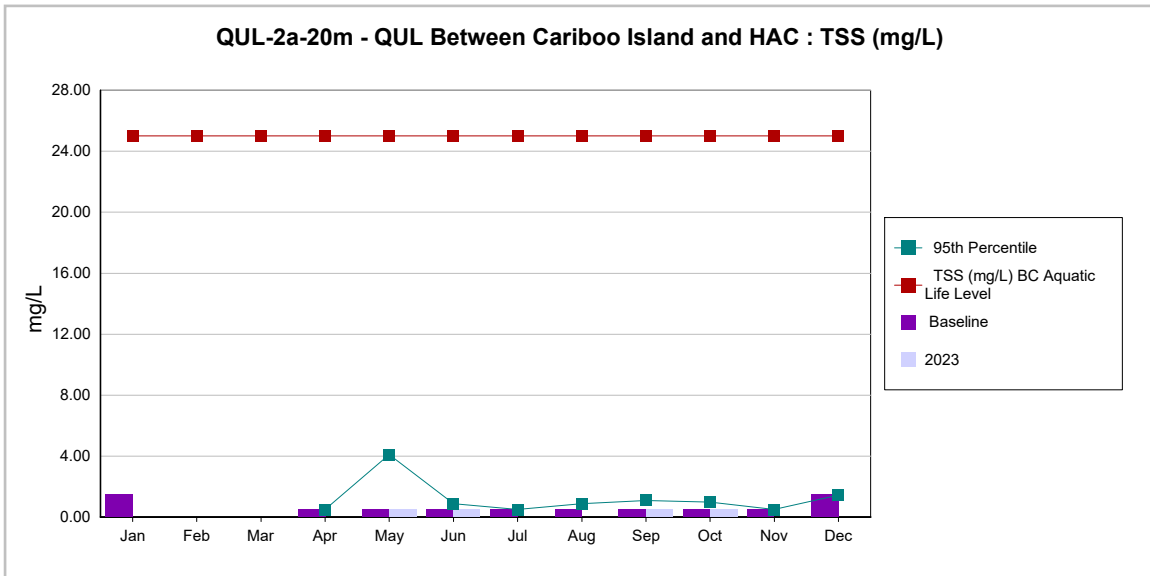
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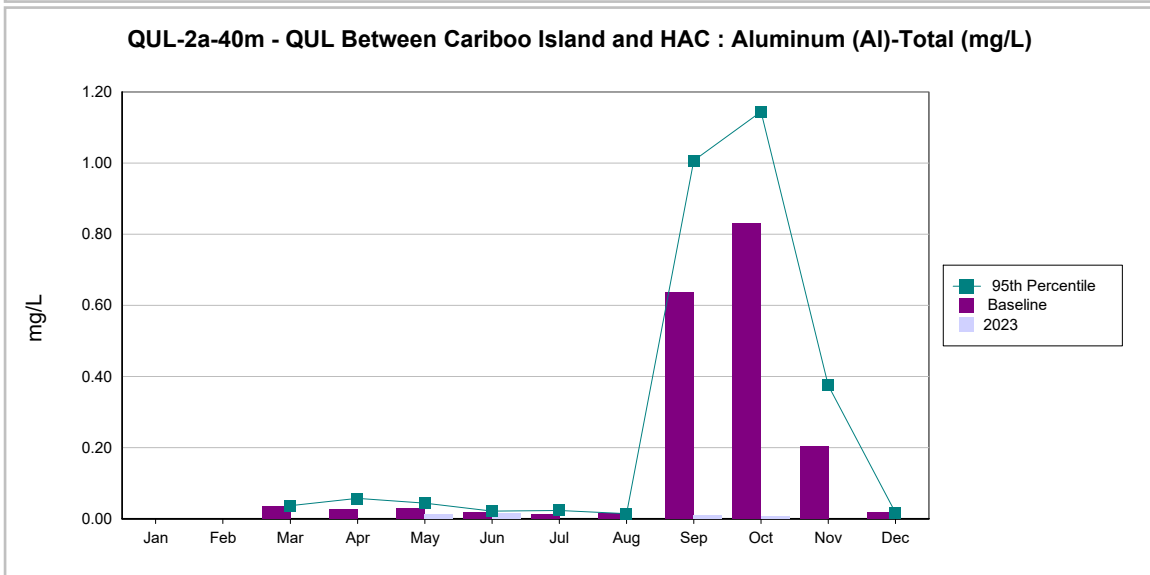
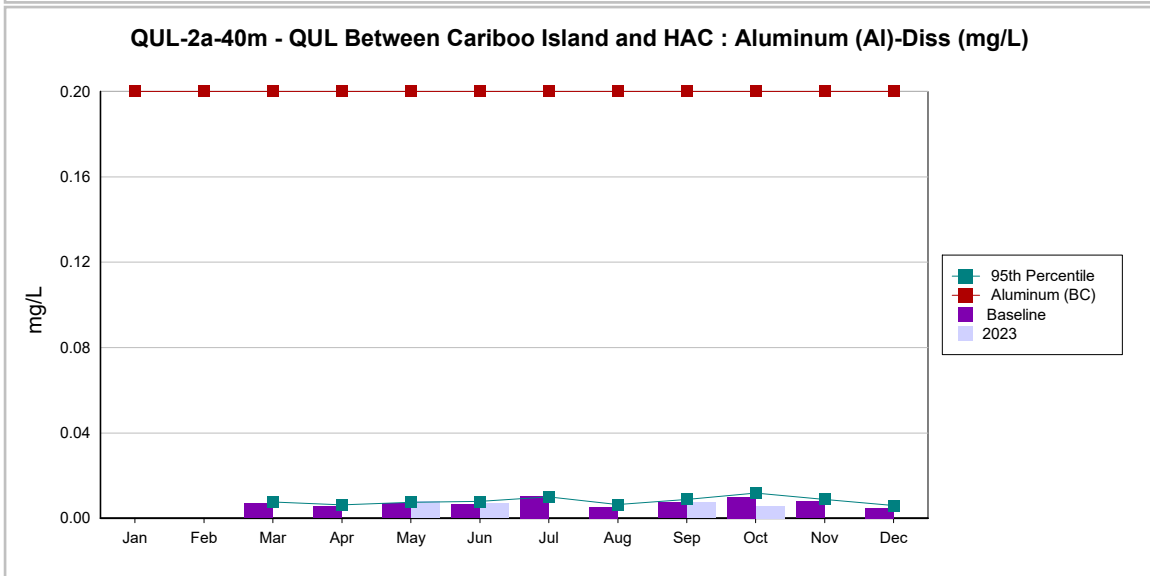
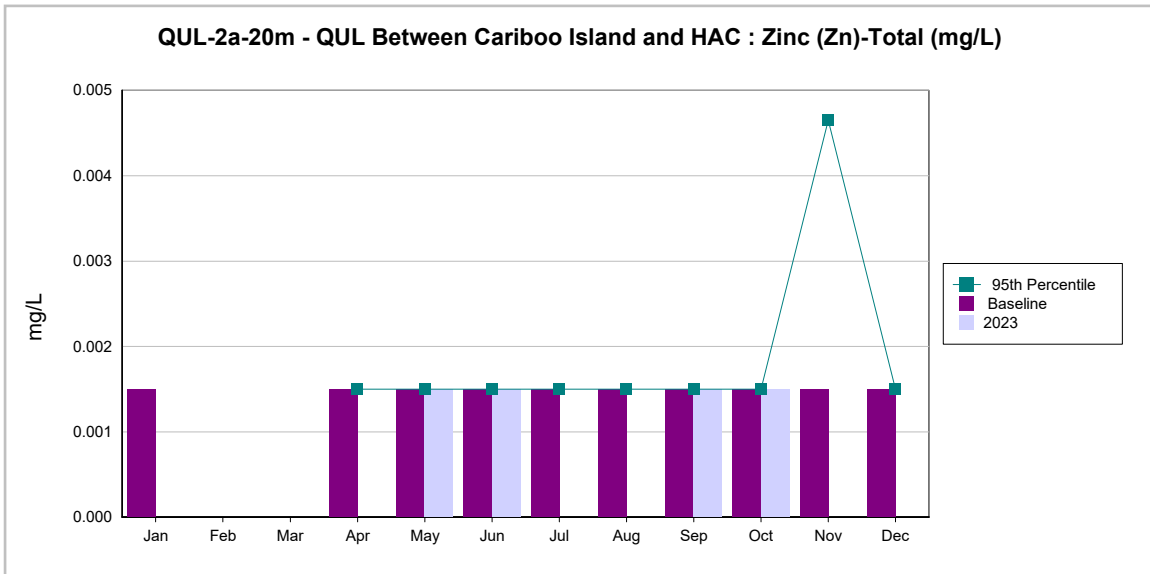
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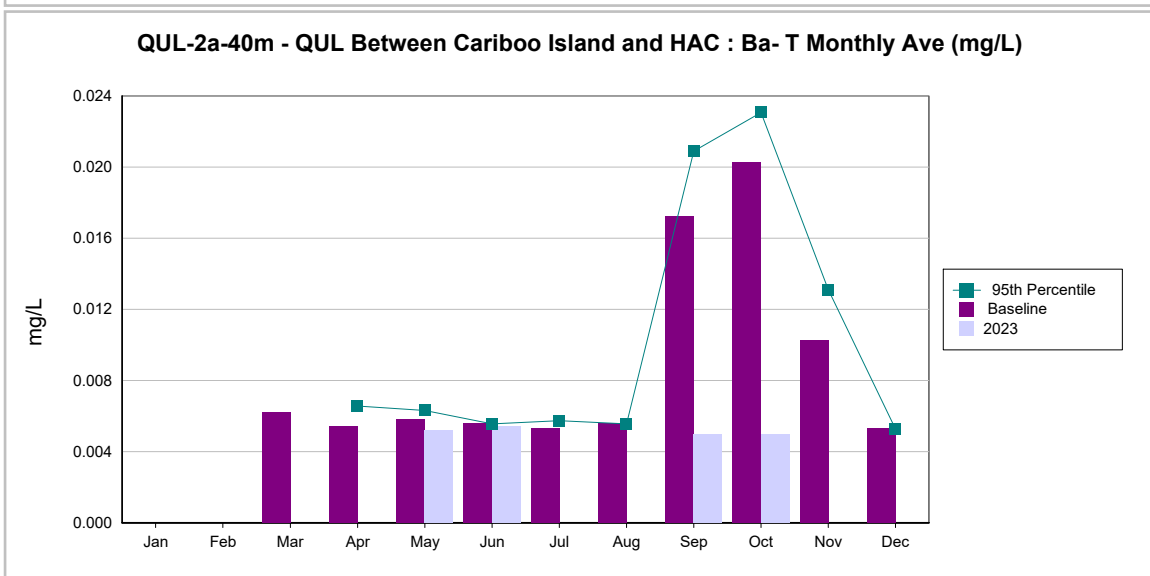
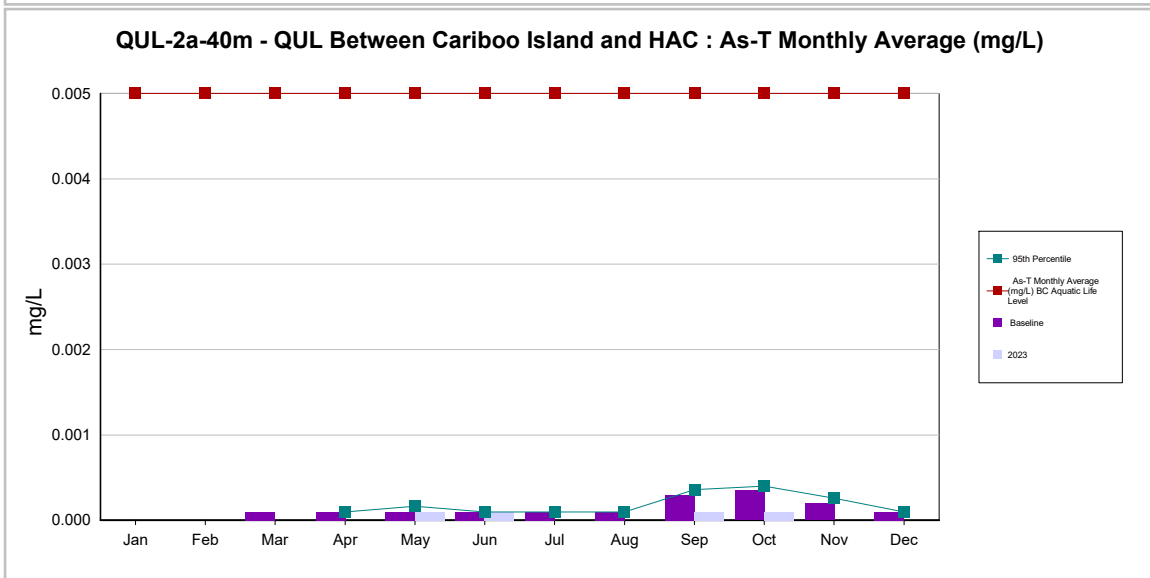
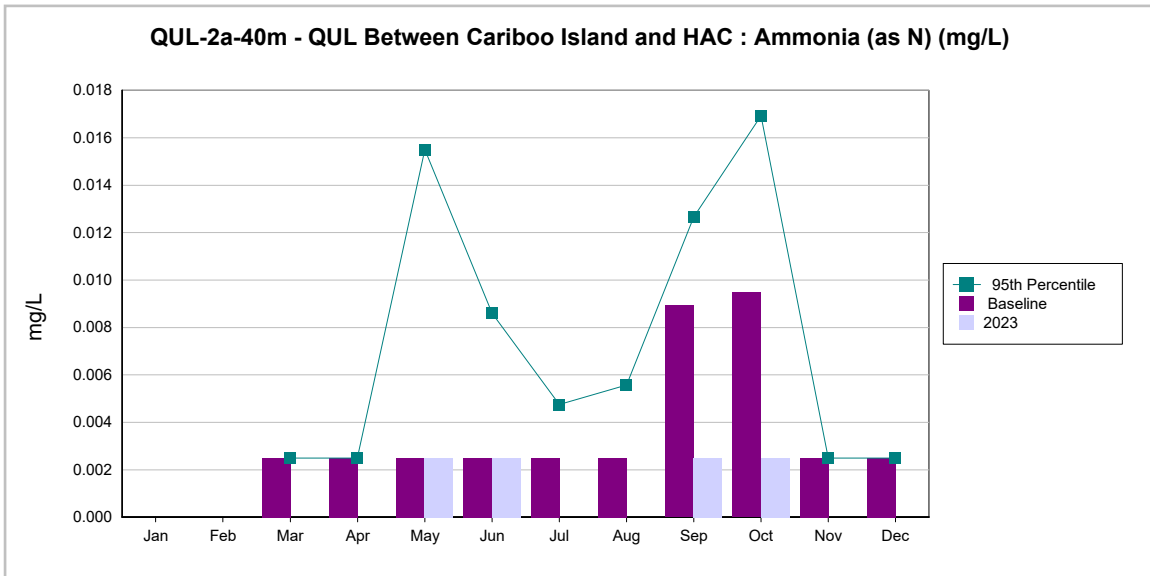
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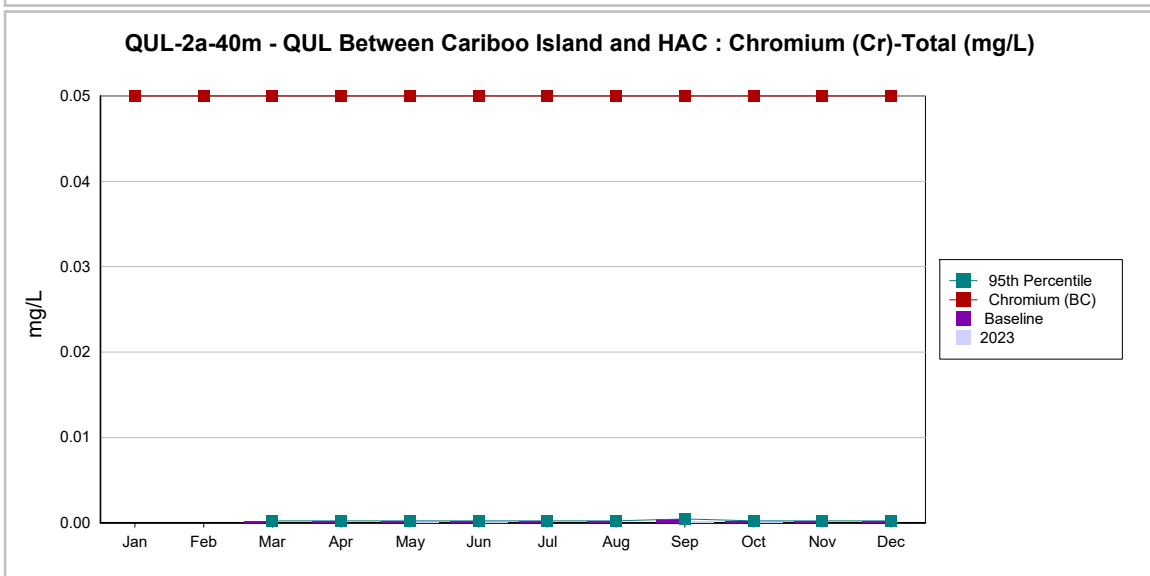
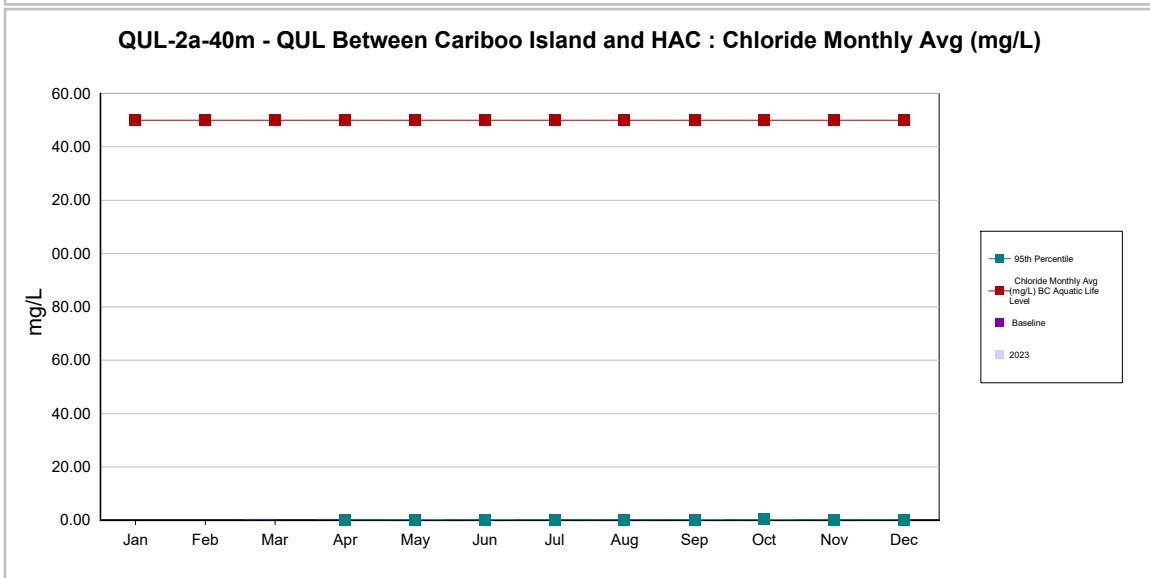
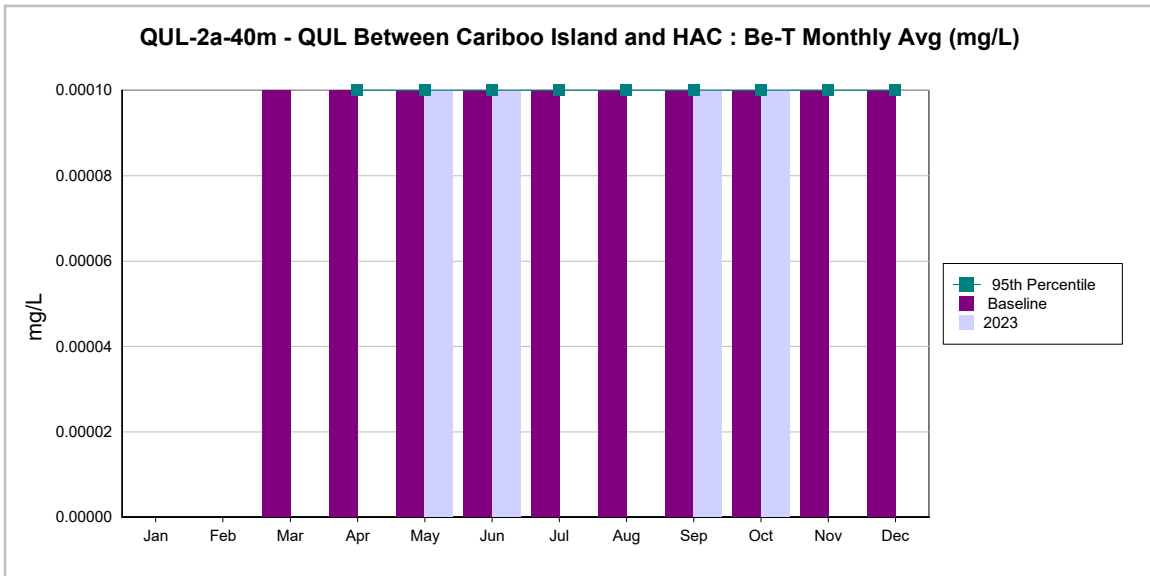
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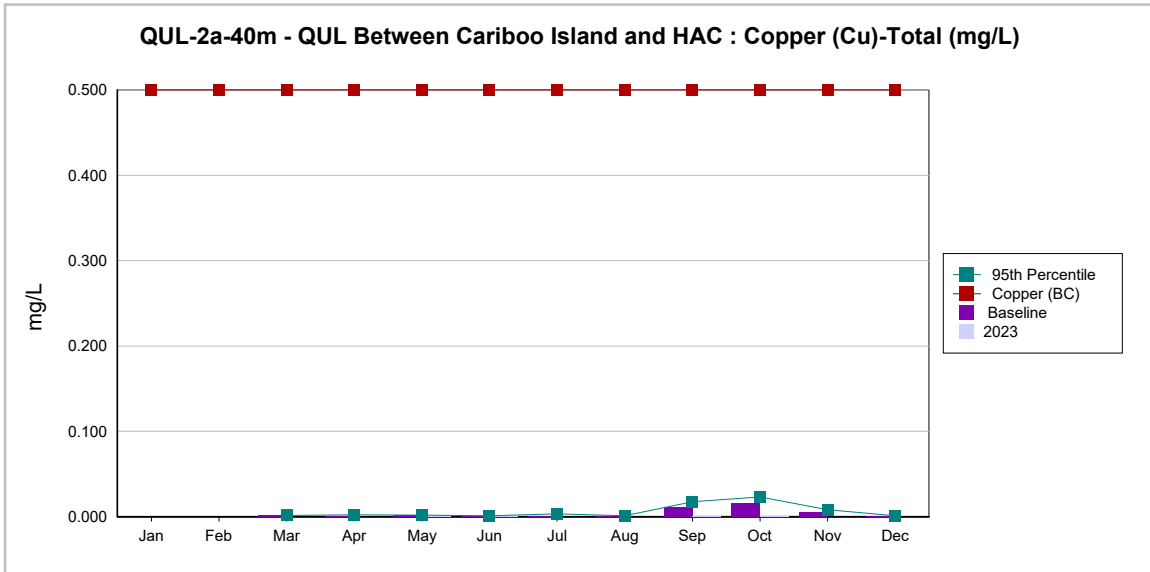
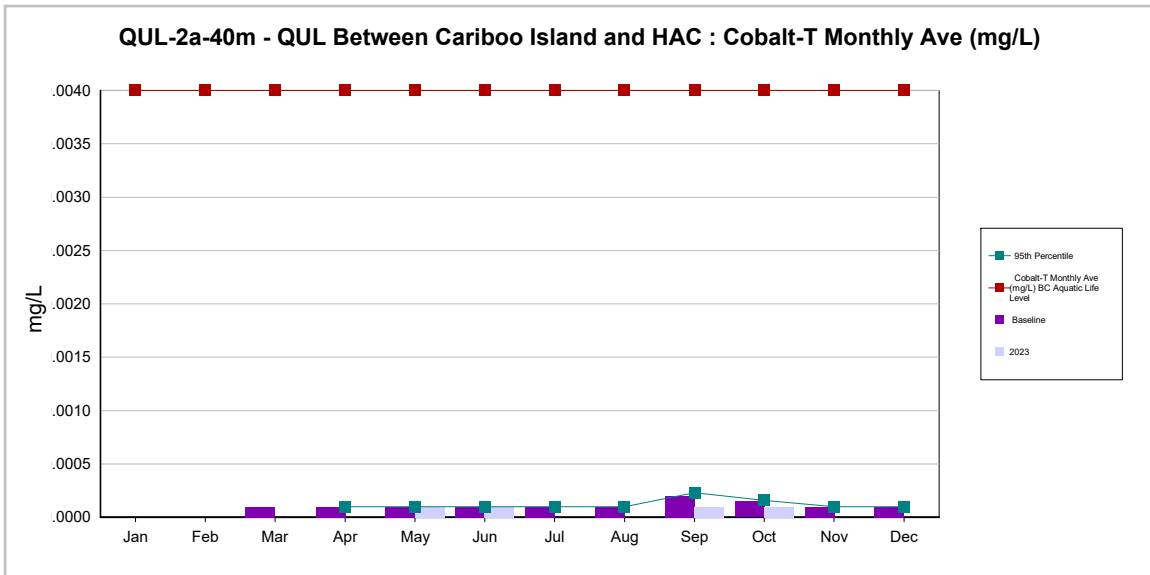
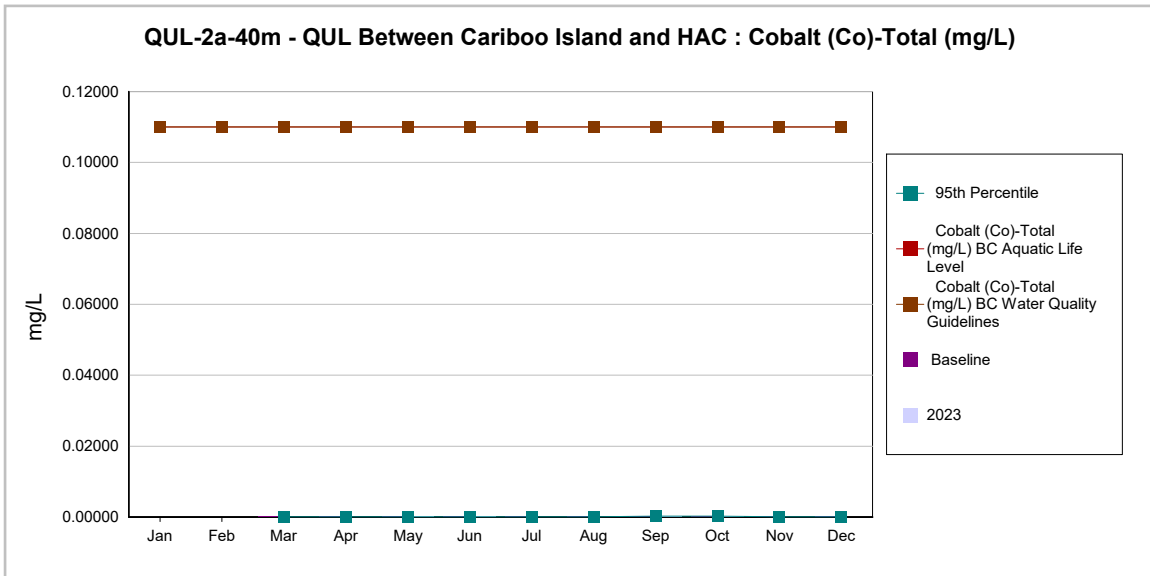
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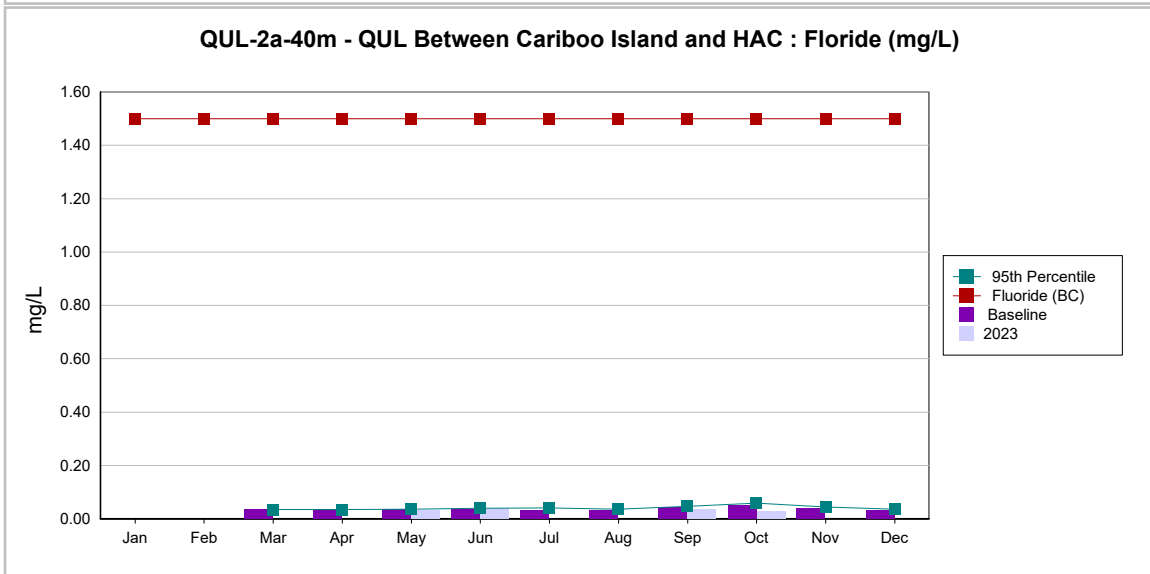
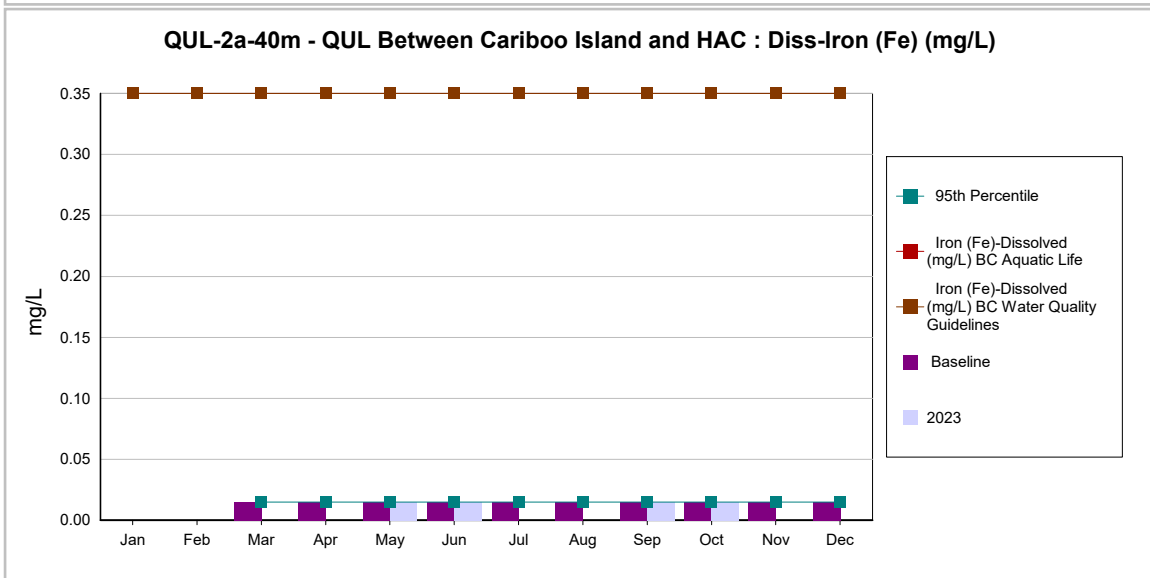
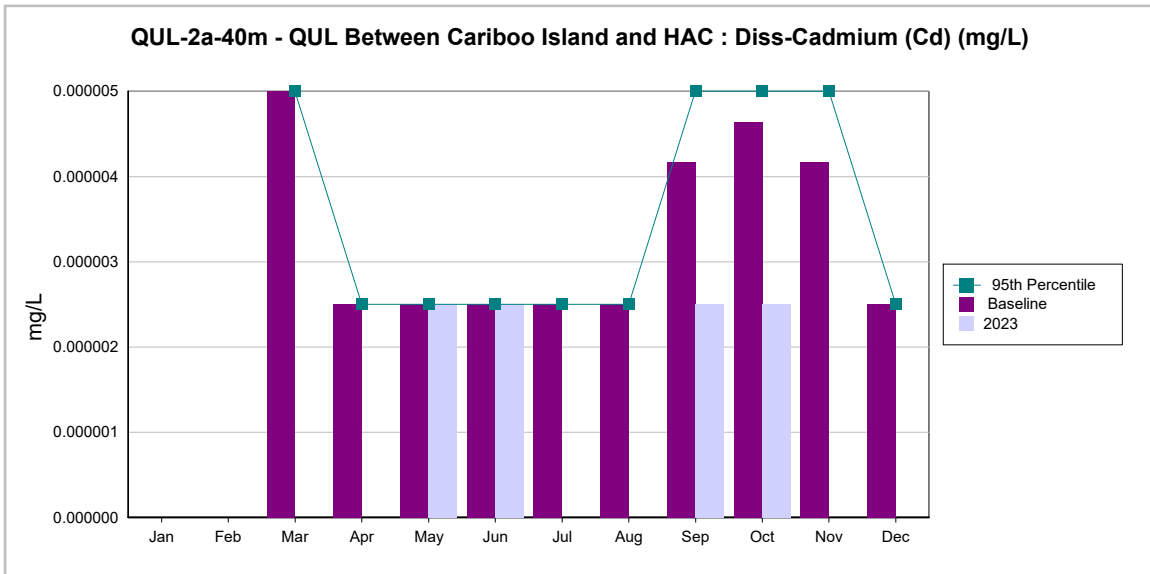
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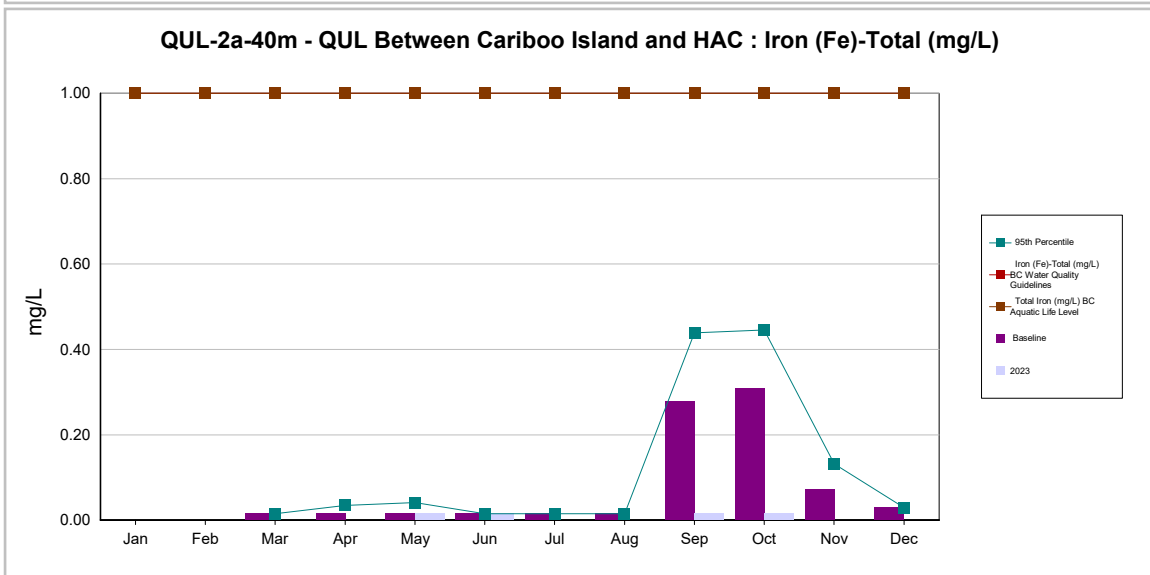
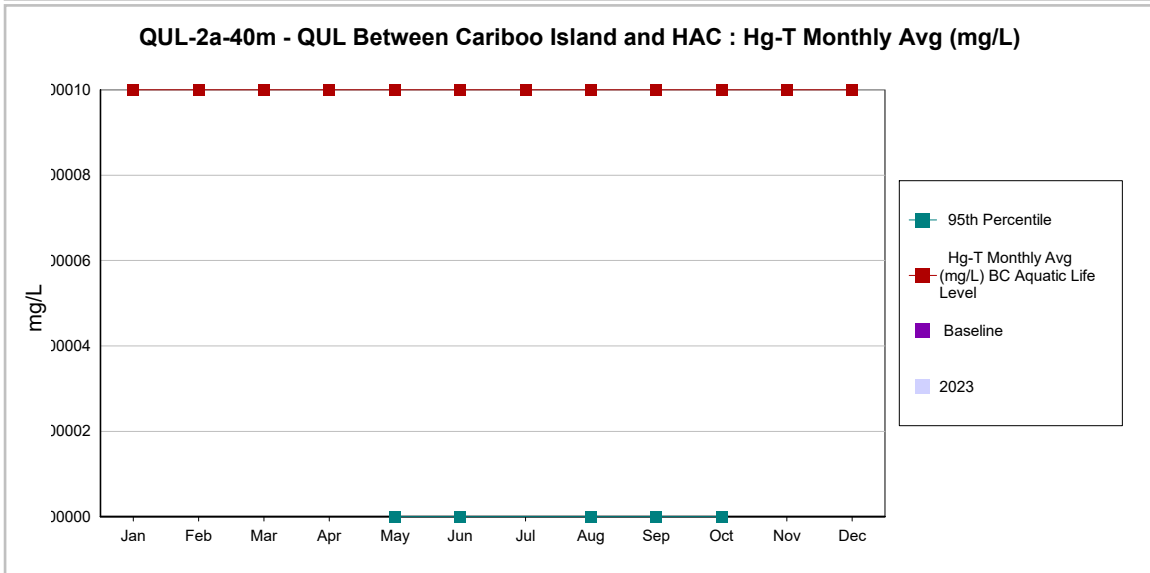
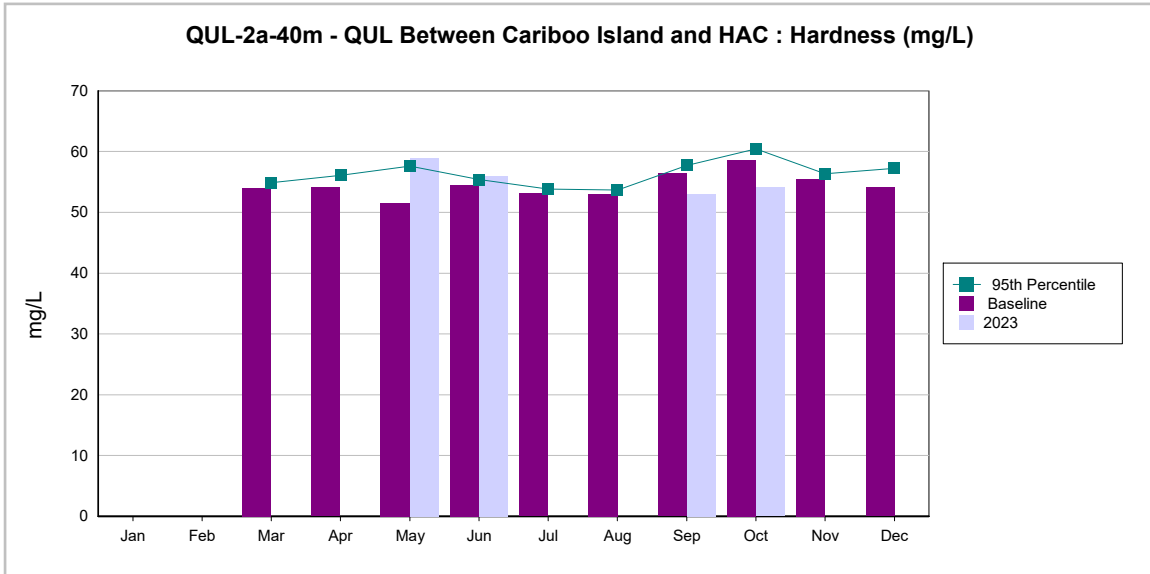
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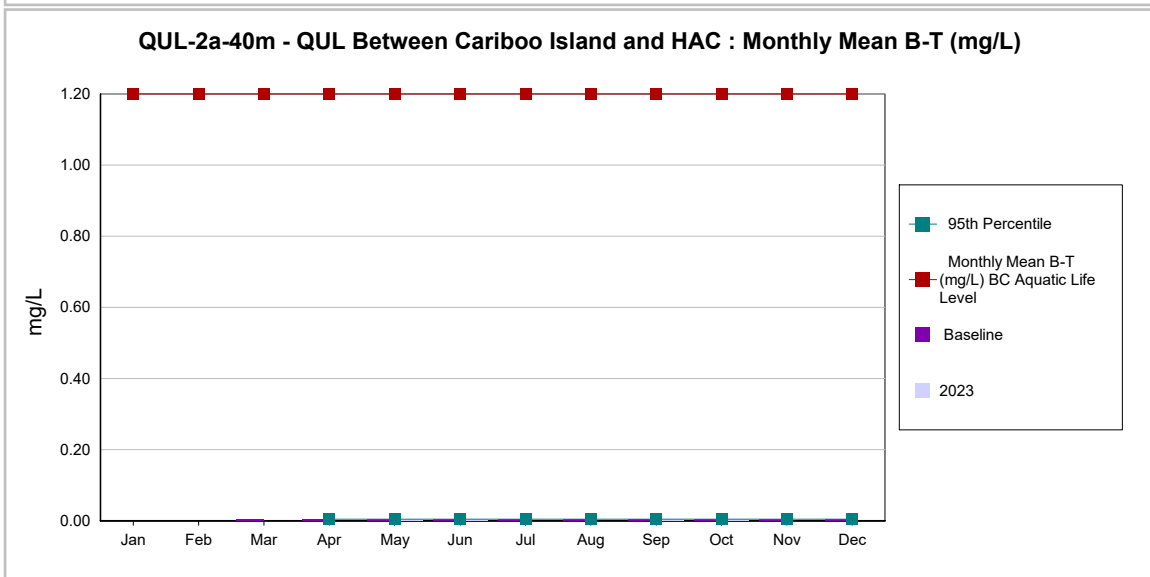
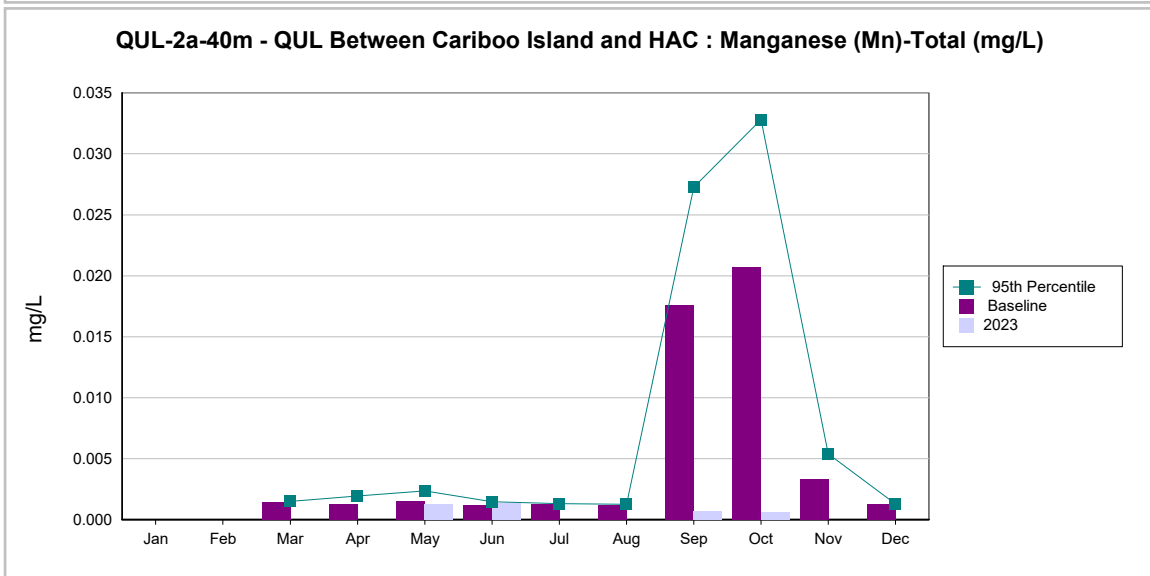
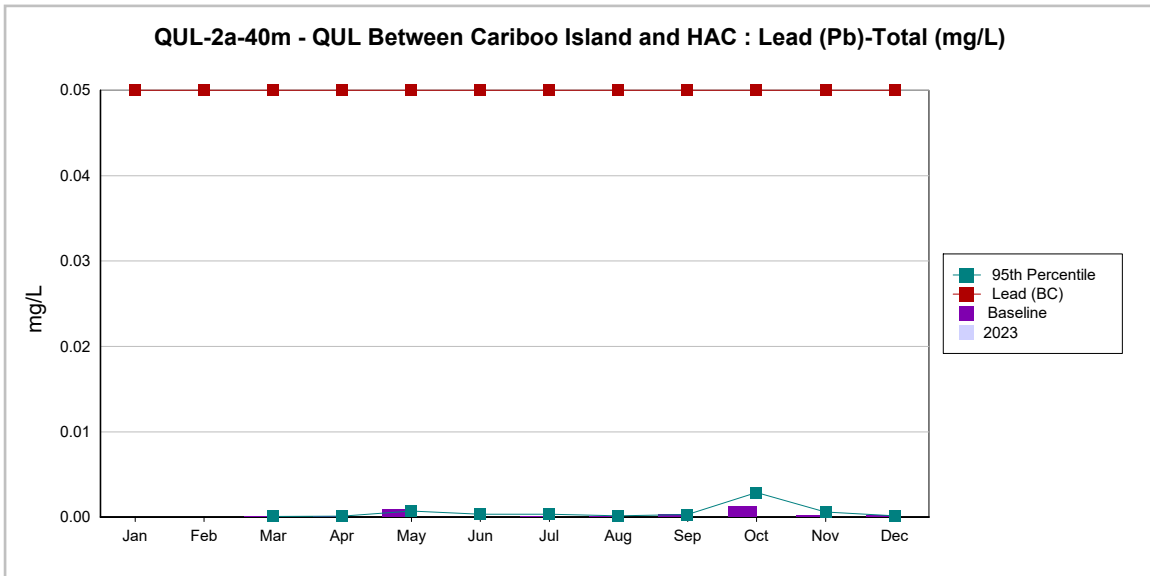
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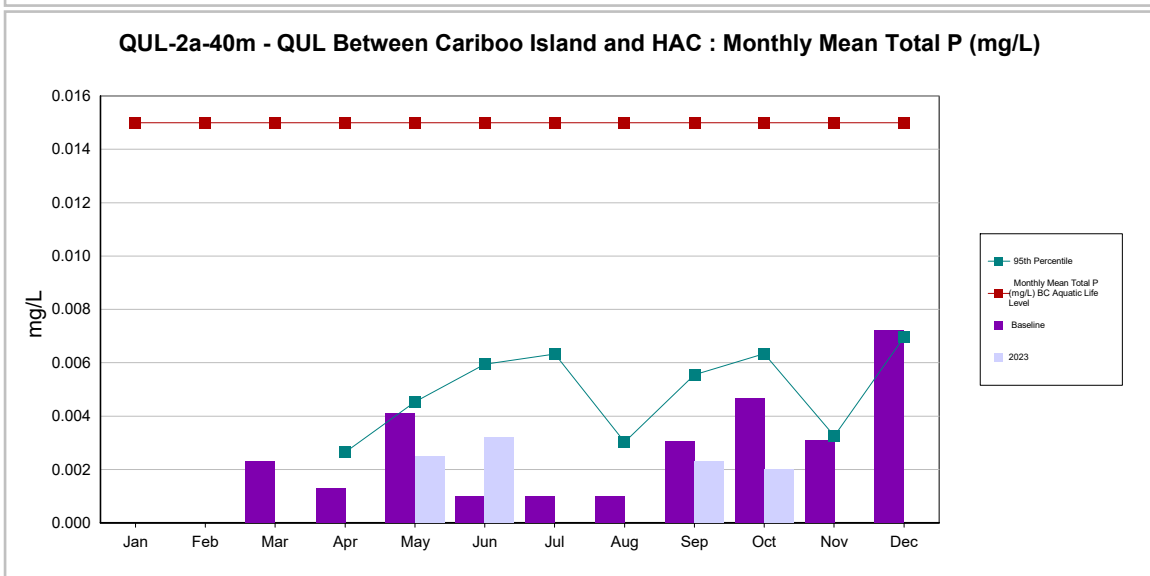
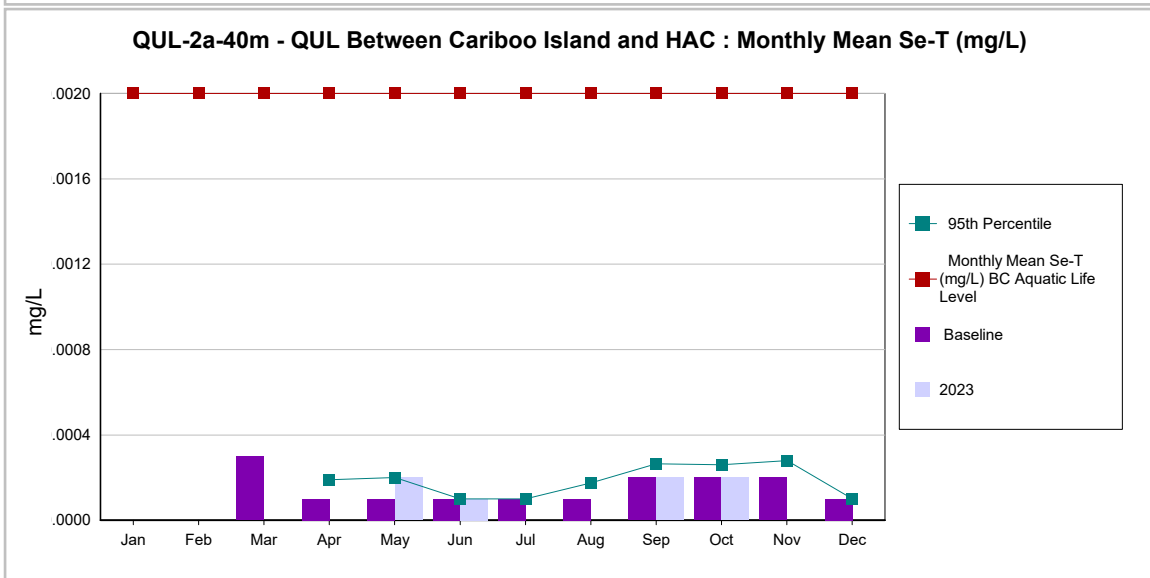
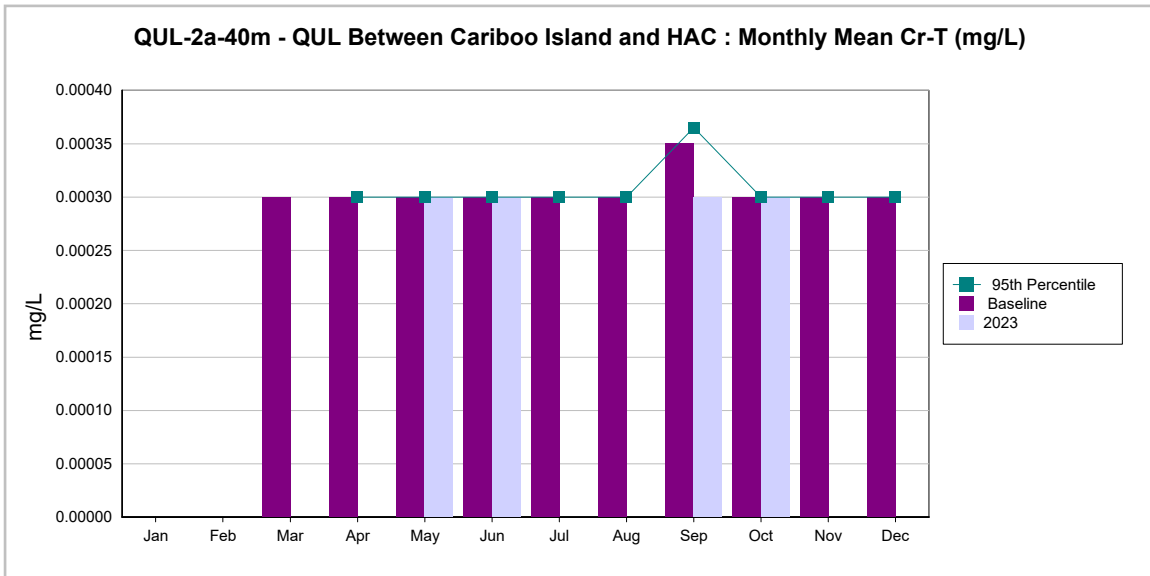
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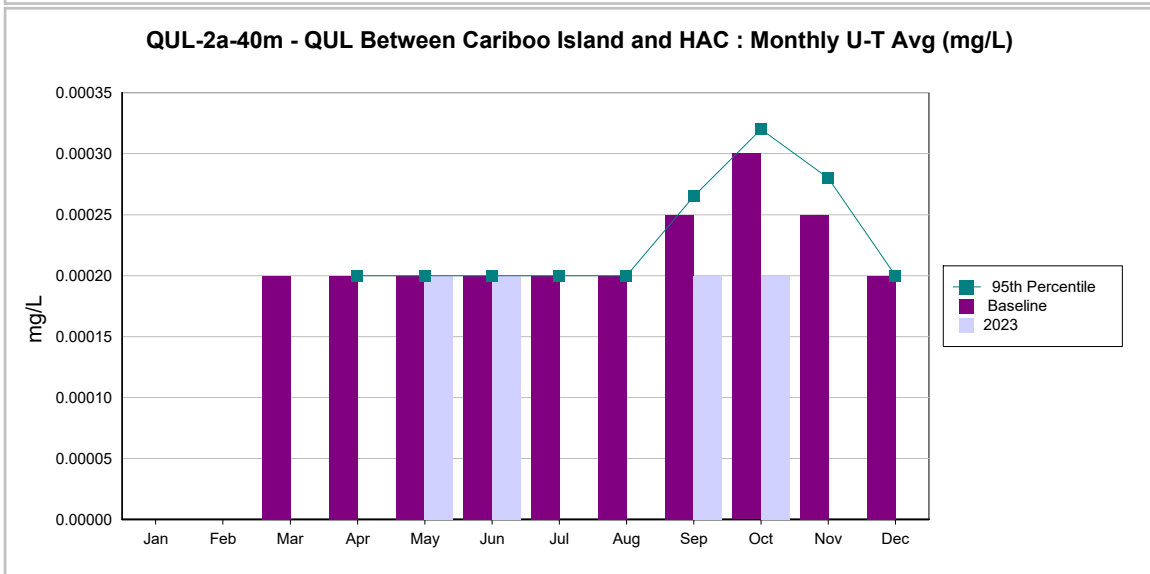
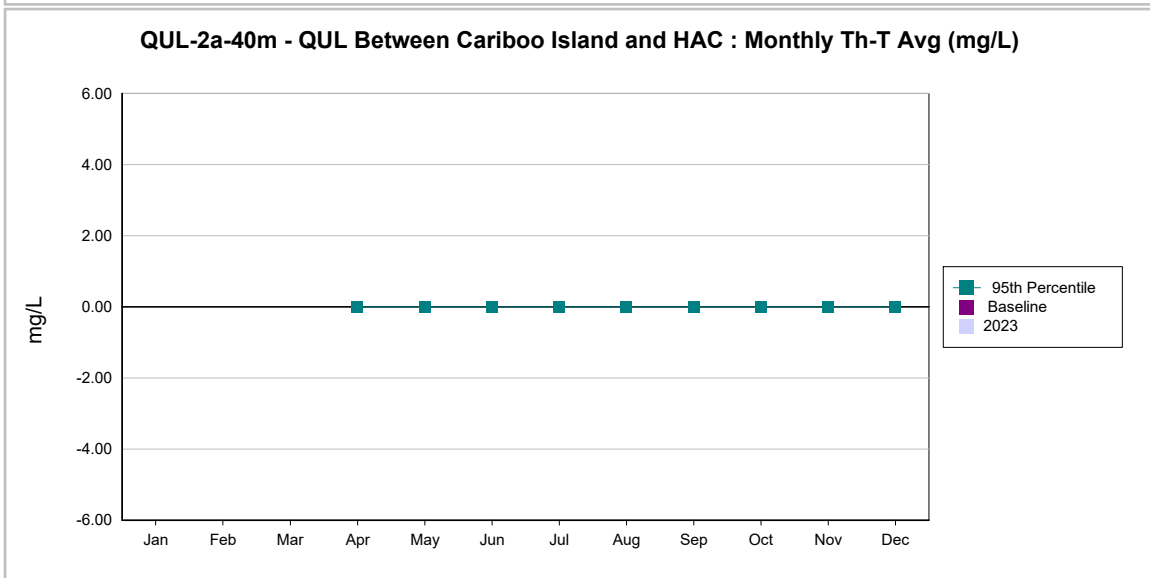
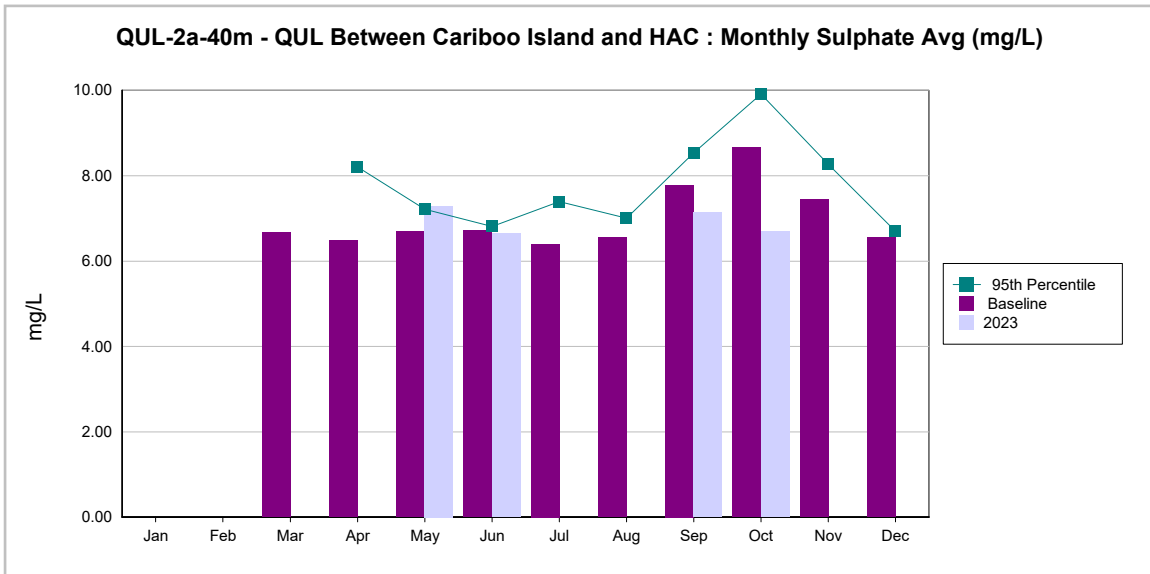
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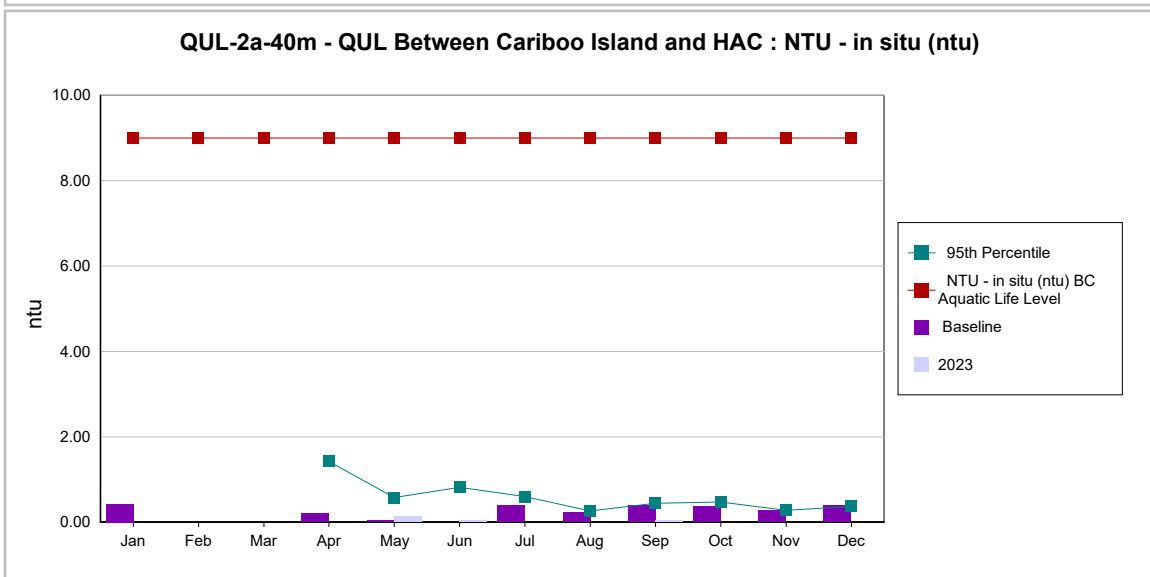
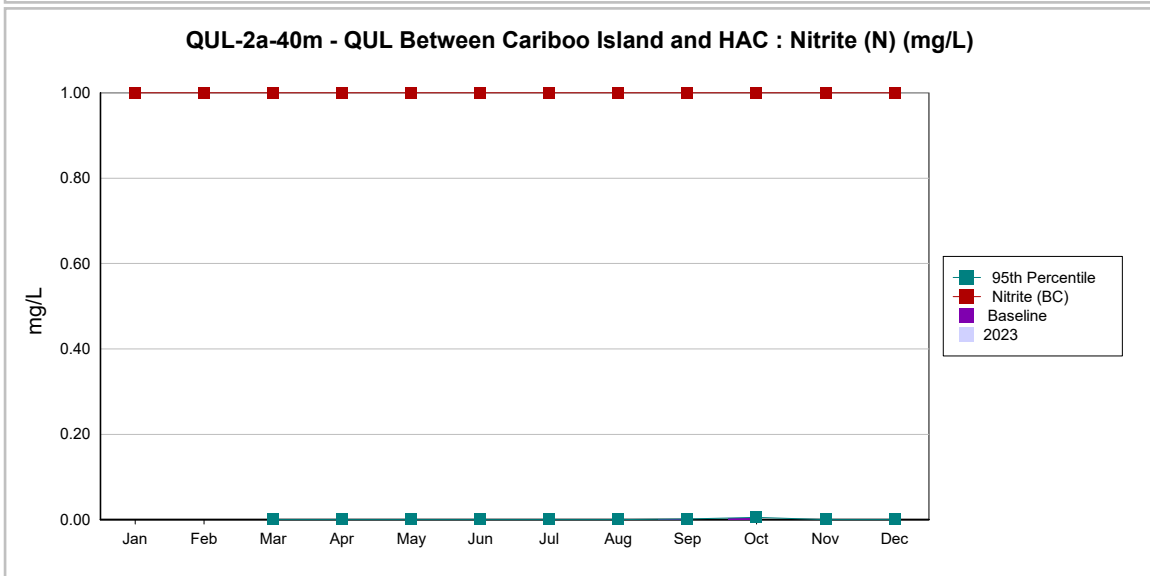
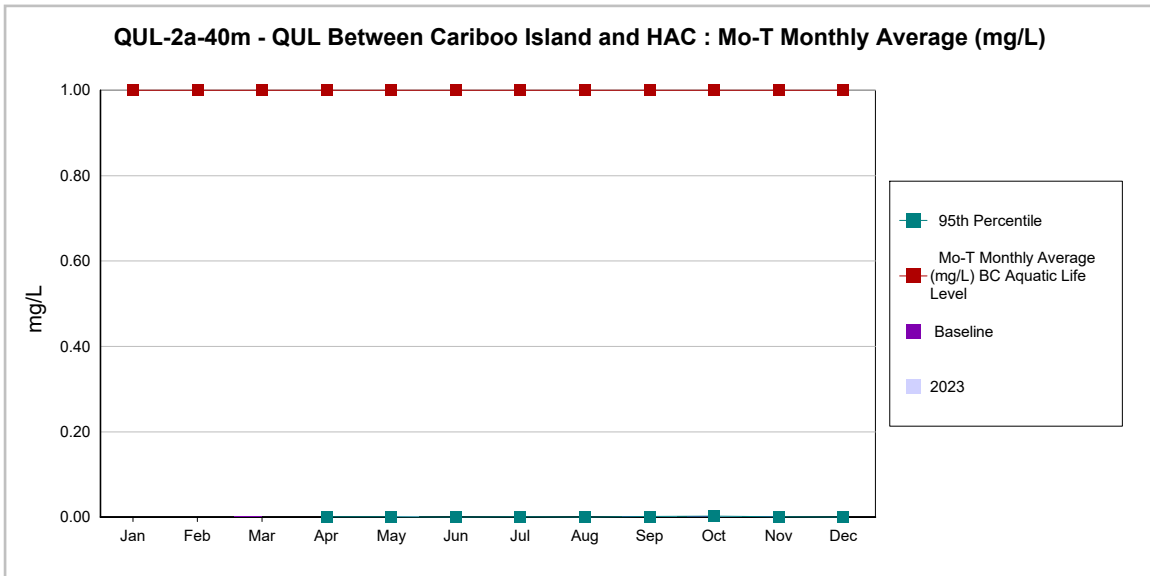
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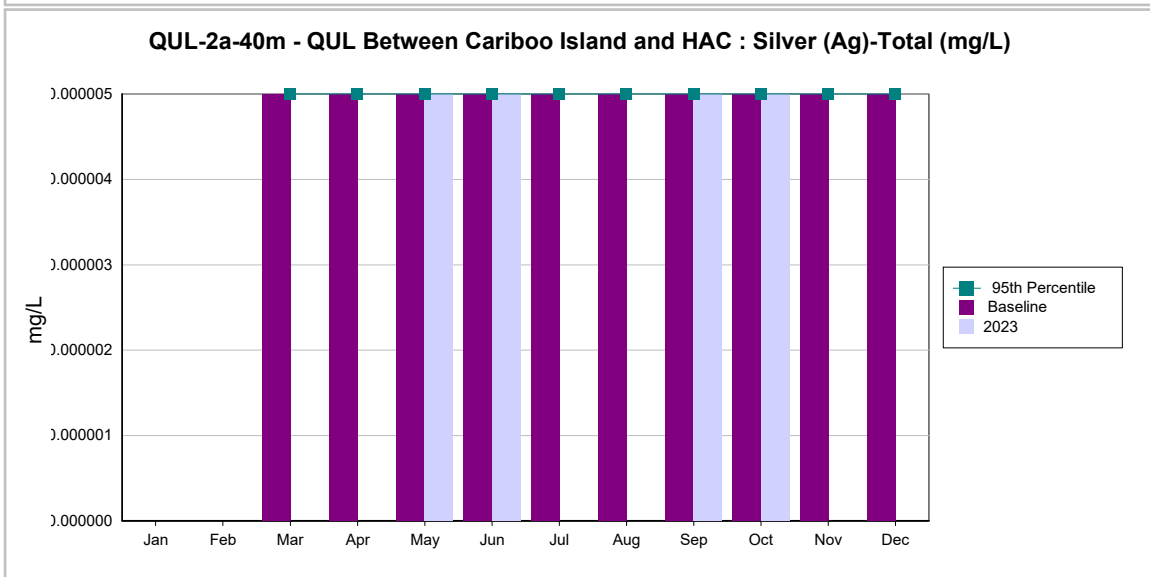
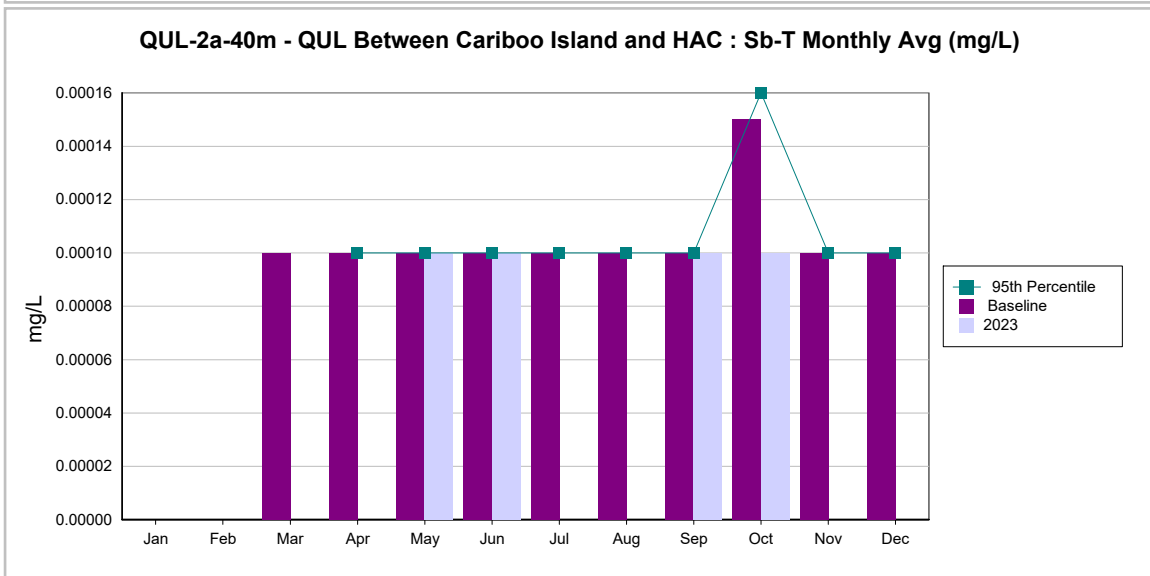
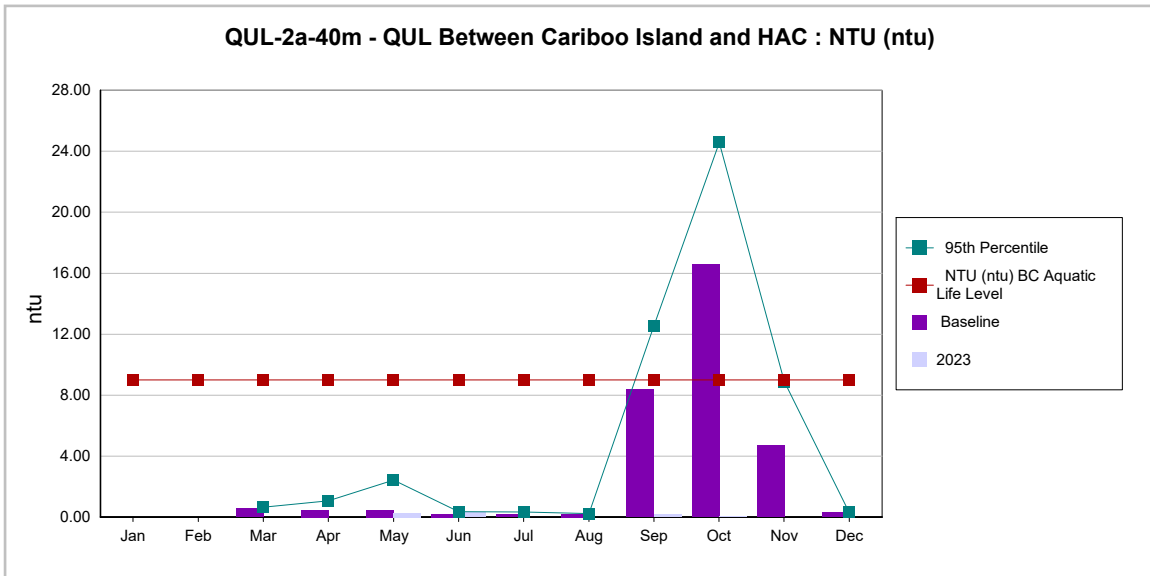
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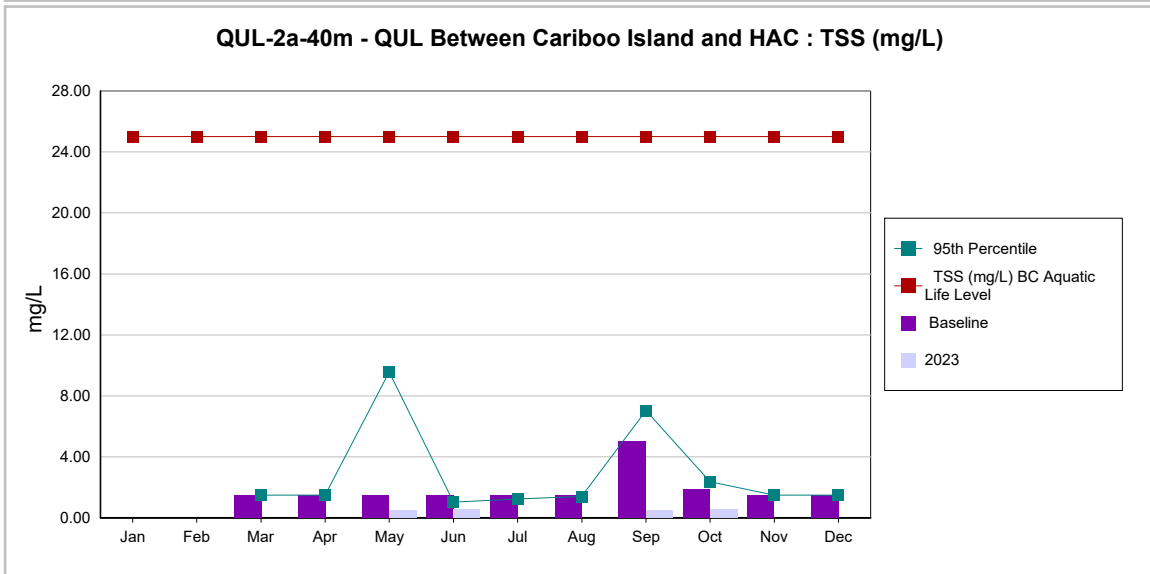
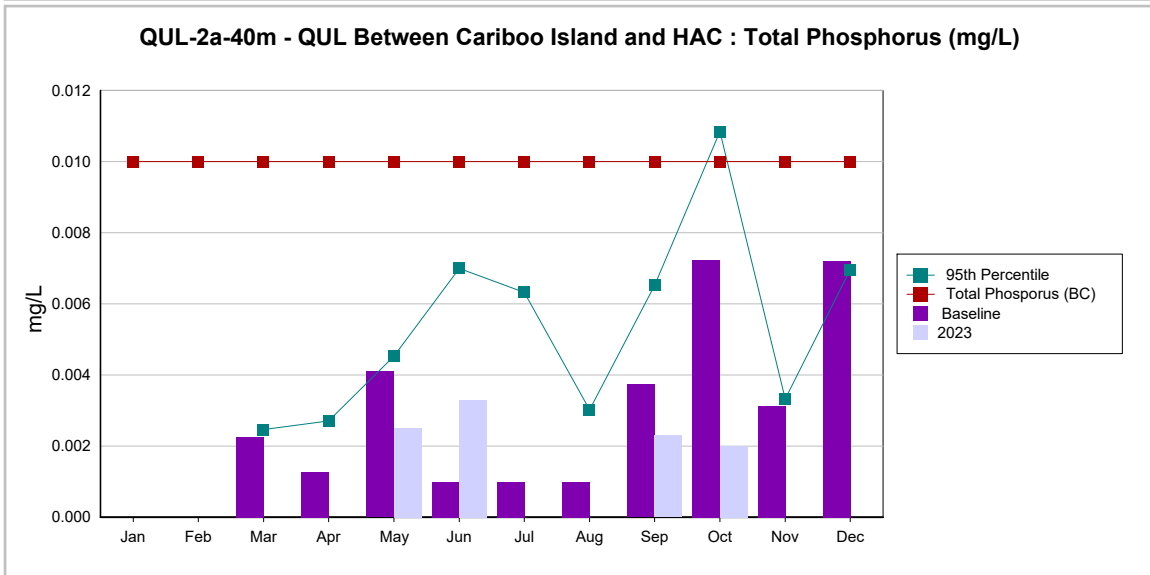
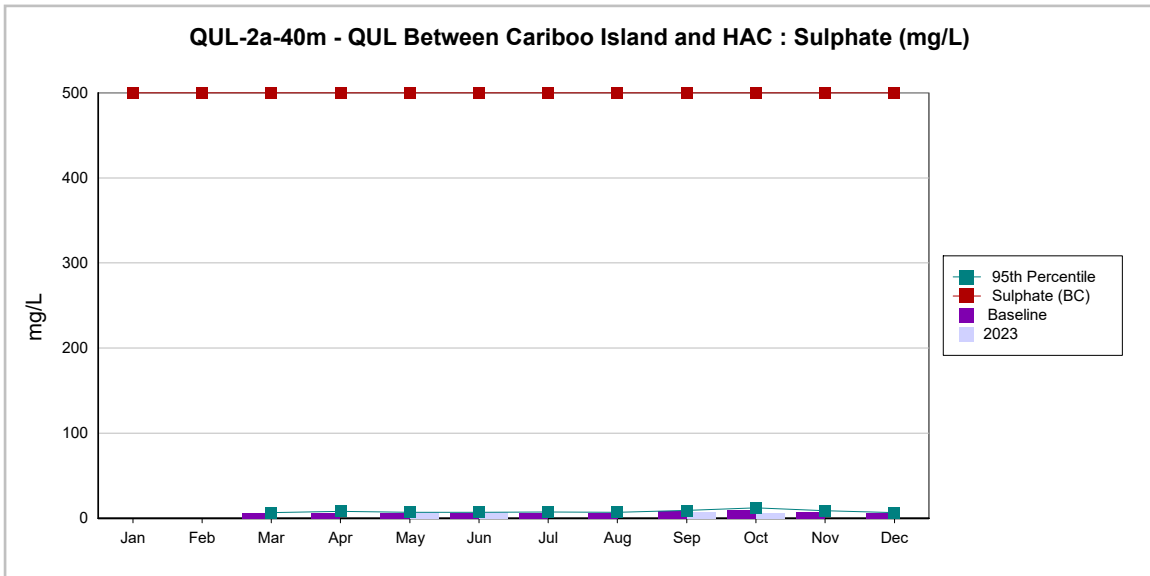
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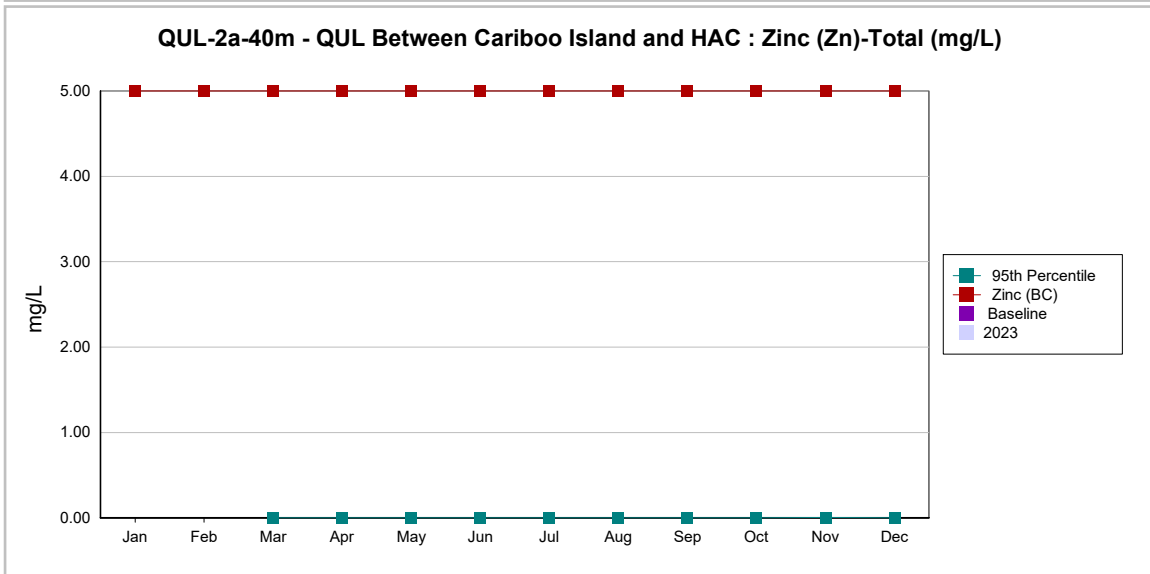
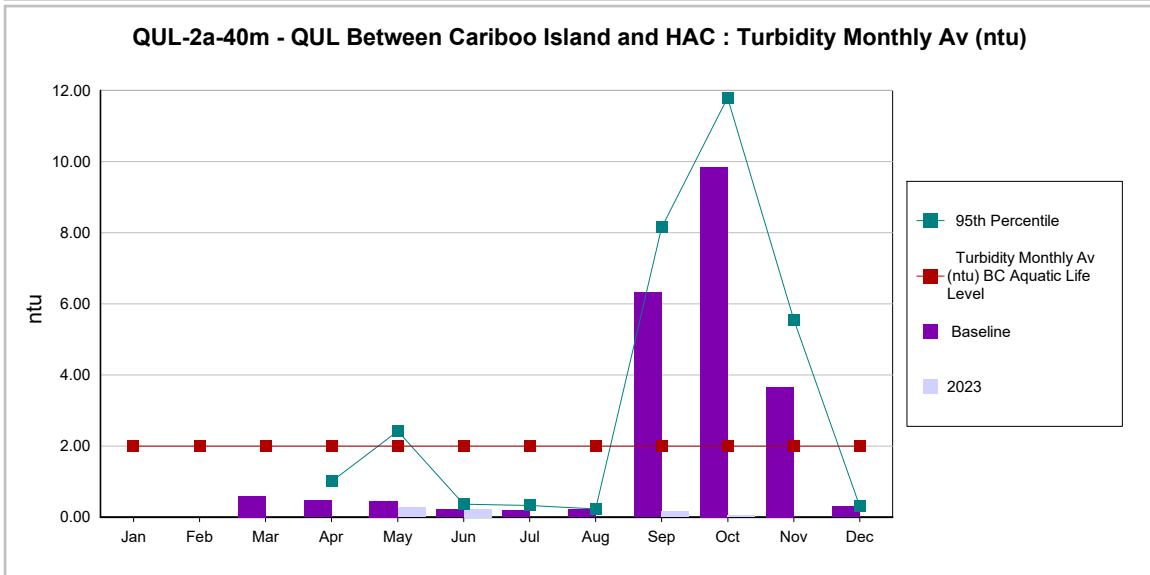
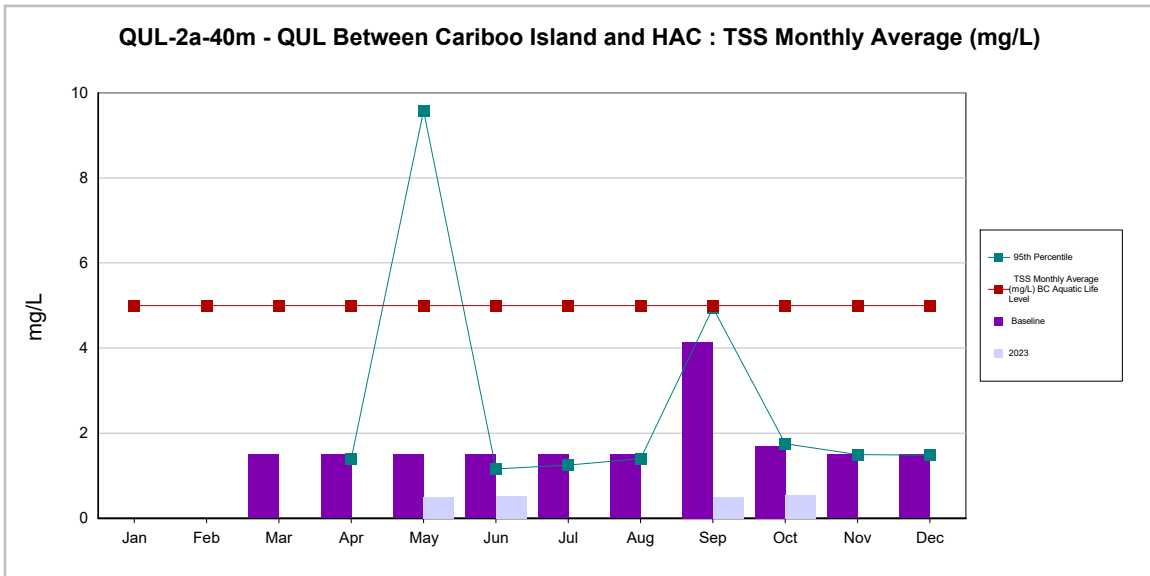
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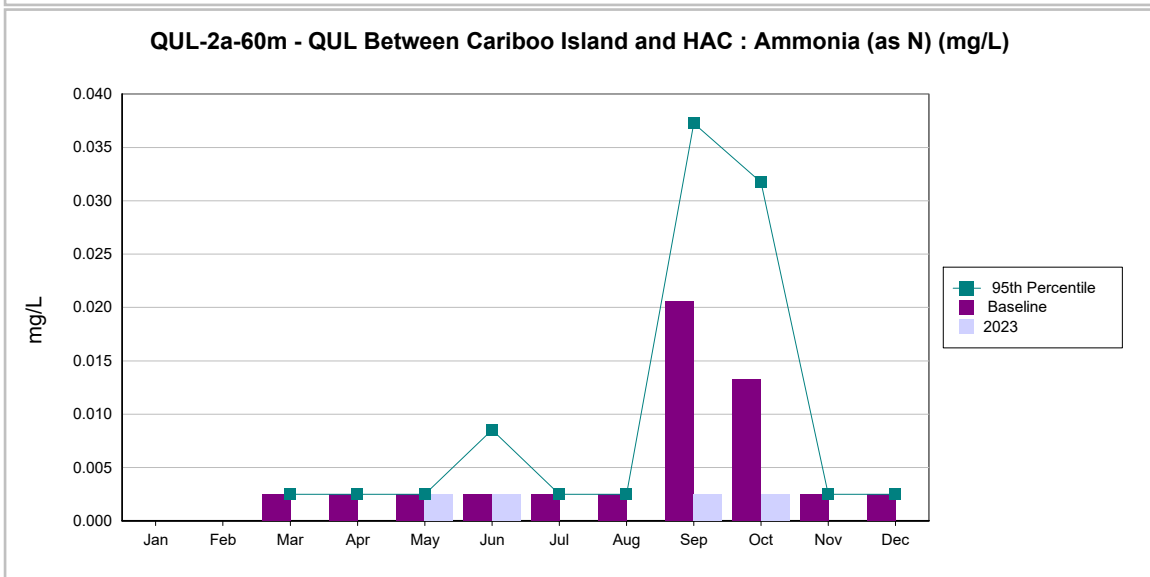
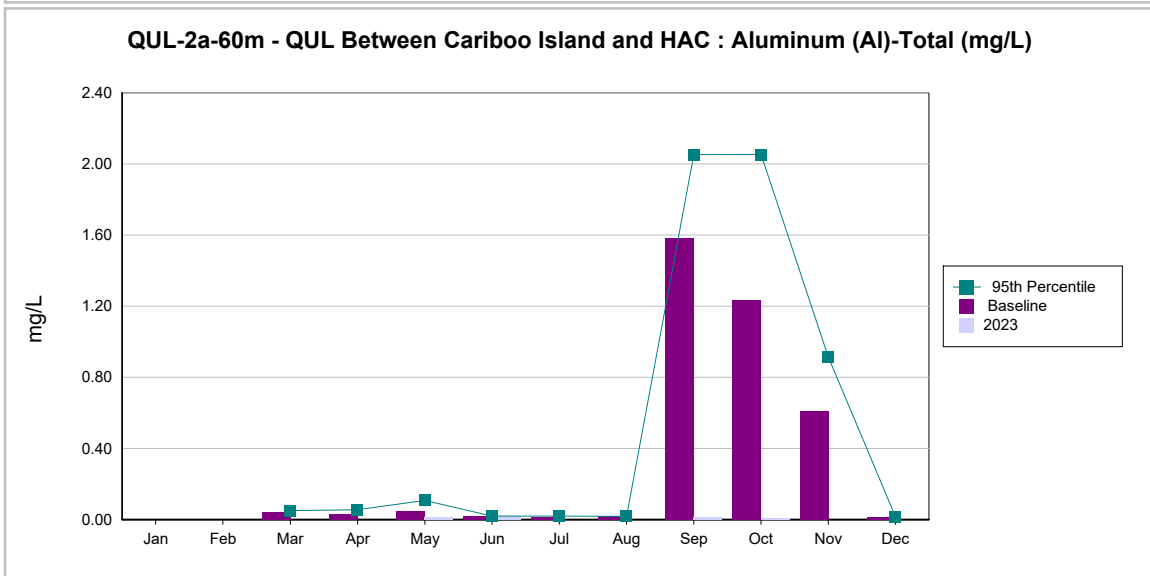
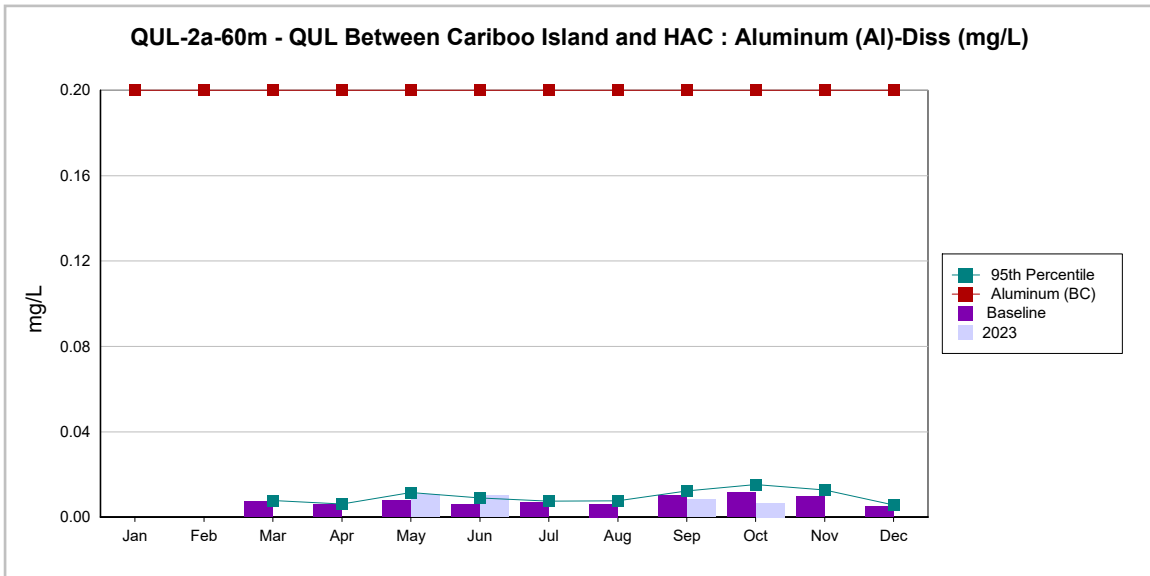
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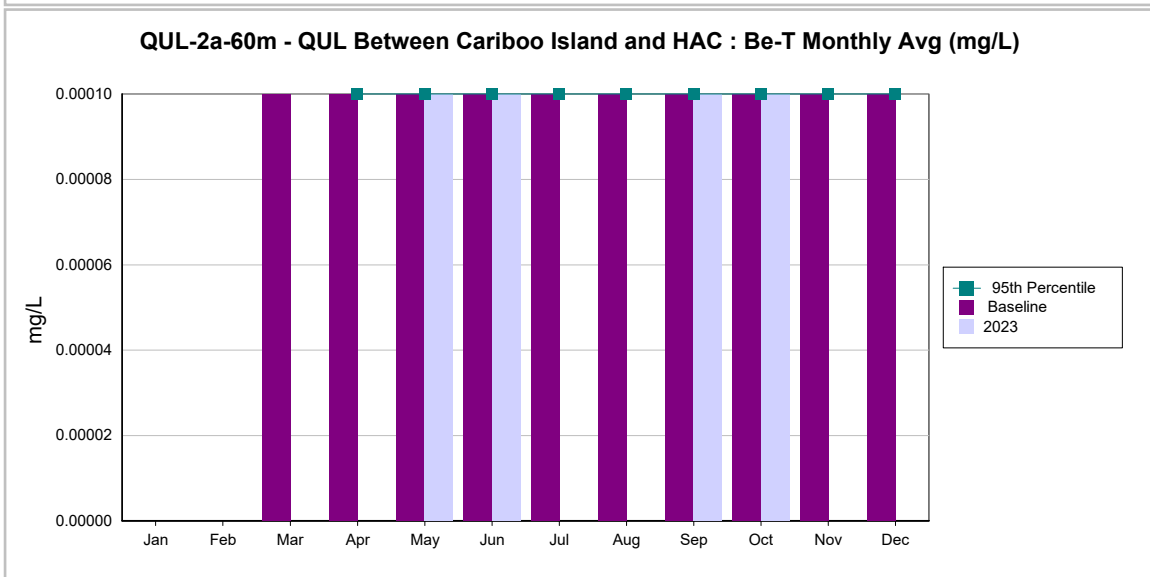
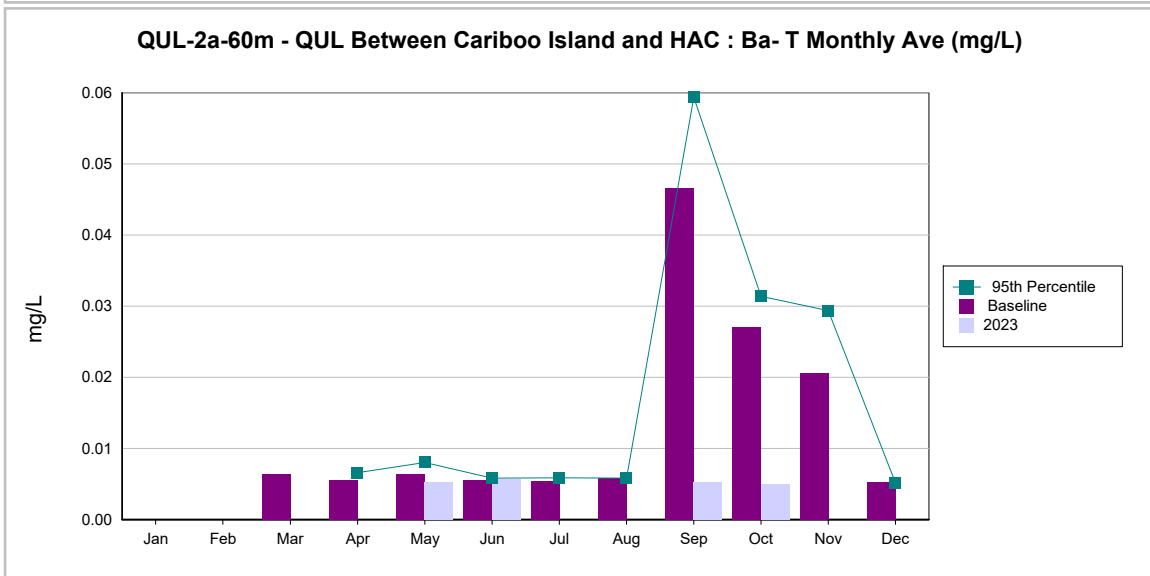
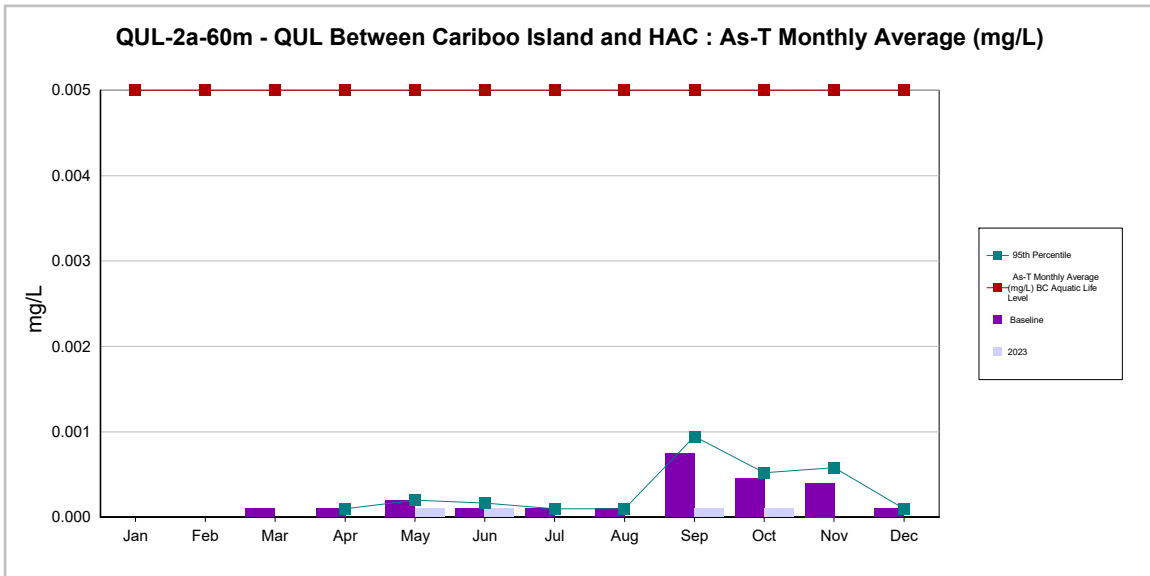
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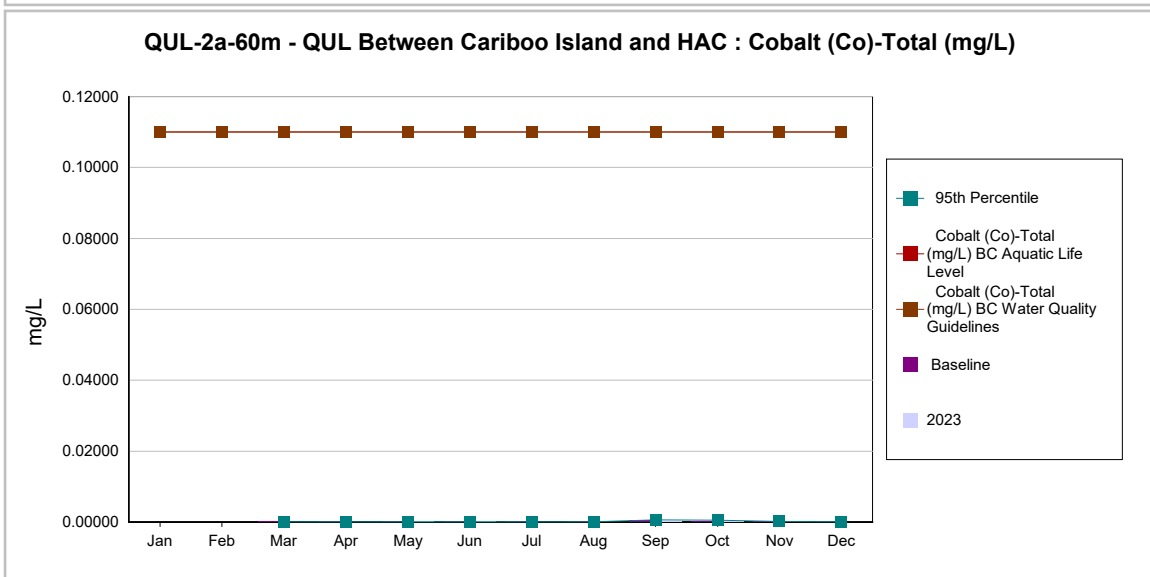
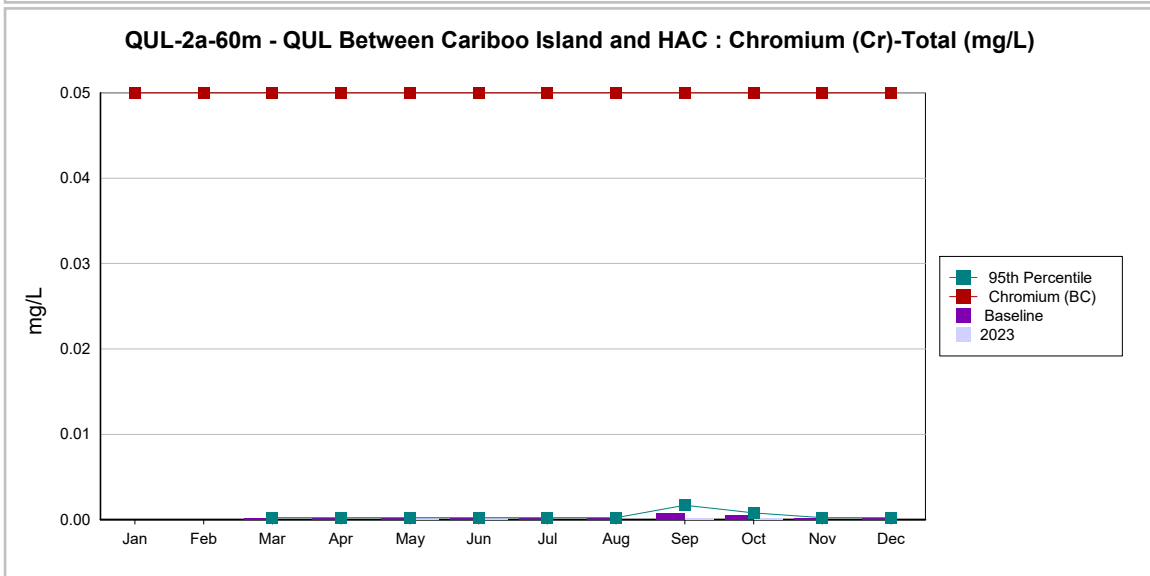
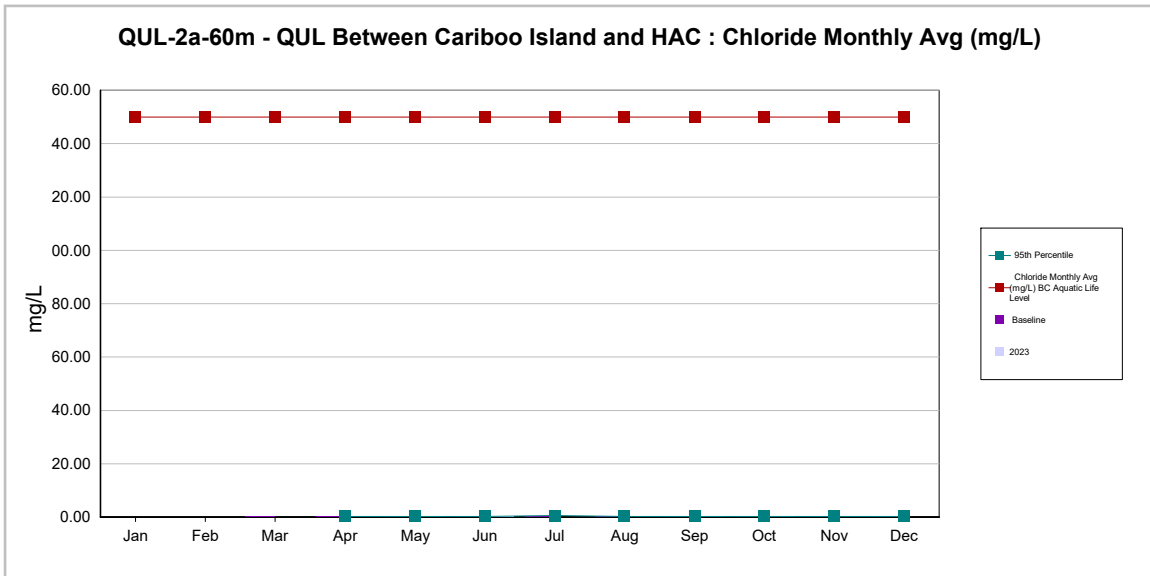
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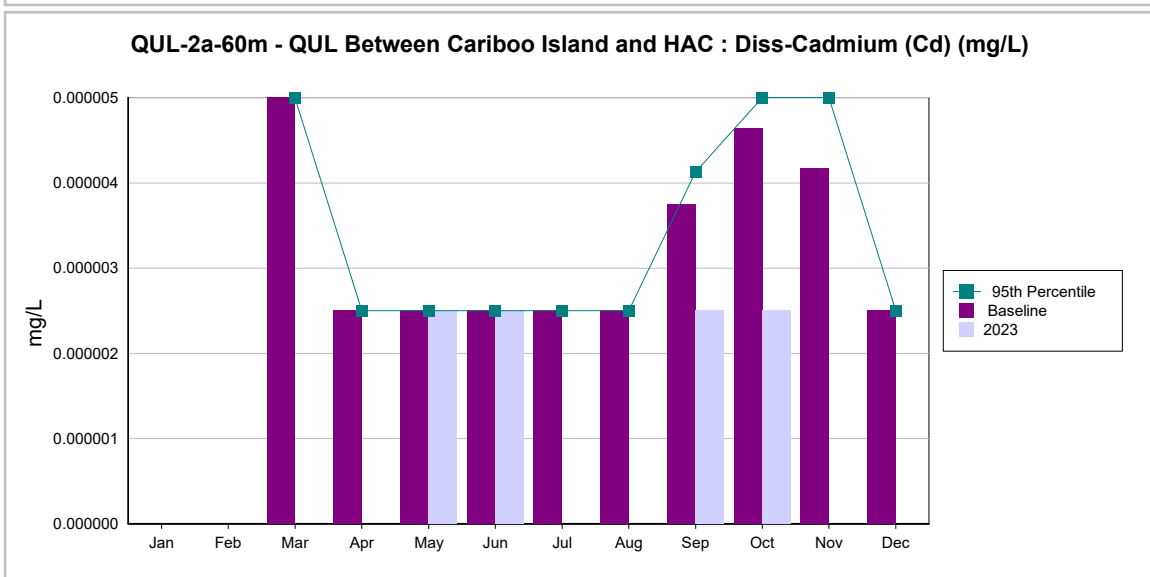
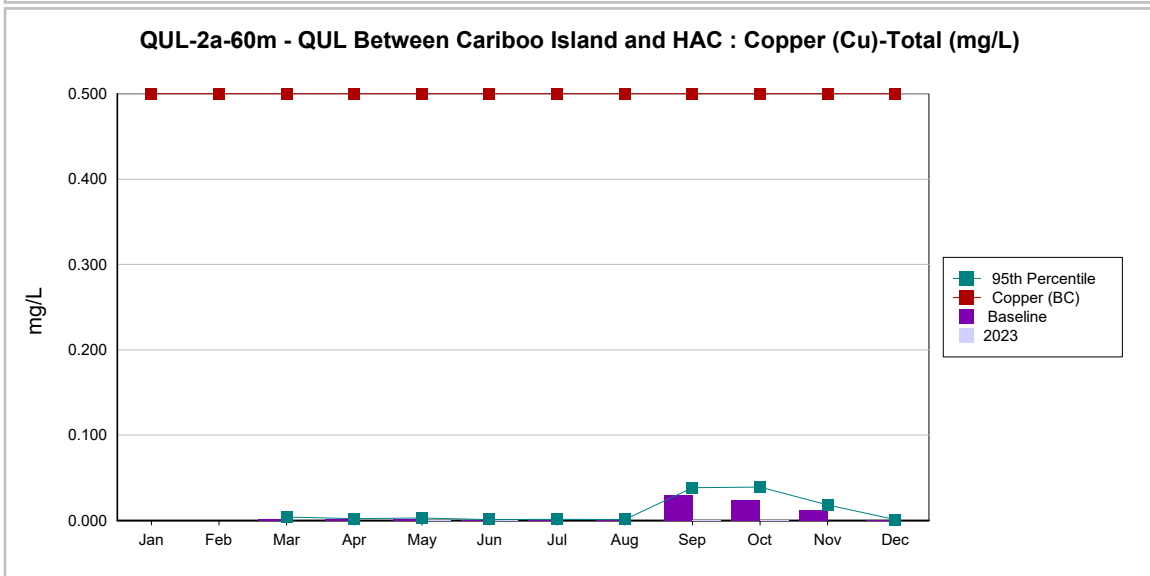
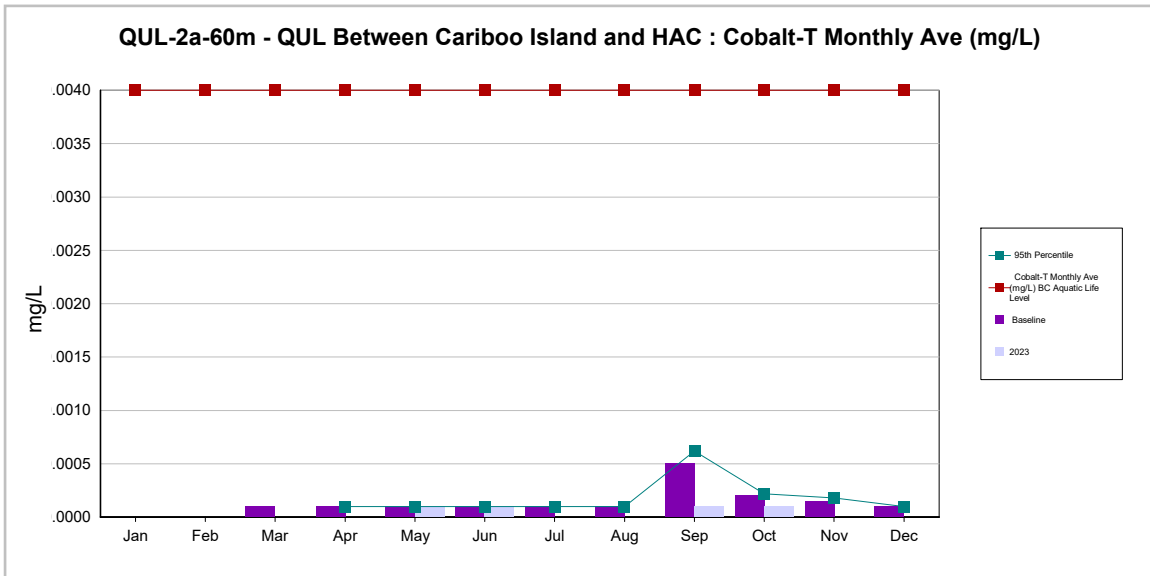
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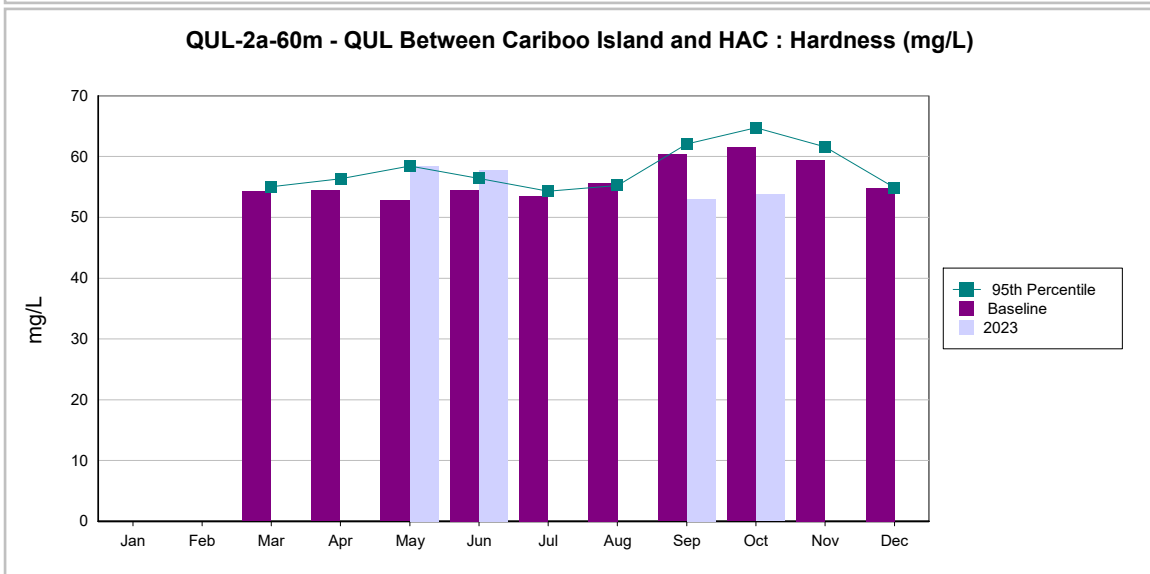
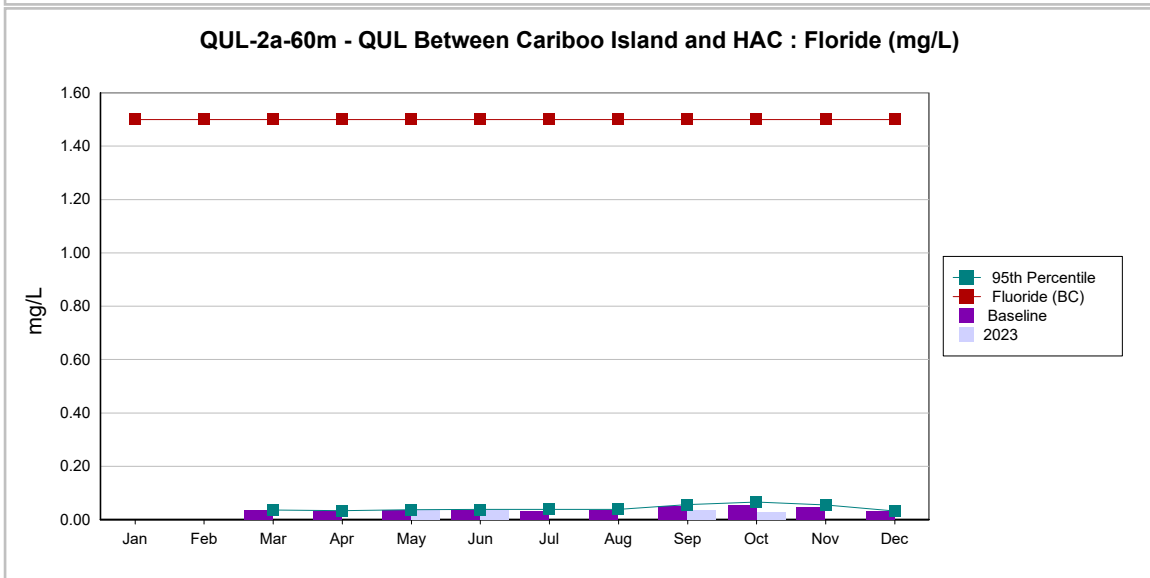
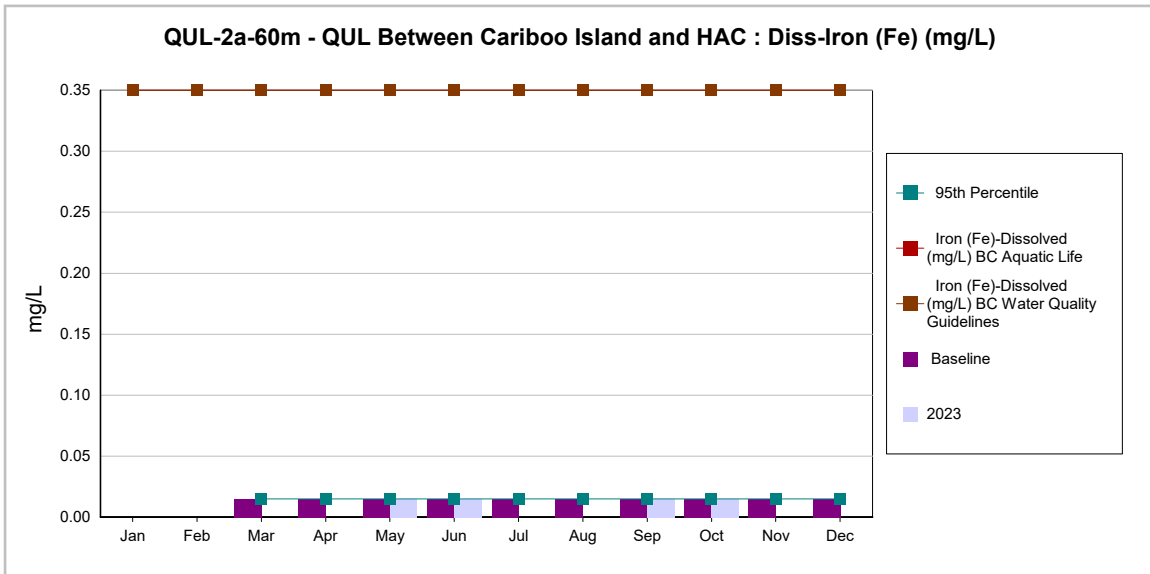
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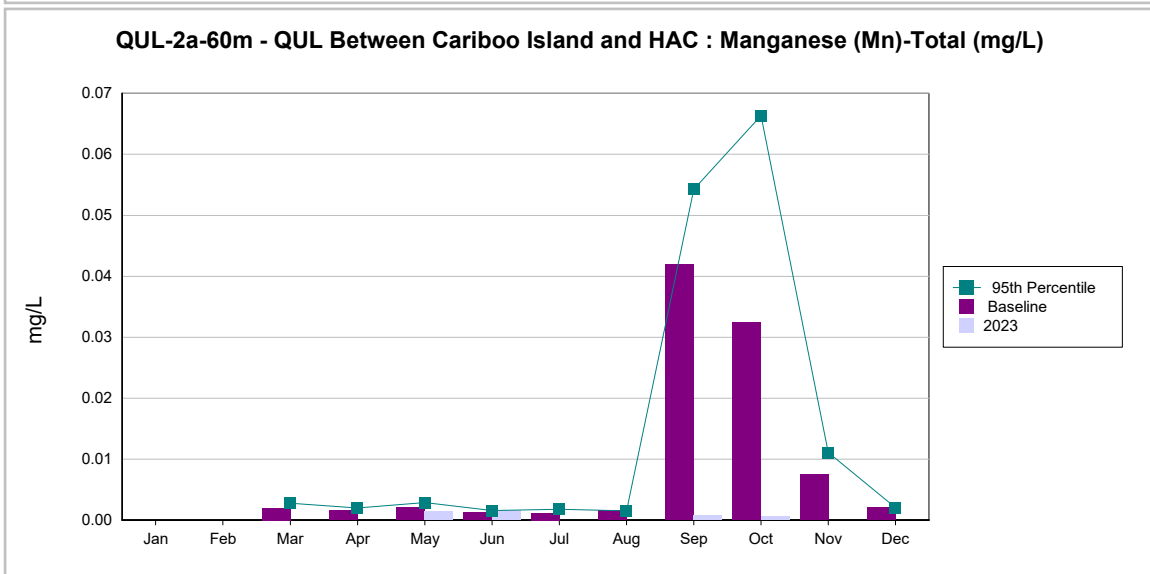
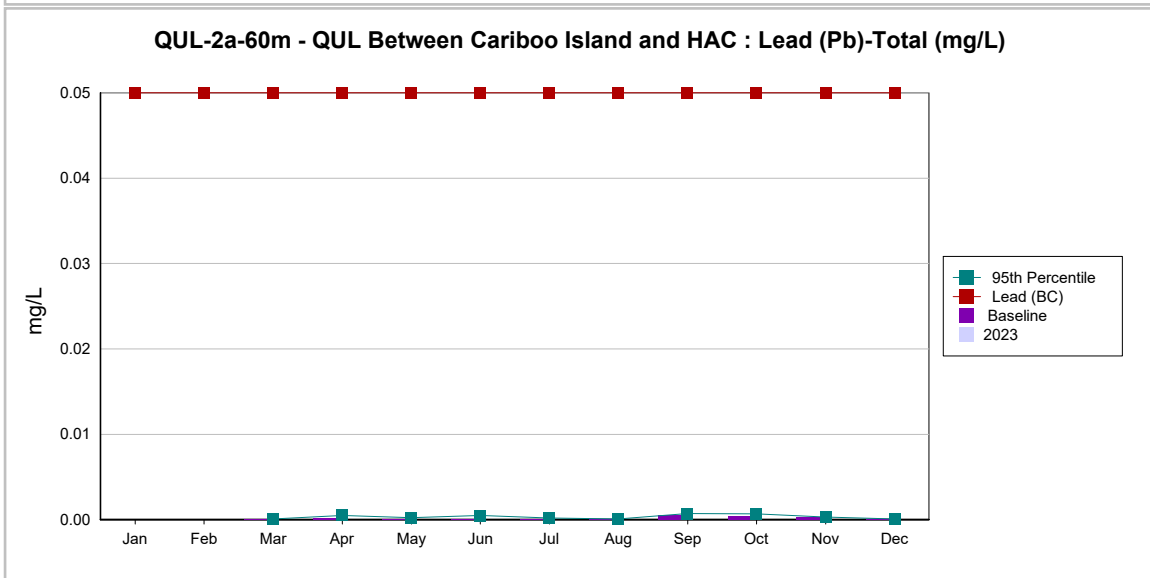
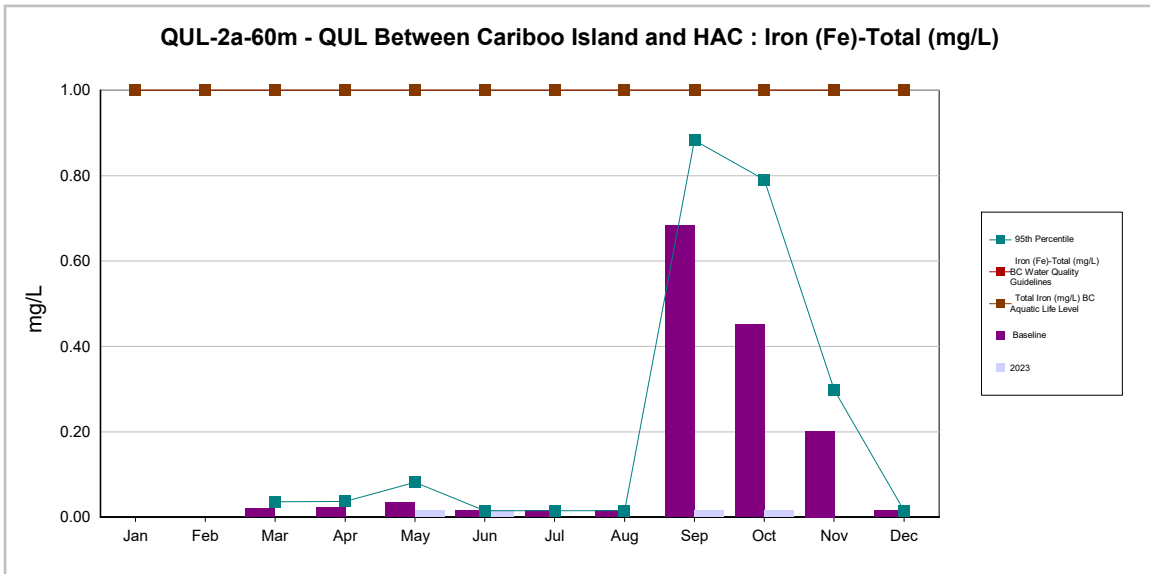
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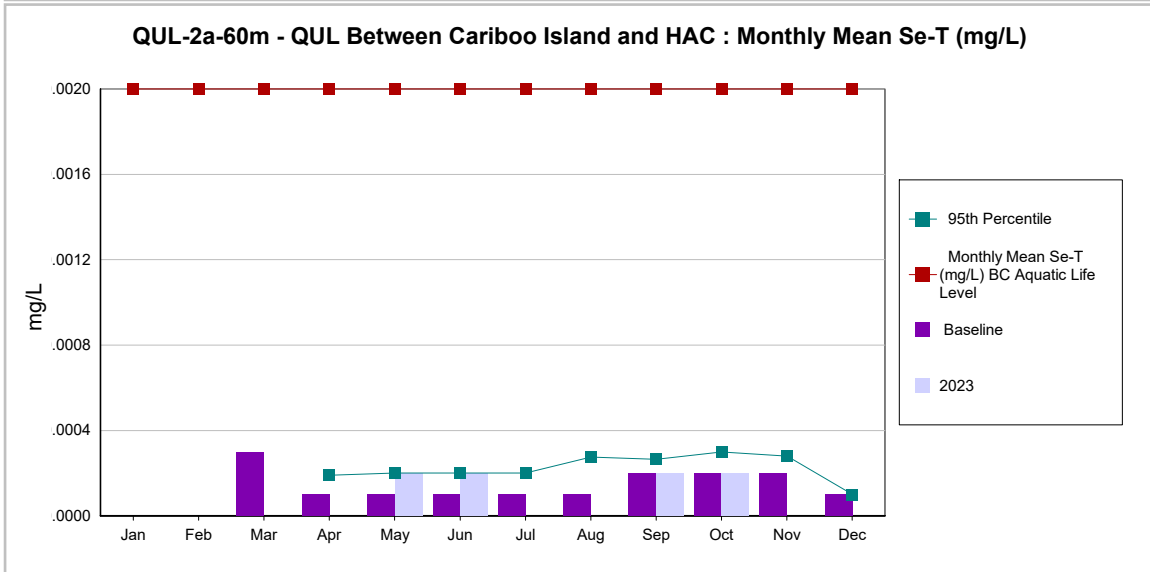
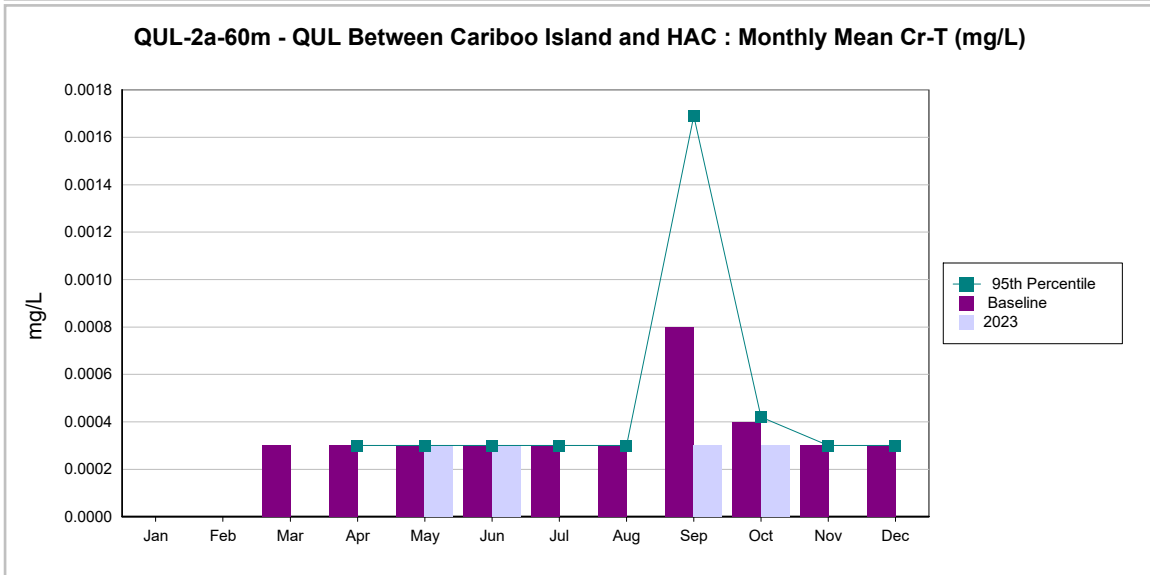
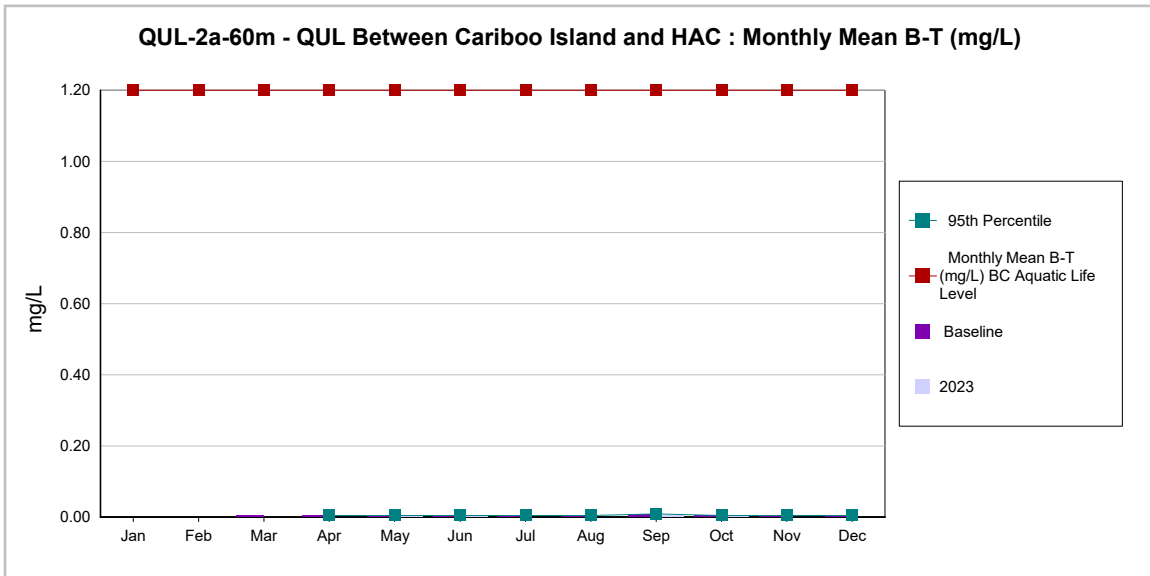
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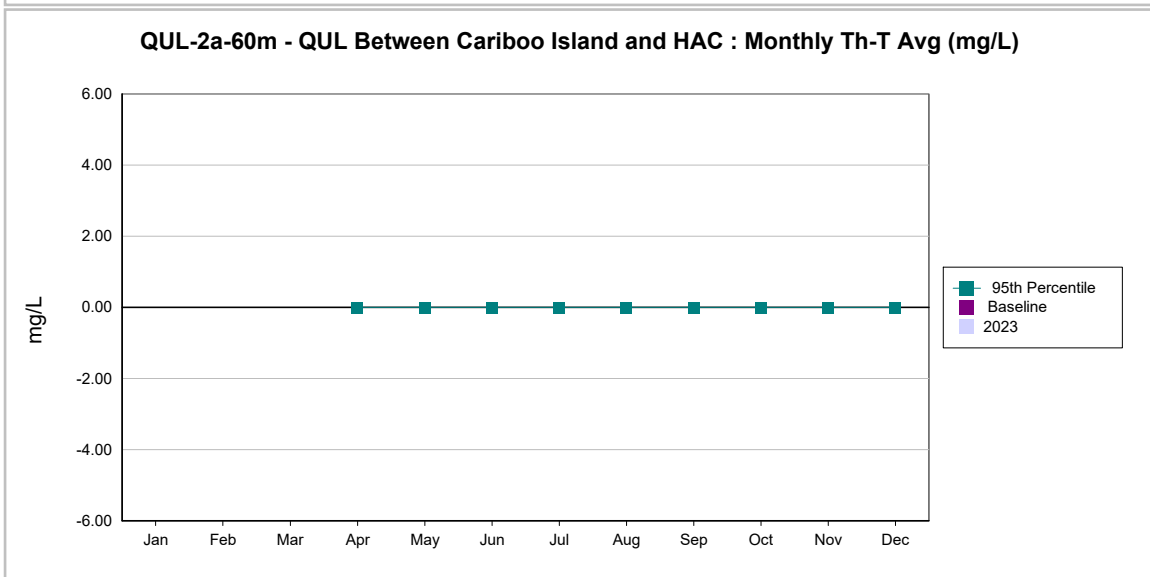
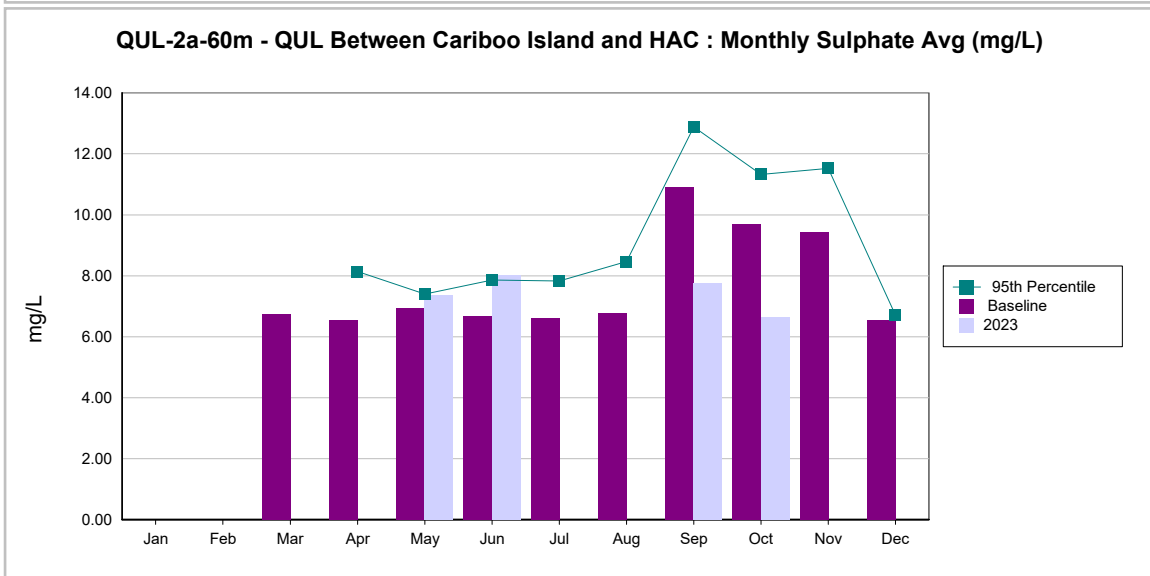
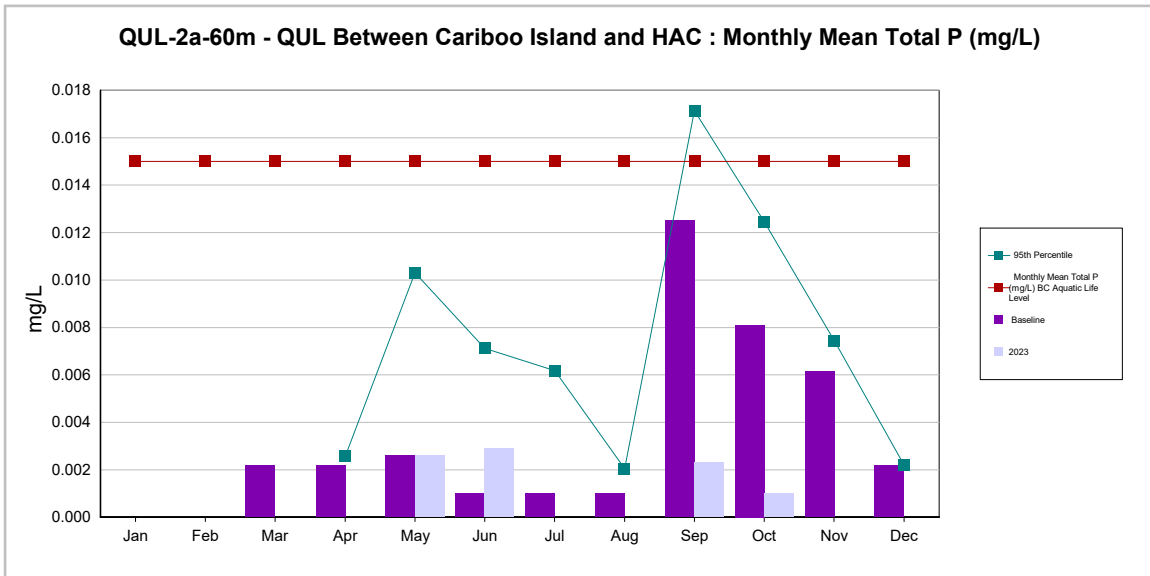
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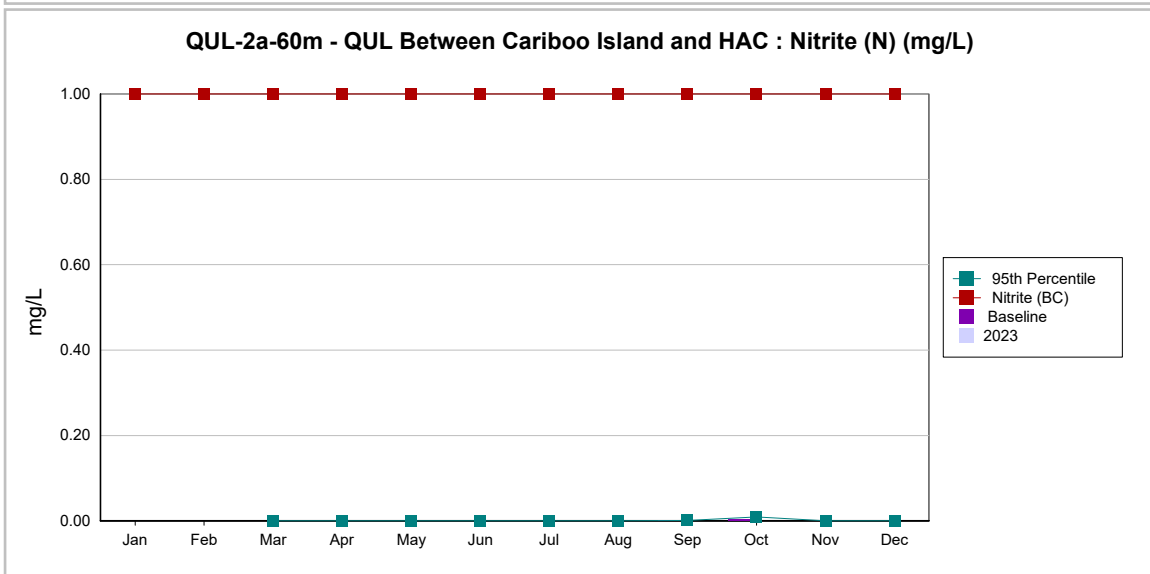
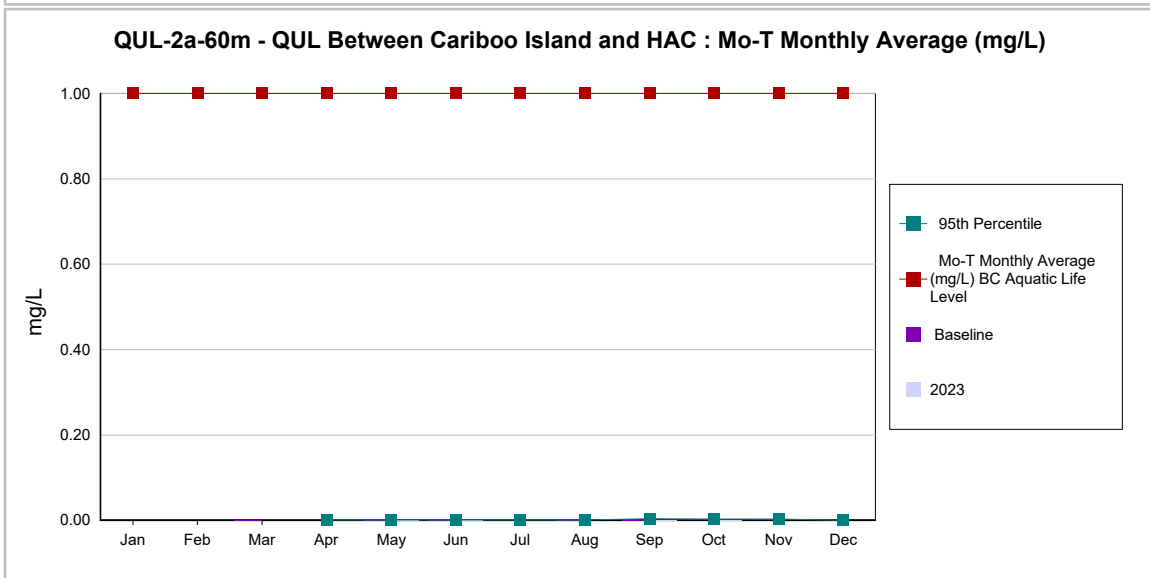
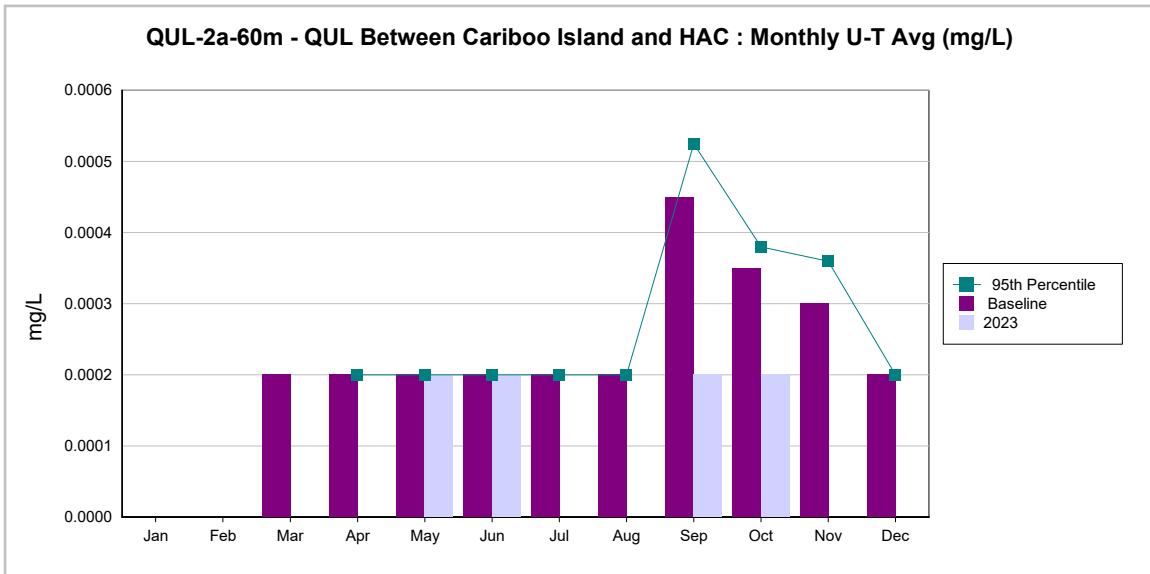
Annual Report Lake vs BCWQG



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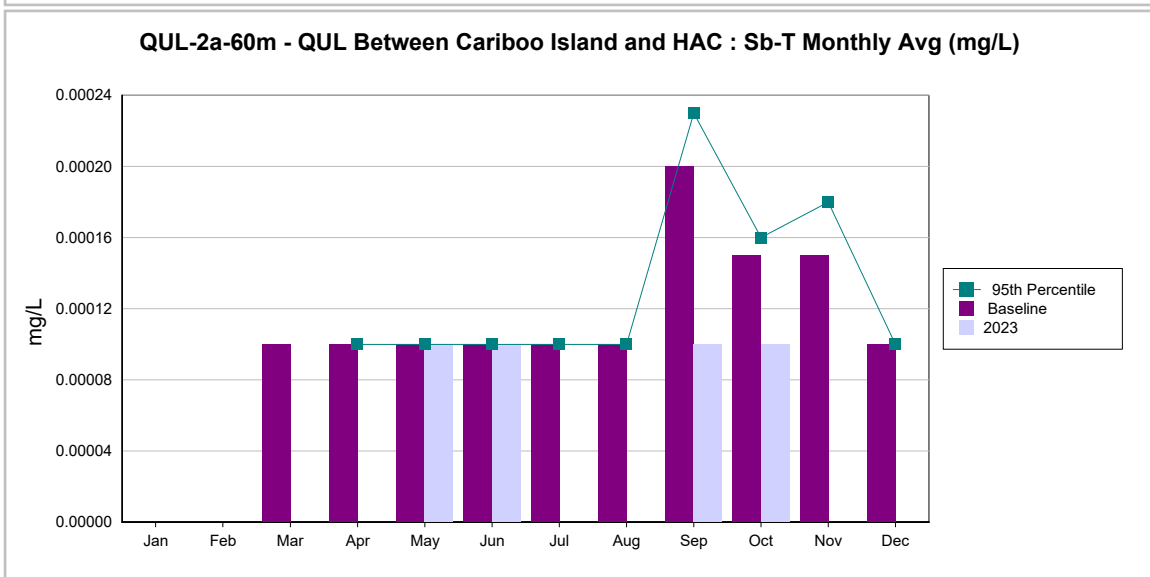
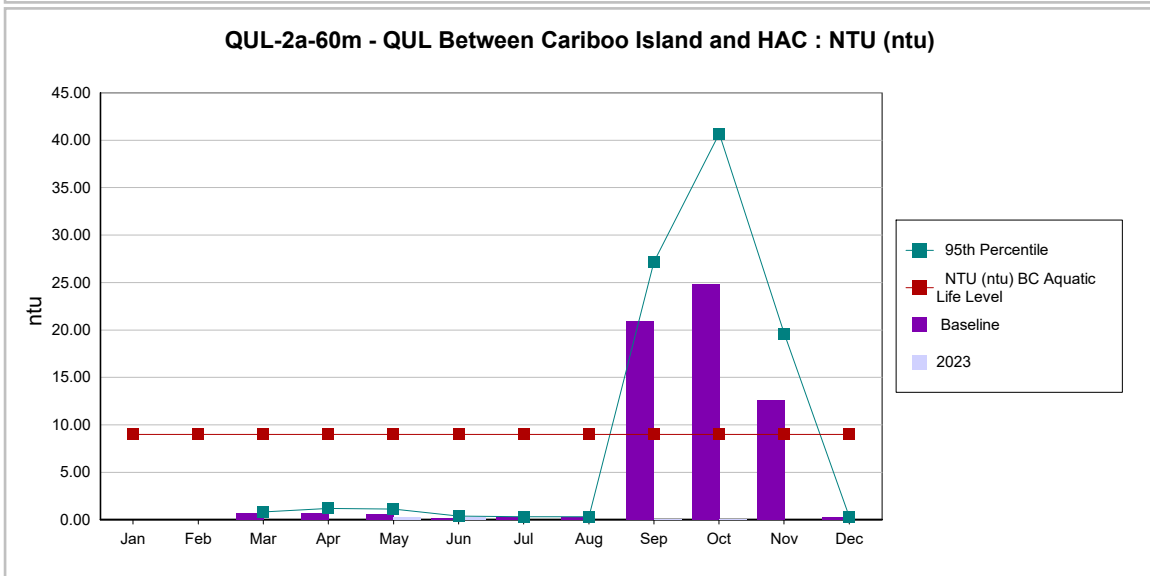
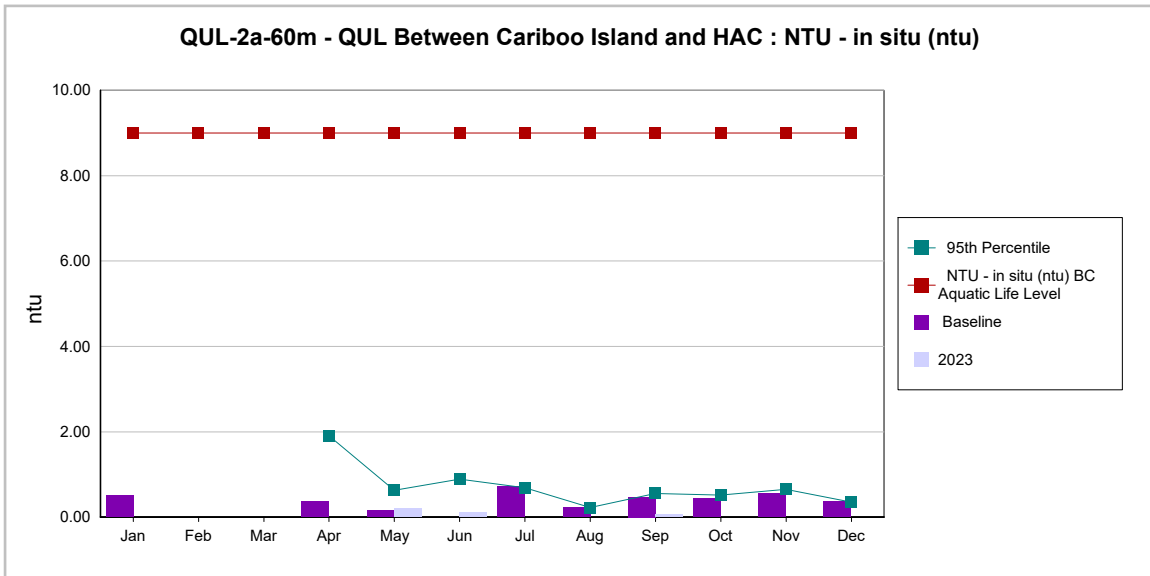
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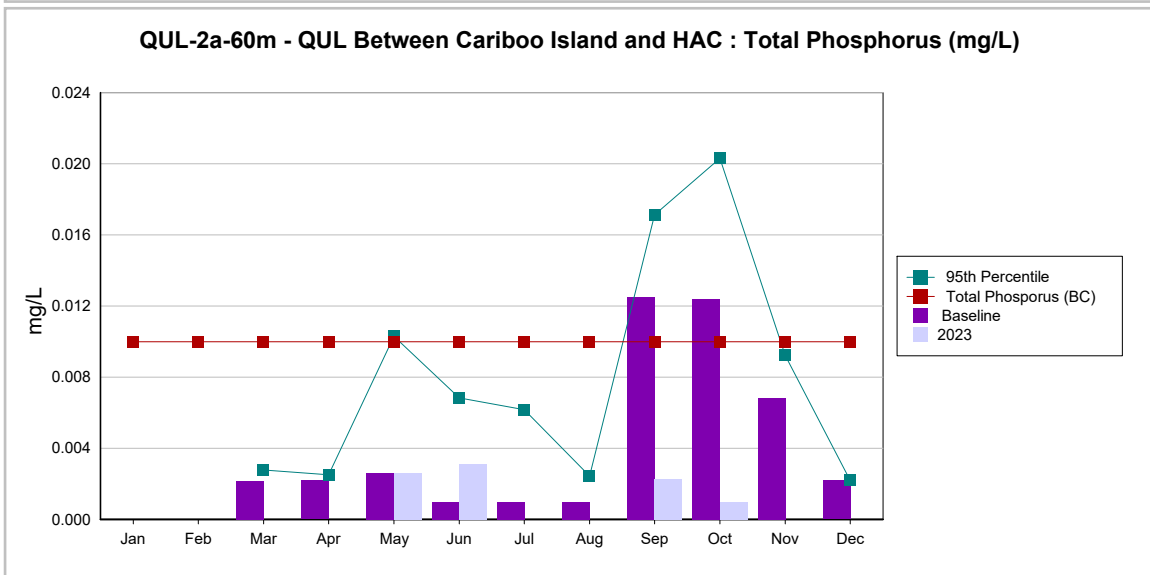
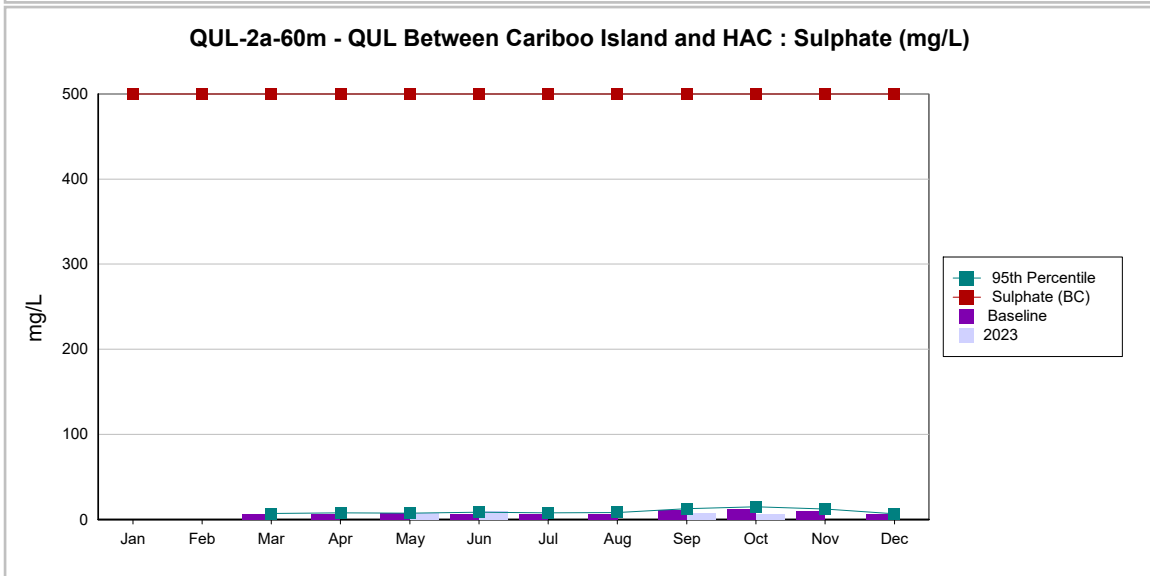
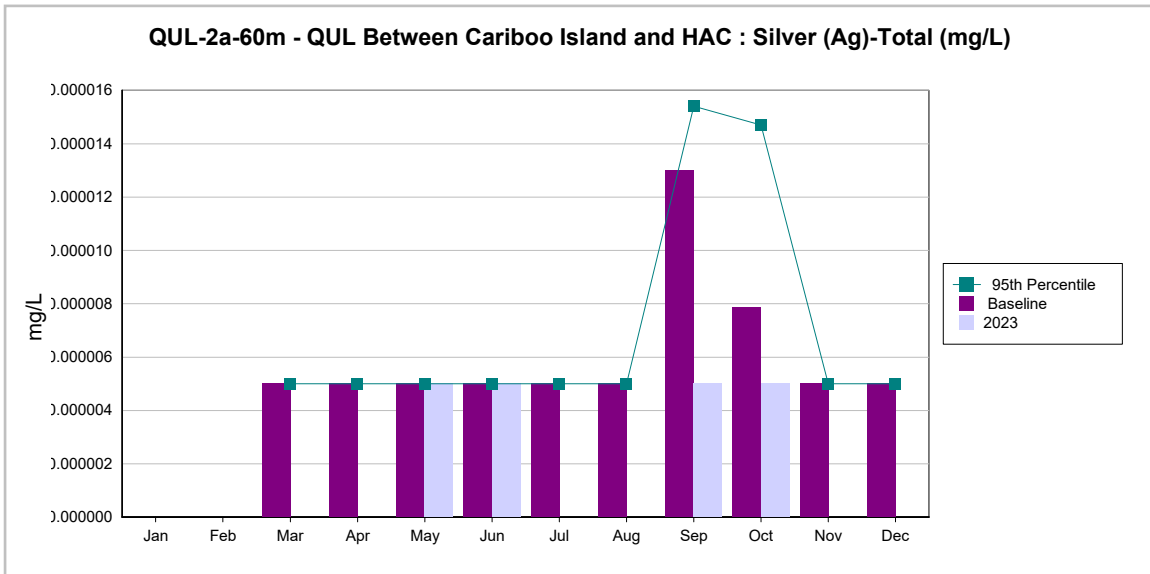
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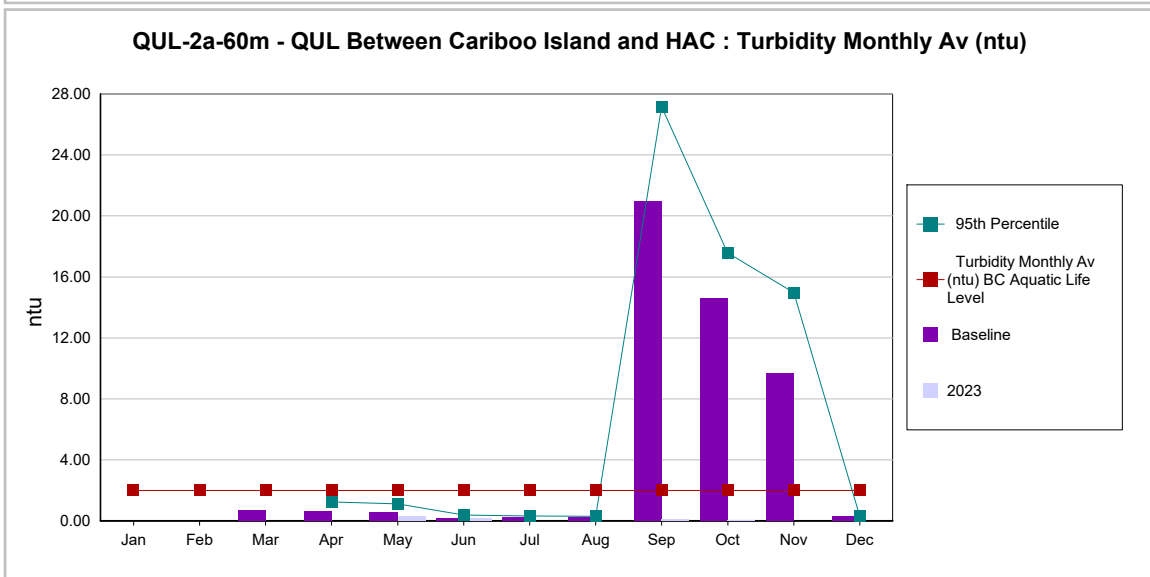
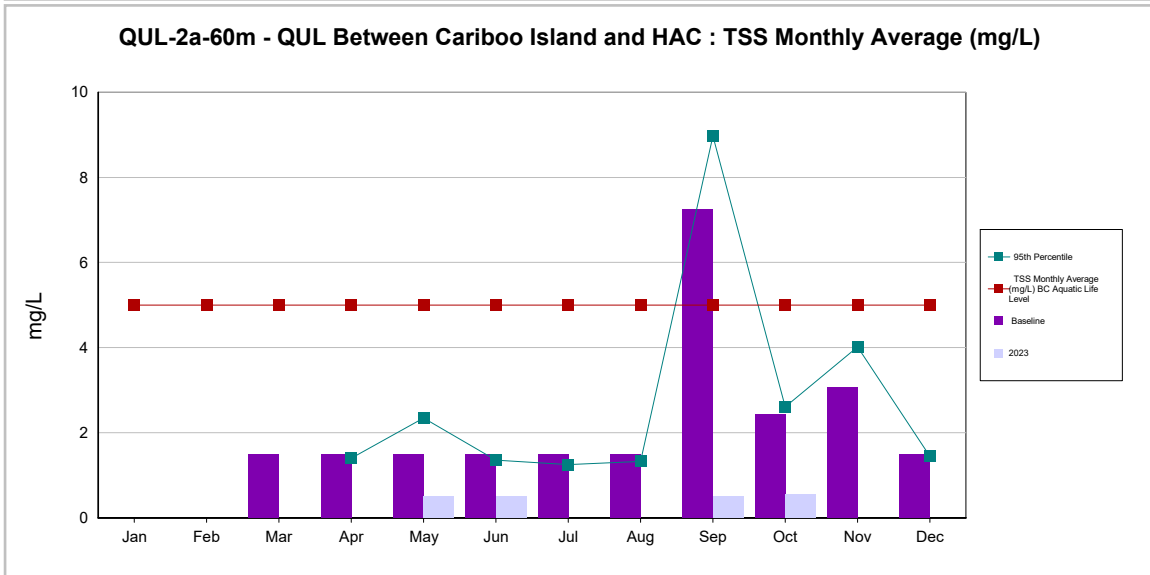
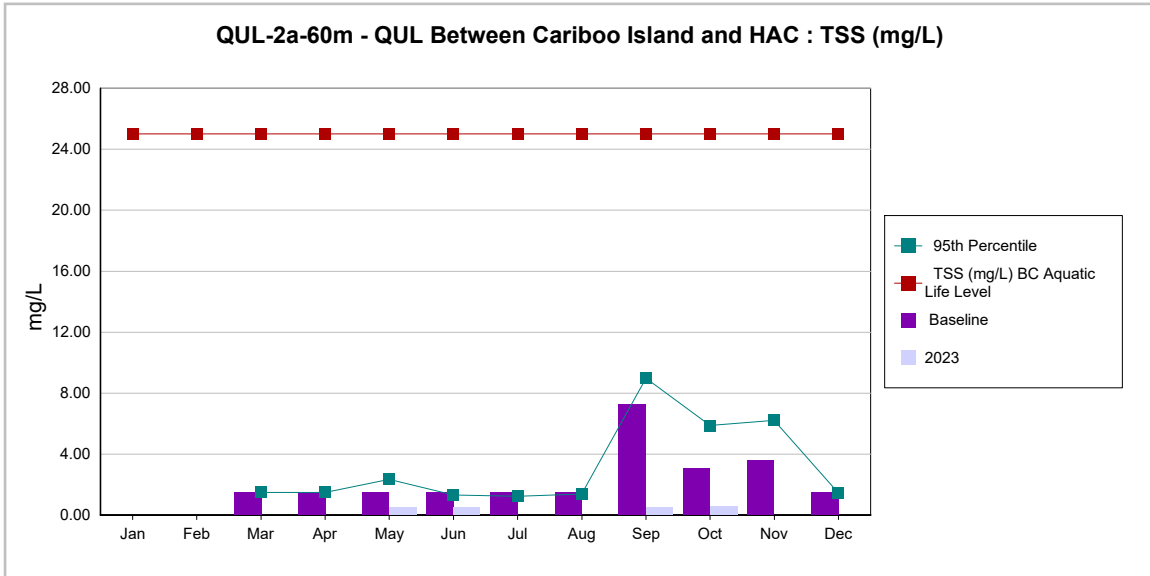
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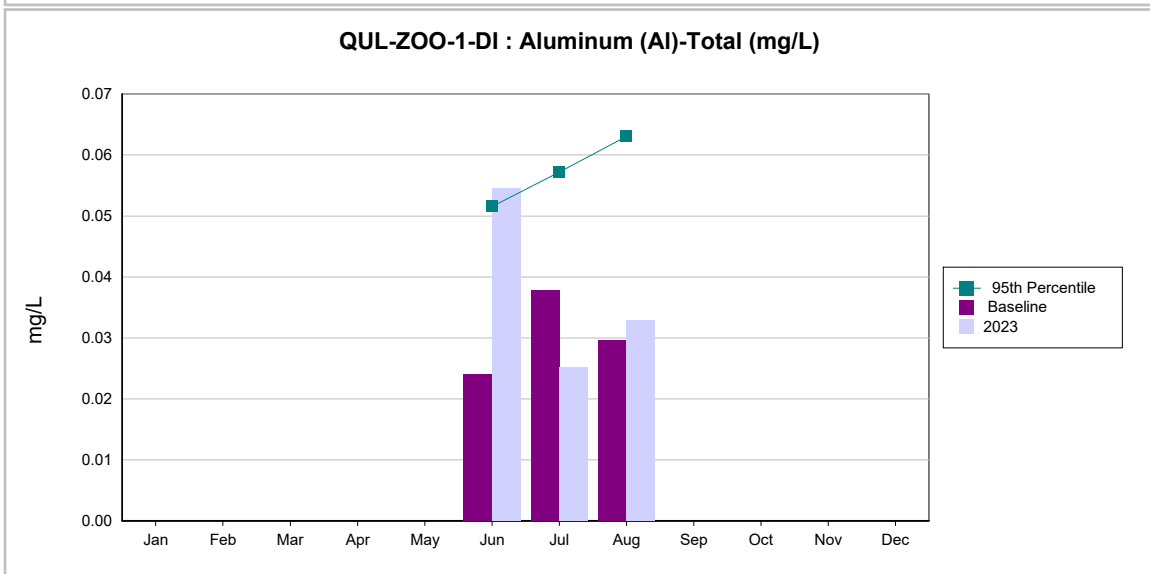
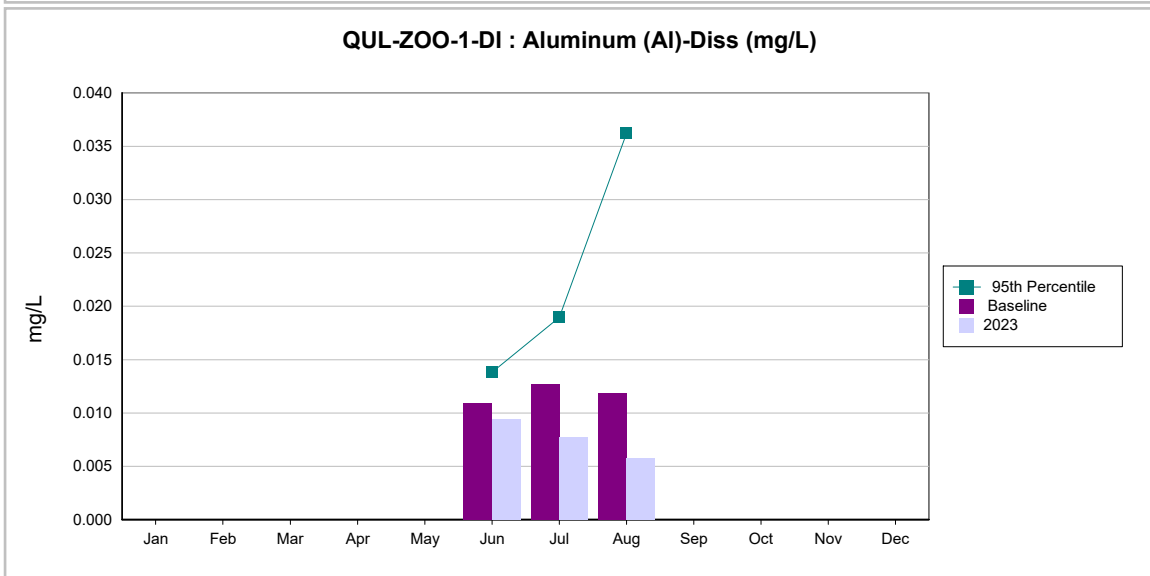
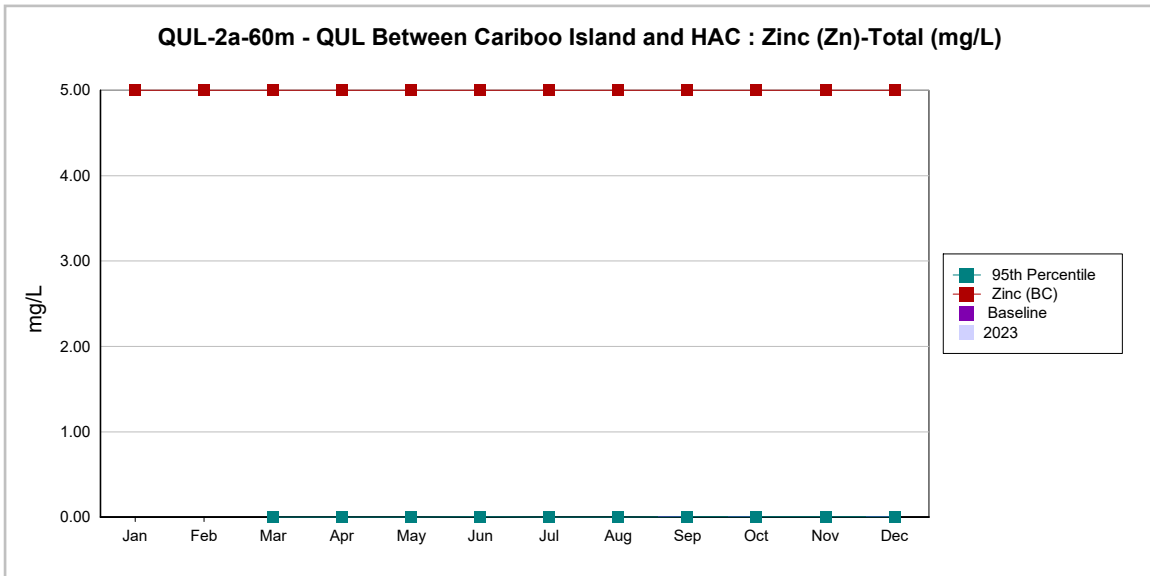
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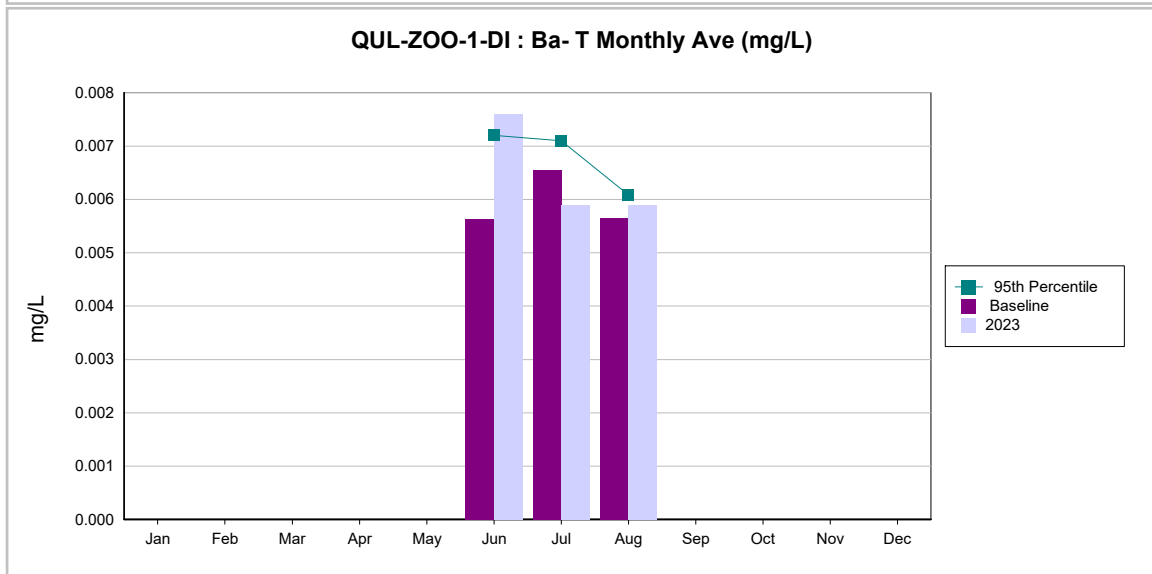
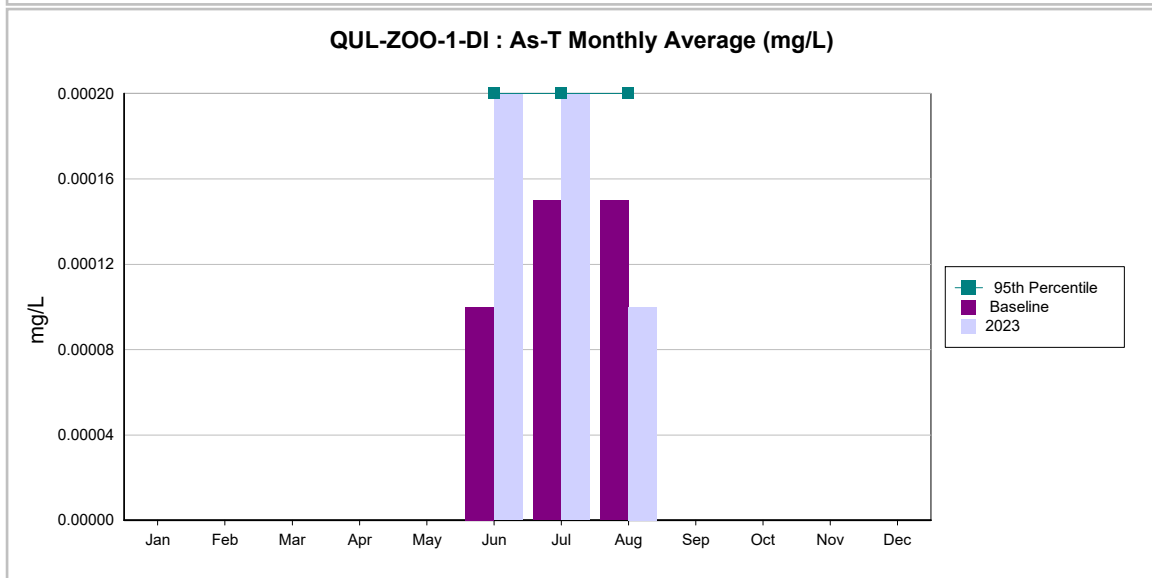
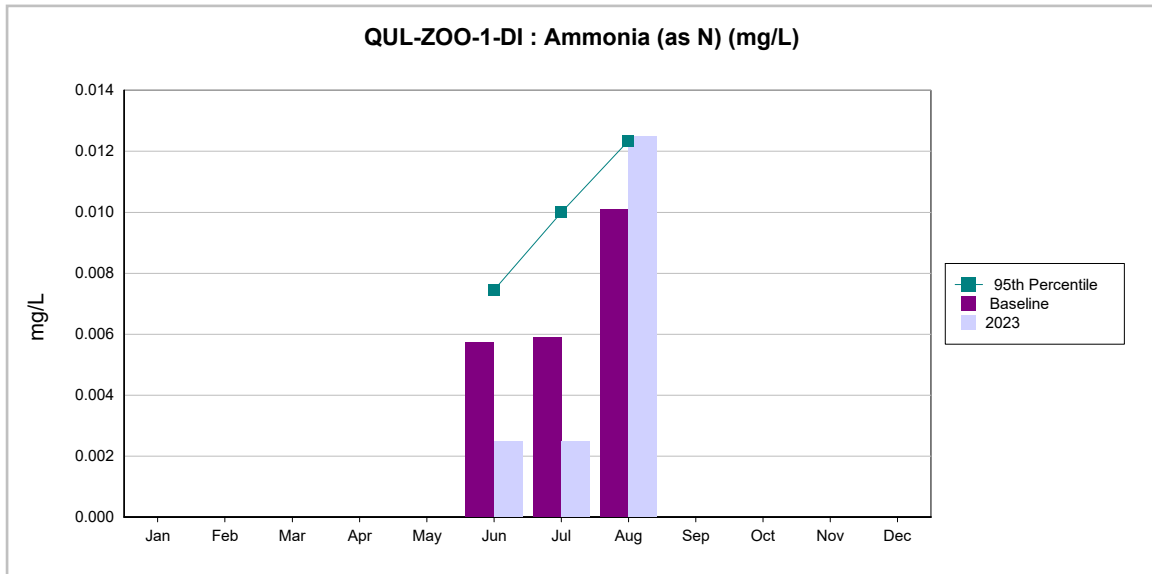
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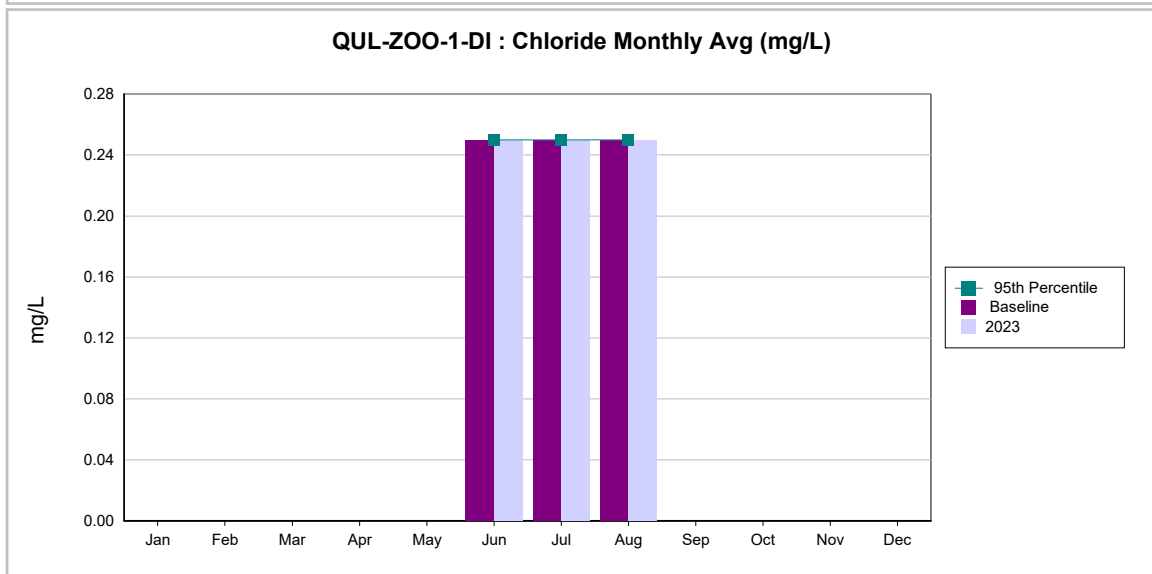
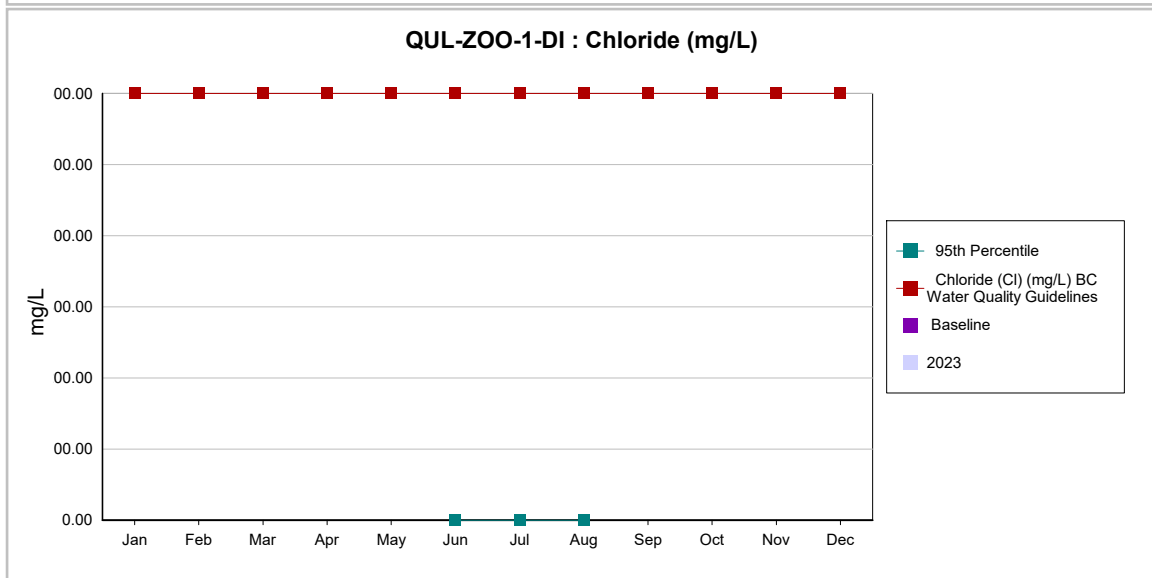
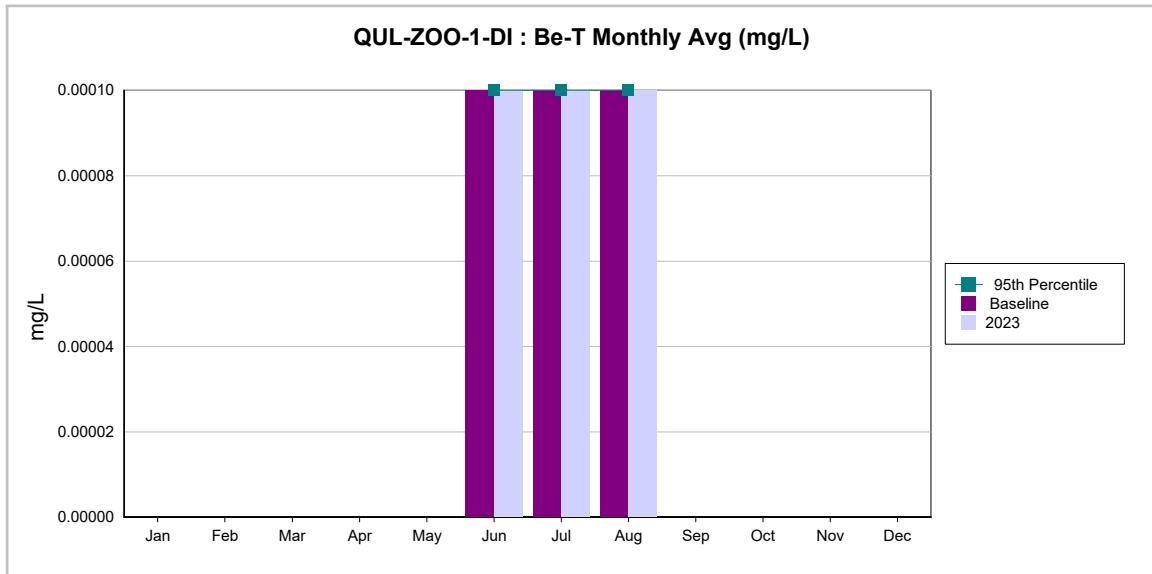
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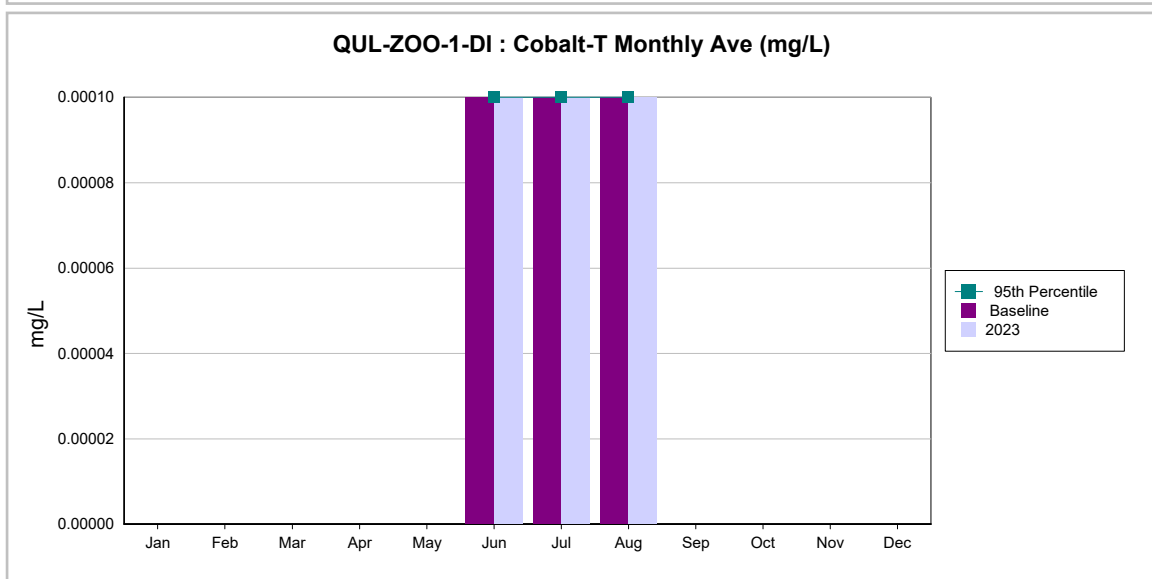
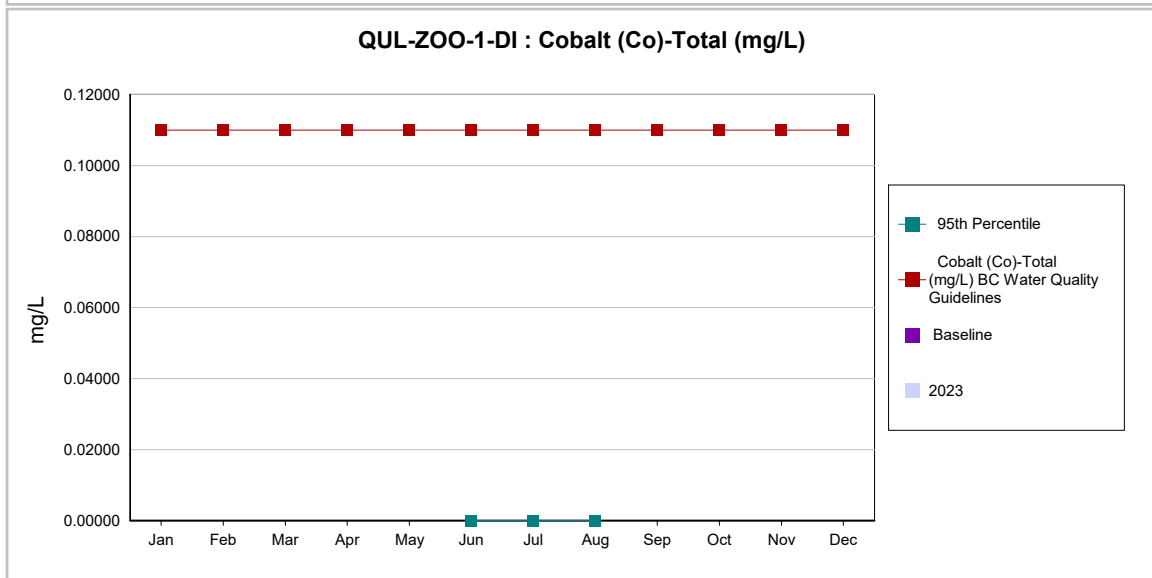
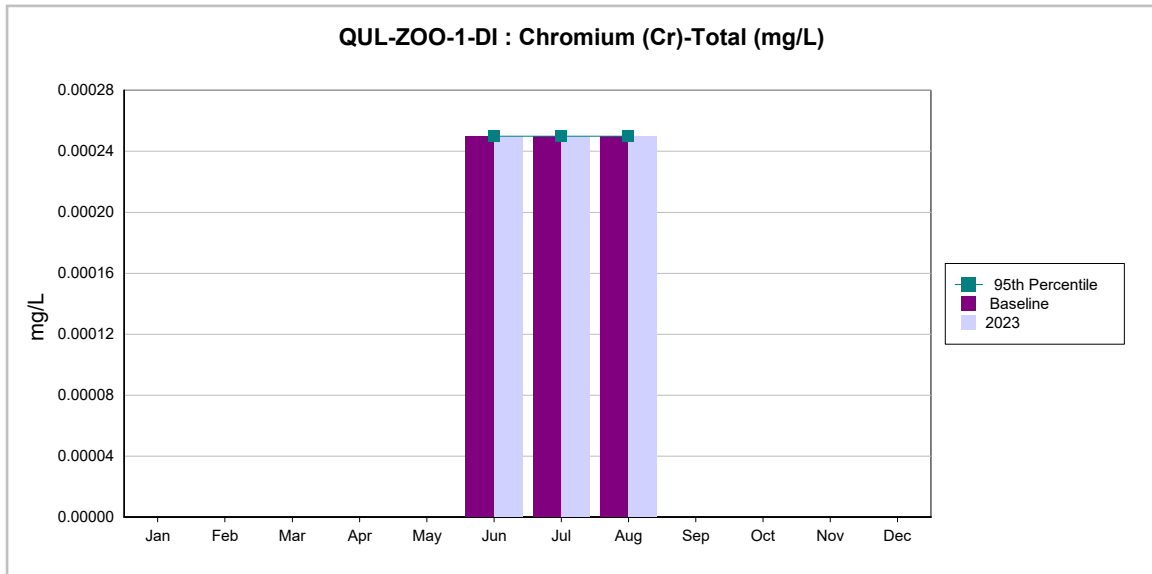
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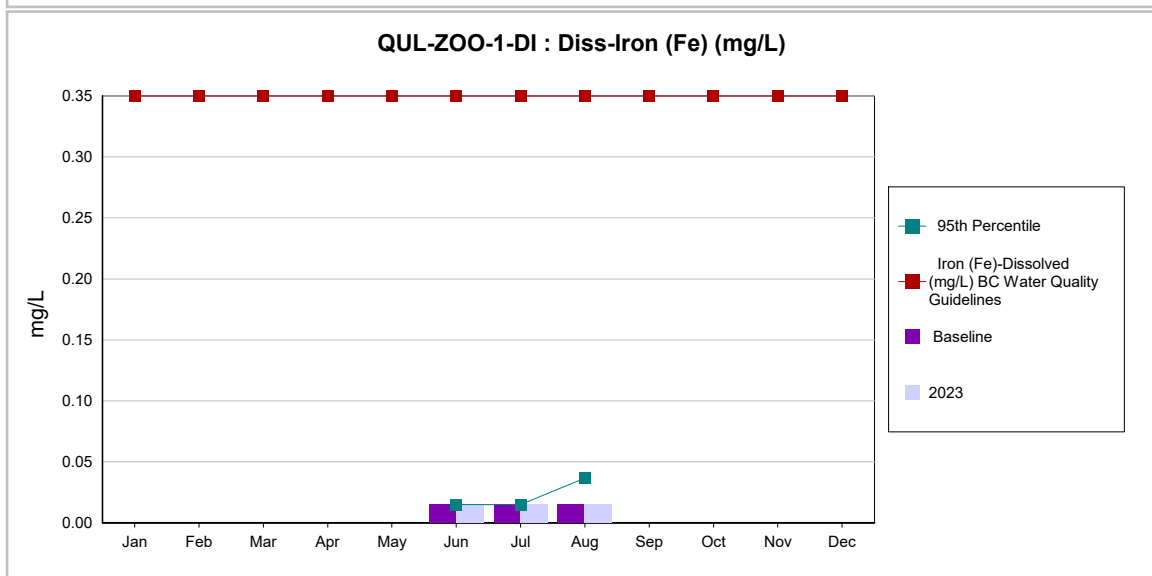
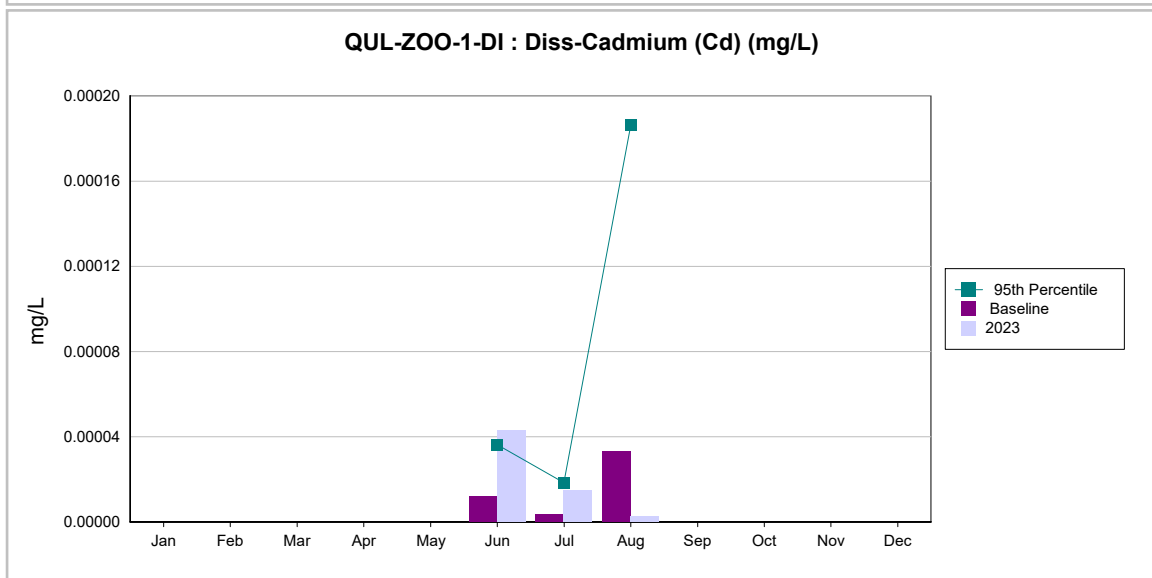
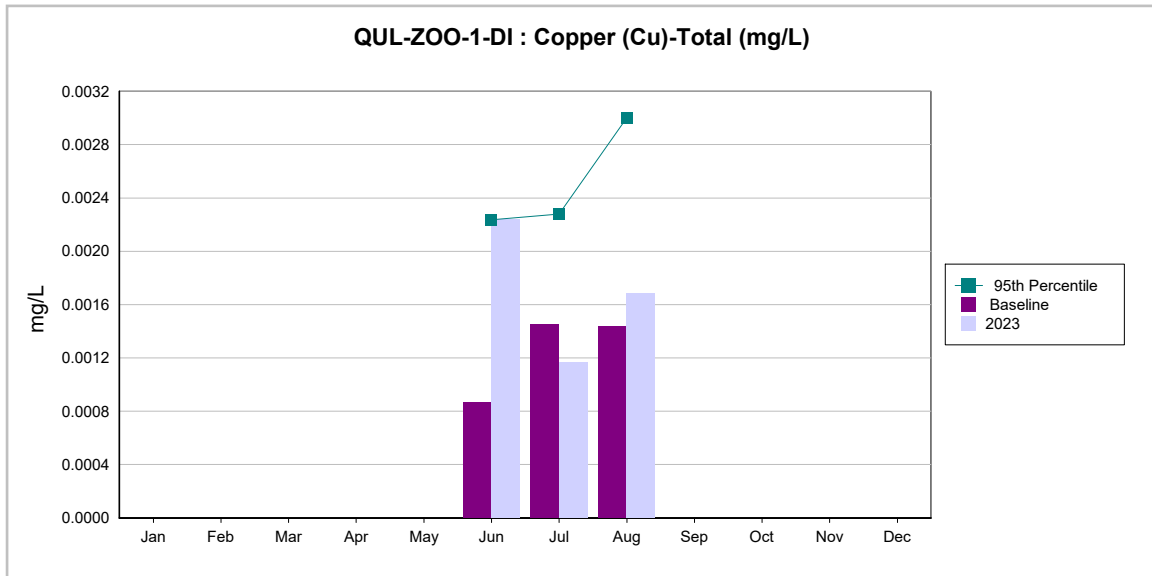
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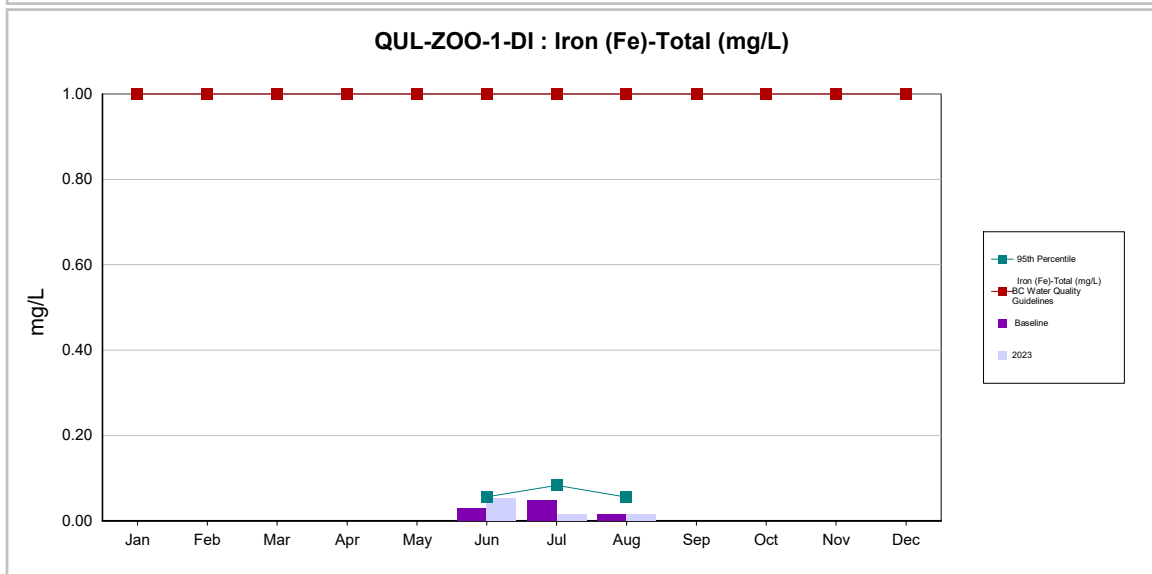
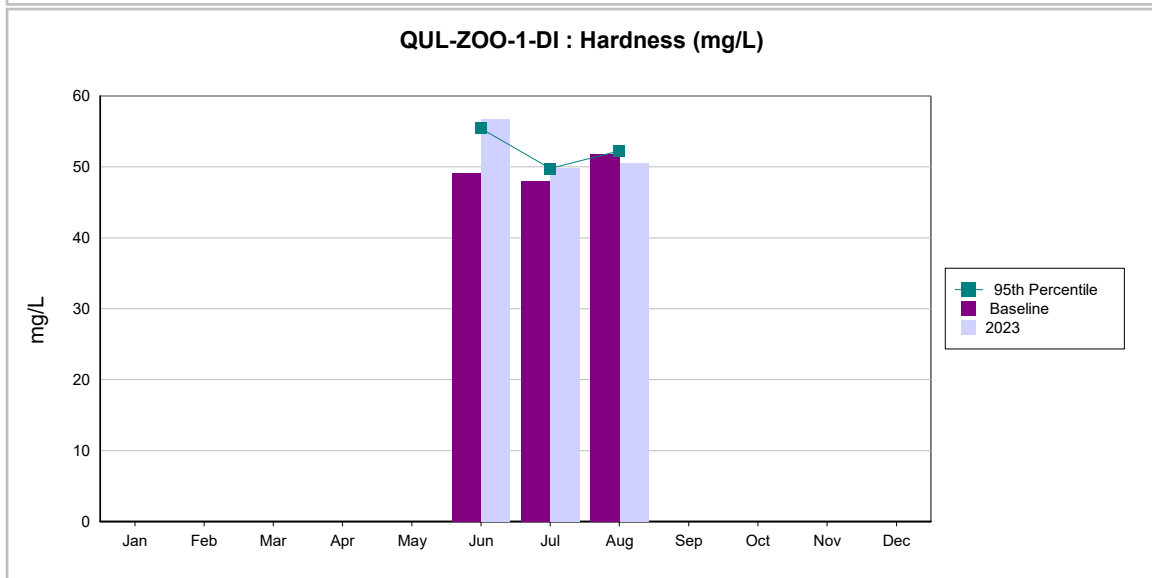
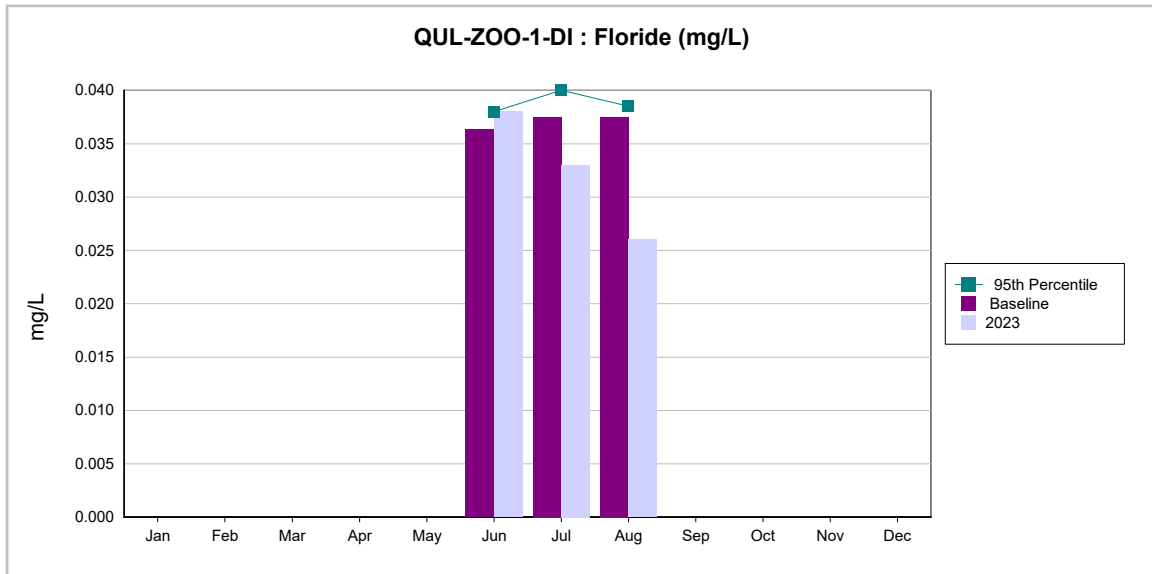
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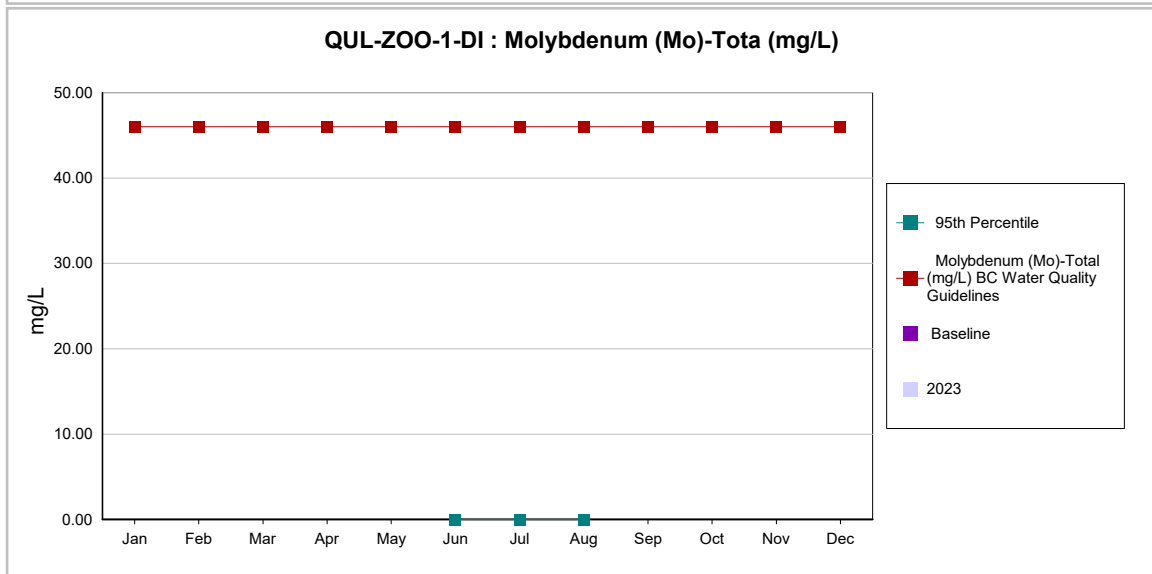
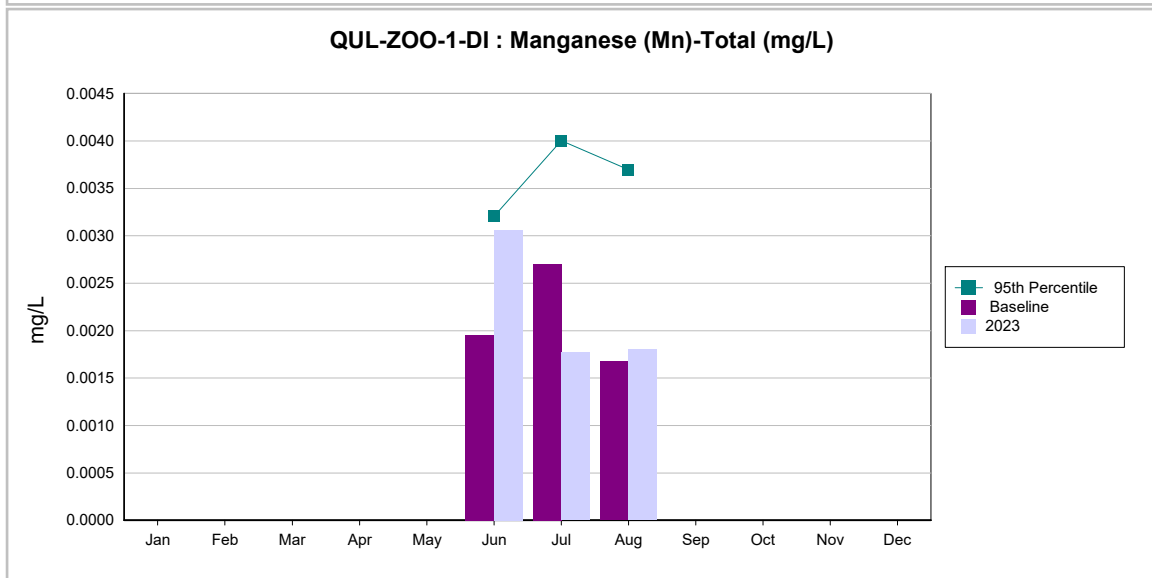
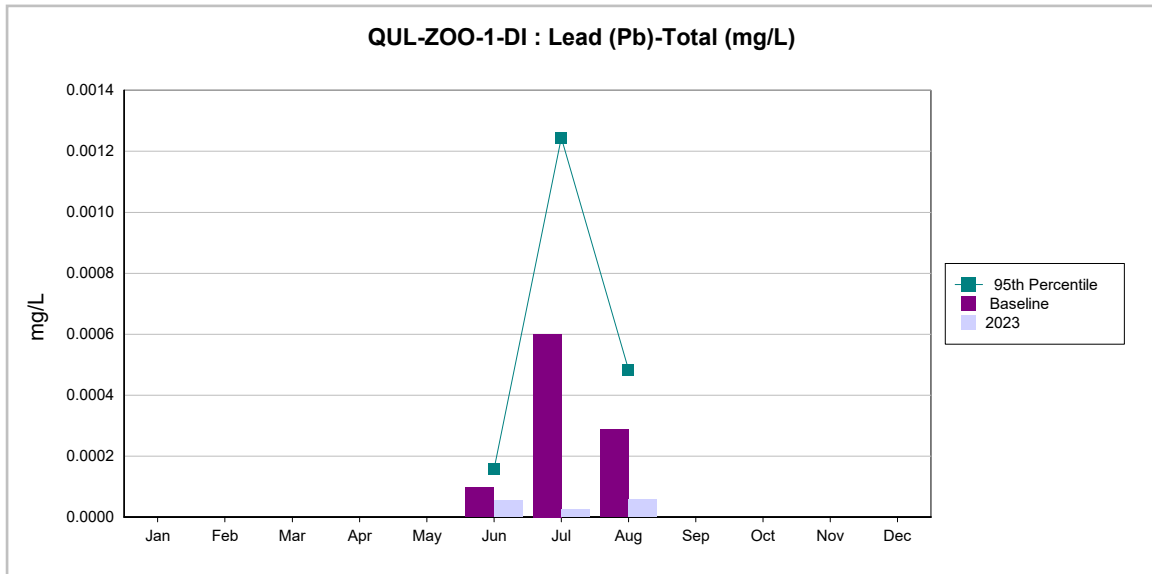
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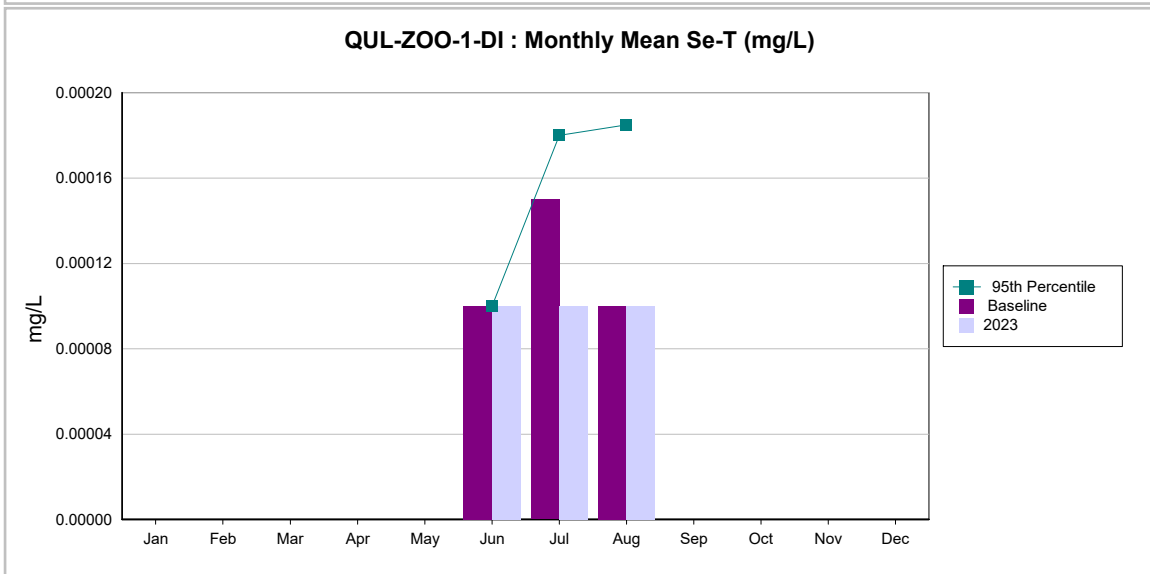
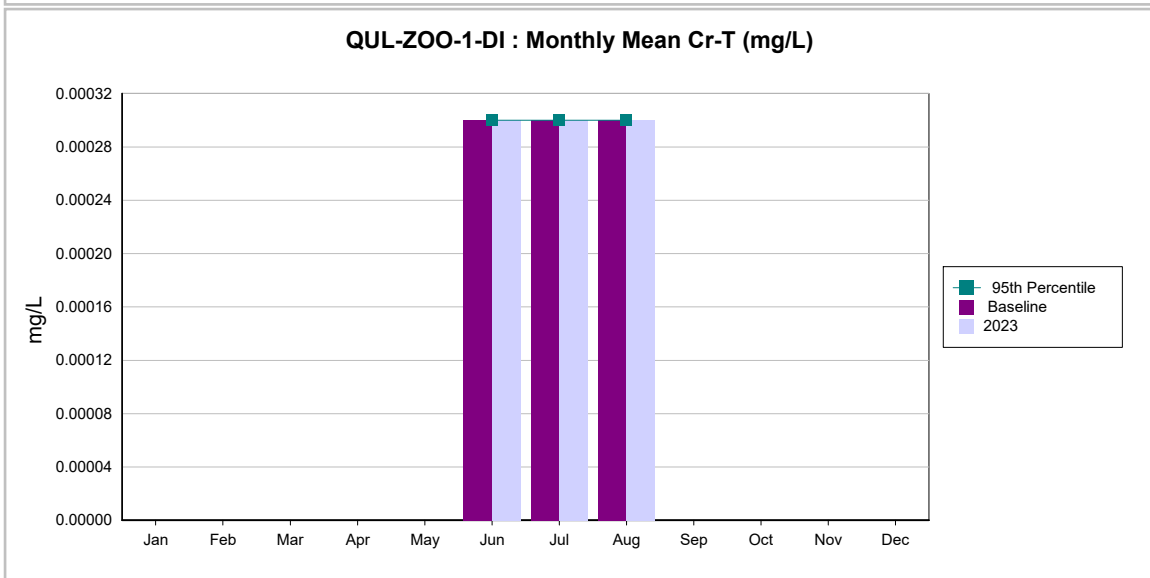
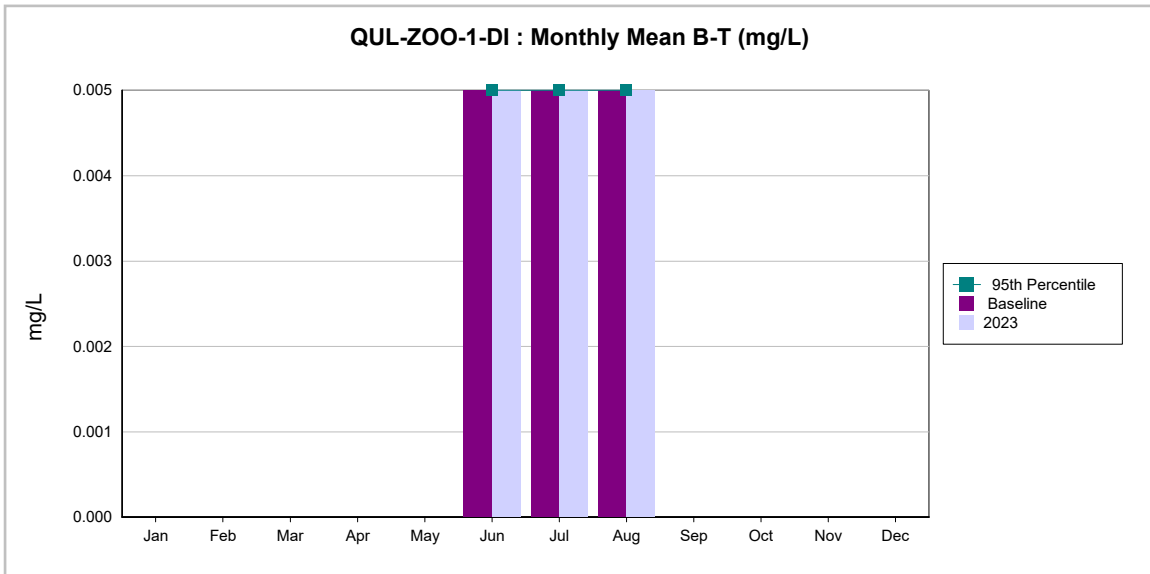
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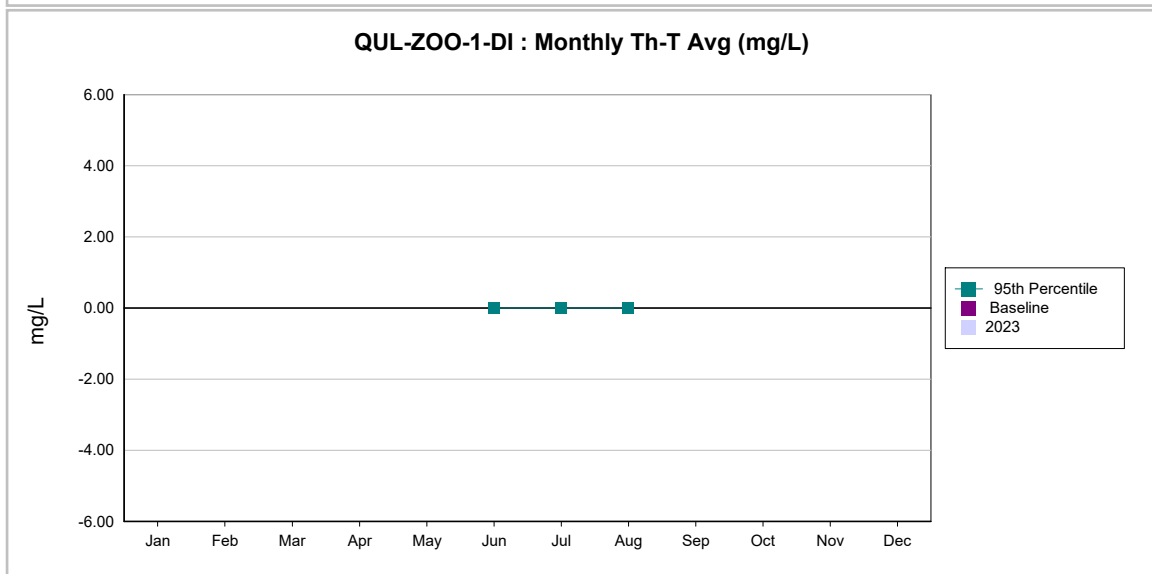
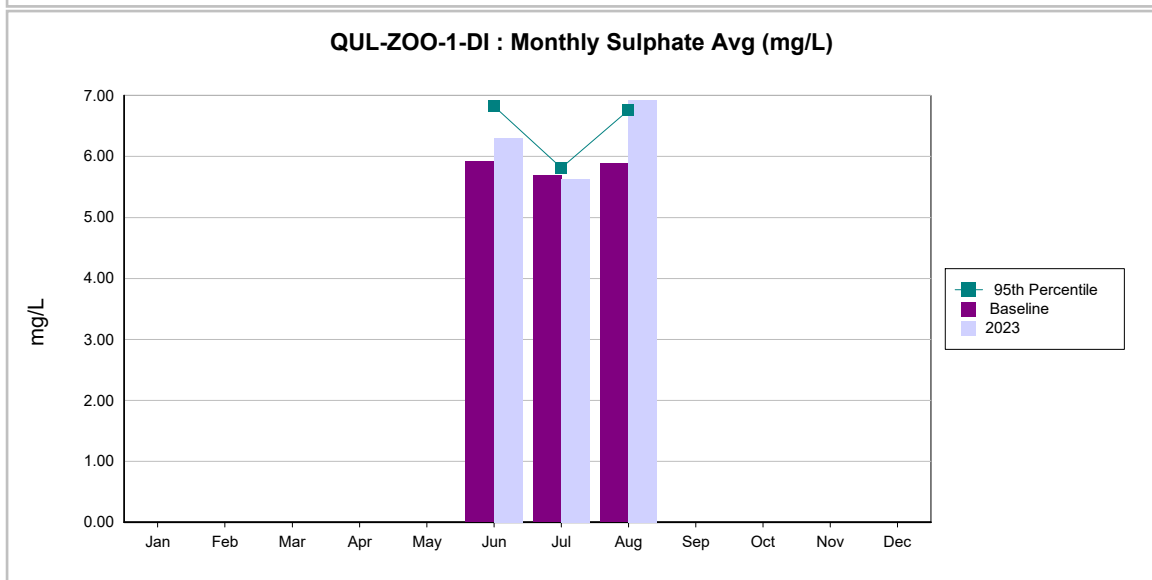
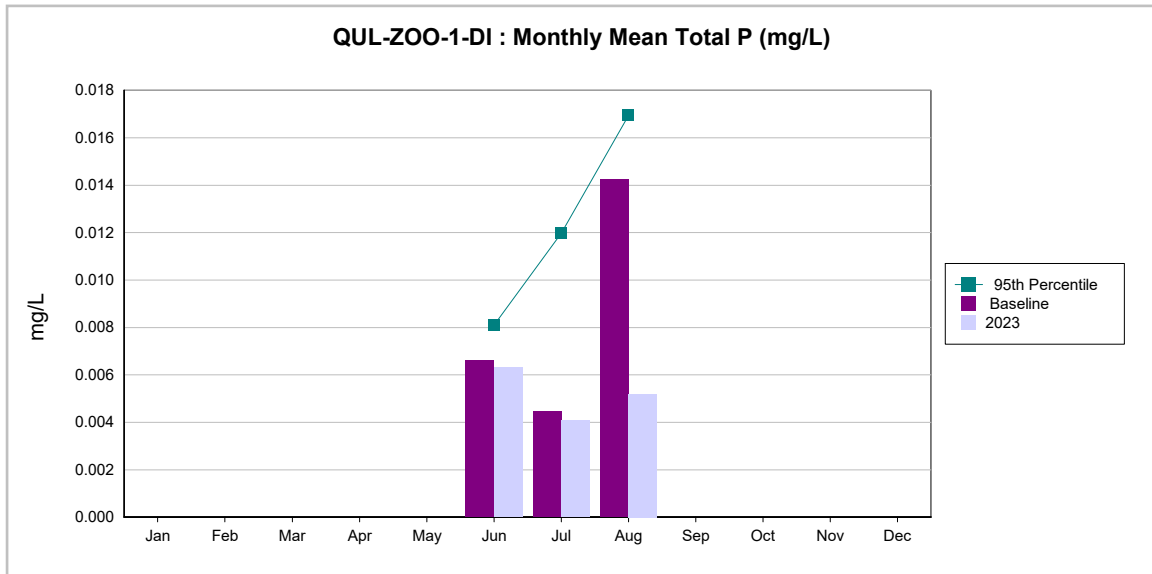
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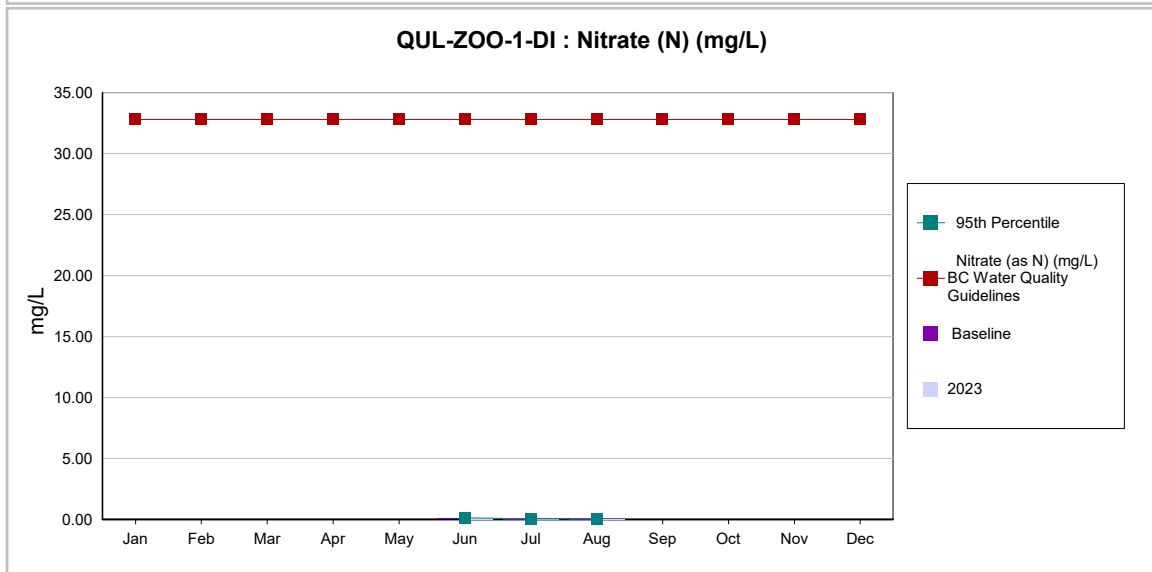
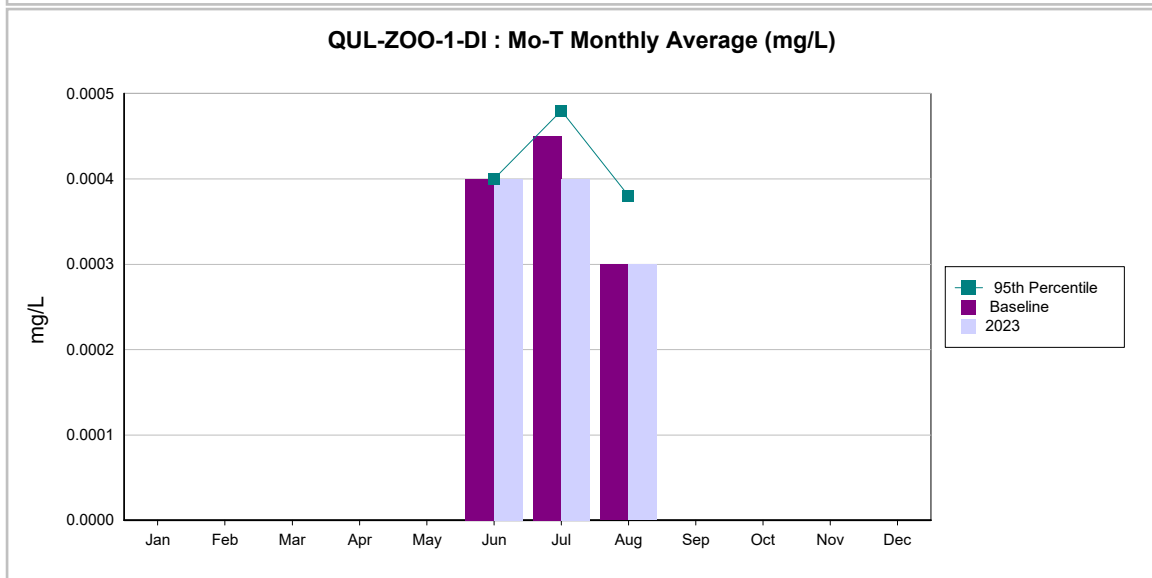
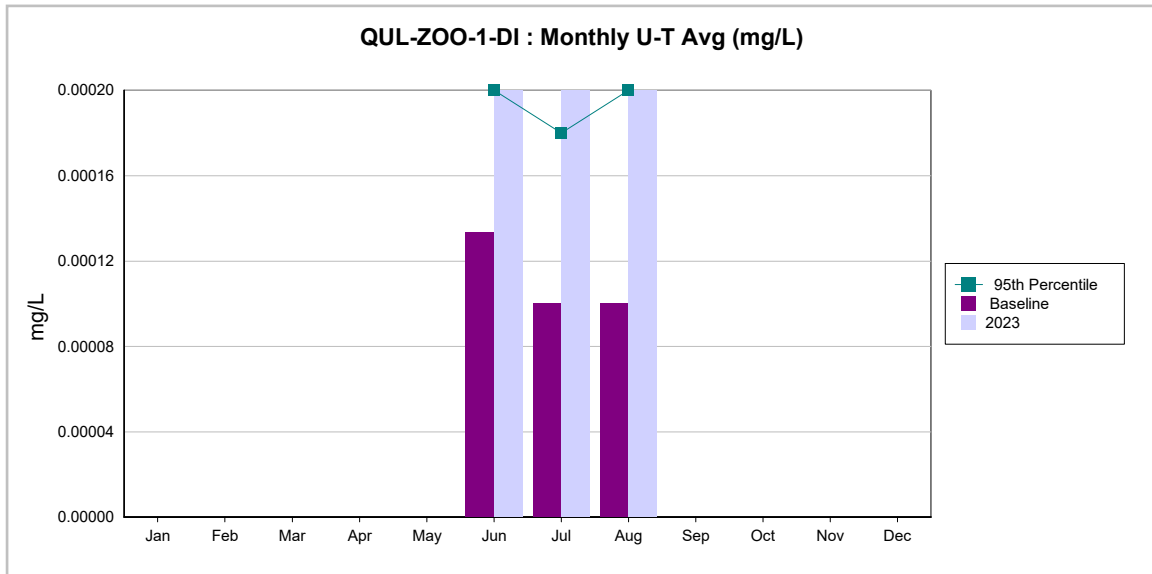
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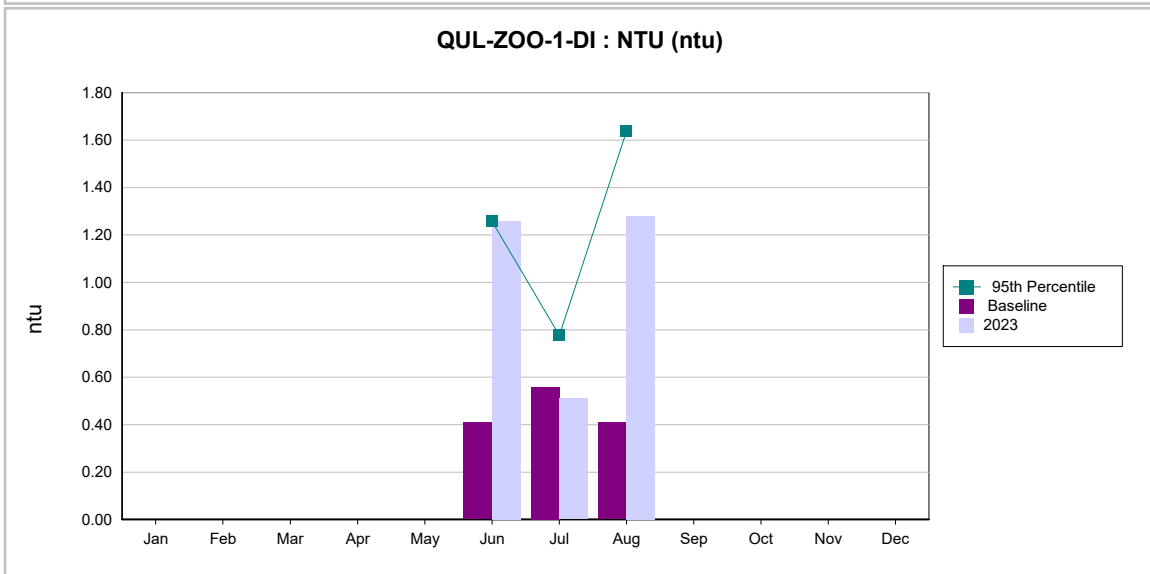
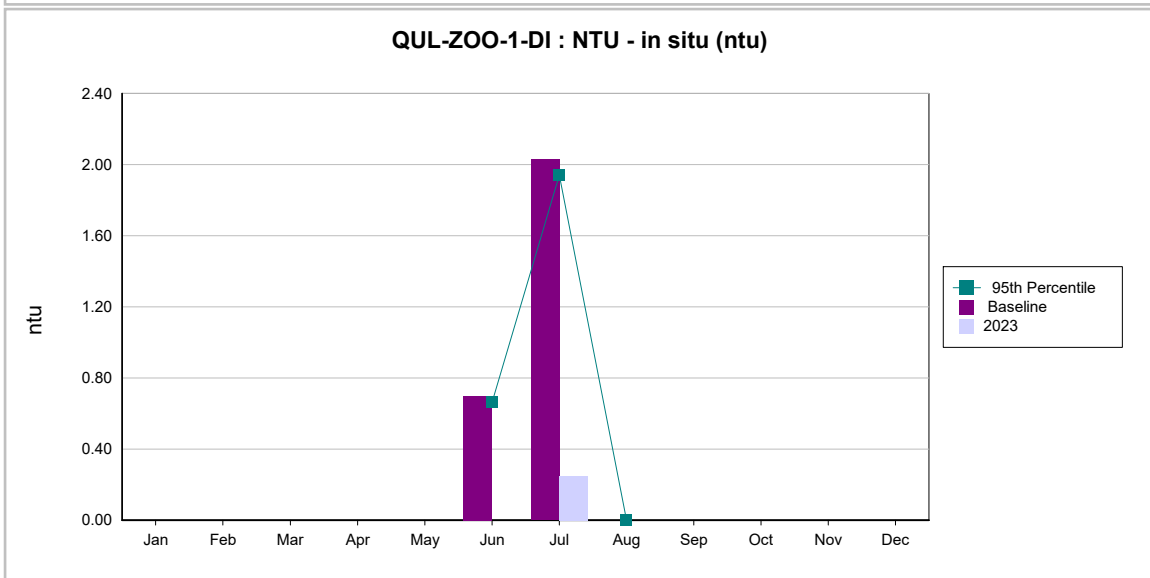
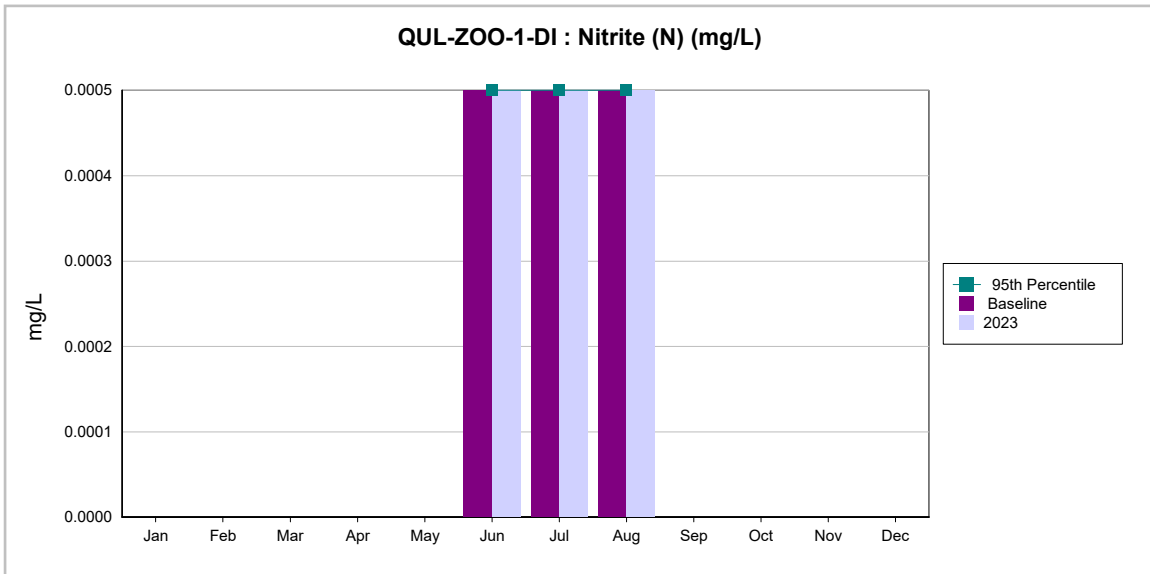
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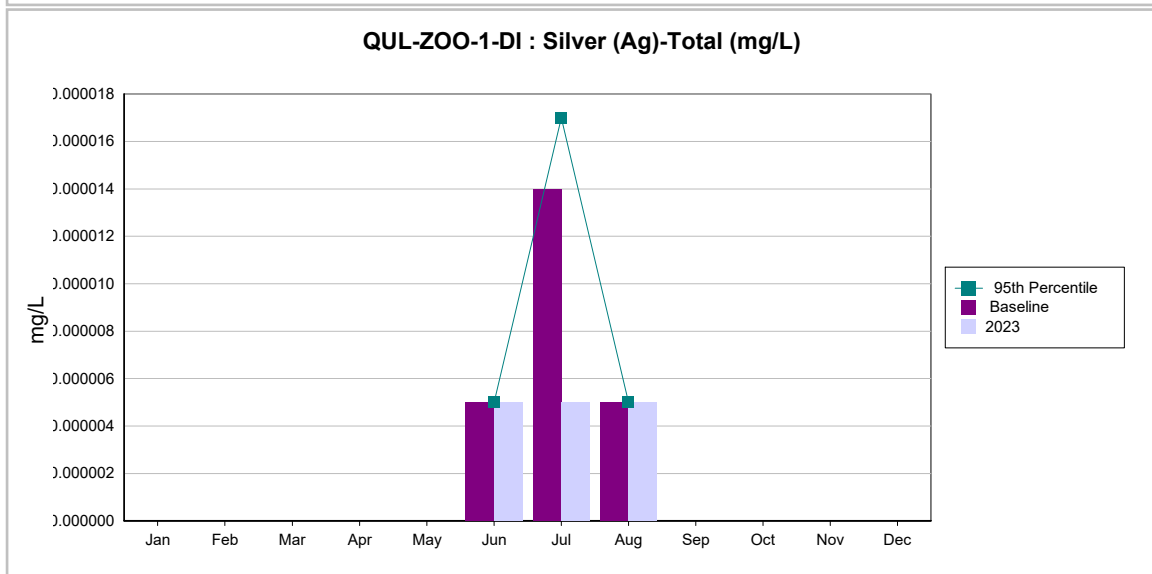
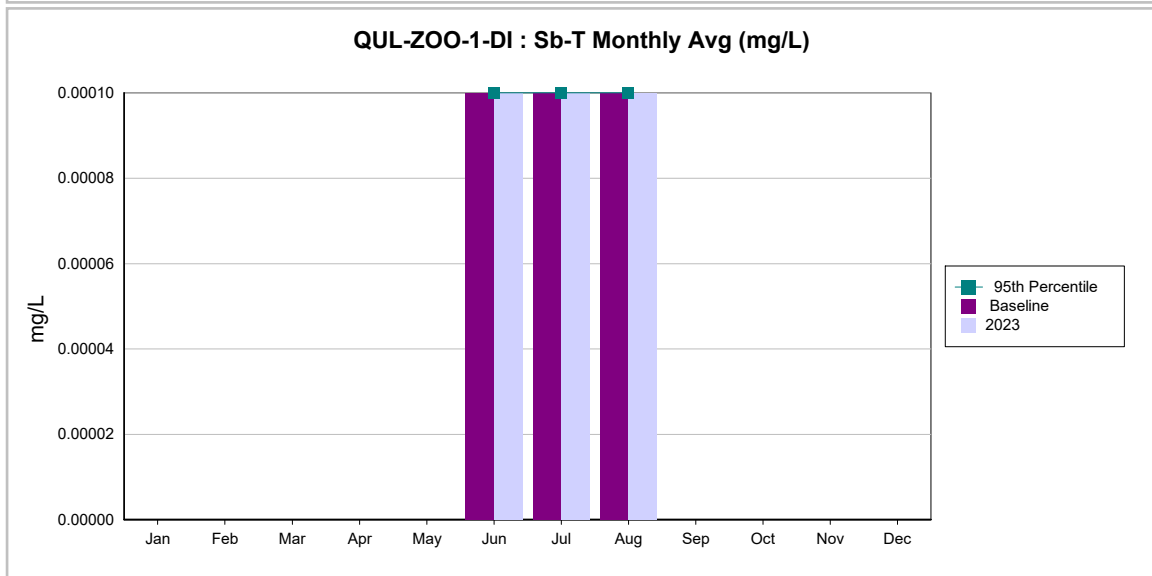
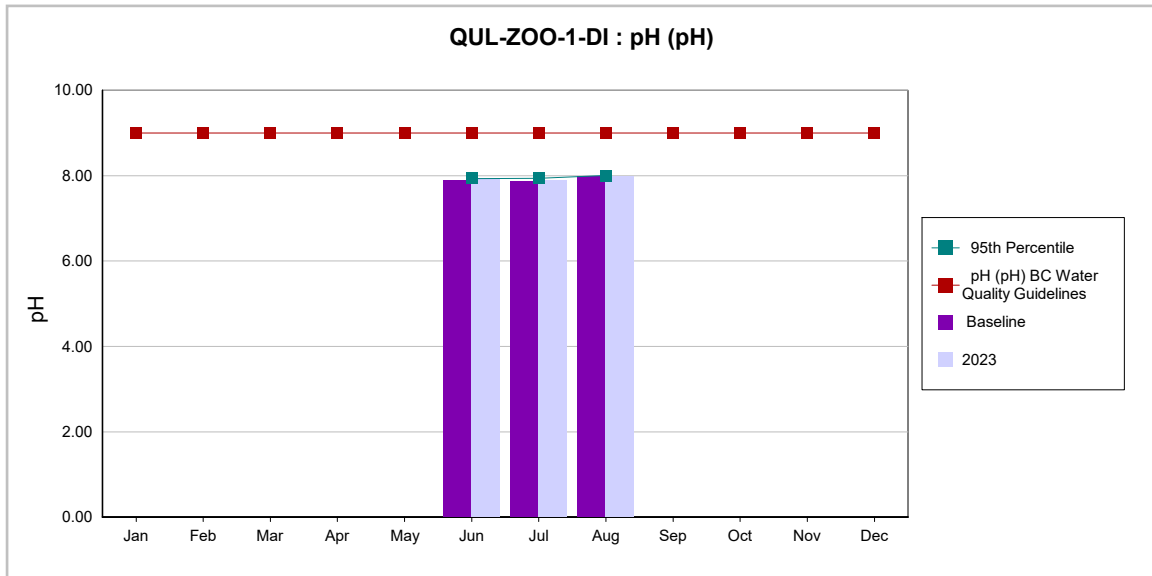
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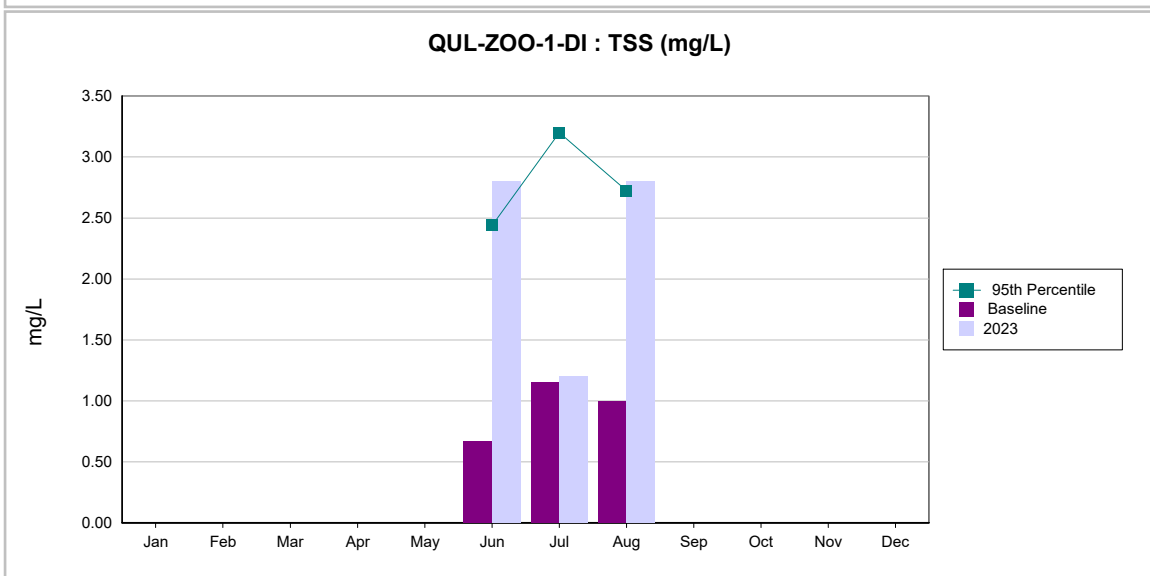
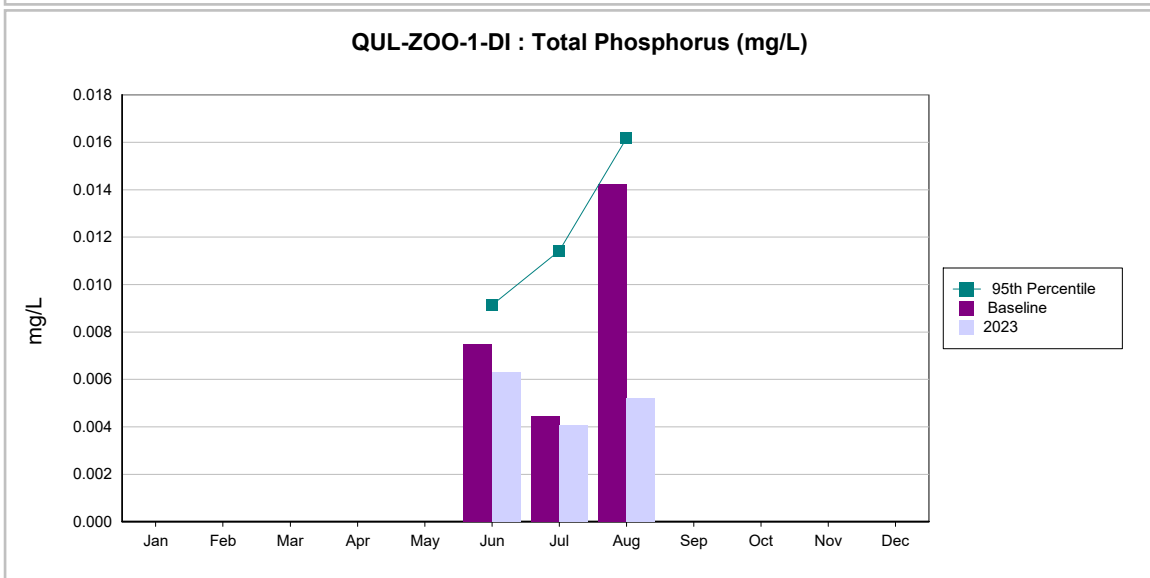
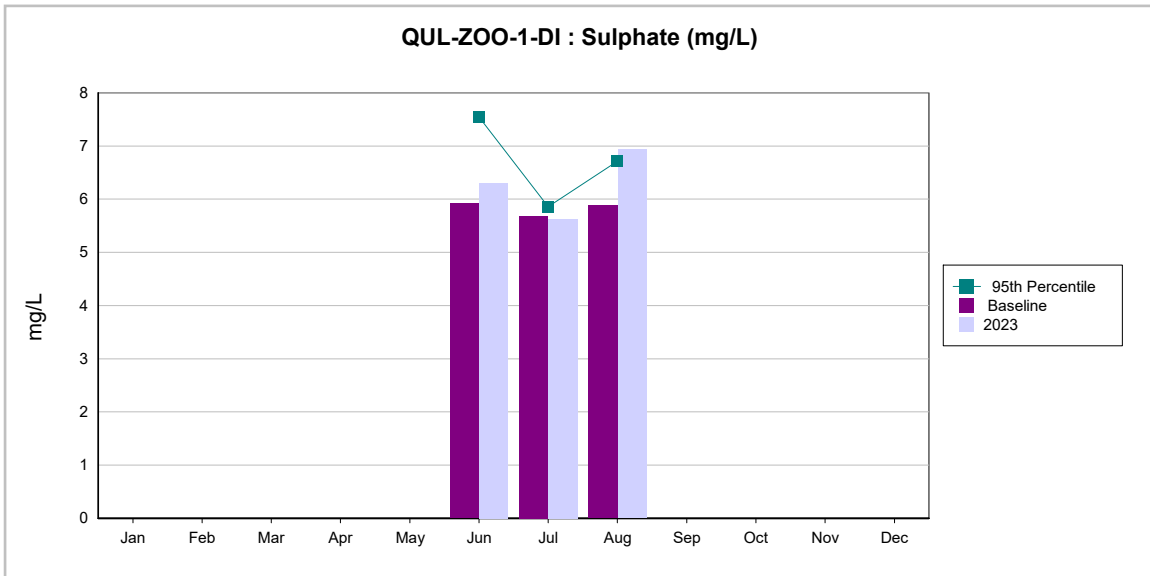
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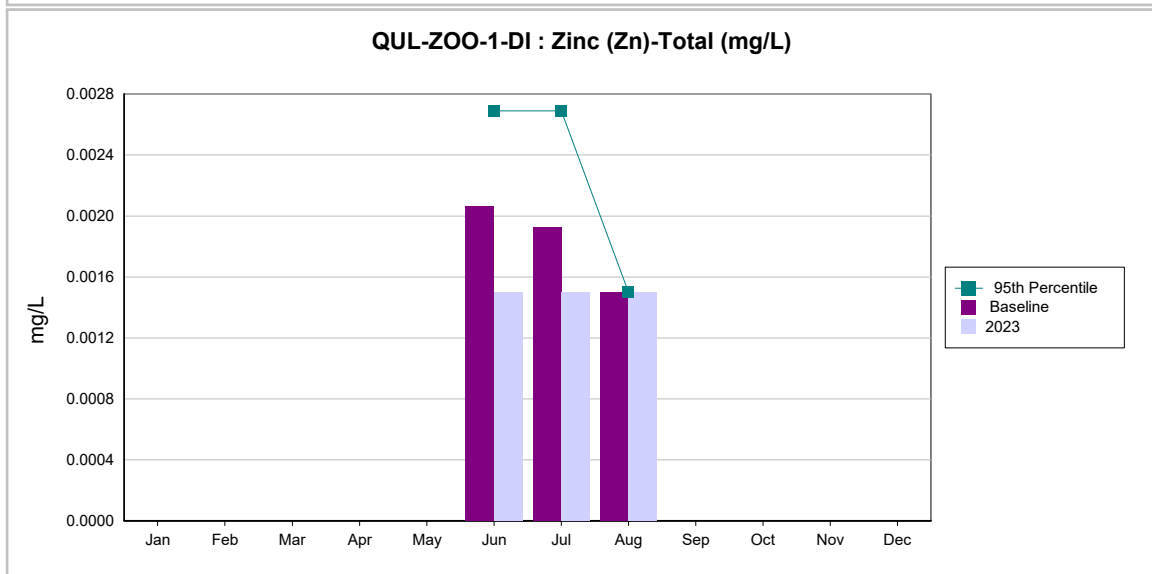
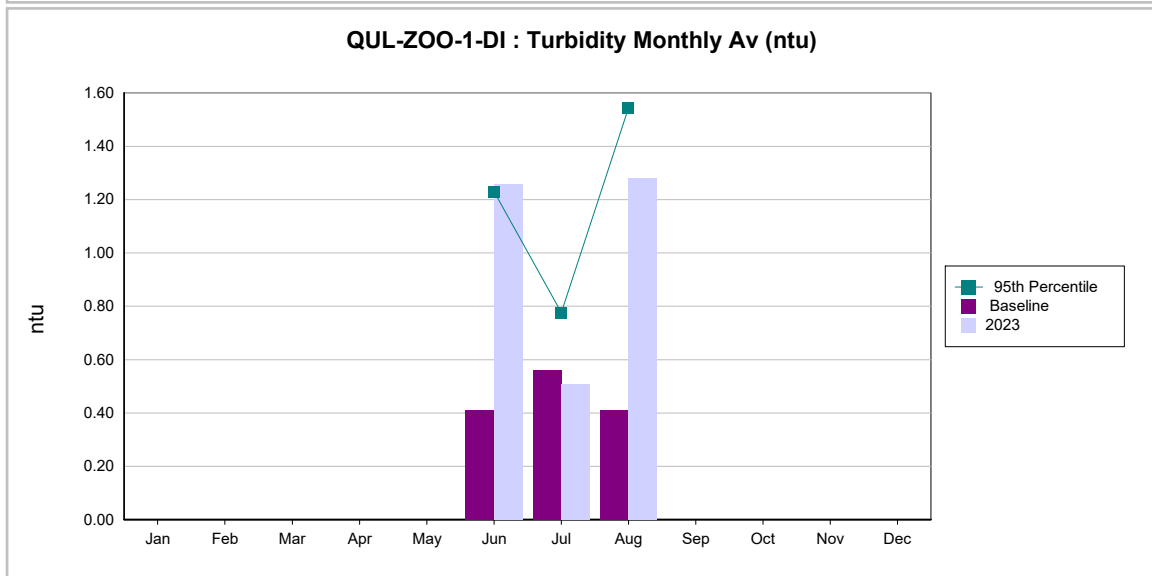
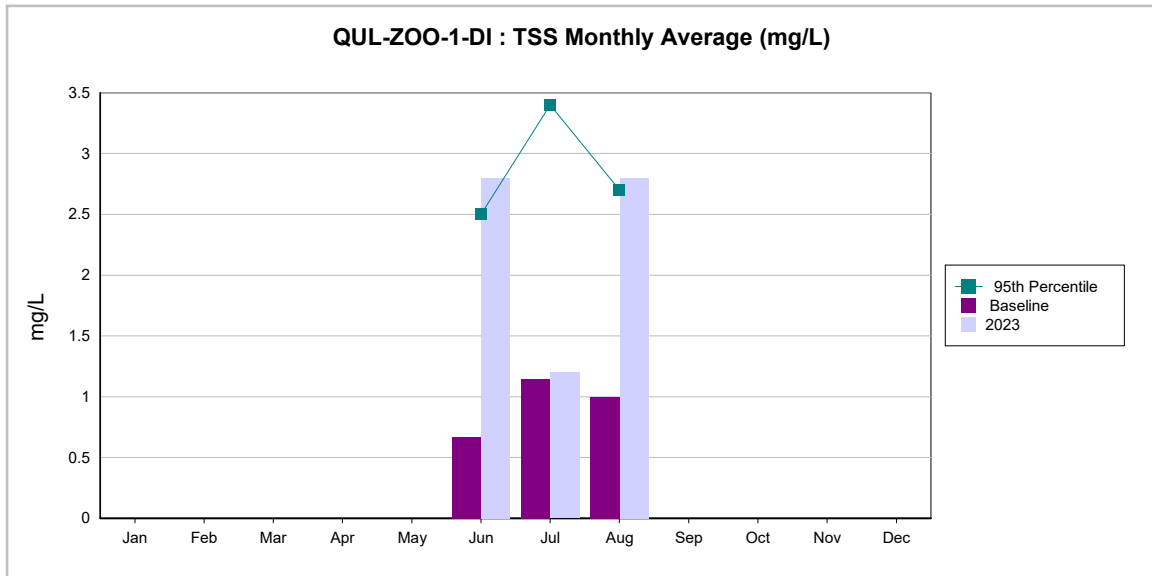
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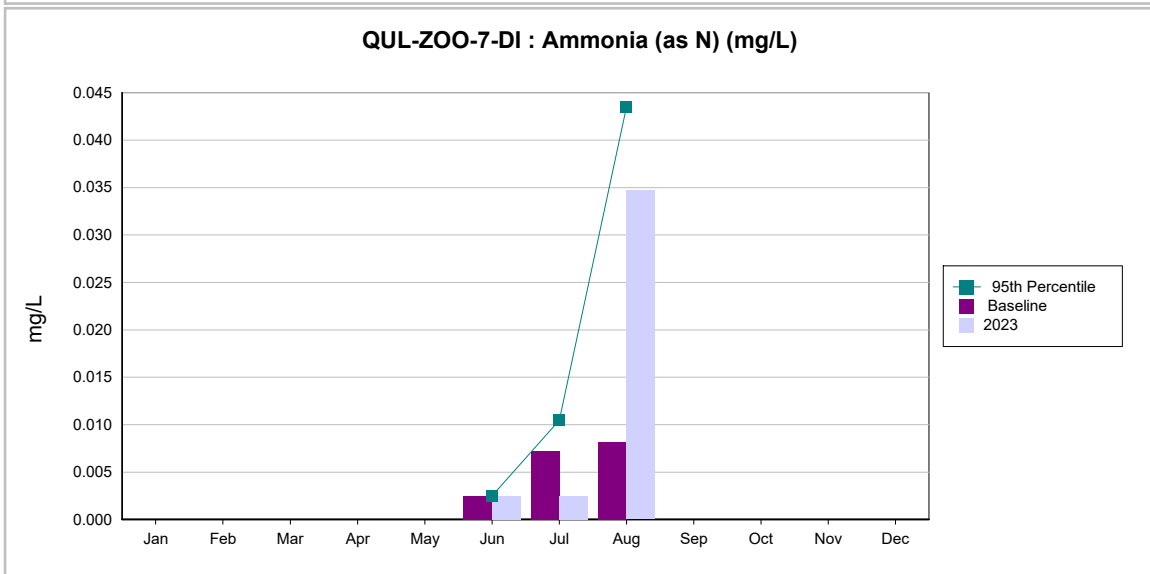
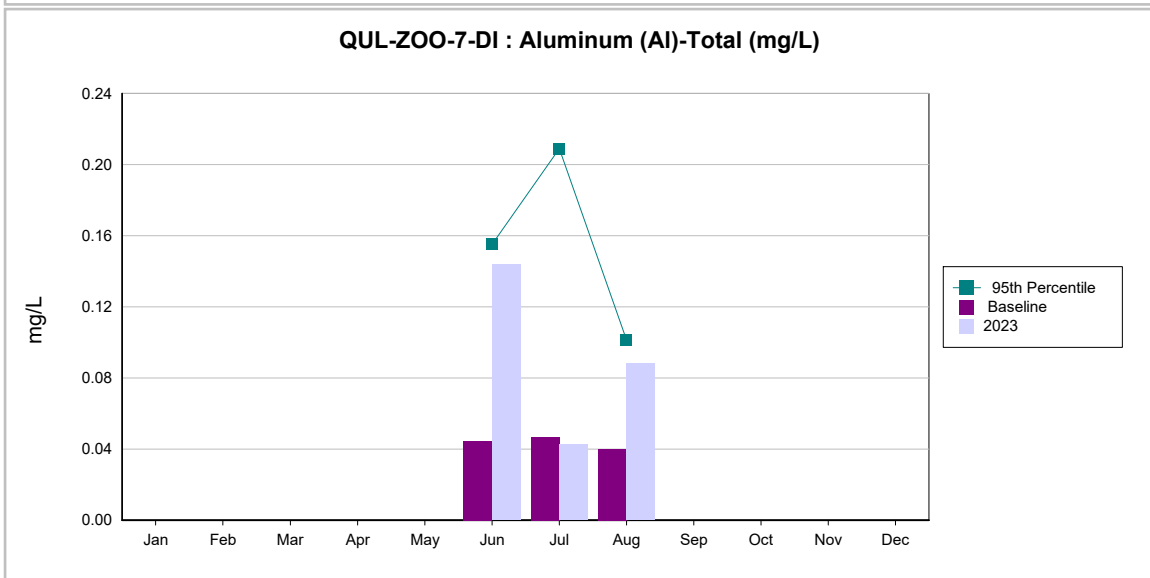
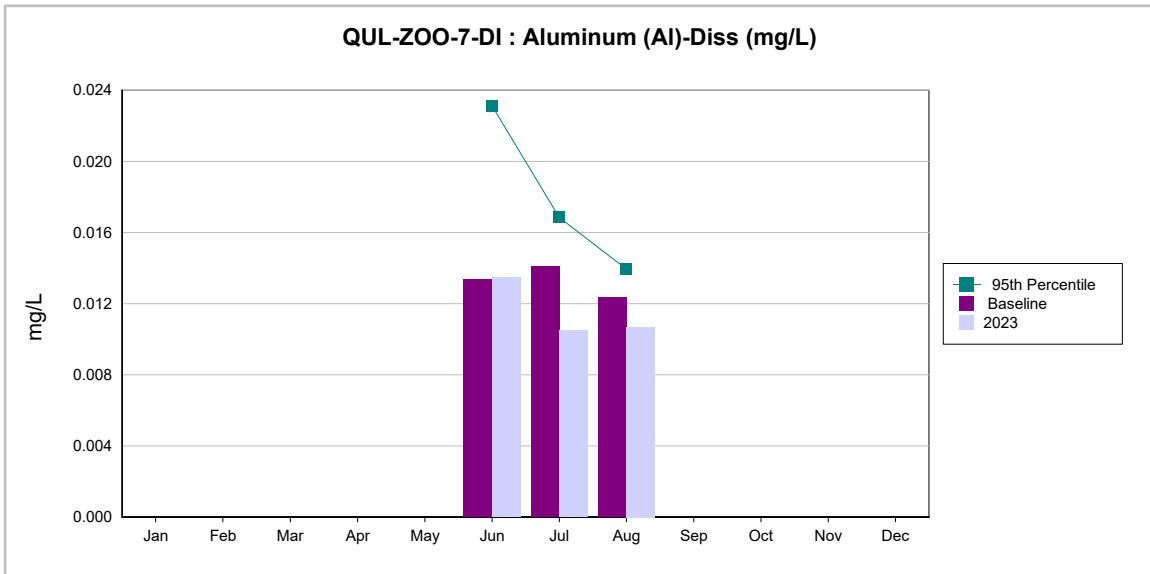
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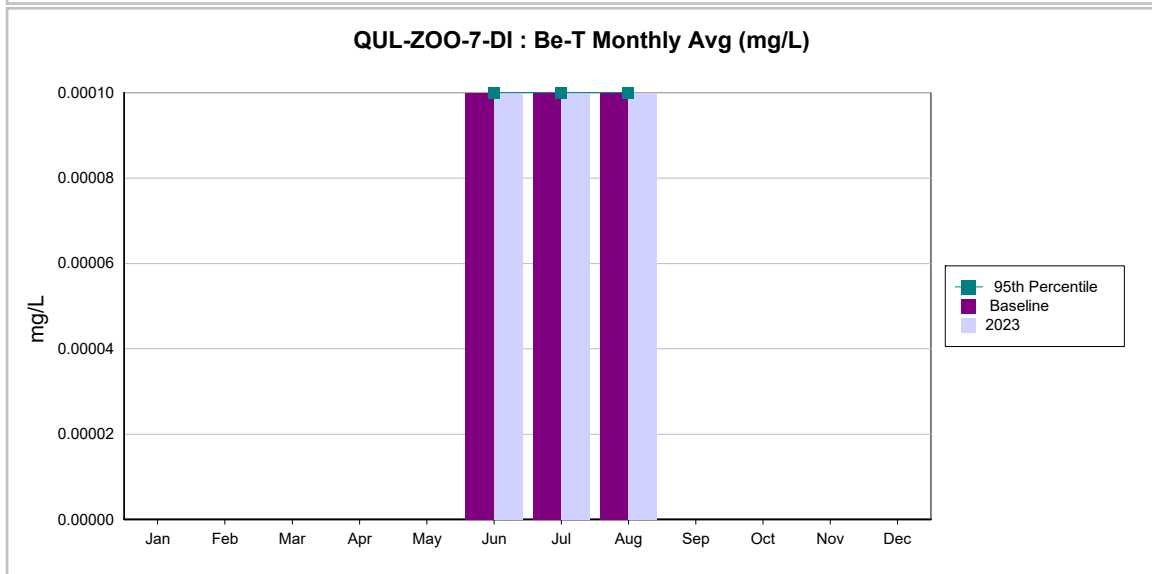
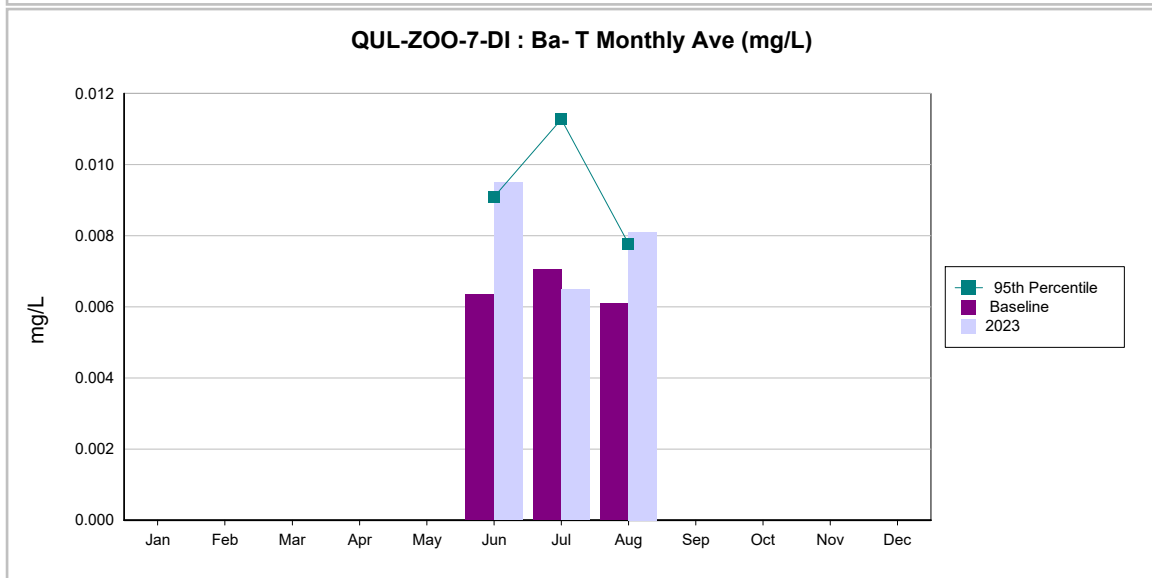
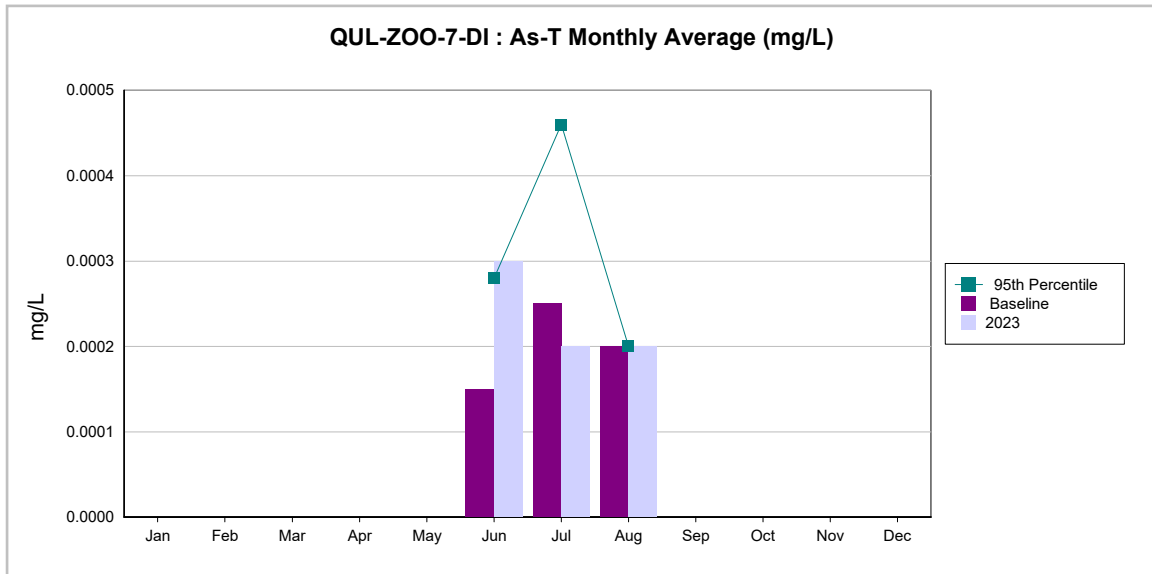
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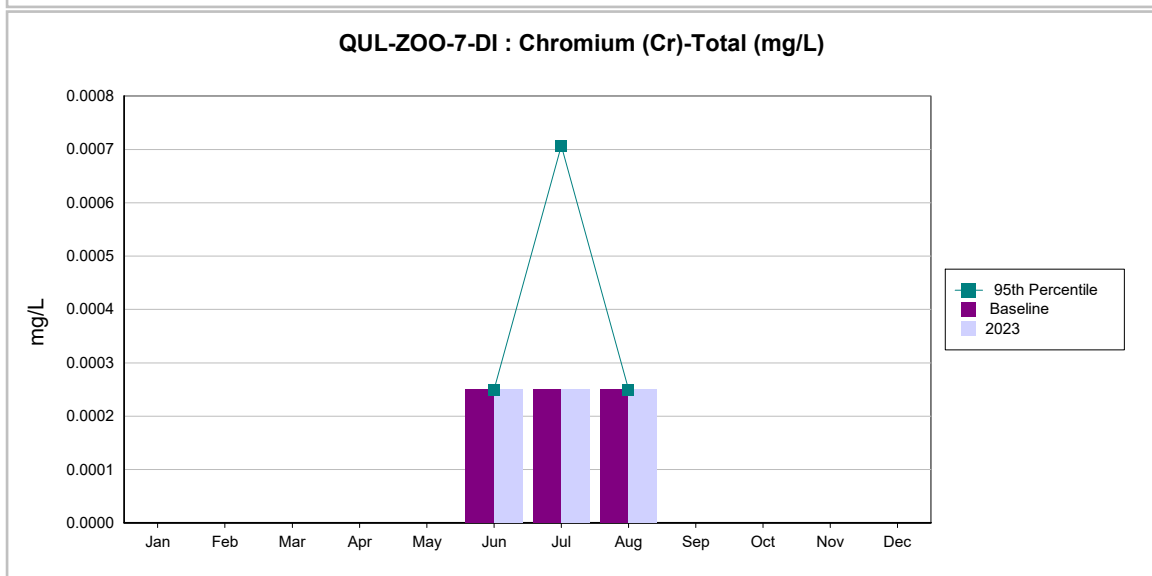
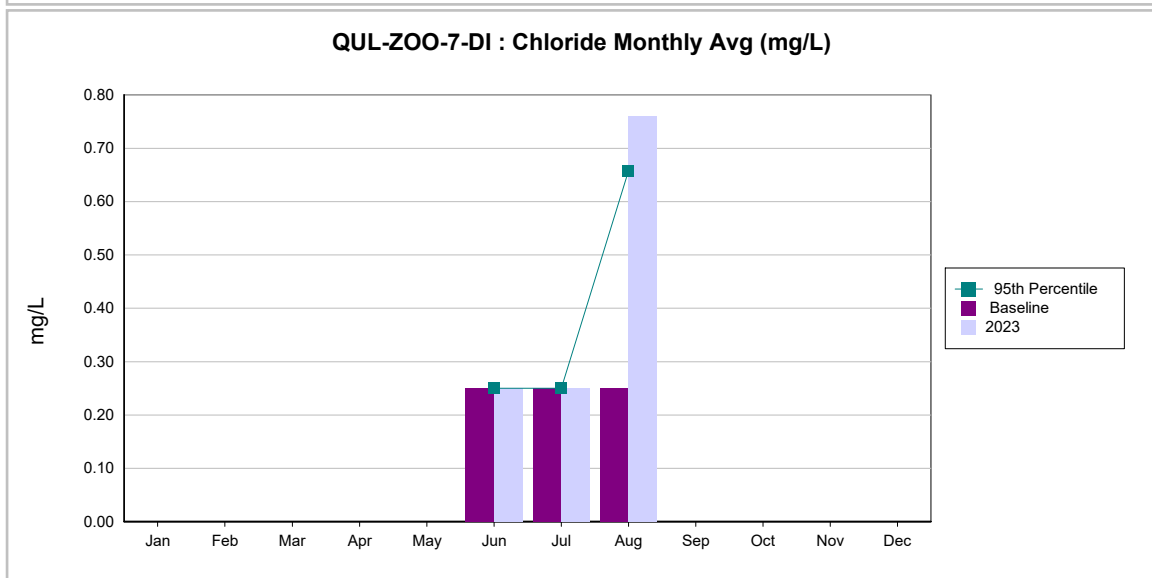
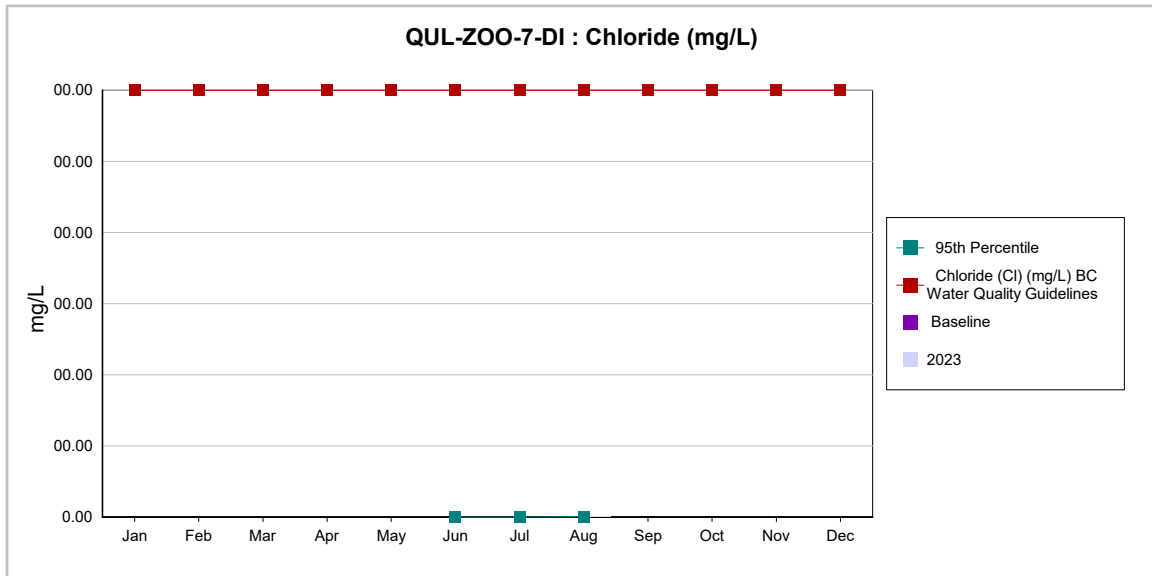
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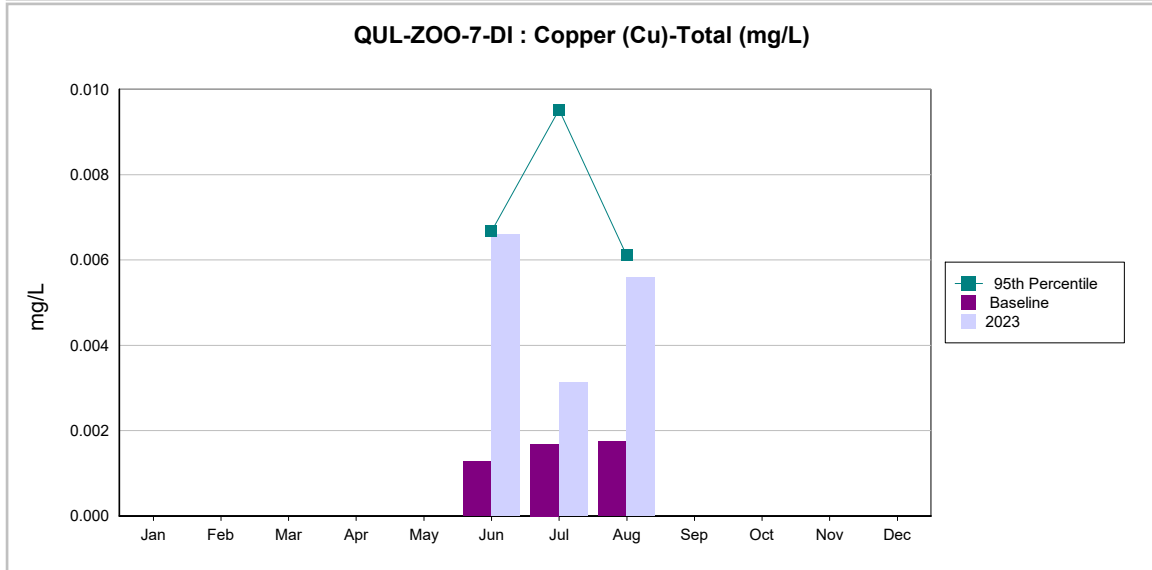
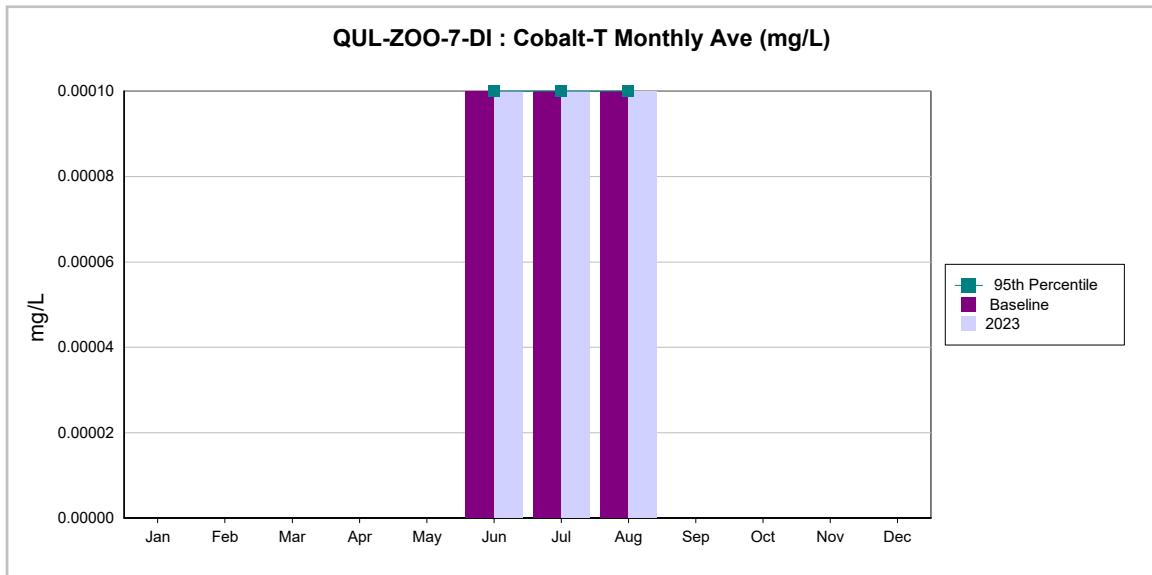
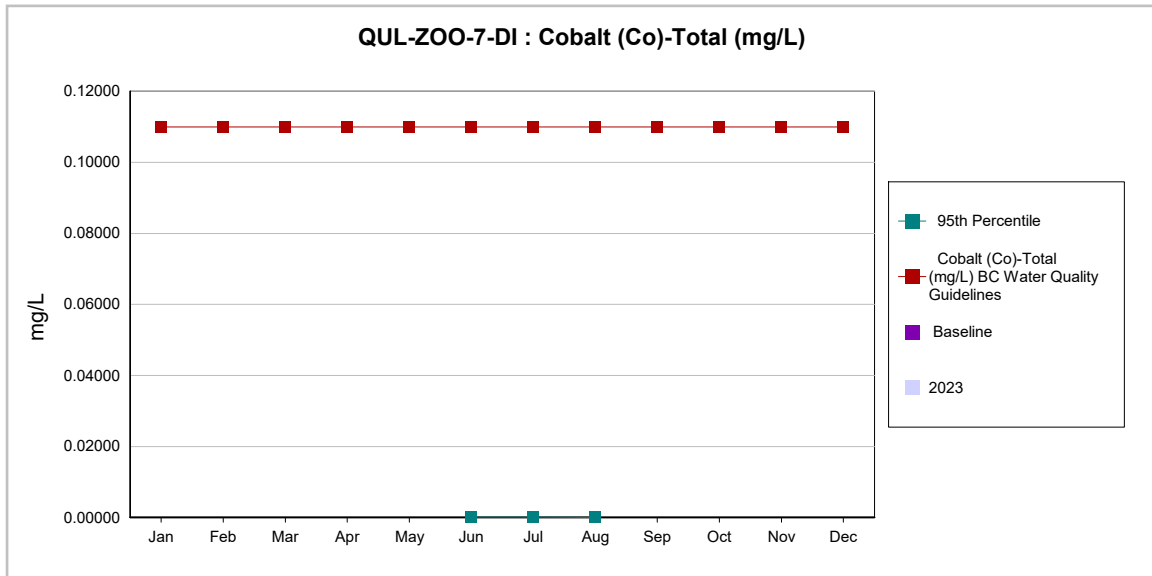
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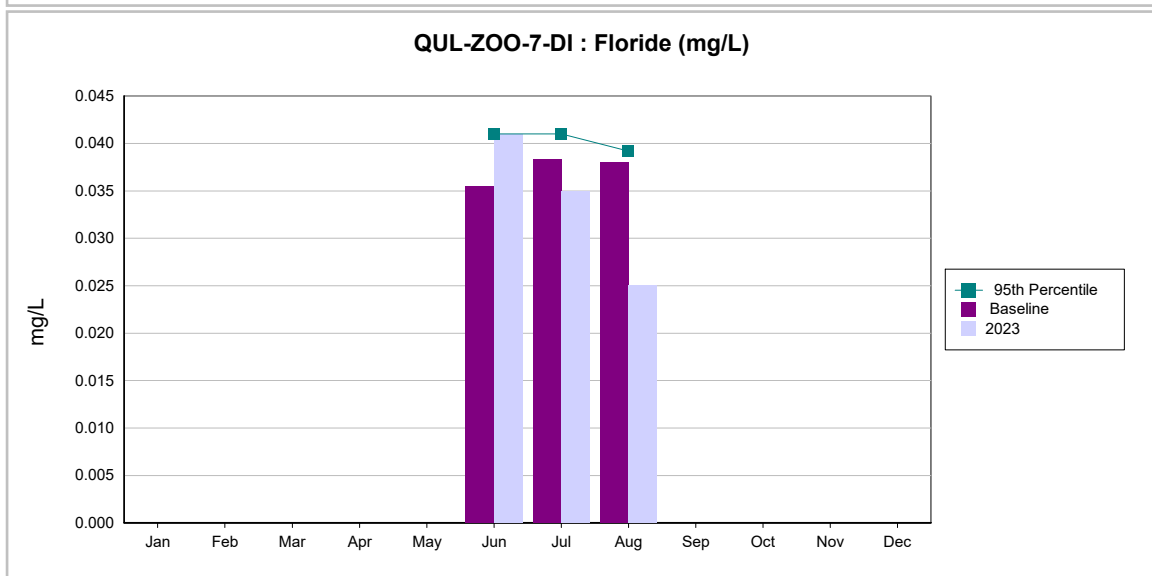
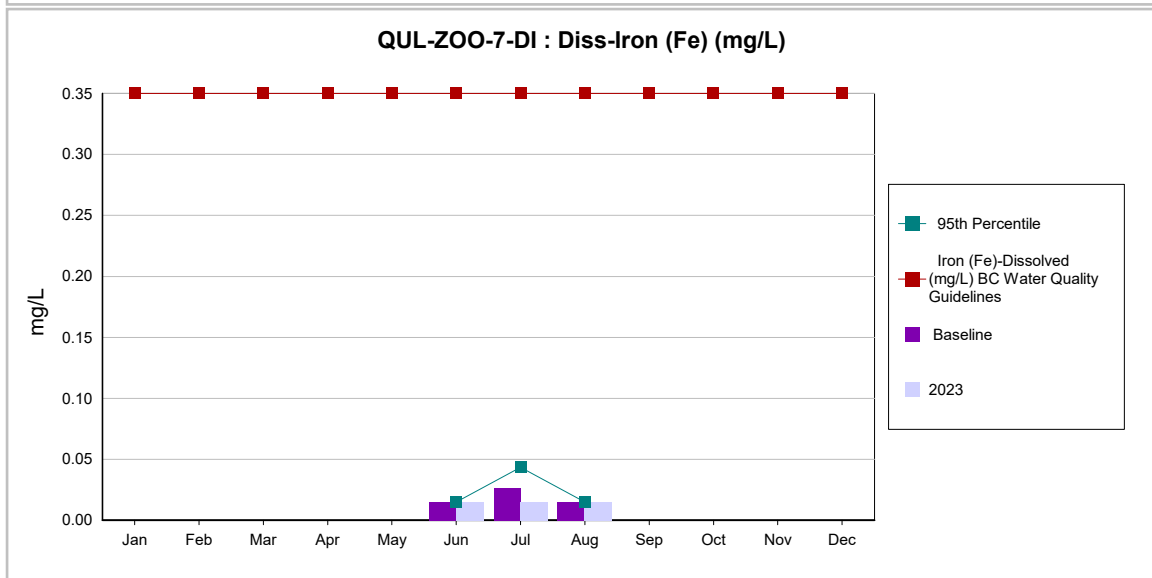
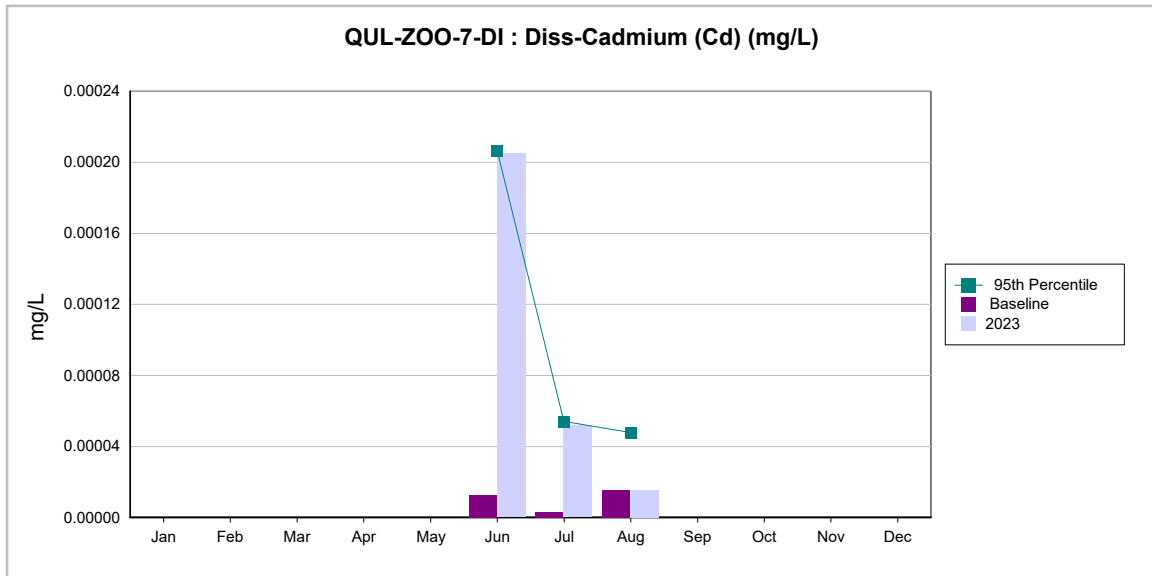
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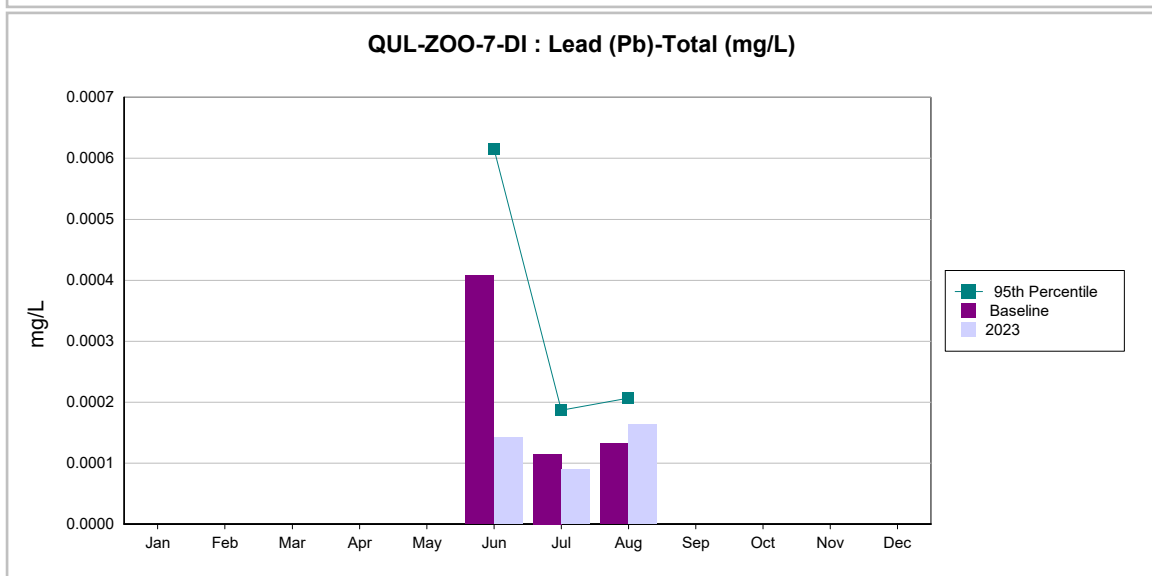
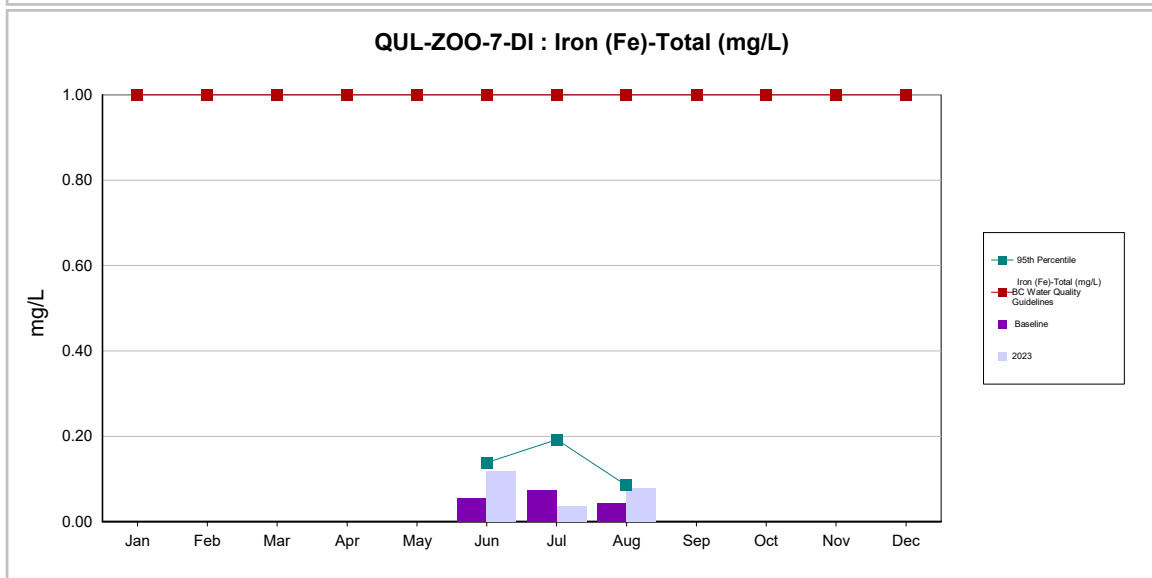
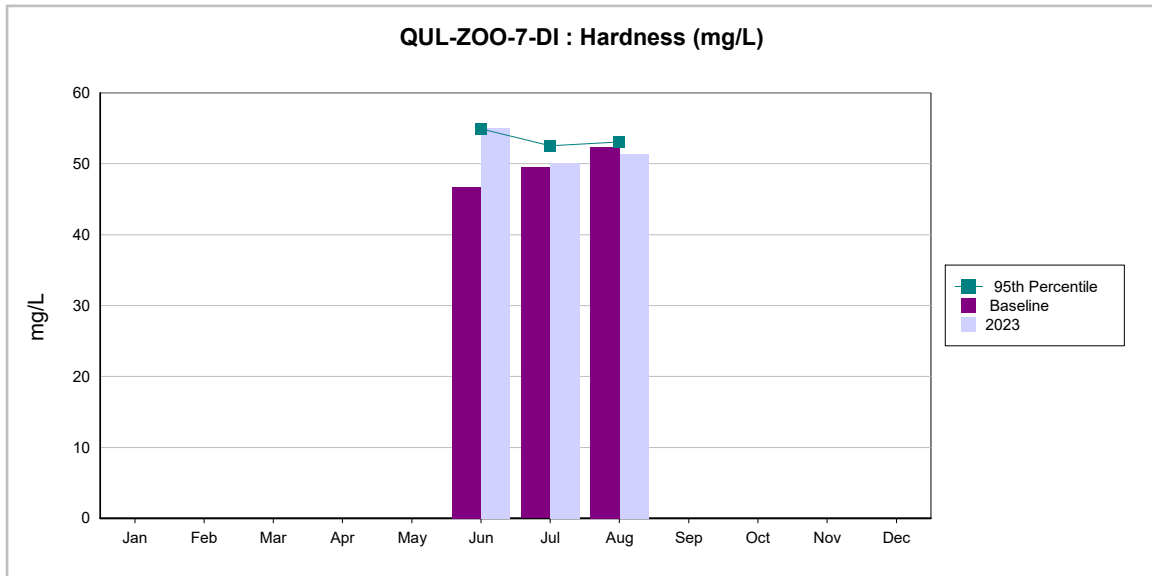
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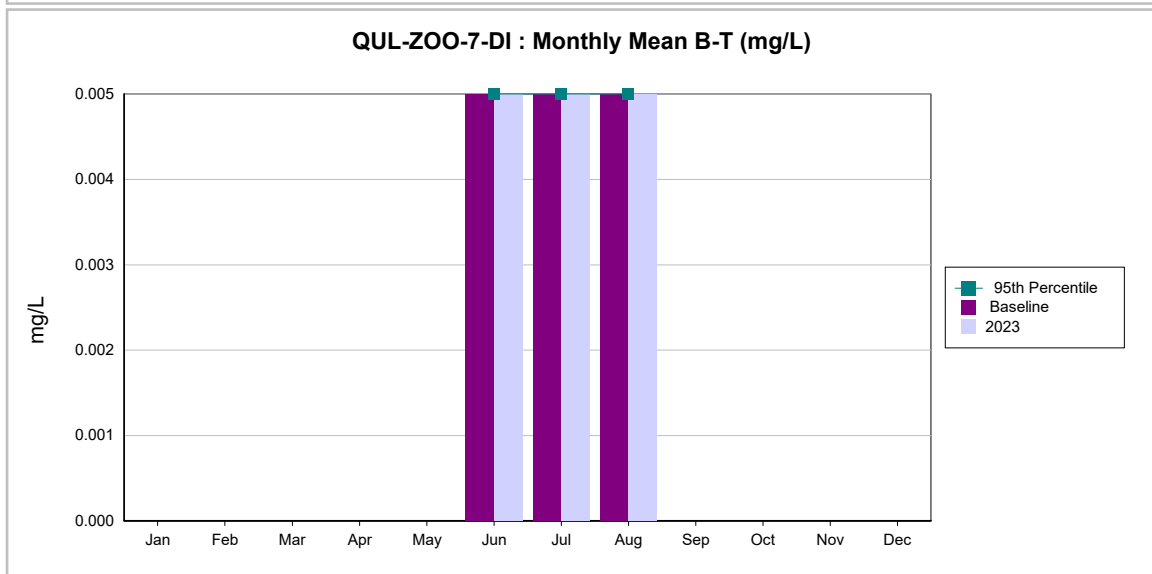
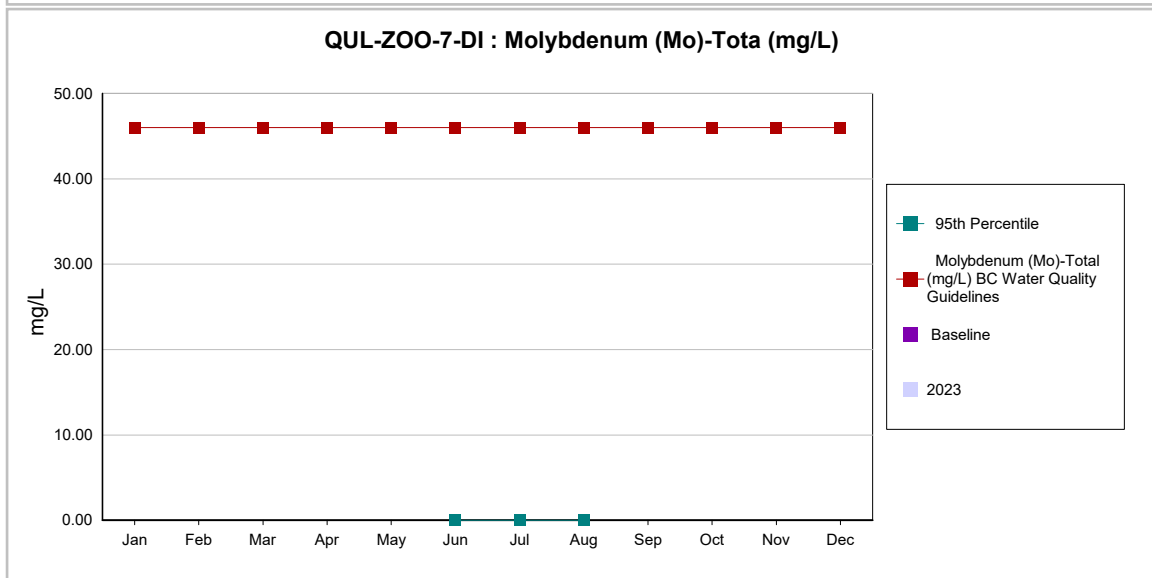
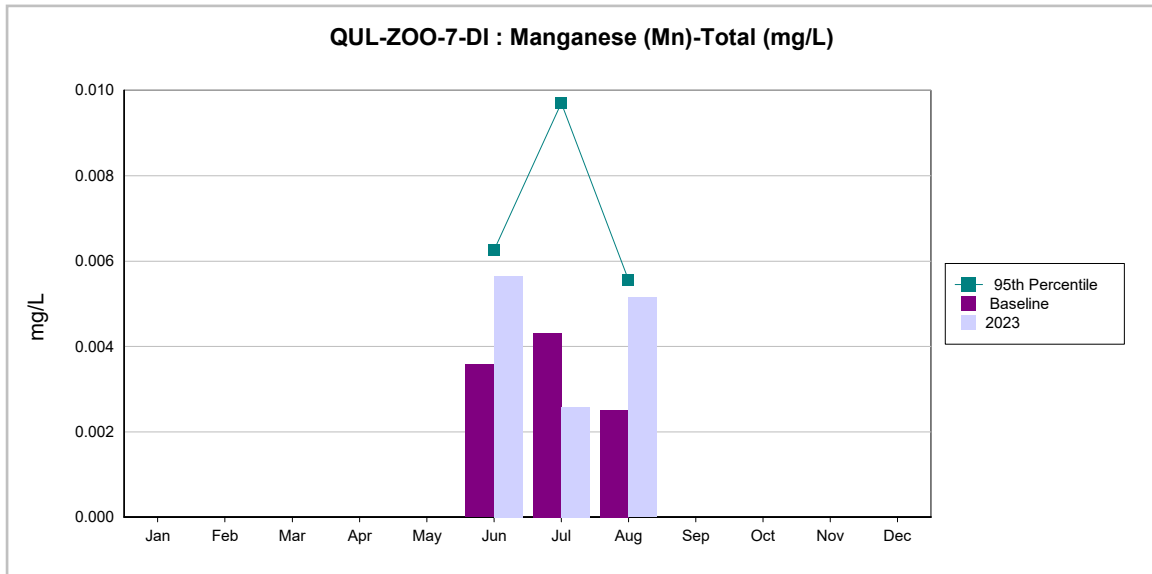
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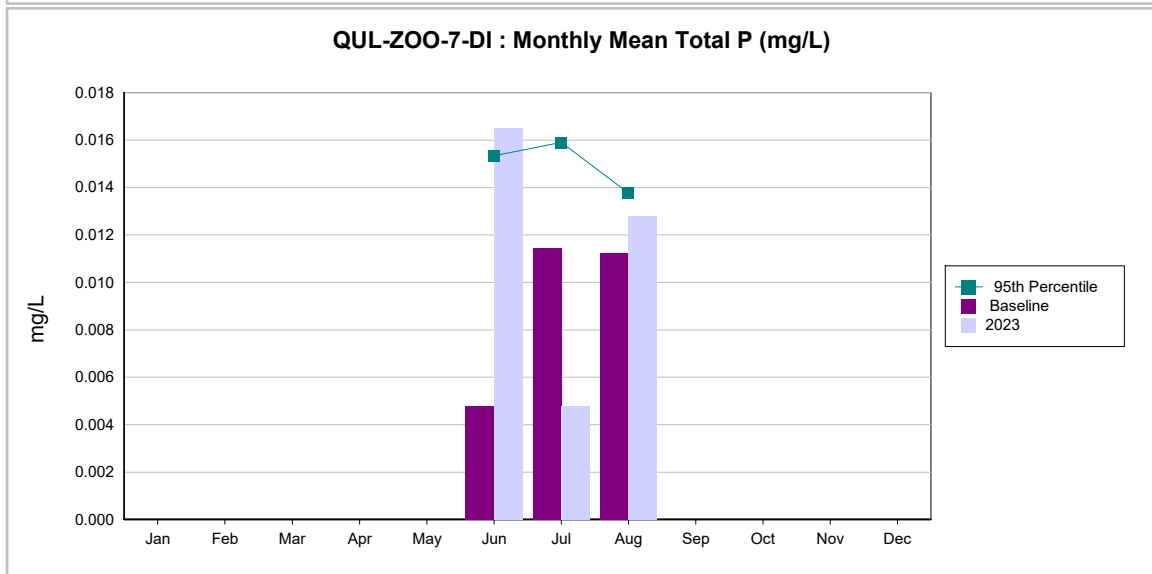
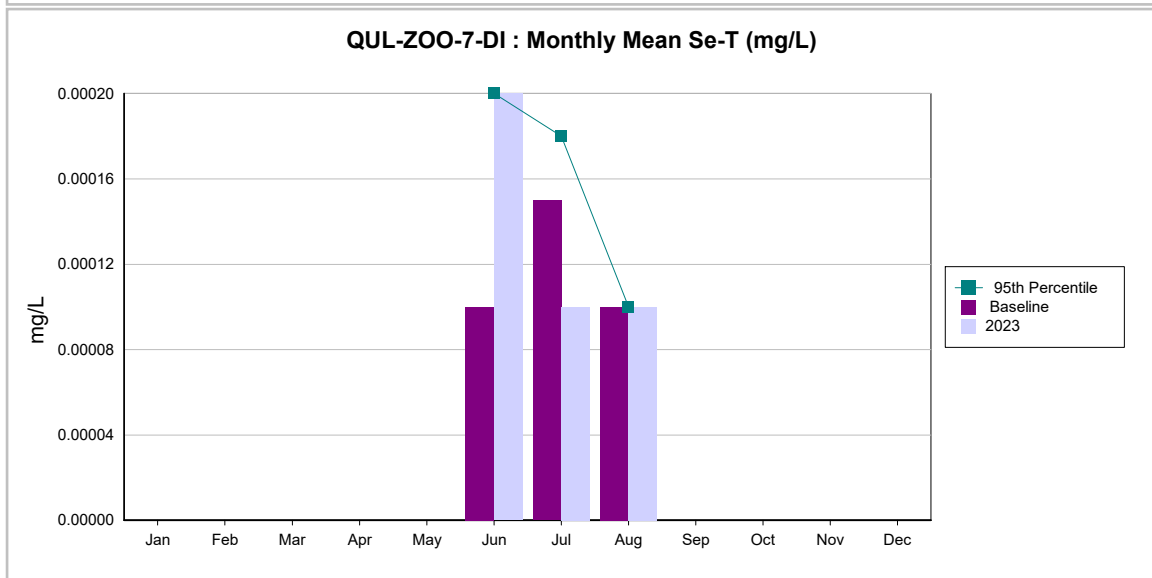
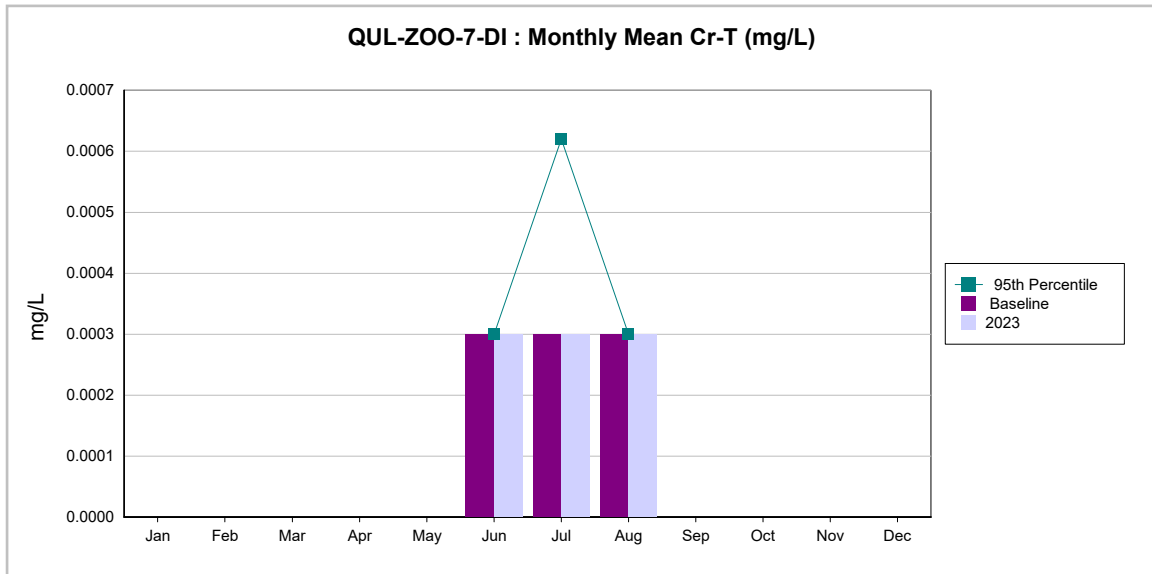
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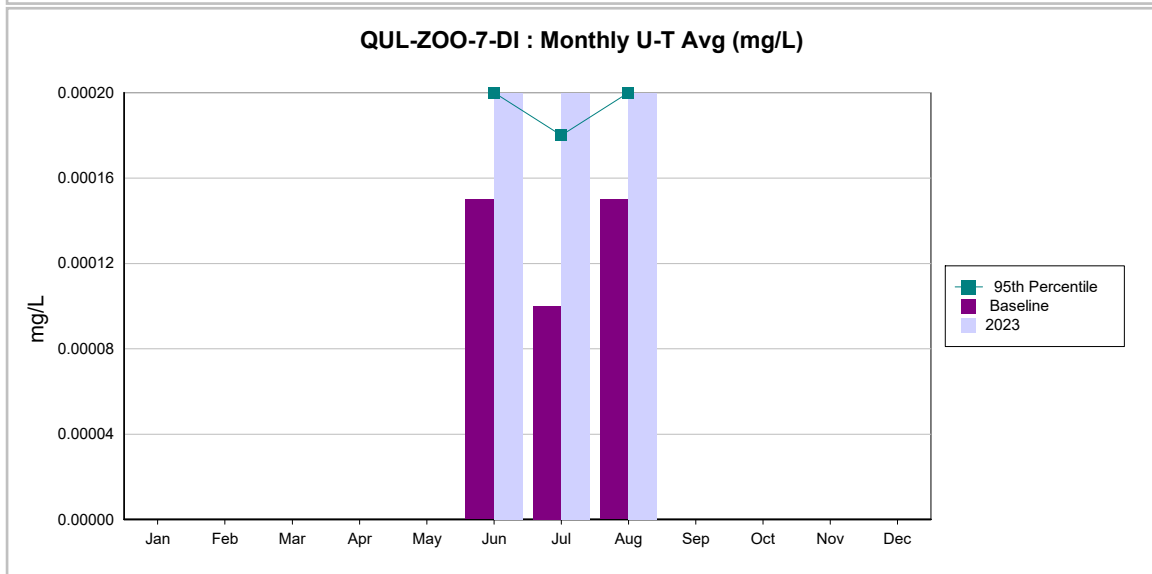
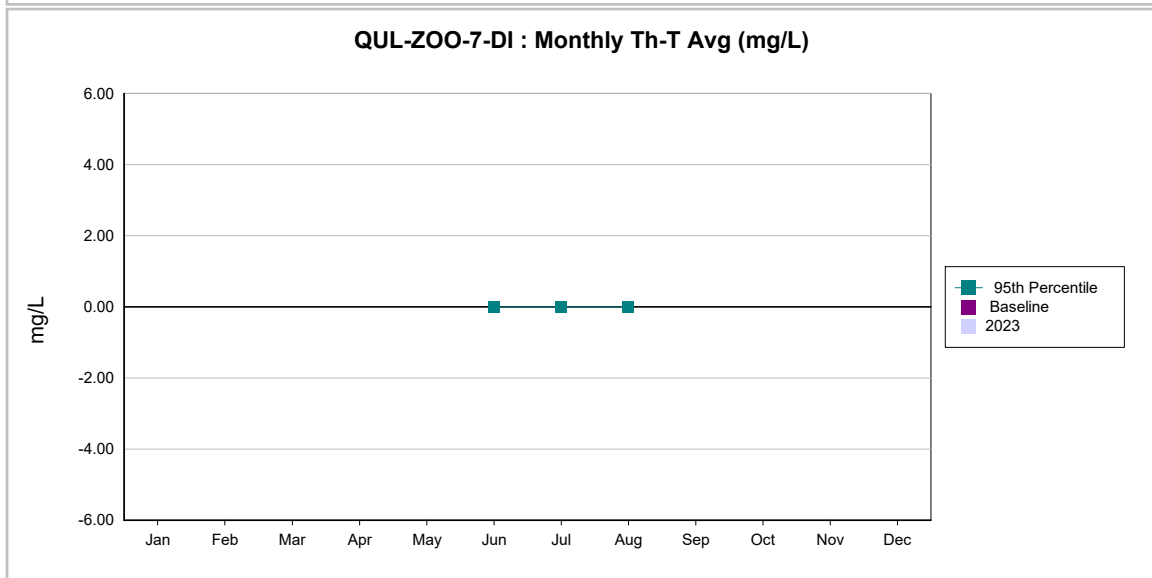
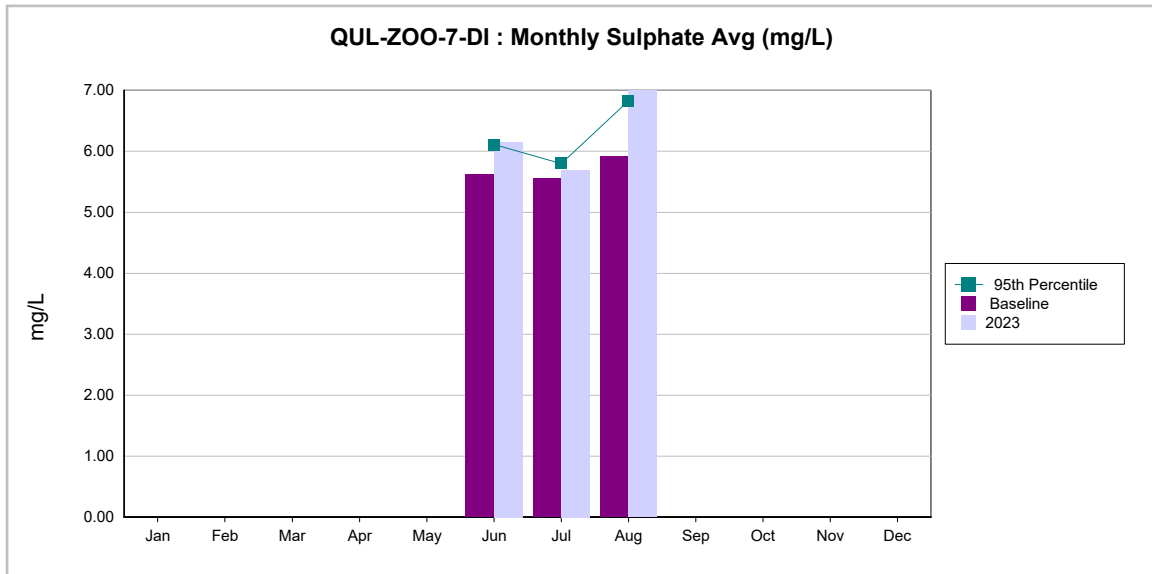
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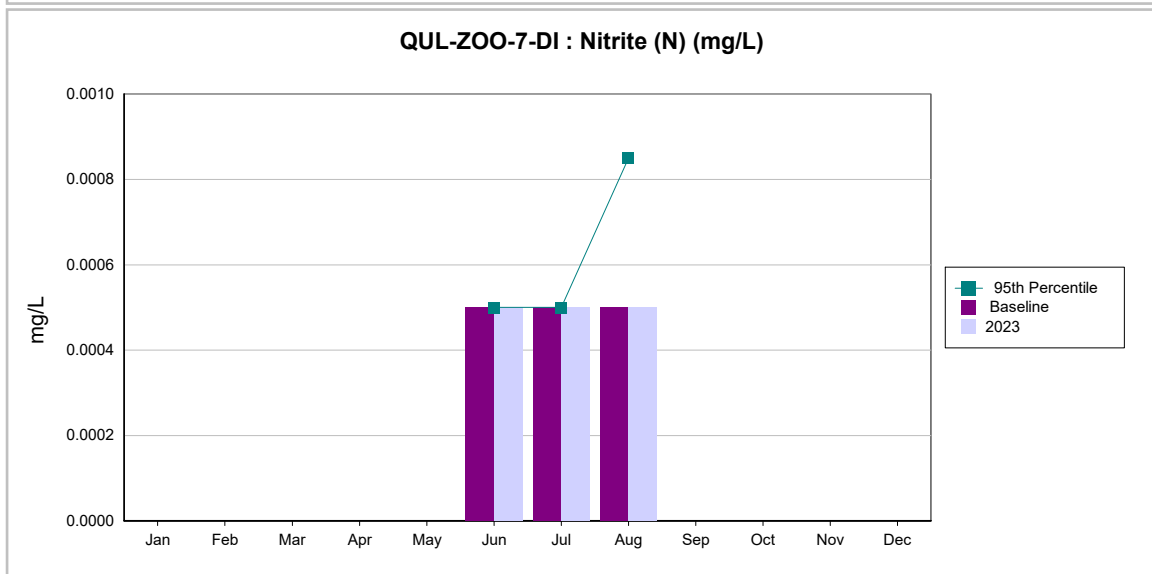
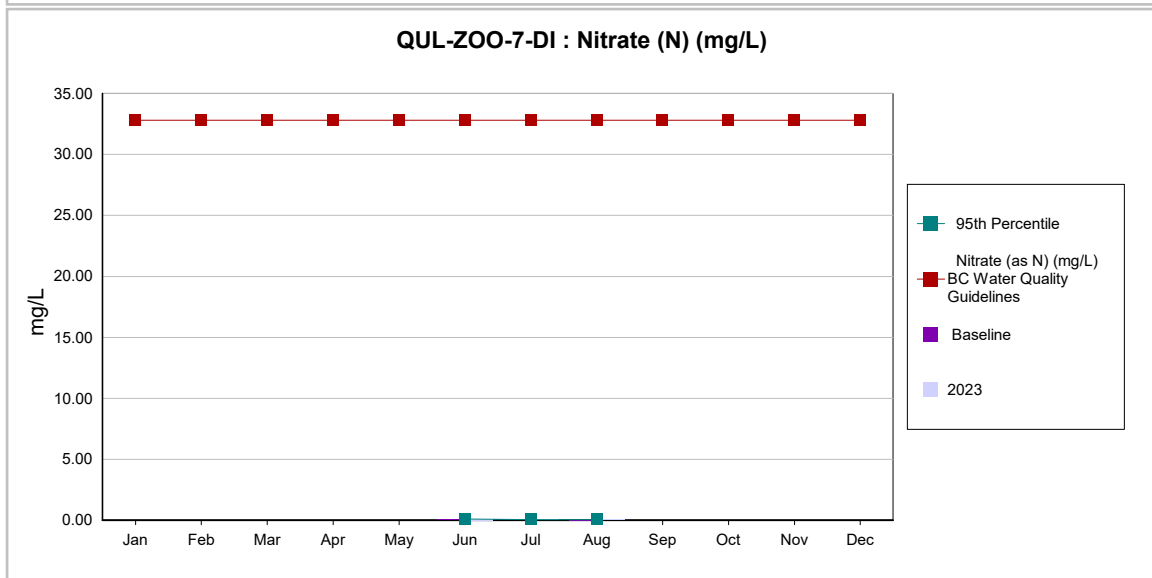
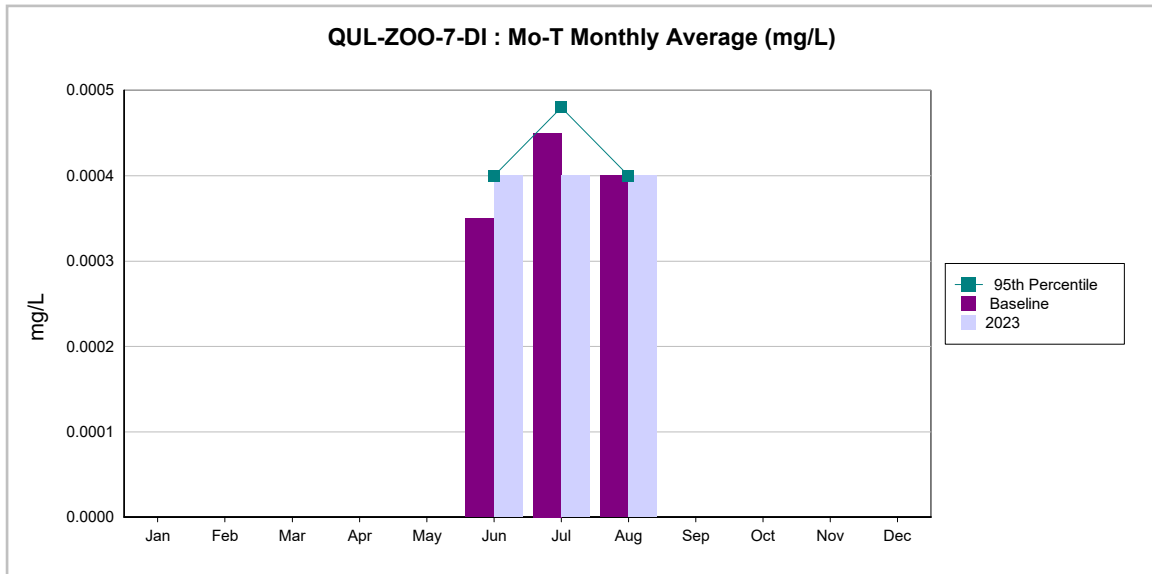
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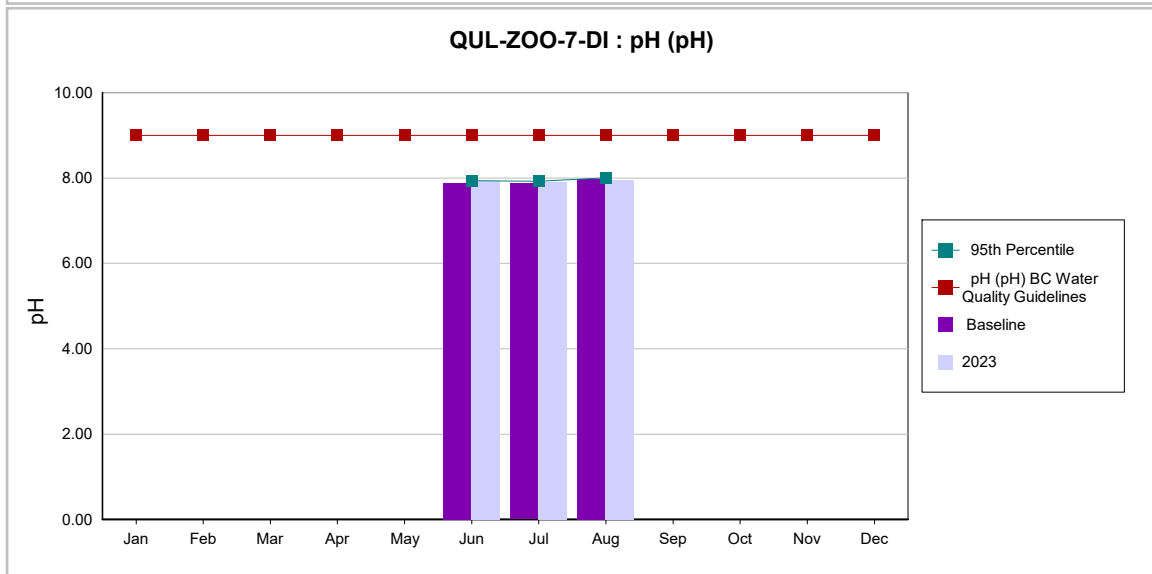
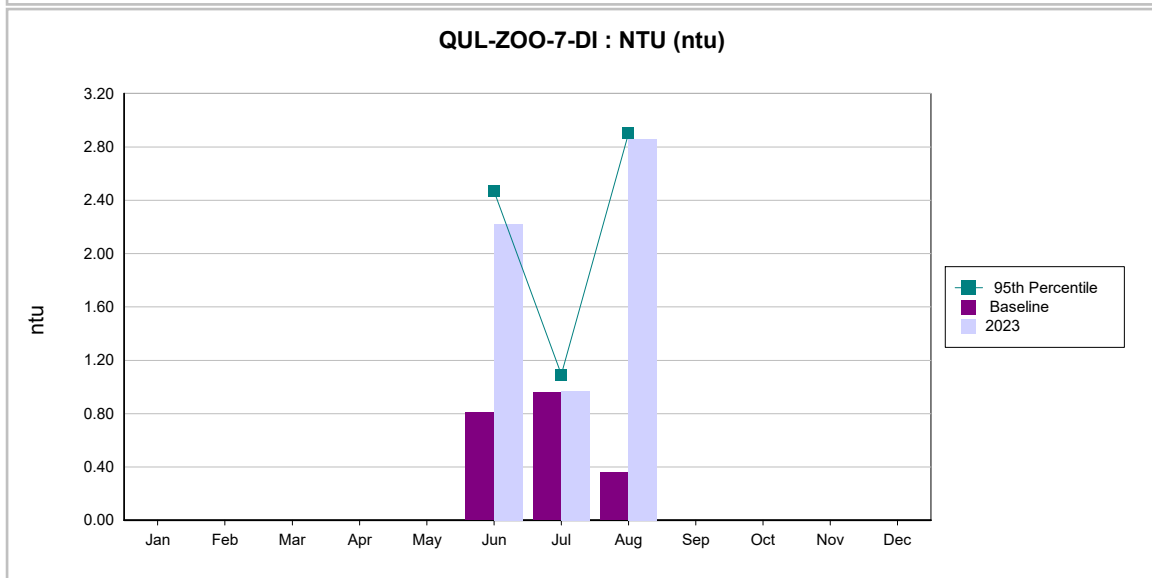
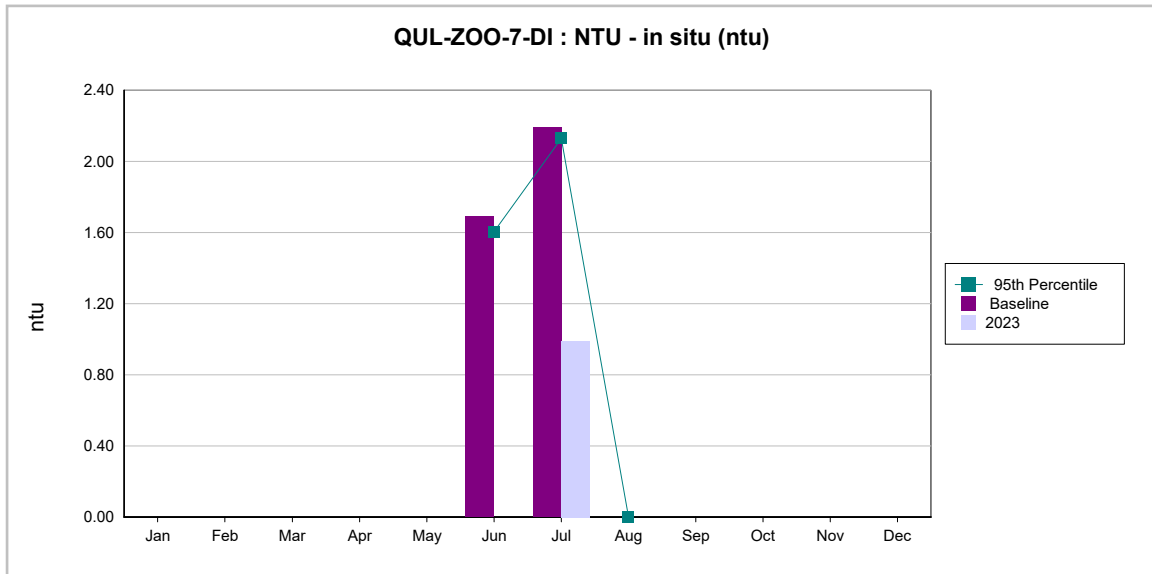
Annual Report Lake vs BCWQG



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Water Quality Report

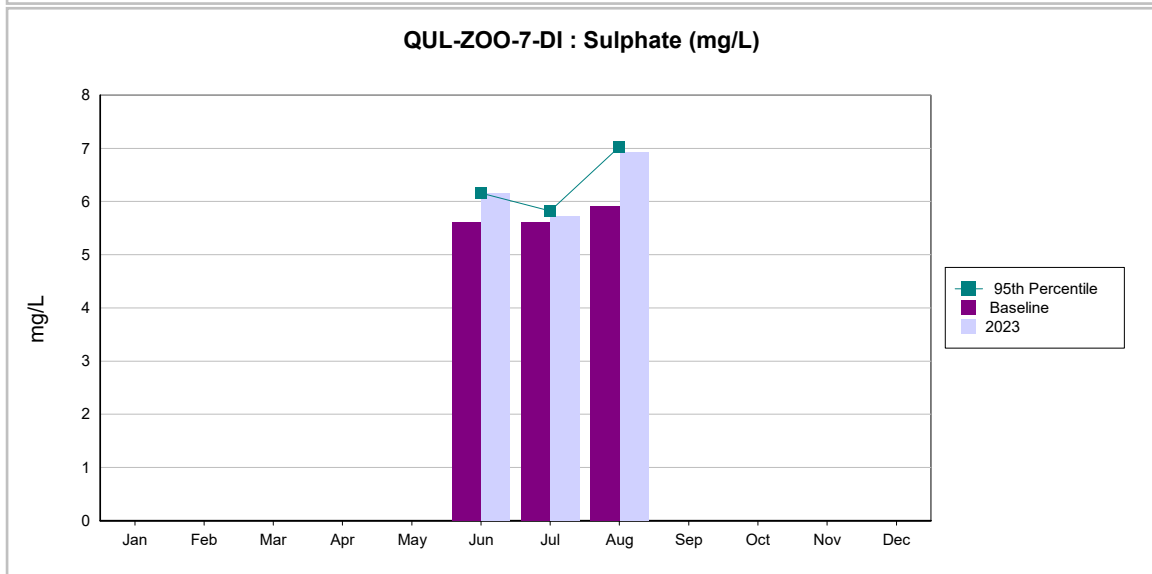
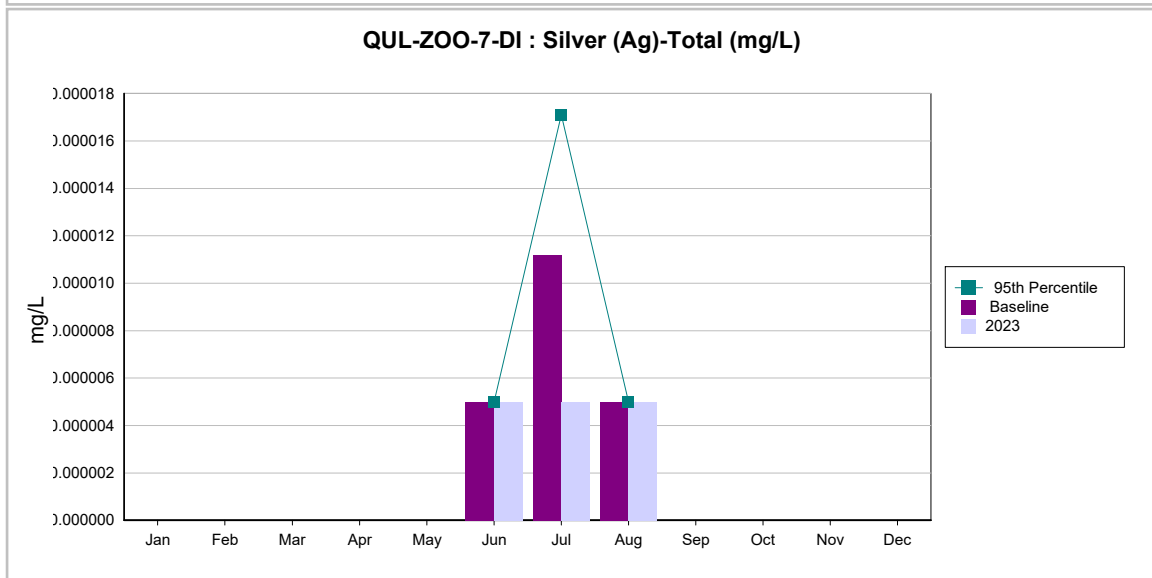
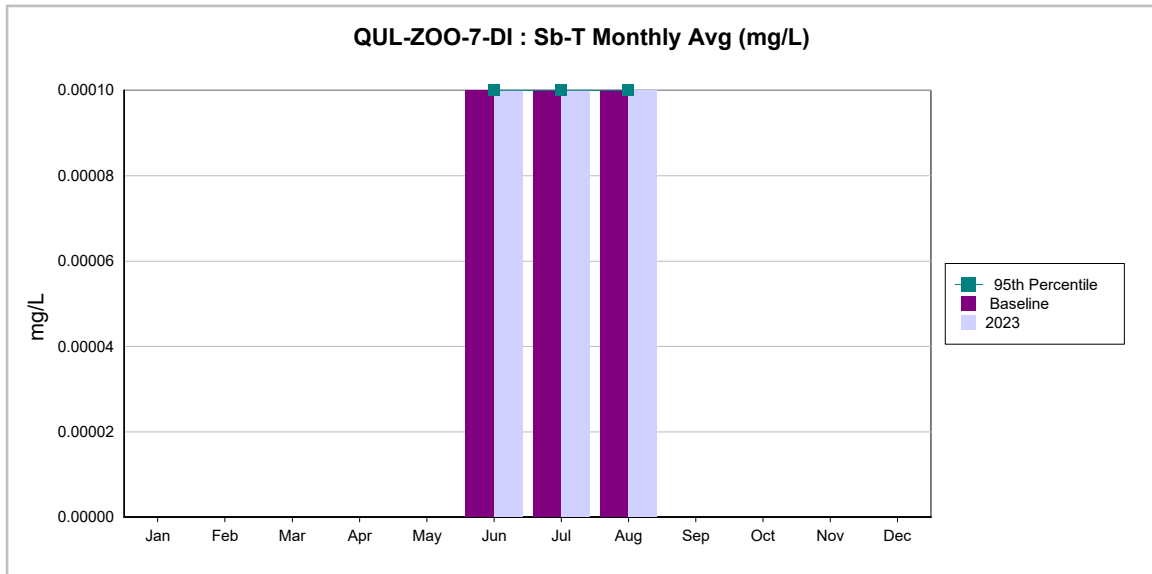
Annual Report Lake vs BCWQG



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Water Quality Report

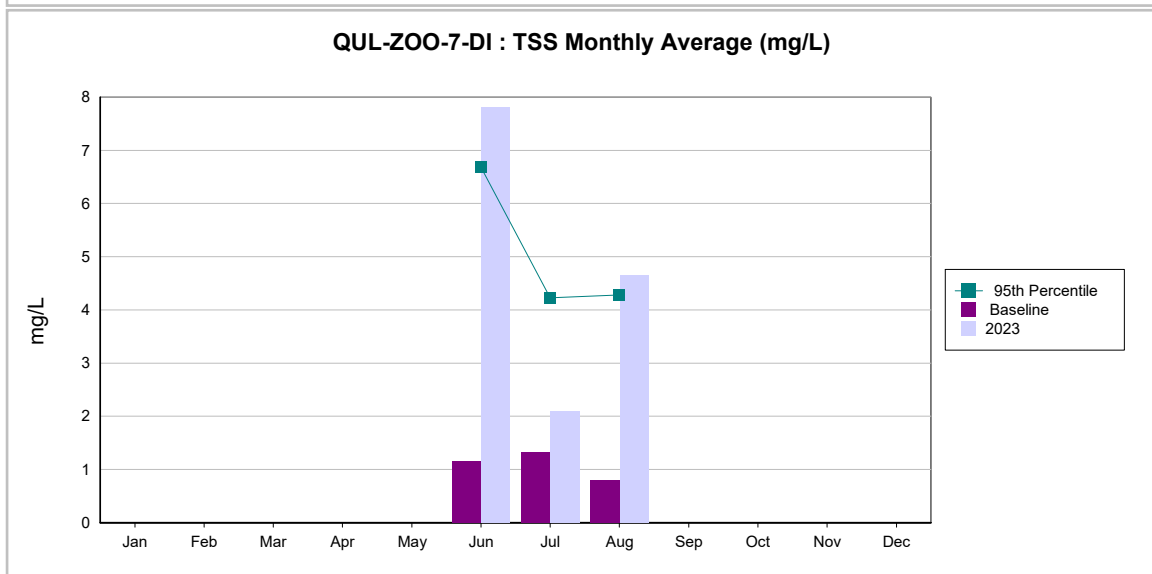
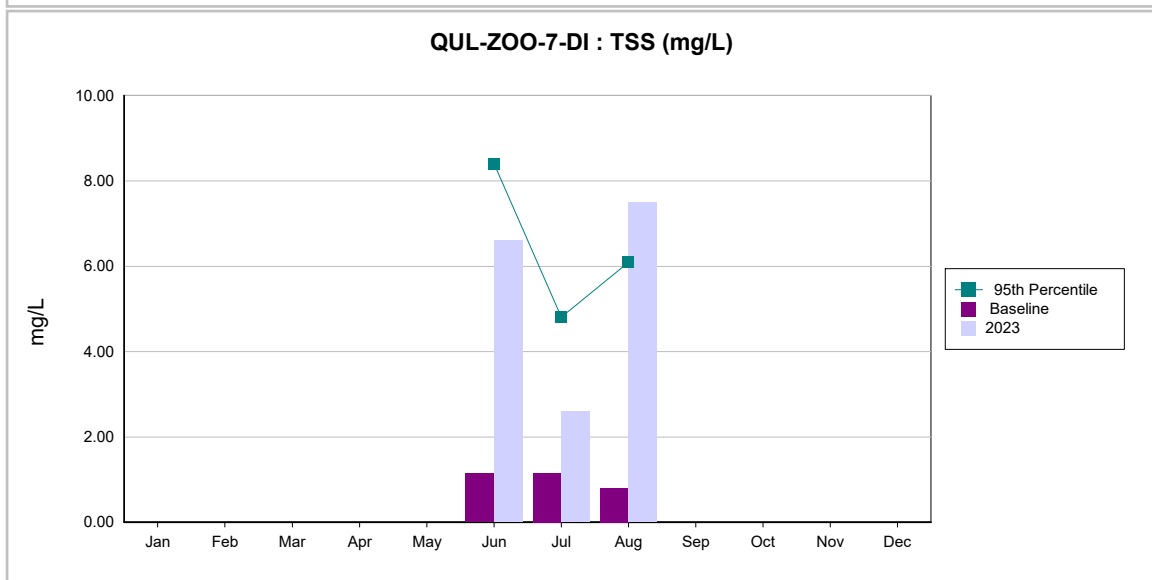
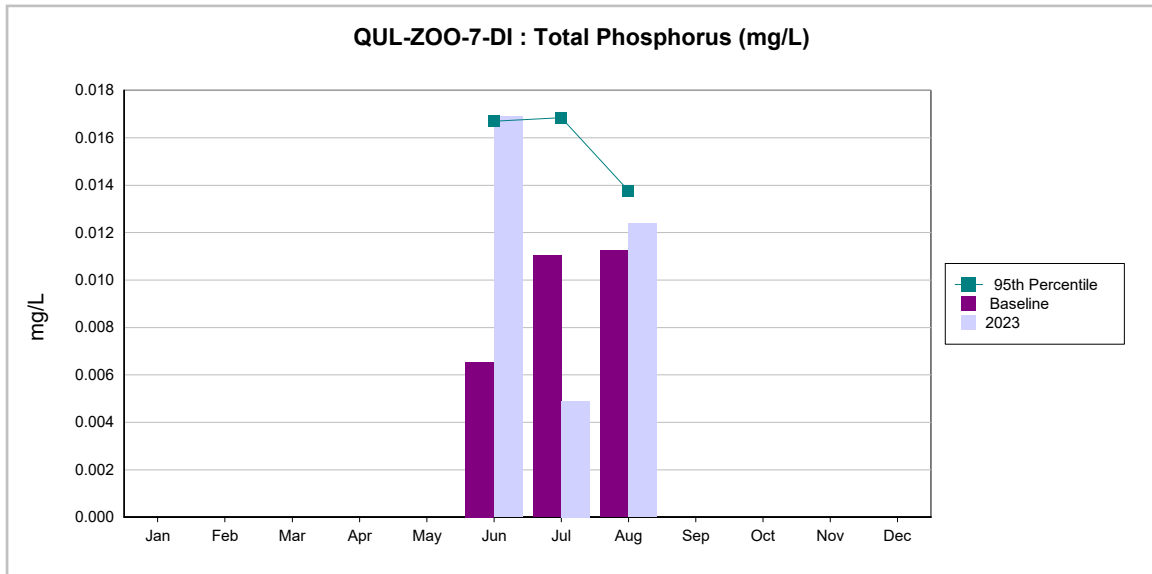
Annual Report Lake vs BCWQG



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Water Quality Report

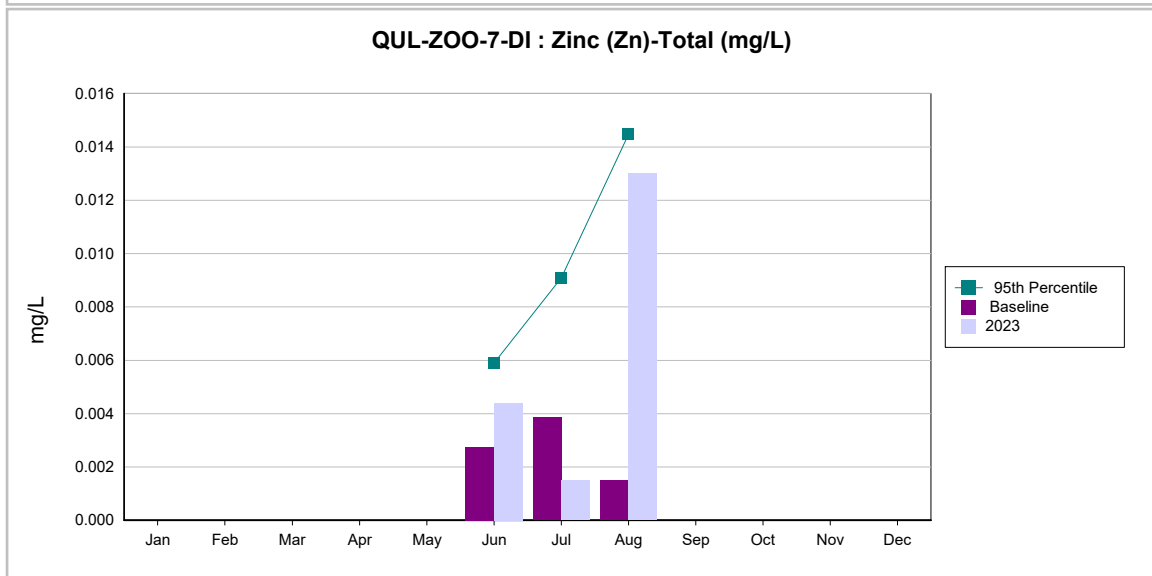
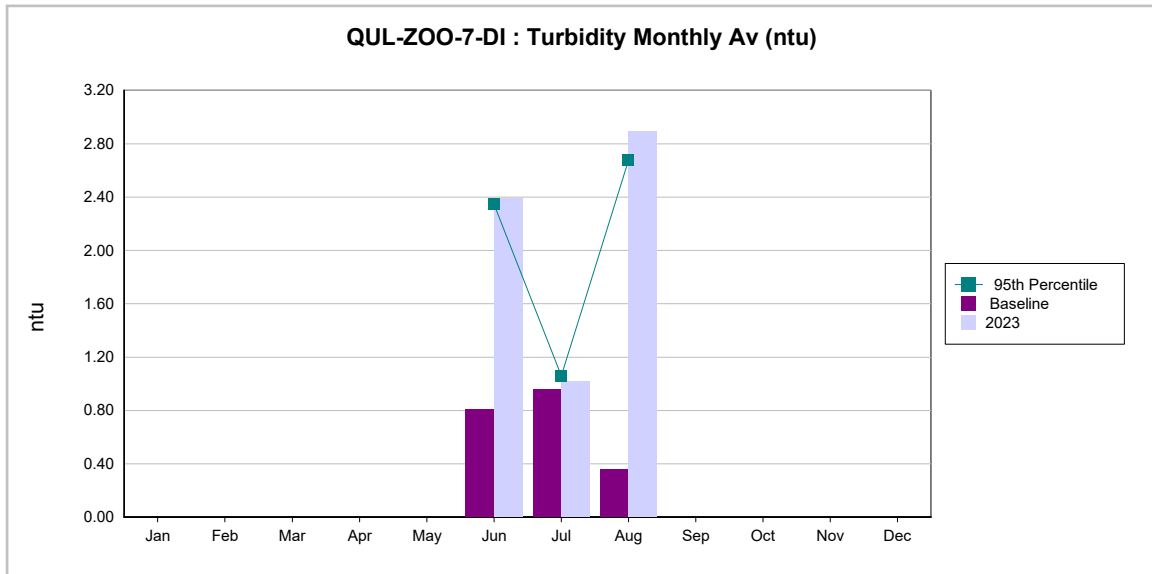
Annual Report Lake vs BCWQG



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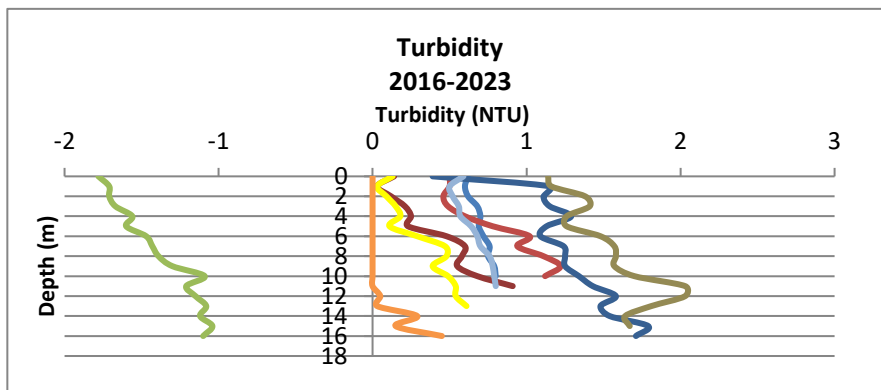
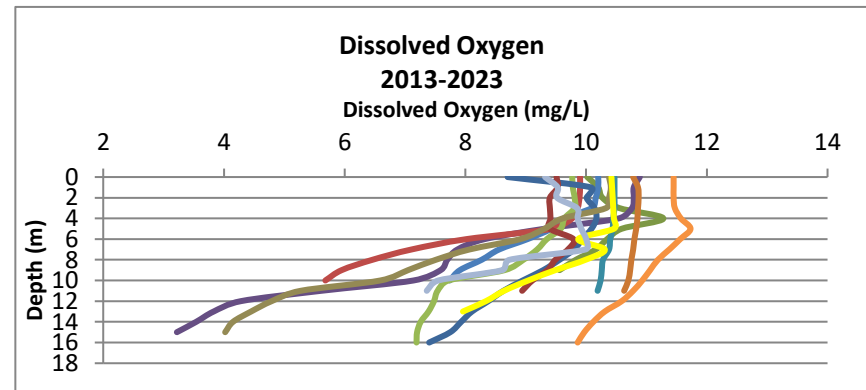
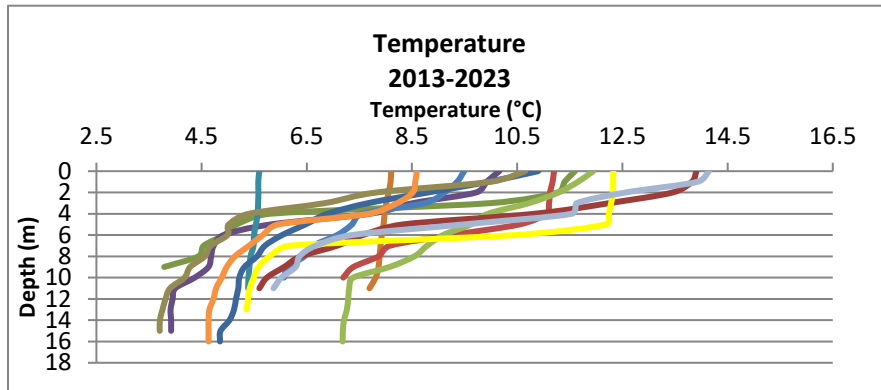
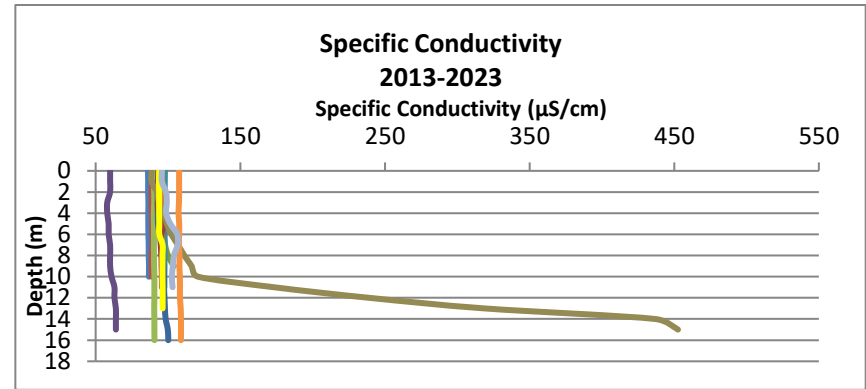
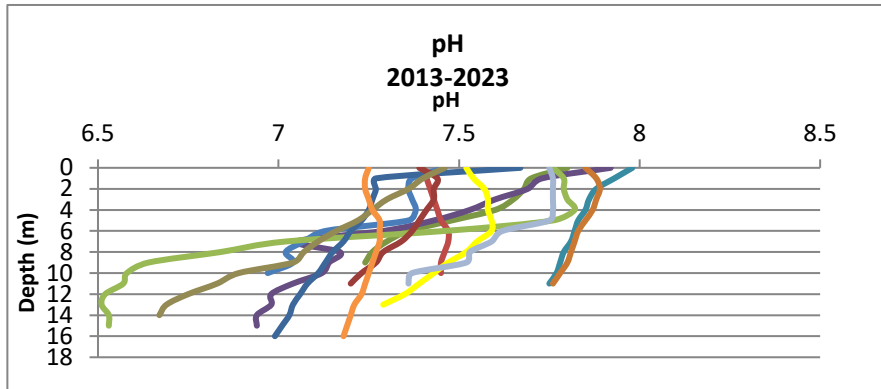
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MPMC

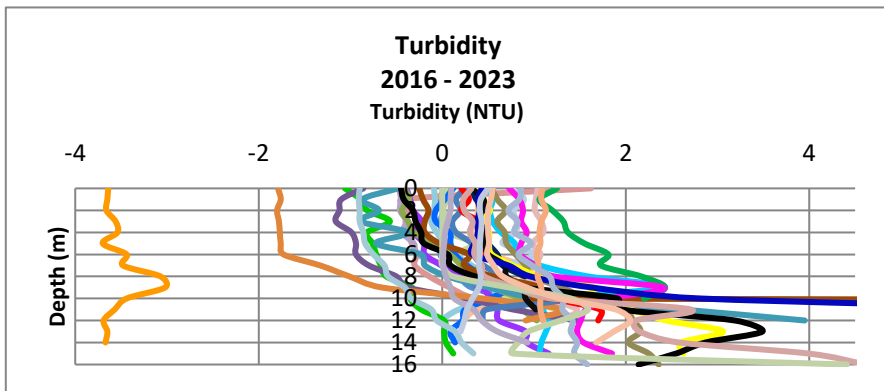
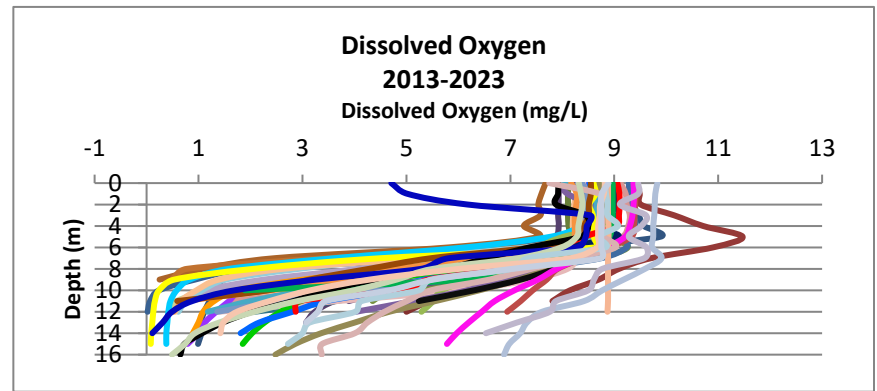
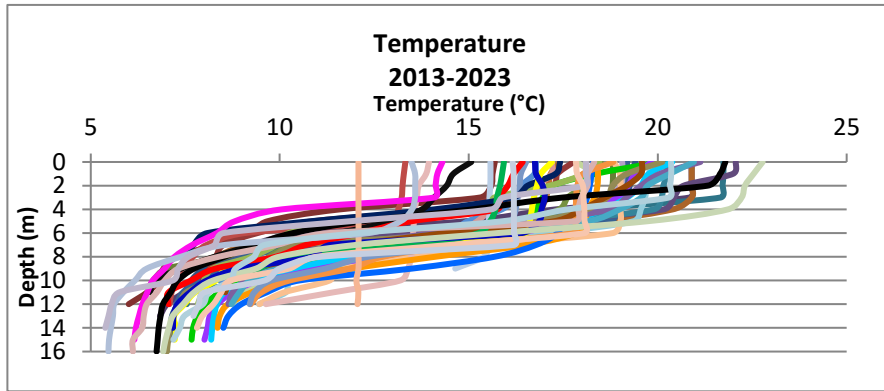
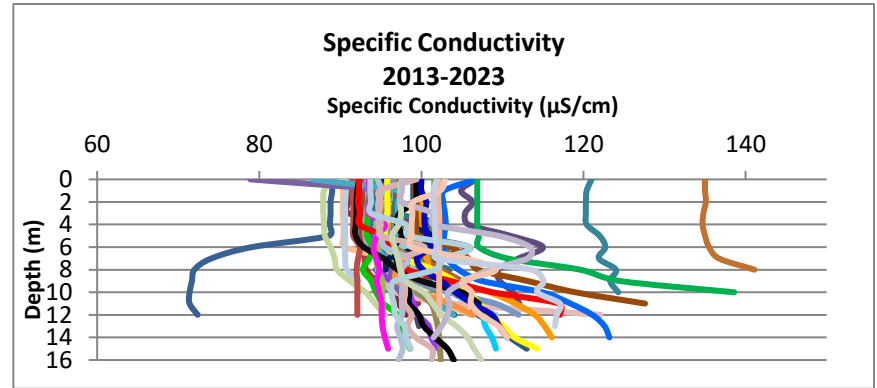
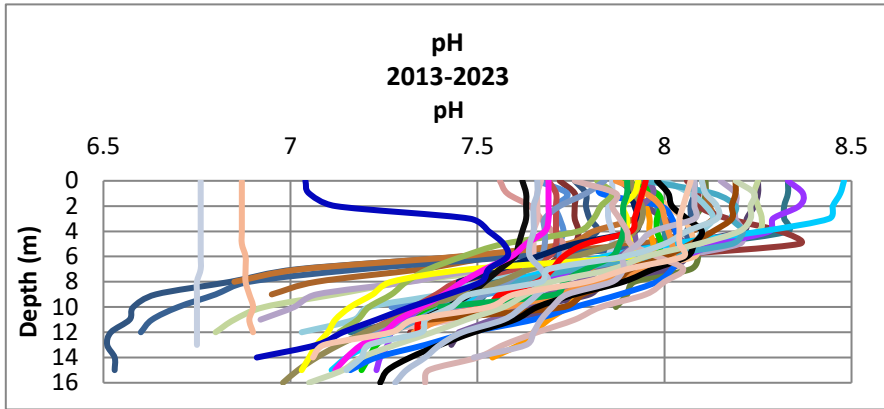
Bootjack Lake B1 Spring Lake Profiles



- 13-May-13
- 24-May-14
- 16-Apr-15
- 30-Apr-15
- 28-Apr-16
- 12-May-16
- 25-May-17
- 17-May-18
- 22-May-19
- 19-May-20
- 26-May-21
- 24-May-22
- 24-May-23

MPMC

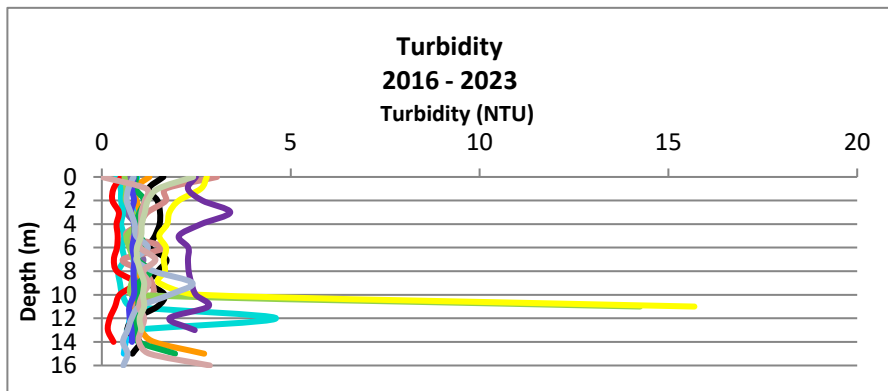
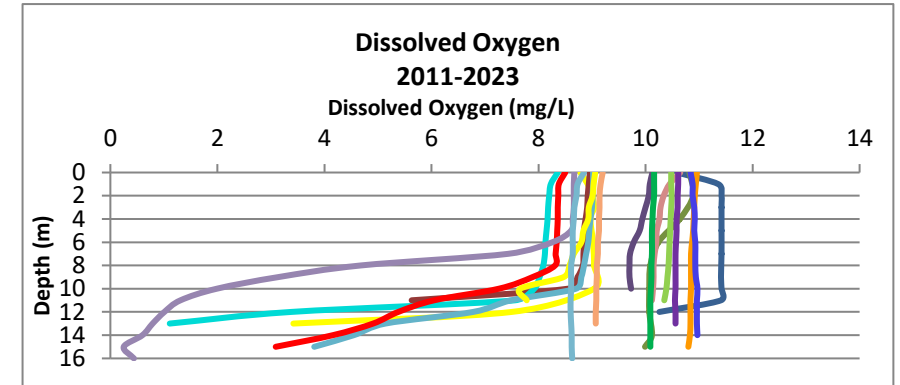
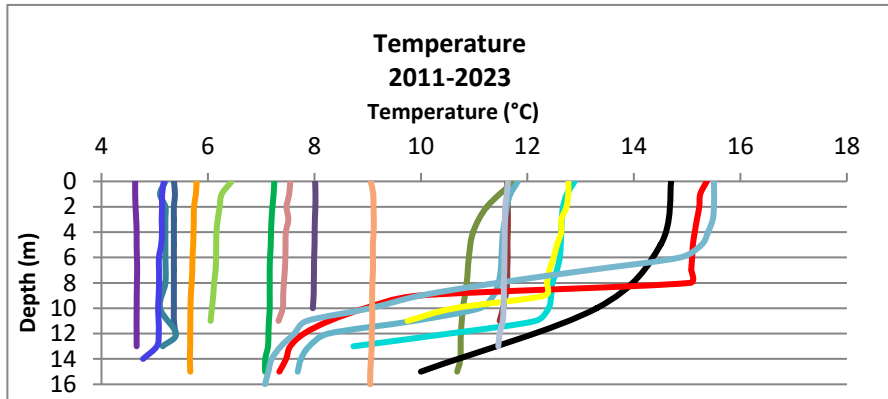
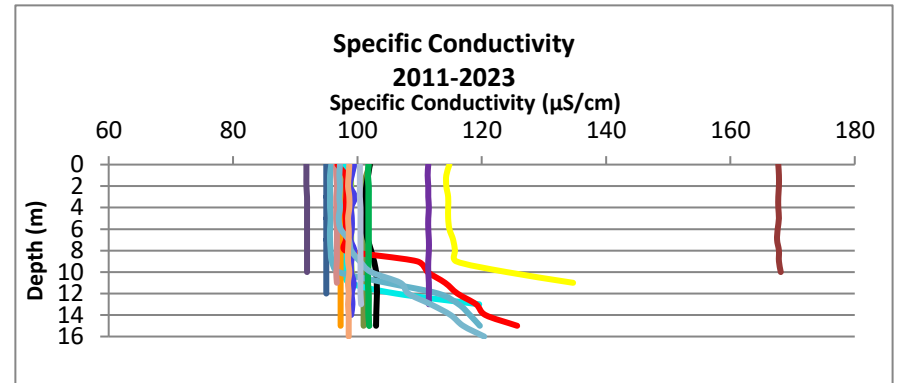
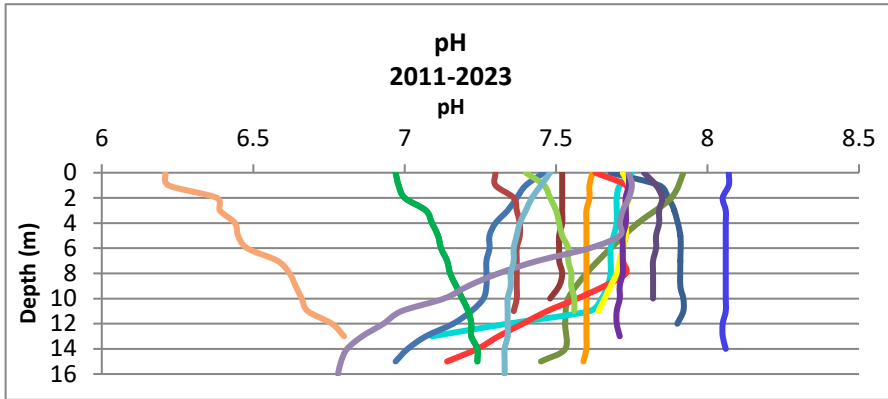
Bootjack Lake B1 Summer Lake Profiles



- 21-Aug-13 18-Jun-14 02-Jul-14 17-Jul-14 06-Aug-14 18-Aug-14
- 24-Aug-14 27-May-15 22-Jun-15 06-Jul-15 21-Jul-15 24-Aug-15
- 08-Jun-16 21-Jun-16 05-Jul-16 18-Jul-16 11-Aug-16 22-Aug-16
- 07-Sep-16 20-Sep-16 30-Jun-17 14-Jul-17 07-Aug-17 19-Aug-17
- 06-Sep-17 10-Jun-18 23-Jun-18 15-Jul-18 26-Jul-18 20-Aug-18
- 28-Aug-18 12-Jun-19 23-Jul-19 29-Aug-19 18-Jun-20 14-Jul-20
- 19-Aug-20 09-Sep-20 10-Jun-21 15-Jul-21 24-Aug-21 28-Sep-21
- 16-Jun-22 11-Jul-22 24-Aug-22 08-Jun-23 12-Jul-23 23-Aug-23
- 7-Sep-23

MPMC

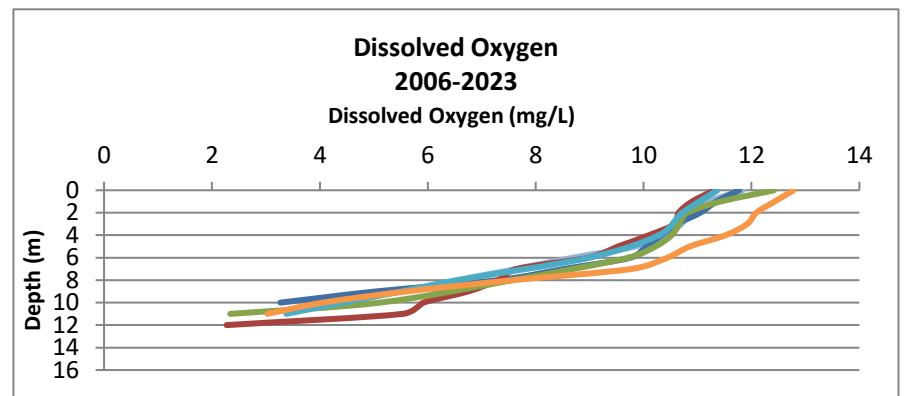
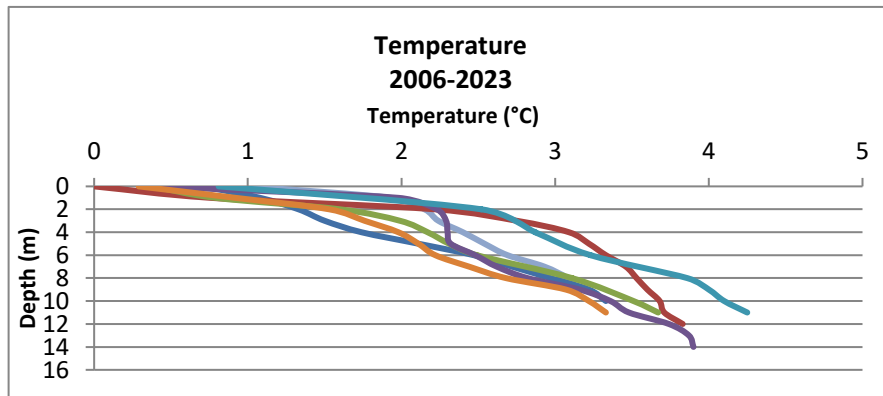
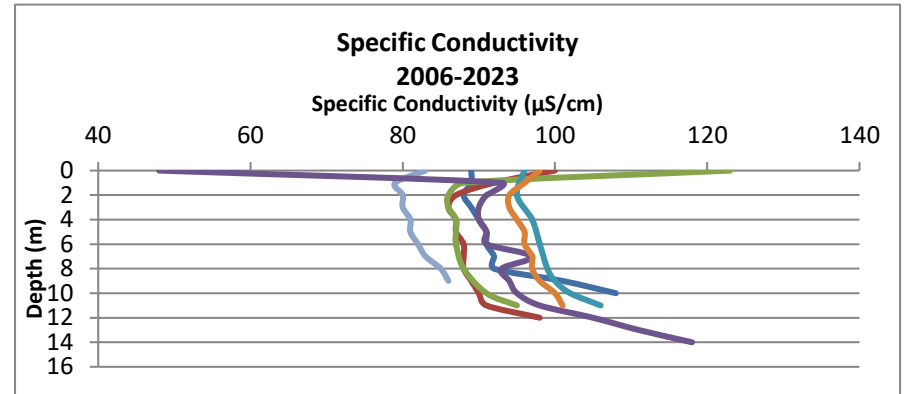
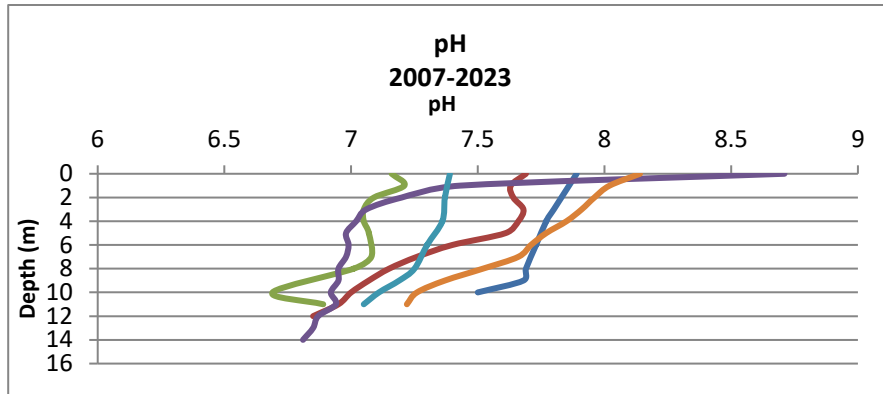
Bootjack Lake B1 Fall Lake Profiles



- 01-Nov-11
- 23-Sep-17
- 16-Sep-19
- 19-Oct-21
- 26-Oct-22
- 24-Sep-15
- 30-Oct-17
- 23-Oct-19
- 19-Oct-21
- 10-Oct-23
- 05-Oct-15
- 23-Sep-18
- 30-Sep-20
- 01-Nov-21
- 18-Oct-16
- 16-Oct-18
- 27-Oct-20
- 19-Sep-22

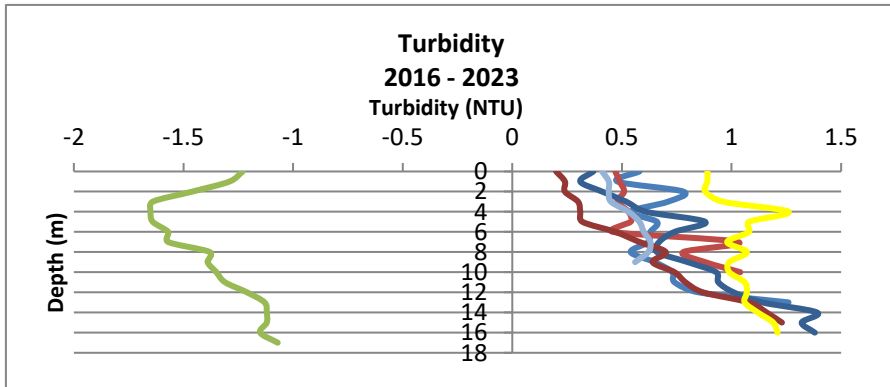
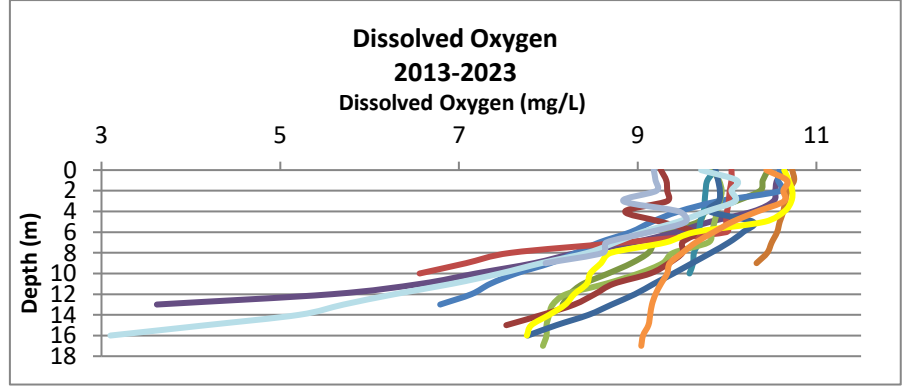
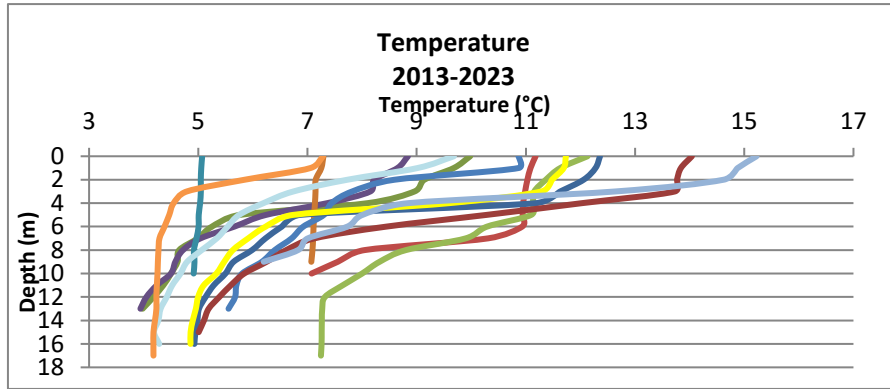
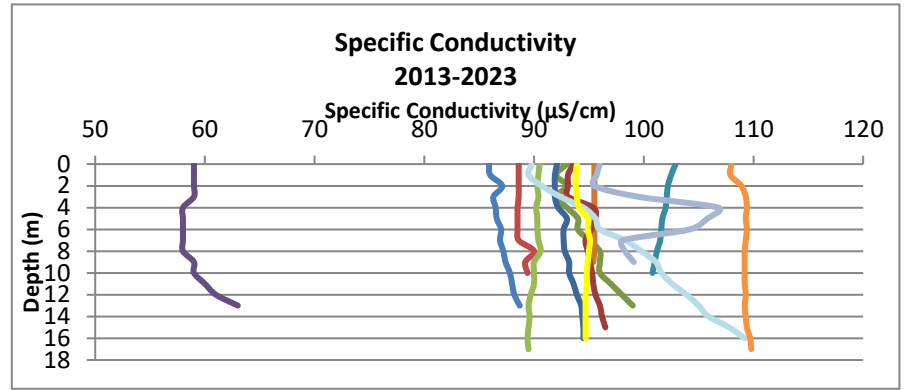
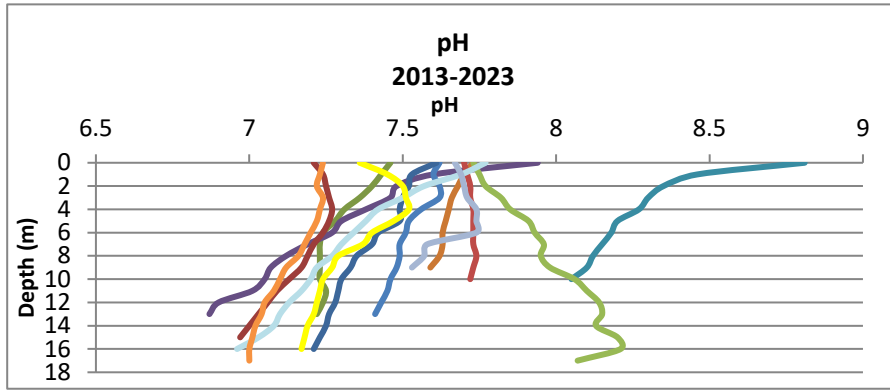
MPMC

Bootjack Lake B1 Winter Lake Profiles



MPMC

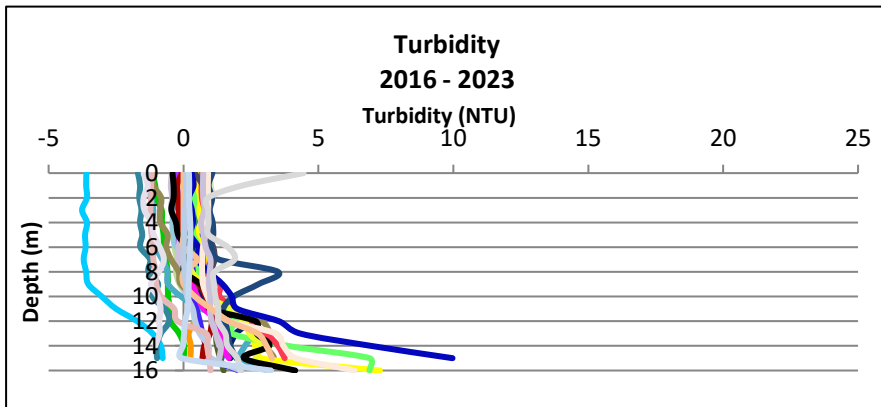
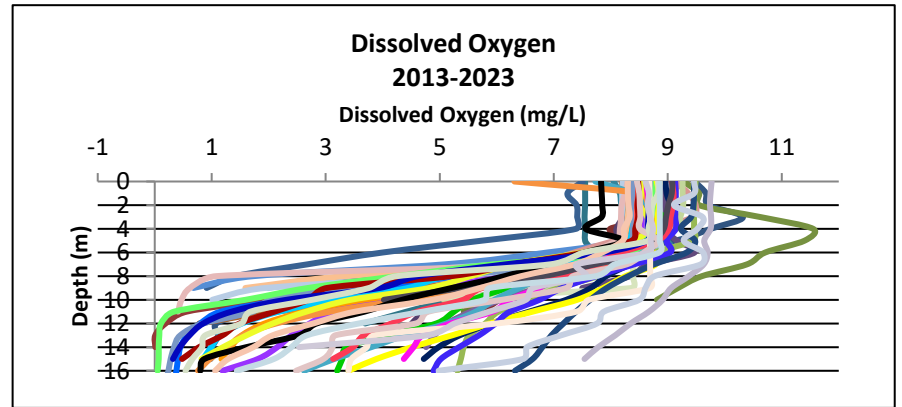
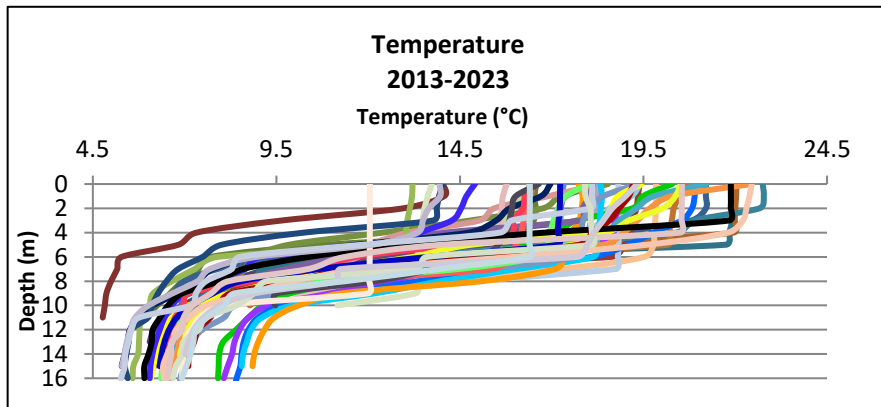
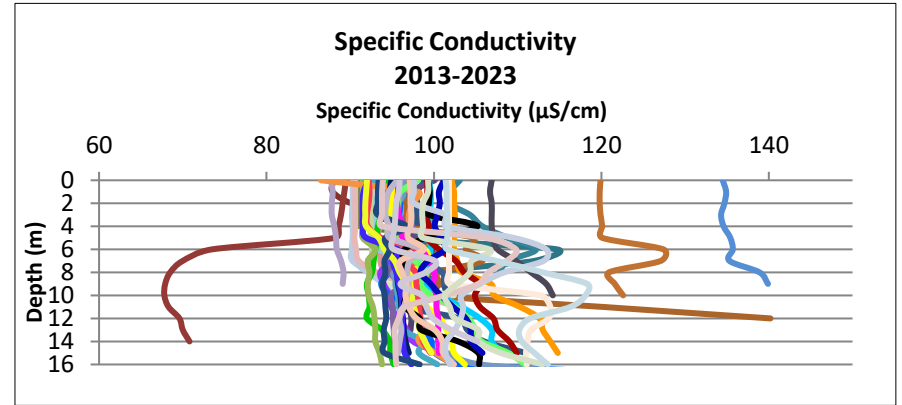
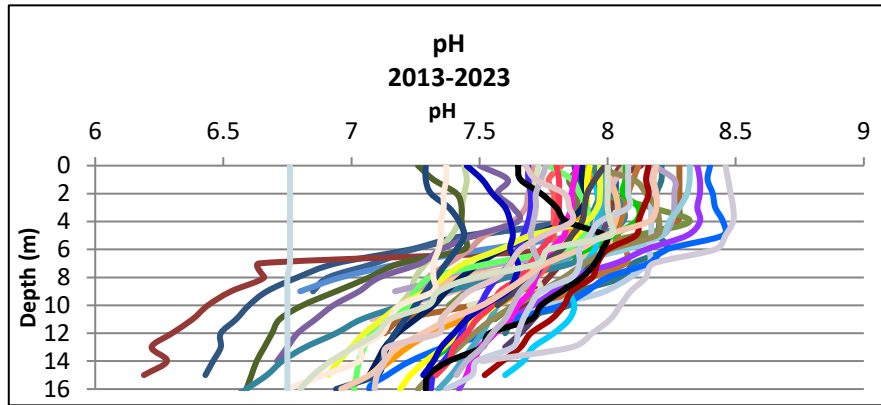
Bootjack Lake B2 Spring Lake Profiles



- 13-May-13
- 24-May-14
- 16-Apr-15
- 30-Apr-15
- 28-Apr-16
- 12-May-16
- 25-May-17
- 17-May-18
- 22-May-19
- 19-May-20
- 26-May-21
- 24-May-22
- 24-May-23

MPMC

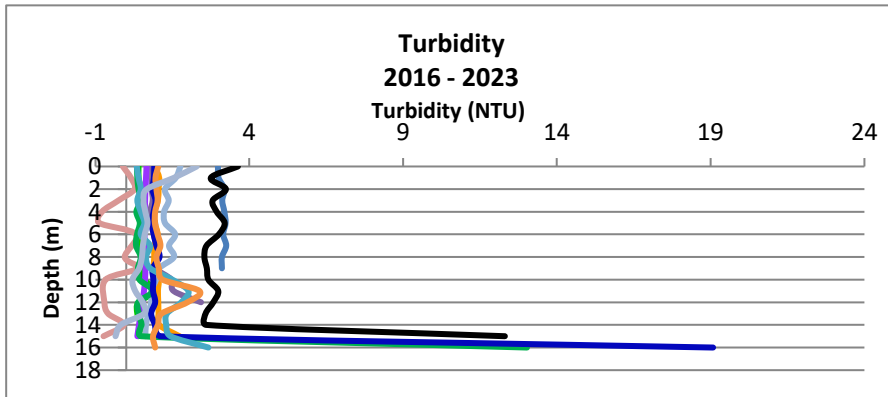
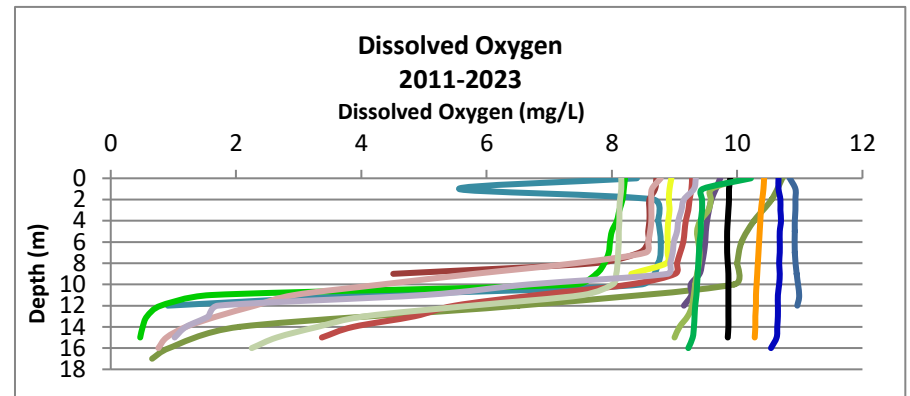
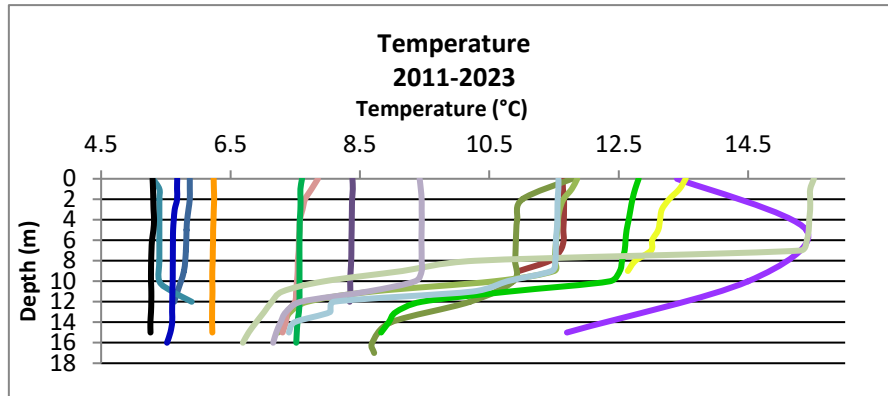
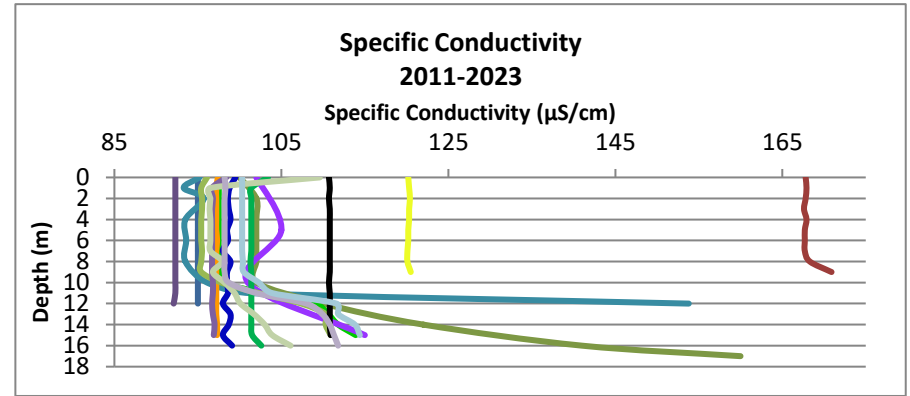
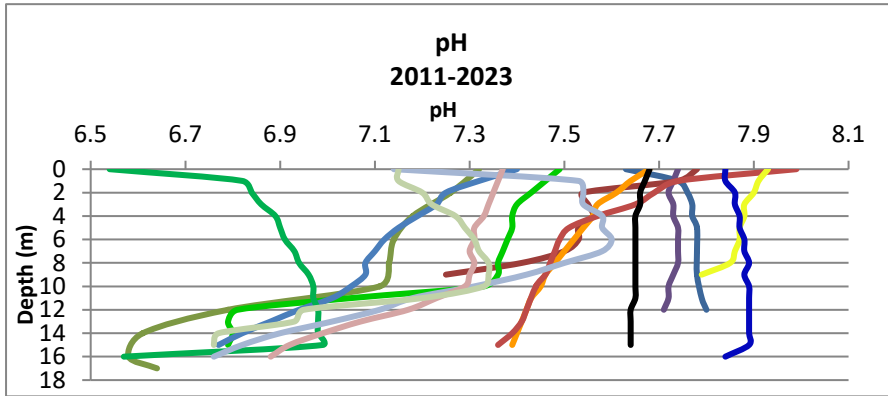
Bootjack Lake B2 Summer Lake Profiles



- 21-Aug-13 04-Jun-14 18-Jun-14 02-Jul-14 17-Jul-14
- 06-Aug-14 18-Aug-14 24-Aug-14 27-May-15 22-Jun-15
- 06-Jul-15 21-Jul-15 24-Aug-15 08-Jun-16 21-Jun-16
- 05-Jul-16 18-Jul-16 11-Aug-16 22-Aug-16 07-Sep-16
- 20-Sep-16 30-Jun-17 14-Jul-17 07-Aug-17 19-Aug-17
- 06-Sep-17 10-Jun-18 23-Jun-18 15-Jul-18 26-Jul-18
- 20-Aug-18 28-Aug-18 12-Jun-19 23-Jul-19 29-Aug-19
- 18-Jun-20 22-Jun-20 14-Jul-20 29-Jul-20 19-Aug-20
- 09-Sep-20 10-Jun-21 15-Jul-21 24-Aug-21 28-Sep-21
- 16-Jun-22 11-Jul-22 24-Aug-22 08-Jun-23 12-Jul-23
- 23-Aug-23 28-Aug-23 7-Sep-23

MPMC

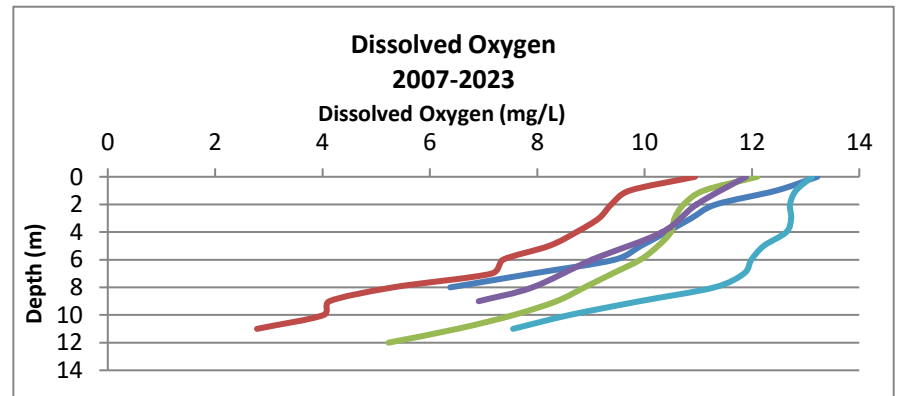
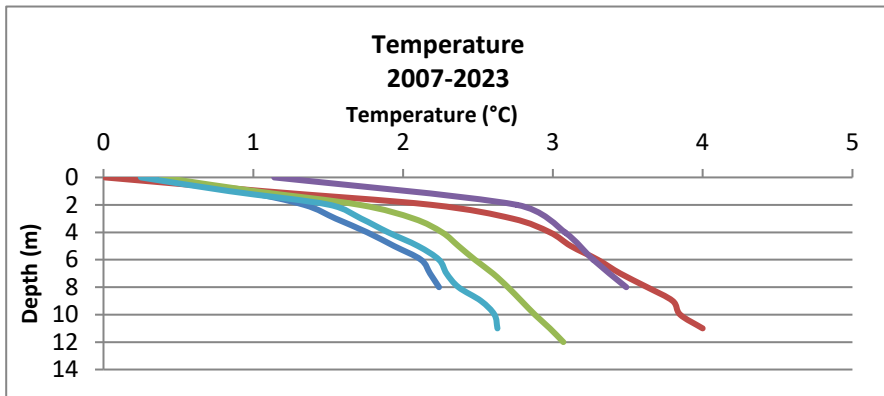
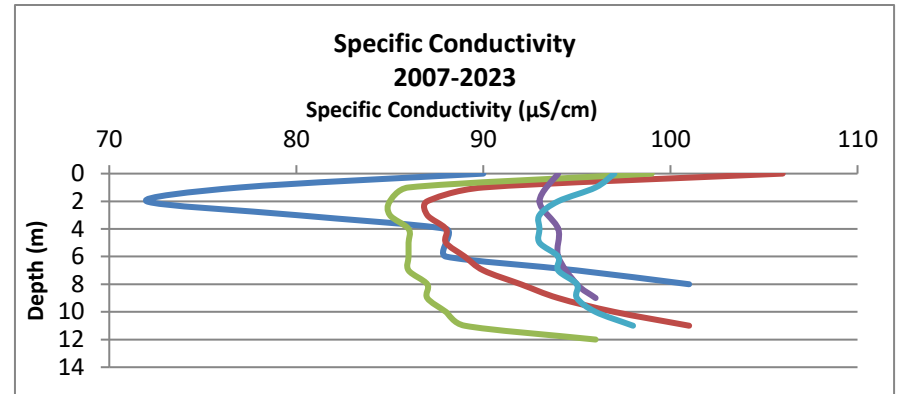
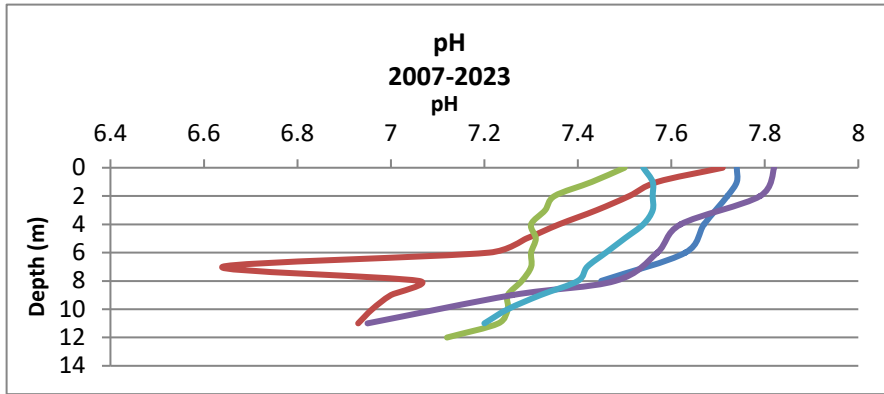
Bootjack Lake B2 Fall Lake Profiles



- 01-Nov-11 24-Sep-15 05-Oct-15 18-Oct-16
- 23-Sep-17 30-Oct-17 23-Sep-18 16-Oct-18
- 29-Sep-20 27-Oct-20 19-Oct-21 01-Nov-21
- 19-Sep-22 26-Oct-22 10-Oct-23

MPMC

Bootjack Lake B2 Winter Lake Profiles



— 06-Mar-07 — 01-Apr-08 — 12-Mar-09 — 08-Mar-11 — 06-Mar-12

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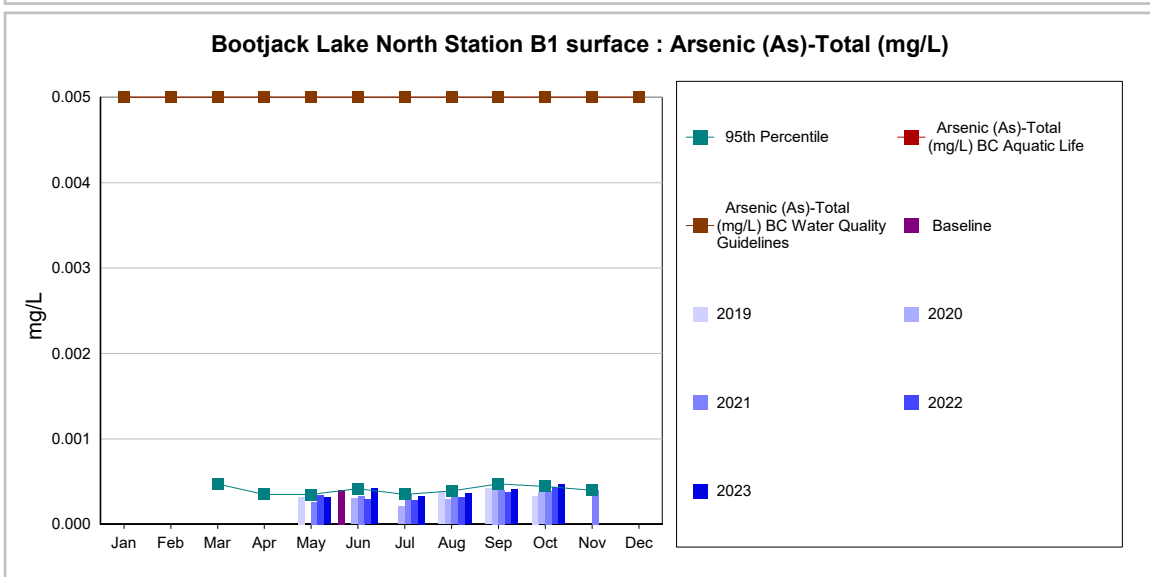
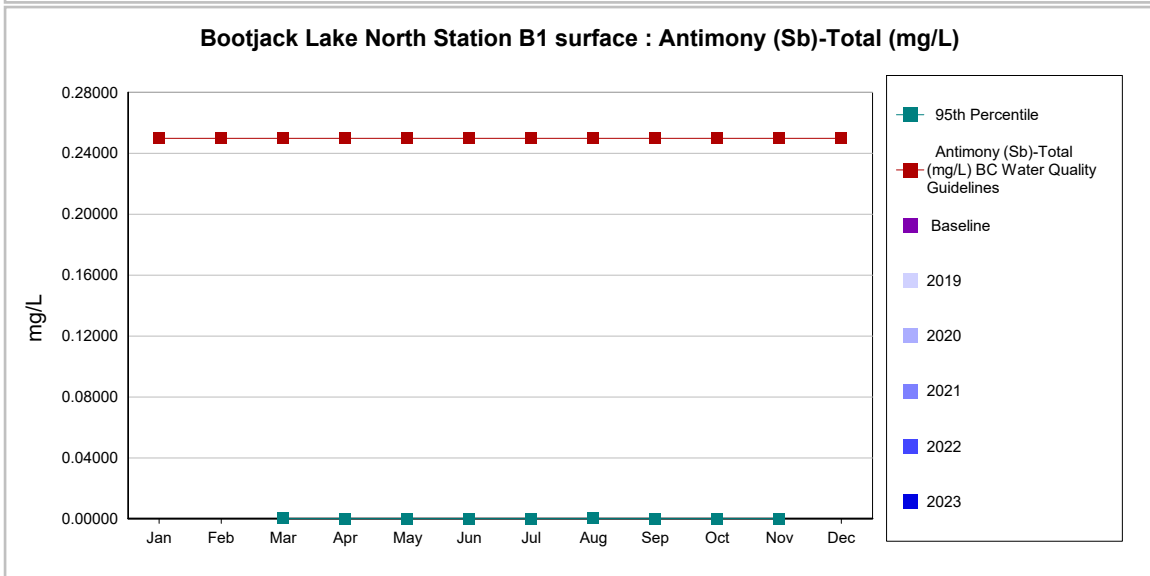
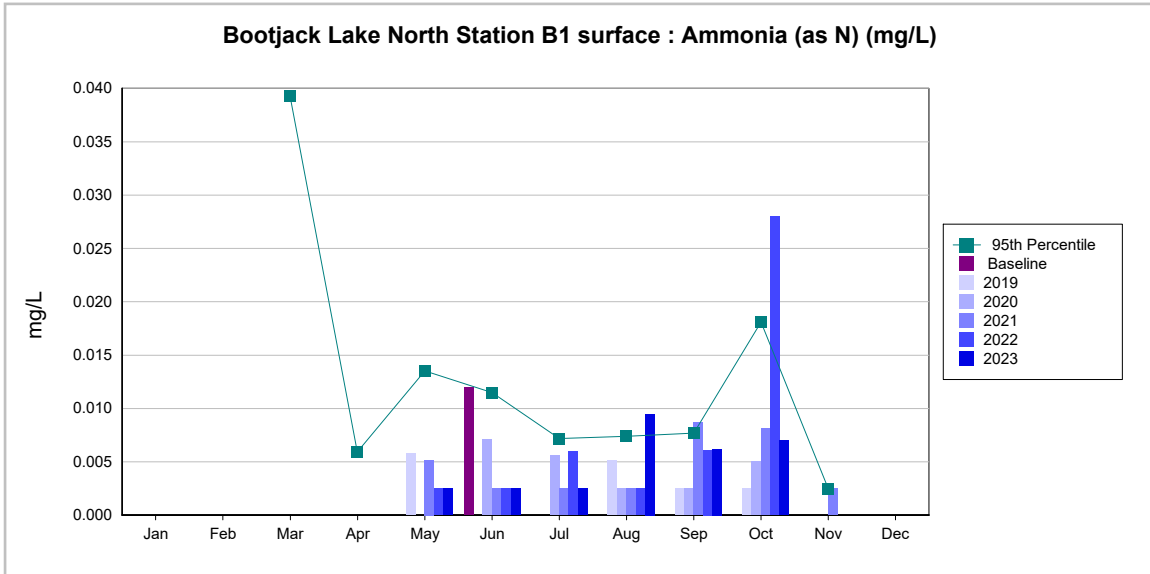
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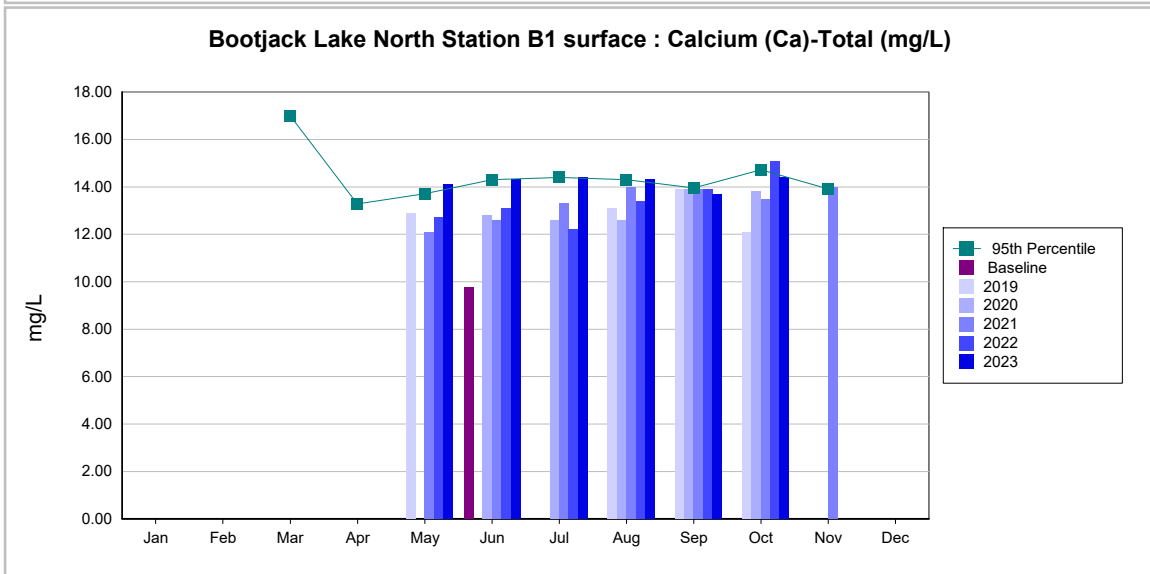
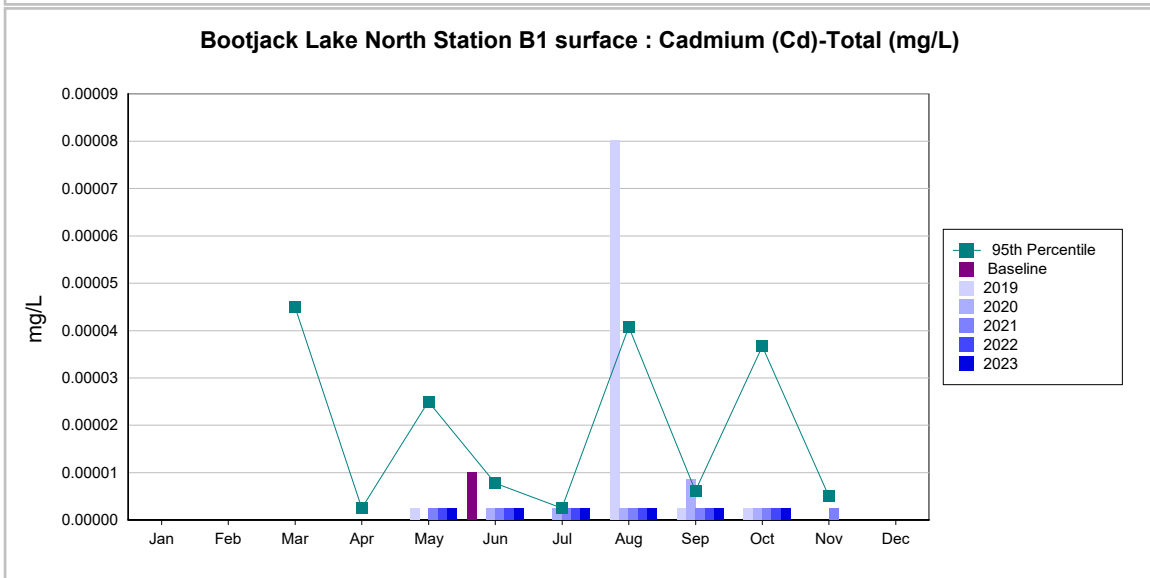
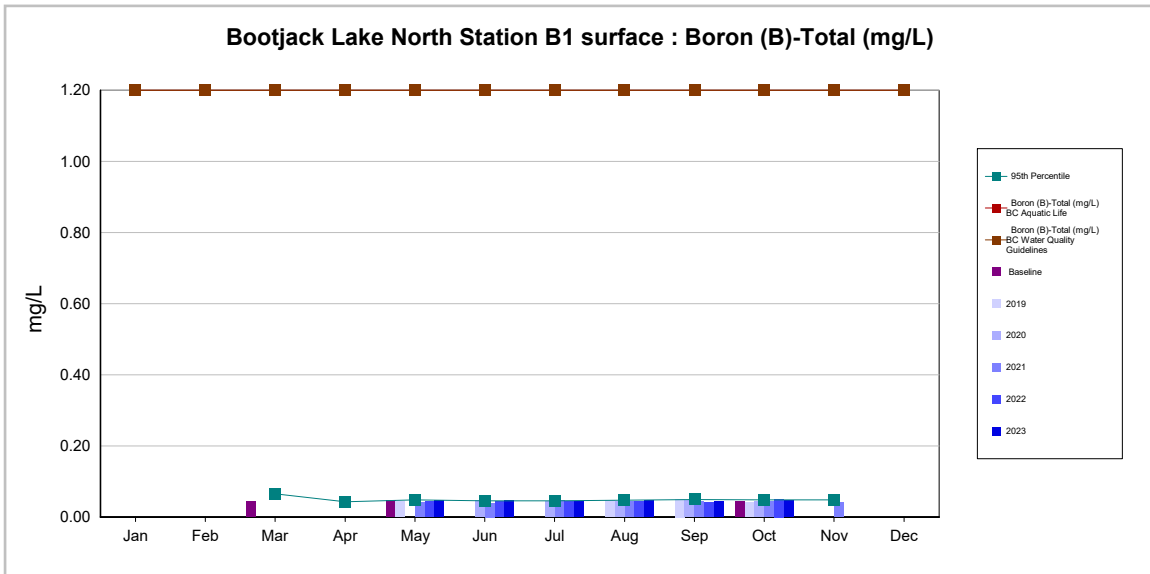
Annual Report Bootjack Lake



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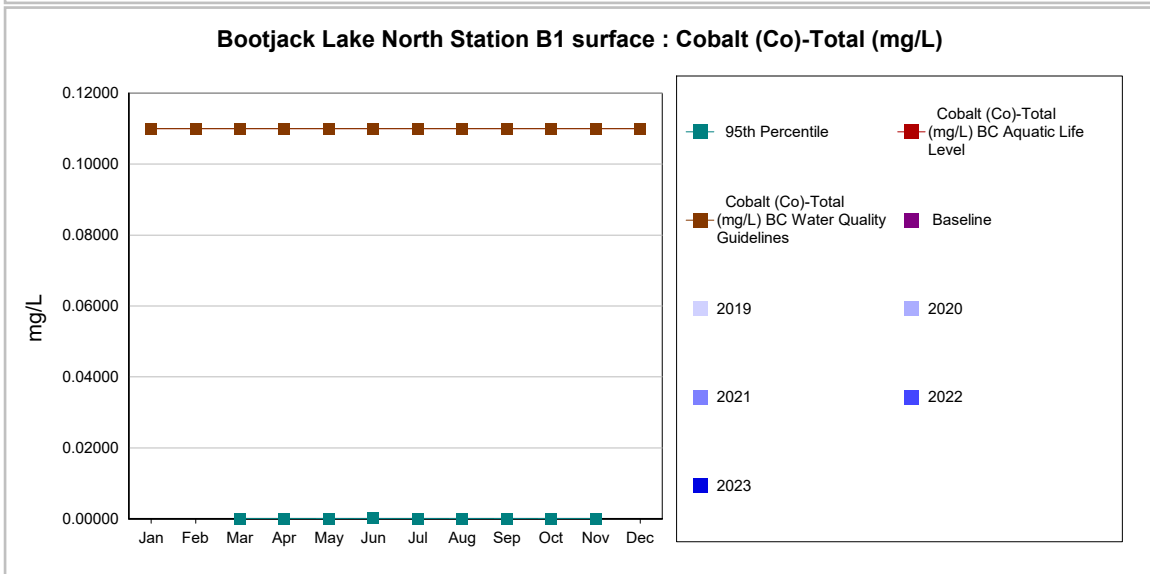
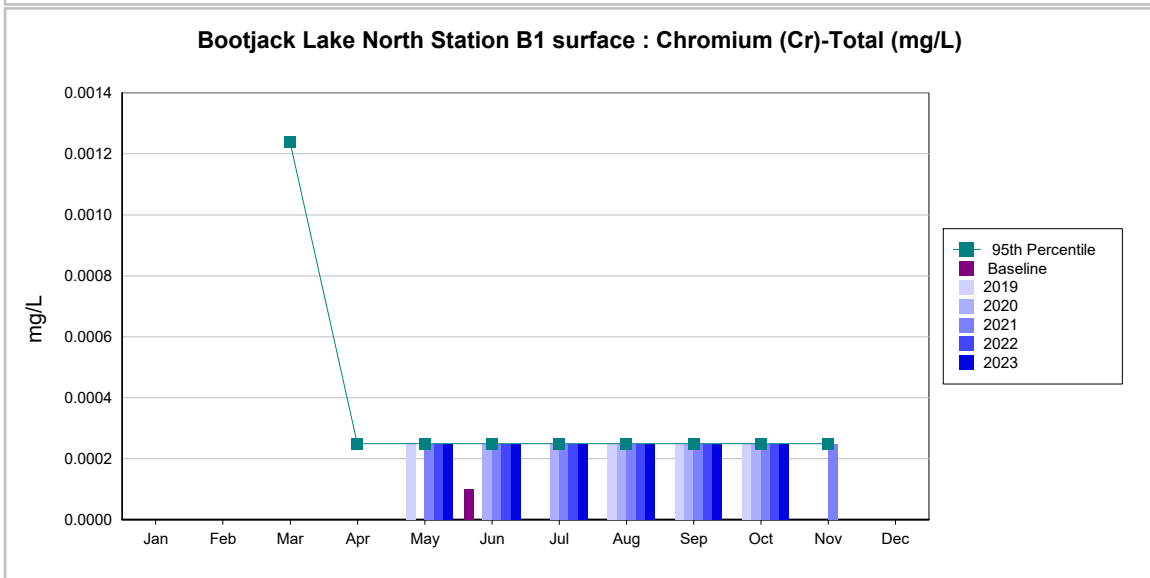
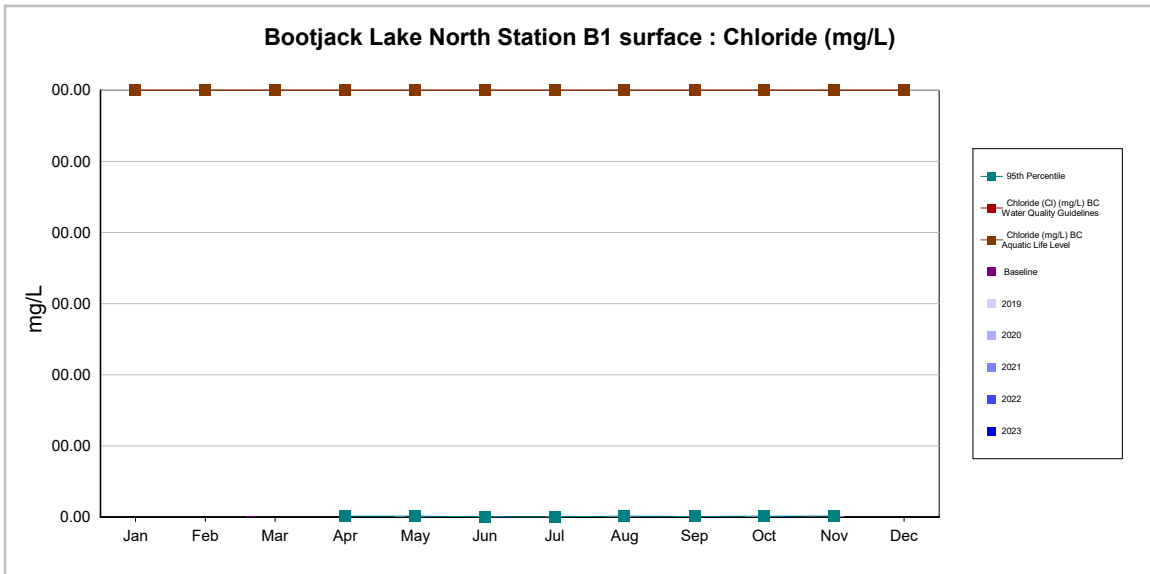
Annual Report Bootjack Lake



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Water Quality Report

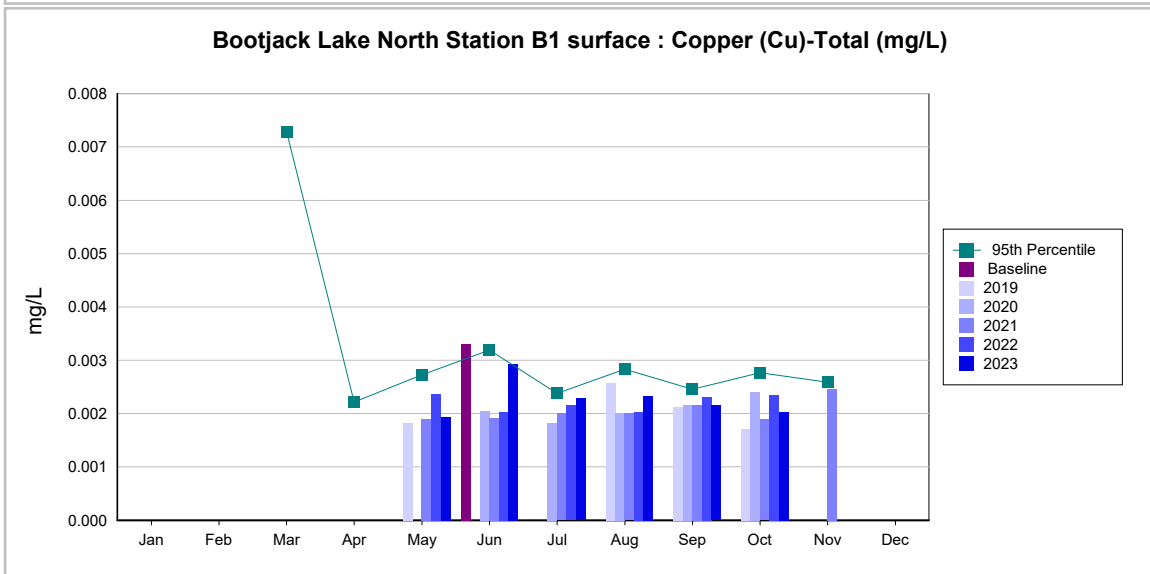
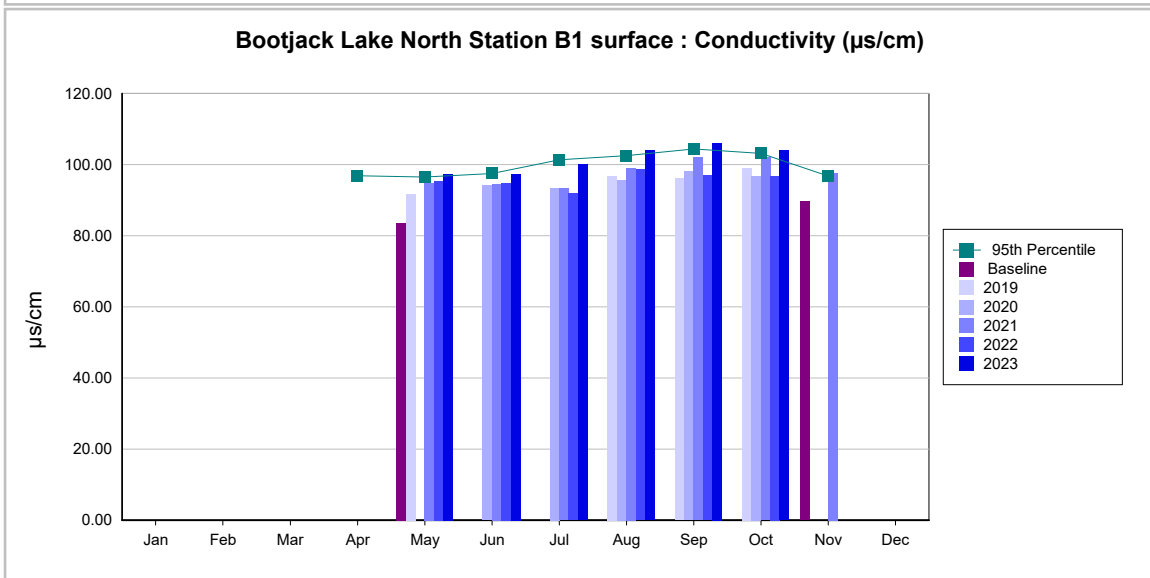
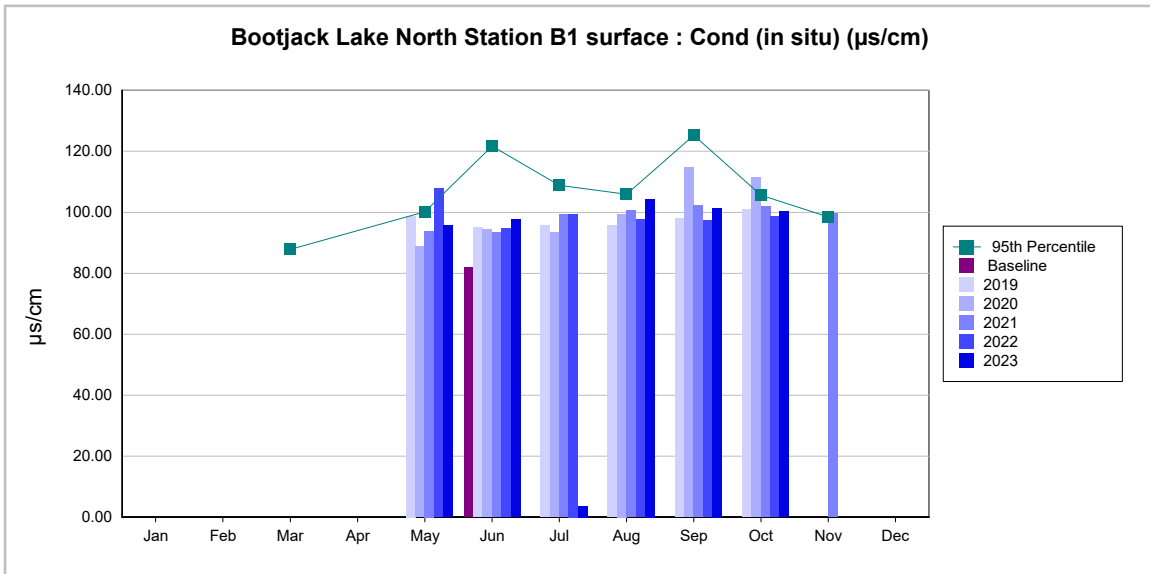
Annual Report Bootjack Lake



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Water Quality Report

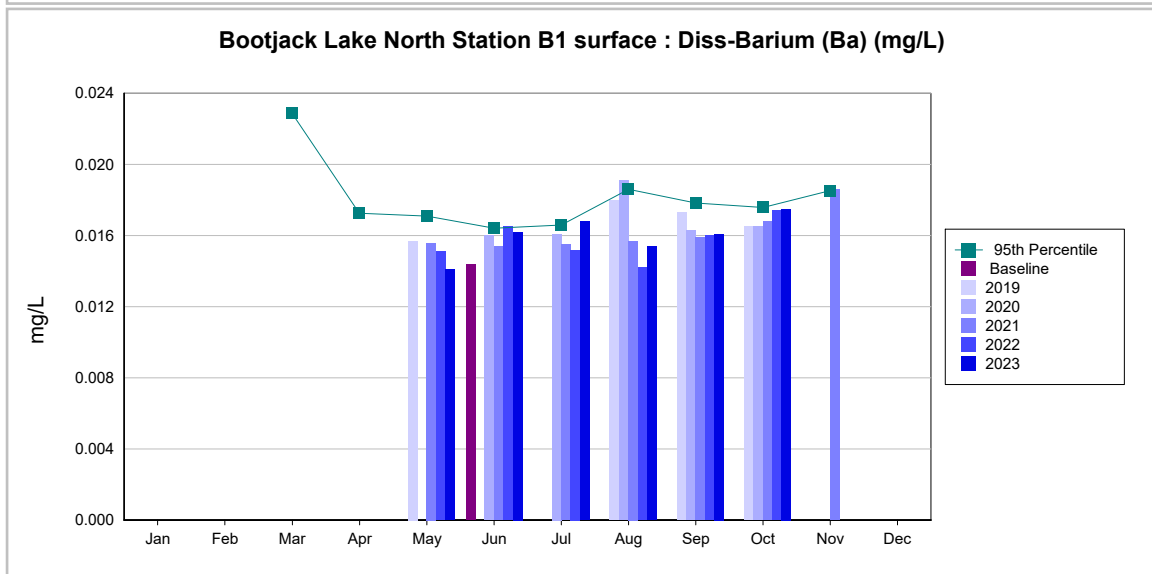
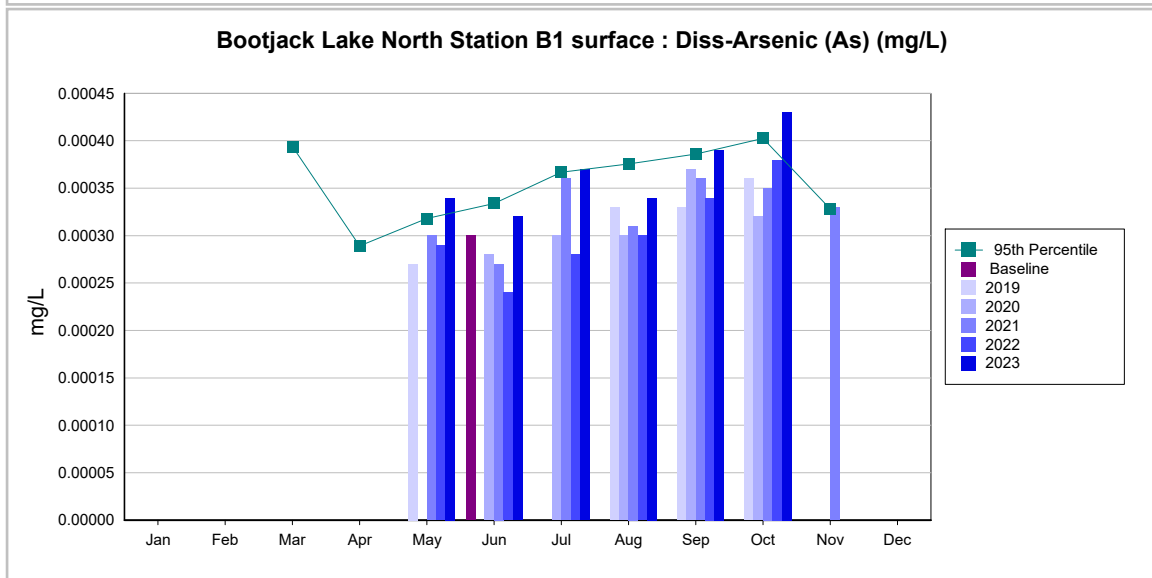
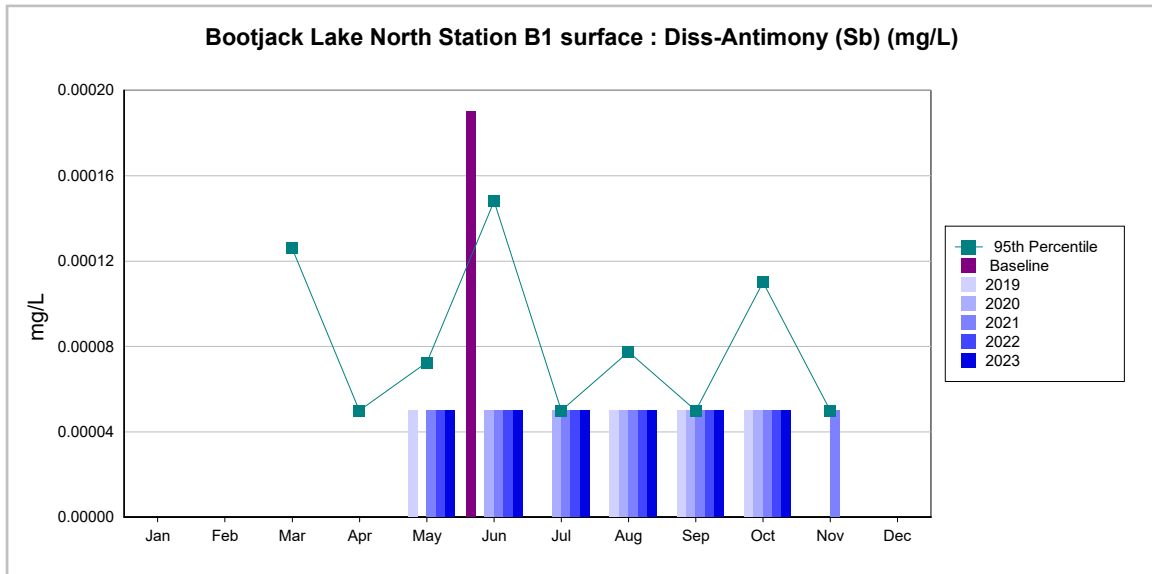
Annual Report Bootjack Lake



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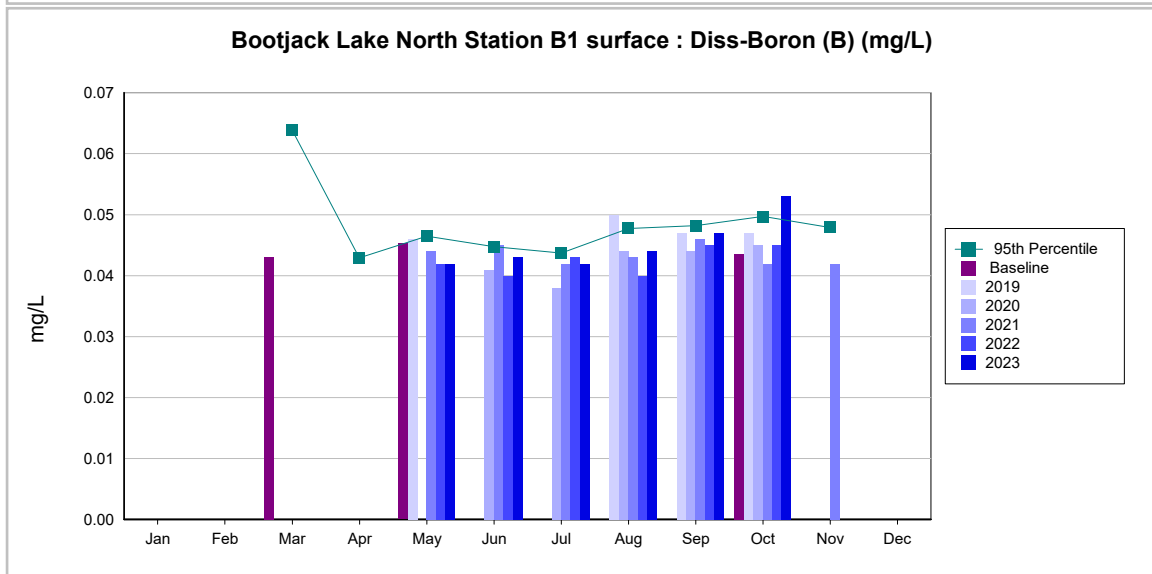
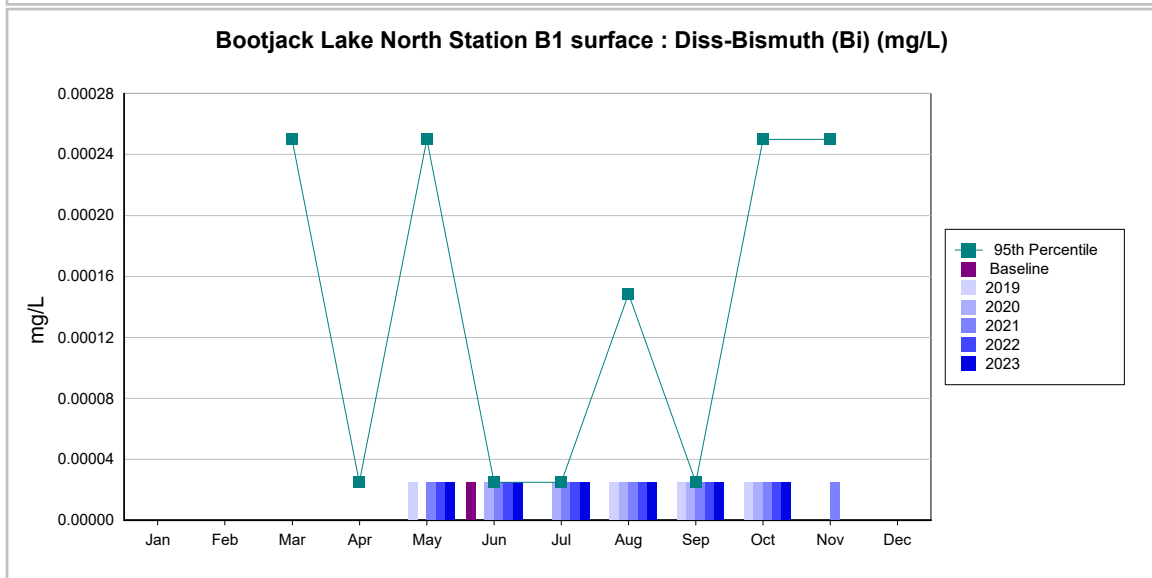
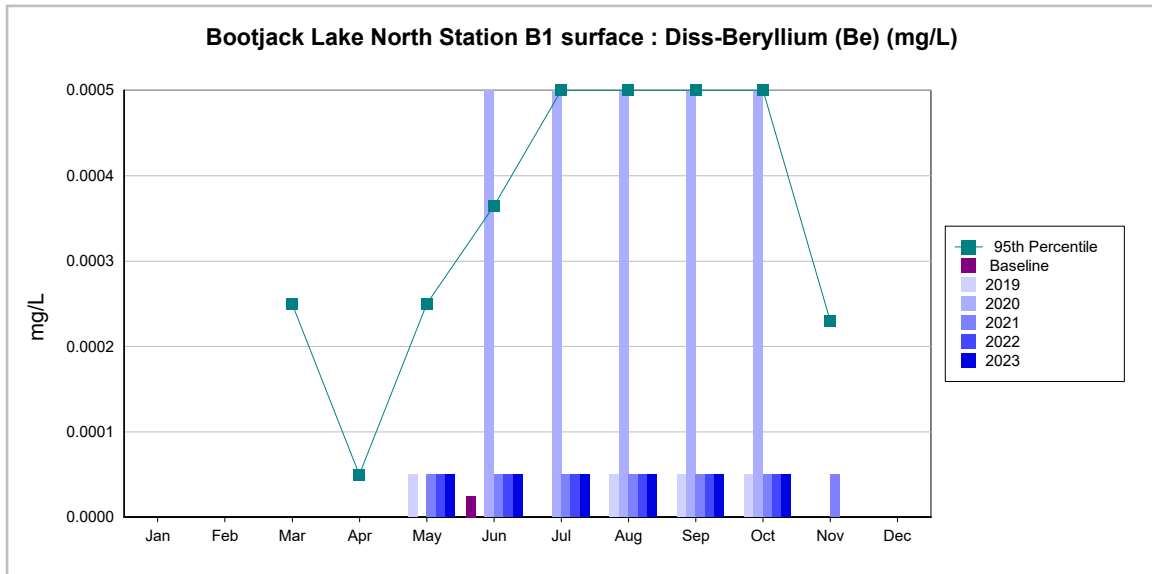
Annual Report Bootjack Lake



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Water Quality Report

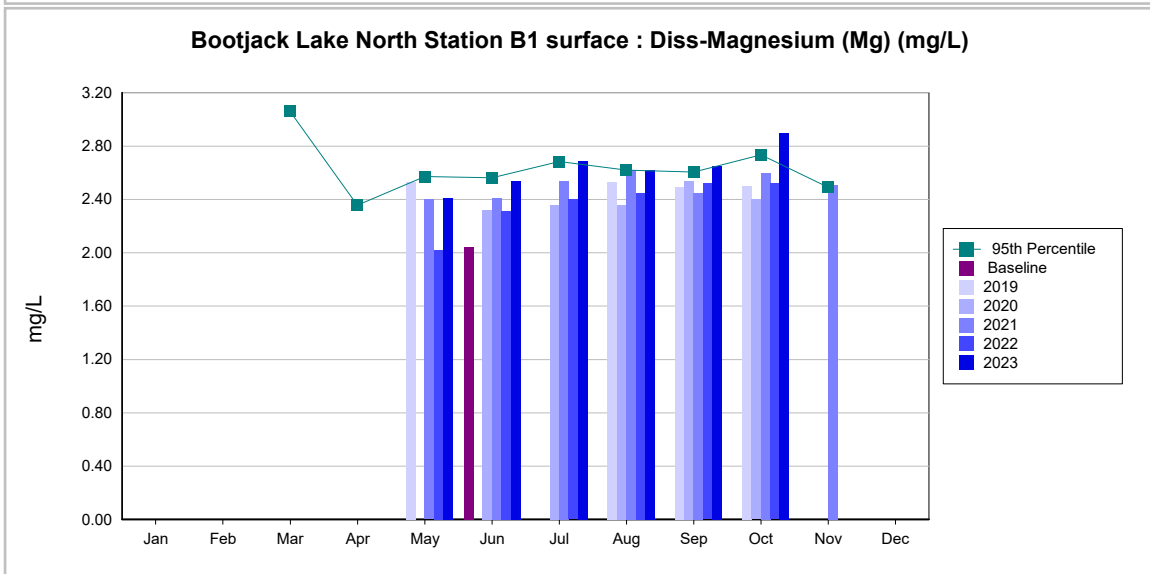
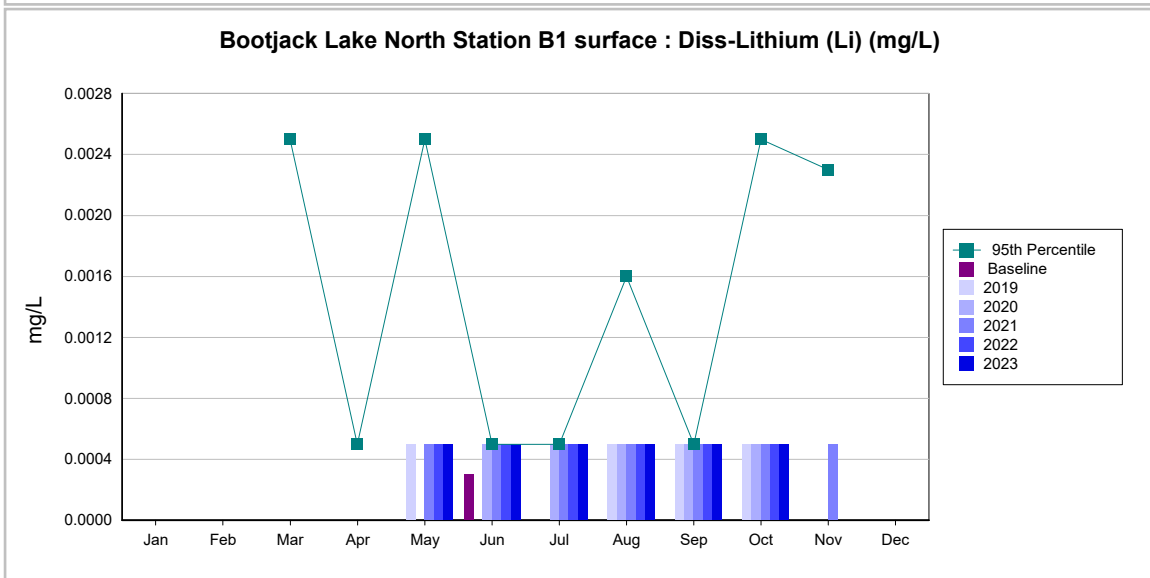
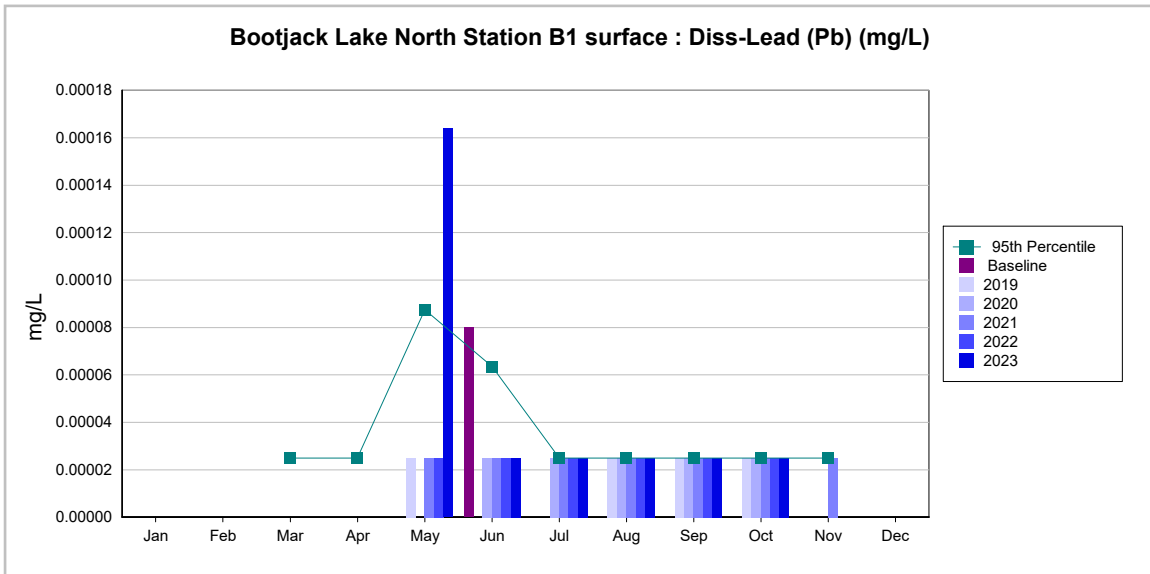
Annual Report Bootjack Lake



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Water Quality Report

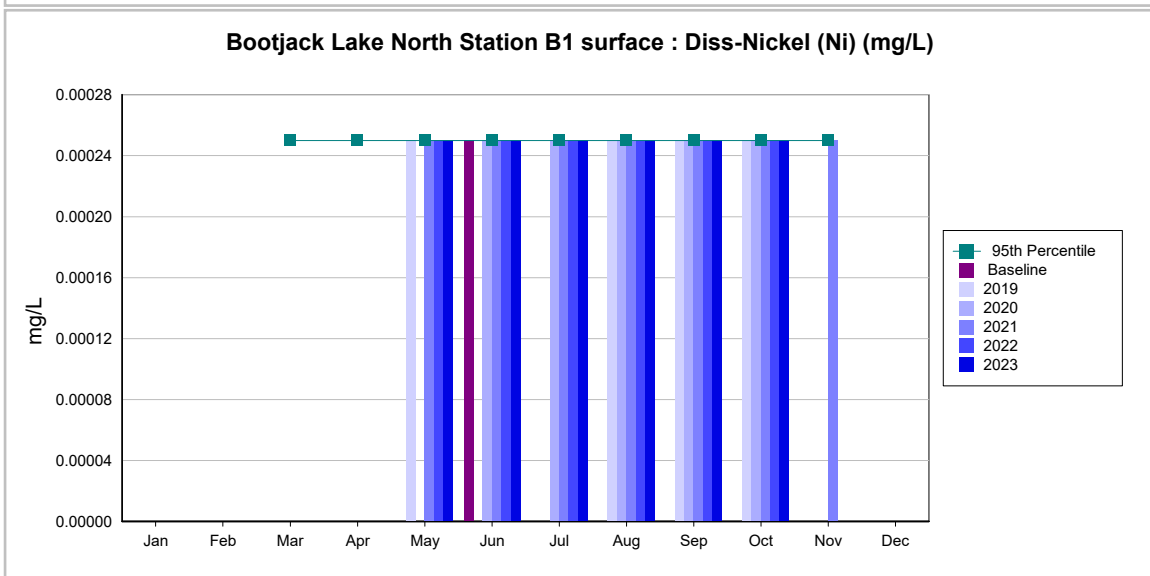
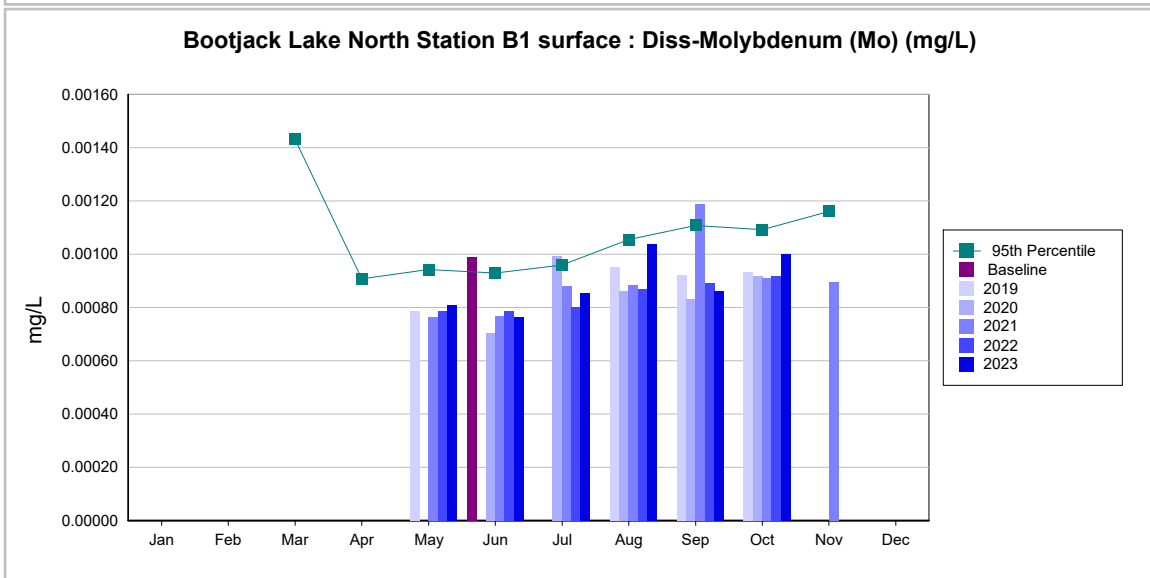
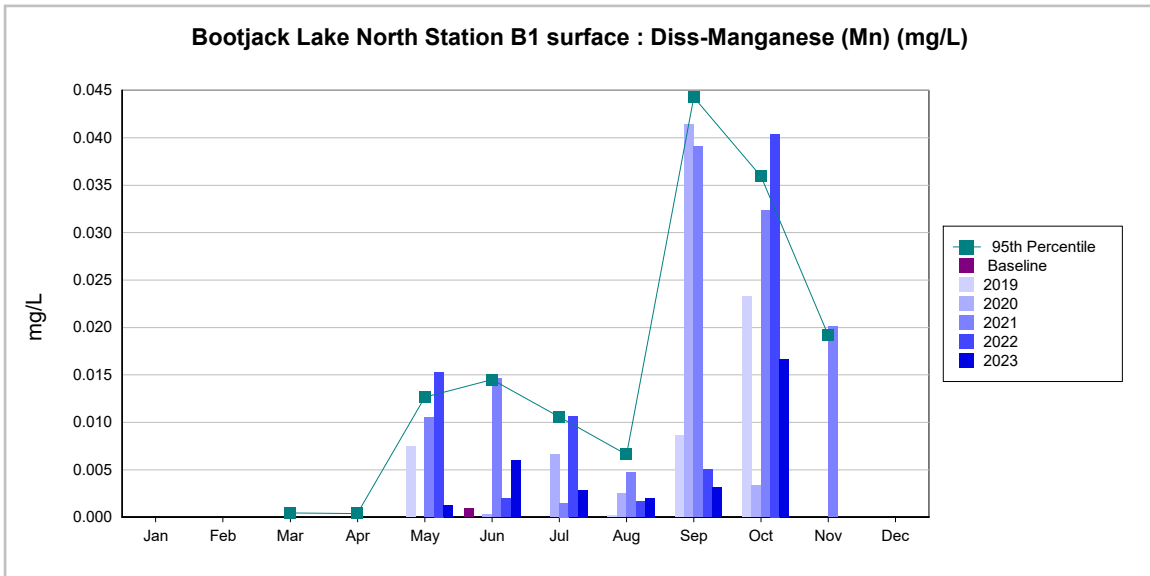
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Water Quality Report

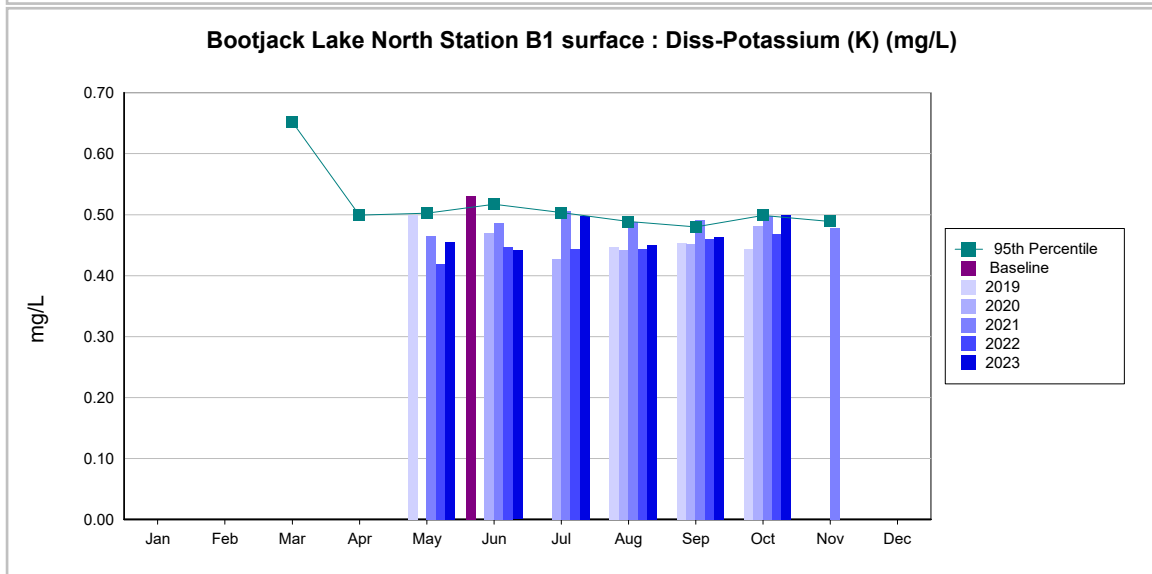
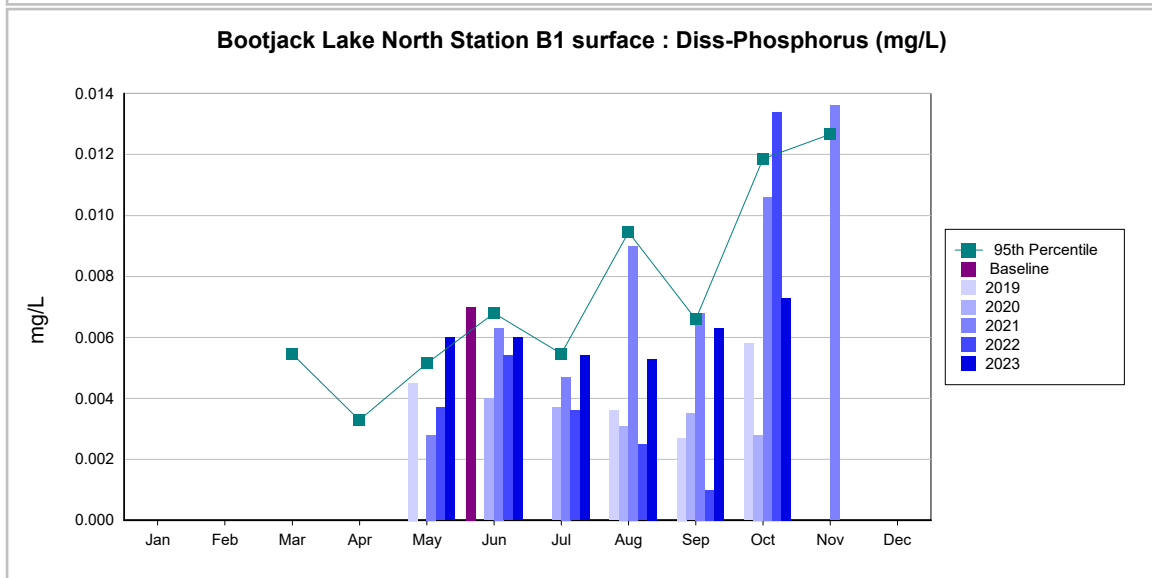
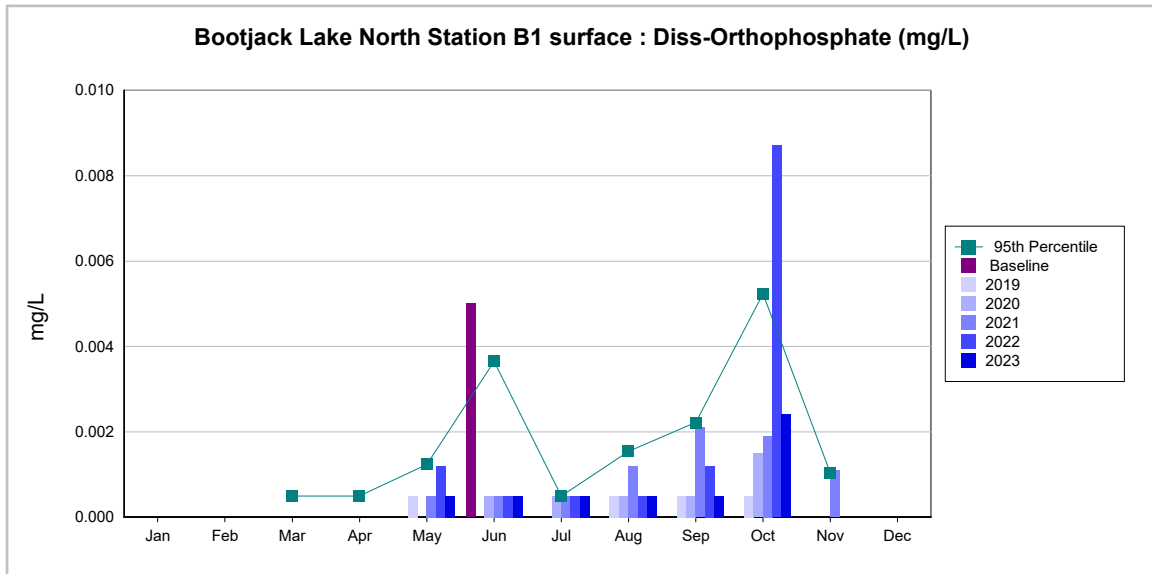
Annual Report Bootjack Lake



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Water Quality Report

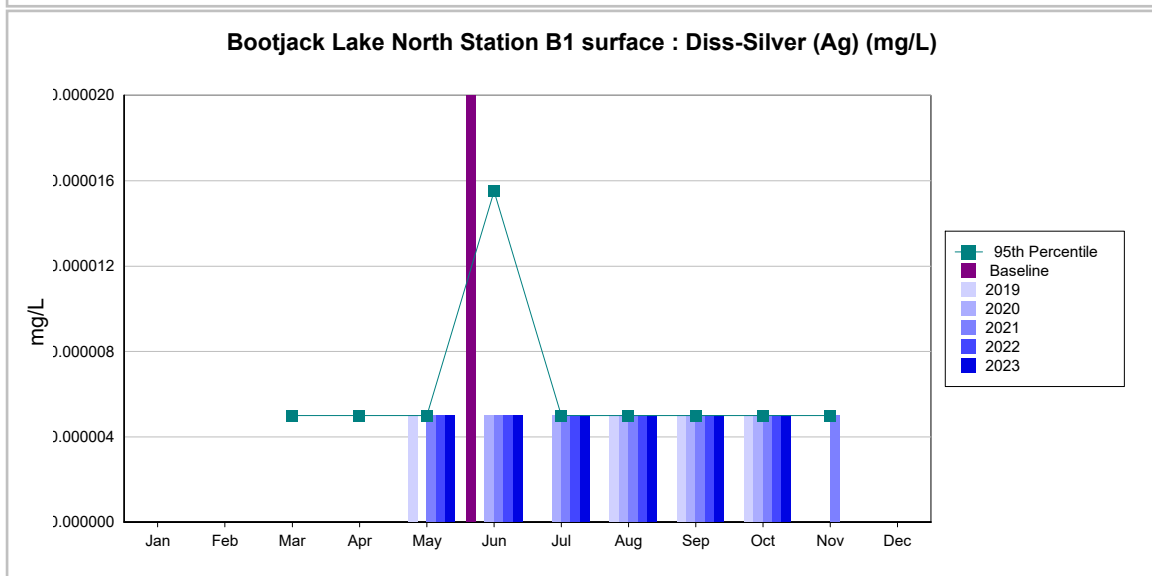
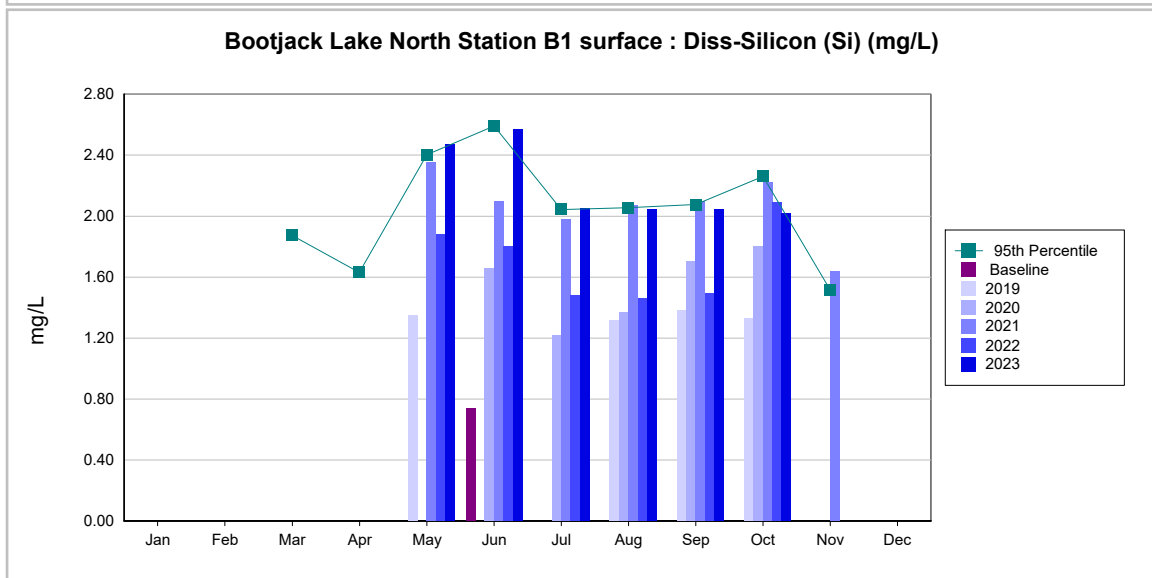
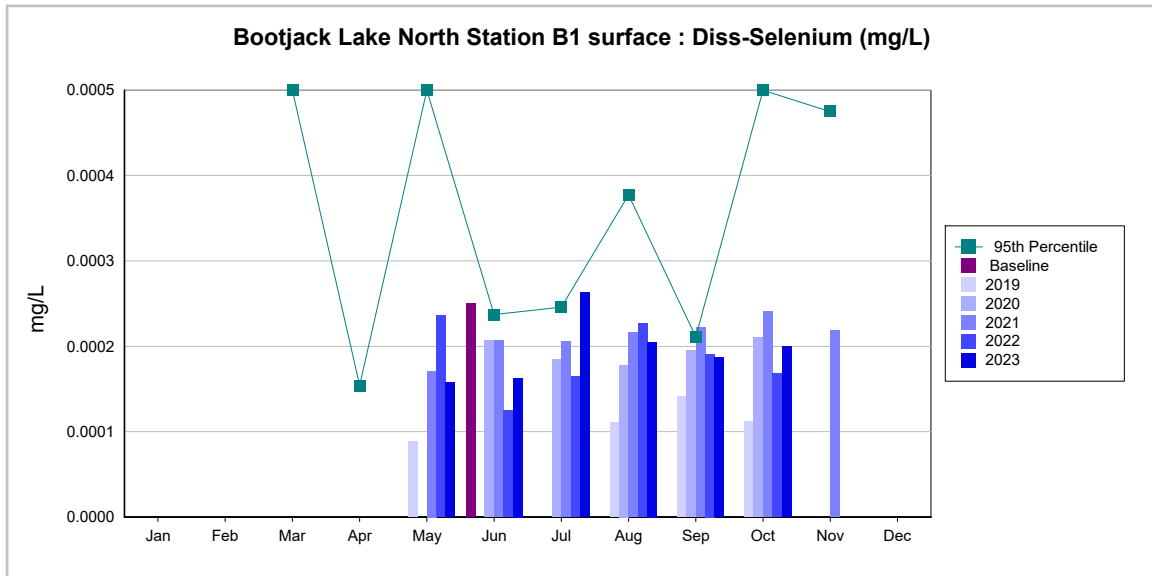
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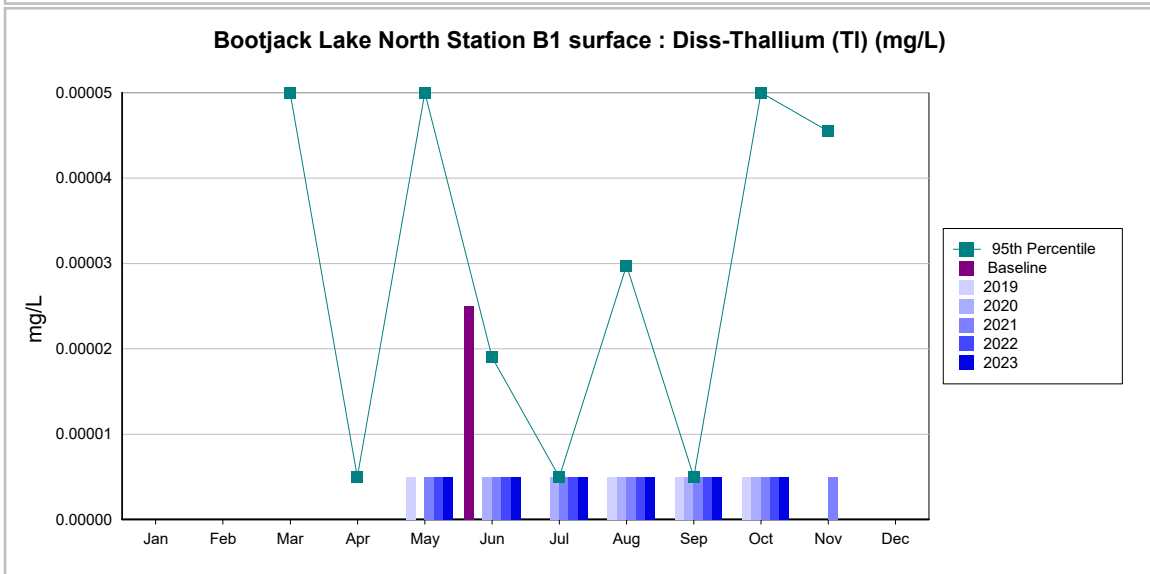
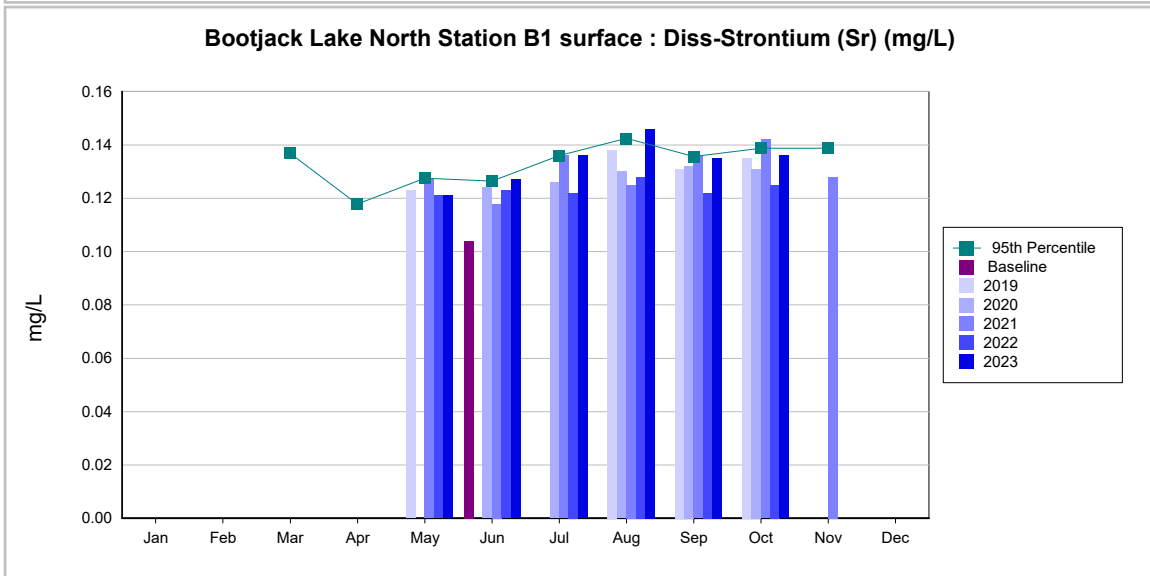
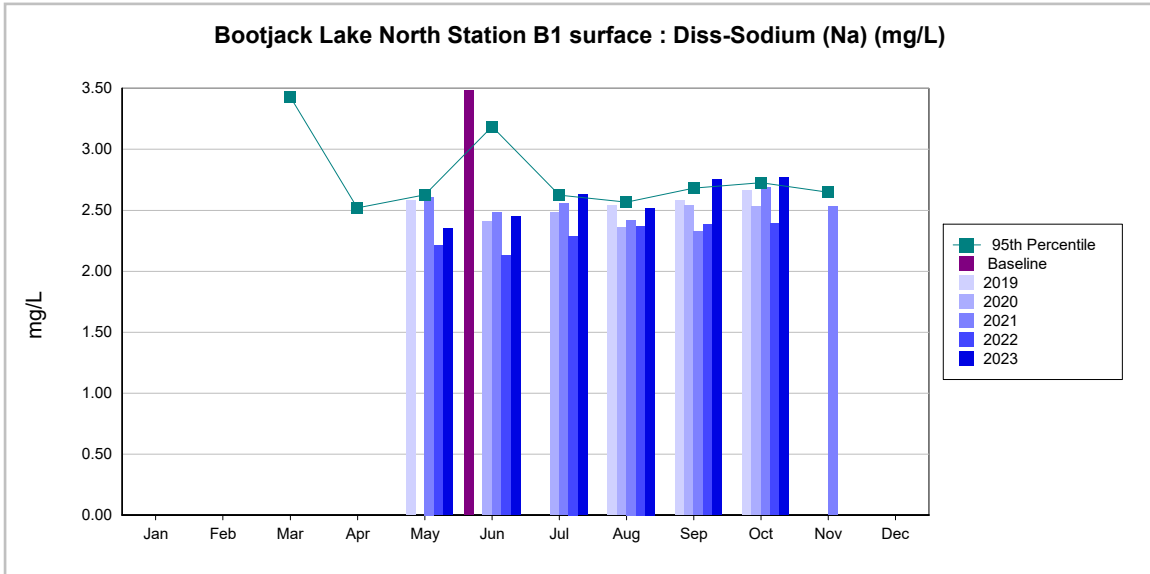
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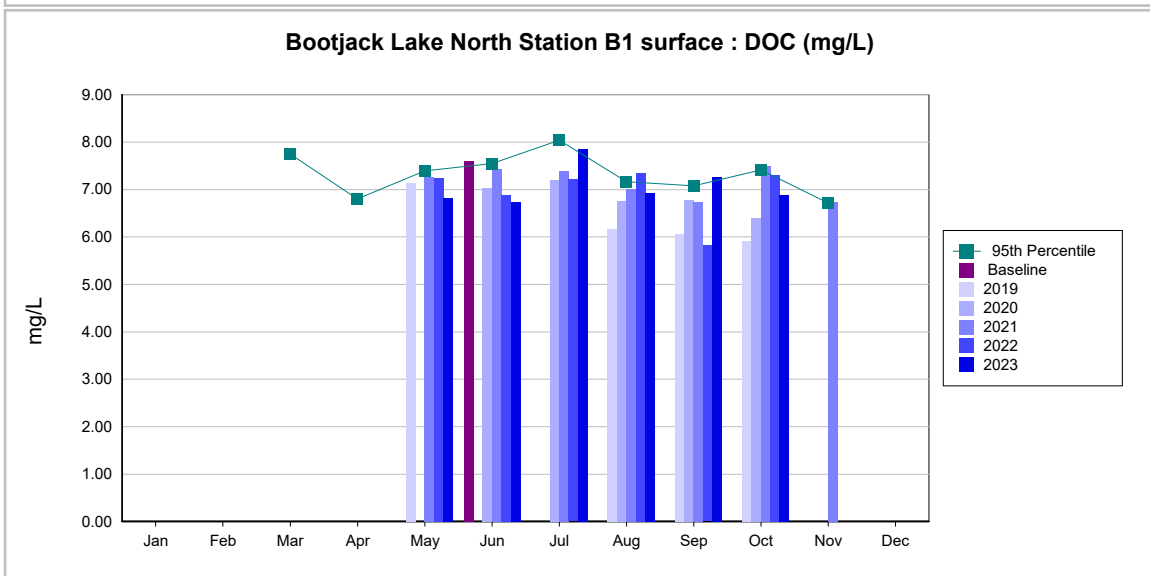
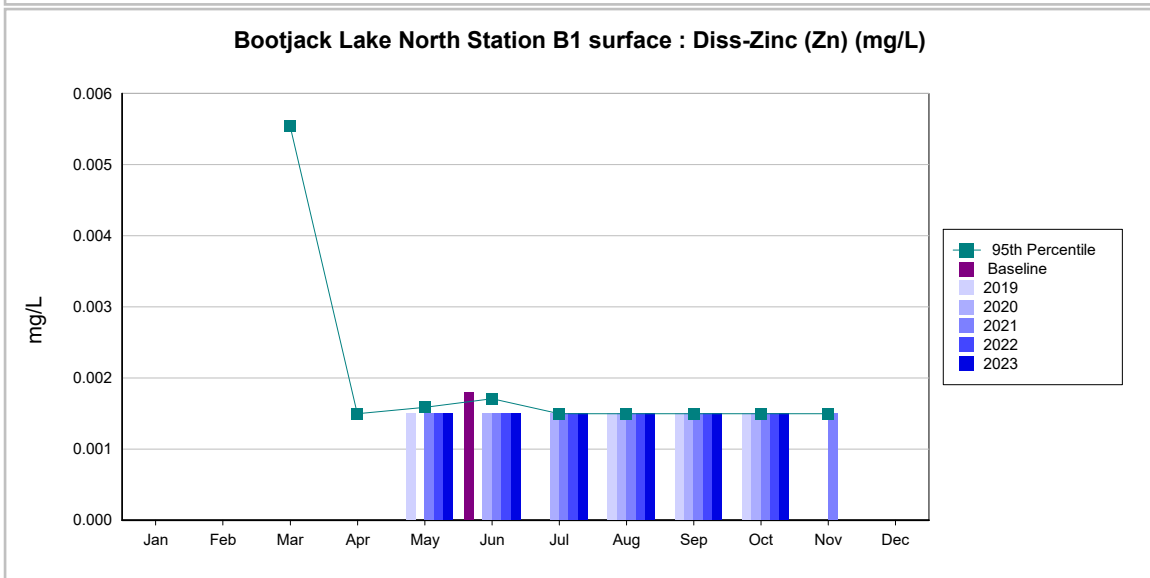
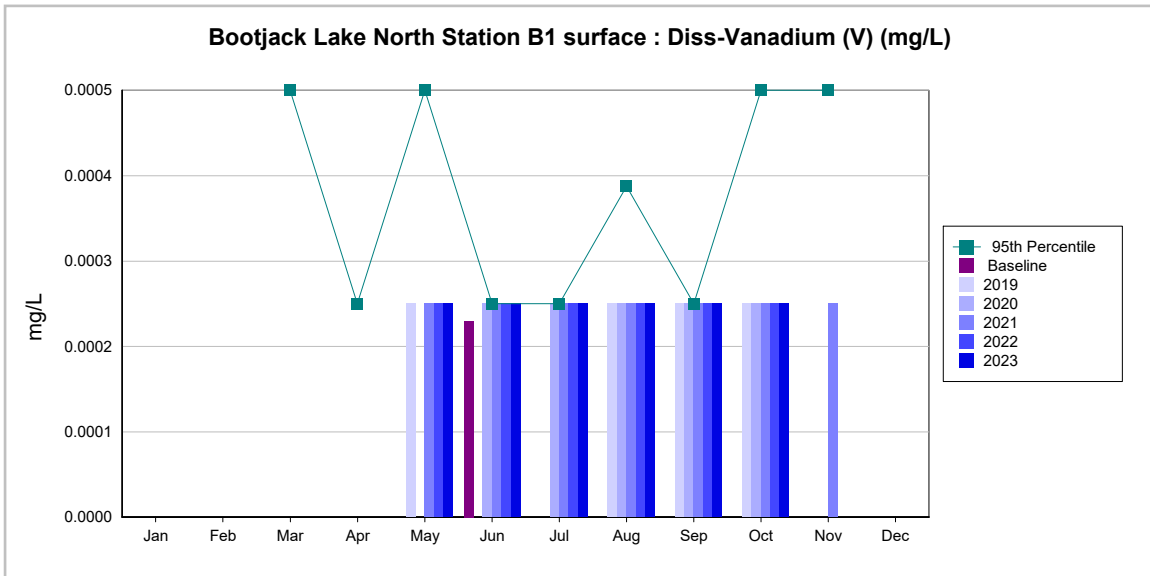
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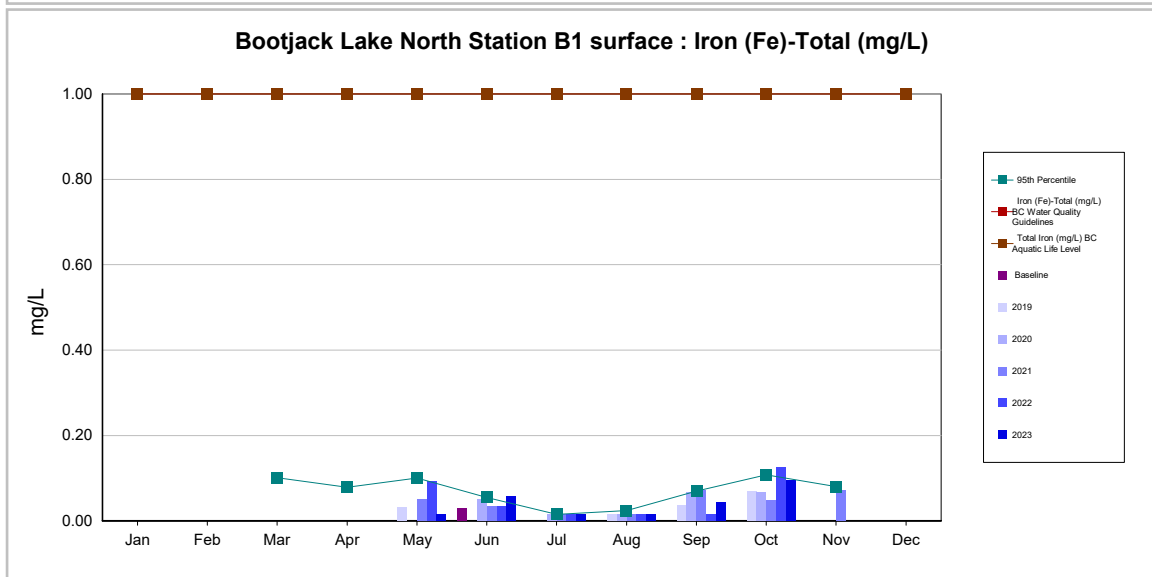
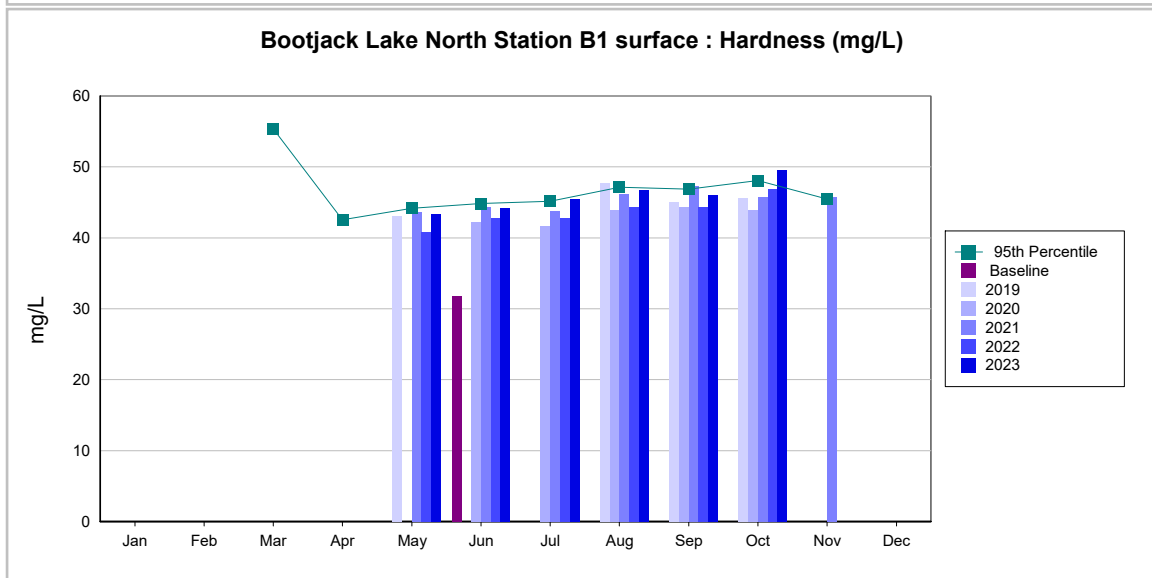
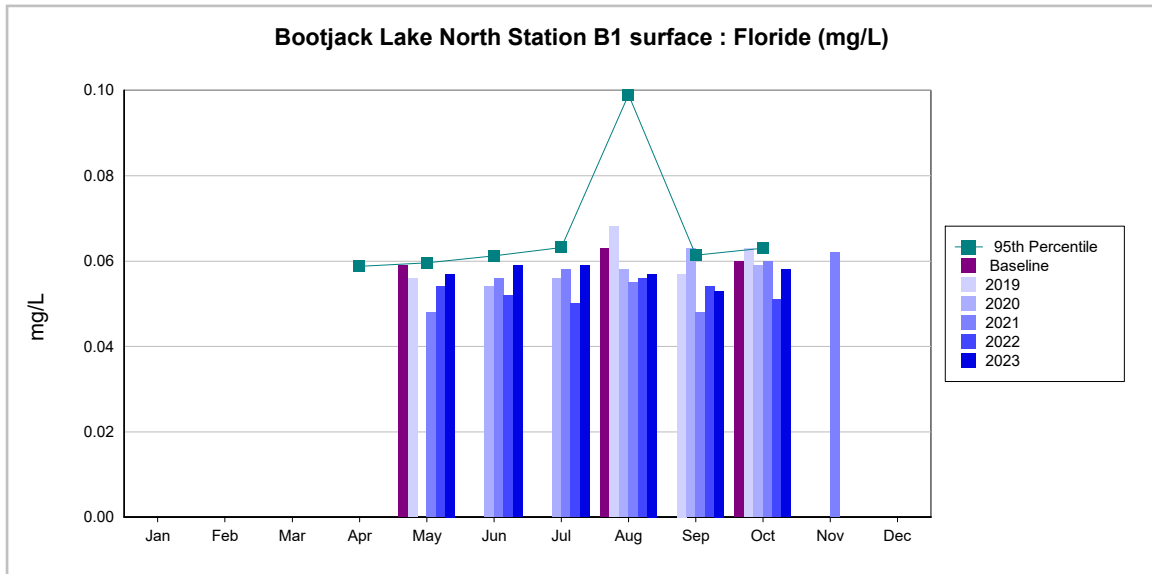
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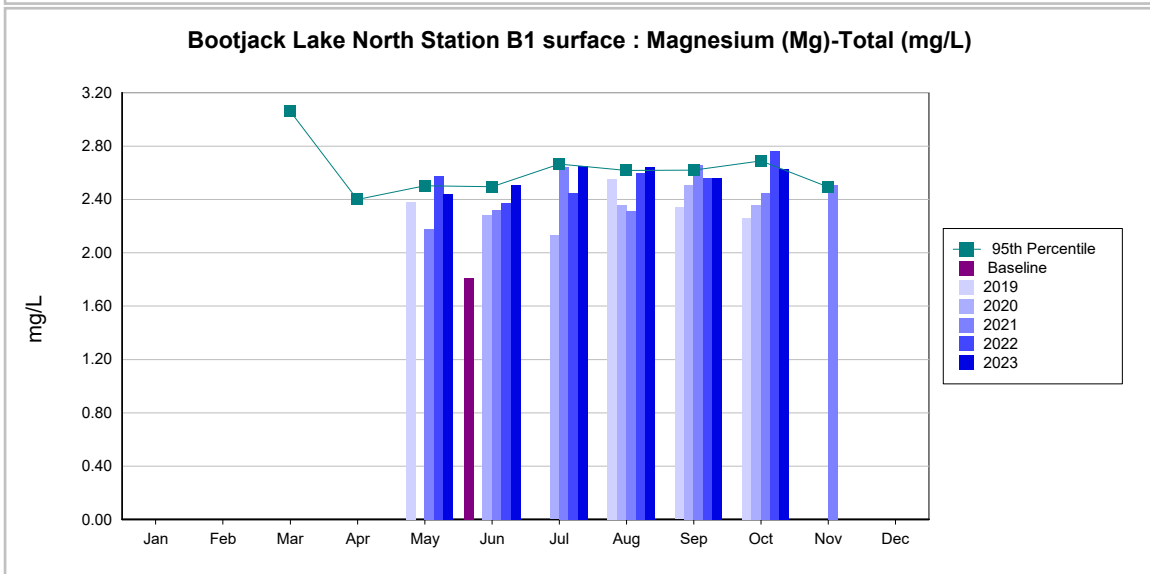
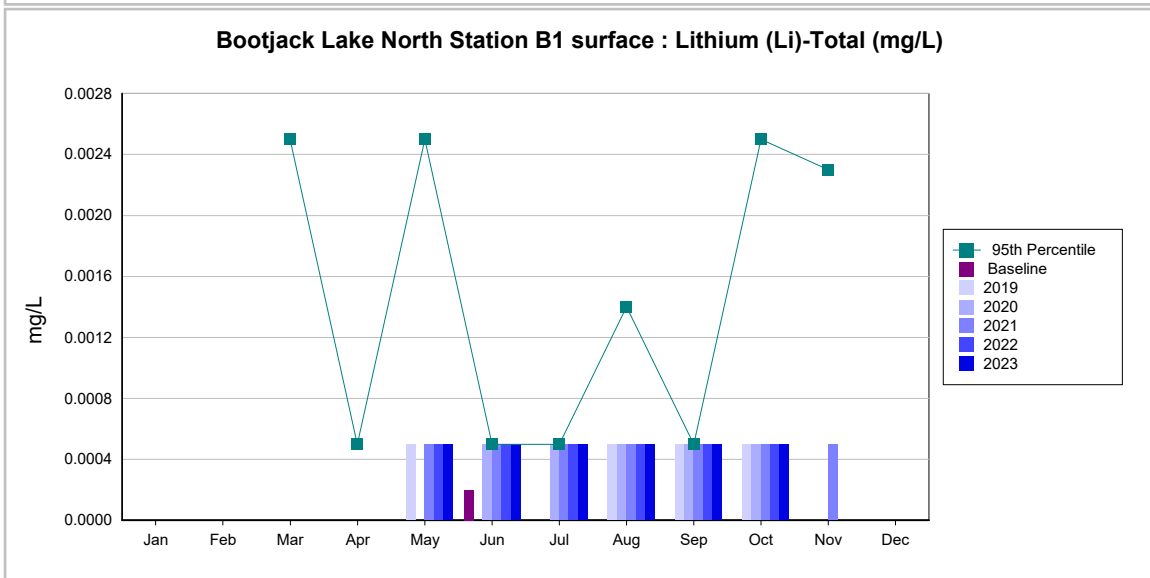
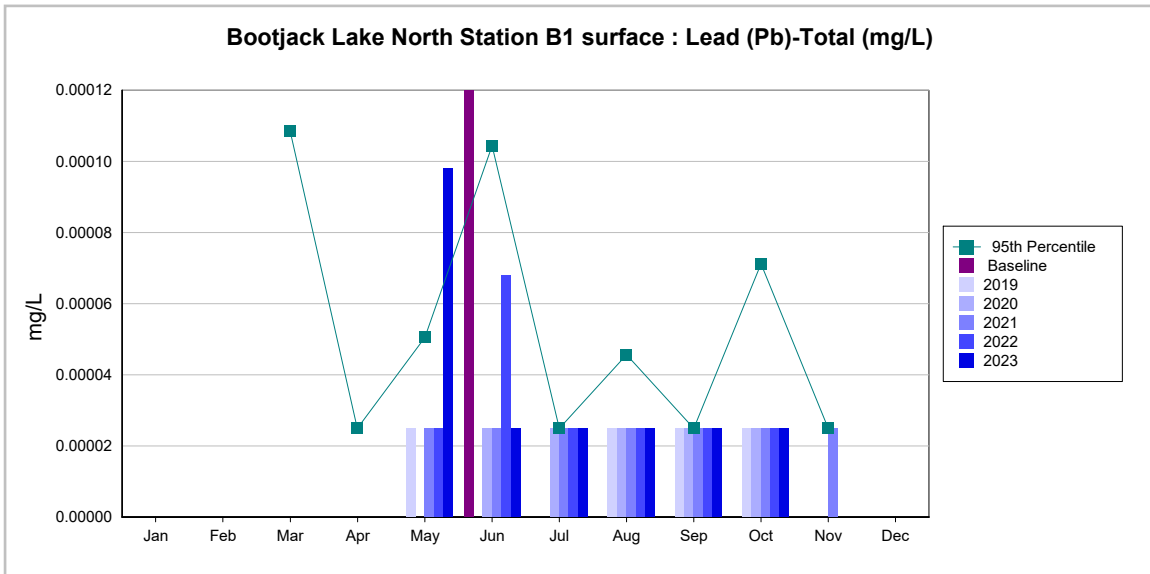
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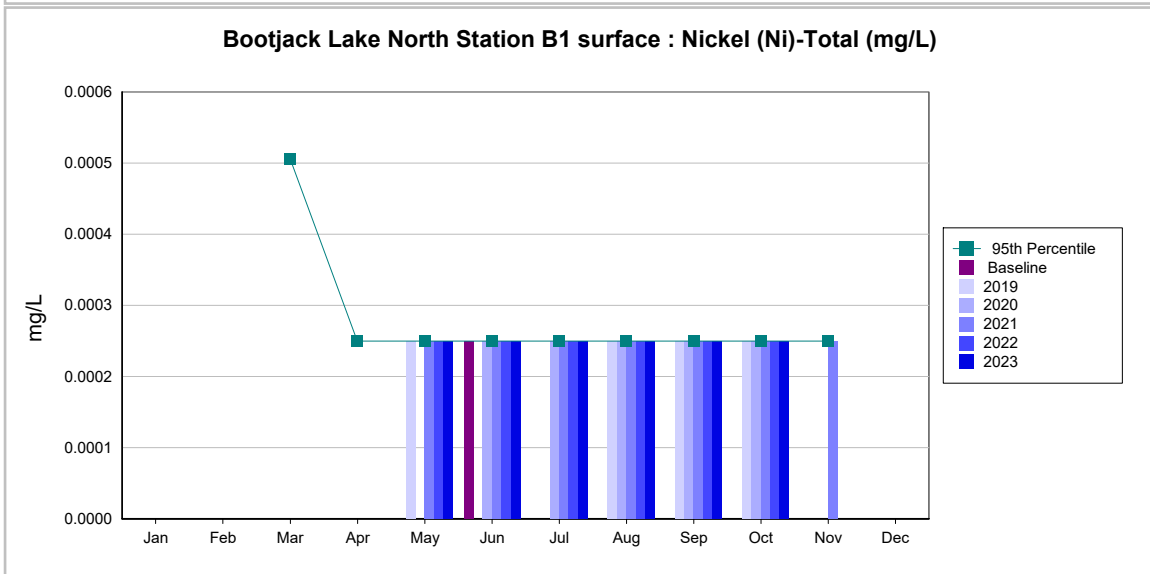
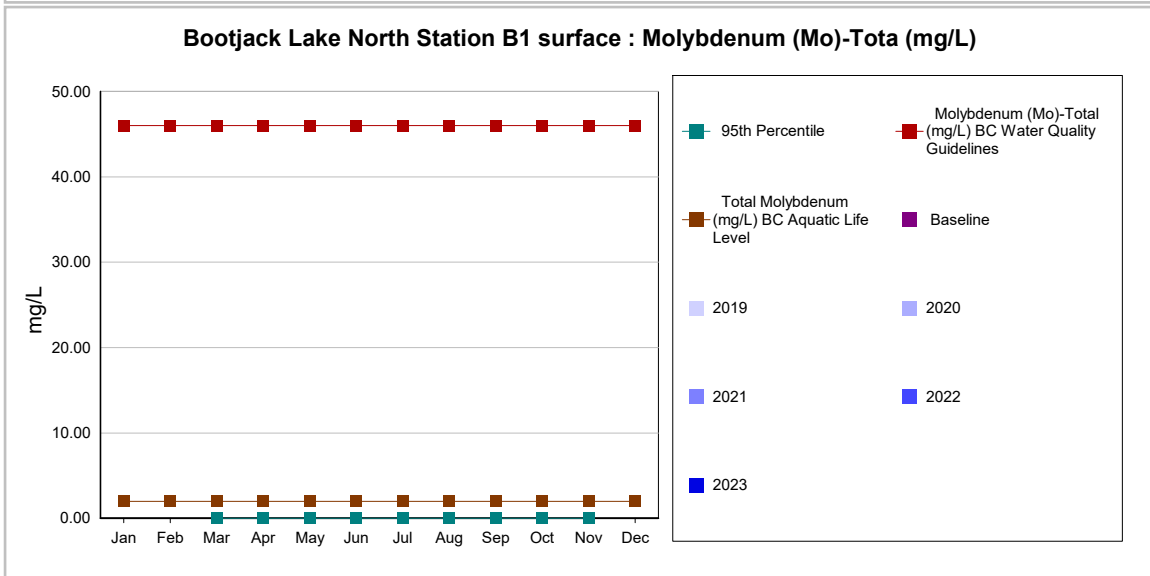
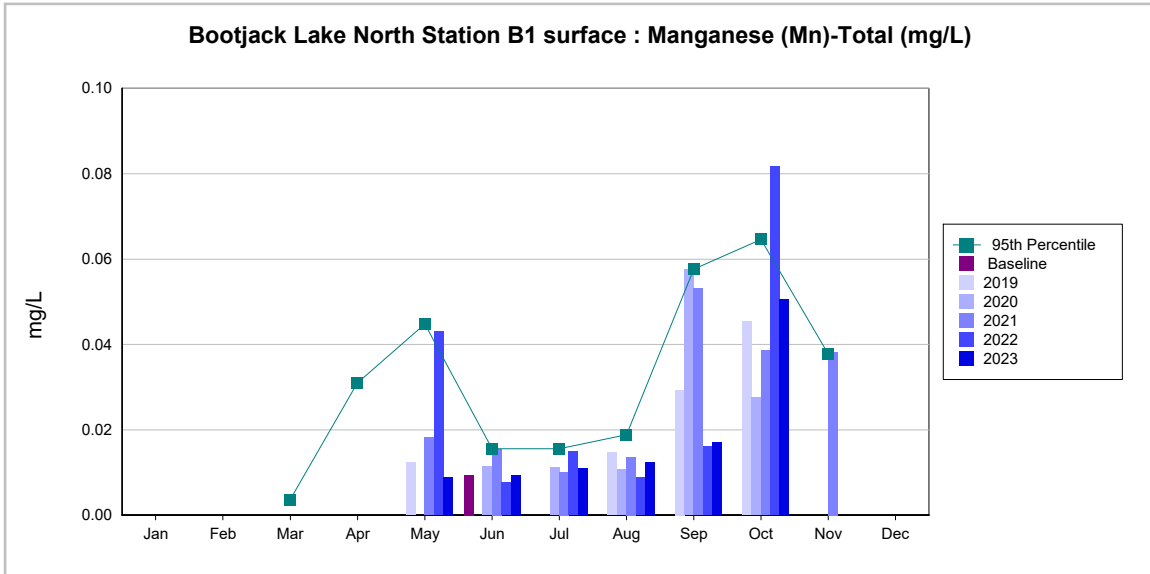
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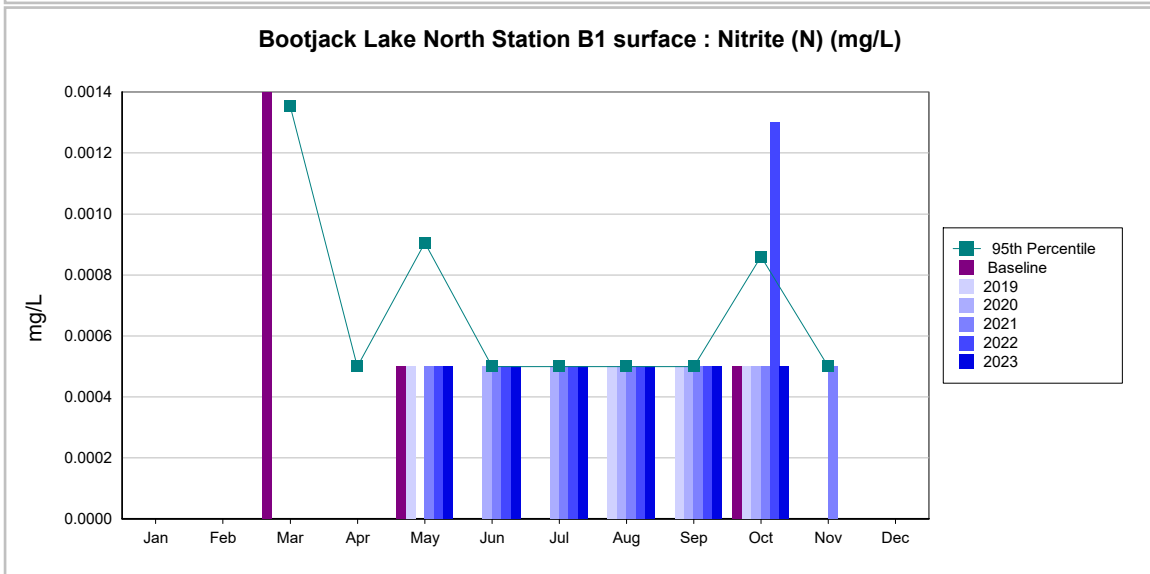
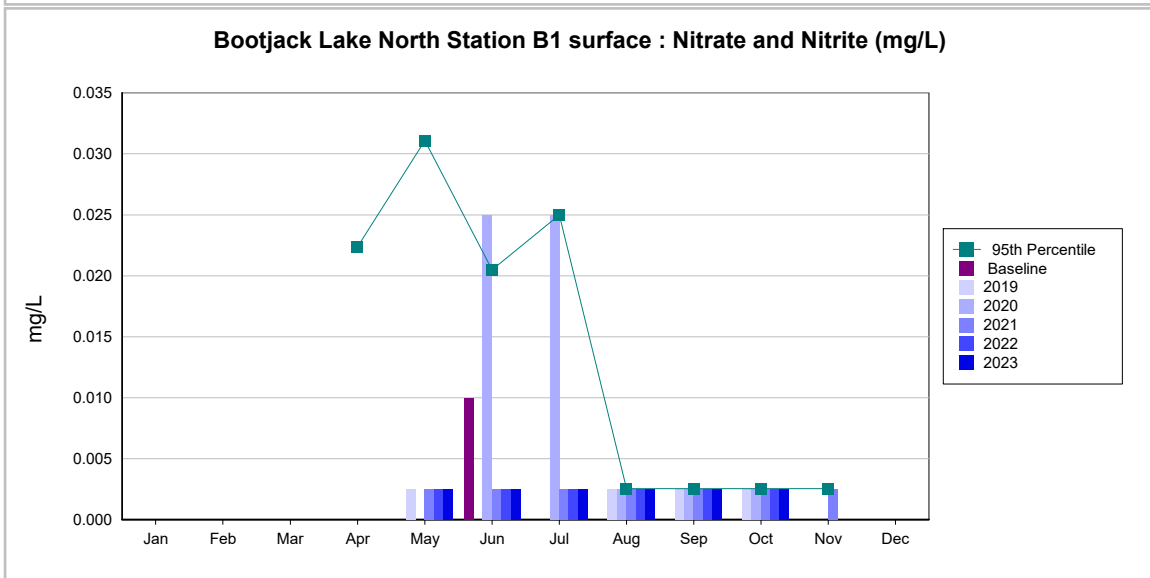
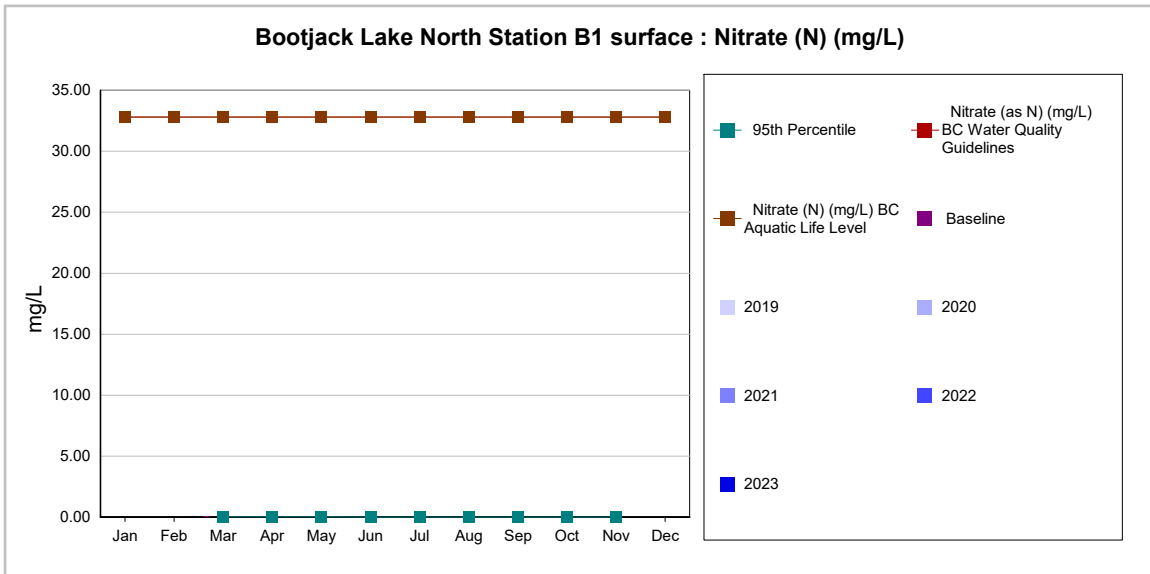
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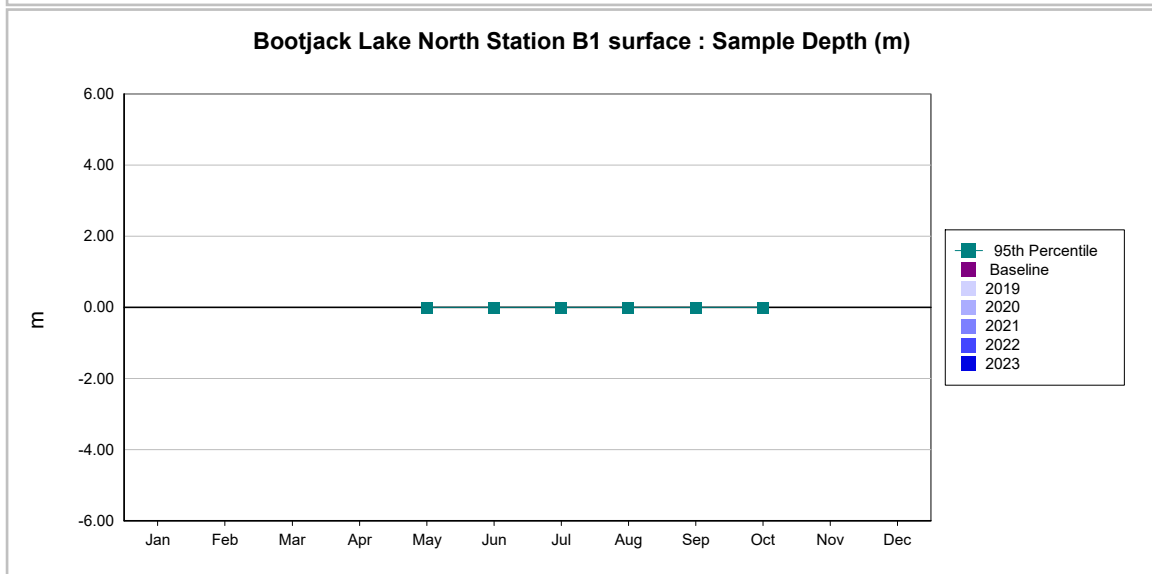
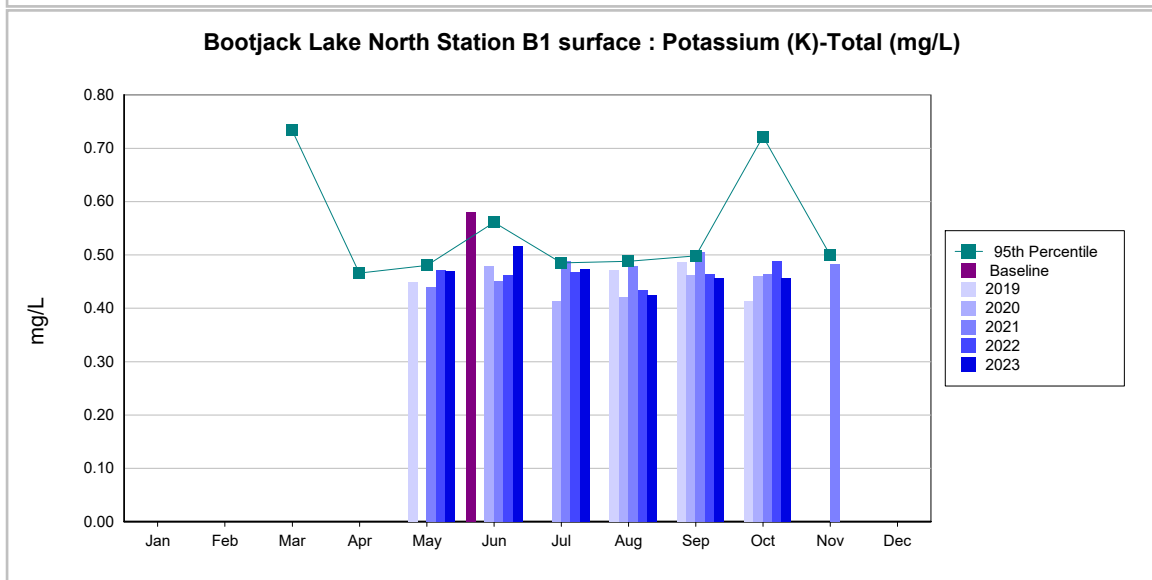
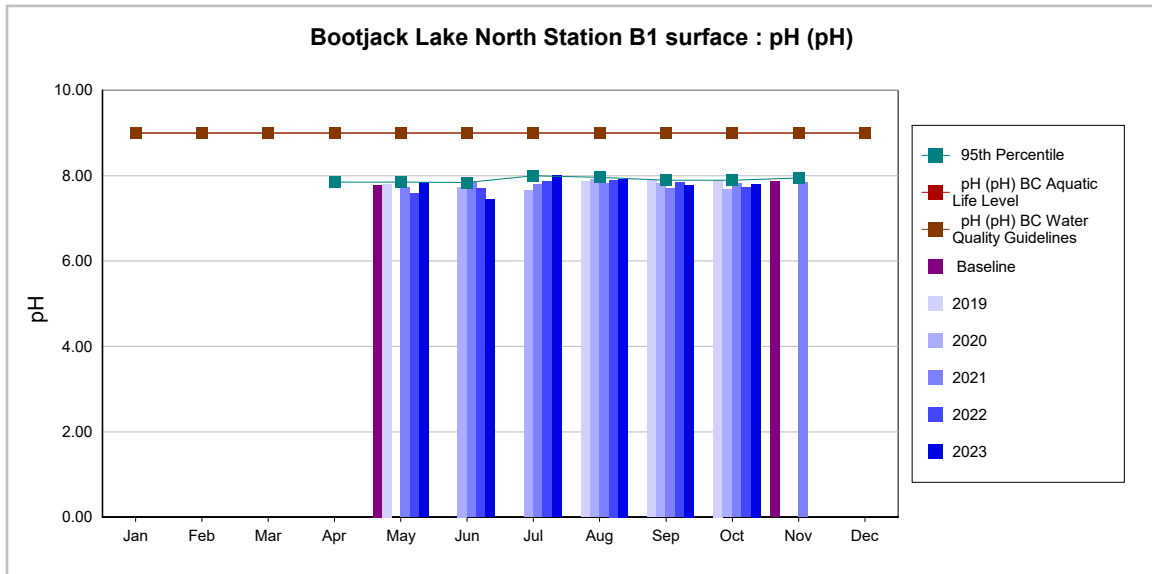
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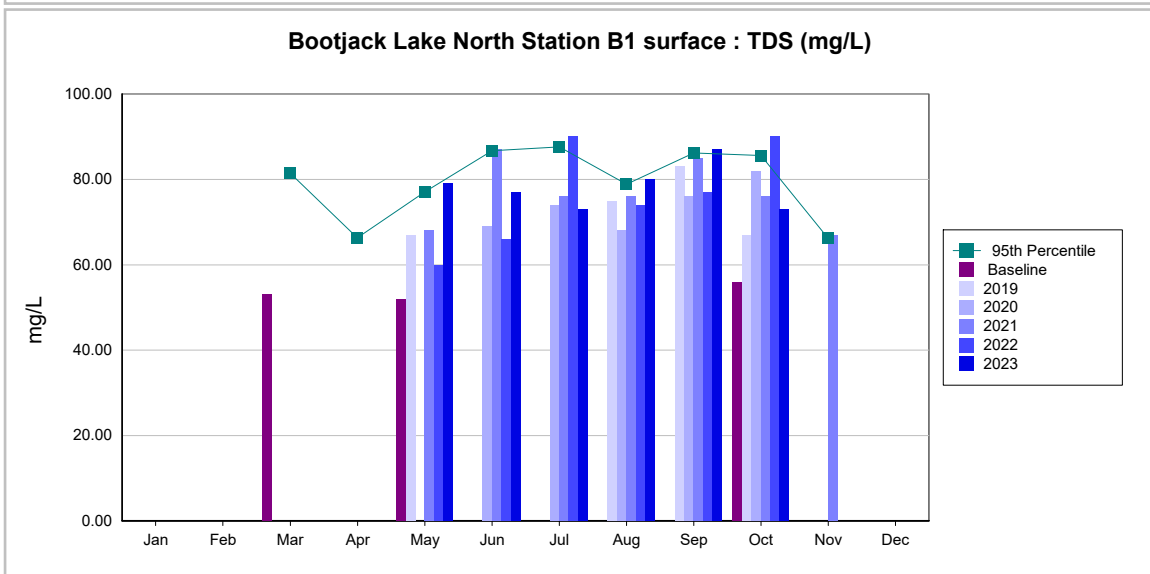
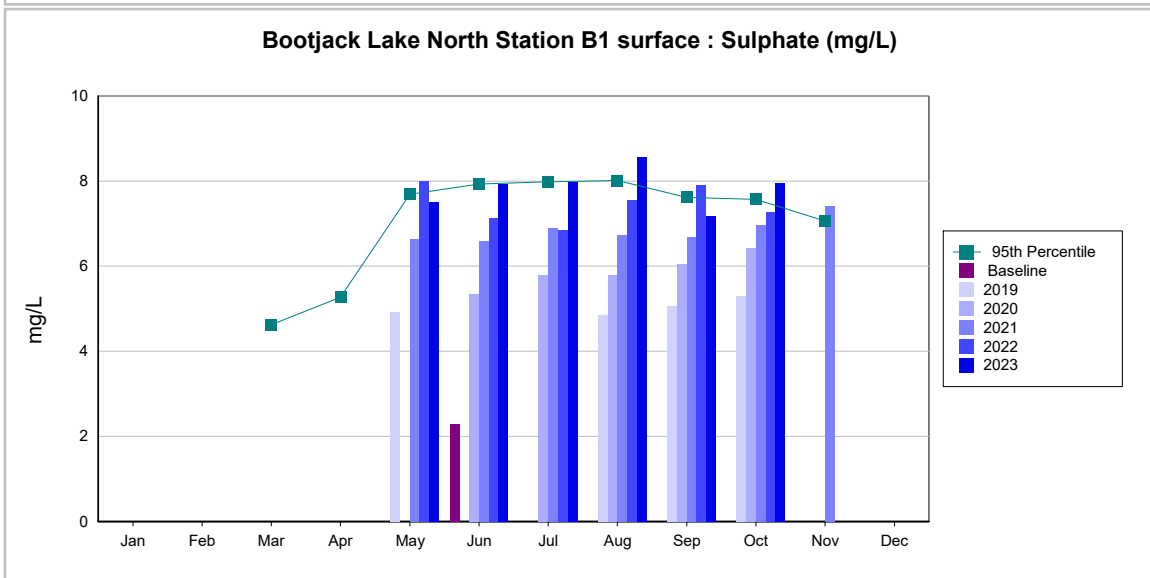
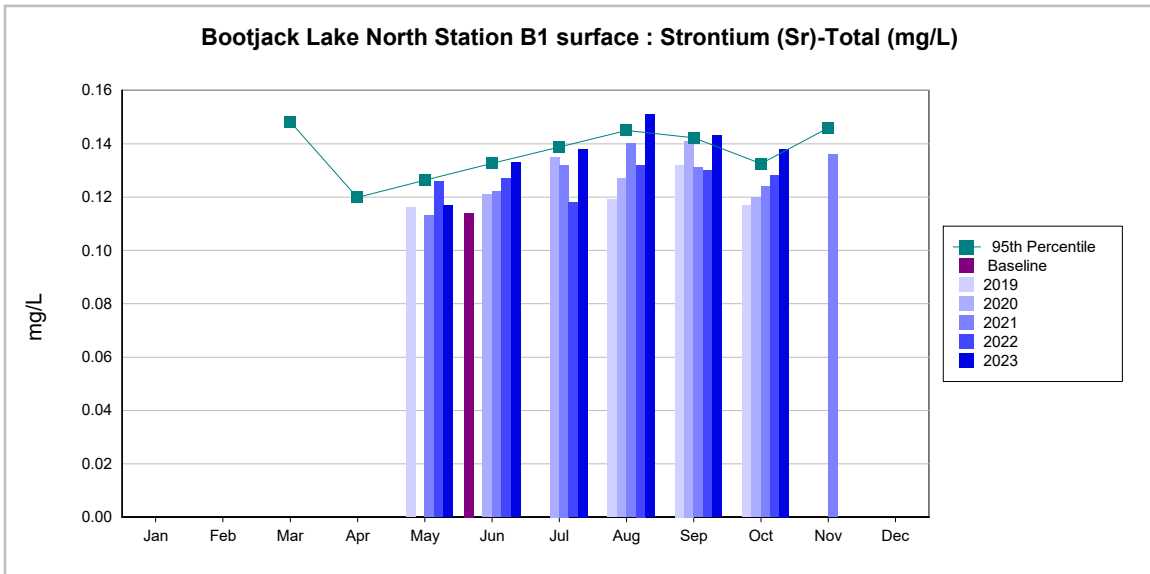
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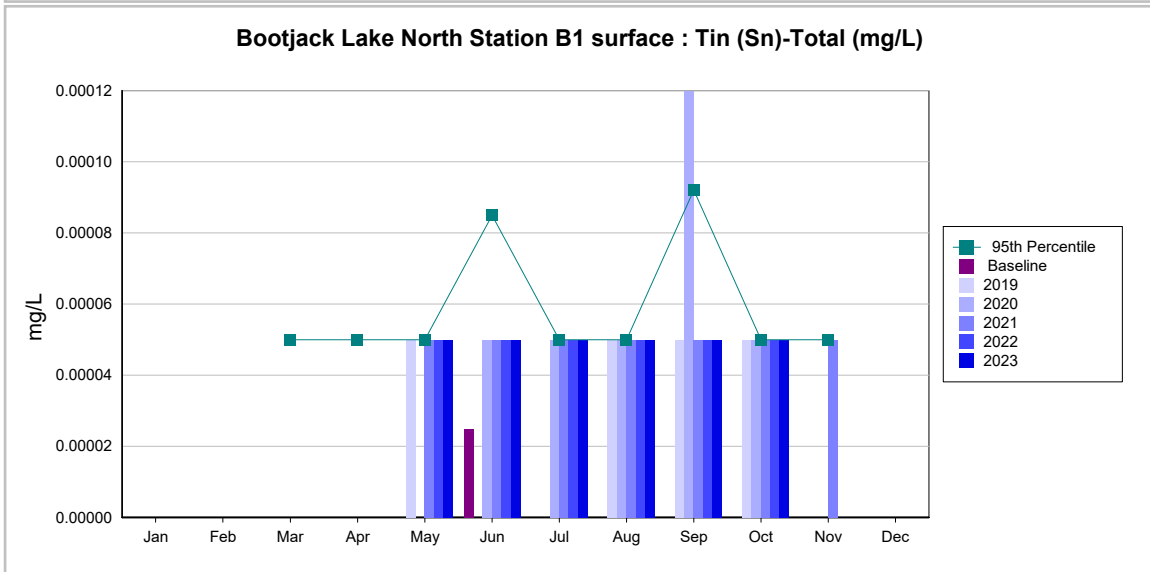
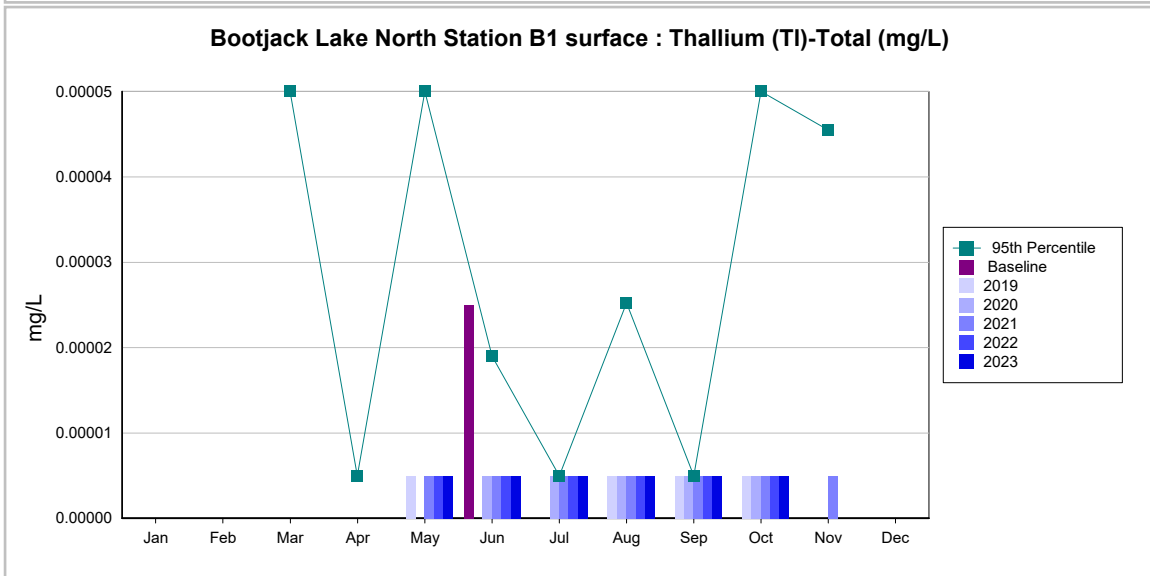
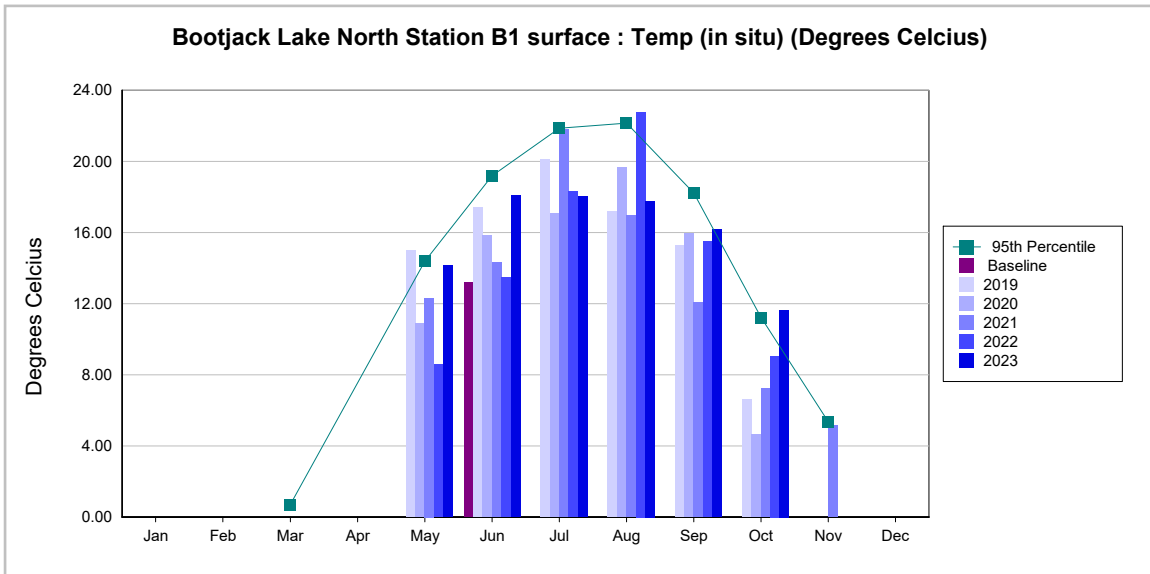
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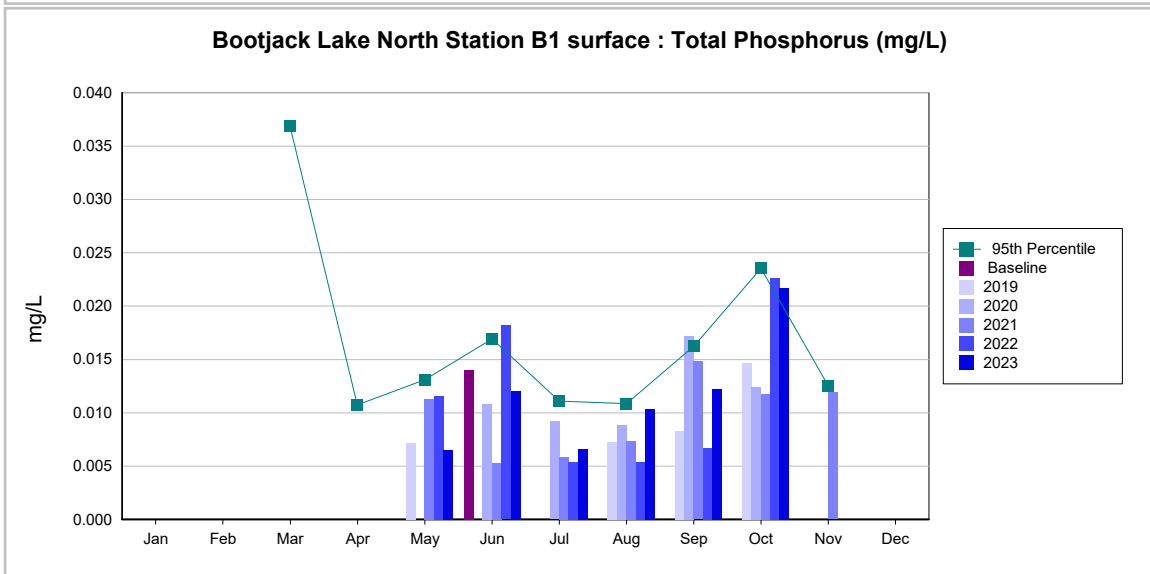
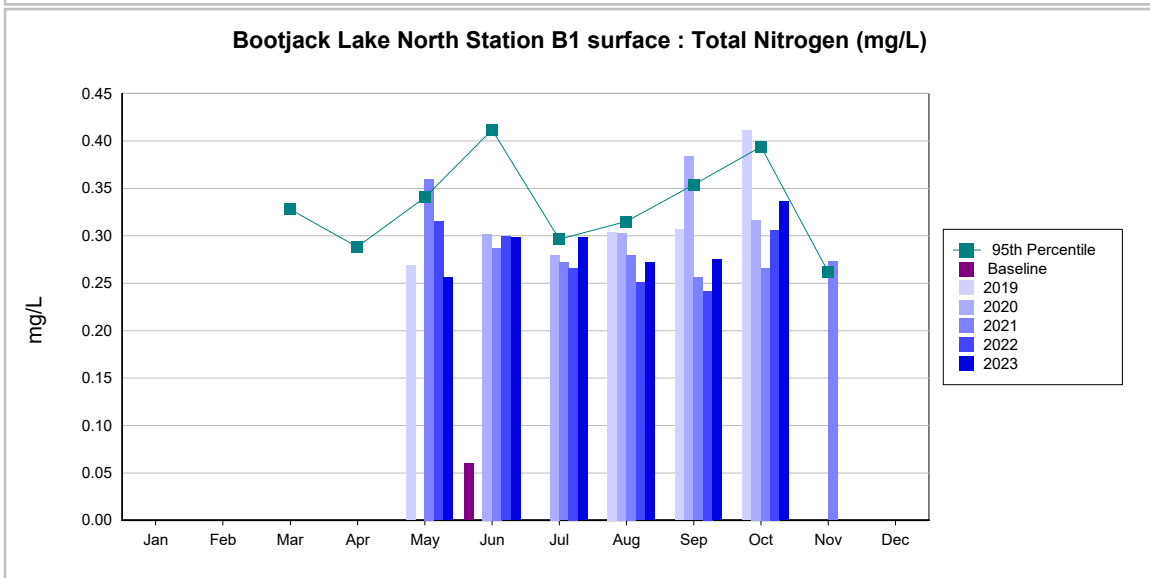
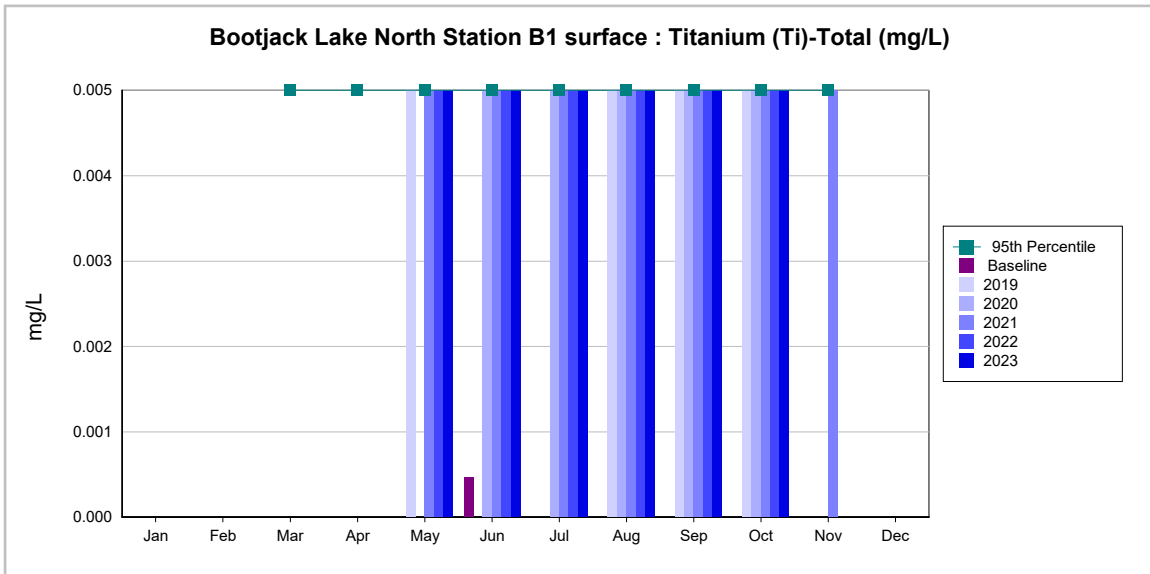
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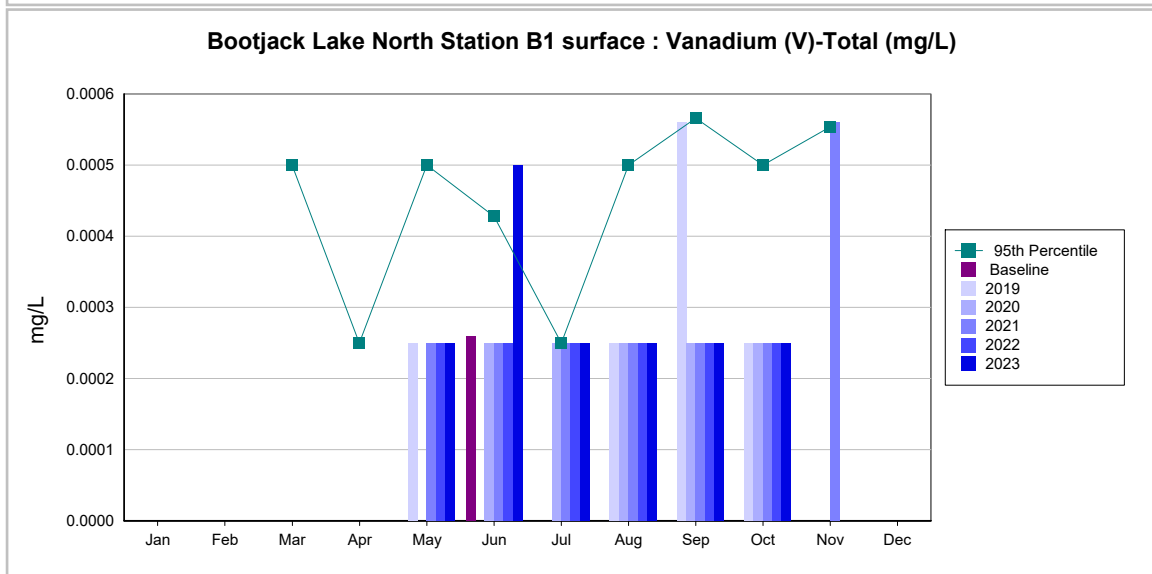
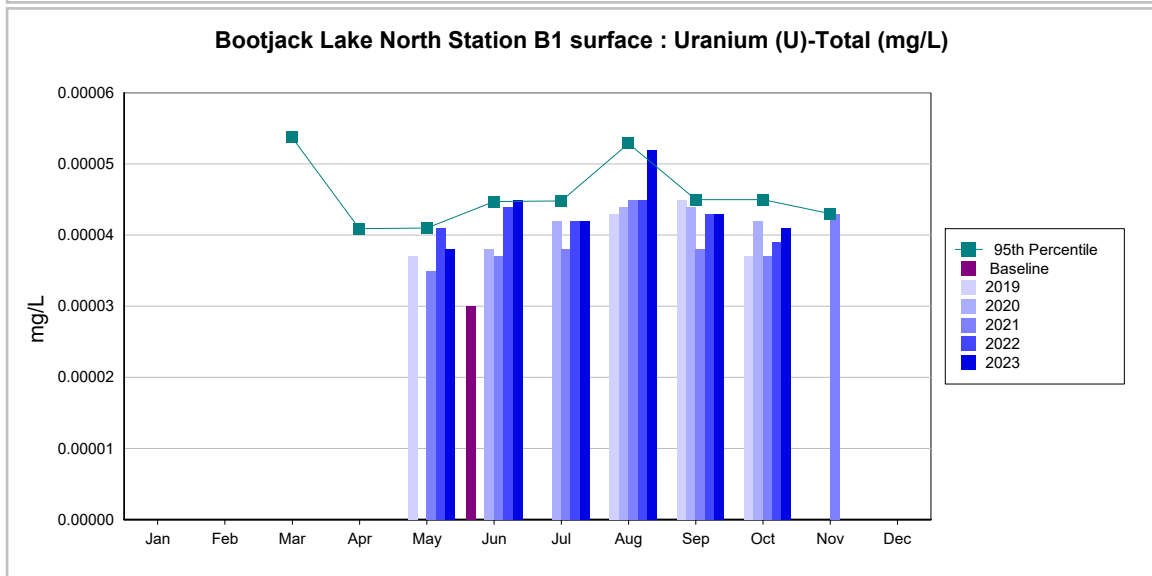
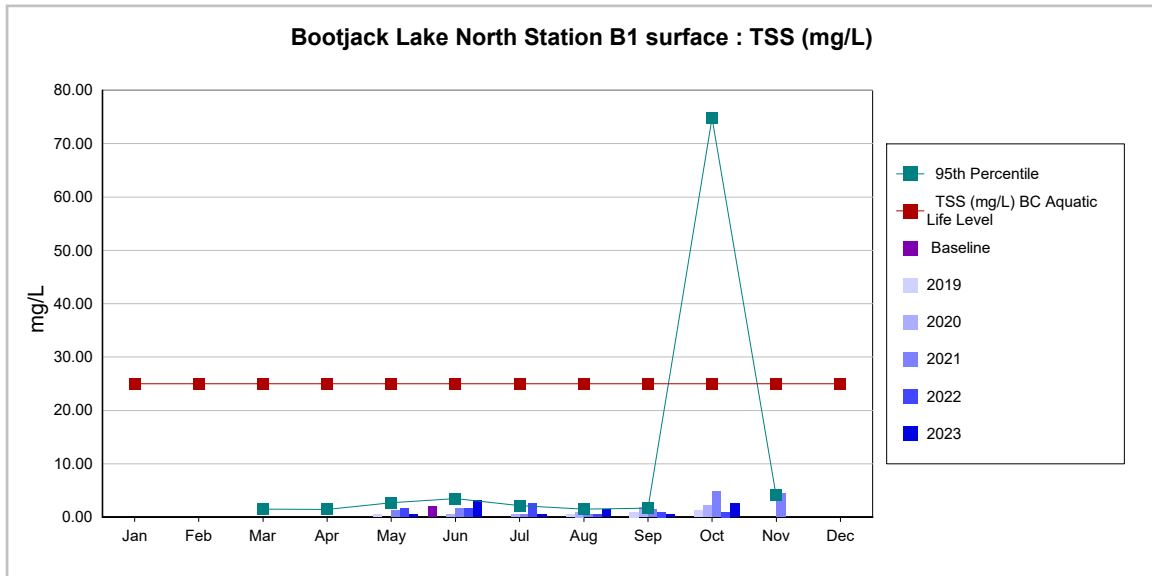
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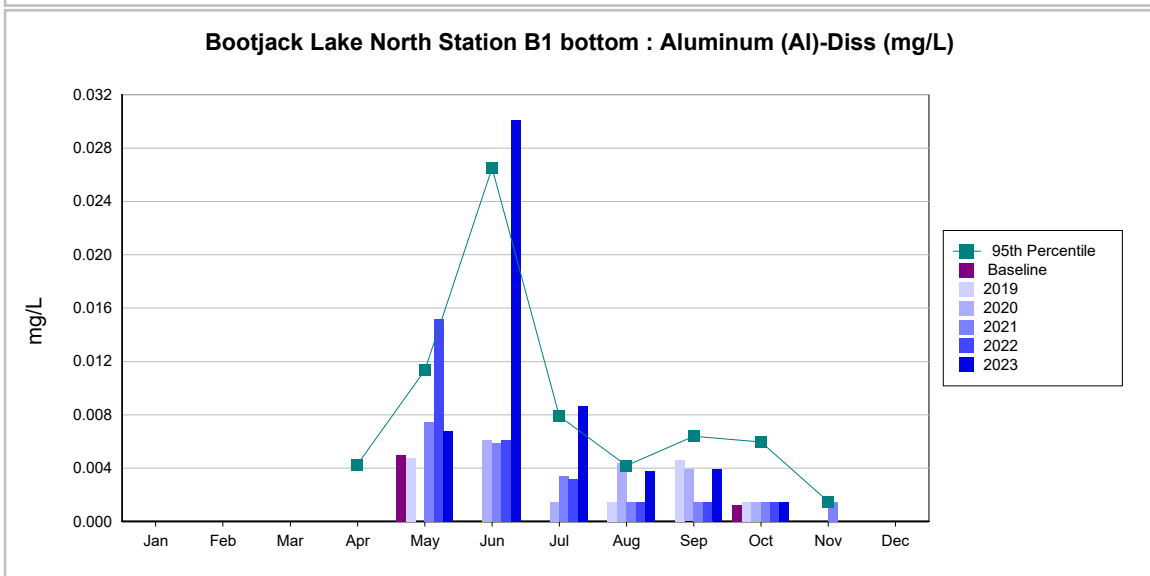
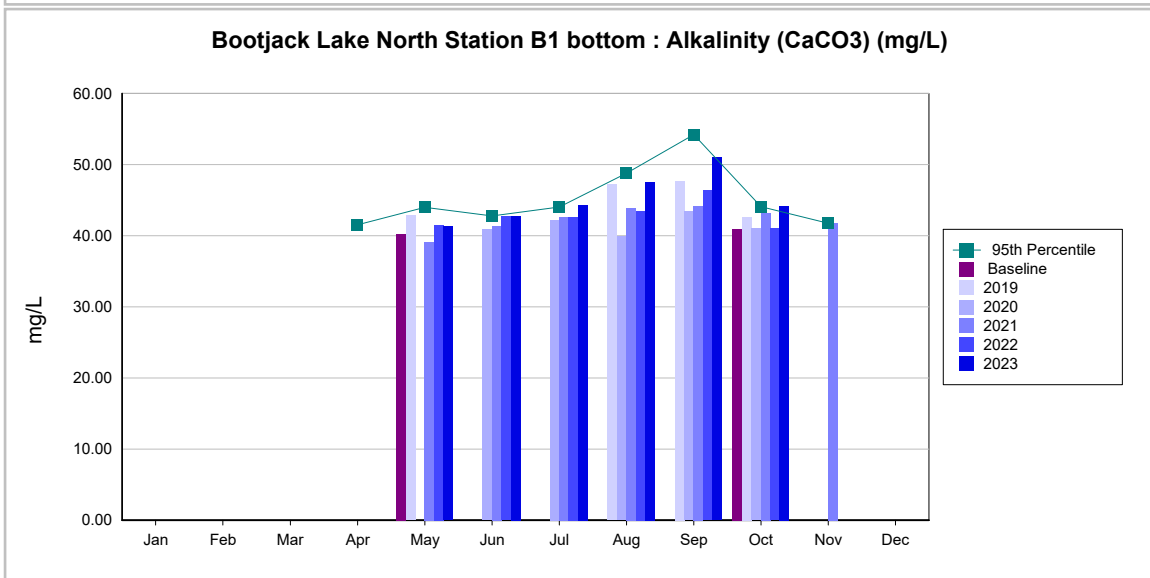
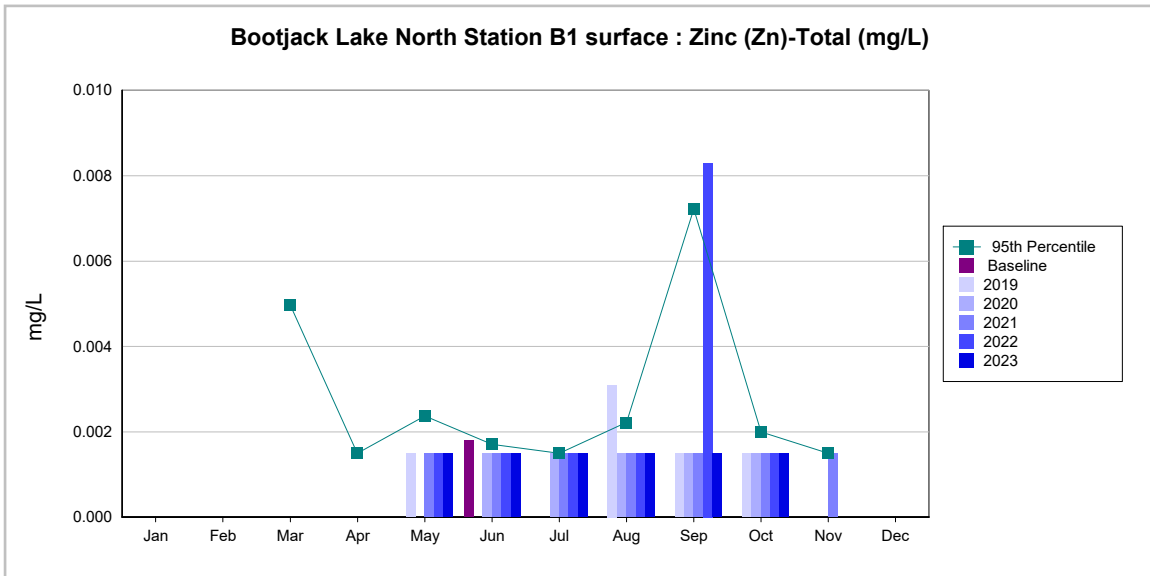
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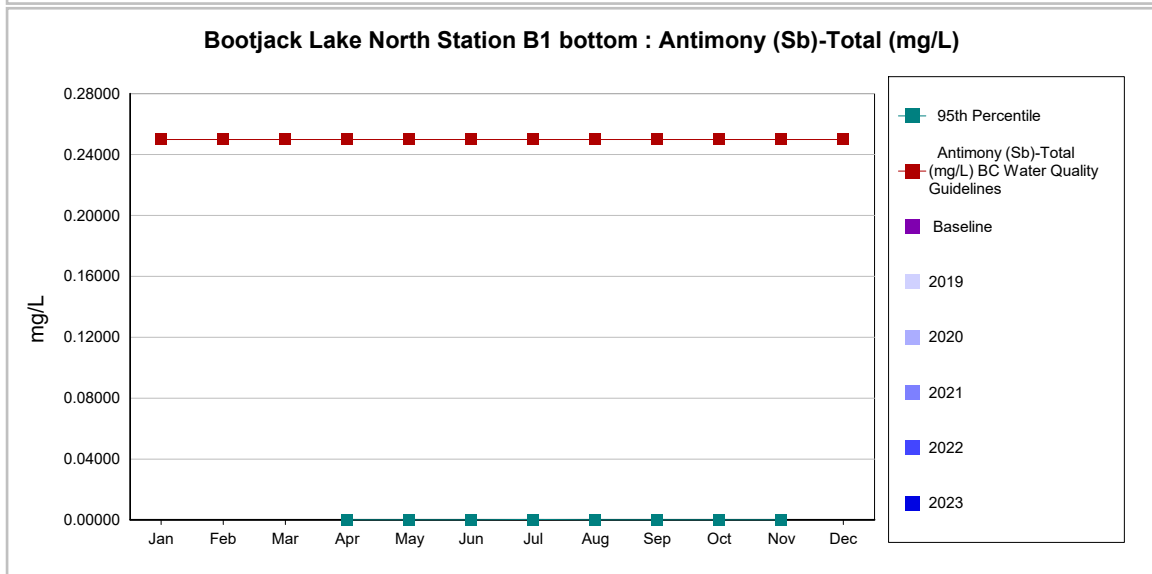
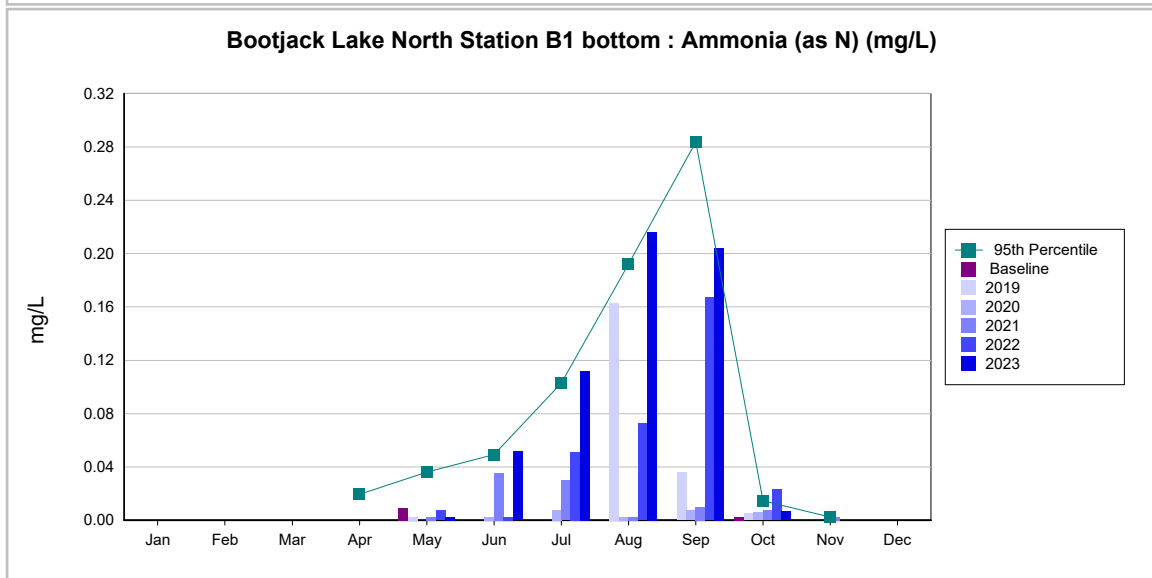
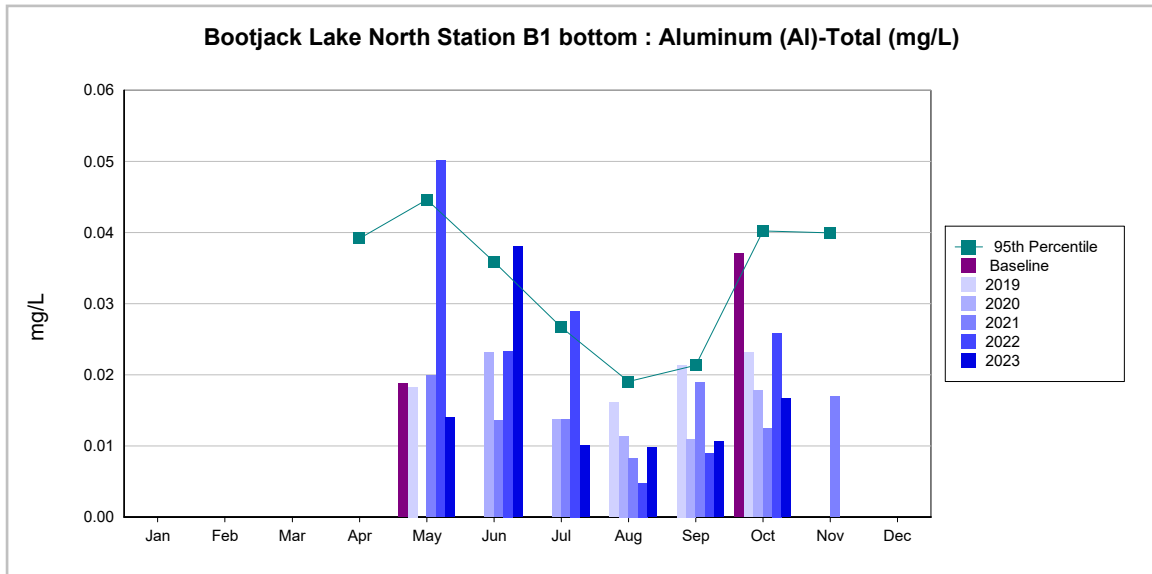
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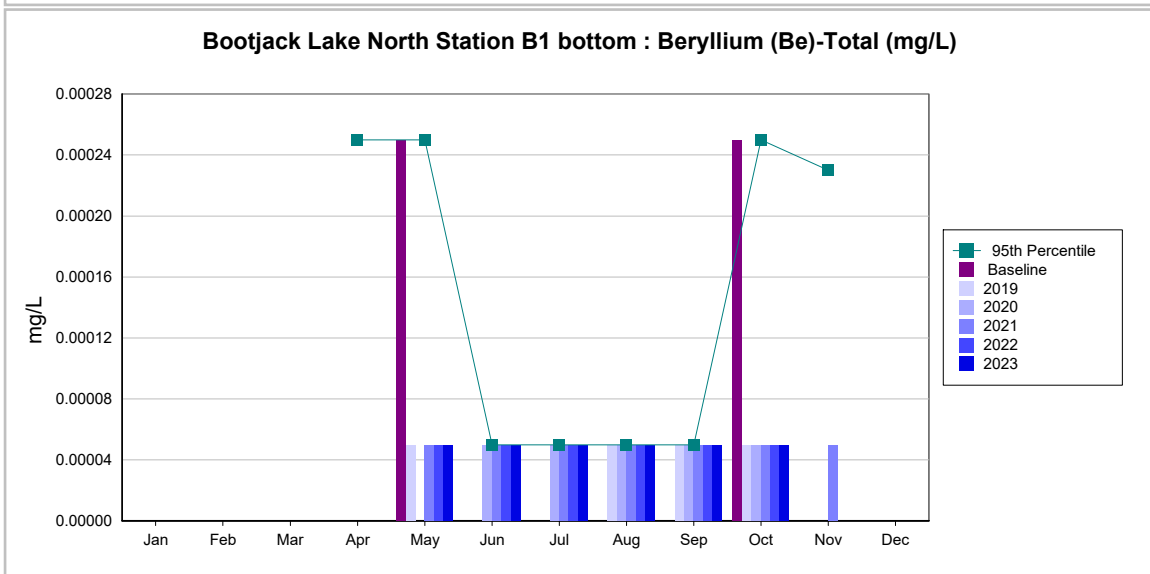
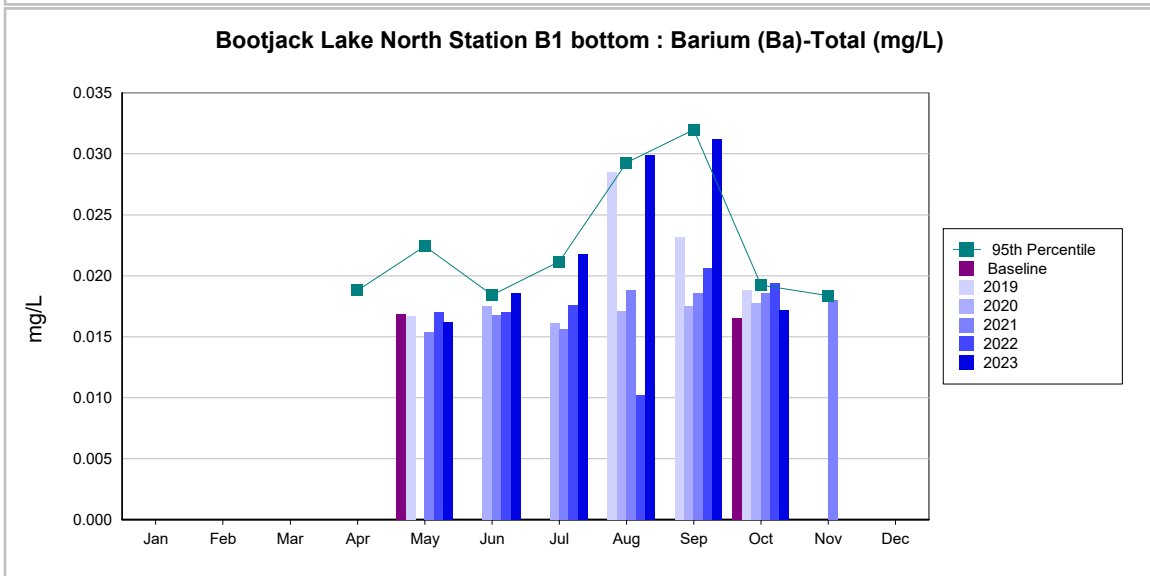
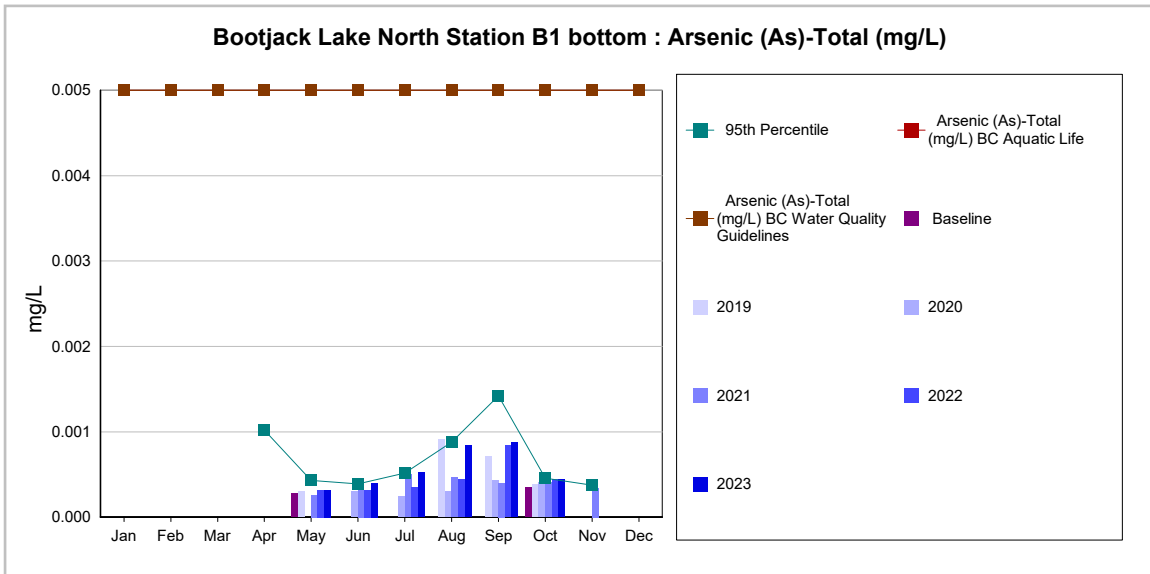
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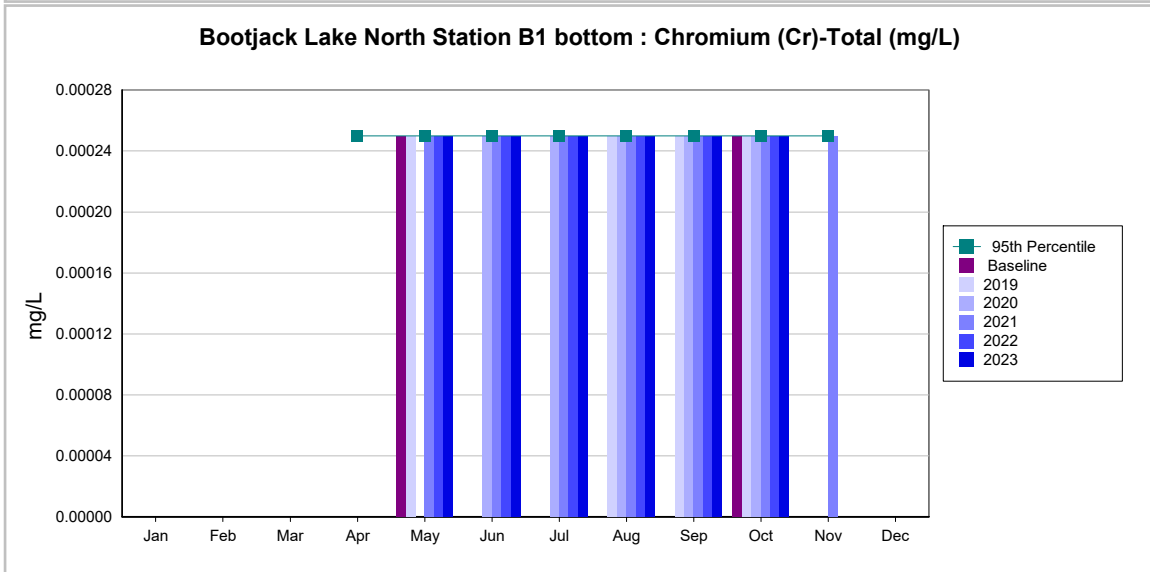
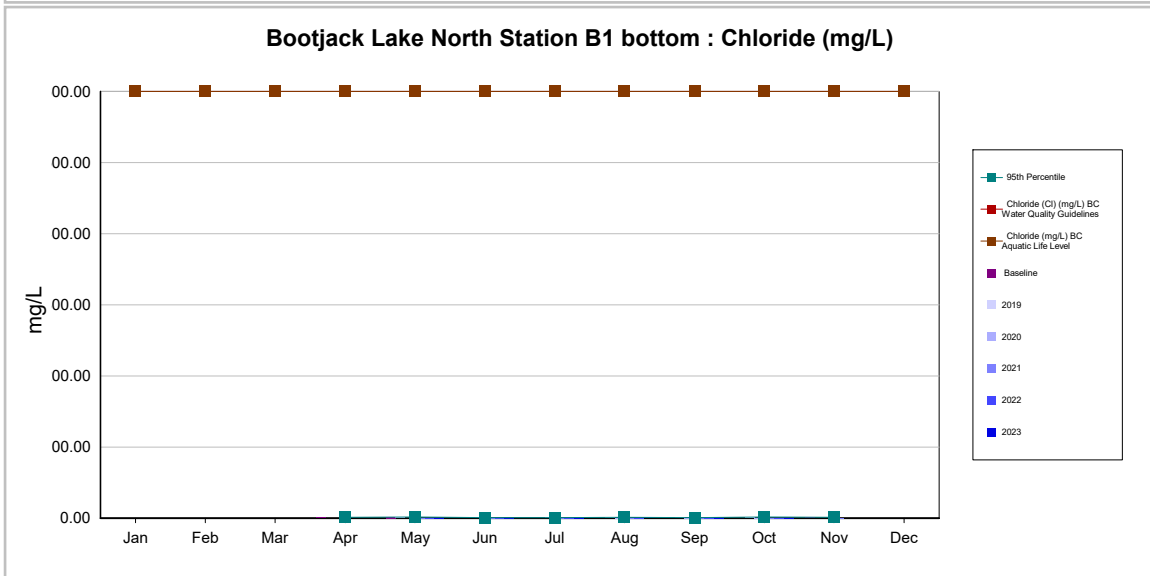
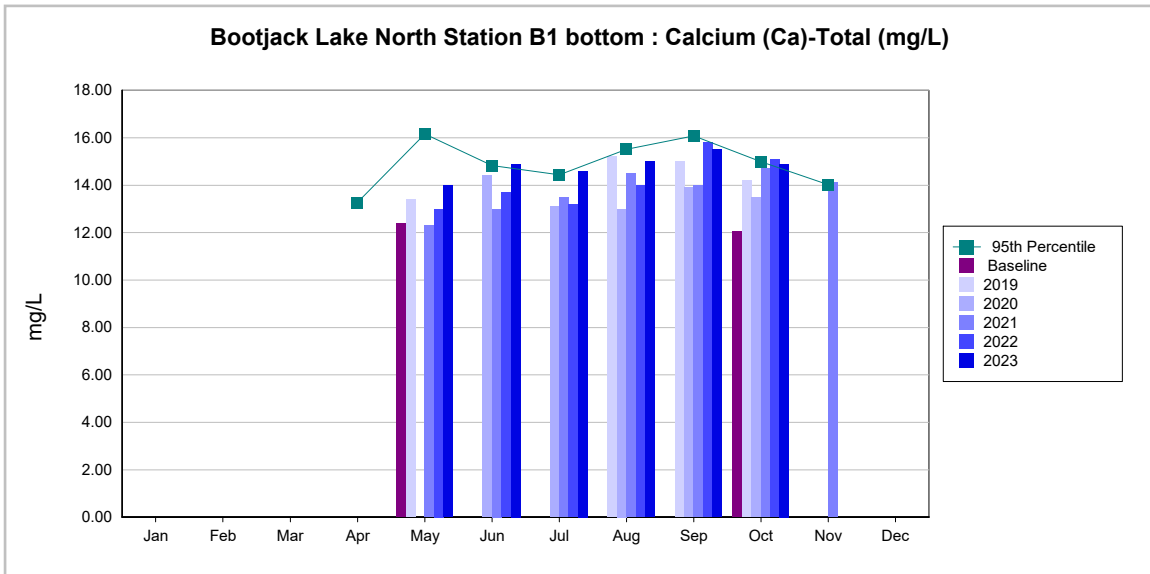
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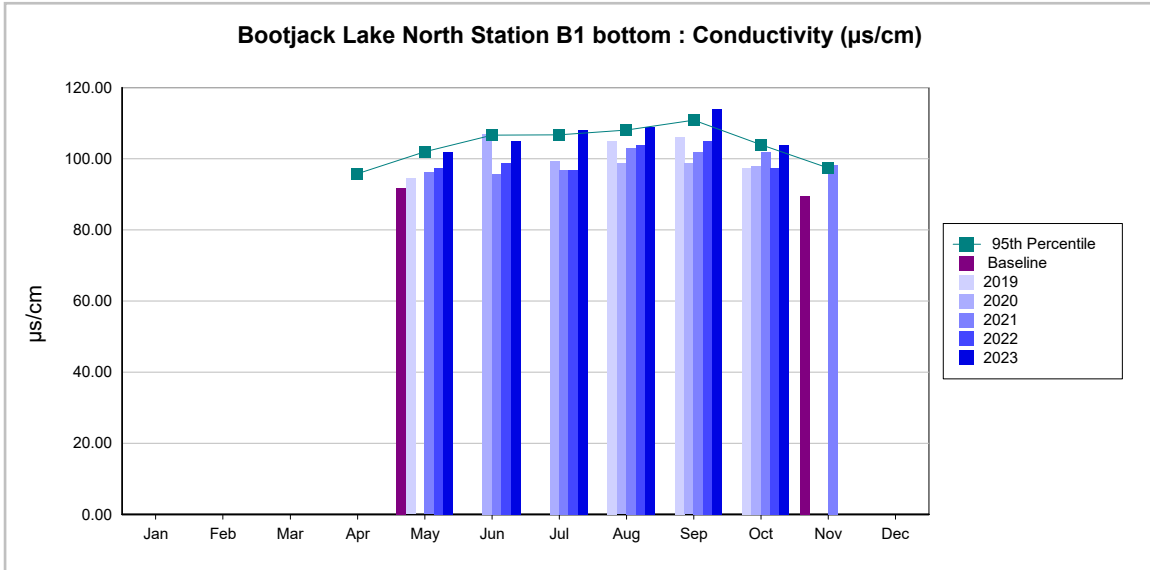
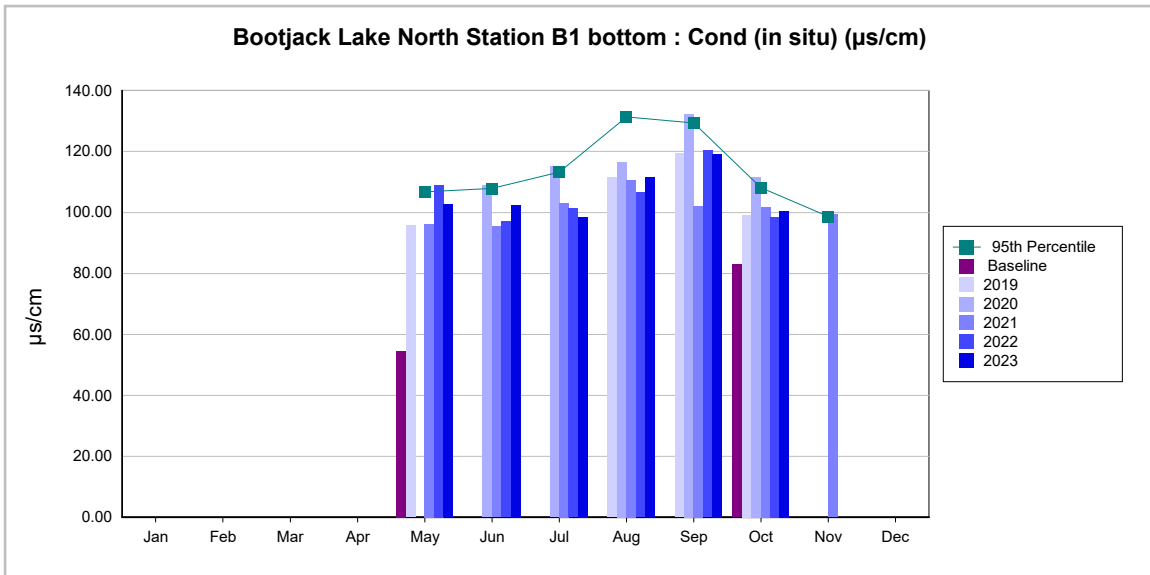
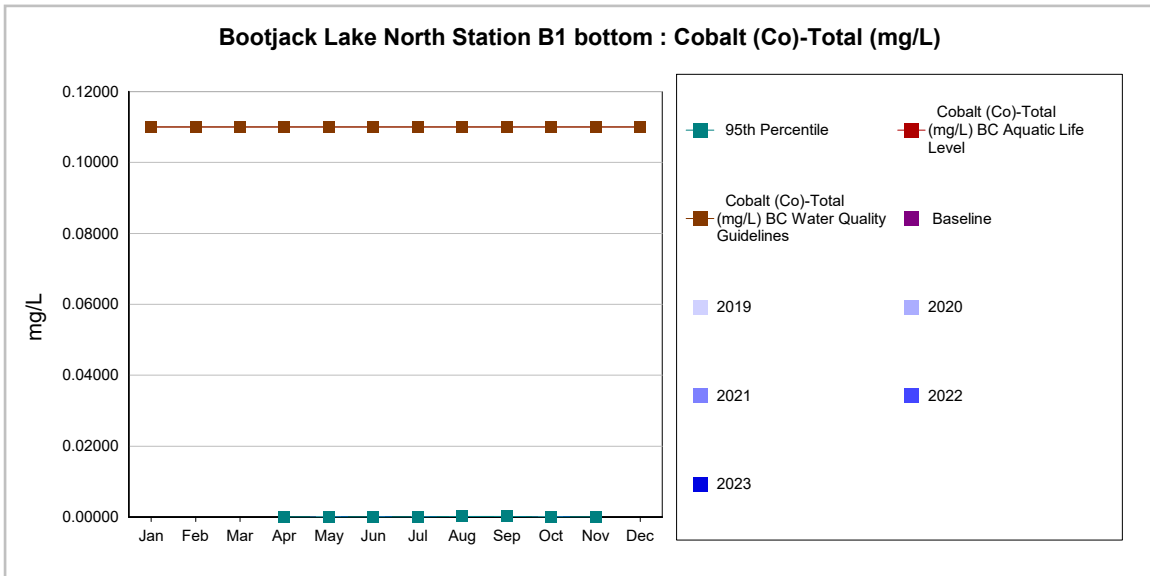
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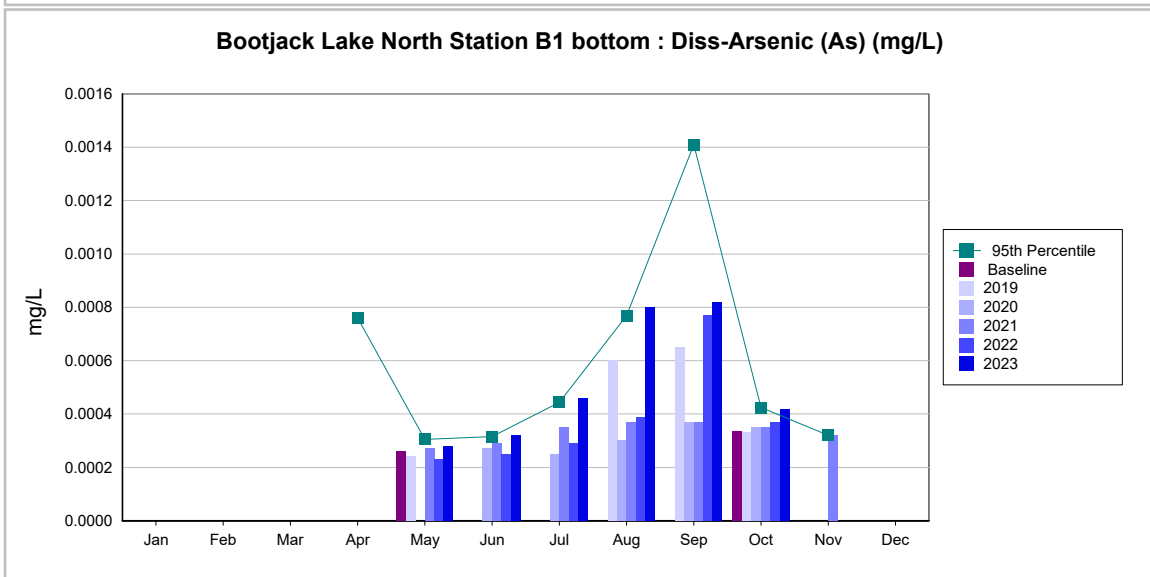
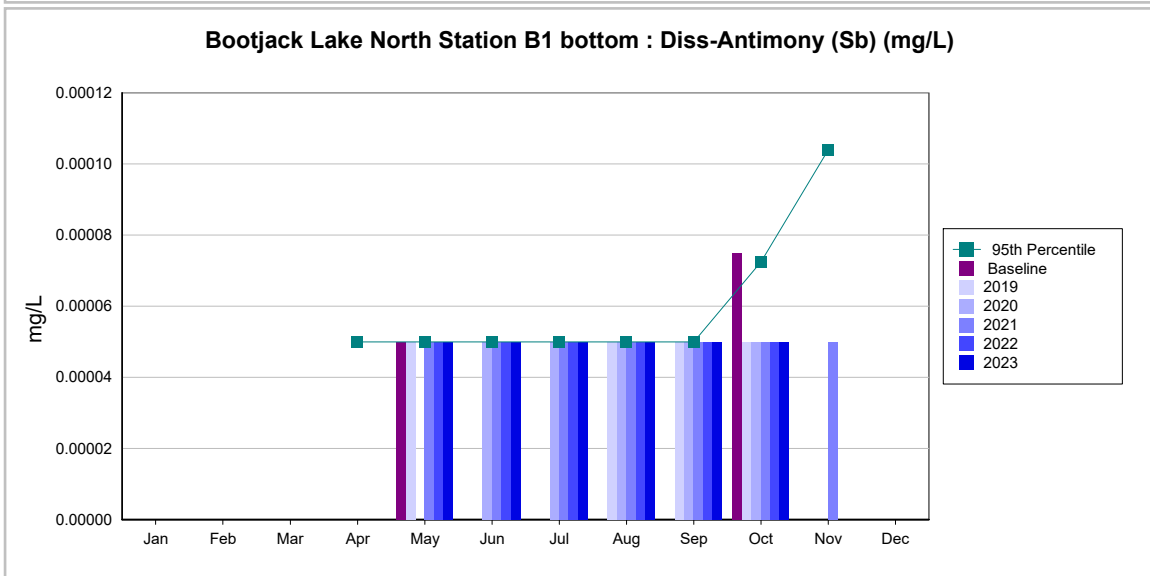
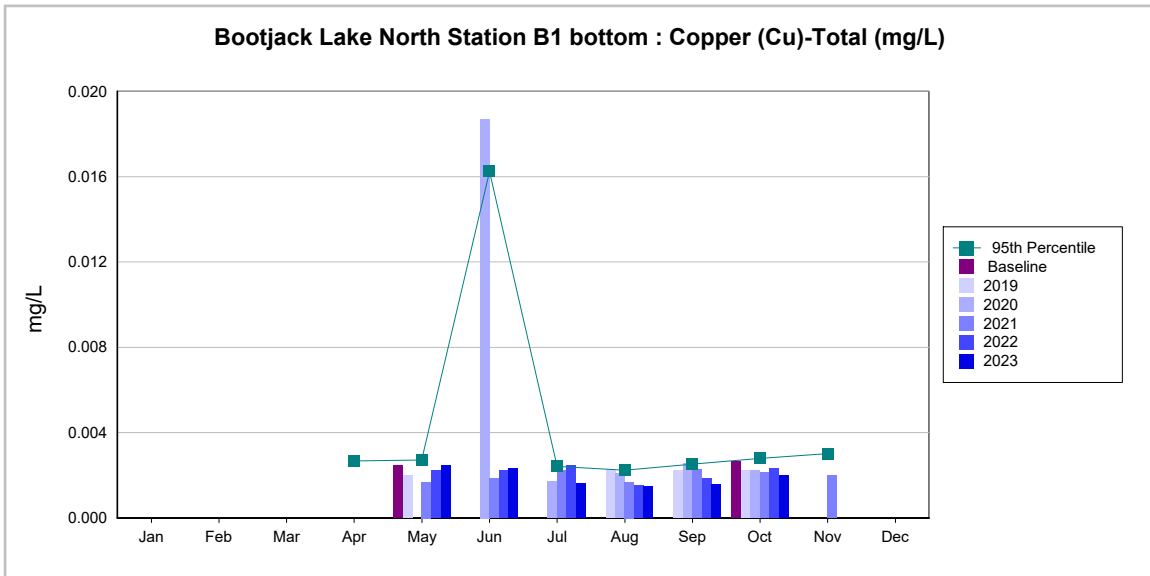
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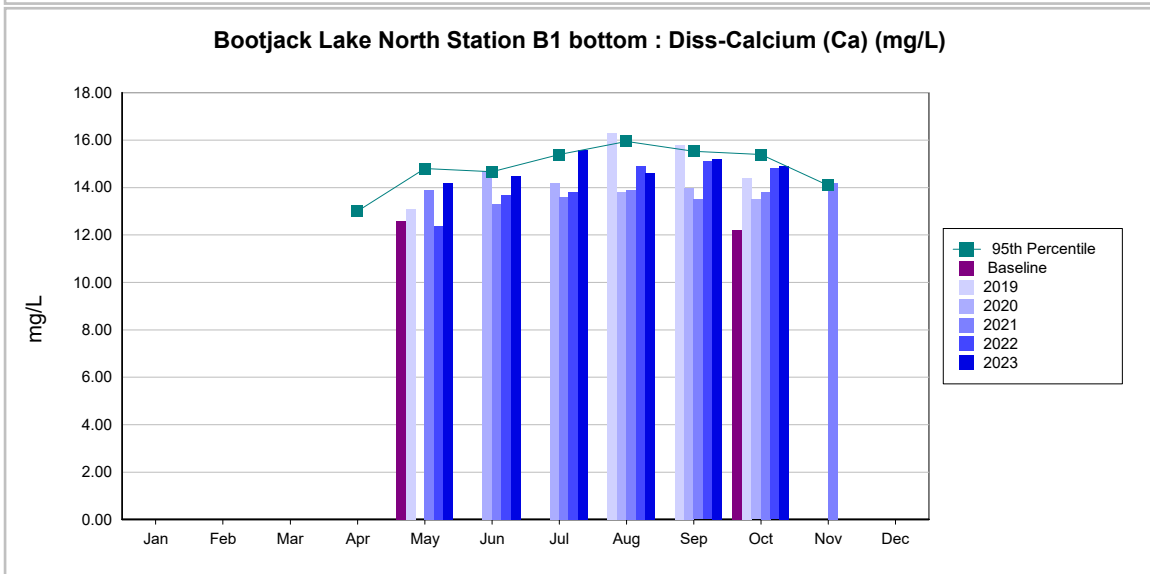
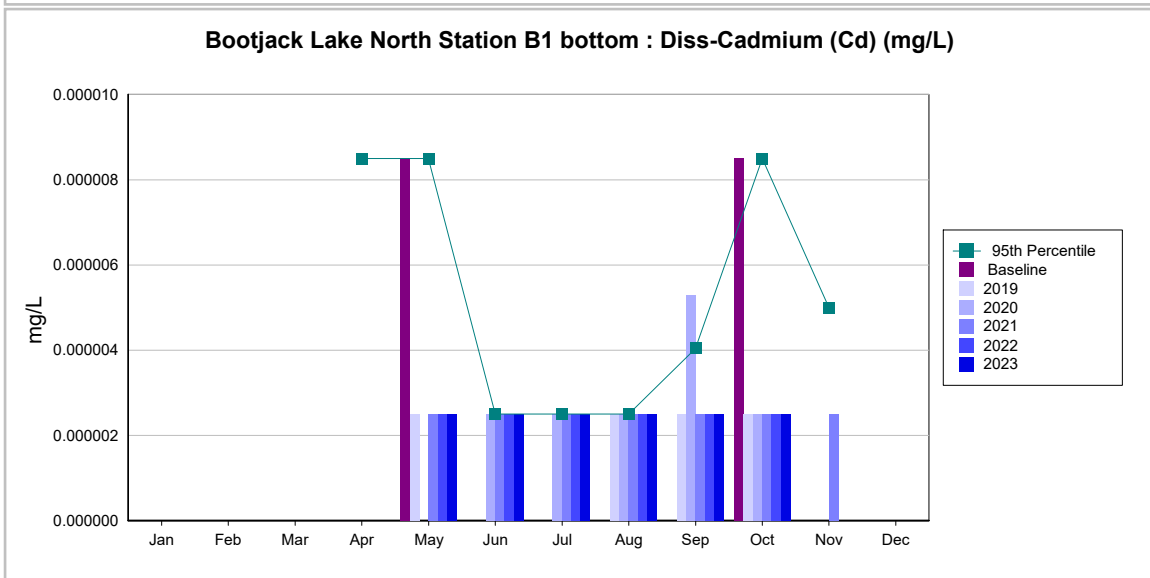
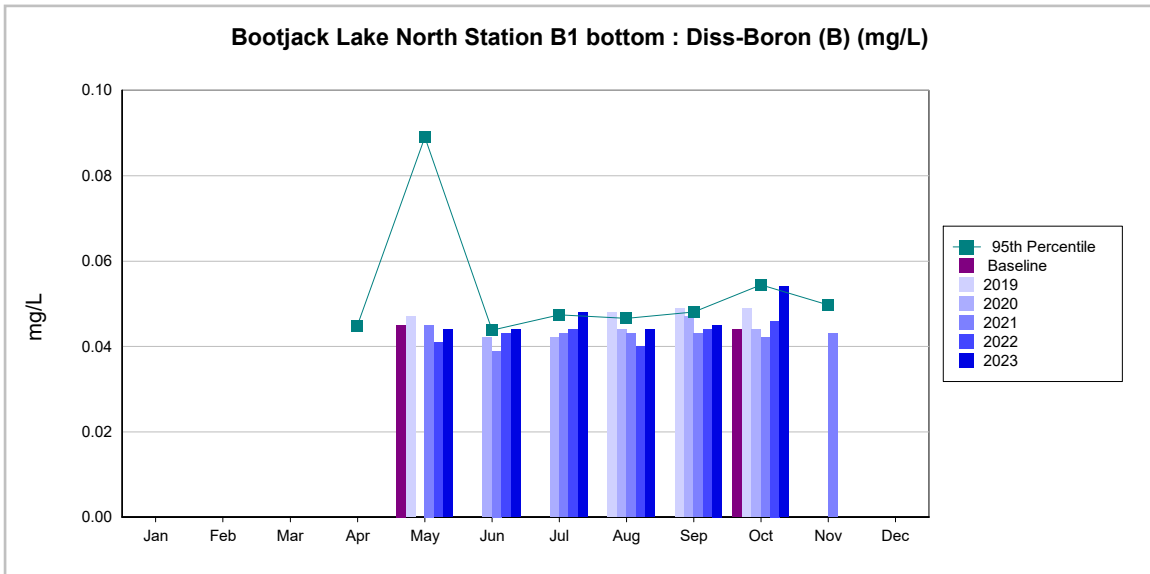
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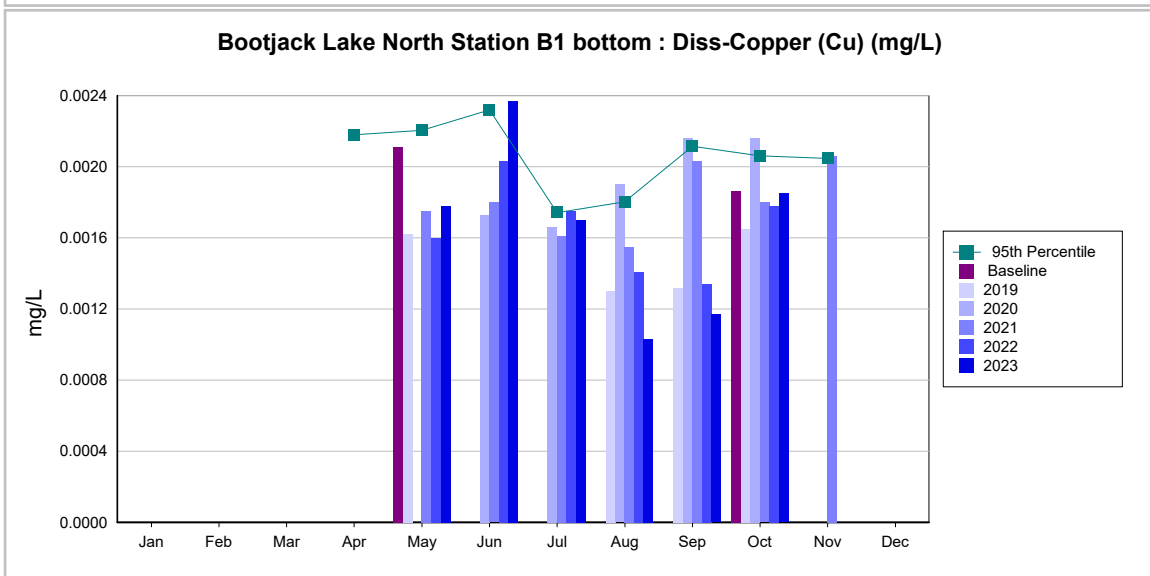
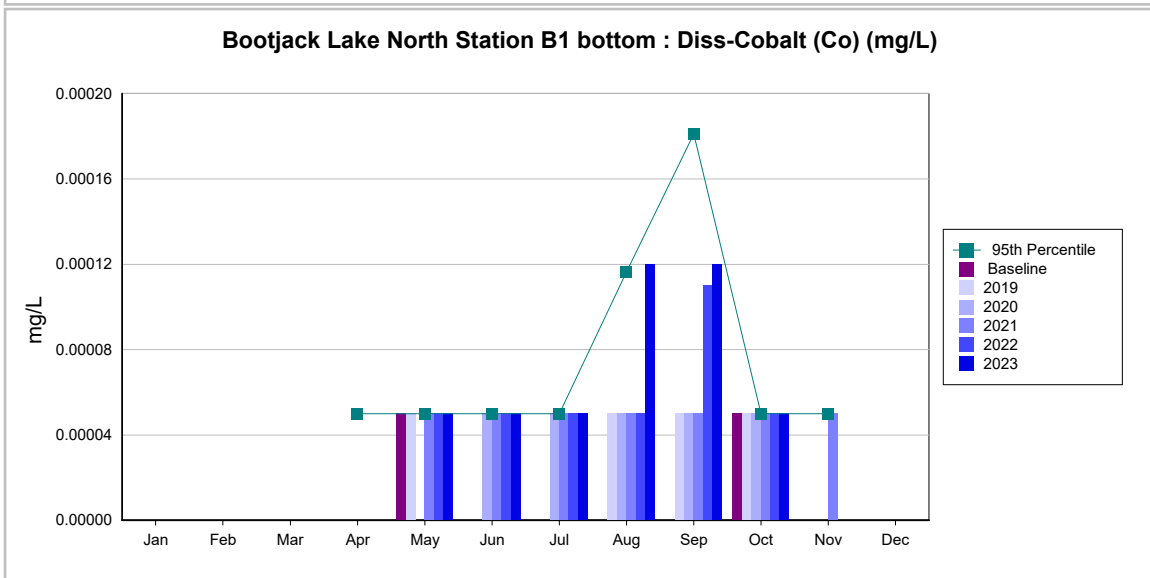
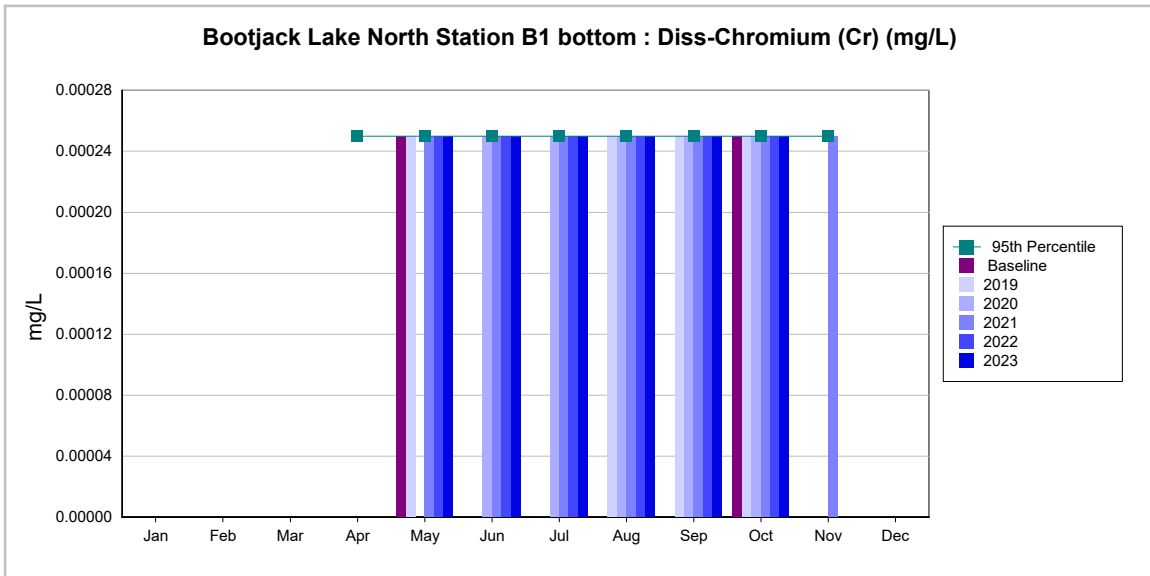
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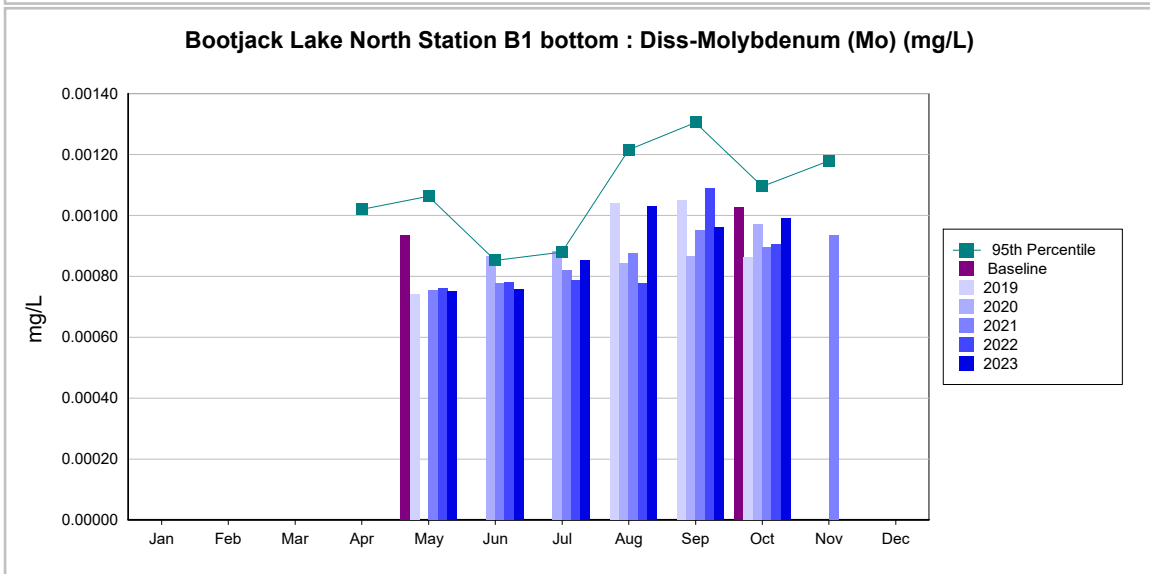
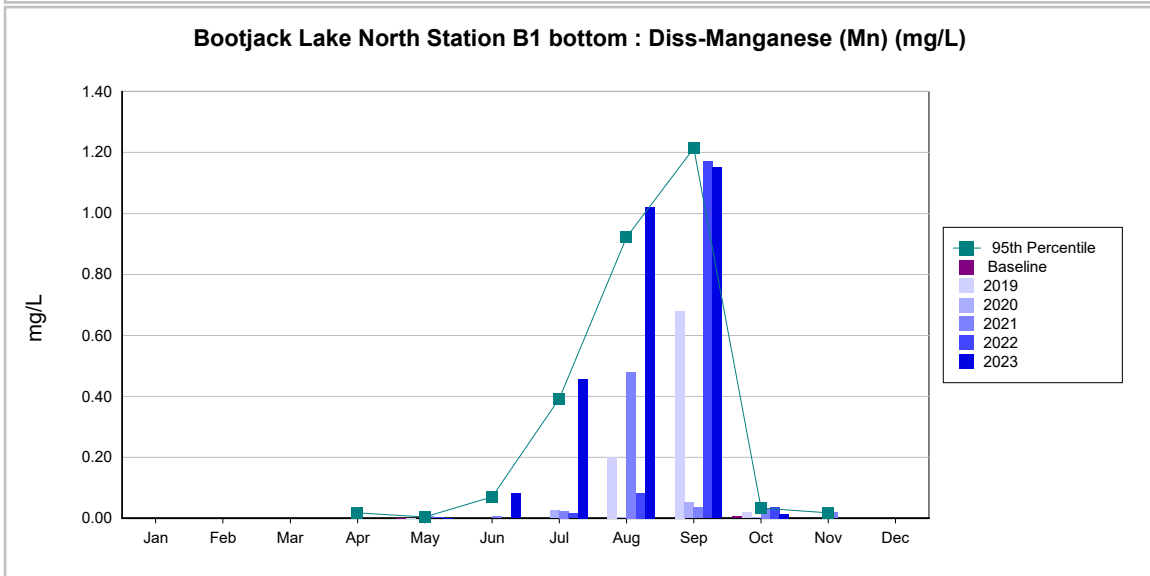
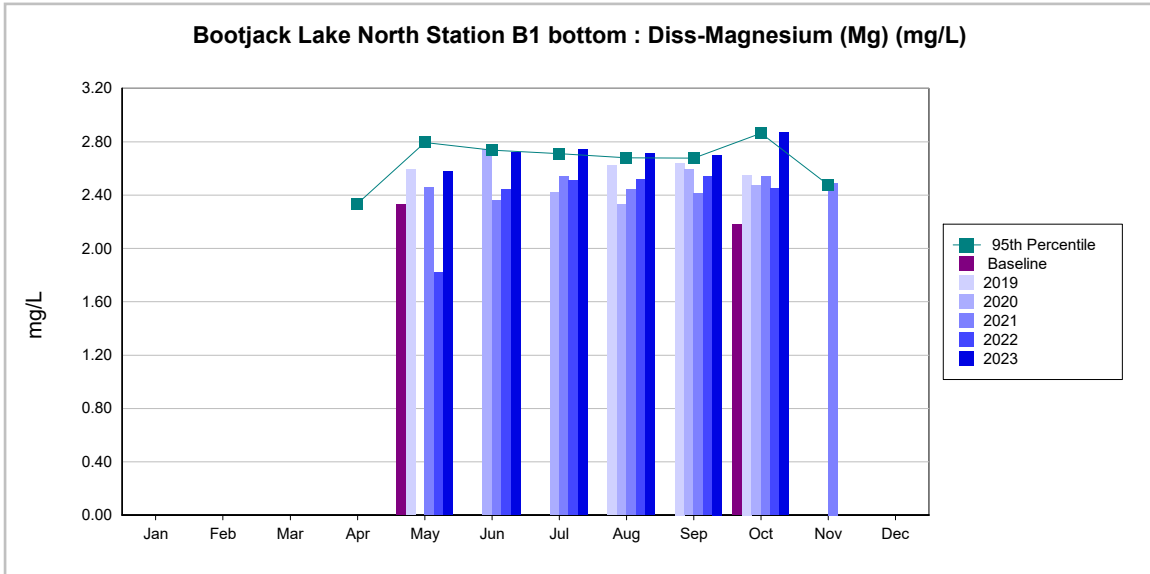
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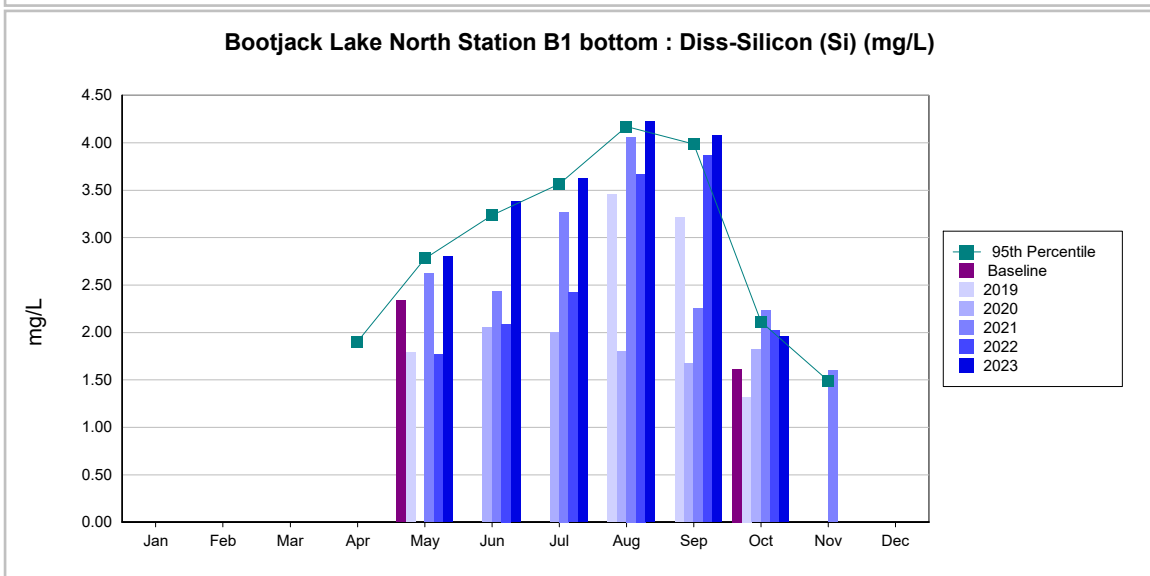
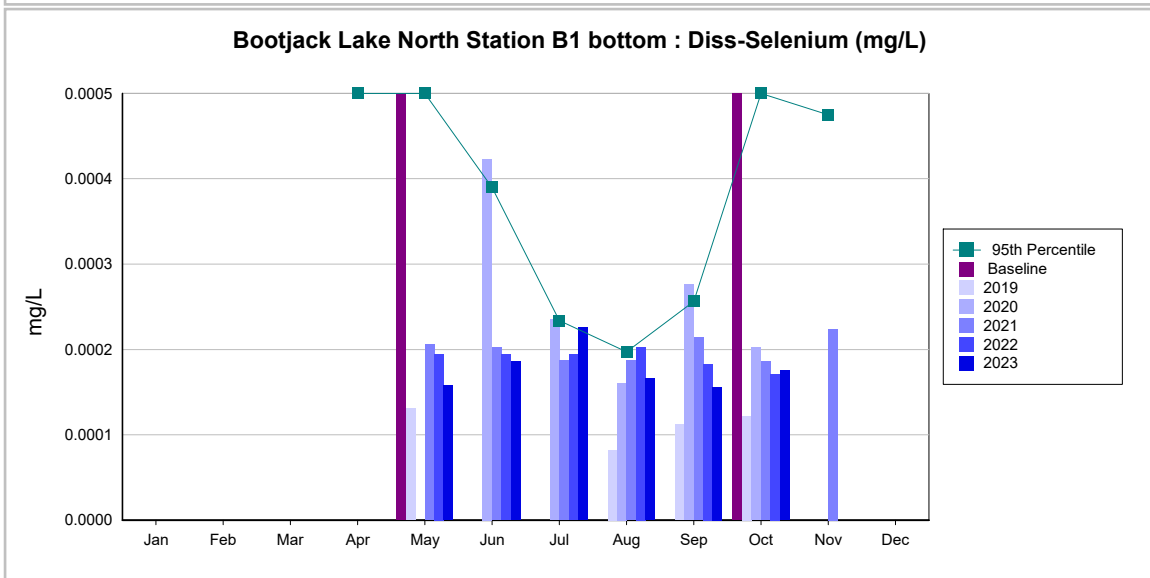
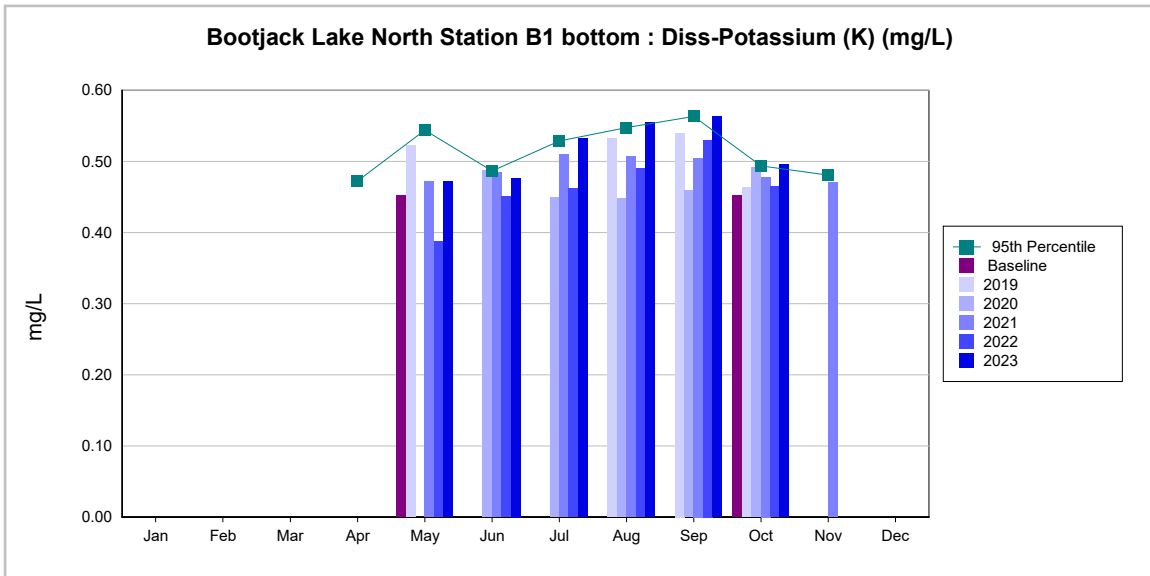
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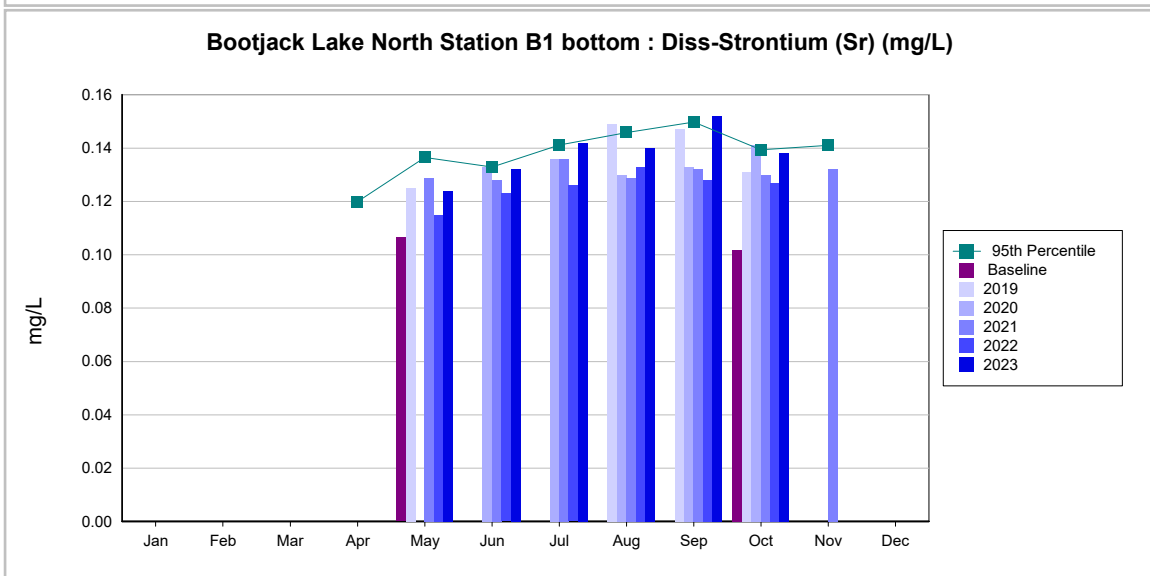
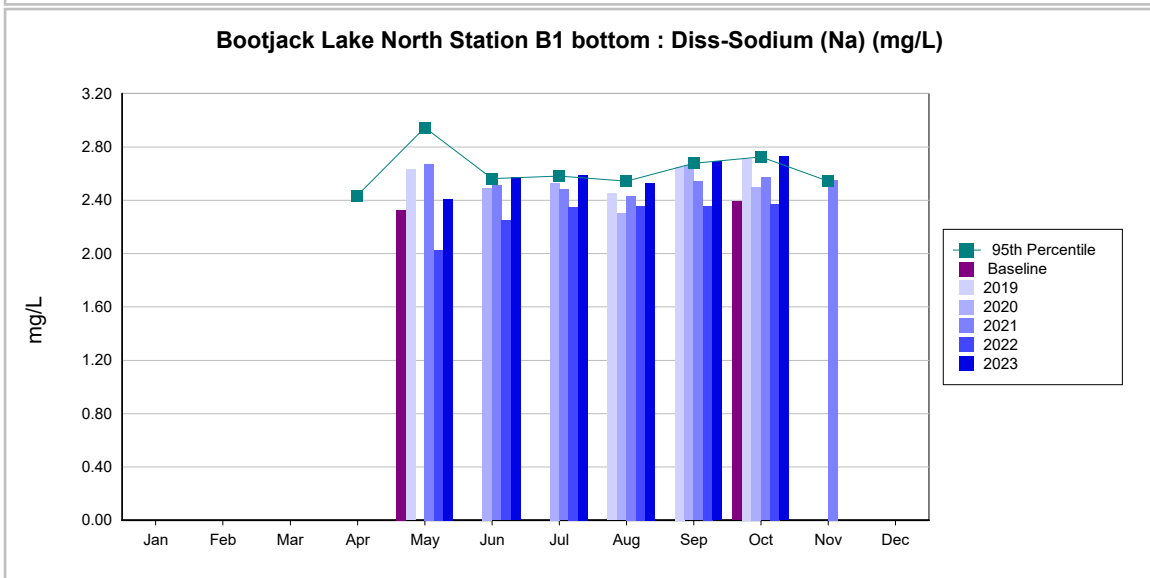
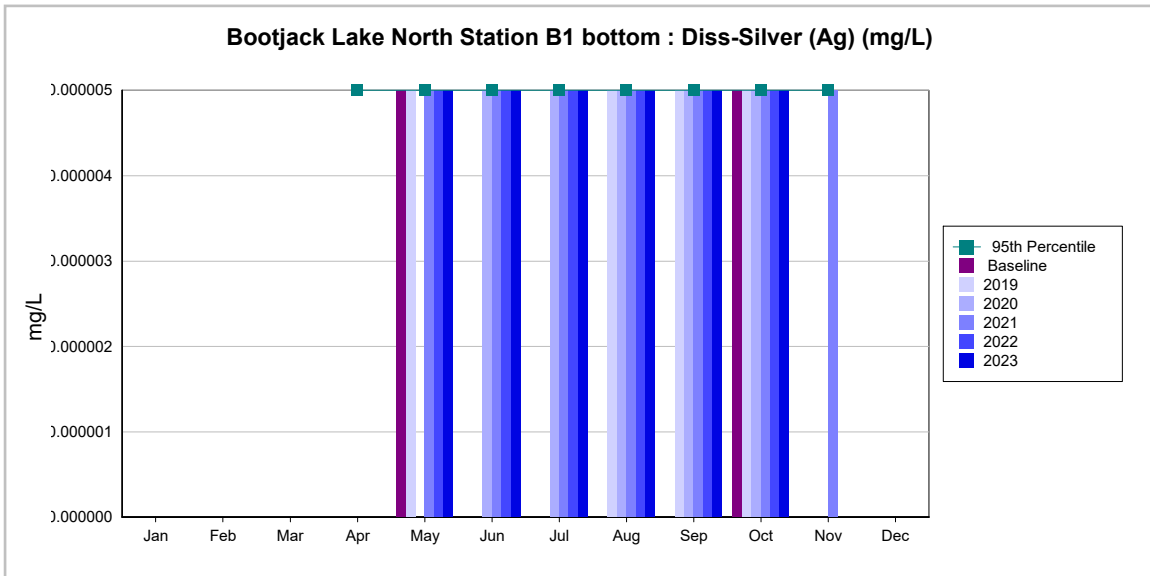
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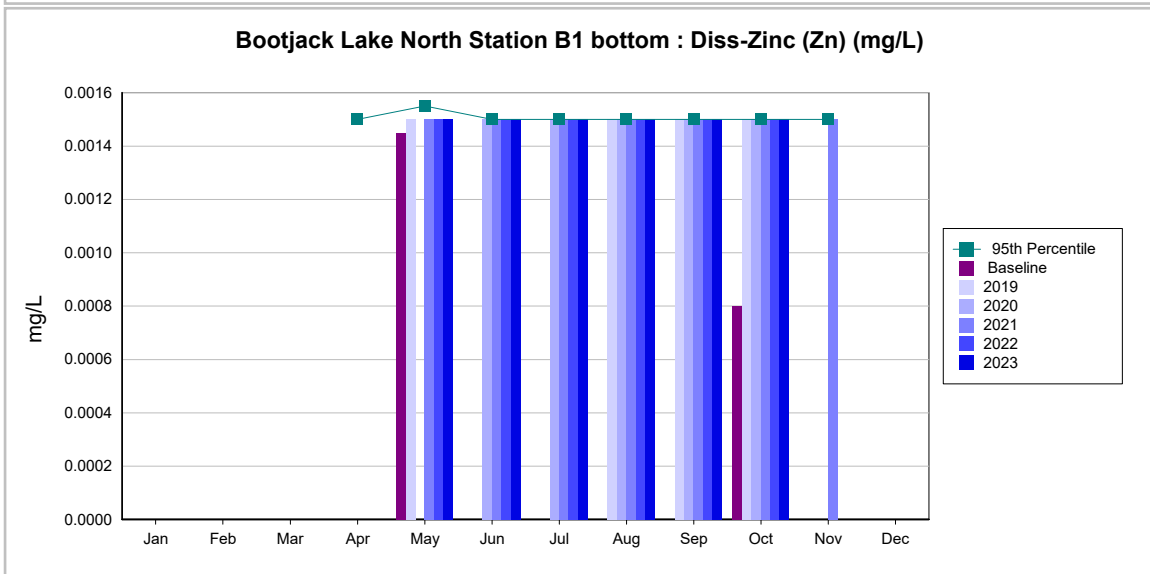
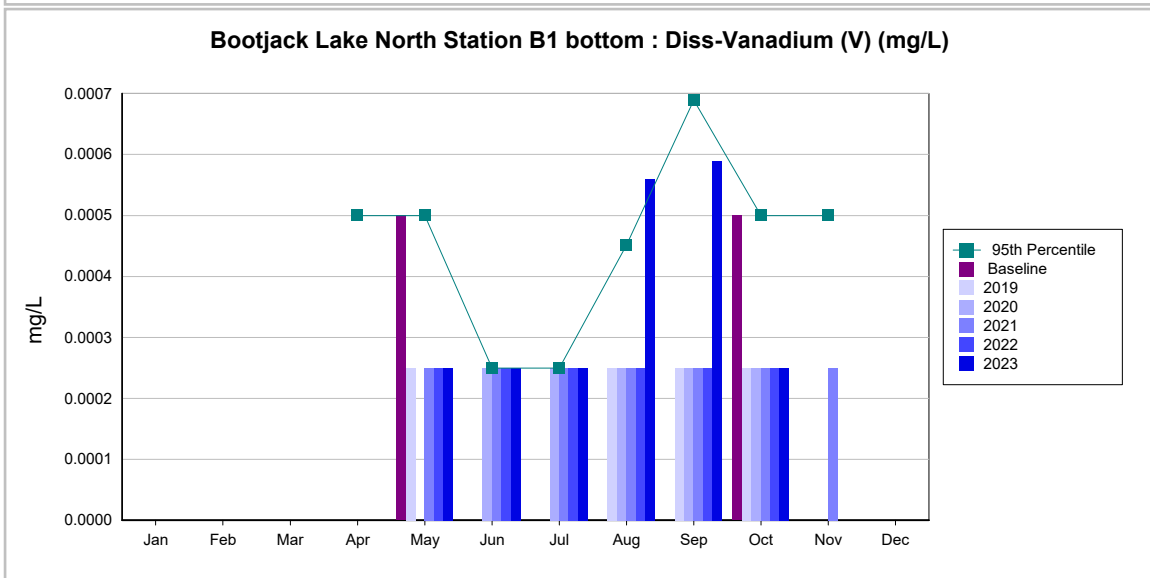
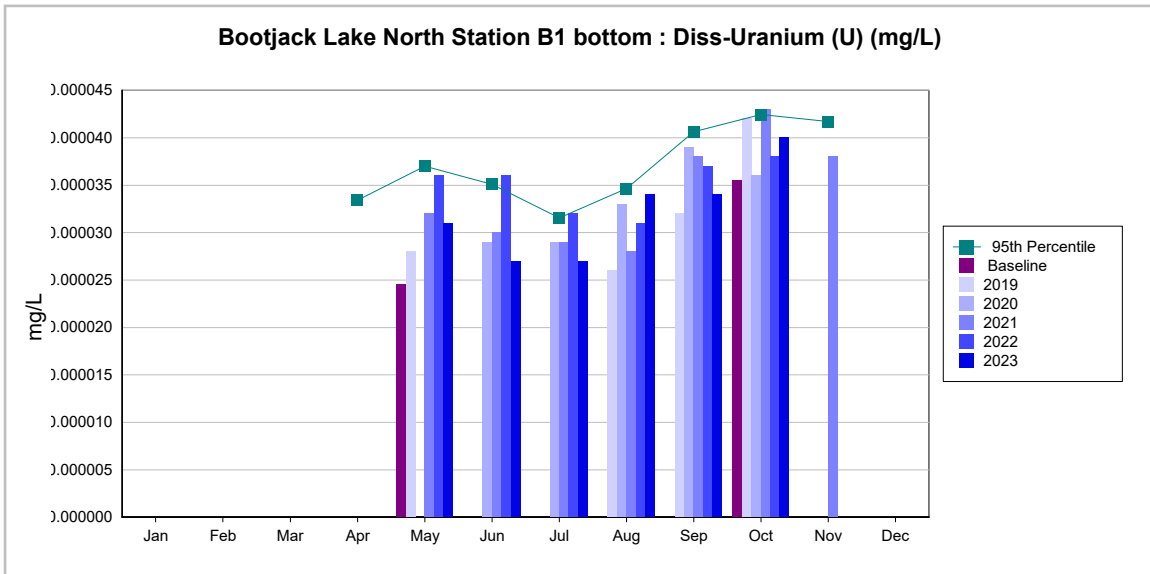
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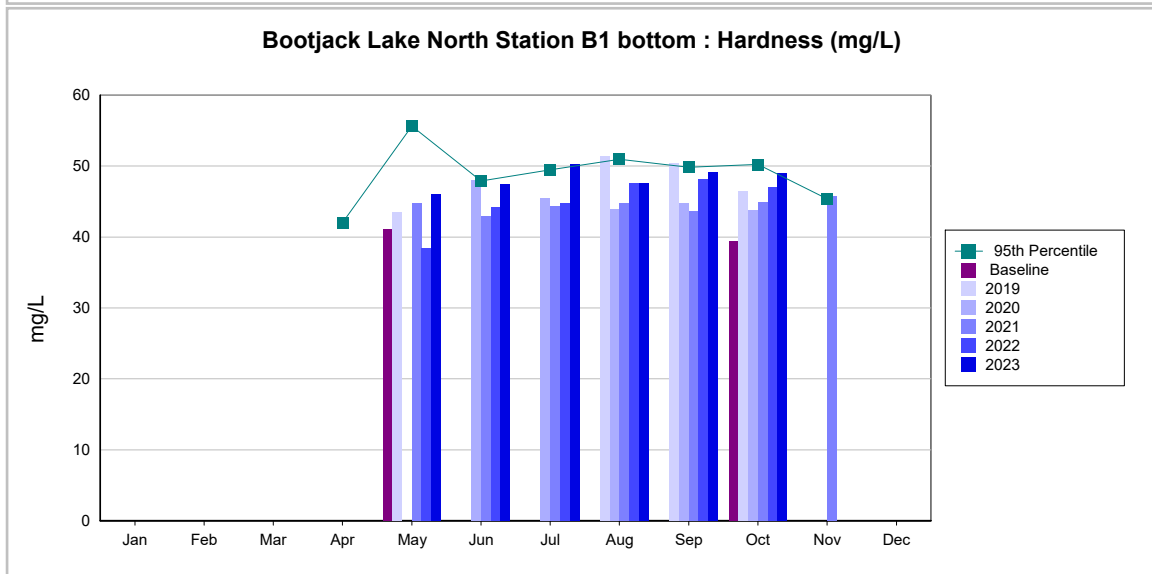
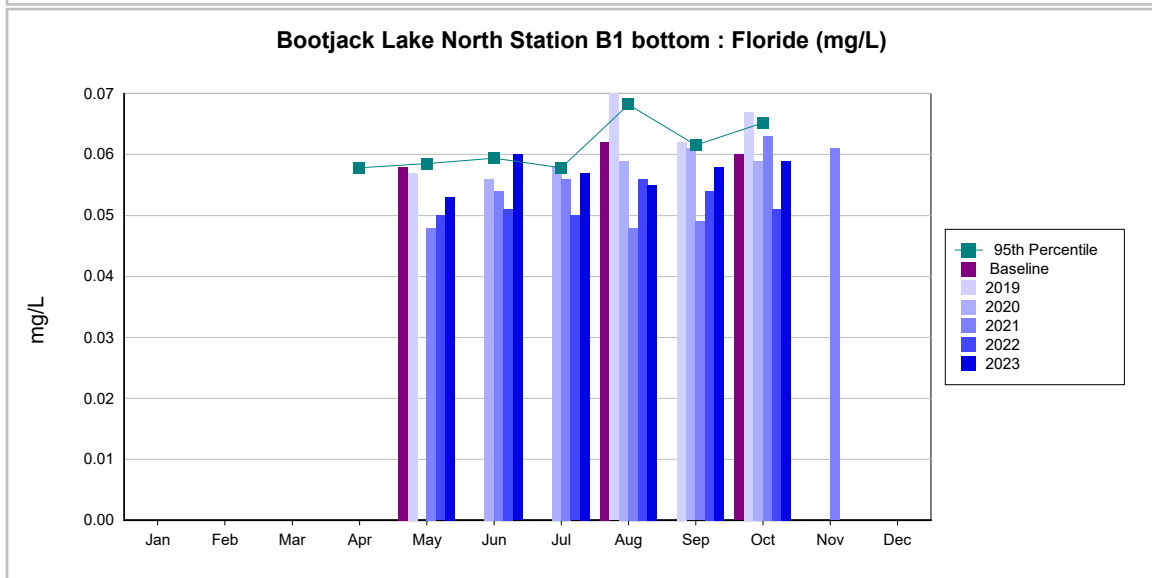
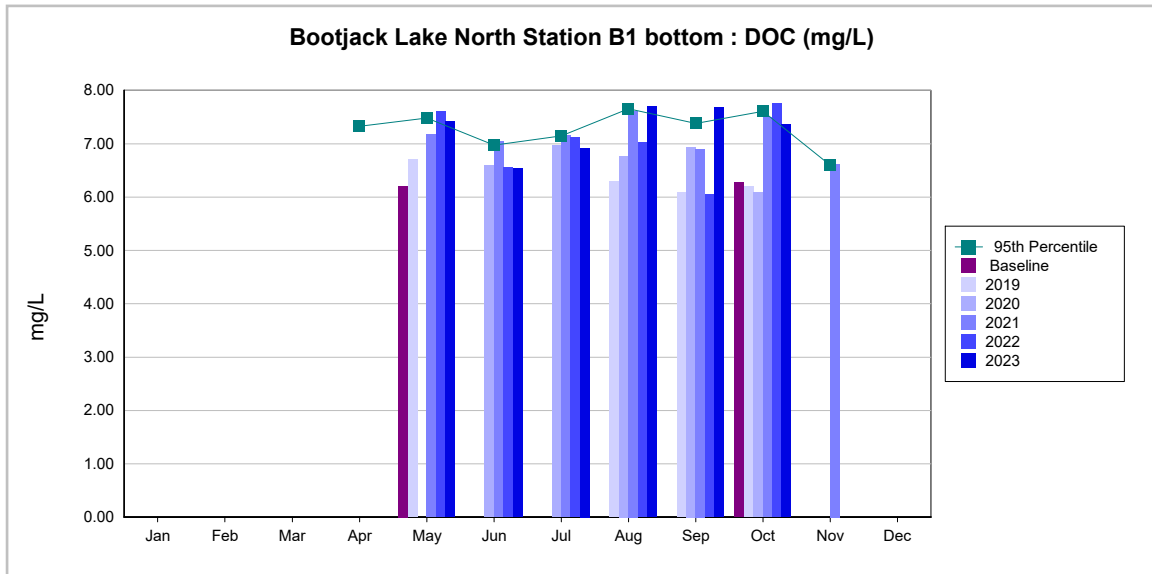
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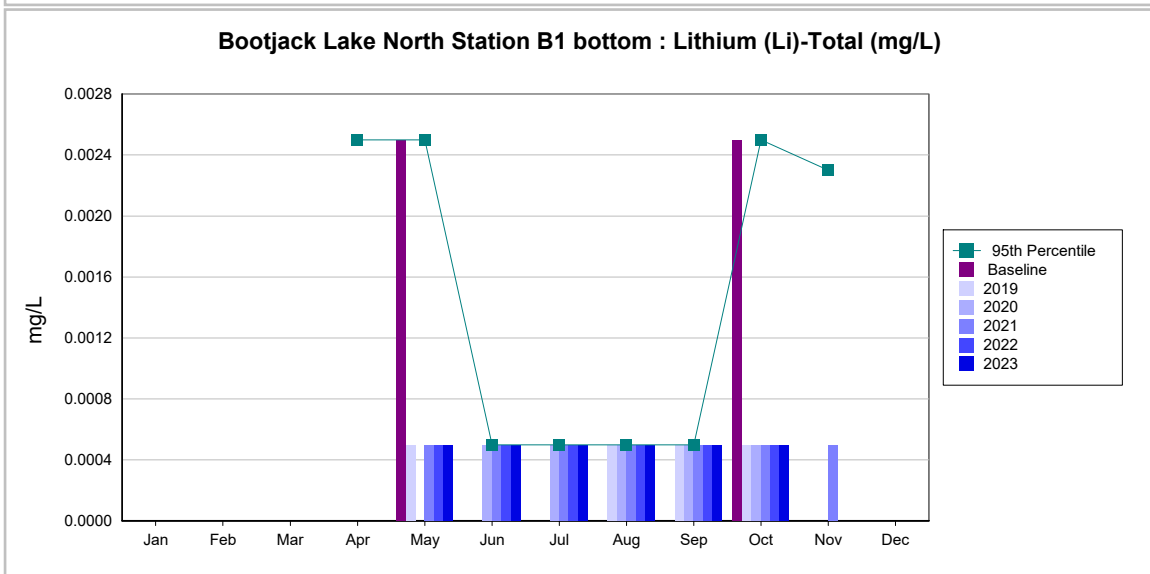
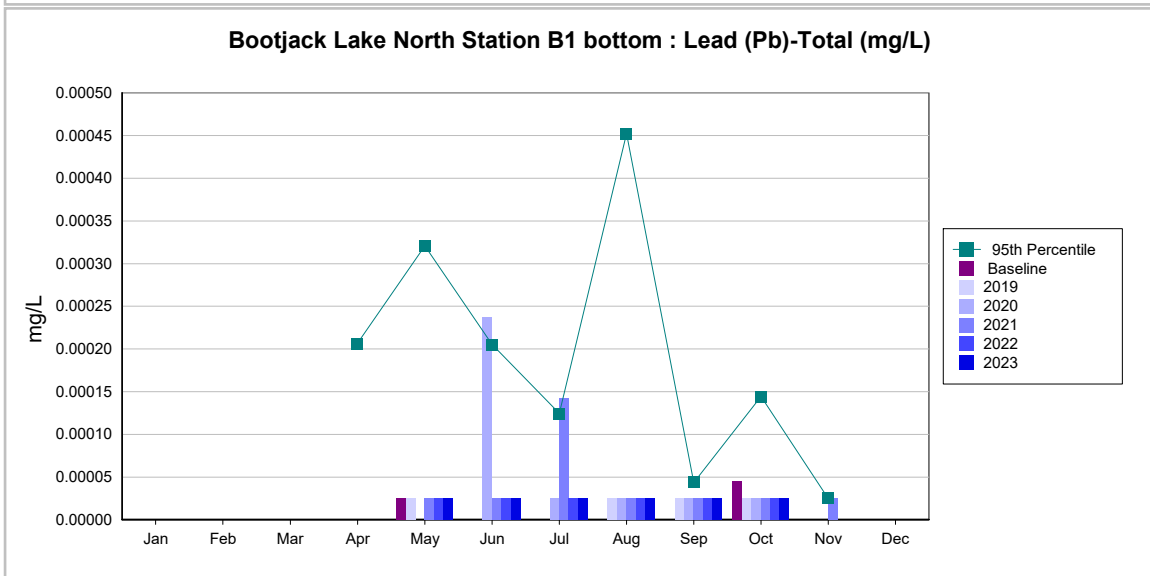
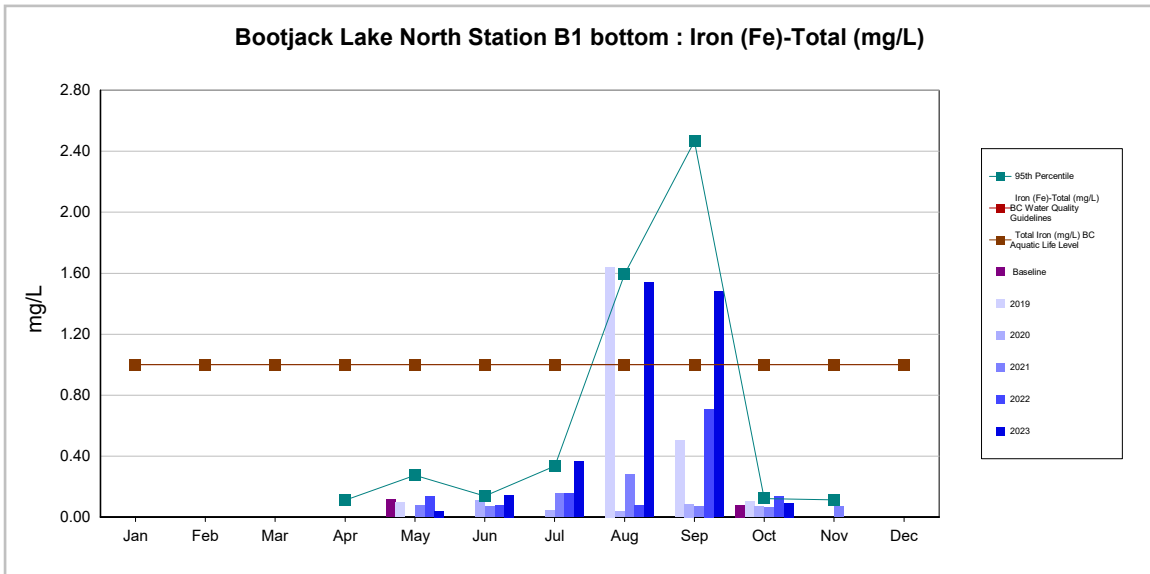
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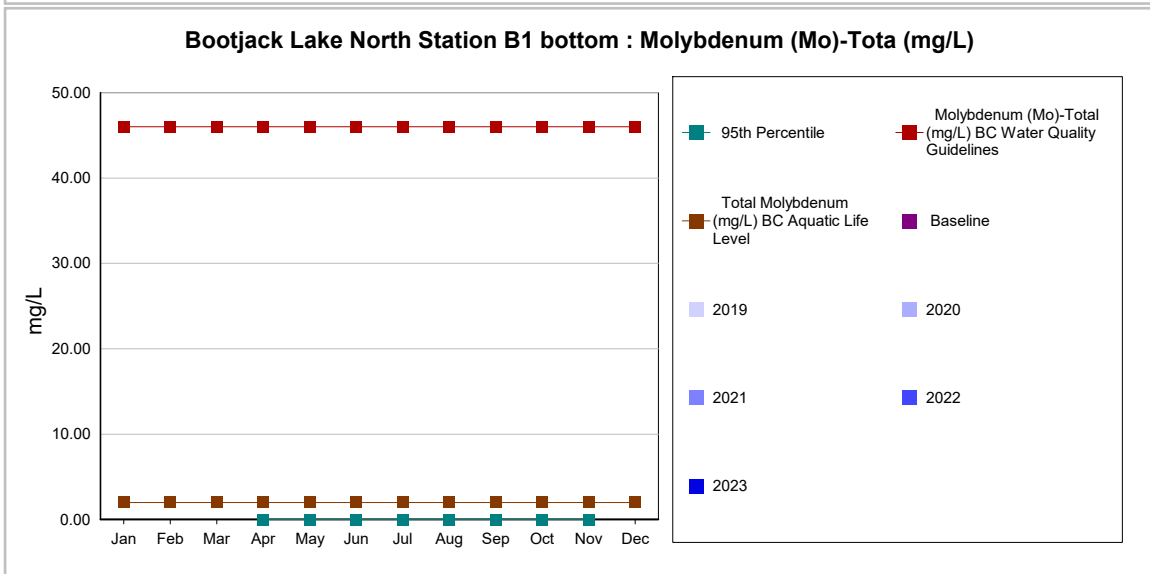
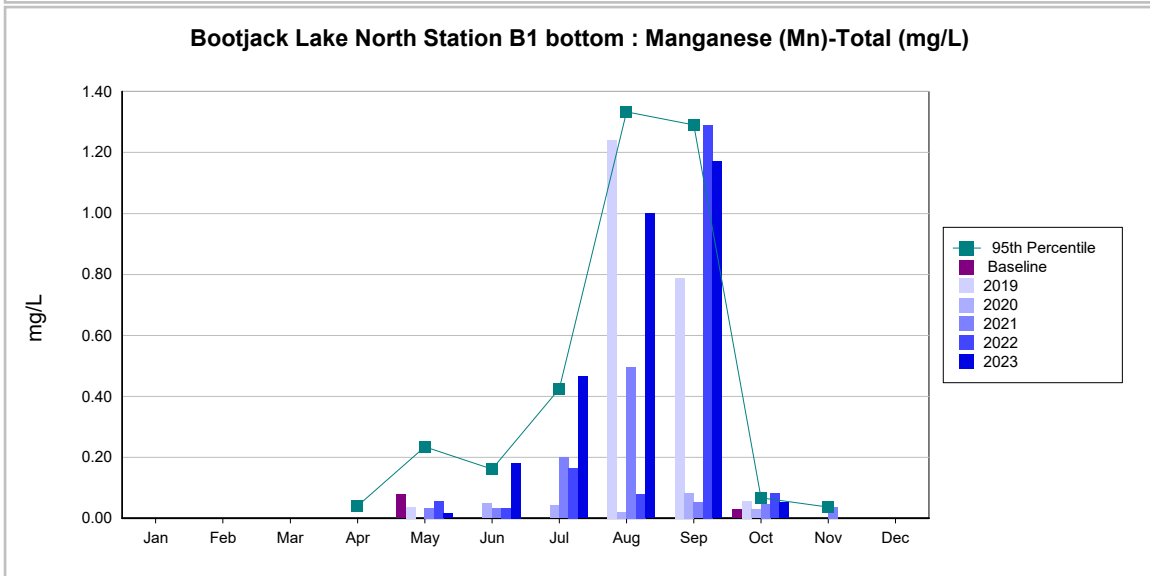
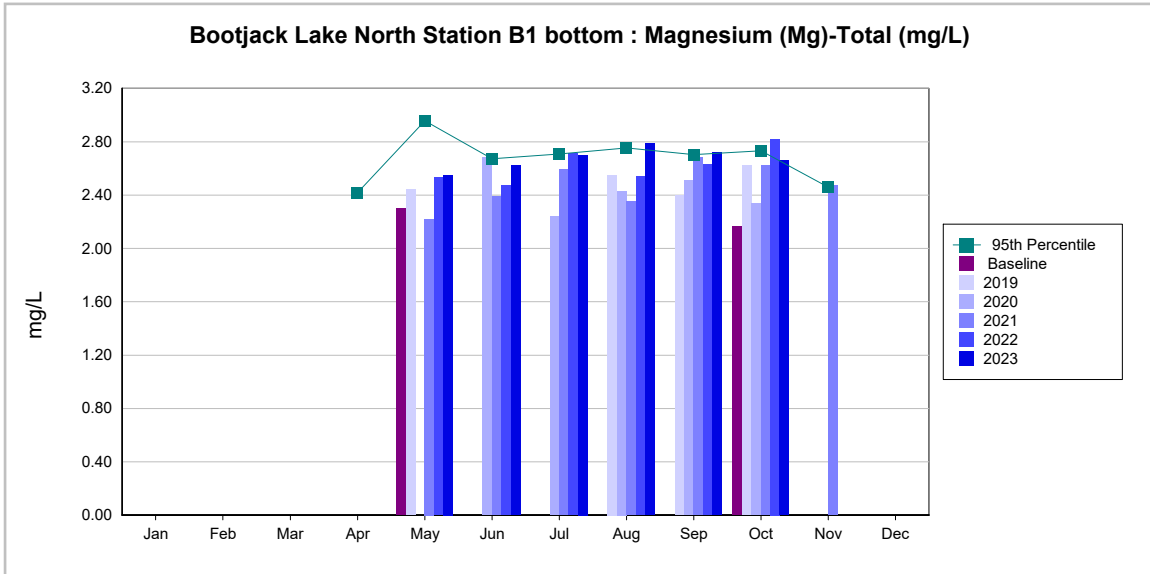
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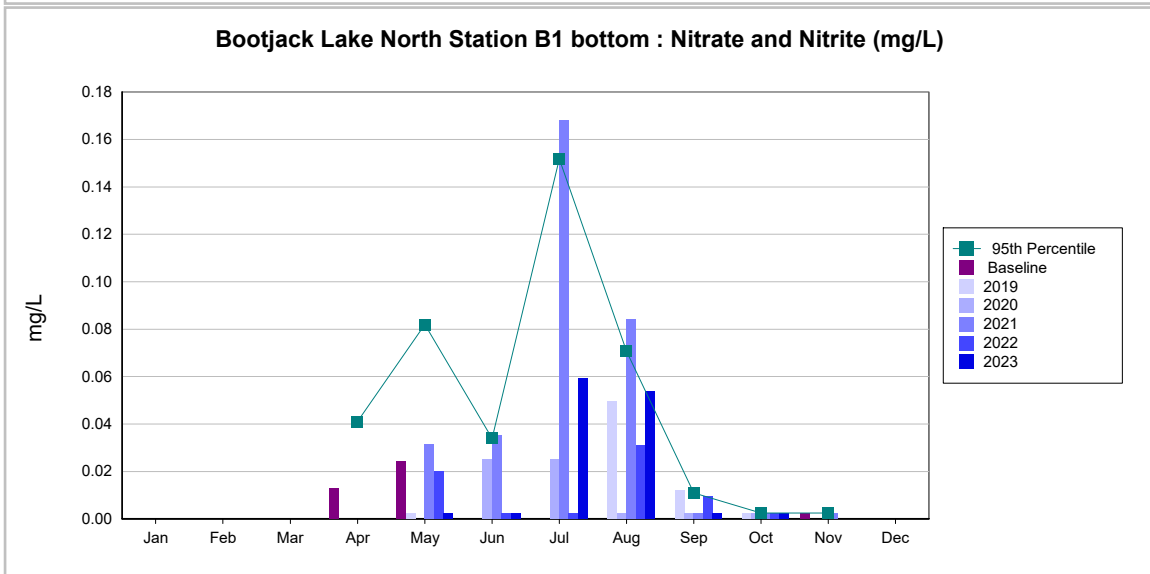
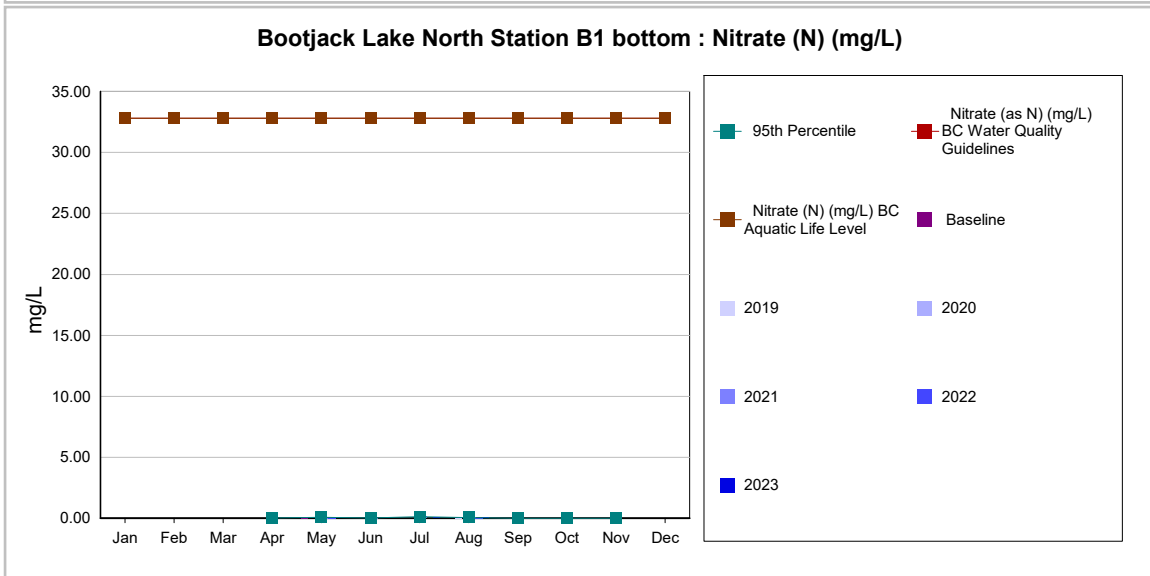
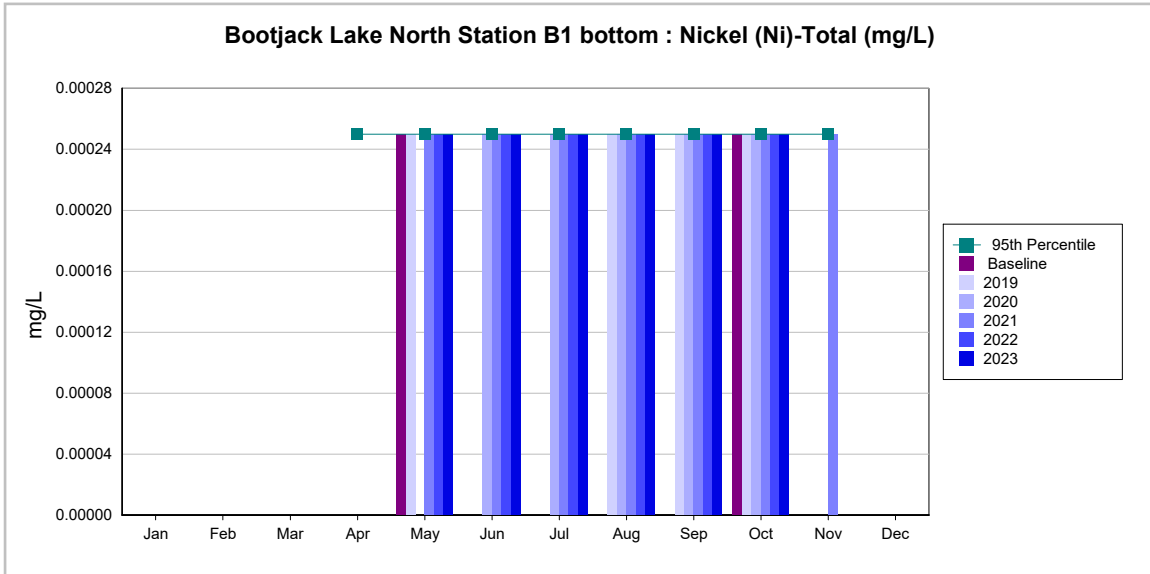
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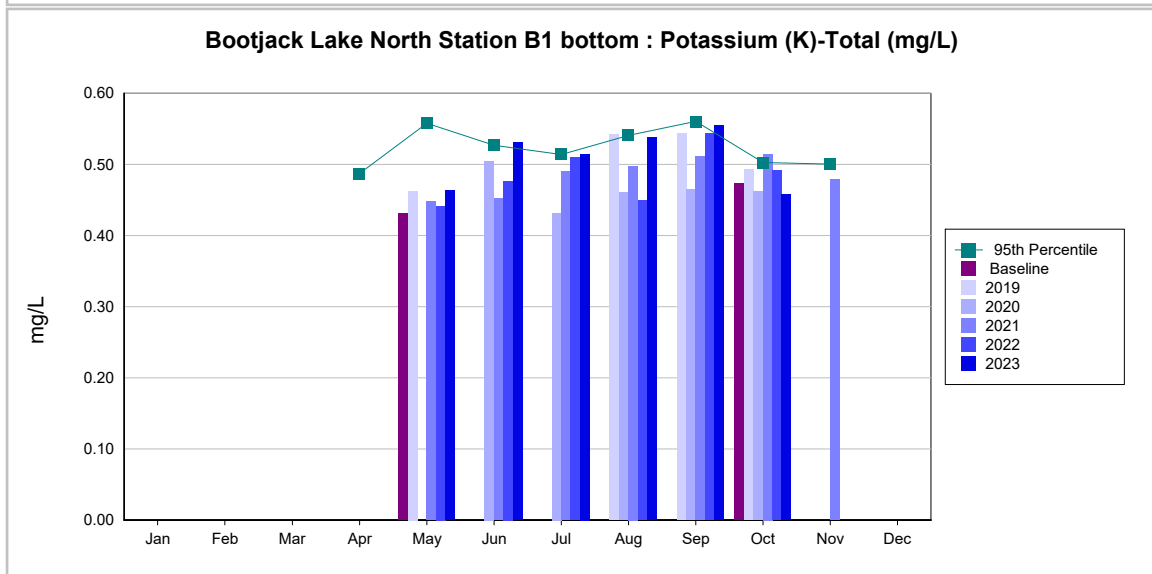
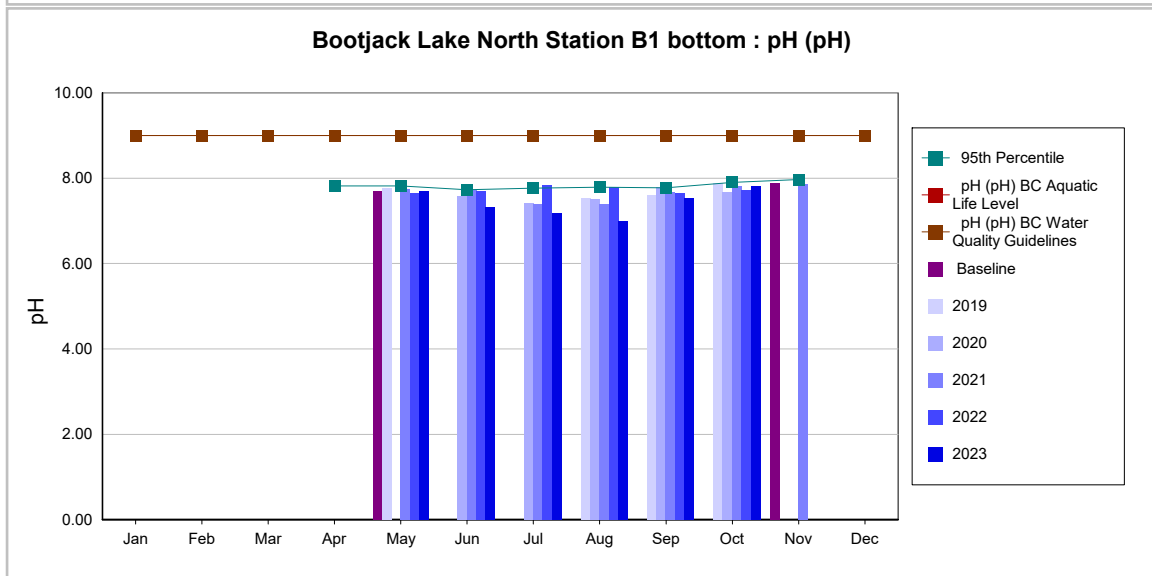
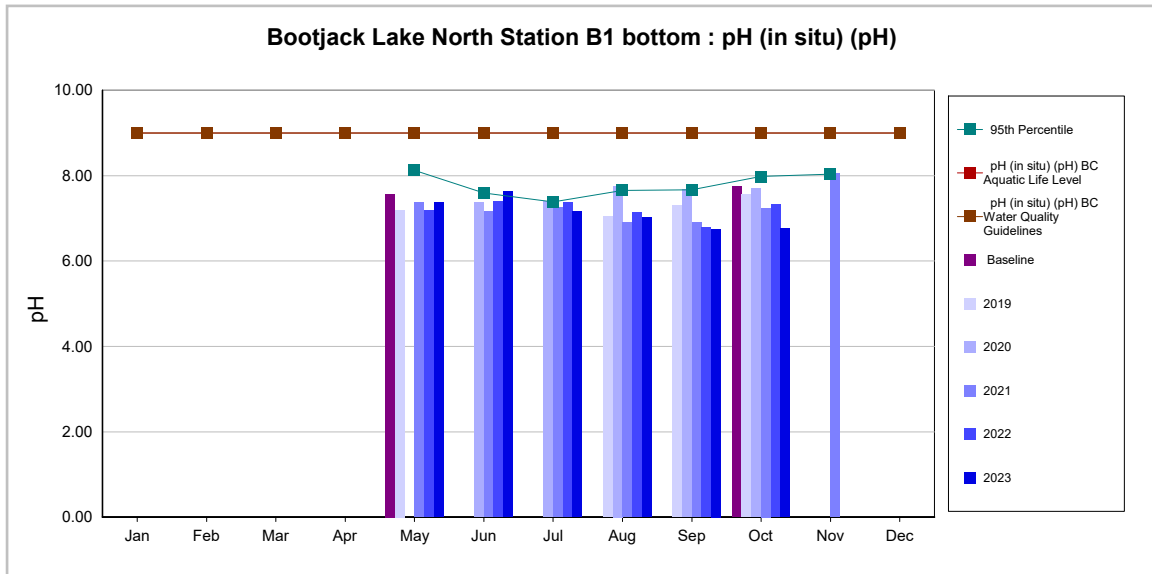
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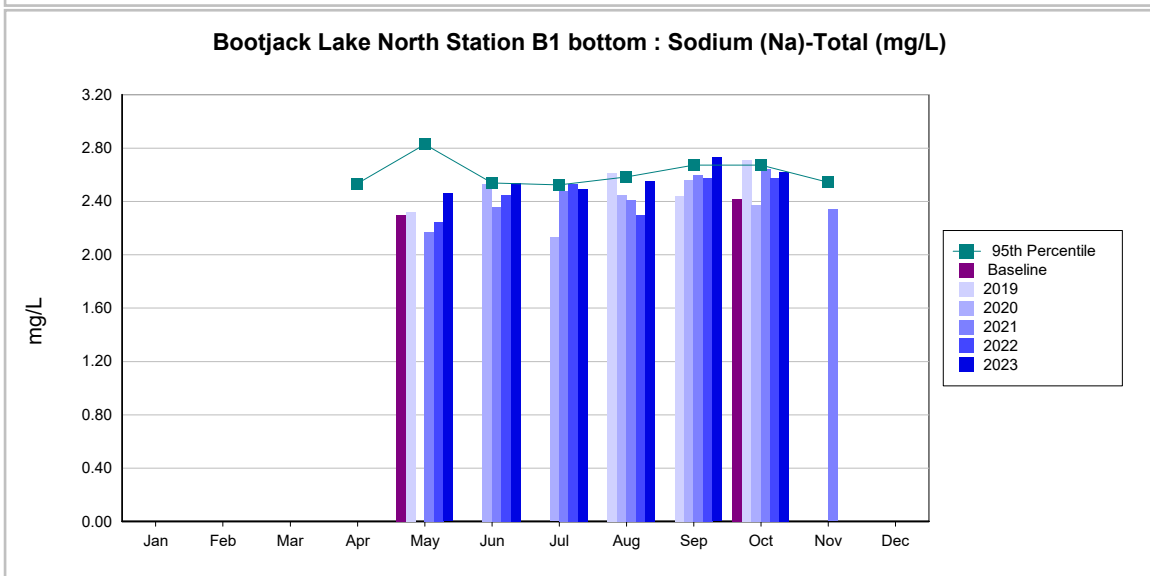
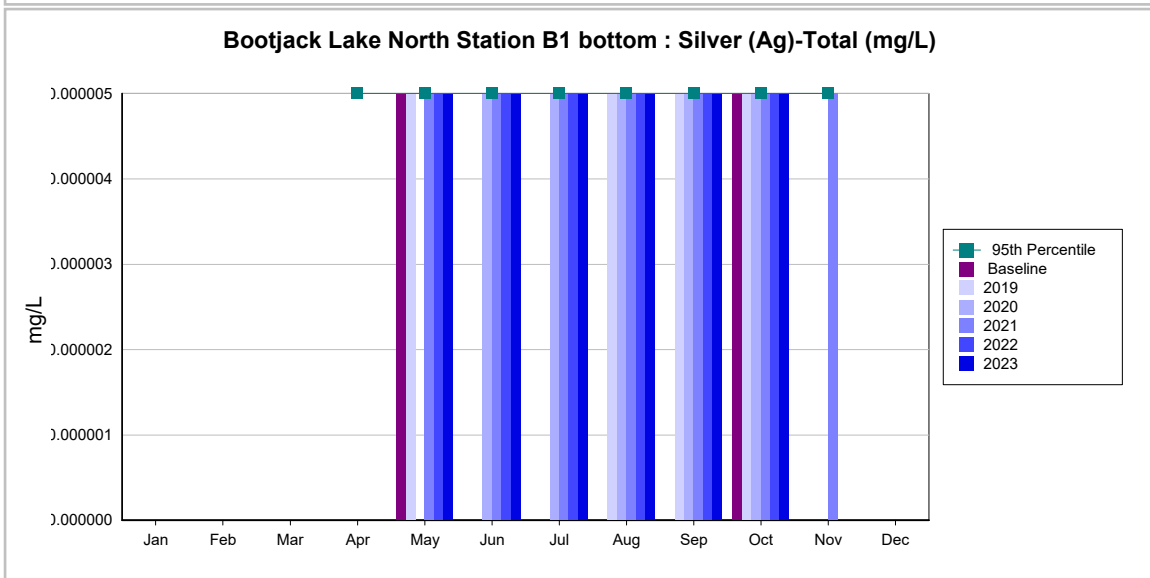
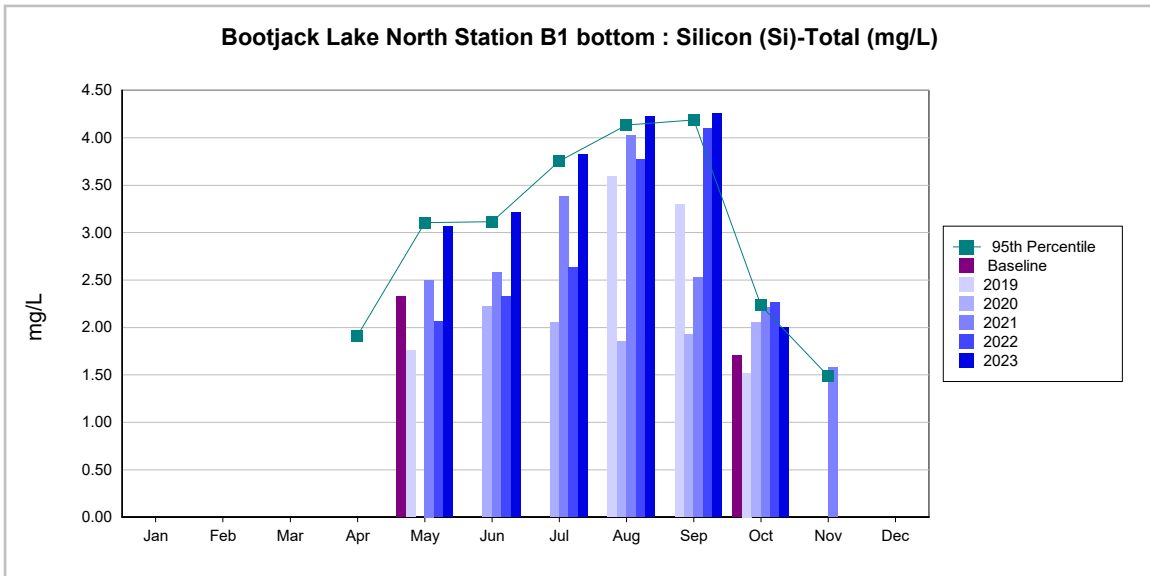
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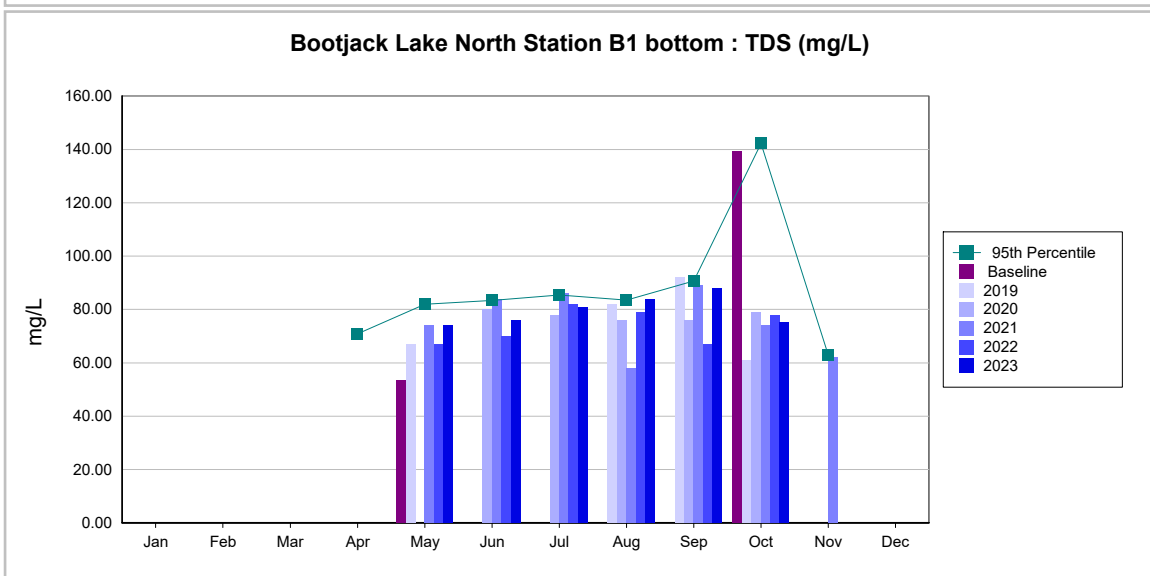
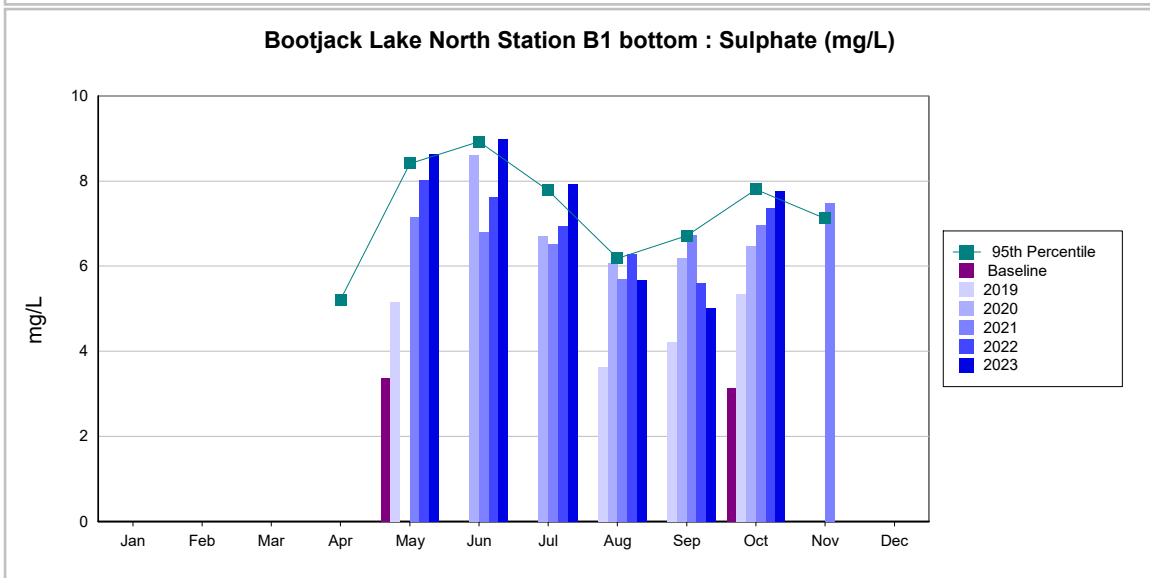
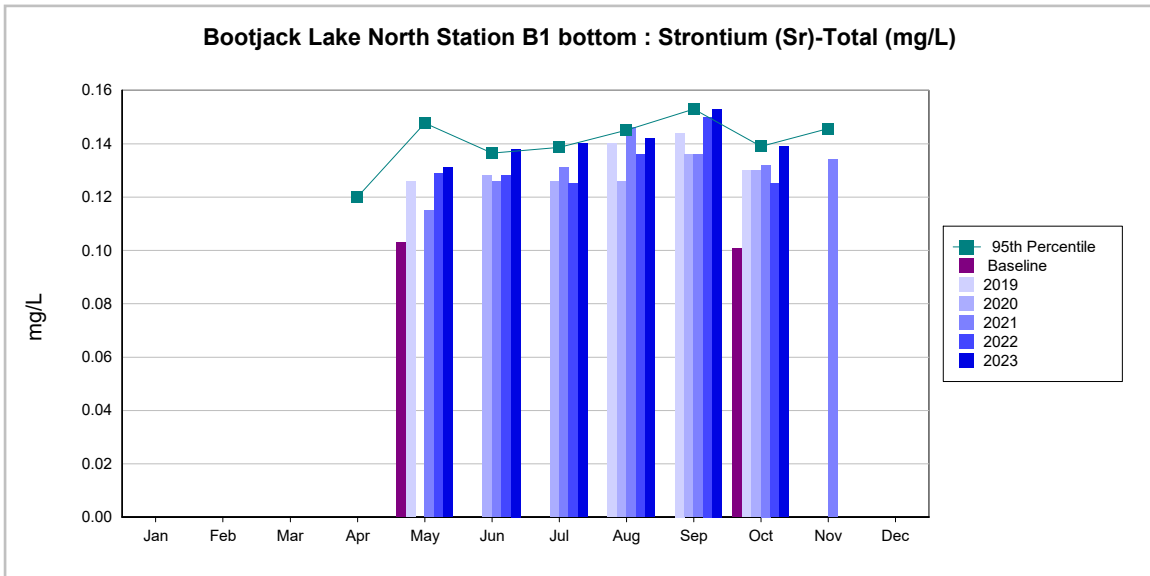
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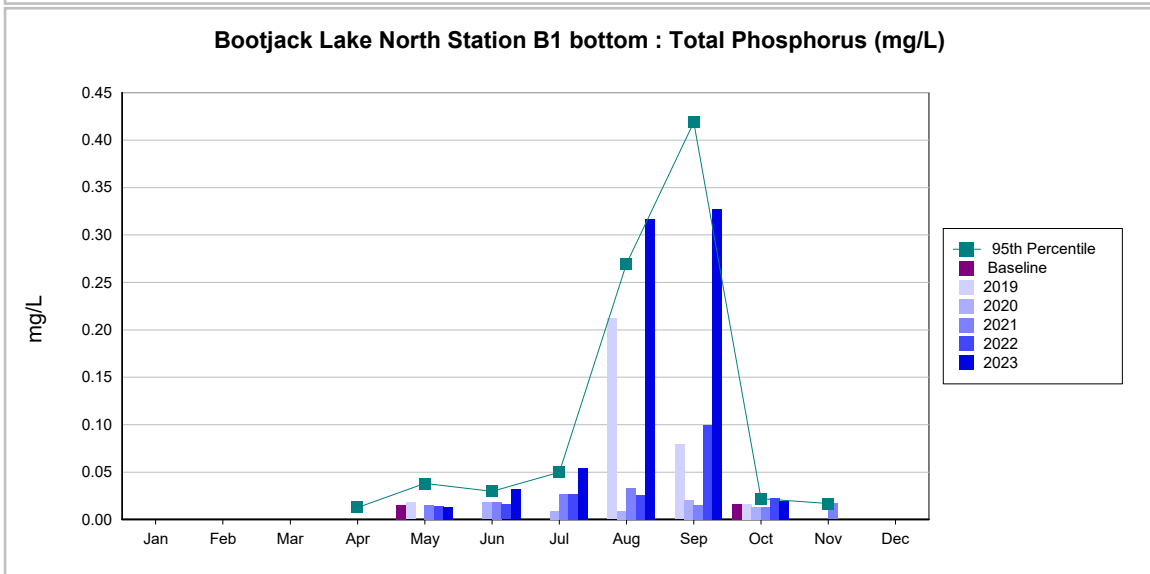
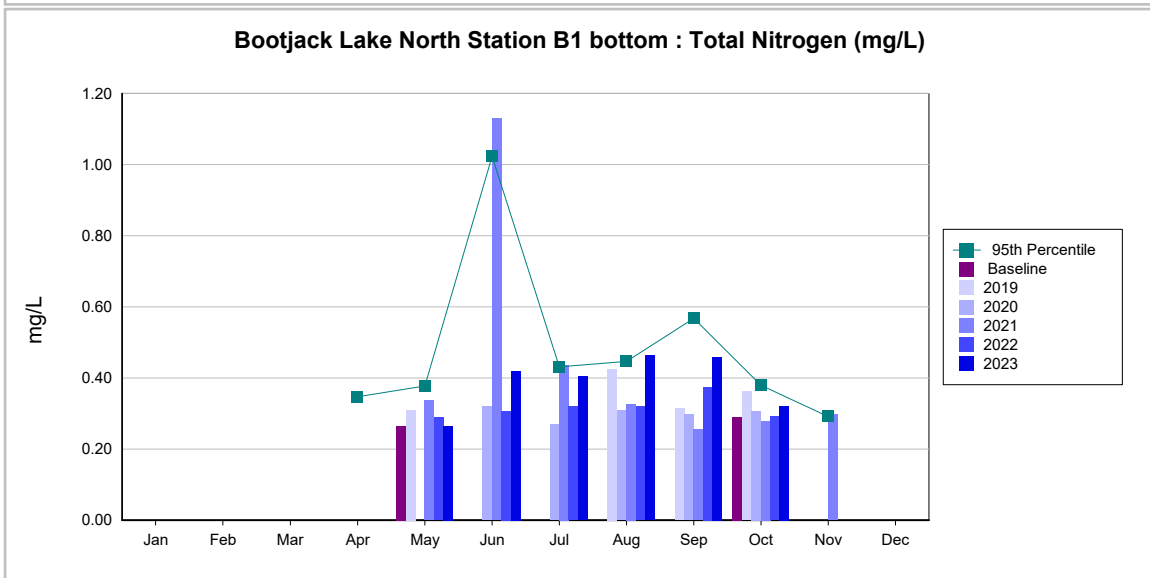
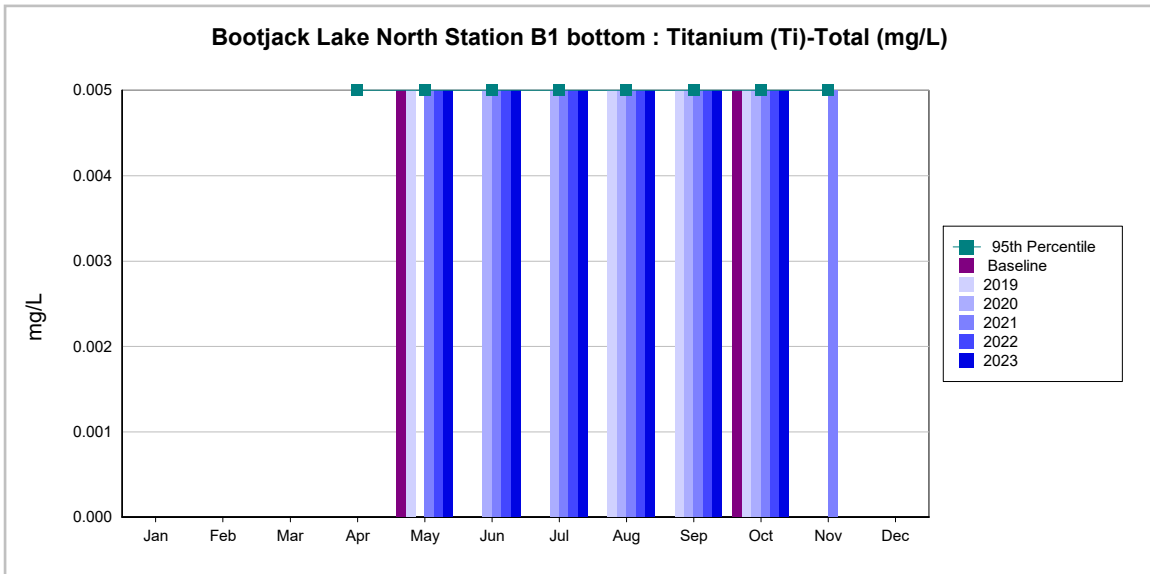
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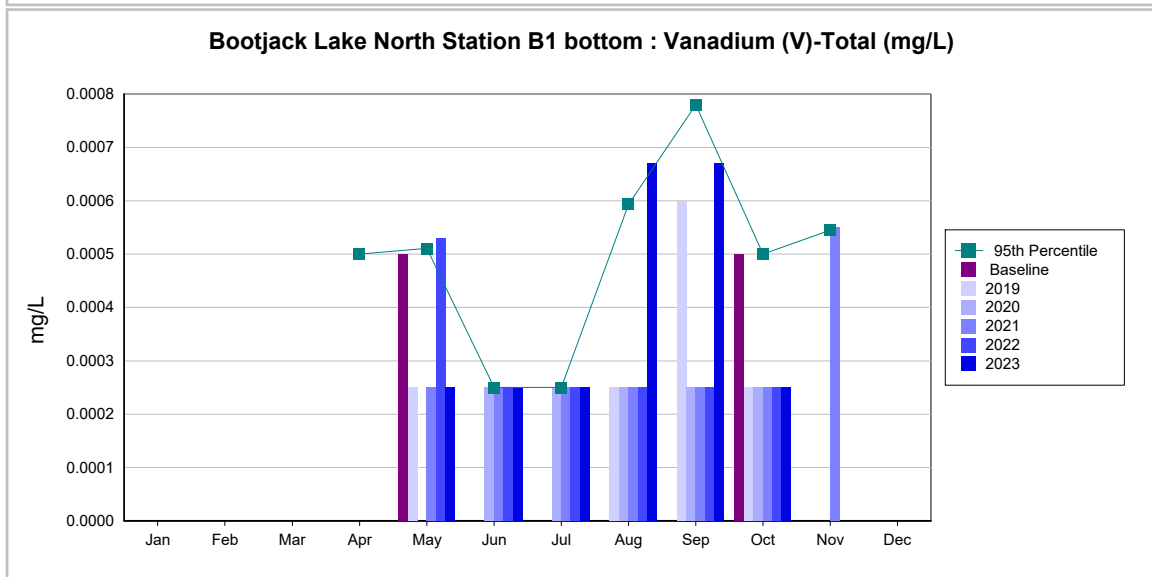
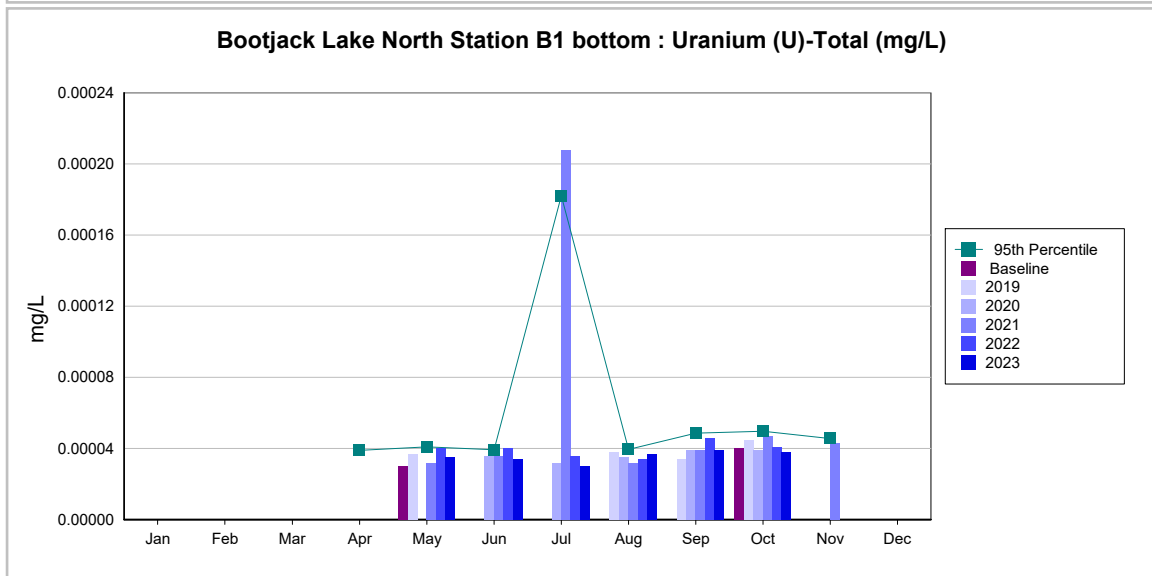
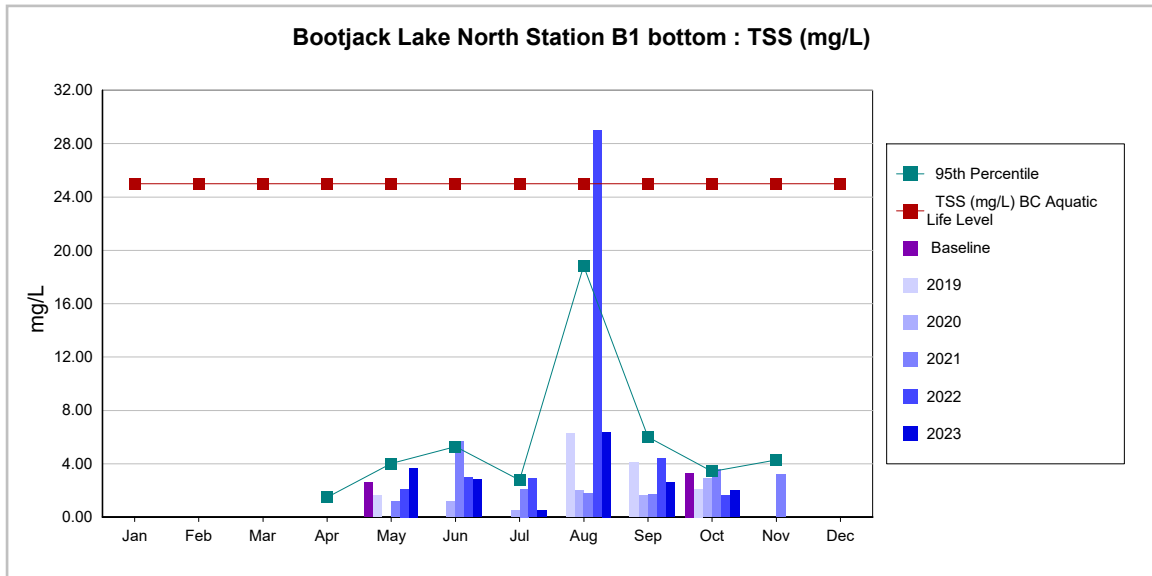
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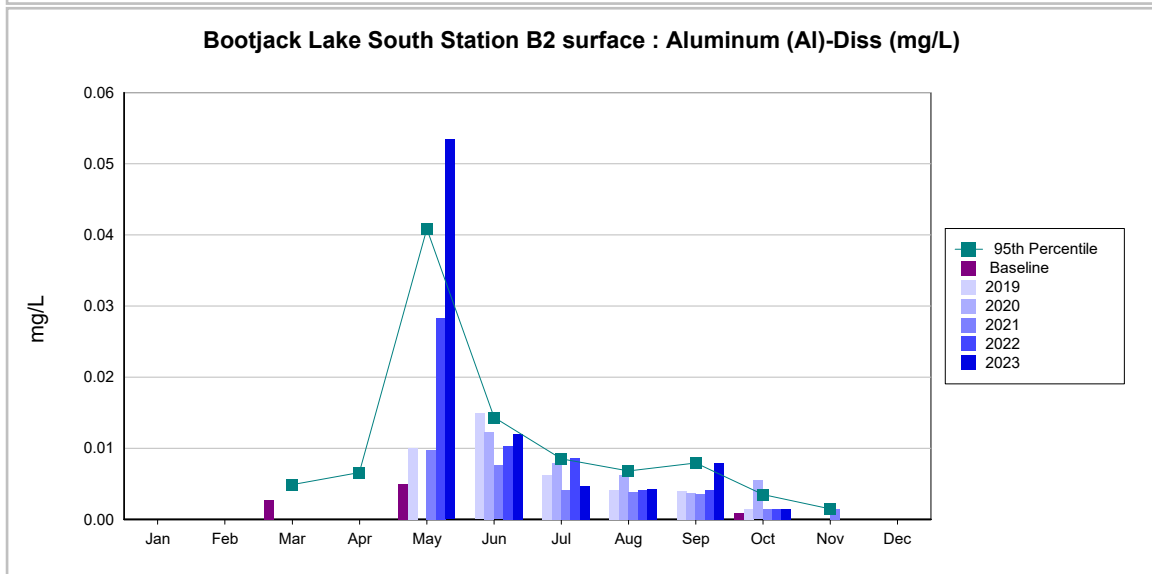
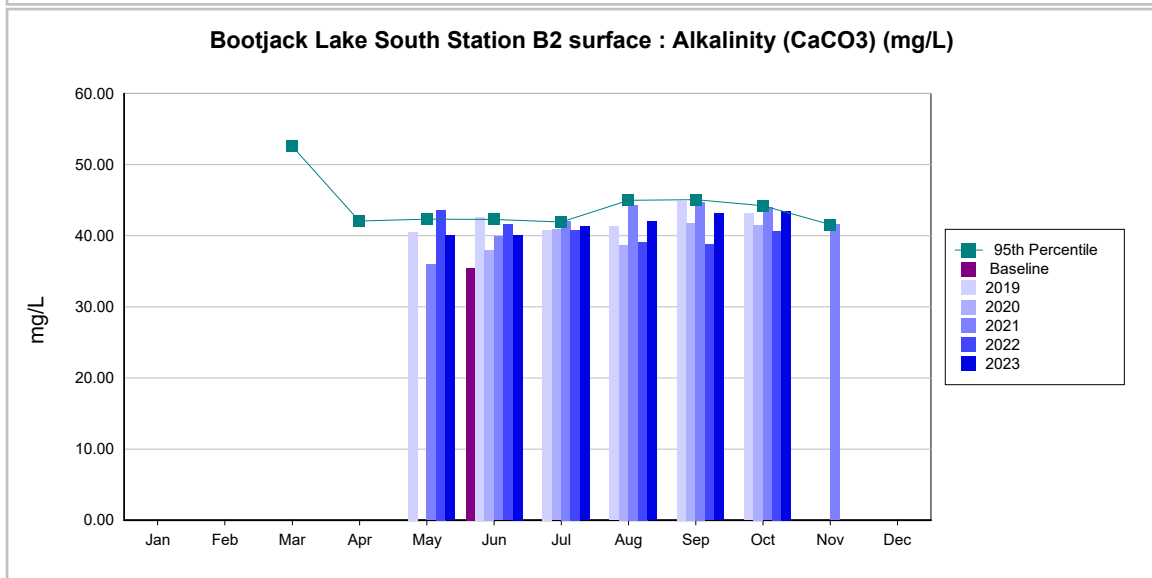
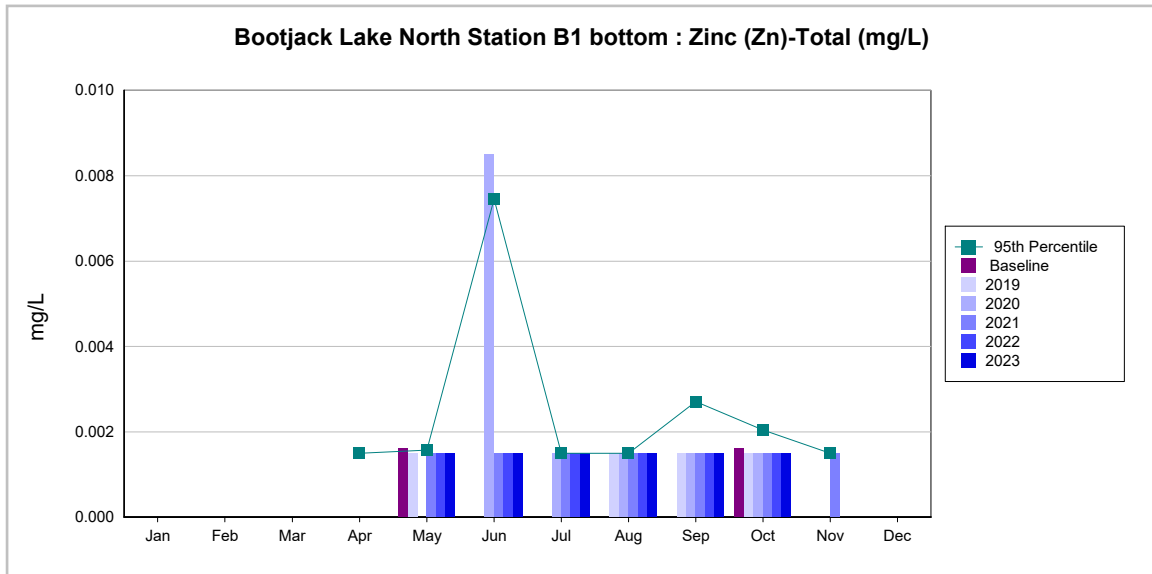
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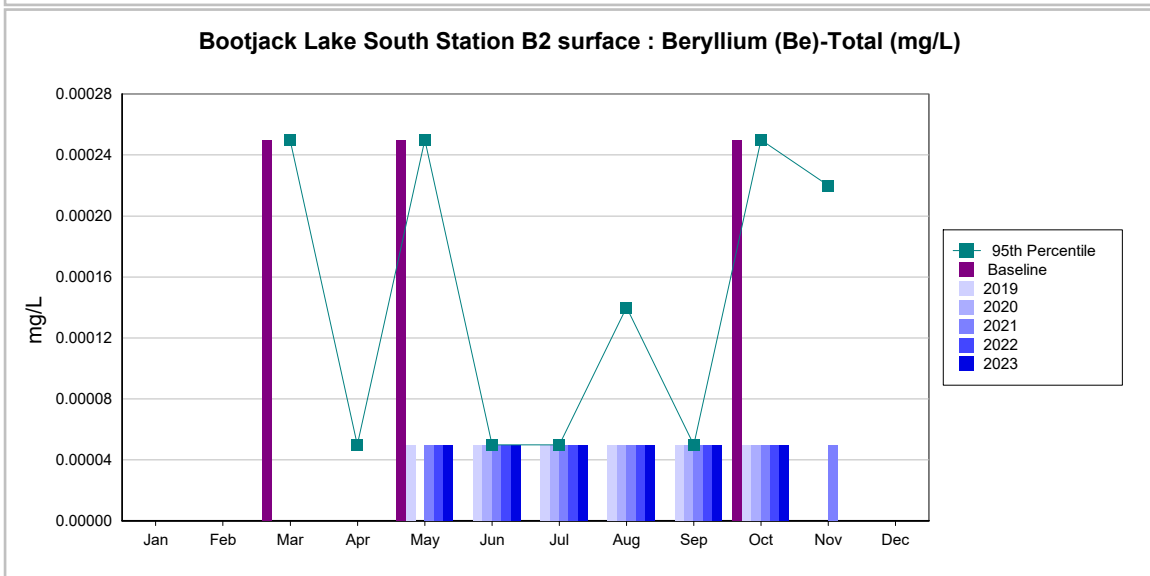
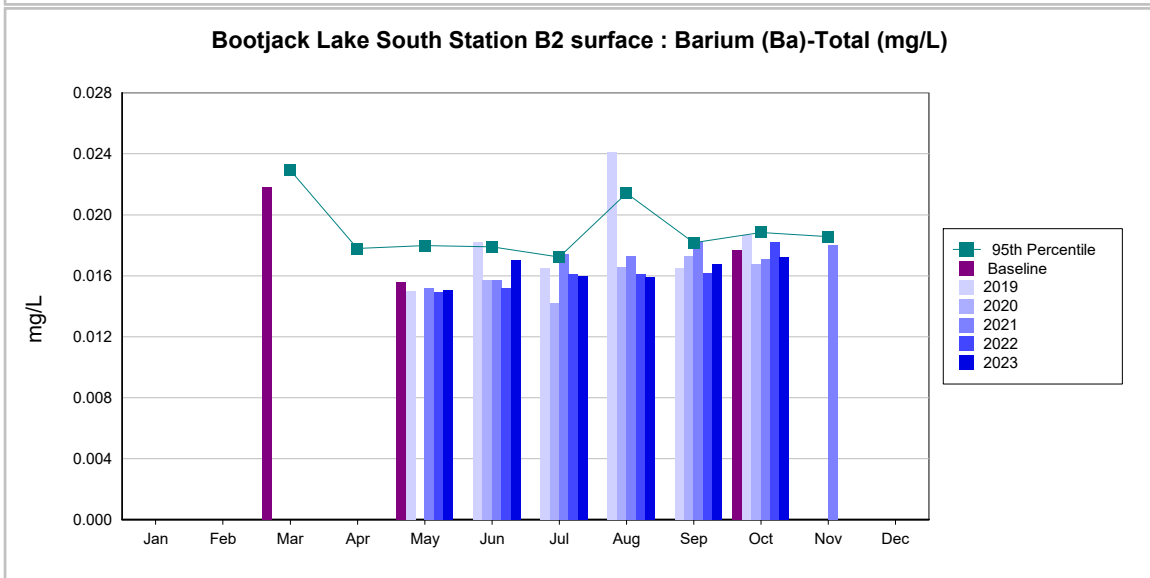
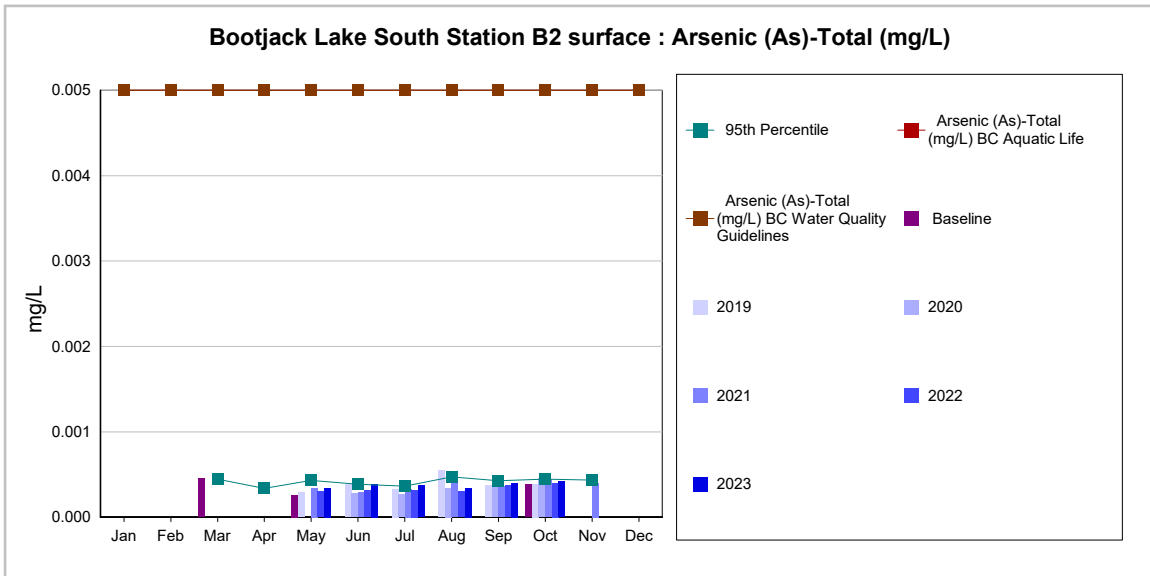
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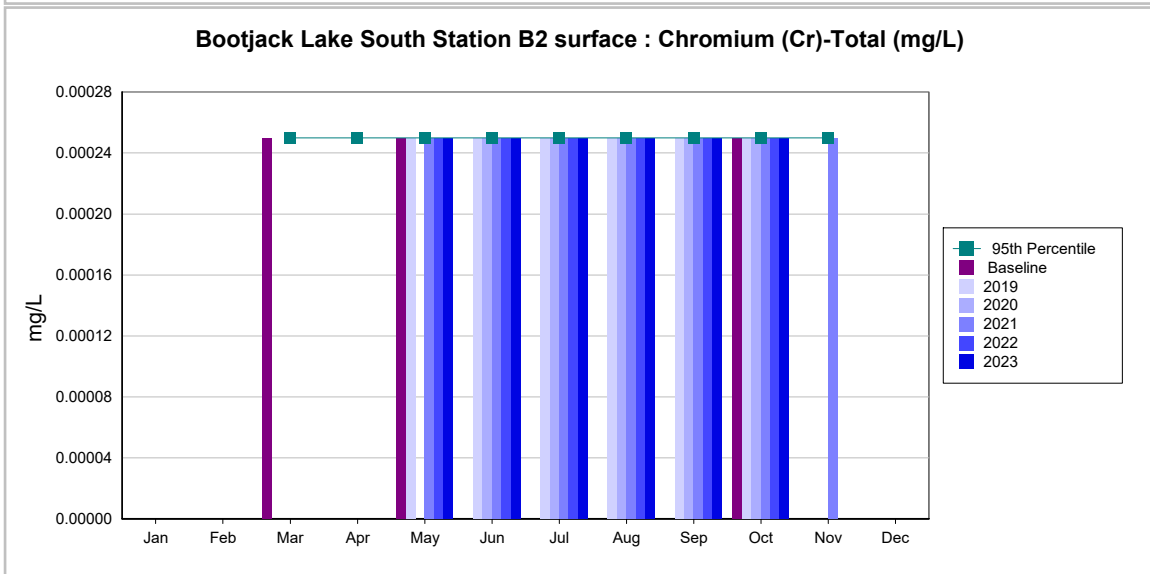
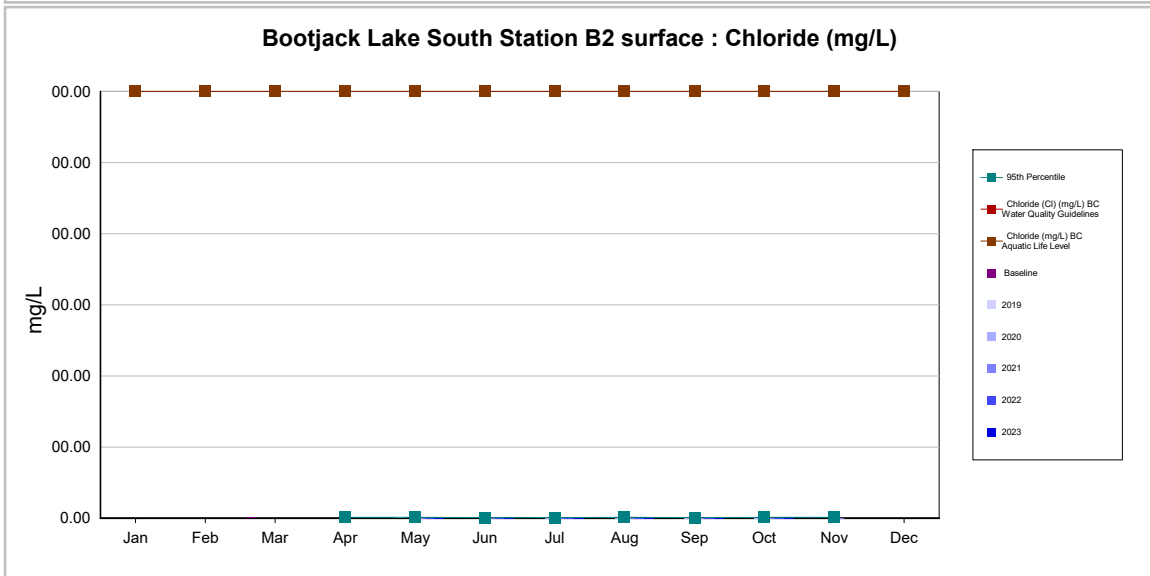
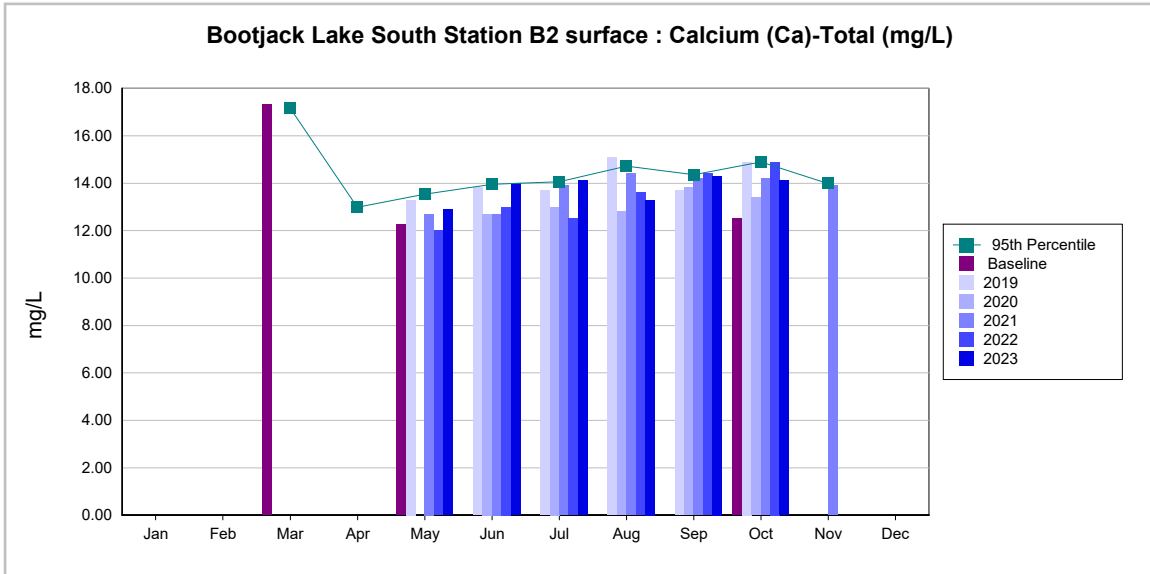
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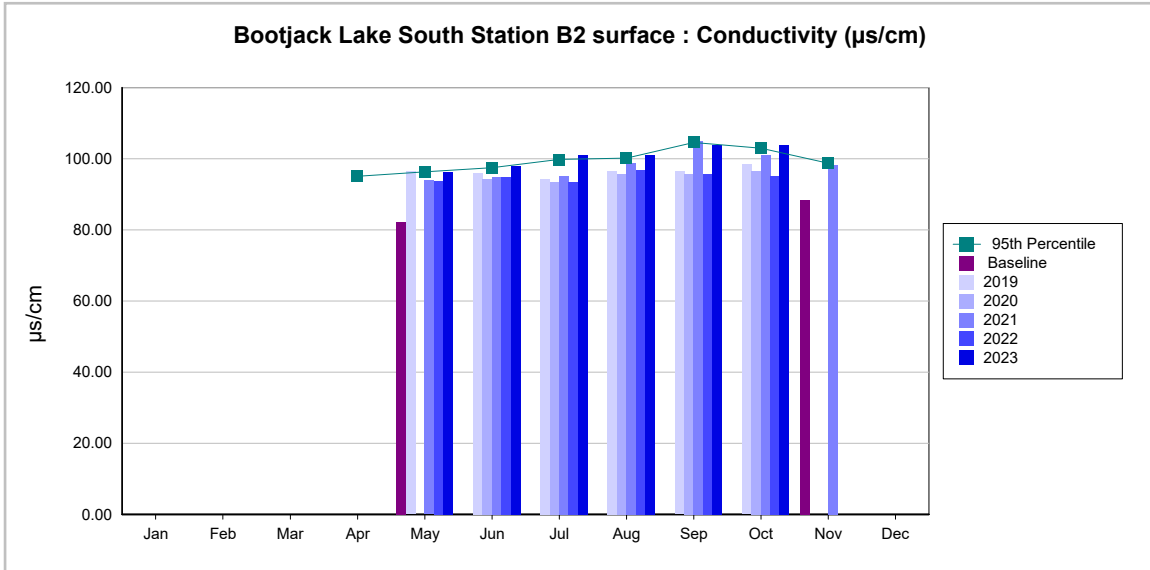
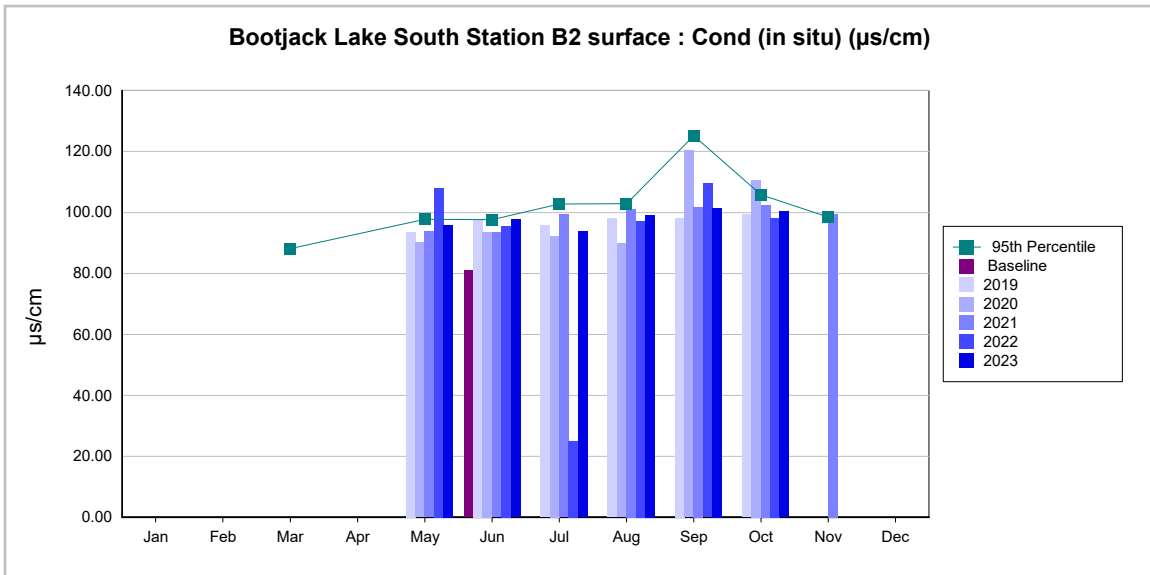
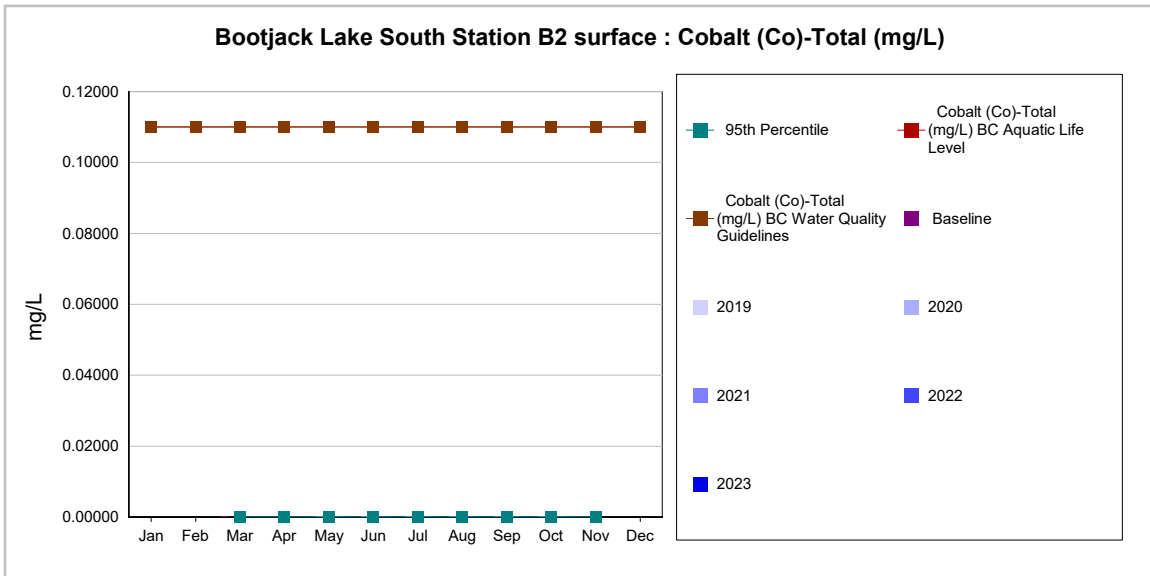
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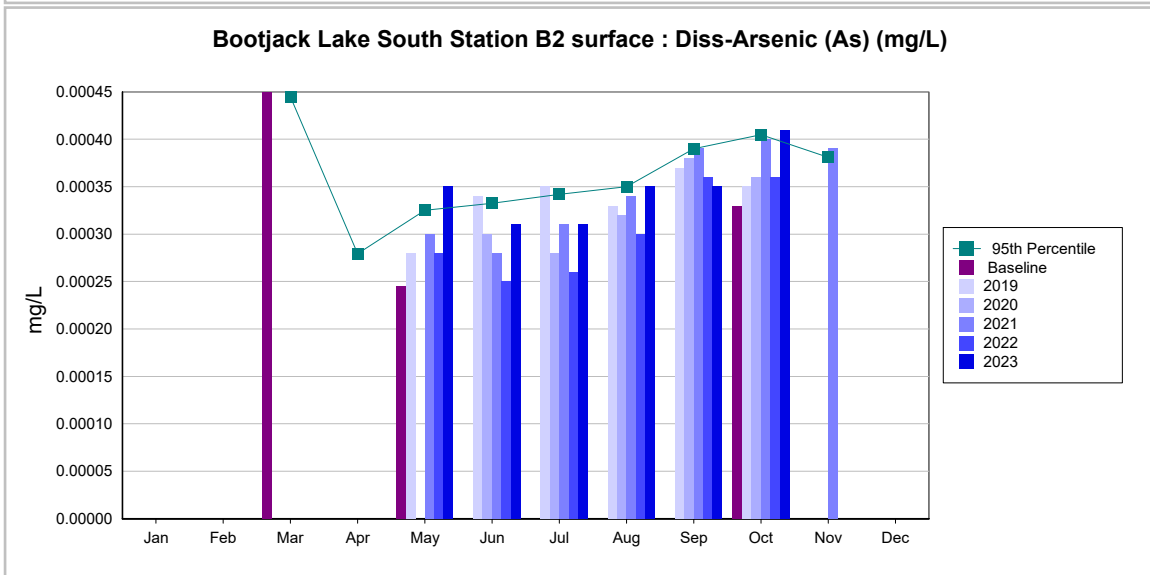
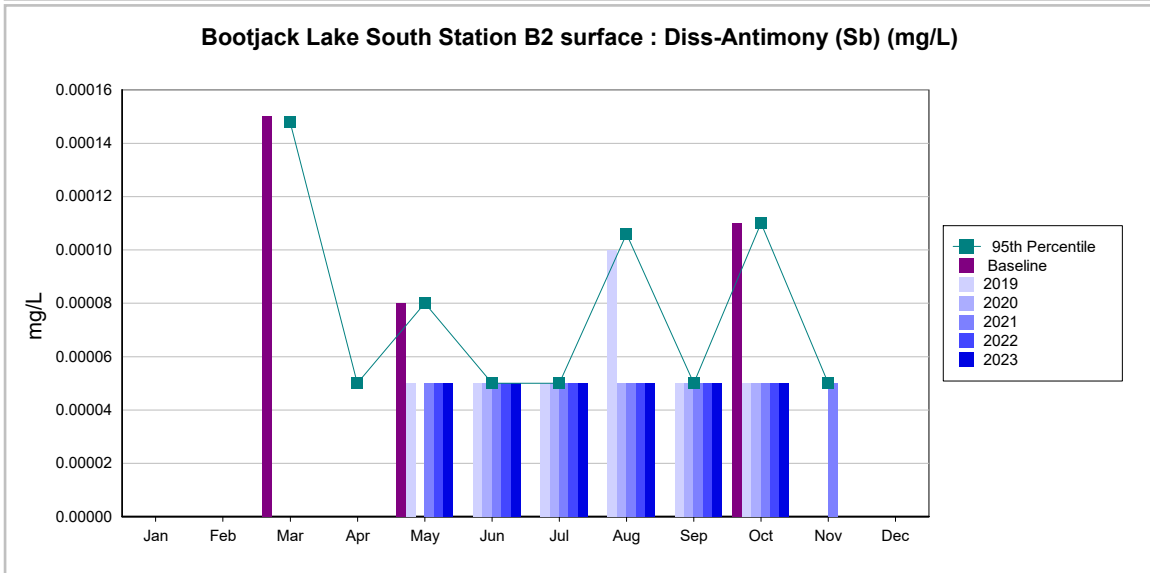
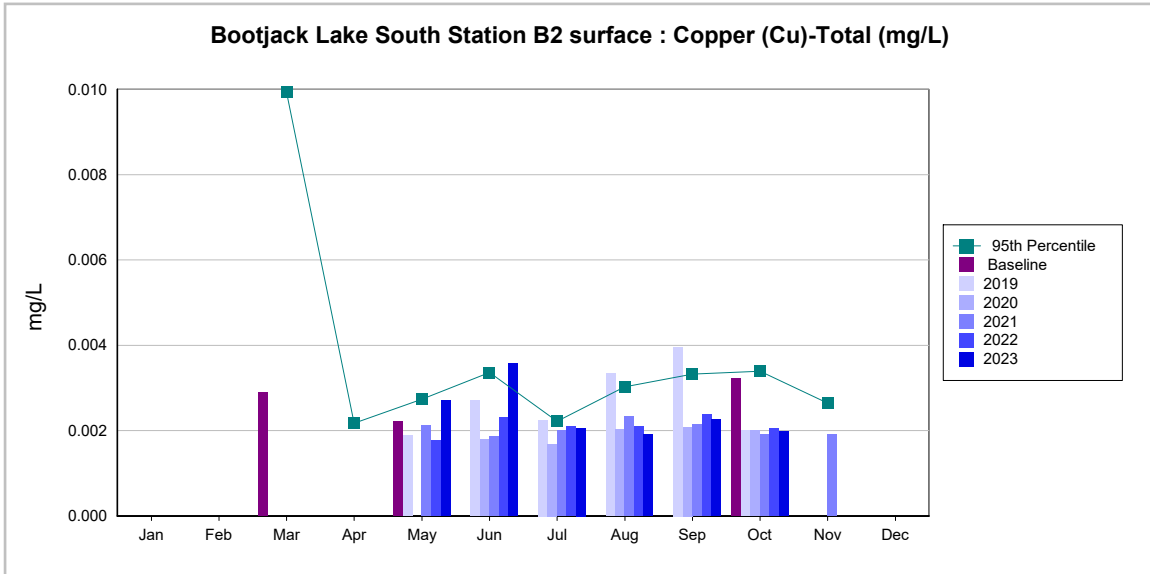
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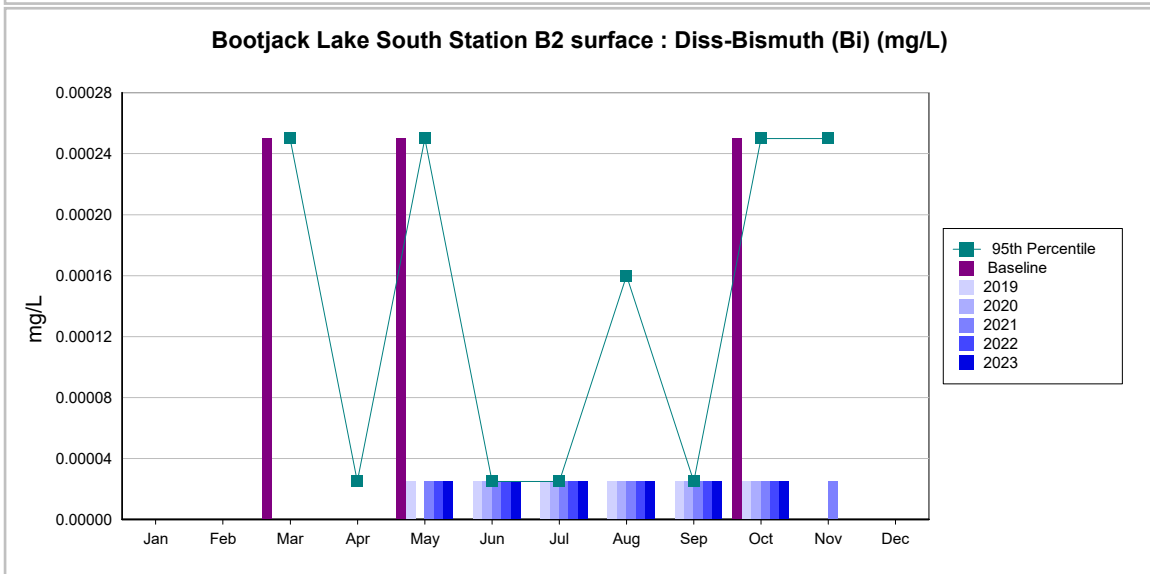
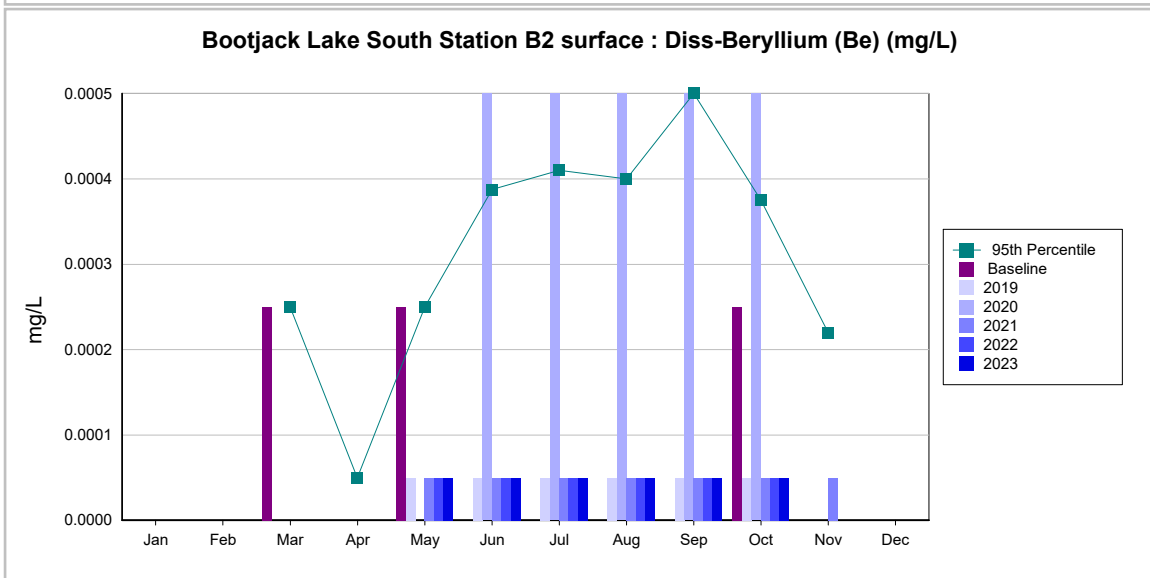
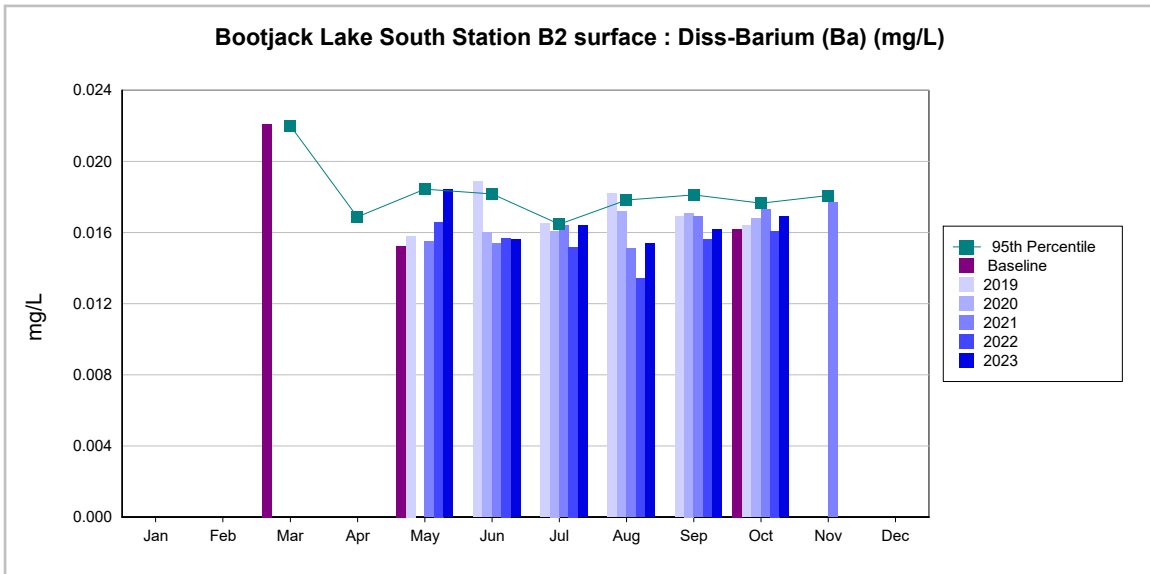
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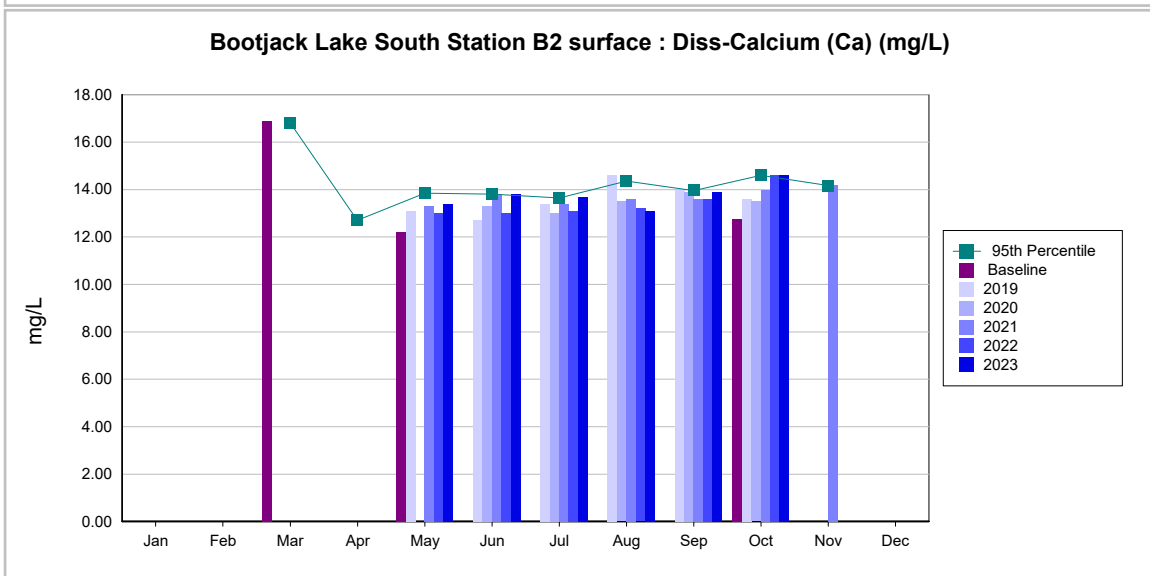
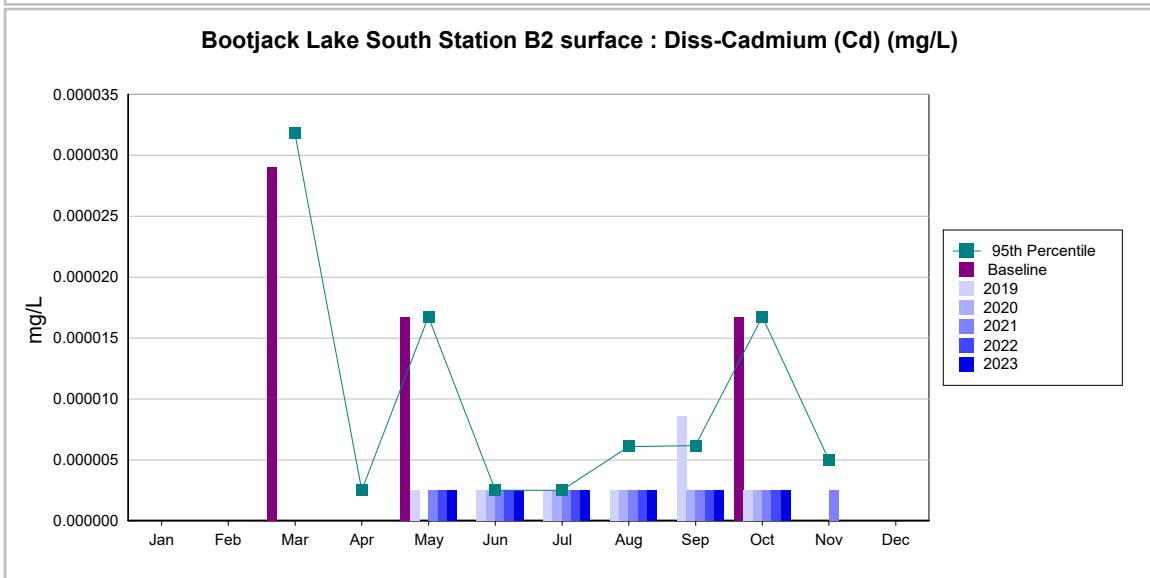
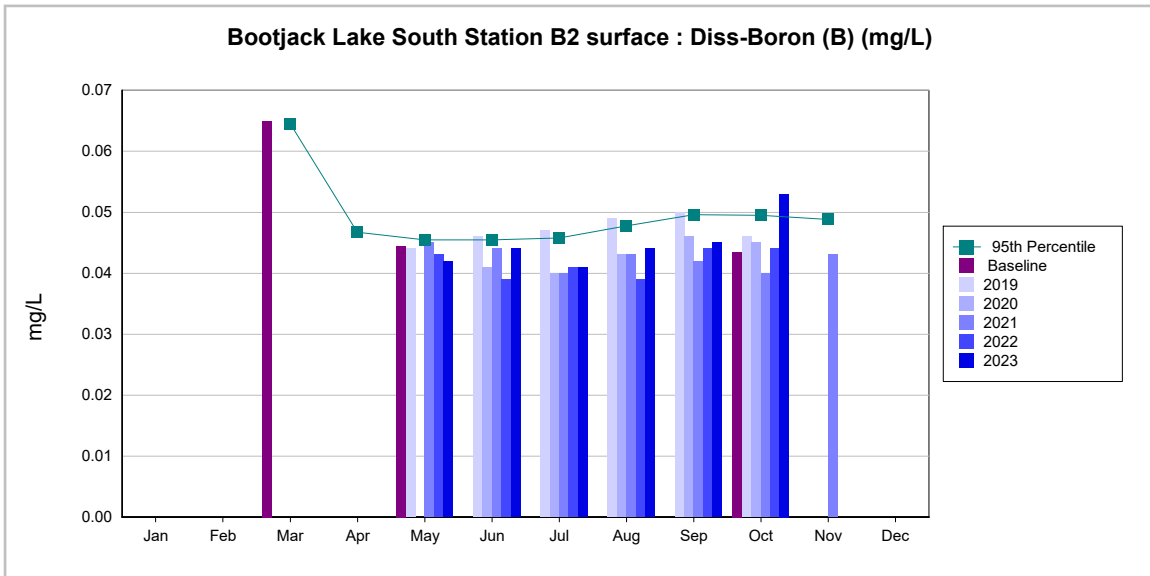
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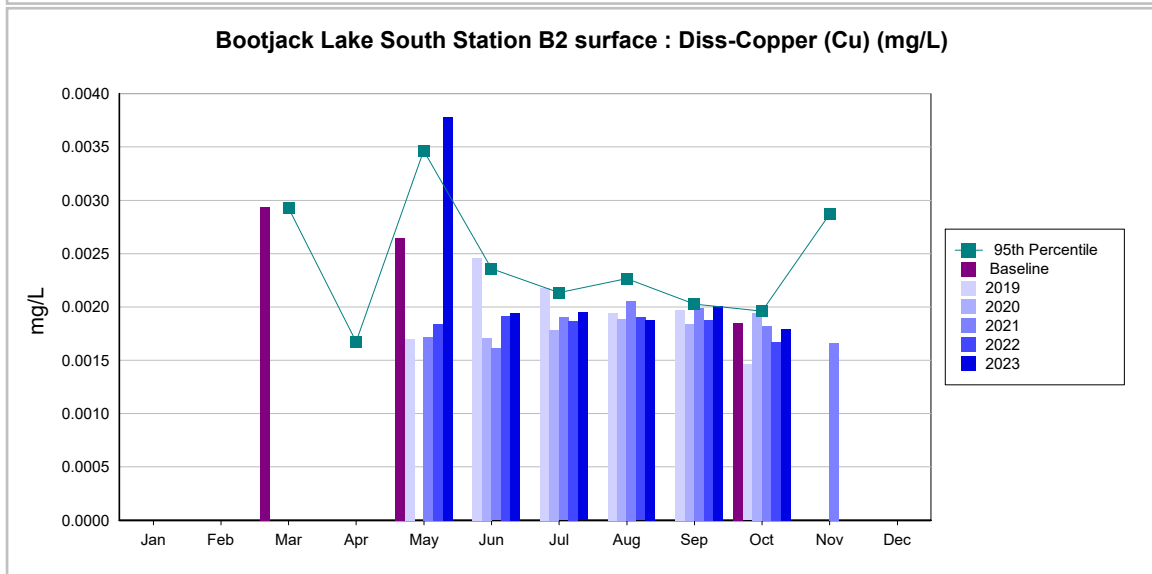
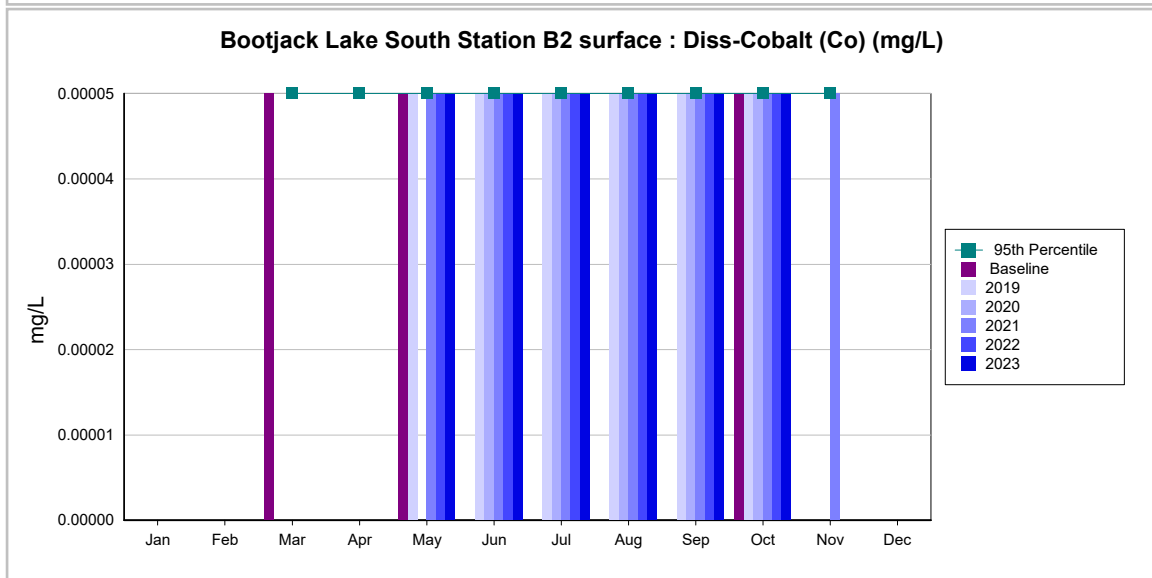
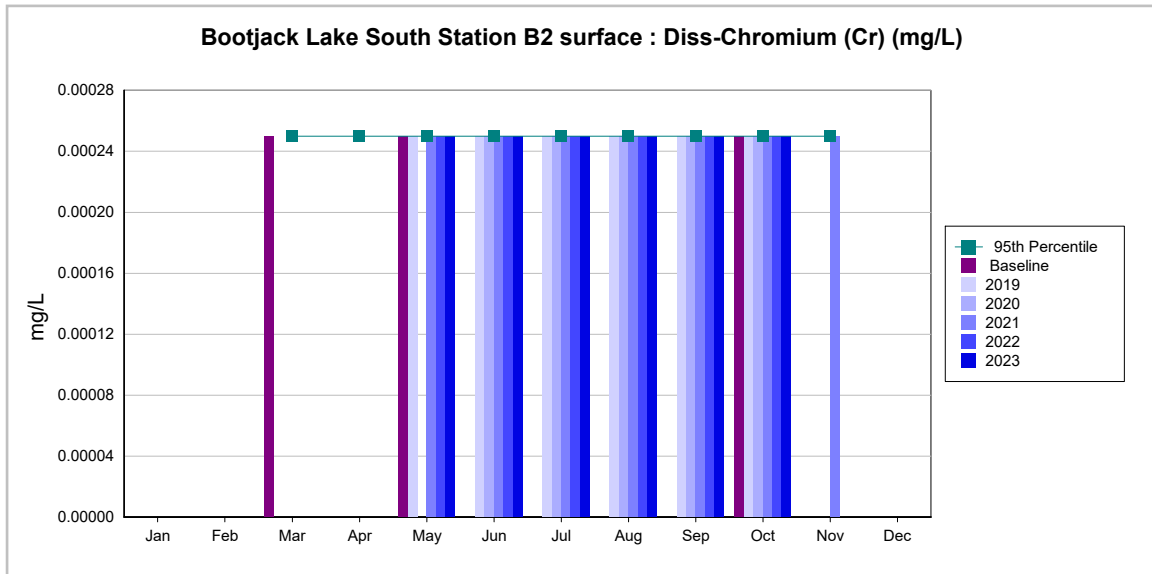
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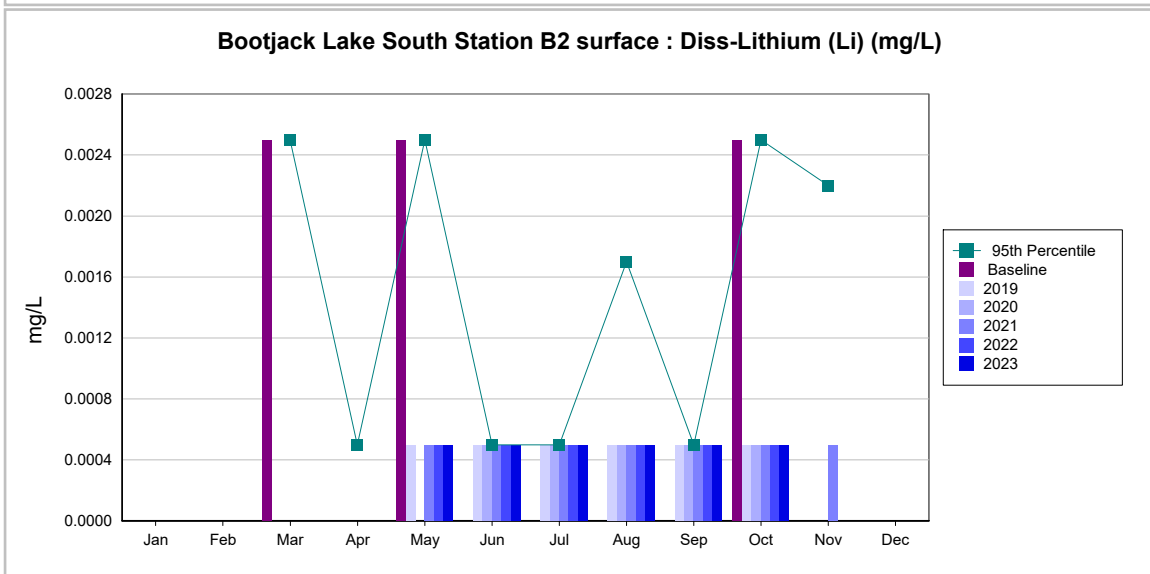
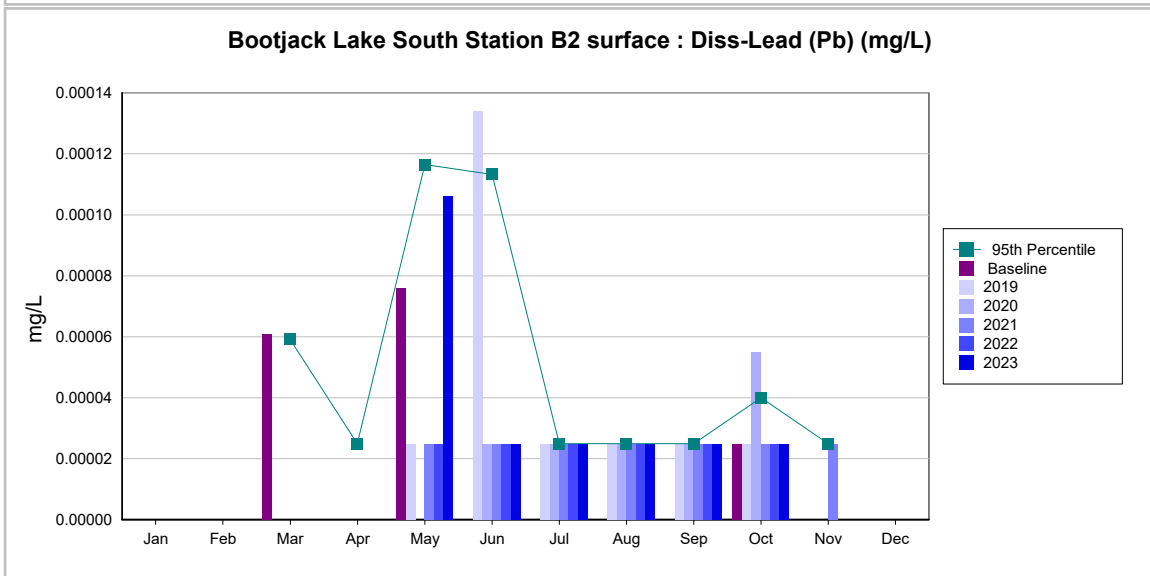
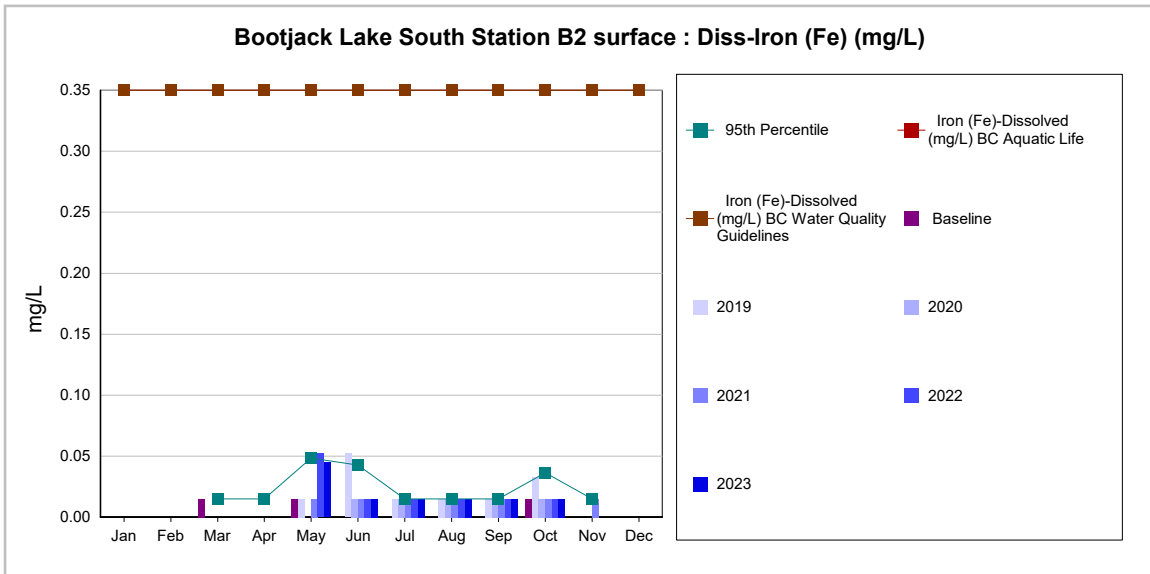
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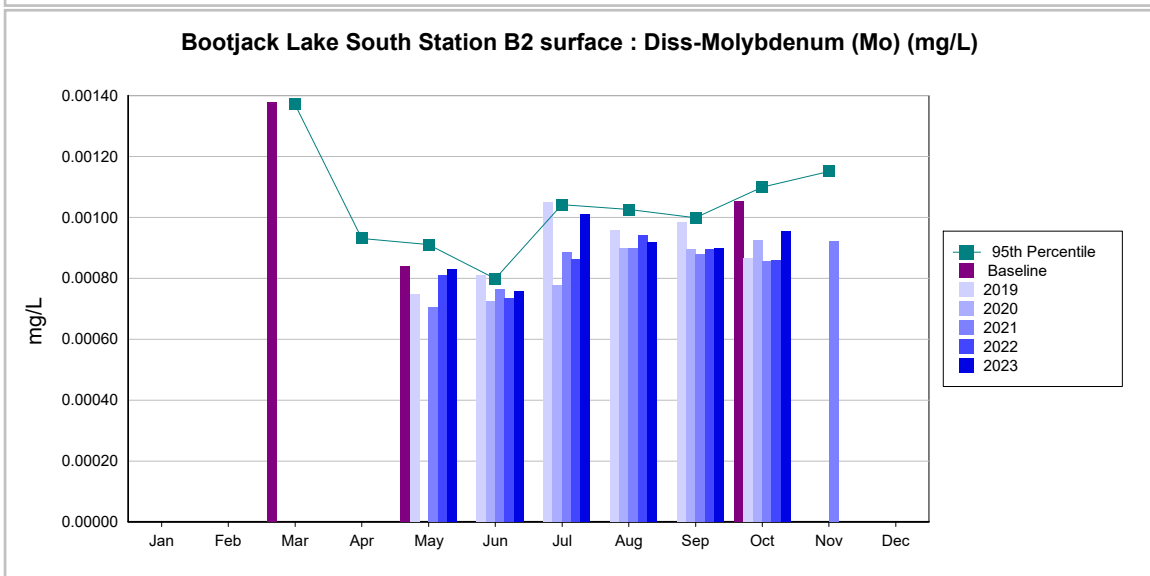
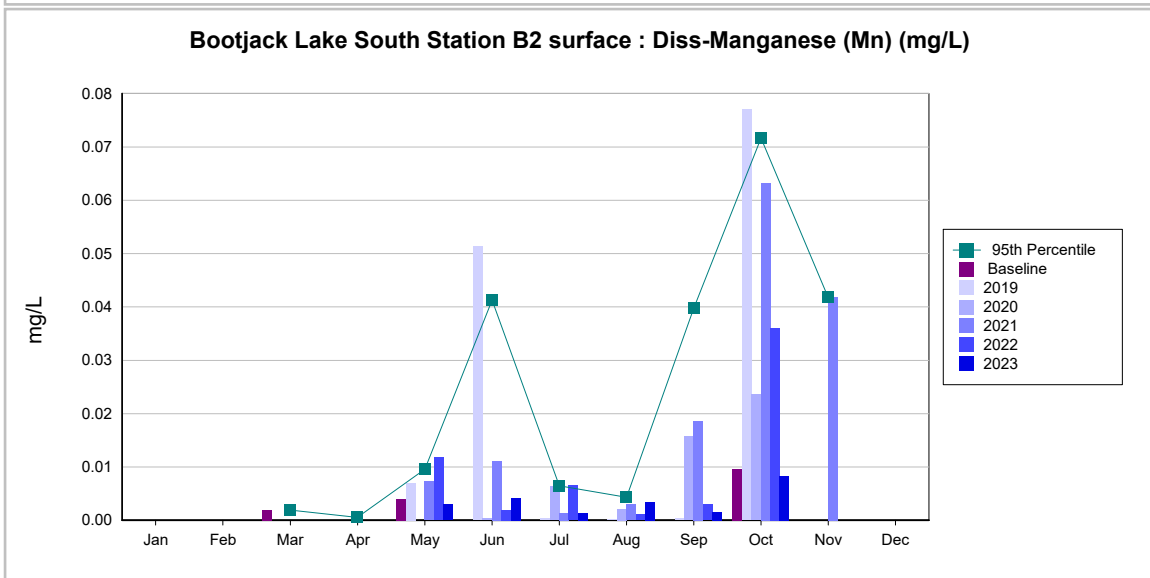
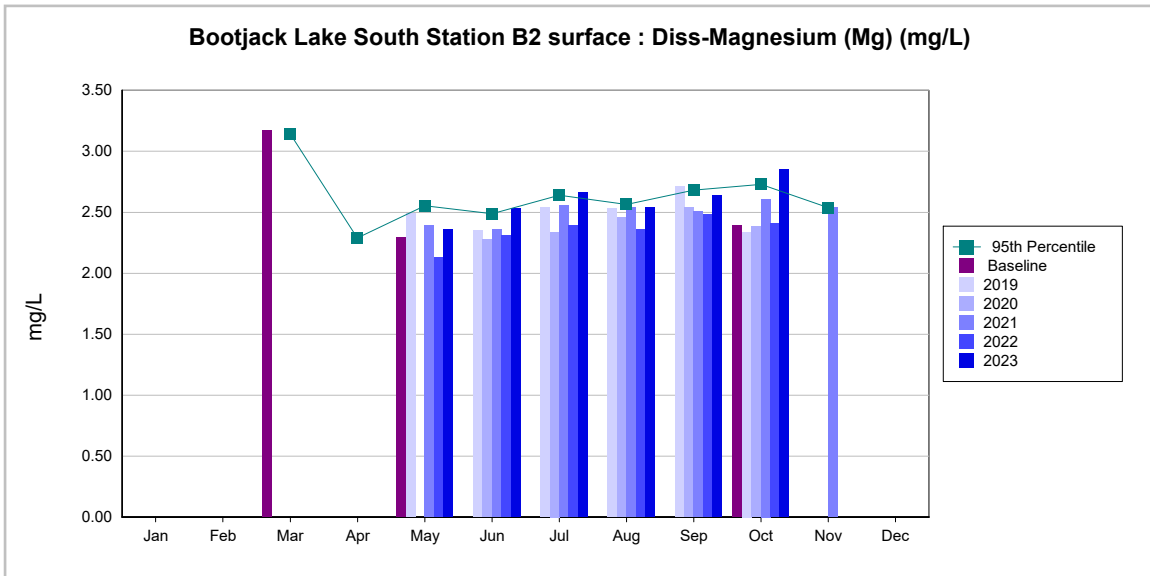
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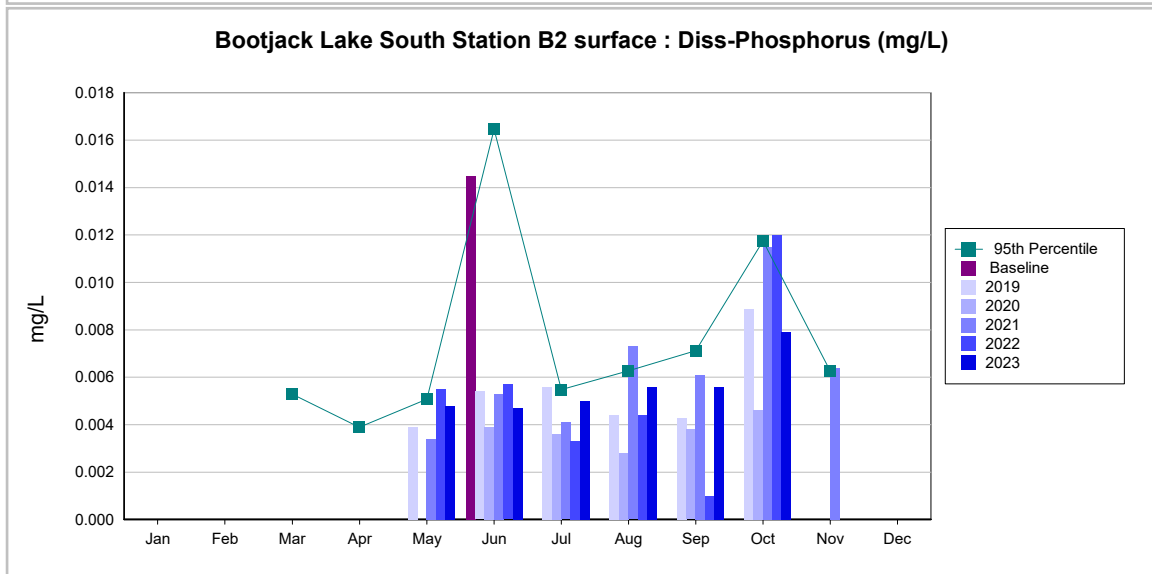
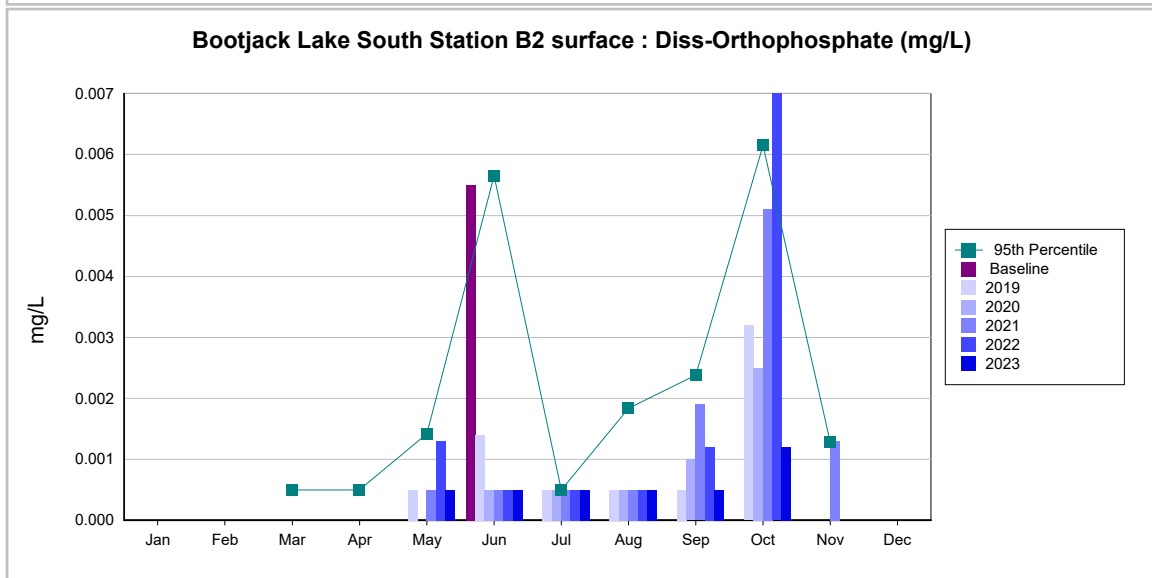
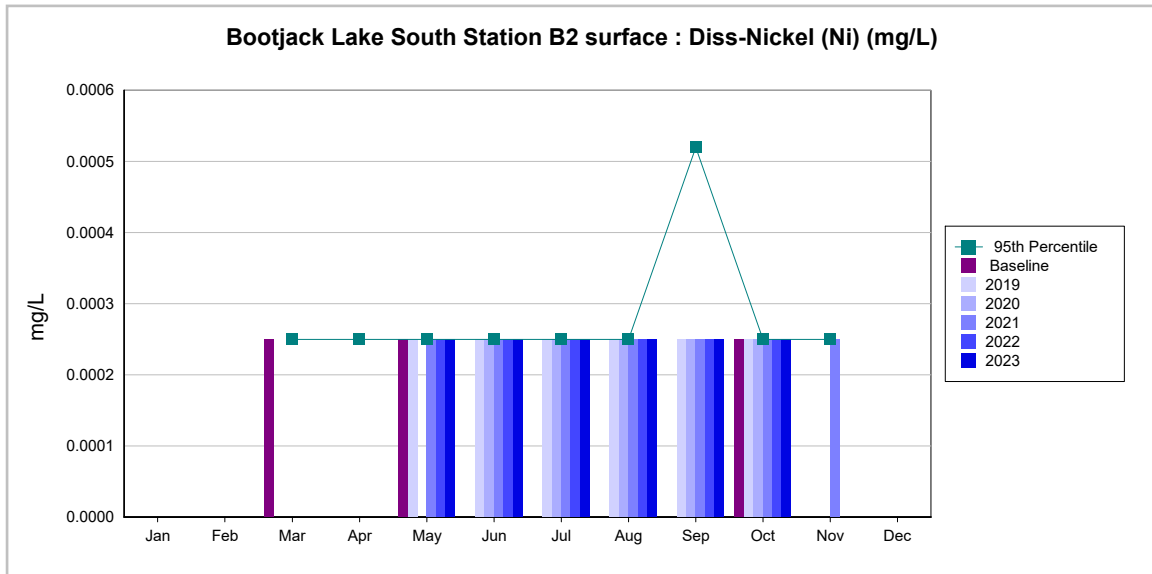
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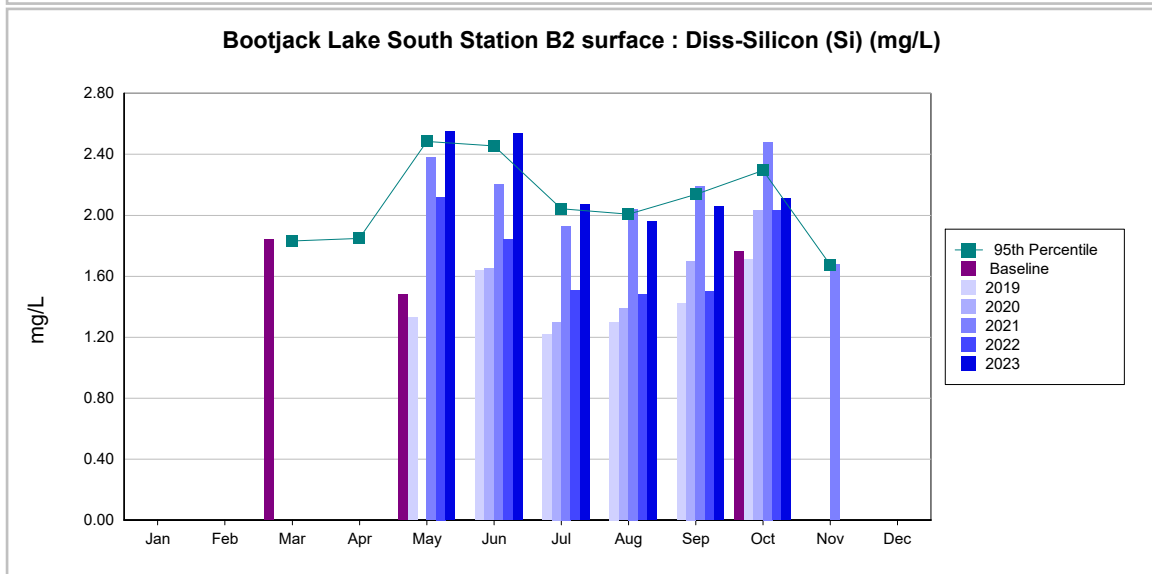
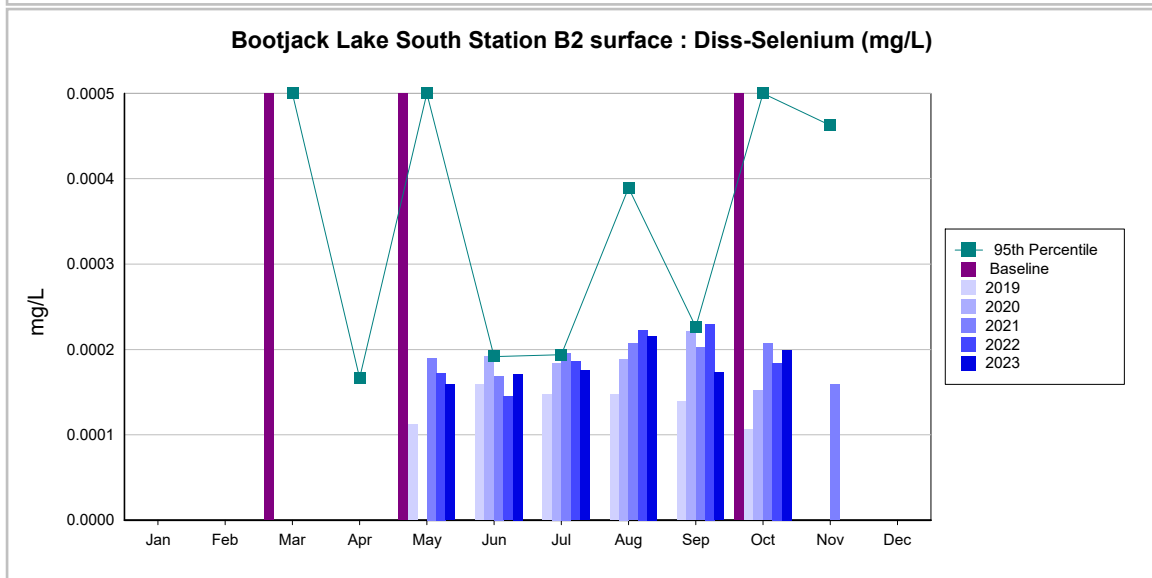
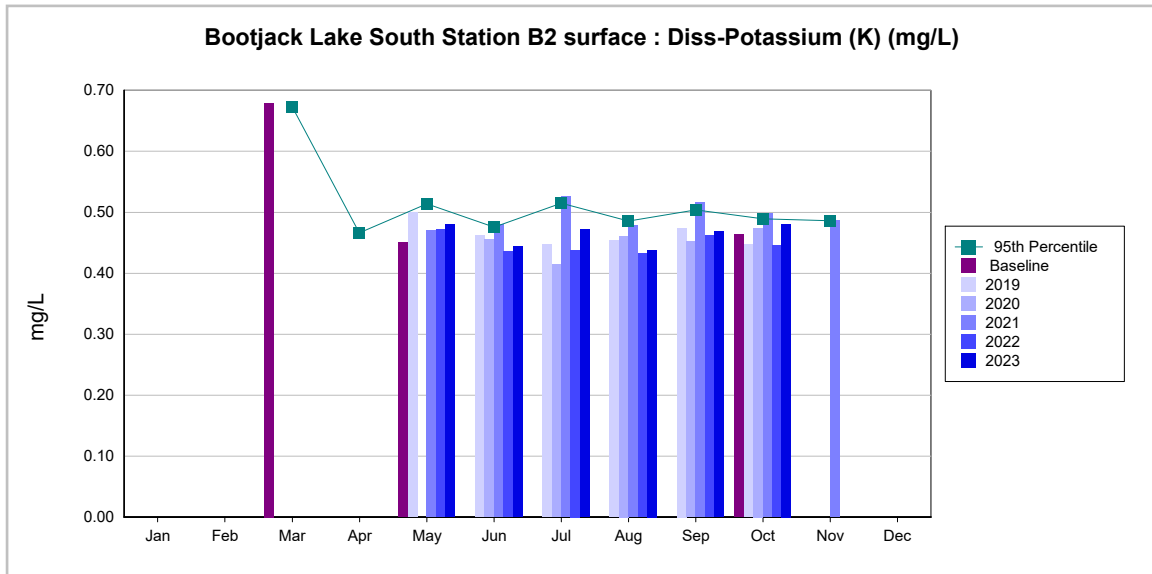
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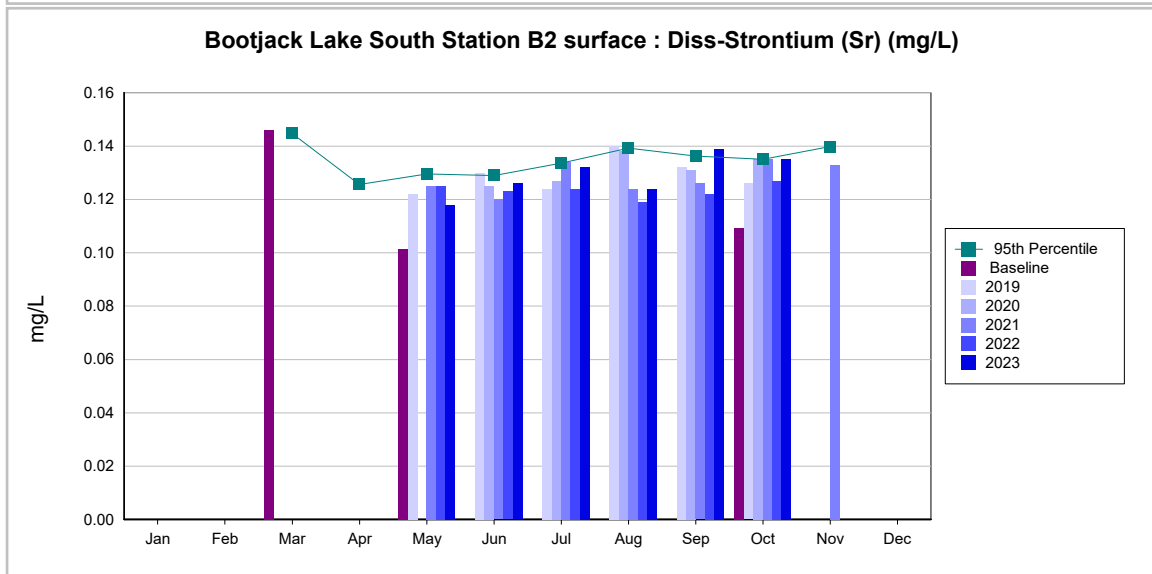
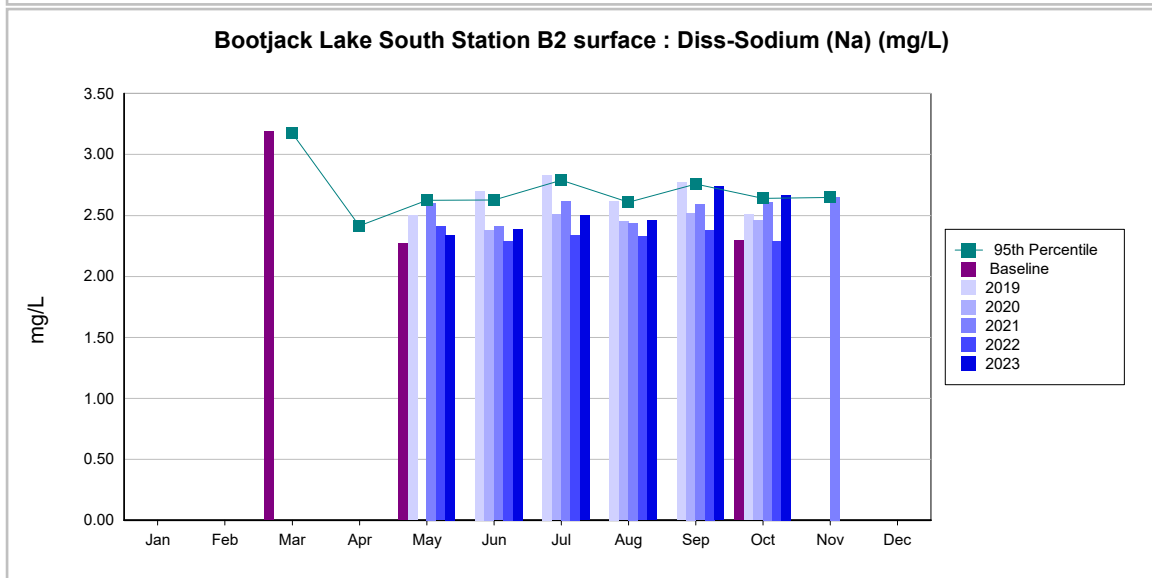
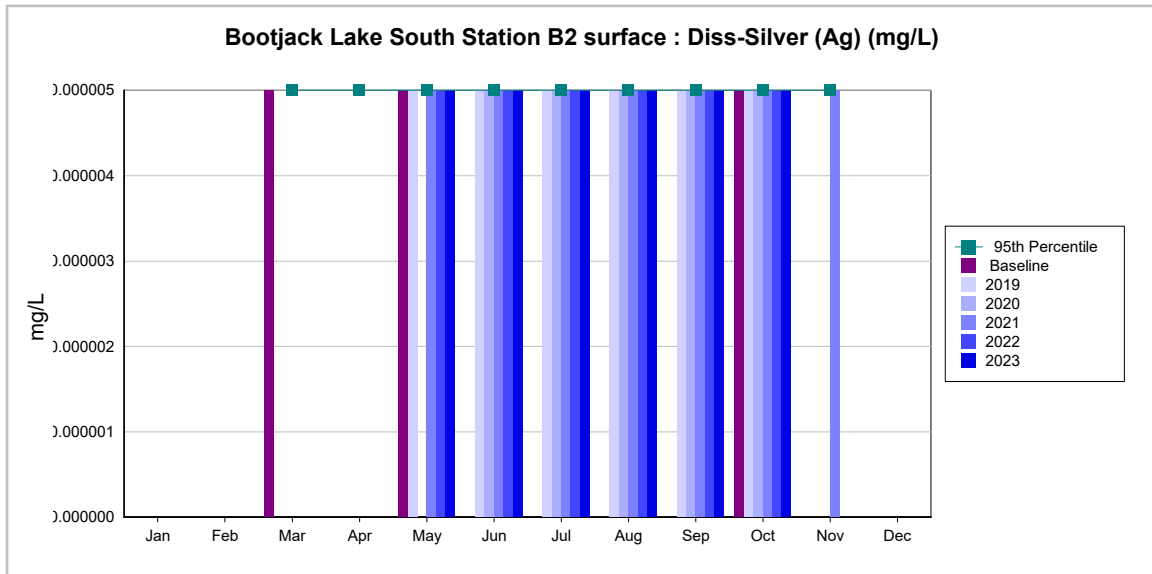
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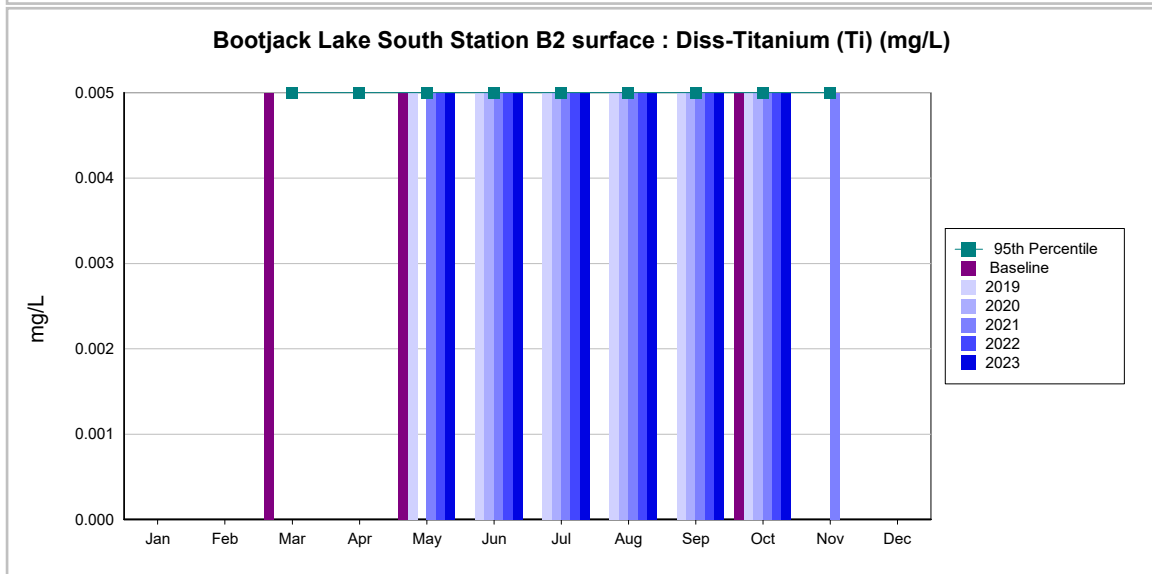
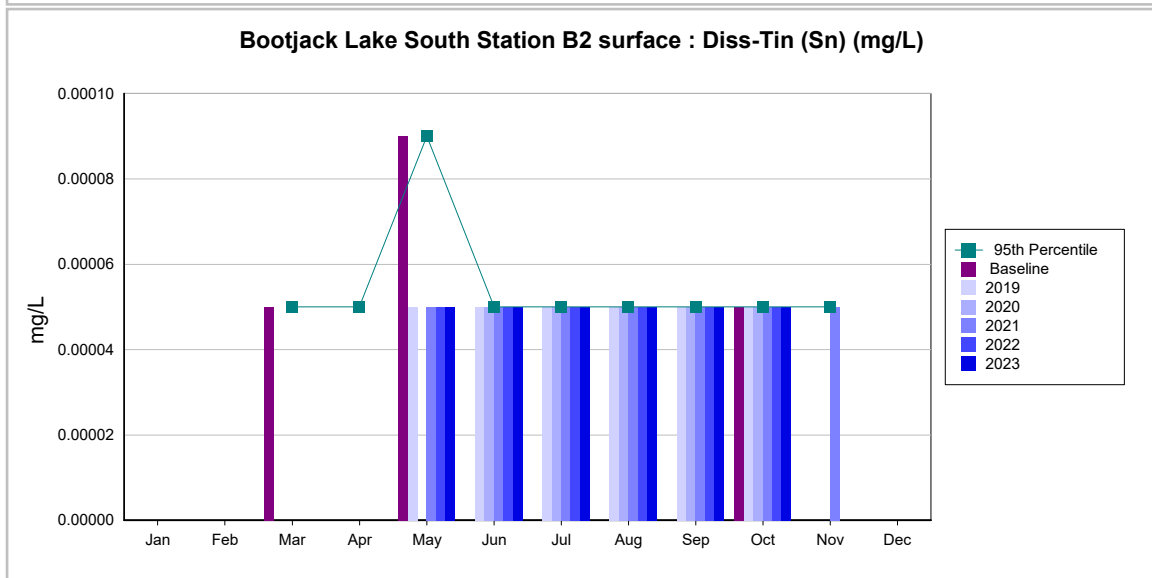
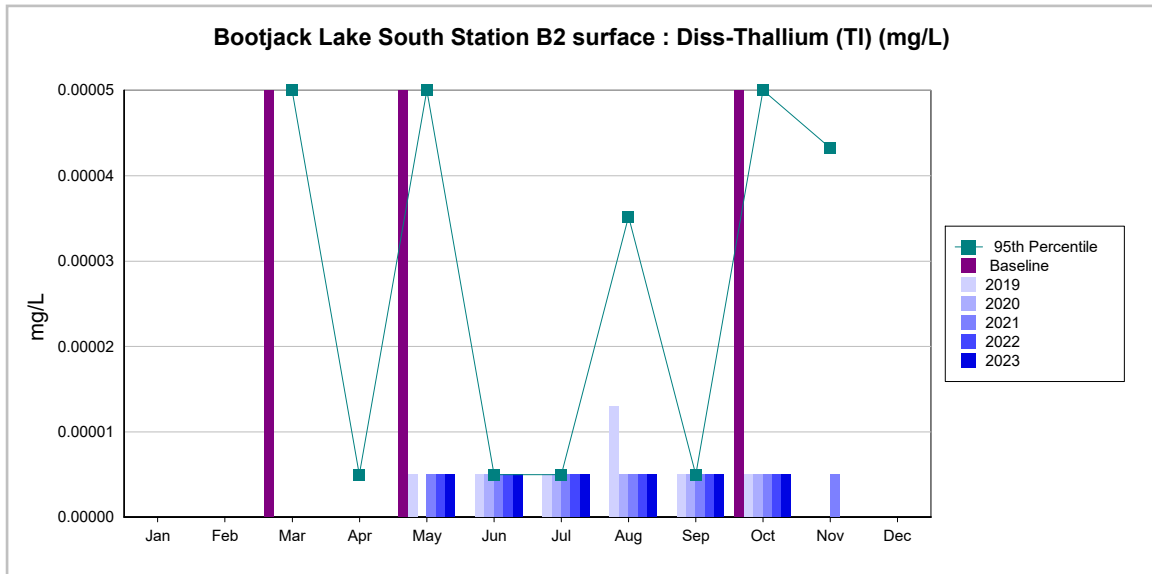
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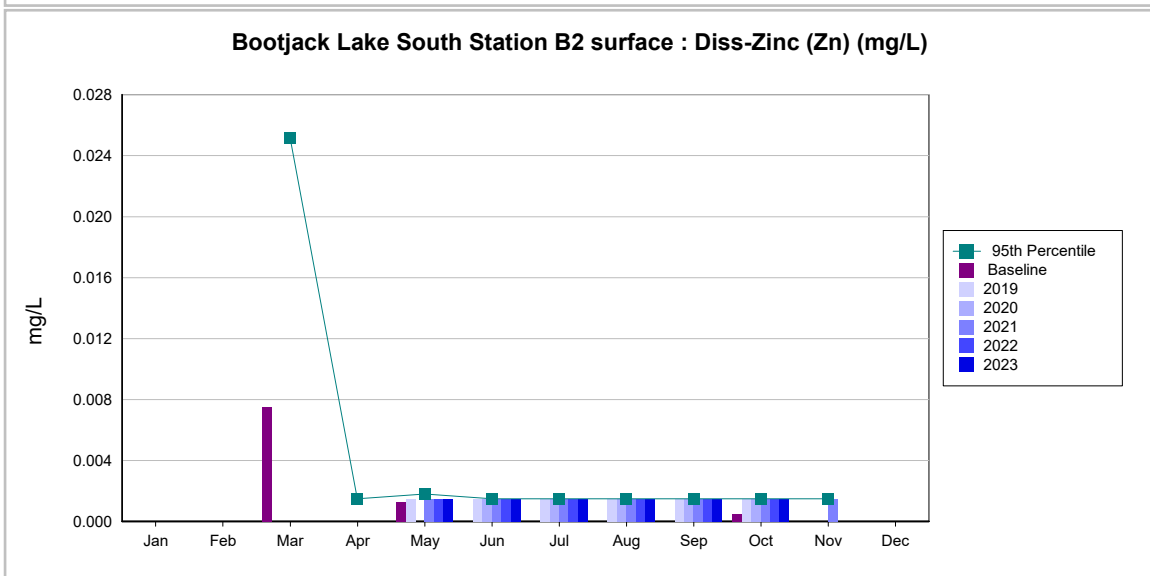
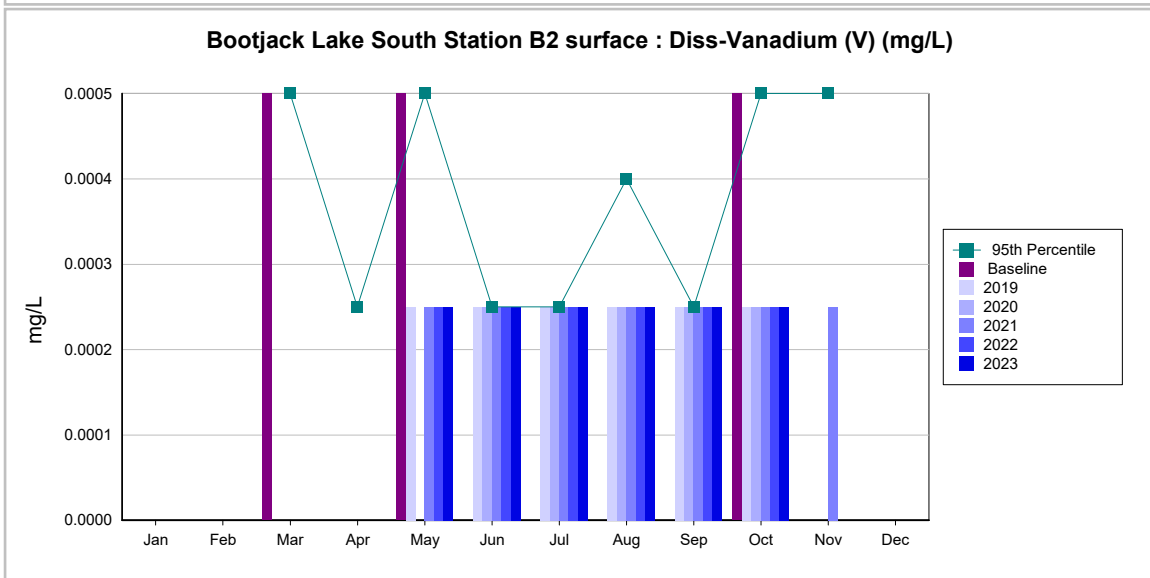
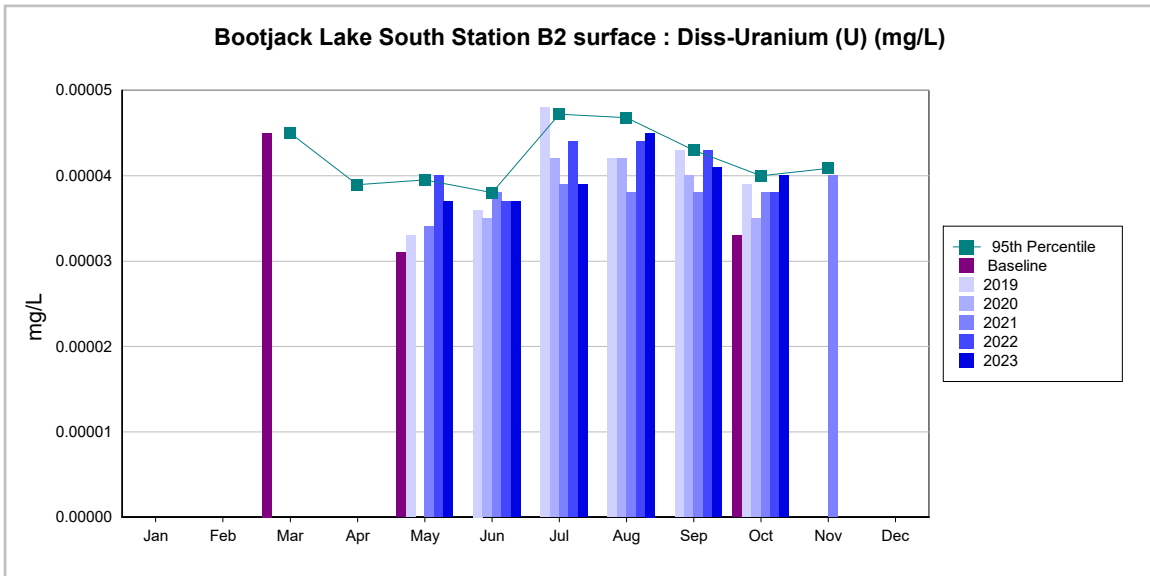
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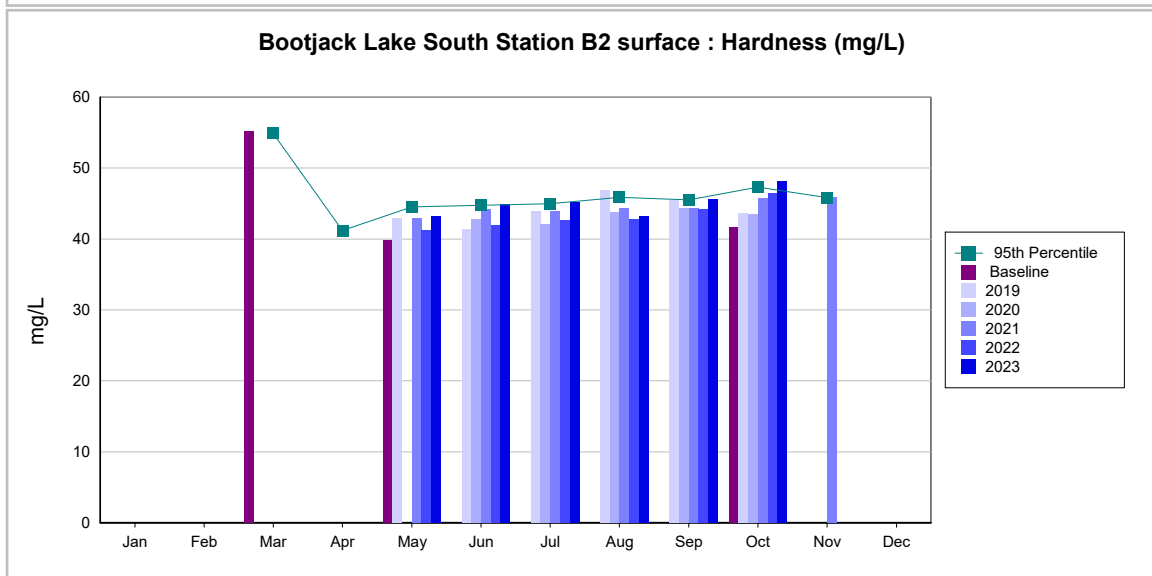
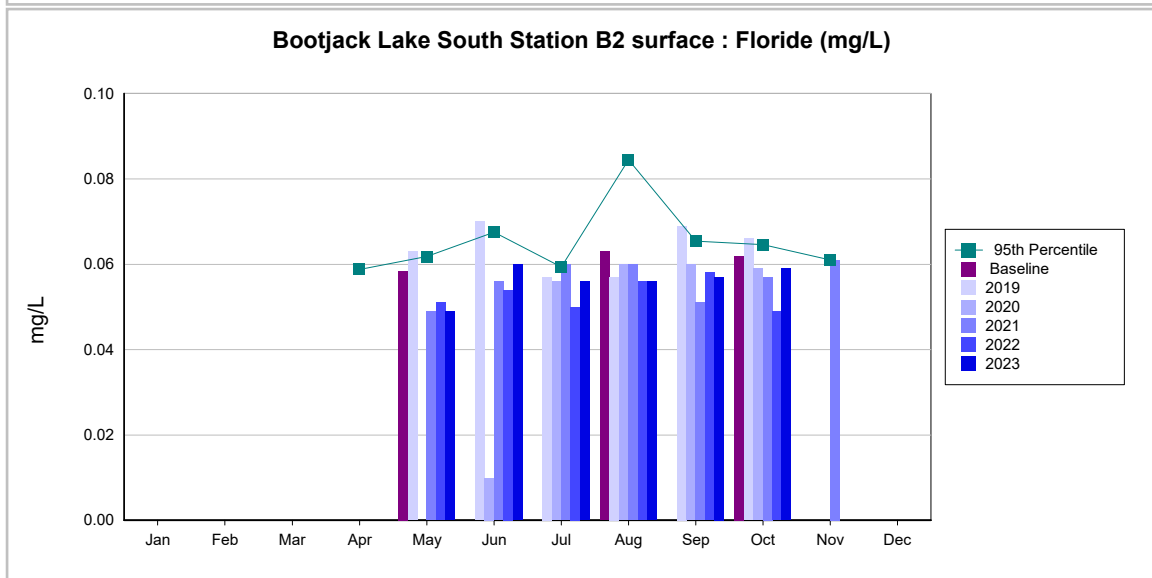
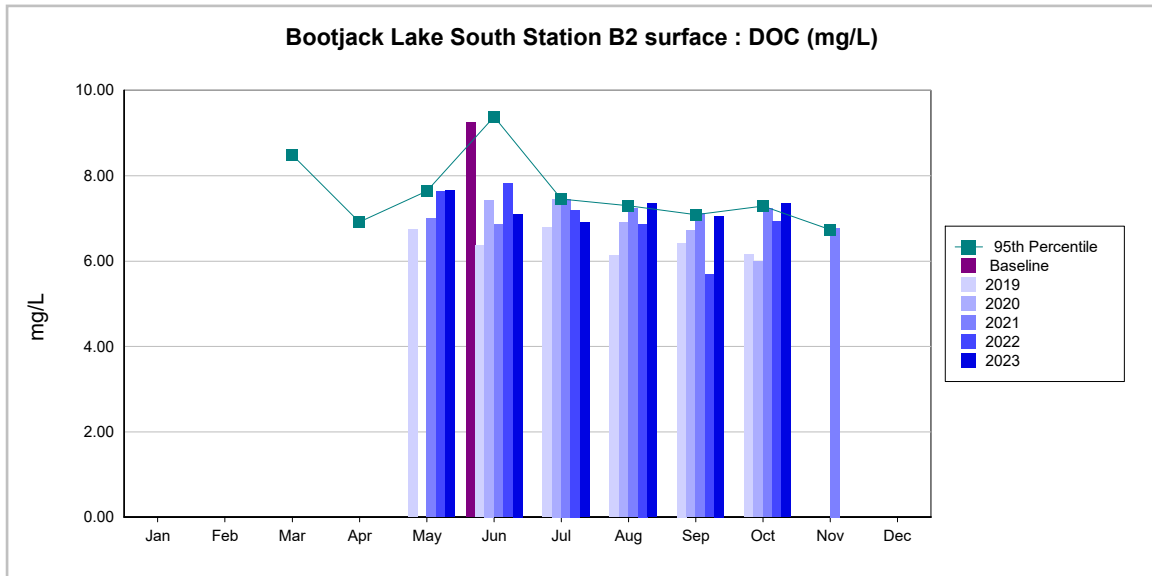
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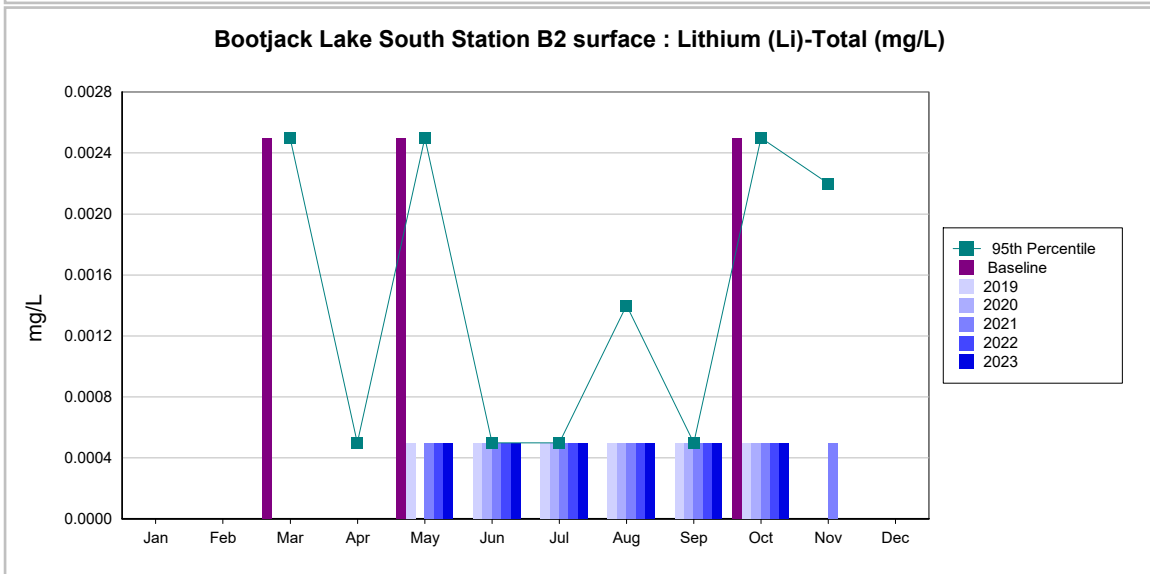
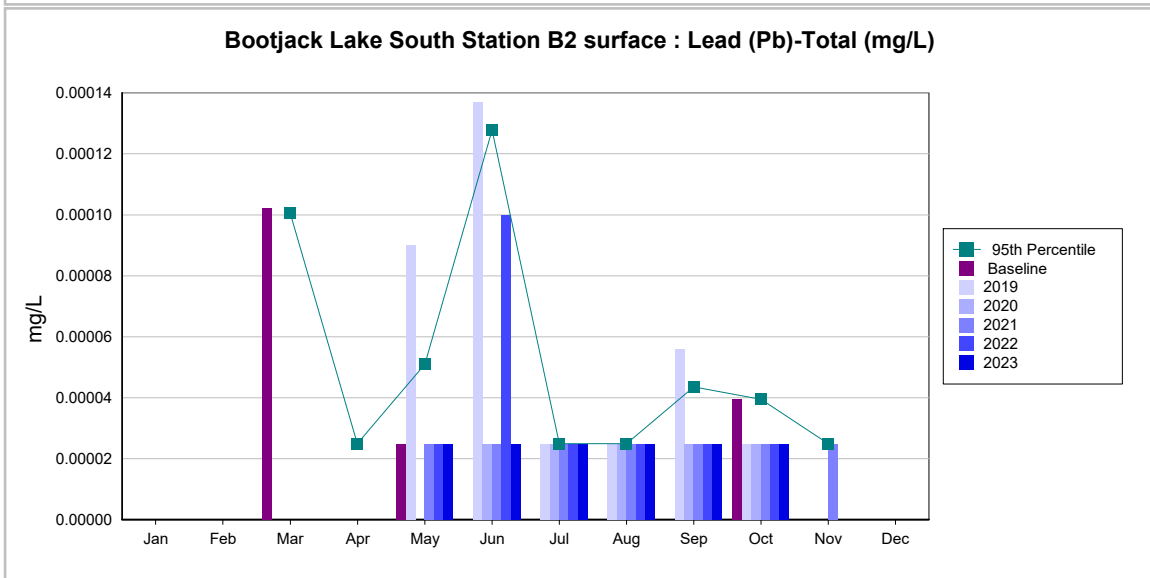
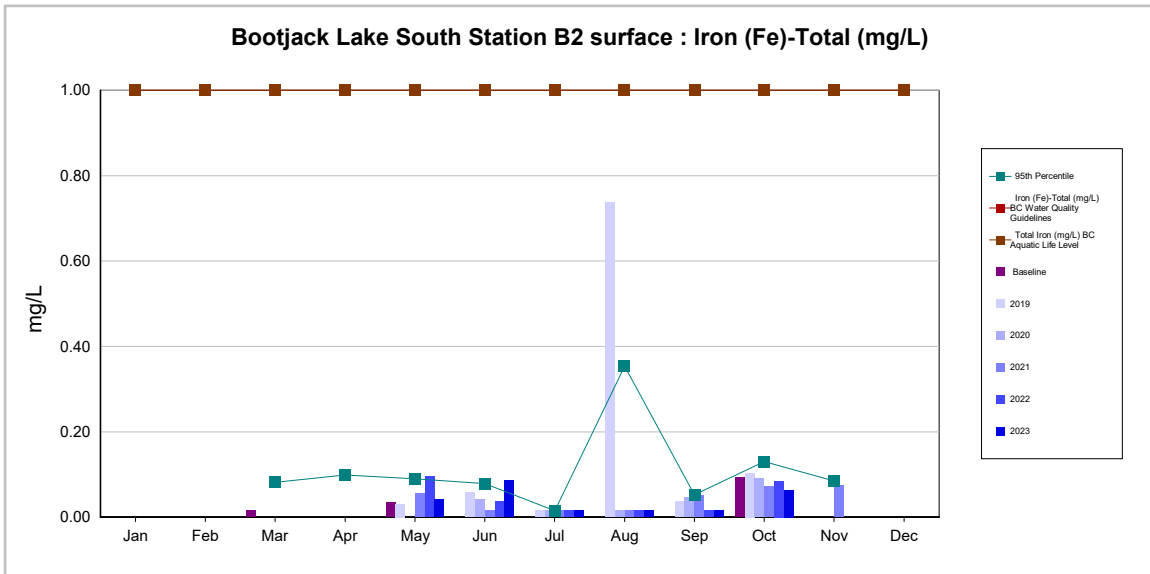
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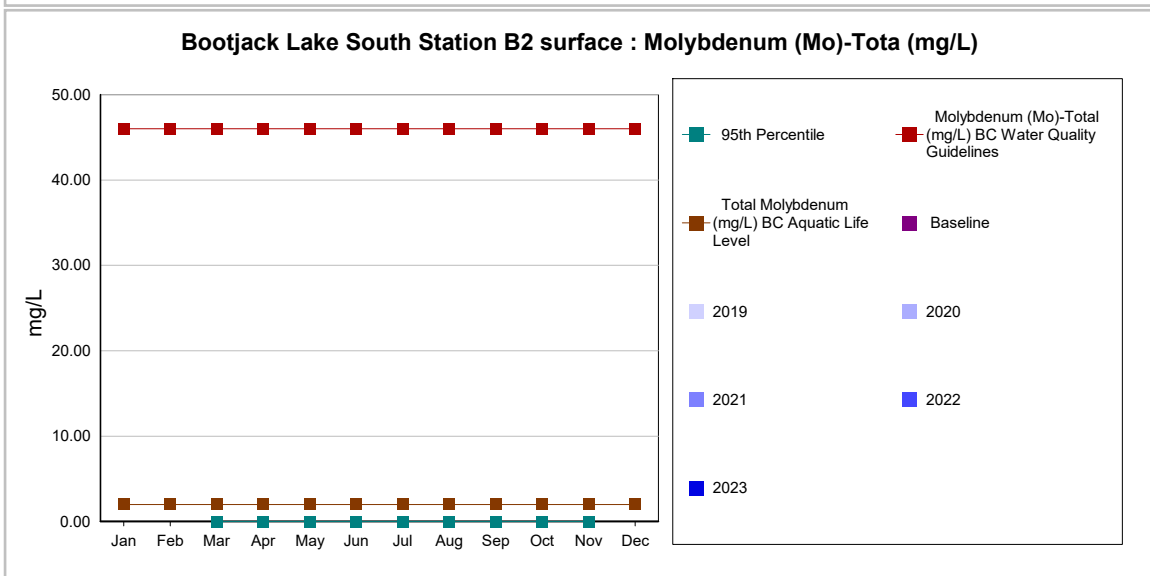
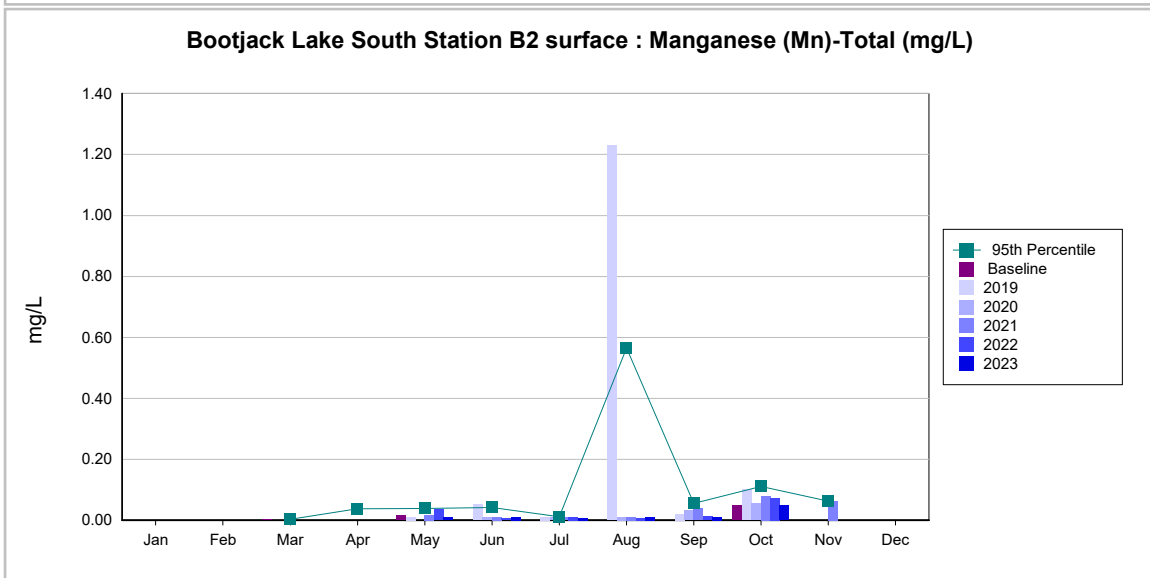
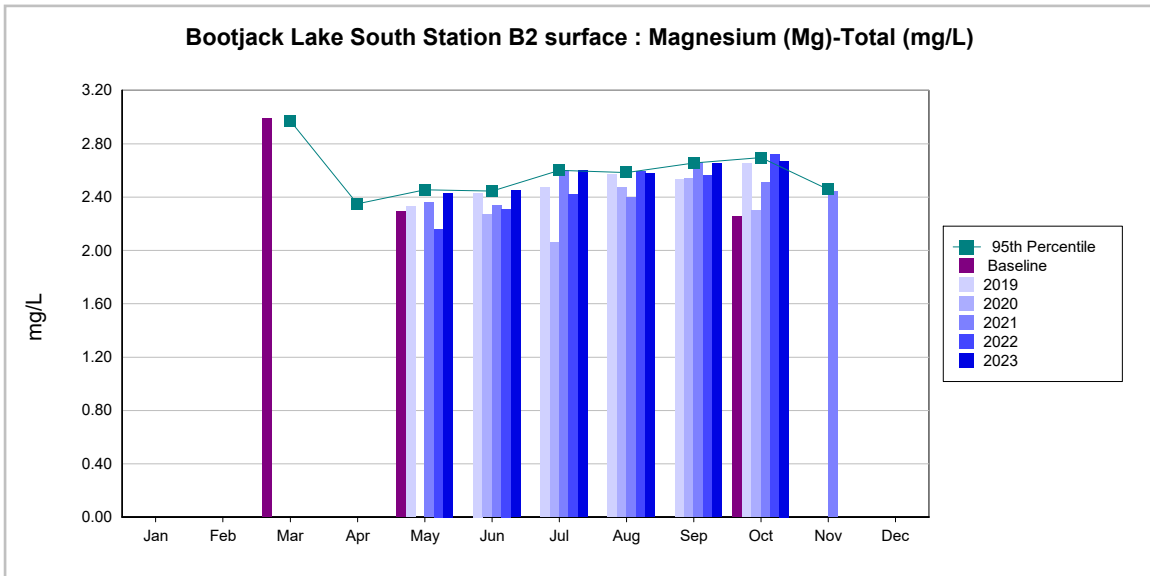
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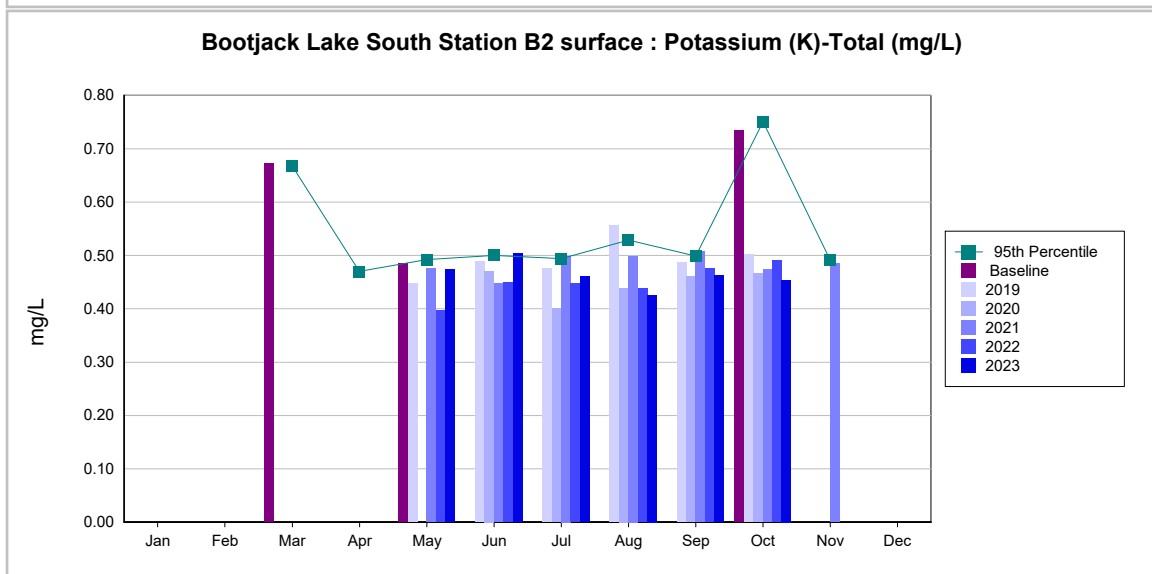
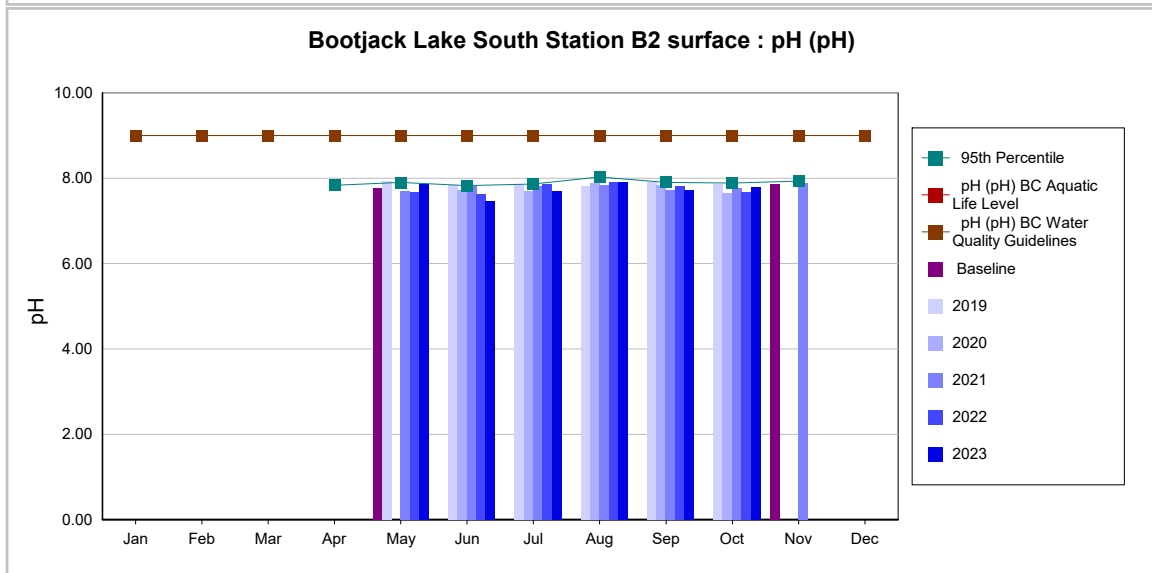
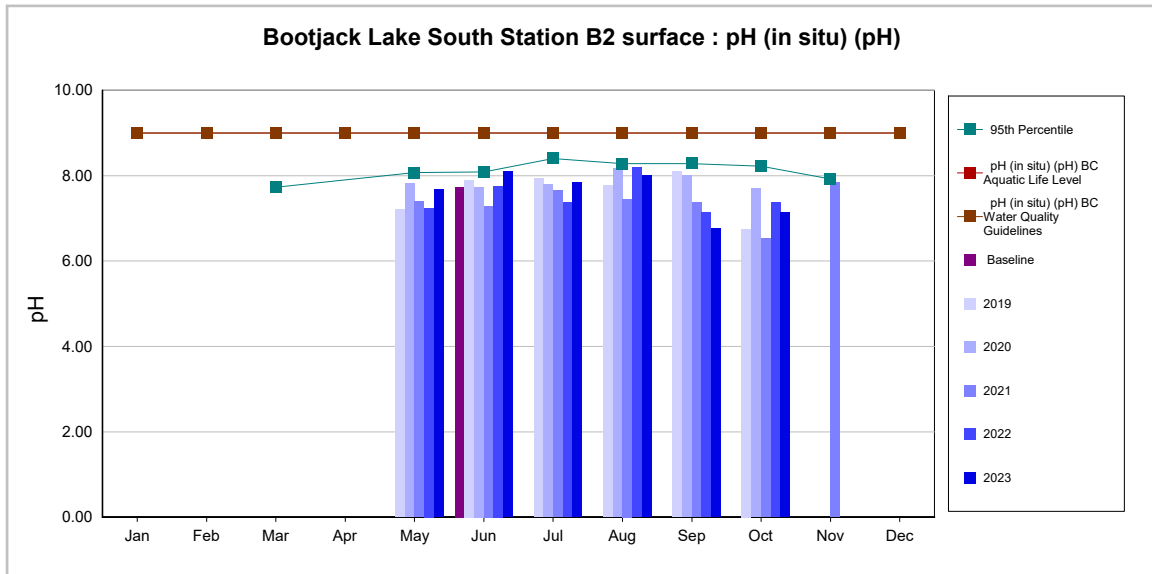
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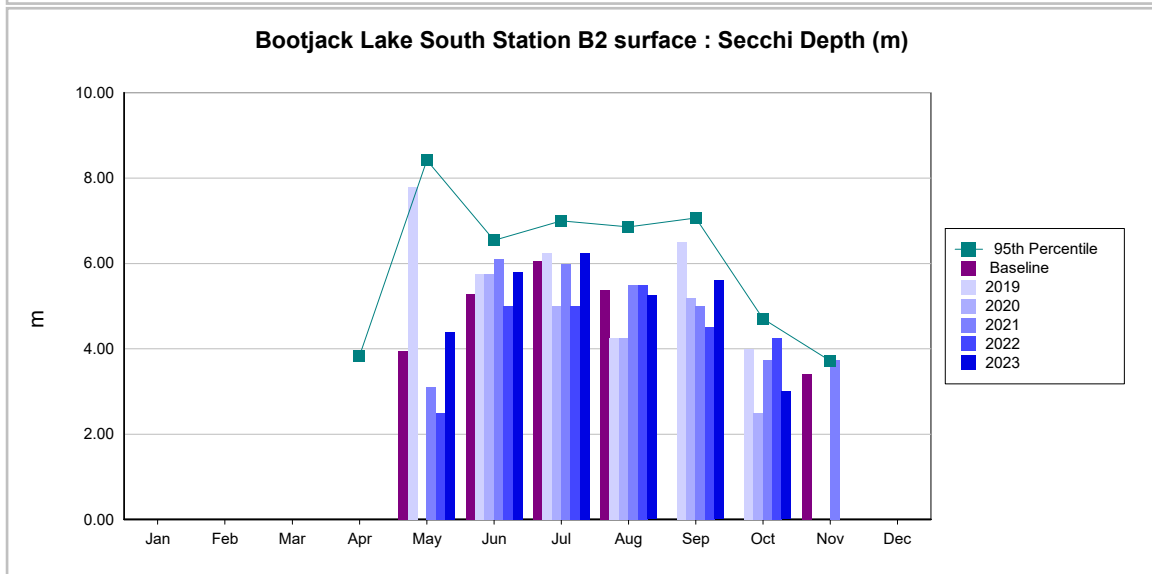
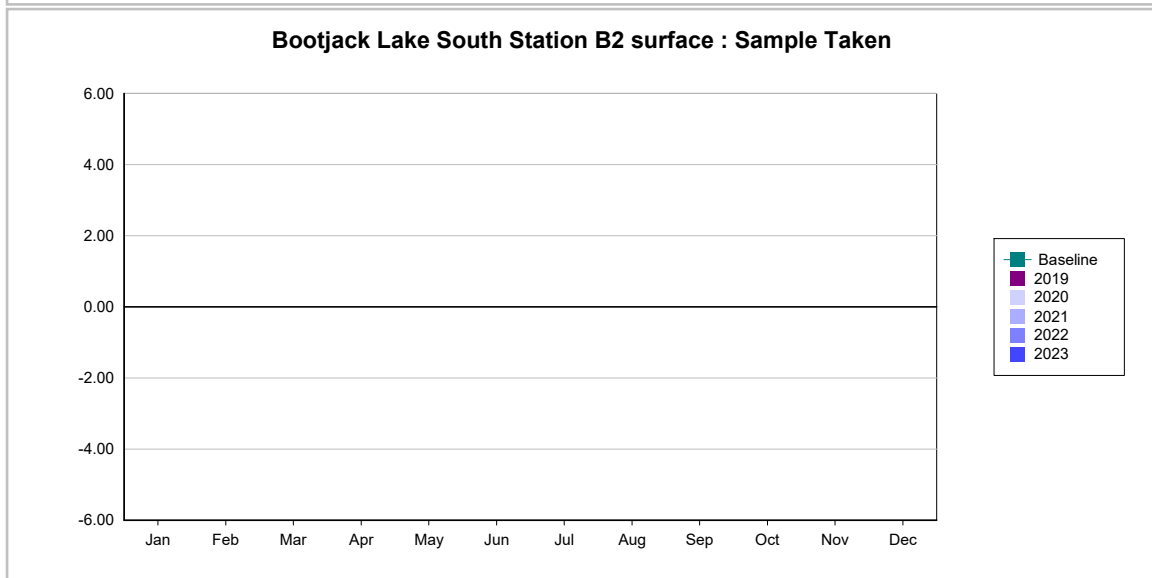
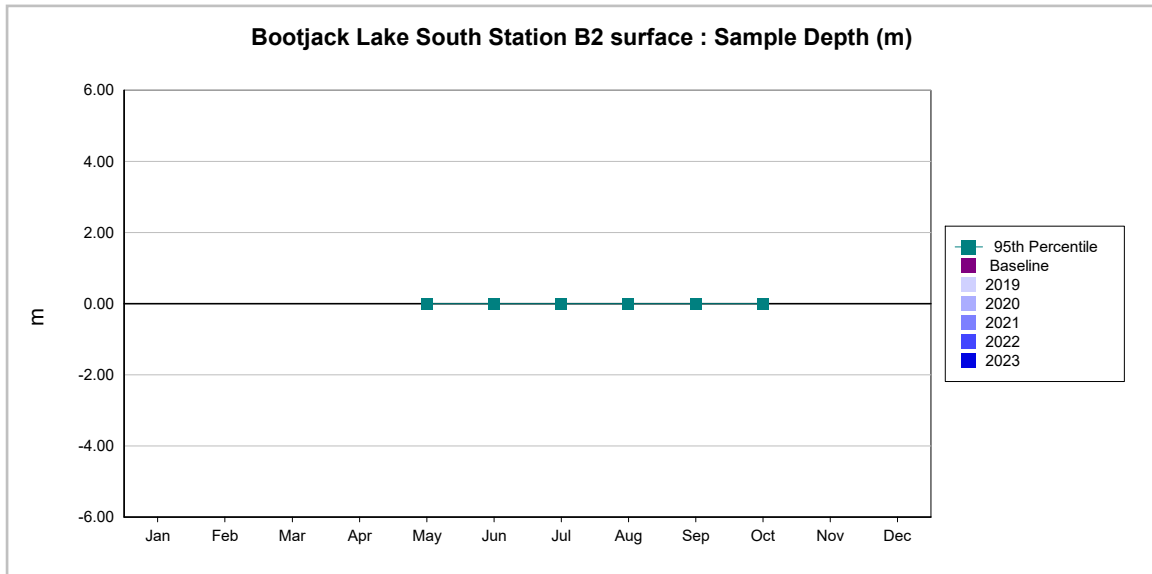
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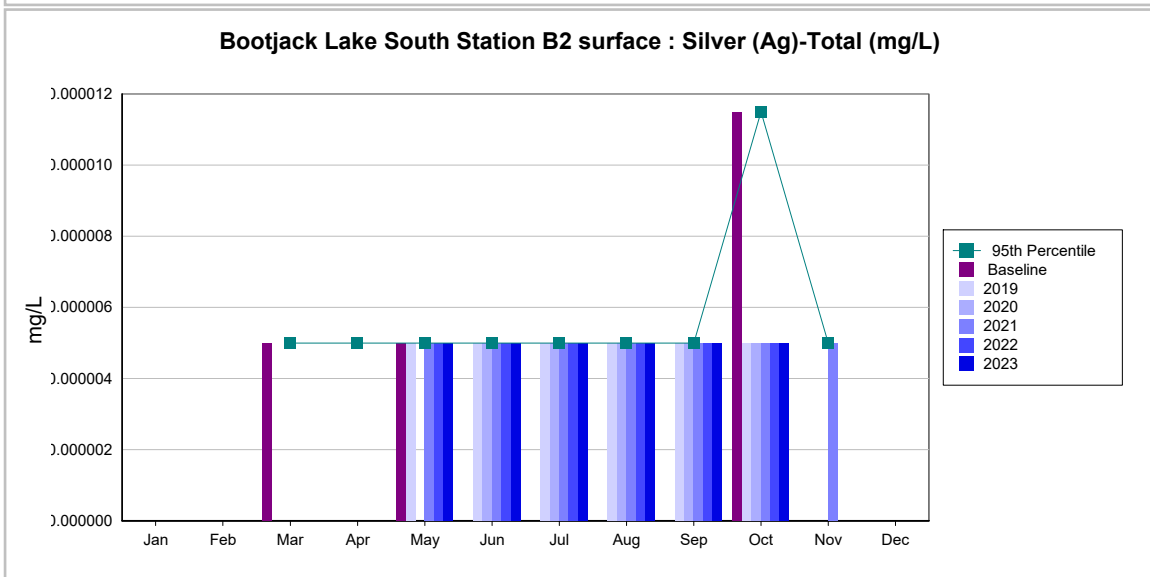
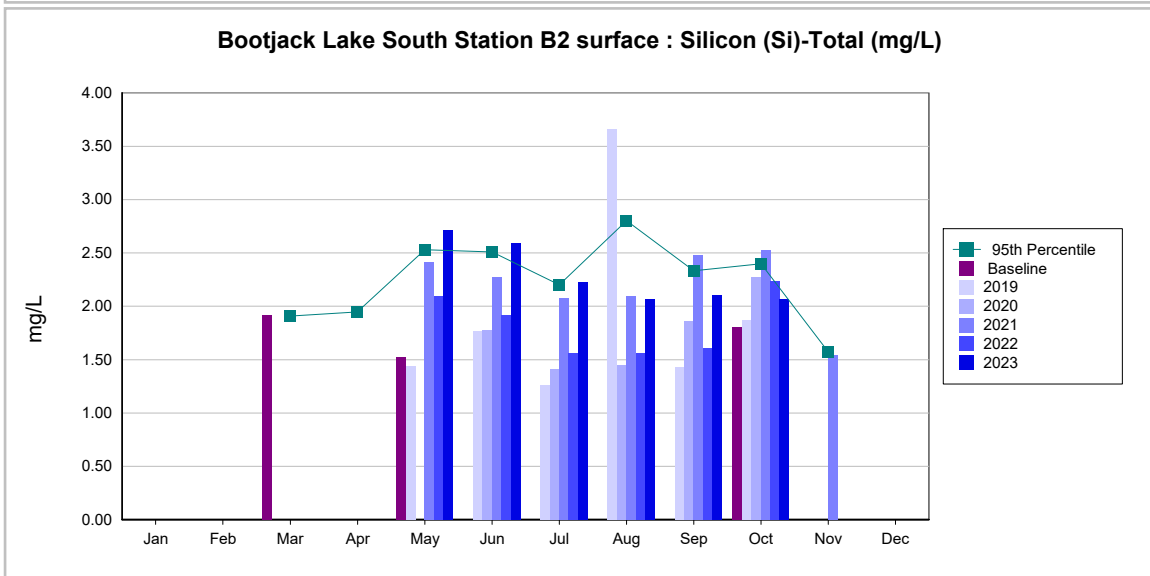
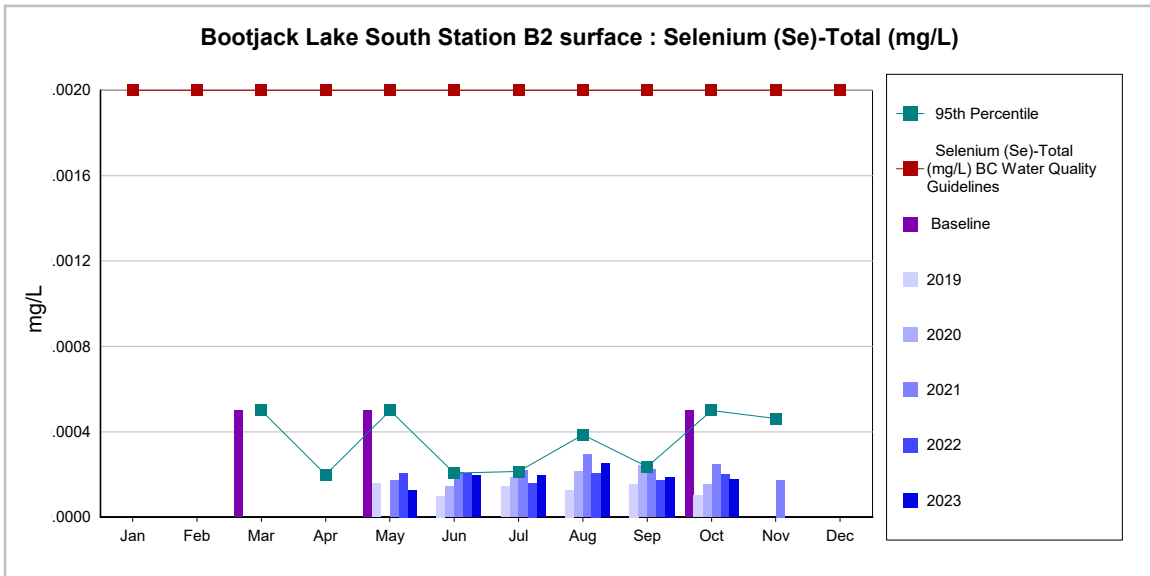
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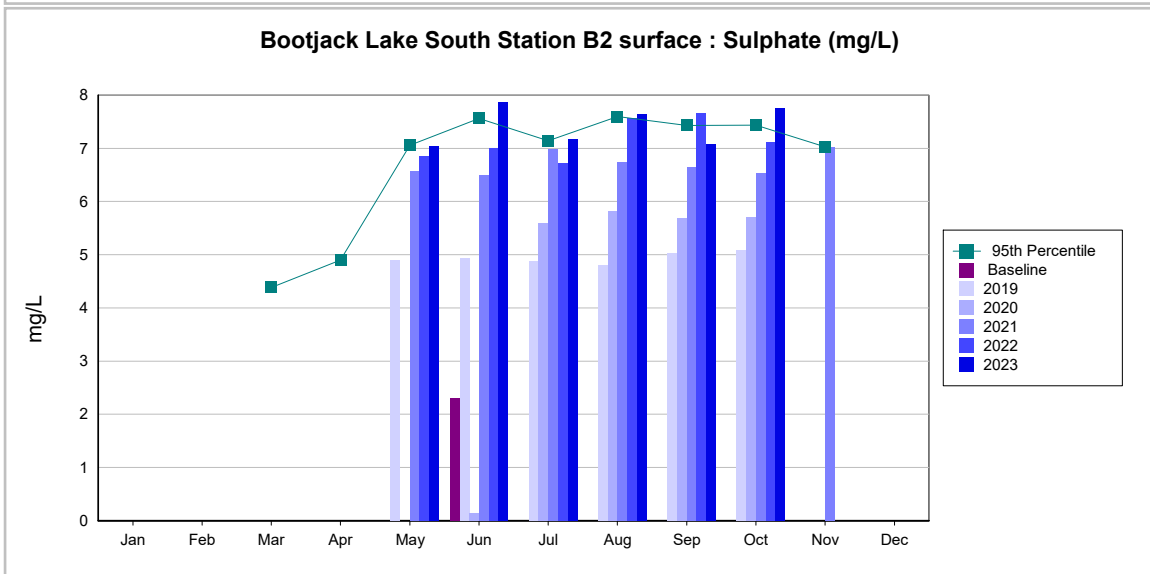
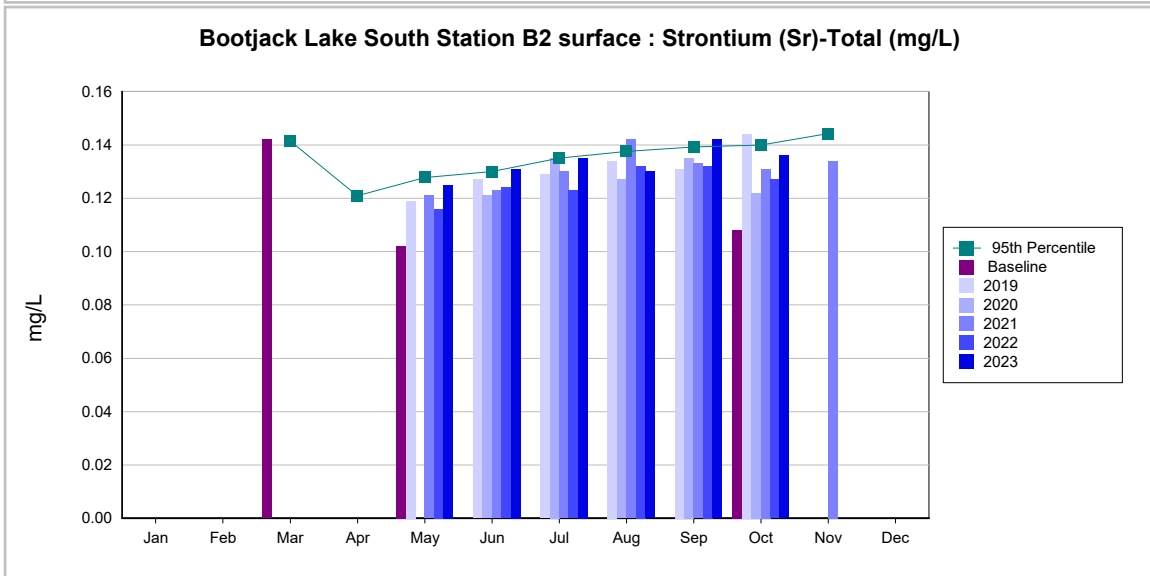
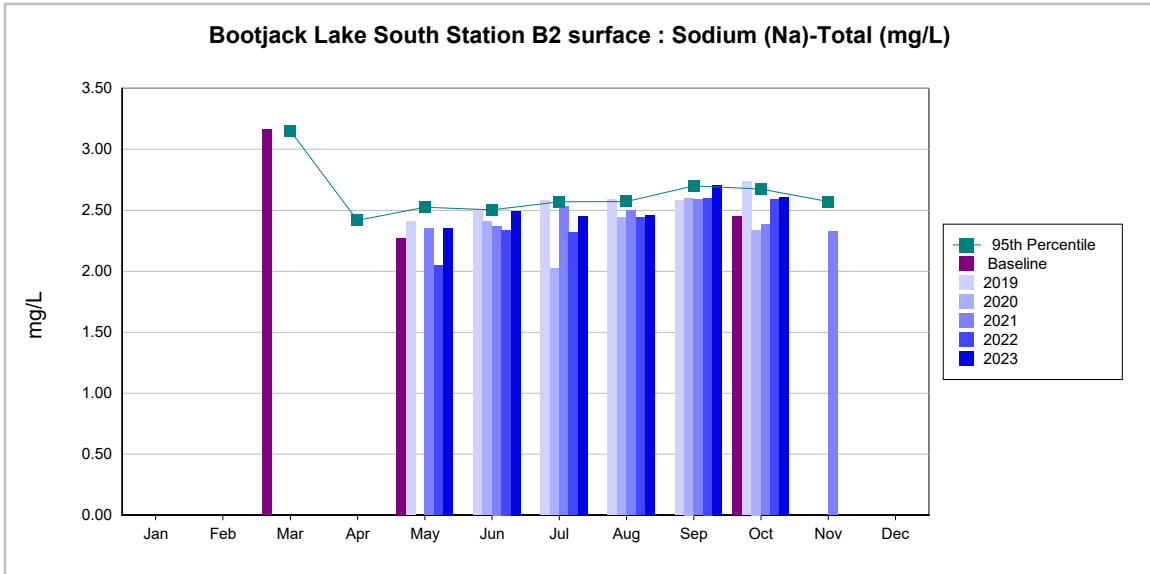
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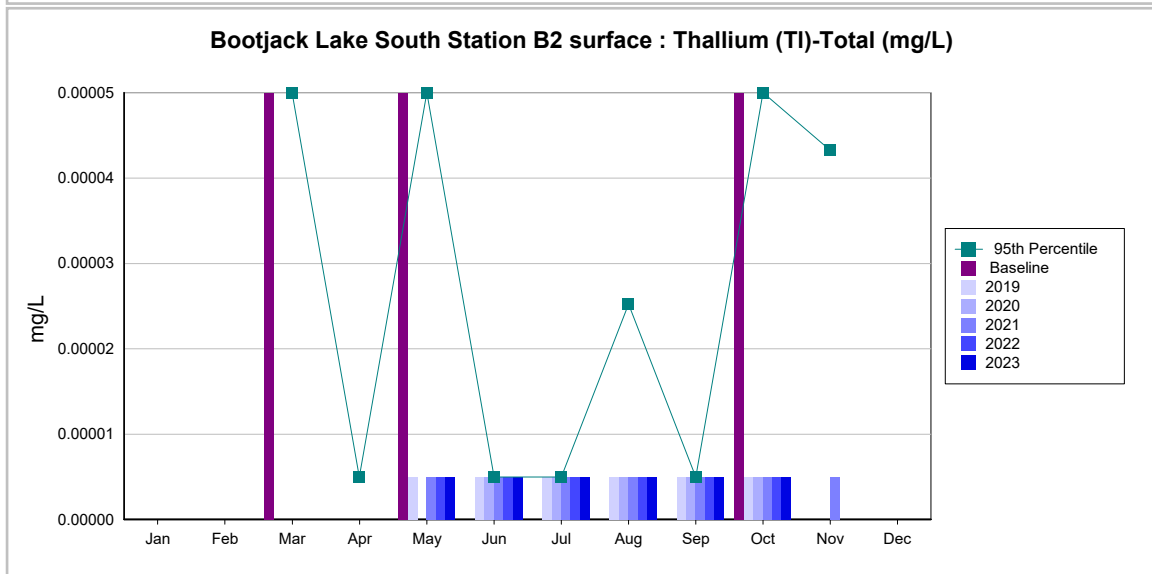
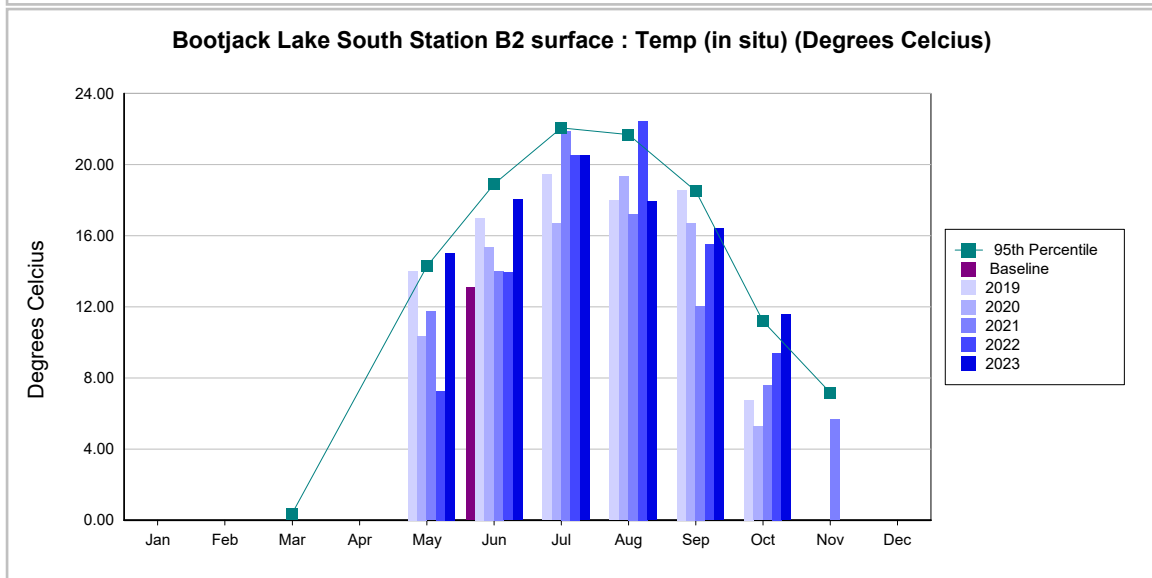
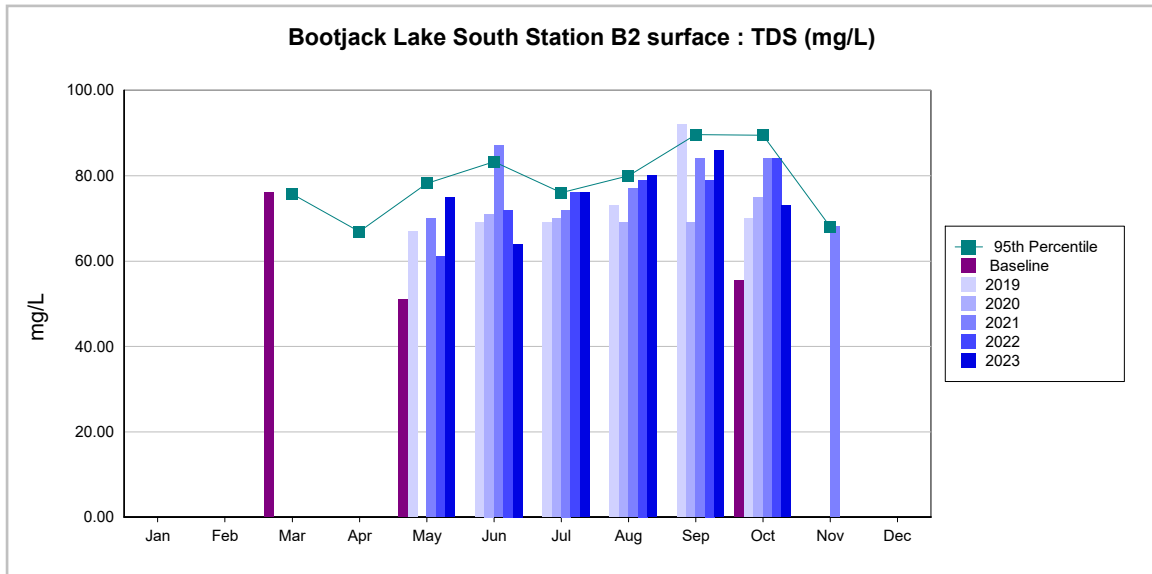
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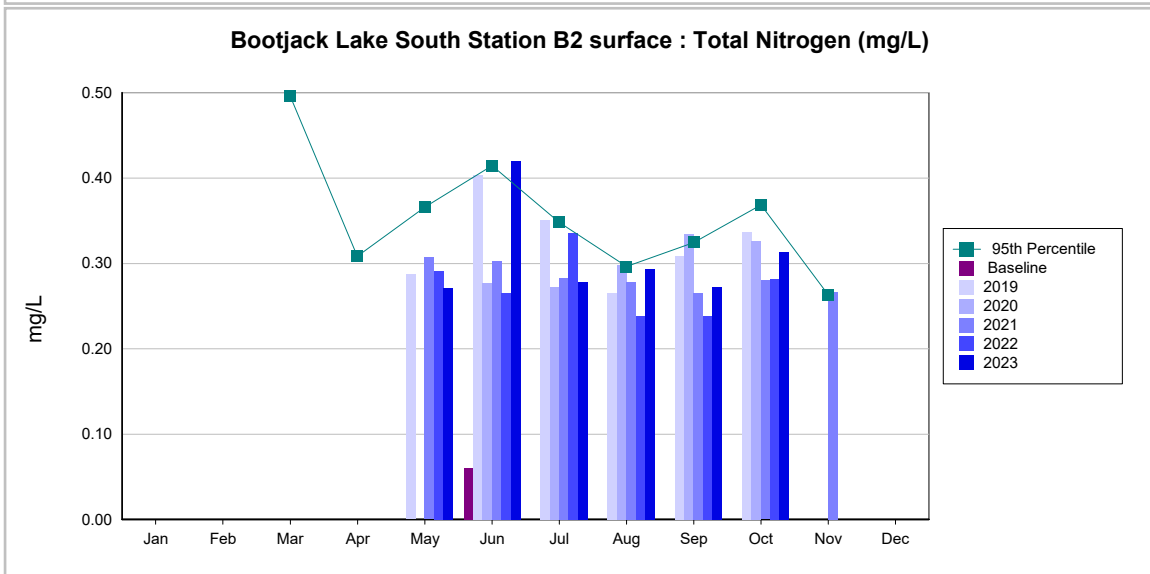
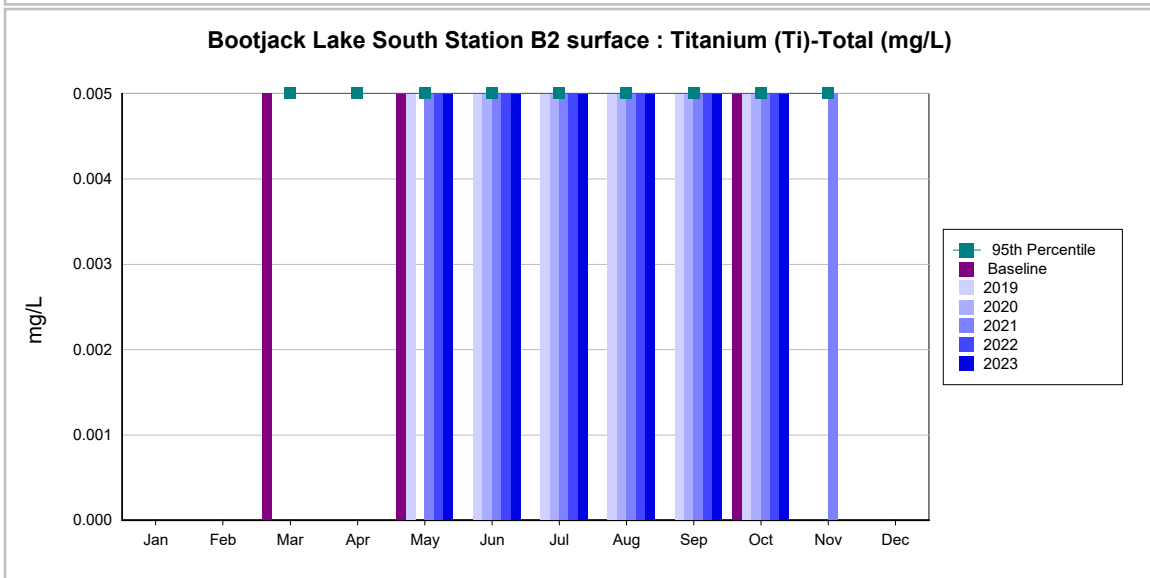
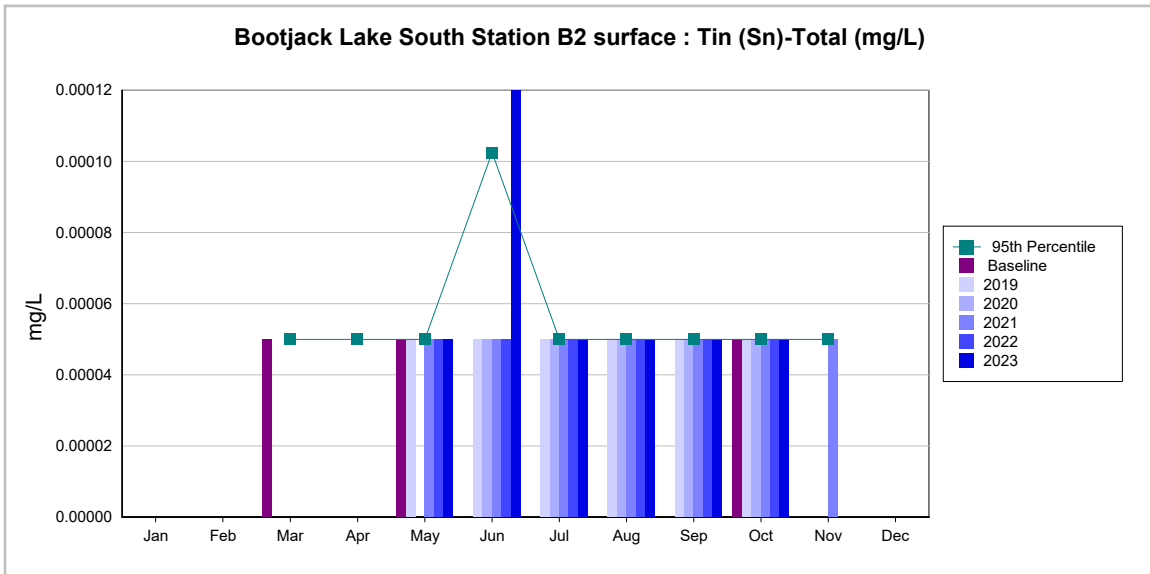
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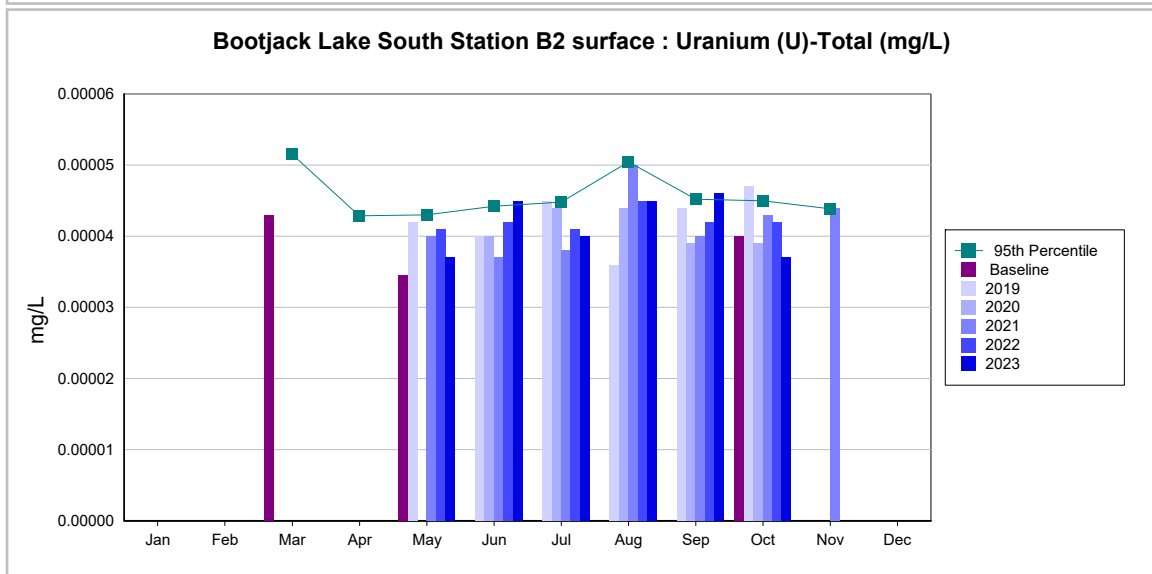
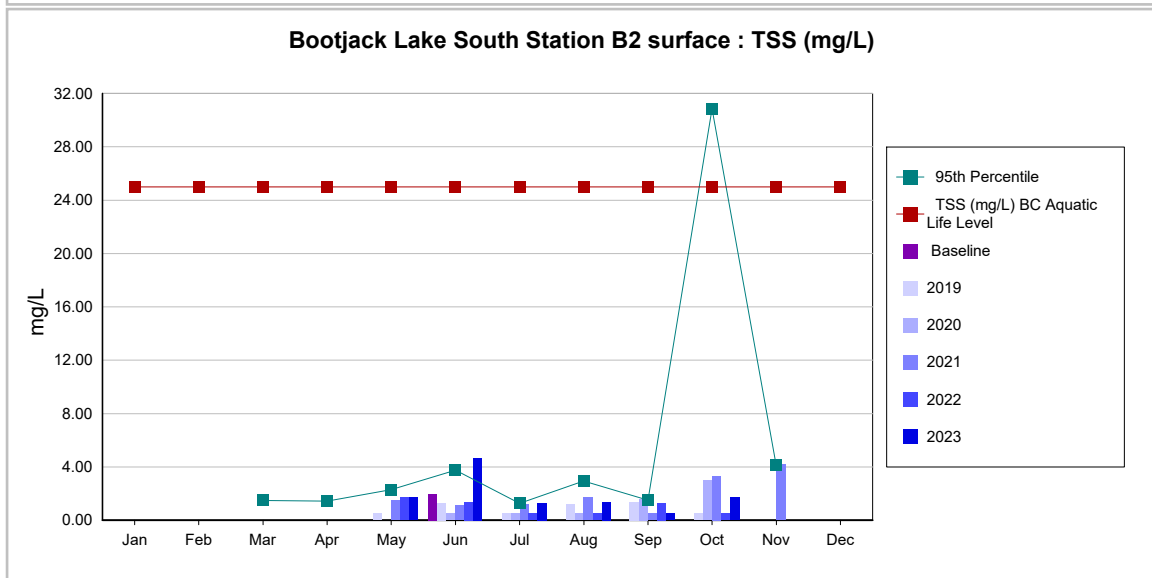
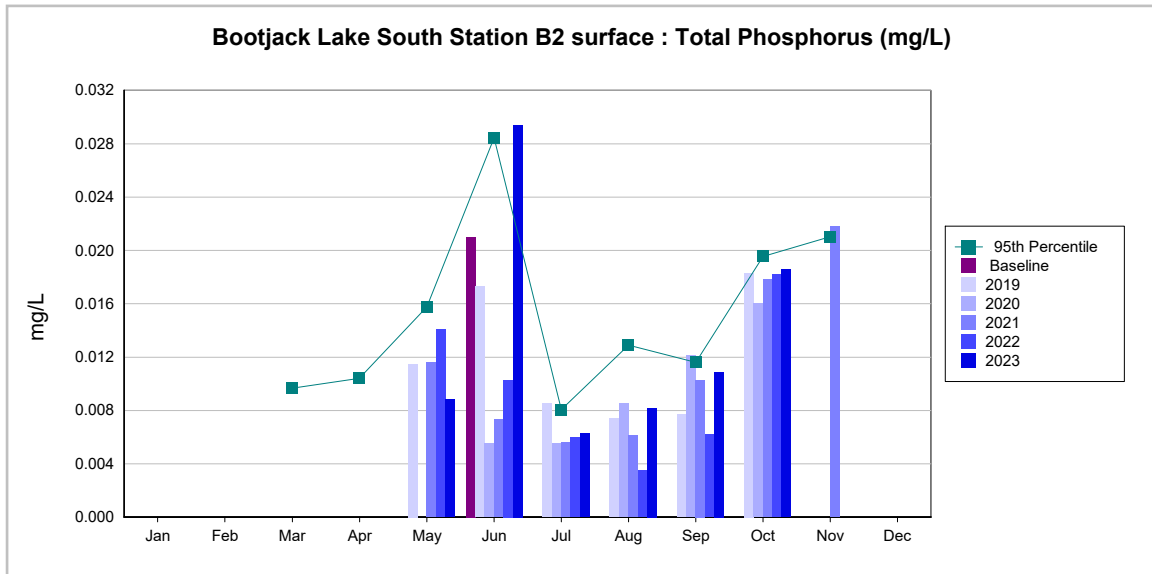
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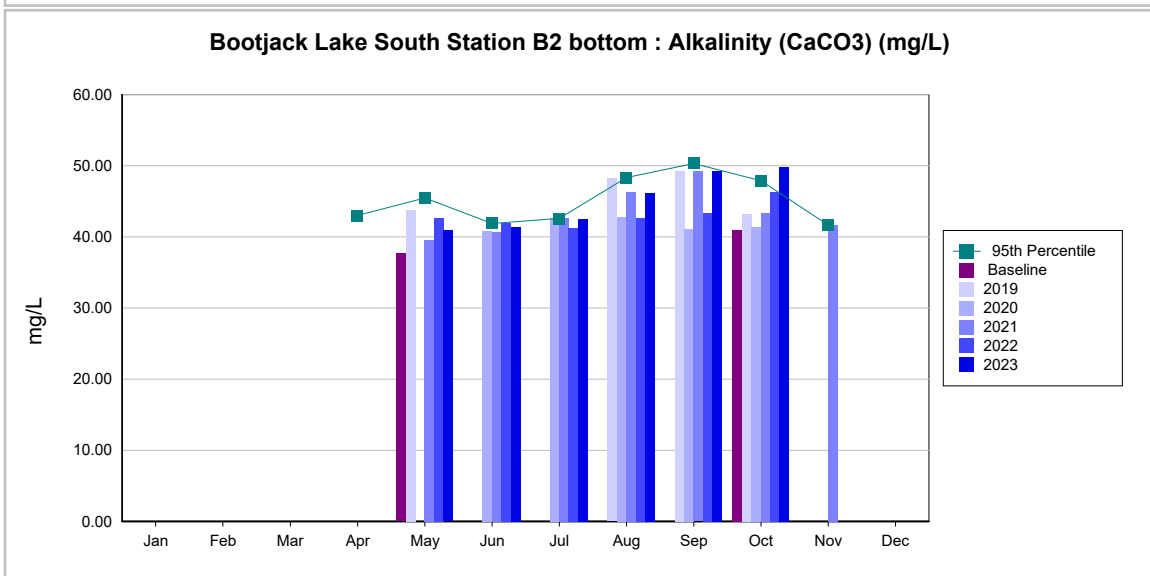
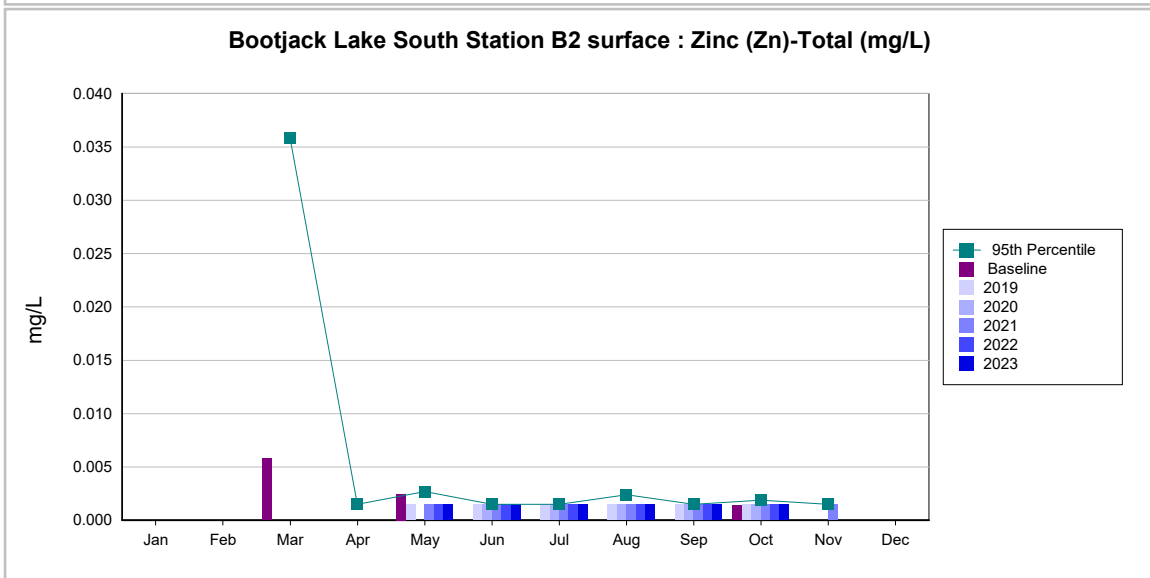
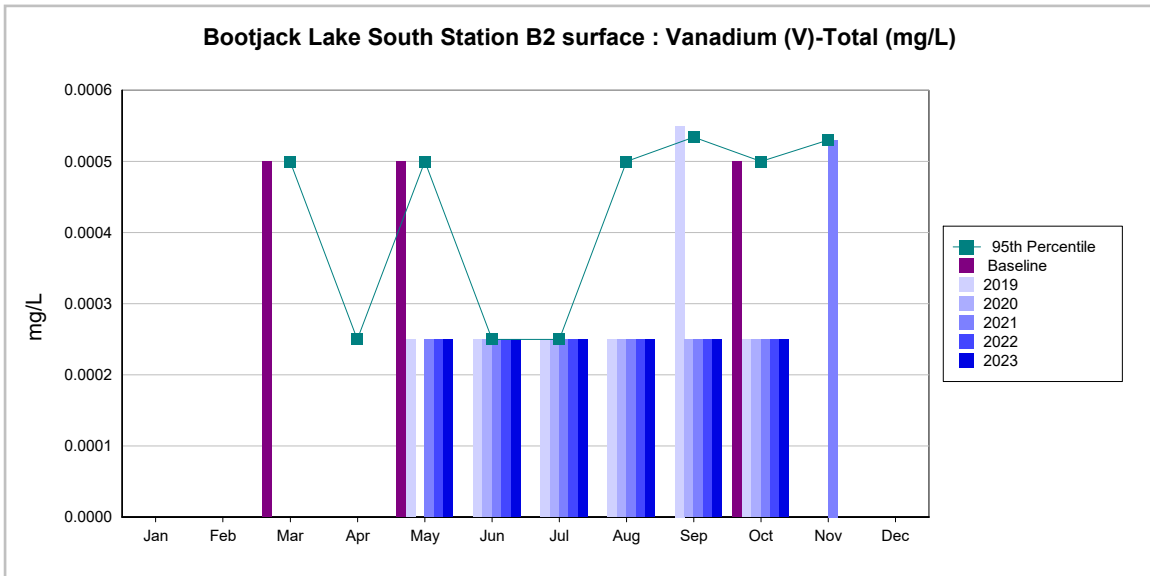
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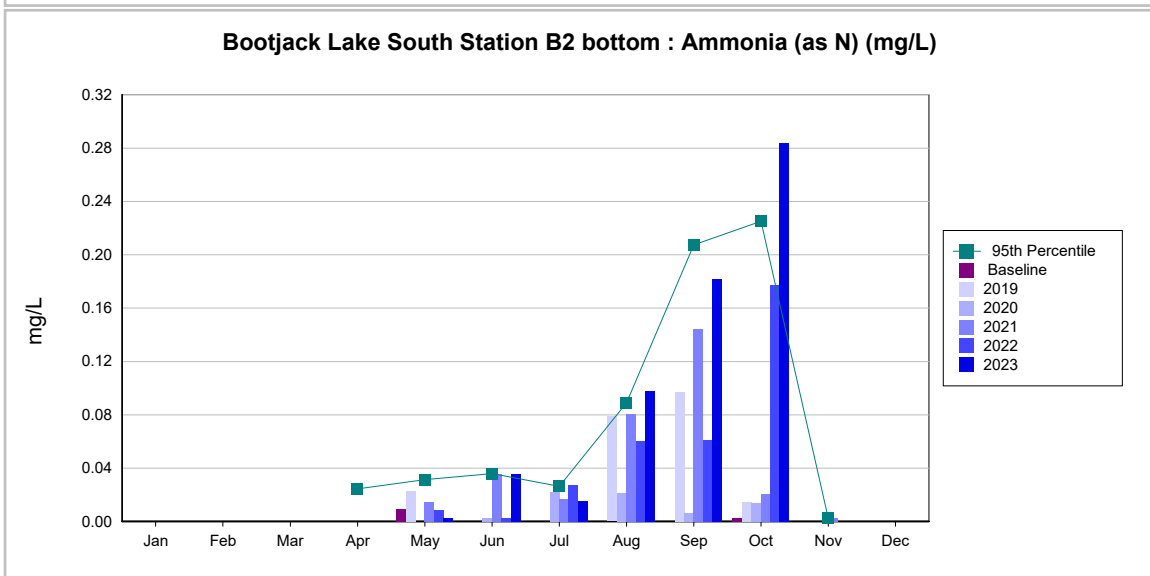
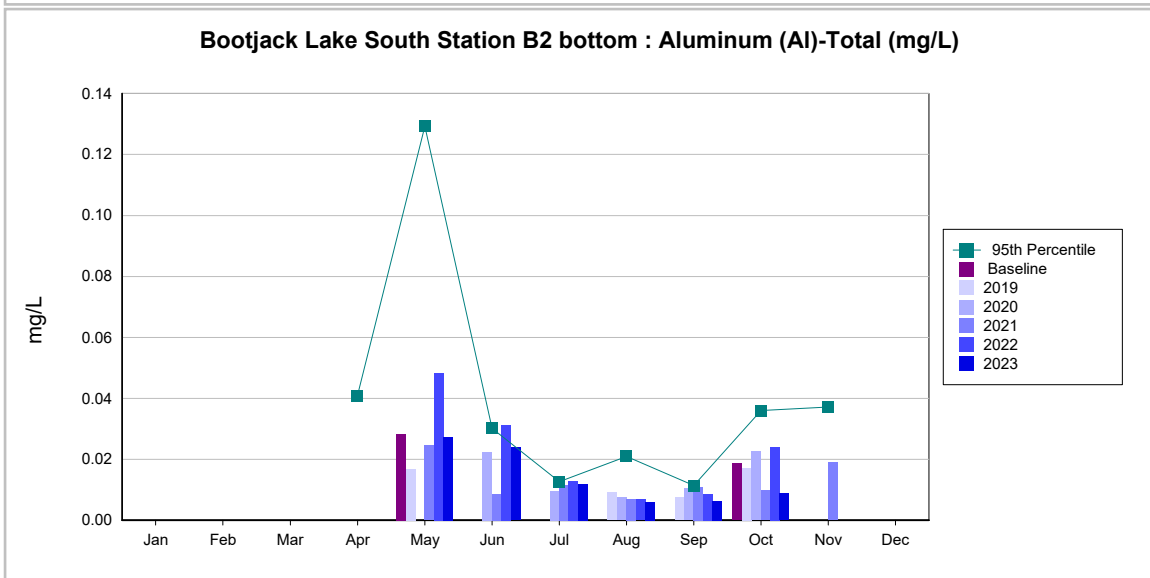
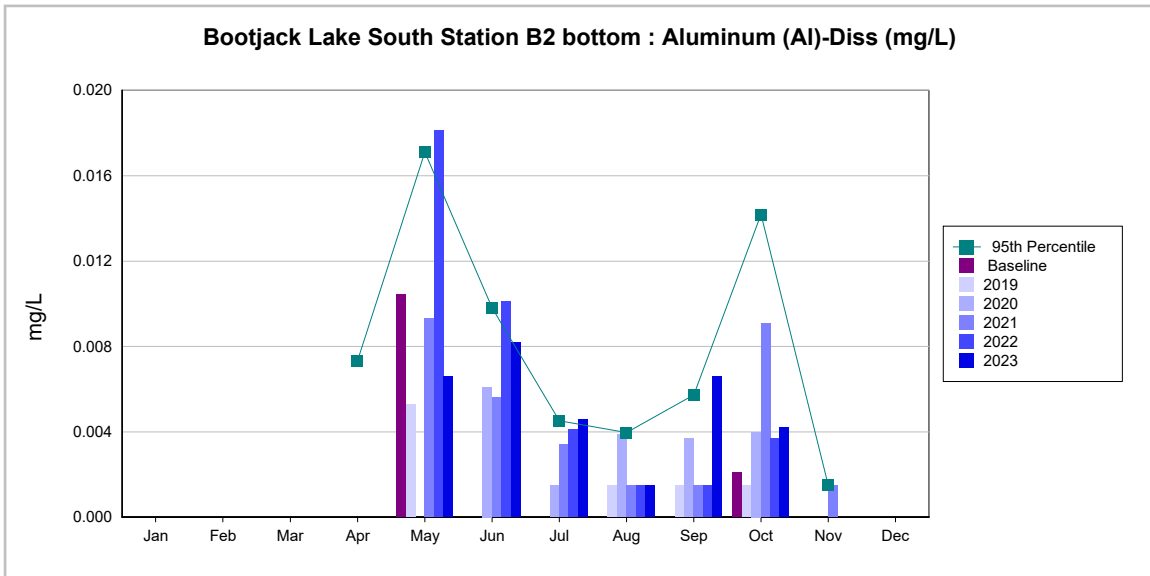
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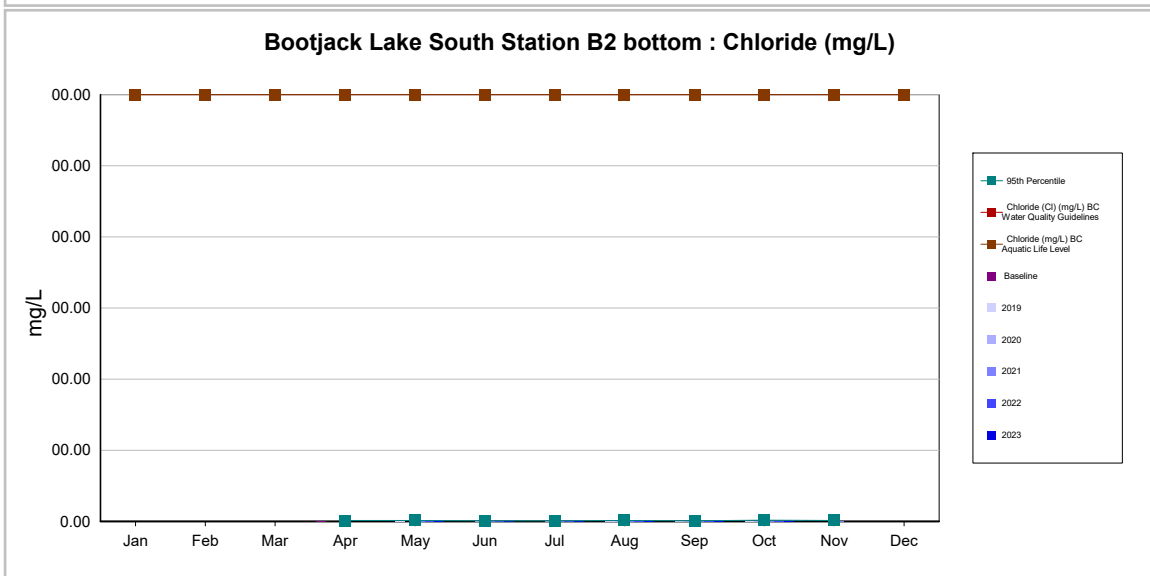
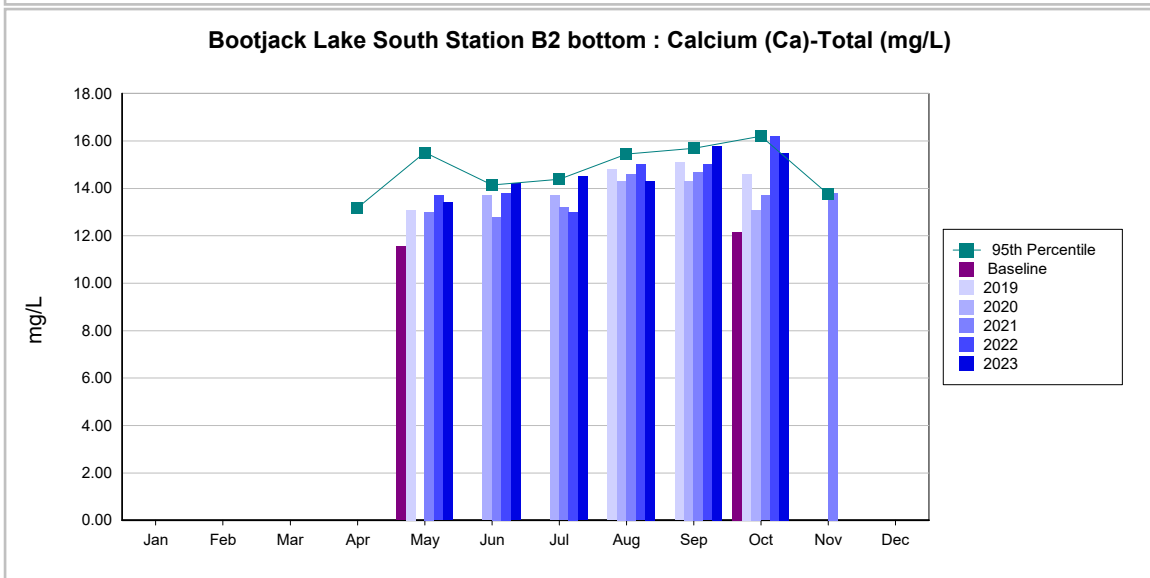
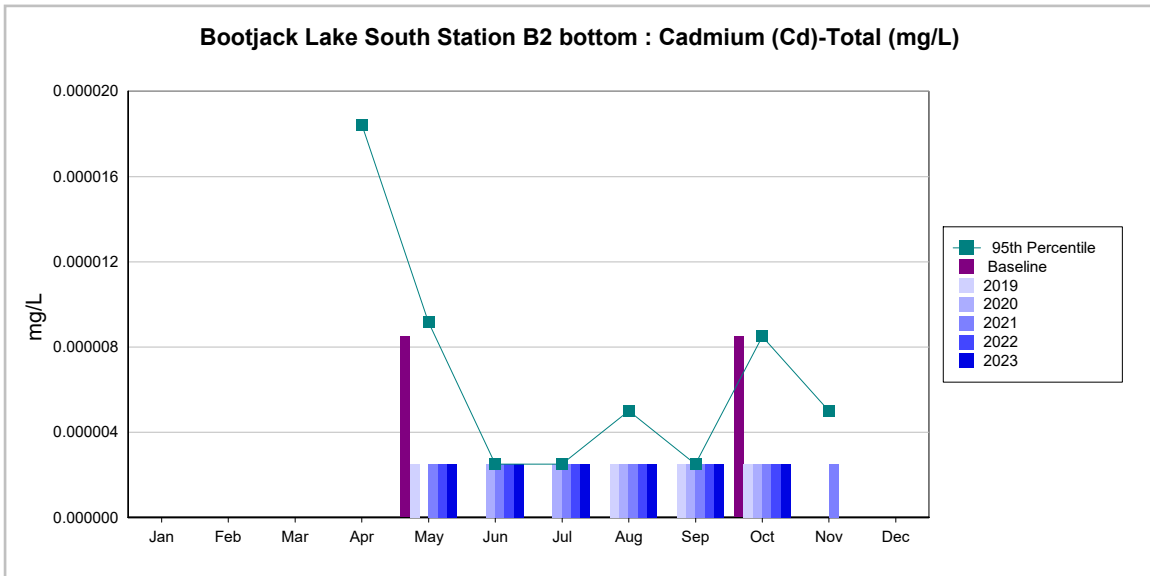
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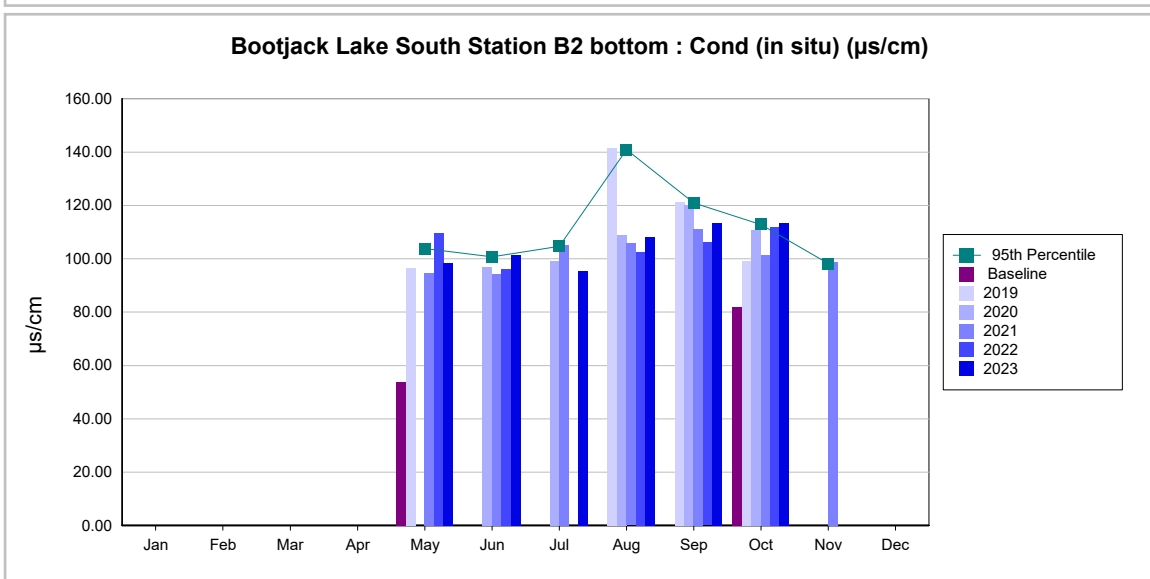
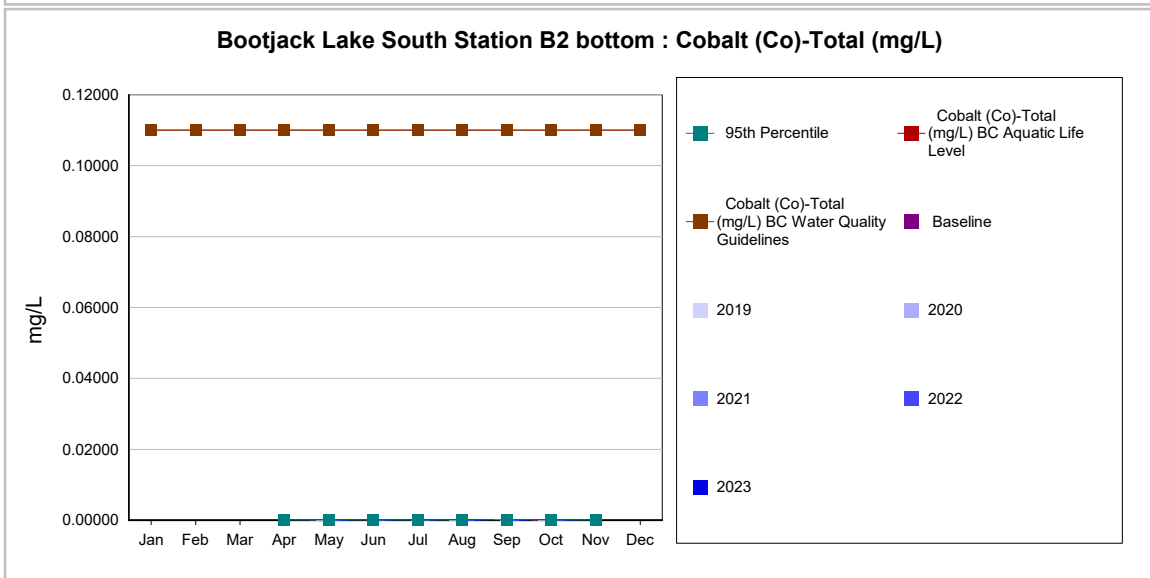
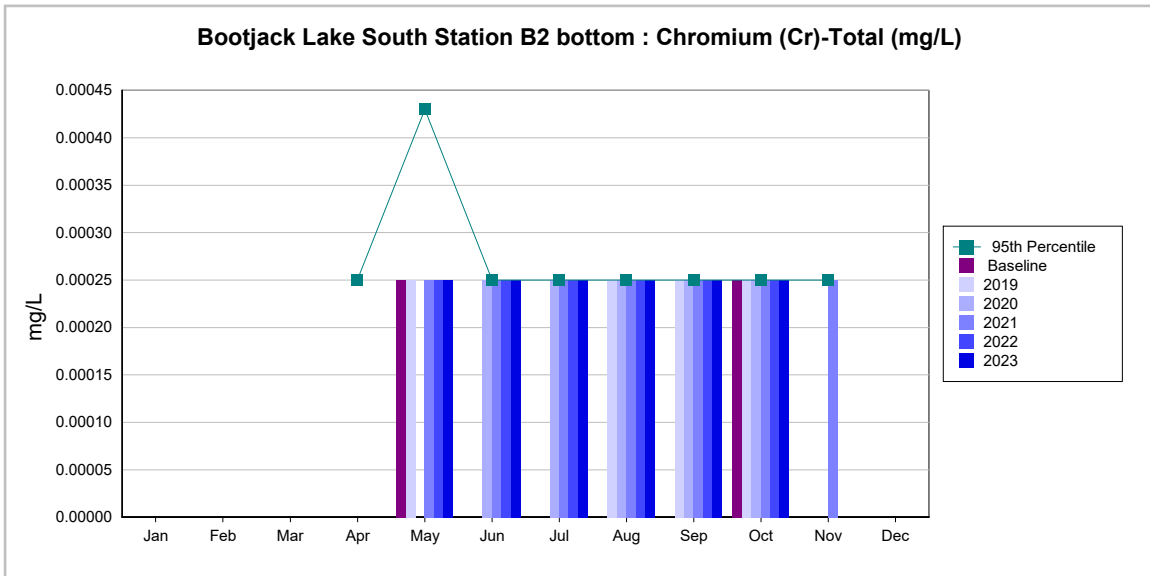
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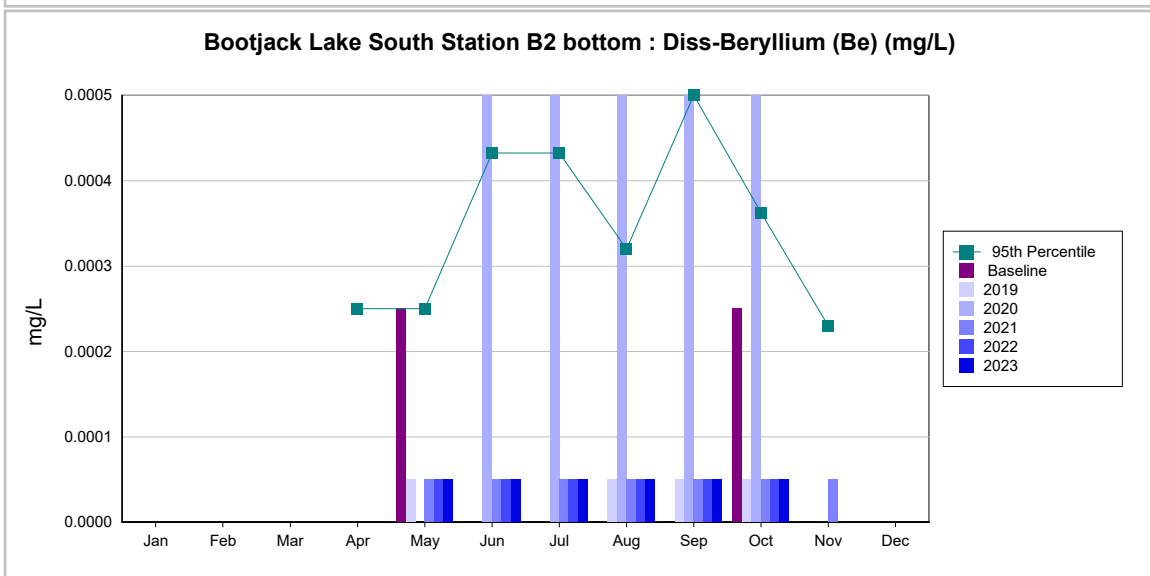
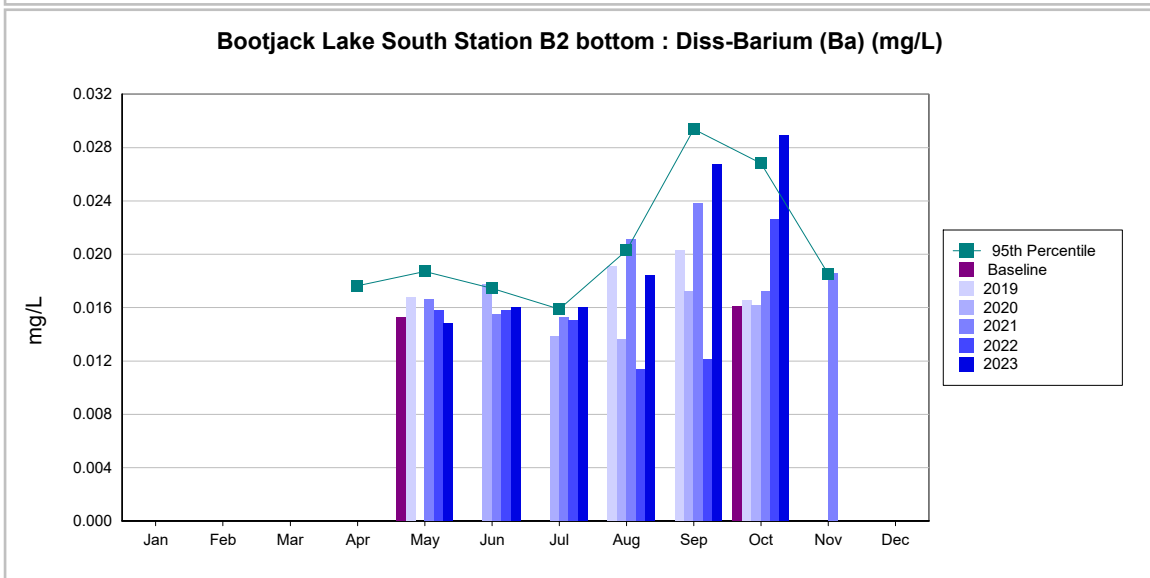
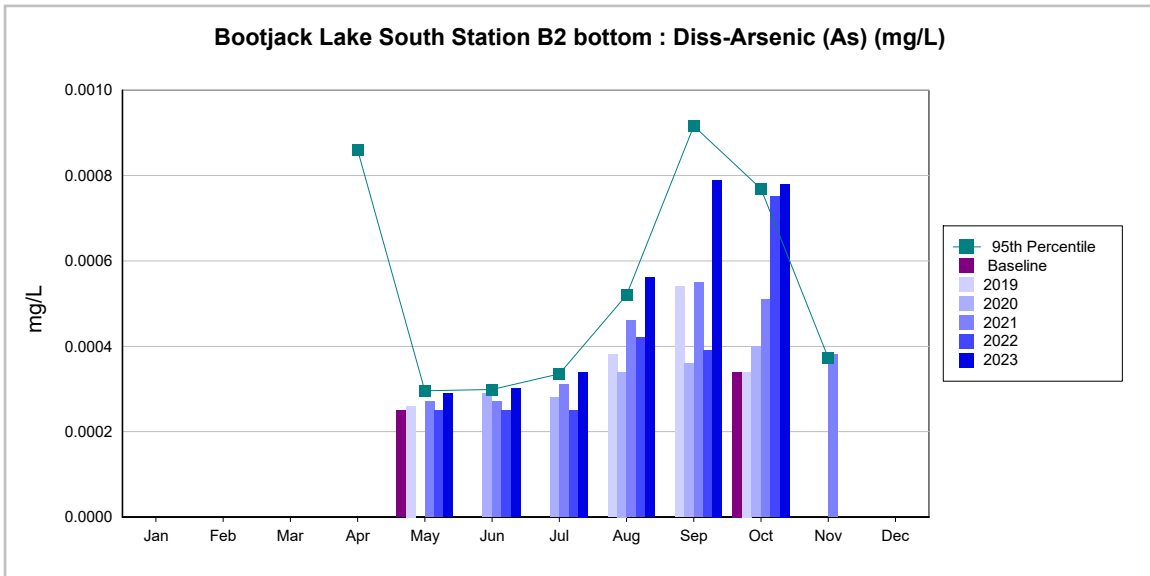
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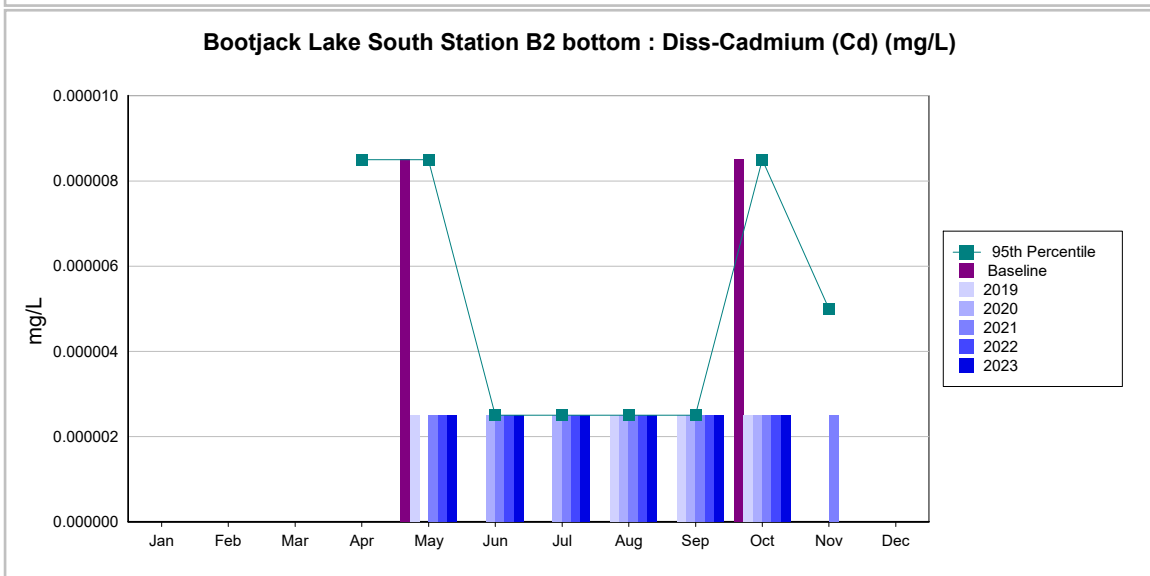
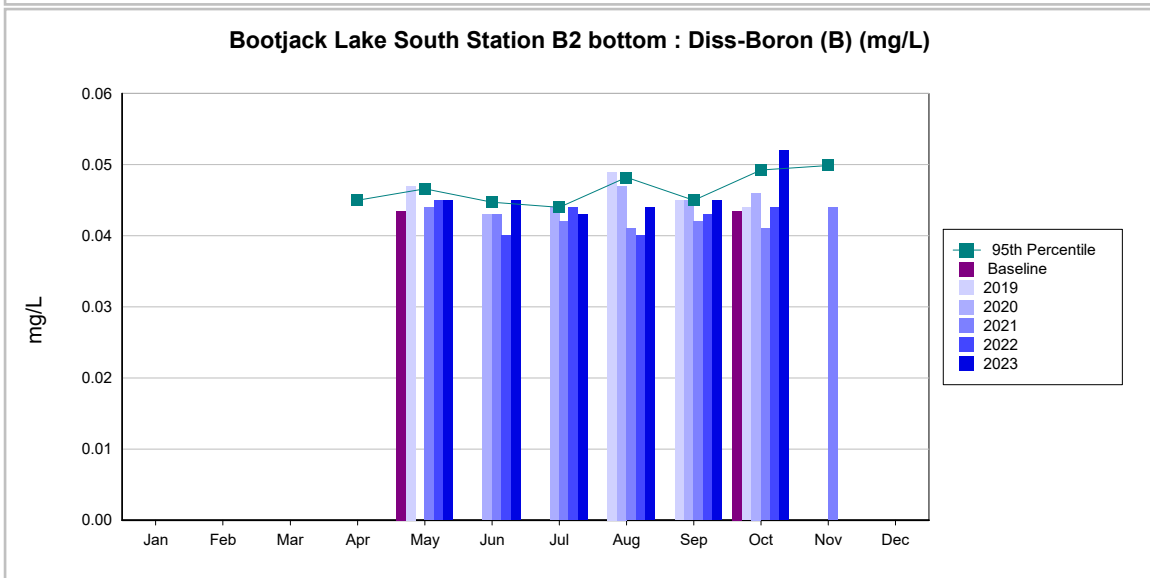
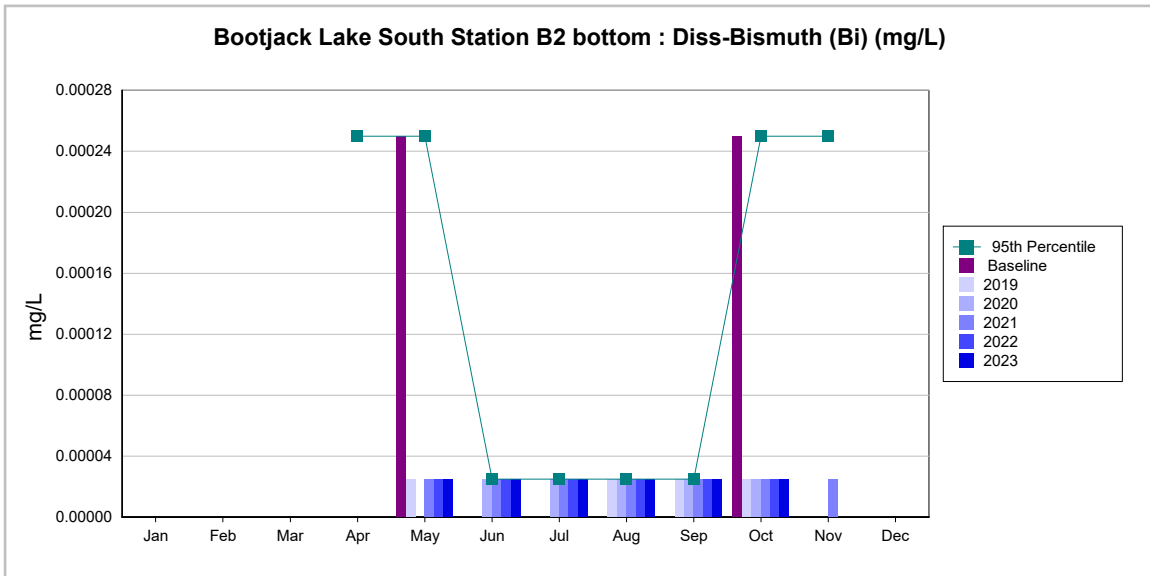
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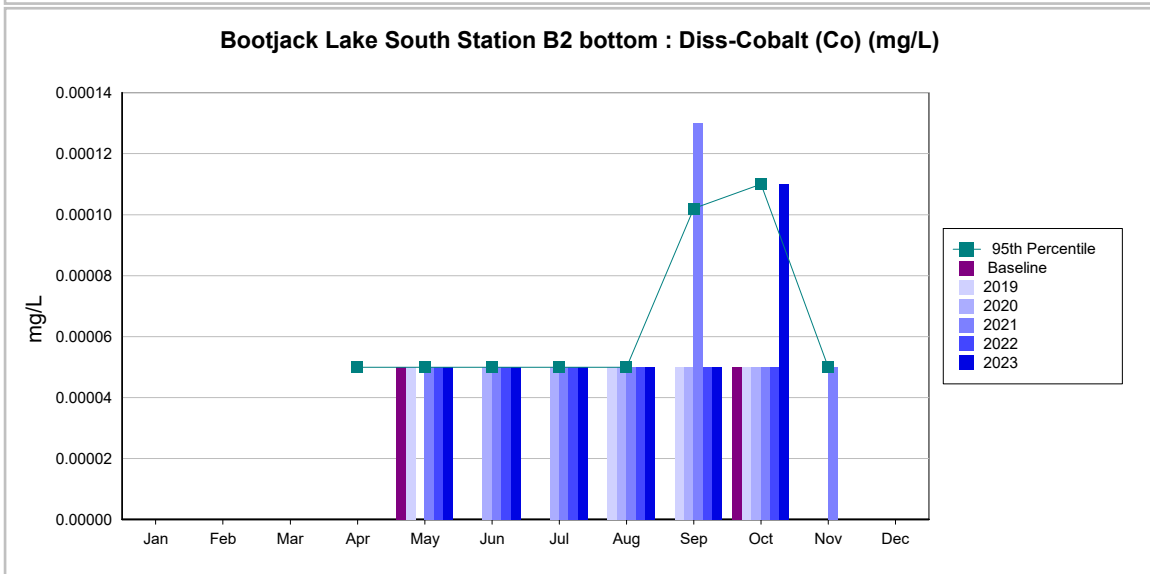
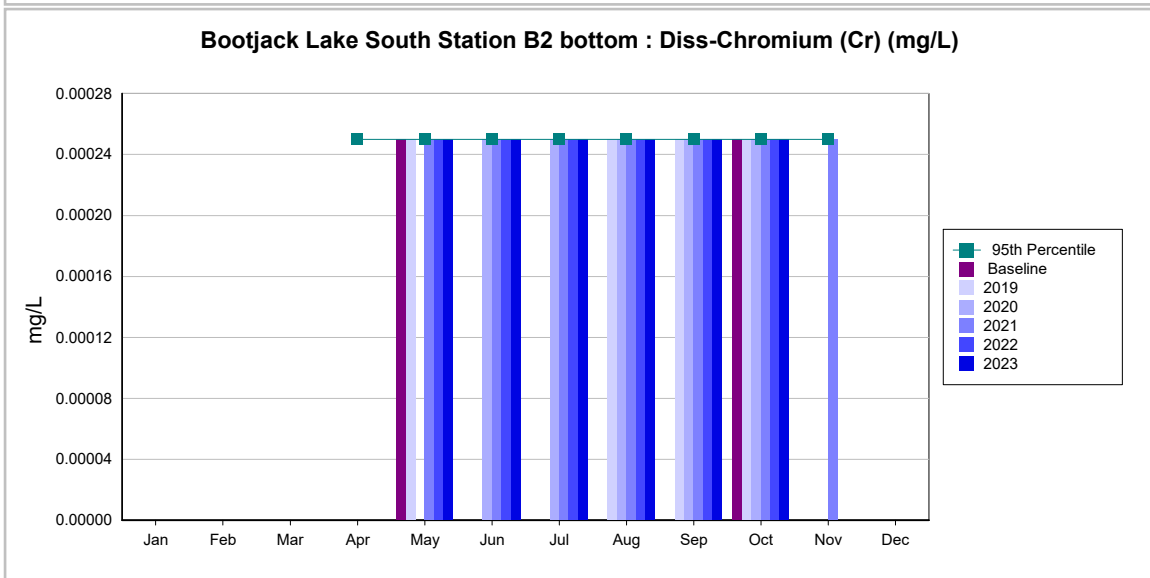
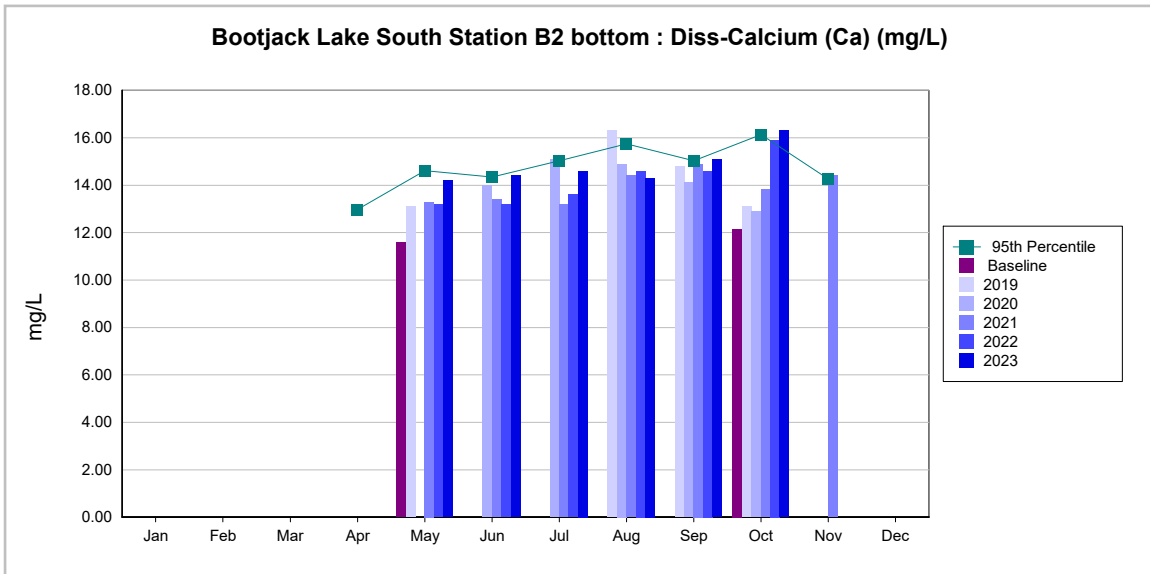
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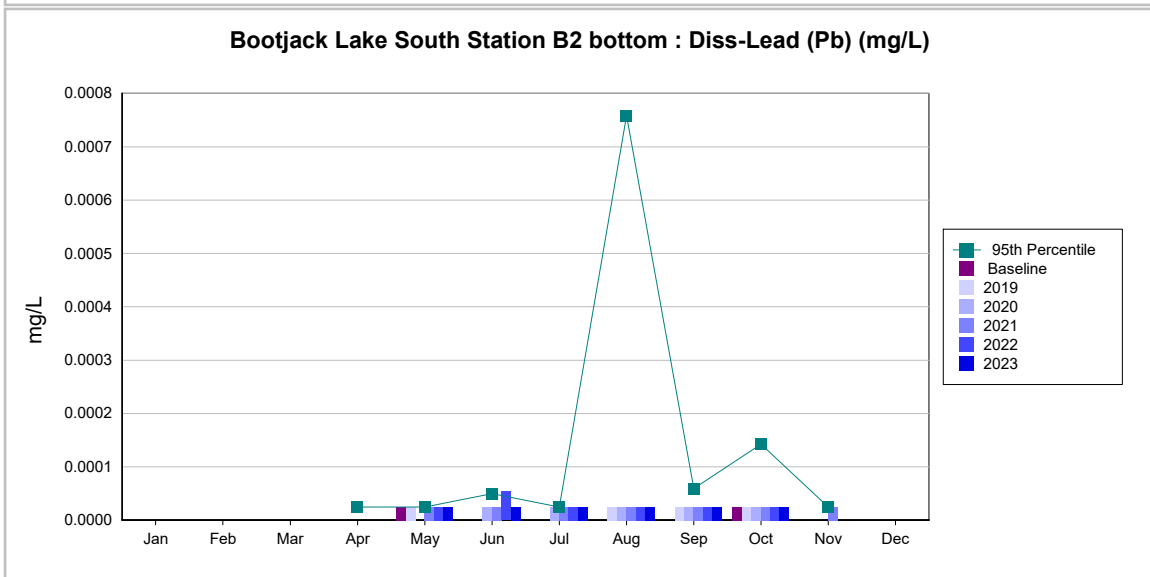
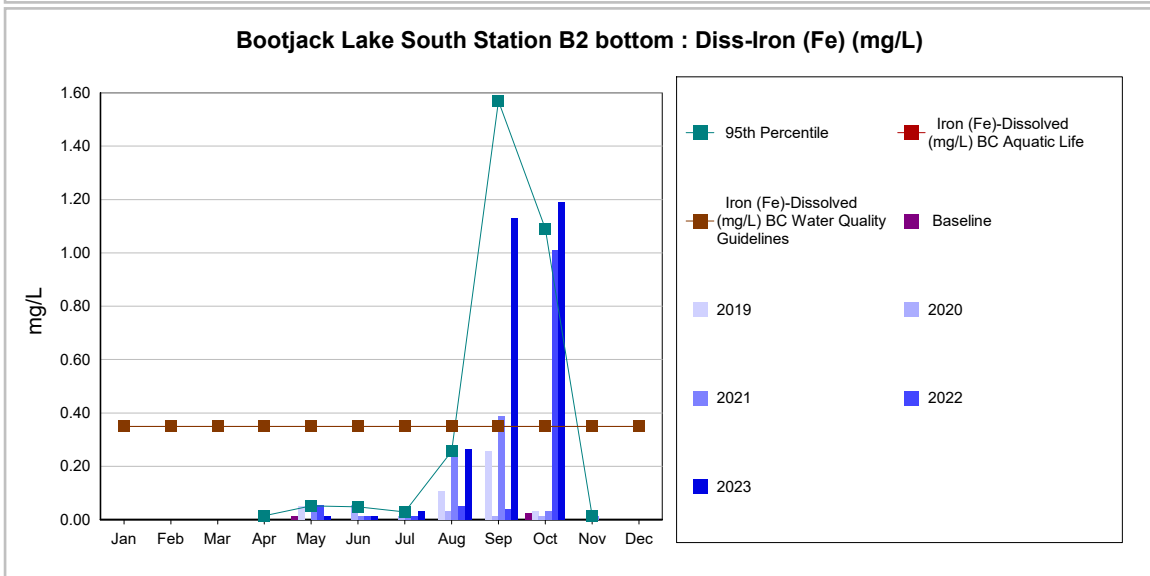
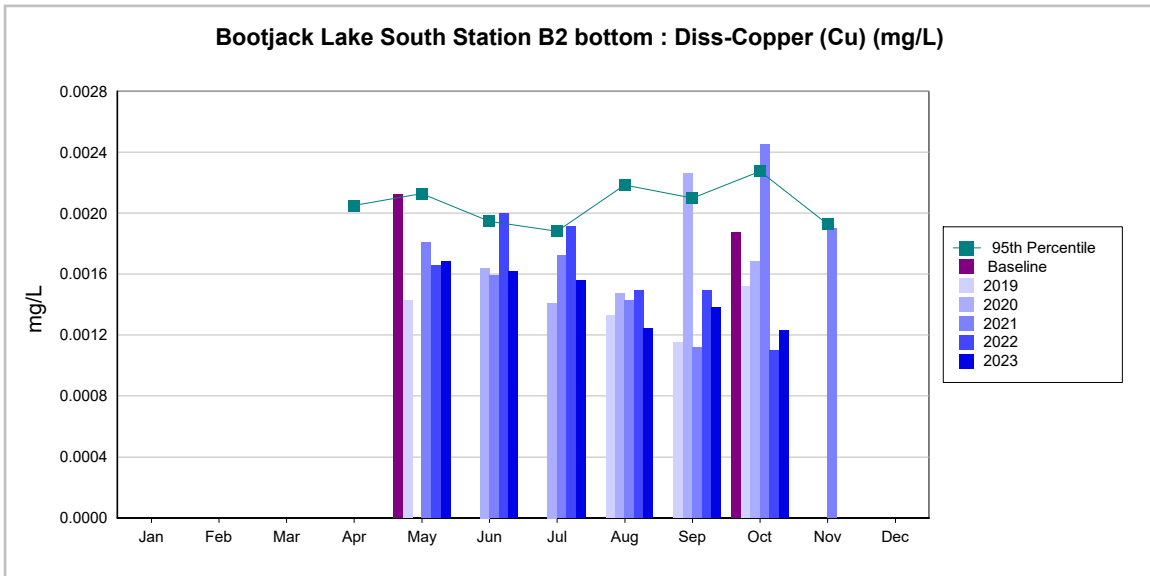
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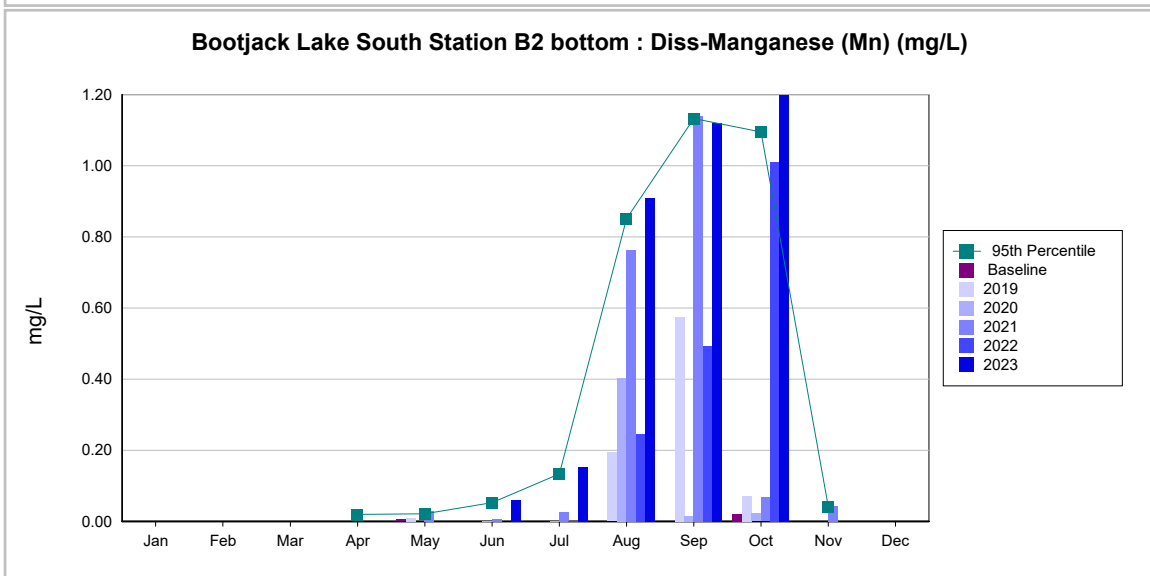
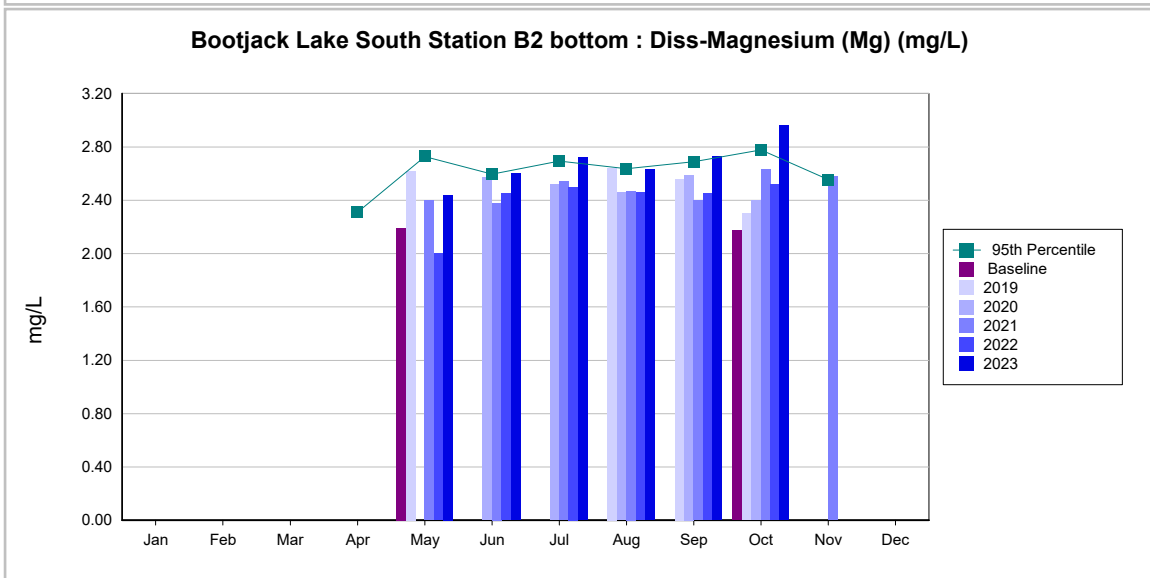
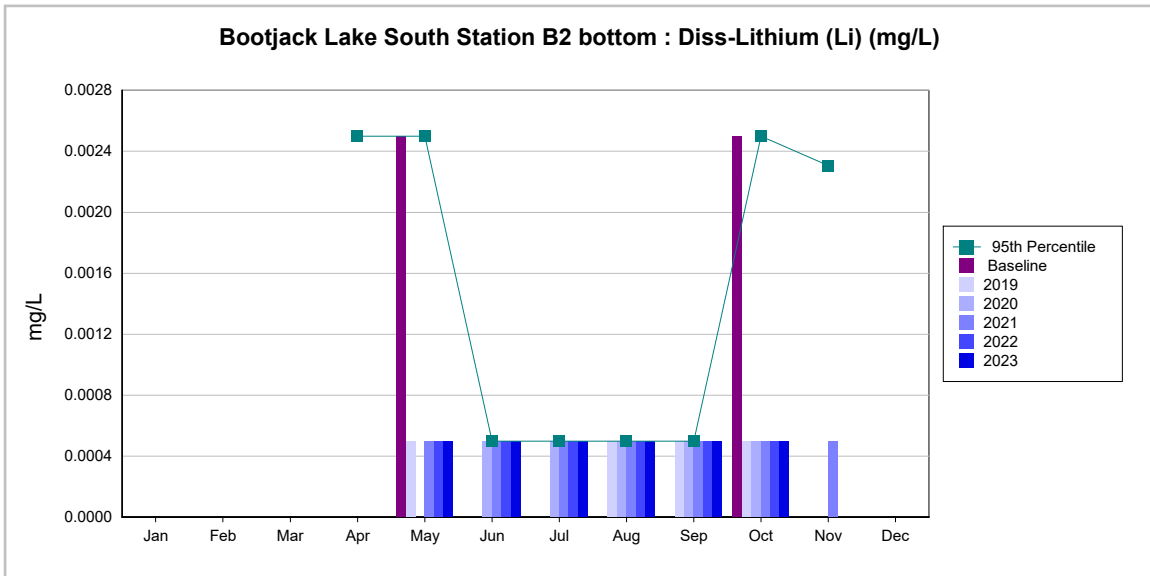
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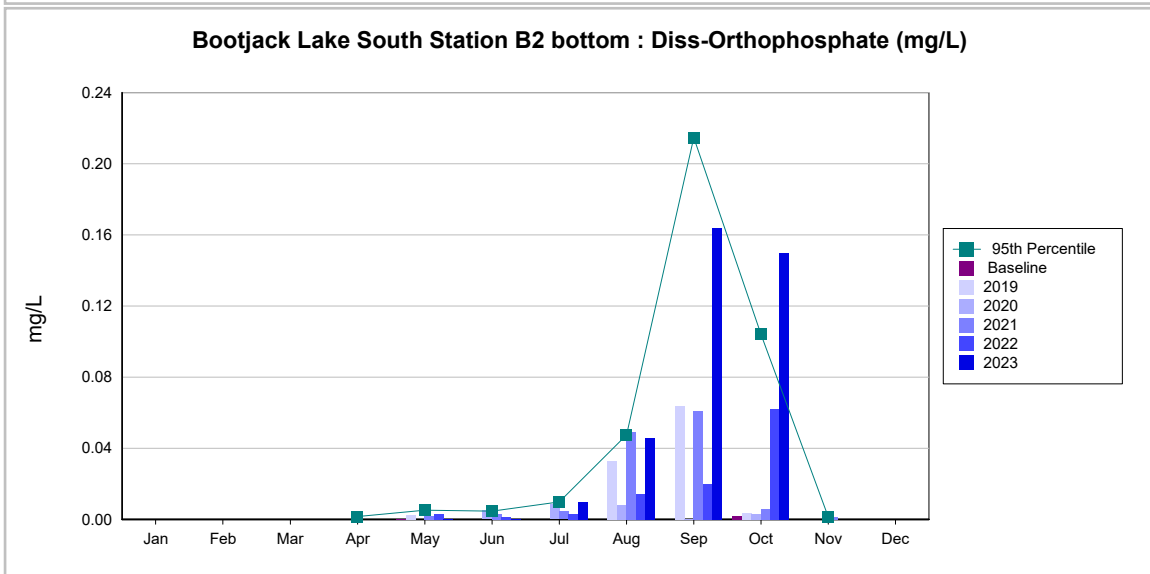
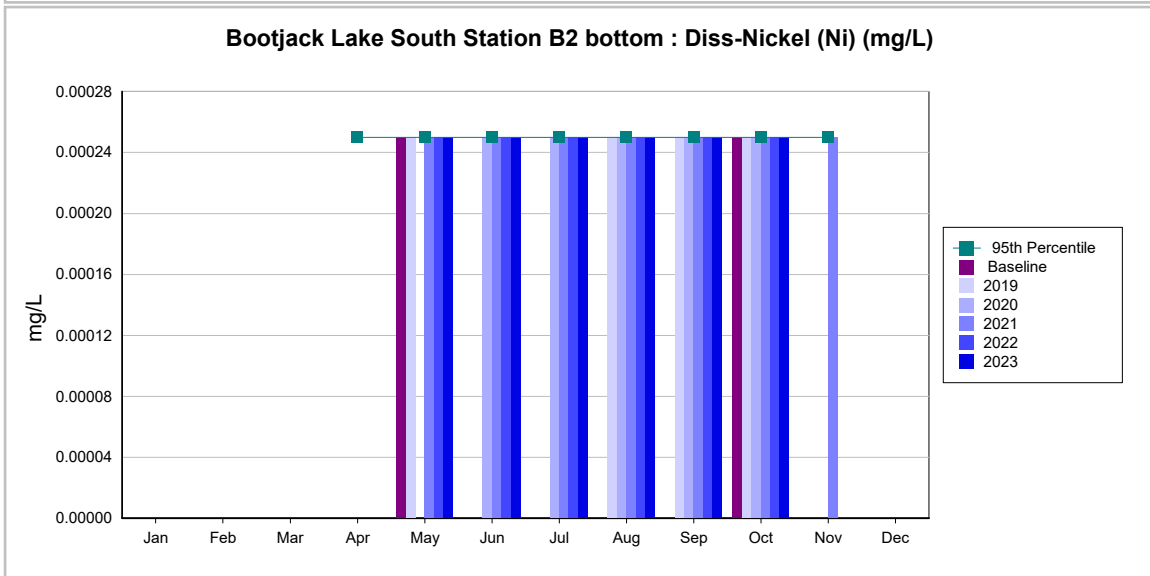
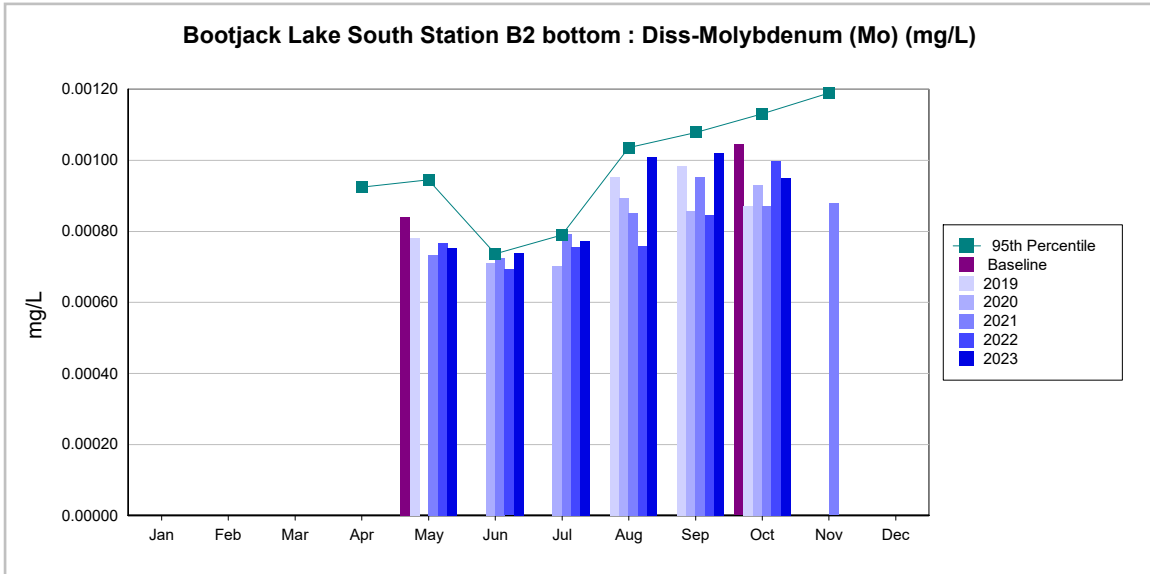
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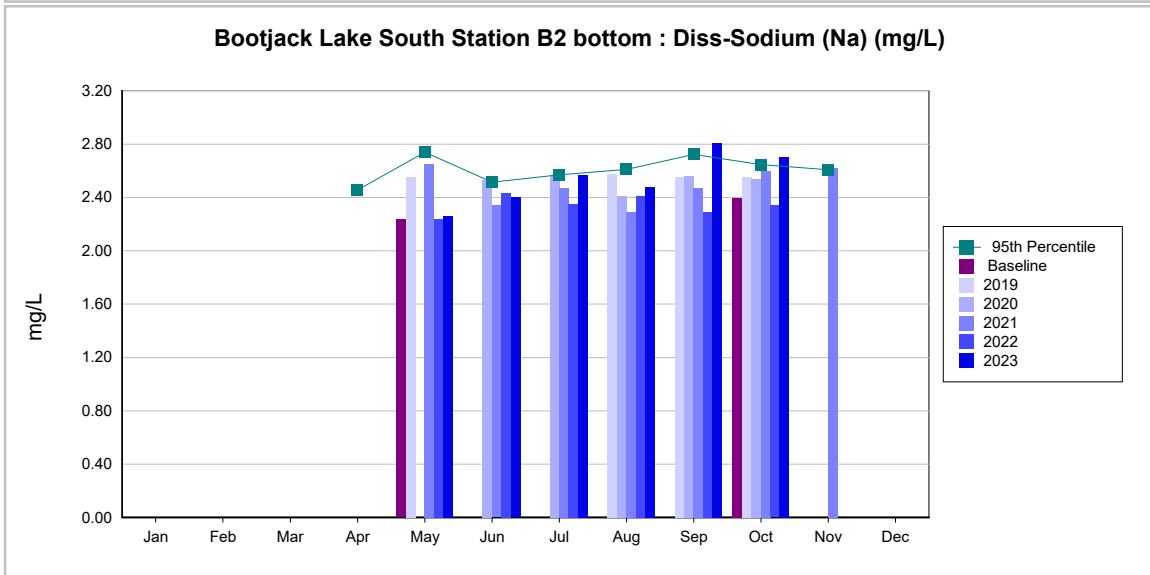
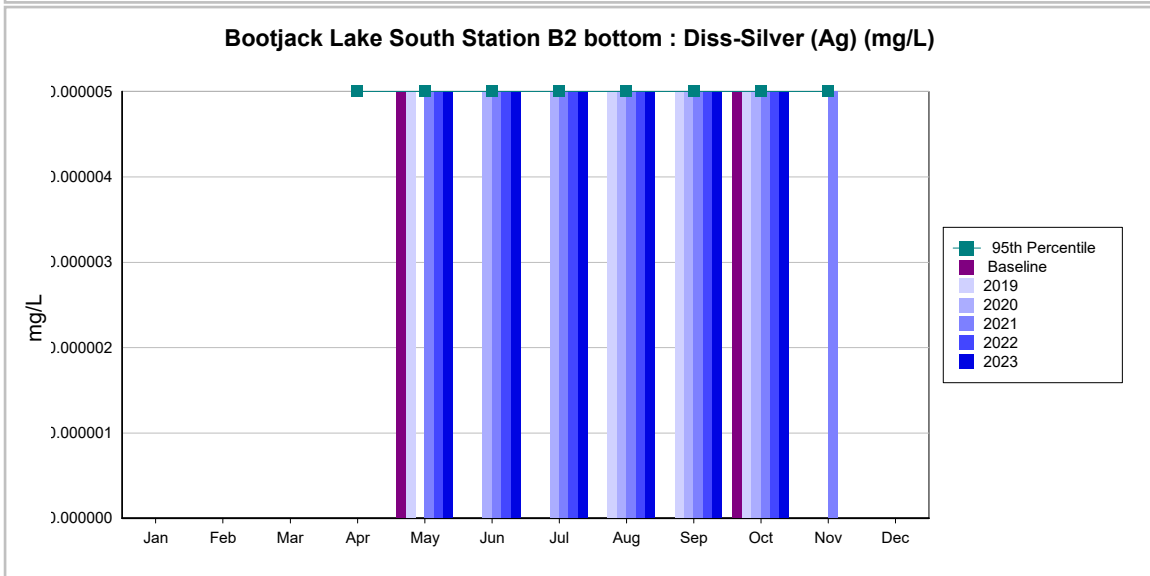
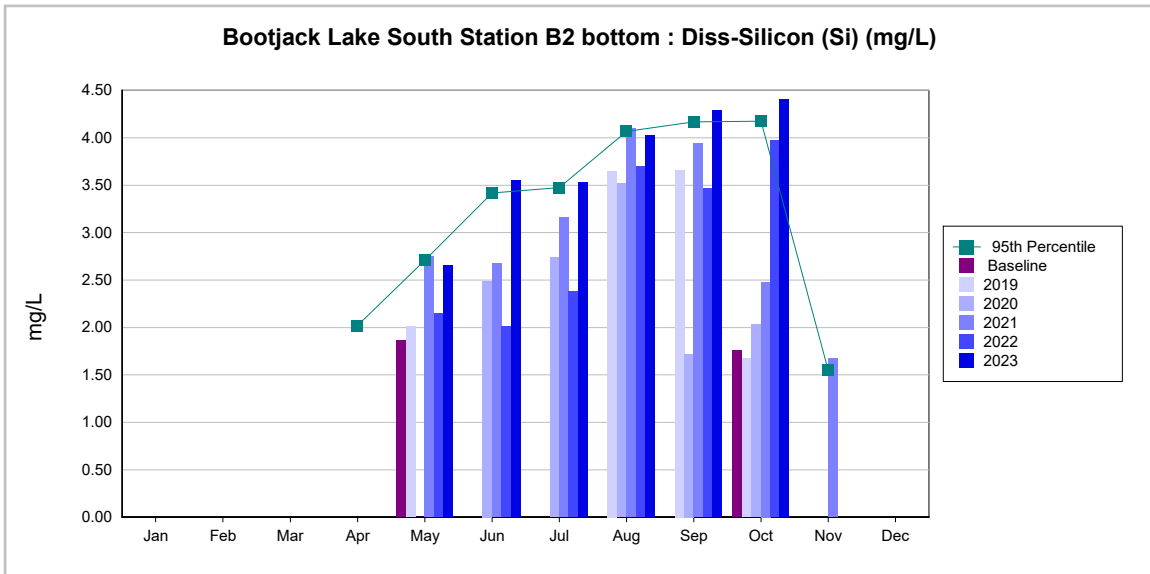
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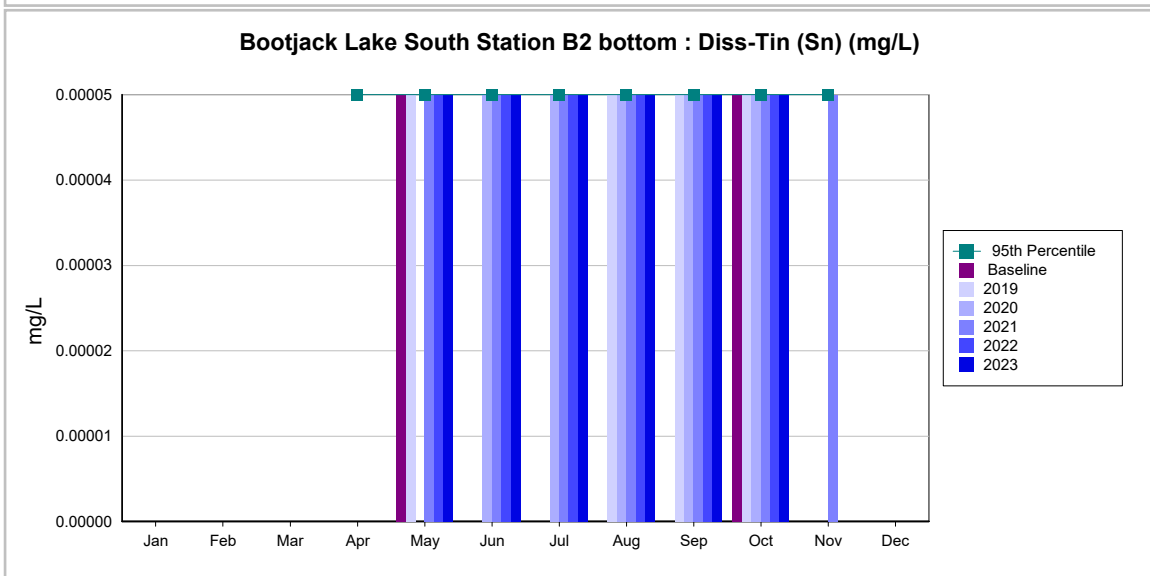
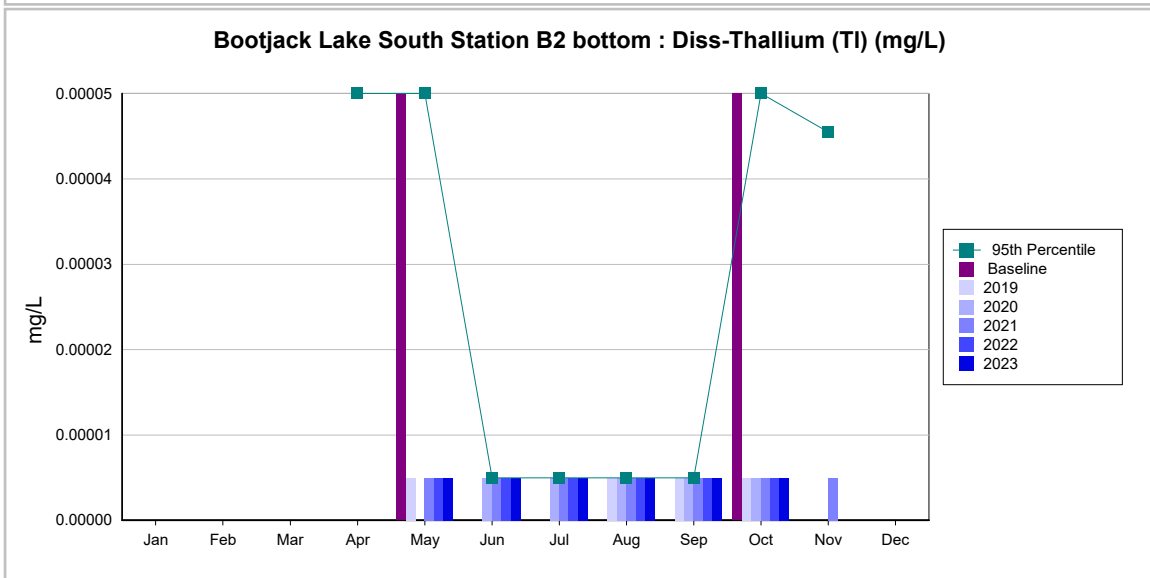
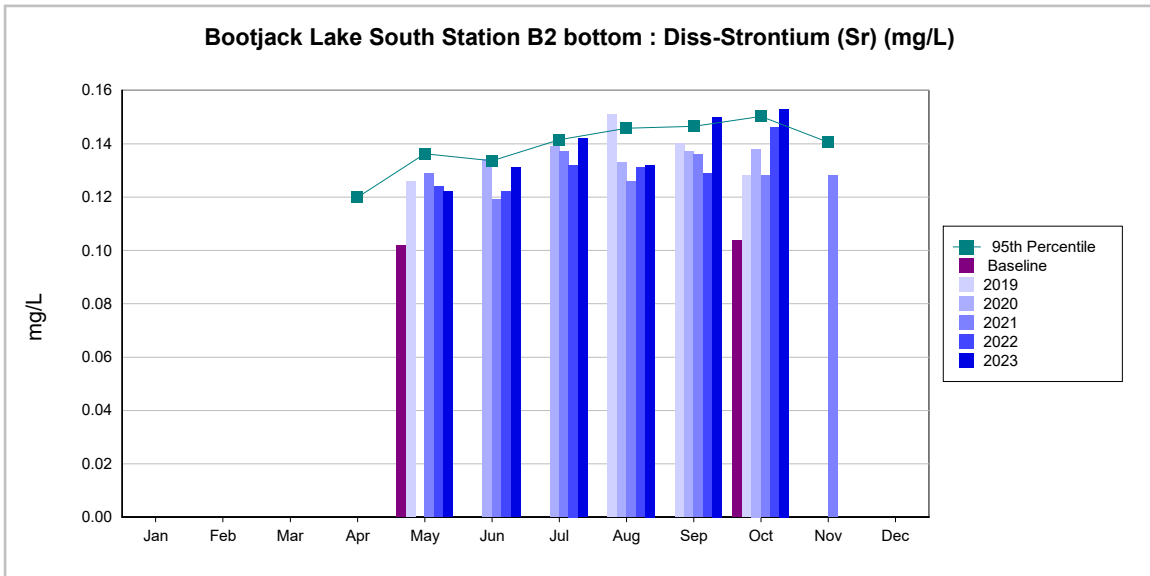
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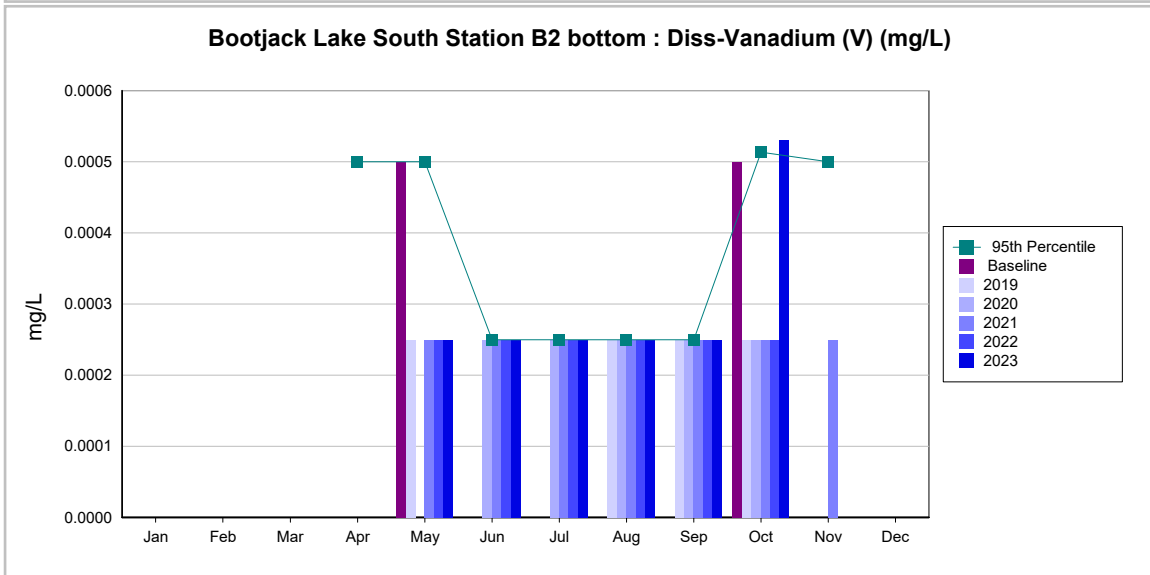
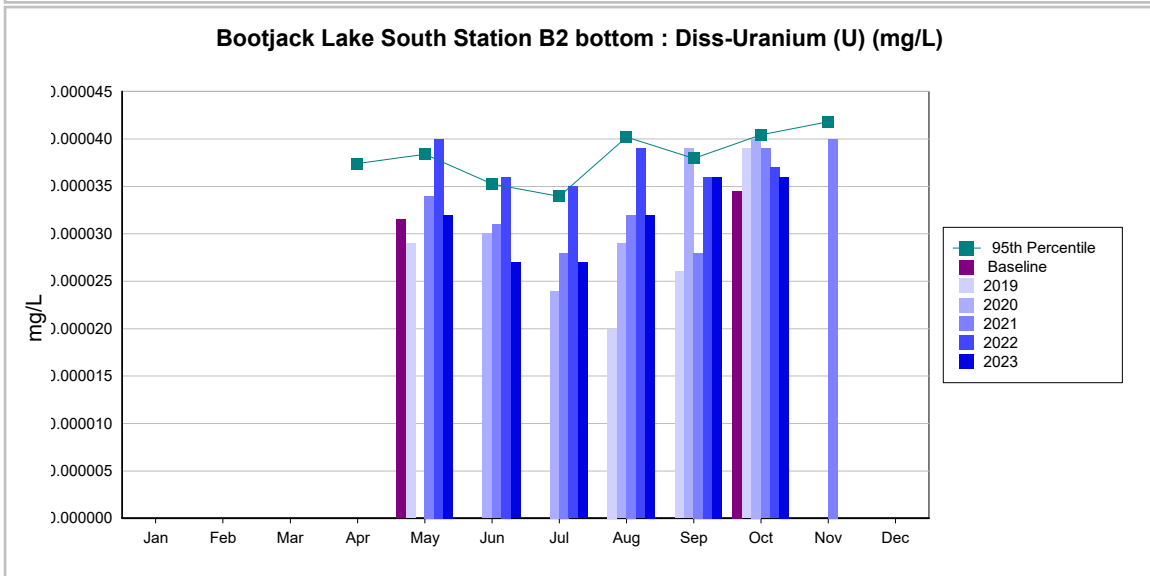
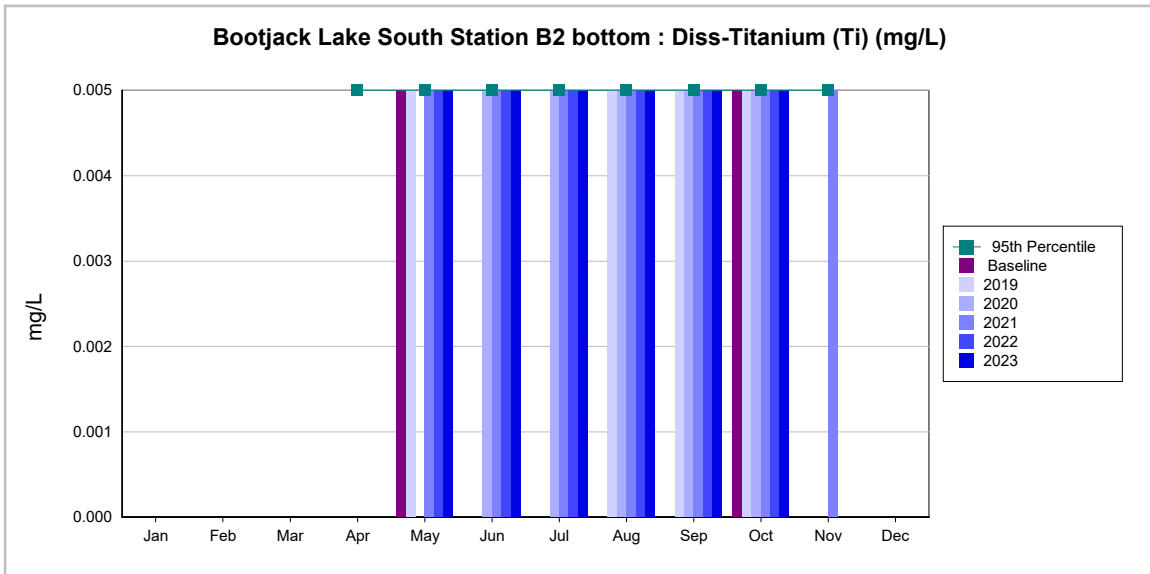
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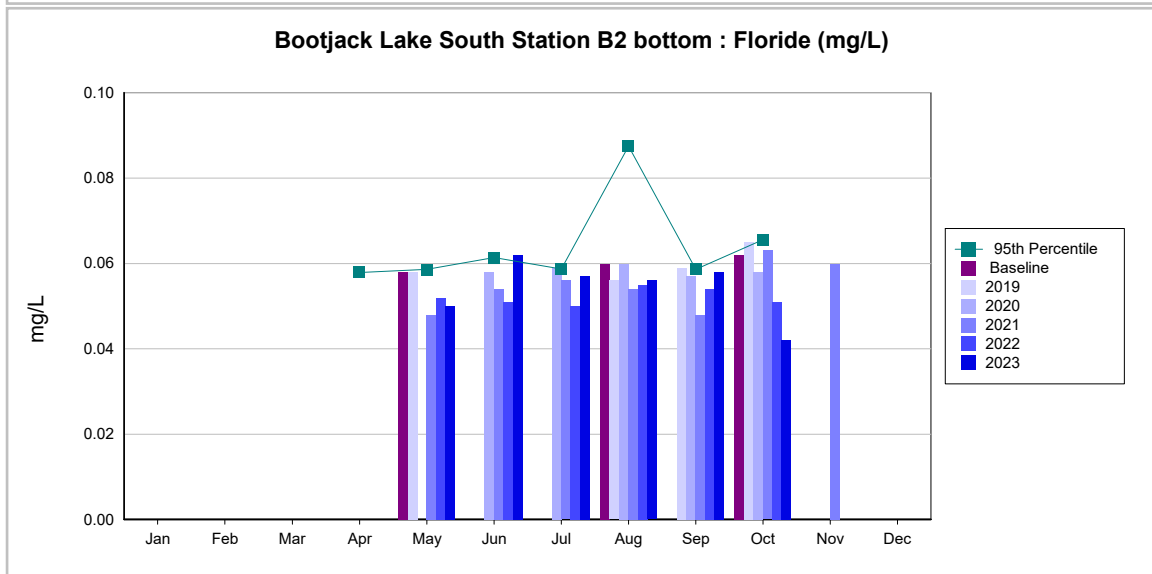
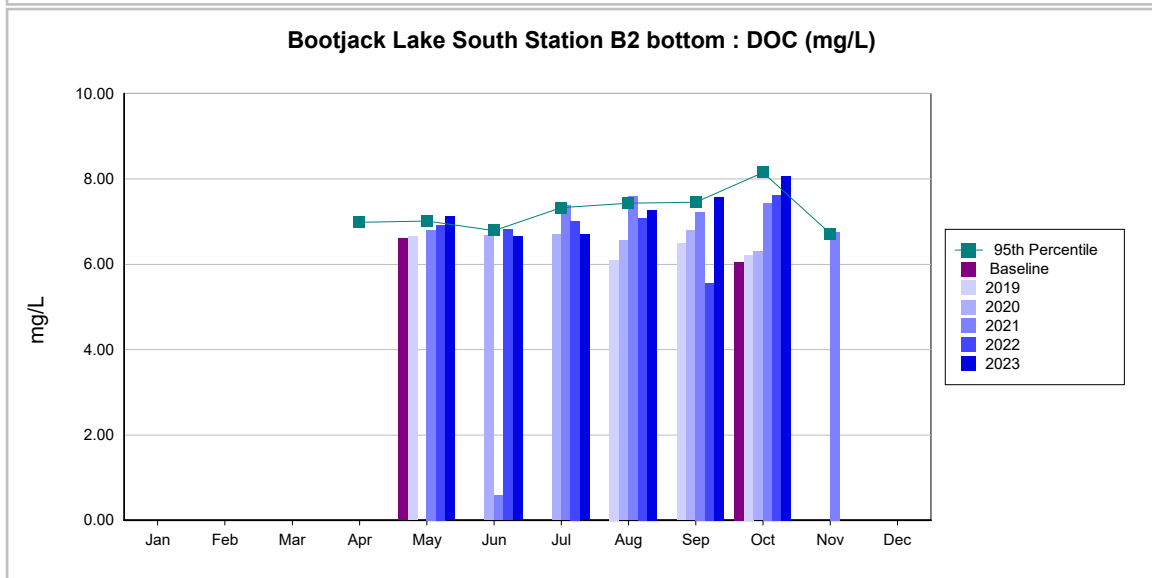
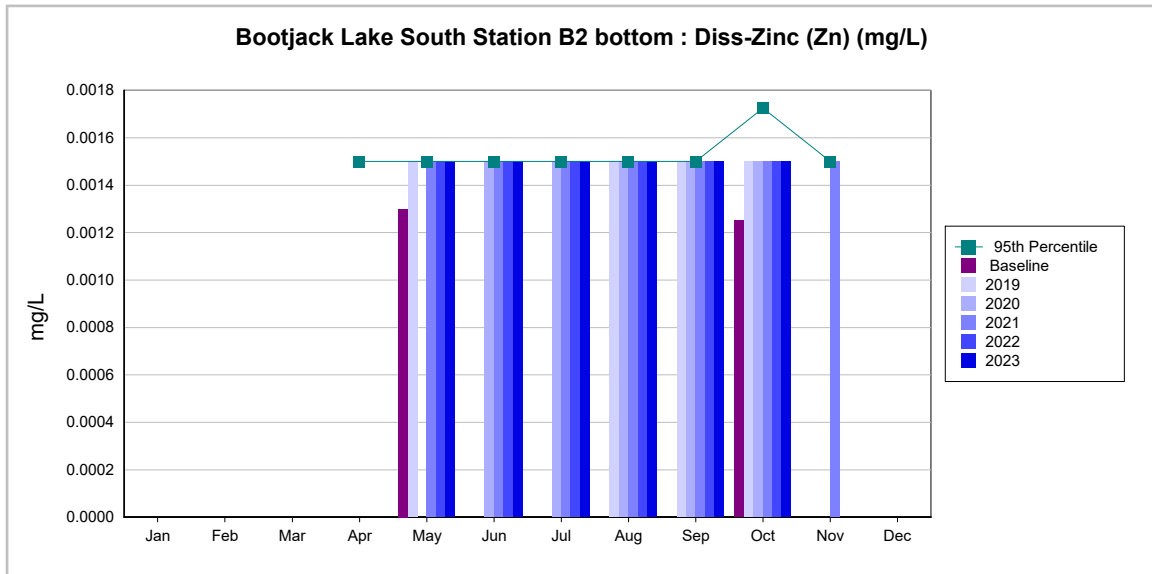
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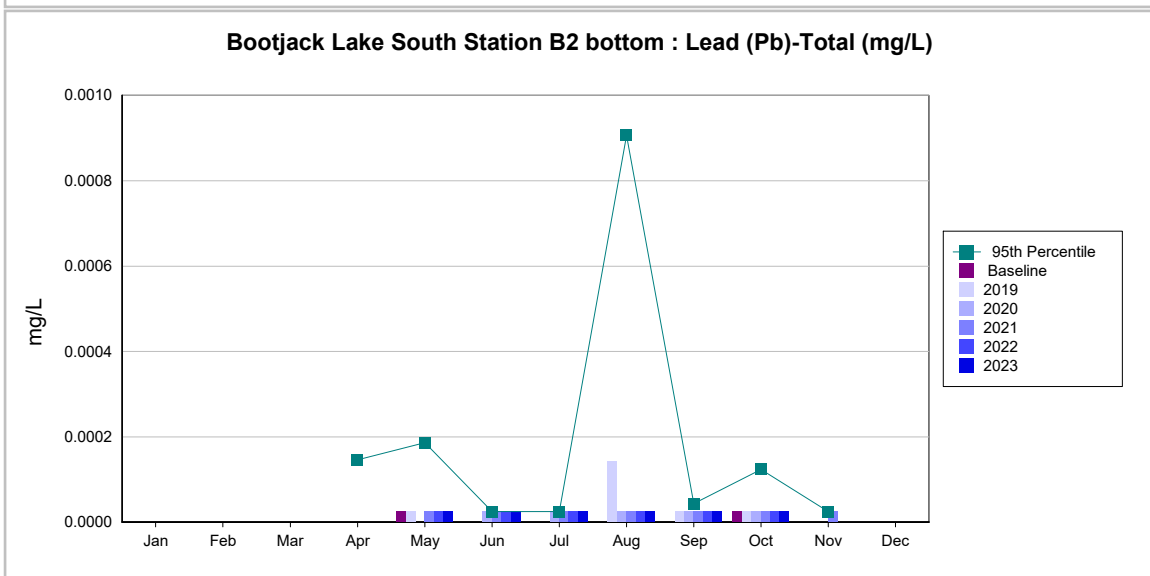
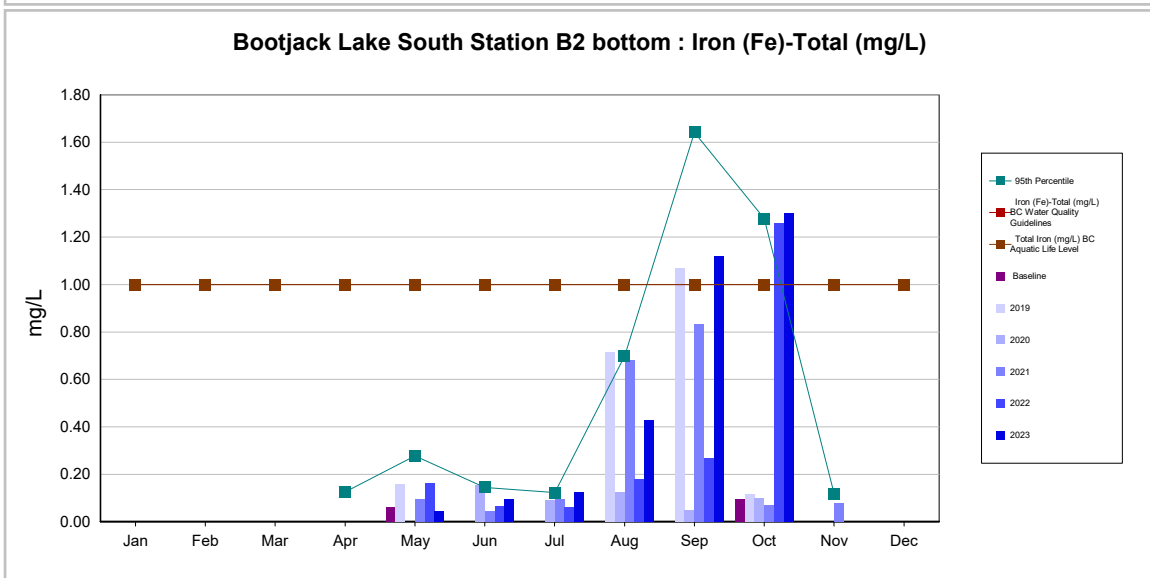
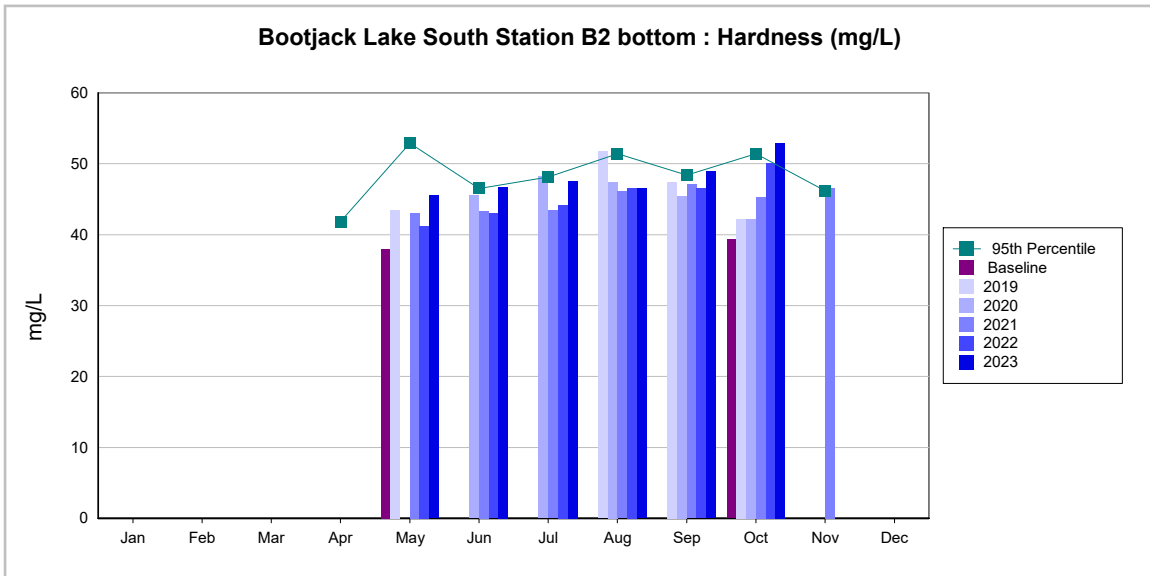
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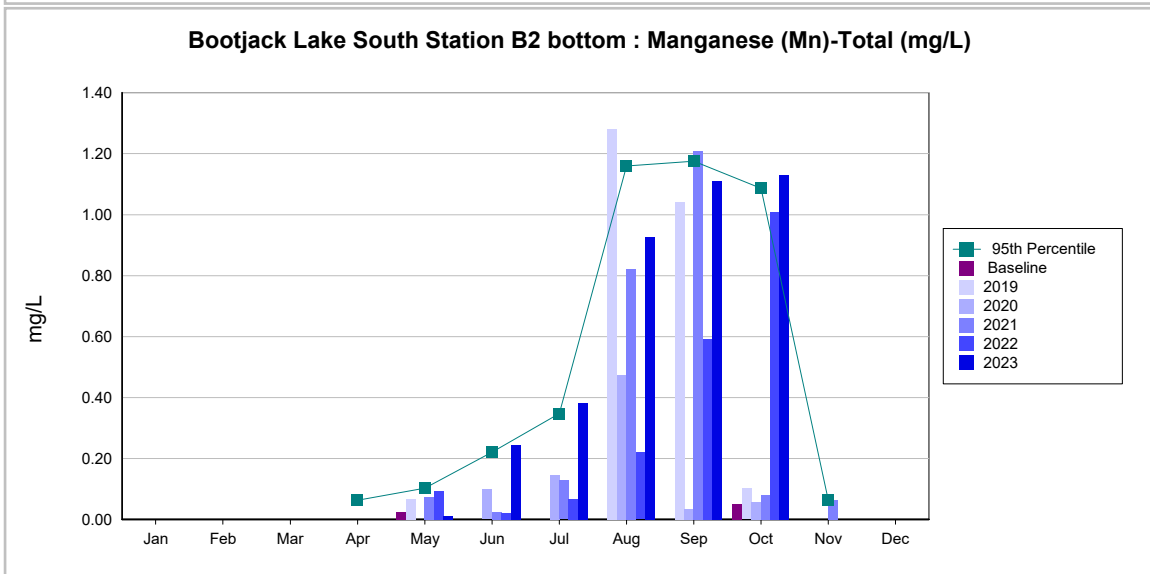
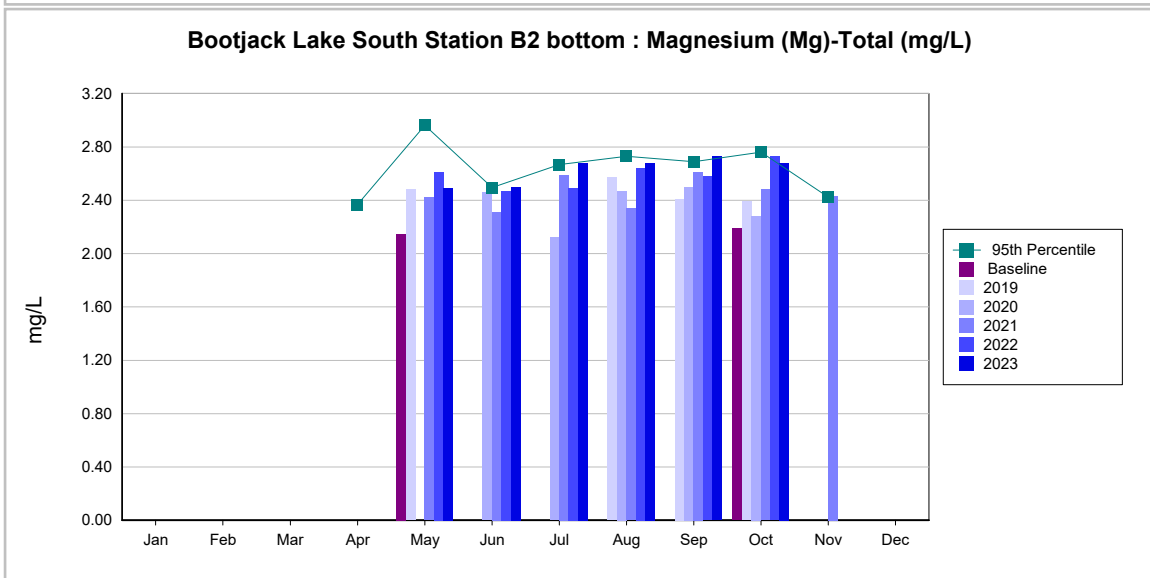
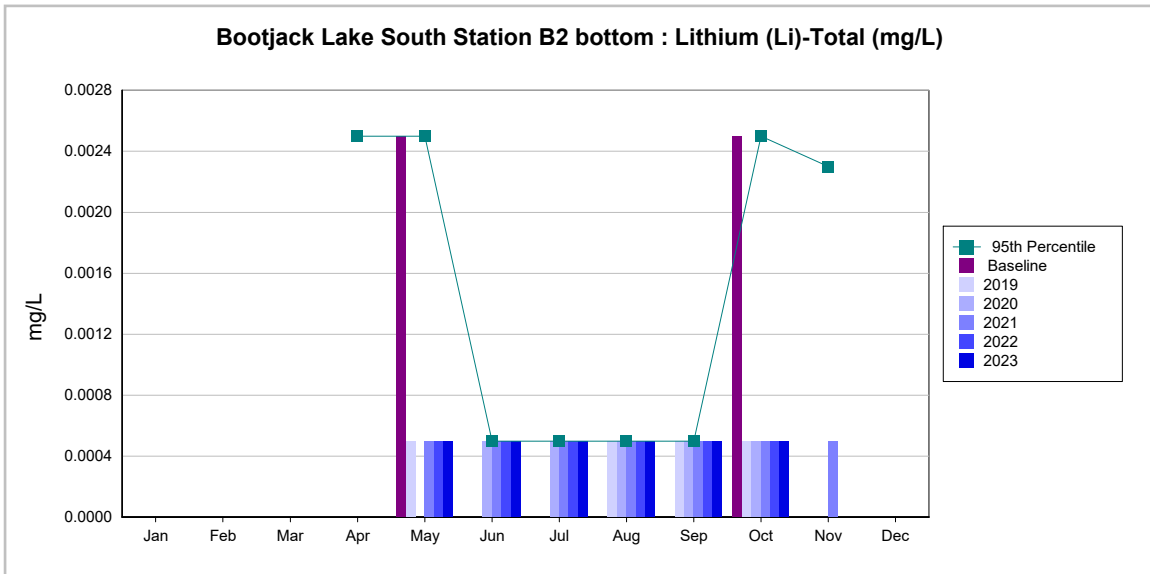
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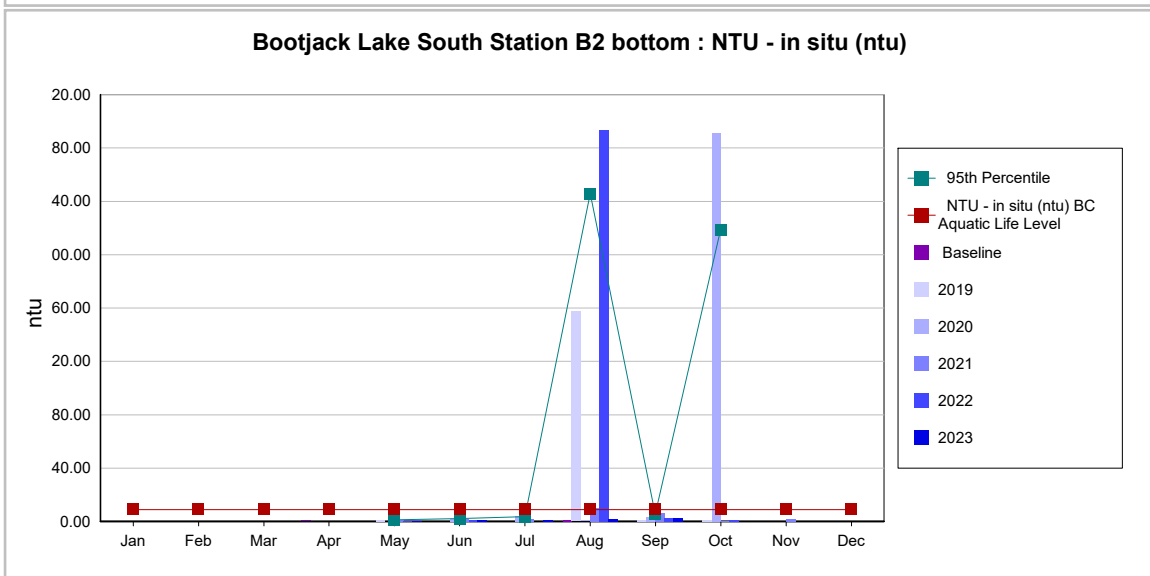
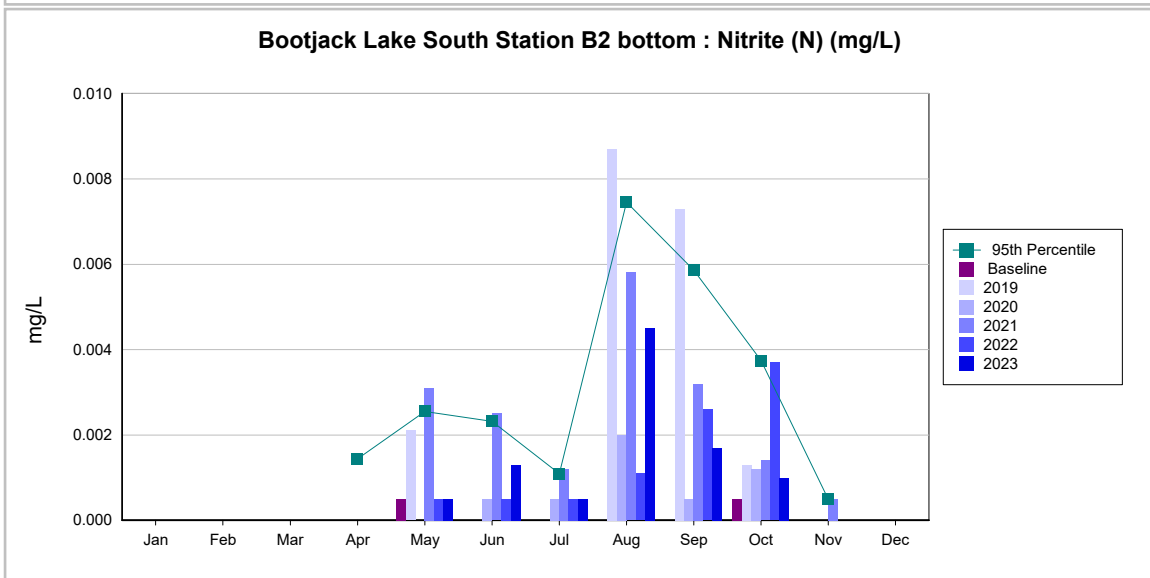
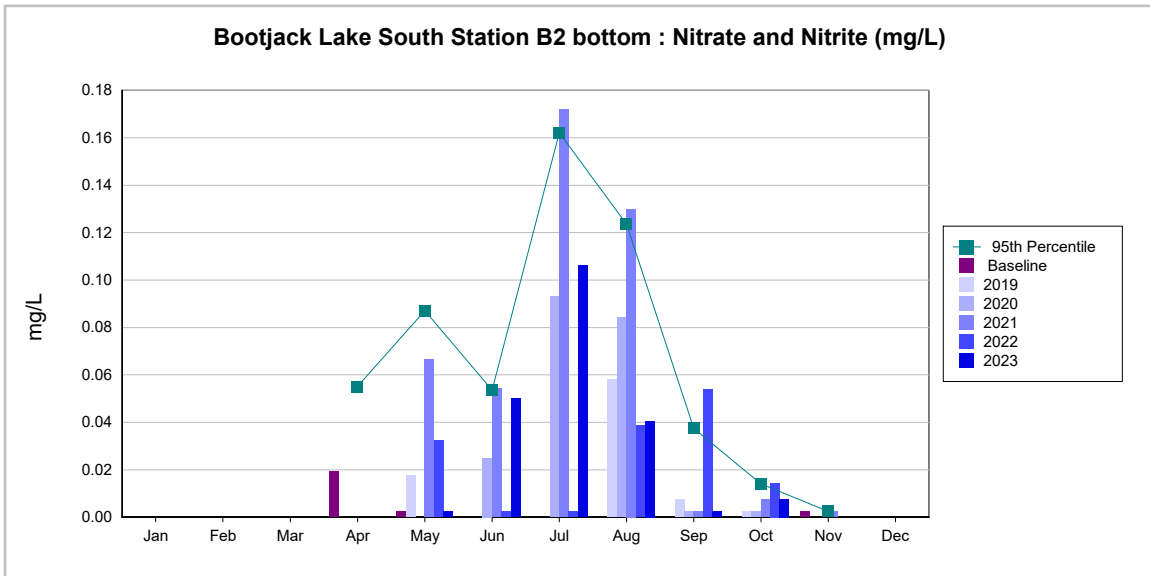
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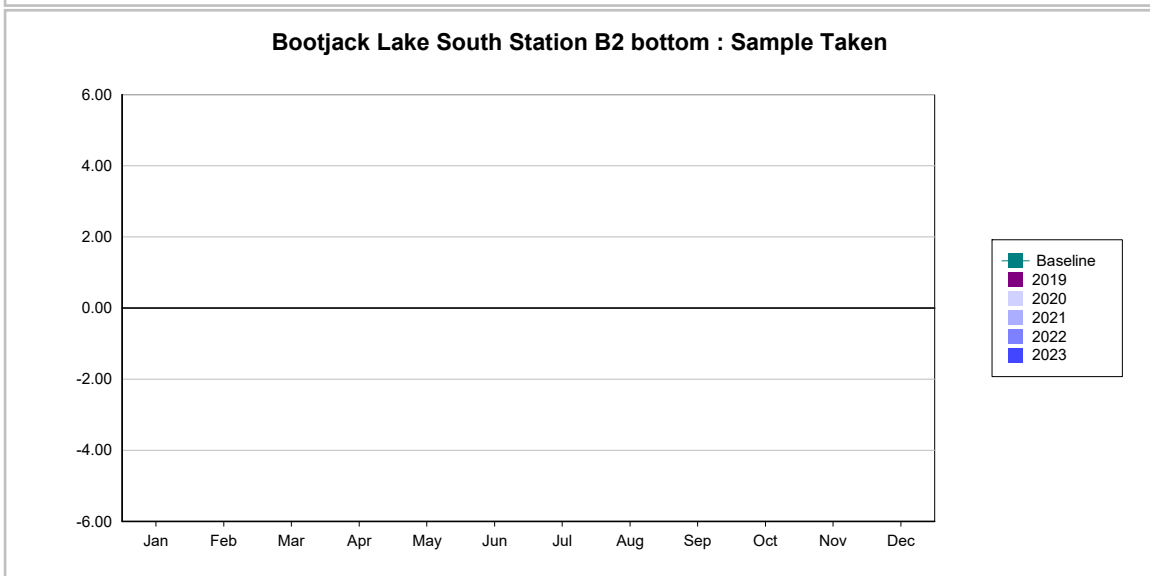
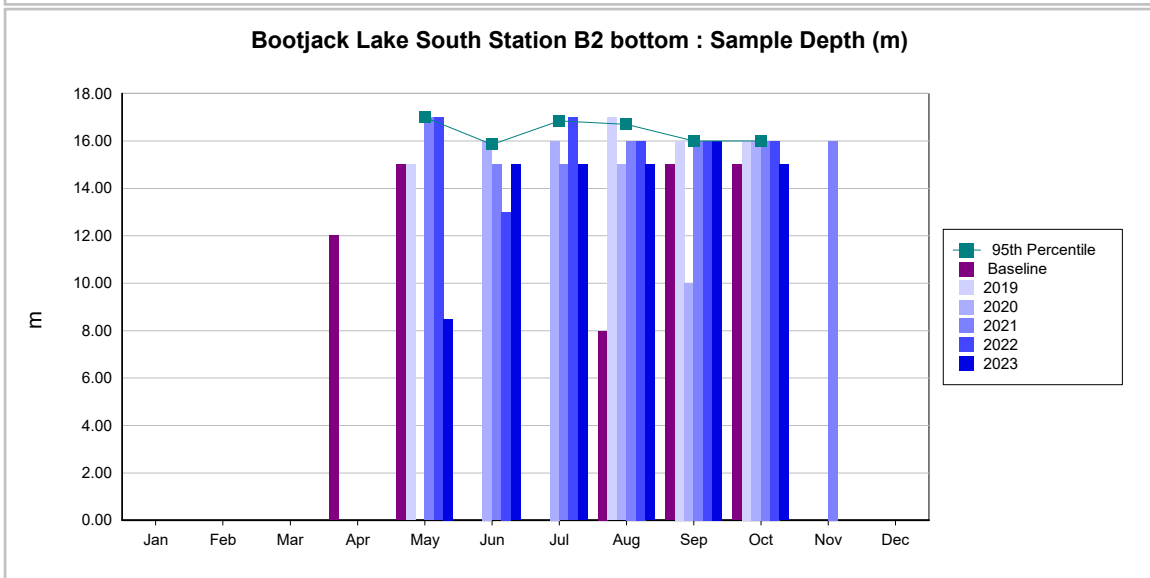
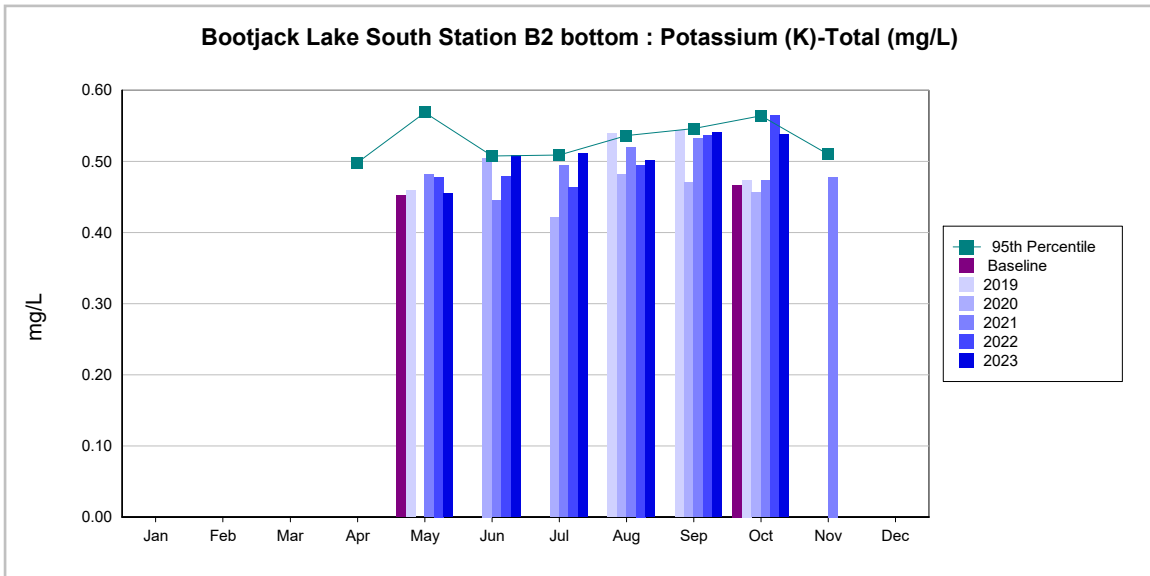
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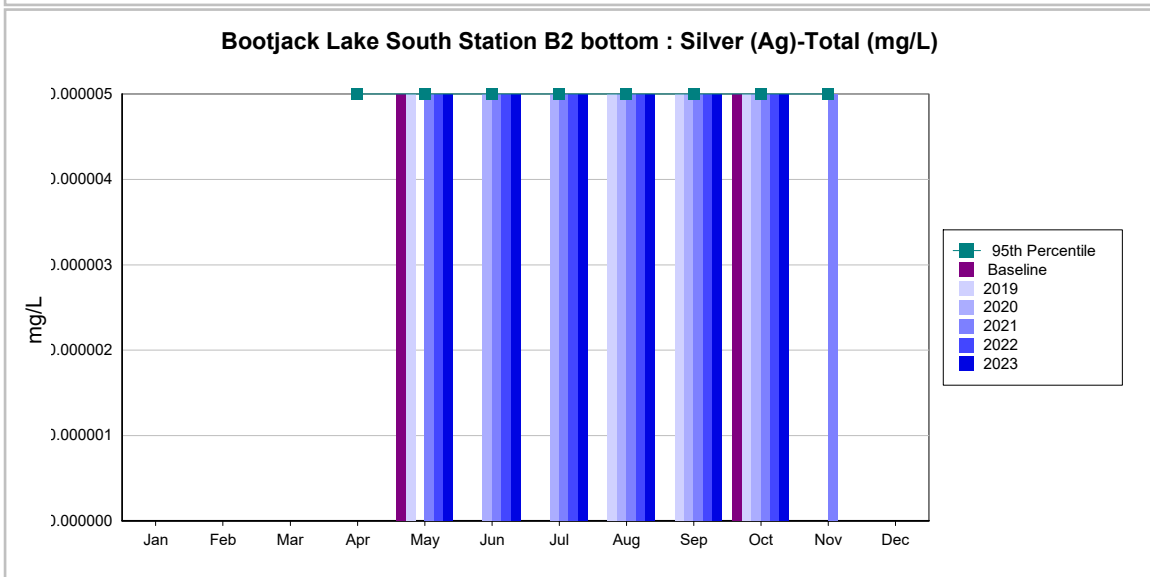
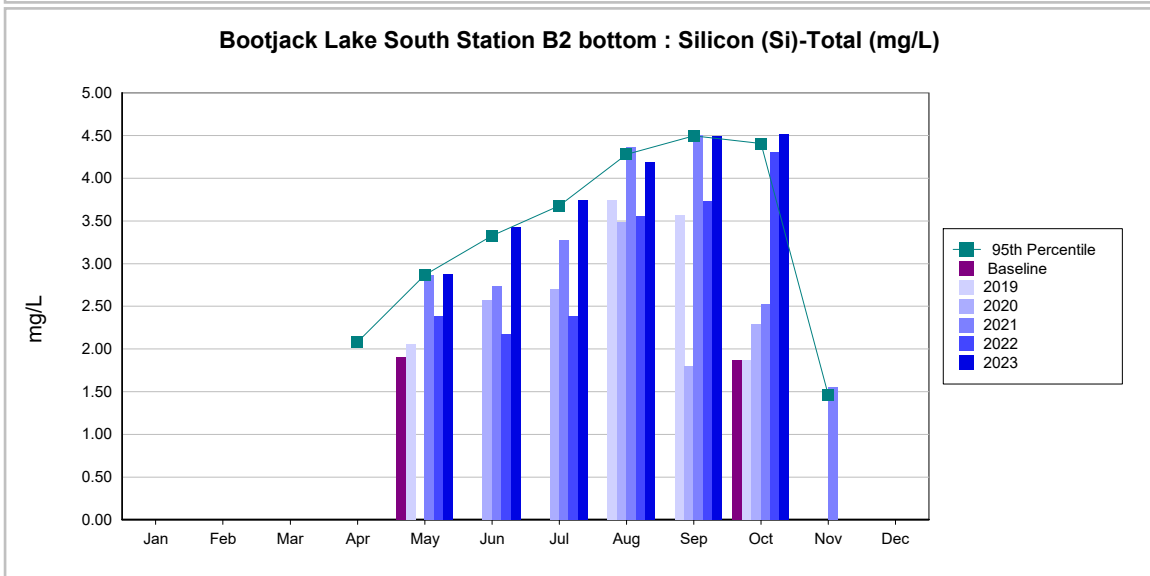
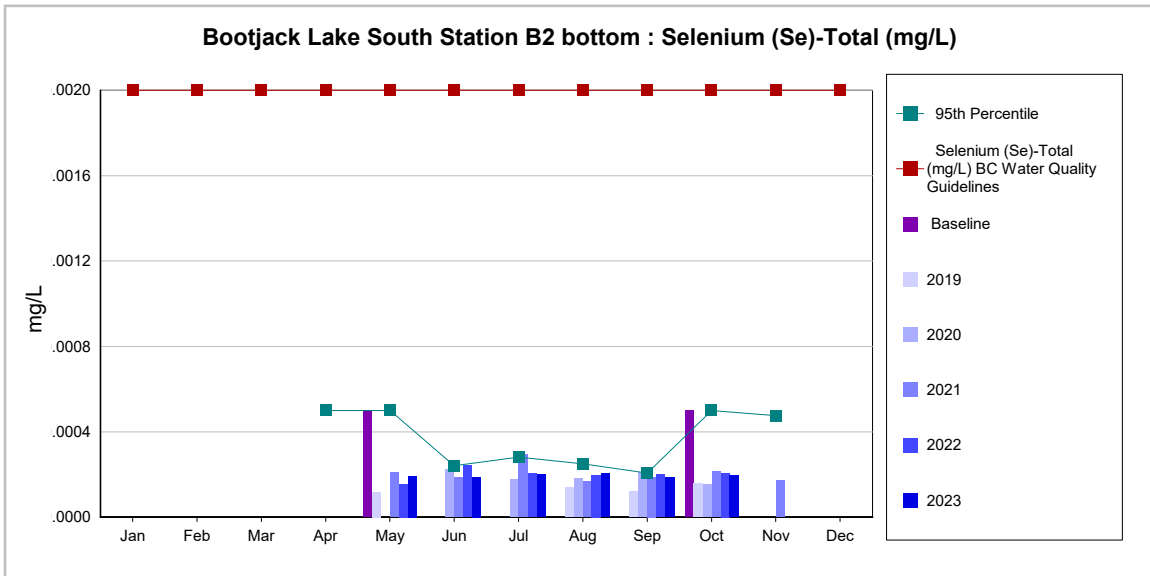
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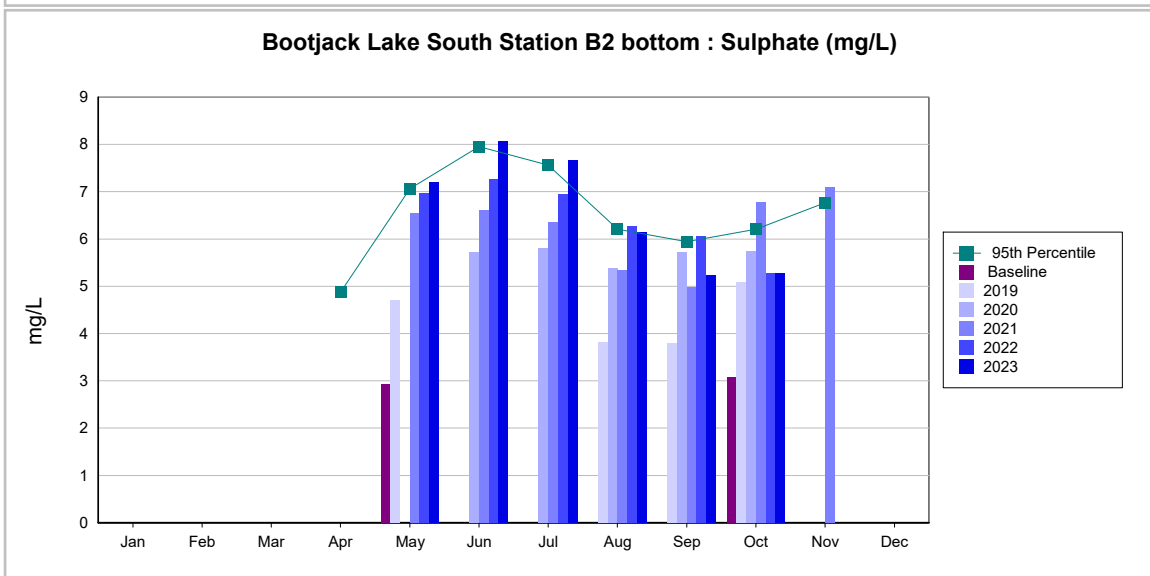
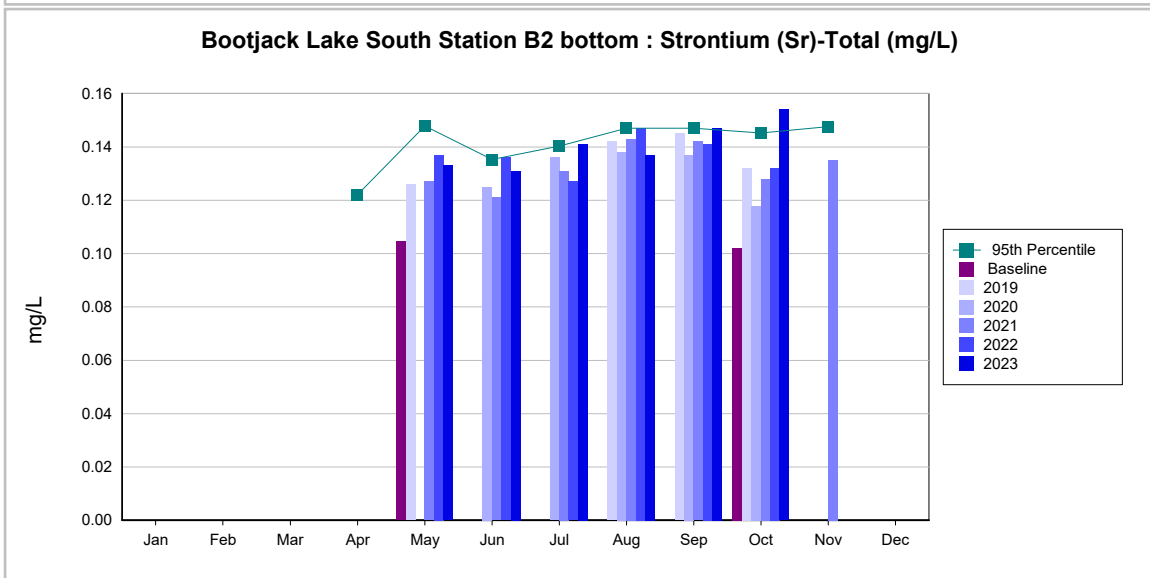
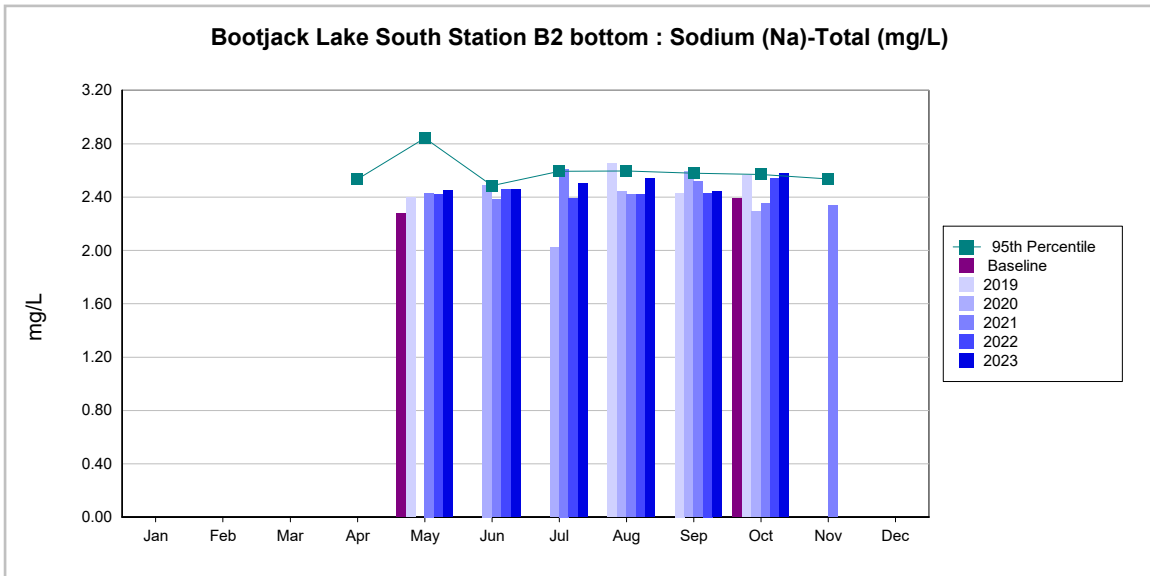
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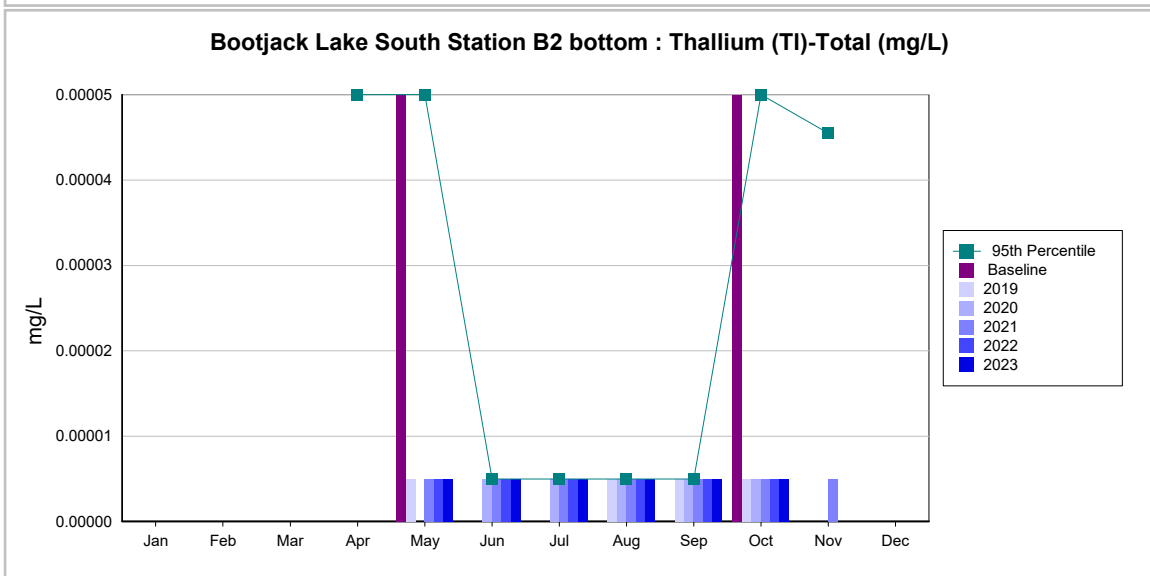
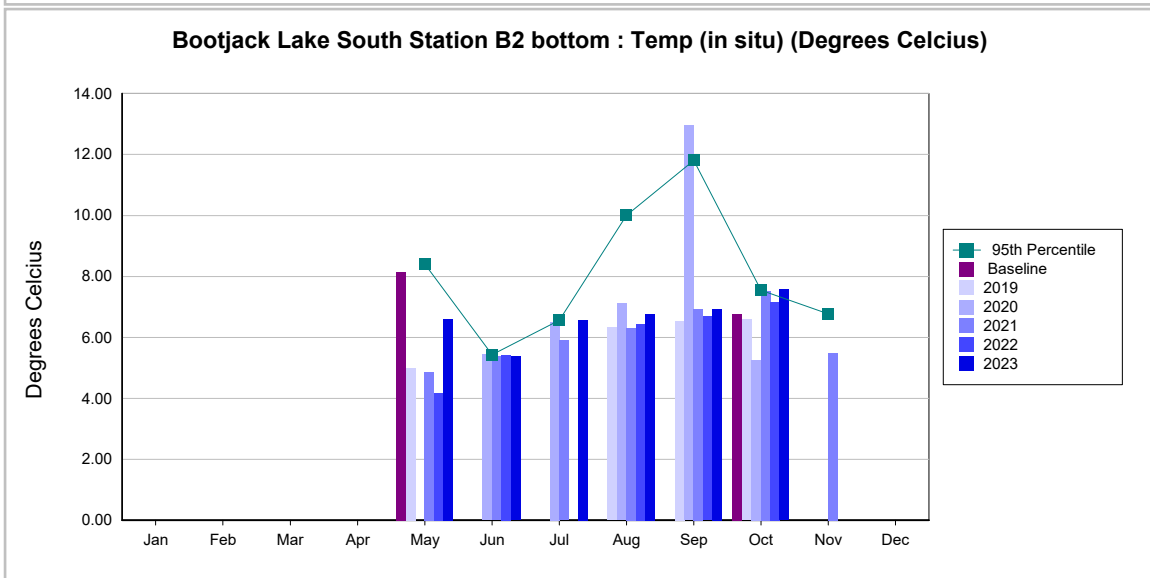
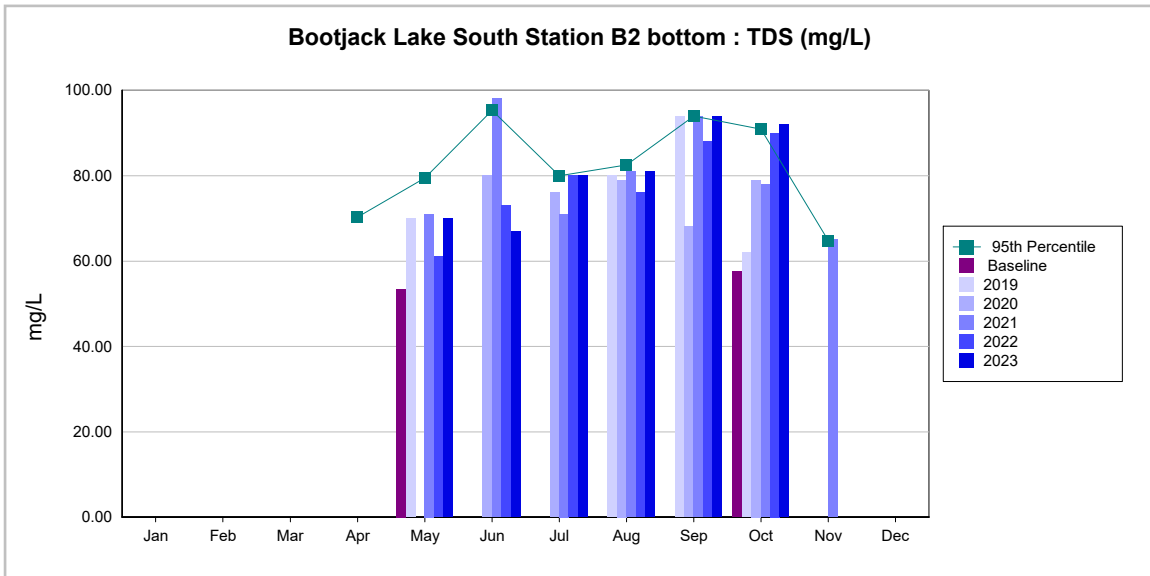
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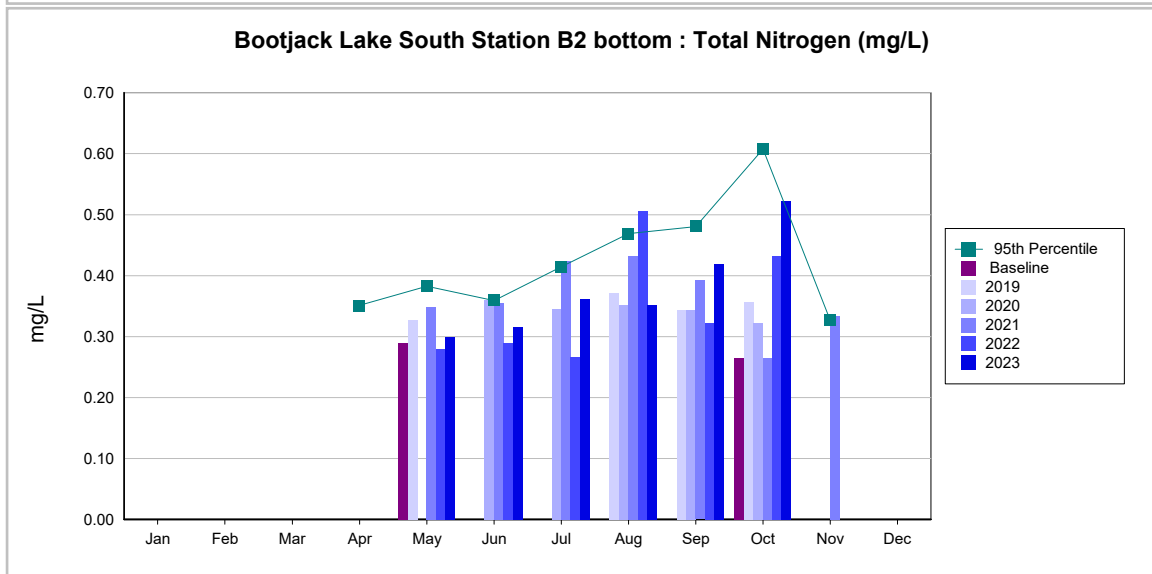
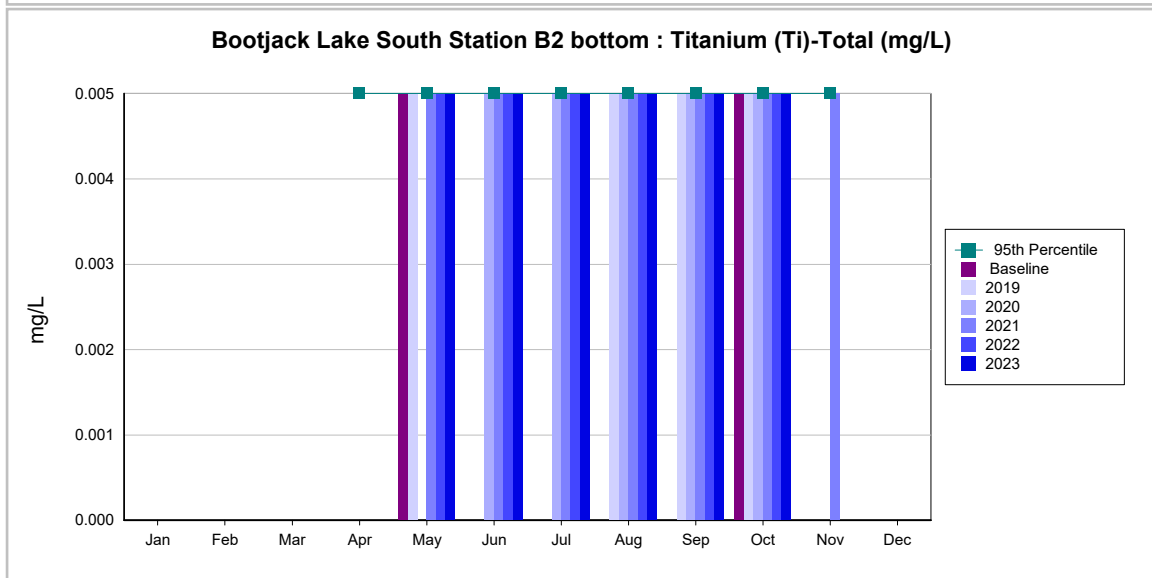
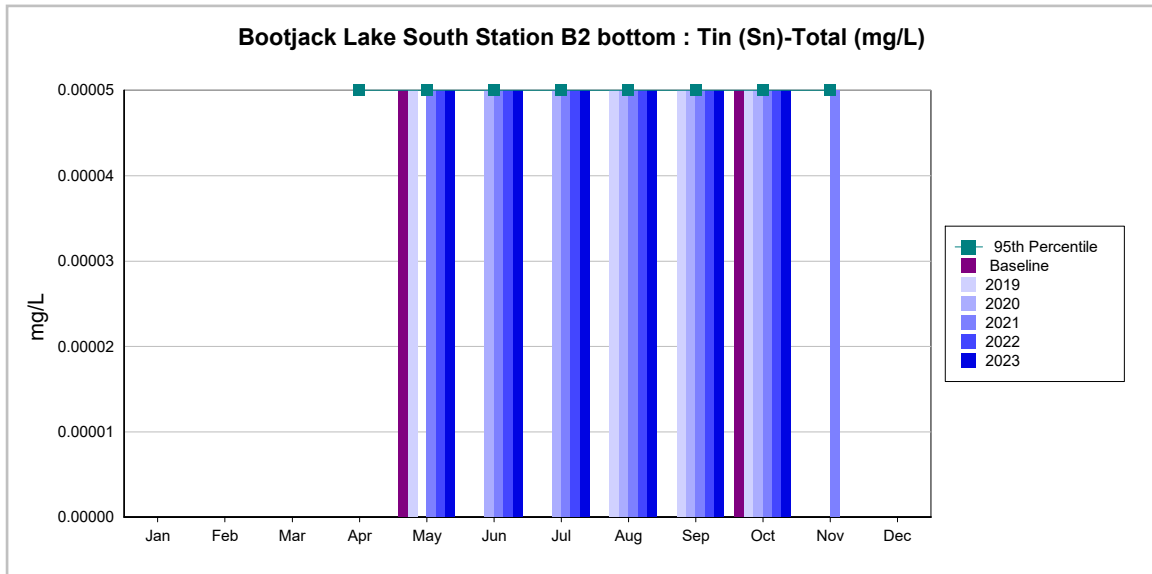
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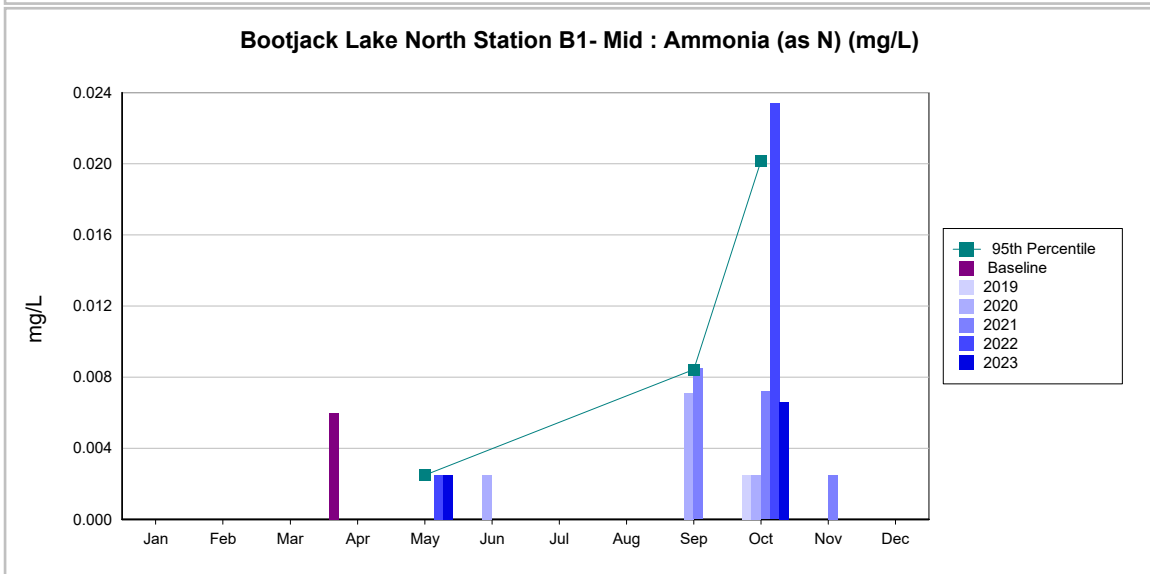
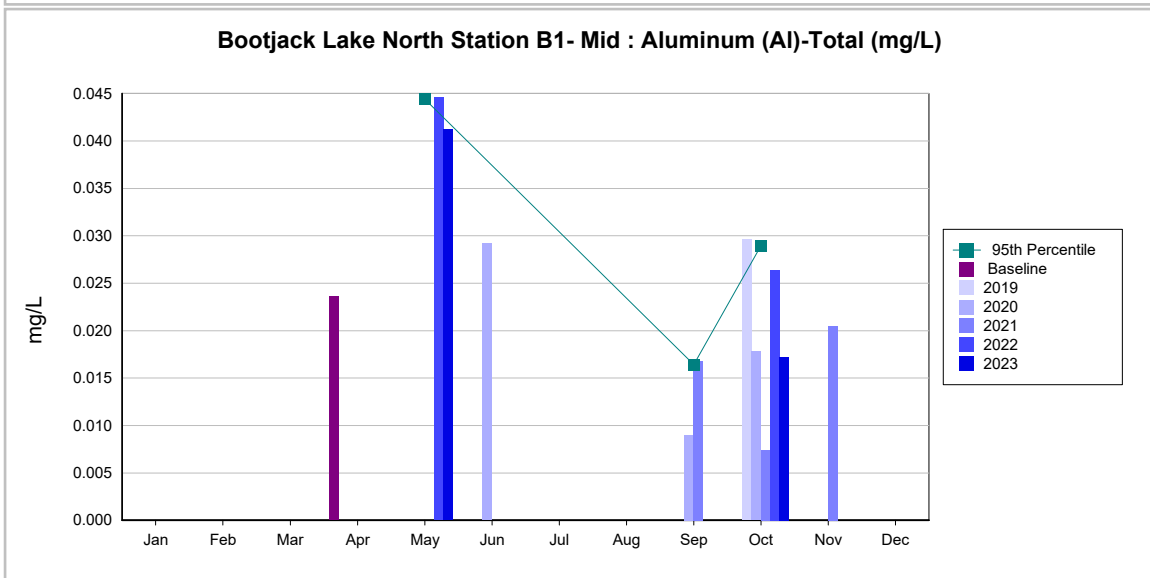
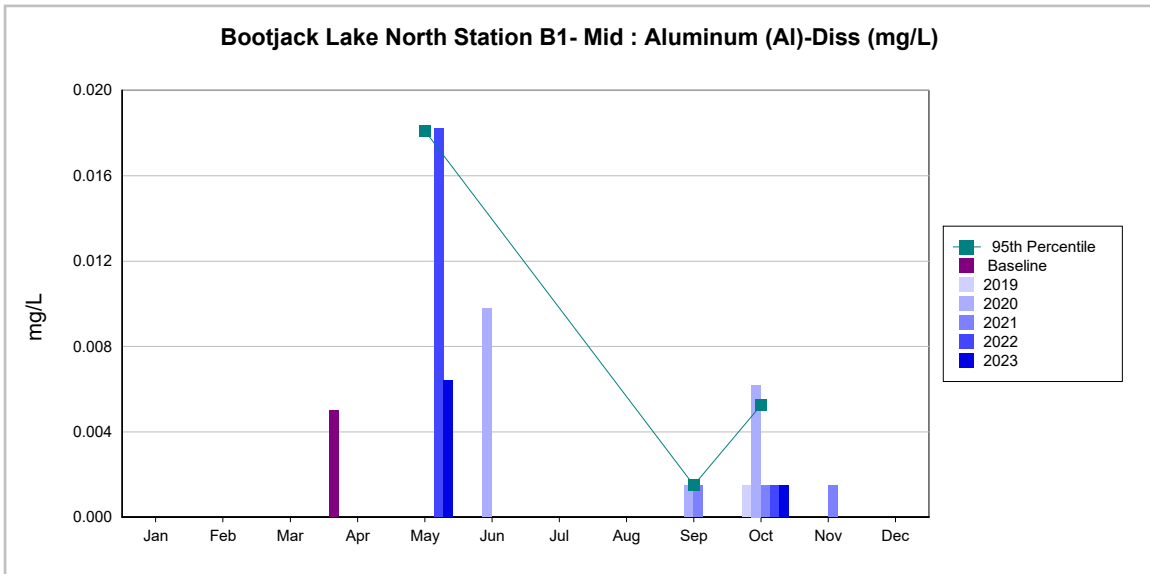
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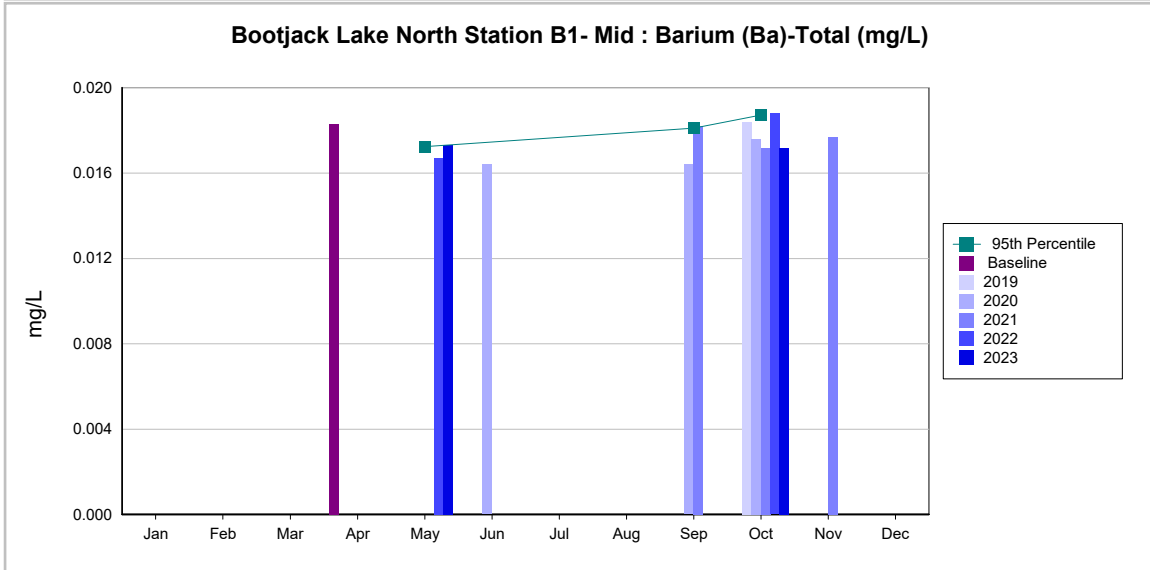
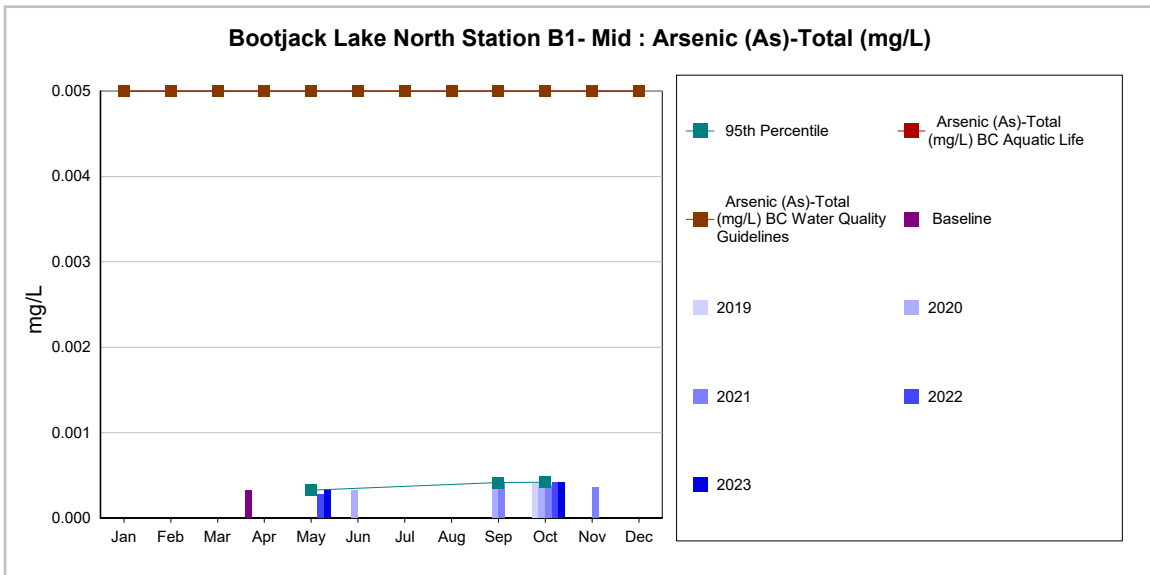
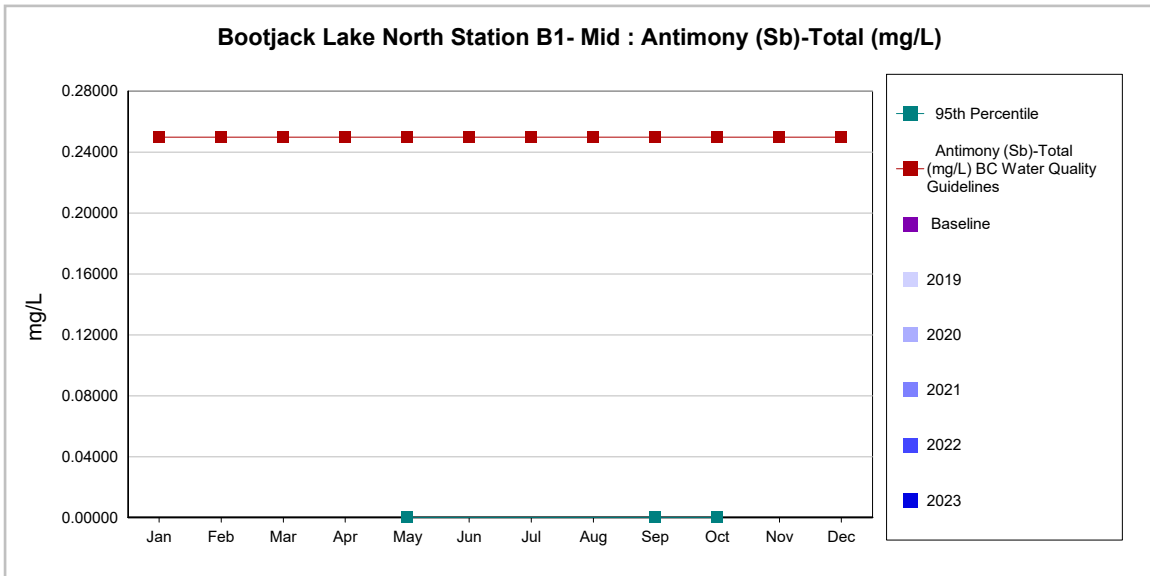
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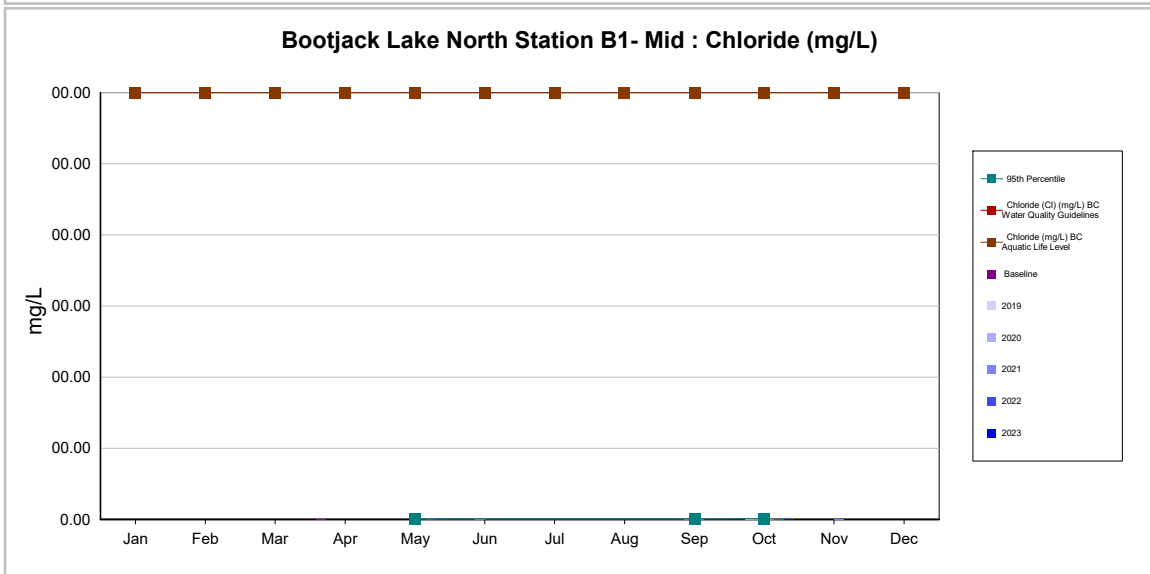
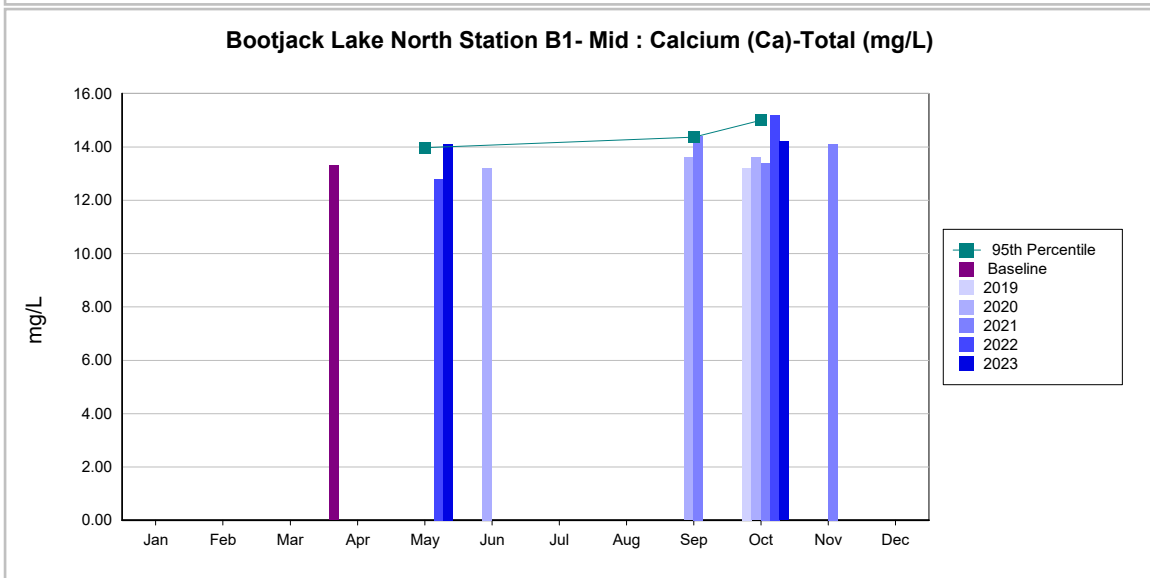
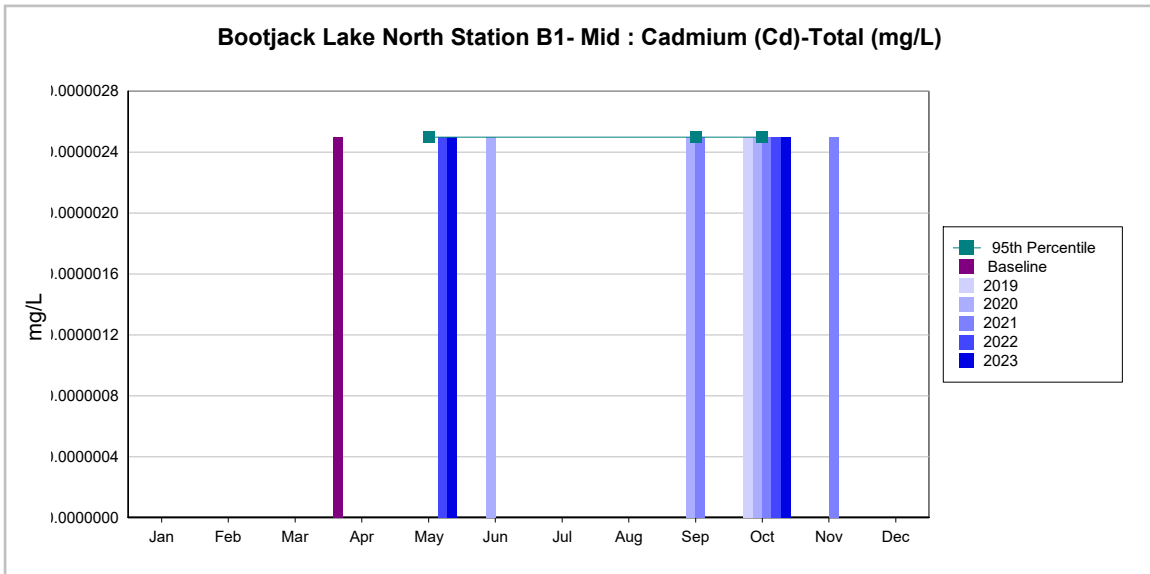
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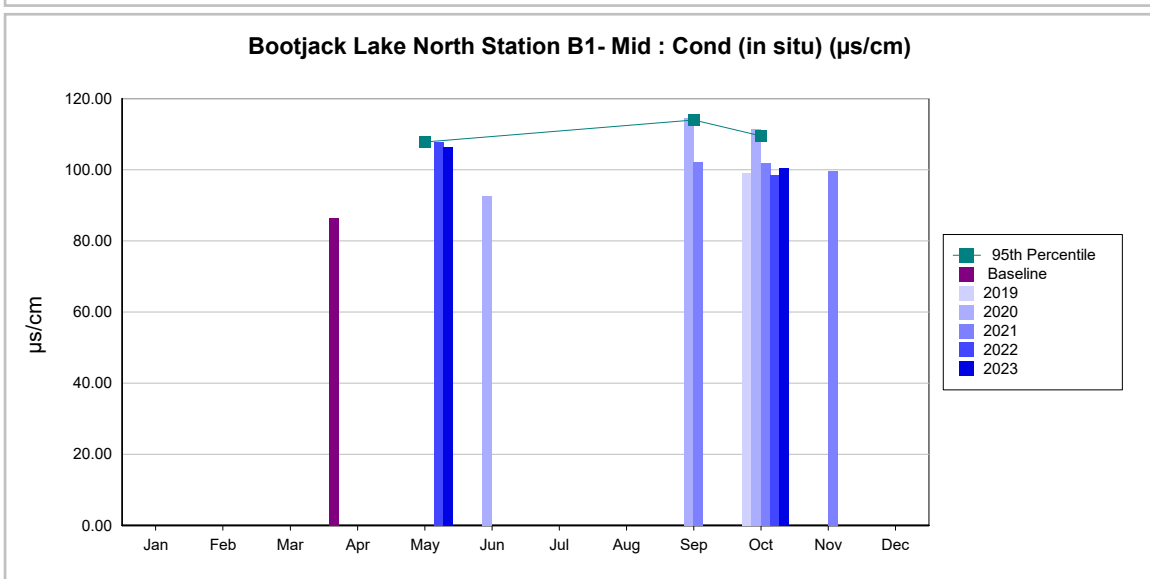
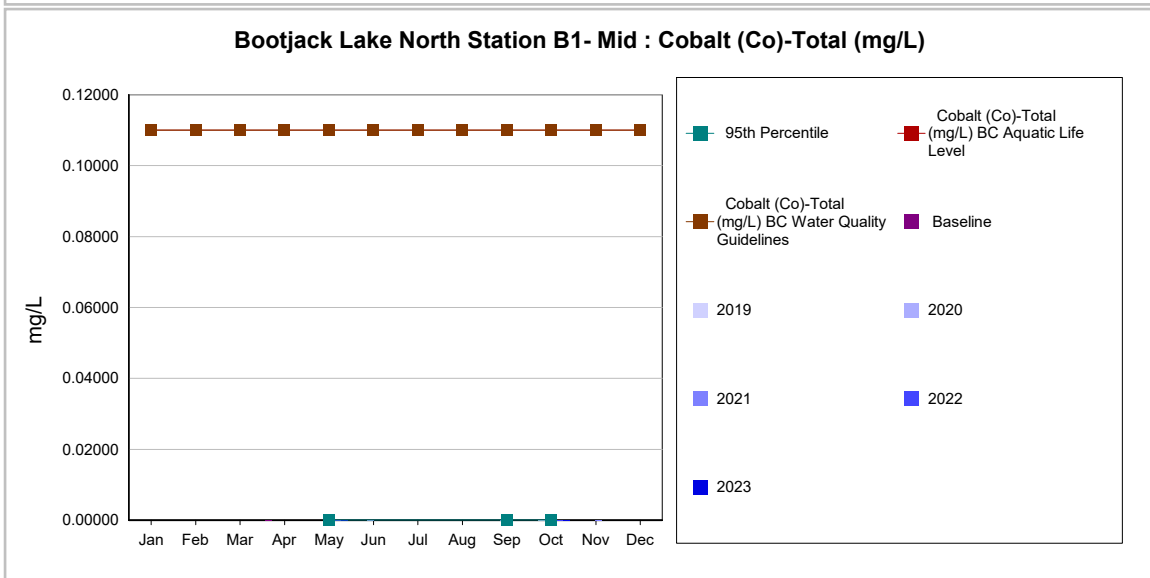
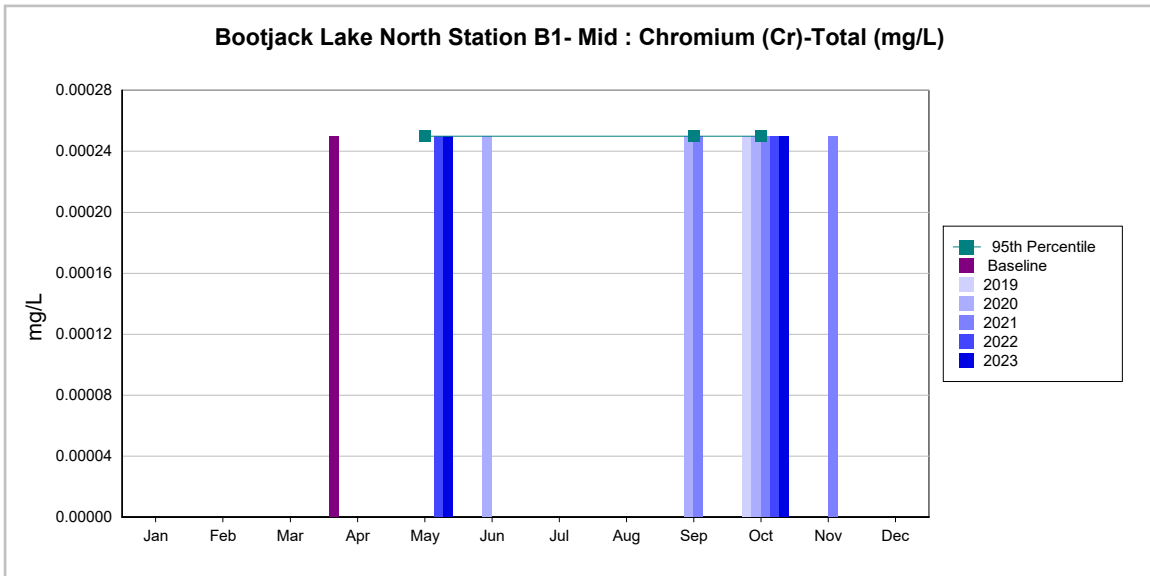
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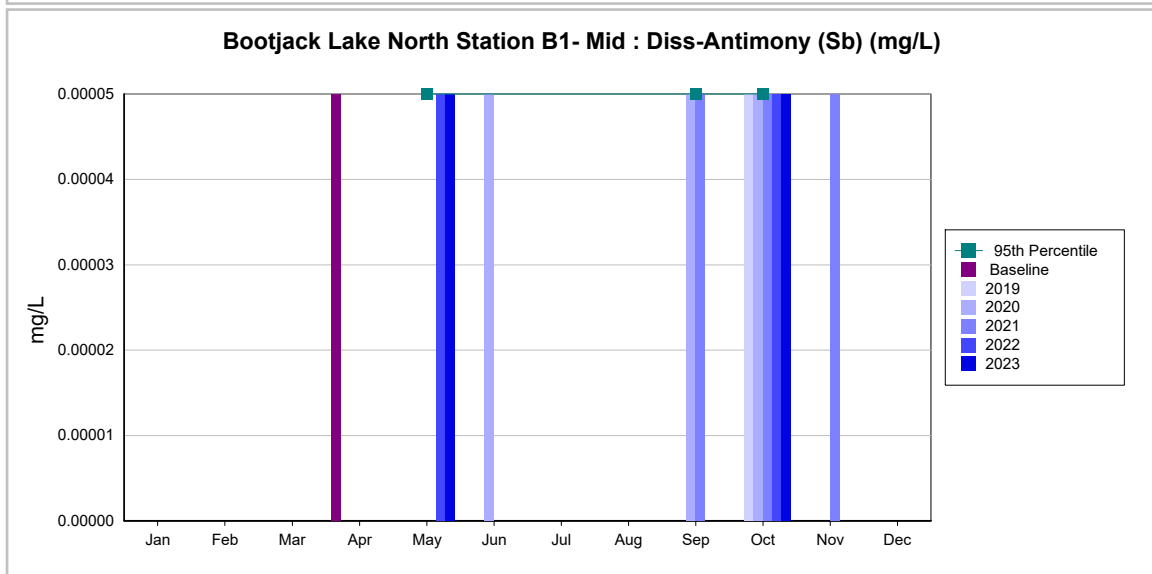
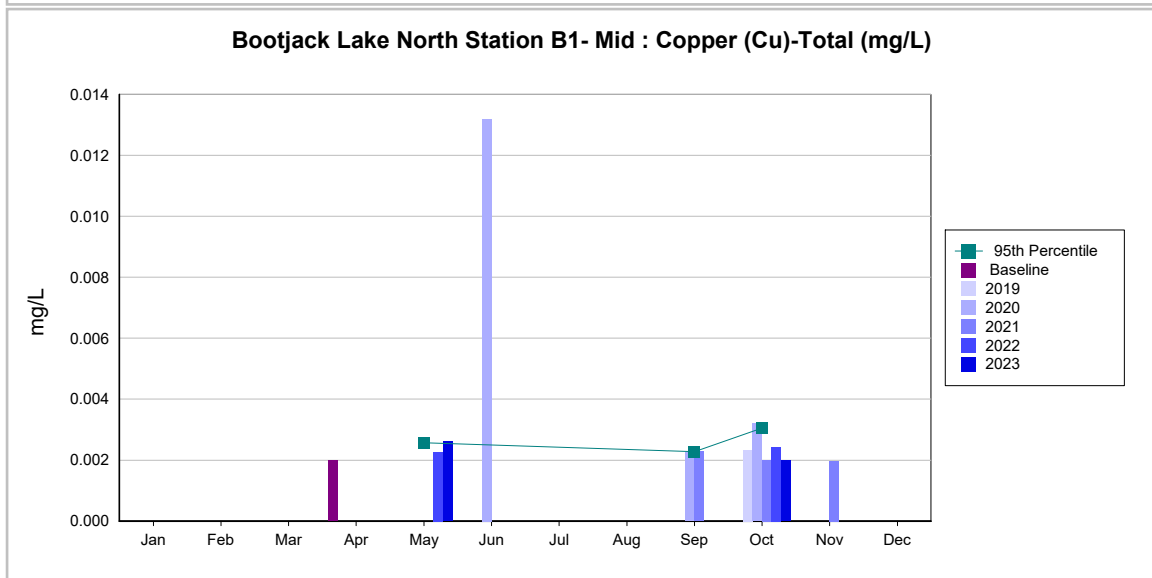
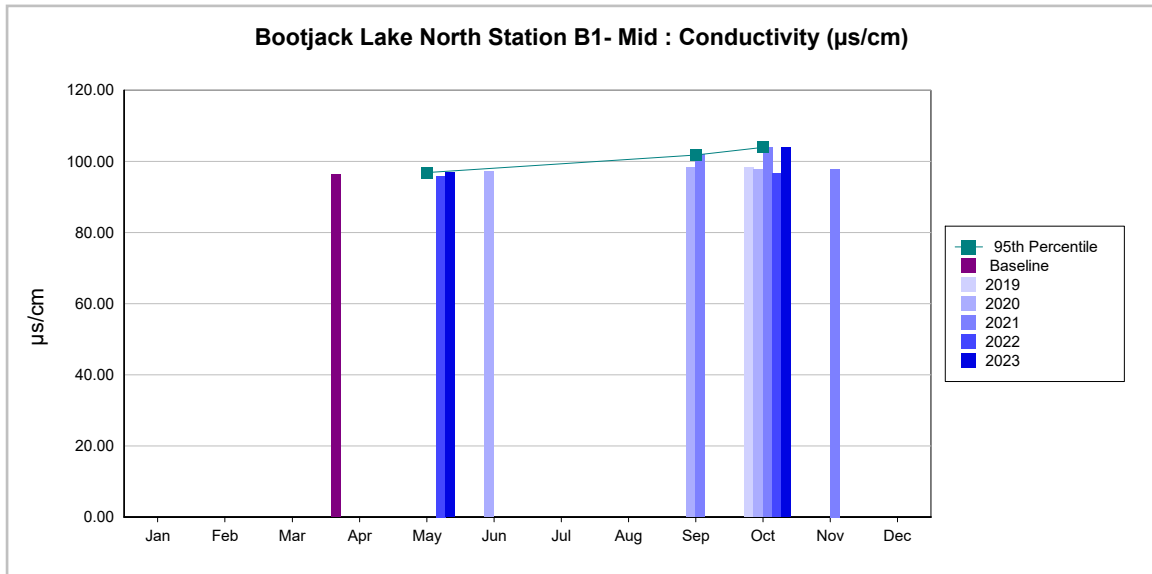
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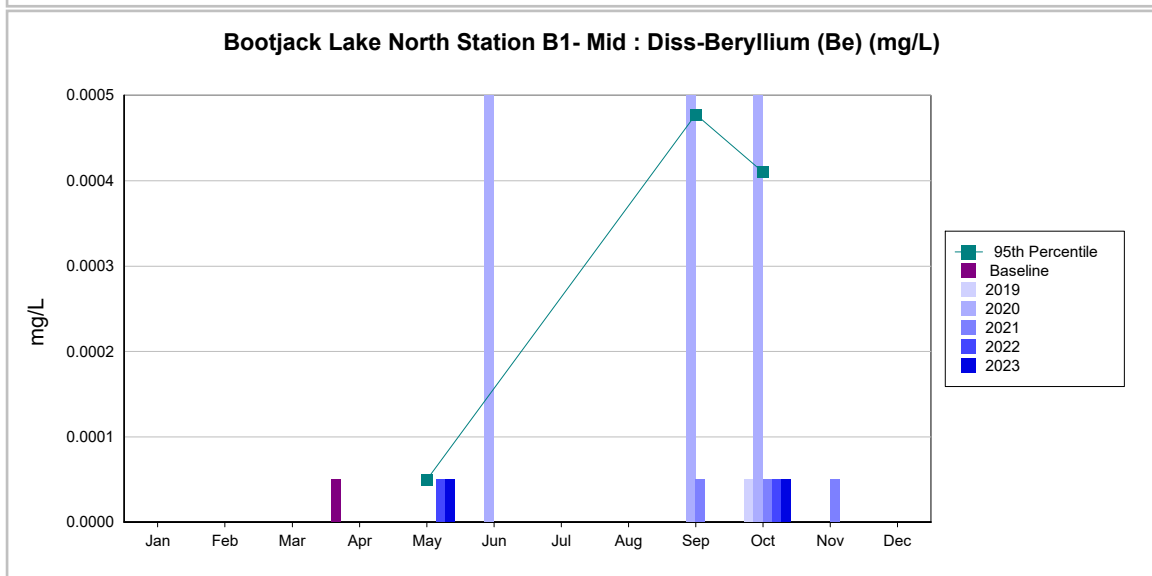
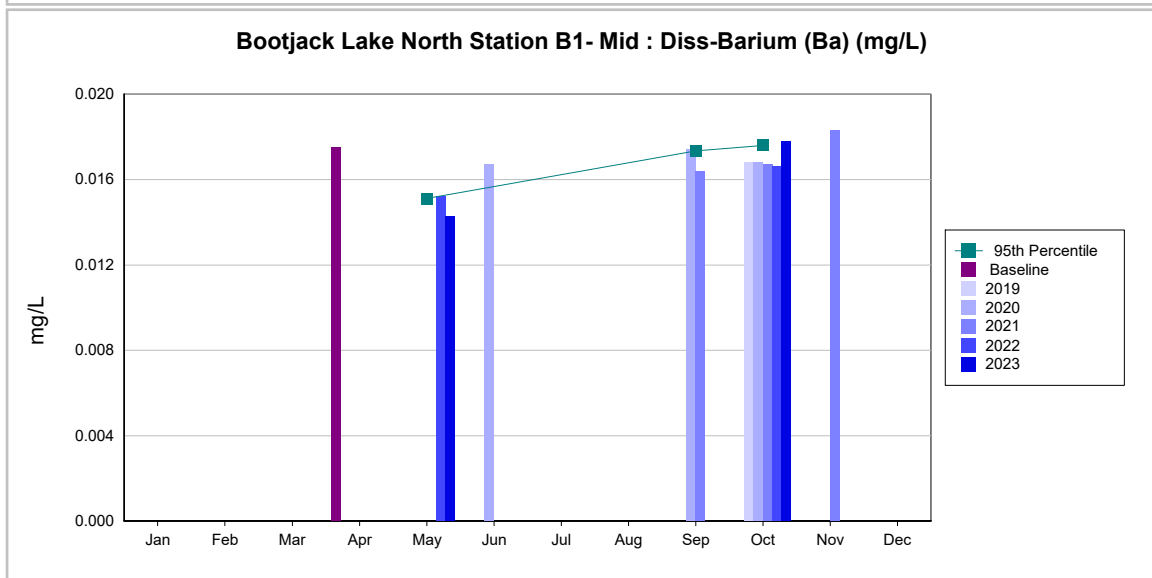
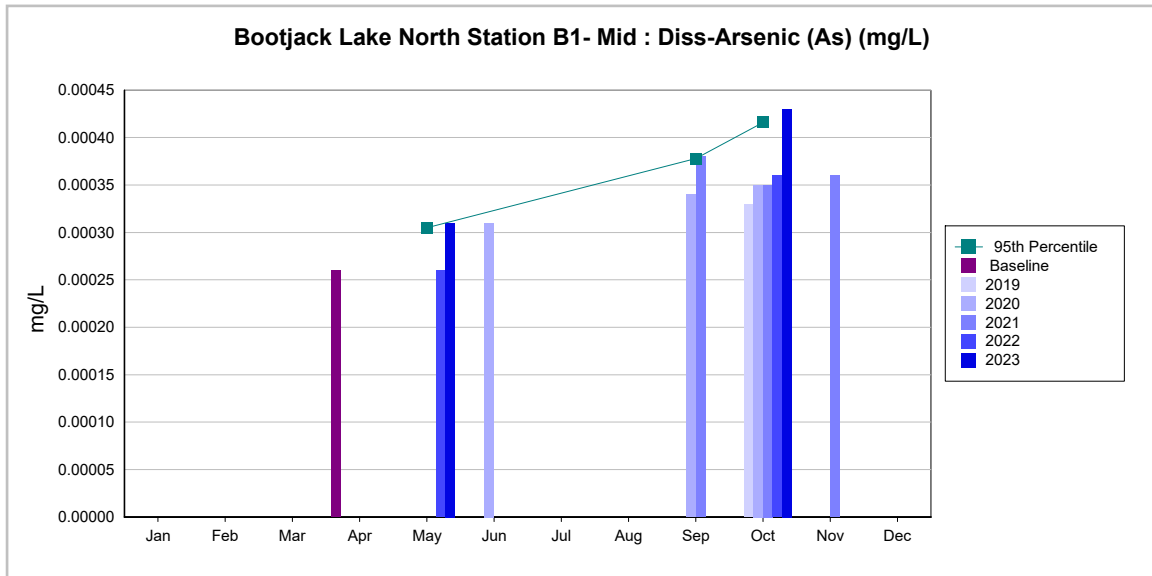
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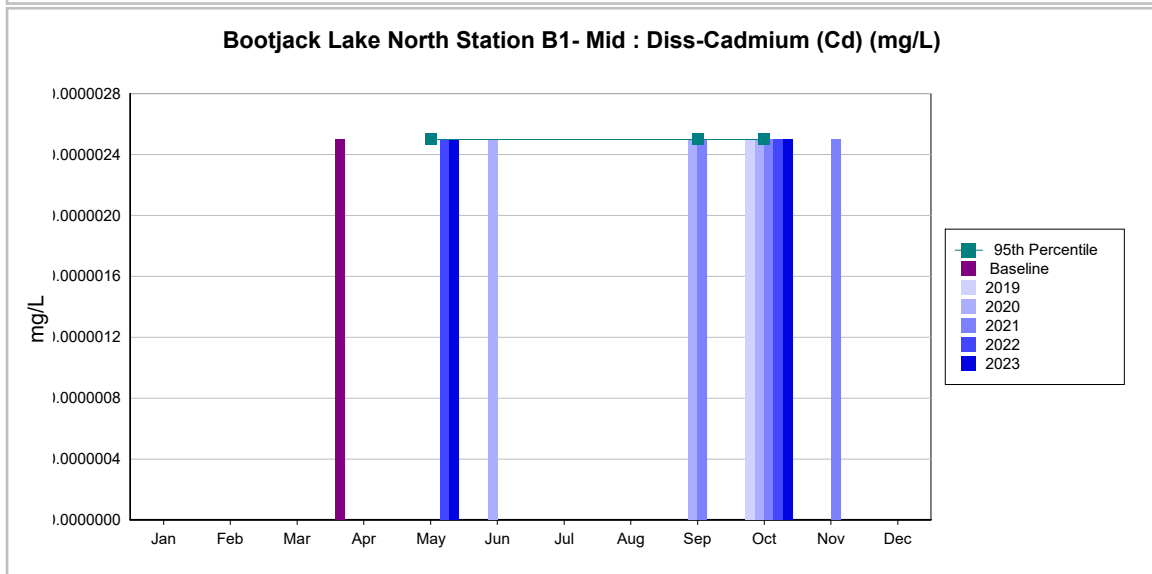
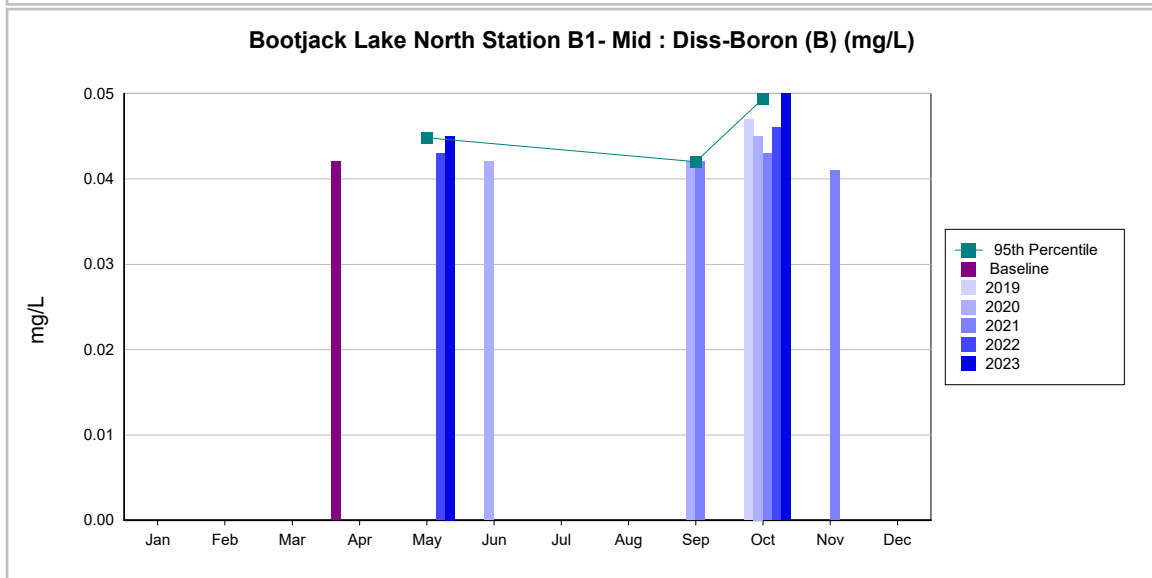
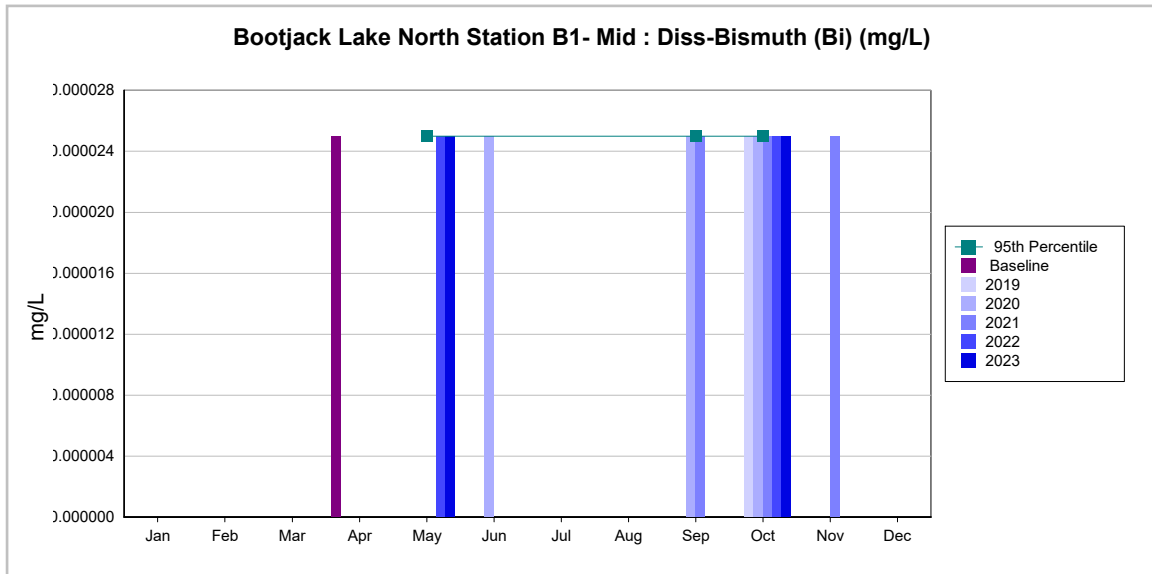
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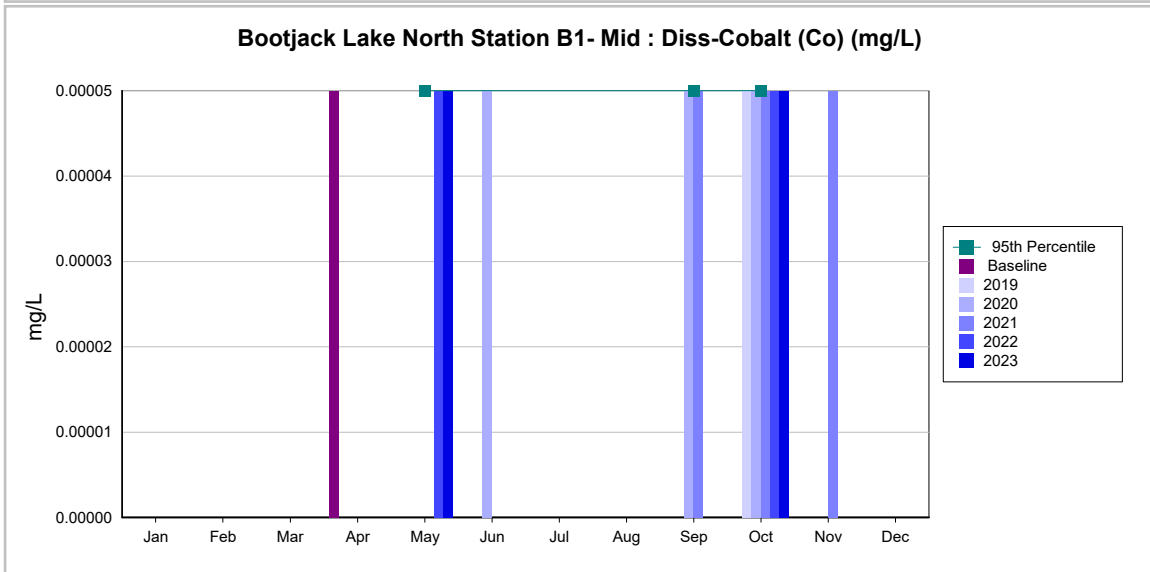
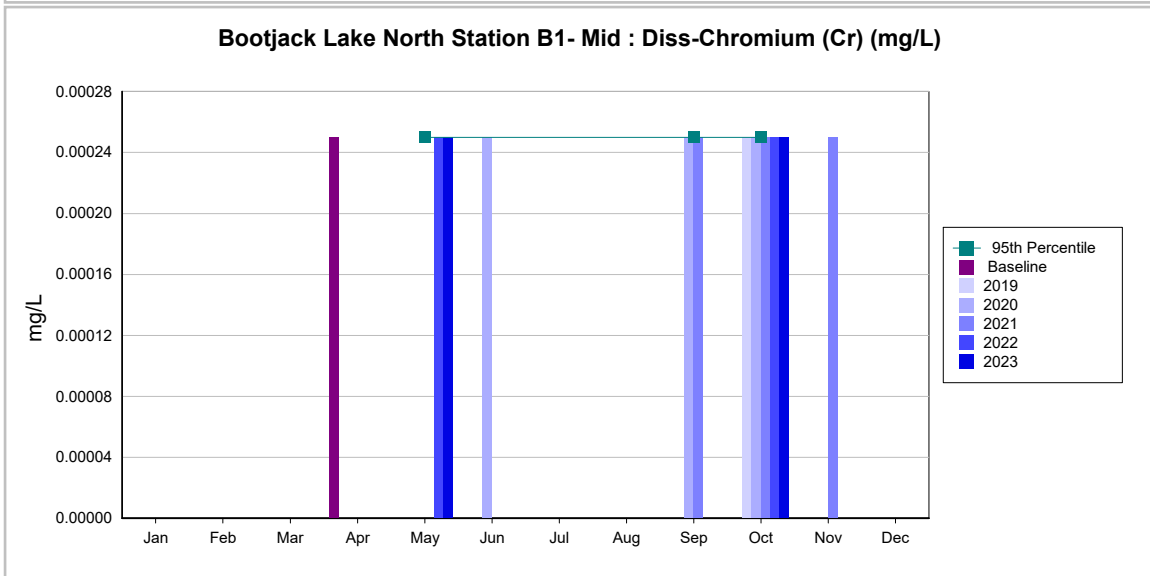
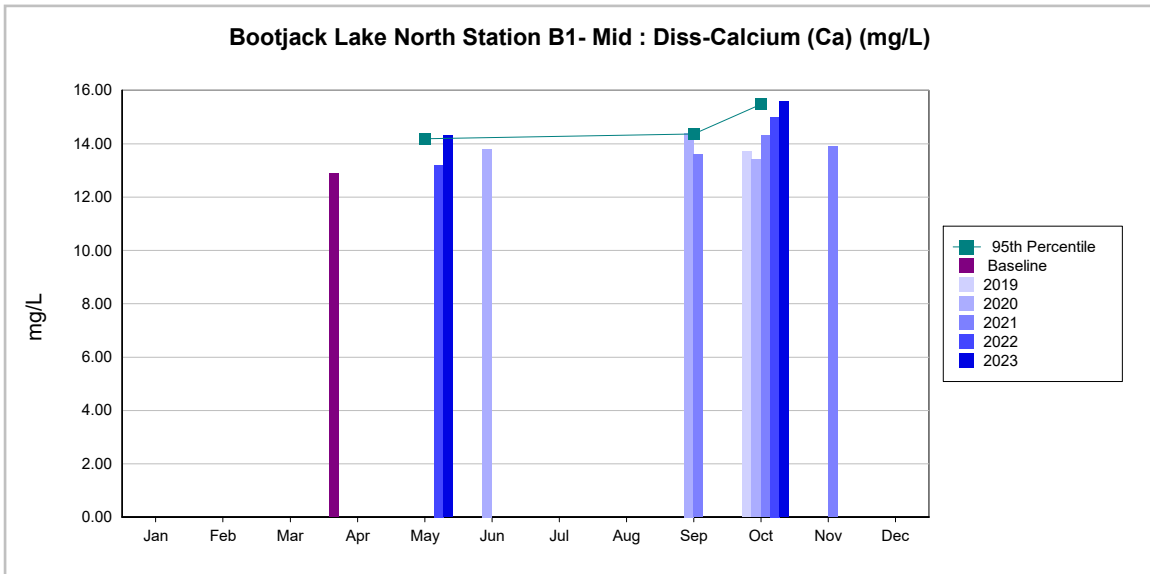
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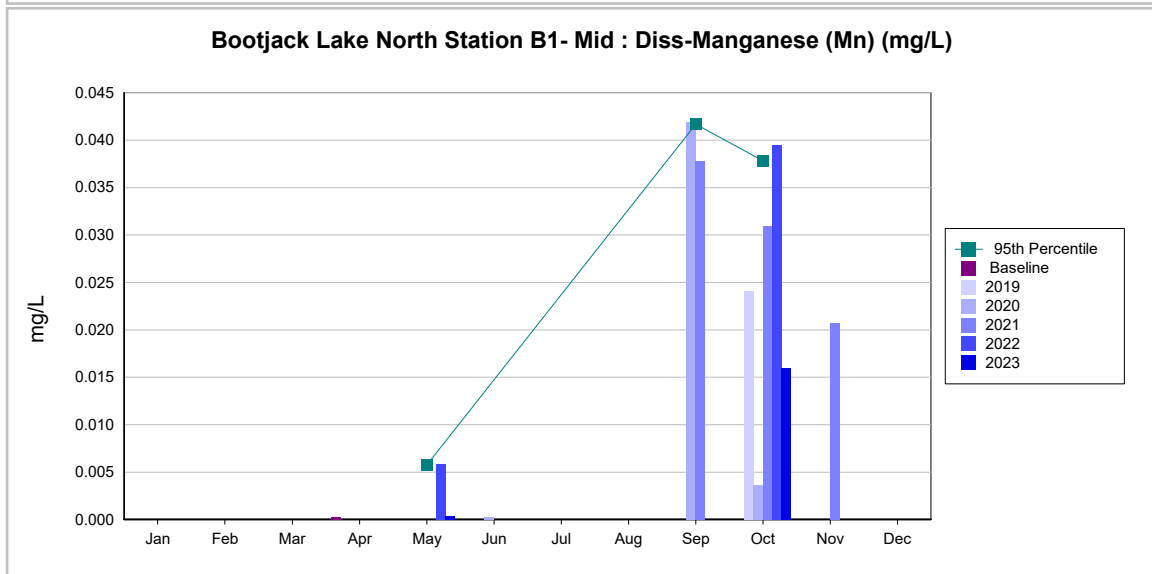
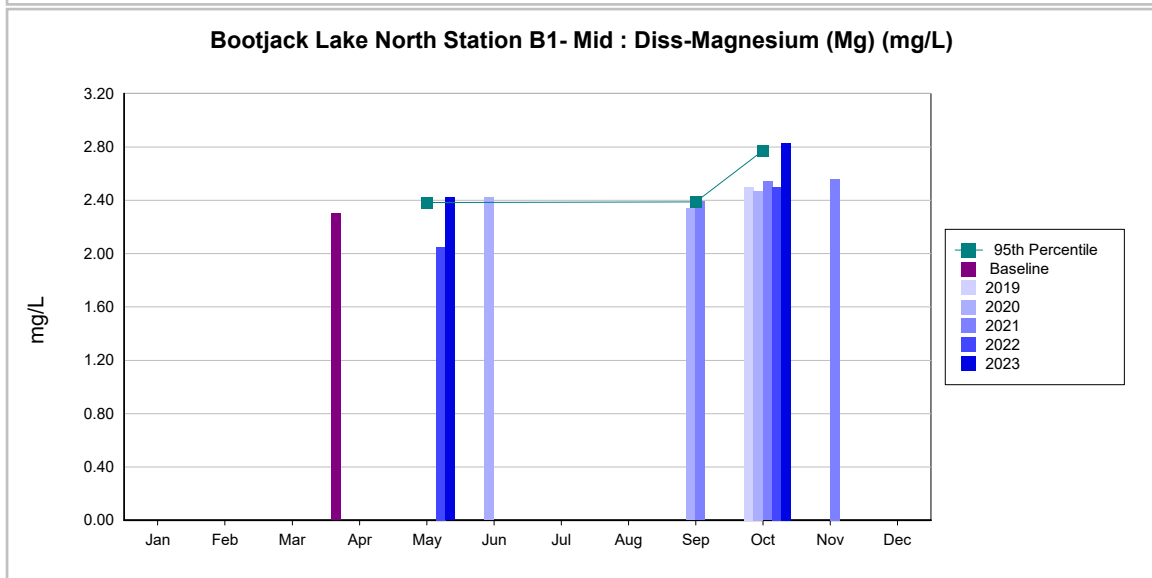
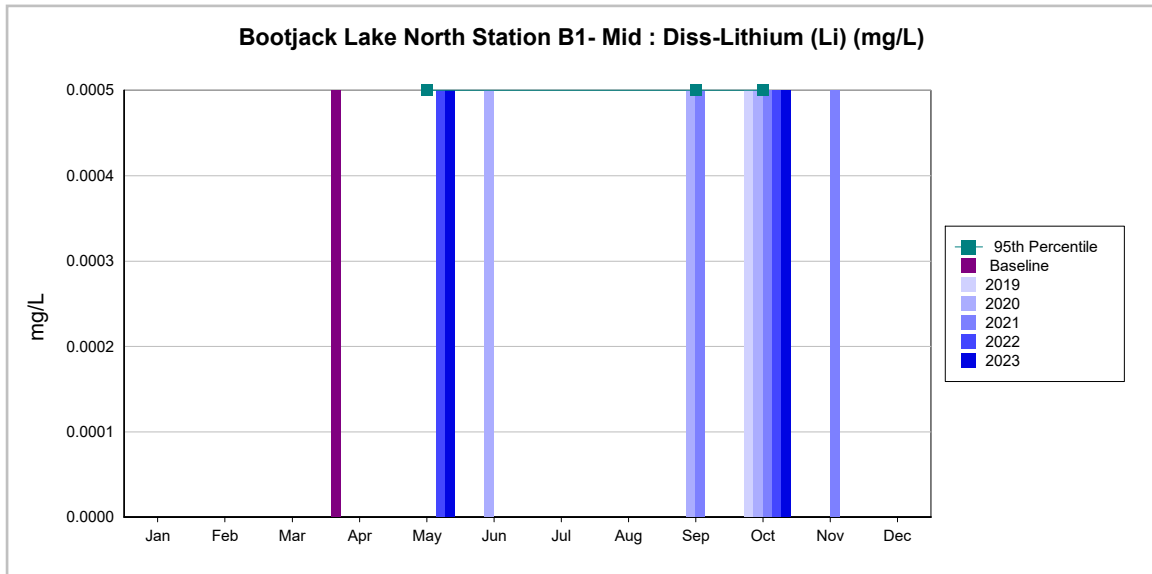
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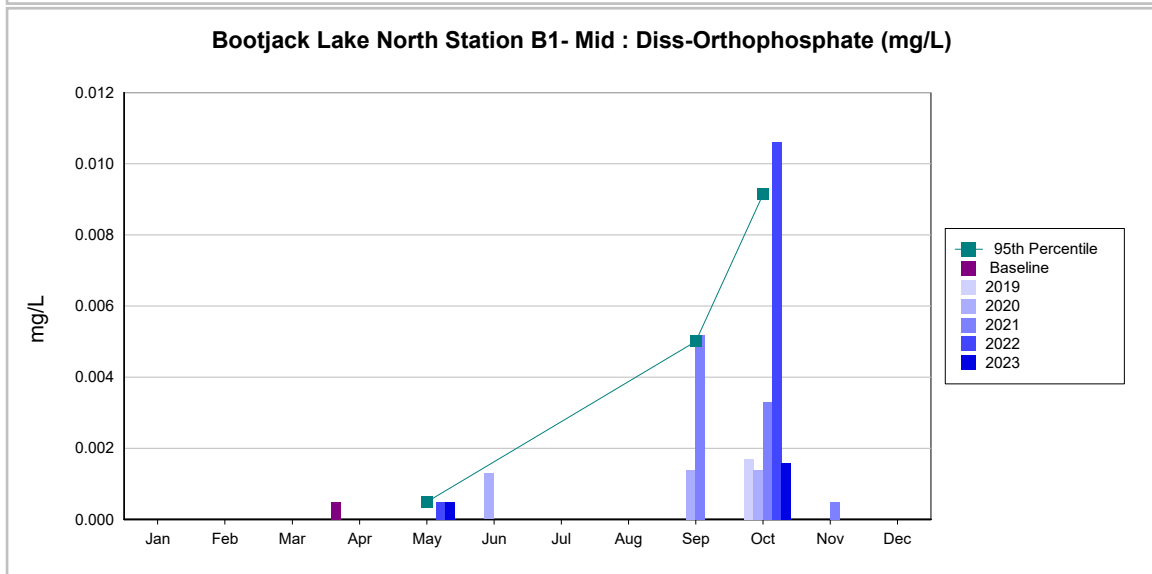
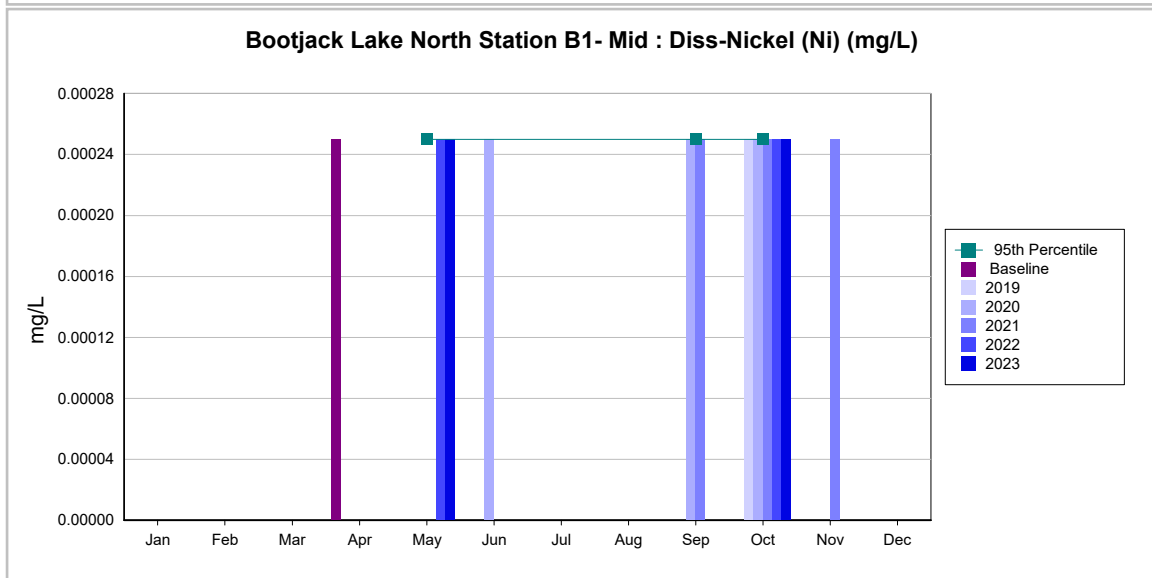
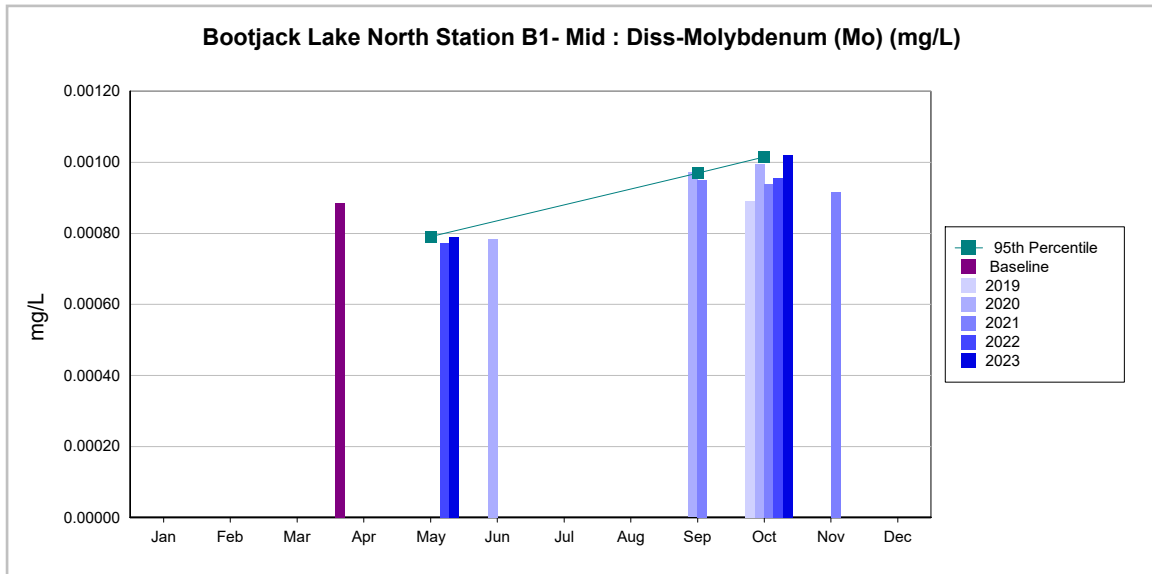
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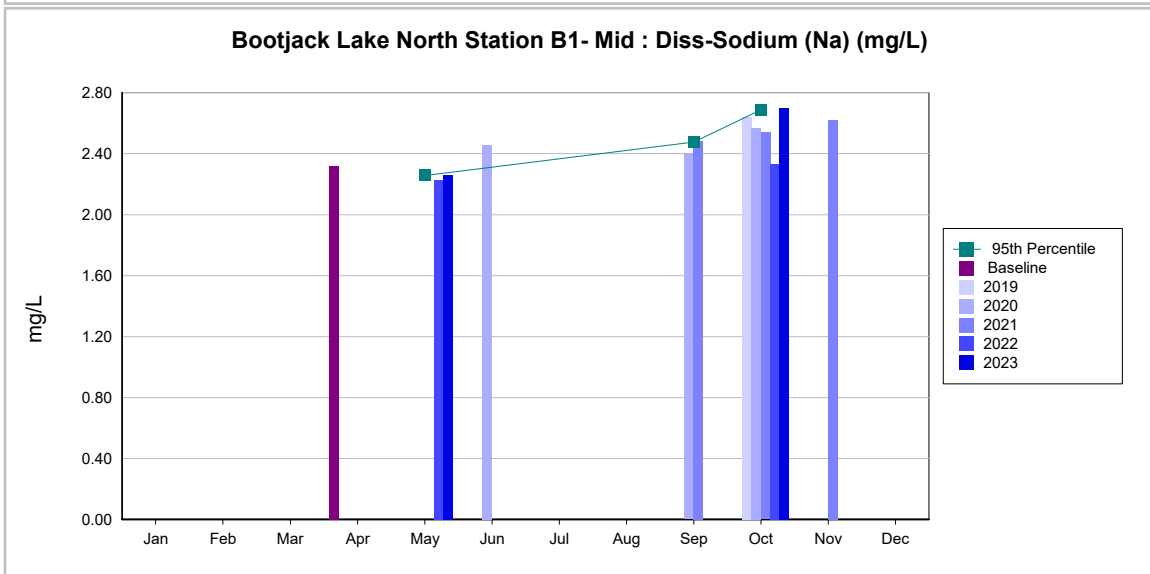
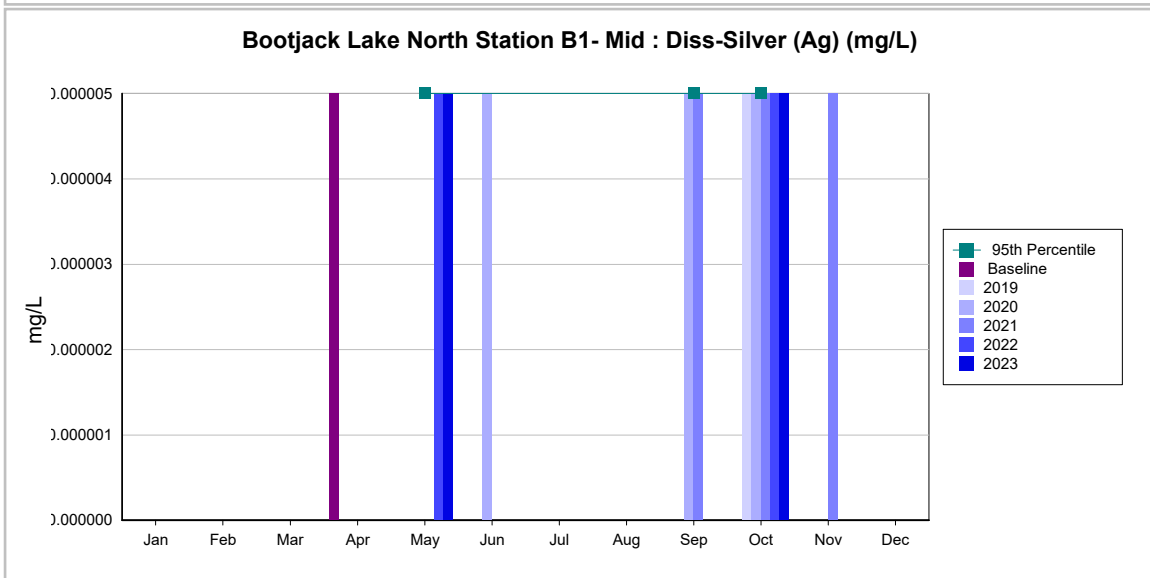
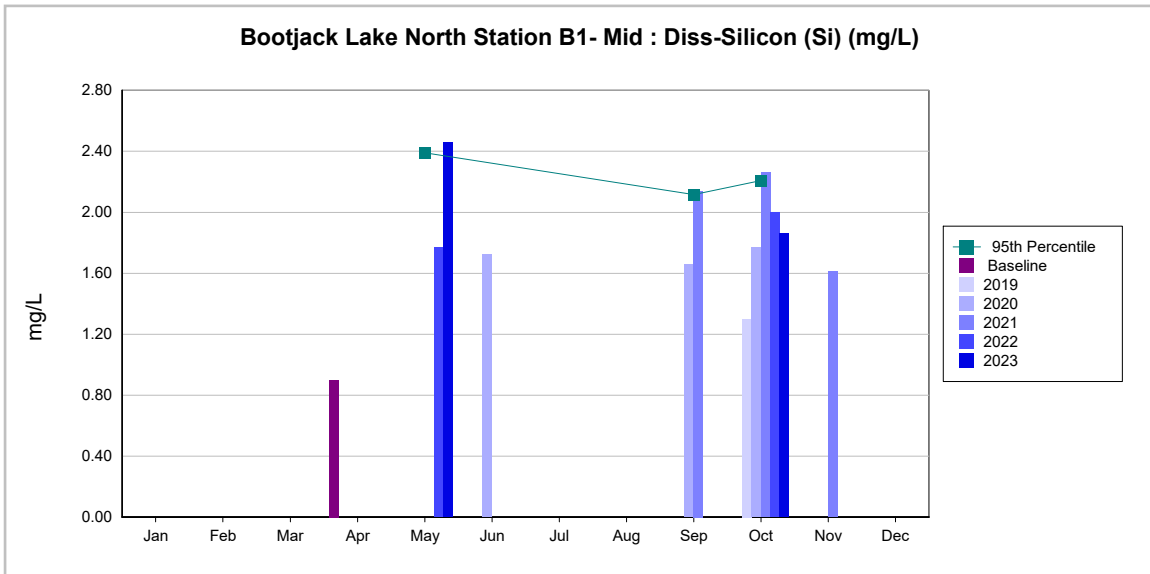
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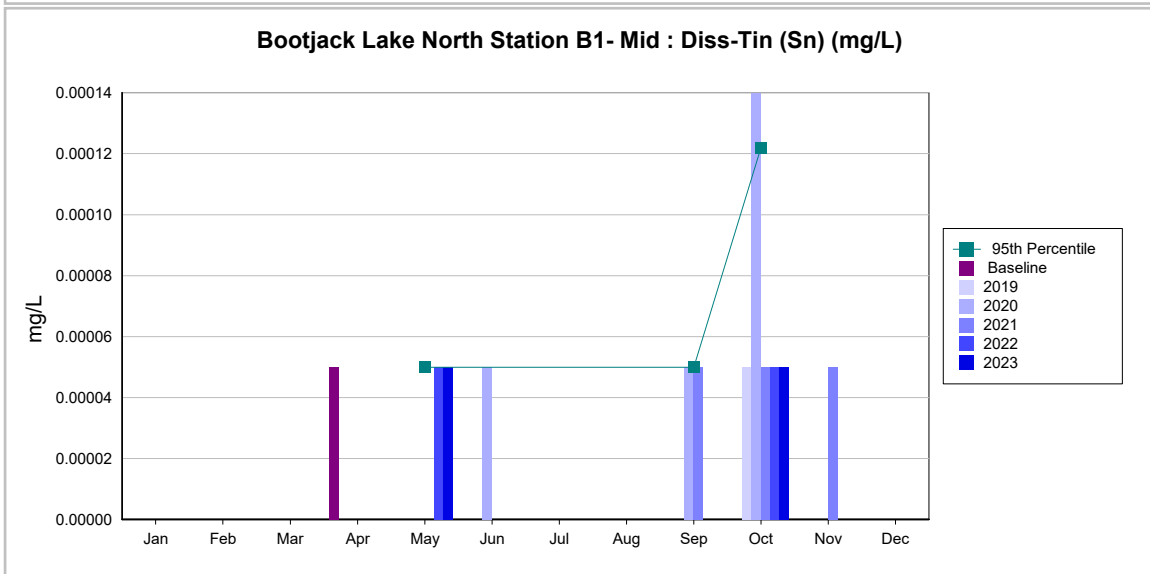
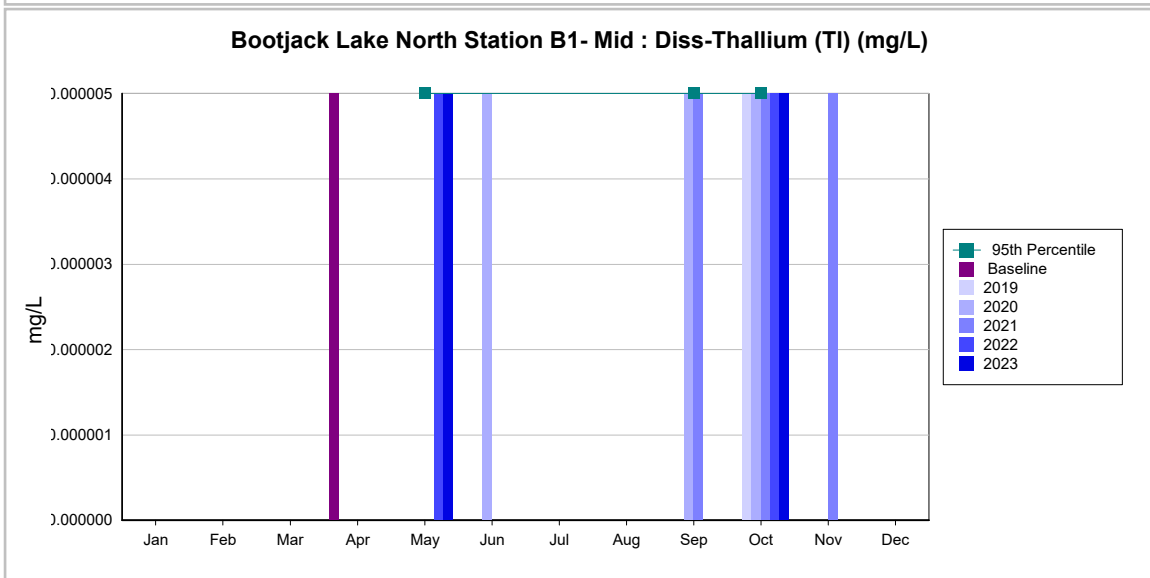
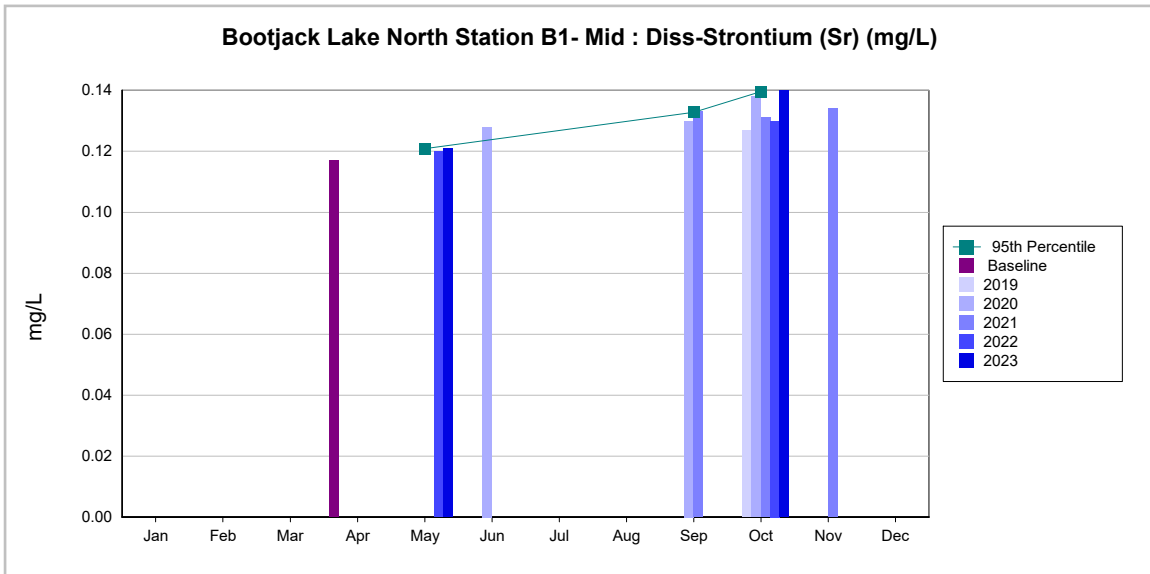
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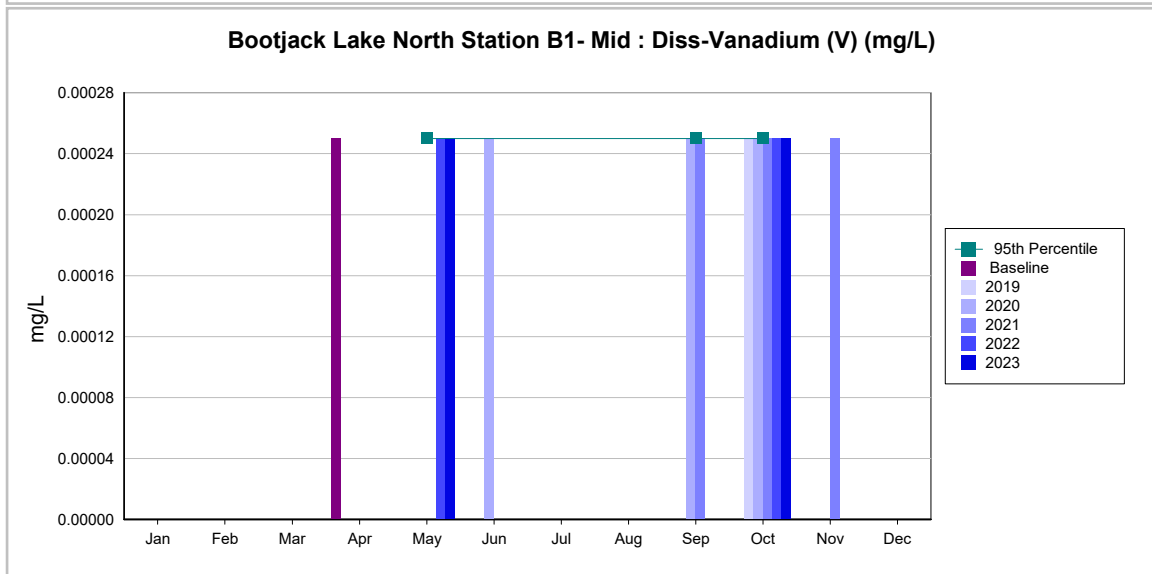
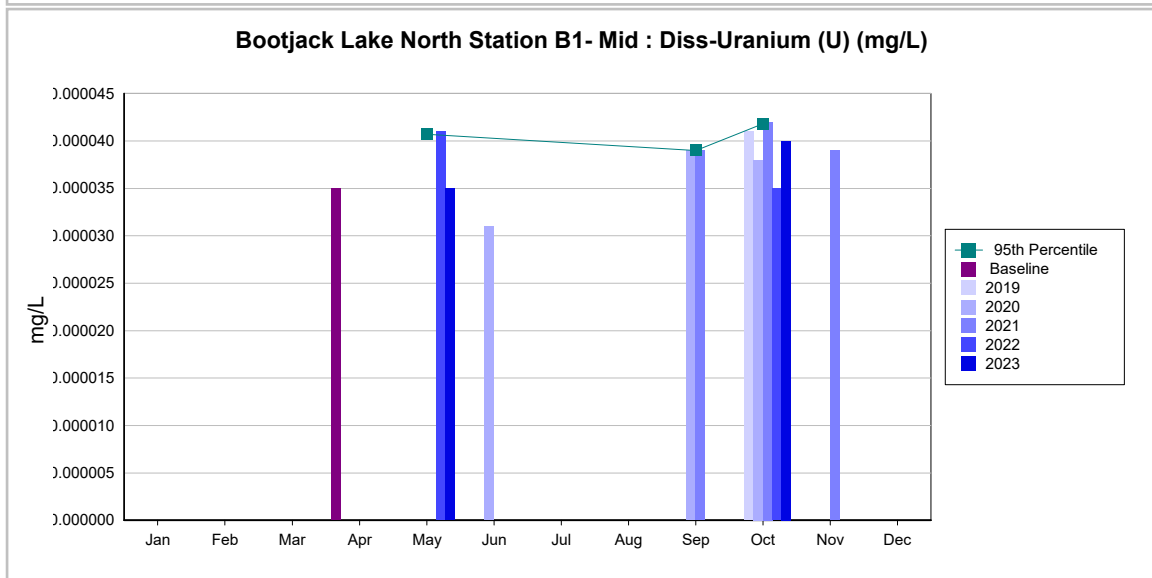
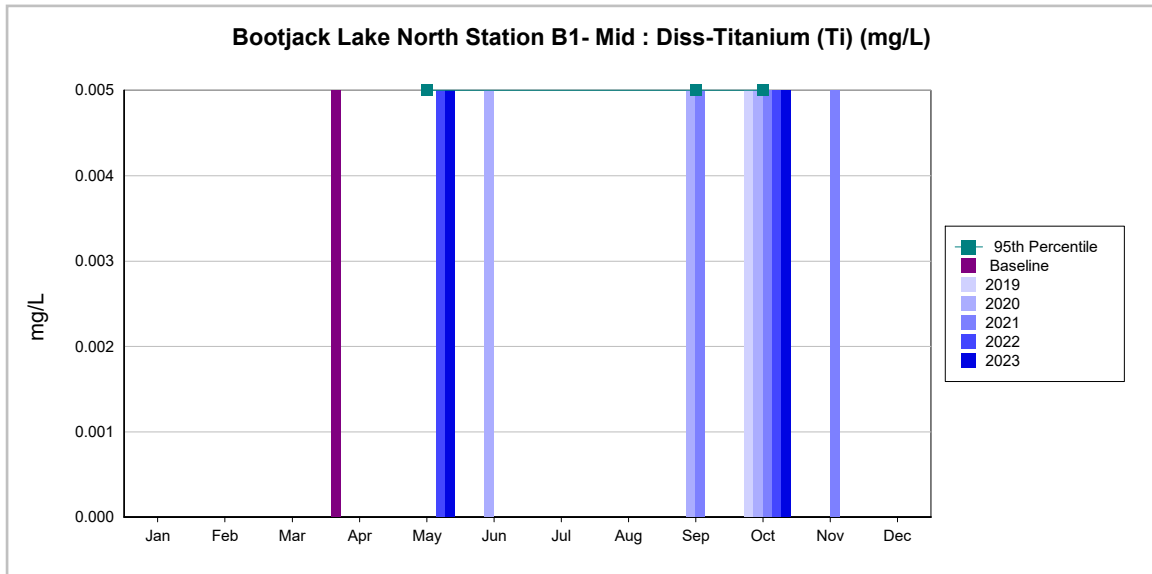
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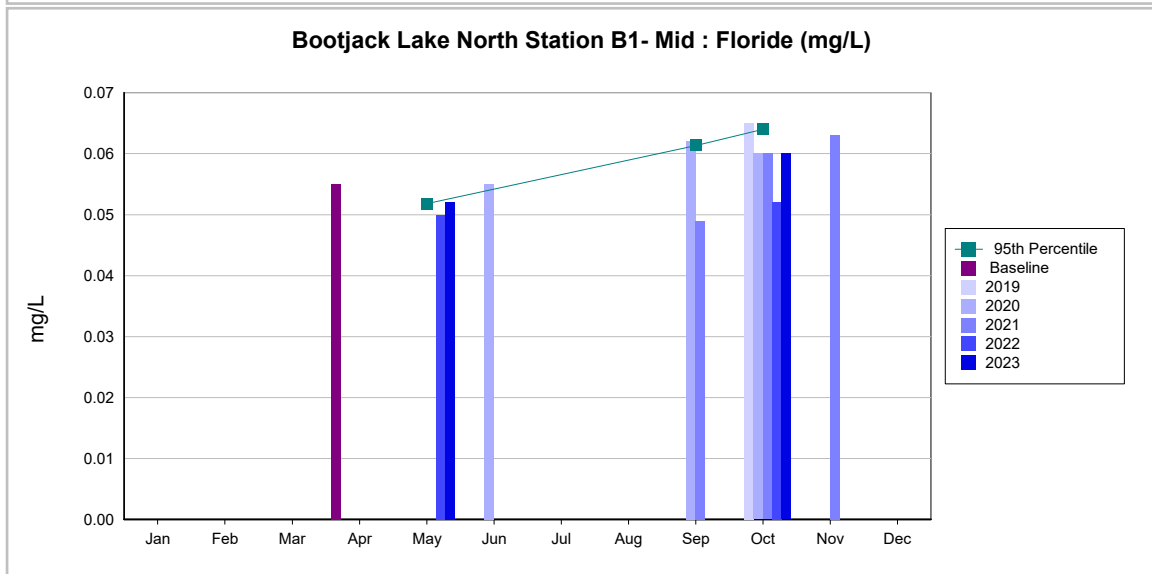
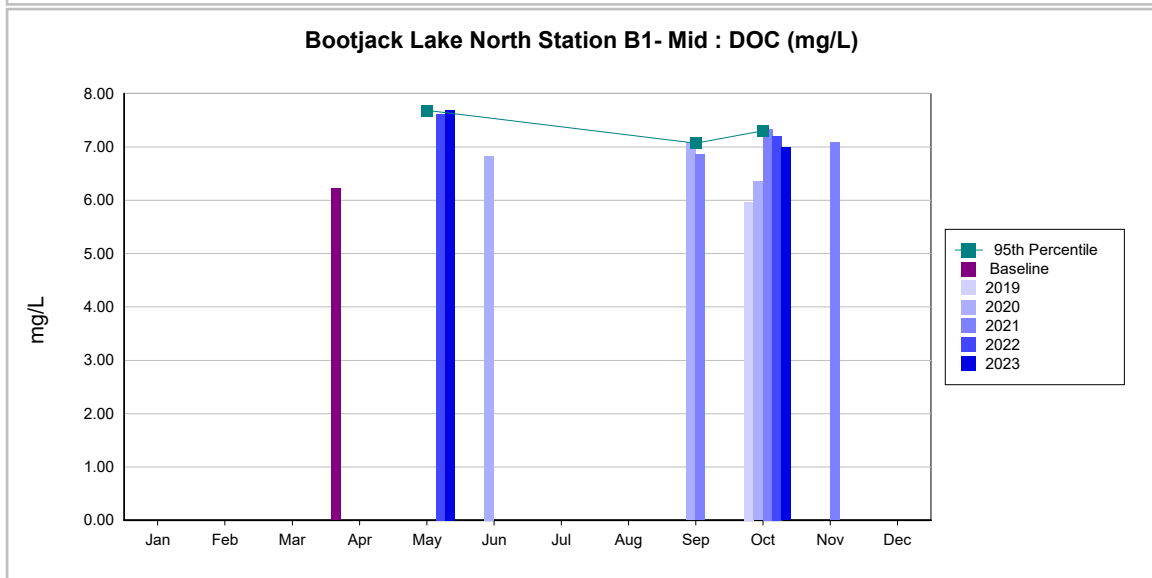
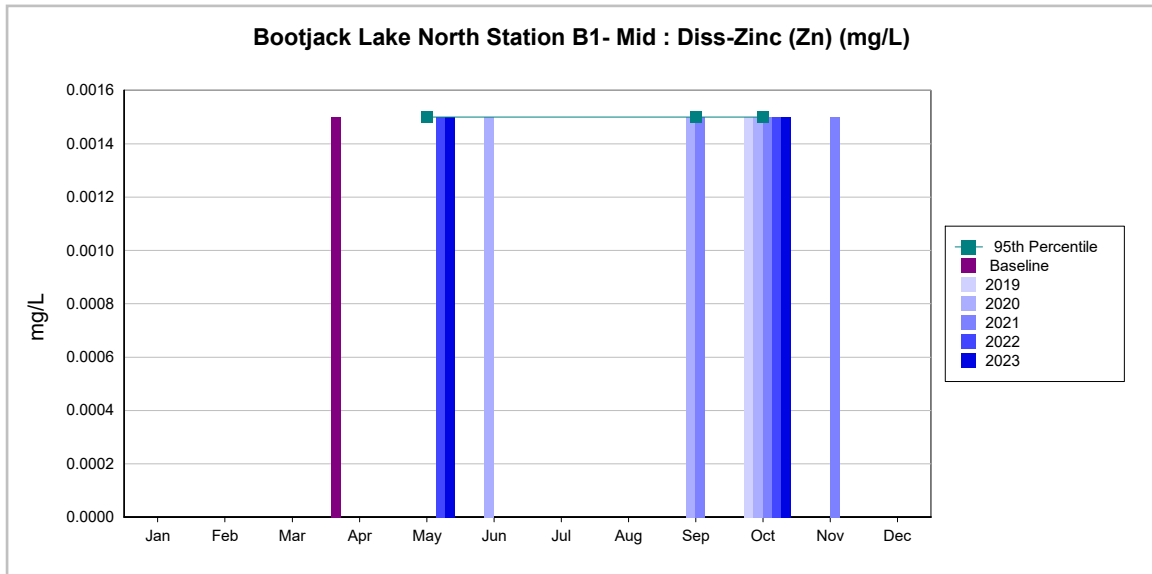
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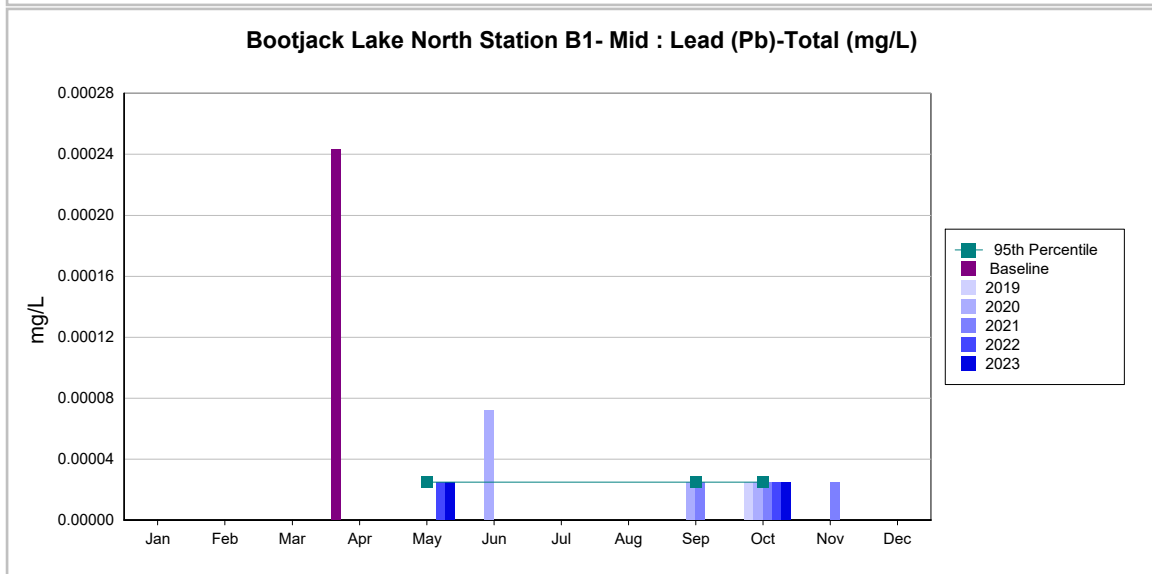
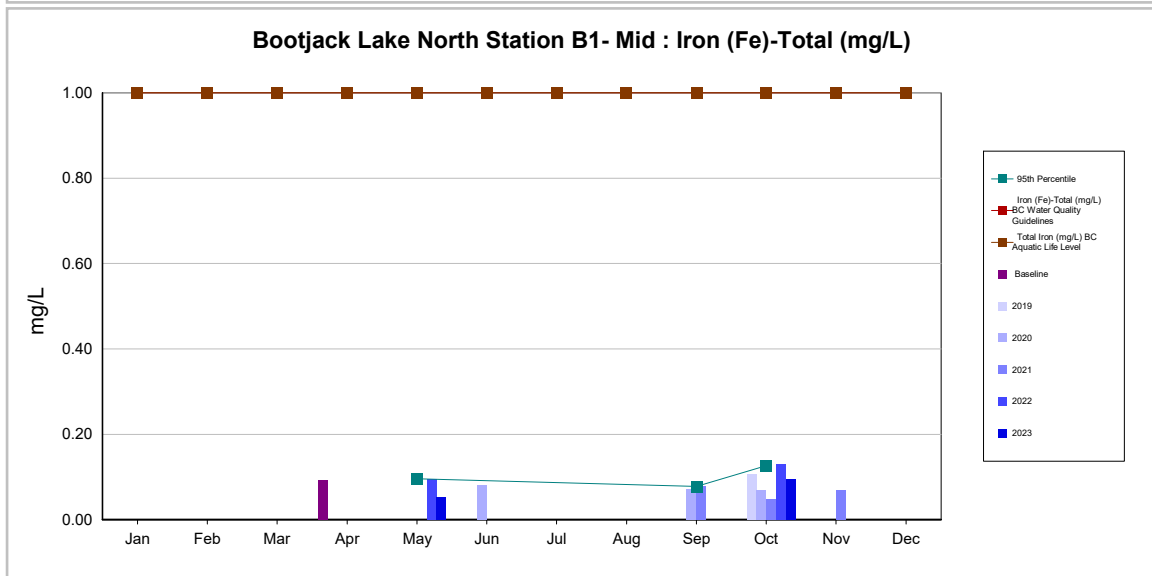
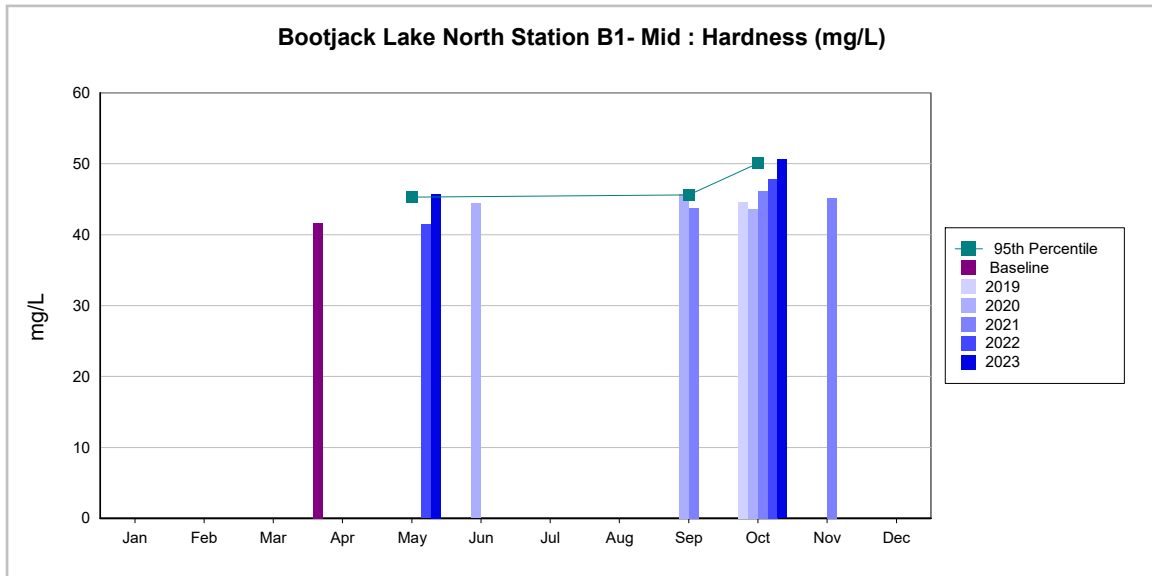
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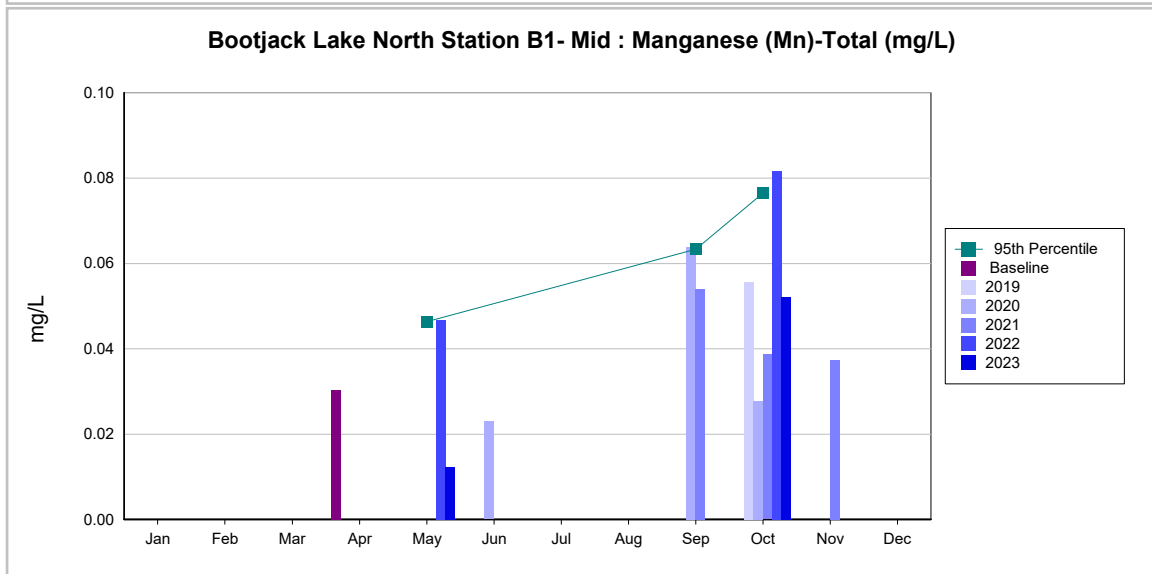
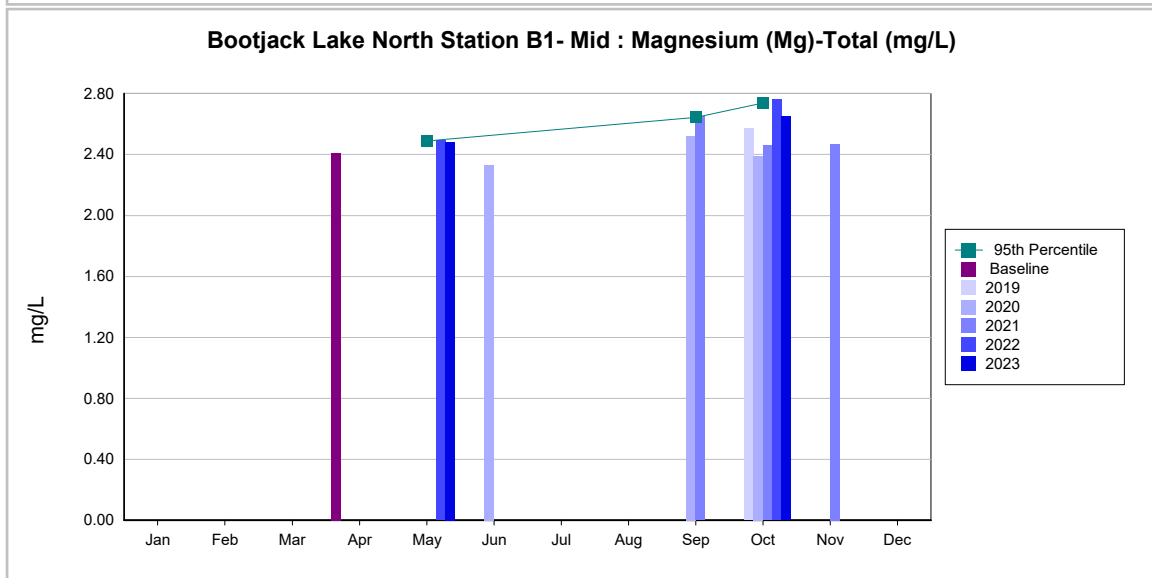
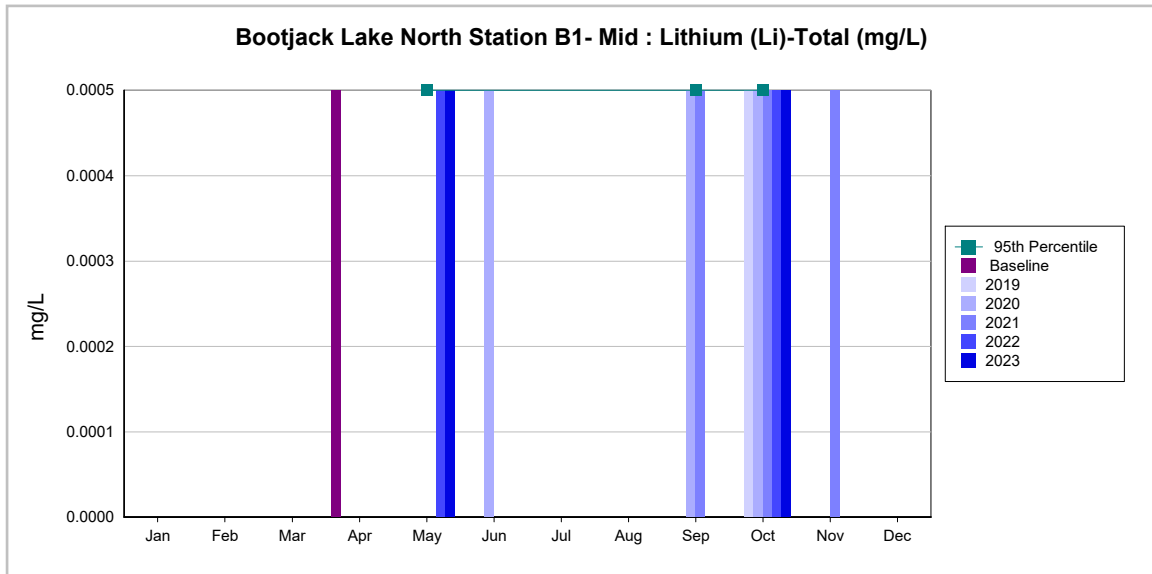
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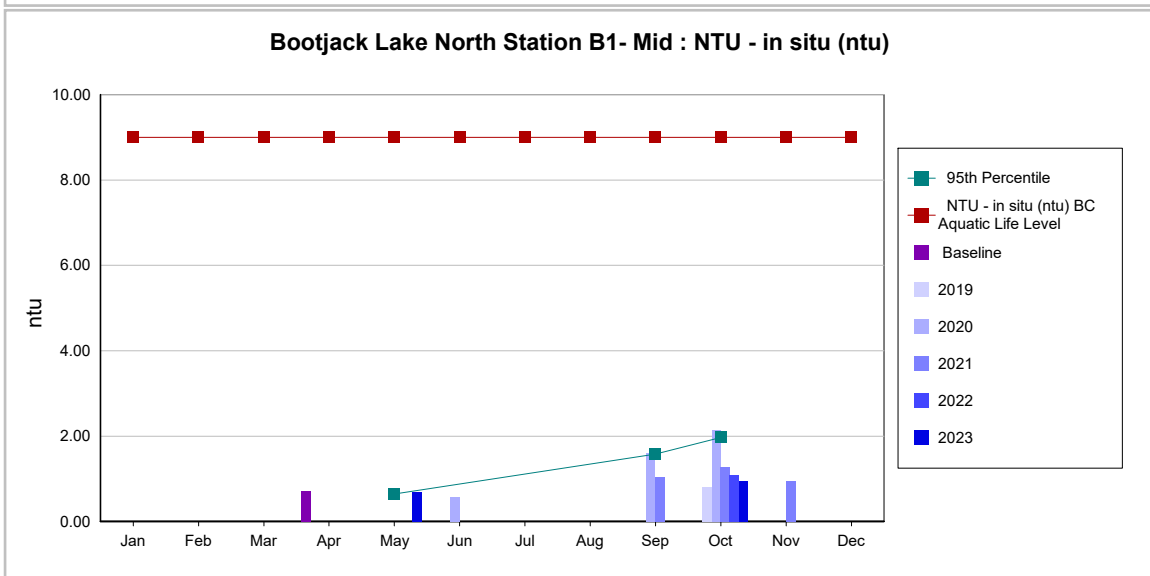
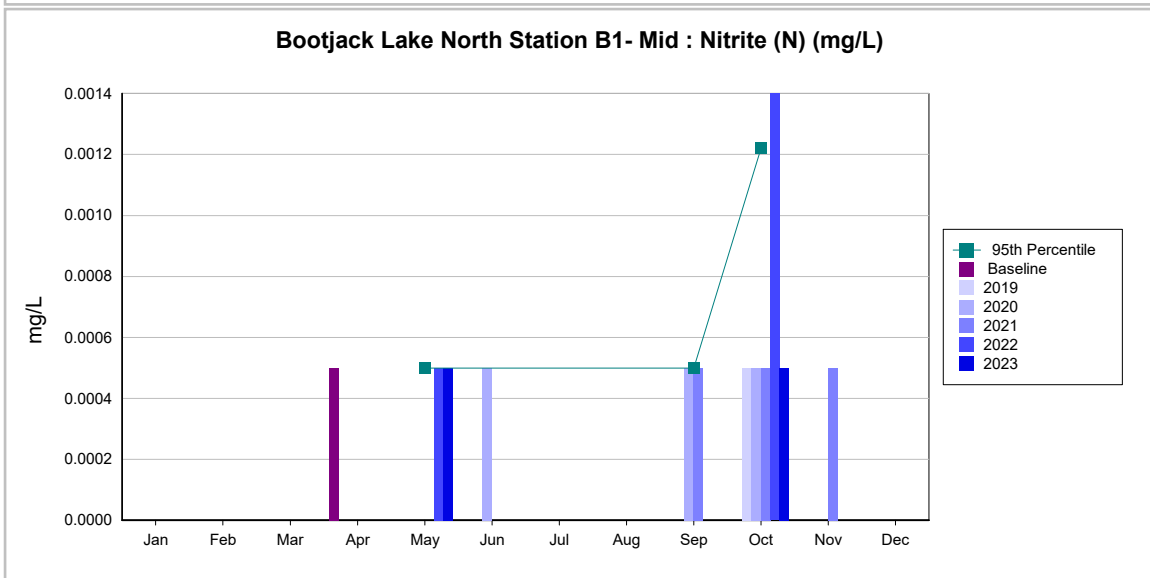
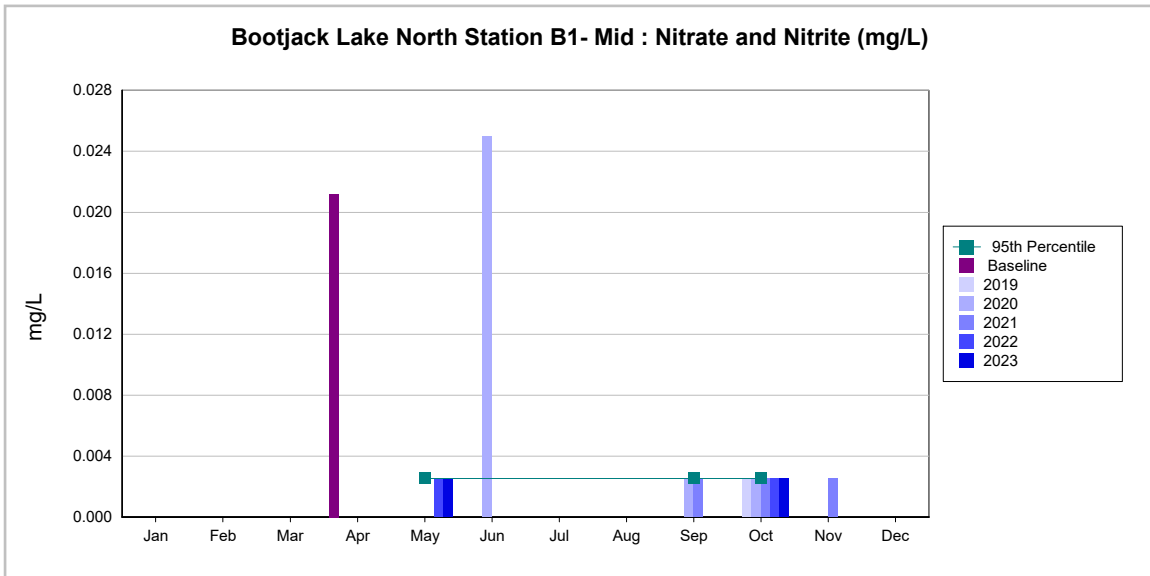
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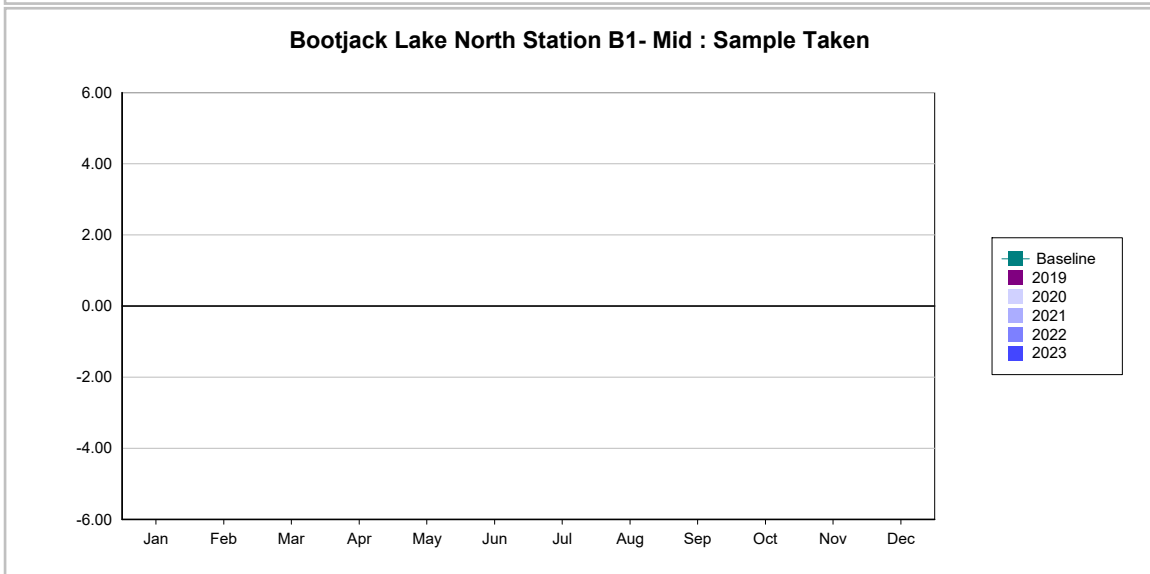
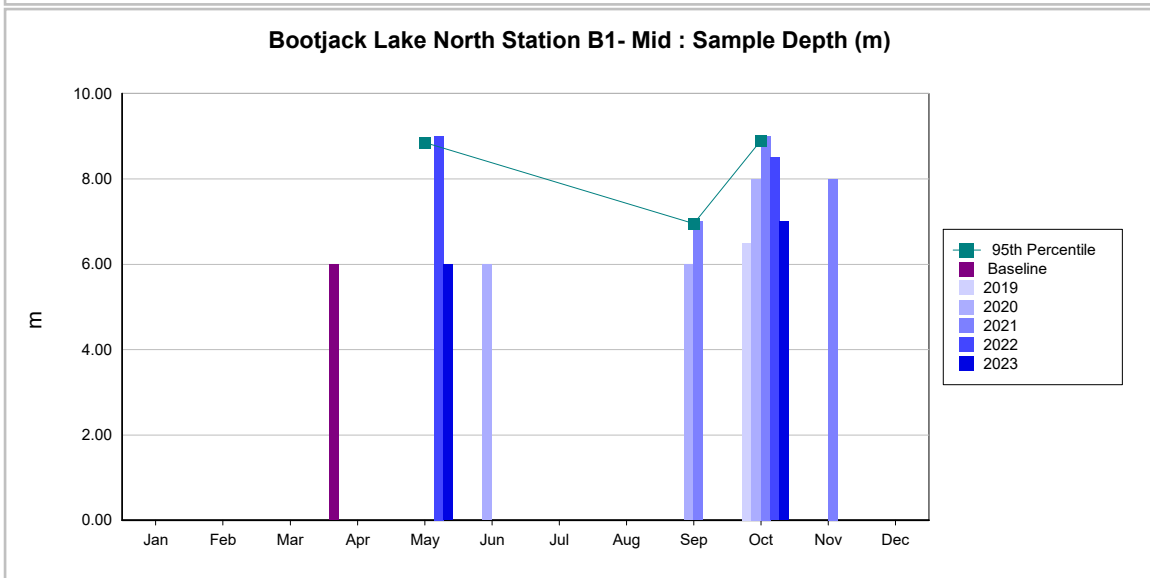
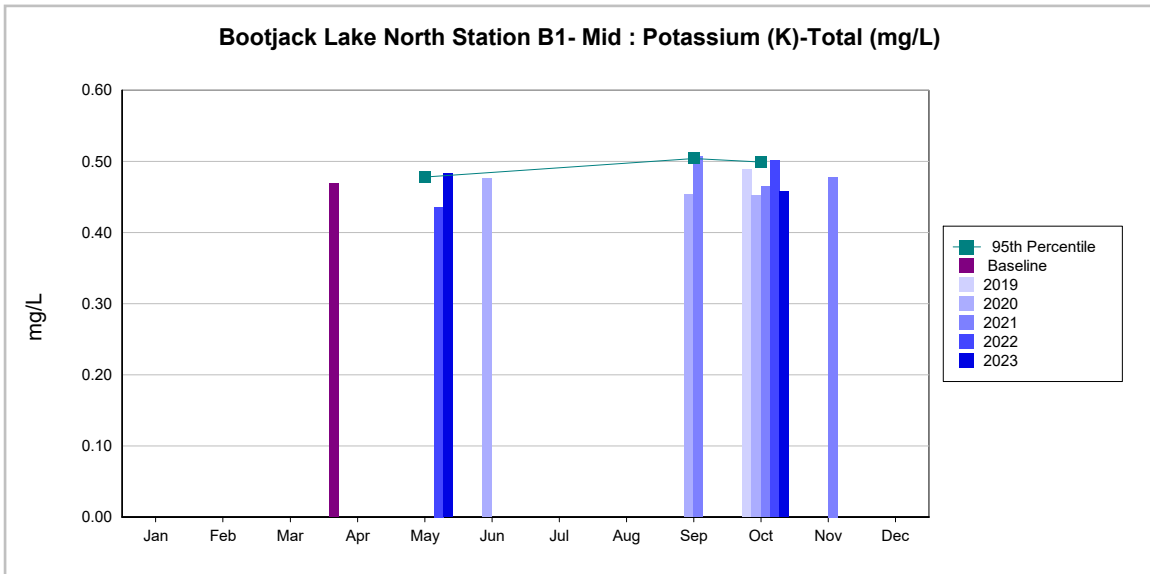
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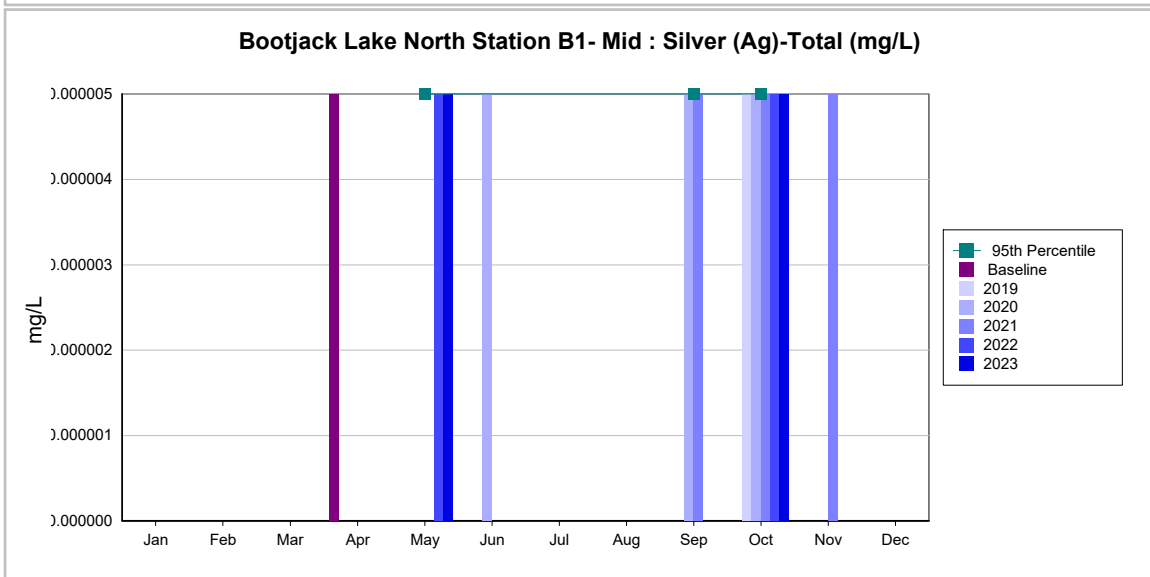
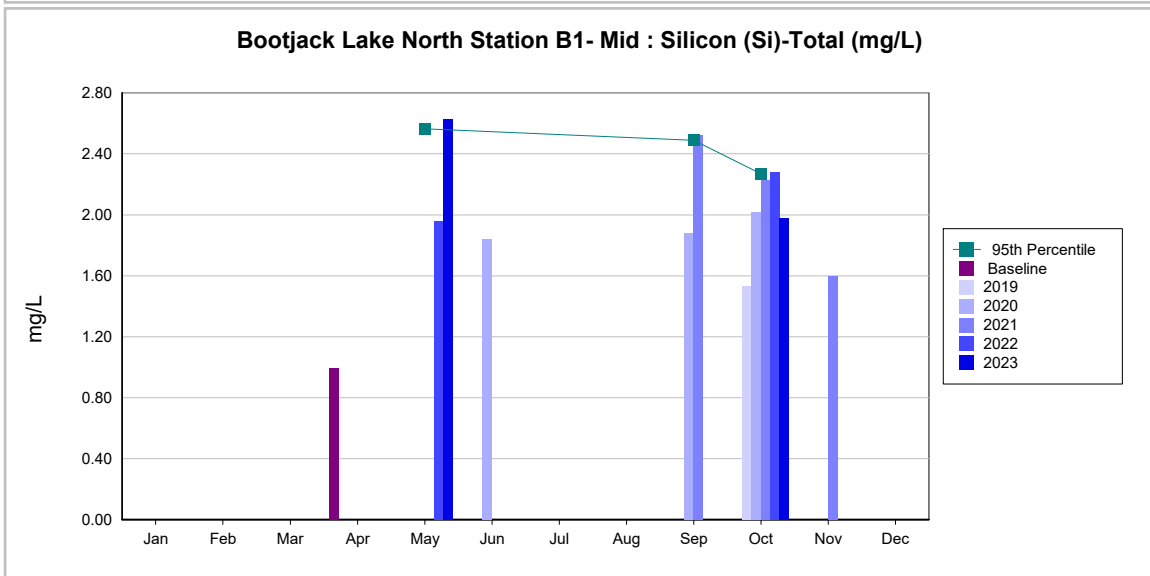
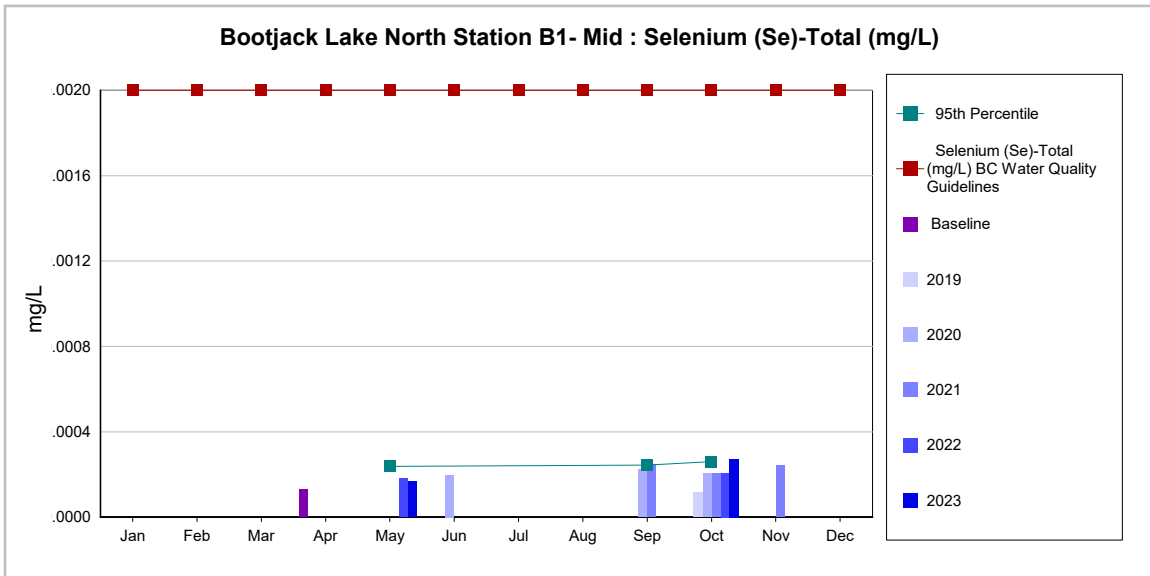
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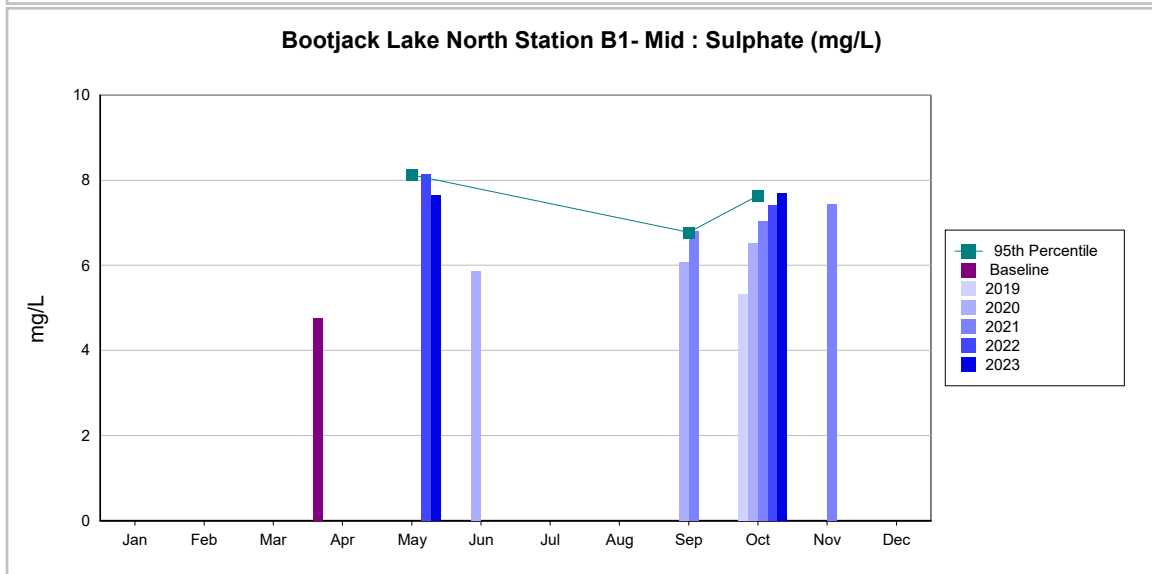
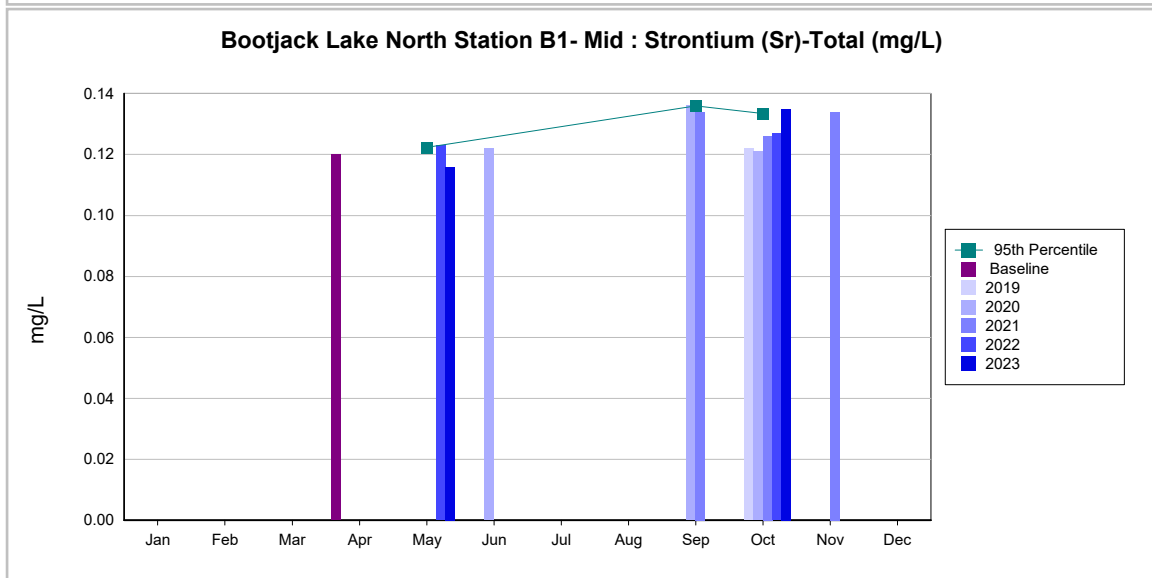
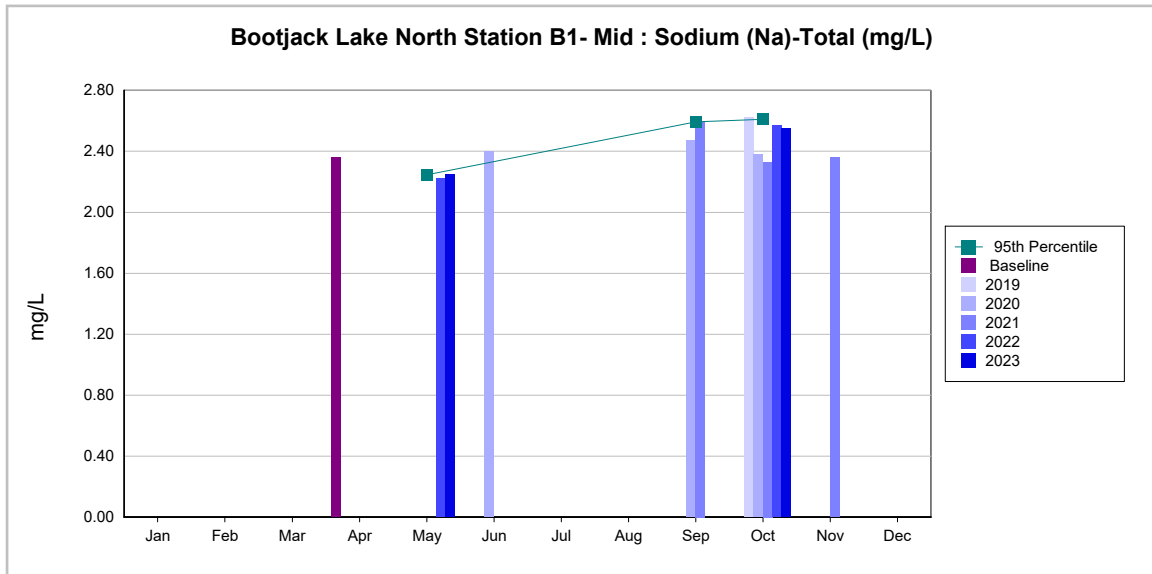
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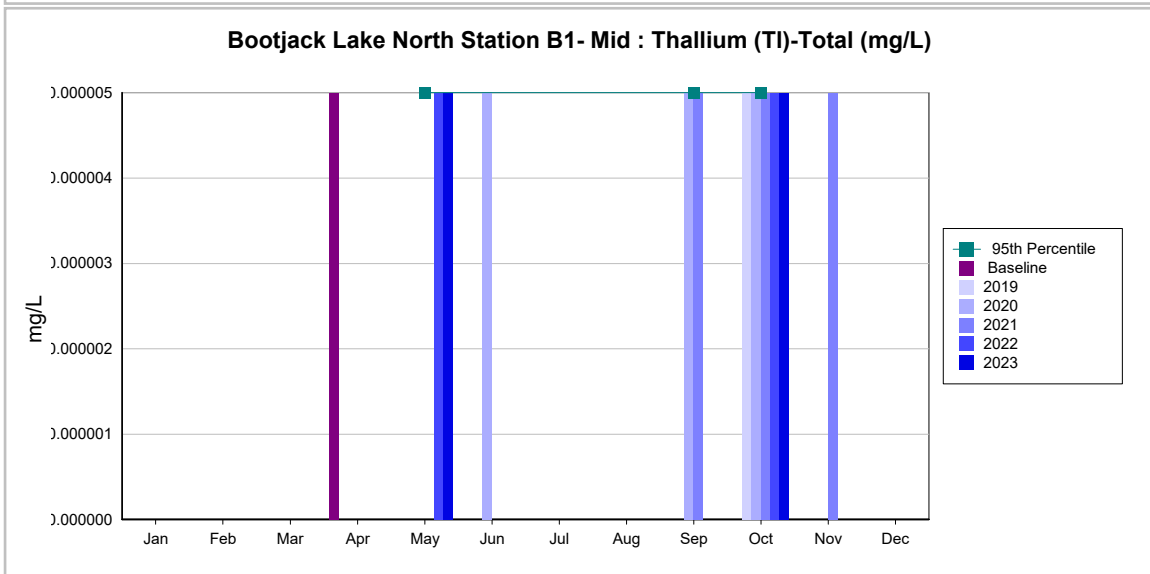
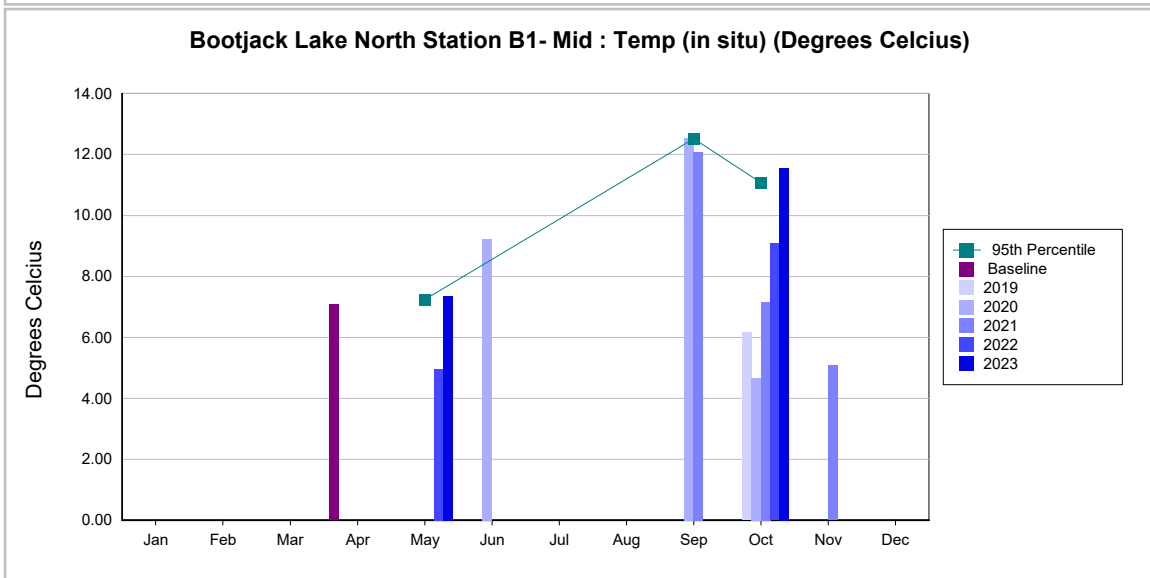
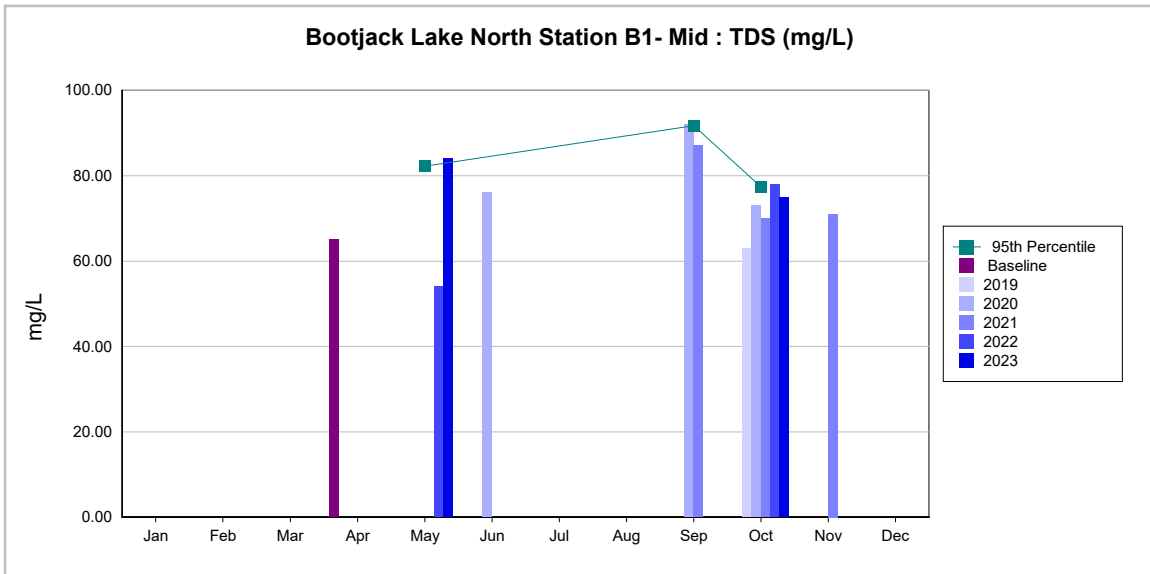
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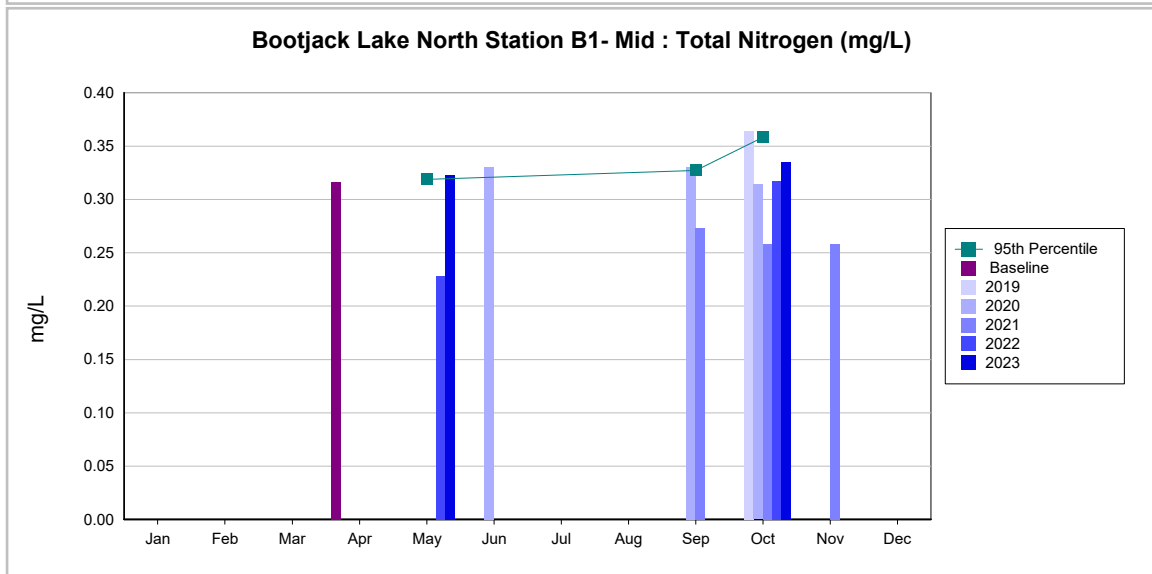
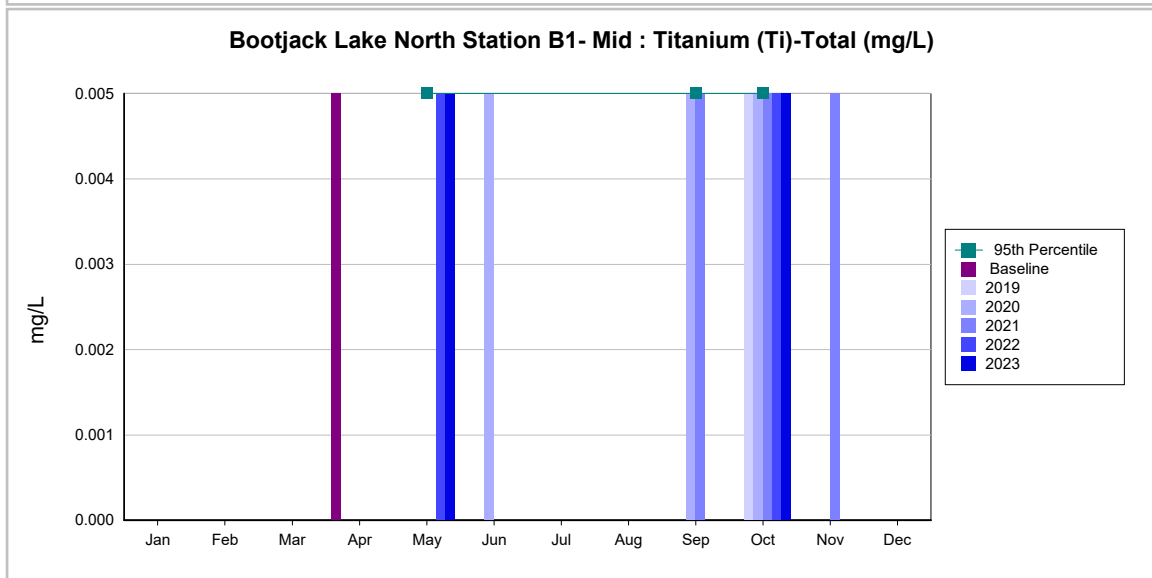
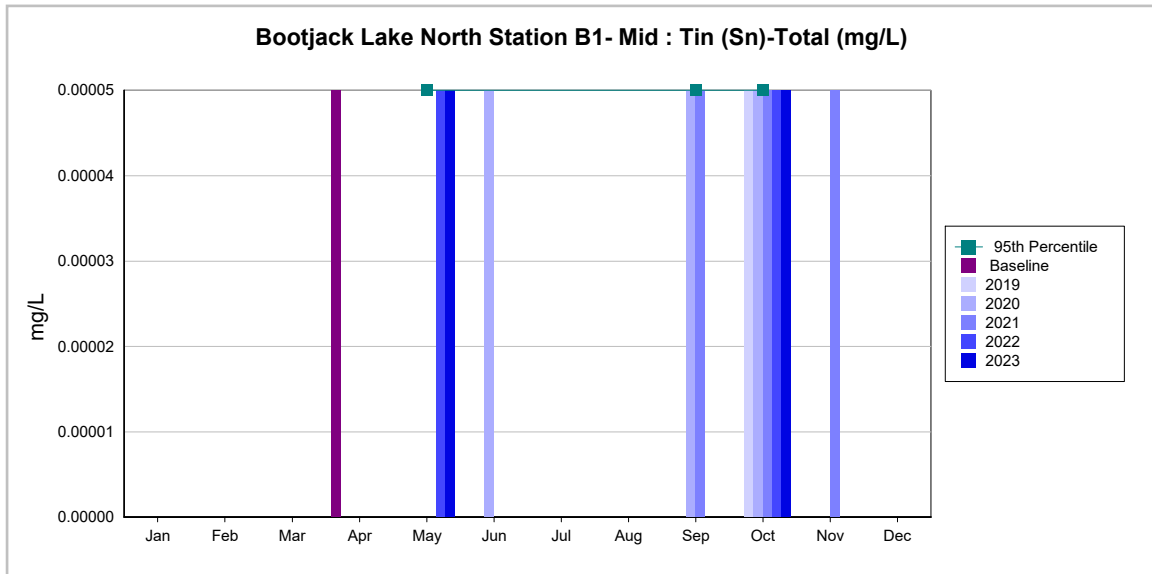
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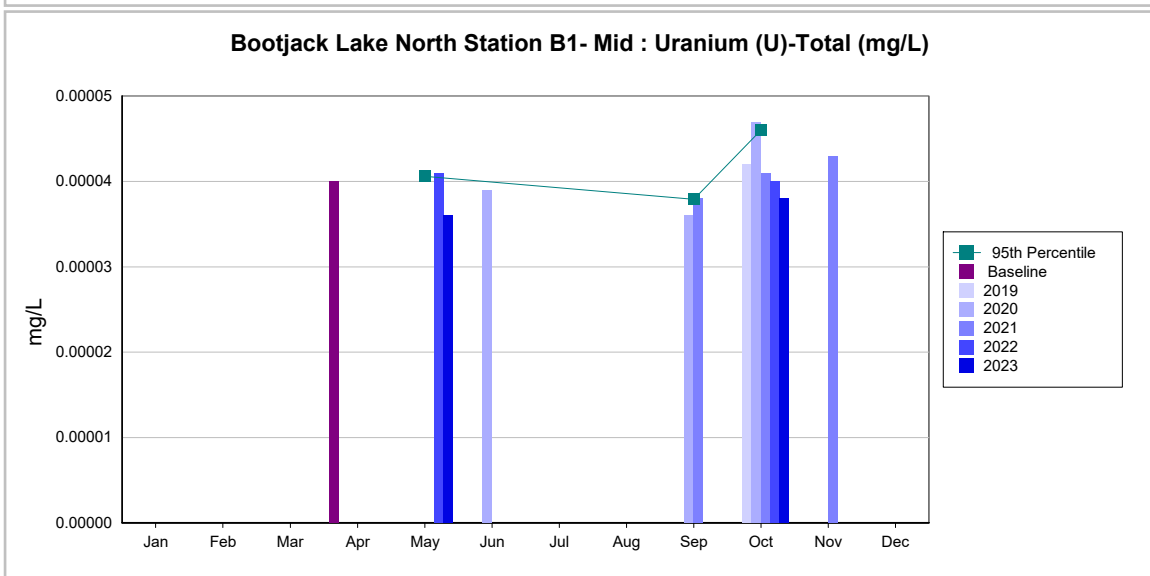
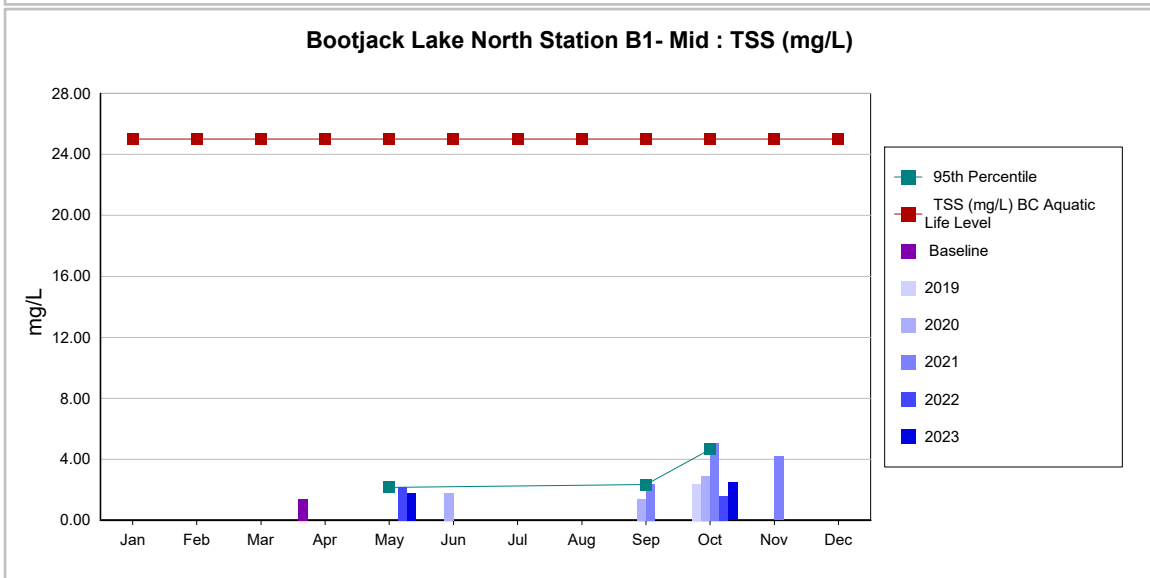
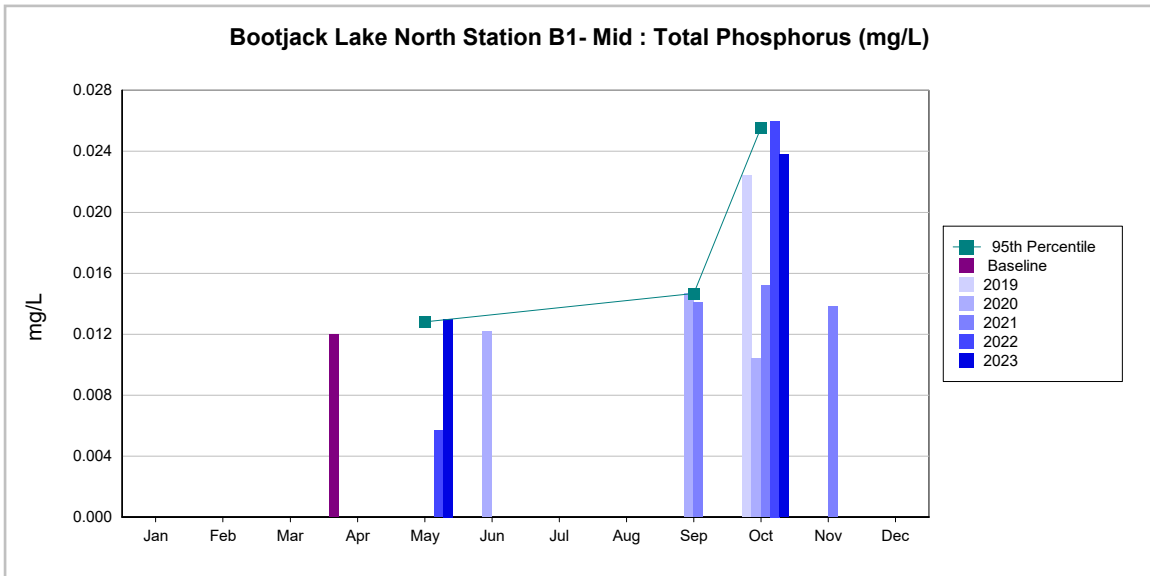
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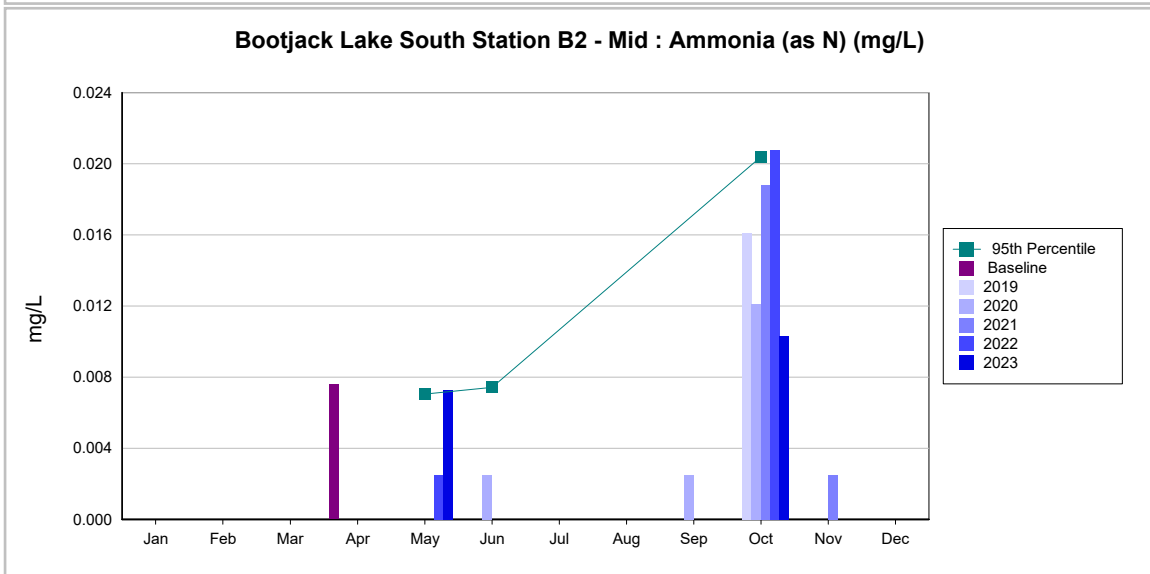
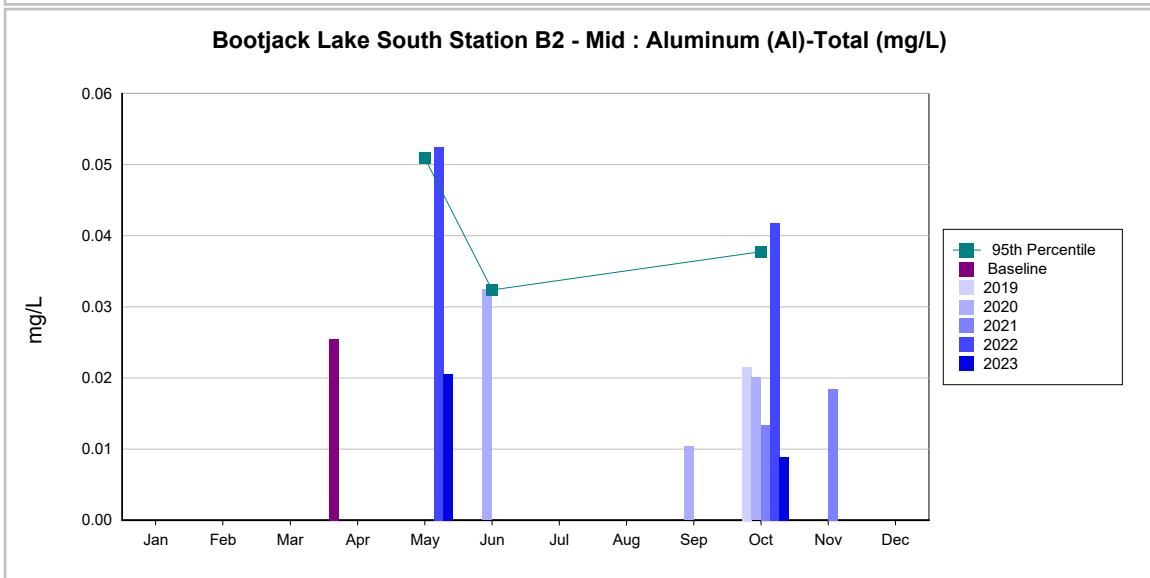
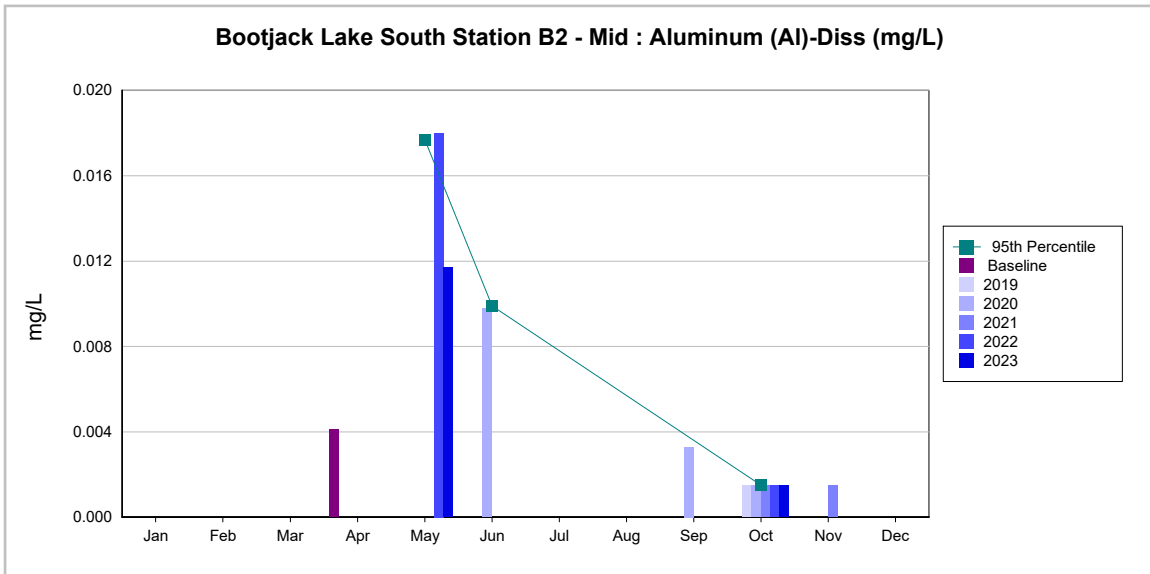
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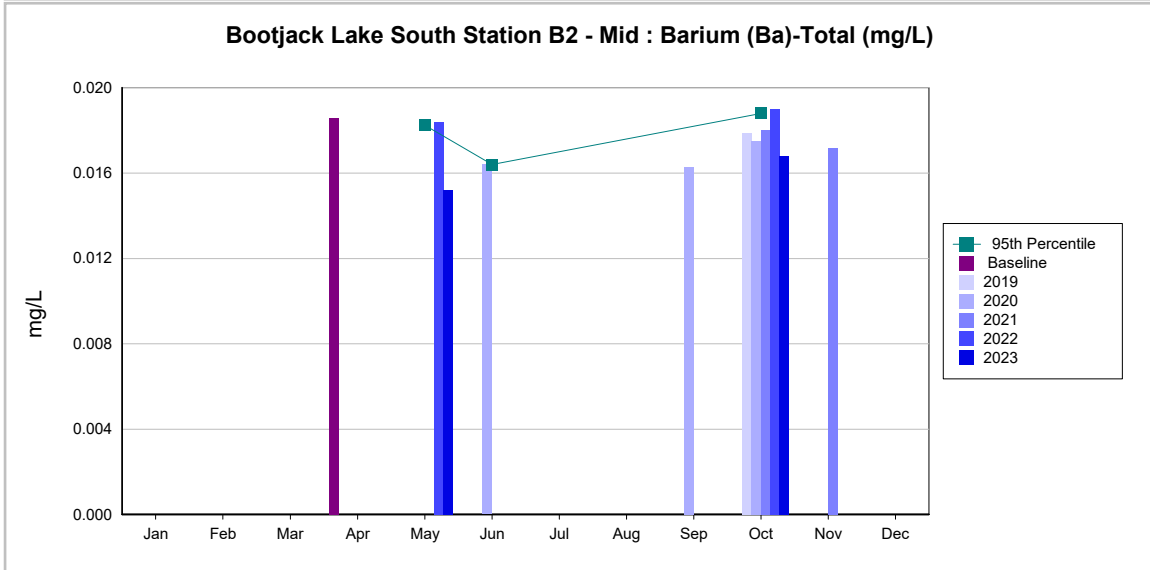
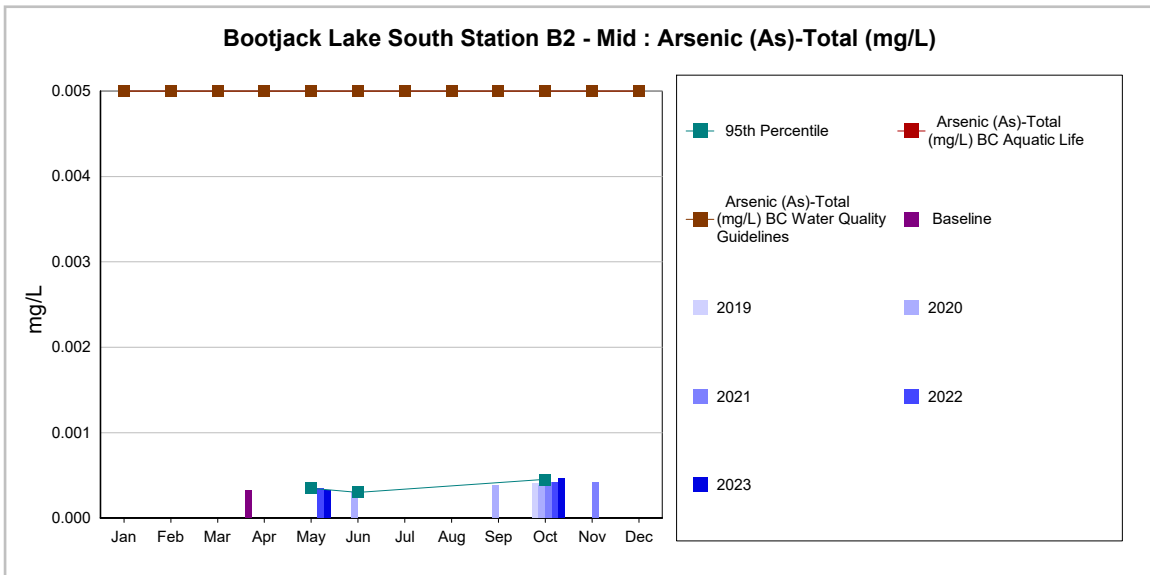
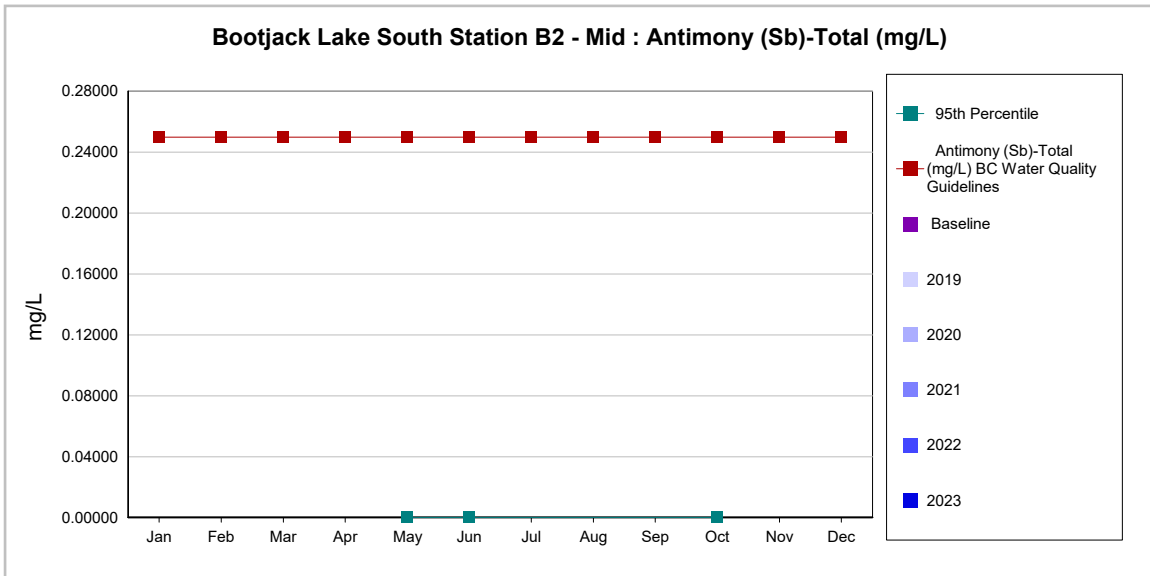
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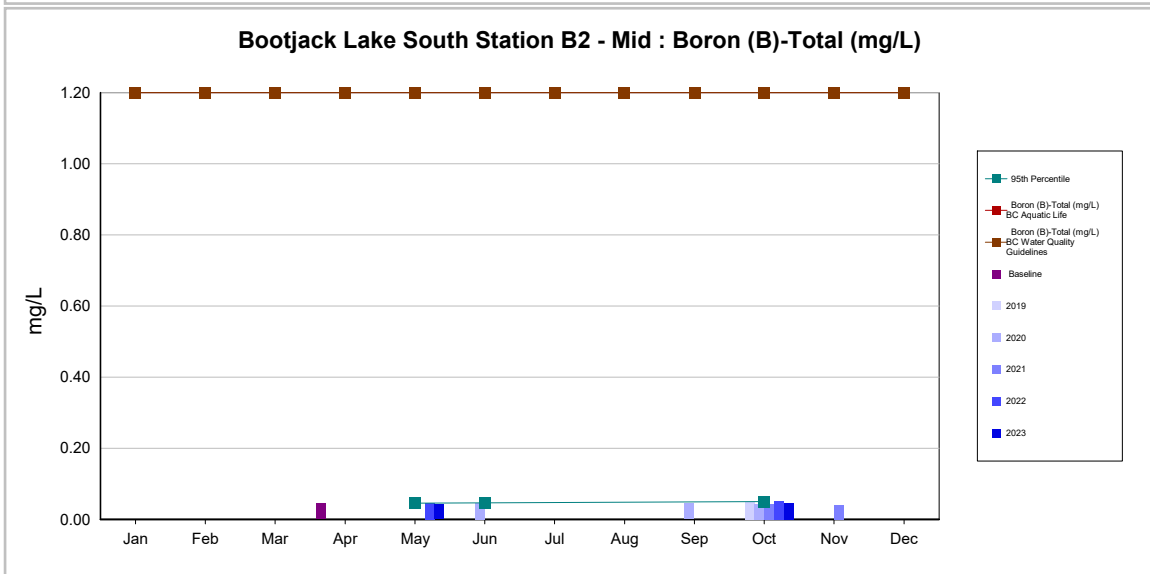
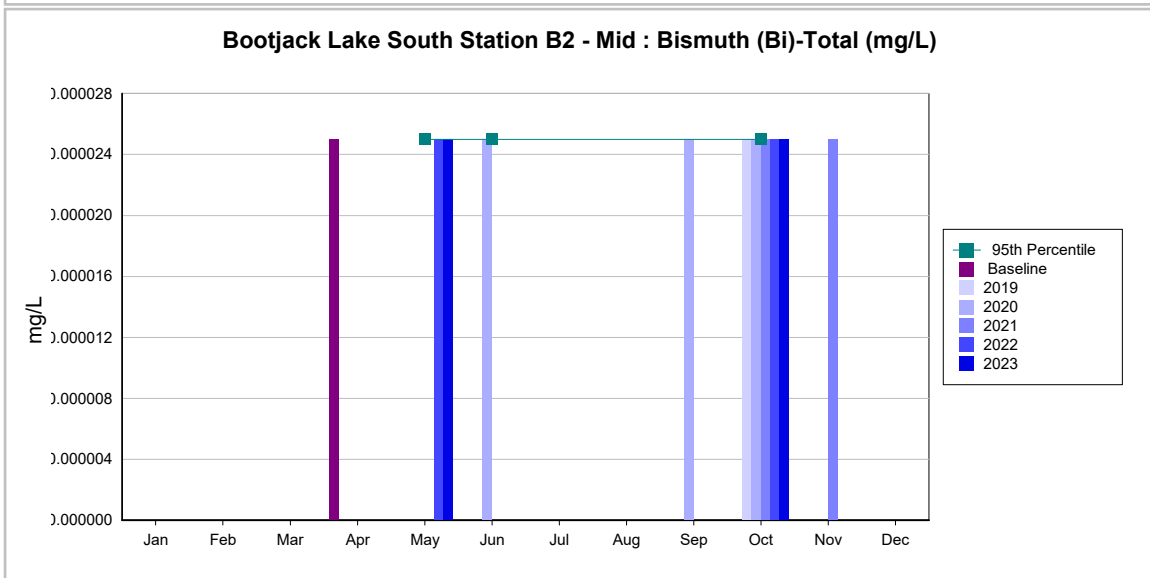
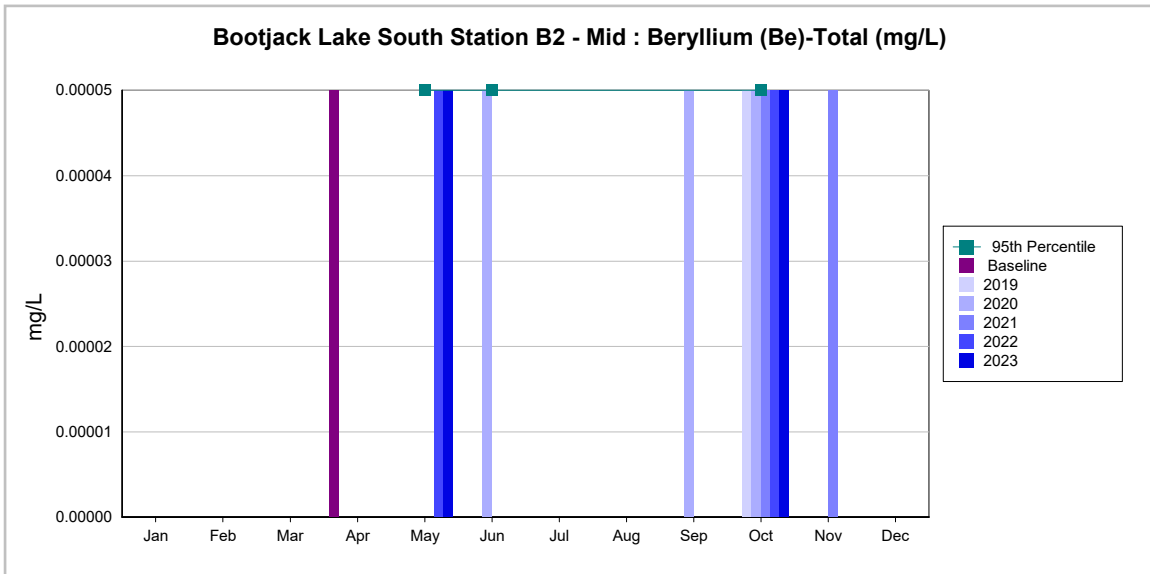
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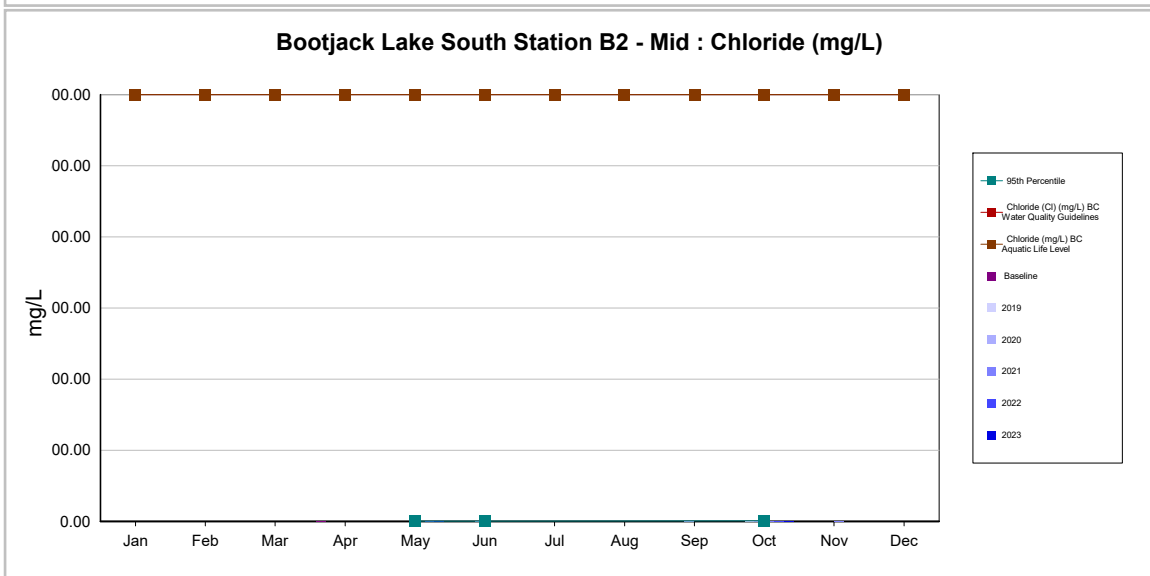
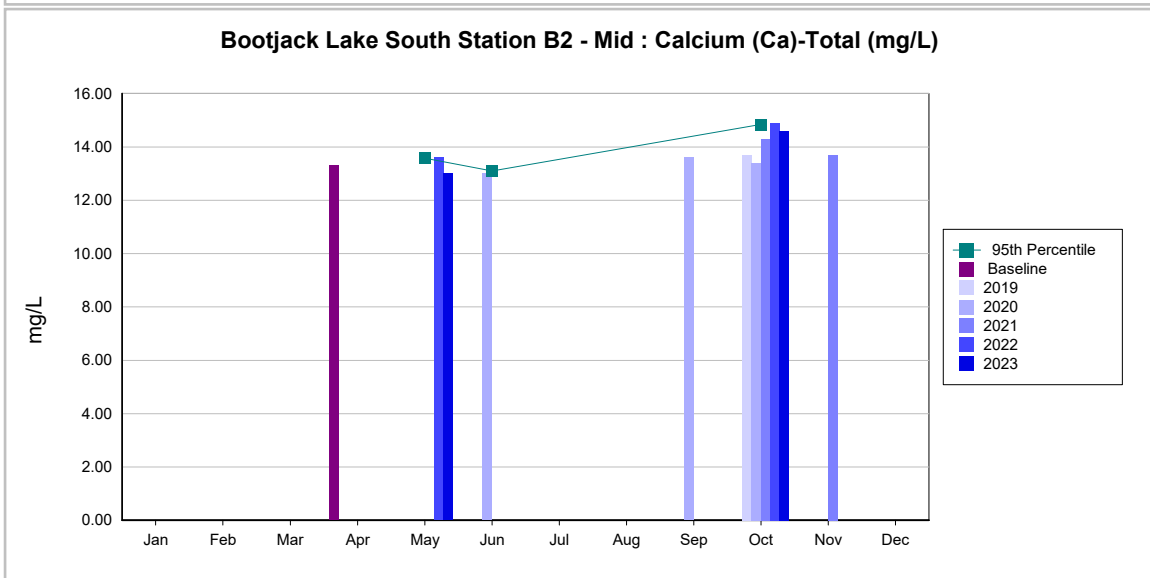
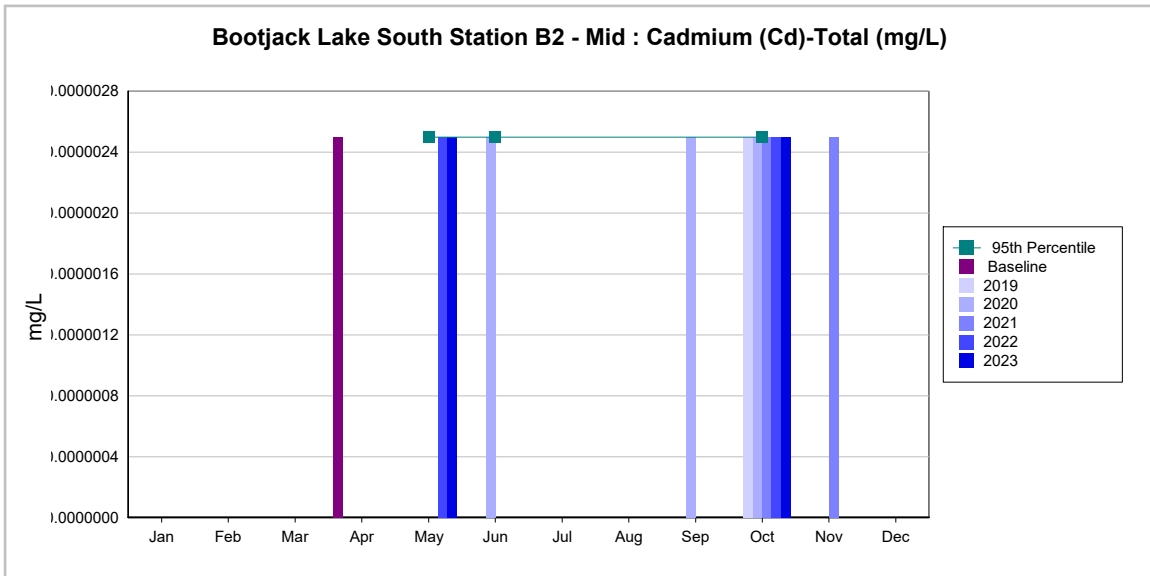
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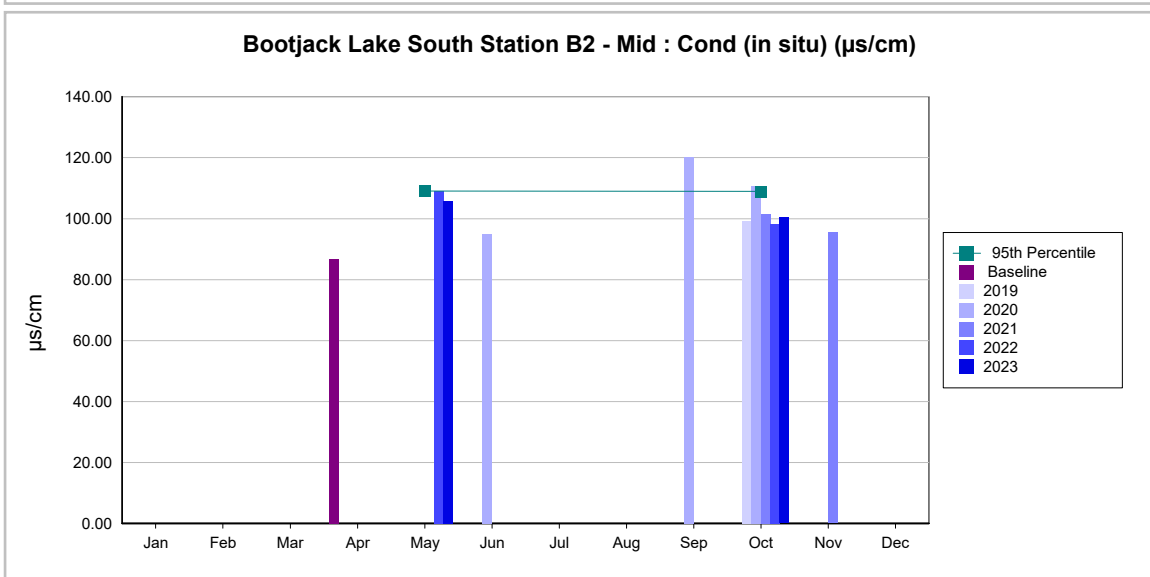
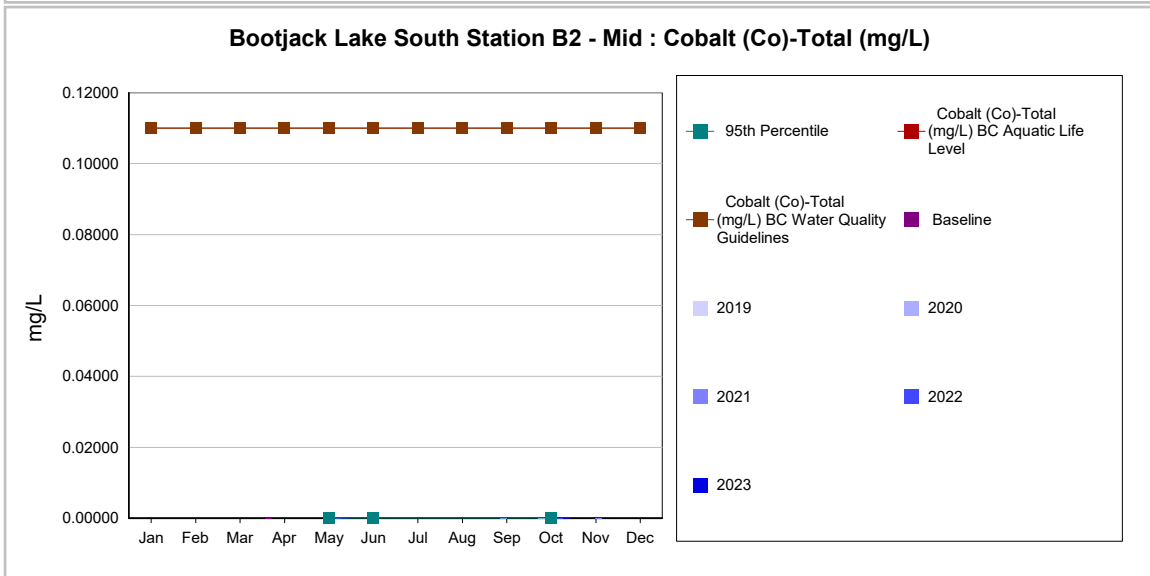
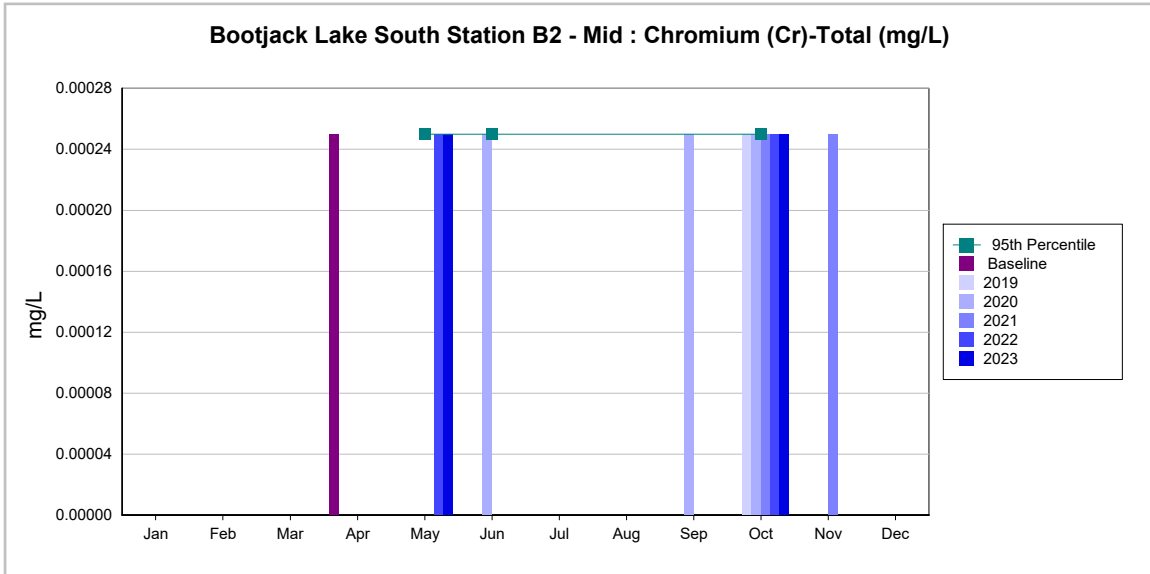
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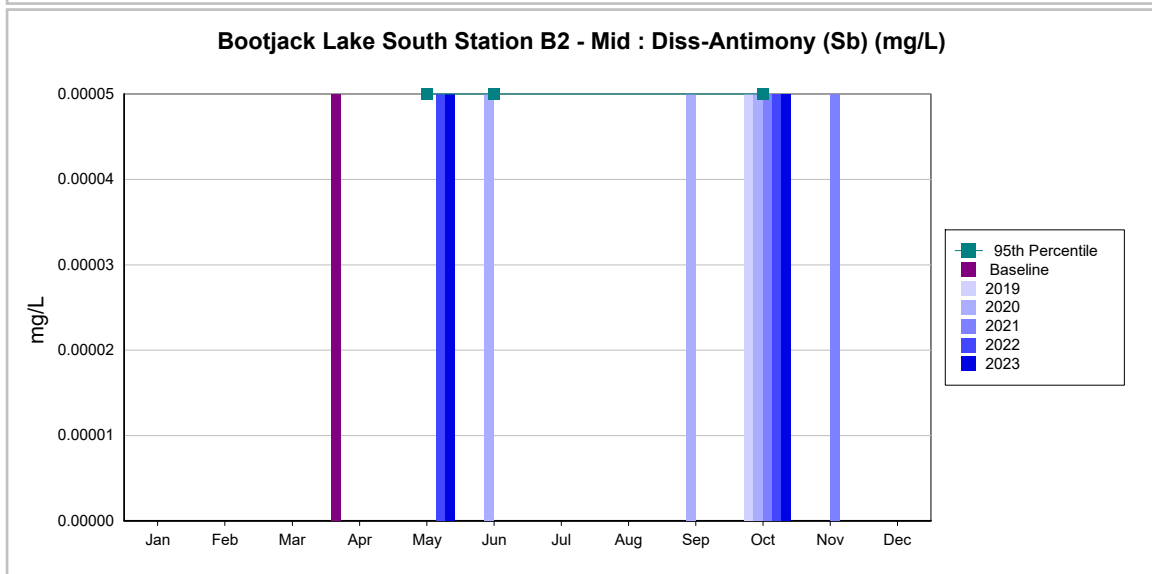
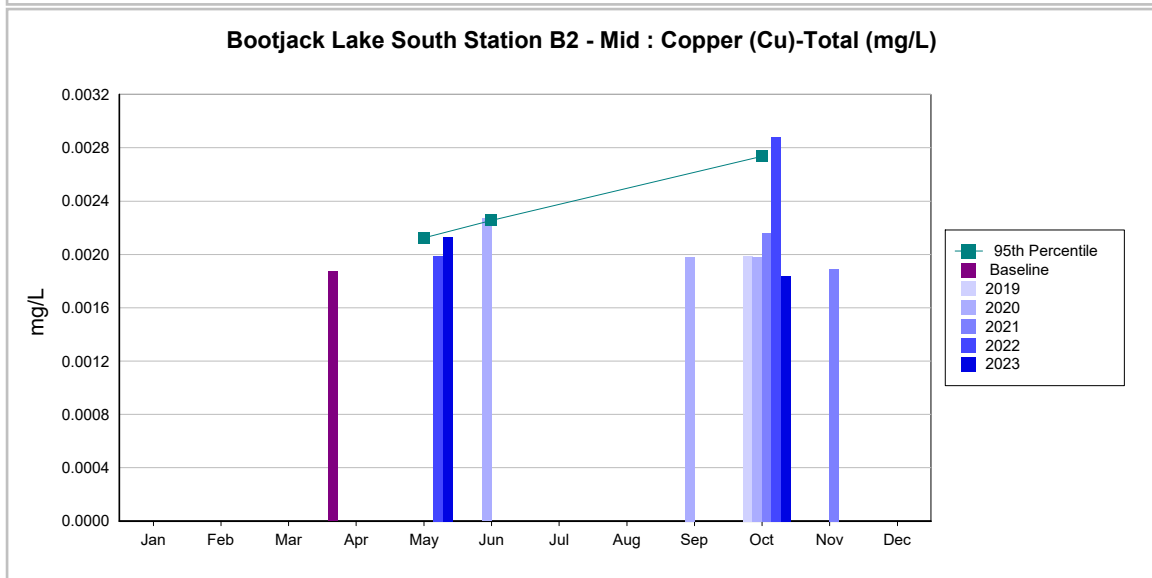
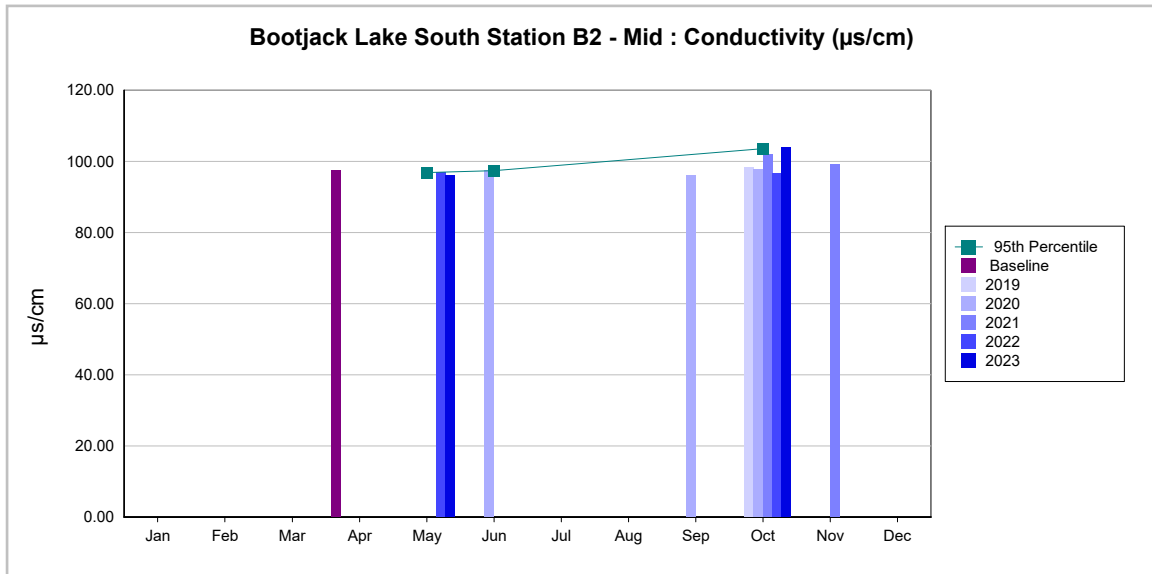
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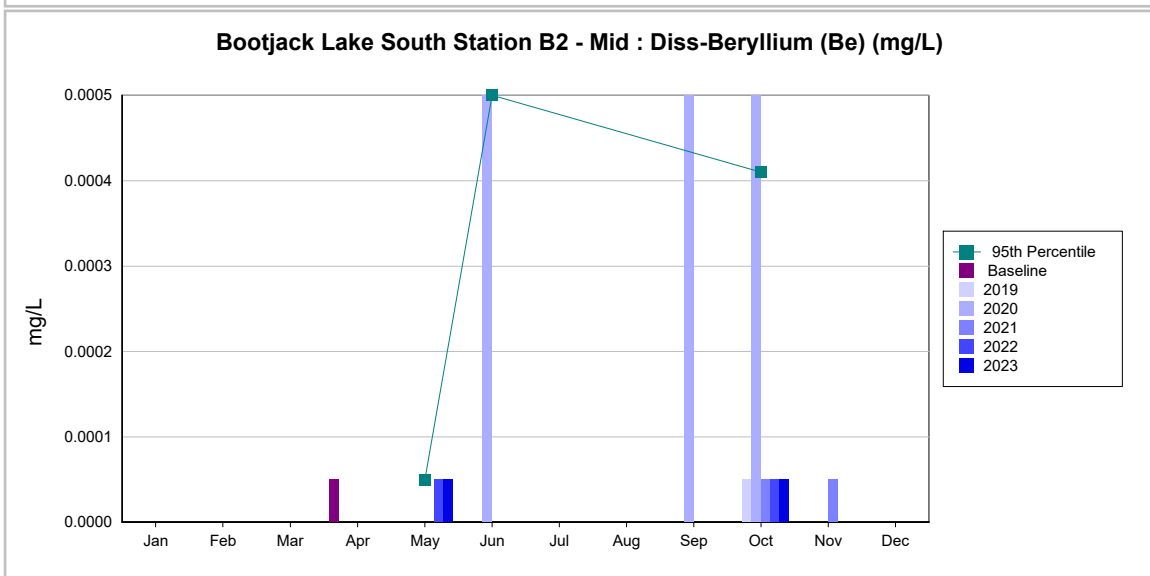
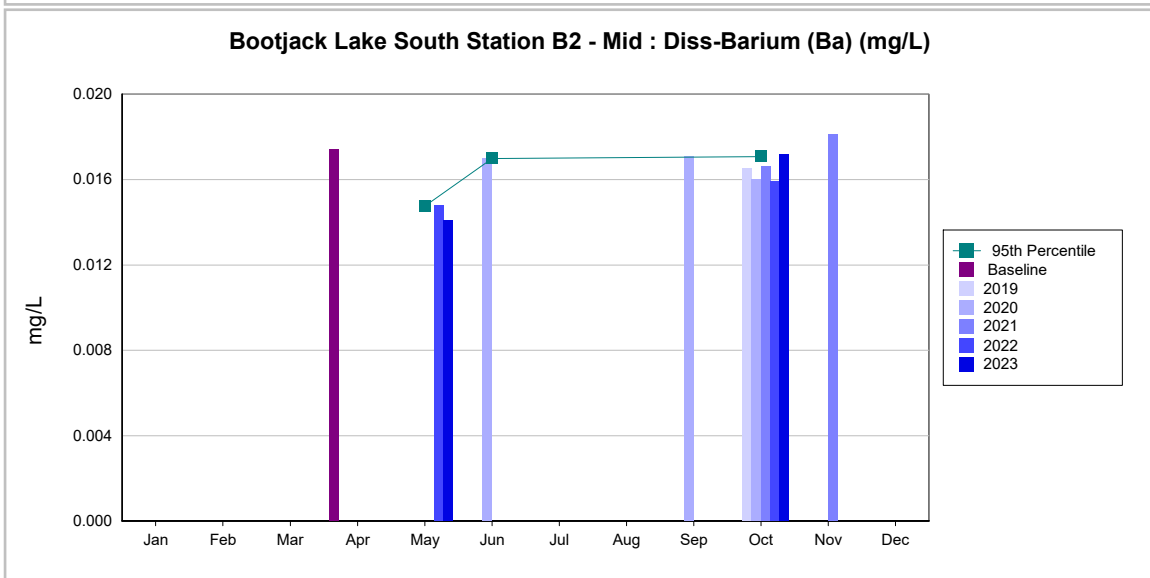
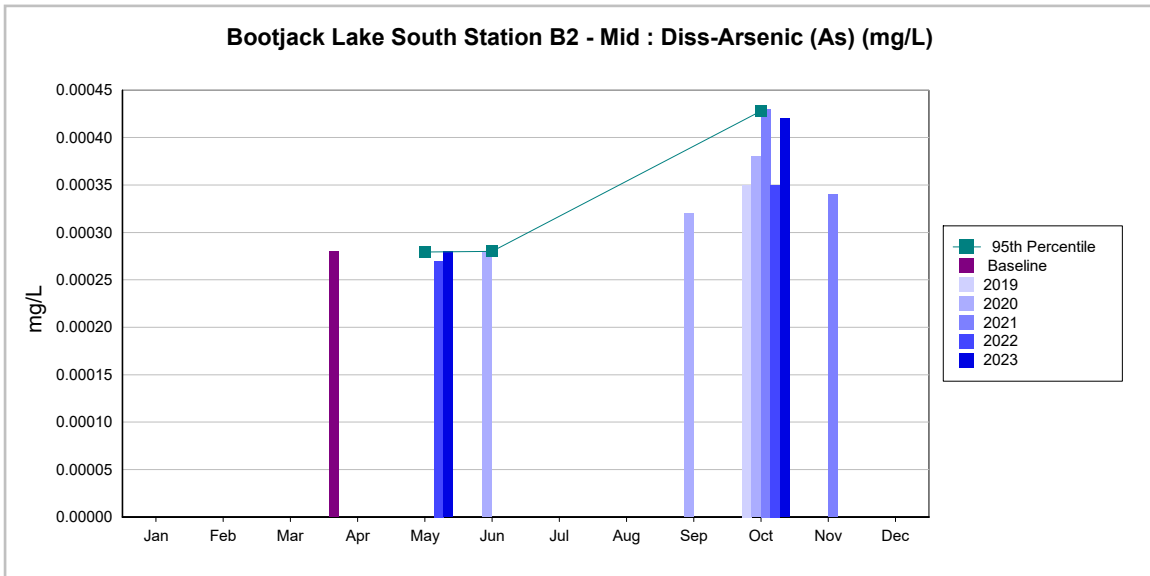
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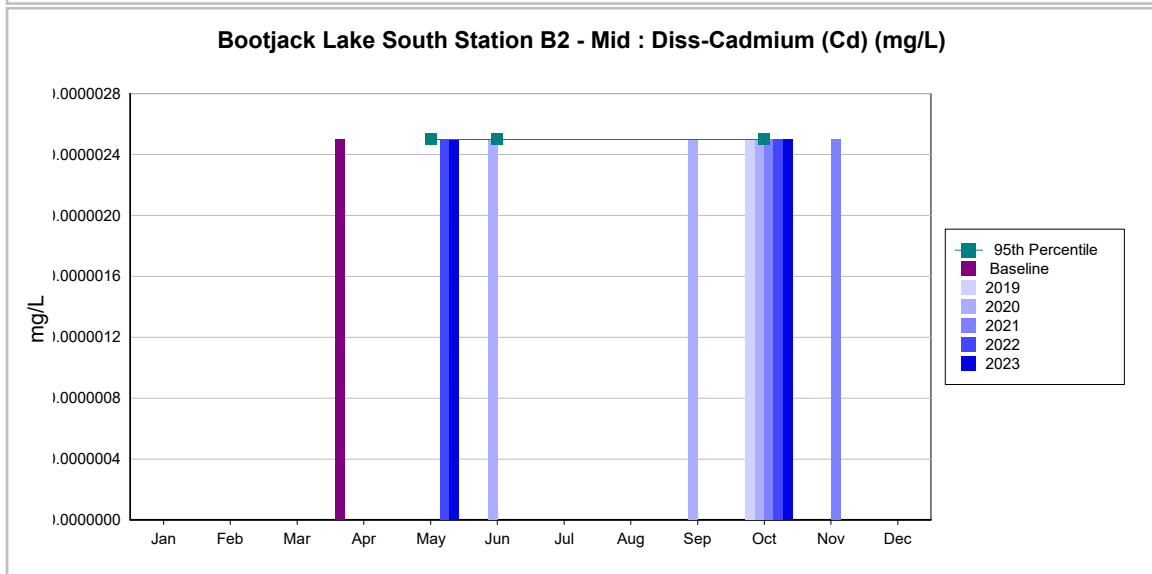
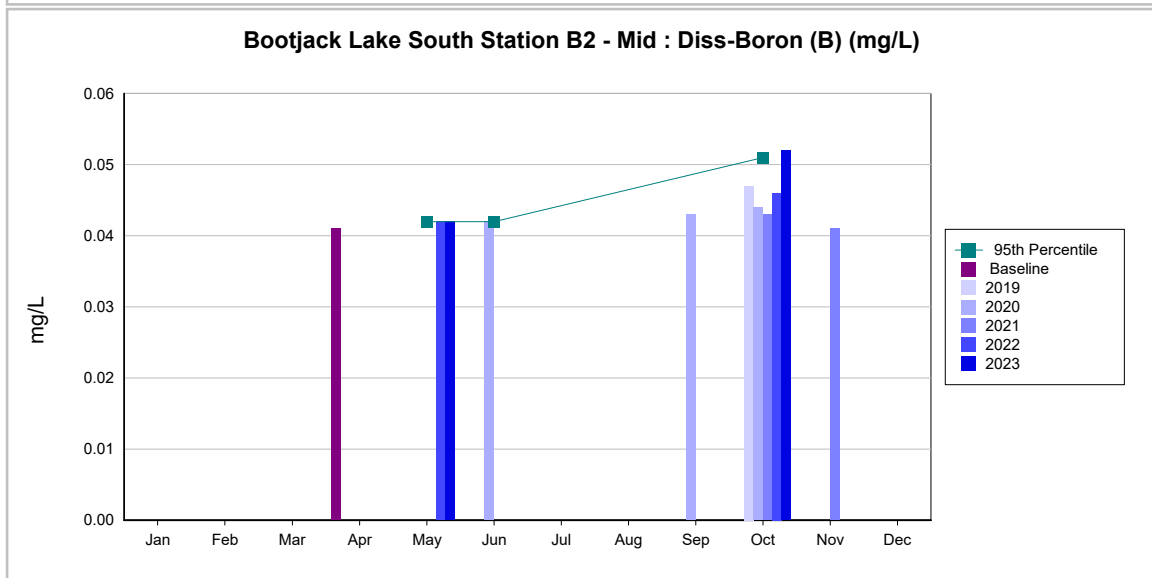
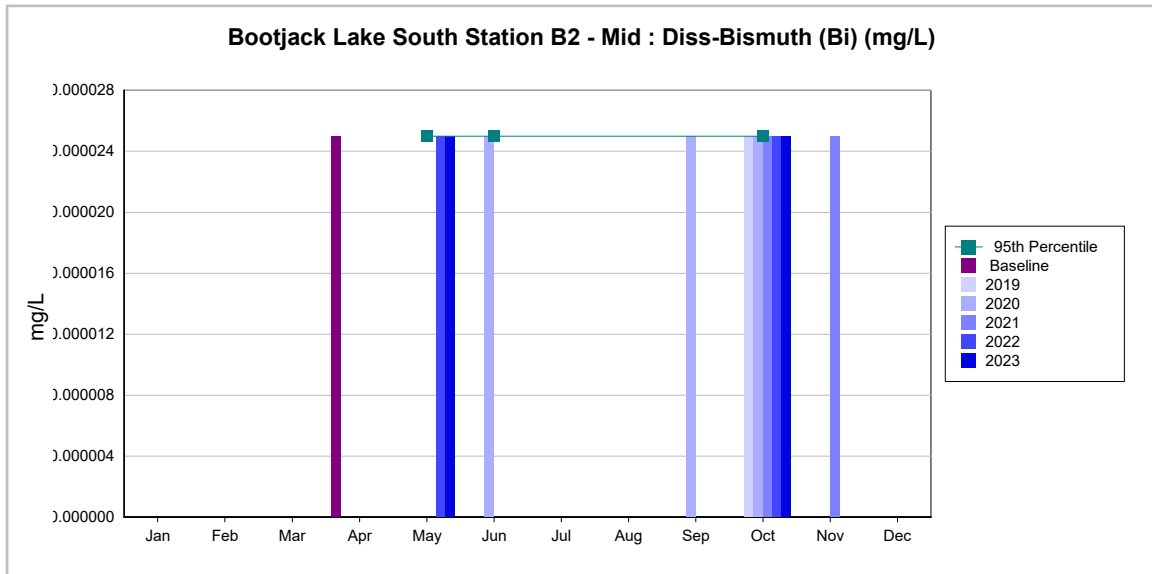
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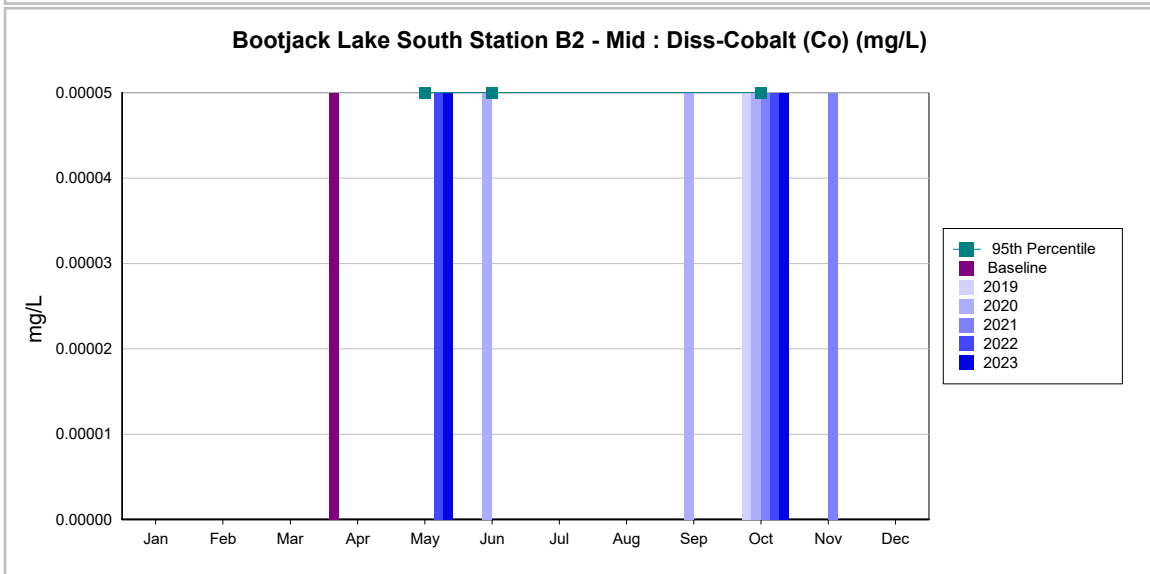
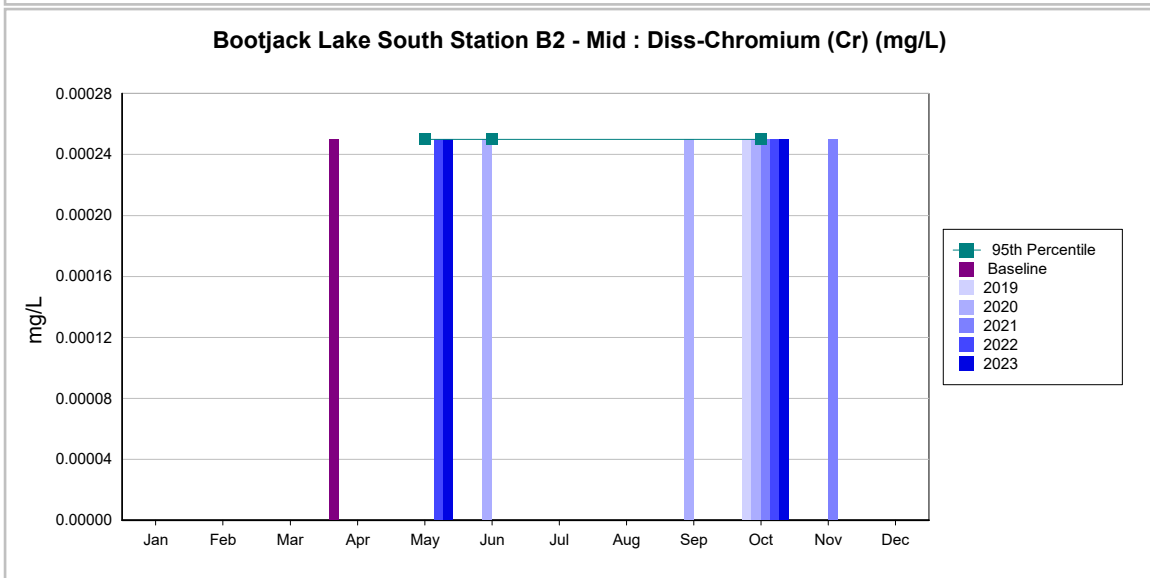
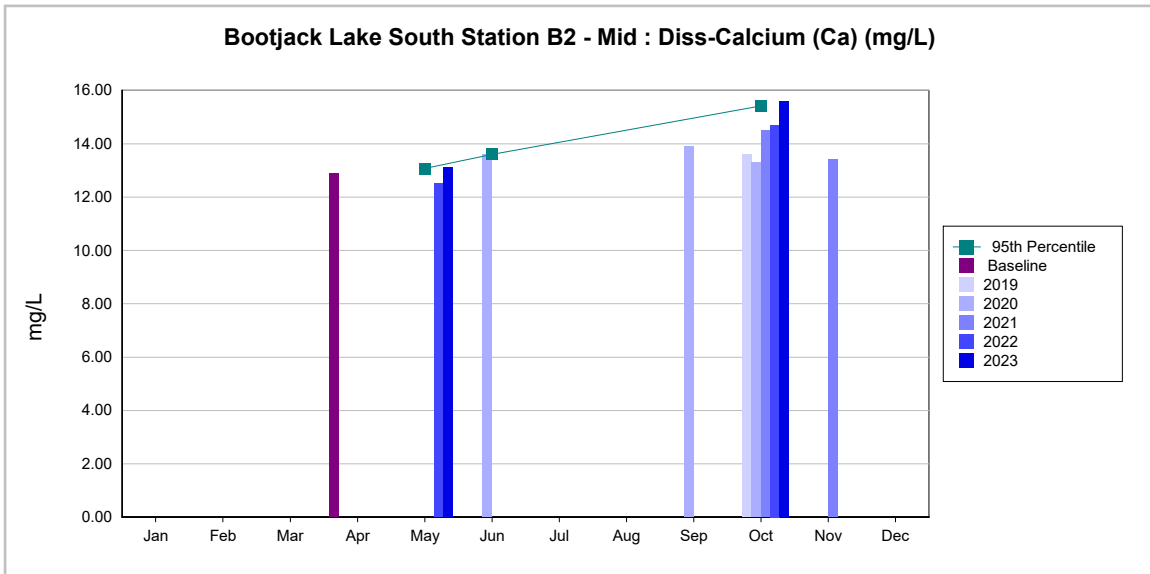
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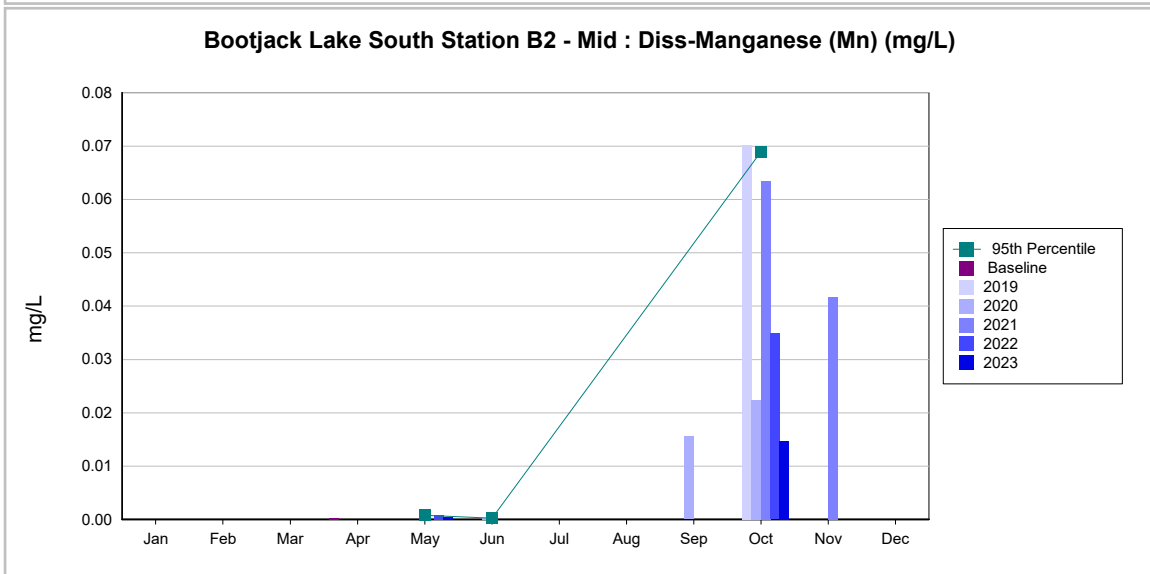
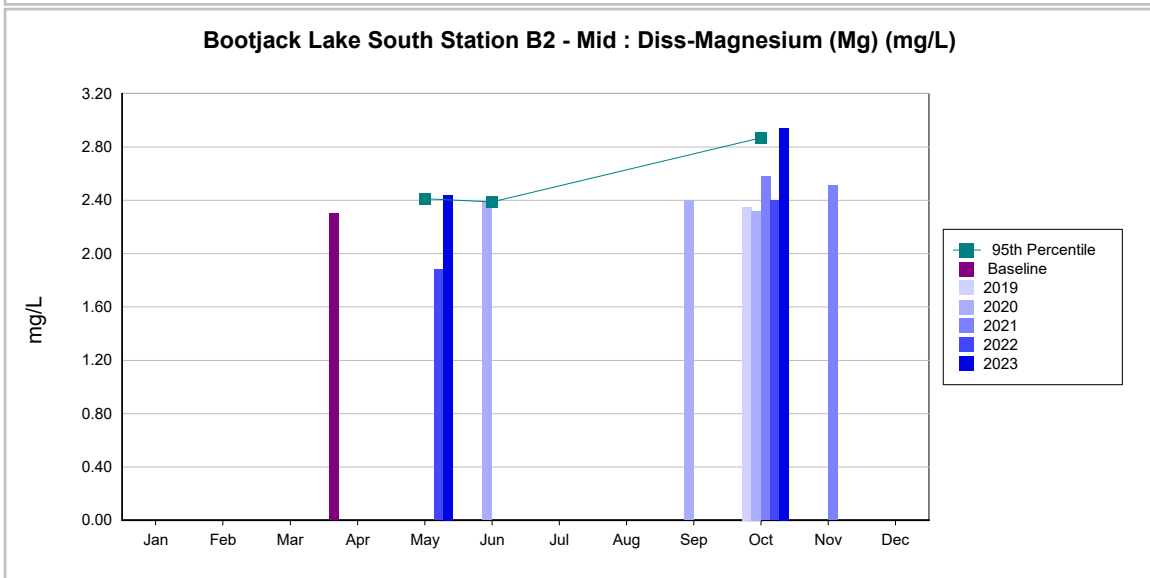
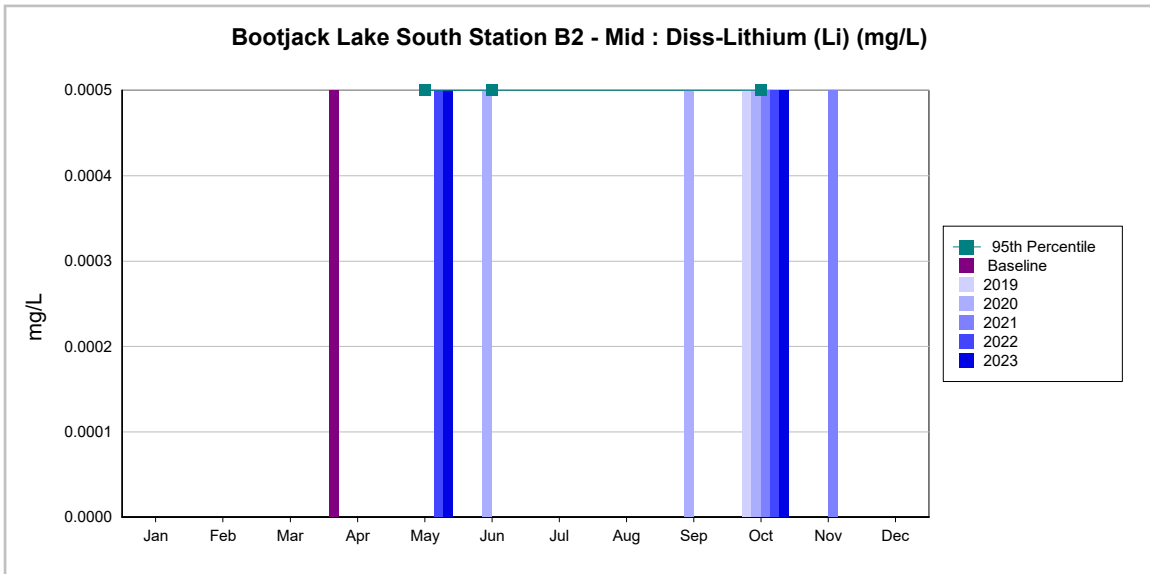
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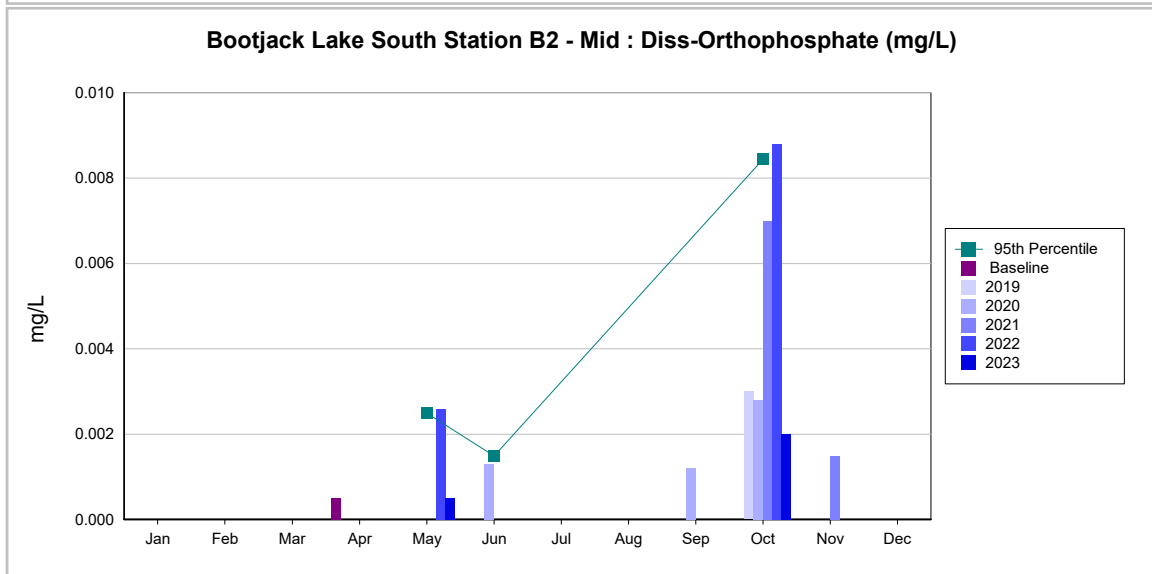
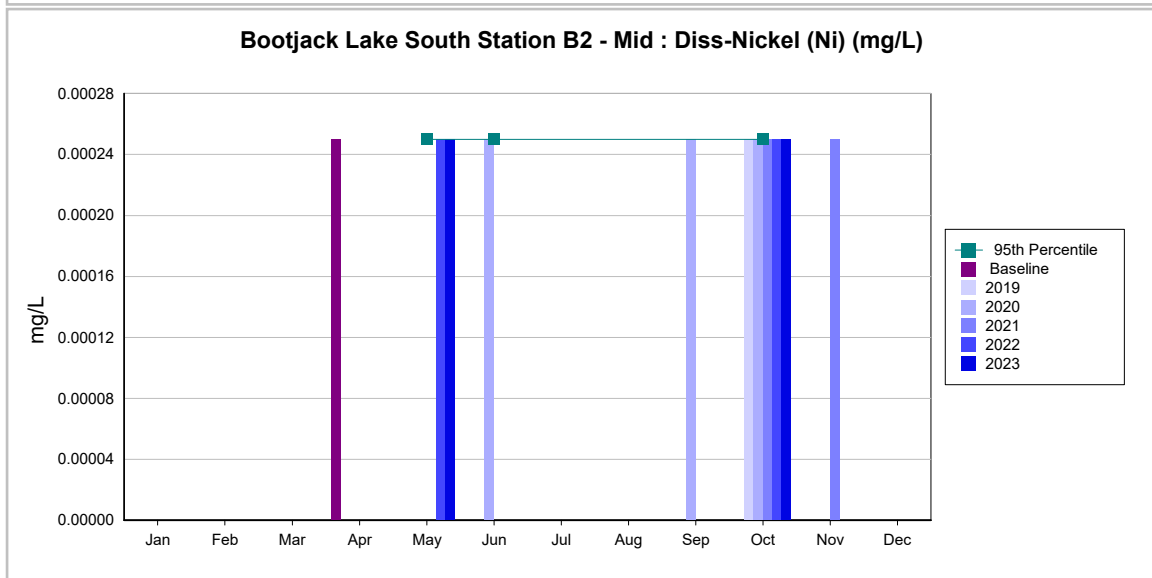
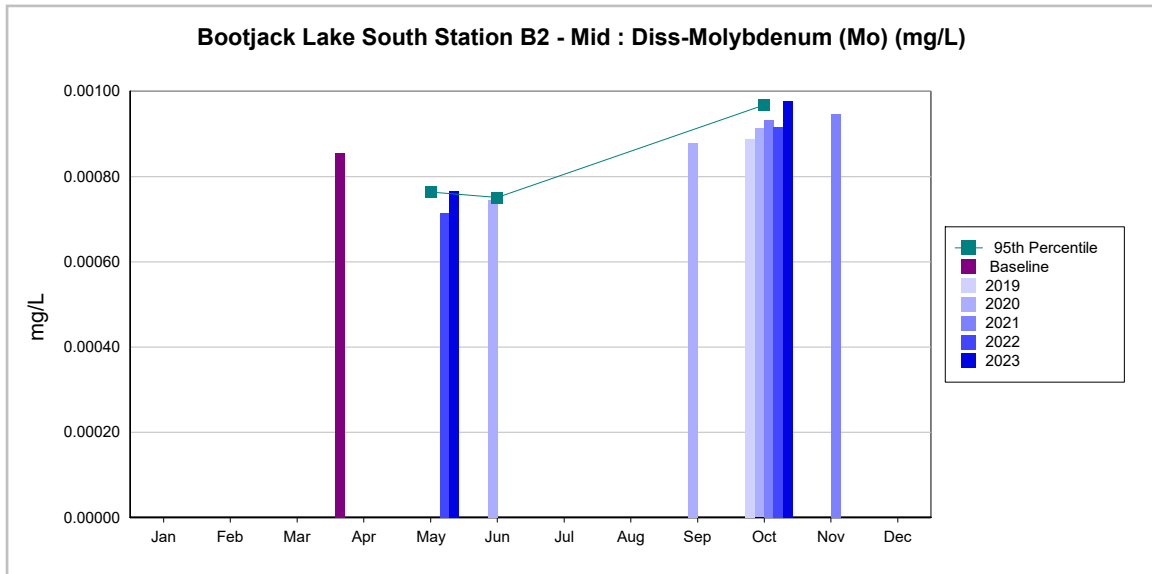
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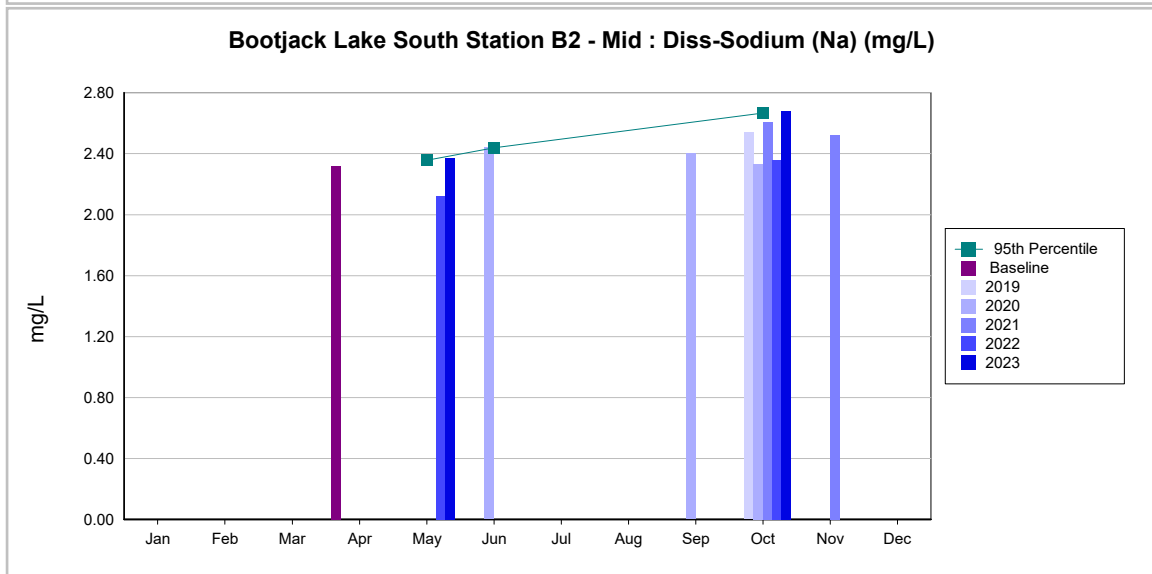
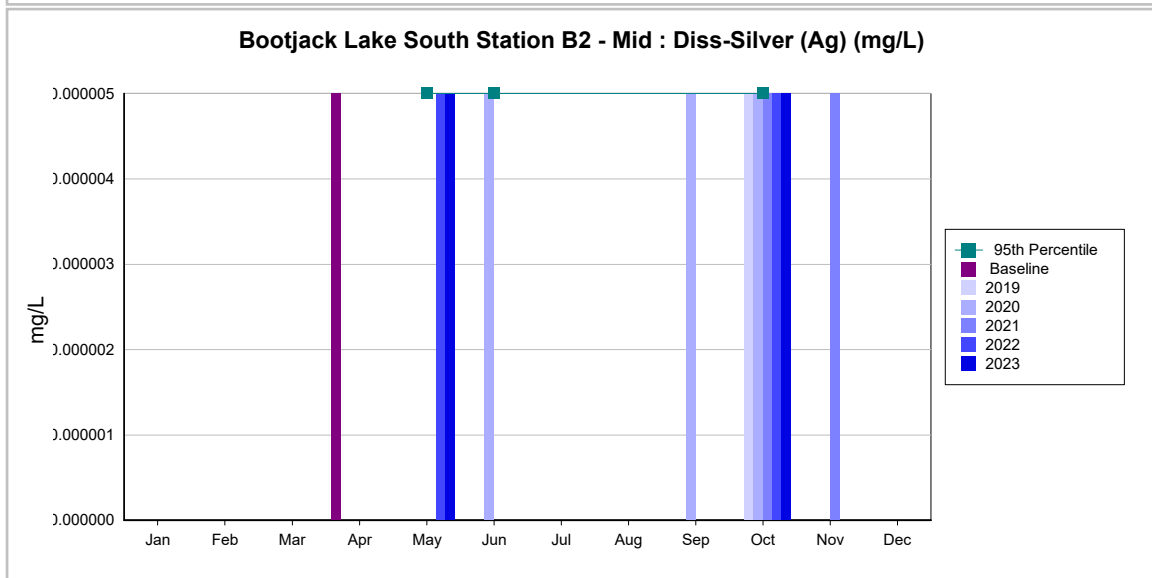
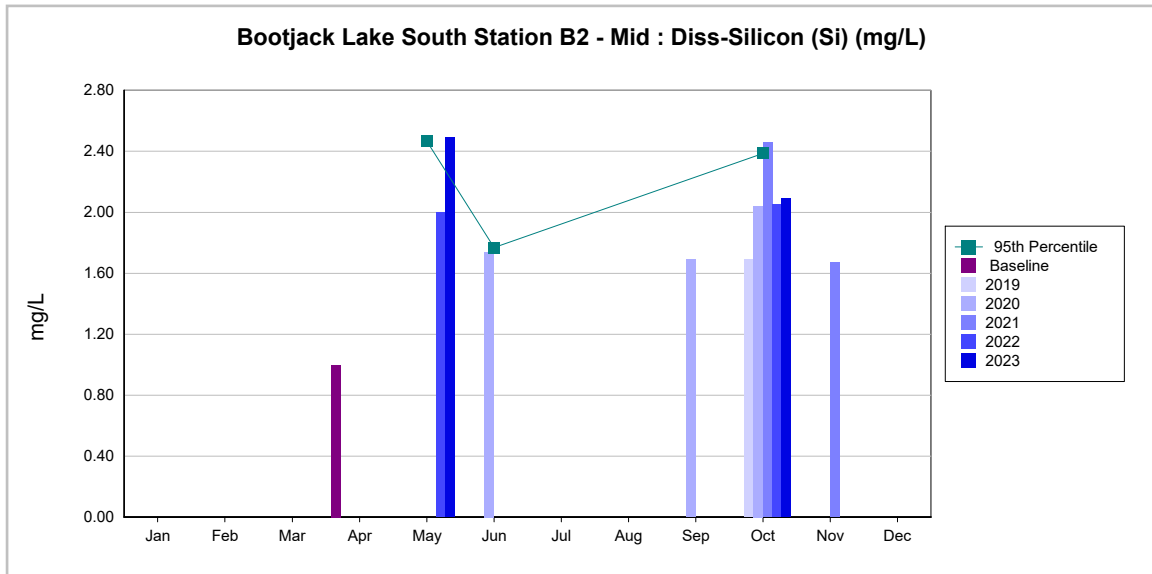
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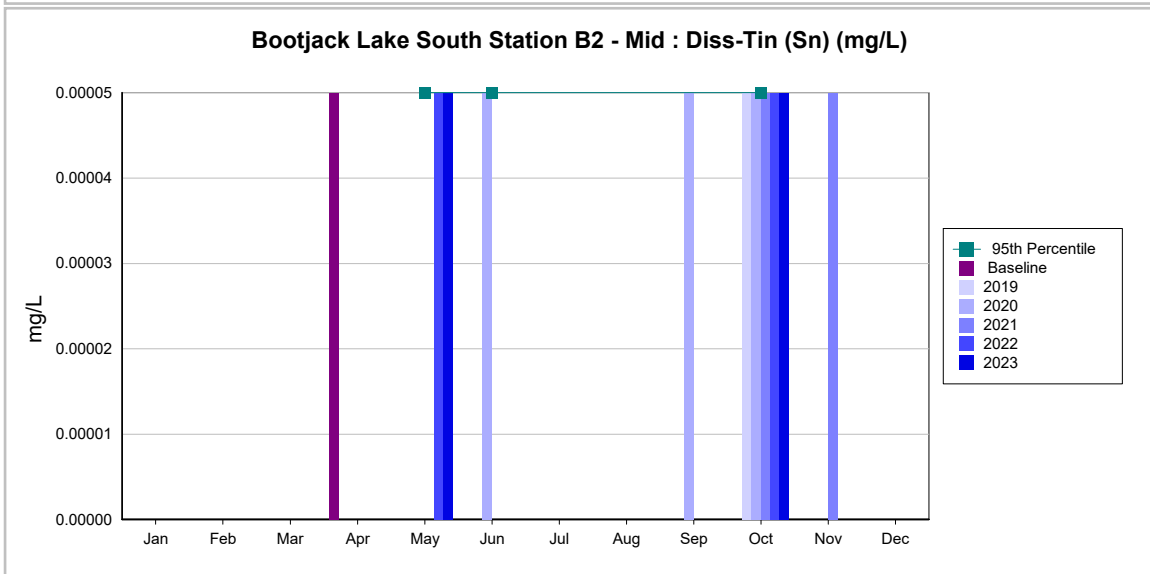
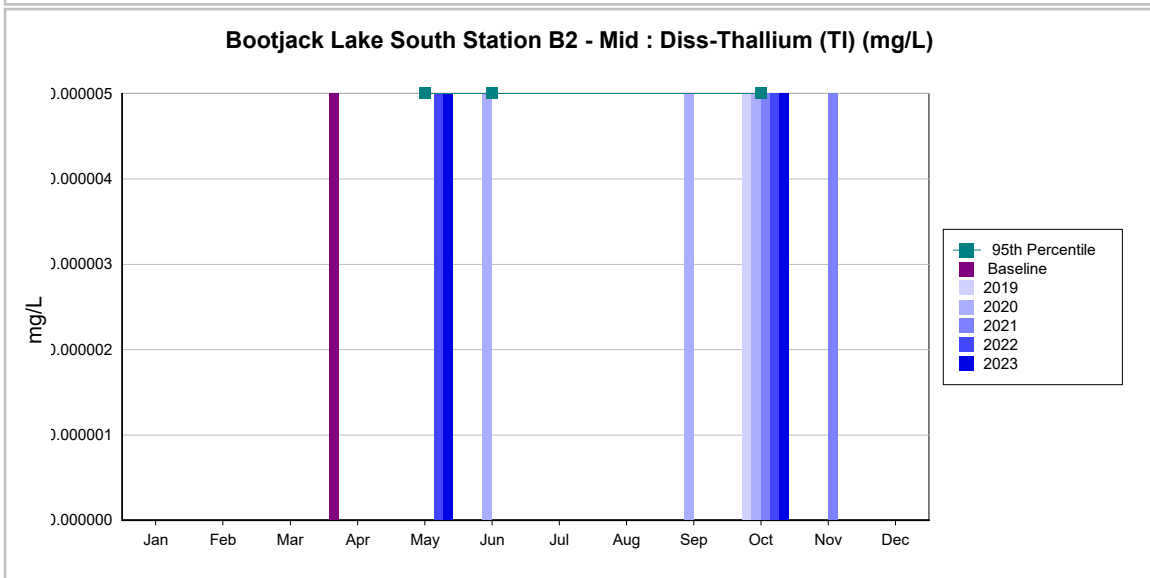
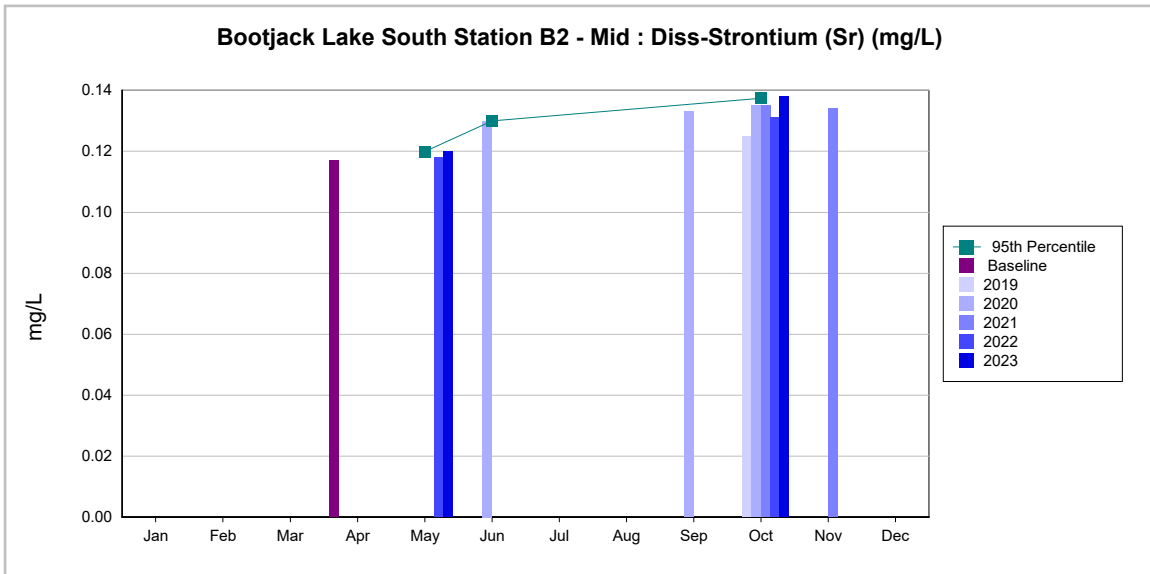
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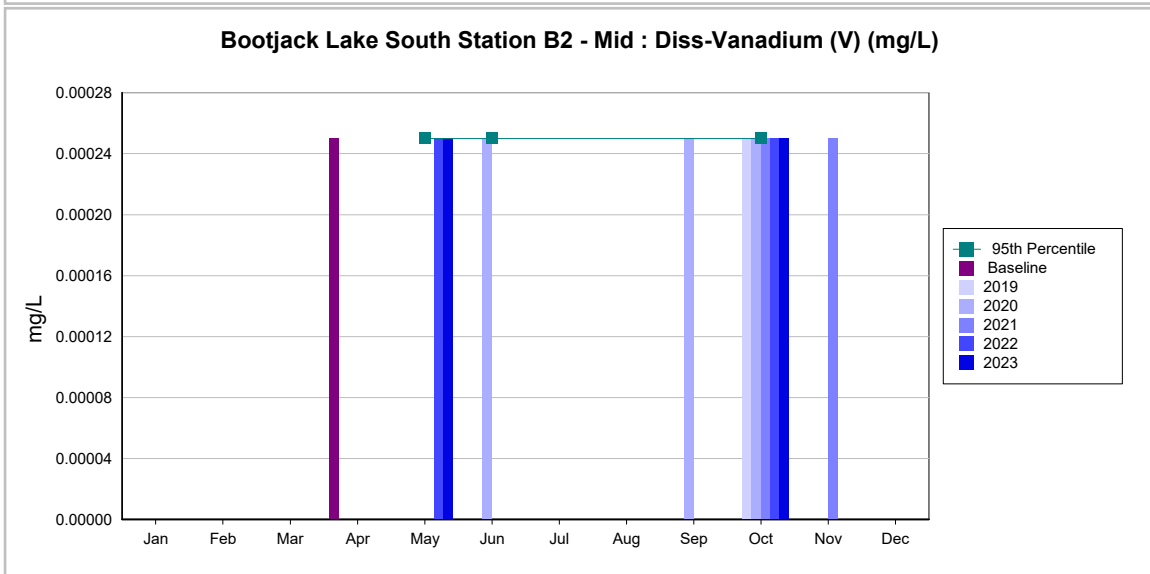
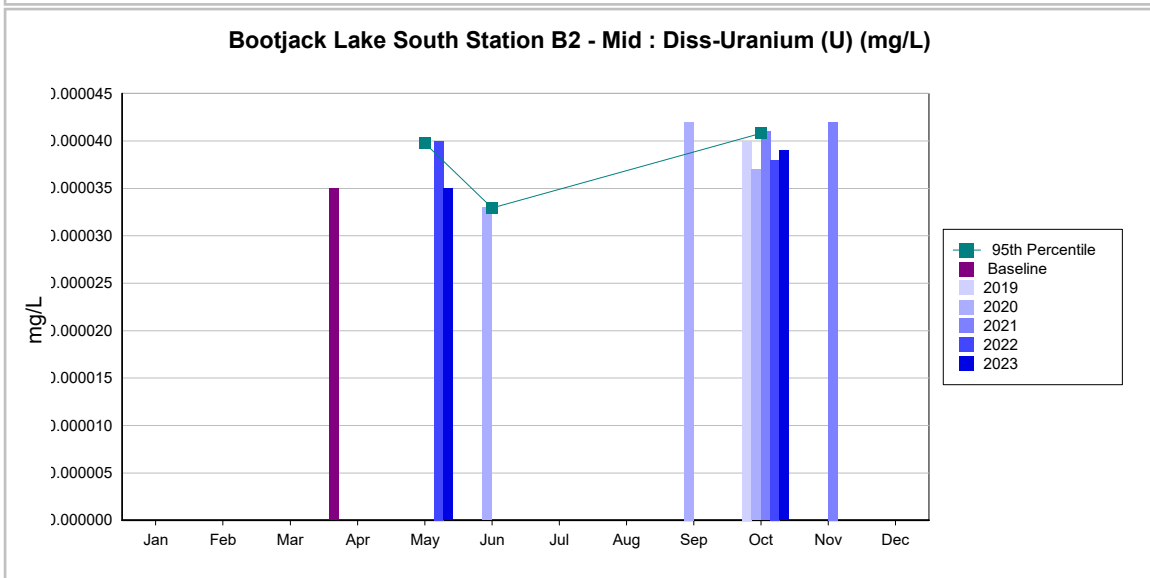
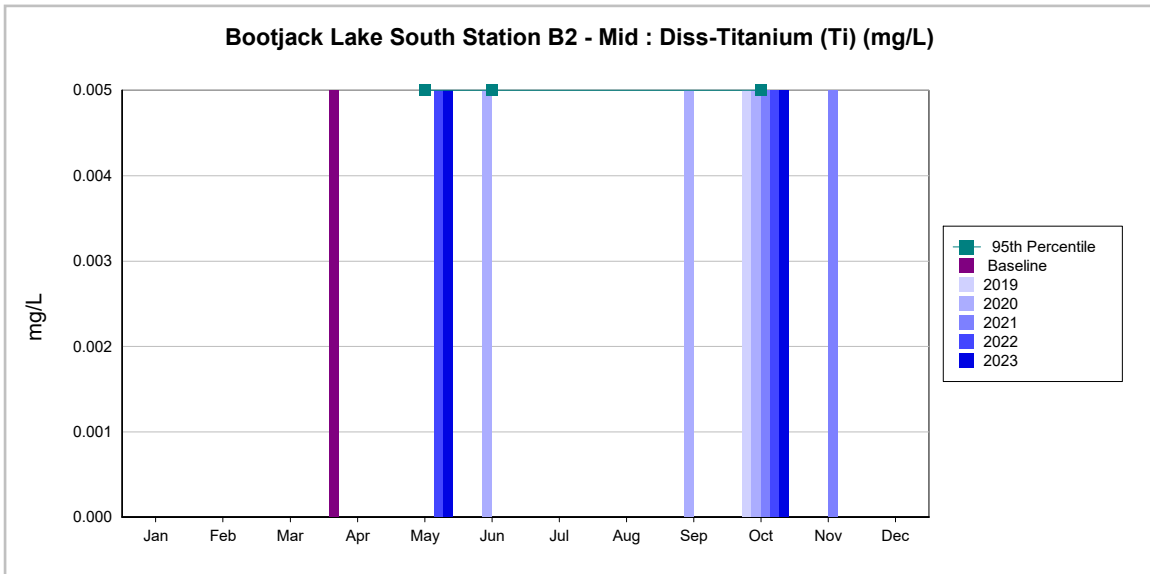
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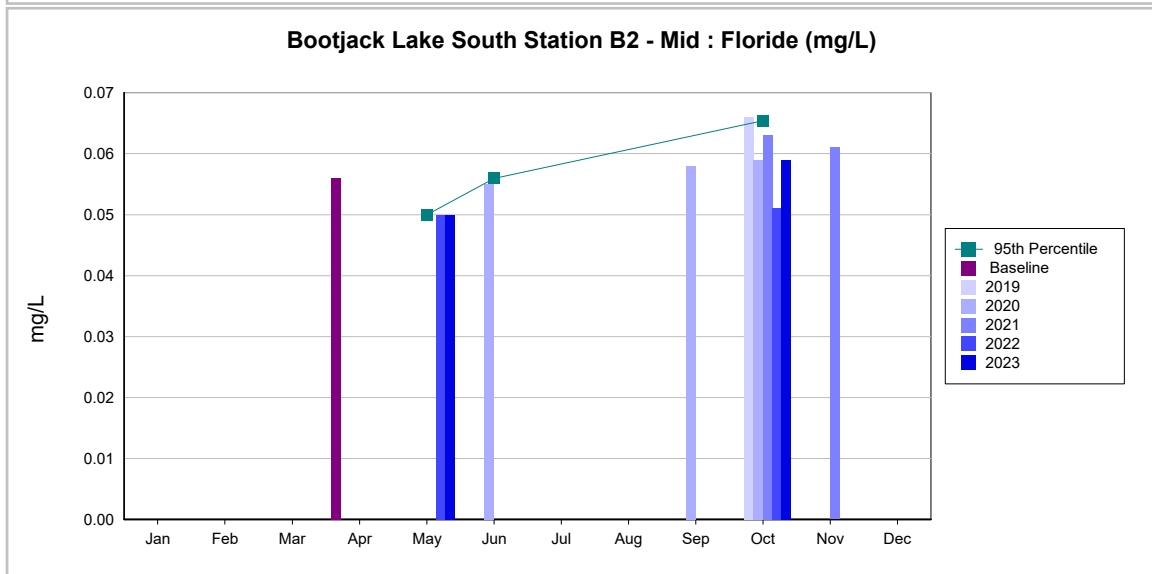
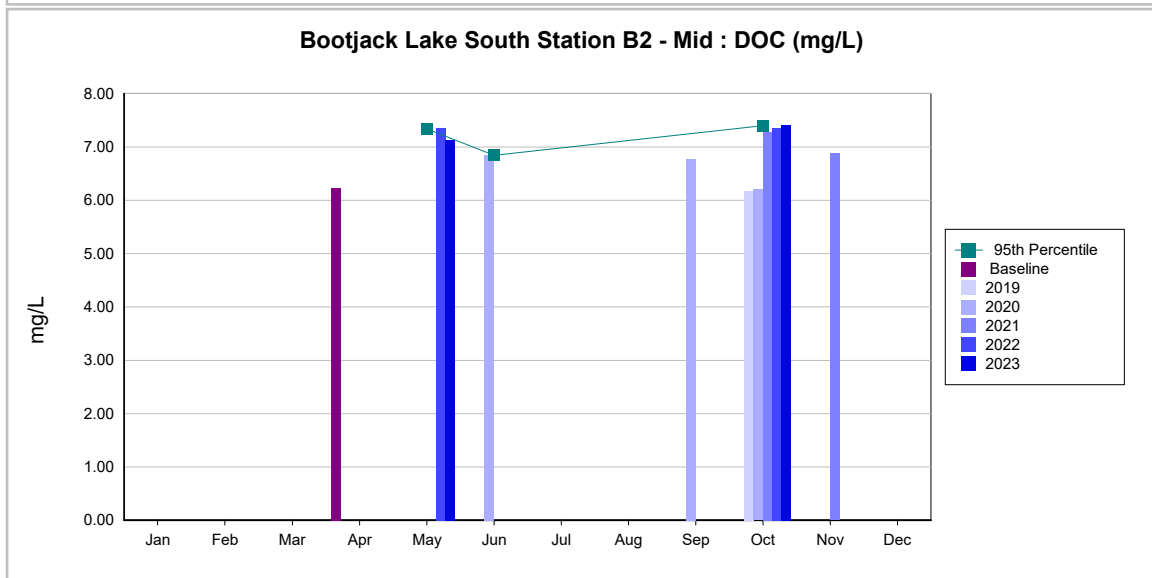
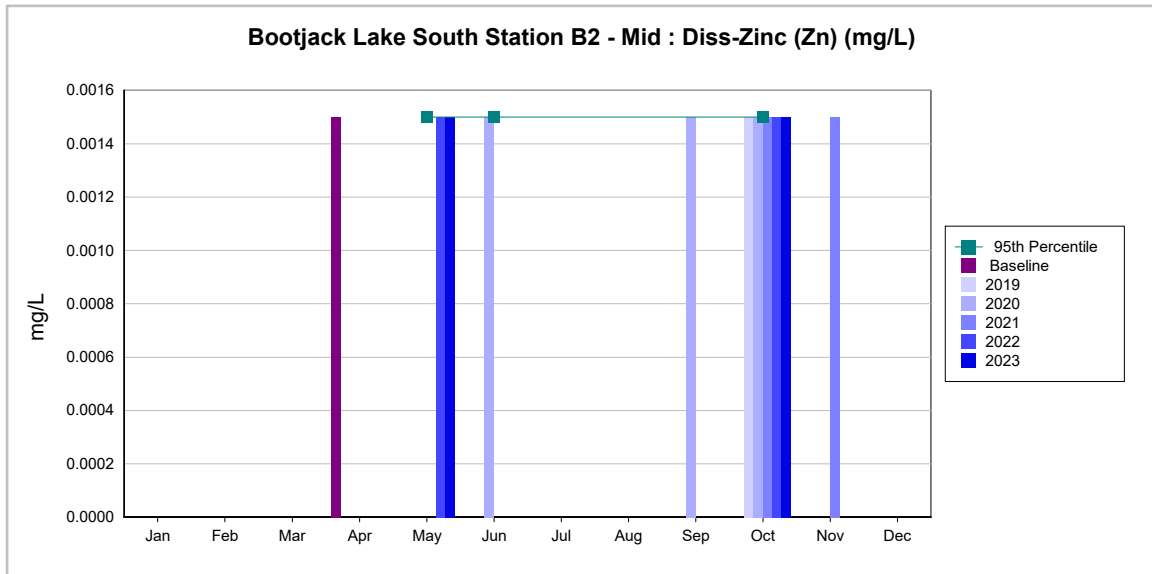
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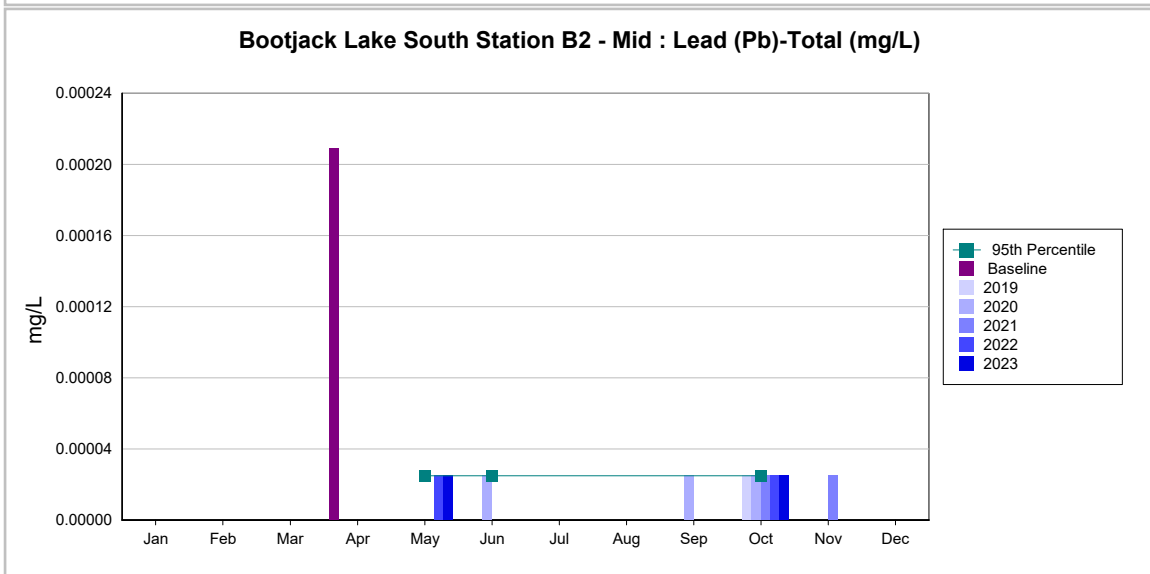
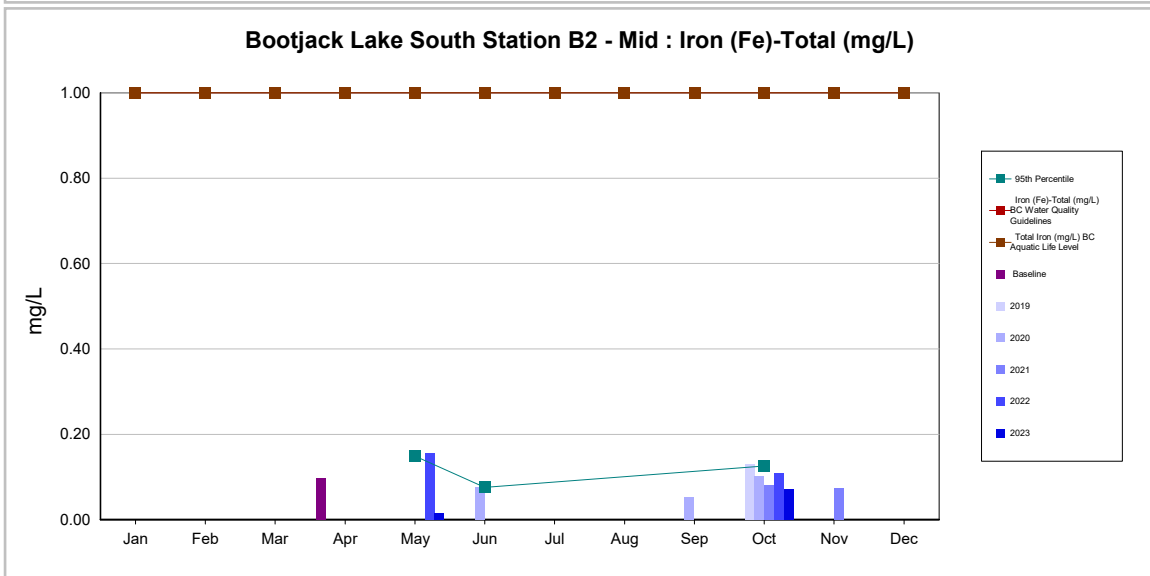
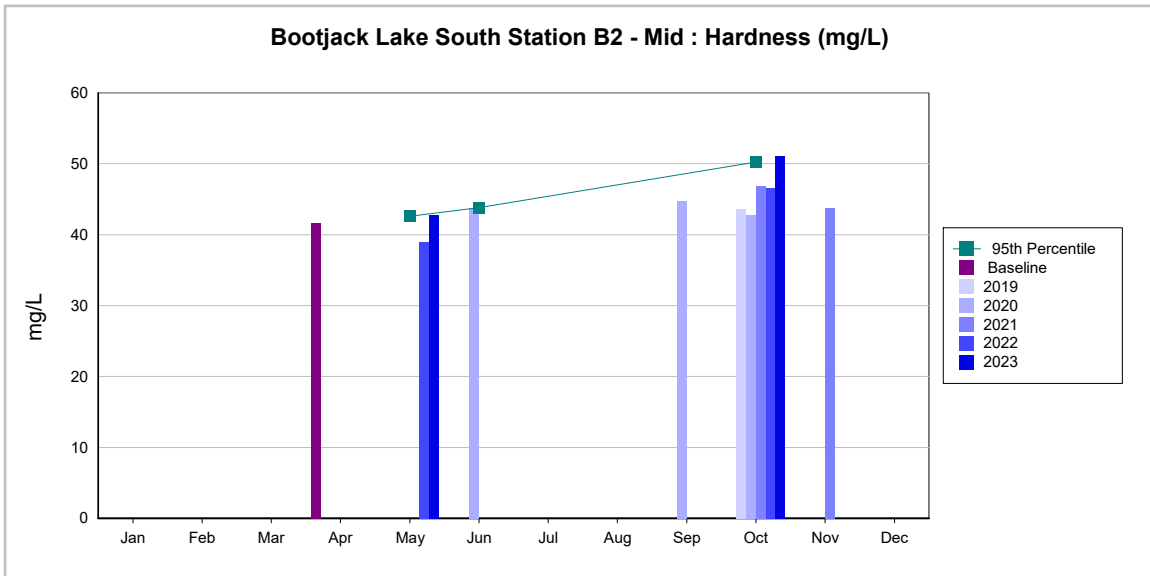
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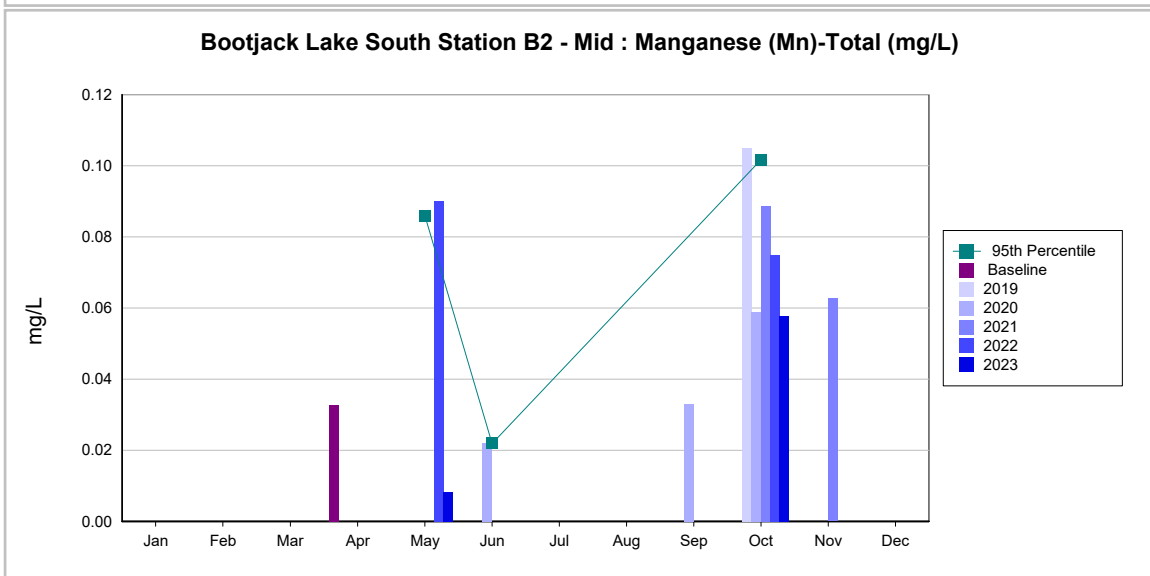
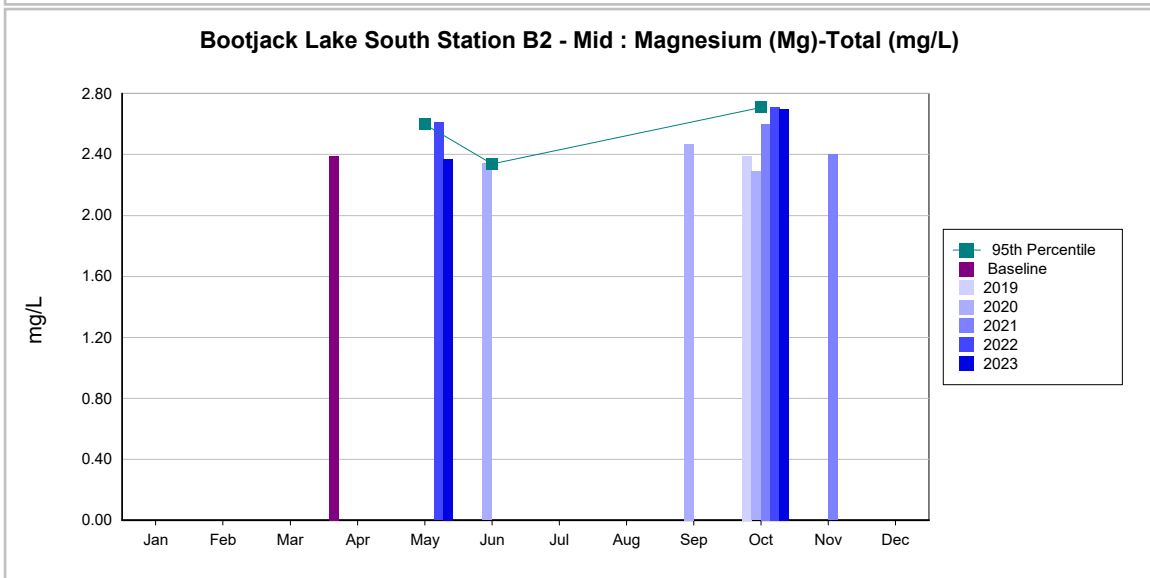
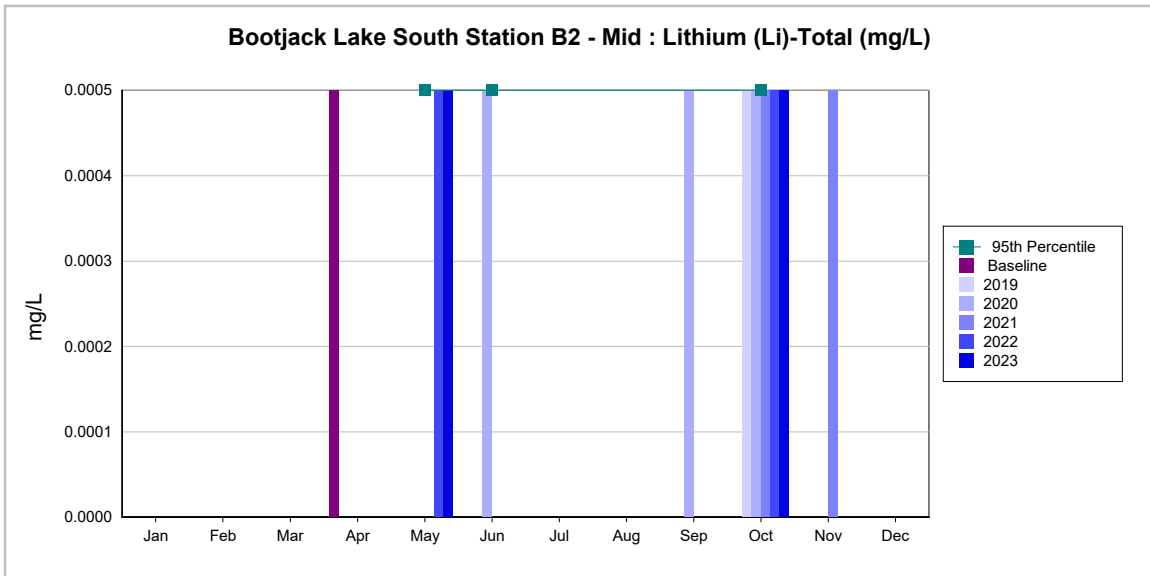
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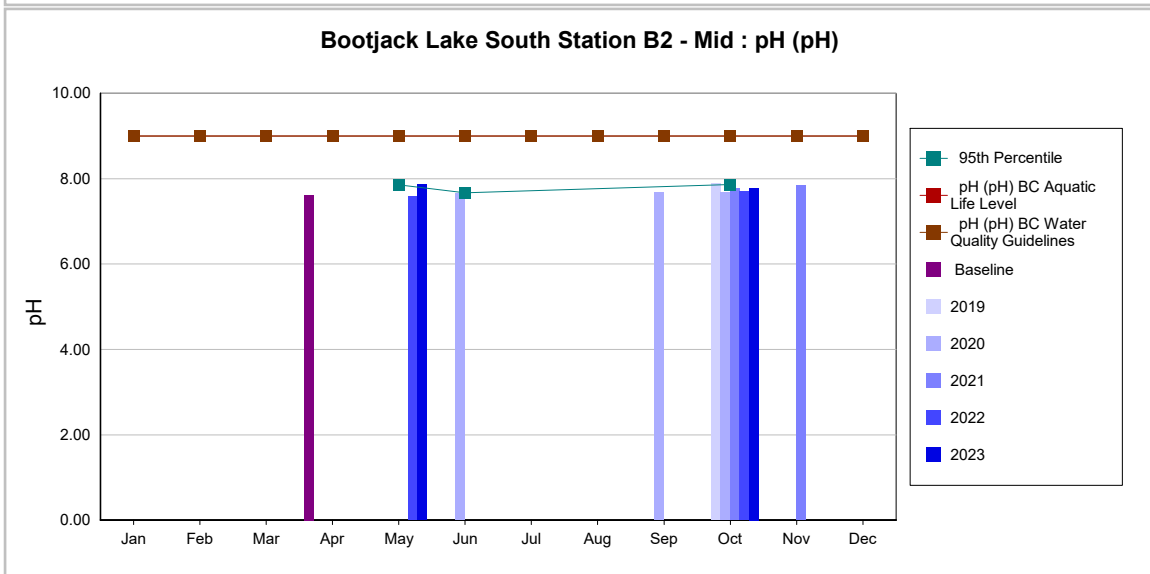
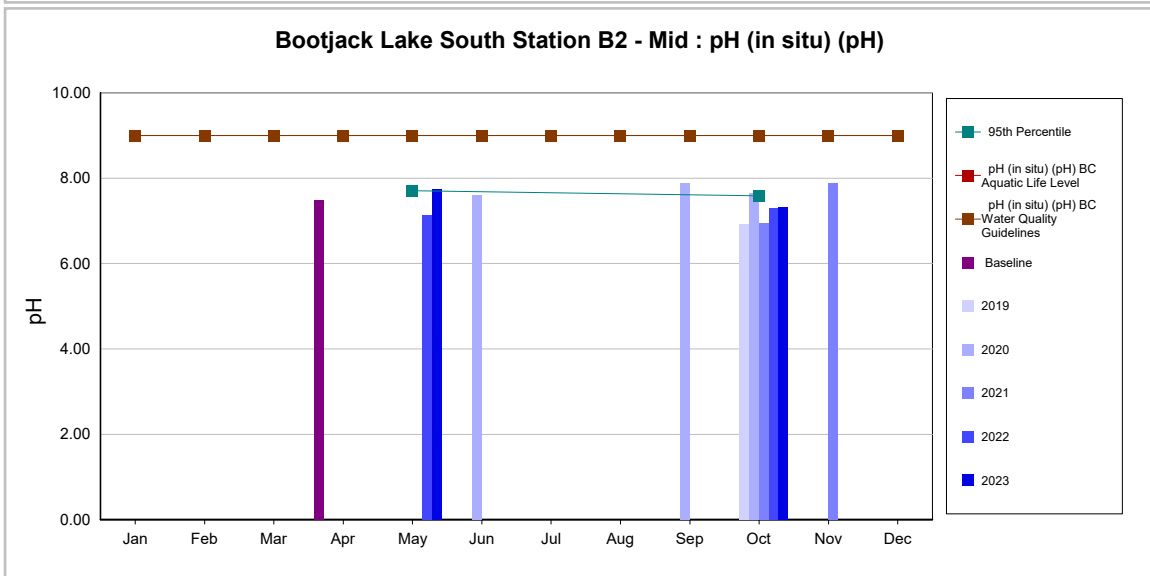
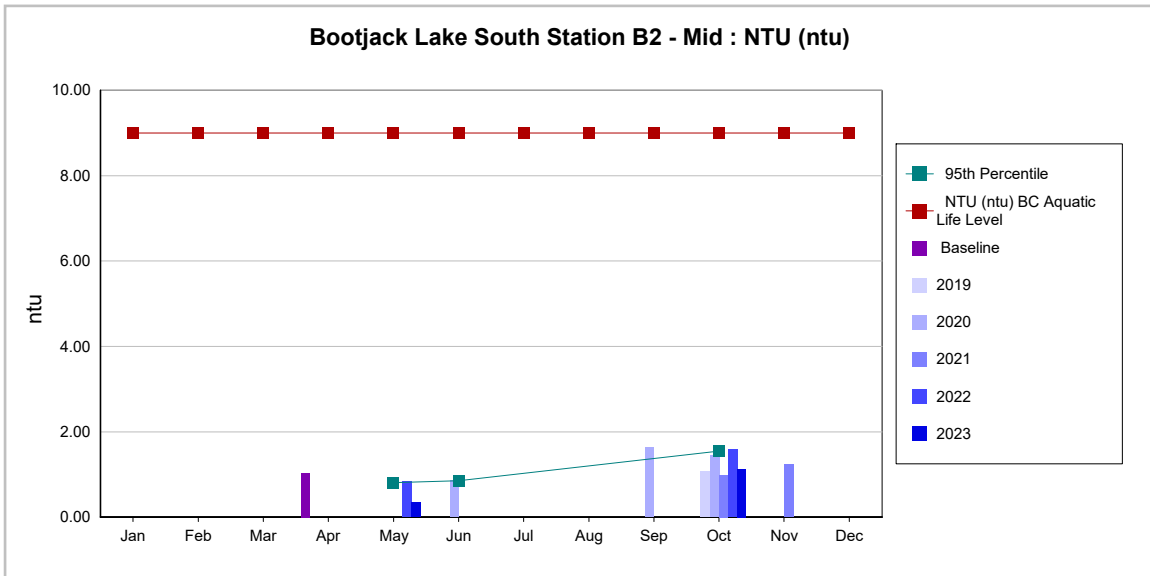
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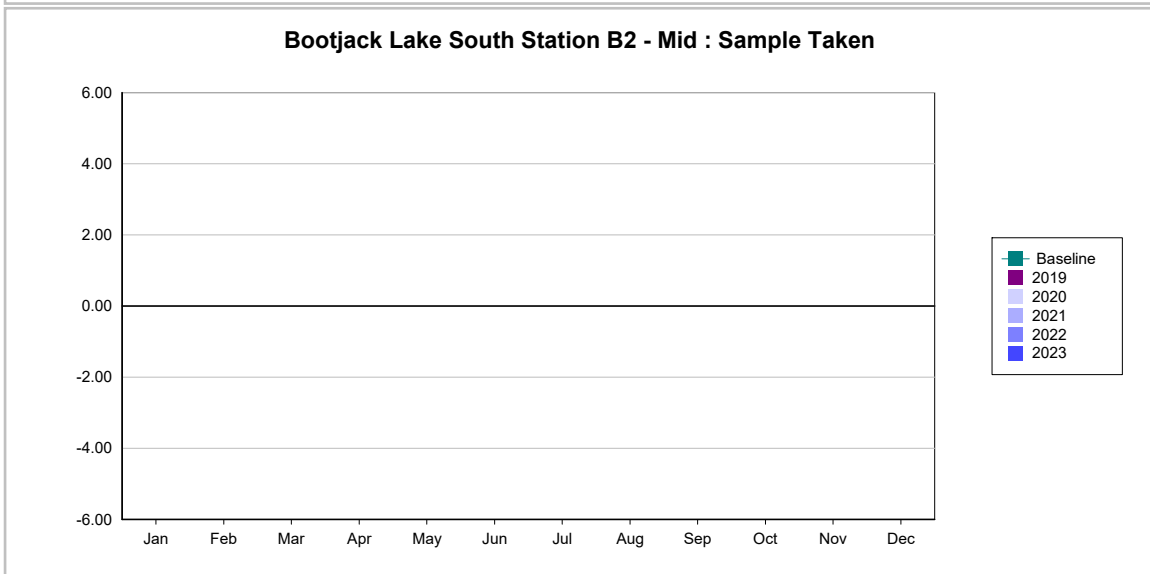
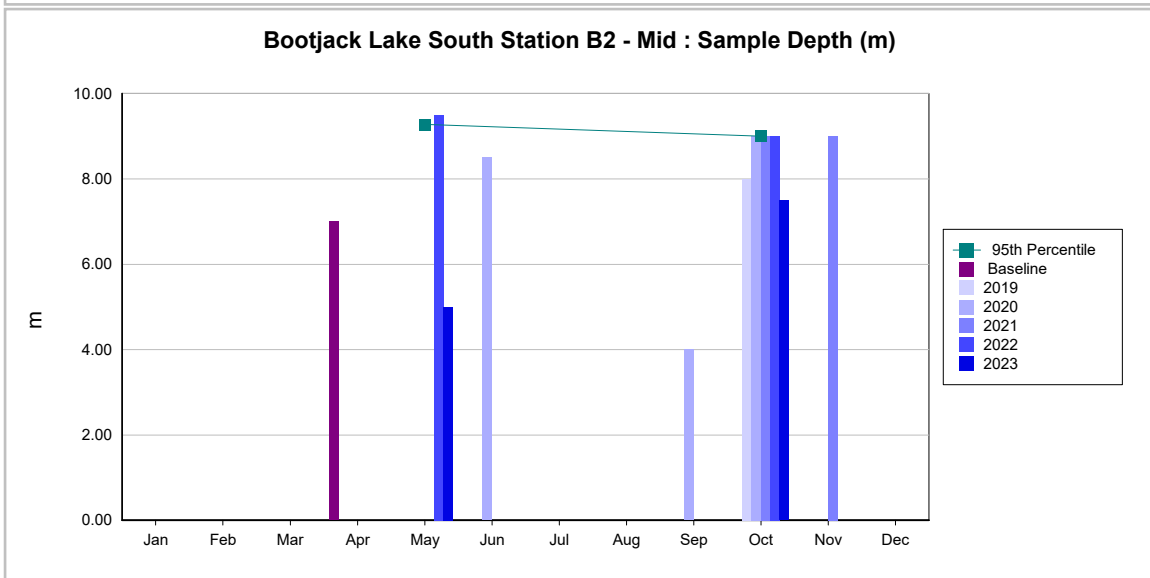
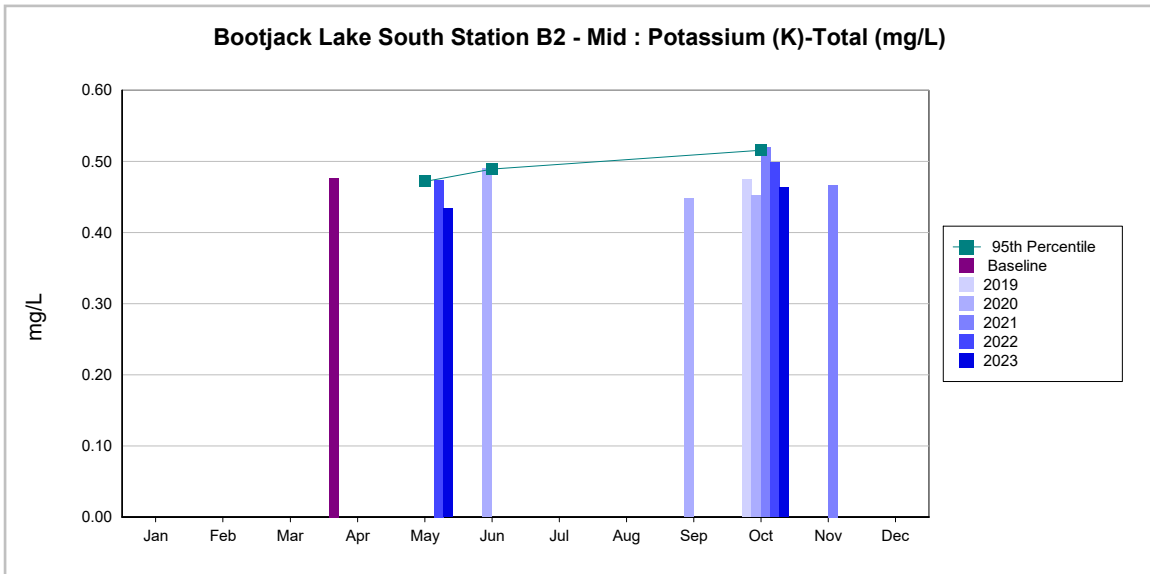
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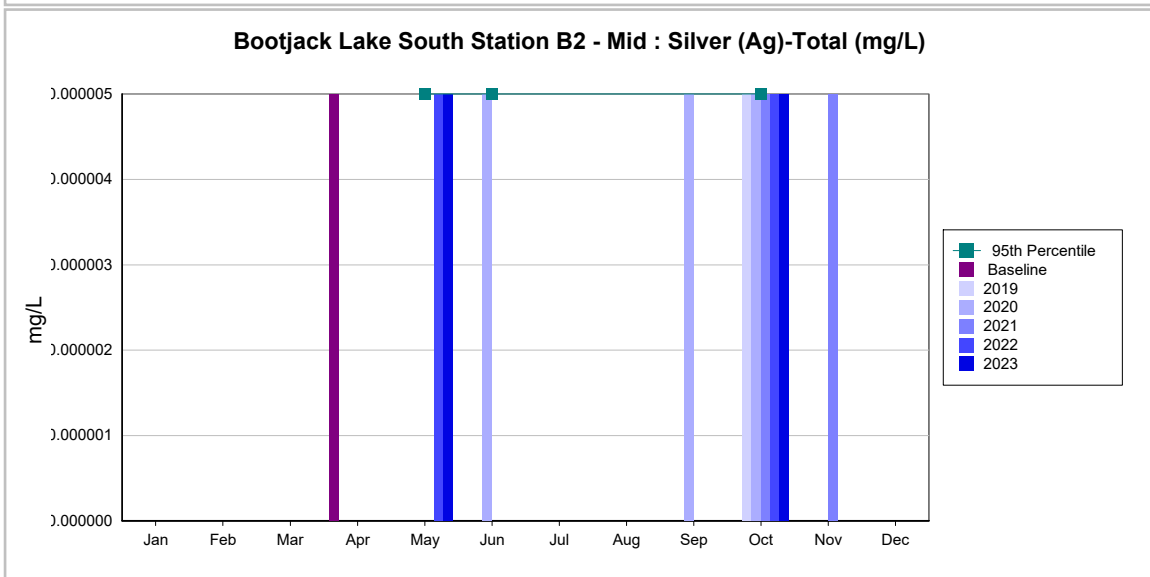
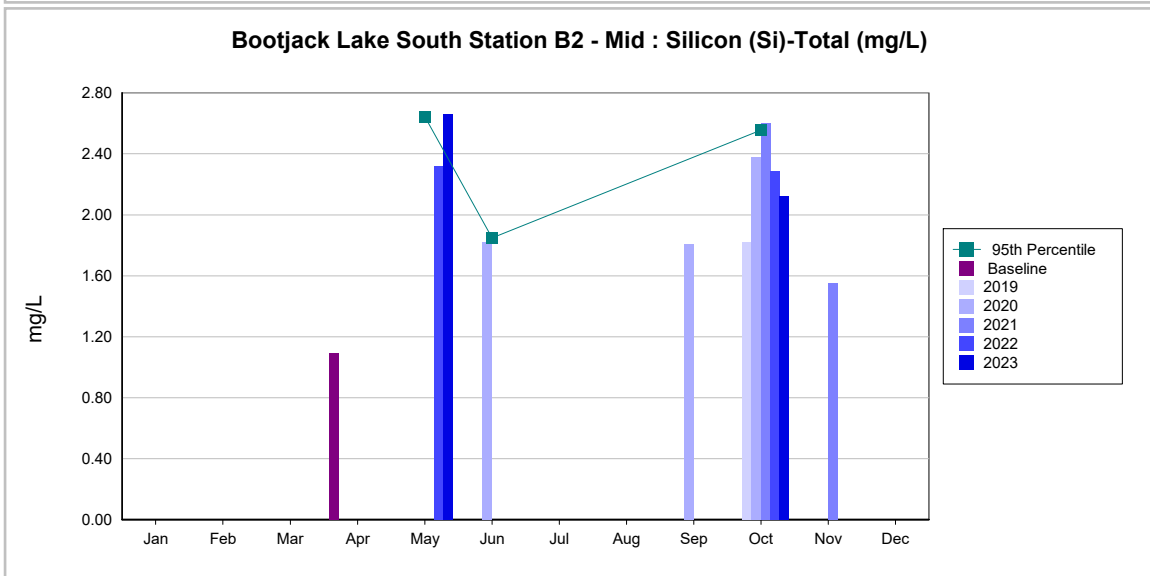
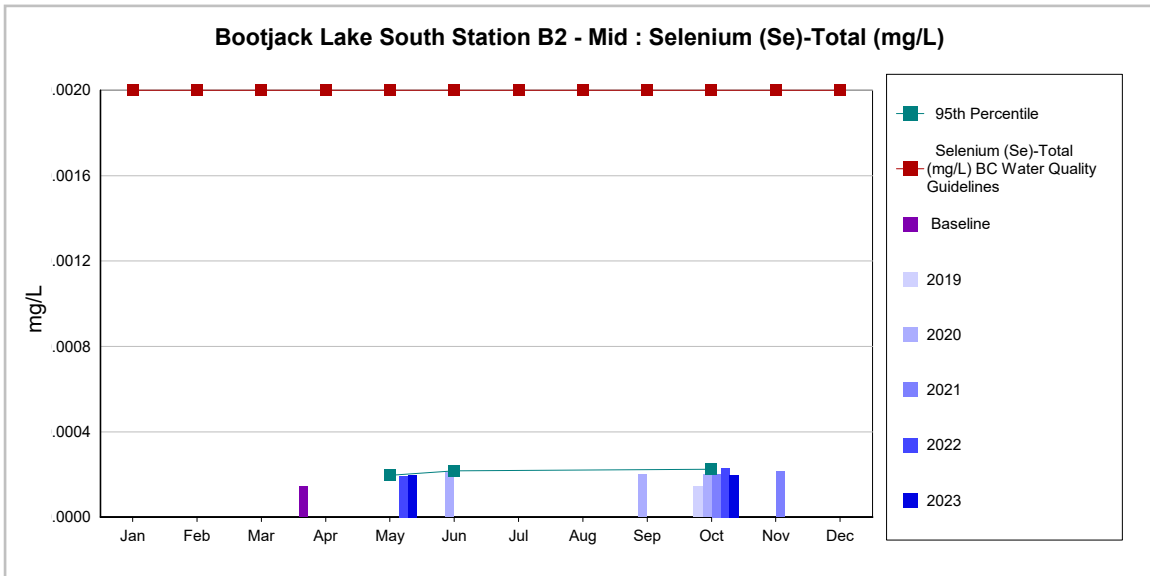
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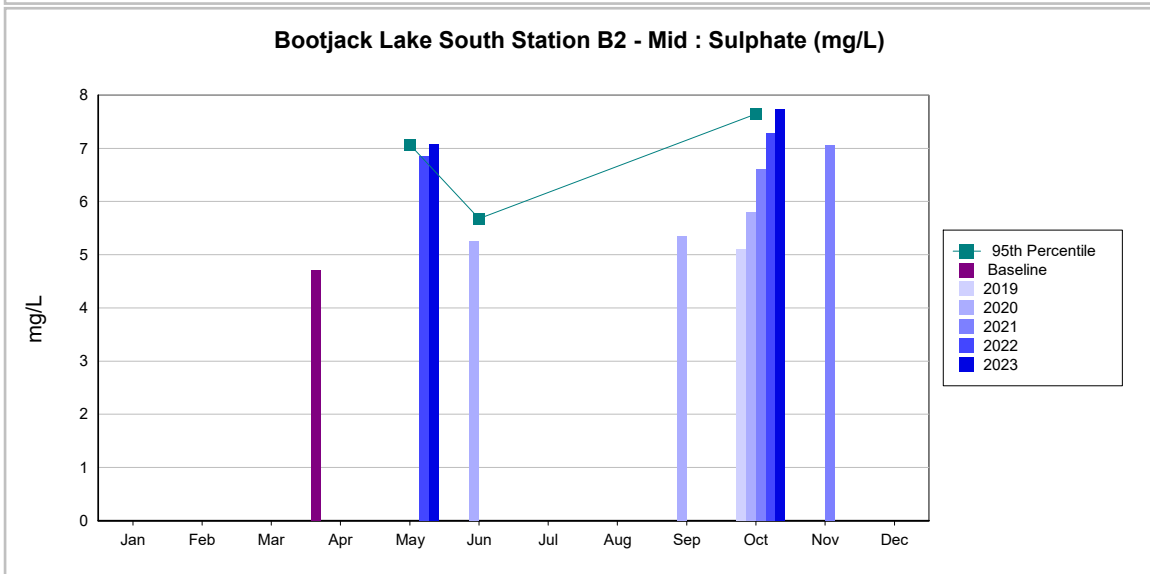
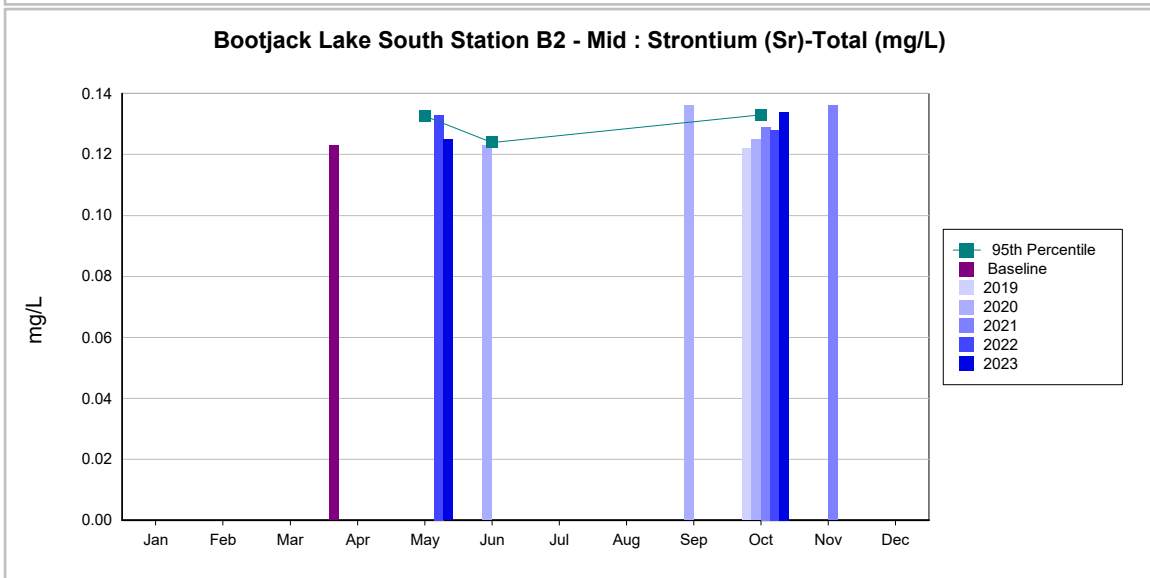
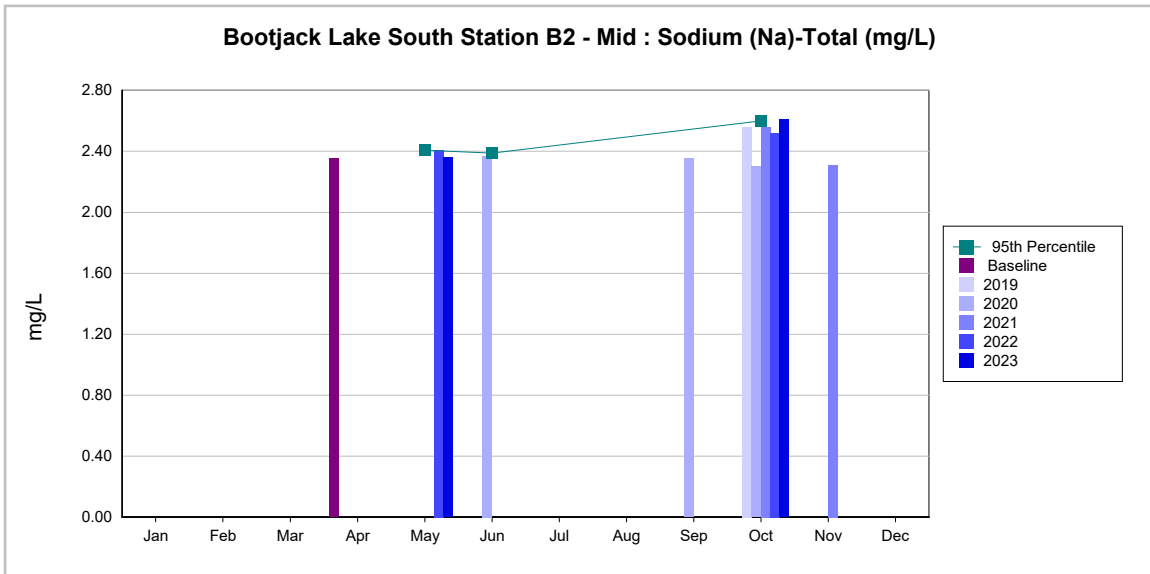
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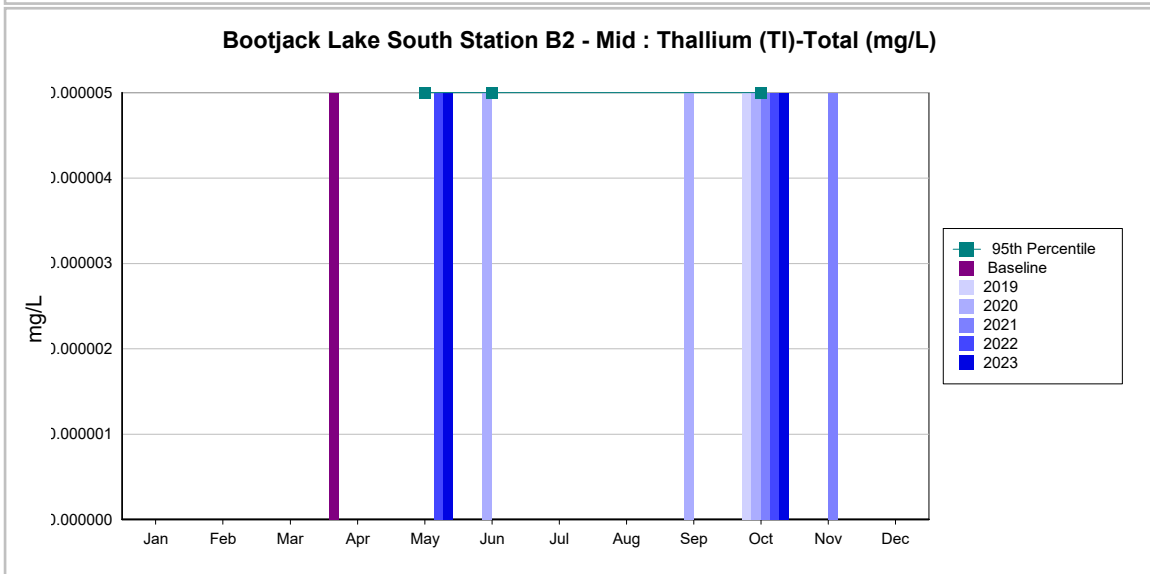
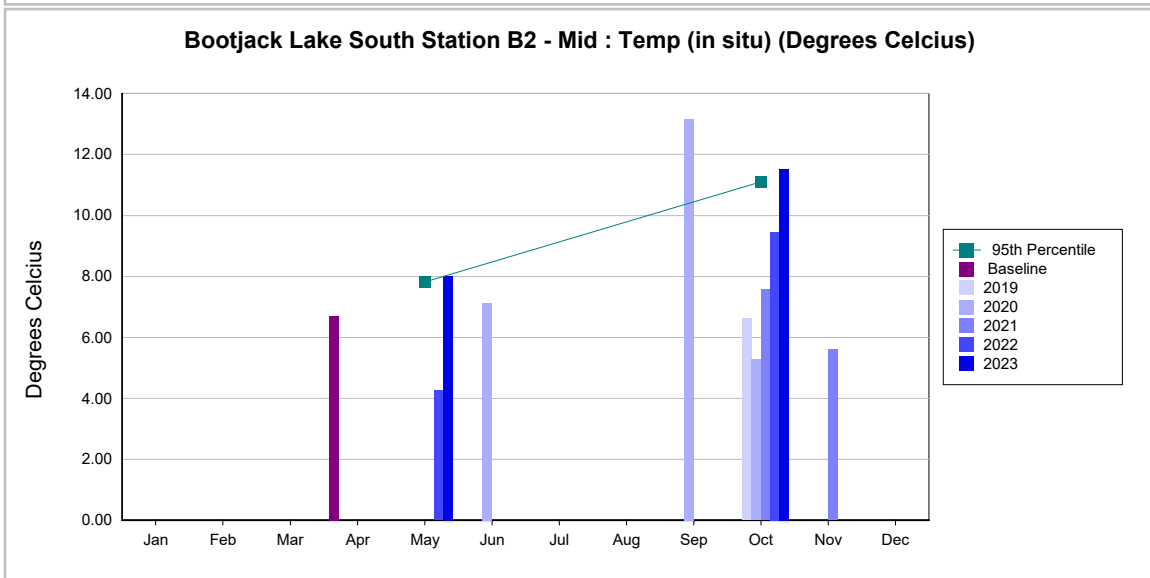
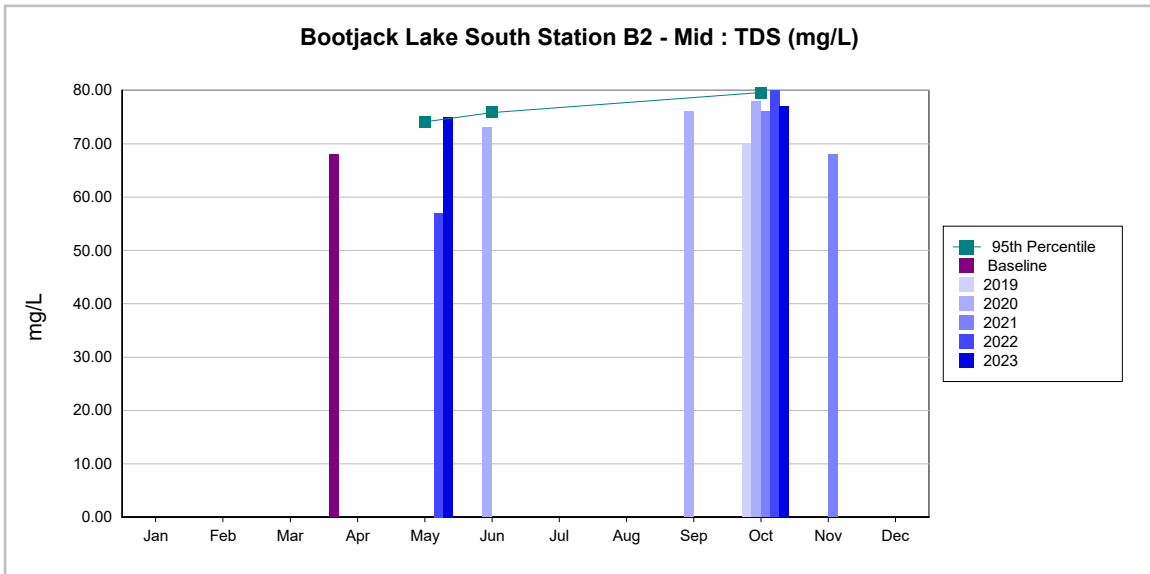
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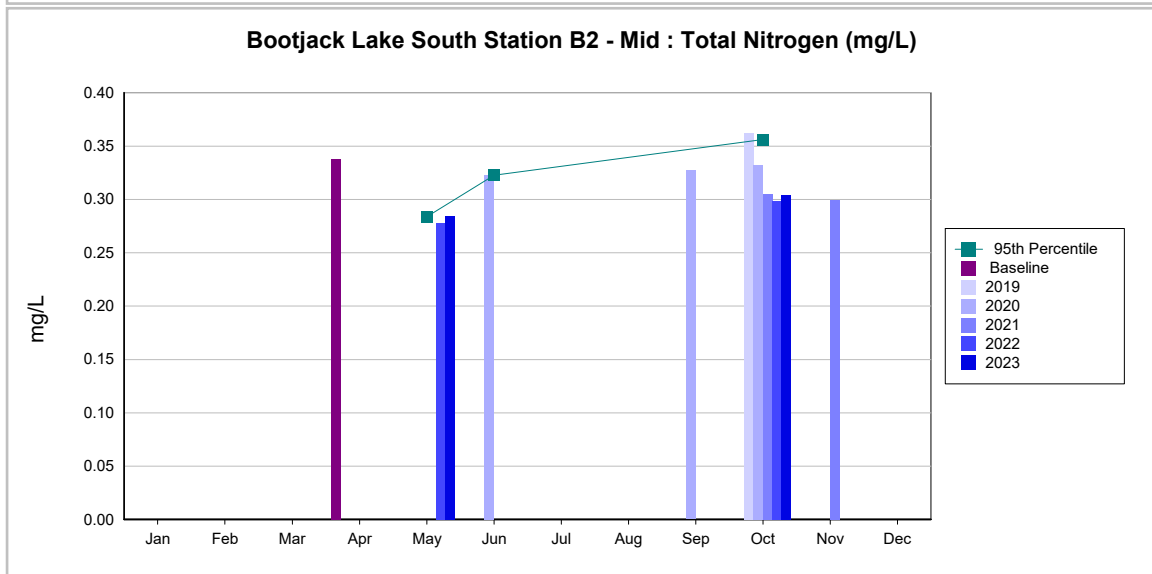
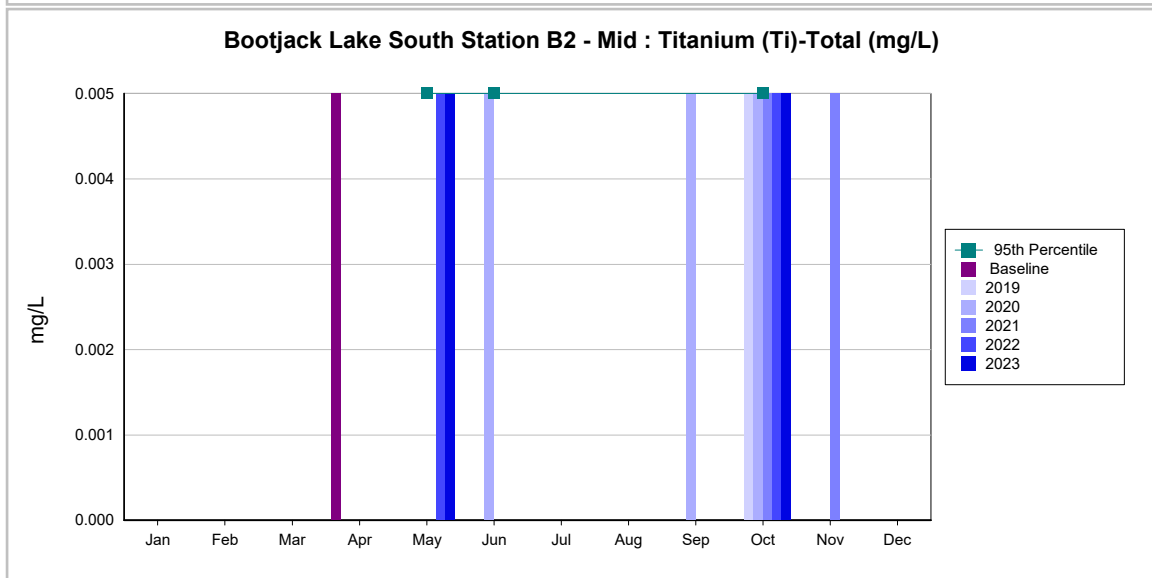
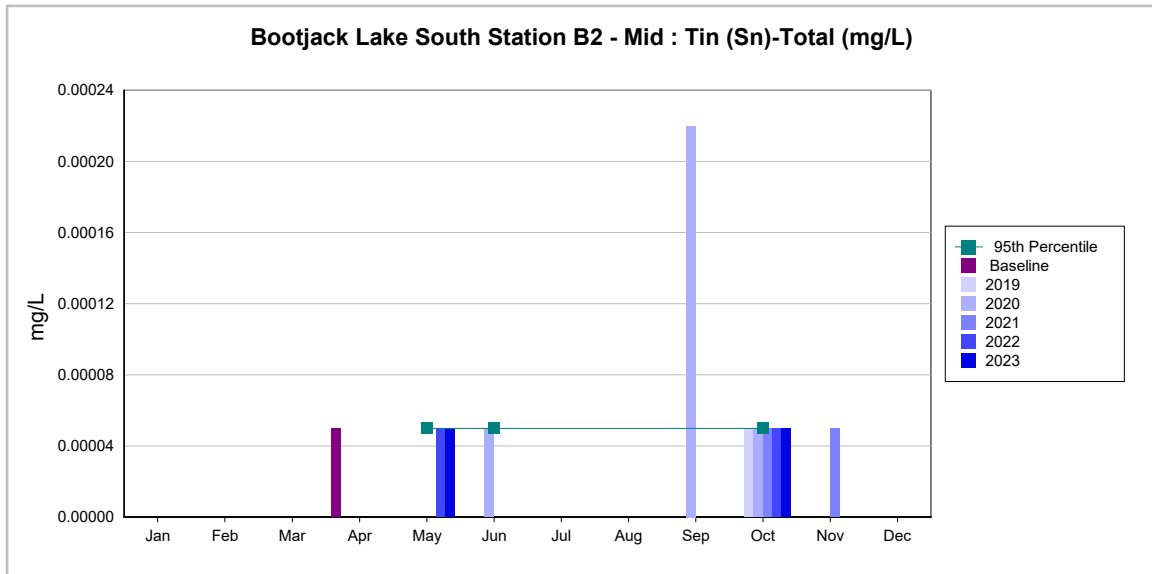
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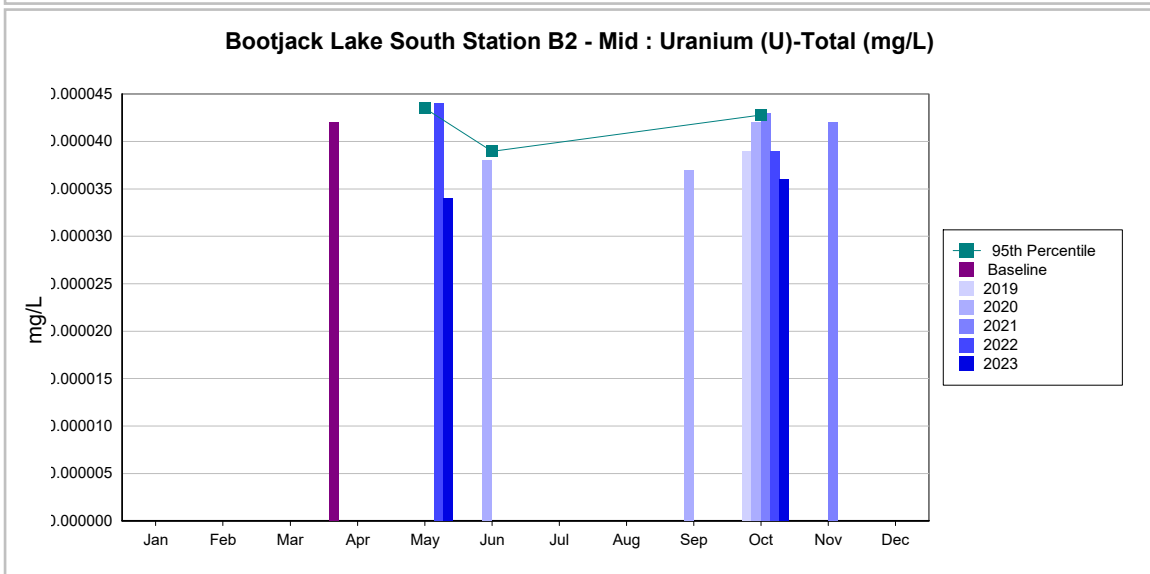
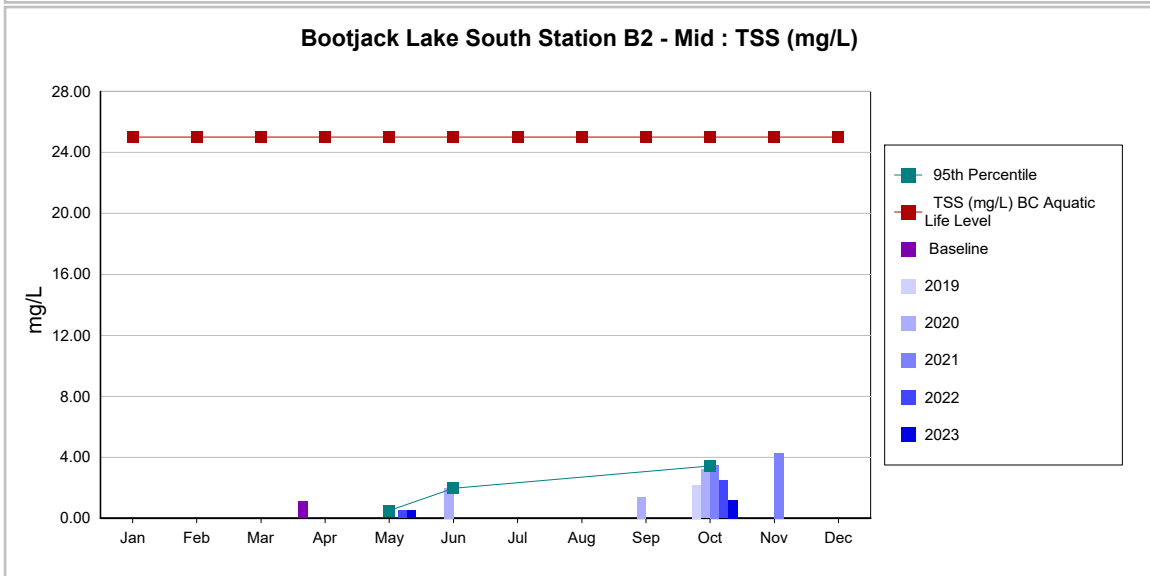
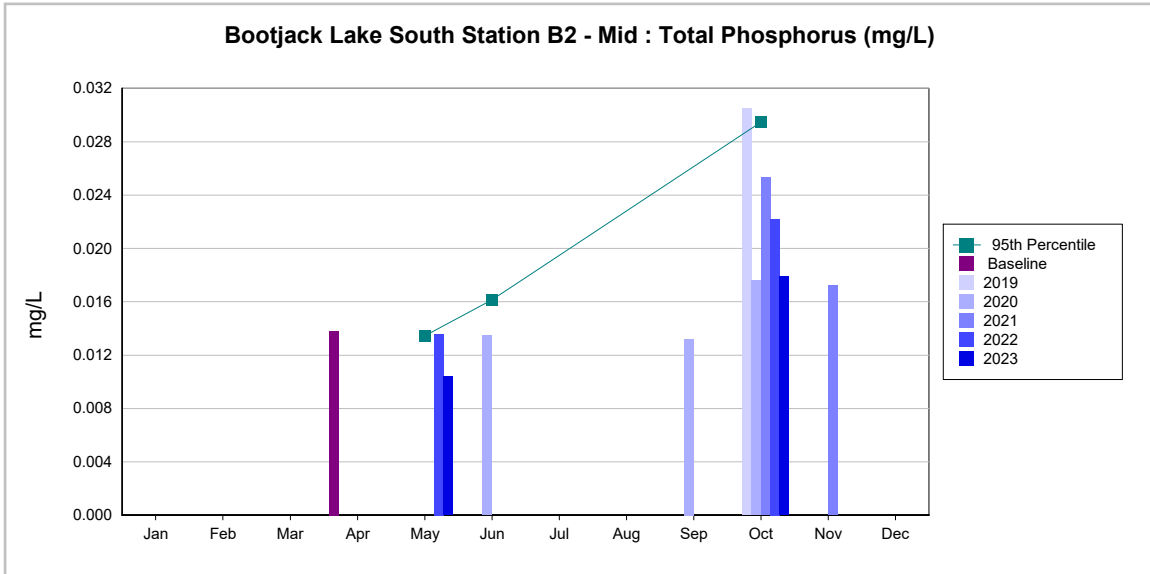
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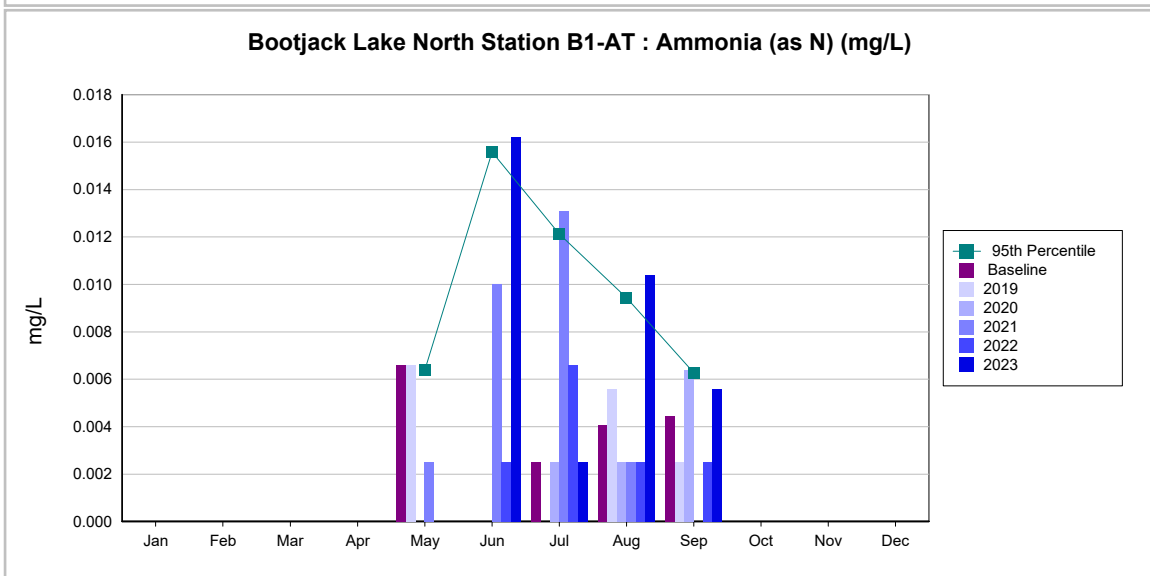
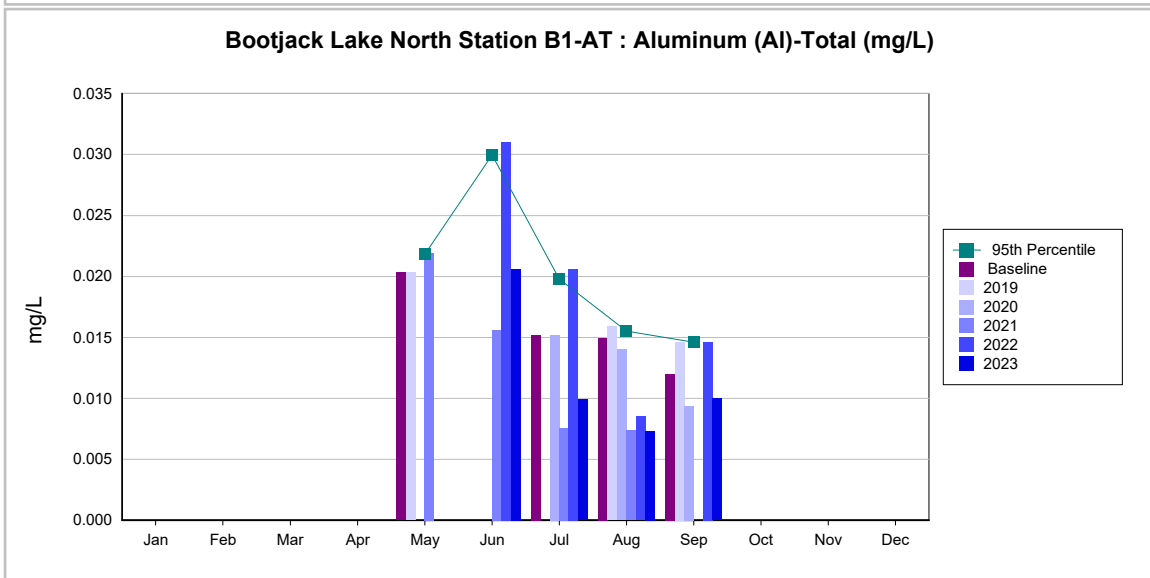
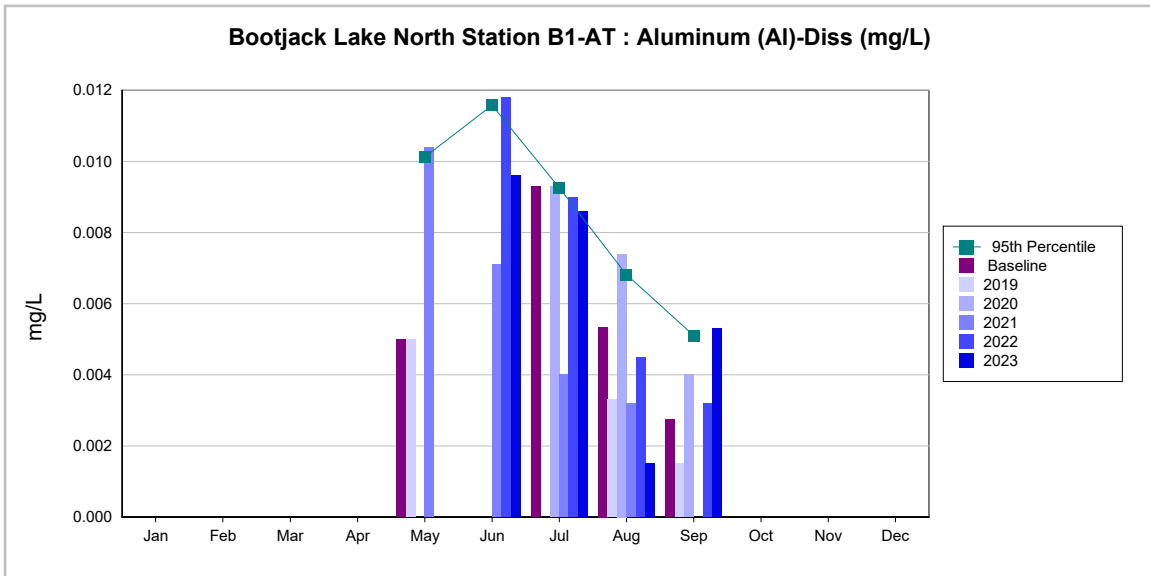
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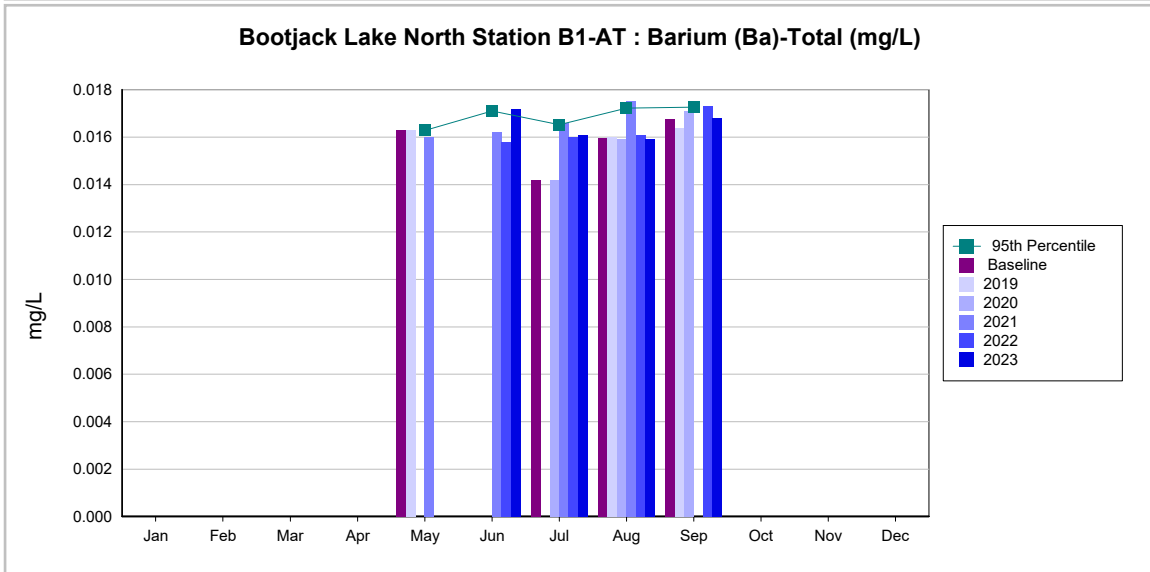
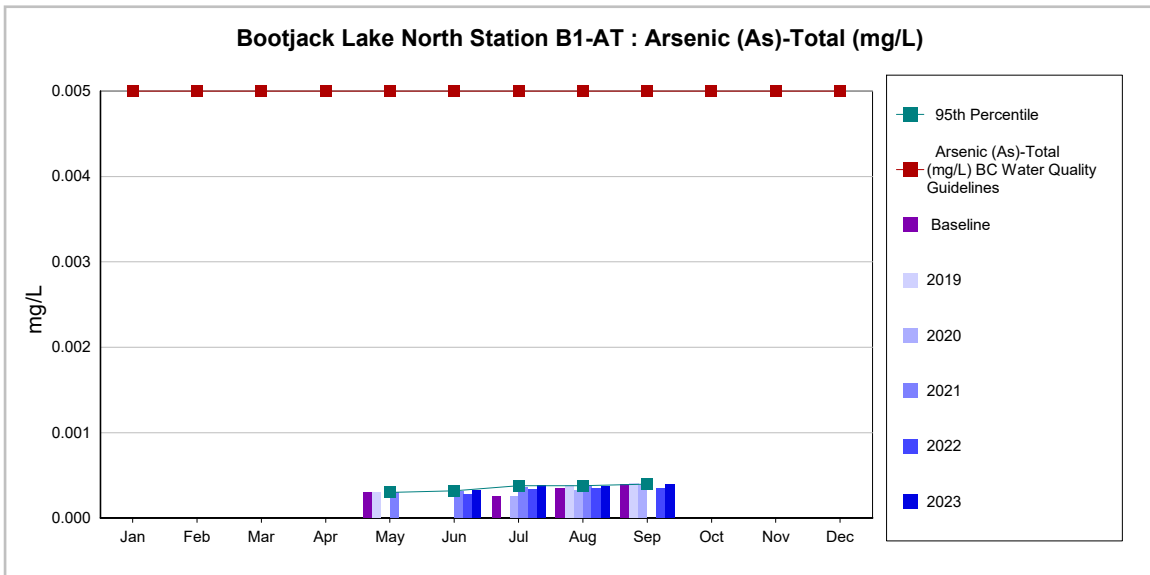
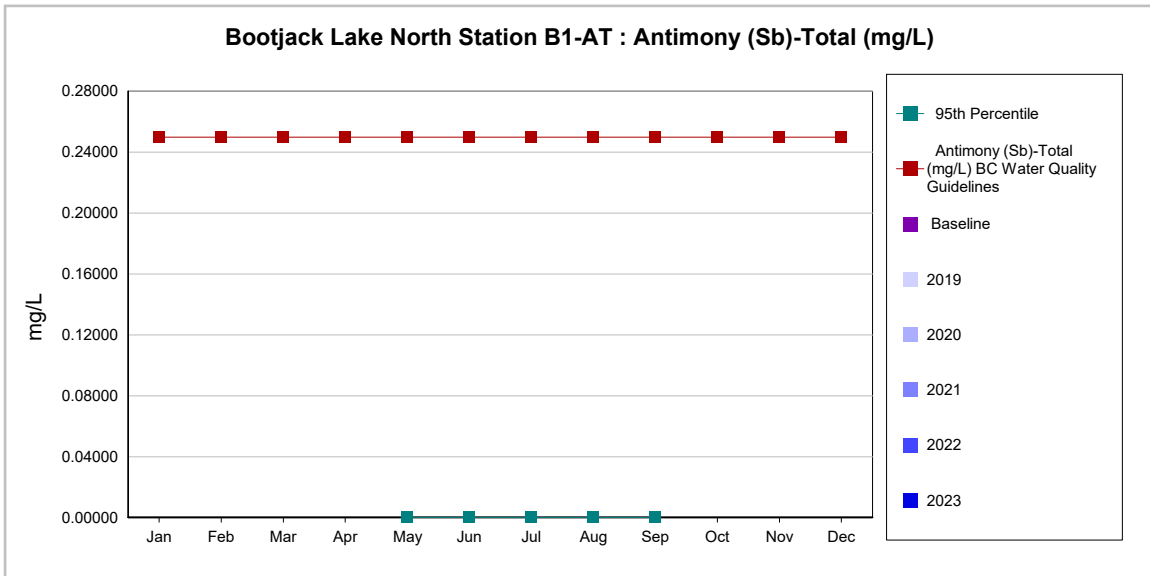
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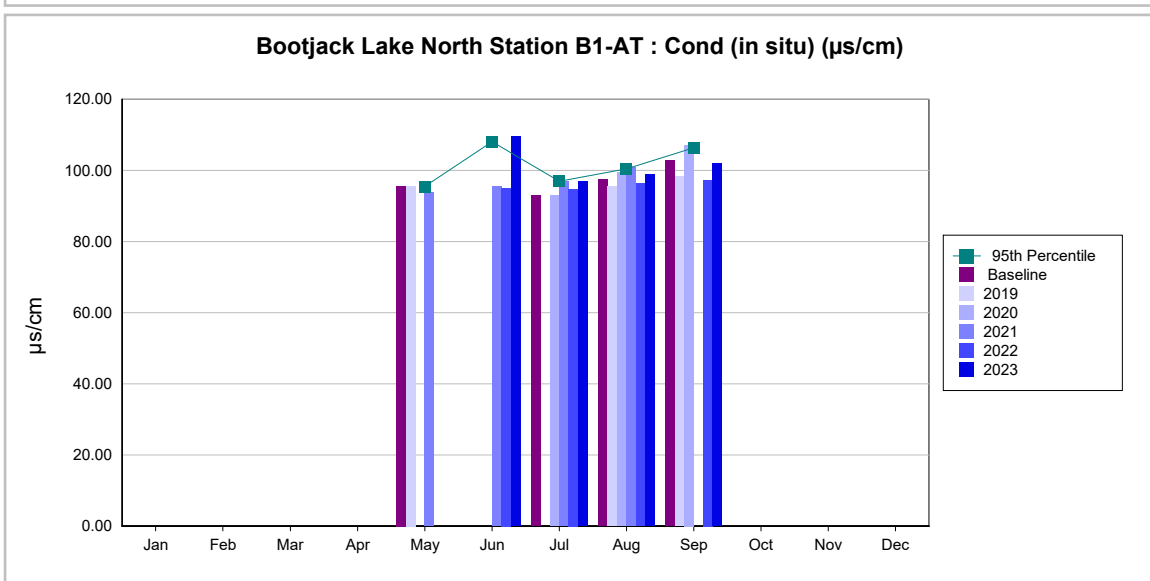
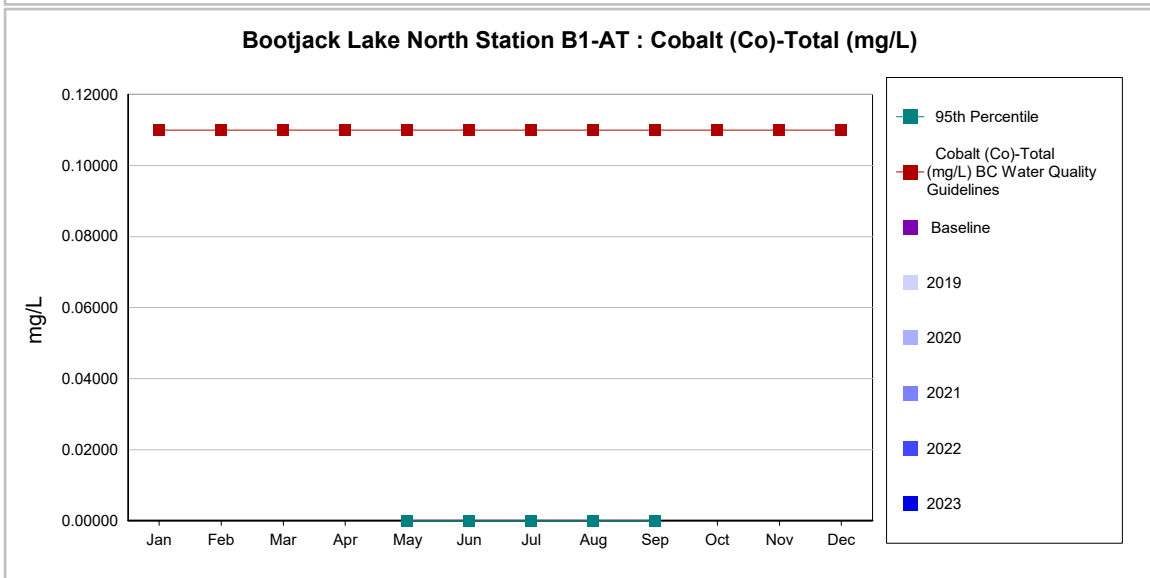
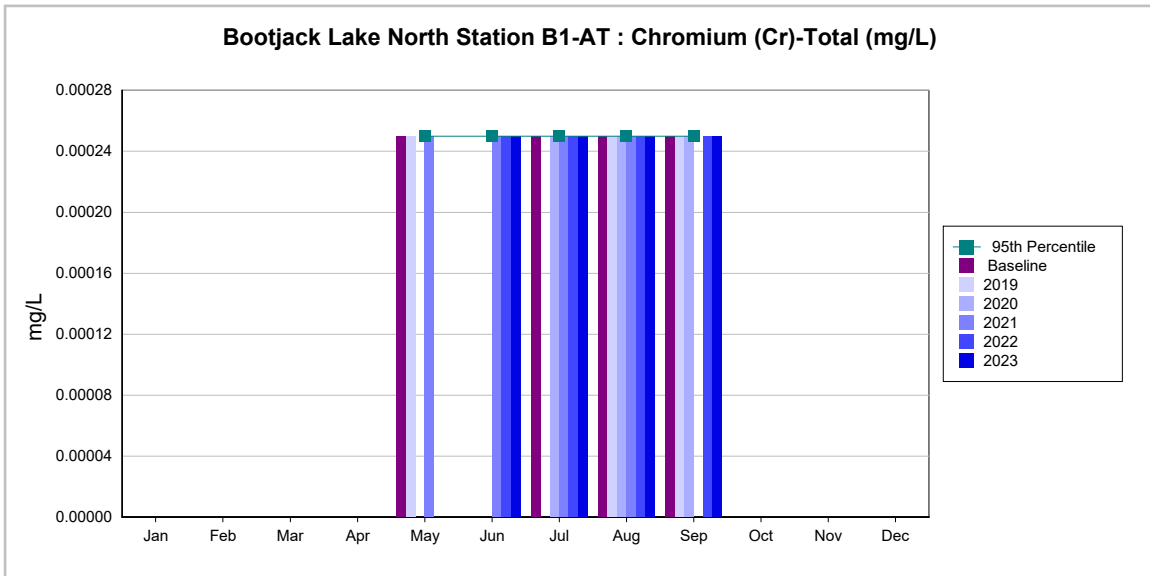
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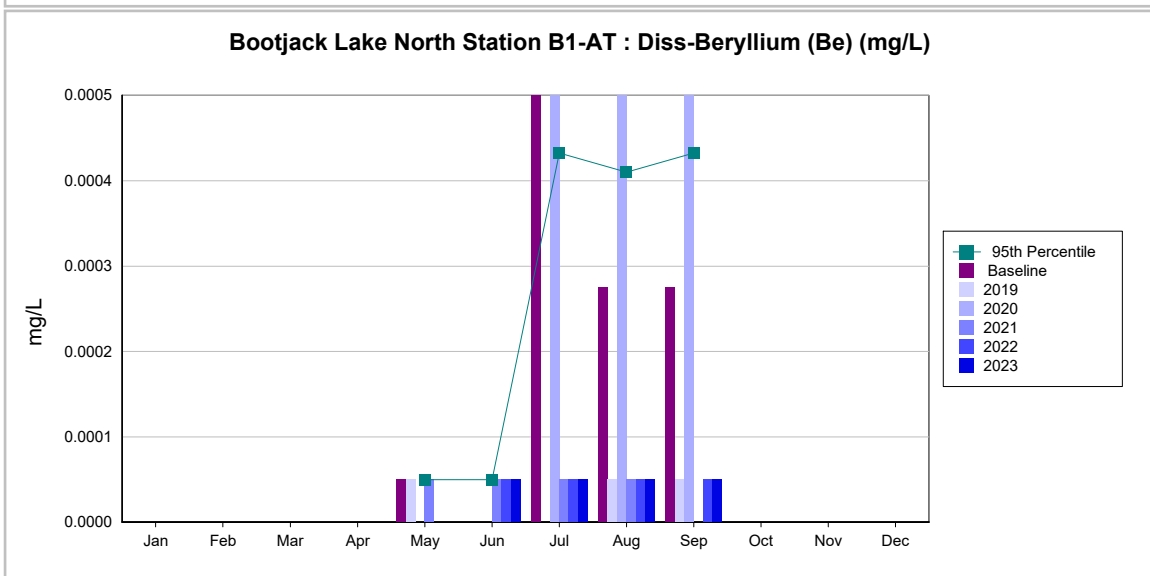
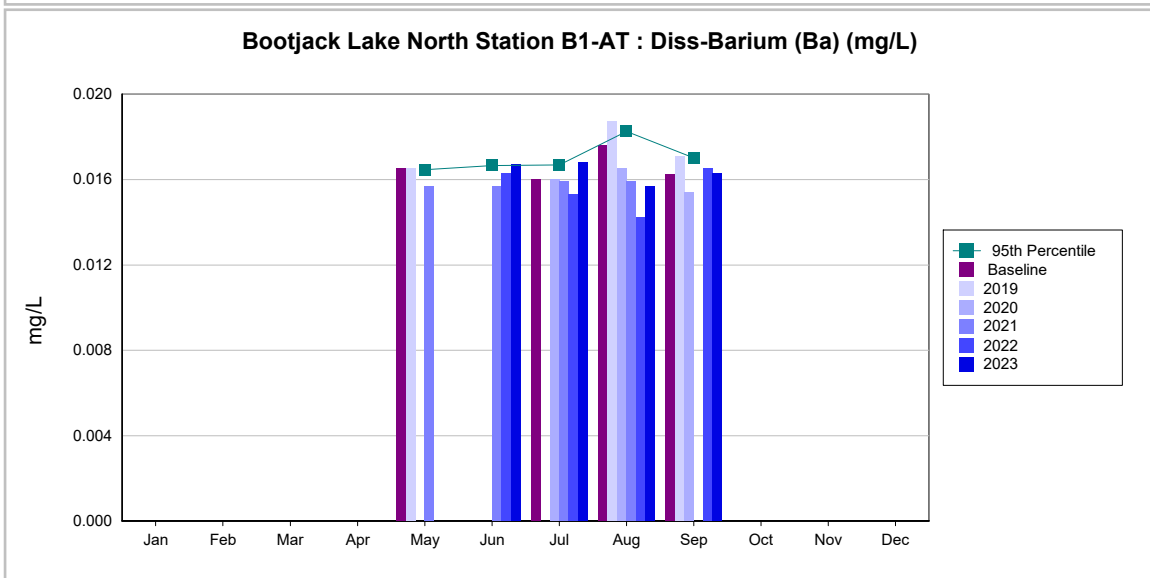
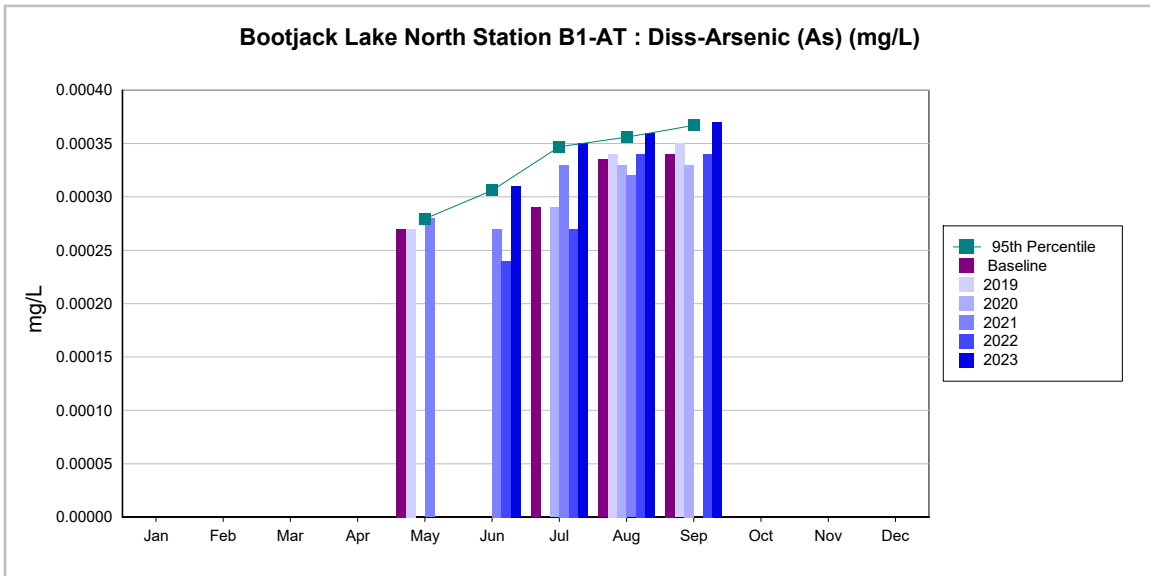
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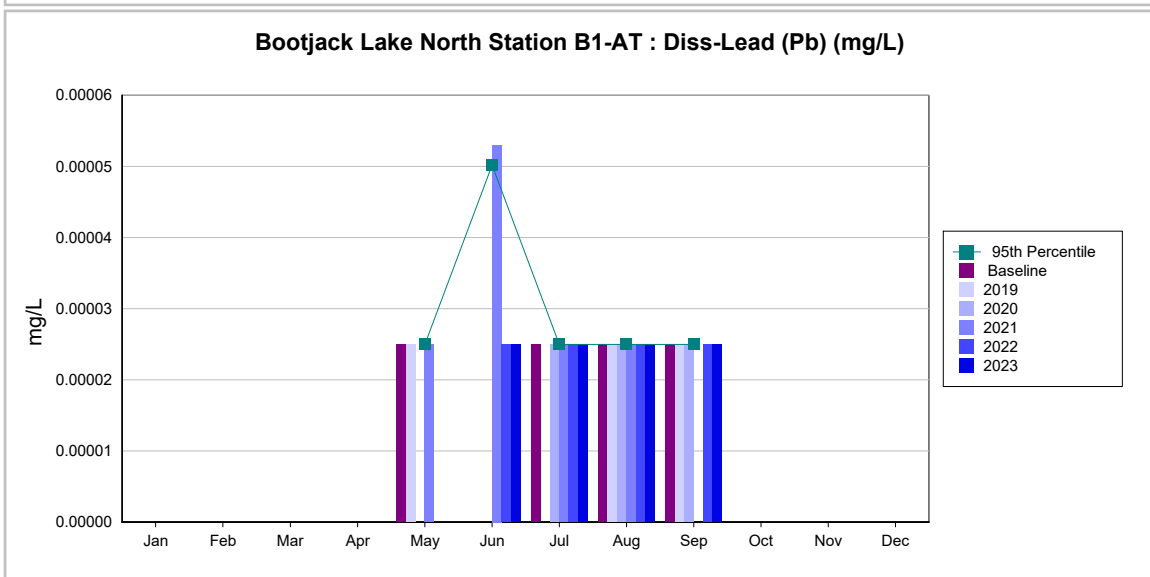
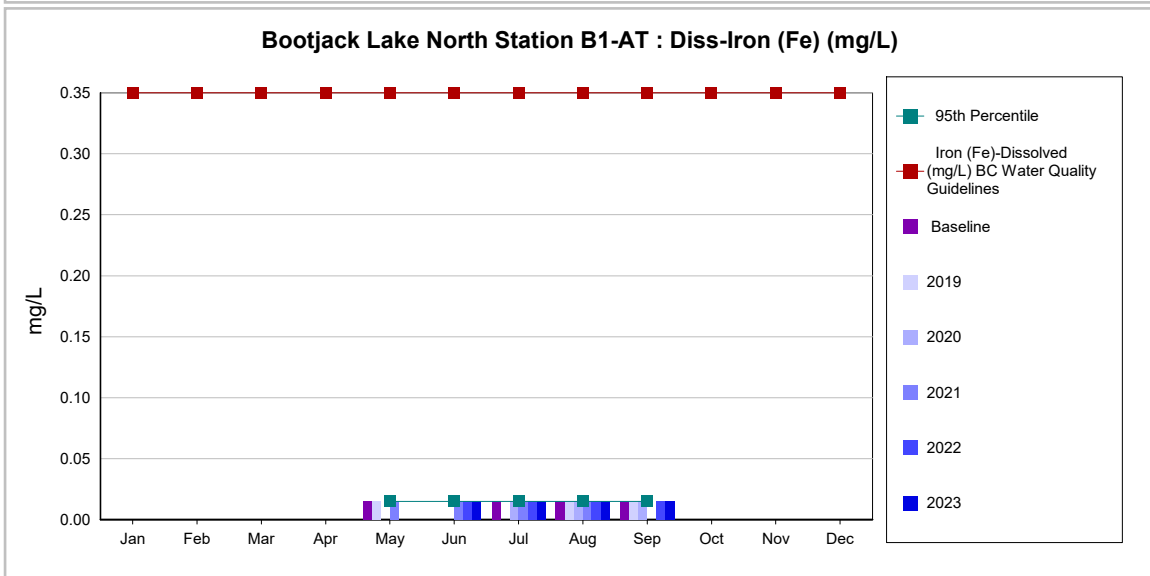
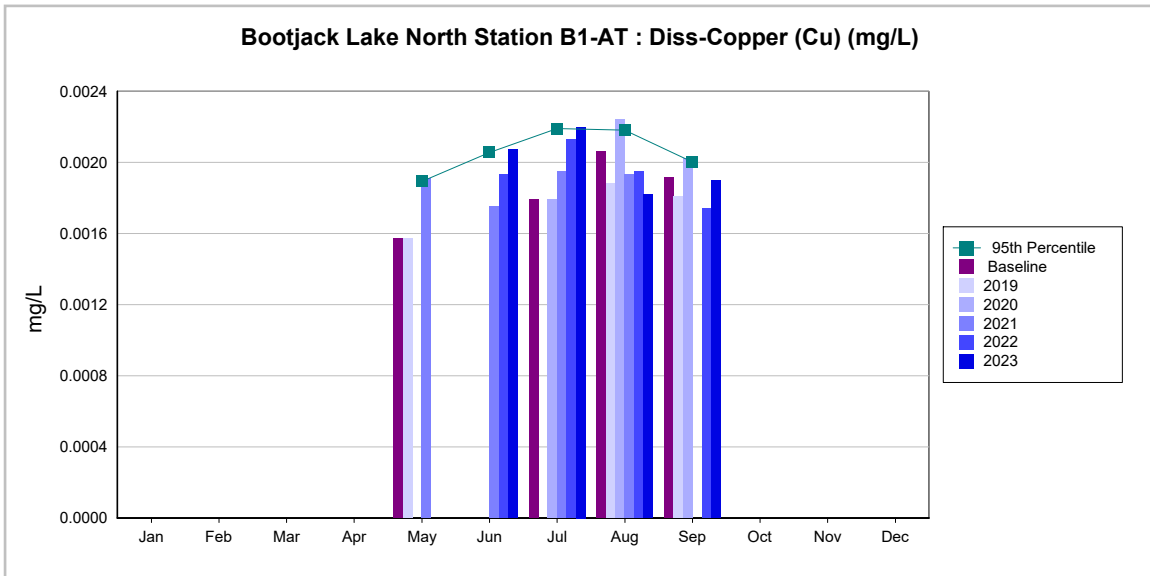
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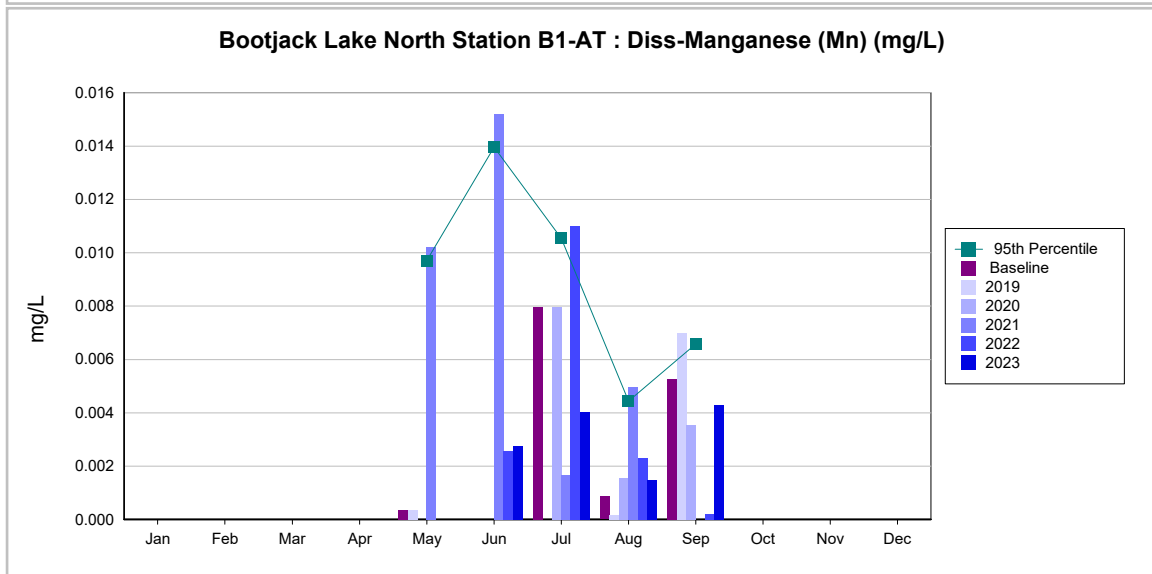
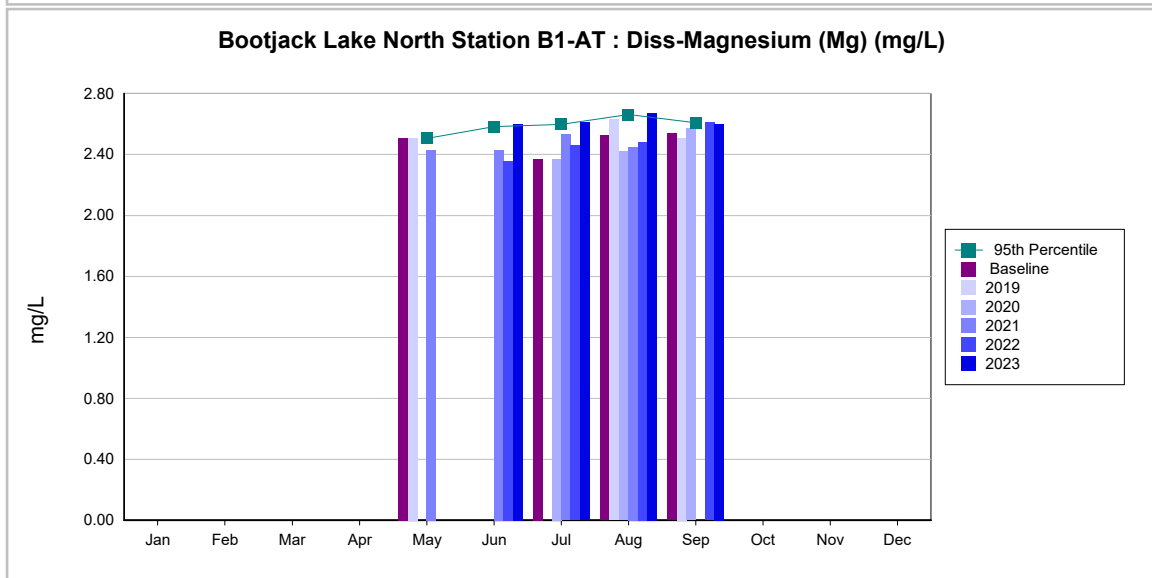
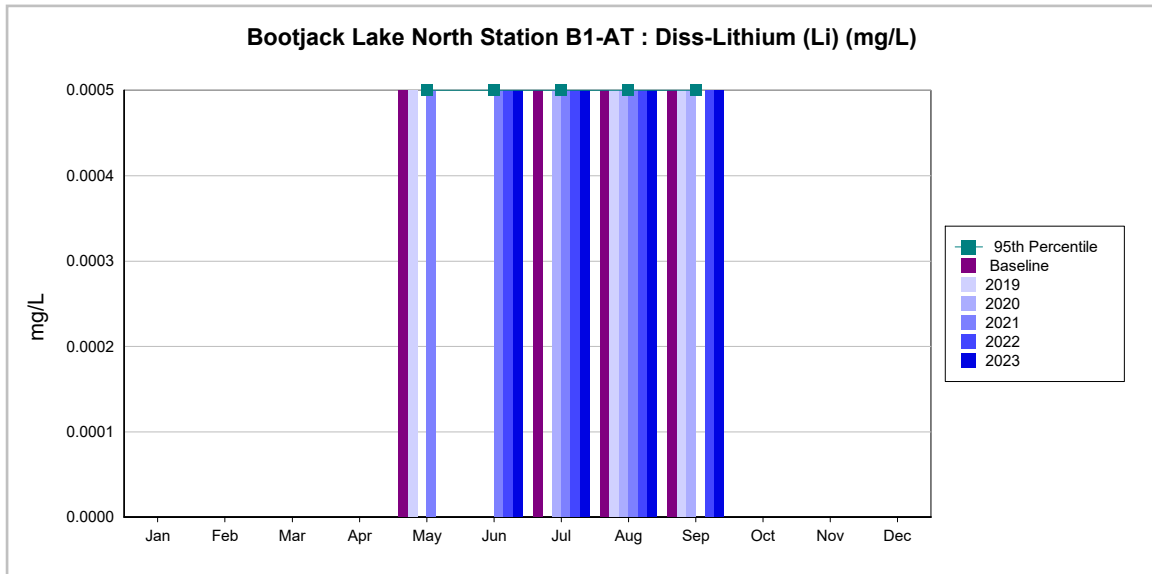
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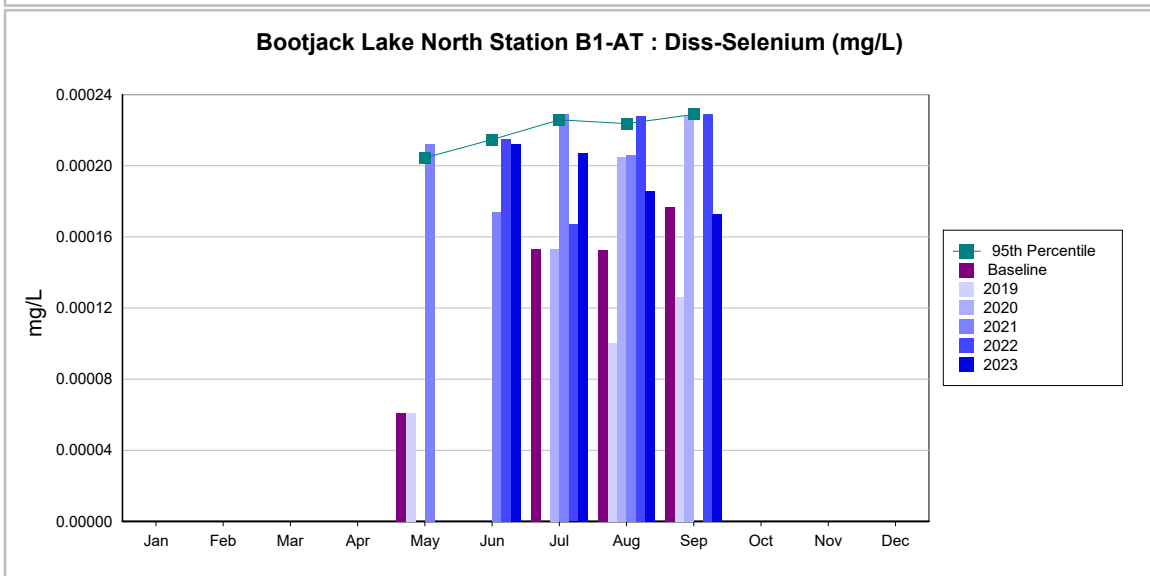
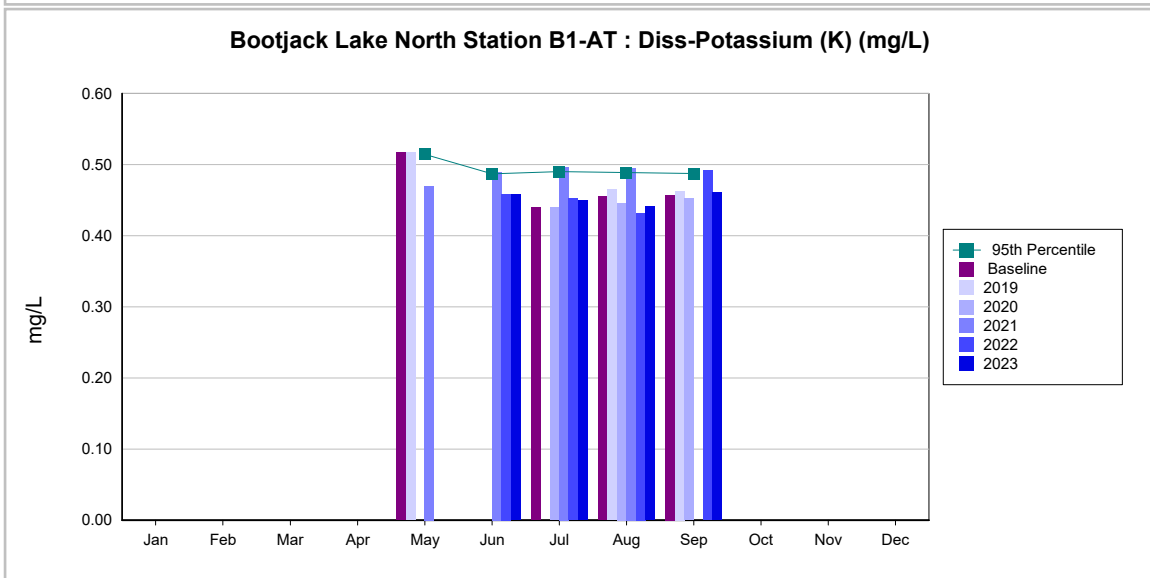
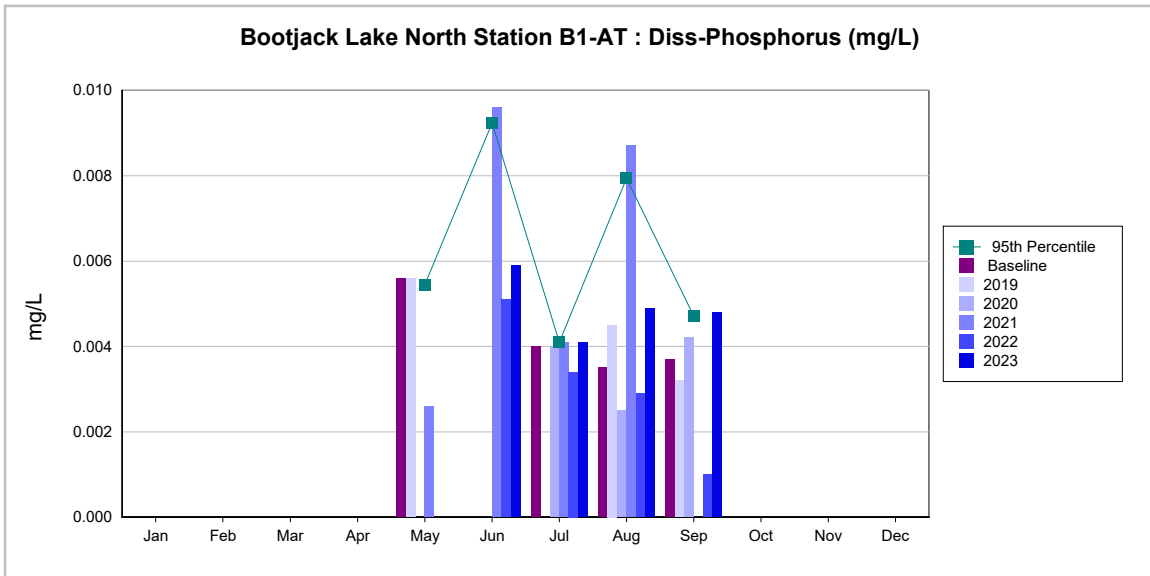
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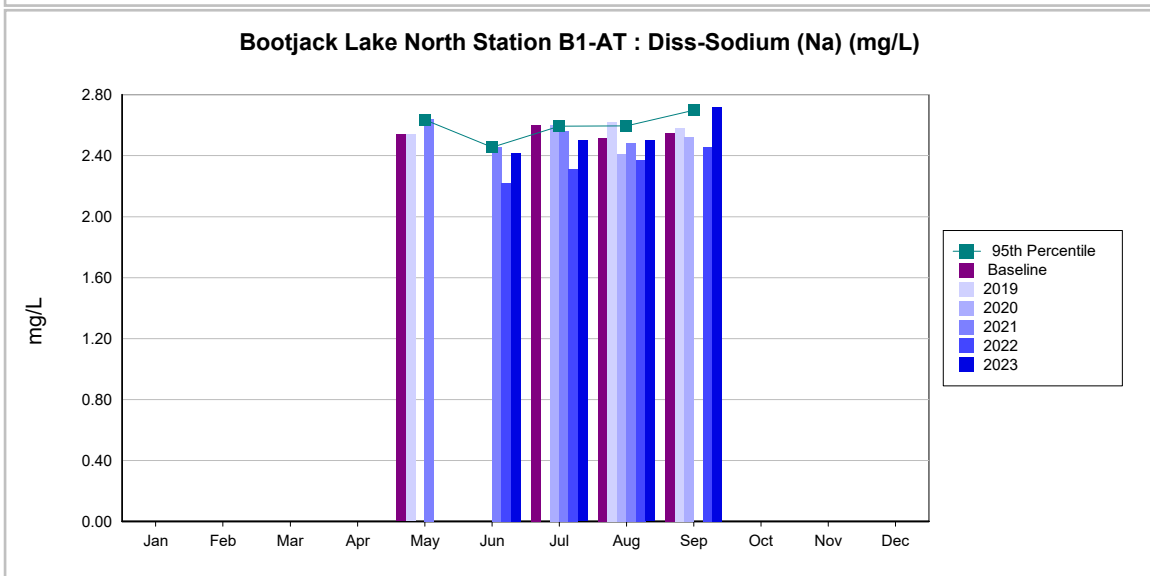
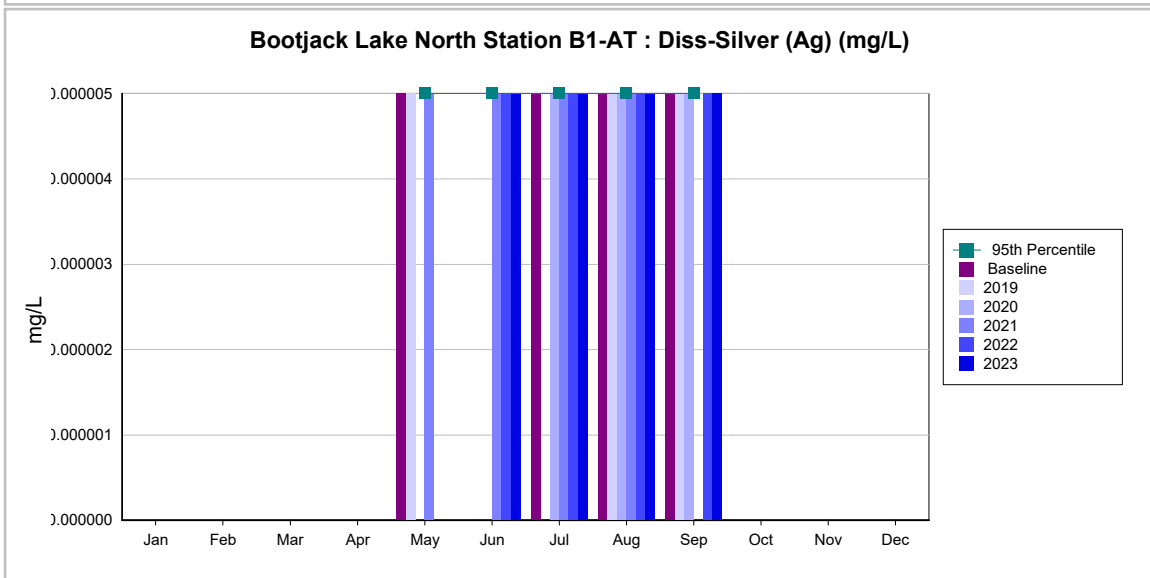
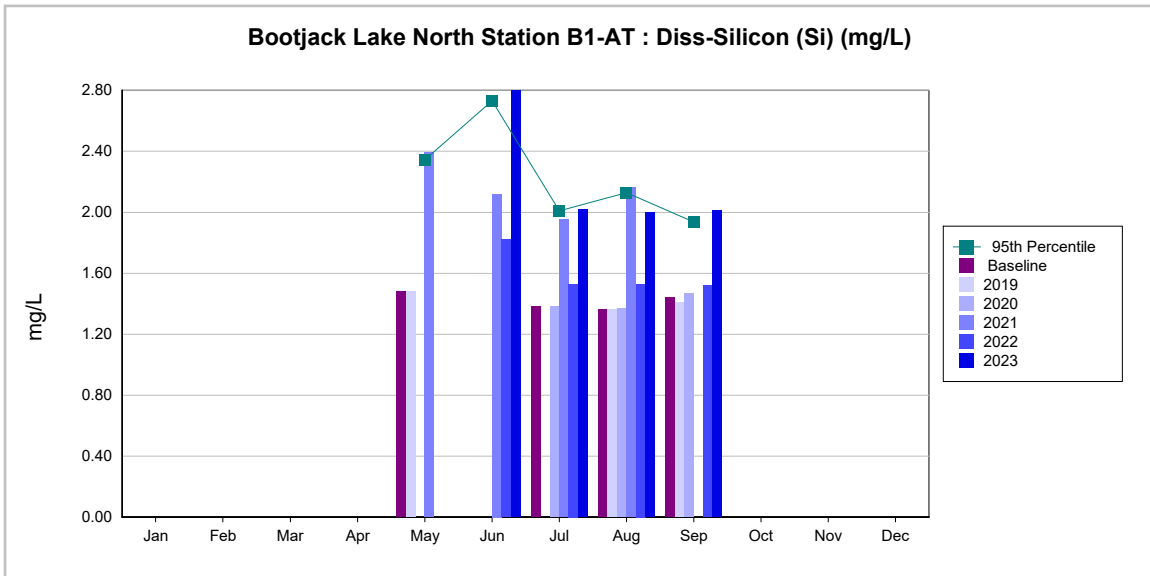
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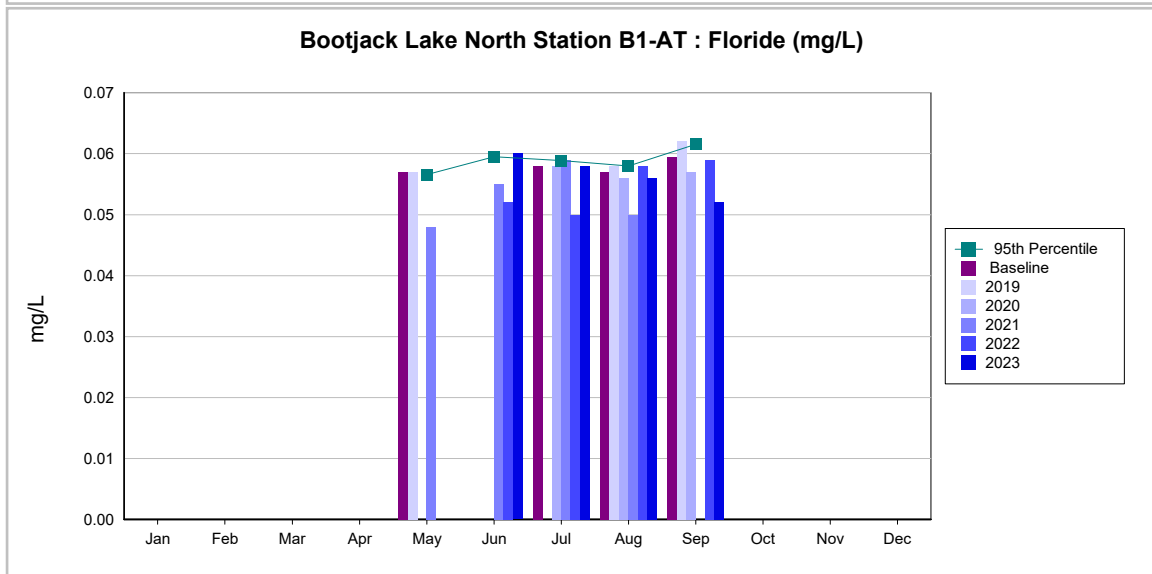
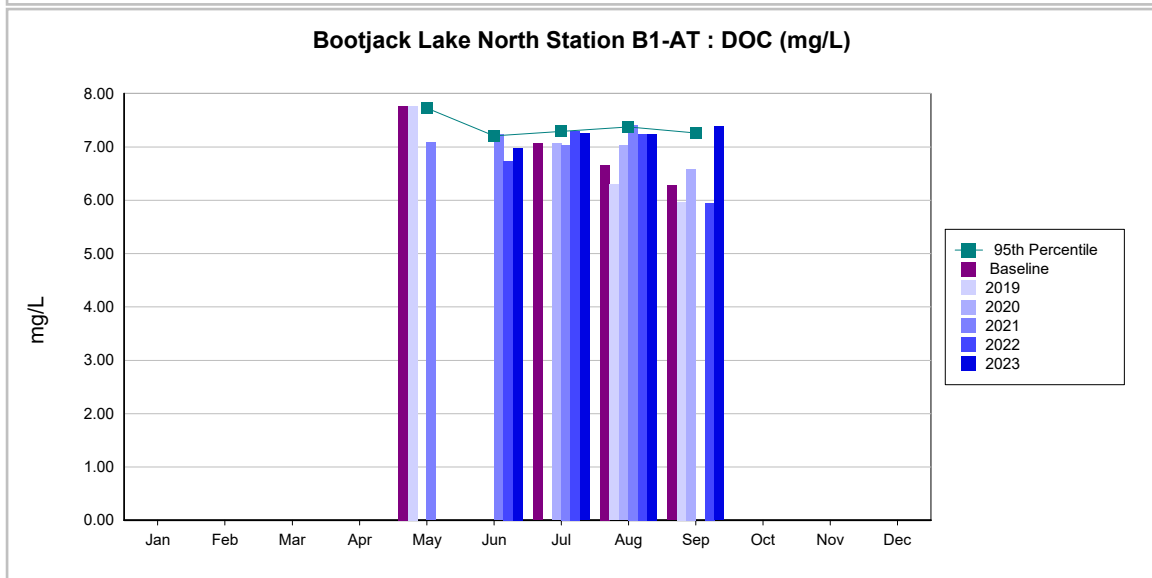
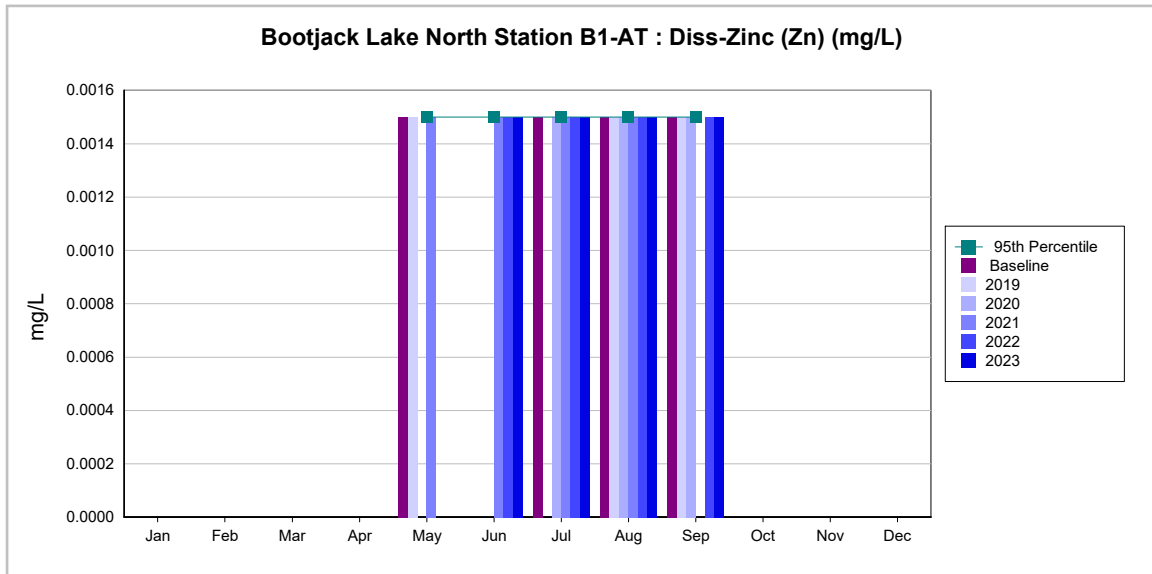
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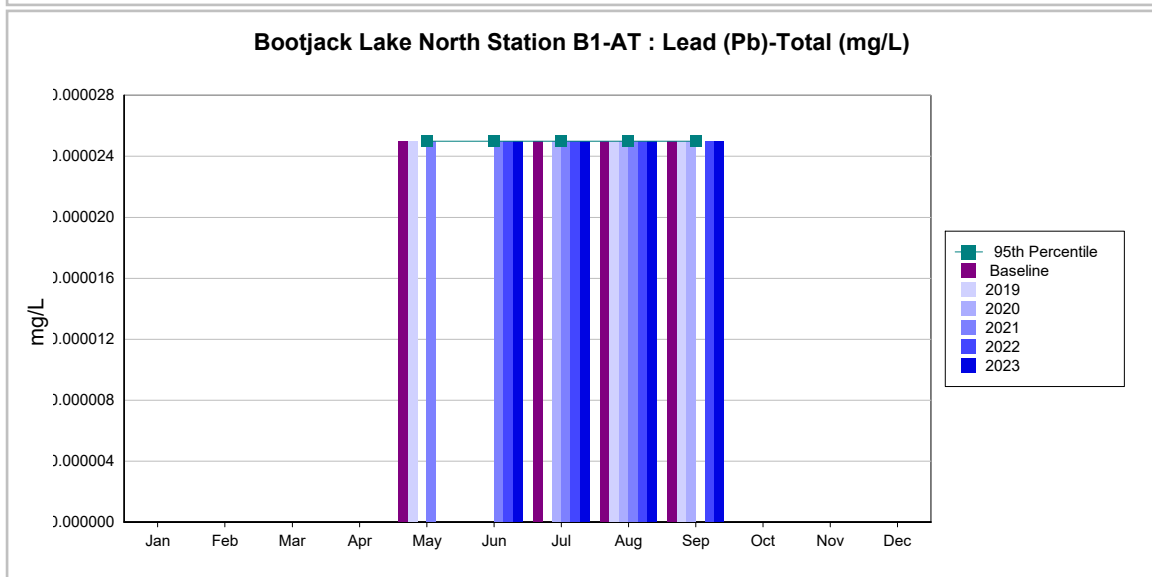
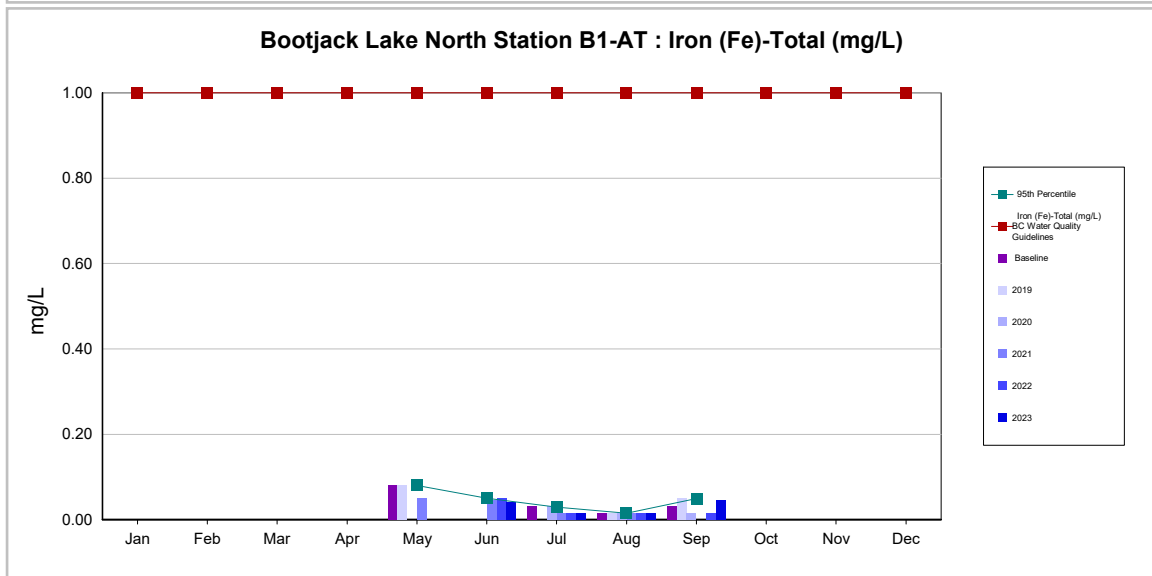
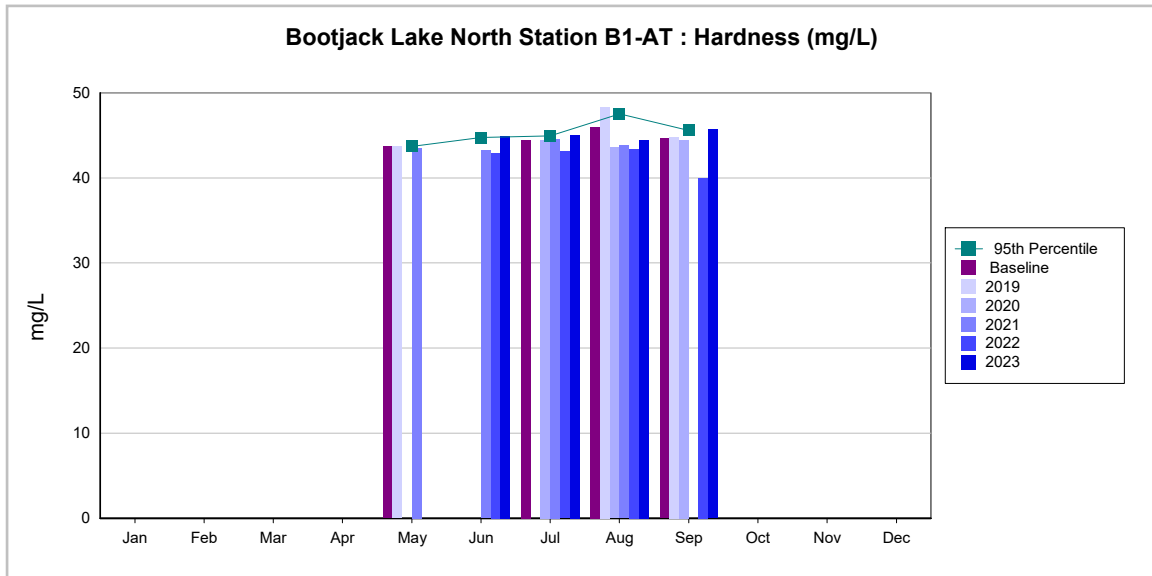
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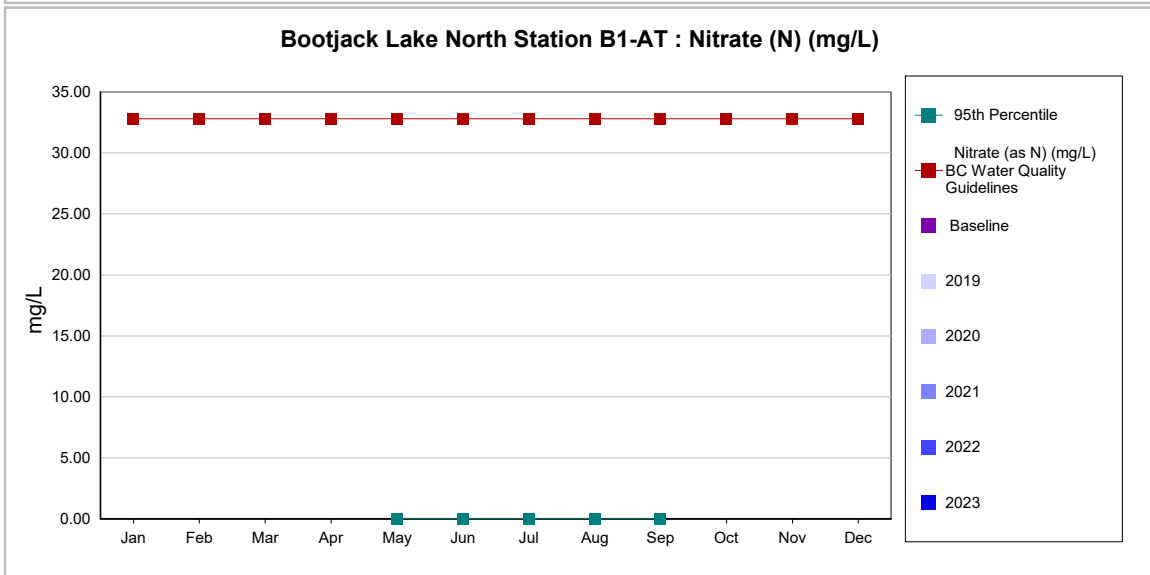
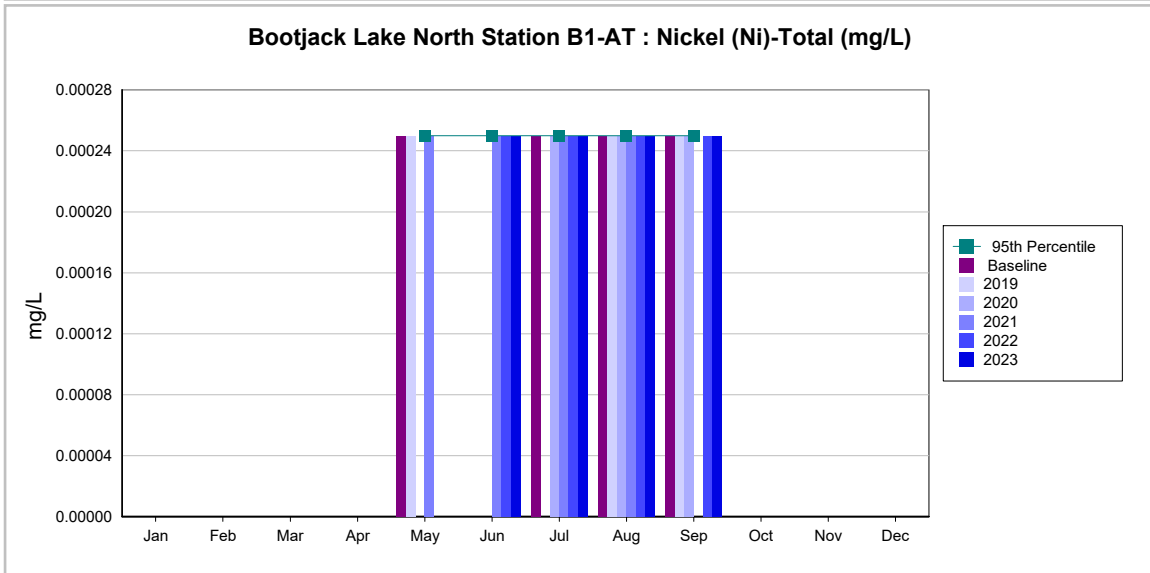
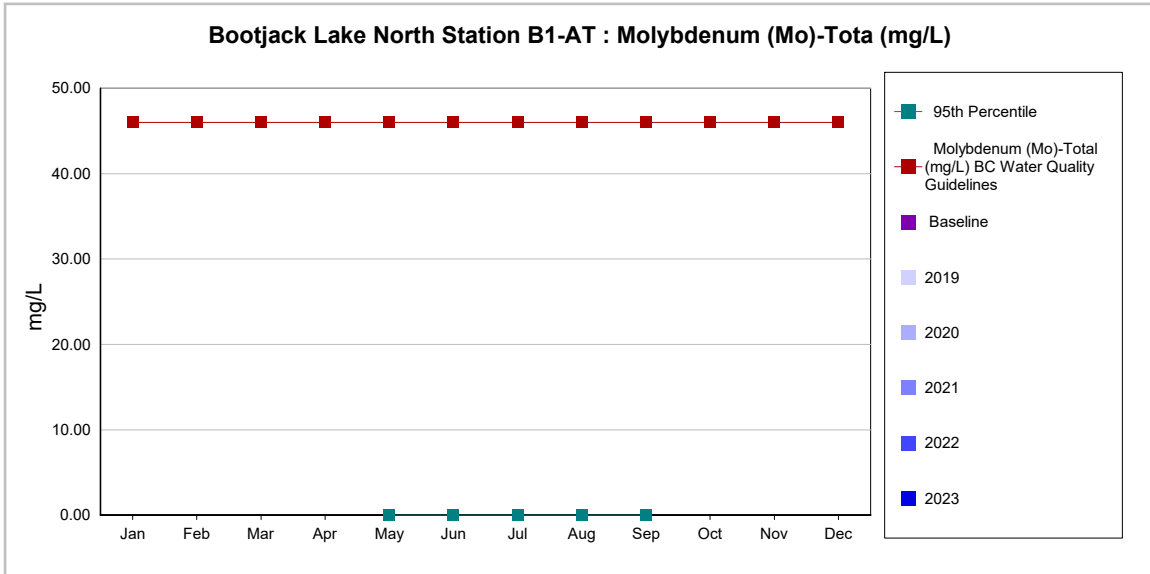
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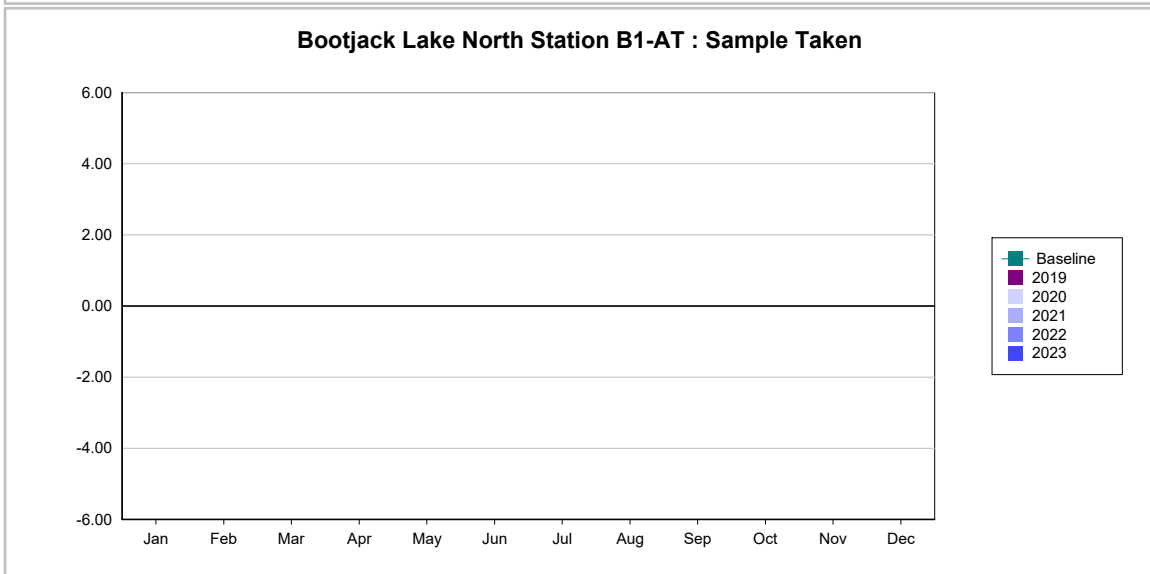
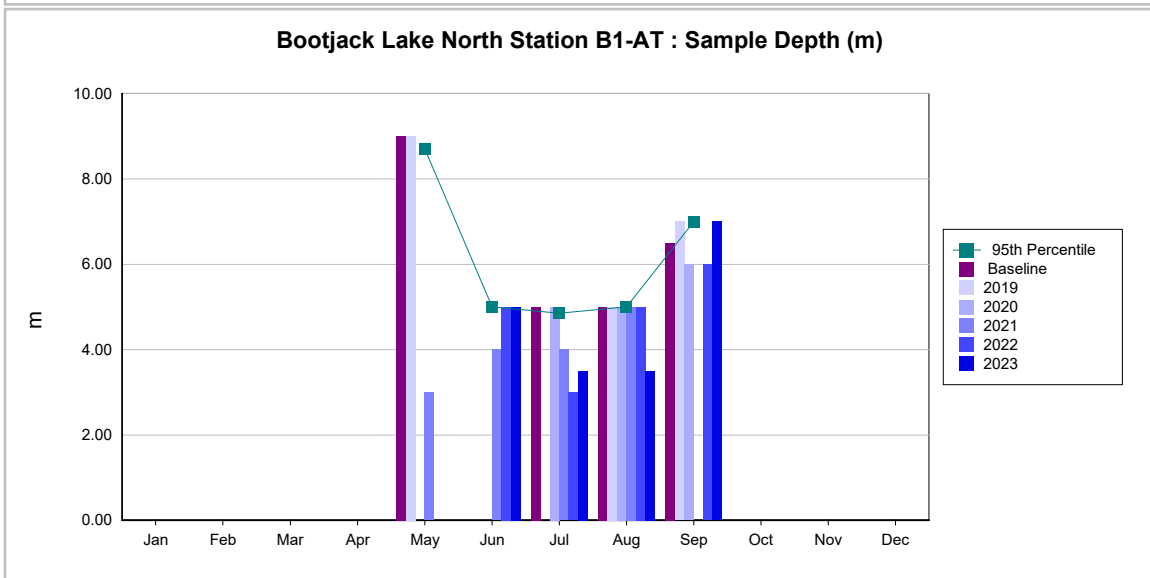
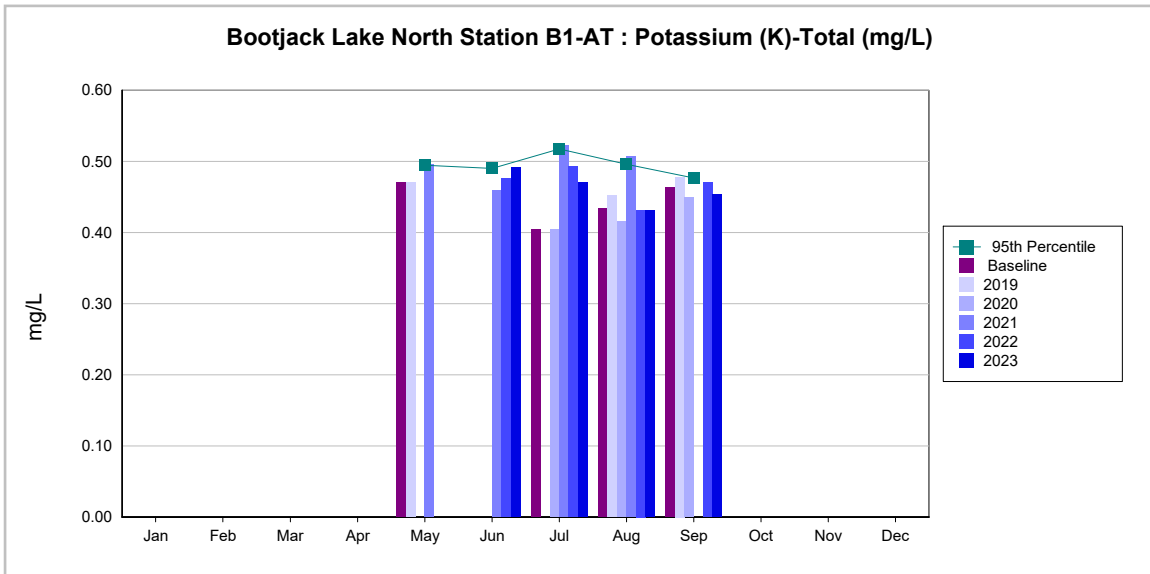
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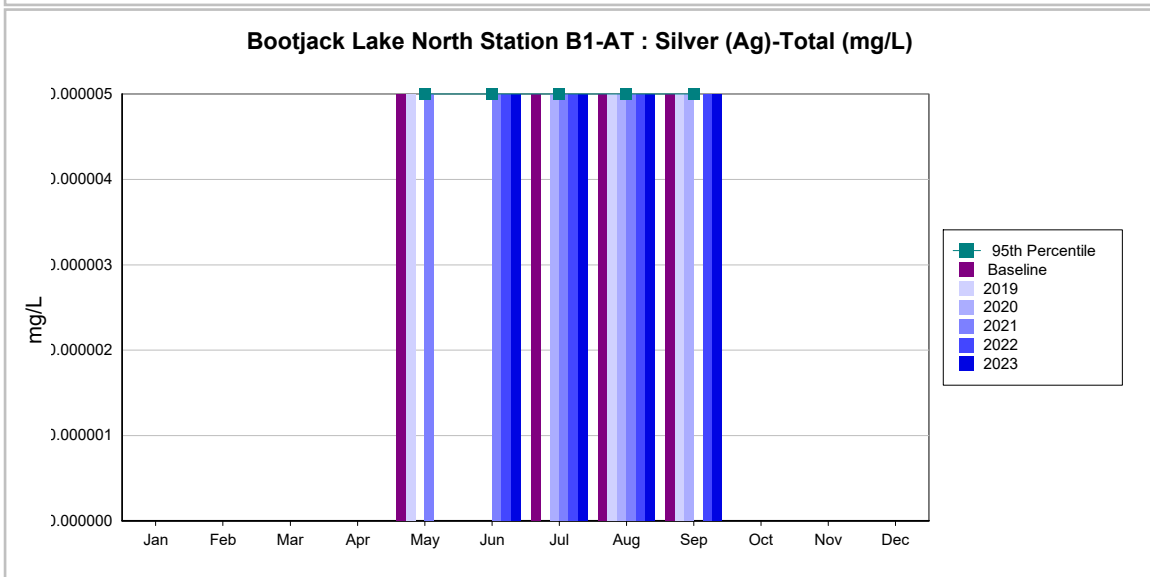
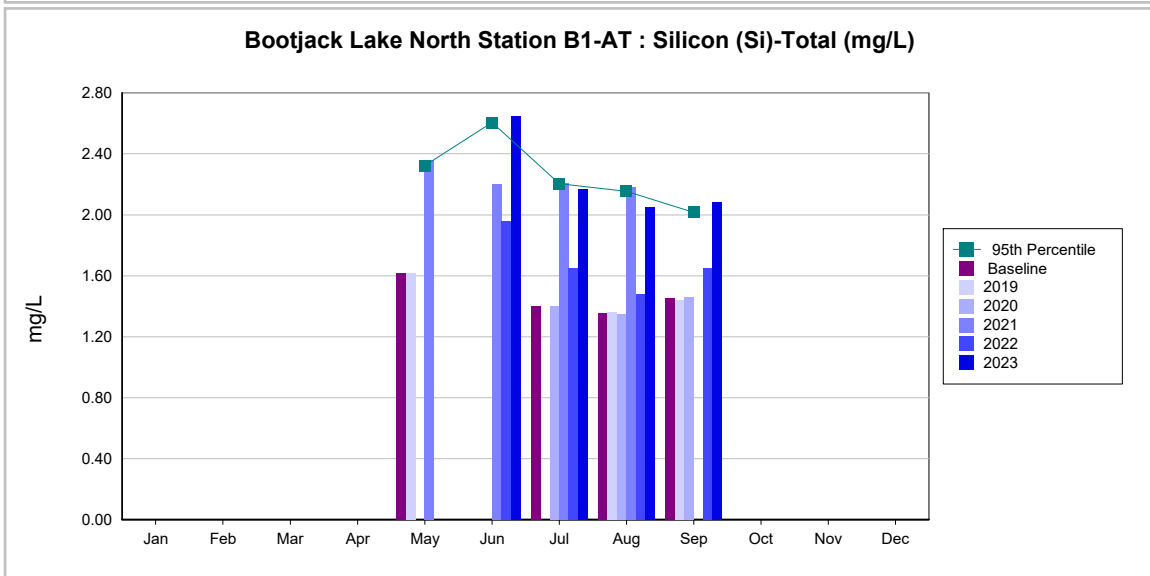
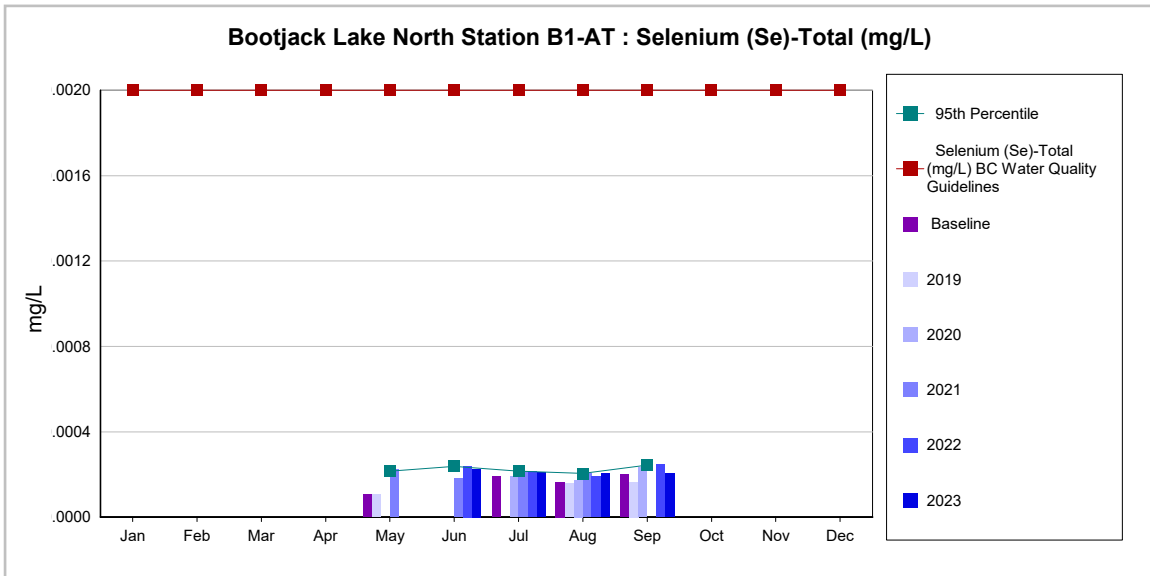
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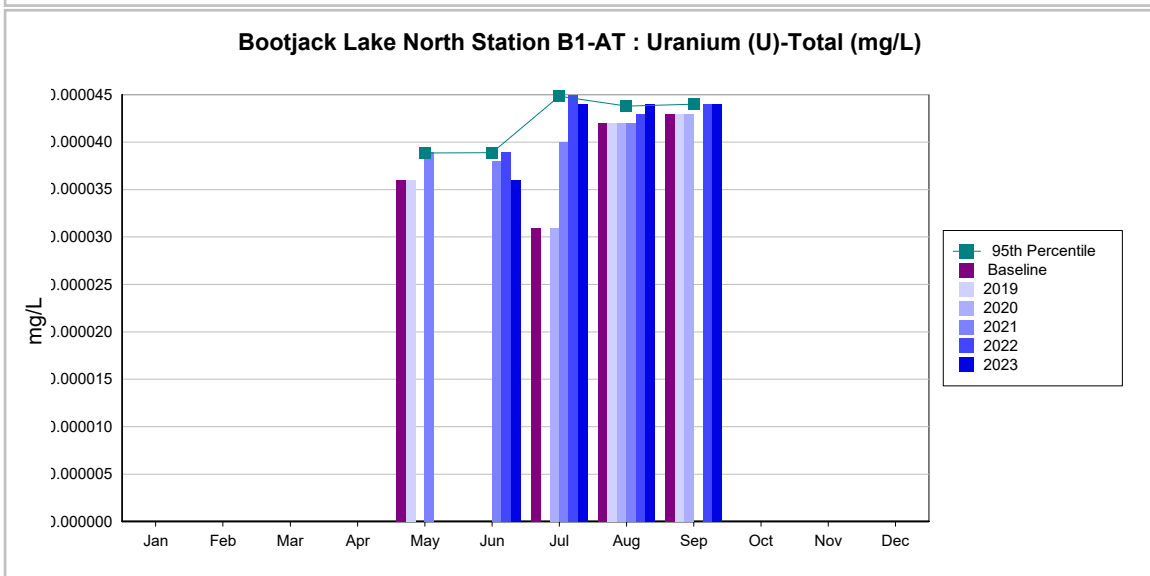
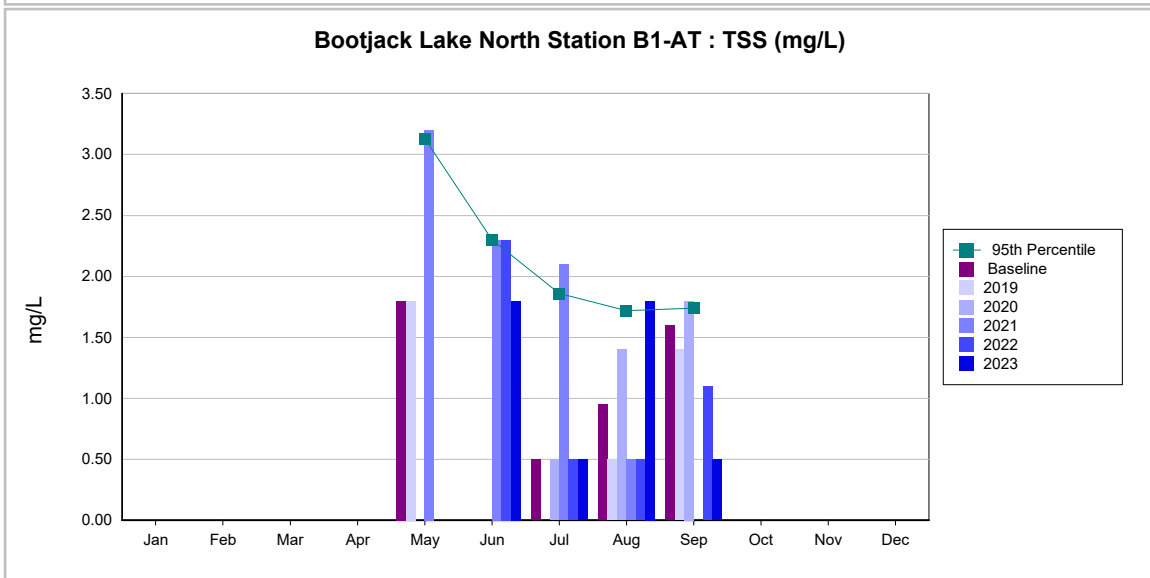
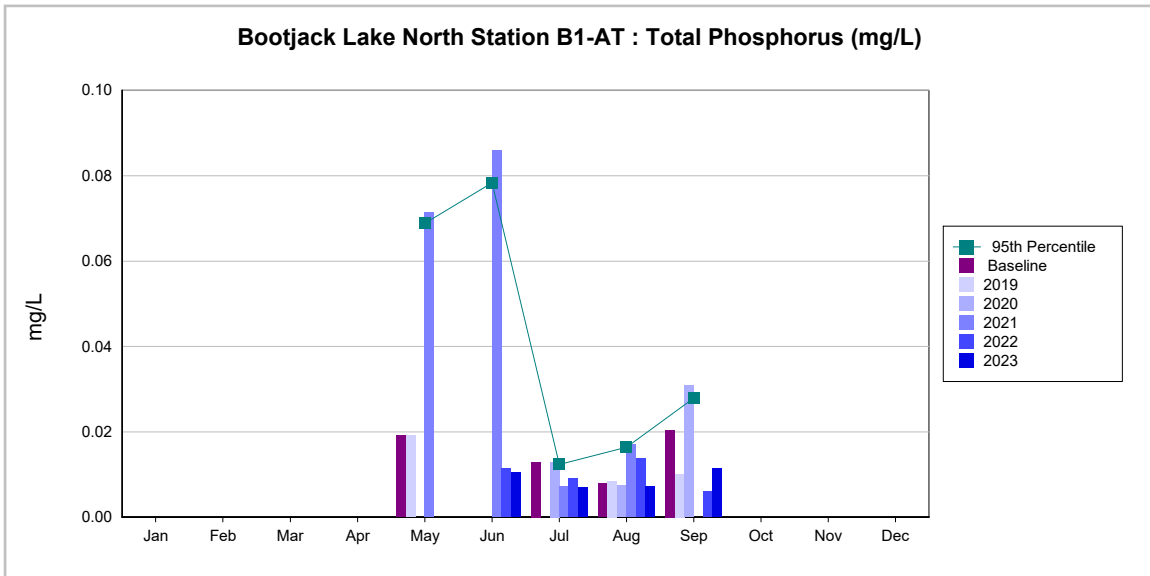
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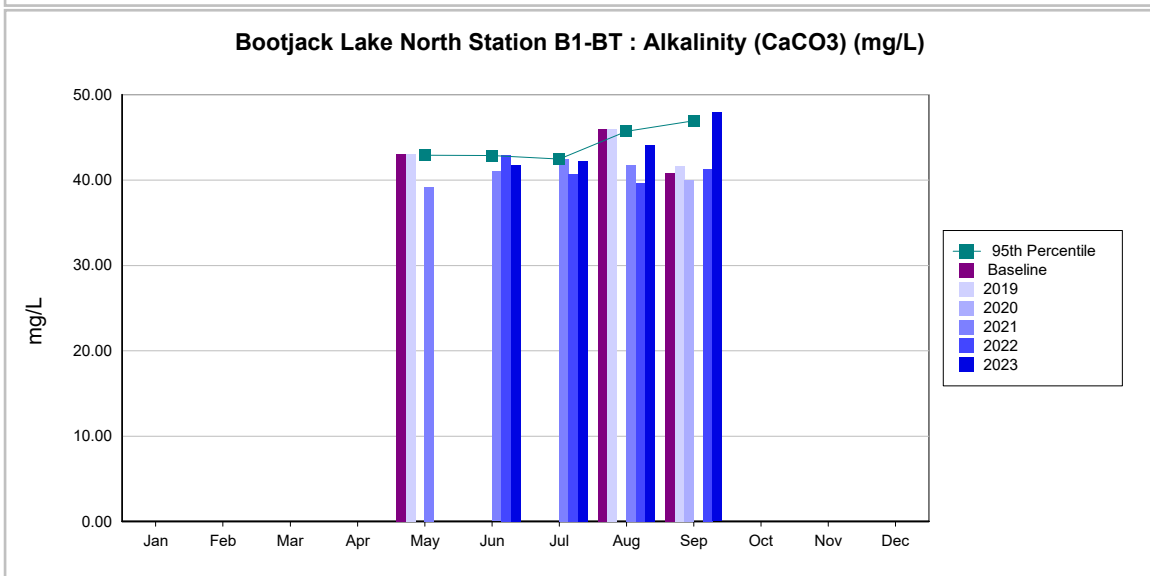
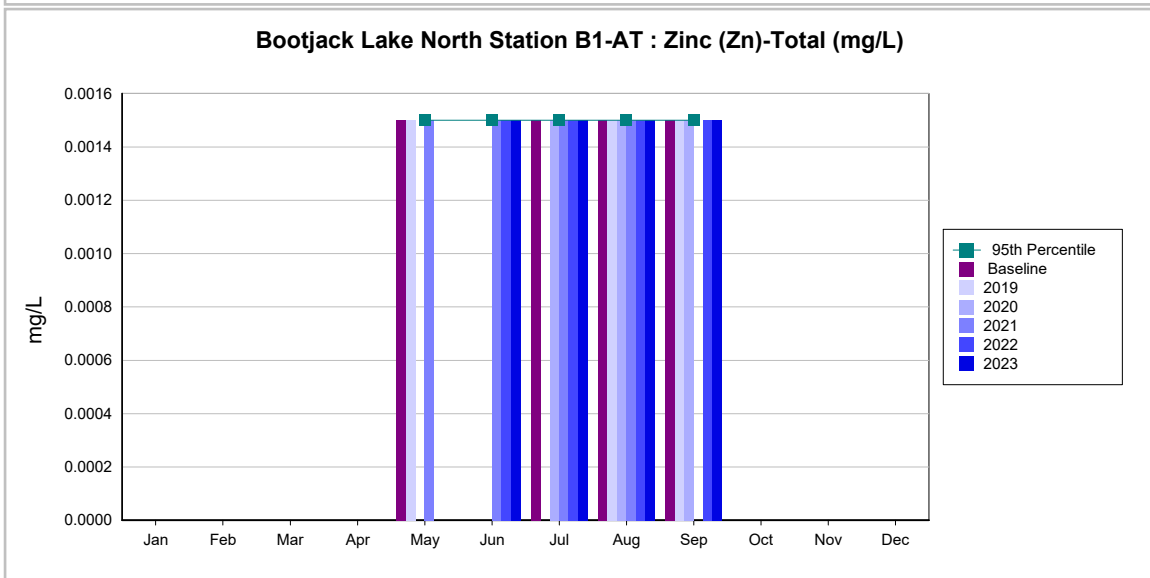
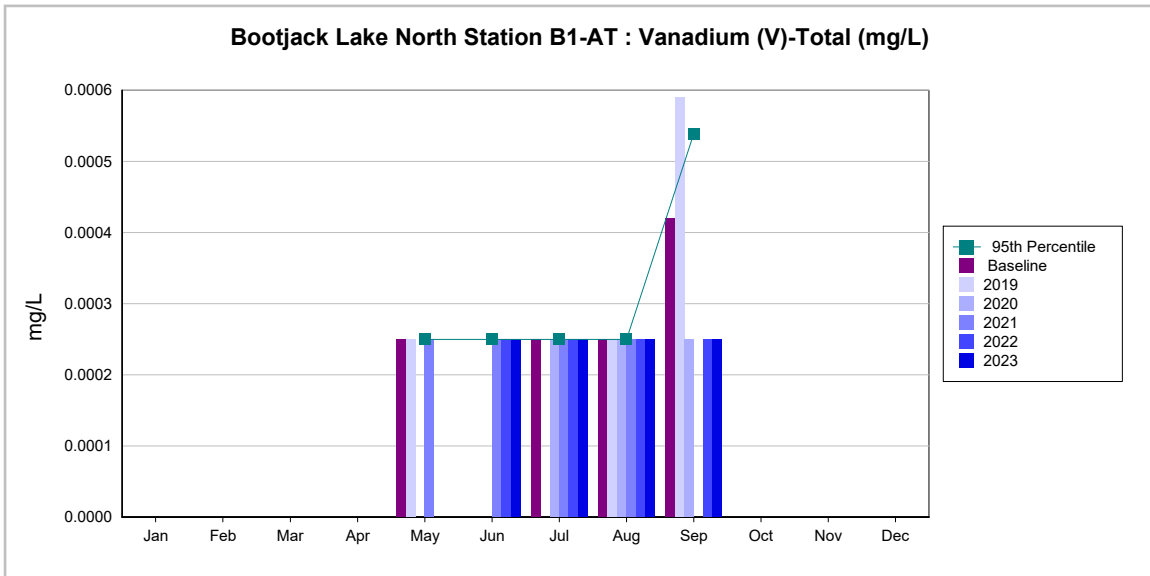
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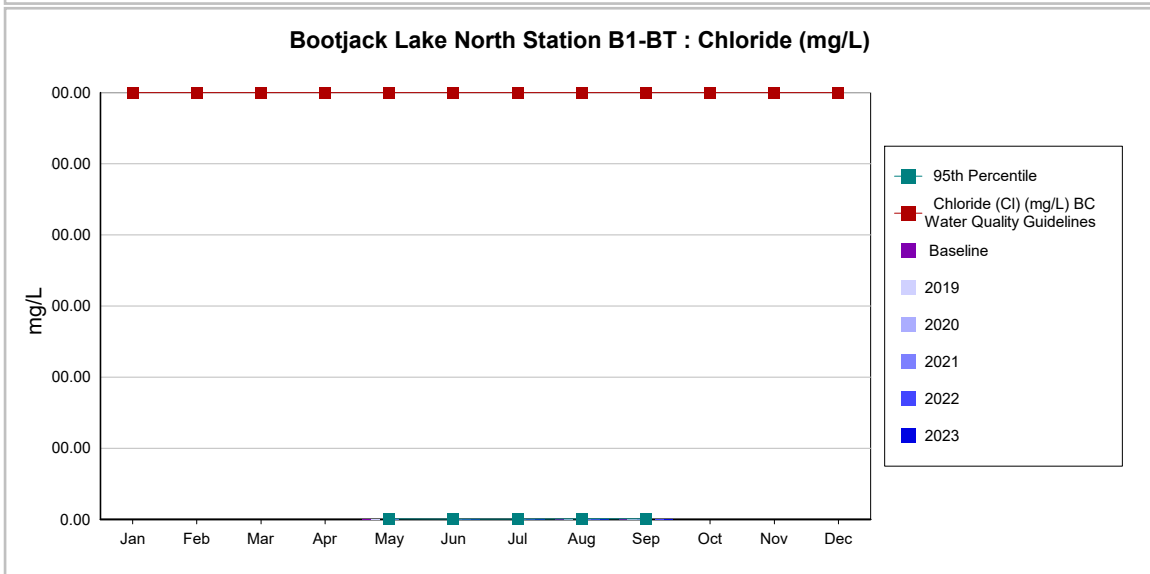
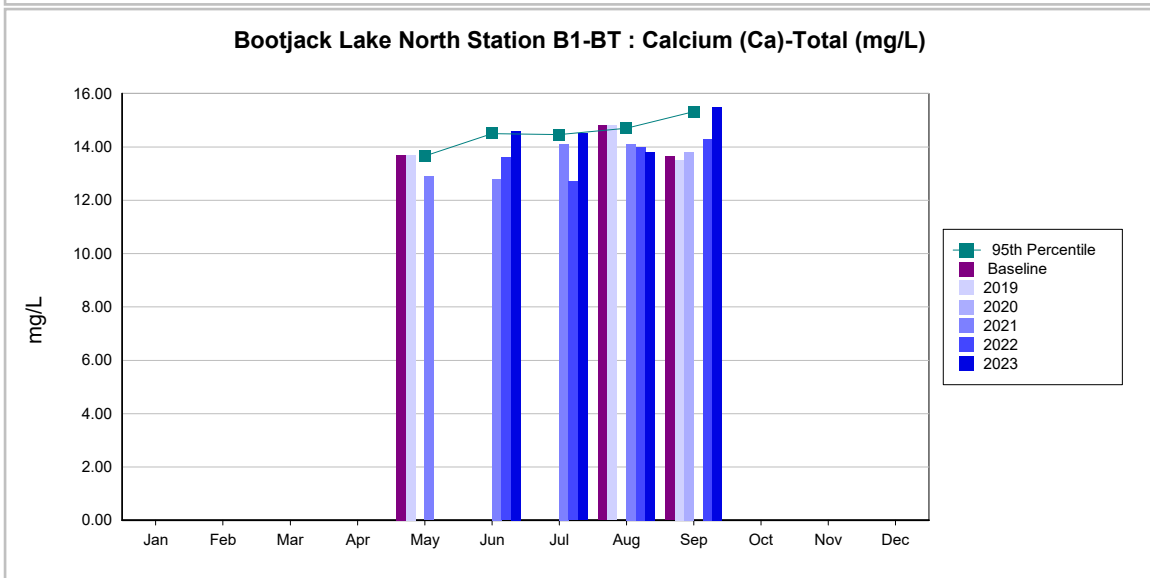
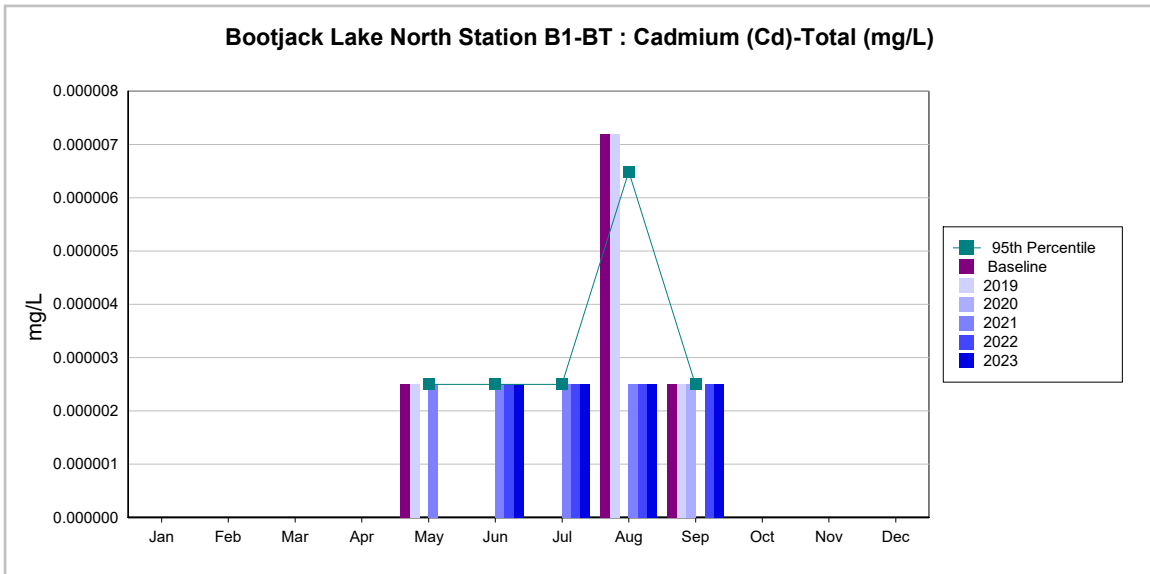
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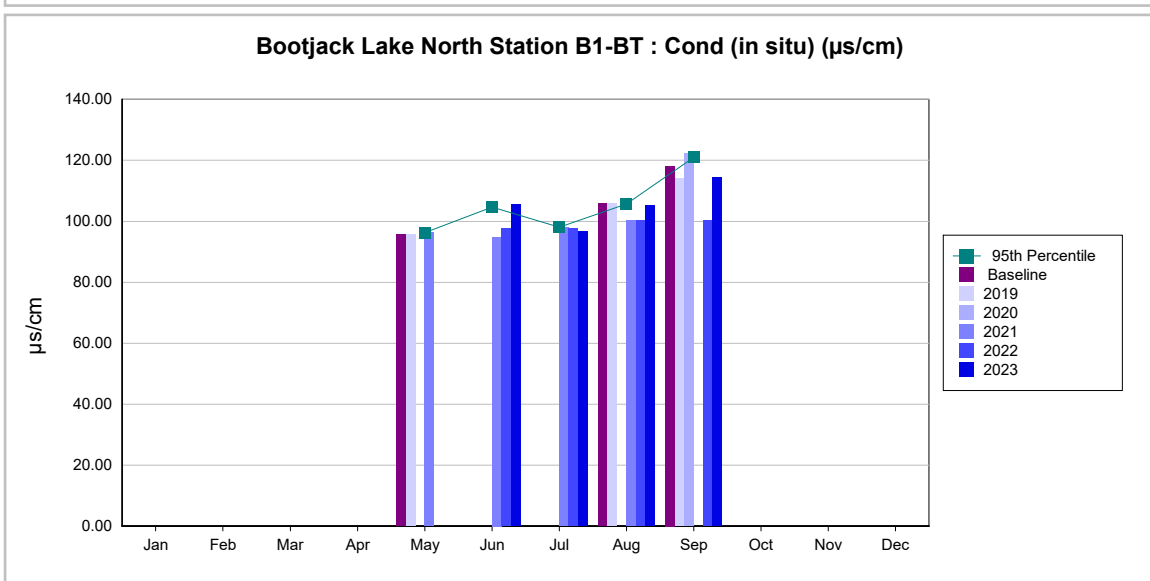
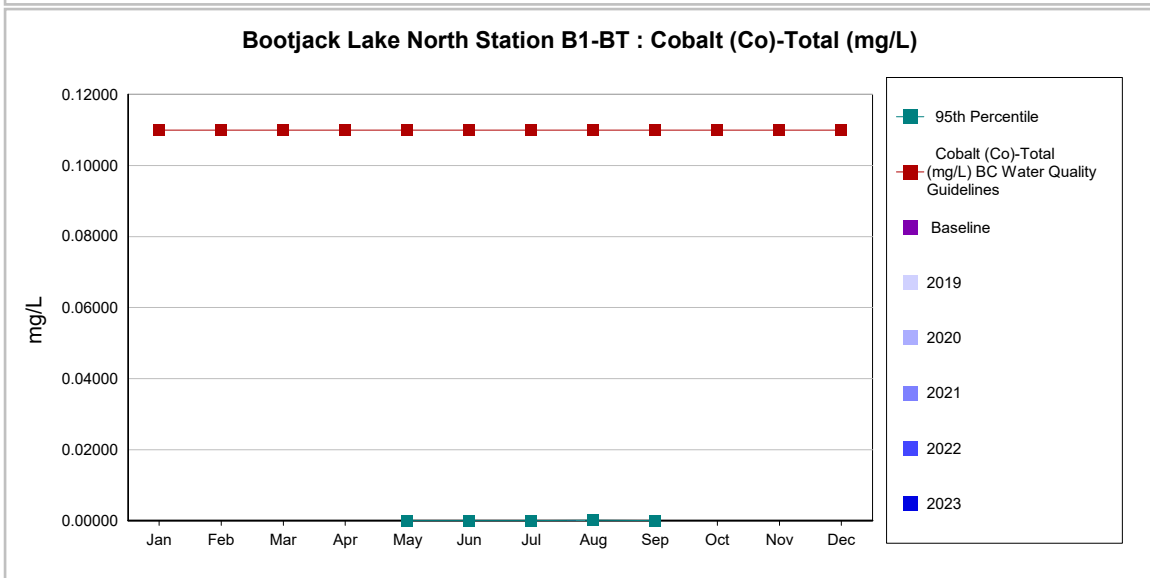
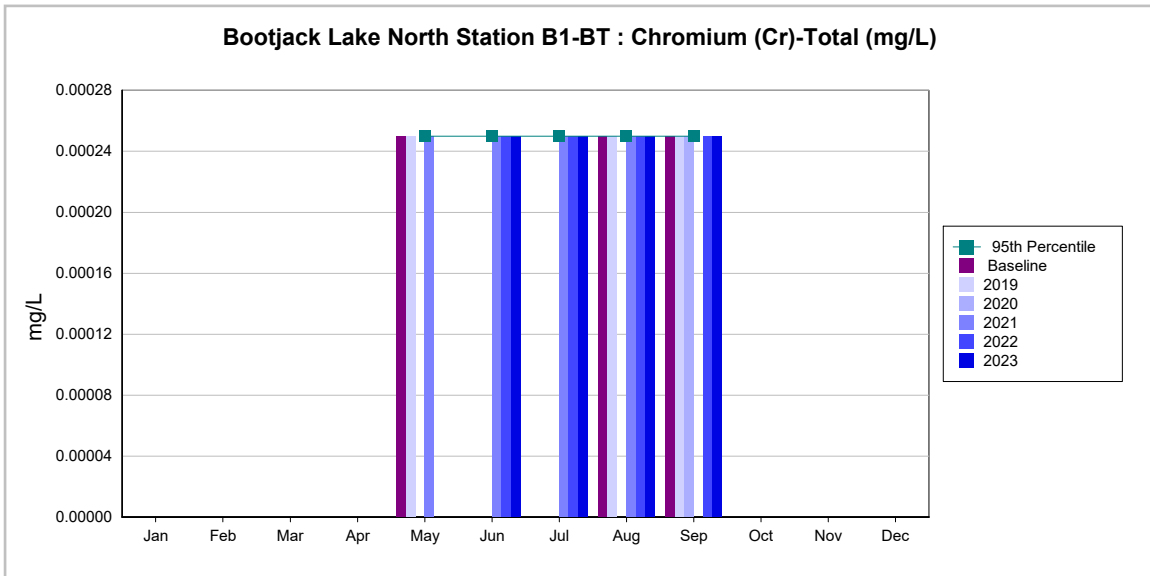
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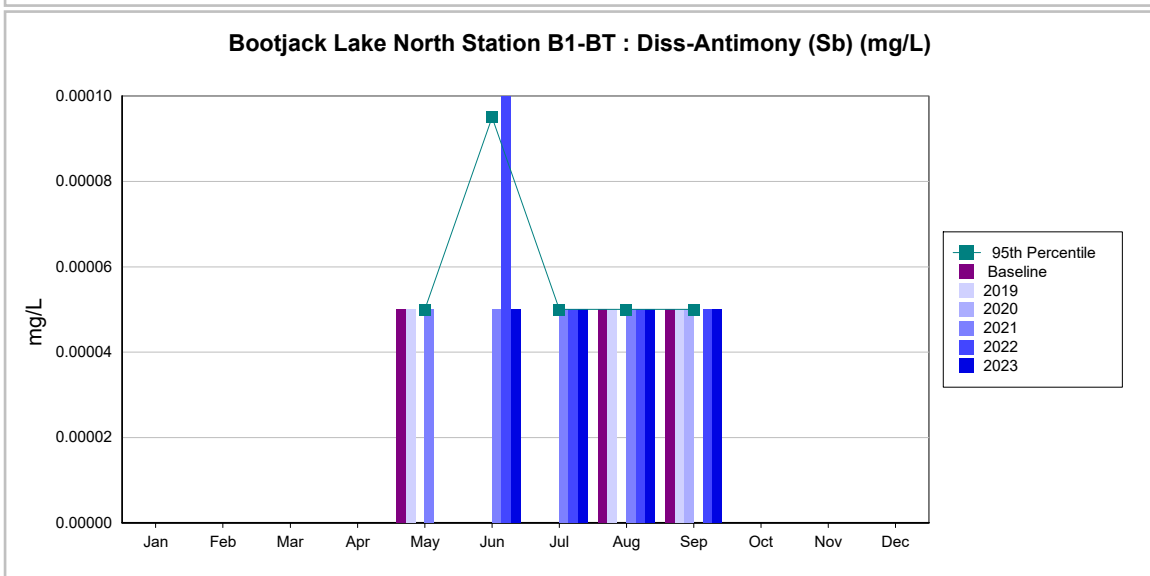
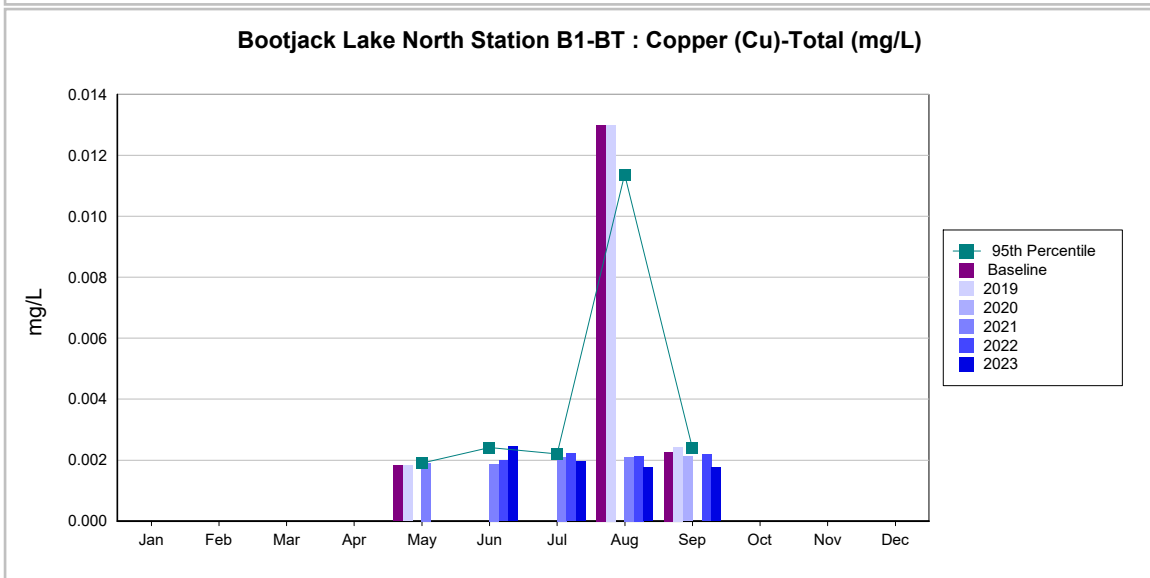
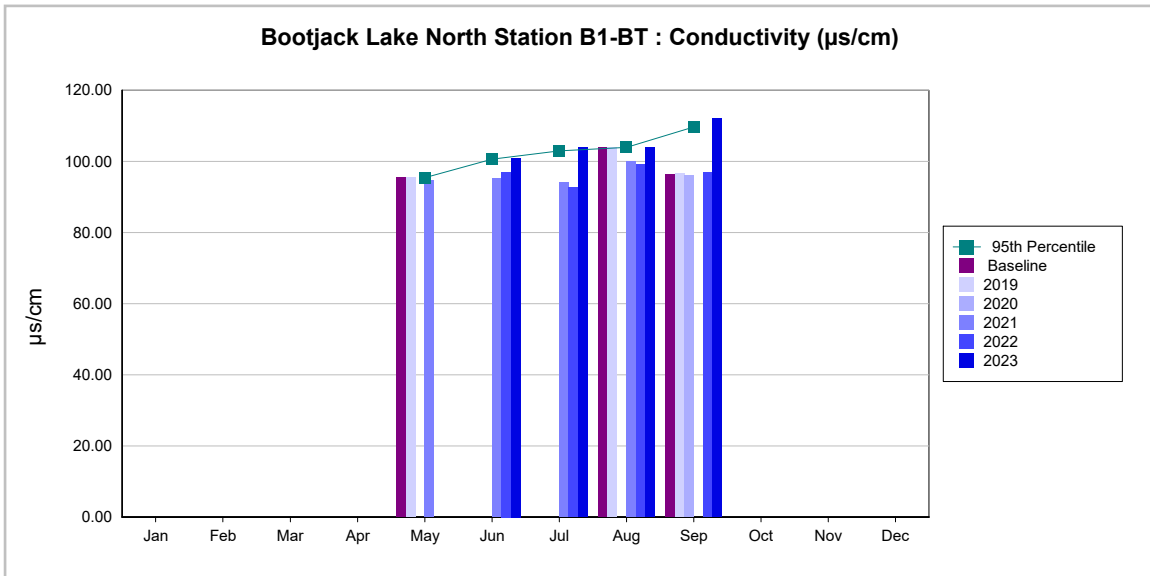
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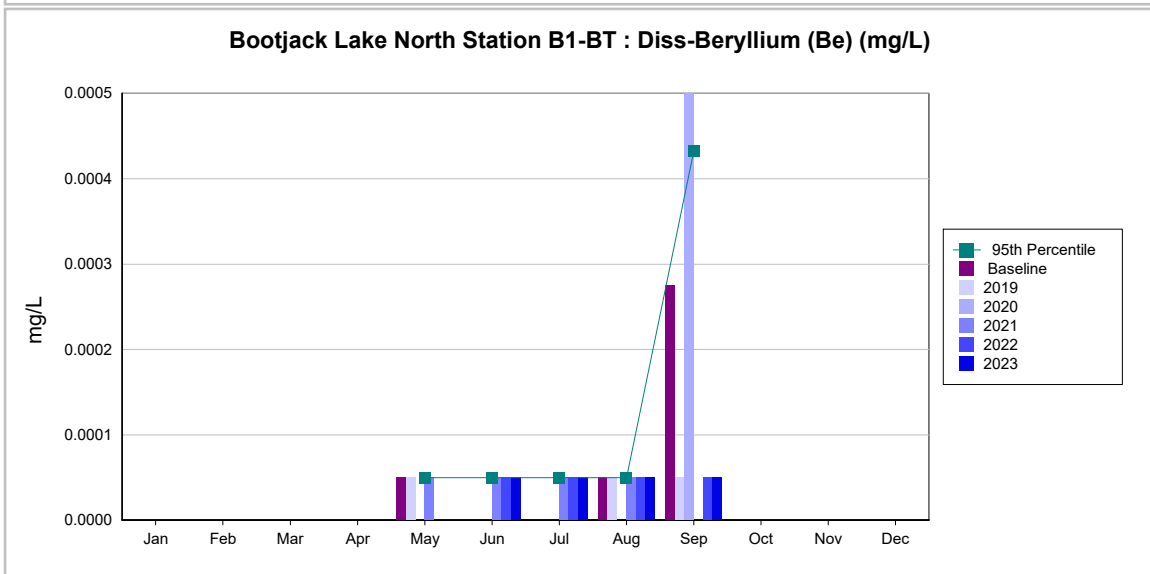
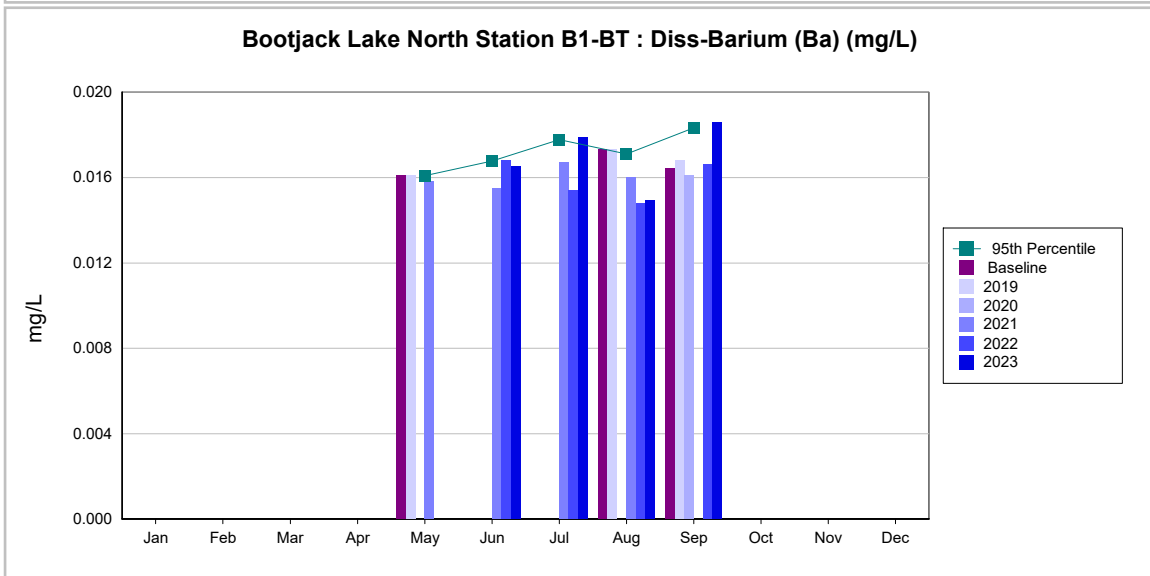
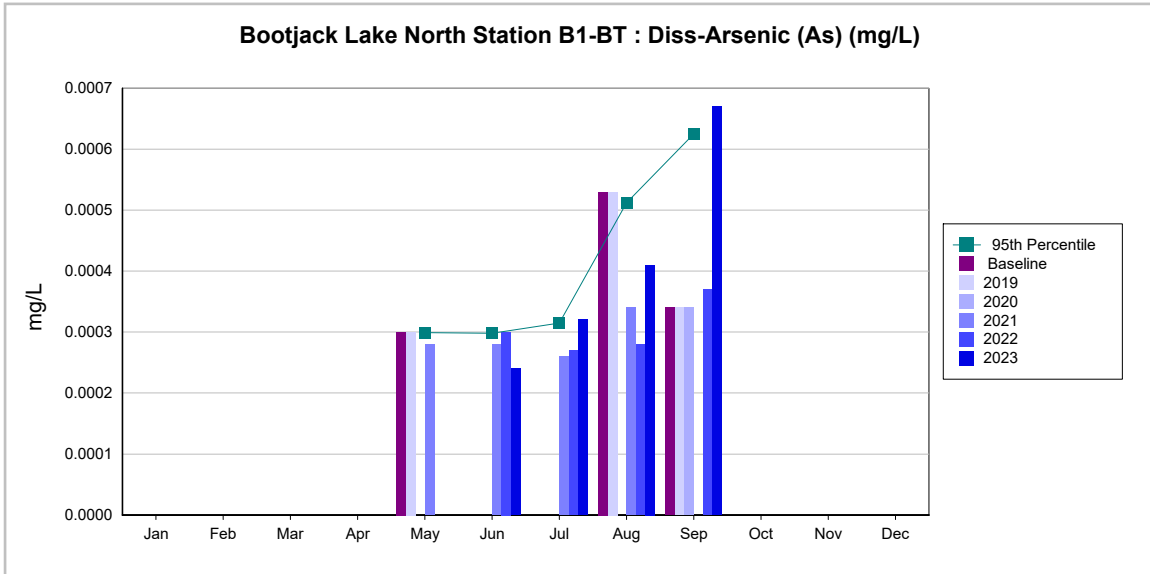
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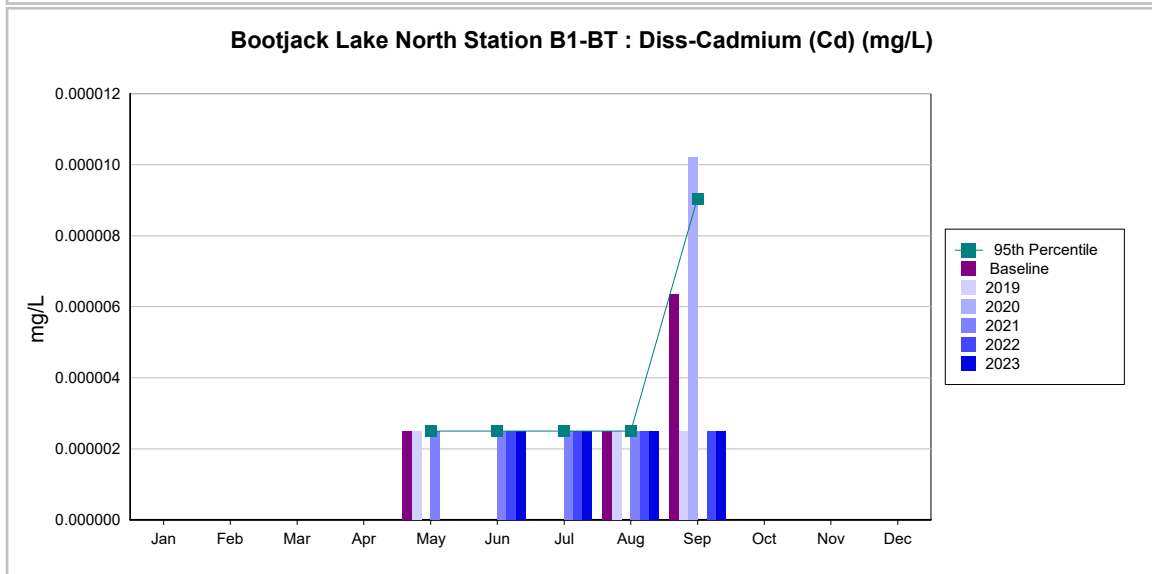
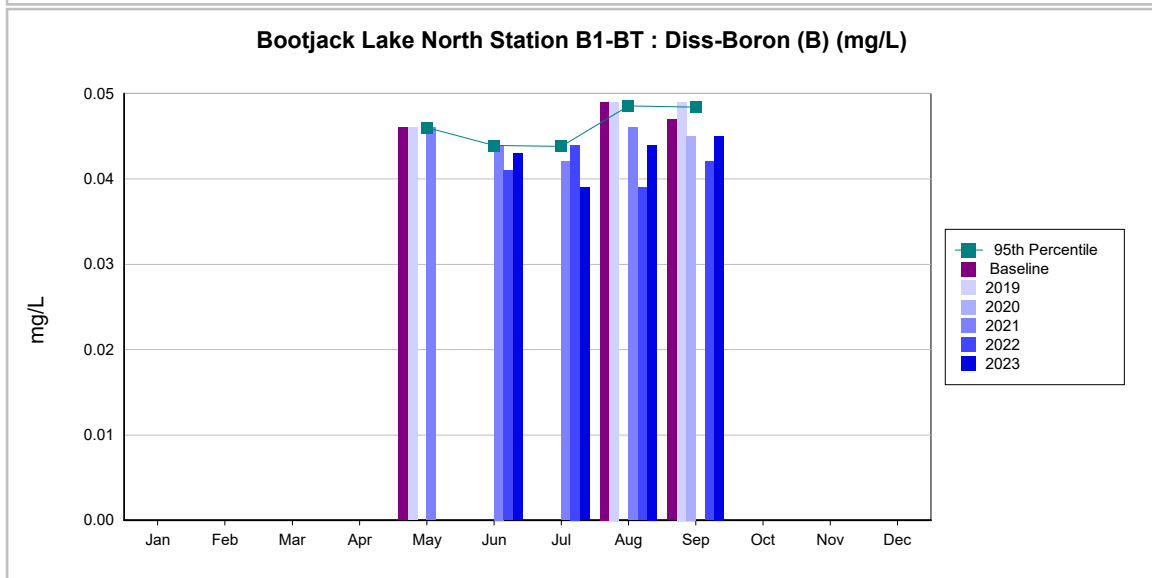
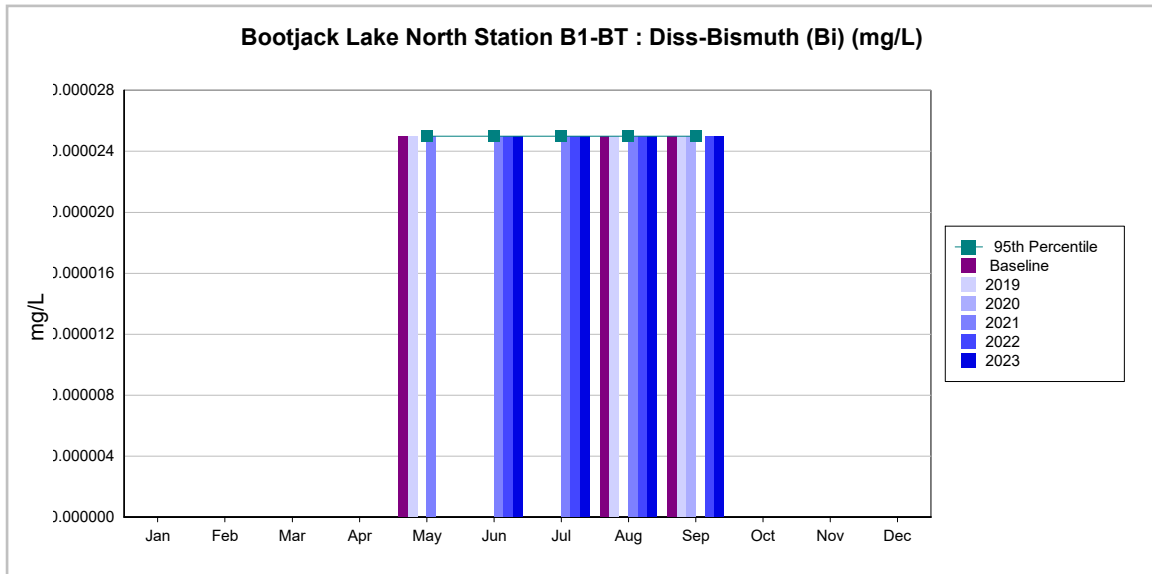
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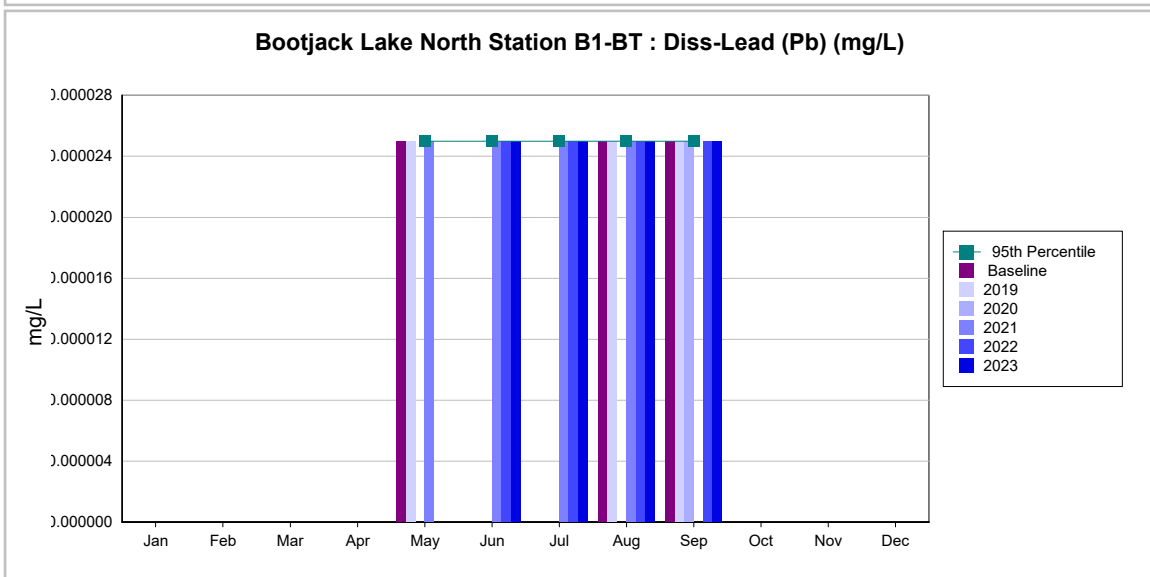
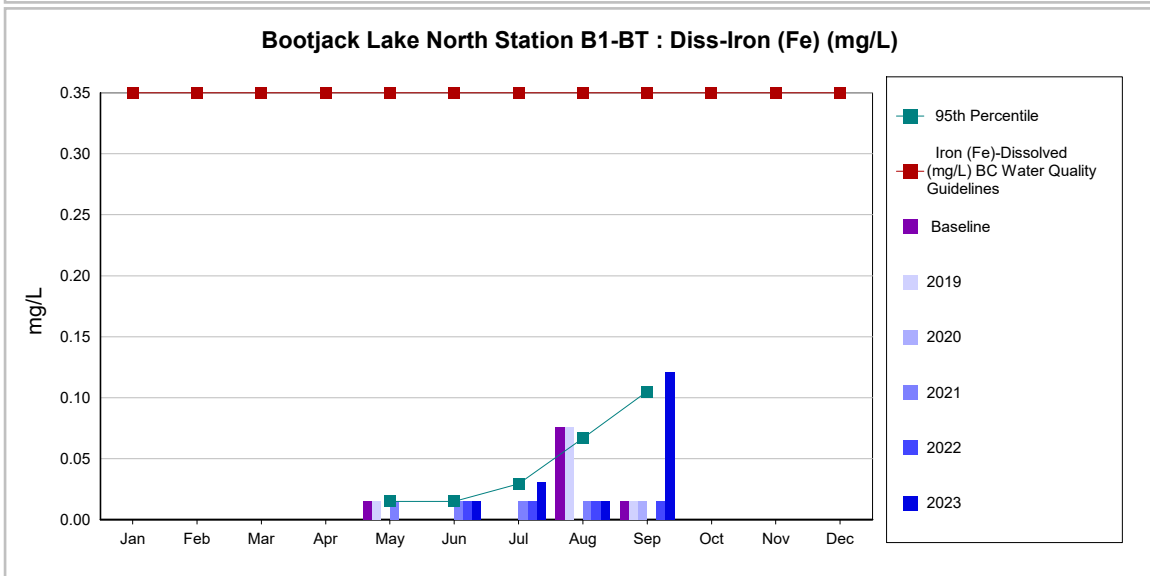
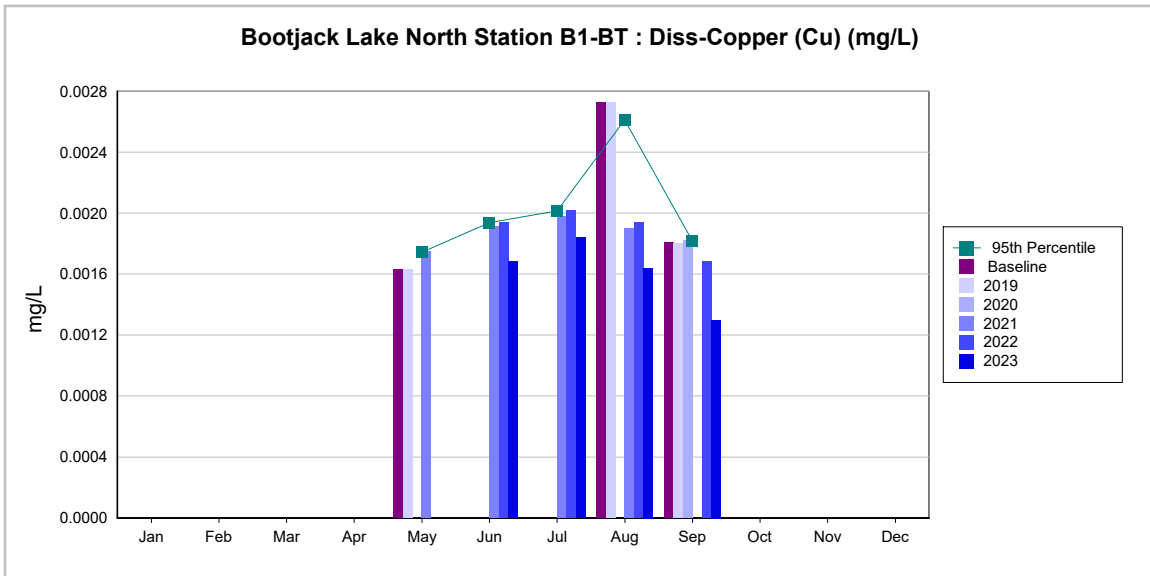
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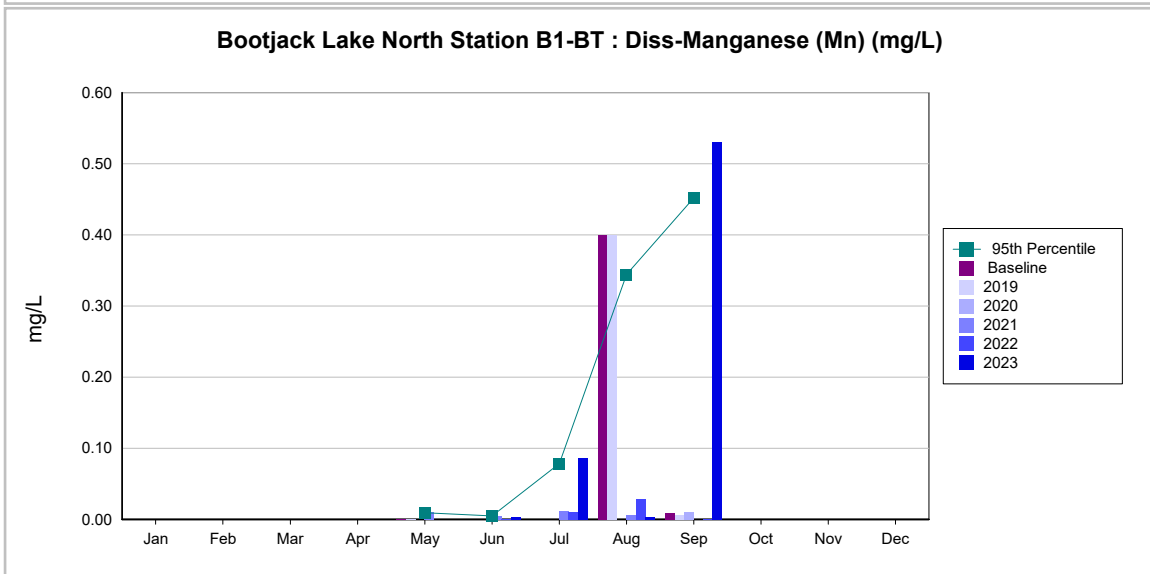
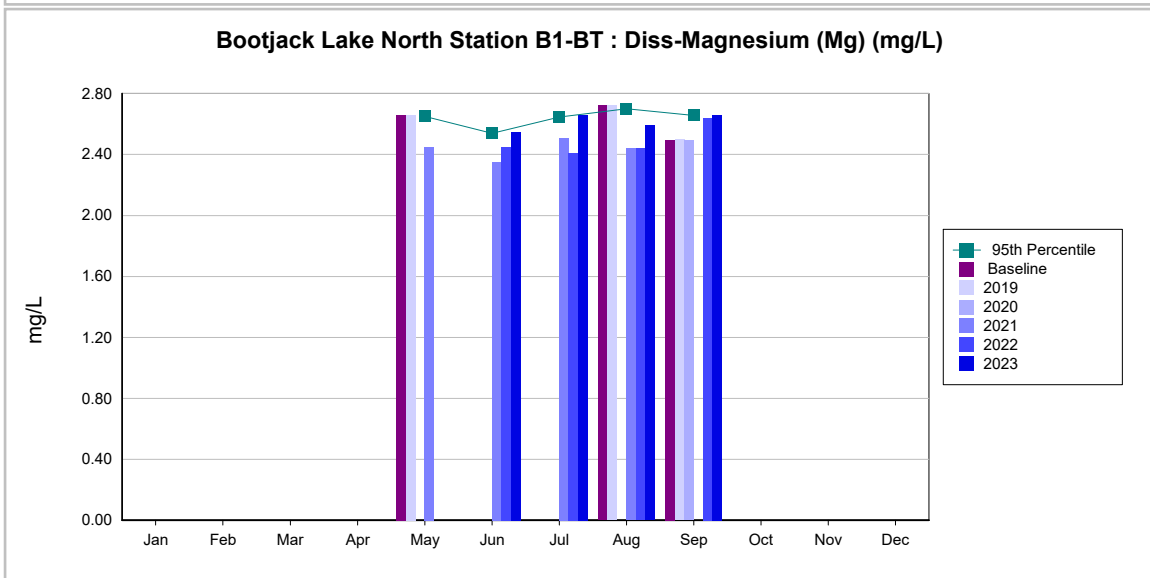
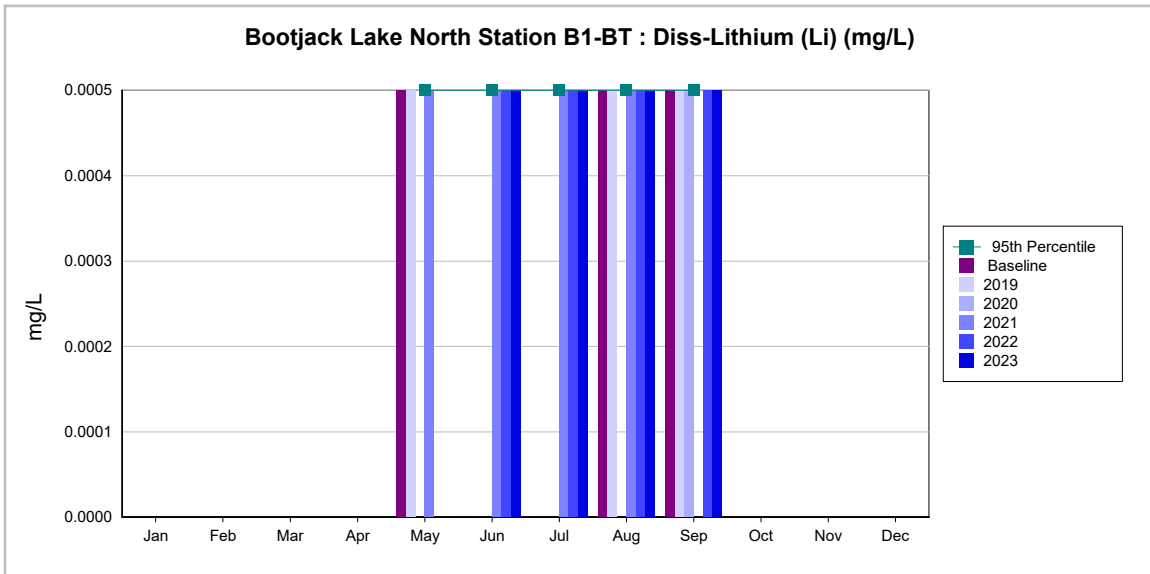
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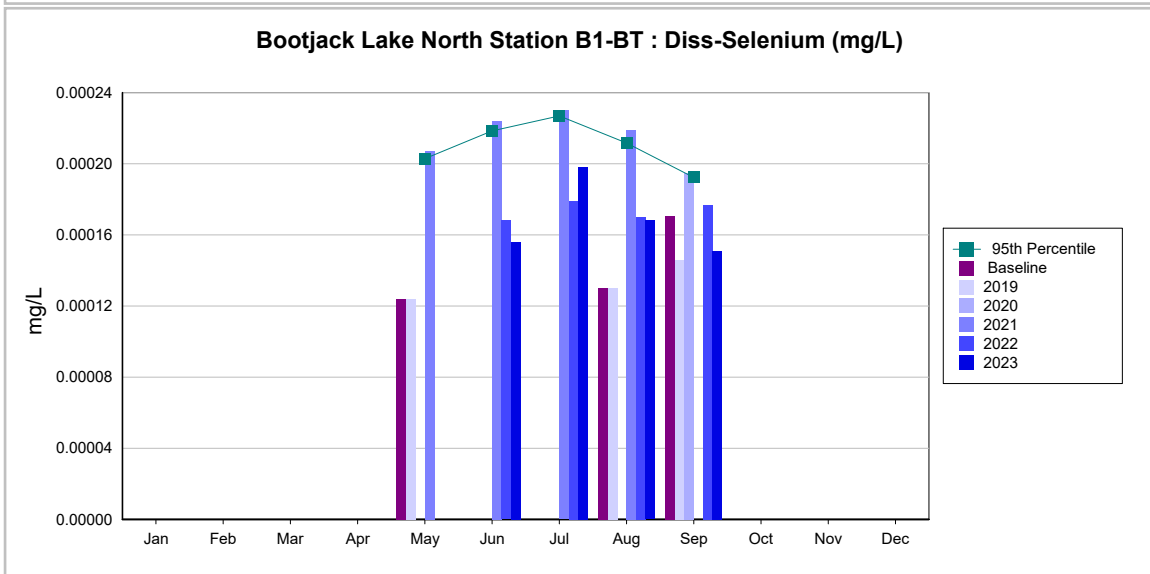
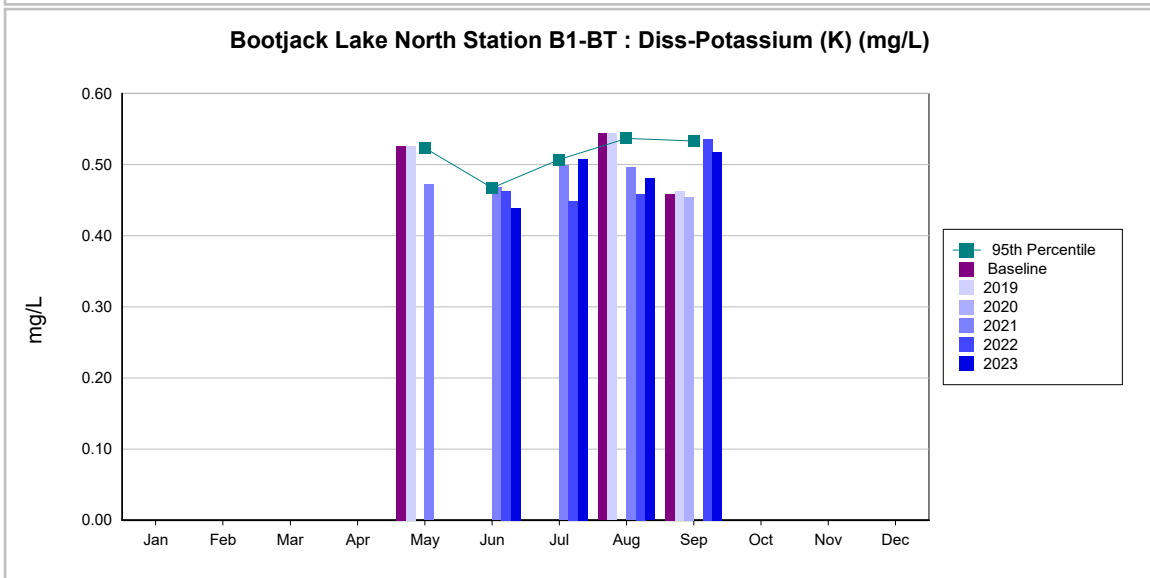
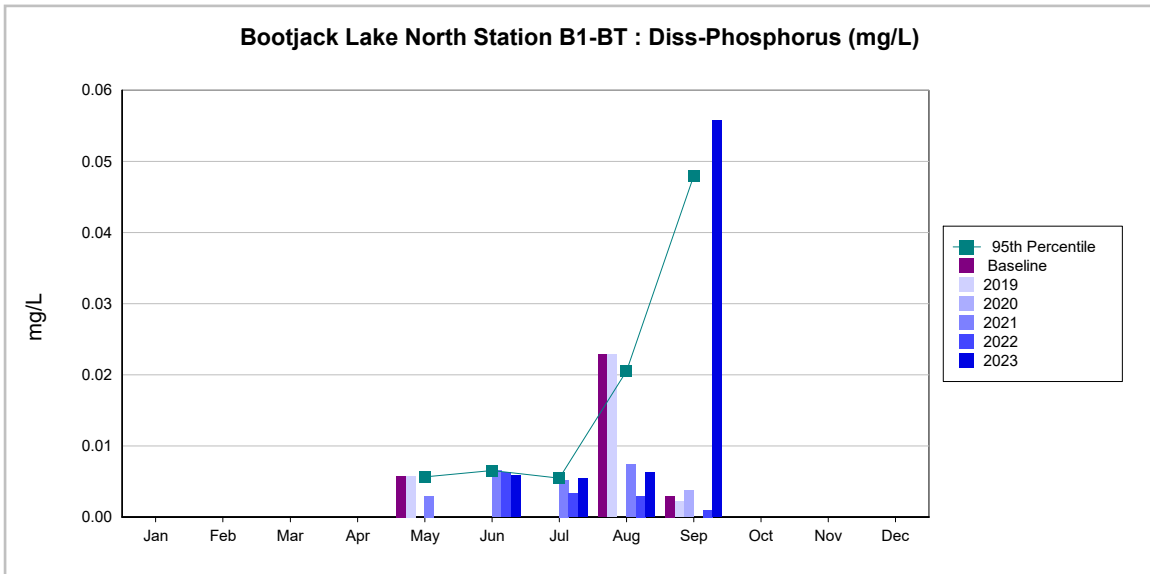
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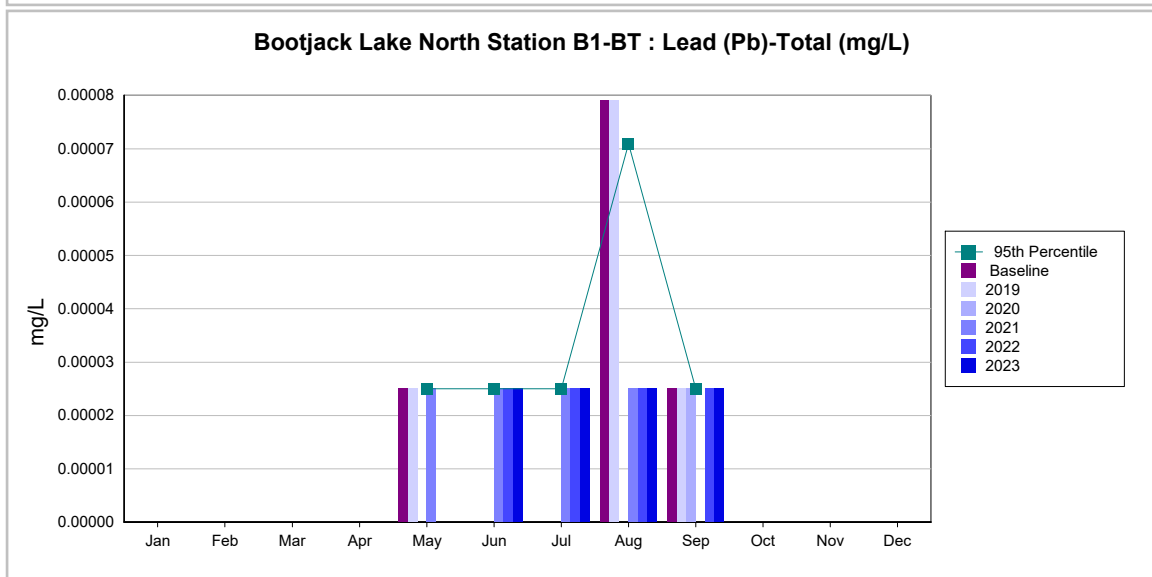
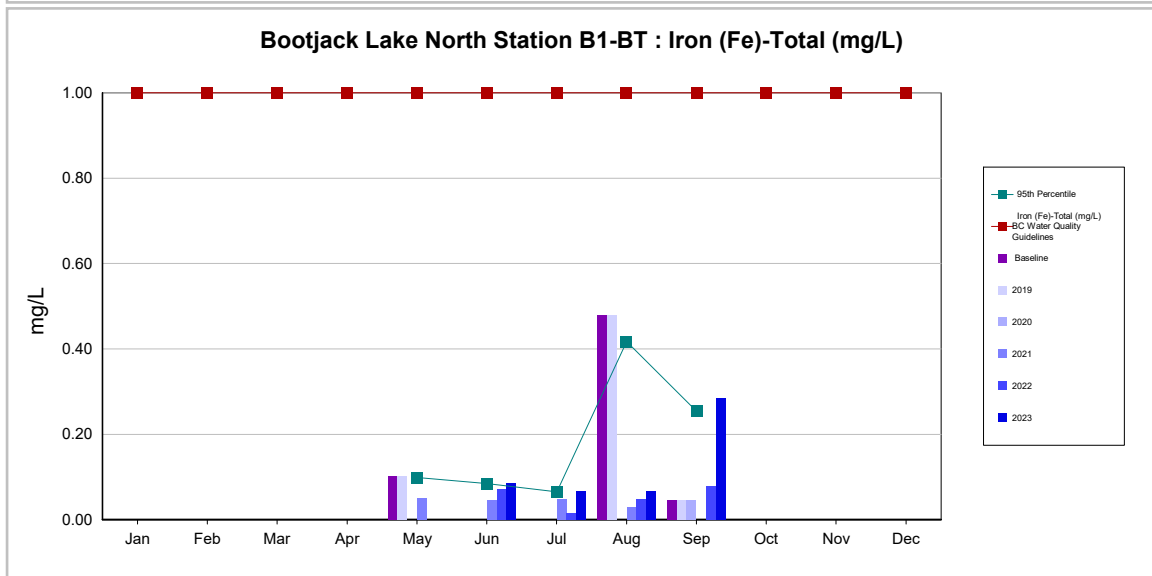
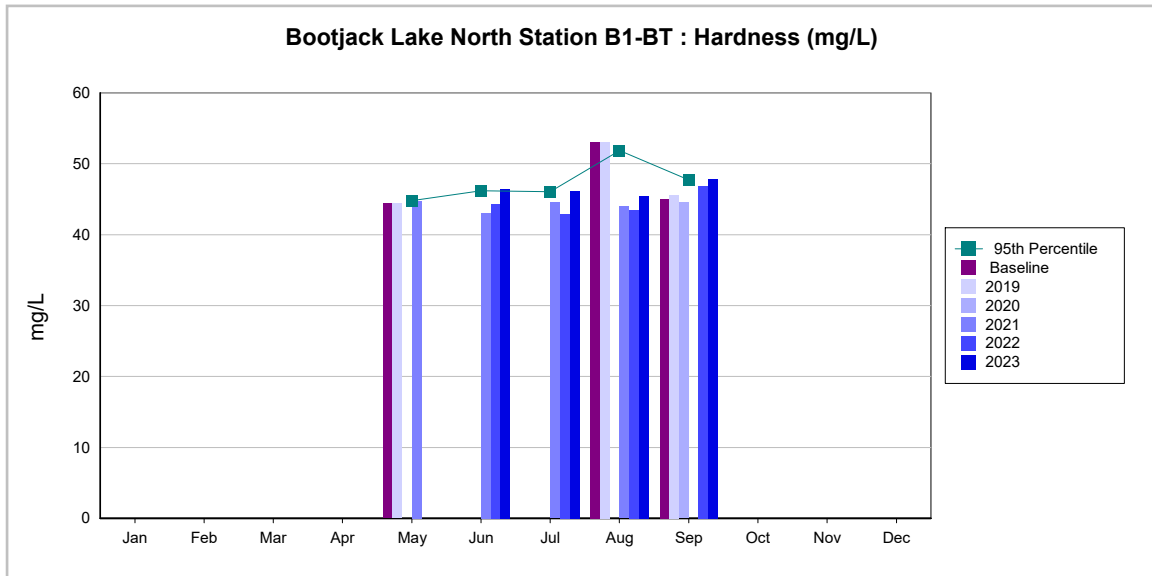
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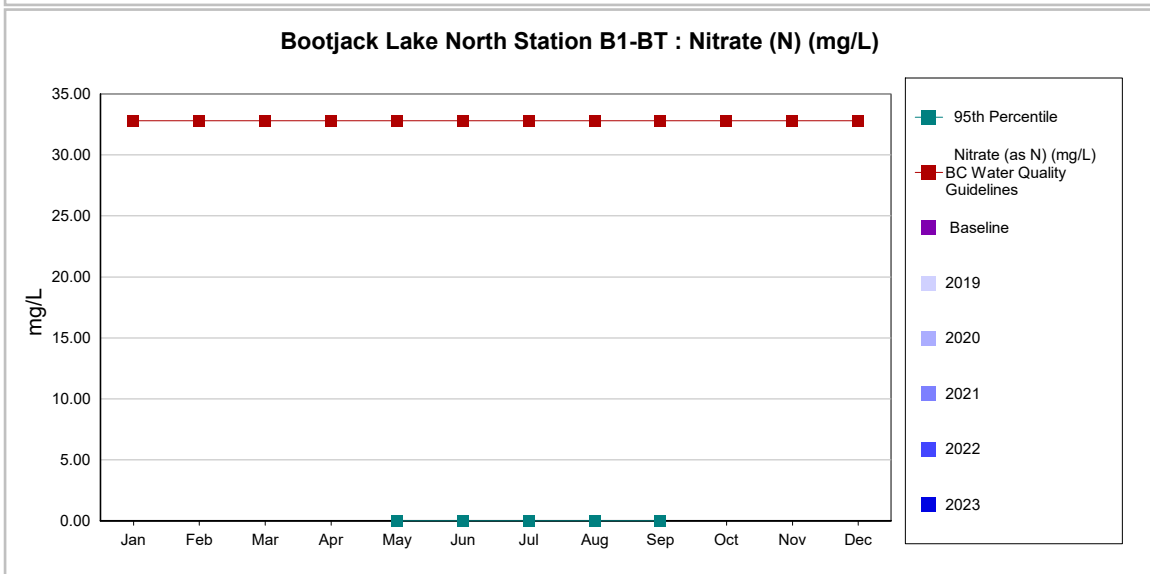
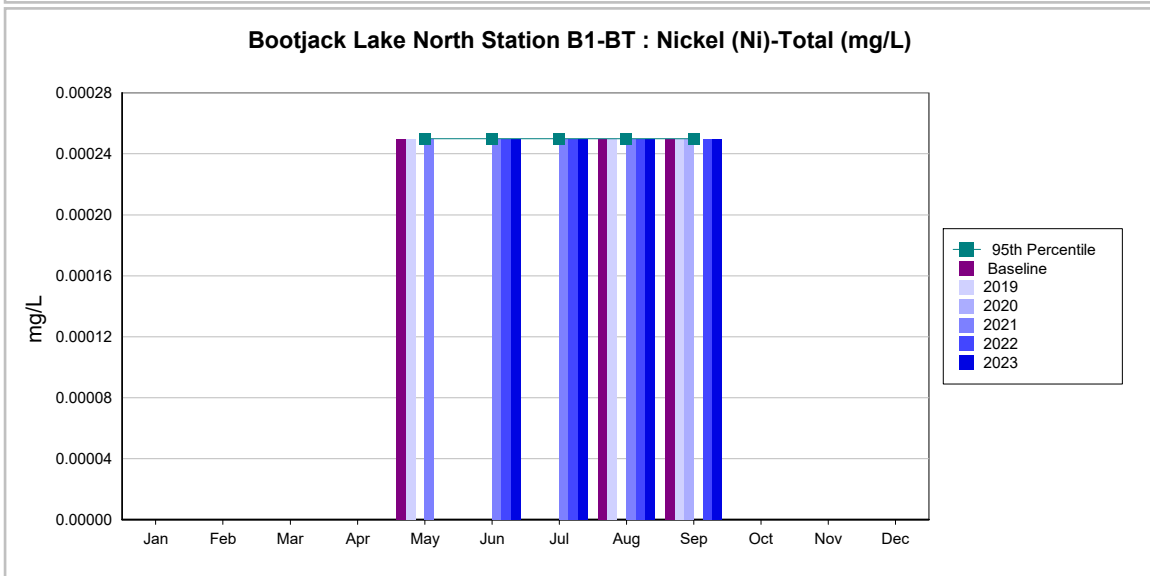
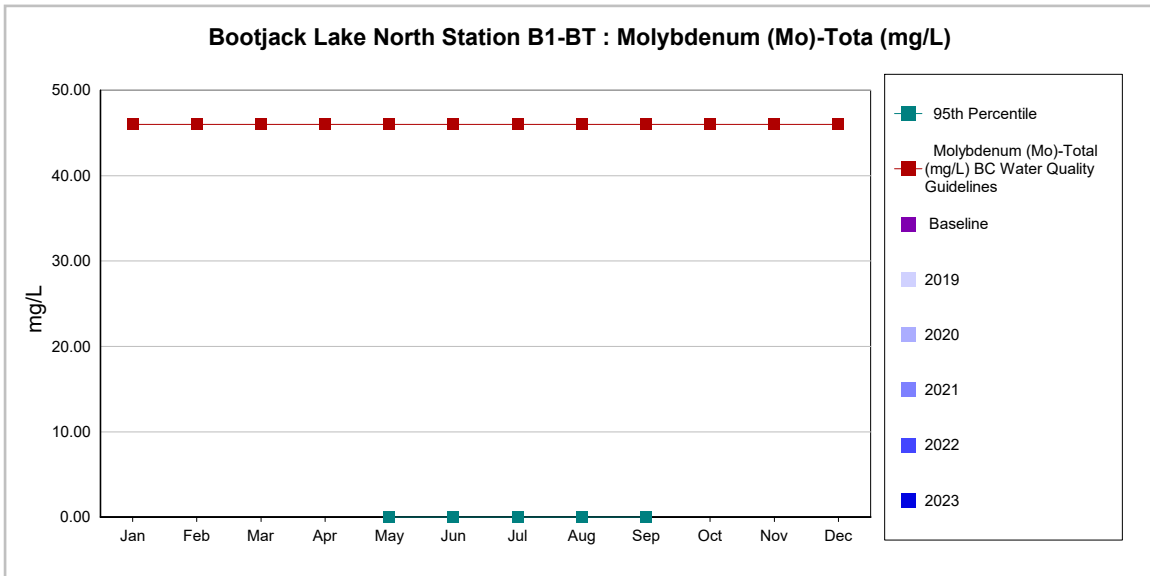
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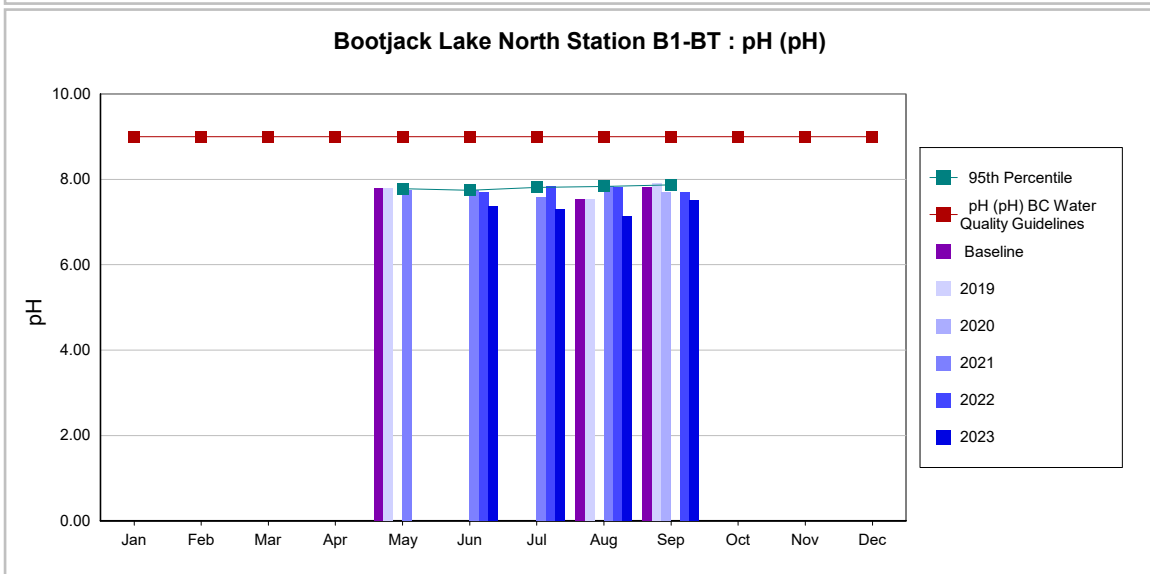
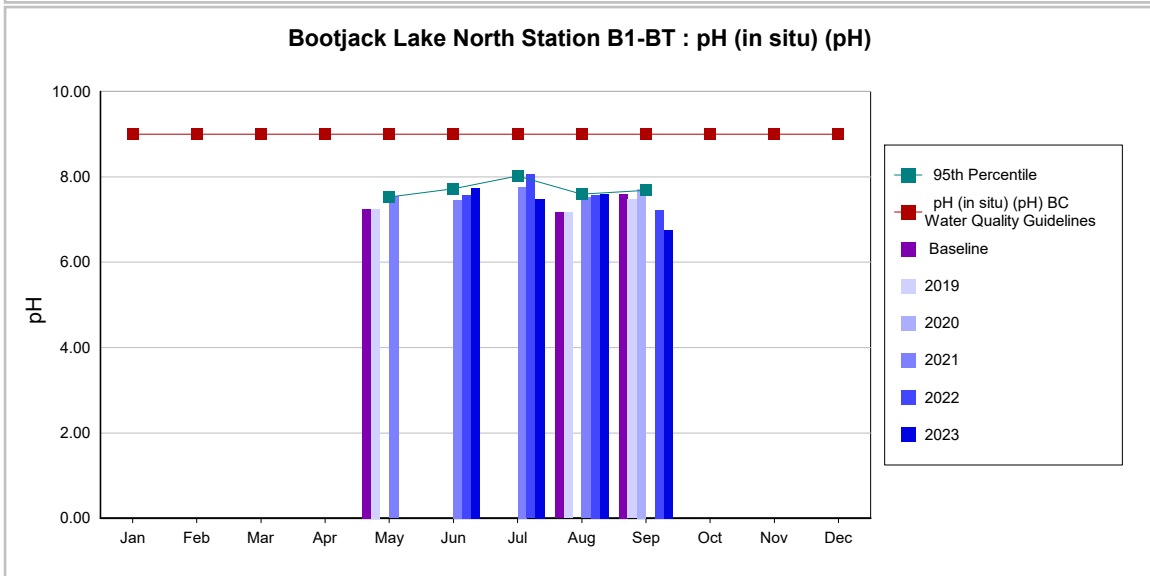
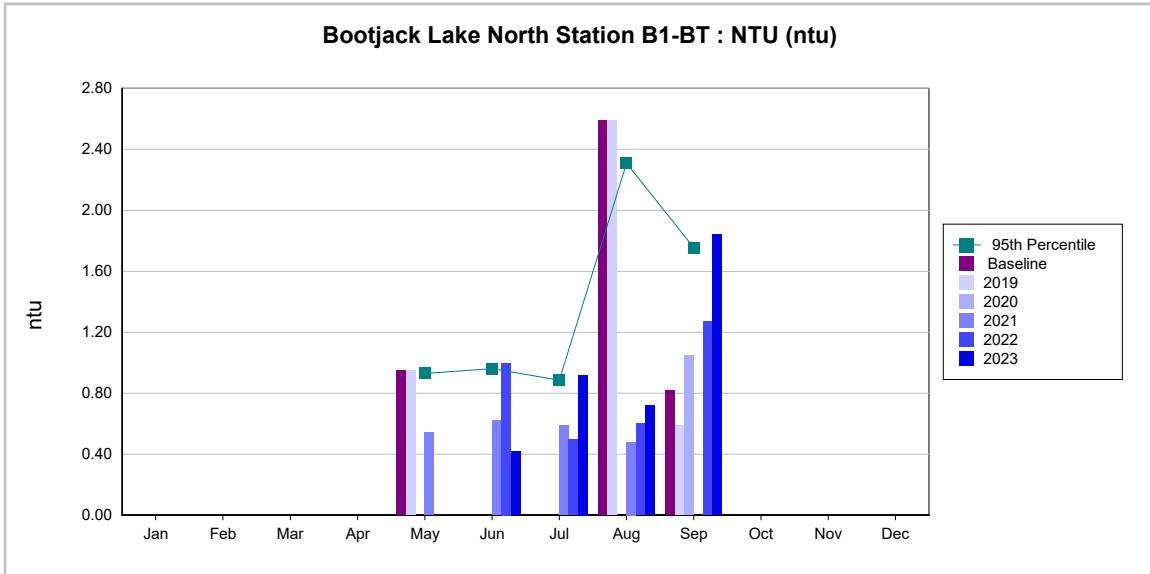
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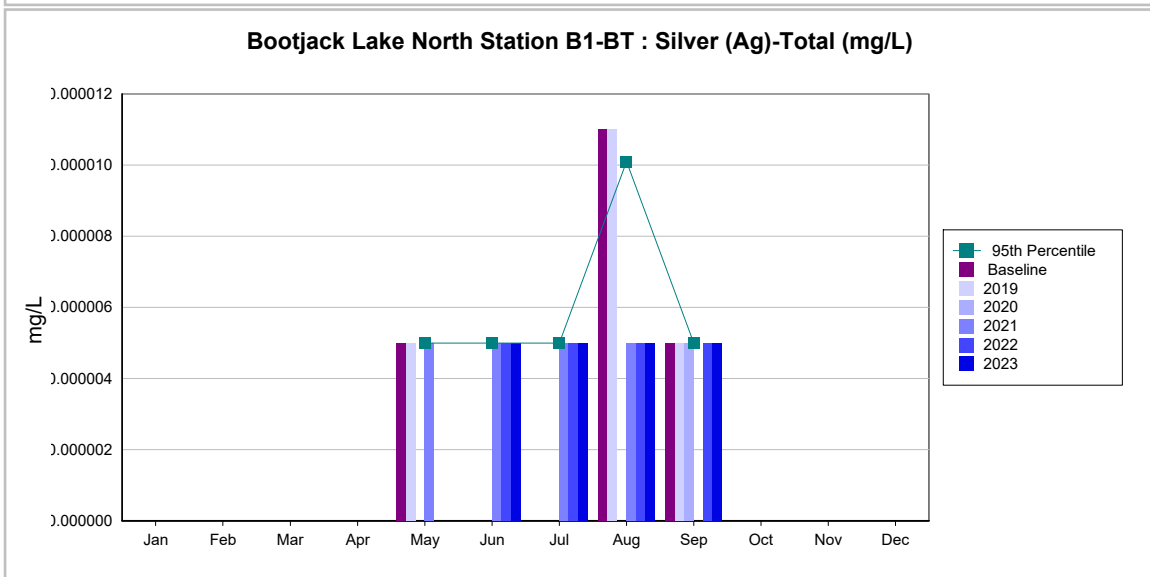
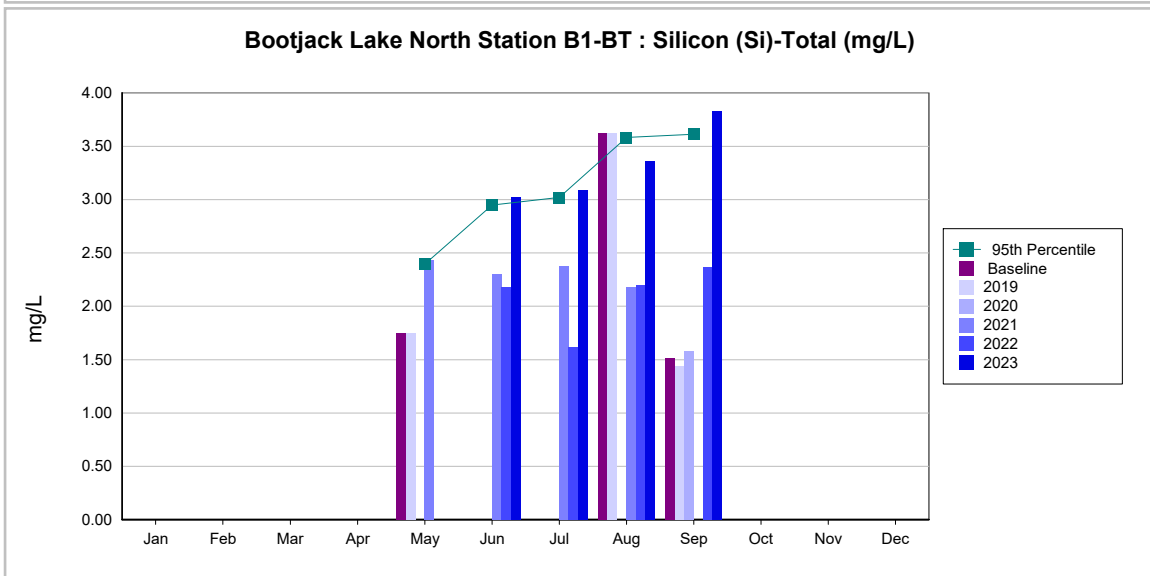
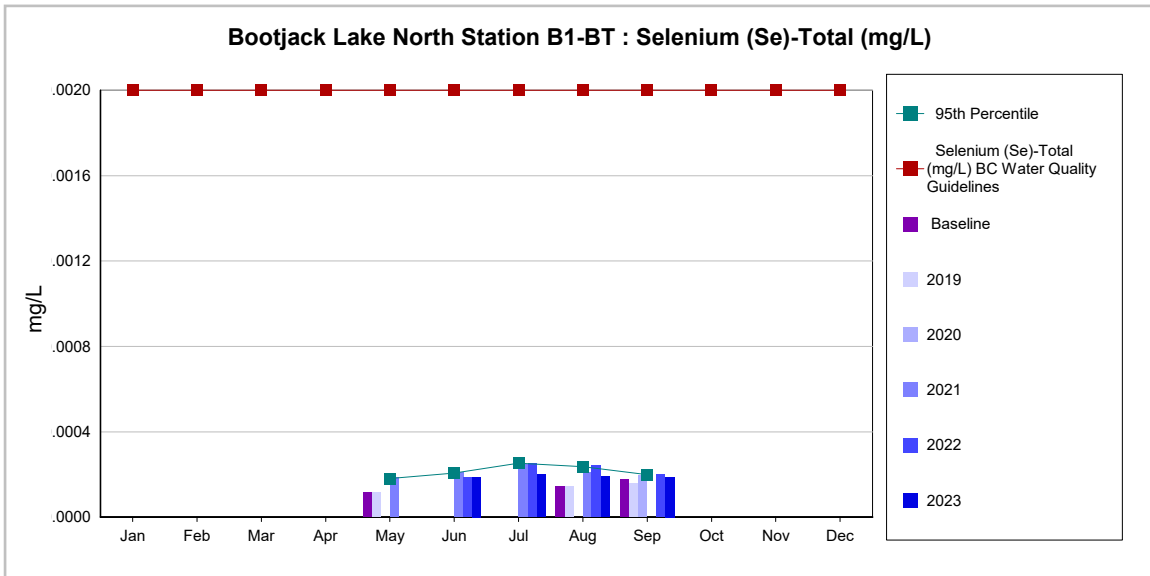
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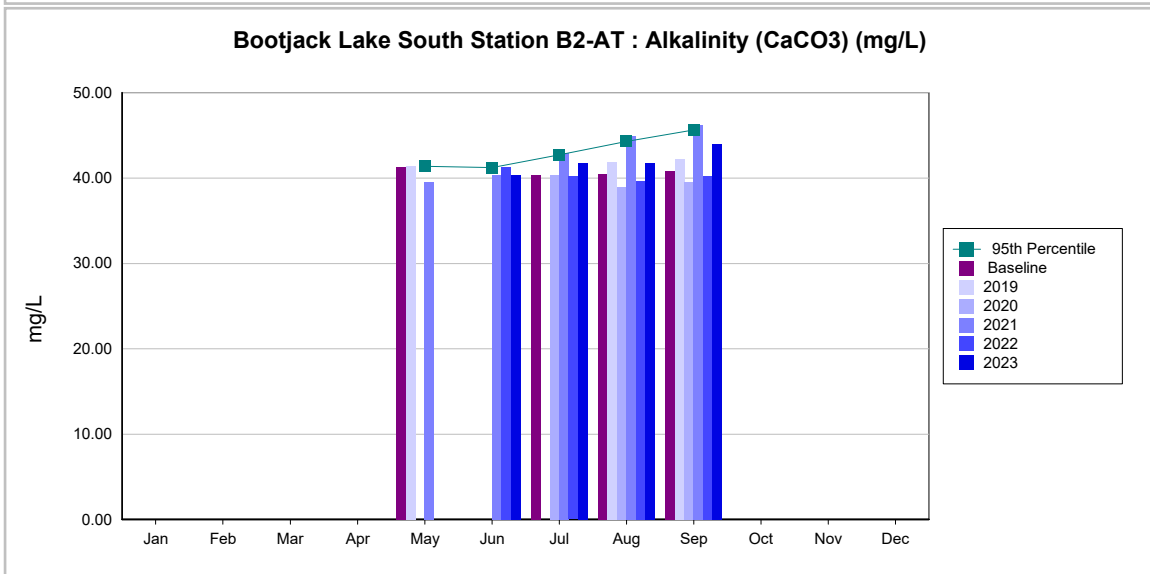
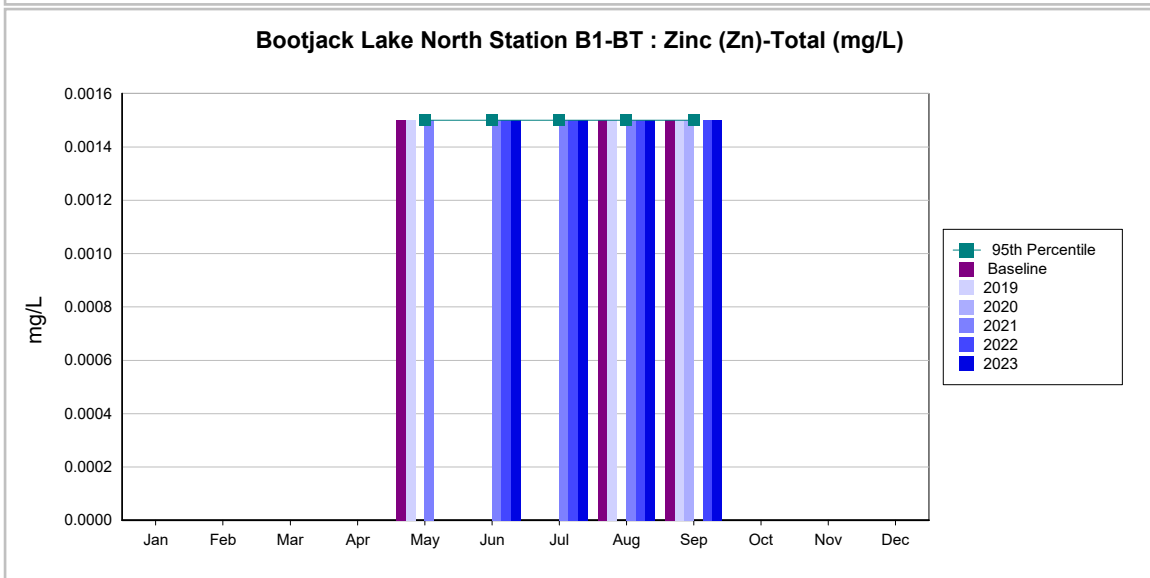
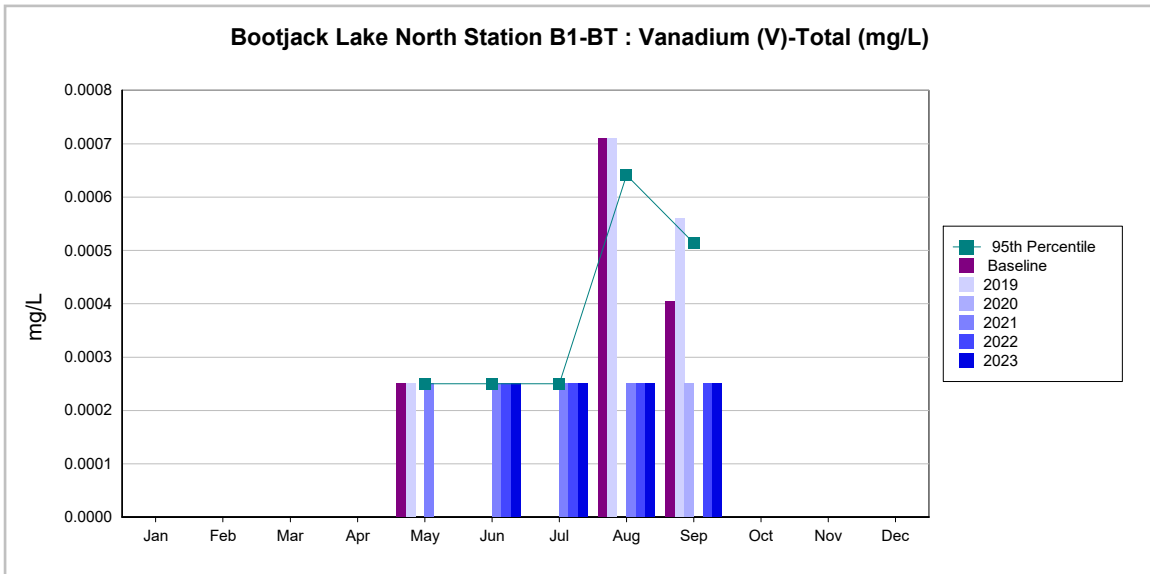
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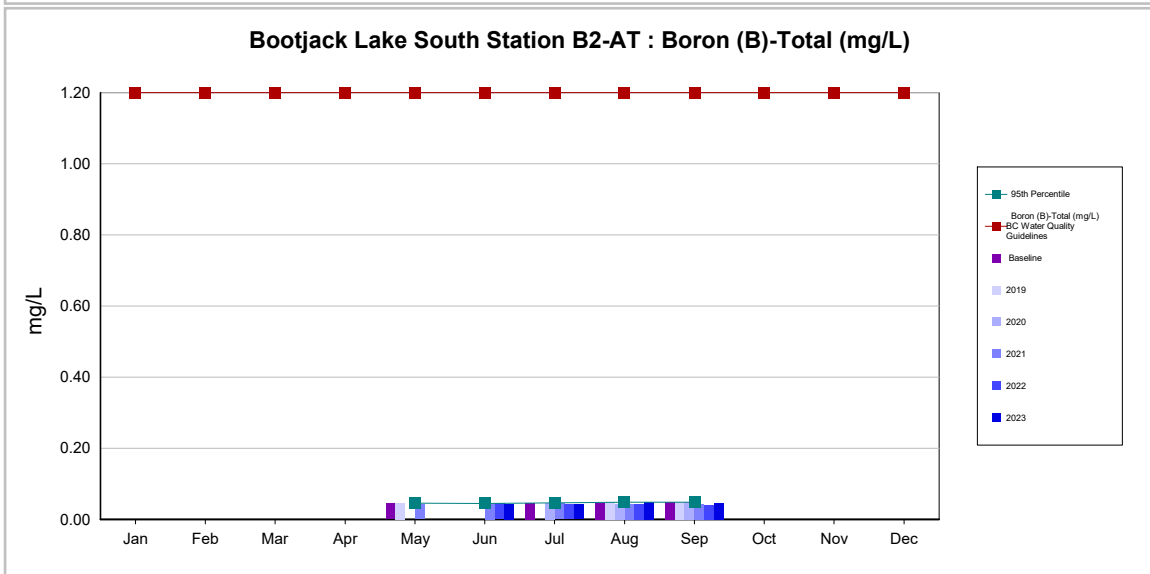
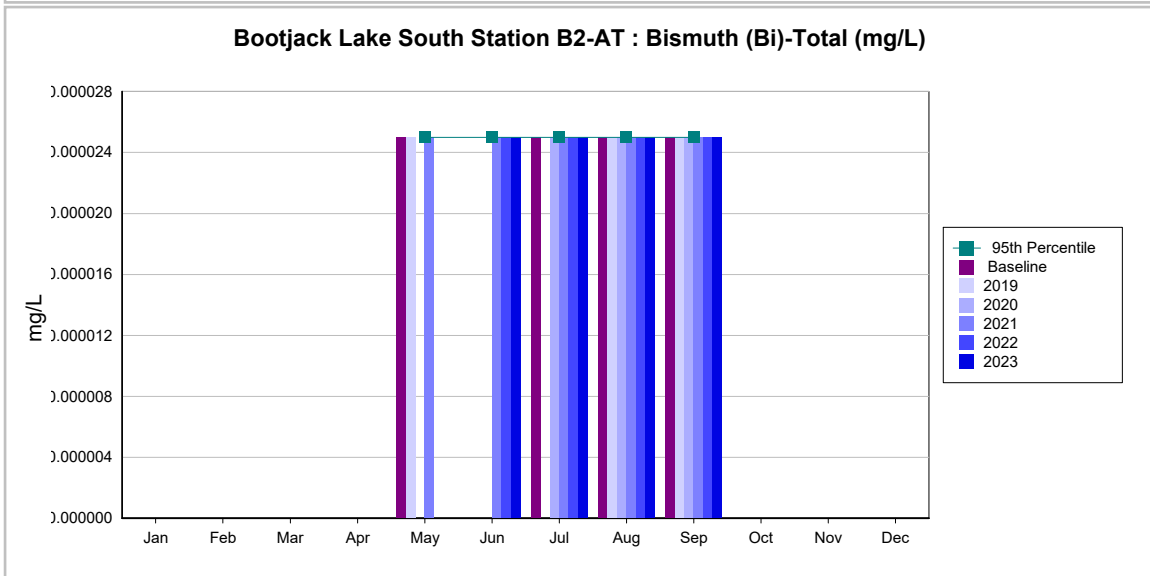
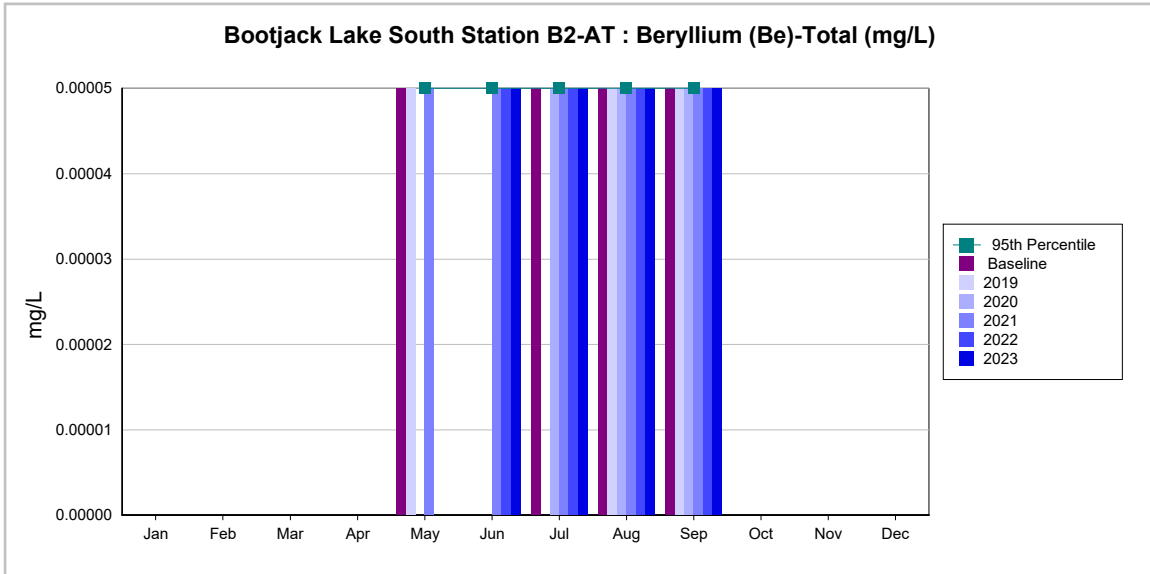
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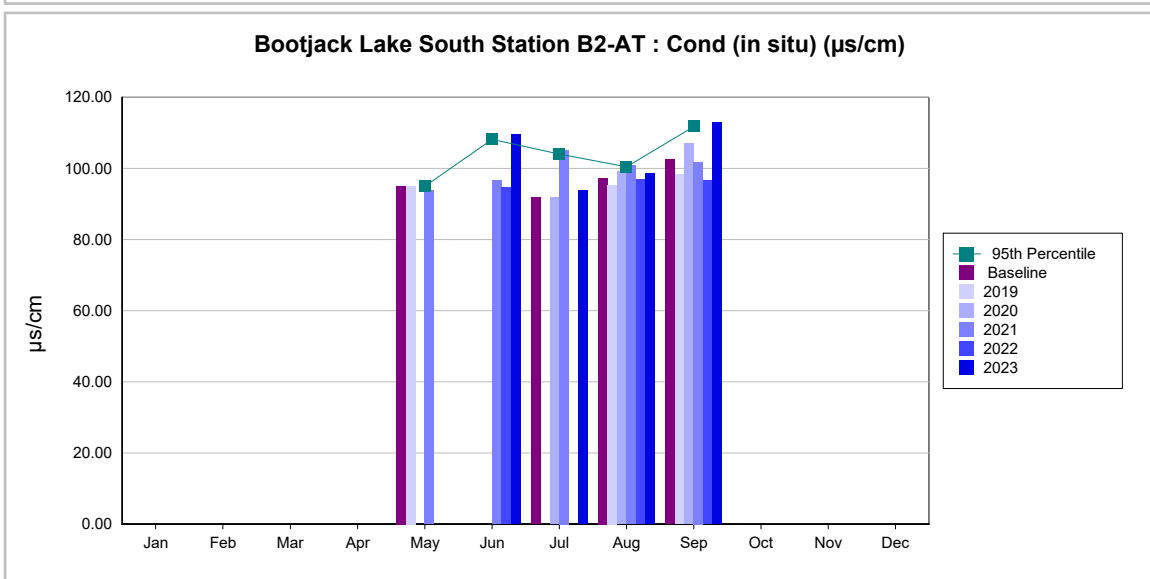
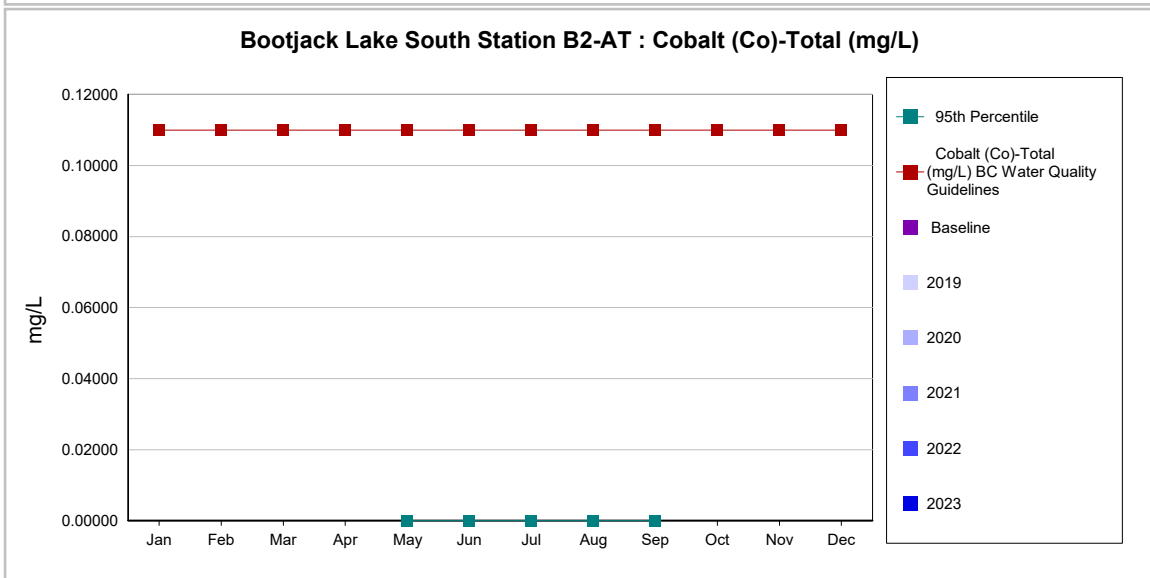
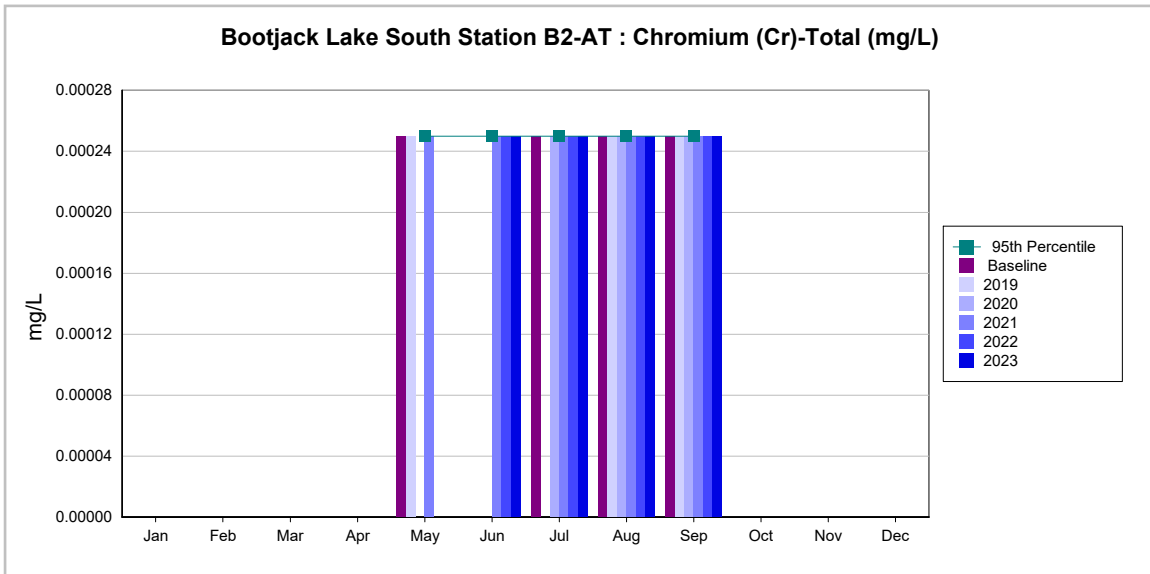
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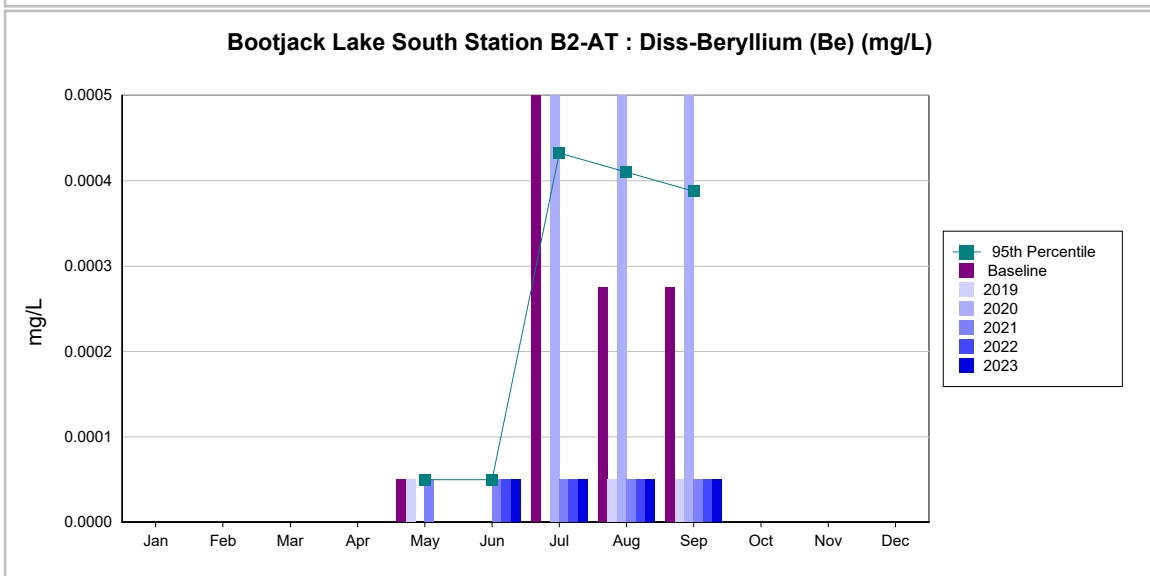
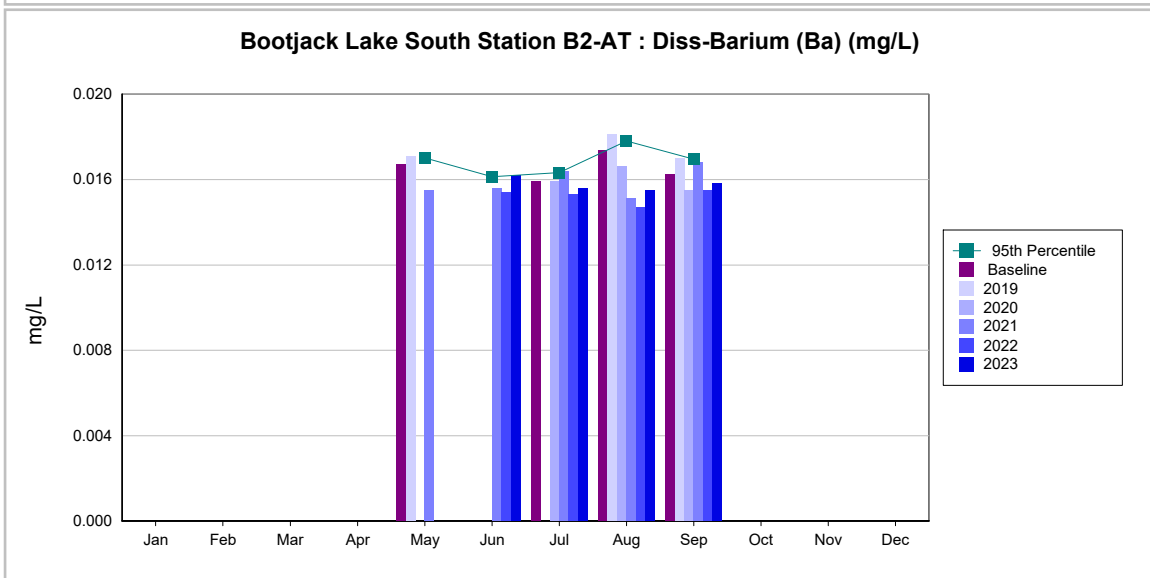
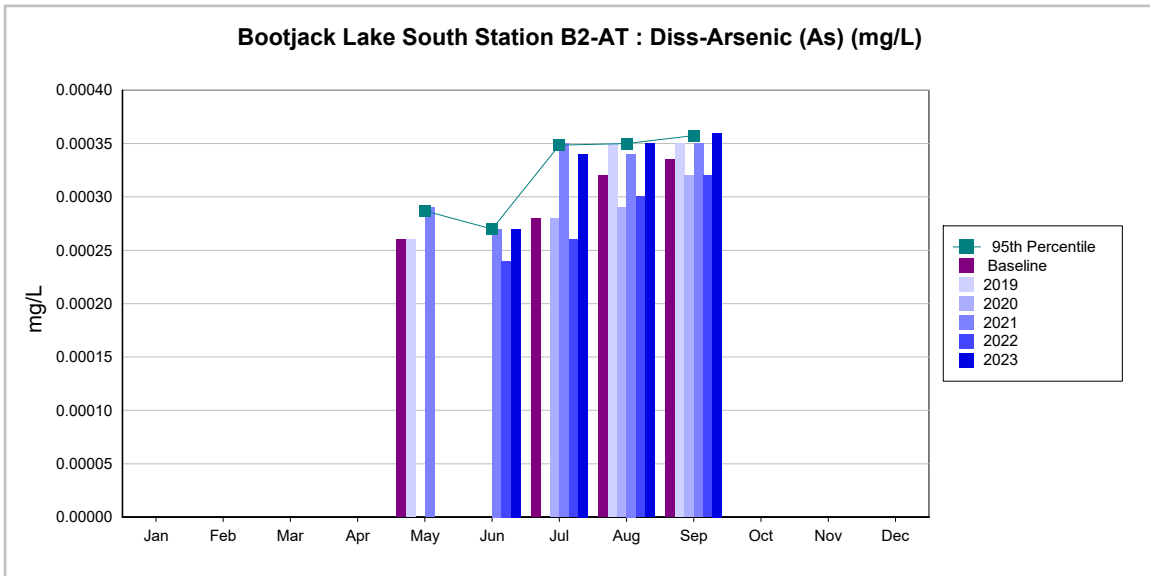
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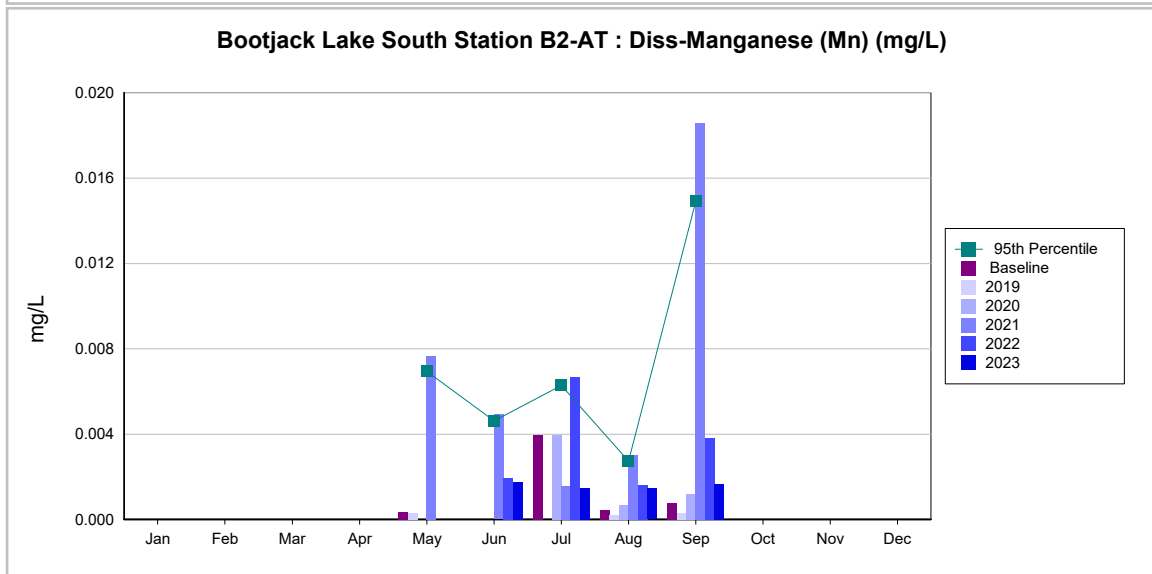
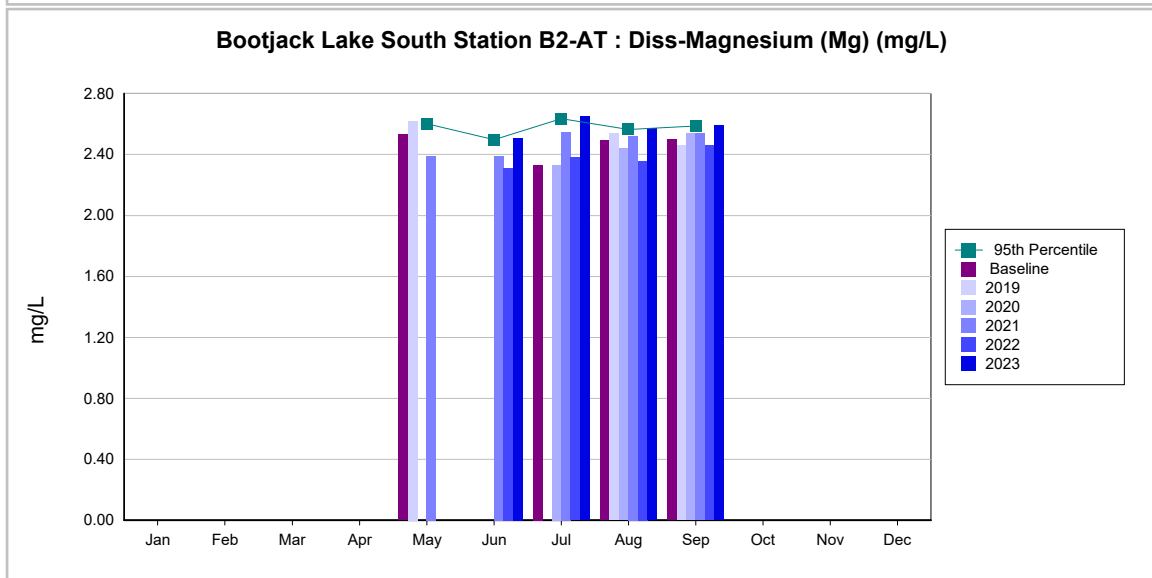
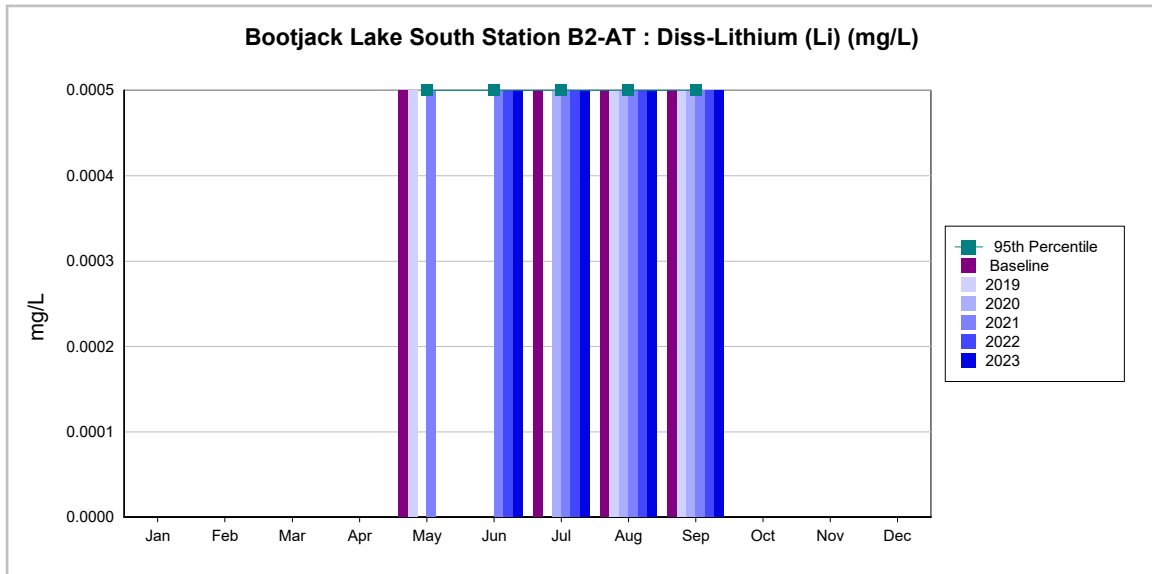
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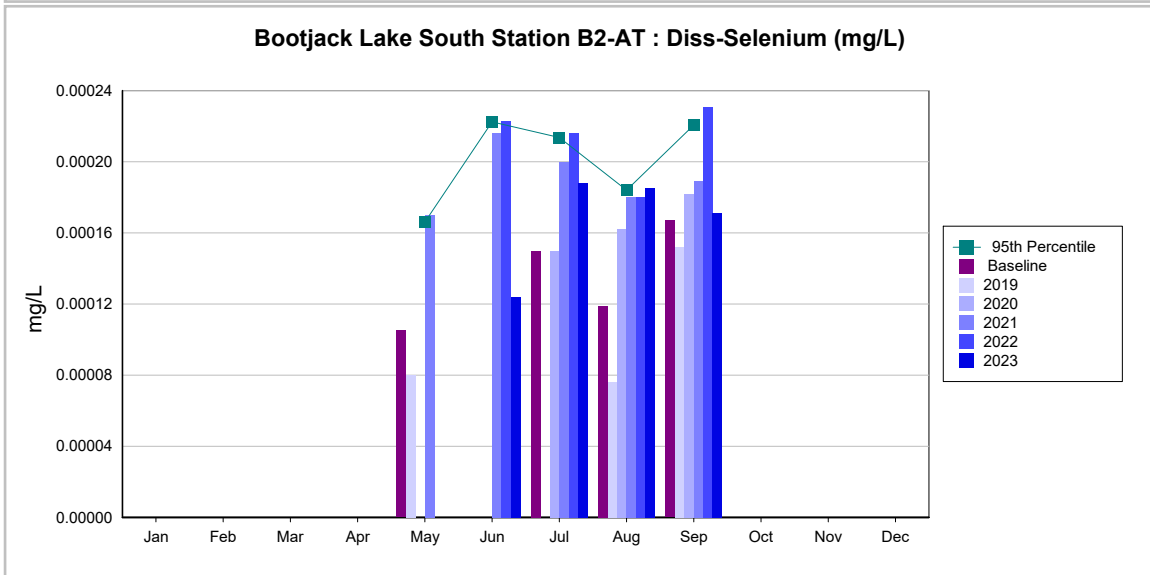
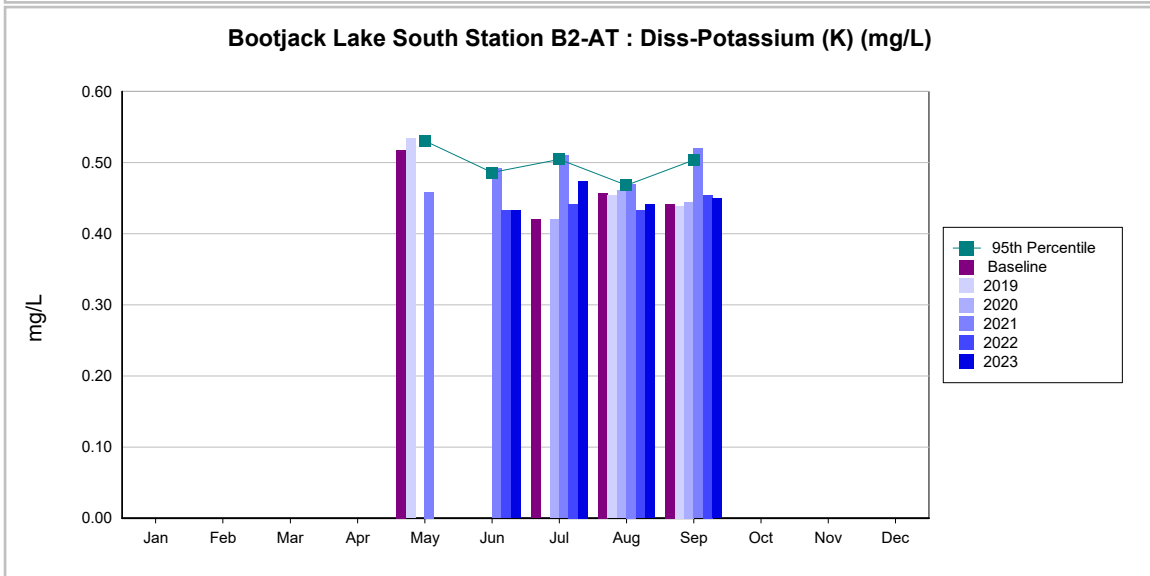
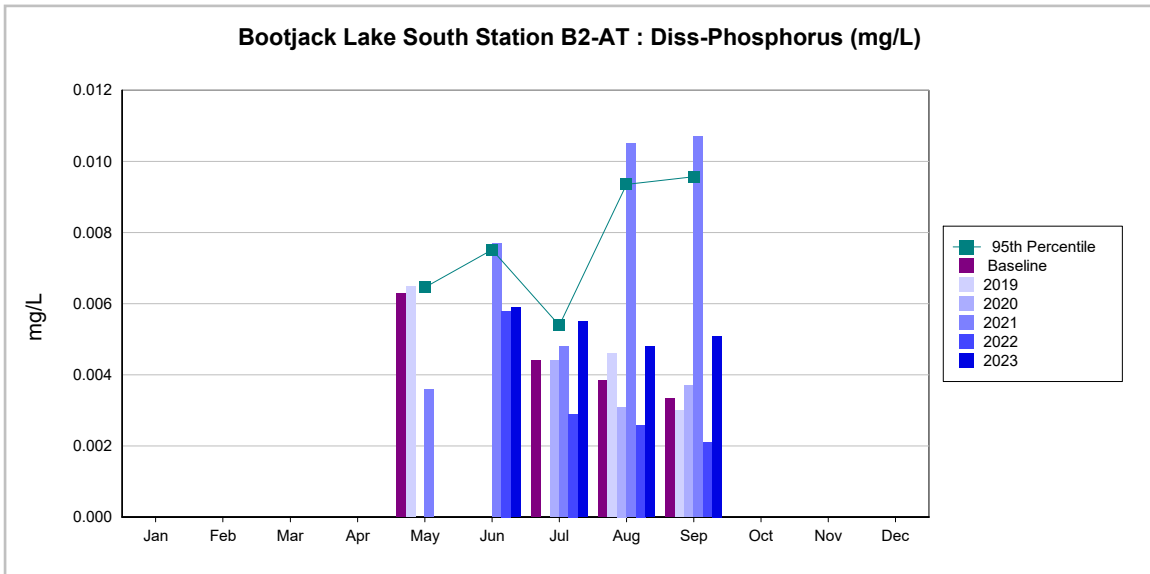
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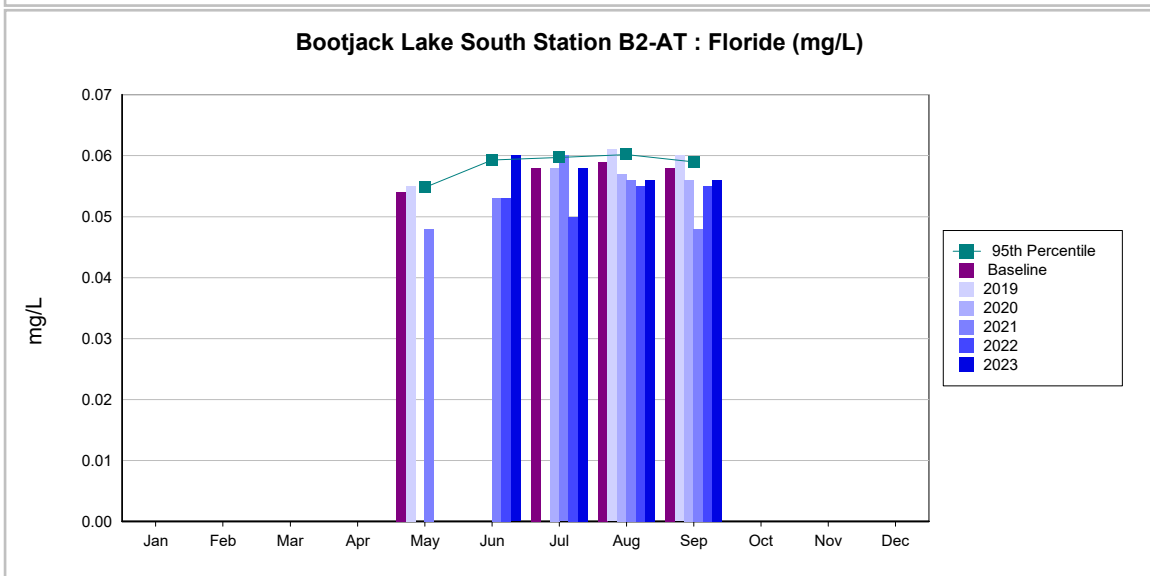
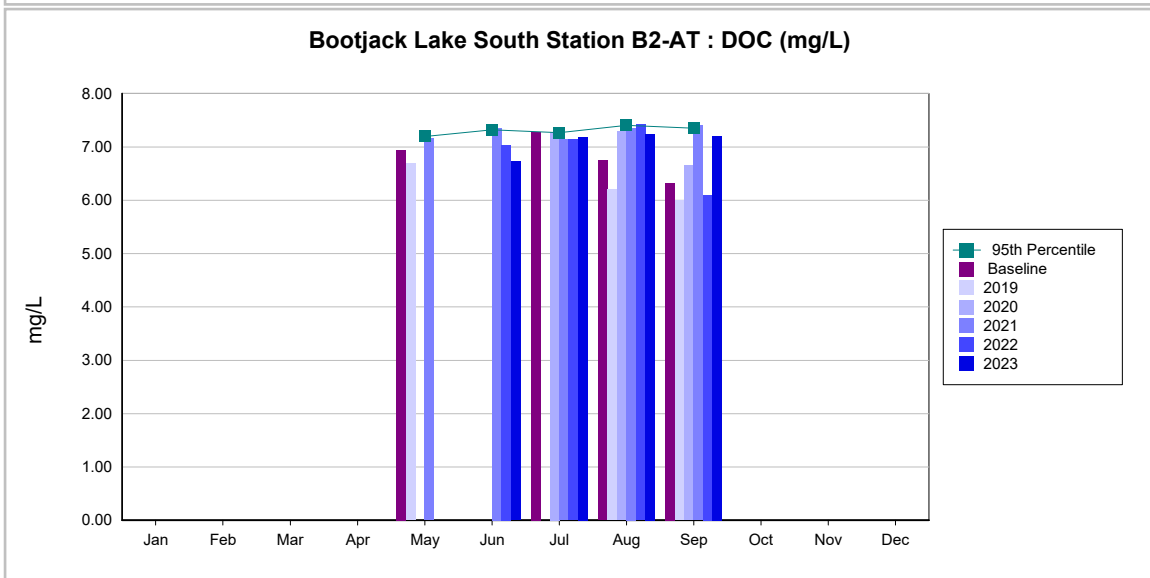
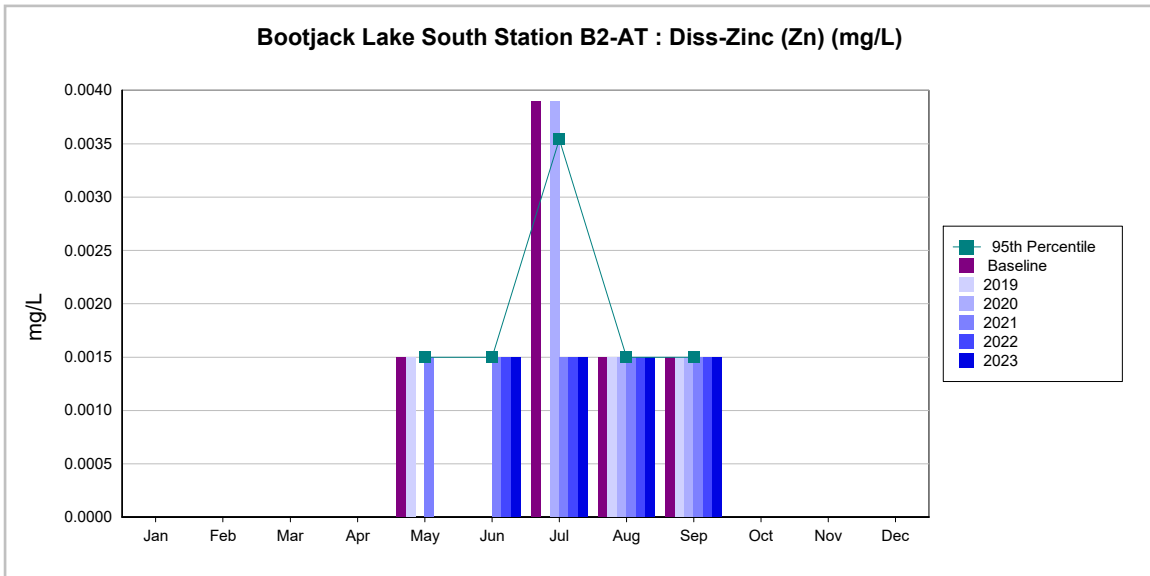
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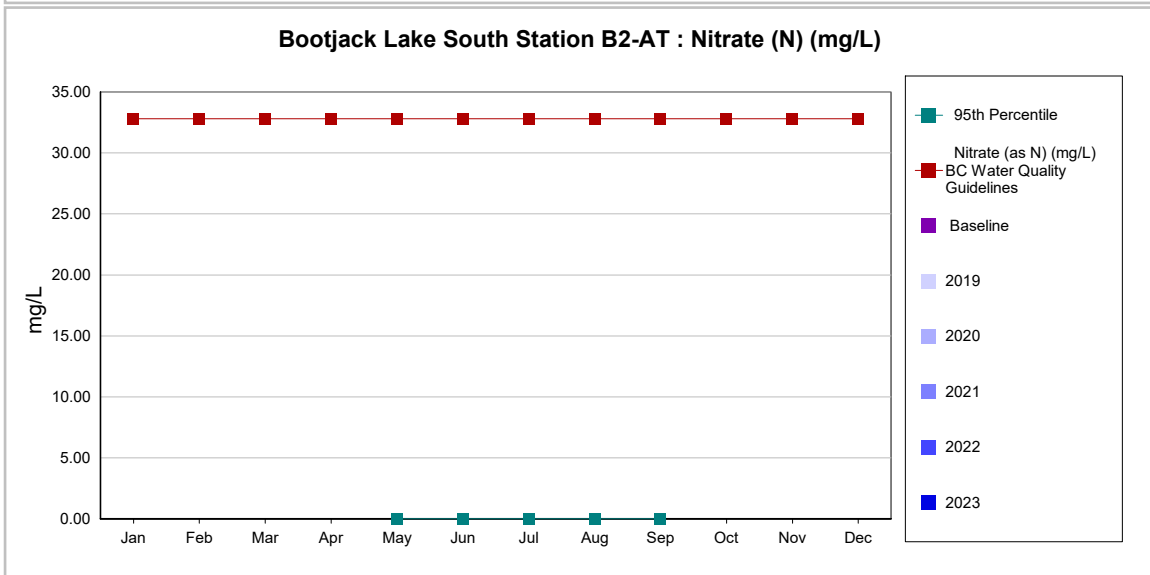
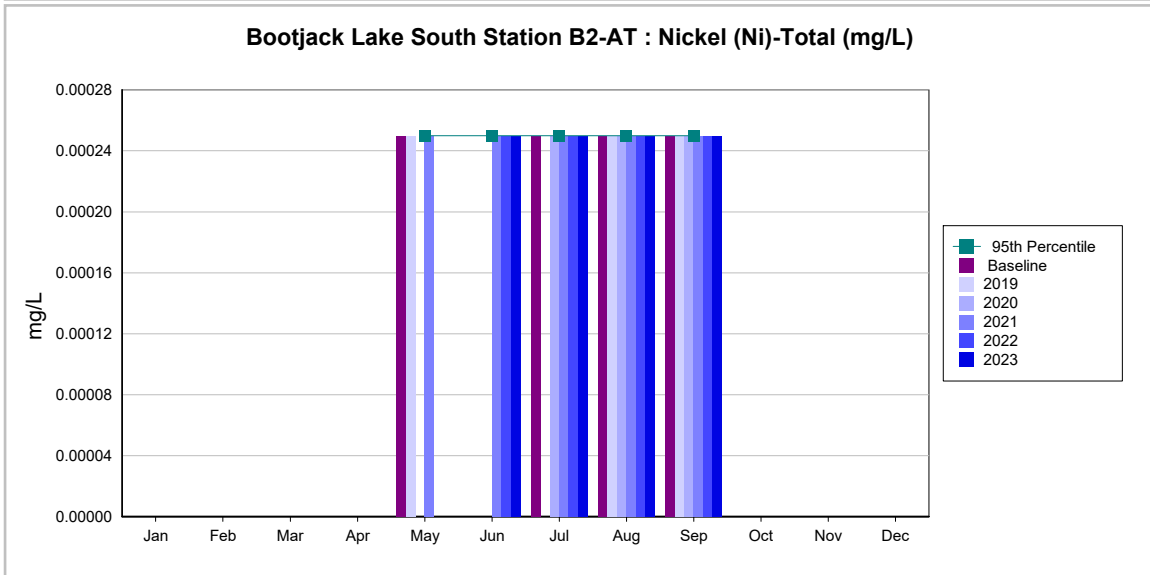
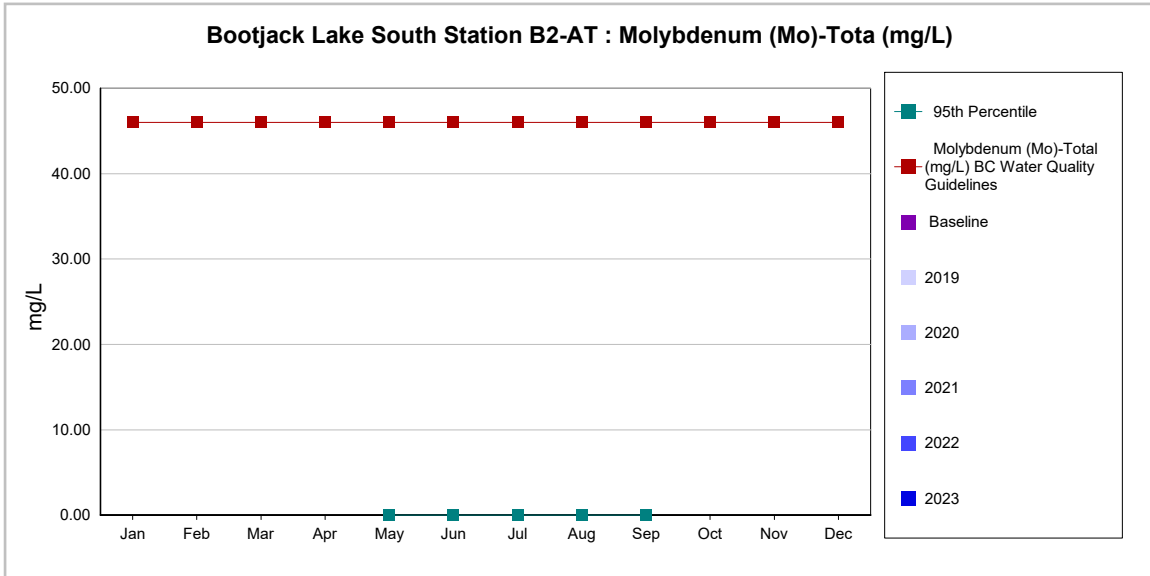
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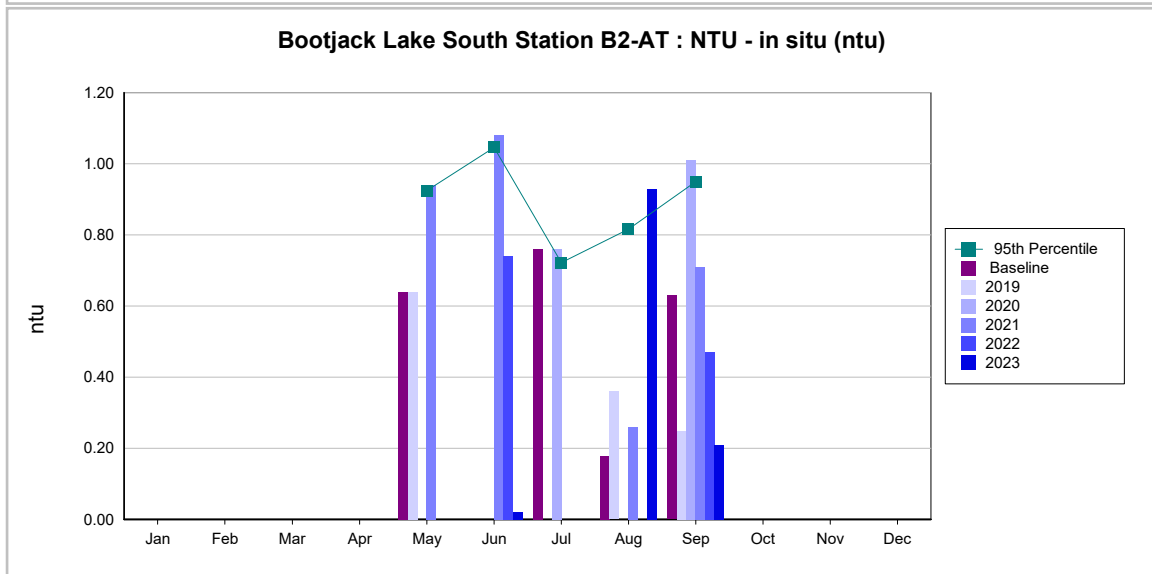
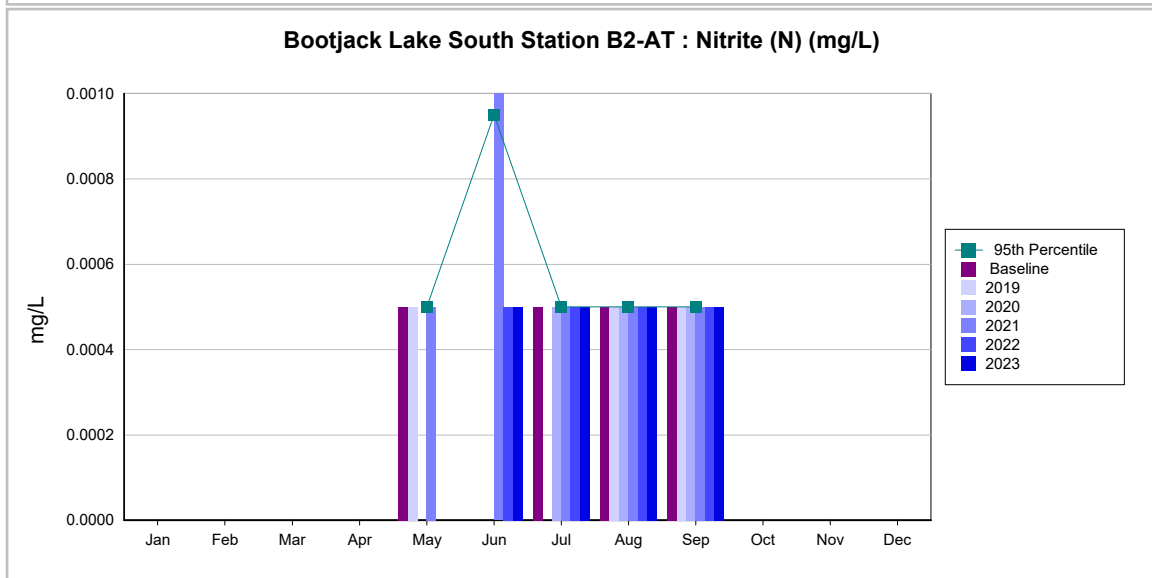
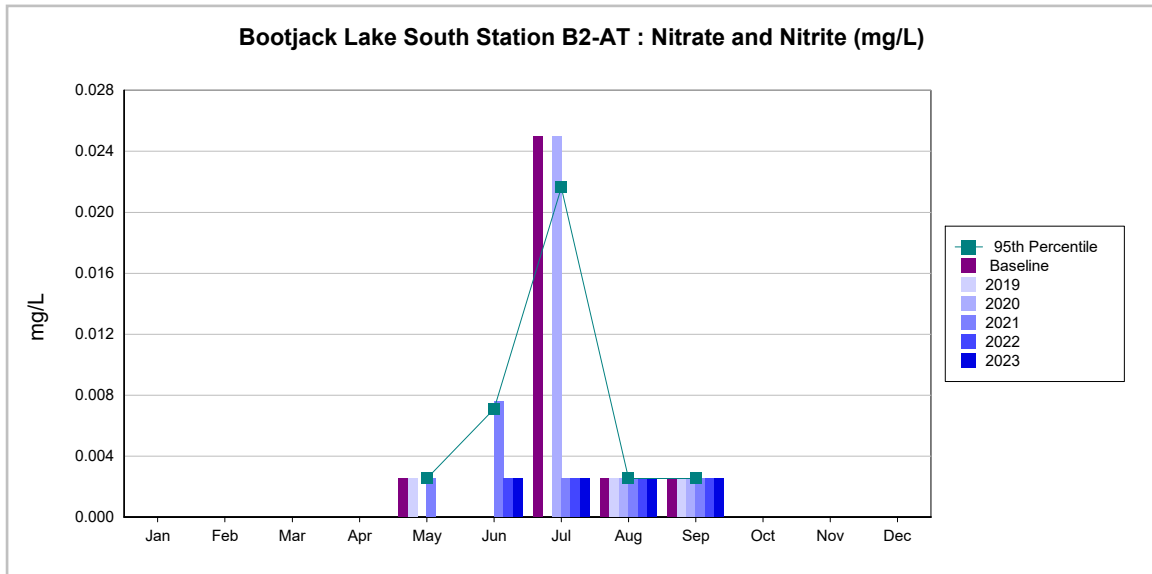
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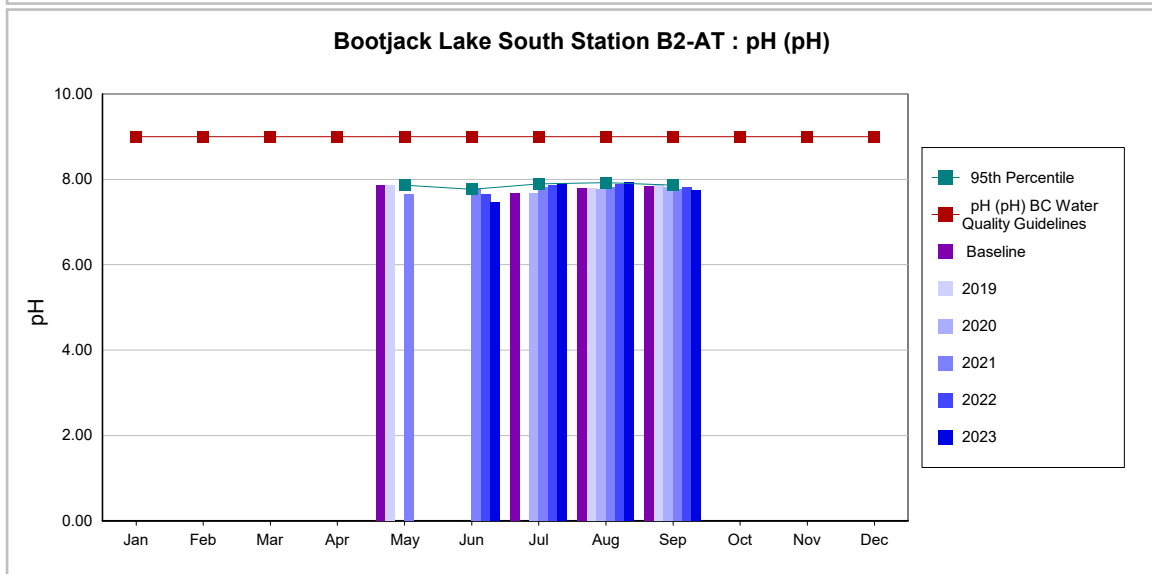
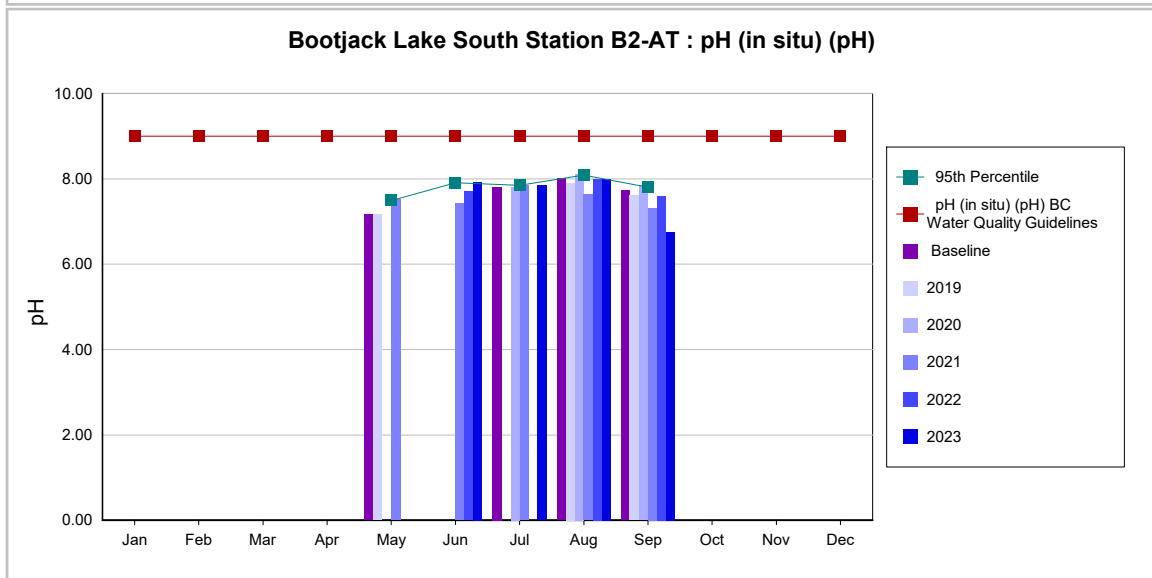
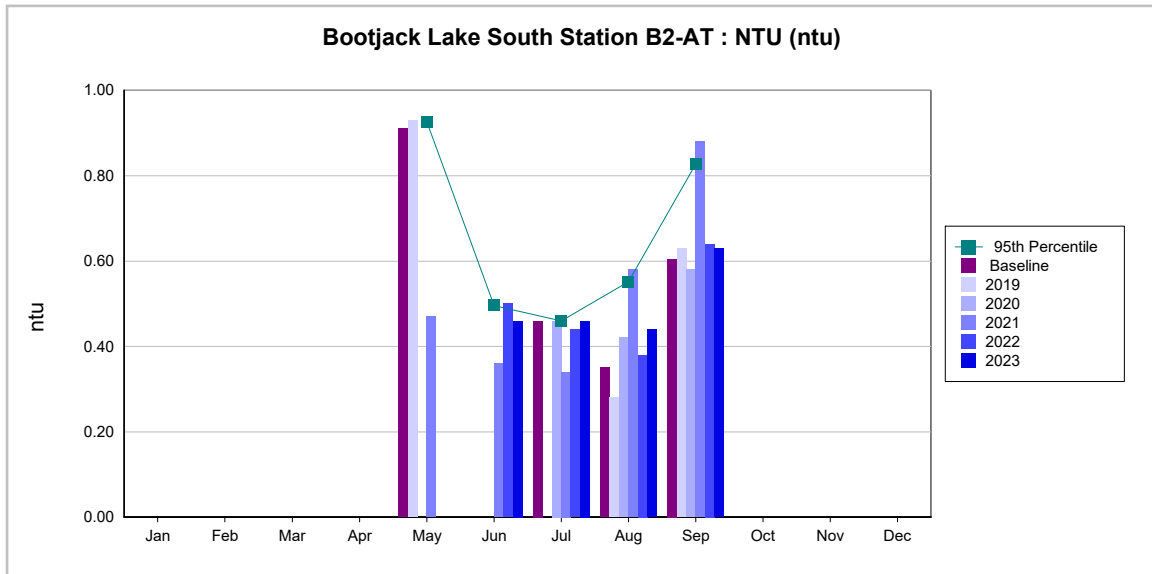
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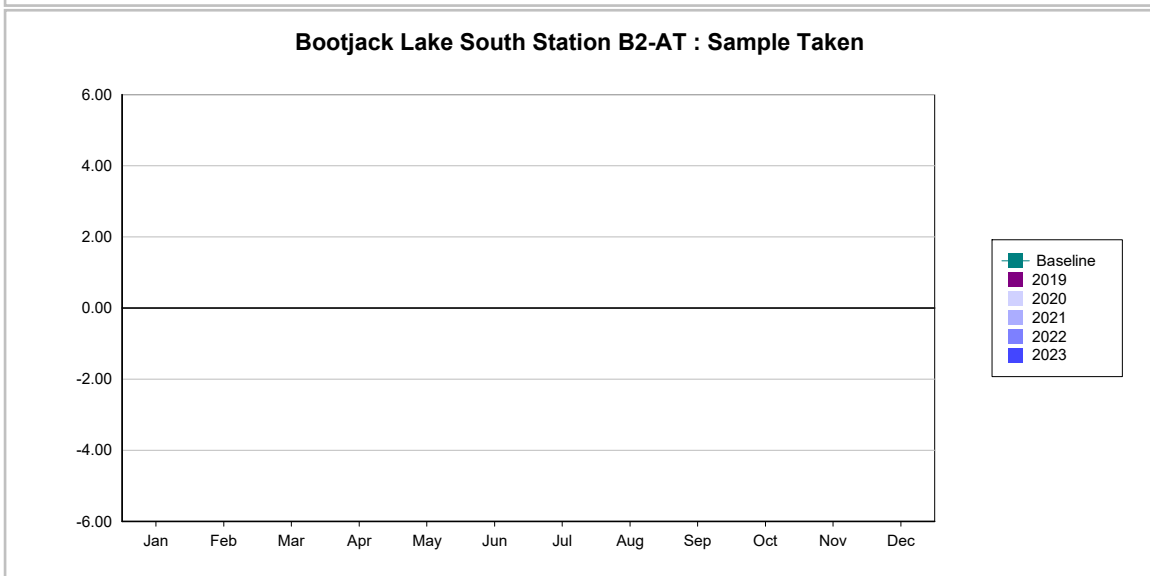
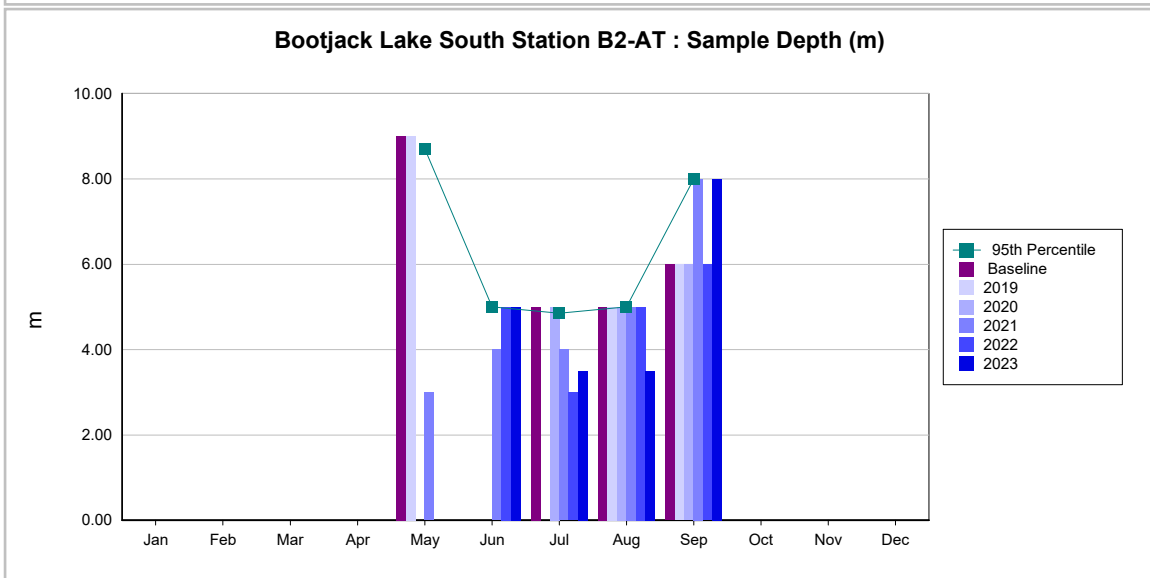
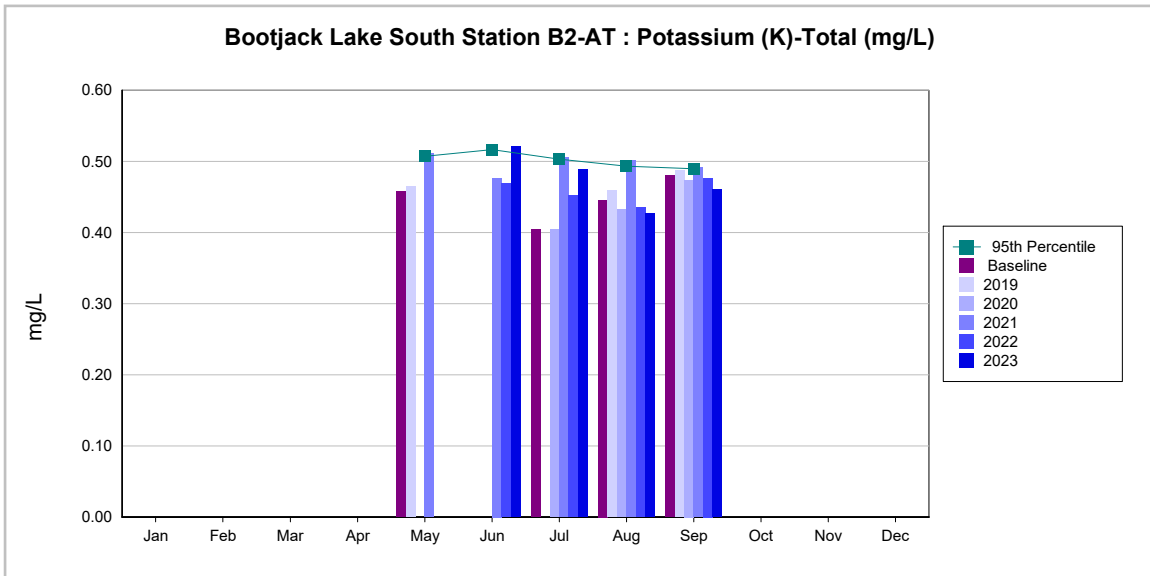
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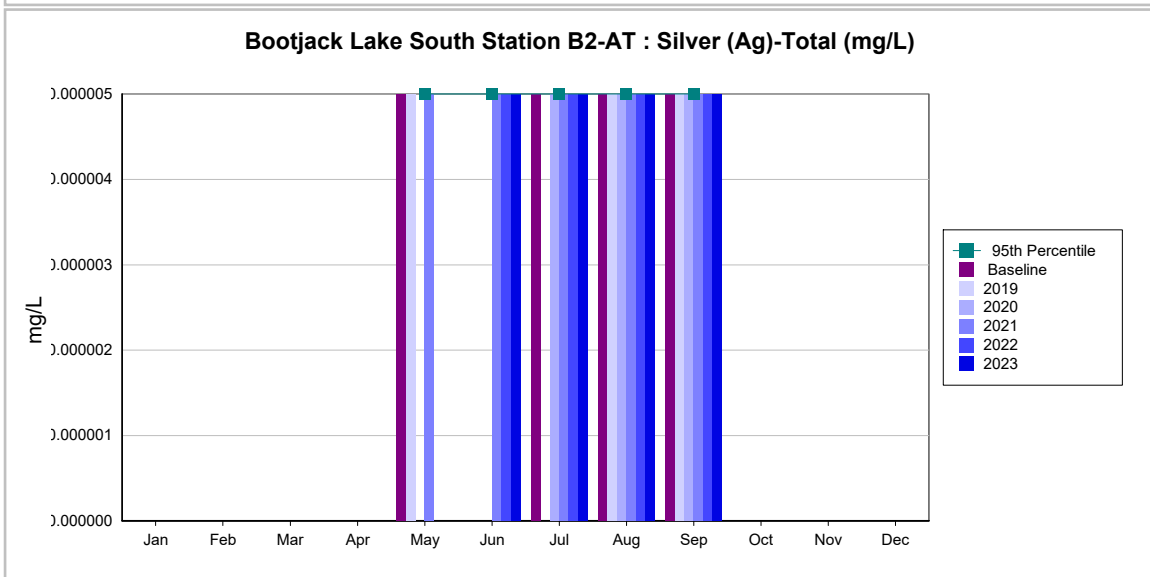
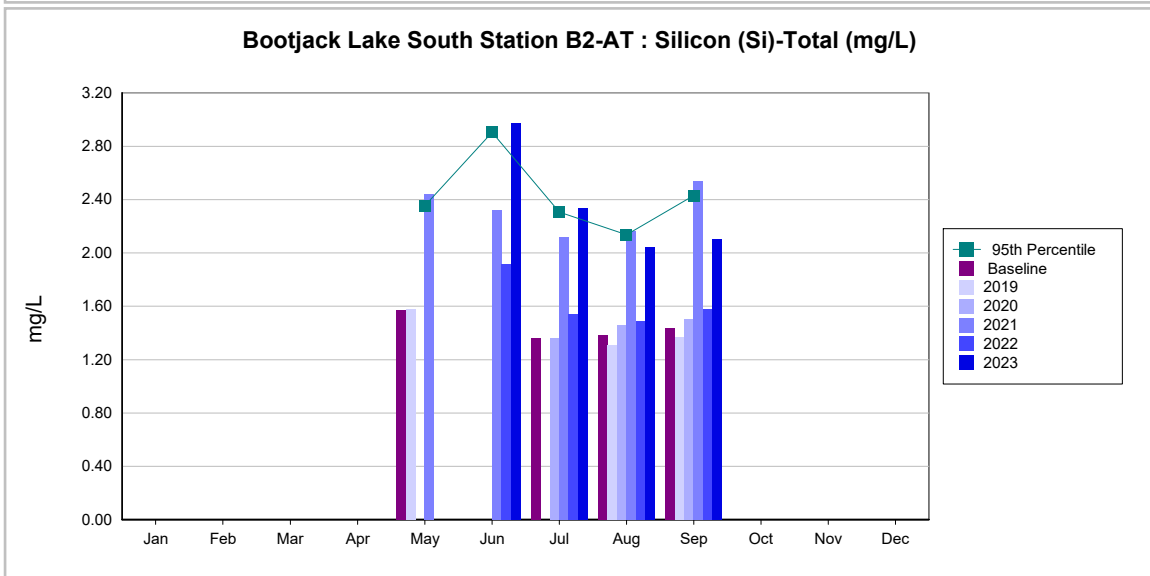
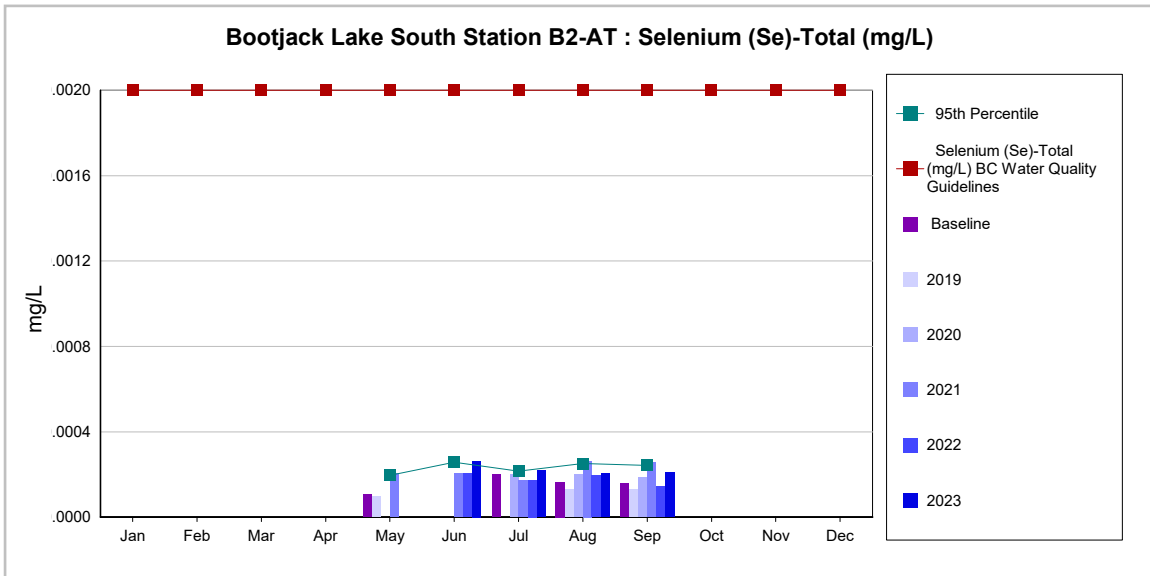
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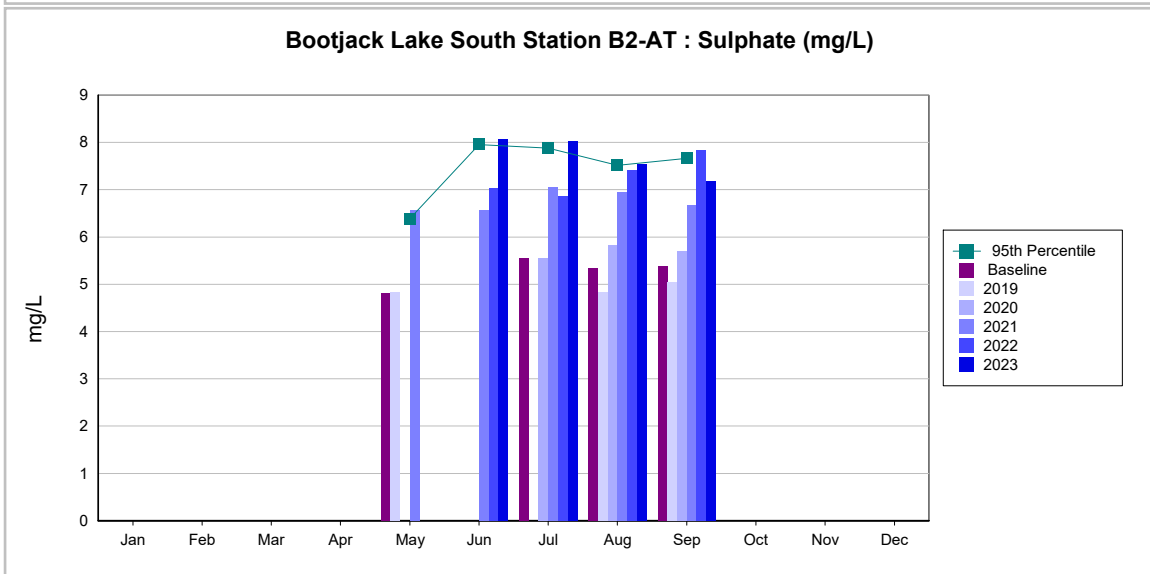
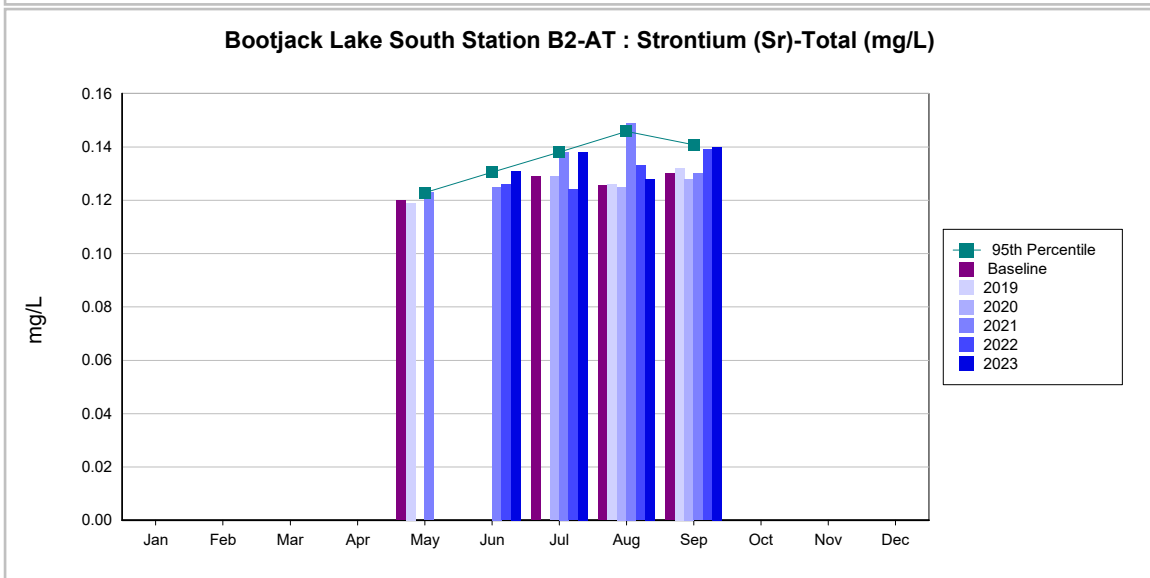
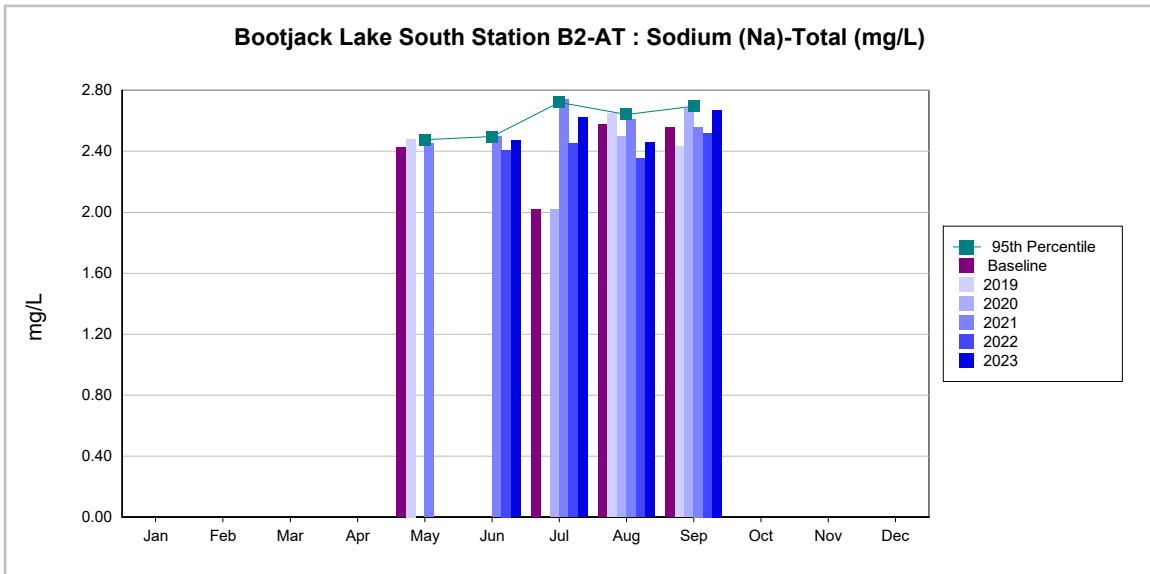
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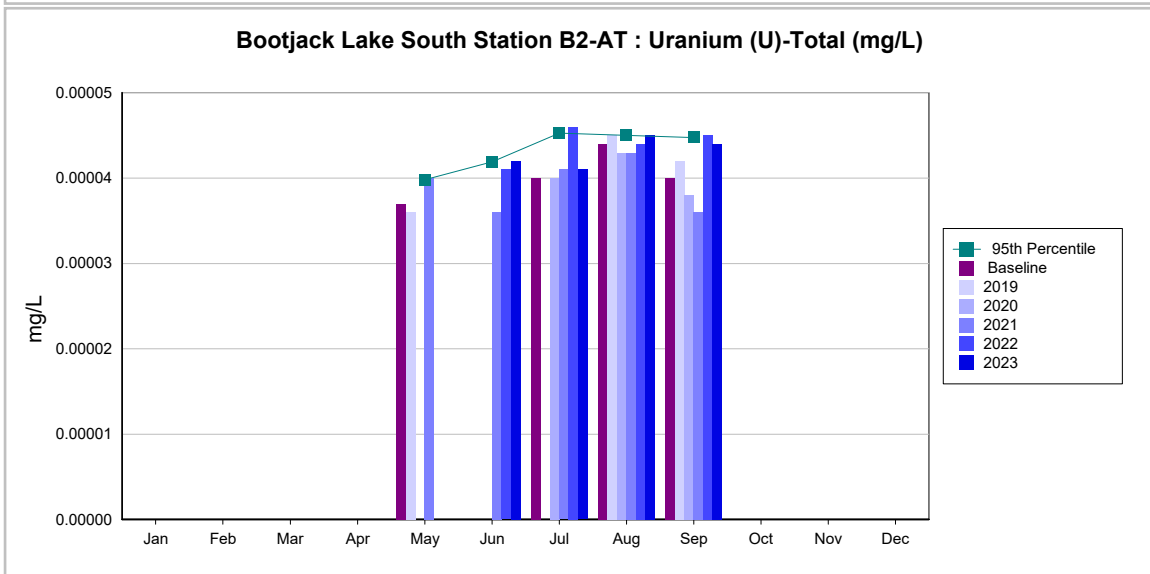
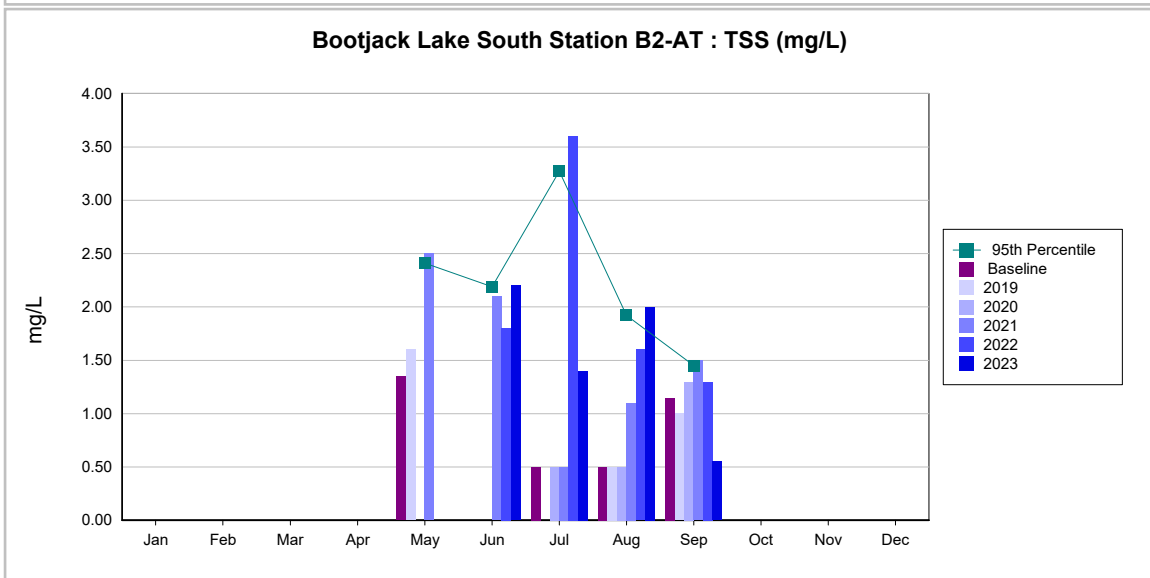
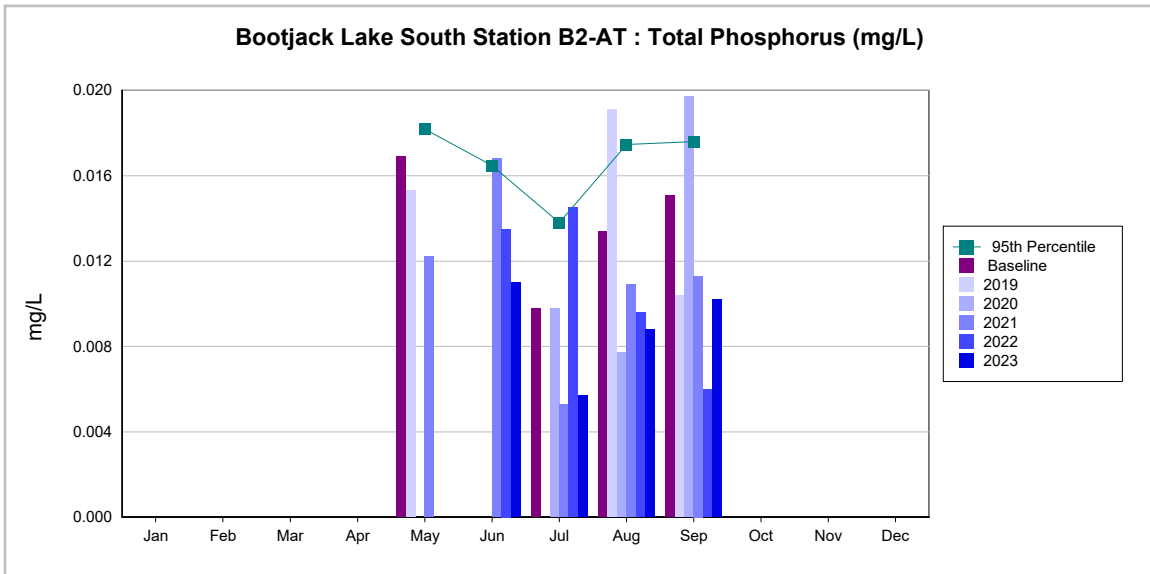
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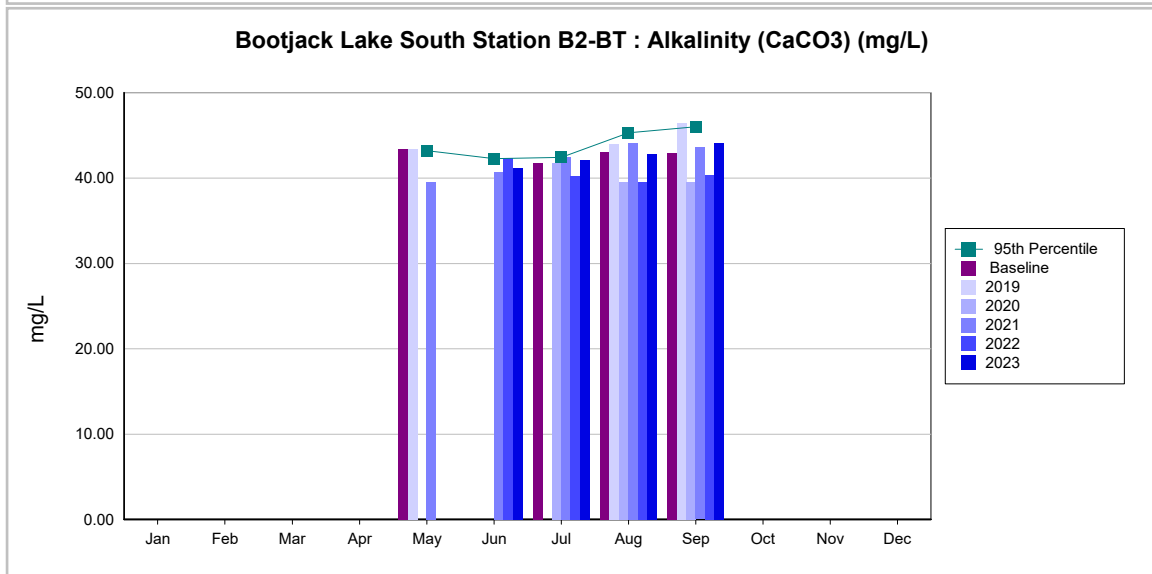
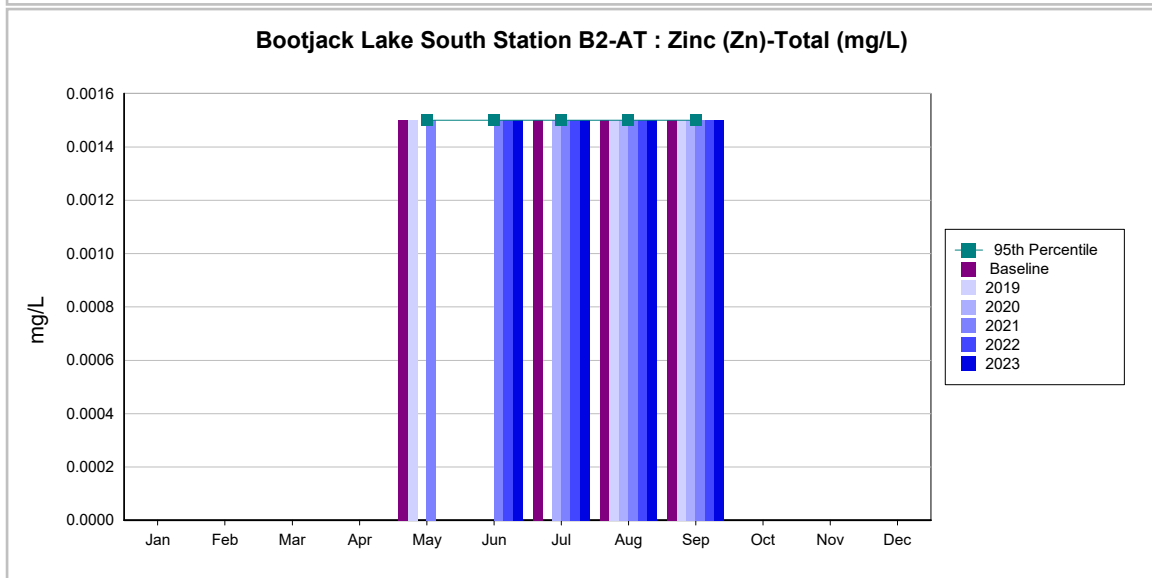
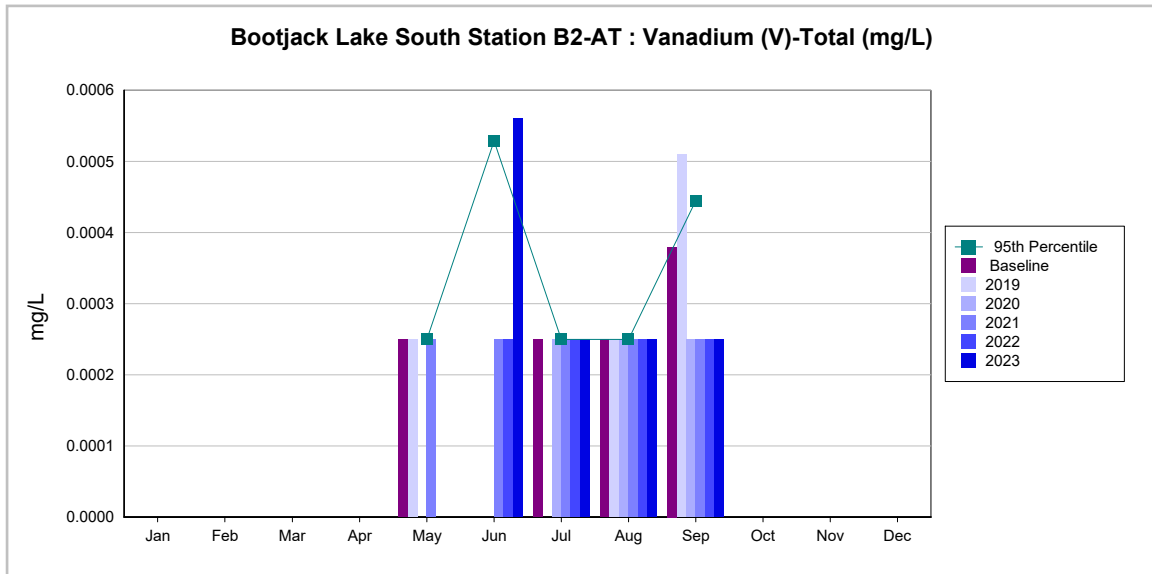
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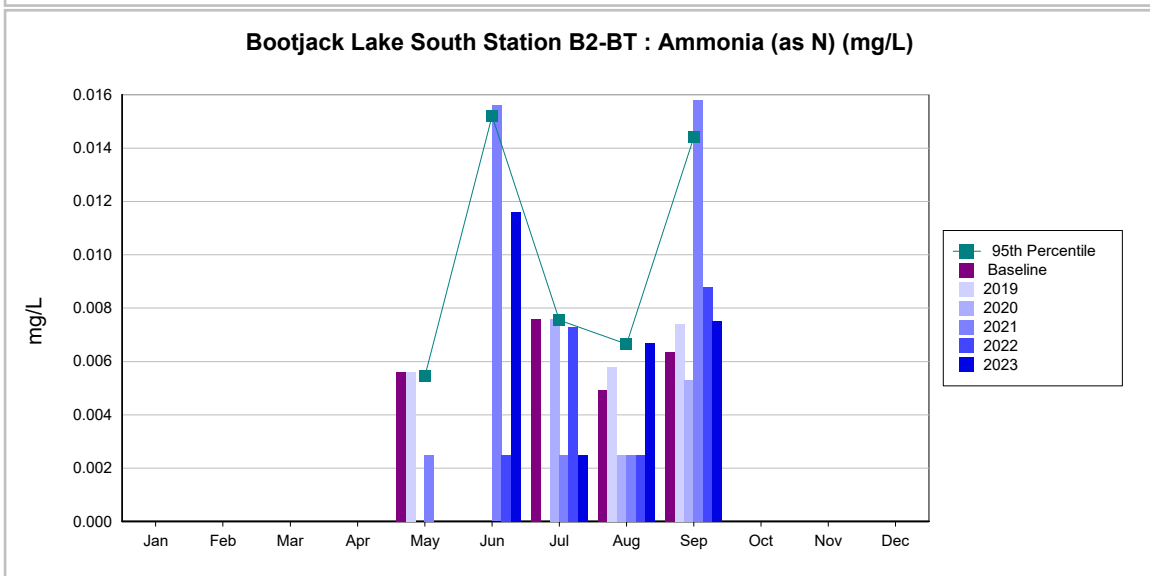
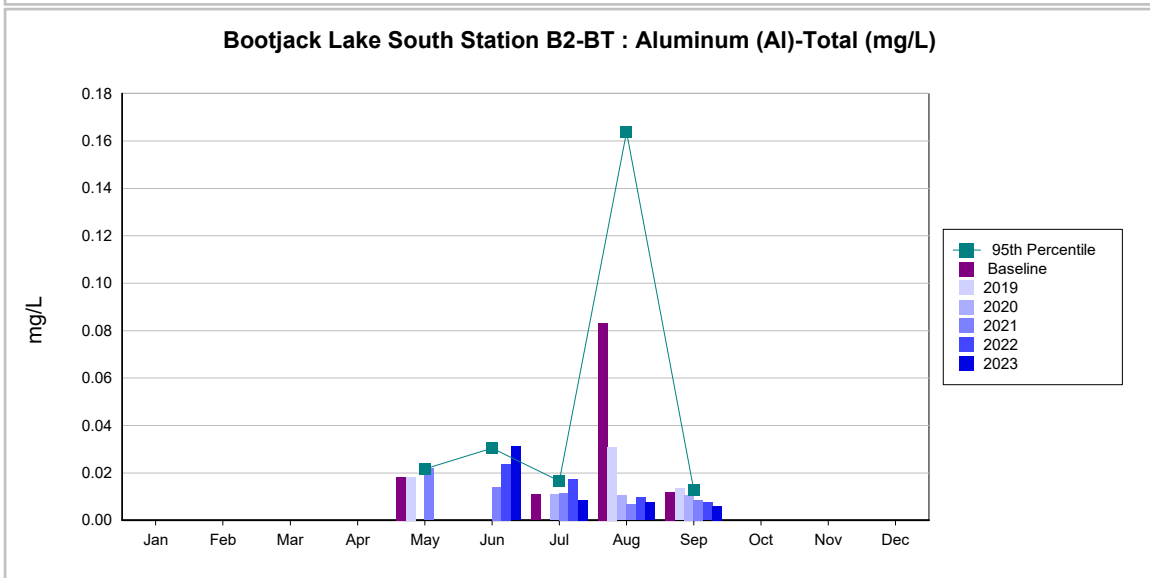
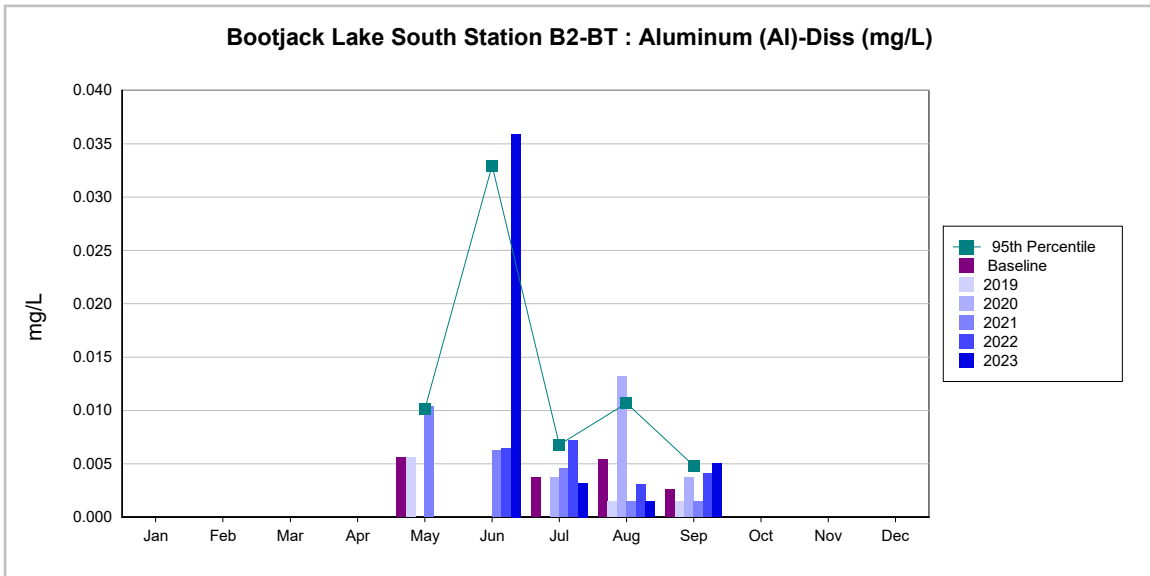
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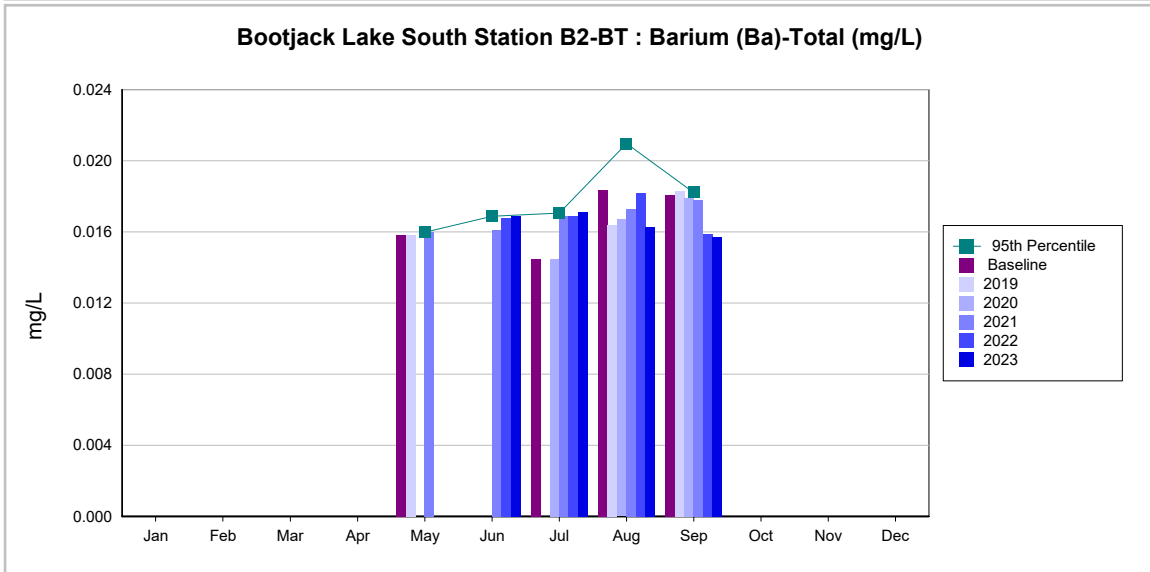
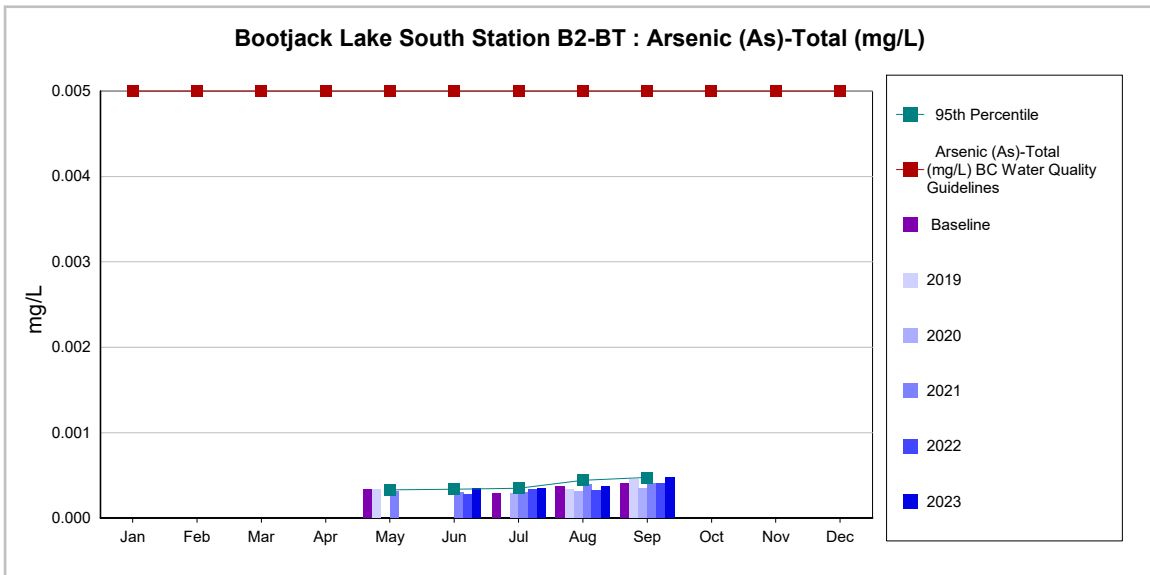
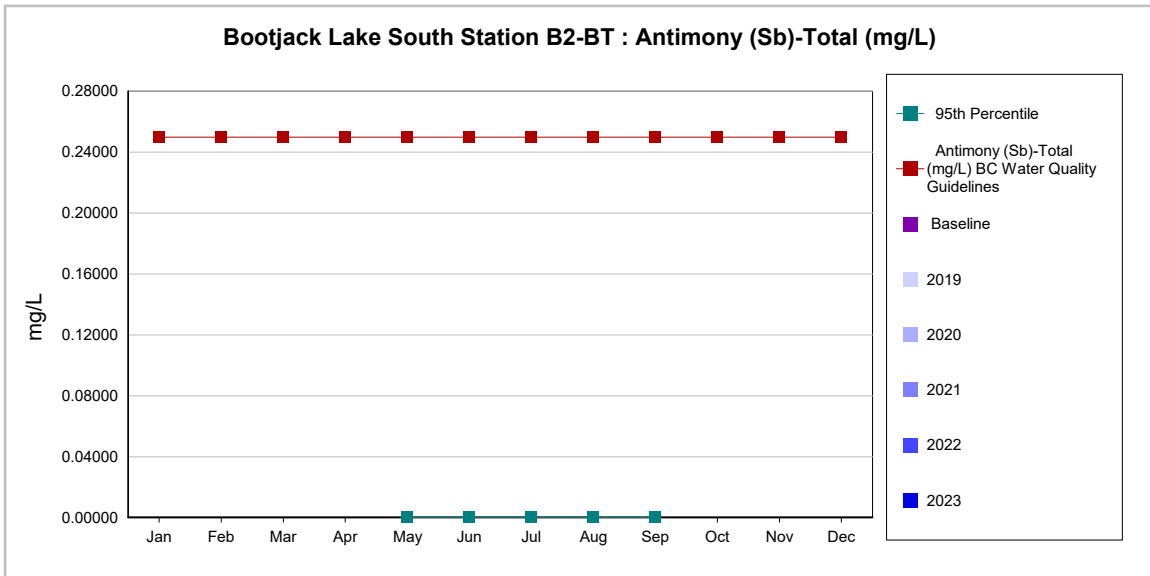
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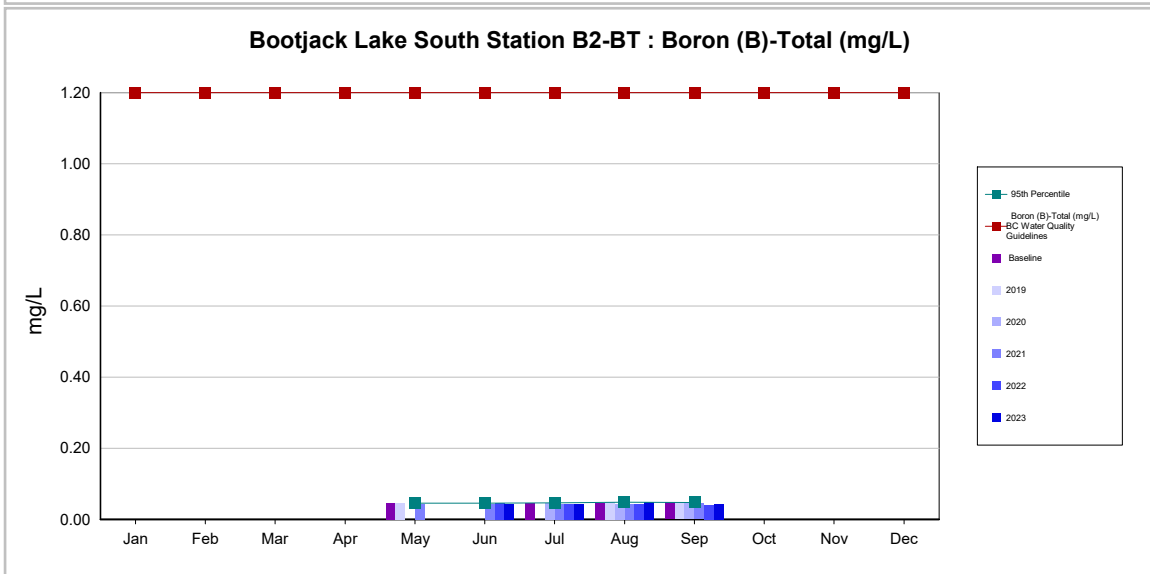
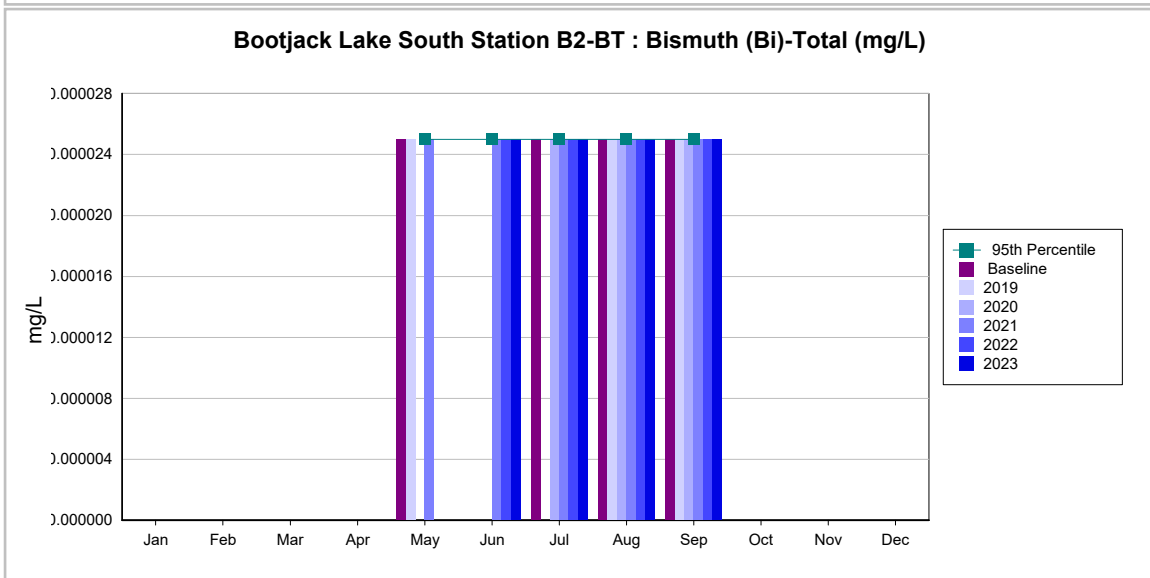
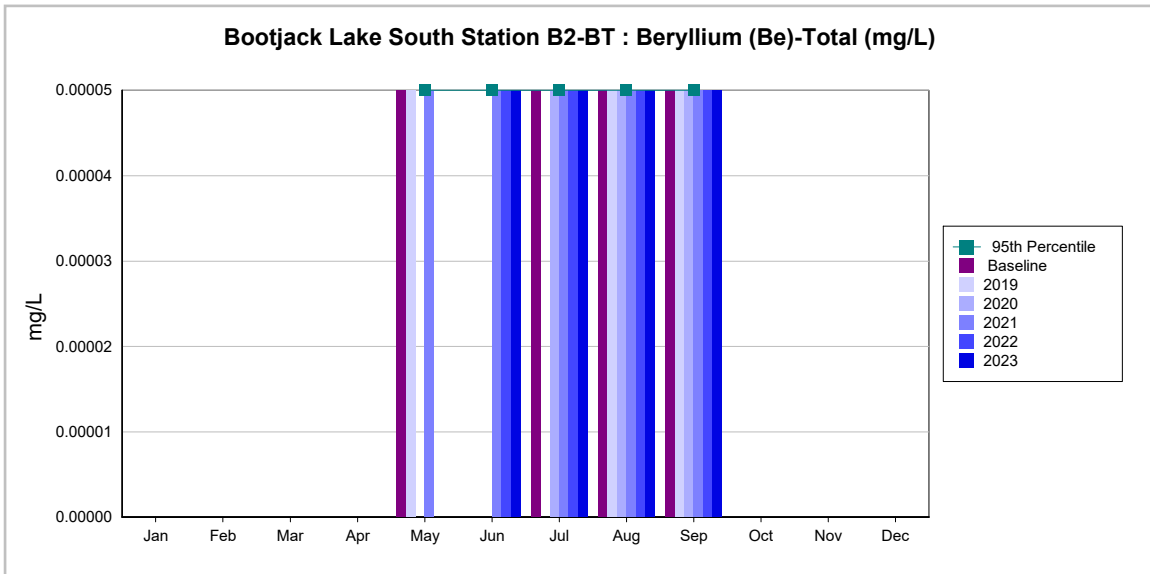
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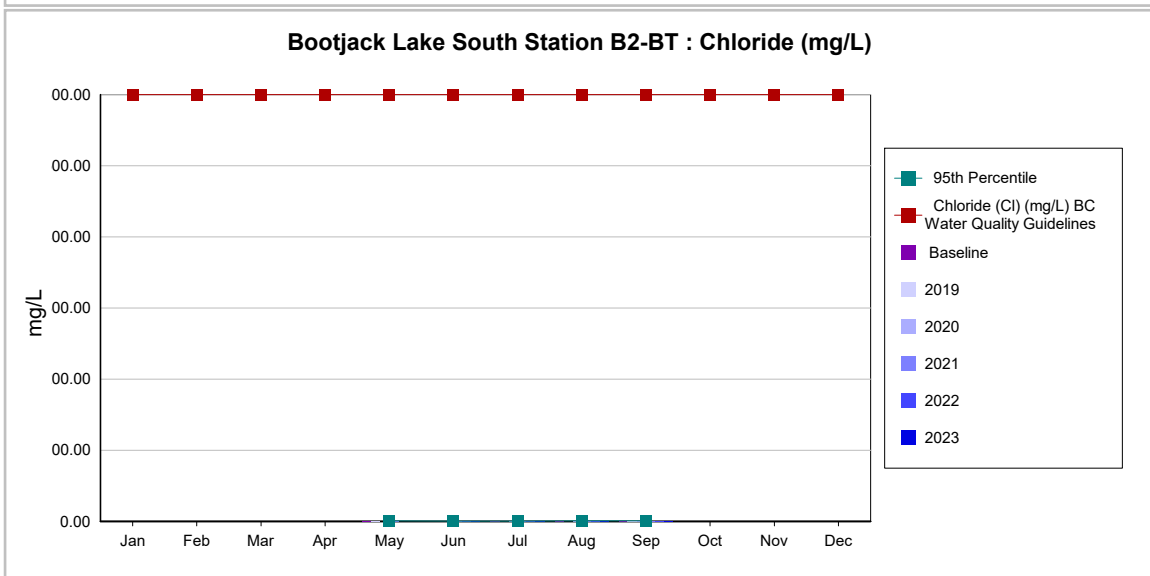
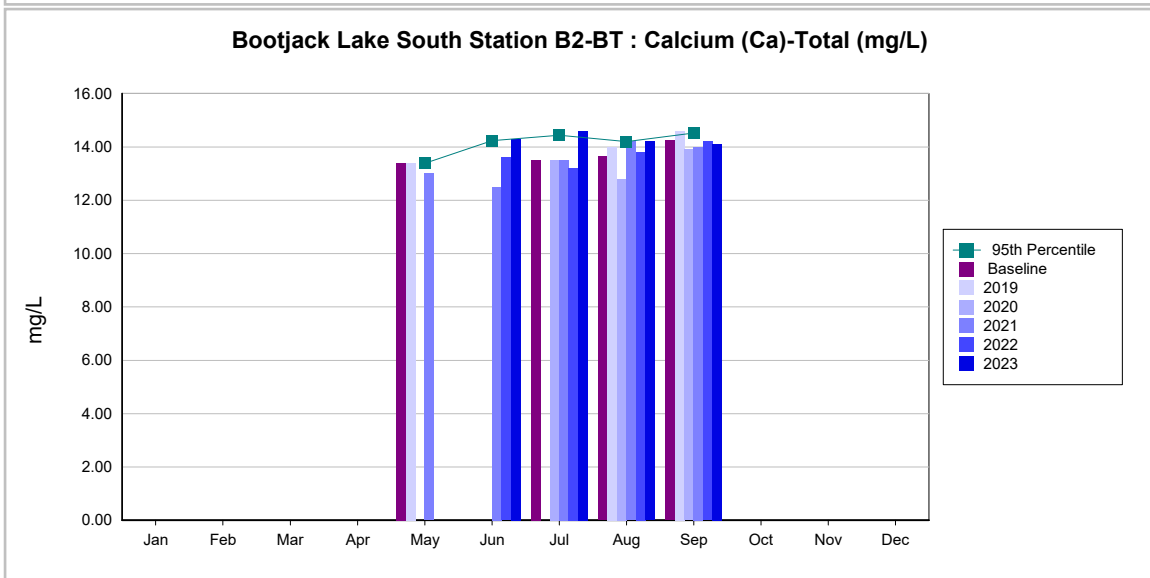
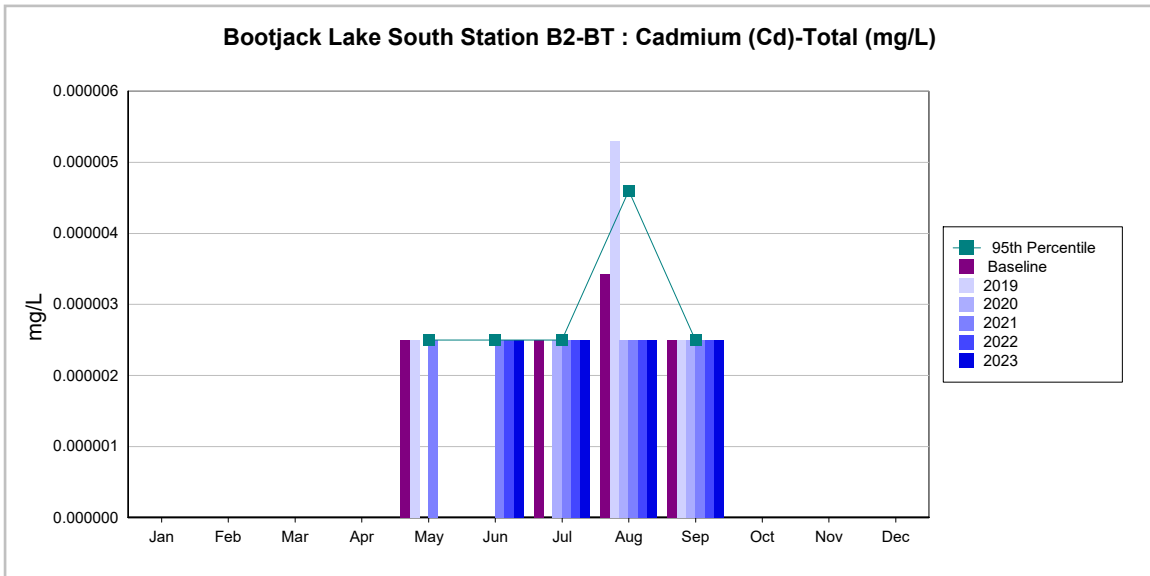
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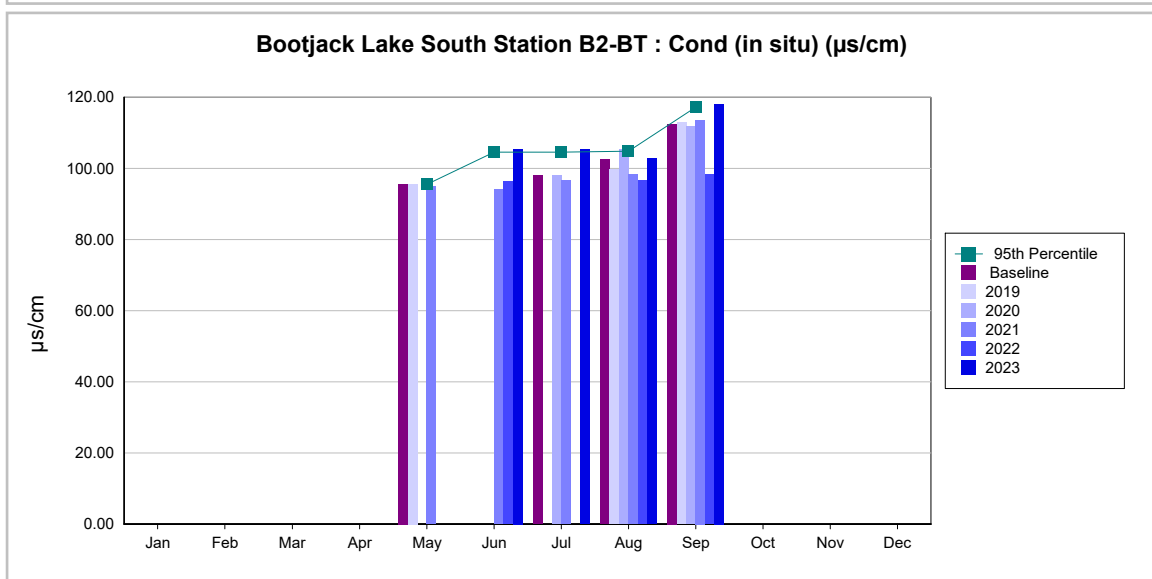
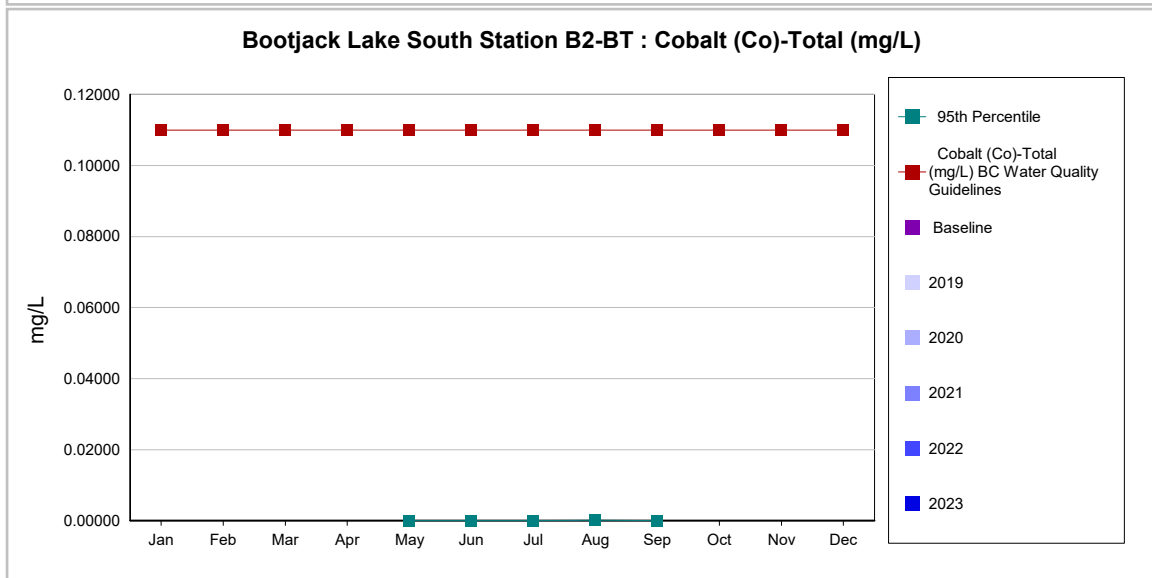
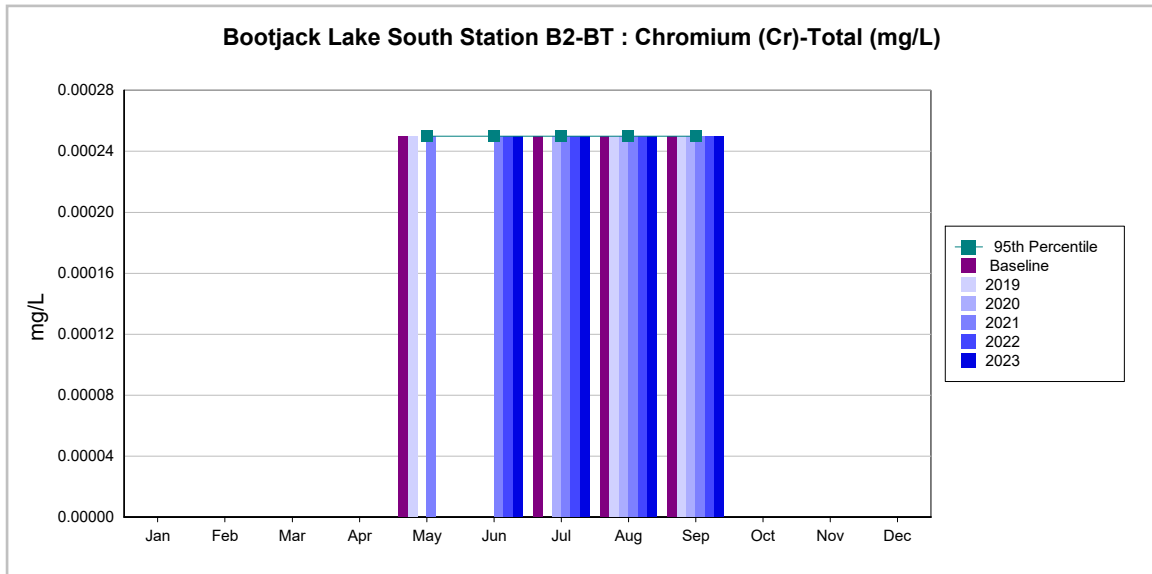
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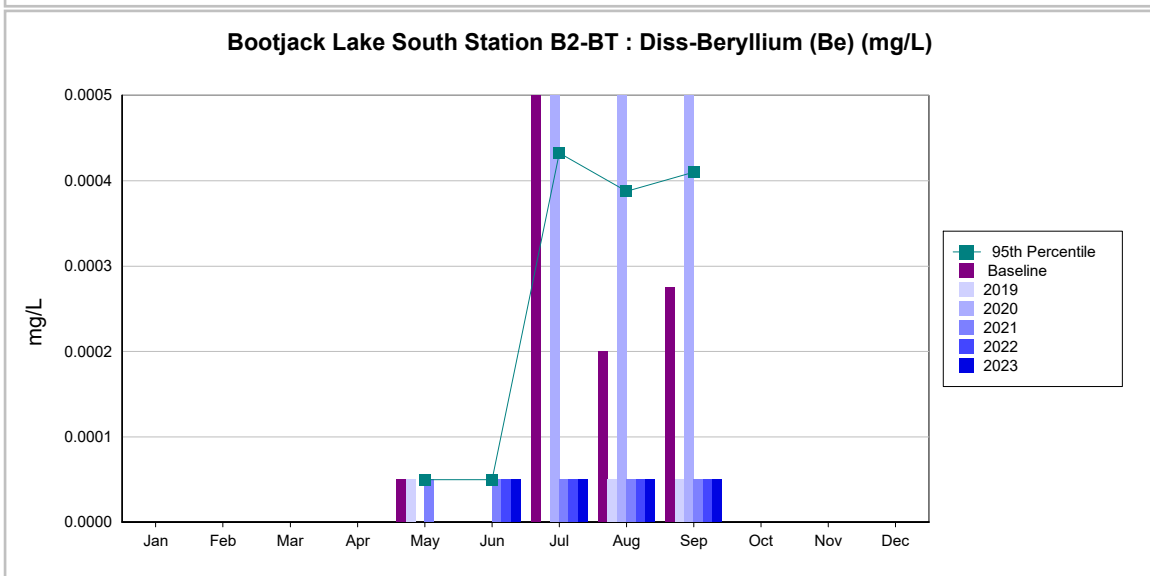
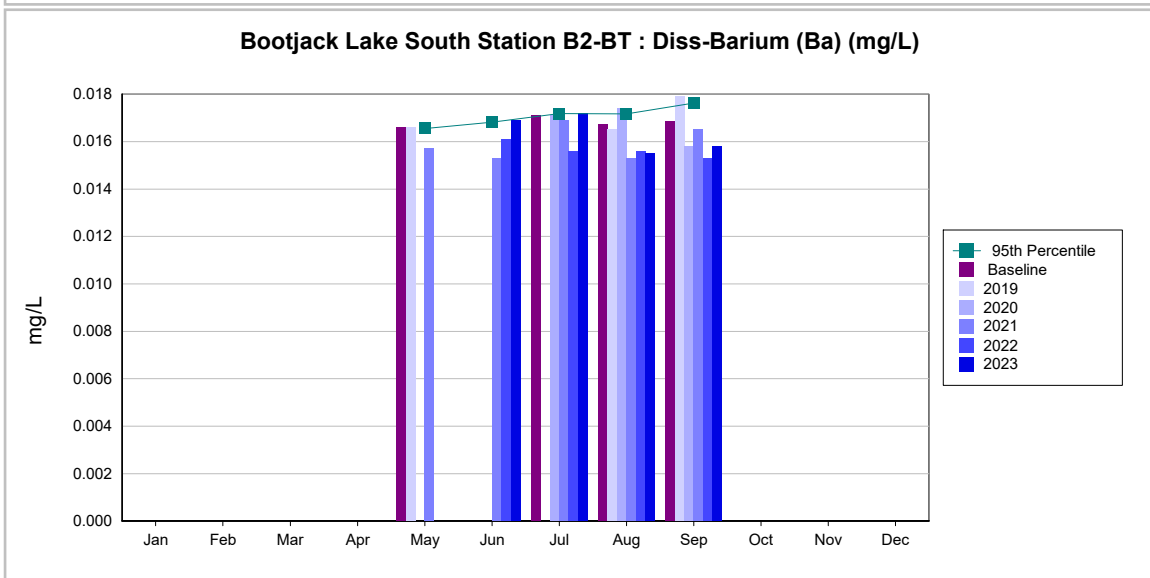
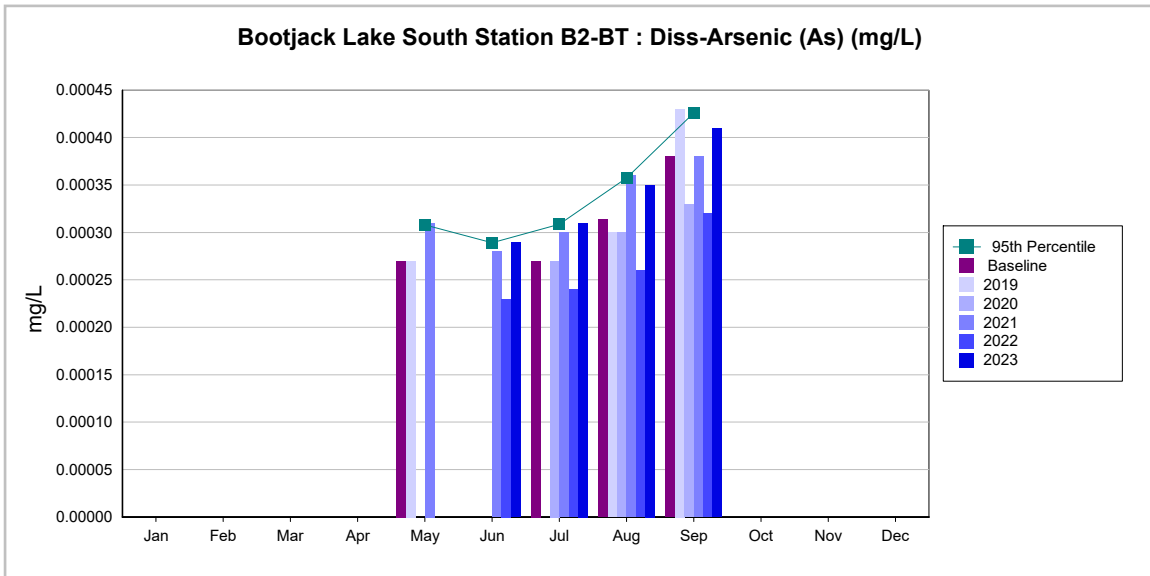
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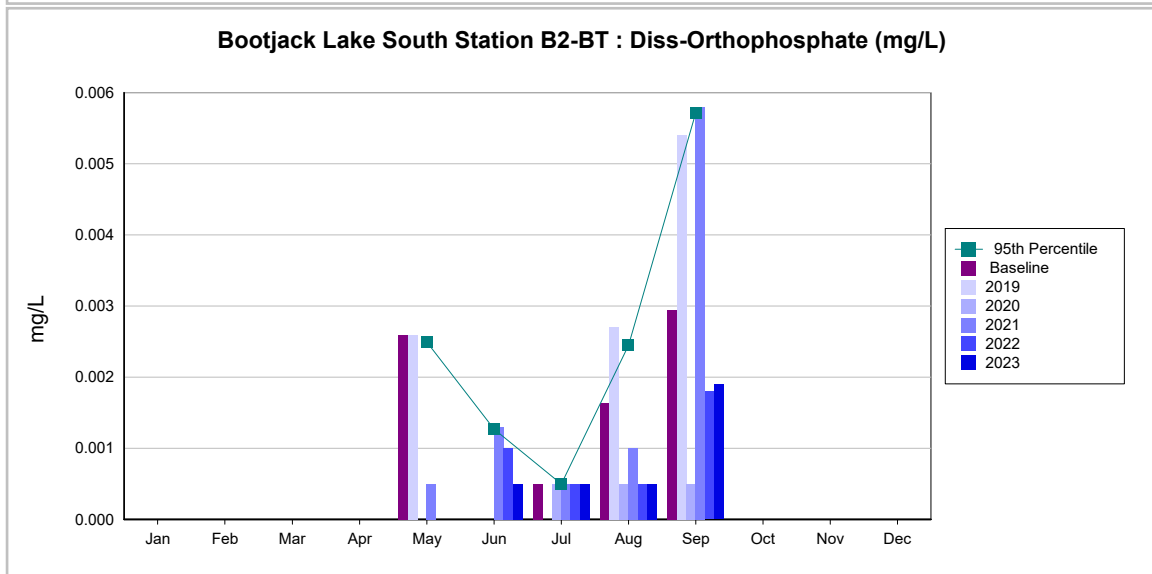
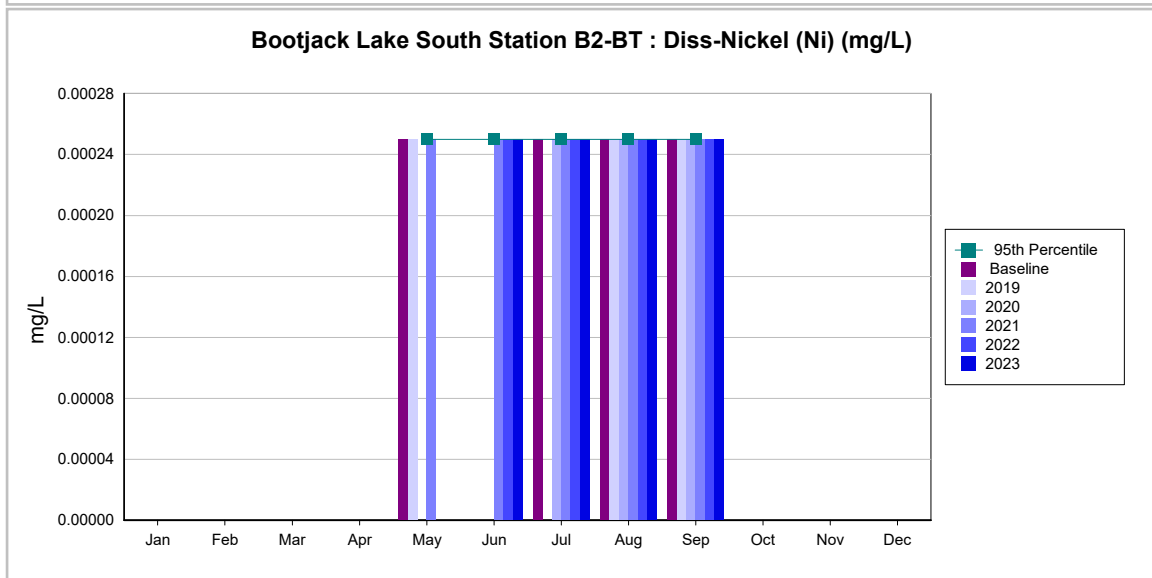
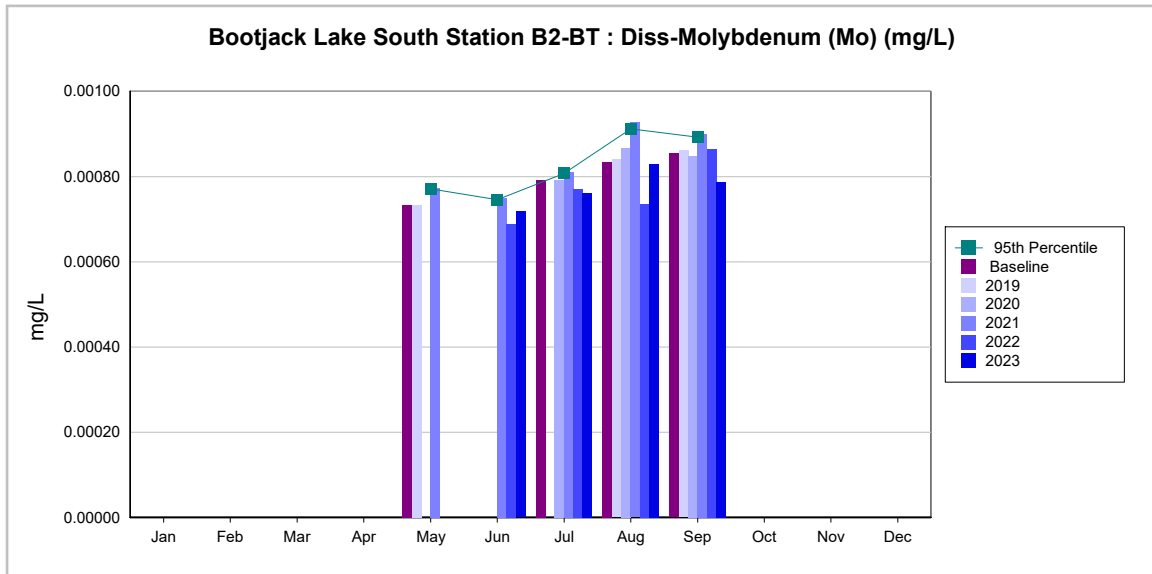
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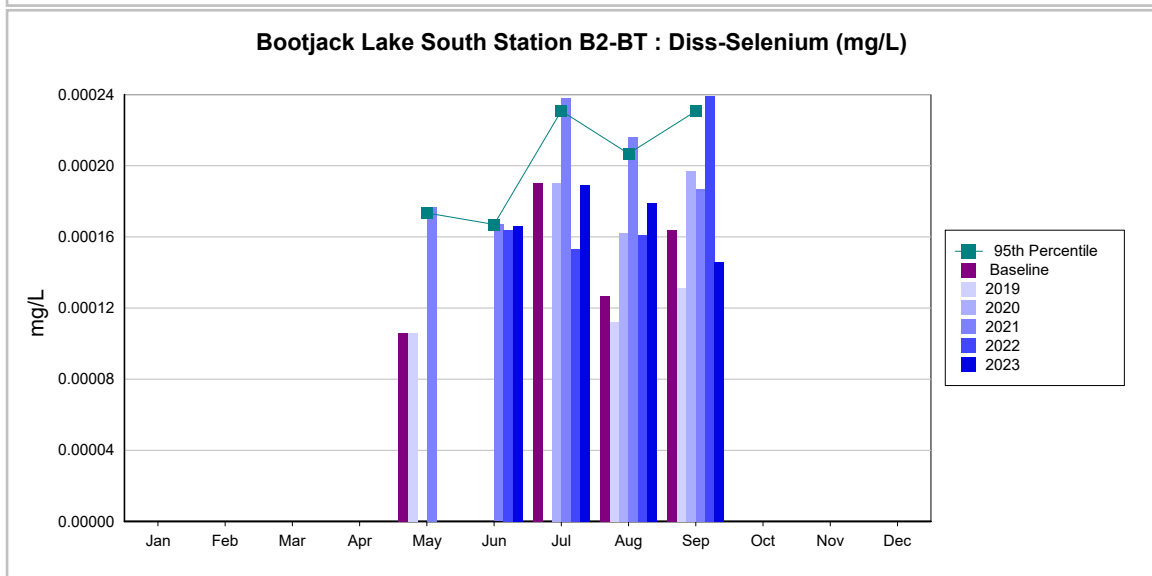
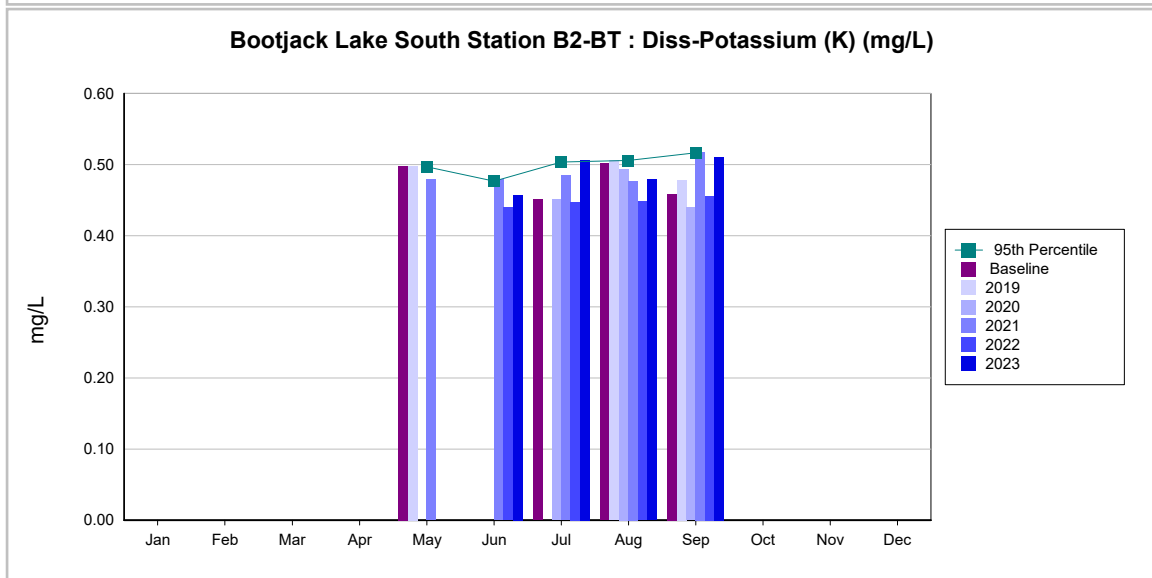
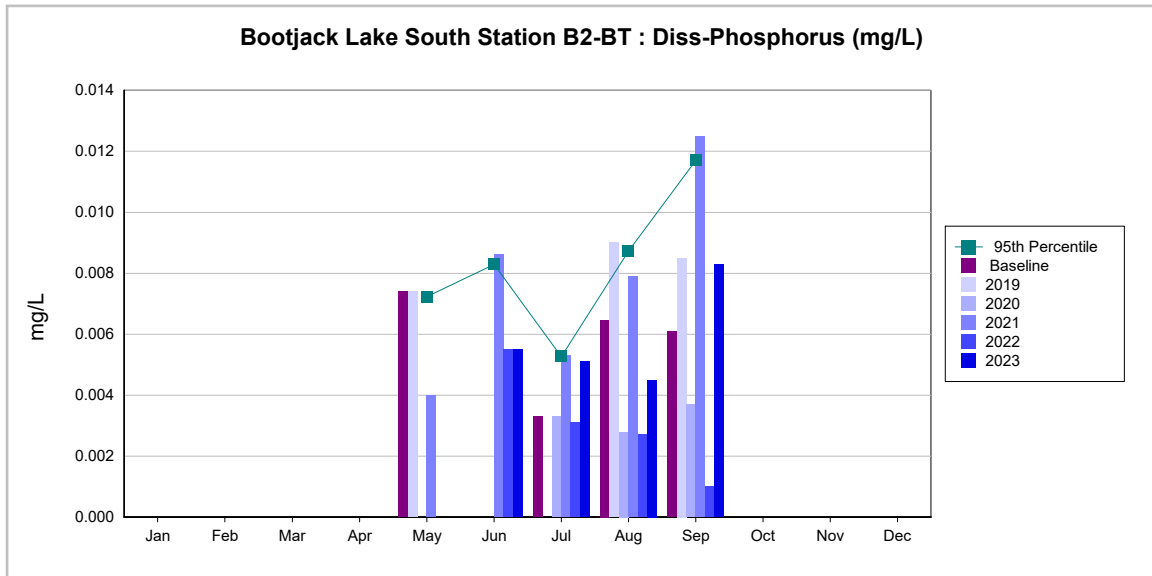
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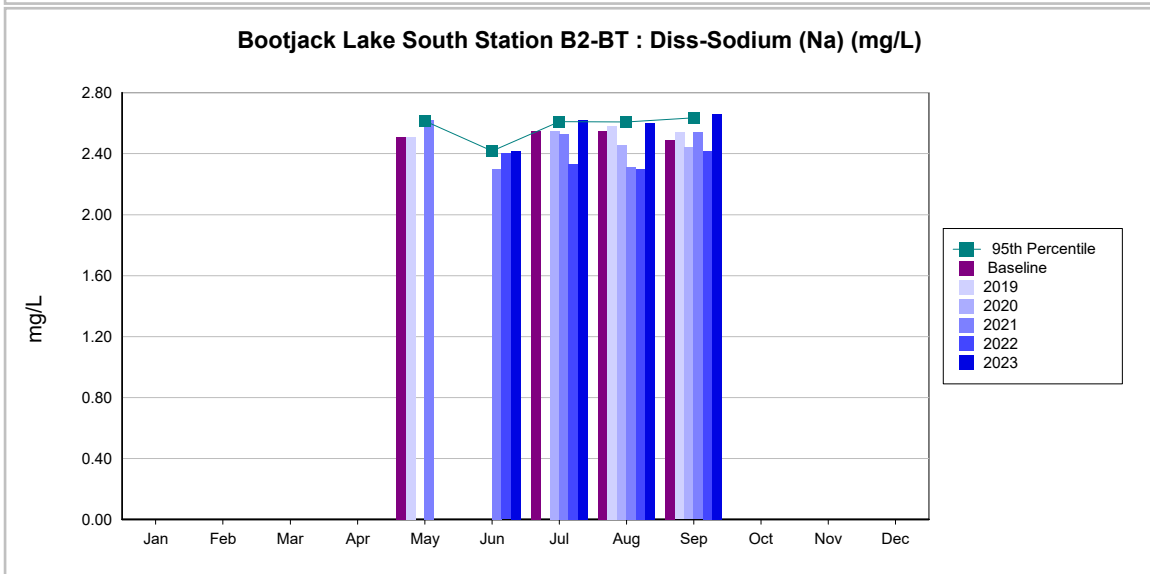
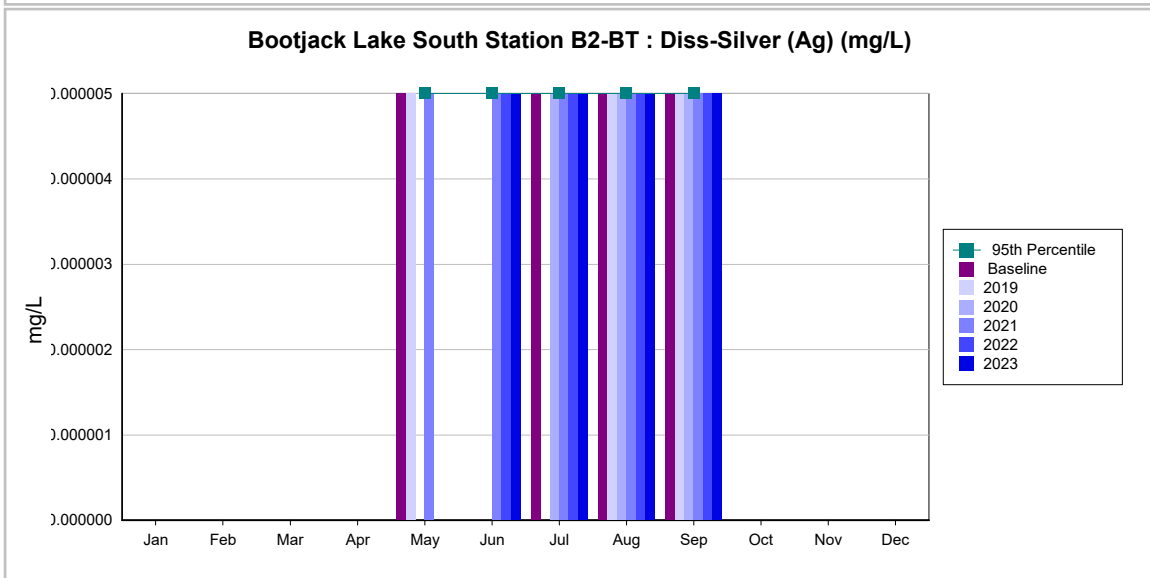
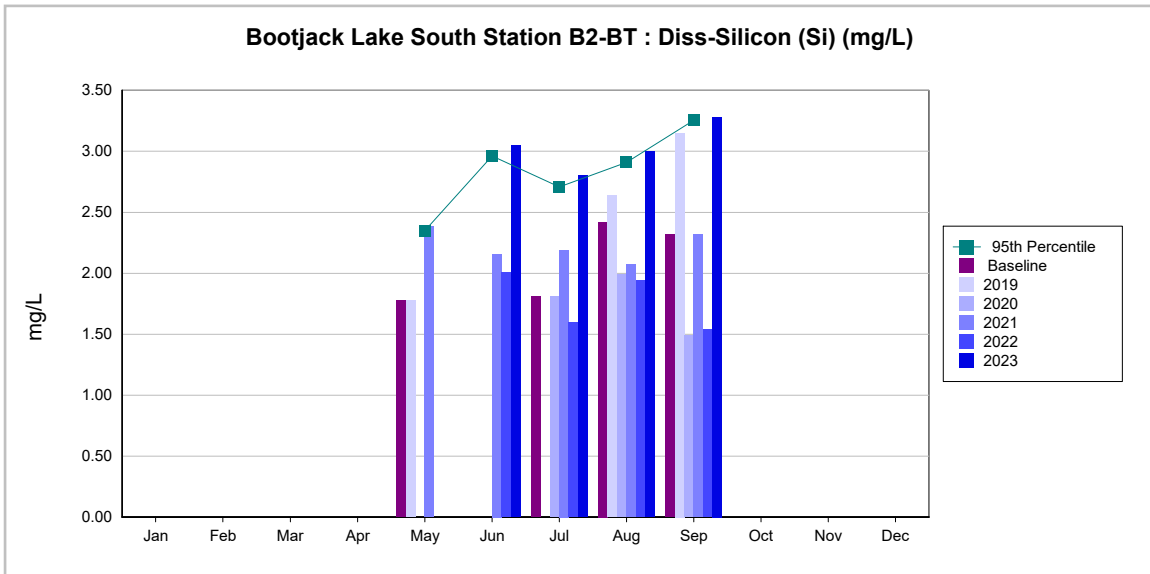
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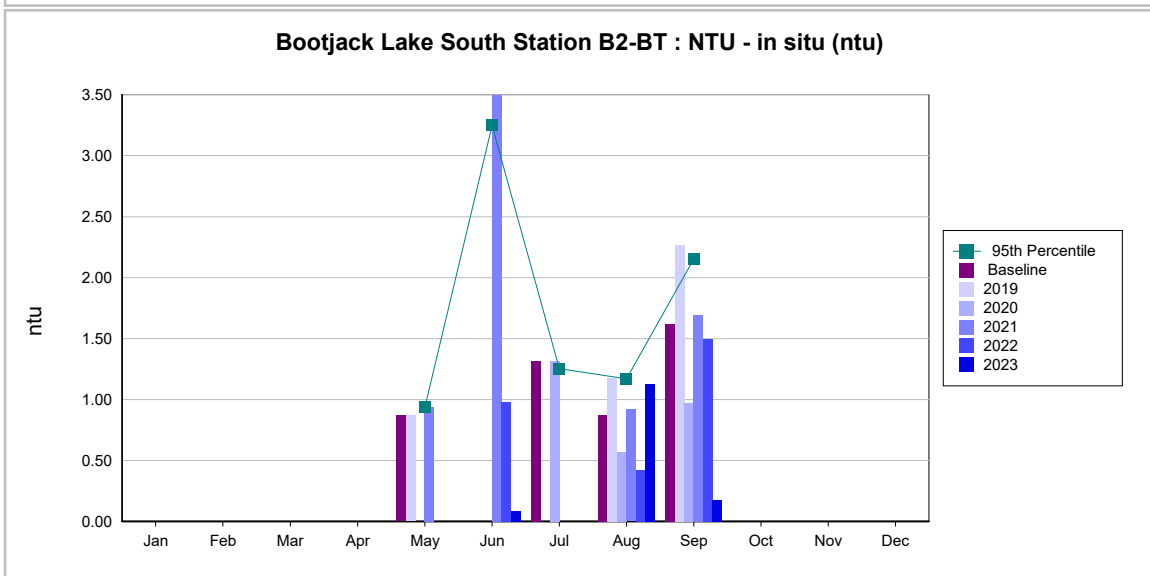
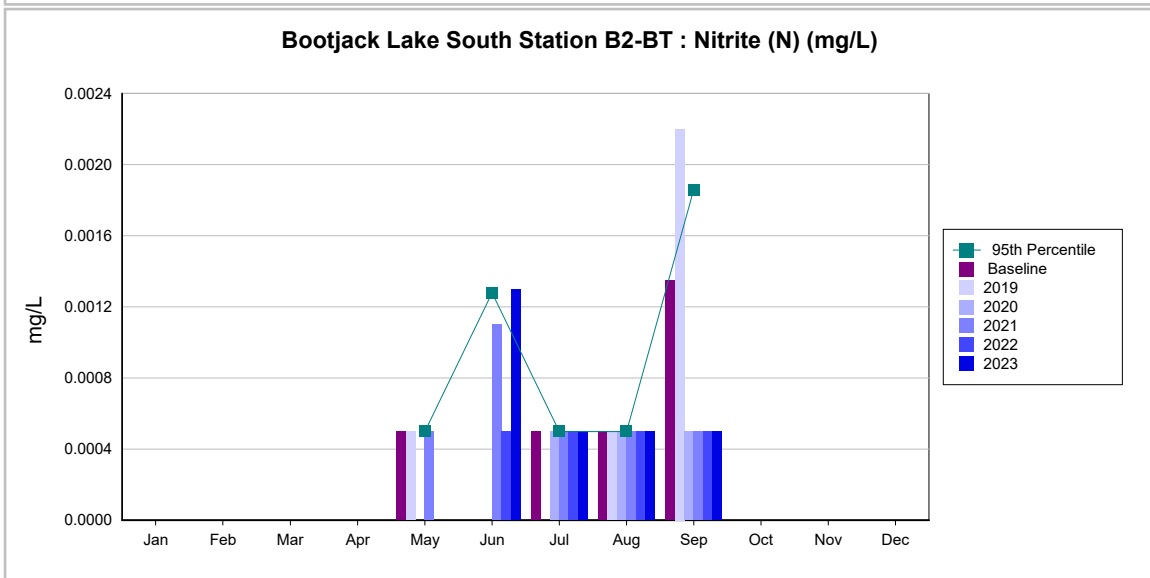
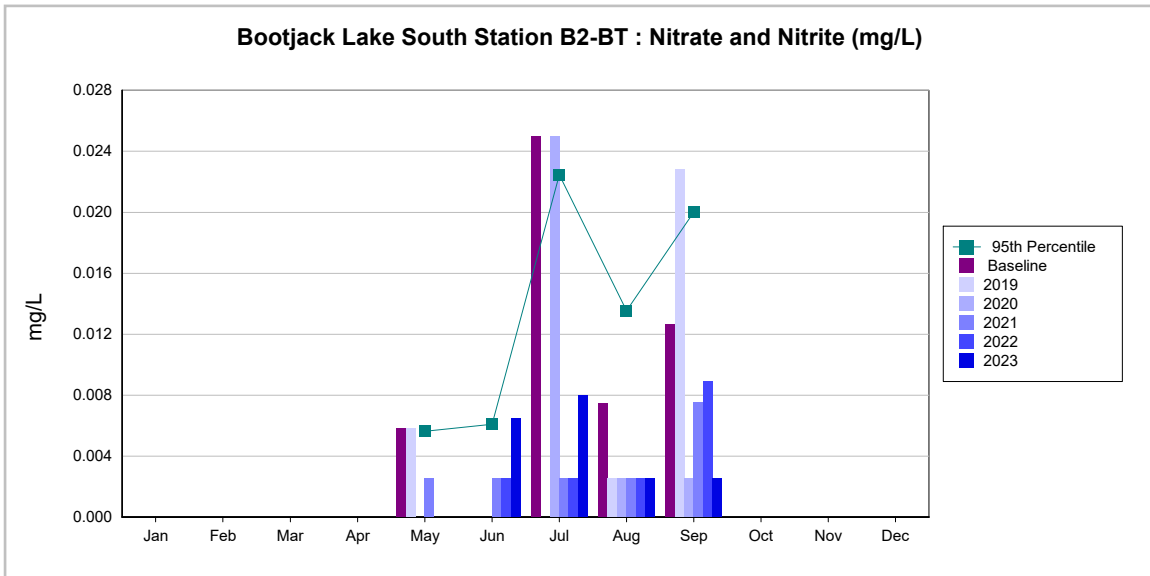
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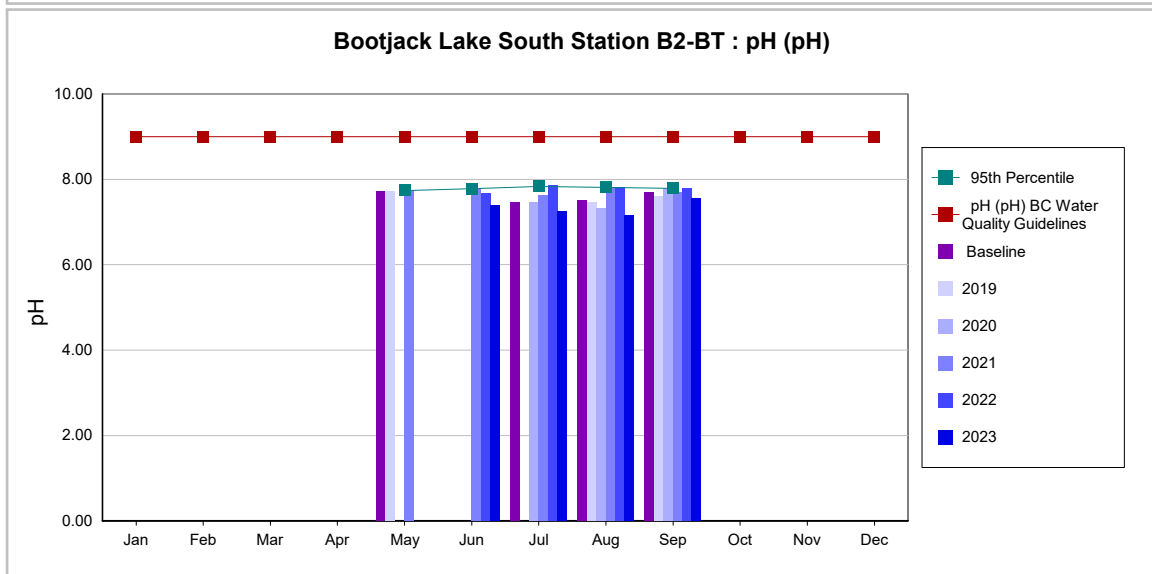
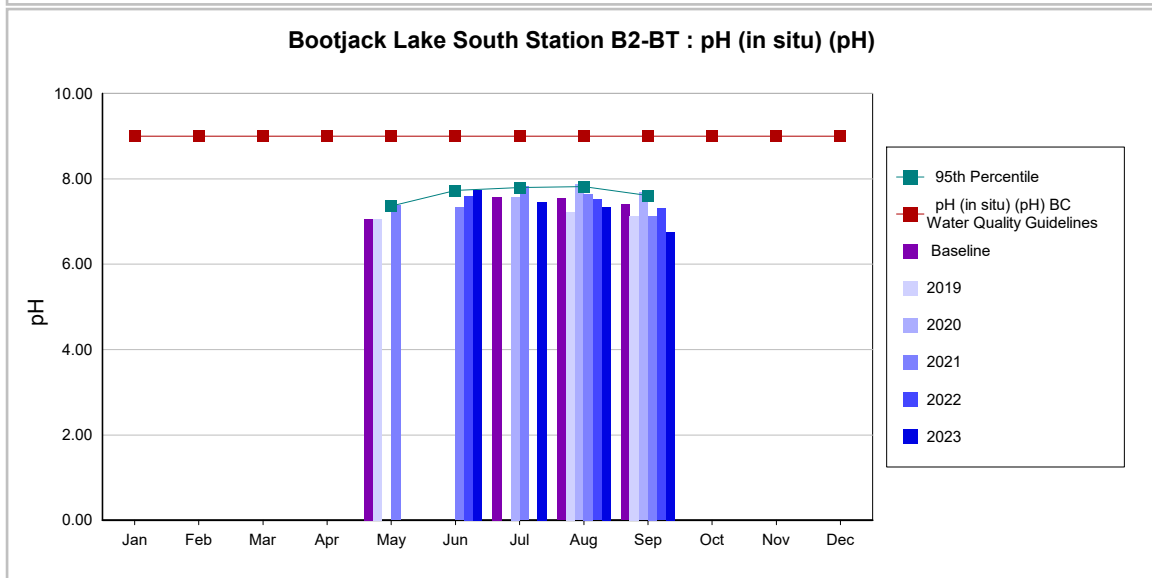
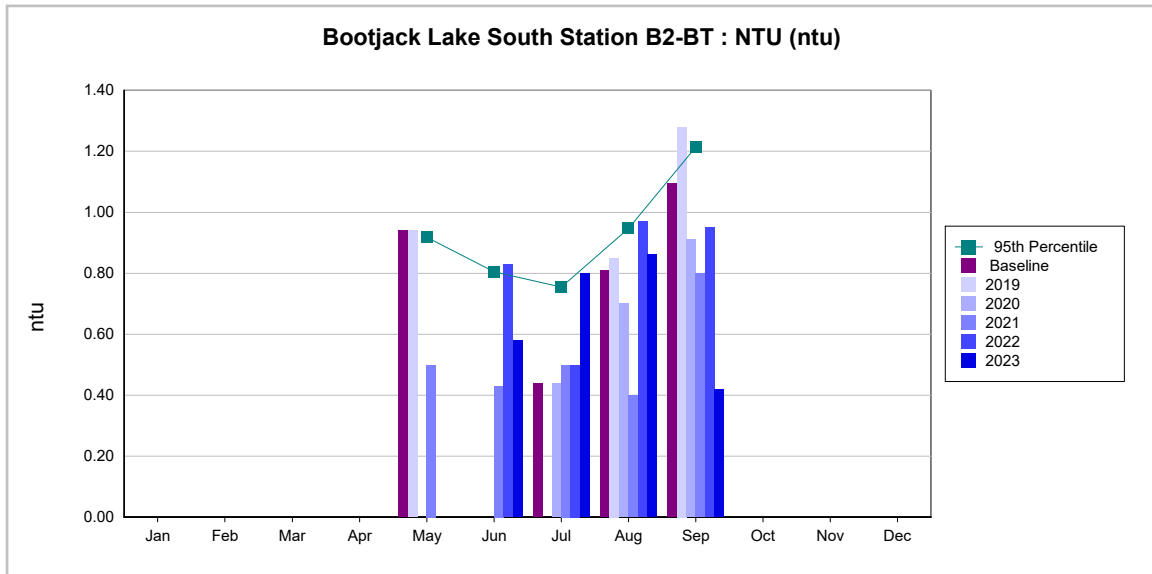
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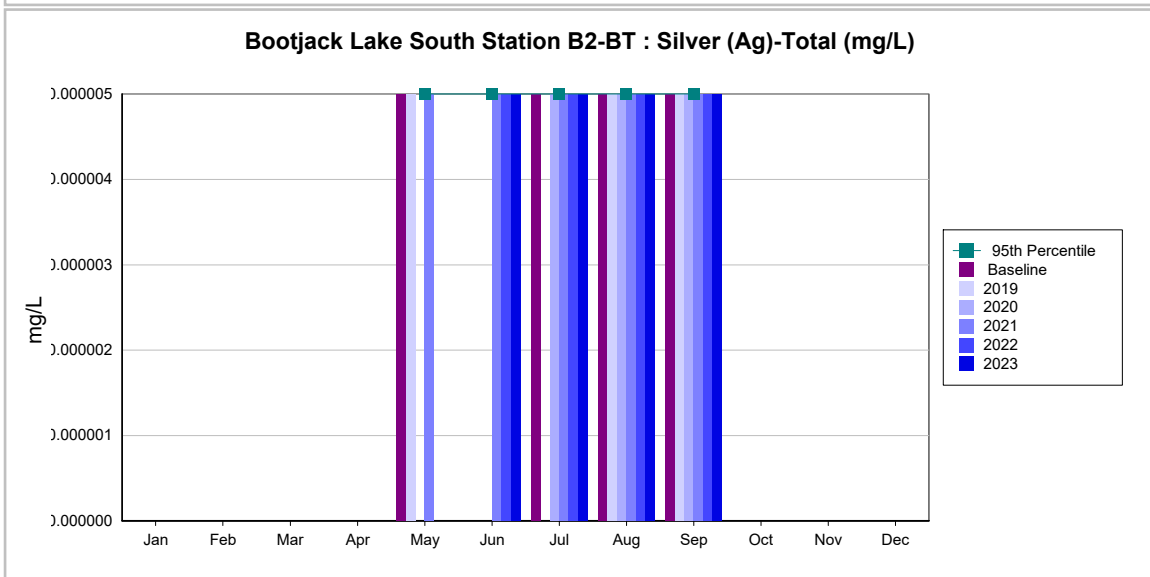
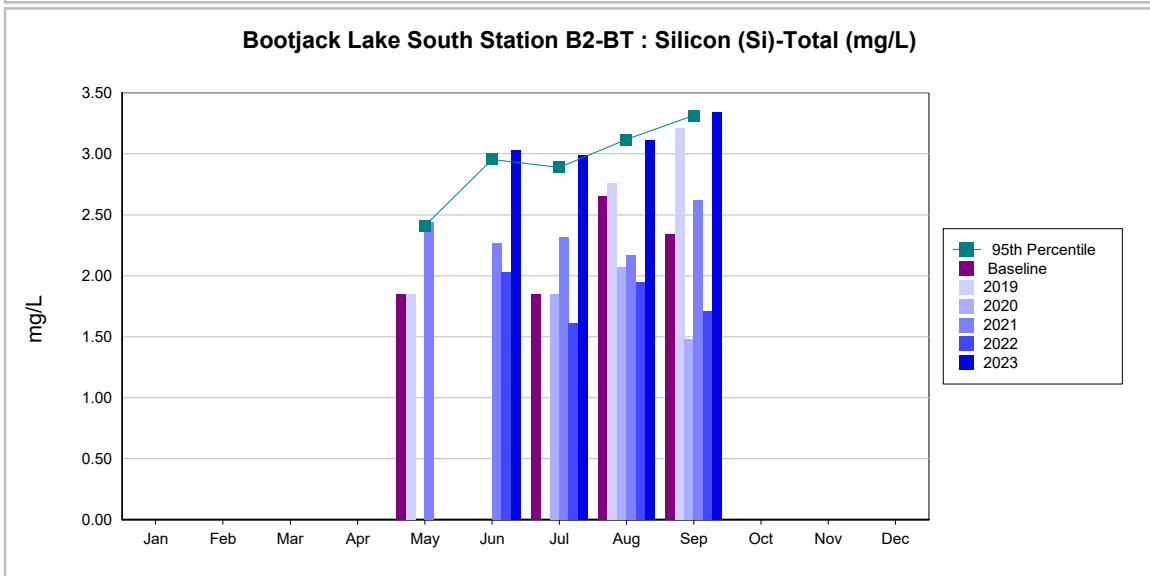
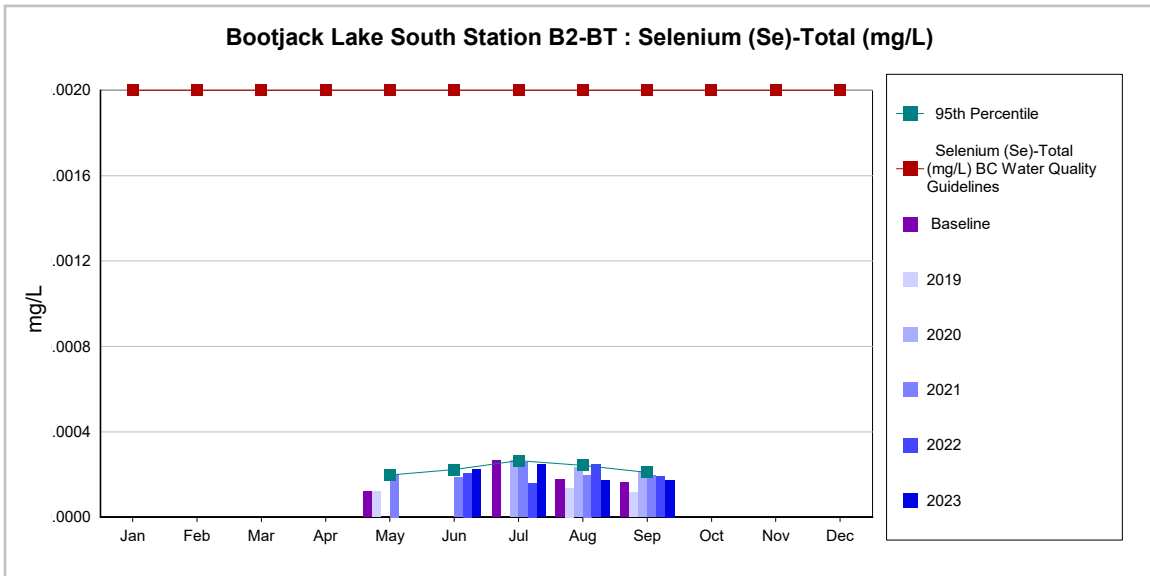
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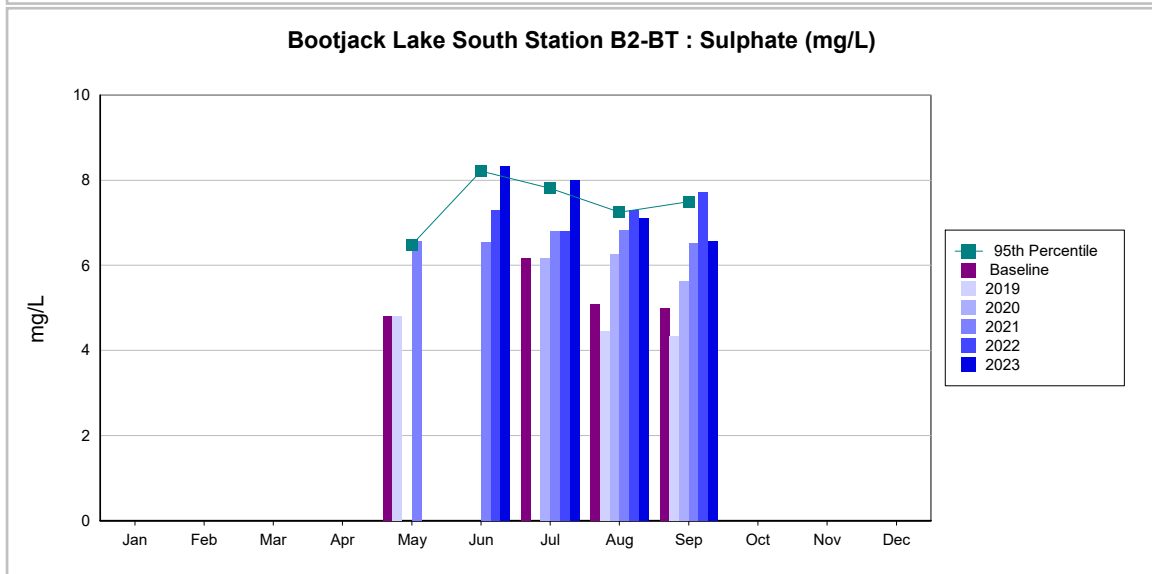
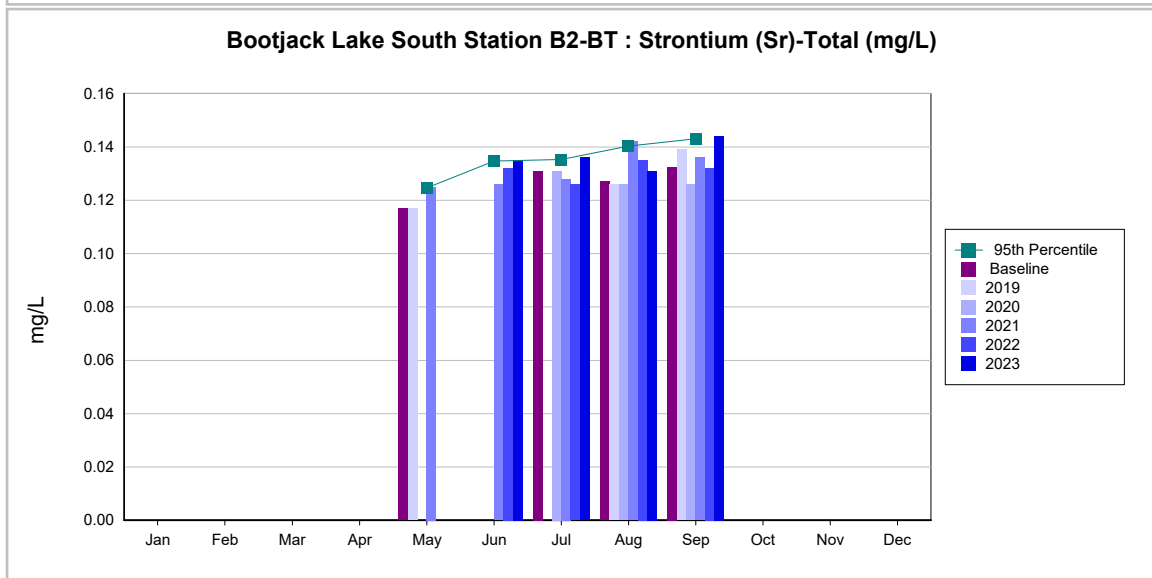
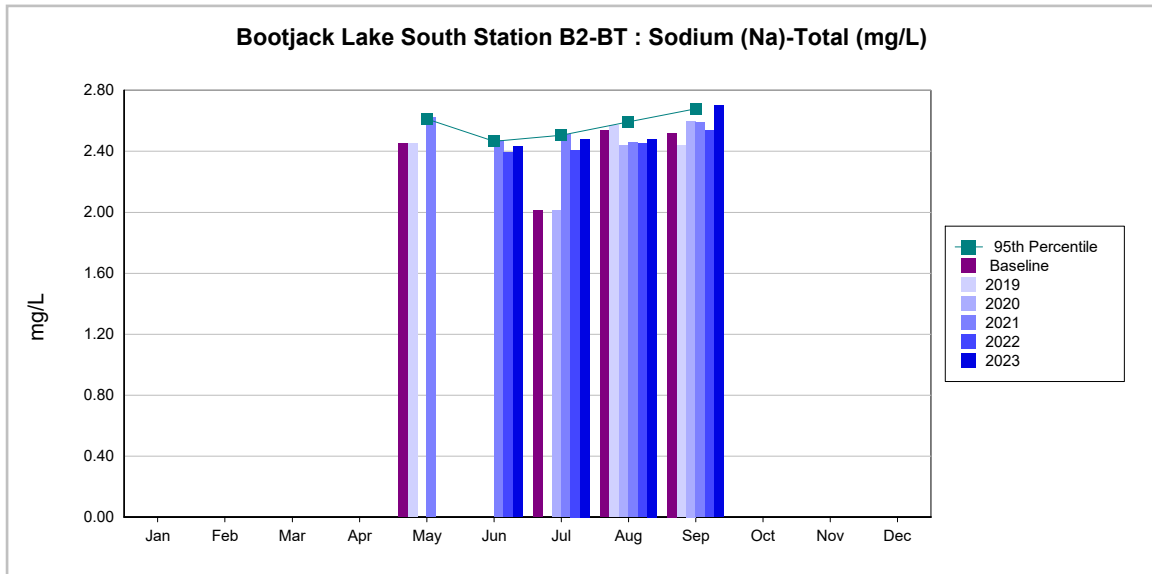
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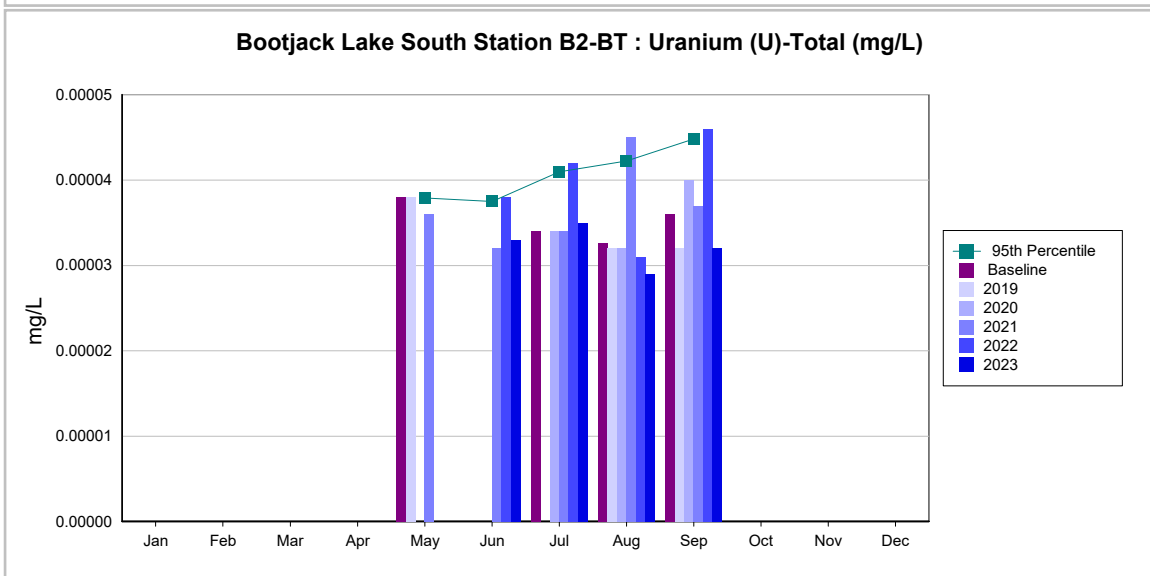
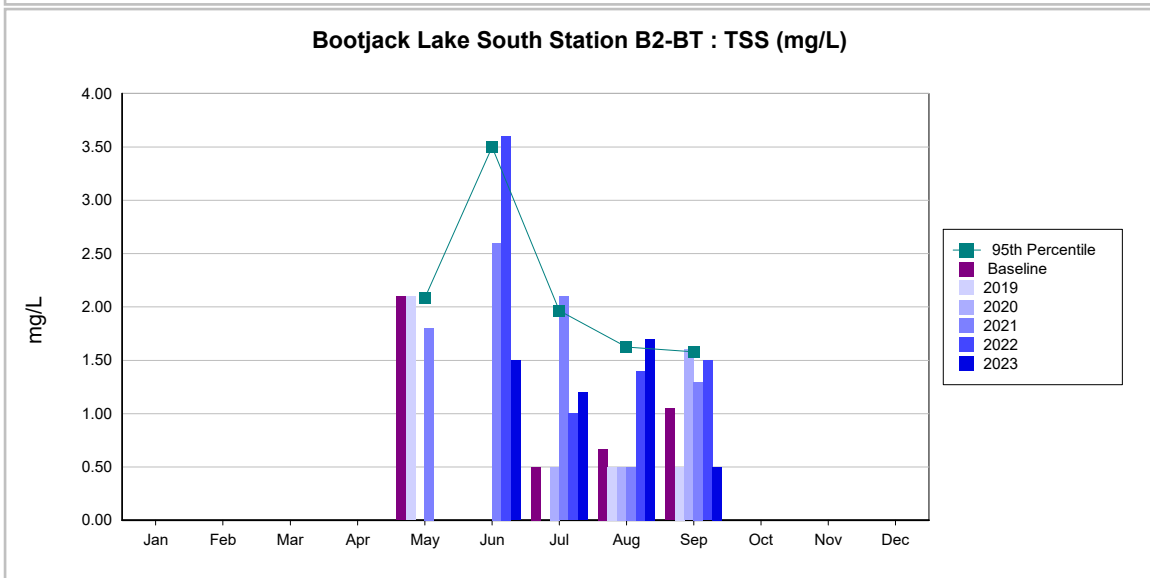
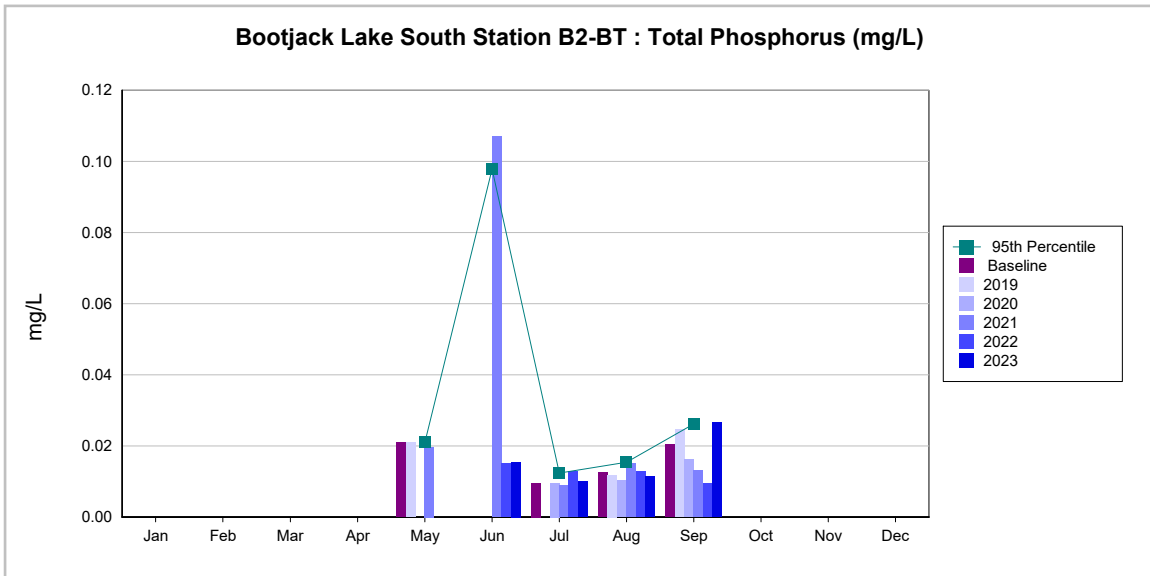
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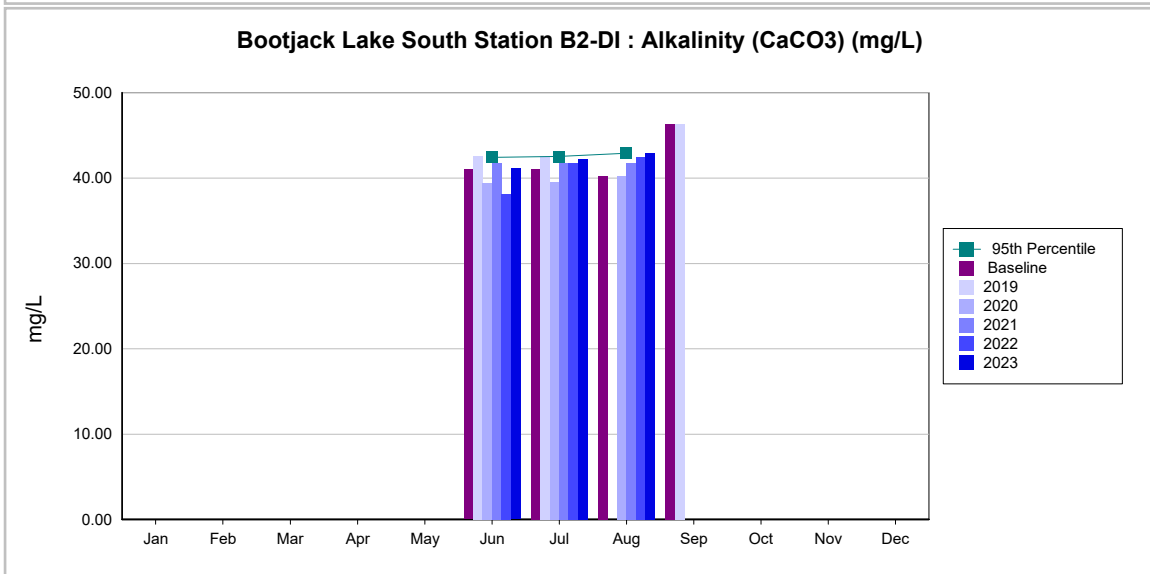
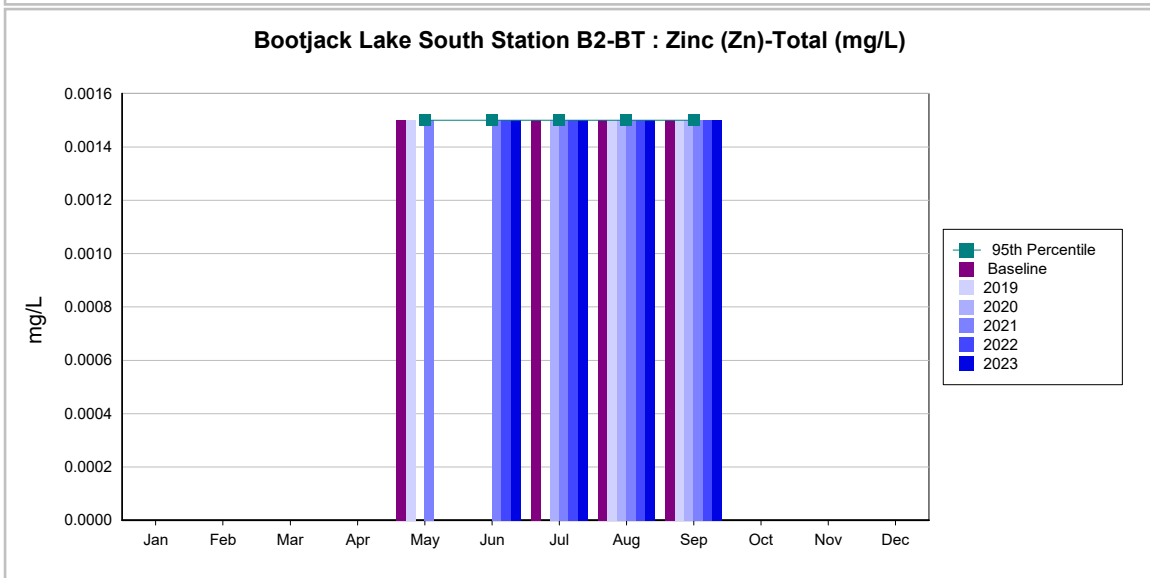
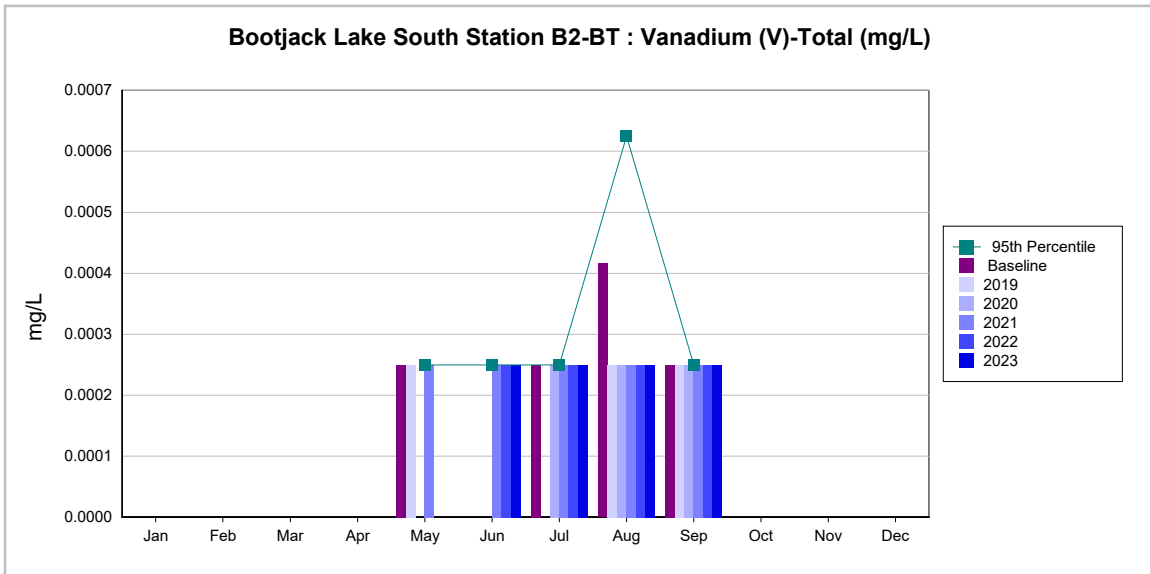
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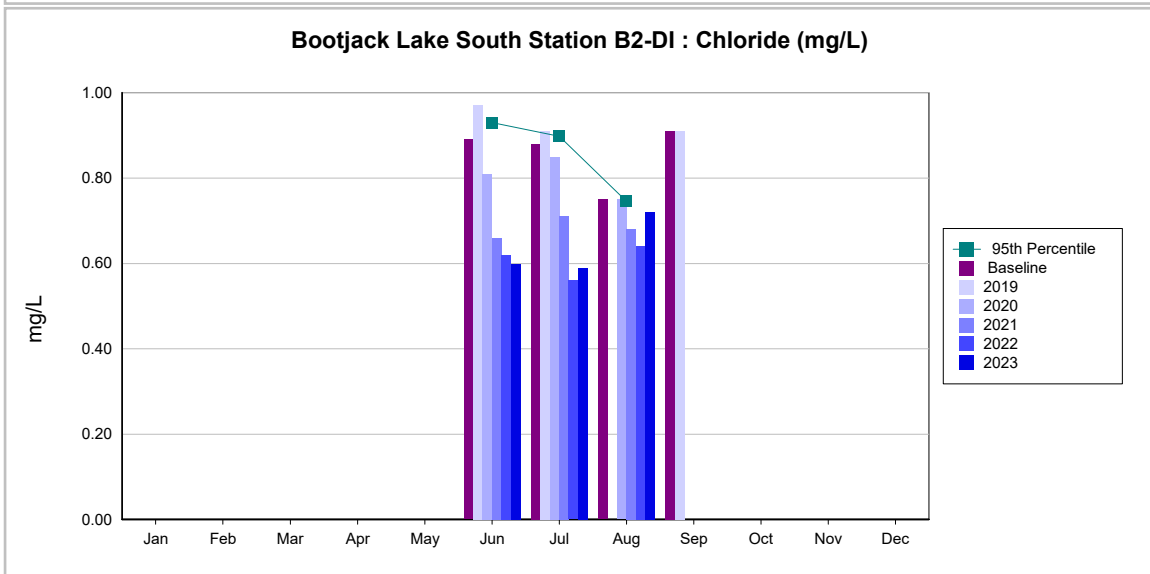
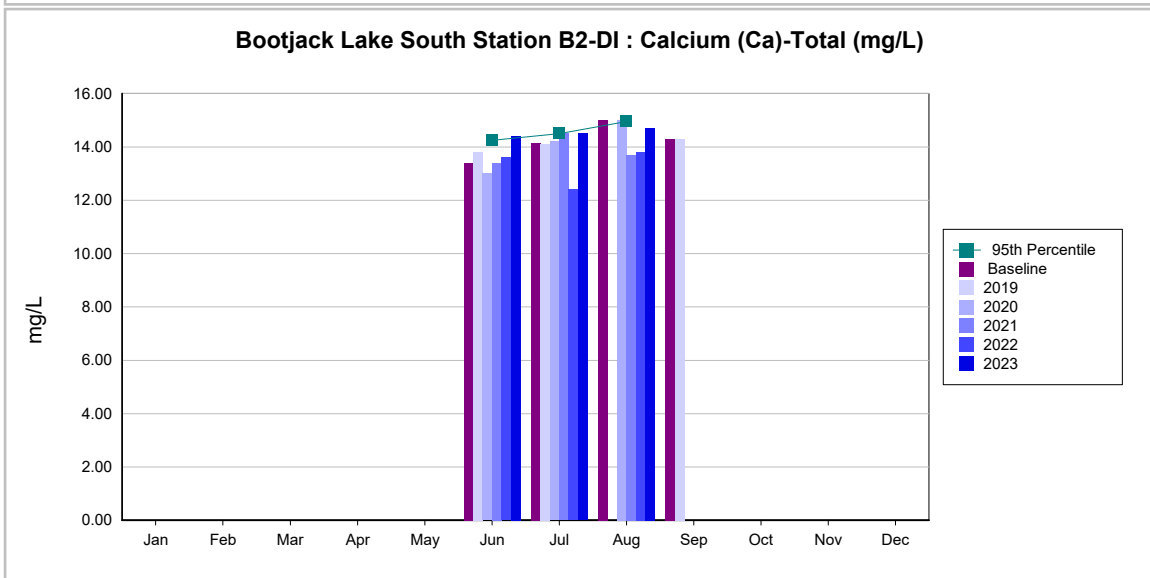
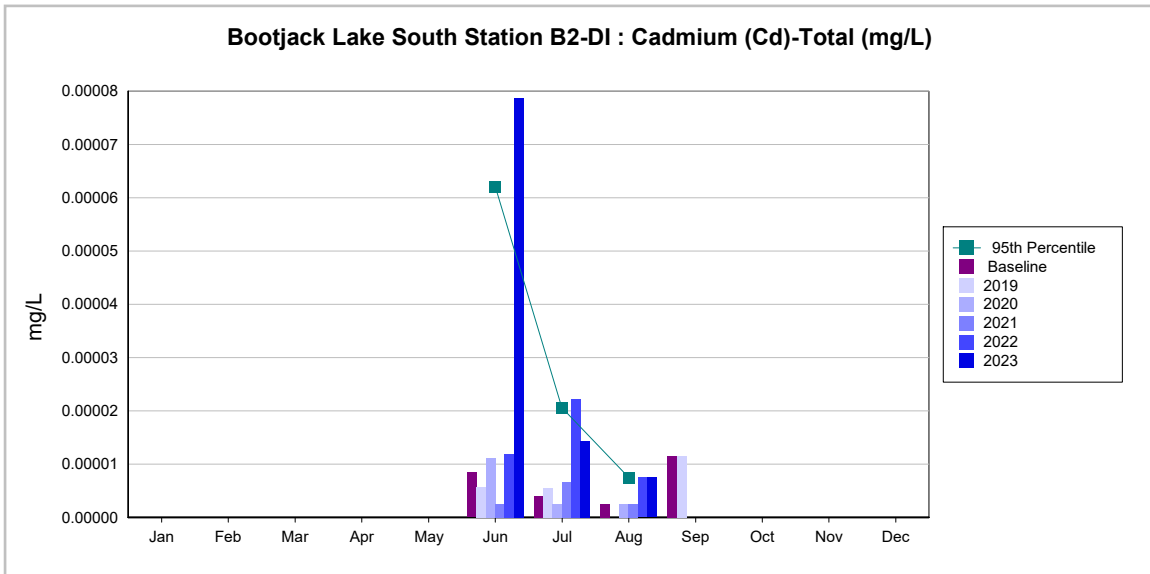
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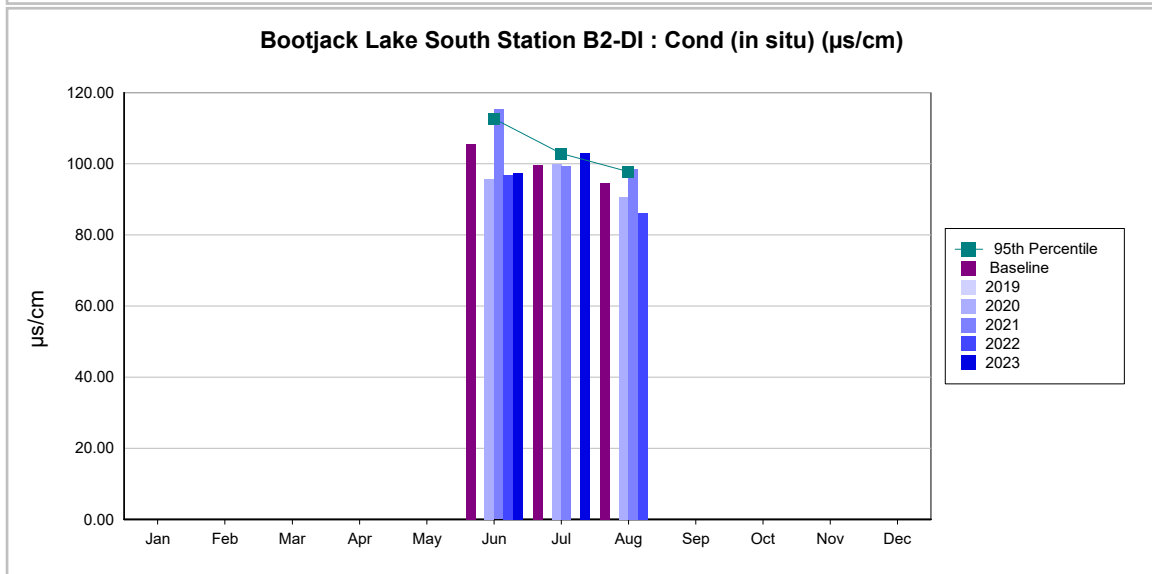
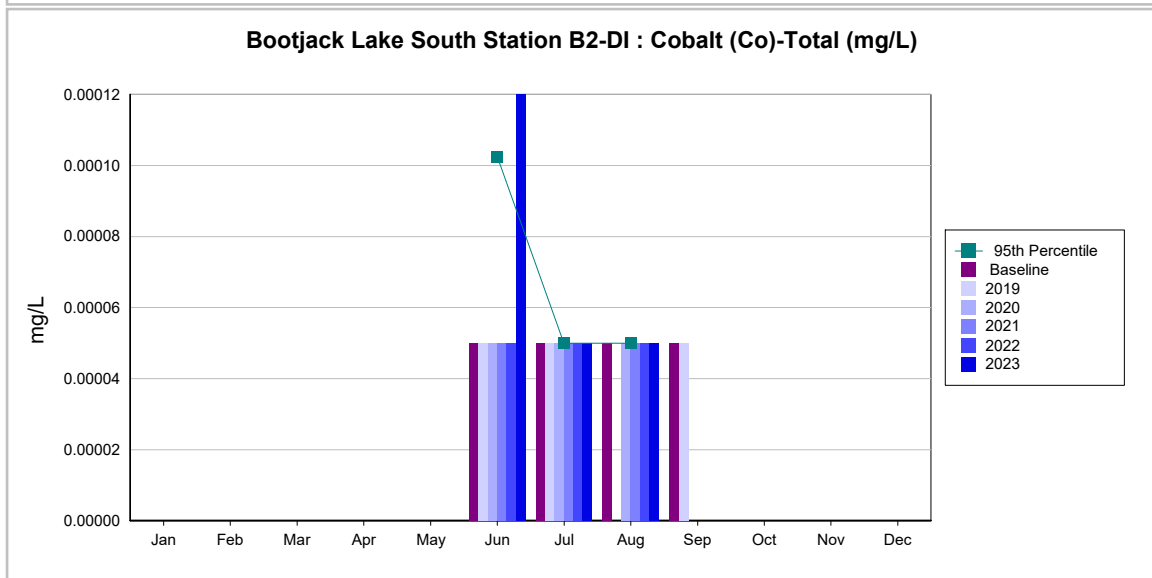
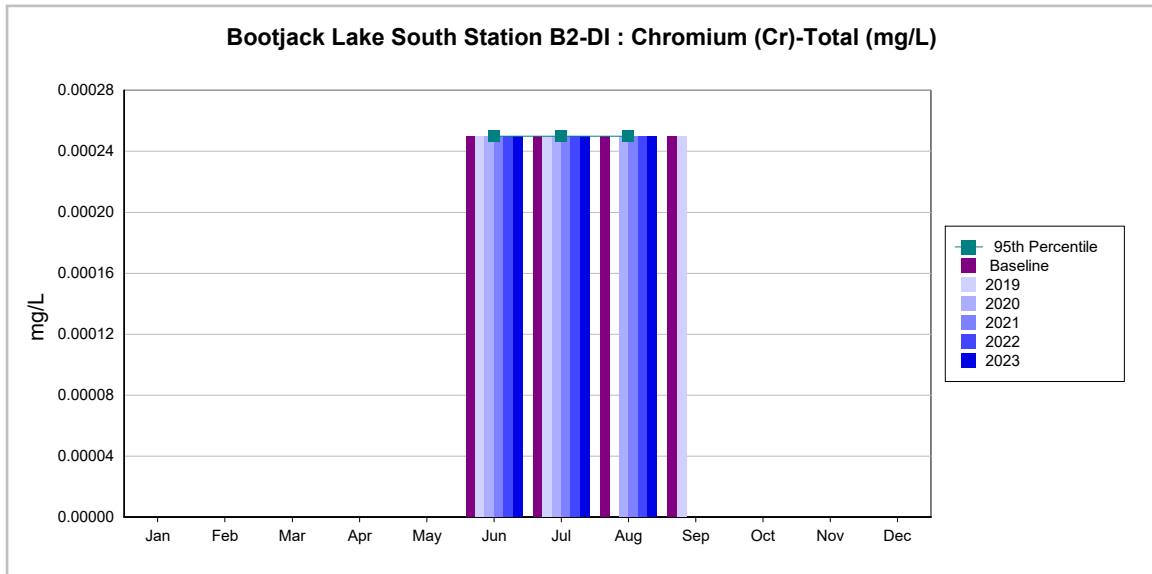
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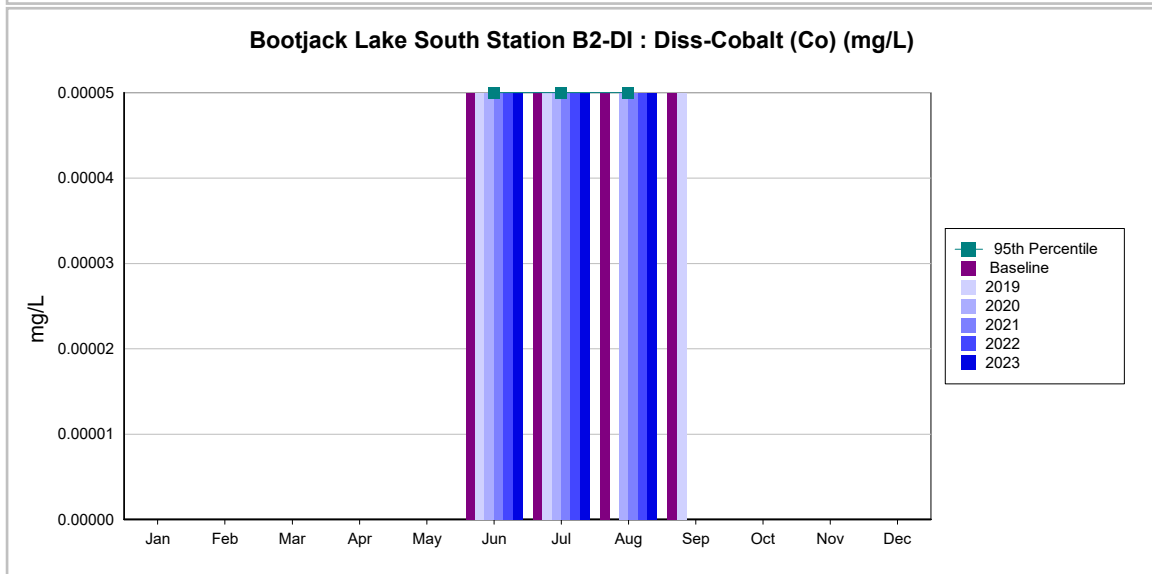
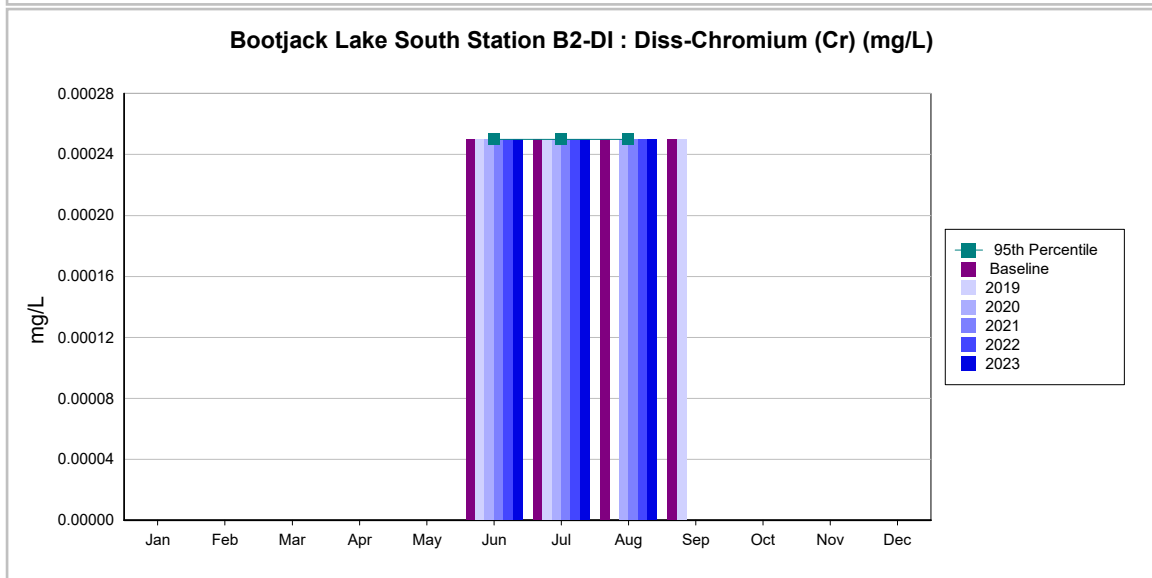
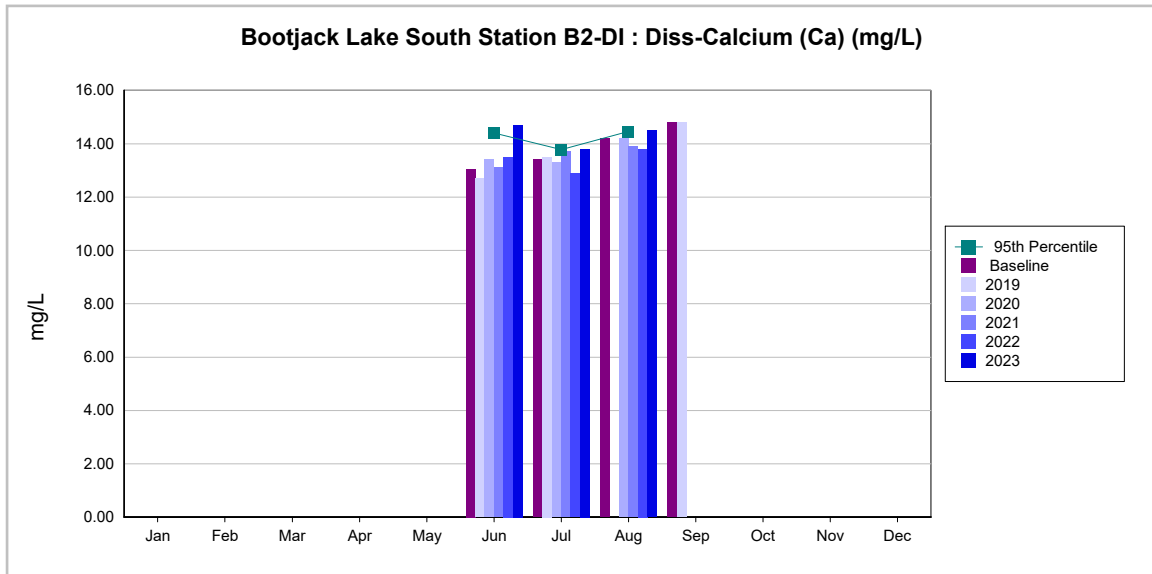
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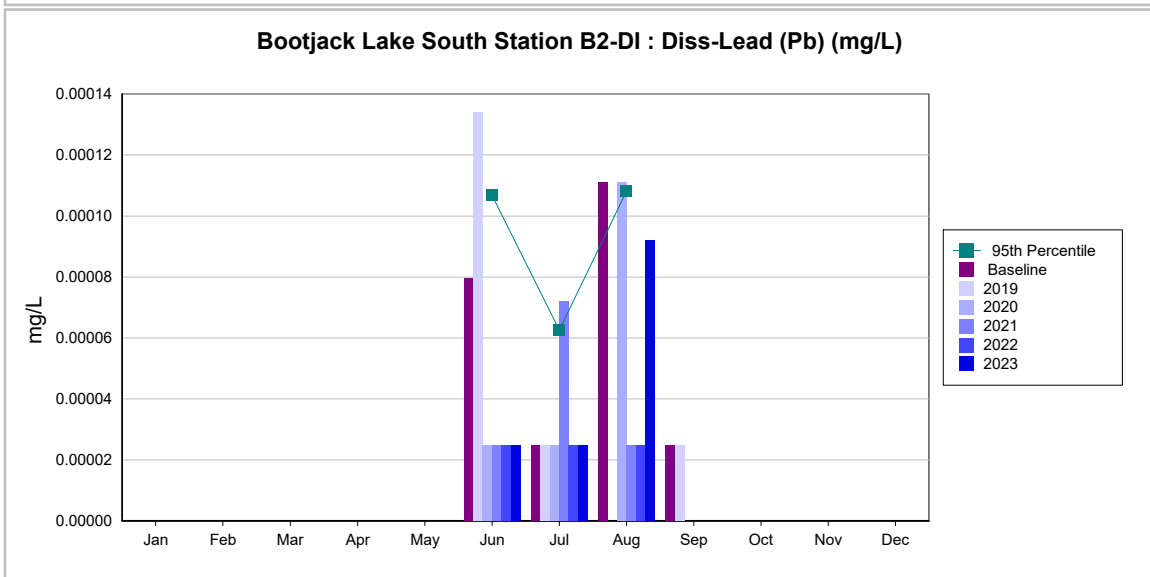
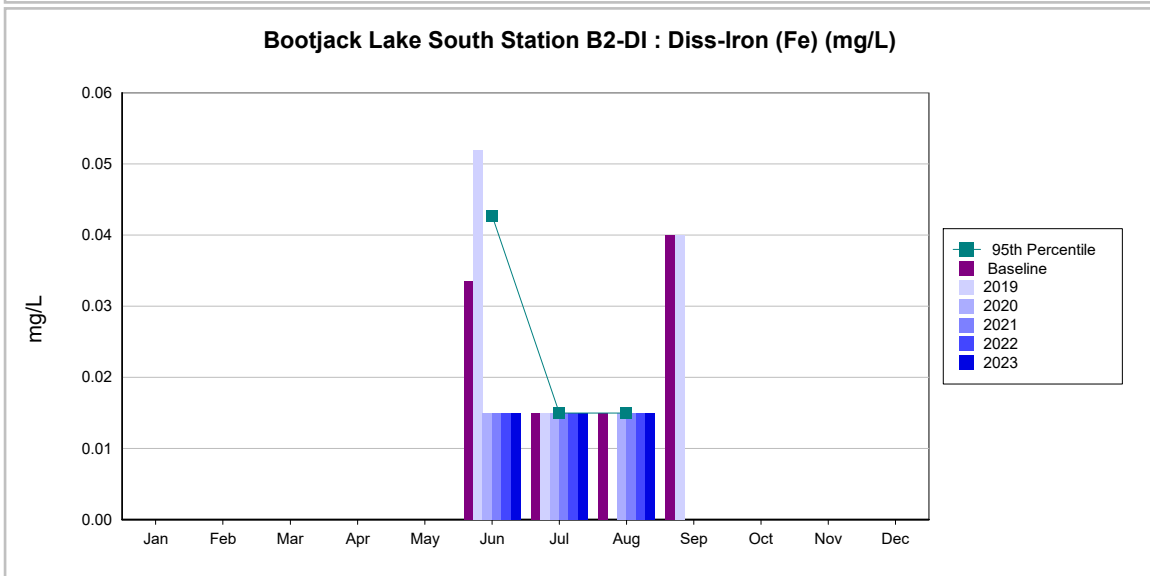
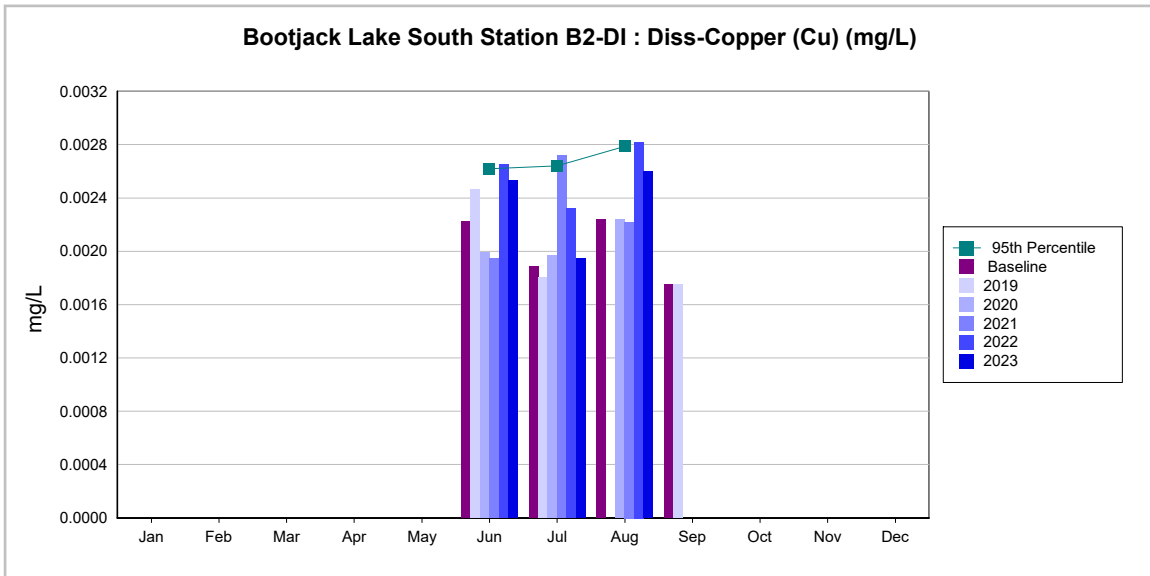
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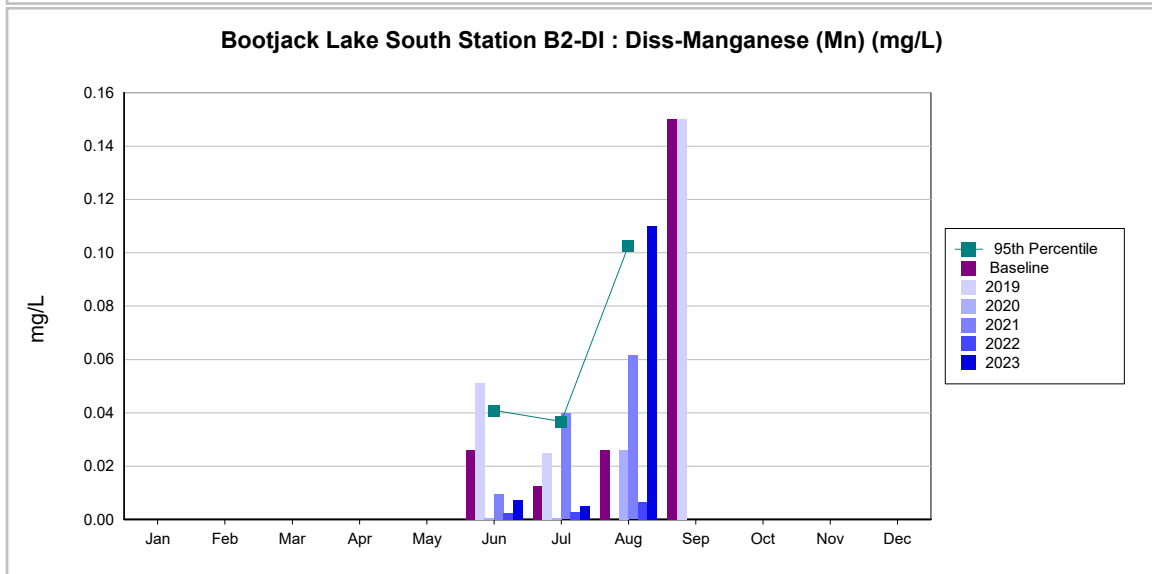
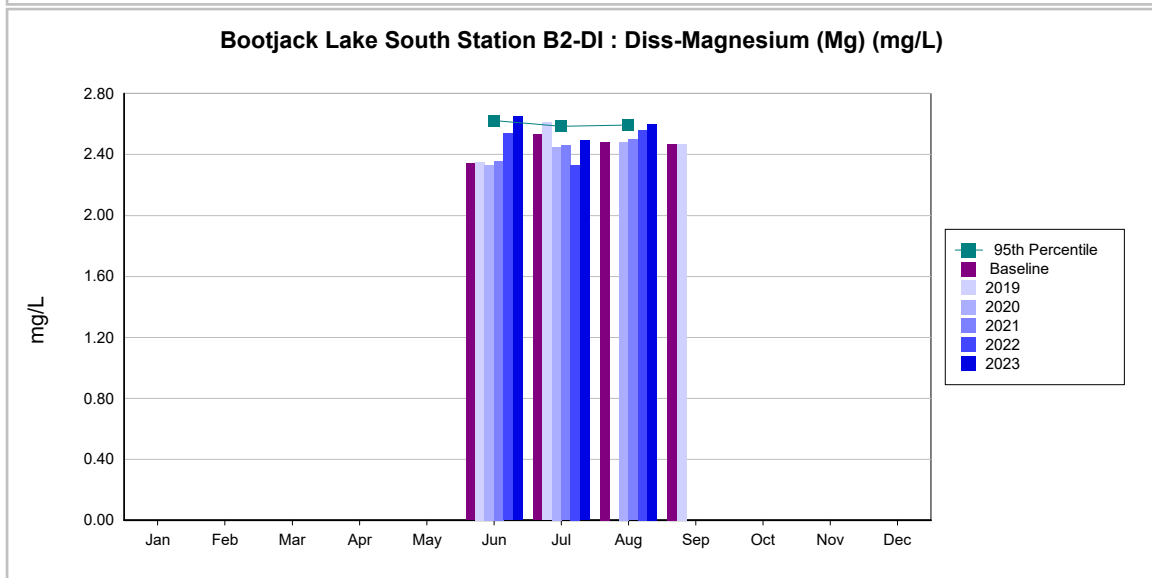
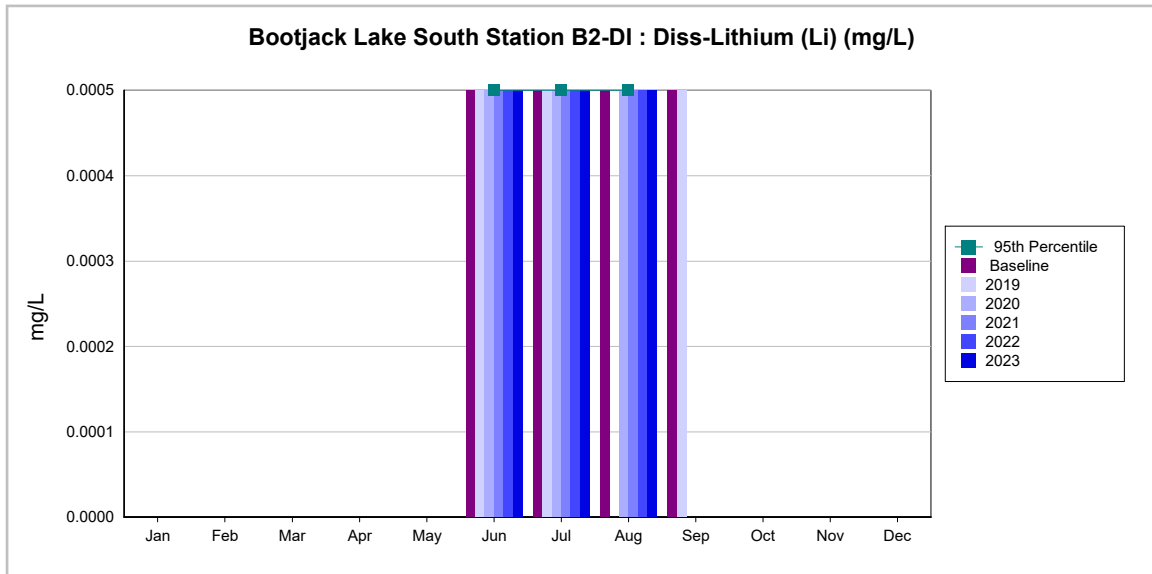
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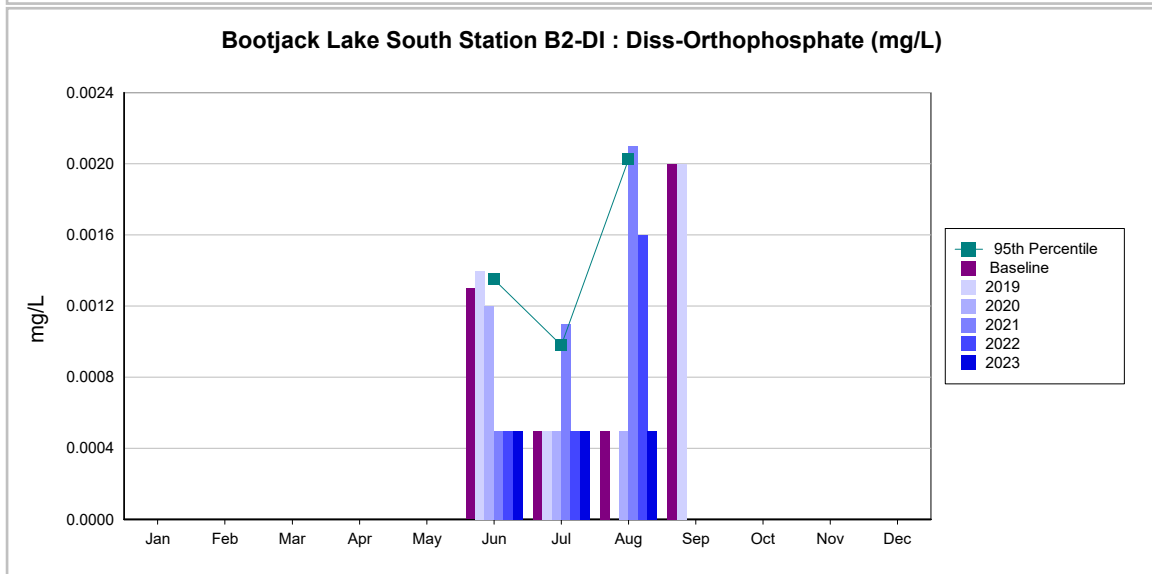
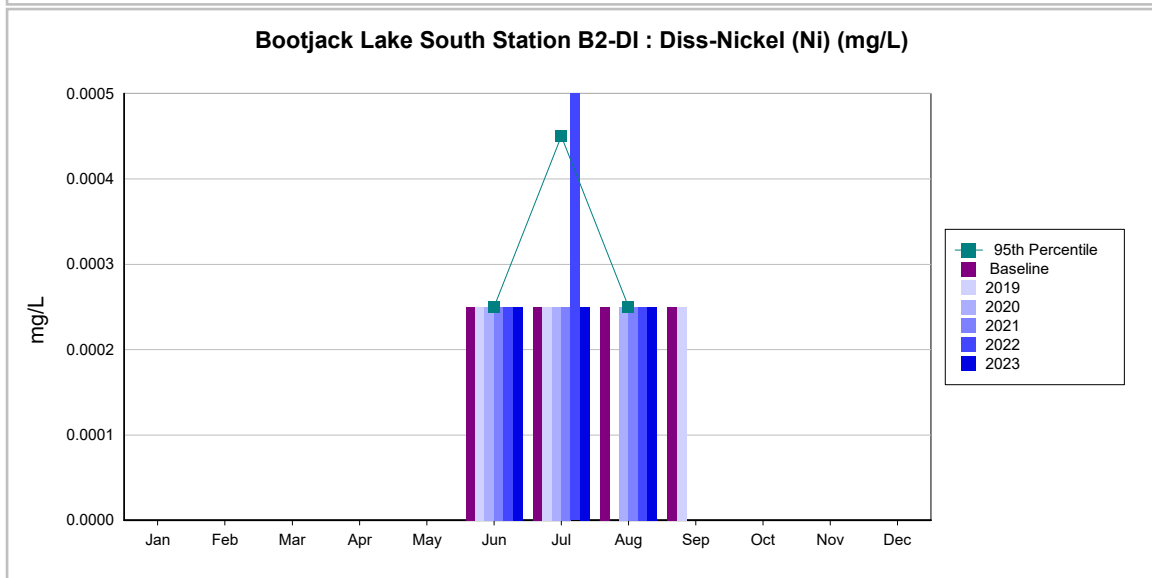
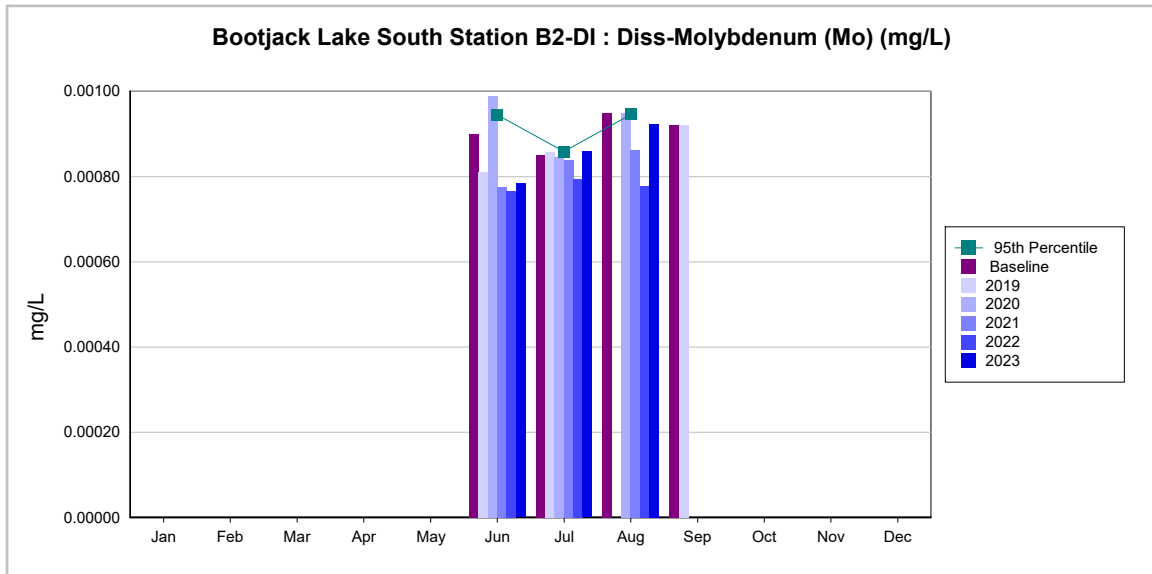
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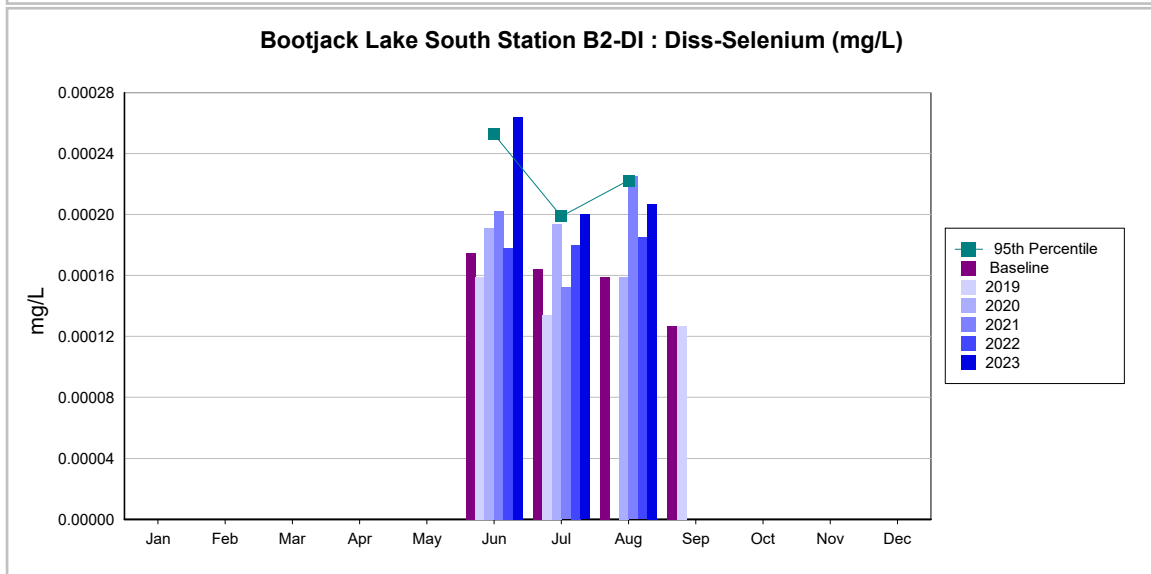
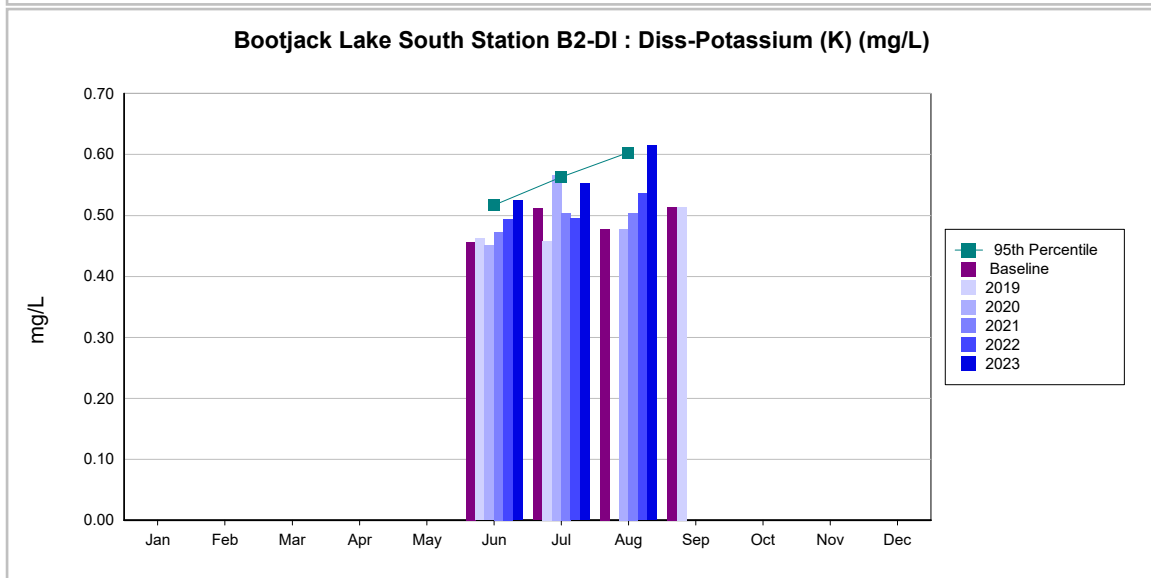
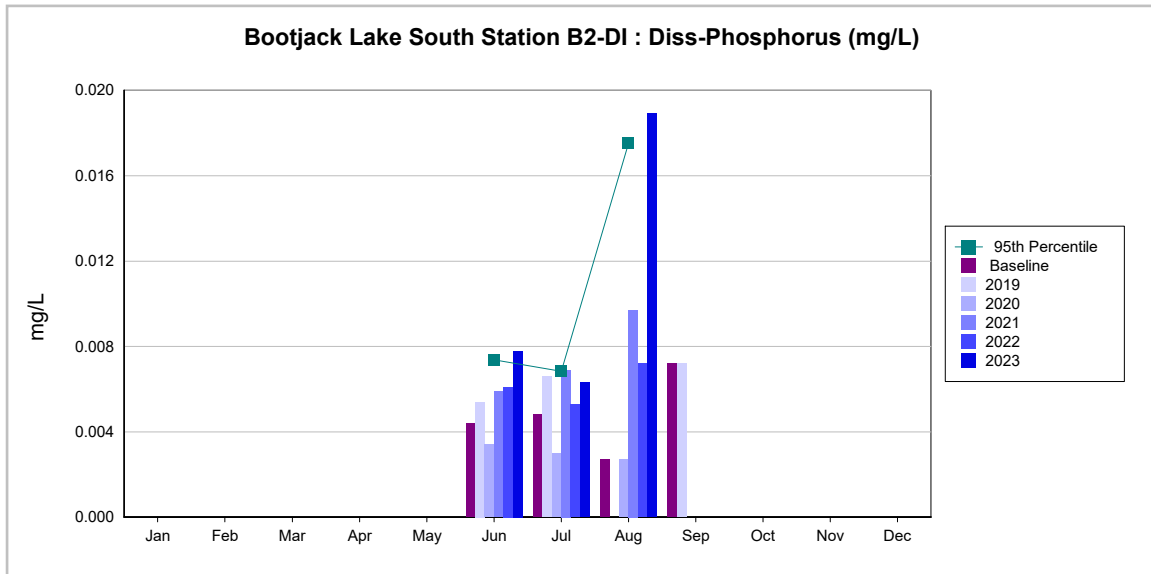
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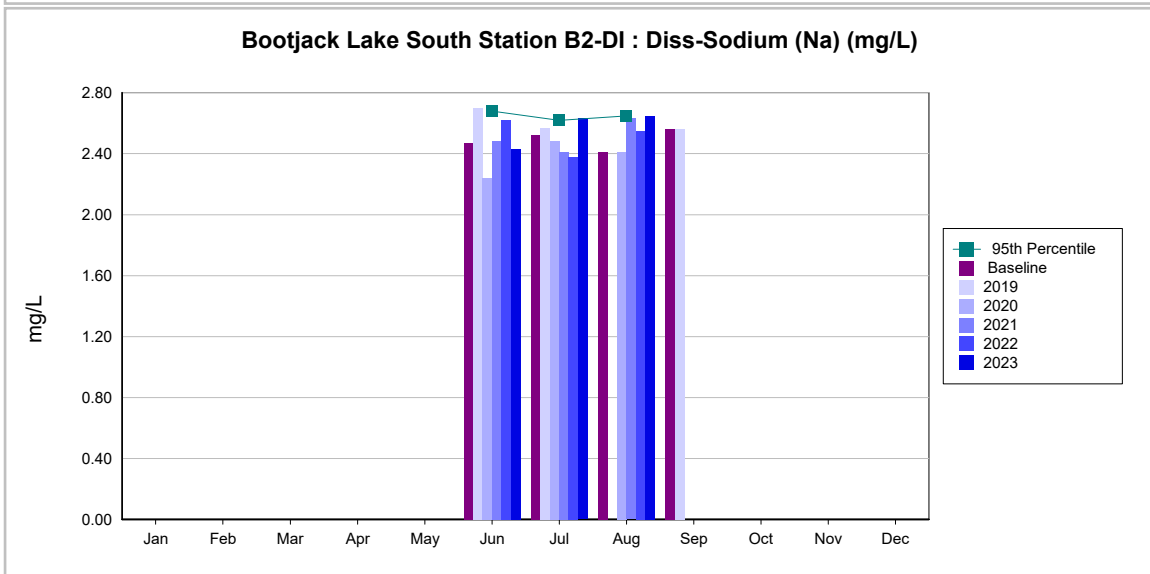
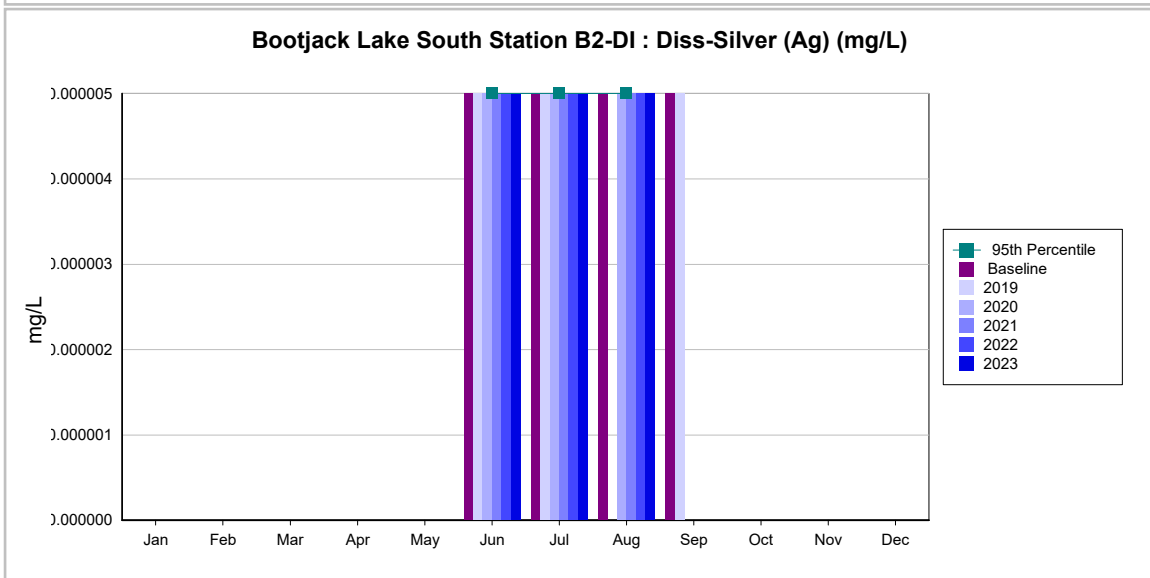
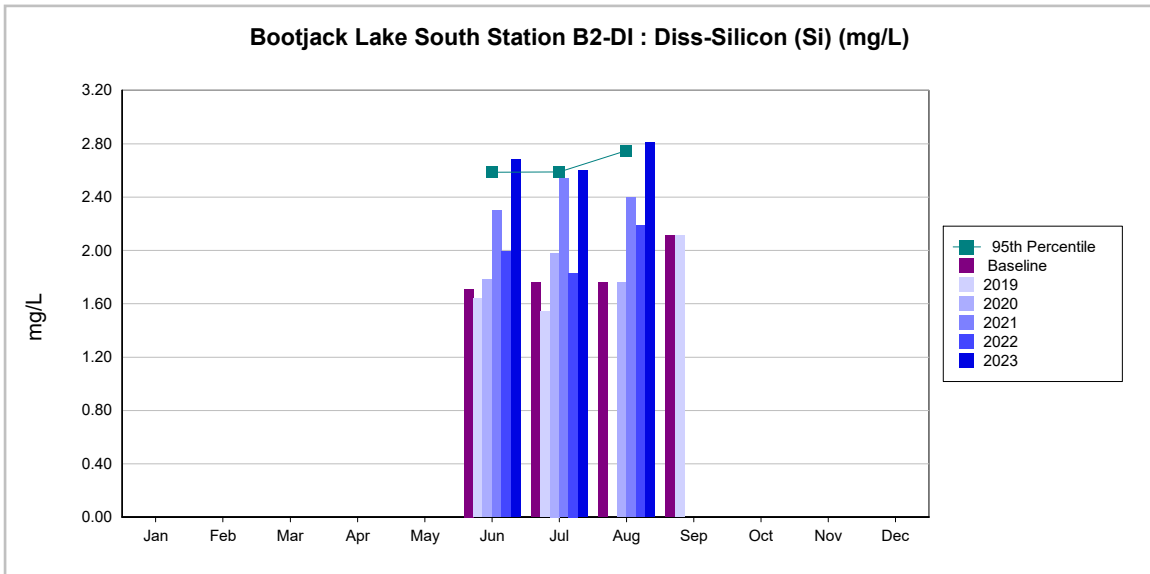
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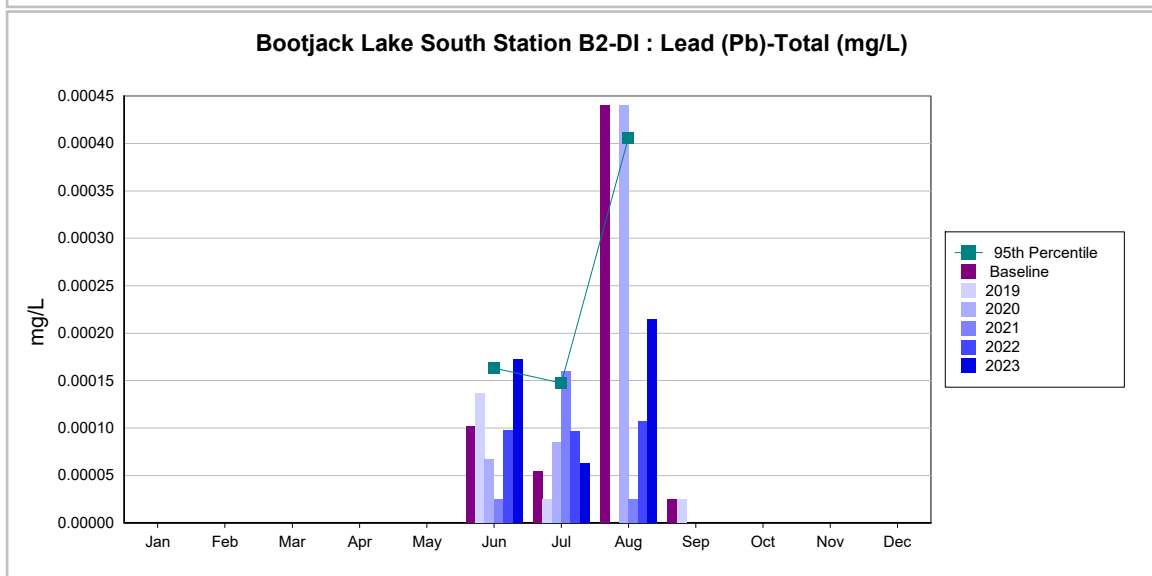
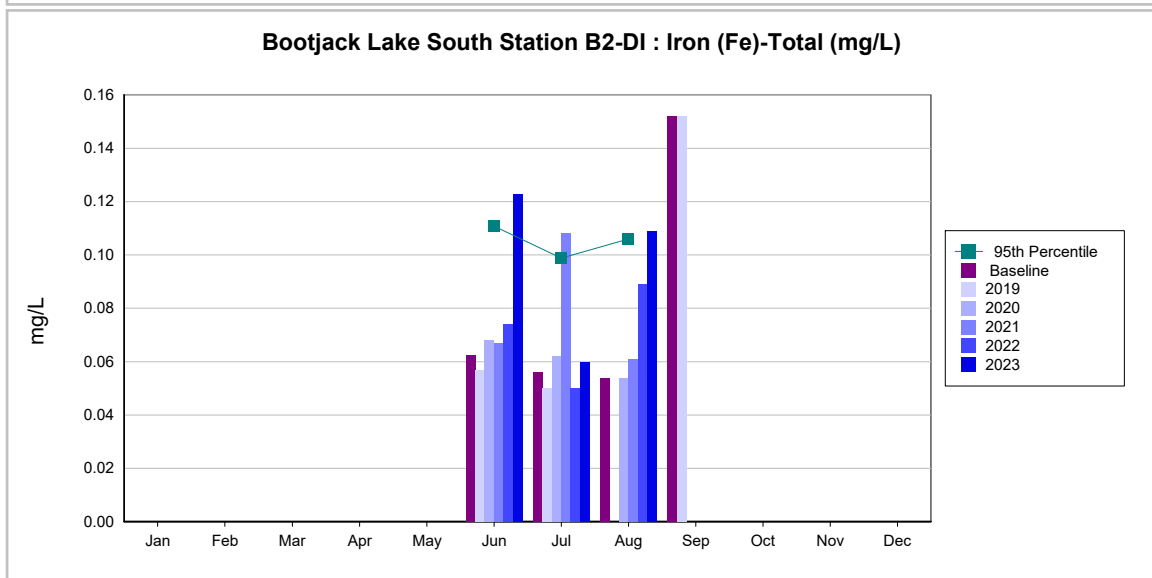
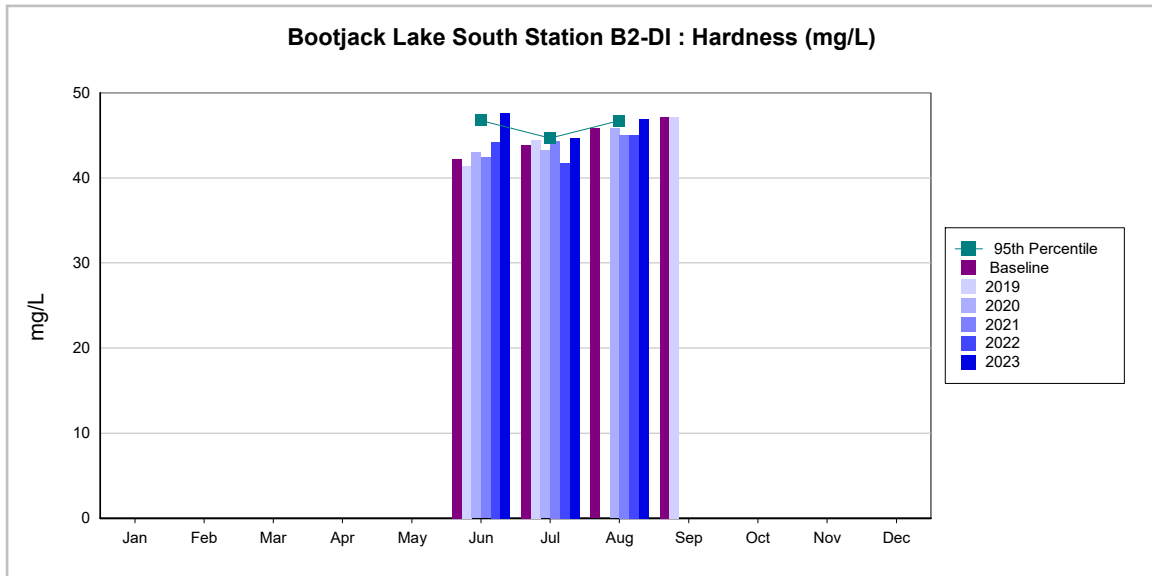
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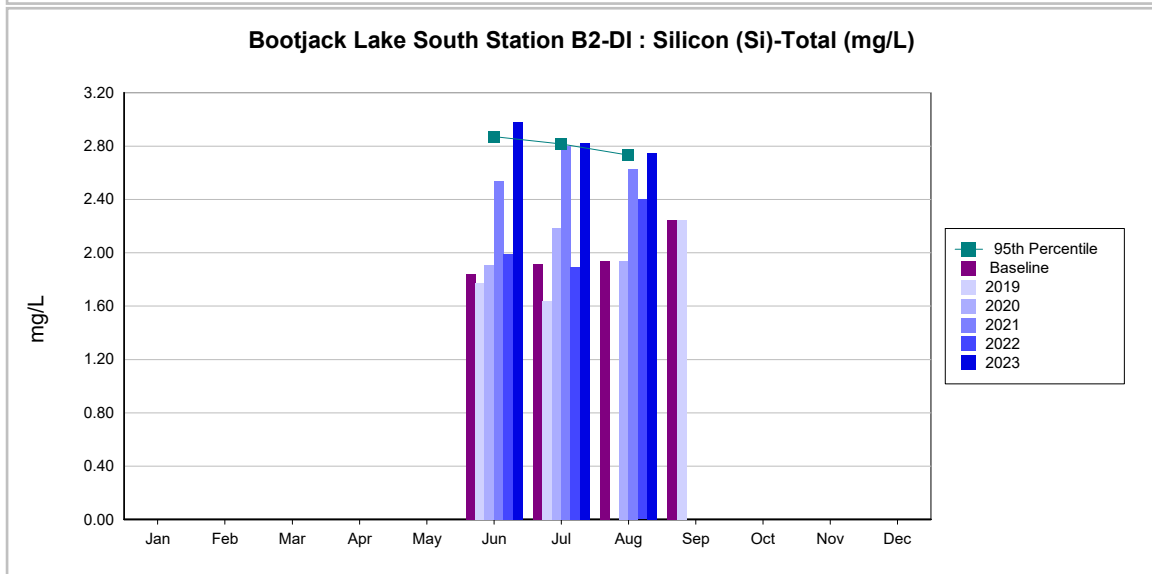
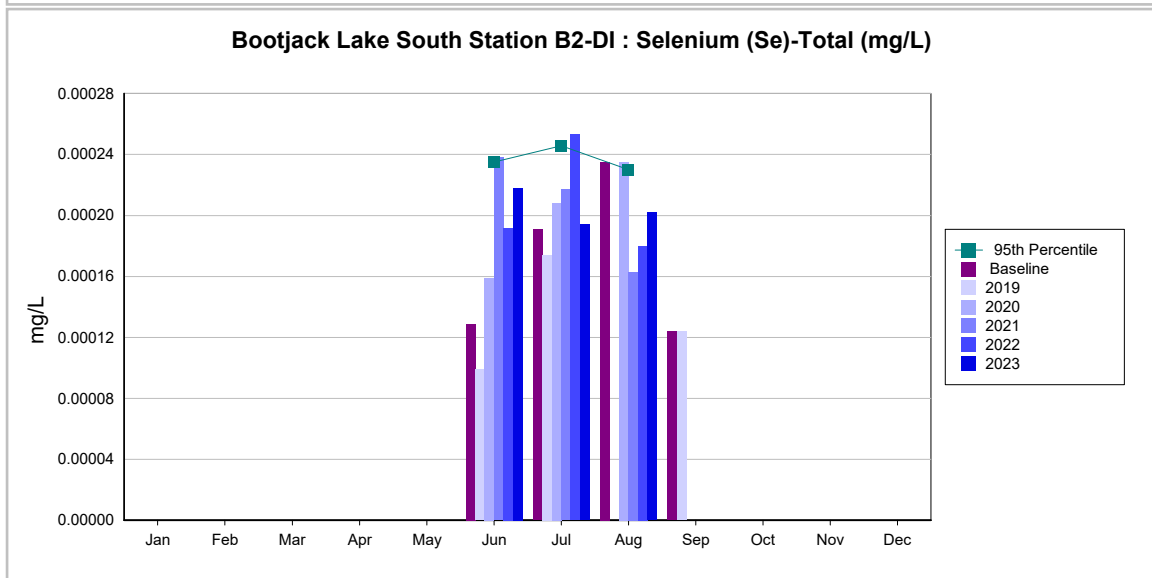
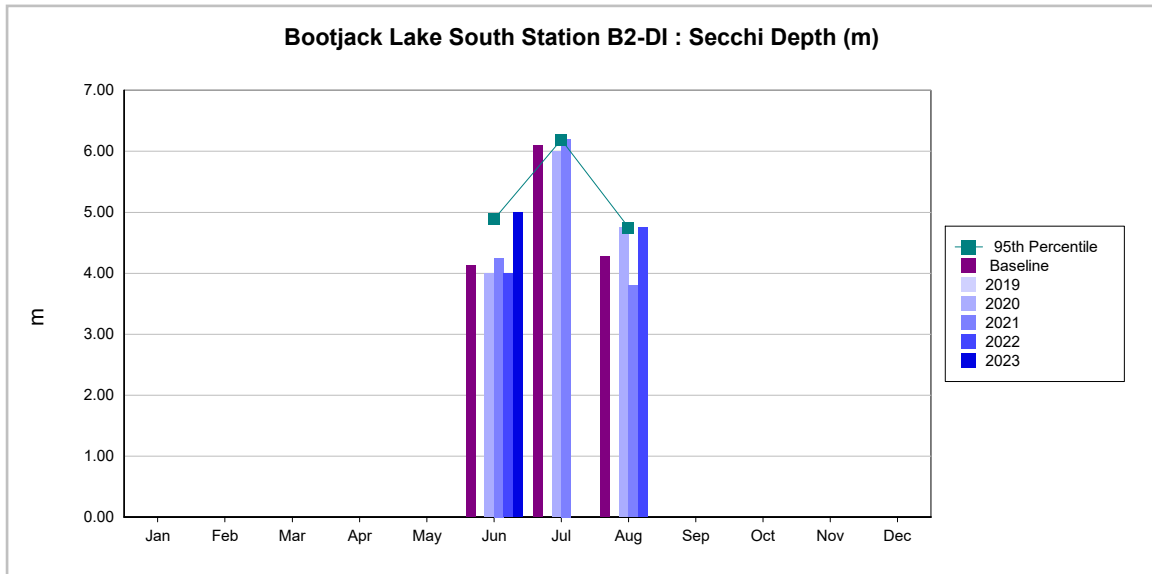
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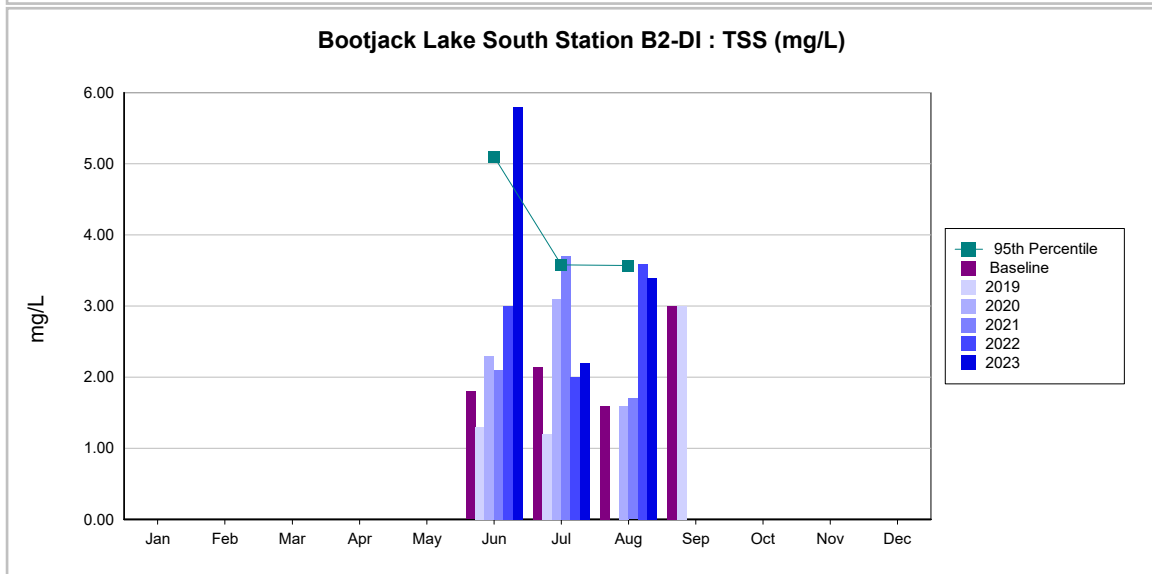
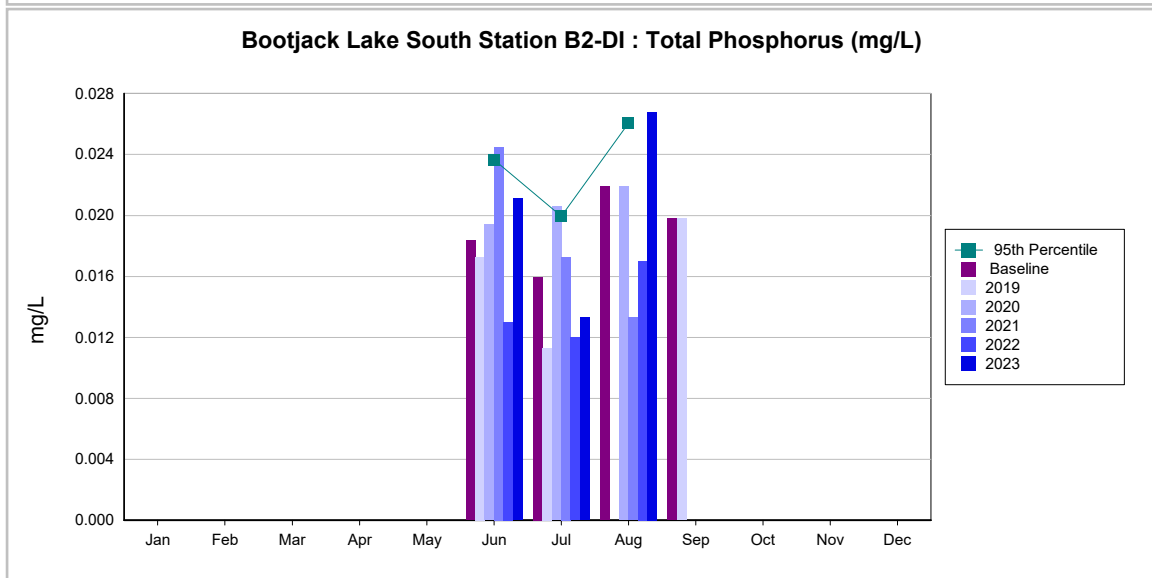
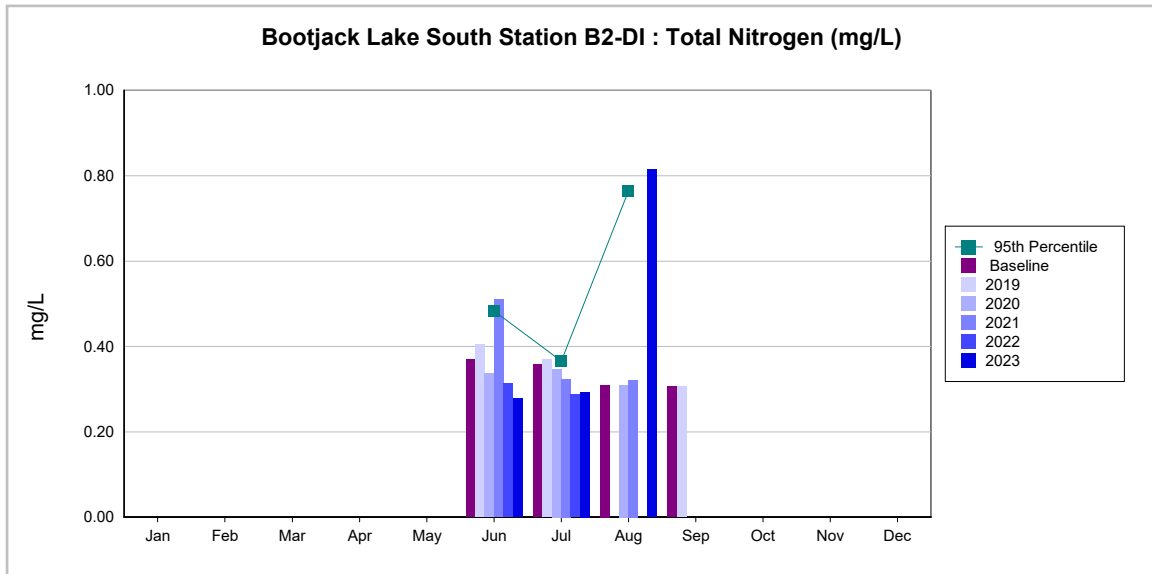
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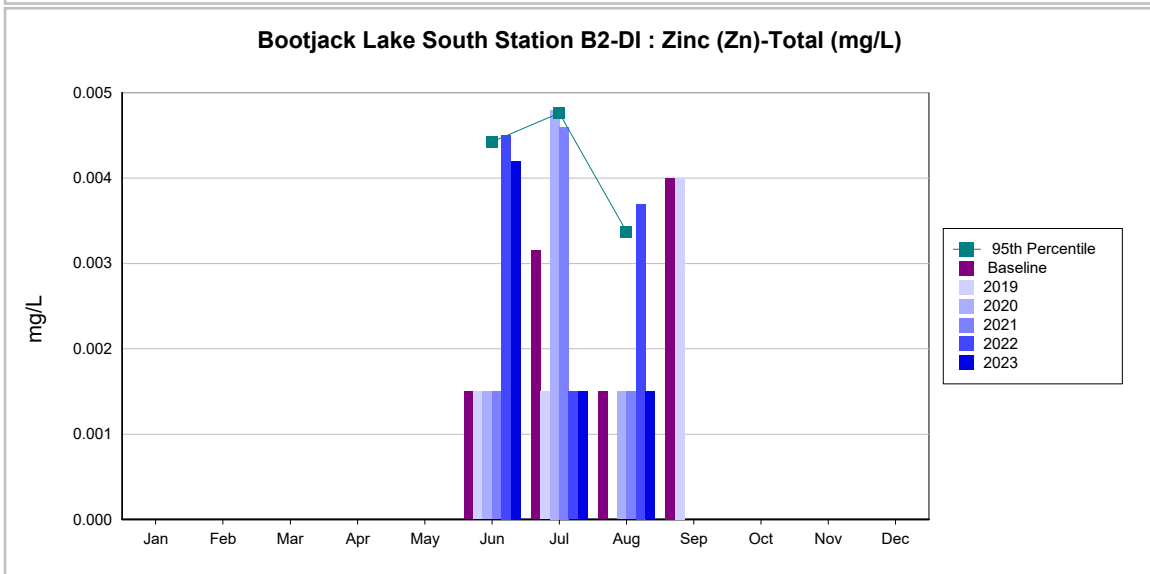
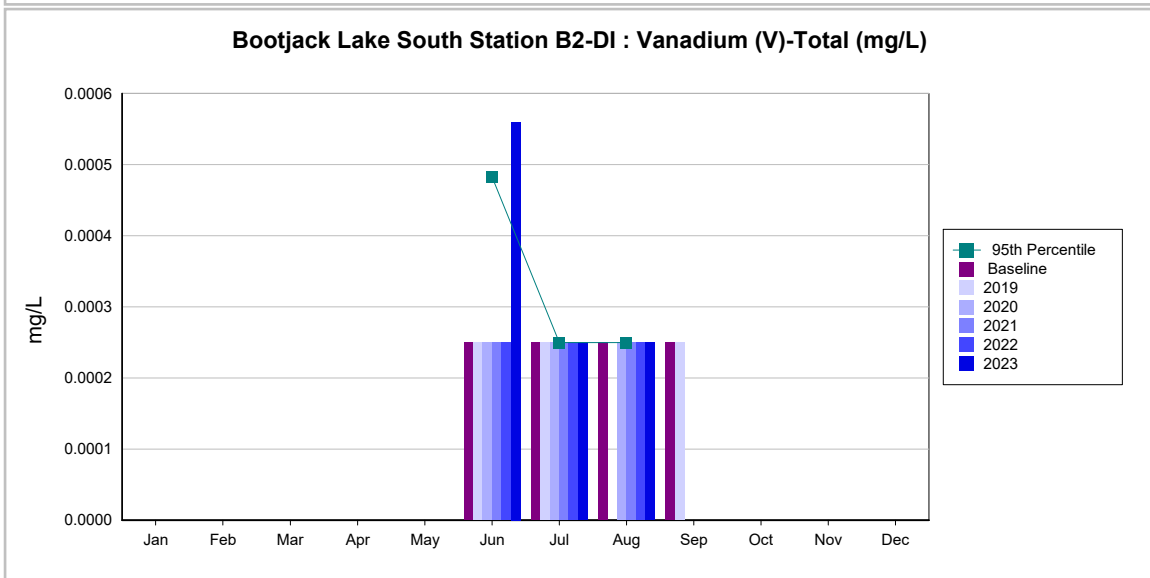
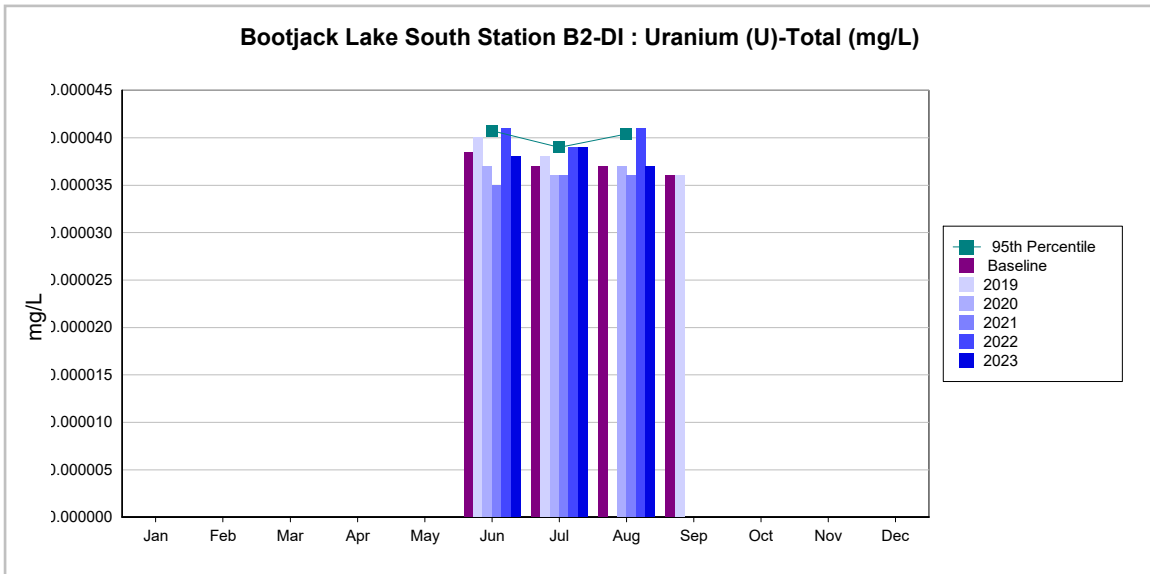
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Grid Format Report : Bootjack Lake North Station B1- Mid

From 1 Jan 2019 to 31 Dec 2023

Printed : 2024-02-08



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	: B1- Mid										
	23-Oct-19	4-Jun-20	30-Sep-20	27-Oct-20	28-Sep-21	19-Oct-21	1-Nov-21	24-May-22	26-Oct-22	24-May-23	10-Oct-23
Anions and Nutrients											
Alkalinity (CaCO3) (mg/L)	42.8	39.3	40.6	41.7	44.4	43.2	41.6	40.9	40.9	40.1	44.0
Ammonia (as N) (mg/L)	<0.0050	<0.0050	0.0071	<0.0050	0.0085	0.0072	<0.0050	<0.0050	0.0234	<0.0050	0.0066
Chloride (mg/L)	0.92	0.78	0.73	0.74	0.66	0.68	0.70	0.62	0.57	0.54	0.55
Diss-Orthophosphate (mg/L)	0.0017	0.0013	0.0014	0.0014	0.0052	0.0033	<0.0010	<0.0010	0.0106	<0.0010	0.0016
Diss-Phosphorus (mg/L)	0.0068	0.0052	0.0086	0.0089	0.0072	0.0068	0.0069	0.0128	0.0136	0.0056	0.0077
Fluoride (mg/L)	0.065	0.055	0.062	0.060	0.049	0.060	0.063	0.050	0.052	0.052	0.060
Nitrate (N) (mg/L)	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Nitrate and Nitrite (mg/L)	<0.0051	<0.0500	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051
Nitrite (N) (mg/L)	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.0014	<0.0010	<0.0010
Sulphate (mg/L)	5.32	5.87	6.06	6.53	6.81	7.04	7.44	8.14	7.41	7.65	7.69
Total Nitrogen (mg/L)	0.364	0.330	0.330	0.314	0.273	0.258	0.258	0.228	0.317	0.323	0.335
Total Phosphorus (mg/L)	0.0224	0.0122	0.0147	0.0104	0.0141	0.0152	0.0138	0.0057	0.0260	0.0130	0.0238
Dissolved Metals											
Aluminum (Al)-Diss (mg/L)	<0.0030	0.0098	<0.0030	0.0062	<0.0030	<0.0030	<0.0030	0.0182	<0.0030	0.0064	<0.0030
Diss-Antimony (Sb) (mg/L)	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Diss-Arsenic (As) (mg/L)	0.00033	0.00031	0.00034	0.00035	0.00038	0.00035	0.00036	0.00026	0.00036	0.00031	0.00043
Diss-Barium (Ba) (mg/L)	0.0168	0.0167	0.0174	0.0168	0.0164	0.0167	0.0183	0.0152	0.0166	0.0143	0.0178
Diss-Beryllium (Be) (mg/L)	<0.00010	<0.00100	<0.00100	<0.00100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100
Diss-Bismuth (Bi) (mg/L)	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Diss-Boron (B) (mg/L)	0.047	0.042	0.042	0.045	0.042	0.043	0.041	0.043	0.046	0.045	0.050
Diss-Cadmium (Cd) (mg/L)	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050
Diss-Calcium (Ca) (mg/L)	13.7	13.8	14.4	13.4	13.6	14.3	13.9	13.2	15.0	14.3	15.6
Diss-Chromium (Cr) (mg/L)	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Diss-Cobalt (Co) (mg/L)	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Diss-Copper (Cu) (mg/L)	0.00160	0.00170	0.00199	0.00230	0.00199	0.00182	0.00201	0.00211	0.00173	0.00178	0.00184
Diss-Iron (Fe) (mg/L)	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	0.037	<0.030	<0.030
Diss-Lead (Pb) (mg/L)	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Diss-Lithium (Li) (mg/L)	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Diss-Magnesium (Mg) (mg/L)	2.50	2.42	2.34	2.47	2.39	2.54	2.56	2.05	2.50	2.42	2.83
Diss-Manganese (Mn) (mg/L)	0.0241	0.00028	0.0419	0.00367	0.0378	0.0310	0.0207	0.00585	0.0395	0.00035	0.0160
Diss-Molybdenum (Mo) (mg/L)	0.000891	0.000784	0.000971	0.000996	0.000950	0.000938	0.000916	0.000773	0.000955	0.000790	0.00102
Diss-Nickel (Ni) (mg/L)	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Diss-Potassium (K) (mg/L)	0.449	0.482	0.444	0.474	0.485	0.473	0.493	0.423	0.474	0.445	0.494
Diss-Selenium (mg/L)	0.000146	0.000206	0.000390	0.000233	0.000178	0.000211	0.000238	0.000202	0.000256	0.000134	0.000168

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Mining Corporation

IMPERIAL METALS CORPORATION

	: B1- Mid										
	23-Oct-19	4-Jun-20	30-Sep-20	27-Oct-20	28-Sep-21	19-Oct-21	1-Nov-21	24-May-22	26-Oct-22	24-May-23	10-Oct-23
Diss-Silicon (Si) (mg/L)	1.30	1.72	1.66	1.77	2.14	2.26	1.61	1.77	2.00	2.46	1.86
Diss-Silver (Ag) (mg/L)	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Diss-Sodium (Na) (mg/L)	2.64	2.46	2.40	2.57	2.48	2.54	2.62	2.23	2.33	2.26	2.70
Diss-Strontium (Sr) (mg/L)	0.127	0.128	0.130	0.138	0.133	0.131	0.134	0.120	0.130	0.121	0.140
Diss-Thallium (Tl) (mg/L)	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Diss-Tin (Sn) (mg/L)	<0.00010	<0.00010	<0.00010	0.00014	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Diss-Titanium (Ti) (mg/L)	<0.010	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100
Diss-Uranium (U) (mg/L)	0.000041	0.000031	0.000039	0.000038	0.000039	0.000042	0.000039	0.000041	0.000035	0.000035	0.000040
Diss-Vanadium (V) (mg/L)	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Diss-Zinc (Zn) (mg/L)	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030
TDS (mg/L)	63	76	92	73	87	70	71	54	78	84	75
Field Tests											
Cond (in situ) (µs/cm)	99	92.6	114.6	111.5	102.2	101.8	99.6	107.9	98.5	106.4	100.5
NTU - in situ (ntu)	0.81	0.57	1.61	2.14	1.05	1.29	0.96	0	1.09	0.68	0.94
pH (in situ) (pH)	7.54	7.58	7.73	7.72	6.88	7.15	8.06	7.26	7.35	7.62	6.58
Sample Depth (m)	6.5	6	6	8	7	9	8	9	8.5	6	7
Sample Taken	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Temp (in situ) (Degrees Celcius)	6.152	9.221	12.535	4.67	12.086	7.159	5.075	4.978	9.088	7.359	11.565
Organic / Inorganic											
DOC (mg/L)	5.97	6.83	7.08	6.35	6.86	7.33	7.08	7.62	7.20	7.69	6.99
Physical Test											
Conductivity (µs/cm)	98.3	97.2	98.4	97.8	102	104	97.9	95.9	96.7	96.9	104
Hardness (mg/L)	44.6	44.4	45.7	43.6	43.8	46.2	45.2	41.4	47.8	45.7	50.6
NTU (ntu)	0.98	0.84	1.56	1.11	1.12	0.98	1.26	1.05	1.39	0.47	1.64
pH (pH)	7.89	7.66	7.82	7.68	7.70	7.79	7.85	7.63	7.74	7.84	7.80
TDS (mg/L)	63	76	92	73	87	70	71	54	78	84	75
TSS (mg/L)	2.4	1.8	1.4	2.9	2.4	5.1	4.2	2.2	1.6	1.8	2.5
Total Metals											
Aluminum (Al)-Total (mg/L)	0.0296	0.0292	0.0090	0.0178	0.0168	0.0074	0.0205	0.0446	0.0264	0.0412	0.0172
Antimony (Sb)-Total (mg/L)	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Arsenic (As)-Total (mg/L)	0.00041	0.00032	0.00035	0.00037	0.00042	0.00038	0.00036	0.00028	0.00042	0.00033	0.00042
Barium (Ba)-Total (mg/L)	0.0184	0.0164	0.0164	0.0176	0.0182	0.0172	0.0177	0.0167	0.0188	0.0173	0.0172
Beryllium (Be)-Total (mg/L)	<0.00010	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100
Bismuth (Bi)-Total (mg/L)	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Boron (B)-Total (mg/L)	0.047	0.047	0.044	0.042	0.044	0.044	0.043	0.042	0.050	0.046	0.046

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	: B1- Mid						
	Sample (n)	Count >MDL	Min	Max	Mean	95th Percentile	St Dev
Anions and Nutrients							
Alkalinity (CaCO3) (mg/L)	11	11	39.30000	44.40000	41.77273		1.63713
Ammonia (as N) (mg/L)	11	5	0.00250	0.02340	0.00616		0.00621
Chloride (mg/L)	11	11	0.54000	0.92000	0.68091		0.11256
Diss-Orthophosphate (mg/L)	11	8	0.00050	0.01060	0.00255		0.00301
Diss-Phosphorus (mg/L)	11	11	0.00520	0.01360	0.00819		0.00271
Fluoride (mg/L)	11	11	0.04900	0.06500	0.05709		0.00565
Nitrate (N) (mg/L)	11	0	0.00250	0.00250	0.00250		0.00000
Nitrate and Nitrite (mg/L)	11	0	0.00255	0.02500	0.00459		0.00677
Nitrite (N) (mg/L)	11	1	0.00050	0.00140	0.00058		0.00027
Sulphate (mg/L)	11	11	5.32000	8.14000	6.90545		0.87767
Total Nitrogen (mg/L)	11	11	0.22800	0.36400	0.30273		0.04183
Total Phosphorus (mg/L)	11	11	0.00570	0.02600	0.01557		0.00609
Dissolved Metals							
Aluminum (Al)-Diss (mg/L)	11	4	0.00150	0.01820	0.00465		0.00534
Diss-Antimony (Sb) (mg/L)	11	0	0.00005	0.00005	0.00005		0.00000
Diss-Arsenic (As) (mg/L)	11	11	0.00026	0.00043	0.00034		0.00004
Diss-Barium (Ba) (mg/L)	11	11	0.01430	0.01830	0.01664		0.00111
Diss-Beryllium (Be) (mg/L)	11	0	0.00005	0.00050	0.00017		0.00021
Diss-Bismuth (Bi) (mg/L)	11	0	0.00003	0.00003	0.00003		0.00000
Diss-Boron (B) (mg/L)	11	11	0.04100	0.05000	0.04418		0.00271
Diss-Cadmium (Cd) (mg/L)	11	0	0.00000	0.00000	0.00000		0.00000
Diss-Calcium (Ca) (mg/L)	11	11	13.20000	15.60000	14.10909		0.71198
Diss-Chromium (Cr) (mg/L)	11	0	0.00025	0.00025	0.00025		0.00000
Diss-Cobalt (Co) (mg/L)	11	0	0.00005	0.00005	0.00005		0.00000
Diss-Copper (Cu) (mg/L)	11	11	0.00160	0.00230	0.00190		0.00020
Diss-Iron (Fe) (mg/L)	11	1	0.01500	0.03700	0.01700		0.00663
Diss-Lead (Pb) (mg/L)	11	0	0.00003	0.00003	0.00003		0.00000
Diss-Lithium (Li) (mg/L)	11	0	0.00050	0.00050	0.00050		0.00000
Diss-Magnesium (Mg) (mg/L)	11	11	2.05000	2.83000	2.45636		0.18629
Diss-Manganese (Mn) (mg/L)	11	11	0.00028	0.04190	0.02010		0.01604
Diss-Molybdenum (Mo) (mg/L)	11	11	0.00077	0.00102	0.00091		0.00009
Diss-Nickel (Ni) (mg/L)	11	0	0.00025	0.00025	0.00025		0.00000
Diss-Potassium (K) (mg/L)	11	11	0.42300	0.49400	0.46691		0.02315

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Sample (n)	Count >MDL	Min	Max	Mean	95th Percentile	St Dev
Diss-Selenium (mg/L)	11	11	0.00013	0.00039	0.00021	0.00007
Diss-Silicon (Si) (mg/L)	11	11	1.30000	2.46000	1.86818	0.32698
Diss-Silver (Ag) (mg/L)	11	0	0.00001	0.00001	0.00001	0.00000
Diss-Sodium (Na) (mg/L)	11	11	2.23000	2.70000	2.47545	0.15661
Diss-Strontium (Sr) (mg/L)	11	11	0.12000	0.14000	0.13018	0.00619
Diss-Thallium (Tl) (mg/L)	11	0	0.00001	0.00001	0.00001	0.00000
Diss-Tin (Sn) (mg/L)	11	1	0.00005	0.00014	0.00006	0.00003
Diss-Titanium (Ti) (mg/L)	11	0	0.00500	0.00500	0.00500	0.00000
Diss-Uranium (U) (mg/L)	11	11	0.00003	0.00004	0.00004	0.00000
Diss-Vanadium (V) (mg/L)	11	0	0.00025	0.00025	0.00025	0.00000
Diss-Zinc (Zn) (mg/L)	11	0	0.00150	0.00150	0.00150	0.00000
TDS (mg/L)	11	11	54.00000	92.00000	74.81818	10.74075
Field Tests						
Cond (in situ) (µs/cm)	11	11	92.60000	114.60000	103.14545	6.37532
NTU - in situ (ntu)	11	11	0.00000	2.14000	1.01273	0.55617
pH (in situ) (pH)	11	11	6.58000	8.06000	7.40636	0.42122
Sample Depth (m)	11	11	6.00000	9.00000	7.36364	1.18514
Sample Taken						
Temp (in situ) (Degrees Celcius)	11	11	4.67000	12.53500	8.17164	2.92629
Organic / Inorganic						
DOC (mg/L)	11	11	5.97000	7.69000	7.00000	0.50539
Physical Test						
Conductivity (µs/cm)	11	11	95.90000	104.00000	99.00909	2.91632
Hardness (mg/L)	11	11	41.40000	50.60000	45.36364	2.38926
NTU (ntu)	11	11	0.47000	1.64000	1.12727	0.33182
pH (pH)	11	11	7.63000	7.89000	7.76364	0.08640
TDS (mg/L)	11	11	54.00000	92.00000	74.81818	10.74075
TSS (mg/L)	11	11	1.40000	5.10000	2.57273	1.13410
Total Metals						
Aluminum (Al)-Total (mg/L)	11	11	0.00740	0.04460	0.02361	0.01197
Antimony (Sb)-Total (mg/L)	11	0	0.00005	0.00005	0.00005	0.00000
Arsenic (As)-Total (mg/L)	11	11	0.00028	0.00042	0.00037	0.00005
Barium (Ba)-Total (mg/L)	11	11	0.01640	0.01880	0.01745	0.00079
Beryllium (Be)-Total (mg/L)	11	0	0.00005	0.00005	0.00005	0.00000
Bismuth (Bi)-Total (mg/L)	11	0	0.00003	0.00003	0.00003	0.00000

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	: B1- Mid						
	Sample (n)	Count >MDL	Min	Max	Mean	95th Percentile	St Dev
Boron (B)-Total (mg/L)	11	11	0.04200	0.05000	0.04500		0.00245
Cadmium (Cd)-Total (mg/L)	11	0	0.00000	0.00000	0.00000		0.00000
Calcium (Ca)-Total (mg/L)	11	11	12.80000	15.20000	13.80000		0.67971
Chromium (Cr)-Total (mg/L)	11	0	0.00025	0.00025	0.00025		0.00000
Cobalt (Co)-Total (mg/L)	11	0	0.00005	0.00005	0.00005		0.00000
Copper (Cu)-Total (mg/L)	11	11	0.00197	0.01320	0.00332		0.00329
Iron (Fe)-Total (mg/L)	11	11	0.04900	0.13100	0.08155		0.02419
Lead (Pb)-Total (mg/L)	11	1	0.00003	0.00007	0.00003		0.00001
Lithium (Li)-Total (mg/L)	11	0	0.00050	0.00050	0.00050		0.00000
Magnesium (Mg)-Total (mg/L)	11	11	2.33000	2.76000	2.52455		0.12461
Manganese (Mn)-Total (mg/L)	11	11	0.01240	0.08170	0.04484		0.01973
Molybdenum (Mo)-Total (mg/L)	11	11	0.00074	0.00100	0.00091		0.00009
Nickel (Ni)-Total (mg/L)	11	0	0.00025	0.00025	0.00025		0.00000
Potassium (K)-Total (mg/L)	11	11	0.43600	0.50700	0.47273		0.02201
Selenium (Se)-Total (mg/L)	11	11	0.00012	0.00027	0.00021		0.00004
Silicon (Si)-Total (mg/L)	11	11	1.53000	2.63000	2.04273		0.34667
Silver (Ag)-Total (mg/L)	11	0	0.00001	0.00001	0.00001		0.00000
Sodium (Na)-Total (mg/L)	11	11	2.22000	2.62000	2.43182		0.13977
Strontium (Sr)-Total (mg/L)	11	11	0.11600	0.13600	0.12691		0.00683
Thallium (Tl)-Total (mg/L)	11	0	0.00001	0.00001	0.00001		0.00000
Tin (Sn)-Total (mg/L)	11	0	0.00005	0.00005	0.00005		0.00000
Titanium (Ti)-Total (mg/L)	11	0	0.00500	0.00500	0.00500		0.00000
Uranium (U)-Total (mg/L)	11	11	0.00004	0.00005	0.00004		0.00000
Vanadium (V)-Total (mg/L)	11	1	0.00025	0.00058	0.00028		0.00010
Zinc (Zn)-Total (mg/L)	11	1	0.00150	0.00710	0.00201		0.00169

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Mining Corporation

IMPERIAL METALS CORPORATION

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	22-May-19	29-Aug-19	16-Sep-19	14-Jul-20	19-Aug-20	9-Sep-20	26-May-21	10-Jun-21	15-Jul-21	24-Aug-21	16-Jun-22	11-Jul-22	24-Aug-22	19-Sep-22	8-Jun-23
Anions and Nutrients															
Alkalinity (CaCO3) (mg/L)	42.8	41.8	41.6	41.2	38.6	39.7	39.0	40.7	42.2	41.7	39.8	40.3	39.1	40.1	40.4
Ammonia (as N) (mg/L)	0.0066	0.0056	<0.0050	<0.0050	<0.0050	0.0064	<0.0050	0.0100	0.0131	<0.0050	<0.0050	0.0066	<0.0050	<0.0050	0.0162
Chloride (mg/L)	0.93	0.88	0.89	0.75	0.72	0.74	0.64	0.65	0.68	0.69	0.58	0.54	0.58	0.60	0.59
Diss-Orthophosphate (mg/L)	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.0018	0.0015	0.0013	<0.0010	0.0022	0.0015	0.0015	<0.0010	0.0011	<0.0010
Diss-Phosphorus (mg/L)	0.0056	0.0045	0.0032	0.0040	0.0025	0.0042	0.0026	0.0096	0.0041	0.0087	0.0051	0.0034	0.0029	<0.0020	0.0059
Fluoride (mg/L)	0.057	0.058	0.062	0.058	0.056	0.057	0.048	0.055	0.059	0.050	0.052	0.050	0.058	0.059	0.060
Nitrate (N) (mg/L)	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Nitrate and Nitrite (mg/L)	<0.0051	<0.0051	<0.0051	<0.0500	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051
Nitrite (N) (mg/L)	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Sulphate (mg/L)	5.01	4.85	5.07	5.74	5.80	5.72	6.62	6.63	6.95	6.75	7.12	6.89	7.52	8.03	8.12
Total Nitrogen (mg/L)	0.456	0.295	0.290	0.276	0.312	0.300	0.329	0.801	0.275	0.313	0.259	0.264	0.253	0.295	0.262
Total Phosphorus (mg/L)	0.0192	0.0085	0.0101	0.0130	0.0074	0.0308	0.0715	0.0858	0.0071	0.0171	0.0115	0.0090	0.0137	0.0060	0.0105
Dissolved Metals															
Aluminum (Al)-Diss (mg/L)	0.0050	0.0033	<0.0030	0.0093	0.0074	0.0040	0.0104	0.0071	0.0040	0.0032	0.0118	0.0090	0.0045	0.0032	0.0096
Diss-Antimony (Sb) (mg/L)	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Diss-Arsenic (As) (mg/L)	0.00027	0.00034	0.00035	0.00029	0.00033	0.00033	0.00028	0.00027	0.00033	0.00032	0.00024	0.00027	0.00034	0.00034	0.00031
Diss-Barium (Ba) (mg/L)	0.0165	0.0187	0.0171	0.0160	0.0165	0.0154	0.0157	0.0157	0.0159	0.0159	0.0163	0.0153	0.0142	0.0165	0.0167
Diss-Beryllium (Be) (mg/L)	<0.00010	<0.00010	<0.00010	<0.00100	<0.00100	<0.00100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100
Diss-Bismuth (Bi) (mg/L)	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Diss-Boron (B) (mg/L)	0.046	0.049	0.048	0.040	0.044	0.045	0.045	0.044	0.043	0.047	0.041	0.044	0.040	0.036	0.043
Diss-Cadmium (Cd) (mg/L)	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050
Diss-Calcium (Ca) (mg/L)	13.3	15.0	13.8	13.8	13.5	13.6	13.4	13.3	13.7	13.5	13.3	13.2	13.3	11.7	13.7
Diss-Chromium (Cr) (mg/L)	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Diss-Cobalt (Co) (mg/L)	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Diss-Copper (Cu) (mg/L)	0.00157	0.00188	0.00181	0.00179	0.00224	0.00202	0.00191	0.00175	0.00195	0.00193	0.00193	0.00213	0.00195	0.00174	0.00207
Diss-Iron (Fe) (mg/L)	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030
Diss-Lead (Pb) (mg/L)	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	0.000053	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Diss-Lithium (Li) (mg/L)	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Diss-Magnesium (Mg) (mg/L)	2.51	2.63	2.51	2.37	2.42	2.57	2.43	2.43	2.53	2.45	2.36	2.46	2.48	2.61	2.60
Diss-Manganese (Mn) (mg/L)	0.00036	0.00017	0.00699	0.00796	0.00157	0.00355	0.0102	0.0152	0.00166	0.00498	0.00258	0.0110	0.00231	0.00021	0.00275
Diss-Molybdenum (Mo) (mg/L)	0.000783	0.000955	0.000926	0.000848	0.000860	0.000861	0.000762	0.000755	0.000872	0.000912	0.000738	0.000798	0.000877	0.000800	0.000745
Diss-Nickel (Ni) (mg/L)	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Diss-Potassium (K) (mg/L)	0.517	0.465	0.463	0.440	0.446	0.452	0.470	0.490	0.497	0.495	0.459	0.452	0.432	0.492	0.458
Diss-Selenium (mg/L)	0.000061	0.000100	0.000126	0.000153	0.000205	0.000228	0.000212	0.000174	0.000229	0.000206	0.000215	0.000167	0.000228	0.000229	0.000212

	E207972 : B1-AT		
	12-Jul-23	23-Aug-23	7-Sep-23
Anions and Nutrients			
Alkalinity (CaCO3) (mg/L)	41.4	41.9	43.1
Ammonia (as N) (mg/L)	<0.0050	0.0104	0.0056
Chloride (mg/L)	0.53	0.53	0.51
Diss-Orthophosphate (mg/L)	<0.0010	<0.0010	<0.0010
Diss-Phosphorus (mg/L)	0.0041	0.0049	0.0048
Fluoride (mg/L)	0.058	0.056	0.052
Nitrate (N) (mg/L)	<0.0050	<0.0050	<0.0050
Nitrate and Nitrite (mg/L)	<0.0051	<0.0051	<0.0051
Nitrite (N) (mg/L)	<0.0010	<0.0010	<0.0010
Sulphate (mg/L)	7.92	7.73	7.08
Total Nitrogen (mg/L)	0.273	0.282	0.271
Total Phosphorus (mg/L)	0.0069	0.0072	0.0115
Dissolved Metals			
Aluminum (Al)-Diss (mg/L)	0.0086	<0.0030	0.0053
Diss-Antimony (Sb) (mg/L)	<0.00010	<0.00010	<0.00010
Diss-Arsenic (As) (mg/L)	0.00035	0.00036	0.00037
Diss-Barium (Ba) (mg/L)	0.0168	0.0157	0.0163
Diss-Beryllium (Be) (mg/L)	<0.000100	<0.000100	<0.000100
Diss-Bismuth (Bi) (mg/L)	<0.000050	<0.000050	<0.000050
Diss-Boron (B) (mg/L)	0.042	0.044	0.046
Diss-Cadmium (Cd) (mg/L)	<0.0000050	<0.0000050	<0.0000050
Diss-Calcium (Ca) (mg/L)	13.7	13.4	14.0
Diss-Chromium (Cr) (mg/L)	<0.00050	<0.00050	<0.00050
Diss-Cobalt (Co) (mg/L)	<0.00010	<0.00010	<0.00010
Diss-Copper (Cu) (mg/L)	0.00220	0.00182	0.00190
Diss-Iron (Fe) (mg/L)	<0.030	<0.030	<0.030
Diss-Lead (Pb) (mg/L)	<0.000050	<0.000050	<0.000050
Diss-Lithium (Li) (mg/L)	<0.0010	<0.0010	<0.0010
Diss-Magnesium (Mg) (mg/L)	2.61	2.67	2.60
Diss-Manganese (Mn) (mg/L)	0.00405	0.00149	0.00429
Diss-Molybdenum (Mo) (mg/L)	0.000834	0.000971	0.000890
Diss-Nickel (Ni) (mg/L)	<0.00050	<0.00050	<0.00050
Diss-Potassium (K) (mg/L)	0.450	0.441	0.461
Diss-Selenium (mg/L)	0.000207	0.000186	0.000173

Grid Format Report : Bootjack Lake North Station B1-AT

From 1 Jan 2019 to 31 Dec 2023

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Mount Polley

Mining Corporation

IMPERIAL METALS CORPORATION

E207972 : B1-AT															
	22-May-19	29-Aug-19	16-Sep-19	14-Jul-20	19-Aug-20	9-Sep-20	26-May-21	10-Jun-21	15-Jul-21	24-Aug-21	16-Jun-22	11-Jul-22	24-Aug-22	19-Sep-22	8-Jun-23
Diss-Silicon (Si) (mg/L)	1.48	1.36	1.41	1.38	1.37	1.47	2.39	2.12	1.95	2.16	1.82	1.53	1.53	1.52	2.80
Diss-Silver (Ag) (mg/L)	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Diss-Sodium (Na) (mg/L)	2.54	2.62	2.58	2.60	2.41	2.52	2.64	2.46	2.56	2.48	2.22	2.31	2.37	2.46	2.42
Diss-Strontium (Sr) (mg/L)	0.127	0.142	0.129	0.132	0.127	0.136	0.128	0.119	0.133	0.128	0.123	0.124	0.126	0.115	0.125
Diss-Thallium (Tl) (mg/L)	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Diss-Tin (Sn) (mg/L)	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Diss-Titanium (Ti) (mg/L)	<0.010	<0.010	<0.010	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100
Diss-Uranium (U) (mg/L)	0.000034	0.000042	0.000044	0.000038	0.000044	0.000038	0.000036	0.000039	0.000040	0.000039	0.000037	0.000041	0.000040	0.000038	0.000031
Diss-Vanadium (V) (mg/L)	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Diss-Zinc (Zn) (mg/L)	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030
TDS (mg/L)	71	74	84	73	71	46	73	82	72	78	68	95	76	82	68
Field Tests															
Cond (in situ) (µs/cm)	95.6	95.5	98.2	92.9	99.5	107.2	93.9	95.5	97	100.7	95.1	94.8	96.4	97.3	109.5
NTU - in situ (ntu)	0.55	0.51	0.32	0.29	0	1.68	0.15	0.92	0	0.35	0.97	0.33	0	1.22	0.02
pH (in situ) (pH)	7.27	7.91	7.72	7.86	8.1	7.87	7.58	7.68	8.1	7.57	7.64	7.88	8.09	7.61	7.93
Sample Depth (m)	9	5	7	5	5	6	3	4	4	5	5	3	5	6	5
Sample Taken	Yes	Yes	Yes	Yes	Yes	Yes	yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Temp (in situ) (Degrees Celcius)	6.069	16.612	15.075	15.175	17.624	15.457	12.286	10.056	15.105	16.865	13.195	17.982	19.729	14.864	11.864
Organic / Inorganic															
DOC (mg/L)	7.76	6.30	5.97	7.06	7.03	6.59	7.08	7.23	7.04	7.41	6.74	7.30	7.24	5.95	6.98
Physical Test															
Conductivity (µs/cm)	93.8	97.0	97.3	94.0	96.5	95.1	95.4	96.1	95.8	98.9	93.8	92.4	99.6	96.3	98.3
Hardness (mg/L)	43.7	48.3	44.8	44.4	43.6	44.5	43.5	43.2	44.6	43.8	42.9	43.1	43.4	40.0	44.9
NTU (ntu)	0.93	0.35	0.95	0.46	0.43	0.60	0.46	0.56	0.29	0.34	0.54	0.40	0.38	0.76	0.24
pH (pH)	7.77	7.85	7.84	7.58	7.85	7.81	7.75	7.82	7.81	7.84	7.67	7.85	7.92	7.81	7.41
TDS (mg/L)	71	74	84	73	71	46	73	82	72	78	68	95	76	82	68
TSS (mg/L)	1.8	<1.0	1.4	<1.0	1.4	1.8	3.2	2.3	2.1	<1.0	2.3	<1.0	<1.0	1.1	1.8
Total Metals															
Aluminum (Al)-Total (mg/L)	0.0203	0.0159	0.0146	0.0152	0.0140	0.0094	0.0219	0.0156	0.0076	0.0074	0.0310	0.0206	0.0085	0.0146	0.0206
Antimony (Sb)-Total (mg/L)	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Arsenic (As)-Total (mg/L)	0.00030	0.00038	0.00040	0.00025	0.00032	0.00038	0.00030	0.00031	0.00036	0.00038	0.00028	0.00033	0.00034	0.00035	0.00032
Barium (Ba)-Total (mg/L)	0.0163	0.0160	0.0164	0.0142	0.0159	0.0171	0.0160	0.0162	0.0166	0.0175	0.0158	0.0160	0.0161	0.0173	0.0172
Beryllium (Be)-Total (mg/L)	<0.00010	<0.00010	<0.00010	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100
Bismuth (Bi)-Total (mg/L)	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Boron (B)-Total (mg/L)	0.045	0.048	0.049	0.043	0.043	0.047	0.042	0.041	0.044	0.043	0.046	0.045	0.044	0.041	0.043

	E207972 : B1-AT		
	12-Jul-23	23-Aug-23	7-Sep-23
Diss-Silicon (Si) (mg/L)	2.02	2.00	2.01
Diss-Silver (Ag) (mg/L)	<0.000010	<0.000010	<0.000010
Diss-Sodium (Na) (mg/L)	2.50	2.50	2.72
Diss-Strontium (Sr) (mg/L)	0.132	0.128	0.139
Diss-Thallium (Tl) (mg/L)	<0.000010	<0.000010	<0.000010
Diss-Tin (Sn) (mg/L)	<0.00010	<0.00010	<0.00010
Diss-Titanium (Ti) (mg/L)	<0.0100	<0.0100	<0.0100
Diss-Uranium (U) (mg/L)	0.000038	0.000044	0.000041
Diss-Vanadium (V) (mg/L)	<0.00050	<0.00050	<0.00050
Diss-Zinc (Zn) (mg/L)	<0.0030	<0.0030	<0.0030
TDS (mg/L)	78	76	87
Field Tests			
Cond (in situ) (µs/cm)	96.9	98.9	101.9
NTU - in situ (ntu)		0.49	0.4
pH (in situ) (pH)	8.15	8.04	6.76
Sample Depth (m)	3.5	3.5	7
Sample Taken			
Temp (in situ) (Degrees Celcius)	18.59	18.045	16.194
Organic / Inorganic			
DOC (mg/L)	7.25	7.24	7.38
Physical Test			
Conductivity (µs/cm)	102	102	104
Hardness (mg/L)	45.0	44.4	45.7
NTU (ntu)	0.72	0.44	0.95
pH (pH)	7.96	7.95	7.75
TDS (mg/L)	78	76	87
TSS (mg/L)	<1.0	1.8	<1.0
Total Metals			
Aluminum (Al)-Total (mg/L)	0.0099	0.0073	0.0100
Antimony (Sb)-Total (mg/L)	<0.00010	<0.00010	<0.00010
Arsenic (As)-Total (mg/L)	0.00038	0.00037	0.00039
Barium (Ba)-Total (mg/L)	0.0161	0.0159	0.0168
Beryllium (Be)-Total (mg/L)	<0.000100	<0.000100	<0.000100
Bismuth (Bi)-Total (mg/L)	<0.000050	<0.000050	<0.000050
Boron (B)-Total (mg/L)	0.044	0.049	0.044

	E207972 : B1-AT		
	12-Jul-23	23-Aug-23	7-Sep-23
Cadmium (Cd)-Total (mg/L)	<0.0000050	<0.0000050	<0.0000050
Calcium (Ca)-Total (mg/L)	14.5	14.1	13.9
Chromium (Cr)-Total (mg/L)	<0.00050	<0.00050	<0.00050
Cobalt (Co)-Total (mg/L)	<0.00010	<0.00010	<0.00010
Copper (Cu)-Total (mg/L)	0.00213	0.00203	0.00210
Iron (Fe)-Total (mg/L)	<0.030	<0.030	0.046
Lead (Pb)-Total (mg/L)	<0.000050	<0.000050	<0.000050
Lithium (Li)-Total (mg/L)	<0.0010	<0.0010	<0.0010
Magnesium (Mg)-Total (mg/L)	2.65	2.68	2.63
Manganese (Mn)-Total (mg/L)	0.0141	0.0125	0.0183
Molybdenum (Mo)-Total (mg/L)	0.000895	0.00100	0.000936
Nickel (Ni)-Total (mg/L)	<0.00050	<0.00050	<0.00050
Potassium (K)-Total (mg/L)	0.471	0.431	0.454
Selenium (Se)-Total (mg/L)	0.000209	0.000205	0.000204
Silicon (Si)-Total (mg/L)	2.17	2.05	2.08
Silver (Ag)-Total (mg/L)	<0.000010	<0.000010	<0.000010
Sodium (Na)-Total (mg/L)	2.48	2.54	2.69
Strontium (Sr)-Total (mg/L)	0.137	0.135	0.138
Thallium (Tl)-Total (mg/L)	<0.000010	<0.000010	<0.000010
Tin (Sn)-Total (mg/L)	<0.00010	<0.00010	<0.00010
Titanium (Ti)-Total (mg/L)	<0.0100	<0.0100	<0.0100
Uranium (U)-Total (mg/L)	0.000044	0.000044	0.000044
Vanadium (V)-Total (mg/L)	<0.00050	<0.00050	<0.00050
Zinc (Zn)-Total (mg/L)	<0.0030	<0.0030	<0.0030

Grid Format Report : Bootjack Lake North Station B1-AT

From 1 Jan 2019 to 31 Dec 2023

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Mount Polley

Mining Corporation

IMPERIAL METALS CORPORATION

	E207972 : B1-AT						
	Sample (n)	Count >MDL	Min	Max	Mean	95th Percentile	St Dev
Anions and Nutrients							
Alkalinity (CaCO3) (mg/L)	18	18	38.60000	43.10000	40.85556		1.31651
Ammonia (as N) (mg/L)	18	9	0.00250	0.01620	0.00572		0.00420
Chloride (mg/L)	18	18	0.51000	0.93000	0.66833		0.12944
Diss-Orthophosphate (mg/L)	18	7	0.00050	0.00220	0.00091		0.00057
Diss-Phosphorus (mg/L)	18	17	0.00100	0.00960	0.00451		0.00208
Fluoride (mg/L)	18	18	0.04800	0.06200	0.05583		0.00388
Nitrate (N) (mg/L)	18	0	0.00250	0.00250	0.00250		0.00000
Nitrate and Nitrite (mg/L)	18	0	0.00255	0.02500	0.00380		0.00529
Nitrite (N) (mg/L)	18	0	0.00050	0.00050	0.00050		0.00000
Sulphate (mg/L)	18	18	4.85000	8.12000	6.64167		1.05737
Total Nitrogen (mg/L)	18	18	0.25300	0.80100	0.32256		0.12770
Total Phosphorus (mg/L)	18	18	0.00600	0.08580	0.01927		0.02253
Dissolved Metals							
Aluminum (Al)-Diss (mg/L)	18	16	0.00150	0.01180	0.00604		0.00317
Diss-Antimony (Sb) (mg/L)	18	0	0.00005	0.00005	0.00005		0.00000
Diss-Arsenic (As) (mg/L)	18	18	0.00024	0.00037	0.00032		0.00004
Diss-Barium (Ba) (mg/L)	18	18	0.01420	0.01870	0.01618		0.00092
Diss-Beryllium (Be) (mg/L)	18	0	0.00005	0.00050	0.00013		0.00017
Diss-Bismuth (Bi) (mg/L)	18	0	0.00003	0.00003	0.00003		0.00000
Diss-Boron (B) (mg/L)	18	18	0.03600	0.04900	0.04372		0.00316
Diss-Cadmium (Cd) (mg/L)	18	0	0.00000	0.00000	0.00000		0.00000
Diss-Calcium (Ca) (mg/L)	18	18	11.70000	15.00000	13.51111		0.60962
Diss-Chromium (Cr) (mg/L)	18	0	0.00025	0.00025	0.00025		0.00000
Diss-Cobalt (Co) (mg/L)	18	0	0.00005	0.00005	0.00005		0.00000
Diss-Copper (Cu) (mg/L)	18	18	0.00157	0.00224	0.00192		0.00017
Diss-Iron (Fe) (mg/L)	18	0	0.01500	0.01500	0.01500		0.00000
Diss-Lead (Pb) (mg/L)	18	1	0.00003	0.00005	0.00003		0.00001
Diss-Lithium (Li) (mg/L)	18	0	0.00050	0.00050	0.00050		0.00000
Diss-Magnesium (Mg) (mg/L)	18	18	2.36000	2.67000	2.51333		0.09393
Diss-Manganese (Mn) (mg/L)	18	18	0.00017	0.01520	0.00452		0.00420
Diss-Molybdenum (Mo) (mg/L)	18	18	0.00074	0.00097	0.00084		0.00007
Diss-Nickel (Ni) (mg/L)	18	0	0.00025	0.00025	0.00025		0.00000
Diss-Potassium (K) (mg/L)	18	18	0.43200	0.51700	0.46556		0.02341

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Sample (n)	Count >MDL	Min	Max	Mean	95th Percentile	St Dev
Diss-Selenium (mg/L)	18	18	0.00006	0.00023	0.00018	0.00005
Diss-Silicon (Si) (mg/L)	18	18	1.36000	2.80000	1.79556	0.41143
Diss-Silver (Ag) (mg/L)	18	0	0.00001	0.00001	0.00001	0.00000
Diss-Sodium (Na) (mg/L)	18	18	2.22000	2.72000	2.49500	0.12210
Diss-Strontium (Sr) (mg/L)	18	18	0.11500	0.14200	0.12850	0.00660
Diss-Thallium (Tl) (mg/L)	18	0	0.00001	0.00001	0.00001	0.00000
Diss-Tin (Sn) (mg/L)	18	0	0.00005	0.00005	0.00005	0.00000
Diss-Titanium (Ti) (mg/L)	18	0	0.00500	0.00500	0.00500	0.00000
Diss-Uranium (U) (mg/L)	18	18	0.00003	0.00004	0.00004	0.00000
Diss-Vanadium (V) (mg/L)	18	0	0.00025	0.00025	0.00025	0.00000
Diss-Zinc (Zn) (mg/L)	18	0	0.00150	0.00150	0.00150	0.00000
TDS (mg/L)	18	18	46.00000	95.00000	75.22222	10.09109
Field Tests						
Cond (in situ) (µs/cm)	18	18	92.90000	109.50000	98.15556	4.38610
NTU - in situ (ntu)	17	17	0.00000	1.68000	0.48235	0.47079
pH (in situ) (pH)	18	18	6.76000	8.15000	7.76444	0.34399
Sample Depth (m)	18	18	3.00000	9.00000	5.05556	1.54243
Sample Taken						
Temp (in situ) (Degrees Celcius)	18	18	6.06900	19.72900	15.04372	3.36686
Organic / Inorganic						
DOC (mg/L)	18	18	5.95000	7.76000	6.97500	0.49118
Physical Test						
Conductivity (µs/cm)	18	18	92.40000	104.00000	97.12778	3.16837
Hardness (mg/L)	18	18	40.00000	48.30000	44.10000	1.61136
NTU (ntu)	18	18	0.24000	0.95000	0.54444	0.22771
pH (pH)	18	18	7.41000	7.96000	7.79111	0.13190
TDS (mg/L)	18	18	46.00000	95.00000	75.22222	10.09109
TSS (mg/L)	18	11	0.50000	3.20000	1.36111	0.83041
Total Metals						
Aluminum (Al)-Total (mg/L)	18	18	0.00730	0.03100	0.01469	0.00638
Antimony (Sb)-Total (mg/L)	18	0	0.00005	0.00005	0.00005	0.00000
Arsenic (As)-Total (mg/L)	18	18	0.00025	0.00040	0.00034	0.00004
Barium (Ba)-Total (mg/L)	18	18	0.01420	0.01750	0.01630	0.00075
Beryllium (Be)-Total (mg/L)	18	0	0.00005	0.00005	0.00005	0.00000
Bismuth (Bi)-Total (mg/L)	18	0	0.00003	0.00003	0.00003	0.00000

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E207972 : B1-AT						
Sample (n)	Count >MDL	Min	Max	Mean	95th Percentile	St Dev
Boron (B)-Total (mg/L)	18	18	0.04100	0.04900	0.04450	0.00246
Cadmium (Cd)-Total (mg/L)	18	1	0.00000	0.00001	0.00000	0.00000
Calcium (Ca)-Total (mg/L)	18	18	12.30000	14.50000	13.44444	0.62612
Chromium (Cr)-Total (mg/L)	18	0	0.00025	0.00025	0.00025	0.00000
Cobalt (Co)-Total (mg/L)	18	0	0.00005	0.00005	0.00005	0.00000
Copper (Cu)-Total (mg/L)	18	18	0.00171	0.00238	0.00210	0.00019
Iron (Fe)-Total (mg/L)	18	8	0.01500	0.08200	0.03044	0.02003
Lead (Pb)-Total (mg/L)	18	0	0.00003	0.00003	0.00003	0.00000
Lithium (Li)-Total (mg/L)	18	0	0.00050	0.00050	0.00050	0.00000
Magnesium (Mg)-Total (mg/L)	18	18	2.07000	2.72000	2.47556	0.16318
Manganese (Mn)-Total (mg/L)	18	18	0.00619	0.03050	0.01560	0.00543
Molybdenum (Mo)-Total (mg/L)	18	18	0.00073	0.00100	0.00087	0.00008
Nickel (Ni)-Total (mg/L)	18	0	0.00025	0.00025	0.00025	0.00000
Potassium (K)-Total (mg/L)	18	18	0.40400	0.52200	0.46511	0.03145
Selenium (Se)-Total (mg/L)	18	18	0.00011	0.00025	0.00020	0.00003
Silicon (Si)-Total (mg/L)	18	18	1.35000	2.65000	1.84833	0.40228
Silver (Ag)-Total (mg/L)	18	0	0.00001	0.00001	0.00001	0.00000
Sodium (Na)-Total (mg/L)	18	18	2.03000	2.69000	2.47500	0.15768
Strontium (Sr)-Total (mg/L)	18	18	0.11900	0.13900	0.12928	0.00642
Thallium (Tl)-Total (mg/L)	18	0	0.00001	0.00001	0.00001	0.00000
Tin (Sn)-Total (mg/L)	18	0	0.00005	0.00005	0.00005	0.00000
Titanium (Ti)-Total (mg/L)	18	0	0.00500	0.00500	0.00500	0.00000
Uranium (U)-Total (mg/L)	18	18	0.00003	0.00005	0.00004	0.00000
Vanadium (V)-Total (mg/L)	18	1	0.00025	0.00059	0.00027	0.00008
Zinc (Zn)-Total (mg/L)	18	0	0.00150	0.00150	0.00150	0.00000

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Mining Corporation

IMPERIAL METALS CORPORATION

	E207972 : B1-B														
	22-May-19	29-Aug-19	16-Sep-19	23-Oct-19	4-Jun-20	14-Jul-20	19-Aug-20	9-Sep-20	30-Sep-20	27-Oct-20	26-May-21	10-Jun-21	15-Jul-21	24-Aug-21	28-Sep-21
Anions and Nutrients															
Alkalinity (CaCO3) (mg/L)	42.9	47.2	47.7	42.6	40.9	42.2	39.9	40.4	43.4	41.0	39.1	41.4	42.6	43.9	44.2
Ammonia (as N) (mg/L)	<0.0050	0.163	0.0360	0.0052	<0.0050	0.0078	<0.0050	0.0073	0.0070	0.0060	<0.0050	0.0358	0.0300	<0.0050	0.0098
Chloride (mg/L)	0.94	0.93	0.95	0.92	0.84	0.80	0.76	0.75	0.74	0.74	0.65	0.67	0.70	0.67	0.66
Diss-Orthophosphate (mg/L)	<0.0010	0.098	0.0347	0.0012	0.0020	0.0011	<0.0010	<0.0010	0.0030	0.0012	0.0010	<0.0010	0.0088	0.0107	0.0035
Diss-Phosphorus (mg/L)	0.0058	0.0906	0.0368	0.0055	0.0055	0.0037	0.0029	0.0038	0.0055	0.0040	0.0038	0.0054	0.0150	0.0184	0.0066
Fluoride (mg/L)	0.057	0.070	0.062	0.067	0.056	0.058	0.059	0.057	0.061	0.059	0.048	0.054	0.056	0.048	0.049
Nitrate (N) (mg/L)	<0.0050	0.0334	0.0085	<0.0050	<0.0050	0.0064	<0.0050	<0.0050	<0.0050	<0.0050	0.0316	0.0336	0.165	0.0832	<0.0050
Nitrate and Nitrite (mg/L)	<0.0051	0.0495	0.0119	<0.0051	<0.0500	<0.0500	<0.0051	<0.0051	<0.0051	<0.0051	0.0316	0.0355	0.168	0.0843	<0.0051
Nitrite (N) (mg/L)	<0.0010	0.0161	0.0034	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.0019	0.0026	0.0011	<0.0010
Sulphate (mg/L)	5.16	3.62	4.21	5.34	8.62	6.70	6.08	5.78	6.18	6.47	7.14	6.80	6.53	5.70	6.73
Total Nitrogen (mg/L)	0.311	0.426	0.314	0.363	0.321	0.269	0.309	0.297	0.293	0.308	0.338	1.13	0.436	0.327	0.255
Total Phosphorus (mg/L)	0.0181	0.212	0.0793	0.0164	0.0179	0.0092	0.0094	0.0209	0.0141	0.0128	0.0153	0.0186	0.0273	0.0333	0.0154
Dissolved Metals															
Aluminum (Al)-Diss (mg/L)	0.0048	<0.0030	0.0046	<0.0030	0.0061	<0.0030	0.0044	0.0039	<0.0030	<0.0030	0.0075	0.0059	0.0034	<0.0030	<0.0030
Diss-Antimony (Sb) (mg/L)	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Diss-Arsenic (As) (mg/L)	0.00024	0.00060	0.00065	0.00033	0.00027	0.00025	0.00030	0.00037	0.00037	0.00035	0.00027	0.00029	0.00035	0.00037	0.00037
Diss-Barium (Ba) (mg/L)	0.0156	0.0202	0.0206	0.0171	0.0176	0.0174	0.0170	0.0156	0.0167	0.0171	0.0167	0.0165	0.0139	0.0158	0.0166
Diss-Beryllium (Be) (mg/L)	<0.00010	<0.00010	<0.00010	<0.00010	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100
Diss-Bismuth (Bi) (mg/L)	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Diss-Boron (B) (mg/L)	0.047	0.048	0.049	0.049	0.042	0.042	0.044	0.044	0.047	0.044	0.045	0.039	0.043	0.043	0.043
Diss-Cadmium (Cd) (mg/L)	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	0.0000053	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050
Diss-Calcium (Ca) (mg/L)	13.1	16.3	15.8	14.4	14.7	14.2	13.8	13.6	14.0	13.5	13.9	13.3	13.6	13.9	13.5
Diss-Chromium (Cr) (mg/L)	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Diss-Cobalt (Co) (mg/L)	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Diss-Copper (Cu) (mg/L)	0.00162	0.00130	0.00132	0.00165	0.00173	0.00166	0.00190	0.00194	0.00216	0.00216	0.00175	0.00180	0.00161	0.00155	0.00203
Diss-Iron (Fe) (mg/L)	<0.030	0.421	0.121	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	0.033	<0.030	0.041	0.109	<0.030
Diss-Lead (Pb) (mg/L)	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Diss-Lithium (Li) (mg/L)	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Diss-Magnesium (Mg) (mg/L)	2.59	2.62	2.64	2.55	2.74	2.42	2.33	2.59	2.38	2.47	2.46	2.36	2.54	2.44	2.41
Diss-Manganese (Mn) (mg/L)	0.00125	0.201	0.680	0.0192	0.00065	0.0256	0.00294	0.0143	0.0528	0.00345	0.00653	0.00554	0.0250	0.481	0.0358
Diss-Molybdenum (Mo) (mg/L)	0.000741	0.00104	0.00105	0.000862	0.000865	0.000884	0.000842	0.000866	0.000855	0.000972	0.000754	0.000776	0.000821	0.000875	0.000952
Diss-Nickel (Ni) (mg/L)	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Diss-Potassium (K) (mg/L)	0.523	0.533	0.540	0.463	0.487	0.449	0.448	0.459	0.453	0.492	0.472	0.485	0.510	0.507	0.505
Diss-Selenium (mg/L)	0.000131	0.000082	0.000112	0.000122	0.000423	0.000235	0.000161	0.000232	0.000276	0.000202	0.000206	0.000202	0.000187	0.000187	0.000214

	E207972 : B1-B													
	19-Oct-21	1-Nov-21	24-May-22	16-Jun-22	11-Jul-22	24-Aug-22	19-Sep-22	26-Oct-22	24-May-23	8-Jun-23	12-Jul-23	23-Aug-23	7-Sep-23	10-Oct-23
Anions and Nutrients														
Alkalinity (CaCO3) (mg/L)	43.2	41.8	41.5	42.7	42.6	43.5	46.4	41.0	41.3	42.8	44.3	47.6	51.0	44.2
Ammonia (as N) (mg/L)	0.0076	<0.0050	0.0073	<0.0050	0.0512	0.0726	0.167	0.0232	<0.0050	0.0518	0.112	0.216	0.204	0.0066
Chloride (mg/L)	0.67	0.70	0.62	0.62	0.60	0.64	0.64	0.57	0.58	0.63	0.59	0.96	0.58	0.55
Diss-Orthophosphate (mg/L)	0.0023	0.0012	0.0012	<0.0010	0.0052	0.0101	0.0323	0.0101	<0.0010	0.0011	0.0340	0.118	0.190	0.0015
Diss-Phosphorus (mg/L)	0.0088	0.0082	0.0040	0.0058	0.0072	0.0115	0.0840	0.0144	0.0055	0.0103	0.0399	0.292	0.316	0.0088
Fluoride (mg/L)	0.063	0.061	0.050	0.051	0.050	0.056	0.054	0.051	0.053	0.060	0.057	0.055	0.058	0.059
Nitrate (N) (mg/L)	<0.0050	<0.0050	0.0201	<0.0050	<0.0050	0.0296	0.0064	<0.0050	<0.0050	<0.0050	0.0561	0.0466	<0.0050	<0.0050
Nitrate and Nitrite (mg/L)	<0.0051	<0.0051	0.0201	<0.0051	<0.0051	0.0310	0.0097	<0.0051	<0.0051	<0.0051	0.0595	0.0540	<0.0051	<0.0051
Nitrite (N) (mg/L)	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.0014	0.0033	0.0010	<0.0010	0.0015	0.0034	0.0074	0.0017	<0.0010
Sulphate (mg/L)	6.98	7.49	8.01	7.63	6.95	6.27	5.60	7.37	8.64	8.98	7.93	5.67	5.01	7.77
Total Nitrogen (mg/L)	0.280	0.298	0.289	0.308	0.320	0.320	0.374	0.292	0.265	0.420	0.405	0.464	0.459	0.322
Total Phosphorus (mg/L)	0.0133	0.0169	0.0139	0.0158	0.0266	0.0264	0.100	0.0230	0.0130	0.0318	0.0538	0.317	0.327	0.0201
Dissolved Metals														
Aluminum (Al)-Diss (mg/L)	<0.0030	<0.0030	0.0152	0.0061	0.0032	<0.0030	<0.0030	<0.0030	0.0068	0.0301	0.0087	0.0038	0.0039	<0.0030
Diss-Antimony (Sb) (mg/L)	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Diss-Arsenic (As) (mg/L)	0.00035	0.00032	0.00023	0.00025	0.00029	0.00039	0.00077	0.00037	0.00028	0.00032	0.00046	0.00080	0.00082	0.00042
Diss-Barium (Ba) (mg/L)	0.0165	0.0183	0.0142	0.0169	0.0152	0.00878	0.0182	0.0164	0.0156	0.0178	0.0230	0.0283	0.0291	0.0170
Diss-Beryllium (Be) (mg/L)	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100
Diss-Bismuth (Bi) (mg/L)	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Diss-Boron (B) (mg/L)	0.042	0.043	0.041	0.043	0.044	0.040	0.044	0.046	0.044	0.044	0.048	0.044	0.045	0.054
Diss-Cadmium (Cd) (mg/L)	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050
Diss-Calcium (Ca) (mg/L)	13.8	14.2	12.4	13.7	13.8	14.9	15.1	14.8	14.2	14.5	15.6	14.6	15.2	14.9
Diss-Chromium (Cr) (mg/L)	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Diss-Cobalt (Co) (mg/L)	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	0.00011	<0.00010	<0.00010	<0.00010	<0.00010	0.00012	0.00012	<0.00010
Diss-Copper (Cu) (mg/L)	0.00180	0.00206	0.00160	0.00203	0.00175	0.00141	0.00134	0.00178	0.00178	0.00237	0.00170	0.00103	0.00117	0.00185
Diss-Iron (Fe) (mg/L)	<0.030	<0.030	0.034	<0.030	<0.030	<0.030	0.575	0.037	<0.030	0.054	0.271	1.37	1.38	<0.030
Diss-Lead (Pb) (mg/L)	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Diss-Lithium (Li) (mg/L)	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Diss-Magnesium (Mg) (mg/L)	2.54	2.49	1.82	2.44	2.51	2.52	2.54	2.45	2.58	2.72	2.74	2.71	2.70	2.87
Diss-Manganese (Mn) (mg/L)	0.0311	0.0196	0.00317	0.00073	0.0164	0.0843	1.17	0.0380	0.00100	0.0822	0.457	1.02	1.15	0.0148
Diss-Molybdenum (Mo) (mg/L)	0.000894	0.000935	0.000760	0.000781	0.000786	0.000778	0.00109	0.000905	0.000750	0.000758	0.000855	0.00103	0.000961	0.000990
Diss-Nickel (Ni) (mg/L)	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Diss-Potassium (K) (mg/L)	0.478	0.470	0.388	0.451	0.462	0.490	0.530	0.465	0.472	0.477	0.532	0.555	0.564	0.496
Diss-Selenium (mg/L)	0.000186	0.000224	0.000195	0.000194	0.000194	0.000203	0.000183	0.000171	0.000158	0.000186	0.000226	0.000166	0.000156	0.000175

Grid Format Report : Bootjack Lake North Station B1 bottom

From 1 Jan 2019 to 31 Dec 2023

Printed : 2024-02-08



Mount Polley

Mining Corporation

IMPERIAL METALS CORPORATION

	E207972 : B1-B														
	22-May-19	29-Aug-19	16-Sep-19	23-Oct-19	4-Jun-20	14-Jul-20	19-Aug-20	9-Sep-20	30-Sep-20	27-Oct-20	26-May-21	10-Jun-21	15-Jul-21	24-Aug-21	28-Sep-21
Diss-Silicon (Si) (mg/L)	1.79	3.46	3.21	1.32	2.05	2.00	1.80	1.67	1.66	1.82	2.62	2.43	3.27	4.06	2.25
Diss-Silver (Ag) (mg/L)	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Diss-Sodium (Na) (mg/L)	2.63	2.45	2.65	2.71	2.49	2.53	2.30	2.66	2.42	2.50	2.67	2.51	2.48	2.43	2.54
Diss-Strontium (Sr) (mg/L)	0.125	0.149	0.147	0.131	0.133	0.136	0.130	0.133	0.121	0.141	0.129	0.128	0.136	0.129	0.132
Diss-Thallium (Tl) (mg/L)	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Diss-Tin (Sn) (mg/L)	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Diss-Titanium (Ti) (mg/L)	<0.010	<0.010	<0.010	<0.010	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100
Diss-Uranium (U) (mg/L)	0.000028	0.000026	0.000032	0.000042	0.000029	0.000029	0.000033	0.000036	0.000039	0.000036	0.000032	0.000030	0.000029	0.000028	0.000038
Diss-Vanadium (V) (mg/L)	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Diss-Zinc (Zn) (mg/L)	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030
TDS (mg/L)	67	82	92	61	80	78	76	51	76	79	74	84	86	58	89
Field Tests															
Cond (in situ) (µs/cm)	95.8	111.5	119.4	99.1	108.8	115	116.6	132.3	116.2	111.6	96.3	95.5	103.2	110.6	102.2
NTU - in situ (ntu)	0.91	2.6	0.14	0.76	1.15	1.69	1.03	2.1	1.66	2.43	0.6	1.54	2.55	8.34	1.06
pH (in situ) (pH)	7.2	7.05	7.31	7.56	7.38	7.39	7.76	7.65	7.68	7.71	7.37	7.15	7.26	6.91	6.9
Sample Depth (m)	11	14.5	13	13	12	11	10	10	10	13	11	14	15	14	13
Sample Taken	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	yes	Yes	Yes	Yes	Yes
Temp (in situ) (Degrees Celcius)	5.598	7.259	7.529	6.061	5.651	7.213	8.949	8.983	12.256	4.66	5.403	6.194	6.77	7.175	12.046
Organic / Inorganic															
DOC (mg/L)	6.70	6.30	6.09	6.20	6.59	6.97	6.77	6.74	6.94	6.09	7.17	7.04	7.15	7.61	6.90
Physical Test															
Conductivity (µs/cm)	94.5	105	106	97.5	107	99.4	98.7	96.4	98.7	98.0	96.2	95.8	96.8	103	102
Hardness (mg/L)	43.5	51.4	50.4	46.5	48.0	45.4	44.0	44.6	44.8	43.8	44.8	42.9	44.4	44.8	43.6
NTU (ntu)	1.07	5.82	3.38	1.06	0.98	0.60	1.31	1.21	1.21	0.96	0.88	1.80	1.85	1.83	0.53
pH (pH)	7.76	7.53	7.60	7.88	7.57	7.42	7.52	7.71	7.79	7.67	7.75	7.73	7.39	7.39	7.68
TDS (mg/L)	67	82	92	61	80	78	76	51	76	79	74	84	86	58	89
TSS (mg/L)	1.6	6.3	4.1	2.1	1.2	<1.0	2.0	1.3	1.6	2.9	1.2	5.7	2.1	1.8	1.7
Total Metals															
Aluminum (Al)-Total (mg/L)	0.0183	0.0161	0.0214	0.0232	0.0232	0.0138	0.0114	0.0107	0.0110	0.0178	0.0199	0.0136	0.0138	0.0083	0.0190
Antimony (Sb)-Total (mg/L)	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	0.00025	<0.00010	<0.00010
Arsenic (As)-Total (mg/L)	0.00030	0.00091	0.00071	0.00038	0.00030	0.00024	0.00030	0.00036	0.00043	0.00041	0.00026	0.00032	0.00050	0.00046	0.00040
Barium (Ba)-Total (mg/L)	0.0167	0.0285	0.0232	0.0188	0.0175	0.0161	0.0171	0.0175	0.0166	0.0178	0.0154	0.0168	0.0156	0.0188	0.0186
Beryllium (Be)-Total (mg/L)	<0.00010	<0.00010	<0.00010	<0.00010	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100
Bismuth (Bi)-Total (mg/L)	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Boron (B)-Total (mg/L)	0.045	0.048	0.049	0.049	0.048	0.046	0.043	0.048	0.045	0.043	0.041	0.041	0.045	0.042	0.044

	E207972 : B1-B													
	19-Oct-21	1-Nov-21	24-May-22	16-Jun-22	11-Jul-22	24-Aug-22	19-Sep-22	26-Oct-22	24-May-23	8-Jun-23	12-Jul-23	23-Aug-23	7-Sep-23	10-Oct-23
Diss-Silicon (Si) (mg/L)	2.23	1.60	1.77	2.09	2.42	3.67	3.87	2.02	2.80	3.38	3.62	4.23	4.08	1.96
Diss-Silver (Ag) (mg/L)	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Diss-Sodium (Na) (mg/L)	2.57	2.55	2.03	2.25	2.35	2.36	2.36	2.37	2.41	2.57	2.59	2.53	2.69	2.73
Diss-Strontium (Sr) (mg/L)	0.130	0.132	0.115	0.123	0.126	0.133	0.128	0.127	0.124	0.132	0.142	0.140	0.152	0.138
Diss-Thallium (Tl) (mg/L)	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Diss-Tin (Sn) (mg/L)	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Diss-Titanium (Ti) (mg/L)	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100
Diss-Uranium (U) (mg/L)	0.000043	0.000038	0.000036	0.000036	0.000032	0.000031	0.000037	0.000038	0.000031	0.000027	0.000027	0.000034	0.000034	0.000040
Diss-Vanadium (V) (mg/L)	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	0.00056	0.00059	<0.00050
Diss-Zinc (Zn) (mg/L)	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030
TDS (mg/L)	74	62	67	70	82	79	67	78	74	76	81	84	88	75
Field Tests														
Cond (in situ) (µs/cm)	101.8	99.3	109	97	101.3	106.5	120.4	98.6	102.7	102.5	98.6	111.5	119.1	100.5
NTU - in situ (ntu)	0.97	0.68	0.45	1.4	4.62	0.77	0.57	1.26	0.79	0.6	0.31	1.52	2.23	1
pH (in situ) (pH)	7.24	8.06	7.18	7.4	7.36	7.14	6.78	7.33	7.37	7.63	7.16	7.03	6.75	6.76
Sample Depth (m)	16	14	16	13	17	15	16	15	10	13	14.8	15	14	12
Sample Taken	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes					
Temp (in situ) (Degrees Celcius)	7.076	4.828	4.632	5.587	6.115	6.978	7.072	9.048	6.018	5.47	7.209	7.706	7.595	11.478
Organic / Inorganic														
DOC (mg/L)	7.49	6.62	7.60	6.56	7.11	7.03	6.05	7.75	7.42	6.54	6.92	7.69	7.68	7.36
Physical Test														
Conductivity (µs/cm)	102	98.2	97.3	98.8	96.8	104	105	97.4	102	105	108	109	114	104
Hardness (mg/L)	44.9	45.7	38.4	44.2	44.8	47.6	48.2	47.0	46.1	47.4	50.2	47.6	49.1	49.0
NTU (ntu)	1.23	1.08	1.14	0.96	2.29	2.73	3.20	1.67	0.60	1.60	1.76	5.23	5.94	1.21
pH (pH)	7.80	7.86	7.64	7.71	7.83	7.78	7.66	7.73	7.70	7.33	7.19	6.99	7.53	7.81
TDS (mg/L)	74	62	67	70	82	79	67	78	74	76	81	84	88	75
TSS (mg/L)	3.6	3.2	2.1	3.0	2.9	29.0	4.4	1.6	3.7	2.8	<1.0	6.4	2.6	2.0
Total Metals														
Aluminum (Al)-Total (mg/L)	0.0125	0.0170	0.0502	0.0234	0.0290	0.0048	0.0090	0.0259	0.0140	0.0381	0.0101	0.0098	0.0107	0.0167
Antimony (Sb)-Total (mg/L)	0.00011	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Arsenic (As)-Total (mg/L)	0.00041	0.00034	0.00032	0.00032	0.00035	0.00044	0.00084	0.00044	0.00032	0.00040	0.00052	0.00084	0.00088	0.00044
Barium (Ba)-Total (mg/L)	0.0186	0.0180	0.0170	0.0170	0.0176	0.0102	0.0206	0.0194	0.0162	0.0186	0.0218	0.0299	0.0312	0.0172
Beryllium (Be)-Total (mg/L)	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100
Bismuth (Bi)-Total (mg/L)	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Boron (B)-Total (mg/L)	0.046	0.041	0.043	0.046	0.045	0.043	0.039	0.050	0.044	0.045	0.043	0.049	0.047	0.046

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	E207972 : B1-B						
	Sample (n)	Count >MDL	Min	Max	Mean	95th Percentile	St Dev
Anions and Nutrients							
Alkalinity (CaCO3) (mg/L)	29	29	39.10000	51.00000	43.21724	51.97500	2.64103
Ammonia (as N) (mg/L)	29	21	0.00250	0.21600	0.04301	0.12910	0.06457
Chloride (mg/L)	29	29	0.55000	0.96000	0.71276	1.73500	0.12609
Diss-Orthophosphate (mg/L)	29	23	0.00050	0.19000	0.01983	0.15260	0.04313
Diss-Phosphorus (mg/L)	29	29	0.00290	0.31600	0.03551	0.16230	0.07755
Floride (mg/L)	29	29	0.04800	0.07000	0.05652	0.06300	0.00540
Nitrate (N) (mg/L)	29	12	0.00250	0.16500	0.01941	0.06052	0.03450
Nitrate and Nitrite (mg/L)	29	11	0.00255	0.16800	0.02227	0.06215	0.03539
Nitrite (N) (mg/L)	29	12	0.00050	0.01610	0.00184	0.00246	0.00313
Sulphate (mg/L)	29	29	3.62000	8.98000	6.59862	5.74000	1.29298
Total Nitrogen (mg/L)	29	29	0.25500	1.13000	0.36252	0.42205	0.15882
Total Phosphorus (mg/L)	29	29	0.00920	0.32700	0.05237	0.20810	0.08473
Dissolved Metals							
Aluminum (Al)-Diss (mg/L)	29	16	0.00150	0.03010	0.00476	0.00672	0.00576
Diss-Antimony (Sb) (mg/L)	29	0	0.00005	0.00005	0.00005	0.00009	0.00000
Diss-Arsenic (As) (mg/L)	29	29	0.00023	0.00082	0.00039	0.00118	0.00017
Diss-Barium (Ba) (mg/L)	29	29	0.00878	0.02910	0.01758	0.03442	0.00390
Diss-Beryllium (Be) (mg/L)	29	0	0.00005	0.00050	0.00014	0.00025	0.00019
Diss-Bismuth (Bi) (mg/L)	29	0	0.00003	0.00003	0.00002	0.00025	0.00000
Diss-Boron (B) (mg/L)	29	29	0.03900	0.05400	0.04452	0.05160	0.00308
Diss-Cadmium (Cd) (mg/L)	29	1	0.00000	0.00001	0.00000	0.00001	0.00000
Diss-Calcium (Ca) (mg/L)	29	29	12.40000	16.30000	14.25172	15.28000	0.85466
Diss-Chromium (Cr) (mg/L)	29	0	0.00025	0.00025	0.00025	0.00025	0.00000
Diss-Cobalt (Co) (mg/L)	29	3	0.00005	0.00012	0.00006	0.00017	0.00002
Diss-Copper (Cu) (mg/L)	29	29	0.00103	0.00237	0.00172	0.00220	0.00031
Diss-Iron (Fe) (mg/L)	29	12	0.01500	1.38000	0.16210	1.35400	0.36051
Diss-Lead (Pb) (mg/L)	29	0	0.00003	0.00003	0.00002	0.00044	0.00000
Diss-Lithium (Li) (mg/L)	29	0	0.00050	0.00050	0.00050	0.00250	0.00000
Diss-Magnesium (Mg) (mg/L)	29	29	1.82000	2.87000	2.52310	2.67400	0.18762
Diss-Manganese (Mn) (mg/L)	29	29	0.00065	1.17000	0.19460	1.09800	0.35856
Diss-Molybdenum (Mo) (mg/L)	29	29	0.00074	0.00109	0.00088	0.00130	0.00010
Diss-Nickel (Ni) (mg/L)	29	0	0.00025	0.00025	0.00025	0.00025	0.00000
Diss-Potassium (K) (mg/L)	29	29	0.38800	0.56400	0.48814	0.55720	0.03807

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IMPERIAL METALS CORPORATION

E207972 : B1-B							
Sample (n)	Count >MDL	Min	Max	Mean	95th Percentile	St Dev	
Diss-Selenium (mg/L)	29	29	0.00008	0.00042	0.00019	0.00050	0.00006
Diss-Silicon (Si) (mg/L)	29	29	1.32000	4.23000	2.59138	3.13400	0.88548
Diss-Silver (Ag) (mg/L)	29	0	0.00001	0.00001	0.00001	0.00001	0.00000
Diss-Sodium (Na) (mg/L)	29	29	2.03000	2.73000	2.49414	2.62800	0.15518
Diss-Strontium (Sr) (mg/L)	29	29	0.11500	0.15200	0.13248	0.14280	0.00834
Diss-Thallium (Tl) (mg/L)	29	0	0.00001	0.00001	0.00001	0.00005	0.00000
Diss-Tin (Sn) (mg/L)	29	0	0.00005	0.00005	0.00005	0.00005	0.00000
Diss-Titanium (Ti) (mg/L)	29	0	0.00500	0.00500	0.00500	0.00500	0.00000
Diss-Uranium (U) (mg/L)	29	29	0.00003	0.00004	0.00003	0.00004	0.00000
Diss-Vanadium (V) (mg/L)	29	2	0.00025	0.00059	0.00027	0.00050	0.00008
Diss-Zinc (Zn) (mg/L)	29	0	0.00150	0.00150	0.00150	0.00150	0.00000
TDS (mg/L)	29	29	51.00000	92.00000	75.51724	85.10000	9.62000
Field Tests							
Cond (in situ) (µs/cm)	29	29	95.50000	132.30000	106.99655	125.37500	9.17242
NTU - in situ (ntu)	29	29	0.14000	8.34000	1.57690	2.38800	1.59325
pH (in situ) (pH)	29	29	6.75000	8.06000	7.29207	8.03900	0.31888
Sample Depth (m)	29	29	10.00000	17.00000	13.28621	15.00000	2.03641
Sample Taken							
Temp (in situ) (Degrees Celcius)	29	29	4.63200	12.25600	7.19169	10.62990	2.02781
Organic / Inorganic							
DOC (mg/L)	29	29	6.05000	7.75000	6.93379	7.04850	0.51255
Physical Test							
Conductivity (µs/cm)	29	29	94.50000	114.00000	101.25862	106.85000	4.76801
Hardness (mg/L)	29	29	38.40000	51.40000	45.96897	50.40000	2.70794
NTU (ntu)	29	29	0.53000	5.94000	1.90103	4.51000	1.48154
pH (pH)	29	29	6.99000	7.88000	7.61897	7.90700	0.20912
TDS (mg/L)	29	29	51.00000	92.00000	75.51724	85.10000	9.62000
TSS (mg/L)	29	27	0.50000	29.00000	3.58276	5.04000	5.12515
Total Metals							
Aluminum (Al)-Total (mg/L)	29	29	0.00480	0.05020	0.01768	0.04156	0.00946
Antimony (Sb)-Total (mg/L)	29	2	0.00005	0.00025	0.00006	0.00011	0.00004
Arsenic (As)-Total (mg/L)	29	29	0.00024	0.00091	0.00045	0.00122	0.00019
Barium (Ba)-Total (mg/L)	29	29	0.01020	0.03120	0.01891	0.02867	0.00441
Beryllium (Be)-Total (mg/L)	29	0	0.00005	0.00005	0.00005	0.00025	0.00000
Bismuth (Bi)-Total (mg/L)	29	0	0.00003	0.00003	0.00002	0.00025	0.00000

Grid Format Report : Bootjack Lake North Station B1 bottom

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Mount Polley

Mining Corporation

IMPERIAL METALS CORPORATION

E207972 : B1-B							
Sample (n)	Count >MDL	Min	Max	Mean	95th Percentile	St Dev	
Boron (B)-Total (mg/L)	29	29	0.03900	0.05000	0.04497	0.05010	0.00282
Cadmium (Cd)-Total (mg/L)	29	2	0.00000	0.00001	0.00000	0.00001	0.00000
Calcium (Ca)-Total (mg/L)	29	29	12.30000	15.80000	14.11379	16.03000	0.86674
Chromium (Cr)-Total (mg/L)	29	0	0.00025	0.00025	0.00025	0.00025	0.00000
Cobalt (Co)-Total (mg/L)	29	5	0.00005	0.00022	0.00007	0.00018	0.00004
Copper (Cu)-Total (mg/L)	29	29	0.00149	0.01870	0.00262	0.00292	0.00311
Iron (Fe)-Total (mg/L)	29	29	0.03800	1.64000	0.29203	1.45000	0.46088
Lead (Pb)-Total (mg/L)	29	2	0.00003	0.00024	0.00004	0.00036	0.00004
Lithium (Li)-Total (mg/L)	29	0	0.00050	0.00050	0.00050	0.00250	0.00000
Magnesium (Mg)-Total (mg/L)	29	29	2.22000	2.82000	2.54379	2.67400	0.15307
Manganese (Mn)-Total (mg/L)	29	29	0.01640	1.29000	0.27163	1.21800	0.40810
Molybdenum (Mo)-Total (mg/L)	29	29	0.00068	0.00109	0.00091	0.00155	0.00010
Nickel (Ni)-Total (mg/L)	29	0	0.00025	0.00025	0.00025	0.00025	0.00000
Potassium (K)-Total (mg/L)	29	29	0.43200	0.55500	0.48869	0.55375	0.03649
Selenium (Se)-Total (mg/L)	29	29	0.00011	0.00040	0.00021	0.00050	0.00006
Silicon (Si)-Total (mg/L)	29	29	1.52000	4.26000	2.70552	3.22750	0.87564
Silver (Ag)-Total (mg/L)	29	0	0.00001	0.00001	0.00001	0.00001	0.00000
Sodium (Na)-Total (mg/L)	29	29	2.13000	2.73000	2.47103	2.58100	0.14812
Strontium (Sr)-Total (mg/L)	29	29	0.11500	0.15300	0.13352	0.15030	0.00843
Thallium (Tl)-Total (mg/L)	29	1	0.00001	0.00005	0.00001	0.00005	0.00001
Tin (Sn)-Total (mg/L)	29	0	0.00005	0.00005	0.00005	0.00005	0.00000
Titanium (Ti)-Total (mg/L)	29	0	0.00500	0.00500	0.00500	0.00500	0.00000
Uranium (U)-Total (mg/L)	29	29	0.00003	0.00021	0.00004	0.00005	0.00003
Vanadium (V)-Total (mg/L)	29	5	0.00025	0.00067	0.00031	0.00058	0.00014
Zinc (Zn)-Total (mg/L)	29	1	0.00150	0.00850	0.00174	0.00225	0.00130

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Mount Polley

Mining Corporation

IMPERIAL METALS CORPORATION

	: B1-BT														
	22-May-19	29-Aug-19	16-Sep-19	19-Aug-20	9-Sep-20	26-May-21	10-Jun-21	15-Jul-21	24-Aug-21	16-Jun-22	11-Jul-22	24-Aug-22	19-Sep-22	8-Jun-23	12-Jul-23
Anions and Nutrients															
Alkalinity (CaCO3) (mg/L)	43.1	46.0	41.6		40.0	39.2	41.0	42.5	41.8	43.0	40.7	39.7	41.3	41.7	42.2
Ammonia (as N) (mg/L)	<0.0050	0.0088	<0.0050		<0.0050	<0.0050	0.0176	<0.0050	<0.0050	<0.0050	0.0124	0.0154	0.0072	0.0227	<0.0050
Chloride (mg/L)	0.93	0.93	0.89		0.76	0.63	0.66	0.69	0.66	0.61	0.62	0.63	0.62	0.61	0.58
Diss-Orthophosphate (mg/L)	<0.0010	0.0191	<0.0010		<0.0010	<0.0010	0.0013	<0.0010	0.0012	<0.0010	0.0012	<0.0010	0.0015	<0.0010	0.0013
Diss-Phosphorus (mg/L)	0.0058	0.0229	0.0022		0.0038	0.0030	0.0066	0.0052	0.0074	0.0063	0.0033	0.0030	<0.0020	0.0059	0.0055
Fluoride (mg/L)	0.057	0.058	0.056		0.056	0.048	0.055	0.054	0.050	0.050	0.051	0.055	0.053	0.060	0.056
Nitrate (N) (mg/L)	<0.0050	<0.0050	<0.0050		<0.0050	<0.0050	0.0075	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.0085
Nitrate and Nitrite (mg/L)	<0.0051	<0.0051	<0.0051		<0.0051	<0.0051	0.0086	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	0.0085
Nitrite (N) (mg/L)	<0.0010	<0.0010	<0.0010		<0.0010	<0.0010	0.0011	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.0011	<0.0010
Sulphate (mg/L)	5.13	4.18	5.06		5.75	6.62	6.54	6.76	6.69	7.57	6.86	7.17	7.19	8.64	8.10
Total Nitrogen (mg/L)	0.318	0.281	0.302		0.313	0.302	0.382	0.287	0.284	0.305	0.268	0.270	0.237	0.468	0.314
Total Phosphorus (mg/L)	0.0208	0.0510	0.0114		0.0116	0.0176	0.0290	0.0115	0.0157	0.0204	0.0117	0.0111	0.0107	0.0141	0.0162
Dissolved Metals															
Aluminum (Al)-Diss (mg/L)	0.0048	<0.0030	<0.0030		0.0041	0.0083	0.0060	0.0038	0.0034	0.0088	0.0085	0.0053	<0.0030	0.0080	0.0047
Diss-Antimony (Sb) (mg/L)	<0.00010	<0.00010	<0.00010		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Diss-Arsenic (As) (mg/L)	0.00030	0.00053	0.00034		0.00034	0.00028	0.00028	0.00026	0.00034	0.00030	0.00027	0.00028	0.00037	0.00024	0.00032
Diss-Barium (Ba) (mg/L)	0.0161	0.0173	0.0168		0.0161	0.0158	0.0155	0.0167	0.0160	0.0168	0.0154	0.0148	0.0166	0.0165	0.0179
Diss-Beryllium (Be) (mg/L)	<0.00010	<0.00010	<0.00010		<0.00100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100
Diss-Bismuth (Bi) (mg/L)	<0.000050	<0.000050	<0.000050		<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Diss-Boron (B) (mg/L)	0.046	0.049	0.049		0.045	0.046	0.044	0.042	0.046	0.041	0.044	0.039	0.042	0.043	0.039
Diss-Cadmium (Cd) (mg/L)	<0.0000050	<0.0000050	<0.0000050		0.0000102	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050
Diss-Calcium (Ca) (mg/L)	13.4	16.7	14.1		13.7	13.9	13.4	13.7	13.6	13.7	13.2	13.4	14.4	14.4	14.1
Diss-Chromium (Cr) (mg/L)	<0.00050	<0.00050	<0.00050		<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Diss-Cobalt (Co) (mg/L)	<0.00010	<0.00010	<0.00010		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Diss-Copper (Cu) (mg/L)	0.00163	0.00273	0.00180		0.00182	0.00175	0.00191	0.00198	0.00190	0.00194	0.00202	0.00194	0.00168	0.00168	0.00184
Diss-Iron (Fe) (mg/L)	<0.030	0.076	<0.030		<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	0.031
Diss-Lead (Pb) (mg/L)	<0.000050	<0.000050	<0.000050		<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Diss-Lithium (Li) (mg/L)	<0.0010	<0.0010	<0.0010		<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Diss-Magnesium (Mg) (mg/L)	2.66	2.72	2.50		2.49	2.45	2.35	2.51	2.44	2.45	2.41	2.44	2.64	2.55	2.66
Diss-Manganese (Mn) (mg/L)	0.00055	0.400	0.00694		0.0106	0.0101	0.00546	0.0117	0.00641	0.00060	0.0102	0.0292	0.00122	0.00443	0.0862
Diss-Molybdenum (Mo) (mg/L)	0.000769	0.00101	0.000932		0.000897	0.000751	0.000702	0.000806	0.000909	0.000759	0.000823	0.000798	0.000853	0.000706	0.000808
Diss-Nickel (Ni) (mg/L)	<0.00050	<0.00050	<0.00050		<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Diss-Potassium (K) (mg/L)	0.526	0.544	0.463		0.455	0.472	0.468	0.499	0.496	0.463	0.449	0.459	0.536	0.439	0.508
Diss-Selenium (mg/L)	0.000124	0.000130	0.000146		0.000195	0.000207	0.000224	0.000230	0.000219	0.000168	0.000179	0.000170	0.000177	0.000156	0.000198

: B1-BT	
23-Aug-23	7-Sep-23

Anions and Nutrients		
Alkalinity (CaCO3) (mg/L)	44.1	47.9
Ammonia (as N) (mg/L)	0.0070	0.0421
Chloride (mg/L)	0.58	0.57
Diss-Orthophosphate (mg/L)	<0.0010	0.0448
Diss-Phosphorus (mg/L)	0.0063	0.0558
Fluoride (mg/L)	0.054	0.057
Nitrate (N) (mg/L)	<0.0050	<0.0050
Nitrate and Nitrite (mg/L)	<0.0051	<0.0051
Nitrite (N) (mg/L)	<0.0010	0.0023
Sulphate (mg/L)	6.96	5.86
Total Nitrogen (mg/L)	0.253	0.286
Total Phosphorus (mg/L)	0.0128	0.0868
Dissolved Metals		
Aluminum (Al)-Diss (mg/L)	<0.0030	0.0039
Diss-Antimony (Sb) (mg/L)	<0.00010	<0.00010
Diss-Arsenic (As) (mg/L)	0.00041	0.00067
Diss-Barium (Ba) (mg/L)	0.0149	0.0186
Diss-Beryllium (Be) (mg/L)	<0.000100	<0.000100
Diss-Bismuth (Bi) (mg/L)	<0.000050	<0.000050
Diss-Boron (B) (mg/L)	0.044	0.045
Diss-Cadmium (Cd) (mg/L)	<0.0000050	<0.0000050
Diss-Calcium (Ca) (mg/L)	13.9	14.8
Diss-Chromium (Cr) (mg/L)	<0.00050	<0.00050
Diss-Cobalt (Co) (mg/L)	<0.00010	<0.00010
Diss-Copper (Cu) (mg/L)	0.00164	0.00130
Diss-Iron (Fe) (mg/L)	<0.030	0.121
Diss-Lead (Pb) (mg/L)	<0.000050	<0.000050
Diss-Lithium (Li) (mg/L)	<0.0010	<0.0010
Diss-Magnesium (Mg) (mg/L)	2.59	2.66
Diss-Manganese (Mn) (mg/L)	0.00382	0.530
Diss-Molybdenum (Mo) (mg/L)	0.000888	0.000936
Diss-Nickel (Ni) (mg/L)	<0.00050	<0.00050
Diss-Potassium (K) (mg/L)	0.481	0.518
Diss-Selenium (mg/L)	0.000168	0.000151

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	22-May-19	29-Aug-19	16-Sep-19	19-Aug-20	9-Sep-20	26-May-21	10-Jun-21	15-Jul-21	24-Aug-21	16-Jun-22	11-Jul-22	24-Aug-22	19-Sep-22	8-Jun-23	12-Jul-23
Diss-Silicon (Si) (mg/L)	1.68	3.20	1.42		1.60	2.38	2.19	2.21	2.23	1.99	1.53	2.12	2.29	3.02	2.95
Diss-Silver (Ag) (mg/L)	<0.000010	<0.000010	<0.000010		<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Diss-Sodium (Na) (mg/L)	2.54	2.63	2.57		2.54	2.71	2.36	2.55	2.52	2.31	2.32	2.50	2.47	2.44	2.52
Diss-Strontium (Sr) (mg/L)	0.123	0.153	0.129		0.135	0.126	0.116	0.137	0.127	0.124	0.124	0.122	0.135	0.126	0.136
Diss-Thallium (Tl) (mg/L)	<0.000010	<0.000010	<0.000010		<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Diss-Tin (Sn) (mg/L)	<0.00010	<0.00010	<0.00010		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Diss-Titanium (Ti) (mg/L)	<0.010	<0.010	<0.010		<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100
Diss-Uranium (U) (mg/L)	0.000027	0.000027	0.000044		0.000035	0.000036	0.000034	0.000031	0.000039	0.000034	0.000041	0.000033	0.000033	0.000028	0.000028
Diss-Vanadium (V) (mg/L)	<0.00050	<0.00050	<0.00050		<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Diss-Zinc (Zn) (mg/L)	<0.0030	<0.0030	<0.0030		<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030
TDS (mg/L)	68	79	85		47	74	88	92	78	74	83	77	80	70	79
Field Tests															
Cond (in situ) (µs/cm)	95.8	105.8	114.1		122.2	96.3	94.8	98.1	100.2	97.6	97.6	100.3	100.4	105.5	96.7
NTU - in situ (ntu)	0.62	1.57	0.35		2.35	0.36	1.22	99.7	0.96	1.31	0.43	1.4	2.4	0.09	
pH (in situ) (pH)	7.24	7.16	7.47		7.72	7.54	7.46	7.76	7.51	7.57	8.05	7.57	7.23	7.74	7.48
Sample Depth (m)	10	10	11		9	7	8	9	8	11	7	10	10	9	9
Sample Taken	Yes	Yes	Yes	No	Yes	yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		
Temp (in situ) (Degrees Celcius)	5.863	8.31	8.278		9.807	6.055	7.218	7.733	10.866	5.861	9.931	8.236	10.312	7.309	8.829
Organic / Inorganic															
DOC (mg/L)	7.18	6.43	6.21		6.64	7.39	7.53	6.84	7.27	6.74	7.44	7.14	5.91	6.65	6.85
Physical Test															
Conductivity (µs/cm)	95.5	104	96.5		96.1	94.7	95.3	94.1	100	97.1	92.8	99.2	97.0	101	104
Hardness (mg/L)	44.4	53.0	45.6		44.5	44.8	43.1	44.5	44.0	44.3	42.9	43.5	46.8	46.4	46.2
NTU (ntu)	0.95	2.59	0.59		1.05	0.54	0.62	0.59	0.48	1.00	0.50	0.60	1.27	0.42	0.92
pH (pH)	7.78	7.54	7.90		7.71	7.74	7.75	7.57	7.84	7.71	7.84	7.82	7.70	7.36	7.29
TDS (mg/L)	68	79	85		47	74	88	92	78	74	83	77	80	70	79
TSS (mg/L)	1.2	2.2	1.9		1.8	1.2	1.6	2.4	1.9	2.9	<1.0	1.3	1.4	2.3	<1.0
Total Metals															
Aluminum (Al)-Total (mg/L)	0.0185	0.183	0.0190		0.0103	0.0210	0.0149	0.0112	0.0084	0.0271	0.0171	0.0111	0.0177	0.0547	0.0103
Antimony (Sb)-Total (mg/L)	<0.00010	<0.00010	<0.00010		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Arsenic (As)-Total (mg/L)	0.00032	0.00071	0.00039		0.00037	0.00031	0.00030	0.00030	0.00036	0.00026	0.00033	0.00031	0.00042	0.00036	0.00033
Barium (Ba)-Total (mg/L)	0.0169	0.0231	0.0169		0.0177	0.0165	0.0161	0.0168	0.0177	0.0168	0.0159	0.0181	0.0169	0.0179	0.0186
Beryllium (Be)-Total (mg/L)	<0.00010	<0.00010	<0.00010		<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100
Bismuth (Bi)-Total (mg/L)	<0.000050	<0.000050	<0.000050		<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Boron (B)-Total (mg/L)	0.045	0.047	0.049		0.047	0.044	0.040	0.045	0.043	0.047	0.044	0.043	0.040	0.045	0.043

: B1-BT		
	23-Aug-23	7-Sep-23

Diss-Silicon (Si) (mg/L)	3.26	3.83
Diss-Silver (Ag) (mg/L)	<0.000010	<0.000010
Diss-Sodium (Na) (mg/L)	2.53	2.74
Diss-Strontium (Sr) (mg/L)	0.130	0.147
Diss-Thallium (Tl) (mg/L)	<0.000010	<0.000010
Diss-Tin (Sn) (mg/L)	<0.00010	<0.00010
Diss-Titanium (Ti) (mg/L)	<0.0100	<0.0100
Diss-Uranium (U) (mg/L)	0.000028	0.000031
Diss-Vanadium (V) (mg/L)	<0.00050	<0.00050
Diss-Zinc (Zn) (mg/L)	<0.0030	<0.0030
TDS (mg/L)	78	83
Field Tests		
Cond (in situ) (µs/cm)	105.1	114.3
NTU - in situ (ntu)	0.92	0.33
pH (in situ) (pH)	7.6	6.75
Sample Depth (m)	9	10
Sample Taken		
Temp (in situ) (Degrees Celcius)	10.249	9.6
Organic / Inorganic		
DOC (mg/L)	7.02	7.42
Physical Test		
Conductivity (µs/cm)	104	112
Hardness (mg/L)	45.4	47.9
NTU (ntu)	0.72	1.84
pH (pH)	7.12	7.52
TDS (mg/L)	78	83
TSS (mg/L)	1.4	2.0
Total Metals		
Aluminum (Al)-Total (mg/L)	0.0082	0.0177
Antimony (Sb)-Total (mg/L)	<0.00010	0.00011
Arsenic (As)-Total (mg/L)	0.00050	0.00075
Barium (Ba)-Total (mg/L)	0.0157	0.0202
Beryllium (Be)-Total (mg/L)	<0.000100	<0.000100
Bismuth (Bi)-Total (mg/L)	<0.000050	<0.000050
Boron (B)-Total (mg/L)	0.046	0.047

: B1-BT		
	23-Aug-23	7-Sep-23

Cadmium (Cd)-Total (mg/L)	<0.0000050	<0.0000050
Calcium (Ca)-Total (mg/L)	13.8	15.5
Chromium (Cr)-Total (mg/L)	<0.00050	<0.00050
Cobalt (Co)-Total (mg/L)	<0.00010	<0.00010
Copper (Cu)-Total (mg/L)	0.00176	0.00175
Iron (Fe)-Total (mg/L)	0.067	0.285
Lead (Pb)-Total (mg/L)	<0.000050	<0.000050
Lithium (Li)-Total (mg/L)	<0.0010	<0.0010
Magnesium (Mg)-Total (mg/L)	2.73	2.68
Manganese (Mn)-Total (mg/L)	0.0532	0.580
Molybdenum (Mo)-Total (mg/L)	0.000945	0.00100
Nickel (Ni)-Total (mg/L)	<0.00050	<0.00050
Potassium (K)-Total (mg/L)	0.478	0.523
Selenium (Se)-Total (mg/L)	0.000192	0.000188
Silicon (Si)-Total (mg/L)	3.36	3.83
Silver (Ag)-Total (mg/L)	<0.000010	<0.000010
Sodium (Na)-Total (mg/L)	2.53	2.72
Strontium (Sr)-Total (mg/L)	0.135	0.157
Thallium (Tl)-Total (mg/L)	<0.000010	<0.000010
Tin (Sn)-Total (mg/L)	<0.00010	<0.00010
Titanium (Ti)-Total (mg/L)	<0.0100	<0.0100
Uranium (U)-Total (mg/L)	0.000032	0.000037
Vanadium (V)-Total (mg/L)	<0.00050	<0.00050
Zinc (Zn)-Total (mg/L)	<0.0030	<0.0030

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	: B1-BT						
	Sample (n)	Count >MDL	Min	Max	Mean	95th Percentile	St Dev
Anions and Nutrients							
Alkalinity (CaCO3) (mg/L)	16	16	39.20000	47.90000	42.23750		2.27182
Ammonia (as N) (mg/L)	16	8	0.00250	0.04210	0.00958		0.01080
Chloride (mg/L)	16	16	0.57000	0.93000	0.68563		0.12383
Diss-Orthophosphate (mg/L)	16	7	0.00050	0.04480	0.00468		0.01164
Diss-Phosphorus (mg/L)	16	15	0.00100	0.05580	0.00900		0.01340
Floride (mg/L)	16	16	0.04800	0.06000	0.05438		0.00326
Nitrate (N) (mg/L)	16	2	0.00250	0.00850	0.00319		0.00189
Nitrate and Nitrite (mg/L)	16	2	0.00255	0.00860	0.00330		0.00205
Nitrite (N) (mg/L)	16	3	0.00050	0.00230	0.00069		0.00048
Sulphate (mg/L)	16	16	4.18000	8.64000	6.56750		1.15188
Total Nitrogen (mg/L)	16	16	0.23700	0.46800	0.30438		0.05444
Total Phosphorus (mg/L)	16	16	0.01070	0.08680	0.02203		0.02003
Dissolved Metals							
Aluminum (Al)-Diss (mg/L)	16	12	0.00150	0.00880	0.00473		0.00260
Diss-Antimony (Sb) (mg/L)	16	1	0.00005	0.00010	0.00005		0.00001
Diss-Arsenic (As) (mg/L)	16	16	0.00024	0.00067	0.00035		0.00011
Diss-Barium (Ba) (mg/L)	16	16	0.01480	0.01860	0.01636		0.00102
Diss-Beryllium (Be) (mg/L)	16	0	0.00005	0.00050	0.00008		0.00011
Diss-Bismuth (Bi) (mg/L)	16	0	0.00003	0.00003	0.00003		0.00000
Diss-Boron (B) (mg/L)	16	16	0.03900	0.04900	0.04400		0.00297
Diss-Cadmium (Cd) (mg/L)	16	1	0.00000	0.00001	0.00000		0.00000
Diss-Calcium (Ca) (mg/L)	16	16	13.20000	16.70000	14.02500		0.83387
Diss-Chromium (Cr) (mg/L)	16	0	0.00025	0.00025	0.00025		0.00000
Diss-Cobalt (Co) (mg/L)	16	0	0.00005	0.00005	0.00005		0.00000
Diss-Copper (Cu) (mg/L)	16	16	0.00130	0.00273	0.00185		0.00030
Diss-Iron (Fe) (mg/L)	16	3	0.01500	0.12100	0.02644		0.02957
Diss-Lead (Pb) (mg/L)	16	0	0.00003	0.00003	0.00003		0.00000
Diss-Lithium (Li) (mg/L)	16	0	0.00050	0.00050	0.00050		0.00000
Diss-Magnesium (Mg) (mg/L)	16	16	2.35000	2.72000	2.53250		0.11000
Diss-Manganese (Mn) (mg/L)	16	16	0.00055	0.53000	0.06984		0.15743
Diss-Molybdenum (Mo) (mg/L)	16	16	0.00070	0.00101	0.00083		0.00009
Diss-Nickel (Ni) (mg/L)	16	0	0.00025	0.00025	0.00025		0.00000
Diss-Potassium (K) (mg/L)	16	16	0.43900	0.54400	0.48600		0.03277

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: B1-BT						
Sample (n)	Count >MDL	Min	Max	Mean	95th Percentile	St Dev
Diss-Selenium (mg/L)	16	16	0.00012	0.00023	0.00018	0.00003
Diss-Silicon (Si) (mg/L)	16	16	1.42000	3.83000	2.36875	0.69950
Diss-Silver (Ag) (mg/L)	16	0	0.00001	0.00001	0.00001	0.00000
Diss-Sodium (Na) (mg/L)	16	16	2.31000	2.74000	2.51563	0.12099
Diss-Strontium (Sr) (mg/L)	16	16	0.11600	0.15300	0.13063	0.00956
Diss-Thallium (Tl) (mg/L)	16	0	0.00001	0.00001	0.00001	0.00000
Diss-Tin (Sn) (mg/L)	16	0	0.00005	0.00005	0.00005	0.00000
Diss-Titanium (Ti) (mg/L)	16	0	0.00500	0.00500	0.00500	0.00000
Diss-Uranium (U) (mg/L)	16	16	0.00003	0.00004	0.00003	0.00001
Diss-Vanadium (V) (mg/L)	16	0	0.00025	0.00025	0.00025	0.00000
Diss-Zinc (Zn) (mg/L)	16	0	0.00150	0.00150	0.00150	0.00000
TDS (mg/L)	16	16	47.00000	92.00000	77.18750	10.16018
Field Tests						
Cond (in situ) (µs/cm)	16	16	94.80000	122.20000	102.80000	7.93843
NTU - in situ (ntu)	15	15	0.09000	99.70000	7.60067	25.48831
pH (in situ) (pH)	16	16	6.75000	8.05000	7.49063	0.29639
Sample Depth (m)	16	16	7.00000	11.00000	9.18750	1.22304
Sample Taken						
Temp (in situ) (Degrees Celcius)	16	16	5.86100	10.86600	8.40356	1.64453
Organic / Inorganic						
DOC (mg/L)	16	16	5.91000	7.53000	6.91625	0.47053
Physical Test						
Conductivity (µs/cm)	16	16	92.80000	112.00000	98.95625	5.02102
Hardness (mg/L)	16	16	42.90000	53.00000	45.45625	2.43447
NTU (ntu)	16	16	0.42000	2.59000	0.91750	0.57715
pH (pH)	16	16	7.12000	7.90000	7.63688	0.22144
TDS (mg/L)	16	16	47.00000	92.00000	77.18750	10.16018
TSS (mg/L)	16	14	0.50000	2.90000	1.65625	0.65419
Total Metals						
Aluminum (Al)-Total (mg/L)	16	16	0.00820	0.18300	0.02814	0.04276
Antimony (Sb)-Total (mg/L)	16	2	0.00005	0.00011	0.00006	0.00002
Arsenic (As)-Total (mg/L)	16	16	0.00026	0.00075	0.00040	0.00014
Barium (Ba)-Total (mg/L)	16	16	0.01570	0.02310	0.01761	0.00185
Beryllium (Be)-Total (mg/L)	16	0	0.00005	0.00005	0.00005	0.00000
Bismuth (Bi)-Total (mg/L)	16	0	0.00003	0.00003	0.00003	0.00000

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	: B1-BT						
	Sample (n)	Count >MDL	Min	Max	Mean	95th Percentile	St Dev
Boron (B)-Total (mg/L)	16	16	0.04000	0.04900	0.04469		0.00252
Cadmium (Cd)-Total (mg/L)	16	1	0.00000	0.00001	0.00000		0.00000
Calcium (Ca)-Total (mg/L)	16	16	12.70000	15.50000	13.91875		0.74942
Chromium (Cr)-Total (mg/L)	16	0	0.00025	0.00025	0.00025		0.00000
Cobalt (Co)-Total (mg/L)	16	1	0.00005	0.00016	0.00006		0.00003
Copper (Cu)-Total (mg/L)	16	16	0.00175	0.01300	0.00274		0.00274
Iron (Fe)-Total (mg/L)	16	15	0.01500	0.47900	0.09769		0.11842
Lead (Pb)-Total (mg/L)	16	1	0.00003	0.00008	0.00003		0.00001
Lithium (Li)-Total (mg/L)	16	0	0.00050	0.00050	0.00050		0.00000
Magnesium (Mg)-Total (mg/L)	16	16	2.29000	2.73000	2.52750		0.12525
Manganese (Mn)-Total (mg/L)	16	16	0.00854	0.58000	0.10353		0.18717
Molybdenum (Mo)-Total (mg/L)	16	16	0.00075	0.00100	0.00085		0.00008
Nickel (Ni)-Total (mg/L)	16	0	0.00025	0.00025	0.00025		0.00000
Potassium (K)-Total (mg/L)	16	16	0.45000	0.57800	0.48900		0.03217
Selenium (Se)-Total (mg/L)	16	16	0.00011	0.00025	0.00019		0.00004
Silicon (Si)-Total (mg/L)	16	16	1.44000	3.83000	2.45938		0.73180
Silver (Ag)-Total (mg/L)	16	1	0.00001	0.00001	0.00001		0.00000
Sodium (Na)-Total (mg/L)	16	16	2.35000	2.72000	2.49188		0.11077
Strontium (Sr)-Total (mg/L)	16	16	0.12100	0.15700	0.13250		0.00821
Thallium (Tl)-Total (mg/L)	16	0	0.00001	0.00001	0.00001		0.00000
Tin (Sn)-Total (mg/L)	16	0	0.00005	0.00005	0.00005		0.00000
Titanium (Ti)-Total (mg/L)	16	1	0.00500	0.01000	0.00531		0.00125
Uranium (U)-Total (mg/L)	16	16	0.00003	0.00005	0.00004		0.00000
Vanadium (V)-Total (mg/L)	16	2	0.00025	0.00071	0.00030		0.00013
Zinc (Zn)-Total (mg/L)	16	0	0.00150	0.00150	0.00150		0.00000

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Mining Corporation

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	E207972 : B1-S														
	22-May-19	12-Jun-19	23-Jul-19	29-Aug-19	16-Sep-19	23-Oct-19	19-May-20	4-Jun-20	19-Jun-20	14-Jul-20	19-Aug-20	9-Sep-20	30-Sep-20	27-Oct-20	26-May-21
Anions and Nutrients															
Alkalinity (CaCO3) (mg/L)	41.9			41.8	42.6	42.5		38.2		41.5	38.4	39.9	40.6	40.2	39.4
Ammonia (as N) (mg/L)	0.0058			0.0051	<0.0050	<0.0050		0.0071		0.0056	<0.0050	<0.0050	<0.0050	0.0050	0.0052
Chloride (mg/L)	0.90			0.87	0.90	0.92		0.76		0.78	0.72	0.76	0.74	0.73	0.62
Diss-Orthophosphate (mg/L)	<0.0010			<0.0010	<0.0010	<0.0010		<0.0010		<0.0010	<0.0010	<0.0010	<0.0010	0.0015	<0.0010
Diss-Phosphorus (mg/L)	0.0045			0.0036	0.0027	0.0058		0.0040		0.0037	0.0031	0.0035	0.0033	0.0028	0.0028
Fluoride (mg/L)	0.056			0.068	0.057	0.063		0.054		0.056	0.058	0.058	0.063	0.059	0.048
Nitrate (N) (mg/L)	<0.0050			<0.0050	<0.0050	<0.0050		<0.0050		<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Nitrate and Nitrite (mg/L)	<0.0051			<0.0051	<0.0051	<0.0051		<0.0500		<0.0500	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051
Nitrite (N) (mg/L)	<0.0010			<0.0010	<0.0010	<0.0010		<0.0010		<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Sulphate (mg/L)	4.92			4.84	5.05	5.31		5.34		5.79	5.80	5.74	6.04	6.43	6.63
Total Nitrogen (mg/L)	0.269			0.304	0.307	0.411		0.302		0.280	0.303	0.302	0.384	0.317	0.360
Total Phosphorus (mg/L)	0.0072			0.0073	0.0083	0.0147		0.0108		0.0092	0.0089	0.0094	0.0172	0.0124	0.0113
Dissolved Metals															
Aluminum (Al)-Diss (mg/L)	0.0096			0.0043	0.0032	<0.0030		0.0125		0.0067	0.0064	0.0041	0.0034	0.0032	0.0091
Diss-Antimony (Sb) (mg/L)	<0.00010			<0.00010	<0.00010	<0.00010		<0.00010		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Diss-Arsenic (As) (mg/L)	0.00027			0.00033	0.00033	0.00036		0.00028		0.00030	0.00030	0.00033	0.00037	0.00032	0.00030
Diss-Barium (Ba) (mg/L)	0.0157			0.0180	0.0173	0.0165		0.0160		0.0161	0.0191	0.0152	0.0163	0.0165	0.0156
Diss-Beryllium (Be) (mg/L)	<0.00010			<0.00010	<0.00010	<0.00010		<0.00100		<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.000100
Diss-Bismuth (Bi) (mg/L)	<0.000050			<0.000050	<0.000050	<0.000050		<0.000050		<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Diss-Boron (B) (mg/L)	0.046			0.050	0.047	0.047		0.041		0.038	0.044	0.044	0.044	0.045	0.044
Diss-Cadmium (Cd) (mg/L)	<0.0000050			0.0000233	<0.0000050	<0.0000050		<0.0000050		<0.0000050	<0.0000050	<0.0000050	0.0000053	<0.0000050	<0.0000050
Diss-Calcium (Ca) (mg/L)	13.1			14.9	13.9	14.1		13.1		12.8	13.7	13.6	13.2	13.6	13.5
Diss-Chromium (Cr) (mg/L)	<0.00050			<0.00050	<0.00050	<0.00050		<0.00050		<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Diss-Cobalt (Co) (mg/L)	<0.00010			<0.00010	<0.00010	<0.00010		<0.00010		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Diss-Copper (Cu) (mg/L)	0.00178			0.00199	0.00177	0.00160		0.00186		0.00183	0.00192	0.00202	0.00183	0.00177	0.00175
Diss-Iron (Fe) (mg/L)	<0.030			<0.030	<0.030	<0.030		<0.030		<0.030	<0.030	<0.030	<0.030	<0.030	<0.030
Diss-Lead (Pb) (mg/L)	<0.000050			<0.000050	<0.000050	<0.000050		<0.000050		<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Diss-Lithium (Li) (mg/L)	<0.0010			<0.0010	<0.0010	<0.0010		<0.0010		<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Diss-Magnesium (Mg) (mg/L)	2.53			2.53	2.49	2.50		2.32		2.36	2.36	2.54	2.39	2.40	2.40
Diss-Manganese (Mn) (mg/L)	0.00748			0.00016	0.00866	0.0233		0.00030		0.00659	0.00248	0.00298	0.0414	0.00338	0.0105
Diss-Molybdenum (Mo) (mg/L)	0.000789			0.000952	0.000923	0.000933		0.000703		0.000994	0.000862	0.000795	0.000831	0.000917	0.000763
Diss-Nickel (Ni) (mg/L)	<0.00050			<0.00050	<0.00050	<0.00050		<0.00050		<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Diss-Potassium (K) (mg/L)	0.500			0.447	0.454	0.444		0.470		0.427	0.443	0.452	0.444	0.482	0.465
Diss-Selenium (mg/L)	0.000088			0.000111	0.000141	0.000112		0.000207		0.000184	0.000178	0.000195	0.000187	0.000210	0.000171

E207972 : B1-S

	10-Jun-21	15-Jul-21	24-Aug-21	28-Sep-21	19-Oct-21	1-Nov-21	24-May-22	16-Jun-22	11-Jul-22	24-Aug-22	19-Sep-22	26-Oct-22	24-May-23	8-Jun-23	12-Jul-23
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Anions and Nutrients															
Alkalinity (CaCO3) (mg/L)	40.2	42.4	44.3	44.2	42.9	41.6	41.0	41.9	40.3	39.5	40.2	40.9	39.6	40.1	41.4
Ammonia (as N) (mg/L)	<0.0050	<0.0050	<0.0050	0.0087	0.0081	<0.0050	<0.0050	<0.0050	0.0060	<0.0050	0.0061	0.0280	<0.0050	<0.0050	<0.0050
Chloride (mg/L)	0.65	0.67	0.68	0.66	0.66	0.70	0.63	0.58	0.55	0.57	0.60	0.57	0.55	0.58	0.53
Diss-Orthophosphate (mg/L)	<0.0010	<0.0010	0.0012	0.0021	0.0019	0.0011	0.0012	<0.0010	<0.0010	<0.0010	0.0012	0.0087	<0.0010	<0.0010	<0.0010
Diss-Phosphorus (mg/L)	0.0063	0.0047	0.0090	0.0068	0.0106	0.0136	0.0037	0.0054	0.0036	0.0025	<0.0020	0.0134	0.0060	0.0060	0.0054
Fluoride (mg/L)	0.056	0.058	0.055	0.048	0.060	0.062	0.054	0.052	0.050	0.056	0.054	0.051	0.057	0.059	0.059
Nitrate (N) (mg/L)	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Nitrate and Nitrite (mg/L)	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051
Nitrite (N) (mg/L)	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.0013	<0.0010	<0.0010	<0.0010
Sulphate (mg/L)	6.58	6.89	6.72	6.69	6.98	7.42	8.00	7.13	6.84	7.55	7.90	7.26	7.52	7.94	7.97
Total Nitrogen (mg/L)	0.287	0.272	0.280	0.256	0.266	0.273	0.315	0.299	0.266	0.251	0.242	0.306	0.256	0.298	0.298
Total Phosphorus (mg/L)	0.0053	0.0059	0.0074	0.0148	0.0118	0.0119	0.0116	0.0182	0.0054	0.0054	0.0067	0.0226	0.0065	0.0121	0.0066
Dissolved Metals															
Aluminum (Al)-Diss (mg/L)	0.0070	0.0037	0.0033	<0.0030	<0.0030	<0.0030	0.0182	0.0091	0.0081	0.0046	0.0053	<0.0030	0.0111	0.0109	0.0168
Diss-Antimony (Sb) (mg/L)	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Diss-Arsenic (As) (mg/L)	0.00027	0.00036	0.00031	0.00036	0.00035	0.00033	0.00029	0.00024	0.00028	0.00030	0.00034	0.00038	0.00034	0.00032	0.00037
Diss-Barium (Ba) (mg/L)	0.0154	0.0155	0.0157	0.0159	0.0168	0.0186	0.0151	0.0165	0.0152	0.0142	0.0160	0.0174	0.0141	0.0162	0.0168
Diss-Beryllium (Be) (mg/L)	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100
Diss-Bismuth (Bi) (mg/L)	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Diss-Boron (B) (mg/L)	0.045	0.042	0.043	0.046	0.042	0.042	0.042	0.040	0.043	0.040	0.045	0.045	0.042	0.043	0.042
Diss-Cadmium (Cd) (mg/L)	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050
Diss-Calcium (Ca) (mg/L)	13.8	13.3	14.2	14.9	14.0	14.2	13.0	13.3	13.2	13.7	13.6	14.6	13.4	13.5	13.8
Diss-Chromium (Cr) (mg/L)	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Diss-Cobalt (Co) (mg/L)	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Diss-Copper (Cu) (mg/L)	0.00166	0.00189	0.00192	0.00181	0.00177	0.00178	0.00179	0.00183	0.00198	0.00193	0.00200	0.00174	0.00180	0.00215	0.00298
Diss-Iron (Fe) (mg/L)	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	0.031	<0.030	<0.030	<0.030	<0.030	0.038	<0.030	<0.030	<0.030
Diss-Lead (Pb) (mg/L)	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	0.000164	<0.000050	<0.000050
Diss-Lithium (Li) (mg/L)	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Diss-Magnesium (Mg) (mg/L)	2.41	2.54	2.62	2.45	2.60	2.51	2.02	2.31	2.40	2.45	2.52	2.52	2.41	2.54	2.69
Diss-Manganese (Mn) (mg/L)	0.0146	0.00151	0.00472	0.0391	0.0323	0.0201	0.0153	0.00195	0.0106	0.00162	0.00503	0.0404	0.00124	0.00596	0.00287
Diss-Molybdenum (Mo) (mg/L)	0.000768	0.000879	0.000886	0.00119	0.000911	0.000895	0.000786	0.000788	0.000802	0.000869	0.000892	0.000920	0.000811	0.000766	0.000854
Diss-Nickel (Ni) (mg/L)	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Diss-Potassium (K) (mg/L)	0.486	0.506	0.488	0.491	0.498	0.479	0.419	0.447	0.444	0.444	0.460	0.468	0.455	0.441	0.497
Diss-Selenium (mg/L)	0.000207	0.000206	0.000216	0.000222	0.000241	0.000219	0.000236	0.000125	0.000165	0.000227	0.000191	0.000168	0.000158	0.000163	0.000263

	E207972 : B1-S		
	23-Aug-23	7-Sep-23	10-Oct-23
Anions and Nutrients			
Alkalinity (CaCO3) (mg/L)	41.6	43.3	44.2
Ammonia (as N) (mg/L)	0.0095	0.0062	0.0070
Chloride (mg/L)	0.54	0.52	0.54
Diss-Orthophosphate (mg/L)	<0.0010	<0.0010	0.0024
Diss-Phosphorus (mg/L)	0.0053	0.0063	0.0073
Fluoride (mg/L)	0.057	0.053	0.058
Nitrate (N) (mg/L)	<0.0050	<0.0050	<0.0050
Nitrate and Nitrite (mg/L)	<0.0051	<0.0051	<0.0051
Nitrite (N) (mg/L)	<0.0010	<0.0010	<0.0010
Sulphate (mg/L)	8.57	7.19	7.95
Total Nitrogen (mg/L)	0.272	0.275	0.336
Total Phosphorus (mg/L)	0.0104	0.0122	0.0217
Dissolved Metals			
Aluminum (Al)-Diss (mg/L)	0.0074	0.0042	0.0068
Diss-Antimony (Sb) (mg/L)	<0.00010	<0.00010	<0.00010
Diss-Arsenic (As) (mg/L)	0.00034	0.00039	0.00043
Diss-Barium (Ba) (mg/L)	0.0154	0.0161	0.0175
Diss-Beryllium (Be) (mg/L)	<0.000100	<0.000100	<0.000100
Diss-Bismuth (Bi) (mg/L)	<0.000050	<0.000050	<0.000050
Diss-Boron (B) (mg/L)	0.044	0.047	0.053
Diss-Cadmium (Cd) (mg/L)	<0.0000050	<0.0000050	<0.0000050
Diss-Calcium (Ca) (mg/L)	14.4	14.1	15.1
Diss-Chromium (Cr) (mg/L)	<0.00050	<0.00050	<0.00050
Diss-Cobalt (Co) (mg/L)	<0.00010	<0.00010	<0.00010
Diss-Copper (Cu) (mg/L)	0.00242	0.00191	0.00204
Diss-Iron (Fe) (mg/L)	<0.030	<0.030	<0.030
Diss-Lead (Pb) (mg/L)	<0.000050	<0.000050	<0.000050
Diss-Lithium (Li) (mg/L)	<0.0010	<0.0010	<0.0010
Diss-Magnesium (Mg) (mg/L)	2.62	2.65	2.90
Diss-Manganese (Mn) (mg/L)	0.00203	0.00317	0.0166
Diss-Molybdenum (Mo) (mg/L)	0.00104	0.000863	0.00100
Diss-Nickel (Ni) (mg/L)	<0.00050	<0.00050	<0.00050
Diss-Potassium (K) (mg/L)	0.450	0.463	0.500
Diss-Selenium (mg/L)	0.000205	0.000187	0.000200

	E207972 : B1-S		
	23-Aug-23	7-Sep-23	10-Oct-23
Diss-Silicon (Si) (mg/L)	2.04	2.04	2.02
Diss-Silver (Ag) (mg/L)	<0.000010	<0.000010	<0.000010
Diss-Sodium (Na) (mg/L)	2.52	2.75	2.77
Diss-Strontium (Sr) (mg/L)	0.146	0.135	0.136
Diss-Thallium (Tl) (mg/L)	<0.000010	<0.000010	<0.000010
Diss-Tin (Sn) (mg/L)	<0.00010	<0.00010	<0.00010
Diss-Titanium (Ti) (mg/L)	<0.0100	<0.0100	<0.0100
Diss-Uranium (U) (mg/L)	0.000048	0.000044	0.000044
Diss-Vanadium (V) (mg/L)	<0.00050	<0.00050	<0.00050
Diss-Zinc (Zn) (mg/L)	<0.0030	<0.0030	<0.0030
TDS (mg/L)	80	87	73
Field Tests			
Cond (in situ) (µs/cm)	104.4	101.4	100.4
NTU - in situ (ntu)	0.56	0.45	4.63
pH (in situ) (pH)	8.08	6.76	6.22
Sample Depth (m)	0	0	0
Sample Taken	Yes	Yes	
Secchi Depth (m)	5	4.95	2.5
Temp (in situ) (Degrees Celcius)	17.779	16.189	11.65
Organic / Inorganic			
DOC (mg/L)	6.93	7.26	6.89
Physical Test			
Conductivity (µs/cm)	104	106	104
Hardness (mg/L)	46.7	46.1	49.6
NTU (ntu)	0.51	0.74	1.37
pH (pH)	7.92	7.78	7.80
TDS (mg/L)	80	87	73
TSS (mg/L)	1.4	<1.0	2.5
Total Metals			
Aluminum (Al)-Total (mg/L)	0.0110	0.0111	0.0181
Antimony (Sb)-Total (mg/L)	<0.00010	<0.00010	<0.00010
Arsenic (As)-Total (mg/L)	0.00036	0.00041	0.00046
Barium (Ba)-Total (mg/L)	0.0157	0.0168	0.0170
Beryllium (Be)-Total (mg/L)	<0.000100	<0.000100	<0.000100
Bismuth (Bi)-Total (mg/L)	<0.000050	<0.000050	<0.000050

	E207972 : B1-S														
	10-Jun-21	15-Jul-21	24-Aug-21	28-Sep-21	19-Oct-21	1-Nov-21	24-May-22	16-Jun-22	11-Jul-22	24-Aug-22	19-Sep-22	26-Oct-22	24-May-23	8-Jun-23	12-Jul-23
Boron (B)-Total (mg/L)	0.040	0.046	0.043	0.044	0.044	0.042	0.043	0.045	0.044	0.044	0.041	0.051	0.046	0.046	0.043
Cadmium (Cd)-Total (mg/L)	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050
Calcium (Ca)-Total (mg/L)	12.6	13.3	14.0	13.9	13.5	14.0	12.7	13.1	12.2	13.4	13.9	15.1	14.1	14.3	14.4
Chromium (Cr)-Total (mg/L)	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Cobalt (Co)-Total (mg/L)	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Copper (Cu)-Total (mg/L)	0.00192	0.00200	0.00200	0.00216	0.00189	0.00246	0.00237	0.00204	0.00215	0.00204	0.00231	0.00235	0.00194	0.00293	0.00228
Iron (Fe)-Total (mg/L)	0.035	<0.030	<0.030	0.072	0.049	0.071	0.092	0.034	<0.030	<0.030	<0.030	0.125	<0.030	0.057	<0.030
Lead (Pb)-Total (mg/L)	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	0.000068	<0.000050	<0.000050	<0.000050	<0.000050	0.000098	<0.000050	<0.000050
Lithium (Li)-Total (mg/L)	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Magnesium (Mg)-Total (mg/L)	2.32	2.64	2.31	2.66	2.45	2.51	2.58	2.37	2.45	2.60	2.56	2.76	2.44	2.51	2.65
Manganese (Mn)-Total (mg/L)	0.0155	0.0101	0.0136	0.0531	0.0386	0.0382	0.0430	0.00764	0.0149	0.00885	0.0162	0.0817	0.00893	0.00928	0.0110
Molybdenum (Mo)-Total (mg/L)	0.000758	0.000878	0.00102	0.000909	0.000911	0.000943	0.000830	0.000748	0.000770	0.000894	0.000862	0.000949	0.000780	0.000879	0.000900
Nickel (Ni)-Total (mg/L)	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Potassium (K)-Total (mg/L)	0.451	0.489	0.480	0.506	0.465	0.482	0.472	0.462	0.467	0.435	0.464	0.489	0.469	0.517	0.474
Selenium (Se)-Total (mg/L)	0.000211	0.000212	0.000215	0.000231	0.000201	0.000218	0.000224	0.000232	0.000218	0.000225	0.000247	0.000223	0.000132	0.000224	0.000279
Silicon (Si)-Total (mg/L)	2.19	2.10	2.20	2.56	2.28	1.61	1.96	1.95	1.61	1.52	1.62	2.20	2.57	2.62	2.31
Silver (Ag)-Total (mg/L)	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Sodium (Na)-Total (mg/L)	2.39	2.55	2.45	2.65	2.38	2.38	2.33	2.35	2.40	2.42	2.56	2.52	2.29	2.47	2.51
Strontium (Sr)-Total (mg/L)	0.122	0.132	0.140	0.131	0.124	0.136	0.126	0.127	0.118	0.132	0.130	0.128	0.117	0.133	0.138
Thallium (Tl)-Total (mg/L)	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Tin (Sn)-Total (mg/L)	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Titanium (Ti)-Total (mg/L)	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100
Uranium (U)-Total (mg/L)	0.000037	0.000038	0.000045	0.000038	0.000037	0.000043	0.000041	0.000044	0.000042	0.000045	0.000043	0.000039	0.000038	0.000045	0.000042
Vanadium (V)-Total (mg/L)	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	0.00056	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	0.00050	<0.00050
Zinc (Zn)-Total (mg/L)	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	0.0083	<0.0030	<0.0030	<0.0030	<0.0030

	E207972 : B1-S		
	23-Aug-23	7-Sep-23	10-Oct-23
Boron (B)-Total (mg/L)	0.046	0.043	0.046
Cadmium (Cd)-Total (mg/L)	<0.0000050	<0.0000050	<0.0000050
Calcium (Ca)-Total (mg/L)	14.3	13.7	14.4
Chromium (Cr)-Total (mg/L)	<0.00050	<0.00050	<0.00050
Cobalt (Co)-Total (mg/L)	<0.00010	<0.00010	<0.00010
Copper (Cu)-Total (mg/L)	0.00233	0.00215	0.00204
Iron (Fe)-Total (mg/L)	<0.030	0.044	0.094
Lead (Pb)-Total (mg/L)	<0.000050	<0.000050	<0.000050
Lithium (Li)-Total (mg/L)	<0.0010	<0.0010	<0.0010
Magnesium (Mg)-Total (mg/L)	2.64	2.56	2.63
Manganese (Mn)-Total (mg/L)	0.0124	0.0171	0.0506
Molybdenum (Mo)-Total (mg/L)	0.00104	0.000947	0.00100
Nickel (Ni)-Total (mg/L)	<0.00050	<0.00050	<0.00050
Potassium (K)-Total (mg/L)	0.424	0.456	0.457
Selenium (Se)-Total (mg/L)	0.000239	0.000193	0.000251
Silicon (Si)-Total (mg/L)	2.03	2.00	2.02
Silver (Ag)-Total (mg/L)	<0.000010	<0.000010	<0.000010
Sodium (Na)-Total (mg/L)	2.51	2.64	2.53
Strontium (Sr)-Total (mg/L)	0.151	0.143	0.138
Thallium (Tl)-Total (mg/L)	<0.000010	<0.000010	<0.000010
Tin (Sn)-Total (mg/L)	<0.00010	<0.00010	<0.00010
Titanium (Ti)-Total (mg/L)	<0.0100	<0.0100	<0.0100
Uranium (U)-Total (mg/L)	0.000052	0.000043	0.000041
Vanadium (V)-Total (mg/L)	<0.00050	<0.00050	<0.00050
Zinc (Zn)-Total (mg/L)	<0.0030	<0.0030	<0.0030

Grid Format Report : Bootjack Lake North Station B1 surface

From 1 Jan 2019 to 31 Dec 2023

Printed : 2024-02-08



Mount Polley

Mining Corporation

IMPERIAL METALS CORPORATION

	E207972 : B1-S						
	Sample (n)	Count >MDL	Min	Max	Mean	95th Percentile	St Dev
Anions and Nutrients							
Alkalinity (CaCO3) (mg/L)	29	29	38.20000	44.30000	41.26207	45.50000	1.63017
Ammonia (as N) (mg/L)	29	14	0.00250	0.02800	0.00520	0.01435	0.00492
Chloride (mg/L)	29	29	0.52000	0.92000	0.67172	1.60000	0.11938
Diss-Orthophosphate (mg/L)	29	9	0.00050	0.00870	0.00108	0.00195	0.00156
Diss-Phosphorus (mg/L)	29	28	0.00100	0.01360	0.00540	0.01016	0.00303
Floride (mg/L)	29	29	0.04800	0.06800	0.05652	0.07975	0.00447
Nitrate (N) (mg/L)	29	0	0.00250	0.00250	0.00250	0.02386	0.00000
Nitrate and Nitrite (mg/L)	29	0	0.00255	0.02500	0.00410	0.02474	0.00579
Nitrite (N) (mg/L)	29	1	0.00050	0.00130	0.00053	0.00109	0.00015
Sulphate (mg/L)	29	29	4.84000	8.57000	6.72379	5.34000	1.04077
Total Nitrogen (mg/L)	29	29	0.24200	0.41100	0.29610	0.33000	0.03839
Total Phosphorus (mg/L)	29	29	0.00530	0.02260	0.01080	0.02000	0.00467
Dissolved Metals							
Aluminum (Al)-Diss (mg/L)	29	24	0.00150	0.01820	0.00643	0.01140	0.00440
Diss-Antimony (Sb) (mg/L)	29	0	0.00005	0.00005	0.00005	0.00012	0.00000
Diss-Arsenic (As) (mg/L)	29	29	0.00024	0.00043	0.00033	0.00038	0.00004
Diss-Barium (Ba) (mg/L)	29	29	0.01410	0.01910	0.01623	0.01820	0.00115
Diss-Beryllium (Be) (mg/L)	29	0	0.00005	0.00050	0.00014	0.00025	0.00019
Diss-Bismuth (Bi) (mg/L)	29	0	0.00003	0.00003	0.00002	0.00025	0.00000
Diss-Boron (B) (mg/L)	29	29	0.03800	0.05300	0.04400	0.04775	0.00305
Diss-Cadmium (Cd) (mg/L)	29	2	0.00000	0.00002	0.00000	0.00003	0.00000
Diss-Calcium (Ca) (mg/L)	29	29	12.80000	15.10000	13.77931	13.94000	0.59664
Diss-Chromium (Cr) (mg/L)	29	0	0.00025	0.00025	0.00025	0.00025	0.00000
Diss-Cobalt (Co) (mg/L)	29	0	0.00005	0.00005	0.00005	0.00005	0.00000
Diss-Copper (Cu) (mg/L)	29	29	0.00160	0.00298	0.00191	0.00260	0.00026
Diss-Iron (Fe) (mg/L)	29	2	0.01500	0.03800	0.01634	0.01500	0.00511
Diss-Lead (Pb) (mg/L)	29	1	0.00003	0.00016	0.00003	0.00003	0.00003
Diss-Lithium (Li) (mg/L)	29	0	0.00050	0.00050	0.00050	0.00250	0.00000
Diss-Magnesium (Mg) (mg/L)	29	29	2.02000	2.90000	2.48207	2.59600	0.15319
Diss-Manganese (Mn) (mg/L)	29	29	0.00016	0.04140	0.01125	0.02249	0.01261
Diss-Molybdenum (Mo) (mg/L)	29	29	0.00070	0.00119	0.00088	0.00116	0.00010
Diss-Nickel (Ni) (mg/L)	29	0	0.00025	0.00025	0.00025	0.00025	0.00000
Diss-Potassium (K) (mg/L)	29	29	0.41900	0.50600	0.46428	0.52250	0.02396

Grid Format Report : Bootjack Lake North Station B1 surface

From 1 Jan 2019 to 31 Dec 2023

Printed : 2024-02-08



Mount Polley

Mining Corporation

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E207972 : B1-S							
Sample (n)	Count >MDL	Min	Max	Mean	95th Percentile	St Dev	
Diss-Selenium (mg/L)	29	29	0.00009	0.00026	0.00019	0.00050	0.00004
Diss-Silicon (Si) (mg/L)	29	29	1.22000	2.57000	1.80862	1.87400	0.37560
Diss-Silver (Ag) (mg/L)	29	0	0.00001	0.00001	0.00001	0.00001	0.00000
Diss-Sodium (Na) (mg/L)	29	29	2.13000	2.77000	2.48310	3.23400	0.15093
Diss-Strontium (Sr) (mg/L)	29	29	0.11800	0.14600	0.12910	0.13630	0.00707
Diss-Thallium (Tl) (mg/L)	29	0	0.00001	0.00001	0.00001	0.00005	0.00000
Diss-Tin (Sn) (mg/L)	29	1	0.00005	0.00014	0.00005	0.00005	0.00002
Diss-Titanium (Ti) (mg/L)	29	0	0.00500	0.00500	0.00500	0.00500	0.00000
Diss-Uranium (U) (mg/L)	29	29	0.00003	0.00005	0.00004	0.00005	0.00000
Diss-Vanadium (V) (mg/L)	29	0	0.00025	0.00025	0.00025	0.00050	0.00000
Diss-Zinc (Zn) (mg/L)	29	0	0.00150	0.00150	0.00150	0.00369	0.00000
TDS (mg/L)	29	29	45.00000	90.00000	74.72414	77.55000	9.53151
Field Tests							
Cond (in situ) (µs/cm)	33	33	3.70000	114.70000	95.85758	113.85000	17.65963
NTU - in situ (ntu)	33	33	0.00000	18.04000	1.47000	3.01450	3.30025
pH (in situ) (pH)	33	33	6.22000	8.21000	7.58121	8.35000	0.49980
Sample Depth (m)	33	33	0.00000	0.00000	0.00000	0.00000	0.00000
Sample Taken							
Secchi Depth (m)	32	32	2.50000	6.85000	4.54063	6.53250	1.18855
Temp (in situ) (Degrees Celcius)	33	33	4.63200	22.77800	14.38585	20.98520	4.57481
Organic / Inorganic							
DOC (mg/L)	29	29	5.82000	7.85000	6.91172	7.61000	0.48638
Physical Test							
Conductivity (µs/cm)	29	29	91.80000	106.00000	97.38621	98.84000	3.57429
Hardness (mg/L)	29	29	40.80000	49.60000	44.62759	45.80000	1.94861
NTU (ntu)	29	29	0.24000	2.16000	0.74172	1.96600	0.46909
pH (pH)	29	29	7.44000	8.00000	7.79069	7.96000	0.11392
TDS (mg/L)	29	29	45.00000	90.00000	74.72414	77.55000	9.53151
TSS (mg/L)	29	19	0.50000	4.80000	1.44483	5.70000	1.13628
Total Metals							
Aluminum (Al)-Total (mg/L)	29	29	0.00730	0.05500	0.01674	0.03400	0.01071
Antimony (Sb)-Total (mg/L)	29	0	0.00005	0.00005	0.00005	0.00015	0.00000
Arsenic (As)-Total (mg/L)	29	29	0.00021	0.00046	0.00035	0.00045	0.00006
Barium (Ba)-Total (mg/L)	29	29	0.01430	0.01910	0.01649	0.01875	0.00101
Beryllium (Be)-Total (mg/L)	29	0	0.00005	0.00005	0.00005	0.00025	0.00000

Grid Format Report : Bootjack Lake North Station B1 surface

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E207972 : B1-S							
Sample (n)	Count >MDL	Min	Max	Mean	95th Percentile	St Dev	
Bismuth (Bi)-Total (mg/L)	29	0	0.00003	0.00003	0.00002	0.00025	0.00000
Boron (B)-Total (mg/L)	29	29	0.04000	0.05100	0.04448	0.04900	0.00264
Cadmium (Cd)-Total (mg/L)	29	2	0.00000	0.00008	0.00001	0.00004	0.00001
Calcium (Ca)-Total (mg/L)	29	29	12.10000	15.10000	13.46207	14.20000	0.77892
Chromium (Cr)-Total (mg/L)	29	0	0.00025	0.00025	0.00025	0.00025	0.00000
Cobalt (Co)-Total (mg/L)	29	0	0.00005	0.00005	0.00005	0.00005	0.00000
Copper (Cu)-Total (mg/L)	29	29	0.00171	0.00293	0.00213	0.00320	0.00026
Iron (Fe)-Total (mg/L)	29	17	0.01500	0.12500	0.04217	0.09400	0.02994
Lead (Pb)-Total (mg/L)	29	2	0.00003	0.00010	0.00003	0.00010	0.00002
Lithium (Li)-Total (mg/L)	29	0	0.00050	0.00050	0.00050	0.00250	0.00000
Magnesium (Mg)-Total (mg/L)	29	29	2.13000	2.76000	2.46483	2.55500	0.15594
Manganese (Mn)-Total (mg/L)	29	29	0.00764	0.08170	0.02433	0.04485	0.01880
Molybdenum (Mo)-Total (mg/L)	29	29	0.00071	0.00104	0.00088	0.00128	0.00009
Nickel (Ni)-Total (mg/L)	29	0	0.00025	0.00025	0.00025	0.00025	0.00000
Potassium (K)-Total (mg/L)	29	29	0.41300	0.51700	0.46238	0.66400	0.02543
Selenium (Se)-Total (mg/L)	29	29	0.00010	0.00028	0.00020	0.04070	0.00004
Silicon (Si)-Total (mg/L)	29	29	1.27000	2.62000	1.89621	1.89500	0.40024
Silver (Ag)-Total (mg/L)	29	0	0.00001	0.00001	0.00001	0.00001	0.00000
Sodium (Na)-Total (mg/L)	29	29	2.08000	2.69000	2.43724	2.61000	0.13461
Strontium (Sr)-Total (mg/L)	29	29	0.11300	0.15100	0.12859	0.14000	0.00936
Thallium (Tl)-Total (mg/L)	29	0	0.00001	0.00001	0.00001	0.00005	0.00000
Tin (Sn)-Total (mg/L)	29	1	0.00005	0.00012	0.00005	0.00005	0.00001
Titanium (Ti)-Total (mg/L)	29	0	0.00500	0.00500	0.00500	0.00500	0.00000
Uranium (U)-Total (mg/L)	29	29	0.00004	0.00005	0.00004	0.00005	0.00000
Vanadium (V)-Total (mg/L)	29	3	0.00025	0.00056	0.00028	0.00050	0.00009
Zinc (Zn)-Total (mg/L)	29	2	0.00150	0.00830	0.00179	0.00480	0.00129

Grid Format Report : Bootjack Lake South Station B2-AT

From 1 Jan 2019 to 31 Dec 2023

Printed : 2024-02-08



Mount Polley

Mining Corporation

IMPERIAL METALS CORPORATION

	: B2-AT														
	22-May-19	29-Aug-19	16-Sep-19	14-Jul-20	19-Aug-20	9-Sep-20	26-May-21	10-Jun-21	15-Jul-21	24-Aug-21	28-Sep-21	16-Jun-22	11-Jul-22	24-Aug-22	19-Sep-22
Anions and Nutrients															
Alkalinity (CaCO3) (mg/L)	41.4	41.9	42.2	40.4	39.0	39.5	39.5	40.4	42.9	44.9	46.2	41.3	40.2	39.7	40.3
Ammonia (as N) (mg/L)	<0.0050	0.0060	0.0057	<0.0050	<0.0050	0.0054	<0.0050	0.0163	<0.0050	<0.0050	<0.0050	<0.0050	0.0051	<0.0050	0.0332
Chloride (mg/L)	0.91	0.86	0.90	0.72	0.73	0.74	0.62	0.69	0.68	0.68	0.81	0.58	0.59	0.58	0.59
Diss-Orthophosphate (mg/L)	<0.0010	0.0018	<0.0010	<0.0010	<0.0010	<0.0010	0.0028	0.0020	<0.0010	0.0022	0.0024	<0.0010	<0.0010	<0.0010	0.0014
Diss-Phosphorus (mg/L)	0.0065	0.0046	0.0030	0.0044	0.0031	0.0037	0.0036	0.0077	0.0048	0.0105	0.0107	0.0058	0.0029	0.0026	0.0021
Fluoride (mg/L)	0.055	0.061	0.060	0.058	0.057	0.056	0.048	0.053	0.060	0.056	0.048	0.053	0.050	0.055	0.055
Nitrate (N) (mg/L)	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.0066	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Nitrate and Nitrite (mg/L)	<0.0051	<0.0051	<0.0051	<0.0500	<0.0051	<0.0051	<0.0051	0.0076	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051
Nitrite (N) (mg/L)	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Sulphate (mg/L)	4.84	4.84	5.05	5.55	5.83	5.70	6.56	6.57	7.04	6.95	6.68	7.02	6.86	7.42	7.83
Total Nitrogen (mg/L)	0.293	0.303	0.308	0.273	0.302	0.298	0.608	0.559	0.276	0.256	0.255	0.267	0.280	0.261	0.253
Total Phosphorus (mg/L)	0.0153	0.0191	0.0104	0.0098	0.0077	0.0197	0.0122	0.0168	0.0053	0.0109	0.0113	0.0135	0.0145	0.0096	0.0060
Dissolved Metals															
Aluminum (Al)-Diss (mg/L)	0.0057	0.0036	0.0036	0.0080	0.0052	0.0036	0.0091	0.0053	0.0040	0.0035	<0.0030	0.0234	0.0091	0.0039	0.0037
Diss-Antimony (Sb) (mg/L)	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Diss-Arsenic (As) (mg/L)	0.00026	0.00035	0.00035	0.00028	0.00029	0.00032	0.00029	0.00027	0.00035	0.00034	0.00035	0.00024	0.00026	0.00030	0.00032
Diss-Barium (Ba) (mg/L)	0.0171	0.0181	0.0170	0.0159	0.0166	0.0155	0.0155	0.0156	0.0164	0.0151	0.0168	0.0154	0.0153	0.0147	0.0155
Diss-Beryllium (Be) (mg/L)	<0.00010	<0.00010	<0.00010	<0.00100	<0.00100	<0.00100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100
Diss-Bismuth (Bi) (mg/L)	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Diss-Boron (B) (mg/L)	0.046	0.048	0.046	0.040	0.044	0.044	0.045	0.044	0.042	0.042	0.043	0.038	0.043	0.041	0.044
Diss-Cadmium (Cd) (mg/L)	<0.0000050	0.0000057	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050
Diss-Calcium (Ca) (mg/L)	13.2	14.3	14.2	13.1	13.8	13.3	13.6	13.9	13.6	13.6	13.9	12.9	13.1	13.7	13.5
Diss-Chromium (Cr) (mg/L)	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Diss-Cobalt (Co) (mg/L)	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Diss-Copper (Cu) (mg/L)	0.00163	0.00184	0.00179	0.00175	0.00193	0.00194	0.00171	0.00188	0.00205	0.00207	0.00207	0.00210	0.00197	0.00187	0.00196
Diss-Iron (Fe) (mg/L)	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030
Diss-Lead (Pb) (mg/L)	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	0.000051	<0.000050	<0.000050	<0.000050
Diss-Lithium (Li) (mg/L)	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Diss-Magnesium (Mg) (mg/L)	2.62	2.54	2.46	2.33	2.44	2.54	2.39	2.39	2.55	2.52	2.54	2.31	2.38	2.36	2.46
Diss-Manganese (Mn) (mg/L)	0.00032	0.00020	0.00032	0.00398	0.00067	0.00121	0.00767	0.00492	0.00158	0.00303	0.0186	0.00196	0.00669	0.00162	0.00383
Diss-Molybdenum (Mo) (mg/L)	0.000787	0.000915	0.000935	0.000798	0.000840	0.000826	0.000736	0.000786	0.000914	0.000913	0.000906	0.000738	0.000777	0.000841	0.000834
Diss-Nickel (Ni) (mg/L)	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Diss-Potassium (K) (mg/L)	0.534	0.454	0.439	0.420	0.461	0.445	0.459	0.492	0.510	0.470	0.520	0.433	0.442	0.433	0.455
Diss-Selenium (mg/L)	0.000080	0.000076	0.000152	0.000150	0.000162	0.000182	0.000170	0.000216	0.000200	0.000180	0.000189	0.000223	0.000216	0.000180	0.000231

	: B2-AT			
	8-Jun-23	12-Jul-23	23-Aug-23	7-Sep-23
Anions and Nutrients				
Alkalinity (CaCO3) (mg/L)	40.4	41.8	41.8	44.0
Ammonia (as N) (mg/L)	0.0084	<0.0050	0.0103	<0.0050
Chloride (mg/L)	0.59	0.53	0.53	0.52
Diss-Orthophosphate (mg/L)	<0.0010	<0.0010	<0.0010	<0.0010
Diss-Phosphorus (mg/L)	0.0059	0.0055	0.0048	0.0051
Fluoride (mg/L)	0.060	0.058	0.056	0.056
Nitrate (N) (mg/L)	<0.0050	<0.0050	<0.0050	<0.0050
Nitrate and Nitrite (mg/L)	<0.0051	<0.0051	<0.0051	<0.0051
Nitrite (N) (mg/L)	<0.0010	<0.0010	<0.0010	<0.0010
Sulphate (mg/L)	8.06	8.03	7.54	7.17
Total Nitrogen (mg/L)	0.258	0.270	0.294	0.265
Total Phosphorus (mg/L)	0.0110	0.0057	0.0088	0.0102
Dissolved Metals				
Aluminum (Al)-Diss (mg/L)	0.0067	0.0044	0.0069	0.0039
Diss-Antimony (Sb) (mg/L)	<0.00010	<0.00010	<0.00010	<0.00010
Diss-Arsenic (As) (mg/L)	0.00027	0.00034	0.00035	0.00036
Diss-Barium (Ba) (mg/L)	0.0162	0.0156	0.0155	0.0158
Diss-Beryllium (Be) (mg/L)	<0.000100	<0.000100	<0.000100	<0.000100
Diss-Bismuth (Bi) (mg/L)	<0.000050	<0.000050	<0.000050	<0.000050
Diss-Boron (B) (mg/L)	0.043	0.042	0.044	0.046
Diss-Cadmium (Cd) (mg/L)	<0.0000050	<0.0000050	<0.0000050	<0.0000050
Diss-Calcium (Ca) (mg/L)	13.5	14.3	13.6	14.1
Diss-Chromium (Cr) (mg/L)	<0.00050	<0.00050	<0.00050	<0.00050
Diss-Cobalt (Co) (mg/L)	<0.00010	<0.00010	<0.00010	<0.00010
Diss-Copper (Cu) (mg/L)	0.00167	0.00197	0.00191	0.00188
Diss-Iron (Fe) (mg/L)	<0.030	<0.030	<0.030	<0.030
Diss-Lead (Pb) (mg/L)	<0.000050	<0.000050	<0.000050	<0.000050
Diss-Lithium (Li) (mg/L)	<0.0010	<0.0010	<0.0010	<0.0010
Diss-Magnesium (Mg) (mg/L)	2.51	2.65	2.57	2.59
Diss-Manganese (Mn) (mg/L)	0.00176	0.00149	0.00145	0.00167
Diss-Molybdenum (Mo) (mg/L)	0.000729	0.000868	0.000922	0.000923
Diss-Nickel (Ni) (mg/L)	<0.00050	<0.00050	<0.00050	<0.00050
Diss-Potassium (K) (mg/L)	0.433	0.474	0.441	0.450
Diss-Selenium (mg/L)	0.000124	0.000188	0.000185	0.000171

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From 1 Jan 2019 to 31 Dec 2023

Printed : 2024-02-08



Mount Polley

Mining Corporation

IMPERIAL METALS CORPORATION

	: B2-AT														
	22-May-19	29-Aug-19	16-Sep-19	14-Jul-20	19-Aug-20	9-Sep-20	26-May-21	10-Jun-21	15-Jul-21	24-Aug-21	28-Sep-21	16-Jun-22	11-Jul-22	24-Aug-22	19-Sep-22
Diss-Silicon (Si) (mg/L)	1.49	1.33	1.36	1.31	1.46	1.47	2.34	2.15	1.94	1.98	2.22	1.85	1.54	1.52	1.52
Diss-Silver (Ag) (mg/L)	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Diss-Sodium (Na) (mg/L)	2.52	2.60	2.53	2.44	2.43	2.48	2.62	2.38	2.52	2.30	2.60	2.30	2.28	2.29	2.36
Diss-Strontium (Sr) (mg/L)	0.124	0.138	0.130	0.127	0.138	0.130	0.128	0.120	0.138	0.119	0.132	0.122	0.125	0.122	0.122
Diss-Thallium (Tl) (mg/L)	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Diss-Tin (Sn) (mg/L)	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Diss-Titanium (Ti) (mg/L)	<0.010	<0.010	<0.010	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100
Diss-Uranium (U) (mg/L)	0.000033	0.000041	0.000042	0.000038	0.000042	0.000040	0.000036	0.000035	0.000040	0.000040	0.000036	0.000039	0.000044	0.000043	0.000042
Diss-Vanadium (V) (mg/L)	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Diss-Zinc (Zn) (mg/L)	<0.0030	<0.0030	<0.0030	0.0039	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030
TDS (mg/L)	70	74	79	72	66	47	72	89	67	75	88	67	76	81	75
Field Tests															
Cond (in situ) (µs/cm)	95.1	95.4	98.2	91.9	99.2	107	93.8	96.7	105.2	100.8	101.8	94.7		96.9	96.5
NTU - in situ (ntu)	0.64	0.36	0.25	0.76	0	1.01	0.94	1.08	0	0.26	0.71	0.74		0	0.47
pH (in situ) (pH)	7.17	7.91	7.61	7.8	8.11	7.85	7.51	7.42	7.84	7.63	7.32	7.7		7.99	7.6
Sample Depth (m)	9	5	6	5	5	6	3	4	4	5	8	5	3	5	6
Sample Taken	Yes	Yes	Yes	Yes	Yes	Yes	yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Temp (in situ) (Degrees Celcius)	6.251	16.886	15.222	15.822	17.745	15.468	11.462	10.255	16.819	17.157	12.013	12.117		19.595	15.406
Organic / Inorganic															
DOC (mg/L)	6.69	6.20	6.00	7.28	7.29	6.65	7.16	7.35	7.14	7.35	7.40	7.04	7.14	7.42	6.10
Physical Test															
Conductivity (µs/cm)	98.7	96.0	96.1	93.2	95.8	94.9	94.3	95.2	95.8	99.4	107	94.3	93.4	97.7	96.8
Hardness (mg/L)	43.8	46.2	45.5	42.3	44.5	43.8	43.8	44.6	44.5	44.3	45.2	41.7	42.5	43.9	43.8
NTU (ntu)	0.93	0.28	0.63	0.46	0.42	0.58	0.47	0.36	0.34	0.58	0.88	0.50	0.44	0.38	0.64
pH (pH)	7.86	7.79	7.88	7.68	7.77	7.81	7.64	7.78	7.82	7.81	7.76	7.64	7.86	7.89	7.81
TDS (mg/L)	70	74	79	72	66	47	72	89	67	75	88	67	76	81	75
TSS (mg/L)	1.6	<1.0	1.0	<1.0	<1.0	1.3	2.5	2.1	<1.0	1.1	1.5	1.8	3.6	1.6	1.3
Total Metals															
Aluminum (Al)-Total (mg/L)	0.0195	0.0151	0.0093	0.0186	0.0124	0.0091	0.0245	0.0141	0.0078	0.0076	0.0096	0.0256	0.0191	0.0072	0.0077
Antimony (Sb)-Total (mg/L)	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Arsenic (As)-Total (mg/L)	0.00032	0.00035	0.00036	0.00026	0.00032	0.00030	0.00032	0.00032	0.00037	0.00039	0.00037	0.00030	0.00032	0.00032	0.00039
Barium (Ba)-Total (mg/L)	0.0159	0.0161	0.0161	0.0140	0.0165	0.0174	0.0166	0.0163	0.0164	0.0179	0.0175	0.0160	0.0158	0.0160	0.0161
Beryllium (Be)-Total (mg/L)	<0.00010	<0.00010	<0.00010	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100
Bismuth (Bi)-Total (mg/L)	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Boron (B)-Total (mg/L)	0.046	0.049	0.049	0.047	0.044	0.049	0.042	0.043	0.045	0.043	0.043	0.045	0.042	0.044	0.040

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	8-Jun-23	12-Jul-23	23-Aug-23	7-Sep-23
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Diss-Silicon (Si) (mg/L)	2.73	2.10	2.04	2.05
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Diss-Silver (Ag) (mg/L)	<0.000010	<0.000010	<0.000010	<0.000010
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Diss-Sodium (Na) (mg/L)	2.36	2.60	2.48	2.73
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Diss-Strontium (Sr) (mg/L)	0.125	0.133	0.124	0.140
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Diss-Thallium (Tl) (mg/L)	<0.000010	<0.000010	<0.000010	<0.000010
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Diss-Tin (Sn) (mg/L)	<0.00010	<0.00010	<0.00010	<0.00010
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Diss-Titanium (Ti) (mg/L)	<0.0100	<0.0100	<0.0100	<0.0100
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Diss-Uranium (U) (mg/L)	0.000030	0.000038	0.000045	0.000042
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Diss-Vanadium (V) (mg/L)	<0.00050	<0.00050	<0.00050	<0.00050
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Diss-Zinc (Zn) (mg/L)	<0.0030	<0.0030	<0.0030	<0.0030
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TDS (mg/L)	74	78	74	75
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Field Tests

Cond (in situ) (µs/cm)	109.5	93.8	98.6	113
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NTU - in situ (ntu)	0.02		0.93	0.21
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pH (in situ) (pH)	7.93	7.85	8	6.75
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Sample Depth (m)	5	3.5	3.5	8
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Sample Taken				
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Temp (in situ) (Degrees Celcius)	11.864	20.533	18.084	11.389
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Organic / Inorganic

DOC (mg/L)	6.73	7.19	7.24	7.20
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Physical Test

Conductivity (µs/cm)	98.0	100	102	104
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Hardness (mg/L)	44.0	46.6	44.5	45.9
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NTU (ntu)	0.46	0.46	0.44	0.63
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pH (pH)	7.46	7.90	7.93	7.74
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TDS (mg/L)	74	78	74	75
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TSS (mg/L)	2.2	1.4	2.0	<1.1
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Total Metals

Aluminum (Al)-Total (mg/L)	0.138	0.0078	0.0056	0.0077
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Antimony (Sb)-Total (mg/L)	0.00010	<0.00010	<0.00010	<0.00010
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Arsenic (As)-Total (mg/L)	0.00040	0.00038	0.00037	0.00040
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Barium (Ba)-Total (mg/L)	0.0184	0.0170	0.0155	0.0167
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Beryllium (Be)-Total (mg/L)	<0.000100	<0.000100	<0.000100	<0.000100
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Bismuth (Bi)-Total (mg/L)	<0.000050	<0.000050	<0.000050	<0.000050
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Boron (B)-Total (mg/L)	0.044	0.042	0.049	0.047
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	: B2-AT			
	8-Jun-23	12-Jul-23	23-Aug-23	7-Sep-23
Cadmium (Cd)-Total (mg/L)	<0.0000050	<0.0000050	<0.0000050	<0.0000050
Calcium (Ca)-Total (mg/L)	14.1	14.3	14.0	14.7
Chromium (Cr)-Total (mg/L)	<0.00050	<0.00050	<0.00050	<0.00050
Cobalt (Co)-Total (mg/L)	<0.00010	<0.00010	<0.00010	<0.00010
Copper (Cu)-Total (mg/L)	0.00372	0.00213	0.00193	0.00198
Iron (Fe)-Total (mg/L)	0.158	<0.030	<0.030	<0.030
Lead (Pb)-Total (mg/L)	0.000059	<0.000050	<0.000050	<0.000050
Lithium (Li)-Total (mg/L)	<0.0010	<0.0010	<0.0010	<0.0010
Magnesium (Mg)-Total (mg/L)	2.48	2.74	2.57	2.67
Manganese (Mn)-Total (mg/L)	0.0127	0.00937	0.00960	0.0113
Molybdenum (Mo)-Total (mg/L)	0.000812	0.000874	0.000965	0.000906
Nickel (Ni)-Total (mg/L)	<0.00050	<0.00050	<0.00050	<0.00050
Potassium (K)-Total (mg/L)	0.521	0.489	0.427	0.460
Selenium (Se)-Total (mg/L)	0.000263	0.000218	0.000203	0.000208
Silicon (Si)-Total (mg/L)	2.97	2.34	2.04	2.10
Silver (Ag)-Total (mg/L)	<0.000010	<0.000010	<0.000010	<0.000010
Sodium (Na)-Total (mg/L)	2.47	2.62	2.46	2.67
Strontium (Sr)-Total (mg/L)	0.131	0.138	0.128	0.140
Thallium (Tl)-Total (mg/L)	<0.000010	<0.000010	<0.000010	<0.000010
Tin (Sn)-Total (mg/L)	<0.00010	<0.00010	<0.00010	<0.00010
Titanium (Ti)-Total (mg/L)	<0.0100	<0.0100	<0.0100	<0.0100
Uranium (U)-Total (mg/L)	0.000042	0.000041	0.000045	0.000044
Vanadium (V)-Total (mg/L)	0.00056	<0.00050	<0.00050	<0.00050
Zinc (Zn)-Total (mg/L)	<0.0030	<0.0030	<0.0030	<0.0030

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	: B2-AT						
	Sample (n)	Count >MDL	Min	Max	Mean	95th Percentile	St Dev
Anions and Nutrients							
Alkalinity (CaCO3) (mg/L)	19	19	39.00000	46.20000	41.46316		1.92879
Ammonia (as N) (mg/L)	19	8	0.00250	0.03320	0.00621		0.00747
Chloride (mg/L)	19	19	0.52000	0.91000	0.67632		0.12397
Diss-Orthophosphate (mg/L)	19	6	0.00050	0.00280	0.00101		0.00081
Diss-Phosphorus (mg/L)	19	19	0.00210	0.01070	0.00512		0.00241
Fluoride (mg/L)	19	19	0.04800	0.06100	0.05553		0.00382
Nitrate (N) (mg/L)	19	1	0.00250	0.00660	0.00272		0.00094
Nitrate and Nitrite (mg/L)	19	1	0.00255	0.02500	0.00400		0.00522
Nitrite (N) (mg/L)	19	1	0.00050	0.00100	0.00053		0.00011
Sulphate (mg/L)	19	19	4.84000	8.06000	6.60737		1.03391
Total Nitrogen (mg/L)	19	19	0.25300	0.60800	0.30942		0.09854
Total Phosphorus (mg/L)	19	19	0.00530	0.01970	0.01146		0.00418
Dissolved Metals							
Aluminum (Al)-Diss (mg/L)	19	18	0.00150	0.02340	0.00606		0.00467
Diss-Antimony (Sb) (mg/L)	19	0	0.00005	0.00005	0.00005		0.00000
Diss-Arsenic (As) (mg/L)	19	19	0.00024	0.00036	0.00031		0.00004
Diss-Barium (Ba) (mg/L)	19	19	0.01470	0.01810	0.01598		0.00083
Diss-Beryllium (Be) (mg/L)	19	0	0.00005	0.00050	0.00012		0.00017
Diss-Bismuth (Bi) (mg/L)	19	0	0.00003	0.00003	0.00003		0.00000
Diss-Boron (B) (mg/L)	19	19	0.03800	0.04800	0.04342		0.00234
Diss-Cadmium (Cd) (mg/L)	19	1	0.00000	0.00001	0.00000		0.00000
Diss-Calcium (Ca) (mg/L)	19	19	12.90000	14.30000	13.64211		0.41139
Diss-Chromium (Cr) (mg/L)	19	0	0.00025	0.00025	0.00025		0.00000
Diss-Cobalt (Co) (mg/L)	19	0	0.00005	0.00005	0.00005		0.00000
Diss-Copper (Cu) (mg/L)	19	19	0.00163	0.00210	0.00189		0.00014
Diss-Iron (Fe) (mg/L)	19	0	0.01500	0.01500	0.01500		0.00000
Diss-Lead (Pb) (mg/L)	19	1	0.00003	0.00005	0.00003		0.00001
Diss-Lithium (Li) (mg/L)	19	0	0.00050	0.00050	0.00050		0.00000
Diss-Magnesium (Mg) (mg/L)	19	19	2.31000	2.65000	2.48158		0.10035
Diss-Manganese (Mn) (mg/L)	19	19	0.00020	0.01860	0.00331		0.00426
Diss-Molybdenum (Mo) (mg/L)	19	19	0.00073	0.00094	0.00084		0.00007
Diss-Nickel (Ni) (mg/L)	19	0	0.00025	0.00025	0.00025		0.00000
Diss-Potassium (K) (mg/L)	19	19	0.42000	0.53400	0.46132		0.03177

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Sample (n)	Count >MDL	Min	Max	Mean	95th Percentile	St Dev
Diss-Selenium (mg/L)	19	19	0.00008	0.00023	0.00017	0.00004
Diss-Silicon (Si) (mg/L)	19	19	1.31000	2.73000	1.81053	0.40260
Diss-Silver (Ag) (mg/L)	19	0	0.00001	0.00001	0.00001	0.00000
Diss-Sodium (Na) (mg/L)	19	19	2.28000	2.73000	2.46421	0.13125
Diss-Strontium (Sr) (mg/L)	19	19	0.11900	0.14000	0.12826	0.00665
Diss-Thallium (Tl) (mg/L)	19	0	0.00001	0.00001	0.00001	0.00000
Diss-Tin (Sn) (mg/L)	19	0	0.00005	0.00005	0.00005	0.00000
Diss-Titanium (Ti) (mg/L)	19	0	0.00500	0.00500	0.00500	0.00000
Diss-Uranium (U) (mg/L)	19	19	0.00003	0.00005	0.00004	0.00000
Diss-Vanadium (V) (mg/L)	19	0	0.00025	0.00025	0.00025	0.00000
Diss-Zinc (Zn) (mg/L)	19	1	0.00150	0.00390	0.00163	0.00055
TDS (mg/L)	19	19	47.00000	89.00000	73.63158	8.91447
Field Tests						
Cond (in situ) (µs/cm)	18	18	91.90000	113.00000	99.33889	5.86938
NTU - in situ (ntu)	17	17	0.00000	1.08000	0.49294	0.38472
pH (in situ) (pH)	18	18	6.75000	8.11000	7.66611	0.33941
Sample Depth (m)	19	19	3.00000	9.00000	5.21053	1.67760
Sample Taken						
Temp (in situ) (Degrees Celcius)	18	18	6.25100	20.53300	14.67156	3.68738
Organic / Inorganic						
DOC (mg/L)	19	19	6.00000	7.42000	6.97737	0.45190
Physical Test						
Conductivity (µs/cm)	19	19	93.20000	107.00000	97.50526	3.67158
Hardness (mg/L)	19	19	41.70000	46.60000	44.28421	1.27291
NTU (ntu)	19	19	0.28000	0.93000	0.52000	0.16918
pH (pH)	19	19	7.46000	7.93000	7.78053	0.11301
TDS (mg/L)	19	19	47.00000	89.00000	73.63158	8.91447
TSS (mg/L)	19	14	0.50000	3.60000	1.45000	0.81565
Total Metals						
Aluminum (Al)-Total (mg/L)	19	19	0.00560	0.13800	0.01928	0.02939
Antimony (Sb)-Total (mg/L)	19	1	0.00005	0.00010	0.00005	0.00001
Arsenic (As)-Total (mg/L)	19	19	0.00026	0.00040	0.00035	0.00004
Barium (Ba)-Total (mg/L)	19	19	0.01400	0.01840	0.01643	0.00096
Beryllium (Be)-Total (mg/L)	19	0	0.00005	0.00005	0.00005	0.00000
Bismuth (Bi)-Total (mg/L)	19	0	0.00003	0.00003	0.00003	0.00000

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	Sample (n)	Count >MDL	Min	Max	Mean	95th Percentile	St Dev
Boron (B)-Total (mg/L)	19	19	0.04000	0.04900	0.04489		0.00279
Cadmium (Cd)-Total (mg/L)	19	1	0.00000	0.00001	0.00000		0.00000
Calcium (Ca)-Total (mg/L)	19	19	12.40000	14.70000	13.58421		0.65172
Chromium (Cr)-Total (mg/L)	19	0	0.00025	0.00025	0.00025		0.00000
Cobalt (Co)-Total (mg/L)	19	0	0.00005	0.00005	0.00005		0.00000
Copper (Cu)-Total (mg/L)	19	19	0.00177	0.00372	0.00215		0.00042
Iron (Fe)-Total (mg/L)	19	9	0.01500	0.15800	0.03532		0.03427
Lead (Pb)-Total (mg/L)	19	1	0.00003	0.00006	0.00003		0.00001
Lithium (Li)-Total (mg/L)	19	0	0.00050	0.00050	0.00050		0.00000
Magnesium (Mg)-Total (mg/L)	19	19	2.08000	2.74000	2.47737		0.15128
Manganese (Mn)-Total (mg/L)	19	19	0.00716	0.03830	0.01421		0.00710
Molybdenum (Mo)-Total (mg/L)	19	19	0.00073	0.00120	0.00087		0.00010
Nickel (Ni)-Total (mg/L)	19	0	0.00025	0.00025	0.00025		0.00000
Potassium (K)-Total (mg/L)	19	19	0.40400	0.52100	0.47053		0.03096
Selenium (Se)-Total (mg/L)	19	19	0.00010	0.00026	0.00019		0.00004
Silicon (Si)-Total (mg/L)	19	19	1.31000	2.97000	1.90211		0.48124
Silver (Ag)-Total (mg/L)	19	0	0.00001	0.00001	0.00001		0.00000
Sodium (Na)-Total (mg/L)	19	19	2.02000	2.74000	2.50368		0.15731
Strontium (Sr)-Total (mg/L)	19	19	0.11900	0.14900	0.13068		0.00735
Thallium (Tl)-Total (mg/L)	19	0	0.00001	0.00001	0.00001		0.00000
Tin (Sn)-Total (mg/L)	19	1	0.00005	0.00010	0.00005		0.00001
Titanium (Ti)-Total (mg/L)	19	0	0.00500	0.00500	0.00500		0.00000
Uranium (U)-Total (mg/L)	19	19	0.00004	0.00005	0.00004		0.00000
Vanadium (V)-Total (mg/L)	19	2	0.00025	0.00056	0.00028		0.00009
Zinc (Zn)-Total (mg/L)	19	0	0.00150	0.00150	0.00150		0.00000

Grid Format Report : Bootjack Lake South Station B2 bottom

From 1 Jan 2019 to 31 Dec 2023

Printed : 2024-02-08



Mount Polley

Mining Corporation

IMPERIAL METALS CORPORATION

	E215897 : B2-B														
	22-May-19	29-Aug-19	16-Sep-19	23-Oct-19	4-Jun-20	14-Jul-20	19-Aug-20	9-Sep-20	29-Sep-20	27-Oct-20	26-May-21	10-Jun-21	15-Jul-21	24-Aug-21	28-Sep-21
Anions and Nutrients															
Alkalinity (CaCO3) (mg/L)	43.8	48.2	49.3	43.3	40.8	42.6	42.8	40.1	41.1	41.4	39.5	40.7	42.6	46.3	49.2
Ammonia (as N) (mg/L)	0.0229	0.0788	0.0970	0.0147	<0.0050	0.0222	0.0211	0.0065	<0.0050	0.0138	0.0149	0.0360	0.0165	0.0804	0.144
Chloride (mg/L)	0.94	0.93	0.97	0.93	0.83	0.83	0.83	0.75	0.73	0.74	0.64	0.68	0.70	0.69	0.67
Diss-Orthophosphate (mg/L)	0.0026	0.0328	0.064	0.0039	0.0051	0.0085	0.0083	<0.0010	<0.0010	0.0029	0.0018	0.0033	0.0046	0.0493	0.0608
Diss-Phosphorus (mg/L)	0.0090	0.0375	0.0666	0.0084	0.0094	0.0119	0.0116	0.0043	0.0036	0.0066	0.0058	0.0068	0.0100	0.0636	0.0650
Fluoride (mg/L)	0.058	0.056	0.059	0.065	0.058	0.059	0.060	0.057	0.056	0.058	0.048	0.054	0.056	0.054	0.048
Nitrate (N) (mg/L)	0.0154	0.0493	<0.0050	<0.0050	0.0234	0.0923	0.0823	<0.0050	<0.0050	<0.0050	0.0634	0.0517	0.171	0.124	<0.0050
Nitrate and Nitrite (mg/L)	0.0175	0.0580	0.0073	<0.0051	<0.0500	0.0930	0.0843	<0.0051	<0.0051	<0.0051	0.0665	0.0542	0.172	0.130	<0.0051
Nitrite (N) (mg/L)	0.0021	0.0087	0.0073	0.0013	<0.0010	<0.0010	0.0020	<0.0010	<0.0010	0.0012	0.0031	0.0025	0.0012	0.0058	0.0032
Sulphate (mg/L)	4.71	3.82	3.79	5.08	5.73	5.80	5.39	5.73	5.34	5.74	6.54	6.62	6.36	5.34	4.97
Total Nitrogen (mg/L)	0.327	0.371	0.344	0.357	0.360	0.345	0.352	0.288	0.344	0.322	0.348	0.355	0.424	0.432	0.392
Total Phosphorus (mg/L)	0.0258	0.0830	0.144	0.0220	0.0219	0.0189	0.0173	0.0187	0.0110	0.0184	0.0132	0.0105	0.0167	0.124	0.150
Dissolved Metals															
Aluminum (Al)-Diss (mg/L)	0.0053	<0.0030	<0.0030	<0.0030	0.0061	<0.0030	0.0039	0.0037	0.0034	0.0040	0.0093	0.0056	0.0034	<0.0030	<0.0030
Diss-Antimony (Sb) (mg/L)	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Diss-Arsenic (As) (mg/L)	0.00026	0.00038	0.00054	0.00034	0.00029	0.00028	0.00034	0.00036	0.00036	0.00040	0.00027	0.00027	0.00031	0.00046	0.00055
Diss-Barium (Ba) (mg/L)	0.0168	0.0191	0.0203	0.0165	0.0177	0.0138	0.0136	0.0160	0.0172	0.0162	0.0166	0.0155	0.0153	0.0211	0.0238
Diss-Beryllium (Be) (mg/L)	<0.00010	<0.00010	<0.00010	<0.00010	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100
Diss-Bismuth (Bi) (mg/L)	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Diss-Boron (B) (mg/L)	0.047	0.049	0.045	0.044	0.043	0.044	0.047	0.045	0.044	0.046	0.044	0.043	0.042	0.041	0.042
Diss-Cadmium (Cd) (mg/L)	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050
Diss-Calcium (Ca) (mg/L)	13.1	16.3	14.8	13.1	14.0	15.1	14.9	13.6	14.1	12.9	13.3	13.4	13.2	14.4	14.9
Diss-Chromium (Cr) (mg/L)	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Diss-Cobalt (Co) (mg/L)	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	0.00013
Diss-Copper (Cu) (mg/L)	0.00143	0.00133	0.00115	0.00152	0.00164	0.00141	0.00147	0.00180	0.00226	0.00168	0.00181	0.00159	0.00172	0.00143	0.00112
Diss-Iron (Fe) (mg/L)	0.049	0.107	0.257	0.032	0.054	<0.030	0.031	<0.030	<0.030	<0.030	0.041	<0.030	<0.030	0.245	0.390
Diss-Lead (Pb) (mg/L)	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Diss-Lithium (Li) (mg/L)	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Diss-Magnesium (Mg) (mg/L)	2.62	2.64	2.56	2.30	2.57	2.52	2.46	2.59	2.47	2.40	2.40	2.38	2.54	2.47	2.40
Diss-Manganese (Mn) (mg/L)	0.00924	0.194	0.575	0.0708	0.00207	0.00102	0.404	0.00456	0.0150	0.0224	0.0308	0.00760	0.0266	0.763	1.14
Diss-Molybdenum (Mo) (mg/L)	0.000782	0.000954	0.000985	0.000872	0.000710	0.000702	0.000895	0.000853	0.000857	0.000932	0.000734	0.000724	0.000793	0.000851	0.000953
Diss-Nickel (Ni) (mg/L)	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Diss-Potassium (K) (mg/L)	0.505	0.533	0.515	0.443	0.493	0.466	0.497	0.459	0.453	0.466	0.483	0.488	0.517	0.504	0.528
Diss-Selenium (mg/L)	0.000125	0.000081	0.000131	0.000175	0.000222	0.000193	0.000172	0.000190	0.000210	0.000167	0.000159	0.000209	0.000212	0.000192	0.000168

E215897 : B2-B

	19-Oct-21	1-Nov-21	24-May-22	16-Jun-22	11-Jul-22	24-Aug-22	19-Sep-22	26-Oct-22	24-May-23	8-Jun-23	12-Jul-23	23-Aug-23	7-Sep-23	10-Oct-23
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Anions and Nutrients

Alkalinity (CaCO3) (mg/L)	43.4	41.7	42.6	42.0	41.3	42.7	43.4	46.3	40.9	41.4	42.5	46.2	49.3	49.9
Ammonia (as N) (mg/L)	0.0210	<0.0050	0.0088	<0.0050	0.0271	0.0604	0.0608	0.177	<0.0050	0.0356	0.0152	0.0976	0.182	0.284
Chloride (mg/L)	0.67	0.70	0.64	0.62	0.60	0.66	0.64	0.61	0.52	0.62	0.58	0.58	0.57	0.59
Diss-Orthophosphate (mg/L)	0.0058	0.0015	0.0030	0.0013	0.0032	0.0147	0.0201	0.0621	<0.0010	<0.0010	0.0102	0.0458	0.164	0.150
Diss-Phosphorus (mg/L)	0.0108	0.0042	0.0053	0.0066	0.0057	0.0145	0.0193	0.162	0.0071	0.0083	0.0150	0.0862	0.261	0.280
Fluoride (mg/L)	0.063	0.060	0.052	0.051	0.050	0.055	0.054	0.051	0.050	0.062	0.057	0.056	0.058	0.042
Nitrate (N) (mg/L)	0.0062	<0.0050	0.0324	<0.0050	<0.0050	0.0375	0.0511	0.0108	<0.0050	0.0490	0.106	0.0360	<0.0050	0.0067
Nitrate and Nitrite (mg/L)	0.0076	<0.0051	0.0324	<0.0051	<0.0051	0.0386	0.0537	0.0145	<0.0051	0.0503	0.106	0.0405	<0.0051	0.0077
Nitrite (N) (mg/L)	0.0014	<0.0010	<0.0010	<0.0010	<0.0010	0.0011	0.0026	0.0037	<0.0010	0.0013	<0.0010	0.0045	0.0017	0.0010
Sulphate (mg/L)	6.78	7.10	6.96	7.27	6.95	6.27	6.06	5.28	7.19	8.07	7.67	6.14	5.24	5.27
Total Nitrogen (mg/L)	0.265	0.334	0.280	0.289	0.266	0.506	0.322	0.433	0.299	0.315	0.362	0.352	0.420	0.522
Total Phosphorus (mg/L)	0.0189	0.0179	0.0130	0.0152	0.0147	0.0398	0.0462	0.188	0.0151	0.0336	0.0257	0.114	0.272	0.286

Dissolved Metals

Aluminum (Al)-Diss (mg/L)	0.0091	<0.0030	0.0181	0.0101	0.0041	<0.0030	<0.0030	0.0037	0.0066	0.0082	0.0046	<0.0030	0.0066	0.0042
Diss-Antimony (Sb) (mg/L)	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Diss-Arsenic (As) (mg/L)	0.00051	0.00038	0.00025	0.00025	0.00025	0.00042	0.00039	0.00075	0.00029	0.00030	0.00034	0.00056	0.00079	0.00078
Diss-Barium (Ba) (mg/L)	0.0172	0.0186	0.0158	0.0158	0.0150	0.0114	0.0121	0.0226	0.0148	0.0160	0.0160	0.0184	0.0267	0.0289
Diss-Beryllium (Be) (mg/L)	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100
Diss-Bismuth (Bi) (mg/L)	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Diss-Boron (B) (mg/L)	0.041	0.044	0.045	0.040	0.044	0.040	0.043	0.044	0.045	0.045	0.043	0.044	0.045	0.052
Diss-Cadmium (Cd) (mg/L)	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050
Diss-Calcium (Ca) (mg/L)	13.8	14.4	13.2	13.2	13.6	14.6	14.6	15.9	14.2	14.4	14.6	14.3	15.1	16.3
Diss-Chromium (Cr) (mg/L)	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Diss-Cobalt (Co) (mg/L)	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	0.00011
Diss-Copper (Cu) (mg/L)	0.00245	0.00190	0.00166	0.00200	0.00191	0.00149	0.00149	0.00110	0.00168	0.00162	0.00156	0.00124	0.00138	0.00123
Diss-Iron (Fe) (mg/L)	0.031	<0.030	0.054	<0.030	<0.030	0.051	0.040	1.01	<0.030	<0.030	0.032	0.263	1.13	1.19
Diss-Lead (Pb) (mg/L)	<0.000050	<0.000050	<0.000050	0.000054	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Diss-Lithium (Li) (mg/L)	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Diss-Magnesium (Mg) (mg/L)	2.63	2.58	2.00	2.45	2.50	2.46	2.45	2.52	2.44	2.60	2.72	2.63	2.73	2.96
Diss-Manganese (Mn) (mg/L)	0.0673	0.0438	0.00079	0.00052	0.00164	0.245	0.494	1.01	0.00042	0.0610	0.153	0.911	1.12	1.20
Diss-Molybdenum (Mo) (mg/L)	0.000872	0.000879	0.000768	0.000693	0.000756	0.000759	0.000846	0.000998	0.000753	0.000739	0.000773	0.00101	0.00102	0.000952
Diss-Nickel (Ni) (mg/L)	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Diss-Potassium (K) (mg/L)	0.504	0.494	0.427	0.444	0.472	0.492	0.497	0.520	0.453	0.460	0.514	0.504	0.570	0.603
Diss-Selenium (mg/L)	0.000208	0.000185	0.000212	0.000171	0.000231	0.000183	0.000141	0.000136	0.000157	0.000163	0.000143	0.000191	0.000151	0.000160

Grid Format Report : Bootjack Lake South Station B2 bottom

From 1 Jan 2019 to 31 Dec 2023

Printed : 2024-02-08



Mount Polley

Mining Corporation

IMPERIAL METALS CORPORATION

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	22-May-19	29-Aug-19	16-Sep-19	23-Oct-19	4-Jun-20	14-Jul-20	19-Aug-20	9-Sep-20	29-Sep-20	27-Oct-20	26-May-21	10-Jun-21	15-Jul-21	24-Aug-21	28-Sep-21
Diss-Silicon (Si) (mg/L)	2.01	3.65	3.66	1.67	2.49	2.74	3.52	1.72	1.64	2.03	2.75	2.67	3.16	4.10	3.94
Diss-Silver (Ag) (mg/L)	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Diss-Sodium (Na) (mg/L)	2.55	2.58	2.55	2.55	2.53	2.57	2.41	2.56	2.47	2.54	2.65	2.34	2.47	2.29	2.47
Diss-Strontium (Sr) (mg/L)	0.126	0.151	0.140	0.128	0.134	0.139	0.133	0.137	0.131	0.138	0.129	0.119	0.137	0.126	0.136
Diss-Thallium (Tl) (mg/L)	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Diss-Tin (Sn) (mg/L)	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Diss-Titanium (Ti) (mg/L)	<0.010	<0.010	<0.010	<0.010	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100
Diss-Uranium (U) (mg/L)	0.000029	0.000020	0.000026	0.000039	0.000030	0.000024	0.000029	0.000036	0.000039	0.000040	0.000034	0.000031	0.000028	0.000032	0.000028
Diss-Vanadium (V) (mg/L)	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Diss-Zinc (Zn) (mg/L)	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030
TDS (mg/L)	70	80	94	62	80	76	79	53	68	79	71	98	71	81	94
Field Tests															
Cond (in situ) (µs/cm)	96.5	141.6	121.3	99.3	96.8	99.2	109	114.3	120.2	110.9	94.7	94.1	105.3	105.8	111.1
NTU - in situ (ntu)	1.23	157.5	1.21	1.05	2.19	3.78	0.77	1.3	3.41	290.99	1.21	1.95	2.24	9.97	6.34
pH (in situ) (pH)	6.97	7	6.93	7.05	7.37	7.34	7.59	7.63	7.86	7.63	7.17	7.1	7.3	7.28	6.75
Sample Depth (m)	15	17	16	16	16	16	15	10	8	16	17	15	15	16	16
Sample Taken	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	yes	Yes	Yes	Yes	Yes
Temp (in situ) (Degrees Celcius)	5.007	6.331	6.541	6.597	5.432	6.515	7.117	9.155	12.941	5.262	4.858	5.373	5.904	6.317	6.93
Organic / Inorganic															
DOC (mg/L)	6.65	6.10	6.48	6.22	6.68	6.70	6.56	6.58	6.79	6.30	6.80	0.58	7.38	7.59	7.22
Physical Test															
Conductivity (µs/cm)	94.3	104	107	97.9	102	99.6	104	98.1	95.7	97.5	93.5	96.0	95.4	102	108
Hardness (mg/L)	43.5	51.7	47.4	42.2	45.5	48.2	47.4	44.7	45.4	42.2	43.1	43.3	43.4	46.1	47.1
NTU (ntu)	1.24	5.10	5.02	1.01	1.34	2.32	1.81	1.08	2.45	0.96	0.84	0.64	1.62	4.78	5.12
pH (pH)	7.74	7.94	7.57	7.83	7.54	7.28	7.24	7.62	7.71	7.66	7.71	7.70	7.41	7.52	7.67
TDS (mg/L)	70	80	94	62	80	76	79	53	68	79	71	98	71	81	94
TSS (mg/L)	<1.0	3.8	4.6	1.8	<1.0	1.2	1.6	1.5	1.8	2.6	1.7	2.2	2.6	3.6	4.2
Total Metals															
Aluminum (Al)-Total (mg/L)	0.0169	0.0091	0.0075	0.0172	0.0224	0.0097	0.0075	0.0101	0.0105	0.0225	0.0246	0.0086	0.0116	0.0070	0.0110
Antimony (Sb)-Total (mg/L)	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Arsenic (As)-Total (mg/L)	0.00031	0.00055	0.00073	0.00044	0.00030	0.00035	0.00037	0.00036	0.00037	0.00042	0.00032	0.00030	0.00034	0.00060	0.00066
Barium (Ba)-Total (mg/L)	0.0166	0.0239	0.0256	0.0184	0.0182	0.0131	0.0156	0.0176	0.0160	0.0176	0.0168	0.0161	0.0164	0.0256	0.0279
Beryllium (Be)-Total (mg/L)	<0.00010	<0.00010	<0.00010	<0.00010	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100
Bismuth (Bi)-Total (mg/L)	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Boron (B)-Total (mg/L)	0.045	0.049	0.048	0.051	0.049	0.047	0.046	0.049	0.046	0.041	0.044	0.041	0.043	0.042	0.042

	E215897 : B2-B													
	19-Oct-21	1-Nov-21	24-May-22	16-Jun-22	11-Jul-22	24-Aug-22	19-Sep-22	26-Oct-22	24-May-23	8-Jun-23	12-Jul-23	23-Aug-23	7-Sep-23	10-Oct-23
Diss-Silicon (Si) (mg/L)	2.48	1.67	2.15	2.01	2.38	3.70	3.47	3.97	2.65	3.55	3.53	4.02	4.29	4.40
Diss-Silver (Ag) (mg/L)	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Diss-Sodium (Na) (mg/L)	2.60	2.62	2.24	2.43	2.35	2.41	2.29	2.34	2.26	2.40	2.57	2.48	2.81	2.70
Diss-Strontium (Sr) (mg/L)	0.128	0.128	0.124	0.122	0.132	0.131	0.129	0.146	0.122	0.131	0.142	0.132	0.150	0.153
Diss-Thallium (Tl) (mg/L)	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Diss-Tin (Sn) (mg/L)	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Diss-Titanium (Ti) (mg/L)	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100
Diss-Uranium (U) (mg/L)	0.000039	0.000040	0.000040	0.000036	0.000035	0.000039	0.000036	0.000037	0.000032	0.000027	0.000027	0.000032	0.000036	0.000036
Diss-Vanadium (V) (mg/L)	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	0.00053
Diss-Zinc (Zn) (mg/L)	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030
TDS (mg/L)	78	65	61	73	80	76	88	90	70	67	80	81	94	92
Field Tests														
Cond (in situ) (µs/cm)	101.5	98.8	109.7	96.1		102.4	106.1	111.8	98.6	101.4	95.4	108	113.5	113.4
NTU - in situ (ntu)	0.55	1.7	0.52	1.2		293.32	2.67	0.94	0.59	1.02	0.95	1.99	2.63	0.01
pH (in situ) (pH)	6.99	7.86	7	7.51		6.96	6.76	6.88	7.56	7.47	7.1	6.85	6.75	6.78
Sample Depth (m)	16	16	17	13	17	16	16	16	8.5	15	15	15	16	15
Sample Taken	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes					
Temp (in situ) (Degrees Celcius)	7.517	5.499	4.178	5.425		6.44	6.691	7.159	6.604	5.369	6.574	6.761	6.926	7.564
Organic / Inorganic														
DOC (mg/L)	7.43	6.76	6.92	6.81	7.02	7.08	5.56	7.62	7.12	6.65	6.70	7.27	7.58	8.07
Physical Test														
Conductivity (µs/cm)	102	98.1	95.9	96.0	94.8	102	101	102	98.3	101	104	107	113	110
Hardness (mg/L)	45.3	46.6	41.2	43.0	44.2	46.6	46.5	50.1	45.5	46.7	47.6	46.5	48.9	52.9
NTU (ntu)	1.07	1.39	0.88	0.86	0.85	3.08	2.70	6.42	0.57	1.46	3.30	3.98	2.99	5.27
pH (pH)	7.79	7.85	7.62	7.70	7.81	7.76	7.60	7.51	7.74	7.37	7.13	7.03	7.53	7.40
TDS (mg/L)	78	65	61	73	80	76	88	90	70	67	80	81	94	92
TSS (mg/L)	4.0	4.3	1.5	3.0	1.6	1.5	2.3	5.0	1.9	1.3	1.2	3.7	3.1	4.6
Total Metals														
Aluminum (Al)-Total (mg/L)	0.0098	0.0190	0.0484	0.0313	0.0129	0.0068	0.0087	0.0241	0.0274	0.0239	0.0119	0.0060	0.0063	0.0088
Antimony (Sb)-Total (mg/L)	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Arsenic (As)-Total (mg/L)	0.00043	0.00041	0.00034	0.00030	0.00029	0.00043	0.00054	0.00084	0.00034	0.00034	0.00036	0.00066	0.00075	0.00068
Barium (Ba)-Total (mg/L)	0.0171	0.0175	0.0185	0.0170	0.0164	0.0141	0.0144	0.0298	0.0161	0.0177	0.0182	0.0194	0.0257	0.0293
Beryllium (Be)-Total (mg/L)	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100
Bismuth (Bi)-Total (mg/L)	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Boron (B)-Total (mg/L)	0.044	0.042	0.046	0.048	0.043	0.045	0.039	0.050	0.043	0.044	0.044	0.047	0.048	0.046

Grid Format Report : Bootjack Lake South Station B2 bottom

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Mount Polley

Mining Corporation

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	E215897 : B2-B						
	Sample (n)	Count >MDL	Min	Max	Mean	95th Percentile	St Dev
Anions and Nutrients							
Alkalinity (CaCO3) (mg/L)	29	29	39.50000	49.90000	43.63103	50.14000	3.07270
Ammonia (as N) (mg/L)	29	24	0.00250	0.28400	0.05348	0.11324	0.06771
Chloride (mg/L)	29	29	0.52000	0.97000	0.70552	1.68800	0.12348
Diss-Orthophosphate (mg/L)	29	25	0.00050	0.16400	0.02523	0.11332	0.04192
Diss-Phosphorus (mg/L)	29	29	0.00360	0.28000	0.04159	0.11649	0.07223
Fluoride (mg/L)	29	29	0.04200	0.06500	0.05541	0.06455	0.00500
Nitrate (N) (mg/L)	29	18	0.00250	0.17100	0.03572	0.11000	0.04354
Nitrate and Nitrite (mg/L)	29	18	0.00255	0.17200	0.03740	0.11200	0.04416
Nitrite (N) (mg/L)	29	19	0.00050	0.00870	0.00209	0.00540	0.00213
Sulphate (mg/L)	29	29	3.79000	8.07000	5.97276	5.38200	1.05151
Total Nitrogen (mg/L)	29	29	0.26500	0.52200	0.35607	0.47760	0.06336
Total Phosphorus (mg/L)	29	29	0.01050	0.28600	0.06191	0.18080	0.07772
Dissolved Metals							
Aluminum (Al)-Diss (mg/L)	29	19	0.00150	0.01810	0.00466	0.01096	0.00369
Diss-Antimony (Sb) (mg/L)	29	0	0.00005	0.00005	0.00005	0.00005	0.00000
Diss-Arsenic (As) (mg/L)	29	29	0.00025	0.00079	0.00040	0.00089	0.00016
Diss-Barium (Ba) (mg/L)	29	29	0.01140	0.02890	0.01754	0.02527	0.00396
Diss-Beryllium (Be) (mg/L)	29	0	0.00005	0.00050	0.00014	0.00025	0.00019
Diss-Bismuth (Bi) (mg/L)	29	0	0.00003	0.00003	0.00002	0.00025	0.00000
Diss-Boron (B) (mg/L)	29	29	0.04000	0.05200	0.04417	0.04870	0.00252
Diss-Cadmium (Cd) (mg/L)	29	0	0.00000	0.00000	0.00000	0.00001	0.00000
Diss-Calcium (Ca) (mg/L)	29	29	12.90000	16.30000	14.25172	14.84000	0.93908
Diss-Chromium (Cr) (mg/L)	29	0	0.00025	0.00025	0.00025	0.00025	0.00000
Diss-Cobalt (Co) (mg/L)	29	2	0.00005	0.00013	0.00005	0.00005	0.00002
Diss-Copper (Cu) (mg/L)	29	29	0.00110	0.00245	0.00159	0.00219	0.00032
Diss-Iron (Fe) (mg/L)	29	18	0.01500	1.19000	0.17834	1.07300	0.33648
Diss-Lead (Pb) (mg/L)	29	1	0.00003	0.00005	0.00003	0.00067	0.00001
Diss-Lithium (Li) (mg/L)	29	0	0.00050	0.00050	0.00050	0.00250	0.00000
Diss-Magnesium (Mg) (mg/L)	29	29	2.00000	2.96000	2.51690	2.77150	0.16430
Diss-Manganese (Mn) (mg/L)	29	29	0.00042	1.20000	0.29567	0.85660	0.41264
Diss-Molybdenum (Mo) (mg/L)	29	29	0.00069	0.00102	0.00084	0.00120	0.00010
Diss-Nickel (Ni) (mg/L)	29	0	0.00025	0.00025	0.00025	0.00025	0.00000
Diss-Potassium (K) (mg/L)	29	29	0.42700	0.60300	0.49324	0.53870	0.03796

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E215897 : B2-B							
Sample (n)	Count >MDL	Min	Max	Mean	95th Percentile	St Dev	
Diss-Selenium (mg/L)	29	29	0.00008	0.00023	0.00017	0.00050	0.00003
Diss-Silicon (Si) (mg/L)	29	29	1.64000	4.40000	2.96621	3.35200	0.88721
Diss-Silver (Ag) (mg/L)	29	0	0.00001	0.00001	0.00001	0.00001	0.00000
Diss-Sodium (Na) (mg/L)	29	29	2.24000	2.81000	2.48379	2.77450	0.13712
Diss-Strontium (Sr) (mg/L)	29	29	0.11900	0.15300	0.13359	0.14185	0.00875
Diss-Thallium (Tl) (mg/L)	29	0	0.00001	0.00001	0.00001	0.00005	0.00000
Diss-Tin (Sn) (mg/L)	29	0	0.00005	0.00005	0.00005	0.00005	0.00000
Diss-Titanium (Ti) (mg/L)	29	0	0.00500	0.00500	0.00500	0.00500	0.00000
Diss-Uranium (U) (mg/L)	29	29	0.00002	0.00004	0.00003	0.00004	0.00001
Diss-Vanadium (V) (mg/L)	29	1	0.00025	0.00053	0.00026	0.00050	0.00005
Diss-Zinc (Zn) (mg/L)	29	0	0.00150	0.00150	0.00150	0.00150	0.00000
TDS (mg/L)	29	29	53.00000	98.00000	77.62069	82.80000	11.11439
Field Tests							
Cond (in situ) (µs/cm)	28	28	94.10000	141.60000	106.31429	116.05500	10.35978
NTU - in situ (ntu)	28	28	0.01000	293.32000	28.32964	4.00500	80.10622
pH (in situ) (pH)	28	28	6.75000	7.86000	7.19429	8.00000	0.33920
Sample Depth (m)	29	29	8.00000	17.00000	15.01724	15.70000	2.30869
Sample Taken							
Temp (in situ) (Degrees Celcius)	28	28	4.17800	12.94100	6.53525	9.87050	1.61129
Organic / Inorganic							
DOC (mg/L)	29	29	0.58000	8.07000	6.66276	7.00200	1.28087
Physical Test							
Conductivity (µs/cm)	29	29	93.50000	113.00000	100.69310	105.00000	4.99371
Hardness (mg/L)	29	29	41.20000	52.90000	45.95862	55.24000	2.77380
NTU (ntu)	29	29	0.57000	6.42000	2.41897	2.48600	1.73854
pH (pH)	29	29	7.03000	7.94000	7.58552	7.90900	0.21991
TDS (mg/L)	29	29	53.00000	98.00000	77.62069	82.80000	11.11439
TSS (mg/L)	29	27	0.50000	5.00000	2.52414	4.48000	1.30867
Total Metals							
Aluminum (Al)-Total (mg/L)	29	29	0.00600	0.04840	0.01522	0.04654	0.00967
Antimony (Sb)-Total (mg/L)	29	0	0.00005	0.00005	0.00005	0.00012	0.00000
Arsenic (As)-Total (mg/L)	29	29	0.00029	0.00084	0.00045	0.00111	0.00016
Barium (Ba)-Total (mg/L)	29	29	0.01310	0.02980	0.01919	0.02498	0.00469
Beryllium (Be)-Total (mg/L)	29	0	0.00005	0.00005	0.00005	0.00025	0.00000
Bismuth (Bi)-Total (mg/L)	29	0	0.00003	0.00003	0.00002	0.00025	0.00000

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E215897 : B2-B							
Sample (n)	Count >MDL	Min	Max	Mean	95th Percentile	St Dev	
Boron (B)-Total (mg/L)	29	29	0.03900	0.05100	0.04524	0.05060	0.00303
Cadmium (Cd)-Total (mg/L)	29	0	0.00000	0.00000	0.00000	0.00001	0.00000
Calcium (Ca)-Total (mg/L)	29	29	12.80000	16.20000	14.17931	16.92000	0.87846
Chromium (Cr)-Total (mg/L)	29	0	0.00025	0.00025	0.00025	0.00025	0.00000
Cobalt (Co)-Total (mg/L)	29	5	0.00005	0.00014	0.00006	0.00005	0.00003
Copper (Cu)-Total (mg/L)	29	29	0.00135	0.00252	0.00188	0.00406	0.00035
Iron (Fe)-Total (mg/L)	29	29	0.04300	1.30000	0.33241	0.92720	0.40660
Lead (Pb)-Total (mg/L)	29	1	0.00003	0.00014	0.00003	0.00065	0.00002
Lithium (Li)-Total (mg/L)	29	0	0.00050	0.00050	0.00050	0.00250	0.00000
Magnesium (Mg)-Total (mg/L)	29	29	2.12000	2.73000	2.50414	3.14600	0.14098
Manganese (Mn)-Total (mg/L)	29	29	0.01280	1.28000	0.39813	0.95140	0.44642
Molybdenum (Mo)-Total (mg/L)	29	29	0.00072	0.00110	0.00088	0.00134	0.00010
Nickel (Ni)-Total (mg/L)	29	0	0.00025	0.00025	0.00025	0.00128	0.00000
Potassium (K)-Total (mg/L)	29	29	0.42100	0.56500	0.49324	0.54240	0.03524
Selenium (Se)-Total (mg/L)	29	29	0.00012	0.00030	0.00019	0.00061	0.00004
Silicon (Si)-Total (mg/L)	29	29	1.55000	4.51000	3.08345	3.43800	0.93101
Silver (Ag)-Total (mg/L)	29	0	0.00001	0.00001	0.00001	0.00001	0.00000
Sodium (Na)-Total (mg/L)	29	29	2.02000	2.65000	2.45138	3.01600	0.11883
Strontium (Sr)-Total (mg/L)	29	29	0.11800	0.15400	0.13510	0.15620	0.00832
Thallium (Tl)-Total (mg/L)	29	0	0.00001	0.00001	0.00001	0.00005	0.00000
Tin (Sn)-Total (mg/L)	29	0	0.00005	0.00005	0.00005	0.00005	0.00000
Titanium (Ti)-Total (mg/L)	29	0	0.00500	0.00500	0.00500	0.00500	0.00000
Uranium (U)-Total (mg/L)	29	29	0.00003	0.00005	0.00004	0.00006	0.00000
Vanadium (V)-Total (mg/L)	29	4	0.00025	0.00056	0.00029	0.00051	0.00011
Zinc (Zn)-Total (mg/L)	29	0	0.00150	0.00150	0.00150	0.00230	0.00000

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	: B2-BT														
	22-May-19	29-Aug-19	16-Sep-19	14-Jul-20	19-Aug-20	9-Sep-20	26-May-21	10-Jun-21	15-Jul-21	24-Aug-21	28-Sep-21	16-Jun-22	11-Jul-22	24-Aug-22	19-Sep-22
Anions and Nutrients															
Alkalinity (CaCO3) (mg/L)	43.4	44.0	46.5	41.7	39.5	39.5	39.5	40.7	42.5	44.1	43.6	42.4	40.3	39.5	40.4
Ammonia (as N) (mg/L)	0.0056	0.0058	0.0074	0.0076	<0.0050	0.0053	<0.0050	0.0156	<0.0050	<0.0050	0.0158	<0.0050	0.0073	<0.0050	0.0088
Chloride (mg/L)	0.92	<0.50	0.95	0.80	0.79	0.73	0.62	0.66	0.69	0.68	0.66	0.61	0.56	0.64	0.61
Diss-Orthophosphate (mg/L)	0.0026	0.0027	0.0054	<0.0010	<0.0010	<0.0010	<0.0010	0.0013	<0.0010	0.0010	0.0058	0.0010	<0.0010	<0.0010	0.0018
Diss-Phosphorus (mg/L)	0.0074	0.0090	0.0085	0.0033	0.0028	0.0037	0.0040	0.0086	0.0053	0.0079	0.0125	0.0055	0.0031	0.0027	<0.0020
Fluoride (mg/L)	0.056	0.066	0.060	0.056	0.056	0.055	0.048	0.054	0.055	0.056	0.048	0.052	0.049	0.053	0.059
Nitrate (N) (mg/L)	0.0058	<0.0050	0.0206	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.0075	<0.0050	<0.0050	<0.0050	0.0089
Nitrate and Nitrite (mg/L)	0.0058	<0.0051	0.0228	<0.0500	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	0.0075	<0.0051	<0.0051	<0.0051	0.0089
Nitrite (N) (mg/L)	<0.0010	<0.0010	0.0022	<0.0010	<0.0010	<0.0010	<0.0010	0.0011	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Sulphate (mg/L)	4.81	4.46	4.33	6.16	6.26	5.64	6.57	6.55	6.79	6.82	6.51	7.29	6.81	7.29	7.73
Total Nitrogen (mg/L)	0.303	0.300	0.328	0.281	0.298	0.300	1.36	0.315	0.351	0.272	0.270	0.284	0.287	0.267	0.287
Total Phosphorus (mg/L)	0.0211	0.0119	0.0247	0.0096	0.0103	0.0162	0.0198	0.107	0.0088	0.0152	0.0131	0.0152	0.0128	0.0129	0.0095
Dissolved Metals															
Aluminum (Al)-Diss (mg/L)	0.0056	<0.0030	<0.0030	0.0037	0.0132	0.0037	0.0104	0.0063	0.0046	<0.0030	<0.0030	0.0064	0.0072	0.0031	0.0041
Diss-Antimony (Sb) (mg/L)	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Diss-Arsenic (As) (mg/L)	0.00027	0.00030	0.00043	0.00027	0.00030	0.00033	0.00031	0.00028	0.00030	0.00036	0.00038	0.00023	0.00024	0.00026	0.00032
Diss-Barium (Ba) (mg/L)	0.0166	0.0165	0.0179	0.0171	0.0174	0.0158	0.0157	0.0153	0.0169	0.0153	0.0165	0.0161	0.0156	0.0156	0.0153
Diss-Beryllium (Be) (mg/L)	<0.00010	<0.00010	<0.00010	<0.00100	<0.00100	<0.00100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100
Diss-Bismuth (Bi) (mg/L)	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Diss-Boron (B) (mg/L)	0.047	0.049	0.045	0.044	0.044	0.045	0.045	0.045	0.042	0.041	0.043	0.040	0.044	0.040	0.044
Diss-Cadmium (Cd) (mg/L)	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050
Diss-Calcium (Ca) (mg/L)	13.3	15.0	14.7	14.6	14.2	13.6	13.6	13.6	13.4	13.4	13.9	13.2	13.3	13.8	13.6
Diss-Chromium (Cr) (mg/L)	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Diss-Cobalt (Co) (mg/L)	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Diss-Copper (Cu) (mg/L)	0.00154	0.00167	0.00136	0.00181	0.00194	0.00169	0.00172	0.00178	0.00189	0.00206	0.00190	0.00181	0.00209	0.00182	0.00187
Diss-Iron (Fe) (mg/L)	0.030	<0.030	0.074	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030
Diss-Lead (Pb) (mg/L)	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Diss-Lithium (Li) (mg/L)	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Diss-Magnesium (Mg) (mg/L)	2.63	2.61	2.46	2.46	2.49	2.50	2.44	2.35	2.50	2.52	2.55	2.37	2.41	2.39	2.48
Diss-Manganese (Mn) (mg/L)	0.00082	0.0317	0.320	0.00586	0.00435	0.00250	0.00673	0.00597	0.0138	0.00523	0.0444	0.00043	0.00351	0.0115	0.00397
Diss-Molybdenum (Mo) (mg/L)	0.000734	0.000840	0.000861	0.000793	0.000866	0.000848	0.000773	0.000749	0.000810	0.000927	0.000900	0.000690	0.000771	0.000736	0.000864
Diss-Nickel (Ni) (mg/L)	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Diss-Potassium (K) (mg/L)	0.498	0.506	0.478	0.451	0.494	0.440	0.479	0.479	0.485	0.477	0.518	0.440	0.447	0.448	0.456
Diss-Selenium (mg/L)	0.000106	0.000112	0.000131	0.000190	0.000162	0.000197	0.000177	0.000167	0.000238	0.000216	0.000187	0.000164	0.000153	0.000161	0.000239

	: B2-BT			
	8-Jun-23	12-Jul-23	23-Aug-23	7-Sep-23
Anions and Nutrients				
Alkalinity (CaCO3) (mg/L)	41.2	42.1	42.8	44.1
Ammonia (as N) (mg/L)	0.0116	<0.0050	0.0067	0.0075
Chloride (mg/L)	0.61	0.57	0.58	0.57
Diss-Orthophosphate (mg/L)	<0.0010	<0.0010	<0.0010	0.0019
Diss-Phosphorus (mg/L)	0.0055	0.0051	0.0045	0.0083
Fluoride (mg/L)	0.061	0.056	0.054	0.057
Nitrate (N) (mg/L)	0.0052	0.0080	<0.0050	<0.0050
Nitrate and Nitrite (mg/L)	0.0065	0.0080	<0.0051	<0.0051
Nitrite (N) (mg/L)	0.0013	<0.0010	<0.0010	<0.0010
Sulphate (mg/L)	8.32	7.99	7.11	6.57
Total Nitrogen (mg/L)	0.387	0.272	0.266	0.240
Total Phosphorus (mg/L)	0.0156	0.0101	0.0115	0.0266
Dissolved Metals				
Aluminum (Al)-Diss (mg/L)	0.0359	0.0032	<0.0030	0.0050
Diss-Antimony (Sb) (mg/L)	<0.00010	<0.00010	<0.00010	<0.00010
Diss-Arsenic (As) (mg/L)	0.00029	0.00031	0.00035	0.00041
Diss-Barium (Ba) (mg/L)	0.0169	0.0172	0.0155	0.0158
Diss-Beryllium (Be) (mg/L)	<0.000100	<0.000100	<0.000100	<0.000100
Diss-Bismuth (Bi) (mg/L)	<0.000050	<0.000050	<0.000050	<0.000050
Diss-Boron (B) (mg/L)	0.044	0.042	0.044	0.046
Diss-Cadmium (Cd) (mg/L)	<0.0000050	<0.0000050	<0.0000050	<0.0000050
Diss-Calcium (Ca) (mg/L)	14.2	14.5	13.5	14.6
Diss-Chromium (Cr) (mg/L)	<0.00050	<0.00050	<0.00050	<0.00050
Diss-Cobalt (Co) (mg/L)	<0.00010	<0.00010	<0.00010	<0.00010
Diss-Copper (Cu) (mg/L)	0.00194	0.00179	0.00158	0.00172
Diss-Iron (Fe) (mg/L)	0.034	<0.030	<0.030	<0.030
Diss-Lead (Pb) (mg/L)	<0.000050	<0.000050	<0.000050	<0.000050
Diss-Lithium (Li) (mg/L)	<0.0010	<0.0010	<0.0010	<0.0010
Diss-Magnesium (Mg) (mg/L)	2.59	2.70	2.68	2.61
Diss-Manganese (Mn) (mg/L)	0.00117	0.0209	0.00604	0.0445
Diss-Molybdenum (Mo) (mg/L)	0.000718	0.000761	0.000830	0.000788
Diss-Nickel (Ni) (mg/L)	<0.00050	<0.00050	<0.00050	<0.00050
Diss-Potassium (K) (mg/L)	0.457	0.507	0.479	0.511
Diss-Selenium (mg/L)	0.000166	0.000189	0.000179	0.000146

Grid Format Report : Bootjack Lake South Station B2-BT

From 1 Jan 2019 to 31 Dec 2023

Printed : 2024-02-08



Mount Polley

Mining Corporation

IMPERIAL METALS CORPORATION

	: B2-BT														
	22-May-19	29-Aug-19	16-Sep-19	14-Jul-20	19-Aug-20	9-Sep-20	26-May-21	10-Jun-21	15-Jul-21	24-Aug-21	28-Sep-21	16-Jun-22	11-Jul-22	24-Aug-22	19-Sep-22
Diss-Silicon (Si) (mg/L)	1.78	2.64	3.15	1.81	1.99	1.49	2.38	2.16	2.19	2.07	2.32	2.01	1.60	1.94	1.54
Diss-Silver (Ag) (mg/L)	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Diss-Sodium (Na) (mg/L)	2.51	2.58	2.54	2.55	2.46	2.44	2.62	2.30	2.53	2.31	2.54	2.40	2.33	2.30	2.42
Diss-Strontium (Sr) (mg/L)	0.124	0.146	0.138	0.135	0.139	0.133	0.127	0.119	0.134	0.120	0.129	0.121	0.125	0.122	0.120
Diss-Thallium (Tl) (mg/L)	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Diss-Tin (Sn) (mg/L)	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Diss-Titanium (Ti) (mg/L)	<0.010	<0.010	<0.010	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100
Diss-Uranium (U) (mg/L)	0.000031	0.000027	0.000029	0.000028	0.000032	0.000040	0.000032	0.000036	0.000033	0.000038	0.000036	0.000037	0.000040	0.000032	0.000044
Diss-Vanadium (V) (mg/L)	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Diss-Zinc (Zn) (mg/L)	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030
TDS (mg/L)	70	71	79	72	73	53	72	88	80	75	88	71	88	82	82
Field Tests															
Cond (in situ) (µs/cm)	95.6	99.7	113	98	105.4	111.9	95	94.2	96.7	98.4	113.7	96.4		96.6	98.2
NTU - in situ (ntu)	0.87	1.18	2.27	1.32	0.57	0.97	0.94	3.5	0	0.92	1.69	0.98		0.42	1.5
pH (in situ) (pH)	7.06	7.22	7.12	7.57	7.86	7.68	7.38	7.33	7.82	7.64	7.12	7.6		7.51	7.31
Sample Depth (m)	12	10	13	11	10	9	7	8	9	8	12	11	7	10	10
Sample Taken	Yes	Yes	Yes	Yes	Yes	Yes	yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Temp (in situ) (Degrees Celcius)	5.385	7.762	6.837	7.041	8.256	10.953	6.115	6.507	6.941	8.538	7.182	5.653		7.585	7.953
Organic / Inorganic															
DOC (mg/L)	6.51	6.03	6.01	7.20	6.71	6.51	7.03	6.75	6.96	7.41	7.14	6.88	7.30	7.14	5.79
Physical Test															
Conductivity (µs/cm)	94.8	100	104	97.7	99.0	95.8	94.5	95.0	94.6	98.3	102	97.7	93.7	98.1	98.0
Hardness (mg/L)	44.1	48.2	46.8	46.7	45.7	44.2	44.0	43.6	43.8	43.8	45.2	42.7	43.1	44.3	44.2
NTU (ntu)	0.94	0.85	1.28	0.44	0.70	0.91	0.50	0.43	0.50	0.40	0.80	0.83	0.50	0.97	0.95
pH (pH)	7.72	7.46	7.61	7.45	7.33	7.79	7.74	7.79	7.62	7.81	7.71	7.67	7.87	7.81	7.78
TDS (mg/L)	70	71	79	72	73	53	72	88	80	75	88	71	88	82	82
TSS (mg/L)	2.1	<1.0	<1.0	<1.0	<1.0	1.6	1.8	2.6	2.1	<1.0	1.3	3.6	1.0	1.4	1.5
Total Metals															
Aluminum (Al)-Total (mg/L)	0.0182	0.0310	0.0134	0.0109	0.0106	0.0108	0.0219	0.0140	0.0115	0.0066	0.0087	0.0239	0.0175	0.0098	0.0076
Antimony (Sb)-Total (mg/L)	<0.00010	<0.00010	<0.00010	0.00013	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Arsenic (As)-Total (mg/L)	0.00033	0.00033	0.00045	0.00029	0.00031	0.00035	0.00031	0.00030	0.00030	0.00039	0.00040	0.00028	0.00033	0.00032	0.00040
Barium (Ba)-Total (mg/L)	0.0158	0.0164	0.0183	0.0145	0.0167	0.0179	0.0160	0.0161	0.0169	0.0173	0.0178	0.0168	0.0169	0.0182	0.0159
Beryllium (Be)-Total (mg/L)	<0.00010	<0.00010	<0.00010	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100
Bismuth (Bi)-Total (mg/L)	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Boron (B)-Total (mg/L)	0.046	0.049	0.048	0.047	0.044	0.048	0.043	0.044	0.043	0.044	0.045	0.046	0.044	0.044	0.041

: B2-BT**8-Jun-23 12-Jul-23 23-Aug-23 7-Sep-23**

Diss-Silicon (Si) (mg/L)	3.05	2.80	3.00	3.28
Diss-Silver (Ag) (mg/L)	<0.000010	<0.000010	<0.000010	<0.000010
Diss-Sodium (Na) (mg/L)	2.42	2.62	2.60	2.66
Diss-Strontium (Sr) (mg/L)	0.130	0.132	0.126	0.143
Diss-Thallium (Tl) (mg/L)	<0.000010	<0.000010	<0.000010	<0.000010
Diss-Tin (Sn) (mg/L)	<0.00010	<0.00010	<0.00010	<0.00010
Diss-Titanium (Ti) (mg/L)	<0.0100	<0.0100	<0.0100	<0.0100
Diss-Uranium (U) (mg/L)	0.000030	0.000027	0.000030	0.000032
Diss-Vanadium (V) (mg/L)	<0.00050	<0.00050	<0.00050	<0.00050
Diss-Zinc (Zn) (mg/L)	<0.0030	<0.0030	<0.0030	<0.0030
TDS (mg/L)	74	80	79	78
Field Tests				
Cond (in situ) (µs/cm)	105.5	105.3	102.8	118.1
NTU - in situ (ntu)	0.09		1.13	0.18
pH (in situ) (pH)	7.74	7.46	7.34	6.75
Sample Depth (m)	9	9	9	10
Sample Taken				
Temp (in situ) (Degrees Celcius)	7.309	7.725	8.884	8.095
Organic / Inorganic				
DOC (mg/L)	7.00	6.84	7.31	6.96
Physical Test				
Conductivity (µs/cm)	99.3	102	103	112
Hardness (mg/L)	46.1	47.3	44.7	47.2
NTU (ntu)	0.58	0.80	0.86	0.42
pH (pH)	7.40	7.26	7.17	7.56
TDS (mg/L)	74	80	79	78
TSS (mg/L)	1.5	1.2	1.7	<1.0
Total Metals				
Aluminum (Al)-Total (mg/L)	0.0312	0.0085	0.0074	0.0061
Antimony (Sb)-Total (mg/L)	<0.00010	0.00012	<0.00010	<0.00010
Arsenic (As)-Total (mg/L)	0.00034	0.00035	0.00037	0.00048
Barium (Ba)-Total (mg/L)	0.0169	0.0171	0.0163	0.0157
Beryllium (Be)-Total (mg/L)	<0.000100	<0.000100	<0.000100	<0.000100
Bismuth (Bi)-Total (mg/L)	<0.000050	<0.000050	<0.000050	<0.000050
Boron (B)-Total (mg/L)	0.044	0.044	0.049	0.044

	: B2-BT			
	8-Jun-23	12-Jul-23	23-Aug-23	7-Sep-23
Cadmium (Cd)-Total (mg/L)	<0.0000050	<0.0000050	<0.0000050	<0.0000050
Calcium (Ca)-Total (mg/L)	14.3	14.6	14.2	14.1
Chromium (Cr)-Total (mg/L)	<0.00050	<0.00050	<0.00050	<0.00050
Cobalt (Co)-Total (mg/L)	<0.00010	<0.00010	<0.00010	<0.00010
Copper (Cu)-Total (mg/L)	0.00230	0.00178	0.00174	0.00160
Iron (Fe)-Total (mg/L)	0.061	0.048	0.044	0.065
Lead (Pb)-Total (mg/L)	<0.000050	<0.000050	<0.000050	<0.000050
Lithium (Li)-Total (mg/L)	<0.0010	<0.0010	<0.0010	<0.0010
Magnesium (Mg)-Total (mg/L)	2.45	2.67	2.60	2.66
Manganese (Mn)-Total (mg/L)	0.0263	0.0435	0.0393	0.0722
Molybdenum (Mo)-Total (mg/L)	0.000837	0.000790	0.000872	0.000842
Nickel (Ni)-Total (mg/L)	0.00075	<0.00050	<0.00050	<0.00050
Potassium (K)-Total (mg/L)	0.499	0.496	0.465	0.491
Selenium (Se)-Total (mg/L)	0.000225	0.000249	0.000171	0.000174
Silicon (Si)-Total (mg/L)	3.03	2.99	3.11	3.34
Silver (Ag)-Total (mg/L)	<0.000010	<0.000010	<0.000010	<0.000010
Sodium (Na)-Total (mg/L)	2.43	2.48	2.48	2.70
Strontium (Sr)-Total (mg/L)	0.135	0.136	0.131	0.144
Thallium (Tl)-Total (mg/L)	<0.000010	<0.000010	<0.000010	<0.000010
Tin (Sn)-Total (mg/L)	<0.00010	<0.00010	<0.00010	<0.00010
Titanium (Ti)-Total (mg/L)	<0.0100	<0.0100	<0.0100	<0.0100
Uranium (U)-Total (mg/L)	0.000033	0.000035	0.000029	0.000032
Vanadium (V)-Total (mg/L)	<0.00050	<0.00050	<0.00050	<0.00050
Zinc (Zn)-Total (mg/L)	<0.0030	<0.0030	<0.0030	<0.0030

Grid Format Report : Bootjack Lake South Station B2-BT

From 1 Jan 2019 to 31 Dec 2023

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Mount Polley

Mining Corporation

IMPERIAL METALS CORPORATION

	: B2-BT						
	Sample (n)	Count >MDL	Min	Max	Mean	95th Percentile	St Dev
Anions and Nutrients							
Alkalinity (CaCO3) (mg/L)	19	19	39.50000	46.50000	41.98947		1.99329
Ammonia (as N) (mg/L)	19	12	0.00250	0.01580	0.00645		0.00421
Chloride (mg/L)	19	18	0.25000	0.95000	0.65789		0.14991
Diss-Orthophosphate (mg/L)	19	9	0.00050	0.00580	0.00150		0.00162
Diss-Phosphorus (mg/L)	19	18	0.00100	0.01250	0.00572		0.00288
Floride (mg/L)	19	19	0.04800	0.06600	0.05532		0.00444
Nitrate (N) (mg/L)	19	6	0.00250	0.02060	0.00466		0.00443
Nitrate and Nitrite (mg/L)	19	6	0.00255	0.02500	0.00606		0.00667
Nitrite (N) (mg/L)	19	3	0.00050	0.00220	0.00066		0.00043
Sulphate (mg/L)	19	19	4.33000	8.32000	6.52684		1.09510
Total Nitrogen (mg/L)	19	19	0.24000	1.36000	0.35095		0.24662
Total Phosphorus (mg/L)	19	19	0.00880	0.10700	0.01957		0.02178
Dissolved Metals							
Aluminum (Al)-Diss (mg/L)	19	14	0.00150	0.03590	0.00631		0.00782
Diss-Antimony (Sb) (mg/L)	19	0	0.00005	0.00005	0.00005		0.00000
Diss-Arsenic (As) (mg/L)	19	19	0.00023	0.00043	0.00031		0.00005
Diss-Barium (Ba) (mg/L)	19	19	0.01530	0.01790	0.01626		0.00080
Diss-Beryllium (Be) (mg/L)	19	0	0.00005	0.00050	0.00012		0.00017
Diss-Bismuth (Bi) (mg/L)	19	0	0.00003	0.00003	0.00003		0.00000
Diss-Boron (B) (mg/L)	19	19	0.04000	0.04900	0.04389		0.00226
Diss-Cadmium (Cd) (mg/L)	19	0	0.00000	0.00000	0.00000		0.00000
Diss-Calcium (Ca) (mg/L)	19	19	13.20000	15.00000	13.89474		0.55824
Diss-Chromium (Cr) (mg/L)	19	0	0.00025	0.00025	0.00025		0.00000
Diss-Cobalt (Co) (mg/L)	19	0	0.00005	0.00005	0.00005		0.00000
Diss-Copper (Cu) (mg/L)	19	19	0.00136	0.00209	0.00179		0.00018
Diss-Iron (Fe) (mg/L)	19	3	0.01500	0.07400	0.01989		0.01417
Diss-Lead (Pb) (mg/L)	19	0	0.00003	0.00003	0.00003		0.00000
Diss-Lithium (Li) (mg/L)	19	0	0.00050	0.00050	0.00050		0.00000
Diss-Magnesium (Mg) (mg/L)	19	19	2.35000	2.70000	2.51263		0.10230
Diss-Manganese (Mn) (mg/L)	19	19	0.00043	0.32000	0.02807		0.07203
Diss-Molybdenum (Mo) (mg/L)	19	19	0.00069	0.00093	0.00080		0.00007
Diss-Nickel (Ni) (mg/L)	19	0	0.00025	0.00025	0.00025		0.00000
Diss-Potassium (K) (mg/L)	19	19	0.44000	0.51800	0.47632		0.02514

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Mining Corporation

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Sample (n)	Count >MDL	Min	Max	Mean	95th Percentile	St Dev	
Diss-Selenium (mg/L)	19	19	0.00011	0.00024	0.00017		0.00004
Diss-Silicon (Si) (mg/L)	19	19	1.49000	3.28000	2.27368		0.56388
Diss-Silver (Ag) (mg/L)	19	0	0.00001	0.00001	0.00001		0.00000
Diss-Sodium (Na) (mg/L)	19	19	2.30000	2.66000	2.48053		0.11626
Diss-Strontium (Sr) (mg/L)	19	19	0.11900	0.14600	0.12963		0.00808
Diss-Thallium (Tl) (mg/L)	19	0	0.00001	0.00001	0.00001		0.00000
Diss-Tin (Sn) (mg/L)	19	0	0.00005	0.00005	0.00005		0.00000
Diss-Titanium (Ti) (mg/L)	19	0	0.00500	0.00500	0.00500		0.00000
Diss-Uranium (U) (mg/L)	19	19	0.00003	0.00004	0.00003		0.00000
Diss-Vanadium (V) (mg/L)	19	0	0.00025	0.00025	0.00025		0.00000
Diss-Zinc (Zn) (mg/L)	19	0	0.00150	0.00150	0.00150		0.00000
TDS (mg/L)	19	19	53.00000	88.00000	76.57895		8.20783
Field Tests							
Cond (in situ) (µs/cm)	18	18	94.20000	118.10000	102.47222		7.41436
NTU - in situ (ntu)	17	17	0.00000	3.50000	1.09000		0.85341
pH (in situ) (pH)	18	18	6.75000	7.86000	7.41722		0.29337
Sample Depth (m)	19	19	7.00000	13.00000	9.68421		1.63478
Sample Taken							
Temp (in situ) (Degrees Celcius)	18	18	5.38500	10.95300	7.48450		1.28471
Organic / Inorganic							
DOC (mg/L)	19	19	5.79000	7.41000	6.81474		0.46172
Physical Test							
Conductivity (µs/cm)	19	19	93.70000	112.00000	98.92105		4.38578
Hardness (mg/L)	19	19	42.70000	48.20000	45.03684		1.59207
NTU (ntu)	19	19	0.40000	1.28000	0.71895		0.24664
pH (pH)	19	19	7.17000	7.87000	7.60789		0.20725
TDS (mg/L)	19	19	53.00000	88.00000	76.57895		8.20783
TSS (mg/L)	19	13	0.50000	3.60000	1.38947		0.83792
Total Metals							
Aluminum (Al)-Total (mg/L)	19	19	0.00610	0.03120	0.01419		0.00778
Antimony (Sb)-Total (mg/L)	19	2	0.00005	0.00013	0.00006		0.00002
Arsenic (As)-Total (mg/L)	19	19	0.00028	0.00048	0.00035		0.00005
Barium (Ba)-Total (mg/L)	19	19	0.01450	0.01830	0.01671		0.00096
Beryllium (Be)-Total (mg/L)	19	0	0.00005	0.00005	0.00005		0.00000
Bismuth (Bi)-Total (mg/L)	19	0	0.00003	0.00003	0.00003		0.00000

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Boron (B)-Total (mg/L)	19	19	0.04100	0.04900	0.04511		0.00221
Cadmium (Cd)-Total (mg/L)	19	1	0.00000	0.00001	0.00000		0.00000
Calcium (Ca)-Total (mg/L)	19	19	12.50000	14.60000	13.75789		0.58814
Chromium (Cr)-Total (mg/L)	19	0	0.00025	0.00025	0.00025		0.00000
Cobalt (Co)-Total (mg/L)	19	0	0.00005	0.00005	0.00005		0.00000
Copper (Cu)-Total (mg/L)	19	19	0.00160	0.00408	0.00209		0.00053
Iron (Fe)-Total (mg/L)	19	18	0.01500	0.23400	0.06216		0.04871
Lead (Pb)-Total (mg/L)	19	1	0.00003	0.00041	0.00005		0.00009
Lithium (Li)-Total (mg/L)	19	0	0.00050	0.00050	0.00050		0.00000
Magnesium (Mg)-Total (mg/L)	19	19	2.10000	2.67000	2.47684		0.13941
Manganese (Mn)-Total (mg/L)	19	19	0.00848	0.37500	0.05393		0.08414
Molybdenum (Mo)-Total (mg/L)	19	19	0.00072	0.00099	0.00083		0.00006
Nickel (Ni)-Total (mg/L)	19	1	0.00025	0.00075	0.00028		0.00011
Potassium (K)-Total (mg/L)	19	19	0.40100	0.52500	0.47774		0.02721
Selenium (Se)-Total (mg/L)	19	19	0.00012	0.00027	0.00020		0.00004
Silicon (Si)-Total (mg/L)	19	19	1.48000	3.34000	2.35842		0.57791
Silver (Ag)-Total (mg/L)	19	0	0.00001	0.00001	0.00001		0.00000
Sodium (Na)-Total (mg/L)	19	19	2.01000	2.70000	2.47579		0.13918
Strontium (Sr)-Total (mg/L)	19	19	0.11700	0.14400	0.13121		0.00668
Thallium (Tl)-Total (mg/L)	19	0	0.00001	0.00001	0.00001		0.00000
Tin (Sn)-Total (mg/L)	19	1	0.00005	0.00026	0.00006		0.00005
Titanium (Ti)-Total (mg/L)	19	0	0.00500	0.00500	0.00500		0.00000
Uranium (U)-Total (mg/L)	19	19	0.00003	0.00005	0.00004		0.00000
Vanadium (V)-Total (mg/L)	19	0	0.00025	0.00025	0.00025		0.00000
Zinc (Zn)-Total (mg/L)	19	0	0.00150	0.00150	0.00150		0.00000

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	25-Jun-19	31-Jul-19	4-Sep-19	22-Jun-20	29-Jul-20	30-Aug-20	22-Jun-21	27-Jul-21	30-Aug-21	21-Jun-22	26-Jul-22	28-Aug-22	21-Jun-23	27-Jul-23	28-Aug-23
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Anions and Nutrients

Alkalinity (CaCO3) (mg/L)	42.6	42.6	46.4	39.4	39.5	40.3	41.8	41.7	41.8	38.1	41.8	42.5	41.1	42.2	43.0
Ammonia (as N) (mg/L)	0.0116	0.0055	0.0097	0.0183	0.0084	0.0075	0.0225	0.0069	0.0052	0.0052	0.0052	0.0072	0.0231	<0.0050	0.0234
Chloride (mg/L)	0.97	0.91	0.91	0.81	0.85	0.75	0.66	0.71	0.68	0.62	0.56	0.64	0.60	0.59	0.72
Diss-Orthophosphate (mg/L)	0.0014	<0.0010	0.0020	0.0012	<0.0010	<0.0010	<0.0010	0.0011	0.0021	<0.0010	<0.0010	0.0016	<0.0010	<0.0010	<0.0010
Diss-Phosphorus (mg/L)	0.0054	0.0066	0.0072	0.0034	0.0030	0.0027	0.0059	0.0069	0.0097	0.0061	0.0053	0.0072	0.0078	0.0063	0.0189
Fluoride (mg/L)	0.070	0.058	0.061	0.063	0.060	0.060	0.047	0.057	0.053	0.057	0.048	0.056	0.058	0.052	0.066
Nitrate (N) (mg/L)	0.0270	0.0053	<0.0050	0.0069	0.0268	0.0063	0.0265	0.0523	0.0302	<0.0050	<0.0050	0.0064	0.0139	0.0148	0.0059
Nitrate and Nitrite (mg/L)	0.0270	0.0053	<0.0051	0.0076	0.0276	0.0065	0.0265	0.0523	0.0302	<0.0051	<0.0051	0.0064	0.0151	0.0148	0.0070
Nitrite (N) (mg/L)	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.0012	<0.0010	0.0011
Sulphate (mg/L)	4.94	4.89	4.61	5.88	6.08	5.89	6.52	6.74	6.62	7.16	6.98	6.78	7.94	7.25	7.92
Total Nitrogen (mg/L)	0.404	0.370	0.306	0.336	0.347	0.310	0.509	0.324	0.322	0.314	0.287		0.278	0.293	0.814
Total Phosphorus (mg/L)	0.0173	0.0113	0.0198	0.0194	0.0206	0.0219	0.0245	0.0173	0.0133	0.0130	0.0120	0.0170	0.0211	0.0133	0.0268

Dissolved Metals

Aluminum (Al)-Diss (mg/L)	0.0149	0.0037	0.0040	0.0071	0.0041	0.0054	0.0054	0.0112	0.0054	0.0103	0.0069	0.0089	0.0123	0.0044	0.0055
Diss-Antimony (Sb) (mg/L)	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Diss-Arsenic (As) (mg/L)	0.00034	0.00029	0.00036	0.00031	0.00030	0.00035	0.00028	0.00034	0.00037	0.00029	0.00028	0.00034	0.00034	0.00033	0.00040
Diss-Barium (Ba) (mg/L)	0.0189	0.0172	0.0173	0.0155	0.0156	0.0160	0.0157	0.0173	0.0157	0.0173	0.0142	0.0160	0.0154	0.0150	0.0161
Diss-Beryllium (Be) (mg/L)	<0.00010	<0.00010	<0.00010	<0.000100	<0.000100	<0.00100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100
Diss-Bismuth (Bi) (mg/L)	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Diss-Boron (B) (mg/L)	0.046	0.046	0.048	0.048	0.045	0.042	0.041	0.044	0.045	0.046	0.041	0.048	0.044	0.045	0.046
Diss-Cadmium (Cd) (mg/L)	<0.0000050	<0.0000050	0.0000137	<0.0000050	<0.0000050	<0.0000050	<0.0000050	0.0000077	0.0000078	<0.0000050	0.0000142	0.0000068	0.000151	0.0000115	<0.0000050
Diss-Calcium (Ca) (mg/L)	12.7	13.5	14.8	13.4	13.3	14.2	13.1	13.7	13.9	13.5	12.9	13.8	14.7	13.8	14.5
Diss-Chromium (Cr) (mg/L)	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Diss-Cobalt (Co) (mg/L)	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Diss-Copper (Cu) (mg/L)	0.00246	0.00180	0.00175	0.00199	0.00197	0.00224	0.00195	0.00272	0.00222	0.00265	0.00232	0.00282	0.00253	0.00195	0.00260
Diss-Iron (Fe) (mg/L)	0.052	<0.030	0.040	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030
Diss-Lead (Pb) (mg/L)	0.000134	<0.000050	<0.000050	<0.000050	<0.000050	0.000111	<0.000050	0.000072	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	0.000092
Diss-Lithium (Li) (mg/L)	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Diss-Magnesium (Mg) (mg/L)	2.35	2.61	2.47	2.33	2.45	2.48	2.36	2.46	2.50	2.54	2.33	2.56	2.65	2.49	2.60
Diss-Manganese (Mn) (mg/L)	0.0513	0.0249	0.150	0.00063	0.00049	0.0262	0.00944	0.0397	0.0615	0.00233	0.00279	0.00646	0.00736	0.00522	0.110
Diss-Molybdenum (Mo) (mg/L)	0.000811	0.000857	0.000922	0.000990	0.000846	0.000950	0.000775	0.000839	0.000863	0.000765	0.000794	0.000777	0.000784	0.000859	0.000923
Diss-Nickel (Ni) (mg/L)	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Diss-Potassium (K) (mg/L)	0.462	0.458	0.514	0.451	0.566	0.478	0.473	0.504	0.504	0.494	0.495	0.536	0.525	0.552	0.615
Diss-Selenium (mg/L)	0.000159	0.000134	0.000127	0.000191	0.000194	0.000159	0.000202	0.000152	0.000225	0.000178	0.000180	0.000185	0.000264	0.000200	0.000207

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Boron (B)-Total (mg/L)	0.049	0.048	0.053	0.046	0.046	0.049	0.048	0.047	0.046	0.045	0.046	0.044	0.047	0.044	0.046
Cadmium (Cd)-Total (mg/L)	0.0000057	0.0000055	0.0000115	0.0000112	<0.0000050	<0.0000050	<0.0000050	0.0000066	<0.0000050	0.0000120	0.0000222	0.0000075	0.0000788	0.0000144	0.0000075
Calcium (Ca)-Total (mg/L)	13.8	14.1	14.3	13.0	14.2	15.0	13.4	14.5	13.7	13.6	12.4	13.8	14.4	14.5	14.7
Chromium (Cr)-Total (mg/L)	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Cobalt (Co)-Total (mg/L)	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	0.00012	<0.00010	<0.00010
Copper (Cu)-Total (mg/L)	0.00271	0.00231	0.00344	0.00374	0.00306	0.00288	0.00266	0.00487	0.00248	0.00554	0.00342	0.00528	0.00809	0.00322	0.00564
Iron (Fe)-Total (mg/L)	0.057	0.050	0.152	0.068	0.062	0.054	0.067	0.108	0.061	0.074	0.050	0.089	0.123	0.060	0.109
Lead (Pb)-Total (mg/L)	0.000137	<0.000050	<0.000050	0.000067	0.000085	0.000440	<0.000050	0.000160	<0.000050	0.000098	0.000097	0.000107	0.000172	0.000063	0.000215
Lithium (Li)-Total (mg/L)	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.0011	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Magnesium (Mg)-Total (mg/L)	2.43	2.43	2.54	2.36	2.48	2.63	2.48	2.66	2.43	2.50	2.43	2.52	2.66	2.60	2.59
Manganese (Mn)-Total (mg/L)	0.0530	0.0565	0.195	0.0242	0.0667	0.0451	0.0351	0.0654	0.0932	0.0140	0.0212	0.0431	0.0475	0.0459	0.124
Molybdenum (Mo)-Total (mg/L)	0.000844	0.000876	0.000884	0.000838	0.000844	0.000926	0.000795	0.000896	0.000860	0.000788	0.000824	0.000853	0.000832	0.000839	0.000939
Nickel (Ni)-Total (mg/L)	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Potassium (K)-Total (mg/L)	0.488	0.476	0.489	0.487	0.562	0.500	0.488	0.541	0.486	0.517	0.496	0.541	0.527	0.472	0.613
Selenium (Se)-Total (mg/L)	0.000099	0.000174	0.000124	0.000159	0.000208	0.000235	0.000238	0.000217	0.000163	0.000192	0.000253	0.000180	0.000218	0.000194	0.000202
Silicon (Si)-Total (mg/L)	1.77	1.64	2.25	1.91	2.19	1.94	2.54	2.80	2.63	1.99	1.89	2.40	2.98	2.82	2.75
Silver (Ag)-Total (mg/L)	<0.000010	<0.000010	<0.000010	<0.000010	0.000012	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Sodium (Na)-Total (mg/L)	2.51	2.56	2.53	2.47	2.63	2.68	2.42	2.58	2.47	2.43	2.45	2.54	2.49	2.45	2.62
Strontium (Sr)-Total (mg/L)	0.127	0.131	0.131	0.118	0.131	0.129	0.134	0.131	0.127	0.126	0.127	0.137	0.129	0.134	0.134
Thallium (Tl)-Total (mg/L)	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Tin (Sn)-Total (mg/L)	<0.00010	<0.00010	<0.00010	0.00012	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	0.00023	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Titanium (Ti)-Total (mg/L)	<0.010	<0.010	<0.010	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100
Uranium (U)-Total (mg/L)	0.000040	0.000038	0.000036	0.000037	0.000036	0.000037	0.000035	0.000036	0.000036	0.000041	0.000039	0.000041	0.000038	0.000039	0.000037
Vanadium (V)-Total (mg/L)	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	0.00056	<0.00050	<0.00050
Zinc (Zn)-Total (mg/L)	<0.0030	<0.0030	0.0040	<0.0030	0.0048	<0.0030	<0.0030	0.0046	<0.0030	0.0045	<0.0030	0.0037	0.0042	<0.0030	<0.0030

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Mining Corporation

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	E215897 : B2-DI						
	Sample (n)	Count >MDL	Min	Max	Mean	95th Percentile	St Dev
Anions and Nutrients							
Alkalinity (CaCO3) (mg/L)	15	15	38.10000	46.40000	41.65333		1.92163
Ammonia (as N) (mg/L)	15	14	0.00250	0.02340	0.01081		0.00727
Chloride (mg/L)	15	15	0.56000	0.97000	0.73200		0.13012
Diss-Orthophosphate (mg/L)	15	6	0.00050	0.00210	0.00093		0.00059
Diss-Phosphorus (mg/L)	15	15	0.00270	0.01890	0.00683		0.00382
Fluoride (mg/L)	15	15	0.04700	0.07000	0.05773		0.00619
Nitrate (N) (mg/L)	15	12	0.00250	0.05230	0.01532		0.01439
Nitrate and Nitrite (mg/L)	15	12	0.00255	0.05230	0.01560		0.01433
Nitrite (N) (mg/L)	15	2	0.00050	0.00120	0.00059		0.00023
Sulphate (mg/L)	15	15	4.61000	7.94000	6.41333		1.03120
Total Nitrogen (mg/L)	14	14	0.27800	0.81400	0.37243		0.14026
Total Phosphorus (mg/L)	15	15	0.01130	0.02680	0.01791		0.00469
Dissolved Metals							
Aluminum (Al)-Diss (mg/L)	15	15	0.00370	0.01490	0.00730		0.00345
Diss-Antimony (Sb) (mg/L)	15	0	0.00005	0.00005	0.00005		0.00000
Diss-Arsenic (As) (mg/L)	15	15	0.00028	0.00040	0.00033		0.00004
Diss-Barium (Ba) (mg/L)	15	15	0.01420	0.01890	0.01621		0.00118
Diss-Beryllium (Be) (mg/L)	15	0	0.00005	0.00050	0.00008		0.00012
Diss-Bismuth (Bi) (mg/L)	15	0	0.00003	0.00003	0.00003		0.00000
Diss-Boron (B) (mg/L)	15	15	0.04100	0.04800	0.04500		0.00230
Diss-Cadmium (Cd) (mg/L)	15	7	0.00000	0.00015	0.00002		0.00004
Diss-Calcium (Ca) (mg/L)	15	15	12.70000	14.80000	13.72000		0.62587
Diss-Chromium (Cr) (mg/L)	15	0	0.00025	0.00025	0.00025		0.00000
Diss-Cobalt (Co) (mg/L)	15	0	0.00005	0.00005	0.00005		0.00000
Diss-Copper (Cu) (mg/L)	15	15	0.00175	0.00282	0.00226		0.00035
Diss-Iron (Fe) (mg/L)	15	2	0.01500	0.05200	0.01913		0.01114
Diss-Lead (Pb) (mg/L)	15	4	0.00003	0.00013	0.00005		0.00004
Diss-Lithium (Li) (mg/L)	15	0	0.00050	0.00050	0.00050		0.00000
Diss-Magnesium (Mg) (mg/L)	15	15	2.33000	2.65000	2.47867		0.10295
Diss-Manganese (Mn) (mg/L)	15	15	0.00049	0.15000	0.03322		0.04437
Diss-Molybdenum (Mo) (mg/L)	15	15	0.00077	0.00099	0.00085		0.00007
Diss-Nickel (Ni) (mg/L)	15	1	0.00025	0.00050	0.00027		0.00006
Diss-Potassium (K) (mg/L)	15	15	0.45100	0.61500	0.50847		0.04491

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Mining Corporation

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E215897 : B2-DI						
Sample (n)	Count >MDL	Min	Max	Mean	95th Percentile	St Dev
Diss-Selenium (mg/L)	15	15	0.00013	0.00026	0.00018	0.00004
Diss-Silicon (Si) (mg/L)	15	15	1.54000	2.81000	2.14333	0.39971
Diss-Silver (Ag) (mg/L)	15	0	0.00001	0.00001	0.00001	0.00000
Diss-Sodium (Na) (mg/L)	15	15	2.24000	2.70000	2.51600	0.12586
Diss-Strontium (Sr) (mg/L)	15	15	0.12200	0.14300	0.13247	0.00636
Diss-Thallium (Tl) (mg/L)	15	0	0.00001	0.00001	0.00001	0.00000
Diss-Tin (Sn) (mg/L)	15	0	0.00005	0.00005	0.00005	0.00000
Diss-Titanium (Ti) (mg/L)	15	0	0.00500	0.00500	0.00500	0.00000
Diss-Uranium (U) (mg/L)	15	15	0.00003	0.00004	0.00004	0.00000
Diss-Vanadium (V) (mg/L)	15	0	0.00025	0.00025	0.00025	0.00000
Diss-Zinc (Zn) (mg/L)	15	2	0.00150	0.00640	0.00206	0.00150
TDS (mg/L)	15	15	65.00000	91.00000	77.26667	7.68548
Field Tests						
Cond (in situ) (µs/cm)	10	10	86.20000	115.30000	98.36000	7.68363
NTU - in situ (ntu)	5	5	0.16000	15.60000	4.05200	6.50280
pH (in situ) (pH)	10	10	7.05000	7.85000	7.45200	0.25914
Sample Depth (m)	10	10	0.00000	18.00000	5.00000	7.64853
Sample Taken						
Secchi Depth (m)	9	9	3.80000	6.20000	4.75000	0.86639
Temp (in situ) (Degrees Celcius)	10	10	5.71600	17.02300	12.37080	3.53821
Organic / Inorganic						
DOC (mg/L)	15	15	6.37000	7.90000	7.08133	0.54639
Physical Test						
Conductivity (µs/cm)	15	15	92.20000	104.00000	98.02000	3.07250
Hardness (mg/L)	15	15	41.40000	47.60000	44.46667	1.89460
NTU (ntu)	15	15	0.72000	2.51000	1.36733	0.59414
pH (pH)	15	15	7.49000	7.90000	7.68467	0.13606
TDS (mg/L)	15	15	65.00000	91.00000	77.26667	7.68548
TSS (mg/L)	15	15	1.20000	5.80000	2.66667	1.19264
Total Metals						
Aluminum (Al)-Total (mg/L)	15	15	0.01530	0.15600	0.04523	0.03561
Antimony (Sb)-Total (mg/L)	15	5	0.00005	0.00015	0.00007	0.00004
Arsenic (As)-Total (mg/L)	15	15	0.00035	0.00071	0.00046	0.00010
Barium (Ba)-Total (mg/L)	15	15	0.01650	0.01940	0.01749	0.00078
Beryllium (Be)-Total (mg/L)	15	0	0.00005	0.00005	0.00005	0.00000

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Sample (n)	Count >MDL	Min	Max	Mean	95th Percentile	St Dev
Bismuth (Bi)-Total (mg/L)	15	0	0.00003	0.00003	0.00003	0.00000
Boron (B)-Total (mg/L)	15	15	0.04400	0.05300	0.04693	0.00228
Cadmium (Cd)-Total (mg/L)	15	11	0.00000	0.00008	0.00001	0.00002
Calcium (Ca)-Total (mg/L)	15	15	12.40000	15.00000	13.96000	0.68222
Chromium (Cr)-Total (mg/L)	15	0	0.00025	0.00025	0.00025	0.00000
Cobalt (Co)-Total (mg/L)	15	1	0.00005	0.00012	0.00005	0.00002
Copper (Cu)-Total (mg/L)	15	15	0.00231	0.00809	0.00396	0.00161
Iron (Fe)-Total (mg/L)	15	15	0.05000	0.15200	0.07893	0.03066
Lead (Pb)-Total (mg/L)	15	11	0.00003	0.00044	0.00012	0.00011
Lithium (Li)-Total (mg/L)	15	1	0.00050	0.00110	0.00054	0.00015
Magnesium (Mg)-Total (mg/L)	15	15	2.36000	2.66000	2.51600	0.09425
Manganese (Mn)-Total (mg/L)	15	15	0.01400	0.19500	0.06199	0.04620
Molybdenum (Mo)-Total (mg/L)	15	15	0.00079	0.00094	0.00086	0.00004
Nickel (Ni)-Total (mg/L)	15	0	0.00025	0.00025	0.00025	0.00000
Potassium (K)-Total (mg/L)	15	15	0.47200	0.61300	0.51220	0.03865
Selenium (Se)-Total (mg/L)	15	15	0.00010	0.00025	0.00019	0.00004
Silicon (Si)-Total (mg/L)	15	15	1.64000	2.98000	2.30000	0.43415
Silver (Ag)-Total (mg/L)	15	1	0.00001	0.00001	0.00001	0.00000
Sodium (Na)-Total (mg/L)	15	15	2.42000	2.68000	2.52200	0.07894
Strontium (Sr)-Total (mg/L)	15	15	0.11800	0.13700	0.12973	0.00454
Thallium (Tl)-Total (mg/L)	15	0	0.00001	0.00001	0.00001	0.00000
Tin (Sn)-Total (mg/L)	15	2	0.00005	0.00023	0.00007	0.00005
Titanium (Ti)-Total (mg/L)	15	0	0.00500	0.00500	0.00500	0.00000
Uranium (U)-Total (mg/L)	15	15	0.00004	0.00004	0.00004	0.00000
Vanadium (V)-Total (mg/L)	15	1	0.00025	0.00056	0.00027	0.00008
Zinc (Zn)-Total (mg/L)	15	6	0.00150	0.00480	0.00262	0.00144

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Mining Corporation

IMPERIAL METALS CORPORATION

	: B2-Mid									
	23-Oct-19	4-Jun-20	29-Sep-20	27-Oct-20	19-Oct-21	1-Nov-21	24-May-22	26-Oct-22	24-May-23	10-Oct-23
Anions and Nutrients										
Alkalinity (CaCO3) (mg/L)	43.5	39.6	41.6	41.3	43.4	41.8	43.1	41.3	39.9	43.8
Ammonia (as N) (mg/L)	0.0161	<0.0050	<0.0050	0.0121	0.0188	<0.0050	<0.0050	0.0208	0.0073	0.0103
Chloride (mg/L)	0.93	0.75	0.74	0.74	0.67	0.70	0.63	0.57	0.51	0.55
Diss-Orthophosphate (mg/L)	0.0030	0.0013	0.0012	0.0028	0.0070	0.0015	0.0026	0.0088	<0.0010	0.0020
Diss-Phosphorus (mg/L)	0.0089	0.0048	0.0040	0.0055	0.0102	0.0066	0.0051	0.0116	0.0098	0.0066
Fluoride (mg/L)	0.066	0.055	0.058	0.059	0.063	0.061	0.050	0.051	0.050	0.059
Nitrate (N) (mg/L)	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.0303	<0.0050	<0.0050	<0.0050
Nitrate and Nitrite (mg/L)	<0.0051	<0.0500	<0.0051	<0.0051	<0.0051	<0.0051	0.0303	<0.0051	<0.0051	<0.0051
Nitrite (N) (mg/L)	0.0015	<0.0010	<0.0010	<0.0010	0.0013	<0.0010	<0.0010	0.0017	<0.0010	<0.0010
Sulphate (mg/L)	5.11	5.26	5.35	5.79	6.60	7.05	6.86	7.28	7.08	7.74
Total Nitrogen (mg/L)	0.362	0.323	0.327	0.332	0.305	0.299	0.278	0.298	0.284	0.304
Total Phosphorus (mg/L)	0.0305	0.0135	0.0132	0.0176	0.0253	0.0172	0.0136	0.0222	0.0104	0.0179
Dissolved Metals										
Aluminum (Al)-Diss (mg/L)	<0.0030	0.0098	0.0033	<0.0030	<0.0030	<0.0030	0.0180	<0.0030	0.0117	<0.0030
Diss-Antimony (Sb) (mg/L)	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Diss-Arsenic (As) (mg/L)	0.00035	0.00028	0.00032	0.00038	0.00043	0.00034	0.00027	0.00035	0.00028	0.00042
Diss-Barium (Ba) (mg/L)	0.0165	0.0170	0.0171	0.0160	0.0166	0.0181	0.0148	0.0159	0.0141	0.0172
Diss-Beryllium (Be) (mg/L)	<0.00010	<0.00100	<0.00100	<0.00100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100
Diss-Bismuth (Bi) (mg/L)	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Diss-Boron (B) (mg/L)	0.047	0.042	0.043	0.044	0.043	0.041	0.042	0.046	0.042	0.052
Diss-Cadmium (Cd) (mg/L)	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050
Diss-Calcium (Ca) (mg/L)	13.6	13.6	13.9	13.3	14.5	13.4	12.5	14.7	13.1	15.6
Diss-Chromium (Cr) (mg/L)	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Diss-Cobalt (Co) (mg/L)	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Diss-Copper (Cu) (mg/L)	0.00146	0.00168	0.00202	0.00189	0.00183	0.00180	0.00156	0.00164	0.00186	0.00181
Diss-Iron (Fe) (mg/L)	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	0.049	<0.030	<0.030	<0.030
Diss-Lead (Pb) (mg/L)	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Diss-Lithium (Li) (mg/L)	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Diss-Magnesium (Mg) (mg/L)	2.35	2.39	2.40	2.32	2.58	2.51	1.88	2.40	2.44	2.94
Diss-Manganese (Mn) (mg/L)	0.0703	0.00028	0.0156	0.0224	0.0635	0.0417	0.00081	0.0349	0.00043	0.0148
Diss-Molybdenum (Mo) (mg/L)	0.000888	0.000746	0.000879	0.000913	0.000932	0.000947	0.000715	0.000916	0.000766	0.000977
Diss-Nickel (Ni) (mg/L)	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Diss-Potassium (K) (mg/L)	0.459	0.473	0.444	0.467	0.495	0.475	0.422	0.451	0.442	0.500
Diss-Selenium (mg/L)	0.000128	0.000219	0.000172	0.000198	0.000199	0.000174	0.000118	0.000210	0.000154	0.000178

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	: B2-Mid									
	23-Oct-19	4-Jun-20	29-Sep-20	27-Oct-20	19-Oct-21	1-Nov-21	24-May-22	26-Oct-22	24-May-23	10-Oct-23
Diss-Silicon (Si) (mg/L)	1.69	1.74	1.69	2.04	2.46	1.67	2.00	2.05	2.49	2.09
Diss-Silver (Ag) (mg/L)	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Diss-Sodium (Na) (mg/L)	2.54	2.44	2.40	2.33	2.61	2.52	2.12	2.36	2.37	2.68
Diss-Strontium (Sr) (mg/L)	0.125	0.130	0.133	0.135	0.135	0.134	0.118	0.131	0.120	0.138
Diss-Thallium (Tl) (mg/L)	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Diss-Tin (Sn) (mg/L)	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Diss-Titanium (Ti) (mg/L)	<0.010	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100
Diss-Uranium (U) (mg/L)	0.000040	0.000033	0.000042	0.000037	0.000041	0.000042	0.000040	0.000038	0.000035	0.000039
Diss-Vanadium (V) (mg/L)	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Diss-Zinc (Zn) (mg/L)	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030
TDS (mg/L)	70	73	76	78	76	68	57	80	75	77
Field Tests										
Cond (in situ) (µs/cm)	99.3	94.8	120.3	110.8	101.4	95.5	109.2	98.2	105.8	100.4
NTU - in situ (ntu)	0.8	1.36	3.12	2.59	0.45	0.86	0.18	1.06	0.58	0.52
pH (in situ) (pH)	6.93	7.61	7.88	7.65	6.96	7.88	7.12	7.3	7.74	7.33
Sample Depth (m)	8	8.5	4	9	9	9	9.5	9	5	7.5
Sample Taken	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Temp (in situ) (Degrees Celcius)	6.613	7.13	13.167	5.273	7.566	5.606	4.26	9.454	8.007	11.522
Organic / Inorganic										
DOC (mg/L)	6.18	6.85	6.77	6.20	7.28	6.88	7.35	7.35	7.13	7.41
Physical Test										
Conductivity (µs/cm)	98.3	97.5	96.0	97.7	102	99.1	96.9	96.6	96.2	104
Hardness (mg/L)	43.6	43.8	44.7	42.8	46.8	43.8	39.0	46.6	42.8	51.1
NTU (ntu)	1.08	0.86	1.63	1.44	0.99	1.23	0.83	1.58	0.35	1.13
pH (pH)	7.88	7.65	7.68	7.67	7.77	7.85	7.59	7.69	7.87	7.78
TDS (mg/L)	70	73	76	78	76	68	57	80	75	77
TSS (mg/L)	2.2	2.0	1.4	3.2	3.5	4.3	<1.0	2.5	<1.0	1.2
Total Metals										
Aluminum (Al)-Total (mg/L)	0.0216	0.0325	0.0104	0.0201	0.0134	0.0185	0.0525	0.0418	0.0206	0.0089
Antimony (Sb)-Total (mg/L)	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Arsenic (As)-Total (mg/L)	0.00041	0.00030	0.00038	0.00038	0.00042	0.00042	0.00035	0.00042	0.00032	0.00046
Barium (Ba)-Total (mg/L)	0.0179	0.0164	0.0163	0.0175	0.0180	0.0172	0.0184	0.0190	0.0152	0.0168
Beryllium (Be)-Total (mg/L)	<0.00010	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100
Bismuth (Bi)-Total (mg/L)	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Boron (B)-Total (mg/L)	0.049	0.047	0.045	0.043	0.044	0.041	0.046	0.051	0.042	0.047

Grid Format Report : Bootjack Lake South Station B2 - Mid

From 1 Jan 2019 to 31 Dec 2023

Printed : 2024-02-08



Mount Polley

Mining Corporation

IMPERIAL METALS CORPORATION

	: B2-Mid						
	Sample (n)	Count >MDL	Min	Max	Mean	95th Percentile	St Dev
Anions and Nutrients							
Alkalinity (CaCO3) (mg/L)	10	10	39.60000	43.80000	41.93000		1.48926
Ammonia (as N) (mg/L)	10	6	0.00250	0.02080	0.00954		0.00720
Chloride (mg/L)	10	10	0.51000	0.93000	0.67900		0.12270
Diss-Orthophosphate (mg/L)	10	9	0.00050	0.00880	0.00307		0.00270
Diss-Phosphorus (mg/L)	10	10	0.00400	0.01160	0.00731		0.00262
Floride (mg/L)	10	10	0.05000	0.06600	0.05720		0.00557
Nitrate (N) (mg/L)	10	1	0.00250	0.03030	0.00528		0.00879
Nitrate and Nitrite (mg/L)	10	1	0.00255	0.03030	0.00757		0.01066
Nitrite (N) (mg/L)	10	3	0.00050	0.00170	0.00080		0.00049
Sulphate (mg/L)	10	10	5.11000	7.74000	6.41200		0.95122
Total Nitrogen (mg/L)	10	10	0.27800	0.36200	0.31120		0.02507
Total Phosphorus (mg/L)	10	10	0.01040	0.03050	0.01814		0.00622
Dissolved Metals							
Aluminum (Al)-Diss (mg/L)	10	4	0.00150	0.01800	0.00518		0.00590
Diss-Antimony (Sb) (mg/L)	10	0	0.00005	0.00005	0.00005		0.00000
Diss-Arsenic (As) (mg/L)	10	10	0.00027	0.00043	0.00034		0.00006
Diss-Barium (Ba) (mg/L)	10	10	0.01410	0.01810	0.01633		0.00119
Diss-Beryllium (Be) (mg/L)	10	0	0.00005	0.00050	0.00019		0.00022
Diss-Bismuth (Bi) (mg/L)	10	0	0.00003	0.00003	0.00003		0.00000
Diss-Boron (B) (mg/L)	10	10	0.04100	0.05200	0.04420		0.00333
Diss-Cadmium (Cd) (mg/L)	10	0	0.00000	0.00000	0.00000		0.00000
Diss-Calcium (Ca) (mg/L)	10	10	12.50000	15.60000	13.82000		0.89542
Diss-Chromium (Cr) (mg/L)	10	0	0.00025	0.00025	0.00025		0.00000
Diss-Cobalt (Co) (mg/L)	10	0	0.00005	0.00005	0.00005		0.00000
Diss-Copper (Cu) (mg/L)	10	10	0.00146	0.00202	0.00176		0.00017
Diss-Iron (Fe) (mg/L)	10	1	0.01500	0.04900	0.01840		0.01075
Diss-Lead (Pb) (mg/L)	10	0	0.00003	0.00003	0.00003		0.00000
Diss-Lithium (Li) (mg/L)	10	0	0.00050	0.00050	0.00050		0.00000
Diss-Magnesium (Mg) (mg/L)	10	10	1.88000	2.94000	2.42100		0.26092
Diss-Manganese (Mn) (mg/L)	10	10	0.00028	0.07030	0.02647		0.02558
Diss-Molybdenum (Mo) (mg/L)	10	10	0.00072	0.00098	0.00087		0.00009
Diss-Nickel (Ni) (mg/L)	10	0	0.00025	0.00025	0.00025		0.00000
Diss-Potassium (K) (mg/L)	10	10	0.42200	0.50000	0.46280		0.02426

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Mining Corporation

IMPERIAL METALS CORPORATION

	: B2-Mid						
	Sample (n)	Count >MDL	Min	Max	Mean	95th Percentile	St Dev
Diss-Selenium (mg/L)	10	10	0.00012	0.00022	0.00018		0.00003
Diss-Silicon (Si) (mg/L)	10	10	1.67000	2.49000	1.99200		0.30404
Diss-Silver (Ag) (mg/L)	10	0	0.00001	0.00001	0.00001		0.00000
Diss-Sodium (Na) (mg/L)	10	10	2.12000	2.68000	2.43700		0.15993
Diss-Strontium (Sr) (mg/L)	10	10	0.11800	0.13800	0.12990		0.00674
Diss-Thallium (Tl) (mg/L)	10	0	0.00001	0.00001	0.00001		0.00000
Diss-Tin (Sn) (mg/L)	10	0	0.00005	0.00005	0.00005		0.00000
Diss-Titanium (Ti) (mg/L)	10	0	0.00500	0.00500	0.00500		0.00000
Diss-Uranium (U) (mg/L)	10	10	0.00003	0.00004	0.00004		0.00000
Diss-Vanadium (V) (mg/L)	10	0	0.00025	0.00025	0.00025		0.00000
Diss-Zinc (Zn) (mg/L)	10	0	0.00150	0.00150	0.00150		0.00000
TDS (mg/L)	10	10	57.00000	80.00000	73.00000		6.68331
Field Tests							
Cond (in situ) (µs/cm)	10	10	94.80000	120.30000	103.57000		7.97706
NTU - in situ (ntu)	10	10	0.18000	3.12000	1.15200		0.96413
pH (in situ) (pH)	10	10	6.93000	7.88000	7.44000		0.36129
Sample Depth (m)	10	10	4.00000	9.50000	7.85000		1.87157
Sample Taken							
Temp (in situ) (Degrees Celcius)	10	10	4.26000	13.16700	7.85980		2.80959
Organic / Inorganic							
DOC (mg/L)	10	10	6.18000	7.41000	6.94000		0.45639
Physical Test							
Conductivity (µs/cm)	10	10	96.00000	104.00000	98.43000		2.62892
Hardness (mg/L)	10	10	39.00000	51.10000	44.50000		3.18189
NTU (ntu)	10	10	0.35000	1.63000	1.11200		0.38712
pH (pH)	10	10	7.59000	7.88000	7.74300		0.10144
TDS (mg/L)	10	10	57.00000	80.00000	73.00000		6.68331
TSS (mg/L)	10	8	0.50000	4.30000	2.13000		1.27371
Total Metals							
Aluminum (Al)-Total (mg/L)	10	10	0.00890	0.05250	0.02403		0.01410
Antimony (Sb)-Total (mg/L)	10	0	0.00005	0.00005	0.00005		0.00000
Arsenic (As)-Total (mg/L)	10	10	0.00030	0.00046	0.00039		0.00005
Barium (Ba)-Total (mg/L)	10	10	0.01520	0.01900	0.01727		0.00113
Beryllium (Be)-Total (mg/L)	10	0	0.00005	0.00005	0.00005		0.00000
Bismuth (Bi)-Total (mg/L)	10	0	0.00003	0.00003	0.00003		0.00000

Grid Format Report : Bootjack Lake South Station B2 - Mid

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IMPERIAL METALS CORPORATION

	: B2-Mid						
	Sample (n)	Count >MDL	Min	Max	Mean	95th Percentile	St Dev
Boron (B)-Total (mg/L)	10	10	0.04100	0.05100	0.04550		0.00314
Cadmium (Cd)-Total (mg/L)	10	0	0.00000	0.00000	0.00000		0.00000
Calcium (Ca)-Total (mg/L)	10	10	13.00000	14.90000	13.78000		0.63561
Chromium (Cr)-Total (mg/L)	10	0	0.00025	0.00025	0.00025		0.00000
Cobalt (Co)-Total (mg/L)	10	0	0.00005	0.00005	0.00005		0.00000
Copper (Cu)-Total (mg/L)	10	10	0.00184	0.00288	0.00211		0.00030
Iron (Fe)-Total (mg/L)	10	9	0.01500	0.15600	0.08670		0.03975
Lead (Pb)-Total (mg/L)	10	0	0.00003	0.00003	0.00003		0.00000
Lithium (Li)-Total (mg/L)	10	0	0.00050	0.00050	0.00050		0.00000
Magnesium (Mg)-Total (mg/L)	10	10	2.29000	2.71000	2.48800		0.15433
Manganese (Mn)-Total (mg/L)	10	10	0.00835	0.10500	0.06015		0.03131
Molybdenum (Mo)-Total (mg/L)	10	10	0.00077	0.00099	0.00089		0.00007
Nickel (Ni)-Total (mg/L)	10	0	0.00025	0.00025	0.00025		0.00000
Potassium (K)-Total (mg/L)	10	10	0.43400	0.52000	0.47220		0.02559
Selenium (Se)-Total (mg/L)	10	10	0.00014	0.00023	0.00020		0.00002
Silicon (Si)-Total (mg/L)	10	10	1.55000	2.66000	2.13700		0.37366
Silver (Ag)-Total (mg/L)	10	0	0.00001	0.00001	0.00001		0.00000
Sodium (Na)-Total (mg/L)	10	10	2.30000	2.61000	2.43500		0.11578
Strontium (Sr)-Total (mg/L)	10	10	0.12200	0.13600	0.12910		0.00534
Thallium (Tl)-Total (mg/L)	10	0	0.00001	0.00001	0.00001		0.00000
Tin (Sn)-Total (mg/L)	10	1	0.00005	0.00022	0.00007		0.00005
Titanium (Ti)-Total (mg/L)	10	0	0.00500	0.00500	0.00500		0.00000
Uranium (U)-Total (mg/L)	10	10	0.00003	0.00004	0.00004		0.00000
Vanadium (V)-Total (mg/L)	10	2	0.00025	0.00057	0.00031		0.00012
Zinc (Zn)-Total (mg/L)	10	0	0.00150	0.00150	0.00150		0.00000

Grid Format Report : Bootjack Lake South Station B2 surface

From 1 Jan 2019 to 31 Dec 2023

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Mount Polley

Mining Corporation

IMPERIAL METALS CORPORATION

E215897 : B2-S															
	22-May-19	12-Jun-19	25-Jun-19	23-Jul-19	31-Jul-19	29-Aug-19	4-Sep-19	16-Sep-19	23-Oct-19	19-May-20	4-Jun-20	18-Jun-20	14-Jul-20	19-Aug-20	9-Sep-20
Anions and Nutrients															
Alkalinity (CaCO3) (mg/L)	40.5		42.6		40.8	41.3	44.9	41.7	43.1		38.0		40.9	38.7	40.0
Ammonia (as N) (mg/L)	0.0051		0.0116		0.0056	0.0079	0.0051	<0.0050	0.0136		<0.0050		<0.0050	0.0070	0.0059
Chloride (mg/L)	0.90		0.97		0.89	0.86	0.87	0.89	0.93		<0.50		0.73	0.74	0.75
Diss-Orthophosphate (mg/L)	<0.0010		0.0014		<0.0010	<0.0010	<0.0010	<0.0010	0.0032		<0.0010		<0.0010	<0.0010	0.0010
Diss-Phosphorus (mg/L)	0.0039		0.0054		0.0056	0.0044	0.0043	0.0026	0.0089		0.0039		0.0036	0.0028	0.0038
Fluoride (mg/L)	0.063		0.070		0.057	0.057	0.069	0.059	0.066		<0.020		0.056	0.060	0.057
Nitrate (N) (mg/L)	<0.0050		0.0270		<0.0050	<0.0050	<0.0050	0.0431	0.0060		<0.0050		<0.0050	<0.0050	<0.0050
Nitrate and Nitrite (mg/L)	<0.0051		0.0270		<0.0051	<0.0051	<0.0051	0.0431	0.0071		<0.0500		<0.0500	<0.0051	<0.0051
Nitrite (N) (mg/L)	<0.0010		<0.0010		<0.0010	<0.0010	<0.0010	<0.0010	0.0011		<0.0010		<0.0010	<0.0010	<0.0010
Sulphate (mg/L)	4.90		4.94		4.88	4.81	4.95	5.03	5.09		<0.30		5.60	5.81	5.68
Total Nitrogen (mg/L)	0.287		0.404		0.351	0.266	0.296	0.309	0.337		0.277		0.272	0.298	0.282
Total Phosphorus (mg/L)	0.0115		0.0173		0.0085	0.0074	0.0077	0.0069	0.0183		0.0055		0.0055	0.0085	0.0121
Dissolved Metals															
Aluminum (Al)-Diss (mg/L)	0.0100		0.0149		0.0062	0.0041	0.0037	0.0040	<0.0030		0.0123		0.0079	0.0063	0.0038
Diss-Antimony (Sb) (mg/L)	<0.00010		<0.00010		<0.00010	0.00010	<0.00010	<0.00010	<0.00010		<0.00010		<0.00010	<0.00010	<0.00010
Diss-Arsenic (As) (mg/L)	0.00028		0.00034		0.00035	0.00033	0.00034	0.00037	0.00035		0.00030		0.00028	0.00032	0.00034
Diss-Barium (Ba) (mg/L)	0.0158		0.0189		0.0165	0.0182	0.0164	0.0169	0.0164		0.0160		0.0161	0.0172	0.0158
Diss-Beryllium (Be) (mg/L)	<0.00010		<0.00010		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010		<0.00100		<0.00100	<0.00100	<0.00100
Diss-Bismuth (Bi) (mg/L)	<0.000050		<0.000050		<0.000050	<0.000050	<0.000050	<0.000050	<0.000050		<0.000050		<0.000050	<0.000050	<0.000050
Diss-Boron (B) (mg/L)	0.044		0.046		0.047	0.049	0.050	0.049	0.046		0.041		0.040	0.043	0.045
Diss-Cadmium (Cd) (mg/L)	<0.0000050		<0.0000050		<0.0000050	<0.0000050	0.0000086	<0.0000050	<0.0000050		<0.0000050		<0.0000050	<0.0000050	<0.0000050
Diss-Calcium (Ca) (mg/L)	13.1		12.7		13.4	14.6	14.0	13.6	13.6		13.3		13.0	13.5	13.5
Diss-Chromium (Cr) (mg/L)	<0.00050		<0.00050		<0.00050	<0.00050	<0.00050	<0.00050	<0.00050		<0.00050		<0.00050	<0.00050	<0.00050
Diss-Cobalt (Co) (mg/L)	<0.00010		<0.00010		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010		<0.00010		<0.00010	<0.00010	<0.00010
Diss-Copper (Cu) (mg/L)	0.00170		0.00246		0.00218	0.00194	0.00197	0.00190	0.00146		0.00171		0.00178	0.00189	0.00182
Diss-Iron (Fe) (mg/L)	<0.030		0.052		<0.030	<0.030	<0.030	<0.030	0.033		<0.030		<0.030	<0.030	<0.030
Diss-Lead (Pb) (mg/L)	<0.000050		0.000134		<0.000050	<0.000050	<0.000050	<0.000050	<0.000050		<0.000050		<0.000050	<0.000050	<0.000050
Diss-Lithium (Li) (mg/L)	<0.0010		<0.0010		<0.0010	<0.0010	<0.0010	<0.0010	<0.0010		<0.0010		<0.0010	<0.0010	<0.0010
Diss-Magnesium (Mg) (mg/L)	2.49		2.35		2.54	2.53	2.52	2.71	2.34		2.28		2.34	2.46	2.54
Diss-Manganese (Mn) (mg/L)	0.00700		0.0513		0.00036	0.00023	0.00031	0.00037	0.0770		0.00032		0.00638	0.00216	0.00481
Diss-Molybdenum (Mo) (mg/L)	0.000748		0.000811		0.00105	0.000957	0.000938	0.000983	0.000867		0.000726		0.000776	0.000897	0.000896
Diss-Nickel (Ni) (mg/L)	<0.00050		<0.00050		<0.00050	<0.00050	<0.00050	<0.00050	<0.00050		<0.00050		<0.00050	<0.00050	<0.00050
Diss-Potassium (K) (mg/L)	0.499		0.462		0.447	0.454	0.456	0.474	0.447		0.455		0.415	0.461	0.438
Diss-Selenium (mg/L)	0.000112		0.000159		0.000147	0.000147	0.000139	0.000126	0.000106		0.000192		0.000184	0.000189	0.000195

	E215897 : B2-S														
	29-Sep-20	27-Oct-20	26-May-21	10-Jun-21	15-Jul-21	24-Aug-21	28-Sep-21	19-Oct-21	1-Nov-21	24-May-22	16-Jun-22	11-Jul-22	24-Aug-22	19-Sep-22	26-Oct-22
Anions and Nutrients															
Alkalinity (CaCO3) (mg/L)	41.8	41.5	36.0	39.9	42.1	44.3	44.7	44.0	41.6	43.6	41.6	40.8	39.1	38.8	40.7
Ammonia (as N) (mg/L)	0.0067	0.0119	<0.0050	0.0096	0.0118	<0.0050	0.0072	0.0189	<0.0050	<0.0050	<0.0050	0.0080	<0.0050	<0.0050	0.0177
Chloride (mg/L)	0.77	0.74	0.66	0.67	0.68	0.68	0.68	0.66	0.70	0.62	0.58	0.54	0.58	0.59	0.57
Diss-Orthophosphate (mg/L)	<0.0010	0.0025	<0.0010	<0.0010	<0.0010	<0.0010	0.0019	0.0051	0.0013	0.0013	<0.0010	<0.0010	<0.0010	0.0012	0.0070
Diss-Phosphorus (mg/L)	0.0038	0.0046	0.0034	0.0053	0.0041	0.0073	0.0061	0.0115	0.0064	0.0055	0.0057	0.0033	0.0044	<0.0020	0.0120
Fluoride (mg/L)	0.060	0.059	0.049	0.056	0.060	0.060	0.051	0.057	0.061	0.051	0.054	0.050	0.056	0.058	0.049
Nitrate (N) (mg/L)	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Nitrate and Nitrite (mg/L)	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051
Nitrite (N) (mg/L)	<0.0010	0.0012	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.0014	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.0015
Sulphate (mg/L)	5.38	5.71	6.57	6.50	6.98	6.74	6.64	6.53	7.02	6.86	7.01	6.73	7.56	7.66	7.12
Total Nitrogen (mg/L)	0.335	0.326	0.307	0.303	0.283	0.278	0.266	0.280	0.267	0.291	0.266	0.336	0.238	0.238	0.282
Total Phosphorus (mg/L)	0.0094	0.0160	0.0116	0.0073	0.0056	0.0061	0.0103	0.0178	0.0218	0.0141	0.0103	0.0060	0.0035	0.0062	0.0182
Dissolved Metals															
Aluminum (Al)-Diss (mg/L)	<0.0030	0.0055	0.0098	0.0076	0.0042	0.0039	0.0036	<0.0030	<0.0030	0.0283	0.0103	0.0087	0.0042	0.0041	<0.0030
Diss-Antimony (Sb) (mg/L)	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Diss-Arsenic (As) (mg/L)	0.00038	0.00036	0.00030	0.00028	0.00031	0.00034	0.00039	0.00040	0.00039	0.00028	0.00025	0.00026	0.00030	0.00036	0.00036
Diss-Barium (Ba) (mg/L)	0.0171	0.0168	0.0155	0.0154	0.0164	0.0151	0.0169	0.0173	0.0177	0.0166	0.0157	0.0152	0.0134	0.0156	0.0161
Diss-Beryllium (Be) (mg/L)	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100
Diss-Bismuth (Bi) (mg/L)	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Diss-Boron (B) (mg/L)	0.046	0.045	0.045	0.044	0.040	0.043	0.042	0.040	0.043	0.043	0.039	0.041	0.039	0.044	0.044
Diss-Cadmium (Cd) (mg/L)	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050
Diss-Calcium (Ca) (mg/L)	13.9	13.5	13.3	13.8	13.4	13.6	13.6	14.0	14.2	13.0	13.0	13.1	13.2	13.6	14.6
Diss-Chromium (Cr) (mg/L)	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Diss-Cobalt (Co) (mg/L)	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Diss-Copper (Cu) (mg/L)	0.00184	0.00194	0.00172	0.00161	0.00190	0.00206	0.00199	0.00182	0.00166	0.00184	0.00192	0.00187	0.00190	0.00188	0.00167
Diss-Iron (Fe) (mg/L)	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	0.052	<0.030	<0.030	<0.030	<0.030	<0.030
Diss-Lead (Pb) (mg/L)	<0.000050	0.000055	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Diss-Lithium (Li) (mg/L)	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Diss-Magnesium (Mg) (mg/L)	2.36	2.38	2.39	2.36	2.56	2.54	2.51	2.61	2.54	2.13	2.31	2.39	2.36	2.48	2.41
Diss-Manganese (Mn) (mg/L)	0.0157	0.0236	0.00733	0.0111	0.00142	0.00297	0.0187	0.0632	0.0419	0.0118	0.00200	0.00654	0.00111	0.00294	0.0361
Diss-Molybdenum (Mo) (mg/L)	0.000762	0.000927	0.000706	0.000763	0.000886	0.000900	0.000881	0.000857	0.000923	0.000812	0.000734	0.000864	0.000940	0.000896	0.000860
Diss-Nickel (Ni) (mg/L)	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Diss-Potassium (K) (mg/L)	0.452	0.474	0.470	0.480	0.526	0.479	0.516	0.498	0.487	0.472	0.436	0.438	0.433	0.462	0.446
Diss-Selenium (mg/L)	0.000221	0.000152	0.000190	0.000169	0.000196	0.000207	0.000202	0.000207	0.000159	0.000172	0.000145	0.000186	0.000223	0.000230	0.000184

	E215897 : B2-S					
	24-May-23	8-Jun-23	12-Jul-23	23-Aug-23	7-Sep-23	10-Oct-23
Anions and Nutrients						
Alkalinity (CaCO3) (mg/L)	40.0	40.1	41.3	42.0	43.1	43.5
Ammonia (as N) (mg/L)	<0.0050	<0.0050	<0.0050	0.0105	<0.0050	0.0060
Chloride (mg/L)	0.51	0.58	0.54	0.58	0.52	0.55
Diss-Orthophosphate (mg/L)	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.0012
Diss-Phosphorus (mg/L)	0.0048	0.0047	0.0050	0.0056	0.0056	0.0079
Fluoride (mg/L)	0.049	0.060	0.056	0.056	0.057	0.059
Nitrate (N) (mg/L)	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Nitrate and Nitrite (mg/L)	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051
Nitrite (N) (mg/L)	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Sulphate (mg/L)	7.04	7.86	7.18	7.64	7.08	7.75
Total Nitrogen (mg/L)	0.271	0.420	0.278	0.293	0.273	0.313
Total Phosphorus (mg/L)	0.0088	0.0294	0.0063	0.0082	0.0109	0.0186
Dissolved Metals						
Aluminum (Al)-Diss (mg/L)	0.0534	0.0120	0.0047	0.0043	0.0080	<0.0030
Diss-Antimony (Sb) (mg/L)	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Diss-Arsenic (As) (mg/L)	0.00035	0.00031	0.00031	0.00035	0.00035	0.00041
Diss-Barium (Ba) (mg/L)	0.0184	0.0156	0.0164	0.0154	0.0162	0.0169
Diss-Beryllium (Be) (mg/L)	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100
Diss-Bismuth (Bi) (mg/L)	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Diss-Boron (B) (mg/L)	0.042	0.044	0.041	0.044	0.045	0.053
Diss-Cadmium (Cd) (mg/L)	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050
Diss-Calcium (Ca) (mg/L)	13.4	13.8	13.7	13.1	13.9	14.6
Diss-Chromium (Cr) (mg/L)	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Diss-Cobalt (Co) (mg/L)	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Diss-Copper (Cu) (mg/L)	0.00378	0.00194	0.00195	0.00188	0.00201	0.00179
Diss-Iron (Fe) (mg/L)	0.045	<0.030	<0.030	<0.030	<0.030	<0.030
Diss-Lead (Pb) (mg/L)	0.000106	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Diss-Lithium (Li) (mg/L)	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Diss-Magnesium (Mg) (mg/L)	2.36	2.53	2.66	2.54	2.64	2.85
Diss-Manganese (Mn) (mg/L)	0.00304	0.00421	0.00137	0.00347	0.00159	0.00828
Diss-Molybdenum (Mo) (mg/L)	0.000829	0.000759	0.00101	0.000918	0.000900	0.000955
Diss-Nickel (Ni) (mg/L)	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Diss-Potassium (K) (mg/L)	0.480	0.444	0.472	0.438	0.469	0.481
Diss-Selenium (mg/L)	0.000159	0.000171	0.000175	0.000216	0.000173	0.000199

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Mount Polley

Mining Corporation

IMPERIAL METALS CORPORATION

E215897 : B2-S															
	22-May-19	12-Jun-19	25-Jun-19	23-Jul-19	31-Jul-19	29-Aug-19	4-Sep-19	16-Sep-19	23-Oct-19	19-May-20	4-Jun-20	18-Jun-20	14-Jul-20	19-Aug-20	9-Sep-20
Diss-Silicon (Si) (mg/L)	1.33		1.64		1.22	1.30	1.29	1.42	1.71		1.65		1.30	1.39	1.47
Diss-Silver (Ag) (mg/L)	<0.000010		<0.000010		<0.000010	<0.000010	<0.000010	<0.000010	<0.000010		<0.000010		<0.000010	<0.000010	<0.000010
Diss-Sodium (Na) (mg/L)	2.50		2.70		2.83	2.62	2.77	2.62	2.51		2.38		2.51	2.45	2.52
Diss-Strontium (Sr) (mg/L)	0.122		0.130		0.124	0.140	0.131	0.132	0.126		0.125		0.127	0.138	0.131
Diss-Thallium (Tl) (mg/L)	<0.000010		<0.000010		<0.000010	0.000013	<0.000010	<0.000010	<0.000010		<0.000010		<0.000010	<0.000010	<0.000010
Diss-Tin (Sn) (mg/L)	<0.00010		<0.00010		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010		<0.00010		<0.00010	<0.00010	<0.00010
Diss-Titanium (Ti) (mg/L)	<0.010		<0.010		<0.010	<0.010	<0.010	<0.010	<0.010		<0.0100		<0.0100	<0.0100	<0.0100
Diss-Uranium (U) (mg/L)	0.000033		0.000036		0.000048	0.000042	0.000043	0.000038	0.000039		0.000035		0.000042	0.000042	0.000040
Diss-Vanadium (V) (mg/L)	<0.00050		<0.00050		<0.00050	<0.00050	<0.00050	<0.00050	<0.00050		<0.00050		<0.00050	<0.00050	<0.00050
Diss-Zinc (Zn) (mg/L)	<0.0030		<0.0030		<0.0030	<0.0030	<0.0030	<0.0030	<0.0030		<0.0030		<0.0030	<0.0030	<0.0030
TDS (mg/L)	67		69		69	73	81	92	70		71		70	69	55
Field Tests															
Cond (in situ) (µs/cm)	93.6	94.9	97.6	95.8	95.7	98.1	97.9	98.2	99.3	90.1	89.9	93.6	92.2	89.8	106.9
NTU - in situ (ntu)	0.2	0.36	0	0.46	0.46	0.27	0.84	0.2	0.71	3.51	1	0.02	0.74	0	0.4
pH (in situ) (pH)	7.21	7.9		7.93	7.93	7.77	8.1	7.53	6.75	7.81	7.74	7.68	7.79	8.16	8
Sample Depth (m)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sample Taken	Yes	No	Yes	No	Yes	Yes	Yes	Yes	Yes	No	Yes	No	Yes	Yes	Yes
Secchi Depth (m)	7.8	5.75	5	6.25	5.25	4.25	6.5	5.5	4		4	5.75	5	4.25	5.2
Temp (in situ) (Degrees Celcius)	14.041	16.965	17.001	19.449	19.45	18.001	18.572	15.453	6.761	10.359	12.88	15.385	16.705	19.327	16.729
Organic / Inorganic															
DOC (mg/L)	6.74		6.37		6.78	6.12	6.42	6.16	6.15		7.43		7.45	6.91	6.44
Physical Test															
Conductivity (µs/cm)	96.4		95.9		94.4	96.5	90.6	96.4	98.4		94.4		93.4	95.6	95.6
Hardness (mg/L)	43.0		41.4		43.9	46.8	45.4	45.1	43.6		42.7		42.1	43.8	44.3
NTU (ntu)	0.37		1.02		0.46	0.39	0.39	0.57	0.76		0.44		0.52	0.34	0.57
pH (pH)	7.92		7.83		7.86	7.81	7.90	7.90	7.87		7.72		7.71	7.88	7.83
TDS (mg/L)	67		69		69	73	81	92	70		71		70	69	55
TSS (mg/L)	<1.0		1.3		<1.0	1.2	1.4	<1.0	<1.0		<1.0		<1.0	<1.0	<1.0
Total Metals															
Aluminum (Al)-Total (mg/L)	0.0205		0.0157		0.0142	0.0325	0.0324	0.0085	0.0162		0.0243		0.0144	0.0100	0.0094
Antimony (Sb)-Total (mg/L)	<0.00010		<0.00010		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010		<0.00010		<0.00010	<0.00010	<0.00010
Arsenic (As)-Total (mg/L)	0.00029		0.00038		0.00033	0.00055	0.00037	0.00033	0.00039		0.00028		0.00027	0.00034	0.00036
Barium (Ba)-Total (mg/L)	0.0150		0.0182		0.0165	0.0241	0.0165	0.0159	0.0187		0.0157		0.0142	0.0166	0.0173
Beryllium (Be)-Total (mg/L)	<0.00010		<0.00010		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010		<0.000100		<0.000100	<0.000100	<0.000100
Bismuth (Bi)-Total (mg/L)	<0.000050		<0.000050		<0.000050	<0.000050	<0.000050	<0.000050	<0.000050		<0.000050		<0.000050	<0.000050	<0.000050

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Boron (B)-Total (mg/L)	0.045		0.049		0.047	0.047	0.053	0.048	0.051		0.046		0.047	0.045	0.047
Cadmium (Cd)-Total (mg/L)	<0.0000050		0.0000057		<0.0000050	<0.0000050	0.0000201	<0.0000050	<0.0000050		<0.0000050		<0.0000050	<0.0000050	<0.0000050
Calcium (Ca)-Total (mg/L)	13.3		13.8		13.7	15.1	13.7	13.4	14.9		12.7		13.0	12.8	13.7
Chromium (Cr)-Total (mg/L)	<0.00050		<0.00050		<0.00050	<0.00050	<0.00050	<0.00050	<0.00050		<0.00050		<0.00050	<0.00050	<0.00050
Cobalt (Co)-Total (mg/L)	<0.00010		<0.00010		<0.00010	0.00013	<0.00010	<0.00010	<0.00010		<0.00010		<0.00010	<0.00010	<0.00010
Copper (Cu)-Total (mg/L)	0.00189		0.00271		0.00225	0.00335	0.00396	0.00190	0.00201		0.00179		0.00169	0.00202	0.00208
Iron (Fe)-Total (mg/L)	0.031		0.057		<0.030	0.738	0.036	<0.030	0.103		0.041		<0.030	<0.030	<0.030
Lead (Pb)-Total (mg/L)	0.000090		0.000137		<0.000050	<0.000050	0.000056	<0.000050	<0.000050		<0.000050		<0.000050	<0.000050	<0.000050
Lithium (Li)-Total (mg/L)	<0.0010		<0.0010		<0.0010	<0.0010	<0.0010	<0.0010	<0.0010		<0.0010		<0.0010	<0.0010	<0.0010
Magnesium (Mg)-Total (mg/L)	2.33		2.43		2.47	2.57	2.53	2.30	2.65		2.27		2.06	2.47	2.52
Manganese (Mn)-Total (mg/L)	0.0124		0.0530		0.0107	1.23	0.00996	0.0204	0.101		0.00970		0.0104	0.0119	0.0134
Molybdenum (Mo)-Total (mg/L)	0.000736		0.000844		0.000917	0.000972	0.000927	0.000930	0.000997		0.000789		0.000909	0.000841	0.000820
Nickel (Ni)-Total (mg/L)	<0.00050		<0.00050		<0.00050	<0.00050	<0.00050	<0.00050	<0.00050		<0.00050		<0.00050	<0.00050	<0.00050
Potassium (K)-Total (mg/L)	0.447		0.488		0.475	0.557	0.487	0.471	0.501		0.471		0.401	0.439	0.461
Selenium (Se)-Total (mg/L)	0.000157		0.000099		0.000145	0.000128	0.000156	0.000092	0.000100		0.000145		0.000185	0.000216	0.000223
Silicon (Si)-Total (mg/L)	1.44		1.77		1.26	3.66	1.43	1.35	1.87		1.78		1.41	1.45	1.43
Silver (Ag)-Total (mg/L)	<0.000010		<0.000010		<0.000010	<0.000010	<0.000010	<0.000010	<0.000010		<0.000010		<0.000010	<0.000010	<0.000010
Sodium (Na)-Total (mg/L)	2.41		2.51		2.58	2.59	2.58	2.39	2.74		2.41		2.02	2.44	2.60
Strontium (Sr)-Total (mg/L)	0.119		0.127		0.129	0.134	0.125	0.131	0.144		0.121		0.135	0.127	0.129
Thallium (Tl)-Total (mg/L)	<0.000010		<0.000010		<0.000010	<0.000010	<0.000010	<0.000010	<0.000010		<0.000010		<0.000010	<0.000010	<0.000010
Tin (Sn)-Total (mg/L)	<0.00010		<0.00010		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010		<0.00010		<0.00010	<0.00010	<0.00010
Titanium (Ti)-Total (mg/L)	<0.010		<0.010		<0.010	<0.010	<0.010	<0.010	<0.010		<0.0100		<0.0100	<0.0100	<0.0100
Uranium (U)-Total (mg/L)	0.000042		0.000040		0.000045	0.000036	0.000044	0.000042	0.000047		0.000040		0.000044	0.000044	0.000039
Vanadium (V)-Total (mg/L)	<0.00050		<0.00050		<0.00050	<0.00050	0.00051	0.00055	<0.00050		<0.00050		<0.00050	<0.00050	<0.00050
Zinc (Zn)-Total (mg/L)	<0.0030		<0.0030		<0.0030	<0.0030	<0.0030	<0.0030	<0.0030		<0.0030		<0.0030	<0.0030	<0.0030

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	E215897 : B2-S						
	Sample (n)	Count >MDL	Min	Max	Mean	95th Percentile	St Dev
Anions and Nutrients							
Alkalinity (CaCO3) (mg/L)	32	32	36.00000	44.90000	41.34375	47.06000	2.01669
Ammonia (as N) (mg/L)	32	18	0.00250	0.01890	0.00641	0.01741	0.00466
Chloride (mg/L)	32	31	0.25000	0.97000	0.68063	1.68000	0.15398
Diss-Orthophosphate (mg/L)	32	11	0.00050	0.00700	0.00118	0.00514	0.00145
Diss-Phosphorus (mg/L)	32	31	0.00100	0.01200	0.00523	0.01920	0.00231
Fluoride (mg/L)	32	31	0.01000	0.07000	0.05600	0.06945	0.00985
Nitrate (N) (mg/L)	32	3	0.00250	0.04310	0.00464	0.05290	0.00826
Nitrate and Nitrite (mg/L)	32	3	0.00255	0.04310	0.00613	0.04618	0.00961
Nitrite (N) (mg/L)	32	4	0.00050	0.00150	0.00060	0.00170	0.00027
Sulphate (mg/L)	32	31	0.15000	7.86000	6.16875	5.63850	1.47403
Total Nitrogen (mg/L)	32	32	0.23800	0.42000	0.29759	0.38350	0.04026
Total Phosphorus (mg/L)	32	32	0.00350	0.02940	0.01111	0.02243	0.00586
Dissolved Metals							
Aluminum (Al)-Diss (mg/L)	32	26	0.00150	0.05340	0.00796	0.01388	0.00985
Diss-Antimony (Sb) (mg/L)	32	1	0.00005	0.00010	0.00005	0.00011	0.00001
Diss-Arsenic (As) (mg/L)	32	32	0.00025	0.00041	0.00033	0.00039	0.00004
Diss-Barium (Ba) (mg/L)	32	32	0.01340	0.01890	0.01637	0.02024	0.00108
Diss-Beryllium (Be) (mg/L)	32	0	0.00005	0.00050	0.00013	0.00025	0.00018
Diss-Bismuth (Bi) (mg/L)	32	0	0.00003	0.00003	0.00002	0.00025	0.00000
Diss-Boron (B) (mg/L)	32	32	0.03900	0.05300	0.04397	0.05460	0.00326
Diss-Cadmium (Cd) (mg/L)	32	1	0.00000	0.00001	0.00000	0.00003	0.00000
Diss-Calcium (Ca) (mg/L)	32	32	12.70000	14.60000	13.58125	15.02000	0.47752
Diss-Chromium (Cr) (mg/L)	32	0	0.00025	0.00025	0.00025	0.00025	0.00000
Diss-Cobalt (Co) (mg/L)	32	0	0.00005	0.00005	0.00005	0.00005	0.00000
Diss-Copper (Cu) (mg/L)	32	32	0.00146	0.00378	0.00193	0.00303	0.00038
Diss-Iron (Fe) (mg/L)	32	4	0.01500	0.05200	0.01881	0.01500	0.01062
Diss-Lead (Pb) (mg/L)	32	3	0.00003	0.00013	0.00003	0.00005	0.00002
Diss-Lithium (Li) (mg/L)	32	0	0.00050	0.00050	0.00050	0.00250	0.00000
Diss-Magnesium (Mg) (mg/L)	32	32	2.13000	2.85000	2.46906	2.67600	0.14250
Diss-Manganese (Mn) (mg/L)	32	32	0.00023	0.07700	0.01308	0.05254	0.01960
Diss-Molybdenum (Mo) (mg/L)	32	32	0.00071	0.00105	0.00087	0.00122	0.00009
Diss-Nickel (Ni) (mg/L)	32	0	0.00025	0.00025	0.00025	0.00025	0.00000
Diss-Potassium (K) (mg/L)	32	32	0.41500	0.52600	0.46441	0.55620	0.02459

Grid Format Report : Bootjack Lake South Station B2 surface

From 1 Jan 2019 to 31 Dec 2023

Printed : 2024-02-08



Mount Polley

Mining Corporation

IMPERIAL METALS CORPORATION

E215897 : B2-S							
	Sample (n)	Count >MDL	Min	Max	Mean	95th Percentile	St Dev
Diss-Selenium (mg/L)	32	32	0.00011	0.00023	0.00018	0.00050	0.00003
Diss-Silicon (Si) (mg/L)	32	32	1.22000	2.55000	1.81625	1.89000	0.39574
Diss-Silver (Ag) (mg/L)	32	0	0.00001	0.00001	0.00001	0.00001	0.00000
Diss-Sodium (Na) (mg/L)	32	32	2.29000	2.83000	2.51063	2.85000	0.14413
Diss-Strontium (Sr) (mg/L)	32	32	0.11400	0.14000	0.12769	0.13960	0.00639
Diss-Thallium (Tl) (mg/L)	32	1	0.00001	0.00001	0.00001	0.00005	0.00000
Diss-Tin (Sn) (mg/L)	32	0	0.00005	0.00005	0.00005	0.00005	0.00000
Diss-Titanium (Ti) (mg/L)	32	0	0.00500	0.00500	0.00500	0.00500	0.00000
Diss-Uranium (U) (mg/L)	32	32	0.00003	0.00005	0.00004	0.00005	0.00000
Diss-Vanadium (V) (mg/L)	32	0	0.00025	0.00025	0.00025	0.00050	0.00000
Diss-Zinc (Zn) (mg/L)	32	0	0.00150	0.00150	0.00150	0.00642	0.00000
TDS (mg/L)	32	32	55.00000	92.00000	74.28125	80.00000	7.97267
Field Tests							
Cond (in situ) (µs/cm)	36	36	25.10000	120.40000	96.61667	101.94500	13.78095
NTU - in situ (ntu)	35	35	0.00000	19.36000	1.30457	1.72000	3.26412
pH (in situ) (pH)	35	35	6.53000	8.19000	7.60400	8.40000	0.41439
Sample Depth (m)	36	36	0.00000	0.00000	0.00000	0.00000	0.00000
Sample Taken							
Secchi Depth (m)	35	35	2.50000	7.80000	4.92143	7.10450	1.16039
Temp (in situ) (Degrees Celcius)	36	36	5.28100	22.45000	14.85606	21.00000	4.59653
Organic / Inorganic							
DOC (mg/L)	32	32	5.68000	7.83000	6.90281	8.68450	0.52499
Physical Test							
Conductivity (µs/cm)	32	32	90.60000	105.00000	96.89375	98.70000	3.34152
Hardness (mg/L)	32	32	41.20000	48.20000	44.09063	47.77500	1.57938
NTU (ntu)	32	32	0.29000	1.87000	0.71750	1.98650	0.40031
pH (pH)	32	32	7.47000	7.92000	7.78438	8.02000	0.10451
TDS (mg/L)	32	32	55.00000	92.00000	74.28125	80.00000	7.97267
TSS (mg/L)	32	19	0.50000	4.70000	1.35000	5.49000	1.07703
Total Metals							
Aluminum (Al)-Total (mg/L)	32	32	0.00660	0.08610	0.01857	0.04152	0.01535
Antimony (Sb)-Total (mg/L)	32	0	0.00005	0.00005	0.00005	0.00017	0.00000
Arsenic (As)-Total (mg/L)	32	32	0.00027	0.00055	0.00036	0.00045	0.00006
Barium (Ba)-Total (mg/L)	32	32	0.01420	0.02410	0.01673	0.02063	0.00174
Beryllium (Be)-Total (mg/L)	32	0	0.00005	0.00005	0.00005	0.00025	0.00000

Grid Format Report : Bootjack Lake South Station B2 surface

From 1 Jan 2019 to 31 Dec 2023

Printed : 2024-02-08



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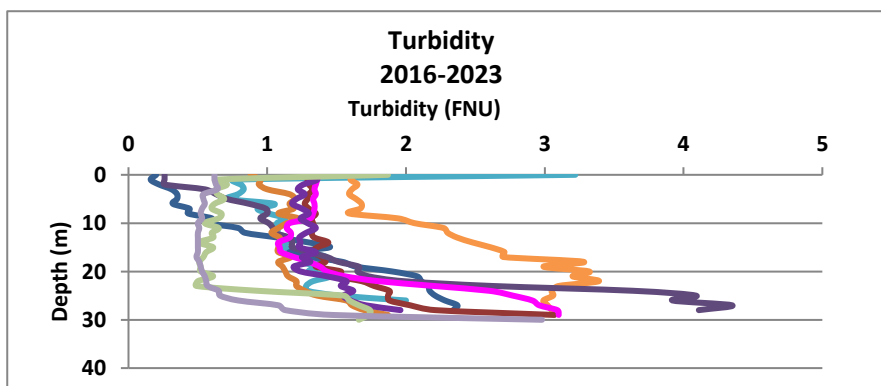
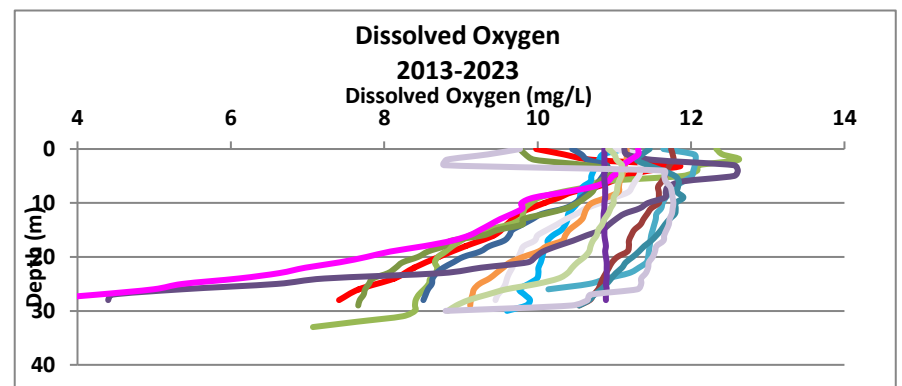
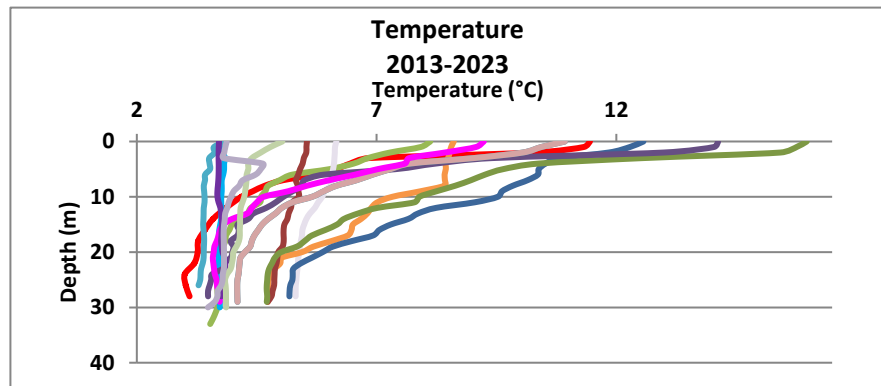
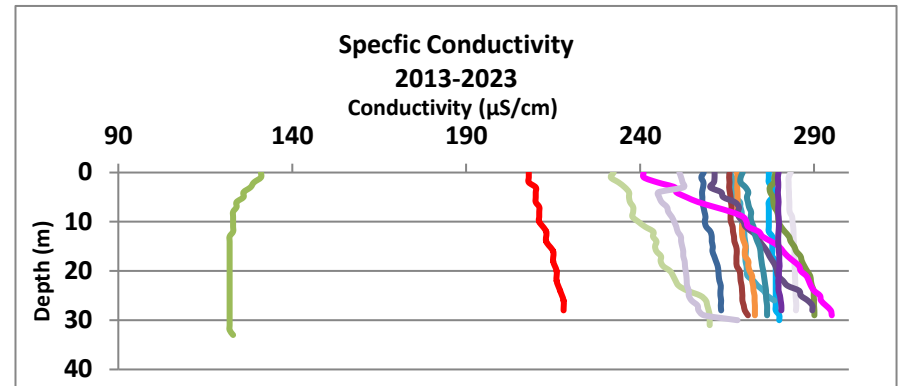
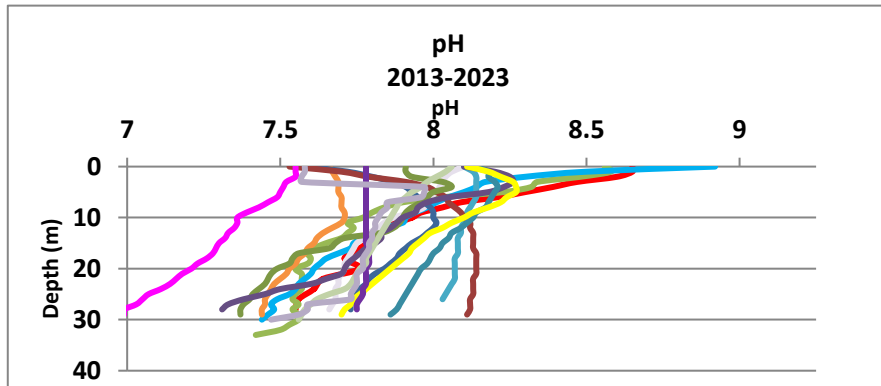
Mining Corporation

IMPERIAL METALS CORPORATION

E215897 : B2-S							
Sample (n)	Count >MDL	Min	Max	Mean	95th Percentile	St Dev	
Bismuth (Bi)-Total (mg/L)	32	0	0.00003	0.00003	0.00002	0.00025	0.00000
Boron (B)-Total (mg/L)	32	32	0.04100	0.05300	0.04534	0.05440	0.00317
Cadmium (Cd)-Total (mg/L)	32	2	0.00000	0.00002	0.00000	0.00003	0.00000
Calcium (Ca)-Total (mg/L)	32	32	12.00000	15.10000	13.63750	14.52000	0.74779
Chromium (Cr)-Total (mg/L)	32	0	0.00025	0.00025	0.00025	0.00025	0.00000
Cobalt (Co)-Total (mg/L)	32	1	0.00005	0.00013	0.00005	0.00005	0.00001
Copper (Cu)-Total (mg/L)	32	32	0.00169	0.00396	0.00222	0.00364	0.00052
Iron (Fe)-Total (mg/L)	32	18	0.01500	0.73800	0.06287	0.10155	0.12655
Lead (Pb)-Total (mg/L)	32	4	0.00003	0.00014	0.00003	0.00007	0.00003
Lithium (Li)-Total (mg/L)	32	0	0.00050	0.00050	0.00050	0.00250	0.00000
Magnesium (Mg)-Total (mg/L)	32	32	2.06000	2.72000	2.46531	2.65100	0.15469
Manganese (Mn)-Total (mg/L)	32	32	0.00645	1.23000	0.06420	0.06789	0.21419
Molybdenum (Mo)-Total (mg/L)	32	32	0.00073	0.00132	0.00089	0.00135	0.00011
Nickel (Ni)-Total (mg/L)	32	0	0.00025	0.00025	0.00025	0.00025	0.00000
Potassium (K)-Total (mg/L)	32	32	0.39700	0.55700	0.46794	0.63600	0.03170
Selenium (Se)-Total (mg/L)	32	32	0.00009	0.00029	0.00018	0.10180	0.00005
Silicon (Si)-Total (mg/L)	32	32	1.26000	3.66000	1.97375	1.96000	0.50955
Silver (Ag)-Total (mg/L)	32	0	0.00001	0.00001	0.00001	0.00001	0.00000
Sodium (Na)-Total (mg/L)	32	32	2.02000	2.74000	2.45375	2.89250	0.15682
Strontium (Sr)-Total (mg/L)	32	32	0.11600	0.14400	0.12953	0.13885	0.00671
Thallium (Tl)-Total (mg/L)	32	0	0.00001	0.00001	0.00001	0.00005	0.00000
Tin (Sn)-Total (mg/L)	32	1	0.00005	0.00012	0.00005	0.00005	0.00001
Titanium (Ti)-Total (mg/L)	32	0	0.00500	0.00500	0.00500	0.00500	0.00000
Uranium (U)-Total (mg/L)	32	32	0.00004	0.00005	0.00004	0.00005	0.00000
Vanadium (V)-Total (mg/L)	32	3	0.00025	0.00055	0.00028	0.00050	0.00008
Zinc (Zn)-Total (mg/L)	32	0	0.00150	0.00150	0.00150	0.00522	0.00000

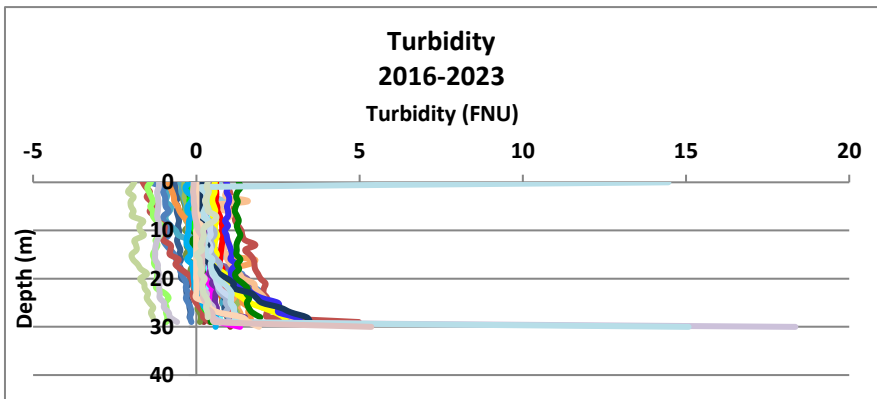
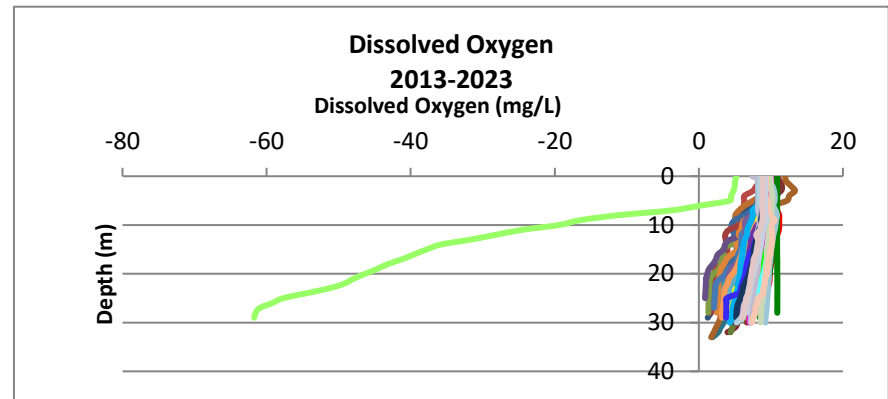
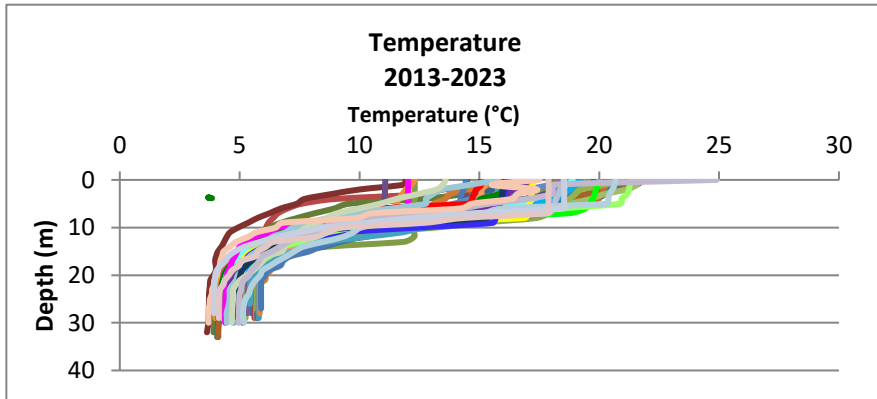
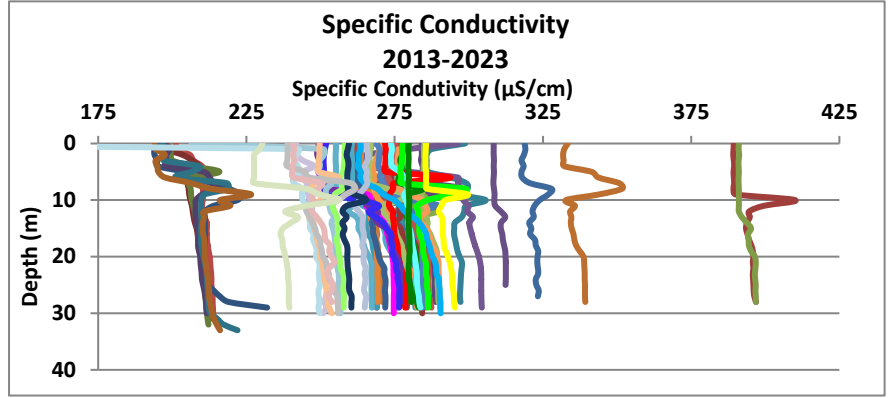
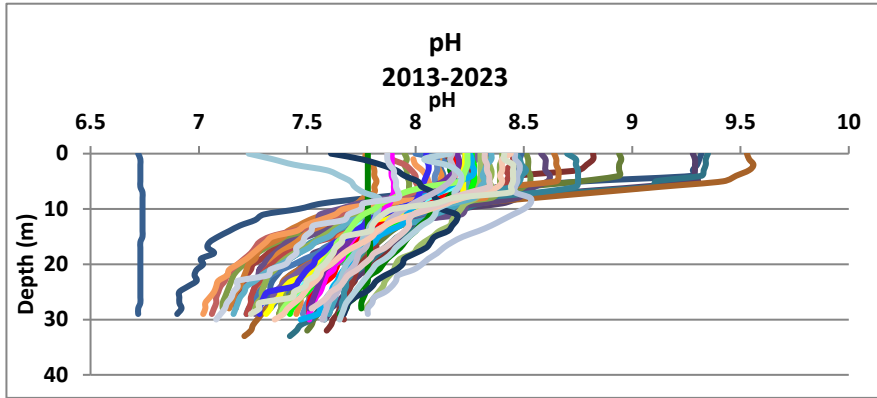
MPMC

Polley Lake P1 Spring Lake Profiles



- 13-May-13 20-May-14 14-Apr-15 30-Apr-15
- 14-Apr-16 09-May-16 24-May-16 03-May-17
- 29-May-17 24-May-18 16-May-19 27-May-19
- 19-May-20 6-May-21 17-May-22 9-May-23

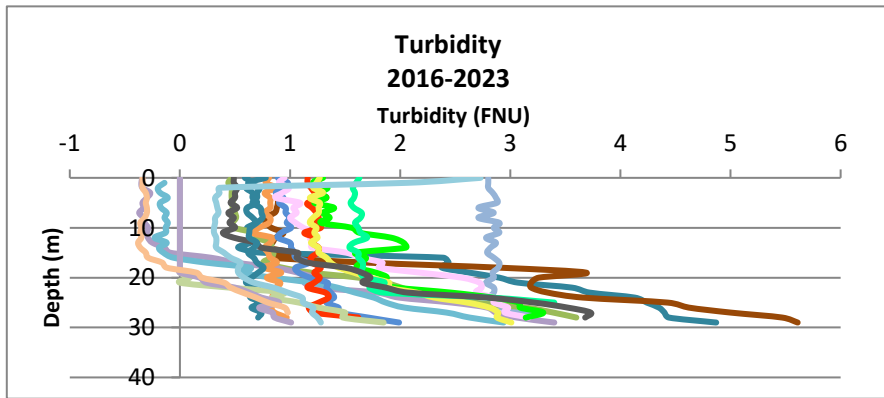
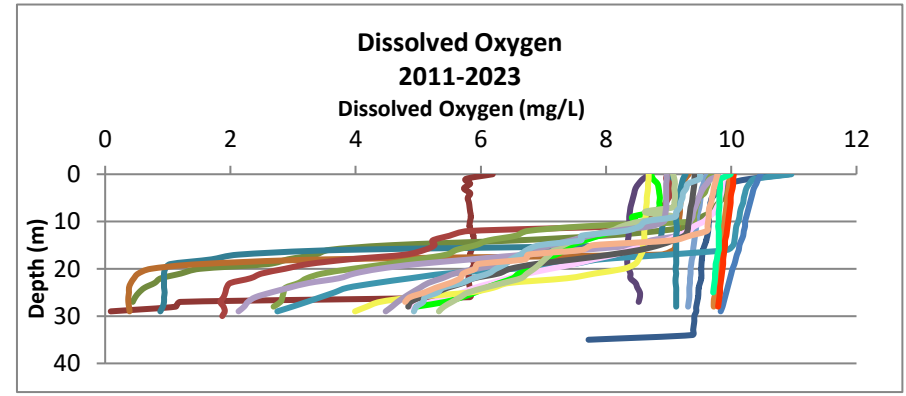
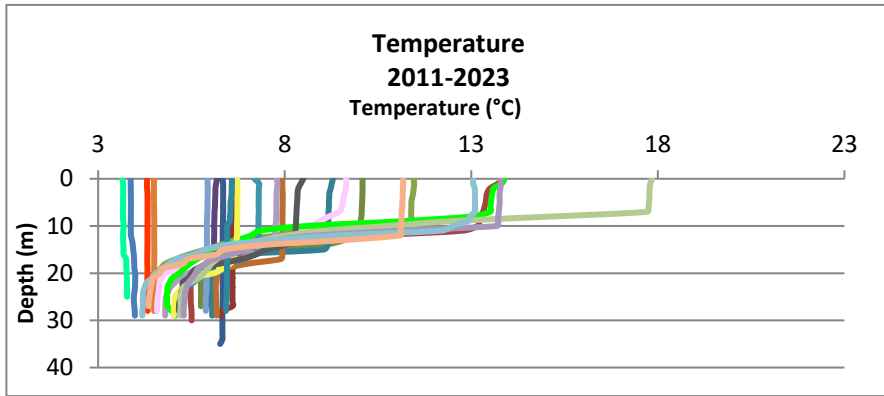
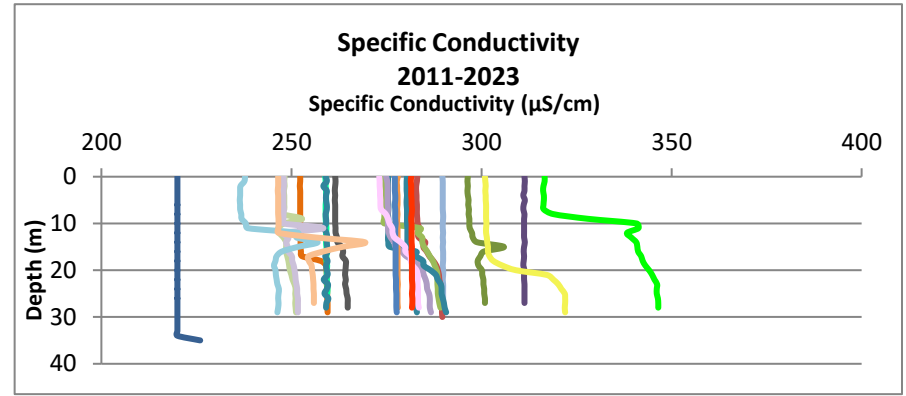
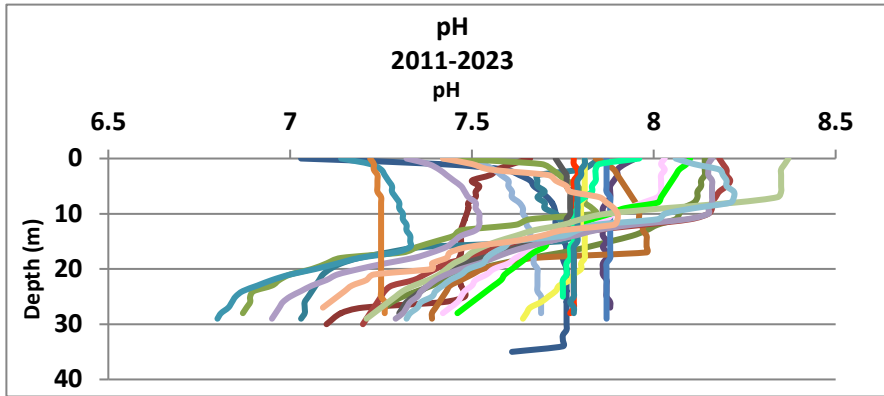
MPMC
Polley Lake P1 Summer Lake Profiles



- 20-Jun-13 21-Aug-13 04-Jun-14 18-Jun-14 02-Jul-14 17-Jul-14
- 30-Jul-14 11-Jun-15 22-Jun-15 07-Jul-15 21-Jul-15 11-Aug-15
- 10-Sep-15 24-Sep-15 08-Oct-15 06-Jun-16 21-Jun-16 04-Jul-16
- 18-Jul-16 04-Aug-16 23-Aug-16 07-Sep-16 20-Sep-16 18-Jun-17
- 28-Jun-17 14-Jul-17 06-Aug-17 23-Aug-17 14-Sep-17 12-Jun-18
- 23-Jun-18 11-Jul-18 31-Jul-18 21-Aug-18 29-Aug-18 11-Sep-18
- 06-Jun-19 24-Jun-19 15-Jul-19 13-Aug-19 11-Sep-19 15-Jun-20
- 14-Jul-20 19-Aug-20 08-Sep-20 6-May-21 03-Jun-21 20-Jul-21
- 18-Aug-21 13-Sep-21 20-Jun-22 13-Jul-22 30-Aug-22 12-Jun-23
- 26-Jul-23 24-Aug-23

MPMC

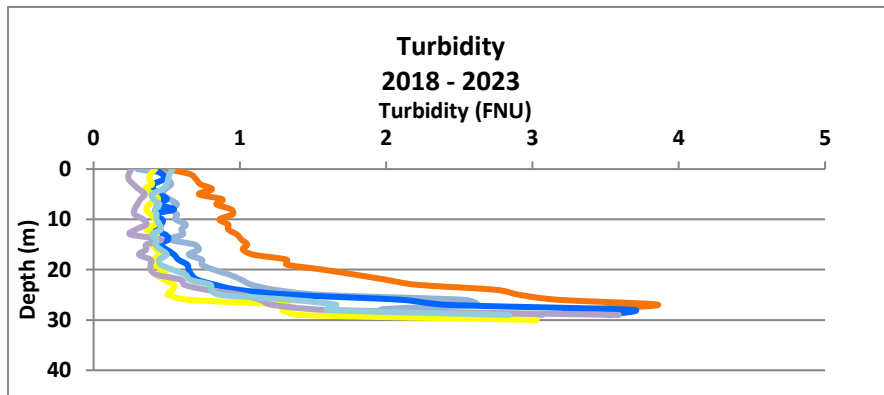
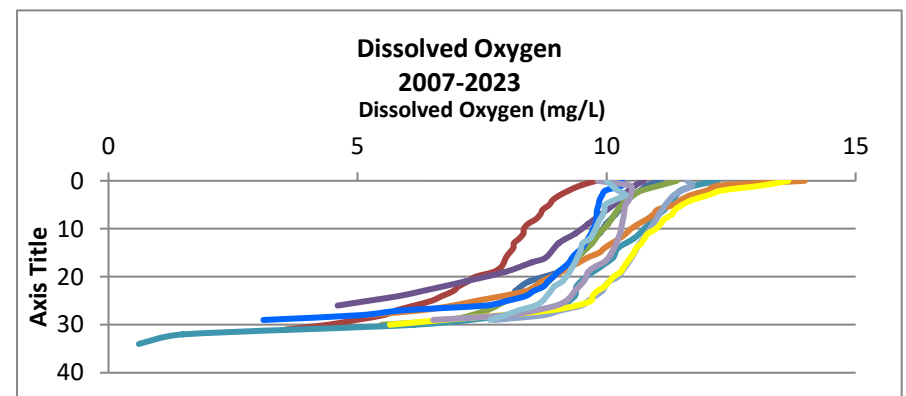
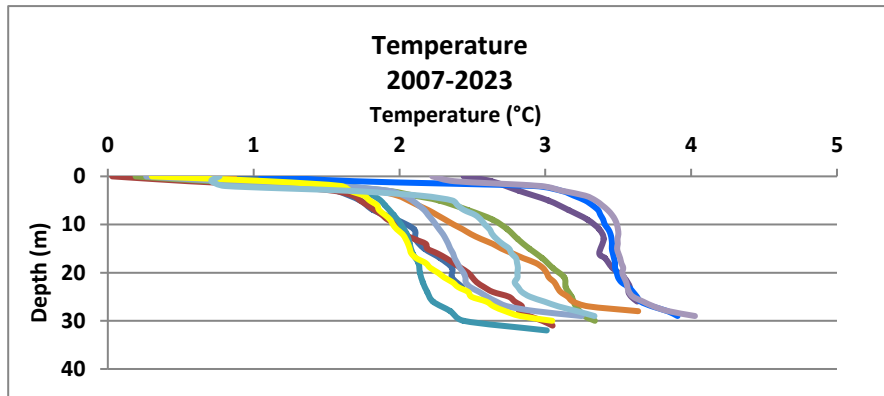
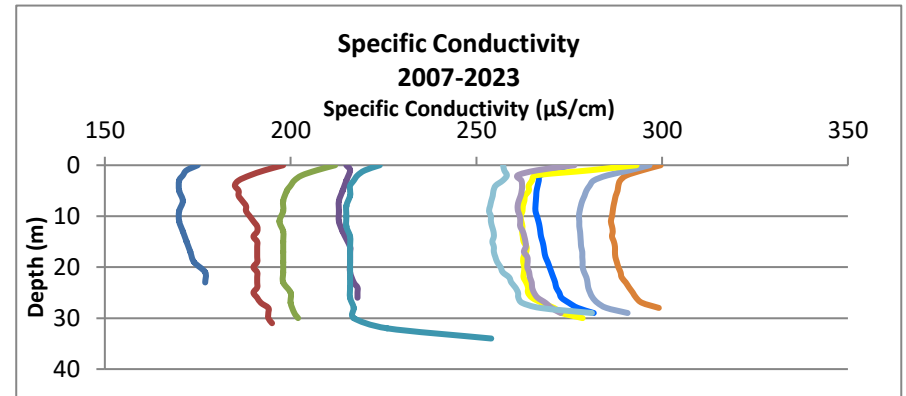
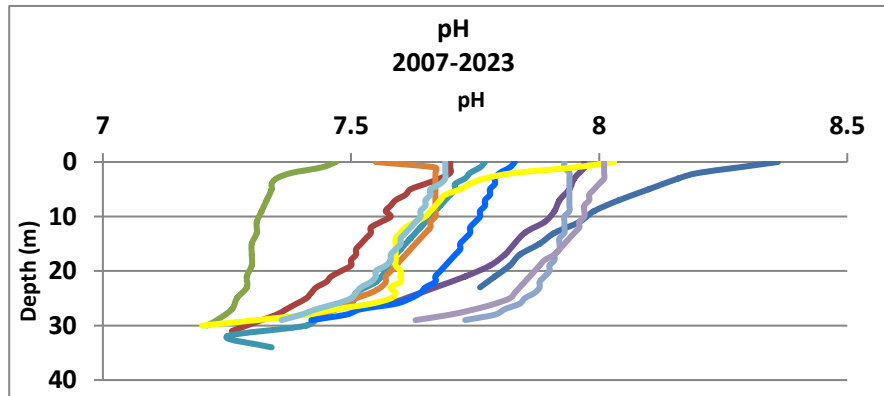
Polley Lake P1 Fall Lake Profiles



- 01-Nov-11 01-Nov-12 19-Oct-15 11-Nov-15
- 17-Oct-16 31-Oct-16 23-Nov-16 26-Sep-17
- 30-Sep-18 22-Oct-18 30-Oct-18 19-Nov-18
- 29-Nov-18 09-Oct-19 20-Nov-19 29-Sep-20
- 26-Oct-20 18-Nov-20 19-Oct-21 02-Nov-21
- 12-Sep-22 12-Oct-22 28-Sep-23 18-Oct-23

MPMC

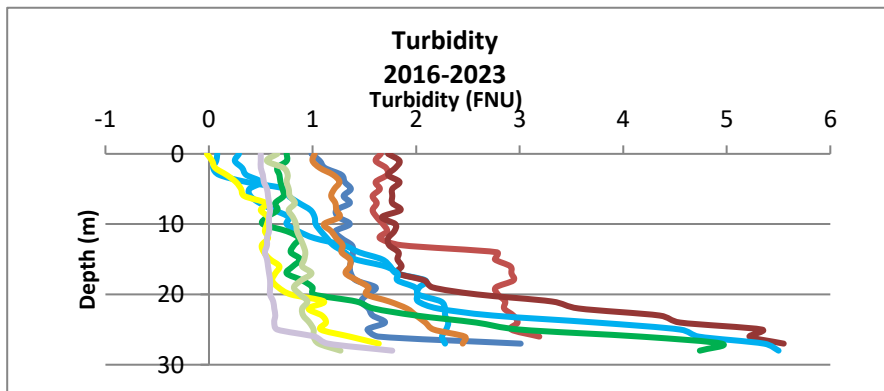
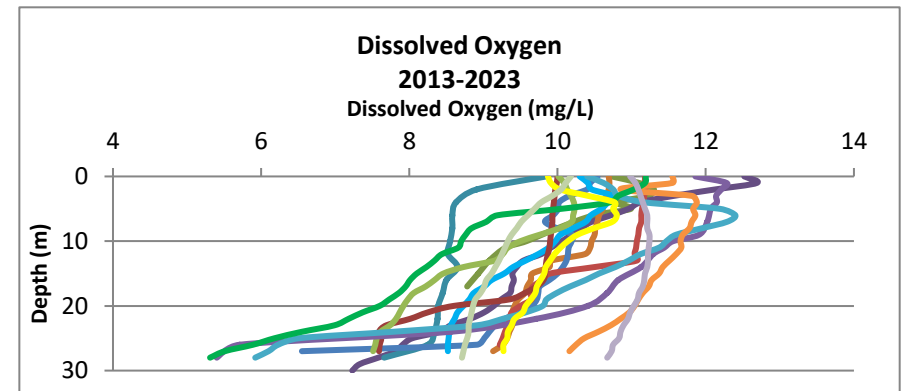
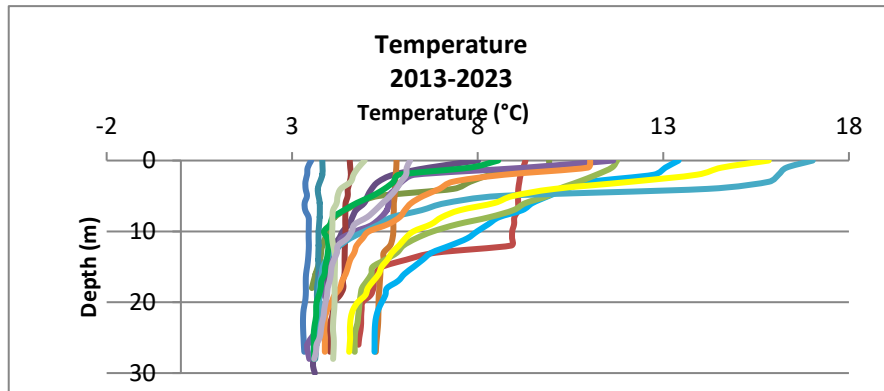
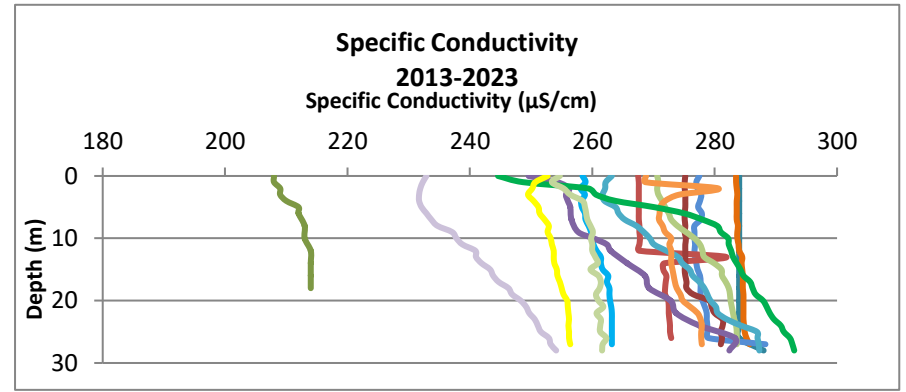
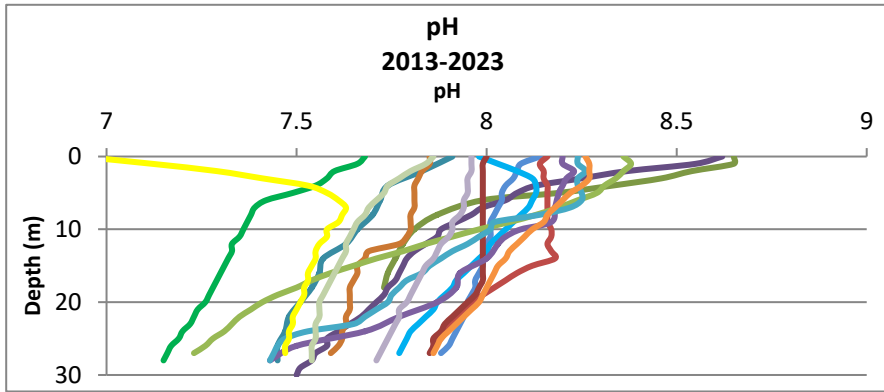
Polley Lake P1 Winter Lake Profiles



- 06-Mar-07
- 01-Apr-08
- 13-Mar-09
- 09-Mar-11
- 06-Mar-12
- 13-Mar-18
- 13-Feb-19
- 19-Feb-20
- 25-Feb-21
- 16-Feb-22
- 15-Mar-23

MPMC

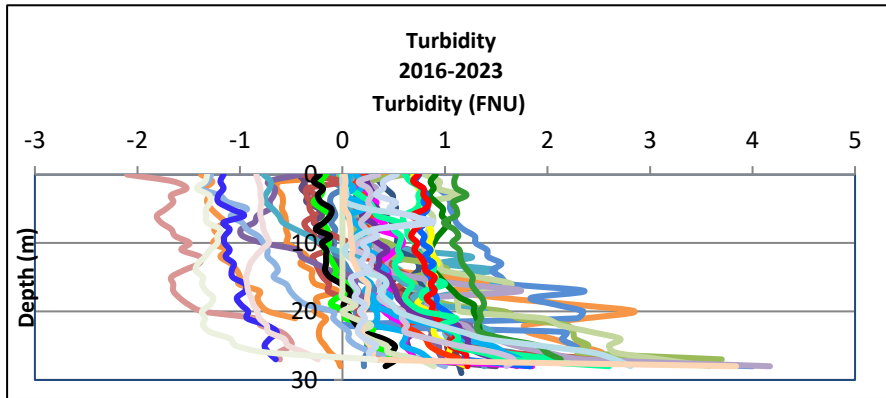
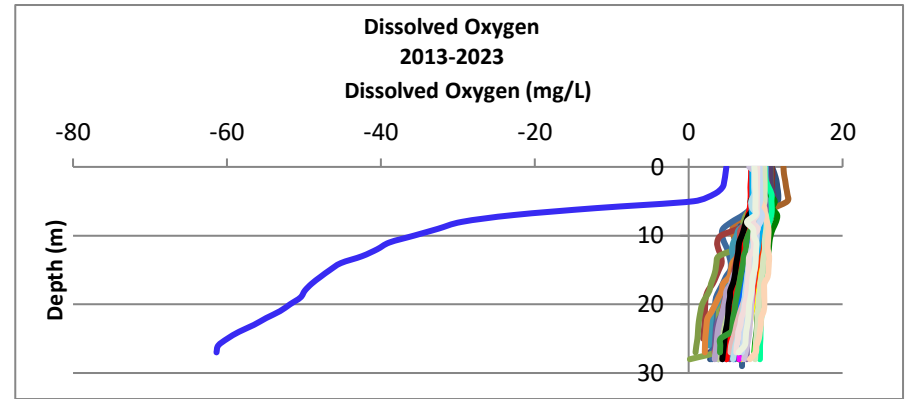
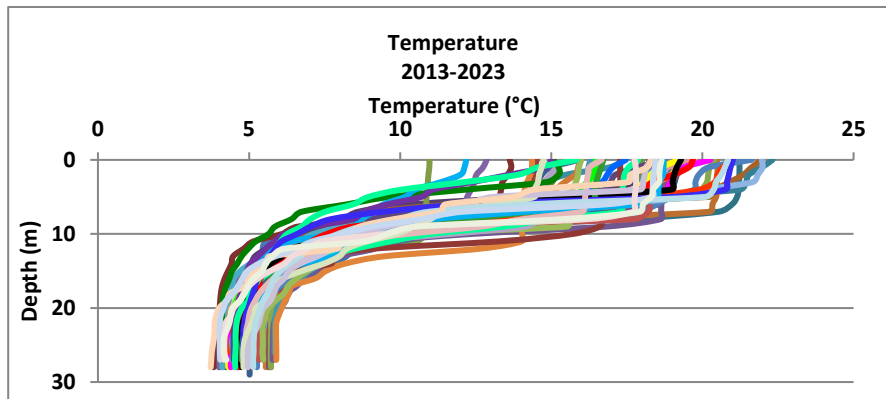
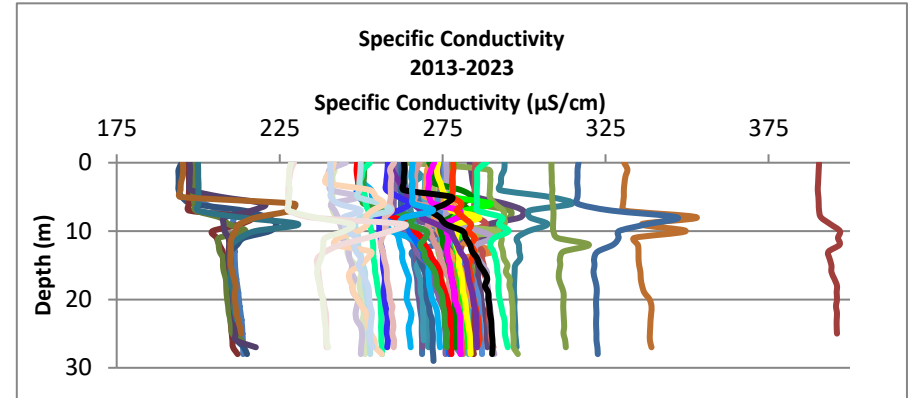
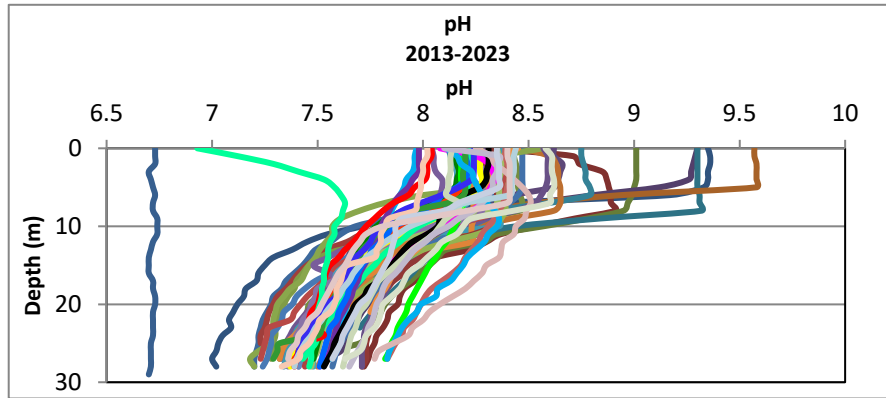
Polley Lake P2 Spring Lake Profiles



- 13-May-13
- 20-May-14
- 14-Apr-15
- 30-Apr-15
- 14-Apr-16
- 09-May-16
- 24-May-16
- 03-May-17
- 28-May-17
- 15-May-18
- 24-May-18
- 16-May-19
- 19-May-20
- 06-May-21
- 17-May-22
- 9-May-23

MPMC

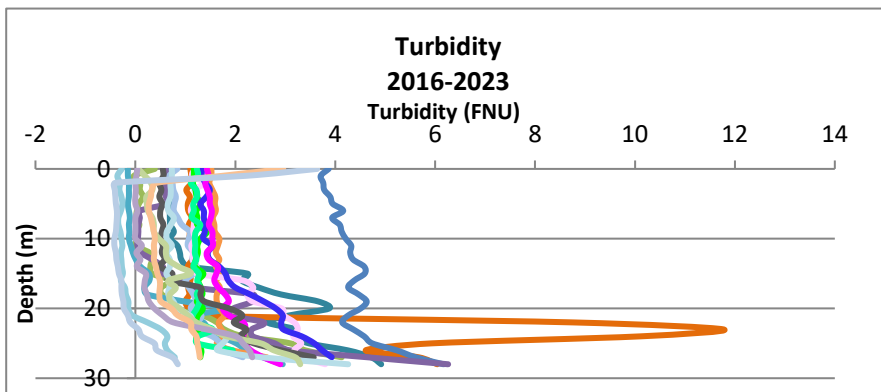
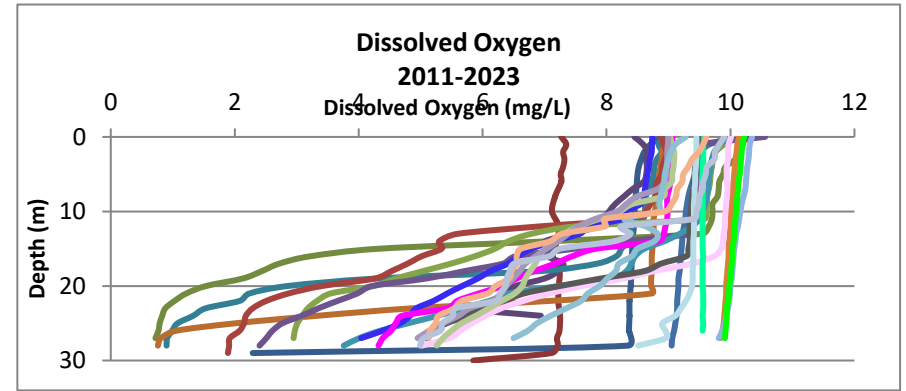
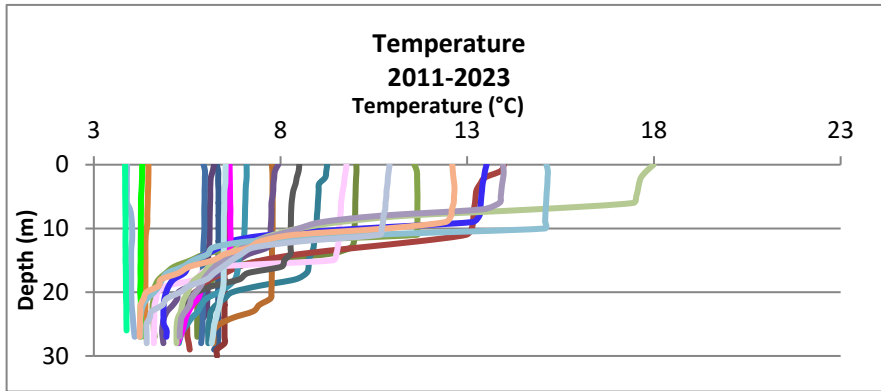
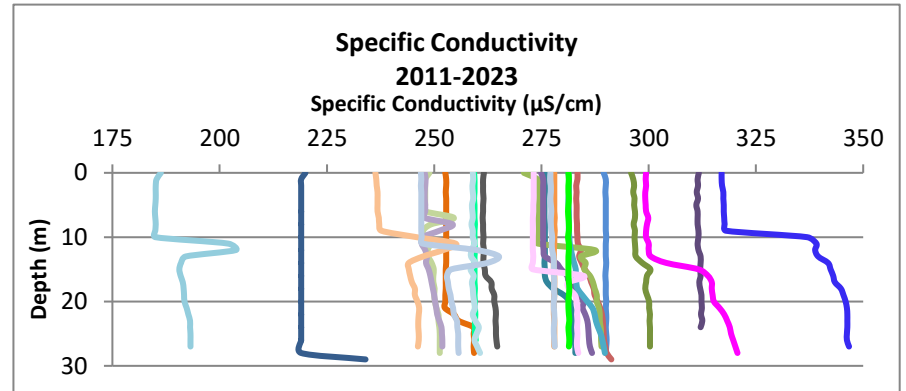
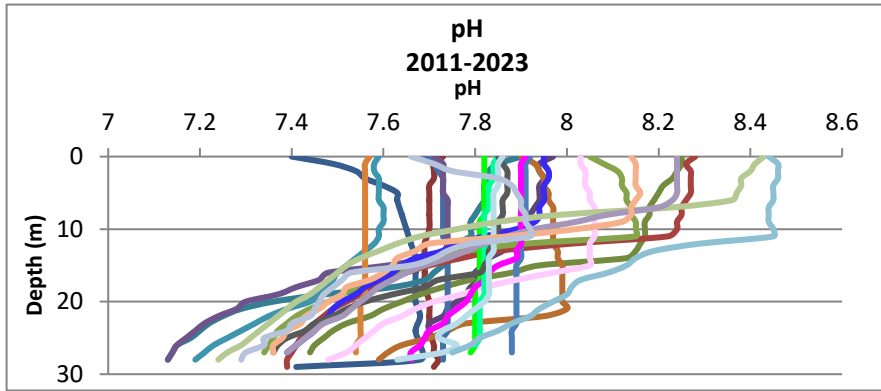
Polley Lake P2 Summer Lake Profiles



- | | | | |
|-----------|-----------|-----------|-----------|
| 20-Jun-13 | 21-Aug-13 | 4-Jun-14 | 18-Jun-14 |
| 2-Jul-14 | 17-Jul-14 | 30-Jul-14 | 11-Jun-15 |
| 22-Jun-15 | 7-Jul-15 | 21-Jul-15 | 11-Aug-15 |
| 10-Sep-15 | 8-Oct-15 | 6-Jun-16 | 21-Jun-16 |
| 4-Jul-16 | 18-Jul-16 | 4-Aug-16 | 23-Aug-16 |
| 7-Sep-16 | 20-Sep-16 | 18-Jun-17 | 28-Jun-17 |
| 14-Jul-17 | 6-Aug-17 | 23-Aug-17 | 14-Sep-17 |
| 12-Jun-18 | 23-Jun-18 | 11-Jul-18 | 31-Jul-18 |
| 21-Aug-18 | 29-Aug-18 | 11-Sep-18 | 6-Jun-19 |
| 24-Jun-19 | 15-Jul-19 | 29-Jul-19 | 13-Aug-19 |
| 11-Sep-19 | 15-Jun-20 | 22-Jun-20 | 14-Jul-20 |
| 27-Jul-20 | 19-Aug-20 | 8-Sep-20 | 3-Jun-21 |
| 20-Jul-21 | 18-Aug-21 | 13-Sep-21 | 20-Jun-22 |
| 13-Jul-22 | 30-Aug-22 | 12-Jun-23 | 26-Jul-23 |
| 24-Aug-23 | 28-Aug-23 | | |

MPMC

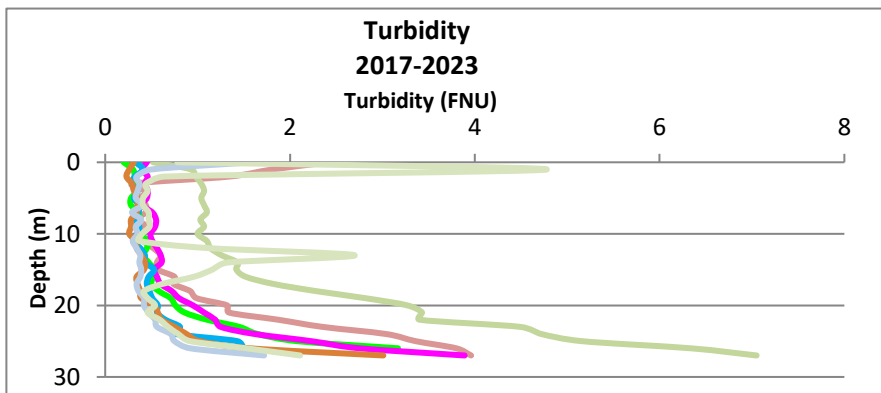
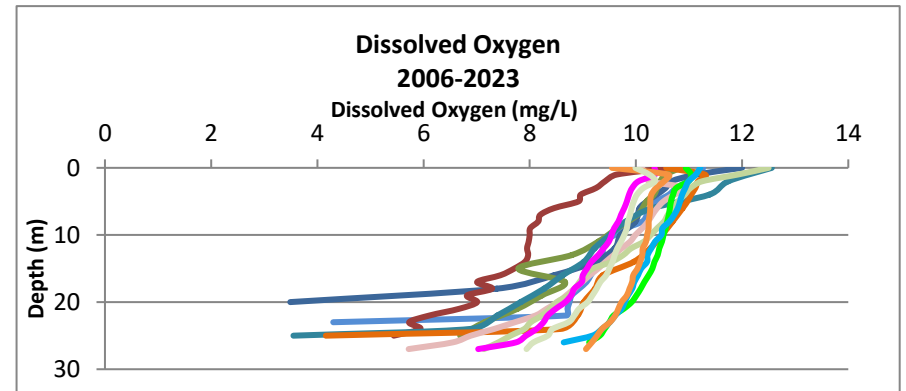
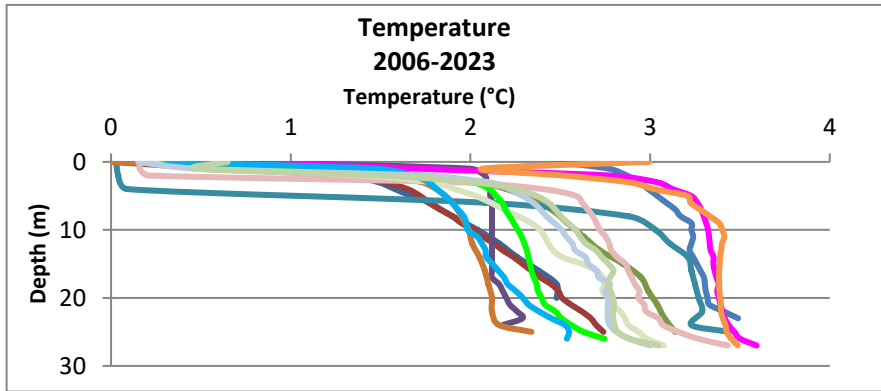
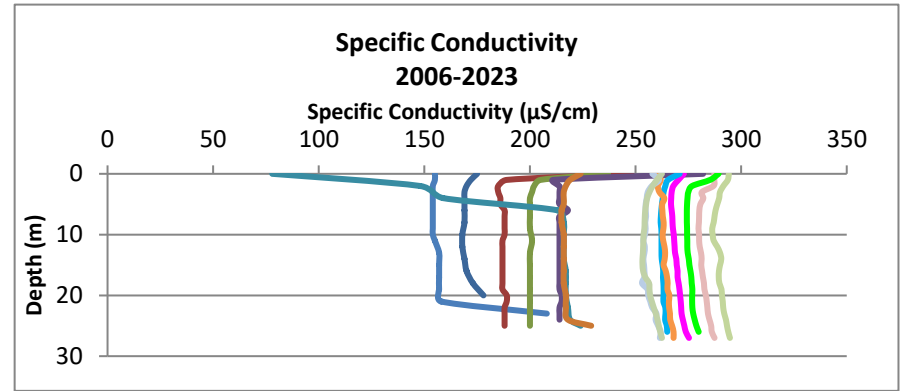
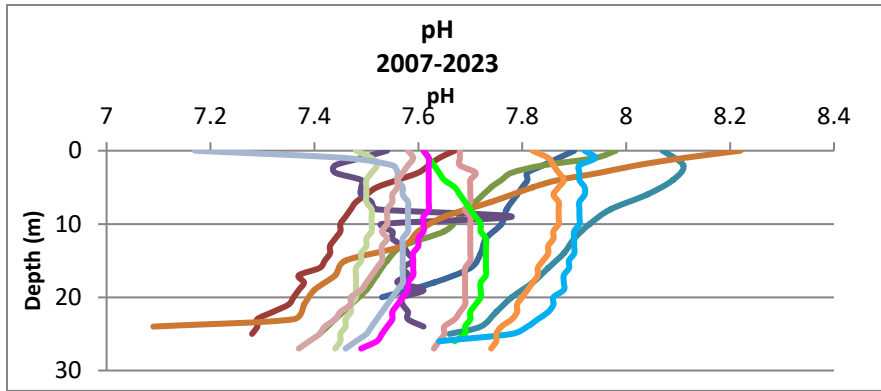
Polley Lake P2 Fall Lake Profiles



- 01-Nov-11
- 01-Nov-12
- 19-Oct-15
- 11-Nov-15
- 17-Oct-16
- 31-Oct-16
- 23-Nov-16
- 26-Sep-17
- 30-Sep-18
- 22-Oct-18
- 30-Oct-18
- 19-Nov-18
- 29-Nov-18
- 09-Oct-19
- 20-Nov-19
- 29-Sep-20
- 26-Oct-20
- 18-Nov-20
- 19-Oct-21
- 02-Nov-21
- 12-Sep-22
- 12-Oct-22
- 20-Sep-23
- 28-Sep-23
- 18-Oct-23

MPMC

Polley Lake P2 Winter Lake Profiles



- 13-Mar-06
- 06-Mar-07
- 01-Apr-08
- 13-Mar-09
- 02-Mar-10
- 09-Mar-11
- 06-Mar-12
- 14-Mar-17
- 13-Mar-18
- 11-Feb-19
- 19-Feb-20
- 24-Feb-21
- 16-Feb-22
- 01-Mar-23
- 15-Mar-23

Water Quality Report

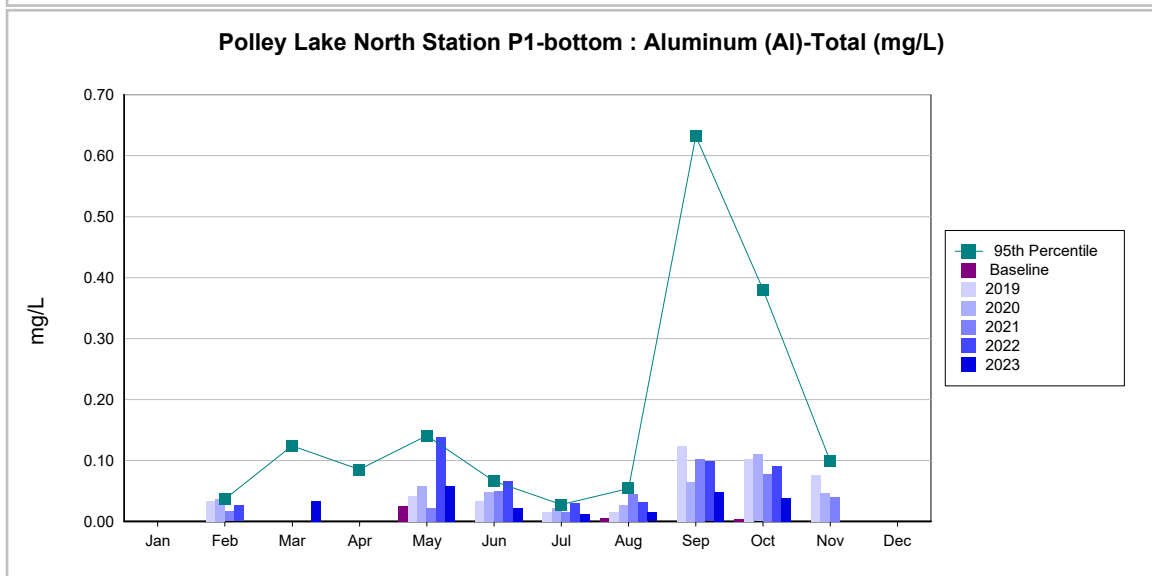
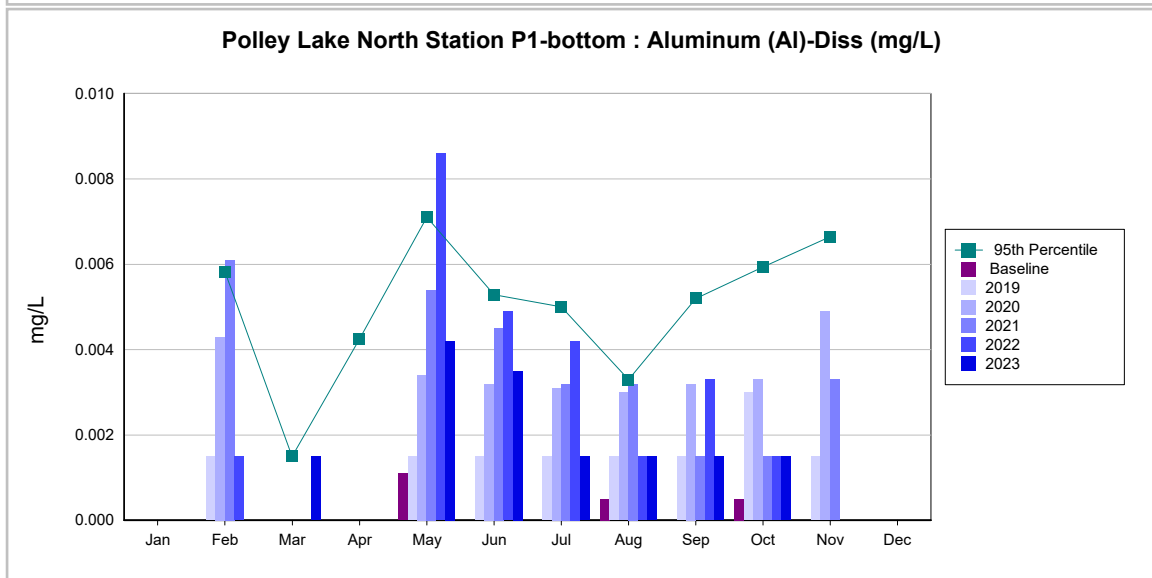
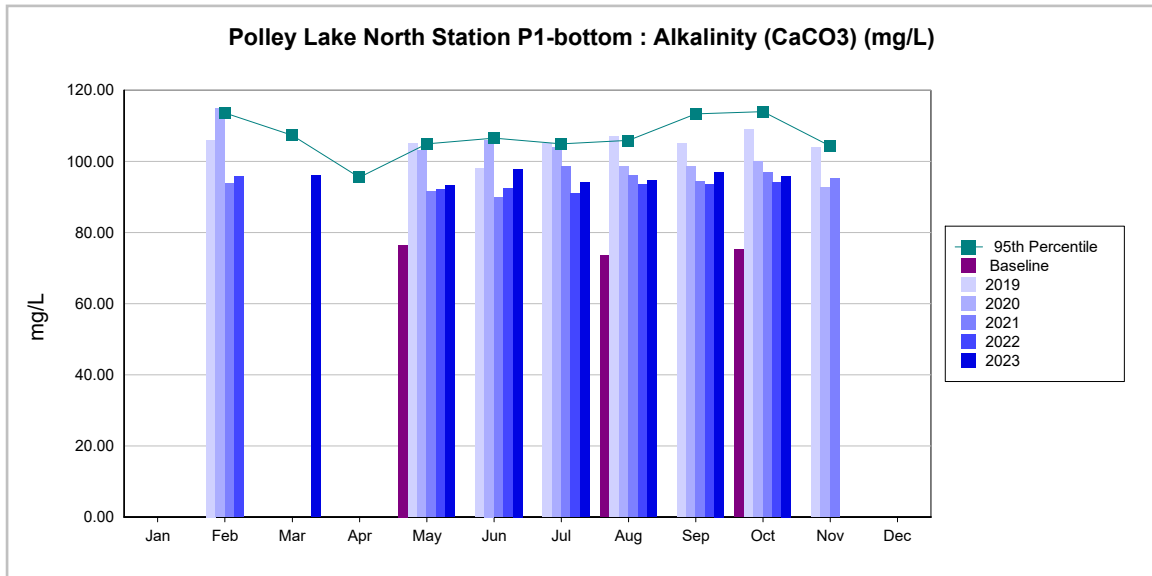
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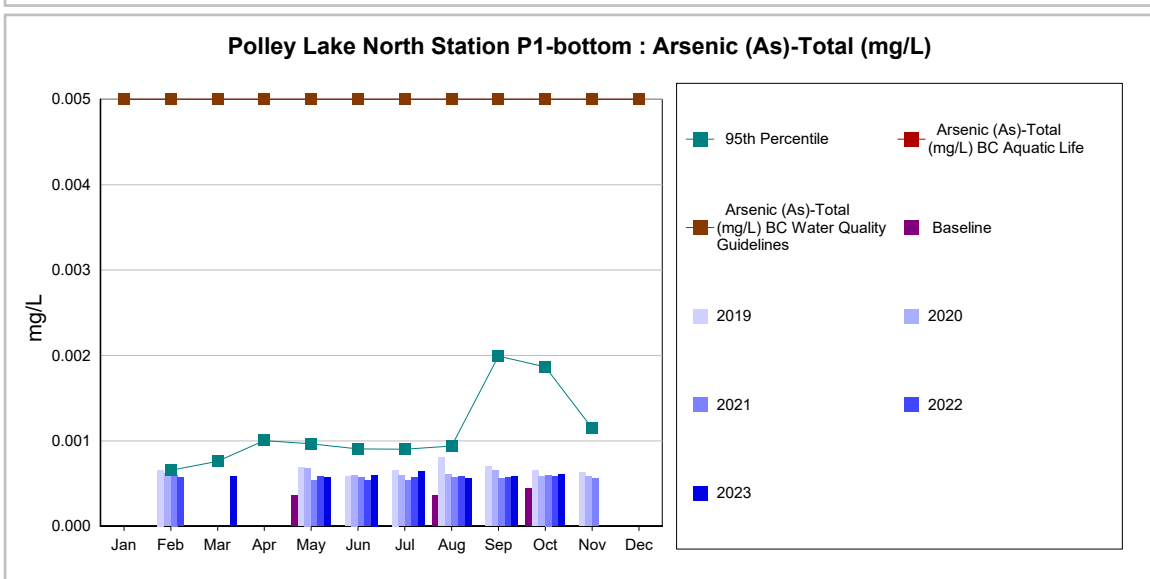
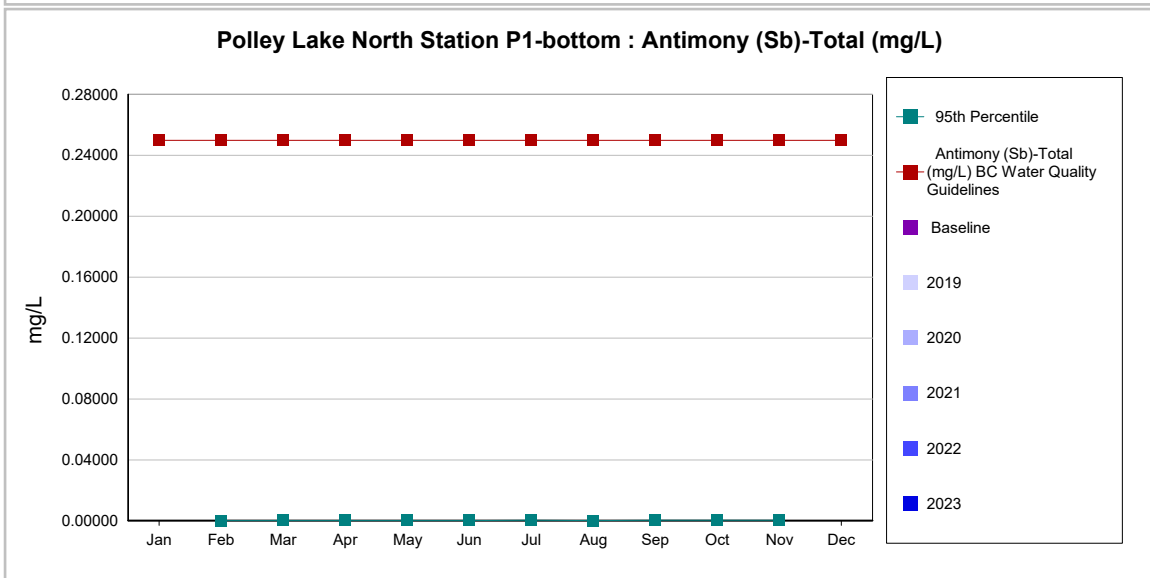
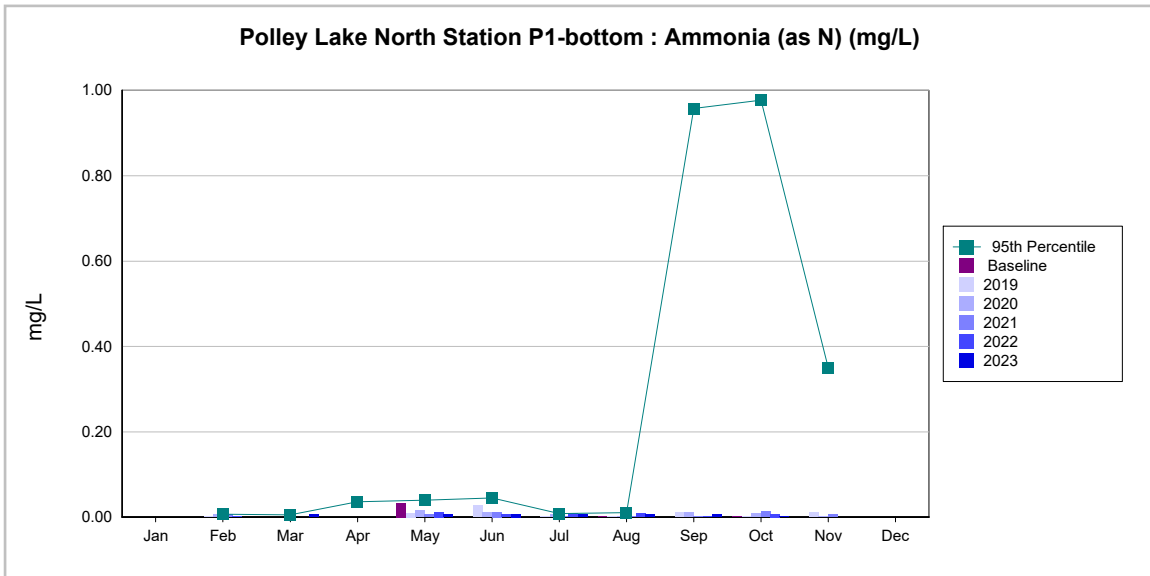
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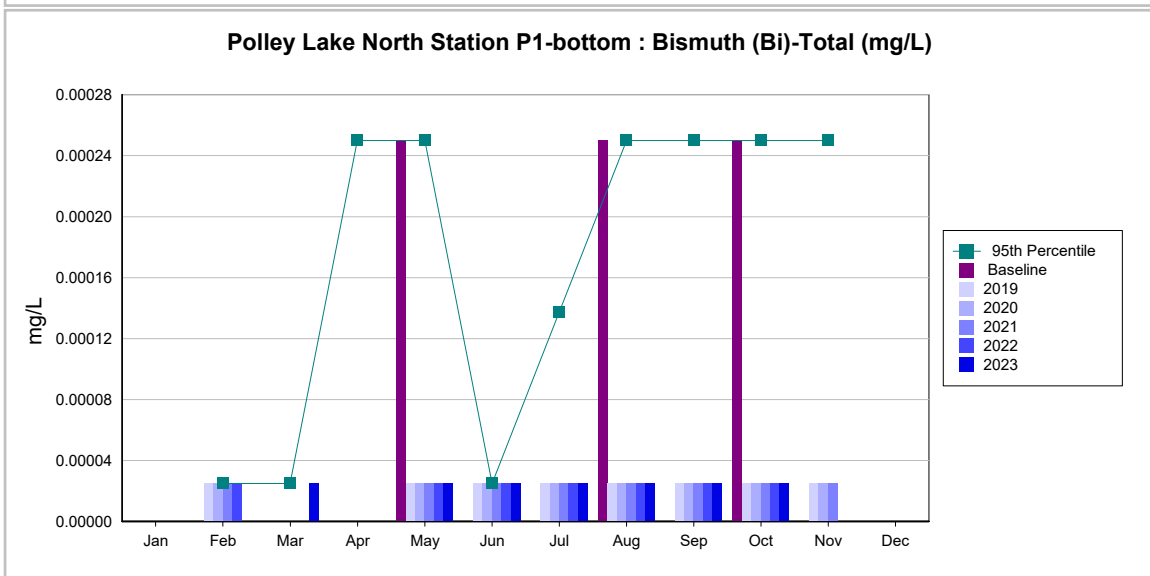
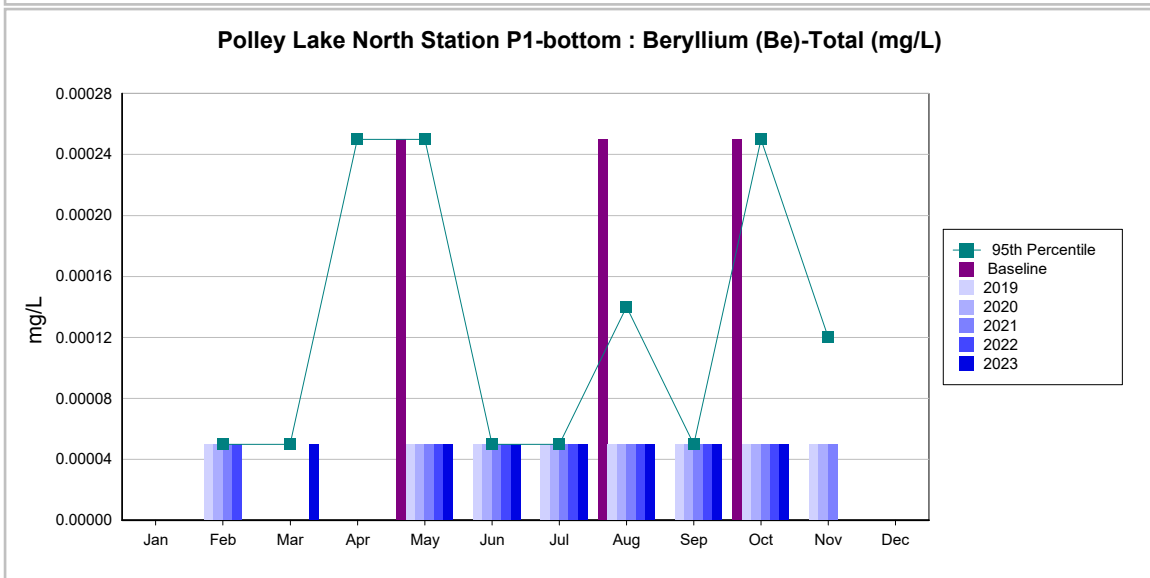
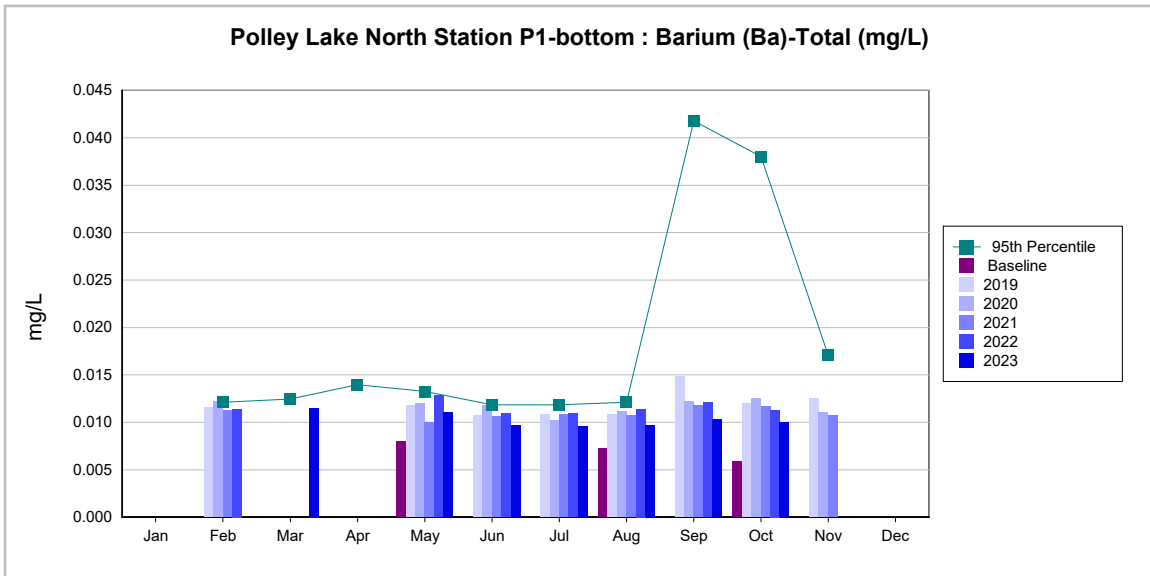
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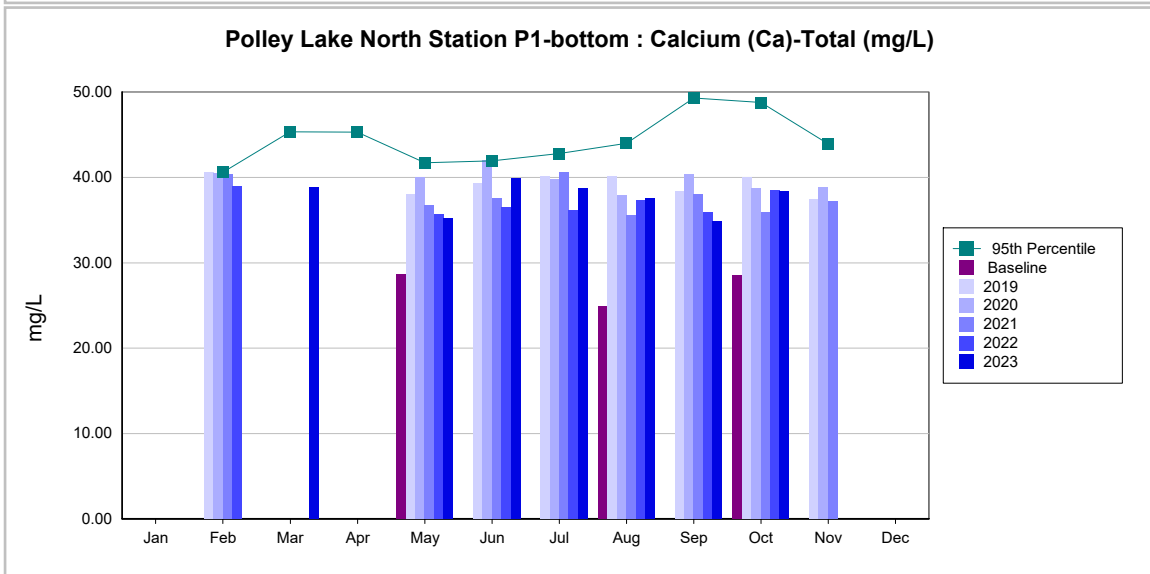
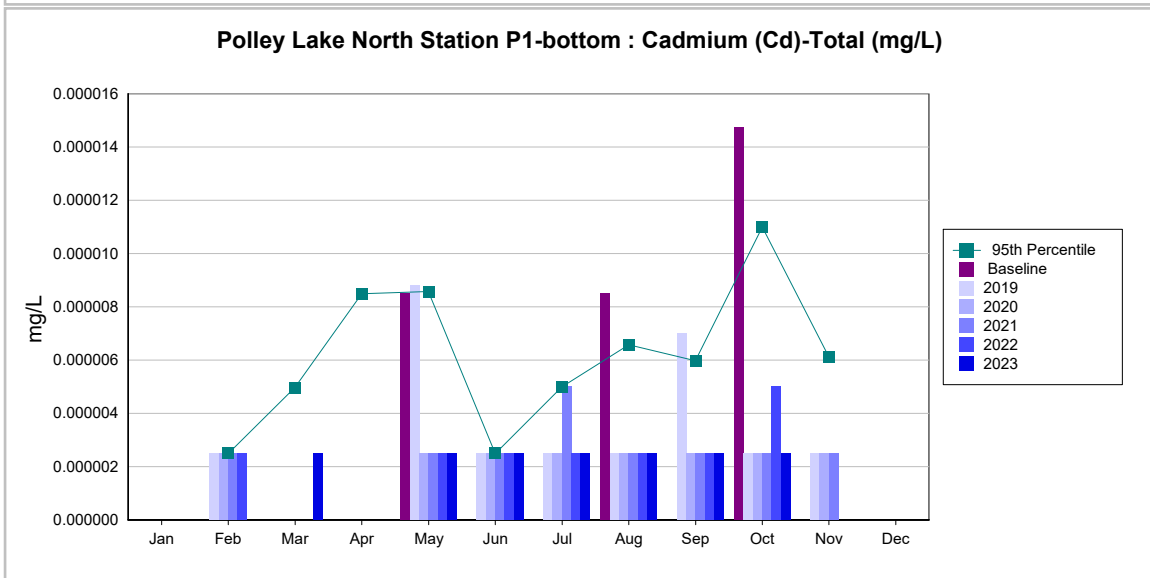
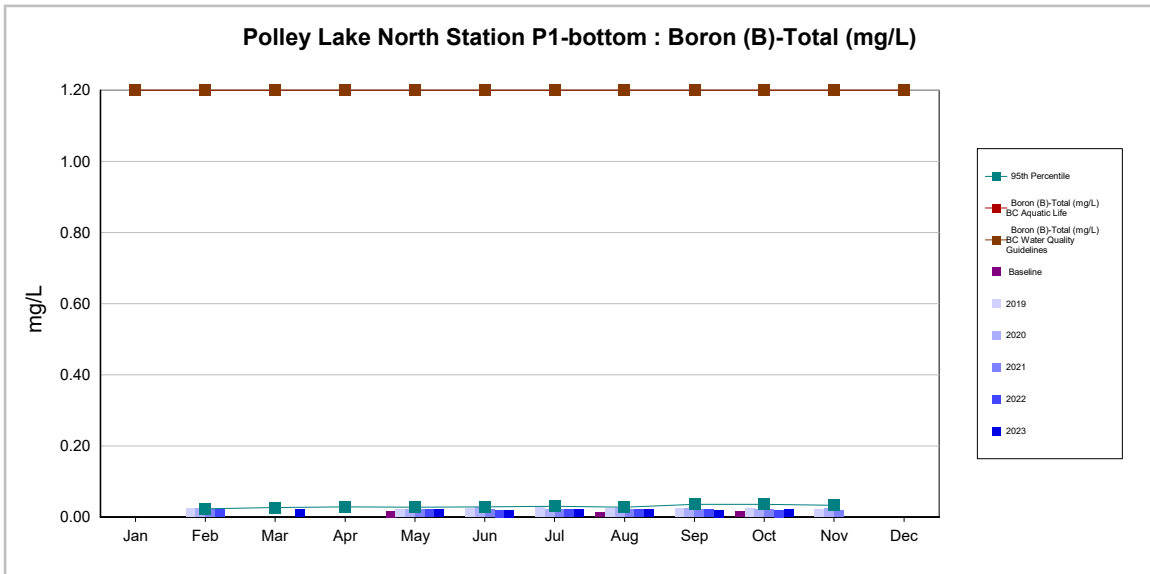
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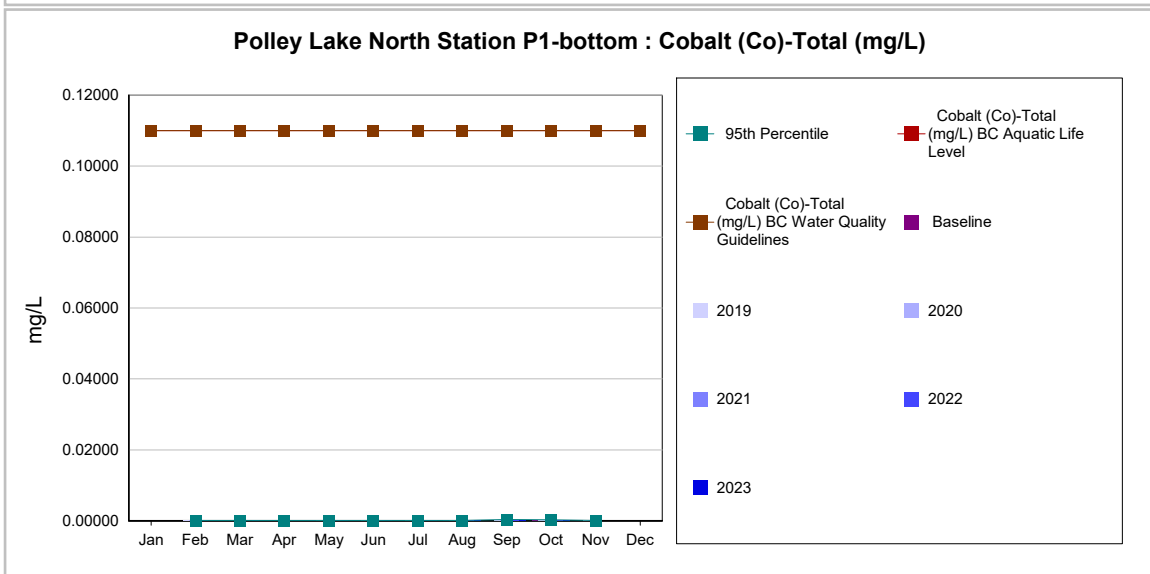
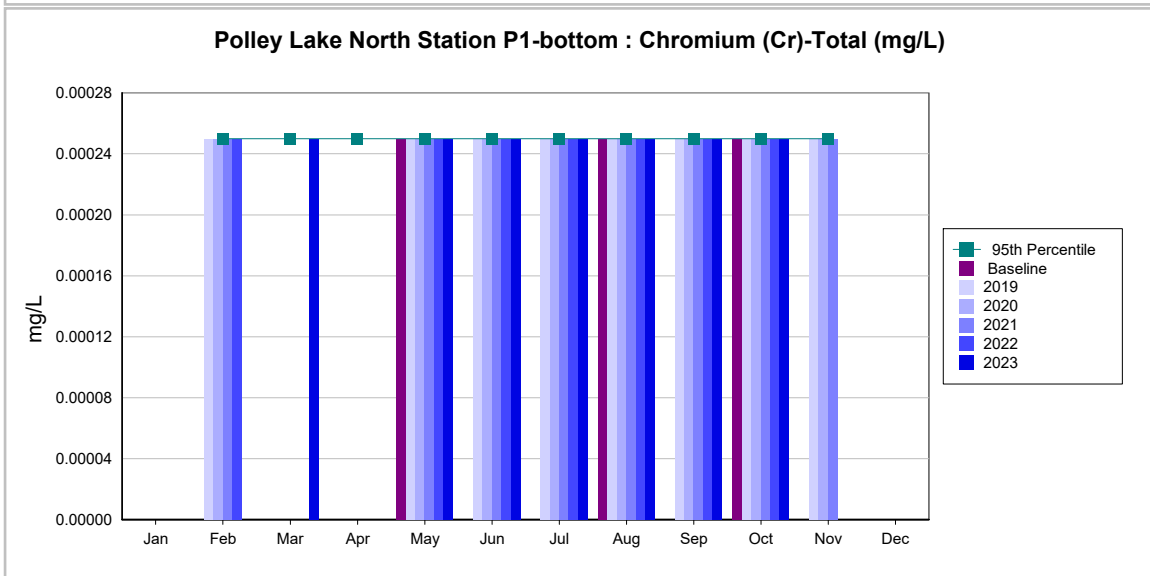
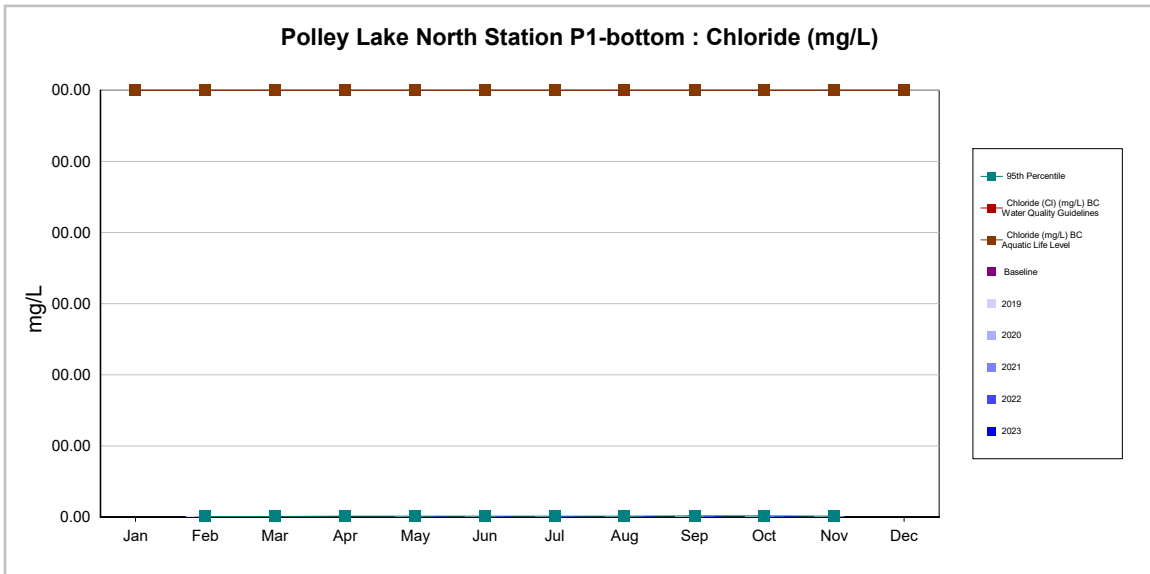
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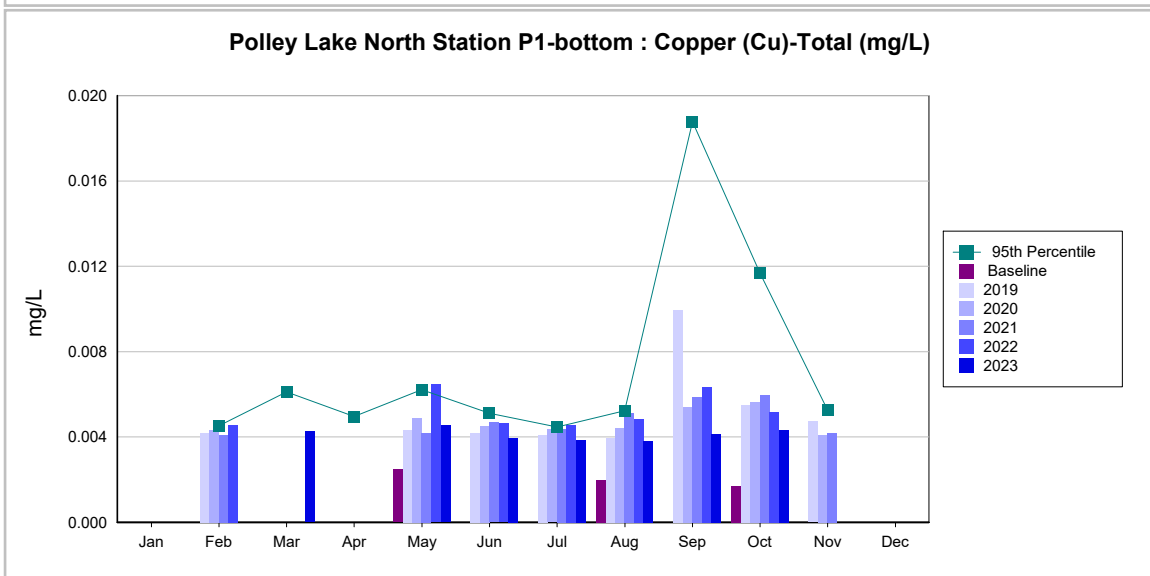
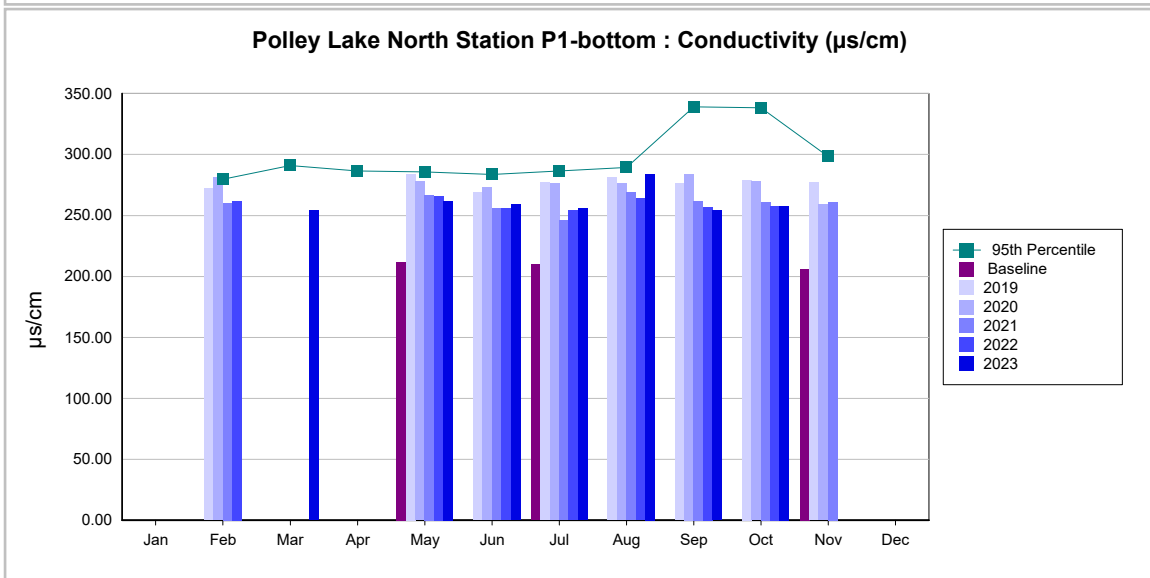
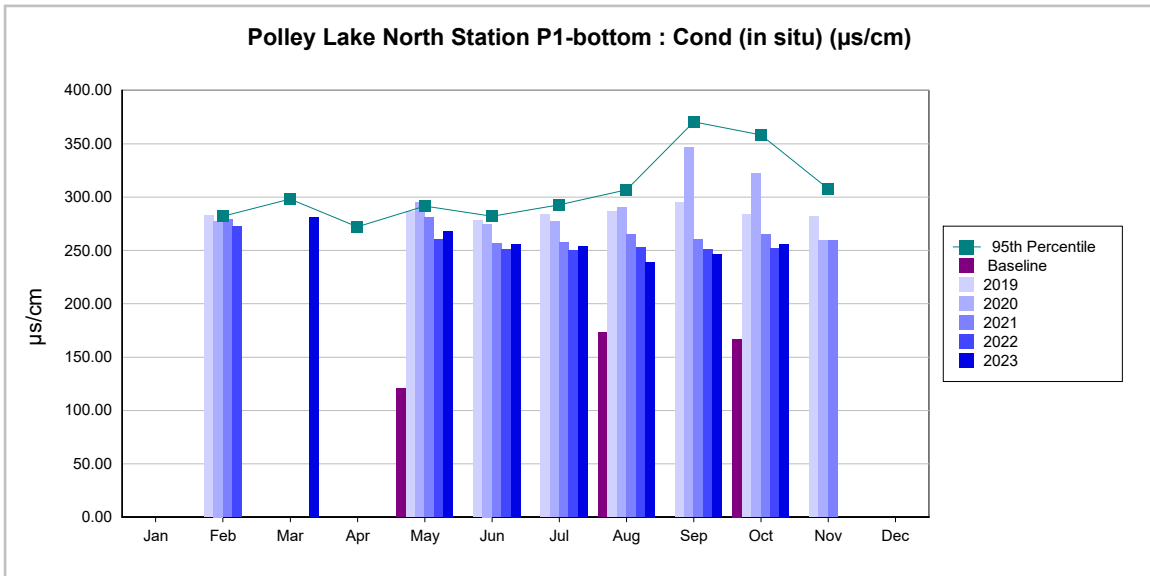
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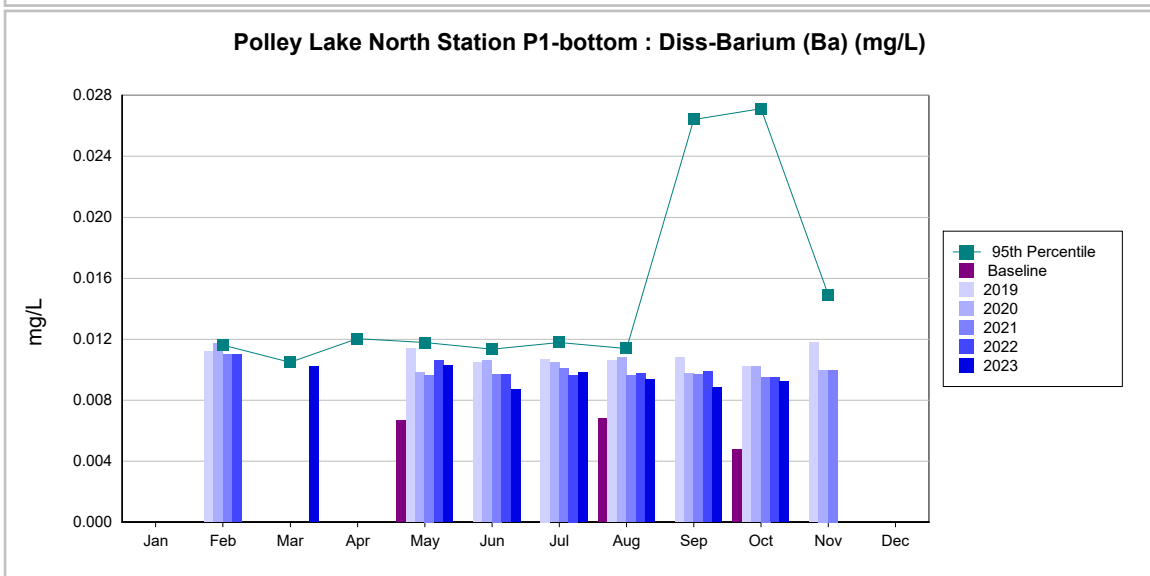
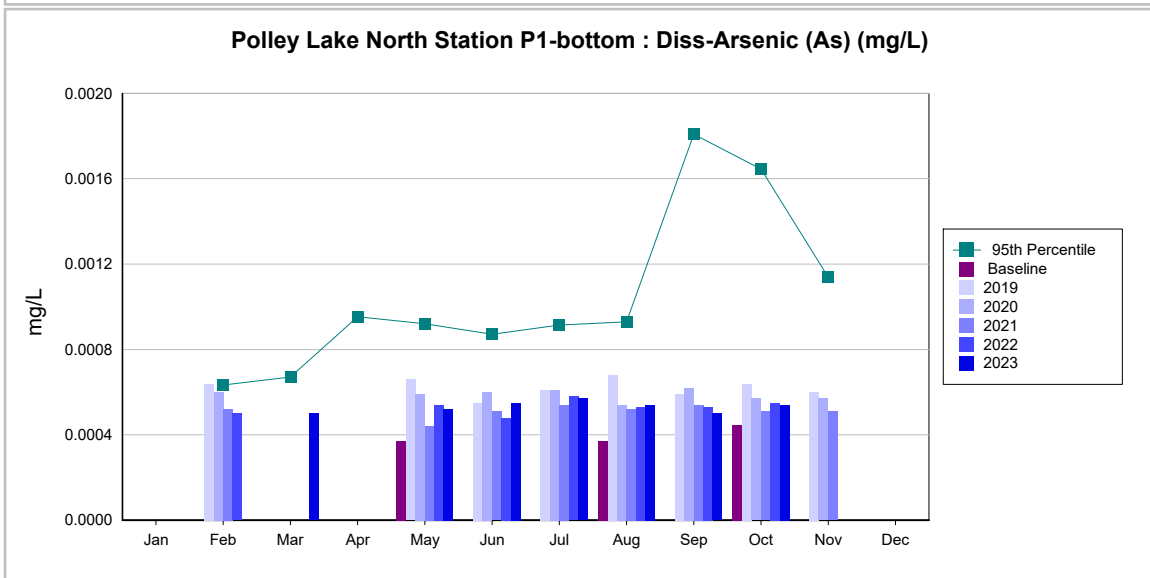
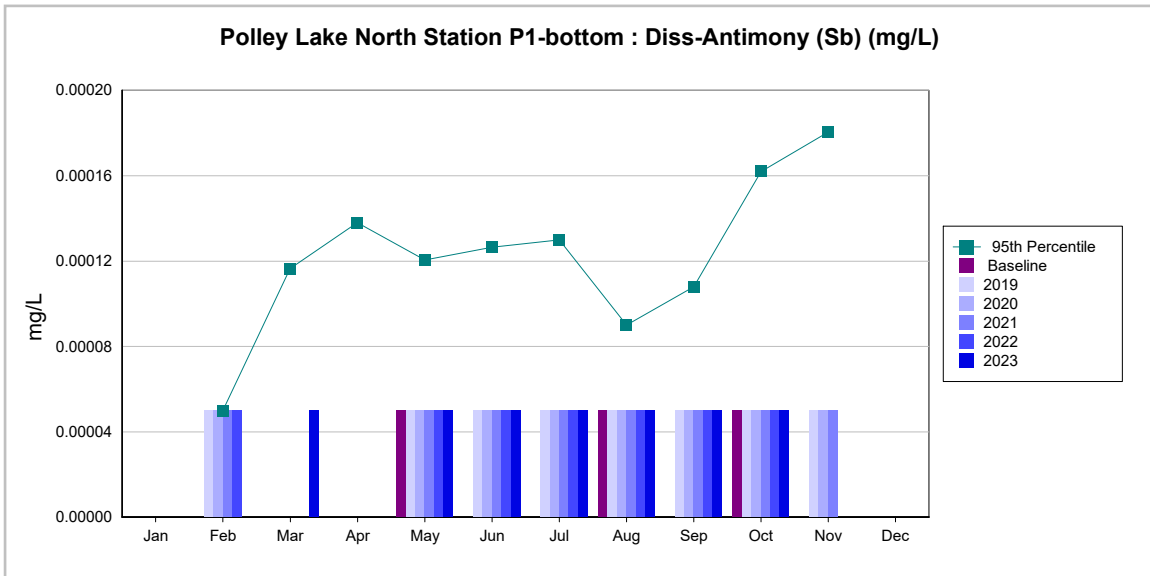
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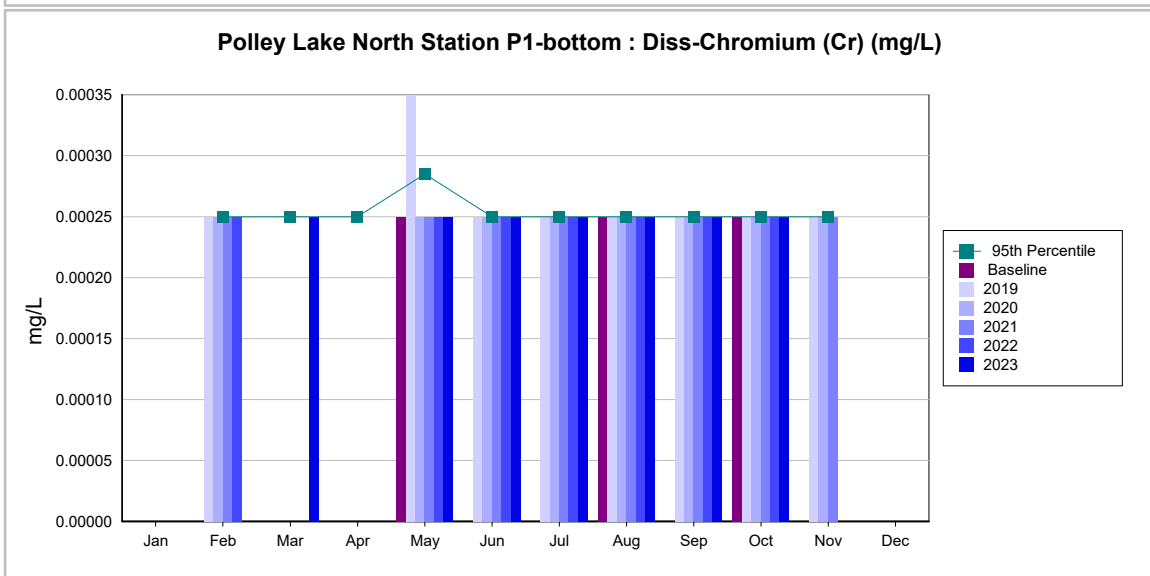
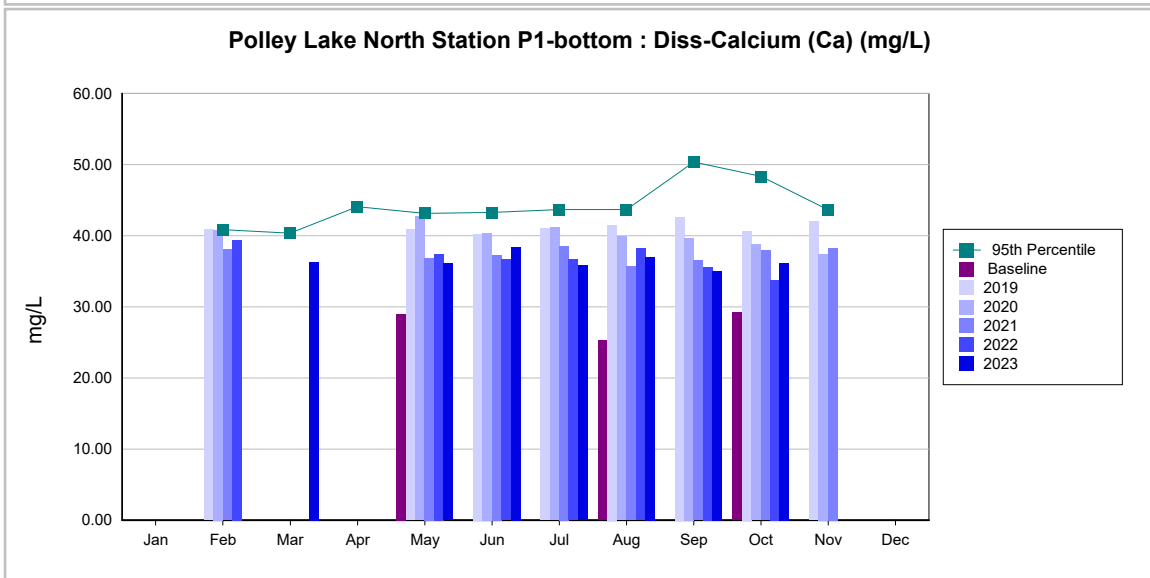
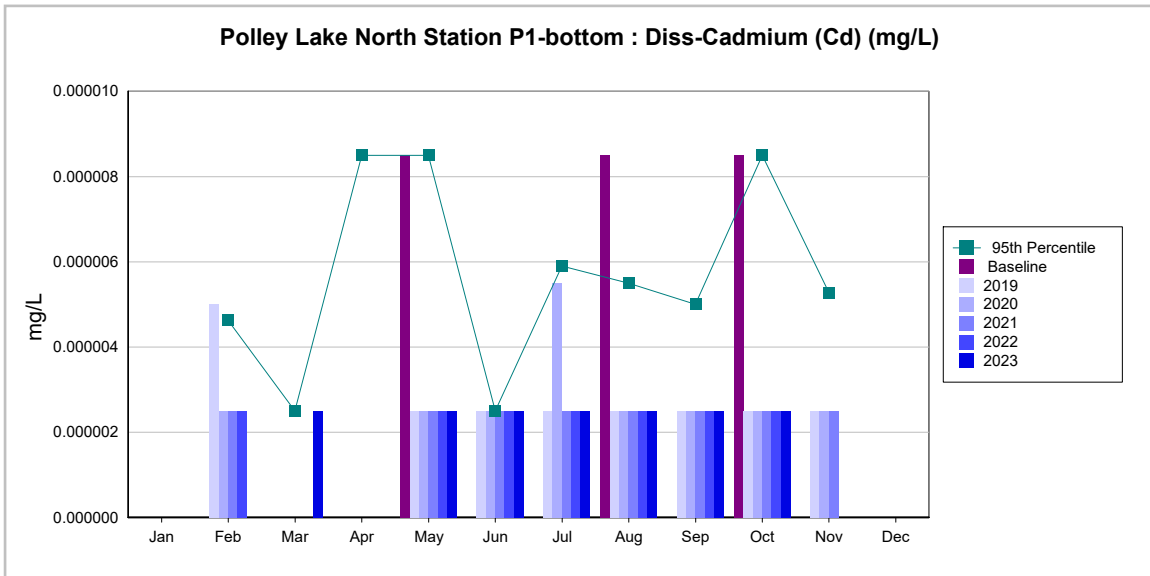
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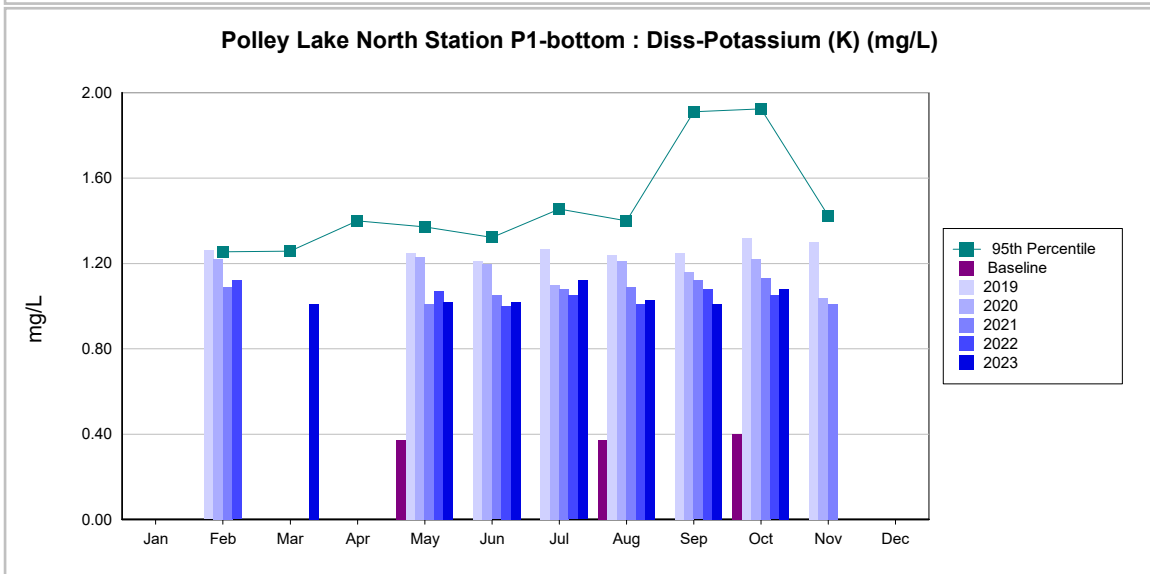
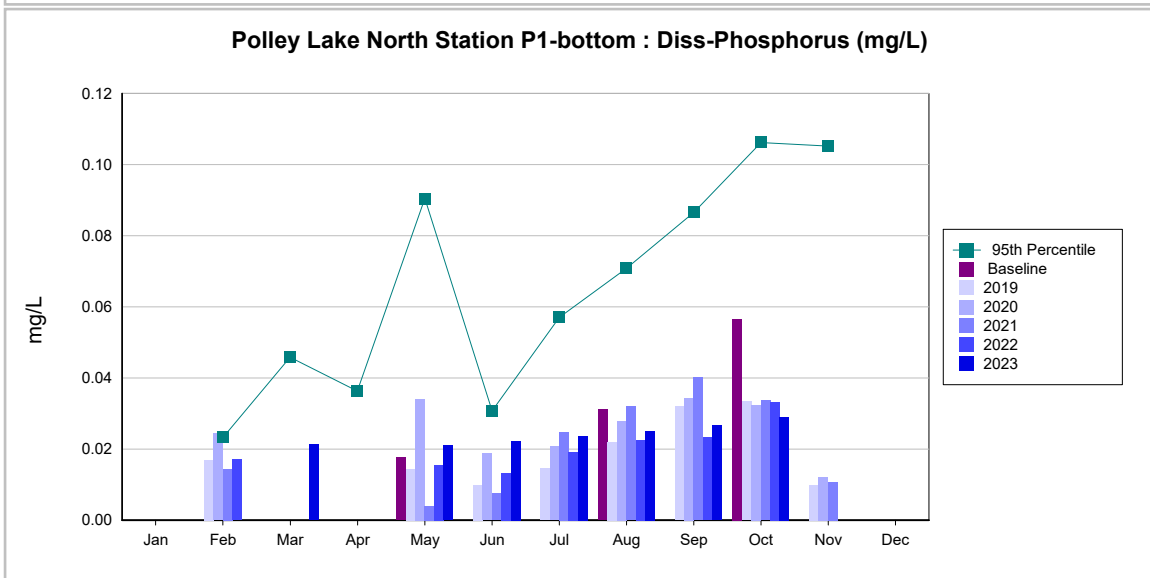
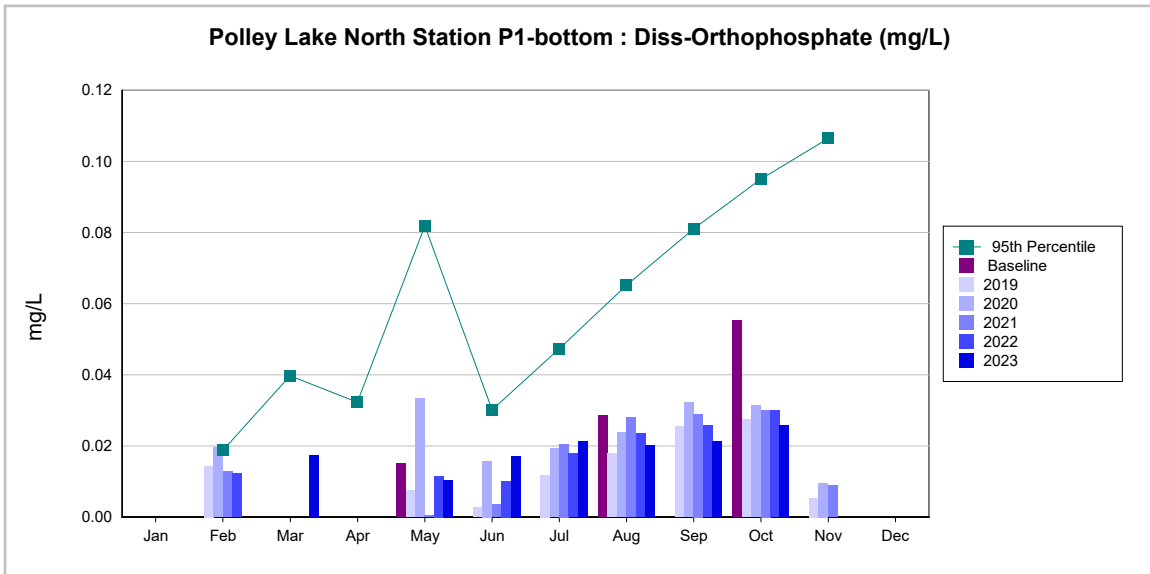
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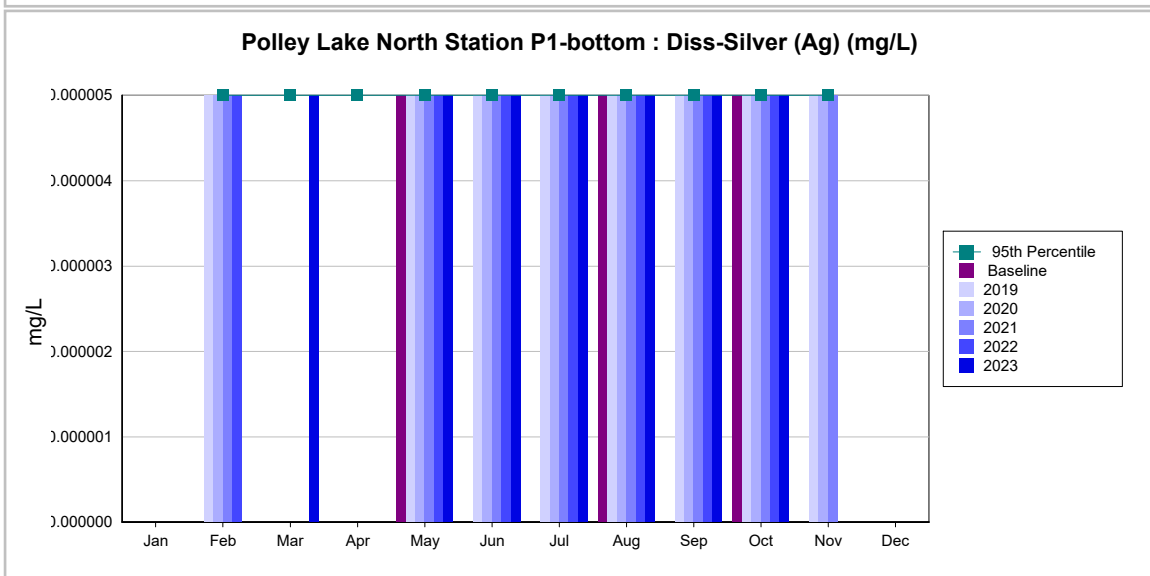
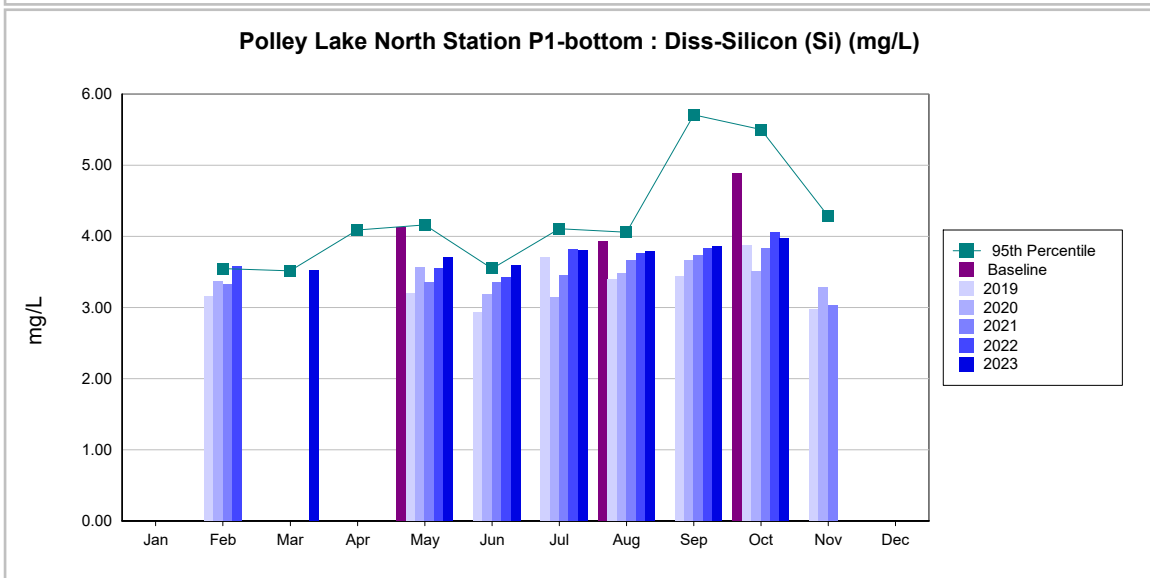
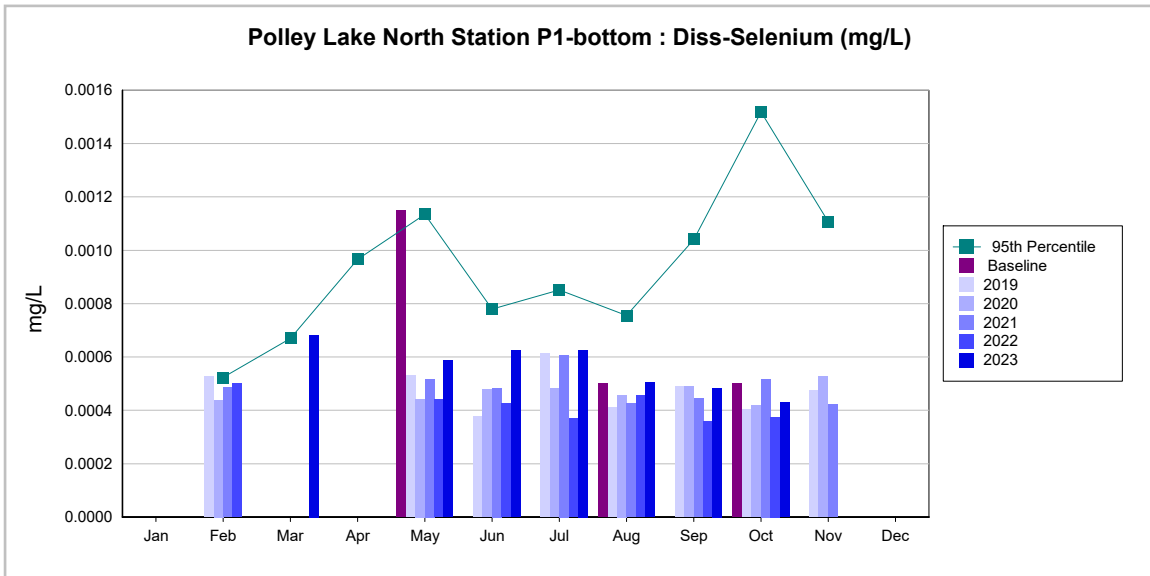
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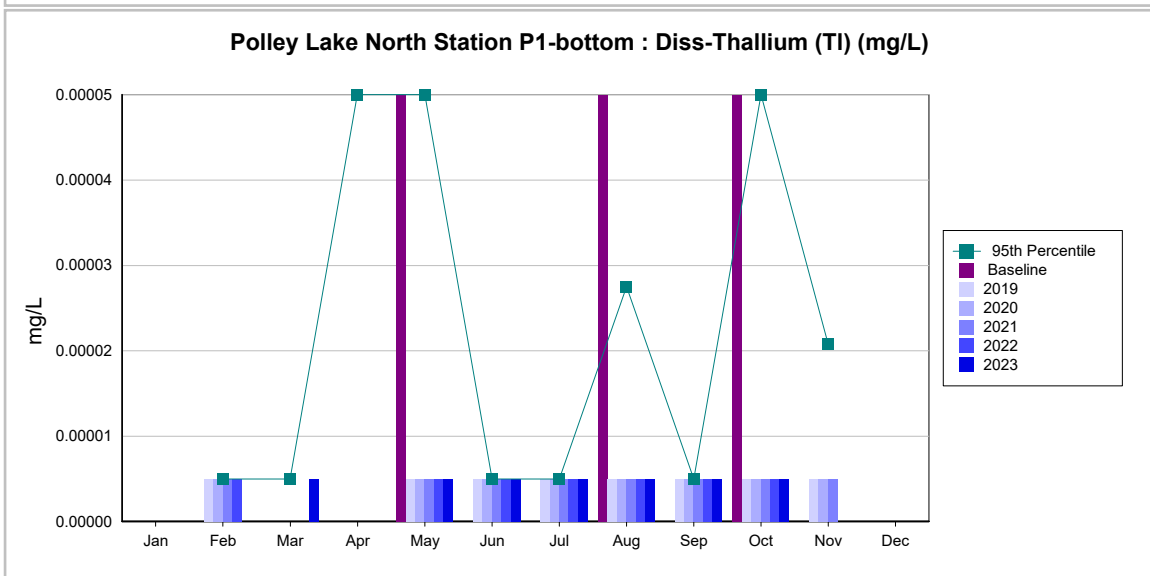
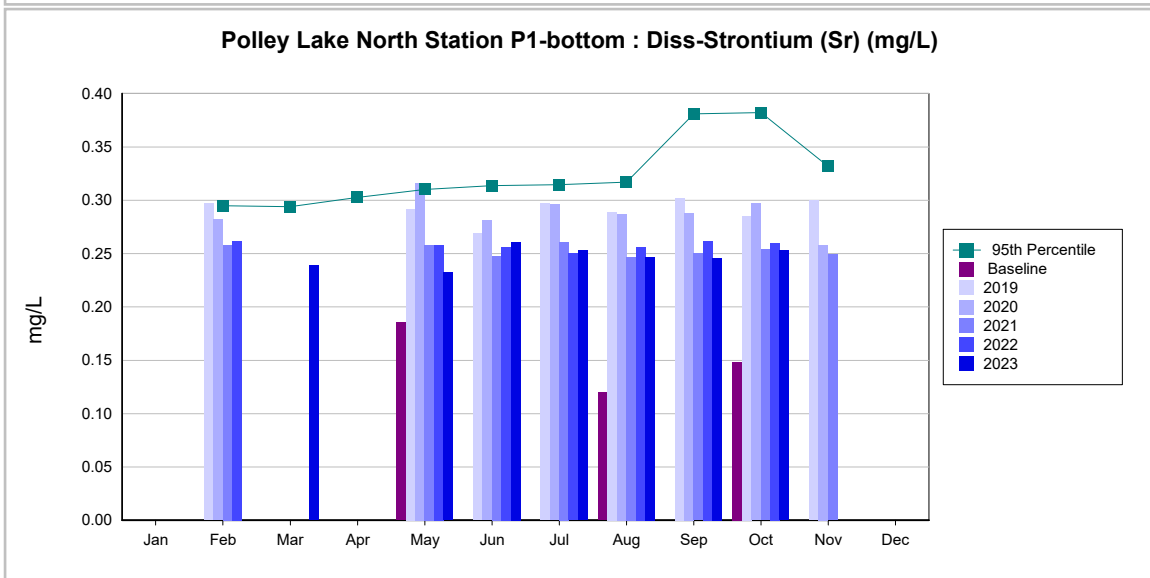
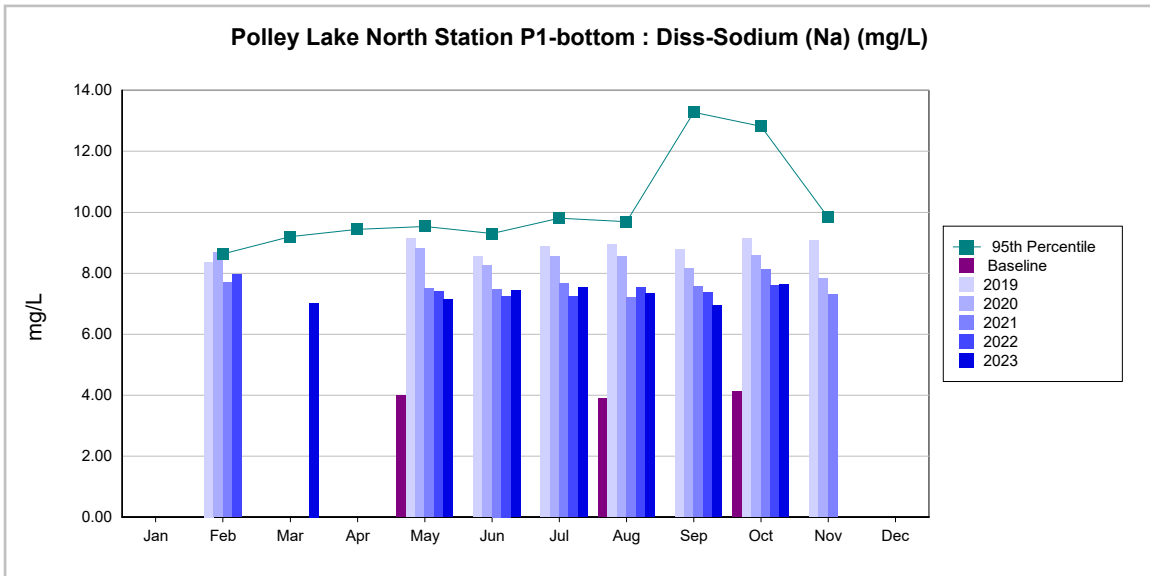
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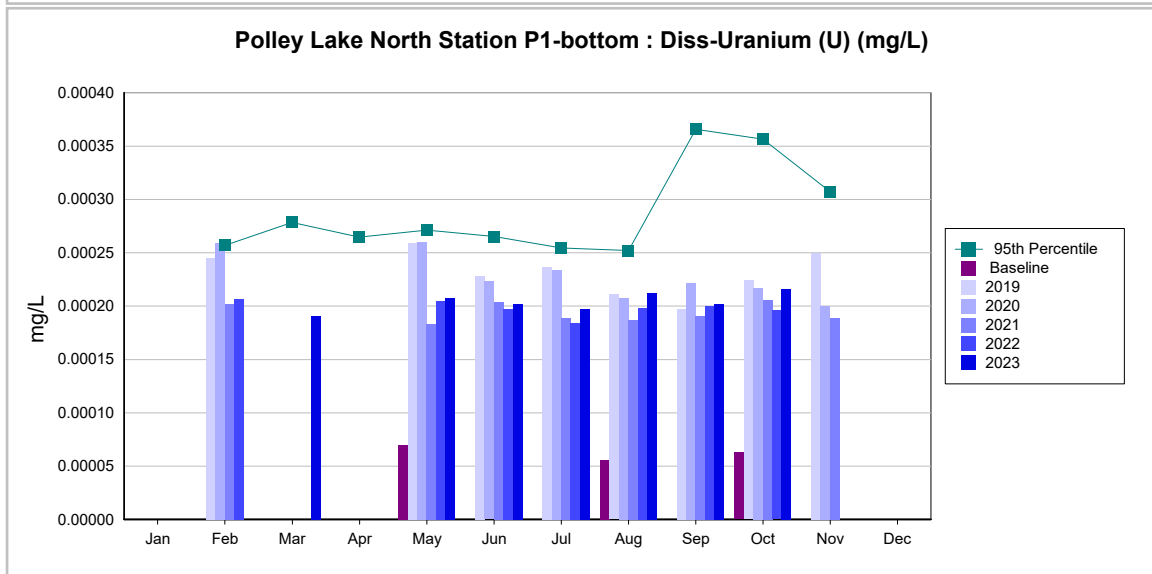
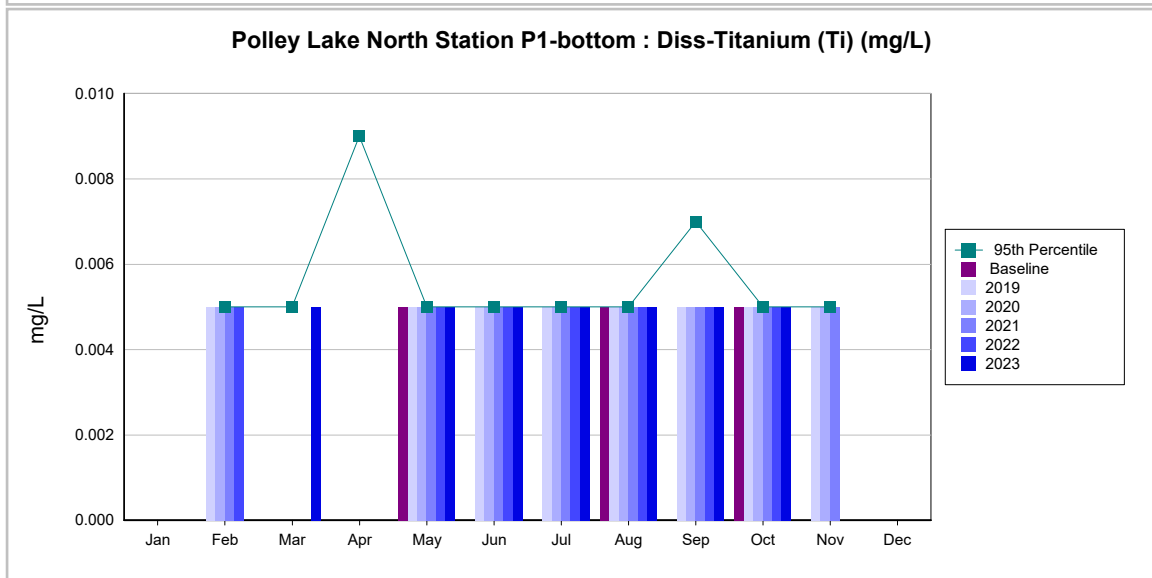
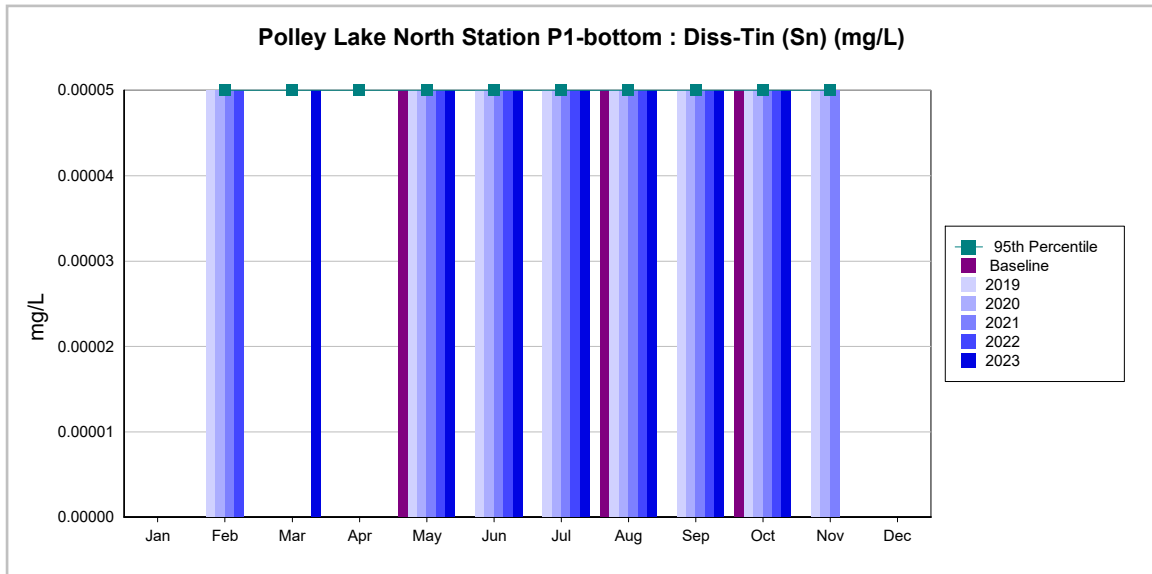
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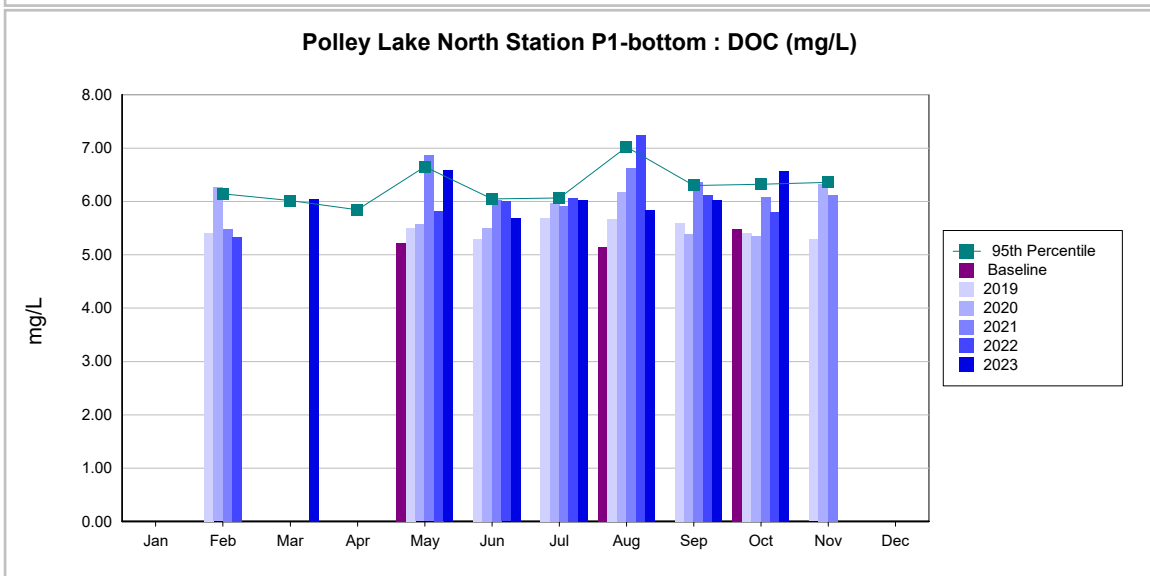
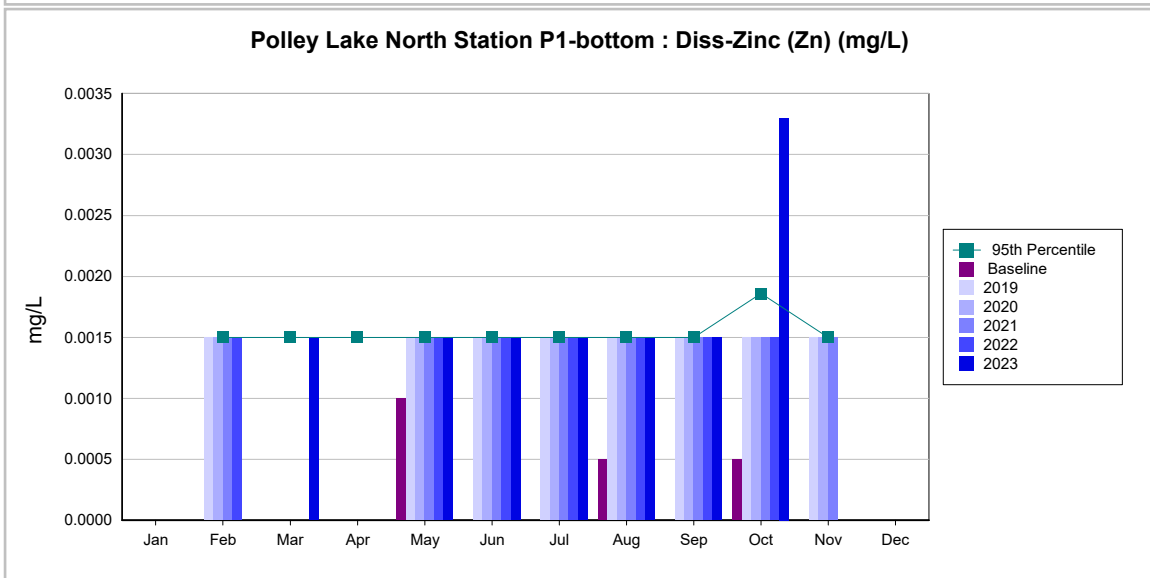
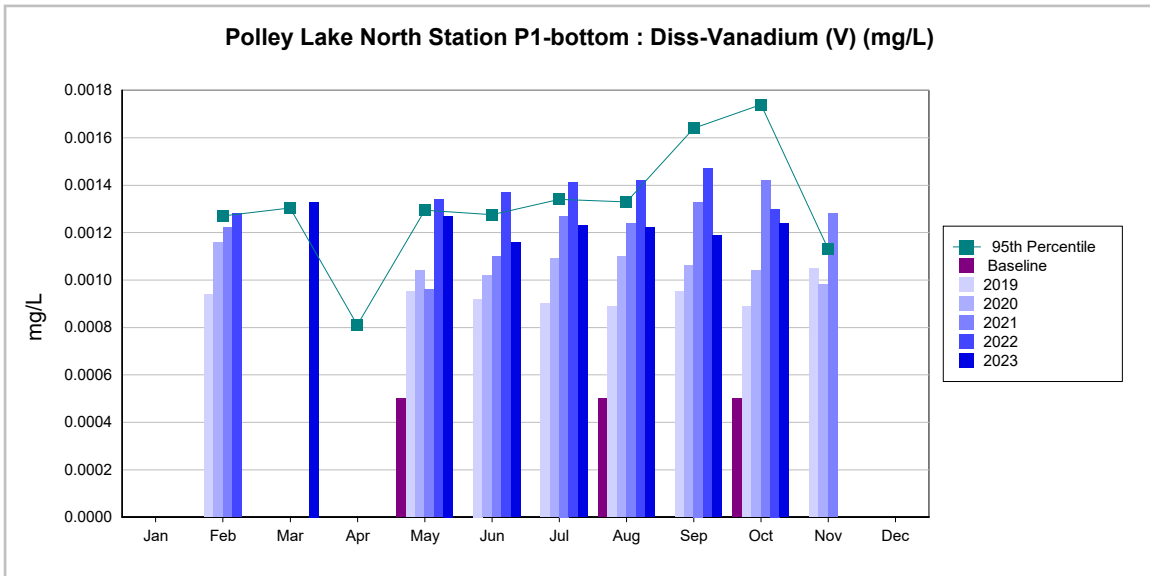
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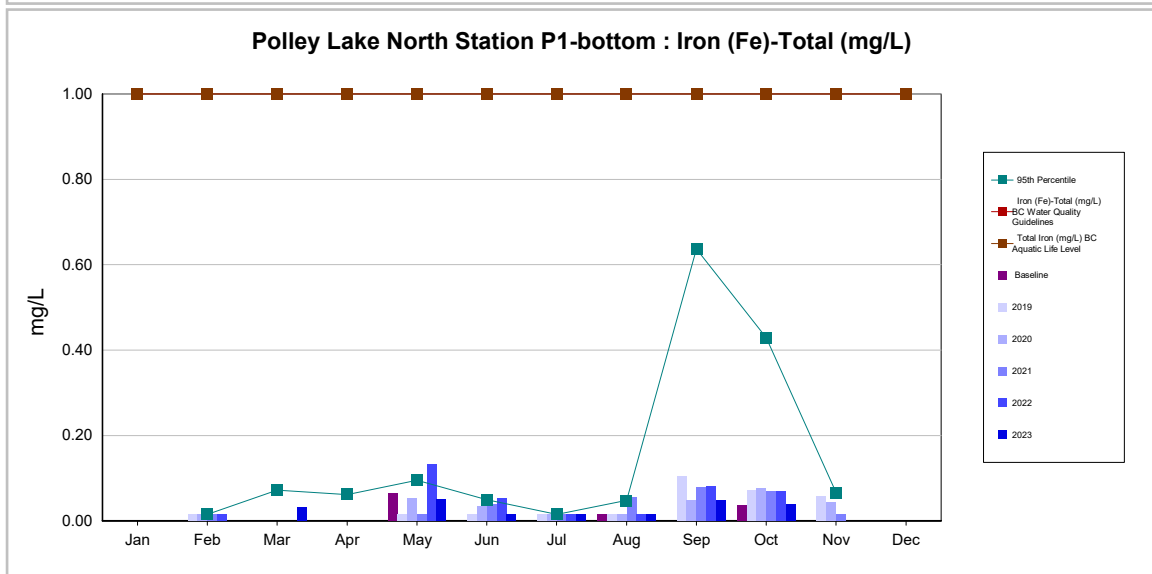
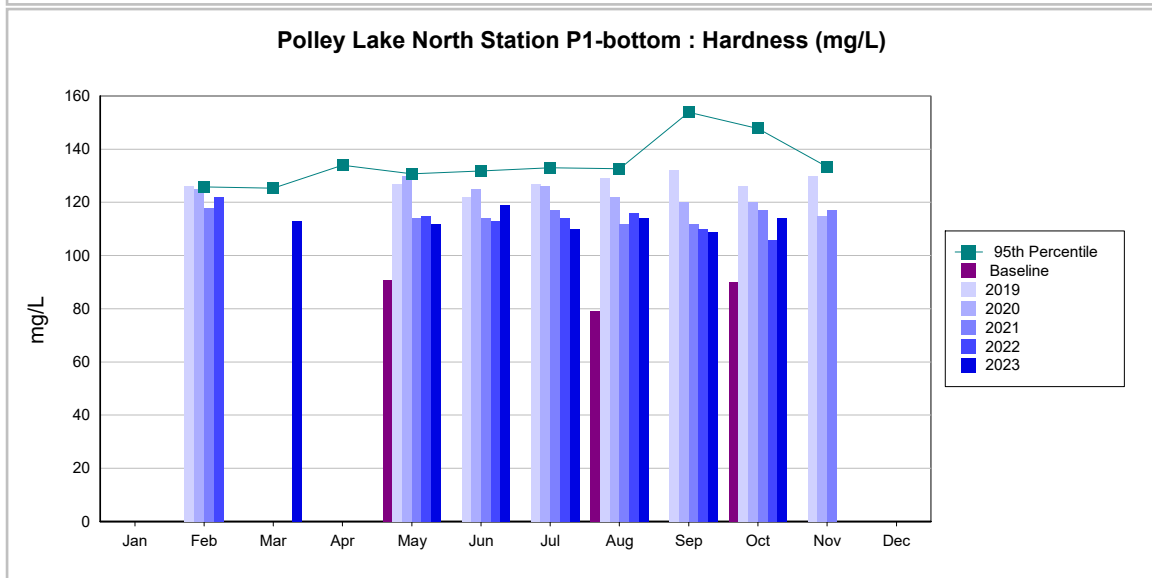
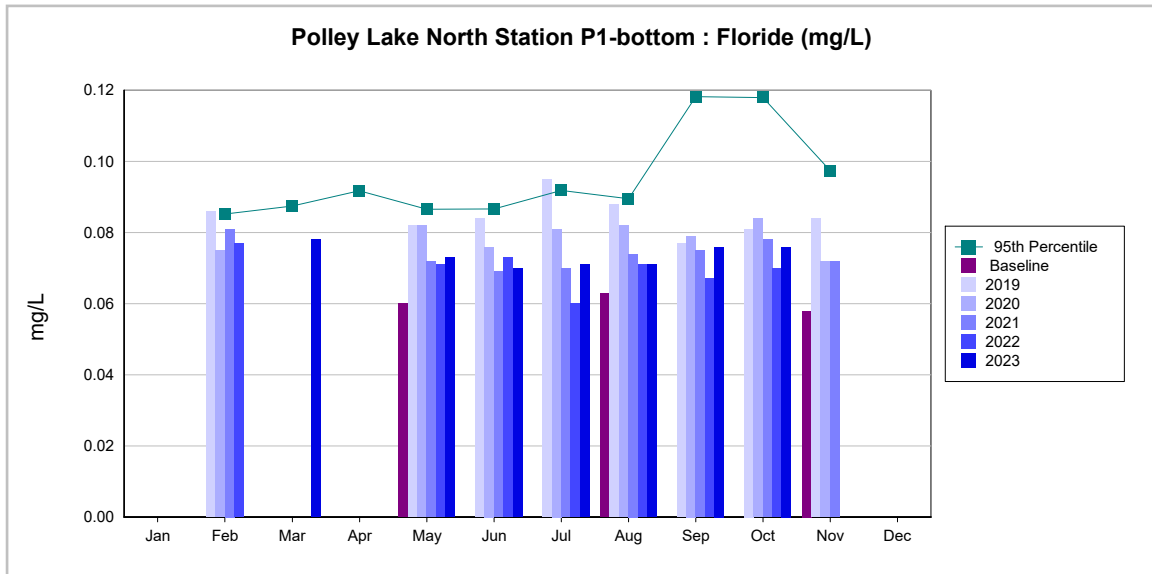
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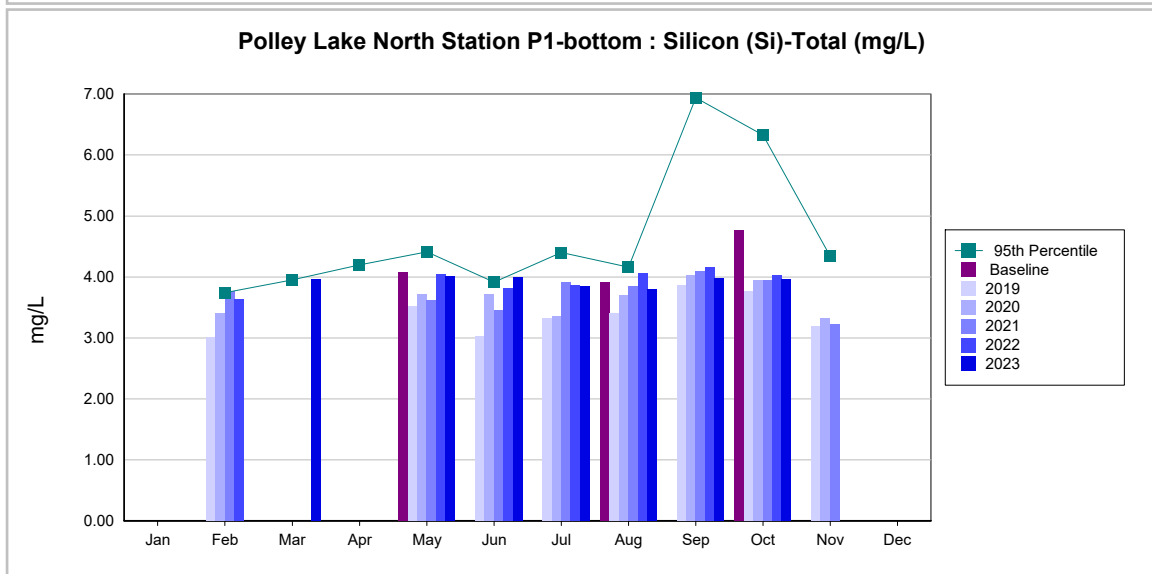
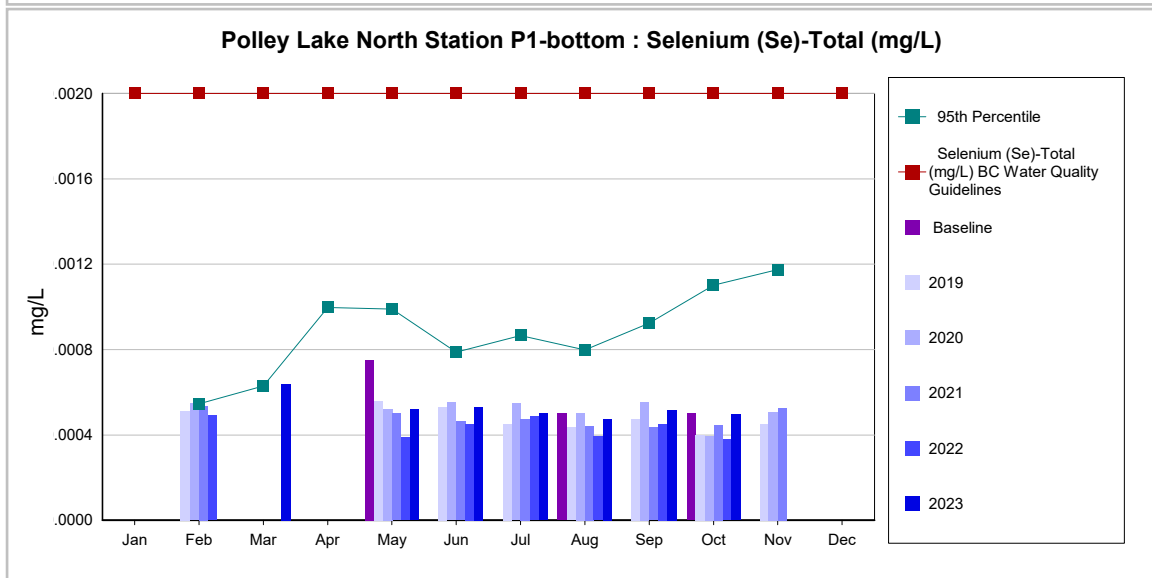
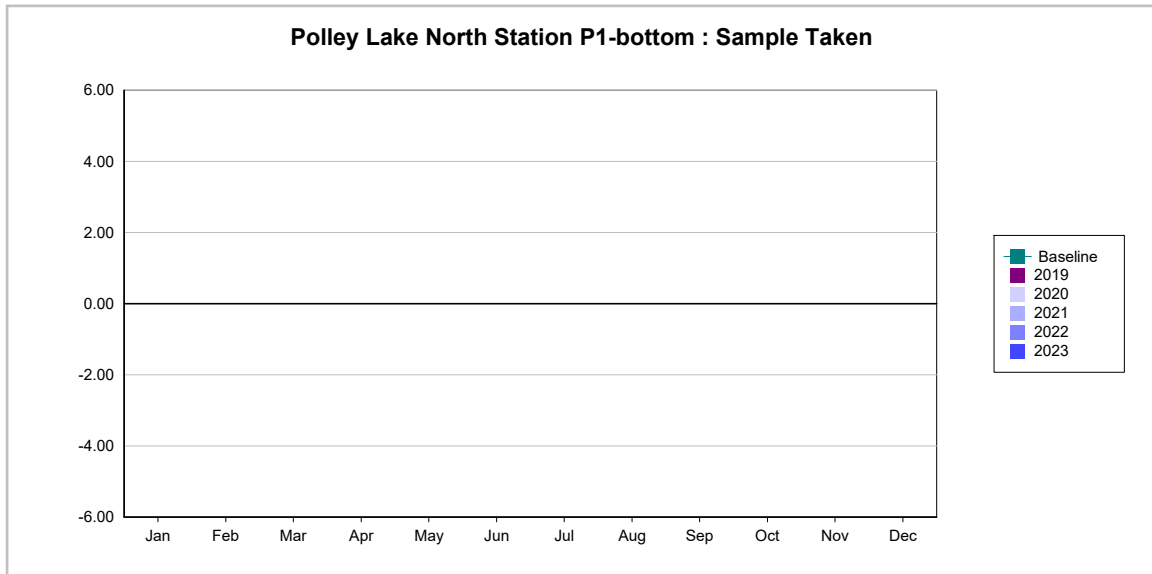
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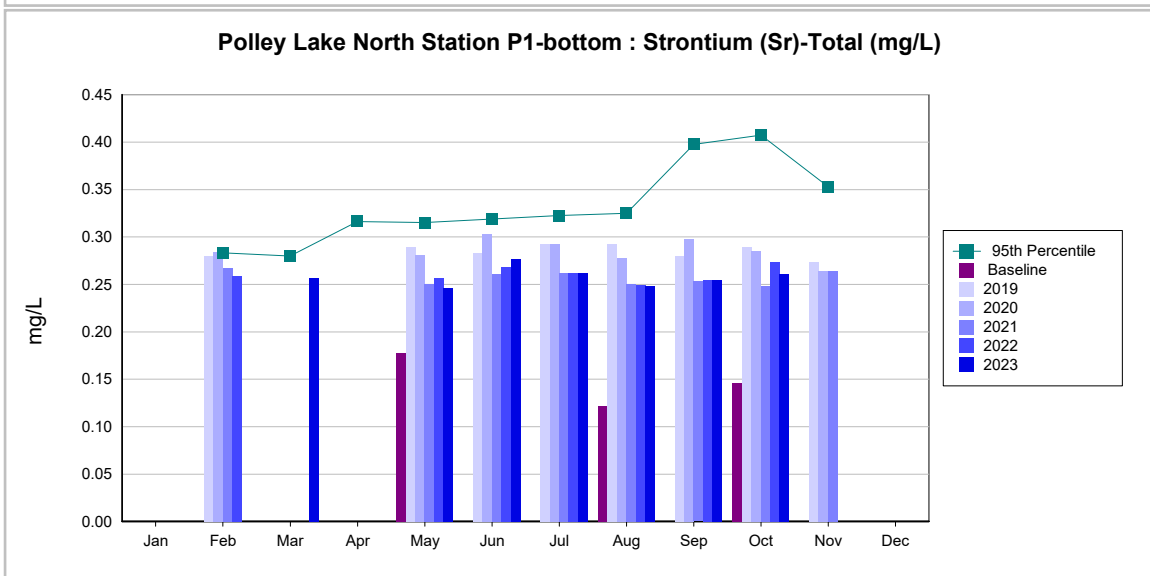
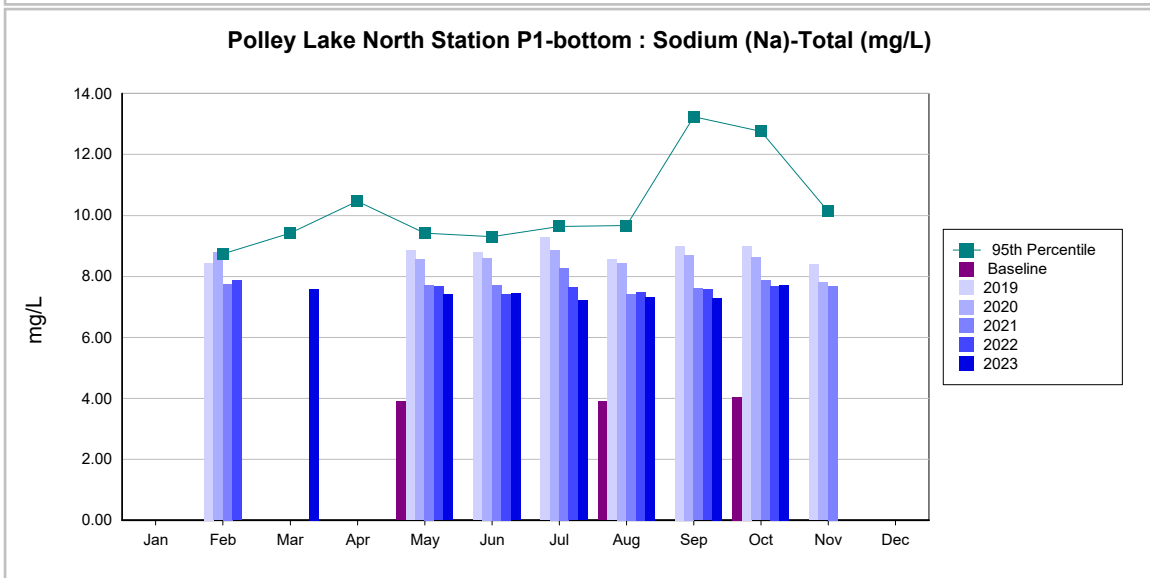
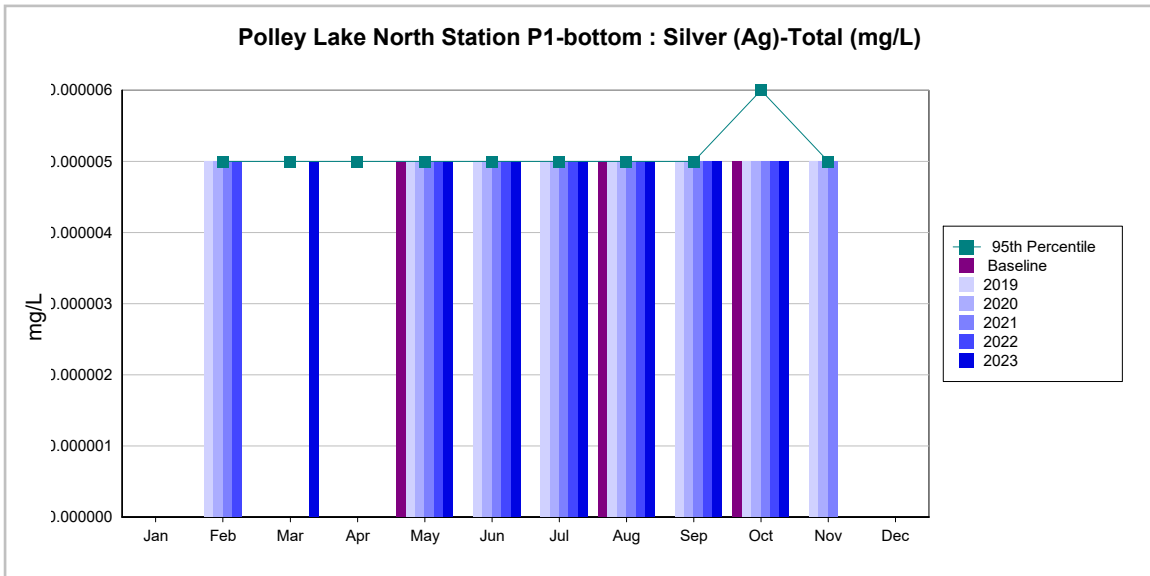
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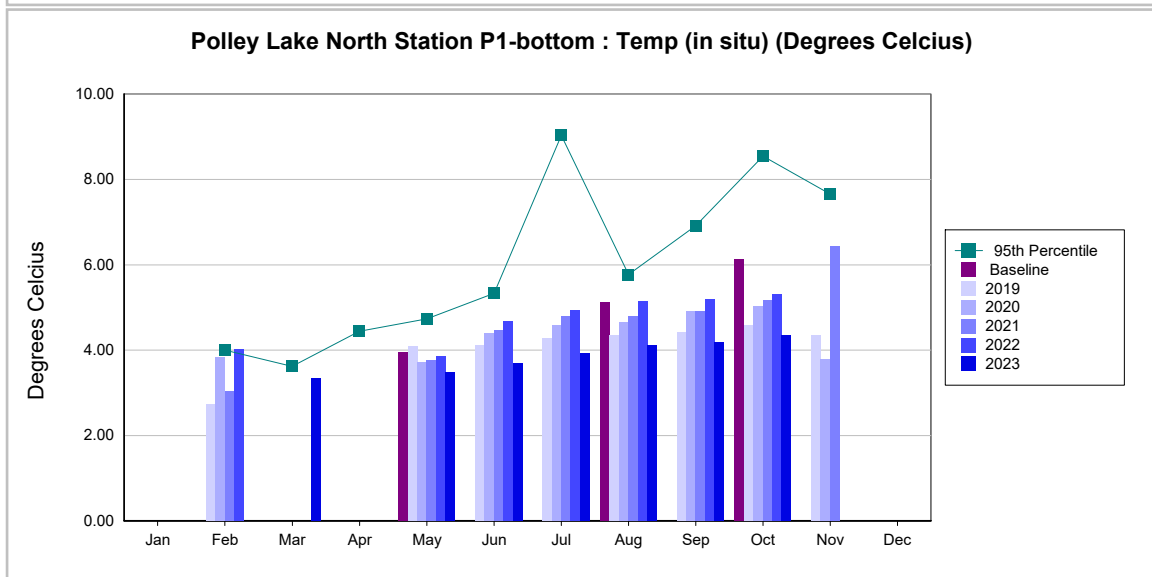
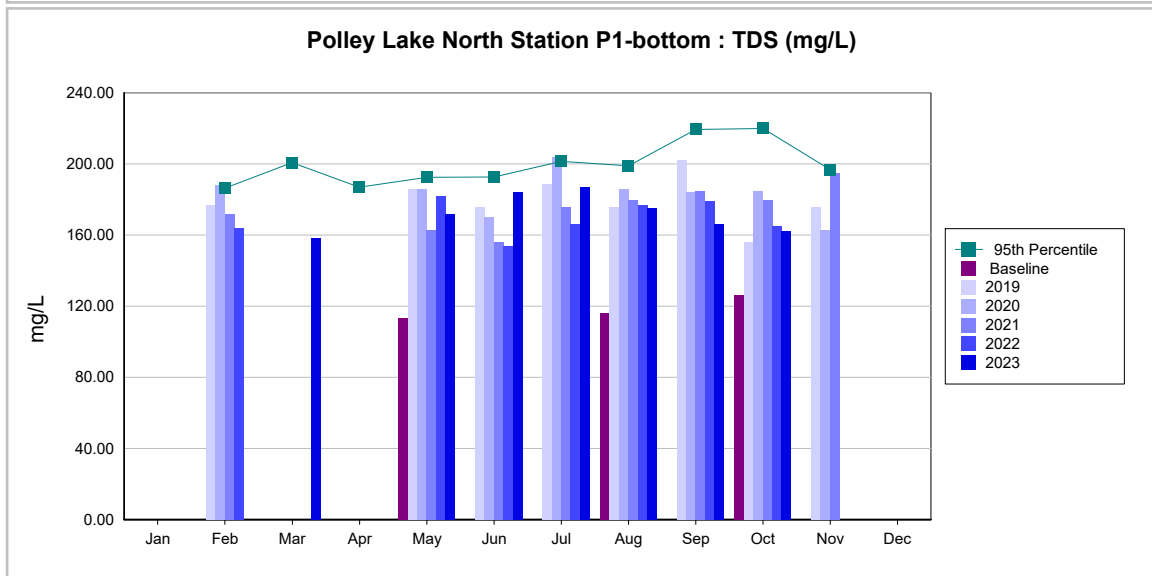
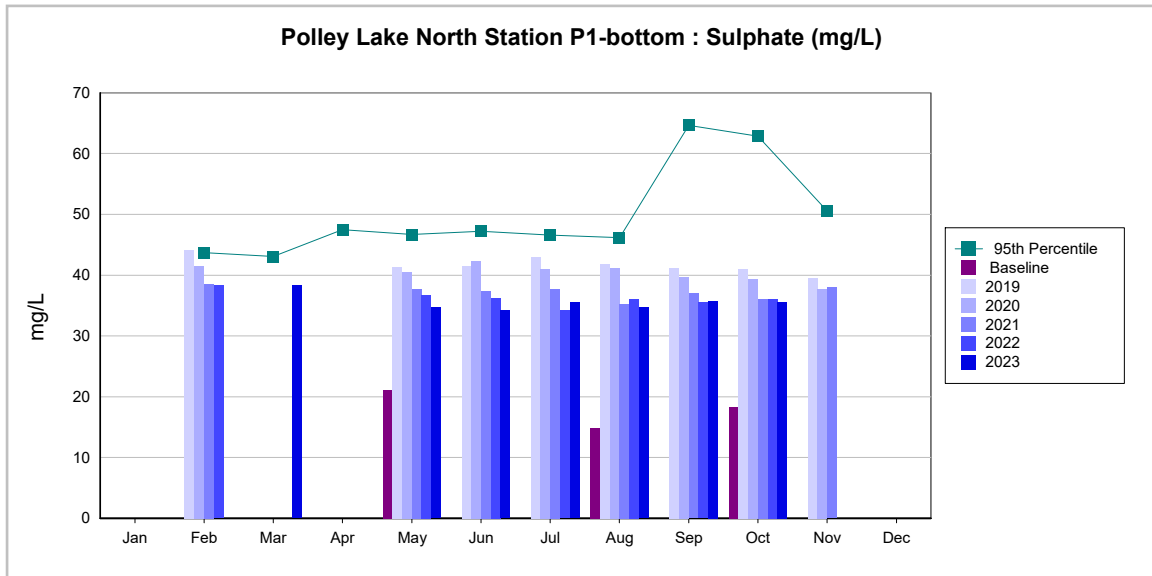
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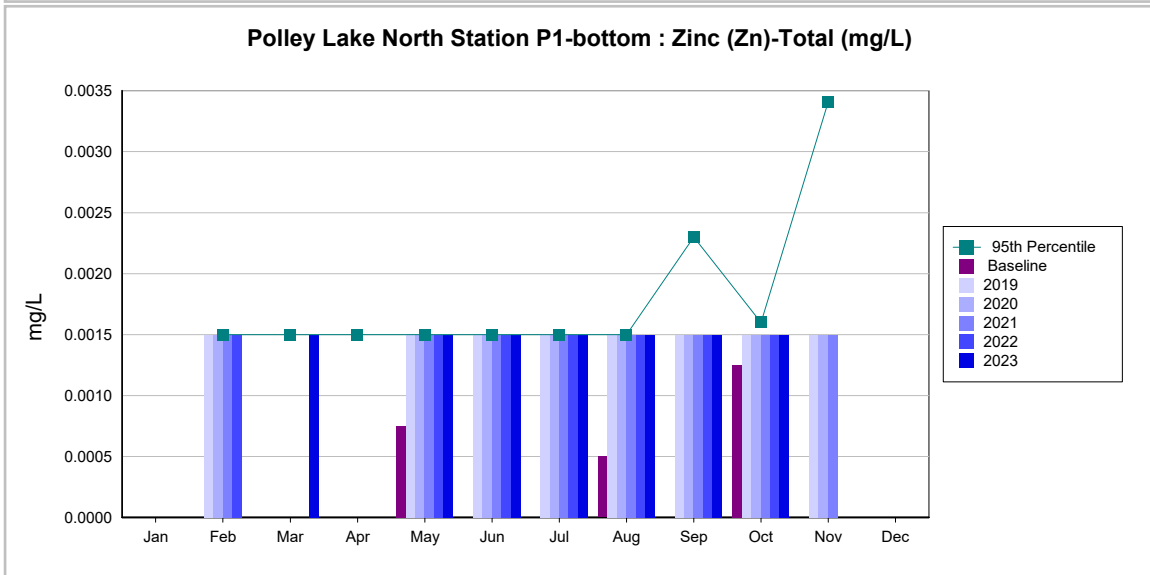
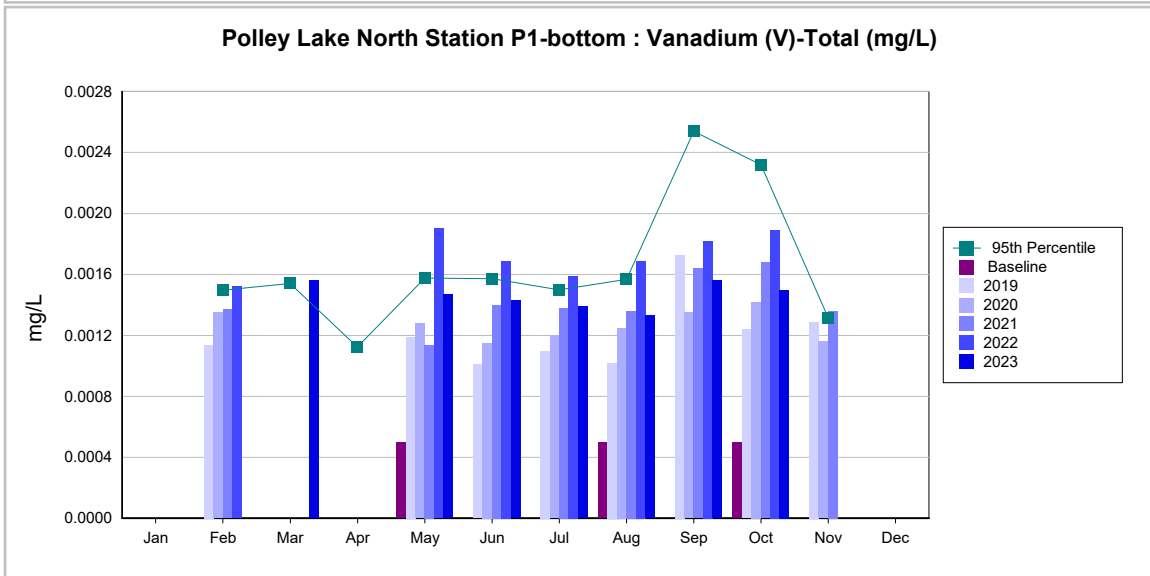
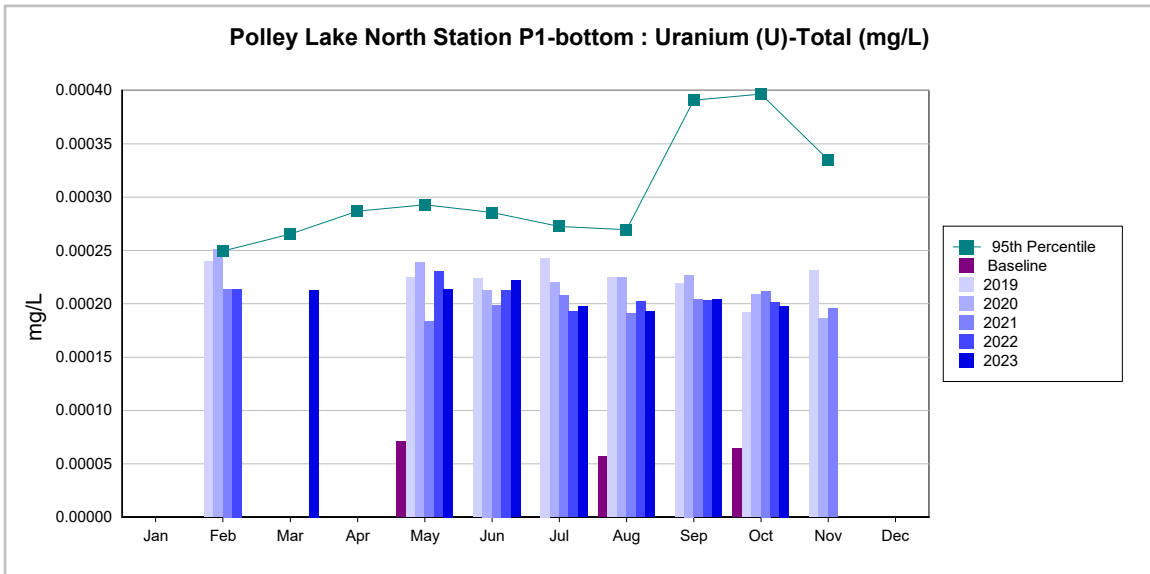
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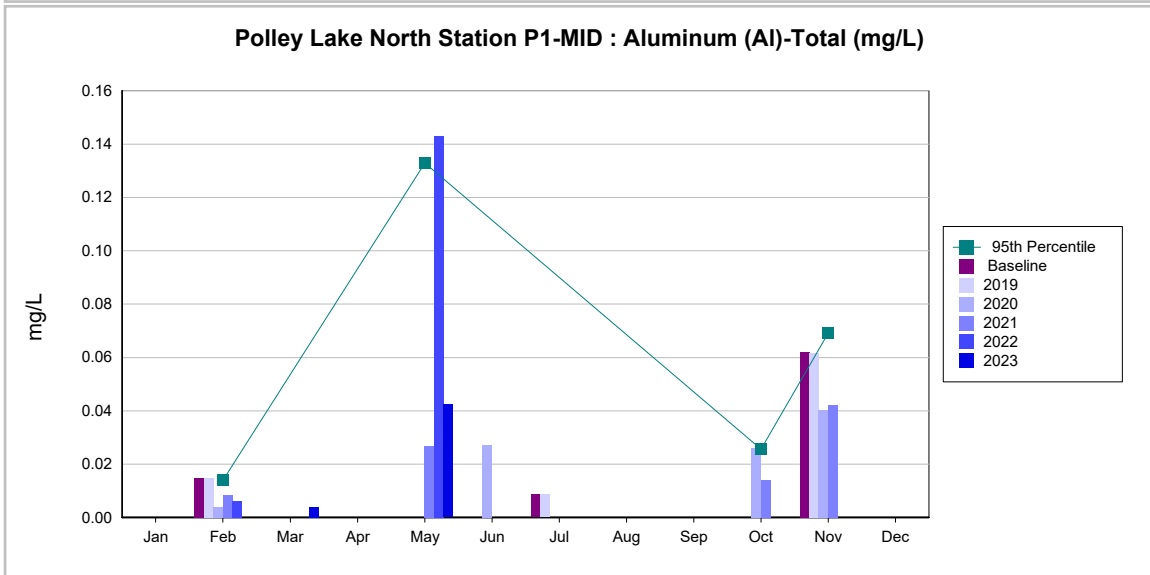
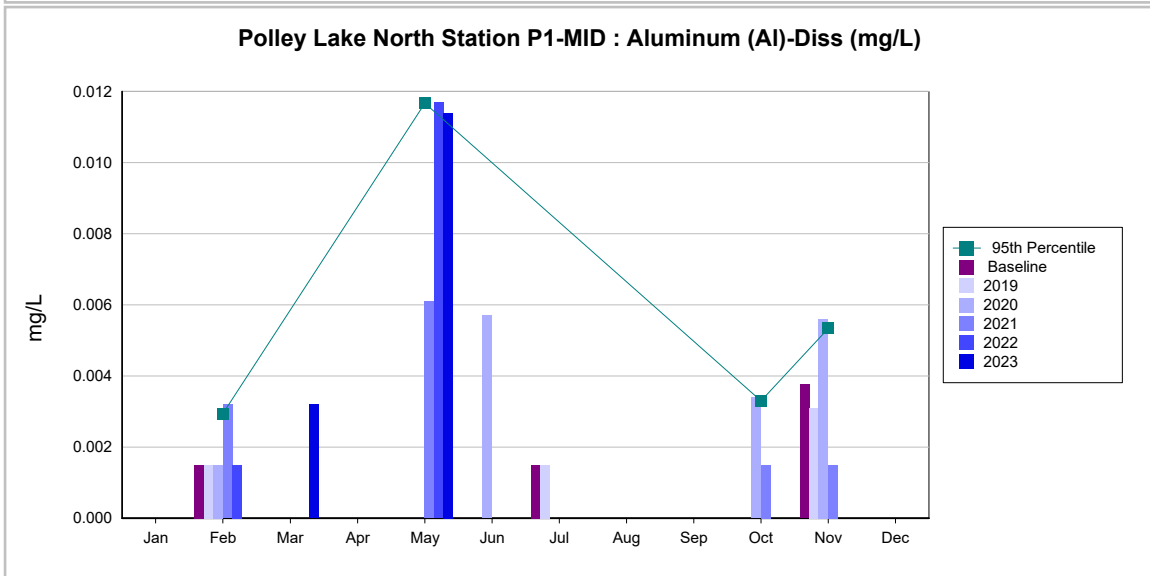
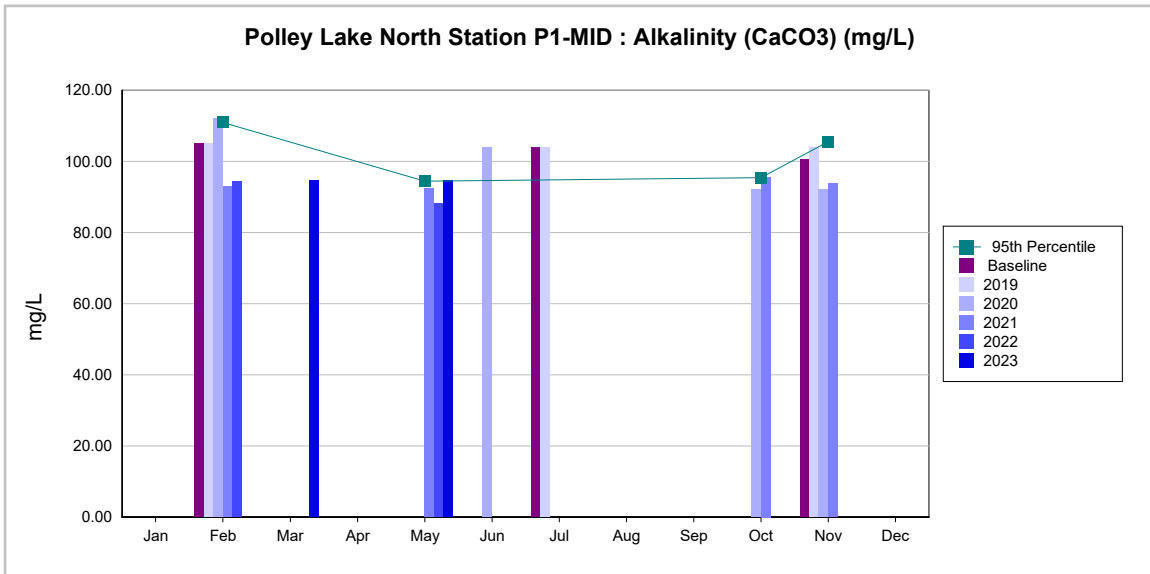
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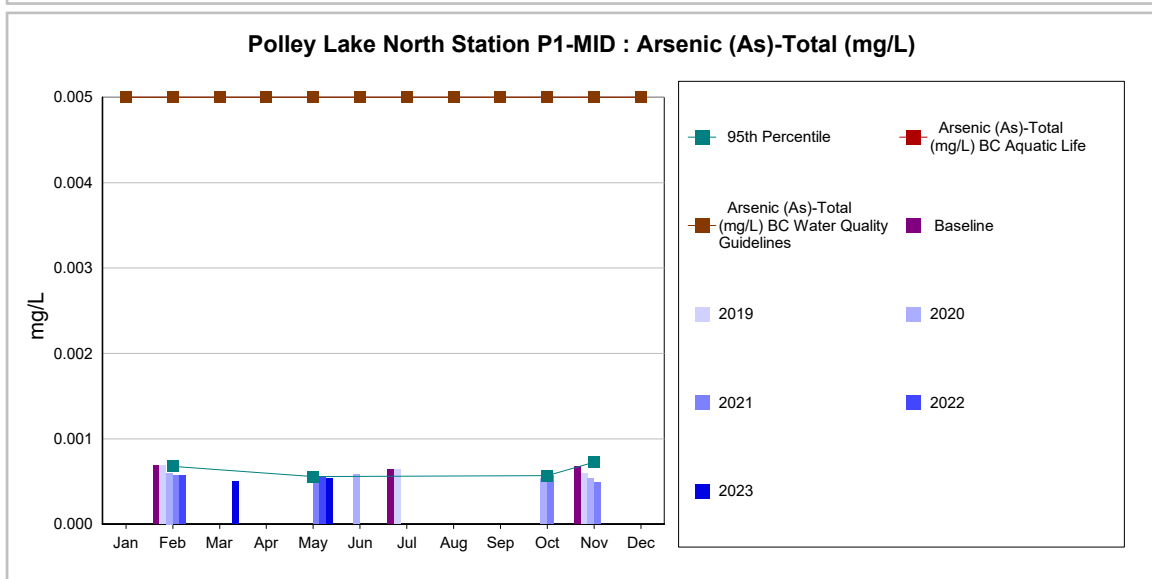
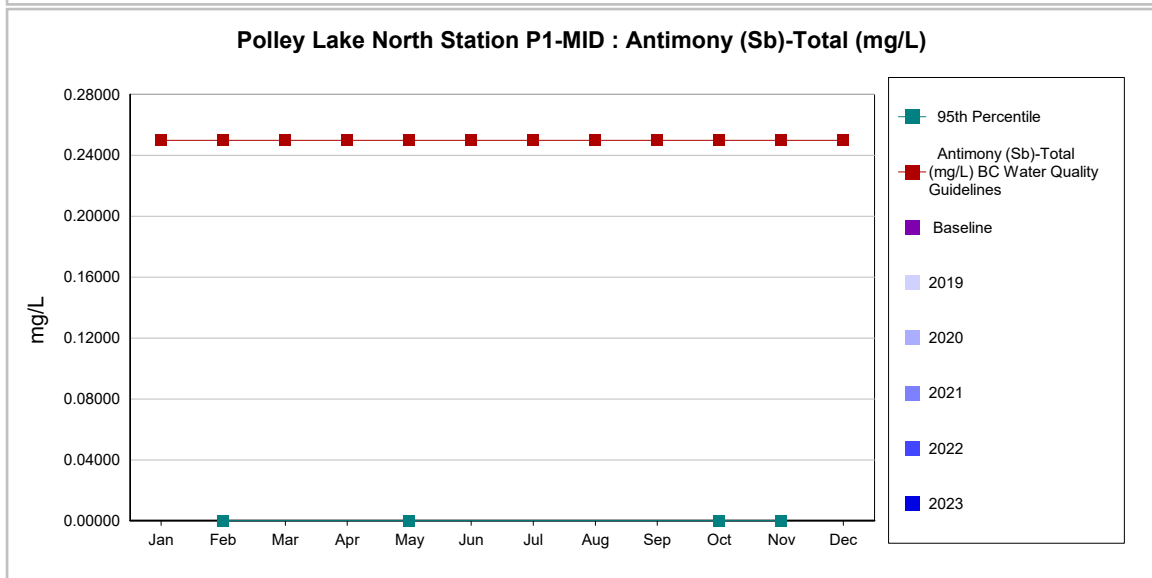
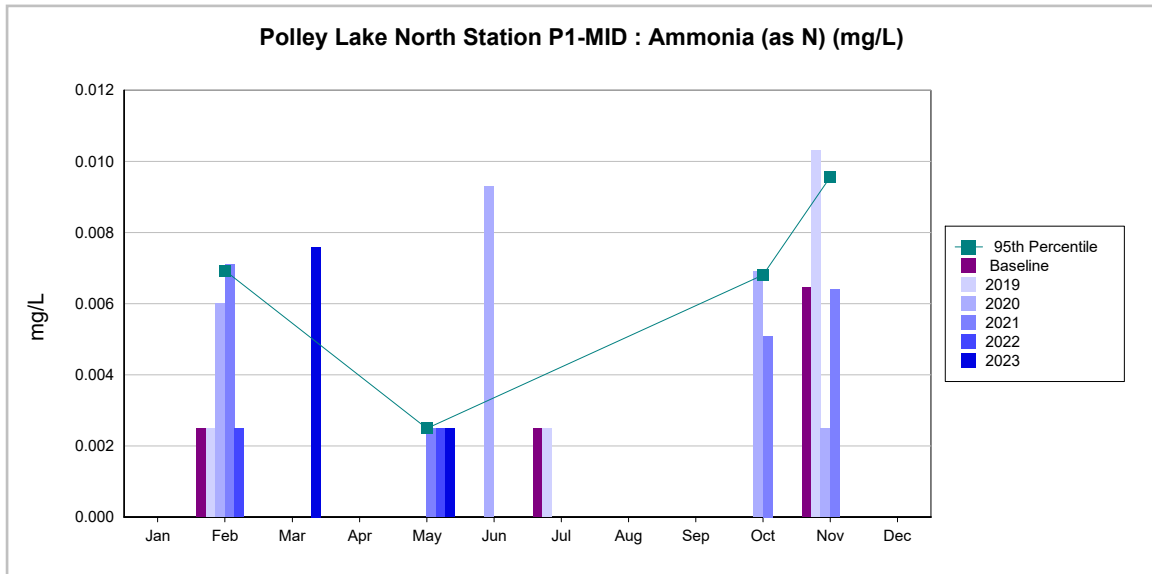
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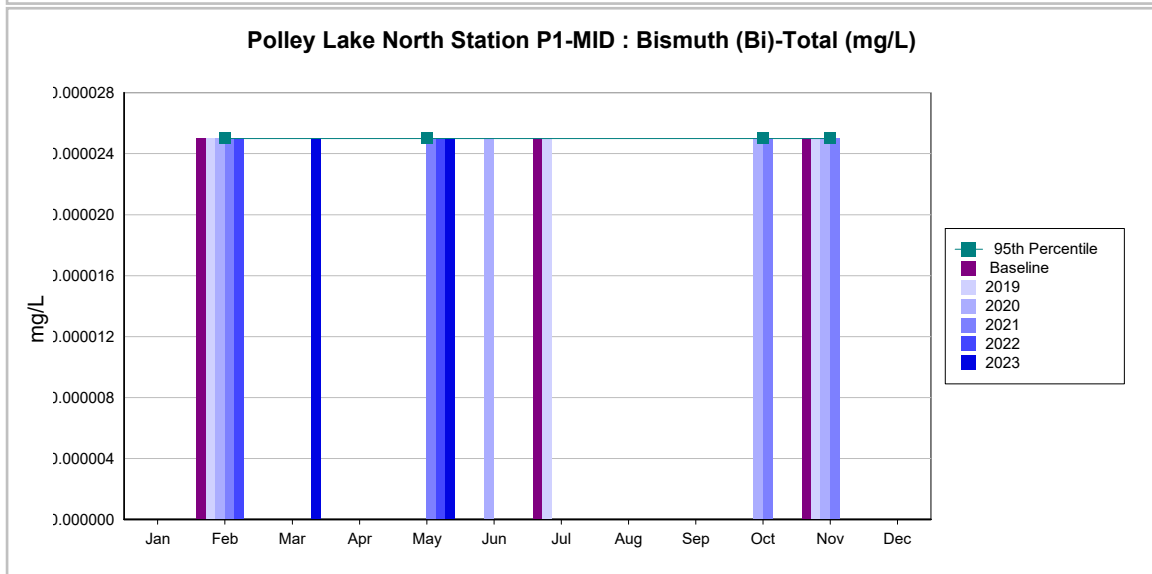
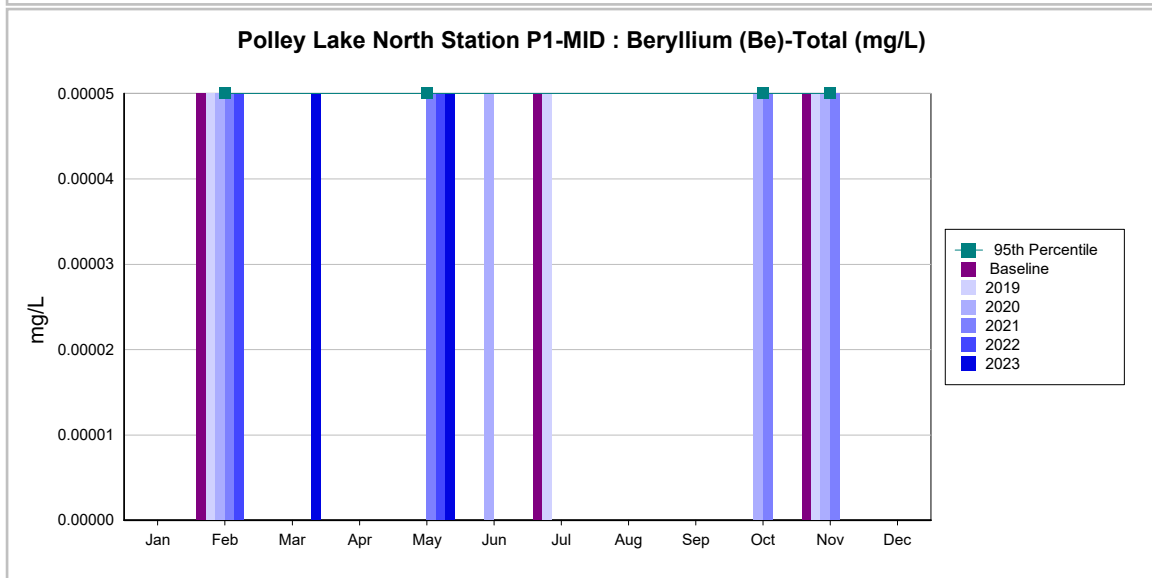
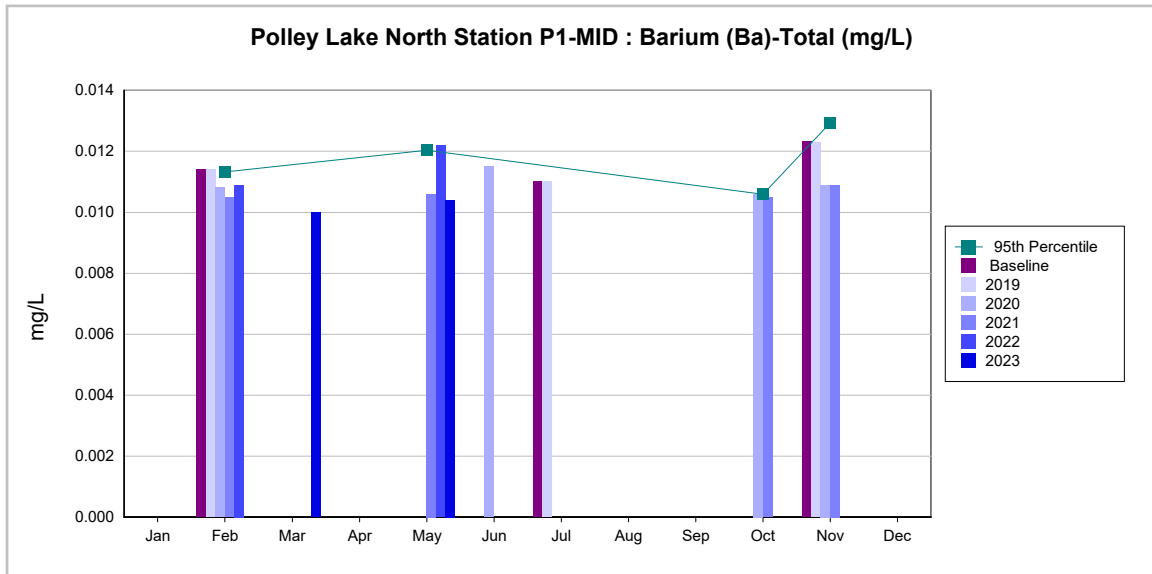
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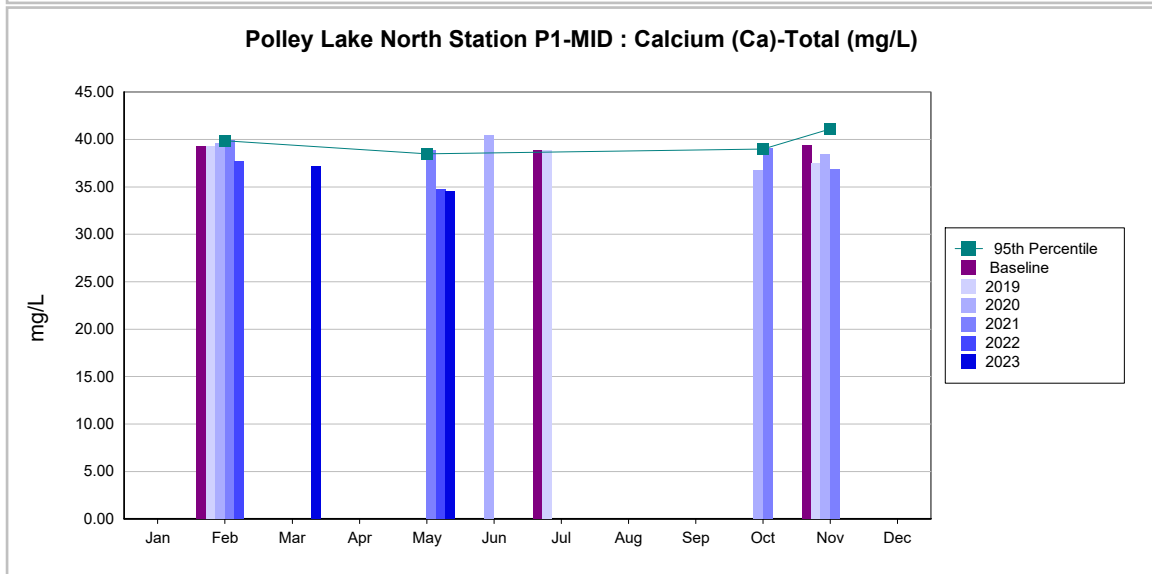
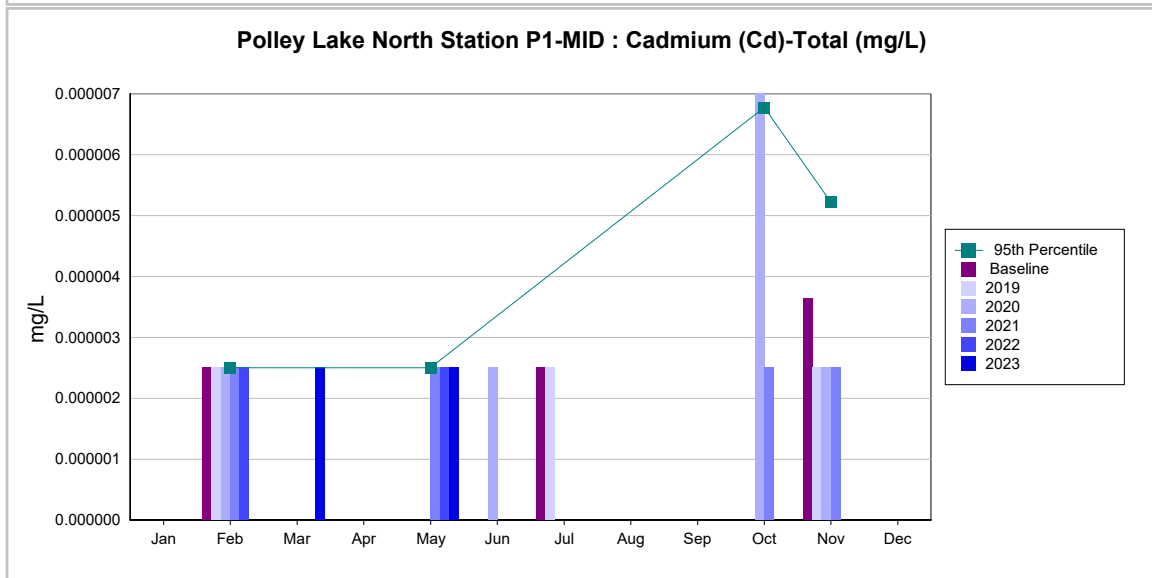
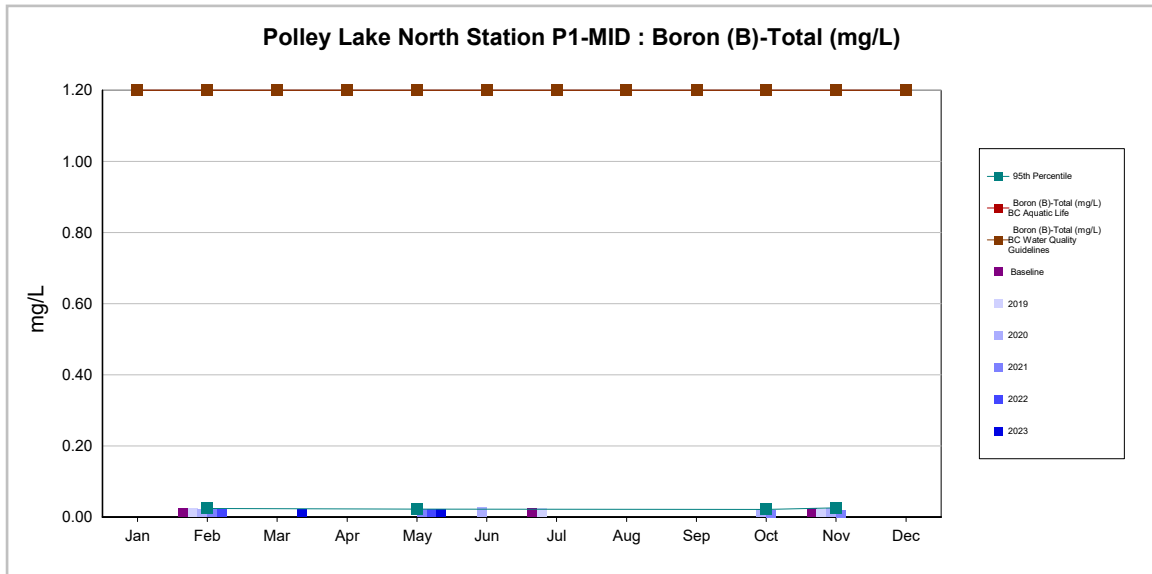
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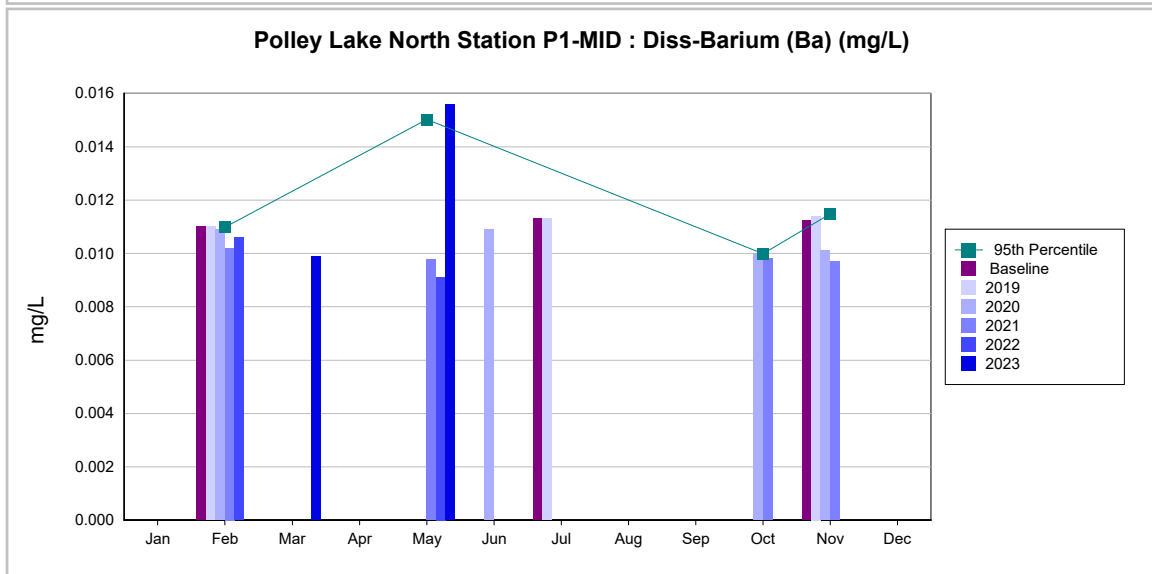
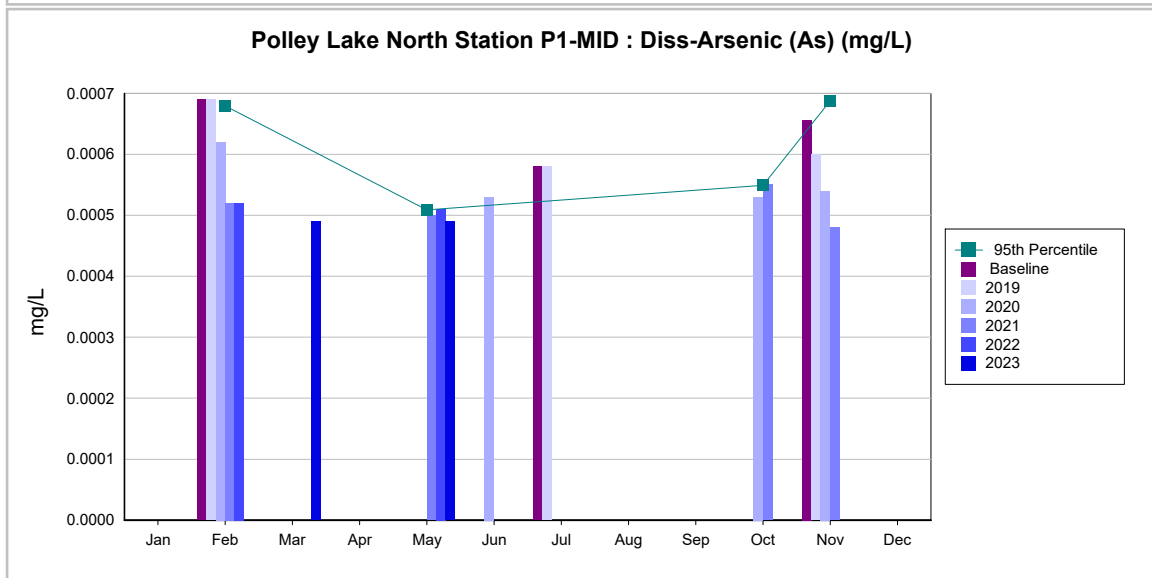
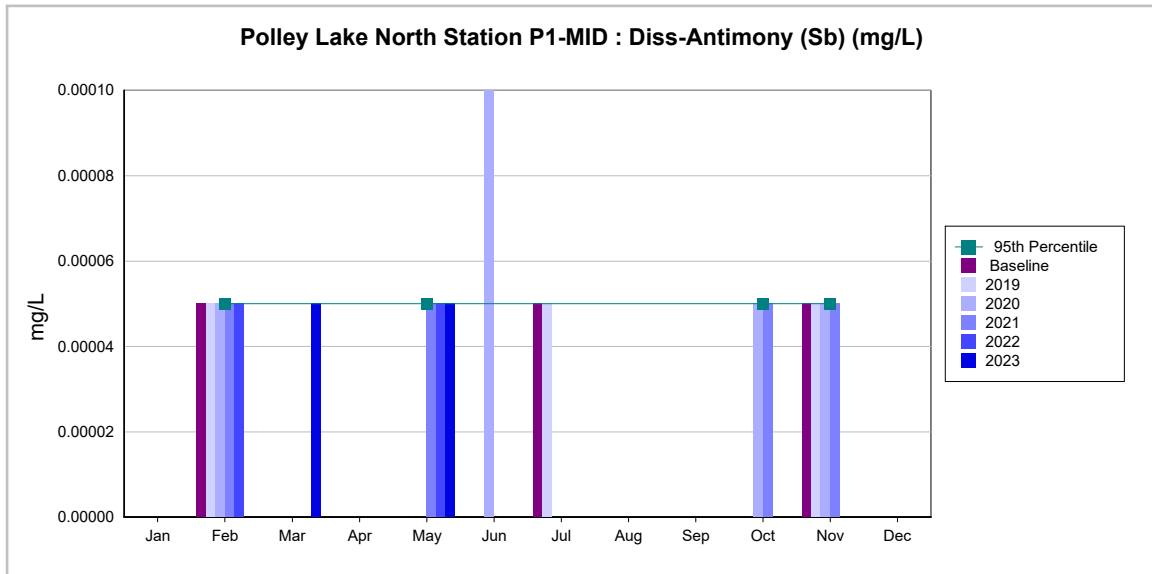
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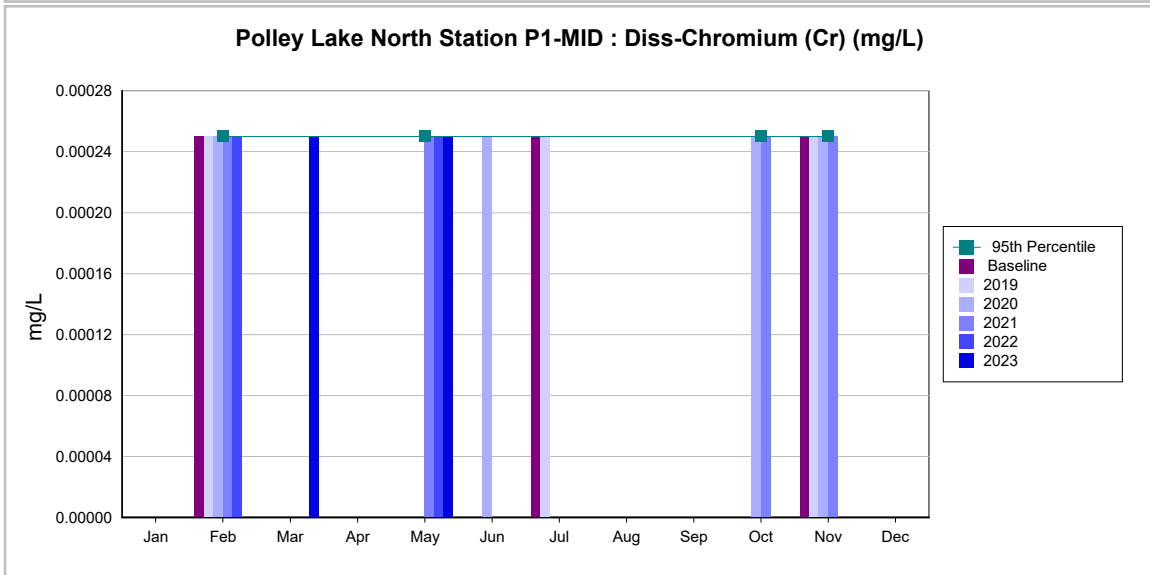
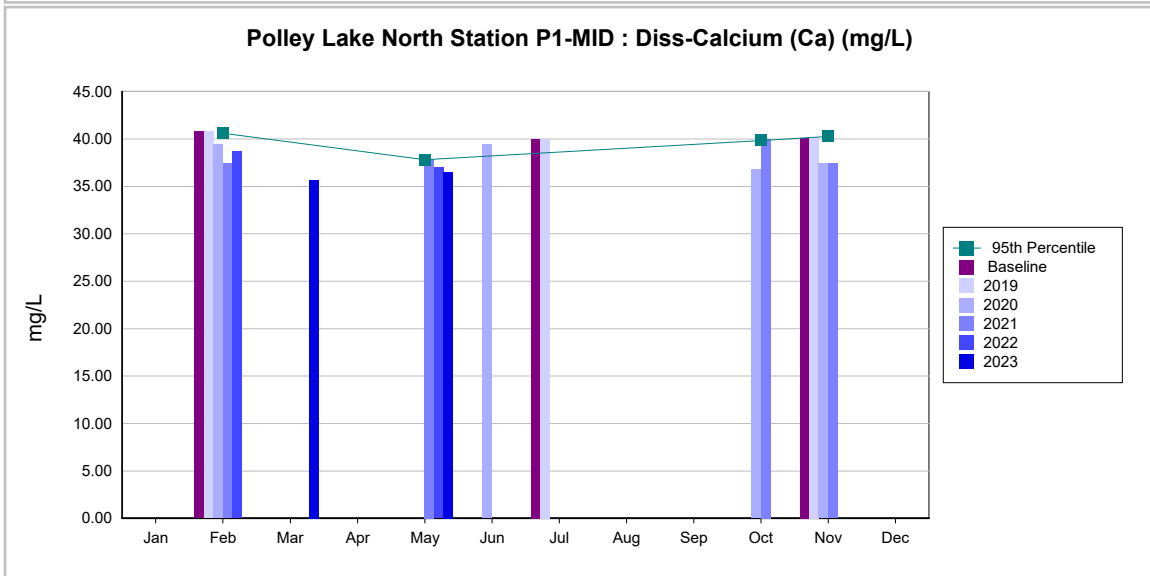
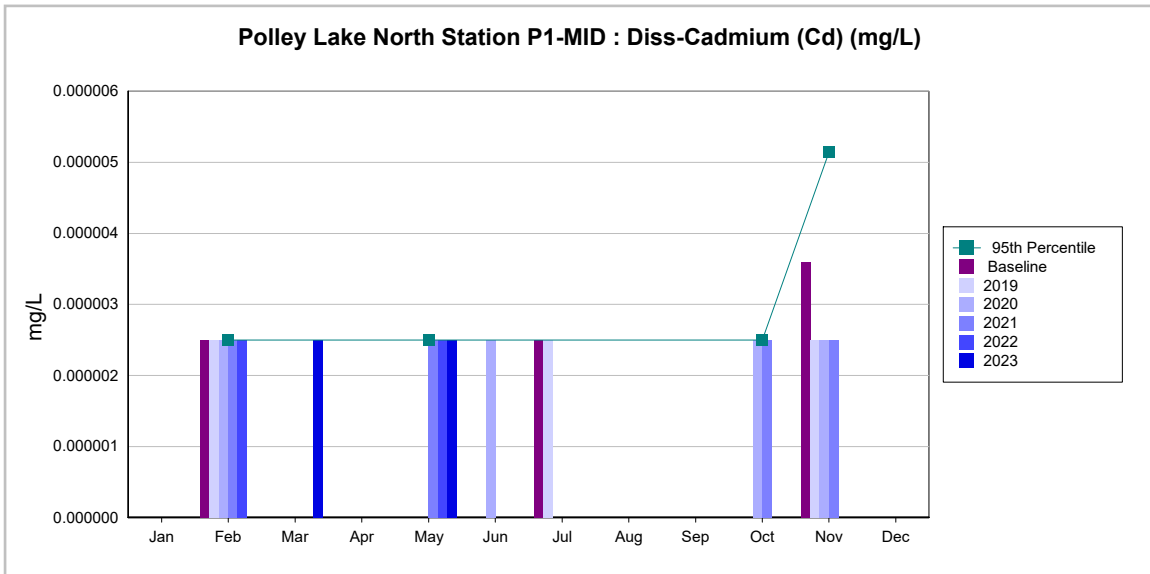
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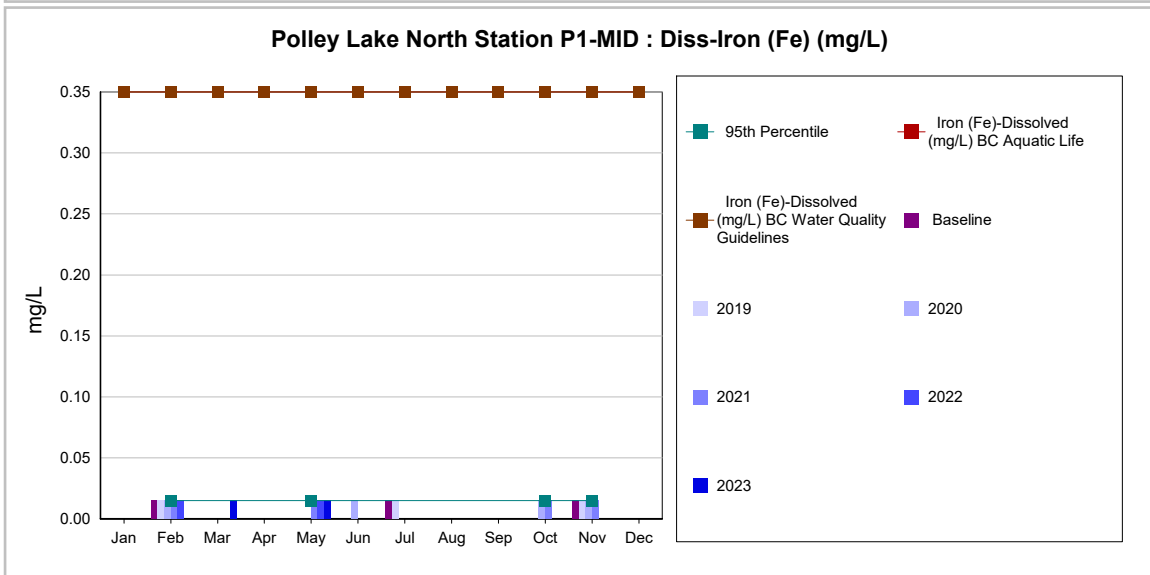
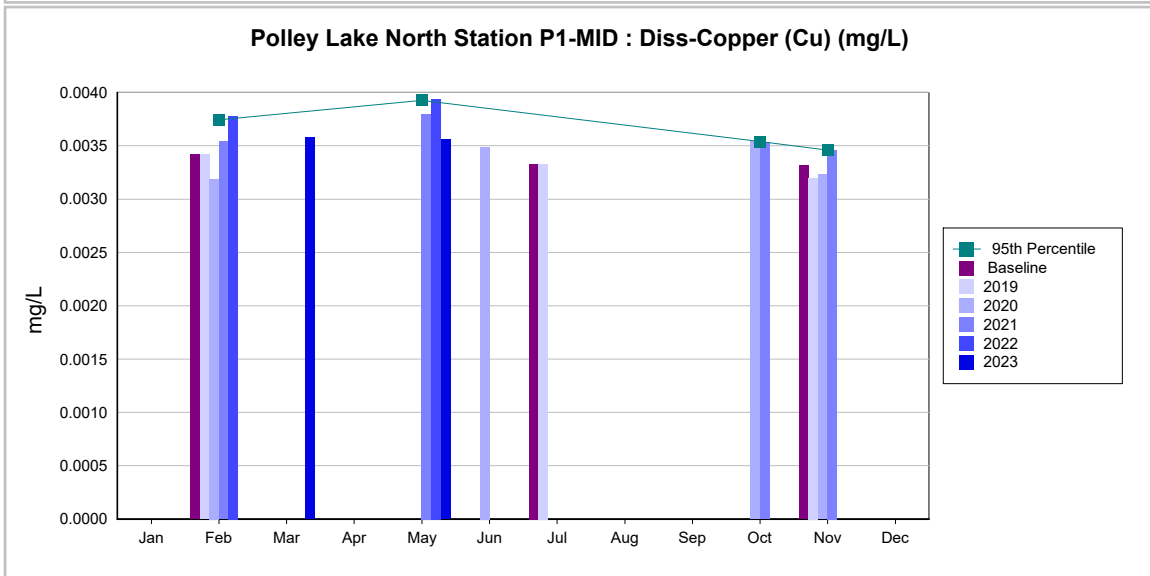
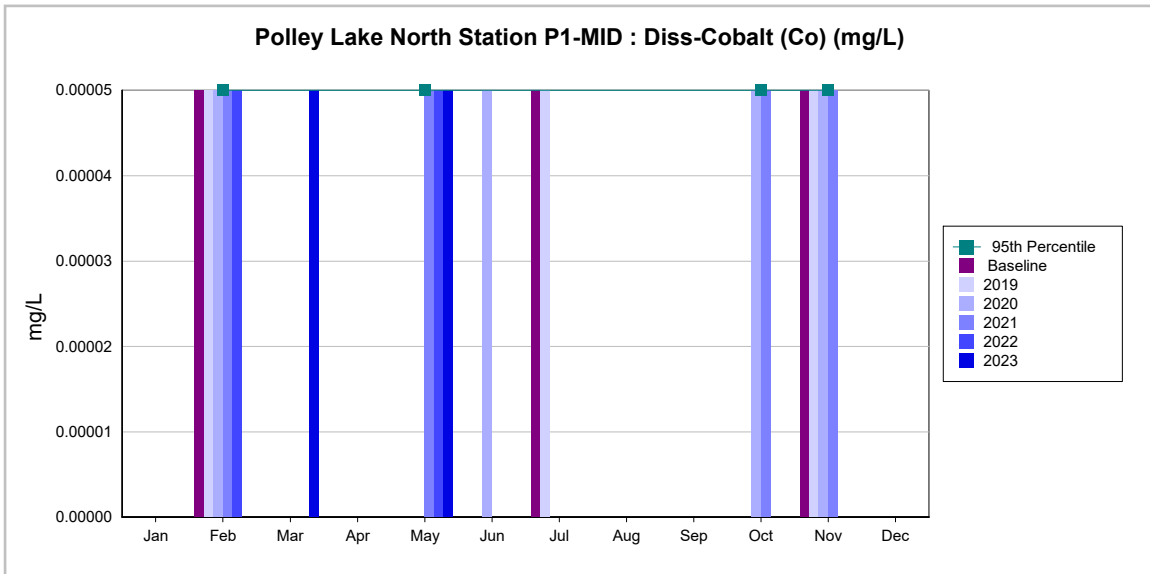
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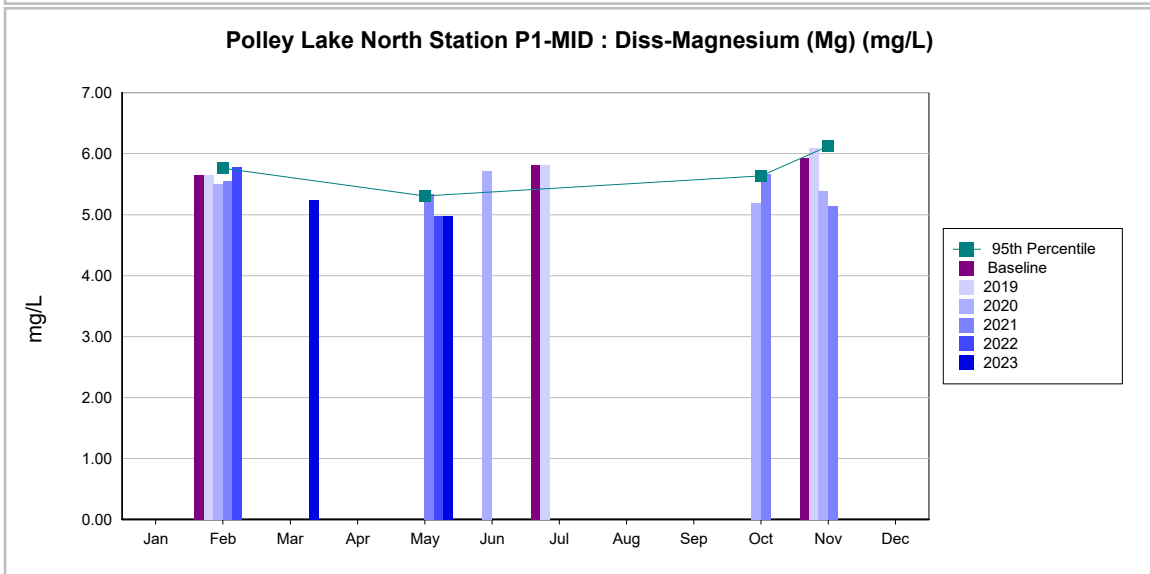
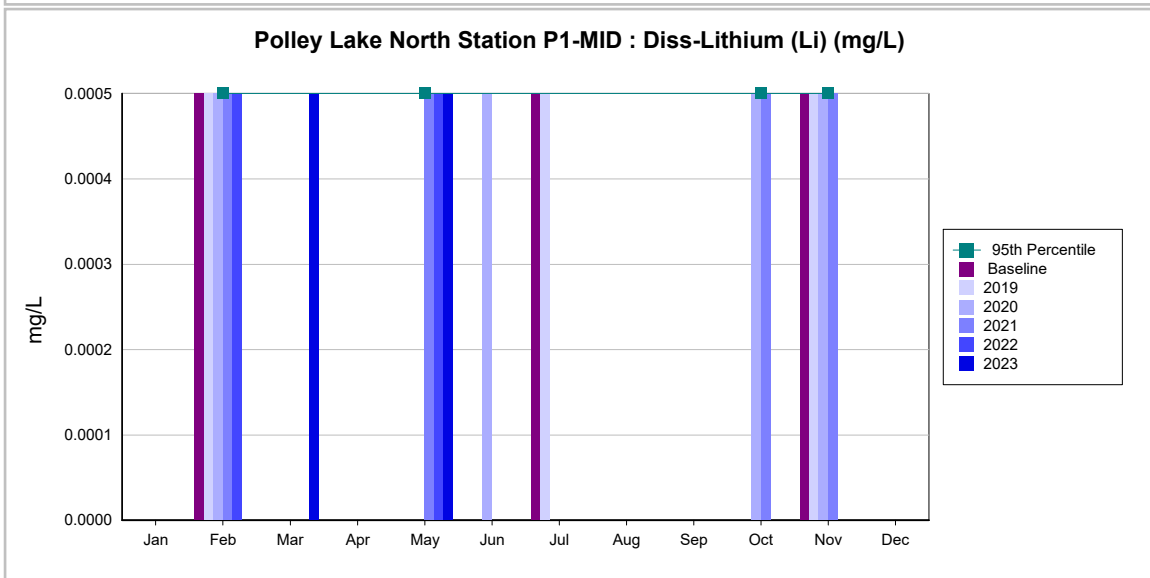
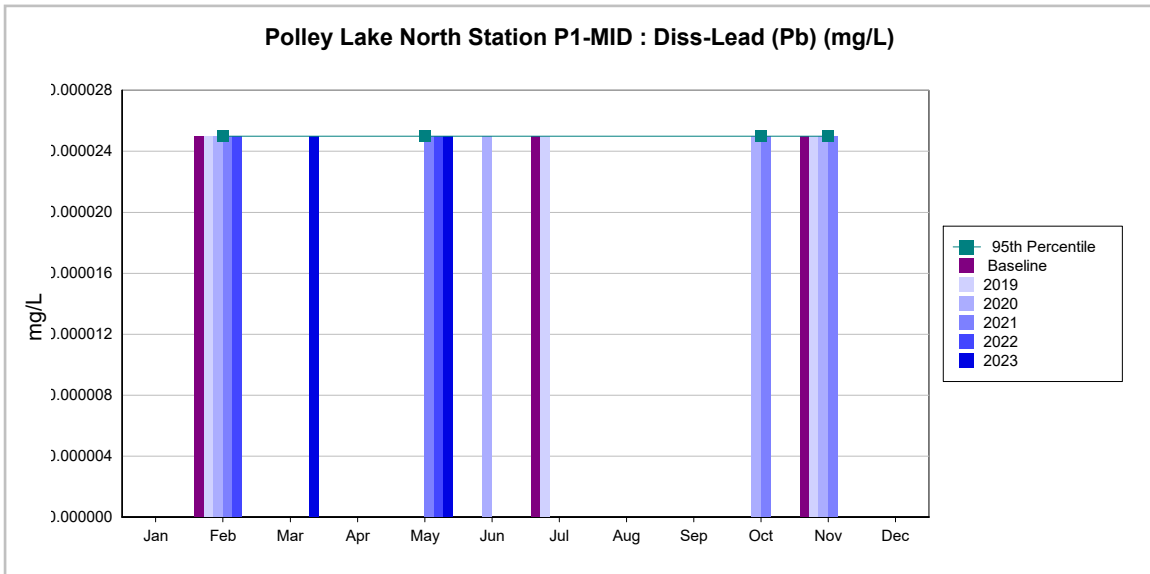
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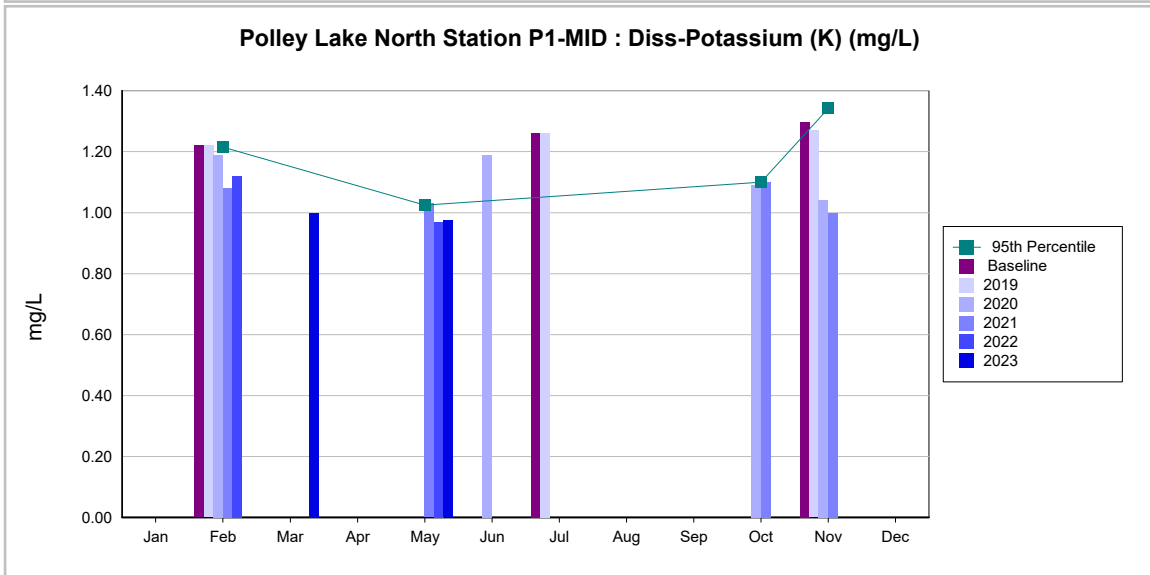
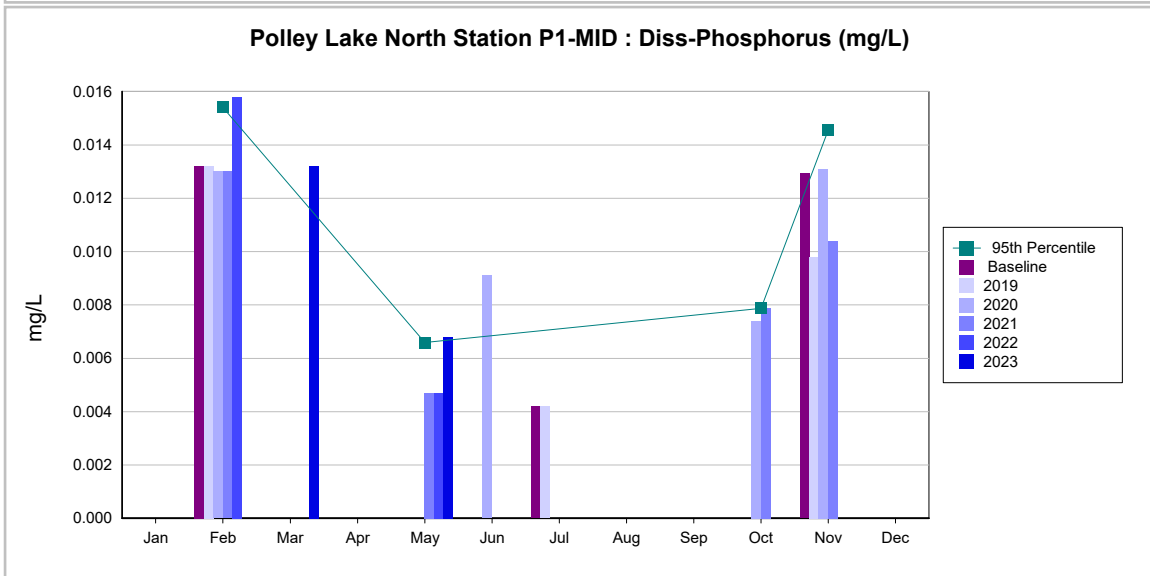
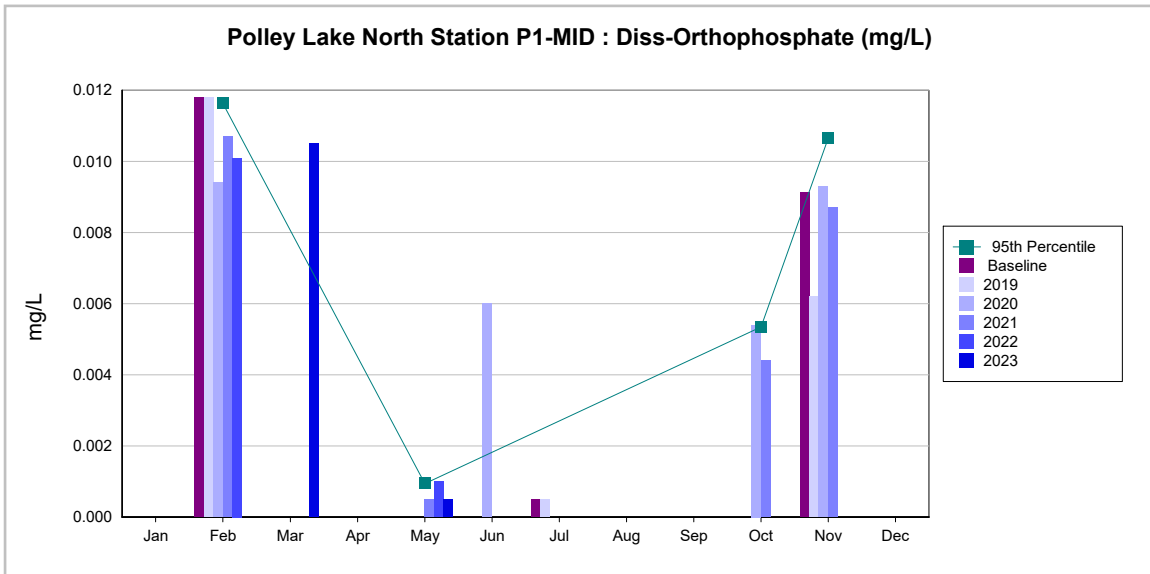
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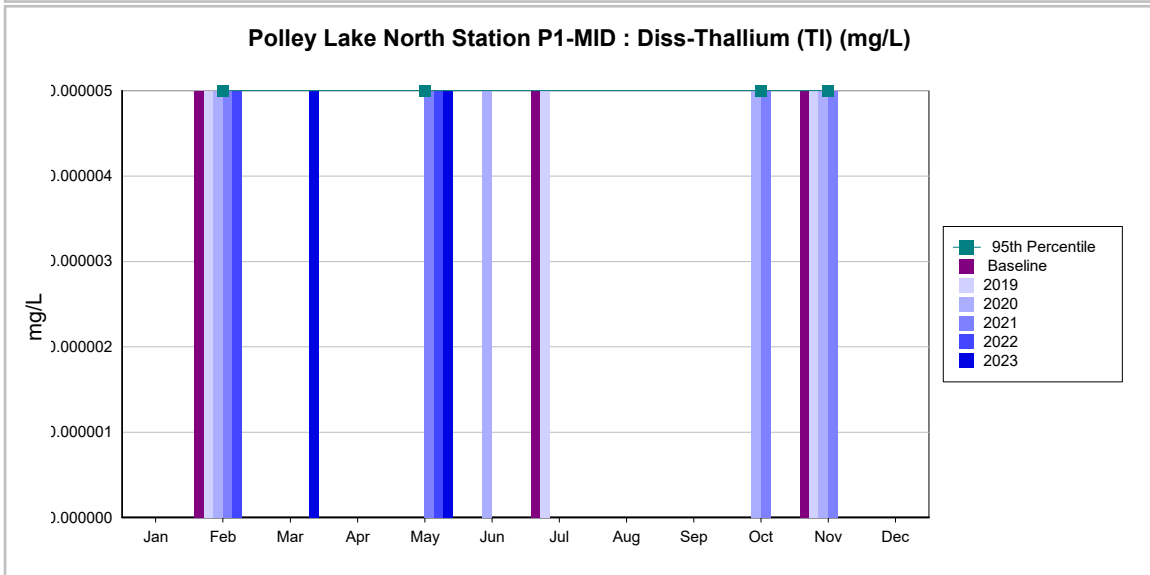
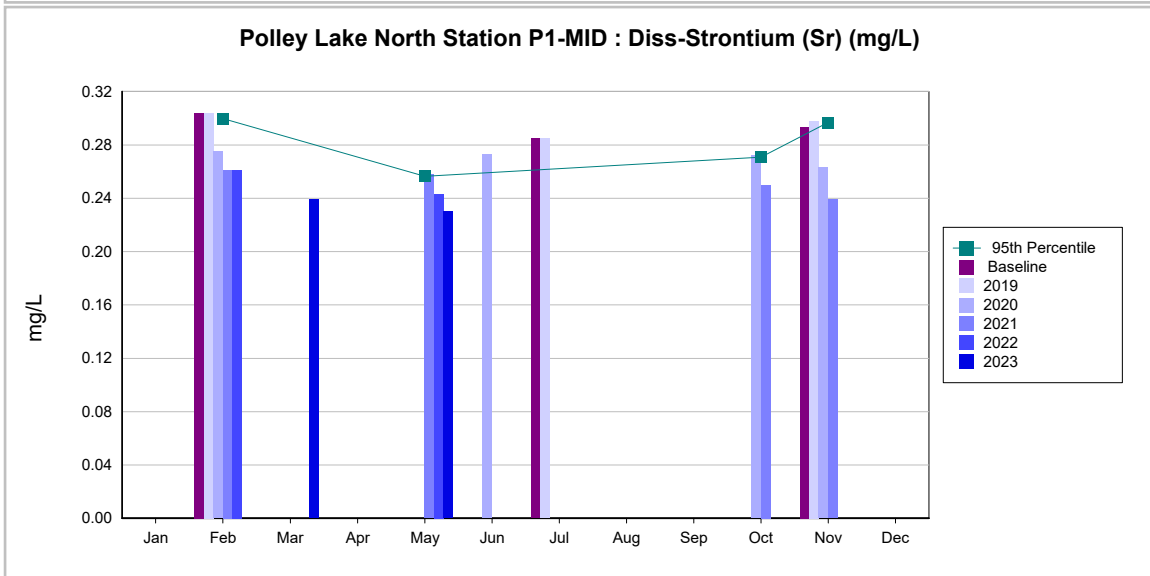
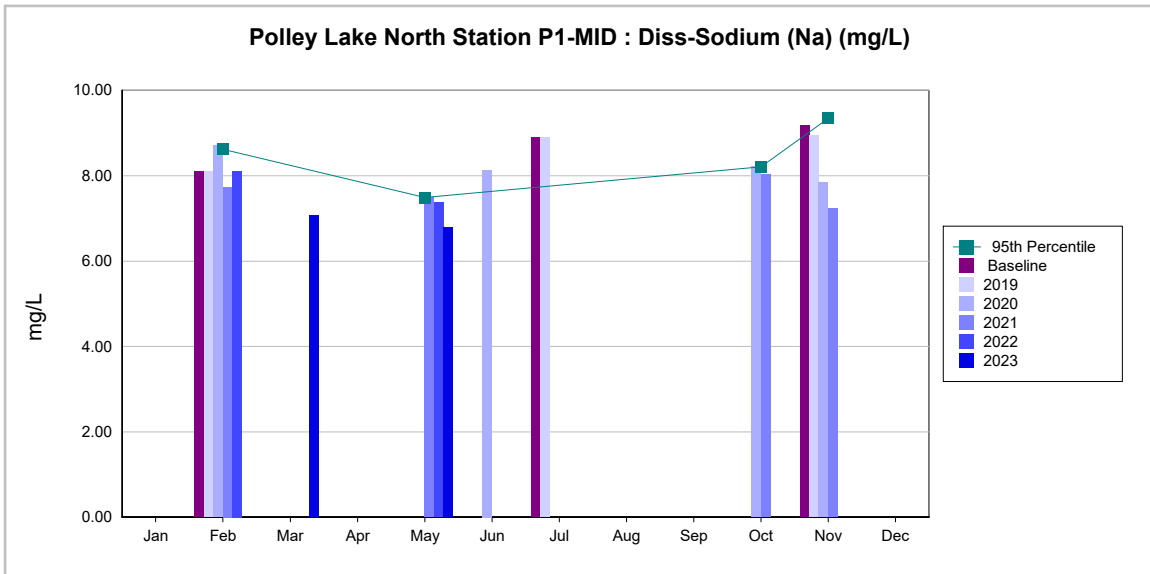
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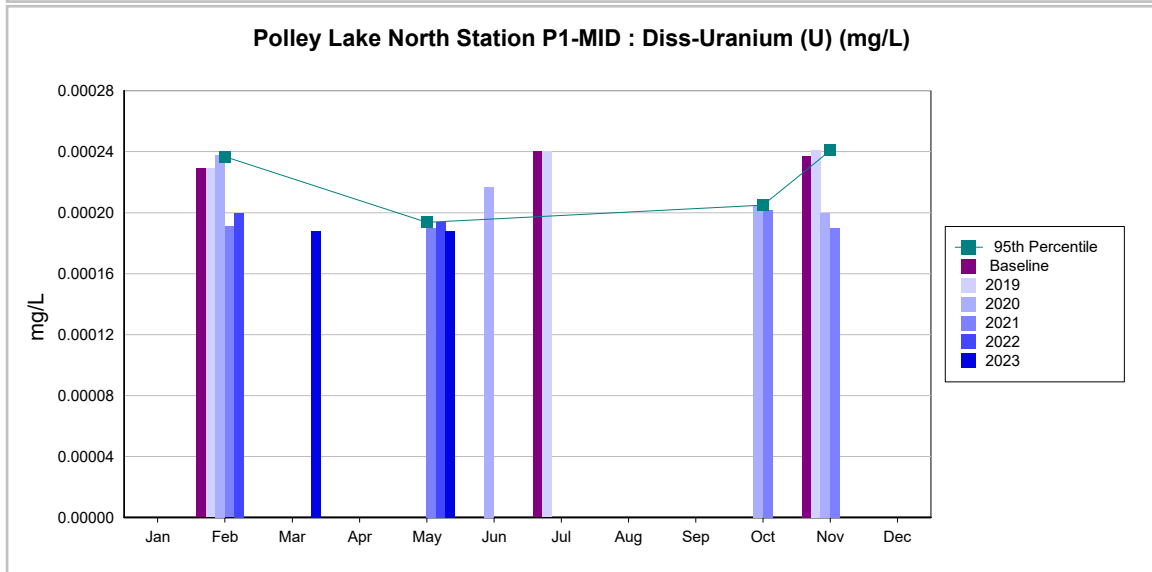
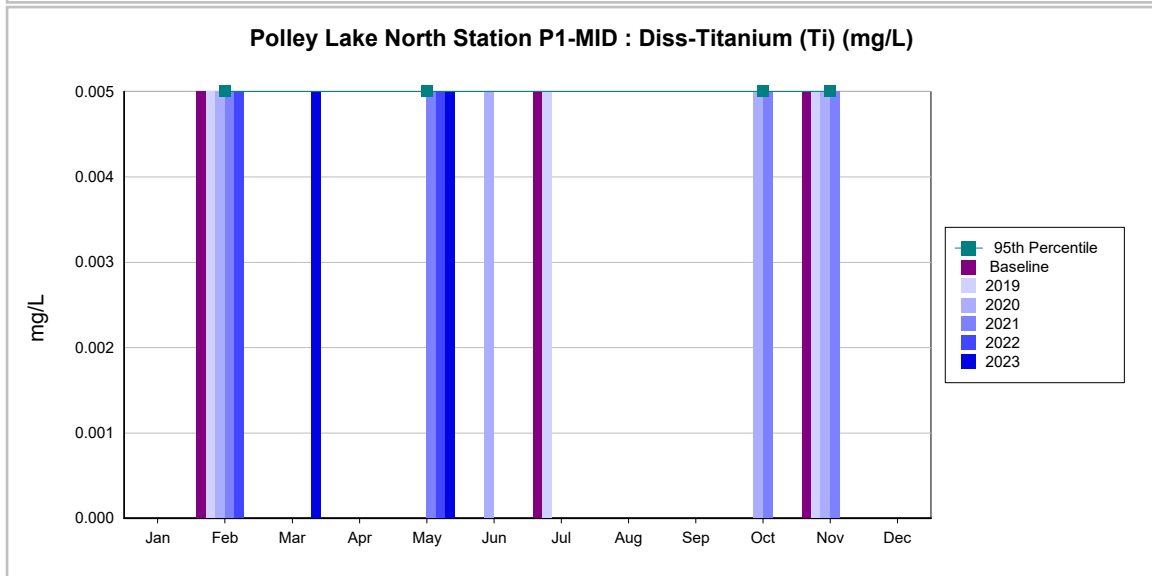
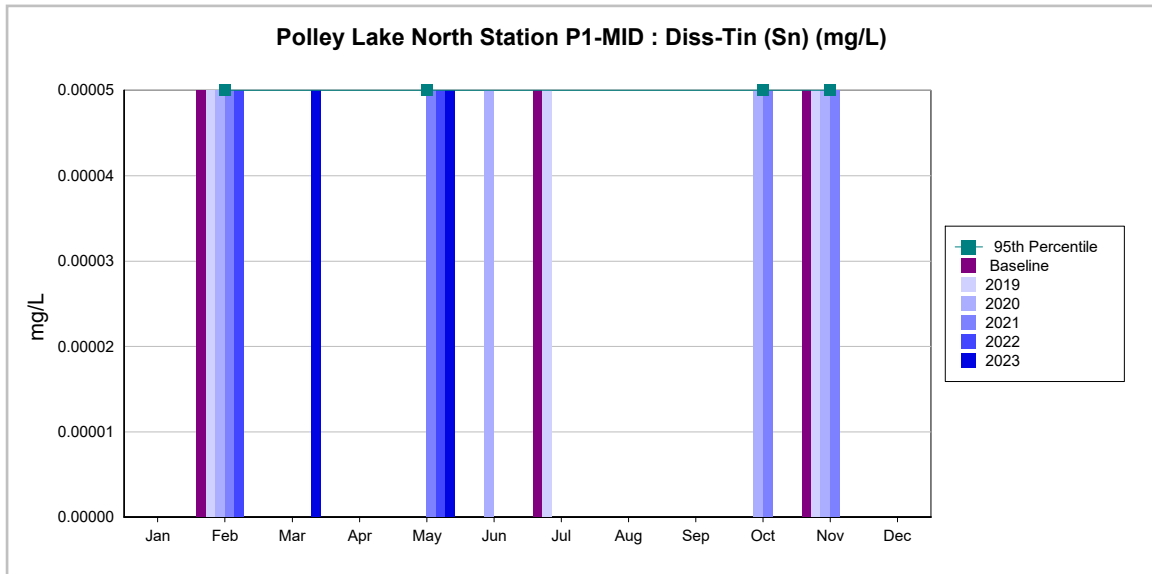
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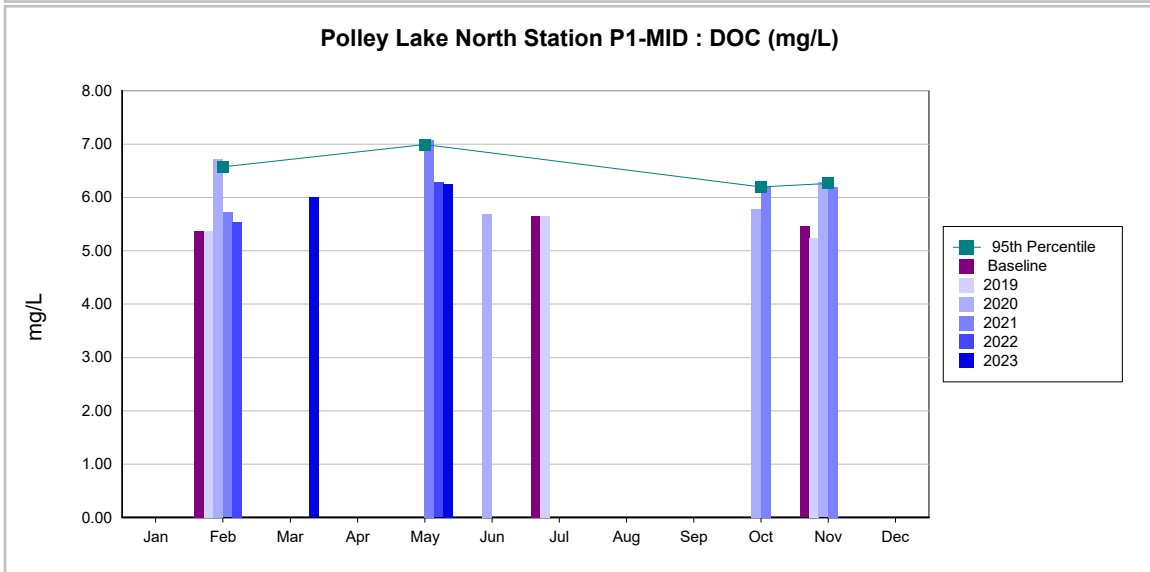
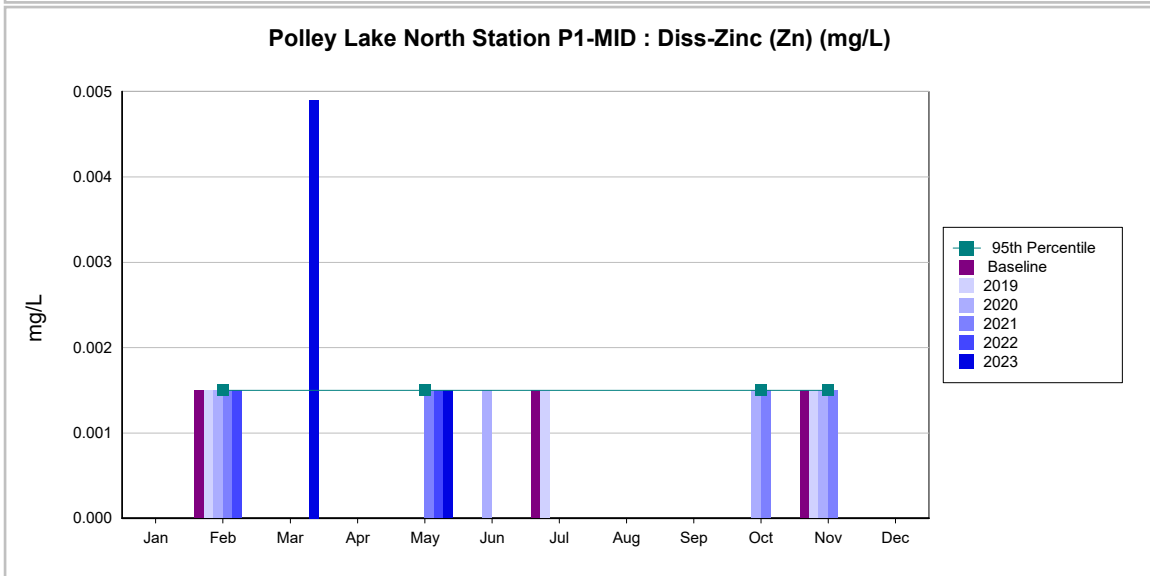
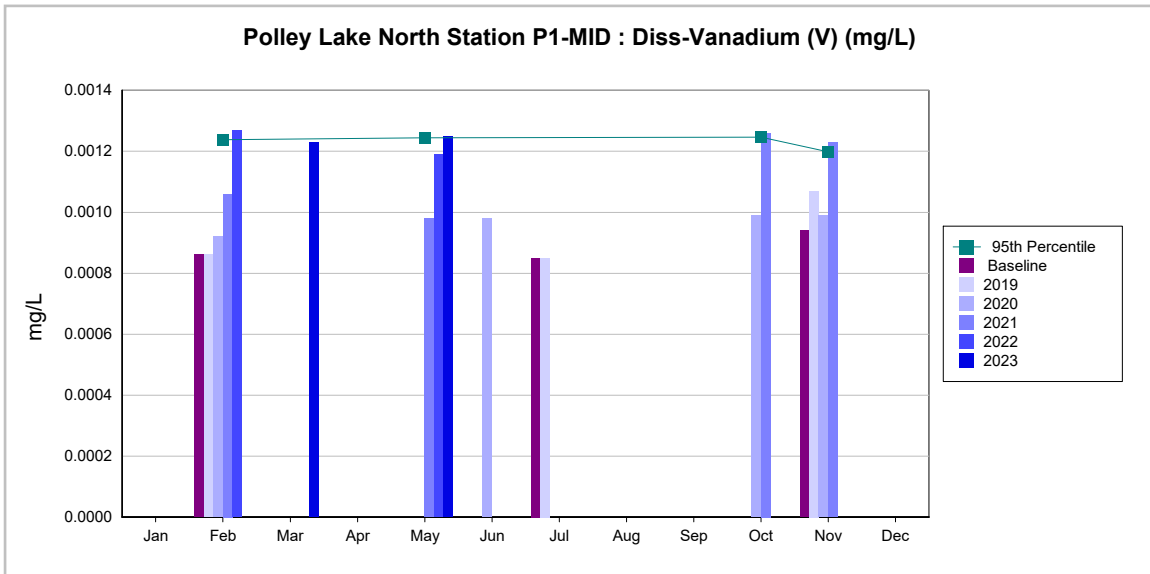
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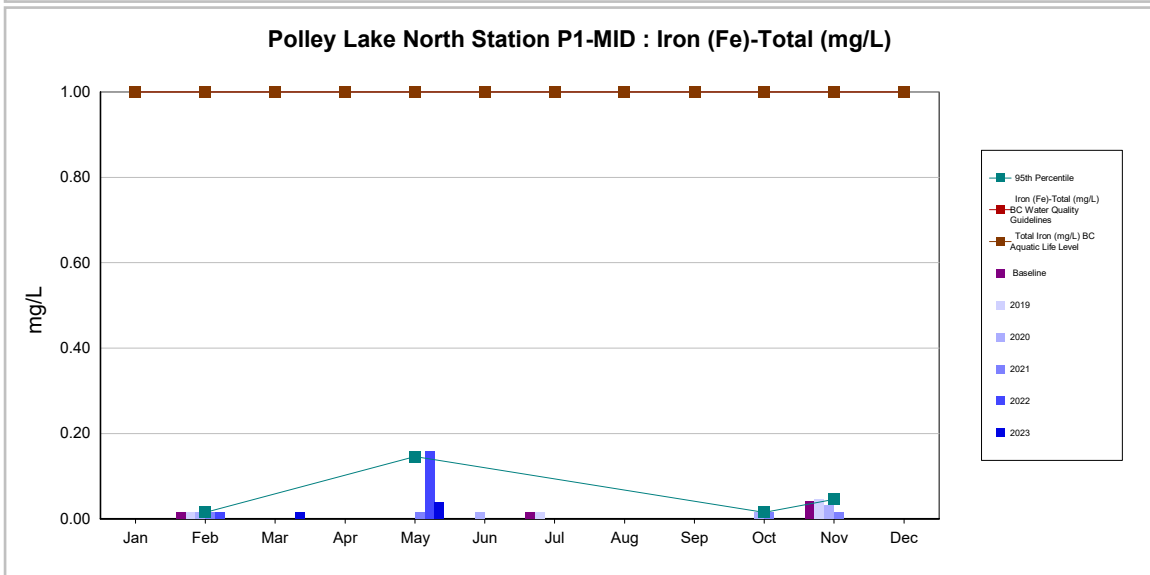
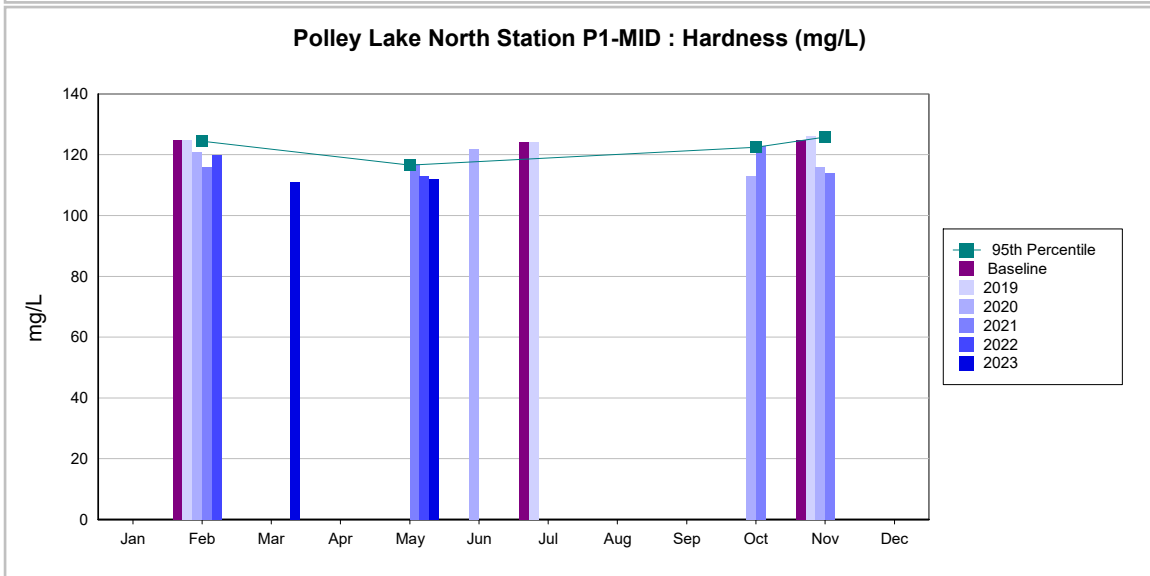
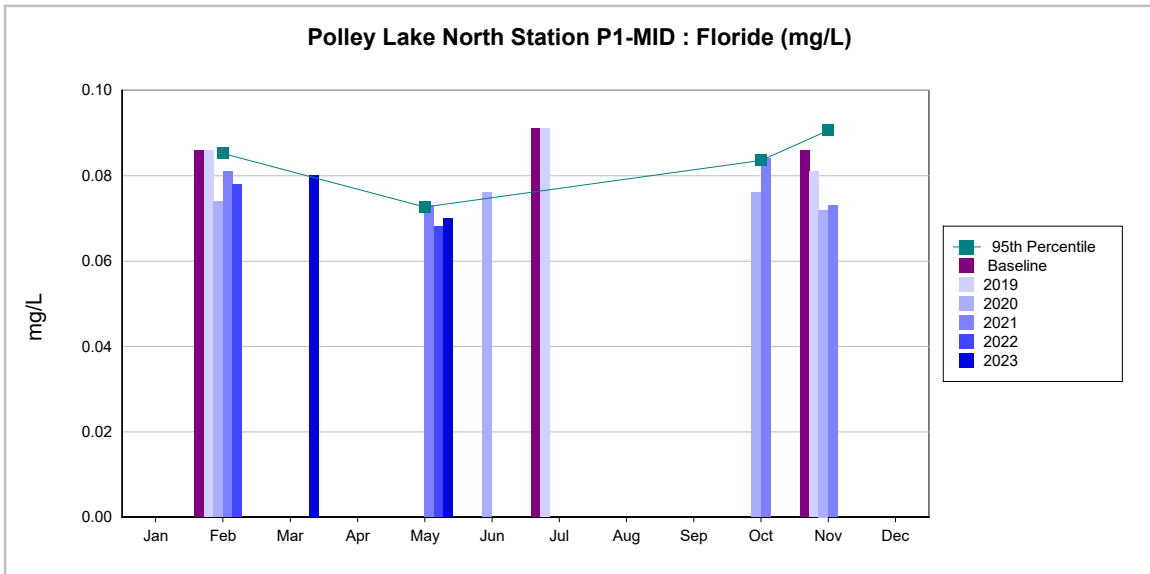
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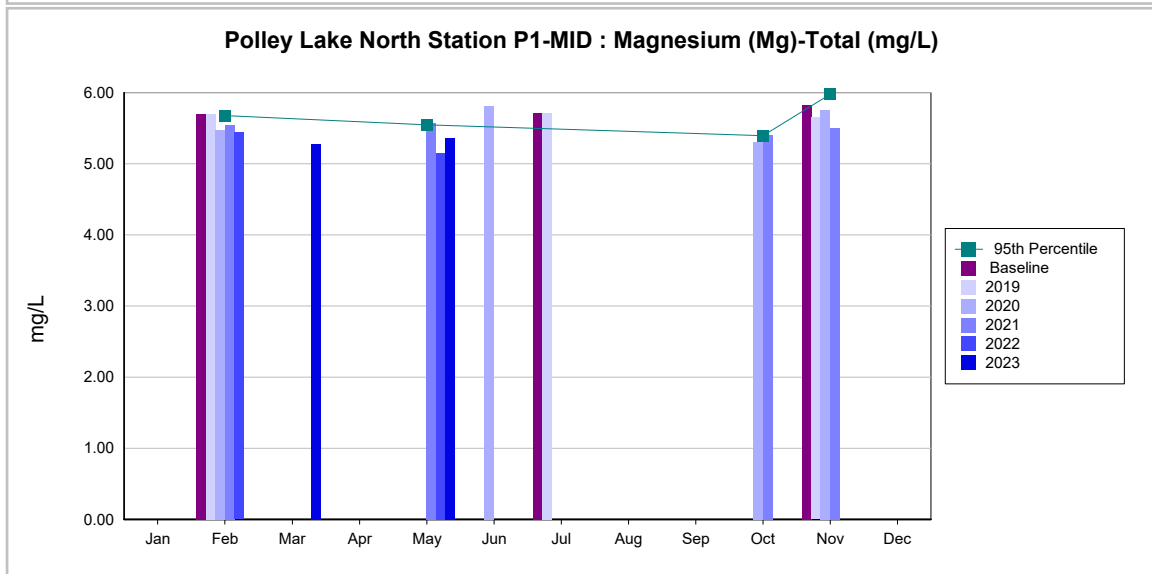
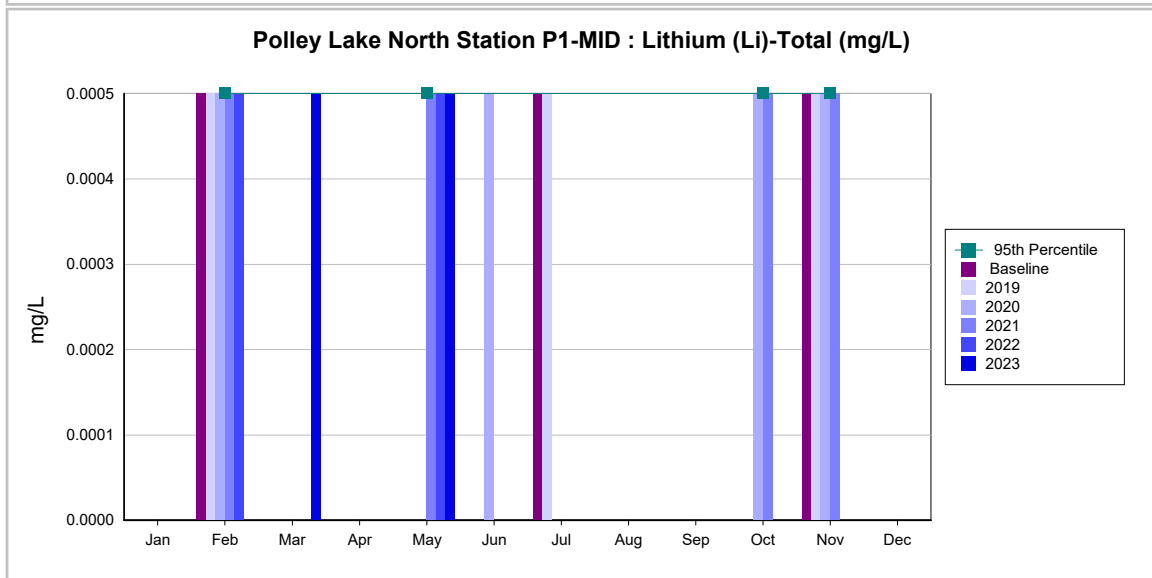
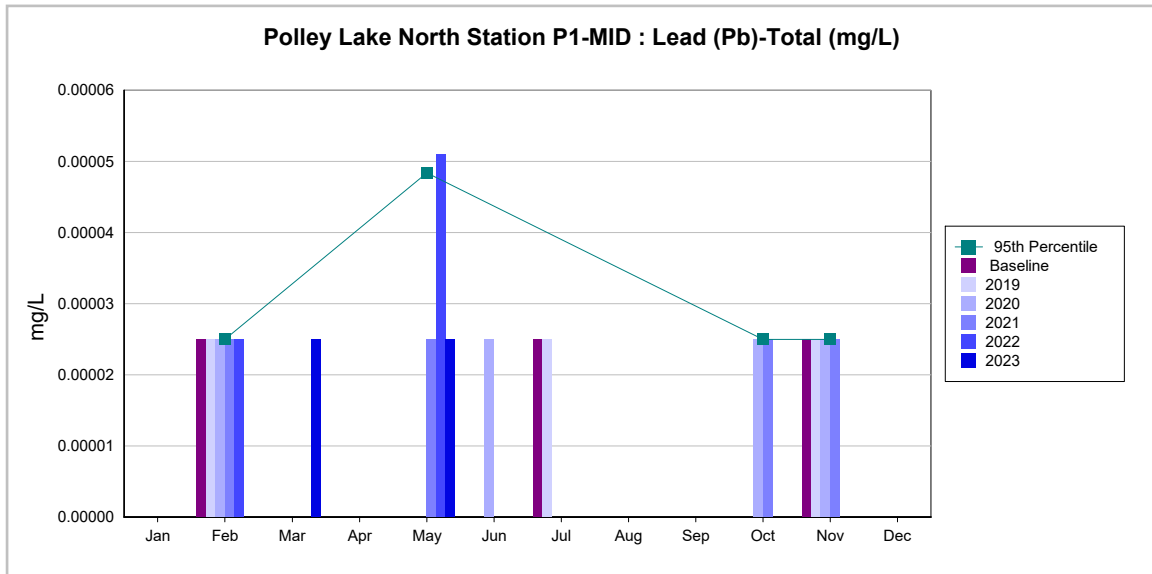
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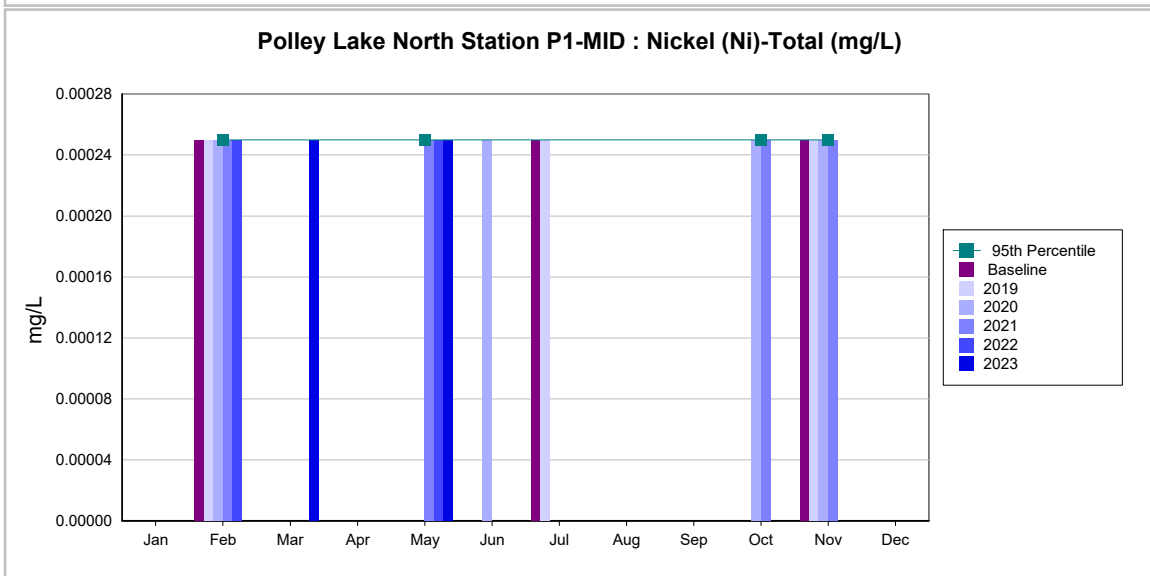
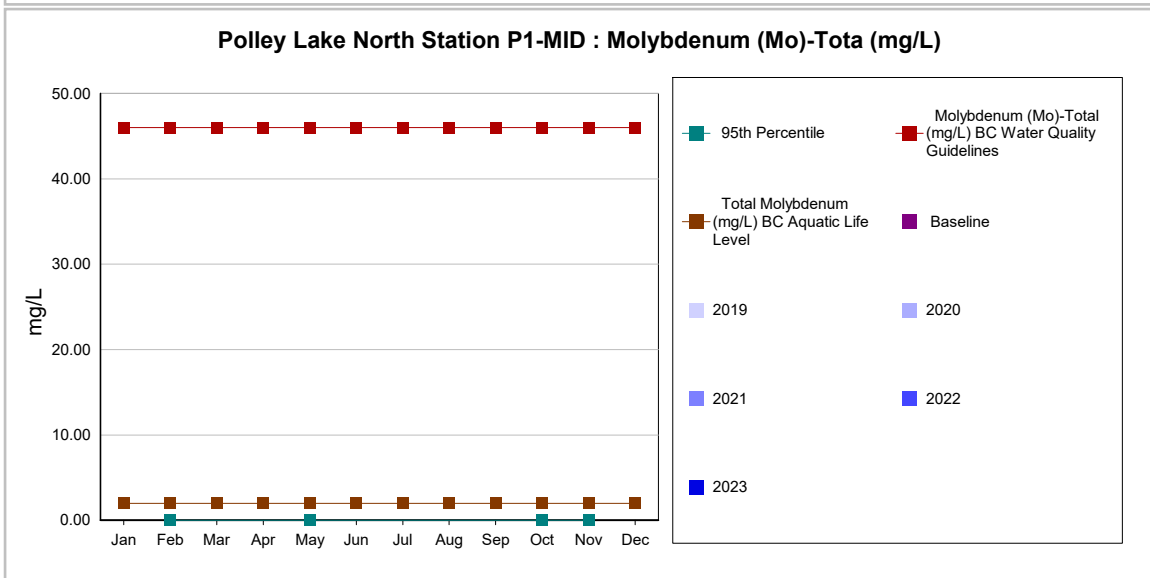
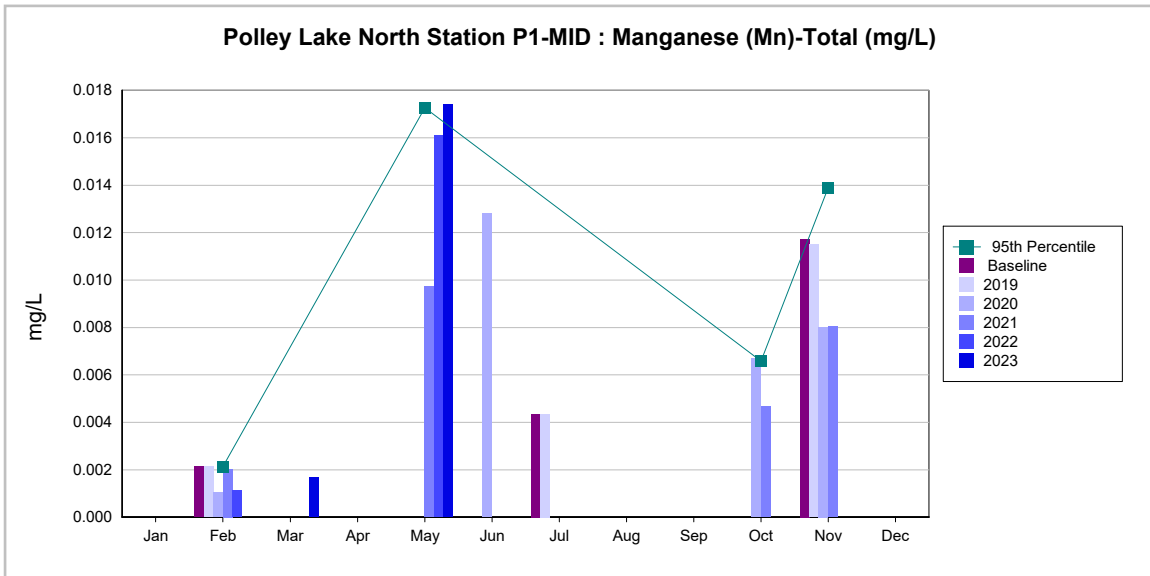
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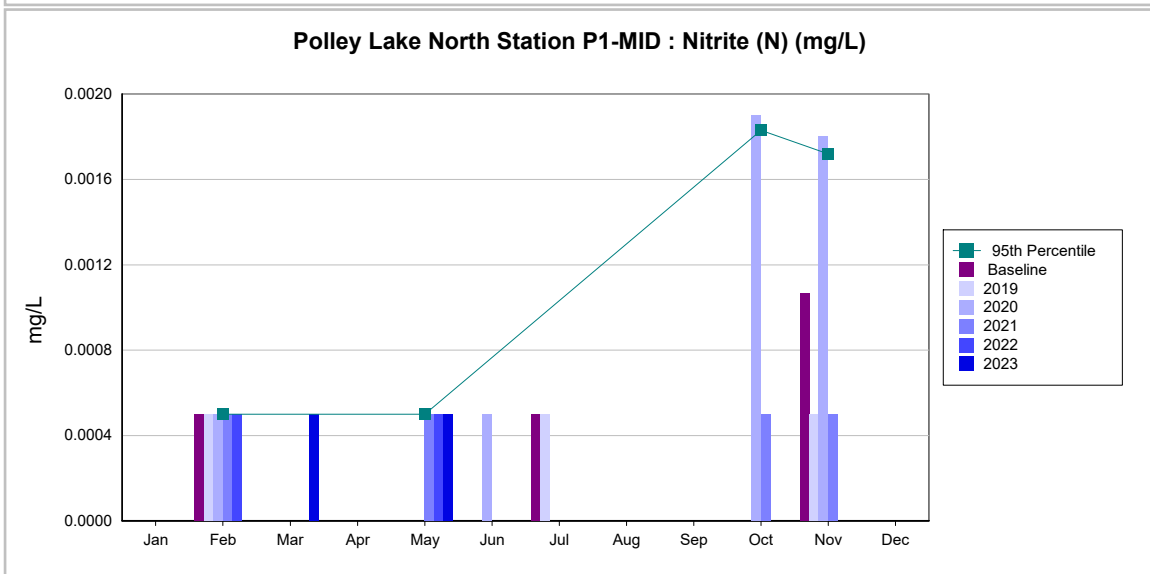
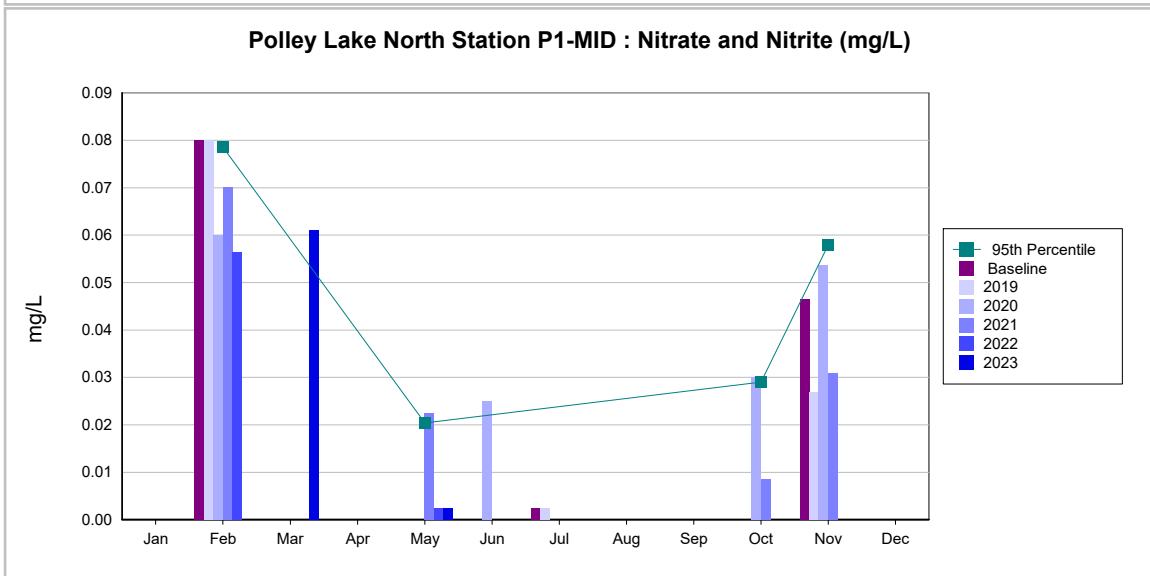
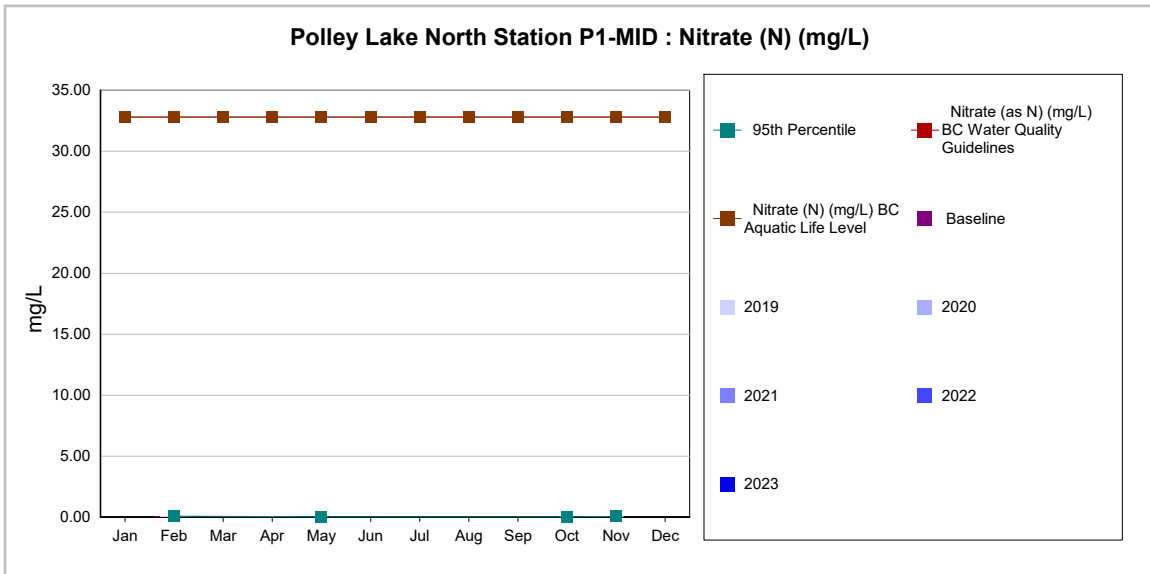
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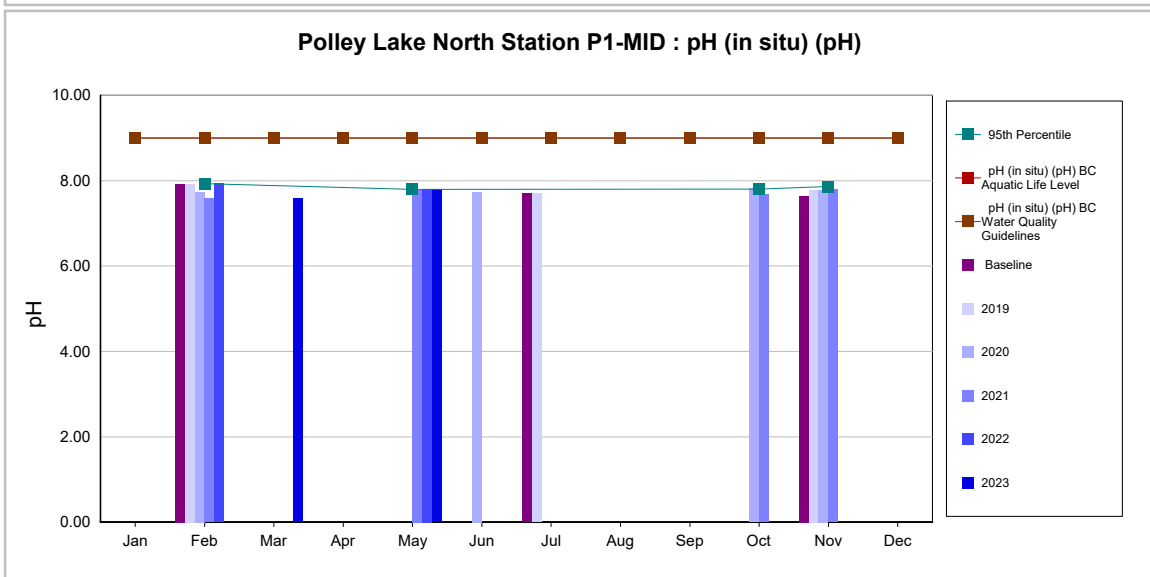
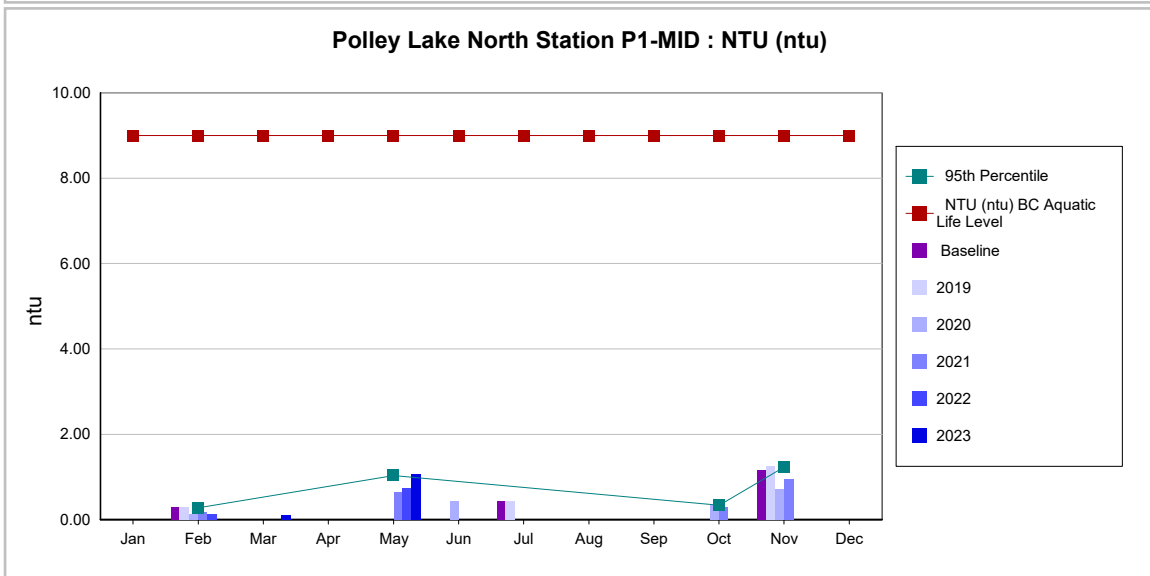
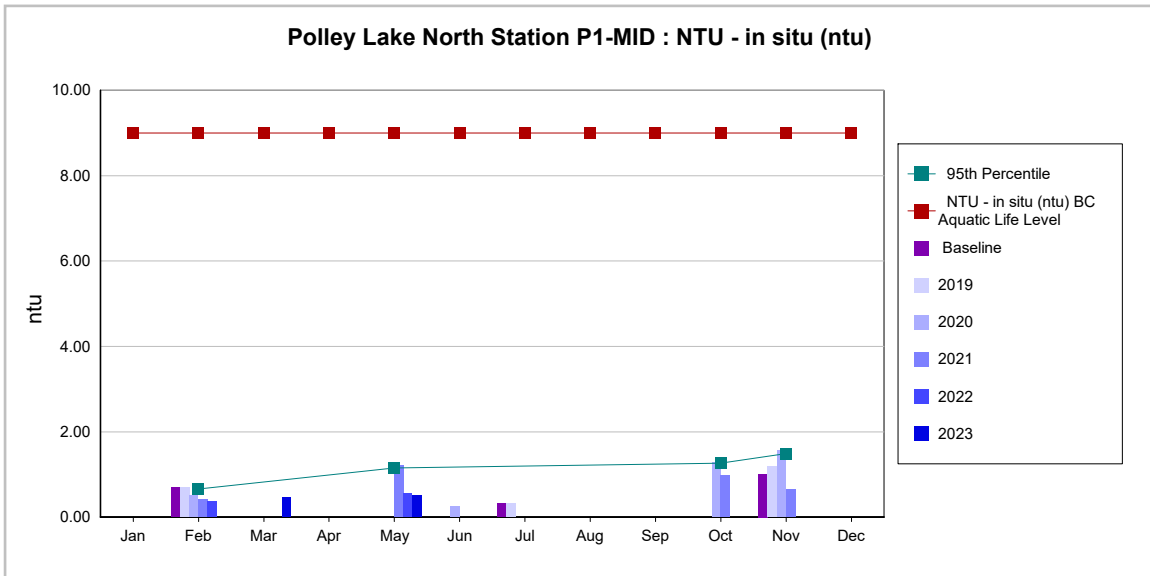
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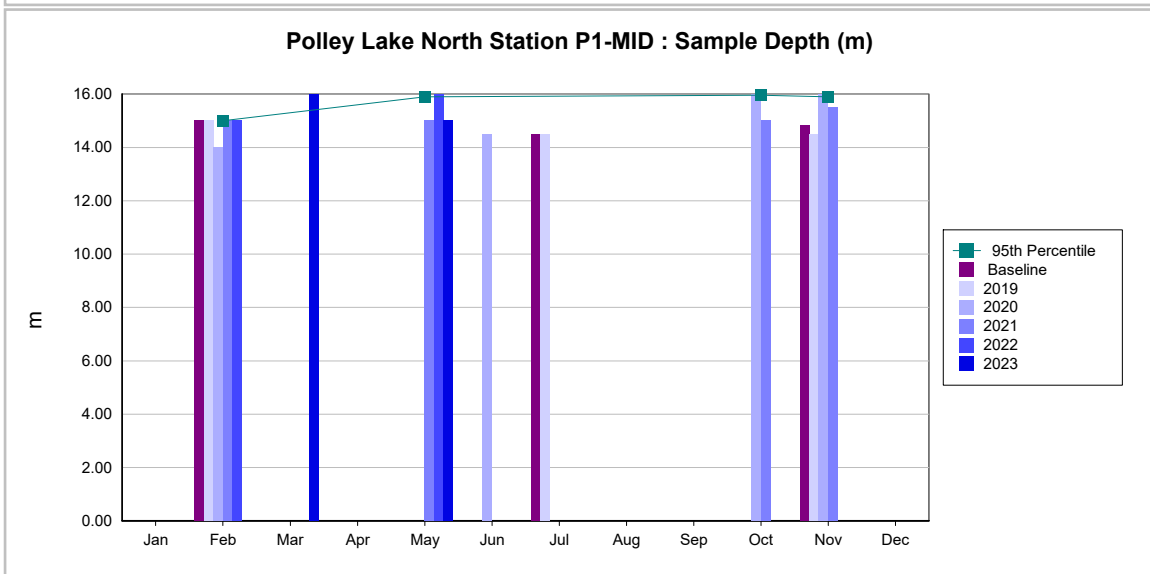
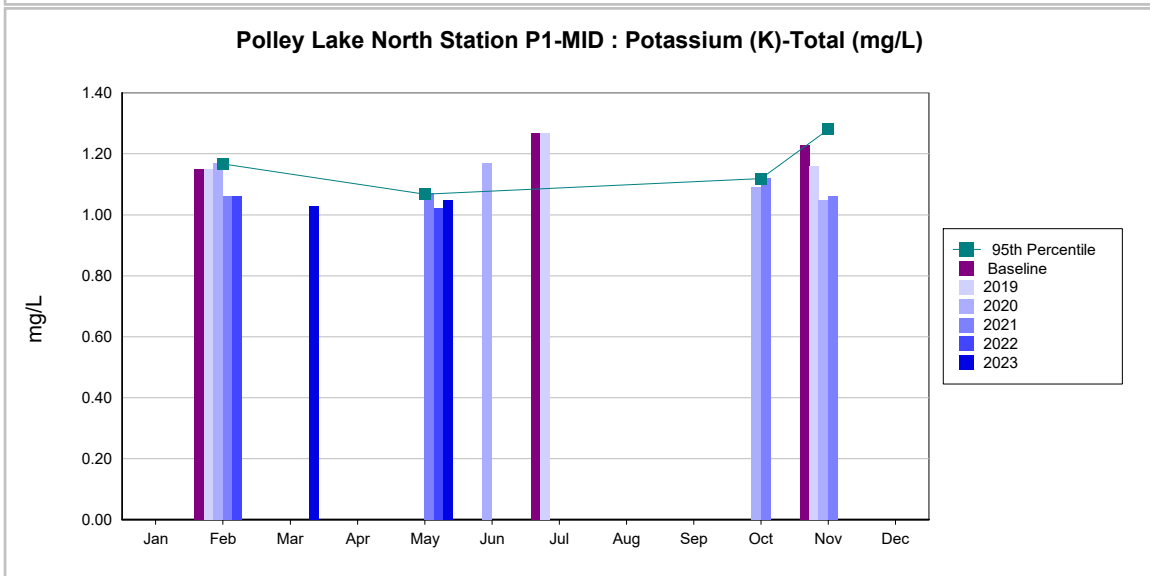
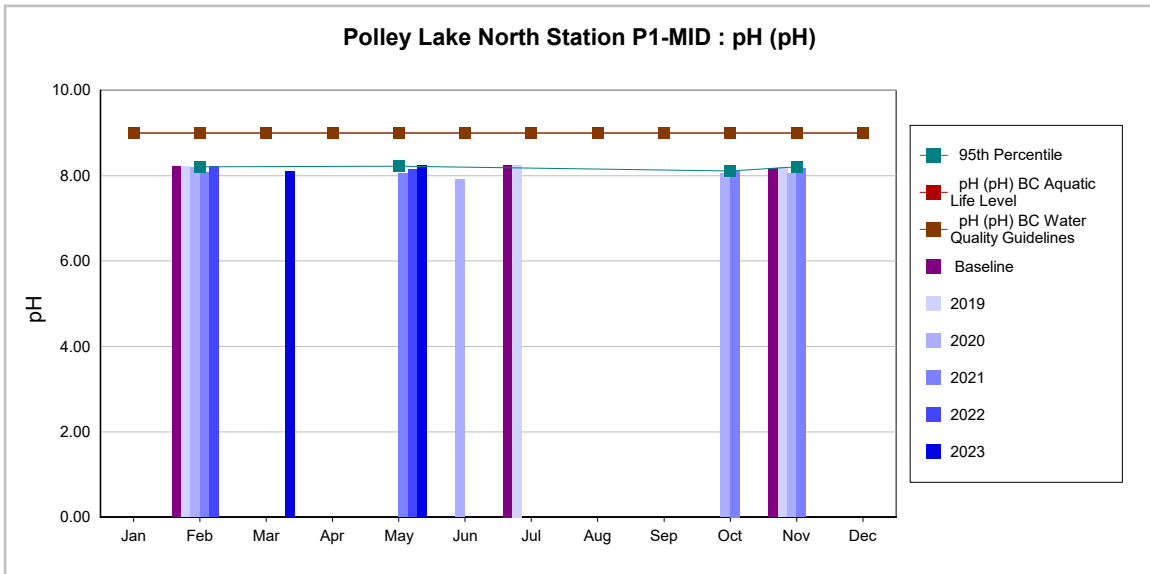
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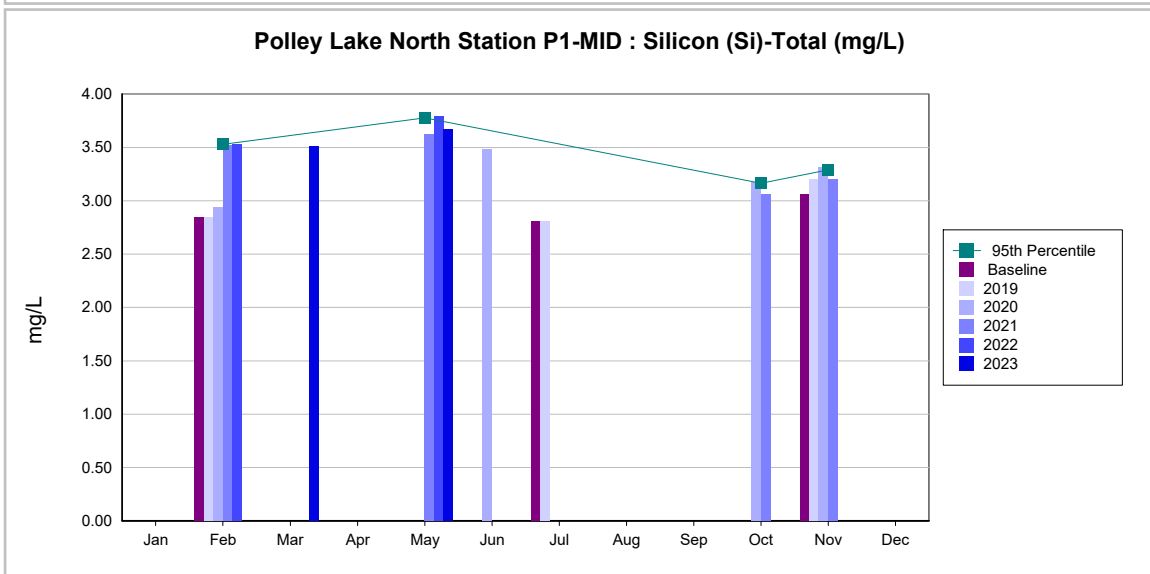
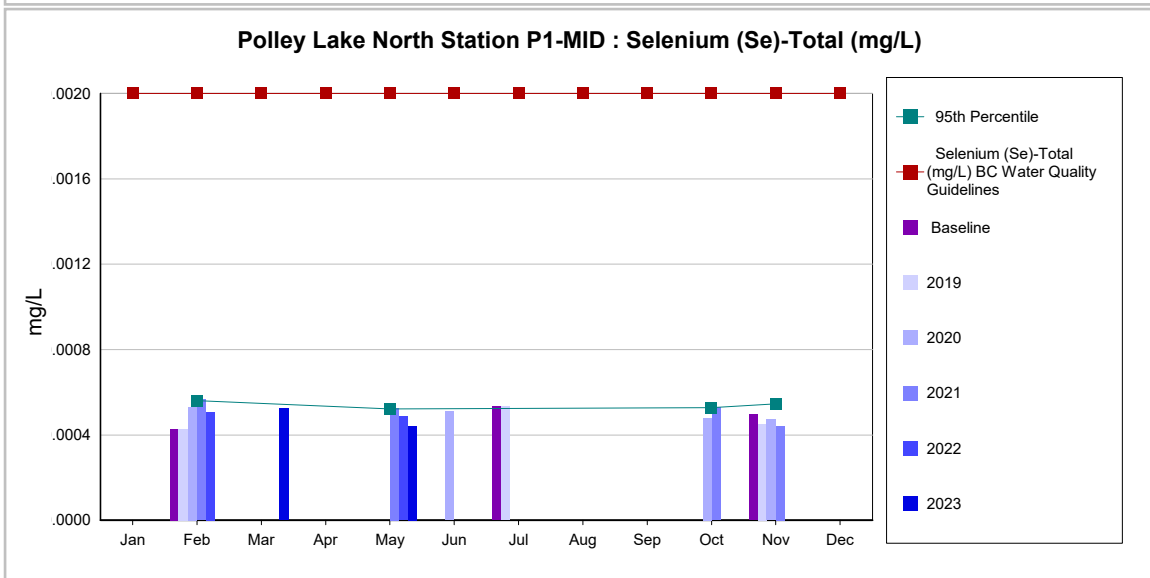
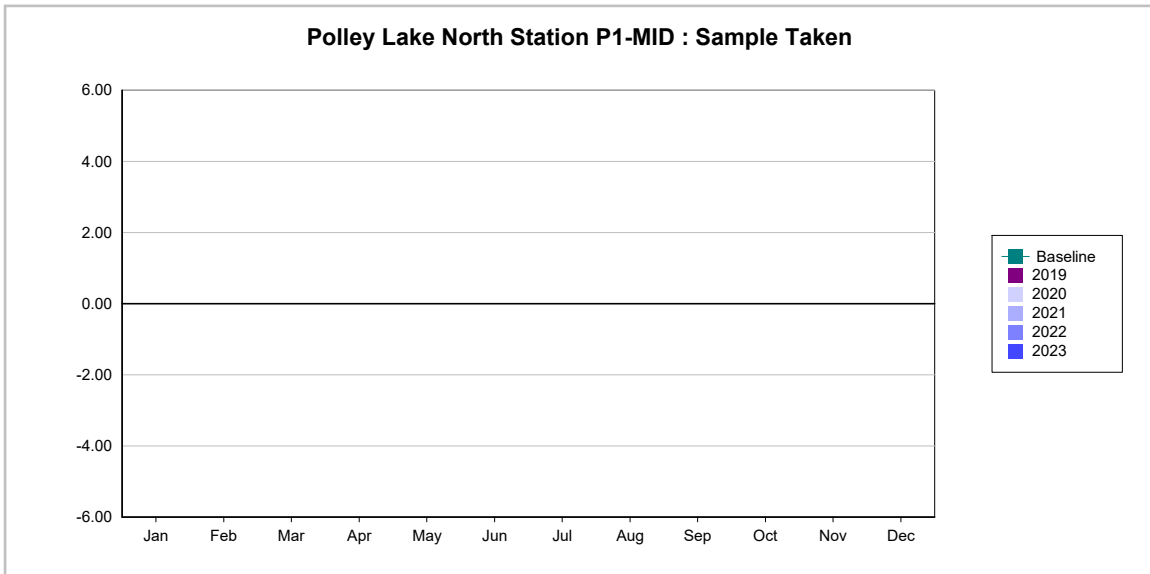
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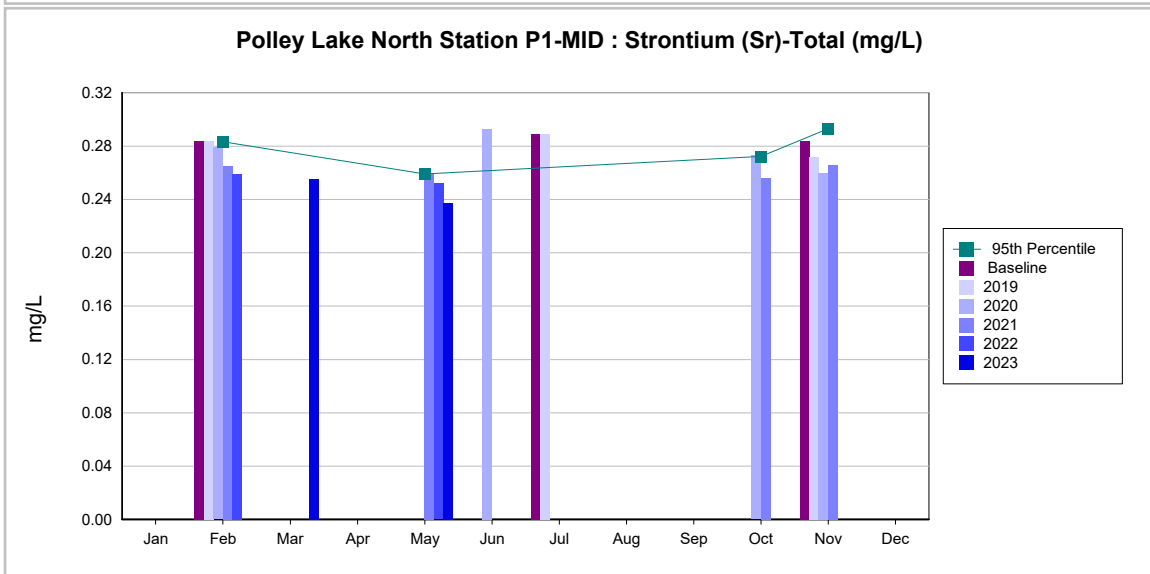
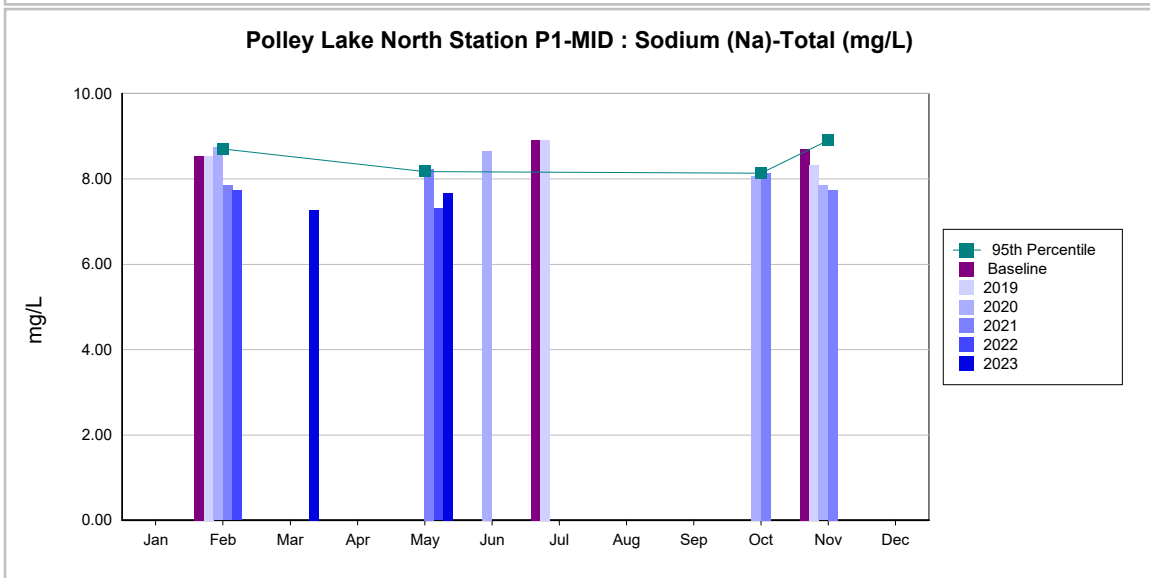
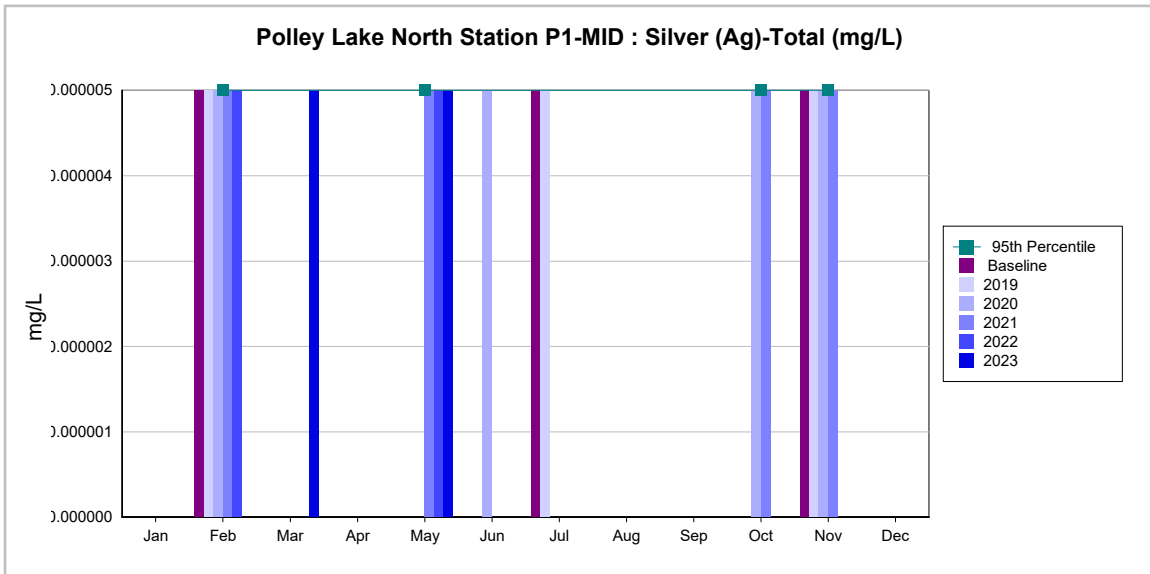
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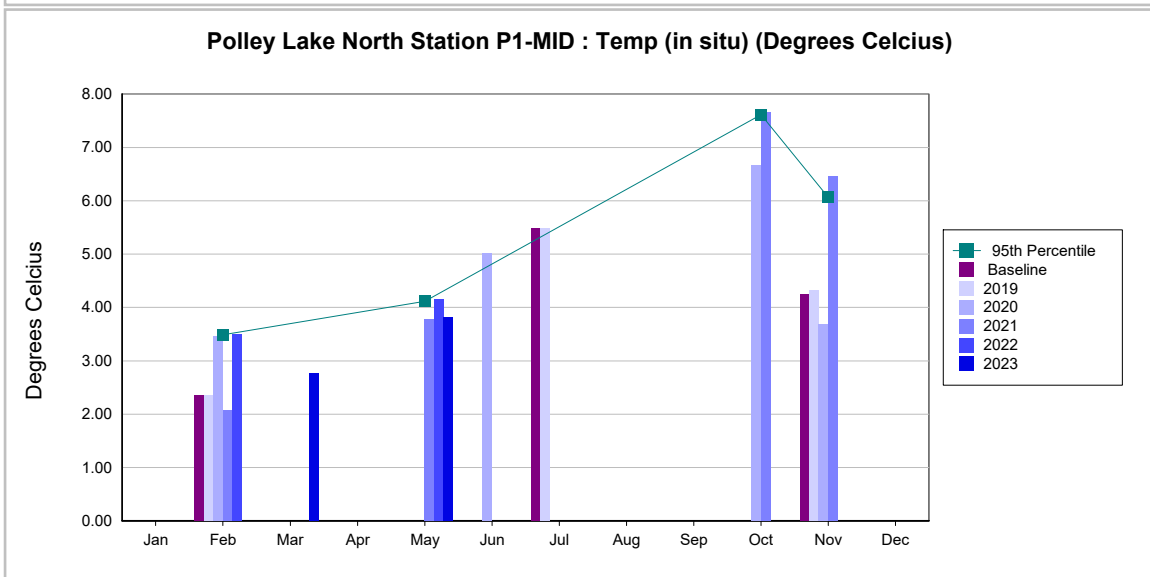
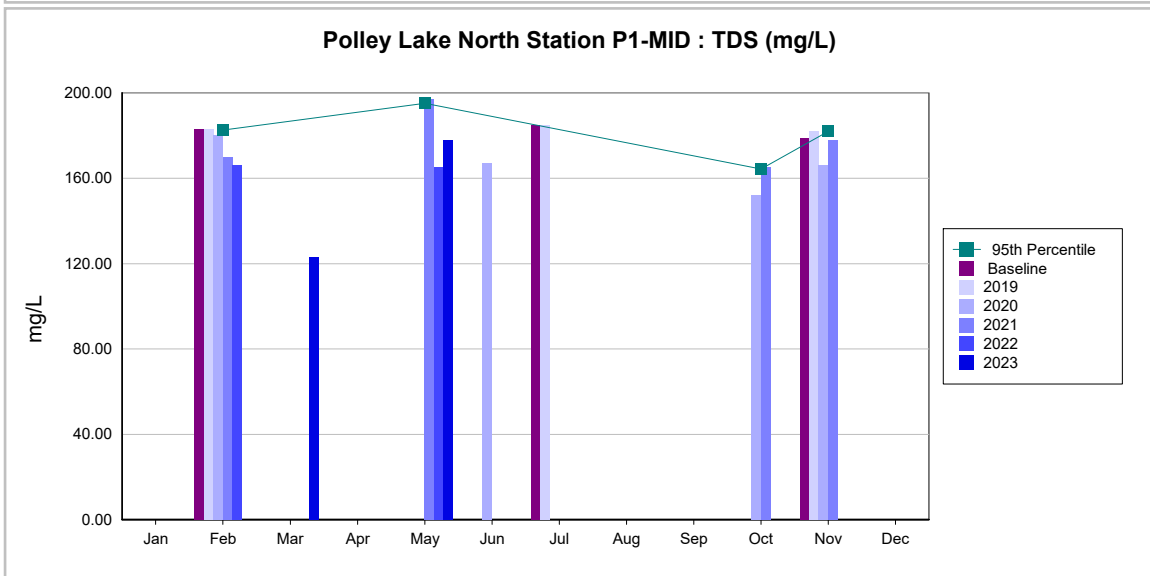
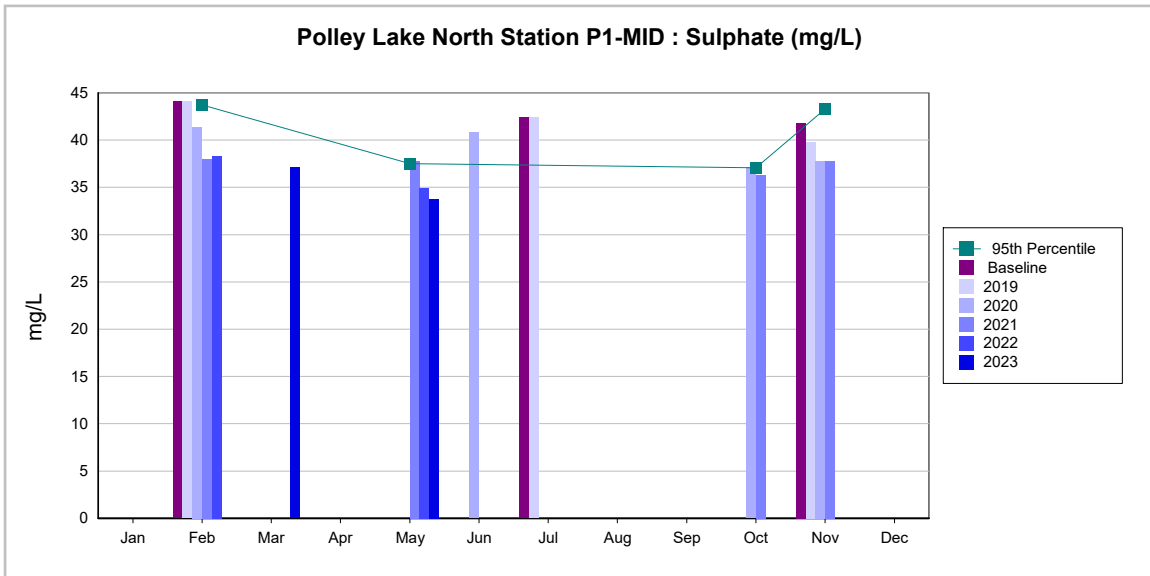
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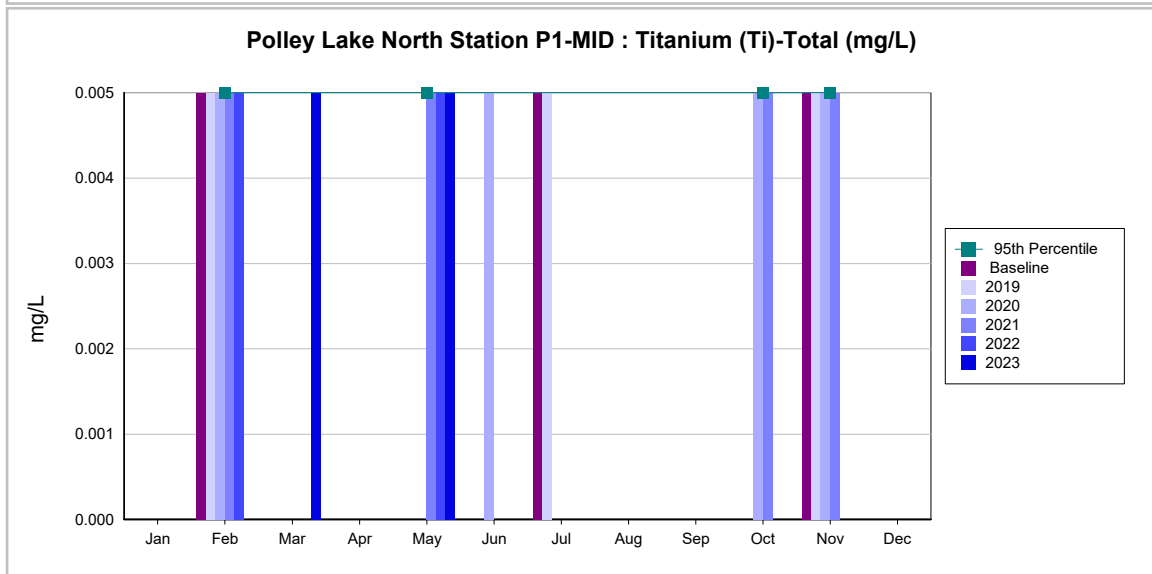
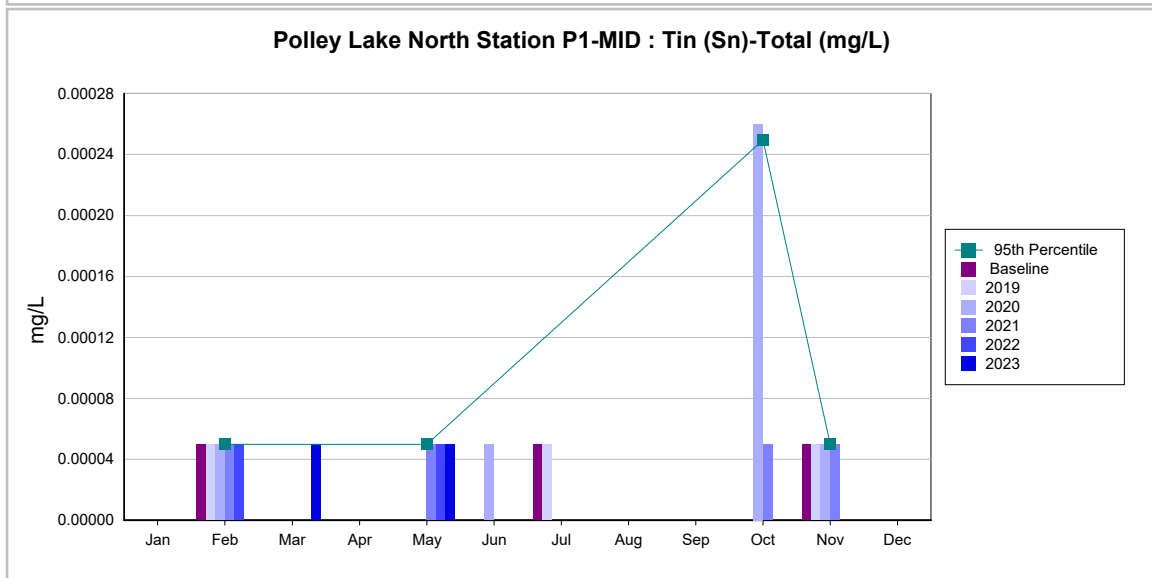
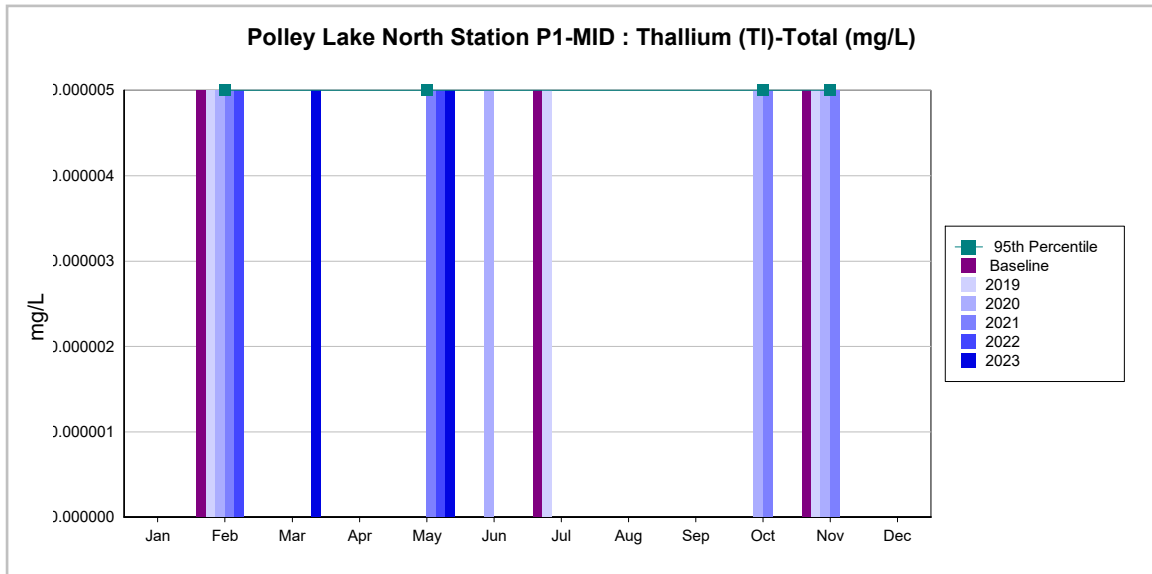
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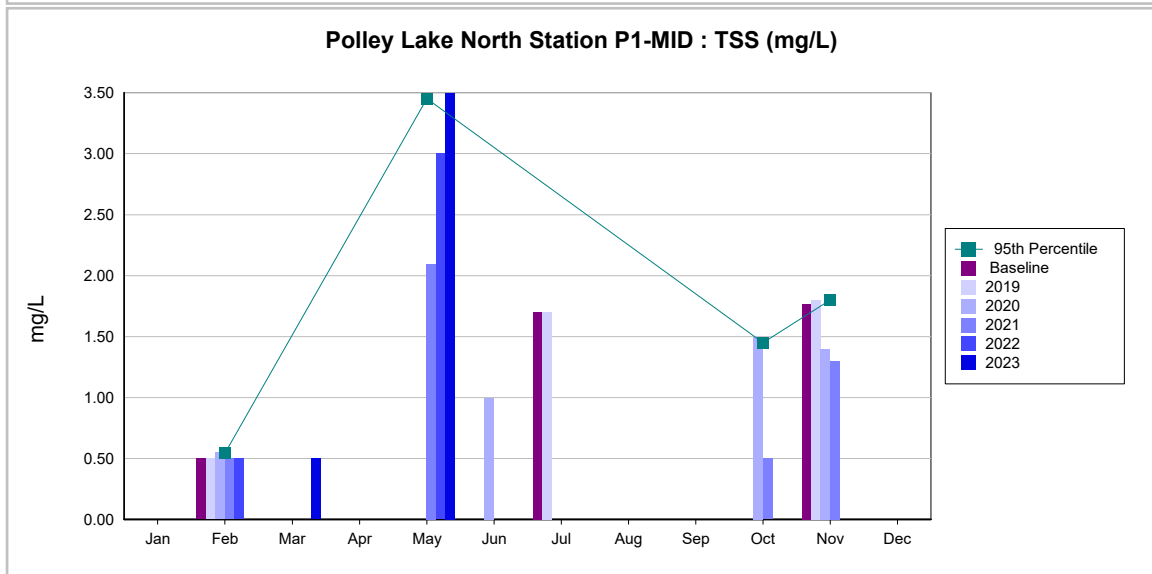
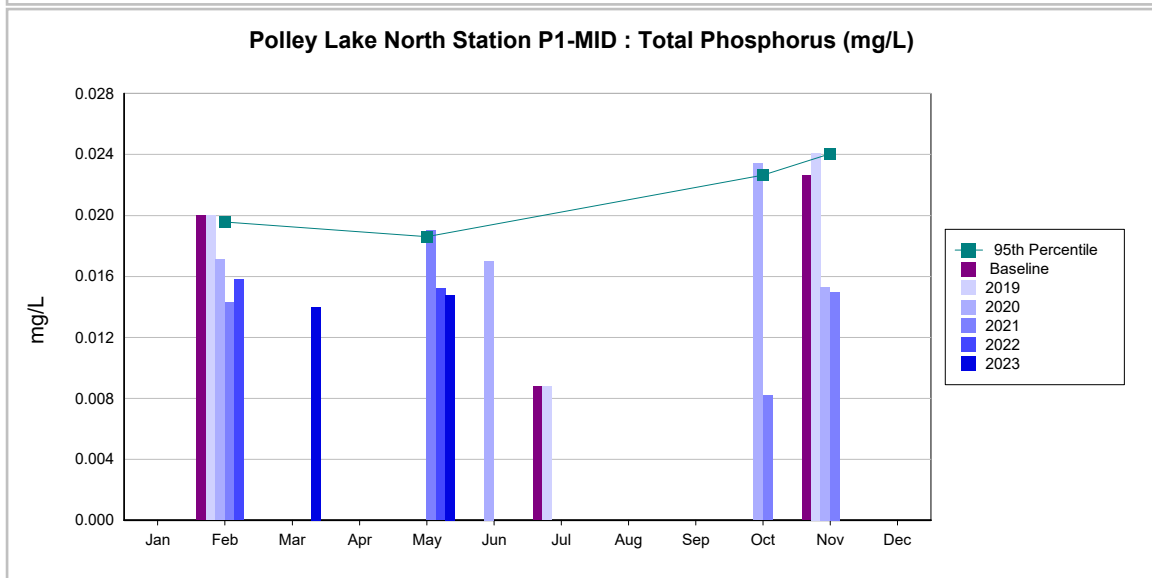
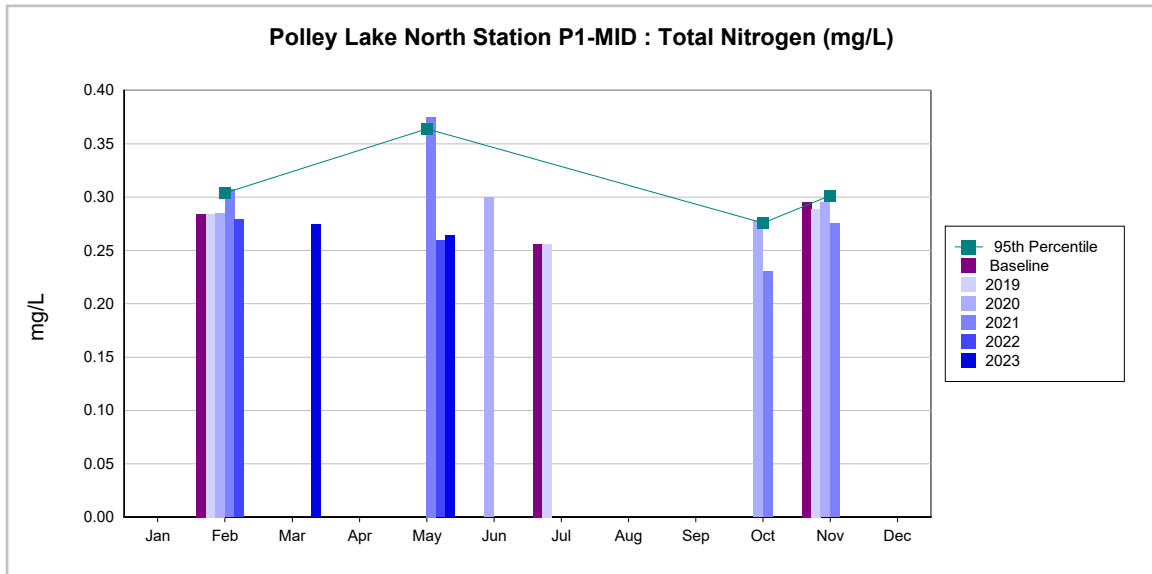
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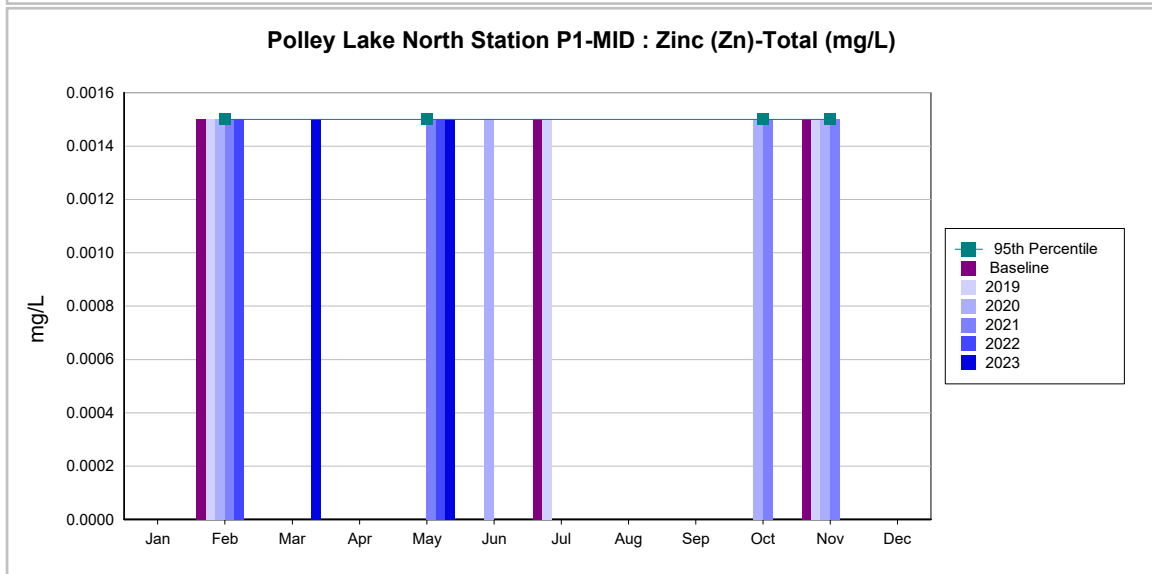
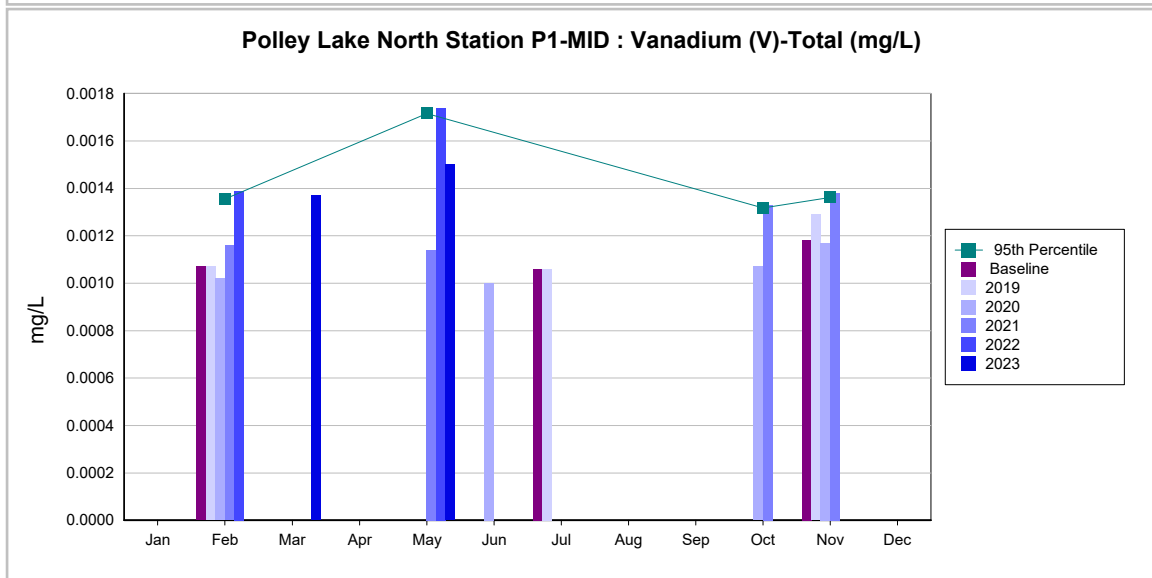
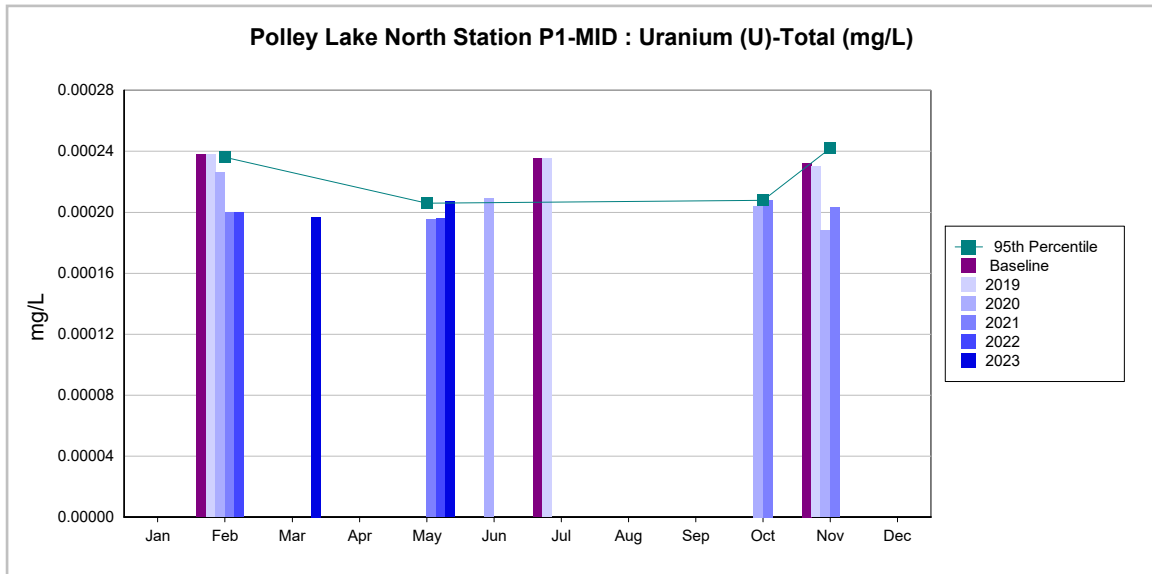
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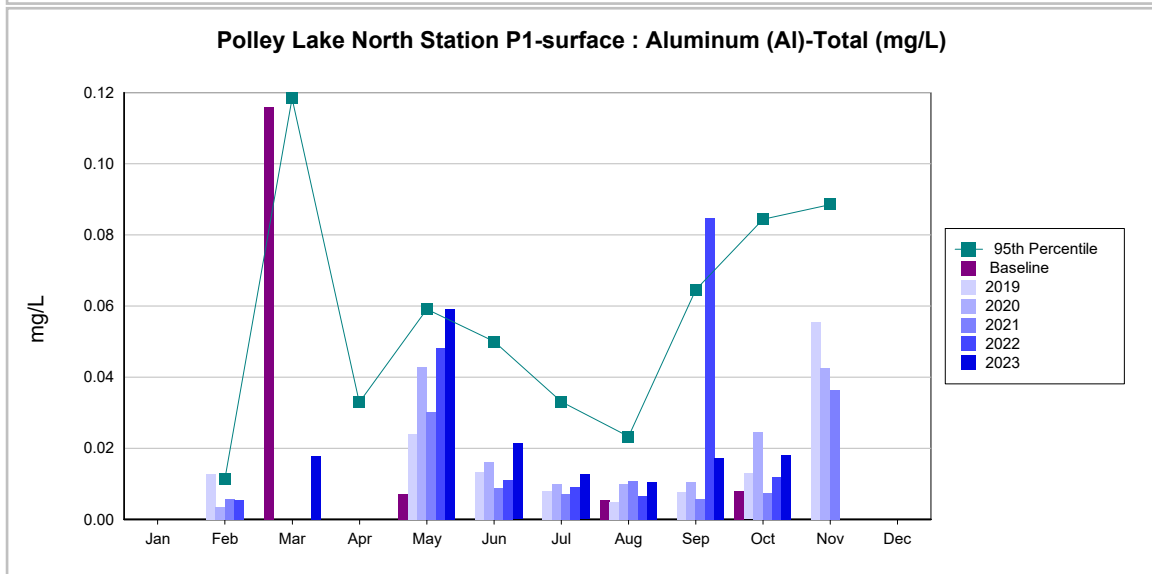
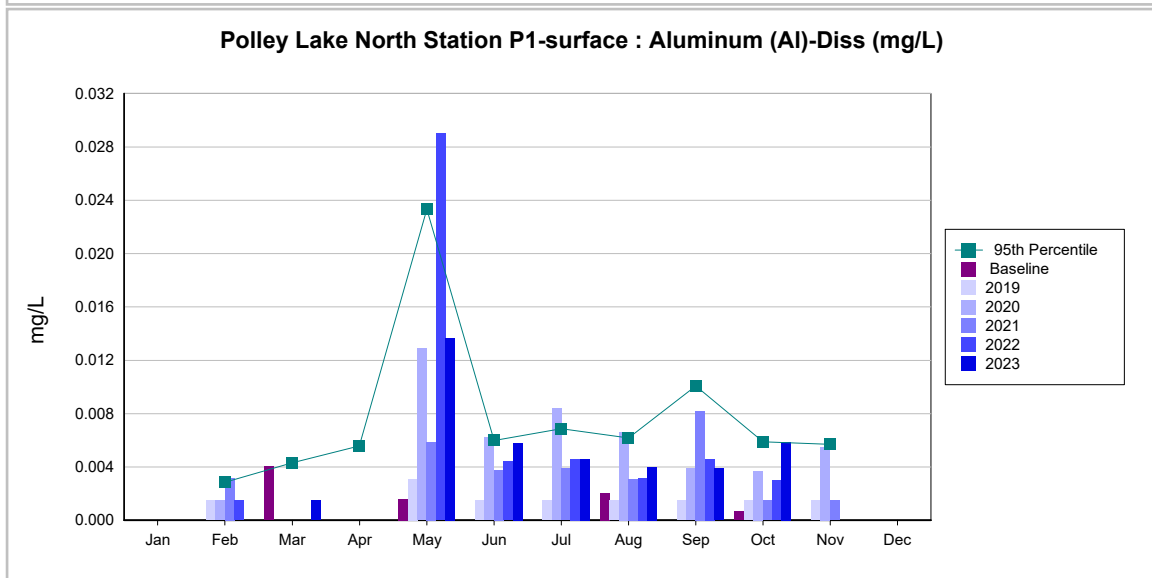
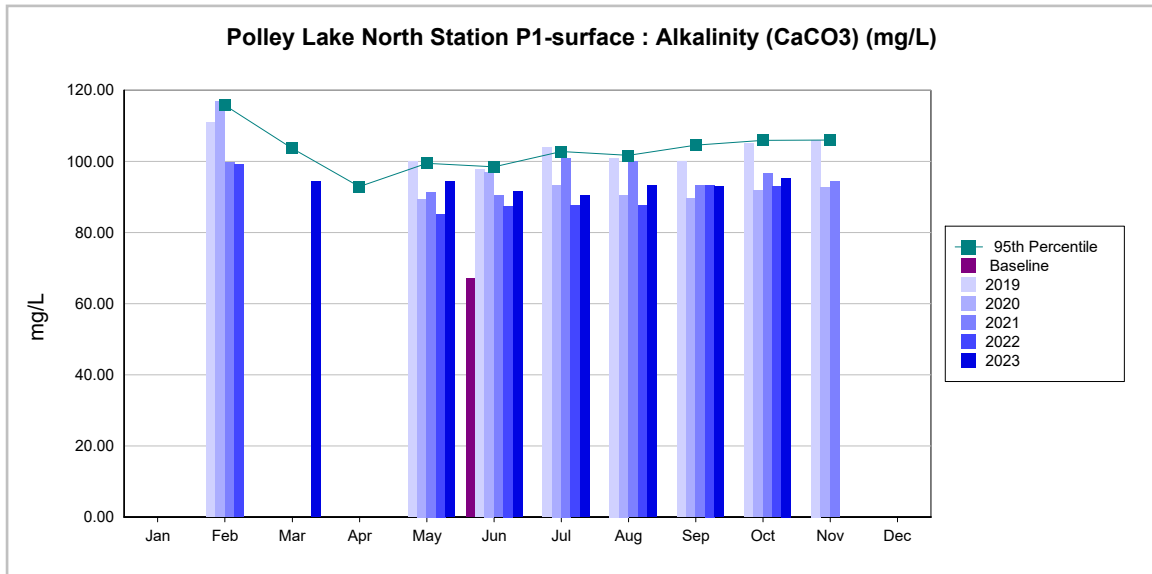
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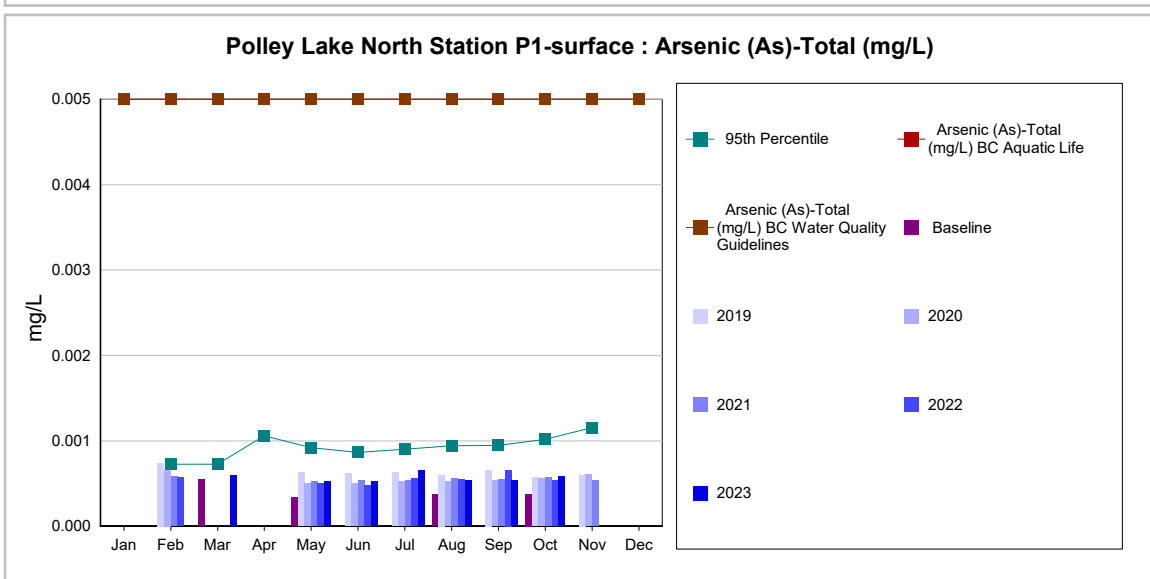
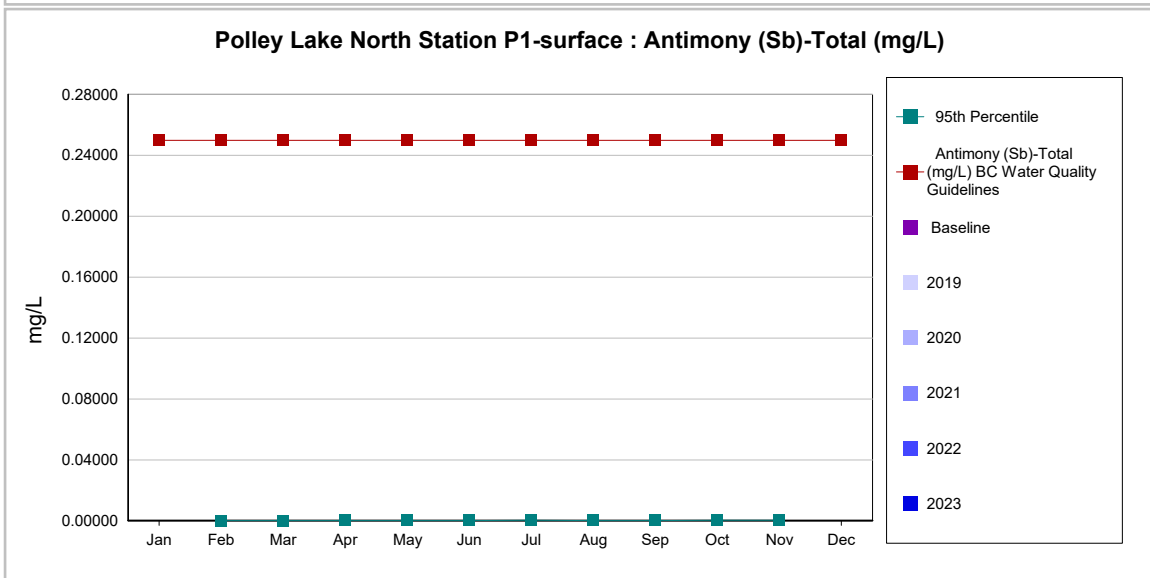
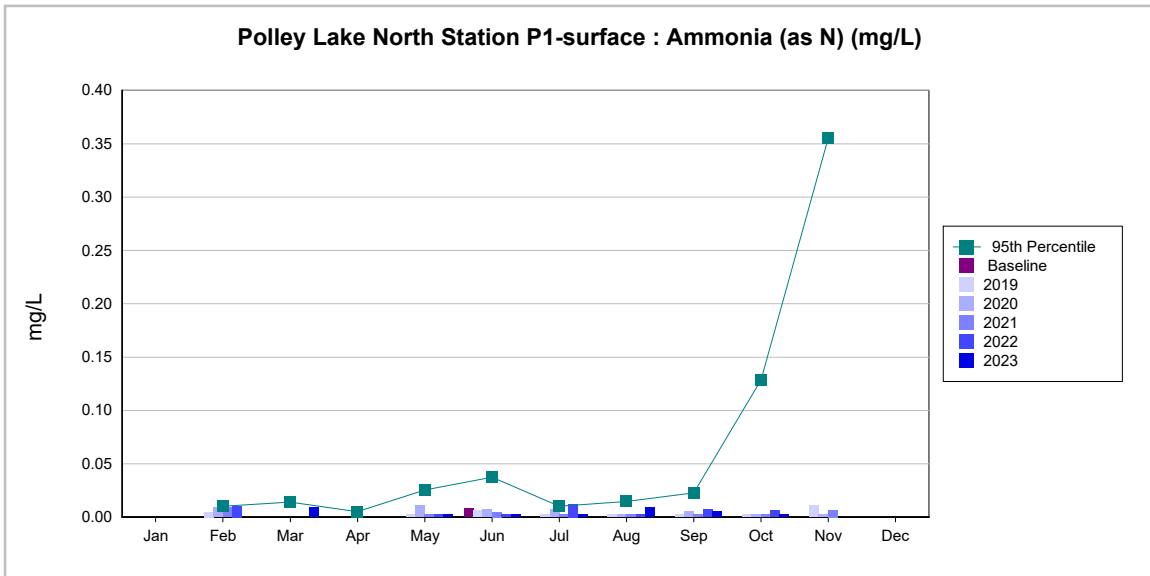
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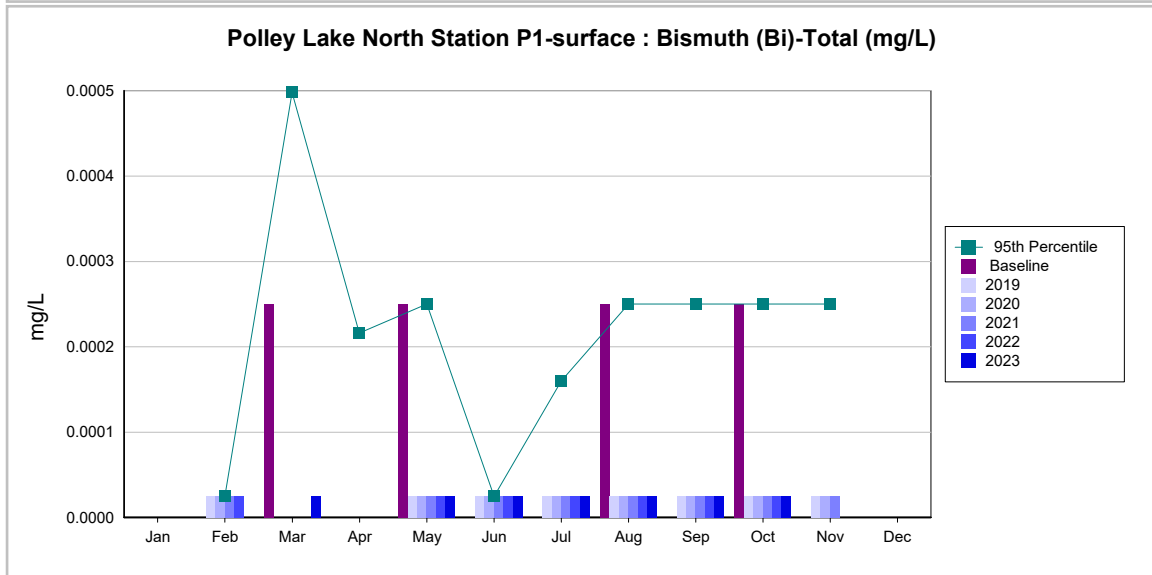
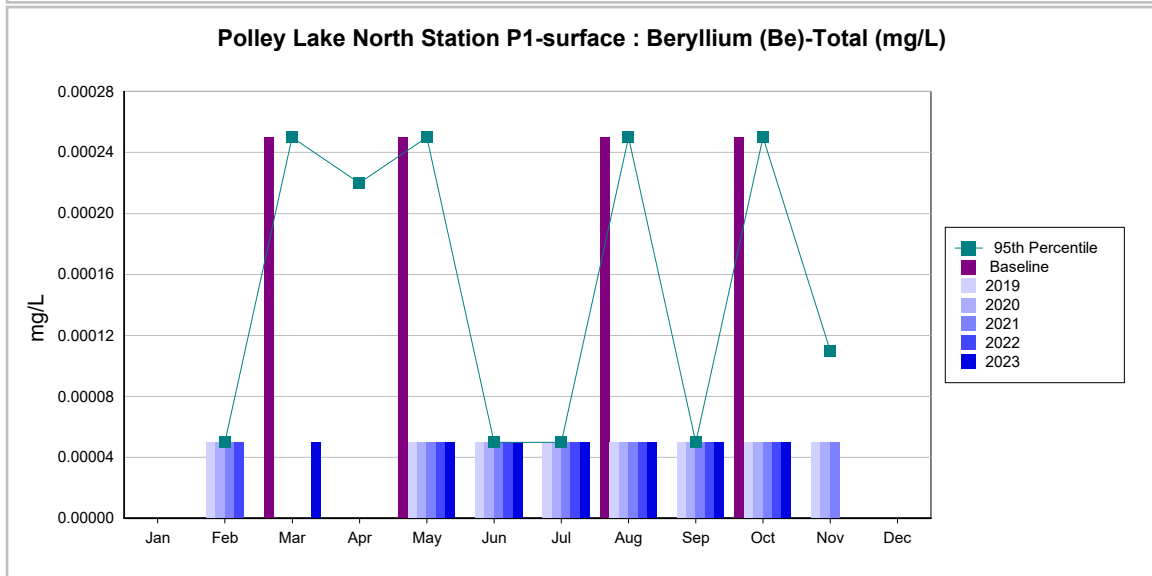
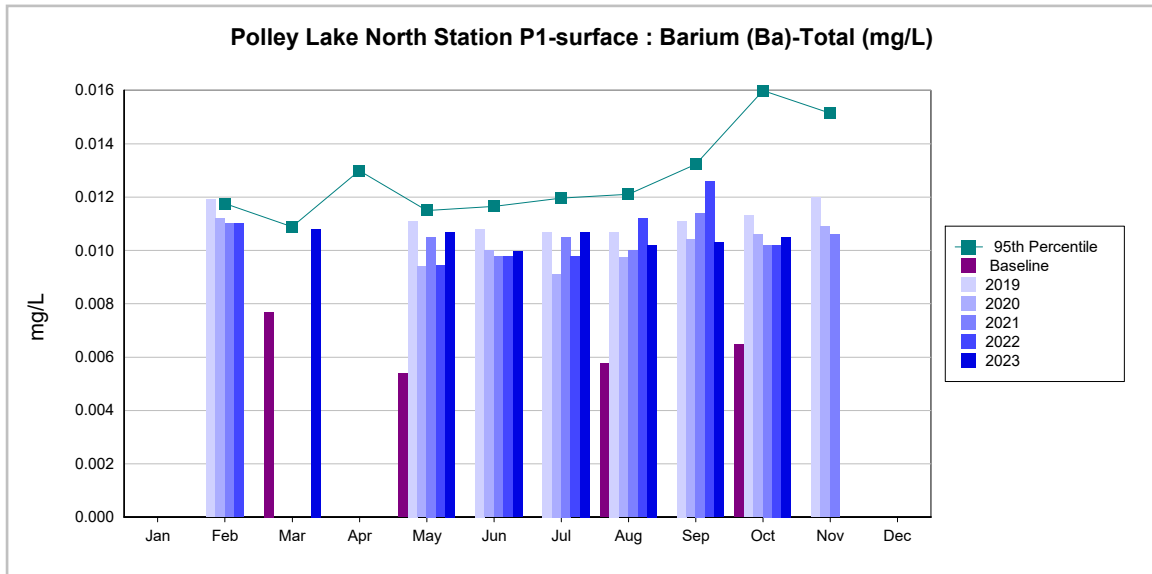
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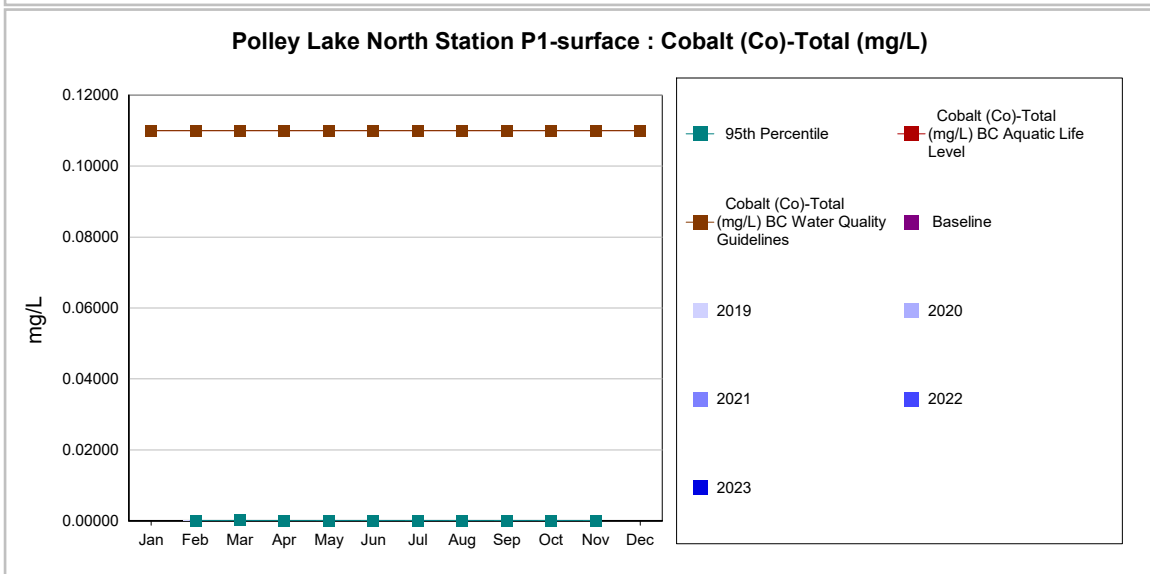
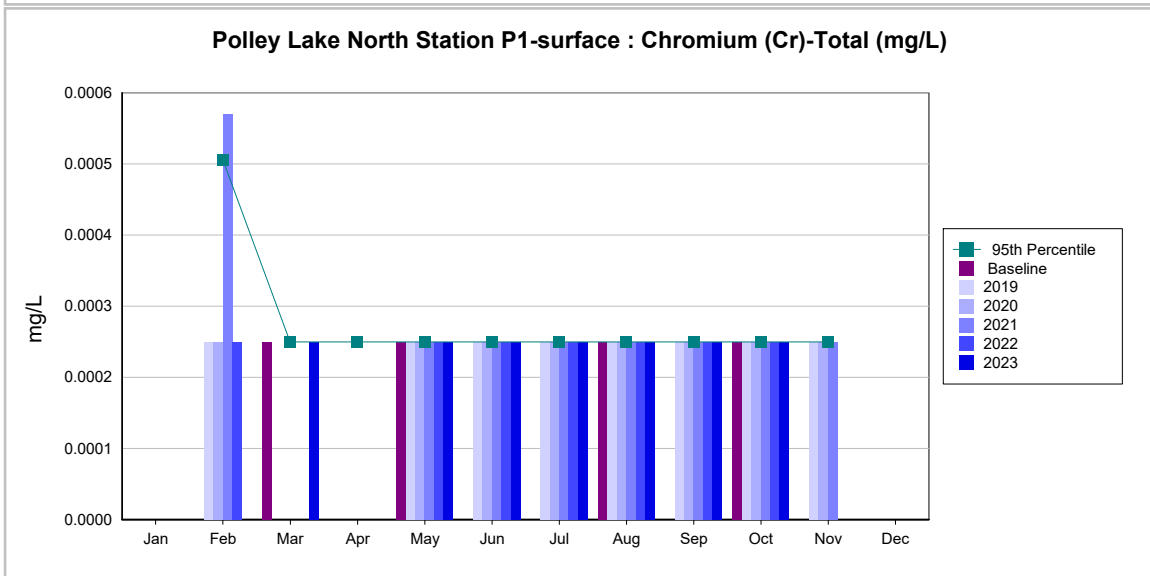
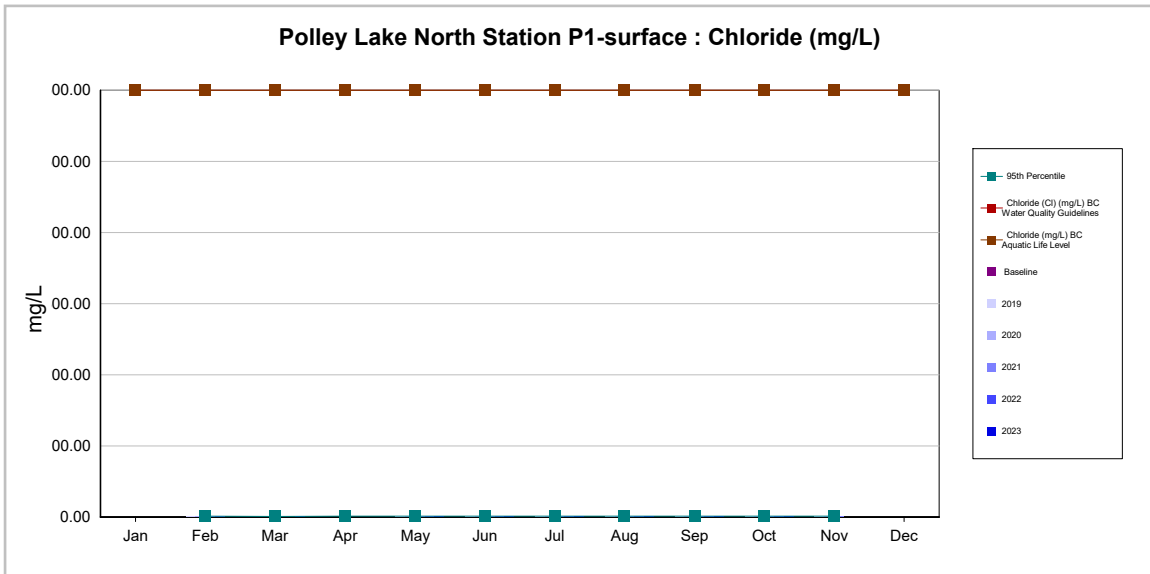
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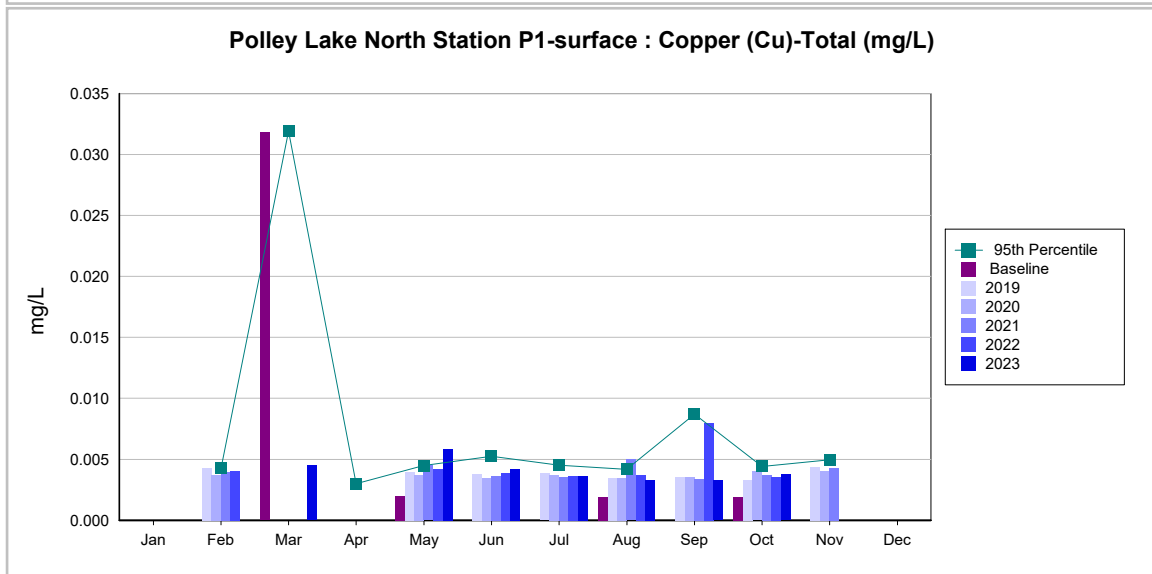
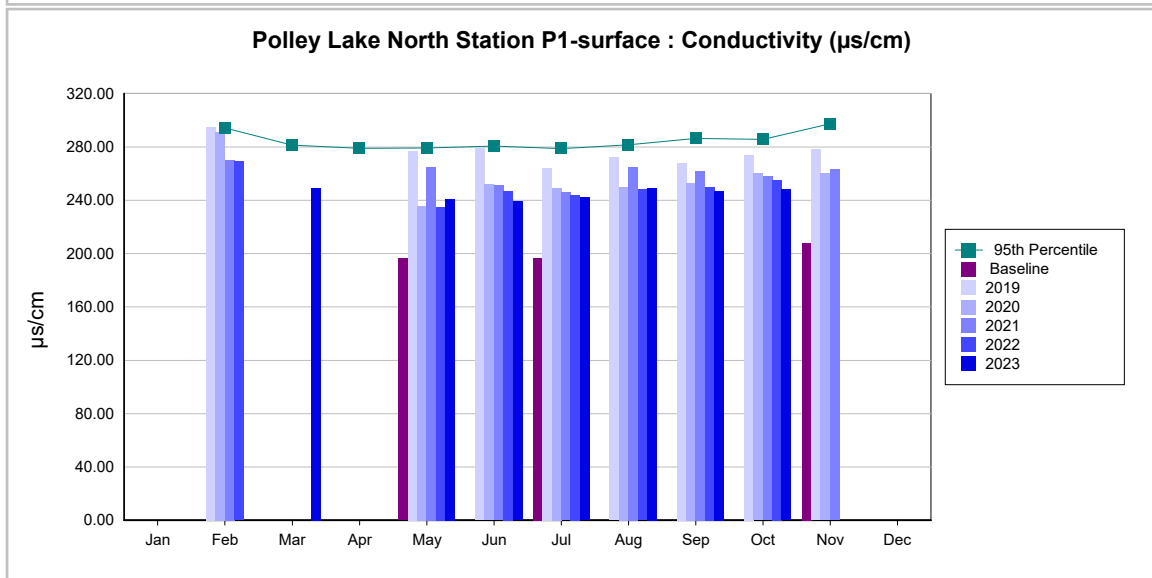
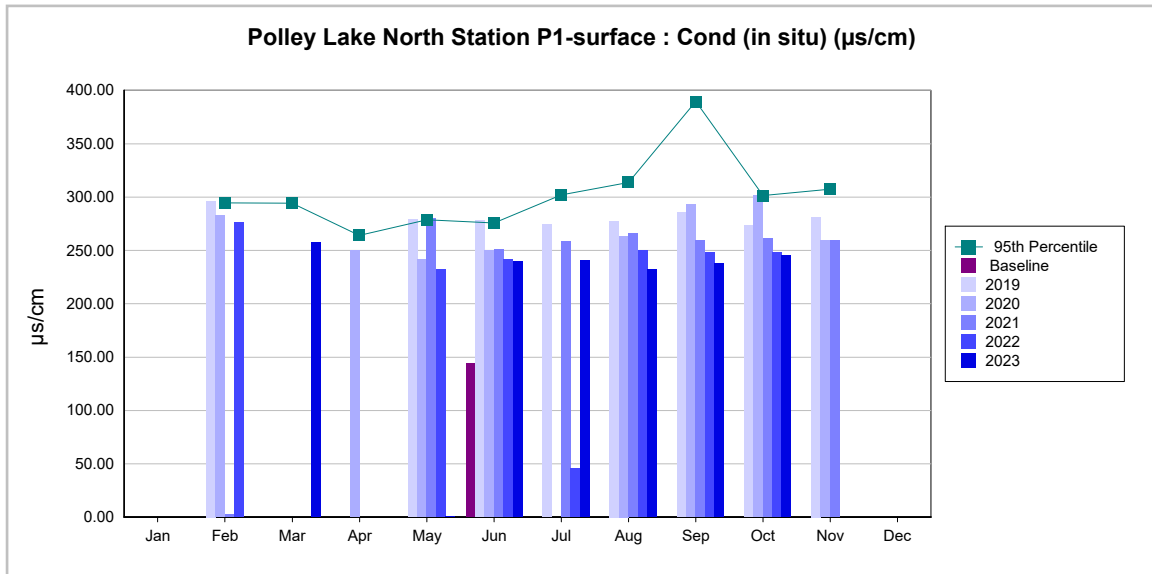
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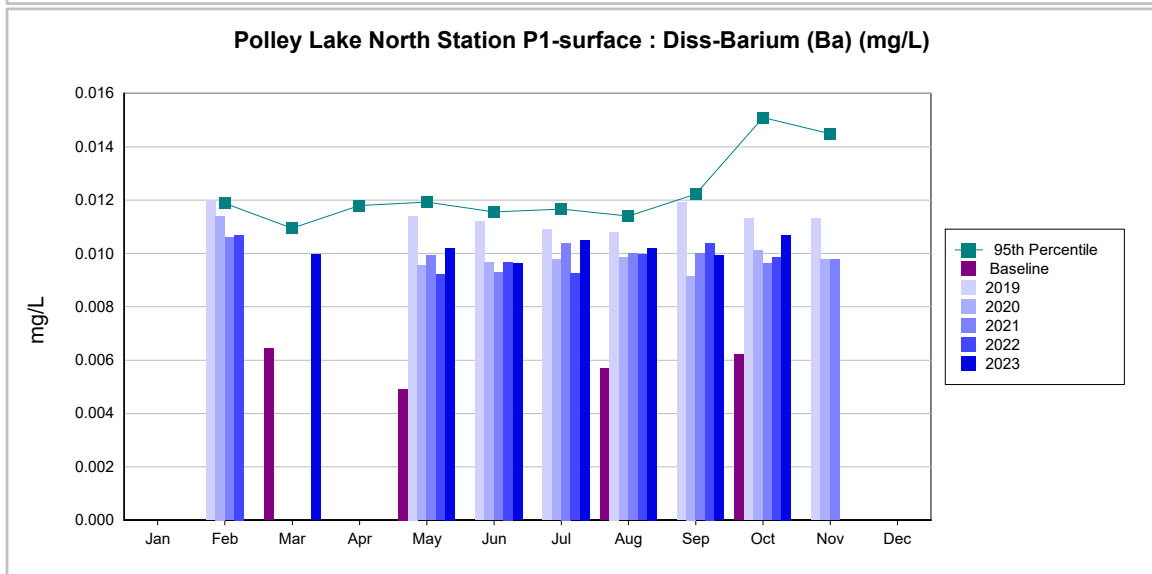
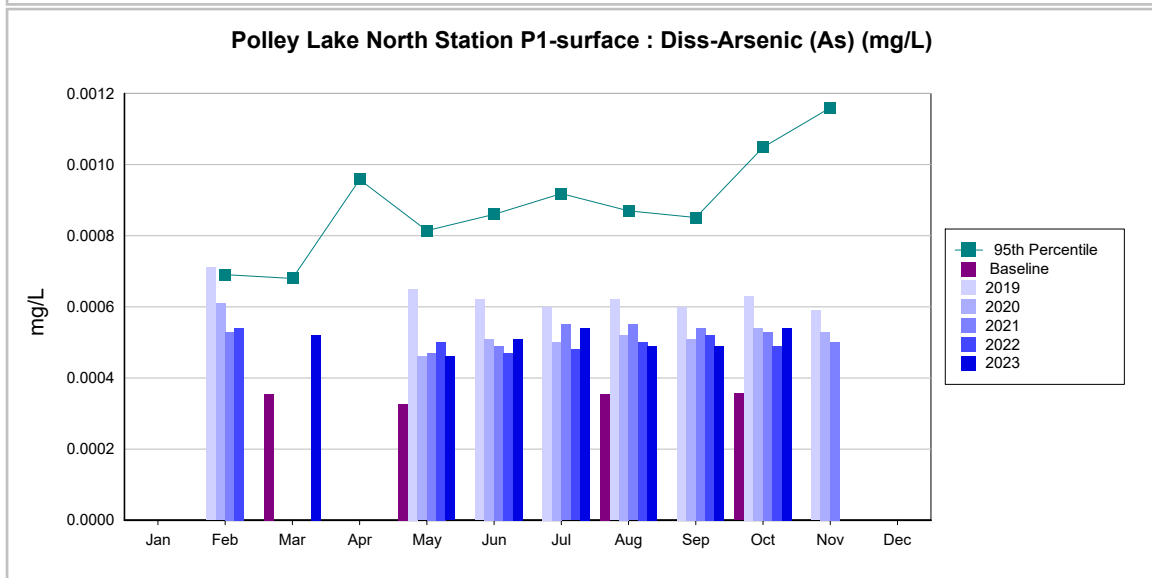
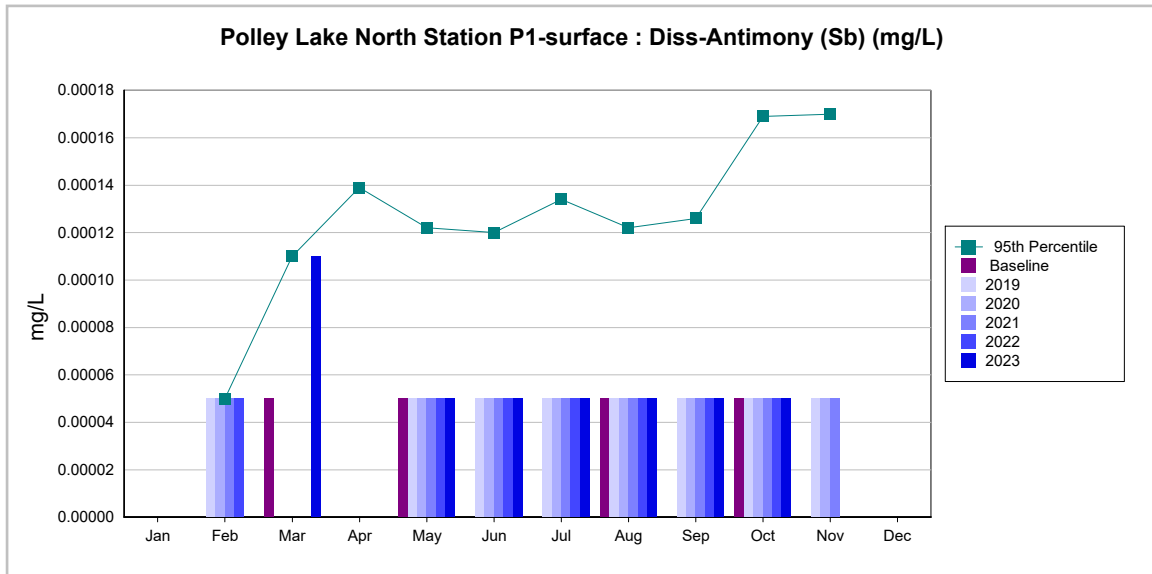
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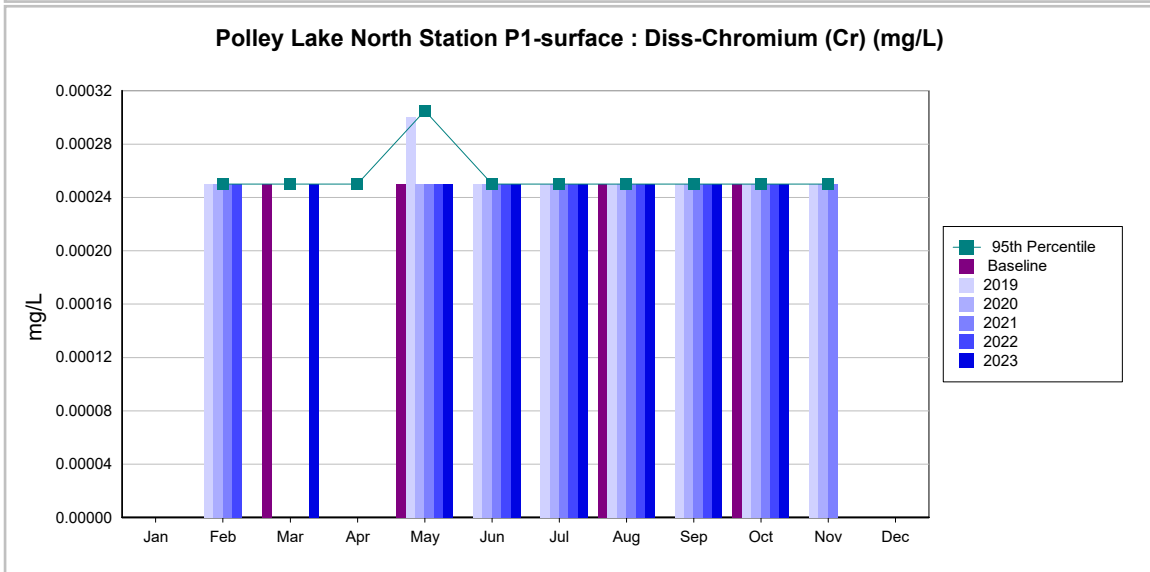
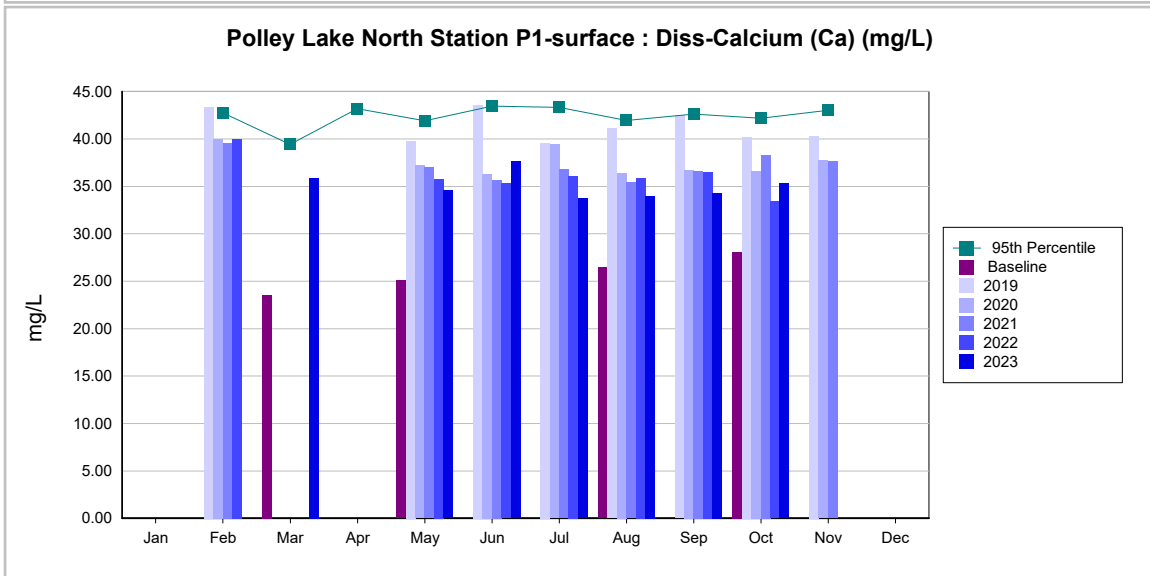
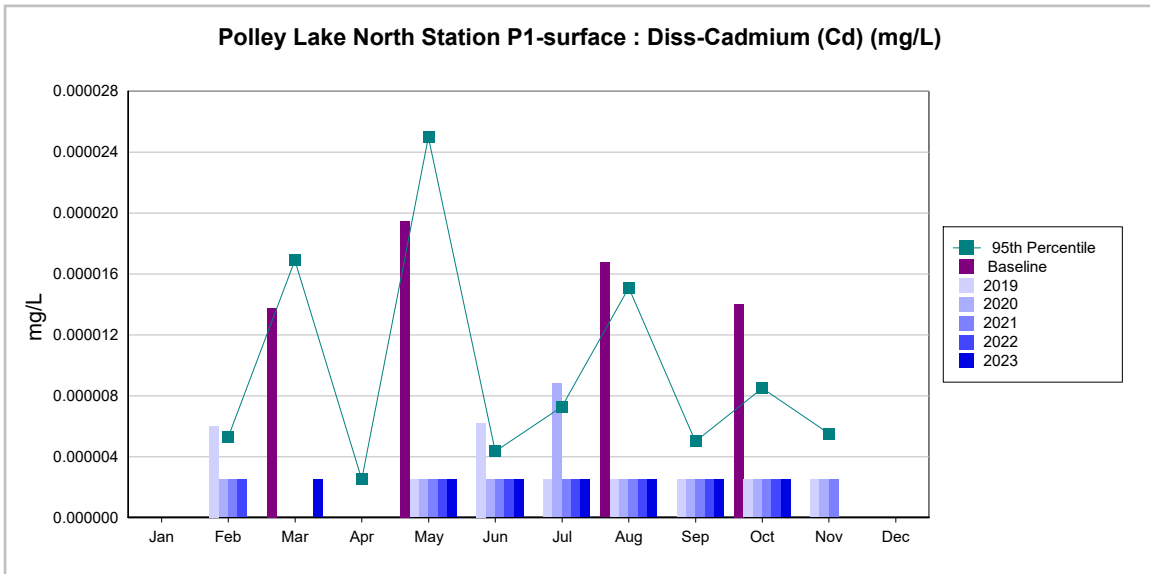
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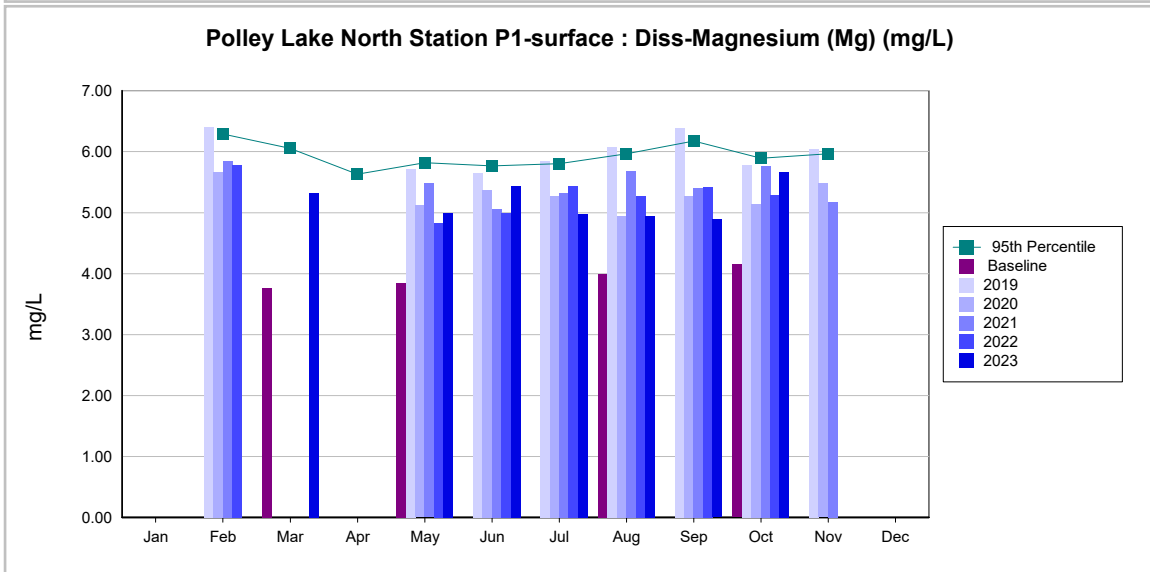
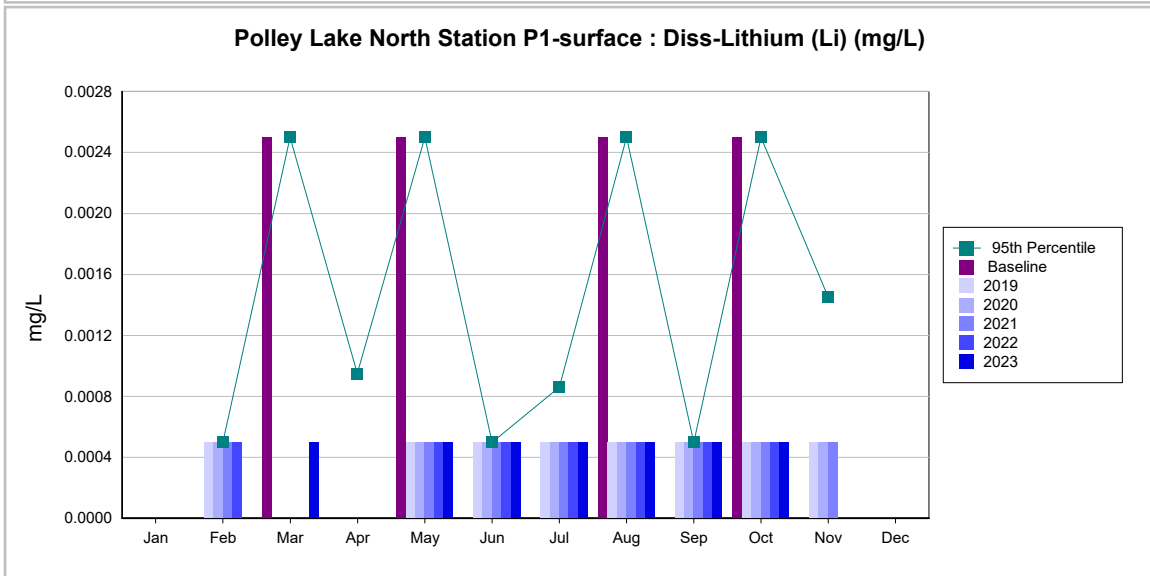
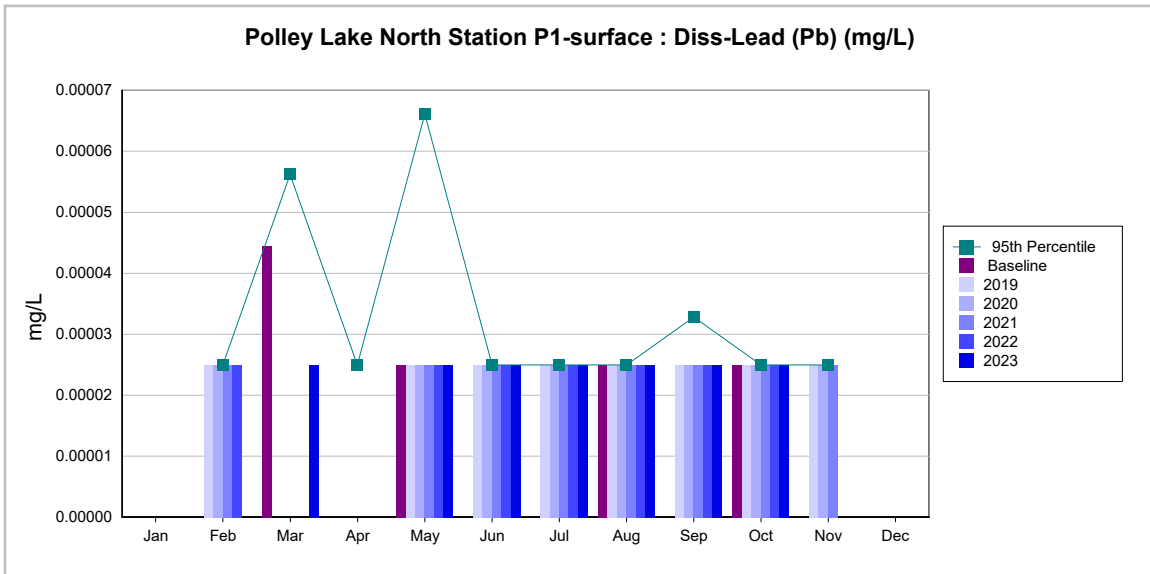
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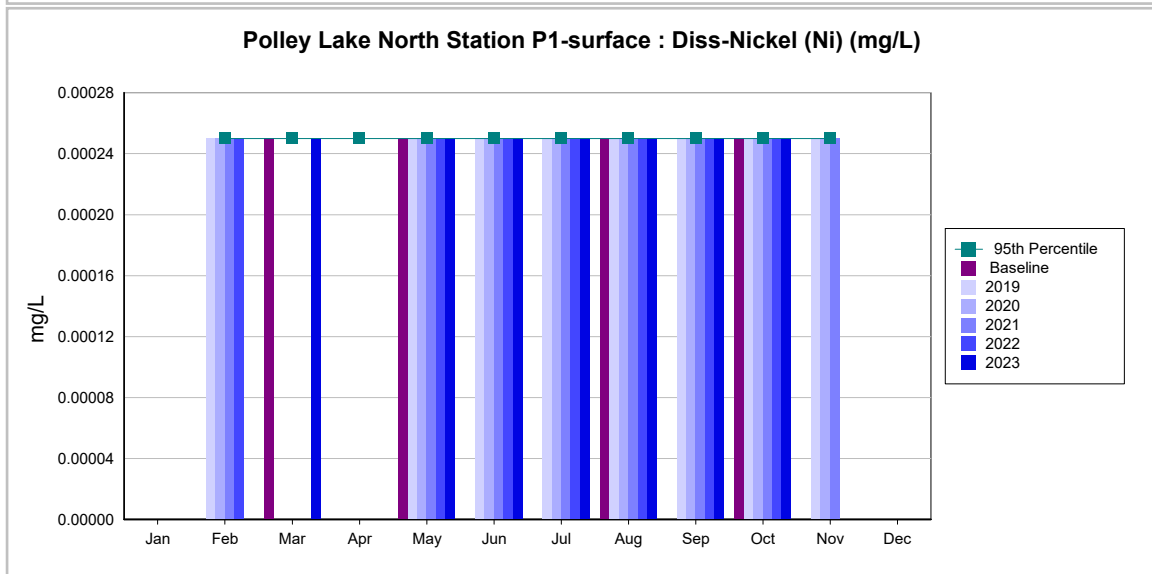
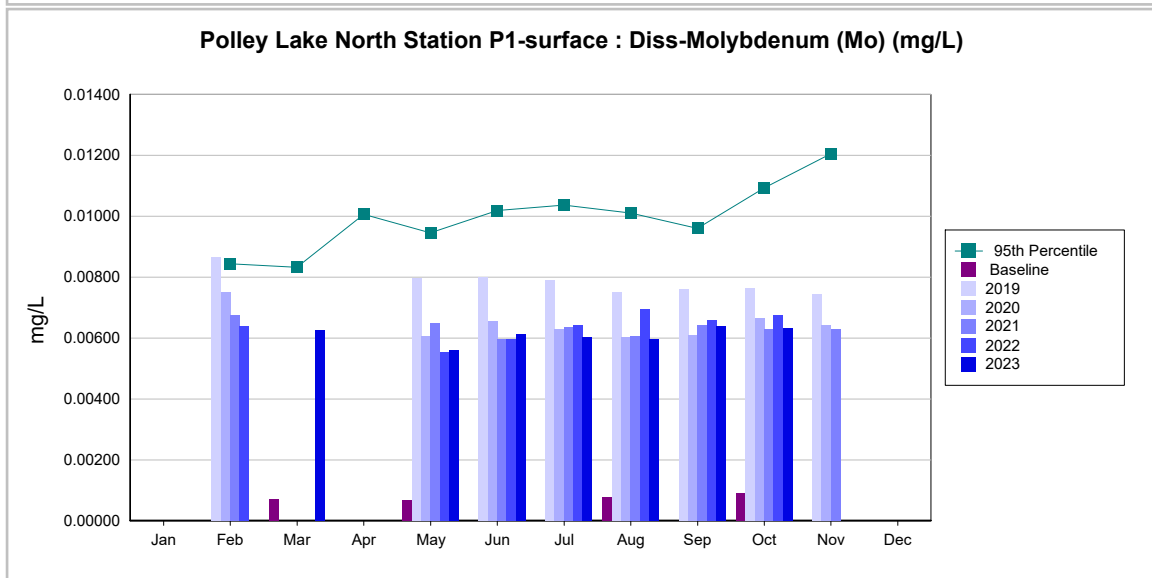
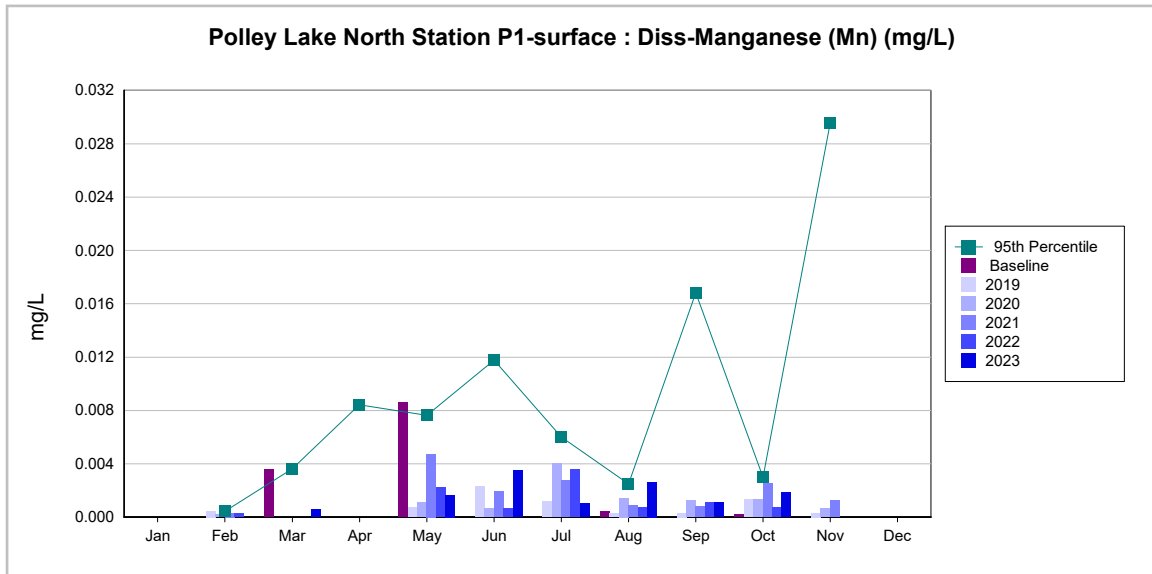
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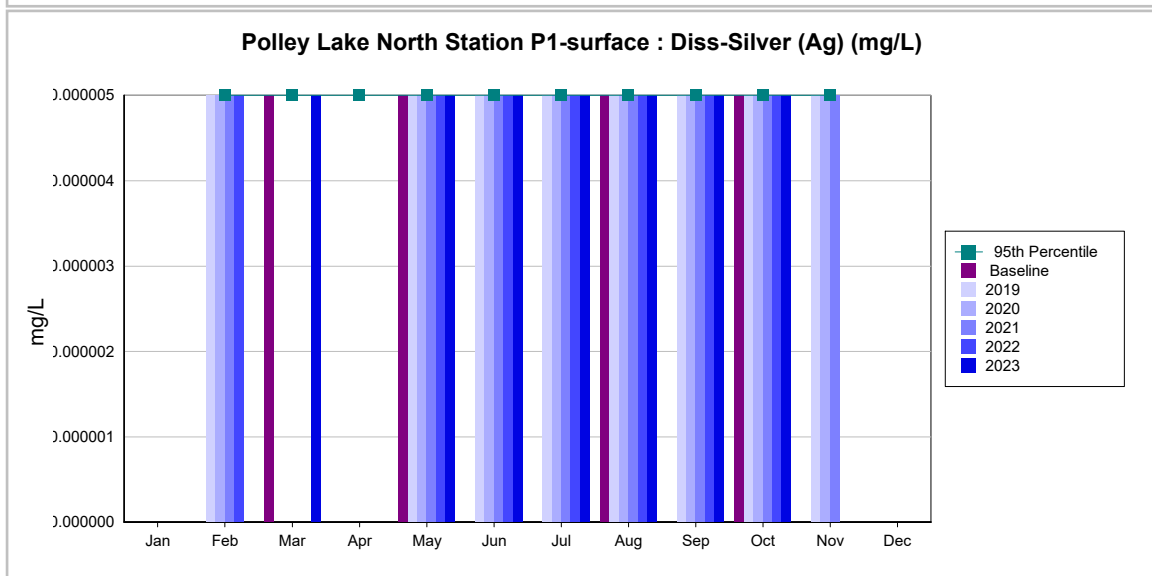
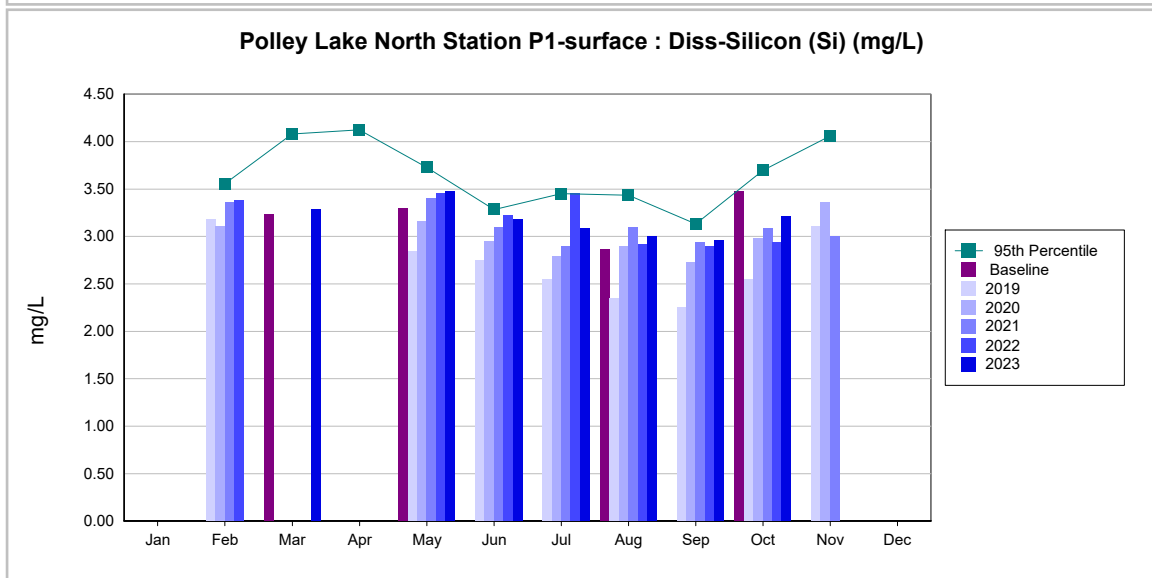
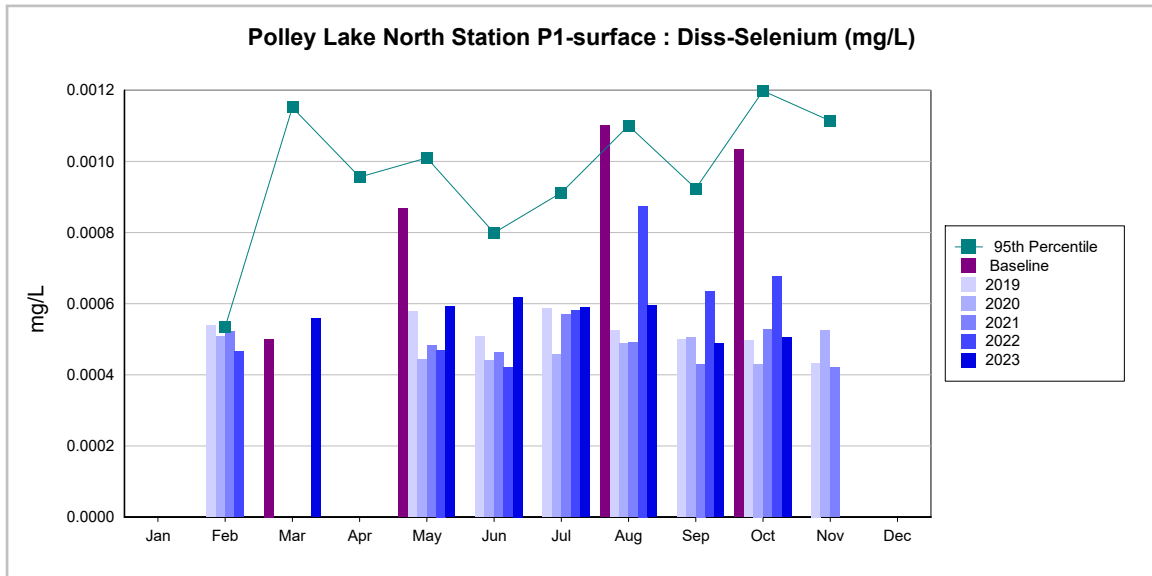
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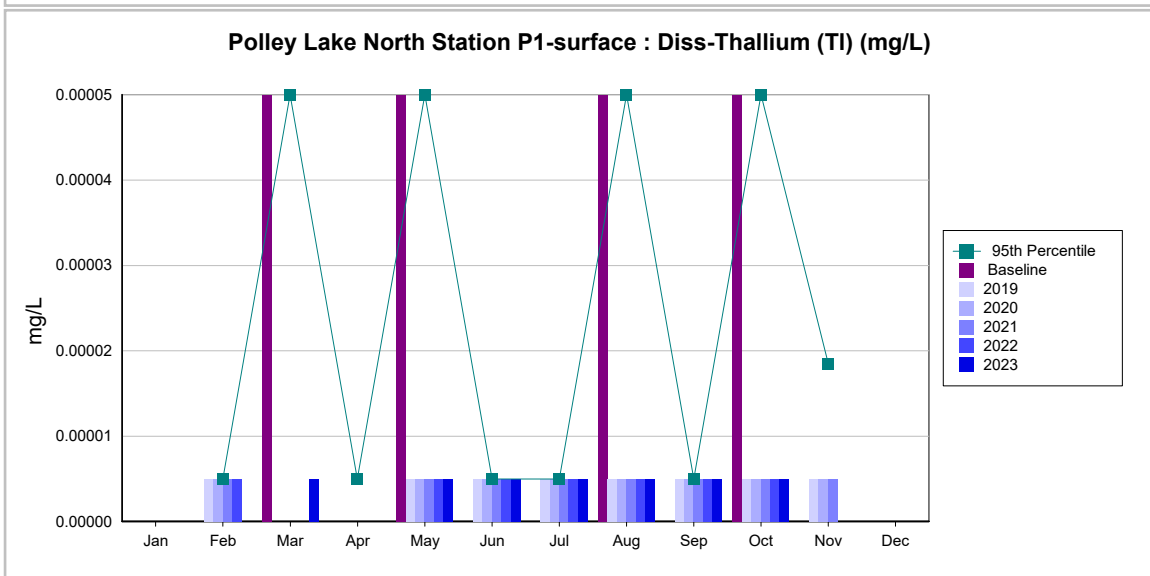
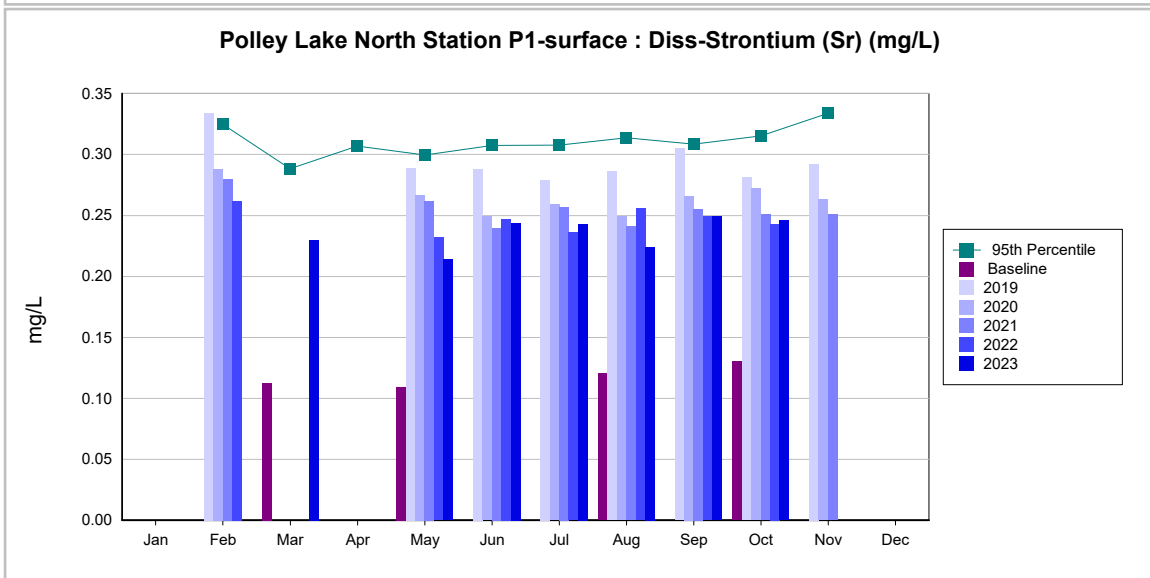
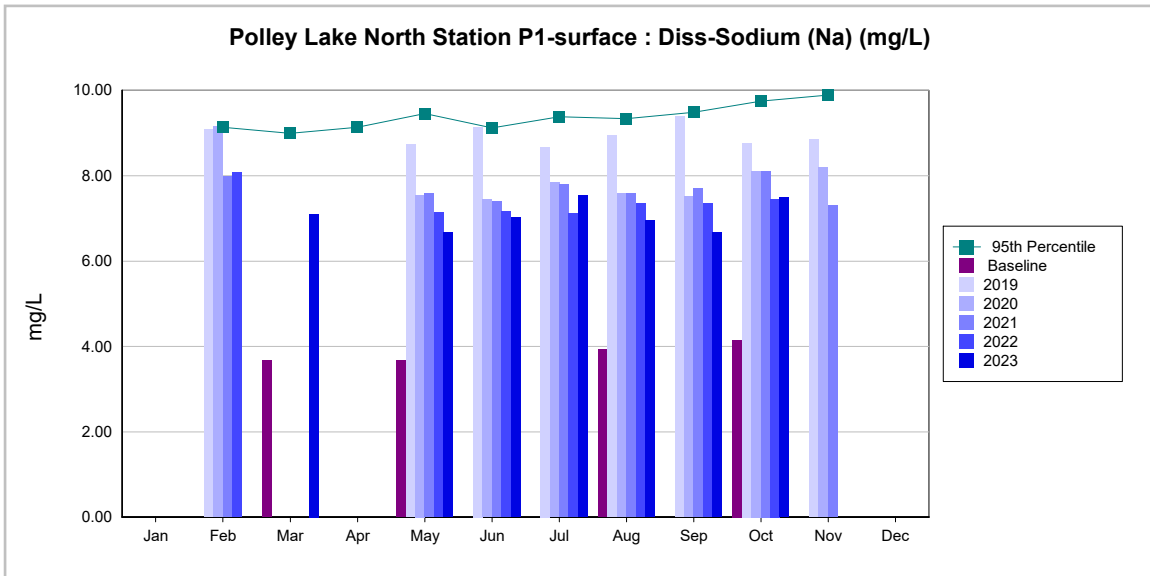
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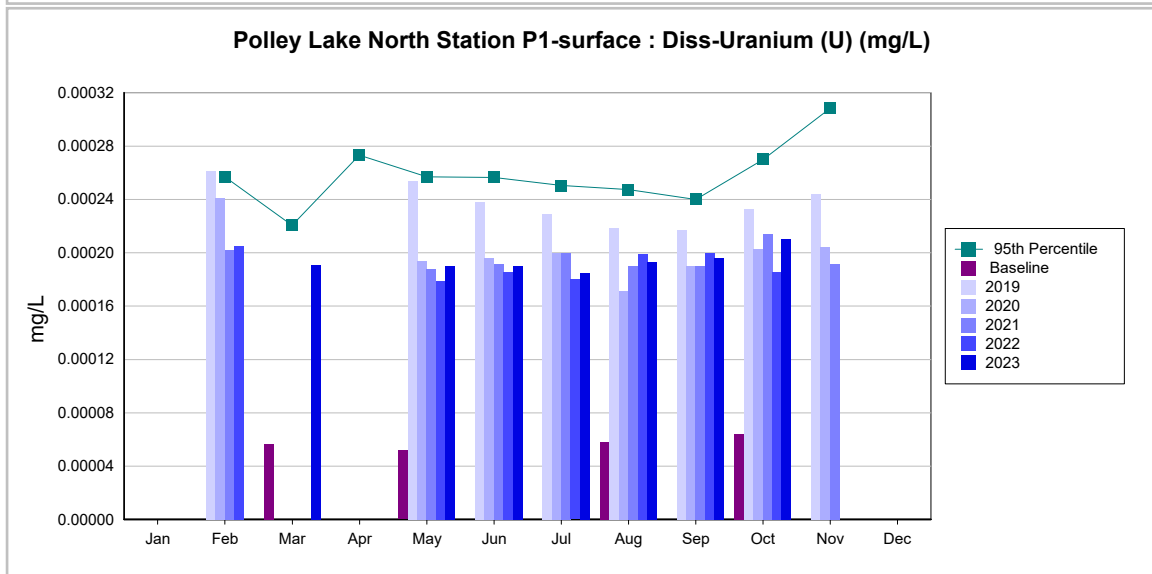
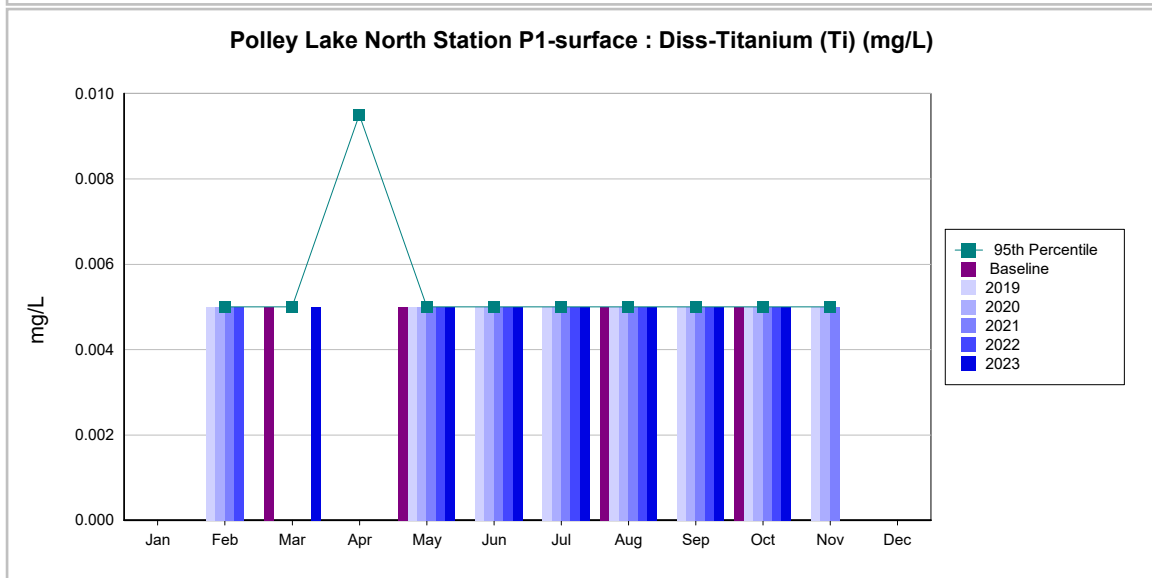
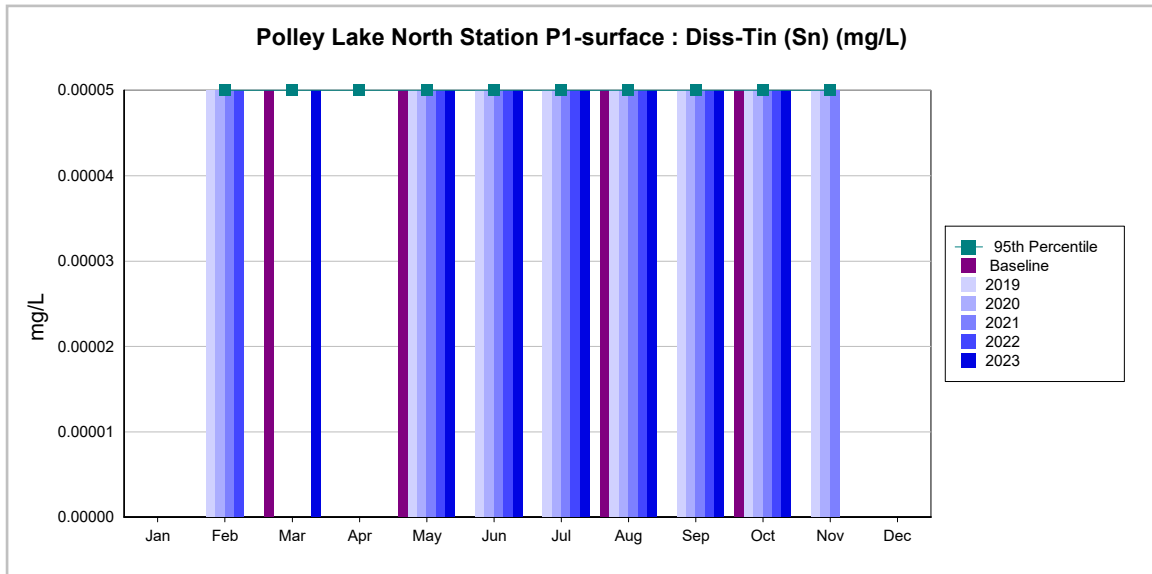
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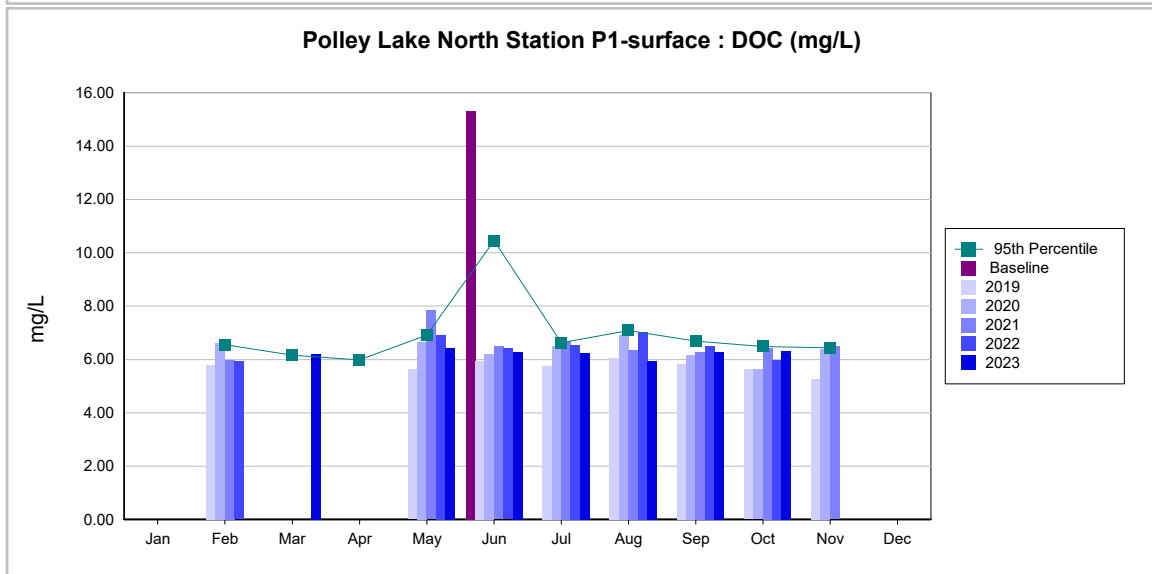
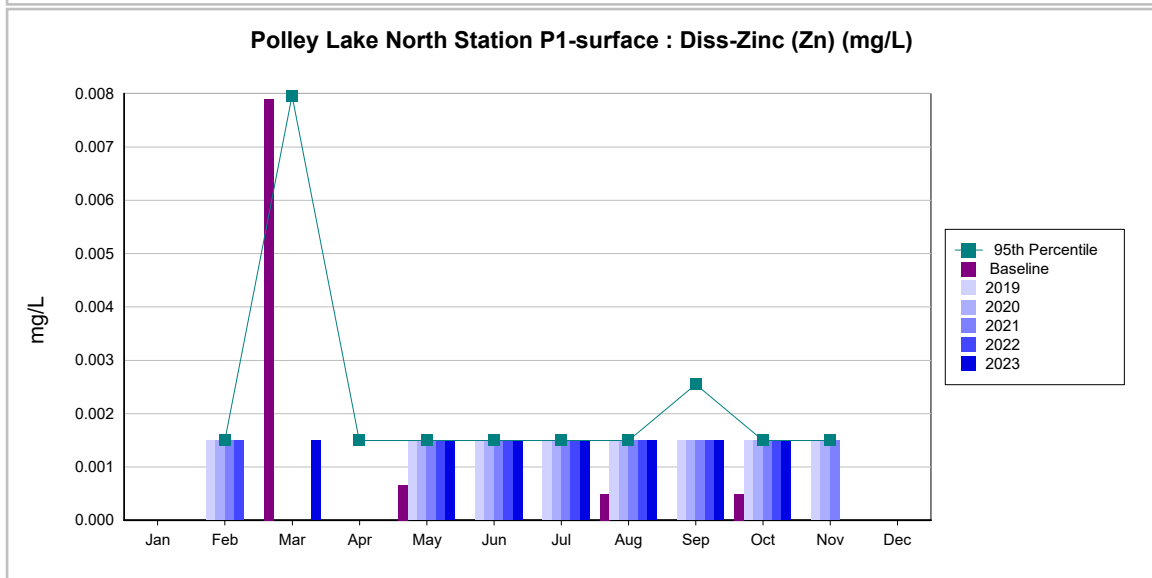
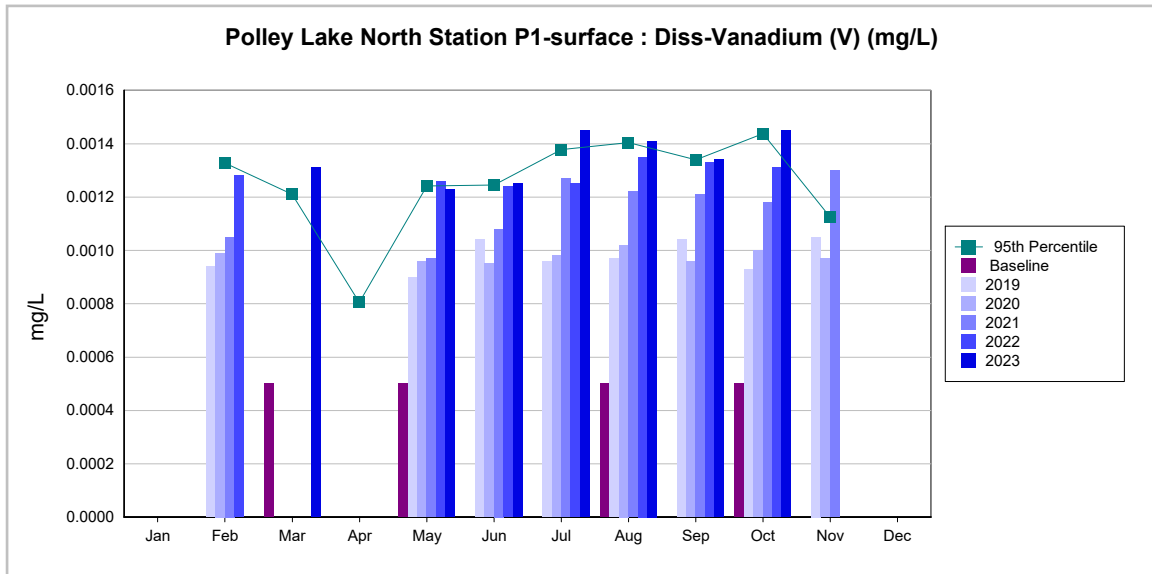
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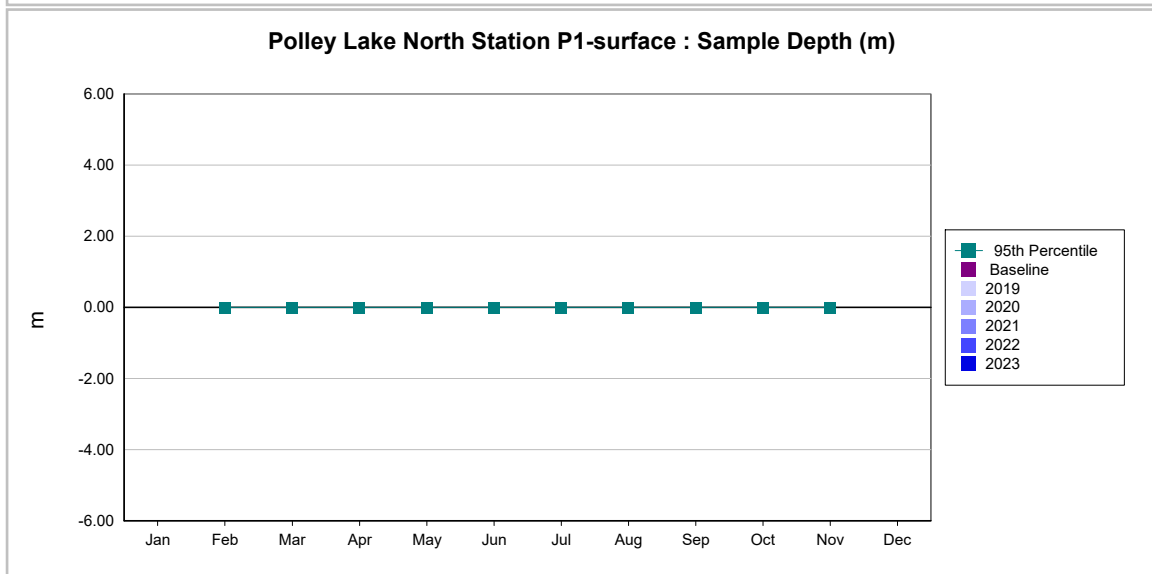
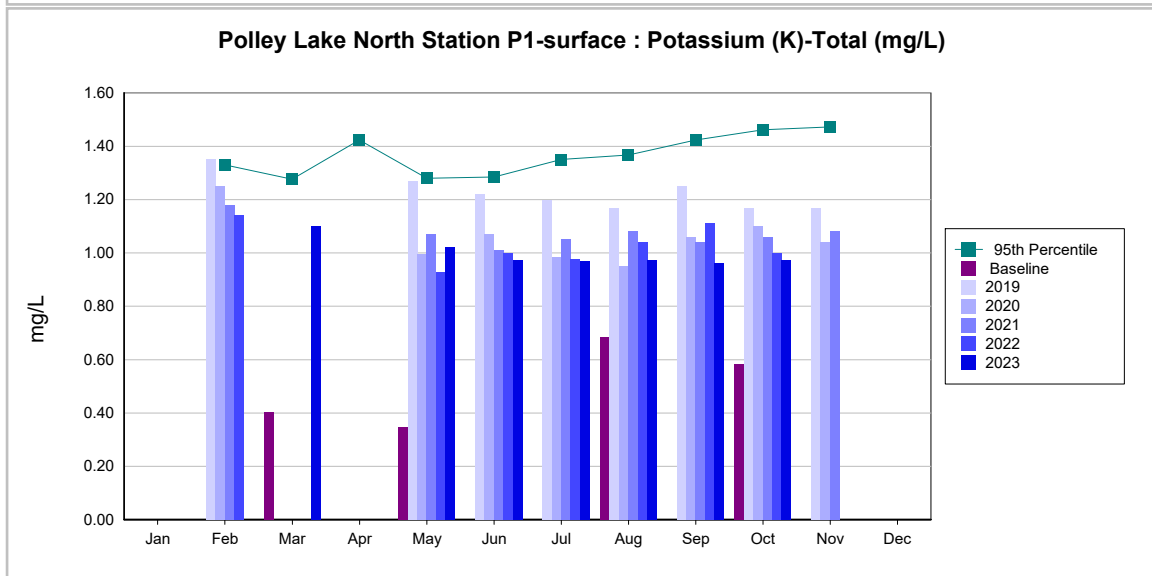
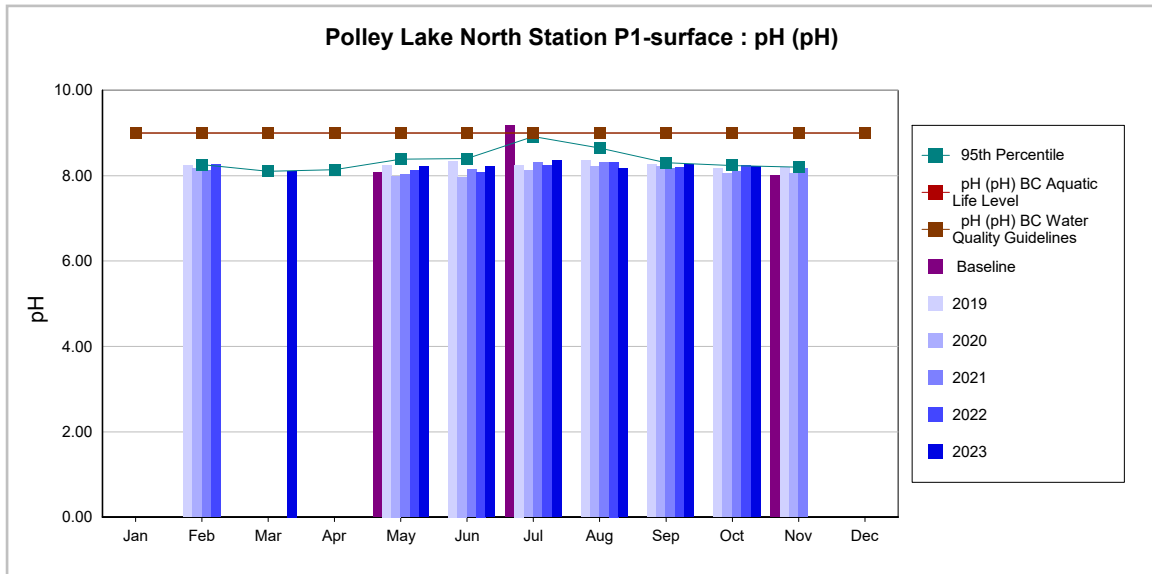
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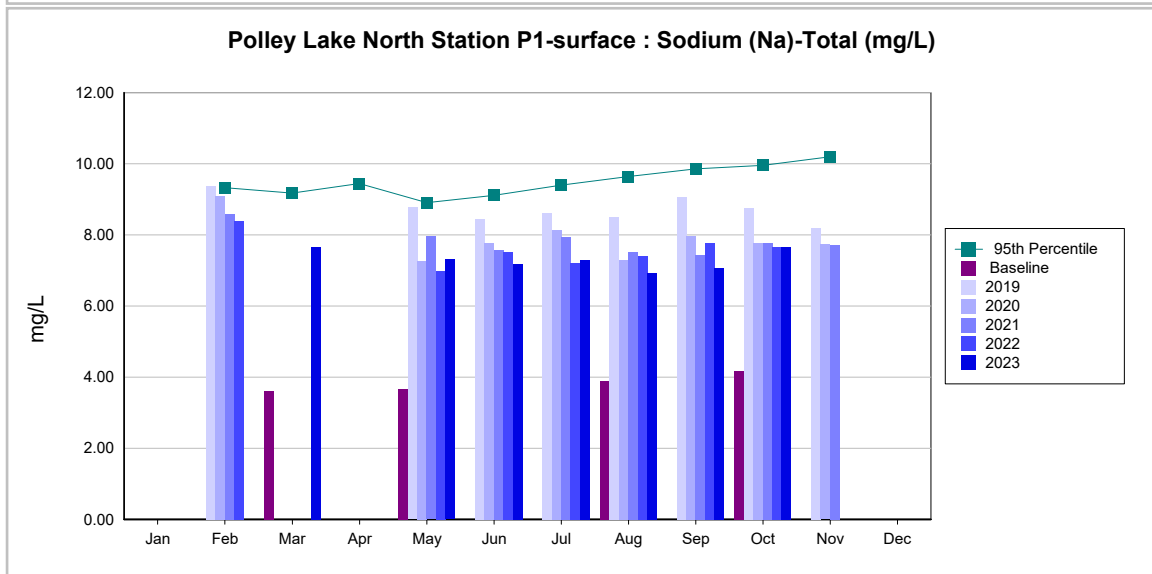
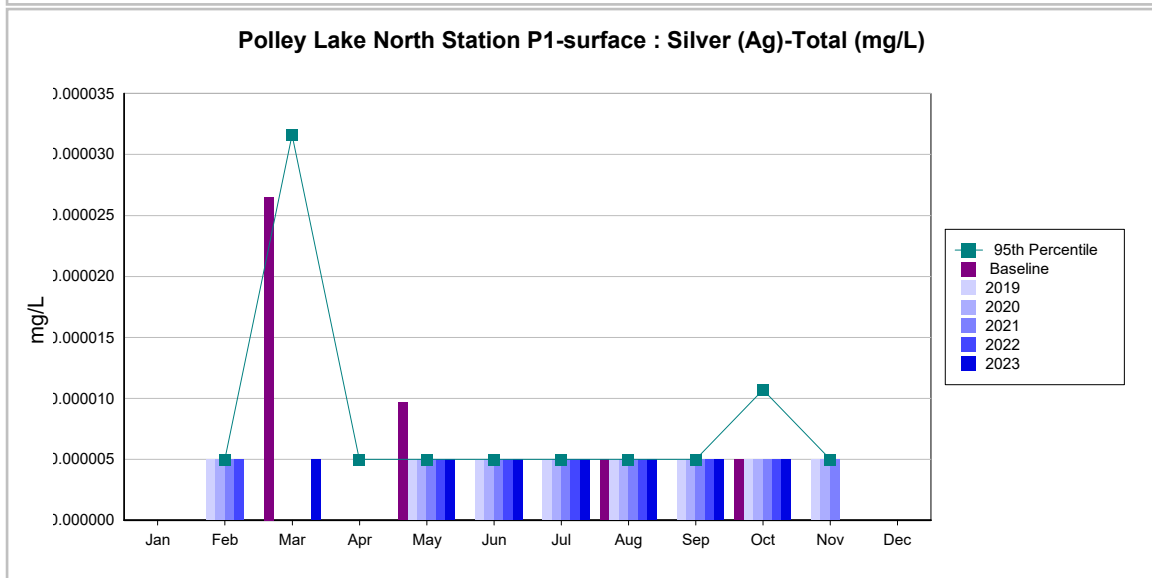
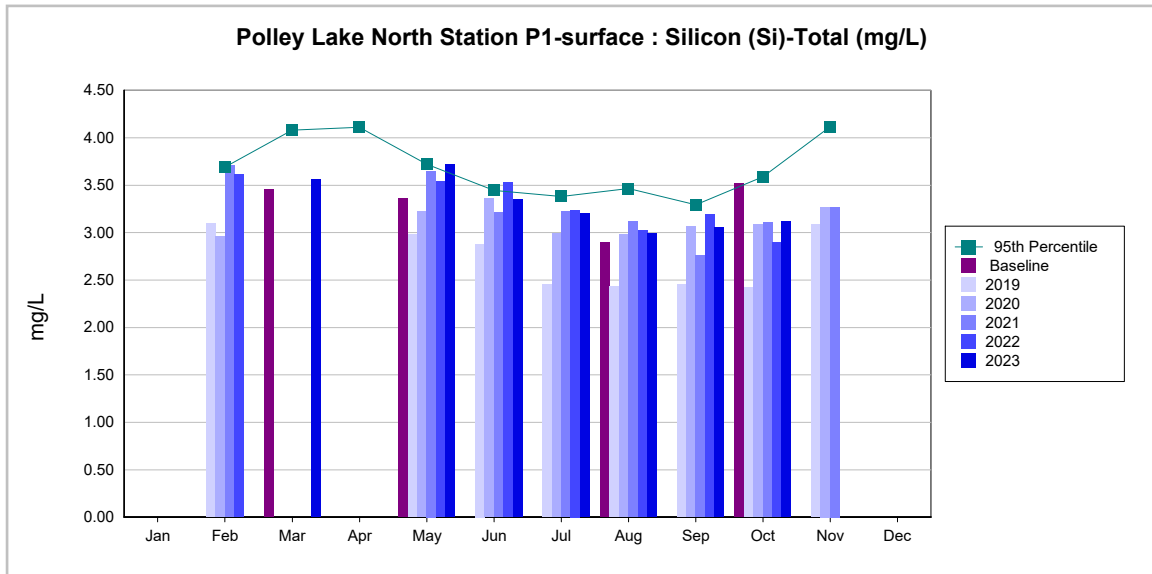
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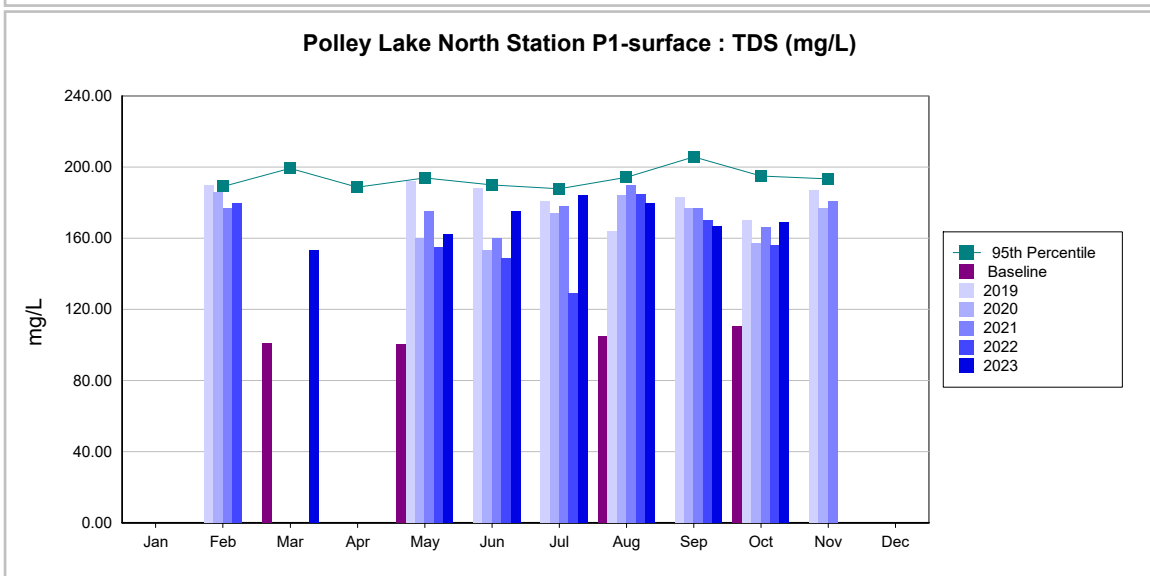
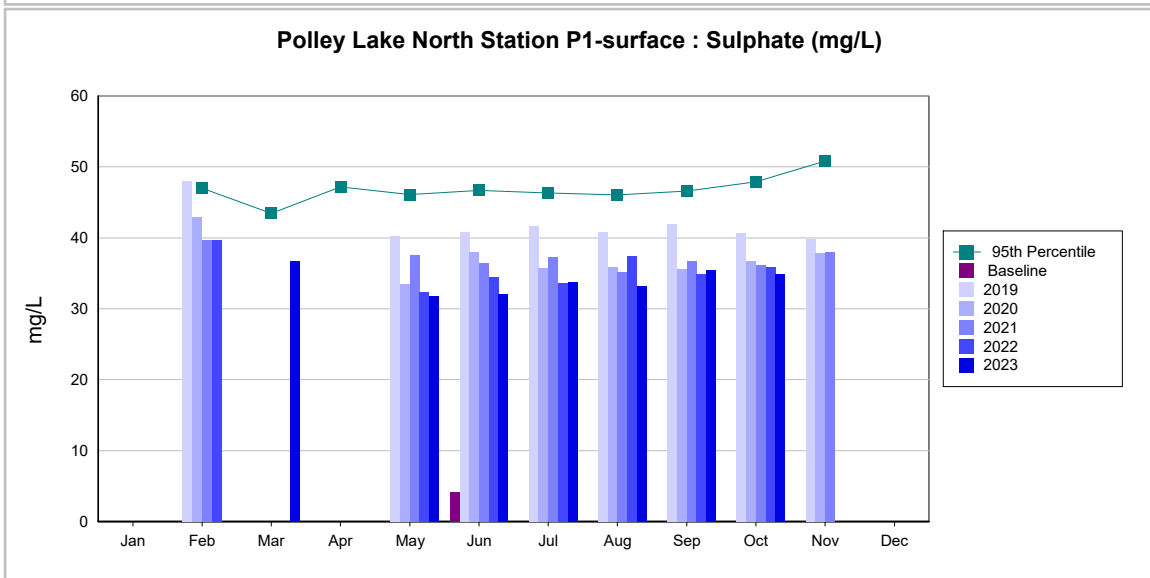
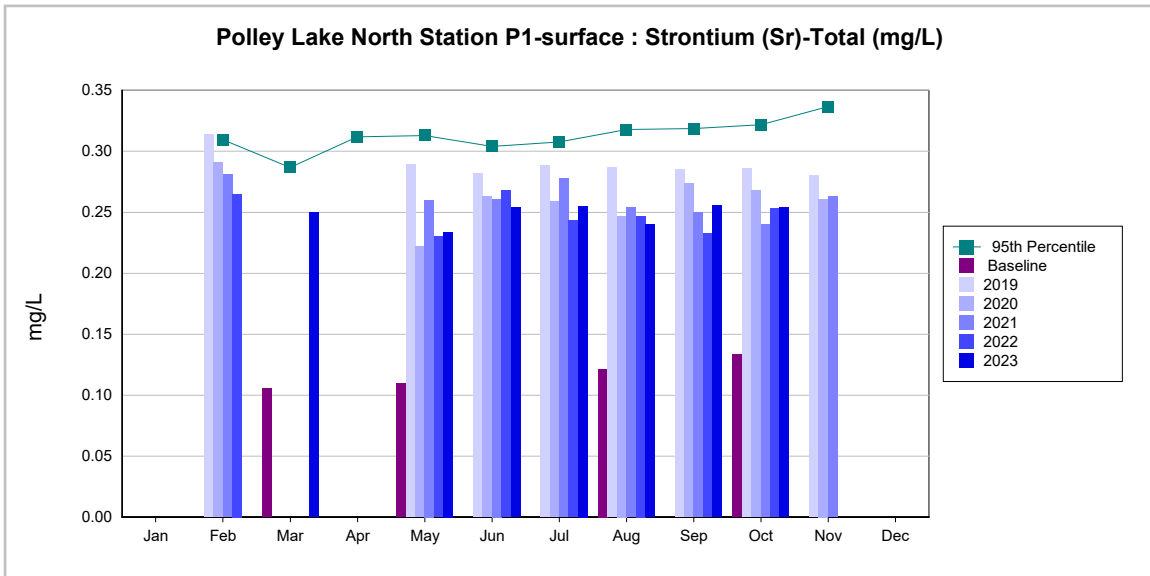
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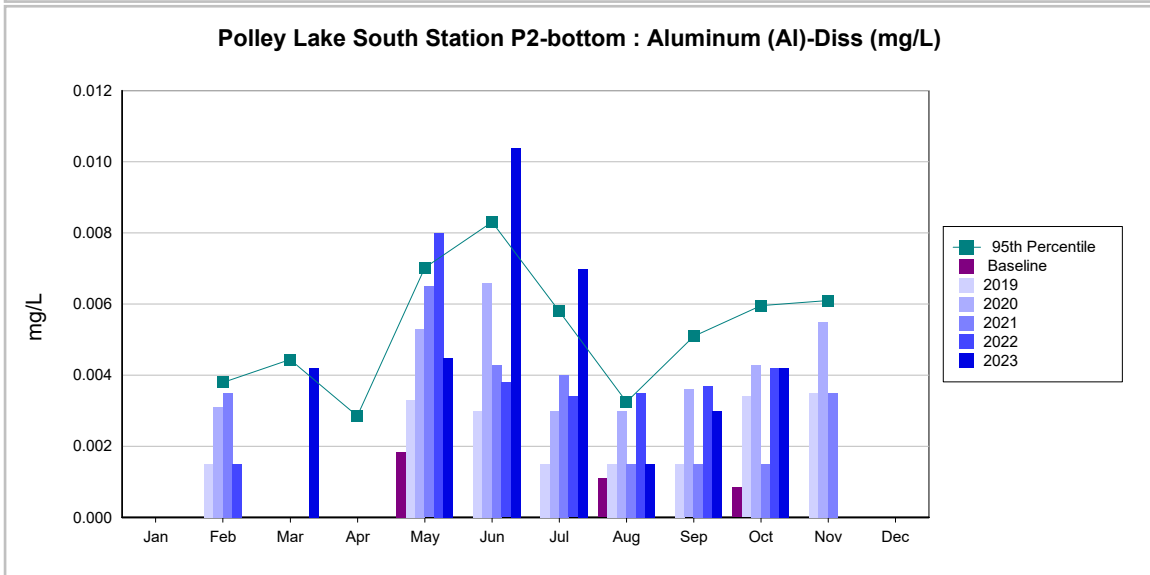
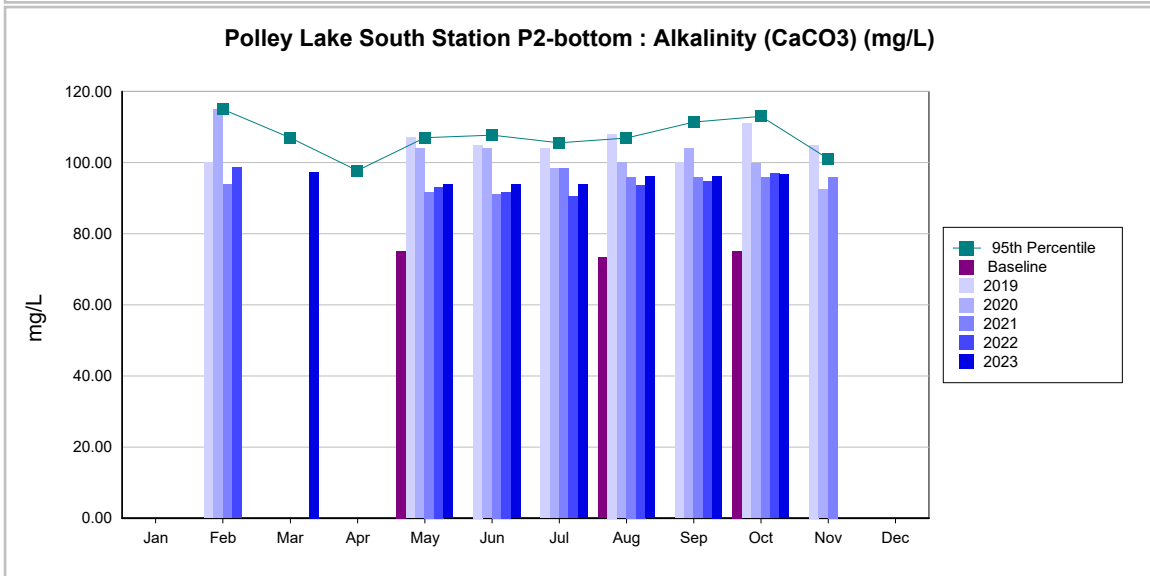
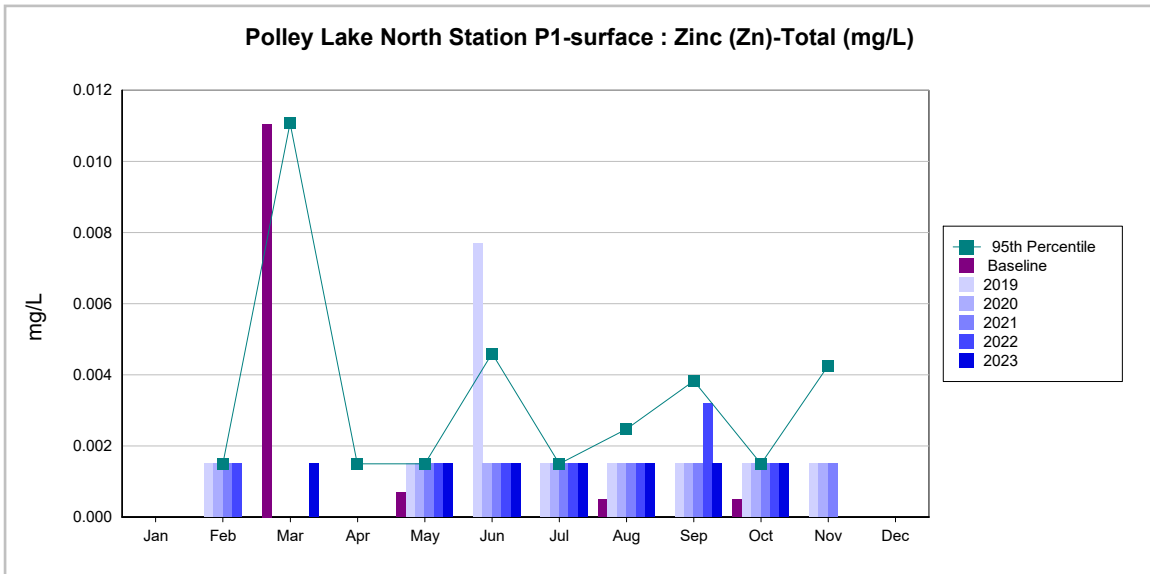
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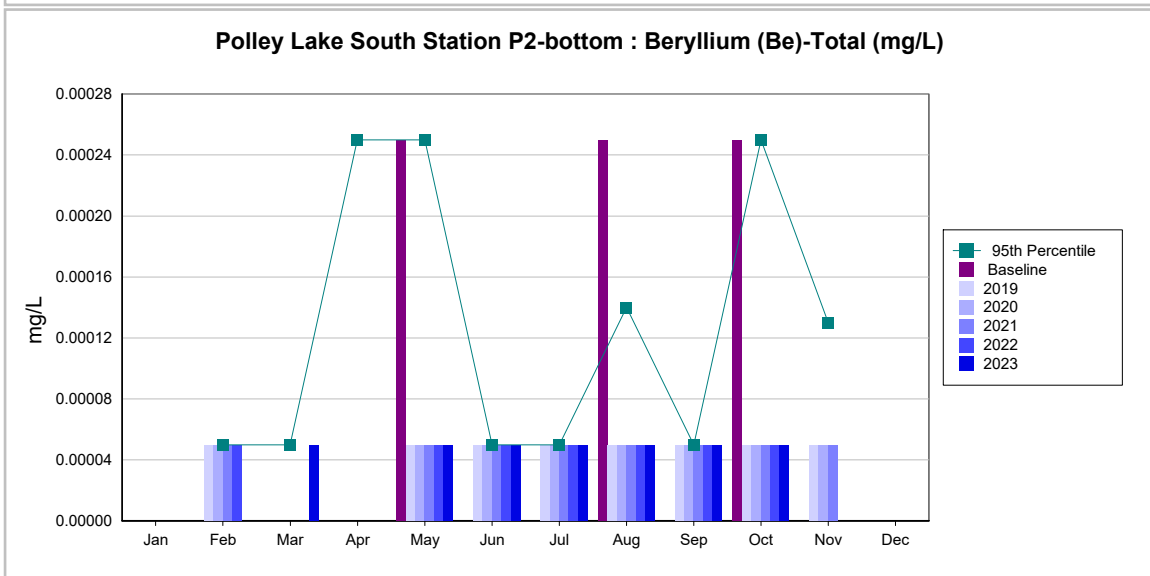
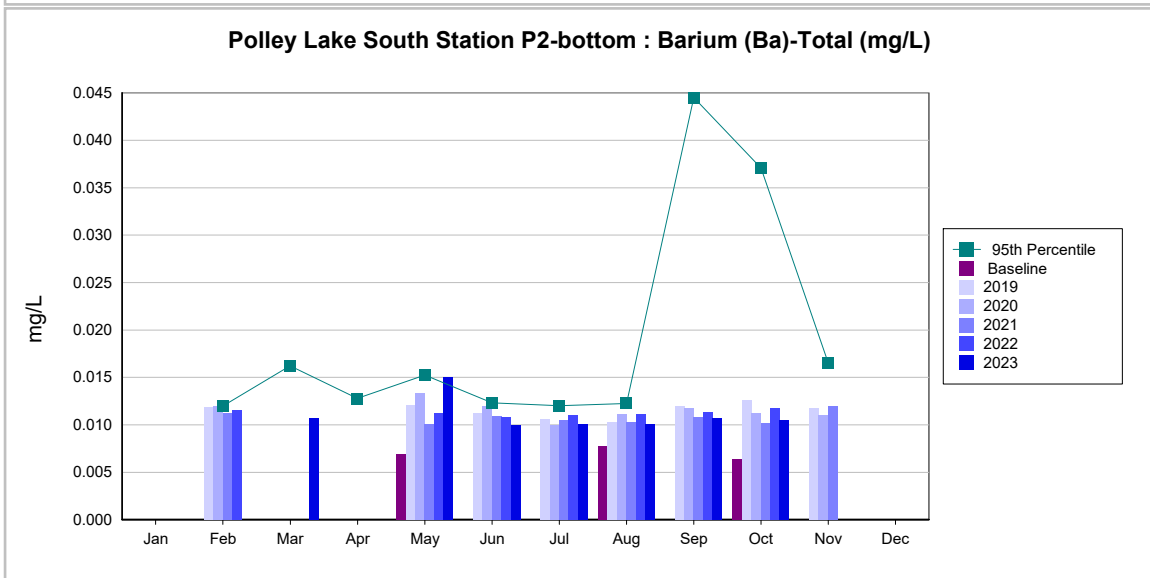
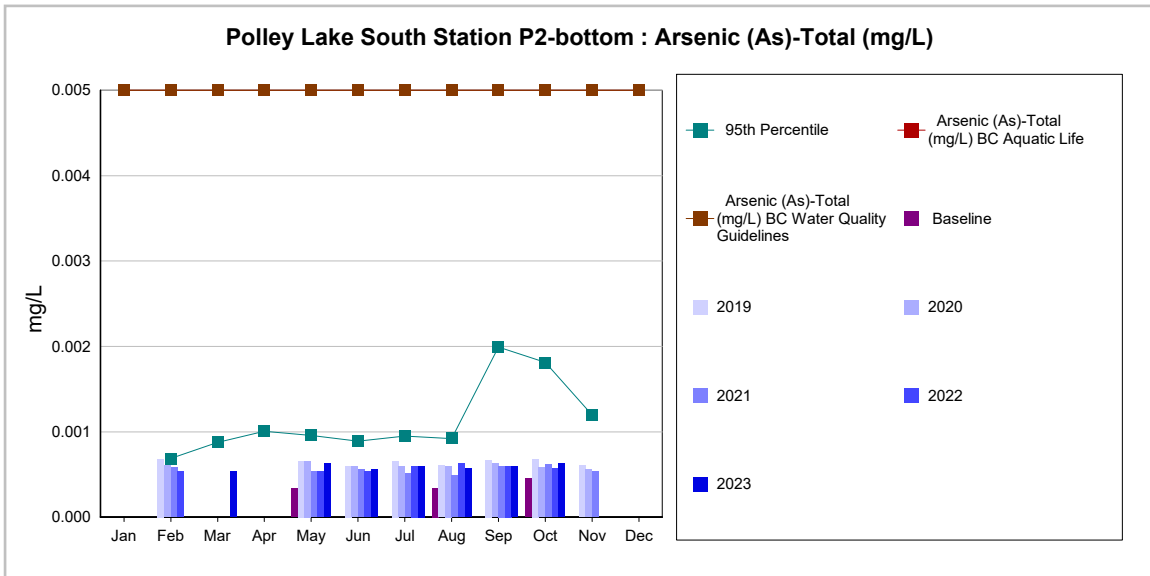
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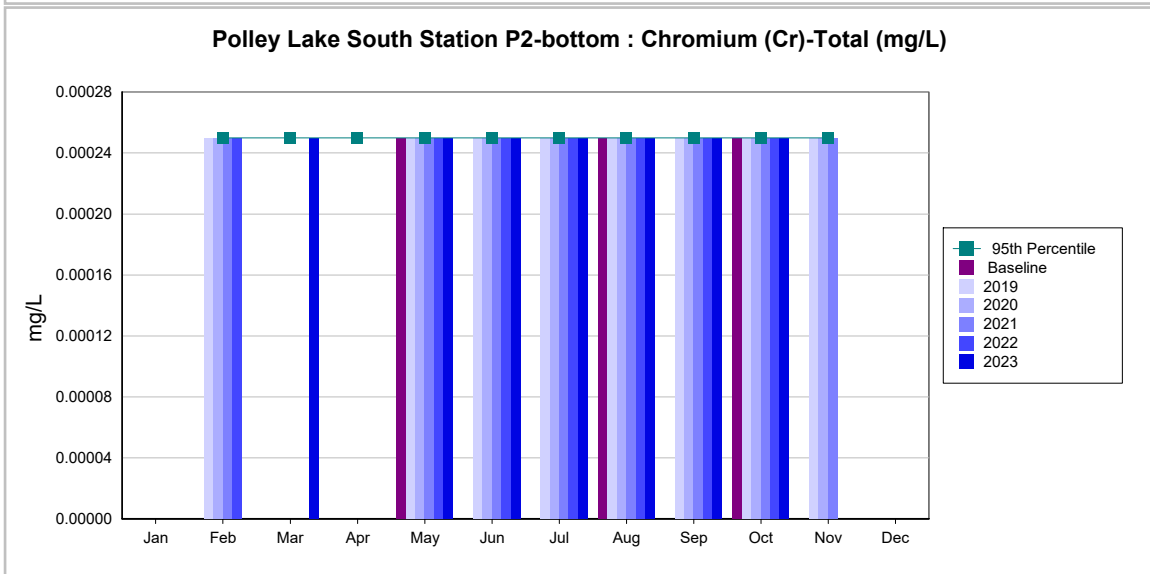
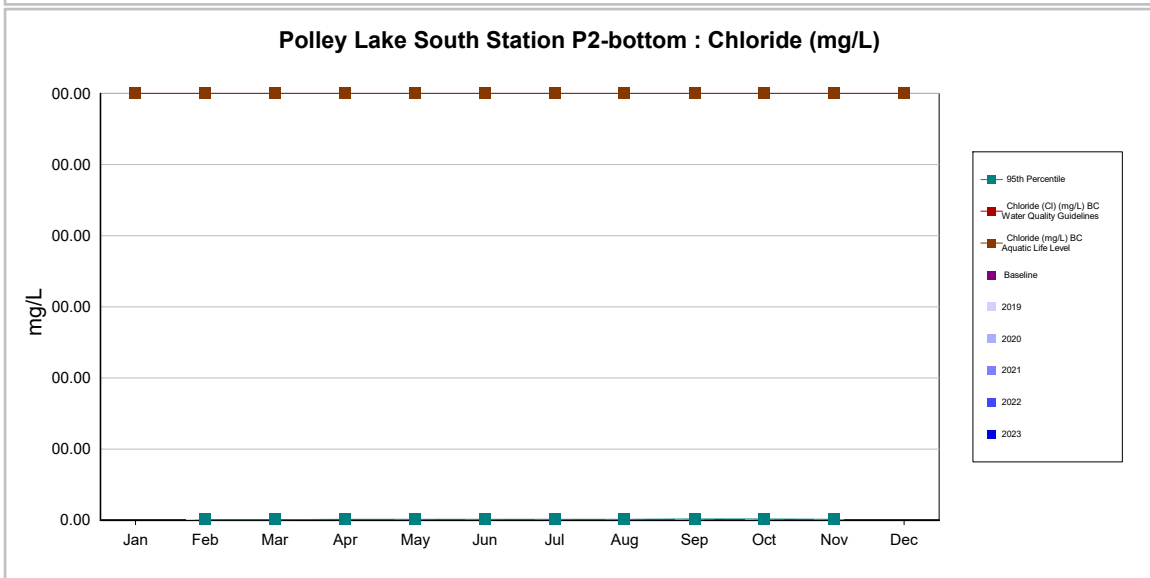
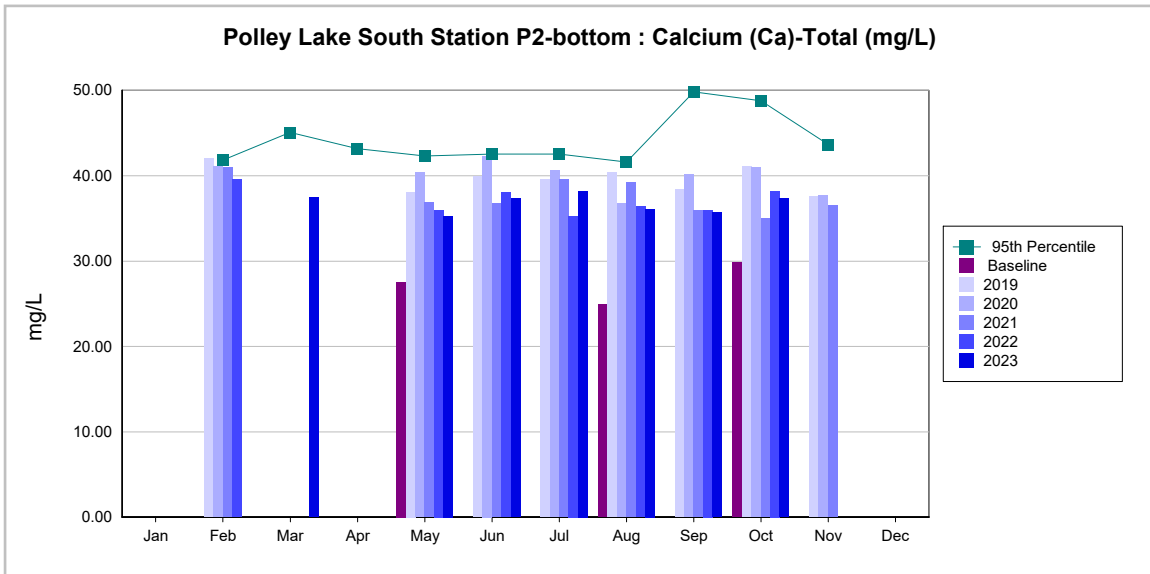
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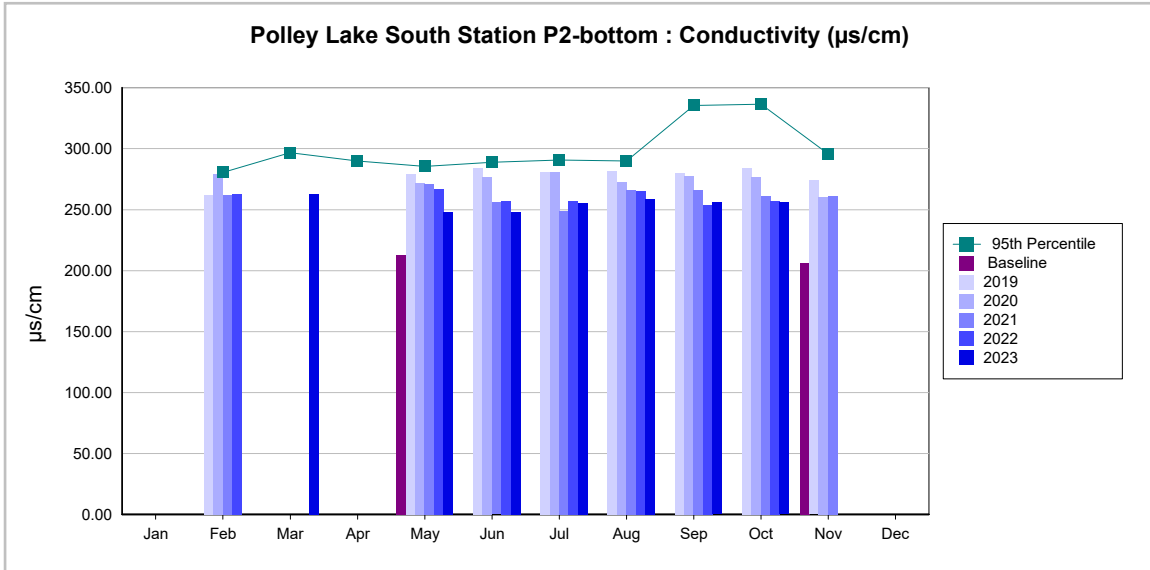
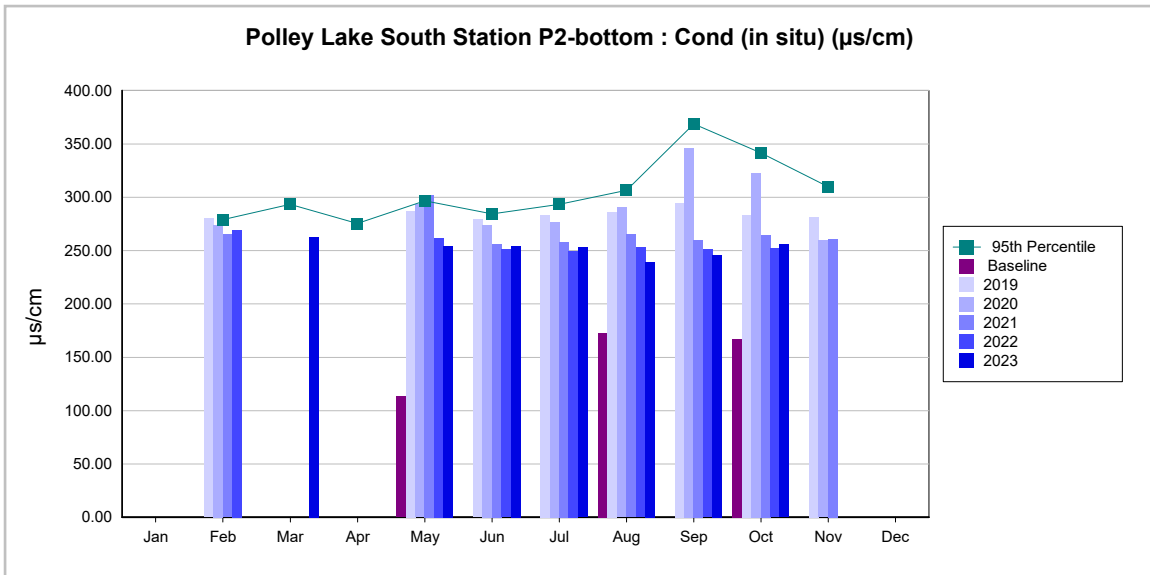
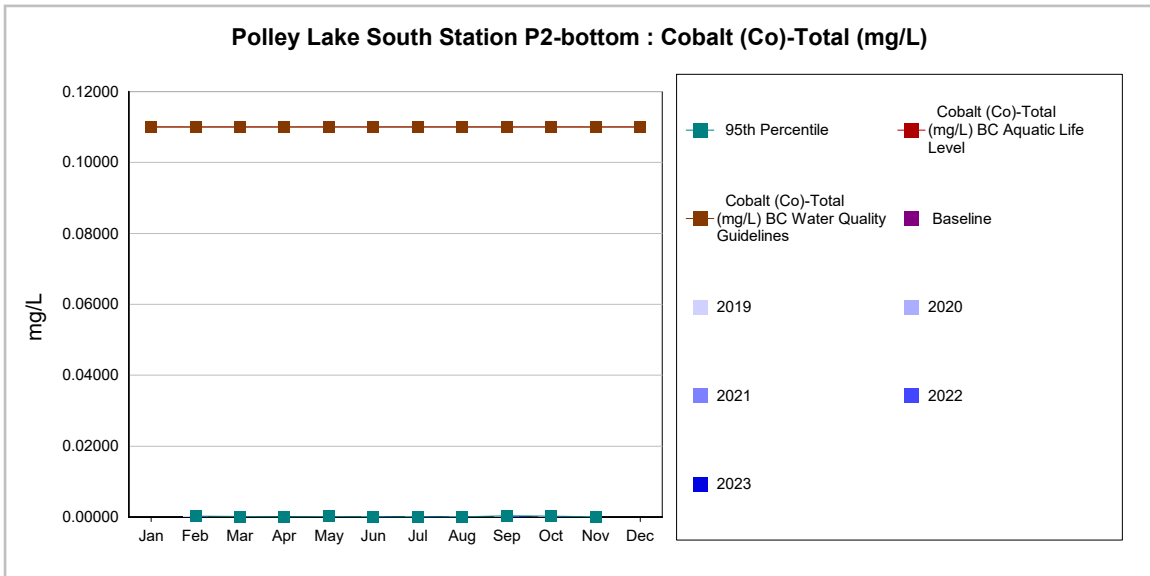
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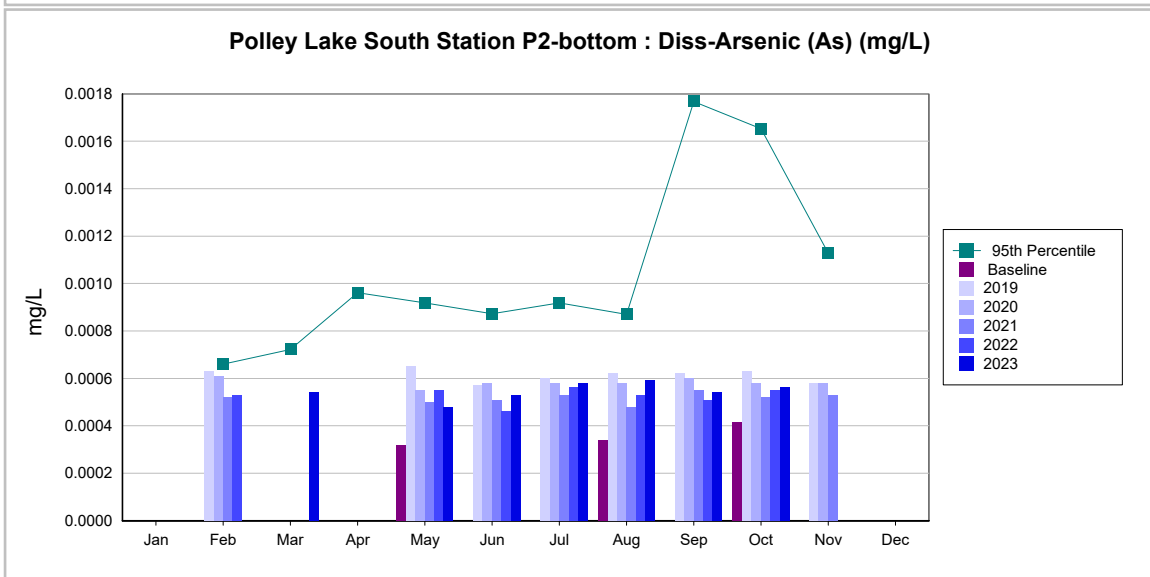
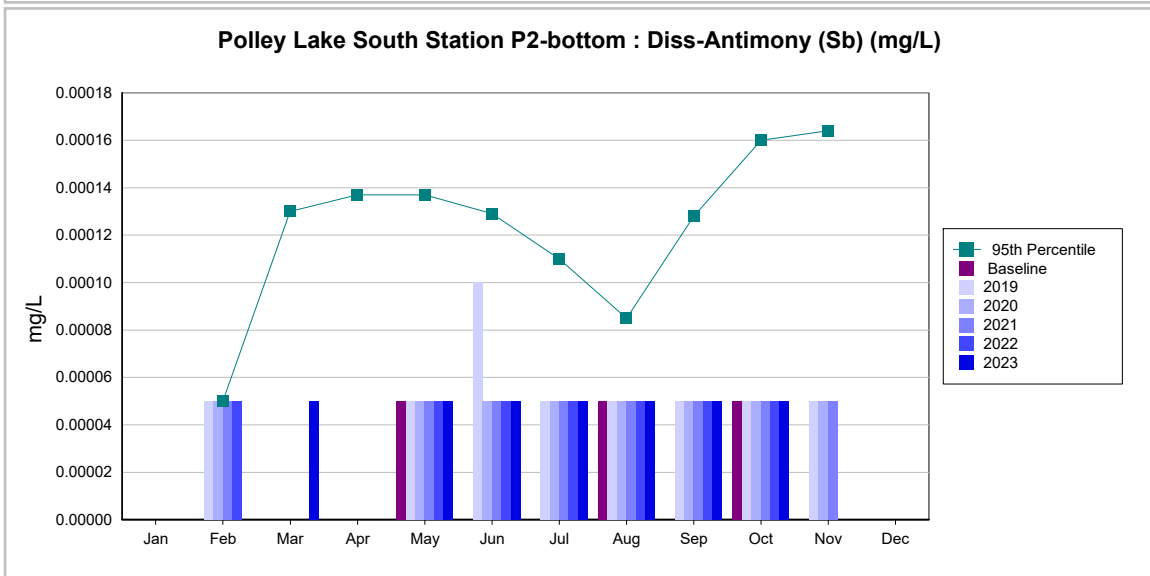
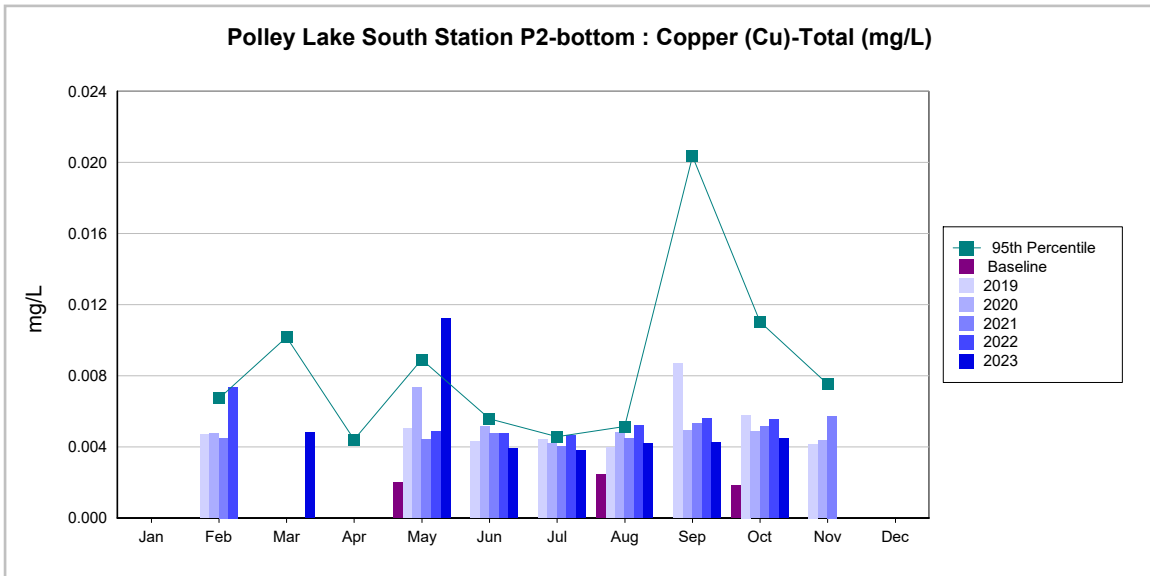
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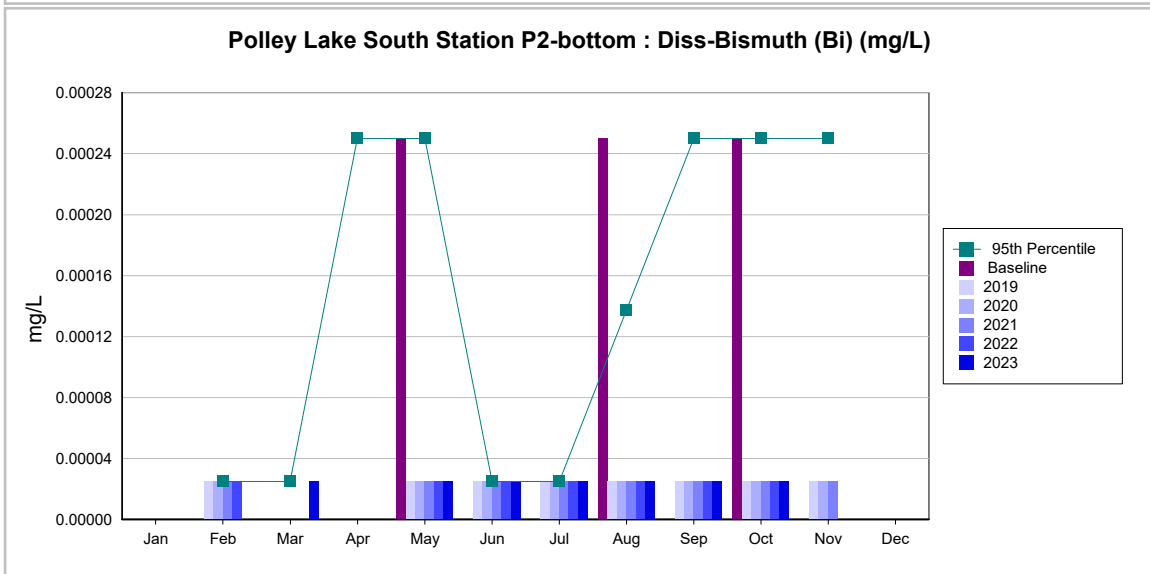
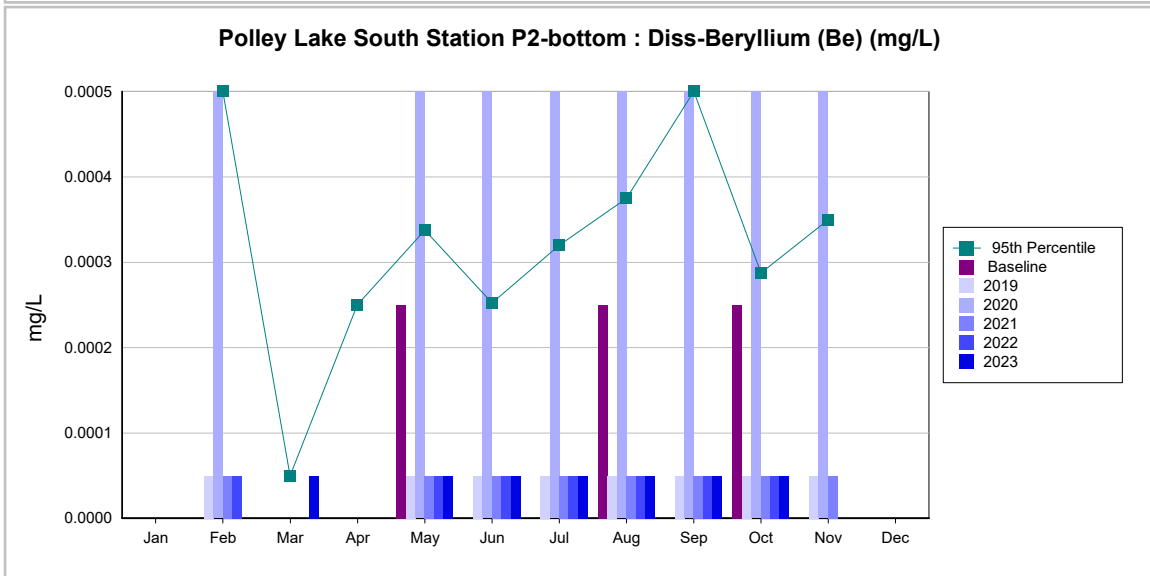
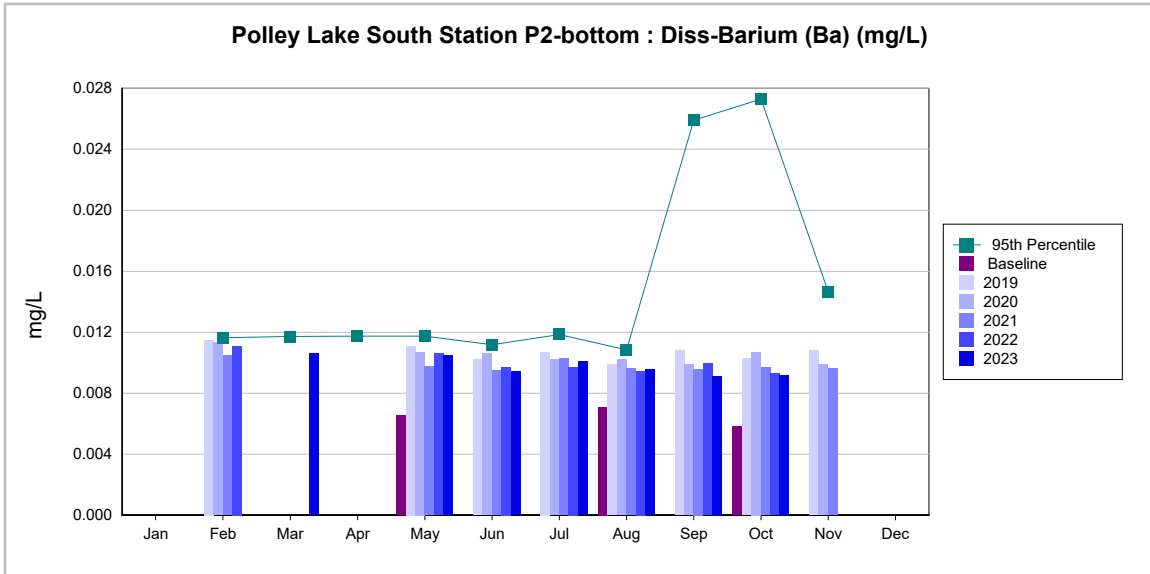
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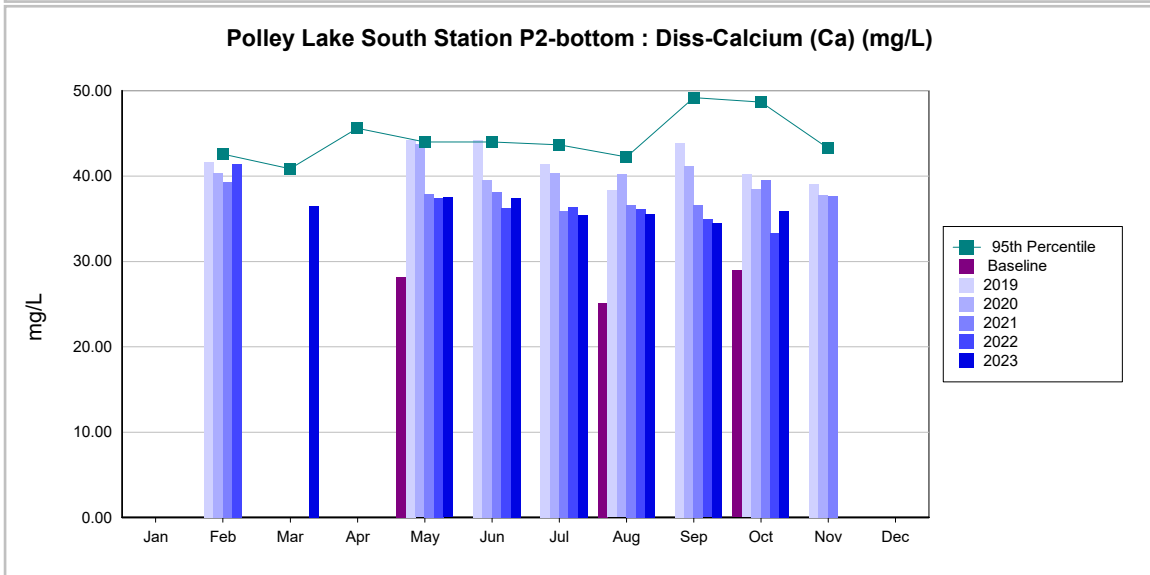
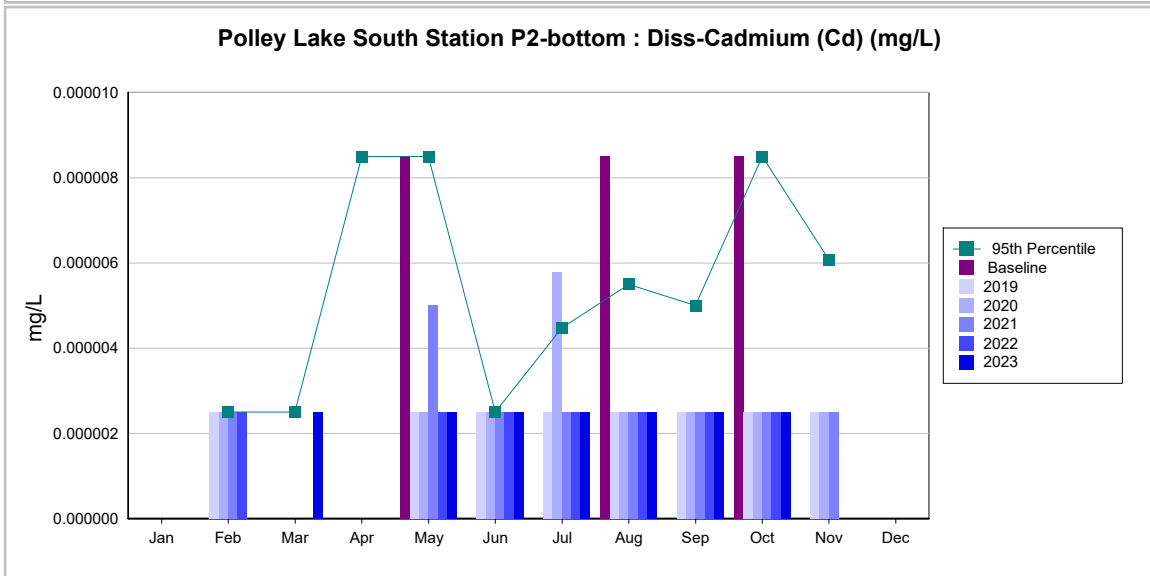
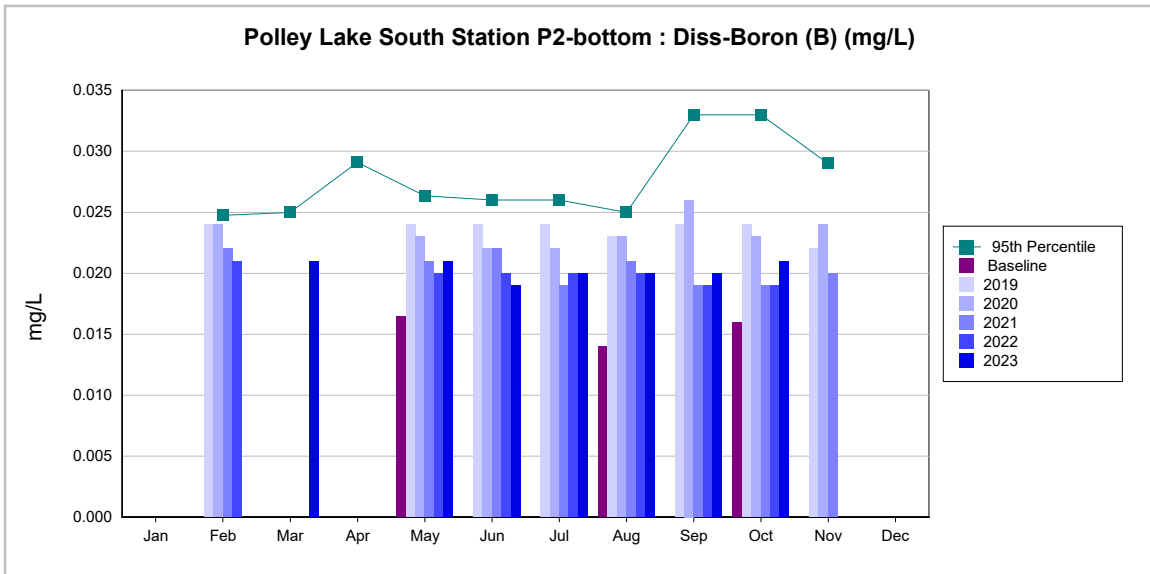
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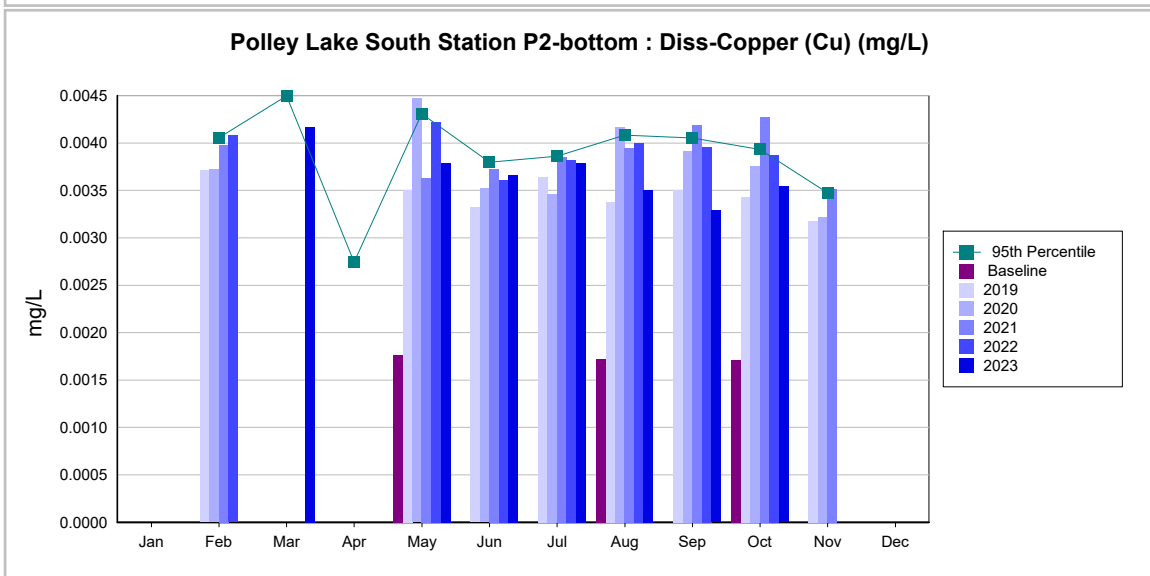
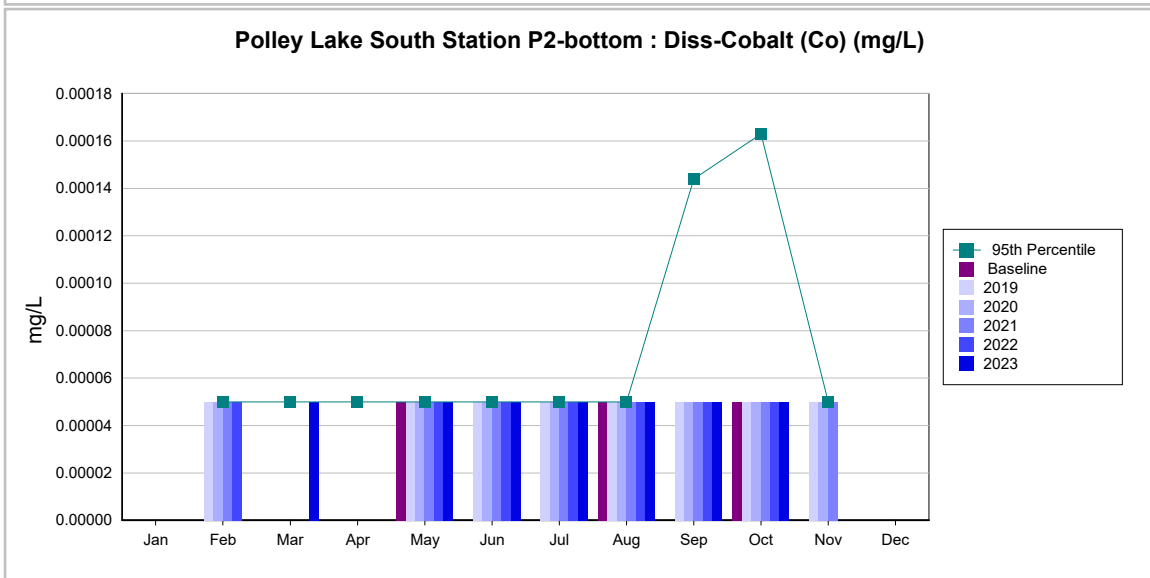
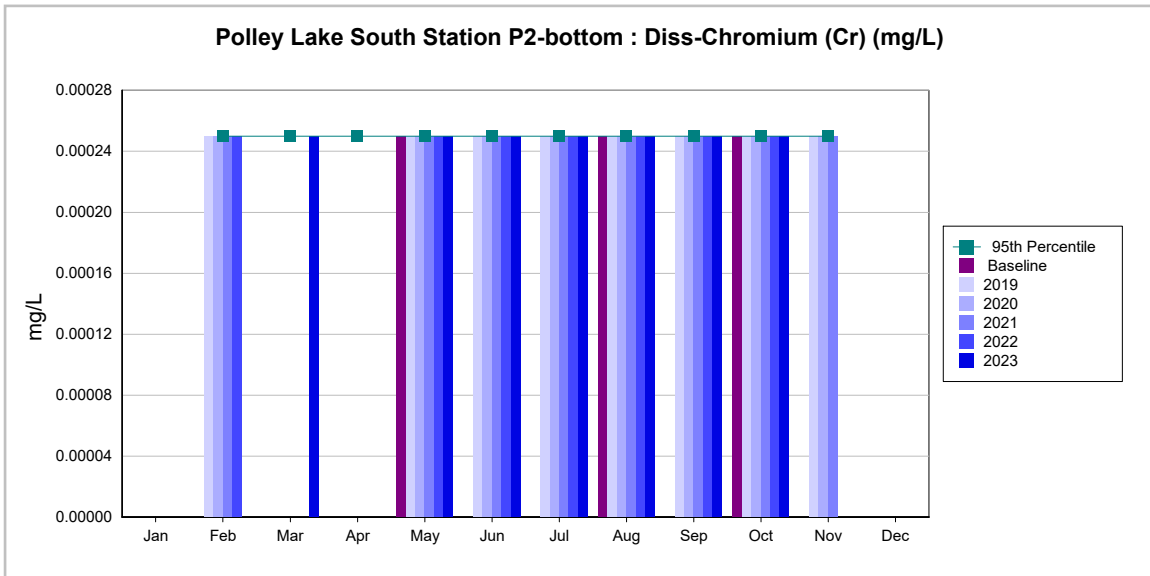
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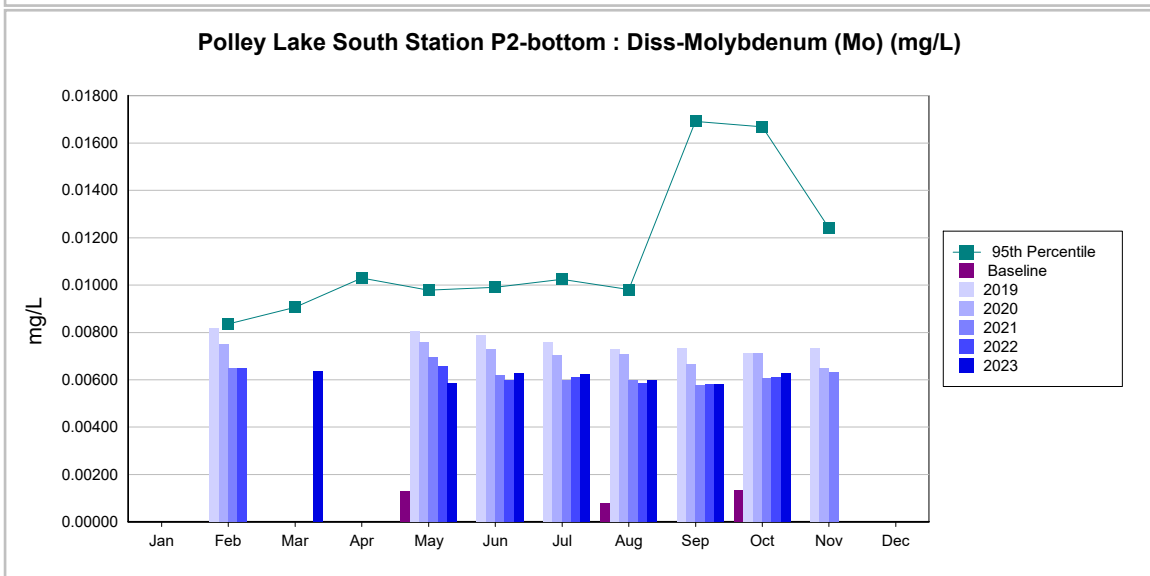
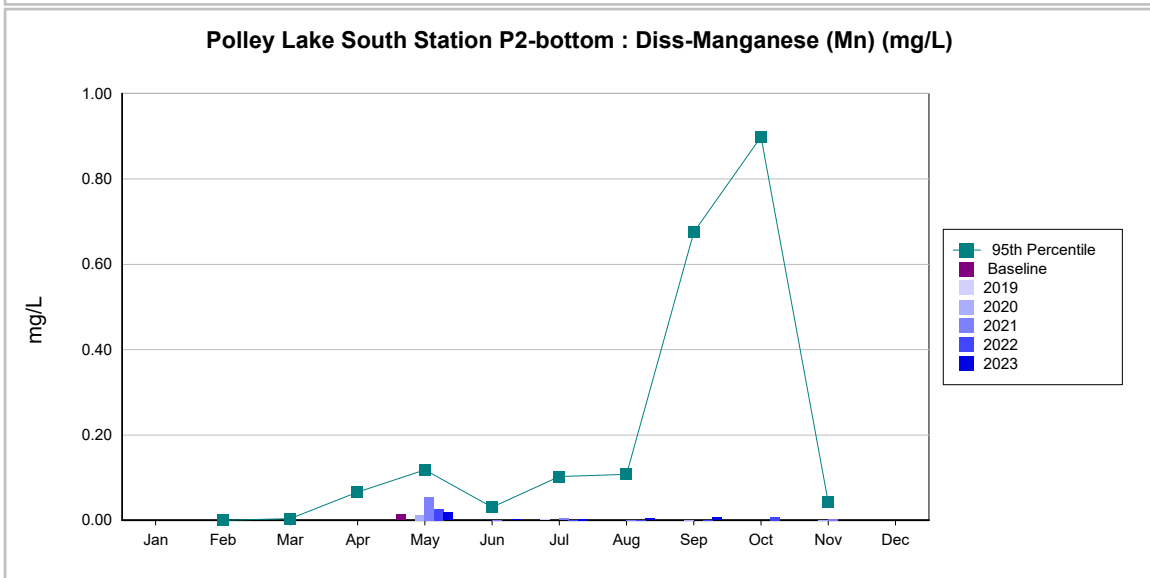
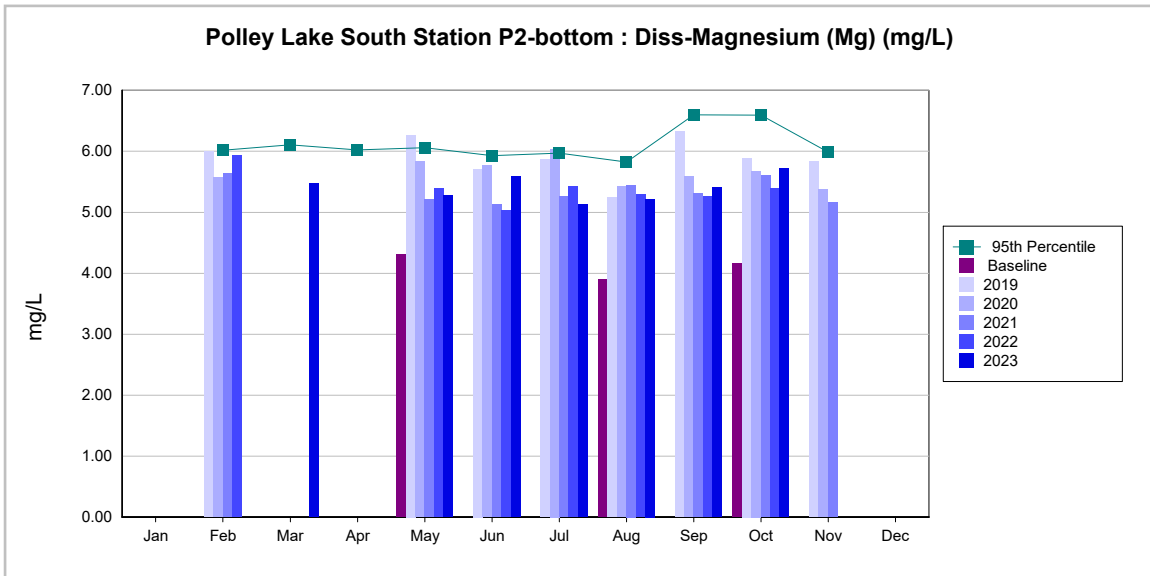
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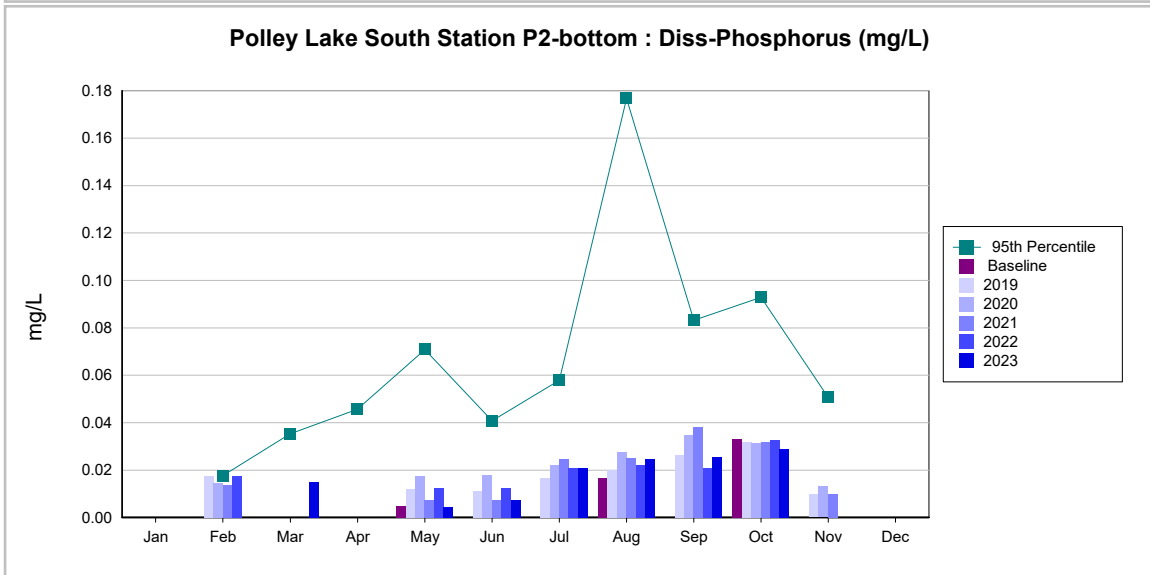
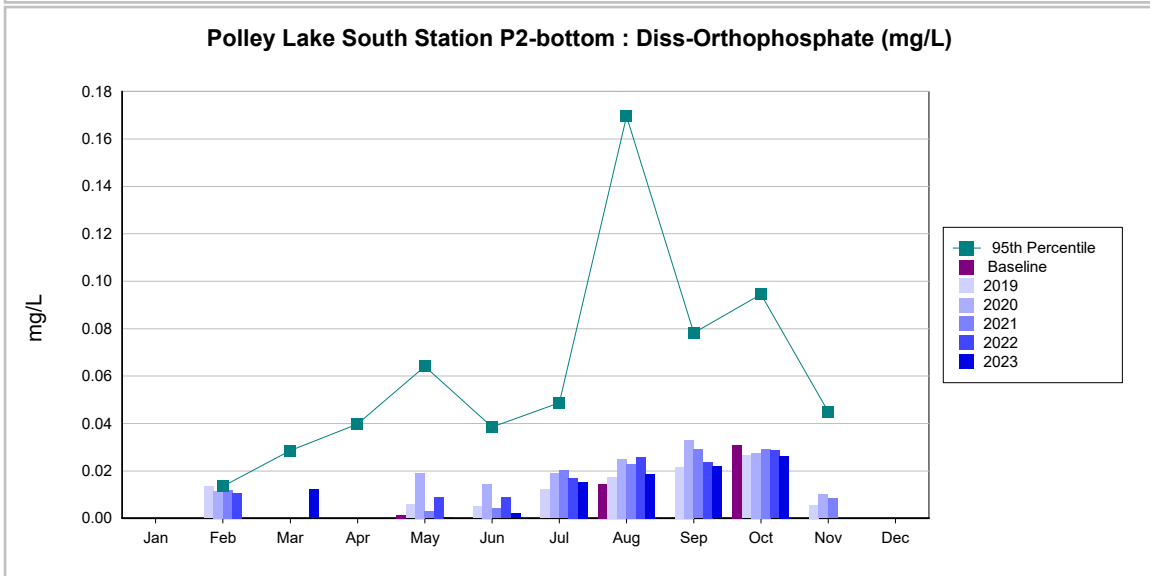
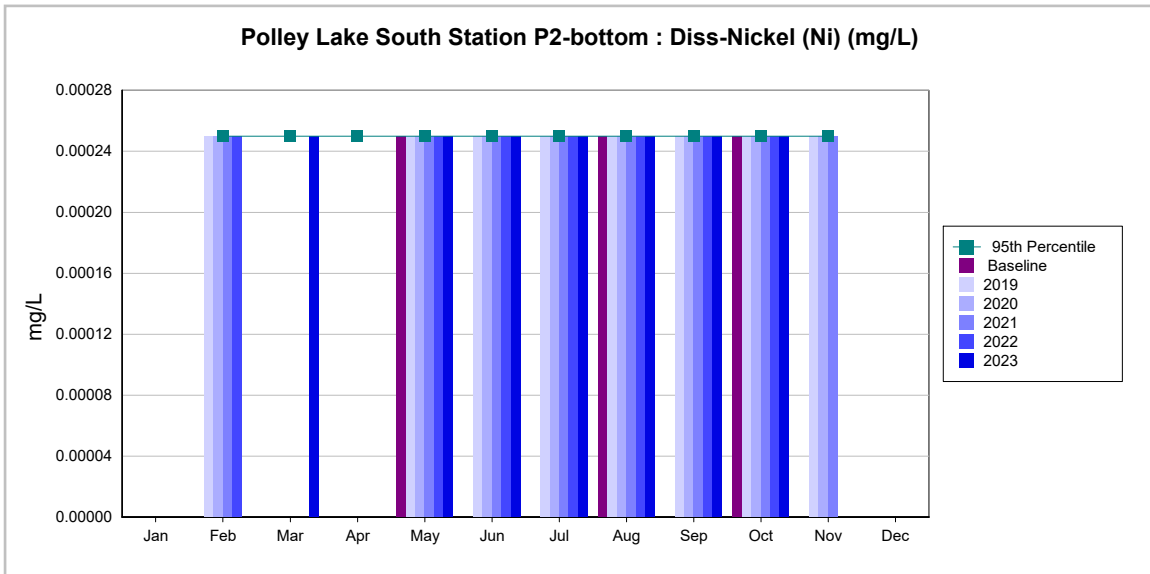
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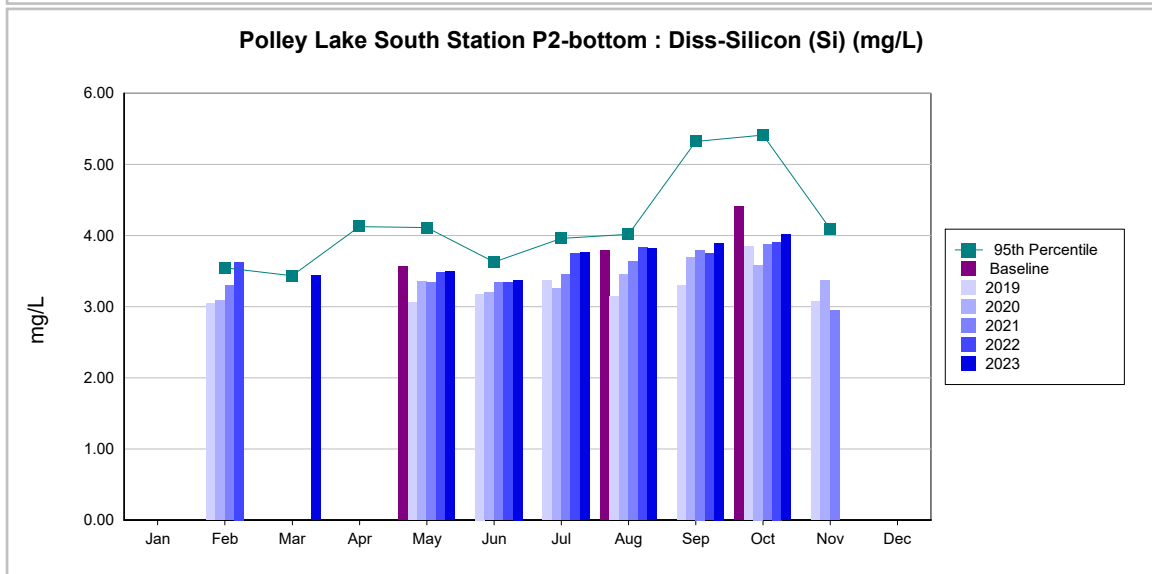
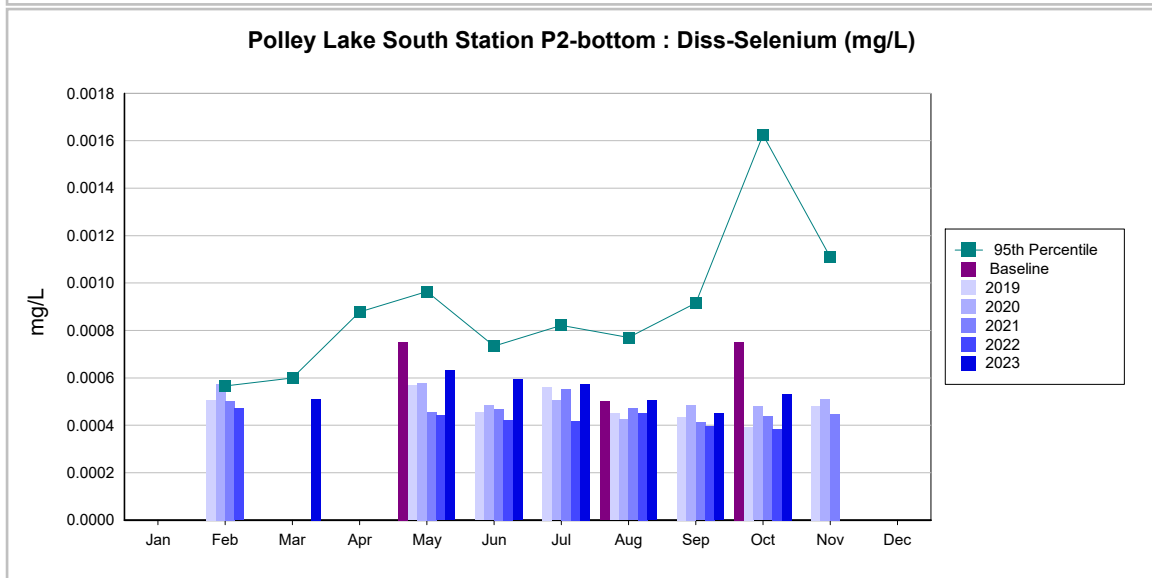
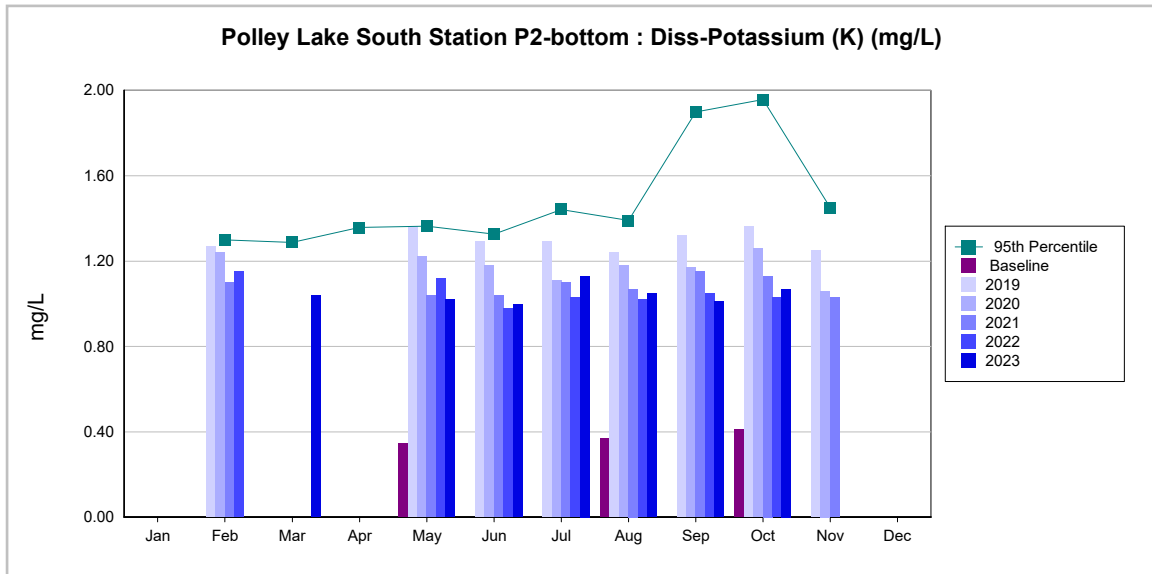
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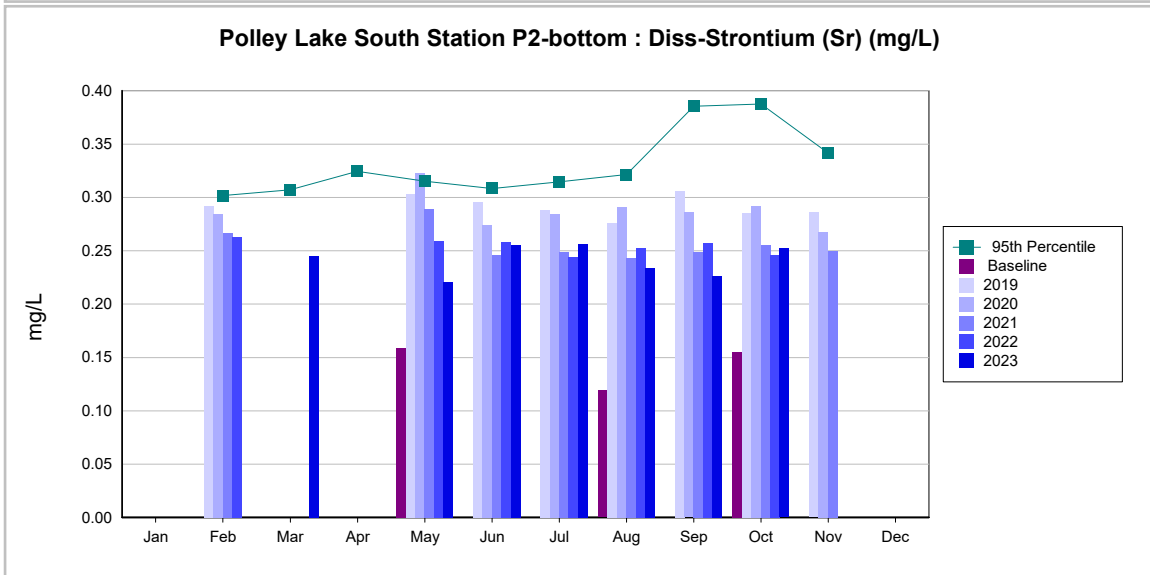
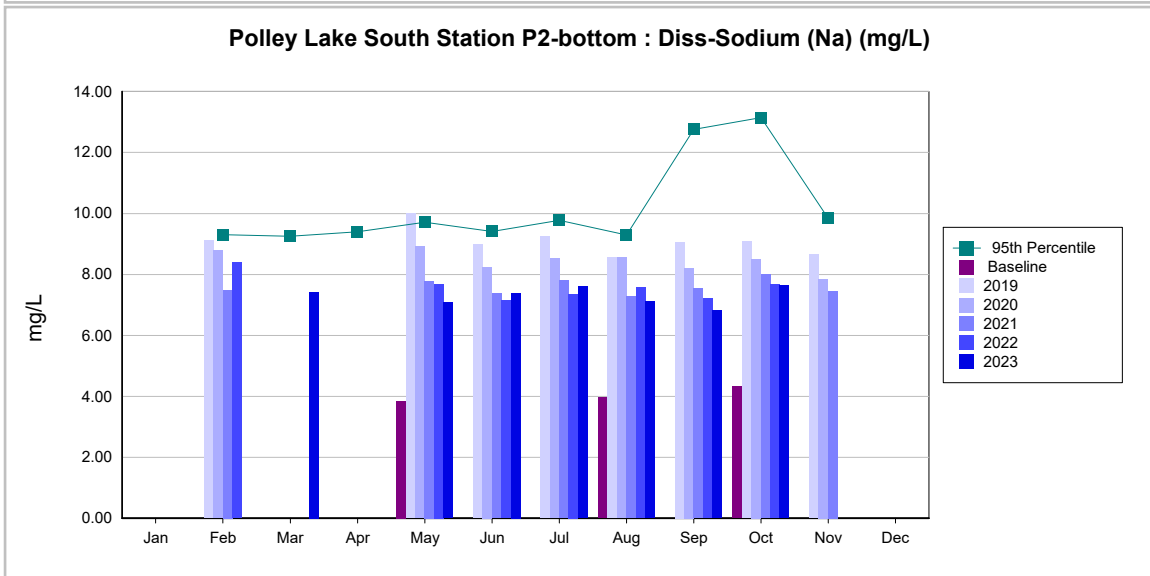
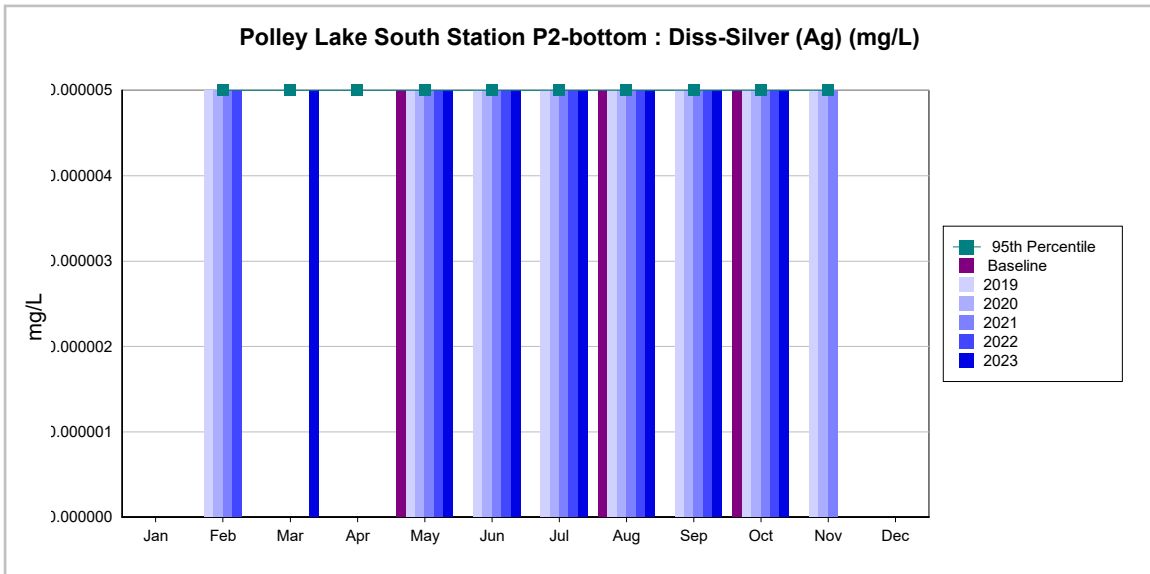
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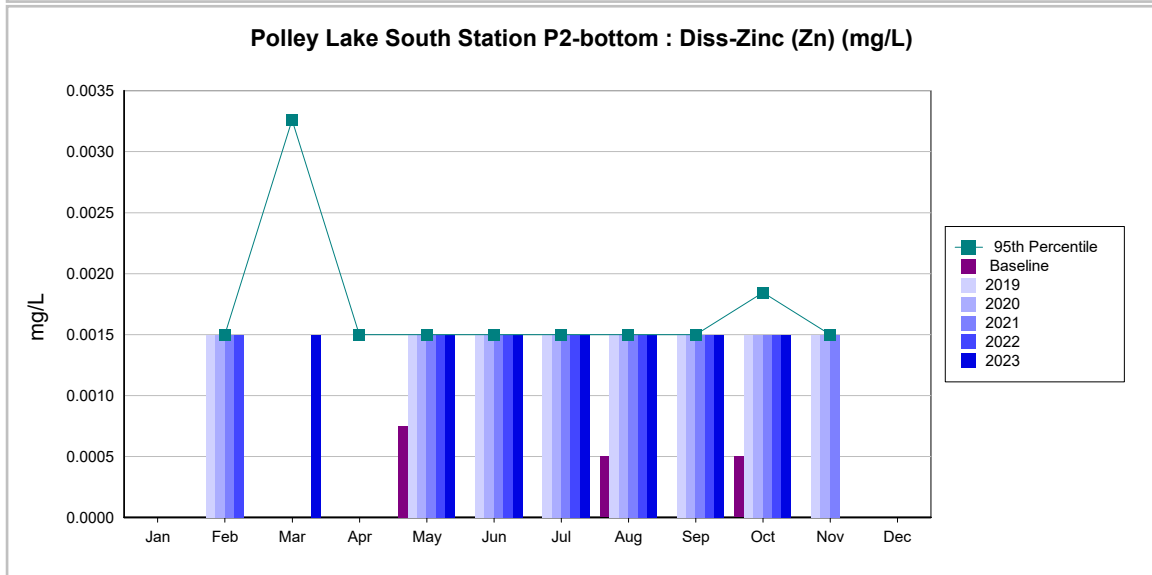
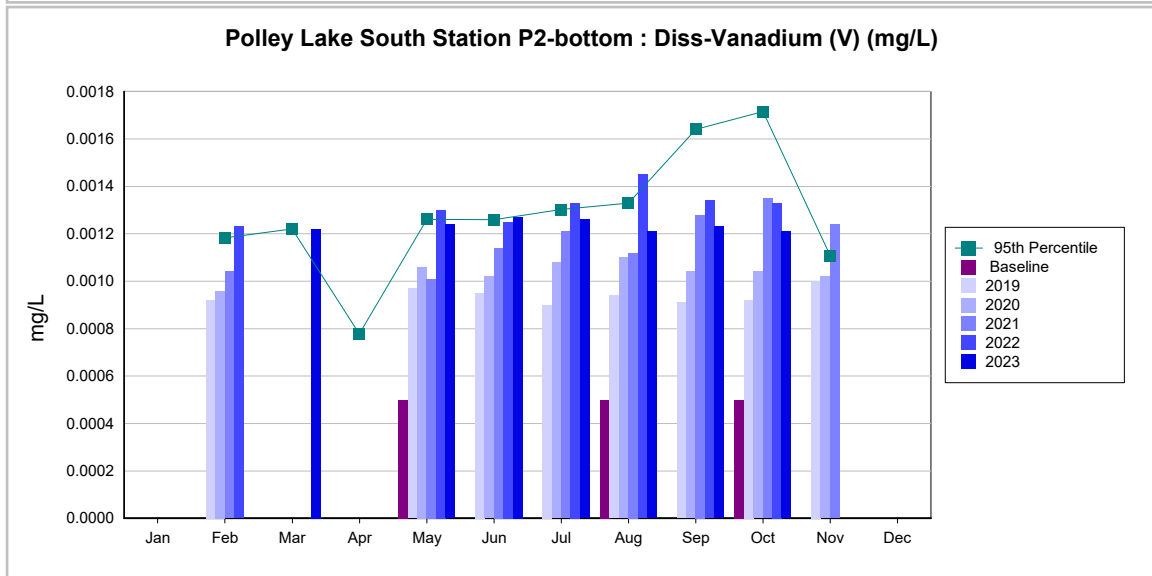
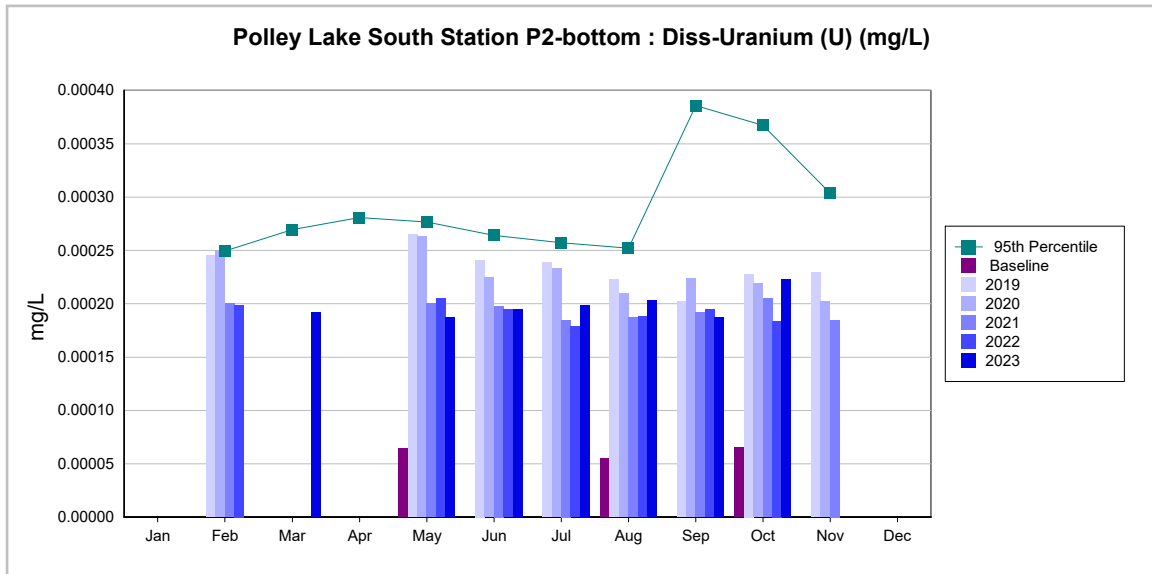
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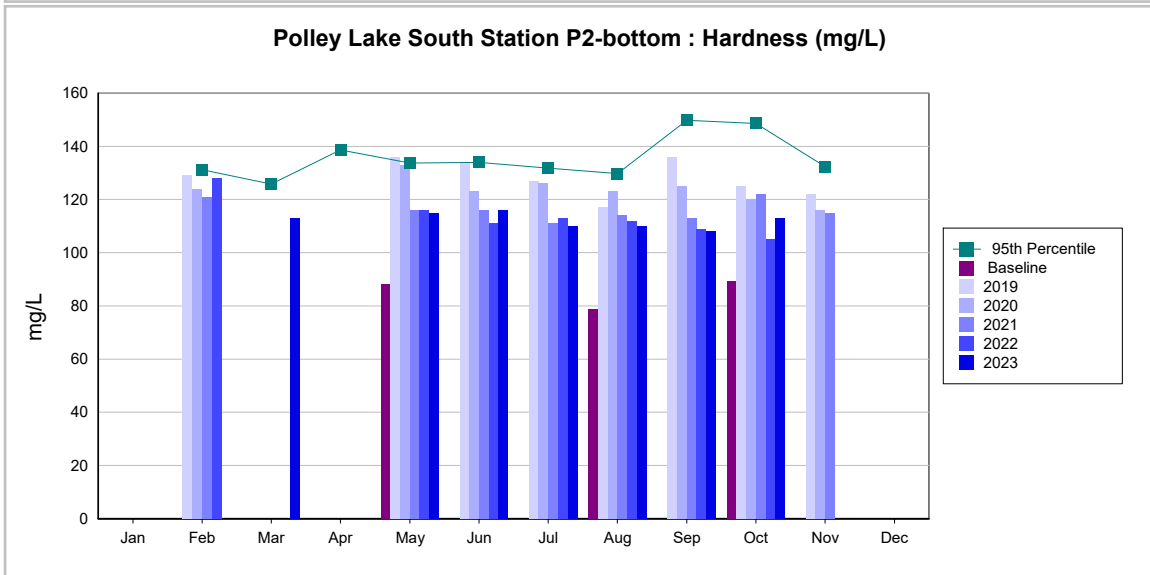
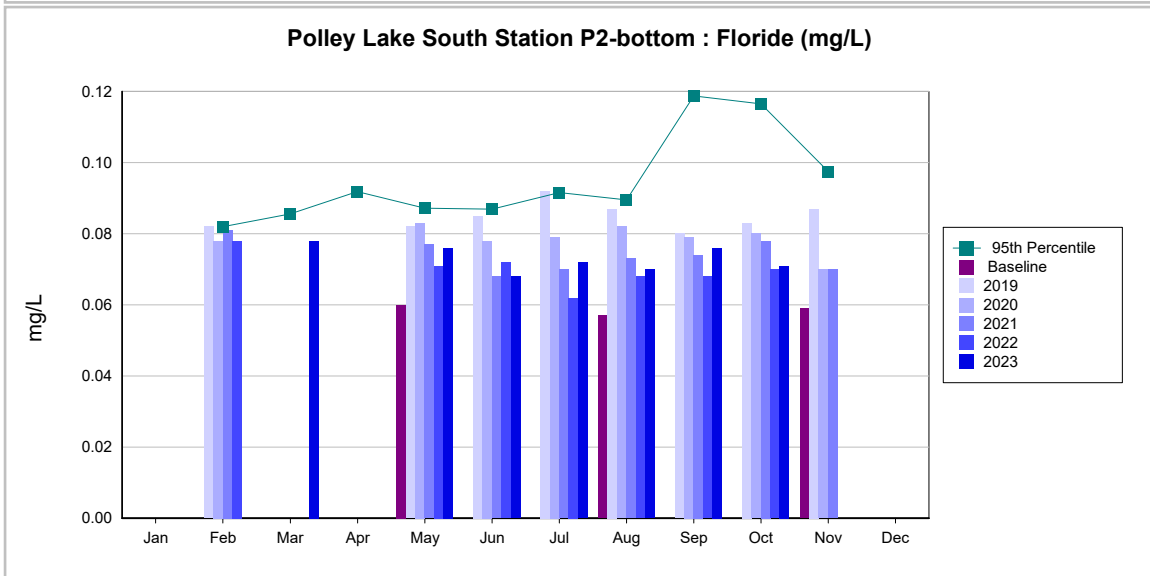
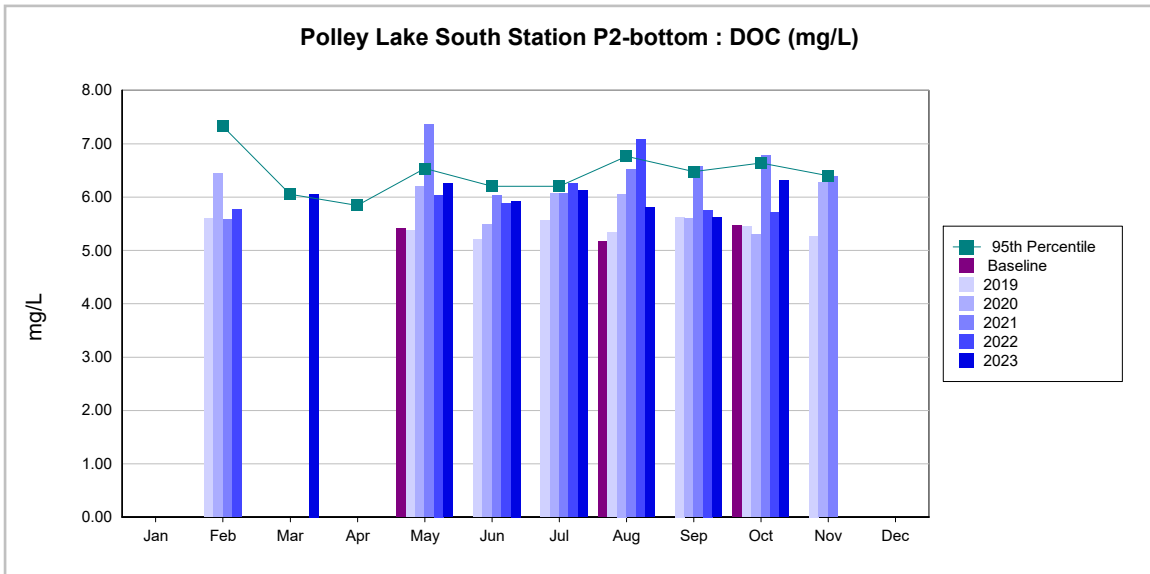
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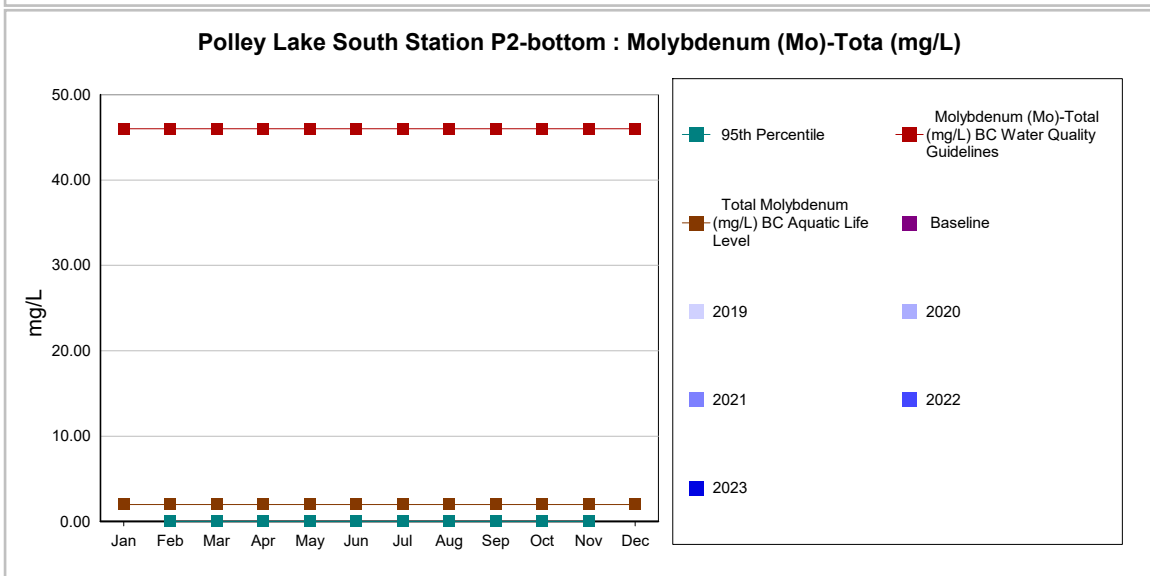
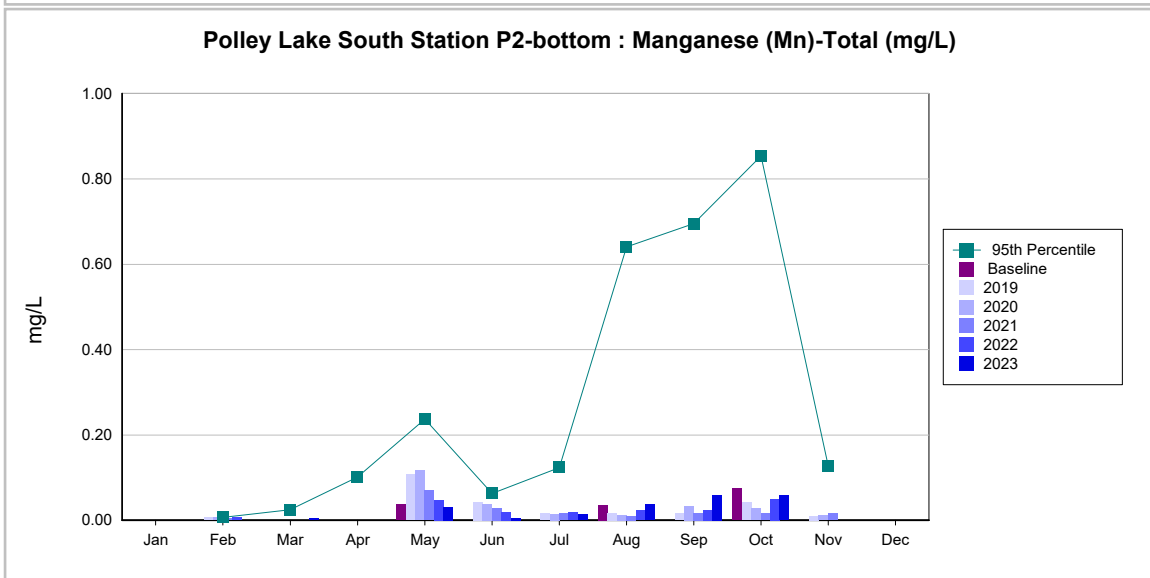
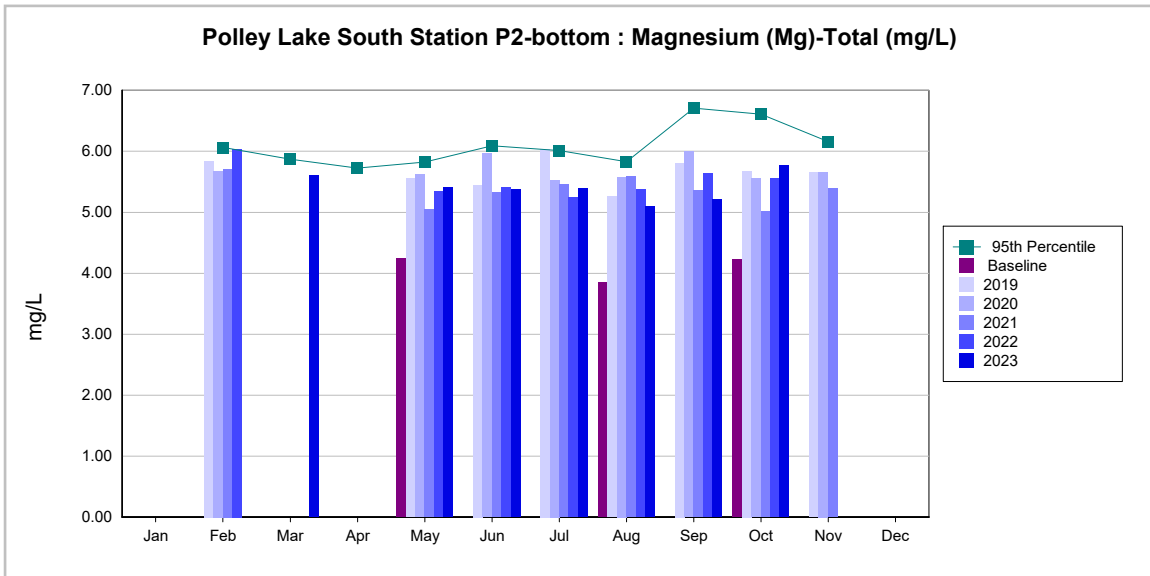
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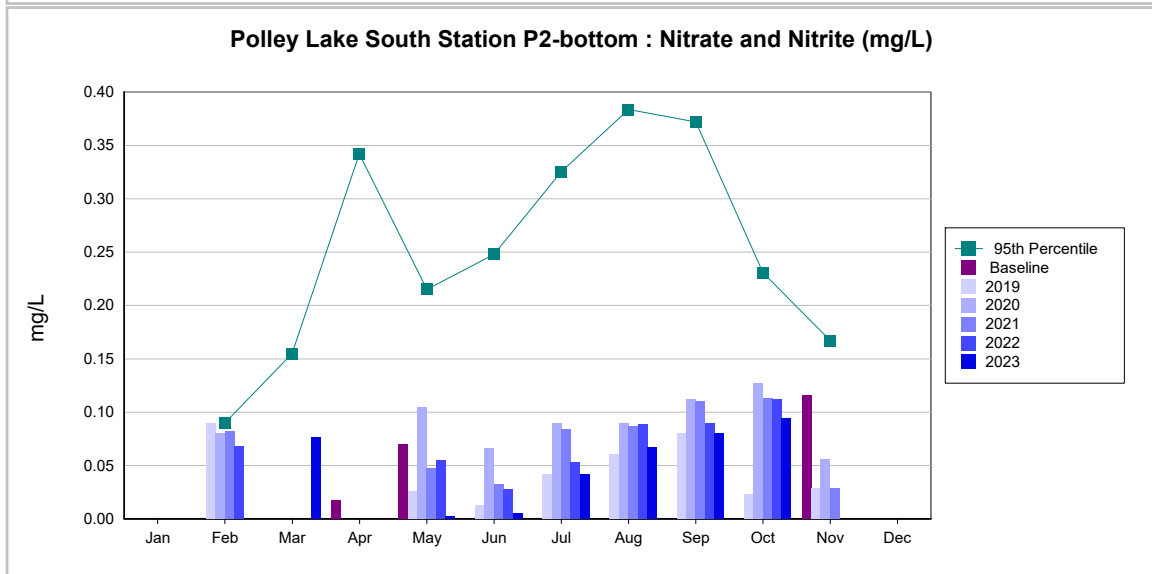
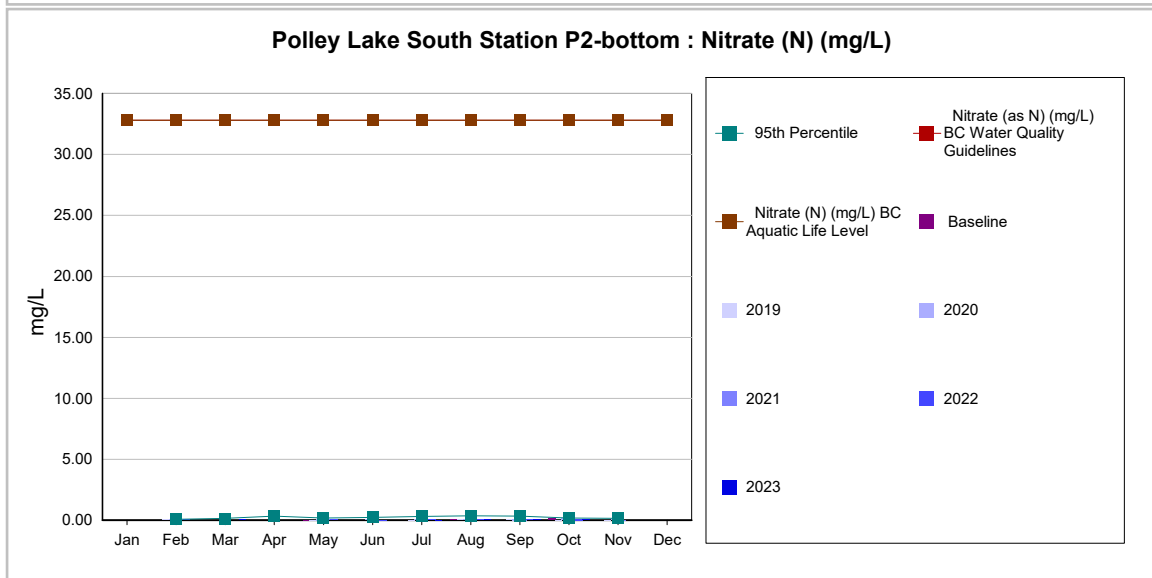
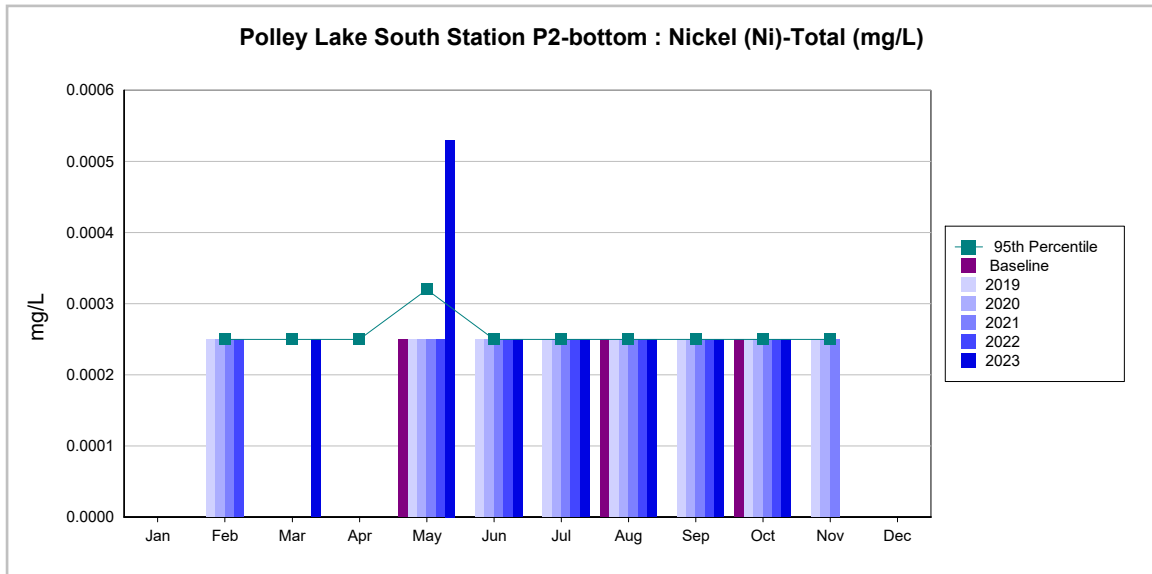
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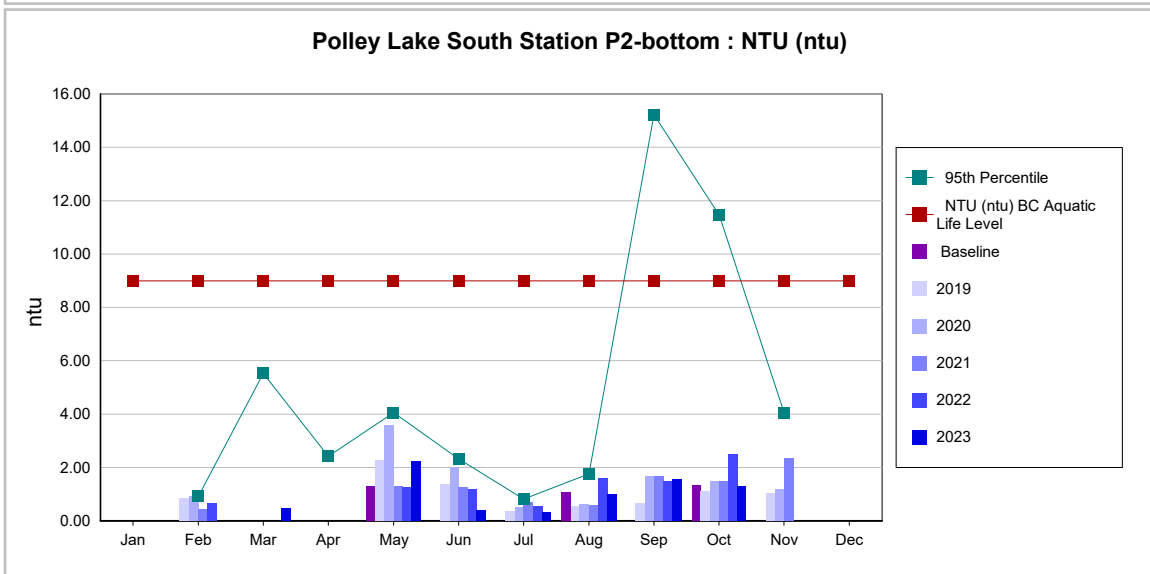
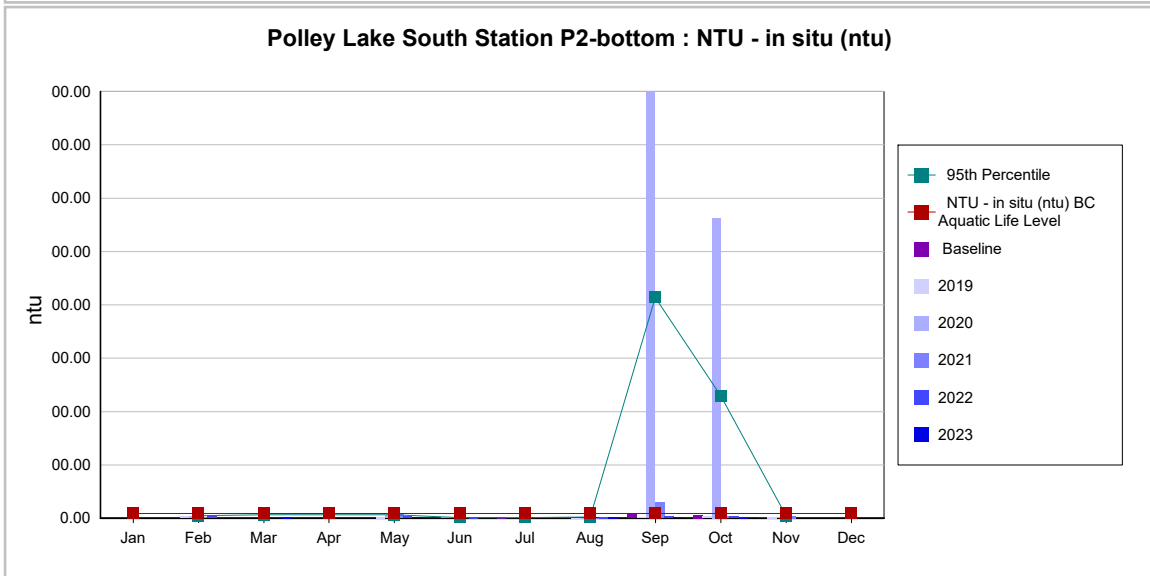
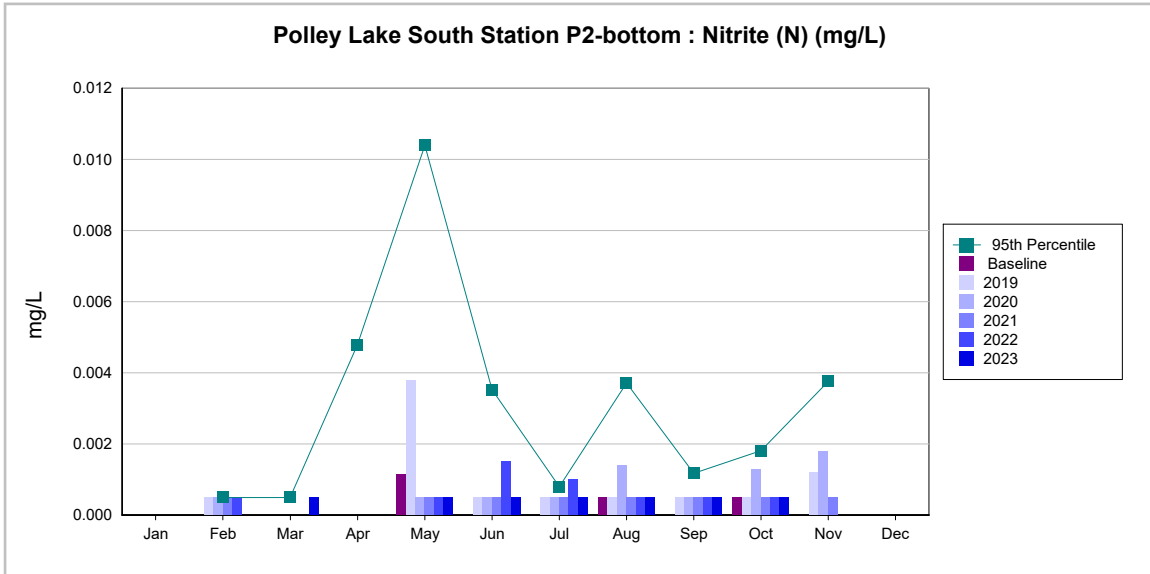
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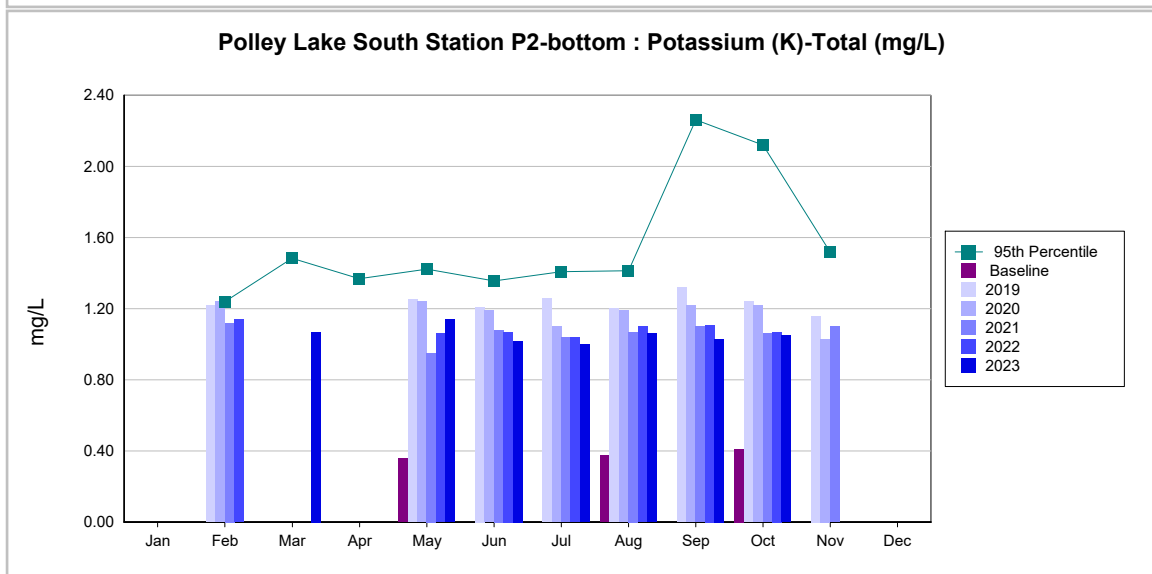
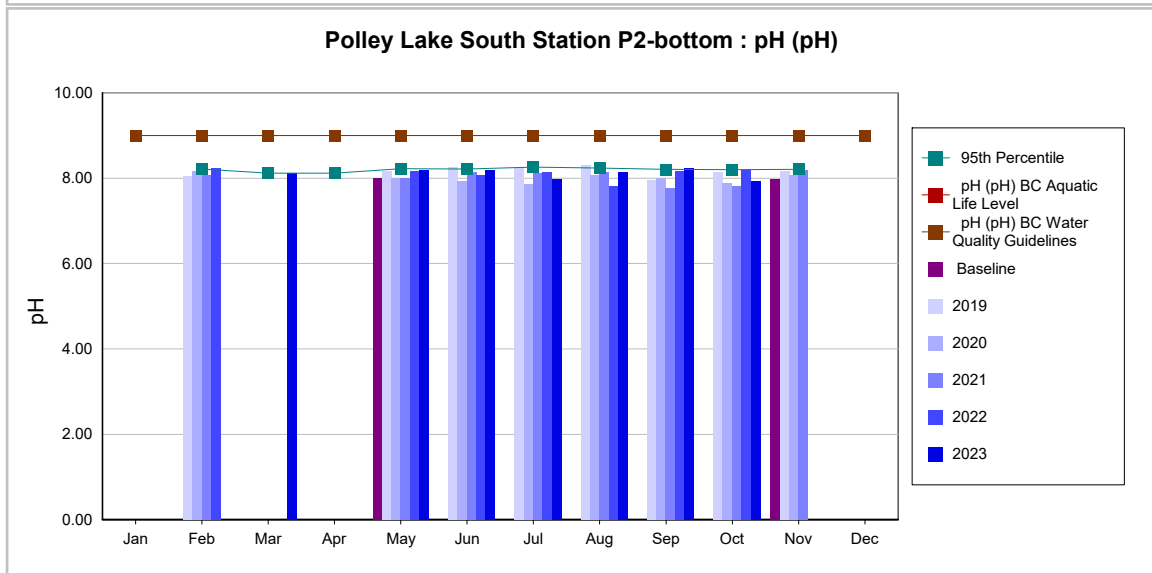
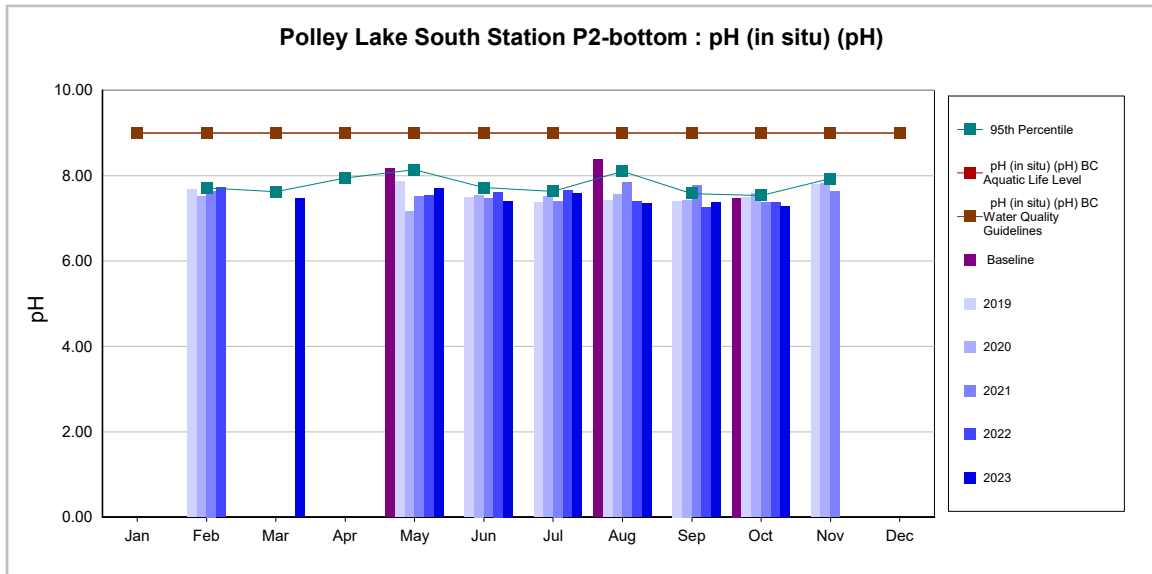
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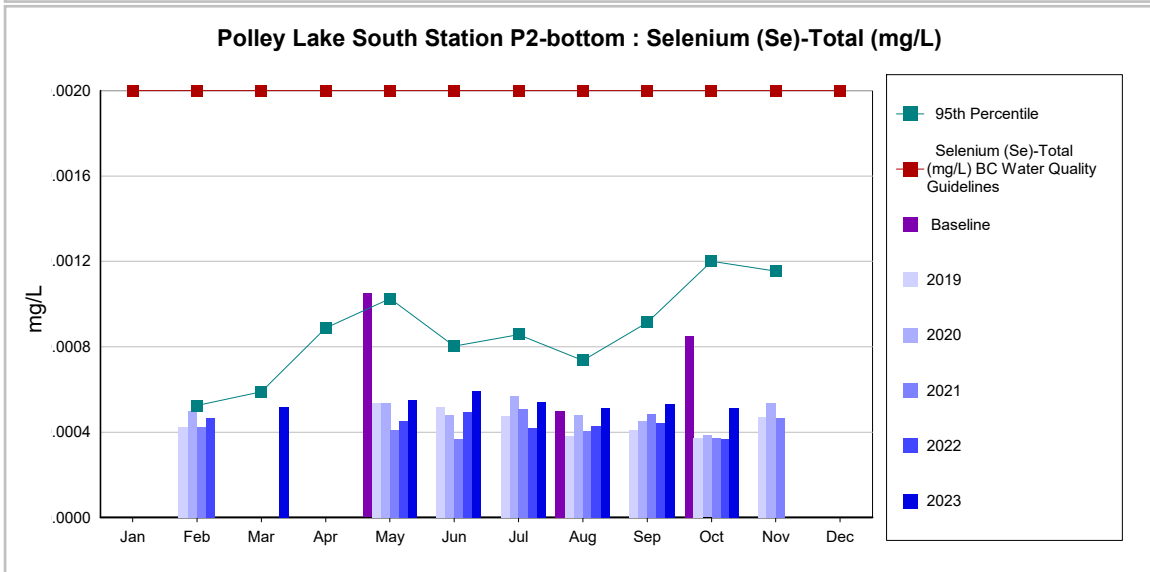
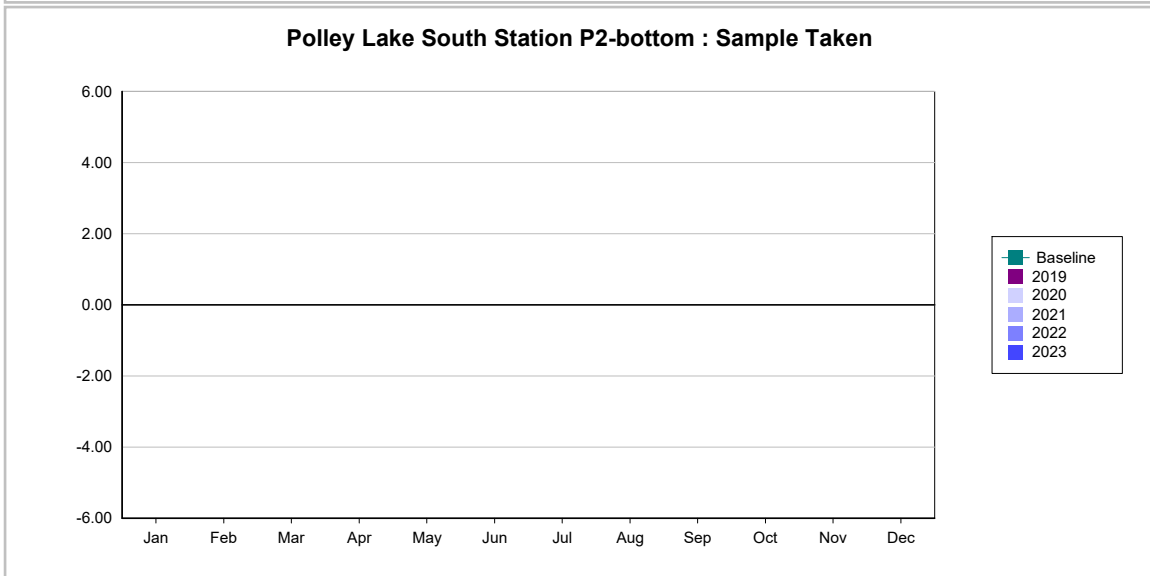
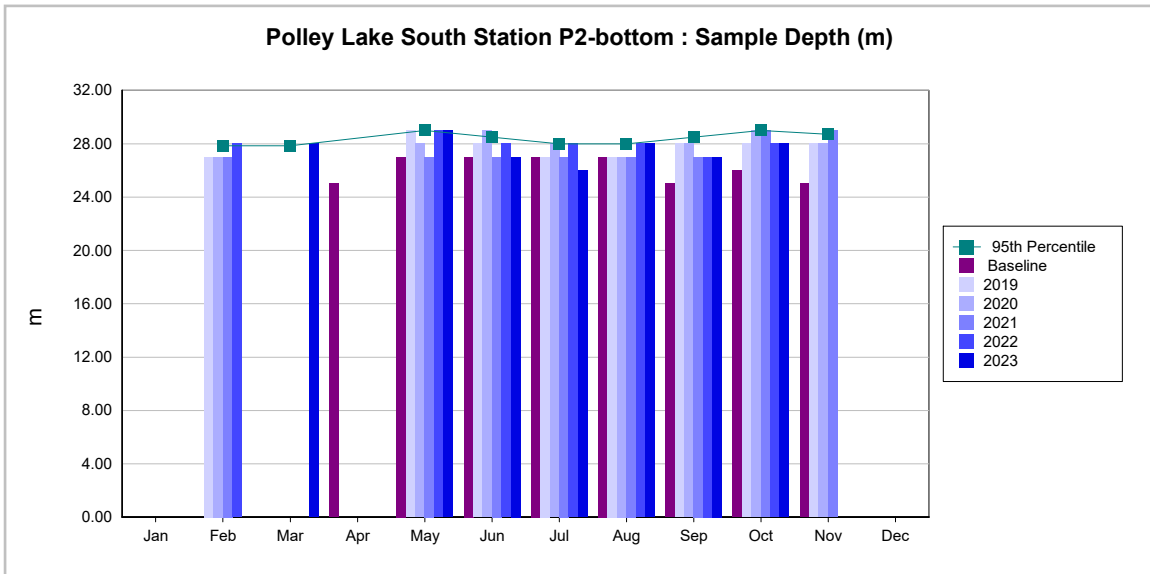
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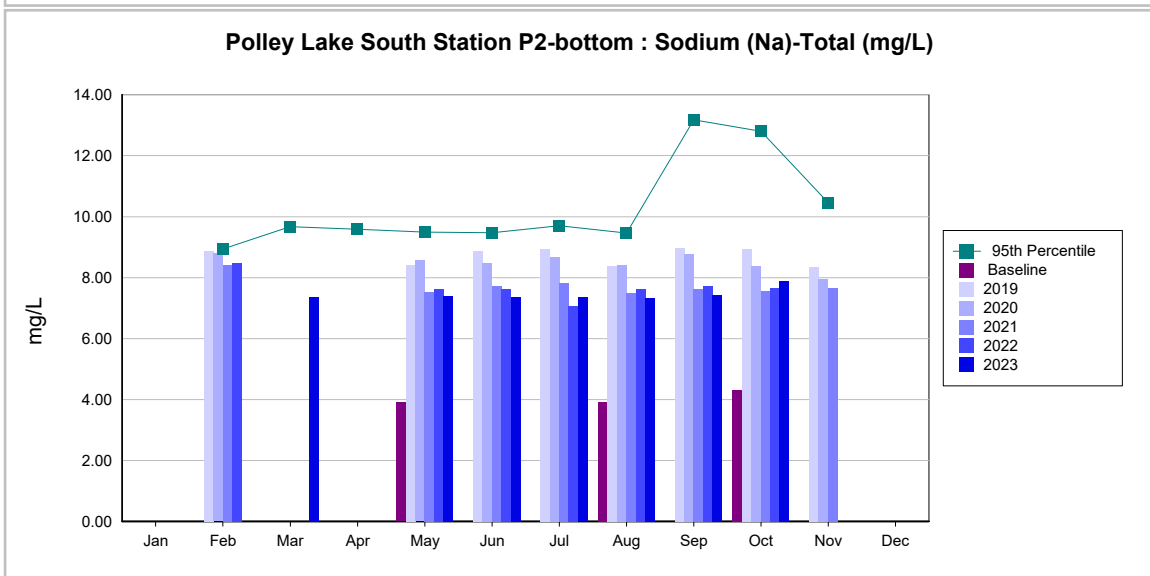
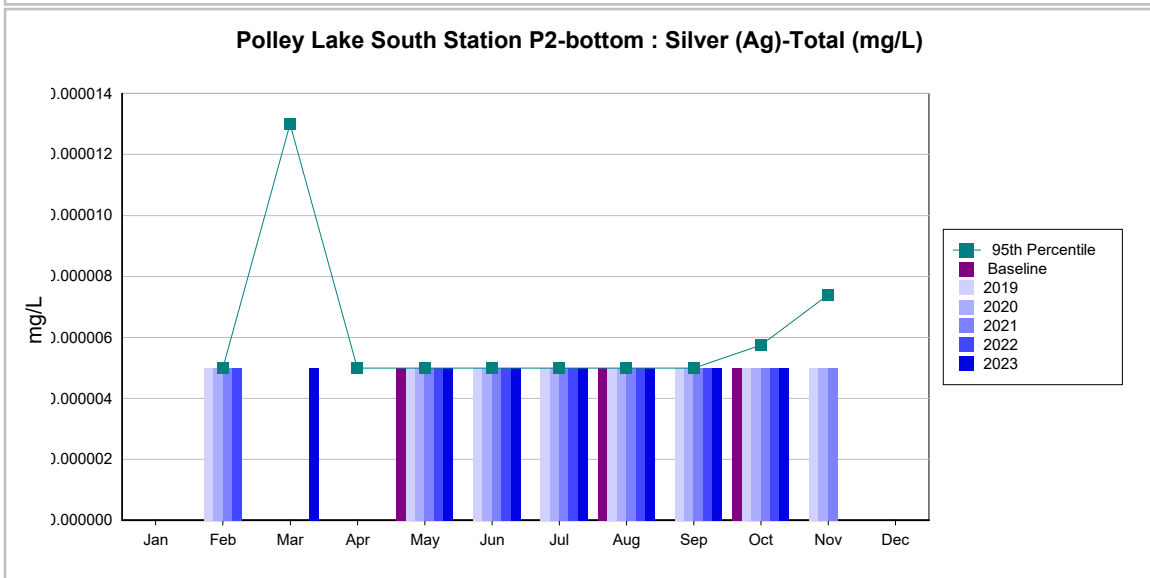
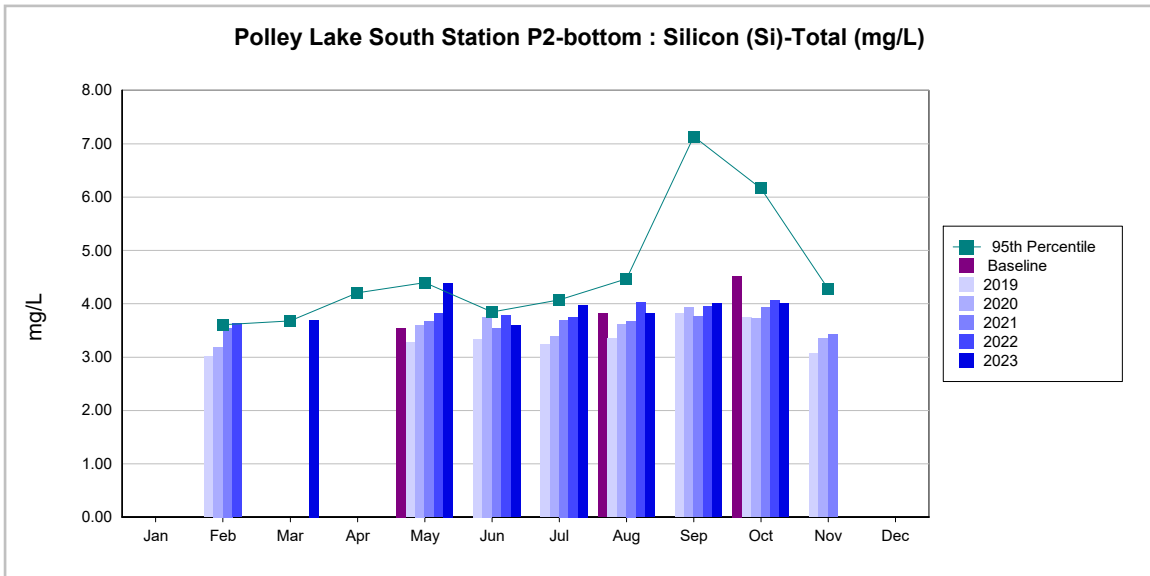
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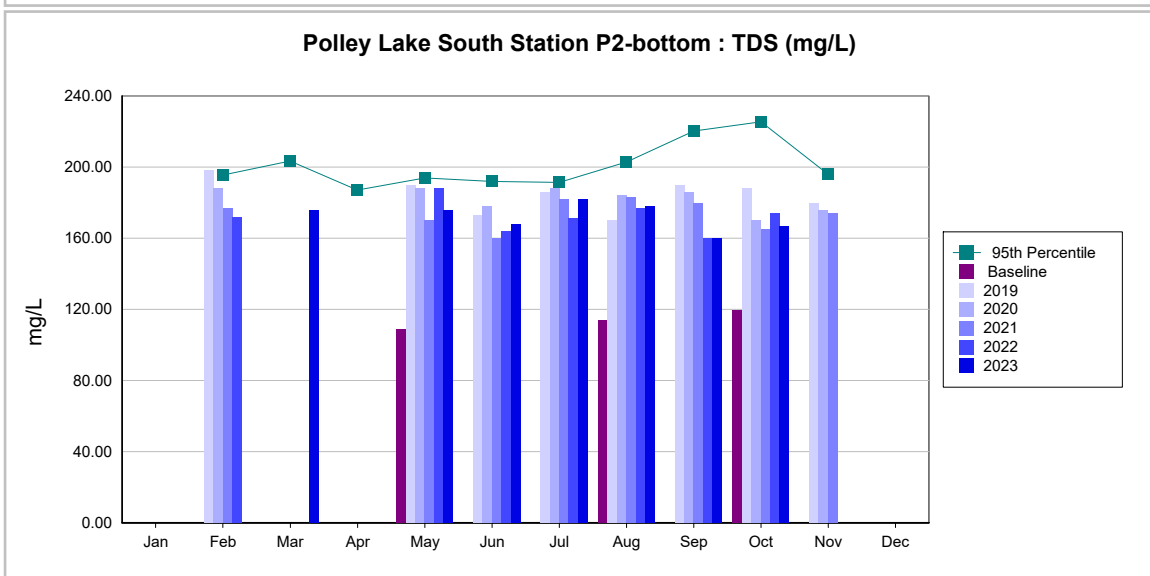
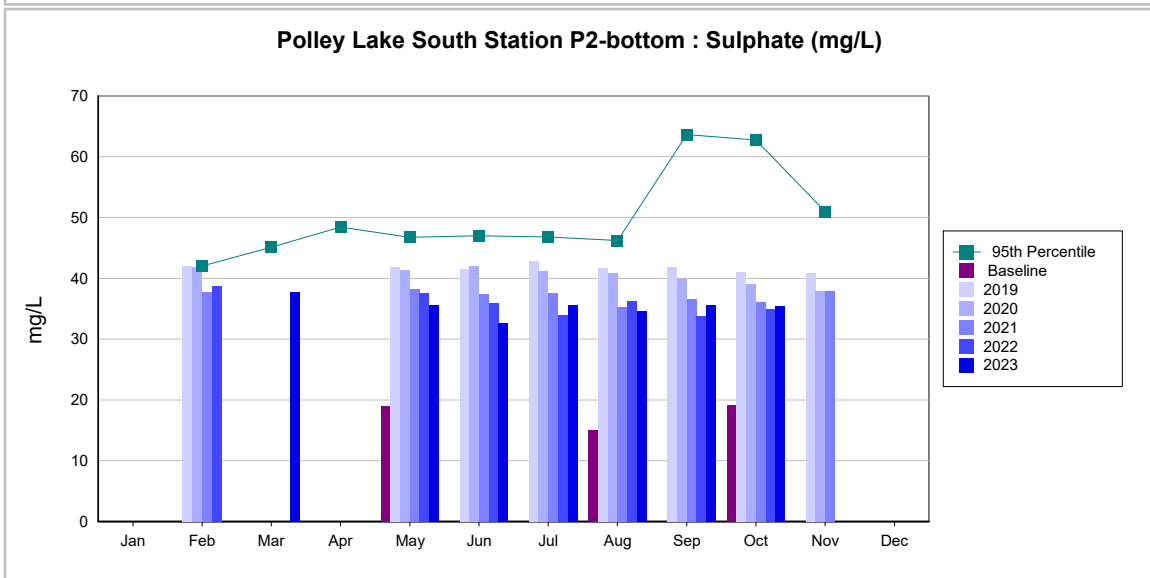
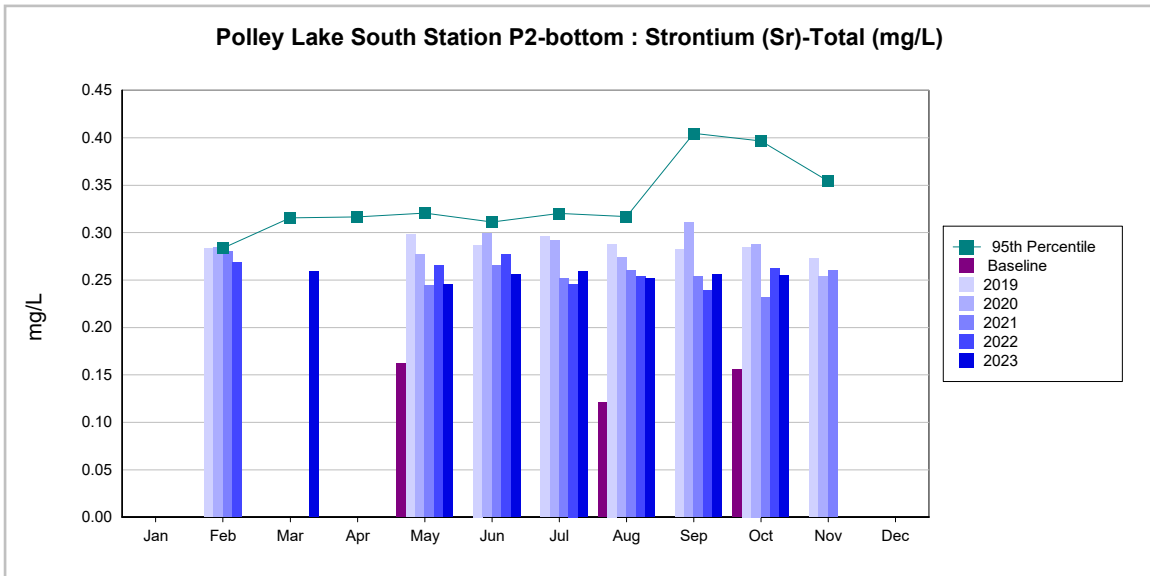
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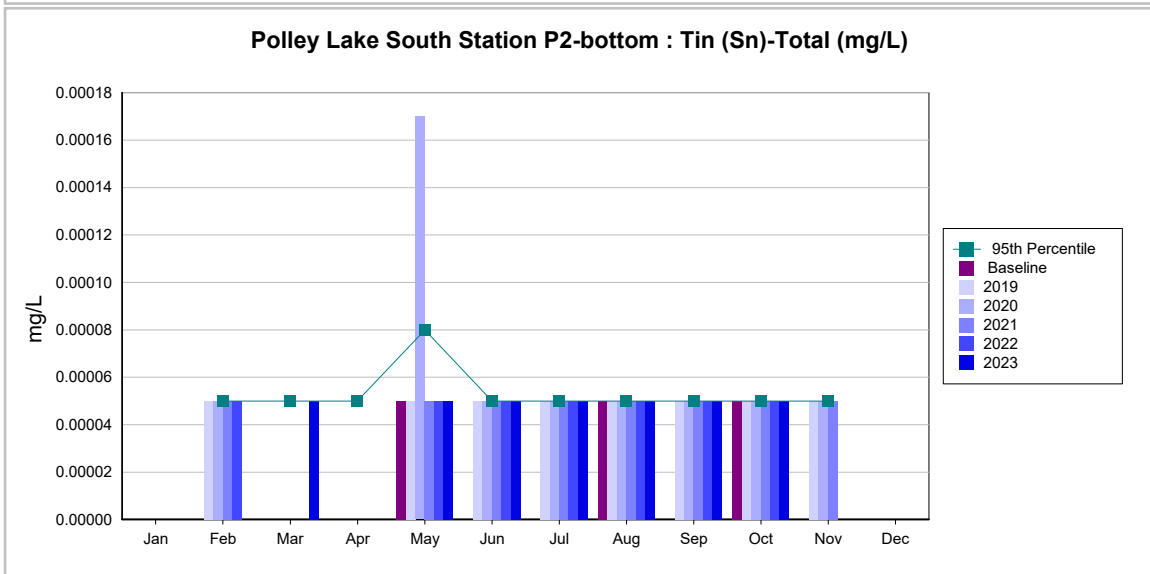
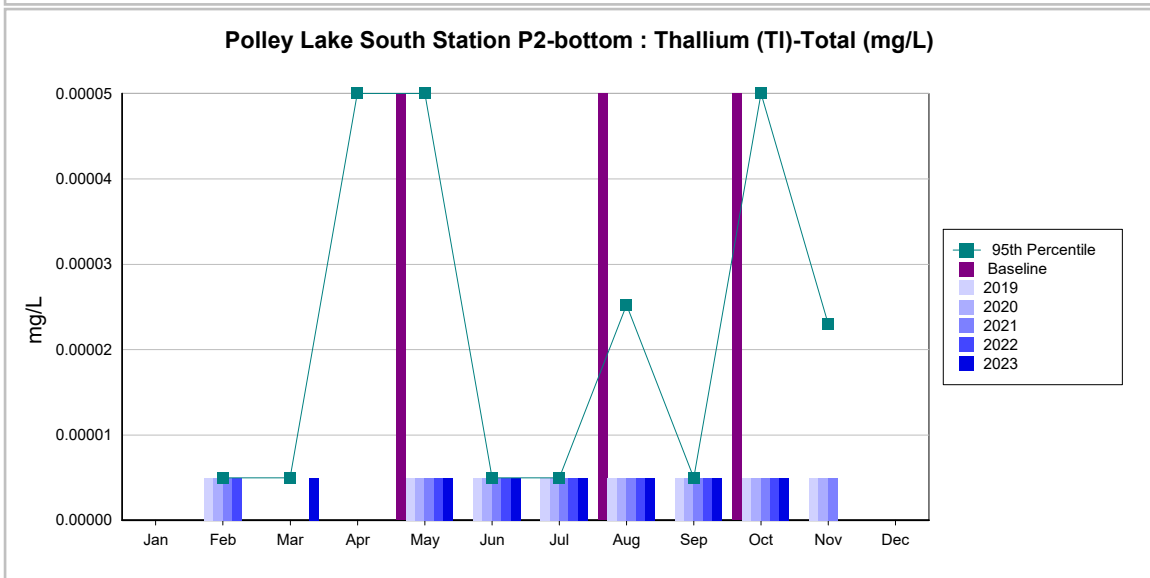
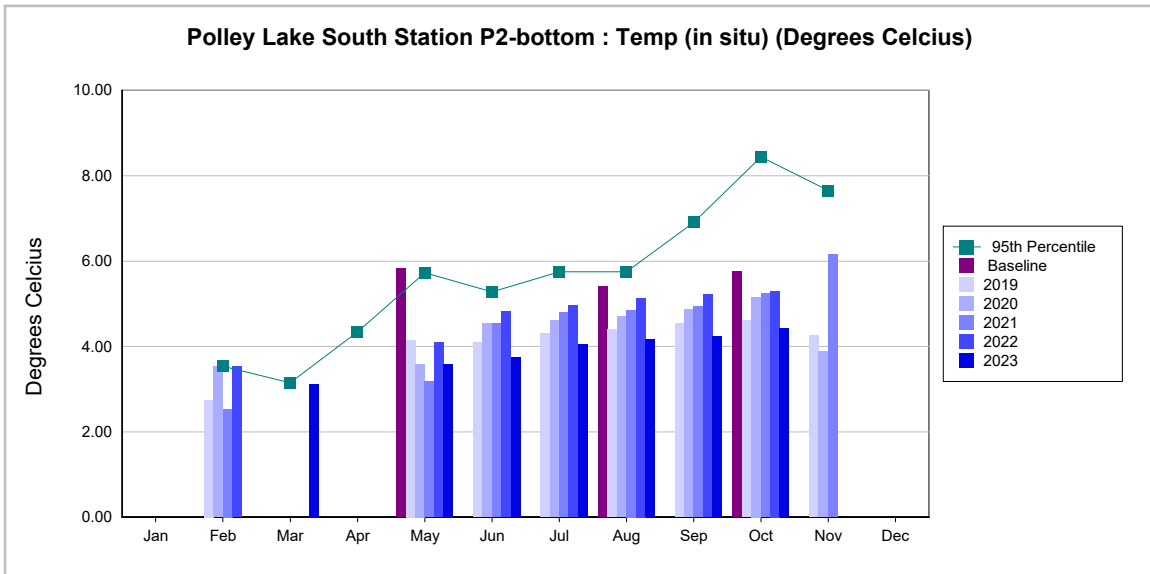
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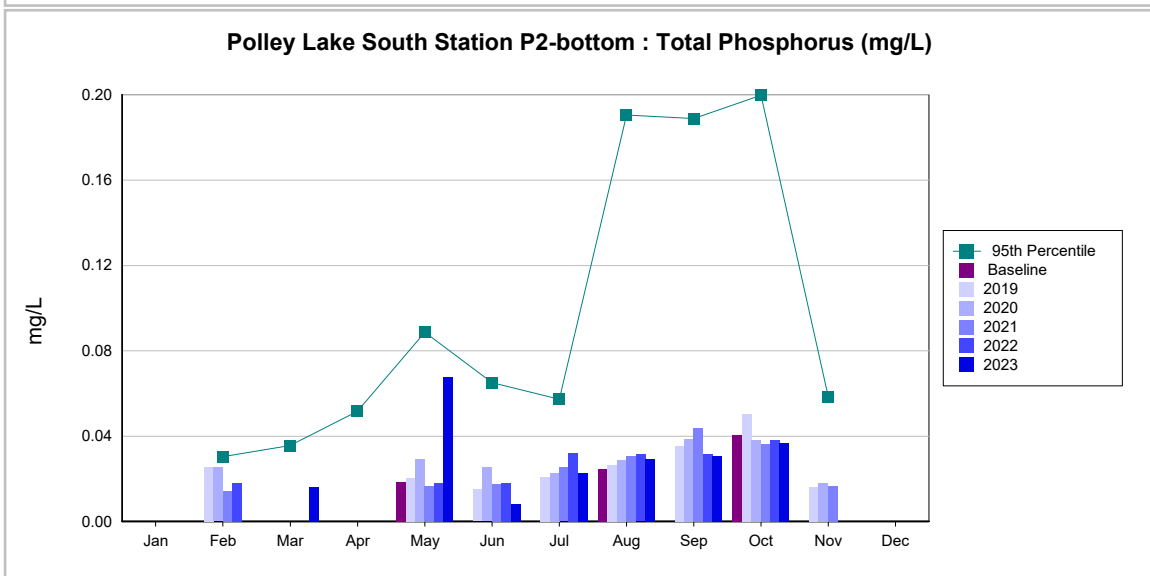
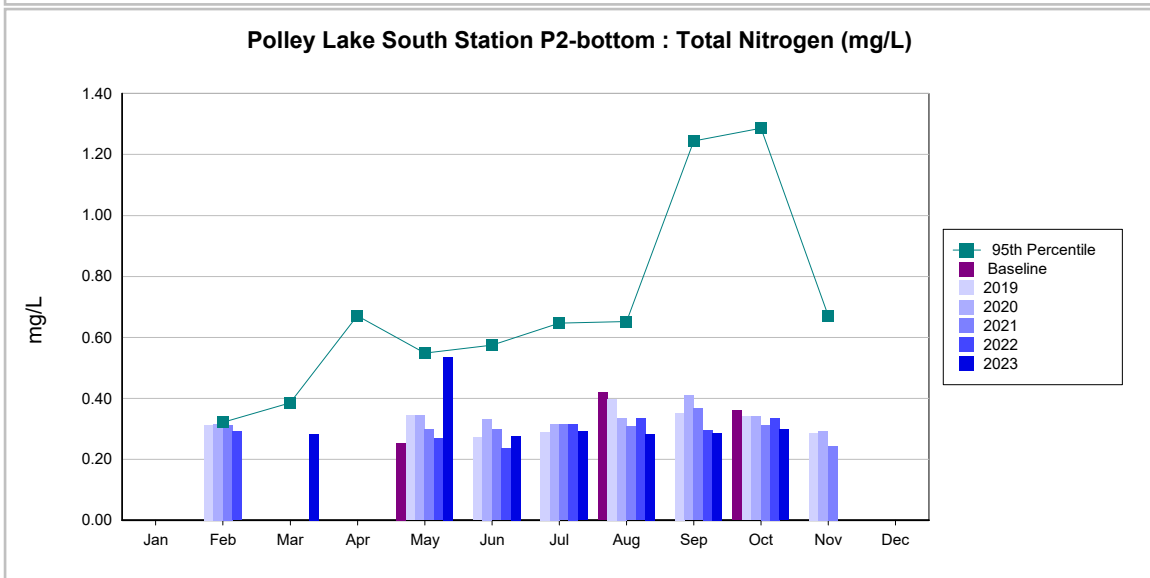
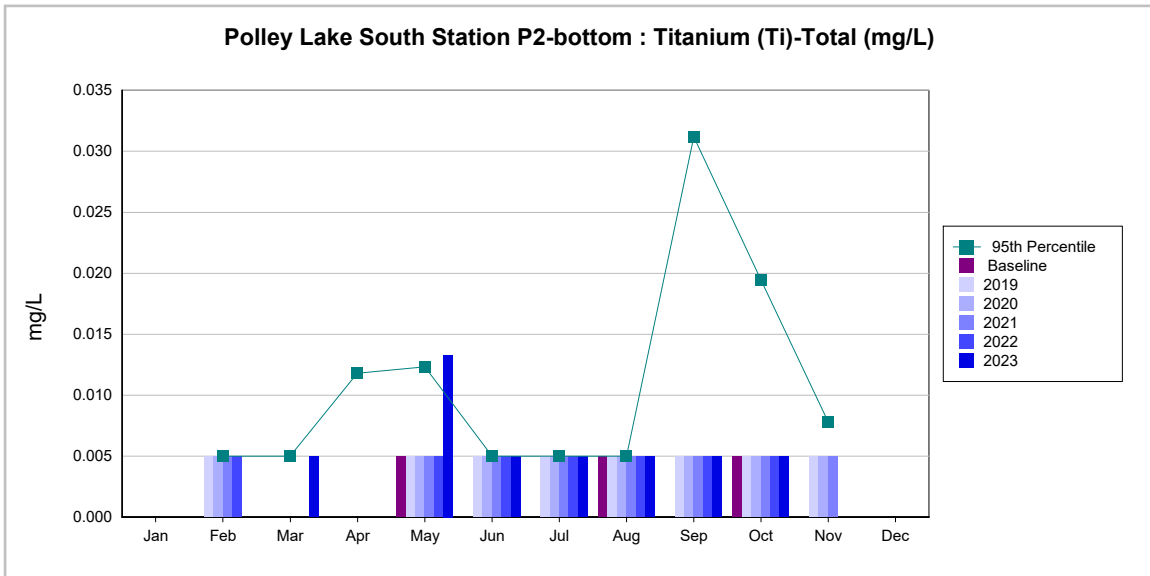
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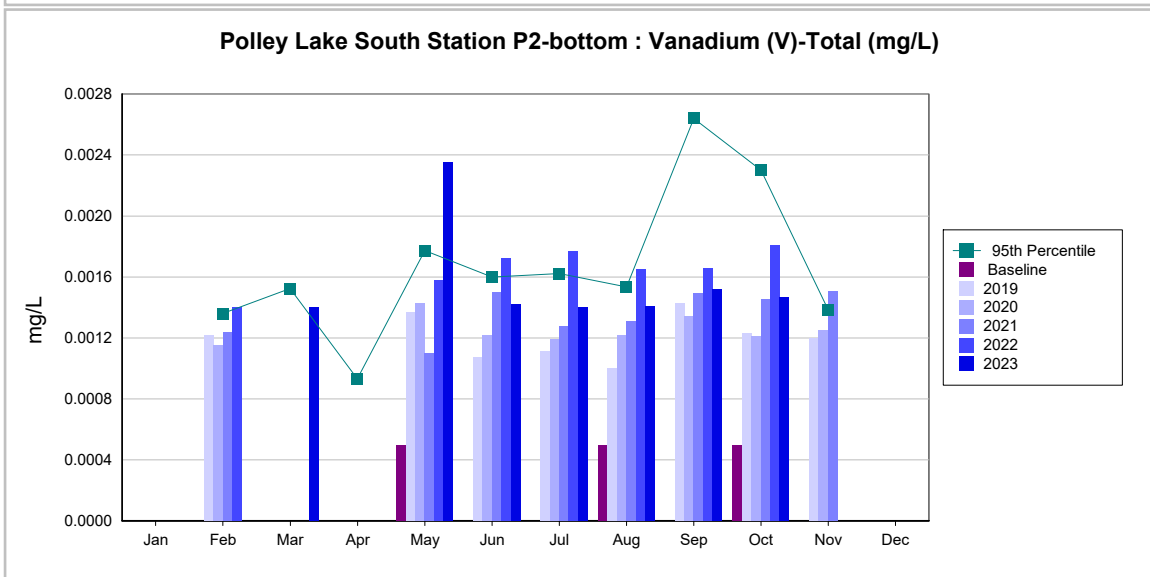
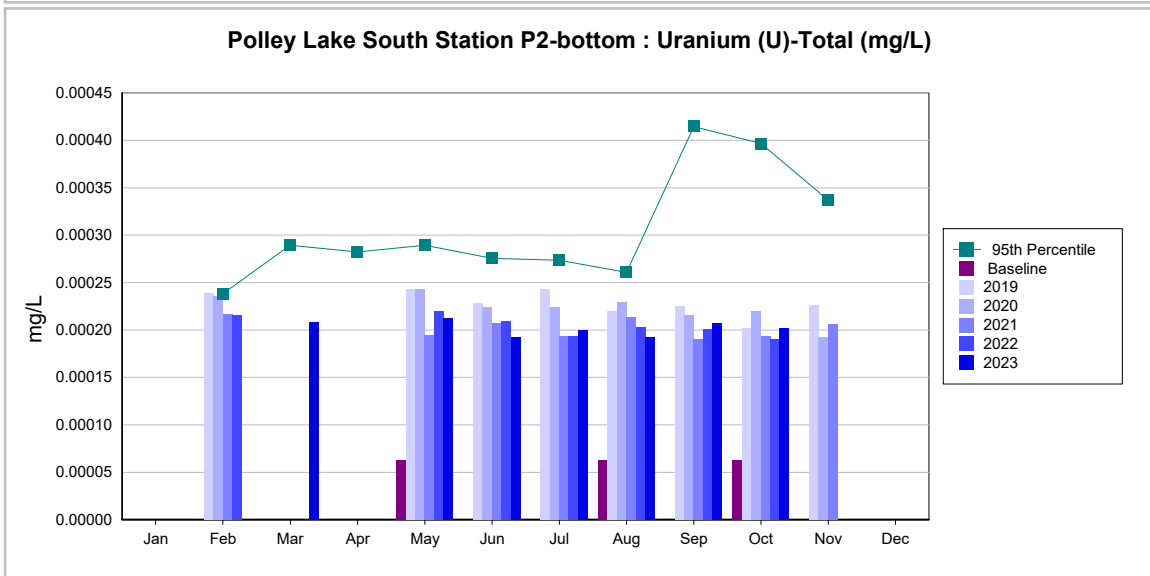
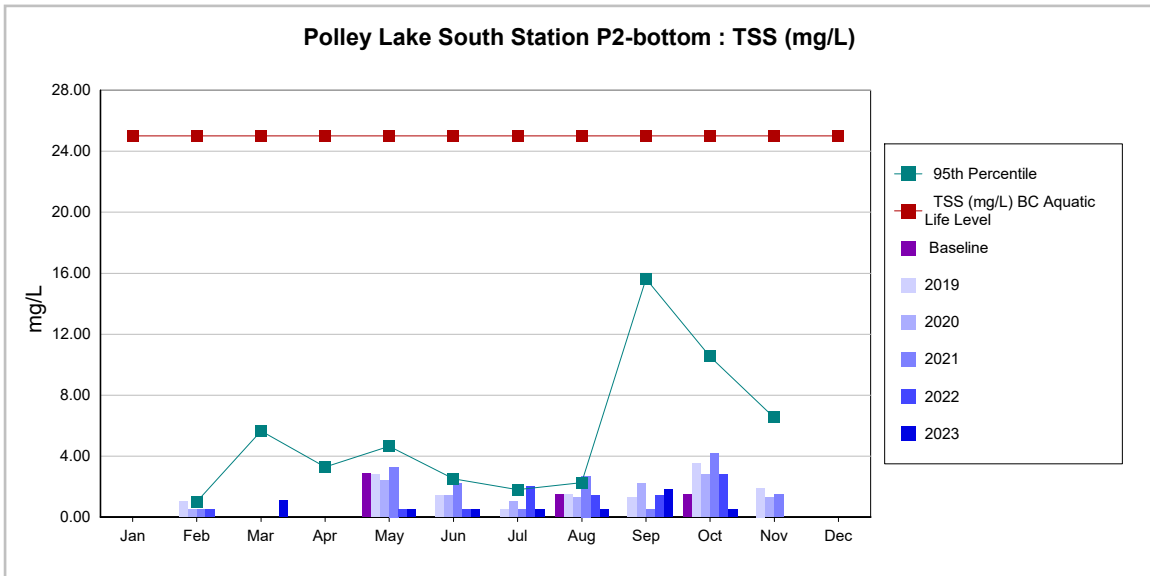
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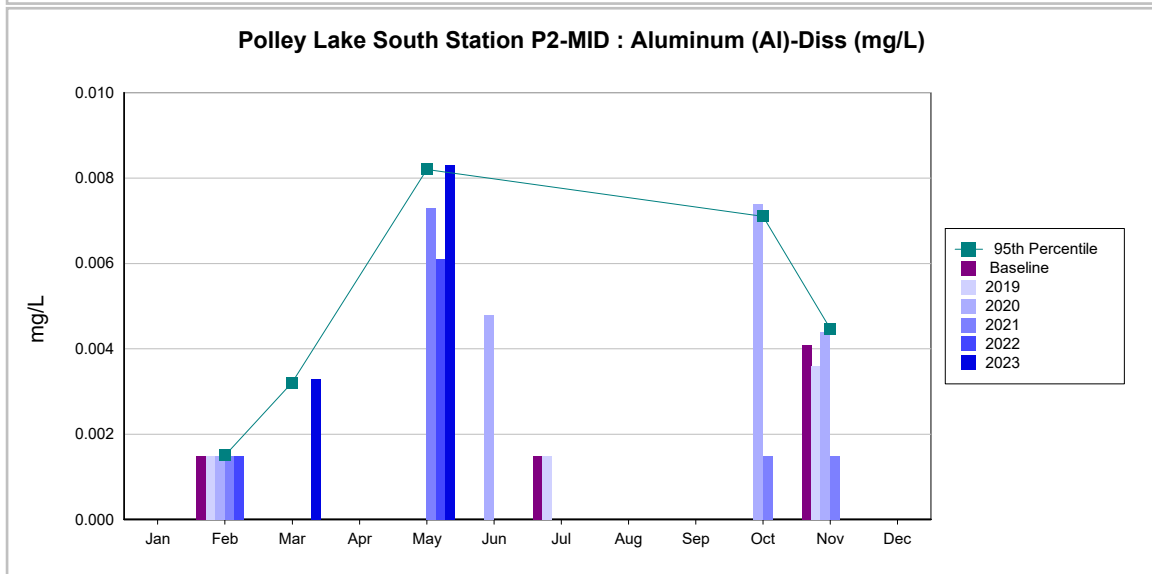
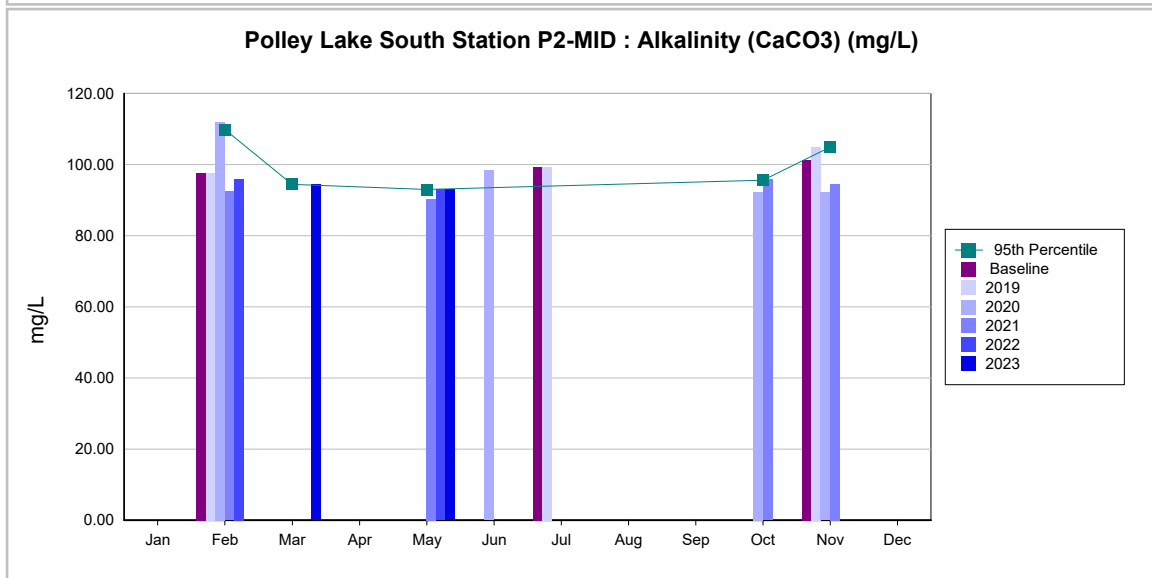
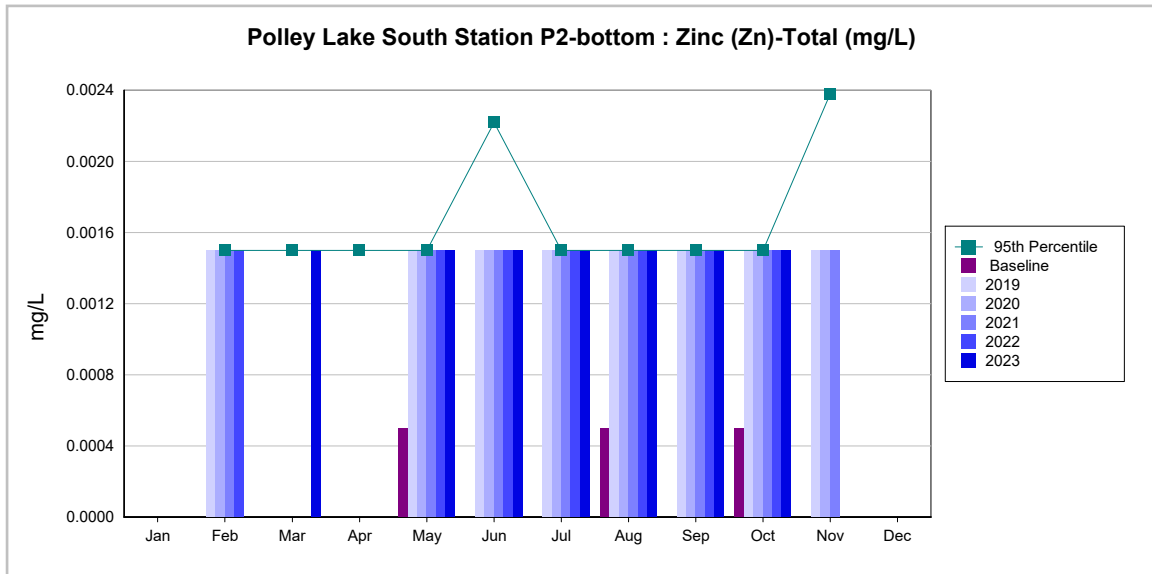
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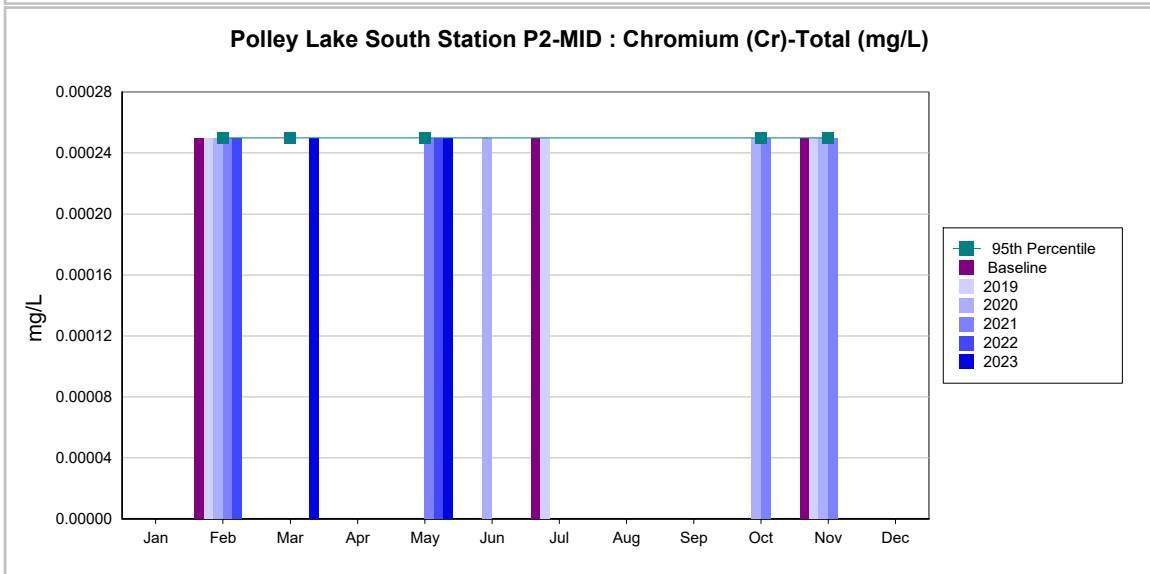
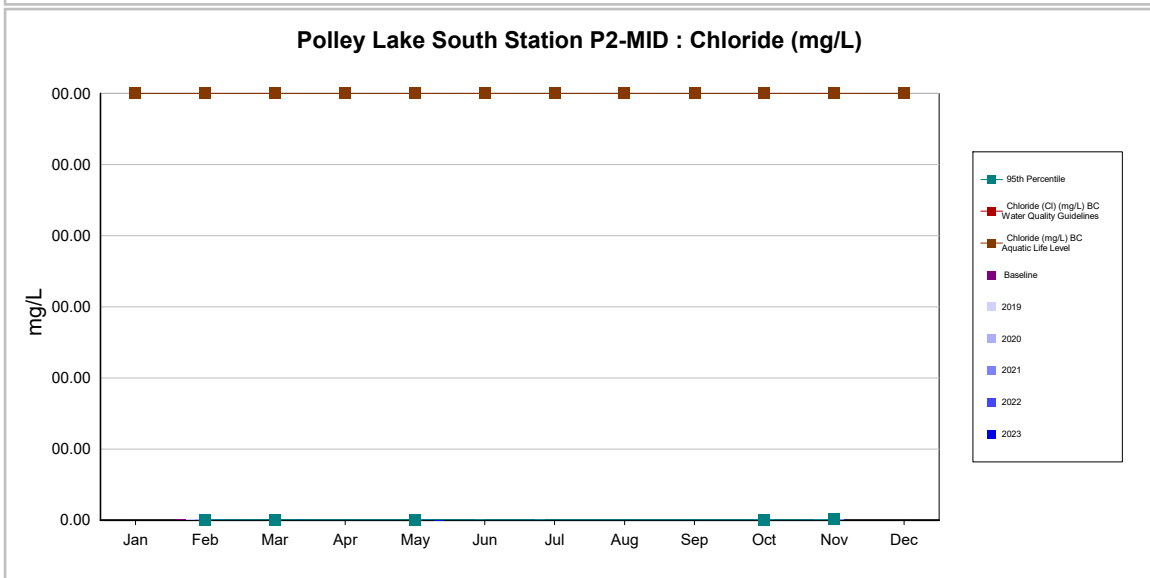
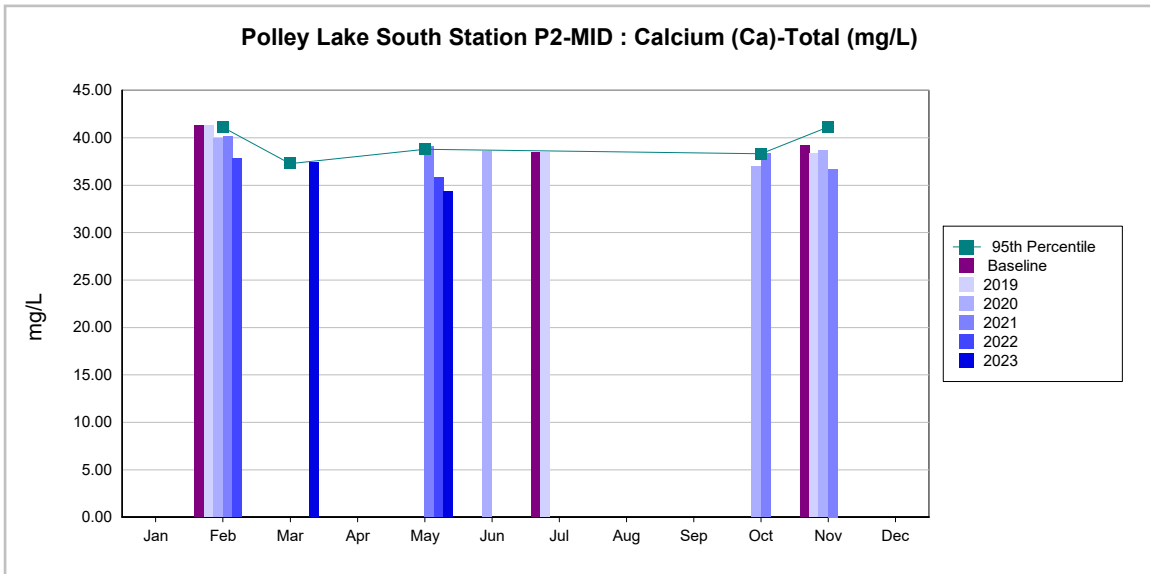
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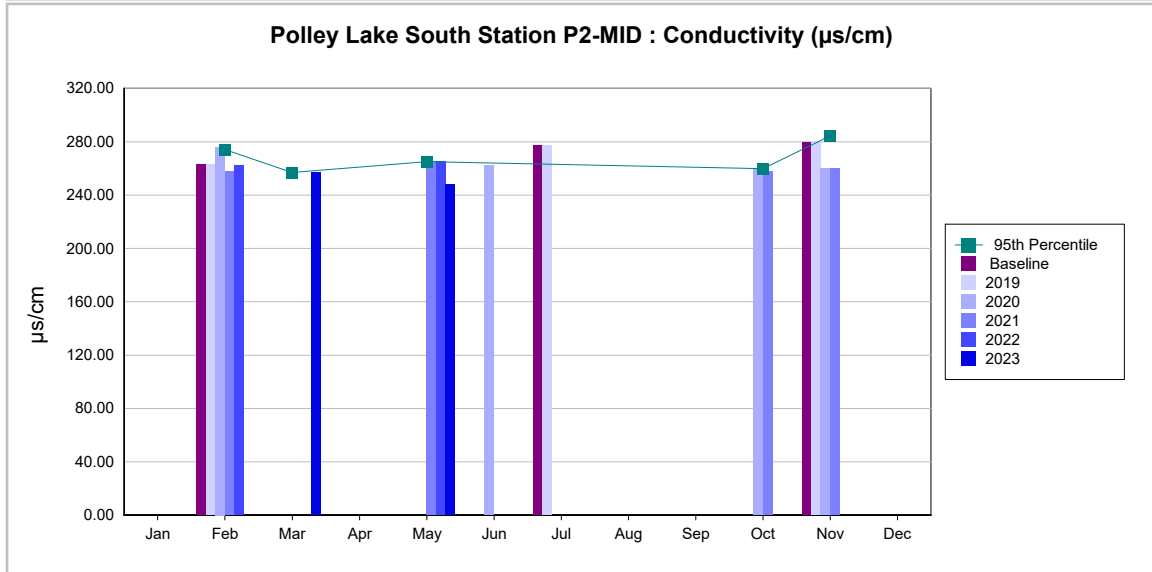
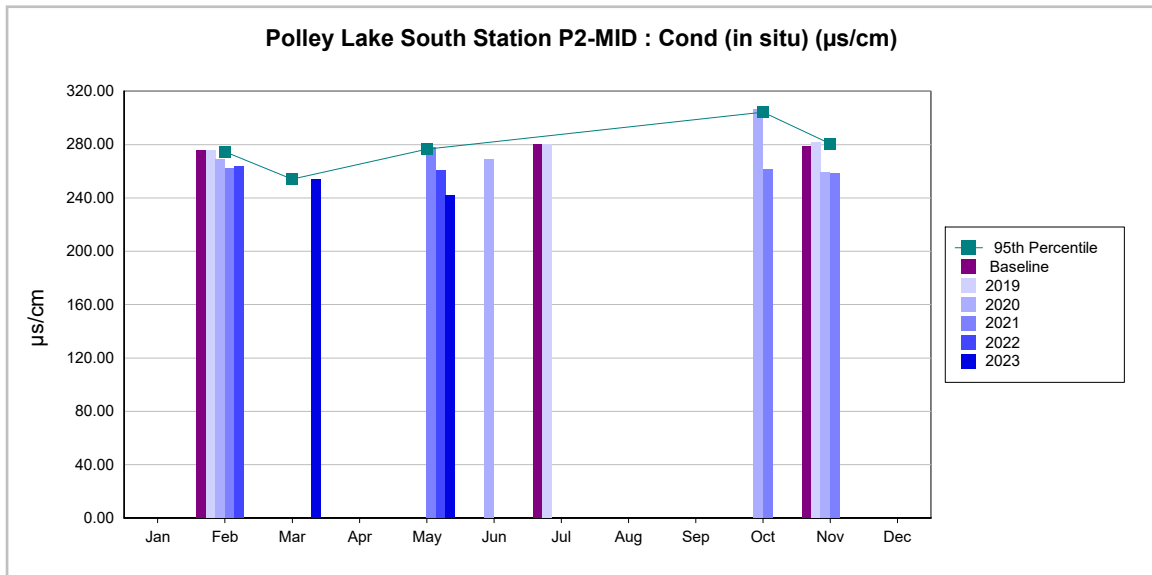
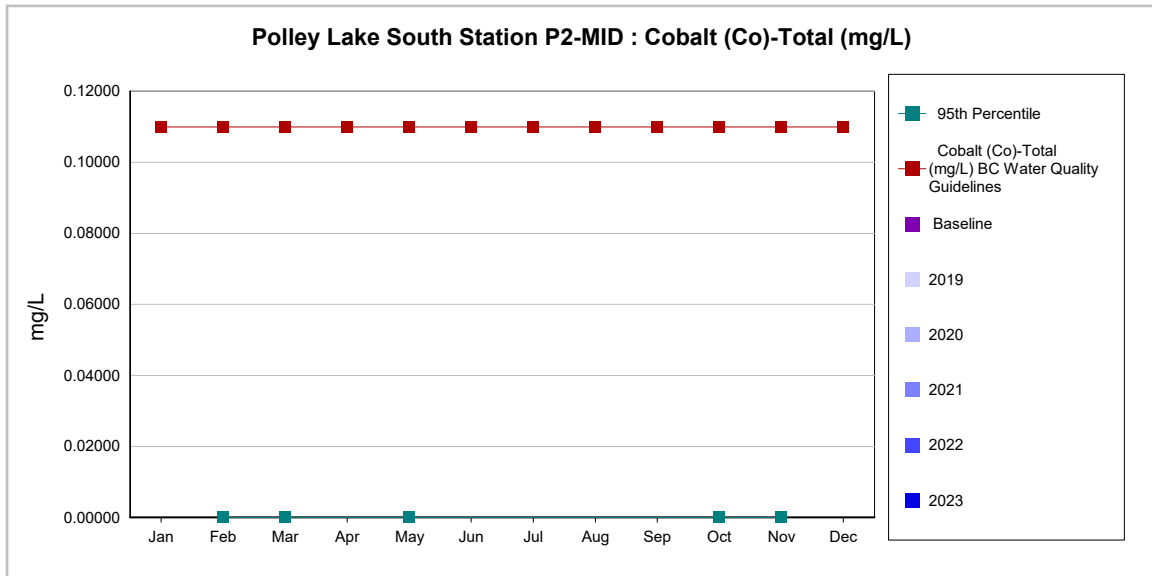
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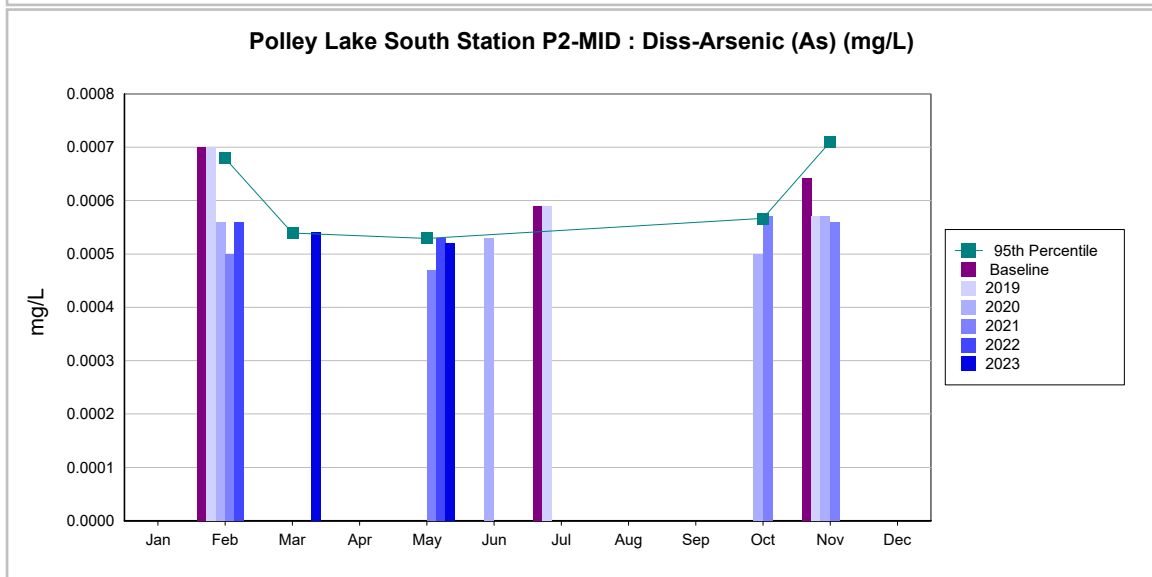
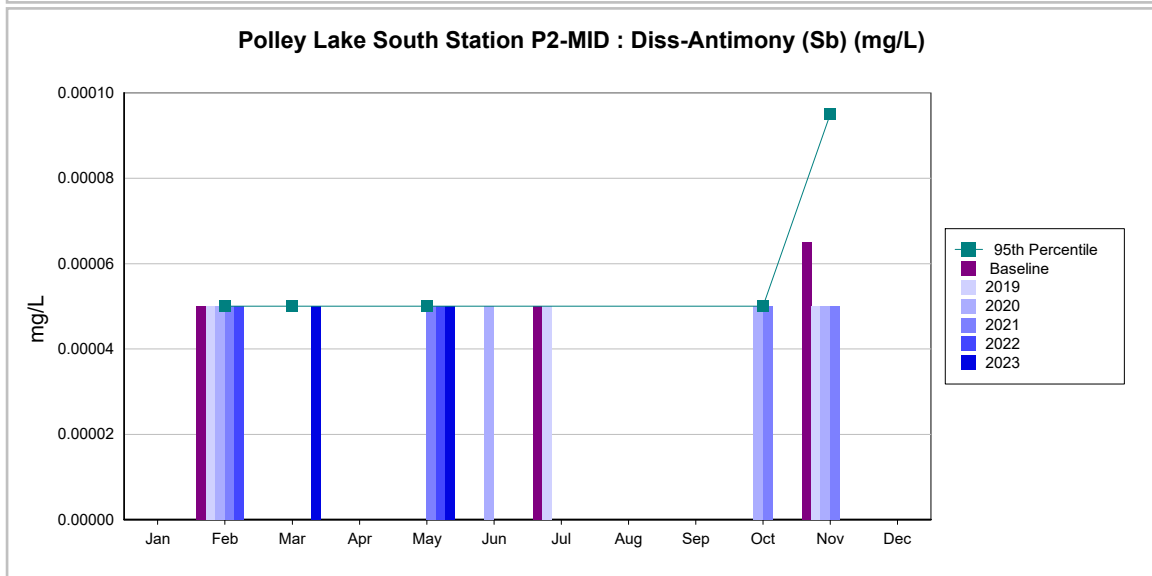
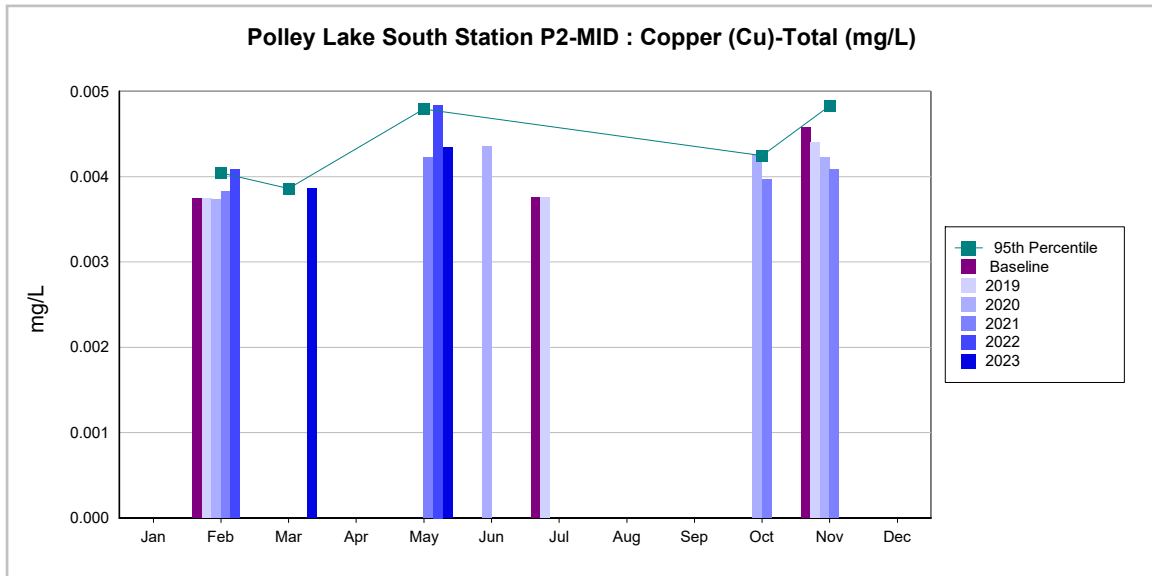
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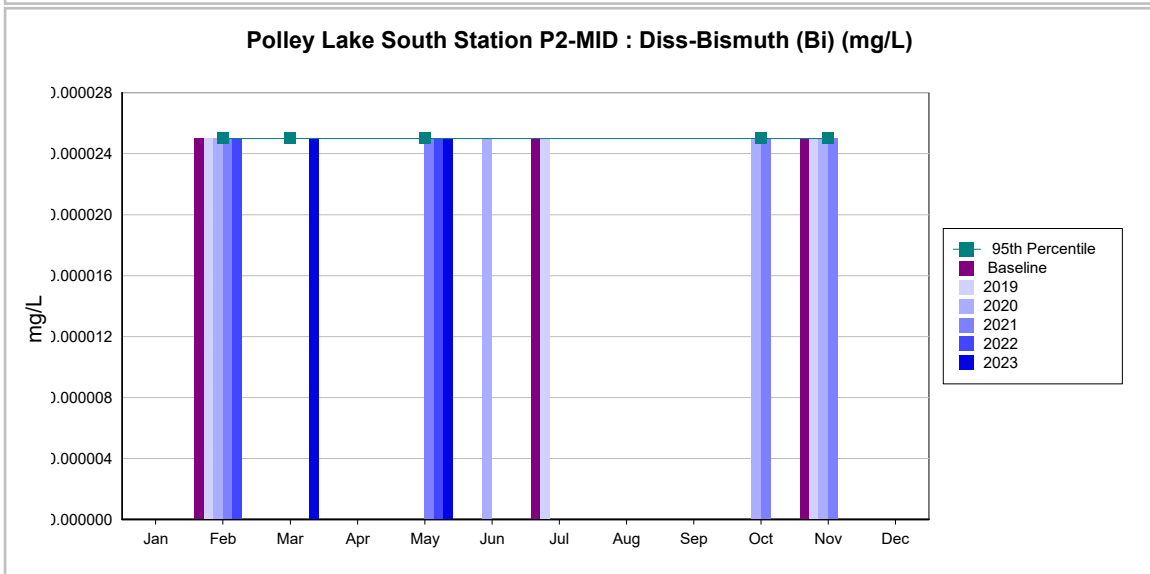
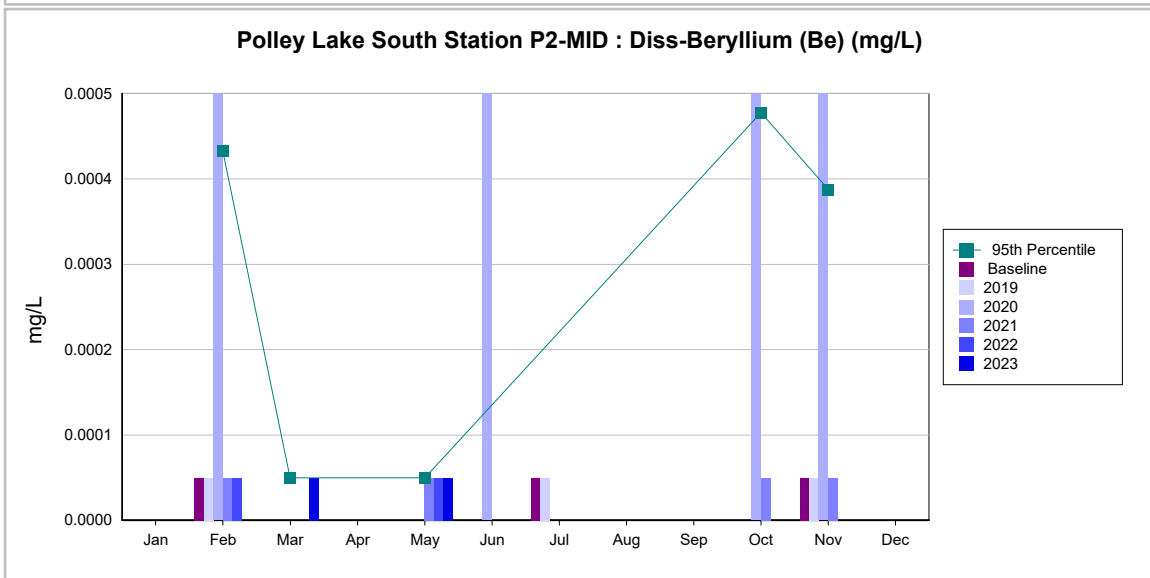
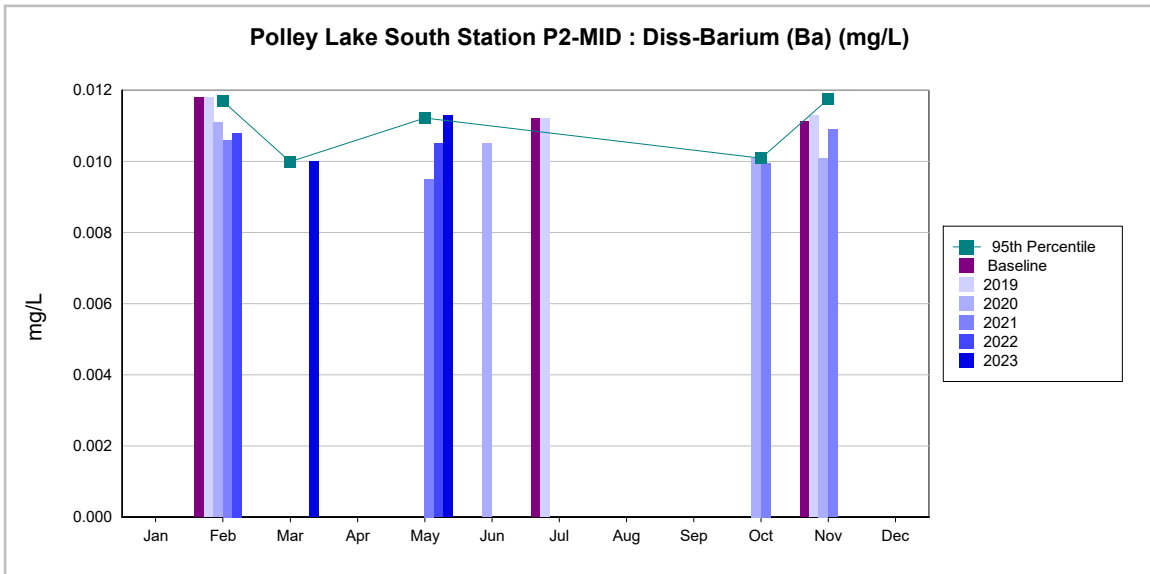
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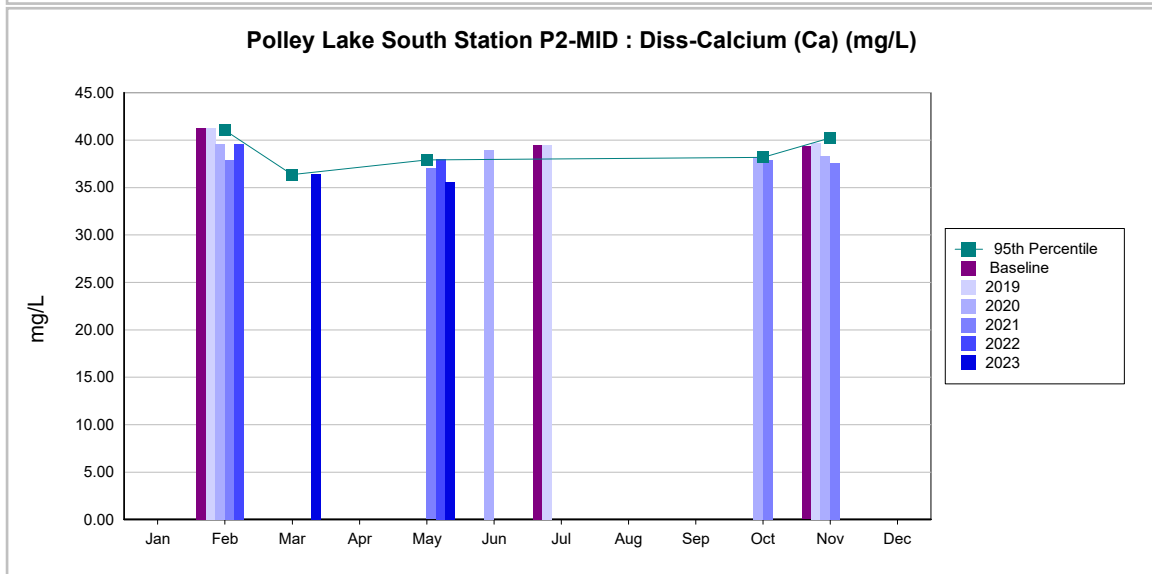
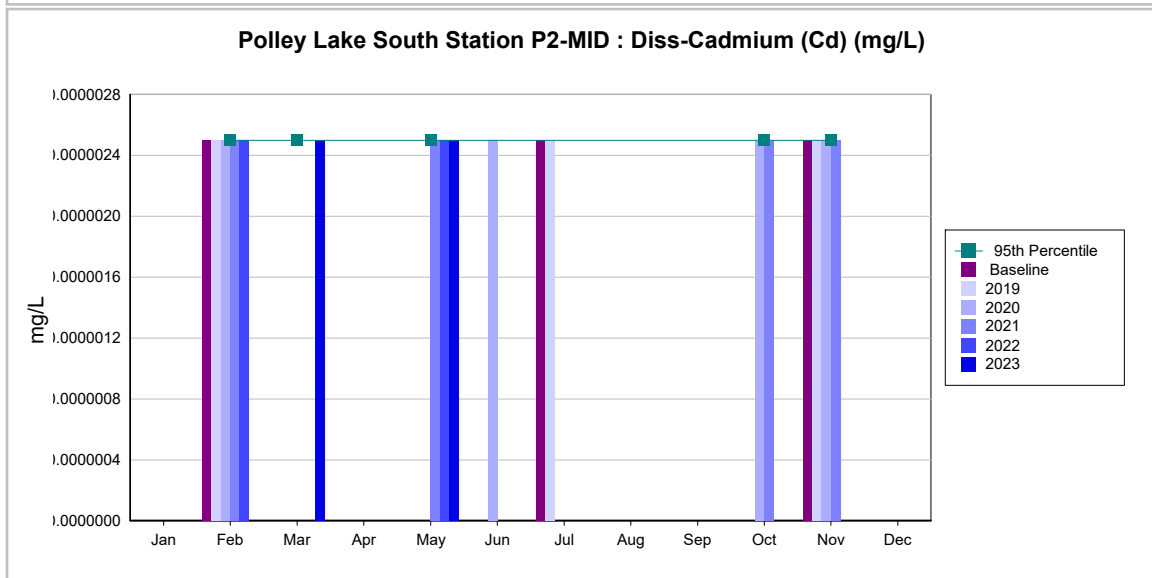
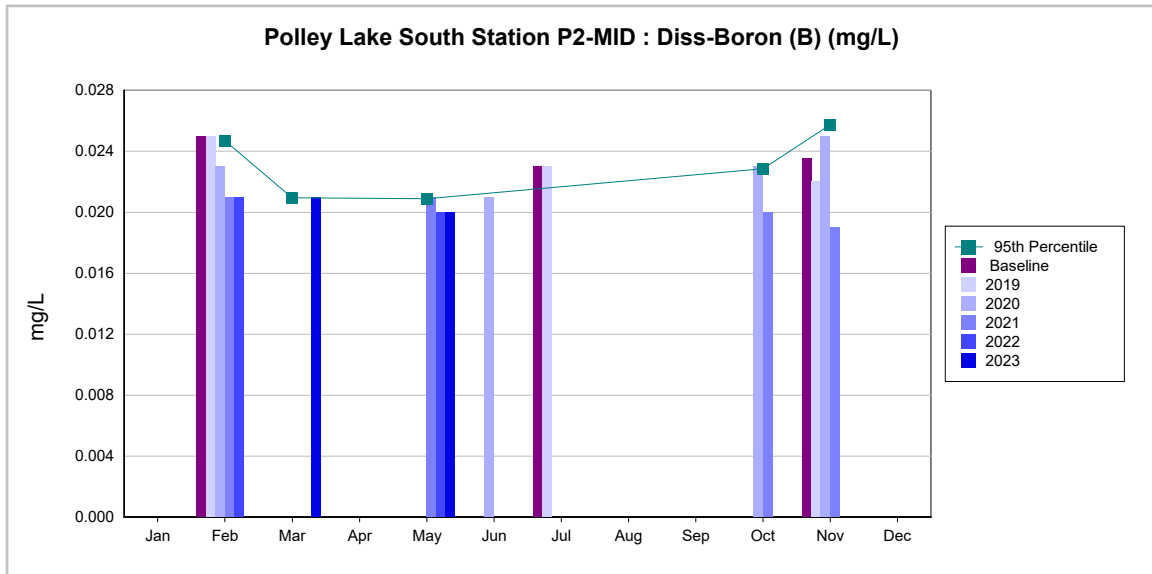
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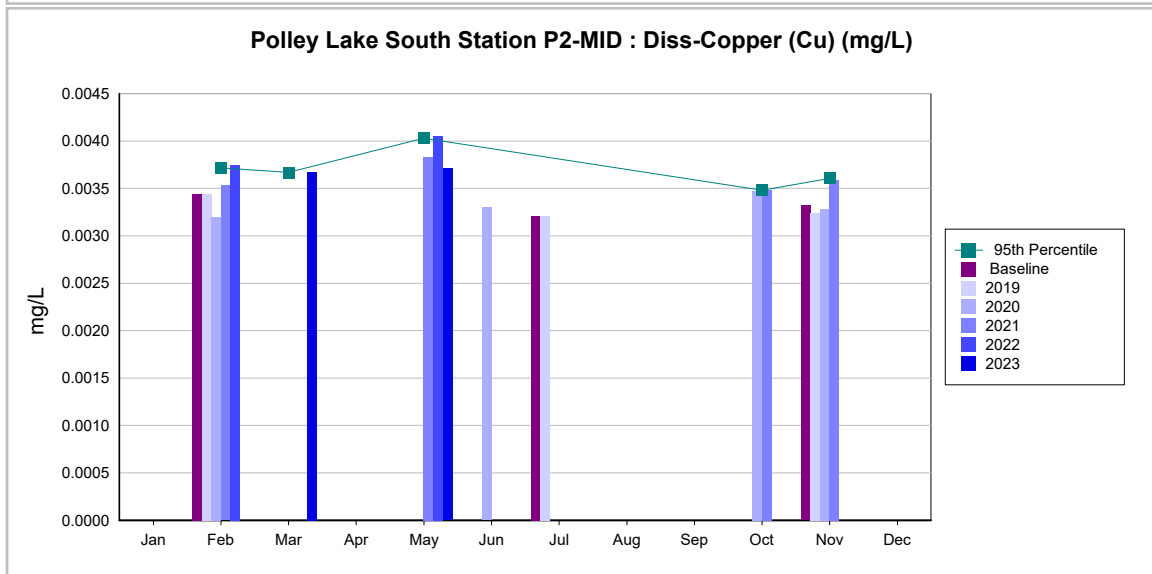
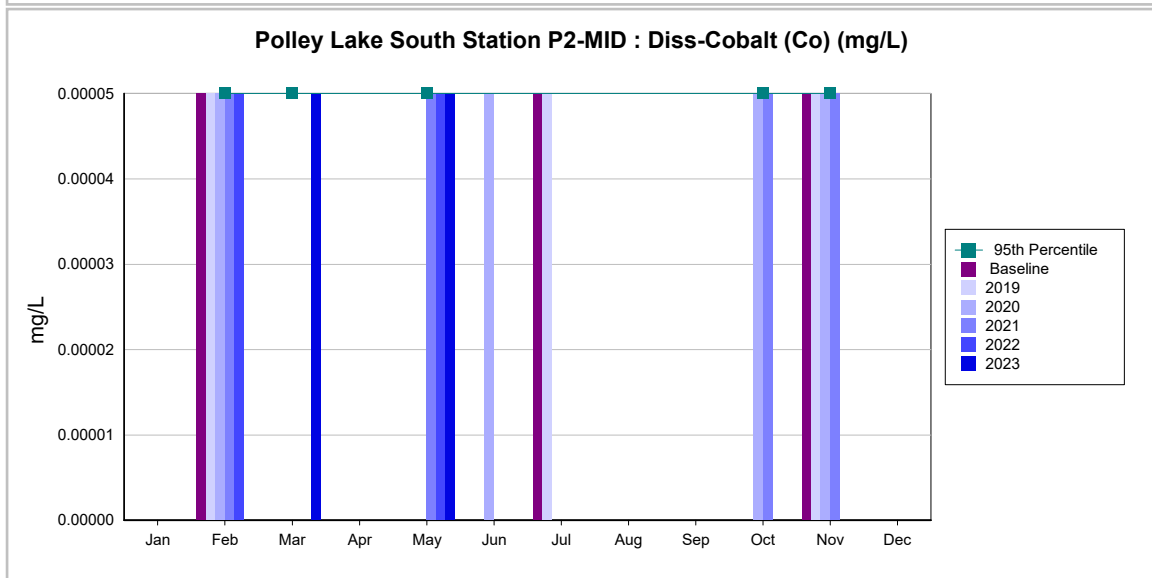
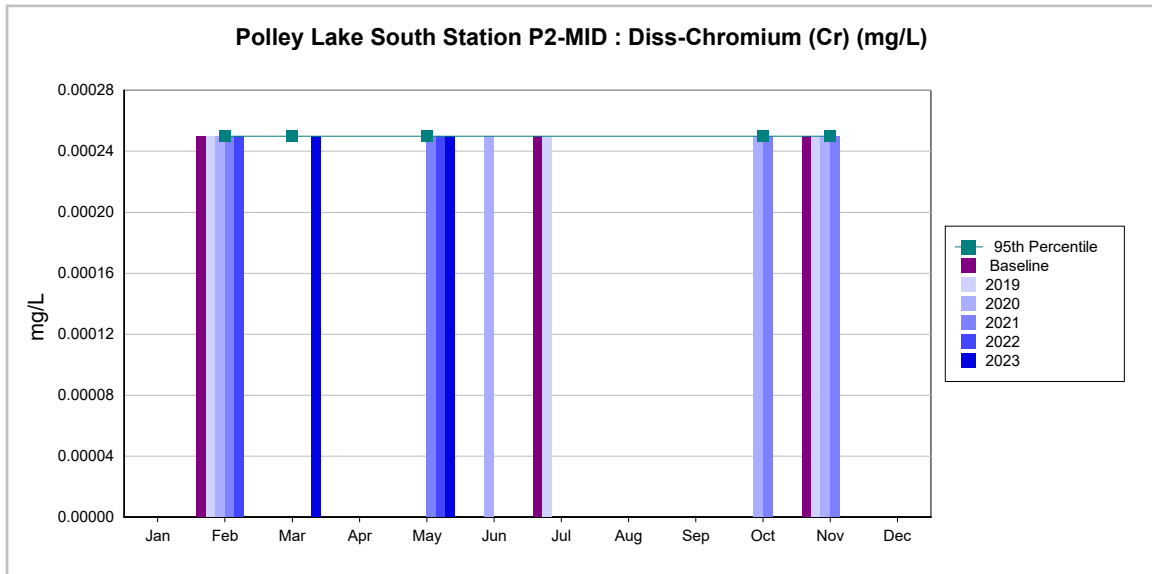
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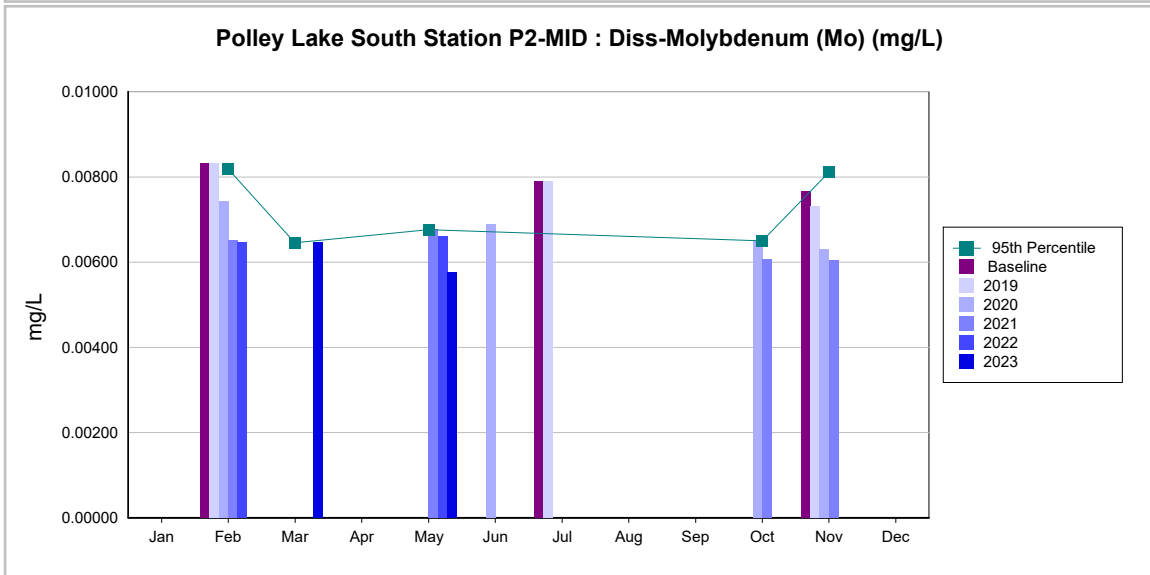
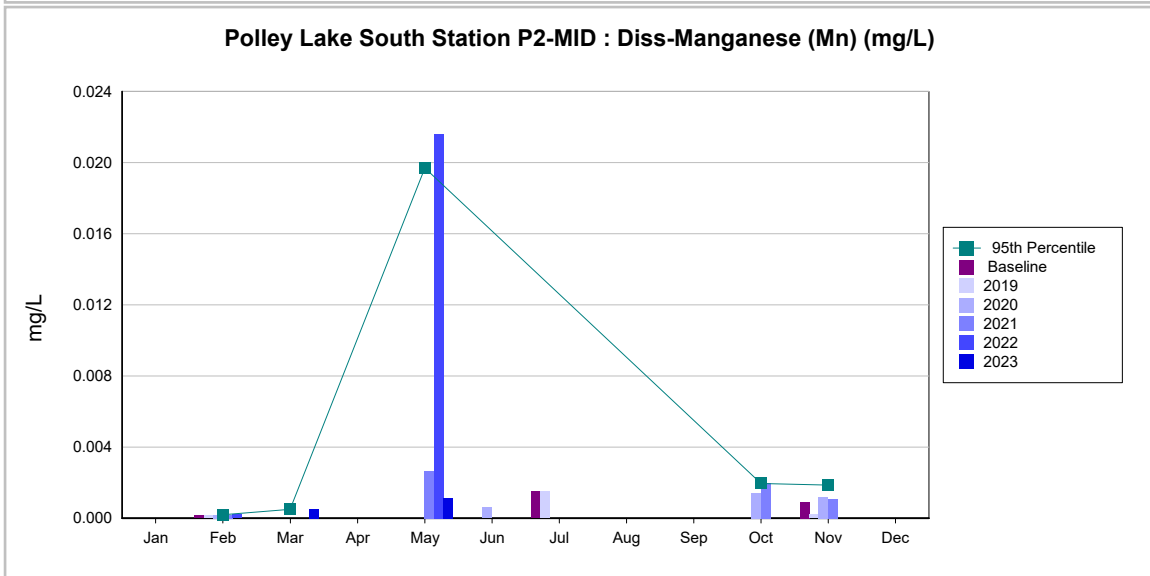
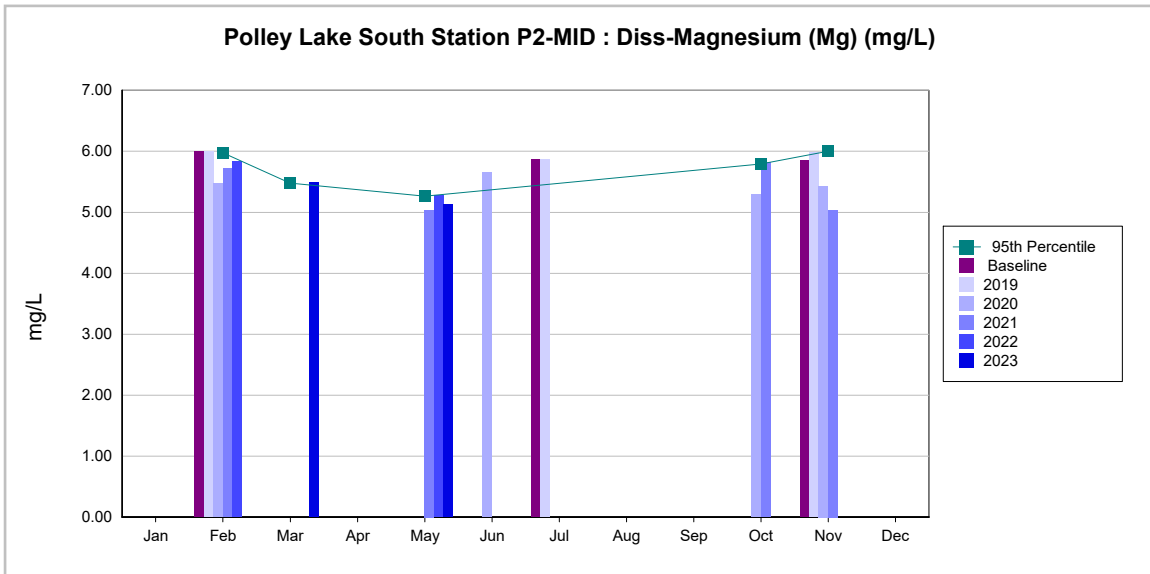
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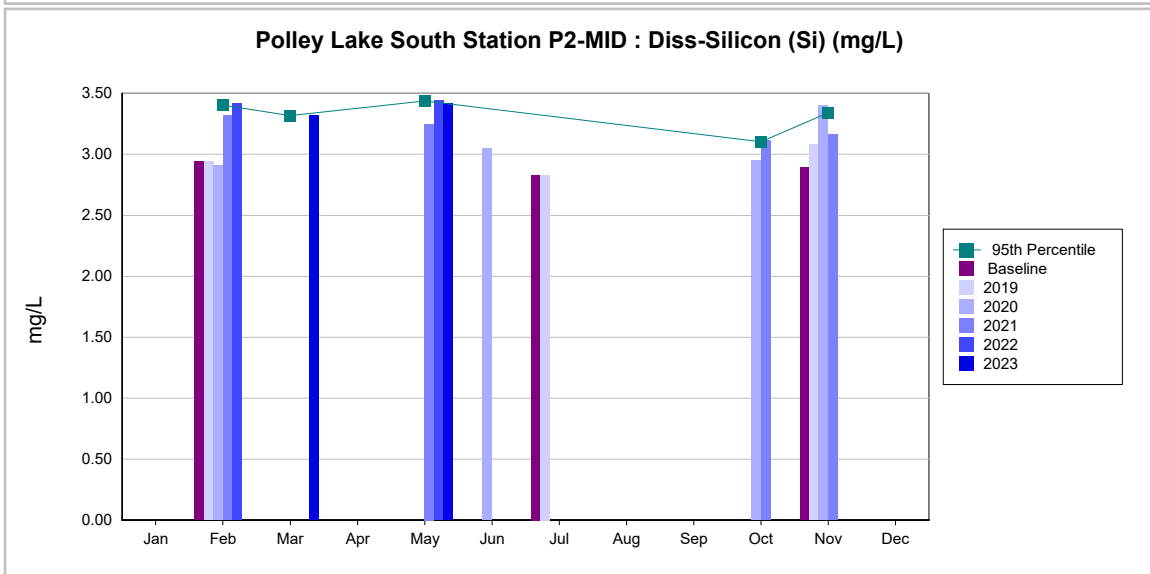
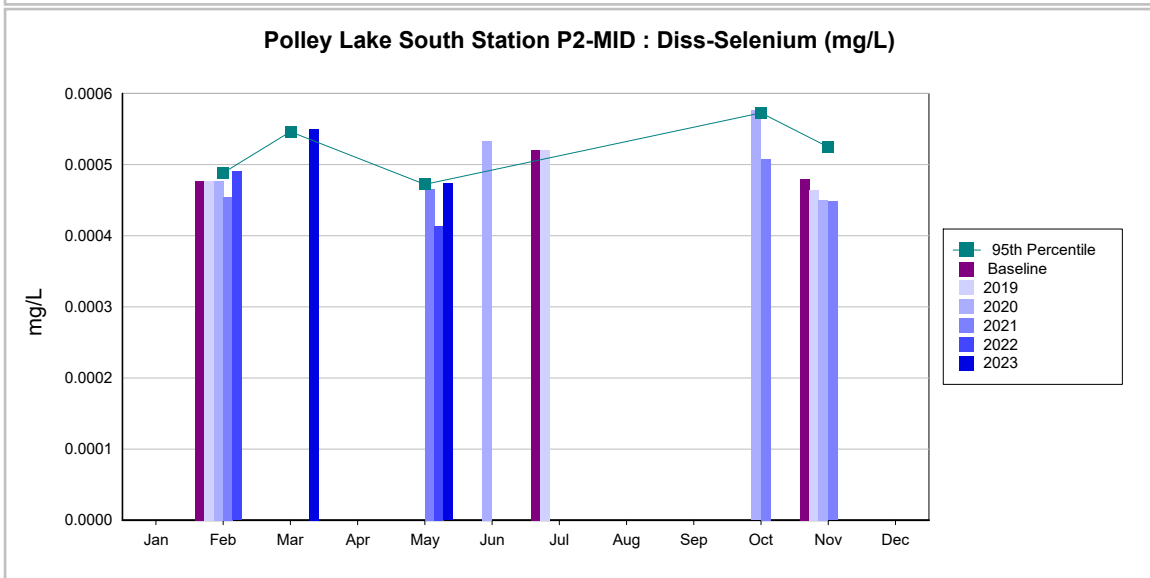
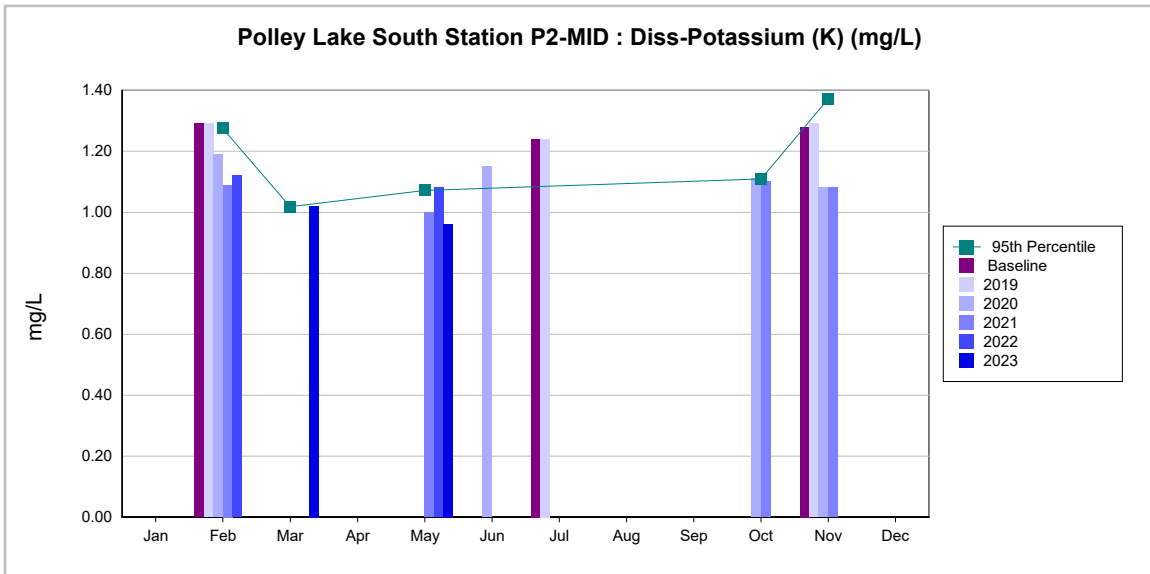
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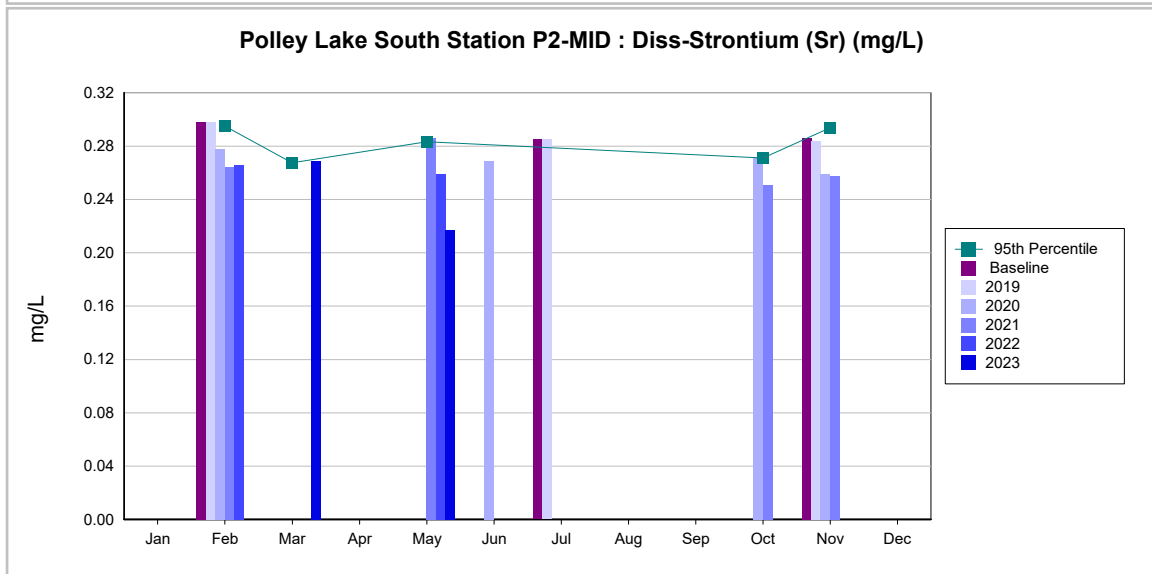
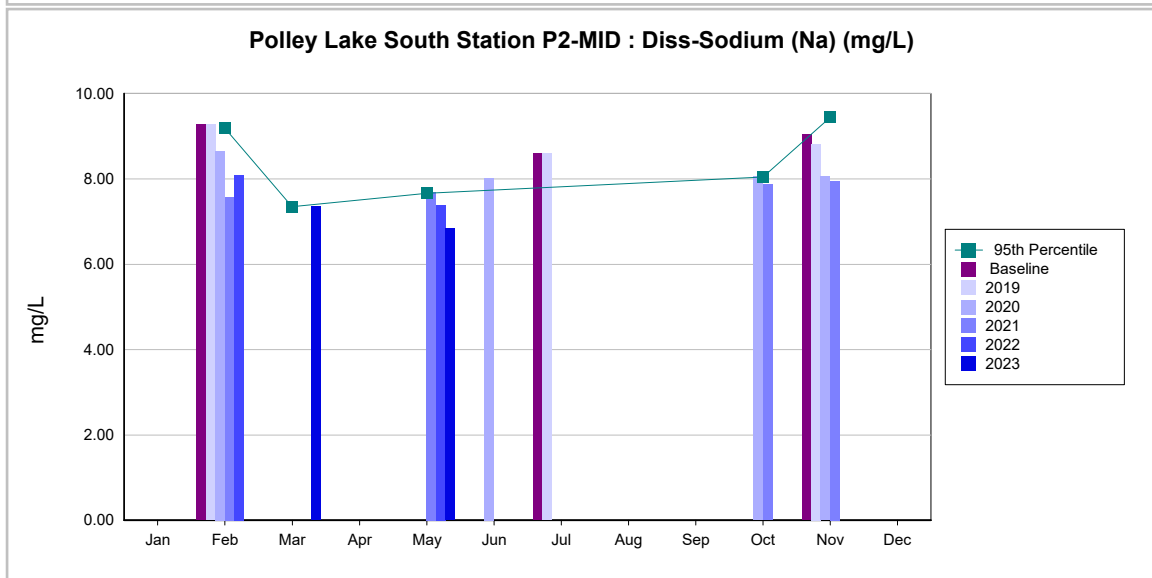
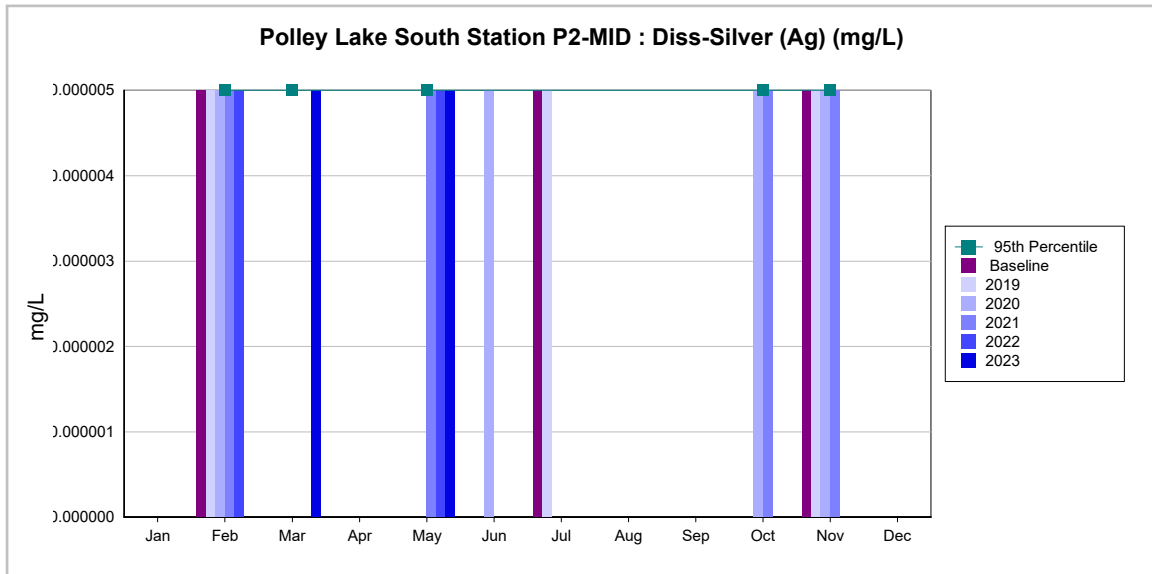
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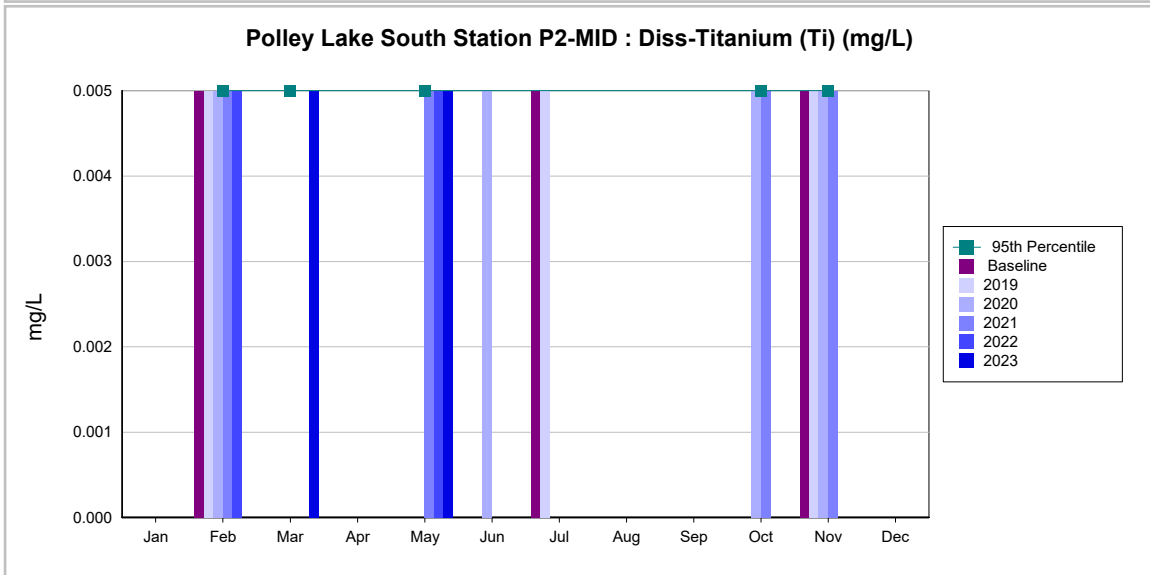
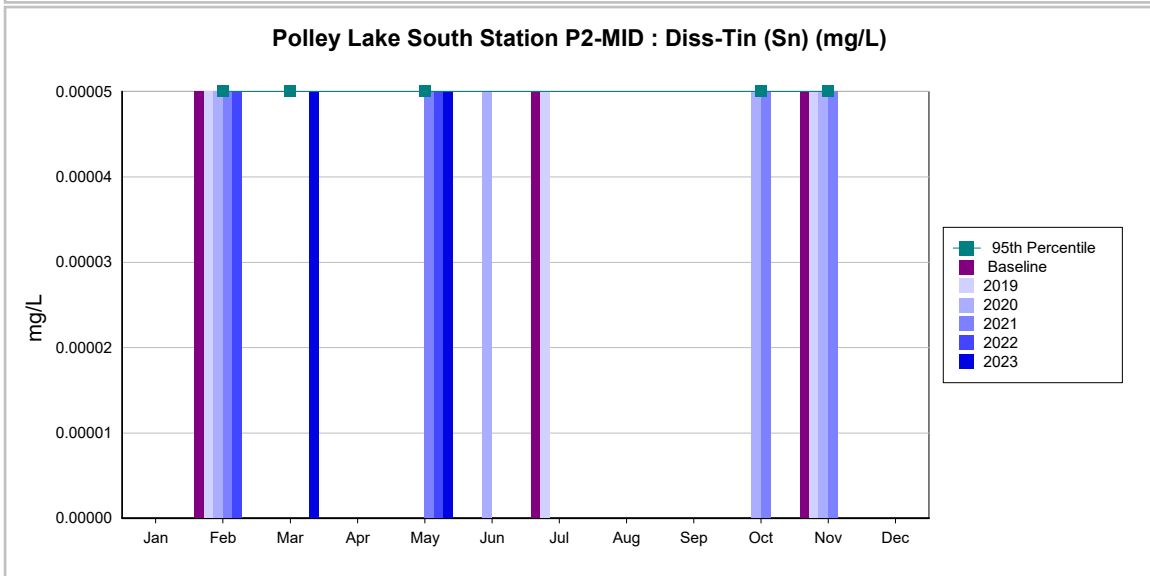
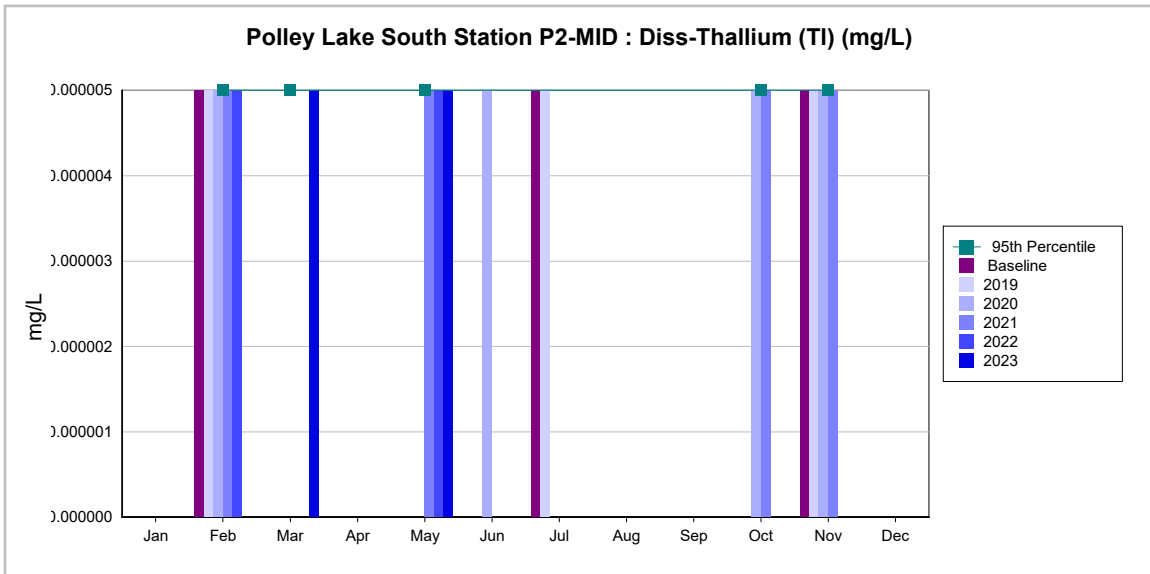
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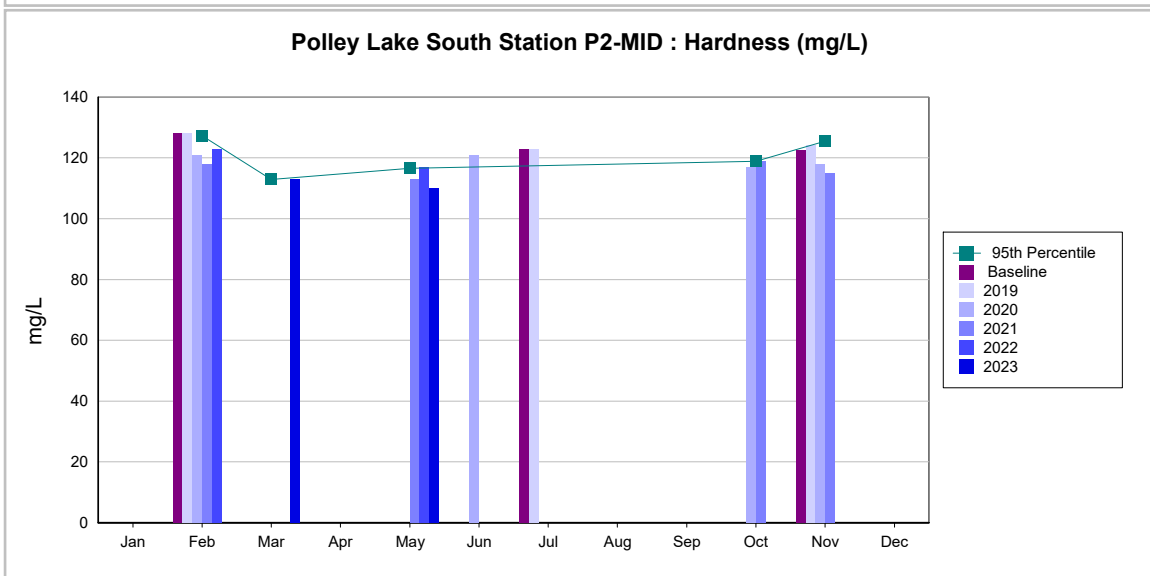
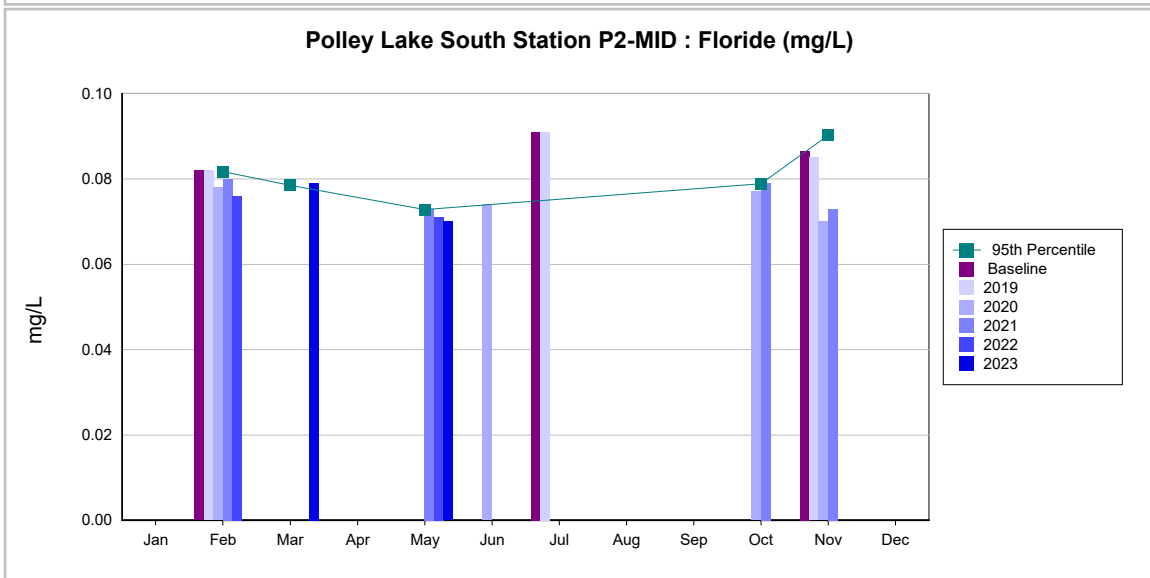
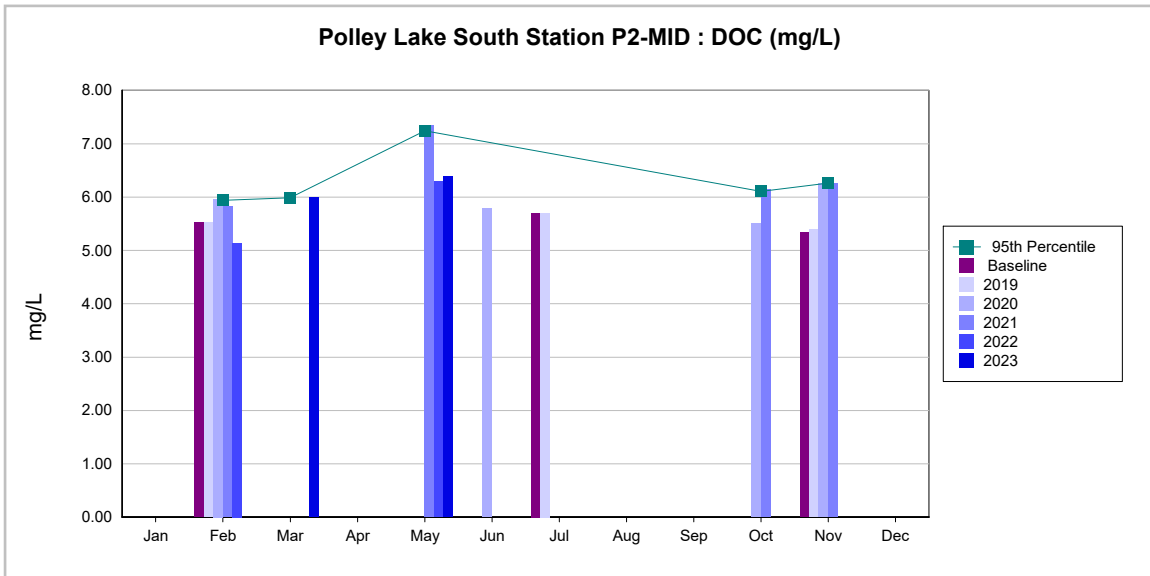
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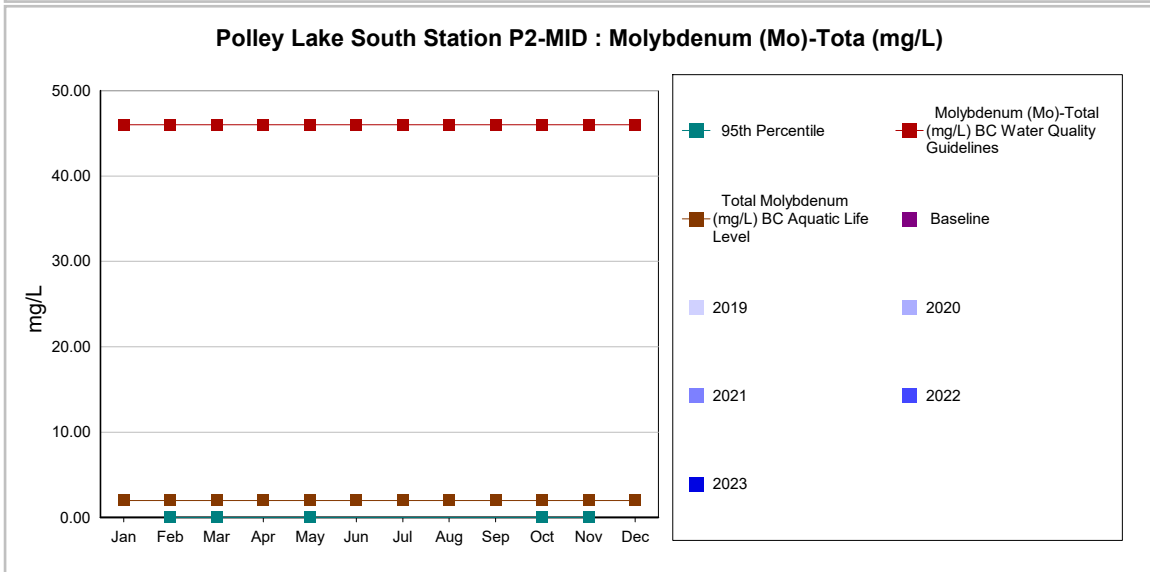
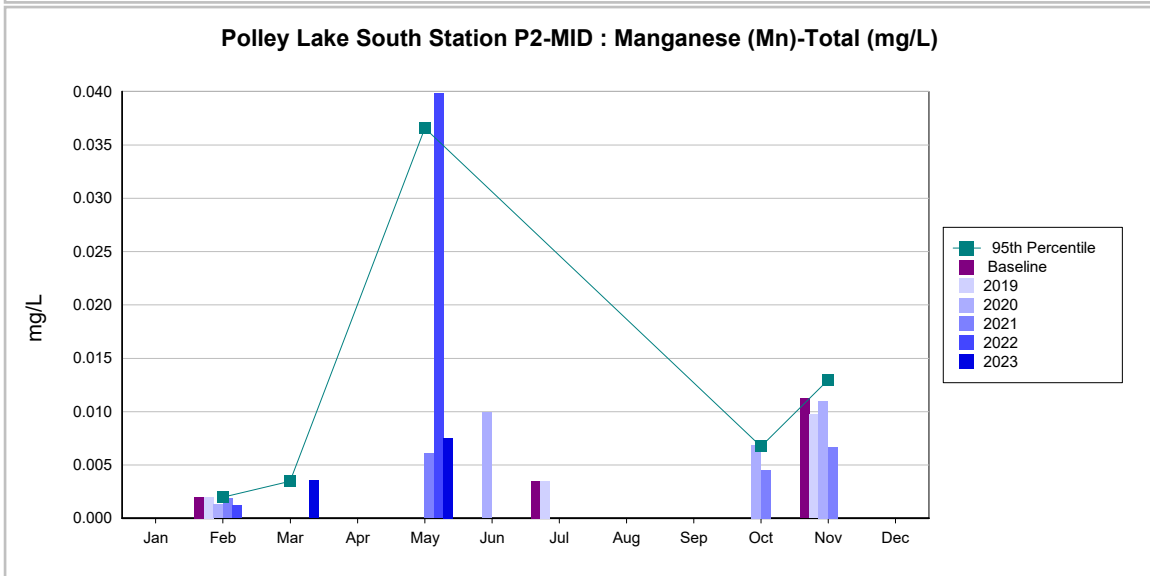
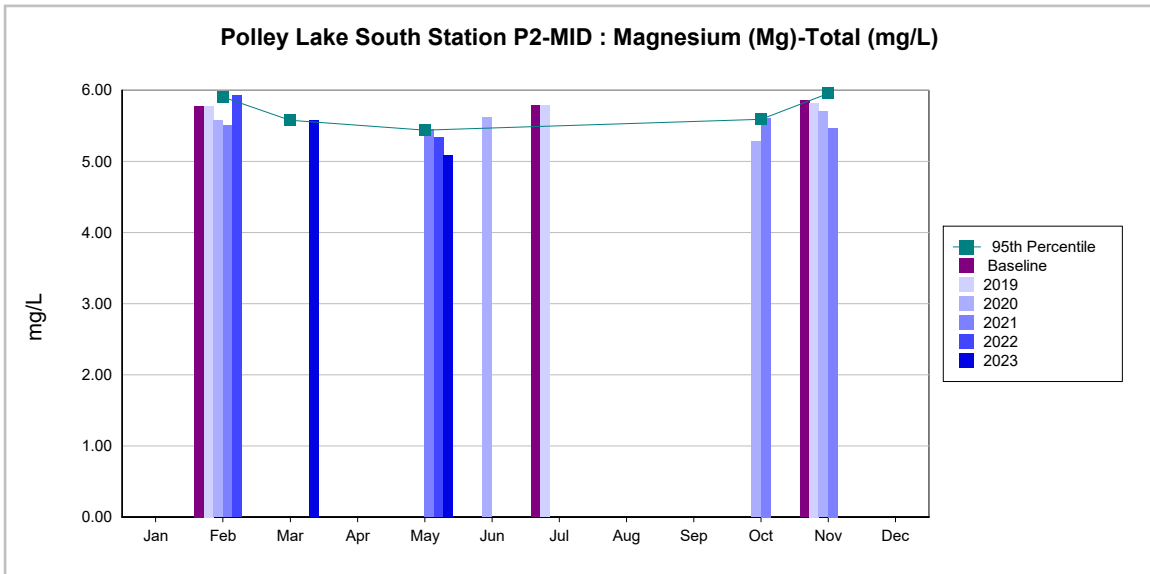
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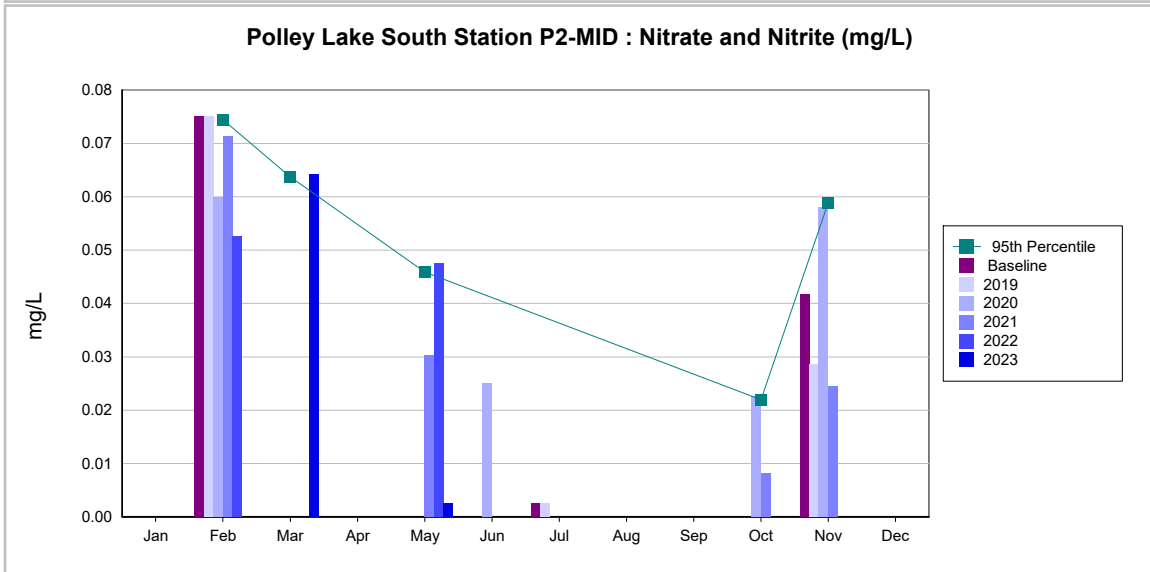
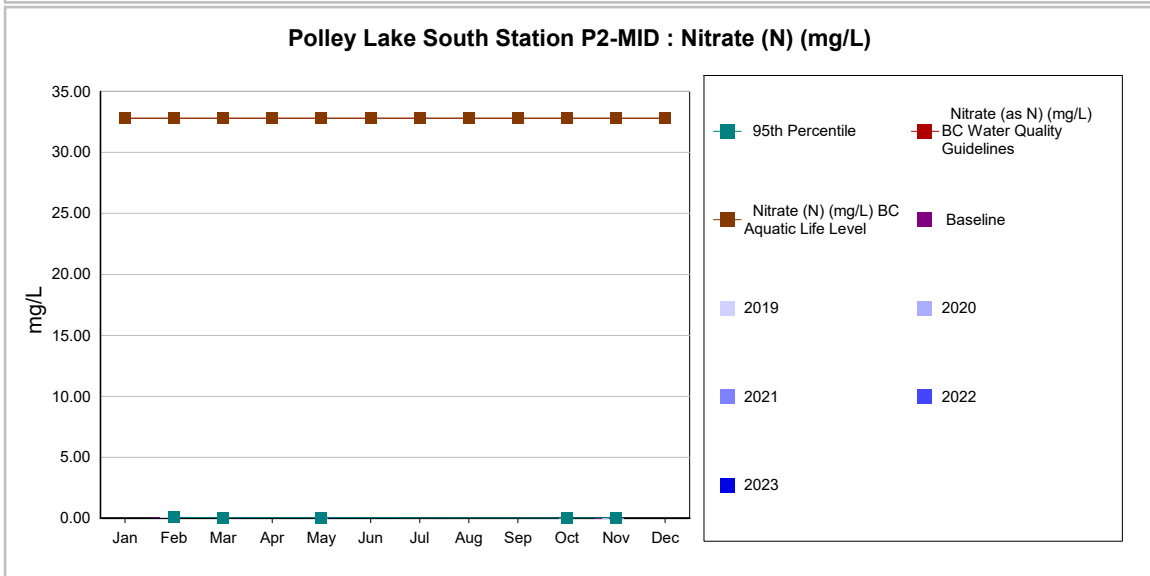
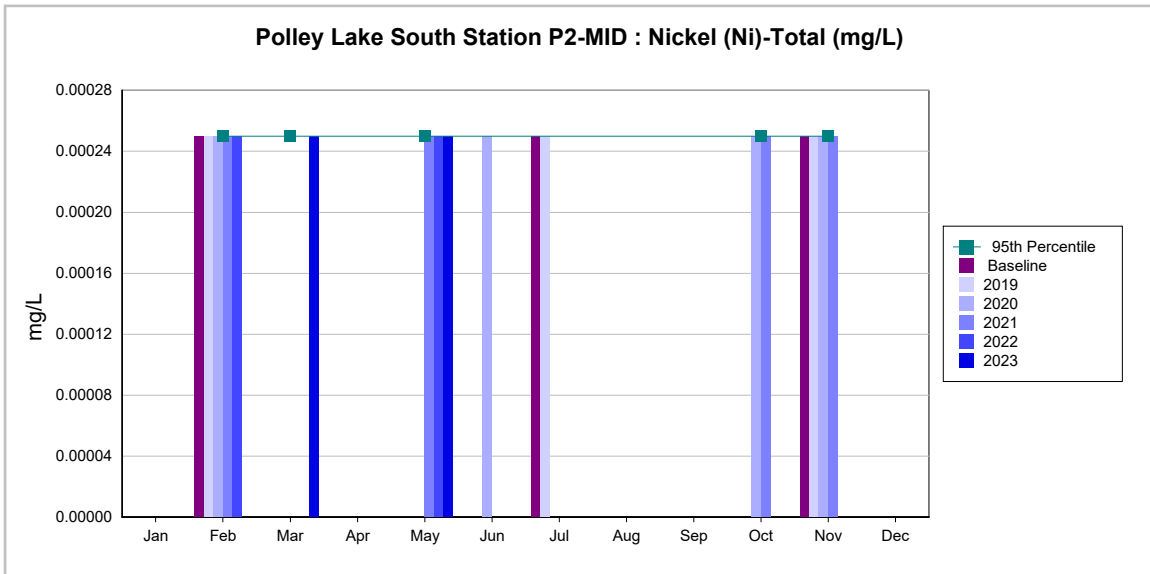
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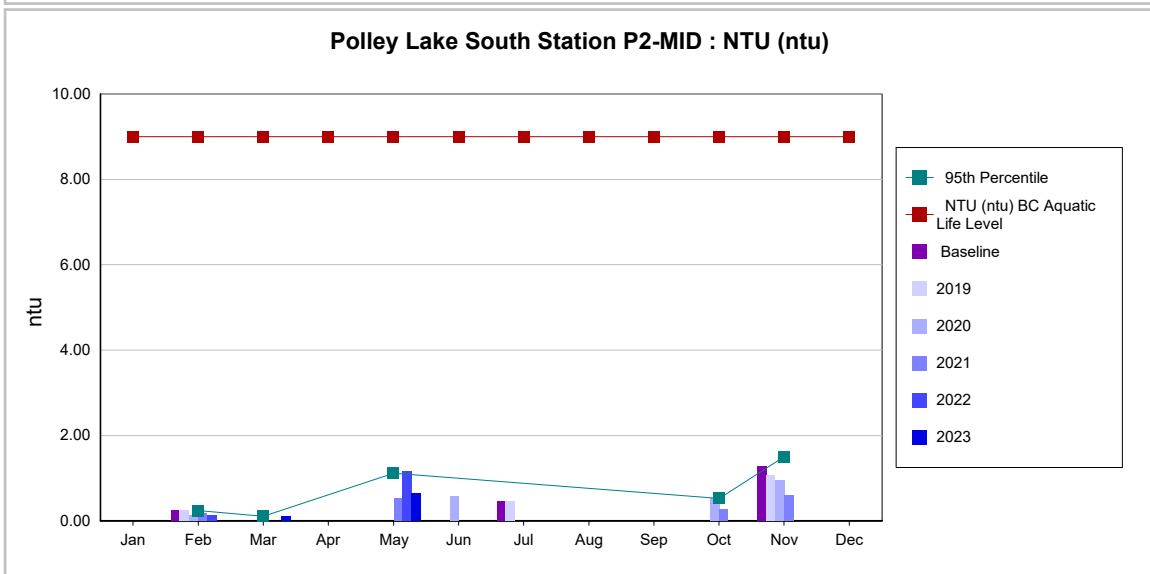
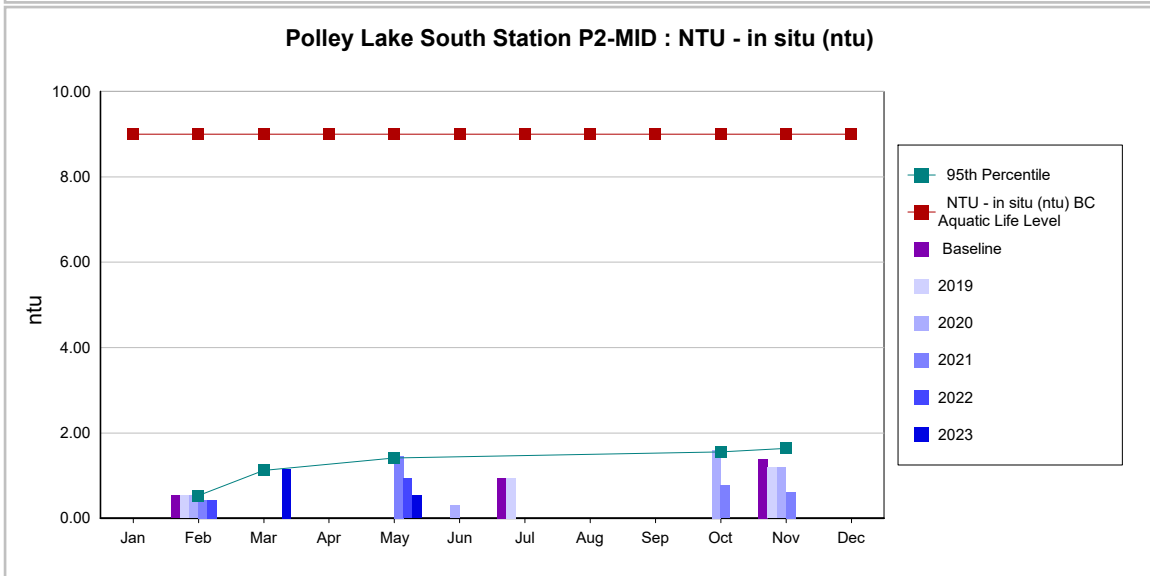
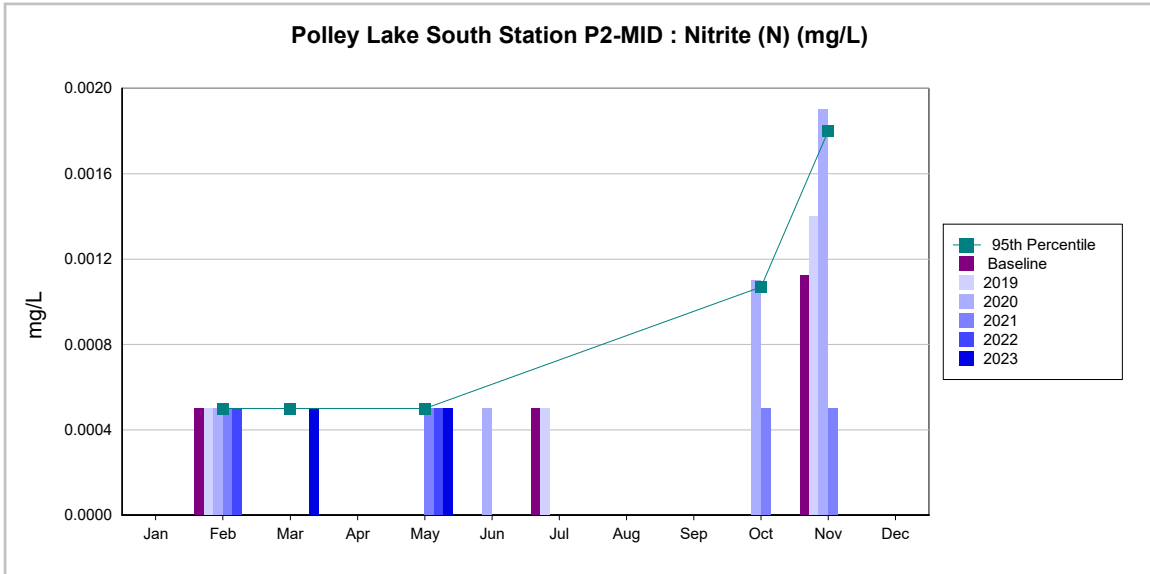
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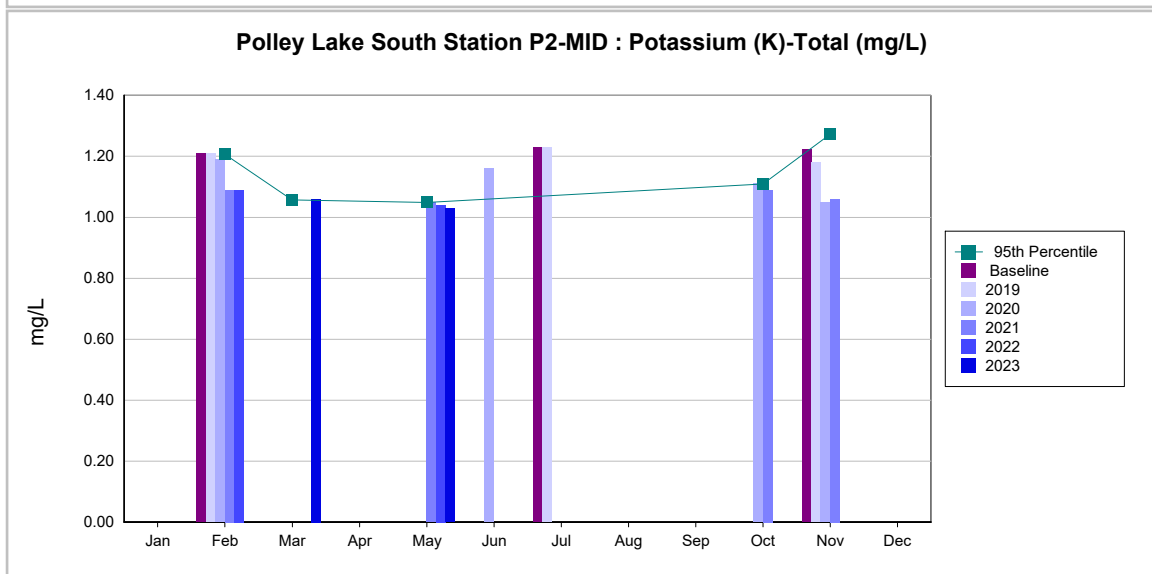
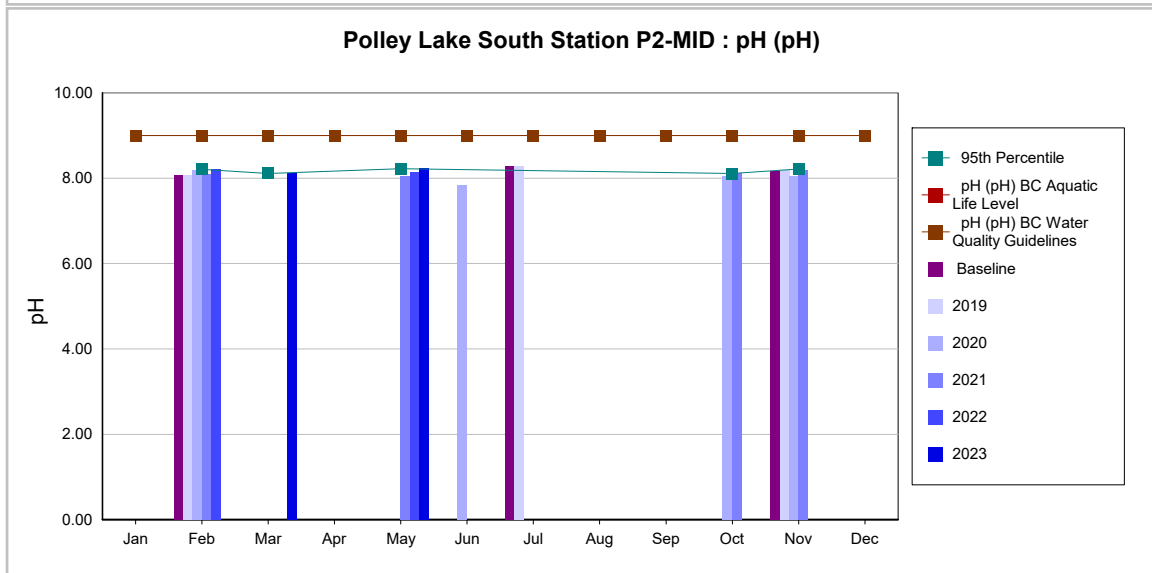
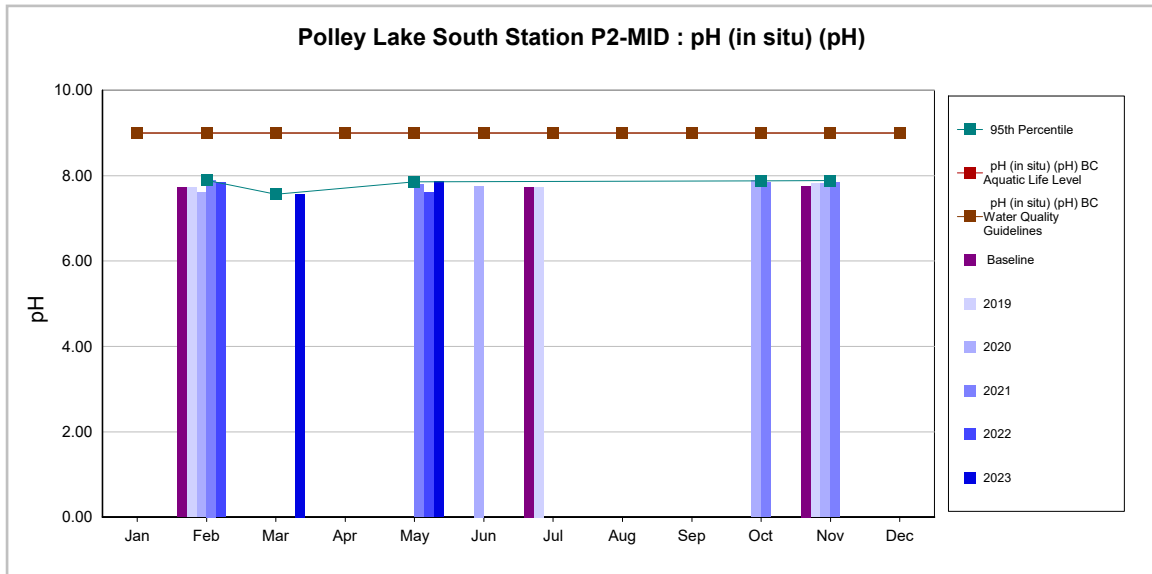
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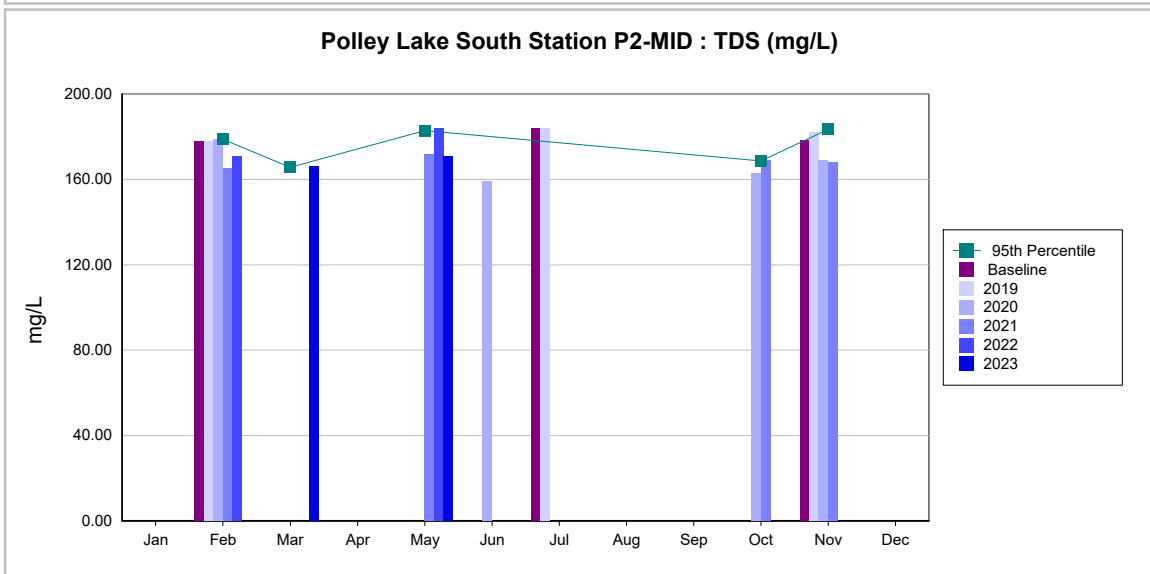
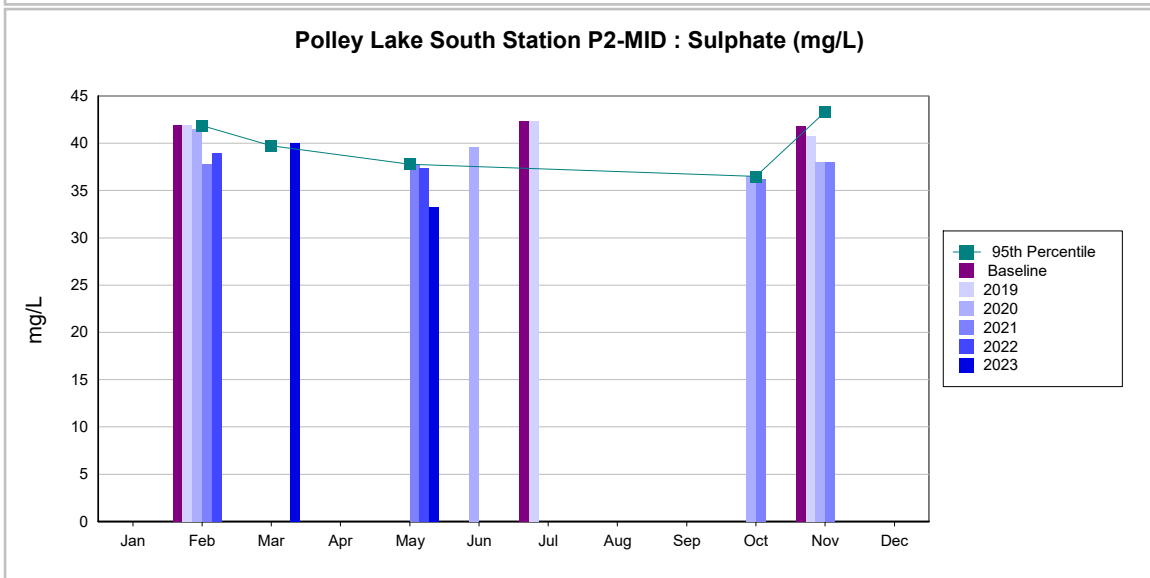
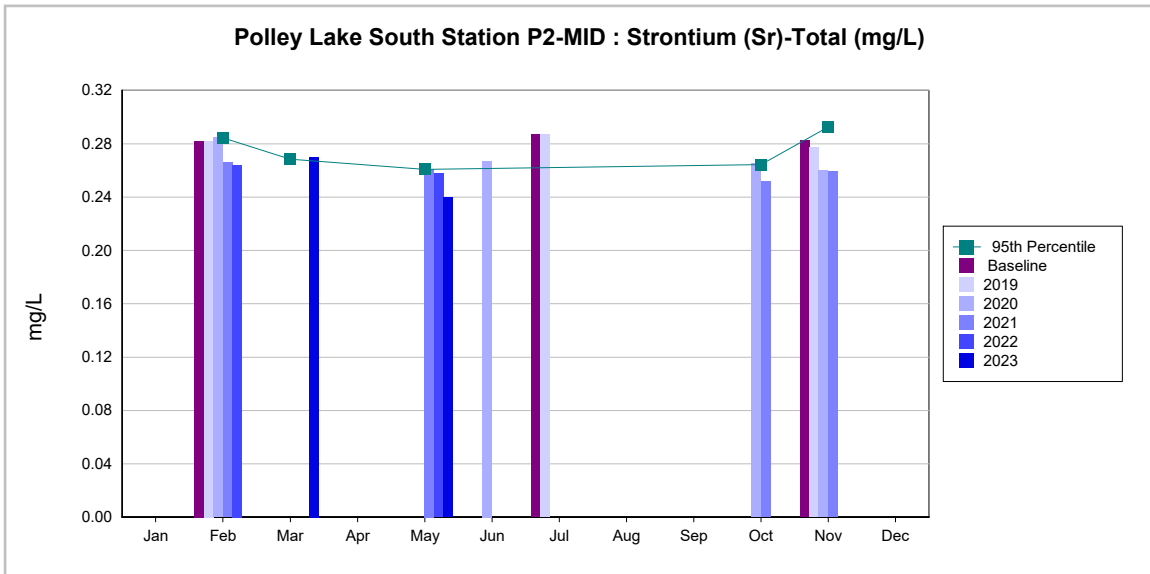
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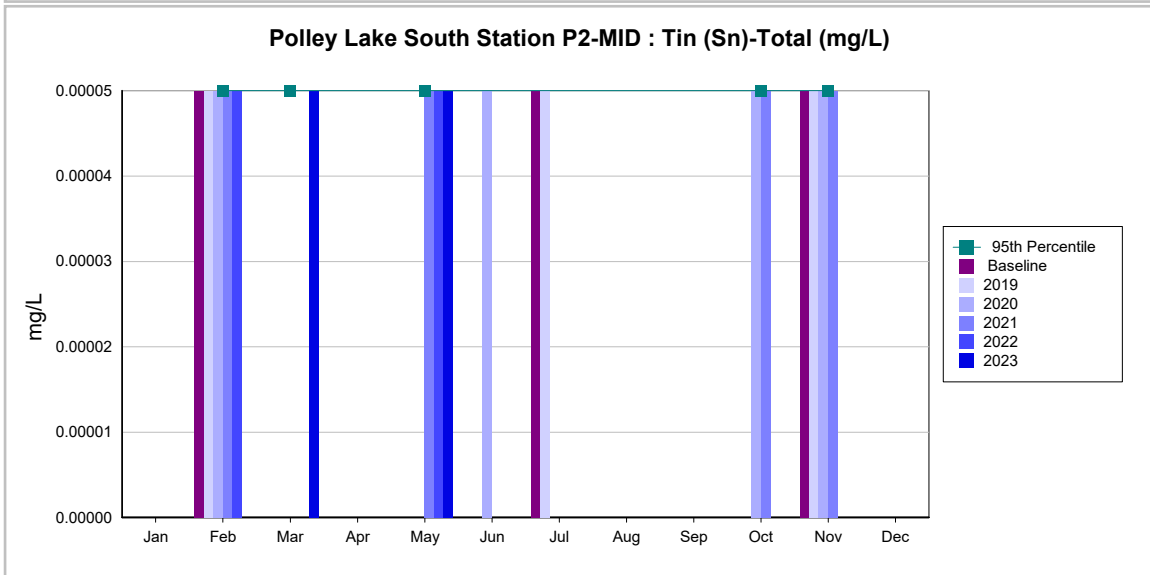
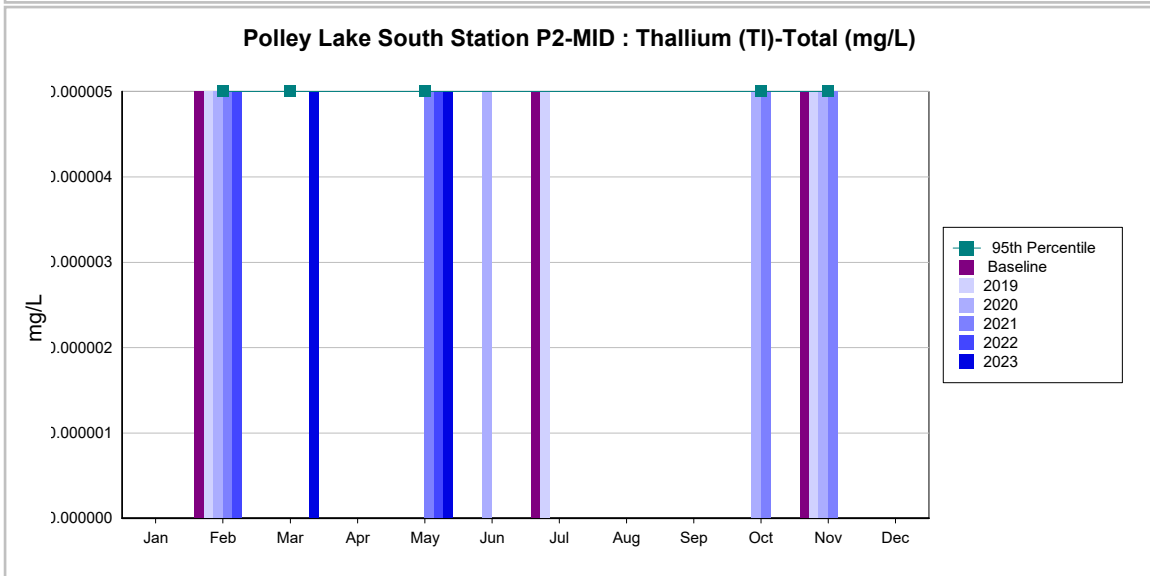
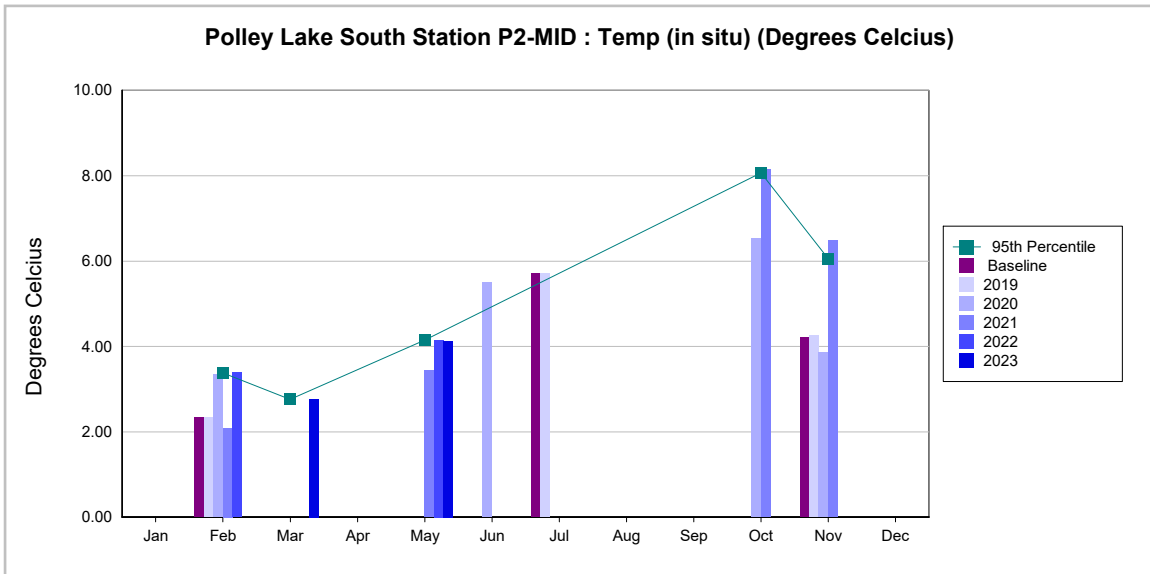
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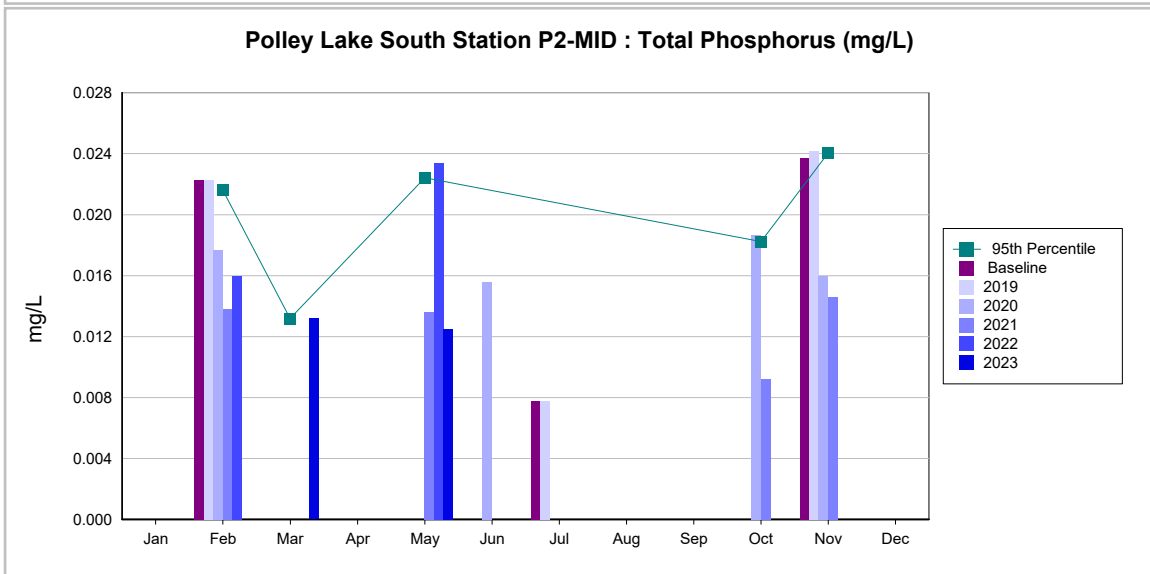
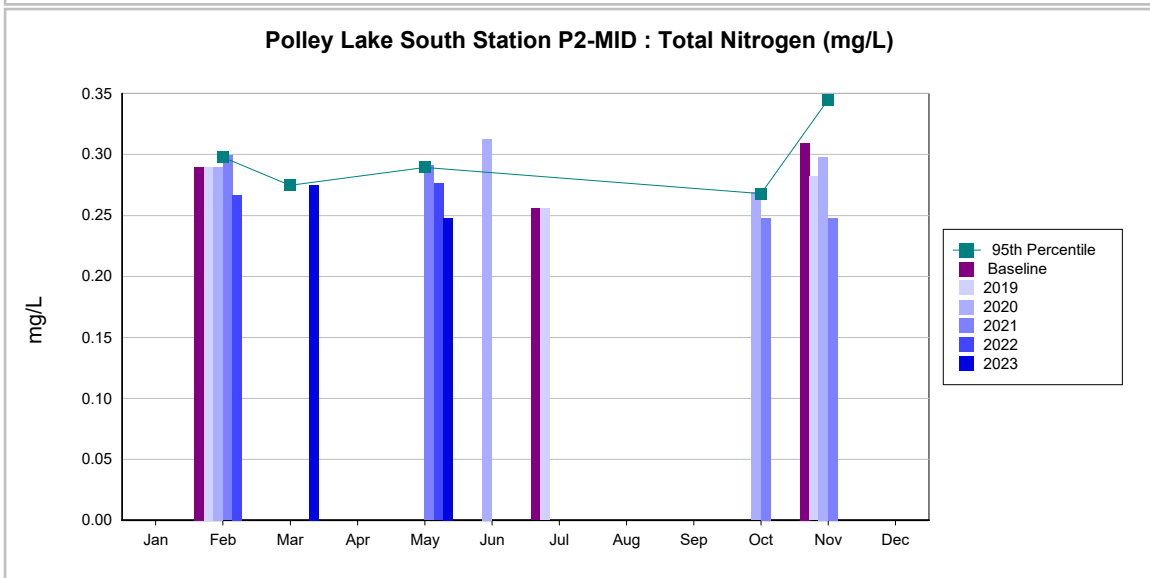
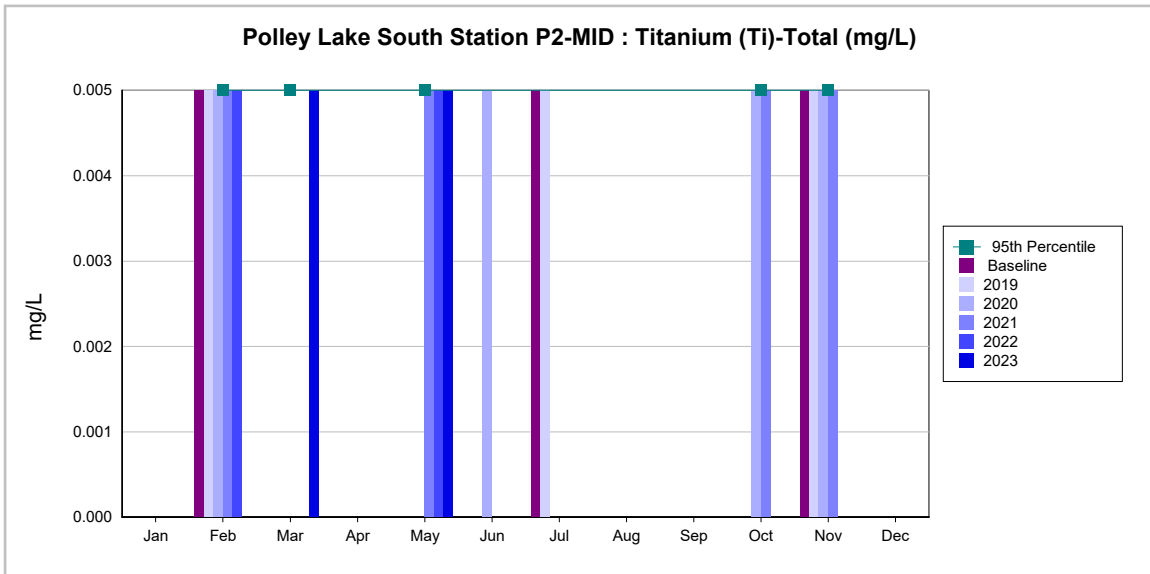
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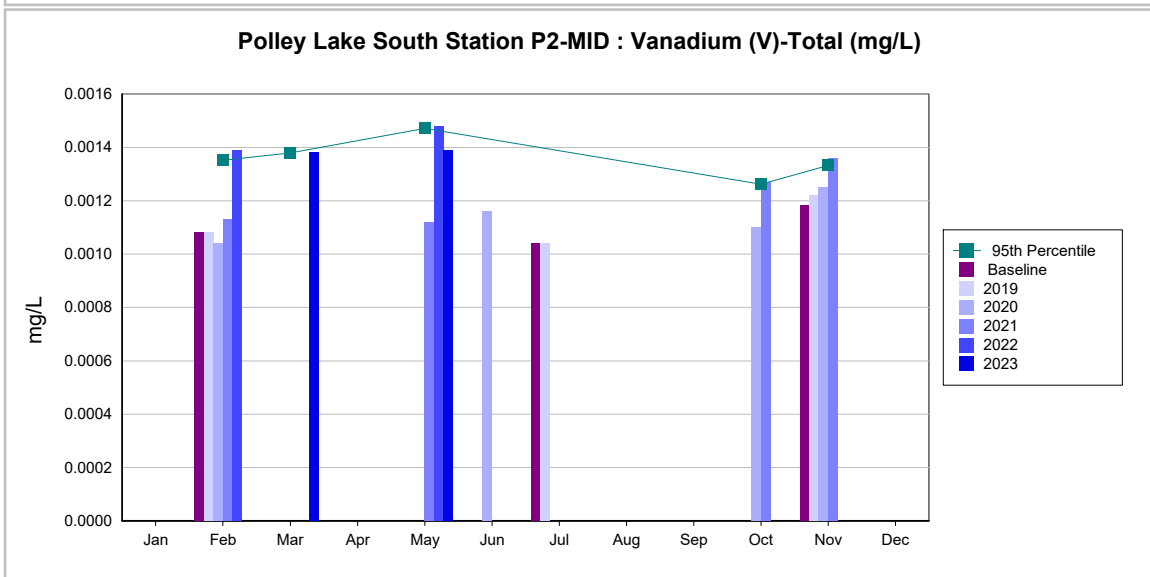
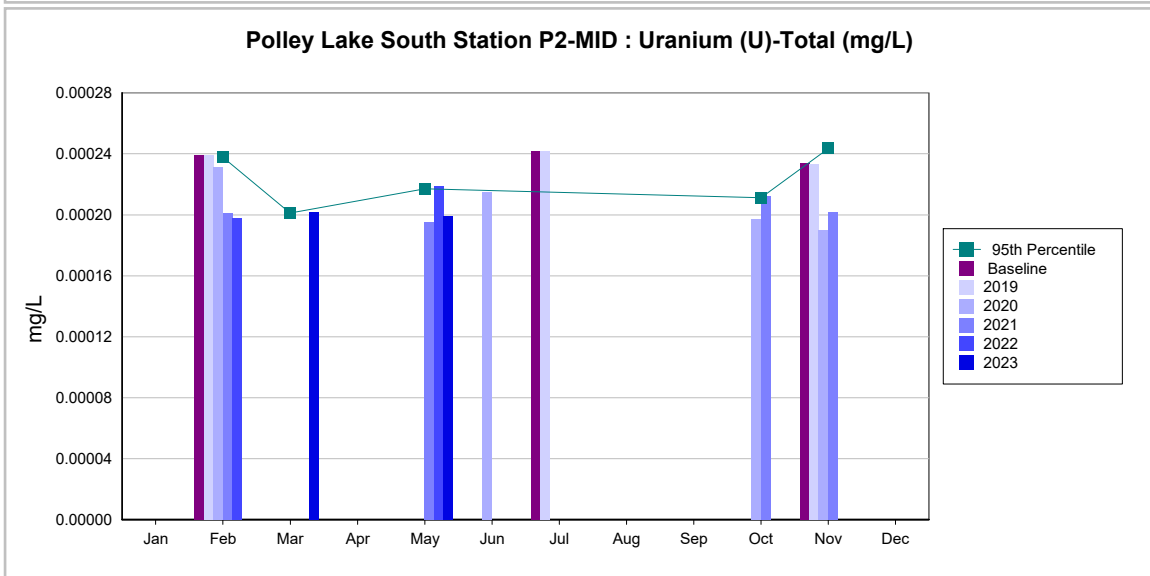
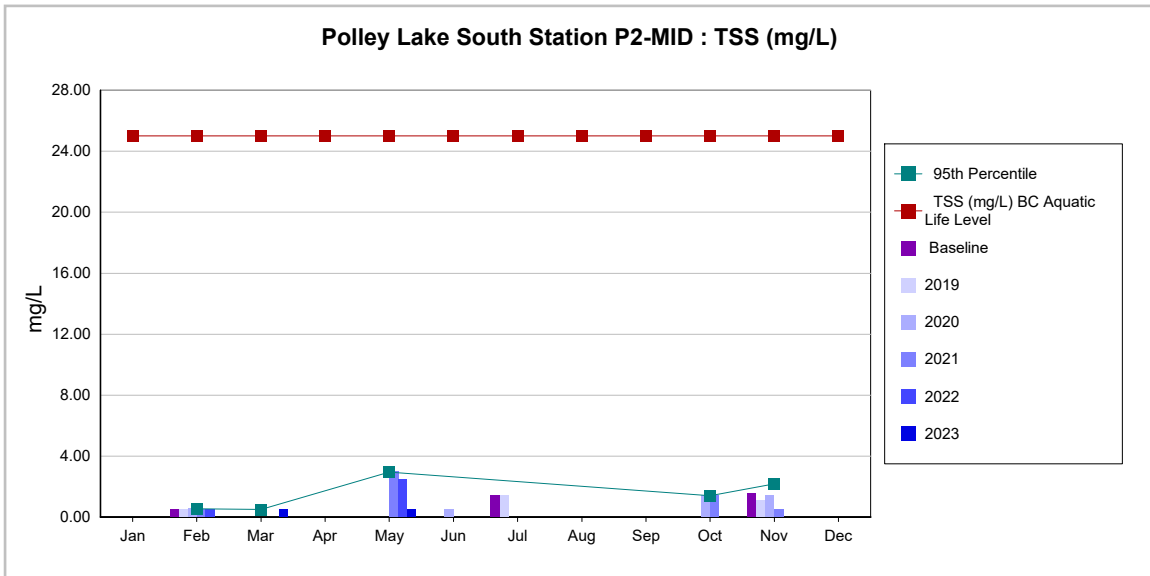
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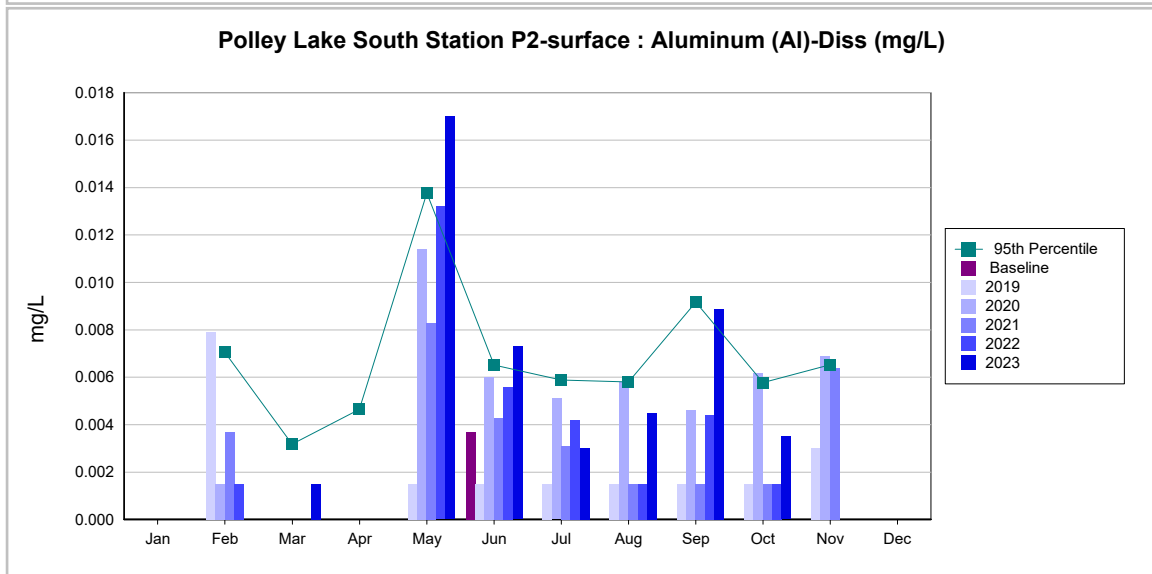
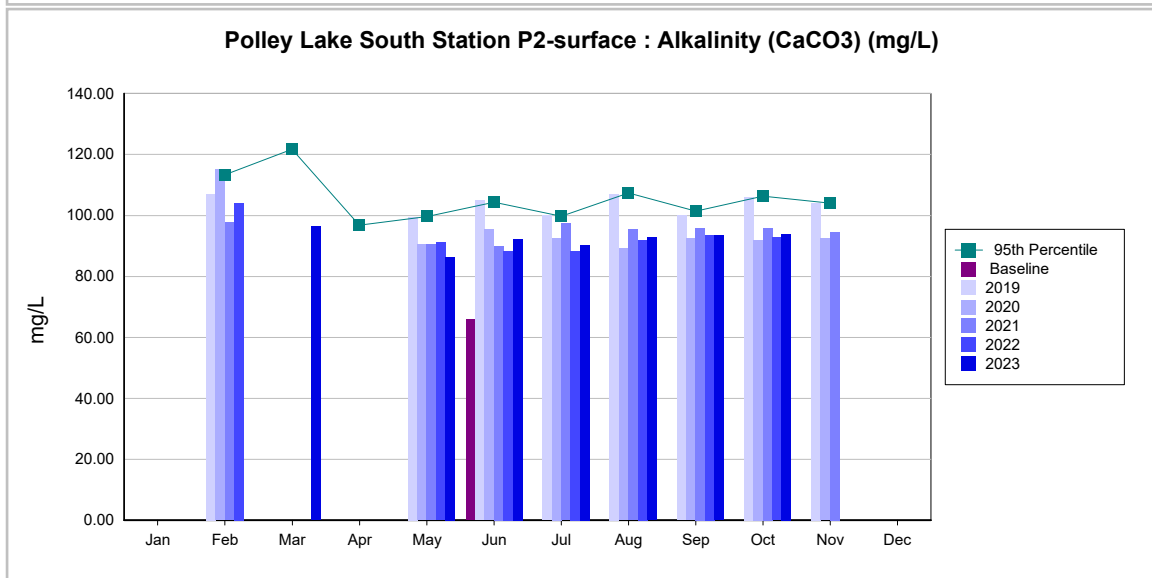
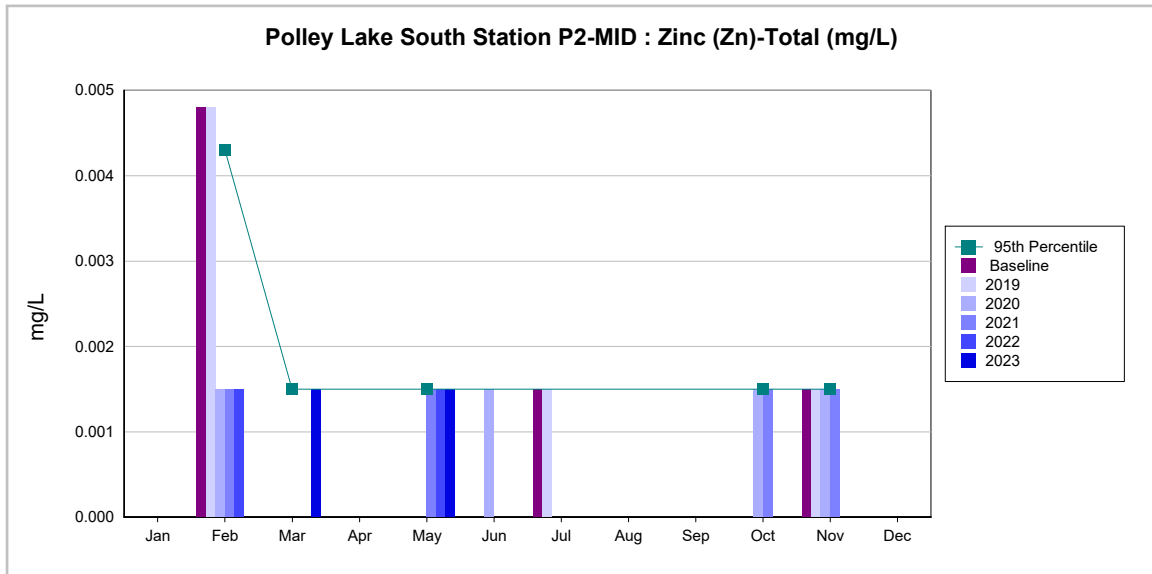
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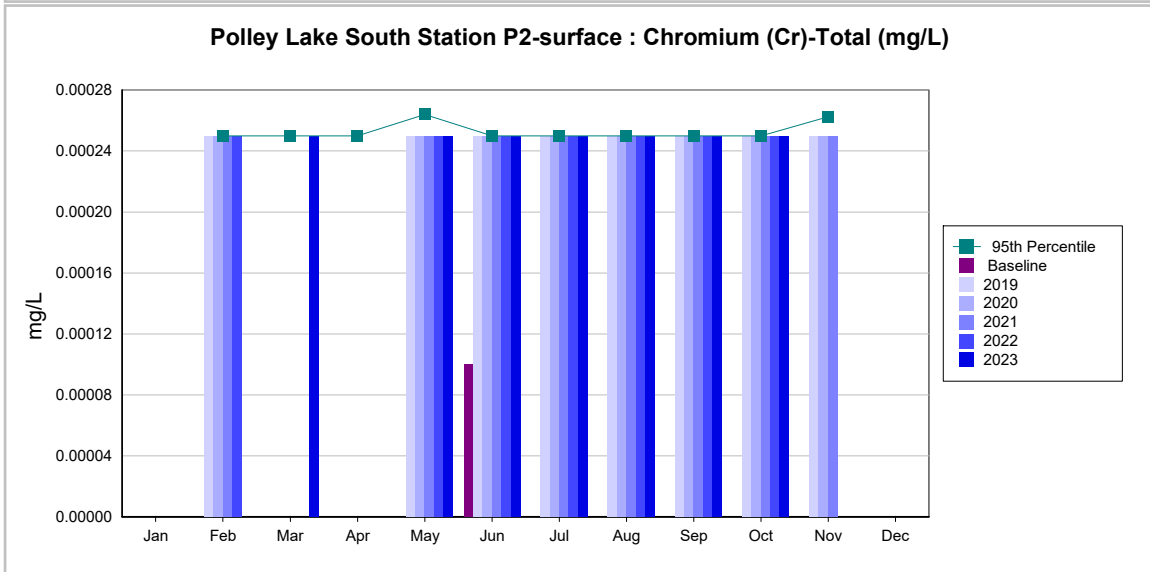
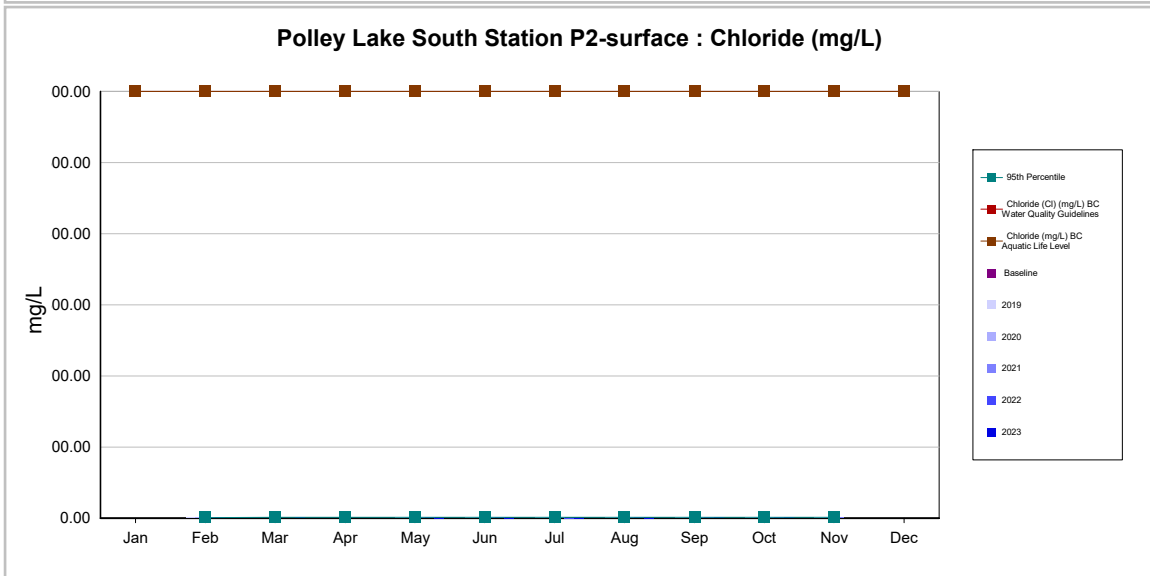
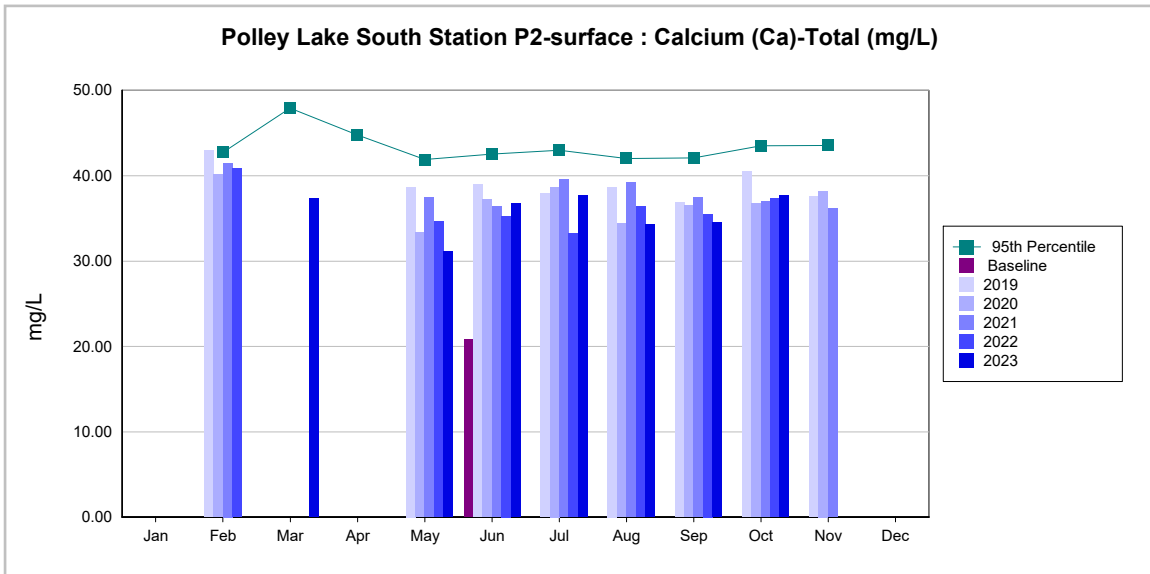
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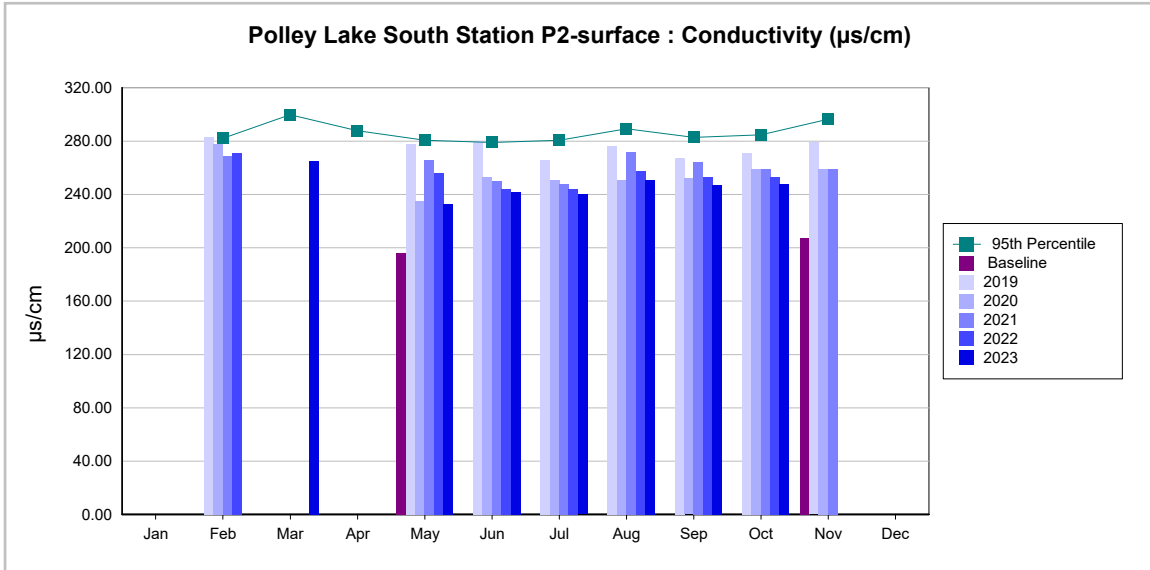
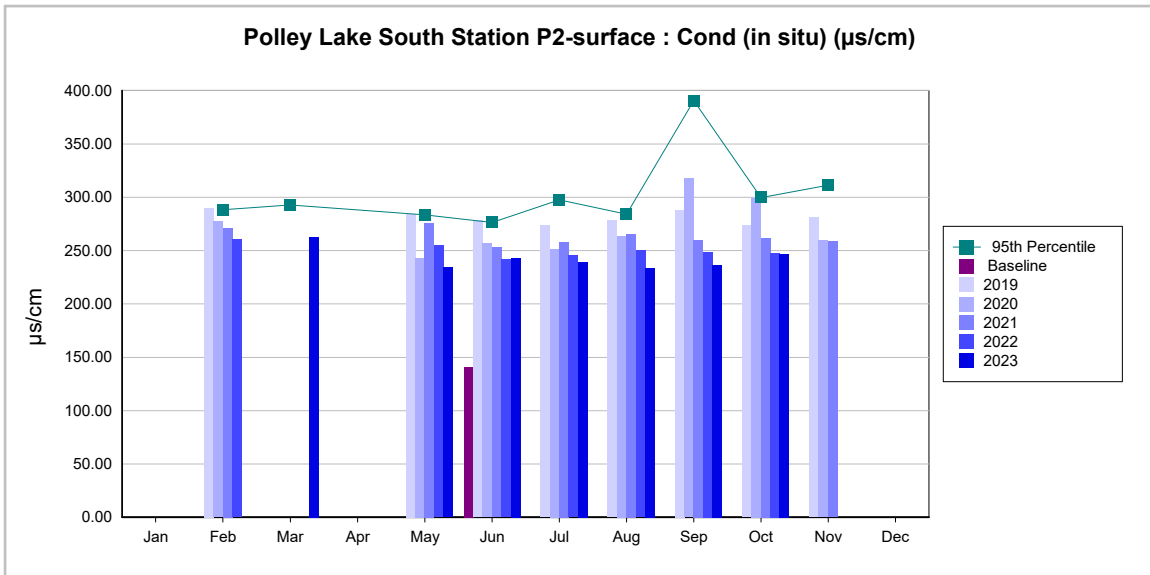
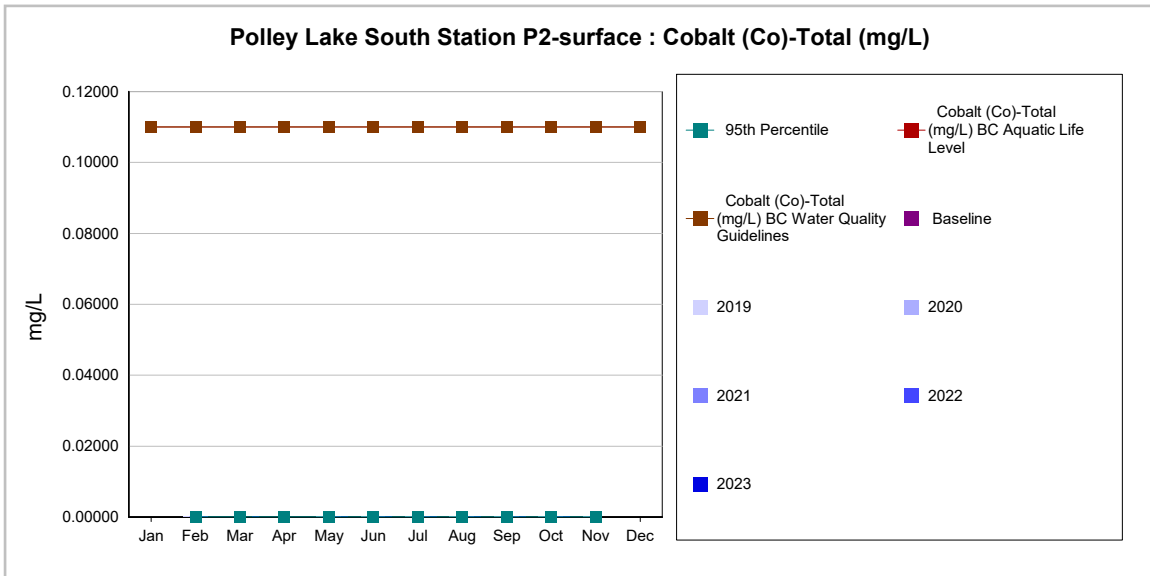
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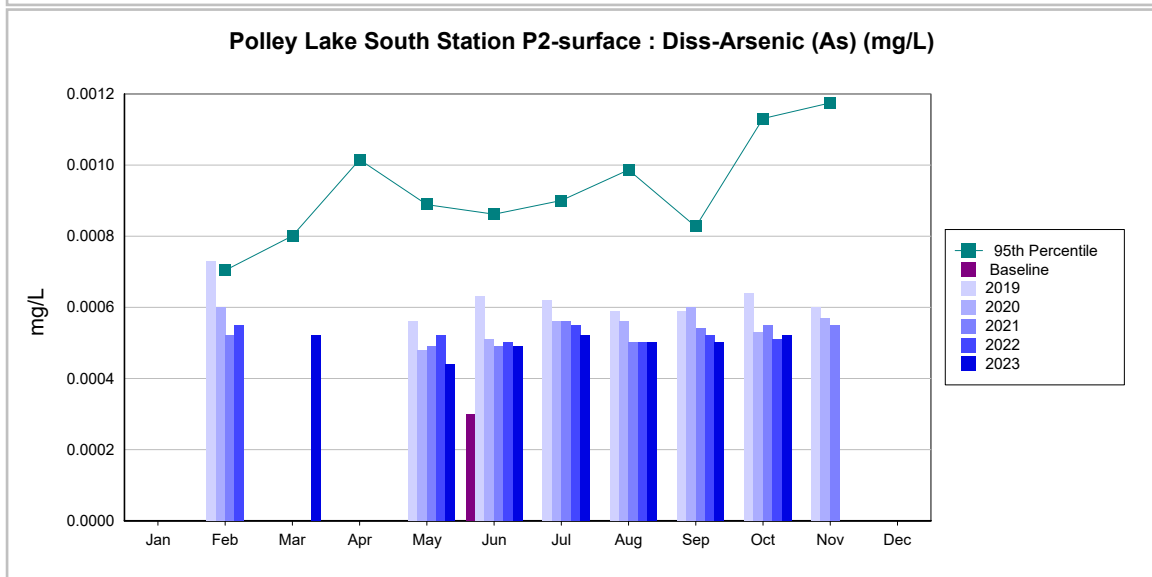
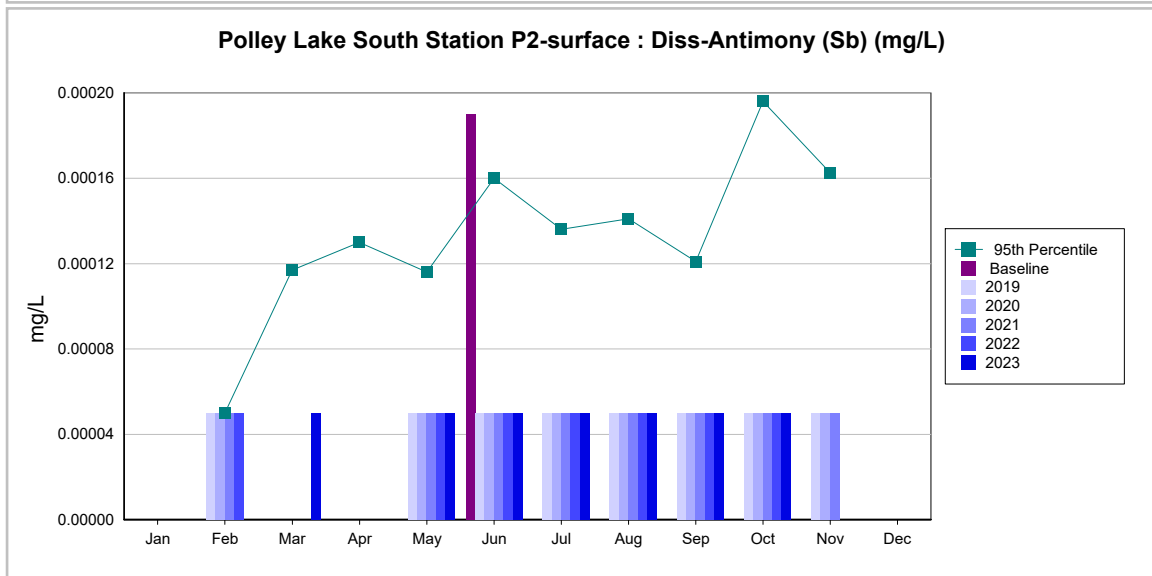
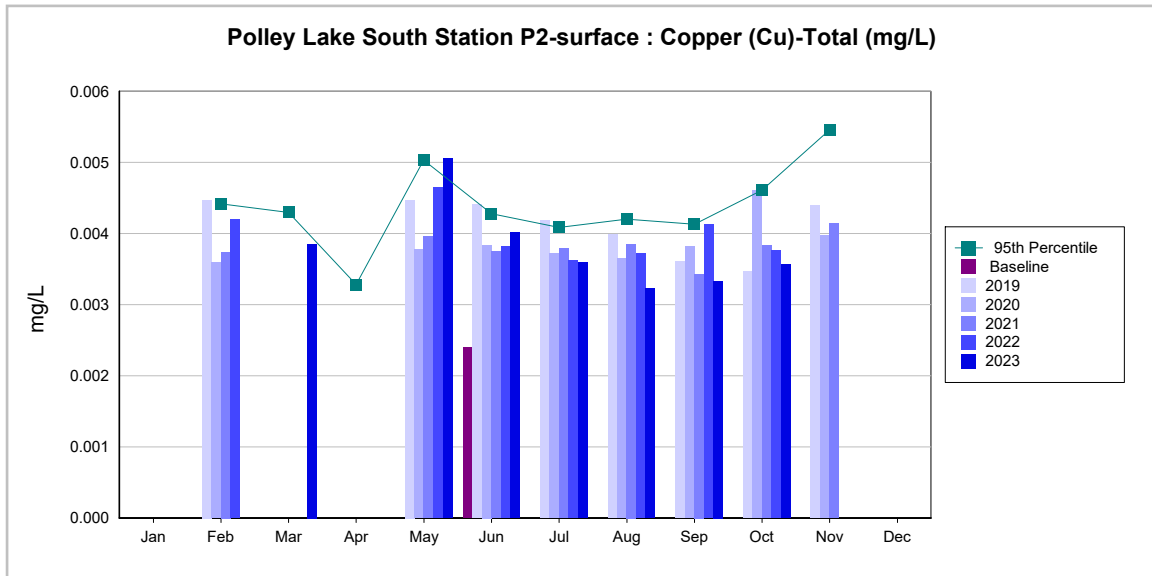
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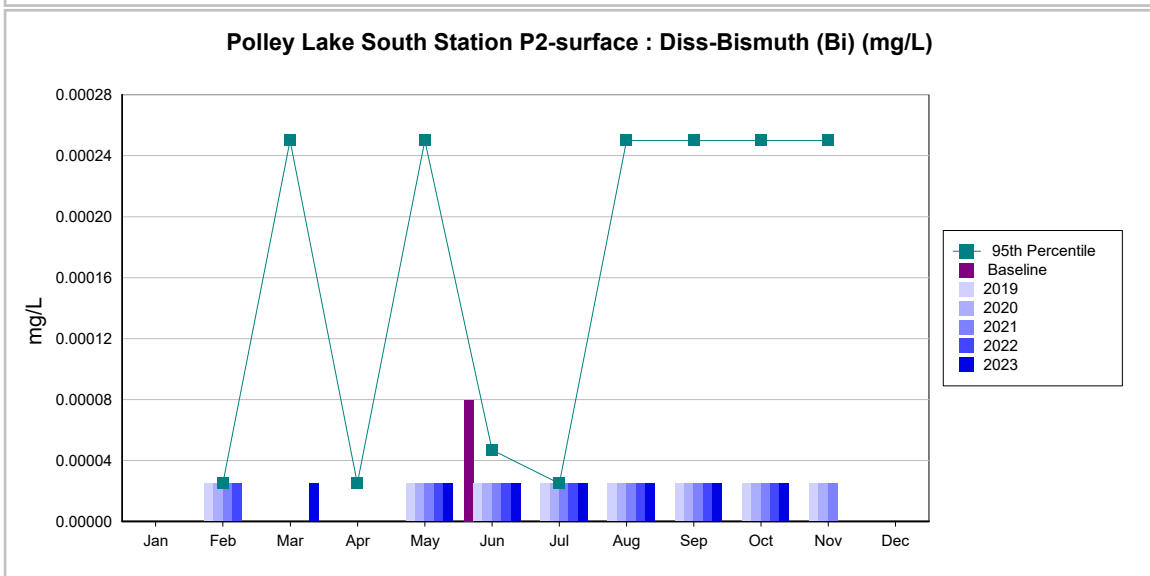
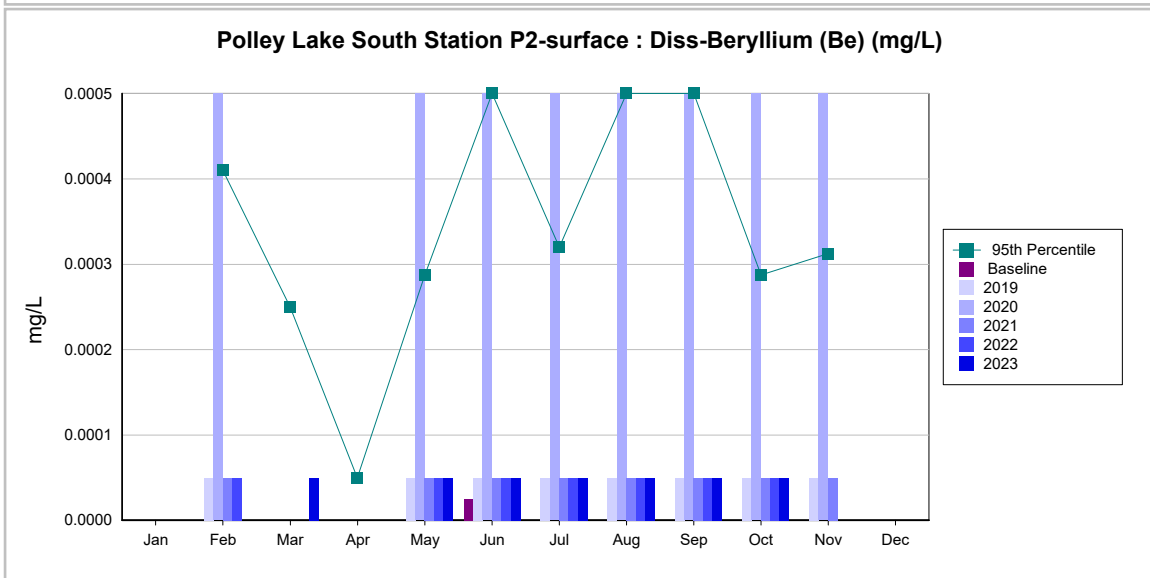
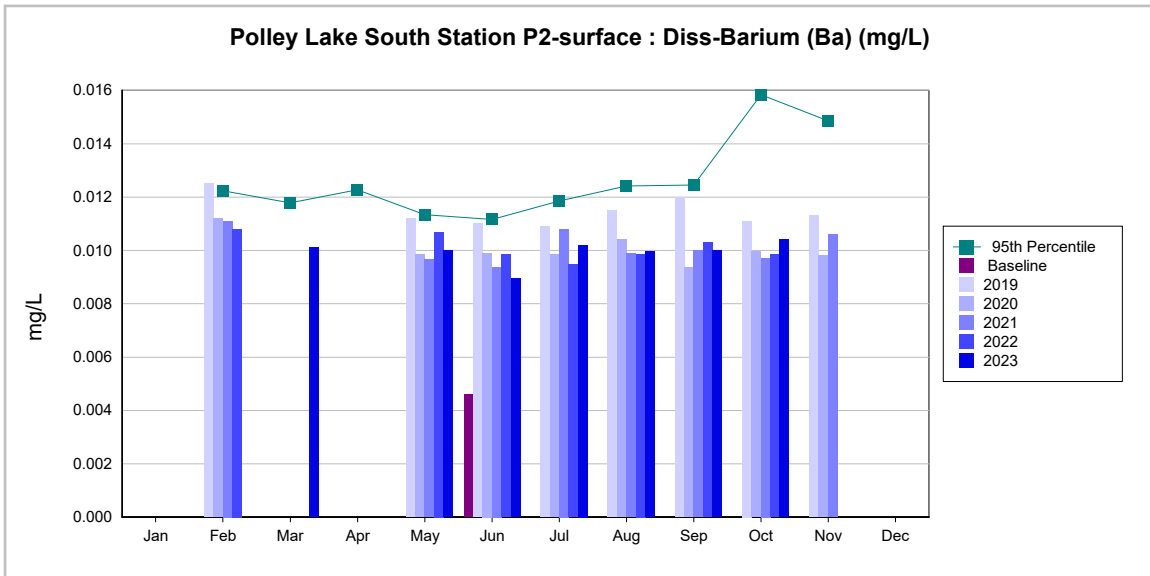
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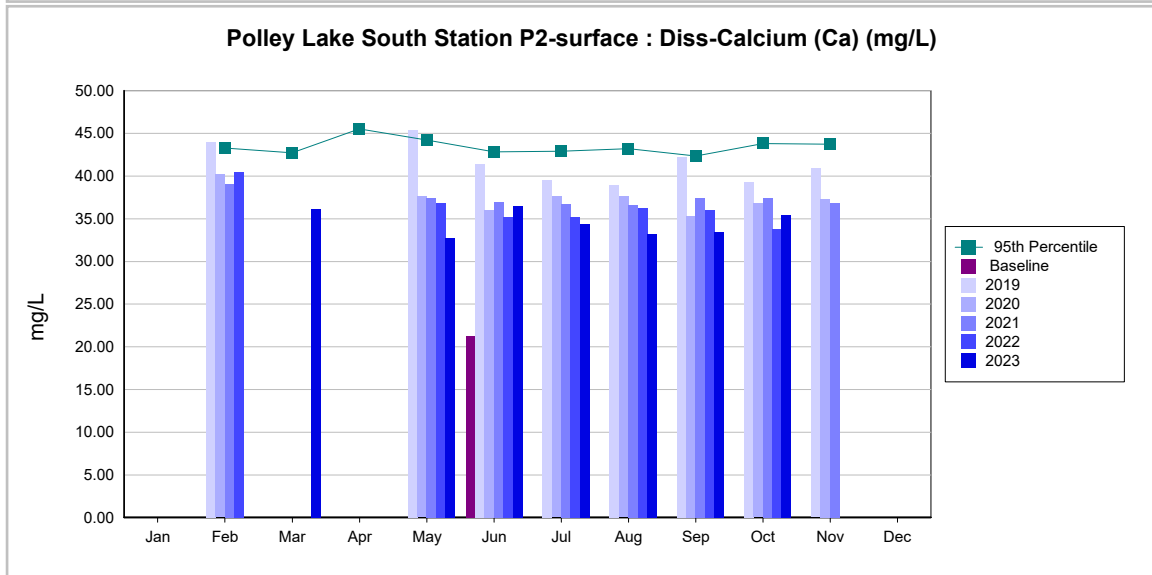
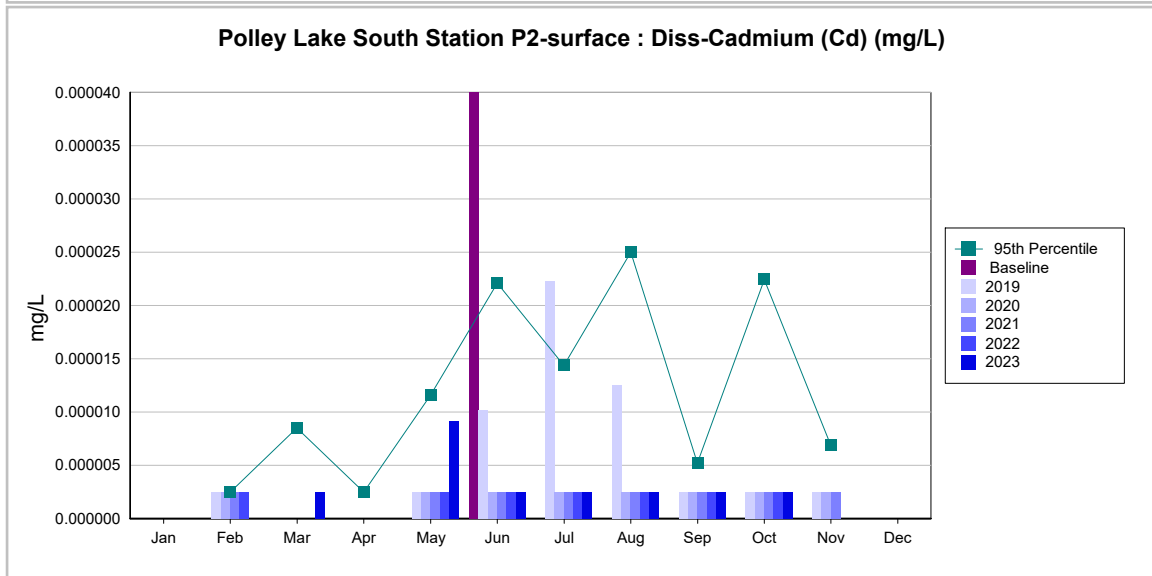
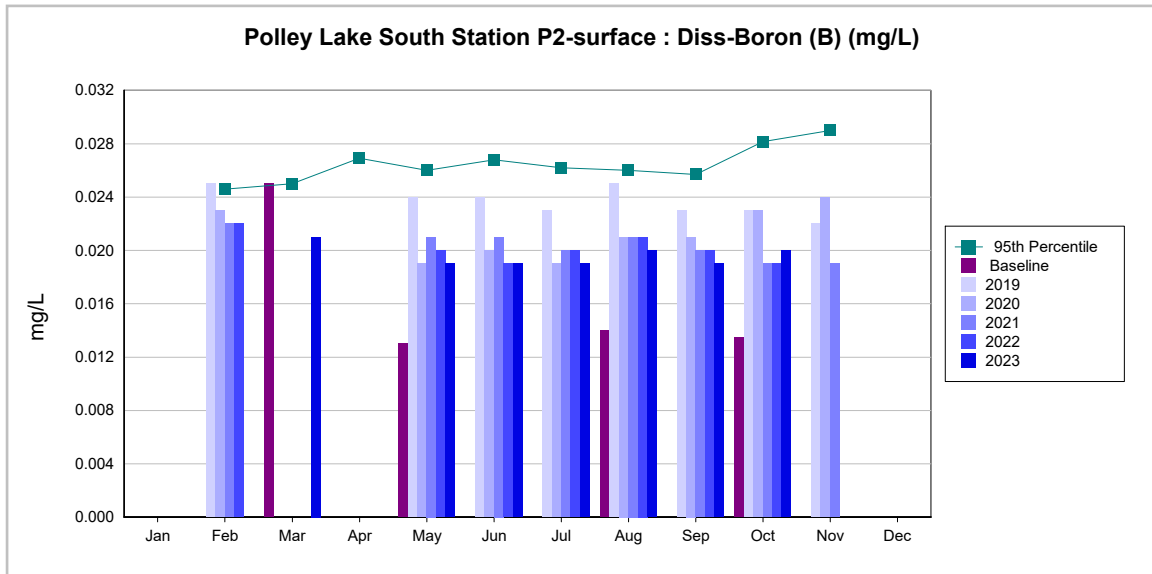
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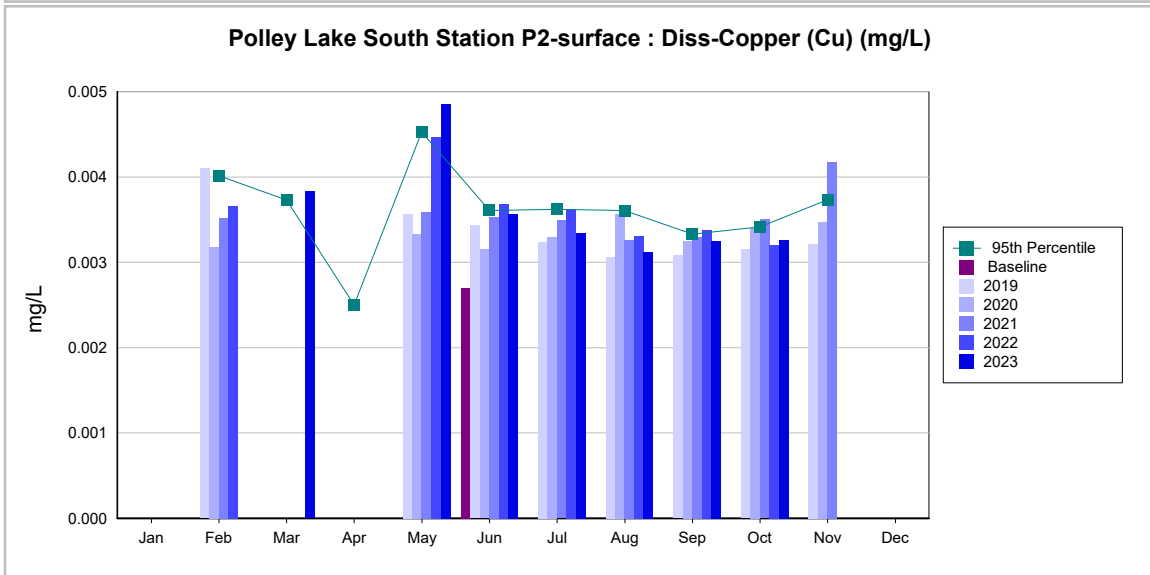
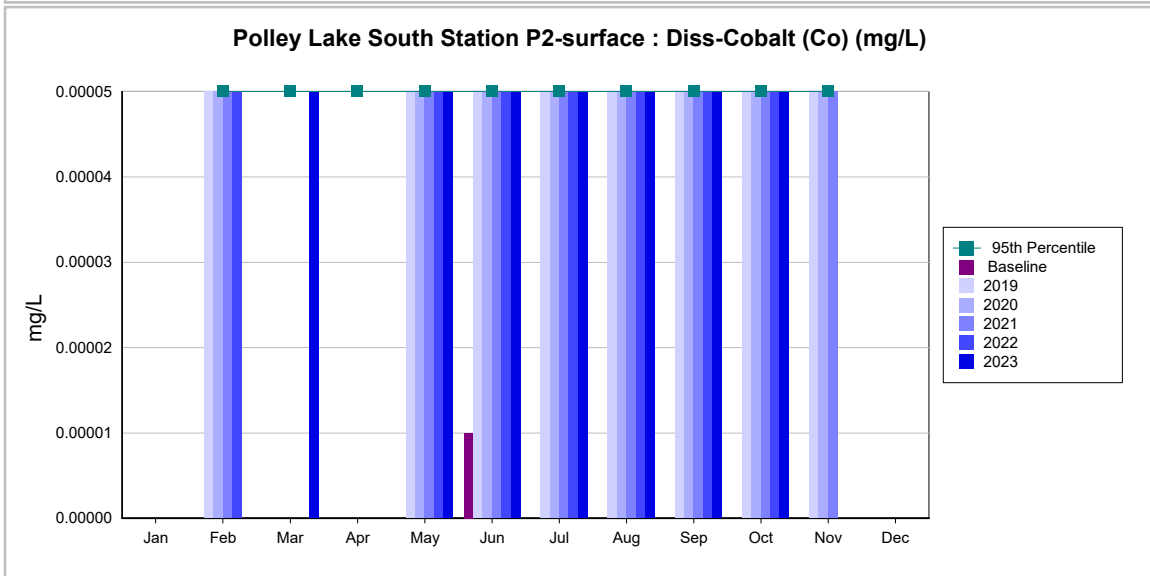
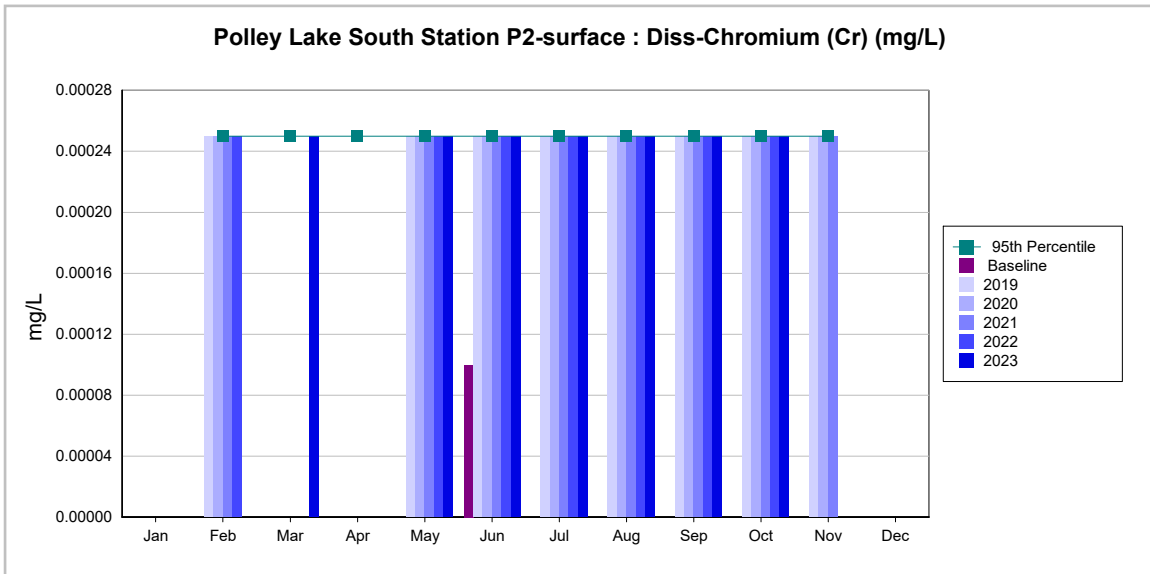
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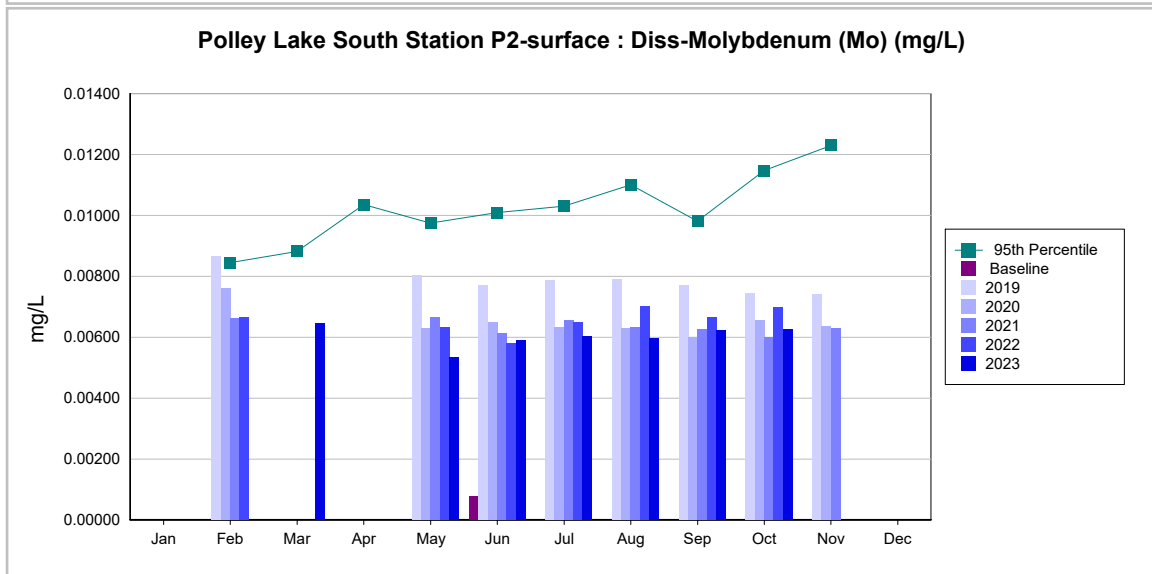
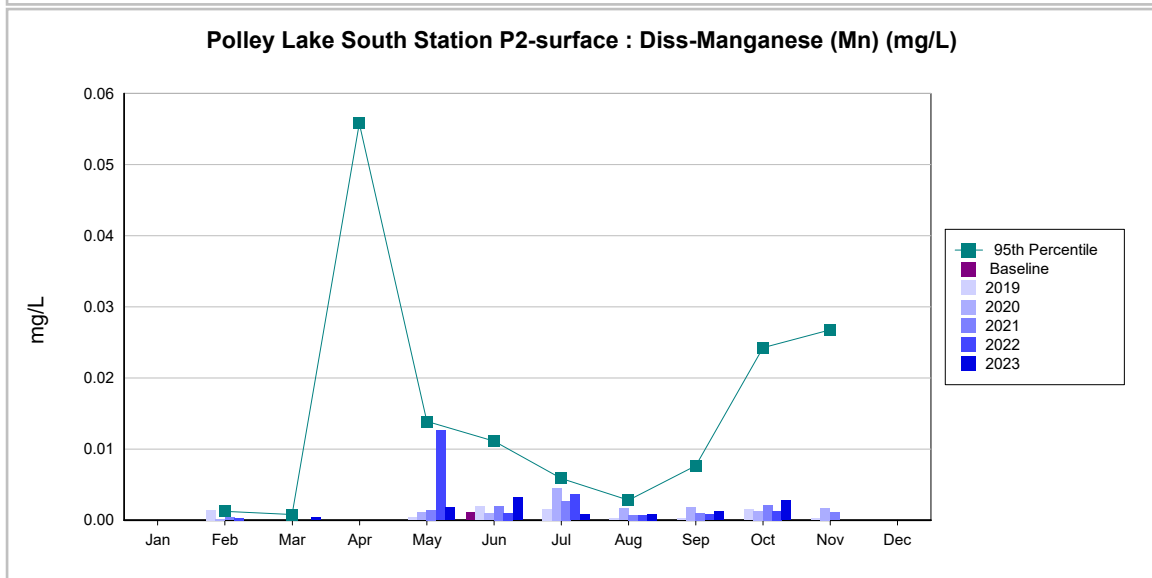
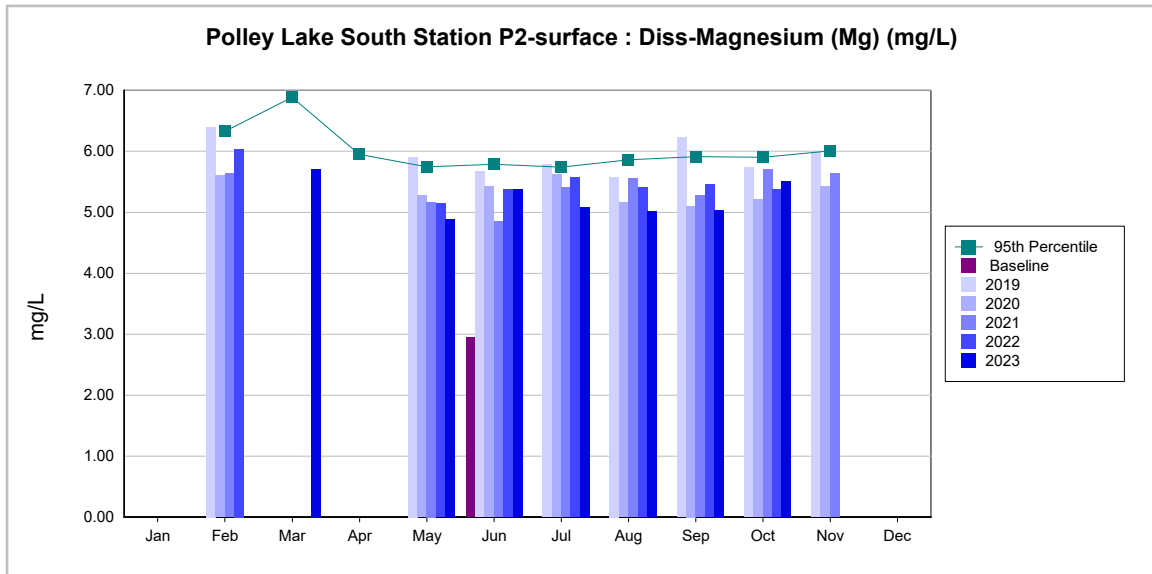
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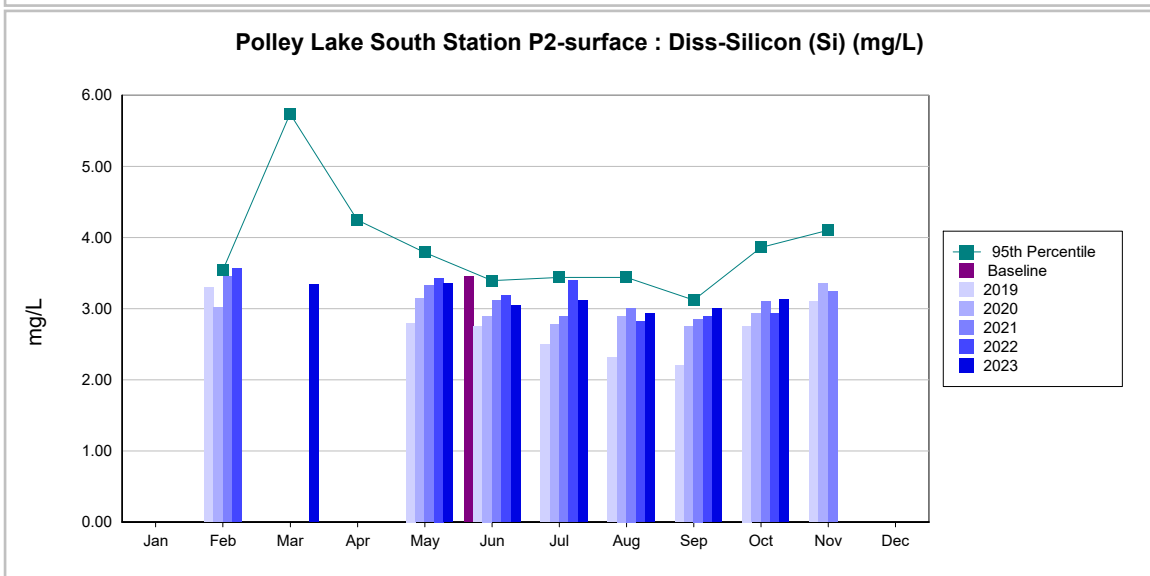
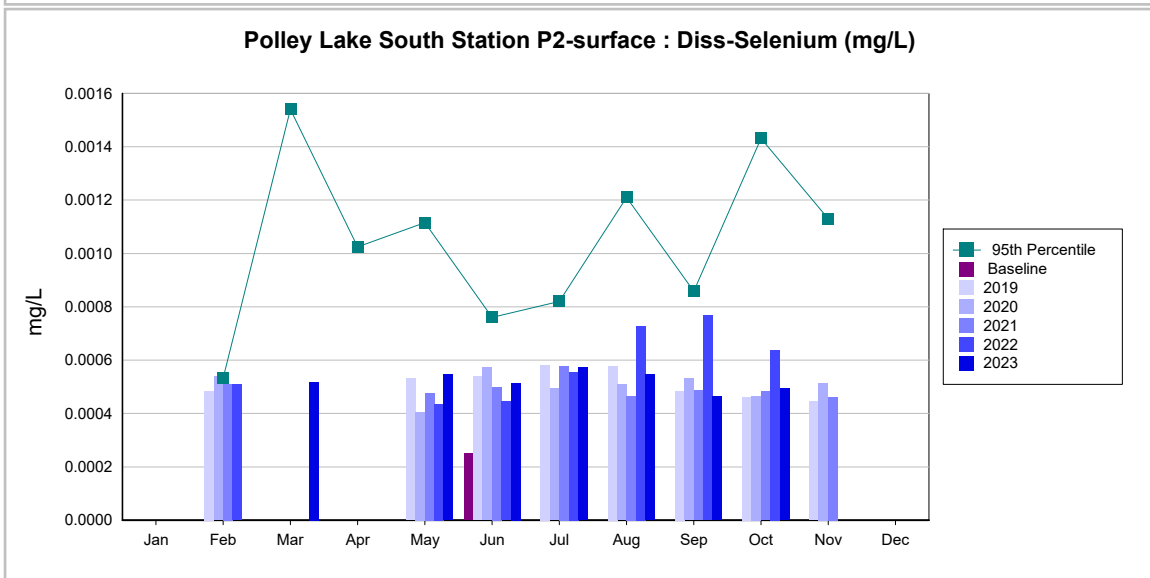
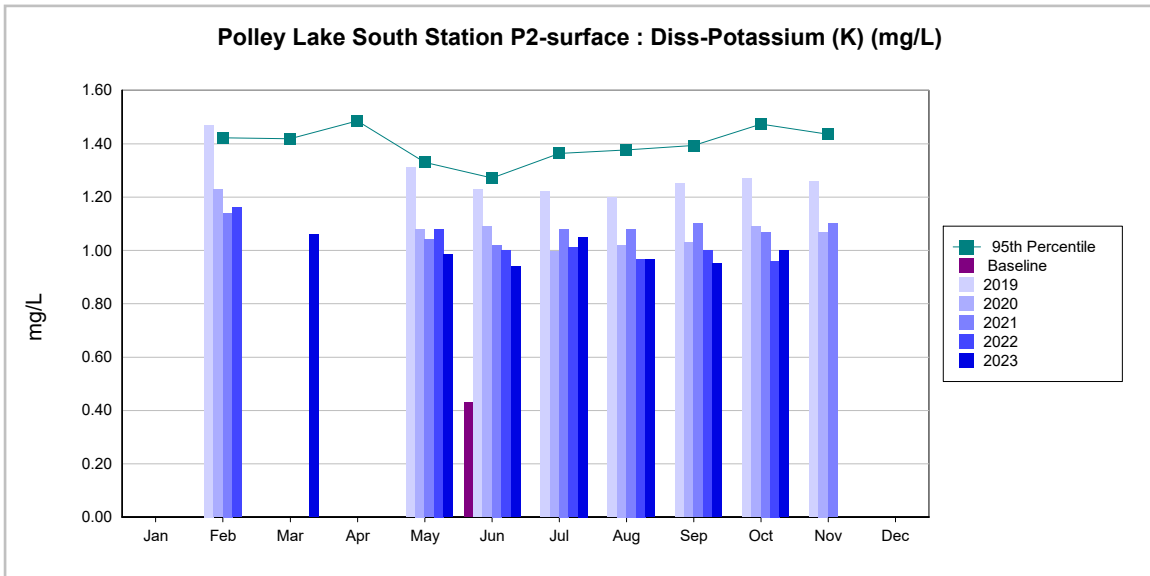
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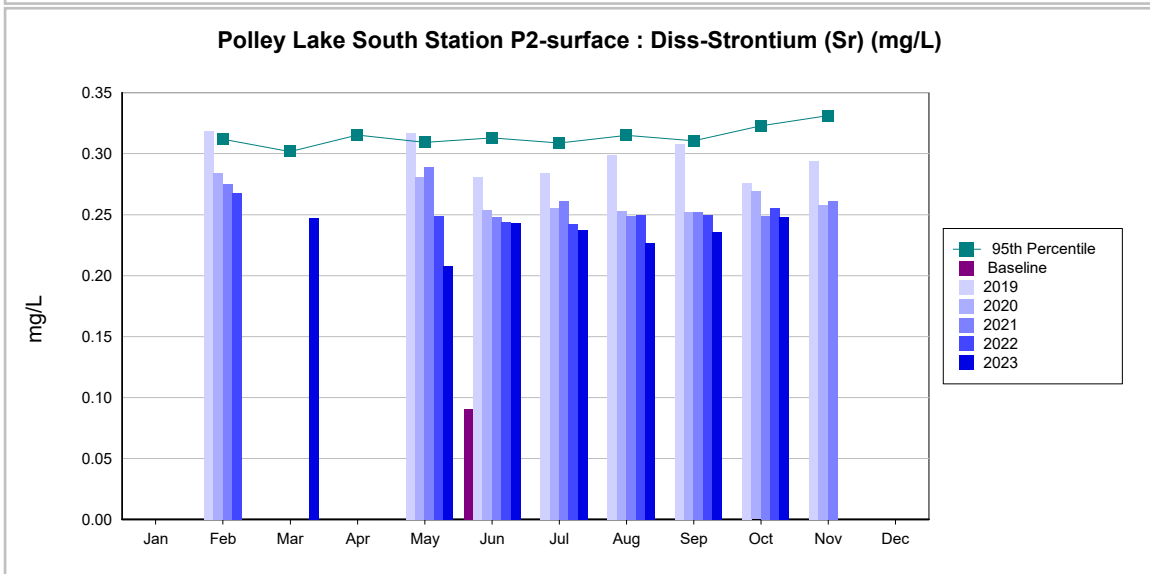
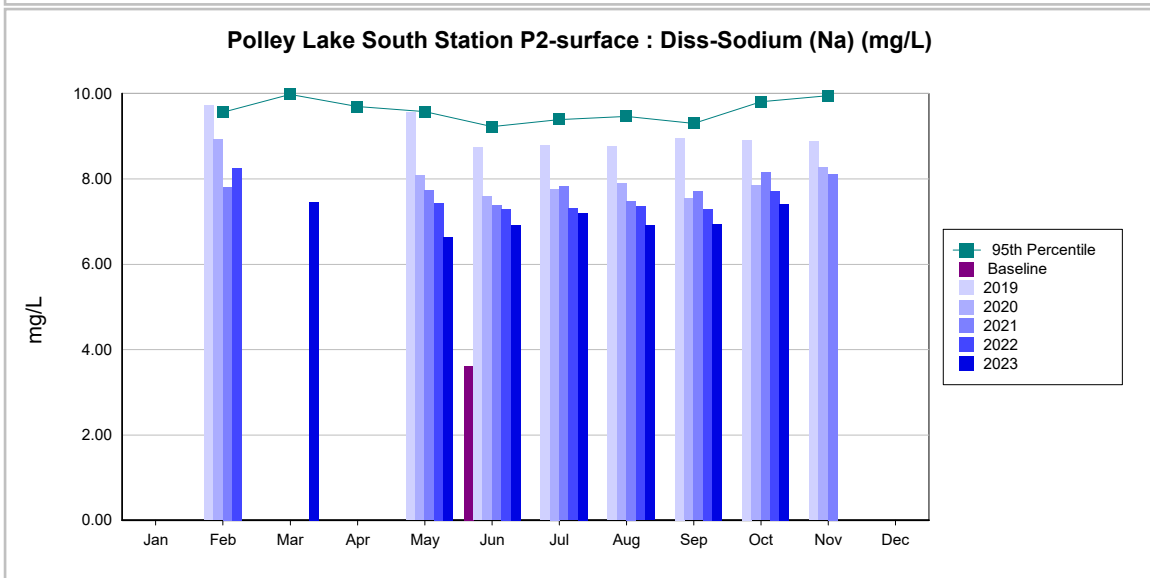
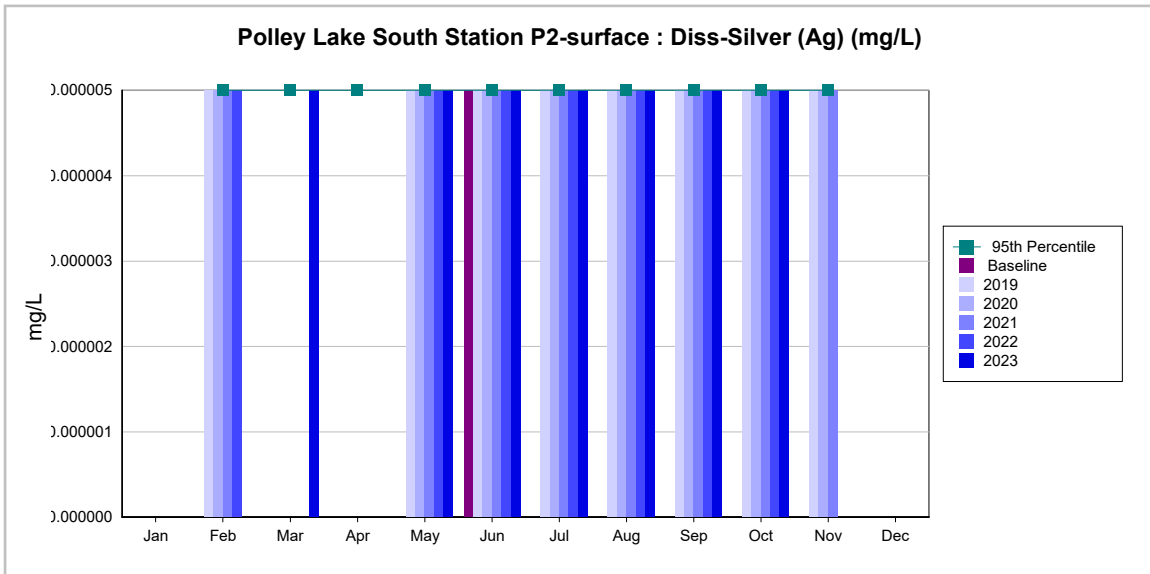
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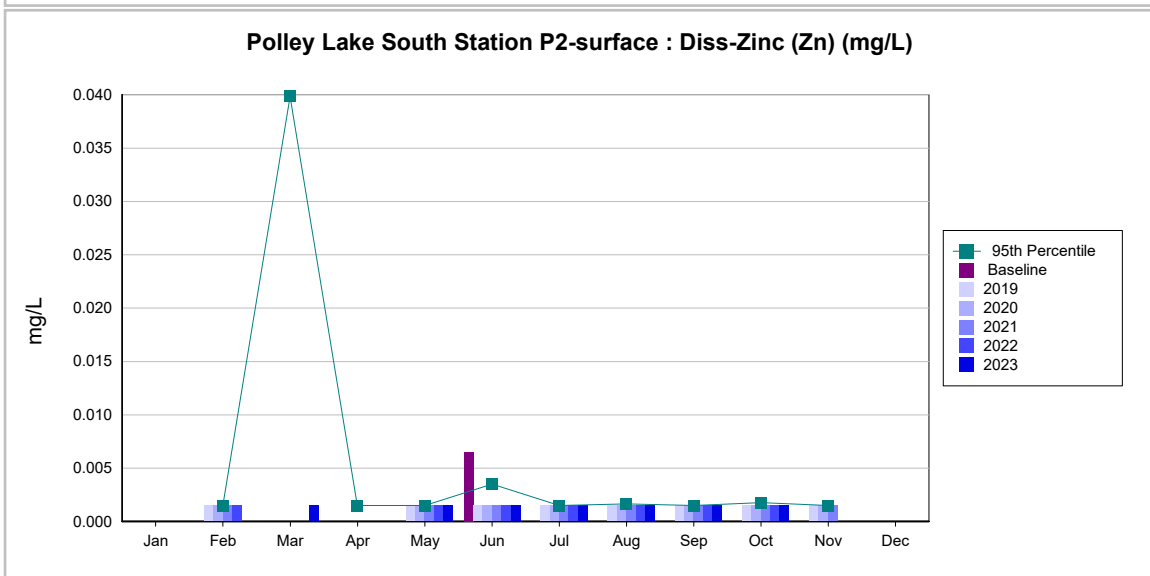
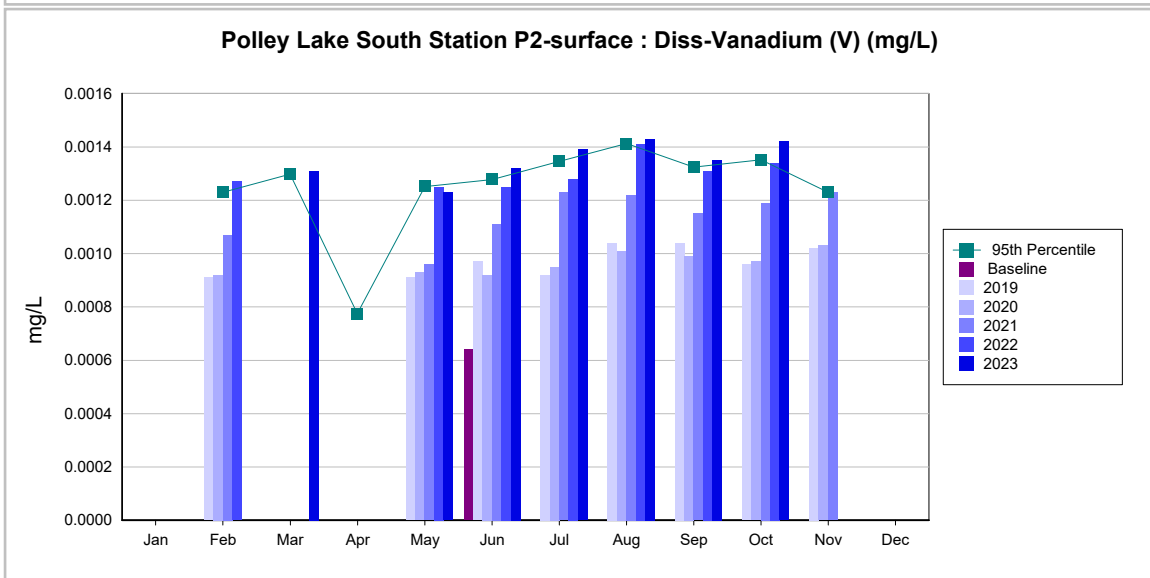
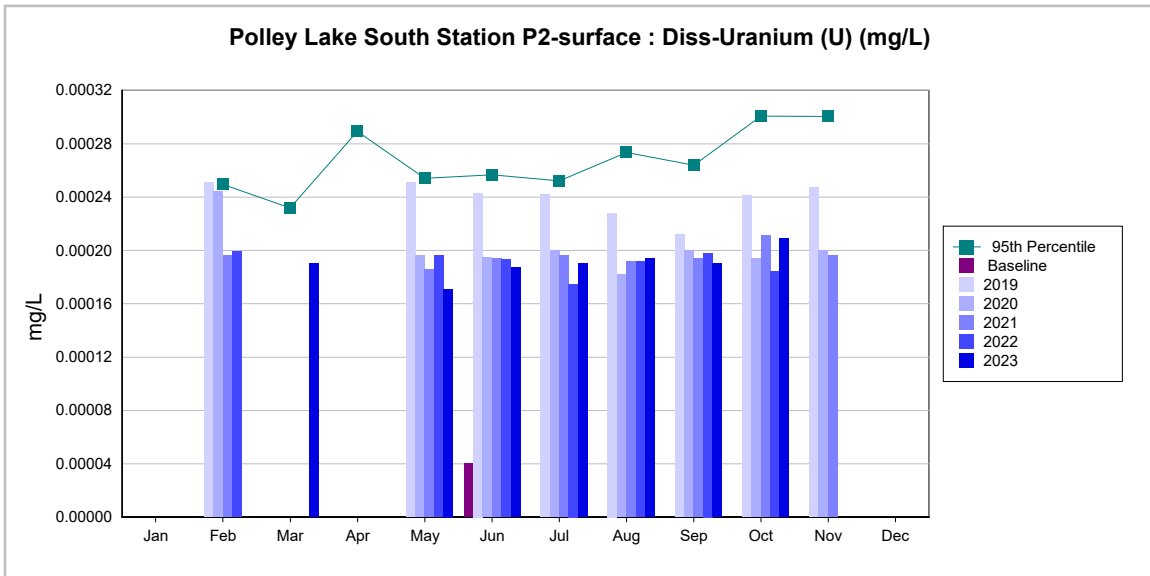
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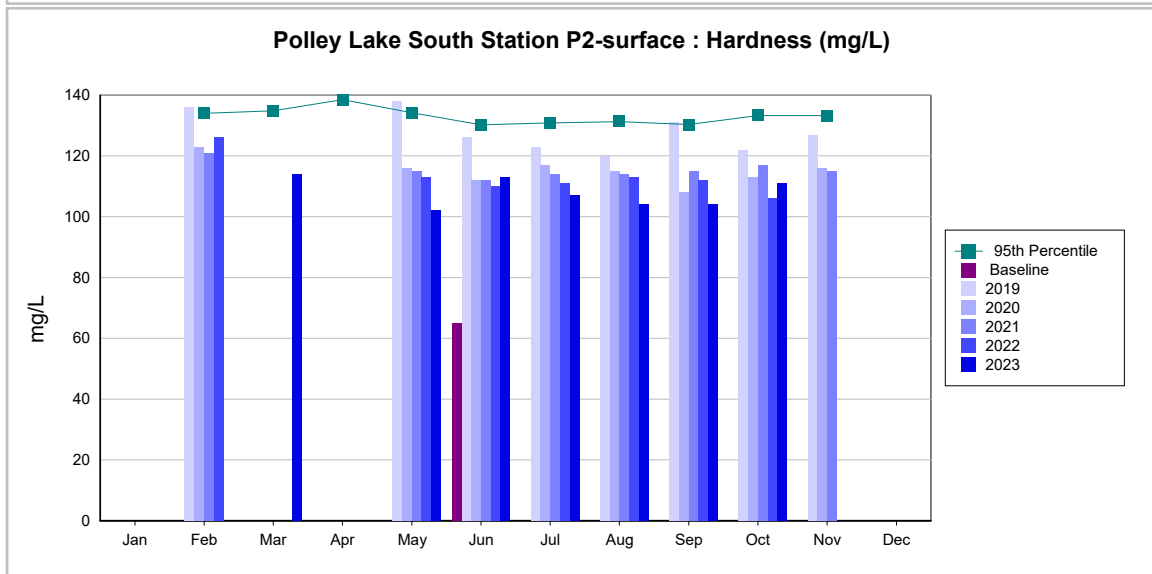
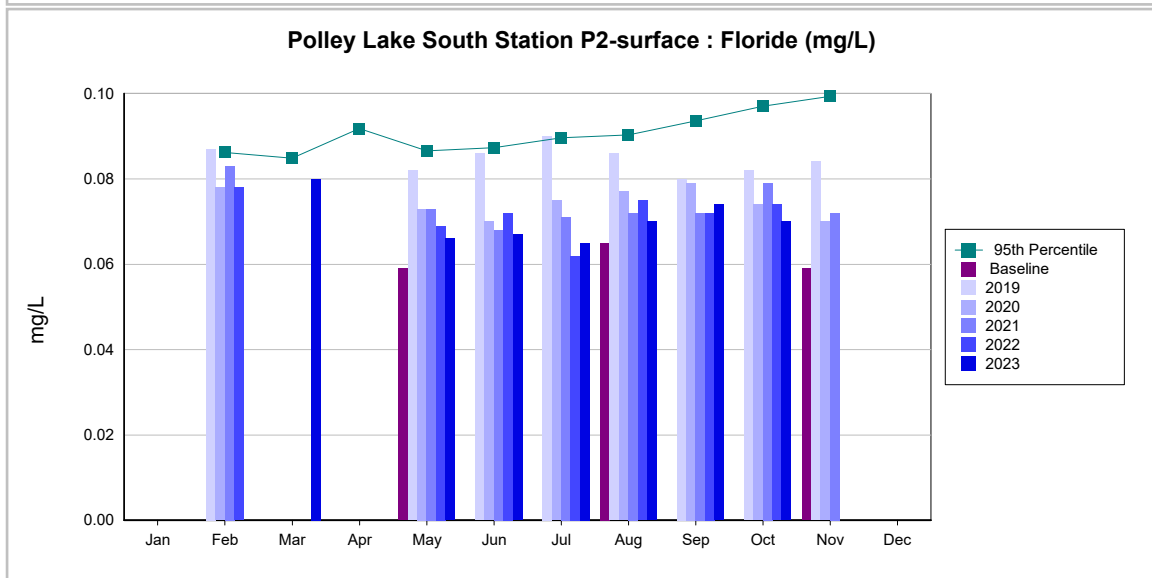
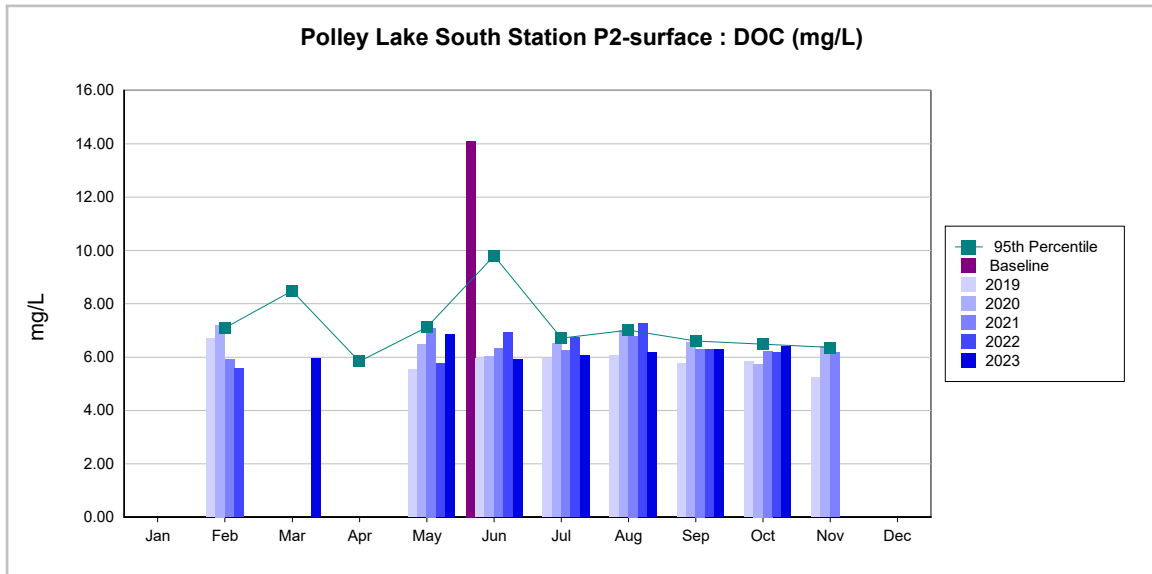
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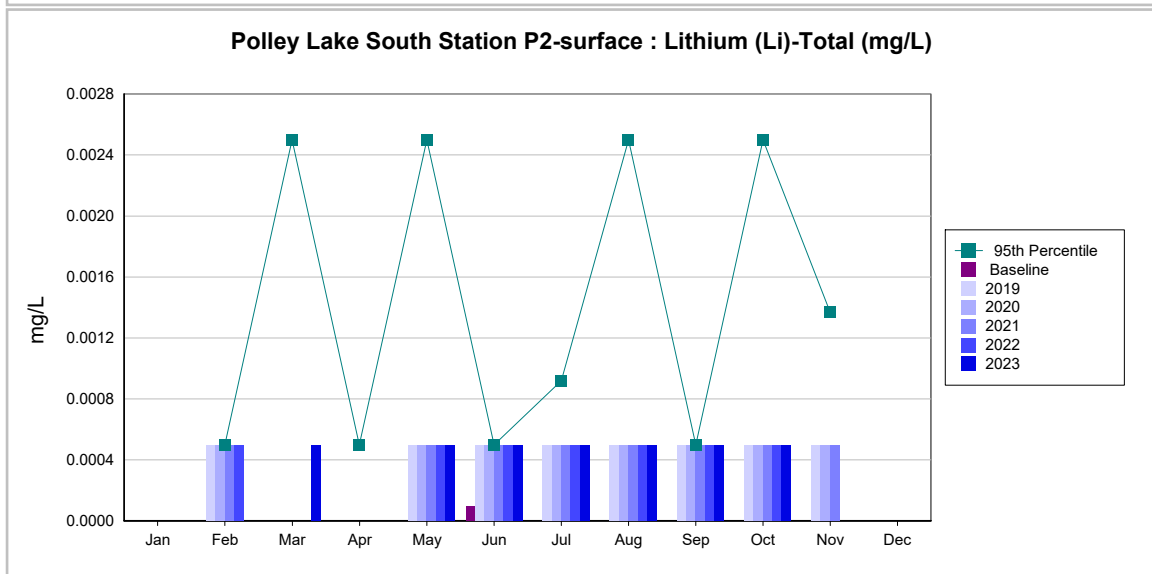
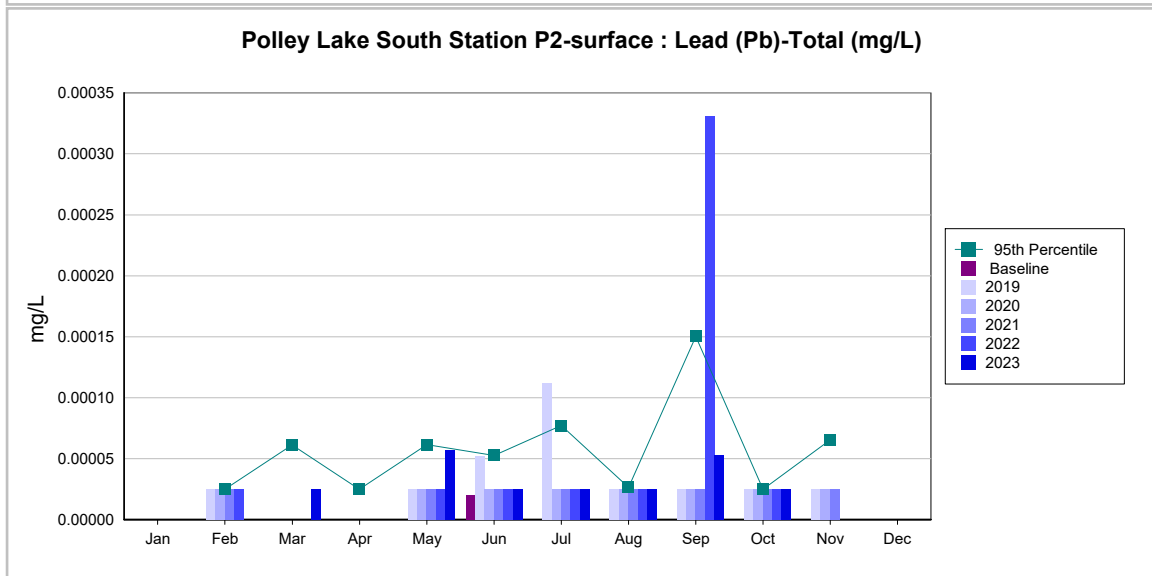
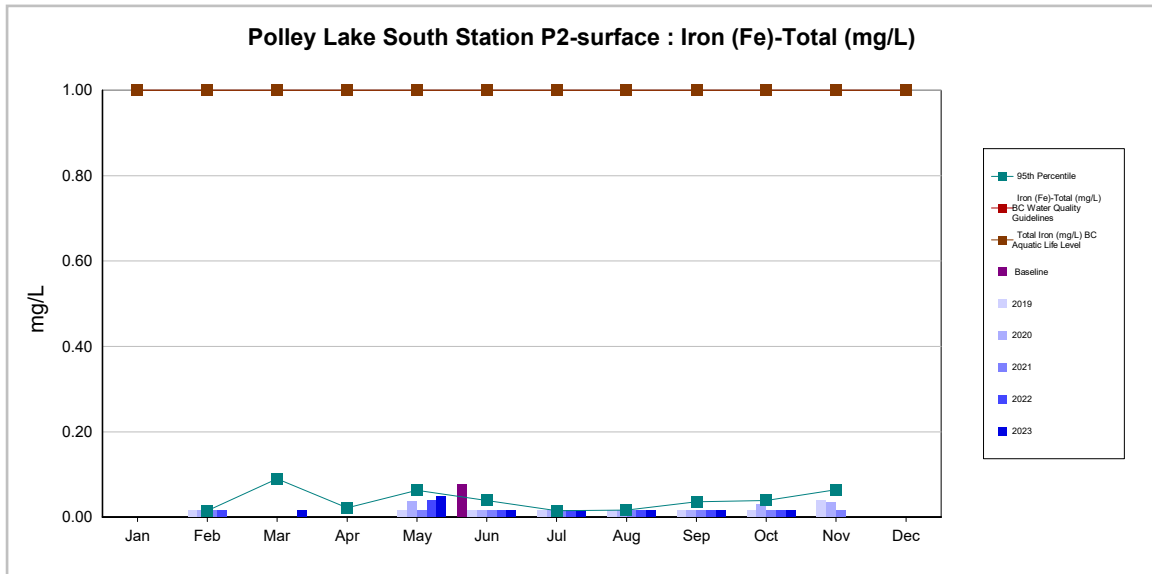
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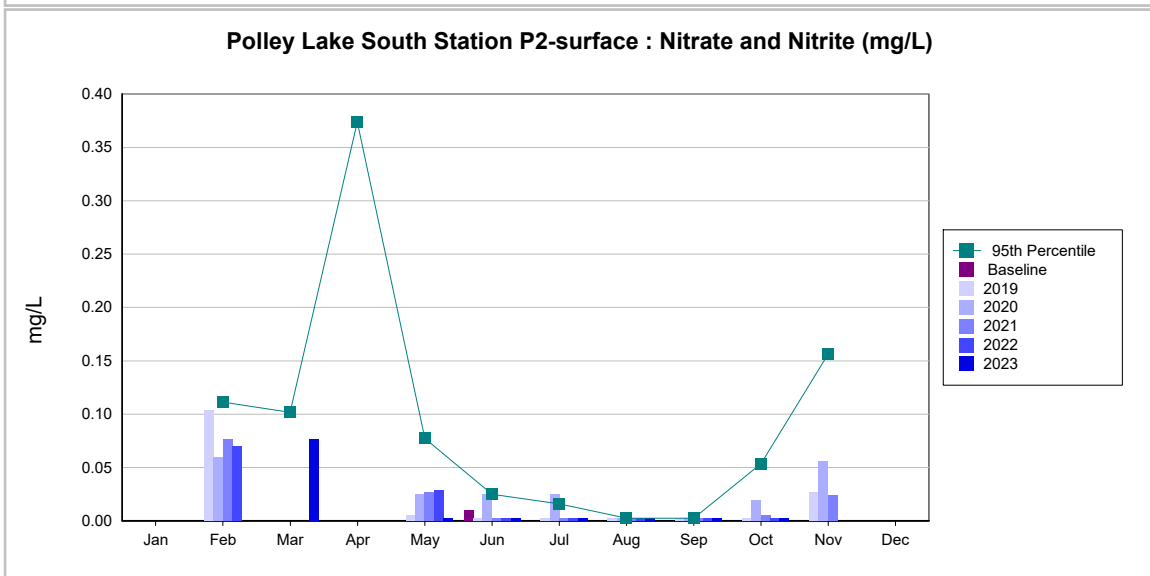
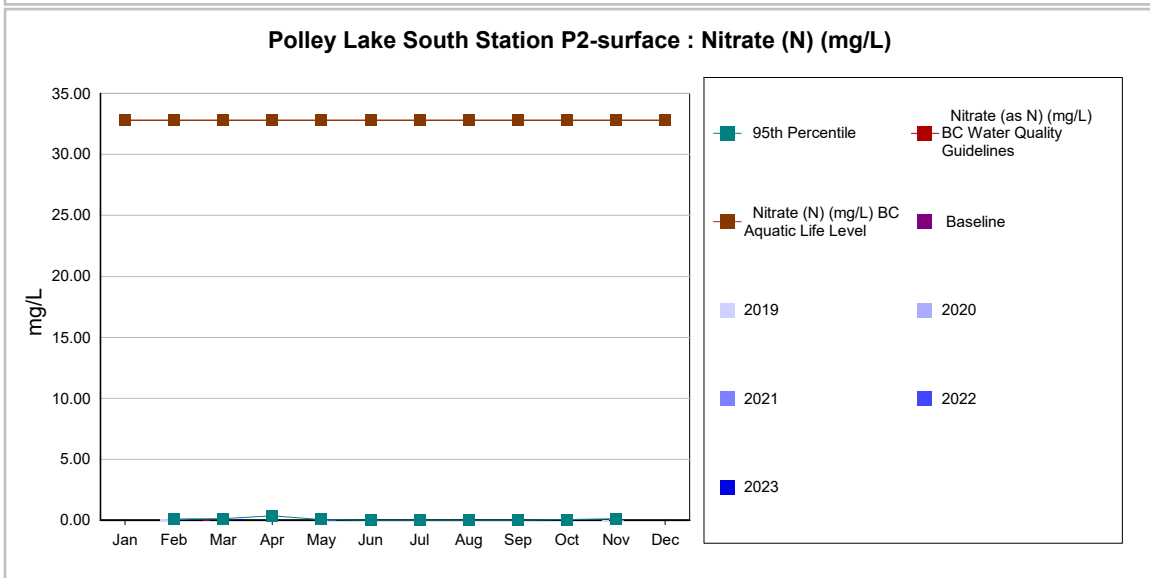
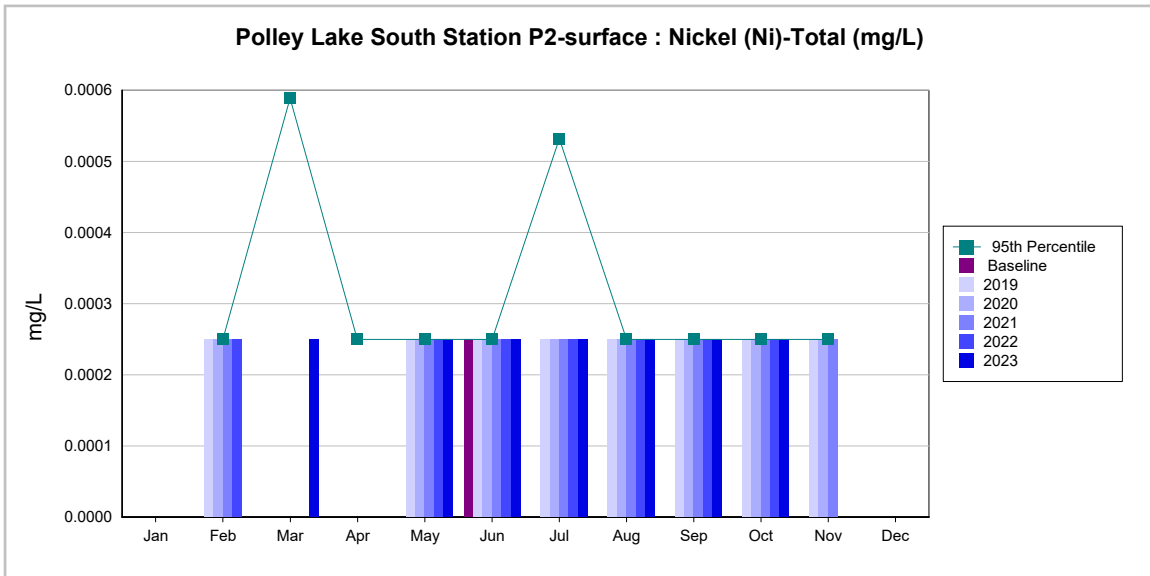
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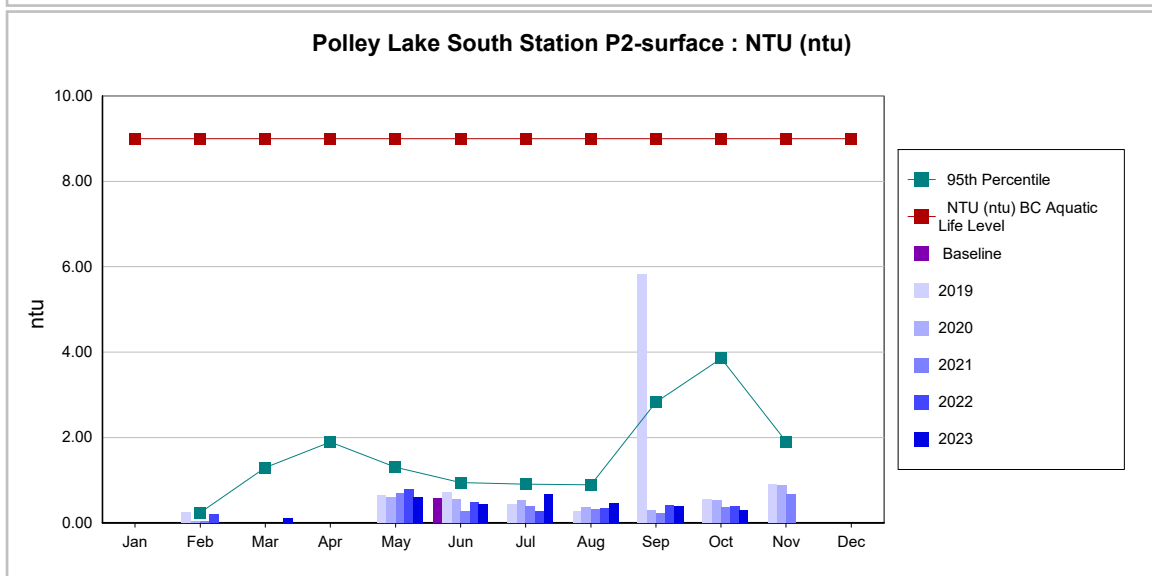
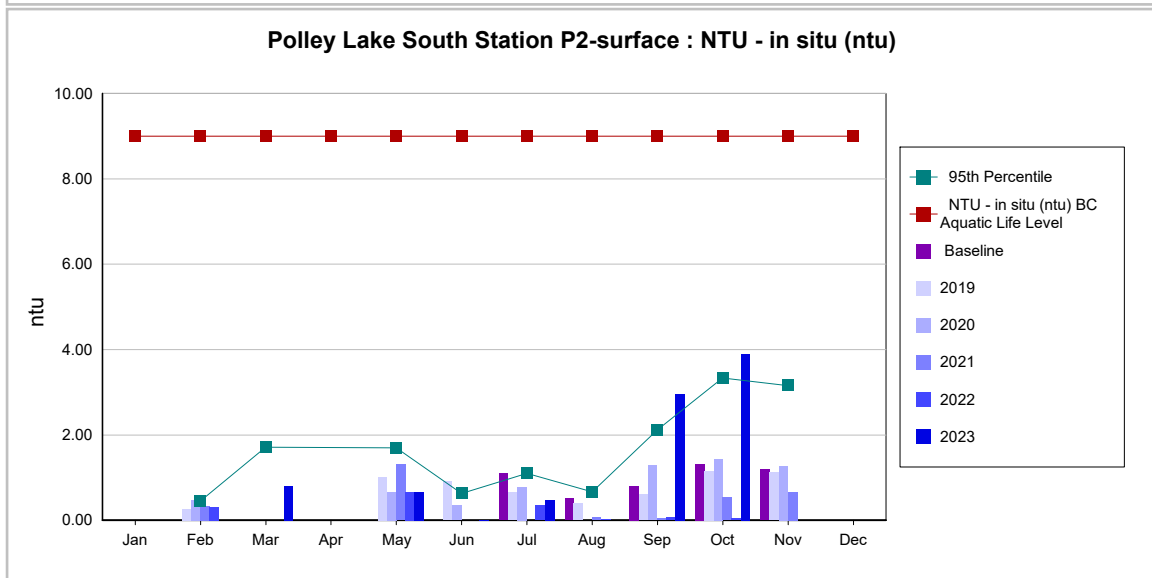
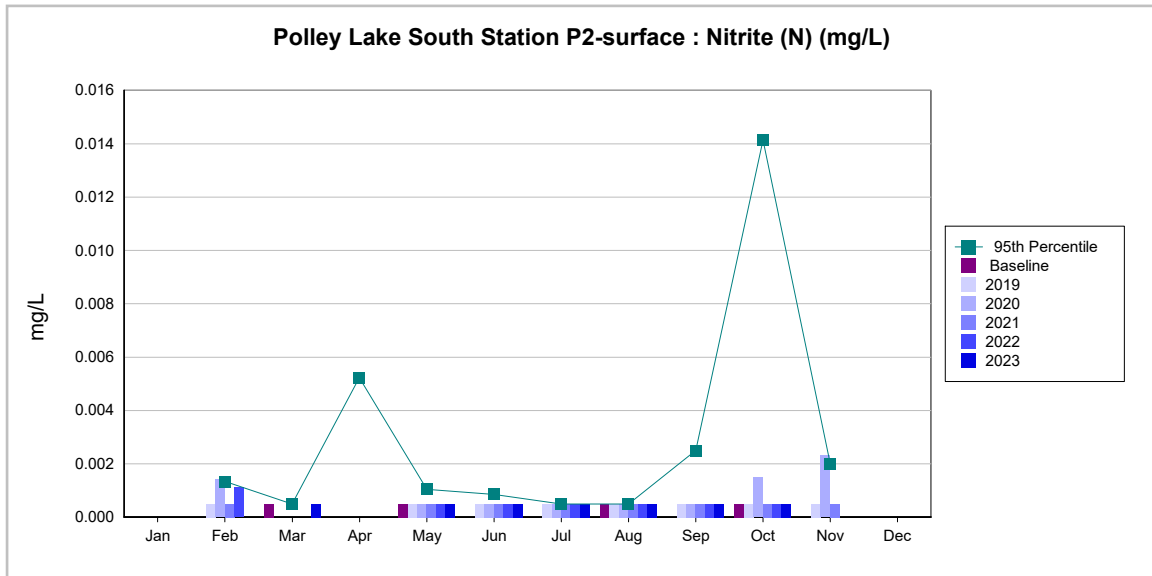
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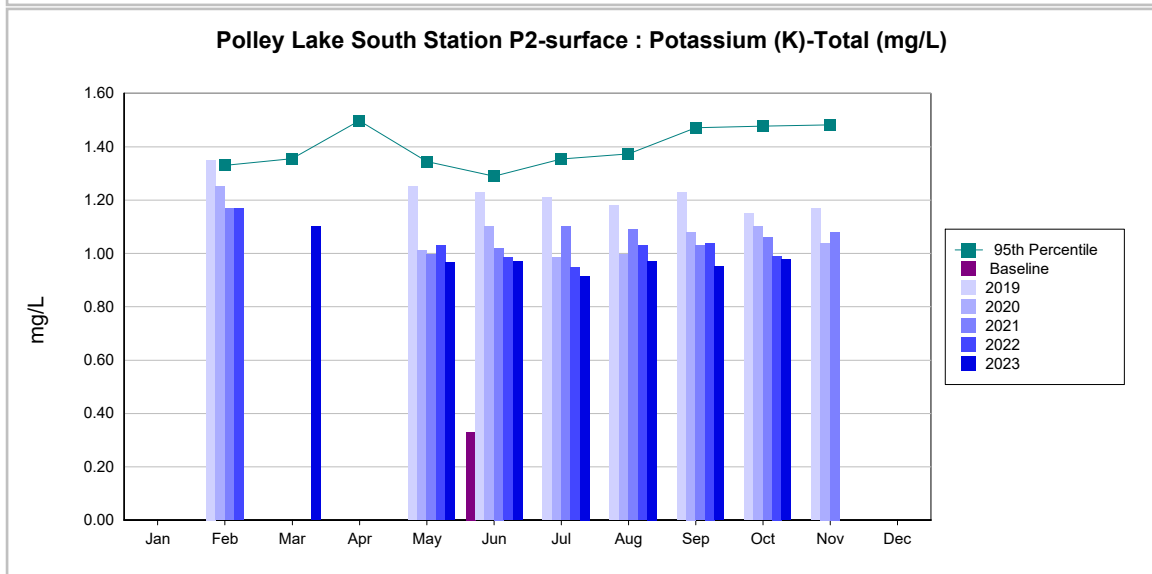
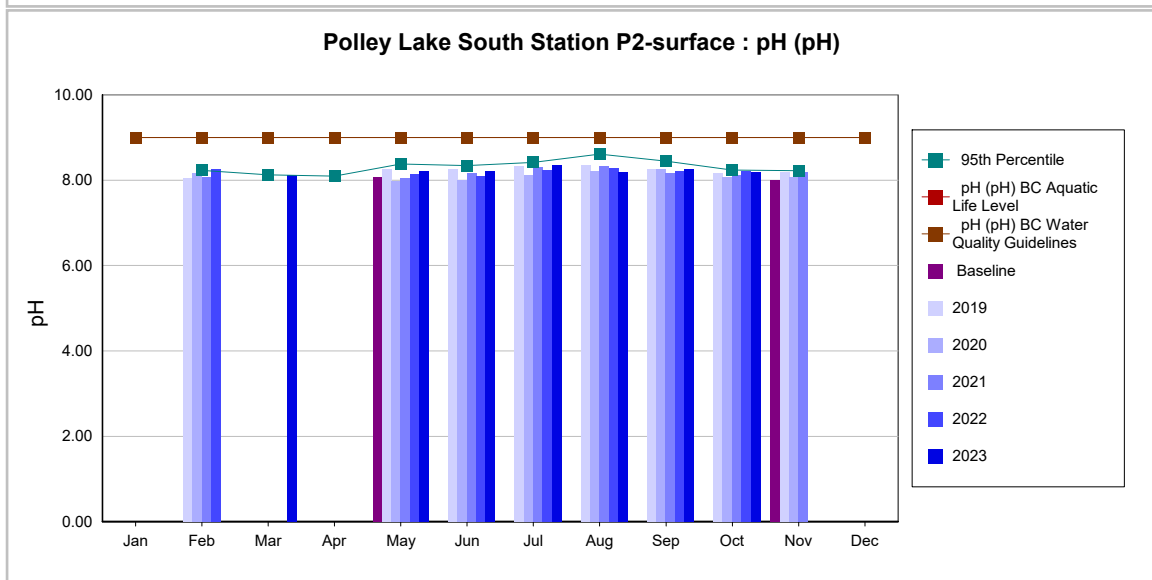
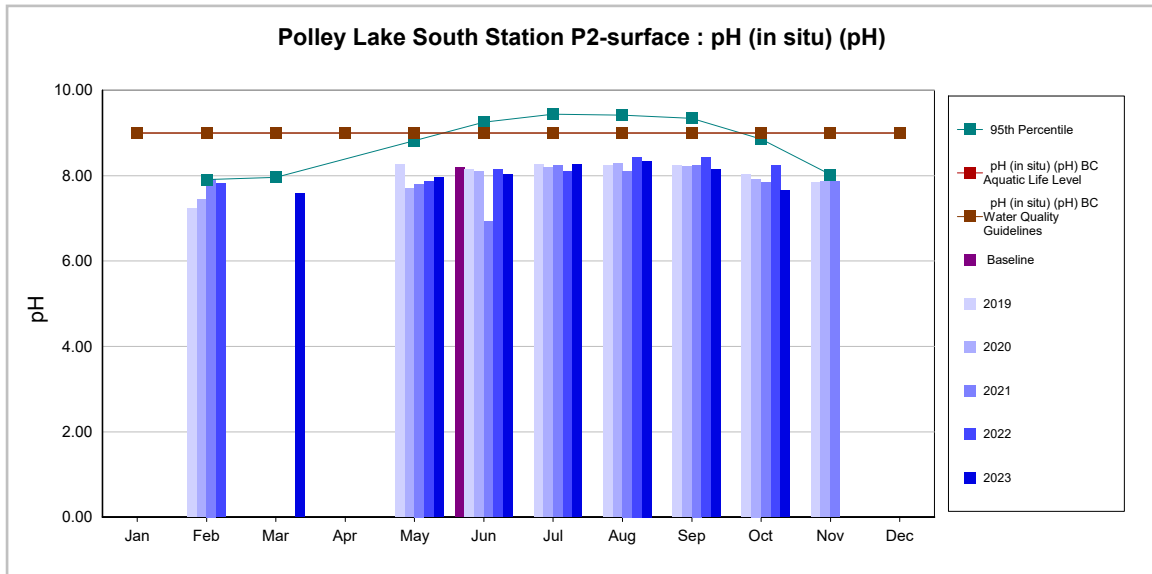
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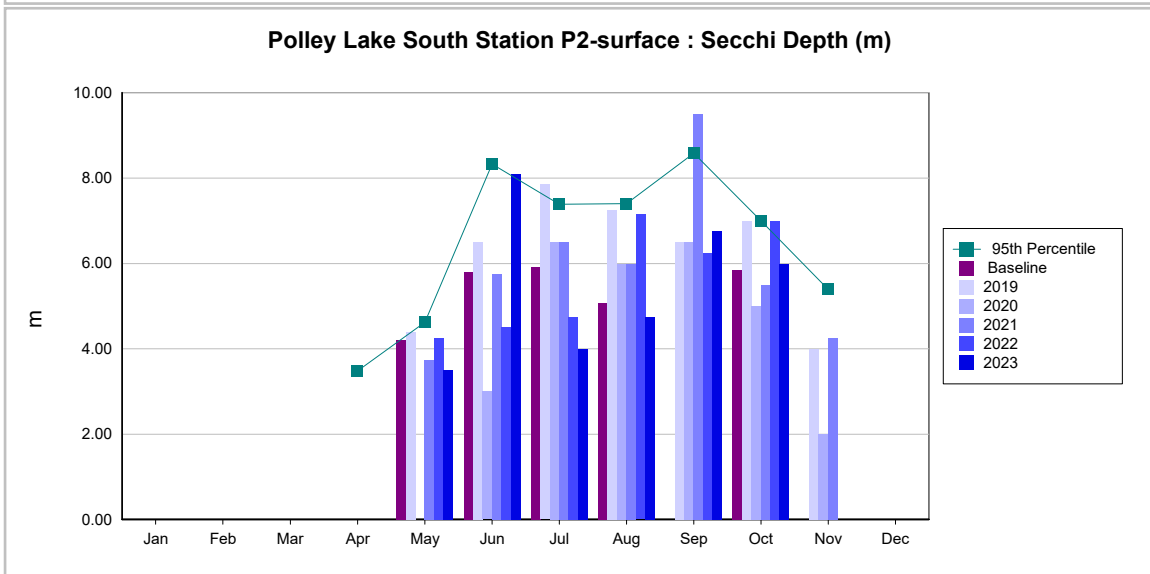
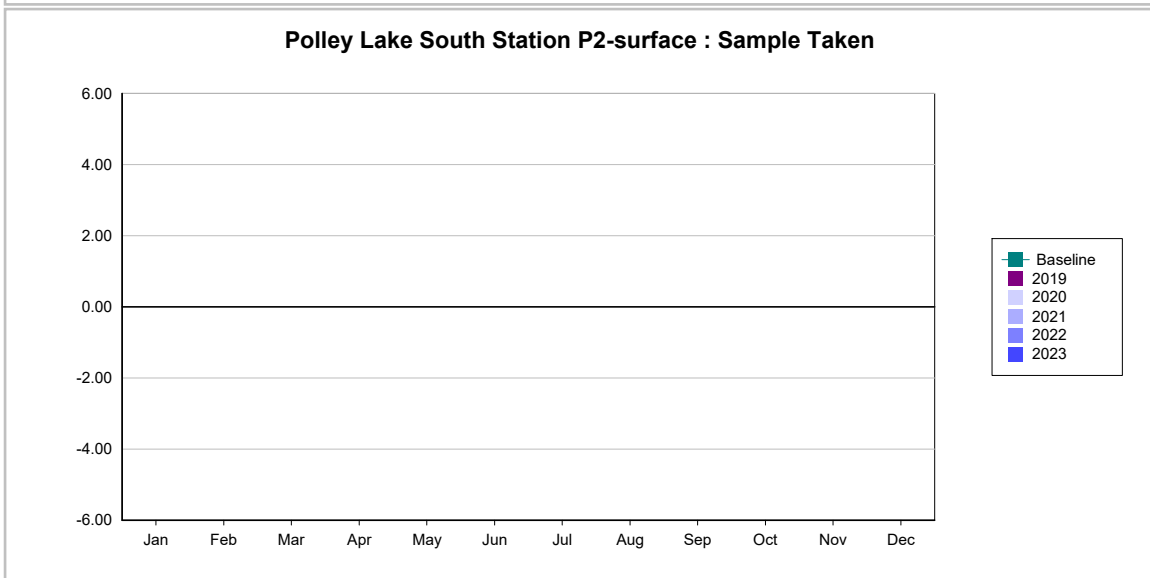
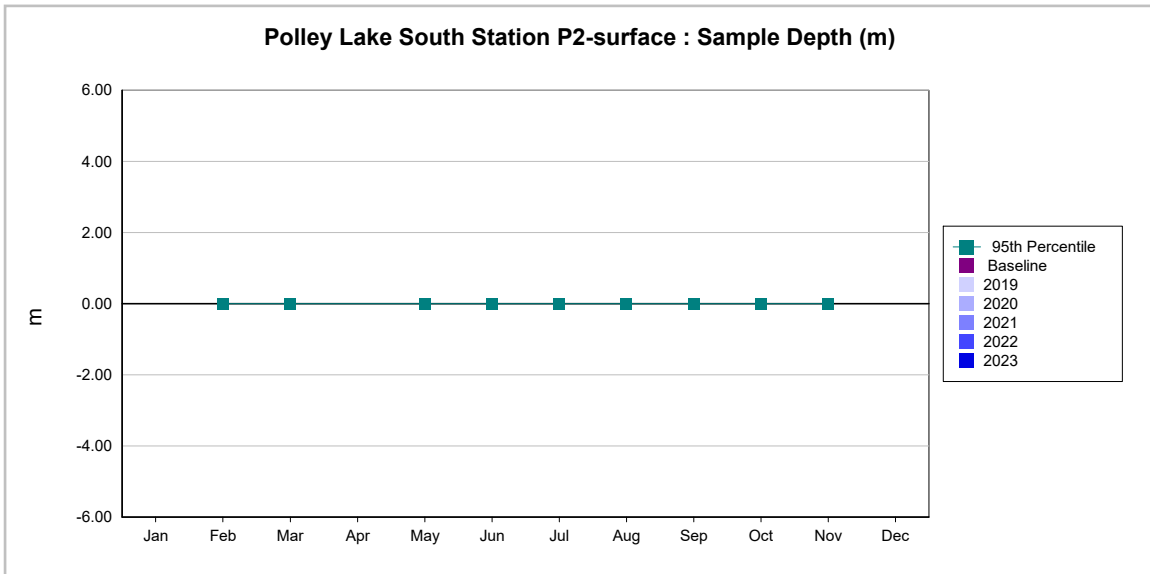
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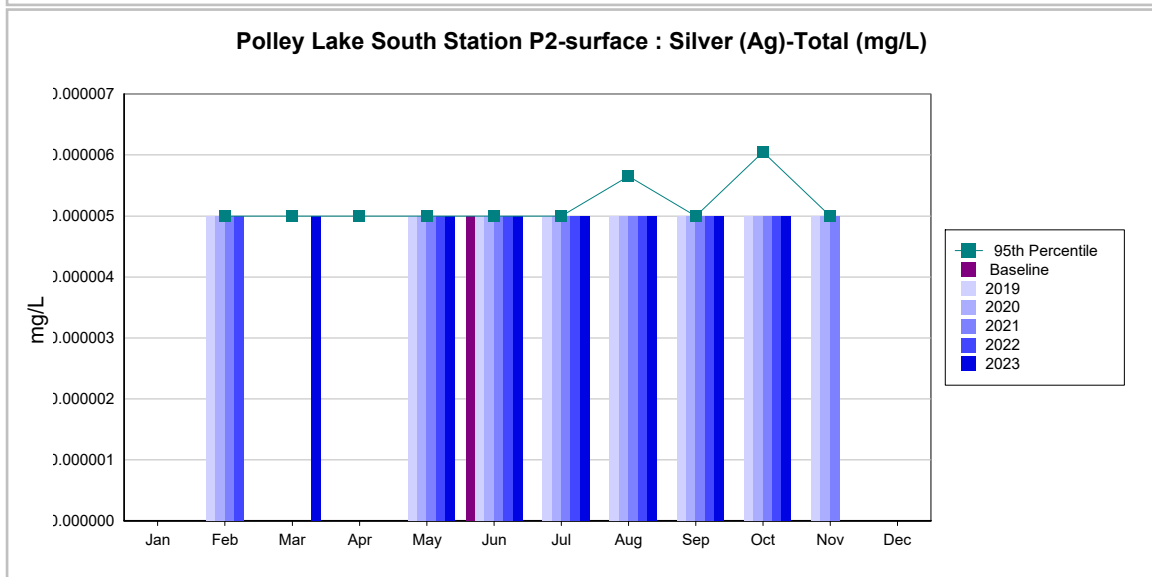
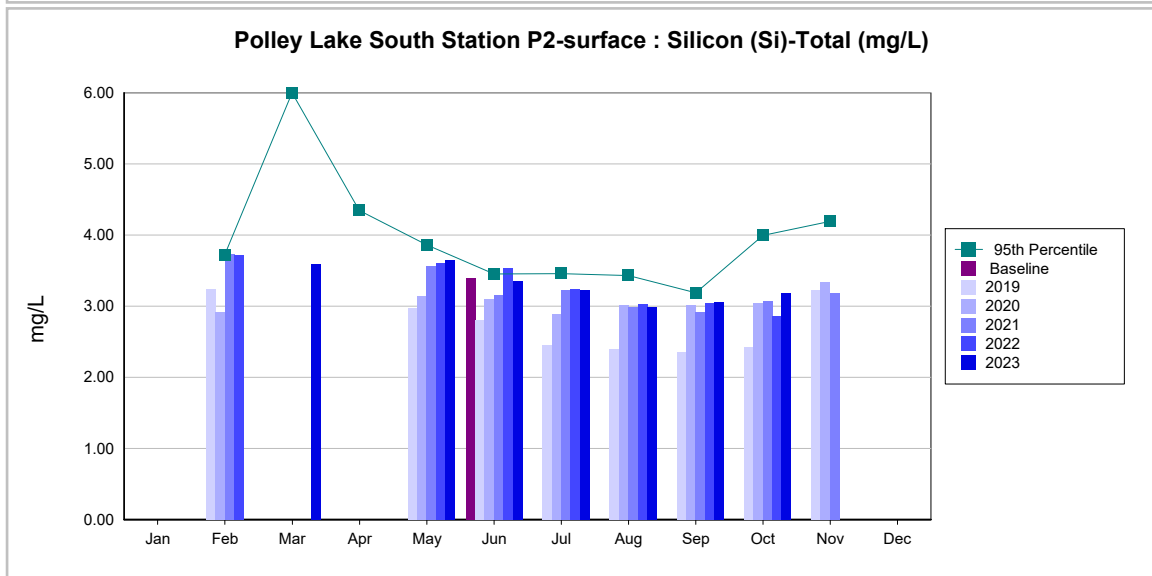
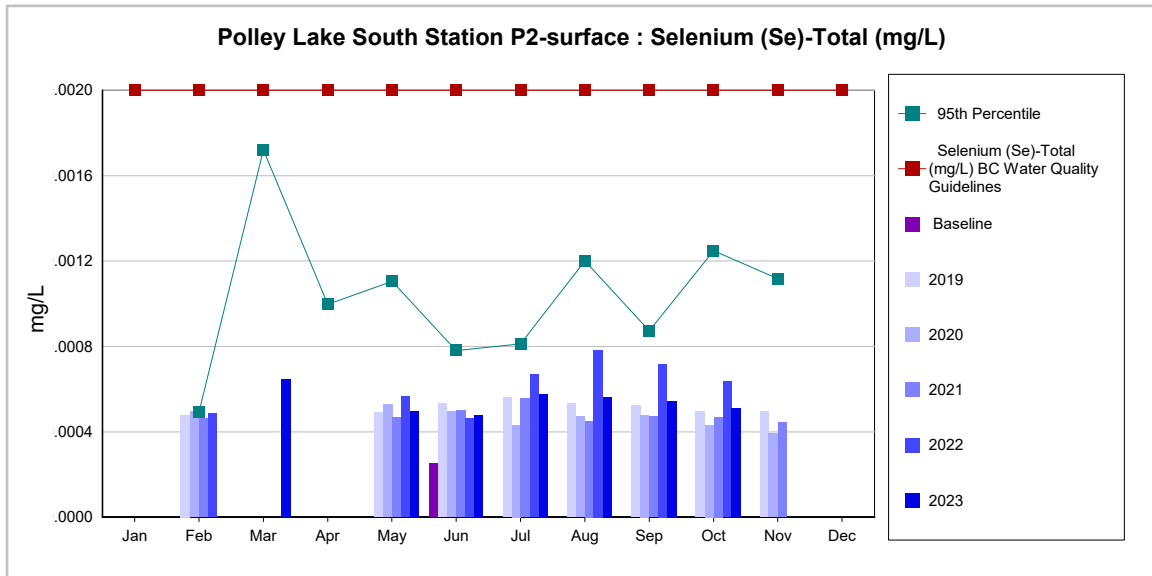
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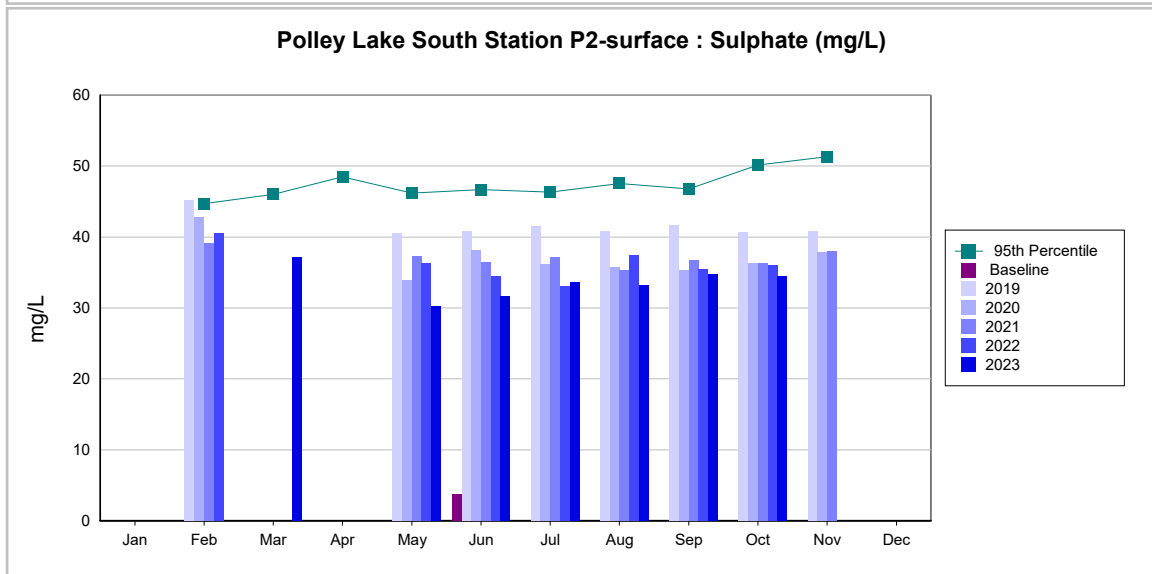
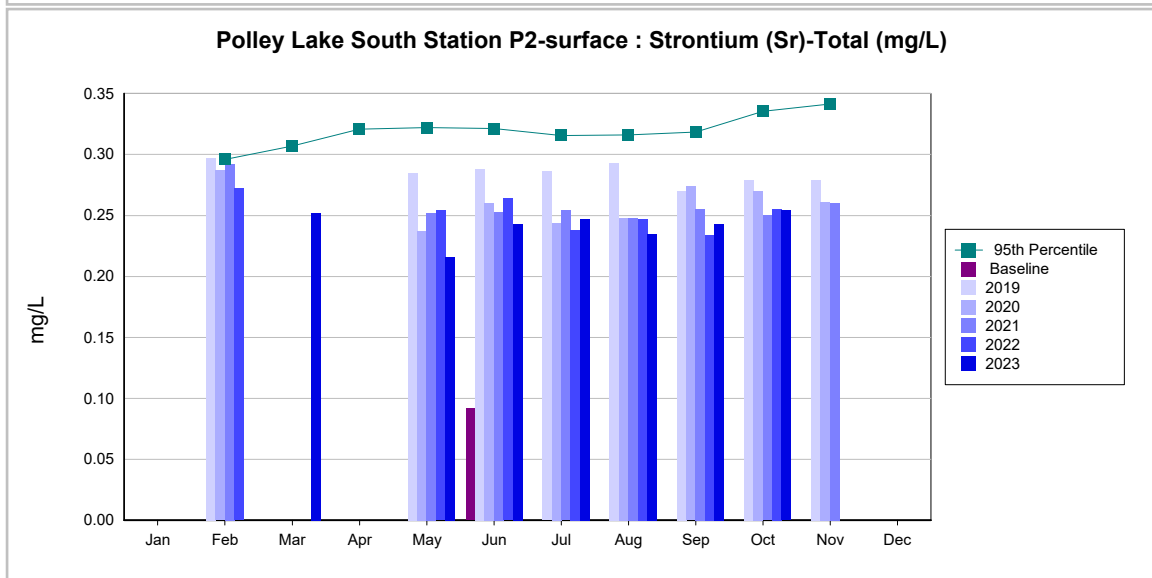
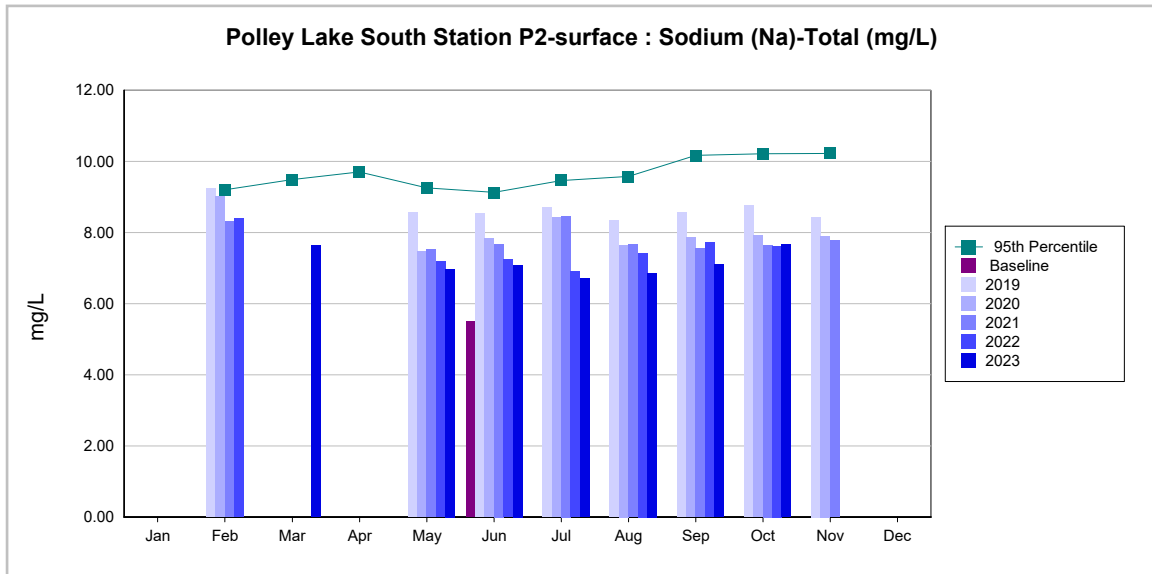
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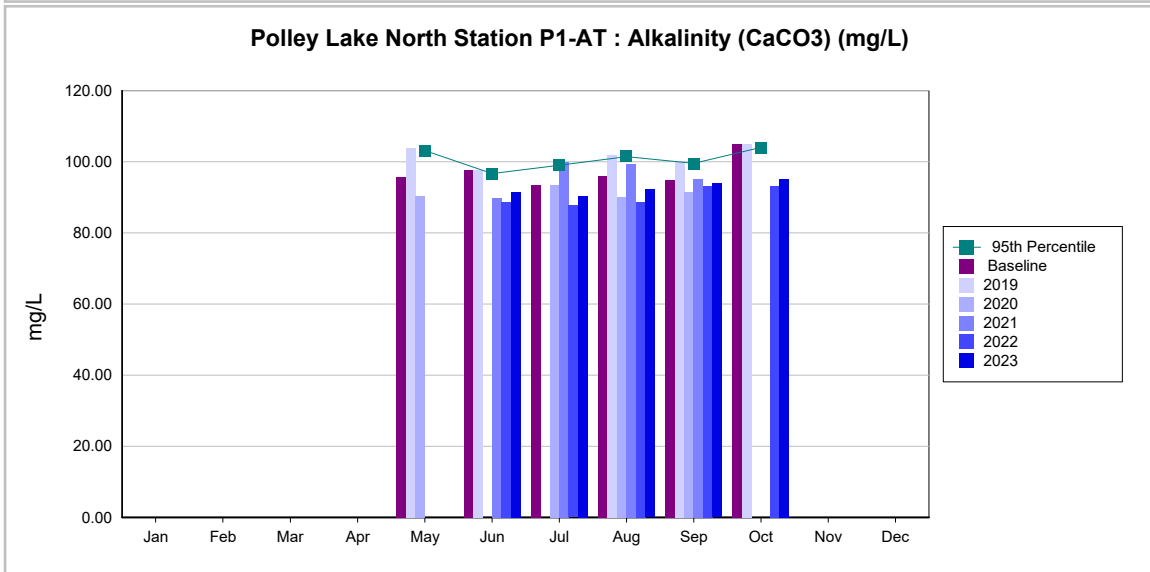
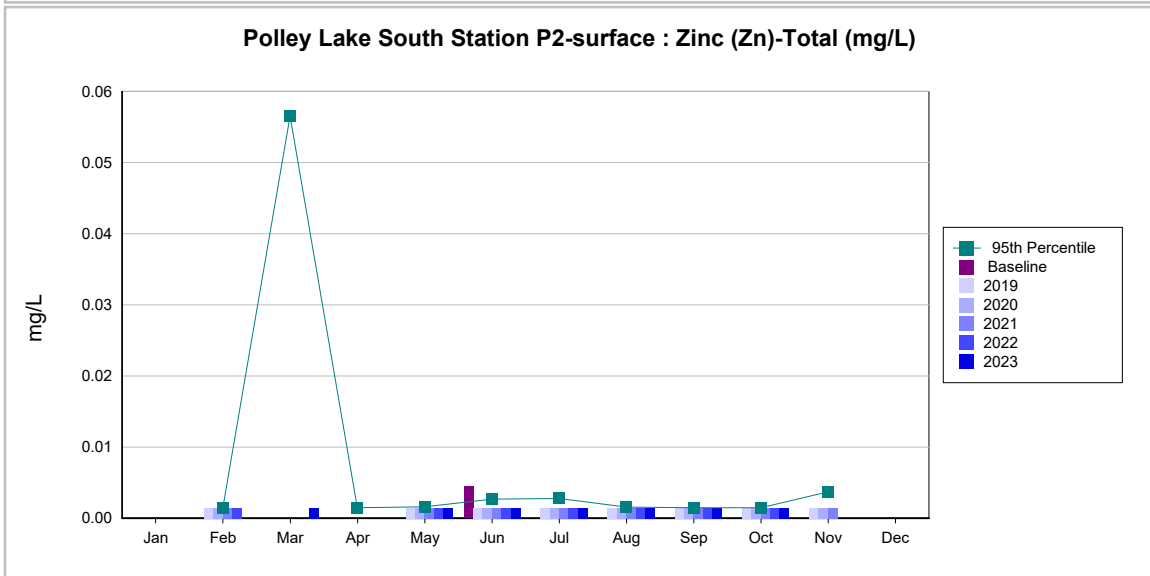
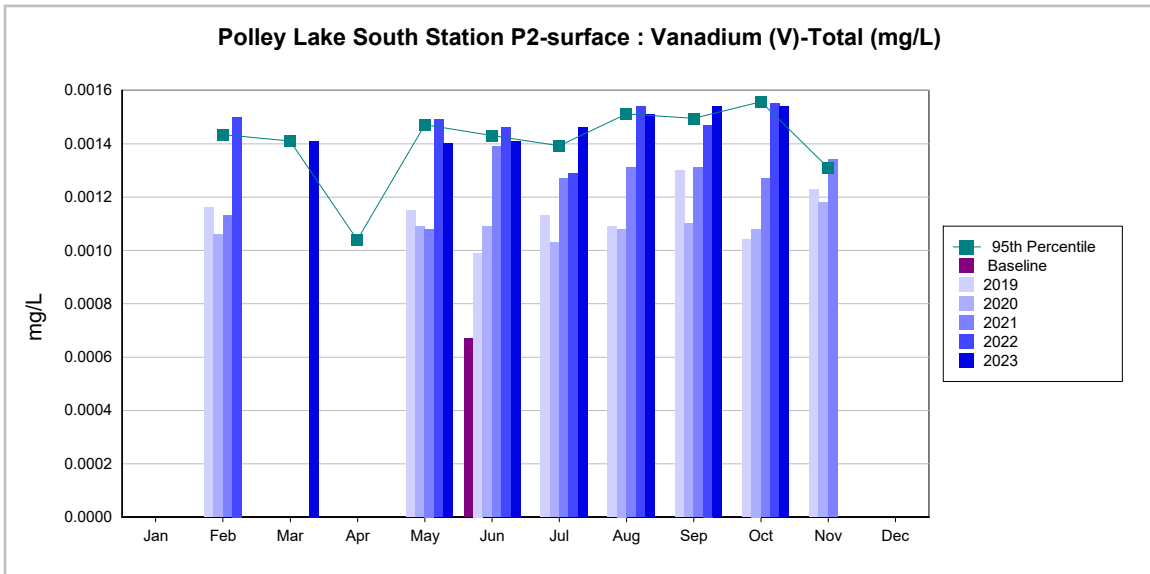
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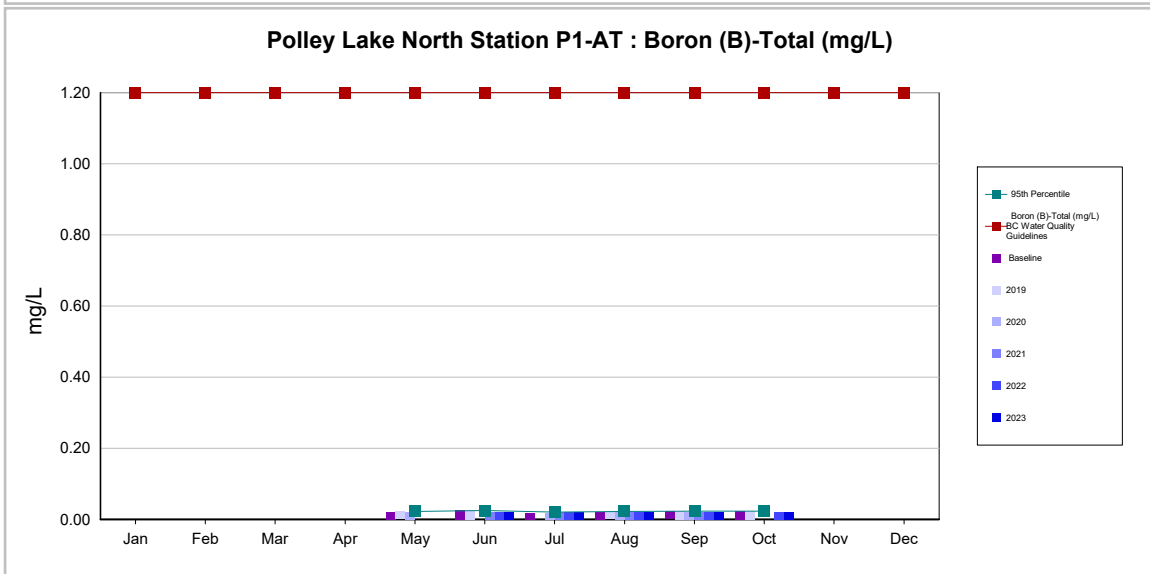
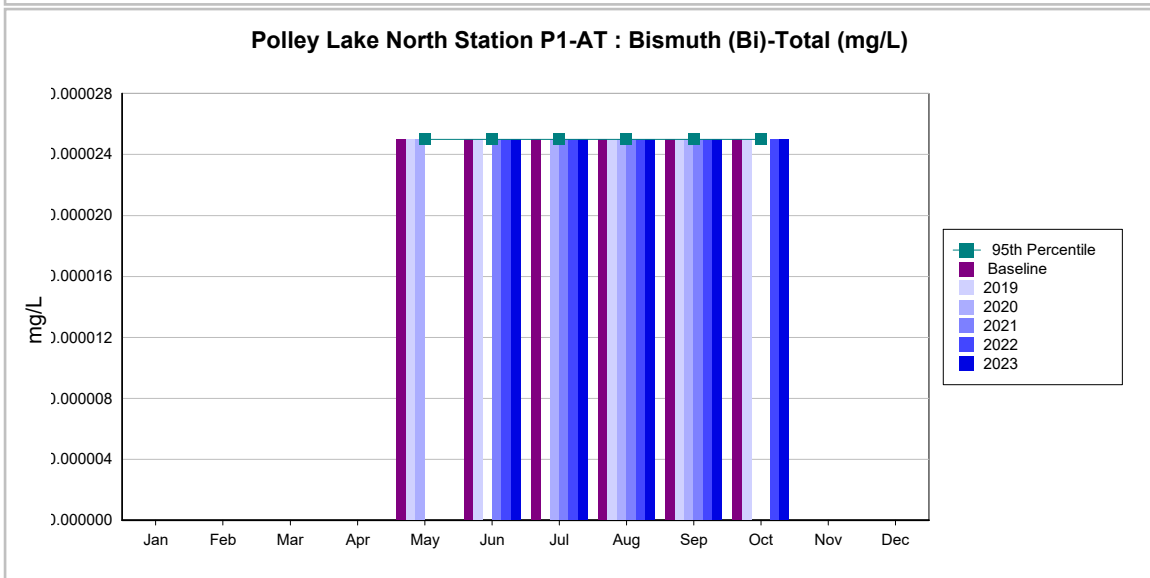
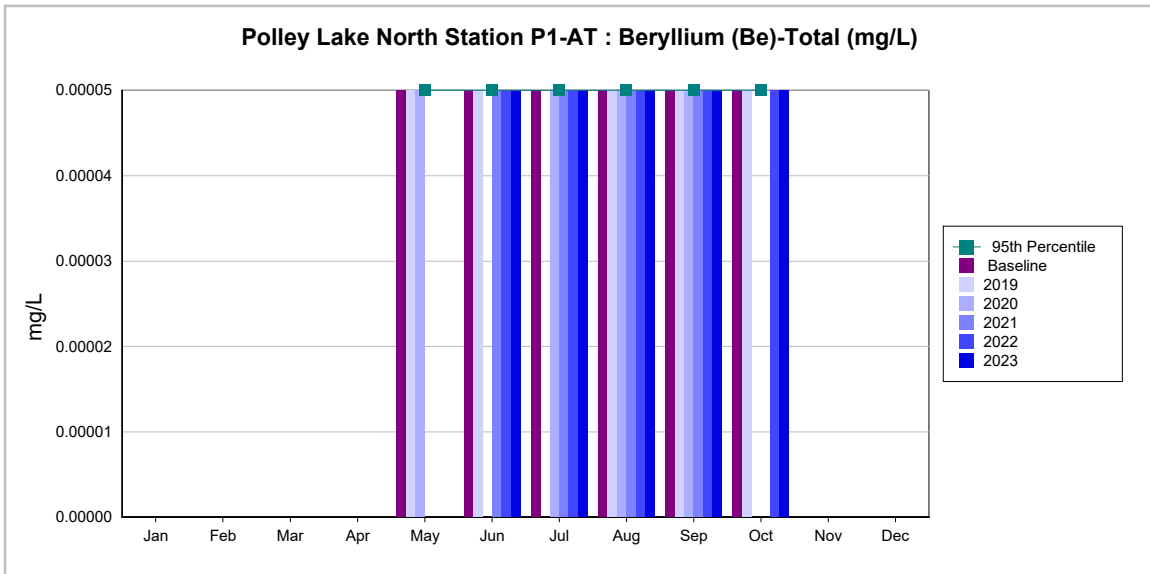
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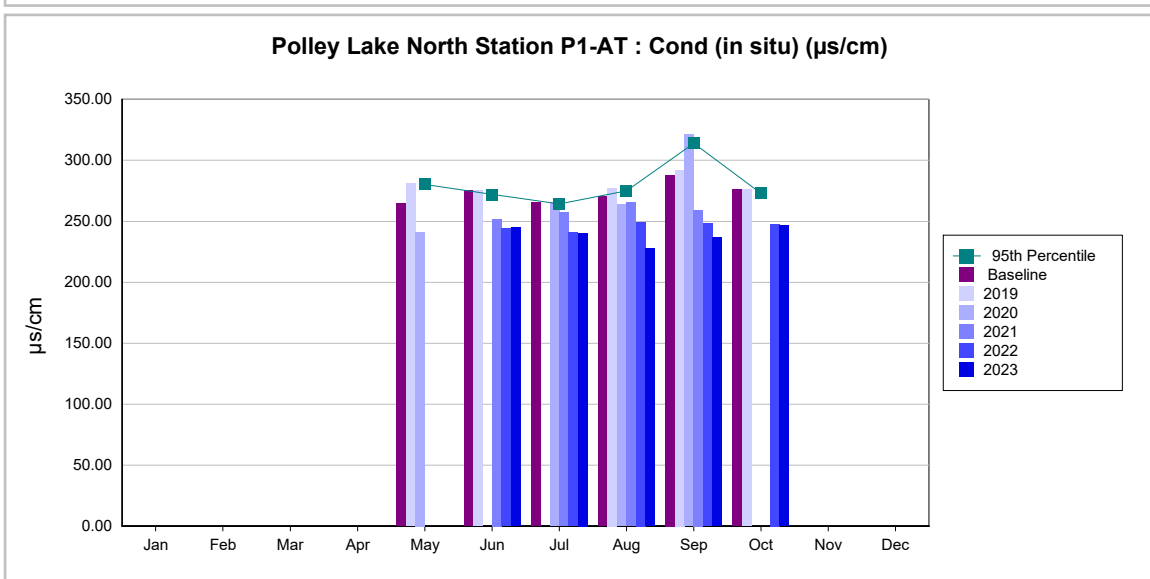
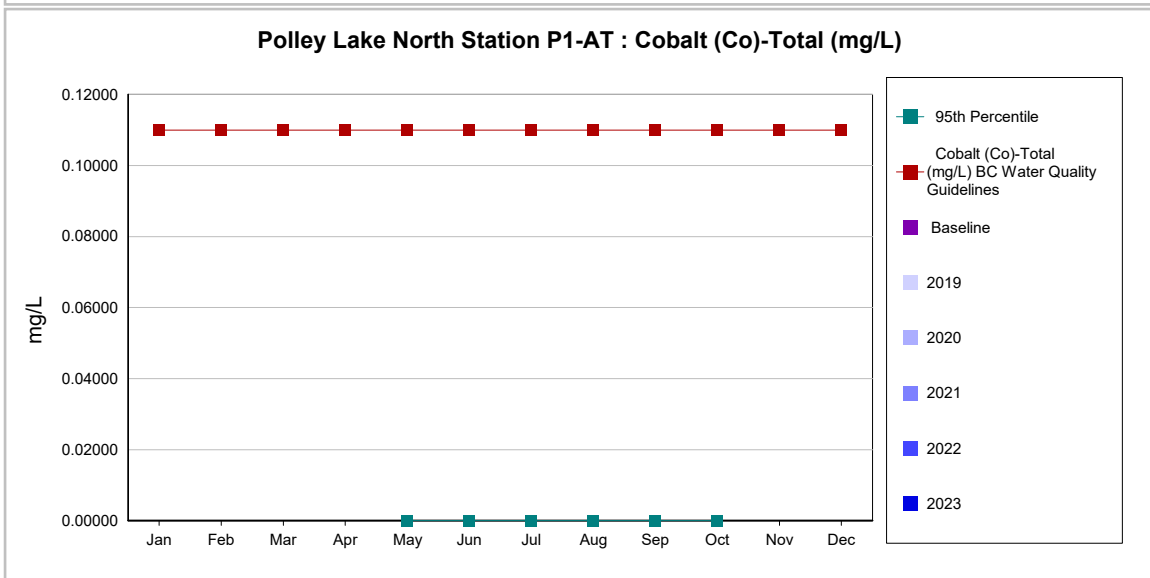
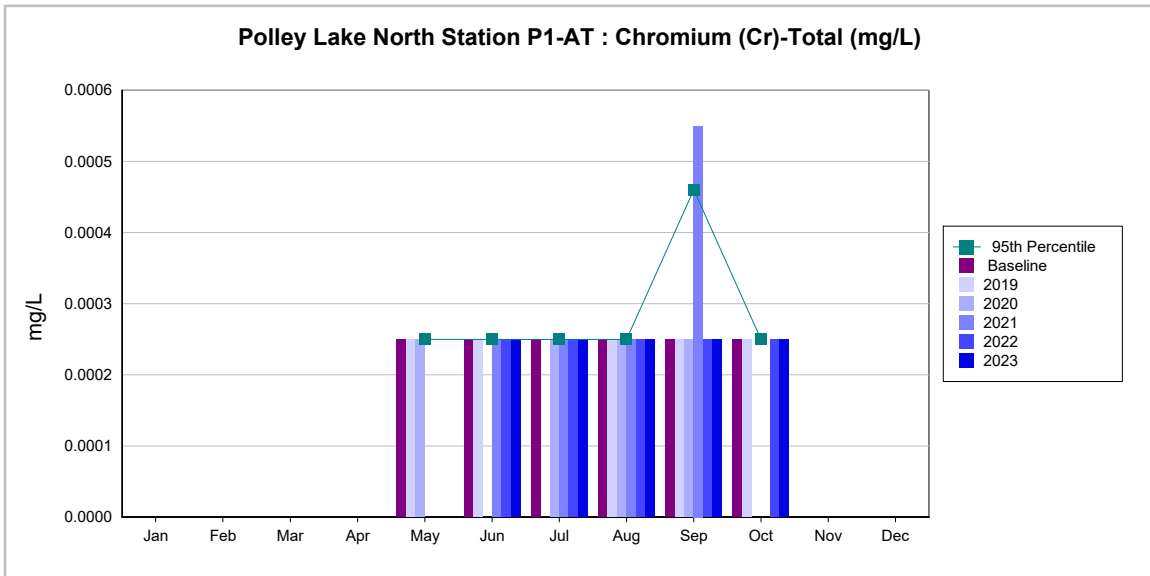
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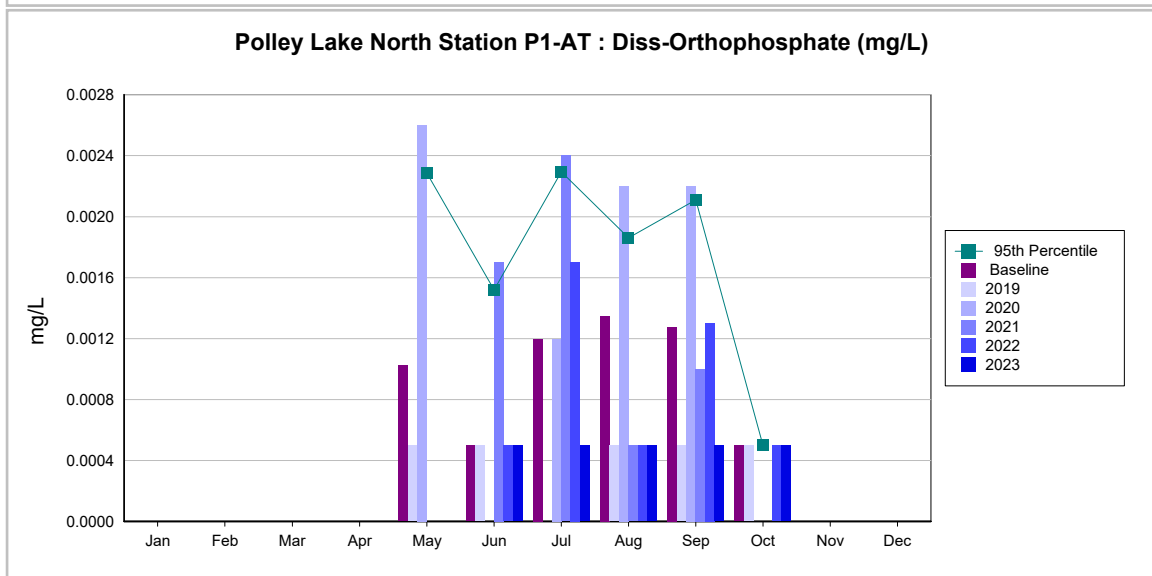
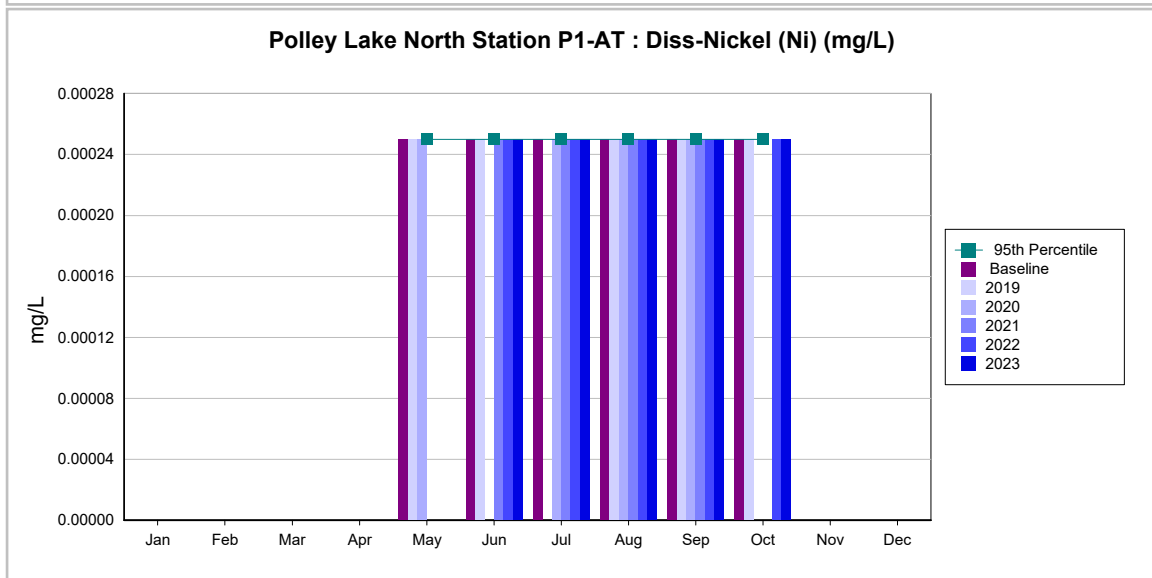
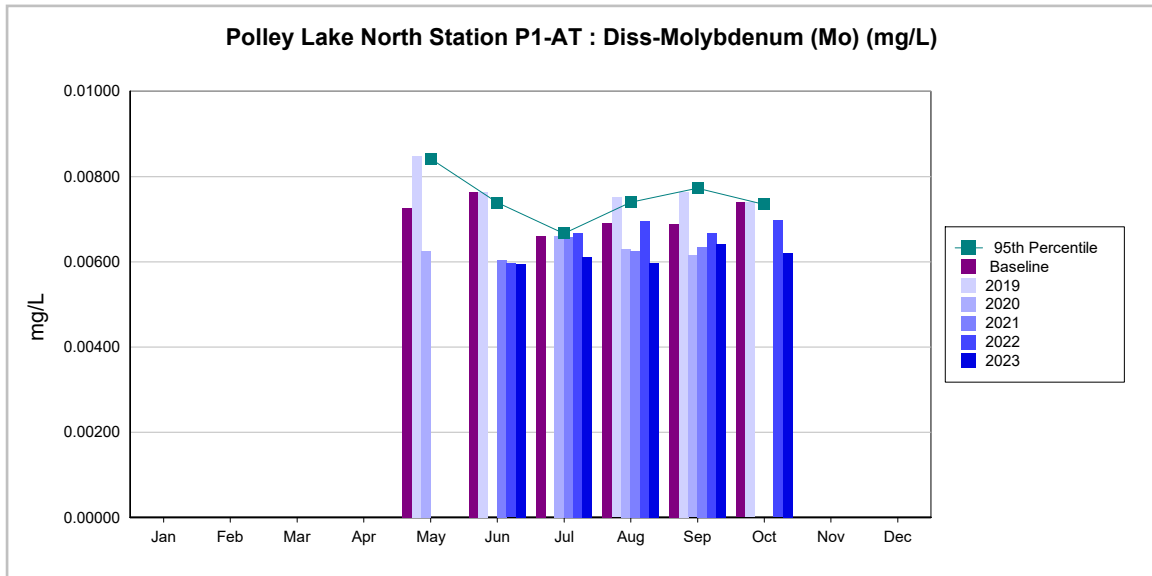
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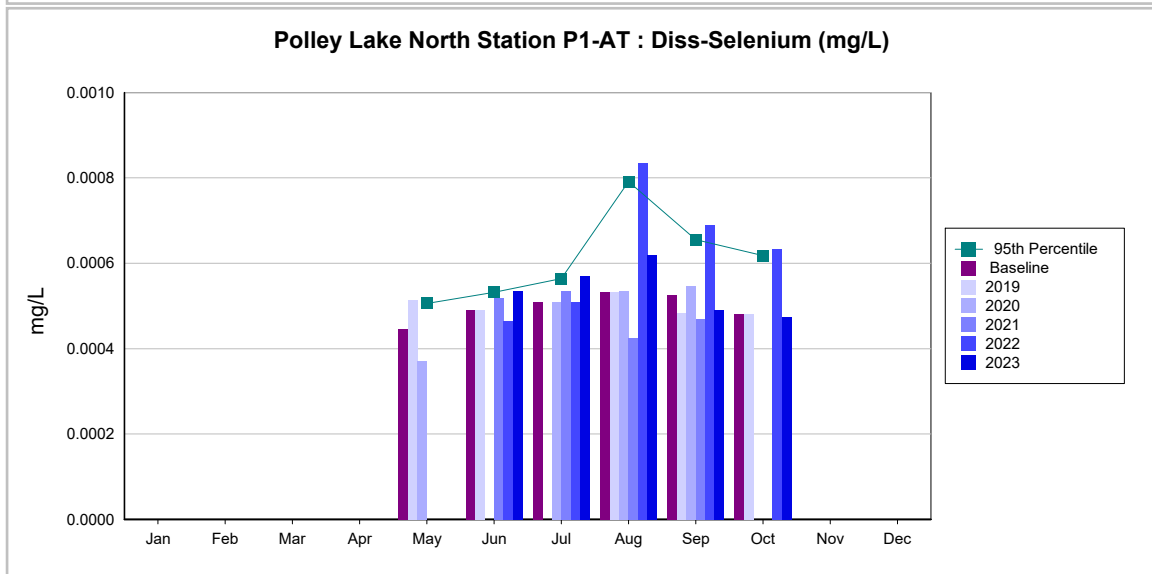
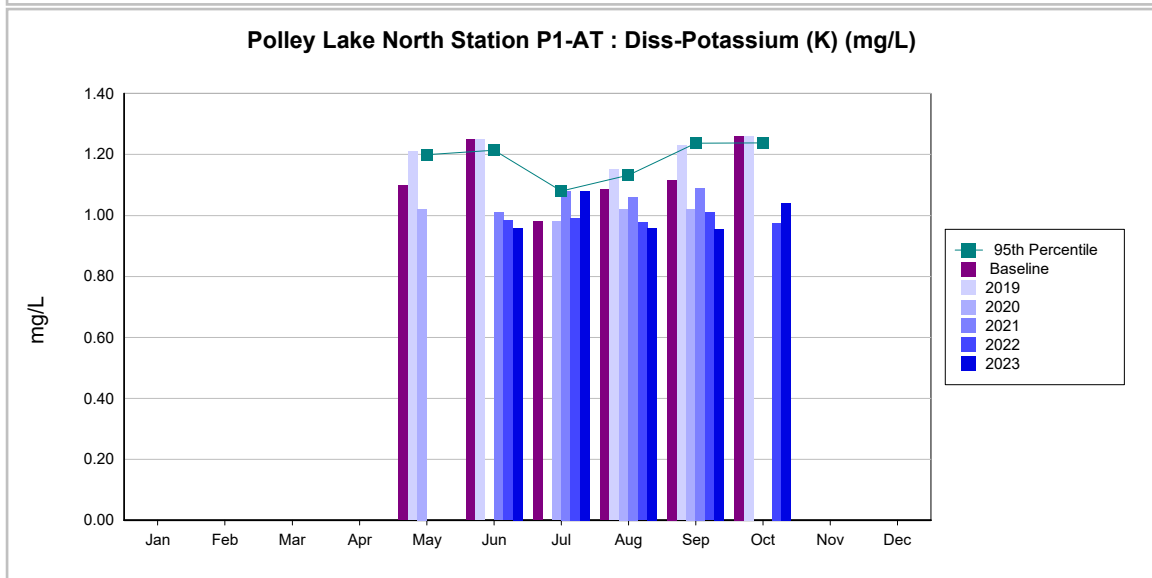
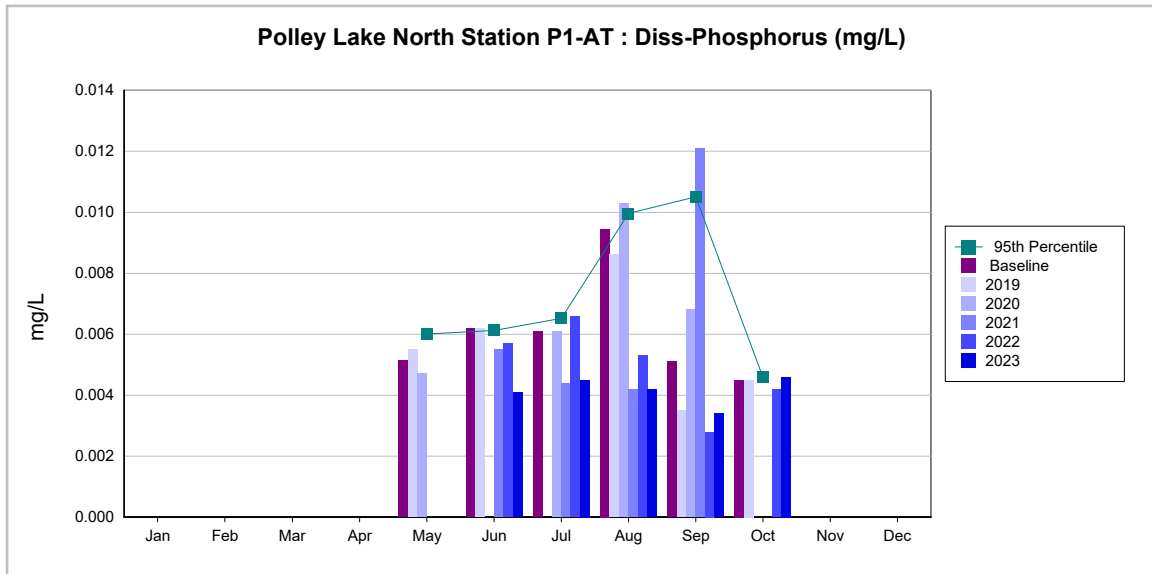
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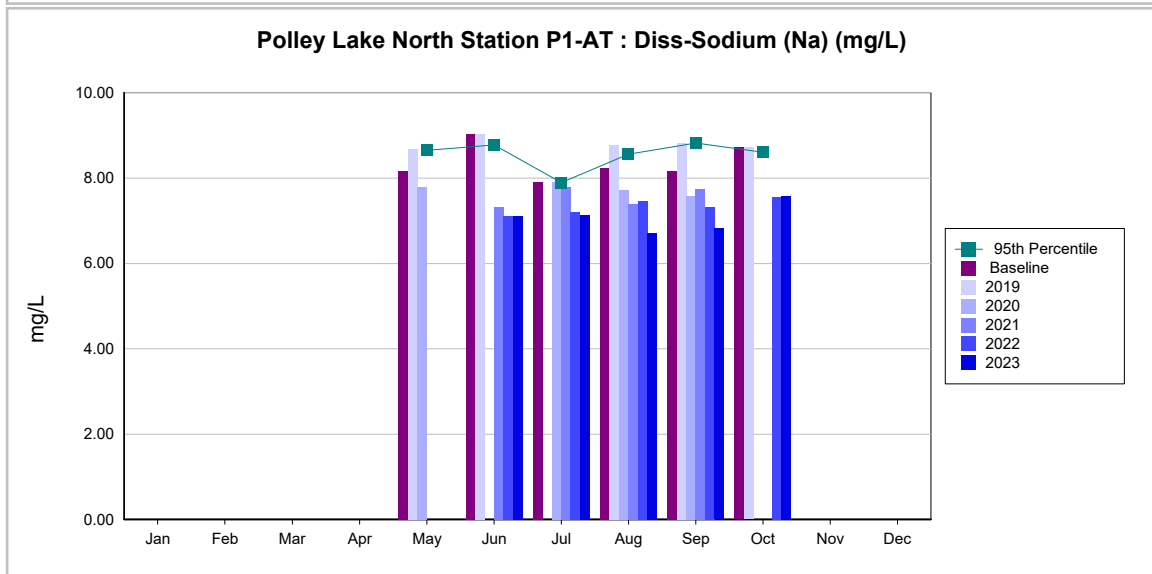
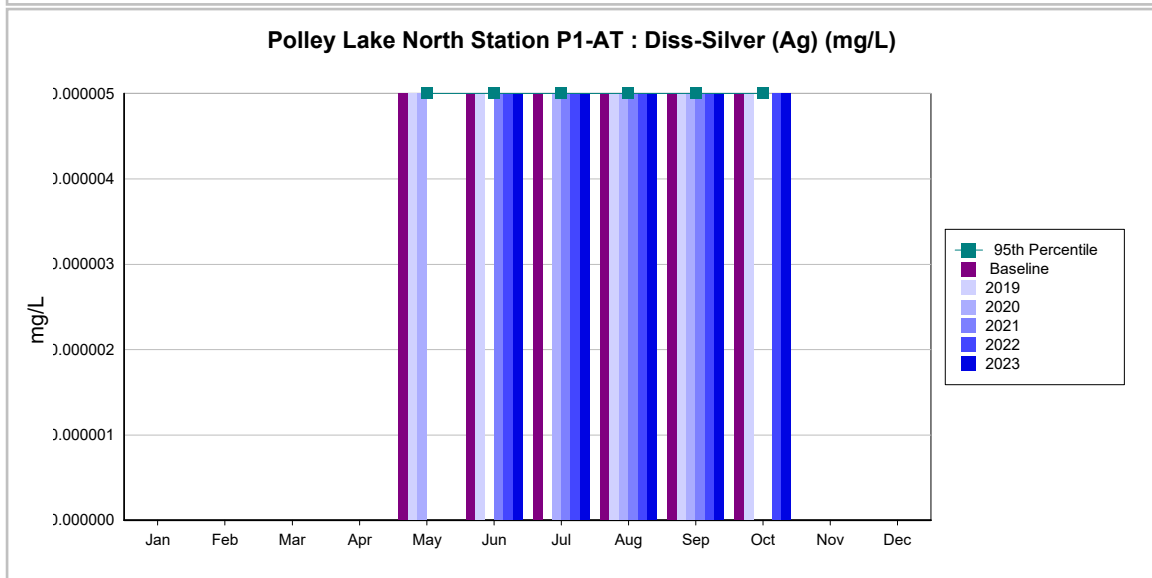
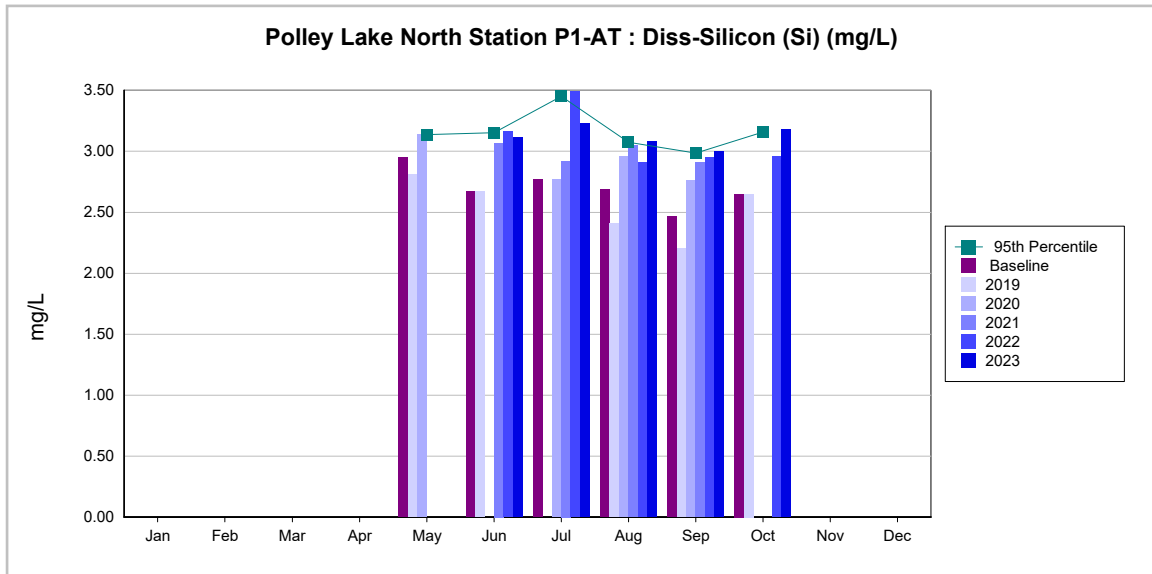
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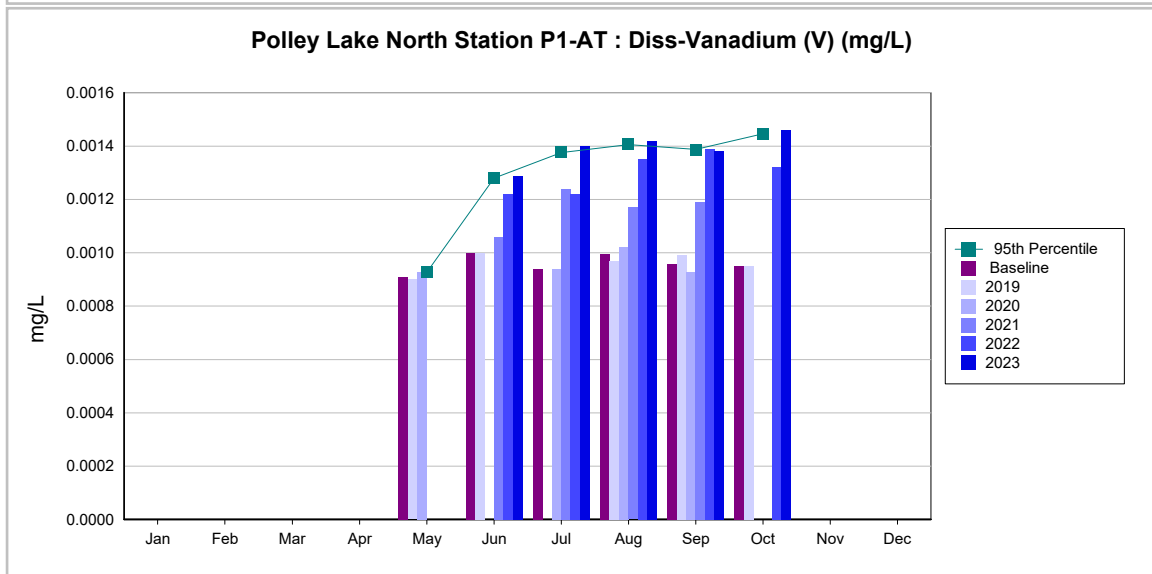
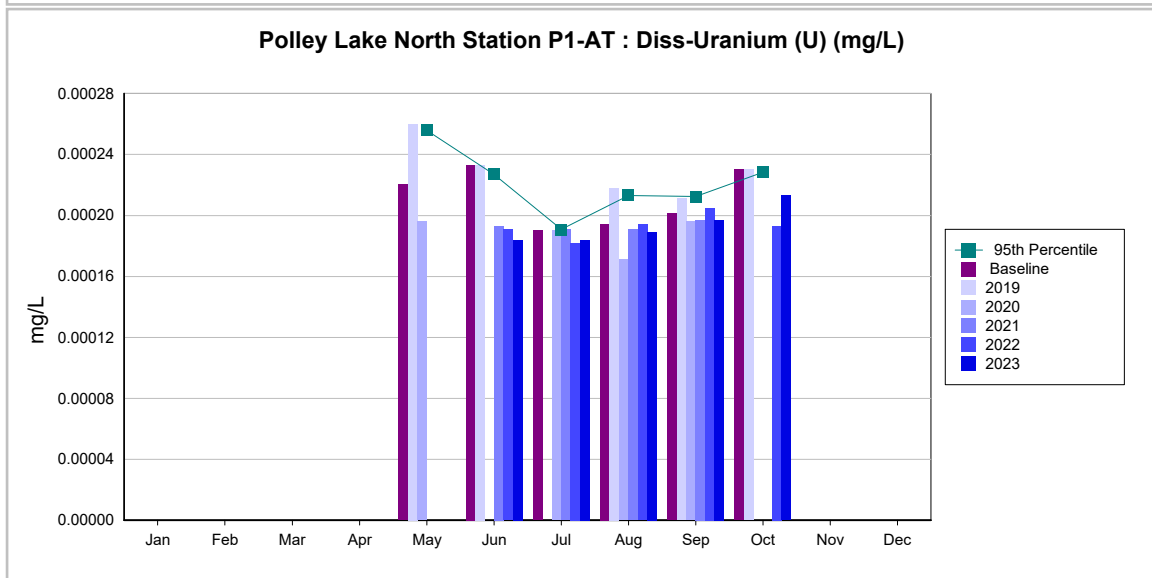
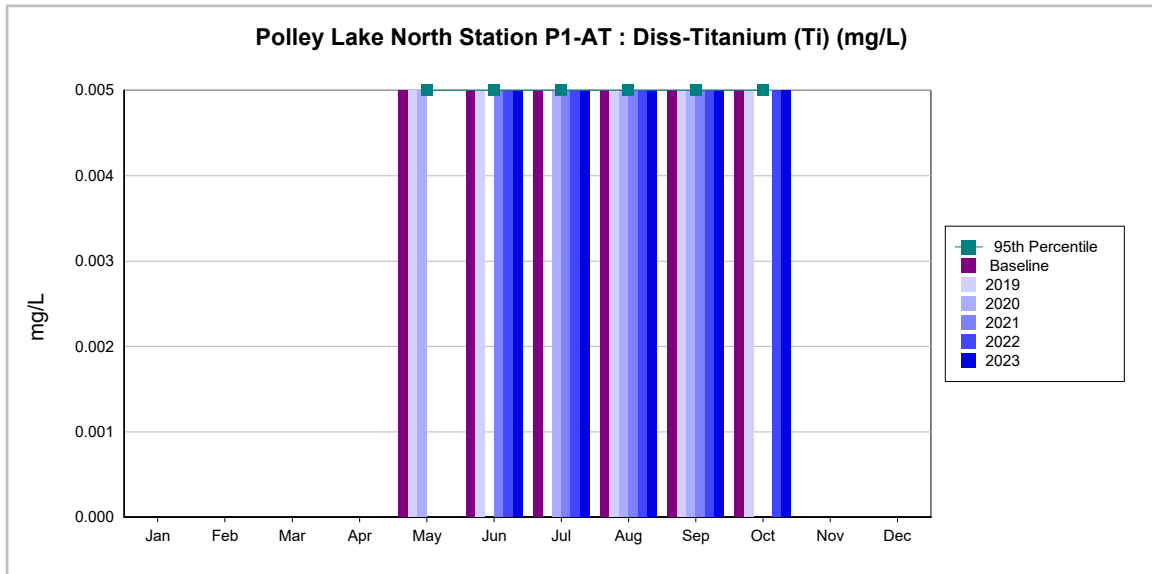
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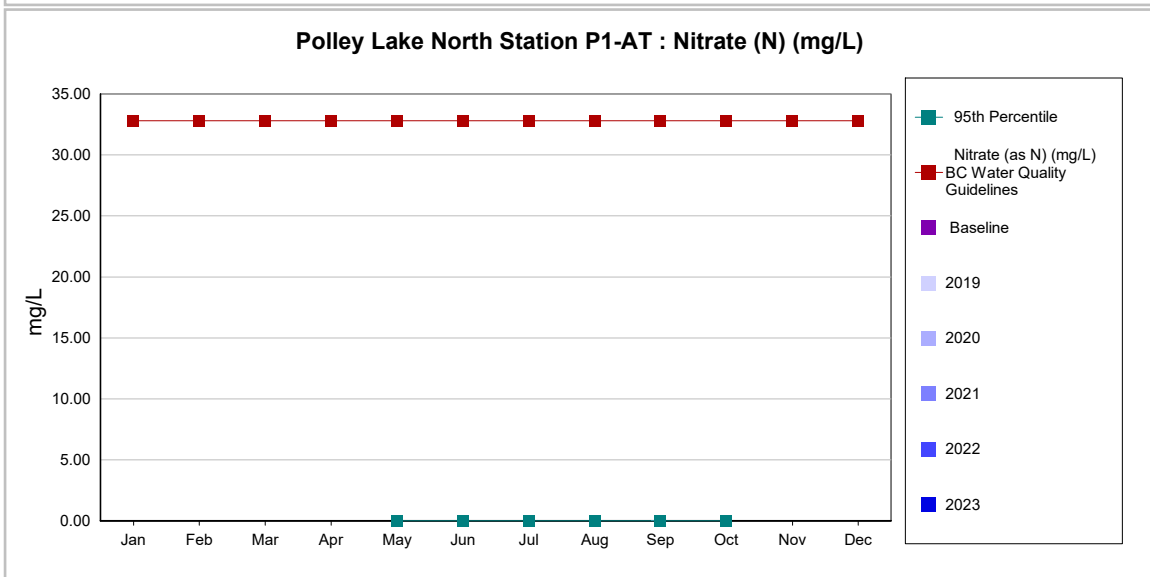
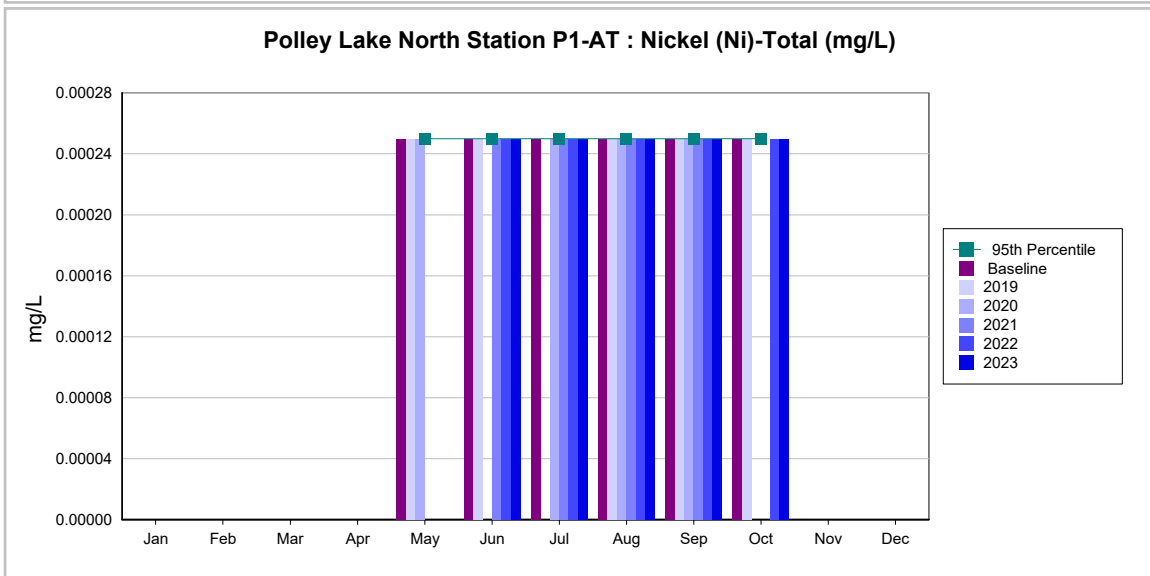
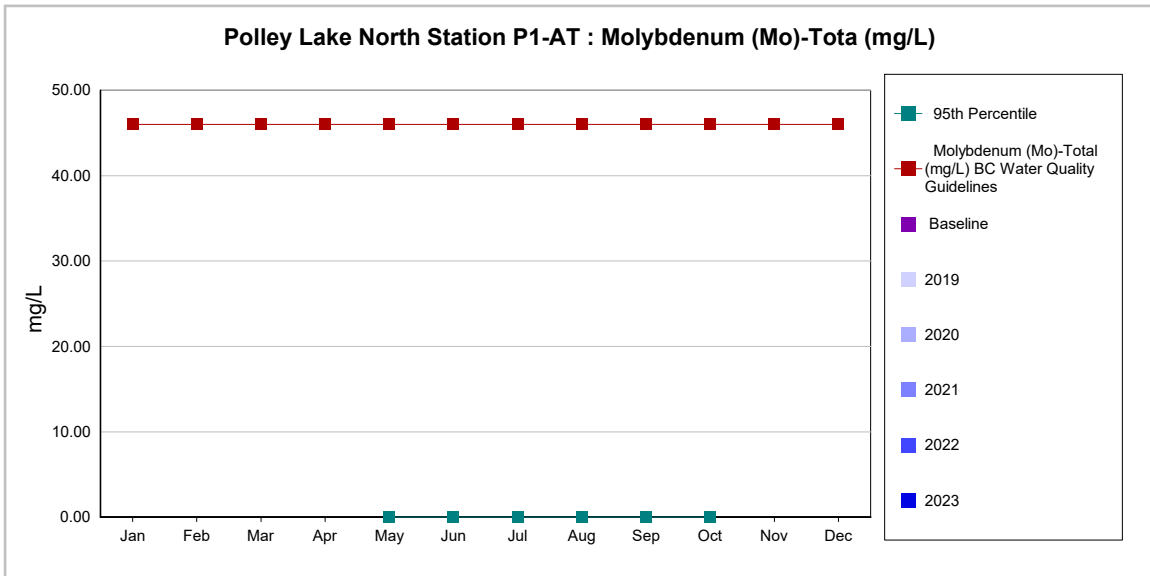
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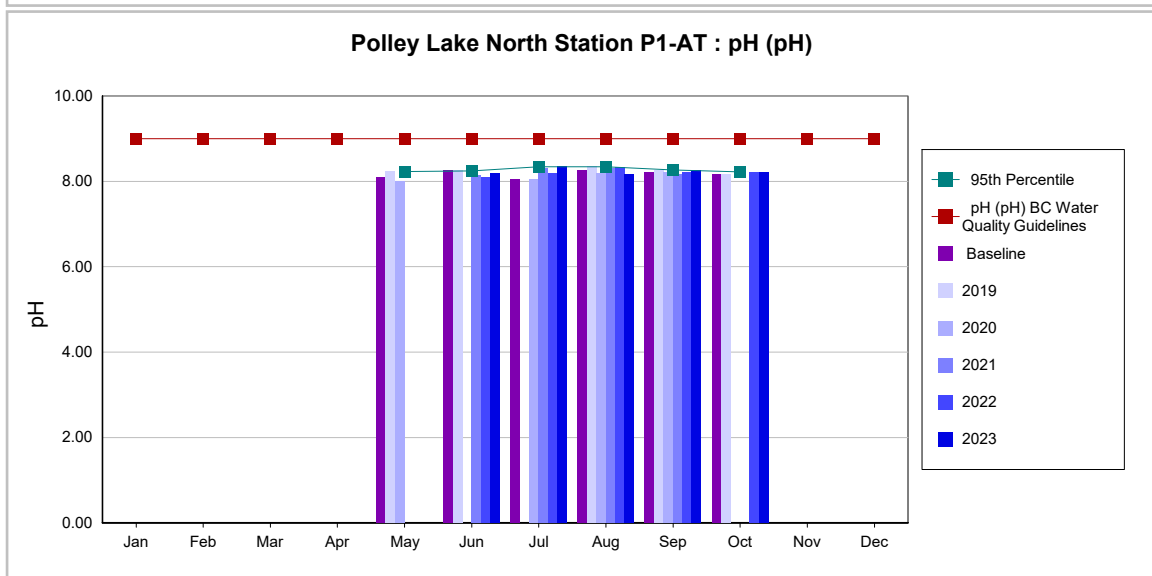
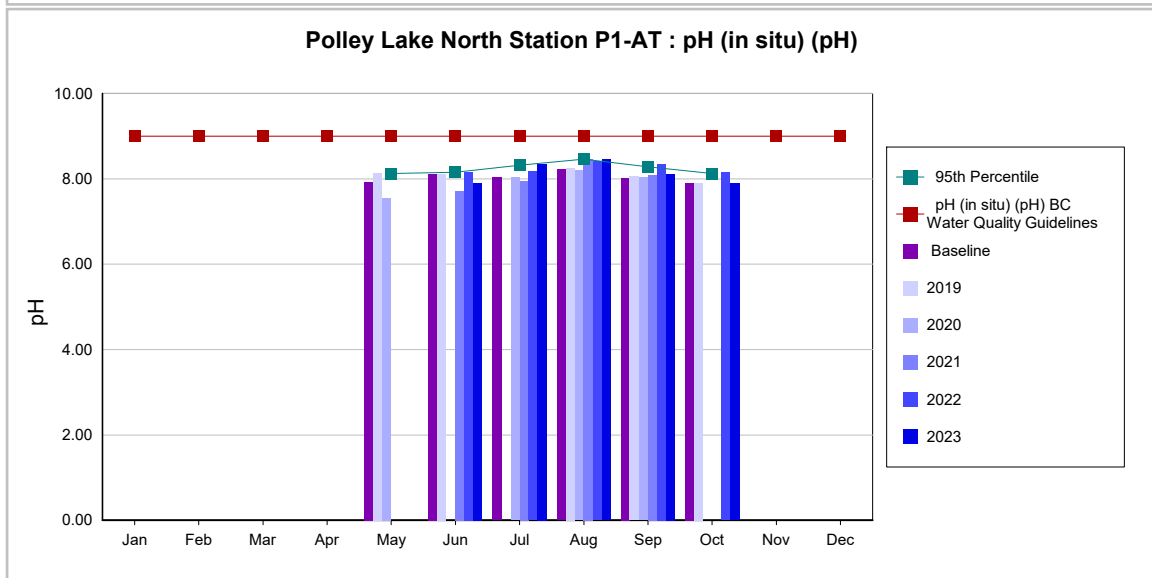
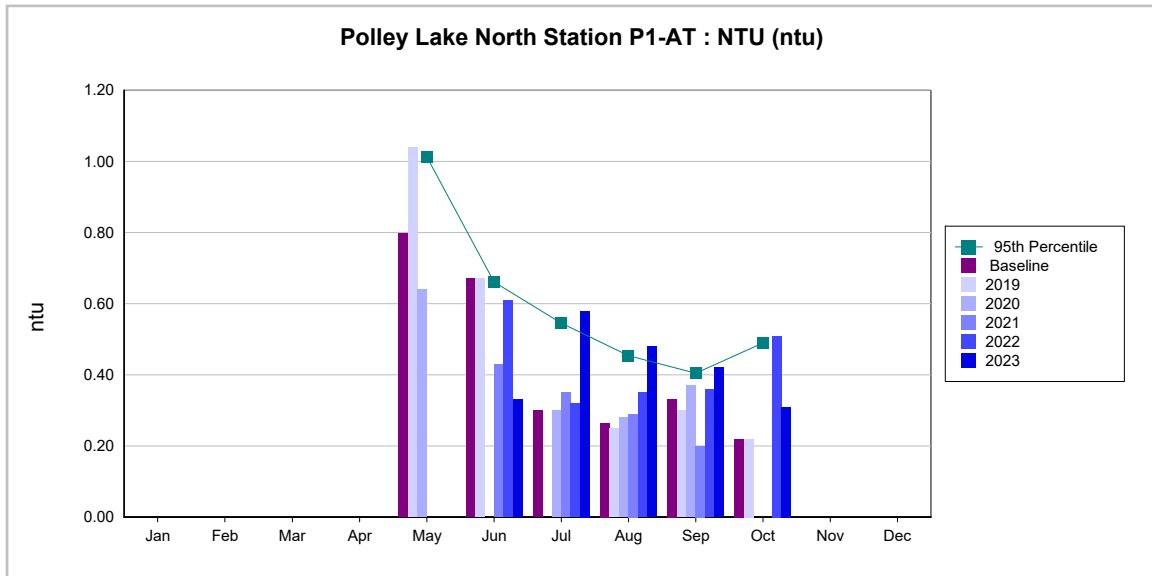
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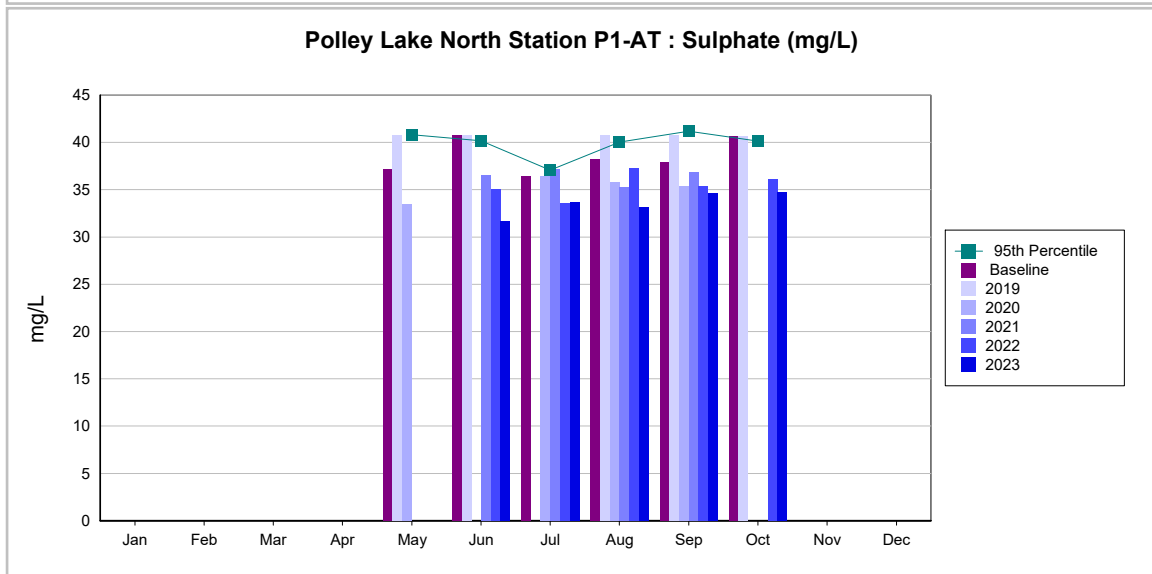
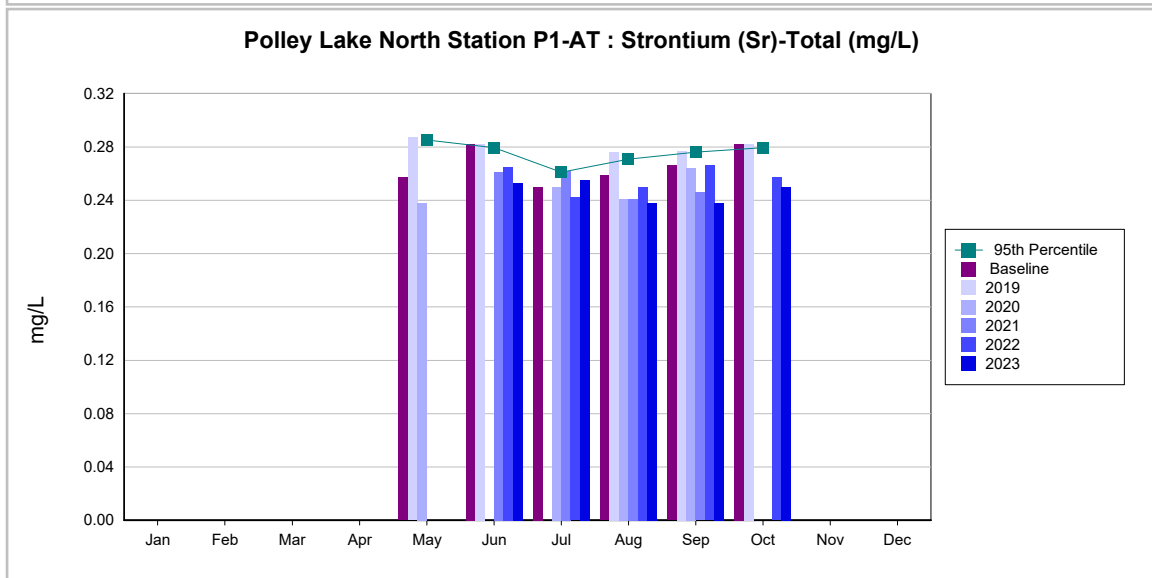
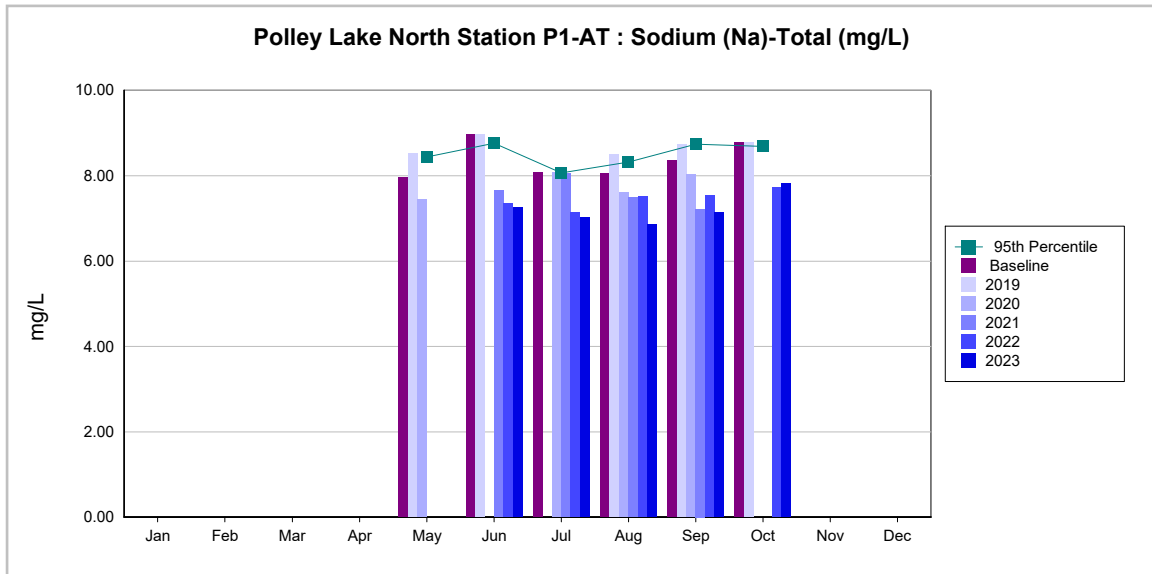
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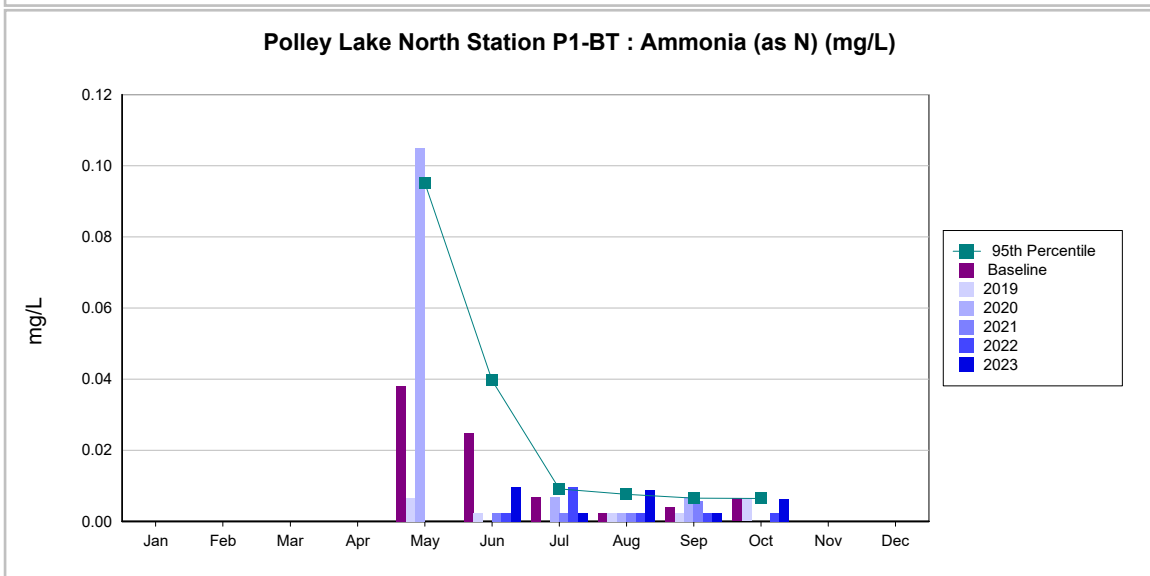
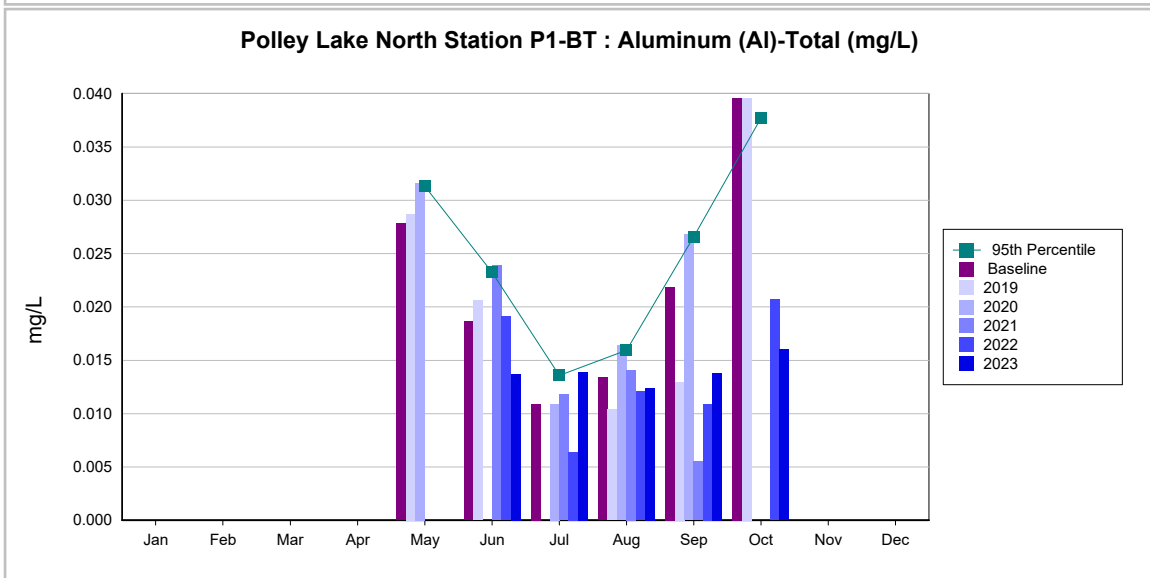
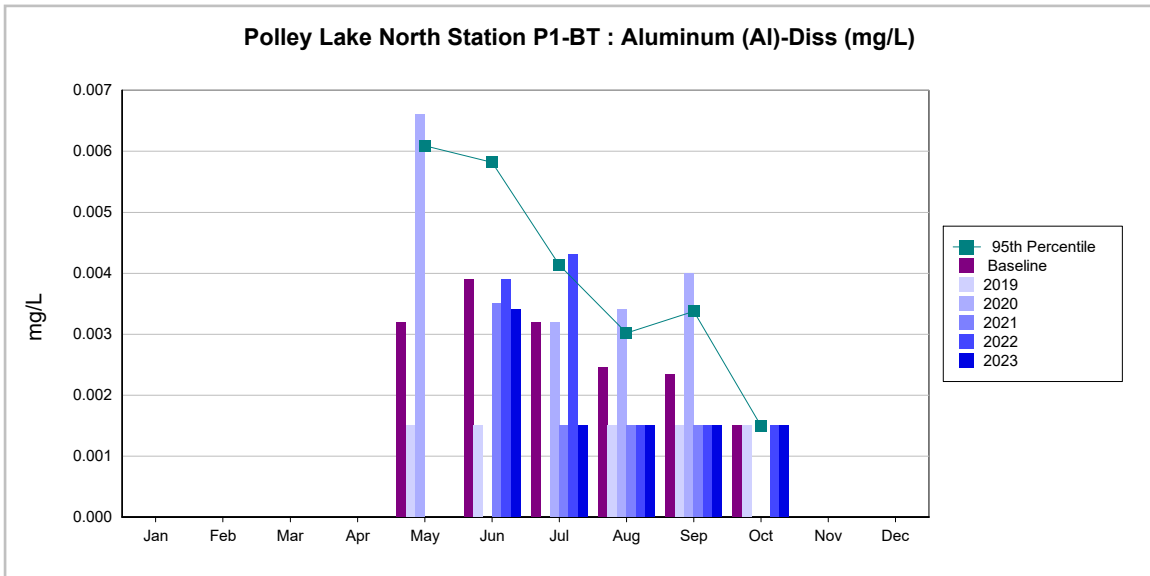
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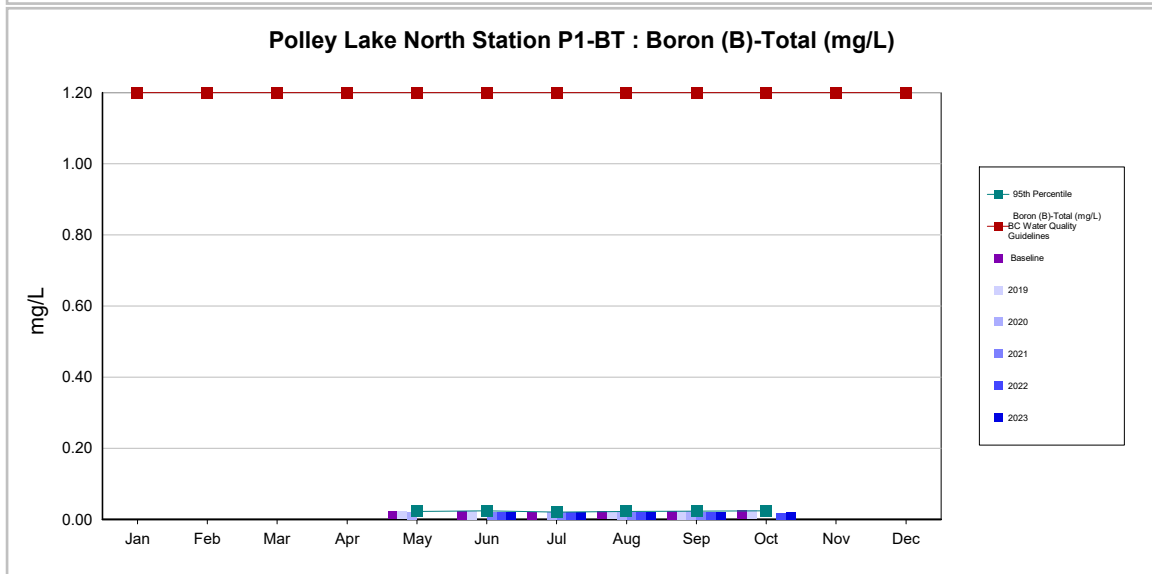
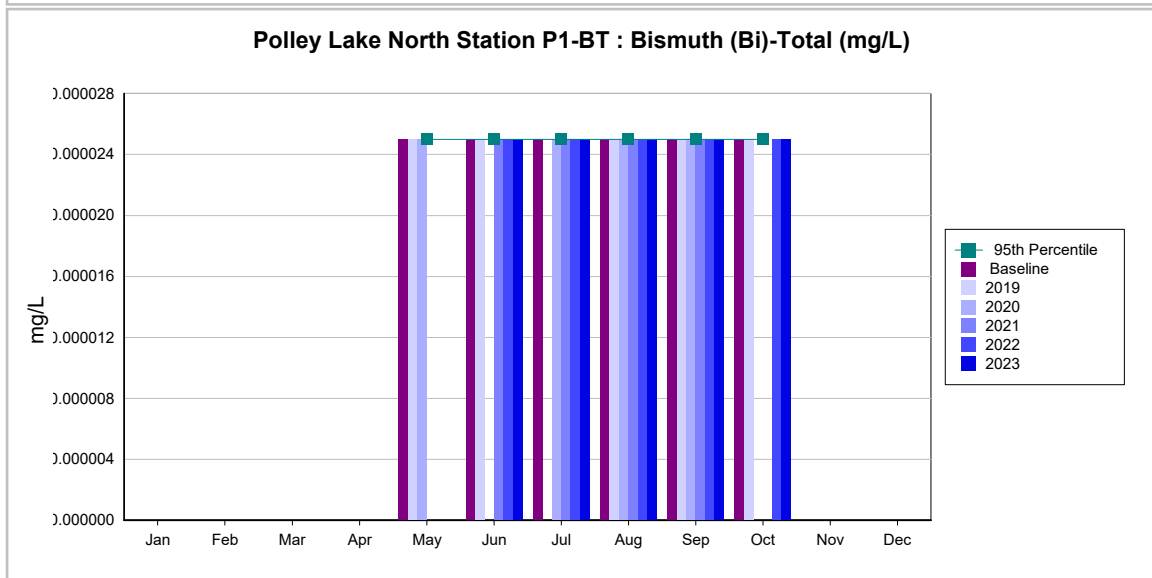
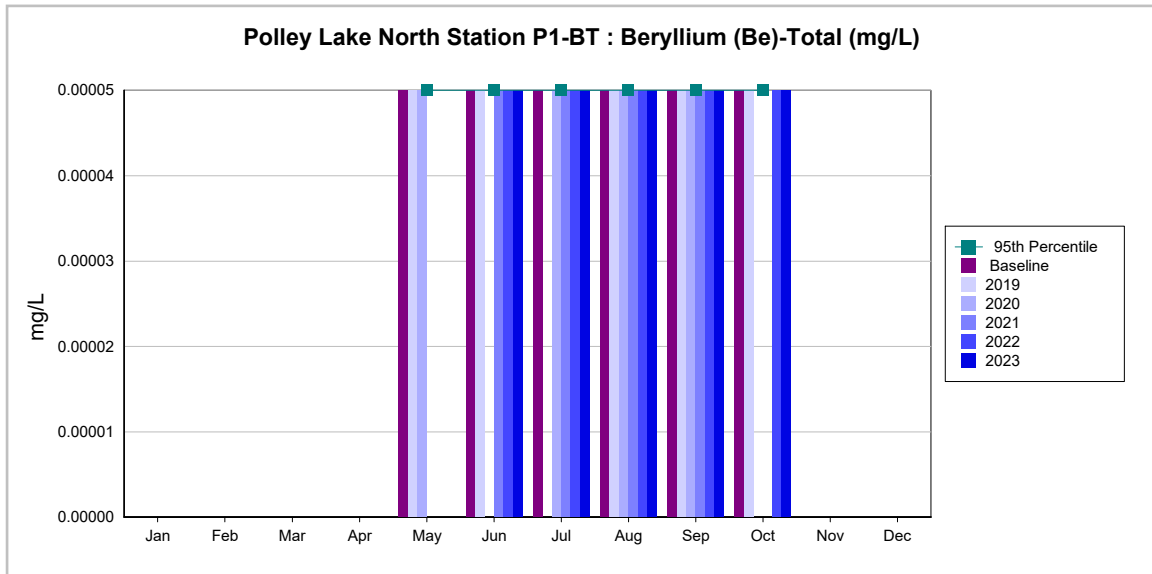
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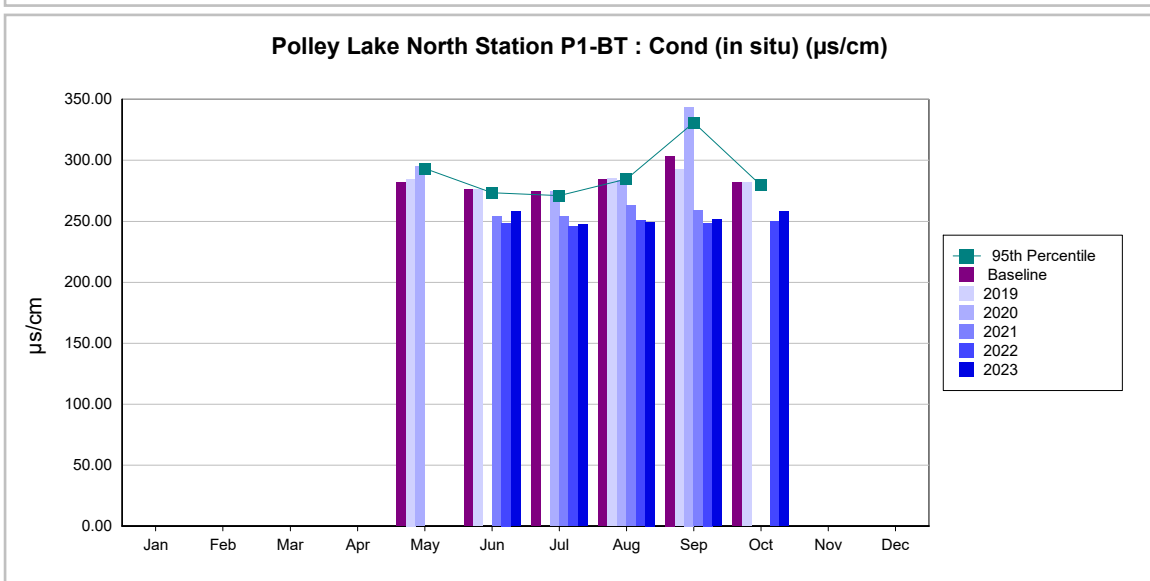
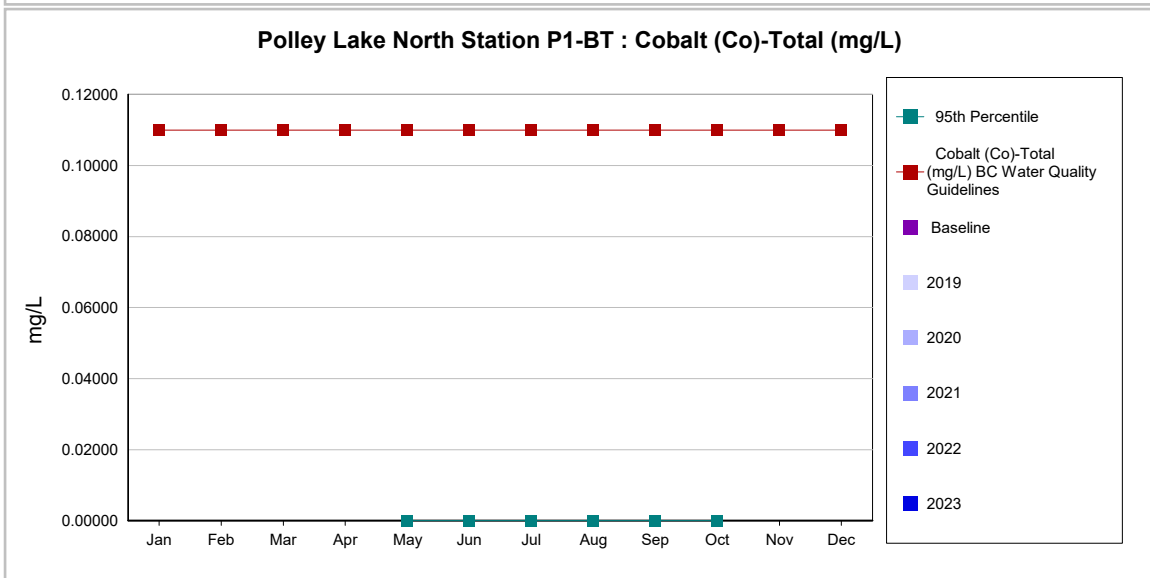
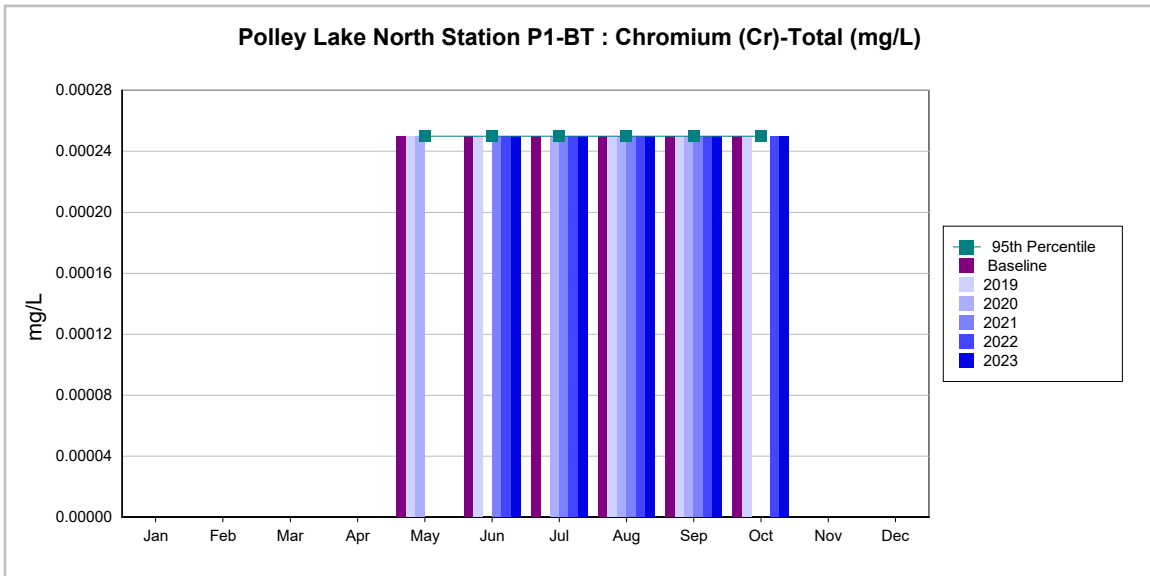
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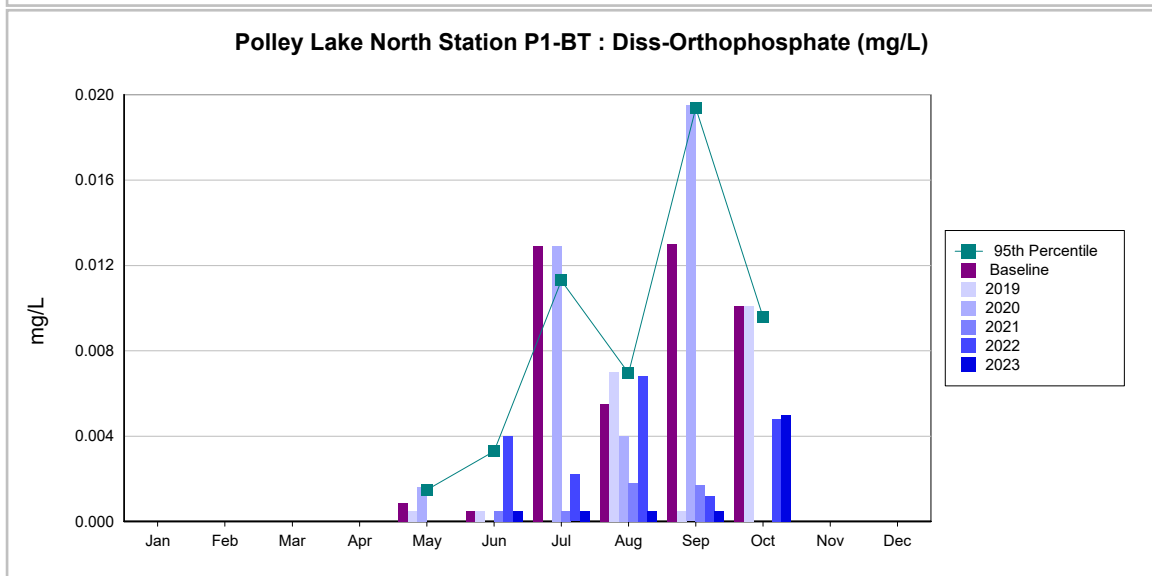
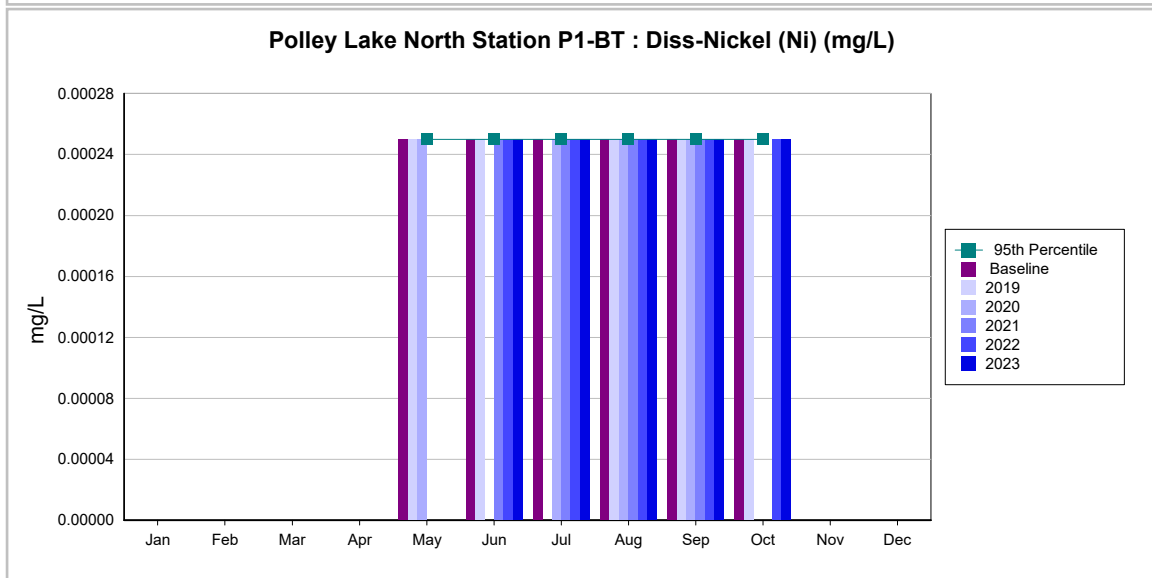
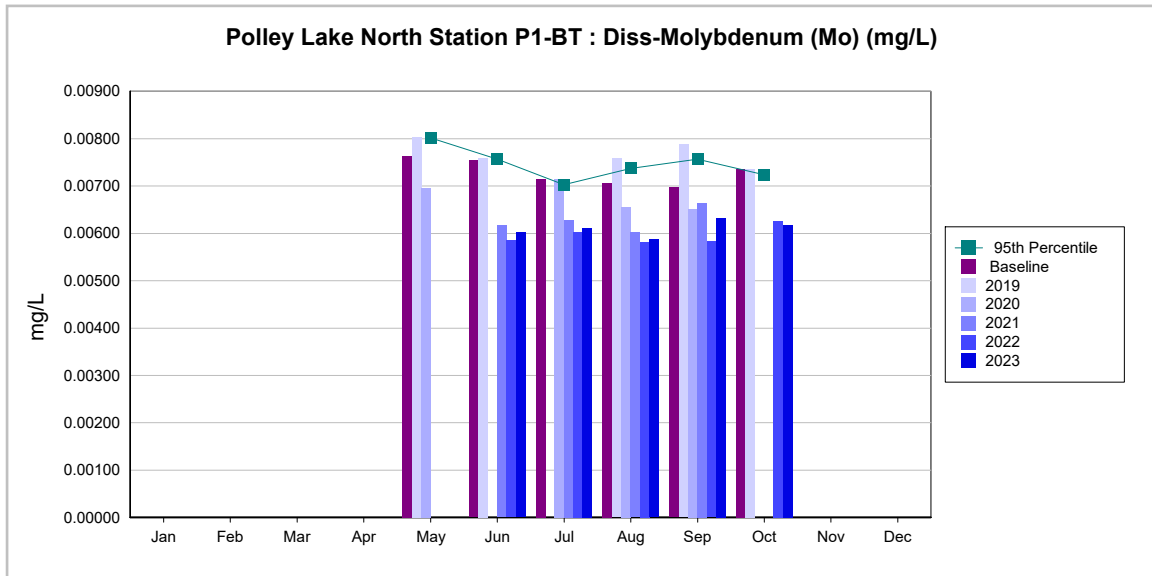
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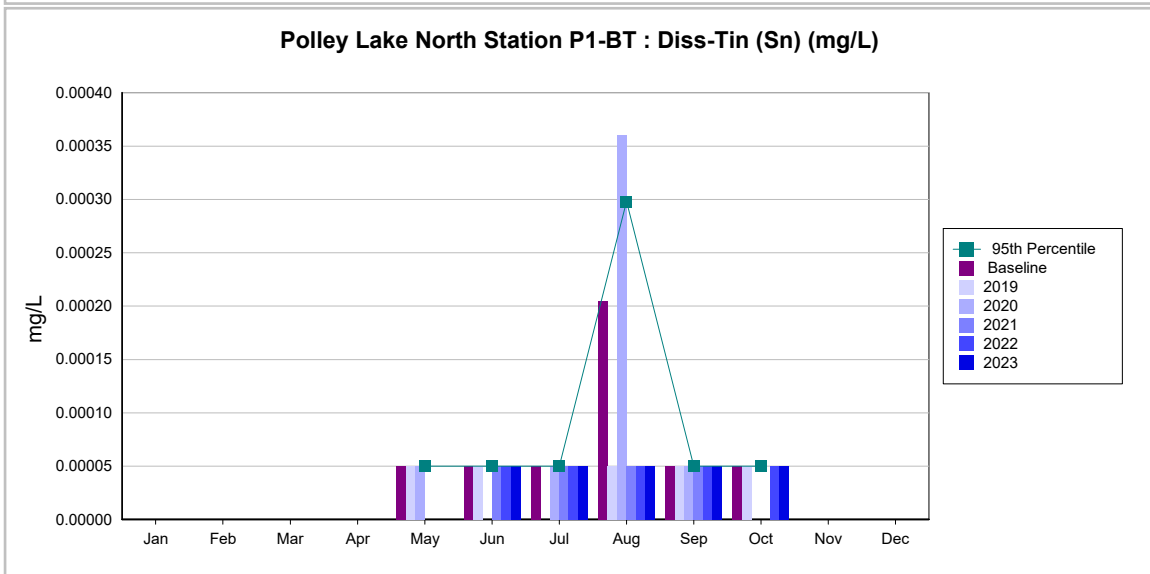
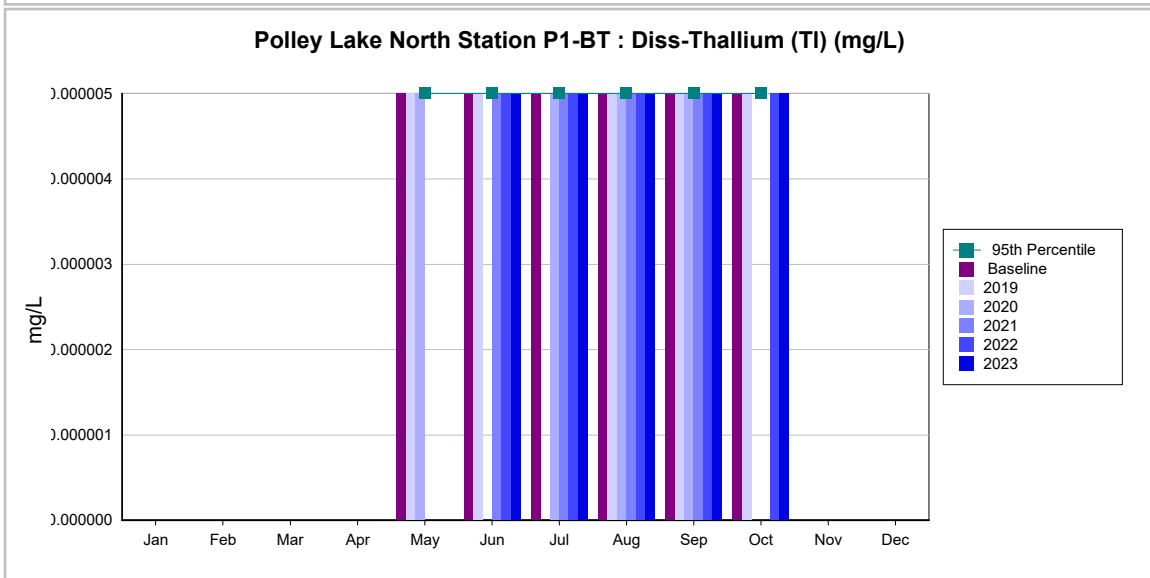
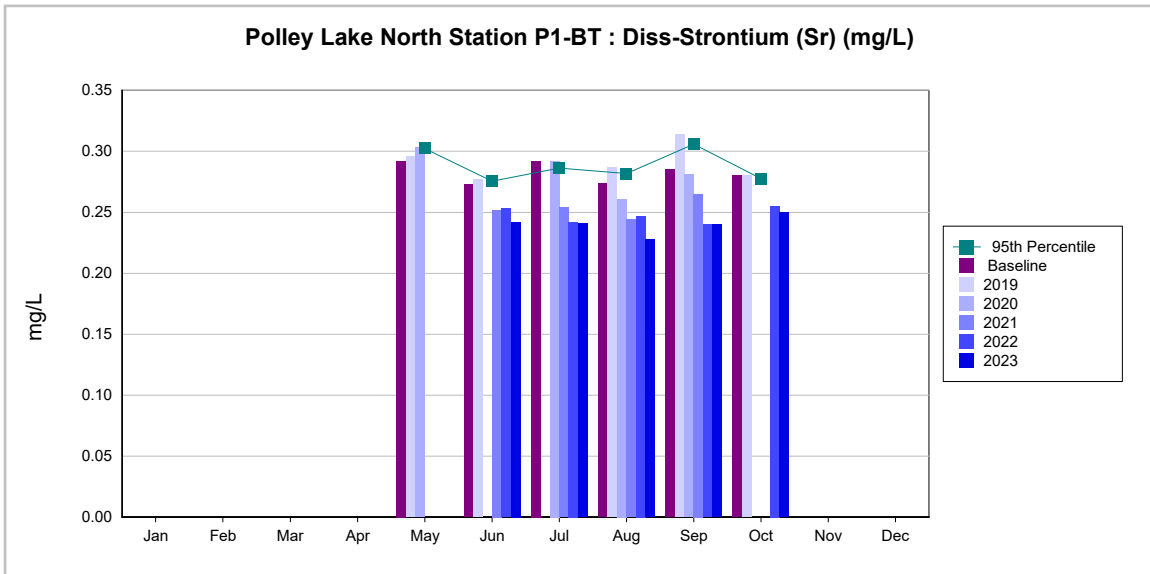
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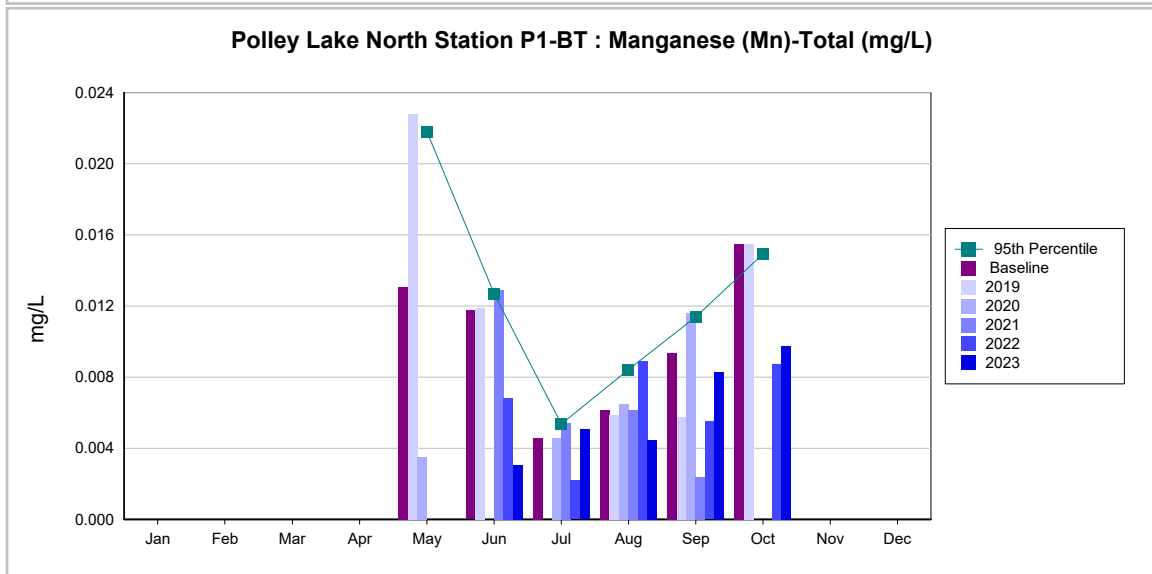
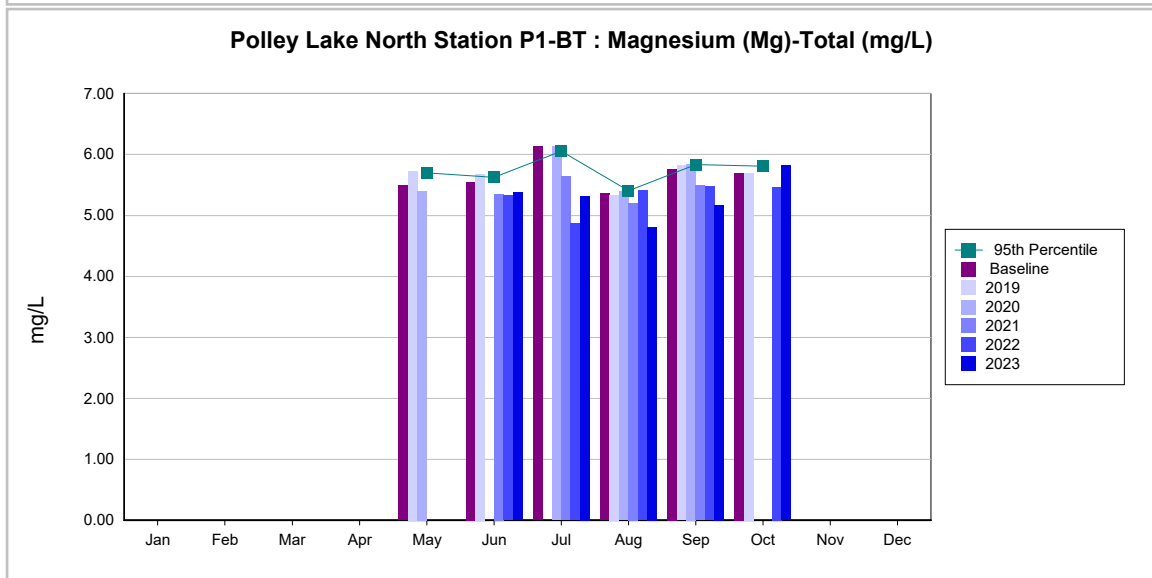
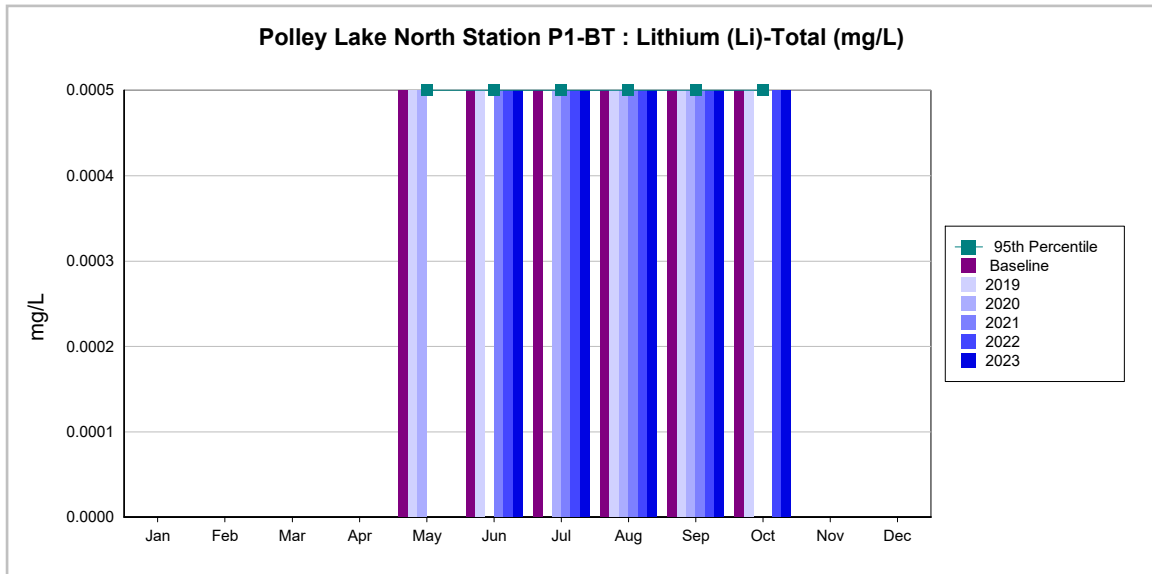
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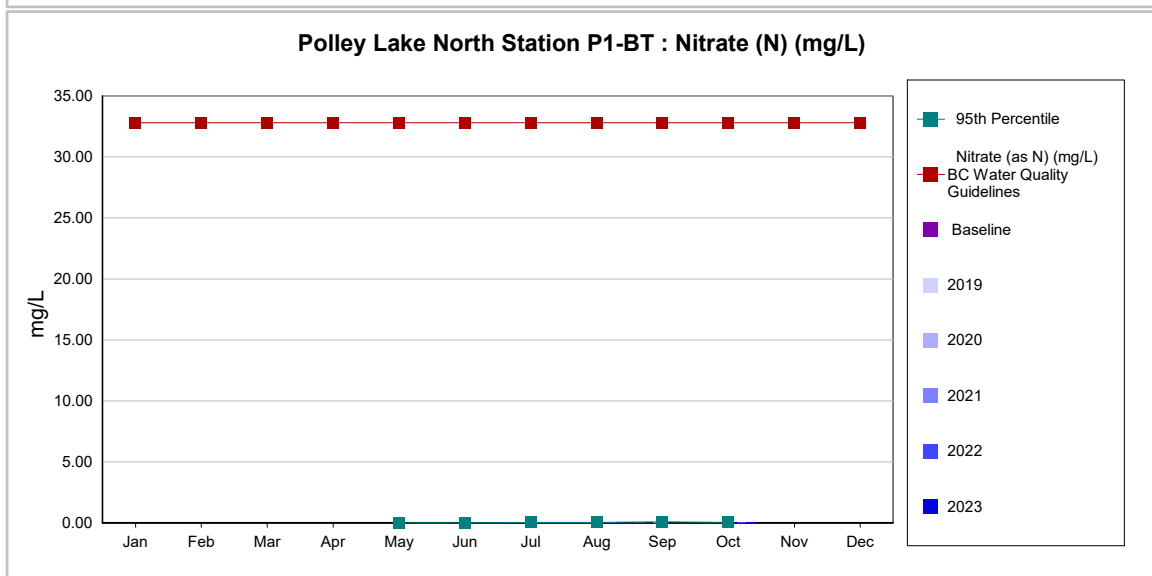
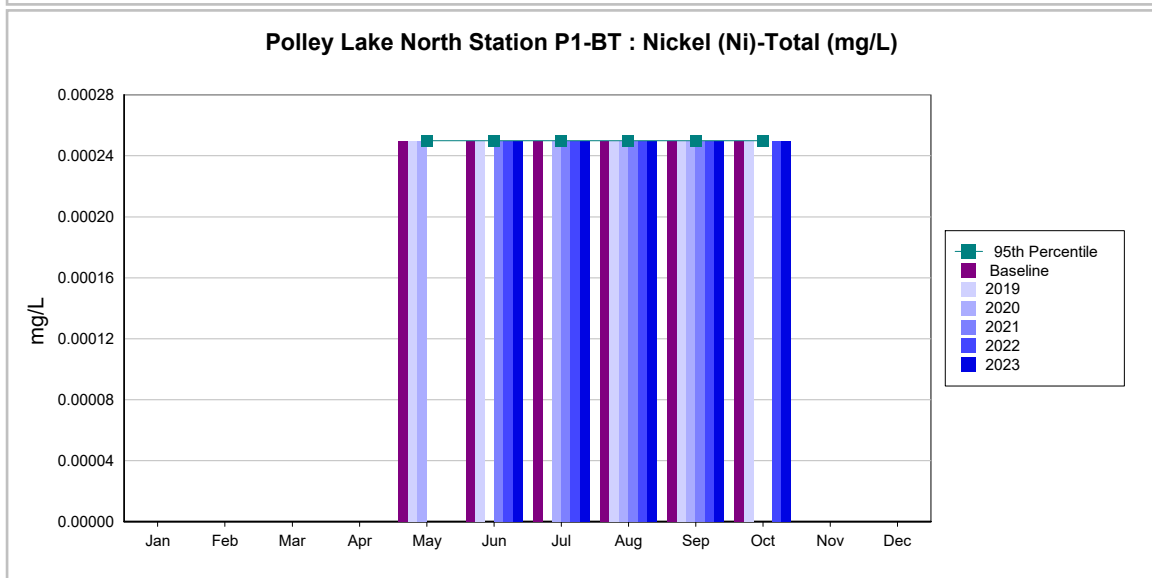
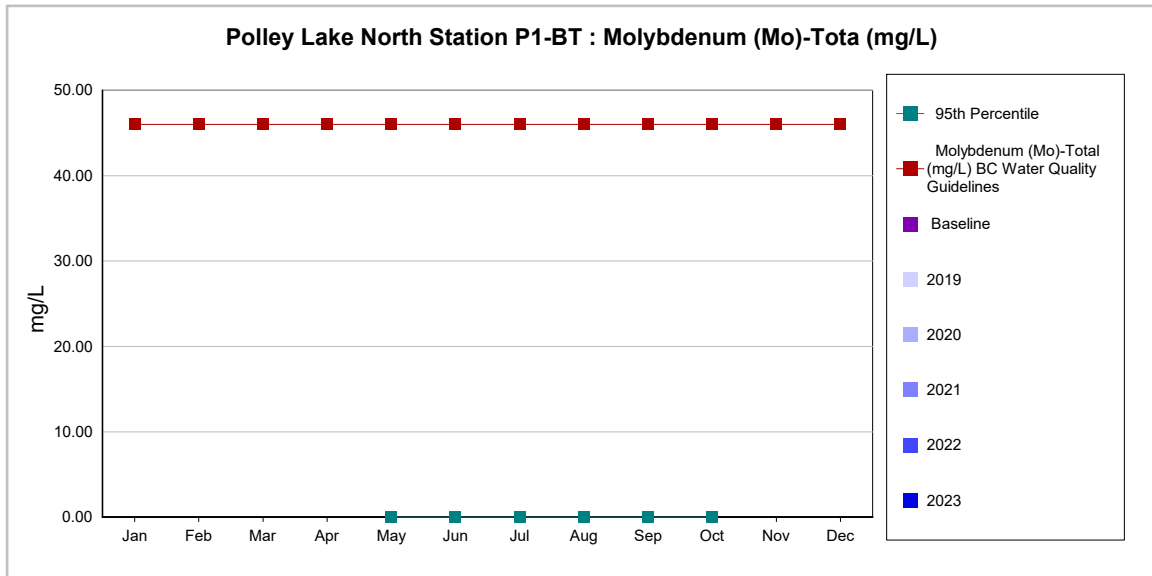
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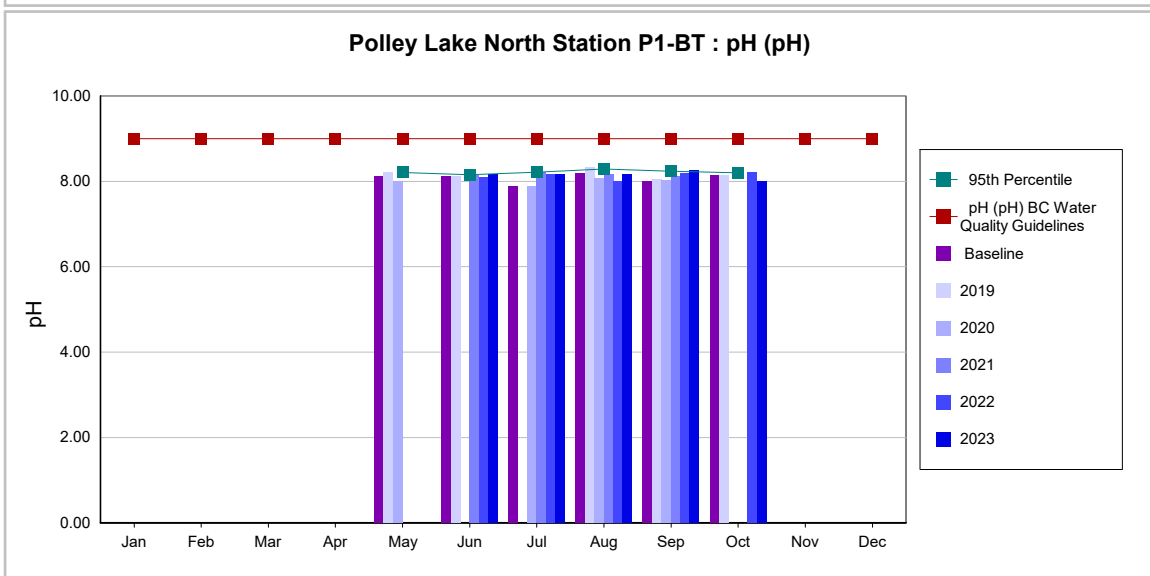
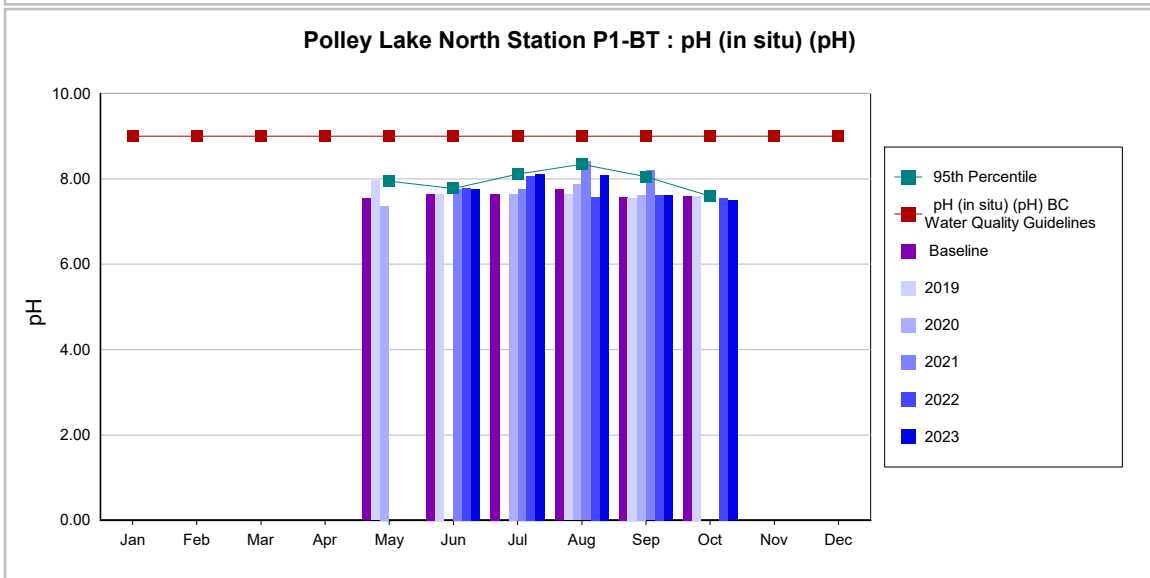
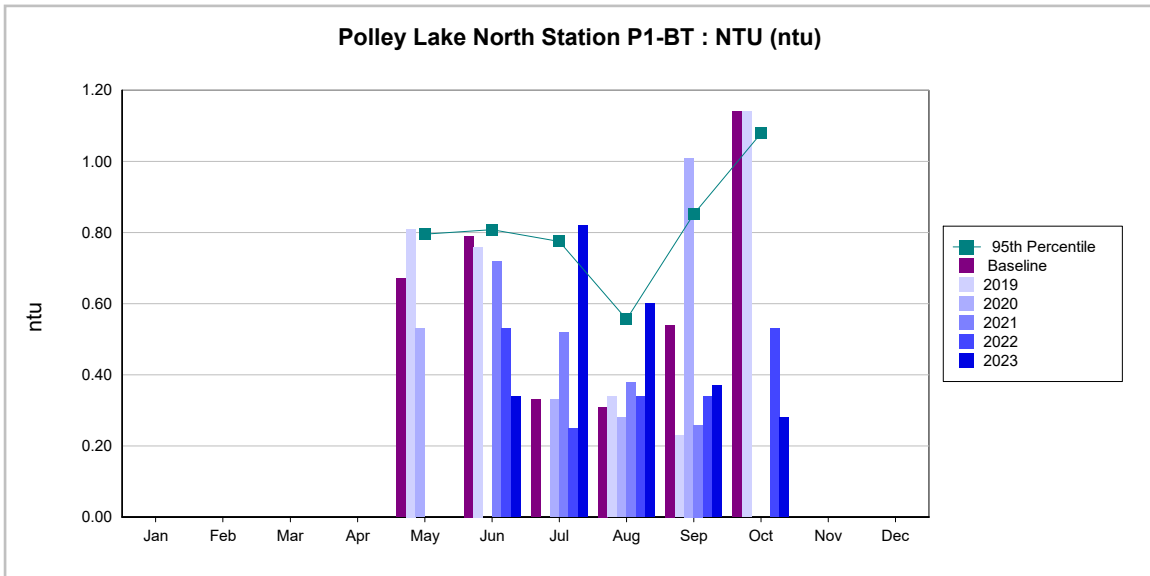
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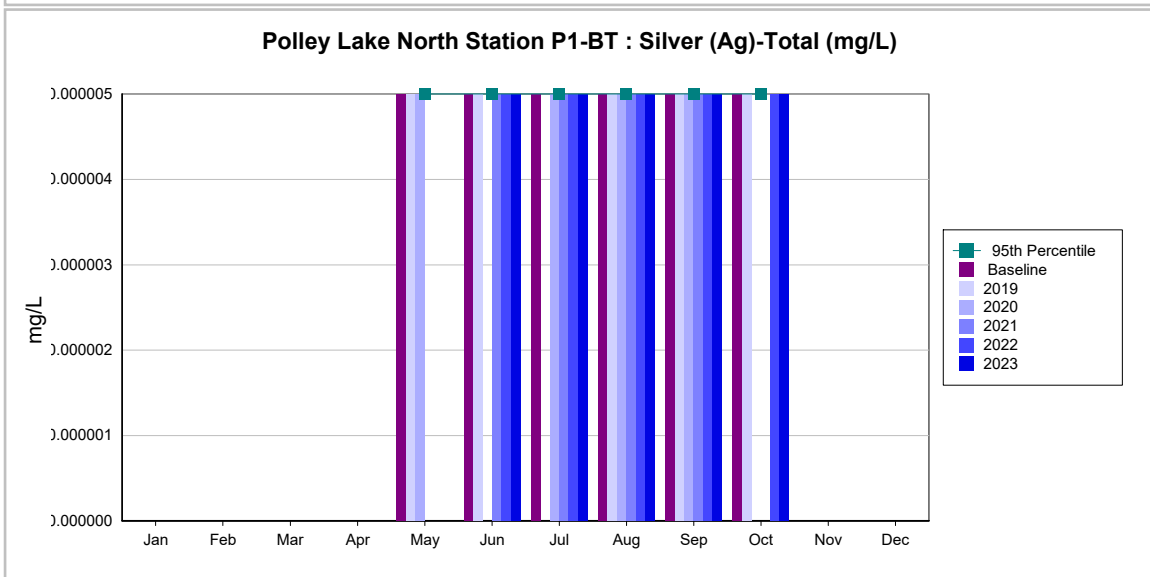
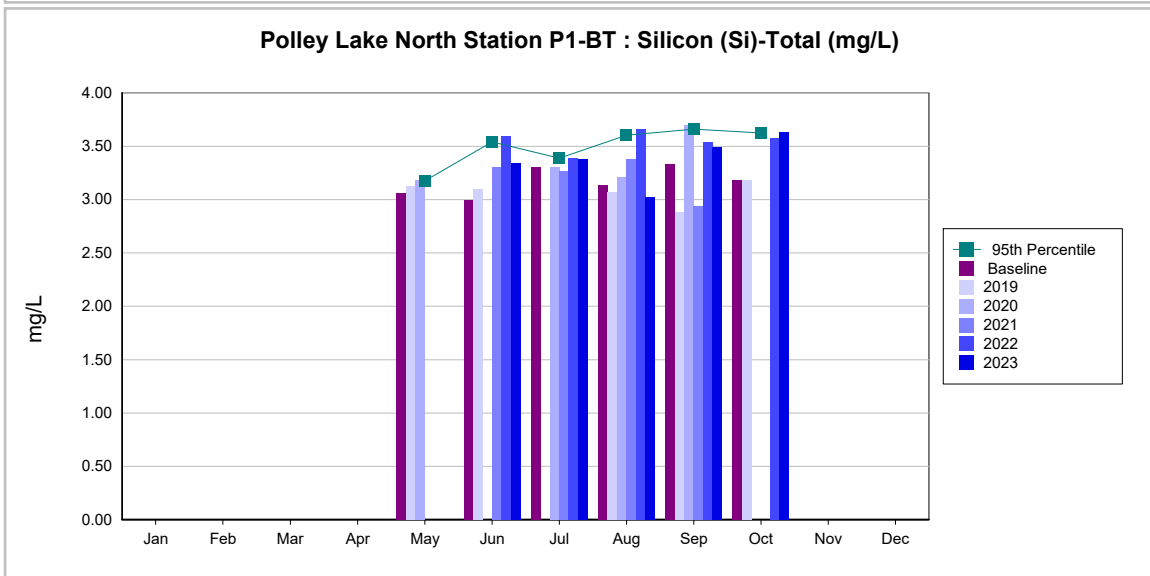
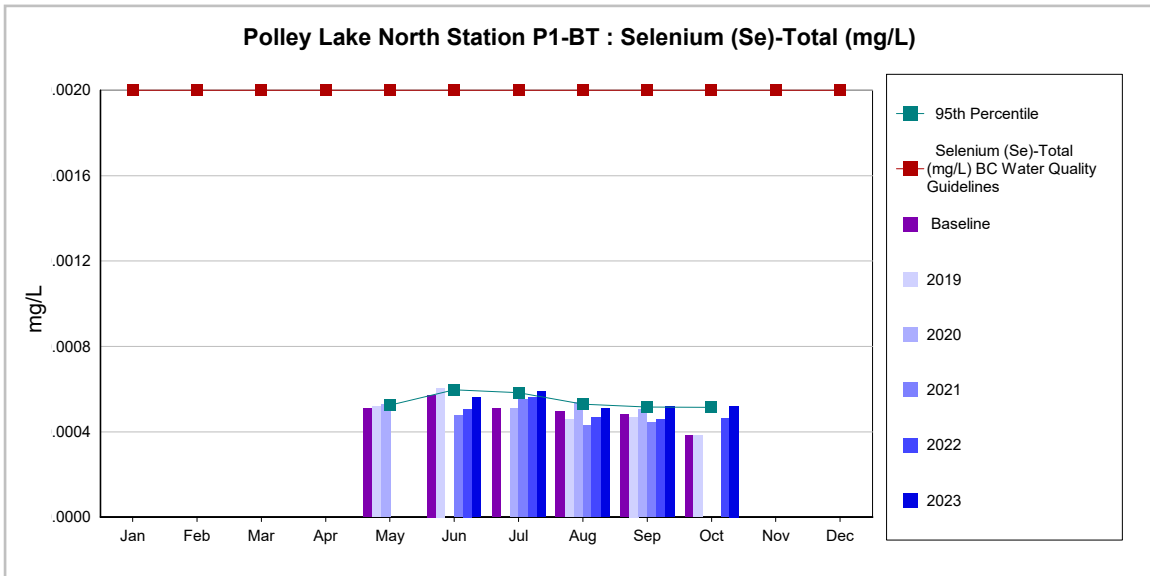
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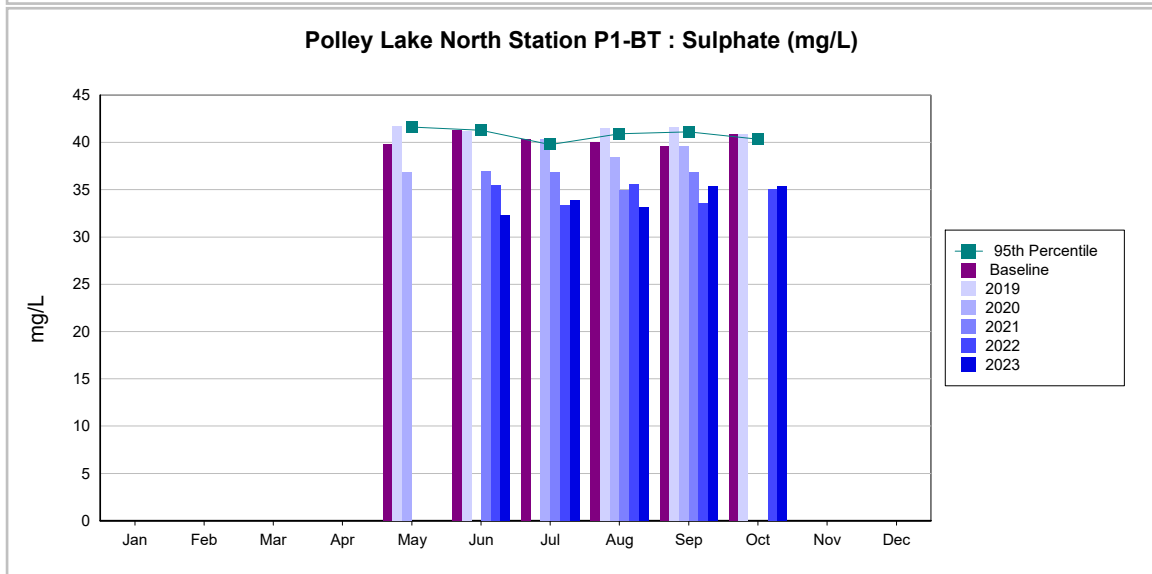
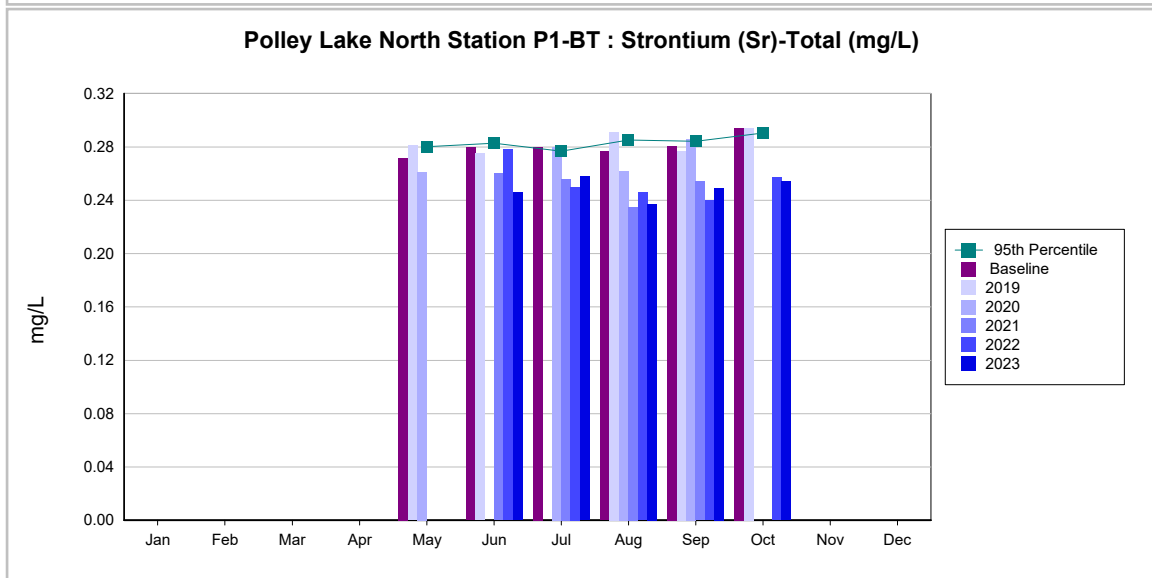
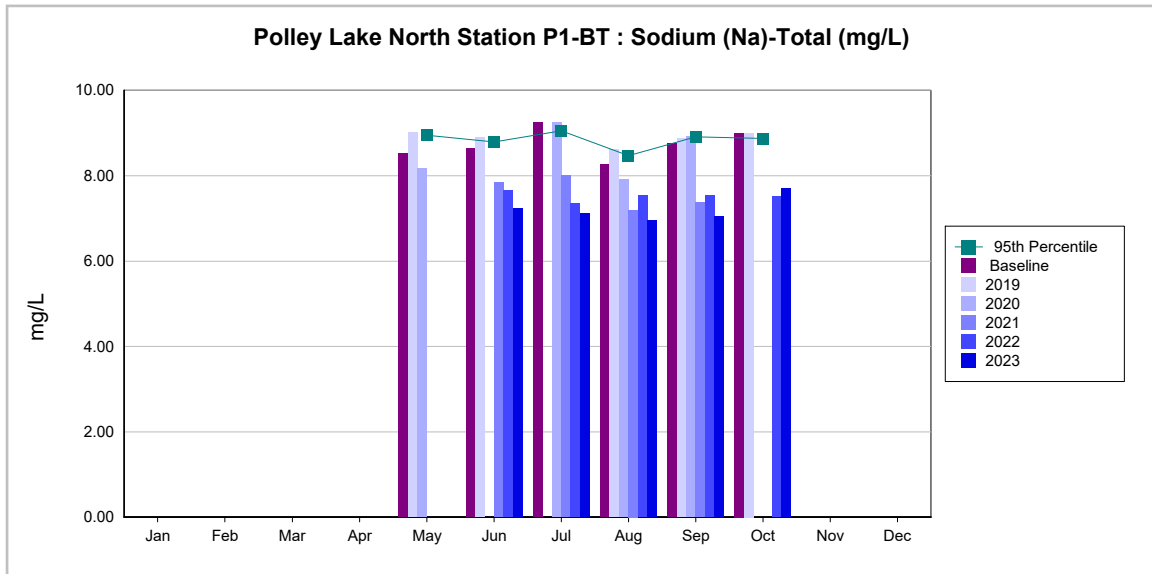
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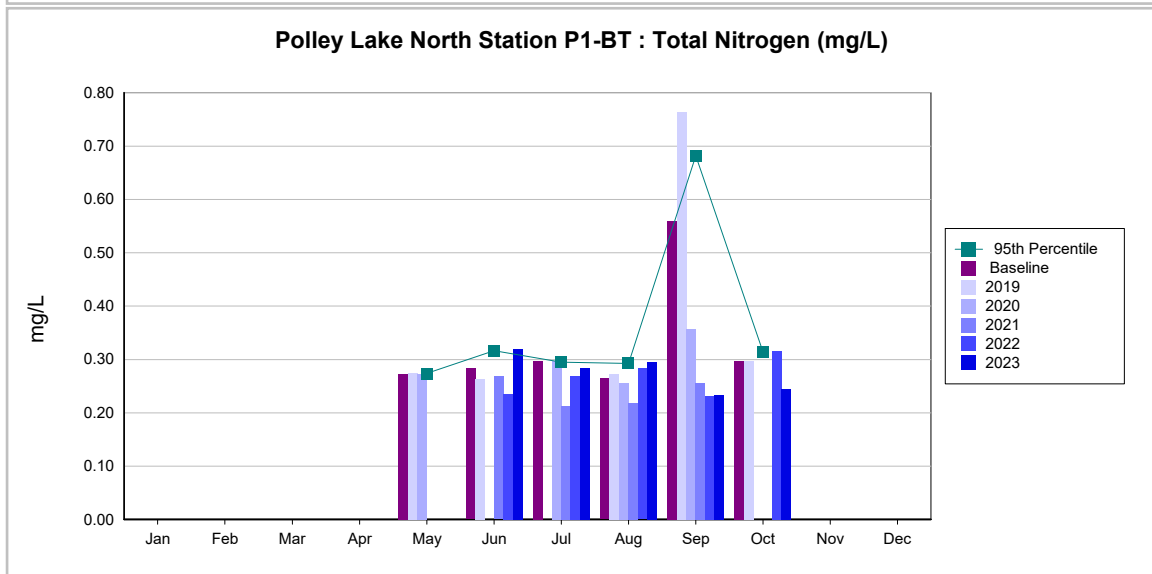
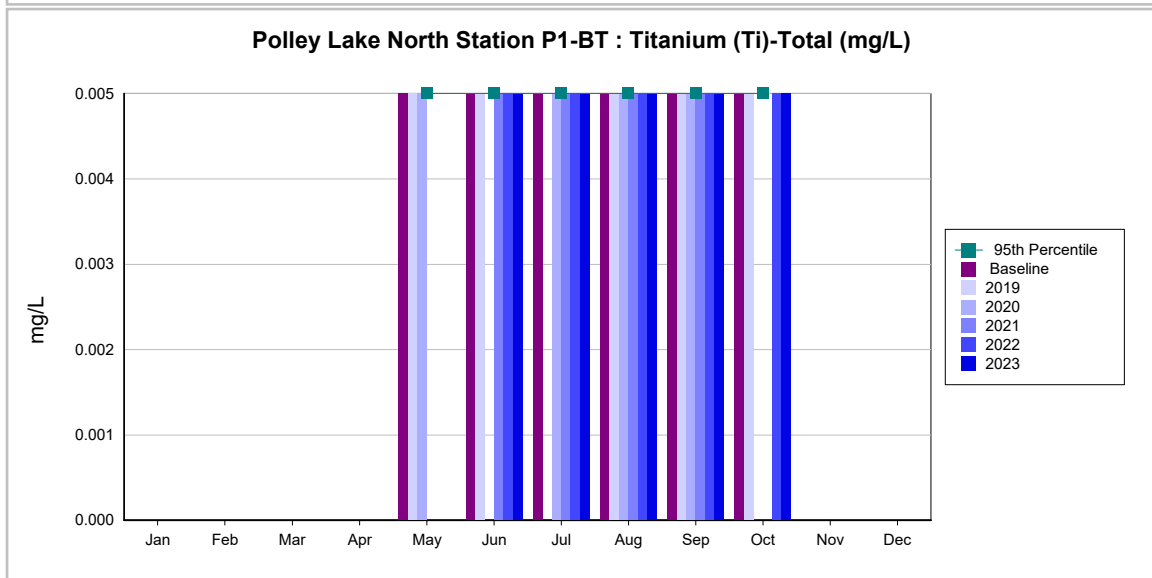
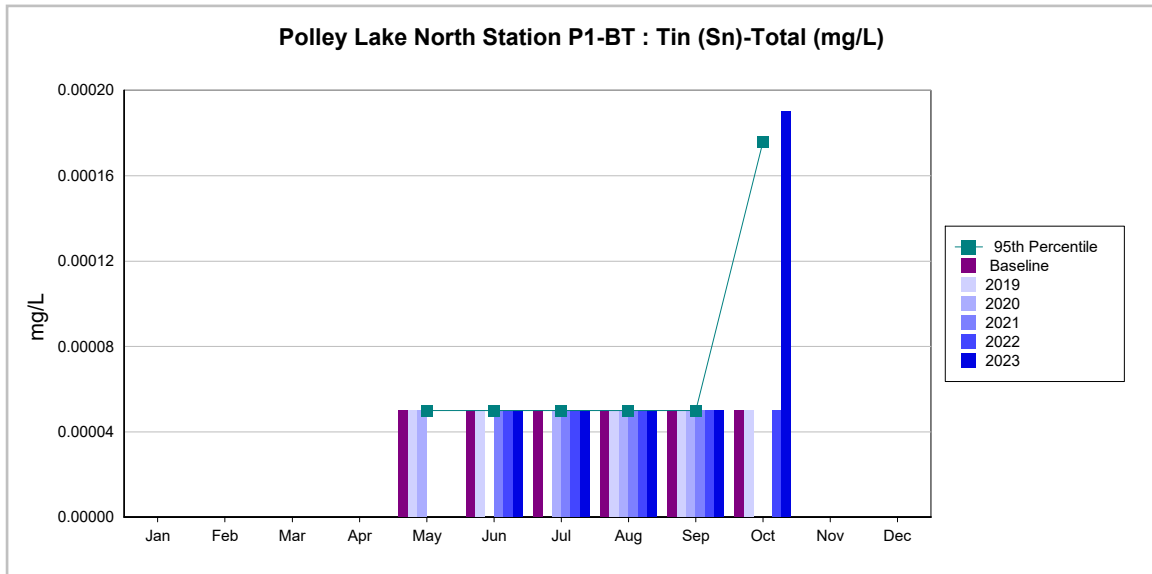
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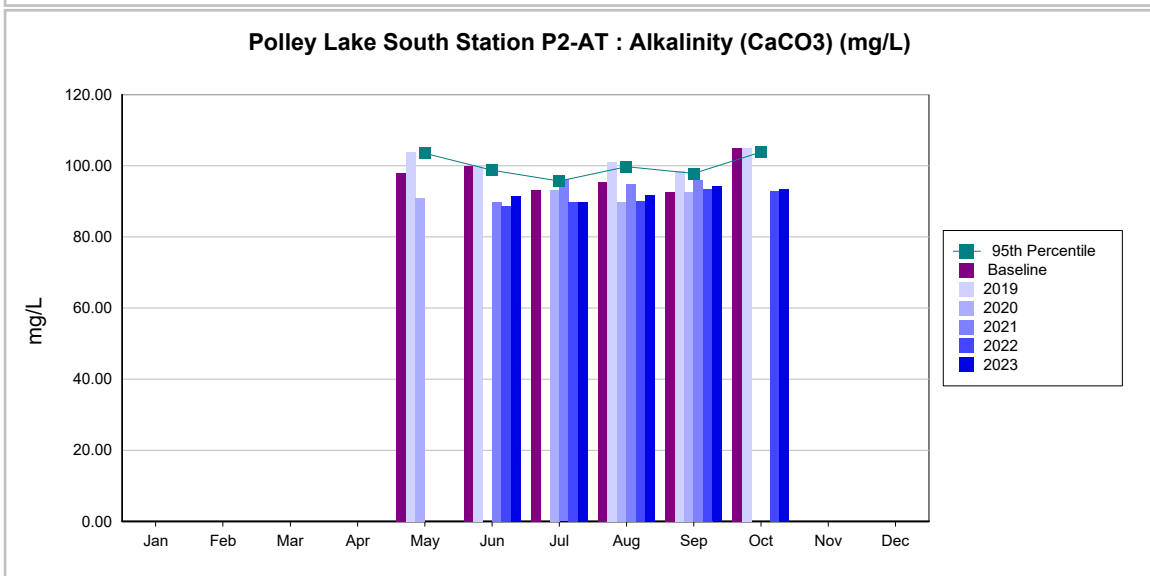
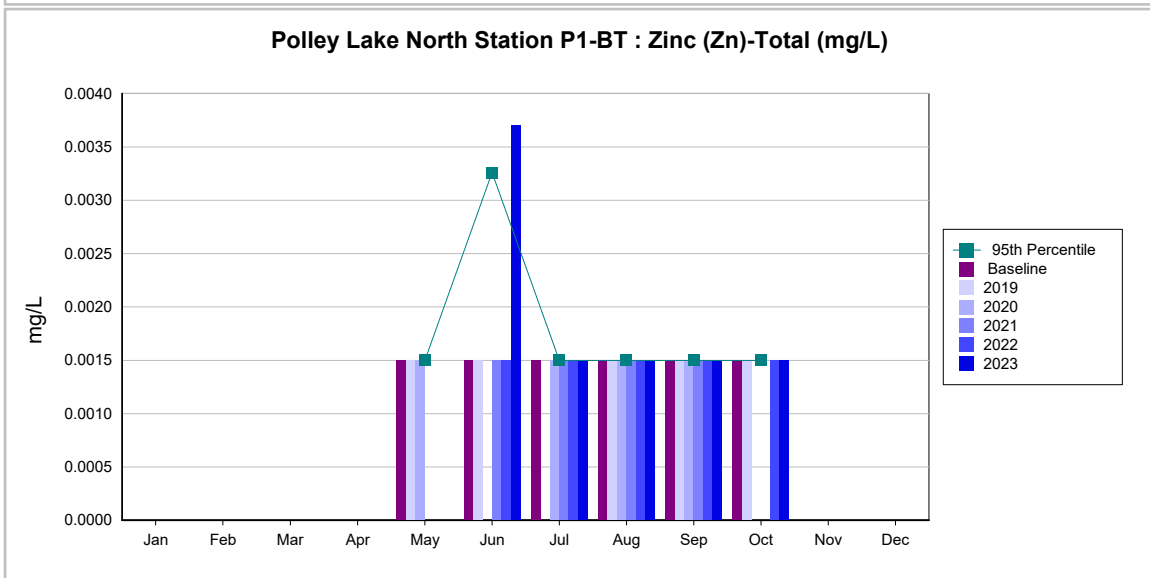
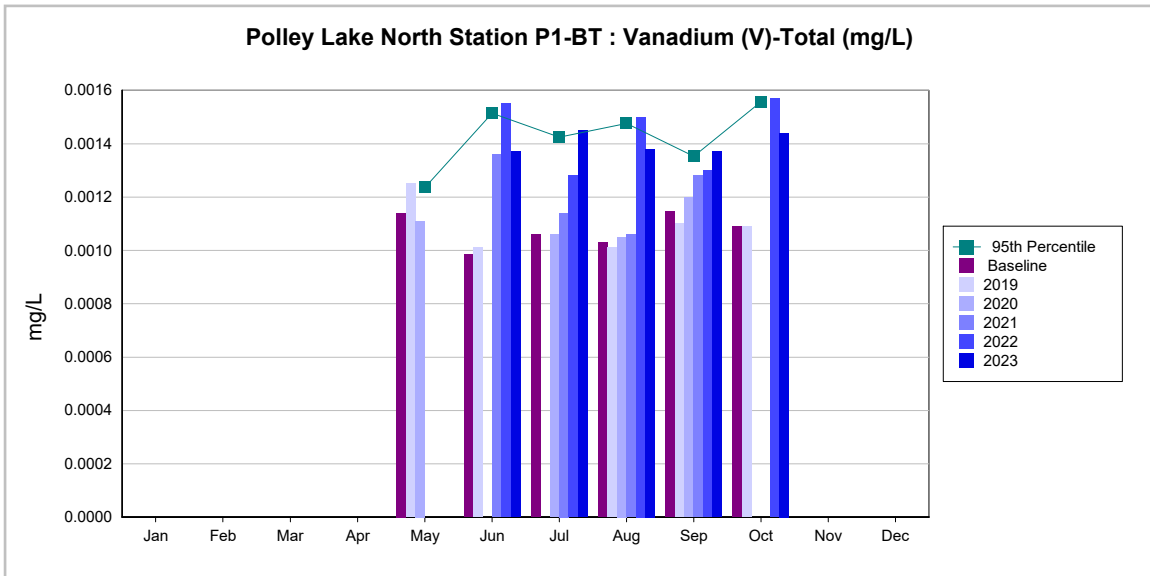
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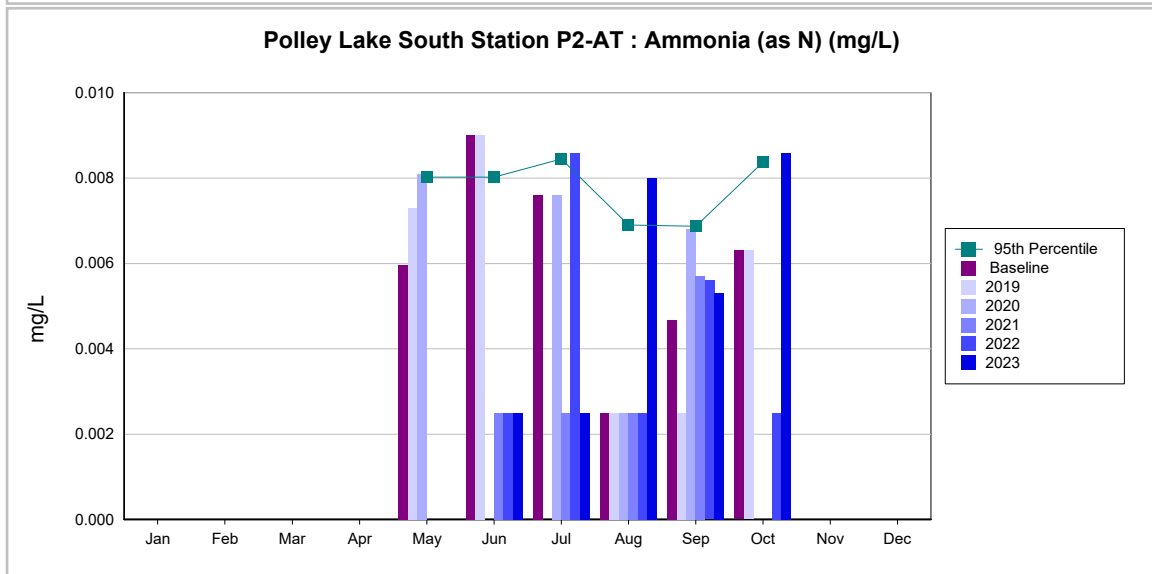
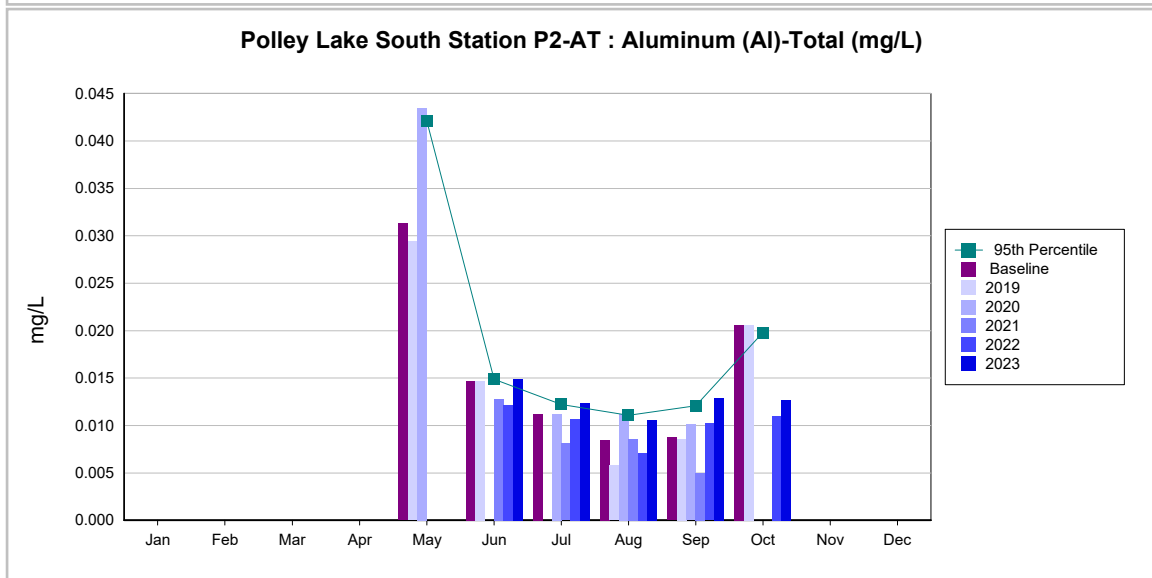
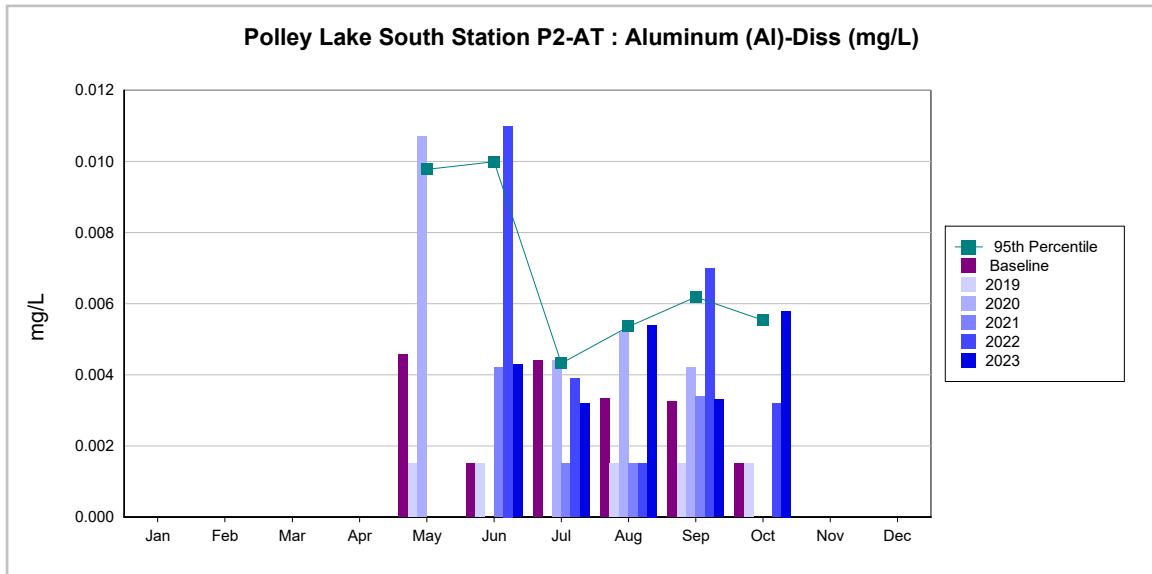
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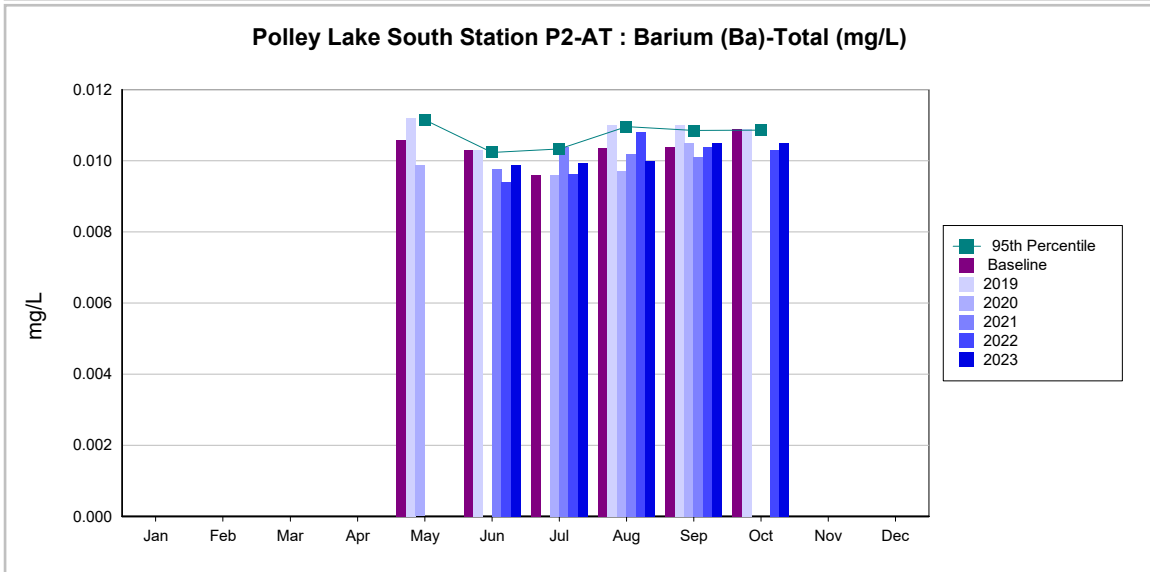
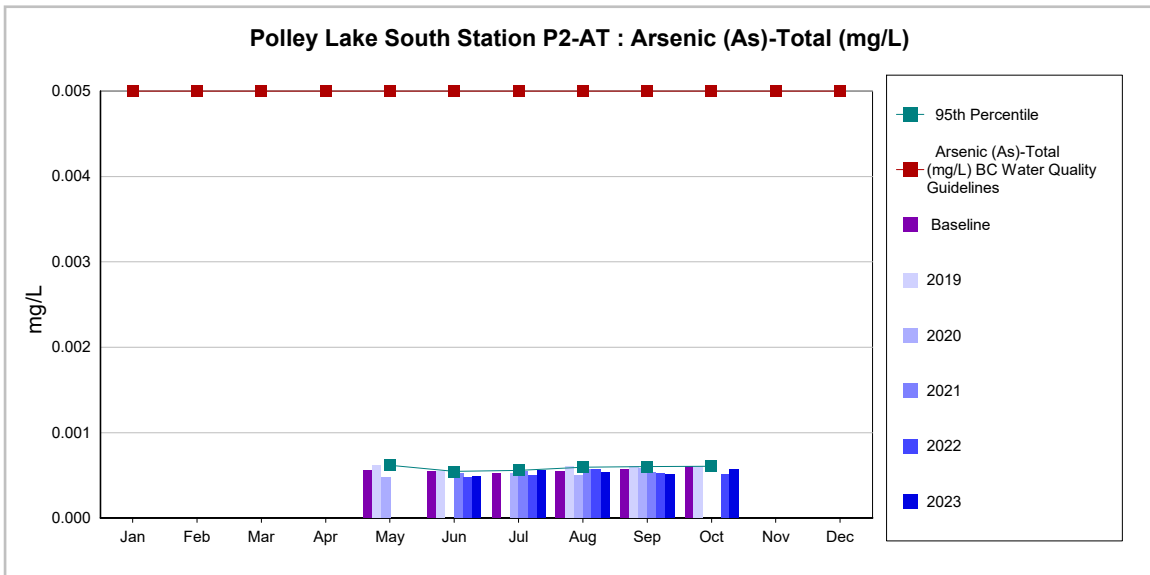
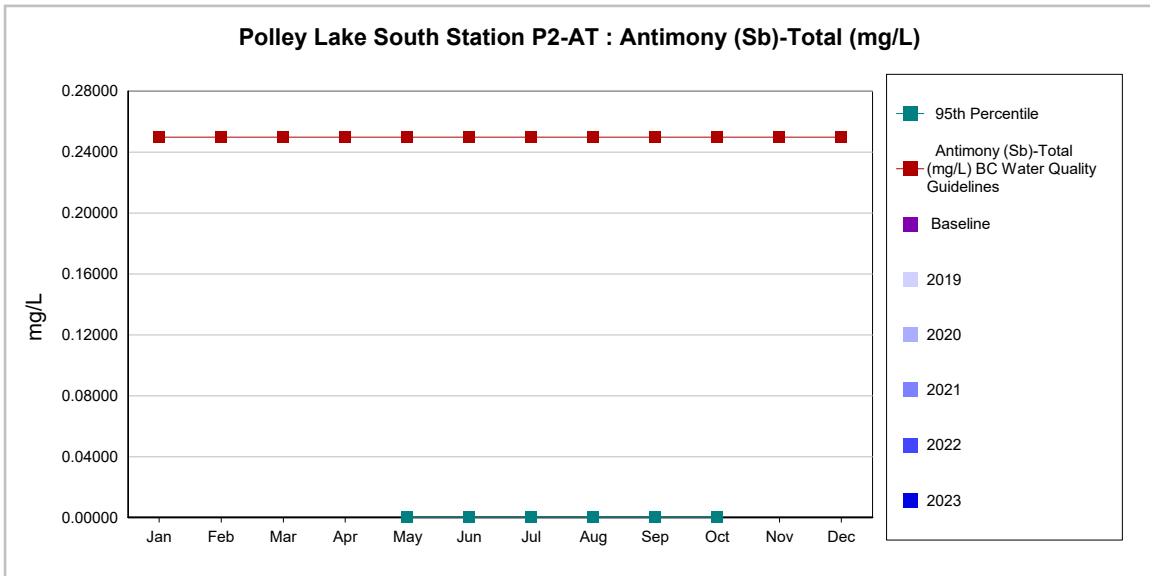
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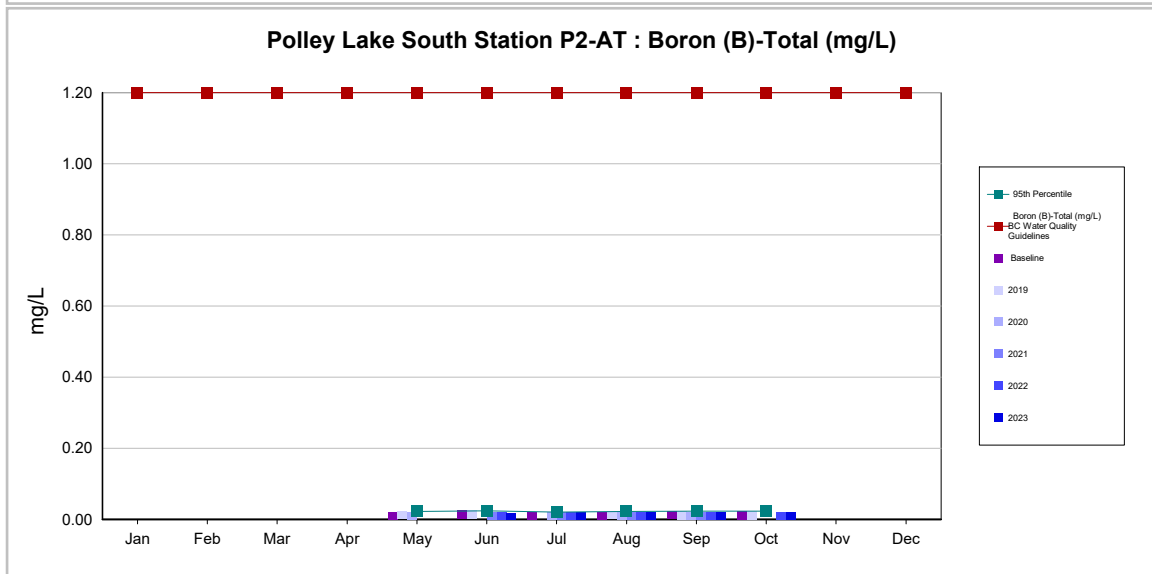
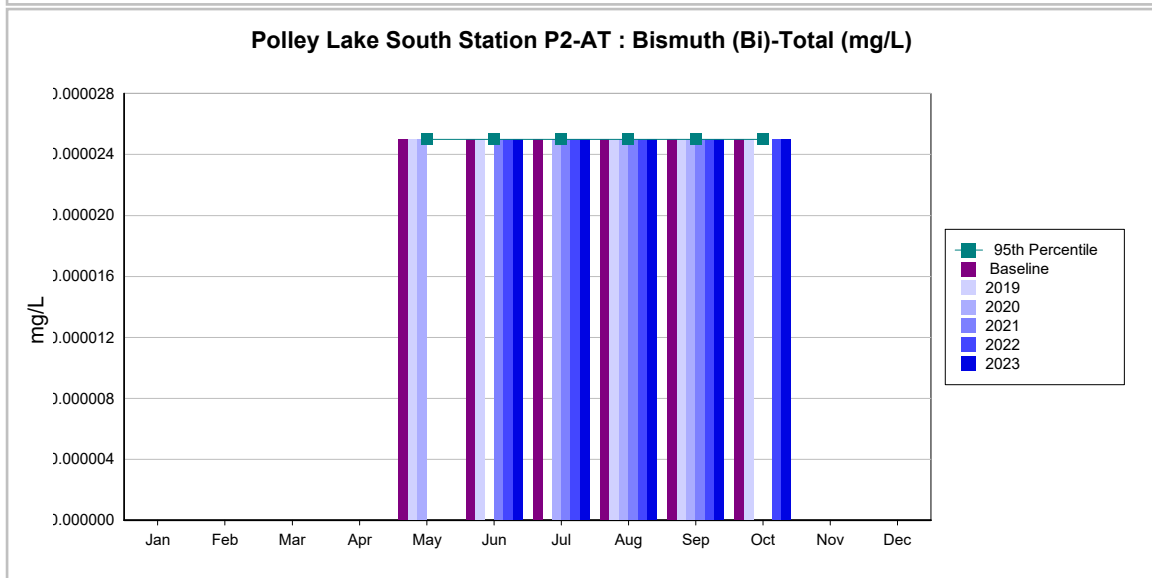
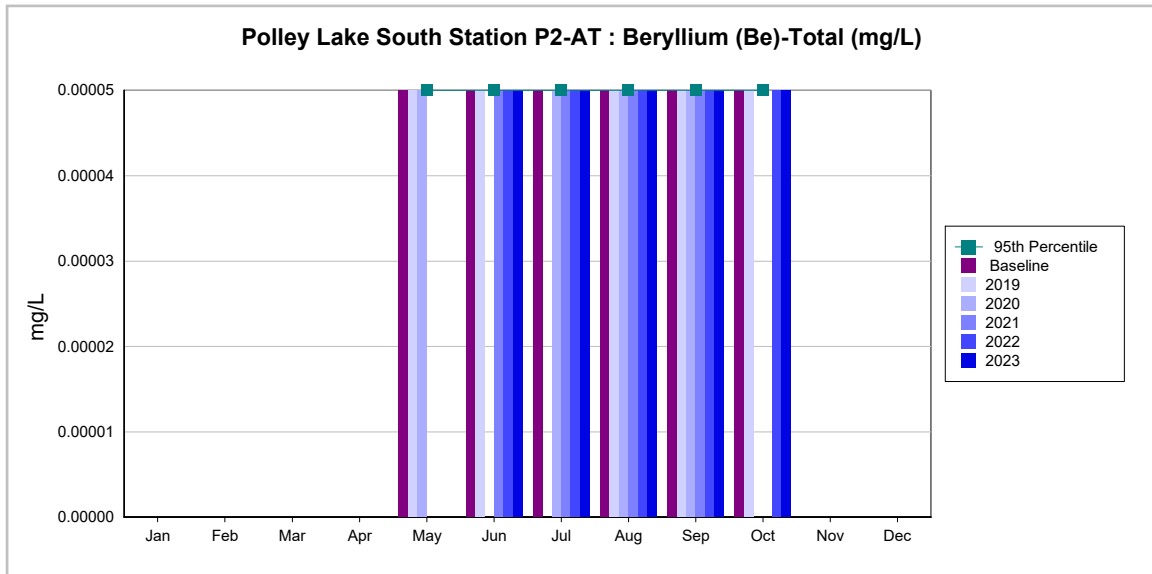
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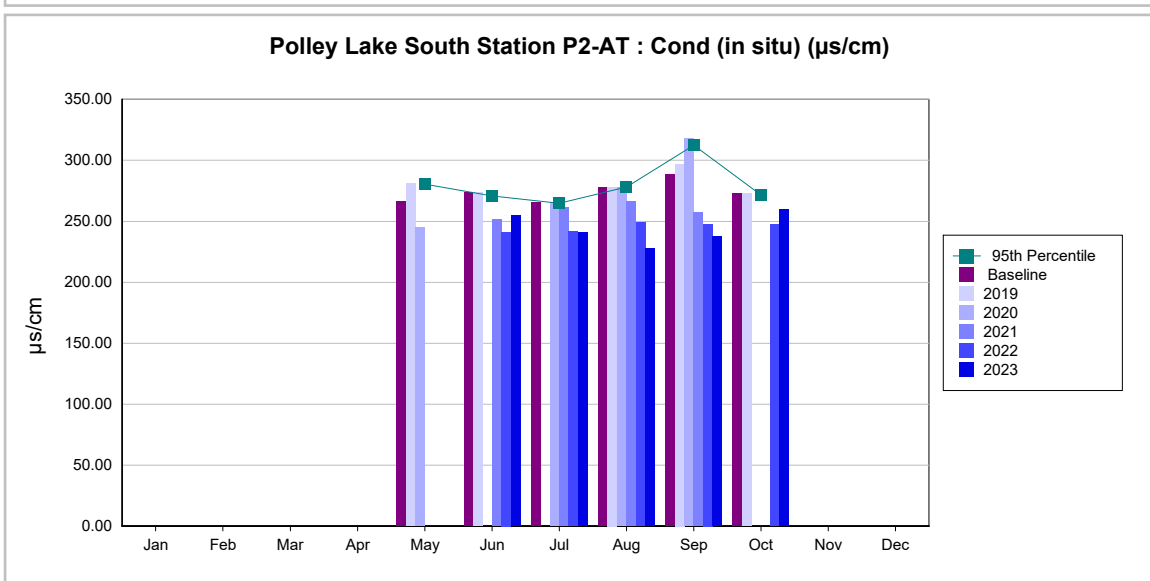
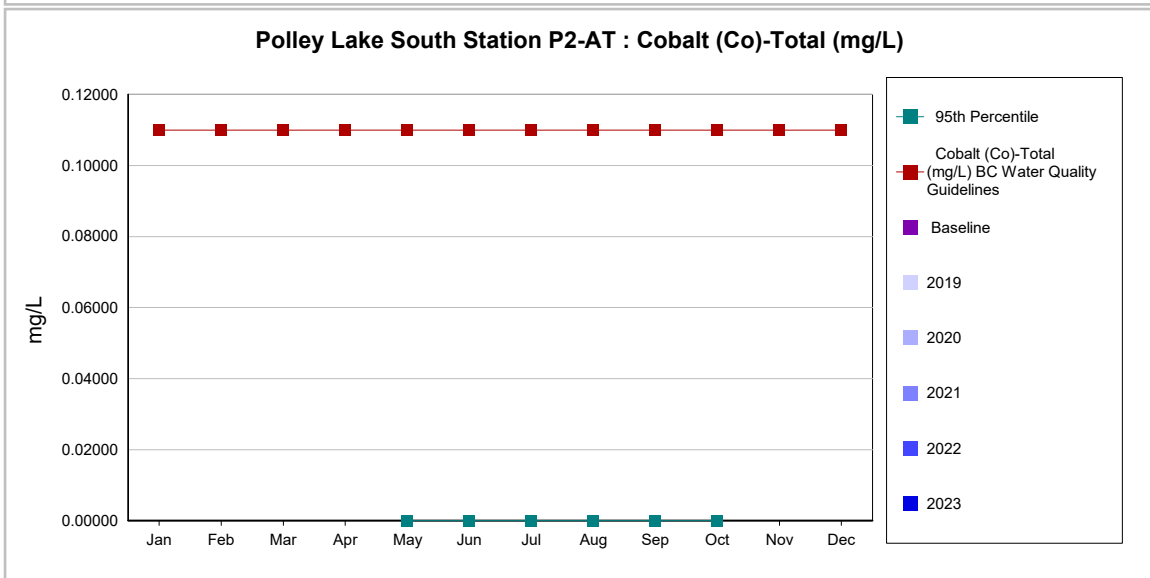
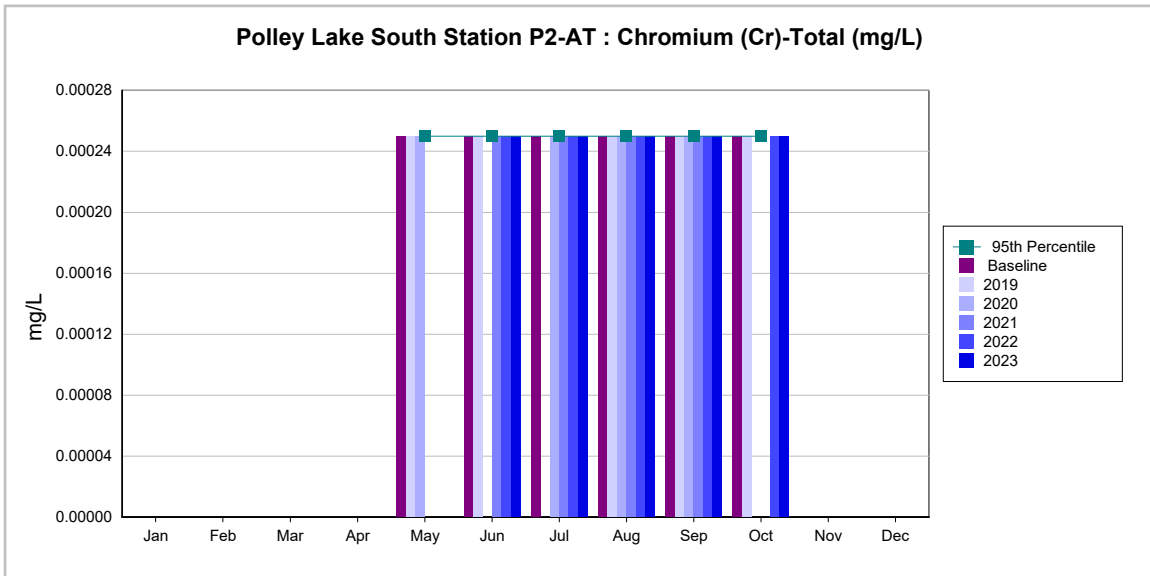
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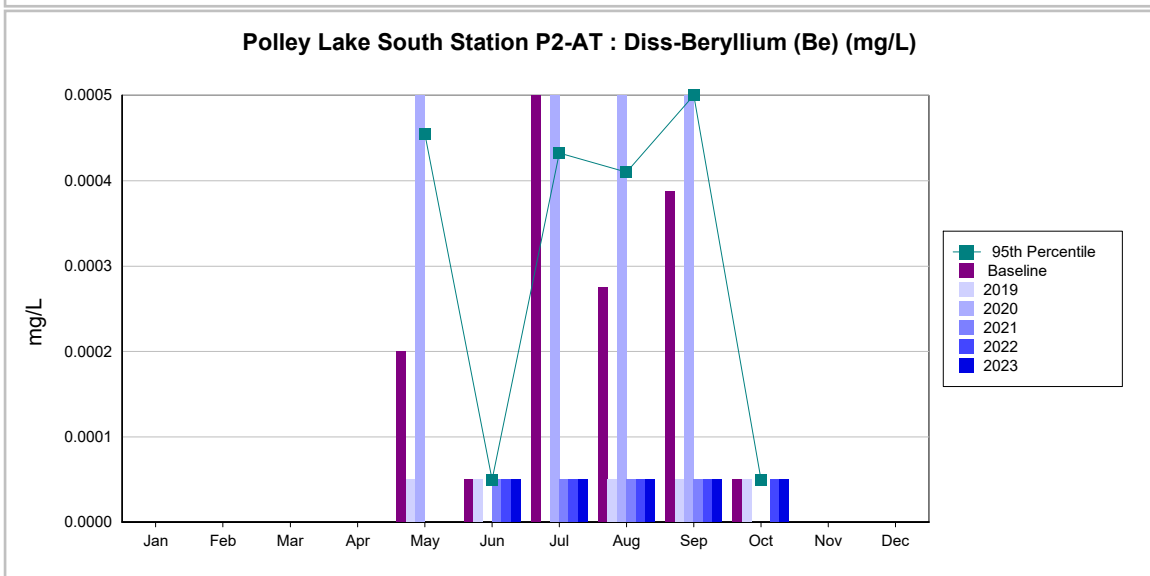
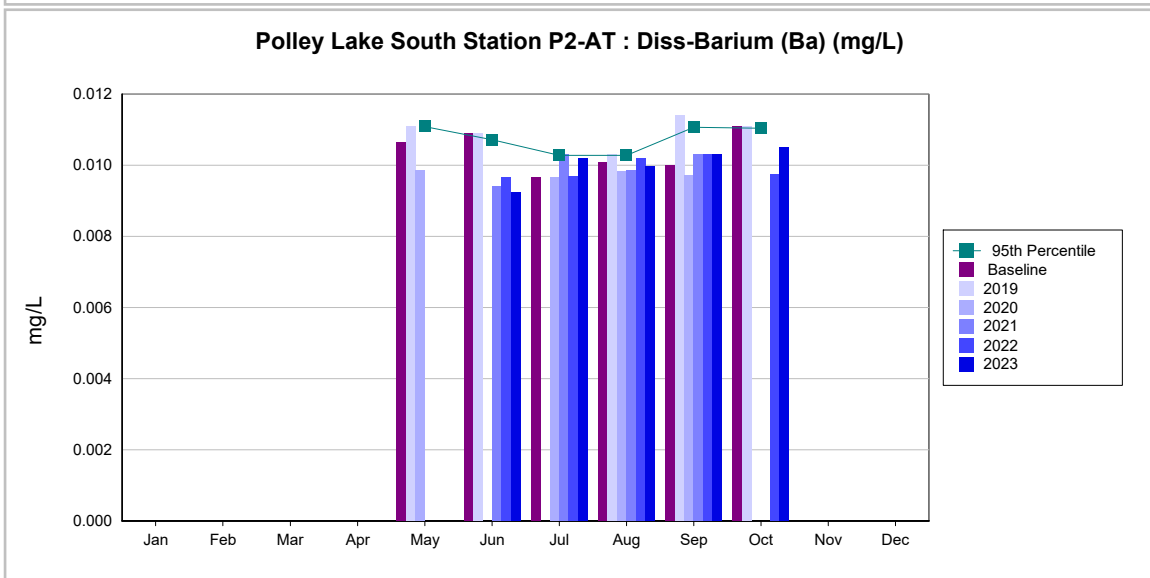
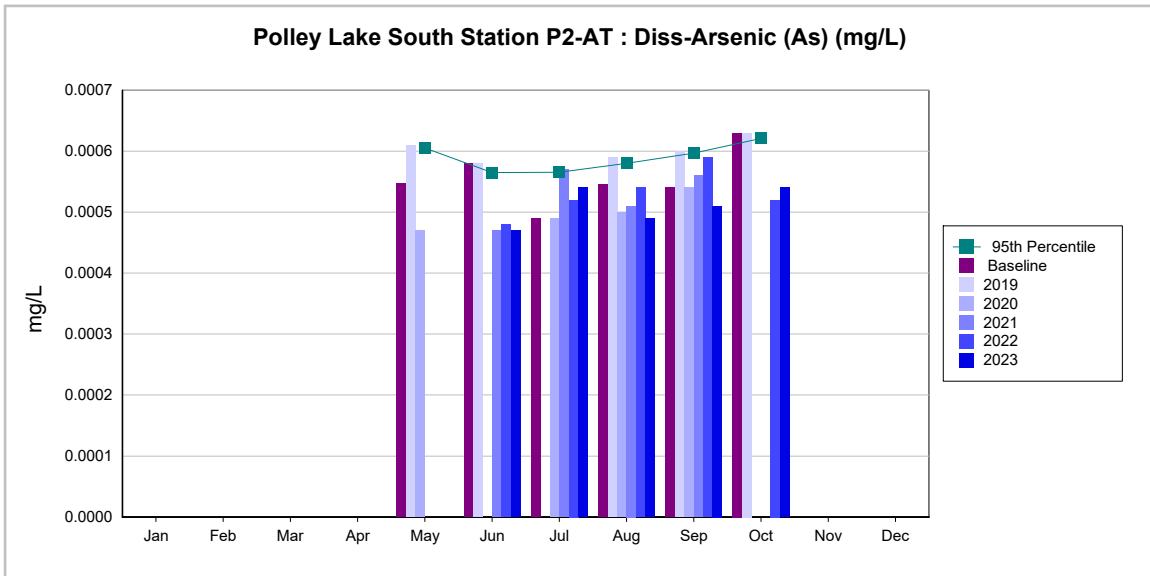
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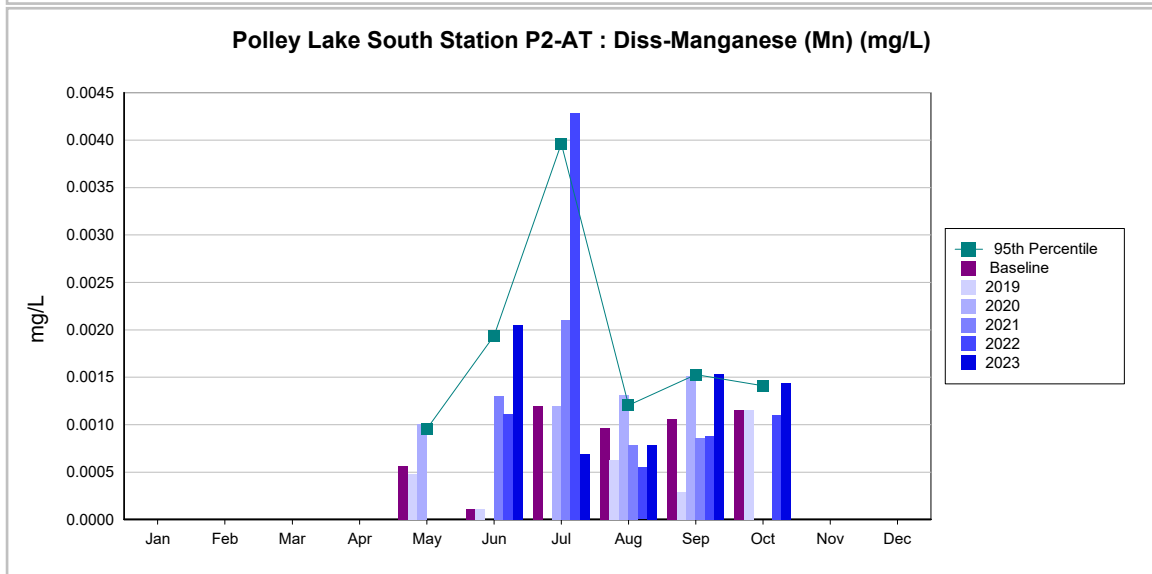
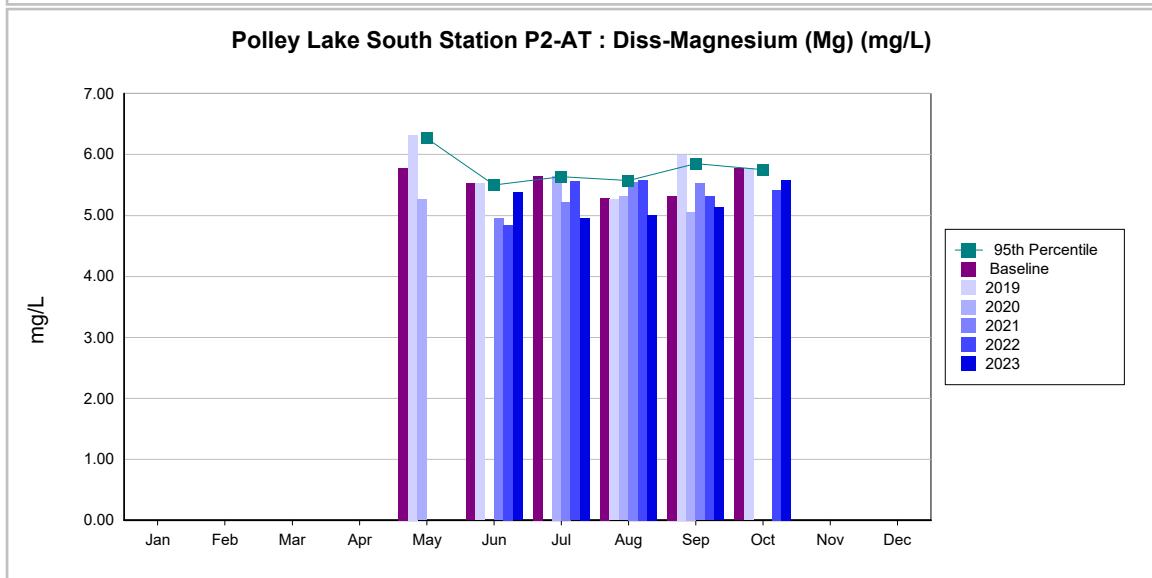
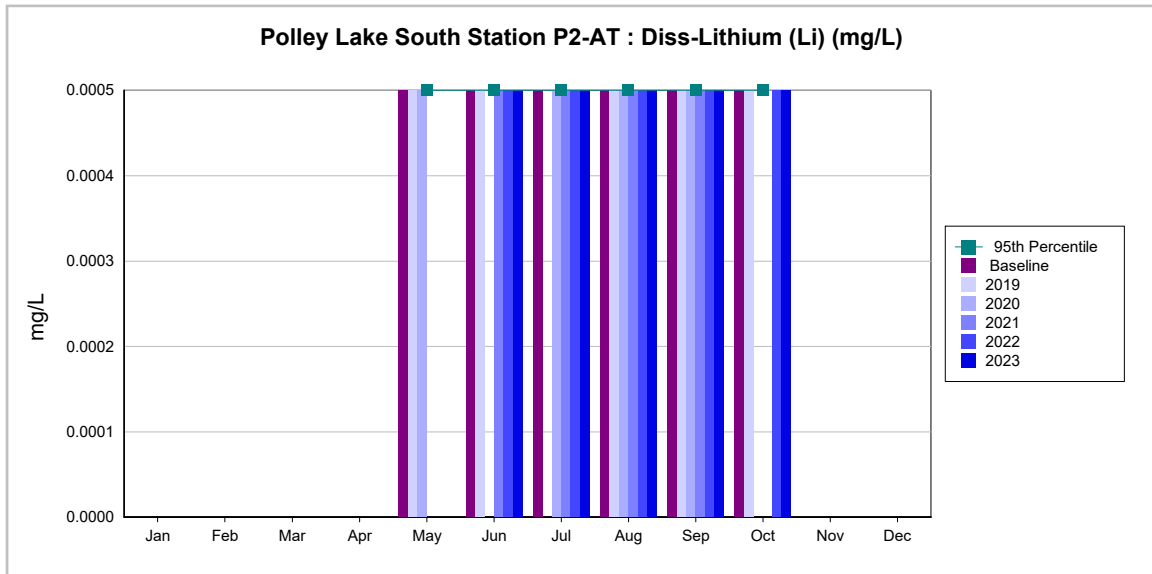
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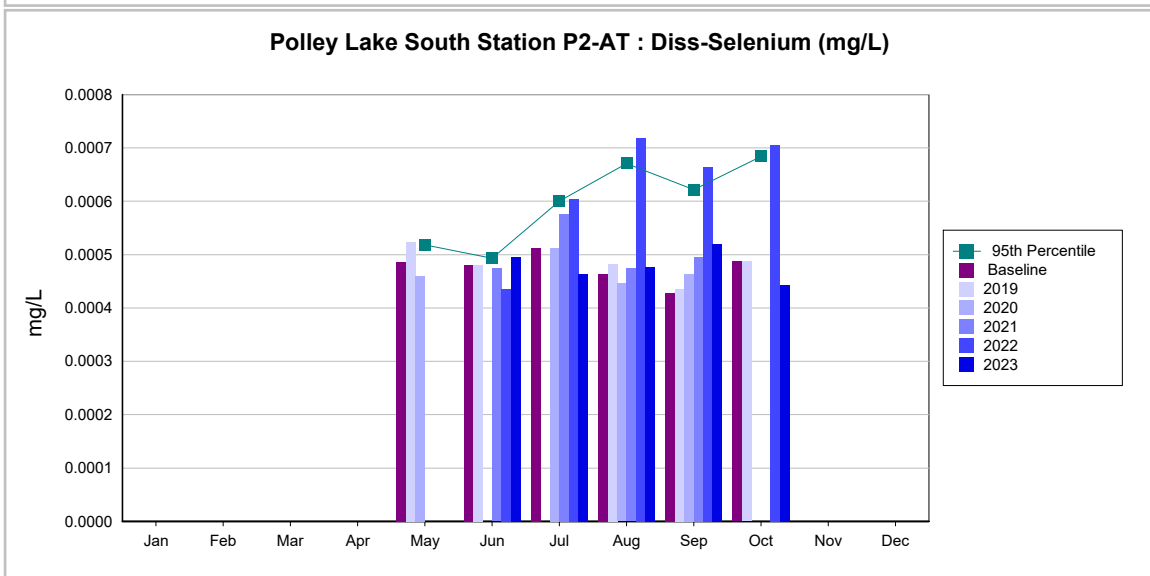
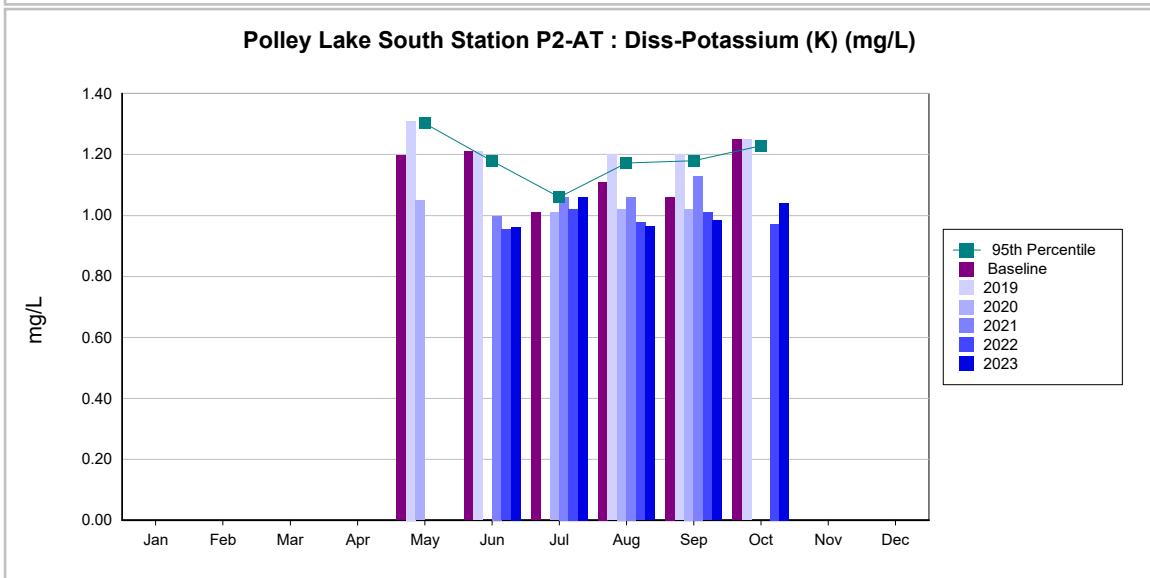
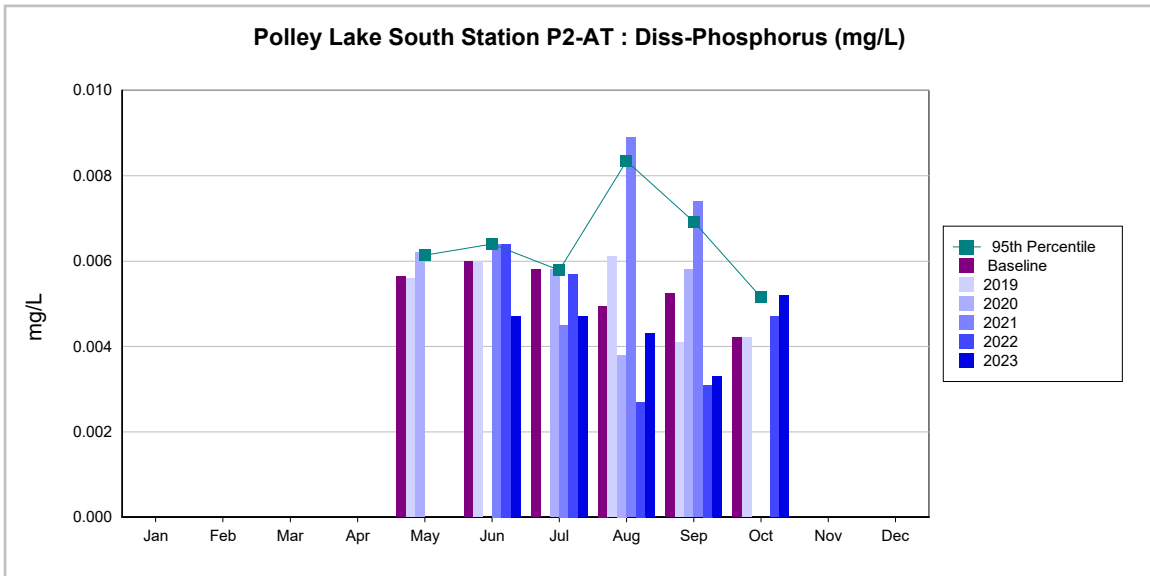
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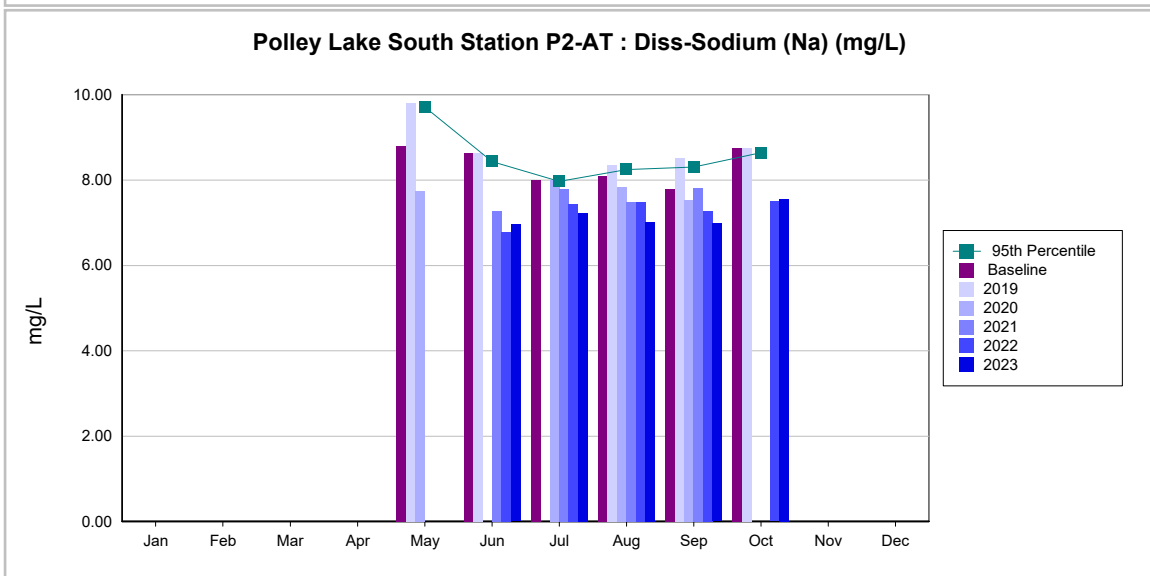
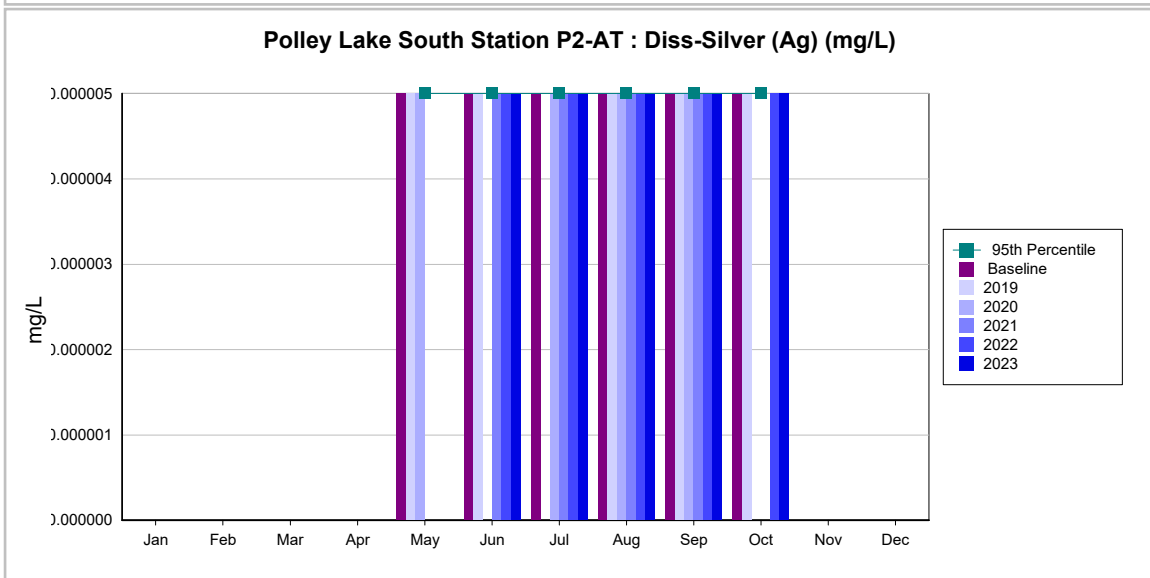
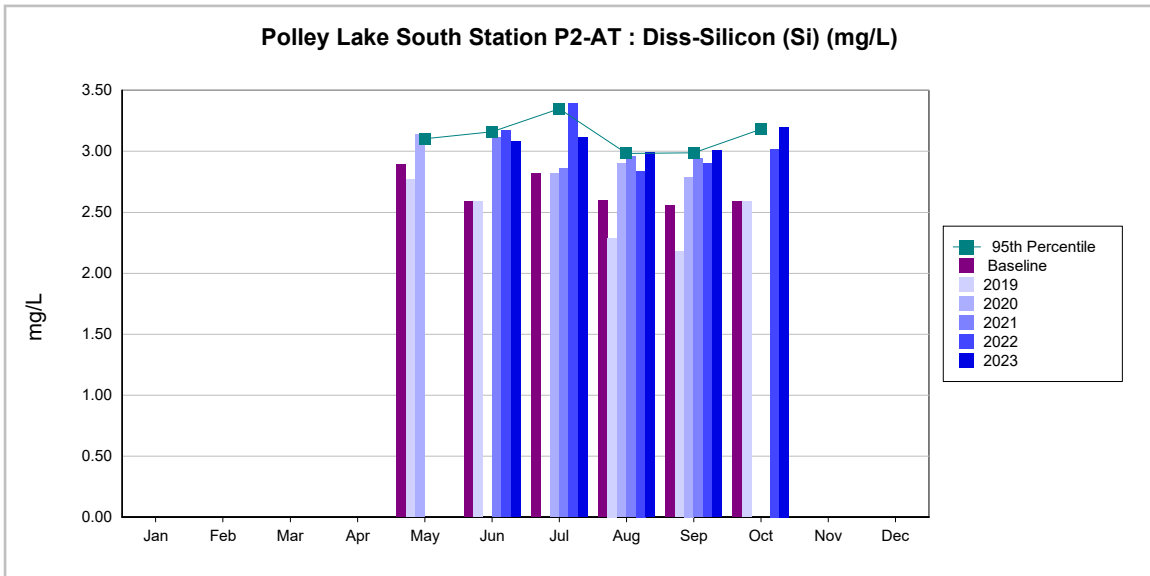
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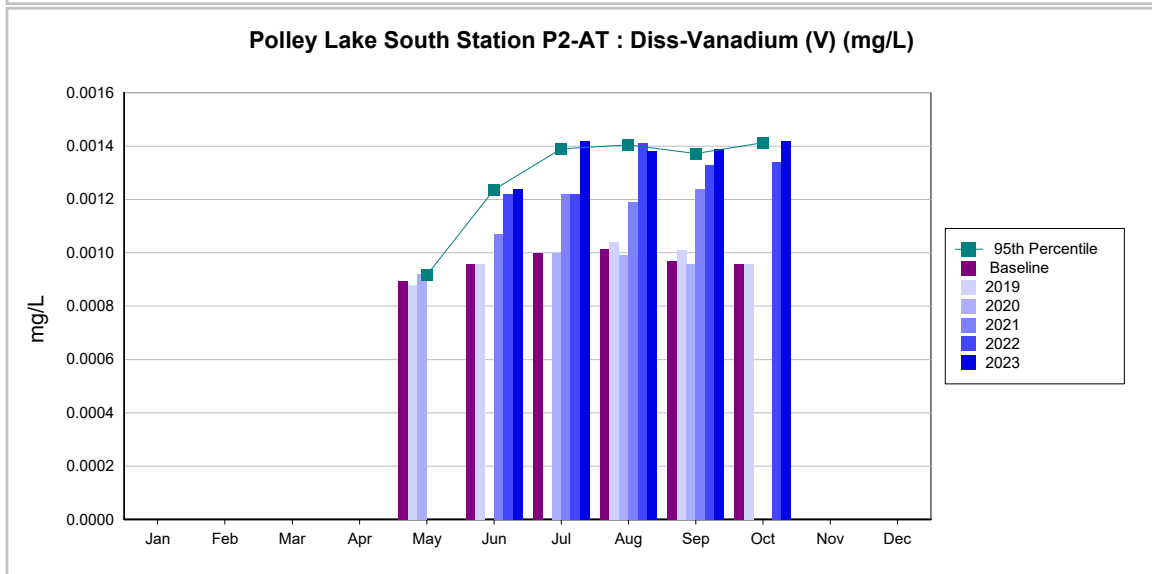
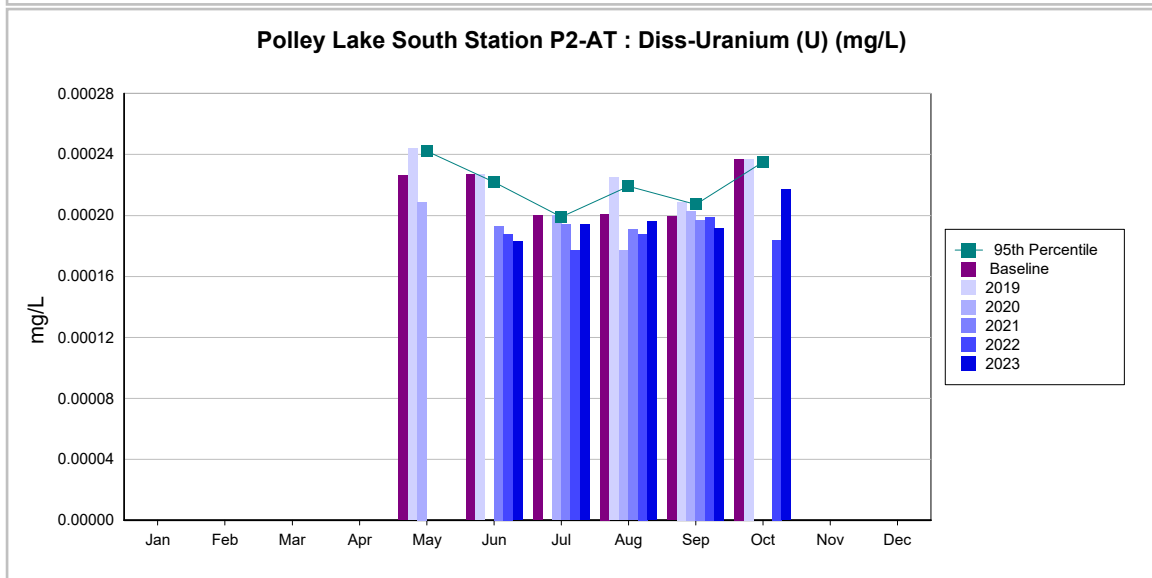
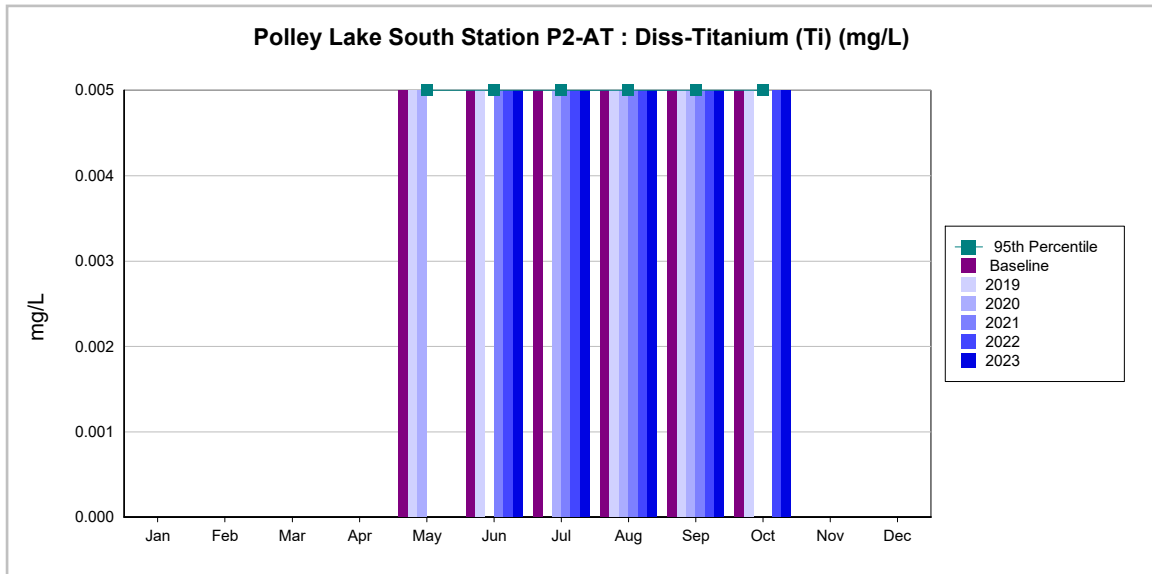
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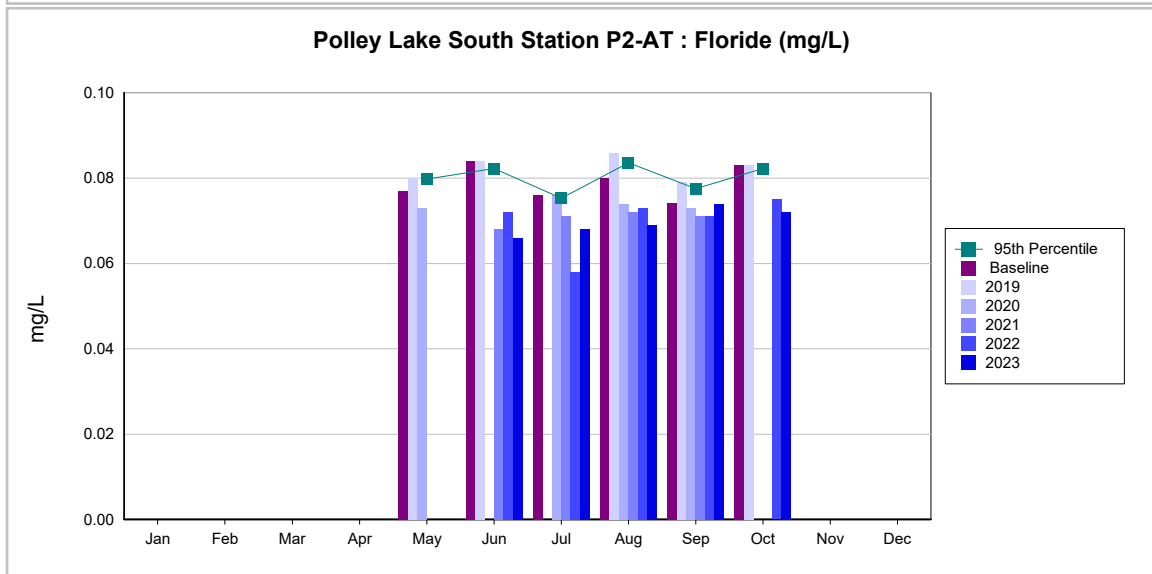
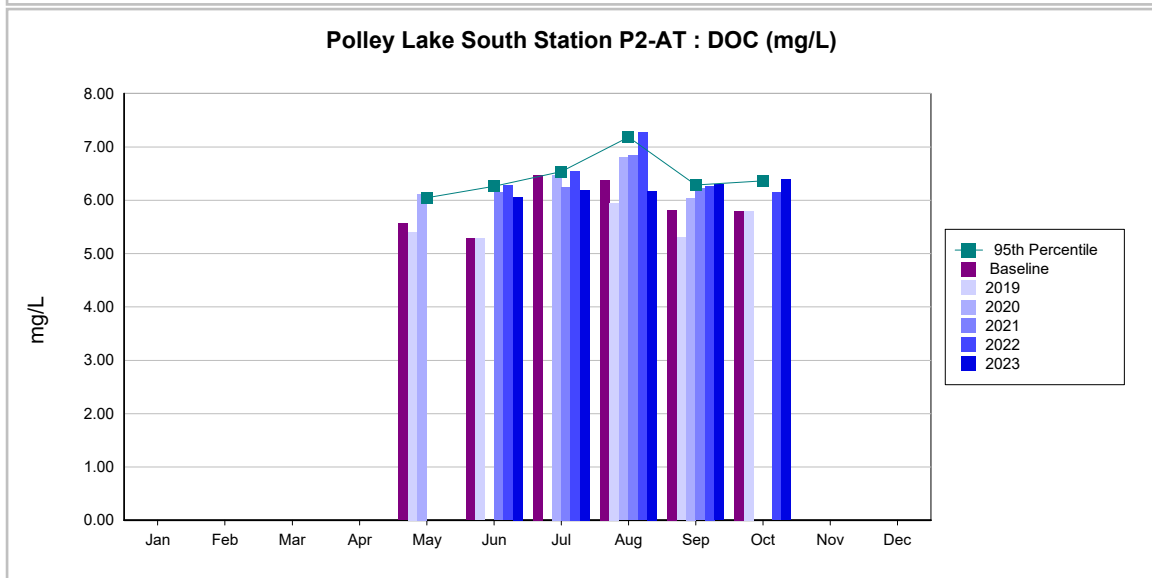
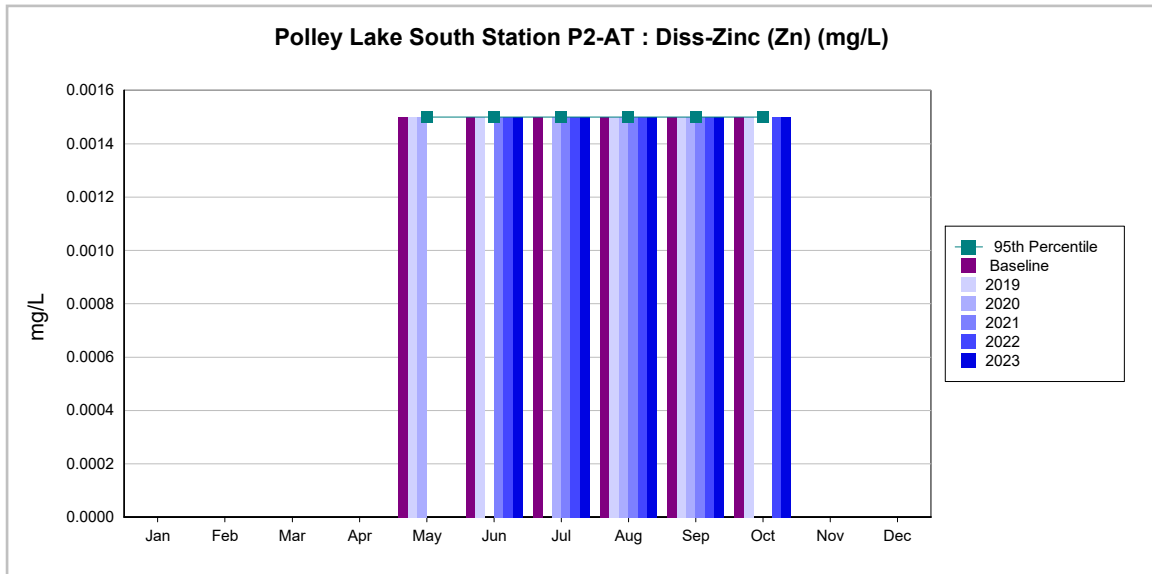
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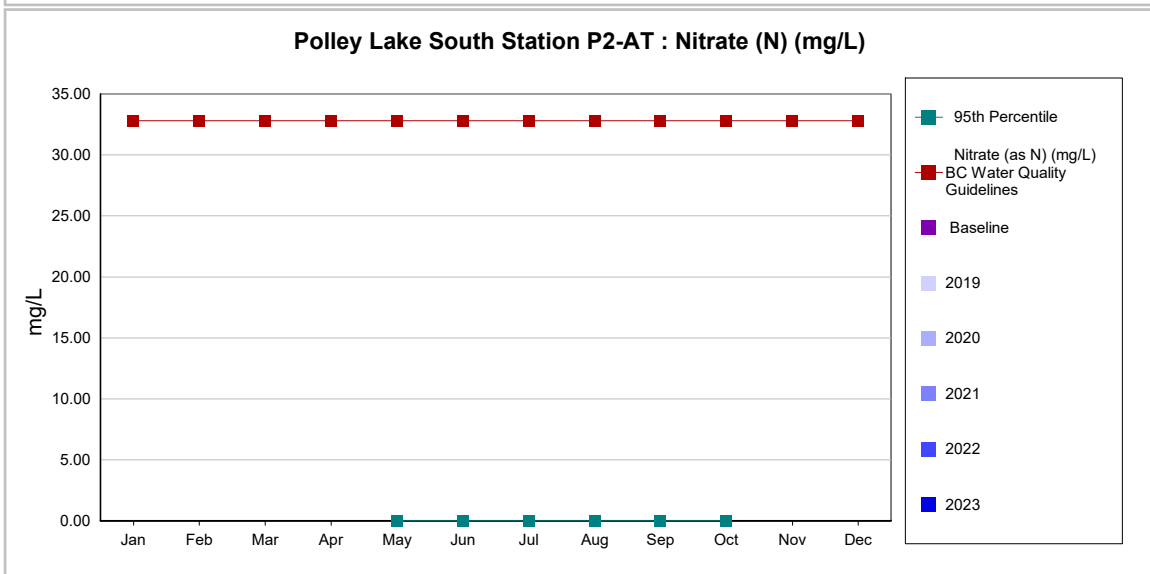
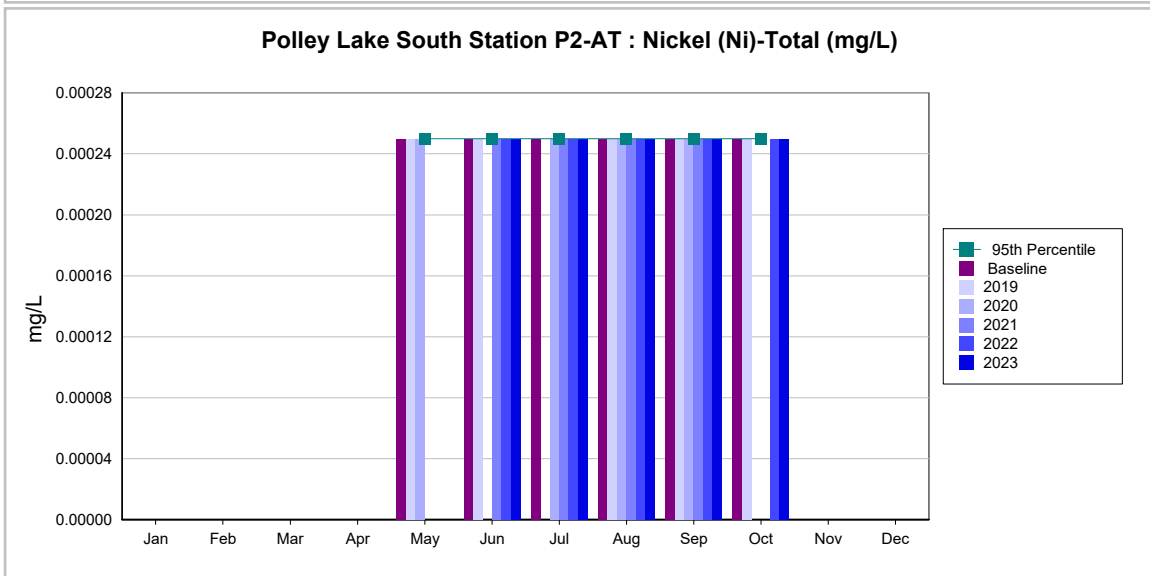
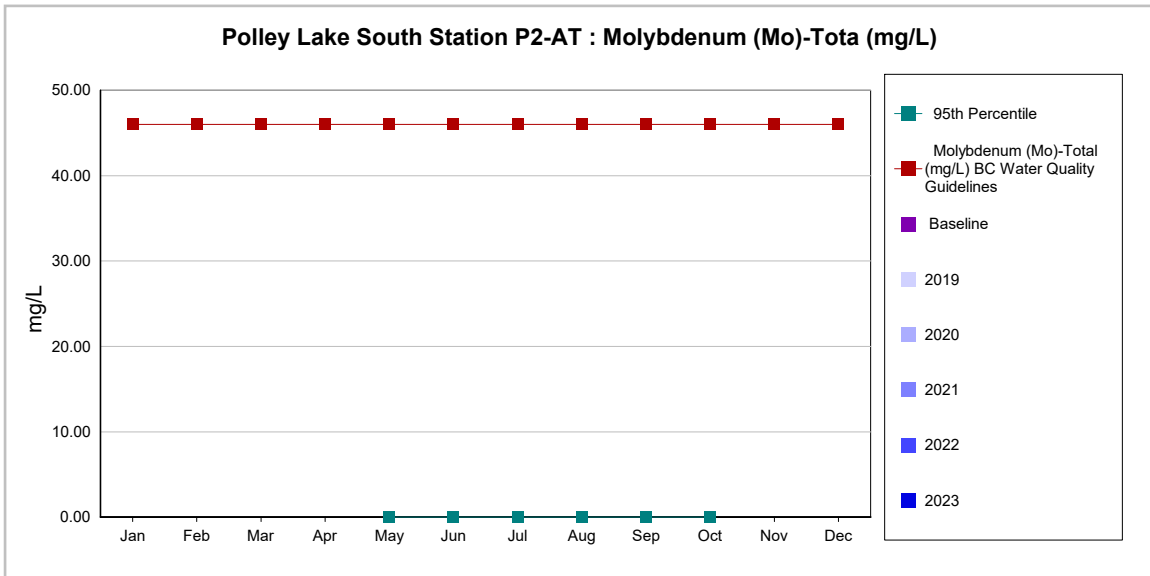
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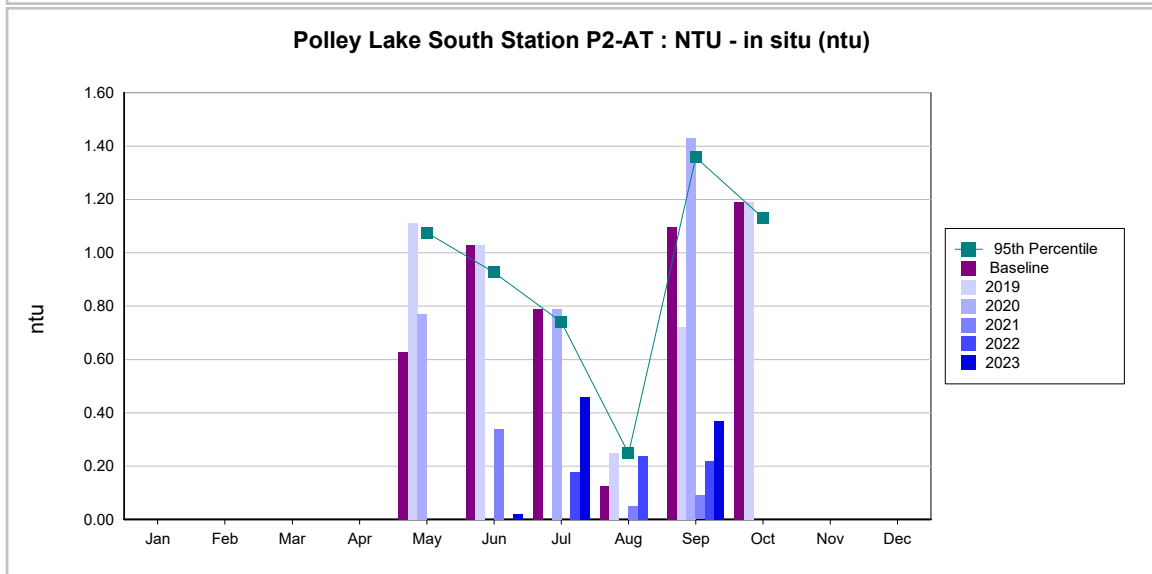
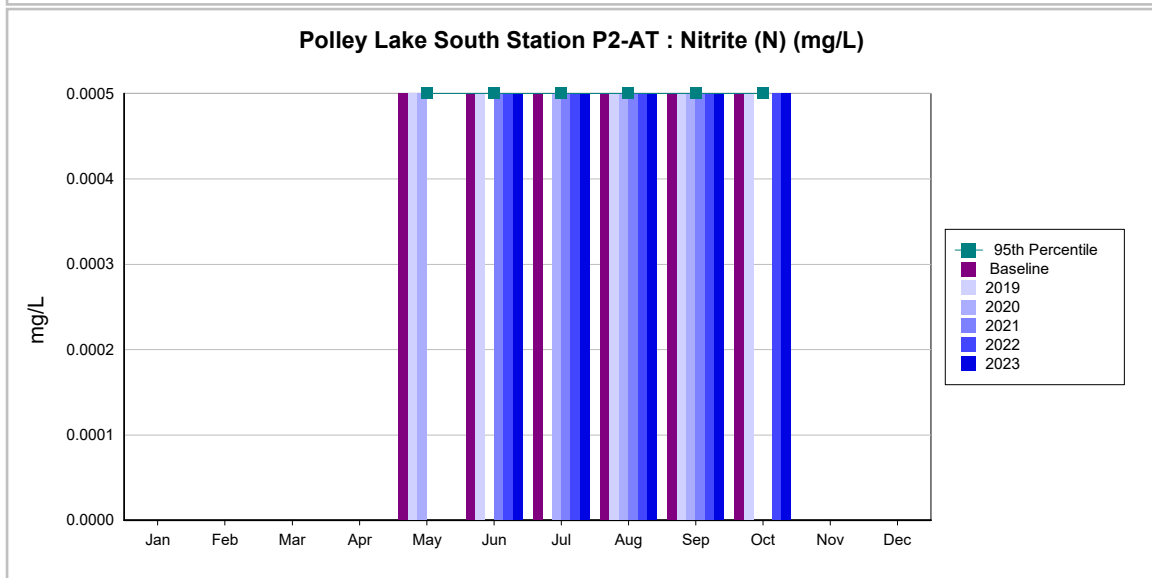
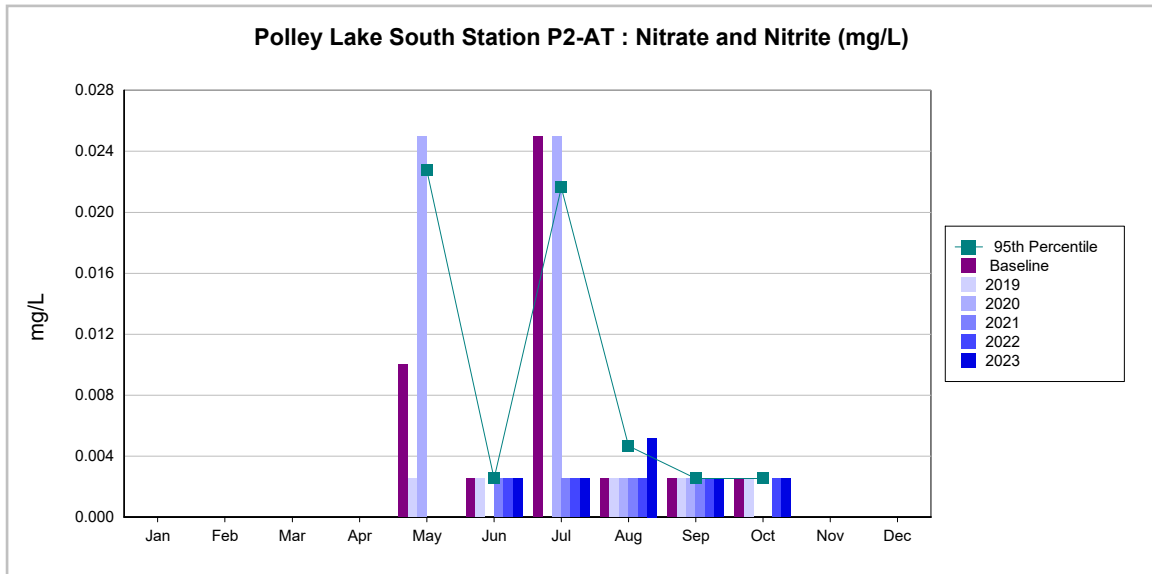
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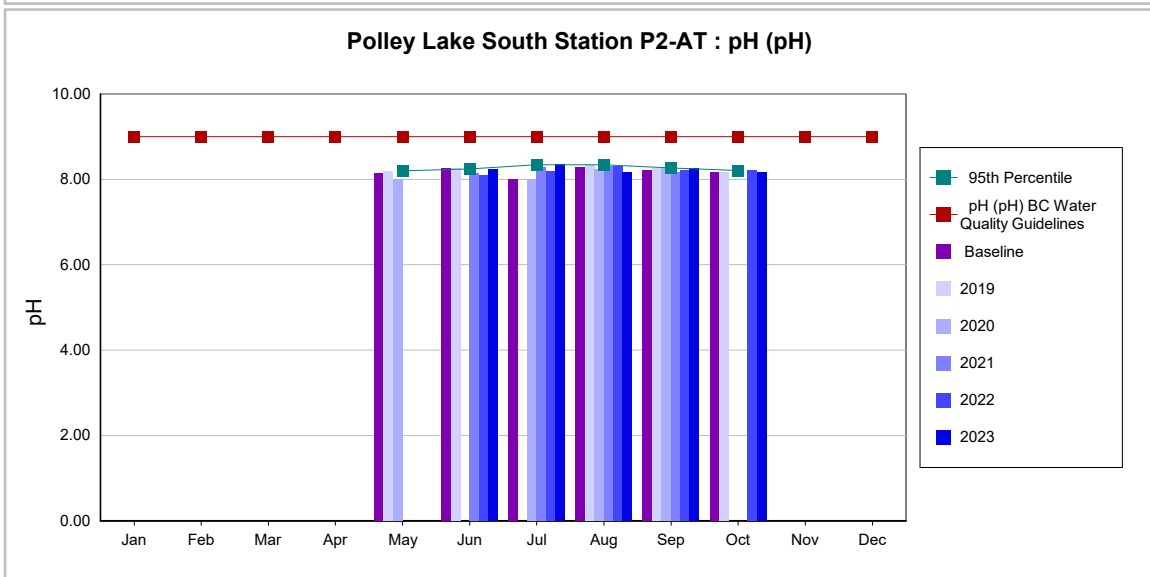
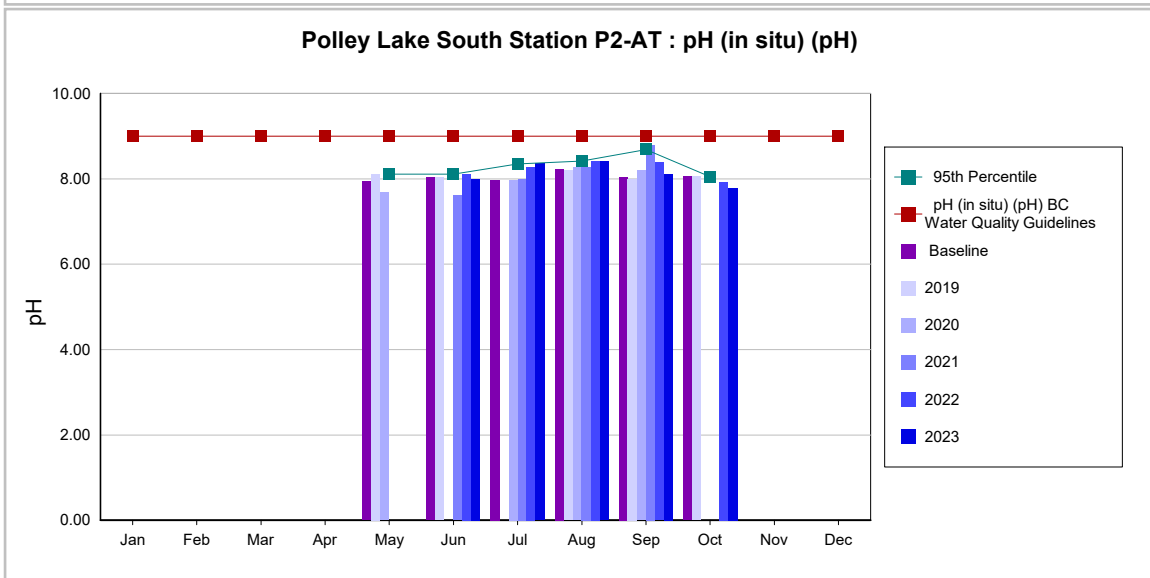
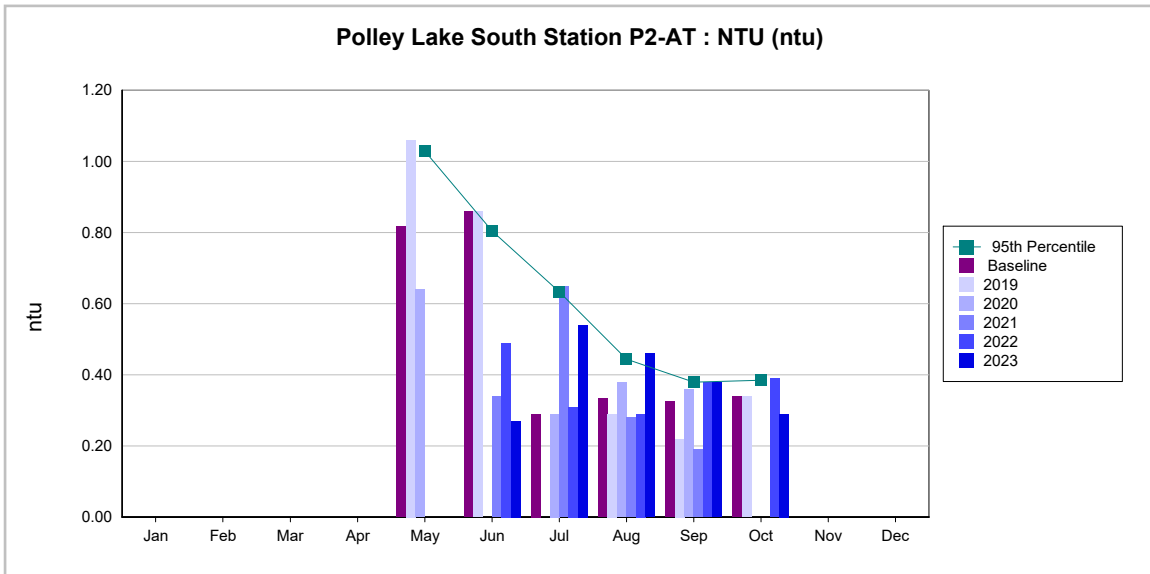
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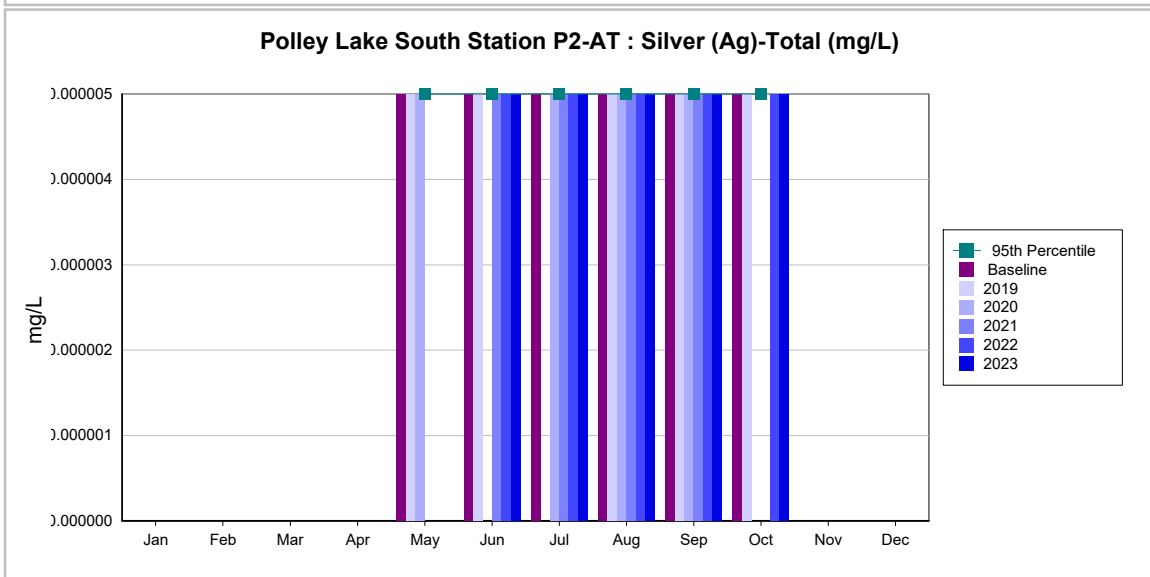
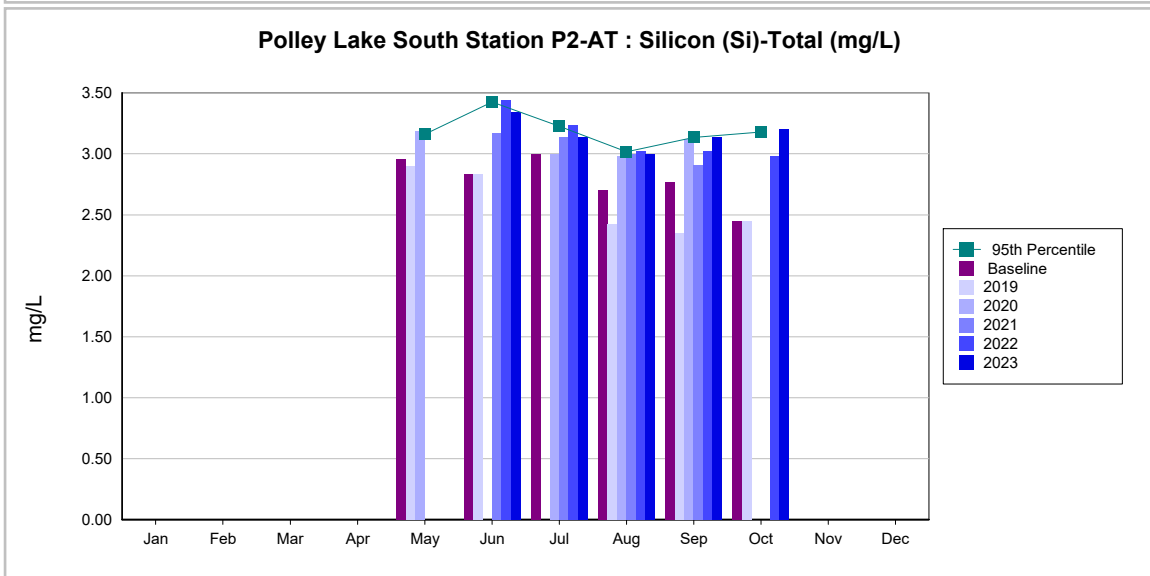
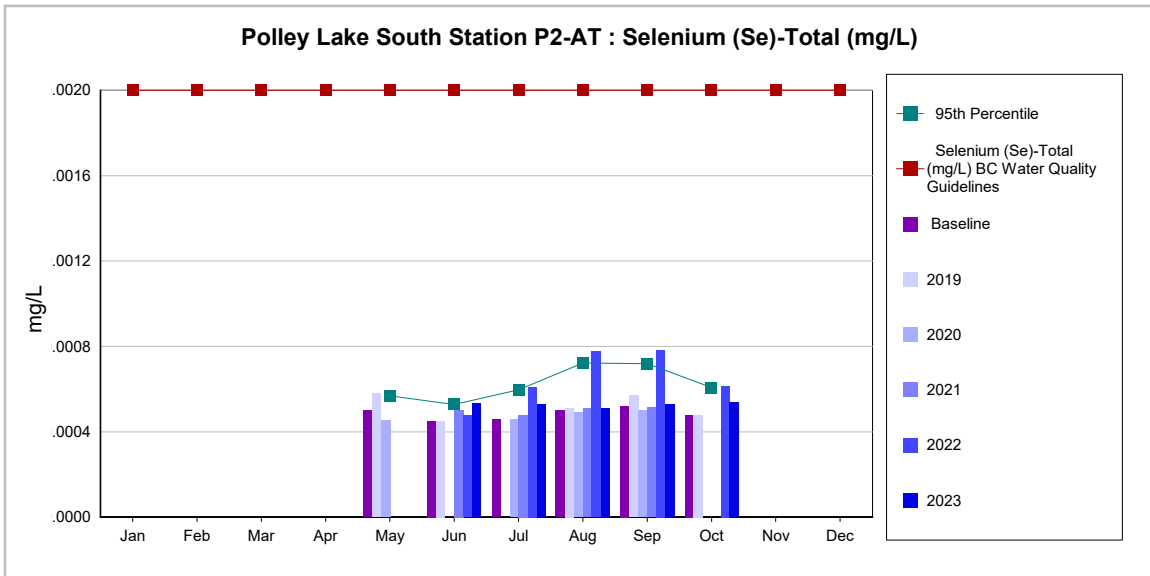
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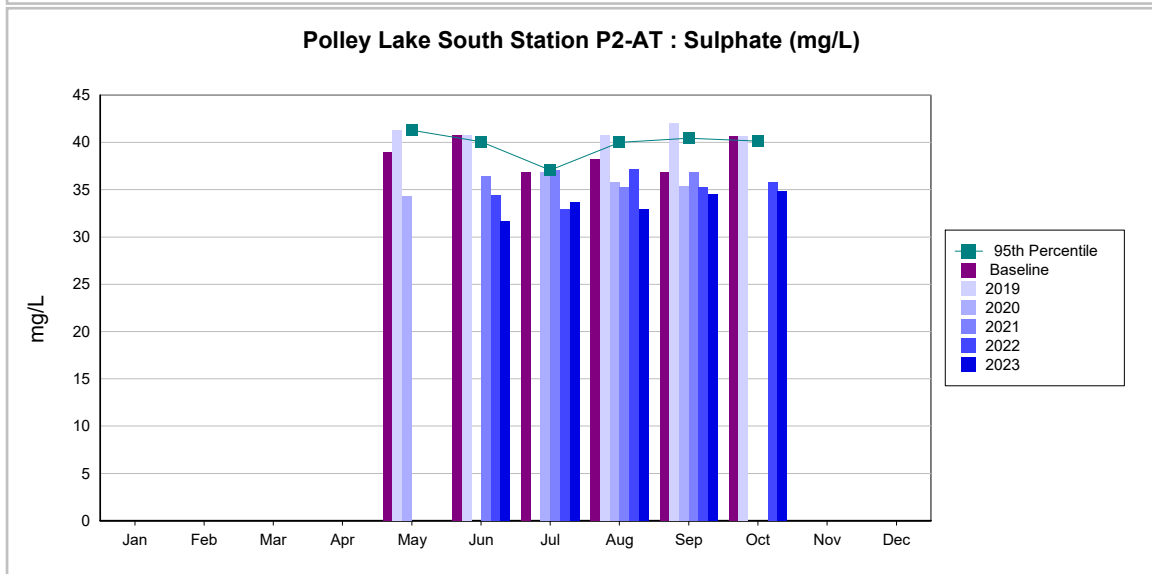
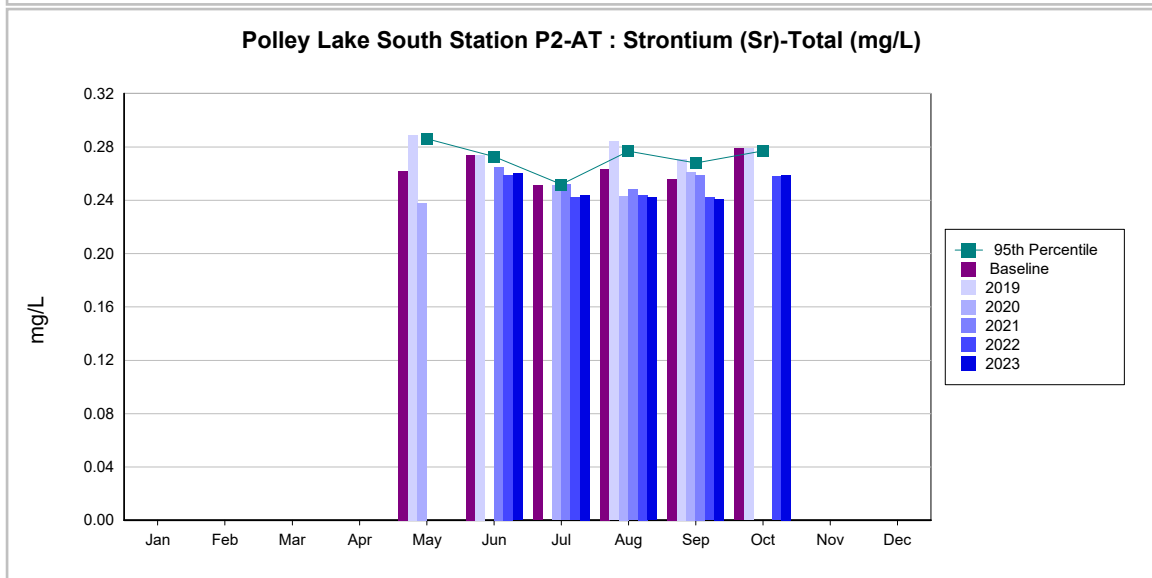
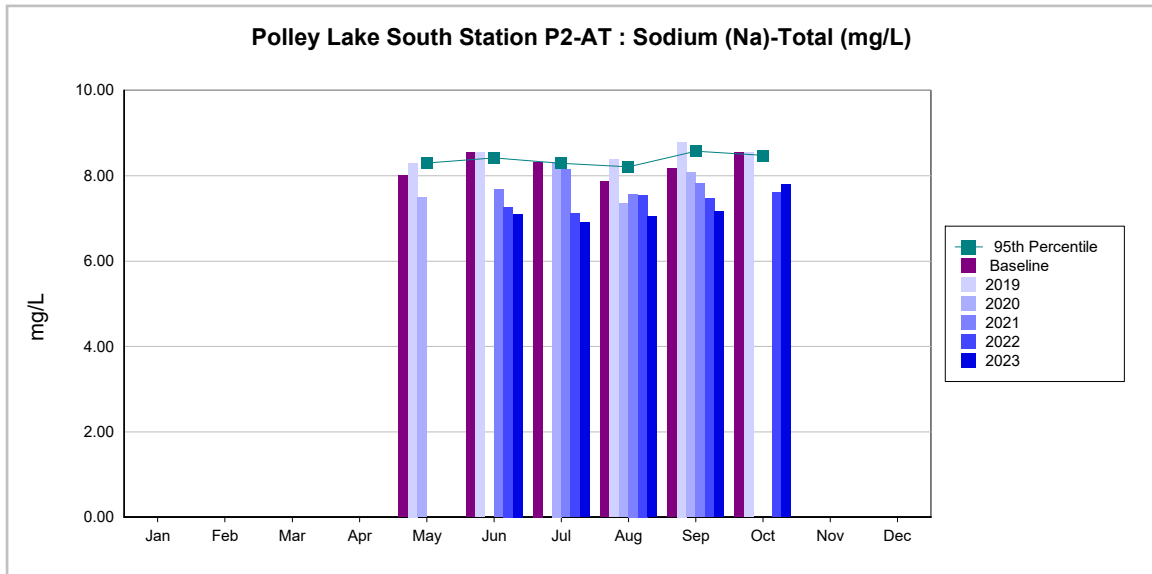
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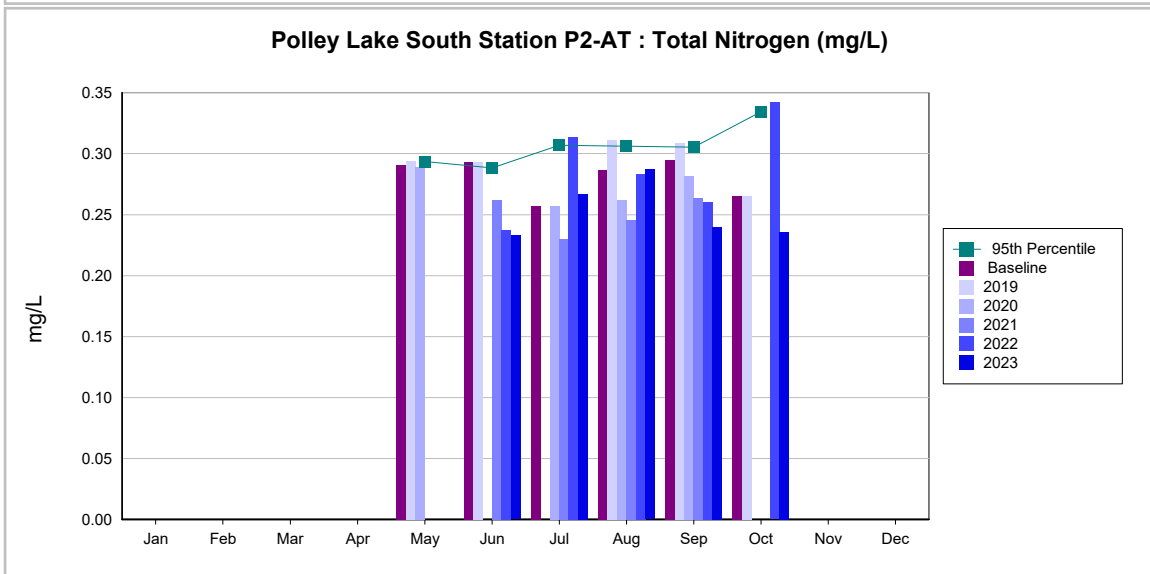
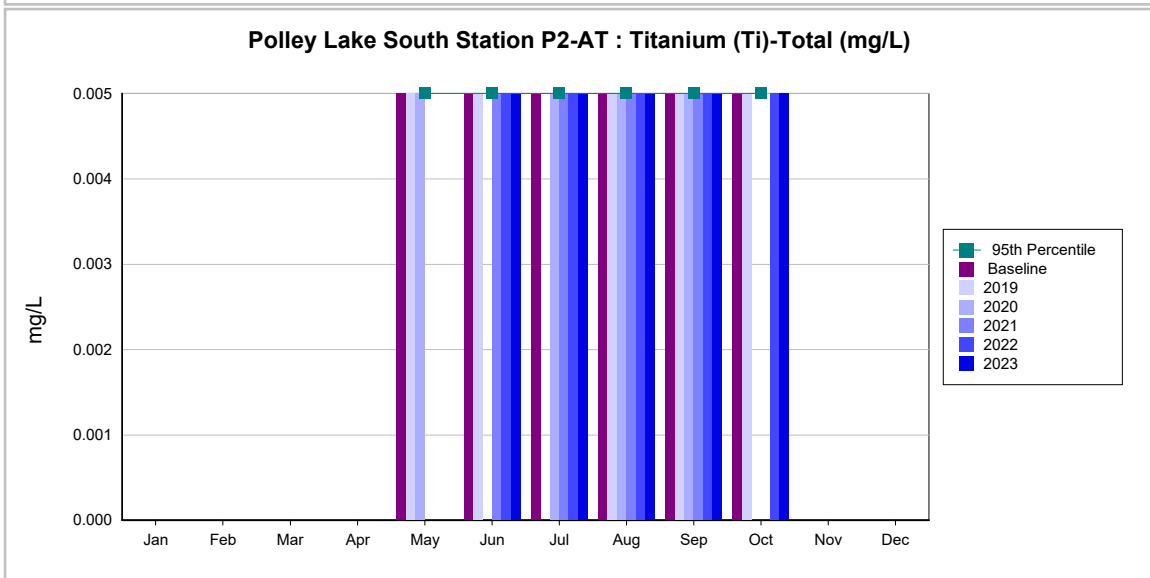
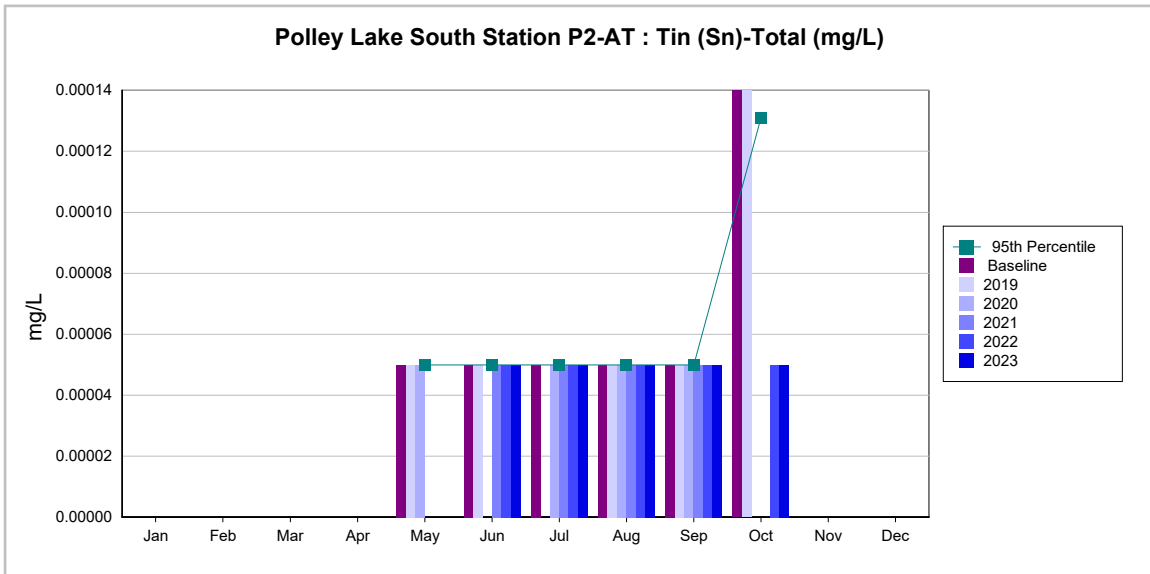
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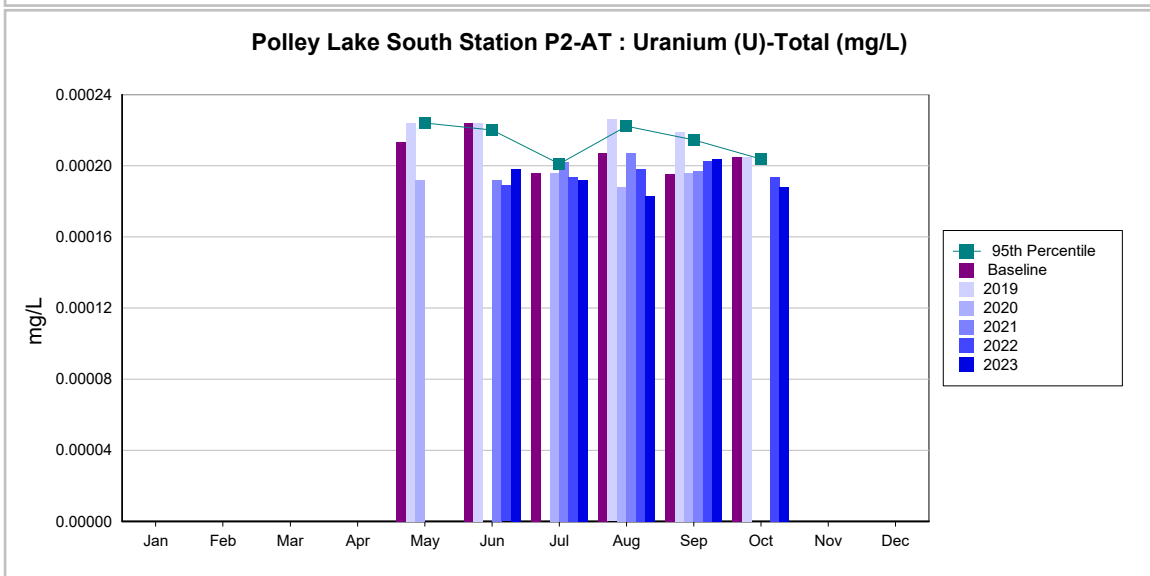
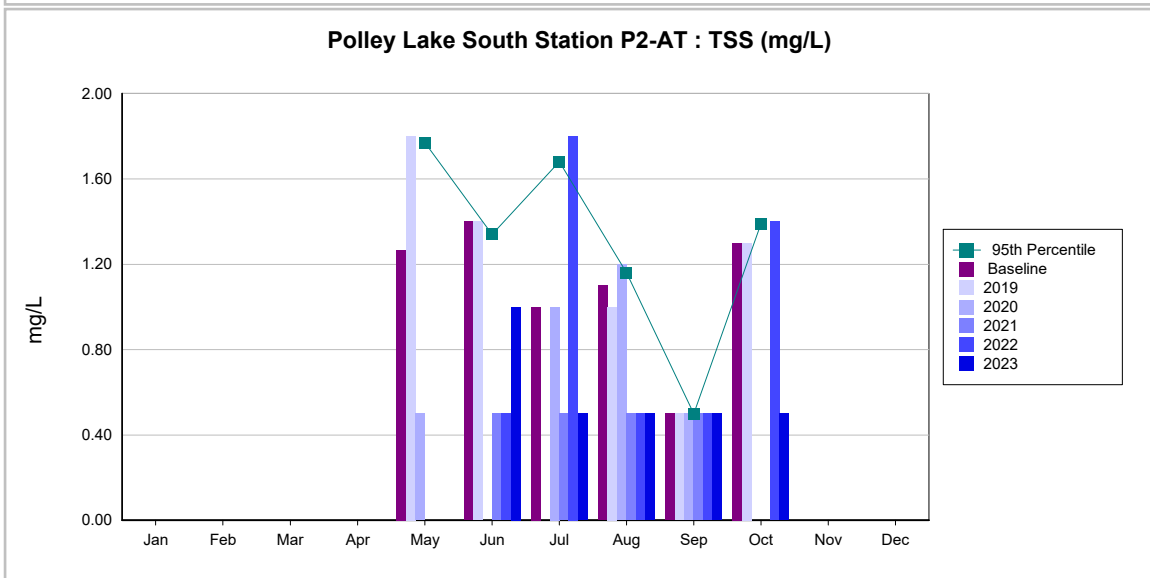
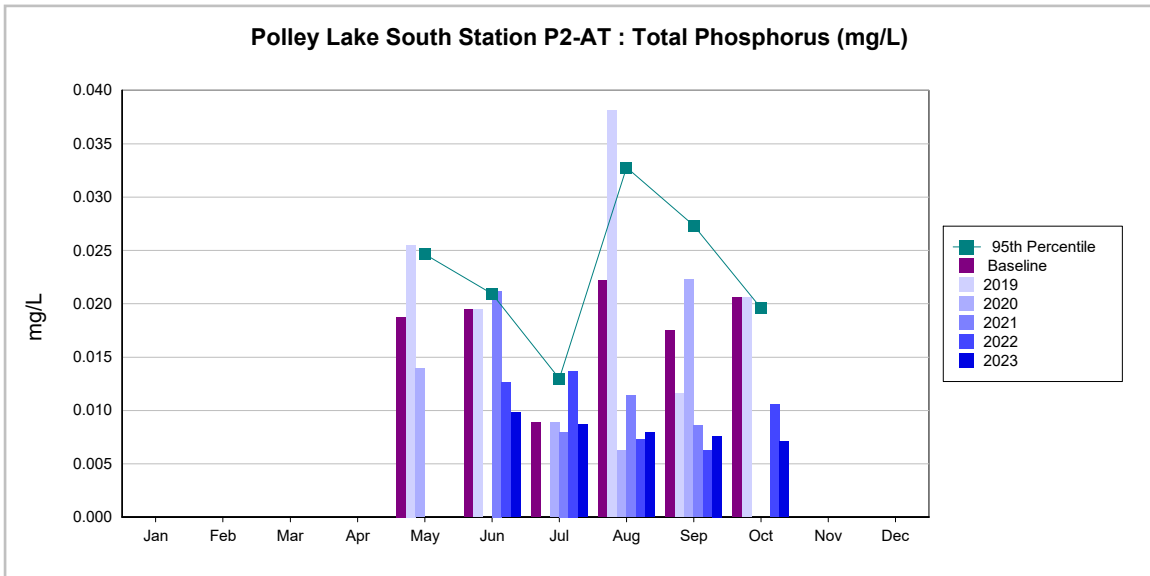
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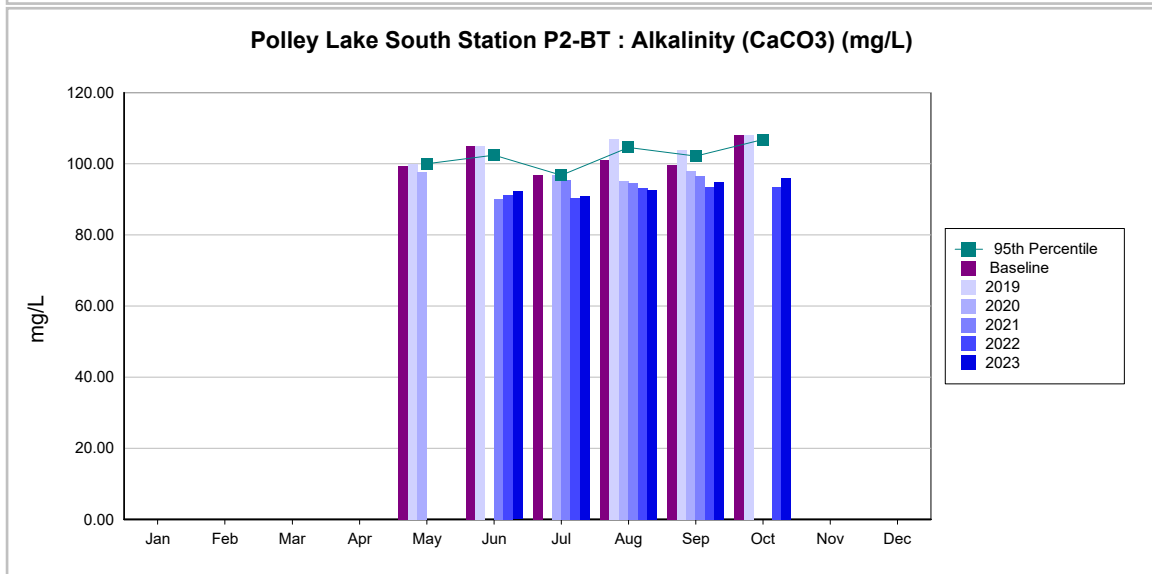
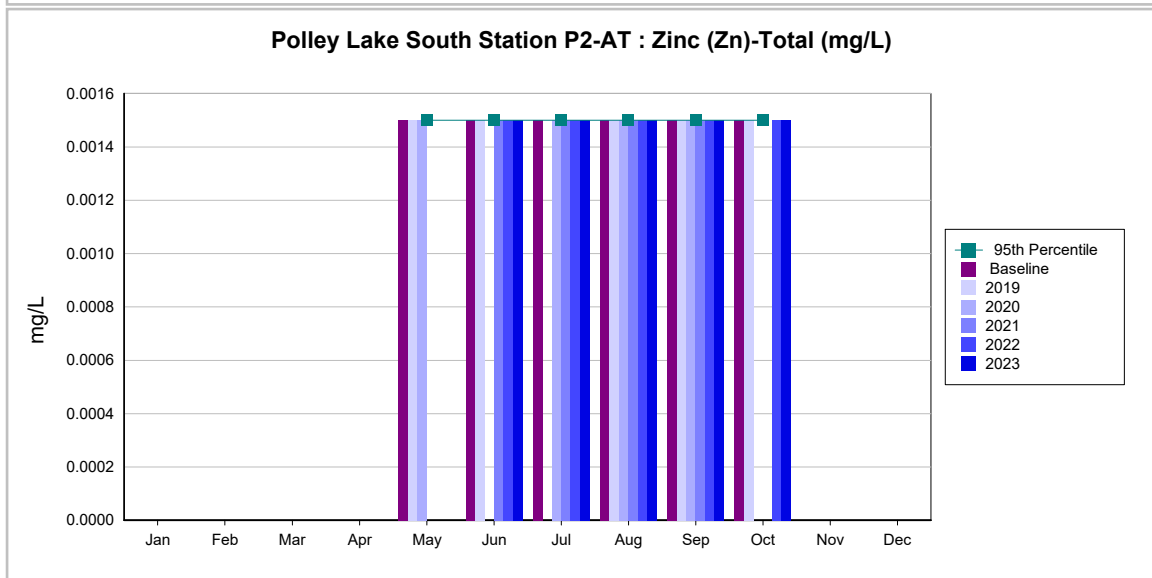
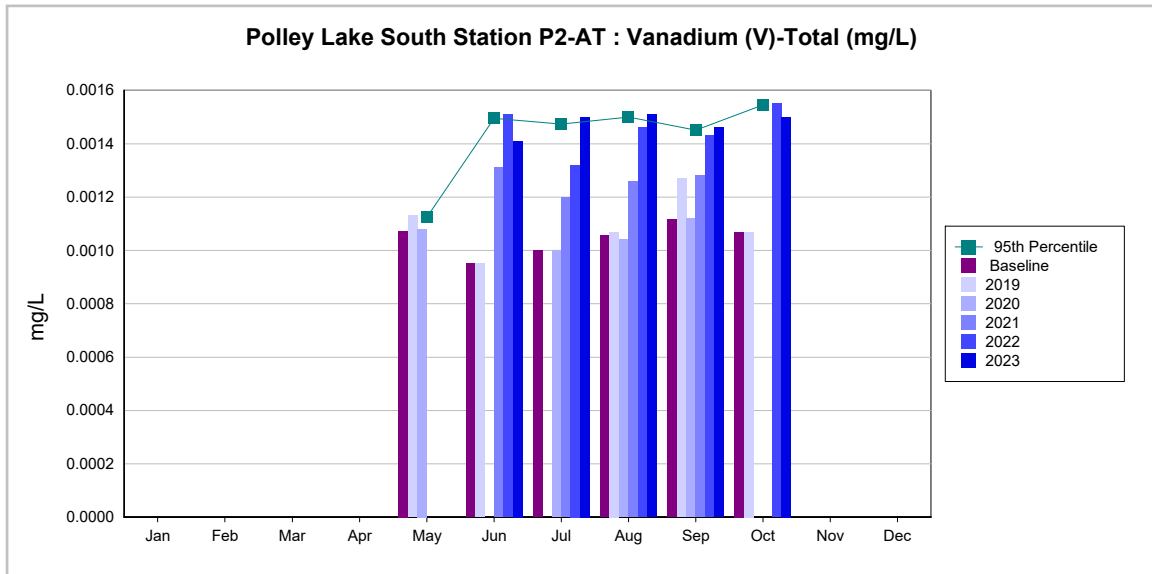
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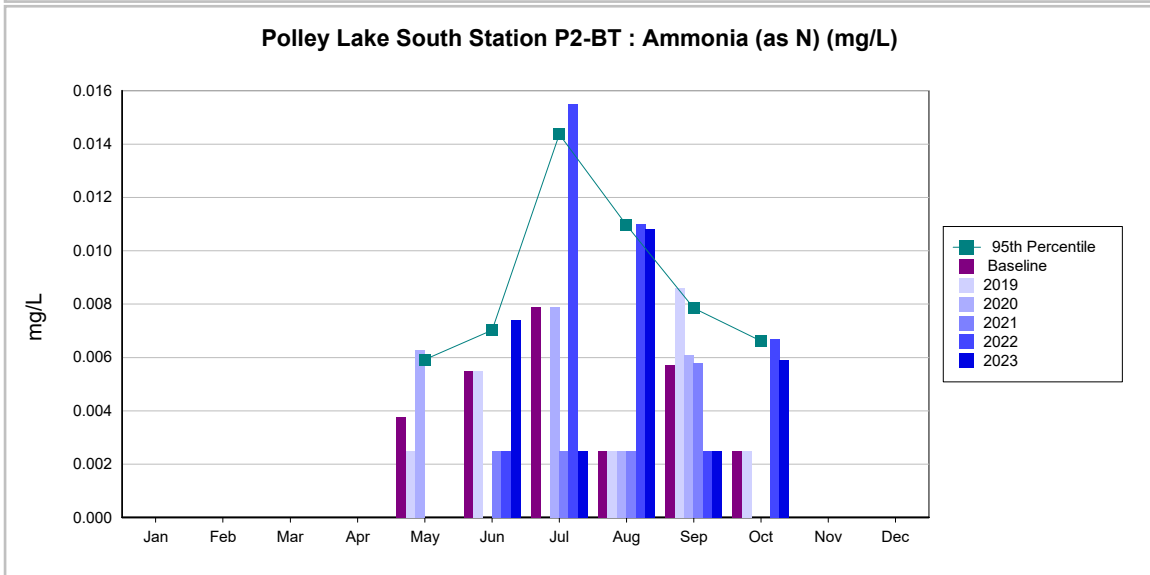
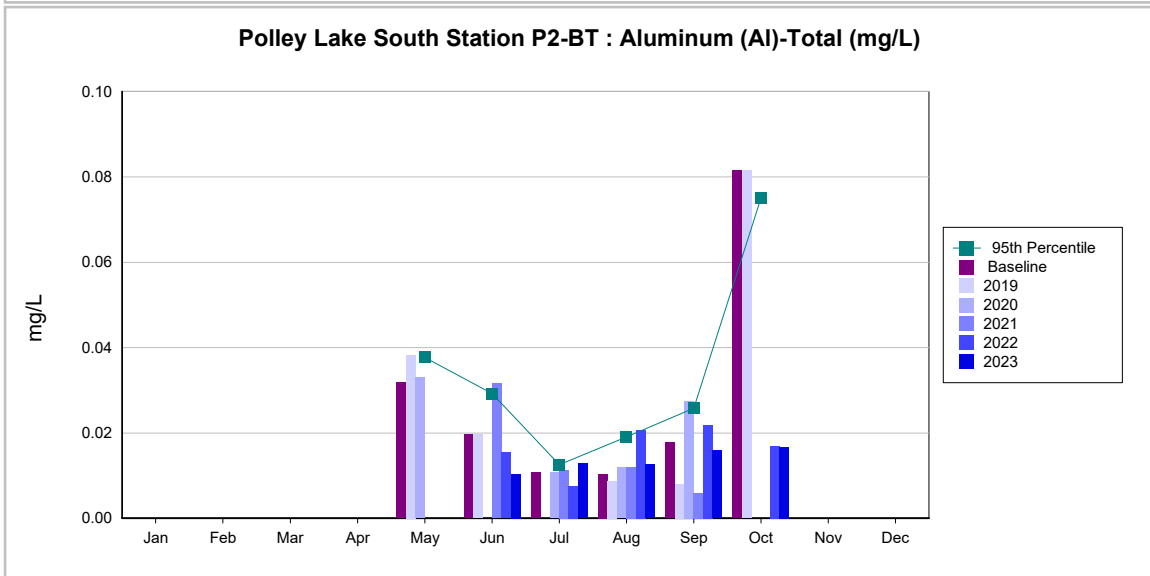
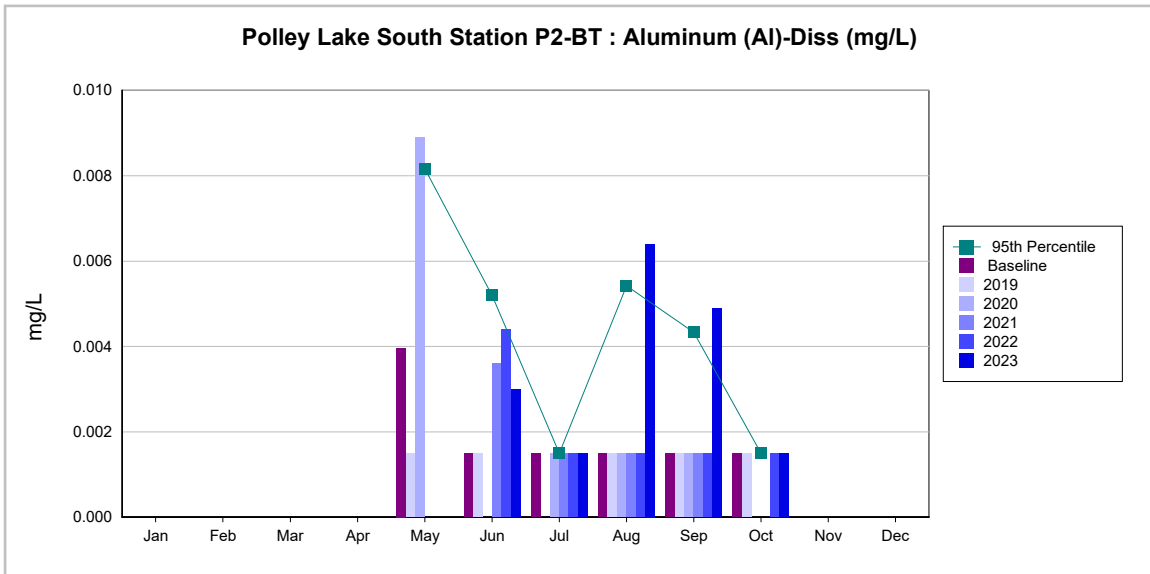
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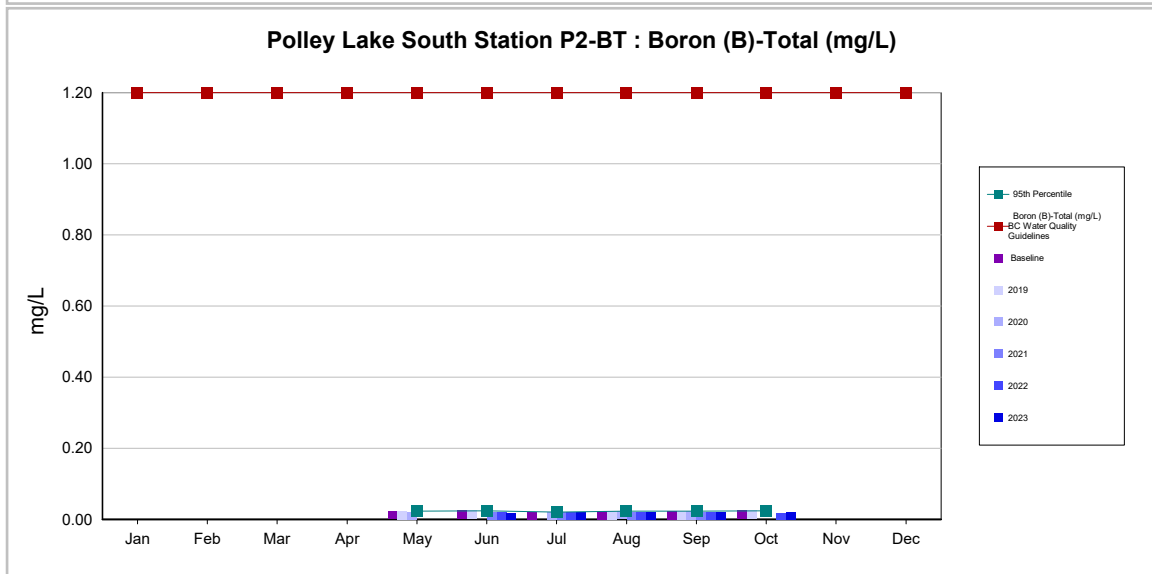
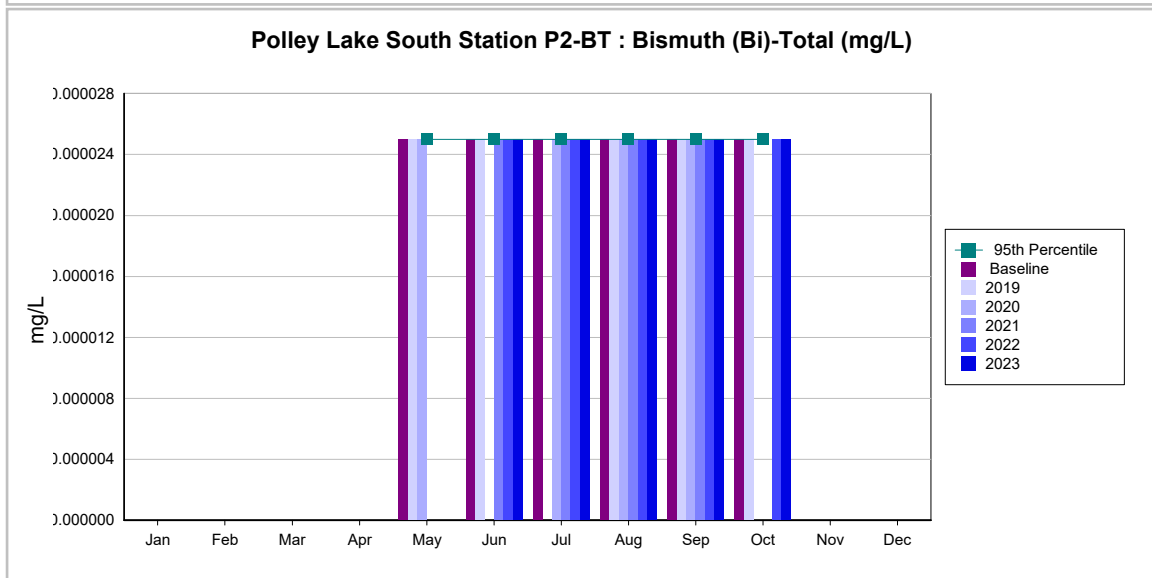
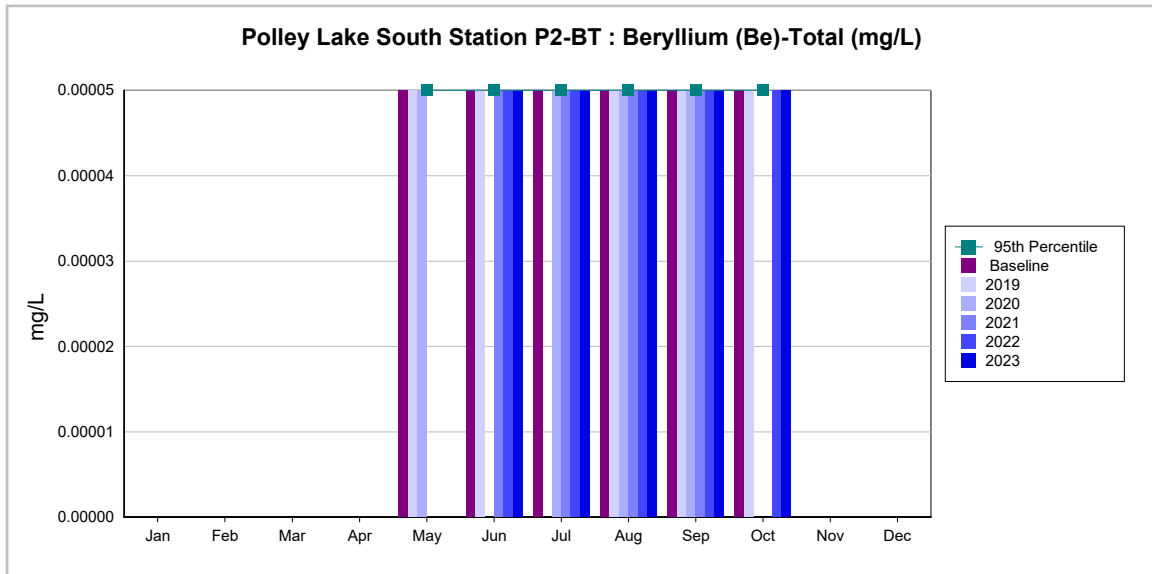
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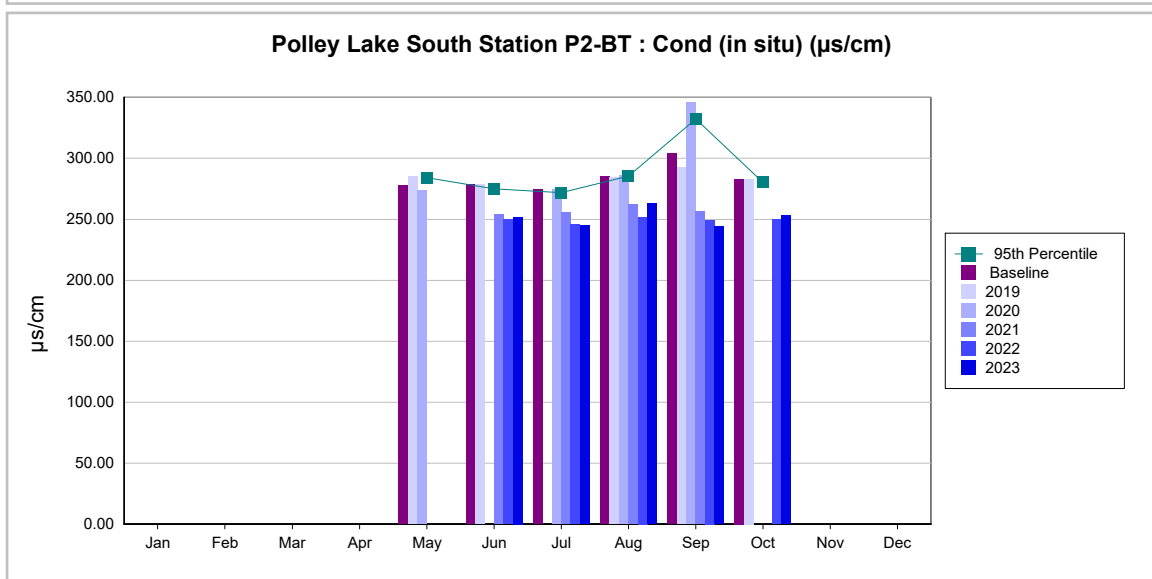
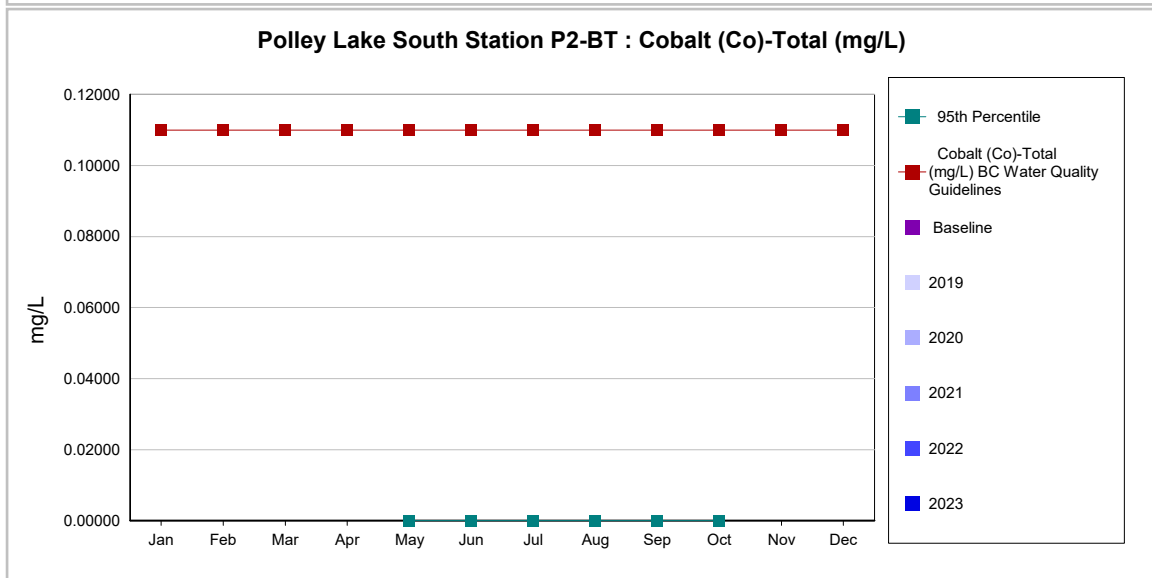
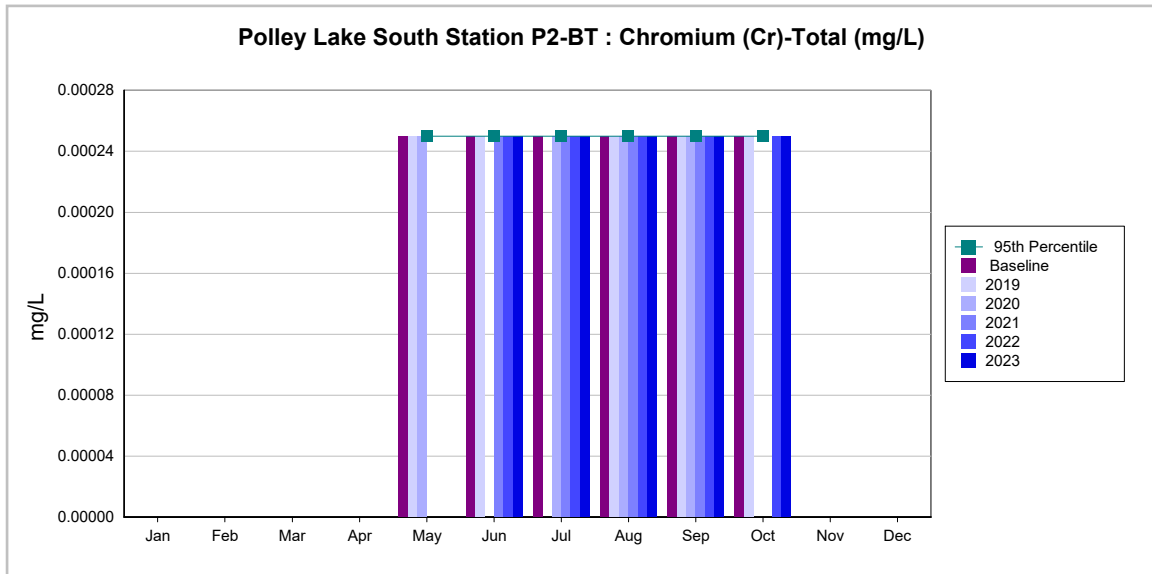
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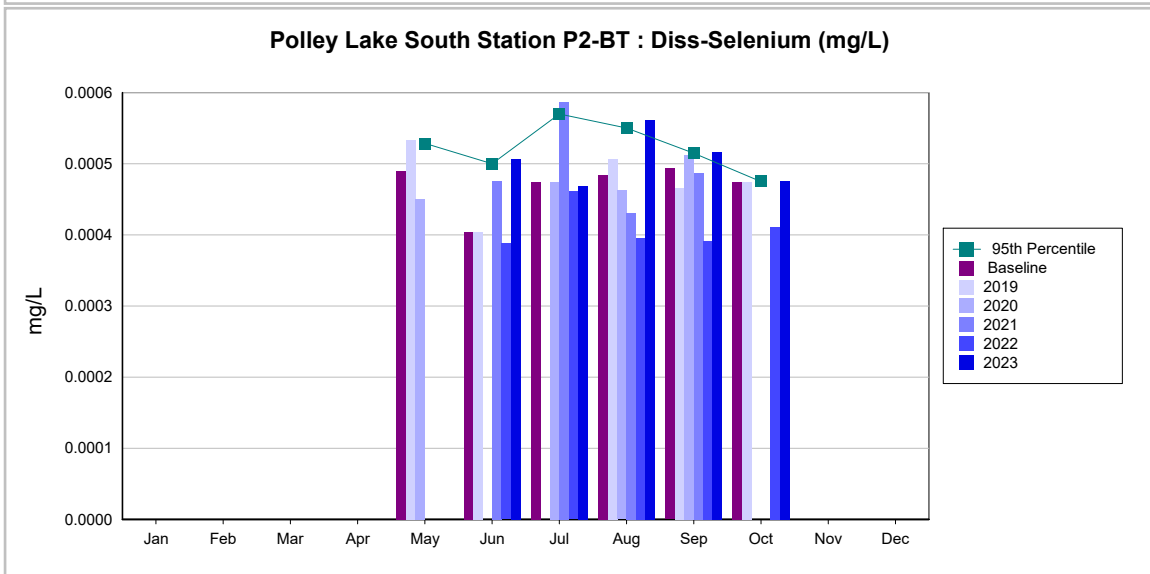
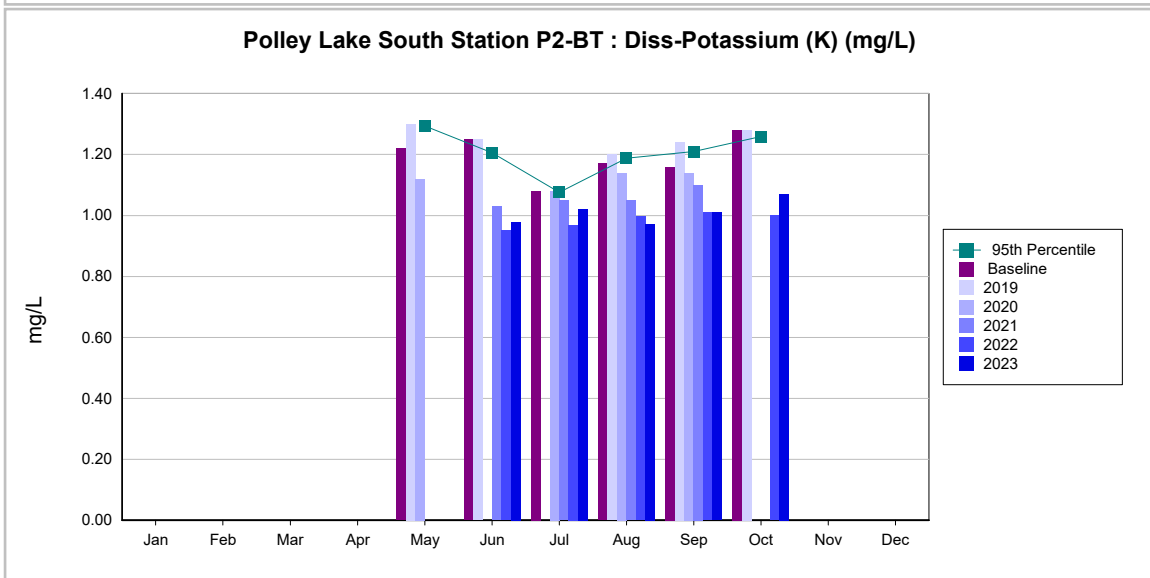
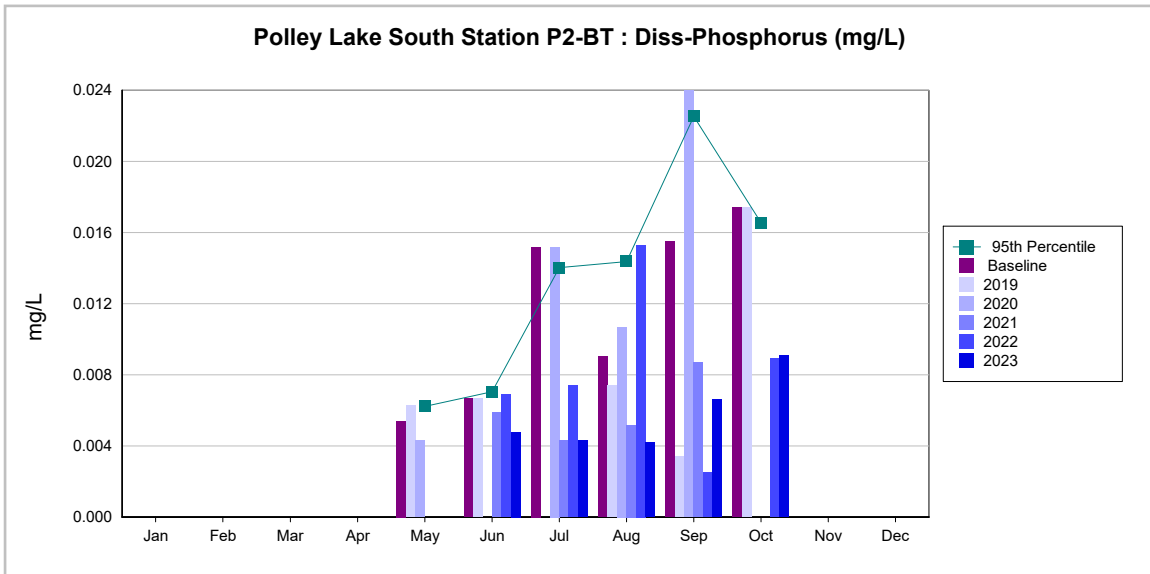
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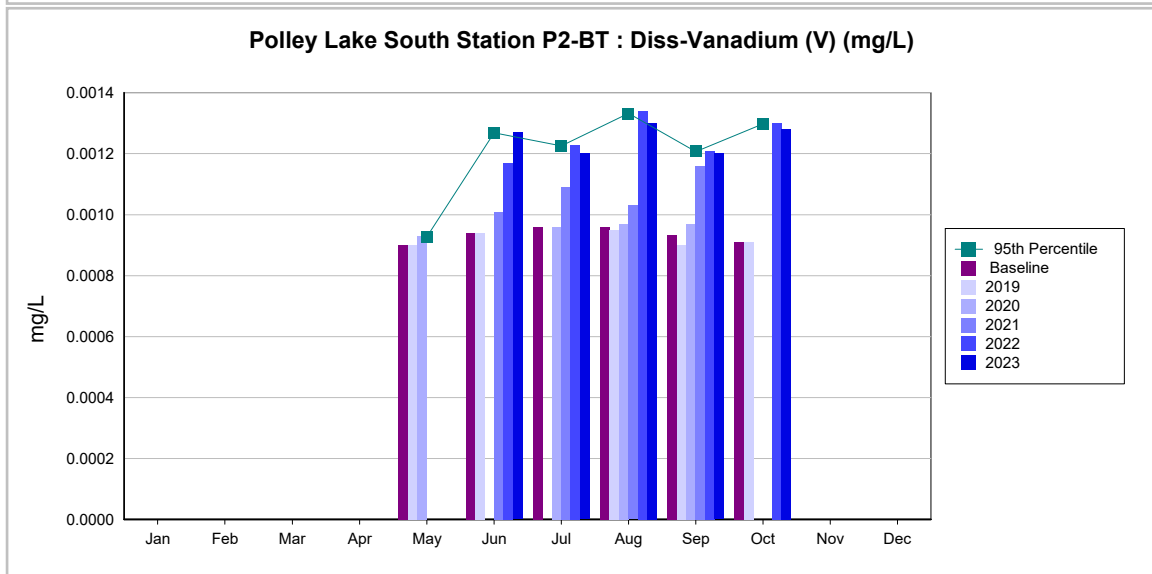
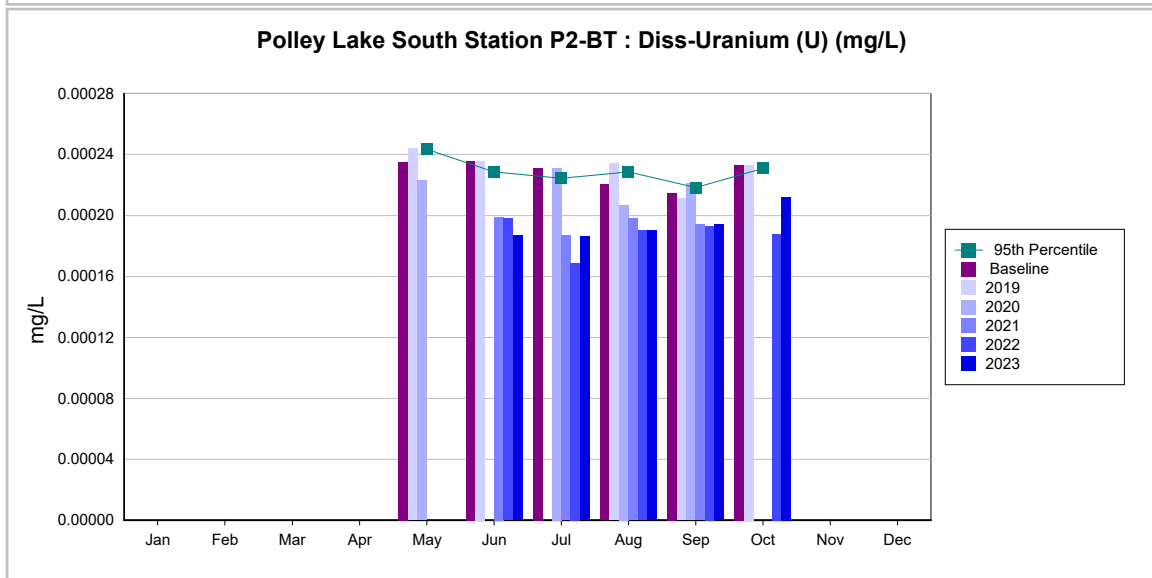
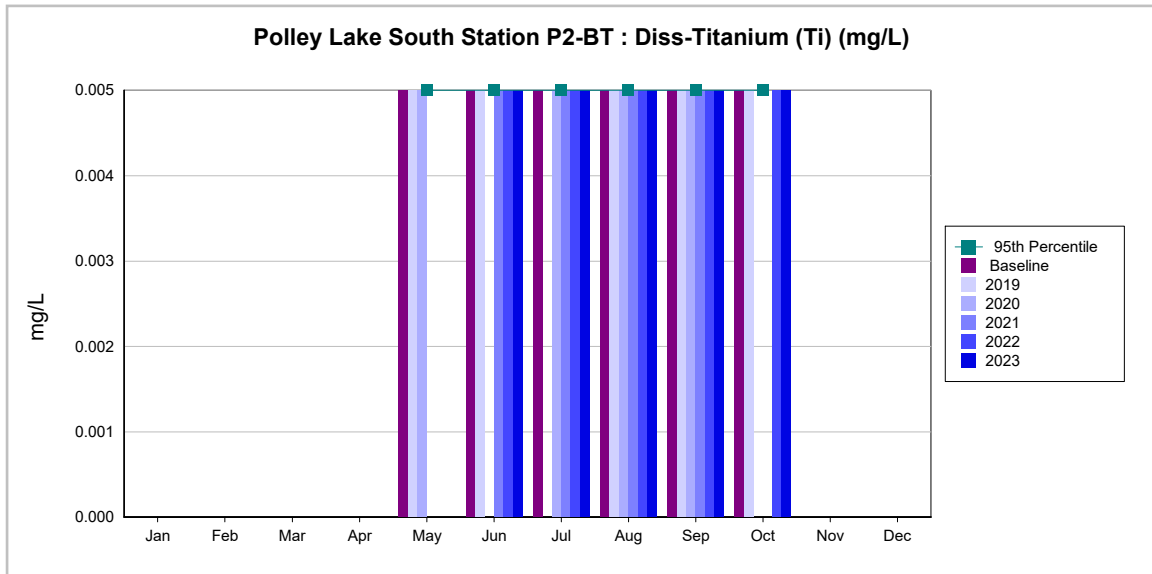
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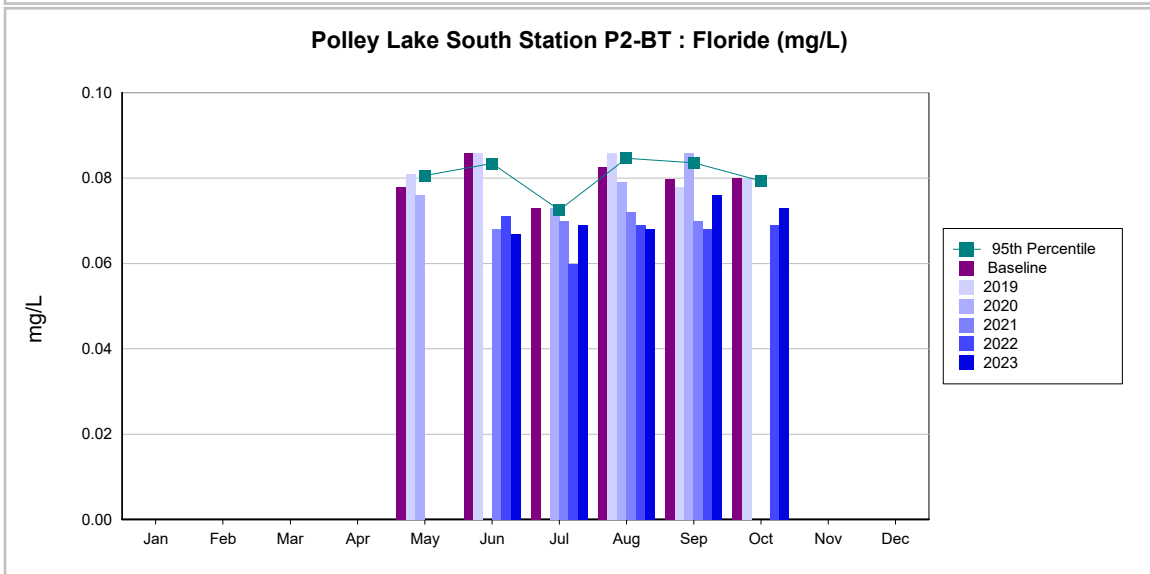
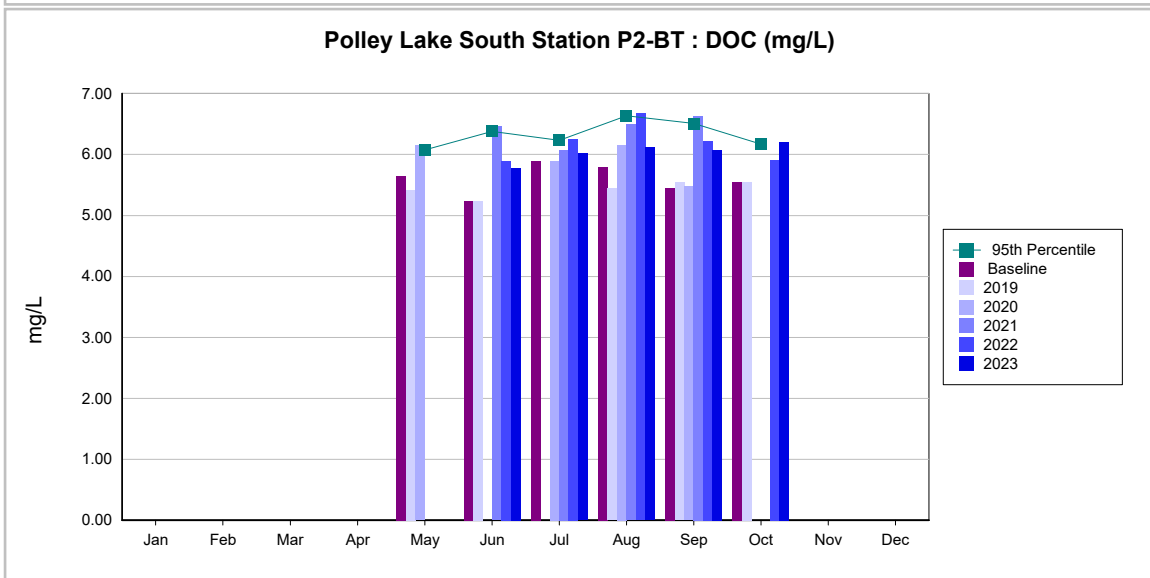
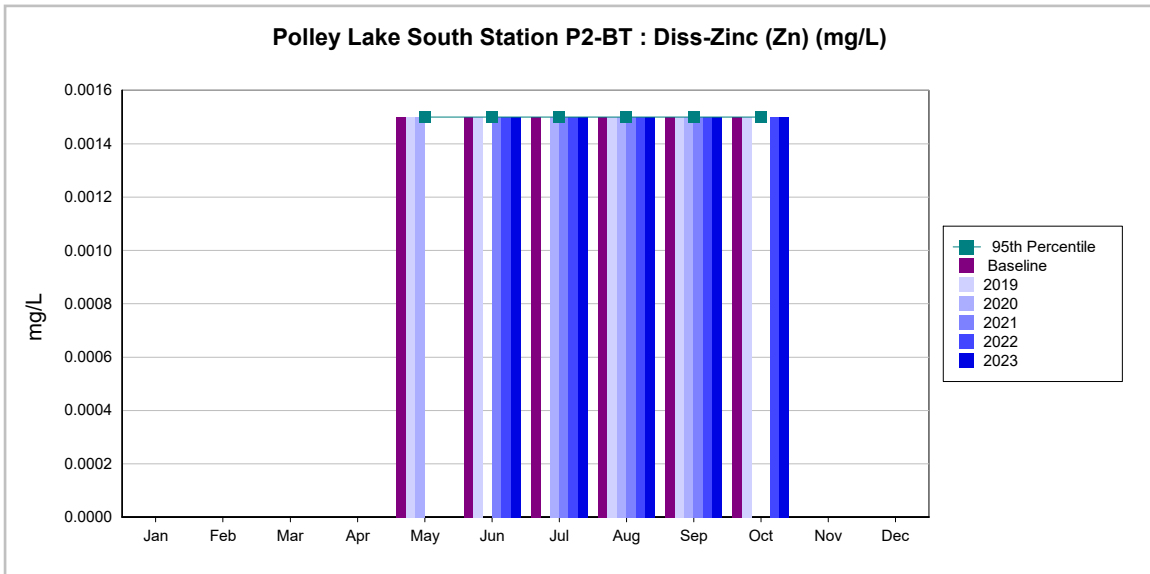
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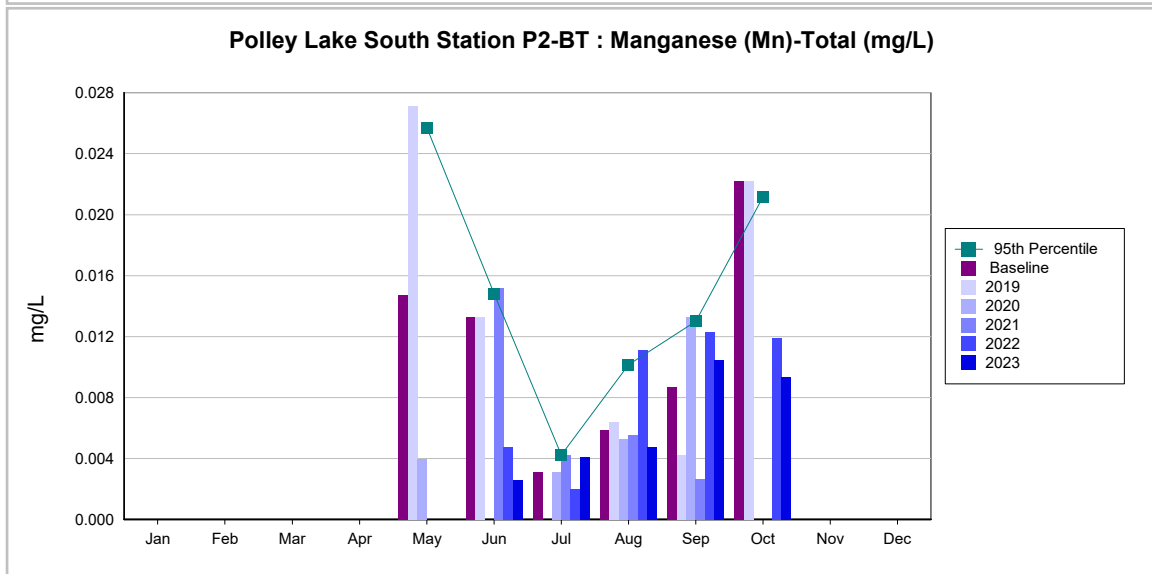
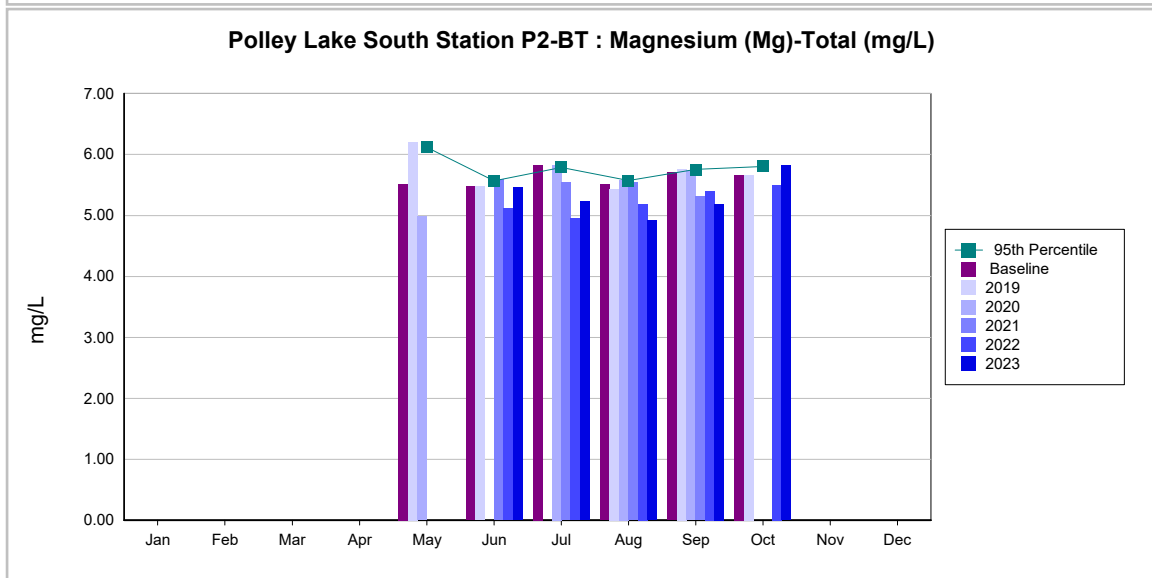
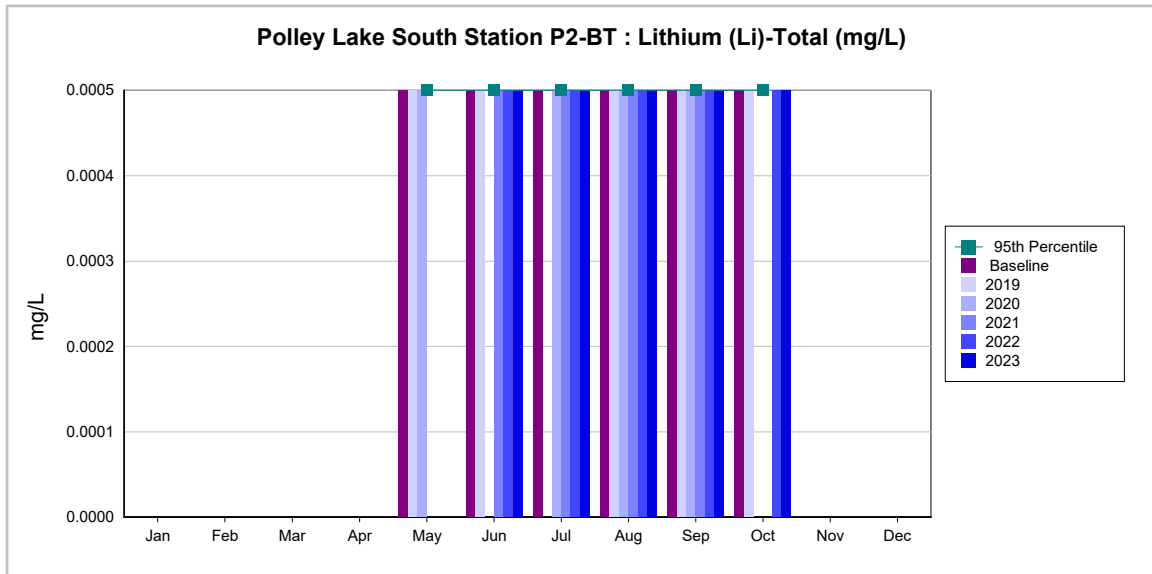
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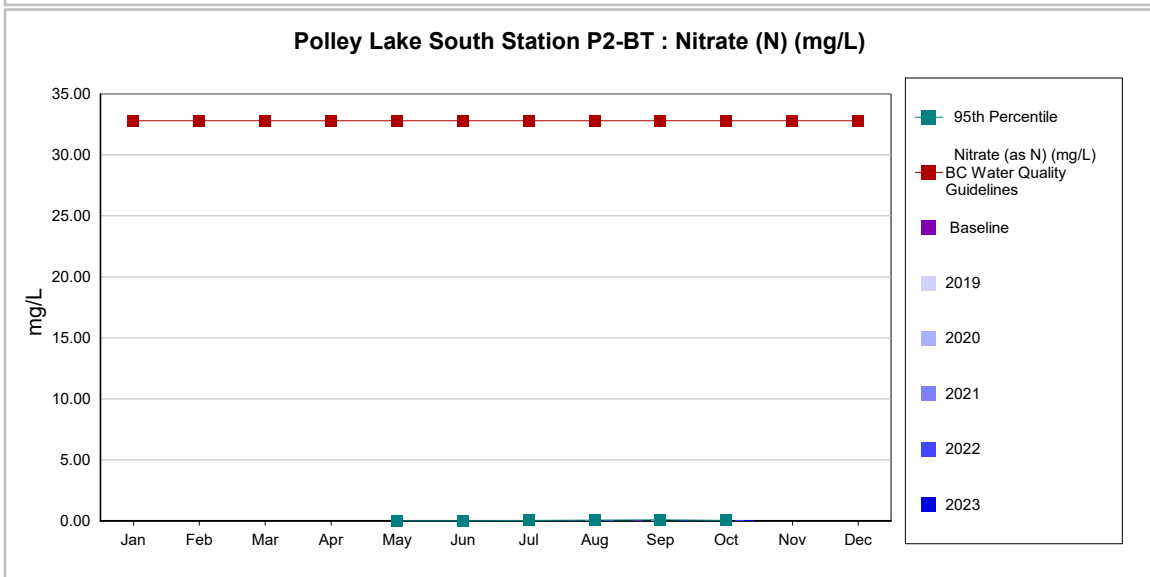
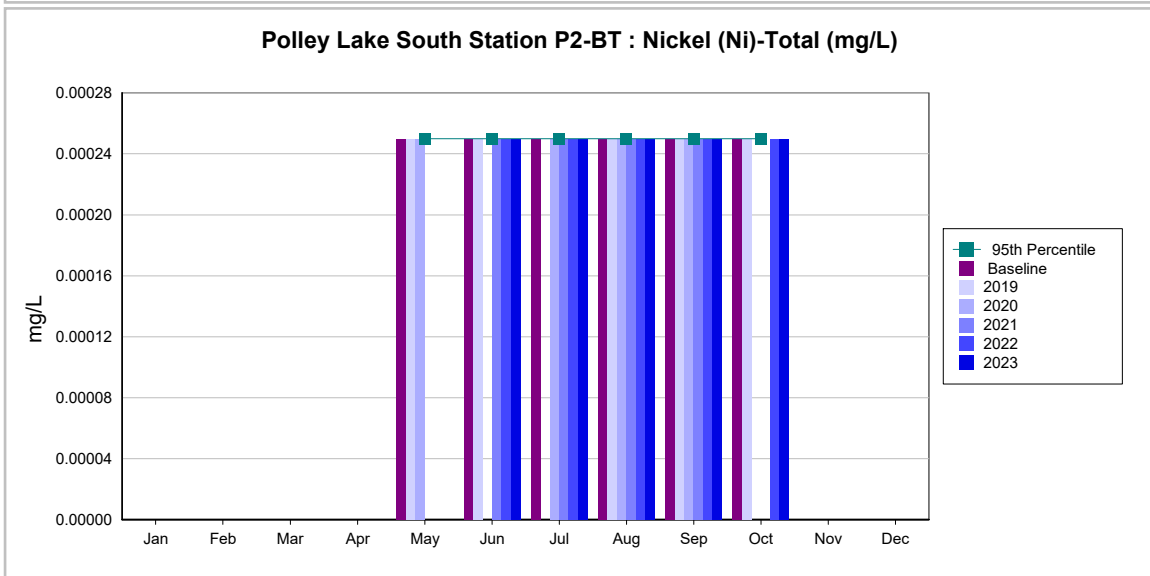
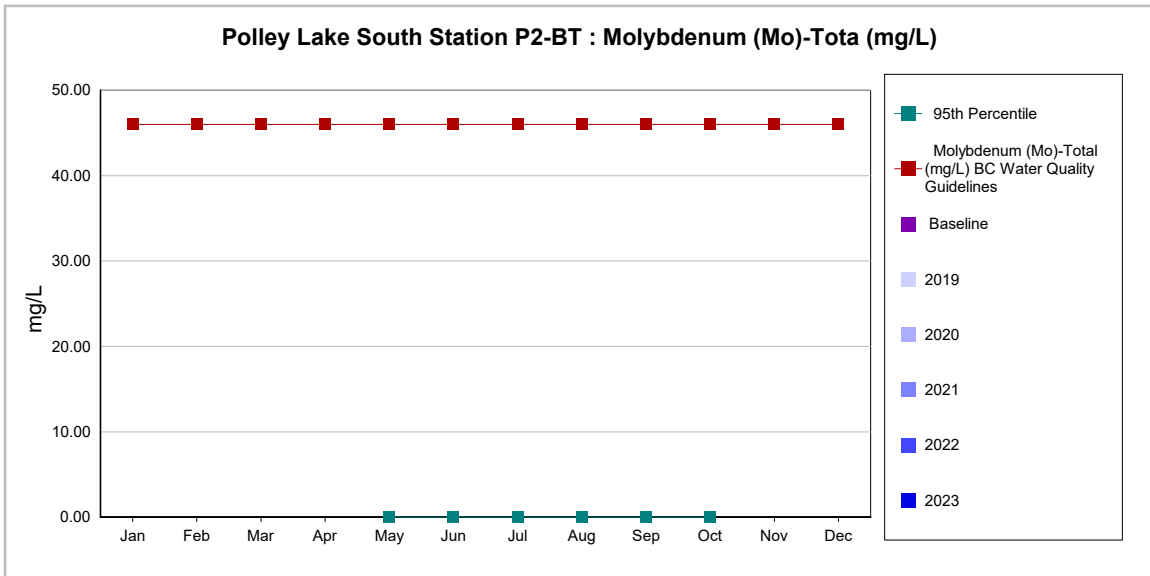
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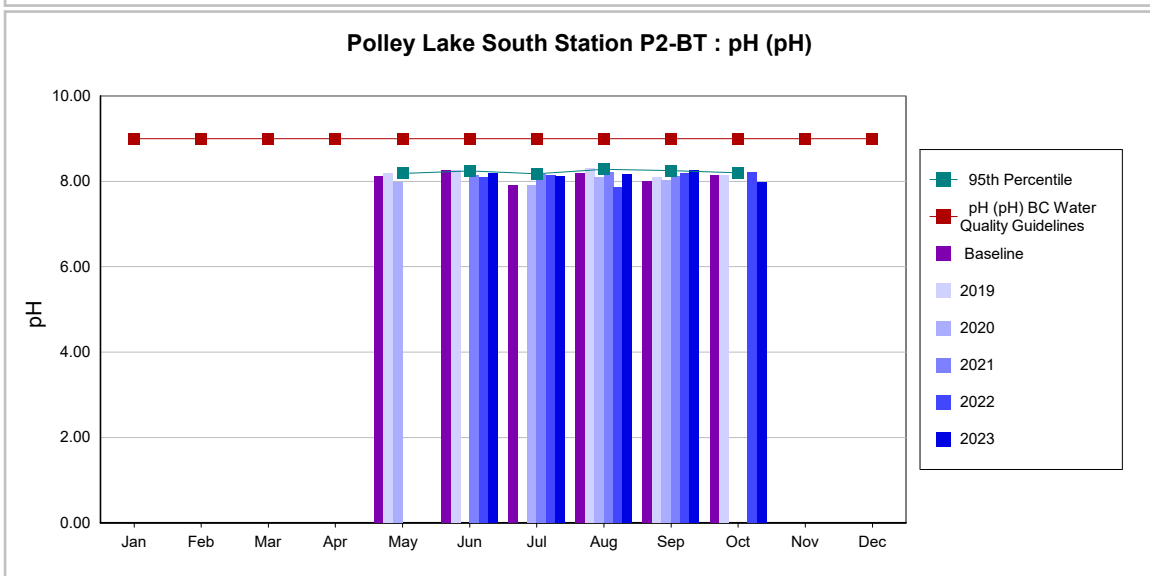
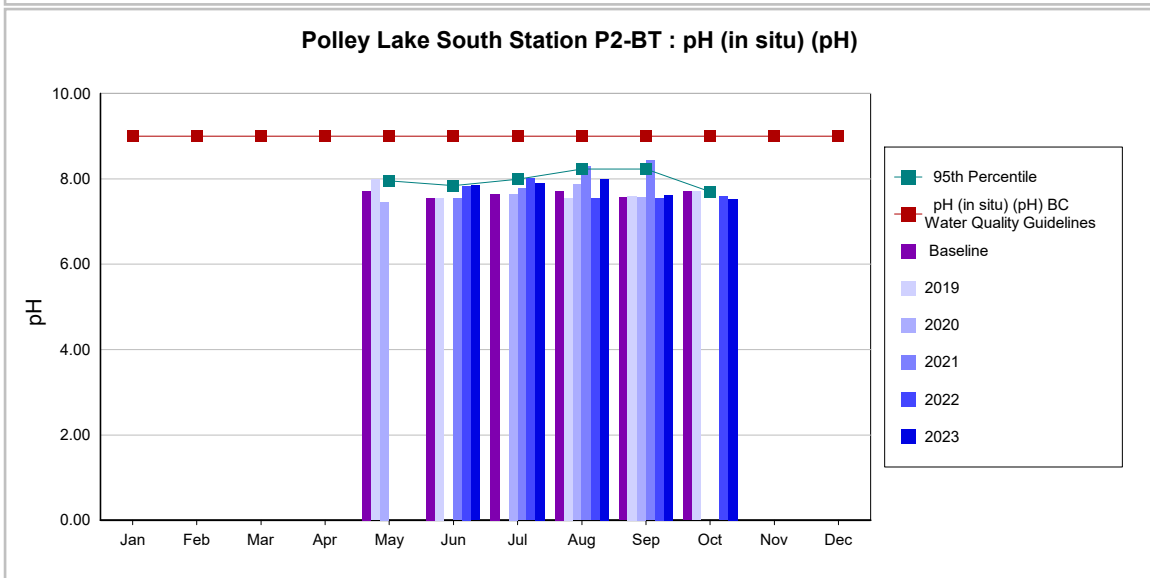
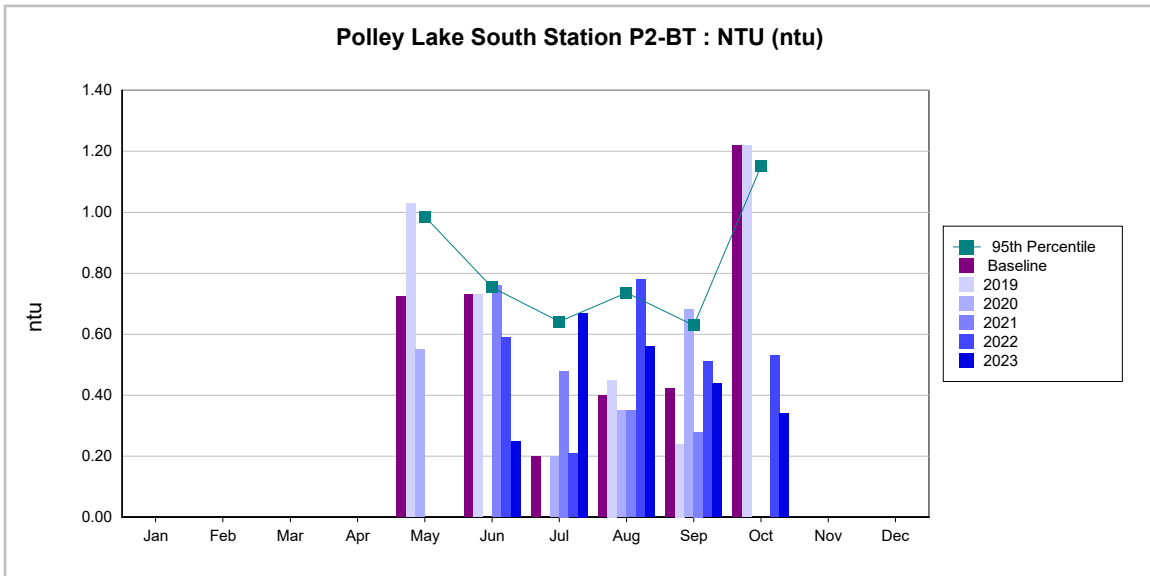
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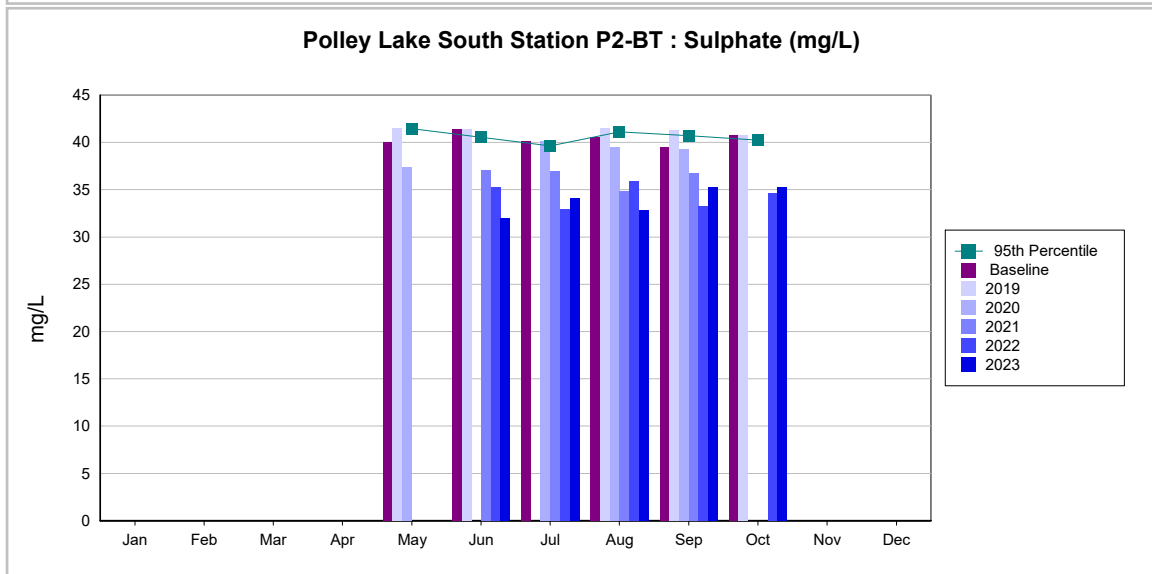
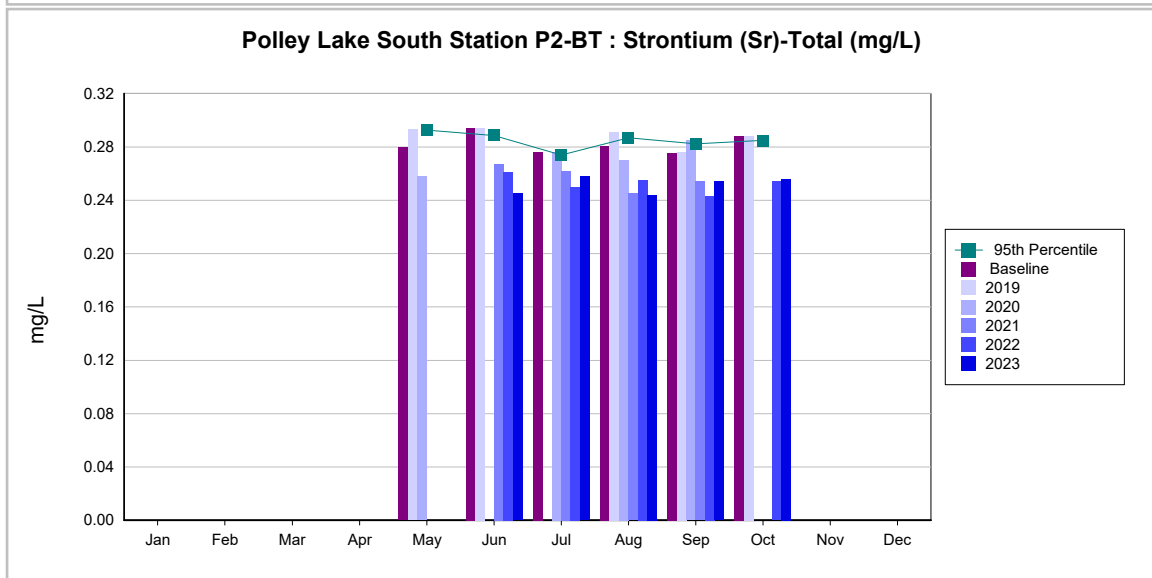
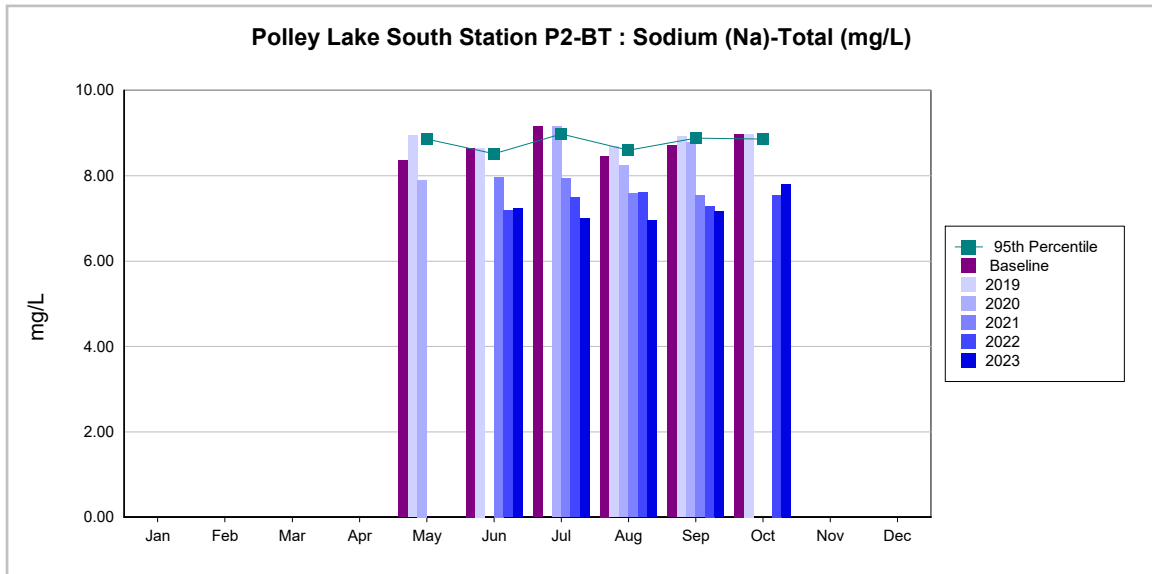
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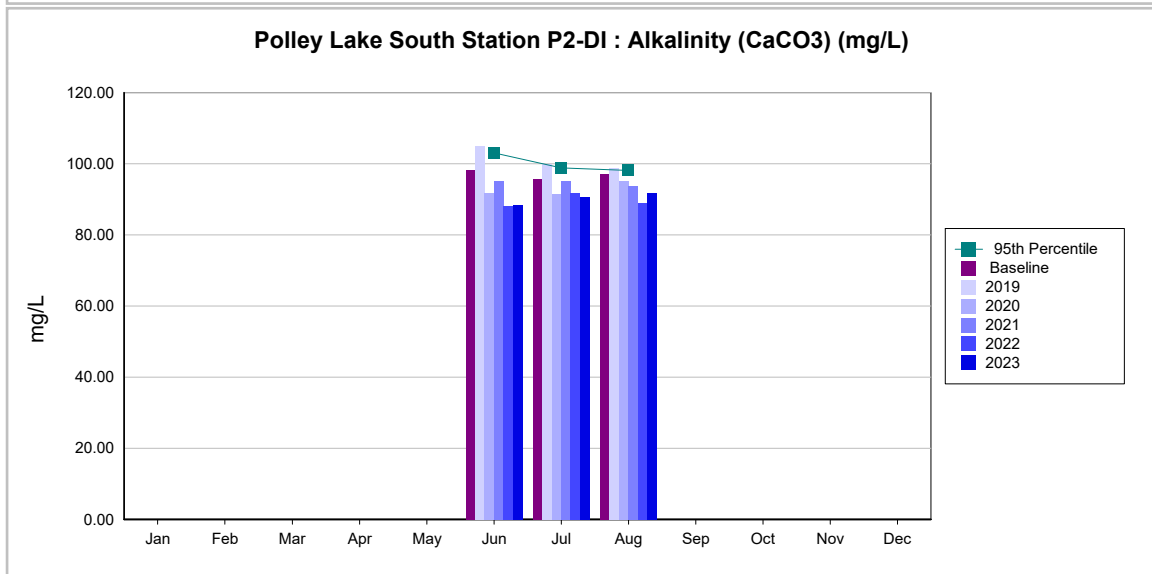
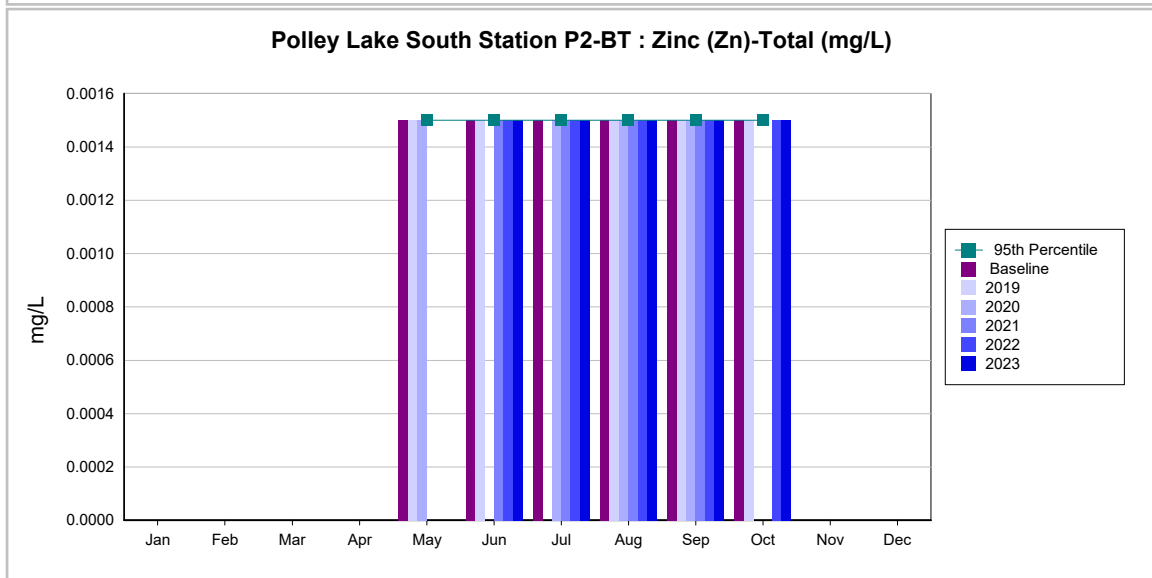
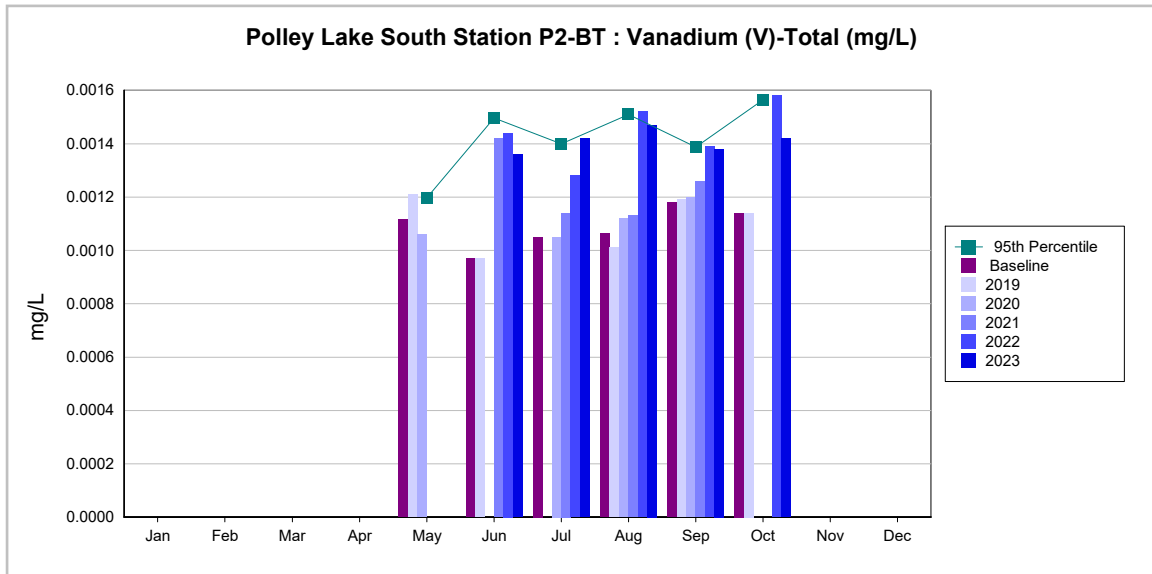
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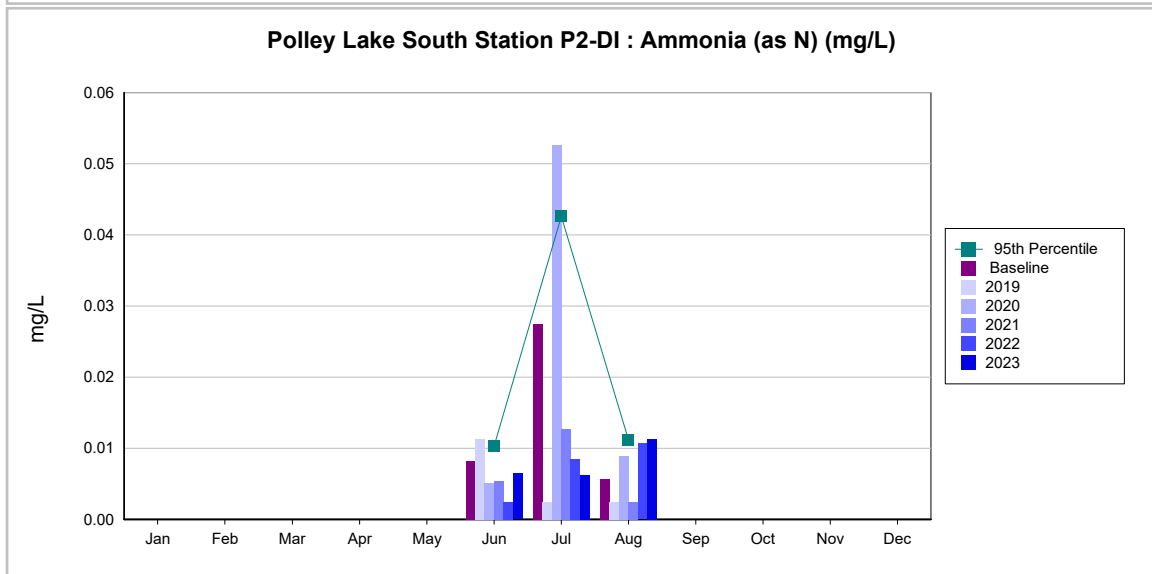
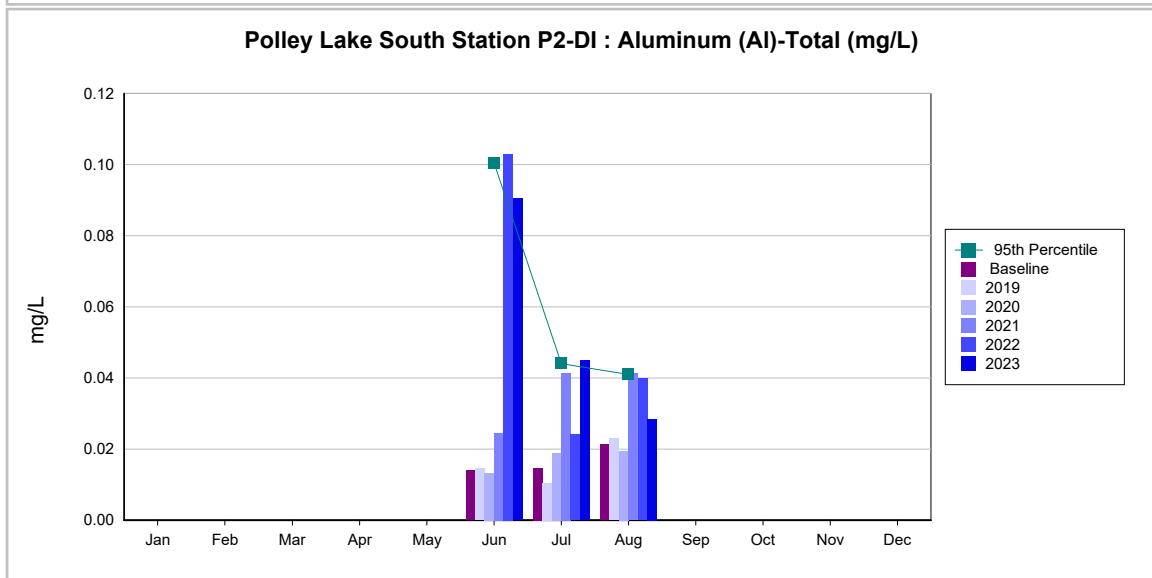
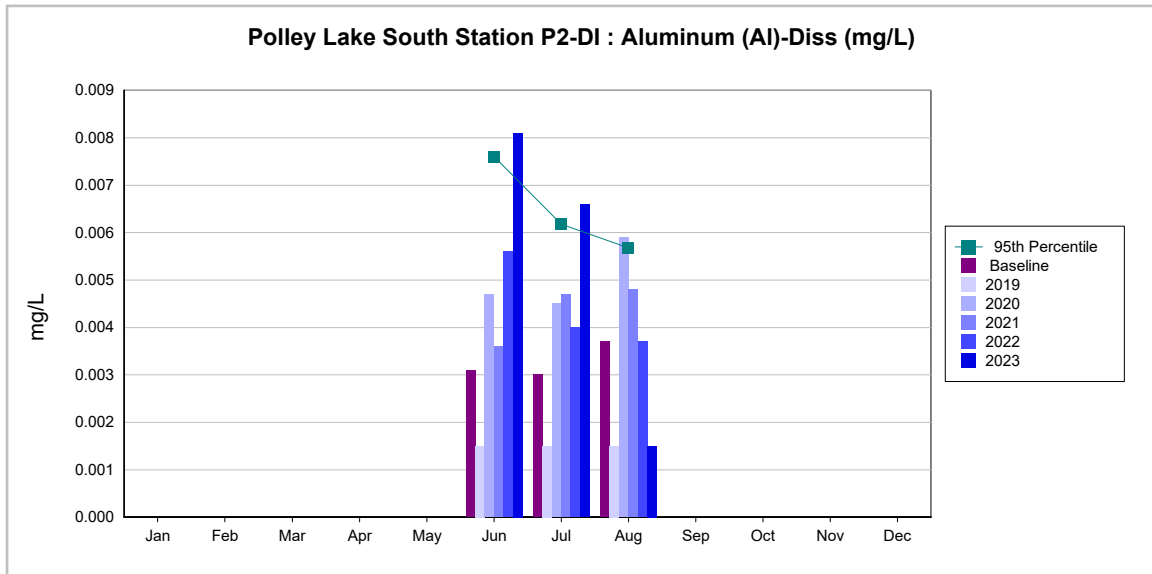
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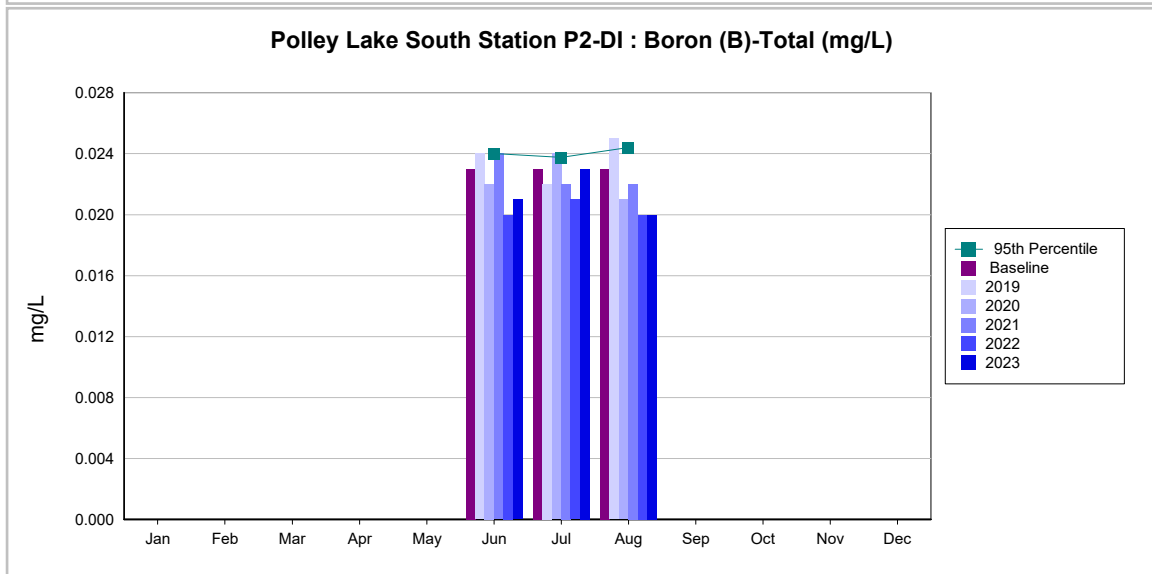
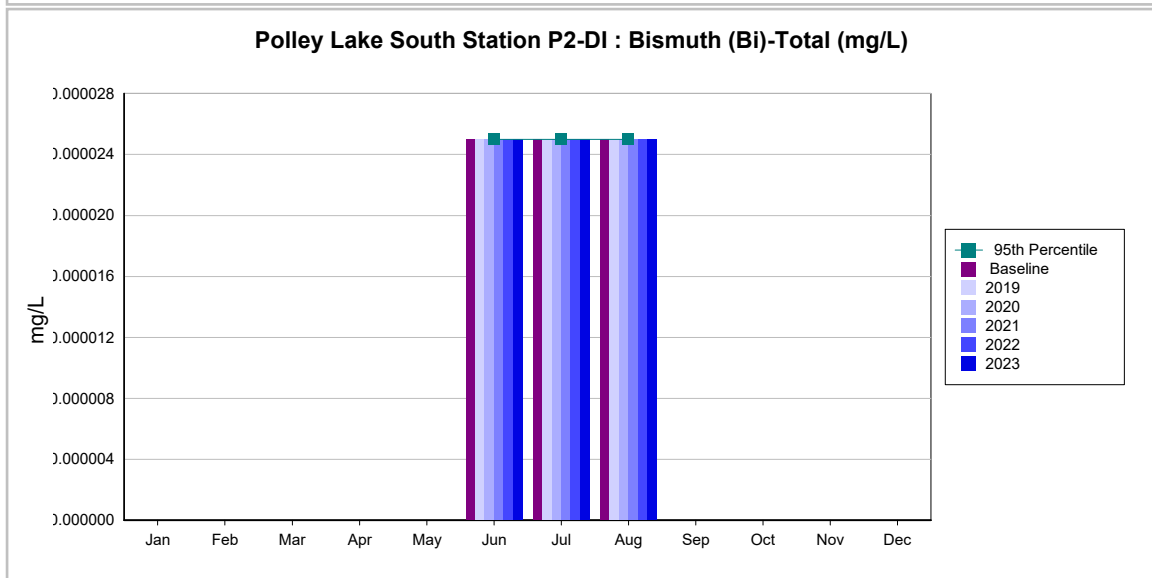
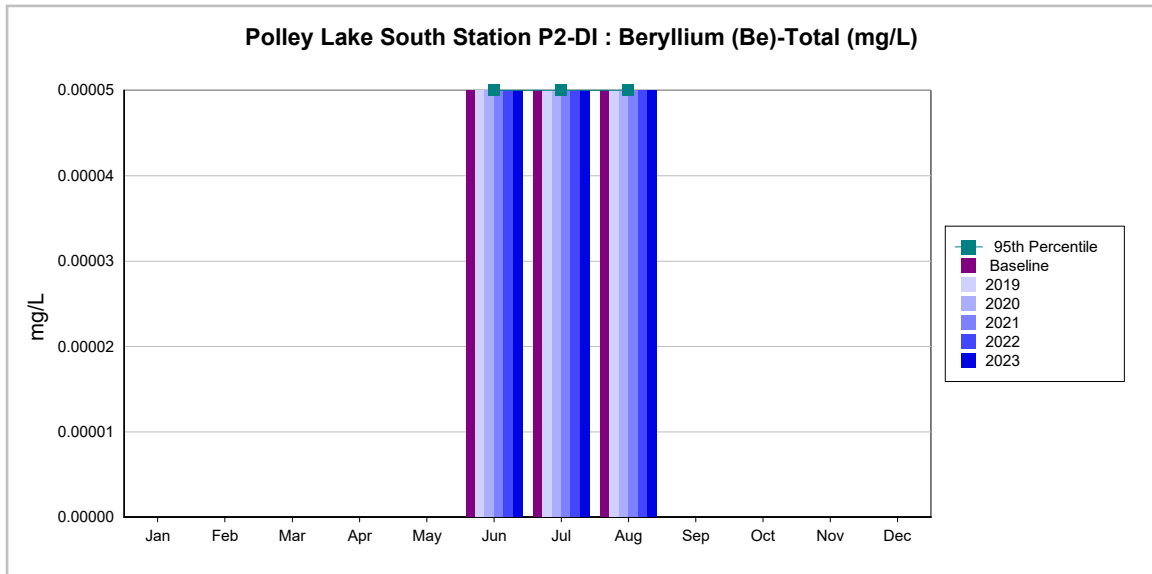
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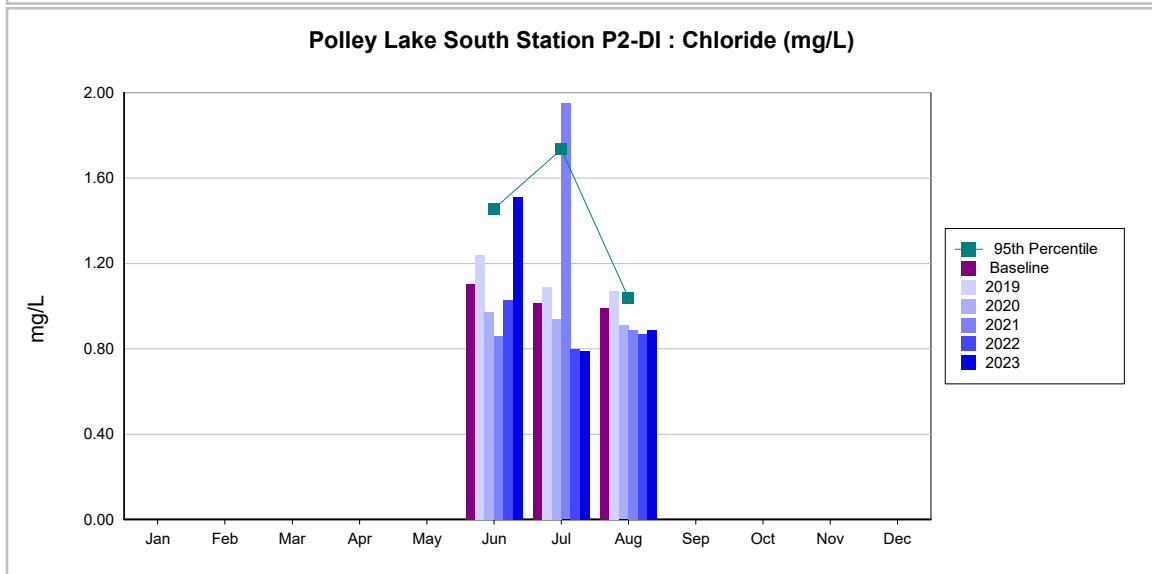
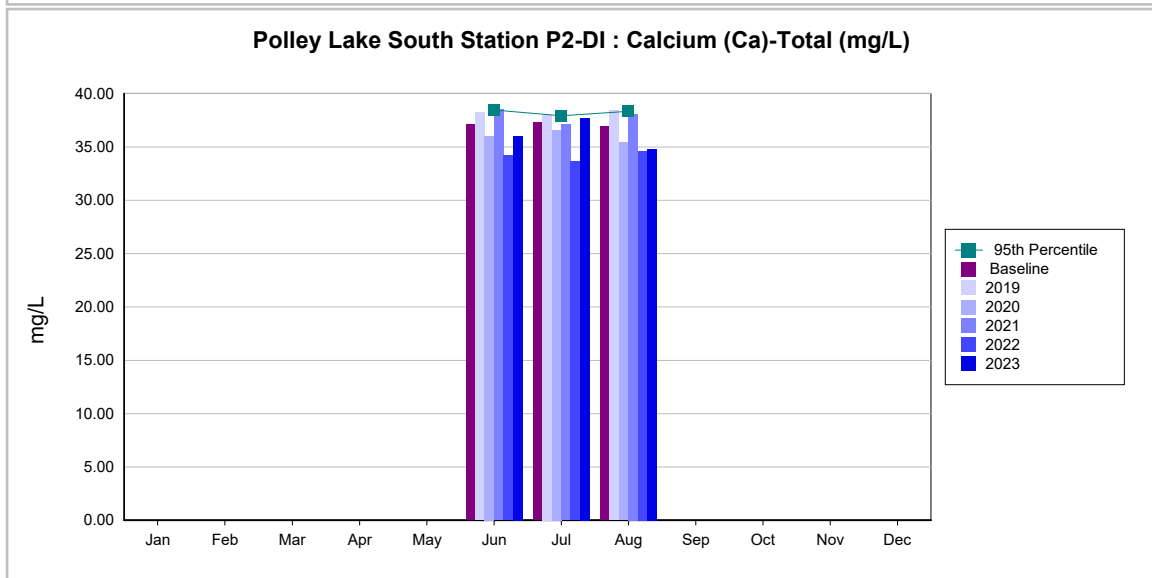
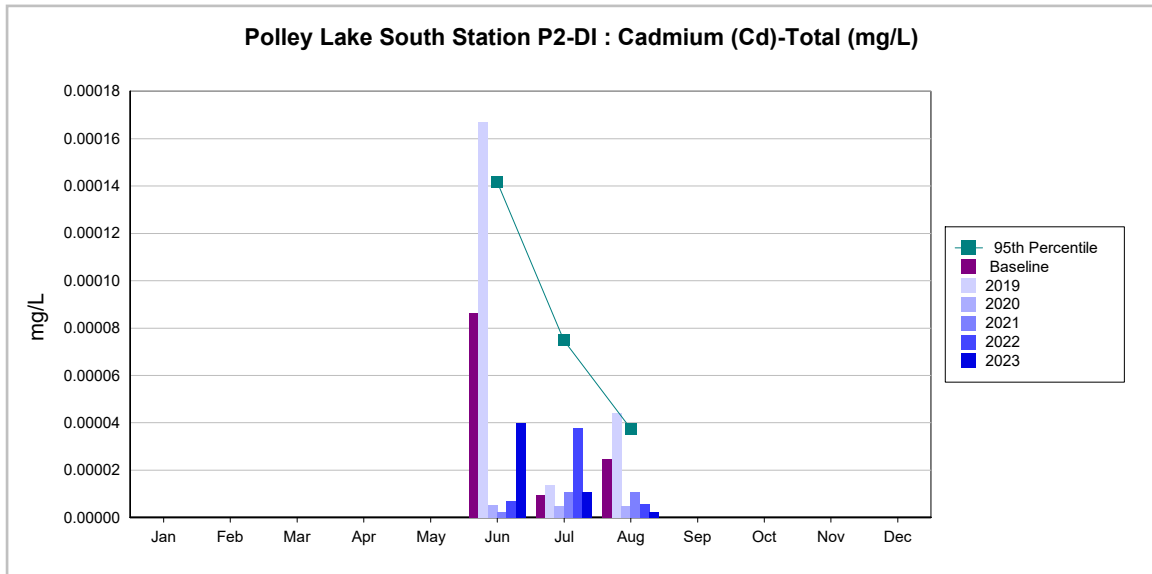
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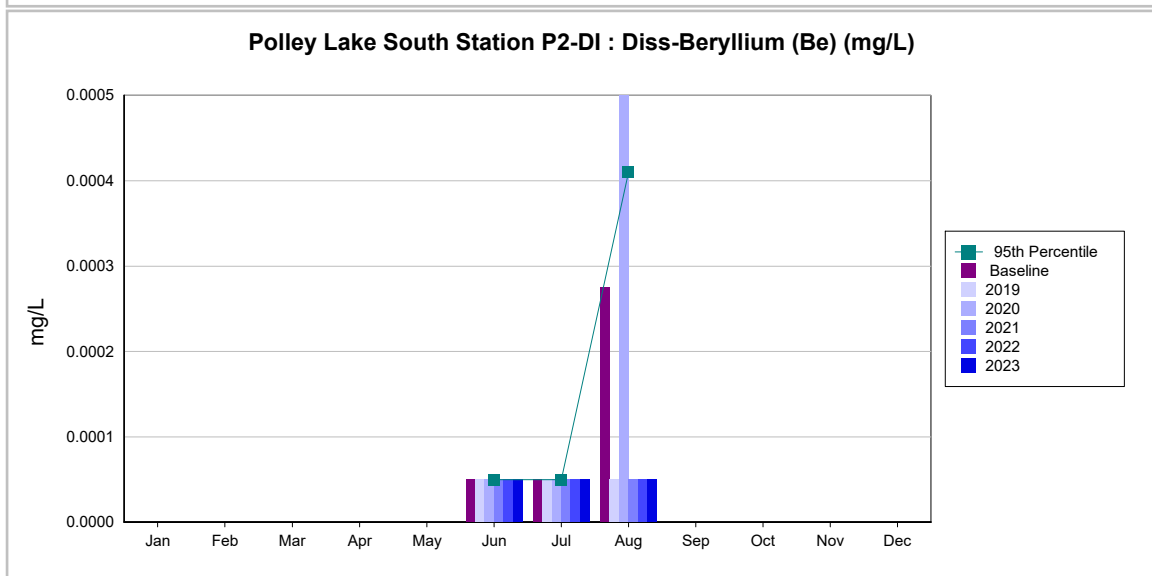
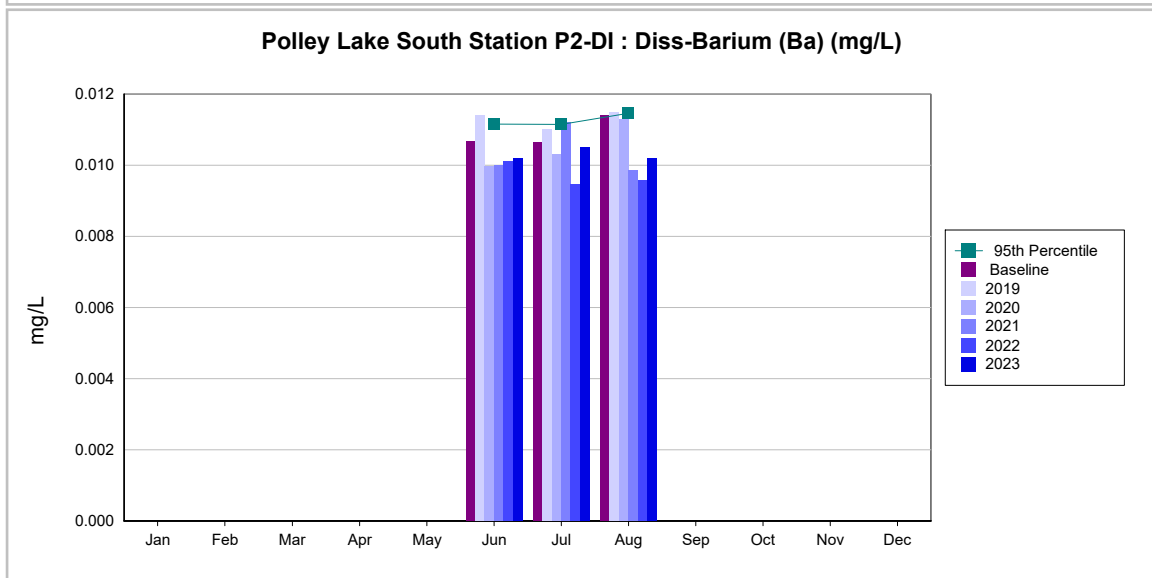
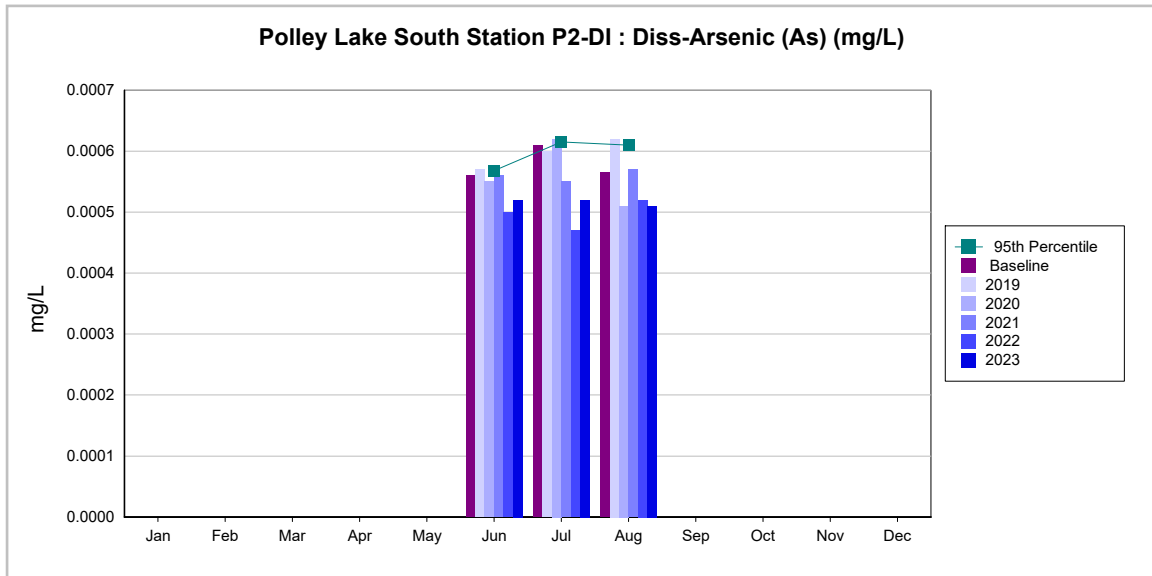
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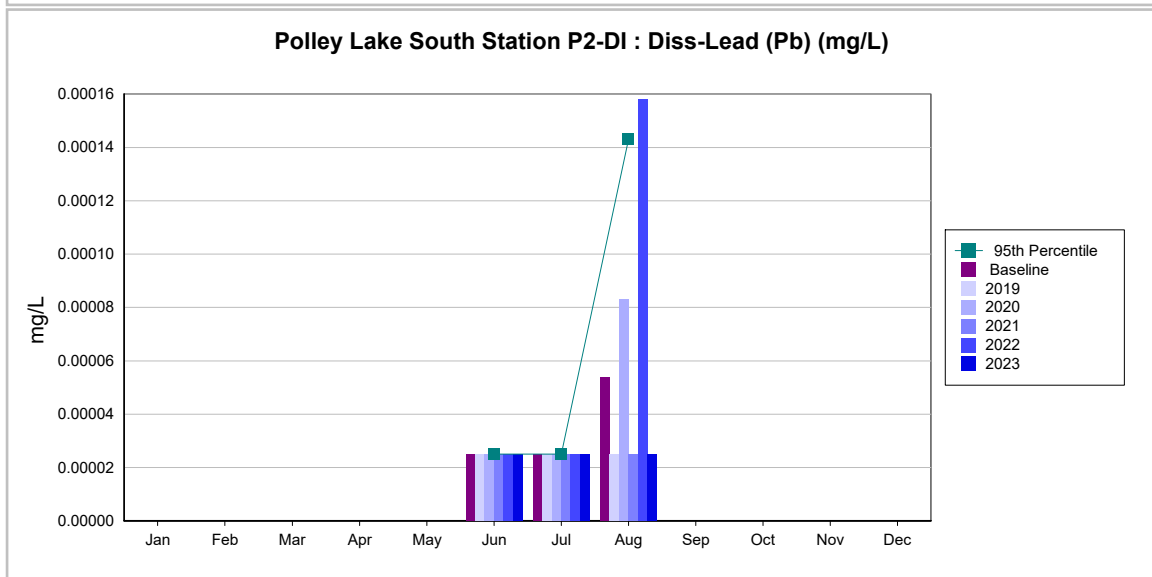
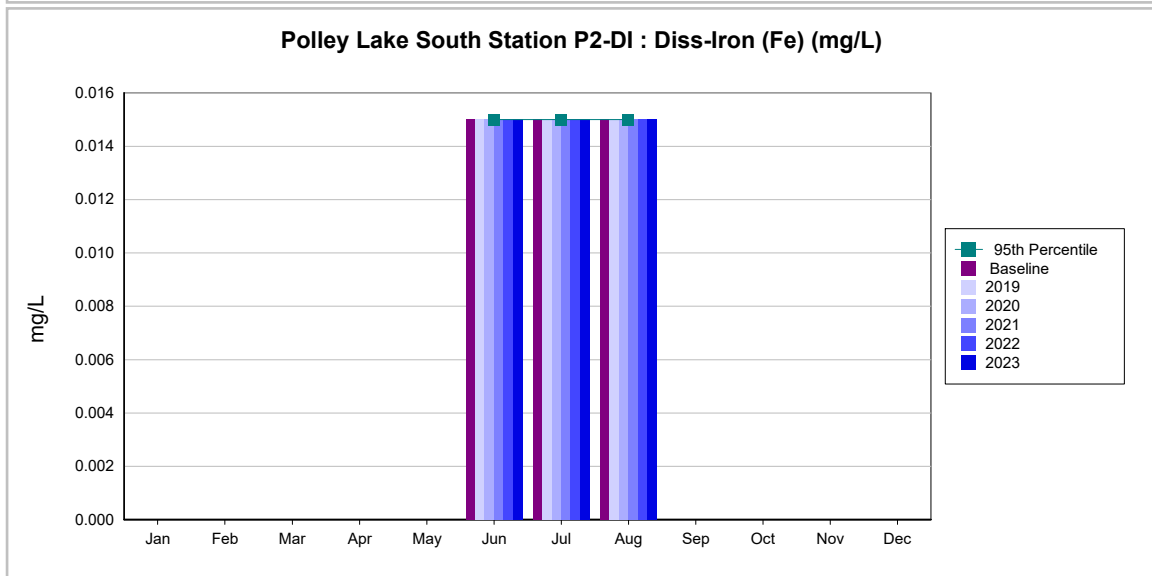
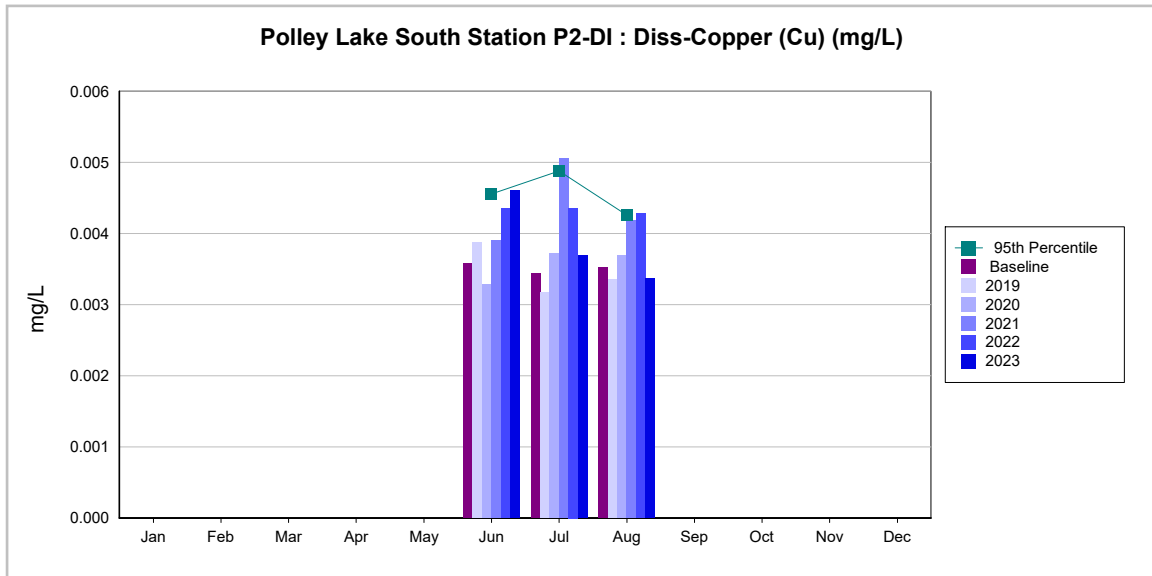
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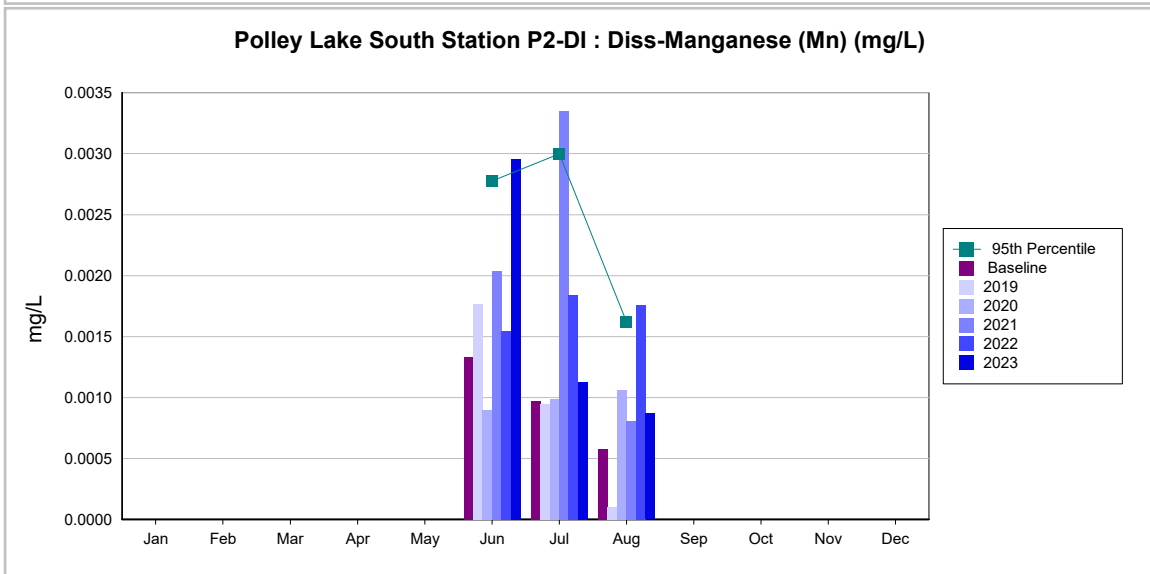
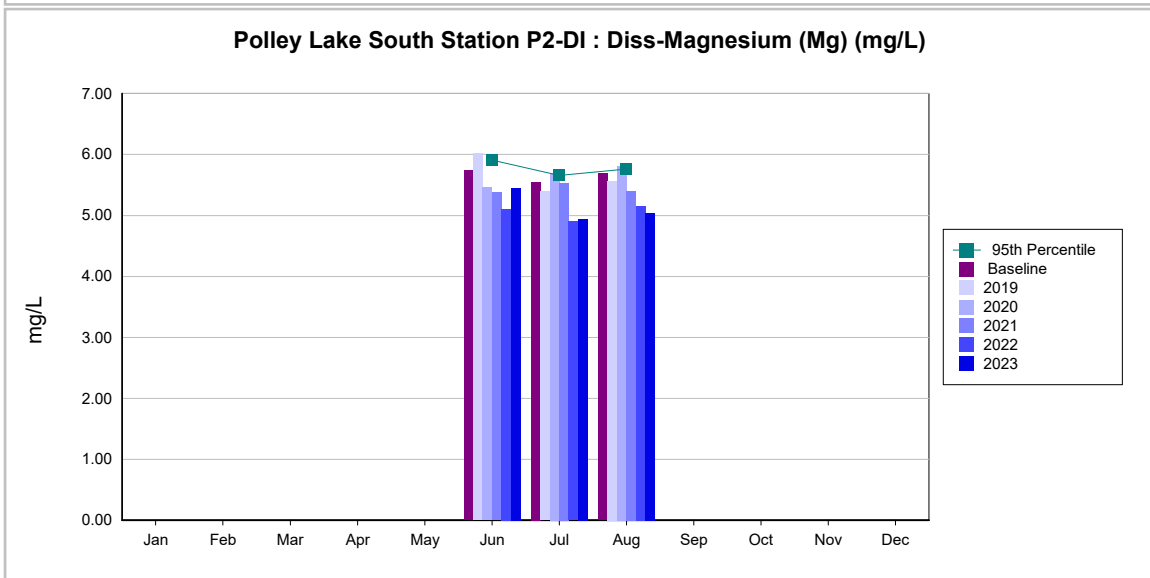
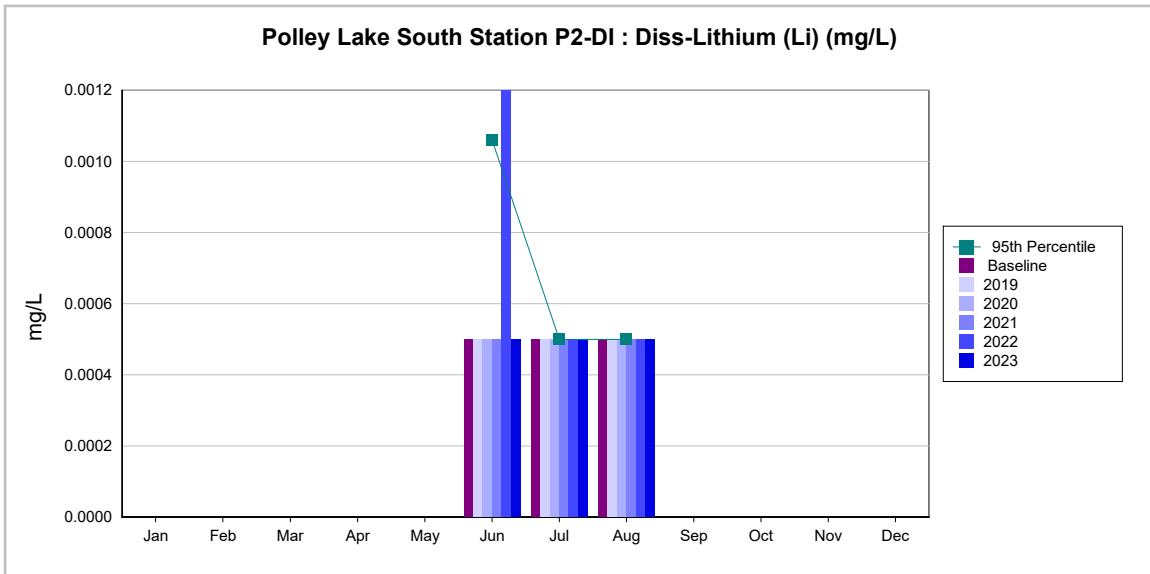
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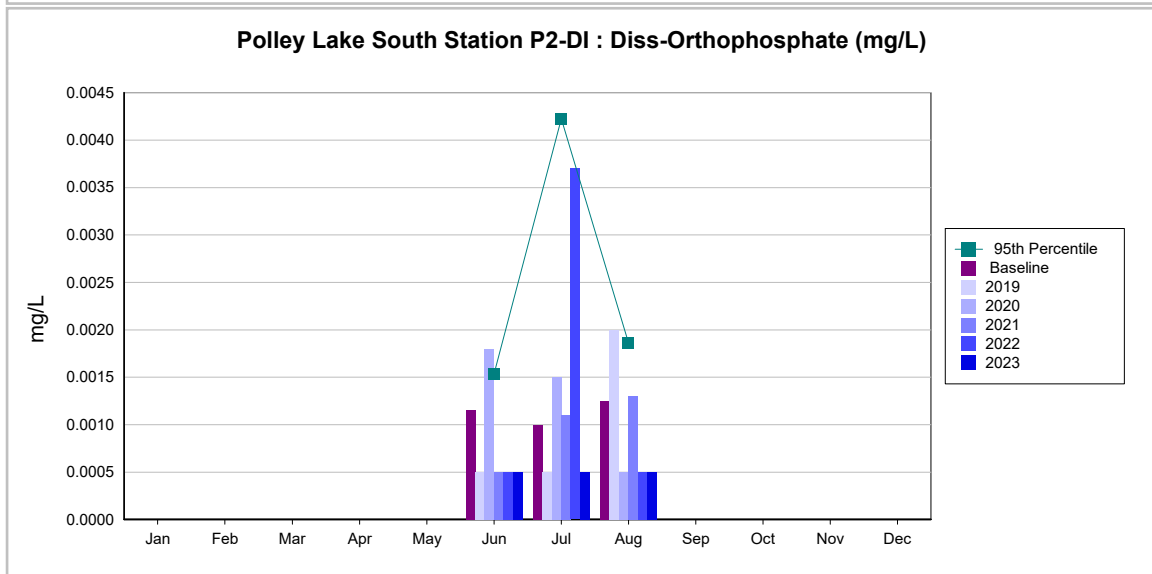
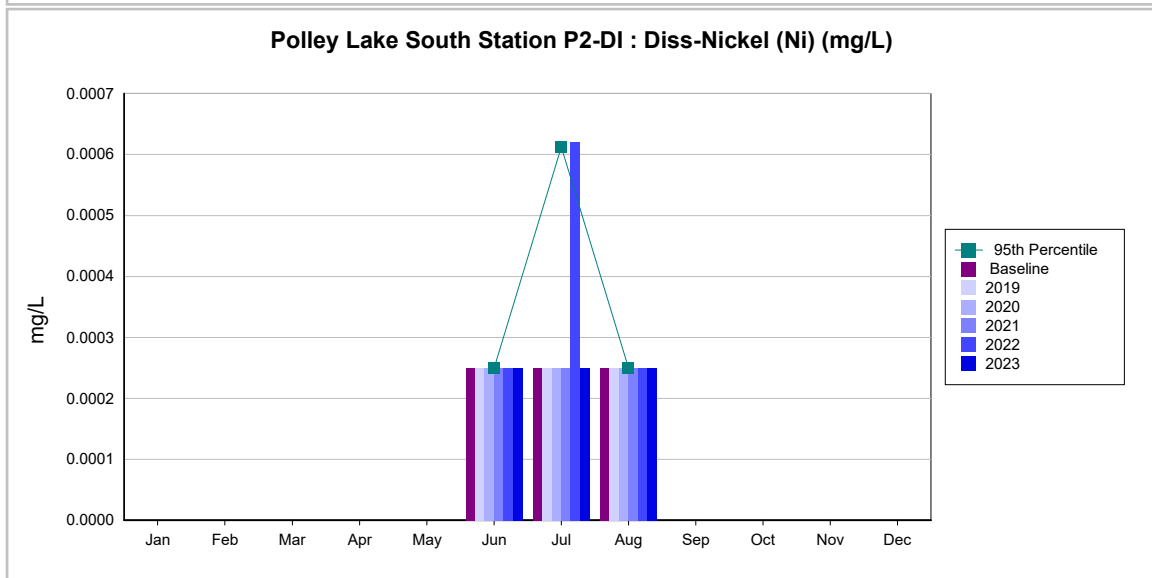
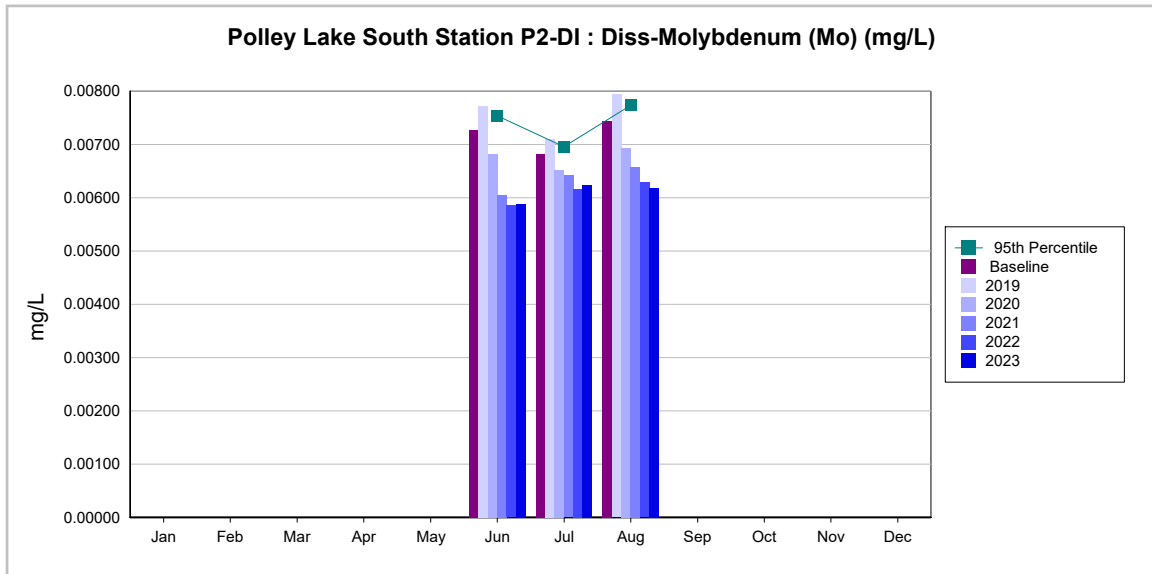
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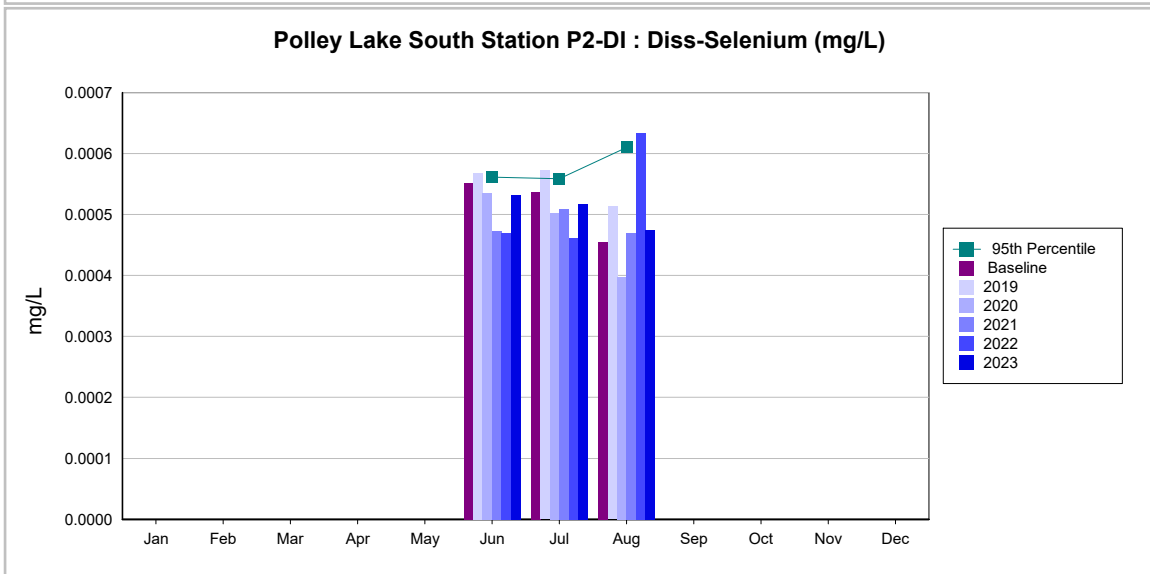
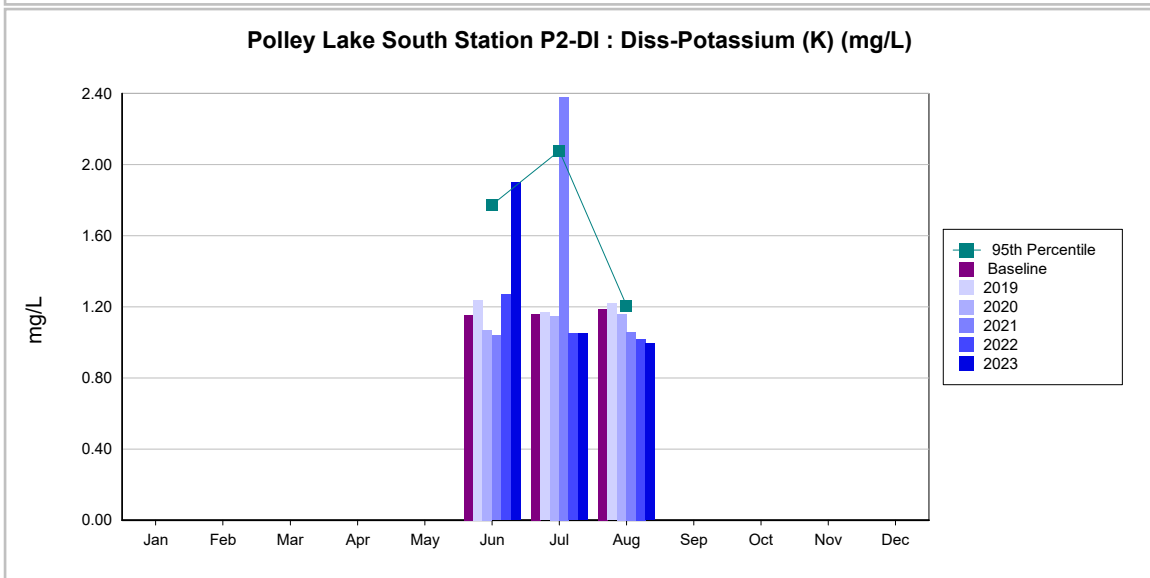
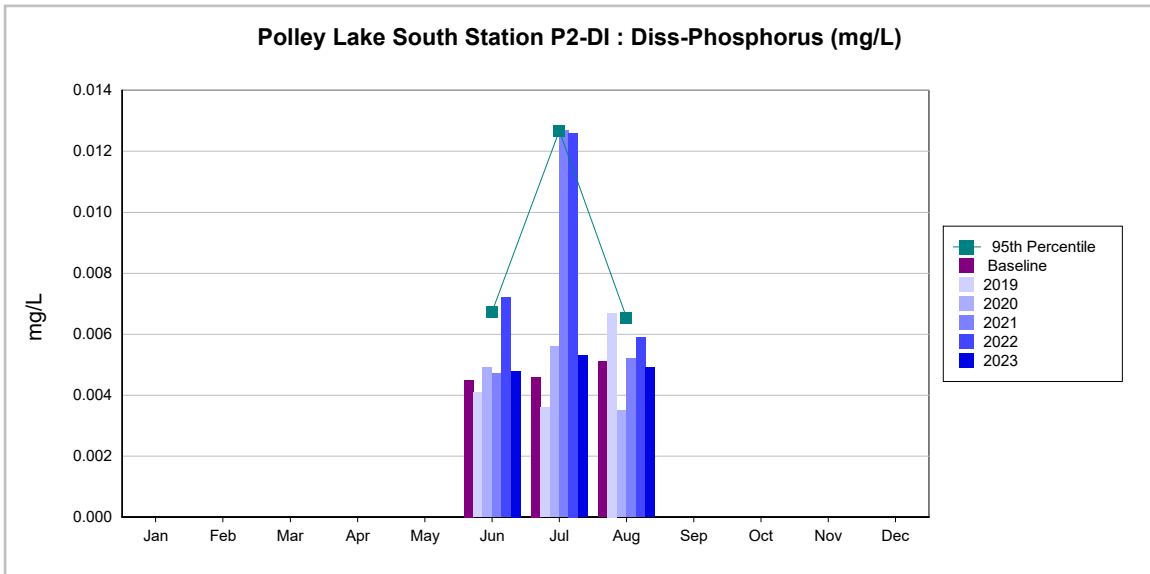
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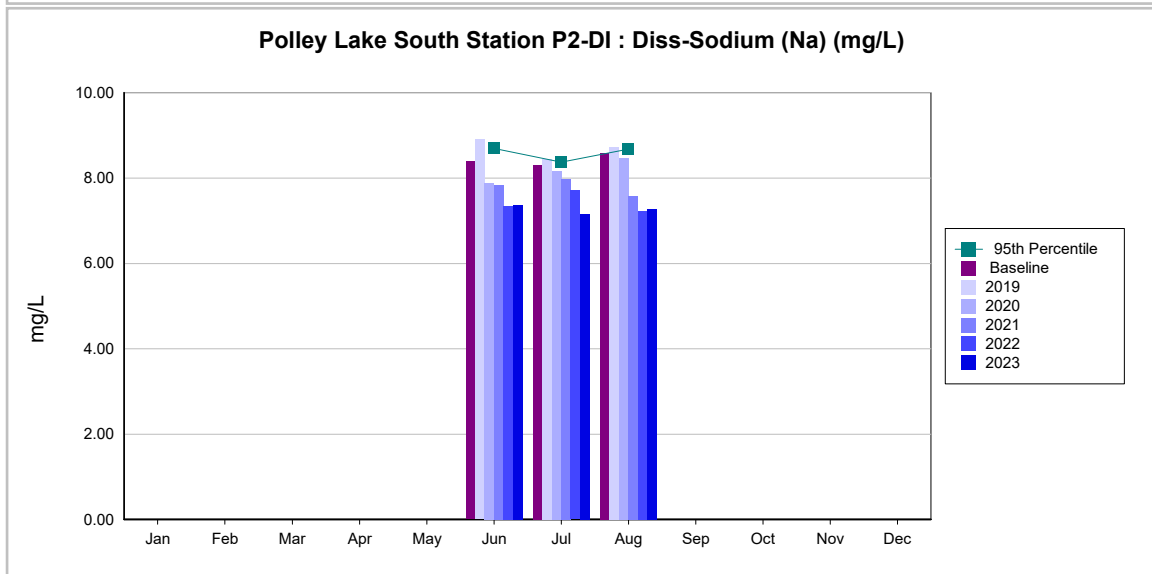
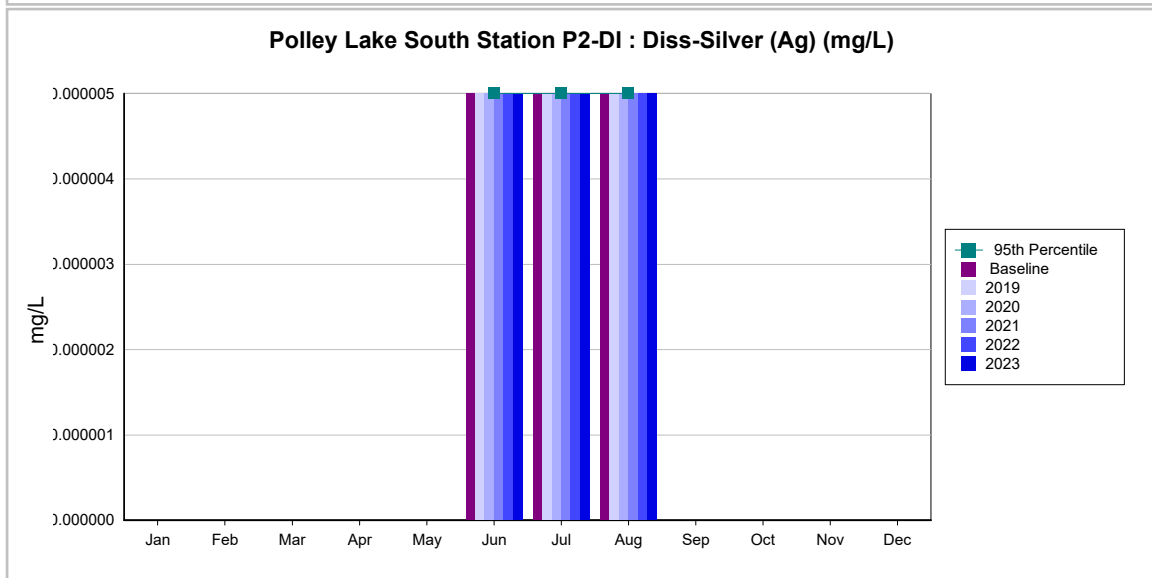
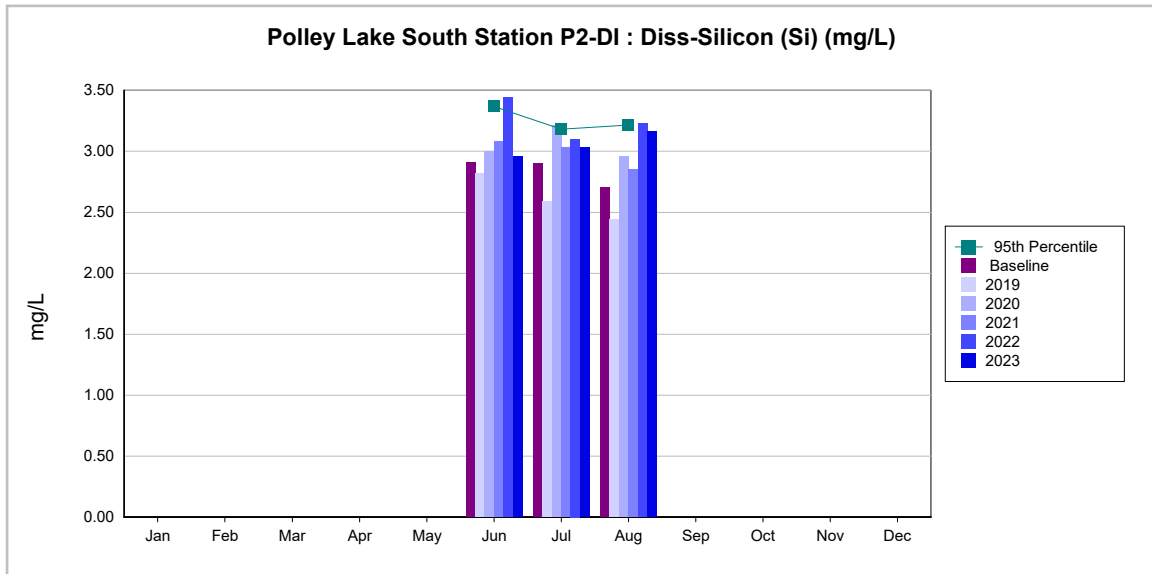
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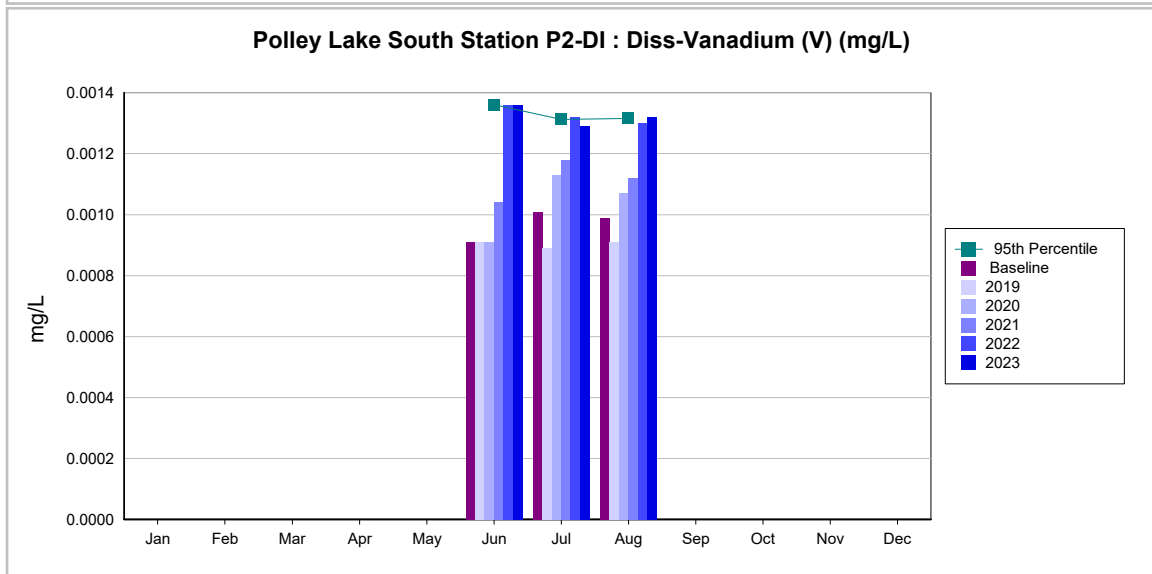
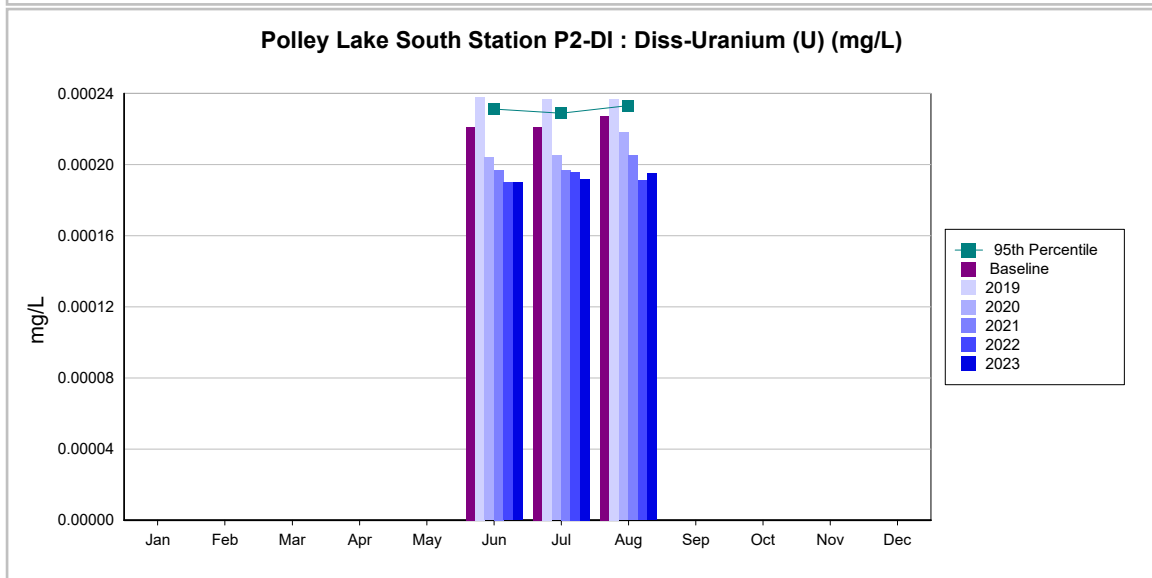
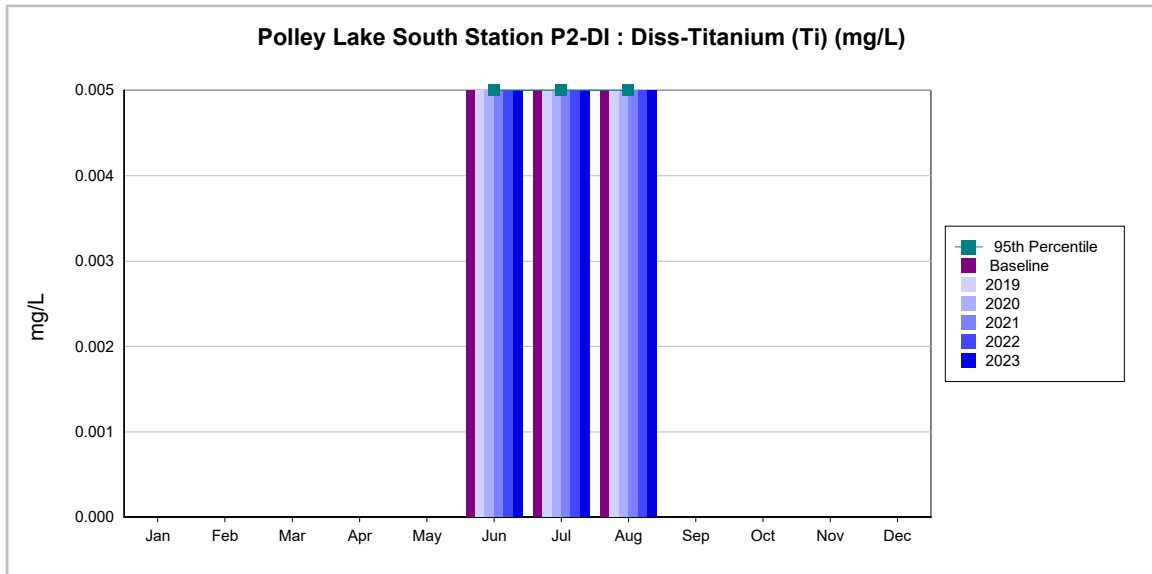
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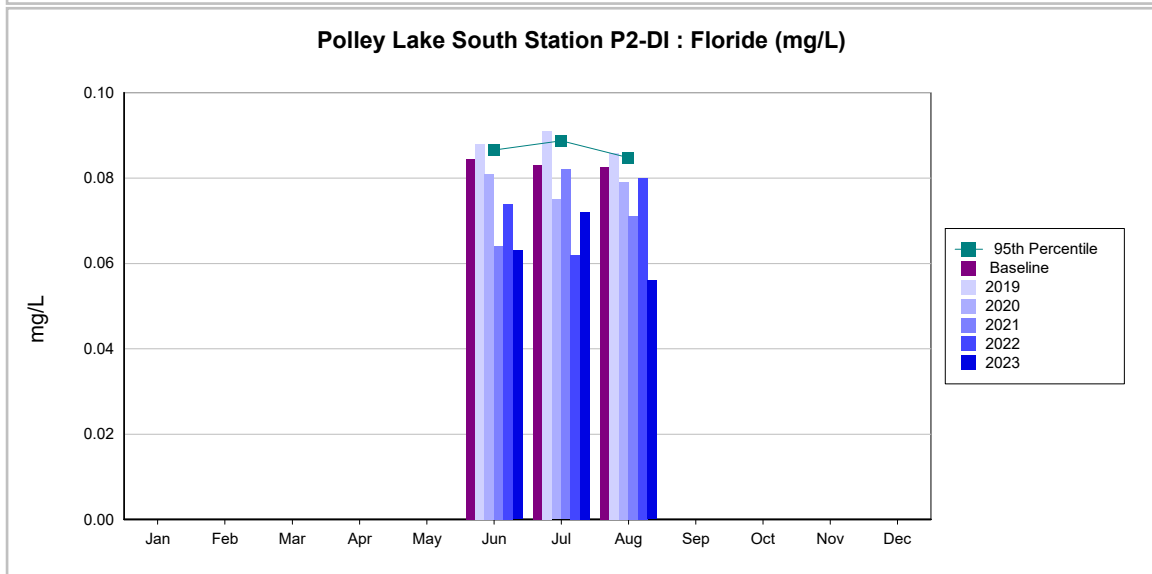
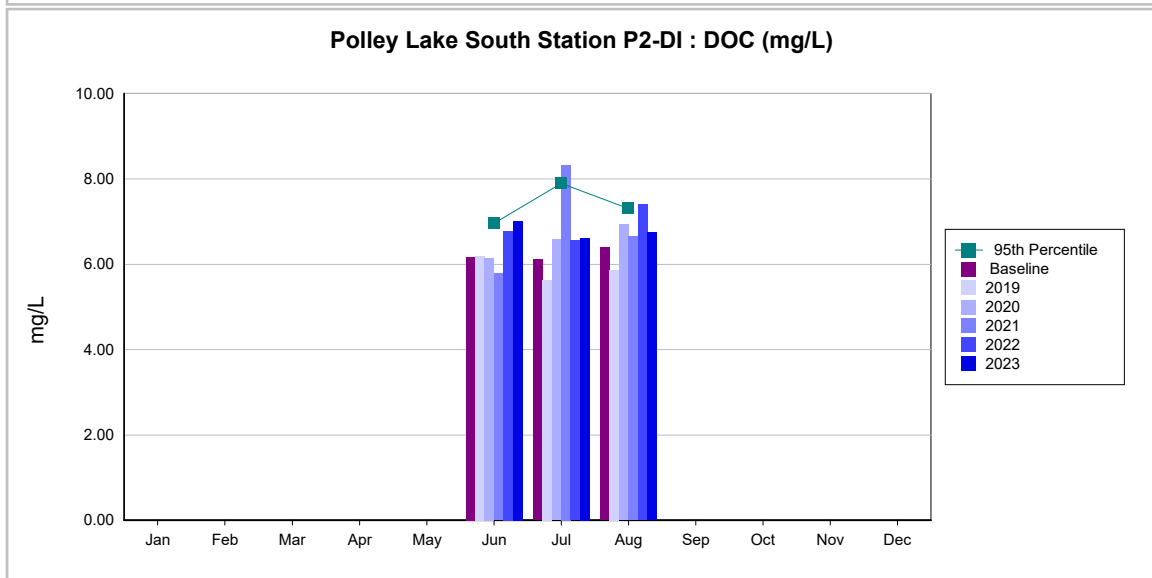
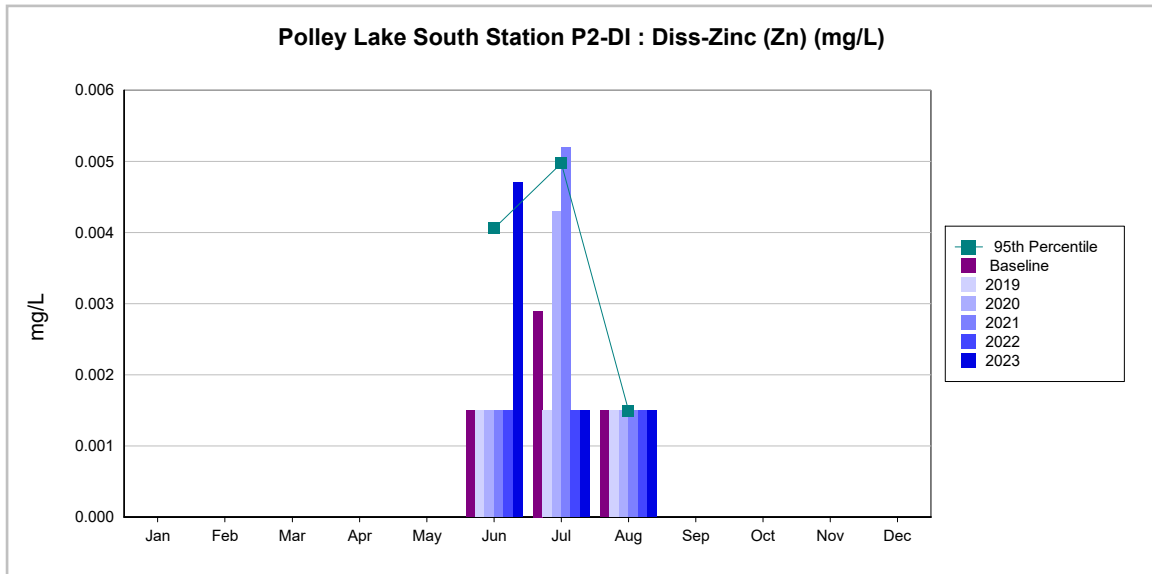
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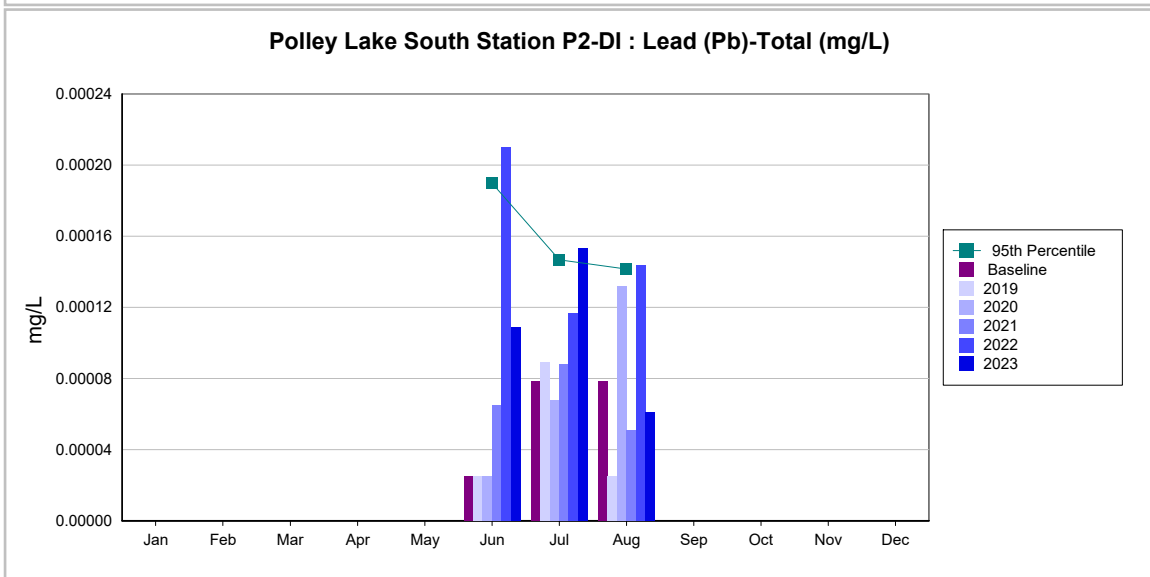
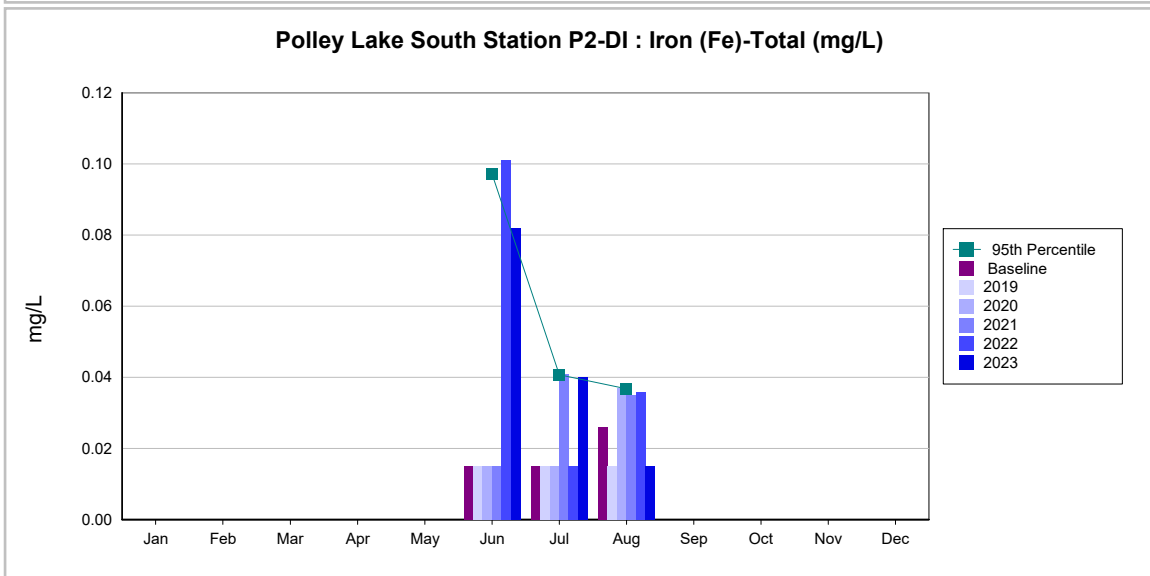
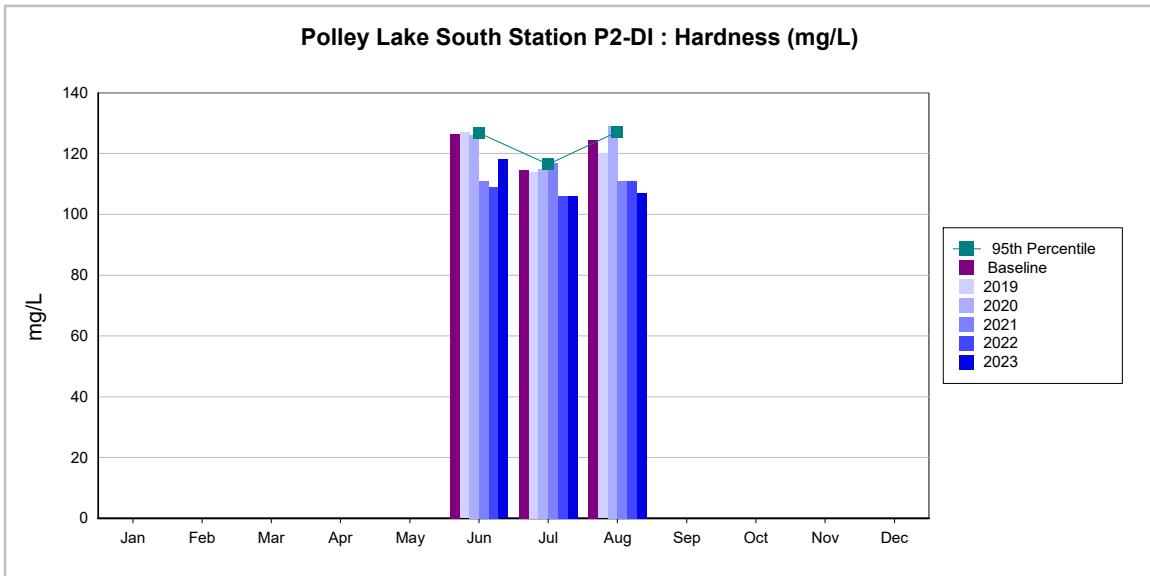
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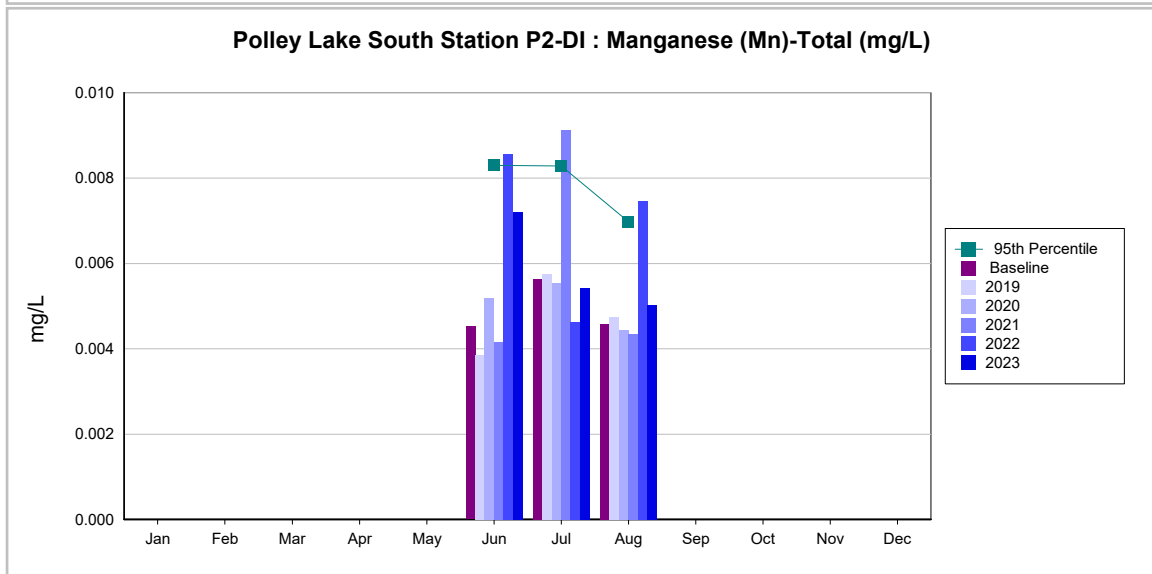
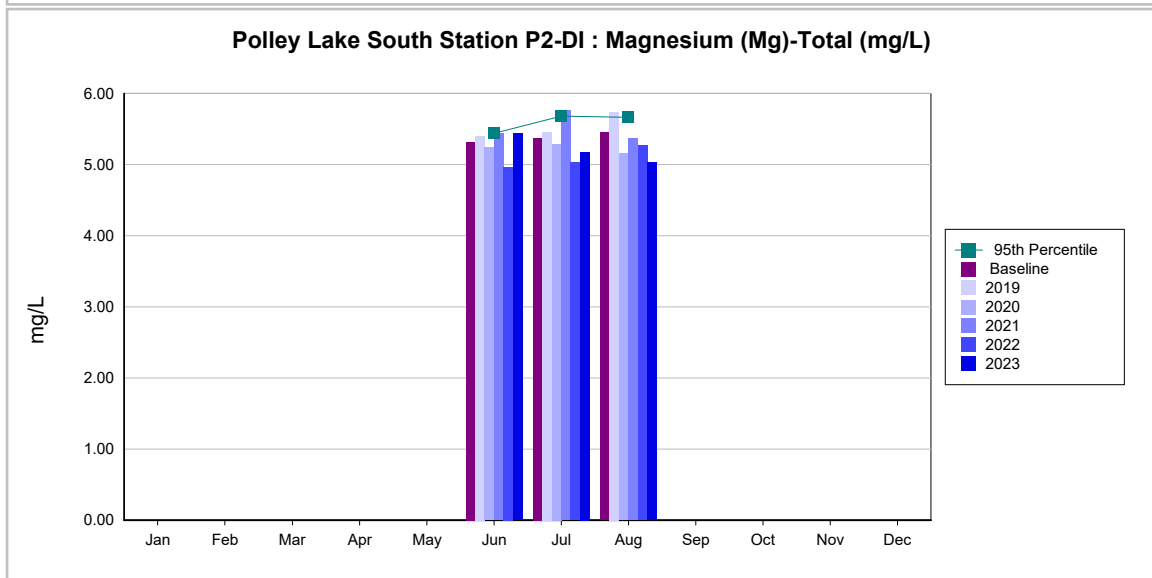
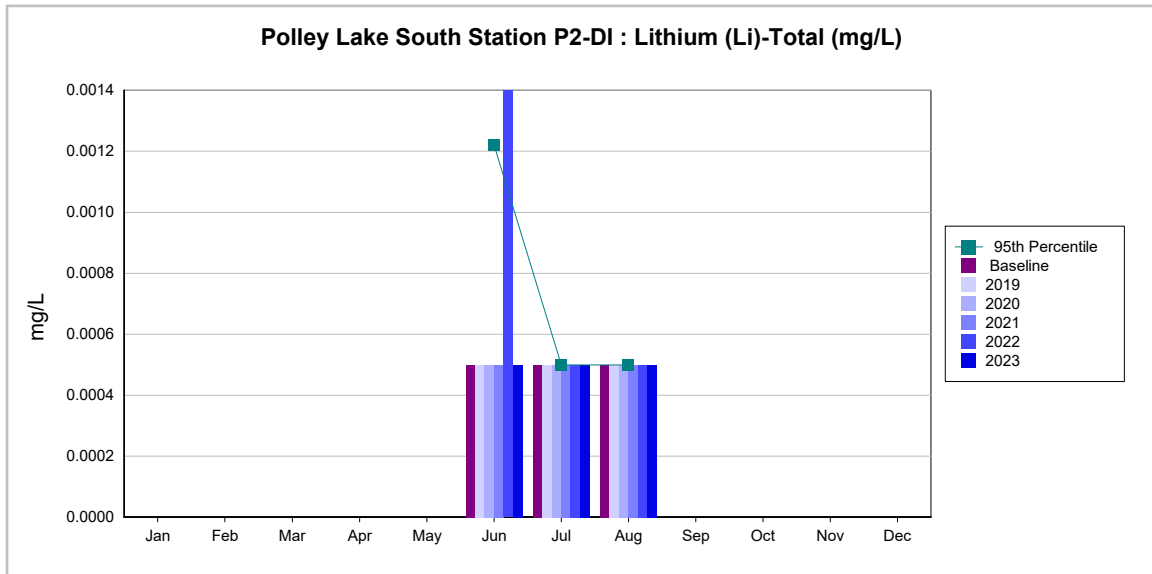
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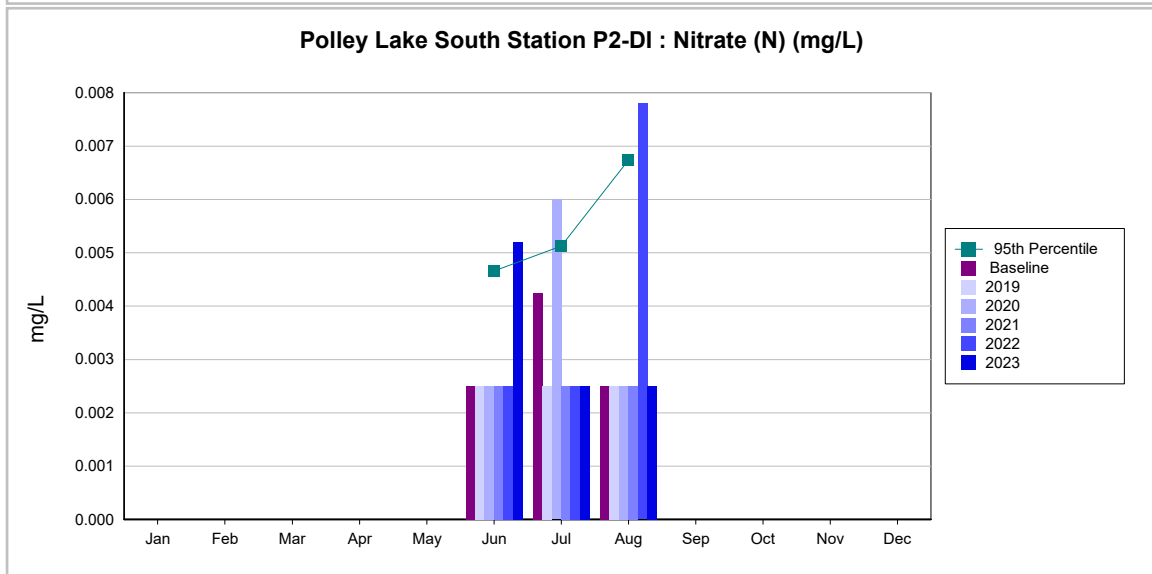
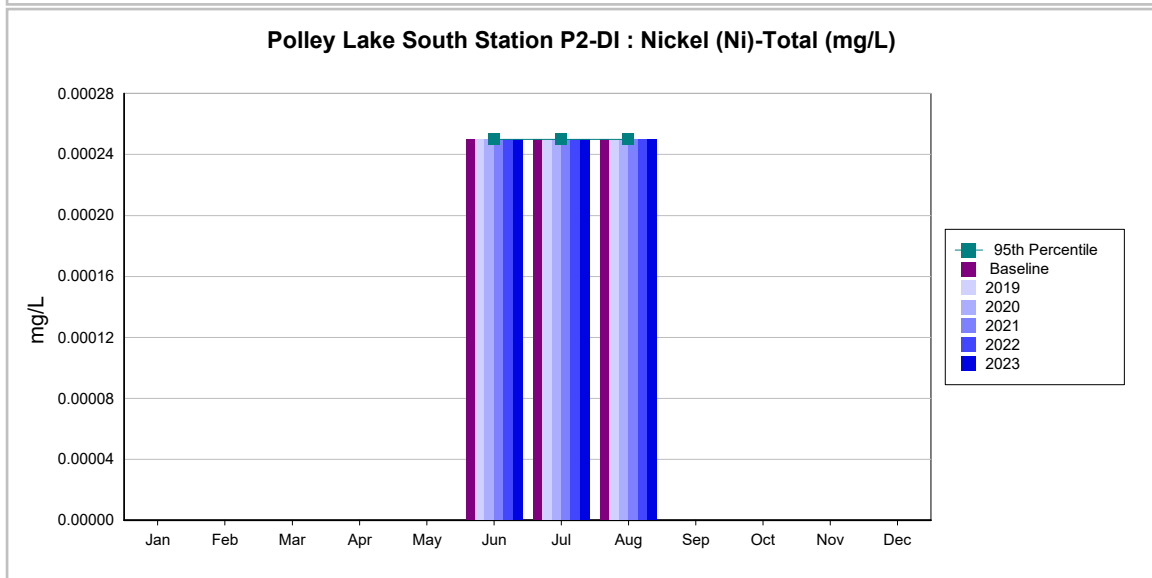
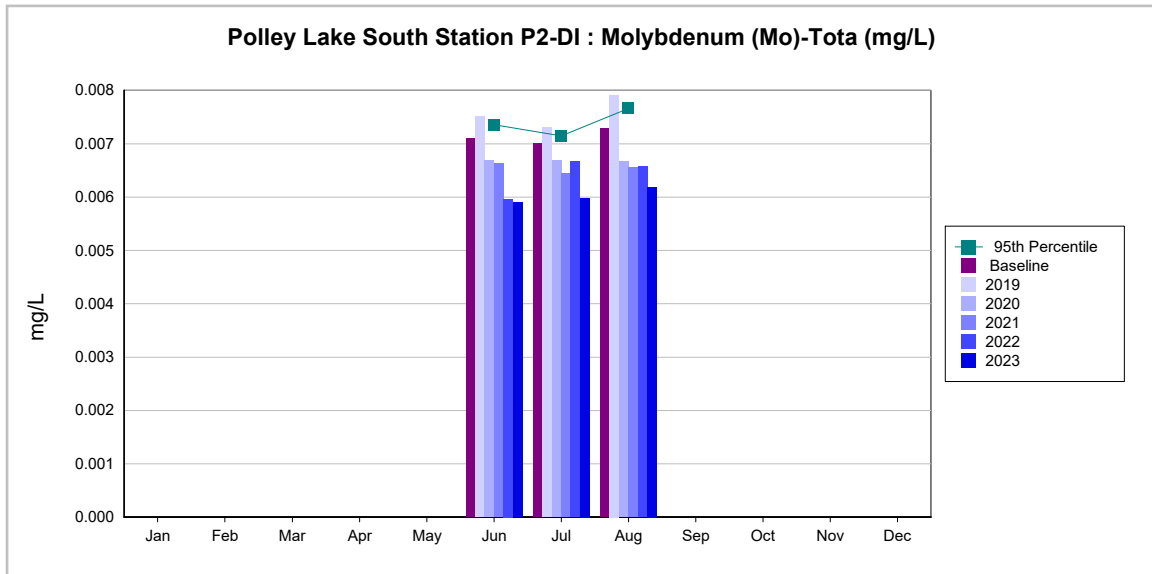
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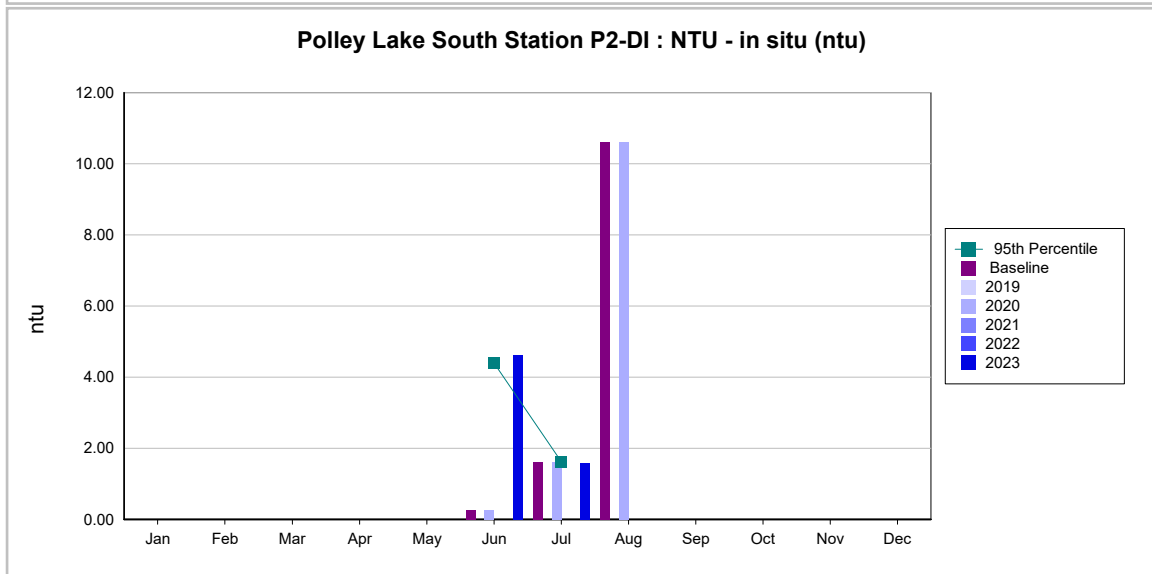
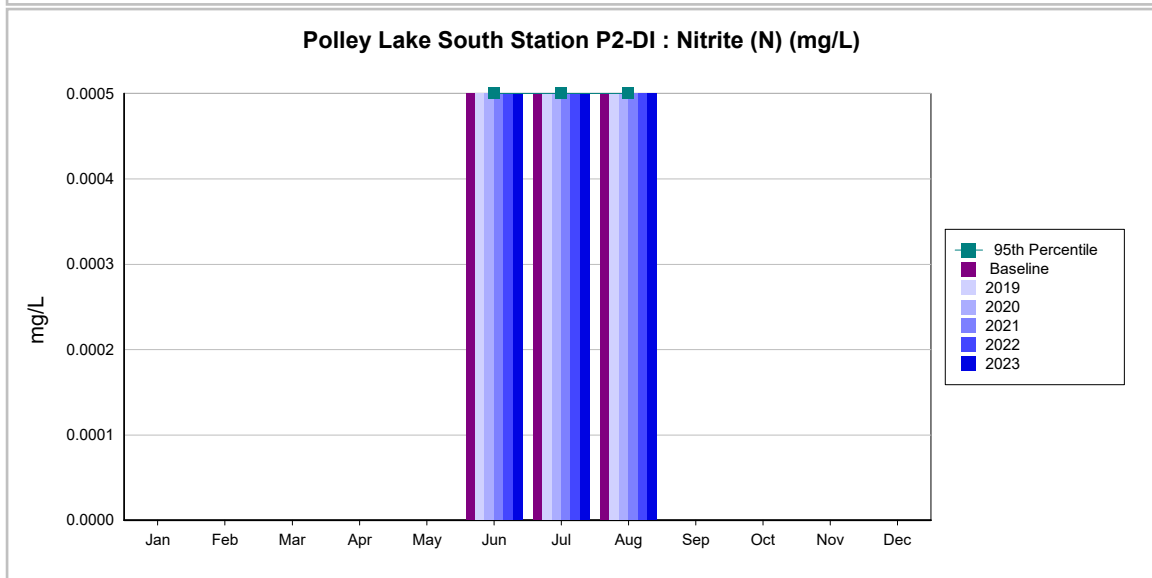
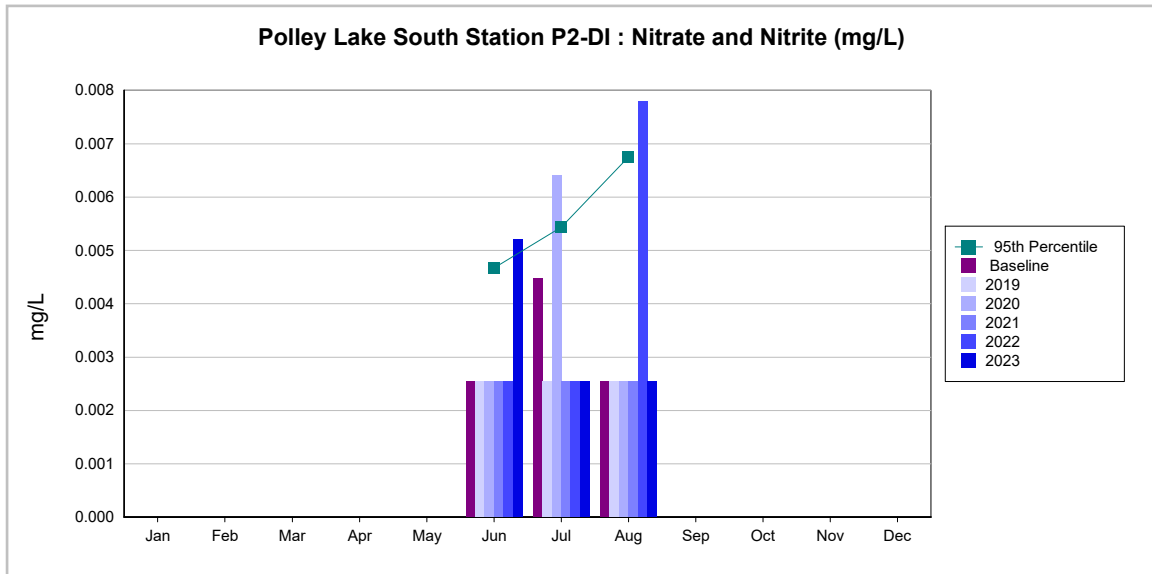
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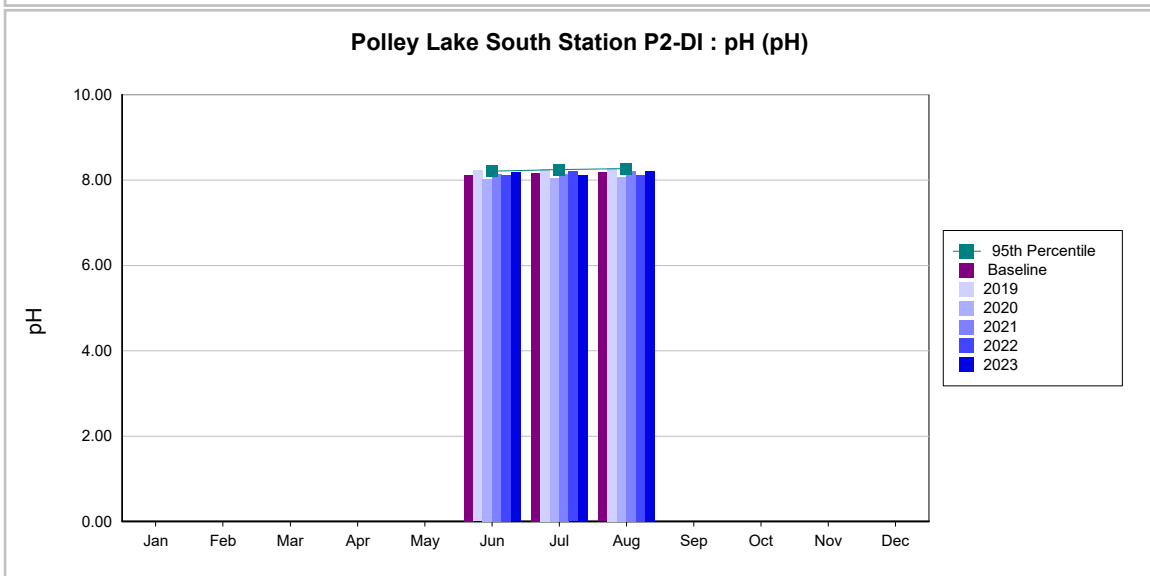
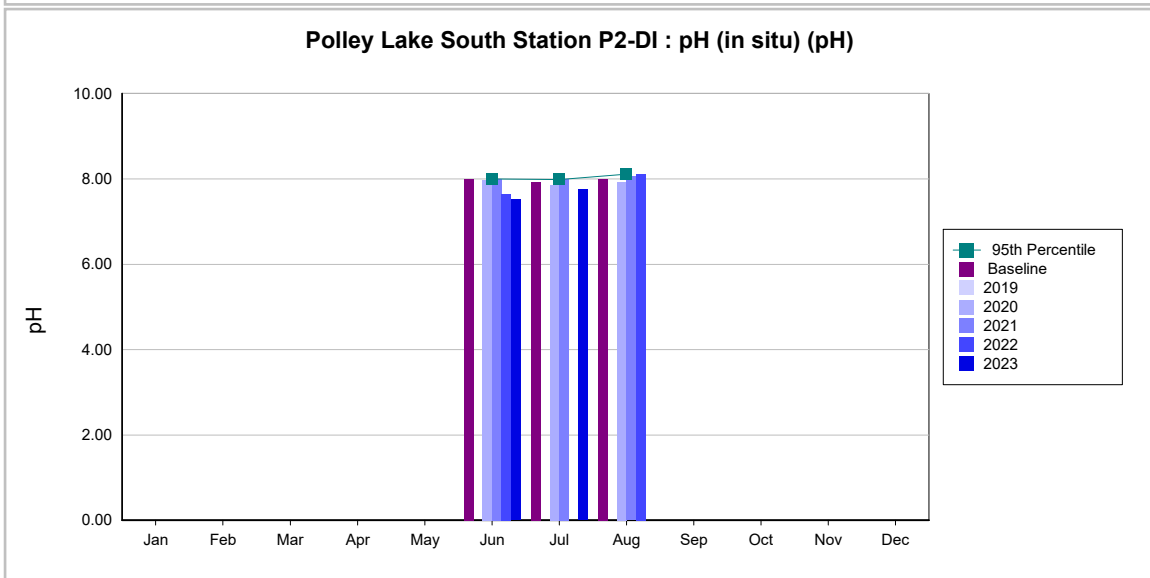
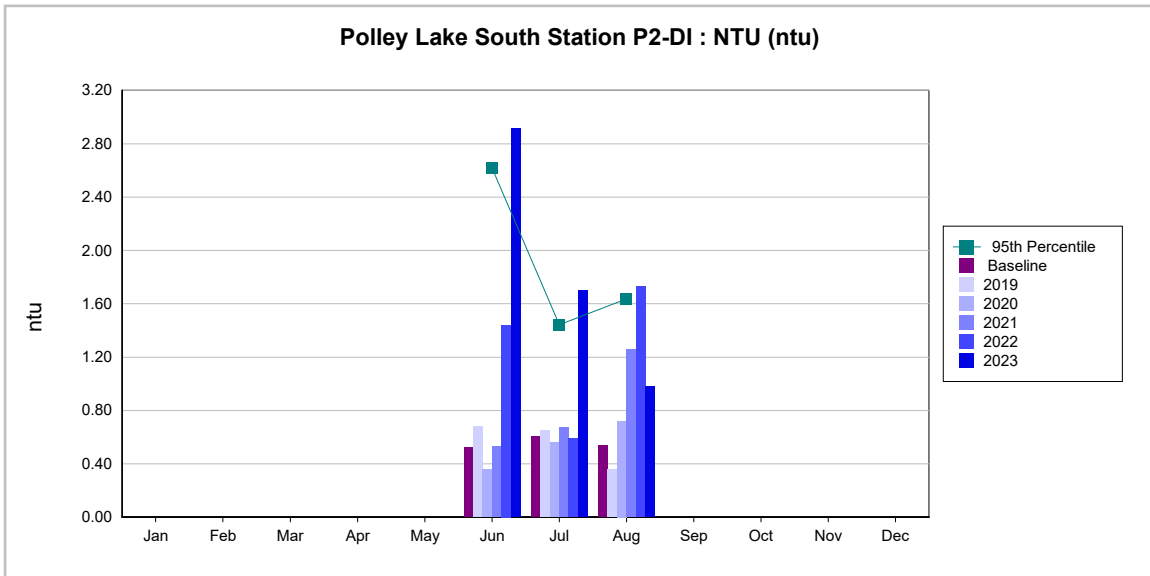
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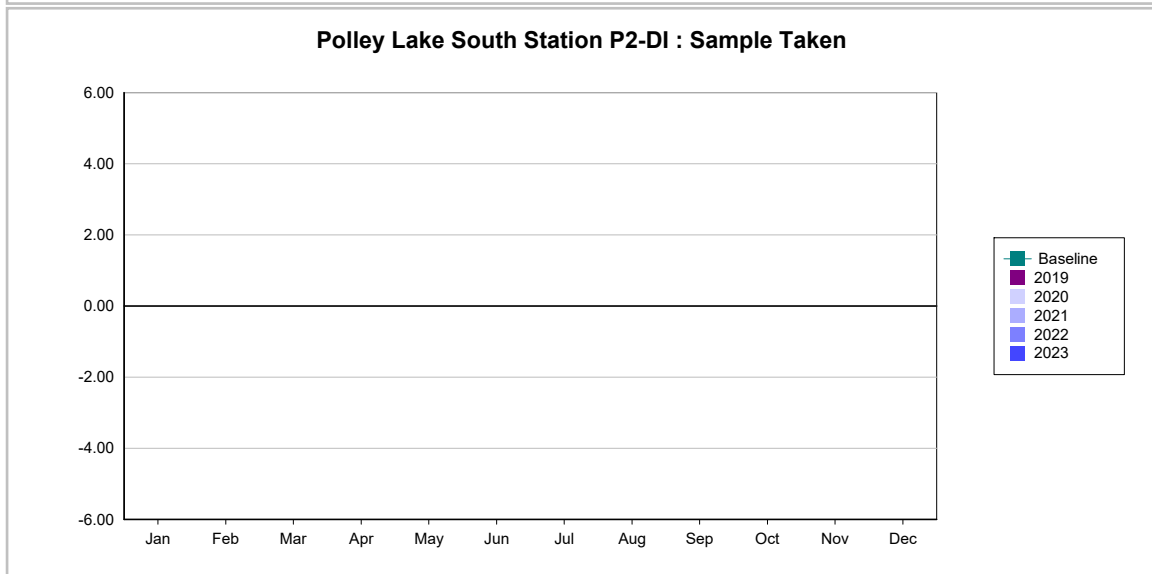
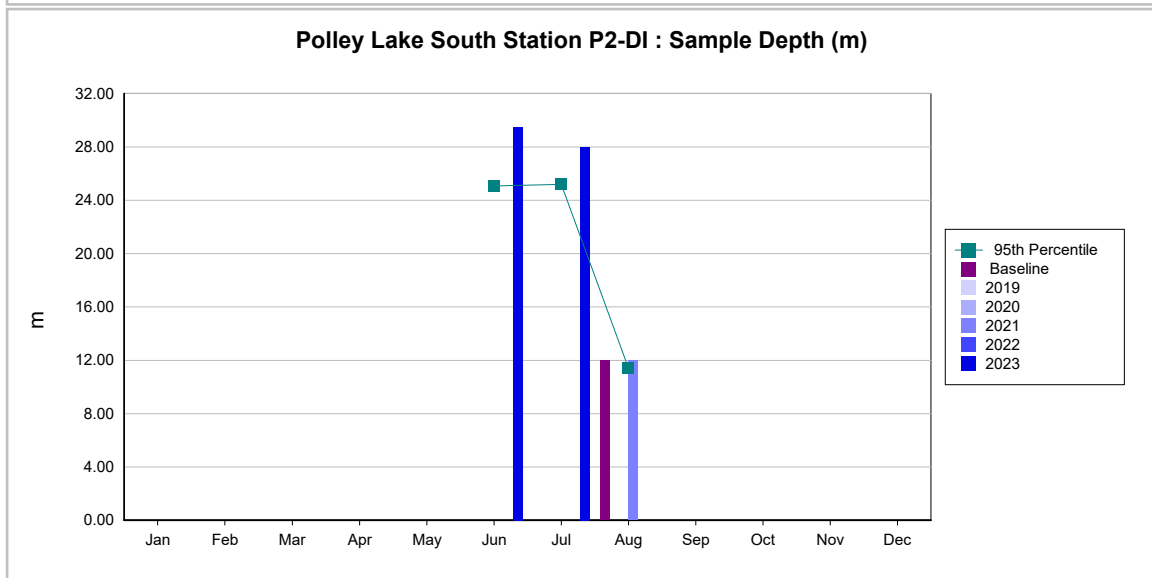
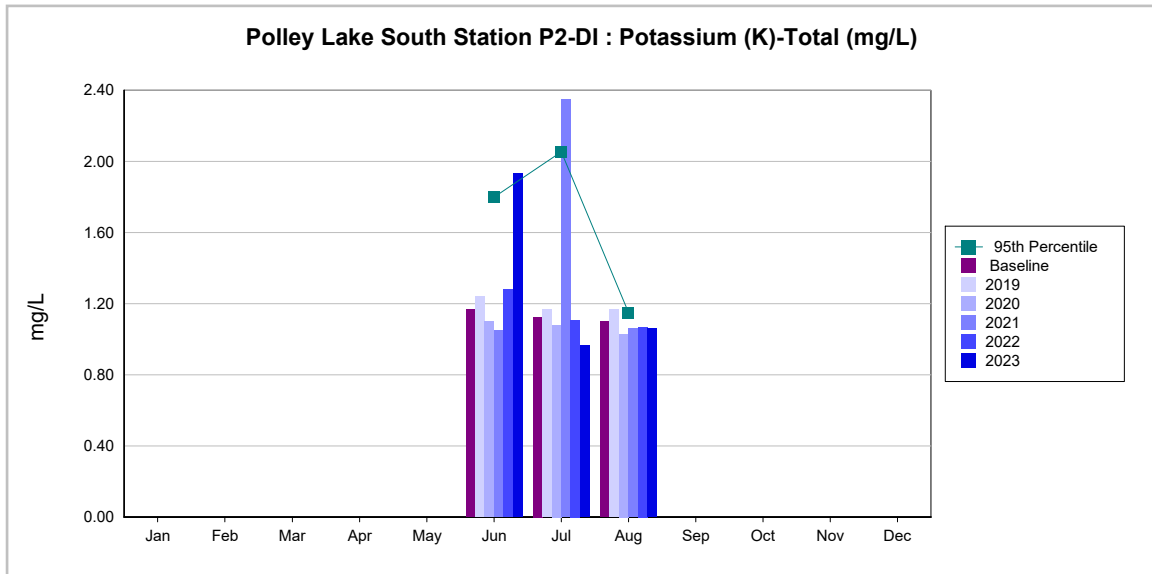
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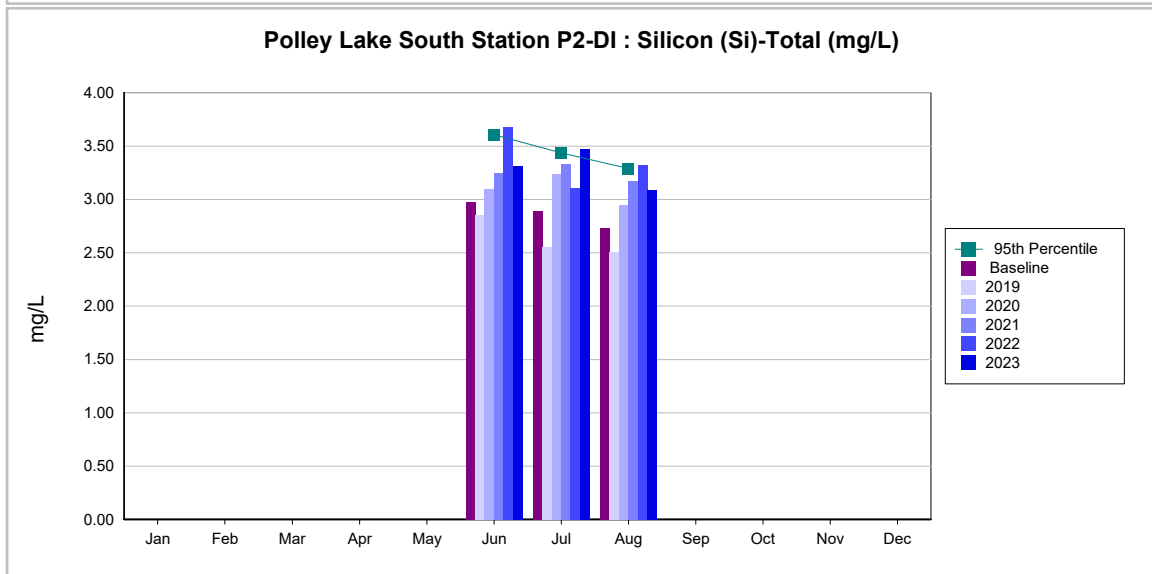
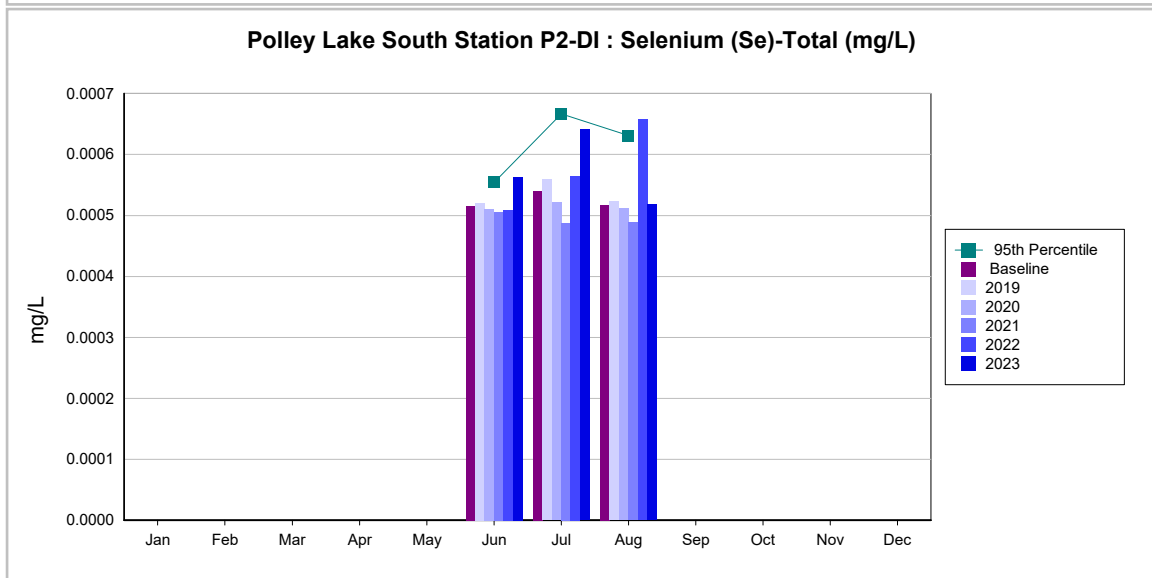
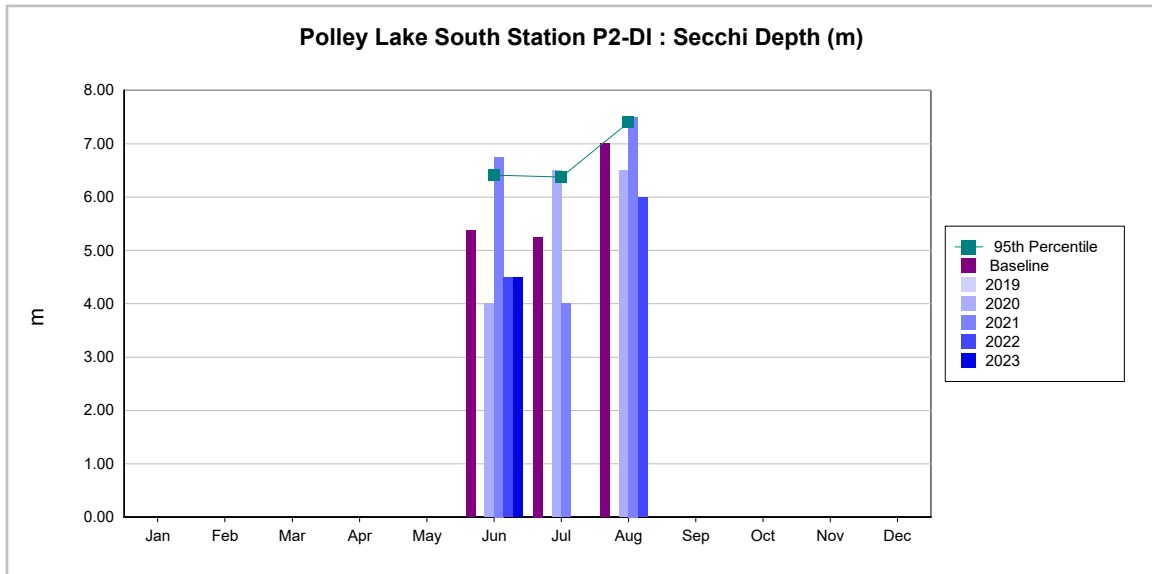
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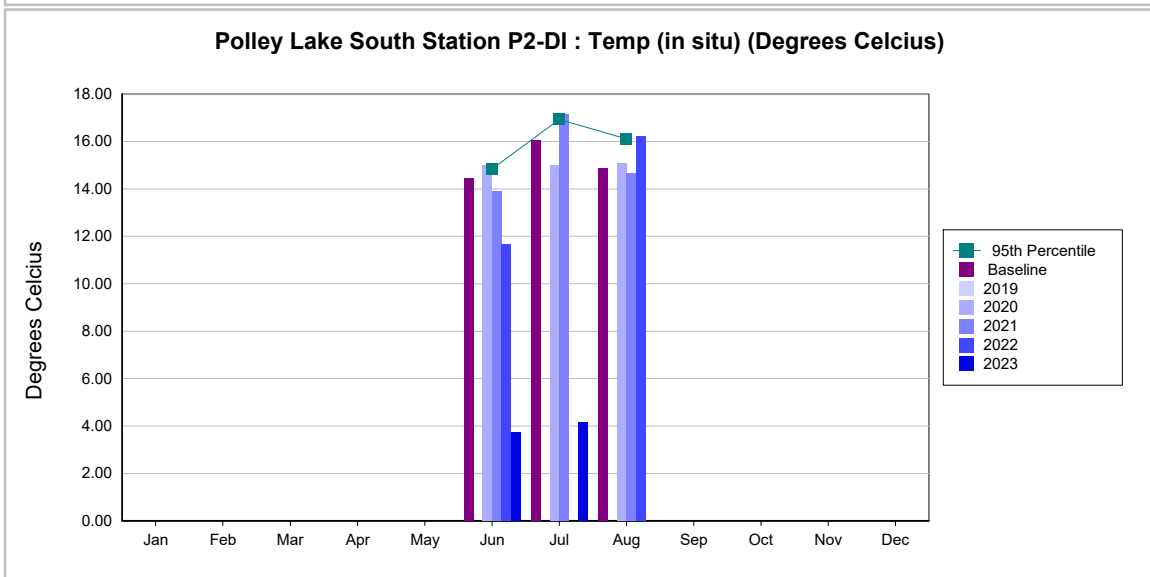
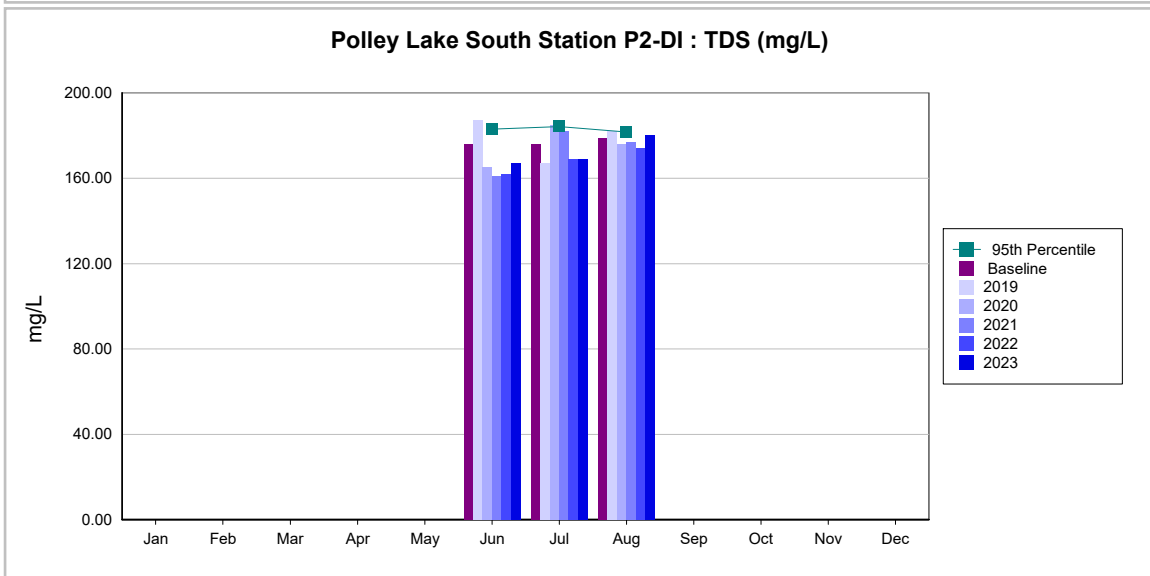
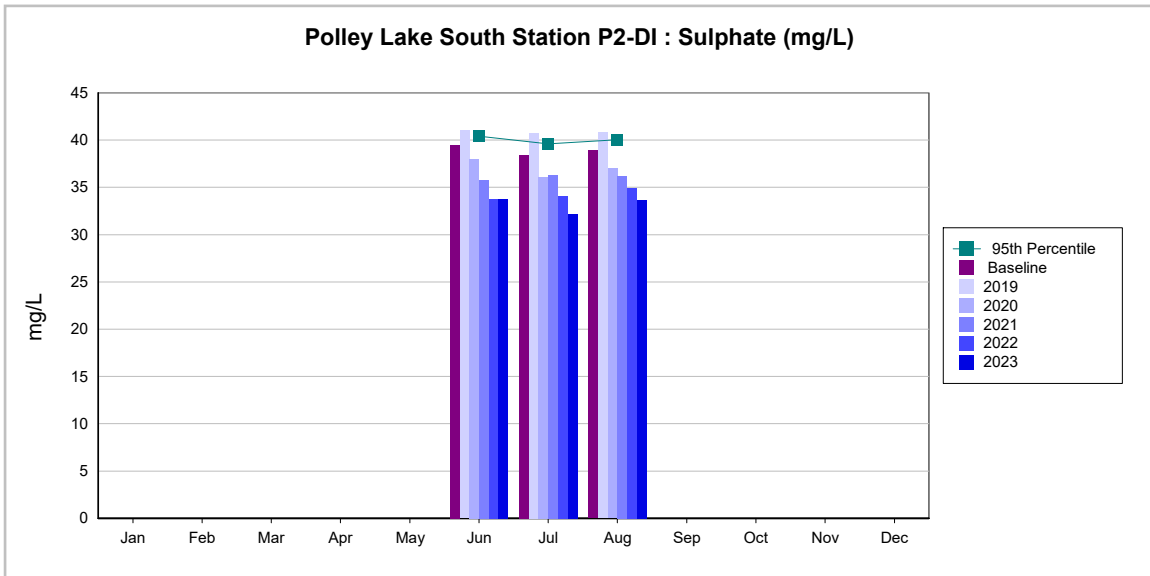
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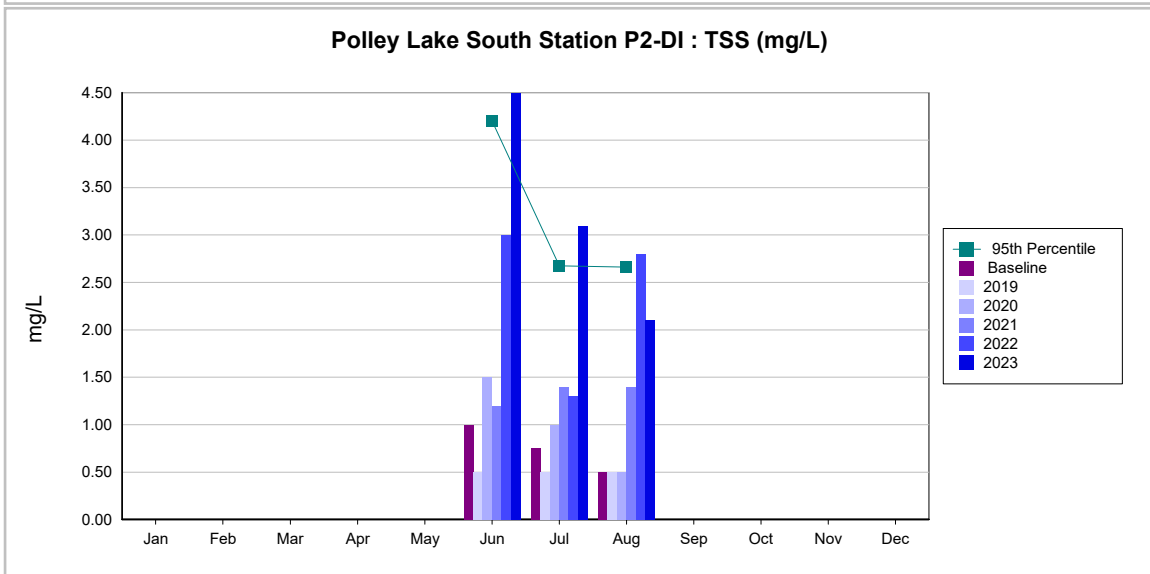
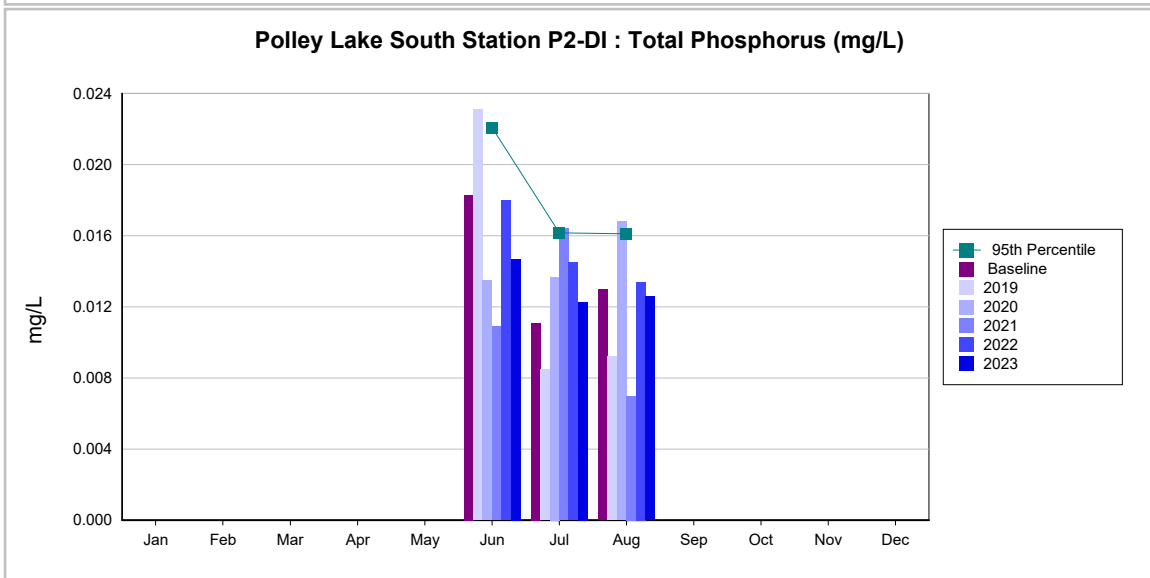
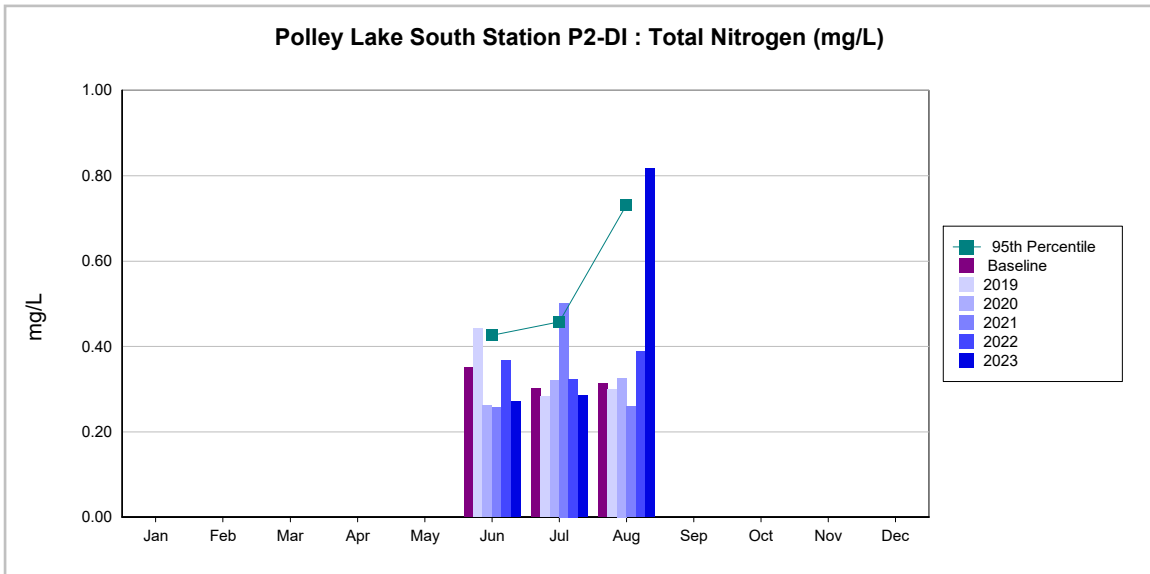
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Grid Format Report : Polley Lake North Station P1-AT

From 1 Jan 2019 to 31 Dec 2023

Printed : 2024-02-20



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E207974 : P1-AT															
	16-May-19	27-May-19	6-Jun-19	13-Aug-19	11-Sep-19	9-Oct-19	19-May-20	14-Jul-20	19-Aug-20	8-Sep-20	29-Sep-20	3-Jun-21	20-Jul-21	18-Aug-21	13-Sep-21
Anions and Nutrients															
Alkalinity (CaCO3) (mg/L)	104	98.4	97.6	102	99.9	105	90.3	93.4	90.1	89.9	91.5	89.9	100	99.5	95.2
Ammonia (as N) (mg/L)	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.0068	0.0073	0.0085	<0.0050	0.0062	<0.0050	<0.0050	<0.0050	<0.0050	0.0050
Chloride (mg/L)	1.07	1.07	1.08	1.07	1.05	1.05	0.85	0.90	0.88	0.94	0.85	0.84	0.87	0.86	0.87
Diss-Orthophosphate (mg/L)	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.0026	0.0012	0.0022	0.0022	0.0019	0.0017	0.0024	<0.0010	0.0010
Diss-Phosphorus (mg/L)	0.0055	0.0043	0.0062	0.0086	0.0035	0.0045	0.0047	0.0061	0.0103	0.0068	0.0063	0.0055	0.0044	0.0042	0.0121
Fluoride (mg/L)	0.079	0.080	0.085	0.087	0.076	0.079	0.071	0.074	0.076	0.074	0.074	0.068	0.070	0.073	0.071
Nitrate (N) (mg/L)	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.0217	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Nitrate and Nitrite (mg/L)	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0500	<0.0500	<0.0051	0.0218	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051
Nitrite (N) (mg/L)	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Sulphate (mg/L)	40.8	40.8	40.8	40.7	40.7	40.6	33.5	36.4	35.8	35.4	34.1	36.5	37.2	35.2	36.8
Total Nitrogen (mg/L)	0.370	0.340	0.312	0.288	0.275	0.275	0.281	0.257	0.284	0.290		0.255	0.220	0.240	0.261
Total Phosphorus (mg/L)	0.0259	0.0190	0.0122	0.0071	0.0108	0.0178	0.0155	0.0094	0.0178	0.0181	0.0086	0.0125	0.0047	0.0077	0.0095
Dissolved Metals															
Aluminum (Al)-Diss (mg/L)	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	0.0120	0.0051	0.0058	0.0041	<0.0030	0.0041	<0.0030	0.0061	<0.0030
Diss-Antimony (Sb) (mg/L)	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Diss-Arsenic (As) (mg/L)	0.00065	0.00062	0.00059	0.00066	0.00062	0.00058	0.00046	0.00050	0.00051	0.00053	0.00052	0.00044	0.00052	0.00052	0.00055
Diss-Barium (Ba) (mg/L)	0.0108	0.0110	0.0112	0.0110	0.0116	0.0110	0.00946	0.00992	0.00982	0.00953	0.00909	0.00925	0.0103	0.00983	0.00974
Diss-Beryllium (Be) (mg/L)	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100
Diss-Bismuth (Bi) (mg/L)	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Diss-Boron (B) (mg/L)	0.023	0.024	0.024	0.024	0.022	0.023	0.019	0.019	0.020	0.019	0.021	0.021	0.020	0.021	0.020
Diss-Cadmium (Cd) (mg/L)	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050
Diss-Calcium (Ca) (mg/L)	39.8	39.4	41.9	39.6	41.8	39.7	37.1	37.5	36.6	35.6	35.5	36.2	37.1	35.4	36.5
Diss-Chromium (Cr) (mg/L)	<0.00060	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Diss-Cobalt (Co) (mg/L)	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Diss-Copper (Cu) (mg/L)	0.00325	0.00335	0.00340	0.00309	0.00294	0.00301	0.00333	0.00319	0.00356	0.00339	0.00302	0.00352	0.00355	0.00346	0.00348
Diss-Iron (Fe) (mg/L)	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030
Diss-Lead (Pb) (mg/L)	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Diss-Lithium (Li) (mg/L)	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Diss-Magnesium (Mg) (mg/L)	5.75	5.76	5.36	5.87	6.11	5.80	4.99	5.32	5.25	5.02	4.71	4.94	5.29	5.39	5.41
Diss-Manganese (Mn) (mg/L)	0.00049	0.00024	0.00025	0.00037	0.00030	0.00113	0.00114	0.00184	0.00091	0.00118	0.00110	0.00106	0.00217	0.00370	0.00072
Diss-Molybdenum (Mo) (mg/L)	0.00810	0.00848	0.00763	0.00751	0.00764	0.00739	0.00625	0.00660	0.00630	0.00615	0.00597	0.00604	0.00659	0.00625	0.00634
Diss-Nickel (Ni) (mg/L)	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Diss-Potassium (K) (mg/L)	1.14	1.21	1.25	1.15	1.23	1.26	1.02	0.981	1.02	1.02	0.975	1.01	1.08	1.06	1.09
Diss-Selenium (mg/L)	0.000514	0.000459	0.000491	0.000533	0.000484	0.000481	0.000372	0.000509	0.000534	0.000547	0.000493	0.000519	0.000536	0.000425	0.000470

	E207974 : P1-AT									
	20-Jun-22	13-Jul-22	30-Aug-22	12-Sep-22	12-Oct-22	12-Jun-23	26-Jul-23	24-Aug-23	28-Sep-23	18-Oct-23
Anions and Nutrients										
Alkalinity (CaCO3) (mg/L)	88.7	87.7	88.6	93.1	93.1	91.4	90.3	92.2	93.9	95.3
Ammonia (as N) (mg/L)	<0.0050	0.0121	<0.0050	0.0053	<0.0050	0.0053	<0.0050	0.0067	0.0050	0.0075
Chloride (mg/L)	0.82	0.77	0.84	0.80	0.80	0.75	0.78	0.78	0.79	0.79
Diss-Orthophosphate (mg/L)	<0.0010	0.0017	<0.0010	0.0013	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Diss-Phosphorus (mg/L)	0.0057	0.0066	0.0053	0.0028	0.0042	0.0041	0.0045	0.0042	0.0034	0.0046
Fluoride (mg/L)	0.073	0.063	0.072	0.071	0.075	0.068	0.066	0.071	0.075	0.074
Nitrate (N) (mg/L)	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Nitrate and Nitrite (mg/L)	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051
Nitrite (N) (mg/L)	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Sulphate (mg/L)	35.0	33.6	37.3	35.4	36.1	31.7	33.7	33.2	34.6	34.7
Total Nitrogen (mg/L)	0.413	0.255	0.278	0.270	0.267	0.236	0.261	0.271	0.243	0.239
Total Phosphorus (mg/L)	0.0131	0.0104	0.0061	0.0066	0.0085	0.0072	0.0095	0.0073	0.0074	0.0078
Dissolved Metals										
Aluminum (Al)-Diss (mg/L)	0.0044	0.0035	0.0036	0.0145	<0.0030	0.0066	0.0039	0.0063	0.0040	0.0043
Diss-Antimony (Sb) (mg/L)	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Diss-Arsenic (As) (mg/L)	0.00045	0.00046	0.00052	0.00056	0.00047	0.00051	0.00053	0.00055	0.00049	0.00054
Diss-Barium (Ba) (mg/L)	0.00974	0.00949	0.0102	0.0106	0.00975	0.00922	0.0102	0.00998	0.00993	0.0105
Diss-Beryllium (Be) (mg/L)	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100
Diss-Bismuth (Bi) (mg/L)	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Diss-Boron (B) (mg/L)	0.019	0.020	0.022	0.020	0.019	0.019	0.020	0.018	0.018	0.019
Diss-Cadmium (Cd) (mg/L)	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050
Diss-Calcium (Ca) (mg/L)	36.4	35.2	37.1	35.5	34.2	36.5	33.7	32.4	33.8	35.4
Diss-Chromium (Cr) (mg/L)	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Diss-Cobalt (Co) (mg/L)	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Diss-Copper (Cu) (mg/L)	0.00364	0.00358	0.00334	0.00377	0.00334	0.00348	0.00332	0.00308	0.00300	0.00338
Diss-Iron (Fe) (mg/L)	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030
Diss-Lead (Pb) (mg/L)	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Diss-Lithium (Li) (mg/L)	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Diss-Magnesium (Mg) (mg/L)	5.12	5.46	5.36	5.42	5.43	5.61	5.01	5.06	5.04	5.62
Diss-Manganese (Mn) (mg/L)	0.00024	0.00318	0.00058	0.00368	0.00073	0.00282	0.00090	0.00083	0.00097	0.00156
Diss-Molybdenum (Mo) (mg/L)	0.00596	0.00668	0.00696	0.00667	0.00697	0.00595	0.00612	0.00597	0.00641	0.00621
Diss-Nickel (Ni) (mg/L)	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Diss-Potassium (K) (mg/L)	0.984	0.991	0.978	1.01	0.976	0.959	1.08	0.960	0.956	1.04
Diss-Selenium (mg/L)	0.000465	0.000510	0.000834	0.000689	0.000633	0.000534	0.000569	0.000620	0.000490	0.000475

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Mount Polley

Mining Corporation

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	16-May-19	27-May-19	6-Jun-19	13-Aug-19	11-Sep-19	9-Oct-19	19-May-20	14-Jul-20	19-Aug-20	8-Sep-20	29-Sep-20	3-Jun-21	20-Jul-21	18-Aug-21	13-Sep-21
Diss-Silicon (Si) (mg/L)	2.72	2.81	2.67	2.41	2.20	2.65	3.14	2.77	2.96	2.67	2.76	3.07	2.92	3.05	2.91
Diss-Silver (Ag) (mg/L)	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Diss-Sodium (Na) (mg/L)	8.68	8.47	9.03	8.77	8.81	8.72	7.79	7.91	7.72	7.59	7.43	7.33	7.80	7.40	7.74
Diss-Strontium (Sr) (mg/L)	0.288	0.287	0.280	0.278	0.305	0.278	0.276	0.266	0.259	0.272	0.240	0.243	0.272	0.246	0.259
Diss-Thallium (Tl) (mg/L)	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Diss-Tin (Sn) (mg/L)	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Diss-Titanium (Ti) (mg/L)	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100
Diss-Uranium (U) (mg/L)	0.000232	0.000260	0.000233	0.000218	0.000211	0.000230	0.000196	0.000190	0.000171	0.000185	0.000196	0.000193	0.000191	0.000191	0.000197
Diss-Vanadium (V) (mg/L)	0.00090	0.00090	0.00100	0.00097	0.00099	0.00095	0.00093	0.00094	0.00102	0.00093	0.00091	0.00106	0.00124	0.00117	0.00119
Diss-Zinc (Zn) (mg/L)	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030
TDS (mg/L)	177	185	168	167	180	173	161	181	168	179	169	161	169	184	171
Field Tests															
Cond (in situ) (µs/cm)	272	281.2	275.6	277.3	292.1	275.8	241.3	265.7	263.5	251.2	321.2	251.9	257	265.4	259.3
NTU - in situ (ntu)	1.14	0.26	0.75	0	0.57	1.13	1.35	0.28	0	0.95	1.36	0.13	0	0.25	0.18
pH (in situ) (pH)	8.13	8.09	8.12	8.26	8.05	7.9	7.55	8.03	8.19	8.03	7.99	7.72	7.95	8.46	8.09
Sample Depth (m)	10	10	7	6	10	10	2	9	6	6	10	6	7	6	8
Sample Taken	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Temp (in situ) (Degrees Celcius)	5.656	6.399	8.91	19.407	9.678	8.713	8.998	10.841	17.339	15.813	12.563	11.336	15.109	18.056	15.281
Organic / Inorganic															
DOC (mg/L)	5.39	5.21	5.47	5.89	5.80	5.55	6.03	6.42	6.84	6.27	6.13	6.20	6.34	6.74	6.43
Physical Test															
Conductivity (µs/cm)	259	276	264	272	270	272	236	250	251	253	251	252	245	267	261
Hardness (mg/L)	123	122	127	123	129	123	113	116	113	109	108	111	114	110	113
NTU (ntu)	1.04	0.86	0.67	0.25	0.30	0.22	0.64	0.30	0.28	0.37	0.37	0.43	0.35	0.29	0.20
pH (pH)	8.15	8.24	8.25	8.34	8.27	8.16	8.01	8.05	8.19	8.21	8.13	8.15	8.31	8.31	8.17
TDS (mg/L)	177	185	168	167	180	173	161	181	168	179	169	161	169	184	171
TSS (mg/L)	2.3	1.7	1.5	<1.0	<1.0	1.2	<1.0	<1.0	<1.0	1.7	<1.0	<1.0	<1.0	<1.0	<1.0
Total Metals															
Aluminum (Al)-Total (mg/L)	0.0239	0.0215	0.0155	0.0066	0.0177	0.0150	0.0444	0.0121	0.0107	0.0093	0.0097	0.0142	0.0063	0.0044	0.0060
Antimony (Sb)-Total (mg/L)	<0.00010	<0.00010	0.00011	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Arsenic (As)-Total (mg/L)	0.00061	0.00061	0.00058	0.00061	0.00062	0.00062	0.00052	0.00053	0.00052	0.00056	0.00052	0.00054	0.00052	0.00053	0.00057
Barium (Ba)-Total (mg/L)	0.0106	0.0114	0.0109	0.0108	0.0113	0.0111	0.00946	0.00927	0.00974	0.0107	0.00922	0.00977	0.0110	0.00988	0.0113
Beryllium (Be)-Total (mg/L)	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100
Bismuth (Bi)-Total (mg/L)	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Boron (B)-Total (mg/L)	0.022	0.023	0.026	0.023	0.024	0.024	0.020	0.019	0.020	0.022	0.022	0.022	0.021	0.022	0.020

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	Sample (n)	Count >MDL	Min	Max	Mean	95th Percentile	St Dev
Anions and Nutrients							
Alkalinity (CaCO3) (mg/L)	25	25	87.70000	105.00000	94.44000		5.03347
Ammonia (as N) (mg/L)	25	11	0.00250	0.01210	0.00443		0.00259
Chloride (mg/L)	25	25	0.75000	1.08000	0.88680		0.11108
Diss-Orthophosphate (mg/L)	25	10	0.00050	0.00260	0.00103		0.00074
Diss-Phosphorus (mg/L)	25	25	0.00280	0.01210	0.00554		0.00214
Fluoride (mg/L)	25	25	0.06300	0.08700	0.07380		0.00540
Nitrate (N) (mg/L)	25	1	0.00250	0.02170	0.00327		0.00384
Nitrate and Nitrite (mg/L)	25	1	0.00255	0.02500	0.00512		0.00711
Nitrite (N) (mg/L)	25	0	0.00050	0.00050	0.00050		0.00000
Sulphate (mg/L)	25	25	31.70000	40.80000	36.42400		2.79468
Total Nitrogen (mg/L)	24	24	0.22000	0.41300	0.27838		0.04355
Total Phosphorus (mg/L)	25	25	0.00470	0.02590	0.01122		0.00515
Dissolved Metals							
Aluminum (Al)-Diss (mg/L)	25	15	0.00150	0.01450	0.00413		0.00328
Diss-Antimony (Sb) (mg/L)	25	0	0.00005	0.00005	0.00005		0.00000
Diss-Arsenic (As) (mg/L)	25	25	0.00044	0.00066	0.00053		0.00006
Diss-Barium (Ba) (mg/L)	25	25	0.00909	0.01160	0.01013		0.00068
Diss-Beryllium (Be) (mg/L)	25	0	0.00005	0.00050	0.00014		0.00018
Diss-Bismuth (Bi) (mg/L)	25	0	0.00003	0.00003	0.00003		0.00000
Diss-Boron (B) (mg/L)	25	25	0.01800	0.02400	0.02056		0.00187
Diss-Cadmium (Cd) (mg/L)	25	0	0.00000	0.00000	0.00000		0.00000
Diss-Calcium (Ca) (mg/L)	25	25	32.40000	41.90000	36.79600		2.41997
Diss-Chromium (Cr) (mg/L)	25	0	0.00025	0.00030	0.00025		0.00001
Diss-Cobalt (Co) (mg/L)	25	0	0.00005	0.00005	0.00005		0.00000
Diss-Copper (Cu) (mg/L)	25	25	0.00294	0.00377	0.00334		0.00022
Diss-Iron (Fe) (mg/L)	25	0	0.01500	0.01500	0.01500		0.00000
Diss-Lead (Pb) (mg/L)	25	0	0.00003	0.00003	0.00003		0.00000
Diss-Lithium (Li) (mg/L)	25	0	0.00050	0.00050	0.00050		0.00000
Diss-Magnesium (Mg) (mg/L)	25	25	4.71000	6.11000	5.36400		0.33680
Diss-Manganese (Mn) (mg/L)	25	25	0.00024	0.00370	0.00128		0.00105
Diss-Molybdenum (Mo) (mg/L)	25	25	0.00595	0.00848	0.00669		0.00072
Diss-Nickel (Ni) (mg/L)	25	0	0.00025	0.00025	0.00025		0.00000
Diss-Potassium (K) (mg/L)	25	25	0.95600	1.26000	1.05720		0.09629

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Mount Polley

Mining Corporation

IMPERIAL METALS CORPORATION

E207974 : P1-AT						
Sample (n)	Count >MDL	Min	Max	Mean	95th Percentile	St Dev
Diss-Selenium (mg/L)	25	25	0.00037	0.00083	0.00053	0.00009
Diss-Silicon (Si) (mg/L)	25	25	2.20000	3.49000	2.91120	0.27242
Diss-Silver (Ag) (mg/L)	25	0	0.00001	0.00001	0.00001	0.00000
Diss-Sodium (Na) (mg/L)	25	25	6.71000	9.03000	7.72800	0.65647
Diss-Strontium (Sr) (mg/L)	25	25	0.22800	0.30500	0.25984	0.01955
Diss-Thallium (Tl) (mg/L)	25	0	0.00001	0.00001	0.00001	0.00000
Diss-Tin (Sn) (mg/L)	25	0	0.00005	0.00005	0.00005	0.00000
Diss-Titanium (Ti) (mg/L)	25	0	0.00500	0.00500	0.00500	0.00000
Diss-Uranium (U) (mg/L)	25	25	0.00017	0.00026	0.00020	0.00002
Diss-Vanadium (V) (mg/L)	25	25	0.00090	0.00146	0.00114	0.00020
Diss-Zinc (Zn) (mg/L)	25	0	0.00150	0.00150	0.00150	0.00000
TDS (mg/L)	25	25	118.00000	185.00000	168.52000	15.36262
Field Tests						
Cond (in situ) (µs/cm)	25	25	227.60000	321.20000	259.10400	20.51498
NTU - in situ (ntu)	23	23	0.00000	1.36000	0.40000	0.47051
pH (in situ) (pH)	25	25	7.55000	8.46000	8.09960	0.21594
Sample Depth (m)	25	25	2.00000	12.00000	7.32000	2.37557
Sample Taken						
Temp (in situ) (Degrees Celcius)	25	25	5.65600	20.32500	13.38184	4.12343
Organic / Inorganic						
DOC (mg/L)	25	25	5.21000	7.05000	6.13440	0.43602
Physical Test						
Conductivity (µs/cm)	25	25	236.00000	276.00000	254.20000	10.79738
Hardness (mg/L)	25	25	102.00000	129.00000	113.92000	6.98164
NTU (ntu)	25	25	0.20000	1.04000	0.43360	0.20300
pH (pH)	25	25	8.01000	8.35000	8.20840	0.08620
TDS (mg/L)	25	25	118.00000	185.00000	168.52000	15.36262
TSS (mg/L)	25	8	0.50000	2.30000	0.84000	0.56199
Total Metals						
Aluminum (Al)-Total (mg/L)	25	25	0.00440	0.04440	0.01332	0.00804
Antimony (Sb)-Total (mg/L)	25	2	0.00005	0.00011	0.00005	0.00002
Arsenic (As)-Total (mg/L)	25	25	0.00049	0.00062	0.00055	0.00004
Barium (Ba)-Total (mg/L)	25	25	0.00922	0.01140	0.01031	0.00067
Beryllium (Be)-Total (mg/L)	25	0	0.00005	0.00005	0.00005	0.00000
Bismuth (Bi)-Total (mg/L)	25	0	0.00003	0.00003	0.00003	0.00000

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Sample (n)	Count >MDL	Min	Max	Mean	95th Percentile	St Dev
Boron (B)-Total (mg/L)	25	25	0.01900	0.02600	0.02132	0.00170
Cadmium (Cd)-Total (mg/L)	25	1	0.00000	0.00001	0.00000	0.00000
Calcium (Ca)-Total (mg/L)	25	25	32.60000	39.80000	36.78000	1.83303
Chromium (Cr)-Total (mg/L)	25	1	0.00025	0.00055	0.00026	0.00006
Cobalt (Co)-Total (mg/L)	25	0	0.00005	0.00005	0.00005	0.00000
Copper (Cu)-Total (mg/L)	25	25	0.00318	0.00518	0.00381	0.00045
Iron (Fe)-Total (mg/L)	25	1	0.01500	0.04100	0.01604	0.00520
Lead (Pb)-Total (mg/L)	25	0	0.00003	0.00003	0.00003	0.00000
Lithium (Li)-Total (mg/L)	25	0	0.00050	0.00050	0.00050	0.00000
Magnesium (Mg)-Total (mg/L)	25	25	4.80000	5.87000	5.38520	0.31057
Manganese (Mn)-Total (mg/L)	25	25	0.00103	0.02550	0.00497	0.00483
Molybdenum (Mo)-Total (mg/L)	25	25	0.00604	0.00782	0.00674	0.00059
Nickel (Ni)-Total (mg/L)	25	0	0.00025	0.00025	0.00025	0.00000
Potassium (K)-Total (mg/L)	25	25	0.92800	1.25000	1.05424	0.09191
Selenium (Se)-Total (mg/L)	25	25	0.00040	0.00083	0.00053	0.00009
Silicon (Si)-Total (mg/L)	25	25	2.37000	3.44000	2.98440	0.28168
Silver (Ag)-Total (mg/L)	25	0	0.00001	0.00001	0.00001	0.00000
Sodium (Na)-Total (mg/L)	25	25	6.86000	8.96000	7.77720	0.57995
Strontium (Sr)-Total (mg/L)	25	25	0.23800	0.28700	0.25776	0.01527
Thallium (Tl)-Total (mg/L)	25	0	0.00001	0.00001	0.00001	0.00000
Tin (Sn)-Total (mg/L)	25	2	0.00005	0.00113	0.00010	0.00022
Titanium (Ti)-Total (mg/L)	25	0	0.00500	0.00500	0.00500	0.00000
Uranium (U)-Total (mg/L)	25	25	0.00018	0.00023	0.00020	0.00001
Vanadium (V)-Total (mg/L)	25	25	0.00100	0.00159	0.00128	0.00020
Zinc (Zn)-Total (mg/L)	25	0	0.00150	0.00150	0.00150	0.00000

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Mount Polley

Mining Corporation

IMPERIAL METALS CORPORATION

	E207974 : P1-B														
	13-Feb-19	16-May-19	27-May-19	6-Jun-19	15-Jul-19	13-Aug-19	11-Sep-19	9-Oct-19	20-Nov-19	19-Feb-20	19-May-20	15-Jun-20	14-Jul-20	19-Aug-20	8-Sep-20
Anions and Nutrients															
Alkalinity (CaCO3) (mg/L)	106	105	105	98.1	105	107	105	109	104	115	103	106	104	98.6	95.8
Ammonia (as N) (mg/L)	<0.0050	0.0101	0.0071	0.0274	<0.0050	<0.0050	0.0118	<0.0050	0.0109	0.0072	0.0153	0.0115	0.0061	<0.0050	0.0105
Chloride (mg/L)	1.20	1.02	1.10	1.10	1.19	1.13	1.12	1.10	1.06	1.09	1.06	1.06	1.06	1.05	1.04
Diss-Orthophosphate (mg/L)	0.0144	0.0022	0.0076	0.0028	0.0119	0.0179	0.0254	0.0276	0.0054	0.0196	0.0334	0.0158	0.0194	0.0238	0.0299
Diss-Phosphorus (mg/L)	0.0170	0.0059	0.0144	0.0099	0.0146	0.0221	0.0321	0.0334	0.0099	0.0244	0.0342	0.0188	0.0208	0.0279	0.0322
Fluoride (mg/L)	0.086	0.074	0.082	0.084	0.095	0.088	0.077	0.081	0.084	0.075	0.082	0.076	0.081	0.082	0.078
Nitrate (N) (mg/L)	0.0979	0.0067	0.0237	0.0143	0.0564	0.0647	0.0922	0.0316	0.0273	0.117	0.133	0.0747	0.0876	0.0887	0.107
Nitrate and Nitrite (mg/L)	0.0979	0.0077	0.0247	0.0143	0.0564	0.0647	0.0922	0.0332	0.0285	0.12	0.135	0.0756	0.0880	0.0904	0.109
Nitrite (N) (mg/L)	<0.0010	0.0011	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.0015	0.0012	<0.0010	0.0020	<0.0010	<0.0010	0.0018	0.0017
Sulphate (mg/L)	44.1	37.5	41.4	41.5	43.0	41.8	41.2	41.0	39.5	41.5	40.5	42.3	41.0	41.2	39.7
Total Nitrogen (mg/L)	0.362	0.292	0.290	0.370	0.294	0.324	0.406	0.349	0.324	0.352	0.343	0.341	0.322	0.332	0.392
Total Phosphorus (mg/L)	0.0324	0.0152	0.0202	0.0157	0.0280	0.0277	0.0398	0.0404	0.0199	0.0398	0.0361	0.0241	0.0247	0.0298	0.0499
Dissolved Metals															
Aluminum (Al)-Diss (mg/L)	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	0.0030	<0.0030	0.0043	0.0034	0.0032	0.0031	0.0030	0.0032
Diss-Antimony (Sb) (mg/L)	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Diss-Arsenic (As) (mg/L)	0.00064	0.00066	0.00059	0.00055	0.00061	0.00068	0.00059	0.00064	0.00060	0.00060	0.00059	0.00060	0.00061	0.00054	0.00062
Diss-Barium (Ba) (mg/L)	0.0112	0.0107	0.0114	0.0105	0.0107	0.0106	0.0108	0.0102	0.0118	0.0117	0.00981	0.0106	0.0105	0.0108	0.00978
Diss-Beryllium (Be) (mg/L)	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100
Diss-Bismuth (Bi) (mg/L)	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Diss-Boron (B) (mg/L)	0.023	0.024	0.024	0.025	0.025	0.024	0.024	0.024	0.023	0.024	0.022	0.022	0.021	0.024	0.022
Diss-Cadmium (Cd) (mg/L)	0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	0.0000055	<0.0000050	<0.0000050
Diss-Calcium (Ca) (mg/L)	40.9	40.9	40.6	40.3	41.0	41.5	42.6	40.7	42.0	40.8	42.7	40.4	41.2	39.9	38.6
Diss-Chromium (Cr) (mg/L)	<0.00050	<0.00070	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Diss-Cobalt (Co) (mg/L)	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Diss-Copper (Cu) (mg/L)	0.00365	0.00328	0.00331	0.00323	0.00348	0.00338	0.00316	0.00334	0.00329	0.00339	0.00380	0.00343	0.00356	0.00379	0.00356
Diss-Iron (Fe) (mg/L)	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030
Diss-Lead (Pb) (mg/L)	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Diss-Lithium (Li) (mg/L)	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Diss-Magnesium (Mg) (mg/L)	5.74	5.98	5.71	5.34	5.89	6.08	6.15	5.81	6.10	5.53	5.76	5.82	5.70	5.52	5.28
Diss-Manganese (Mn) (mg/L)	0.00027	0.00029	0.00024	0.00017	0.00049	0.00040	0.00017	0.00101	0.00029	0.00015	0.0414	0.00013	0.00093	0.00130	0.00598
Diss-Molybdenum (Mo) (mg/L)	0.00803	0.00801	0.00809	0.00733	0.00789	0.00728	0.00746	0.00718	0.00762	0.00761	0.00785	0.00728	0.00727	0.00690	0.00667
Diss-Nickel (Ni) (mg/L)	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Diss-Potassium (K) (mg/L)	1.26	1.17	1.25	1.21	1.27	1.24	1.25	1.32	1.30	1.22	1.23	1.20	1.10	1.21	1.16
Diss-Selenium (mg/L)	0.000527	0.000529	0.000481	0.000376	0.000613	0.000411	0.000489	0.000404	0.000475	0.000438	0.000442	0.000477	0.000483	0.000458	0.000490

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	29-Sep-20	26-Oct-20	18-Nov-20	25-Feb-21	6-May-21	3-Jun-21	20-Jul-21	18-Aug-21	13-Sep-21	19-Oct-21	2-Nov-21	16-Feb-22	17-May-22	20-Jun-22	13-Jul-22
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Anions and Nutrients															
Alkalinity (CaCO3) (mg/L)	98.6	100	92.8	93.8	91.5	89.9	98.7	96.0	94.3	97.0	95.2	95.8	92.1	92.4	91.1
Ammonia (as N) (mg/L)	0.0068	0.0089	<0.0050	0.0060	0.0053	0.0126	<0.0050	<0.0050	<0.0050	0.0140	0.0061	<0.0050	0.0126	0.0056	0.0090
Chloride (mg/L)	1.00	1.04	0.93	0.95	0.95	0.88	0.90	0.88	0.91	0.88	0.91	0.93	0.87	0.86	0.81
Diss-Orthophosphate (mg/L)	0.0323	0.0314	0.0096	0.0130	<0.0010	0.0036	0.0206	0.0281	0.0290	0.0302	0.0088	0.0122	0.0116	0.0102	0.0179
Diss-Phosphorus (mg/L)	0.0344	0.0324	0.0122	0.0144	0.0041	0.0076	0.0248	0.0321	0.0401	0.0338	0.0108	0.0171	0.0156	0.0133	0.0192
Fluoride (mg/L)	0.079	0.084	0.072	0.081	0.072	0.069	0.070	0.074	0.075	0.078	0.072	0.077	0.071	0.073	0.060
Nitrate (N) (mg/L)	0.110	0.140	0.0546	0.0932	0.0258	0.0356	0.0880	0.0991	0.114	0.118	0.0309	0.0747	0.0468	0.0302	0.0537
Nitrate and Nitrite (mg/L)	0.111	0.142	0.0561	0.0932	0.0258	0.0368	0.0880	0.100	0.114	0.119	0.0309	0.0747	0.0482	0.0302	0.0537
Nitrite (N) (mg/L)	<0.0010	0.0027	0.0015	<0.0010	<0.0010	0.0012	<0.0010	0.0010	<0.0010	0.0014	<0.0010	<0.0010	0.0014	<0.0010	<0.0010
Sulphate (mg/L)	38.0	39.4	37.8	38.5	37.7	37.4	37.7	35.3	37.0	36.1	38.0	38.3	36.8	36.3	34.2
Total Nitrogen (mg/L)		0.384	0.284	0.327	0.291	0.285	0.286	0.318	0.341	0.330	0.251	0.273	0.292	0.236	0.277
Total Phosphorus (mg/L)	0.0393	0.0477	0.0148	0.0162	0.0144	0.0169	0.0268	0.0364	0.0422	0.0395	0.0164	0.0199	0.0255	0.0226	0.0265
Dissolved Metals															
Aluminum (Al)-Diss (mg/L)	<0.0030	0.0033	0.0049	0.0061	0.0054	0.0045	0.0032	0.0032	<0.0030	<0.0030	0.0033	<0.0030	0.0086	0.0049	0.0042
Diss-Antimony (Sb) (mg/L)	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Diss-Arsenic (As) (mg/L)	0.00060	0.00057	0.00057	0.00052	0.00044	0.00051	0.00054	0.00052	0.00054	0.00051	0.00051	0.00050	0.00054	0.00048	0.00058
Diss-Barium (Ba) (mg/L)	0.00945	0.0102	0.0100	0.0110	0.00966	0.00972	0.0101	0.00962	0.00969	0.00953	0.00999	0.0110	0.0106	0.00970	0.00965
Diss-Beryllium (Be) (mg/L)	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100
Diss-Bismuth (Bi) (mg/L)	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Diss-Boron (B) (mg/L)	0.025	0.024	0.022	0.021	0.021	0.022	0.021	0.021	0.020	0.020	0.020	0.020	0.021	0.020	0.021
Diss-Cadmium (Cd) (mg/L)	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050
Diss-Calcium (Ca) (mg/L)	39.7	38.8	37.4	38.1	36.9	37.3	38.6	35.7	36.5	37.9	38.3	39.4	37.4	36.7	36.7
Diss-Chromium (Cr) (mg/L)	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Diss-Cobalt (Co) (mg/L)	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Diss-Copper (Cu) (mg/L)	0.00360	0.00377	0.00319	0.00383	0.00381	0.00386	0.00393	0.00525	0.00418	0.00402	0.00353	0.00367	0.00432	0.00373	0.00382
Diss-Iron (Fe) (mg/L)	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030
Diss-Lead (Pb) (mg/L)	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Diss-Lithium (Li) (mg/L)	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Diss-Magnesium (Mg) (mg/L)	5.06	5.57	5.13	5.52	5.24	5.00	5.12	5.48	5.16	5.38	5.18	5.77	5.16	5.19	5.52
Diss-Manganese (Mn) (mg/L)	0.00281	0.00530	0.00093	0.00046	0.00457	0.00048	0.00389	0.00321	0.00040	0.0104	0.00148	0.00056	0.107	0.00091	0.00198
Diss-Molybdenum (Mo) (mg/L)	0.00662	0.00706	0.00630	0.00644	0.00642	0.00618	0.00629	0.00603	0.00608	0.00614	0.00620	0.00644	0.00664	0.00594	0.00620
Diss-Nickel (Ni) (mg/L)	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Diss-Potassium (K) (mg/L)	1.14	1.22	1.04	1.09	1.01	1.05	1.08	1.09	1.12	1.13	1.01	1.12	1.07	1.00	1.05
Diss-Selenium (mg/L)	0.000483	0.000420	0.000527	0.000485	0.000517	0.000484	0.000607	0.000426	0.000446	0.000517	0.000421	0.000500	0.000440	0.000427	0.000369

	E207974 : P1-B									
	30-Aug-22	12-Sep-22	12-Oct-22	15-Mar-23	9-May-23	12-Jun-23	26-Jul-23	24-Aug-23	28-Sep-23	18-Oct-23
Anions and Nutrients										
Alkalinity (CaCO3) (mg/L)	93.6	93.5	94.0	96.2	93.2	97.9	94.2	94.7	97.1	95.9
Ammonia (as N) (mg/L)	0.0088	<0.0050	0.0079	0.0059	0.0053	0.0076	0.0066	0.0052	0.0062	<0.0050
Chloride (mg/L)	0.86	0.83	0.85	0.86	0.80	0.83	0.83	0.84	0.84	0.84
Diss-Orthophosphate (mg/L)	0.0236	0.0258	0.0299	0.0173	0.0103	0.0172	0.0212	0.0202	0.0213	0.0257
Diss-Phosphorus (mg/L)	0.0226	0.0233	0.0333	0.0213	0.0210	0.0223	0.0238	0.0251	0.0267	0.0291
Fluoride (mg/L)	0.071	0.067	0.070	0.078	0.073	0.070	0.071	0.071	0.076	0.076
Nitrate (N) (mg/L)	0.0822	0.0981	0.121	0.0938	0.0355	0.0332	0.0454	0.0660	0.0828	0.0881
Nitrate and Nitrite (mg/L)	0.0822	0.0981	0.121	0.0938	0.0355	0.0347	0.0454	0.0660	0.0828	0.0881
Nitrite (N) (mg/L)	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.0015	<0.0010	<0.0010	<0.0010	<0.0010
Sulphate (mg/L)	36.1	35.5	36.1	38.3	34.7	34.2	35.5	34.7	35.8	35.6
Total Nitrogen (mg/L)	0.325	0.306	0.345	0.306	0.332	0.261	0.262	0.276	0.288	0.304
Total Phosphorus (mg/L)	0.0277	0.0349	0.0413	0.0239	0.0298	0.0272	0.0257	0.0290	0.0328	0.0391
Dissolved Metals										
Aluminum (Al)-Diss (mg/L)	<0.0030	0.0033	<0.0030	<0.0030	0.0042	0.0035	<0.0030	<0.0030	<0.0030	<0.0030
Diss-Antimony (Sb) (mg/L)	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Diss-Arsenic (As) (mg/L)	0.00053	0.00053	0.00055	0.00050	0.00052	0.00055	0.00057	0.00054	0.00050	0.00054
Diss-Barium (Ba) (mg/L)	0.00973	0.00990	0.00950	0.0102	0.0103	0.00872	0.00984	0.00937	0.00887	0.00924
Diss-Beryllium (Be) (mg/L)	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100
Diss-Bismuth (Bi) (mg/L)	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Diss-Boron (B) (mg/L)	0.022	0.020	0.020	0.020	0.021	0.020	0.019	0.021	0.019	0.020
Diss-Cadmium (Cd) (mg/L)	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050
Diss-Calcium (Ca) (mg/L)	38.2	35.6	33.8	36.3	36.1	38.4	35.8	37.0	35.1	36.2
Diss-Chromium (Cr) (mg/L)	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Diss-Cobalt (Co) (mg/L)	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Diss-Copper (Cu) (mg/L)	0.00398	0.00407	0.00379	0.00352	0.00359	0.00346	0.00357	0.00338	0.00325	0.00362
Diss-Iron (Fe) (mg/L)	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030
Diss-Lead (Pb) (mg/L)	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Diss-Lithium (Li) (mg/L)	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Diss-Magnesium (Mg) (mg/L)	5.11	5.23	5.36	5.35	5.30	5.62	4.97	5.26	5.15	5.62
Diss-Manganese (Mn) (mg/L)	0.00457	0.00193	0.00434	0.00569	0.109	0.00284	0.00485	0.00074	0.00904	0.00069
Diss-Molybdenum (Mo) (mg/L)	0.00610	0.00585	0.00618	0.00634	0.00619	0.00642	0.00624	0.00632	0.00630	0.00626
Diss-Nickel (Ni) (mg/L)	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Diss-Potassium (K) (mg/L)	1.01	1.08	1.05	1.01	1.02	1.02	1.12	1.03	1.01	1.08
Diss-Selenium (mg/L)	0.000457	0.000359	0.000375	0.000682	0.000588	0.000625	0.000626	0.000505	0.000484	0.000429

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From 1 Jan 2019 to 31 Dec 2023

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Mount Polley

Mining Corporation

IMPERIAL METALS CORPORATION

	E207974 : P1-B														
	13-Feb-19	16-May-19	27-May-19	6-Jun-19	15-Jul-19	13-Aug-19	11-Sep-19	9-Oct-19	20-Nov-19	19-Feb-20	19-May-20	15-Jun-20	14-Jul-20	19-Aug-20	8-Sep-20
Diss-Silicon (Si) (mg/L)	3.16	2.95	3.20	2.94	3.70	3.39	3.44	3.87	2.97	3.37	3.56	3.18	3.14	3.48	3.35
Diss-Silver (Ag) (mg/L)	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Diss-Sodium (Na) (mg/L)	8.37	9.14	8.84	8.54	8.89	8.94	8.79	9.14	9.07	8.68	8.82	8.26	8.55	8.56	8.16
Diss-Strontium (Sr) (mg/L)	0.297	0.292	0.286	0.269	0.297	0.289	0.302	0.285	0.300	0.282	0.316	0.281	0.296	0.287	0.288
Diss-Thallium (Tl) (mg/L)	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Diss-Tin (Sn) (mg/L)	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Diss-Titanium (Ti) (mg/L)	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100
Diss-Uranium (U) (mg/L)	0.000245	0.000237	0.000259	0.000228	0.000237	0.000211	0.000197	0.000224	0.000250	0.000259	0.000260	0.000223	0.000234	0.000208	0.000222
Diss-Vanadium (V) (mg/L)	0.00094	0.00091	0.00095	0.00092	0.00090	0.00089	0.00095	0.00089	0.00105	0.00116	0.00104	0.00102	0.00109	0.00110	0.00106
Diss-Zinc (Zn) (mg/L)	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030
TDS (mg/L)	177	179	186	176	189	176	202	156	176	188	186	170	204	186	184
Field Tests															
Cond (in situ) (µs/cm)	282.6	276.5	286.7	278.5	283.7	286.3	295.3	283.5	281.8	277.6	294.8	274.7	276.9	290.4	276.5
NTU - in situ (ntu)	2.62	1.87	0.7	1.05	0.68	0.53	2.76	3.17	1.82	3.46	3.1	0.63	0.75	0.6	2.75
pH (in situ) (pH)	7.81	7.86	7.7	7.51	7.39	7.42	7.31	7.42	7.77	7.46	7	7.52	7.52	7.55	7.29
Sample Depth (m)	27	29	29	29	29	29	29	29	28	29	28	29	29	29	28
Sample Taken	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Temp (in situ) (Degrees Celcius)	2.734	4.1	4.027	4.103	4.273	4.357	4.43	4.578	4.344	3.836	3.721	4.392	4.583	4.656	4.733
Organic / Inorganic															
DOC (mg/L)	5.41	5.50	5.00	5.30	5.68	5.67	5.59	5.41	5.29	6.26	5.57	5.50	5.96	6.18	5.33
Physical Test															
Conductivity (µs/cm)	272	268	284	269	277	281	276	279	277	281	278	273	276	276	284
Hardness (mg/L)	126	127	125	122	127	129	132	126	130	125	130	125	126	122	118
NTU (ntu)	0.76	0.88	1.29	1.10	0.40	0.66	1.35	1.75	1.35	0.90	1.75	0.63	0.47	0.61	1.10
pH (pH)	8.22	8.14	8.20	8.11	8.22	8.31	7.94	8.13	8.20	8.18	8.01	7.88	7.89	8.06	8.04
TDS (mg/L)	177	179	186	176	189	176	202	156	176	188	186	170	204	186	184
TSS (mg/L)	<1.0	1.1	1.1	1.7	<1.0	1.1	2.0	3.1	1.9	<1.1	1.2	<1.0	<1.0	<1.0	<1.0
Total Metals															
Aluminum (Al)-Total (mg/L)	0.0343	0.0333	0.0421	0.0335	0.0154	0.0158	0.124	0.103	0.0766	0.0370	0.0590	0.0481	0.0215	0.0269	0.0471
Antimony (Sb)-Total (mg/L)	<0.00010	<0.00010	<0.00010	<0.00010	0.00012	<0.00010	0.00011	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Arsenic (As)-Total (mg/L)	0.00066	0.00069	0.00063	0.00058	0.00066	0.00081	0.00070	0.00065	0.00063	0.00062	0.00068	0.00060	0.00059	0.00061	0.00065
Barium (Ba)-Total (mg/L)	0.0116	0.0105	0.0118	0.0107	0.0108	0.0108	0.0148	0.0120	0.0125	0.0122	0.0120	0.0118	0.0102	0.0111	0.0122
Beryllium (Be)-Total (mg/L)	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100
Bismuth (Bi)-Total (mg/L)	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Boron (B)-Total (mg/L)	0.024	0.023	0.023	0.025	0.026	0.024	0.025	0.025	0.023	0.024	0.023	0.026	0.022	0.024	0.024

	E207974 : P1-B														
	29-Sep-20	26-Oct-20	18-Nov-20	25-Feb-21	6-May-21	3-Jun-21	20-Jul-21	18-Aug-21	13-Sep-21	19-Oct-21	2-Nov-21	16-Feb-22	17-May-22	20-Jun-22	13-Jul-22
Diss-Silicon (Si) (mg/L)	3.67	3.51	3.28	3.33	3.35	3.36	3.46	3.67	3.73	3.83	3.03	3.58	3.55	3.42	3.82
Diss-Silver (Ag) (mg/L)	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Diss-Sodium (Na) (mg/L)	8.12	8.59	7.82	7.69	7.50	7.48	7.67	7.21	7.58	8.13	7.32	7.96	7.40	7.26	7.24
Diss-Strontium (Sr) (mg/L)	0.269	0.297	0.258	0.258	0.258	0.248	0.261	0.247	0.250	0.254	0.249	0.262	0.258	0.256	0.250
Diss-Thallium (Tl) (mg/L)	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Diss-Tin (Sn) (mg/L)	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Diss-Titanium (Ti) (mg/L)	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100
Diss-Uranium (U) (mg/L)	0.000218	0.000217	0.000200	0.000202	0.000183	0.000204	0.000189	0.000187	0.000191	0.000206	0.000189	0.000207	0.000205	0.000197	0.000184
Diss-Vanadium (V) (mg/L)	0.00100	0.00104	0.00098	0.00122	0.00096	0.00110	0.00127	0.00124	0.00133	0.00142	0.00128	0.00128	0.00134	0.00137	0.00141
Diss-Zinc (Zn) (mg/L)	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030
TDS (mg/L)	182	185	163	172	163	156	176	180	185	180	195	164	182	154	166
Field Tests															
Cond (in situ) (µs/cm)	346.7	322.2	259.4	278.6	280.6	256.7	257.8	264.9	260.4	264.8	259.4	272.7	260	251.2	249.8
NTU - in situ (ntu)	3.21	182.28	3.19	3.03	1.65	1.17	0	1.21	3.49	3.68	0.74	3.59	2.65	1.51	1.58
pH (in situ) (pH)	7.46	7.63	7.75	7.2	7.75	7.58	7.38	7.78	7.67	7.3	7.78	7.63	7.56	7.57	7.65
Sample Depth (m)	30	30	30	29	27	29	29	29	29	28	29	29	31	31	30.5
Sample Taken	Yes	Yes	Yes	yes	yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes
Temp (in situ) (Degrees Celcius)	4.919	5.035	3.776	3.048	3.761	4.457	4.793	4.804	4.912	5.164	6.424	4.026	3.864	4.674	4.946
Organic / Inorganic															
DOC (mg/L)	5.39	5.35	6.32	5.49	6.86	6.02	5.91	6.63	6.36	6.09	6.11	5.34	5.82	6.00	6.07
Physical Test															
Conductivity (µs/cm)	274	278	259	260	267	256	246	269	262	261	261	262	266	256	254
Hardness (mg/L)	120	120	115	118	114	114	117	112	112	117	117	122	115	113	114
NTU (ntu)	1.70	2.28	0.82	0.39	0.83	1.08	0.60	1.10	3.01	2.52	0.76	0.70	2.44	1.45	0.60
pH (pH)	8.01	7.87	8.06	8.05	8.06	8.13	8.11	8.10	7.90	7.78	8.17	8.23	8.15	8.08	8.12
TDS (mg/L)	182	185	163	172	163	156	176	180	185	180	195	164	182	154	166
TSS (mg/L)	2.4	3.7	1.2	<1.0	3.3	2.3	<1.0	1.4	1.3	5.2	<1.0	<1.0	3.9	1.4	2.5
Total Metals															
Aluminum (Al)-Total (mg/L)	0.0658	0.110	0.0469	0.0166	0.0219	0.0504	0.0162	0.0448	0.103	0.0788	0.0407	0.0262	0.139	0.0661	0.0304
Antimony (Sb)-Total (mg/L)	<0.00010	<0.00010	<0.00010	0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	0.00011	<0.00010	<0.00010
Arsenic (As)-Total (mg/L)	0.00061	0.00058	0.00058	0.00060	0.00054	0.00057	0.00053	0.00057	0.00056	0.00060	0.00056	0.00057	0.00058	0.00053	0.00057
Barium (Ba)-Total (mg/L)	0.0115	0.0125	0.0110	0.0112	0.0100	0.0106	0.0108	0.0107	0.0118	0.0117	0.0107	0.0114	0.0128	0.0109	0.0109
Beryllium (Be)-Total (mg/L)	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100
Bismuth (Bi)-Total (mg/L)	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Boron (B)-Total (mg/L)	0.023	0.023	0.024	0.022	0.023	0.022	0.021	0.023	0.022	0.021	0.019	0.023	0.022	0.020	0.021

E207974 : P1-B										
	30-Aug-22	12-Sep-22	12-Oct-22	15-Mar-23	9-May-23	12-Jun-23	26-Jul-23	24-Aug-23	28-Sep-23	18-Oct-23
Diss-Silicon (Si) (mg/L)	3.76	3.83	4.05	3.52	3.70	3.60	3.80	3.79	3.86	3.98
Diss-Silver (Ag) (mg/L)	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Diss-Sodium (Na) (mg/L)	7.54	7.37	7.61	7.02	7.14	7.44	7.54	7.33	6.94	7.62
Diss-Strontium (Sr) (mg/L)	0.256	0.262	0.260	0.239	0.232	0.261	0.253	0.247	0.246	0.253
Diss-Thallium (Tl) (mg/L)	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Diss-Tin (Sn) (mg/L)	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Diss-Titanium (Ti) (mg/L)	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100
Diss-Uranium (U) (mg/L)	0.000198	0.000200	0.000196	0.000191	0.000208	0.000202	0.000197	0.000212	0.000202	0.000216
Diss-Vanadium (V) (mg/L)	0.00142	0.00147	0.00130	0.00133	0.00127	0.00116	0.00123	0.00122	0.00119	0.00124
Diss-Zinc (Zn) (mg/L)	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	0.0033
TDS (mg/L)	177	179	165	158	172	184	187	175	166	162
Field Tests										
Cond (in situ) (µs/cm)	252.9	251.2	251.7	281.1	268.1	255.9	253.9	239.3	246.3	256
NTU - in situ (ntu)	1.59	1.85	1.01	2.84	3.02	0.56	0.35		1.28	2.94
pH (in situ) (pH)	7.39	7.21	7.29	7.36	7.47	7.1	7.52	7.28	7.32	7.03
Sample Depth (m)	29	29	29	30	31	29	28	28	29	28
Sample Taken	Yes	Yes	Yes	Yes	Yes					
Temp (in situ) (Degrees Celcius)	5.149	5.199	5.298	3.337	3.482	3.698	3.937	4.119	4.183	4.353
Organic / Inorganic										
DOC (mg/L)	7.25	6.11	5.80	6.04	6.58	5.69	6.03	5.83	6.02	6.57
Physical Test										
Conductivity (µs/cm)	264	257	258	254	262	259	256	284	254	258
Hardness (mg/L)	116	110	106	113	112	119	110	114	109	114
NTU (ntu)	1.10	1.88	2.42	0.76	1.71	0.66	0.33	0.58	1.18	0.94
pH (pH)	7.82	8.18	8.16	8.12	8.19	8.07	7.97	8.16	8.23	7.93
TDS (mg/L)	177	179	165	158	172	184	187	175	166	162
TSS (mg/L)	<1.0	1.7	3.0	<1.0	16.2	<1.0	<1.0	<1.0	1.5	<1.0
Total Metals										
Aluminum (Al)-Total (mg/L)	0.0315	0.0984	0.0907	0.0334	0.0588	0.0217	0.0124	0.0147	0.0488	0.0384
Antimony (Sb)-Total (mg/L)	<0.00010	<0.00010	<0.00010	0.00012	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Arsenic (As)-Total (mg/L)	0.00058	0.00057	0.00058	0.00058	0.00057	0.00060	0.00064	0.00056	0.00058	0.00061
Barium (Ba)-Total (mg/L)	0.0114	0.0121	0.0113	0.0115	0.0110	0.00969	0.00954	0.00965	0.0103	0.0100
Beryllium (Be)-Total (mg/L)	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100
Bismuth (Bi)-Total (mg/L)	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Boron (B)-Total (mg/L)	0.021	0.021	0.020	0.022	0.021	0.020	0.021	0.021	0.020	0.021

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Mining Corporation

IMPERIAL METALS CORPORATION

	E207974 : P1-B						
	Sample (n)	Count >MDL	Min	Max	Mean	95th Percentile	St Dev
Anions and Nutrients							
Alkalinity (CaCO3) (mg/L)	40	40	89.90000	115.00000	98.40000	114.00000	5.83051
Ammonia (as N) (mg/L)	40	28	0.00250	0.02740	0.00721	0.93200	0.00493
Chloride (mg/L)	40	40	0.80000	1.20000	0.96150	2.05300	0.11643
Diss-Orthophosphate (mg/L)	40	39	0.00050	0.03340	0.01822	0.09200	0.00925
Diss-Phosphorus (mg/L)	40	40	0.00410	0.04010	0.02195	0.09980	0.00911
Floride (mg/L)	40	40	0.06000	0.09500	0.07638	0.11720	0.00654
Nitrate (N) (mg/L)	40	40	0.00670	0.14000	0.07209	0.42100	0.03567
Nitrate and Nitrite (mg/L)	40	40	0.00770	0.14200	0.07272	0.42795	0.03583
Nitrite (N) (mg/L)	40	14	0.00050	0.00270	0.00085	0.00480	0.00055
Sulphate (mg/L)	40	40	34.20000	44.10000	38.30500	63.41000	2.66881
Total Nitrogen (mg/L)	39	39	0.23600	0.40600	0.31469	1.35000	0.03915
Total Phosphorus (mg/L)	40	40	0.01440	0.04990	0.02901	0.22800	0.00962
Dissolved Metals							
Aluminum (Al)-Diss (mg/L)	40	21	0.00150	0.00860	0.00286	0.00571	0.00163
Diss-Antimony (Sb) (mg/L)	40	0	0.00005	0.00005	0.00005	0.00017	0.00000
Diss-Arsenic (As) (mg/L)	40	40	0.00044	0.00068	0.00056	0.00168	0.00005
Diss-Barium (Ba) (mg/L)	40	40	0.00872	0.01180	0.01017	0.02613	0.00072
Diss-Beryllium (Be) (mg/L)	40	0	0.00005	0.00050	0.00015	0.00025	0.00019
Diss-Bismuth (Bi) (mg/L)	40	0	0.00003	0.00003	0.00002	0.00025	0.00000
Diss-Boron (B) (mg/L)	40	40	0.01900	0.02500	0.02180	0.03215	0.00180
Diss-Cadmium (Cd) (mg/L)	40	2	0.00000	0.00001	0.00000	0.00001	0.00000
Diss-Calcium (Ca) (mg/L)	40	40	33.80000	42.70000	38.55000	48.25500	2.26036
Diss-Chromium (Cr) (mg/L)	40	0	0.00025	0.00035	0.00025	0.00025	0.00002
Diss-Cobalt (Co) (mg/L)	40	0	0.00005	0.00005	0.00005	0.00015	0.00000
Diss-Copper (Cu) (mg/L)	40	40	0.00316	0.00525	0.00366	0.00365	0.00038
Diss-Iron (Fe) (mg/L)	40	0	0.01500	0.01500	0.01500	0.30320	0.00000
Diss-Lead (Pb) (mg/L)	40	0	0.00003	0.00003	0.00002	0.00028	0.00000
Diss-Lithium (Li) (mg/L)	40	0	0.00050	0.00050	0.00050	0.00250	0.00000
Diss-Magnesium (Mg) (mg/L)	40	40	4.97000	6.15000	5.47150	6.63750	0.32283
Diss-Manganese (Mn) (mg/L)	40	40	0.00013	0.10900	0.00853	0.76005	0.02405
Diss-Molybdenum (Mo) (mg/L)	40	40	0.00585	0.00809	0.00674	0.01623	0.00067
Diss-Nickel (Ni) (mg/L)	40	0	0.00025	0.00025	0.00025	0.00025	0.00000
Diss-Potassium (K) (mg/L)	40	40	1.00000	1.32000	1.12600	1.89000	0.09529

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E207974 : P1-B							
Sample (n)	Count >MDL	Min	Max	Mean	95th Percentile	St Dev	
Diss-Selenium (mg/L)	40	40	0.00036	0.00068	0.00048	0.00128	0.00008
Diss-Silicon (Si) (mg/L)	40	40	2.94000	4.05000	3.50450	5.50150	0.29144
Diss-Silver (Ag) (mg/L)	40	0	0.00001	0.00001	0.00001	0.00001	0.00000
Diss-Sodium (Na) (mg/L)	40	40	6.94000	9.14000	7.98175	12.81500	0.67174
Diss-Strontium (Sr) (mg/L)	40	40	0.23200	0.31600	0.26878	0.37675	0.02088
Diss-Thallium (Tl) (mg/L)	40	0	0.00001	0.00001	0.00001	0.00005	0.00000
Diss-Tin (Sn) (mg/L)	40	0	0.00005	0.00005	0.00005	0.00005	0.00000
Diss-Titanium (Ti) (mg/L)	40	0	0.00500	0.00500	0.00500	0.00500	0.00000
Diss-Uranium (U) (mg/L)	40	40	0.00018	0.00026	0.00021	0.00036	0.00002
Diss-Vanadium (V) (mg/L)	40	40	0.00089	0.00147	0.00115	0.00162	0.00017
Diss-Zinc (Zn) (mg/L)	40	1	0.00150	0.00330	0.00155	0.00150	0.00028
TDS (mg/L)	40	40	154.00000	204.00000	176.57500	219.00000	12.01684
Field Tests							
Cond (in situ) (µs/cm)	40	40	239.30000	346.70000	272.18500	347.22500	20.63187
NTU - in situ (ntu)	39	39	0.00000	182.28000	6.53615	9.12500	28.90322
pH (in situ) (pH)	40	40	7.00000	7.86000	7.47975	8.06100	0.21680
Sample Depth (m)	40	40	27.00000	31.00000	29.01250	29.00000	0.92326
Sample Taken							
Temp (in situ) (Degrees Celcius)	40	40	2.73400	6.42400	4.35563	8.38350	0.68374
Organic / Inorganic							
DOC (mg/L)	40	40	5.00000	7.25000	5.88325	6.26000	0.48274
Physical Test							
Conductivity (µs/cm)	40	40	246.00000	284.00000	267.20000	338.00000	10.26870
Hardness (mg/L)	40	40	106.00000	132.00000	118.82500	147.00000	6.70204
NTU (ntu)	40	40	0.33000	3.01000	1.17100	11.46000	0.66494
pH (pH)	40	40	7.78000	8.31000	8.07950	8.21350	0.12566
TDS (mg/L)	40	40	154.00000	204.00000	176.57500	219.00000	12.01684
TSS (mg/L)	40	23	0.50000	16.20000	1.81875	10.60000	2.60635
Total Metals							
Aluminum (Al)-Total (mg/L)	40	40	0.01240	0.13900	0.05058	0.48300	0.03278
Antimony (Sb)-Total (mg/L)	40	5	0.00005	0.00012	0.00006	0.00023	0.00002
Arsenic (As)-Total (mg/L)	40	40	0.00053	0.00081	0.00060	0.00192	0.00005
Barium (Ba)-Total (mg/L)	40	40	0.00954	0.01480	0.01125	0.03850	0.00100
Beryllium (Be)-Total (mg/L)	40	0	0.00005	0.00005	0.00005	0.00025	0.00000
Bismuth (Bi)-Total (mg/L)	40	0	0.00003	0.00003	0.00002	0.00025	0.00000

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E207974 : P1-B							
Sample (n)	Count >MDL	Min	Max	Mean	95th Percentile	St Dev	
Boron (B)-Total (mg/L)	40	40	0.01900	0.02600	0.02245	0.03600	0.00174
Cadmium (Cd)-Total (mg/L)	40	2	0.00000	0.00001	0.00000	0.00001	0.00000
Calcium (Ca)-Total (mg/L)	40	40	34.90000	42.00000	38.32750	48.40000	1.78297
Chromium (Cr)-Total (mg/L)	40	0	0.00025	0.00025	0.00025	0.00025	0.00000
Cobalt (Co)-Total (mg/L)	40	1	0.00005	0.00010	0.00005	0.00029	0.00001
Copper (Cu)-Total (mg/L)	40	40	0.00380	0.00997	0.00478	0.01320	0.00108
Iron (Fe)-Total (mg/L)	40	21	0.01500	0.13300	0.03882	0.43900	0.02909
Lead (Pb)-Total (mg/L)	40	2	0.00003	0.00006	0.00003	0.00030	0.00001
Lithium (Li)-Total (mg/L)	40	0	0.00050	0.00050	0.00050	0.00250	0.00000
Magnesium (Mg)-Total (mg/L)	40	40	5.15000	6.11000	5.53700	6.61000	0.23599
Manganese (Mn)-Total (mg/L)	40	40	0.00454	0.31400	0.04017	0.76100	0.05450
Molybdenum (Mo)-Total (mg/L)	40	40	0.00592	0.00806	0.00687	0.01720	0.00059
Nickel (Ni)-Total (mg/L)	40	1	0.00025	0.00075	0.00026	0.00025	0.00008
Potassium (K)-Total (mg/L)	40	40	0.97500	1.32000	1.13153	2.12000	0.08699
Selenium (Se)-Total (mg/L)	40	40	0.00038	0.00064	0.00049	0.00111	0.00006
Silicon (Si)-Total (mg/L)	40	40	2.90000	4.16000	3.69525	6.54000	0.33184
Silver (Ag)-Total (mg/L)	40	0	0.00001	0.00001	0.00001	0.00001	0.00000
Sodium (Na)-Total (mg/L)	40	40	7.21000	9.27000	8.06775	12.70000	0.58619
Strontium (Sr)-Total (mg/L)	40	40	0.24600	0.30300	0.26983	0.39800	0.01575
Thallium (Tl)-Total (mg/L)	40	0	0.00001	0.00001	0.00001	0.00005	0.00000
Tin (Sn)-Total (mg/L)	40	2	0.00005	0.00016	0.00005	0.00005	0.00002
Titanium (Ti)-Total (mg/L)	40	0	0.00500	0.00500	0.00500	0.02300	0.00000
Uranium (U)-Total (mg/L)	40	40	0.00018	0.00025	0.00021	0.00039	0.00002
Vanadium (V)-Total (mg/L)	40	40	0.00101	0.00190	0.00140	0.00240	0.00023
Zinc (Zn)-Total (mg/L)	40	0	0.00150	0.00150	0.00150	0.00200	0.00000

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E207974 : P1-BT															
	16-May-19	27-May-19	6-Jun-19	13-Aug-19	11-Sep-19	9-Oct-19	19-May-20	14-Jul-20	19-Aug-20	8-Sep-20	29-Sep-20	3-Jun-21	20-Jul-21	18-Aug-21	13-Sep-21
Anions and Nutrients															
Alkalinity (CaCO3) (mg/L)	104	100	96.8	107	105	108	95.6	99.3	93.1	96.4	97.1	90.4	97.7	96.8	92.7
Ammonia (as N) (mg/L)	0.0067	<0.0050	<0.0050	<0.0050	<0.0050	0.0065	0.105	0.0070	<0.0050	0.0069	<0.0050	<0.0050	<0.0050	<0.0050	0.0058
Chloride (mg/L)	1.09	1.11	1.10	1.13	1.12	1.10	0.94	1.03	0.99	1.04	0.98	0.86	0.89	0.87	0.87
Diss-Orthophosphate (mg/L)	<0.0010	<0.0010	<0.0010	0.0070	<0.0010	0.0101	0.0016	0.0129	0.0040	0.0195	0.0190	<0.0010	<0.0010	0.0018	0.0017
Diss-Phosphorus (mg/L)	0.0058	0.0071	0.0055	0.0110	0.0039	0.0129	0.0066	0.0172	0.0066	0.0232	0.0211	0.0052	0.0043	0.0046	0.0123
Fluoride (mg/L)	0.081	0.081	0.084	0.089	0.078	0.079	0.075	0.078	0.076	0.078	0.074	0.068	0.069	0.072	0.076
Nitrate (N) (mg/L)	<0.0050	<0.0050	<0.0050	0.0232	<0.0050	<0.0050	<0.0050	0.0525	0.0100	0.0860	0.0810	<0.0050	<0.0050	<0.0050	<0.0050
Nitrate and Nitrite (mg/L)	<0.0051	<0.0051	<0.0051	0.0232	<0.0051	<0.0051	<0.0500	0.0538	0.0104	0.0865	0.0816	<0.0051	<0.0051	<0.0051	<0.0051
Nitrite (N) (mg/L)	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.0013	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Sulphate (mg/L)	41.7	40.9	41.2	41.5	41.6	40.9	36.8	40.3	38.5	39.6	37.7	37.0	36.8	34.9	36.9
Total Nitrogen (mg/L)	0.274	0.270	0.264	0.272	0.263	0.298	0.272	0.297	0.257	0.357		0.268	0.213	0.219	0.256
Total Phosphorus (mg/L)	0.0149	0.0148	0.0134	0.0155	0.0251	0.0304	0.0146	0.0196	0.0082	0.0428	0.0244	0.0132	0.0054	0.0075	0.0254
Dissolved Metals															
Aluminum (Al)-Diss (mg/L)	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	0.0066	0.0032	0.0034	<0.0030	0.0040	0.0035	<0.0030	<0.0030	<0.0030
Diss-Antimony (Sb) (mg/L)	<0.00010	0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Diss-Arsenic (As) (mg/L)	0.00064	0.00060	0.00057	0.00064	0.00058	0.00060	0.00054	0.00057	0.00055	0.00058	0.00056	0.00048	0.00052	0.00048	0.00052
Diss-Barium (Ba) (mg/L)	0.0113	0.0113	0.0107	0.0111	0.0117	0.0109	0.0106	0.0104	0.0105	0.0103	0.0101	0.00939	0.0103	0.00967	0.0100
Diss-Beryllium (Be) (mg/L)	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.000100	<0.000100	<0.000100	<0.000100
Diss-Bismuth (Bi) (mg/L)	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Diss-Boron (B) (mg/L)	0.023	0.023	0.024	0.024	0.023	0.023	0.020	0.021	0.022	0.020	0.024	0.021	0.019	0.020	0.020
Diss-Cadmium (Cd) (mg/L)	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	0.0000446	<0.0000100	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050
Diss-Calcium (Ca) (mg/L)	41.6	37.1	41.1	40.8	42.2	39.6	39.5	39.9	37.6	37.5	38.5	36.3	36.3	34.4	38.0
Diss-Chromium (Cr) (mg/L)	<0.00070	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Diss-Cobalt (Co) (mg/L)	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Diss-Copper (Cu) (mg/L)	0.00330	0.00343	0.00326	0.00331	0.00325	0.00326	0.00336	0.00342	0.00360	0.00360	0.00354	0.00359	0.00371	0.00350	0.00341
Diss-Iron (Fe) (mg/L)	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030
Diss-Lead (Pb) (mg/L)	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Diss-Lithium (Li) (mg/L)	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Diss-Magnesium (Mg) (mg/L)	5.99	5.70	5.32	6.23	6.21	5.74	5.36	5.69	5.40	5.32	5.13	4.99	5.33	5.36	5.40
Diss-Manganese (Mn) (mg/L)	0.00033	0.00019	0.00016	0.00061	0.00045	0.00152	0.00088	0.00074	0.00220	0.00219	0.00194	0.00041	0.00281	0.00101	0.00064
Diss-Molybdenum (Mo) (mg/L)	0.00803	0.00794	0.00759	0.00758	0.00788	0.00735	0.00696	0.00716	0.00655	0.00652	0.00650	0.00617	0.00628	0.00602	0.00664
Diss-Nickel (Ni) (mg/L)	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Diss-Potassium (K) (mg/L)	1.19	1.25	1.22	1.23	1.26	1.28	1.14	1.08	1.11	1.16	1.11	1.03	1.07	1.04	1.10
Diss-Selenium (mg/L)	0.000482	0.000443	0.000465	0.000530	0.000439	0.000468	0.000493	0.000528	0.000491	0.000561	0.000530	0.000535	0.000573	0.000375	0.000398

	E207974 : P1-BT									
	20-Jun-22	13-Jul-22	30-Aug-22	12-Sep-22	12-Oct-22	12-Jun-23	26-Jul-23	24-Aug-23	28-Sep-23	18-Oct-23
Anions and Nutrients										
Alkalinity (CaCO3) (mg/L)	90.2	89.7	89.9	94.3	92.4	92.4	90.4	92.7	95.2	96.3
Ammonia (as N) (mg/L)	<0.0050	0.0096	<0.0050	<0.0050	<0.0050	0.0096	<0.0050	0.0089	<0.0050	0.0064
Chloride (mg/L)	0.85	0.80	0.83	0.81	0.82	0.78	0.79	0.79	0.85	0.83
Diss-Orthophosphate (mg/L)	0.0040	0.0022	0.0068	0.0012	0.0048	<0.0010	<0.0010	<0.0010	<0.0010	0.0050
Diss-Phosphorus (mg/L)	0.0074	0.0057	0.0079	0.0037	0.0079	0.0052	0.0046	0.0041	0.0078	0.0090
Fluoride (mg/L)	0.072	0.061	0.069	0.068	0.072	0.073	0.064	0.070	0.075	0.072
Nitrate (N) (mg/L)	<0.0050	<0.0050	0.0306	<0.0050	0.0390	<0.0050	<0.0050	<0.0050	0.0167	0.0315
Nitrate and Nitrite (mg/L)	<0.0051	<0.0051	0.0306	<0.0051	0.0390	<0.0051	<0.0051	<0.0051	0.0167	0.0315
Nitrite (N) (mg/L)	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Sulphate (mg/L)	35.5	33.4	35.6	33.6	35.0	32.3	33.9	33.2	35.4	35.4
Total Nitrogen (mg/L)	0.236	0.270	0.283	0.232	0.316	0.320	0.284	0.295	0.234	0.244
Total Phosphorus (mg/L)	0.0141	0.0145	0.0136	0.0069	0.0123	0.0096	0.0124	0.0088	0.0095	0.0122
Dissolved Metals										
Aluminum (Al)-Diss (mg/L)	0.0039	0.0043	<0.0030	<0.0030	<0.0030	0.0034	<0.0030	<0.0030	<0.0030	<0.0030
Diss-Antimony (Sb) (mg/L)	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Diss-Arsenic (As) (mg/L)	0.00049	0.00048	0.00055	0.00047	0.00051	0.00048	0.00054	0.00048	0.00048	0.00051
Diss-Barium (Ba) (mg/L)	0.00967	0.00928	0.0101	0.00987	0.00988	0.00912	0.0105	0.00988	0.00966	0.0100
Diss-Beryllium (Be) (mg/L)	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100
Diss-Bismuth (Bi) (mg/L)	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Diss-Boron (B) (mg/L)	0.019	0.020	0.019	0.020	0.019	0.019	0.019	0.019	0.019	0.020
Diss-Cadmium (Cd) (mg/L)	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050
Diss-Calcium (Ca) (mg/L)	36.0	35.2	34.5	35.6	33.4	36.4	33.3	33.3	34.7	35.8
Diss-Chromium (Cr) (mg/L)	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Diss-Cobalt (Co) (mg/L)	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Diss-Copper (Cu) (mg/L)	0.00362	0.00357	0.00376	0.00367	0.00367	0.00338	0.00338	0.00316	0.00326	0.00359
Diss-Iron (Fe) (mg/L)	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030
Diss-Lead (Pb) (mg/L)	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Diss-Lithium (Li) (mg/L)	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Diss-Magnesium (Mg) (mg/L)	5.11	5.34	5.38	5.32	5.20	5.42	4.86	4.98	4.90	5.70
Diss-Manganese (Mn) (mg/L)	0.00027	0.00143	0.00224	0.00060	0.00066	0.00144	0.00092	0.00074	0.00162	0.00087
Diss-Molybdenum (Mo) (mg/L)	0.00585	0.00604	0.00582	0.00583	0.00626	0.00602	0.00612	0.00587	0.00632	0.00618
Diss-Nickel (Ni) (mg/L)	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Diss-Potassium (K) (mg/L)	0.999	0.990	1.01	1.03	0.999	0.948	1.07	0.966	0.977	1.07
Diss-Selenium (mg/L)	0.000436	0.000468	0.000362	0.000461	0.000396	0.000528	0.000519	0.000495	0.000496	0.000463

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From 1 Jan 2019 to 31 Dec 2023

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Mount Polley

Mining Corporation

IMPERIAL METALS CORPORATION

E207974 : P1-BT															
	16-May-19	27-May-19	6-Jun-19	13-Aug-19	11-Sep-19	9-Oct-19	19-May-20	14-Jul-20	19-Aug-20	8-Sep-20	29-Sep-20	3-Jun-21	20-Jul-21	18-Aug-21	13-Sep-21
Diss-Silicon (Si) (mg/L)	2.91	2.97	2.74	3.08	2.81	3.30	3.10	3.13	3.11	3.13	3.30	3.18	2.91	3.25	2.97
Diss-Silver (Ag) (mg/L)	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Diss-Sodium (Na) (mg/L)	9.00	8.62	8.77	8.95	8.94	8.84	8.26	8.40	8.22	7.80	7.95	7.23	7.82	7.11	7.80
Diss-Strontium (Sr) (mg/L)	0.296	0.277	0.277	0.287	0.314	0.280	0.303	0.292	0.261	0.281	0.261	0.252	0.254	0.244	0.265
Diss-Thallium (Tl) (mg/L)	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Diss-Tin (Sn) (mg/L)	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	0.00036	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Diss-Titanium (Ti) (mg/L)	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100
Diss-Uranium (U) (mg/L)	0.000240	0.000253	0.000220	0.000229	0.000210	0.000234	0.000221	0.000220	0.000187	0.000211	0.000225	0.000199	0.000189	0.000191	0.000207
Diss-Vanadium (V) (mg/L)	0.00090	0.00086	0.00093	0.00092	0.00094	0.00089	0.00093	0.00101	0.00098	0.00099	0.00096	0.00104	0.00115	0.00101	0.00119
Diss-Zinc (Zn) (mg/L)	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030
TDS (mg/L)	189	180	182	168	180	180	164	217	194	187	177	159	172	176	172
Field Tests															
Cond (in situ) (µs/cm)	275.4	284.8	276.1	284.9	292.8	281.9	294.8	274.1	283.3	274.3	343.7	254.2	254.1	262.9	258.9
NTU - in situ (ntu)	1.13	0.14	0.77	0.1	0.91	2.18	3.1	0.42	0	1.02	1.81	0.48	0	0.34	0.11
pH (in situ) (pH)	7.96	7.86	7.64	7.63	7.55	7.6	7.36	7.65	7.87	7.54	7.62	7.76	7.76	8.4	8.19
Sample Depth (m)	20	20	19	20	20	20	28	19	15	20	21	15	11	12	11
Sample Taken	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Temp (in situ) (Degrees Celcius)	4.255	4.409	4.969	4.627	4.718	5.185	4.537	5.084	6.432	5.071	5.246	5.719	8.685	6.862	7.824
Organic / Inorganic															
DOC (mg/L)	5.87	5.33	5.37	5.85	5.61	5.50	5.81	5.87	6.40	5.44	5.54	6.13	6.24	6.95	6.66
Physical Test															
Conductivity (µs/cm)	264	280	268	279	275	277	249	273	262	276	270	254	243	264	261
Hardness (mg/L)	128	116	124	127	131	122	121	123	116	115	117	111	112	108	117
NTU (ntu)	0.81	0.67	0.76	0.34	0.23	1.14	0.53	0.33	0.28	0.38	1.01	0.72	0.52	0.38	0.26
pH (pH)	8.13	8.22	8.12	8.32	8.06	8.14	8.01	7.88	8.08	7.93	8.02	8.13	8.22	8.18	8.12
TDS (mg/L)	189	180	182	168	180	180	164	217	194	187	177	159	172	176	172
TSS (mg/L)	1.4	<1.0	1.2	<1.0	<1.0	1.9	<1.0	<1.0	1.0	1.4	1.1	1.8	<1.0	1.3	<1.0
Total Metals															
Aluminum (Al)-Total (mg/L)	0.0287	0.0231	0.0206	0.0104	0.0130	0.0396	0.0316	0.0109	0.0164	0.0268	0.0259	0.0239	0.0118	0.0141	0.0055
Antimony (Sb)-Total (mg/L)	0.00012	<0.00010	0.00012	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Arsenic (As)-Total (mg/L)	0.00066	0.00059	0.00061	0.00057	0.00060	0.00062	0.00056	0.00056	0.00053	0.00062	0.00058	0.00055	0.00052	0.00049	0.00053
Barium (Ba)-Total (mg/L)	0.0107	0.0118	0.0112	0.0107	0.0112	0.0109	0.0108	0.0108	0.0105	0.0114	0.0104	0.0102	0.0106	0.0101	0.00992
Beryllium (Be)-Total (mg/L)	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100
Bismuth (Bi)-Total (mg/L)	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Boron (B)-Total (mg/L)	0.023	0.023	0.024	0.023	0.024	0.025	0.022	0.021	0.022	0.024	0.024	0.022	0.021	0.022	0.021

E207974 : P1-BT										
	20-Jun-22	13-Jul-22	30-Aug-22	12-Sep-22	12-Oct-22	12-Jun-23	26-Jul-23	24-Aug-23	28-Sep-23	18-Oct-23
Diss-Silicon (Si) (mg/L)	3.21	3.58	3.51	3.29	3.49	3.17	3.11	3.05	3.31	3.62
Diss-Silver (Ag) (mg/L)	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Diss-Sodium (Na) (mg/L)	7.50	7.01	7.51	7.19	7.55	7.06	7.37	6.88	6.81	7.72
Diss-Strontium (Sr) (mg/L)	0.253	0.242	0.247	0.240	0.255	0.242	0.241	0.228	0.240	0.250
Diss-Thallium (Tl) (mg/L)	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Diss-Tin (Sn) (mg/L)	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Diss-Titanium (Ti) (mg/L)	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100
Diss-Uranium (U) (mg/L)	0.000198	0.000186	0.000197	0.000191	0.000186	0.000189	0.000190	0.000196	0.000199	0.000215
Diss-Vanadium (V) (mg/L)	0.00122	0.00121	0.00132	0.00118	0.00125	0.00128	0.00130	0.00125	0.00118	0.00128
Diss-Zinc (Zn) (mg/L)	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030
TDS (mg/L)	177	153	170	161	165	194	201	168	159	163
Field Tests										
Cond (in situ) (µs/cm)	248.6	246.0	250.6	248.6	250.2	257.9	247.5	249.4	251.7	258.3
NTU - in situ (ntu)	0	0.29	0	0	0	0.03	0.3		0.4	
pH (in situ) (pH)	7.78	8.07	7.57	7.62	7.56	7.76	8.12	8.09	7.61	7.49
Sample Depth (m)	16	12	21	14	18	9	9	9	15	16
Sample Taken	Yes	Yes	Yes	Yes	Yes					
Temp (in situ) (Degrees Celcius)	6.169	7.388	5.674	6.805	5.884	6.781	10.339	12.723	5.864	6.171
Organic / Inorganic										
DOC (mg/L)	6.17	6.28	6.86	6.27	6.46	6.02	5.71	6.09	6.12	6.14
Physical Test										
Conductivity (µs/cm)	250	247	247	251	255	242	244	250	252	256
Hardness (mg/L)	111	110	108	111	105	113	103	104	107	113
NTU (ntu)	0.53	0.25	0.34	0.34	0.53	0.34	0.82	0.60	0.37	0.28
pH (pH)	8.09	8.17	8.01	8.19	8.21	8.16	8.18	8.16	8.25	8.00
TDS (mg/L)	177	153	170	161	165	194	201	168	159	163
TSS (mg/L)	<1.0	<1.0	<1.0	<1.0	1.7	1.2	<1.0	<1.0	<1.0	<1.0
Total Metals										
Aluminum (Al)-Total (mg/L)	0.0191	0.0064	0.0121	0.0109	0.0207	0.0137	0.0139	0.0124	0.0138	0.0160
Antimony (Sb)-Total (mg/L)	0.00012	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	0.00012	<0.00010	<0.00010	0.00010
Arsenic (As)-Total (mg/L)	0.00054	0.00054	0.00058	0.00049	0.00051	0.00046	0.00057	0.00052	0.00054	0.00056
Barium (Ba)-Total (mg/L)	0.0102	0.00988	0.0113	0.0100	0.0103	0.0102	0.0105	0.00988	0.0103	0.0101
Beryllium (Be)-Total (mg/L)	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100
Bismuth (Bi)-Total (mg/L)	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Boron (B)-Total (mg/L)	0.021	0.020	0.021	0.021	0.019	0.020	0.021	0.020	0.020	0.021

	E207974 : P1-BT									
	20-Jun-22	13-Jul-22	30-Aug-22	12-Sep-22	12-Oct-22	12-Jun-23	26-Jul-23	24-Aug-23	28-Sep-23	18-Oct-23
Cadmium (Cd)-Total (mg/L)	<0.000050	<0.000050	<0.000050	<0.000050	<0.000100	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Calcium (Ca)-Total (mg/L)	36.8	35.2	36.5	34.2	37.6	38.0	37.7	34.6	35.3	37.7
Chromium (Cr)-Total (mg/L)	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Cobalt (Co)-Total (mg/L)	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Copper (Cu)-Total (mg/L)	0.00419	0.00370	0.00428	0.00405	0.00401	0.00372	0.00363	0.00322	0.00355	0.00404
Iron (Fe)-Total (mg/L)	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030
Lead (Pb)-Total (mg/L)	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Lithium (Li)-Total (mg/L)	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Magnesium (Mg)-Total (mg/L)	5.33	4.87	5.41	5.48	5.47	5.38	5.32	4.81	5.17	5.82
Manganese (Mn)-Total (mg/L)	0.00685	0.00219	0.00892	0.00551	0.00873	0.00305	0.00506	0.00446	0.00832	0.00974
Molybdenum (Mo)-Total (mg/L)	0.00671	0.00642	0.00618	0.00589	0.00586	0.00610	0.00618	0.00621	0.00650	0.00646
Nickel (Ni)-Total (mg/L)	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Potassium (K)-Total (mg/L)	1.03	0.990	1.08	1.04	1.01	0.987	0.952	0.971	0.984	1.02
Selenium (Se)-Total (mg/L)	0.000507	0.000562	0.000468	0.000456	0.000462	0.000560	0.000587	0.000509	0.000519	0.000520
Silicon (Si)-Total (mg/L)	3.59	3.39	3.66	3.54	3.58	3.34	3.38	3.02	3.49	3.63
Silver (Ag)-Total (mg/L)	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Sodium (Na)-Total (mg/L)	7.66	7.34	7.54	7.54	7.51	7.24	7.12	6.96	7.04	7.70
Strontium (Sr)-Total (mg/L)	0.278	0.250	0.246	0.240	0.257	0.246	0.258	0.237	0.249	0.254
Thallium (Tl)-Total (mg/L)	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Tin (Sn)-Total (mg/L)	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	0.00019
Titanium (Ti)-Total (mg/L)	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100
Uranium (U)-Total (mg/L)	0.000210	0.000199	0.000204	0.000196	0.000187	0.000187	0.000203	0.000179	0.000200	0.000193
Vanadium (V)-Total (mg/L)	0.00155	0.00128	0.00150	0.00130	0.00157	0.00137	0.00145	0.00138	0.00137	0.00144
Zinc (Zn)-Total (mg/L)	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	0.0037	<0.0030	<0.0030	<0.0030	<0.0030

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	Sample (n)	Count >MDL	Min	Max	Mean	95th Percentile	St Dev
Anions and Nutrients							
Alkalinity (CaCO3) (mg/L)	25	25	89.70000	108.00000	96.13600		5.30376
Ammonia (as N) (mg/L)	25	10	0.00250	0.10500	0.00840		0.02029
Chloride (mg/L)	25	25	0.78000	1.13000	0.93080		0.12446
Diss-Orthophosphate (mg/L)	25	15	0.00050	0.01950	0.00426		0.00558
Diss-Phosphorus (mg/L)	25	25	0.00370	0.02320	0.00842		0.00524
Floride (mg/L)	25	25	0.06100	0.08900	0.07416		0.00622
Nitrate (N) (mg/L)	25	9	0.00250	0.08600	0.01642		0.02453
Nitrate and Nitrite (mg/L)	25	9	0.00255	0.08650	0.01746		0.02459
Nitrite (N) (mg/L)	25	1	0.00050	0.00130	0.00053		0.00016
Sulphate (mg/L)	25	25	32.30000	41.70000	37.18400		3.02485
Total Nitrogen (mg/L)	24	24	0.21300	0.76300	0.29142		0.10583
Total Phosphorus (mg/L)	25	25	0.00540	0.04280	0.01556		0.00844
Dissolved Metals							
Aluminum (Al)-Diss (mg/L)	25	8	0.00150	0.00660	0.00231		0.00135
Diss-Antimony (Sb) (mg/L)	25	1	0.00005	0.00010	0.00005		0.00001
Diss-Arsenic (As) (mg/L)	25	25	0.00047	0.00064	0.00054		0.00005
Diss-Barium (Ba) (mg/L)	25	25	0.00912	0.01170	0.01025		0.00066
Diss-Beryllium (Be) (mg/L)	25	0	0.00005	0.00050	0.00014		0.00018
Diss-Bismuth (Bi) (mg/L)	25	0	0.00003	0.00003	0.00003		0.00000
Diss-Boron (B) (mg/L)	25	25	0.01900	0.02400	0.02080		0.00185
Diss-Cadmium (Cd) (mg/L)	25	1	0.00000	0.00004	0.00000		0.00001
Diss-Calcium (Ca) (mg/L)	25	25	33.30000	42.20000	37.14400		2.67583
Diss-Chromium (Cr) (mg/L)	25	0	0.00025	0.00035	0.00025		0.00002
Diss-Cobalt (Co) (mg/L)	25	0	0.00005	0.00005	0.00005		0.00000
Diss-Copper (Cu) (mg/L)	25	25	0.00316	0.00376	0.00346		0.00017
Diss-Iron (Fe) (mg/L)	25	0	0.01500	0.01500	0.01500		0.00000
Diss-Lead (Pb) (mg/L)	25	0	0.00003	0.00003	0.00003		0.00000
Diss-Lithium (Li) (mg/L)	25	0	0.00050	0.00050	0.00050		0.00000
Diss-Magnesium (Mg) (mg/L)	25	25	4.86000	6.23000	5.41520		0.36411
Diss-Manganese (Mn) (mg/L)	25	25	0.00016	0.00281	0.00107		0.00074
Diss-Molybdenum (Mo) (mg/L)	25	25	0.00582	0.00803	0.00662		0.00072
Diss-Nickel (Ni) (mg/L)	25	0	0.00025	0.00025	0.00025		0.00000
Diss-Potassium (K) (mg/L)	25	25	0.94800	1.28000	1.09316		0.09946

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Diss-Selenium (mg/L)	25	25	0.00036	0.00057	0.00048	0.00006
Diss-Silicon (Si) (mg/L)	25	25	2.74000	3.62000	3.16920	0.22657
Diss-Silver (Ag) (mg/L)	25	0	0.00001	0.00001	0.00001	0.00000
Diss-Sodium (Na) (mg/L)	25	25	6.81000	9.00000	7.85240	0.70883
Diss-Strontium (Sr) (mg/L)	25	25	0.22800	0.31400	0.26328	0.02284
Diss-Thallium (Tl) (mg/L)	25	0	0.00001	0.00001	0.00001	0.00000
Diss-Tin (Sn) (mg/L)	25	1	0.00005	0.00036	0.00006	0.00006
Diss-Titanium (Ti) (mg/L)	25	0	0.00500	0.00500	0.00500	0.00000
Diss-Uranium (U) (mg/L)	25	25	0.00019	0.00025	0.00021	0.00002
Diss-Vanadium (V) (mg/L)	25	25	0.00086	0.00132	0.00109	0.00015
Diss-Zinc (Zn) (mg/L)	25	0	0.00150	0.00150	0.00150	0.00000
TDS (mg/L)	25	25	153.00000	217.00000	176.32000	14.84565
Field Tests						
Cond (in situ) (µs/cm)	26	26	246.00000	343.70000	268.30385	21.76142
NTU - in situ (ntu)	24	24	0.00000	3.10000	0.61167	0.79725
pH (in situ) (pH)	26	26	7.00000	8.40000	7.73308	0.28862
Sample Depth (m)	26	26	9.00000	28.00000	16.19231	4.78347
Sample Taken						
Temp (in situ) (Degrees Celcius)	26	26	3.72100	12.72300	6.19777	1.98364
Organic / Inorganic						
DOC (mg/L)	25	25	5.33000	6.95000	6.02760	0.44145
Physical Test						
Conductivity (µs/cm)	25	25	242.00000	280.00000	259.56000	12.32572
Hardness (mg/L)	25	25	103.00000	131.00000	114.92000	7.70779
NTU (ntu)	25	25	0.23000	1.14000	0.51040	0.24919
pH (pH)	25	25	7.88000	8.32000	8.11920	0.10243
TDS (mg/L)	25	25	153.00000	217.00000	176.32000	14.84565
TSS (mg/L)	25	10	0.50000	1.90000	0.86000	0.48734
Total Metals						
Aluminum (Al)-Total (mg/L)	25	25	0.00550	0.03960	0.01765	0.00825
Antimony (Sb)-Total (mg/L)	25	5	0.00005	0.00012	0.00006	0.00003
Arsenic (As)-Total (mg/L)	25	25	0.00046	0.00066	0.00056	0.00005
Barium (Ba)-Total (mg/L)	25	25	0.00988	0.01180	0.01056	0.00052
Beryllium (Be)-Total (mg/L)	25	0	0.00005	0.00005	0.00005	0.00000
Bismuth (Bi)-Total (mg/L)	25	0	0.00003	0.00003	0.00003	0.00000

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Boron (B)-Total (mg/L)	25	25	0.01900	0.02500	0.02180	0.00158
Cadmium (Cd)-Total (mg/L)	25	2	0.00000	0.00001	0.00000	0.00000
Calcium (Ca)-Total (mg/L)	25	25	34.20000	41.40000	37.57200	1.95246
Chromium (Cr)-Total (mg/L)	25	0	0.00025	0.00025	0.00025	0.00000
Cobalt (Co)-Total (mg/L)	25	0	0.00005	0.00005	0.00005	0.00000
Copper (Cu)-Total (mg/L)	25	25	0.00322	0.00609	0.00403	0.00053
Iron (Fe)-Total (mg/L)	25	0	0.01500	0.01500	0.01500	0.00000
Lead (Pb)-Total (mg/L)	25	0	0.00003	0.00003	0.00003	0.00000
Lithium (Li)-Total (mg/L)	25	0	0.00050	0.00050	0.00050	0.00000
Magnesium (Mg)-Total (mg/L)	25	25	4.81000	6.13000	5.46960	0.29604
Manganese (Mn)-Total (mg/L)	25	25	0.00219	0.02280	0.00806	0.00472
Molybdenum (Mo)-Total (mg/L)	25	25	0.00586	0.00777	0.00673	0.00058
Nickel (Ni)-Total (mg/L)	25	0	0.00025	0.00025	0.00025	0.00000
Potassium (K)-Total (mg/L)	25	25	0.95200	1.25000	1.08976	0.09601
Selenium (Se)-Total (mg/L)	25	25	0.00038	0.00061	0.00050	0.00005
Silicon (Si)-Total (mg/L)	25	25	2.86000	3.70000	3.30160	0.24402
Silver (Ag)-Total (mg/L)	25	0	0.00001	0.00001	0.00001	0.00000
Sodium (Na)-Total (mg/L)	25	25	6.96000	9.24000	7.98200	0.71977
Strontium (Sr)-Total (mg/L)	25	25	0.23500	0.29400	0.26316	0.01711
Thallium (Tl)-Total (mg/L)	25	0	0.00001	0.00001	0.00001	0.00000
Tin (Sn)-Total (mg/L)	25	1	0.00005	0.00019	0.00006	0.00003
Titanium (Ti)-Total (mg/L)	25	0	0.00500	0.00500	0.00500	0.00000
Uranium (U)-Total (mg/L)	25	25	0.00018	0.00023	0.00021	0.00001
Vanadium (V)-Total (mg/L)	25	25	0.00101	0.00157	0.00125	0.00018
Zinc (Zn)-Total (mg/L)	25	1	0.00150	0.00370	0.00159	0.00044

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Anions and Nutrients															
Alkalinity (CaCO3) (mg/L)	105	104	104	112	104	92.1	92.2	93.0	92.4	95.6	93.9	94.4	88.3	94.6	94.7
Ammonia (as N) (mg/L)	<0.0050	<0.0050	0.0103	0.0060	0.0093	0.0069	<0.0050	0.0071	<0.0050	0.0051	0.0064	<0.0050	<0.0050	0.0076	<0.0050
Chloride (mg/L)	1.20	1.14	1.06	1.08	1.00	0.93	0.93	0.94	0.92	0.91	0.91	0.92	0.82	0.86	0.78
Diss-Orthophosphate (mg/L)	0.0118	<0.0010	0.0062	0.0094	0.0060	0.0054	0.0093	0.0107	<0.0010	0.0044	0.0087	0.0101	0.0010	0.0105	<0.0010
Diss-Phosphorus (mg/L)	0.0132	0.0042	0.0098	0.0130	0.0091	0.0074	0.0131	0.0130	0.0047	0.0079	0.0104	0.0158	0.0047	0.0132	0.0068
Fluoride (mg/L)	0.086	0.091	0.081	0.074	0.076	0.076	0.072	0.081	0.073	0.084	0.073	0.078	0.068	0.080	0.070
Nitrate (N) (mg/L)	0.0801	<0.0050	0.0270	0.0595	0.0129	0.0282	0.0519	0.0701	0.0224	0.0086	0.0310	0.0564	<0.0050	0.0611	<0.0050
Nitrate and Nitrite (mg/L)	0.0801	<0.0051	0.0270	0.06	<0.0500	0.0301	0.0537	0.0701	0.0224	0.0086	0.0310	0.0564	<0.0051	0.0611	<0.0051
Nitrite (N) (mg/L)	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.0019	0.0018	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Sulphate (mg/L)	44.1	42.4	39.8	41.4	40.8	37.1	37.8	38.0	37.8	36.3	37.8	38.3	34.9	37.1	33.8
Total Nitrogen (mg/L)	0.284	0.256	0.289	0.285	0.300	0.278	0.295	0.307	0.375	0.230	0.275	0.279	0.259	0.274	0.264
Total Phosphorus (mg/L)	0.0200	0.0088	0.0241	0.0171	0.0170	0.0234	0.0153	0.0143	0.0190	0.0082	0.0150	0.0158	0.0152	0.0140	0.0148
Dissolved Metals															
Aluminum (Al)-Diss (mg/L)	<0.0030	<0.0030	0.0031	<0.0030	0.0057	0.0034	0.0056	0.0032	0.0061	<0.0030	<0.0030	<0.0030	0.0117	0.0032	0.0114
Diss-Antimony (Sb) (mg/L)	<0.00010	<0.00010	<0.00010	<0.00010	0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Diss-Arsenic (As) (mg/L)	0.00069	0.00058	0.00060	0.00062	0.00053	0.00053	0.00054	0.00052	0.00050	0.00055	0.00048	0.00052	0.00051	0.00049	0.00049
Diss-Barium (Ba) (mg/L)	0.0110	0.0113	0.0114	0.0109	0.0109	0.0100	0.0101	0.0102	0.00977	0.00980	0.00970	0.0106	0.00912	0.00989	0.0156
Diss-Beryllium (Be) (mg/L)	<0.00010	<0.00010	<0.00010	<0.00100	<0.00100	<0.00100	<0.00100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100
Diss-Bismuth (Bi) (mg/L)	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Diss-Boron (B) (mg/L)	0.023	0.024	0.022	0.023	0.021	0.023	0.022	0.021	0.021	0.020	0.020	0.021	0.020	0.021	0.022
Diss-Cadmium (Cd) (mg/L)	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050
Diss-Calcium (Ca) (mg/L)	40.8	40.0	40.2	39.4	39.4	36.8	37.4	37.4	37.9	40.0	37.4	38.7	37.0	35.7	36.5
Diss-Chromium (Cr) (mg/L)	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Diss-Cobalt (Co) (mg/L)	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Diss-Copper (Cu) (mg/L)	0.00342	0.00333	0.00320	0.00319	0.00349	0.00354	0.00323	0.00354	0.00380	0.00353	0.00346	0.00378	0.00394	0.00358	0.00356
Diss-Iron (Fe) (mg/L)	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030
Diss-Lead (Pb) (mg/L)	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Diss-Lithium (Li) (mg/L)	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Diss-Magnesium (Mg) (mg/L)	5.65	5.81	6.09	5.50	5.71	5.19	5.39	5.55	5.34	5.66	5.14	5.78	4.98	5.24	4.97
Diss-Manganese (Mn) (mg/L)	0.00014	0.00211	0.00032	0.00020	0.00033	0.00140	0.00073	0.00024	0.00428	0.00232	0.00113	0.00021	0.00220	0.00035	0.00424
Diss-Molybdenum (Mo) (mg/L)	0.00815	0.00776	0.00772	0.00729	0.00698	0.00685	0.00631	0.00643	0.00639	0.00616	0.00615	0.00631	0.00589	0.00622	0.00603
Diss-Nickel (Ni) (mg/L)	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Diss-Potassium (K) (mg/L)	1.22	1.26	1.27	1.19	1.19	1.09	1.04	1.08	1.03	1.10	1.00	1.12	0.968	1.00	0.974
Diss-Selenium (mg/L)	0.000442	0.000500	0.000443	0.000517	0.000491	0.000574	0.000467	0.000478	0.000518	0.000466	0.000438	0.000430	0.000411	0.000564	0.000604

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Diss-Silicon (Si) (mg/L)	2.94	2.94	3.03	2.96	3.05	3.01	3.38	3.21	3.38	3.08	2.99	3.40	3.47	3.24	3.40
Diss-Silver (Ag) (mg/L)	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Diss-Sodium (Na) (mg/L)	8.10	8.90	8.93	8.71	8.13	8.22	7.84	7.74	7.50	8.02	7.23	8.11	7.38	7.07	6.79
Diss-Strontium (Sr) (mg/L)	0.304	0.285	0.298	0.275	0.273	0.272	0.263	0.261	0.258	0.250	0.239	0.261	0.243	0.239	0.230
Diss-Thallium (Tl) (mg/L)	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Diss-Tin (Sn) (mg/L)	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Diss-Titanium (Ti) (mg/L)	<0.010	<0.010	<0.010	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100
Diss-Uranium (U) (mg/L)	0.000229	0.000240	0.000241	0.000238	0.000217	0.000205	0.000200	0.000191	0.000190	0.000202	0.000190	0.000200	0.000194	0.000188	0.000188
Diss-Vanadium (V) (mg/L)	0.00086	0.00085	0.00107	0.00092	0.00098	0.00099	0.00099	0.00106	0.00098	0.00126	0.00123	0.00127	0.00119	0.00123	0.00125
Diss-Zinc (Zn) (mg/L)	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	0.0049	<0.0030
TDS (mg/L)	183	185	182	180	167	152	166	170	197	165	178	166	165	123	178
Field Tests															
Cond (in situ) (µs/cm)	278.1	279.5	281.6	267.2	271.5	301.7	259.1	262.9	279.8	263.2	259.1	263.2	244.7	254.7	252.1
NTU - in situ (ntu)	0.69	0.32	1.19	0.51	0.24	1.28	1.56	0.41	1.22	0.97	0.65	0.36	0.56	0.46	0.5
pH (in situ) (pH)	7.92	7.7	7.78	7.74	7.74	7.81	7.78	7.59	7.78	7.68	7.79	7.93	7.8	7.59	7.79
Sample Depth (m)	15	14.5	14.5	14	14.5	16	16	15	15	15	15.5	15	16	16	15
Sample Taken	Yes	Yes	Yes	Yes	Yes	Yes	Yes	yes	yes	Yes	Yes		Yes	Yes	Yes
Temp (in situ) (Degrees Celcius)	2.348	5.483	4.32	3.455	5.01	6.661	3.679	2.071	3.776	7.661	6.454	3.492	4.146	2.768	3.821
Organic / Inorganic															
DOC (mg/L)	5.37	5.66	5.24	6.72	5.68	5.78	6.28	5.72	7.07	6.22	6.20	5.53	6.28	6.00	6.25
Physical Test															
Conductivity (µs/cm)	269	270	276	278	266	260	261	258	267	260	261	262	247	251	254
Hardness (mg/L)	125	124	126	121	122	113	116	116	117	123	114	120	113	111	112
NTU (ntu)	0.30	0.43	1.25	0.14	0.43	0.34	0.71	0.17	0.64	0.29	0.94	0.13	0.74	0.11	1.07
pH (pH)	8.21	8.25	8.20	8.19	7.91	8.05	8.05	8.08	8.04	8.11	8.18	8.21	8.14	8.10	8.23
TDS (mg/L)	183	185	182	180	167	152	166	170	197	165	178	166	165	123	178
TSS (mg/L)	<1.0	1.7	1.8	<1.1	1.0	1.5	1.4	<1.0	2.1	<1.0	1.3	<1.0	3.0	<1.0	3.5
Total Metals															
Aluminum (Al)-Total (mg/L)	0.0149	0.0087	0.0618	0.0041	0.0271	0.0262	0.0402	0.0085	0.0270	0.0140	0.0423	0.0062	0.143	0.0041	0.0424
Antimony (Sb)-Total (mg/L)	<0.00010	0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	0.00012	0.00016	<0.00010
Arsenic (As)-Total (mg/L)	0.00069	0.00064	0.00059	0.00060	0.00058	0.00053	0.00054	0.00057	0.00054	0.00057	0.00049	0.00057	0.00056	0.00050	0.00053
Barium (Ba)-Total (mg/L)	0.0114	0.0110	0.0123	0.0108	0.0115	0.0106	0.0109	0.0105	0.0106	0.0105	0.0109	0.0109	0.0122	0.0100	0.0104
Beryllium (Be)-Total (mg/L)	<0.00010	<0.00010	<0.00010	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100
Bismuth (Bi)-Total (mg/L)	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Boron (B)-Total (mg/L)	0.025	0.025	0.023	0.023	0.026	0.022	0.024	0.022	0.023	0.020	0.020	0.023	0.021	0.022	0.022

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	Sample (n)	Count >MDL	Min	Max	Mean	95th Percentile	St Dev
Anions and Nutrients							
Alkalinity (CaCO3) (mg/L)	15	15	88.30000	112.00000	97.34667	105.28500	6.67339
Ammonia (as N) (mg/L)	15	8	0.00250	0.01030	0.00508	0.00640	0.00278
Chloride (mg/L)	15	15	0.78000	1.20000	0.96000	1.20750	0.11600
Diss-Orthophosphate (mg/L)	15	12	0.00050	0.01180	0.00633	0.01069	0.00414
Diss-Phosphorus (mg/L)	15	15	0.00420	0.01580	0.00975	0.01459	0.00371
Fluoride (mg/L)	15	15	0.06800	0.09100	0.07753	0.09165	0.00633
Nitrate (N) (mg/L)	15	12	0.00250	0.08010	0.03445	0.05734	0.02663
Nitrate and Nitrite (mg/L)	15	11	0.00255	0.08010	0.03554	0.05874	0.02618
Nitrite (N) (mg/L)	15	2	0.00050	0.00190	0.00068	0.00140	0.00048
Sulphate (mg/L)	15	15	33.80000	44.10000	38.49333	43.52000	2.77140
Total Nitrogen (mg/L)	15	15	0.23000	0.37500	0.28333	0.30255	0.03182
Total Phosphorus (mg/L)	15	15	0.00820	0.02410	0.01613	0.02370	0.00440
Dissolved Metals							
Aluminum (Al)-Diss (mg/L)	15	9	0.00150	0.01170	0.00416	0.00428	0.00342
Diss-Antimony (Sb) (mg/L)	15	1	0.00005	0.00010	0.00005	0.00005	0.00001
Diss-Arsenic (As) (mg/L)	15	15	0.00048	0.00069	0.00054	0.00069	0.00006
Diss-Barium (Ba) (mg/L)	15	15	0.00912	0.01560	0.01069	0.01147	0.00151
Diss-Beryllium (Be) (mg/L)	15	0	0.00005	0.00050	0.00017	0.00005	0.00021
Diss-Bismuth (Bi) (mg/L)	15	0	0.00003	0.00003	0.00003	0.00003	0.00000
Diss-Boron (B) (mg/L)	15	15	0.02000	0.02400	0.02160	0.02690	0.00124
Diss-Cadmium (Cd) (mg/L)	15	0	0.00000	0.00000	0.00000	0.00001	0.00000
Diss-Calcium (Ca) (mg/L)	15	15	35.70000	40.80000	38.30667	40.27500	1.57547
Diss-Chromium (Cr) (mg/L)	15	0	0.00025	0.00025	0.00025	0.00025	0.00000
Diss-Cobalt (Co) (mg/L)	15	0	0.00005	0.00005	0.00005	0.00005	0.00000
Diss-Copper (Cu) (mg/L)	15	15	0.00319	0.00394	0.00351	0.00344	0.00022
Diss-Iron (Fe) (mg/L)	15	0	0.01500	0.01500	0.01500	0.01500	0.00000
Diss-Lead (Pb) (mg/L)	15	0	0.00003	0.00003	0.00003	0.00003	0.00000
Diss-Lithium (Li) (mg/L)	15	0	0.00050	0.00050	0.00050	0.00050	0.00000
Diss-Magnesium (Mg) (mg/L)	15	15	4.97000	6.09000	5.46667	6.10300	0.32546
Diss-Manganese (Mn) (mg/L)	15	15	0.00014	0.00428	0.00135	0.00198	0.00142
Diss-Molybdenum (Mo) (mg/L)	15	15	0.00589	0.00815	0.00671	0.00817	0.00071
Diss-Nickel (Ni) (mg/L)	15	0	0.00025	0.00025	0.00025	0.00025	0.00000
Diss-Potassium (K) (mg/L)	15	15	0.96800	1.27000	1.10213	1.35500	0.10272

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Sample (n)	Count >MDL	Min	Max	Mean	95th Percentile	St Dev	
Diss-Selenium (mg/L)	15	15	0.00041	0.00060	0.00049	0.00047	0.00006
Diss-Silicon (Si) (mg/L)	15	15	2.94000	3.47000	3.16533	2.91800	0.19643
Diss-Silver (Ag) (mg/L)	15	0	0.00001	0.00001	0.00001	0.00001	0.00000
Diss-Sodium (Na) (mg/L)	15	15	6.79000	8.93000	7.91133	9.36350	0.64356
Diss-Strontium (Sr) (mg/L)	15	15	0.23000	0.30400	0.26340	0.29190	0.02164
Diss-Thallium (Tl) (mg/L)	15	0	0.00001	0.00001	0.00001	0.00001	0.00000
Diss-Tin (Sn) (mg/L)	15	0	0.00005	0.00005	0.00005	0.00005	0.00000
Diss-Titanium (Ti) (mg/L)	15	0	0.00500	0.00500	0.00500	0.00500	0.00000
Diss-Uranium (U) (mg/L)	15	15	0.00019	0.00024	0.00021	0.00024	0.00002
Diss-Vanadium (V) (mg/L)	15	15	0.00085	0.00127	0.00108	0.00091	0.00015
Diss-Zinc (Zn) (mg/L)	15	1	0.00150	0.00490	0.00173	0.00150	0.00088
TDS (mg/L)	15	15	123.00000	197.00000	170.46667	181.55000	17.14587
Field Tests							
Cond (in situ) (µs/cm)	15	15	244.70000	301.70000	267.89333	277.87500	14.41718
NTU - in situ (ntu)	15	15	0.24000	1.56000	0.72800	1.02850	0.41051
pH (in situ) (pH)	15	15	7.59000	7.93000	7.76133	7.84850	0.09643
Sample Depth (m)	15	15	14.00000	16.00000	15.13333	15.00000	0.63994
Sample Taken							
Temp (in situ) (Degrees Celcius)	15	15	2.07100	7.66100	4.34300	4.47665	1.62112
Organic / Inorganic							
DOC (mg/L)	15	15	5.24000	7.07000	6.00000	5.73100	0.50080
Physical Test							
Conductivity (µs/cm)	15	15	247.00000	278.00000	262.66667	272.95000	8.59956
Hardness (mg/L)	15	15	111.00000	126.00000	118.20000	124.95000	5.08780
NTU (ntu)	15	15	0.11000	1.25000	0.51267	1.18400	0.36321
pH (pH)	15	15	7.91000	8.25000	8.13000	8.20500	0.09312
TDS (mg/L)	15	15	123.00000	197.00000	170.46667	181.55000	17.14587
TSS (mg/L)	15	9	0.50000	3.50000	1.35667	1.79500	0.94997
Total Metals							
Aluminum (Al)-Total (mg/L)	15	15	0.00410	0.14300	0.03137	0.07013	0.03536
Antimony (Sb)-Total (mg/L)	15	3	0.00005	0.00016	0.00007	0.00011	0.00003
Arsenic (As)-Total (mg/L)	15	15	0.00049	0.00069	0.00057	0.00073	0.00005
Barium (Ba)-Total (mg/L)	15	15	0.01000	0.01230	0.01097	0.01303	0.00064
Beryllium (Be)-Total (mg/L)	15	0	0.00005	0.00005	0.00005	0.00005	0.00000
Bismuth (Bi)-Total (mg/L)	15	0	0.00003	0.00003	0.00003	0.00003	0.00000

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Boron (B)-Total (mg/L)	15	15	0.02000	0.02600	0.02273	0.02595	0.00175
Cadmium (Cd)-Total (mg/L)	15	1	0.00000	0.00001	0.00000	0.00001	0.00000
Calcium (Ca)-Total (mg/L)	15	15	34.60000	40.40000	38.00667	41.48000	1.73472
Chromium (Cr)-Total (mg/L)	15	0	0.00025	0.00025	0.00025	0.00025	0.00000
Cobalt (Co)-Total (mg/L)	15	0	0.00005	0.00005	0.00005	0.00005	0.00000
Copper (Cu)-Total (mg/L)	15	15	0.00361	0.00675	0.00427	0.00463	0.00079
Iron (Fe)-Total (mg/L)	15	4	0.01500	0.15800	0.02920	0.04430	0.03700
Lead (Pb)-Total (mg/L)	15	1	0.00003	0.00005	0.00003	0.00003	0.00001
Lithium (Li)-Total (mg/L)	15	0	0.00050	0.00050	0.00050	0.00050	0.00000
Magnesium (Mg)-Total (mg/L)	15	15	5.16000	5.81000	5.51333	6.01000	0.19145
Manganese (Mn)-Total (mg/L)	15	15	0.00106	0.01740	0.00716	0.01424	0.00543
Molybdenum (Mo)-Total (mg/L)	15	15	0.00612	0.00820	0.00689	0.00824	0.00065
Nickel (Ni)-Total (mg/L)	15	0	0.00025	0.00025	0.00025	0.00025	0.00000
Potassium (K)-Total (mg/L)	15	15	1.02000	1.27000	1.10200	1.28750	0.06930
Selenium (Se)-Total (mg/L)	15	15	0.00043	0.00057	0.00050	0.00056	0.00004
Silicon (Si)-Total (mg/L)	15	15	2.81000	3.79000	3.31000	3.03500	0.30841
Silver (Ag)-Total (mg/L)	15	0	0.00001	0.00001	0.00001	0.00001	0.00000
Sodium (Na)-Total (mg/L)	15	15	7.27000	8.91000	8.06733	8.91650	0.49999
Strontium (Sr)-Total (mg/L)	15	15	0.23700	0.29300	0.26667	0.29450	0.01514
Thallium (Tl)-Total (mg/L)	15	0	0.00001	0.00001	0.00001	0.00001	0.00000
Tin (Sn)-Total (mg/L)	15	1	0.00005	0.00026	0.00006	0.00005	0.00005
Titanium (Ti)-Total (mg/L)	15	0	0.00500	0.00500	0.00500	0.00500	0.00000
Uranium (U)-Total (mg/L)	15	15	0.00019	0.00024	0.00021	0.00024	0.00002
Vanadium (V)-Total (mg/L)	15	15	0.00100	0.00174	0.00125	0.00115	0.00021
Zinc (Zn)-Total (mg/L)	15	0	0.00150	0.00150	0.00150	0.00150	0.00000

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	13-Feb-19	16-May-19	27-May-19	6-Jun-19	24-Jun-19	15-Jul-19	13-Aug-19	11-Sep-19	9-Oct-19	20-Nov-19	19-Feb-20	14-Apr-20	19-May-20	15-Jun-20	14-Jul-20
Anions and Nutrients															
Alkalinity (CaCO3) (mg/L)	111	98.0	100	96.2	97.7	104	101	100	105	106	117		89.4	97.1	93.4
Ammonia (as N) (mg/L)	0.0050	<0.0050	<0.0050	<0.0050	0.0064	<0.0050	<0.0050	<0.0050	<0.0050	0.0111	0.0089		0.0112	0.0073	0.0069
Chloride (mg/L)	1.32	1.01	1.06	1.08	1.10	1.11	1.07	1.10	1.04	1.06	1.15		0.85	0.92	0.89
Diss-Orthophosphate (mg/L)	0.0121	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.0055	0.0082		0.0011	<0.0010	<0.0010
Diss-Phosphorus (mg/L)	0.0139	0.0045	0.0069	0.0052	0.0041	0.0043	0.0031	0.0035	0.0049	0.0095	0.0113		0.0056	0.0049	0.0056
Fluoride (mg/L)	0.091	0.076	0.079	0.084	0.086	0.093	0.088	0.081	0.084	0.083	0.076		0.072	0.070	0.074
Nitrate (N) (mg/L)	0.108	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.0308	0.0521		<0.0050	<0.0050	<0.0050
Nitrate and Nitrite (mg/L)	0.108	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	0.0320	0.05		<0.0500	<0.0500	<0.0500
Nitrite (N) (mg/L)	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.0012	<0.0010		<0.0010	<0.0010	<0.0010
Sulphate (mg/L)	48.0	38.0	40.3	40.9	40.8	41.7	40.8	42.0	40.6	39.8	43.0		33.4	38.0	35.8
Total Nitrogen (mg/L)	0.347	0.281	0.278	0.289	0.316	0.266	0.285	0.285	0.288	0.292	0.319		0.294	0.297	0.280
Total Phosphorus (mg/L)	0.0217	0.0128	0.0123	0.0156	0.0118	0.0062	0.0073	0.0105	0.0060	0.0260	0.0260		0.0152	0.0130	0.0099
Dissolved Metals															
Aluminum (Al)-Diss (mg/L)	<0.0030	0.0031	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030		0.0129	0.0062	0.0084
Diss-Antimony (Sb) (mg/L)	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010		<0.00010	<0.00010	<0.00010
Diss-Arsenic (As) (mg/L)	0.00071	0.00063	0.00065	0.00062	0.00058	0.00060	0.00062	0.00060	0.00063	0.00059	0.00061		0.00046	0.00051	0.00050
Diss-Barium (Ba) (mg/L)	0.0120	0.0106	0.0114	0.0112	0.0110	0.0109	0.0108	0.0119	0.0113	0.0113	0.0114		0.00953	0.00967	0.00976
Diss-Beryllium (Be) (mg/L)	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00100		<0.00100	<0.00100	<0.00100
Diss-Bismuth (Bi) (mg/L)	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050		<0.000050	<0.000050	<0.000050
Diss-Boron (B) (mg/L)	0.025	0.023	0.023	0.027	0.024	0.023	0.024	0.023	0.023	0.021	0.024		0.019	0.020	0.020
Diss-Cadmium (Cd) (mg/L)	0.0000060	<0.0000050	<0.0000050	<0.0000050	0.0000062	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050		<0.0000050	<0.0000050	0.0000088
Diss-Calcium (Ca) (mg/L)	43.4	39.5	39.8	43.6	40.4	39.6	41.1	42.5	40.2	40.3	40.0		37.2	36.3	39.4
Diss-Chromium (Cr) (mg/L)	<0.00050	<0.00060	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050		<0.00050	<0.00050	<0.00050
Diss-Cobalt (Co) (mg/L)	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010		<0.00010	<0.00010	<0.00010
Diss-Copper (Cu) (mg/L)	0.00380	0.00340	0.00342	0.00340	0.00333	0.00323	0.00310	0.00315	0.00319	0.00317	0.00319		0.00328	0.00322	0.00348
Diss-Iron (Fe) (mg/L)	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030		<0.030	<0.030	<0.030
Diss-Lead (Pb) (mg/L)	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050		<0.000050	<0.000050	<0.000050
Diss-Lithium (Li) (mg/L)	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010		<0.0010	<0.0010	<0.0010
Diss-Magnesium (Mg) (mg/L)	6.40	5.71	5.43	5.65	5.65	5.85	6.07	6.39	5.79	6.05	5.67		5.12	5.37	5.27
Diss-Manganese (Mn) (mg/L)	0.00047	0.00073	0.00036	0.00026	0.00228	0.00121	0.00029	0.00032	0.00132	0.00031	0.00020		0.00108	0.00066	0.00400
Diss-Molybdenum (Mo) (mg/L)	0.00867	0.00797	0.00798	0.00774	0.00799	0.00791	0.00751	0.00761	0.00764	0.00743	0.00751		0.00607	0.00654	0.00628
Diss-Nickel (Ni) (mg/L)	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050		<0.00050	<0.00050	<0.00050
Diss-Potassium (K) (mg/L)	1.41	1.12	1.20	1.29	1.18	1.20	1.18	1.28	1.28	1.28	1.26		1.03	1.06	0.981
Diss-Selenium (mg/L)	0.000538	0.000532	0.000578	0.000493	0.000507	0.000587	0.000524	0.000499	0.000497	0.000433	0.000508		0.000442	0.000440	0.000457

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	19-Aug-20	8-Sep-20	29-Sep-20	26-Oct-20	18-Nov-20	25-Feb-21	6-May-21	3-Jun-21	20-Jul-21	18-Aug-21	13-Sep-21	19-Oct-21	2-Nov-21	16-Feb-22	17-May-22
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Anions and Nutrients															
Alkalinity (CaCO3) (mg/L)	90.6	89.6	85.2	91.8	92.8	99.8	91.4	90.3	101	100	93.2	96.6	94.4	99.2	85.2
Ammonia (as N) (mg/L)	<0.0050	0.0056	<0.0050	<0.0050	<0.0050	0.0094	<0.0050	0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.0067	0.0107	<0.0050
Chloride (mg/L)	0.87	0.88	0.86	0.94	0.94	1.02	0.92	0.84	0.88	0.85	0.88	0.92	0.91	0.98	0.76
Diss-Orthophosphate (mg/L)	0.0011	<0.0010	0.0014	0.0049	0.0092	0.0097	<0.0010	<0.0010	<0.0010	0.0010	0.0012	0.0040	0.0083	0.0092	<0.0010
Diss-Phosphorus (mg/L)	0.0041	0.0039	0.0041	0.0072	0.0139	0.0092	0.0044	0.0040	0.0051	0.0039	0.0093	0.0075	0.0114	0.0152	0.0075
Fluoride (mg/L)	0.074	0.073	0.072	0.076	0.072	0.083	0.073	0.066	0.071	0.073	0.075	0.085	0.072	0.076	0.065
Nitrate (N) (mg/L)	<0.0050	<0.0050	<0.0050	0.0287	0.0517	0.0728	0.0169	<0.0050	<0.0050	<0.0050	<0.0050	0.0109	0.0311	0.0613	<0.0050
Nitrate and Nitrite (mg/L)	<0.0051	<0.0051	<0.0051	0.0301	0.0536	0.0728	0.0169	<0.0051	<0.0051	<0.0051	<0.0051	0.0109	0.0311	0.0613	<0.0051
Nitrite (N) (mg/L)	<0.0010	<0.0010	<0.0010	0.0013	0.0019	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Sulphate (mg/L)	35.9	35.6	34.2	36.7	37.8	39.6	37.6	36.4	37.3	35.1	36.8	36.2	38.0	39.6	32.4
Total Nitrogen (mg/L)	0.271	0.266		0.285	0.291	0.340	0.303	0.248	0.233	0.247	0.243	0.226	0.242	0.282	0.291
Total Phosphorus (mg/L)	0.0083	0.0129	0.0062	0.0116	0.0160	0.0147	0.0154	0.0076	0.0045	0.0056	0.0062	0.0078	0.0147	0.0161	0.0141
Dissolved Metals															
Aluminum (Al)-Diss (mg/L)	0.0066	0.0039	<0.0030	0.0037	0.0055	0.0032	0.0059	0.0038	0.0039	0.0031	0.0082	<0.0030	<0.0030	<0.0030	0.0290
Diss-Antimony (Sb) (mg/L)	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Diss-Arsenic (As) (mg/L)	0.00052	0.00049	0.00051	0.00054	0.00053	0.00053	0.00047	0.00049	0.00055	0.00055	0.00054	0.00053	0.00050	0.00054	0.00050
Diss-Barium (Ba) (mg/L)	0.00984	0.00915	0.00883	0.0101	0.00977	0.0106	0.00992	0.00928	0.0104	0.00999	0.0100	0.00962	0.00978	0.0107	0.00920
Diss-Beryllium (Be) (mg/L)	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100
Diss-Bismuth (Bi) (mg/L)	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Diss-Boron (B) (mg/L)	0.020	0.019	0.022	0.021	0.022	0.022	0.021	0.020	0.020	0.021	0.020	0.021	0.020	0.022	0.021
Diss-Cadmium (Cd) (mg/L)	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050
Diss-Calcium (Ca) (mg/L)	36.4	35.1	36.7	36.6	37.7	39.6	37.0	35.7	36.8	35.4	36.6	38.3	37.6	40.0	35.8
Diss-Chromium (Cr) (mg/L)	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Diss-Cobalt (Co) (mg/L)	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Diss-Copper (Cu) (mg/L)	0.00332	0.00313	0.00310	0.00345	0.00308	0.00369	0.00386	0.00360	0.00364	0.00337	0.00329	0.00348	0.00354	0.00369	0.00509
Diss-Iron (Fe) (mg/L)	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030
Diss-Lead (Pb) (mg/L)	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Diss-Lithium (Li) (mg/L)	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Diss-Magnesium (Mg) (mg/L)	4.94	5.28	4.71	5.14	5.48	5.84	5.48	5.06	5.33	5.69	5.40	5.76	5.18	5.78	4.83
Diss-Manganese (Mn) (mg/L)	0.00144	0.00128	0.00115	0.00131	0.00069	0.00033	0.00474	0.00192	0.00276	0.00086	0.00078	0.00254	0.00122	0.00028	0.00223
Diss-Molybdenum (Mo) (mg/L)	0.00603	0.00608	0.00569	0.00665	0.00643	0.00675	0.00650	0.00597	0.00637	0.00606	0.00643	0.00630	0.00630	0.00639	0.00554
Diss-Nickel (Ni) (mg/L)	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Diss-Potassium (K) (mg/L)	0.994	1.03	0.970	1.11	1.04	1.15	1.03	1.02	1.09	1.10	1.10	1.08	1.02	1.12	1.00
Diss-Selenium (mg/L)	0.000489	0.000449	0.000505	0.000430	0.000525	0.000521	0.000481	0.000462	0.000570	0.000491	0.000430	0.000528	0.000421	0.000466	0.000470

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	20-Jun-22	13-Jul-22	30-Aug-22	12-Sep-22	12-Oct-22	15-Mar-23	9-May-23	12-Jun-23	26-Jul-23	24-Aug-23	28-Sep-23	18-Oct-23
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Anions and Nutrients

Alkalinity (CaCO3) (mg/L)	87.5	87.7	87.7	93.4	92.9	94.3	94.5	91.6	90.5	93.2	92.9	95.4
Ammonia (as N) (mg/L)	<0.0050	0.0124	<0.0050	0.0070	0.0060	0.0090	<0.0050	<0.0050	<0.0050	0.0092	0.0052	<0.0050
Chloride (mg/L)	0.81	0.76	0.82	0.82	0.81	0.90	0.74	0.76	0.77	0.80	0.80	0.80
Diss-Orthophosphate (mg/L)	<0.0010	<0.0010	<0.0010	0.0012	<0.0010	0.0097	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Diss-Phosphorus (mg/L)	0.0057	0.0058	0.0030	0.0043	0.0047	0.0140	0.0050	0.0040	0.0039	0.0063	0.0034	0.0043
Fluoride (mg/L)	0.072	0.061	0.072	0.070	0.075	0.078	0.070	0.067	0.065	0.073	0.077	0.075
Nitrate (N) (mg/L)	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.0791	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Nitrate and Nitrite (mg/L)	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	0.0807	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051
Nitrite (N) (mg/L)	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.0016	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Sulphate (mg/L)	34.5	33.7	37.4	34.9	35.9	36.8	31.8	32.0	33.8	33.2	35.4	34.9
Total Nitrogen (mg/L)	0.252	0.285	0.278	0.286	0.264	0.300	0.240	0.235	0.261	0.276	0.250	0.254
Total Phosphorus (mg/L)	0.0100	0.0090	0.0050	0.0062	0.0078	0.0166	0.0126	0.0083	0.0079	0.0077	0.0077	0.0068

Dissolved Metals

Aluminum (Al)-Diss (mg/L)	0.0044	0.0046	0.0032	0.0046	0.0030	<0.0030	0.0137	0.0058	0.0046	0.0040	0.0039	0.0059
Diss-Antimony (Sb) (mg/L)	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	0.00011	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Diss-Arsenic (As) (mg/L)	0.00047	0.00048	0.00050	0.00052	0.00049	0.00052	0.00046	0.00051	0.00054	0.00049	0.00049	0.00054
Diss-Barium (Ba) (mg/L)	0.00968	0.00923	0.00997	0.0104	0.00984	0.00995	0.0102	0.00963	0.0105	0.0102	0.00992	0.0107
Diss-Beryllium (Be) (mg/L)	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100
Diss-Bismuth (Bi) (mg/L)	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Diss-Boron (B) (mg/L)	0.018	0.021	0.021	0.020	0.019	0.021	0.020	0.020	0.019	0.020	0.019	0.018
Diss-Cadmium (Cd) (mg/L)	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050
Diss-Calcium (Ca) (mg/L)	35.3	36.1	35.9	36.5	33.4	35.9	34.6	37.6	33.7	34.0	34.3	35.3
Diss-Chromium (Cr) (mg/L)	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Diss-Cobalt (Co) (mg/L)	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Diss-Copper (Cu) (mg/L)	0.00358	0.00363	0.00338	0.00380	0.00323	0.00343	0.00404	0.00364	0.00362	0.00305	0.00298	0.00346
Diss-Iron (Fe) (mg/L)	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030
Diss-Lead (Pb) (mg/L)	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Diss-Lithium (Li) (mg/L)	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Diss-Magnesium (Mg) (mg/L)	4.99	5.43	5.27	5.42	5.29	5.32	5.00	5.44	4.98	4.94	4.89	5.67
Diss-Manganese (Mn) (mg/L)	0.00066	0.00358	0.00075	0.00110	0.00073	0.00058	0.00165	0.00348	0.00102	0.00264	0.00113	0.00188
Diss-Molybdenum (Mo) (mg/L)	0.00597	0.00644	0.00695	0.00658	0.00674	0.00625	0.00560	0.00614	0.00602	0.00597	0.00641	0.00631
Diss-Nickel (Ni) (mg/L)	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Diss-Potassium (K) (mg/L)	0.983	0.986	0.971	1.05	0.967	1.03	0.948	0.964	1.08	0.959	0.954	1.03
Diss-Selenium (mg/L)	0.000421	0.000580	0.000874	0.000633	0.000676	0.000558	0.000593	0.000619	0.000588	0.000594	0.000488	0.000504

Grid Format Report : Polley Lake North Station P1-surface

From 1 Jan 2019 to 31 Dec 2023

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Mount Polley

Mining Corporation

IMPERIAL METALS CORPORATION

	E207974 : P1-S														
	13-Feb-19	16-May-19	27-May-19	6-Jun-19	24-Jun-19	15-Jul-19	13-Aug-19	11-Sep-19	9-Oct-19	20-Nov-19	19-Feb-20	14-Apr-20	19-May-20	15-Jun-20	14-Jul-20
Diss-Silicon (Si) (mg/L)	3.18	2.78	2.84	2.72	2.75	2.55	2.35	2.25	2.55	3.11	3.11		3.16	2.95	2.79
Diss-Silver (Ag) (mg/L)	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010		<0.000010	<0.000010	<0.000010
Diss-Sodium (Na) (mg/L)	9.09	8.74	8.51	9.14	8.60	8.67	8.93	9.38	8.77	8.84	9.15		7.55	7.44	7.85
Diss-Strontium (Sr) (mg/L)	0.334	0.289	0.283	0.275	0.288	0.279	0.286	0.305	0.281	0.292	0.288		0.267	0.249	0.259
Diss-Thallium (Tl) (mg/L)	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010		<0.000010	<0.000010	<0.000010
Diss-Tin (Sn) (mg/L)	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010		<0.00010	<0.00010	<0.00010
Diss-Titanium (Ti) (mg/L)	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.0100		<0.0100	<0.0100	<0.0100
Diss-Uranium (U) (mg/L)	0.000261	0.000241	0.000254	0.000231	0.000238	0.000229	0.000219	0.000217	0.000233	0.000244	0.000241		0.000194	0.000196	0.000200
Diss-Vanadium (V) (mg/L)	0.00094	0.00090	0.00088	0.00104	0.00090	0.00096	0.00097	0.00104	0.00093	0.00105	0.00099		0.00096	0.00095	0.00098
Diss-Zinc (Zn) (mg/L)	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030		<0.0030	<0.0030	<0.0030
TDS (mg/L)	190	188	192	174	188	181	164	183	170	187	186		160	153	174
Field Tests															
Cond (in situ) (µs/cm)	296.5	272.9	278.6	271.3	277.9	273.8	277.5	285.6	273.1	281.5	282.7	250.1	241.5	249.9	
NTU - in situ (ntu)	0.32	0.76	0	0.66	0	0.29	0	0.55	0.87	1.2	0.54	0.34	0.57	0.1	
pH (in situ) (pH)	7.93	7.89	8.17	8.18	8.16	8.24	8.27	8.23	8.03	7.78	7.83	8.17	7.6	7.88	
Sample Depth (m)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Sample Taken	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Secchi Depth (m)		3.95	4.75	4.5	6.5	8	6.5	7.25	7.25	3.5		7		3.5	
Temp (in situ) (Degrees Celcius)	0.259	11.494	14.597	14.982	16.034	18.902	20.005	17.237	9.647	4.315	0.301	17.744	9.287	12.021	
Organic / Inorganic															
DOC (mg/L)	5.81	5.38	5.63	5.60	5.93	5.74	6.07	5.82	5.63	5.26	6.61		6.65	6.20	6.52
Physical Test															
Conductivity (µs/cm)	295	262	277	266	279	264	272	268	274	278	291		236	252	249
Hardness (mg/L)	135	122	122	132	124	123	128	132	124	125	123		114	113	120
NTU (ntu)	0.41	0.60	0.54	0.66	0.33	0.24	0.25	0.31	0.32	1.23	0.16		0.55	0.36	0.39
pH (pH)	8.24	8.17	8.25	8.23	8.34	8.25	8.35	8.27	8.18	8.19	8.18		7.99	7.97	8.12
TDS (mg/L)	190	188	192	174	188	181	164	183	170	187	186		160	153	174
TSS (mg/L)	<1.0	1.4	<1.0	21.1	<1.0	<1.0	<1.0	<1.0	<1.0	1.5	1.3	<1.0		1.9	<1.0
Total Metals															
Aluminum (Al)-Total (mg/L)	0.0128	0.0240	0.0185	0.0135	0.0062	0.0080	0.0050	0.0077	0.0130	0.0555	0.0036		0.0430	0.0163	0.0101
Antimony (Sb)-Total (mg/L)	0.00011	<0.00010	0.00011	0.00013	<0.00010	0.00011	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010		<0.00010	<0.00010	<0.00010
Arsenic (As)-Total (mg/L)	0.00074	0.00063	0.00061	0.00058	0.00062	0.00063	0.00060	0.00066	0.00057	0.00060	0.00066		0.00050	0.00050	0.00052
Barium (Ba)-Total (mg/L)	0.0119	0.0104	0.0111	0.0101	0.0108	0.0107	0.0107	0.0111	0.0113	0.0120	0.0112		0.00940	0.00999	0.00911
Beryllium (Be)-Total (mg/L)	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.000100		<0.000100	<0.000100	<0.000100
Bismuth (Bi)-Total (mg/L)	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050		<0.000050	<0.000050	<0.000050

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	13-Feb-19	16-May-19	27-May-19	6-Jun-19	24-Jun-19	15-Jul-19	13-Aug-19	11-Sep-19	9-Oct-19	20-Nov-19	19-Feb-20	14-Apr-20	19-May-20	15-Jun-20	14-Jul-20
Boron (B)-Total (mg/L)	0.027	0.023	0.023	0.025	0.024	0.024	0.024	0.026	0.025	0.024	0.024		0.020	0.024	0.019
Cadmium (Cd)-Total (mg/L)	<0.0000050	0.0000050	<0.0000050	<0.0000050	0.0000080	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050		<0.0000050	<0.0000050	<0.0000050
Calcium (Ca)-Total (mg/L)	43.9	37.9	39.4	38.0	39.3	37.6	39.4	38.2	40.4	37.8	40.6		35.2	37.8	37.3
Chromium (Cr)-Total (mg/L)	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050		<0.00050	<0.00050	<0.00050
Cobalt (Co)-Total (mg/L)	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010		<0.00010	<0.00010	<0.00010
Copper (Cu)-Total (mg/L)	0.00430	0.00391	0.00397	0.00379	0.00372	0.00383	0.00347	0.00354	0.00330	0.00436	0.00371		0.00372	0.00349	0.00373
Iron (Fe)-Total (mg/L)	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	0.039	<0.030		0.042	<0.030	<0.030
Lead (Pb)-Total (mg/L)	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050		<0.000050	<0.000050	<0.000050
Lithium (Li)-Total (mg/L)	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010		<0.0010	<0.0010	<0.0010
Magnesium (Mg)-Total (mg/L)	6.29	5.26	5.90	5.17	5.62	5.62	5.41	6.03	5.65	5.77	5.73		4.76	5.50	5.33
Manganese (Mn)-Total (mg/L)	0.00132	0.0103	0.00734	0.00562	0.00351	0.00464	0.00425	0.00347	0.00457	0.0105	0.00052		0.00309	0.00500	0.00547
Molybdenum (Mo)-Total (mg/L)	0.00869	0.00777	0.00808	0.00749	0.00754	0.00798	0.00809	0.00784	0.00734	0.00744	0.00783		0.00581	0.00687	0.00603
Nickel (Ni)-Total (mg/L)	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050		<0.00050	<0.00050	<0.00050
Potassium (K)-Total (mg/L)	1.35	1.18	1.27	1.13	1.22	1.20	1.17	1.25	1.17	1.17	1.25		0.997	1.07	0.986
Selenium (Se)-Total (mg/L)	0.000463	0.000502	0.000435	0.000540	0.000531	0.000541	0.000520	0.000538	0.000423	0.000504	0.000488		0.000404	0.000468	0.000536
Silicon (Si)-Total (mg/L)	3.10	2.79	2.98	2.71	2.88	2.45	2.43	2.45	2.42	3.09	2.96		3.22	3.36	2.99
Silver (Ag)-Total (mg/L)	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010		<0.000010	<0.000010	<0.000010
Sodium (Na)-Total (mg/L)	9.38	8.01	8.77	8.37	8.44	8.63	8.50	9.07	8.75	8.20	9.11		7.26	7.77	8.14
Strontium (Sr)-Total (mg/L)	0.314	0.275	0.289	0.278	0.282	0.288	0.287	0.285	0.286	0.280	0.291		0.222	0.263	0.259
Thallium (Tl)-Total (mg/L)	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010		<0.000010	<0.000010	<0.000010
Tin (Sn)-Total (mg/L)	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010		<0.00010	<0.00010	<0.00010
Titanium (Ti)-Total (mg/L)	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.0100		<0.0100	<0.0100	<0.0100
Uranium (U)-Total (mg/L)	0.000263	0.000222	0.000234	0.000209	0.000236	0.000235	0.000228	0.000232	0.000197	0.000232	0.000235		0.000179	0.000184	0.000195
Vanadium (V)-Total (mg/L)	0.00110	0.00108	0.00108	0.00088	0.00100	0.00113	0.00108	0.00125	0.00104	0.00126	0.00109		0.00106	0.00094	0.00106
Zinc (Zn)-Total (mg/L)	<0.0030	<0.0030	<0.0030	<0.0030	0.0077	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030		<0.0030	<0.0030	<0.0030

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	Sample (n)	Count >MDL	Min	Max	Mean	95th Percentile	St Dev
Anions and Nutrients							
Alkalinity (CaCO3) (mg/L)	41	41	85.20000	117.00000	95.57317	106.00000	6.66956
Ammonia (as N) (mg/L)	41	18	0.00250	0.01240	0.00489	0.26730	0.00314
Chloride (mg/L)	41	41	0.74000	1.32000	0.92195	1.43200	0.13090
Diss-Orthophosphate (mg/L)	41	16	0.00050	0.01210	0.00245	0.03710	0.00346
Diss-Phosphorus (mg/L)	41	41	0.00300	0.01520	0.00640	0.04170	0.00334
Floride (mg/L)	41	41	0.06100	0.09300	0.07556	0.09400	0.00711
Nitrate (N) (mg/L)	41	11	0.00250	0.10800	0.01508	0.14160	0.02568
Nitrate and Nitrite (mg/L)	41	11	0.00255	0.10800	0.01686	0.15250	0.02564
Nitrite (N) (mg/L)	41	4	0.00050	0.00190	0.00060	0.00800	0.00031
Sulphate (mg/L)	41	41	31.80000	48.00000	37.23415	50.16000	3.36598
Total Nitrogen (mg/L)	40	40	0.22600	0.34700	0.27665	0.66475	0.02759
Total Phosphorus (mg/L)	41	41	0.00450	0.02600	0.01126	0.05873	0.00523
Dissolved Metals							
Aluminum (Al)-Diss (mg/L)	41	26	0.00150	0.02900	0.00458	0.00762	0.00486
Diss-Antimony (Sb) (mg/L)	41	1	0.00005	0.00011	0.00005	0.00017	0.00001
Diss-Arsenic (As) (mg/L)	41	41	0.00046	0.00071	0.00054	0.00109	0.00006
Diss-Barium (Ba) (mg/L)	41	41	0.00883	0.01200	0.01025	0.01466	0.00077
Diss-Beryllium (Be) (mg/L)	41	0	0.00005	0.00050	0.00015	0.00025	0.00019
Diss-Bismuth (Bi) (mg/L)	41	0	0.00003	0.00003	0.00002	0.00025	0.00000
Diss-Boron (B) (mg/L)	41	41	0.01800	0.02700	0.02115	0.02900	0.00194
Diss-Cadmium (Cd) (mg/L)	41	3	0.00000	0.00001	0.00000	0.00002	0.00000
Diss-Calcium (Ca) (mg/L)	41	41	33.40000	43.60000	37.59024	43.36000	2.59835
Diss-Chromium (Cr) (mg/L)	41	0	0.00025	0.00030	0.00025	0.00025	0.00001
Diss-Cobalt (Co) (mg/L)	41	0	0.00005	0.00005	0.00005	0.00005	0.00000
Diss-Copper (Cu) (mg/L)	41	41	0.00298	0.00509	0.00345	0.00360	0.00036
Diss-Iron (Fe) (mg/L)	41	0	0.01500	0.01500	0.01500	0.01500	0.00000
Diss-Lead (Pb) (mg/L)	41	0	0.00003	0.00003	0.00002	0.00003	0.00000
Diss-Lithium (Li) (mg/L)	41	0	0.00050	0.00050	0.00050	0.00250	0.00000
Diss-Magnesium (Mg) (mg/L)	41	41	4.71000	6.40000	5.43805	5.91800	0.40166
Diss-Manganese (Mn) (mg/L)	41	41	0.00020	0.00474	0.00137	0.02300	0.00111
Diss-Molybdenum (Mo) (mg/L)	41	41	0.00554	0.00867	0.00668	0.01148	0.00077
Diss-Nickel (Ni) (mg/L)	41	0	0.00025	0.00025	0.00025	0.00025	0.00000
Diss-Potassium (K) (mg/L)	41	41	0.94800	1.41000	1.08602	1.44600	0.11459

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Diss-Selenium (mg/L)	41	41	0.00042	0.00087	0.00052	0.00117	0.00008
Diss-Silicon (Si) (mg/L)	41	41	2.25000	3.48000	3.00415	4.04600	0.29098
Diss-Silver (Ag) (mg/L)	41	0	0.00001	0.00001	0.00001	0.00001	0.00000
Diss-Sodium (Na) (mg/L)	41	41	6.66000	9.38000	7.84756	9.77400	0.73924
Diss-Strontium (Sr) (mg/L)	41	41	0.21400	0.33400	0.26015	0.32320	0.02403
Diss-Thallium (Tl) (mg/L)	41	0	0.00001	0.00001	0.00001	0.00005	0.00000
Diss-Tin (Sn) (mg/L)	41	0	0.00005	0.00005	0.00005	0.00005	0.00000
Diss-Titanium (Ti) (mg/L)	41	0	0.00500	0.00500	0.00500	0.00500	0.00000
Diss-Uranium (U) (mg/L)	41	41	0.00017	0.00026	0.00021	0.00029	0.00002
Diss-Vanadium (V) (mg/L)	41	41	0.00088	0.00145	0.00112	0.00120	0.00018
Diss-Zinc (Zn) (mg/L)	41	0	0.00150	0.00150	0.00150	0.00150	0.00000
TDS (mg/L)	41	41	129.00000	192.00000	172.65854	198.60000	13.60994
Field Tests							
Cond (in situ) (µs/cm)	41	41	1.00000	301.00000	244.24710	308.92000	67.35641
NTU - in situ (ntu)	40	40	0.00000	14.46000	0.90750	2.66400	2.30898
pH (in situ) (pH)	41	41	5.16000	8.46000	7.91049	9.40000	0.55336
Sample Depth (m)	41	41	0.00000	0.00000	0.00000	0.00000	0.00000
Sample Taken							
Secchi Depth (m)	35	35	3.10000	9.00000	5.57429	7.50000	1.54764
Temp (in situ) (Degrees Celcius)	41	41	0.25900	24.90400	12.35668	20.99750	6.69300
Organic / Inorganic							
DOC (mg/L)	41	41	5.26000	7.84000	6.23244	6.63350	0.48531
Physical Test							
Conductivity (µs/cm)	41	41	235.00000	295.00000	258.04878	292.00000	14.12436
Hardness (mg/L)	41	41	105.00000	135.00000	116.19512	132.00000	7.83652
NTU (ntu)	41	41	0.14000	1.23000	0.44195	2.58650	0.21932
pH (pH)	41	41	7.97000	8.36000	8.18829	8.57800	0.09444
TDS (mg/L)	41	41	129.00000	192.00000	172.65854	198.60000	13.60994
TSS (mg/L)	41	17	0.50000	21.10000	1.60244	9.12500	3.27853
Total Metals							
Aluminum (Al)-Total (mg/L)	41	41	0.00360	0.08490	0.01904	0.08708	0.01770
Antimony (Sb)-Total (mg/L)	41	9	0.00005	0.00013	0.00006	0.00019	0.00003
Arsenic (As)-Total (mg/L)	41	41	0.00048	0.00074	0.00057	0.00109	0.00005
Barium (Ba)-Total (mg/L)	41	41	0.00911	0.01260	0.01053	0.01522	0.00074
Beryllium (Be)-Total (mg/L)	41	0	0.00005	0.00005	0.00005	0.00025	0.00000

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Sample (n)	Count >MDL	Min	Max	Mean	95th Percentile	St Dev	
Bismuth (Bi)-Total (mg/L)	41	0	0.00003	0.00003	0.00002	0.00025	0.00000
Boron (B)-Total (mg/L)	41	41	0.01900	0.02700	0.02198	0.03040	0.00214
Cadmium (Cd)-Total (mg/L)	41	5	0.00000	0.00001	0.00000	0.00003	0.00000
Calcium (Ca)-Total (mg/L)	41	41	31.60000	44.00000	37.40244	42.78000	2.55778
Chromium (Cr)-Total (mg/L)	41	1	0.00025	0.00057	0.00026	0.00025	0.00005
Cobalt (Co)-Total (mg/L)	41	0	0.00005	0.00005	0.00005	0.00005	0.00000
Copper (Cu)-Total (mg/L)	41	41	0.00325	0.00797	0.00397	0.00699	0.00080
Iron (Fe)-Total (mg/L)	41	6	0.01500	0.08300	0.02005	0.06320	0.01382
Lead (Pb)-Total (mg/L)	41	2	0.00003	0.00014	0.00003	0.00019	0.00002
Lithium (Li)-Total (mg/L)	41	0	0.00050	0.00050	0.00050	0.00250	0.00000
Magnesium (Mg)-Total (mg/L)	41	41	4.76000	6.29000	5.44293	5.94000	0.32982
Manganese (Mn)-Total (mg/L)	41	41	0.00052	0.01050	0.00464	0.05908	0.00252
Molybdenum (Mo)-Total (mg/L)	41	41	0.00551	0.00869	0.00684	0.01160	0.00070
Nickel (Ni)-Total (mg/L)	41	0	0.00025	0.00025	0.00025	0.00025	0.00000
Potassium (K)-Total (mg/L)	41	41	0.92800	1.35000	1.08166	1.46400	0.10105
Selenium (Se)-Total (mg/L)	41	41	0.00040	0.00081	0.00052	0.12365	0.00008
Silicon (Si)-Total (mg/L)	41	41	2.42000	3.72000	3.09927	4.09000	0.33850
Silver (Ag)-Total (mg/L)	41	0	0.00001	0.00001	0.00001	0.00001	0.00000
Sodium (Na)-Total (mg/L)	41	41	6.94000	9.38000	7.88878	9.99400	0.61062
Strontium (Sr)-Total (mg/L)	41	41	0.22200	0.31400	0.26276	0.32780	0.01961
Thallium (Tl)-Total (mg/L)	41	0	0.00001	0.00001	0.00001	0.00005	0.00000
Tin (Sn)-Total (mg/L)	41	1	0.00005	0.00016	0.00005	0.00005	0.00002
Titanium (Ti)-Total (mg/L)	41	0	0.00500	0.00500	0.00500	0.00500	0.00000
Uranium (U)-Total (mg/L)	41	41	0.00018	0.00026	0.00021	0.00029	0.00002
Vanadium (V)-Total (mg/L)	41	41	0.00088	0.00165	0.00126	0.00140	0.00021
Zinc (Zn)-Total (mg/L)	41	2	0.00150	0.00770	0.00169	0.00462	0.00100

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E207975 : P2- MID															
	11-Feb-19	15-Jul-19	20-Nov-19	19-Feb-20	15-Jun-20	26-Oct-20	18-Nov-20	24-Feb-21	6-May-21	19-Oct-21	2-Nov-21	16-Feb-22	17-May-22	1-Mar-23	15-Mar-23
Anions and Nutrients															
Alkalinity (CaCO3) (mg/L)	97.7	99.4	105	112	98.3	92.3	92.1	92.4	90.3	95.8	94.6	96.0	93.0	94.3	94.5
Ammonia (as N) (mg/L)	<0.0050	<0.0050	0.0098	<0.0050	0.0114	0.0079	0.0077	0.0053	<0.0050	0.0076	<0.0050	<0.0050	0.0053	0.0128	<0.0050
Chloride (mg/L)	1.13	1.15	1.08	1.09	0.98	0.93	0.93	0.94	0.92	0.92	0.91	0.94	0.88	0.81	0.86
Diss-Orthophosphate (mg/L)	0.0119	<0.0010	0.0056	0.0092	0.0037	0.0046	0.0097	0.0105	<0.0010	0.0041	0.0072	0.0094	0.0080	0.0100	0.0094
Diss-Phosphorus (mg/L)	0.0148	0.0042	0.0099	0.0120	0.0087	0.0065	0.0125	0.0131	0.0048	0.0068	0.0098	0.0147	0.0109	0.0115	0.0125
Fluoride (mg/L)	0.082	0.091	0.085	0.078	0.074	0.077	0.070	0.080	0.073	0.079	0.073	0.076	0.071	0.069	0.079
Nitrate (N) (mg/L)	0.0750	<0.0050	0.0272	0.0558	<0.0050	0.0216	0.0561	0.0713	0.0302	0.0082	0.0245	0.0526	0.0476	0.0557	0.0642
Nitrate and Nitrite (mg/L)	0.0750	<0.0051	0.0286	0.06	<0.0500	0.0227	0.0580	0.0713	0.0302	0.0082	0.0245	0.0526	0.0476	0.0557	0.0642
Nitrite (N) (mg/L)	<0.0010	<0.0010	0.0014	<0.0010	<0.0010	0.0011	0.0019	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Sulphate (mg/L)	41.9	42.4	40.8	41.5	39.6	36.5	38.0	37.8	37.8	36.2	38.0	39.0	37.4	34.8	40.0
Total Nitrogen (mg/L)	0.290	0.256	0.282	0.290	0.313	0.269	0.298	0.299	0.291	0.248	0.248	0.267	0.276	0.275	0.269
Total Phosphorus (mg/L)	0.0223	0.0078	0.0242	0.0177	0.0156	0.0187	0.0160	0.0138	0.0136	0.0092	0.0146	0.0160	0.0234	0.0129	0.0132
Dissolved Metals															
Aluminum (Al)-Diss (mg/L)	<0.0030	<0.0030	0.0036	<0.0030	0.0048	0.0074	0.0044	<0.0030	0.0073	<0.0030	<0.0030	<0.0030	0.0061	<0.0030	0.0033
Diss-Antimony (Sb) (mg/L)	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Diss-Arsenic (As) (mg/L)	0.00070	0.00059	0.00057	0.00056	0.00053	0.00050	0.00057	0.00050	0.00047	0.00057	0.00056	0.00056	0.00053	0.00054	0.00052
Diss-Barium (Ba) (mg/L)	0.0118	0.0112	0.0113	0.0111	0.0105	0.0101	0.0101	0.0106	0.00951	0.00996	0.0109	0.0108	0.0105	0.0100	0.00984
Diss-Beryllium (Be) (mg/L)	<0.00010	<0.00010	<0.00010	<0.00100	<0.00100	<0.00100	<0.00100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100
Diss-Bismuth (Bi) (mg/L)	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Diss-Boron (B) (mg/L)	0.025	0.023	0.022	0.023	0.021	0.023	0.025	0.021	0.021	0.020	0.019	0.021	0.020	0.020	0.021
Diss-Cadmium (Cd) (mg/L)	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050
Diss-Calcium (Ca) (mg/L)	41.3	39.5	39.7	39.6	39.0	38.2	38.3	37.9	37.0	37.9	37.6	39.6	38.0	35.4	36.4
Diss-Chromium (Cr) (mg/L)	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Diss-Cobalt (Co) (mg/L)	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Diss-Copper (Cu) (mg/L)	0.00344	0.00321	0.00324	0.00320	0.00330	0.00347	0.00328	0.00353	0.00383	0.00348	0.00359	0.00375	0.00405	0.00364	0.00367
Diss-Iron (Fe) (mg/L)	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030
Diss-Lead (Pb) (mg/L)	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Diss-Lithium (Li) (mg/L)	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Diss-Magnesium (Mg) (mg/L)	6.00	5.87	5.98	5.48	5.65	5.29	5.43	5.72	5.04	5.82	5.04	5.83	5.28	5.49	5.29
Diss-Manganese (Mn) (mg/L)	0.00015	0.00152	0.00023	0.00018	0.00062	0.00143	0.00121	0.00018	0.00268	0.00200	0.00110	0.00022	0.0216	0.00020	0.00052
Diss-Molybdenum (Mo) (mg/L)	0.00832	0.00790	0.00732	0.00743	0.00688	0.00652	0.00630	0.00651	0.00678	0.00606	0.00605	0.00648	0.00660	0.00611	0.00647
Diss-Nickel (Ni) (mg/L)	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Diss-Potassium (K) (mg/L)	1.29	1.24	1.29	1.19	1.15	1.11	1.08	1.09	1.00	1.10	1.08	1.12	1.08	1.02	0.997
Diss-Selenium (mg/L)	0.000477	0.000520	0.000464	0.000477	0.000533	0.000576	0.000450	0.000454	0.000466	0.000508	0.000448	0.000490	0.000414	0.000550	0.000475

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Anions and Nutrients	
Alkalinity (CaCO3) (mg/L)	93.0
Ammonia (as N) (mg/L)	<0.0050
Chloride (mg/L)	0.78
Diss-Orthophosphate (mg/L)	<0.0010
Diss-Phosphorus (mg/L)	0.0049
Fluoride (mg/L)	0.070
Nitrate (N) (mg/L)	<0.0050
Nitrate and Nitrite (mg/L)	<0.0051
Nitrite (N) (mg/L)	<0.0010
Sulphate (mg/L)	33.3
Total Nitrogen (mg/L)	0.248
Total Phosphorus (mg/L)	0.0125
Dissolved Metals	
Aluminum (Al)-Diss (mg/L)	0.0083
Diss-Antimony (Sb) (mg/L)	<0.00010
Diss-Arsenic (As) (mg/L)	0.00052
Diss-Barium (Ba) (mg/L)	0.0113
Diss-Beryllium (Be) (mg/L)	<0.000100
Diss-Bismuth (Bi) (mg/L)	<0.000050
Diss-Boron (B) (mg/L)	0.020
Diss-Cadmium (Cd) (mg/L)	<0.0000050
Diss-Calcium (Ca) (mg/L)	35.6
Diss-Chromium (Cr) (mg/L)	<0.00050
Diss-Cobalt (Co) (mg/L)	<0.00010
Diss-Copper (Cu) (mg/L)	0.00371
Diss-Iron (Fe) (mg/L)	<0.030
Diss-Lead (Pb) (mg/L)	<0.000050
Diss-Lithium (Li) (mg/L)	<0.0010
Diss-Magnesium (Mg) (mg/L)	5.13
Diss-Manganese (Mn) (mg/L)	0.00115
Diss-Molybdenum (Mo) (mg/L)	0.00577
Diss-Nickel (Ni) (mg/L)	<0.00050
Diss-Potassium (K) (mg/L)	0.962
Diss-Selenium (mg/L)	0.000473

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Mining Corporation

IMPERIAL METALS CORPORATION

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	11-Feb-19	15-Jul-19	20-Nov-19	19-Feb-20	15-Jun-20	26-Oct-20	18-Nov-20	24-Feb-21	6-May-21	19-Oct-21	2-Nov-21	16-Feb-22	17-May-22	1-Mar-23	15-Mar-23
Diss-Silicon (Si) (mg/L)	2.94	2.83	3.08	2.91	3.05	2.95	3.40	3.32	3.25	3.11	3.16	3.42	3.44	3.32	3.25
Diss-Silver (Ag) (mg/L)	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Diss-Sodium (Na) (mg/L)	9.28	8.60	8.82	8.66	8.02	8.05	8.05	7.58	7.69	7.87	7.95	8.10	7.39	7.36	7.08
Diss-Strontium (Sr) (mg/L)	0.298	0.285	0.284	0.278	0.269	0.272	0.259	0.264	0.286	0.251	0.258	0.266	0.259	0.239	0.269
Diss-Thallium (Tl) (mg/L)	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Diss-Tin (Sn) (mg/L)	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Diss-Titanium (Ti) (mg/L)	<0.010	<0.010	<0.010	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100
Diss-Uranium (U) (mg/L)	0.000252	0.000237	0.000238	0.000235	0.000213	0.000203	0.000201	0.000192	0.000192	0.000204	0.000184	0.000196	0.000204	0.000187	0.000203
Diss-Vanadium (V) (mg/L)	0.00094	0.00086	0.00098	0.00091	0.00098	0.00101	0.00100	0.00105	0.00097	0.00115	0.00115	0.00130	0.00128	0.00124	0.00126
Diss-Zinc (Zn) (mg/L)	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030
TDS (mg/L)	178	184	182	179	159	163	169	165	172	169	168	171	184	158	166
Field Tests															
Cond (in situ) (µs/cm)	275.5	279.8	281.3	269	268.9	306.4	259.4	262.4	278.3	261.7	258.5	263.8	260.7	254	253.3
NTU - in situ (ntu)	0.53	0.94	1.19	0.53	0.3	1.6	1.19	0.43	1.465	0.77	0.62	0.43	0.93	0.39	1.16
pH (in situ) (pH)	7.73	7.74	7.81	7.6	7.76	7.88	7.82	7.9	7.79	7.83	7.83	7.85	7.61	7.57	7.53
Sample Depth (m)	15	13.5	14	14	13.5	15	15	14	15	15	15.5	14	15.5	15	15
Sample Taken	Yes	Yes	Yes	Yes	Yes	Yes	Yes	yes	yes	Yes	Yes		Yes	Yes	Yes
Temp (in situ) (Degrees Celcius)	2.332	5.716	4.253	3.345	5.496	6.524	3.85	2.088	3.433	8.151	6.479	3.389	4.151	2.656	2.768
Organic / Inorganic															
DOC (mg/L)	5.52	5.70	5.39	5.96	5.79	5.51	6.26	5.82	7.34	6.14	6.26	5.14	6.30	5.96	5.99
Physical Test															
Conductivity (µs/cm)	263	277	280	276	262	260	260	258	265	258	260	262	265	254	257
Hardness (mg/L)	128	123	124	121	121	117	118	118	113	119	115	123	117	111	113
NTU (ntu)	0.25	0.45	1.07	0.12	0.57	0.54	0.96	0.19	0.54	0.28	0.61	0.13	1.17	<0.10	0.11
pH (pH)	8.07	8.28	8.20	8.20	7.85	8.04	8.06	8.09	8.05	8.11	8.19	8.21	8.14	8.11	8.11
TDS (mg/L)	178	184	182	179	159	163	169	165	172	169	168	171	184	158	166
TSS (mg/L)	<1.0	1.4	1.1	<1.1	<1.0	1.4	1.4	<1.0	3.0	1.4	<1.0	<1.0	2.5	<1.0	<1.0
Total Metals															
Aluminum (Al)-Total (mg/L)	0.0135	0.0081	0.0552	0.0052	0.0229	0.0362	0.0557	0.0099	0.0232	0.0141	0.0389	0.0055	0.0523	0.0151	0.0053
Antimony (Sb)-Total (mg/L)	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	0.00010
Arsenic (As)-Total (mg/L)	0.00069	0.00063	0.00062	0.00060	0.00057	0.00051	0.00055	0.00061	0.00053	0.00058	0.00053	0.00055	0.00056	0.00052	0.00053
Barium (Ba)-Total (mg/L)	0.0116	0.0110	0.0119	0.0112	0.0106	0.0109	0.0113	0.0111	0.0107	0.0108	0.0107	0.0109	0.0114	0.00994	0.0102
Beryllium (Be)-Total (mg/L)	<0.00010	<0.00010	<0.00010	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100
Bismuth (Bi)-Total (mg/L)	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Boron (B)-Total (mg/L)	0.027	0.025	0.023	0.024	0.024	0.022	0.023	0.021	0.023	0.021	0.019	0.022	0.022	0.020	0.022

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Diss-Silicon (Si) (mg/L)	3.42
Diss-Silver (Ag) (mg/L)	<0.000010
Diss-Sodium (Na) (mg/L)	6.83
Diss-Strontium (Sr) (mg/L)	0.217
Diss-Thallium (Tl) (mg/L)	<0.000010
Diss-Tin (Sn) (mg/L)	<0.00010
Diss-Titanium (Ti) (mg/L)	<0.0100
Diss-Uranium (U) (mg/L)	0.000185
Diss-Vanadium (V) (mg/L)	0.00119
Diss-Zinc (Zn) (mg/L)	<0.0030
TDS (mg/L)	171
Field Tests	
Cond (in situ) (µs/cm)	241.9
NTU - in situ (ntu)	0.54
pH (in situ) (pH)	7.86
Sample Depth (m)	14
Sample Taken	Yes
Temp (in situ) (Degrees Celcius)	4.125
Organic / Inorganic	
DOC (mg/L)	6.39
Physical Test	
Conductivity (µs/cm)	248
Hardness (mg/L)	110
NTU (ntu)	0.64
pH (pH)	8.23
TDS (mg/L)	171
TSS (mg/L)	<1.0
Total Metals	
Aluminum (Al)-Total (mg/L)	0.0288
Antimony (Sb)-Total (mg/L)	<0.00010
Arsenic (As)-Total (mg/L)	0.00051
Barium (Ba)-Total (mg/L)	0.0103
Beryllium (Be)-Total (mg/L)	<0.000100
Bismuth (Bi)-Total (mg/L)	<0.000050
Boron (B)-Total (mg/L)	0.021

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Cadmium (Cd)-Total (mg/L)	<0.0000050
Calcium (Ca)-Total (mg/L)	34.3
Chromium (Cr)-Total (mg/L)	<0.00050
Cobalt (Co)-Total (mg/L)	<0.00010
Copper (Cu)-Total (mg/L)	0.00434
Iron (Fe)-Total (mg/L)	<0.030
Lead (Pb)-Total (mg/L)	<0.000050
Lithium (Li)-Total (mg/L)	<0.0010
Magnesium (Mg)-Total (mg/L)	5.08
Manganese (Mn)-Total (mg/L)	0.00754
Molybdenum (Mo)-Total (mg/L)	0.00621
Nickel (Ni)-Total (mg/L)	<0.00050
Potassium (K)-Total (mg/L)	1.03
Selenium (Se)-Total (mg/L)	0.000459
Silicon (Si)-Total (mg/L)	3.62
Silver (Ag)-Total (mg/L)	<0.000010
Sodium (Na)-Total (mg/L)	7.33
Strontium (Sr)-Total (mg/L)	0.240
Thallium (Tl)-Total (mg/L)	<0.000010
Tin (Sn)-Total (mg/L)	<0.00010
Titanium (Ti)-Total (mg/L)	<0.0100
Uranium (U)-Total (mg/L)	0.000199
Vanadium (V)-Total (mg/L)	0.00139
Zinc (Zn)-Total (mg/L)	<0.0030

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	Sample (n)	Count >MDL	Min	Max	Mean	95th Percentile	St Dev
Anions and Nutrients							
Alkalinity (CaCO3) (mg/L)	16	16	90.30000	112.00000	96.29375	98.05000	5.50666
Ammonia (as N) (mg/L)	16	8	0.00250	0.01280	0.00549	0.00564	0.00359
Chloride (mg/L)	16	16	0.78000	1.15000	0.95313	1.21700	0.10818
Diss-Orthophosphate (mg/L)	16	13	0.00050	0.01190	0.00655	0.00988	0.00383
Diss-Phosphorus (mg/L)	16	16	0.00420	0.01480	0.00985	0.01409	0.00351
Fluoride (mg/L)	16	16	0.06900	0.09100	0.07669	0.09160	0.00601
Nitrate (N) (mg/L)	16	13	0.00250	0.07500	0.03734	0.05729	0.02545
Nitrate and Nitrite (mg/L)	16	13	0.00255	0.07500	0.03929	0.05881	0.02419
Nitrite (N) (mg/L)	16	3	0.00050	0.00190	0.00068	0.00145	0.00042
Sulphate (mg/L)	16	16	33.30000	42.40000	38.43750	43.62000	2.54843
Total Nitrogen (mg/L)	16	16	0.24800	0.31300	0.27619	0.30255	0.01994
Total Phosphorus (mg/L)	16	16	0.00780	0.02420	0.01572	0.02360	0.00467
Dissolved Metals							
Aluminum (Al)-Diss (mg/L)	16	8	0.00150	0.00830	0.00358	0.00450	0.00250
Diss-Antimony (Sb) (mg/L)	16	0	0.00005	0.00005	0.00005	0.00011	0.00000
Diss-Arsenic (As) (mg/L)	16	16	0.00047	0.00070	0.00055	0.00072	0.00005
Diss-Barium (Ba) (mg/L)	16	16	0.00951	0.01180	0.01059	0.01183	0.00064
Diss-Beryllium (Be) (mg/L)	16	0	0.00005	0.00050	0.00016	0.00005	0.00020
Diss-Bismuth (Bi) (mg/L)	16	0	0.00003	0.00003	0.00003	0.00003	0.00000
Diss-Boron (B) (mg/L)	16	16	0.01900	0.02500	0.02156	0.02590	0.00179
Diss-Cadmium (Cd) (mg/L)	16	0	0.00000	0.00000	0.00000	0.00000	0.00000
Diss-Calcium (Ca) (mg/L)	16	16	35.40000	41.30000	38.18750	40.28500	1.59117
Diss-Chromium (Cr) (mg/L)	16	0	0.00025	0.00025	0.00025	0.00025	0.00000
Diss-Cobalt (Co) (mg/L)	16	0	0.00005	0.00005	0.00005	0.00005	0.00000
Diss-Copper (Cu) (mg/L)	16	16	0.00320	0.00405	0.00352	0.00359	0.00025
Diss-Iron (Fe) (mg/L)	16	0	0.01500	0.01500	0.01500	0.01500	0.00000
Diss-Lead (Pb) (mg/L)	16	0	0.00003	0.00003	0.00003	0.00003	0.00000
Diss-Lithium (Li) (mg/L)	16	0	0.00050	0.00050	0.00050	0.00050	0.00000
Diss-Magnesium (Mg) (mg/L)	16	16	5.04000	6.00000	5.52125	5.98900	0.32602
Diss-Manganese (Mn) (mg/L)	16	16	0.00015	0.02160	0.00219	0.00204	0.00523
Diss-Molybdenum (Mo) (mg/L)	16	16	0.00577	0.00832	0.00672	0.00821	0.00070
Diss-Nickel (Ni) (mg/L)	16	0	0.00025	0.00025	0.00025	0.00025	0.00000
Diss-Potassium (K) (mg/L)	16	16	0.96200	1.29000	1.11244	1.39000	0.09926

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Sample (n)	Count >MDL	Min	Max	Mean	95th Percentile	St Dev	
Diss-Selenium (mg/L)	16	16	0.00041	0.00058	0.00049	0.00054	0.00004
Diss-Silicon (Si) (mg/L)	16	16	2.83000	3.44000	3.17813	2.86150	0.20302
Diss-Silver (Ag) (mg/L)	16	0	0.00001	0.00001	0.00001	0.00001	0.00000
Diss-Sodium (Na) (mg/L)	16	16	6.83000	9.28000	7.95813	9.55200	0.65231
Diss-Strontium (Sr) (mg/L)	16	16	0.21700	0.29800	0.26588	0.29625	0.01971
Diss-Thallium (Tl) (mg/L)	16	0	0.00001	0.00001	0.00001	0.00001	0.00000
Diss-Tin (Sn) (mg/L)	16	0	0.00005	0.00005	0.00005	0.00005	0.00000
Diss-Titanium (Ti) (mg/L)	16	0	0.00500	0.00500	0.00500	0.00500	0.00000
Diss-Uranium (U) (mg/L)	16	16	0.00018	0.00025	0.00021	0.00025	0.00002
Diss-Vanadium (V) (mg/L)	16	16	0.00086	0.00130	0.00108	0.00088	0.00014
Diss-Zinc (Zn) (mg/L)	16	0	0.00150	0.00150	0.00150	0.00150	0.00000
TDS (mg/L)	16	16	158.00000	184.00000	171.12500	183.50000	8.27748
Field Tests							
Cond (in situ) (µs/cm)	16	16	241.90000	306.40000	267.18125	277.90000	14.93007
NTU - in situ (ntu)	16	16	0.30000	1.60000	0.81344	1.71450	0.40729
pH (in situ) (pH)	16	16	7.53000	7.90000	7.75688	7.88300	0.11751
Sample Depth (m)	16	16	13.50000	15.50000	14.56250	14.95000	0.68007
Sample Taken							
Temp (in situ) (Degrees Celcius)	16	16	2.08800	8.15100	4.29725	4.36335	1.72292
Organic / Inorganic							
DOC (mg/L)	16	16	5.14000	7.34000	5.96688	5.45900	0.51166
Physical Test							
Conductivity (µs/cm)	16	16	248.00000	280.00000	262.81250	285.45000	8.49485
Hardness (mg/L)	16	16	110.00000	128.00000	118.18750	125.60000	5.02286
NTU (ntu)	16	15	0.05000	1.17000	0.48000	1.51700	0.35253
pH (pH)	16	16	7.85000	8.28000	8.12125	8.21400	0.10178
TDS (mg/L)	16	16	158.00000	184.00000	171.12500	183.50000	8.27748
TSS (mg/L)	16	7	0.50000	3.00000	1.04688	2.35500	0.77749
Total Metals							
Aluminum (Al)-Total (mg/L)	16	16	0.00520	0.05570	0.02437	0.07337	0.01818
Antimony (Sb)-Total (mg/L)	16	1	0.00005	0.00010	0.00005	0.00005	0.00001
Arsenic (As)-Total (mg/L)	16	16	0.00051	0.00069	0.00057	0.00072	0.00005
Barium (Ba)-Total (mg/L)	16	16	0.00994	0.01190	0.01091	0.01237	0.00052
Beryllium (Be)-Total (mg/L)	16	0	0.00005	0.00005	0.00005	0.00005	0.00000
Bismuth (Bi)-Total (mg/L)	16	0	0.00003	0.00003	0.00003	0.00003	0.00000

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Mining Corporation

IMPERIAL METALS CORPORATION

E207975 : P2- MID							
Sample (n)	Count >MDL	Min	Max	Mean	95th Percentile	St Dev	
Boron (B)-Total (mg/L)	16	16	0.01900	0.02700	0.02244	0.02600	0.00197
Cadmium (Cd)-Total (mg/L)	16	1	0.00000	0.00001	0.00000	0.00001	0.00000
Calcium (Ca)-Total (mg/L)	16	16	34.30000	41.30000	37.95000	41.67000	1.84319
Chromium (Cr)-Total (mg/L)	16	0	0.00025	0.00025	0.00025	0.00025	0.00000
Cobalt (Co)-Total (mg/L)	16	0	0.00005	0.00005	0.00005	0.00005	0.00000
Copper (Cu)-Total (mg/L)	16	16	0.00373	0.00484	0.00410	0.00489	0.00031
Iron (Fe)-Total (mg/L)	16	3	0.01500	0.04700	0.01994	0.04750	0.01078
Lead (Pb)-Total (mg/L)	16	0	0.00003	0.00003	0.00003	0.00003	0.00000
Lithium (Li)-Total (mg/L)	16	0	0.00050	0.00050	0.00050	0.00050	0.00000
Magnesium (Mg)-Total (mg/L)	16	16	5.08000	5.93000	5.56938	5.98350	0.21770
Manganese (Mn)-Total (mg/L)	16	16	0.00120	0.03980	0.00734	0.01316	0.00924
Molybdenum (Mo)-Total (mg/L)	16	16	0.00621	0.00797	0.00686	0.00802	0.00057
Nickel (Ni)-Total (mg/L)	16	0	0.00025	0.00025	0.00025	0.00025	0.00000
Potassium (K)-Total (mg/L)	16	16	0.99200	1.23000	1.10200	1.28650	0.07109
Selenium (Se)-Total (mg/L)	16	16	0.00040	0.00053	0.00048	0.00047	0.00004
Silicon (Si)-Total (mg/L)	16	16	2.79000	3.74000	3.28000	2.99600	0.29348
Silver (Ag)-Total (mg/L)	16	0	0.00001	0.00001	0.00001	0.00001	0.00000
Sodium (Na)-Total (mg/L)	16	16	7.21000	8.76000	8.01188	8.88800	0.51199
Strontium (Sr)-Total (mg/L)	16	16	0.23900	0.28700	0.26450	0.29450	0.01400
Thallium (Tl)-Total (mg/L)	16	0	0.00001	0.00001	0.00001	0.00001	0.00000
Tin (Sn)-Total (mg/L)	16	0	0.00005	0.00005	0.00005	0.00005	0.00000
Titanium (Ti)-Total (mg/L)	16	0	0.00500	0.00500	0.00500	0.00500	0.00000
Uranium (U)-Total (mg/L)	16	16	0.00019	0.00024	0.00021	0.00024	0.00002
Vanadium (V)-Total (mg/L)	16	16	0.00104	0.00148	0.00124	0.00117	0.00014
Zinc (Zn)-Total (mg/L)	16	1	0.00150	0.00480	0.00171	0.00150	0.00082

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Mining Corporation

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E207975 : P2-AT															
	6-May-19	16-May-19	27-May-19	6-Jun-19	13-Aug-19	11-Sep-19	9-Oct-19	19-May-20	14-Jul-20	19-Aug-20	8-Sep-20	29-Sep-20	3-Jun-21	20-Jul-21	18-Aug-21
Anions and Nutrients															
Alkalinity (CaCO3) (mg/L)		104	99.2	100	101	98.6	105	91.0	93.2	89.8	89.8	92.6	89.8	96.2	94.9
Ammonia (as N) (mg/L)		0.0073	<0.0050	0.0090	<0.0050	<0.0050	0.0063	0.0081	0.0076	<0.0050	0.0068	<0.0050	<0.0050	<0.0050	<0.0050
Chloride (mg/L)		1.10	1.08	1.07	1.06	1.08	1.03	0.87	0.92	0.88	0.88	0.87	0.83	0.87	0.86
Diss-Orthophosphate (mg/L)		<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.0012	0.0021	0.0010	<0.0010	0.0014	0.0030	<0.0010	0.0011
Diss-Phosphorus (mg/L)		0.0051	0.0056	0.0060	0.0061	0.0041	0.0042	0.0062	0.0058	0.0038	0.0058	0.0057	0.0064	0.0045	0.0089
Fluoride (mg/L)		0.078	0.080	0.084	0.086	0.079	0.083	0.073	0.076	0.074	0.073	0.071	0.068	0.071	0.072
Nitrate (N) (mg/L)		<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Nitrate and Nitrite (mg/L)		<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0500	<0.0500	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051
Nitrite (N) (mg/L)		<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Sulphate (mg/L)		41.3	41.2	40.7	40.7	42.0	40.6	34.3	36.9	35.8	35.4	34.4	36.4	37.1	35.2
Total Nitrogen (mg/L)		0.294	0.289	0.293	0.311	0.309	0.265	0.289	0.257	0.262	0.282		0.262	0.230	0.246
Total Phosphorus (mg/L)		0.0169	0.0255	0.0195	0.0381	0.0116	0.0206	0.0139	0.0089	0.0063	0.0223	0.0066	0.0212	0.0080	0.0114
Dissolved Metals															
Aluminum (Al)-Diss (mg/L)		<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	0.0107	0.0044	0.0052	0.0042	0.0030	0.0042	<0.0030	<0.0030
Diss-Antimony (Sb) (mg/L)		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Diss-Arsenic (As) (mg/L)		0.00061	0.00056	0.00058	0.00059	0.00060	0.00063	0.00047	0.00049	0.00050	0.00054	0.00052	0.00047	0.00057	0.00051
Diss-Barium (Ba) (mg/L)		0.0110	0.0111	0.0109	0.0103	0.0114	0.0111	0.00986	0.00966	0.00984	0.00971	0.00956	0.00940	0.0103	0.00985
Diss-Beryllium (Be) (mg/L)		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100
Diss-Bismuth (Bi) (mg/L)		<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Diss-Boron (B) (mg/L)		0.024	0.023	0.023	0.022	0.022	0.023	0.019	0.020	0.020	0.019	0.022	0.021	0.020	0.020
Diss-Cadmium (Cd) (mg/L)		<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.000010	<0.0000050	0.0000057	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050
Diss-Calcium (Ca) (mg/L)		42.8	38.8	40.0	36.6	40.0	38.1	37.9	39.7	37.0	34.5	37.1	35.7	36.7	34.6
Diss-Chromium (Cr) (mg/L)		<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Diss-Cobalt (Co) (mg/L)		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Diss-Copper (Cu) (mg/L)		0.00344	0.00344	0.00320	0.00305	0.00294	0.00315	0.00336	0.00327	0.00348	0.00332	0.00334	0.00362	0.00357	0.00408
Diss-Iron (Fe) (mg/L)		<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030
Diss-Lead (Pb) (mg/L)		<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Diss-Lithium (Li) (mg/L)		<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Diss-Magnesium (Mg) (mg/L)		6.32	5.75	5.52	5.26	5.99	5.77	5.26	5.65	5.31	5.06	4.97	4.95	5.22	5.55
Diss-Manganese (Mn) (mg/L)		0.00048	0.00021	0.00011	0.00063	0.00029	0.00115	0.00101	0.00120	0.00131	0.00151	0.00091	0.00130	0.00210	0.00079
Diss-Molybdenum (Mo) (mg/L)		0.00763	0.00777	0.00751	0.00745	0.00767	0.00728	0.00628	0.00626	0.00628	0.00590	0.00612	0.00599	0.00653	0.00630
Diss-Nickel (Ni) (mg/L)		<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Diss-Potassium (K) (mg/L)		1.31	1.23	1.21	1.20	1.20	1.25	1.05	1.01	1.02	1.02	1.01	0.998	1.06	1.06
Diss-Selenium (mg/L)		0.000473	0.000523	0.000481	0.000483	0.000436	0.000487	0.000460	0.000512	0.000446	0.000361	0.000464	0.000474	0.000577	0.000474

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	13-Sep-21	20-Jun-22	13-Jul-22	30-Aug-22	12-Sep-22	12-Oct-22	12-Jun-23	26-Jul-23	24-Aug-23	28-Sep-23	18-Oct-23
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Anions and Nutrients

Alkalinity (CaCO3) (mg/L)	96.1	88.7	89.9	90.2	93.4	92.9	91.5	89.9	91.7	94.2	93.6
Ammonia (as N) (mg/L)	0.0057	<0.0050	0.0086	<0.0050	0.0056	<0.0050	<0.0050	<0.0050	0.0080	0.0053	0.0086
Chloride (mg/L)	0.88	0.81	0.75	0.84	1.50	0.82	0.75	0.77	0.78	0.79	0.79
Diss-Orthophosphate (mg/L)	0.0015	<0.0010	0.0052	<0.0010	0.0012	0.0011	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Diss-Phosphorus (mg/L)	0.0074	0.0064	0.0057	0.0027	0.0031	0.0047	0.0047	0.0047	0.0043	0.0033	0.0052
Fluoride (mg/L)	0.071	0.072	0.058	0.073	0.071	0.075	0.066	0.068	0.069	0.074	0.072
Nitrate (N) (mg/L)	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.0052	<0.0050	<0.0050
Nitrate and Nitrite (mg/L)	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	0.0052	<0.0051	<0.0051
Nitrite (N) (mg/L)	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Sulphate (mg/L)	36.8	34.4	33.0	37.2	35.2	35.8	31.7	33.7	33.0	34.5	34.8
Total Nitrogen (mg/L)	0.264	0.237	0.314	0.283	0.260	0.342	0.233	0.267	0.287	0.240	0.236
Total Phosphorus (mg/L)	0.0086	0.0126	0.0137	0.0073	0.0063	0.0106	0.0098	0.0087	0.0079	0.0076	0.0071

Dissolved Metals

Aluminum (Al)-Diss (mg/L)	0.0034	0.0110	0.0039	<0.0030	0.0070	0.0032	0.0043	0.0032	0.0054	0.0033	0.0058
Diss-Antimony (Sb) (mg/L)	<0.00010	<0.00010	0.00011	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Diss-Arsenic (As) (mg/L)	0.00056	0.00048	0.00052	0.00054	0.00059	0.00052	0.00047	0.00054	0.00049	0.00051	0.00054
Diss-Barium (Ba) (mg/L)	0.0103	0.00967	0.00968	0.0102	0.0103	0.00975	0.00924	0.0102	0.00996	0.0103	0.0105
Diss-Beryllium (Be) (mg/L)	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100
Diss-Bismuth (Bi) (mg/L)	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Diss-Boron (B) (mg/L)	0.019	0.026	0.020	0.019	0.019	0.019	0.019	0.019	0.019	0.019	0.020
Diss-Cadmium (Cd) (mg/L)	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050
Diss-Calcium (Ca) (mg/L)	36.2	32.8	34.5	33.9	35.1	34.1	36.7	34.4	33.3	33.6	35.4
Diss-Chromium (Cr) (mg/L)	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Diss-Cobalt (Co) (mg/L)	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Diss-Copper (Cu) (mg/L)	0.00355	0.00355	0.00370	0.00346	0.00354	0.00334	0.00340	0.00327	0.00306	0.00308	0.00345
Diss-Iron (Fe) (mg/L)	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030
Diss-Lead (Pb) (mg/L)	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Diss-Lithium (Li) (mg/L)	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Diss-Magnesium (Mg) (mg/L)	5.52	4.84	5.56	5.58	5.31	5.42	5.38	4.96	5.01	5.13	5.58
Diss-Manganese (Mn) (mg/L)	0.00086	0.00111	0.00429	0.00055	0.00088	0.00110	0.00205	0.00069	0.00079	0.00153	0.00144
Diss-Molybdenum (Mo) (mg/L)	0.00614	0.00569	0.00626	0.00672	0.00664	0.00687	0.00592	0.00604	0.00600	0.00636	0.00616
Diss-Nickel (Ni) (mg/L)	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Diss-Potassium (K) (mg/L)	1.13	0.954	1.02	0.978	1.01	0.971	0.962	1.06	0.964	0.984	1.04
Diss-Selenium (mg/L)	0.000496	0.000435	0.000604	0.000718	0.000665	0.000706	0.000495	0.000463	0.000477	0.000520	0.000443

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	6-May-19	16-May-19	27-May-19	6-Jun-19	13-Aug-19	11-Sep-19	9-Oct-19	19-May-20	14-Jul-20	19-Aug-20	8-Sep-20	29-Sep-20	3-Jun-21	20-Jul-21	18-Aug-21
Diss-Silicon (Si) (mg/L)		2.76	2.77	2.59	2.29	2.18	2.59	3.14	2.82	2.90	2.67	2.79	3.11	2.86	2.96
Diss-Silver (Ag) (mg/L)		<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Diss-Sodium (Na) (mg/L)		9.81	8.85	8.64	8.35	8.51	8.76	7.75	8.00	7.84	7.53	7.37	7.28	7.79	7.48
Diss-Strontium (Sr) (mg/L)		0.303	0.276	0.275	0.267	0.295	0.275	0.272	0.258	0.253	0.251	0.247	0.250	0.262	0.248
Diss-Thallium (Tl) (mg/L)		<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Diss-Tin (Sn) (mg/L)		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Diss-Titanium (Ti) (mg/L)		<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100
Diss-Uranium (U) (mg/L)		0.000226	0.000244	0.000227	0.000225	0.000209	0.000237	0.000209	0.000200	0.000177	0.000192	0.000203	0.000193	0.000194	0.000191
Diss-Vanadium (V) (mg/L)		0.00088	0.00088	0.00096	0.00104	0.00101	0.00096	0.00092	0.00100	0.00099	0.00096	0.00094	0.00107	0.00122	0.00119
Diss-Zinc (Zn) (mg/L)		<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030
TDS (mg/L)		168	176	172	172	181	177	162	186	174	174	165	159	176	181
Field Tests															
Cond (in situ) (µs/cm)	272.9		281.3	273.7	278.1	297	273	244.6	265.5	277.7	250.8	317.7	251.4	261.4	266
NTU - in situ (ntu)	1.11		0	1.03	0.25	0.72	1.19	0.77	0.79	0	1.14	1.43	0.34	0	0.05
pH (in situ) (pH)	8.12		8.02	8.03	8.2	7.99	8.06	7.68	7.97	8.27	8.2	7.94	7.61	7.99	8.28
Sample Depth (m)	10		10	7	5	10	10	1	9	6	6	10	6	7	6
Sample Taken	Yes		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Temp (in situ) (Degrees Celcius)	5.066		6.418	7.996	18.249	11.012	9.566	8.543	8.911	15.634	16.443	13.289	8.445	9.447	17.767
Organic / Inorganic															
DOC (mg/L)		5.40	5.18	5.29	5.95	5.30	5.80	6.12	6.47	6.80	6.01	6.04	6.14	6.25	6.84
Physical Test															
Conductivity (µs/cm)		266	269	278	275	267	271	236	260	251	252	252	250	250	268
Hardness (mg/L)		133	121	123	113	125	119	116	122	114	107	113	110	113	109
NTU (ntu)		1.06	0.75	0.86	0.29	0.22	0.34	0.64	0.29	0.38	0.36	0.35	0.34	0.65	0.28
pH (pH)		8.19	8.20	8.25	8.35	8.27	8.16	8.00	8.01	8.23	8.25	8.11	8.15	8.29	8.31
TDS (mg/L)		168	176	172	172	181	177	162	186	174	174	165	159	176	181
TSS (mg/L)		1.8	1.5	1.4	1.0	<1.0	1.3	<1.0	1.0	1.2	<1.0	<1.0	<1.0	<1.0	<1.0
Total Metals															
Aluminum (Al)-Total (mg/L)		0.0294	0.0211	0.0147	0.0058	0.0086	0.0206	0.0435	0.0112	0.0112	0.0101	0.0079	0.0128	0.0081	0.0086
Antimony (Sb)-Total (mg/L)		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Arsenic (As)-Total (mg/L)		0.00062	0.00059	0.00055	0.00060	0.00061	0.00061	0.00047	0.00052	0.00050	0.00058	0.00053	0.00052	0.00055	0.00057
Barium (Ba)-Total (mg/L)		0.0107	0.0112	0.0103	0.0110	0.0110	0.0109	0.00987	0.00959	0.00971	0.0105	0.00970	0.00976	0.0104	0.0102
Beryllium (Be)-Total (mg/L)		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100
Bismuth (Bi)-Total (mg/L)		<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Boron (B)-Total (mg/L)		0.023	0.022	0.025	0.023	0.024	0.024	0.020	0.020	0.020	0.022	0.022	0.022	0.021	0.022

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	13-Sep-21	20-Jun-22	13-Jul-22	30-Aug-22	12-Sep-22	12-Oct-22	12-Jun-23	26-Jul-23	24-Aug-23	28-Sep-23	18-Oct-23
Diss-Silicon (Si) (mg/L)	2.94	3.17	3.39	2.84	2.90	3.02	3.08	3.11	2.99	3.01	3.20
Diss-Silver (Ag) (mg/L)	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Diss-Sodium (Na) (mg/L)	7.82	6.79	7.43	7.48	7.27	7.50	6.96	7.24	7.01	6.98	7.55
Diss-Strontium (Sr) (mg/L)	0.250	0.236	0.237	0.251	0.249	0.250	0.240	0.248	0.226	0.236	0.246
Diss-Thallium (Tl) (mg/L)	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Diss-Tin (Sn) (mg/L)	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Diss-Titanium (Ti) (mg/L)	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100
Diss-Uranium (U) (mg/L)	0.000197	0.000188	0.000177	0.000188	0.000199	0.000184	0.000183	0.000194	0.000196	0.000192	0.000217
Diss-Vanadium (V) (mg/L)	0.00124	0.00122	0.00122	0.00141	0.00133	0.00134	0.00124	0.00142	0.00138	0.00139	0.00142
Diss-Zinc (Zn) (mg/L)	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030
TDS (mg/L)	189	176	164	155	161	130	168	178	164	158	159
Field Tests											
Cond (in situ) (µs/cm)	257.3	241.2	241.9	249	247.9	247.3	254.5	240.7	227.7	237.7	259.9
NTU - in situ (ntu)	0.09	0	0.18	0.24	0.22	0	0.02	0.46		0.37	
pH (in situ) (pH)	8.79	8.12	8.28	8.42	8.38	7.93	7.99	8.36	8.41	8.12	7.79
Sample Depth (m)	8	5	7	5	7	10	5	5	5	9	12
Sample Taken	Yes	Yes	Yes	Yes	Yes	Yes					
Temp (in situ) (Degrees Celcius)	14.053	14.438	11.304	20.088	17.568	8.487	13.76	18.325	17.757	12.412	8.584
Organic / Inorganic											
DOC (mg/L)	6.22	6.28	6.55	7.27	6.27	6.14	6.06	6.19	6.17	6.29	6.39
Physical Test											
Conductivity (µs/cm)	264	244	245	259	250	253	242	240	247	247	250
Hardness (mg/L)	113	102	109	108	110	107	114	106	104	105	111
NTU (ntu)	0.19	0.49	0.31	0.29	0.38	0.39	0.27	0.54	0.46	0.38	0.29
pH (pH)	8.17	8.09	8.20	8.31	8.22	8.21	8.23	8.35	8.17	8.26	8.17
TDS (mg/L)	189	176	164	155	161	130	168	178	164	158	159
TSS (mg/L)	<1.0	<1.0	1.8	<1.0	<1.0	1.4	1.0	<1.0	<1.0	<1.0	<1.0
Total Metals											
Aluminum (Al)-Total (mg/L)	0.0050	0.0122	0.0107	0.0071	0.0102	0.0110	0.0149	0.0124	0.0106	0.0129	0.0127
Antimony (Sb)-Total (mg/L)	<0.00010	<0.00010	0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	0.00012	<0.00010
Arsenic (As)-Total (mg/L)	0.00054	0.00048	0.00050	0.00057	0.00052	0.00051	0.00049	0.00056	0.00054	0.00051	0.00057
Barium (Ba)-Total (mg/L)	0.0101	0.00940	0.00963	0.0108	0.0104	0.0103	0.00988	0.00995	0.0100	0.0105	0.0105
Beryllium (Be)-Total (mg/L)	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100
Bismuth (Bi)-Total (mg/L)	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Boron (B)-Total (mg/L)	0.022	0.020	0.020	0.021	0.021	0.020	0.019	0.020	0.020	0.020	0.021

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	Sample (n)	Count >MDL	Min	Max	Mean	95th Percentile	St Dev
Anions and Nutrients							
Alkalinity (CaCO3) (mg/L)	25	25	88.70000	105.00000	94.28800		4.63756
Ammonia (as N) (mg/L)	25	12	0.00250	0.00900	0.00478		0.00257
Chloride (mg/L)	25	25	0.75000	1.50000	0.91520		0.16581
Diss-Orthophosphate (mg/L)	25	10	0.00050	0.00520	0.00105		0.00106
Diss-Phosphorus (mg/L)	25	25	0.00270	0.00890	0.00522		0.00138
Floride (mg/L)	25	25	0.05800	0.08600	0.07348		0.00601
Nitrate (N) (mg/L)	25	1	0.00250	0.00520	0.00261		0.00054
Nitrate and Nitrite (mg/L)	25	1	0.00255	0.02500	0.00445		0.00621
Nitrite (N) (mg/L)	25	0	0.00050	0.00050	0.00050		0.00000
Sulphate (mg/L)	25	25	31.70000	42.00000	36.48400		2.95856
Total Nitrogen (mg/L)	24	24	0.23000	0.34200	0.27300		0.02926
Total Phosphorus (mg/L)	25	25	0.00630	0.03810	0.01324		0.00766
Dissolved Metals							
Aluminum (Al)-Diss (mg/L)	25	16	0.00150	0.01100	0.00383		0.00265
Diss-Antimony (Sb) (mg/L)	25	1	0.00005	0.00011	0.00005		0.00001
Diss-Arsenic (As) (mg/L)	25	25	0.00047	0.00063	0.00054		0.00005
Diss-Barium (Ba) (mg/L)	25	25	0.00924	0.01140	0.01016		0.00058
Diss-Beryllium (Be) (mg/L)	25	0	0.00005	0.00050	0.00014		0.00018
Diss-Bismuth (Bi) (mg/L)	25	0	0.00003	0.00003	0.00003		0.00000
Diss-Boron (B) (mg/L)	25	25	0.01900	0.02600	0.02064		0.00196
Diss-Cadmium (Cd) (mg/L)	25	1	0.00000	0.00001	0.00000		0.00000
Diss-Calcium (Ca) (mg/L)	25	25	32.80000	42.80000	36.38000		2.49466
Diss-Chromium (Cr) (mg/L)	25	0	0.00025	0.00025	0.00025		0.00000
Diss-Cobalt (Co) (mg/L)	25	0	0.00005	0.00005	0.00005		0.00000
Diss-Copper (Cu) (mg/L)	25	25	0.00294	0.00408	0.00339		0.00024
Diss-Iron (Fe) (mg/L)	25	0	0.01500	0.01500	0.01500		0.00000
Diss-Lead (Pb) (mg/L)	25	0	0.00003	0.00003	0.00003		0.00000
Diss-Lithium (Li) (mg/L)	25	0	0.00050	0.00050	0.00050		0.00000
Diss-Magnesium (Mg) (mg/L)	25	25	4.84000	6.32000	5.39480		0.35245
Diss-Manganese (Mn) (mg/L)	25	25	0.00011	0.00429	0.00113		0.00083
Diss-Molybdenum (Mo) (mg/L)	25	25	0.00569	0.00777	0.00655		0.00063
Diss-Nickel (Ni) (mg/L)	25	0	0.00025	0.00025	0.00025		0.00000
Diss-Potassium (K) (mg/L)	25	25	0.95400	1.31000	1.06804		0.10400

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Diss-Selenium (mg/L)	25	25	0.00036	0.00072	0.00051		0.00009
Diss-Silicon (Si) (mg/L)	25	25	2.18000	3.39000	2.88320		0.27460
Diss-Silver (Ag) (mg/L)	25	0	0.00001	0.00001	0.00001		0.00000
Diss-Sodium (Na) (mg/L)	25	25	6.79000	9.81000	7.75960		0.71354
Diss-Strontium (Sr) (mg/L)	25	25	0.22600	0.30300	0.25604		0.01838
Diss-Thallium (Tl) (mg/L)	25	0	0.00001	0.00001	0.00001		0.00000
Diss-Tin (Sn) (mg/L)	25	0	0.00005	0.00005	0.00005		0.00000
Diss-Titanium (Ti) (mg/L)	25	0	0.00500	0.00500	0.00500		0.00000
Diss-Uranium (U) (mg/L)	25	25	0.00018	0.00024	0.00020		0.00002
Diss-Vanadium (V) (mg/L)	25	25	0.00088	0.00142	0.00115		0.00019
Diss-Zinc (Zn) (mg/L)	25	0	0.00150	0.00150	0.00150		0.00000
TDS (mg/L)	25	25	130.00000	189.00000	169.00000		12.17237
Field Tests							
Cond (in situ) (µs/cm)	25	25	227.70000	317.70000	260.64800		20.23798
NTU - in situ (ntu)	23	23	0.00000	1.43000	0.45217		0.46527
pH (in situ) (pH)	25	25	7.61000	8.79000	8.11800		0.25500
Sample Depth (m)	25	25	1.00000	12.00000	7.24000		2.50466
Sample Taken							
Temp (in situ) (Degrees Celcius)	25	25	5.06600	20.08800	12.54248		4.32949
Organic / Inorganic							
DOC (mg/L)	25	25	5.18000	7.27000	6.13680		0.48757
Physical Test							
Conductivity (µs/cm)	25	25	236.00000	278.00000	255.44000		11.50029
Hardness (mg/L)	25	25	102.00000	133.00000	113.08000		7.36501
NTU (ntu)	25	25	0.19000	1.06000	0.43200		0.21138
pH (pH)	25	25	8.00000	8.35000	8.20600		0.09023
TDS (mg/L)	25	25	130.00000	189.00000	169.00000		12.17237
TSS (mg/L)	25	10	0.50000	1.80000	0.83600		0.45906
Total Metals							
Aluminum (Al)-Total (mg/L)	25	25	0.00500	0.04350	0.01333		0.00818
Antimony (Sb)-Total (mg/L)	25	2	0.00005	0.00012	0.00005		0.00002
Arsenic (As)-Total (mg/L)	25	25	0.00047	0.00062	0.00054		0.00004
Barium (Ba)-Total (mg/L)	25	25	0.00940	0.01120	0.01025		0.00050
Beryllium (Be)-Total (mg/L)	25	0	0.00005	0.00005	0.00005		0.00000
Bismuth (Bi)-Total (mg/L)	25	0	0.00003	0.00003	0.00003		0.00000

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Sample (n)	Count >MDL	Min	Max	Mean	95th Percentile	St Dev
Boron (B)-Total (mg/L)	25	25	0.01900	0.02500	0.02136	0.00155
Cadmium (Cd)-Total (mg/L)	25	2	0.00000	0.00001	0.00000	0.00000
Calcium (Ca)-Total (mg/L)	25	25	33.10000	40.30000	36.90800	1.82458
Chromium (Cr)-Total (mg/L)	25	0	0.00025	0.00025	0.00025	0.00000
Cobalt (Co)-Total (mg/L)	25	0	0.00005	0.00005	0.00005	0.00000
Copper (Cu)-Total (mg/L)	25	25	0.00317	0.00419	0.00367	0.00023
Iron (Fe)-Total (mg/L)	25	1	0.01500	0.03900	0.01596	0.00480
Lead (Pb)-Total (mg/L)	25	0	0.00003	0.00003	0.00003	0.00000
Lithium (Li)-Total (mg/L)	25	0	0.00050	0.00050	0.00050	0.00000
Magnesium (Mg)-Total (mg/L)	25	25	4.80000	5.95000	5.42160	0.30664
Manganese (Mn)-Total (mg/L)	25	25	0.00230	0.01870	0.00499	0.00328
Molybdenum (Mo)-Total (mg/L)	25	25	0.00601	0.00796	0.00668	0.00055
Nickel (Ni)-Total (mg/L)	25	0	0.00025	0.00025	0.00025	0.00000
Potassium (K)-Total (mg/L)	25	25	0.94000	1.23000	1.05924	0.08934
Selenium (Se)-Total (mg/L)	25	25	0.00045	0.00078	0.00053	0.00009
Silicon (Si)-Total (mg/L)	25	25	2.35000	3.44000	2.98320	0.26839
Silver (Ag)-Total (mg/L)	25	0	0.00001	0.00001	0.00001	0.00000
Sodium (Na)-Total (mg/L)	25	25	6.91000	8.79000	7.76760	0.53753
Strontium (Sr)-Total (mg/L)	25	25	0.23800	0.28900	0.25636	0.01433
Thallium (Tl)-Total (mg/L)	25	0	0.00001	0.00001	0.00001	0.00000
Tin (Sn)-Total (mg/L)	25	1	0.00005	0.00014	0.00005	0.00002
Titanium (Ti)-Total (mg/L)	25	0	0.00500	0.00500	0.00500	0.00000
Uranium (U)-Total (mg/L)	25	25	0.00018	0.00023	0.00020	0.00001
Vanadium (V)-Total (mg/L)	25	25	0.00095	0.00155	0.00126	0.00020
Zinc (Zn)-Total (mg/L)	25	0	0.00150	0.00150	0.00150	0.00000

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	11-Feb-19	16-May-19	27-May-19	6-Jun-19	15-Jul-19	13-Aug-19	11-Sep-19	9-Oct-19	20-Nov-19	19-Feb-20	19-May-20	15-Jun-20	14-Jul-20	19-Aug-20	8-Sep-20
Anions and Nutrients															
Alkalinity (CaCO3) (mg/L)	100	107	99.9	105	104	108	100	111	105	115	104	104	98.3	100	104
Ammonia (as N) (mg/L)	<0.0050	0.0235	0.0051	0.0234	0.0059	<0.0050	<0.0050	0.0070	0.0078	0.0090	0.0098	0.0098	0.0071	0.0094	0.0064
Chloride (mg/L)	1.16	1.11	1.08	1.10	1.17	1.13	1.12	1.10	1.09	1.10	1.06	1.04	1.09	1.05	1.04
Diss-Orthophosphate (mg/L)	0.0134	0.0058	0.0024	0.0050	0.0122	0.0174	0.0217	0.0265	0.0056	0.0115	0.0192	0.0145	0.0189	0.0249	0.0251
Diss-Phosphorus (mg/L)	0.0174	0.0119	0.0090	0.0113	0.0168	0.0203	0.0265	0.0320	0.0097	0.0144	0.0176	0.0178	0.0221	0.0277	0.0305
Fluoride (mg/L)	0.082	0.078	0.082	0.085	0.092	0.087	0.080	0.083	0.087	0.078	0.083	0.078	0.079	0.082	0.077
Nitrate (N) (mg/L)	0.0898	0.0222	0.0100	0.0125	0.0422	0.0607	0.0805	0.0235	0.0273	0.0760	0.105	0.0658	0.0892	0.0879	0.0999
Nitrate and Nitrite (mg/L)	0.0898	0.0260	0.0100	0.0125	0.0422	0.0607	0.0805	0.0235	0.0285	0.08	0.105	0.0665	0.0896	0.0893	0.100
Nitrite (N) (mg/L)	<0.0010	0.0038	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.0012	<0.0010	<0.0010	<0.0010	<0.0010	0.0014	<0.0010
Sulphate (mg/L)	42.1	41.8	41.3	41.6	42.9	41.7	41.8	41.1	40.8	41.9	41.3	42.1	41.2	40.9	39.8
Total Nitrogen (mg/L)	0.313	0.345	0.272	0.272	0.290	0.398	0.352	0.340	0.286	0.316	0.344	0.332	0.316	0.335	0.409
Total Phosphorus (mg/L)	0.0255	0.0202	0.0181	0.0150	0.0209	0.0263	0.0354	0.0505	0.0161	0.0254	0.0292	0.0253	0.0226	0.0290	0.0354
Dissolved Metals															
Aluminum (Al)-Diss (mg/L)	<0.0030	0.0033	0.0031	0.0030	<0.0030	<0.0030	<0.0030	0.0034	0.0035	0.0031	0.0053	0.0066	0.0030	0.0030	0.0030
Diss-Antimony (Sb) (mg/L)	<0.00010	<0.00010	<0.00010	0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Diss-Arsenic (As) (mg/L)	0.00063	0.00060	0.00065	0.00057	0.00060	0.00062	0.00062	0.00063	0.00058	0.00061	0.00055	0.00058	0.00058	0.00058	0.00060
Diss-Barium (Ba) (mg/L)	0.0115	0.0111	0.0109	0.0102	0.0107	0.00986	0.0108	0.0103	0.0108	0.0113	0.0107	0.0106	0.0102	0.0102	0.00959
Diss-Beryllium (Be) (mg/L)	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100
Diss-Bismuth (Bi) (mg/L)	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Diss-Boron (B) (mg/L)	0.024	0.024	0.024	0.024	0.024	0.023	0.024	0.024	0.022	0.024	0.023	0.022	0.022	0.023	0.021
Diss-Cadmium (Cd) (mg/L)	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	0.0000058	<0.0000050	<0.0000050
Diss-Calcium (Ca) (mg/L)	41.6	44.2	40.2	44.2	41.4	38.3	43.9	40.2	39.1	40.4	43.7	39.6	40.4	40.2	36.8
Diss-Chromium (Cr) (mg/L)	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Diss-Cobalt (Co) (mg/L)	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Diss-Copper (Cu) (mg/L)	0.00371	0.00350	0.00340	0.00332	0.00364	0.00338	0.00350	0.00343	0.00318	0.00372	0.00447	0.00352	0.00346	0.00417	0.00386
Diss-Iron (Fe) (mg/L)	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030
Diss-Lead (Pb) (mg/L)	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Diss-Lithium (Li) (mg/L)	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Diss-Magnesium (Mg) (mg/L)	5.99	6.27	5.72	5.71	5.87	5.25	6.33	5.89	5.83	5.57	5.83	5.76	6.04	5.42	5.59
Diss-Manganese (Mn) (mg/L)	0.00049	0.00027	0.00023	<0.00010	0.00245	0.00043	0.00013	0.00052	0.00026	0.00018	0.0124	0.00017	0.00062	0.00068	0.00082
Diss-Molybdenum (Mo) (mg/L)	0.00820	0.00777	0.00804	0.00790	0.00759	0.00730	0.00734	0.00710	0.00734	0.00751	0.00759	0.00731	0.00703	0.00706	0.00668
Diss-Nickel (Ni) (mg/L)	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Diss-Potassium (K) (mg/L)	1.27	1.36	1.24	1.29	1.29	1.24	1.32	1.36	1.25	1.24	1.22	1.18	1.11	1.18	1.17
Diss-Selenium (mg/L)	0.000507	0.000533	0.000568	0.000454	0.000561	0.000449	0.000436	0.000394	0.000483	0.000576	0.000580	0.000484	0.000506	0.000425	0.000485

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	29-Sep-20	26-Oct-20	18-Nov-20	24-Feb-21	6-May-21	3-Jun-21	20-Jul-21	18-Aug-21	13-Sep-21	19-Oct-21	2-Nov-21	16-Feb-22	17-May-22	20-Jun-22	13-Jul-22
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Anions and Nutrients

Alkalinity (CaCO3) (mg/L)	98.8	99.8	92.4	93.8	91.8	91.2	98.4	95.9	95.8	95.8	96.0	98.6	93.2	91.8	90.5
Ammonia (as N) (mg/L)	<0.0050	0.0066	0.0052	0.0059	0.0055	0.0129	<0.0050	<0.0050	<0.0050	<0.0050	0.0099	<0.0050	<0.0050	<0.0050	0.0072
Chloride (mg/L)	1.01	1.02	0.94	0.94	0.93	0.86	0.90	0.88	0.92	0.88	0.90	0.94	0.88	0.86	0.80
Diss-Orthophosphate (mg/L)	0.0331	0.0275	0.0101	0.0121	0.0029	0.0042	0.0203	0.0229	0.0291	0.0294	0.0084	0.0107	0.0090	0.0088	0.0170
Diss-Phosphorus (mg/L)	0.0349	0.0315	0.0131	0.0139	0.0075	0.0076	0.0248	0.0249	0.0383	0.0318	0.0099	0.0177	0.0126	0.0124	0.0208
Fluoride (mg/L)	0.079	0.080	0.070	0.081	0.077	0.068	0.070	0.073	0.074	0.078	0.070	0.078	0.071	0.072	0.062
Nitrate (N) (mg/L)	0.111	0.126	0.0545	0.0818	0.0476	0.0328	0.0836	0.0867	0.110	0.113	0.0292	0.0683	0.0544	0.0260	0.0522
Nitrate and Nitrite (mg/L)	0.112	0.127	0.0562	0.0818	0.0476	0.0328	0.0836	0.0867	0.110	0.113	0.0292	0.0683	0.0544	0.0275	0.0532
Nitrite (N) (mg/L)	<0.0010	0.0013	0.0018	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.0015	0.0010
Sulphate (mg/L)	38.1	39.1	38.0	37.8	38.3	37.4	37.6	35.2	36.6	36.1	37.9	38.7	37.5	36.0	33.9
Total Nitrogen (mg/L)		0.342	0.292	0.312	0.298	0.299	0.314	0.308	0.368	0.313	0.243	0.291	0.268	0.236	0.315
Total Phosphorus (mg/L)	0.0387	0.0382	0.0181	0.0144	0.0168	0.0177	0.0254	0.0308	0.0440	0.0364	0.0167	0.0182	0.0180	0.0180	0.0320

Dissolved Metals

Aluminum (Al)-Diss (mg/L)	0.0036	0.0043	0.0055	0.0035	0.0065	0.0043	0.0040	<0.0030	<0.0030	<0.0030	0.0035	<0.0030	0.0080	0.0038	0.0034
Diss-Antimony (Sb) (mg/L)	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Diss-Arsenic (As) (mg/L)	0.00060	0.00058	0.00058	0.00052	0.00050	0.00051	0.00053	0.00048	0.00055	0.00052	0.00053	0.00053	0.00055	0.00046	0.00056
Diss-Barium (Ba) (mg/L)	0.00987	0.0107	0.00988	0.0105	0.00974	0.00950	0.0103	0.00962	0.00960	0.00968	0.00961	0.0111	0.0106	0.00971	0.00971
Diss-Beryllium (Be) (mg/L)	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100
Diss-Bismuth (Bi) (mg/L)	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Diss-Boron (B) (mg/L)	0.026	0.023	0.024	0.022	0.021	0.022	0.019	0.021	0.019	0.019	0.020	0.021	0.020	0.020	0.020
Diss-Cadmium (Cd) (mg/L)	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000100	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050
Diss-Calcium (Ca) (mg/L)	41.2	38.5	37.8	39.3	37.9	38.1	35.9	36.6	36.6	39.5	37.7	41.4	37.4	36.3	36.4
Diss-Chromium (Cr) (mg/L)	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Diss-Cobalt (Co) (mg/L)	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Diss-Copper (Cu) (mg/L)	0.00392	0.00376	0.00322	0.00398	0.00363	0.00373	0.00385	0.00395	0.00419	0.00428	0.00351	0.00408	0.00422	0.00361	0.00382
Diss-Iron (Fe) (mg/L)	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030
Diss-Lead (Pb) (mg/L)	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Diss-Lithium (Li) (mg/L)	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Diss-Magnesium (Mg) (mg/L)	5.26	5.68	5.37	5.64	5.21	5.13	5.26	5.45	5.31	5.61	5.16	5.93	5.39	5.03	5.42
Diss-Manganese (Mn) (mg/L)	0.00124	0.00062	0.00137	0.00036	0.0552	0.00135	0.00470	0.00093	0.00033	0.00063	0.00312	0.00048	0.0272	0.00048	0.00095
Diss-Molybdenum (Mo) (mg/L)	0.00658	0.00710	0.00649	0.00649	0.00696	0.00617	0.00600	0.00599	0.00579	0.00608	0.00632	0.00647	0.00659	0.00600	0.00609
Diss-Nickel (Ni) (mg/L)	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Diss-Potassium (K) (mg/L)	1.17	1.26	1.06	1.10	1.04	1.04	1.10	1.07	1.15	1.13	1.03	1.15	1.12	0.980	1.03
Diss-Selenium (mg/L)	0.000356	0.000478	0.000512	0.000503	0.000456	0.000469	0.000552	0.000470	0.000412	0.000437	0.000447	0.000472	0.000441	0.000422	0.000420

E207975 : P2-B

	30-Aug-22	12-Sep-22	12-Oct-22	1-Mar-23	15-Mar-23	9-May-23	12-Jun-23	26-Jul-23	24-Aug-23	28-Sep-23	18-Oct-23
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Anions and Nutrients

Alkalinity (CaCO3) (mg/L)	93.7	94.7	97.0	97.2	97.4	93.8	93.8	93.9	96.2	96.3	96.6
Ammonia (as N) (mg/L)	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.0055	0.0068	<0.0050	0.0067	0.0056	<0.0050
Chloride (mg/L)	0.89	0.82	0.84	0.82	0.87	0.83	0.79	0.83	0.84	0.84	0.83
Diss-Orthophosphate (mg/L)	0.0259	0.0237	0.0287	0.0122	0.0102	<0.0010	0.0021	0.0154	0.0186	0.0220	0.0263
Diss-Phosphorus (mg/L)	0.0221	0.0210	0.0326	0.0121	0.0149	0.0044	0.0076	0.0209	0.0245	0.0255	0.0288
Fluoride (mg/L)	0.068	0.068	0.070	0.069	0.078	0.076	0.068	0.072	0.070	0.076	0.071
Nitrate (N) (mg/L)	0.0888	0.0899	0.112	0.0722	0.0768	<0.0050	0.0056	0.0416	0.0674	0.0802	0.0939
Nitrate and Nitrite (mg/L)	0.0888	0.0899	0.112	0.0722	0.0768	<0.0051	0.0056	0.0416	0.0674	0.0802	0.0939
Nitrite (N) (mg/L)	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Sulphate (mg/L)	36.2	33.8	35.0	35.3	37.8	35.6	32.6	35.6	34.7	35.7	35.4
Total Nitrogen (mg/L)	0.334	0.297	0.335	0.284	0.284	0.535	0.277	0.291	0.283	0.287	0.298
Total Phosphorus (mg/L)	0.0315	0.0317	0.0382	0.0150	0.0164	0.0676	0.0084	0.0230	0.0292	0.0306	0.0367

Dissolved Metals

Aluminum (Al)-Diss (mg/L)	0.0035	0.0037	0.0042	<0.0030	0.0042	0.0045	0.0104	0.0070	<0.0030	0.0030	0.0042
Diss-Antimony (Sb) (mg/L)	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Diss-Arsenic (As) (mg/L)	0.00053	0.00051	0.00055	0.00054	0.00052	0.00048	0.00053	0.00058	0.00059	0.00054	0.00056
Diss-Barium (Ba) (mg/L)	0.00947	0.00994	0.00930	0.0106	0.0104	0.0105	0.00940	0.0101	0.00957	0.00914	0.00920
Diss-Beryllium (Be) (mg/L)	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100
Diss-Bismuth (Bi) (mg/L)	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Diss-Boron (B) (mg/L)	0.020	0.019	0.019	0.020	0.021	0.021	0.019	0.020	0.020	0.020	0.021
Diss-Cadmium (Cd) (mg/L)	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050
Diss-Calcium (Ca) (mg/L)	36.2	34.9	33.3	36.3	36.5	37.5	37.4	35.4	35.6	34.5	35.9
Diss-Chromium (Cr) (mg/L)	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Diss-Cobalt (Co) (mg/L)	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Diss-Copper (Cu) (mg/L)	0.00400	0.00396	0.00387	0.00412	0.00417	0.00379	0.00366	0.00379	0.00350	0.00329	0.00354
Diss-Iron (Fe) (mg/L)	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030
Diss-Lead (Pb) (mg/L)	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Diss-Lithium (Li) (mg/L)	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Diss-Magnesium (Mg) (mg/L)	5.29	5.26	5.39	5.47	5.33	5.27	5.59	5.13	5.22	5.40	5.72
Diss-Manganese (Mn) (mg/L)	0.00107	0.00118	0.00777	0.00022	0.00031	0.0187	0.00206	0.00322	0.00466	0.00645	0.00045
Diss-Molybdenum (Mo) (mg/L)	0.00587	0.00582	0.00609	0.00620	0.00636	0.00586	0.00628	0.00623	0.00600	0.00582	0.00628
Diss-Nickel (Ni) (mg/L)	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Diss-Potassium (K) (mg/L)	1.02	1.05	1.03	1.04	1.04	1.02	0.996	1.13	1.05	1.01	1.07
Diss-Selenium (mg/L)	0.000453	0.000397	0.000384	0.000512	0.000483	0.000632	0.000593	0.000574	0.000506	0.000450	0.000531

Grid Format Report : Polley Lake South Station P2-bottom

From 1 Jan 2019 to 31 Dec 2023

Printed : 2024-02-20



Mount Polley

Mining Corporation

IMPERIAL METALS CORPORATION

E207975 : P2-B															
	11-Feb-19	16-May-19	27-May-19	6-Jun-19	15-Jul-19	13-Aug-19	11-Sep-19	9-Oct-19	20-Nov-19	19-Feb-20	19-May-20	15-Jun-20	14-Jul-20	19-Aug-20	8-Sep-20
Diss-Silicon (Si) (mg/L)	3.04	3.06	3.04	3.18	3.37	3.15	3.30	3.85	3.08	3.09	3.36	3.20	3.26	3.46	3.27
Diss-Silver (Ag) (mg/L)	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Diss-Sodium (Na) (mg/L)	9.12	10.0	9.00	8.98	9.25	8.55	9.06	9.07	8.66	8.78	8.92	8.24	8.53	8.55	8.14
Diss-Strontium (Sr) (mg/L)	0.292	0.303	0.283	0.296	0.288	0.276	0.306	0.285	0.286	0.284	0.323	0.274	0.284	0.291	0.286
Diss-Thallium (Tl) (mg/L)	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Diss-Tin (Sn) (mg/L)	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Diss-Titanium (Ti) (mg/L)	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100
Diss-Uranium (U) (mg/L)	0.000245	0.000241	0.000265	0.000241	0.000239	0.000223	0.000202	0.000228	0.000229	0.000250	0.000263	0.000225	0.000233	0.000210	0.000212
Diss-Vanadium (V) (mg/L)	0.00092	0.00097	0.00092	0.00095	0.00090	0.00094	0.00091	0.00092	0.00100	0.00096	0.00106	0.00102	0.00108	0.00110	0.00104
Diss-Zinc (Zn) (mg/L)	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030
TDS (mg/L)	198	158	190	173	186	170	190	188	180	188	188	178	188	184	186
Field Tests															
Cond (in situ) (µs/cm)	279.9	277.9	287.2	279.1	283.5	286.3	294.9	283.6	281.4	274.2	293	274	276.9	290.3	276.3
NTU - in situ (ntu)	3.17	2.45	0.38	1.5	1.06	0.96	2.19	3.8	2.7	3.08	4.74	1.57	1.27	0.48	798
pH (in situ) (pH)	7.67	7.86	7.65	7.48	7.38	7.42	7.41	7.48	7.79	7.52	7.15	7.55	7.52	7.56	7.29
Sample Depth (m)	27	27	29	28	27	27	28	28	28	27	28	29	28	27	28
Sample Taken	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Temp (in situ) (Degrees Celcius)	2.745	3.879	4.154	4.1	4.307	4.406	4.53	4.607	4.253	3.54	3.589	4.54	4.605	4.697	4.748
Organic / Inorganic															
DOC (mg/L)	5.59	5.37	5.18	5.21	5.56	5.33	5.63	5.44	5.27	6.44	6.20	5.49	6.07	6.06	5.59
Physical Test															
Conductivity (µs/cm)	262	274	279	284	281	282	280	284	274	279	272	277	281	273	278
Hardness (mg/L)	129	136	124	134	127	117	136	125	122	124	133	123	126	123	115
NTU (ntu)	0.83	2.28	0.95	1.37	0.38	0.56	0.65	1.13	1.02	0.94	3.57	2.00	0.50	0.64	0.41
pH (pH)	8.04	8.17	8.18	8.25	8.25	8.30	7.96	8.15	8.18	8.18	8.00	7.92	7.86	8.07	7.84
TDS (mg/L)	198	158	190	173	186	170	190	188	180	188	188	178	188	184	186
TSS (mg/L)	1.0	2.8	<1.0	1.4	<1.0	1.5	1.3	3.5	1.9	<1.0	2.4	1.4	1.0	1.3	<1.0
Total Metals															
Aluminum (Al)-Total (mg/L)	0.0453	0.0704	0.0392	0.0396	0.0147	0.0161	0.102	0.107	0.0539	0.0382	0.132	0.0752	0.0194	0.0274	0.0274
Antimony (Sb)-Total (mg/L)	<0.00010	<0.00010	0.00012	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Arsenic (As)-Total (mg/L)	0.00068	0.00066	0.00063	0.00060	0.00066	0.00061	0.00067	0.00068	0.00061	0.00061	0.00066	0.00059	0.00059	0.00060	0.00063
Barium (Ba)-Total (mg/L)	0.0119	0.0116	0.0121	0.0112	0.0106	0.0103	0.0120	0.0126	0.0118	0.0120	0.0133	0.0120	0.00996	0.0111	0.0118
Beryllium (Be)-Total (mg/L)	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100
Bismuth (Bi)-Total (mg/L)	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Boron (B)-Total (mg/L)	0.026	0.023	0.023	0.025	0.026	0.024	0.025	0.026	0.023	0.024	0.023	0.027	0.022	0.023	0.024

	E207975 : P2-B														
	29-Sep-20	26-Oct-20	18-Nov-20	24-Feb-21	6-May-21	3-Jun-21	20-Jul-21	18-Aug-21	13-Sep-21	19-Oct-21	2-Nov-21	16-Feb-22	17-May-22	20-Jun-22	13-Jul-22
Diss-Silicon (Si) (mg/L)	3.69	3.59	3.37	3.30	3.34	3.34	3.46	3.64	3.80	3.88	2.95	3.63	3.48	3.34	3.75
Diss-Silver (Ag) (mg/L)	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Diss-Sodium (Na) (mg/L)	8.21	8.50	7.85	7.48	7.78	7.37	7.81	7.28	7.55	8.00	7.45	8.39	7.69	7.14	7.36
Diss-Strontium (Sr) (mg/L)	0.267	0.292	0.268	0.267	0.289	0.246	0.249	0.243	0.249	0.255	0.250	0.263	0.259	0.258	0.244
Diss-Thallium (Tl) (mg/L)	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Diss-Tin (Sn) (mg/L)	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Diss-Titanium (Ti) (mg/L)	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100
Diss-Uranium (U) (mg/L)	0.000224	0.000219	0.000202	0.000200	0.000200	0.000198	0.000185	0.000187	0.000192	0.000205	0.000185	0.000199	0.000205	0.000195	0.000179
Diss-Vanadium (V) (mg/L)	0.00104	0.00104	0.00102	0.00104	0.00101	0.00114	0.00121	0.00112	0.00128	0.00135	0.00124	0.00123	0.00130	0.00125	0.00133
Diss-Zinc (Zn) (mg/L)	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030
TDS (mg/L)	180	170	176	177	170	160	182	183	180	165	174	172	188	164	171
Field Tests															
Cond (in situ) (µs/cm)	346.2	322.7	259.6	265	302.1	256.4	258	265.2	260	264.7	260.7	269.5	261.6	251	249.8
NTU - in situ (ntu)	3.74	562.44	1.45	1.5	7.38	1.64	0	0.85	30.1	3.56	4.26	5.03	2.88	0.85	1.63
pH (in situ) (pH)	7.43	7.59	7.81	7.64	7.52	7.47	7.41	7.83	7.77	7.36	7.63	7.72	7.54	7.62	7.65
Sample Depth (m)	27	29	28	27	27	27	27	27	27	29	29	28	29	28	28
Sample Taken	Yes	Yes	Yes	yes	yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes
Temp (in situ) (Degrees Celcius)	4.874	5.161	3.875	2.537	3.17	4.534	4.794	4.853	4.931	5.238	6.155	3.534	4.093	4.818	4.957
Organic / Inorganic															
DOC (mg/L)	5.54	5.30	6.28	5.58	7.36	6.03	6.07	6.51	6.58	6.78	6.39	5.77	6.04	5.88	6.26
Physical Test															
Conductivity (µs/cm)	273	277	260	262	271	256	249	266	266	261	261	263	267	257	257
Hardness (mg/L)	125	120	116	121	116	116	111	114	113	122	115	128	116	111	113
NTU (ntu)	1.67	1.48	1.19	0.44	1.28	1.26	0.68	0.59	1.66	1.50	2.35	0.65	1.25	1.20	0.55
pH (pH)	8.01	7.88	8.07	8.08	8.00	8.15	8.11	8.15	7.77	7.80	8.20	8.23	8.18	8.08	8.15
TDS (mg/L)	180	170	176	177	170	160	182	183	180	165	174	172	188	164	171
TSS (mg/L)	2.2	2.8	1.3	<1.0	3.3	2.2	<1.0	2.7	<1.0	4.2	1.5	<1.0	<1.0	<1.0	2.0
Total Metals															
Aluminum (Al)-Total (mg/L)	0.0639	0.0590	0.0598	0.0212	0.0388	0.0674	0.0152	0.0216	0.0606	0.0369	0.106	0.0231	0.0516	0.0459	0.0520
Antimony (Sb)-Total (mg/L)	<0.00010	<0.00010	<0.00010	0.00011	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	0.00010	<0.00010	0.00011
Arsenic (As)-Total (mg/L)	0.00062	0.00058	0.00056	0.00058	0.00053	0.00056	0.00051	0.00049	0.00060	0.00062	0.00054	0.00054	0.00053	0.00054	0.00060
Barium (Ba)-Total (mg/L)	0.0109	0.0112	0.0110	0.0112	0.0101	0.0109	0.0105	0.0103	0.0108	0.0102	0.0120	0.0115	0.0112	0.0108	0.0110
Beryllium (Be)-Total (mg/L)	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100
Bismuth (Bi)-Total (mg/L)	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Boron (B)-Total (mg/L)	0.024	0.024	0.023	0.021	0.023	0.022	0.022	0.022	0.021	0.021	0.018	0.023	0.022	0.021	0.019

	E207975 : P2-B										
	30-Aug-22	12-Sep-22	12-Oct-22	1-Mar-23	15-Mar-23	9-May-23	12-Jun-23	26-Jul-23	24-Aug-23	28-Sep-23	18-Oct-23
Diss-Silicon (Si) (mg/L)	3.83	3.75	3.91	3.42	3.44	3.50	3.38	3.77	3.82	3.90	4.02
Diss-Silver (Ag) (mg/L)	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Diss-Sodium (Na) (mg/L)	7.58	7.21	7.67	7.43	7.16	7.09	7.39	7.60	7.12	6.82	7.63
Diss-Strontium (Sr) (mg/L)	0.253	0.257	0.246	0.245	0.244	0.221	0.255	0.256	0.234	0.226	0.252
Diss-Thallium (Tl) (mg/L)	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Diss-Tin (Sn) (mg/L)	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Diss-Titanium (Ti) (mg/L)	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100
Diss-Uranium (U) (mg/L)	0.000188	0.000195	0.000184	0.000187	0.000192	0.000187	0.000195	0.000199	0.000203	0.000187	0.000223
Diss-Vanadium (V) (mg/L)	0.00145	0.00134	0.00133	0.00122	0.00122	0.00124	0.00127	0.00126	0.00121	0.00123	0.00121
Diss-Zinc (Zn) (mg/L)	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030
TDS (mg/L)	177	160	174	176	146	176	168	182	178	160	167
Field Tests											
Cond (in situ) (µs/cm)	252.8	251.3	251.9	261.5	262.7	254.2	254.4	252.8	239.6	246.2	255.7
NTU - in situ (ntu)	2.81	3.2	2.88	1.72	2.81	1.77	0.31	0.26	2.65	1.29	0.85
pH (in situ) (pH)	7.39	7.26	7.38	7.46	7.36	7.71	7.41	7.59	7.35	7.36	7.29
Sample Depth (m)	28	27	28	27	28	29	27	26	28	27	28
Sample Taken	Yes	Yes	Yes	Yes	Yes	Yes					
Temp (in situ) (Degrees Celcius)	5.137	5.214	5.298	3	3.116	3.587	3.749	4.037	4.16	4.228	4.415
Organic / Inorganic											
DOC (mg/L)	7.08	5.76	5.71	6.02	6.06	6.26	5.93	6.12	5.81	5.62	6.31
Physical Test											
Conductivity (µs/cm)	265	254	257	263	257	248	248	255	259	256	256
Hardness (mg/L)	112	109	105	113	113	115	116	110	110	108	113
NTU (ntu)	1.59	1.50	2.49	0.47	0.37	2.21	0.40	0.34	0.99	1.54	1.30
pH (pH)	7.82	8.18	8.19	8.10	8.12	8.20	8.19	7.98	8.13	8.24	7.92
TDS (mg/L)	177	160	174	176	146	176	168	182	178	160	167
TSS (mg/L)	1.4	1.4	2.8	1.1	<1.0	<1.0	<1.0	<1.0	<1.0	1.8	<1.0
Total Metals											
Aluminum (Al)-Total (mg/L)	0.0384	0.0647	0.106	0.0198	0.0172	0.360	0.0125	0.0112	0.0346	0.0503	0.0498
Antimony (Sb)-Total (mg/L)	<0.00010	<0.00010	0.00012	<0.00010	0.00011	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Arsenic (As)-Total (mg/L)	0.00063	0.00060	0.00057	0.00053	0.00053	0.00063	0.00056	0.00060	0.00057	0.00059	0.00063
Barium (Ba)-Total (mg/L)	0.0111	0.0113	0.0118	0.0107	0.0107	0.0150	0.00999	0.0101	0.0101	0.0107	0.0105
Beryllium (Be)-Total (mg/L)	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100
Bismuth (Bi)-Total (mg/L)	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Boron (B)-Total (mg/L)	0.021	0.021	0.020	0.020	0.022	0.021	0.020	0.021	0.021	0.020	0.021

Grid Format Report : Polley Lake South Station P2-bottom

From 1 Jan 2019 to 31 Dec 2023

Printed : 2024-02-20



Mount Polley

Mining Corporation

IMPERIAL METALS CORPORATION

	E207975 : P2-B						
	Sample (n)	Count >MDL	Min	Max	Mean	95th Percentile	St Dev
Anions and Nutrients							
Alkalinity (CaCO3) (mg/L)	41	41	90.50000	115.00000	98.52683	111.85000	5.59191
Ammonia (as N) (mg/L)	41	23	0.00250	0.02350	0.00602	0.82110	0.00488
Chloride (mg/L)	41	41	0.79000	1.17000	0.95854	2.04200	0.11787
Diss-Orthophosphate (mg/L)	41	40	0.00050	0.03310	0.01598	0.08483	0.00898
Diss-Phosphorus (mg/L)	41	41	0.00440	0.03830	0.01954	0.09116	0.00873
Floride (mg/L)	41	41	0.06200	0.09200	0.07615	0.11600	0.00644
Nitrate (N) (mg/L)	41	40	0.00250	0.12600	0.06587	0.37525	0.03340
Nitrate and Nitrite (mg/L)	41	40	0.00255	0.12700	0.06630	0.41000	0.03332
Nitrite (N) (mg/L)	41	7	0.00050	0.00380	0.00071	0.00627	0.00059
Sulphate (mg/L)	41	41	32.60000	42.90000	38.24878	63.02500	2.84878
Total Nitrogen (mg/L)	40	40	0.23600	0.53500	0.31560	1.24000	0.05056
Total Phosphorus (mg/L)	41	41	0.00840	0.06760	0.02699	0.19210	0.01135
Dissolved Metals							
Aluminum (Al)-Diss (mg/L)	41	31	0.00150	0.01040	0.00367	0.00560	0.00194
Diss-Antimony (Sb) (mg/L)	41	1	0.00005	0.00010	0.00005	0.00016	0.00001
Diss-Arsenic (As) (mg/L)	41	41	0.00046	0.00065	0.00056	0.00169	0.00004
Diss-Barium (Ba) (mg/L)	41	41	0.00914	0.01150	0.01016	0.02640	0.00061
Diss-Beryllium (Be) (mg/L)	41	0	0.00005	0.00050	0.00015	0.00025	0.00019
Diss-Bismuth (Bi) (mg/L)	41	0	0.00003	0.00003	0.00002	0.00025	0.00000
Diss-Boron (B) (mg/L)	41	41	0.01900	0.02600	0.02159	0.03300	0.00191
Diss-Cadmium (Cd) (mg/L)	41	1	0.00000	0.00001	0.00000	0.00001	0.00000
Diss-Calcium (Ca) (mg/L)	41	41	33.30000	44.20000	38.49512	48.40000	2.73925
Diss-Chromium (Cr) (mg/L)	41	0	0.00025	0.00025	0.00025	0.00025	0.00000
Diss-Cobalt (Co) (mg/L)	41	0	0.00005	0.00005	0.00005	0.00015	0.00000
Diss-Copper (Cu) (mg/L)	41	41	0.00318	0.00447	0.00375	0.00416	0.00031
Diss-Iron (Fe) (mg/L)	41	0	0.01500	0.01500	0.01500	0.23200	0.00000
Diss-Lead (Pb) (mg/L)	41	0	0.00003	0.00003	0.00002	0.00042	0.00000
Diss-Lithium (Li) (mg/L)	41	0	0.00050	0.00050	0.00050	0.00250	0.00000
Diss-Magnesium (Mg) (mg/L)	41	41	5.03000	6.33000	5.53634	6.54000	0.31552
Diss-Manganese (Mn) (mg/L)	41	40	0.00005	0.05520	0.00402	0.75000	0.00977
Diss-Molybdenum (Mo) (mg/L)	41	41	0.00579	0.00820	0.00668	0.01650	0.00070
Diss-Nickel (Ni) (mg/L)	41	0	0.00025	0.00025	0.00025	0.00025	0.00000
Diss-Potassium (K) (mg/L)	41	41	0.98000	1.36000	1.13673	1.92000	0.10773

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Mining Corporation

IMPERIAL METALS CORPORATION

E207975 : P2-B							
Sample (n)	Count >MDL	Min	Max	Mean	95th Percentile	St Dev	
Diss-Selenium (mg/L)	41	41	0.00036	0.00063	0.00048	0.00120	0.00006
Diss-Silicon (Si) (mg/L)	41	41	2.95000	4.02000	3.46366	5.36000	0.28803
Diss-Silver (Ag) (mg/L)	41	0	0.00001	0.00001	0.00001	0.00001	0.00000
Diss-Sodium (Na) (mg/L)	41	41	6.82000	10.00000	8.03439	12.80000	0.75736
Diss-Strontium (Sr) (mg/L)	41	41	0.22100	0.32300	0.26695	0.38100	0.02317
Diss-Thallium (Tl) (mg/L)	41	0	0.00001	0.00001	0.00001	0.00005	0.00000
Diss-Tin (Sn) (mg/L)	41	0	0.00005	0.00005	0.00005	0.00005	0.00000
Diss-Titanium (Ti) (mg/L)	41	0	0.00500	0.00500	0.00500	0.00500	0.00000
Diss-Uranium (U) (mg/L)	41	41	0.00018	0.00027	0.00021	0.00037	0.00002
Diss-Vanadium (V) (mg/L)	41	41	0.00090	0.00145	0.00113	0.00160	0.00015
Diss-Zinc (Zn) (mg/L)	41	0	0.00150	0.00150	0.00150	0.00150	0.00000
TDS (mg/L)	41	41	146.00000	198.00000	176.12195	220.85000	10.73125
Field Tests							
Cond (in situ) (µs/cm)	41	41	239.60000	346.20000	271.07561	341.50000	21.01956
NTU - in situ (ntu)	41	41	0.00000	798.00000	35.98073	8.34200	150.10387
pH (in situ) (pH)	41	41	7.15000	7.86000	7.51902	8.00000	0.16945
Sample Depth (m)	41	41	26.00000	29.00000	27.70732	28.00000	0.78243
Sample Taken							
Temp (in situ) (Degrees Celcius)	41	41	2.53700	6.15500	4.29671	8.22275	0.76226
Organic / Inorganic							
DOC (mg/L)	41	41	5.18000	7.36000	5.93854	6.40700	0.49959
Physical Test							
Conductivity (µs/cm)	41	41	248.00000	284.00000	266.43902	336.00000	10.68421
Hardness (mg/L)	41	41	105.00000	136.00000	118.90244	147.70000	7.94923
NTU (ntu)	41	41	0.34000	3.57000	1.17512	11.70000	0.70926
pH (pH)	41	41	7.77000	8.30000	8.08000	8.20400	0.13907
TDS (mg/L)	41	41	146.00000	198.00000	176.12195	220.85000	10.73125
TSS (mg/L)	41	25	0.50000	4.20000	1.41951	9.95500	0.99855
Total Metals							
Aluminum (Al)-Total (mg/L)	41	41	0.01120	0.36000	0.05598	0.44945	0.05691
Antimony (Sb)-Total (mg/L)	41	6	0.00005	0.00012	0.00006	0.00024	0.00002
Arsenic (As)-Total (mg/L)	41	41	0.00049	0.00068	0.00059	0.00187	0.00005
Barium (Ba)-Total (mg/L)	41	41	0.00996	0.01500	0.01122	0.03784	0.00097
Beryllium (Be)-Total (mg/L)	41	0	0.00005	0.00005	0.00005	0.00025	0.00000
Bismuth (Bi)-Total (mg/L)	41	0	0.00003	0.00003	0.00002	0.00025	0.00000

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E207975 : P2-B							
Sample (n)	Count >MDL	Min	Max	Mean	95th Percentile	St Dev	
Boron (B)-Total (mg/L)	41	41	0.01800	0.02700	0.02239	0.03585	0.00202
Cadmium (Cd)-Total (mg/L)	41	4	0.00000	0.00001	0.00000	0.00001	0.00000
Calcium (Ca)-Total (mg/L)	41	41	35.00000	42.30000	38.26098	48.52500	2.02149
Chromium (Cr)-Total (mg/L)	41	0	0.00025	0.00025	0.00025	0.00025	0.00000
Cobalt (Co)-Total (mg/L)	41	2	0.00005	0.00031	0.00006	0.00027	0.00005
Copper (Cu)-Total (mg/L)	41	41	0.00381	0.01120	0.00507	0.01257	0.00138
Iron (Fe)-Total (mg/L)	41	23	0.01500	0.29300	0.04110	0.39440	0.04565
Lead (Pb)-Total (mg/L)	41	3	0.00003	0.00144	0.00006	0.00051	0.00022
Lithium (Li)-Total (mg/L)	41	0	0.00050	0.00050	0.00050	0.00250	0.00000
Magnesium (Mg)-Total (mg/L)	41	41	5.01000	6.04000	5.53707	6.60850	0.25896
Manganese (Mn)-Total (mg/L)	41	41	0.00450	0.11700	0.02793	0.75975	0.02539
Molybdenum (Mo)-Total (mg/L)	41	41	0.00583	0.00822	0.00683	0.01739	0.00062
Nickel (Ni)-Total (mg/L)	41	1	0.00025	0.00053	0.00026	0.00025	0.00004
Potassium (K)-Total (mg/L)	41	41	0.95200	1.32000	1.12737	2.12850	0.08844
Selenium (Se)-Total (mg/L)	41	41	0.00037	0.00059	0.00047	0.00115	0.00006
Silicon (Si)-Total (mg/L)	41	41	3.01000	4.39000	3.64171	6.31700	0.29971
Silver (Ag)-Total (mg/L)	41	0	0.00001	0.00001	0.00001	0.00001	0.00000
Sodium (Na)-Total (mg/L)	41	41	7.06000	8.98000	8.03390	12.80000	0.57462
Strontium (Sr)-Total (mg/L)	41	41	0.23200	0.31100	0.26822	0.39570	0.01846
Thallium (Tl)-Total (mg/L)	41	0	0.00001	0.00001	0.00001	0.00005	0.00000
Tin (Sn)-Total (mg/L)	41	1	0.00005	0.00017	0.00005	0.00005	0.00002
Titanium (Ti)-Total (mg/L)	41	1	0.00500	0.01330	0.00520	0.02155	0.00130
Uranium (U)-Total (mg/L)	41	41	0.00019	0.00024	0.00021	0.00040	0.00002
Vanadium (V)-Total (mg/L)	41	41	0.00100	0.00235	0.00138	0.00230	0.00025
Zinc (Zn)-Total (mg/L)	41	0	0.00150	0.00150	0.00150	0.00150	0.00000

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Mining Corporation

IMPERIAL METALS CORPORATION

E207975 : P2-BT															
	16-May-19	27-May-19	6-Jun-19	13-Aug-19	11-Sep-19	9-Oct-19	19-May-20	14-Jul-20	19-Aug-20	8-Sep-20	29-Sep-20	3-Jun-21	20-Jul-21	18-Aug-21	13-Sep-21
Anions and Nutrients															
Alkalinity (CaCO3) (mg/L)	100	100	105	107	104	108	97.8	97.0	95.2	97.0	98.0	90.2	95.4	94.6	96.6
Ammonia (as N) (mg/L)	<0.0050	<0.0050	0.0055	<0.0050	0.0086	<0.0050	0.0063	0.0079	<0.0050	0.0061	<0.0050	<0.0050	<0.0050	<0.0050	0.0058
Chloride (mg/L)	1.10	1.08	1.10	1.13	1.11	1.08	0.96	1.03	1.00	1.02	1.00	0.86	0.90	0.87	0.88
Diss-Orthophosphate (mg/L)	<0.0010	<0.0010	0.0014	0.0043	<0.0010	0.0133	0.0034	0.0118	0.0089	0.0160	0.0229	0.0010	<0.0010	<0.0010	0.0012
Diss-Phosphorus (mg/L)	0.0056	0.0063	0.0067	0.0074	0.0034	0.0174	0.0043	0.0152	0.0107	0.0191	0.0240	0.0059	0.0043	0.0052	0.0087
Fluoride (mg/L)	0.077	0.081	0.086	0.086	0.078	0.080	0.076	0.073	0.079	0.075	0.086	0.068	0.070	0.072	0.070
Nitrate (N) (mg/L)	<0.0050	<0.0050	<0.0050	0.0153	<0.0050	<0.0050	0.0094	0.0467	0.0301	0.0678	0.0942	<0.0050	<0.0050	<0.0050	<0.0050
Nitrate and Nitrite (mg/L)	<0.0051	<0.0051	<0.0051	0.0153	<0.0051	<0.0051	<0.0500	<0.0500	0.0308	0.0687	0.0947	<0.0051	<0.0051	<0.0051	<0.0051
Nitrite (N) (mg/L)	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Sulphate (mg/L)	41.5	41.1	41.4	41.5	41.3	40.8	37.4	40.1	39.5	39.3	38.0	37.1	37.0	34.8	36.7
Total Nitrogen (mg/L)	0.270	0.270	0.233	0.452	0.260	0.312	0.276	0.322	0.296	0.296		0.278	0.216	0.232	0.249
Total Phosphorus (mg/L)	0.0134	0.0122	0.0170	0.0133	0.0104	0.0243	0.0151	0.0192	0.0207	0.0256	0.0260	0.0191	0.0093	0.0080	0.0070
Dissolved Metals															
Aluminum (Al)-Diss (mg/L)	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	0.0089	<0.0030	<0.0030	<0.0030	<0.0030	0.0036	<0.0030	<0.0030	<0.0030
Diss-Antimony (Sb) (mg/L)	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Diss-Arsenic (As) (mg/L)	0.00059	0.00055	0.00057	0.00059	0.00053	0.00065	0.00048	0.00056	0.00051	0.00056	0.00056	0.00049	0.00054	0.00044	0.00055
Diss-Barium (Ba) (mg/L)	0.0109	0.0110	0.0108	0.0101	0.0116	0.0107	0.0104	0.0103	0.0104	0.00996	0.00946	0.00964	0.00999	0.00983	0.00993
Diss-Beryllium (Be) (mg/L)	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100
Diss-Bismuth (Bi) (mg/L)	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Diss-Boron (B) (mg/L)	0.024	0.024	0.025	0.022	0.024	0.023	0.020	0.021	0.022	0.020	0.024	0.021	0.020	0.021	0.019
Diss-Cadmium (Cd) (mg/L)	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050
Diss-Calcium (Ca) (mg/L)	43.1	40.2	41.4	38.6	42.6	40.3	39.4	40.4	38.8	36.5	40.4	36.5	36.7	37.1	35.9
Diss-Chromium (Cr) (mg/L)	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Diss-Cobalt (Co) (mg/L)	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Diss-Copper (Cu) (mg/L)	0.00340	0.00343	0.00332	0.00324	0.00327	0.00343	0.00340	0.00338	0.00362	0.00384	0.00347	0.00359	0.00351	0.00353	0.00334
Diss-Iron (Fe) (mg/L)	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030
Diss-Lead (Pb) (mg/L)	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Diss-Lithium (Li) (mg/L)	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Diss-Magnesium (Mg) (mg/L)	5.97	5.68	5.45	5.23	5.95	5.66	5.53	5.79	5.49	5.40	4.98	5.14	5.26	5.44	5.37
Diss-Manganese (Mn) (mg/L)	0.00030	0.00016	0.00015	0.00087	0.00046	0.00092	0.00092	0.00057	0.00093	0.00128	0.00252	0.00046	0.00235	0.00129	0.00083
Diss-Molybdenum (Mo) (mg/L)	0.00769	0.00789	0.00754	0.00761	0.00790	0.00725	0.00677	0.00702	0.00686	0.00668	0.00654	0.00609	0.00612	0.00632	0.00620
Diss-Nickel (Ni) (mg/L)	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Diss-Potassium (K) (mg/L)	1.30	1.24	1.25	1.20	1.24	1.28	1.12	1.08	1.14	1.14	1.10	1.03	1.05	1.05	1.10
Diss-Selenium (mg/L)	0.000533	0.000487	0.000404	0.000506	0.000466	0.000474	0.000450	0.000474	0.000462	0.000501	0.000512	0.000475	0.000587	0.000431	0.000487

	E207975 : P2-BT									
	20-Jun-22	13-Jul-22	30-Aug-22	12-Sep-22	12-Oct-22	12-Jun-23	26-Jul-23	24-Aug-23	28-Sep-23	18-Oct-23
Anions and Nutrients										
Alkalinity (CaCO3) (mg/L)	91.2	90.3	93.3	93.4	93.4	92.2	91.1	92.7	94.8	96.1
Ammonia (as N) (mg/L)	<0.0050	0.0155	0.0110	<0.0050	0.0067	0.0074	<0.0050	0.0108	<0.0050	0.0059
Chloride (mg/L)	0.84	0.78	0.84	0.85	0.81	0.77	0.79	0.78	0.82	0.82
Diss-Orthophosphate (mg/L)	0.0029	0.0021	0.0158	0.0014	0.0061	<0.0010	<0.0010	<0.0010	0.0016	0.0052
Diss-Phosphorus (mg/L)	0.0069	0.0074	0.0153	0.0025	0.0089	0.0048	0.0043	0.0042	0.0066	0.0091
Fluoride (mg/L)	0.071	0.060	0.069	0.068	0.069	0.067	0.069	0.068	0.076	0.073
Nitrate (N) (mg/L)	<0.0050	<0.0050	0.0579	0.0069	0.0425	<0.0050	<0.0050	<0.0050	0.0233	0.0317
Nitrate and Nitrite (mg/L)	<0.0051	<0.0051	0.0579	0.0069	0.0435	<0.0051	<0.0051	<0.0051	0.0233	0.0317
Nitrite (N) (mg/L)	<0.0010	<0.0010	<0.0010	<0.0010	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Sulphate (mg/L)	35.2	33.0	35.9	33.3	34.6	32.0	34.1	32.8	35.3	35.3
Total Nitrogen (mg/L)	0.228	0.231	0.307	0.236	0.272	0.242	0.258	0.289	0.231	0.249
Total Phosphorus (mg/L)	0.0127	0.0106	0.0204	0.0087	0.0180	0.0089	0.0129	0.0082	0.0092	0.0124
Dissolved Metals										
Aluminum (Al)-Diss (mg/L)	0.0044	<0.0030	<0.0030	<0.0030	<0.0030	0.0030	<0.0030	0.0064	0.0049	<0.0030
Diss-Antimony (Sb) (mg/L)	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Diss-Arsenic (As) (mg/L)	0.00048	0.00049	0.00057	0.00049	0.00049	0.00047	0.00048	0.00050	0.00049	0.00054
Diss-Barium (Ba) (mg/L)	0.00948	0.00932	0.00961	0.0100	0.0100	0.00938	0.0100	0.0101	0.0101	0.0101
Diss-Beryllium (Be) (mg/L)	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100
Diss-Bismuth (Bi) (mg/L)	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Diss-Boron (B) (mg/L)	0.019	0.020	0.020	0.019	0.019	0.019	0.018	0.019	0.019	0.020
Diss-Cadmium (Cd) (mg/L)	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050
Diss-Calcium (Ca) (mg/L)	36.6	35.4	36.0	35.3	33.8	36.4	34.2	32.4	34.2	36.0
Diss-Chromium (Cr) (mg/L)	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Diss-Cobalt (Co) (mg/L)	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Diss-Copper (Cu) (mg/L)	0.00375	0.00358	0.00380	0.00369	0.00376	0.00348	0.00331	0.00334	0.00352	0.00360
Diss-Iron (Fe) (mg/L)	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030
Diss-Lead (Pb) (mg/L)	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Diss-Lithium (Li) (mg/L)	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Diss-Magnesium (Mg) (mg/L)	4.95	5.35	5.26	5.19	5.33	5.43	4.71	5.14	5.00	5.68
Diss-Manganese (Mn) (mg/L)	0.00030	0.00128	0.00221	0.00218	0.00181	0.00151	0.00072	0.00077	0.00231	0.00074
Diss-Molybdenum (Mo) (mg/L)	0.00581	0.00592	0.00601	0.00593	0.00619	0.00600	0.00599	0.00598	0.00621	0.00615
Diss-Nickel (Ni) (mg/L)	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Diss-Potassium (K) (mg/L)	0.950	0.969	0.996	1.01	1.00	0.979	1.02	0.972	1.01	1.07
Diss-Selenium (mg/L)	0.000388	0.000461	0.000395	0.000392	0.000411	0.000506	0.000468	0.000561	0.000516	0.000475

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Mining Corporation

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	16-May-19	27-May-19	6-Jun-19	13-Aug-19	11-Sep-19	9-Oct-19	19-May-20	14-Jul-20	19-Aug-20	8-Sep-20	29-Sep-20	3-Jun-21	20-Jul-21	18-Aug-21	13-Sep-21
Diss-Silicon (Si) (mg/L)	2.83	2.88	2.89	2.88	2.68	3.49	3.07	3.01	3.20	3.22	3.33	3.29	3.01	3.05	2.95
Diss-Silver (Ag) (mg/L)	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Diss-Sodium (Na) (mg/L)	9.70	8.64	8.55	8.43	8.68	8.90	8.11	8.32	8.35	8.13	7.82	7.43	7.66	7.18	7.58
Diss-Strontium (Sr) (mg/L)	0.303	0.277	0.274	0.276	0.296	0.279	0.296	0.292	0.275	0.278	0.273	0.248	0.257	0.251	0.250
Diss-Thallium (Tl) (mg/L)	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Diss-Tin (Sn) (mg/L)	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Diss-Titanium (Ti) (mg/L)	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100
Diss-Uranium (U) (mg/L)	0.000238	0.000244	0.000236	0.000234	0.000211	0.000233	0.000223	0.000231	0.000207	0.000212	0.000221	0.000199	0.000187	0.000198	0.000194
Diss-Vanadium (V) (mg/L)	0.00087	0.00090	0.00094	0.00095	0.00090	0.00091	0.00093	0.00096	0.00097	0.00097	0.00093	0.00101	0.00109	0.00103	0.00116
Diss-Zinc (Zn) (mg/L)	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030
TDS (mg/L)	155	190	186	170	182	154	181	207	174	181	186	158	177	170	177
Field Tests															
Cond (in situ) (µs/cm)	274.8	285.3	278.6	284.2	292.5	283.2	273.6	274.6	285.8	274.6	345.7	254.2	256	261.9	256.4
NTU - in situ (ntu)	1.52	0	1.27	0.48	0.97	2.93	0.76	0.94	0	1.32	2.64	0.59	0	0.21	0.11
pH (in situ) (pH)	7.98	7.74	7.56	7.56	7.6	7.71	7.45	7.64	7.87	7.57	7.52	7.54	7.77	8.29	8.43
Sample Depth (m)	20	20	19	20	20	20	6	19	15	20	21	15	11	12	11
Sample Taken	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Temp (in situ) (Degrees Celcius)	4.059	4.28	4.127	4.842	4.767	4.714	4.863	5.034	5.646	5.121	4.972	5.41	6.078	8.088	8.482
Organic / Inorganic															
DOC (mg/L)	5.38	5.42	5.24	5.44	5.54	5.55	6.15	5.90	6.16	5.33	5.48	6.46	6.07	6.49	6.63
Physical Test															
Conductivity (µs/cm)	271	273	281	280	273	278	253	271	266	274	271	253	245	266	264
Hardness (mg/L)	132	124	126	118	131	124	121	125	120	113	121	112	113	115	112
NTU (ntu)	1.03	0.59	0.73	0.45	0.24	1.22	0.55	0.20	0.35	0.35	0.68	0.76	0.48	0.35	0.28
pH (pH)	8.17	8.19	8.26	8.30	8.09	8.14	7.98	7.90	8.09	7.90	8.02	8.14	8.18	8.22	8.12
TDS (mg/L)	155	190	186	170	182	154	181	207	174	181	186	158	177	170	177
TSS (mg/L)	1.3	1.9	<1.0	1.3	<1.0	5.4	<1.0	<1.0	<1.0	<1.0	<1.0	1.8	<1.0	1.6	<1.0
Total Metals															
Aluminum (Al)-Total (mg/L)	0.0382	0.0243	0.0197	0.0088	0.0081	0.0815	0.0330	0.0107	0.0119	0.0176	0.0275	0.0316	0.0114	0.0121	0.0060
Antimony (Sb)-Total (mg/L)	<0.00010	<0.00010	0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Arsenic (As)-Total (mg/L)	0.00064	0.00063	0.00059	0.00060	0.00062	0.00064	0.00052	0.00056	0.00058	0.00062	0.00059	0.00061	0.00049	0.00050	0.00055
Barium (Ba)-Total (mg/L)	0.0109	0.0119	0.0111	0.0109	0.0110	0.0118	0.00984	0.0102	0.0110	0.0115	0.0102	0.0106	0.0104	0.0106	0.0101
Beryllium (Be)-Total (mg/L)	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100
Bismuth (Bi)-Total (mg/L)	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Boron (B)-Total (mg/L)	0.023	0.024	0.025	0.024	0.024	0.025	0.021	0.021	0.023	0.024	0.023	0.022	0.021	0.021	0.021

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	20-Jun-22	13-Jul-22	30-Aug-22	12-Sep-22	12-Oct-22	12-Jun-23	26-Jul-23	24-Aug-23	28-Sep-23	18-Oct-23
Diss-Silicon (Si) (mg/L)	3.24	3.52	3.49	3.50	3.59	3.11	3.23	3.10	3.43	3.64
Diss-Silver (Ag) (mg/L)	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Diss-Sodium (Na) (mg/L)	6.89	7.38	7.44	7.16	7.54	7.36	7.19	6.88	6.90	7.66
Diss-Strontium (Sr) (mg/L)	0.247	0.239	0.250	0.246	0.247	0.243	0.244	0.229	0.247	0.247
Diss-Thallium (Tl) (mg/L)	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Diss-Tin (Sn) (mg/L)	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Diss-Titanium (Ti) (mg/L)	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100
Diss-Uranium (U) (mg/L)	0.000198	0.000169	0.000190	0.000193	0.000188	0.000187	0.000186	0.000190	0.000194	0.000212
Diss-Vanadium (V) (mg/L)	0.00117	0.00123	0.00134	0.00121	0.00130	0.00127	0.00120	0.00130	0.00120	0.00128
Diss-Zinc (Zn) (mg/L)	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030
TDS (mg/L)	174	169	174	163	169	174	174	155	153	147
Field Tests										
Cond (in situ) (µs/cm)	250.2	245.7	252	249.4	249.7	252	244.9	263.2	244.1	253
NTU - in situ (ntu)	0	0.29	0.71	0.86	0.23	0.08	0.34		0.44	
pH (in situ) (pH)	7.83	8.01	7.54	7.55	7.59	7.84	7.9	8	7.62	7.53
Sample Depth (m)	16	12	21	14	18	9	9	9	15	16
Sample Taken	Yes	Yes	Yes	Yes	Yes					
Temp (in situ) (Degrees Celcius)	6.133	7.776	5.293	6.603	5.945	8.678	9.113	10.578	6.187	6.459
Organic / Inorganic										
DOC (mg/L)	5.90	6.26	6.67	6.22	5.91	5.78	6.02	6.11	6.07	6.20
Physical Test										
Conductivity (µs/cm)	253	248	264	250	256	240	242	250	253	257
Hardness (mg/L)	112	110	112	110	106	113	105	102	106	113
NTU (ntu)	0.59	0.21	0.78	0.51	0.53	0.25	0.67	0.56	0.44	0.34
pH (pH)	8.09	8.15	7.86	8.19	8.21	8.19	8.11	8.18	8.25	7.97
TDS (mg/L)	174	169	174	163	169	174	174	155	153	147
TSS (mg/L)	<1.0	<1.0	<1.0	1.8	<1.0	<1.0	<1.0	<1.0	1.0	<1.0
Total Metals										
Aluminum (Al)-Total (mg/L)	0.0154	0.0076	0.0207	0.0219	0.0170	0.0104	0.0128	0.0126	0.0159	0.0168
Antimony (Sb)-Total (mg/L)	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	0.00010	<0.00010
Arsenic (As)-Total (mg/L)	0.00057	0.00053	0.00057	0.00050	0.00056	0.00048	0.00056	0.00055	0.00056	0.00056
Barium (Ba)-Total (mg/L)	0.00973	0.00973	0.0112	0.0102	0.0103	0.00982	0.0103	0.00999	0.0101	0.0105
Beryllium (Be)-Total (mg/L)	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100
Bismuth (Bi)-Total (mg/L)	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Boron (B)-Total (mg/L)	0.020	0.020	0.020	0.021	0.019	0.019	0.020	0.020	0.020	0.021

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	Sample (n)	Count >MDL	Min	Max	Mean	95th Percentile	St Dev
Anions and Nutrients							
Alkalinity (CaCO3) (mg/L)	25	25	90.20000	108.00000	96.57200		5.02971
Ammonia (as N) (mg/L)	25	12	0.00250	0.01550	0.00520		0.00350
Chloride (mg/L)	25	25	0.77000	1.13000	0.92880		0.12370
Diss-Orthophosphate (mg/L)	25	17	0.00050	0.02290	0.00493		0.00624
Diss-Phosphorus (mg/L)	25	25	0.00250	0.02400	0.00857		0.00547
Floride (mg/L)	25	25	0.06000	0.08600	0.07388		0.00662
Nitrate (N) (mg/L)	25	11	0.00250	0.09420	0.01843		0.02519
Nitrate and Nitrite (mg/L)	25	9	0.00255	0.09470	0.01834		0.02470
Nitrite (N) (mg/L)	25	1	0.00050	0.00100	0.00052		0.00010
Sulphate (mg/L)	25	25	32.00000	41.50000	37.16000		3.11542
Total Nitrogen (mg/L)	24	24	0.21600	0.45200	0.27104		0.04861
Total Phosphorus (mg/L)	25	25	0.00700	0.02600	0.01450		0.00576
Dissolved Metals							
Aluminum (Al)-Diss (mg/L)	25	6	0.00150	0.00890	0.00239		0.00189
Diss-Antimony (Sb) (mg/L)	25	0	0.00005	0.00005	0.00005		0.00000
Diss-Arsenic (As) (mg/L)	25	25	0.00044	0.00065	0.00053		0.00005
Diss-Barium (Ba) (mg/L)	25	25	0.00932	0.01160	0.01012		0.00055
Diss-Beryllium (Be) (mg/L)	25	0	0.00005	0.00050	0.00014		0.00018
Diss-Bismuth (Bi) (mg/L)	25	0	0.00003	0.00003	0.00003		0.00000
Diss-Boron (B) (mg/L)	25	25	0.01800	0.02500	0.02088		0.00205
Diss-Cadmium (Cd) (mg/L)	25	0	0.00000	0.00000	0.00000		0.00000
Diss-Calcium (Ca) (mg/L)	25	25	32.40000	43.10000	37.52800		2.84041
Diss-Chromium (Cr) (mg/L)	25	0	0.00025	0.00025	0.00025		0.00000
Diss-Cobalt (Co) (mg/L)	25	0	0.00005	0.00005	0.00005		0.00000
Diss-Copper (Cu) (mg/L)	25	25	0.00324	0.00384	0.00350		0.00017
Diss-Iron (Fe) (mg/L)	25	0	0.01500	0.01500	0.01500		0.00000
Diss-Lead (Pb) (mg/L)	25	0	0.00003	0.00003	0.00003		0.00000
Diss-Lithium (Li) (mg/L)	25	0	0.00050	0.00050	0.00050		0.00000
Diss-Magnesium (Mg) (mg/L)	25	25	4.71000	5.97000	5.37520		0.30884
Diss-Manganese (Mn) (mg/L)	25	25	0.00015	0.00252	0.00111		0.00074
Diss-Molybdenum (Mo) (mg/L)	25	25	0.00581	0.00790	0.00659		0.00069
Diss-Nickel (Ni) (mg/L)	25	0	0.00025	0.00025	0.00025		0.00000
Diss-Potassium (K) (mg/L)	25	25	0.95000	1.30000	1.09184		0.10633

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Sample (n)	Count >MDL	Min	Max	Mean	95th Percentile	St Dev
Diss-Selenium (mg/L)	25	25	0.00039	0.00059	0.00047	0.00005
Diss-Silicon (Si) (mg/L)	25	25	2.68000	3.64000	3.18520	0.26473
Diss-Silver (Ag) (mg/L)	25	0	0.00001	0.00001	0.00001	0.00000
Diss-Sodium (Na) (mg/L)	25	25	6.88000	9.70000	7.83520	0.72021
Diss-Strontium (Sr) (mg/L)	25	25	0.22900	0.30300	0.26256	0.02079
Diss-Thallium (Tl) (mg/L)	25	0	0.00001	0.00001	0.00001	0.00000
Diss-Tin (Sn) (mg/L)	25	0	0.00005	0.00005	0.00005	0.00000
Diss-Titanium (Ti) (mg/L)	25	0	0.00500	0.00500	0.00500	0.00000
Diss-Uranium (U) (mg/L)	25	25	0.00017	0.00024	0.00021	0.00002
Diss-Vanadium (V) (mg/L)	25	25	0.00087	0.00134	0.00108	0.00016
Diss-Zinc (Zn) (mg/L)	25	0	0.00150	0.00150	0.00150	0.00000
TDS (mg/L)	25	25	147.00000	207.00000	172.00000	13.63818
Field Tests						
Cond (in situ) (µs/cm)	25	25	244.10000	345.70000	267.42400	22.25045
NTU - in situ (ntu)	23	23	0.00000	2.93000	0.72565	0.79321
pH (in situ) (pH)	25	25	7.45000	8.43000	7.74560	0.24927
Sample Depth (m)	25	25	6.00000	21.00000	15.52000	4.55631
Sample Taken						
Temp (in situ) (Degrees Celcius)	25	25	4.05900	10.57800	6.12992	1.72586
Organic / Inorganic						
DOC (mg/L)	25	25	5.24000	6.67000	5.93520	0.42036
Physical Test						
Conductivity (µs/cm)	25	25	240.00000	281.00000	261.28000	12.31368
Hardness (mg/L)	25	25	102.00000	132.00000	115.84000	8.03472
NTU (ntu)	25	25	0.20000	1.22000	0.52560	0.25155
pH (pH)	25	25	7.86000	8.30000	8.11600	0.11762
TDS (mg/L)	25	25	147.00000	207.00000	172.00000	13.63818
TSS (mg/L)	25	8	0.50000	5.40000	0.98400	1.04550
Total Metals						
Aluminum (Al)-Total (mg/L)	25	25	0.00600	0.08150	0.01974	0.01536
Antimony (Sb)-Total (mg/L)	25	2	0.00005	0.00010	0.00005	0.00001
Arsenic (As)-Total (mg/L)	25	25	0.00048	0.00064	0.00057	0.00005
Barium (Ba)-Total (mg/L)	25	25	0.00973	0.01190	0.01056	0.00062
Beryllium (Be)-Total (mg/L)	25	0	0.00005	0.00005	0.00005	0.00000
Bismuth (Bi)-Total (mg/L)	25	0	0.00003	0.00003	0.00003	0.00000

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Sample (n)	Count >MDL	Min	Max	Mean	95th Percentile	St Dev
Boron (B)-Total (mg/L)	25	25	0.01900	0.02500	0.02168	0.00186
Cadmium (Cd)-Total (mg/L)	25	2	0.00000	0.00001	0.00000	0.00000
Calcium (Ca)-Total (mg/L)	25	25	34.50000	42.00000	37.96000	2.06317
Chromium (Cr)-Total (mg/L)	25	0	0.00025	0.00025	0.00025	0.00000
Cobalt (Co)-Total (mg/L)	25	0	0.00005	0.00005	0.00005	0.00000
Copper (Cu)-Total (mg/L)	25	25	0.00330	0.00556	0.00405	0.00047
Iron (Fe)-Total (mg/L)	25	2	0.01500	0.05000	0.01708	0.00765
Lead (Pb)-Total (mg/L)	25	0	0.00003	0.00003	0.00003	0.00000
Lithium (Li)-Total (mg/L)	25	0	0.00050	0.00050	0.00050	0.00000
Magnesium (Mg)-Total (mg/L)	25	25	4.92000	6.20000	5.45600	0.30429
Manganese (Mn)-Total (mg/L)	25	25	0.00200	0.02710	0.00886	0.00628
Molybdenum (Mo)-Total (mg/L)	25	25	0.00591	0.00822	0.00680	0.00070
Nickel (Ni)-Total (mg/L)	25	0	0.00025	0.00025	0.00025	0.00000
Potassium (K)-Total (mg/L)	25	25	0.95100	1.27000	1.09676	0.09885
Selenium (Se)-Total (mg/L)	25	25	0.00039	0.00059	0.00049	0.00005
Silicon (Si)-Total (mg/L)	25	25	2.81000	3.77000	3.29960	0.25496
Silver (Ag)-Total (mg/L)	25	0	0.00001	0.00001	0.00001	0.00000
Sodium (Na)-Total (mg/L)	25	25	6.96000	9.16000	7.96920	0.69065
Strontium (Sr)-Total (mg/L)	25	25	0.24300	0.29400	0.26532	0.01664
Thallium (Tl)-Total (mg/L)	25	0	0.00001	0.00001	0.00001	0.00000
Tin (Sn)-Total (mg/L)	25	0	0.00005	0.00005	0.00005	0.00000
Titanium (Ti)-Total (mg/L)	25	0	0.00500	0.00500	0.00500	0.00000
Uranium (U)-Total (mg/L)	25	25	0.00019	0.00024	0.00021	0.00002
Vanadium (V)-Total (mg/L)	25	25	0.00097	0.00158	0.00126	0.00017
Zinc (Zn)-Total (mg/L)	25	0	0.00150	0.00150	0.00150	0.00000

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IMPERIAL METALS CORPORATION

	E207975 : P2-DI														
	24-Jun-19	29-Jul-19	28-Aug-19	22-Jun-20	27-Jul-20	30-Aug-20	22-Jun-21	26-Jul-21	30-Aug-21	21-Jun-22	25-Jul-22	25-Aug-22	20-Jun-23	27-Jul-23	28-Aug-23
Anions and Nutrients															
Alkalinity (CaCO3) (mg/L)	105	100	98.9	91.7	91.6	95.2	95.3	95.3	93.8	88.2	91.7	89.1	88.4	90.6	91.8
Ammonia (as N) (mg/L)	0.0113	<0.0050	<0.0050	0.0051	0.0526	0.0089	0.0054	0.0127	<0.0050	<0.0050	0.0085	0.0107	0.0065	0.0062	0.0113
Chloride (mg/L)	1.24	1.09	1.07	0.97	0.94	0.91	0.86	1.95	0.89	1.03	0.80	0.87	1.51	0.79	0.89
Diss-Orthophosphate (mg/L)	<0.0010	<0.0010	0.0020	0.0018	0.0015	<0.0010	<0.0010	0.0011	0.0013	<0.0010	0.0037	<0.0010	<0.0010	<0.0010	<0.0010
Diss-Phosphorus (mg/L)	0.0041	0.0036	0.0067	0.0049	0.0056	0.0035	0.0047	0.0127	0.0052	0.0072	0.0126	0.0059	0.0048	0.0053	0.0049
Fluoride (mg/L)	0.088	0.091	0.086	0.081	0.075	0.079	0.064	0.082	0.071	0.074	0.062	0.080	0.063	0.072	0.056
Nitrate (N) (mg/L)	<0.0050	<0.0050	<0.0050	<0.0050	0.0060	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.0078	0.0052	<0.0050	<0.0050
Nitrate and Nitrite (mg/L)	<0.0051	<0.0051	<0.0051	<0.0051	0.0064	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	0.0078	0.0052	<0.0051	<0.0051
Nitrite (N) (mg/L)	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Sulphate (mg/L)	41.0	40.7	40.8	38.0	36.1	37.0	35.8	36.3	36.2	33.8	34.1	34.9	33.8	32.2	33.7
Total Nitrogen (mg/L)	0.441	0.282	0.299	0.262	0.321	0.326	0.257	0.502	0.259	0.367	0.324	0.388	0.271	0.285	0.818
Total Phosphorus (mg/L)	0.0231	0.0085	0.0092	0.0135	0.0137	0.0168	0.0109	0.0164	0.0070	0.0180	0.0145	0.0134	0.0147	0.0123	0.0126
Dissolved Metals															
Aluminum (Al)-Diss (mg/L)	<0.0030	<0.0030	<0.0030	0.0047	0.0045	0.0059	0.0036	0.0047	0.0048	0.0056	0.0040	0.0037	0.0081	0.0066	<0.0030
Diss-Antimony (Sb) (mg/L)	0.00011	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Diss-Arsenic (As) (mg/L)	0.00057	0.00060	0.00062	0.00055	0.00062	0.00051	0.00056	0.00055	0.00057	0.00050	0.00047	0.00052	0.00052	0.00052	0.00051
Diss-Barium (Ba) (mg/L)	0.0114	0.0110	0.0115	0.00996	0.0103	0.0113	0.0100	0.0112	0.00986	0.0101	0.00946	0.00958	0.0102	0.0105	0.0102
Diss-Beryllium (Be) (mg/L)	<0.00010	<0.00010	<0.00010	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100
Diss-Bismuth (Bi) (mg/L)	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Diss-Boron (B) (mg/L)	0.024	0.022	0.026	0.023	0.022	0.022	0.020	0.021	0.022	0.020	0.020	0.020	0.019	0.021	0.020
Diss-Cadmium (Cd) (mg/L)	0.000166	<0.000010	0.0000378	<0.0000050	<0.0000050	<0.0000050	<0.0000050	0.0000133	<0.0000100	<0.0000050	0.0000653	<0.0000050	0.0000609	0.0000109	<0.0000050
Diss-Calcium (Ca) (mg/L)	40.9	36.6	38.7	41.4	36.6	42.2	35.5	37.8	35.6	35.2	34.2	35.9	38.4	34.2	34.6
Diss-Chromium (Cr) (mg/L)	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Diss-Cobalt (Co) (mg/L)	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Diss-Copper (Cu) (mg/L)	0.00387	0.00317	0.00336	0.00328	0.00372	0.00369	0.00390	0.00505	0.00419	0.00435	0.00436	0.00428	0.00461	0.00369	0.00337
Diss-Iron (Fe) (mg/L)	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030
Diss-Lead (Pb) (mg/L)	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	0.000083	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	0.000158	<0.000050	<0.000050	<0.000050
Diss-Lithium (Li) (mg/L)	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.0012	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Diss-Magnesium (Mg) (mg/L)	6.02	5.39	5.57	5.46	5.70	5.81	5.38	5.53	5.40	5.11	4.90	5.16	5.45	4.94	5.04
Diss-Manganese (Mn) (mg/L)	0.00177	0.00095	0.00010	0.00090	0.00099	0.00106	0.00204	0.00335	0.00081	0.00155	0.00184	0.00176	0.00296	0.00113	0.00087
Diss-Molybdenum (Mo) (mg/L)	0.00772	0.00711	0.00794	0.00682	0.00652	0.00694	0.00606	0.00642	0.00658	0.00586	0.00617	0.00629	0.00588	0.00625	0.00618
Diss-Nickel (Ni) (mg/L)	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	0.00062	<0.00050	<0.00050	<0.00050	<0.00050
Diss-Potassium (K) (mg/L)	1.24	1.17	1.22	1.07	1.15	1.16	1.04	2.38	1.06	1.27	1.05	1.02	1.90	1.05	0.995
Diss-Selenium (mg/L)	0.000568	0.000572	0.000513	0.000535	0.000502	0.000398	0.000473	0.000509	0.000470	0.000469	0.000461	0.000634	0.000532	0.000518	0.000475

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Mining Corporation

IMPERIAL METALS CORPORATION

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Boron (B)-Total (mg/L)	0.024	0.022	0.025	0.022	0.024	0.021	0.024	0.022	0.022	0.020	0.021	0.020	0.021	0.023	0.020
Cadmium (Cd)-Total (mg/L)	0.000167	0.0000138	0.0000442	0.0000055	<0.0000100	<0.0000100	<0.0000050	0.0000110	0.0000110	0.0000070	0.0000379	0.0000057	0.0000401	0.0000110	<0.0000050
Calcium (Ca)-Total (mg/L)	38.2	38.0	38.4	36.0	36.6	35.4	38.5	37.1	38.1	34.2	33.6	34.6	36.0	37.7	34.8
Chromium (Cr)-Total (mg/L)	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	0.00053	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Cobalt (Co)-Total (mg/L)	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Copper (Cu)-Total (mg/L)	0.00484	0.00430	0.00450	0.00396	0.00448	0.00406	0.00459	0.00646	0.00480	0.00807	0.00543	0.00623	0.00846	0.00528	0.00442
Iron (Fe)-Total (mg/L)	<0.030	<0.030	<0.030	<0.030	<0.030	0.037	<0.030	0.041	0.035	0.101	<0.030	0.036	0.082	0.040	<0.030
Lead (Pb)-Total (mg/L)	<0.000050	0.000089	<0.000050	<0.000050	0.000068	0.000132	0.000065	0.000088	0.000051	0.000210	0.000117	0.000144	0.000109	0.000153	0.000061
Lithium (Li)-Total (mg/L)	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.0014	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Magnesium (Mg)-Total (mg/L)	5.40	5.46	5.74	5.24	5.29	5.16	5.44	5.76	5.37	4.97	5.03	5.27	5.44	5.18	5.03
Manganese (Mn)-Total (mg/L)	0.00386	0.00576	0.00475	0.00519	0.00553	0.00444	0.00415	0.00912	0.00434	0.00857	0.00462	0.00746	0.00721	0.00542	0.00502
Molybdenum (Mo)-Total (mg/L)	0.00752	0.00730	0.00791	0.00669	0.00669	0.00666	0.00663	0.00644	0.00656	0.00596	0.00666	0.00658	0.00589	0.00598	0.00619
Nickel (Ni)-Total (mg/L)	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Potassium (K)-Total (mg/L)	1.24	1.17	1.17	1.10	1.08	1.03	1.05	2.35	1.06	1.28	1.11	1.07	1.93	0.964	1.06
Selenium (Se)-Total (mg/L)	0.000520	0.000559	0.000523	0.000511	0.000521	0.000512	0.000506	0.000488	0.000489	0.000509	0.000565	0.000658	0.000563	0.000641	0.000518
Silicon (Si)-Total (mg/L)	2.85	2.55	2.51	3.10	3.24	2.95	3.25	3.33	3.17	3.68	3.11	3.32	3.31	3.47	3.09
Silver (Ag)-Total (mg/L)	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	0.000016	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Sodium (Na)-Total (mg/L)	8.55	8.30	8.45	7.96	7.88	7.89	7.67	8.17	7.88	7.00	7.27	7.04	7.10	7.15	7.26
Strontium (Sr)-Total (mg/L)	0.277	0.272	0.294	0.251	0.262	0.256	0.264	0.252	0.254	0.233	0.242	0.258	0.241	0.248	0.240
Thallium (Tl)-Total (mg/L)	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Tin (Sn)-Total (mg/L)	0.00018	<0.00010	<0.00010	<0.00010	0.00014	<0.00010	<0.00010	<0.00010	<0.00010	0.00011	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Titanium (Ti)-Total (mg/L)	<0.010	<0.010	<0.010	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100
Uranium (U)-Total (mg/L)	0.000233	0.000233	0.000228	0.000201	0.000209	0.000194	0.000206	0.000192	0.000202	0.000192	0.000197	0.000192	0.000190	0.000196	0.000187
Vanadium (V)-Total (mg/L)	0.00099	0.00108	0.00100	0.00105	0.00124	0.00114	0.00115	0.00130	0.00136	0.00159	0.00132	0.00141	0.00162	0.00151	0.00148
Zinc (Zn)-Total (mg/L)	<0.0030	<0.0030	<0.0030	<0.0030	0.0071	<0.0030	<0.0030	0.0044	<0.0030	0.0034	<0.0030	<0.0030	0.0051	<0.0030	<0.0030

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	Sample (n)	Count >MDL	Min	Max	Mean	95th Percentile	St Dev
Anions and Nutrients							
Alkalinity (CaCO3) (mg/L)	15	15	88.20000	105.00000	93.77333		4.68165
Ammonia (as N) (mg/L)	15	11	0.00250	0.05260	0.00995		0.01232
Chloride (mg/L)	15	15	0.79000	1.95000	1.05400		0.31027
Diss-Orthophosphate (mg/L)	15	6	0.00050	0.00370	0.00106		0.00091
Diss-Phosphorus (mg/L)	15	15	0.00350	0.01270	0.00611		0.00284
Fluoride (mg/L)	15	15	0.05600	0.09100	0.07493		0.01033
Nitrate (N) (mg/L)	15	3	0.00250	0.00780	0.00327		0.00167
Nitrate and Nitrite (mg/L)	15	3	0.00255	0.00780	0.00333		0.00169
Nitrite (N) (mg/L)	15	0	0.00050	0.00050	0.00050		0.00000
Sulphate (mg/L)	15	15	32.20000	41.00000	36.29333		2.78066
Total Nitrogen (mg/L)	15	15	0.25700	0.81800	0.36013		0.14517
Total Phosphorus (mg/L)	15	15	0.00700	0.02310	0.01364		0.00404
Dissolved Metals							
Aluminum (Al)-Diss (mg/L)	15	11	0.00150	0.00810	0.00415		0.00201
Diss-Antimony (Sb) (mg/L)	15	1	0.00005	0.00011	0.00005		0.00002
Diss-Arsenic (As) (mg/L)	15	15	0.00047	0.00062	0.00055		0.00004
Diss-Barium (Ba) (mg/L)	15	15	0.00946	0.01150	0.01044		0.00068
Diss-Beryllium (Be) (mg/L)	15	0	0.00005	0.00050	0.00008		0.00012
Diss-Bismuth (Bi) (mg/L)	15	0	0.00003	0.00003	0.00003		0.00000
Diss-Boron (B) (mg/L)	15	15	0.01900	0.02600	0.02147		0.00185
Diss-Cadmium (Cd) (mg/L)	15	6	0.00000	0.00017	0.00003		0.00004
Diss-Calcium (Ca) (mg/L)	15	15	34.20000	42.20000	37.18667		2.63218
Diss-Chromium (Cr) (mg/L)	15	0	0.00025	0.00025	0.00025		0.00000
Diss-Cobalt (Co) (mg/L)	15	0	0.00005	0.00005	0.00005		0.00000
Diss-Copper (Cu) (mg/L)	15	15	0.00317	0.00505	0.00393		0.00054
Diss-Iron (Fe) (mg/L)	15	0	0.01500	0.01500	0.01500		0.00000
Diss-Lead (Pb) (mg/L)	15	2	0.00003	0.00016	0.00004		0.00004
Diss-Lithium (Li) (mg/L)	15	1	0.00050	0.00120	0.00055		0.00018
Diss-Magnesium (Mg) (mg/L)	15	15	4.90000	6.02000	5.39067		0.31921
Diss-Manganese (Mn) (mg/L)	15	15	0.00010	0.00335	0.00147		0.00085
Diss-Molybdenum (Mo) (mg/L)	15	15	0.00586	0.00794	0.00658		0.00062
Diss-Nickel (Ni) (mg/L)	15	1	0.00025	0.00062	0.00027		0.00010
Diss-Potassium (K) (mg/L)	15	15	0.99500	2.38000	1.25167		0.38133

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Sample (n)	Count >MDL	Min	Max	Mean	95th Percentile	St Dev
Diss-Selenium (mg/L)	15	15	0.00040	0.00063	0.00051	0.00006
Diss-Silicon (Si) (mg/L)	15	15	2.44000	3.44000	2.99333	0.24979
Diss-Silver (Ag) (mg/L)	15	0	0.00001	0.00001	0.00001	0.00000
Diss-Sodium (Na) (mg/L)	15	15	7.16000	8.90000	7.87067	0.56491
Diss-Strontium (Sr) (mg/L)	15	15	0.22900	0.29700	0.25847	0.02003
Diss-Thallium (Tl) (mg/L)	15	0	0.00001	0.00001	0.00001	0.00000
Diss-Tin (Sn) (mg/L)	15	2	0.00005	0.00023	0.00007	0.00006
Diss-Titanium (Ti) (mg/L)	15	0	0.00500	0.00500	0.00500	0.00000
Diss-Uranium (U) (mg/L)	15	15	0.00019	0.00024	0.00021	0.00002
Diss-Vanadium (V) (mg/L)	15	15	0.00089	0.00136	0.00114	0.00018
Diss-Zinc (Zn) (mg/L)	15	3	0.00150	0.00520	0.00215	0.00135
TDS (mg/L)	15	15	161.00000	187.00000	173.53333	8.47574
Field Tests						
Cond (in situ) (µs/cm)	10	10	214.10000	303.80000	255.23000	21.75822
NTU - in situ (ntu)	5	5	0.26000	10.61000	3.74200	4.15801
pH (in situ) (pH)	10	10	7.52000	8.12000	7.88600	0.19306
Sample Depth (m)	10	10	0.00000	29.50000	7.72222	12.55764
Sample Taken						
Secchi Depth (m)	9	9	4.00000	7.50000	5.58333	1.33463
Temp (in situ) (Degrees Celcius)	10	10	3.74100	17.15000	12.65650	4.80552
Organic / Inorganic						
DOC (mg/L)	15	15	5.64000	8.32000	6.61333	0.67815
Physical Test						
Conductivity (µs/cm)	15	15	239.00000	276.00000	255.73333	11.71974
Hardness (mg/L)	15	15	106.00000	129.00000	115.13333	7.60514
NTU (ntu)	15	15	0.36000	2.91000	1.00933	0.69412
pH (pH)	15	15	8.03000	8.28000	8.15667	0.07413
TDS (mg/L)	15	15	161.00000	187.00000	173.53333	8.47574
TSS (mg/L)	15	11	0.50000	4.50000	1.68667	1.18735
Total Metals						
Aluminum (Al)-Total (mg/L)	15	14	0.01050	0.10300	0.03590	0.02710
Antimony (Sb)-Total (mg/L)	15	7	0.00005	0.00012	0.00008	0.00003
Arsenic (As)-Total (mg/L)	15	15	0.00051	0.00085	0.00062	0.00009
Barium (Ba)-Total (mg/L)	15	15	0.01020	0.01320	0.01113	0.00083
Beryllium (Be)-Total (mg/L)	15	0	0.00005	0.00005	0.00005	0.00000

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Bismuth (Bi)-Total (mg/L)	15	0	0.00003	0.00003	0.00003	0.00000
Boron (B)-Total (mg/L)	15	15	0.02000	0.02500	0.02207	0.00162
Cadmium (Cd)-Total (mg/L)	15	11	0.00000	0.00017	0.00002	0.00004
Calcium (Ca)-Total (mg/L)	15	15	33.60000	38.50000	36.48000	1.66956
Chromium (Cr)-Total (mg/L)	15	1	0.00025	0.00053	0.00027	0.00007
Cobalt (Co)-Total (mg/L)	15	0	0.00005	0.00005	0.00005	0.00000
Copper (Cu)-Total (mg/L)	15	15	0.00396	0.00846	0.00533	0.00140
Iron (Fe)-Total (mg/L)	15	7	0.01500	0.10100	0.03280	0.02640
Lead (Pb)-Total (mg/L)	15	12	0.00003	0.00021	0.00009	0.00005
Lithium (Li)-Total (mg/L)	15	1	0.00050	0.00140	0.00056	0.00023
Magnesium (Mg)-Total (mg/L)	15	15	4.97000	5.76000	5.31867	0.23497
Manganese (Mn)-Total (mg/L)	15	15	0.00386	0.00912	0.00570	0.00164
Molybdenum (Mo)-Total (mg/L)	15	15	0.00589	0.00791	0.00664	0.00057
Nickel (Ni)-Total (mg/L)	15	0	0.00025	0.00025	0.00025	0.00000
Potassium (K)-Total (mg/L)	15	15	0.96400	2.35000	1.24427	0.38093
Selenium (Se)-Total (mg/L)	15	15	0.00049	0.00066	0.00054	0.00005
Silicon (Si)-Total (mg/L)	15	15	2.51000	3.68000	3.12867	0.31500
Silver (Ag)-Total (mg/L)	15	1	0.00001	0.00002	0.00001	0.00000
Sodium (Na)-Total (mg/L)	15	15	7.00000	8.55000	7.70467	0.53463
Strontium (Sr)-Total (mg/L)	15	15	0.23300	0.29400	0.25627	0.01594
Thallium (Tl)-Total (mg/L)	15	0	0.00001	0.00001	0.00001	0.00000
Tin (Sn)-Total (mg/L)	15	3	0.00005	0.00018	0.00007	0.00004
Titanium (Ti)-Total (mg/L)	15	0	0.00500	0.00500	0.00500	0.00000
Uranium (U)-Total (mg/L)	15	15	0.00019	0.00023	0.00020	0.00002
Vanadium (V)-Total (mg/L)	15	15	0.00099	0.00162	0.00128	0.00021
Zinc (Zn)-Total (mg/L)	15	4	0.00150	0.00710	0.00243	0.00176

Grid Format Report : Polley Lake South Station P2-surface

From 1 Jan 2019 to 31 Dec 2023

Printed : 2024-02-20



Mount Polley

Mining Corporation

IMPERIAL METALS CORPORATION

	E207975 : P2-S														
	11-Feb-19	16-May-19	27-May-19	6-Jun-19	24-Jun-19	15-Jul-19	29-Jul-19	13-Aug-19	28-Aug-19	11-Sep-19	9-Oct-19	20-Nov-19	19-Feb-20	19-May-20	15-Jun-20
Anions and Nutrients															
Alkalinity (CaCO3) (mg/L)	107	99.0	99.4	104	105	100	98.0	101	107	100	106	104	115	90.4	95.5
Ammonia (as N) (mg/L)	0.0061	0.0089	<0.0050	0.0051	0.0073	<0.0050	<0.0050	<0.0050	0.0053	<0.0050	0.0065	0.0104	0.0083	0.0083	0.0077
Chloride (mg/L)	1.22	0.97	1.42	1.07	1.10	1.10	1.08	1.07	1.04	1.07	1.04	1.08	1.13	0.86	0.93
Diss-Orthophosphate (mg/L)	0.0109	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.0013	<0.0010	<0.0010	0.0048	0.0084	0.0012	<0.0010
Diss-Phosphorus (mg/L)	0.0159	0.0041	0.0045	0.0058	0.0037	0.0038	0.0044	0.0034	0.0041	0.0035	0.0041	0.0096	0.0121	0.0047	0.0050
Fluoride (mg/L)	0.087	0.074	0.082	0.083	0.086	0.090	0.088	0.086	0.083	0.080	0.082	0.084	0.078	0.073	0.070
Nitrate (N) (mg/L)	0.104	<0.0050	0.0054	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.0265	0.0557	<0.0050	<0.0050
Nitrate and Nitrite (mg/L)	0.104	<0.0051	0.0054	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	0.0265	0.06	<0.0500	<0.0500
Nitrite (N) (mg/L)	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.0014	<0.0010	<0.0010
Sulphate (mg/L)	45.2	35.9	40.5	40.8	40.8	41.5	40.3	40.8	40.1	41.7	40.6	40.8	42.7	33.9	38.1
Total Nitrogen (mg/L)	0.411	0.306	0.278	0.271	0.348	0.268	0.304	0.304	0.289	0.297	0.335	0.279	0.316	0.294	0.322
Total Phosphorus (mg/L)	0.0178	0.0149	0.0102	0.0201	0.0106	0.0077	0.0078	0.0071	0.0080	0.0091	0.0199	0.0250	0.0182	0.0144	0.0151
Dissolved Metals															
Aluminum (Al)-Diss (mg/L)	0.0079	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	0.0030	<0.0030	0.0114	0.0060
Diss-Antimony (Sb) (mg/L)	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Diss-Arsenic (As) (mg/L)	0.00073	0.00055	0.00056	0.00059	0.00063	0.00060	0.00062	0.00056	0.00059	0.00059	0.00064	0.00060	0.00060	0.00048	0.00051
Diss-Barium (Ba) (mg/L)	0.0125	0.0112	0.0110	0.0110	0.0109	0.0107	0.0109	0.0104	0.0115	0.0120	0.0111	0.0113	0.0112	0.00984	0.00990
Diss-Beryllium (Be) (mg/L)	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00100	<0.00100	<0.00100
Diss-Bismuth (Bi) (mg/L)	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Diss-Boron (B) (mg/L)	0.025	0.024	0.023	0.024	0.024	0.023	0.022	0.023	0.025	0.023	0.023	0.022	0.023	0.019	0.020
Diss-Cadmium (Cd) (mg/L)	<0.0000050	<0.0000050	<0.0000050	<0.0000050	0.0000102	<0.0000050	0.0000223	<0.0000050	0.0000125	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050
Diss-Calcium (Ca) (mg/L)	44.0	45.4	39.3	41.4	39.2	39.6	37.0	35.8	39.0	42.2	39.3	40.9	40.2	37.6	36.0
Diss-Chromium (Cr) (mg/L)	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Diss-Cobalt (Co) (mg/L)	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Diss-Copper (Cu) (mg/L)	0.00410	0.00356	0.00342	0.00343	0.00337	0.00322	0.00324	0.00306	0.00303	0.00308	0.00315	0.00321	0.00318	0.00333	0.00315
Diss-Iron (Fe) (mg/L)	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030
Diss-Lead (Pb) (mg/L)	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Diss-Lithium (Li) (mg/L)	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Diss-Magnesium (Mg) (mg/L)	6.40	5.91	5.59	5.48	5.67	5.78	5.34	5.09	5.58	6.22	5.73	5.98	5.60	5.27	5.42
Diss-Manganese (Mn) (mg/L)	0.00148	0.00038	0.00038	0.00027	0.00197	0.00123	0.00159	0.00028	<0.00010	0.00028	0.00156	0.00029	0.00019	0.00116	0.00094
Diss-Molybdenum (Mo) (mg/L)	0.00866	0.00804	0.00804	0.00738	0.00772	0.00787	0.00722	0.00740	0.00790	0.00772	0.00743	0.00741	0.00761	0.00628	0.00649
Diss-Nickel (Ni) (mg/L)	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Diss-Potassium (K) (mg/L)	1.47	1.31	1.20	1.23	1.20	1.22	1.15	1.16	1.20	1.25	1.27	1.26	1.23	1.08	1.09
Diss-Selenium (mg/L)	0.000484	0.000478	0.000532	0.000538	0.000522	0.000532	0.000582	0.000459	0.000578	0.000484	0.000461	0.000446	0.000539	0.000406	0.000572

E207975 : P2-S

	14-Jul-20	19-Aug-20	8-Sep-20	29-Sep-20	26-Oct-20	18-Nov-20	24-Feb-21	6-May-21	3-Jun-21	20-Jul-21	18-Aug-21	13-Sep-21	19-Oct-21	2-Nov-21	16-Feb-22
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Anions and Nutrients															
Alkalinity (CaCO3) (mg/L)	92.6	89.2	89.7	92.5	91.9	92.4	97.8	90.4	89.9	97.4	95.3	95.9	95.9	94.6	104
Ammonia (as N) (mg/L)	0.0054	<0.0050	0.0072	0.0101	<0.0050	0.0052	0.0099	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.0104	0.0052	0.0100
Chloride (mg/L)	0.90	0.88	0.88	0.87	0.92	0.93	0.98	0.94	0.84	0.88	0.86	0.88	0.87	0.91	0.99
Diss-Orthophosphate (mg/L)	<0.0010	<0.0010	<0.0010	<0.0010	0.0037	0.0099	0.0102	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.0037	0.0072	0.0091
Diss-Phosphorus (mg/L)	0.0068	0.0048	0.0052	0.0040	0.0059	0.0132	0.0106	0.0046	0.0038	0.0039	0.0049	0.0089	0.0082	0.0097	0.0157
Fluoride (mg/L)	0.075	0.077	0.074	0.079	0.074	0.070	0.083	0.073	0.068	0.071	0.072	0.072	0.079	0.072	0.078
Nitrate (N) (mg/L)	<0.0050	<0.0050	<0.0050	<0.0050	0.0179	0.0541	0.0768	0.0266	<0.0050	<0.0050	<0.0050	<0.0050	0.0053	0.0239	0.0688
Nitrate and Nitrite (mg/L)	<0.0500	<0.0051	<0.0051	<0.0051	0.0194	0.0564	0.0768	0.0266	<0.0051	<0.0051	<0.0051	<0.0051	0.0053	0.0239	0.0699
Nitrite (N) (mg/L)	<0.0010	<0.0010	<0.0010	<0.0010	0.0015	0.0023	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.0011
Sulphate (mg/L)	36.2	35.8	35.3	34.4	36.3	37.8	39.1	37.3	36.4	37.2	35.3	36.8	36.3	38.0	40.5
Total Nitrogen (mg/L)	0.286	0.296	0.272		0.271	0.287	0.342	0.288	0.240	0.230	0.247	0.247	0.235	0.253	0.294
Total Phosphorus (mg/L)	0.0117	0.0143	0.0132	0.0063	0.0115	0.0154	0.0159	0.0138	0.0083	0.0052	0.0060	0.0062	0.0087	0.0126	0.0168
Dissolved Metals															
Aluminum (Al)-Diss (mg/L)	0.0051	0.0058	0.0046	0.0032	0.0062	0.0069	0.0037	0.0083	0.0043	0.0031	<0.0030	<0.0030	<0.0030	0.0064	<0.0030
Diss-Antimony (Sb) (mg/L)	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Diss-Arsenic (As) (mg/L)	0.00056	0.00056	0.00060	0.00050	0.00053	0.00057	0.00052	0.00049	0.00049	0.00056	0.00050	0.00054	0.00055	0.00055	0.00055
Diss-Barium (Ba) (mg/L)	0.00984	0.0104	0.00936	0.00877	0.00996	0.00982	0.0111	0.00967	0.00938	0.0108	0.00989	0.0100	0.00972	0.0106	0.0108
Diss-Beryllium (Be) (mg/L)	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100
Diss-Bismuth (Bi) (mg/L)	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Diss-Boron (B) (mg/L)	0.019	0.021	0.020	0.021	0.023	0.024	0.022	0.021	0.021	0.020	0.021	0.020	0.019	0.019	0.022
Diss-Cadmium (Cd) (mg/L)	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050
Diss-Calcium (Ca) (mg/L)	37.6	37.6	34.8	35.3	36.8	37.3	39.1	37.4	37.0	36.7	36.6	37.4	37.4	36.9	40.5
Diss-Chromium (Cr) (mg/L)	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Diss-Cobalt (Co) (mg/L)	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Diss-Copper (Cu) (mg/L)	0.00330	0.00357	0.00325	0.00307	0.00340	0.00347	0.00352	0.00359	0.00353	0.00349	0.00326	0.00330	0.00350	0.00417	0.00366
Diss-Iron (Fe) (mg/L)	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030
Diss-Lead (Pb) (mg/L)	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Diss-Lithium (Li) (mg/L)	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Diss-Magnesium (Mg) (mg/L)	5.62	5.16	5.10	4.75	5.21	5.42	5.64	5.17	4.85	5.41	5.56	5.28	5.70	5.63	6.04
Diss-Manganese (Mn) (mg/L)	0.00460	0.00167	0.00185	0.00102	0.00132	0.00175	0.00039	0.00145	0.00203	0.00272	0.00075	0.00102	0.00216	0.00116	0.00034
Diss-Molybdenum (Mo) (mg/L)	0.00634	0.00629	0.00600	0.00600	0.00656	0.00635	0.00663	0.00665	0.00613	0.00655	0.00634	0.00625	0.00601	0.00630	0.00665
Diss-Nickel (Ni) (mg/L)	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Diss-Potassium (K) (mg/L)	0.995	1.02	1.03	0.978	1.09	1.07	1.14	1.04	1.02	1.08	1.08	1.10	1.07	1.10	1.16
Diss-Selenium (mg/L)	0.000493	0.000509	0.000436	0.000532	0.000466	0.000514	0.000512	0.000477	0.000500	0.000578	0.000466	0.000486	0.000483	0.000463	0.000509

	E207975 : P2-S													
	17-May-22	20-Jun-22	13-Jul-22	30-Aug-22	12-Sep-22	12-Oct-22	1-Mar-23	15-Mar-23	9-May-23	12-Jun-23	26-Jul-23	24-Aug-23	28-Sep-23	18-Oct-23
Anions and Nutrients														
Alkalinity (CaCO3) (mg/L)	91.2	88.3	88.3	91.9	93.7	92.8	96.4	95.6	86.4	92.2	90.3	92.7	93.5	94.0
Ammonia (as N) (mg/L)	<0.0050	<0.0050	0.0070	0.0084	<0.0050	<0.0050	0.0171	0.0058	<0.0050	<0.0050	<0.0050	0.0080	<0.0050	<0.0050
Chloride (mg/L)	0.88	0.81	0.76	0.85	0.83	0.80	0.86	0.88	0.72	0.75	0.78	0.78	0.79	0.79
Diss-Orthophosphate (mg/L)	0.0031	<0.0010	<0.0010	<0.0010	0.0010	<0.0010	0.0106	0.0092	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Diss-Phosphorus (mg/L)	0.0080	0.0051	0.0054	0.0028	0.0029	0.0045	0.0133	0.0139	0.0062	0.0037	0.0047	0.0047	0.0033	0.0047
Fluoride (mg/L)	0.069	0.072	0.062	0.075	0.072	0.074	0.071	0.080	0.066	0.067	0.065	0.070	0.074	0.070
Nitrate (N) (mg/L)	0.0286	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.0586	0.0765	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Nitrate and Nitrite (mg/L)	0.0286	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	0.0586	0.0765	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051
Nitrite (N) (mg/L)	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Sulphate (mg/L)	36.3	34.4	33.1	37.4	35.4	36.0	36.5	37.2	30.2	31.6	33.7	33.2	34.7	34.5
Total Nitrogen (mg/L)	0.251	0.252	0.249	0.290	0.269	0.264	0.283	0.291	0.347	0.227	0.268	0.269	0.243	0.235
Total Phosphorus (mg/L)	0.0139	0.0096	0.0085	0.0049	0.0062	0.0076	0.0140	0.0144	0.0119	0.0050	0.0088	0.0078	0.0071	0.0077
Dissolved Metals														
Aluminum (Al)-Diss (mg/L)	0.0132	0.0056	0.0042	<0.0030	0.0044	<0.0030	<0.0030	<0.0030	0.0170	0.0073	0.0030	0.0045	0.0089	0.0035
Diss-Antimony (Sb) (mg/L)	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Diss-Arsenic (As) (mg/L)	0.00052	0.00050	0.00055	0.00050	0.00052	0.00051	0.00052	0.00050	0.00044	0.00049	0.00052	0.00050	0.00050	0.00052
Diss-Barium (Ba) (mg/L)	0.0107	0.00983	0.00946	0.00987	0.0103	0.00986	0.0101	0.00983	0.0100	0.00894	0.0102	0.00996	0.0100	0.0104
Diss-Beryllium (Be) (mg/L)	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100
Diss-Bismuth (Bi) (mg/L)	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Diss-Boron (B) (mg/L)	0.020	0.019	0.020	0.021	0.020	0.019	0.020	0.021	0.019	0.019	0.019	0.020	0.019	0.020
Diss-Cadmium (Cd) (mg/L)	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	0.0000092	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050
Diss-Calcium (Ca) (mg/L)	36.9	35.2	35.2	36.3	36.0	33.8	36.2	34.8	32.8	36.5	34.4	33.2	33.5	35.4
Diss-Chromium (Cr) (mg/L)	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Diss-Cobalt (Co) (mg/L)	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Diss-Copper (Cu) (mg/L)	0.00447	0.00368	0.00363	0.00331	0.00338	0.00320	0.00383	0.00340	0.00485	0.00356	0.00334	0.00312	0.00325	0.00326
Diss-Iron (Fe) (mg/L)	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030
Diss-Lead (Pb) (mg/L)	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Diss-Lithium (Li) (mg/L)	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Diss-Magnesium (Mg) (mg/L)	5.15	5.38	5.57	5.41	5.46	5.38	5.71	5.24	4.89	5.38	5.08	5.02	5.04	5.50
Diss-Manganese (Mn) (mg/L)	0.0126	0.00101	0.00366	0.00074	0.00083	0.00134	0.00043	0.00037	0.00180	0.00326	0.00085	0.00091	0.00122	0.00278
Diss-Molybdenum (Mo) (mg/L)	0.00634	0.00581	0.00650	0.00703	0.00665	0.00697	0.00647	0.00640	0.00535	0.00590	0.00604	0.00598	0.00622	0.00626
Diss-Nickel (Ni) (mg/L)	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Diss-Potassium (K) (mg/L)	1.08	1.00	1.01	0.968	1.00	0.961	1.06	1.04	0.984	0.940	1.05	0.967	0.950	1.00
Diss-Selenium (mg/L)	0.000435	0.000445	0.000554	0.000728	0.000767	0.000637	0.000453	0.000519	0.000546	0.000514	0.000572	0.000546	0.000464	0.000493

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	Sample (n)	Count >MDL	Min	Max	Mean	95th Percentile	St Dev
Anions and Nutrients							
Alkalinity (CaCO3) (mg/L)	44	44	86.40000	115.00000	96.09318	105.00000	6.17393
Ammonia (as N) (mg/L)	44	23	0.00250	0.01710	0.00537	0.30830	0.00337
Chloride (mg/L)	44	44	0.72000	1.42000	0.93159	1.46000	0.13988
Diss-Orthophosphate (mg/L)	44	15	0.00050	0.01090	0.00247	0.03866	0.00350
Diss-Phosphorus (mg/L)	44	44	0.00280	0.01590	0.00641	0.04147	0.00360
Floride (mg/L)	44	44	0.06200	0.09000	0.07568	0.09830	0.00669
Nitrate (N) (mg/L)	44	14	0.00250	0.10400	0.01599	0.14505	0.02591
Nitrate and Nitrite (mg/L)	44	14	0.00255	0.10400	0.01777	0.17080	0.02600
Nitrite (N) (mg/L)	44	4	0.00050	0.00230	0.00060	0.00498	0.00034
Sulphate (mg/L)	44	44	30.20000	45.20000	37.28636	50.97500	3.15171
Total Nitrogen (mg/L)	43	43	0.22700	0.41100	0.28251	0.67160	0.03716
Total Phosphorus (mg/L)	44	44	0.00490	0.02500	0.01135	0.05378	0.00470
Dissolved Metals							
Aluminum (Al)-Diss (mg/L)	44	25	0.00150	0.01700	0.00423	0.00866	0.00350
Diss-Antimony (Sb) (mg/L)	44	0	0.00005	0.00005	0.00005	0.00017	0.00000
Diss-Arsenic (As) (mg/L)	44	44	0.00044	0.00073	0.00055	0.00113	0.00005
Diss-Barium (Ba) (mg/L)	44	44	0.00877	0.01250	0.01034	0.01518	0.00077
Diss-Beryllium (Be) (mg/L)	44	0	0.00005	0.00050	0.00014	0.00025	0.00018
Diss-Bismuth (Bi) (mg/L)	44	0	0.00003	0.00003	0.00002	0.00025	0.00000
Diss-Boron (B) (mg/L)	44	44	0.01900	0.02500	0.02118	0.02900	0.00186
Diss-Cadmium (Cd) (mg/L)	44	4	0.00000	0.00002	0.00000	0.00003	0.00000
Diss-Calcium (Ca) (mg/L)	44	44	32.80000	45.40000	37.39773	44.00000	2.71520
Diss-Chromium (Cr) (mg/L)	44	0	0.00025	0.00025	0.00025	0.00025	0.00000
Diss-Cobalt (Co) (mg/L)	44	0	0.00005	0.00005	0.00005	0.00005	0.00000
Diss-Copper (Cu) (mg/L)	44	44	0.00303	0.00485	0.00345	0.00360	0.00037
Diss-Iron (Fe) (mg/L)	44	0	0.01500	0.01500	0.01500	0.01500	0.00000
Diss-Lead (Pb) (mg/L)	44	0	0.00003	0.00003	0.00002	0.00004	0.00000
Diss-Lithium (Li) (mg/L)	44	0	0.00050	0.00050	0.00050	0.00250	0.00000
Diss-Magnesium (Mg) (mg/L)	44	44	4.75000	6.40000	5.45023	5.98800	0.34912
Diss-Manganese (Mn) (mg/L)	44	43	0.00005	0.01260	0.00155	0.03100	0.00196
Diss-Molybdenum (Mo) (mg/L)	44	44	0.00535	0.00866	0.00673	0.01168	0.00074
Diss-Nickel (Ni) (mg/L)	44	0	0.00025	0.00025	0.00025	0.00025	0.00000
Diss-Potassium (K) (mg/L)	44	44	0.94000	1.47000	1.09780	1.47450	0.11411

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Diss-Selenium (mg/L)	44	44	0.00041	0.00077	0.00052	0.00135	0.00007
Diss-Silicon (Si) (mg/L)	44	44	2.20000	3.57000	2.97091	4.23900	0.32458
Diss-Silver (Ag) (mg/L)	44	0	0.00001	0.00001	0.00001	0.00001	0.00000
Diss-Sodium (Na) (mg/L)	44	44	6.64000	9.72000	7.91591	10.10000	0.72356
Diss-Strontium (Sr) (mg/L)	44	44	0.20800	0.31900	0.26198	0.32635	0.02350
Diss-Thallium (Tl) (mg/L)	44	0	0.00001	0.00001	0.00001	0.00005	0.00000
Diss-Tin (Sn) (mg/L)	44	1	0.00005	0.00011	0.00005	0.00005	0.00001
Diss-Titanium (Ti) (mg/L)	44	0	0.00500	0.00500	0.00500	0.00500	0.00000
Diss-Uranium (U) (mg/L)	44	44	0.00017	0.00025	0.00021	0.00030	0.00002
Diss-Vanadium (V) (mg/L)	44	44	0.00089	0.00143	0.00112	0.00120	0.00018
Diss-Zinc (Zn) (mg/L)	44	0	0.00150	0.00150	0.00150	0.00474	0.00000
TDS (mg/L)	44	44	148.00000	202.00000	169.22727	199.35000	12.33988
Field Tests							
Cond (in situ) (µs/cm)	44	44	233.60000	317.60000	262.64318	311.36000	17.92421
NTU - in situ (ntu)	43	43	0.00000	3.90000	0.64256	2.60200	0.76569
pH (in situ) (pH)	44	44	6.93000	8.44000	7.99500	9.38150	0.32200
Sample Depth (m)	44	44	0.00000	0.00000	0.00000	0.00000	0.00000
Sample Taken							
Secchi Depth (m)	38	38	0.00000	9.50000	5.44868	7.50000	1.81151
Temp (in situ) (Degrees Celcius)	44	44	0.13800	21.00900	12.34405	20.90000	6.84190
Organic / Inorganic							
DOC (mg/L)	44	44	5.24000	7.28000	6.19364	6.68600	0.49834
Physical Test							
Conductivity (µs/cm)	44	44	233.00000	283.00000	259.47727	296.10000	12.85245
Hardness (mg/L)	44	44	102.00000	138.00000	115.77273	134.30000	7.97923
NTU (ntu)	44	41	0.05000	5.83000	0.54636	2.29700	0.84122
pH (pH)	44	44	7.97000	8.34000	8.18932	8.47000	0.09184
TDS (mg/L)	44	44	148.00000	202.00000	169.22727	199.35000	12.33988
TSS (mg/L)	44	11	0.50000	2.30000	0.78636	3.57000	0.55556
Total Metals							
Aluminum (Al)-Total (mg/L)	44	43	0.00310	0.05890	0.01685	0.06520	0.01391
Antimony (Sb)-Total (mg/L)	44	8	0.00005	0.00011	0.00006	0.00021	0.00002
Arsenic (As)-Total (mg/L)	44	44	0.00047	0.00073	0.00057	0.00115	0.00005
Barium (Ba)-Total (mg/L)	44	44	0.00951	0.01230	0.01055	0.01643	0.00066
Beryllium (Be)-Total (mg/L)	44	0	0.00005	0.00005	0.00005	0.00025	0.00000

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Sample (n)	Count >MDL	Min	Max	Mean	95th Percentile	St Dev	
Bismuth (Bi)-Total (mg/L)	44	0	0.00003	0.00003	0.00002	0.00025	0.00000
Boron (B)-Total (mg/L)	44	44	0.01900	0.02800	0.02193	0.03200	0.00195
Cadmium (Cd)-Total (mg/L)	44	6	0.00000	0.00004	0.00000	0.00002	0.00001
Calcium (Ca)-Total (mg/L)	44	44	31.10000	42.90000	37.25000	44.63000	2.26238
Chromium (Cr)-Total (mg/L)	44	0	0.00025	0.00025	0.00025	0.00025	0.00000
Cobalt (Co)-Total (mg/L)	44	0	0.00005	0.00005	0.00005	0.00005	0.00000
Copper (Cu)-Total (mg/L)	44	44	0.00323	0.00506	0.00391	0.00482	0.00037
Iron (Fe)-Total (mg/L)	44	6	0.01500	0.04800	0.01816	0.07870	0.00830
Lead (Pb)-Total (mg/L)	44	5	0.00003	0.00033	0.00004	0.00005	0.00005
Lithium (Li)-Total (mg/L)	44	0	0.00050	0.00050	0.00050	0.00250	0.00000
Magnesium (Mg)-Total (mg/L)	44	44	4.82000	6.17000	5.47568	6.01400	0.29130
Manganese (Mn)-Total (mg/L)	44	44	0.00044	0.02180	0.00467	0.10290	0.00343
Molybdenum (Mo)-Total (mg/L)	44	44	0.00555	0.00827	0.00684	0.01263	0.00065
Nickel (Ni)-Total (mg/L)	44	0	0.00025	0.00025	0.00025	0.00033	0.00000
Potassium (K)-Total (mg/L)	44	44	0.91500	1.35000	1.08391	1.50300	0.10086
Selenium (Se)-Total (mg/L)	44	44	0.00039	0.00078	0.00052	0.01361	0.00008
Silicon (Si)-Total (mg/L)	44	44	2.35000	3.73000	3.06386	4.32500	0.37043
Silver (Ag)-Total (mg/L)	44	0	0.00001	0.00001	0.00001	0.00001	0.00000
Sodium (Na)-Total (mg/L)	44	44	6.72000	9.25000	7.88773	10.30000	0.60590
Strontium (Sr)-Total (mg/L)	44	44	0.21600	0.29700	0.26066	0.33590	0.01872
Thallium (Tl)-Total (mg/L)	44	0	0.00001	0.00001	0.00001	0.00005	0.00000
Tin (Sn)-Total (mg/L)	44	0	0.00005	0.00005	0.00005	0.00005	0.00000
Titanium (Ti)-Total (mg/L)	44	0	0.00500	0.00500	0.00500	0.00500	0.00000
Uranium (U)-Total (mg/L)	44	44	0.00018	0.00024	0.00020	0.00032	0.00002
Vanadium (V)-Total (mg/L)	44	44	0.00097	0.00155	0.00125	0.00140	0.00018
Zinc (Zn)-Total (mg/L)	44	0	0.00150	0.00150	0.00150	0.00630	0.00000

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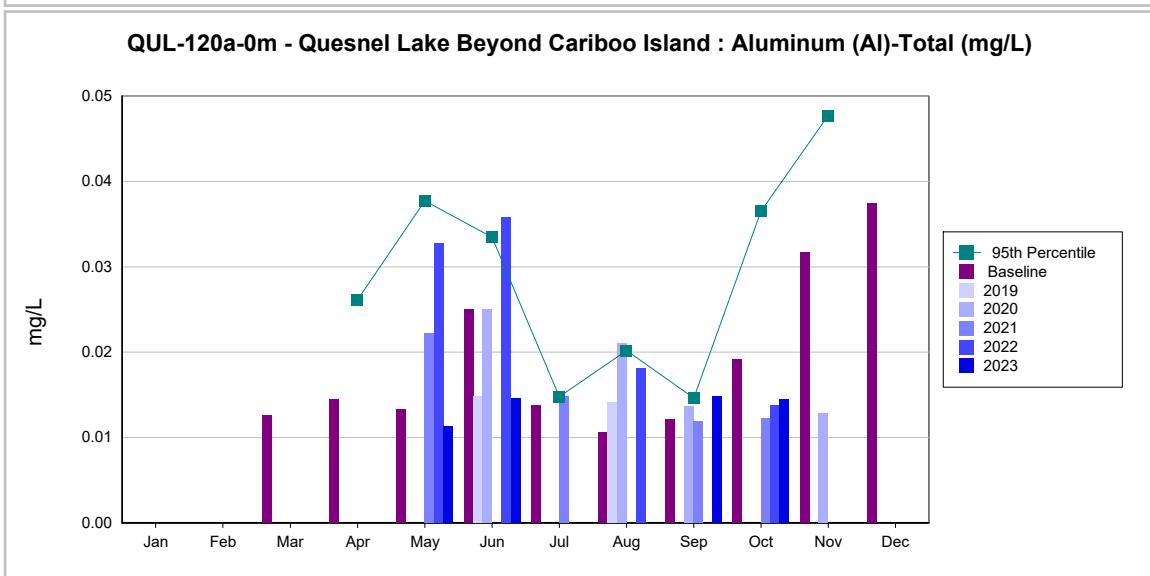
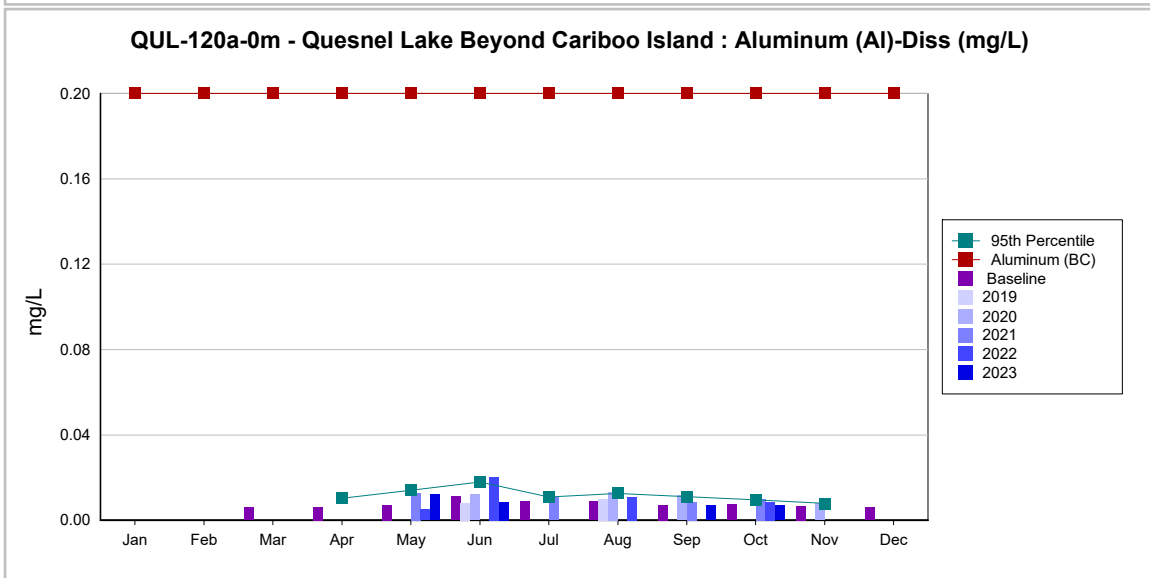
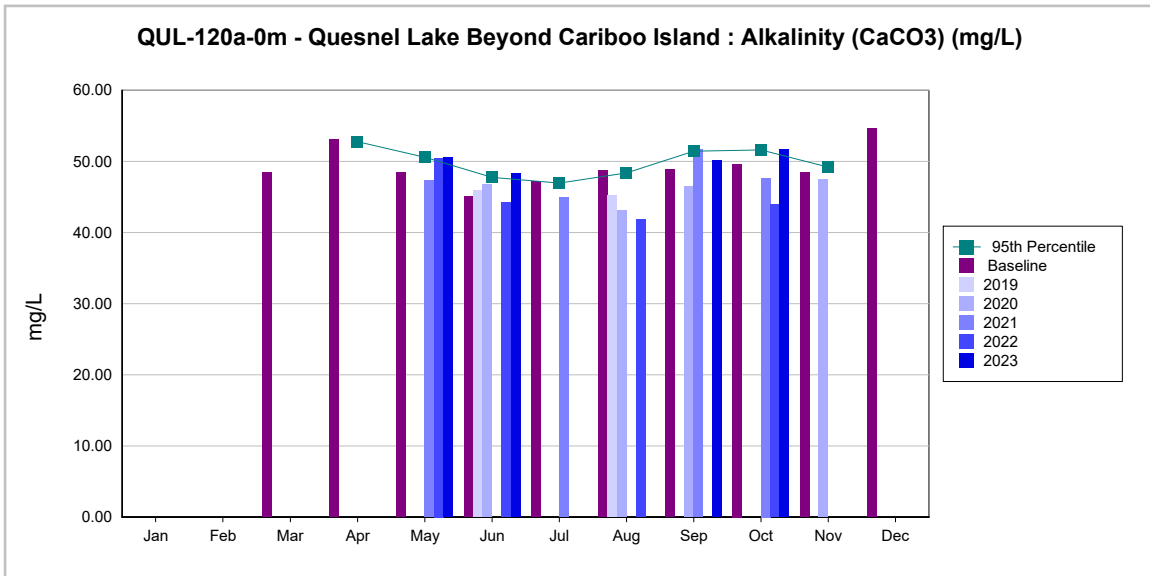
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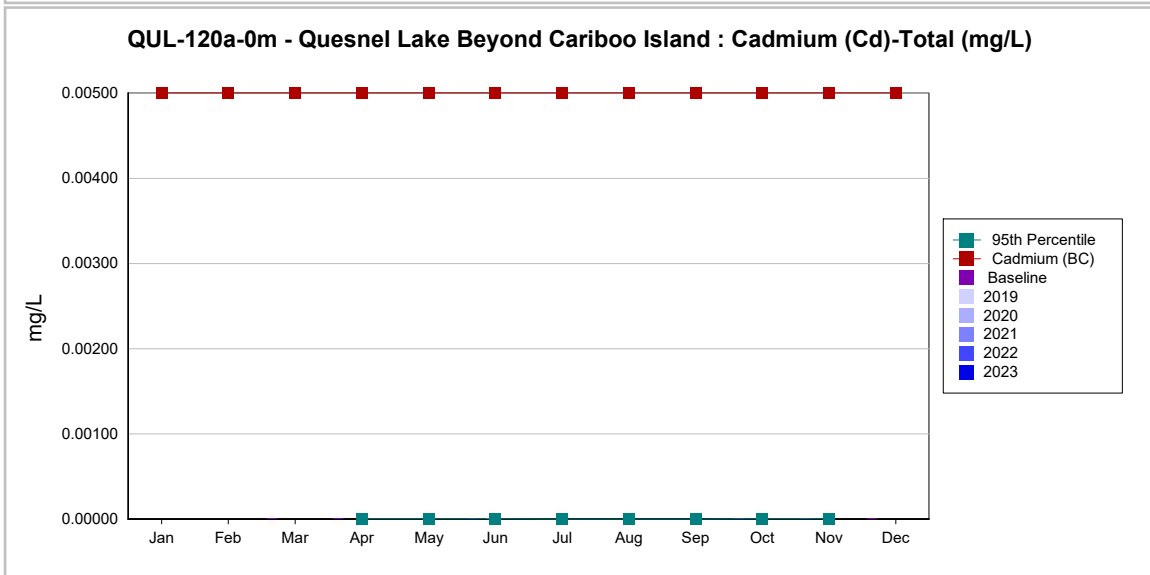
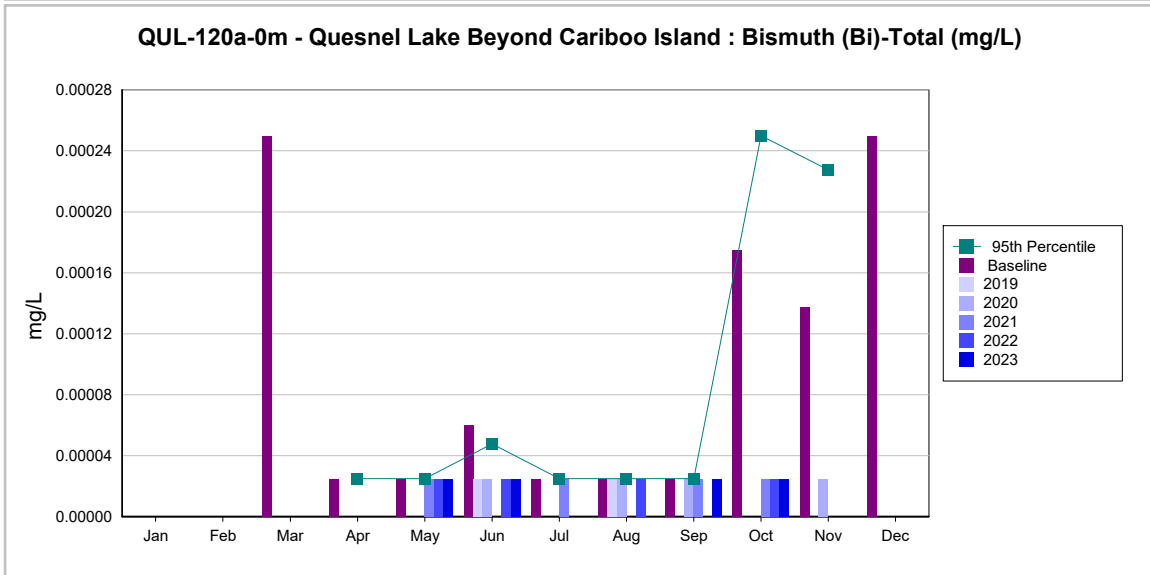
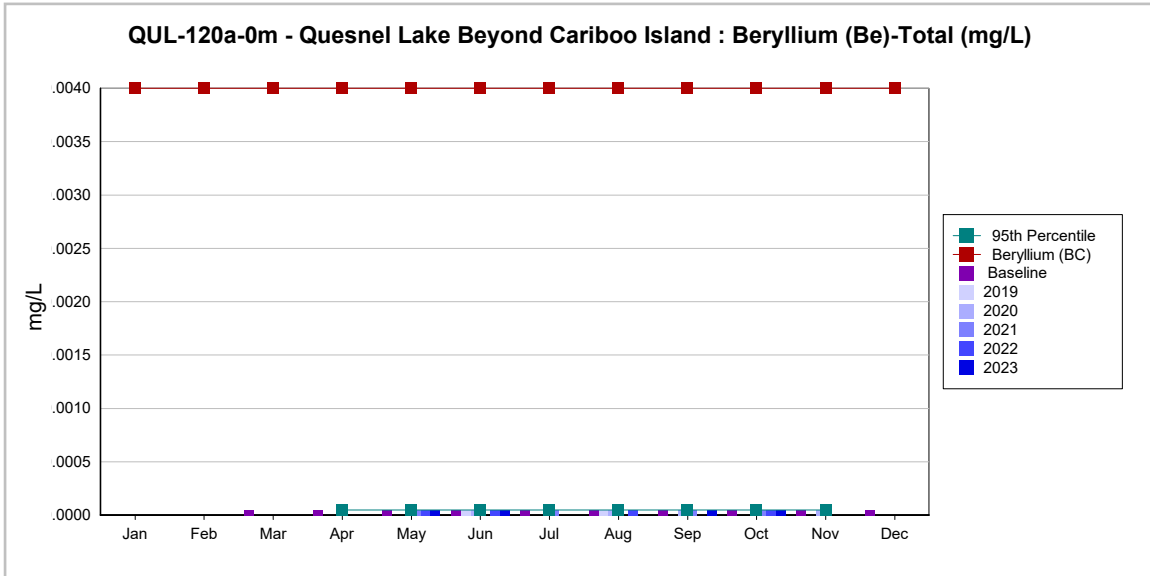
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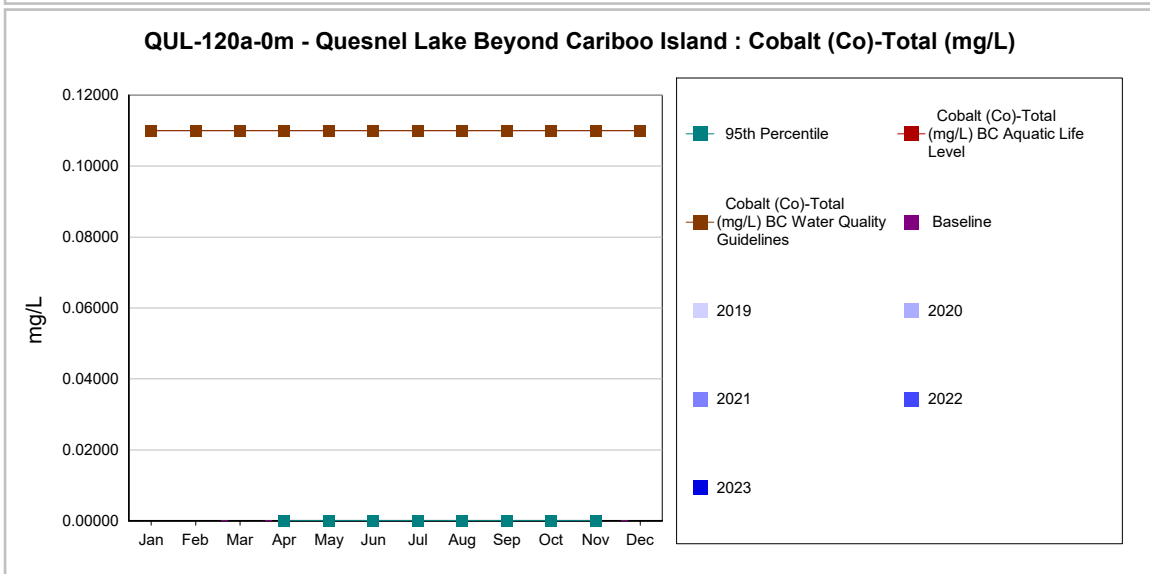
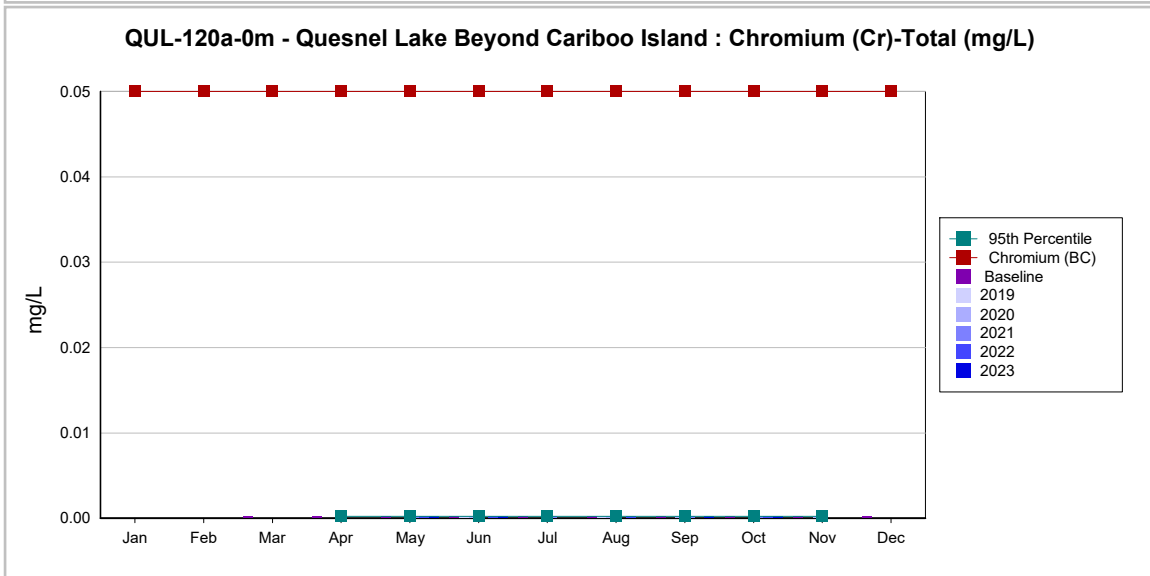
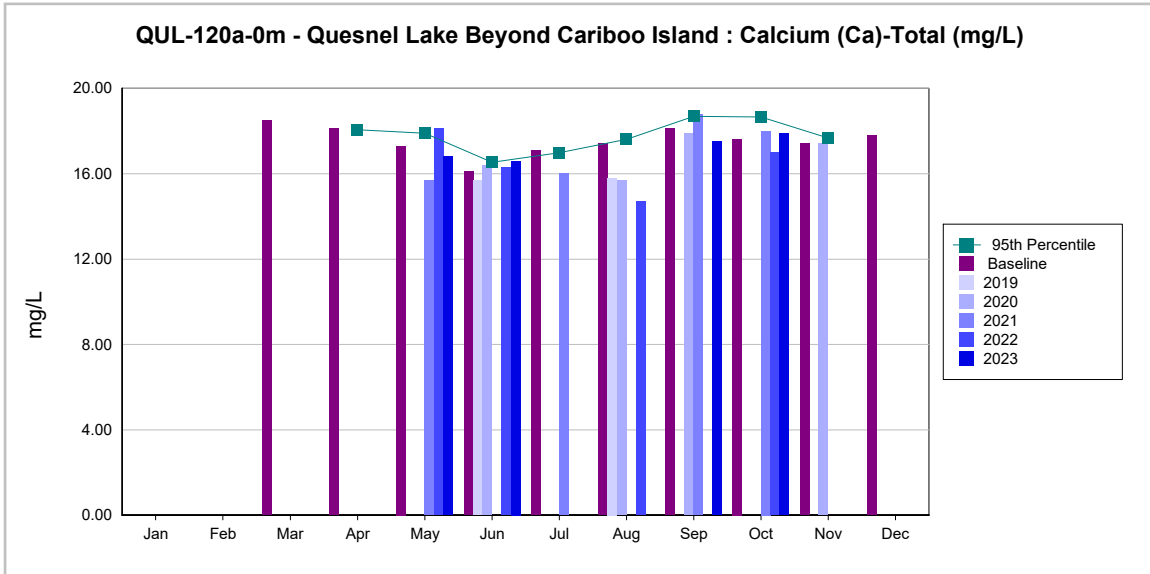
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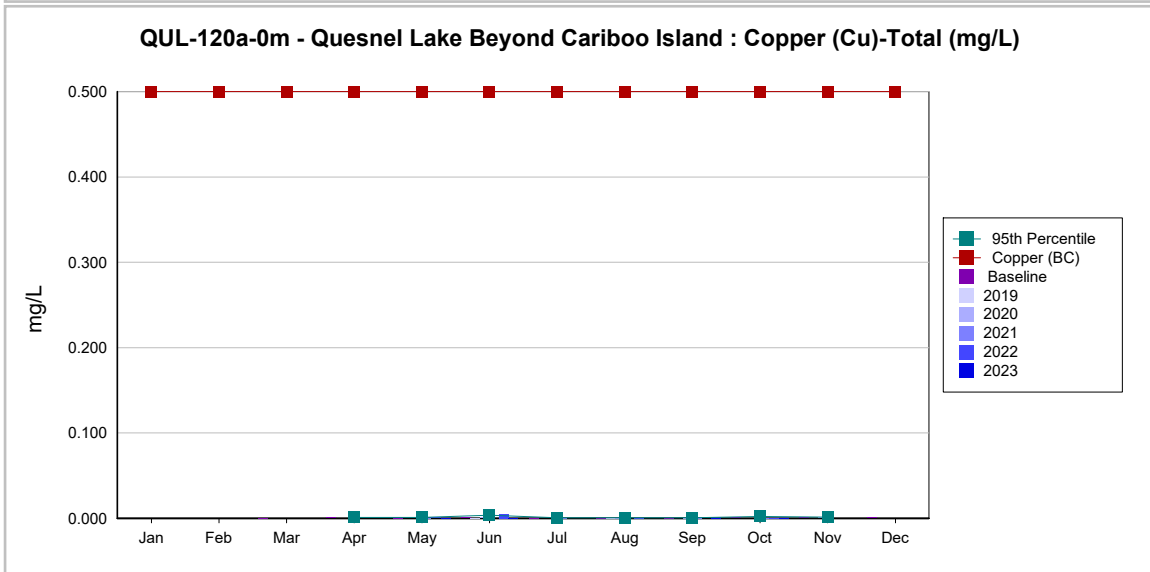
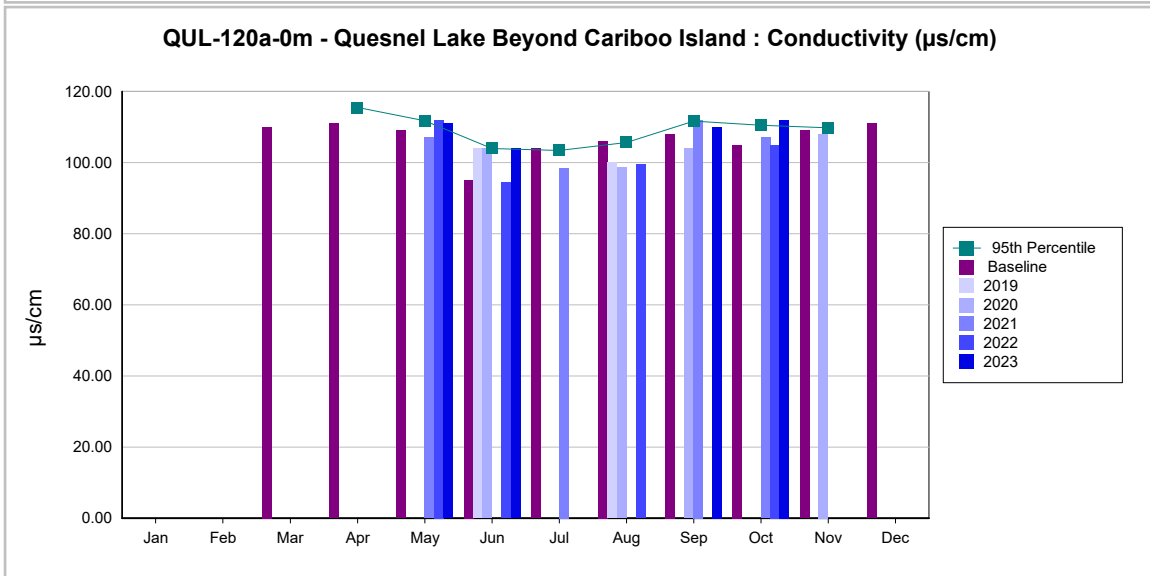
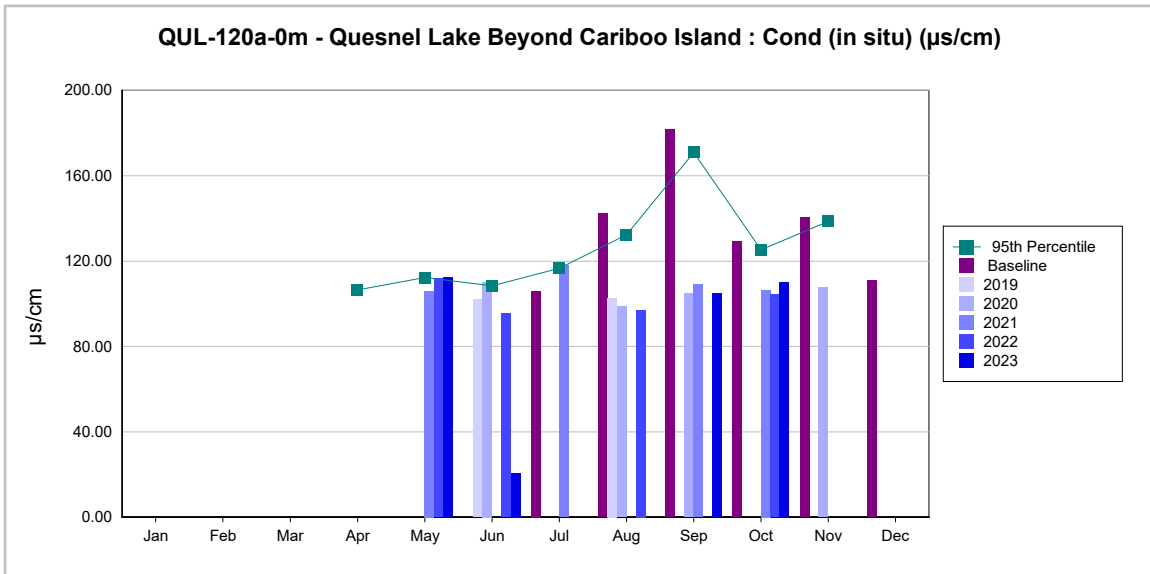
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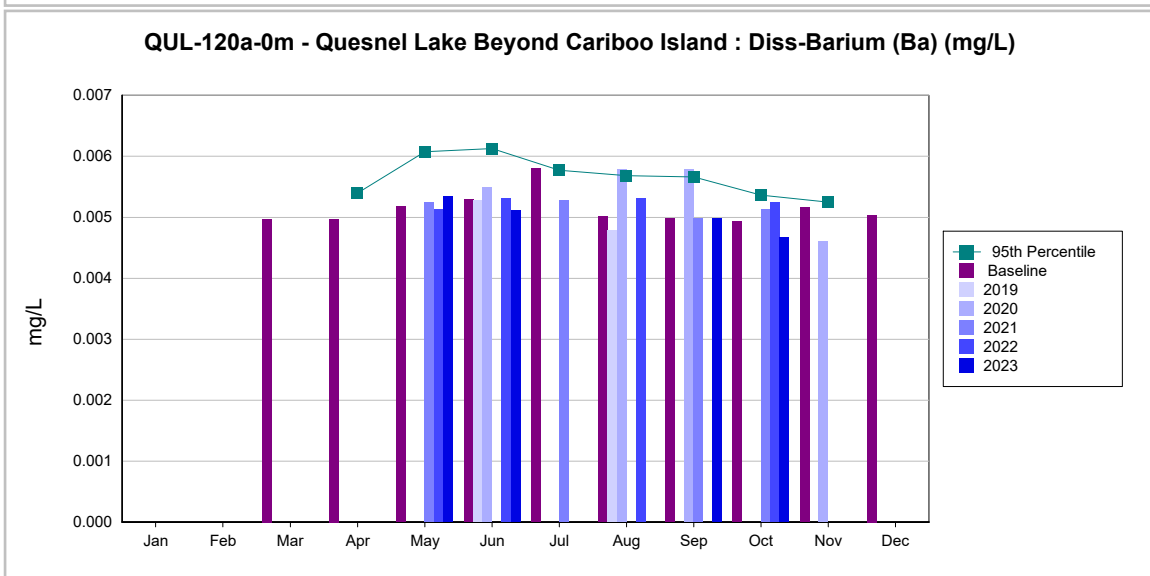
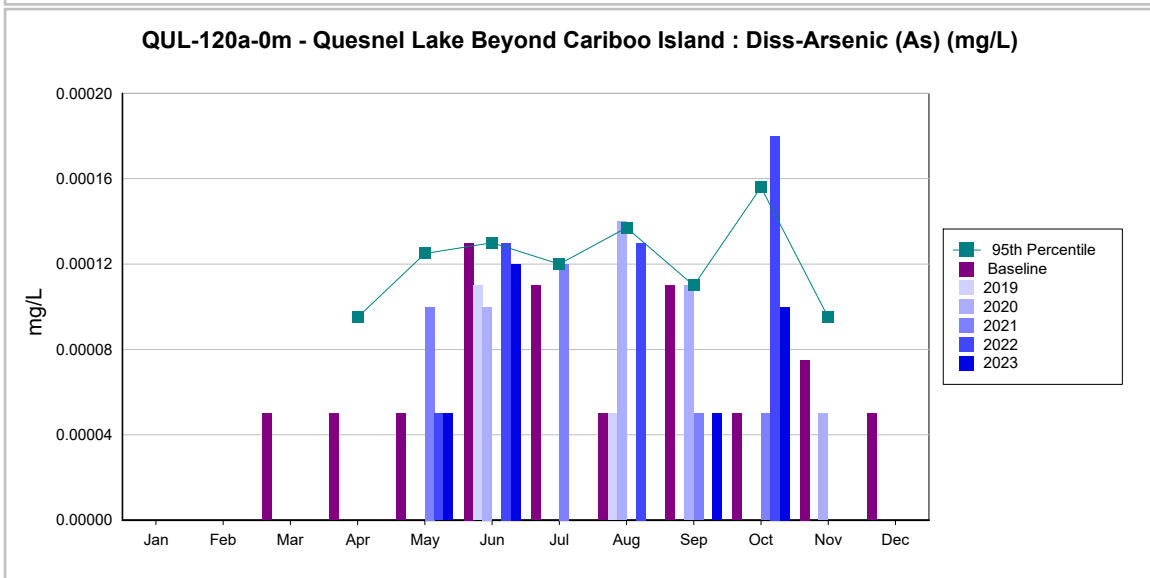
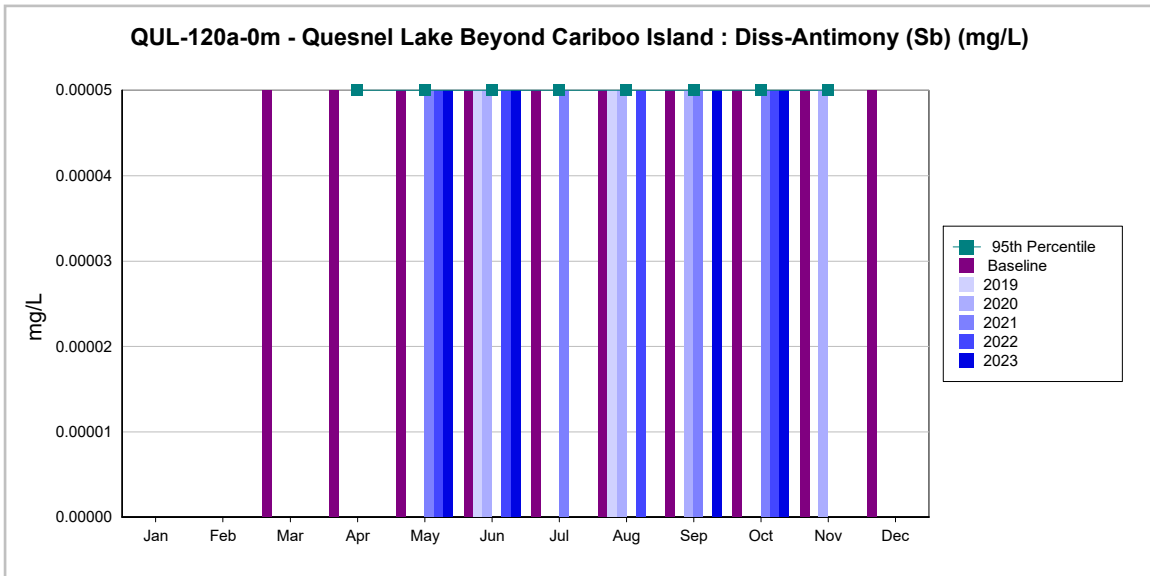
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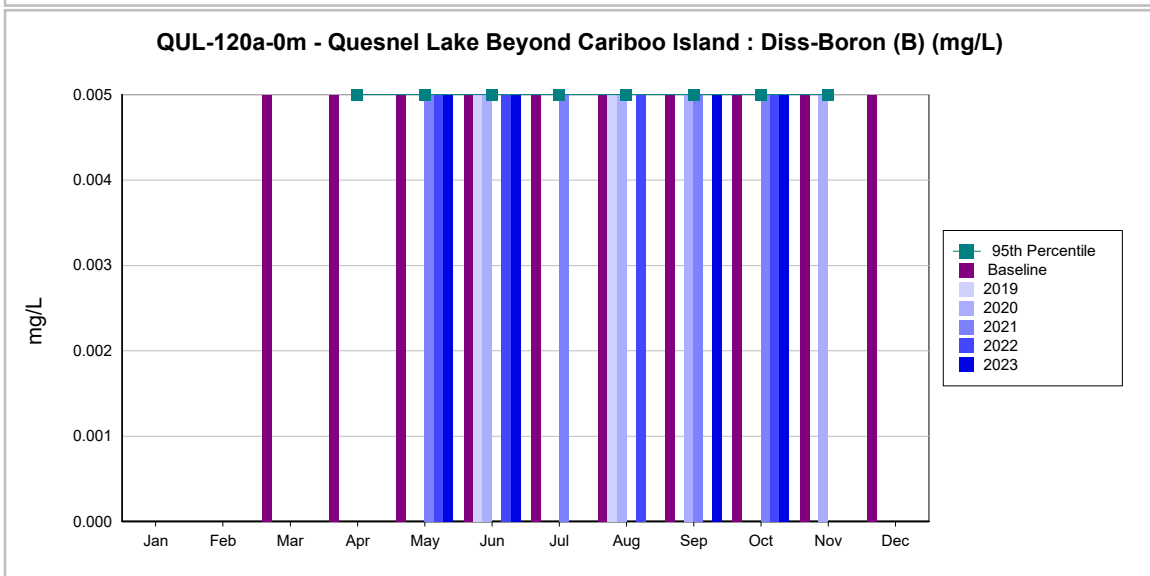
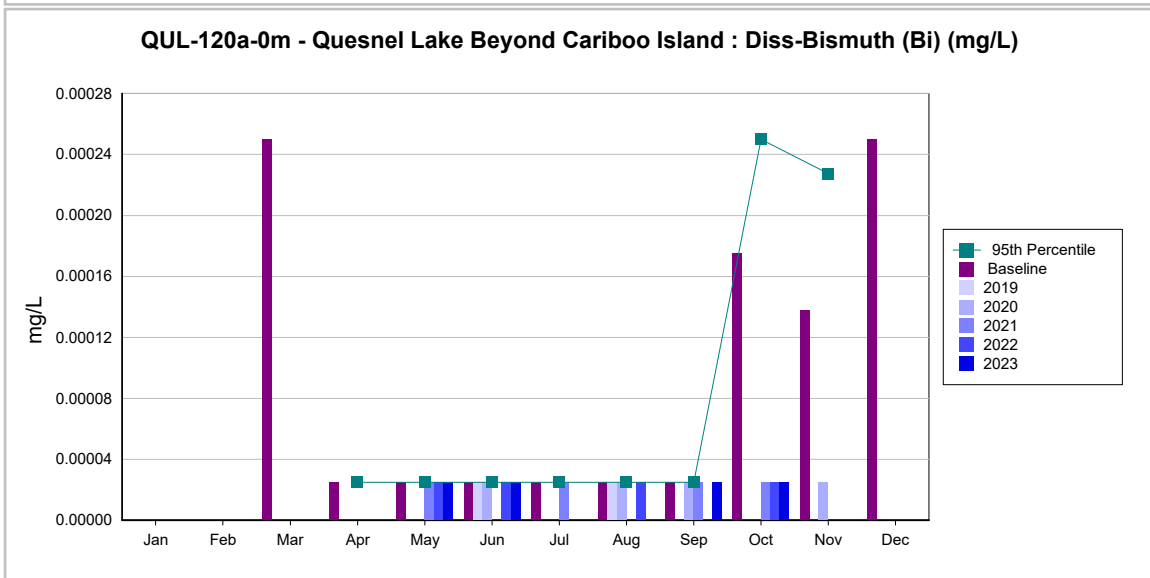
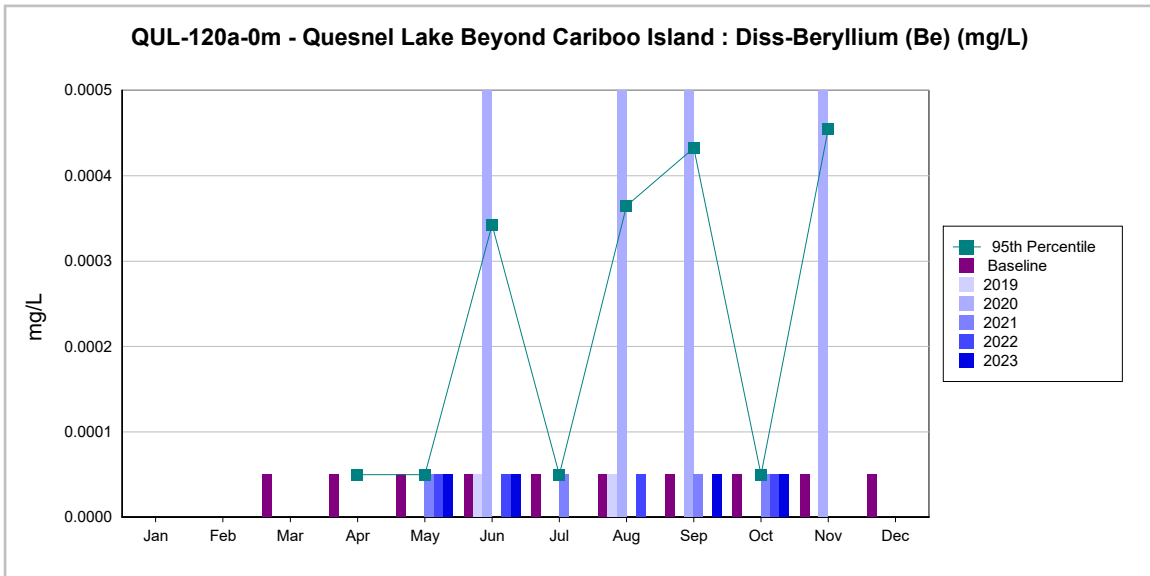
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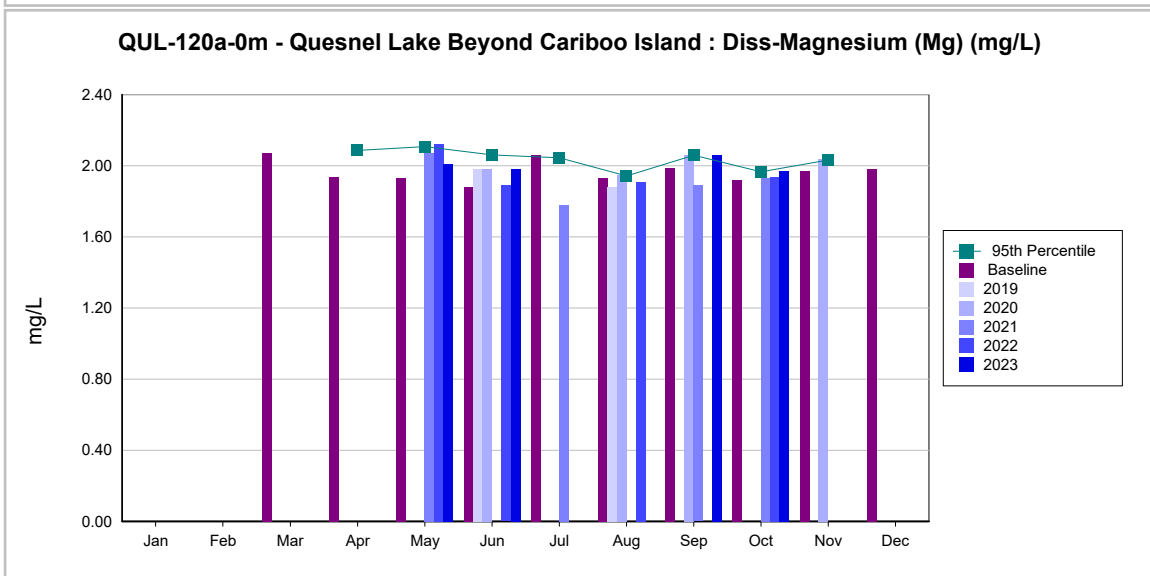
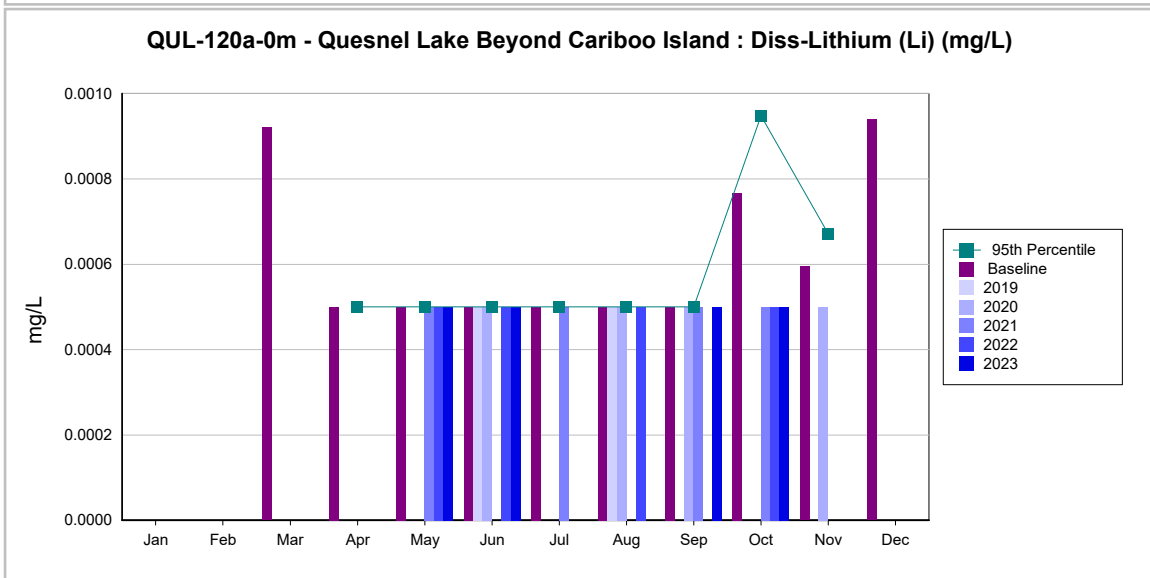
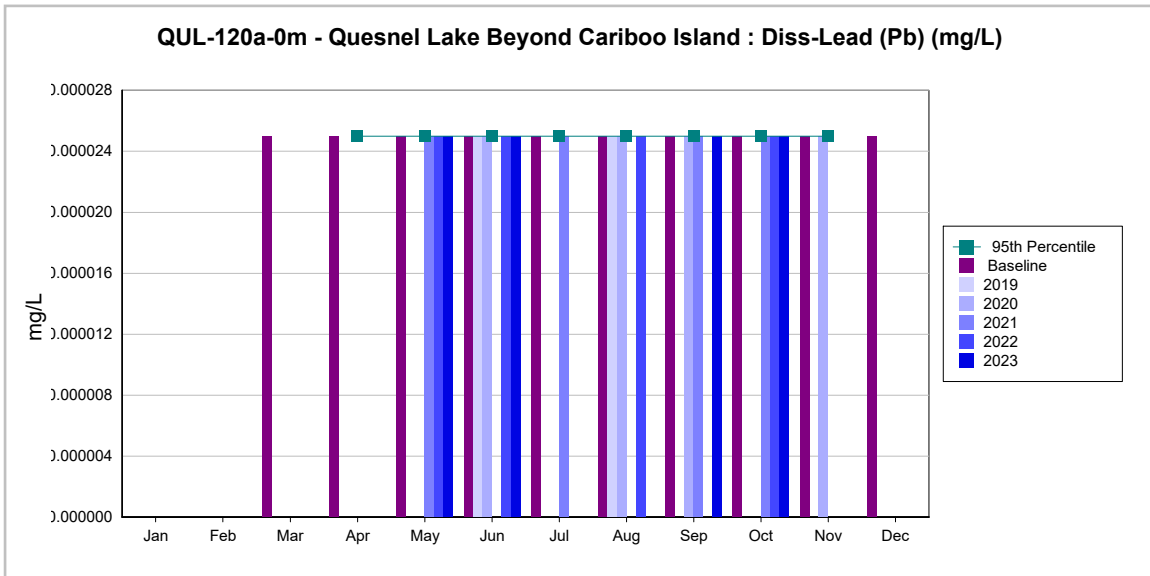
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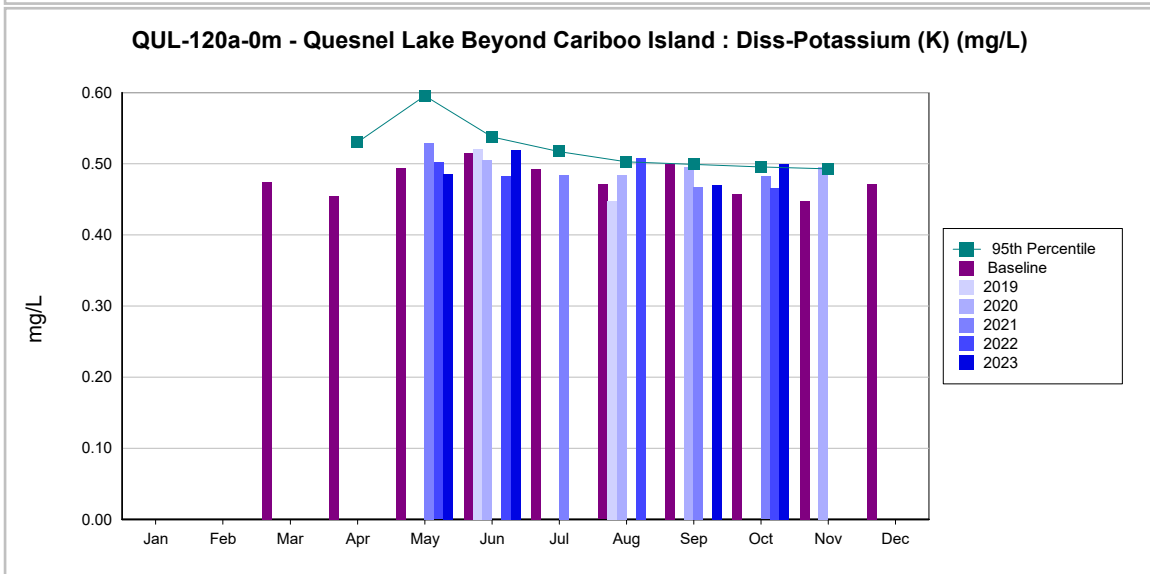
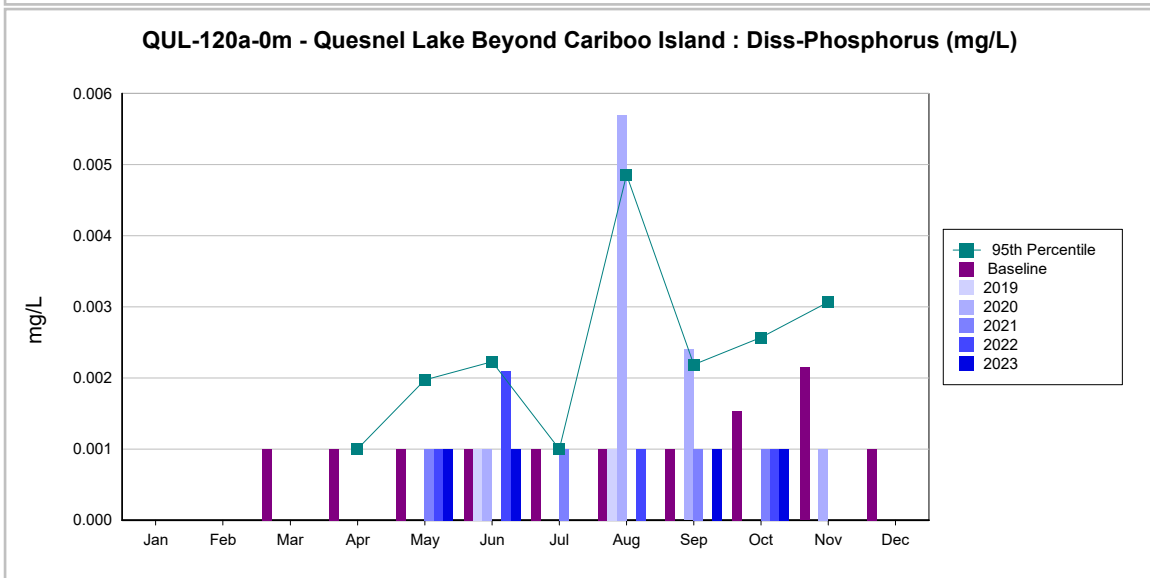
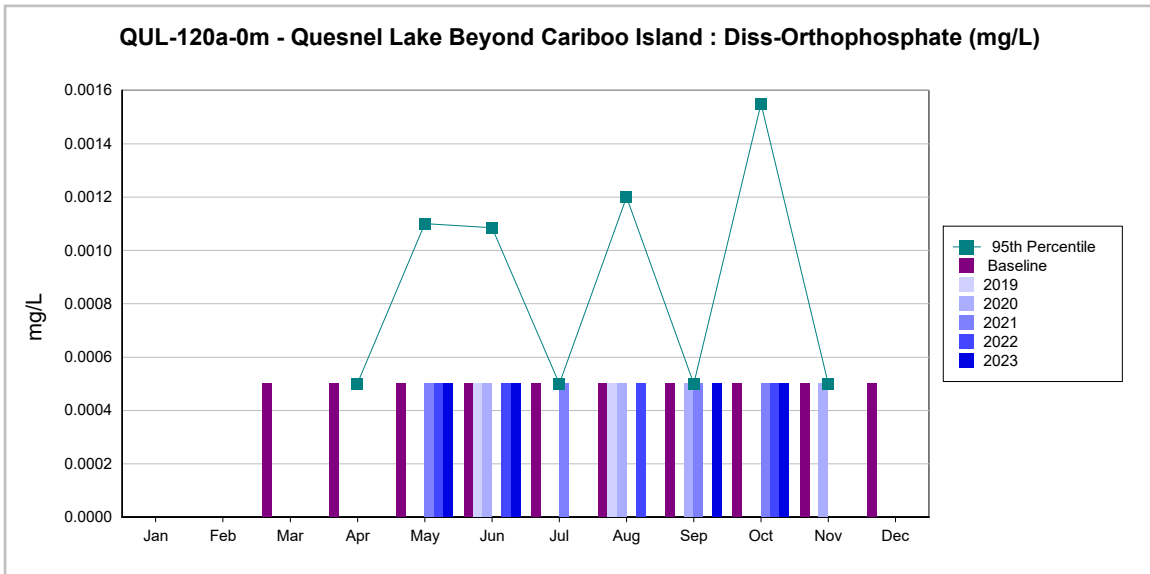
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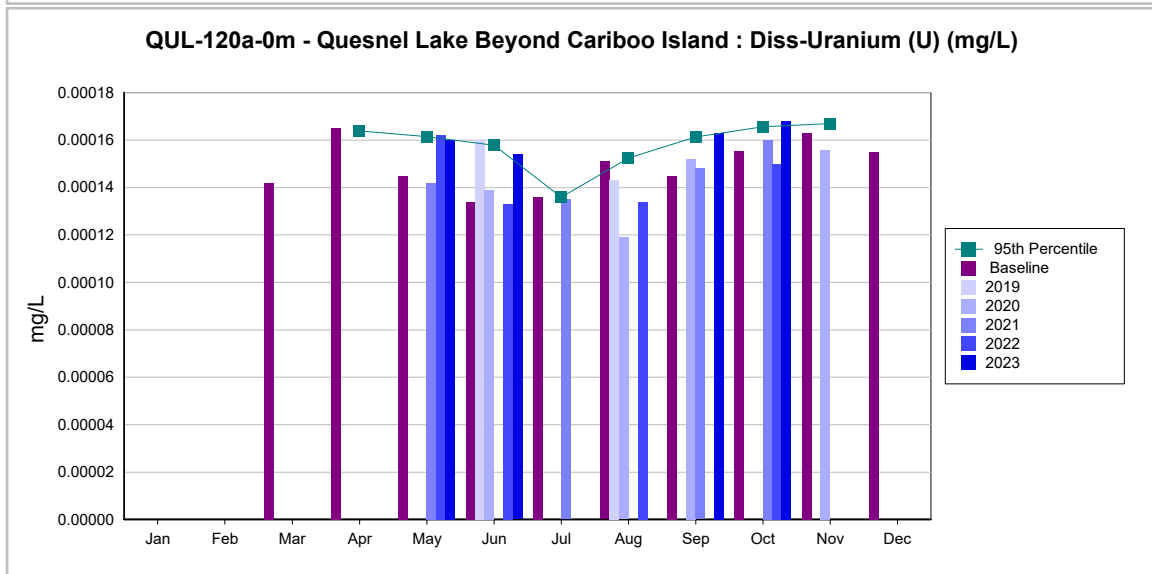
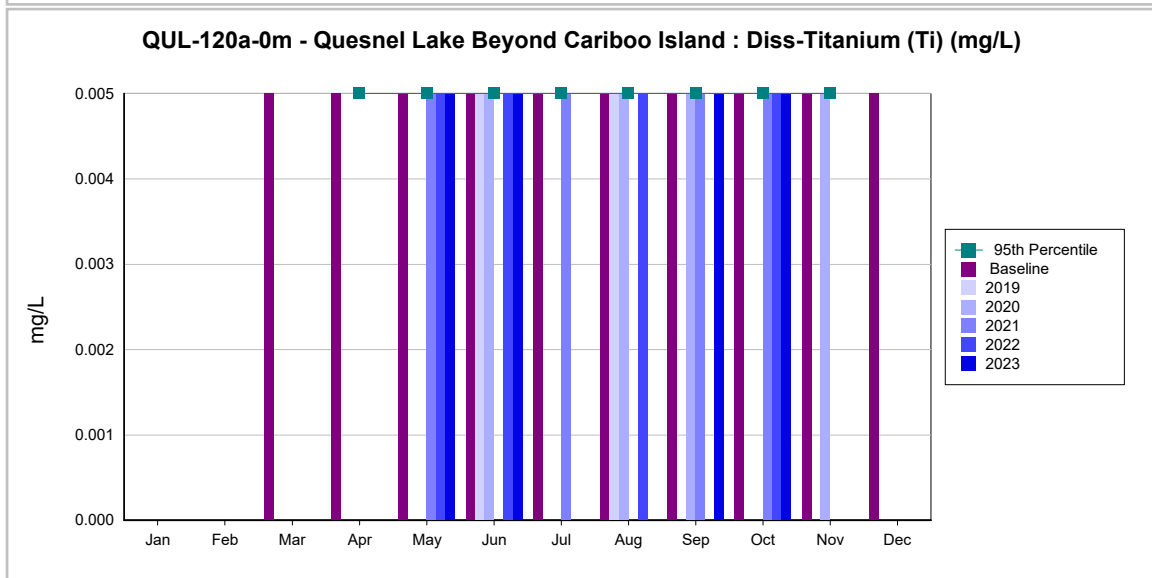
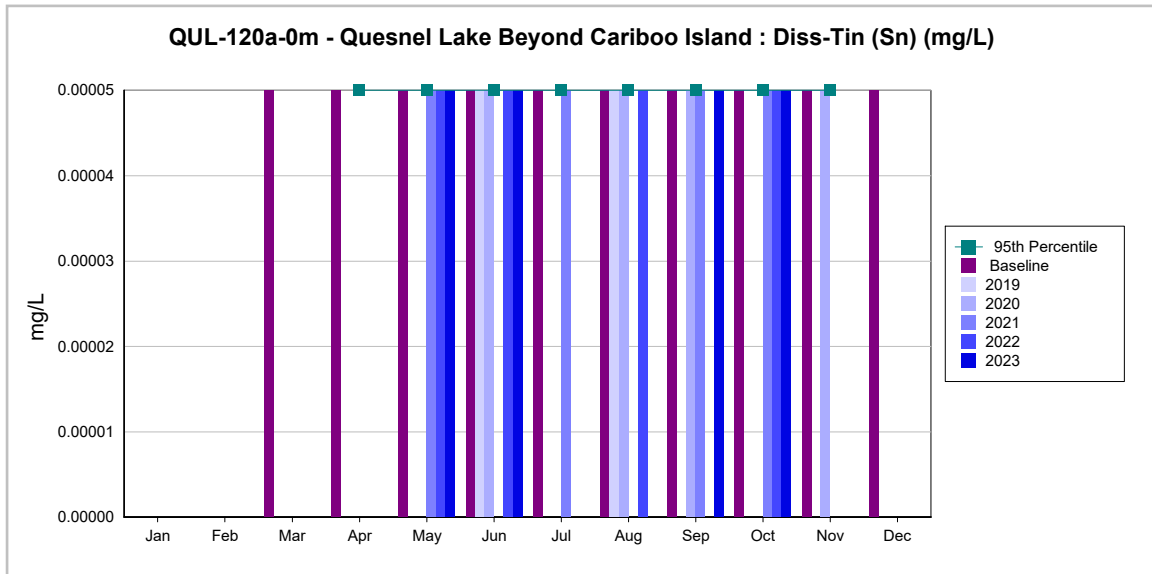
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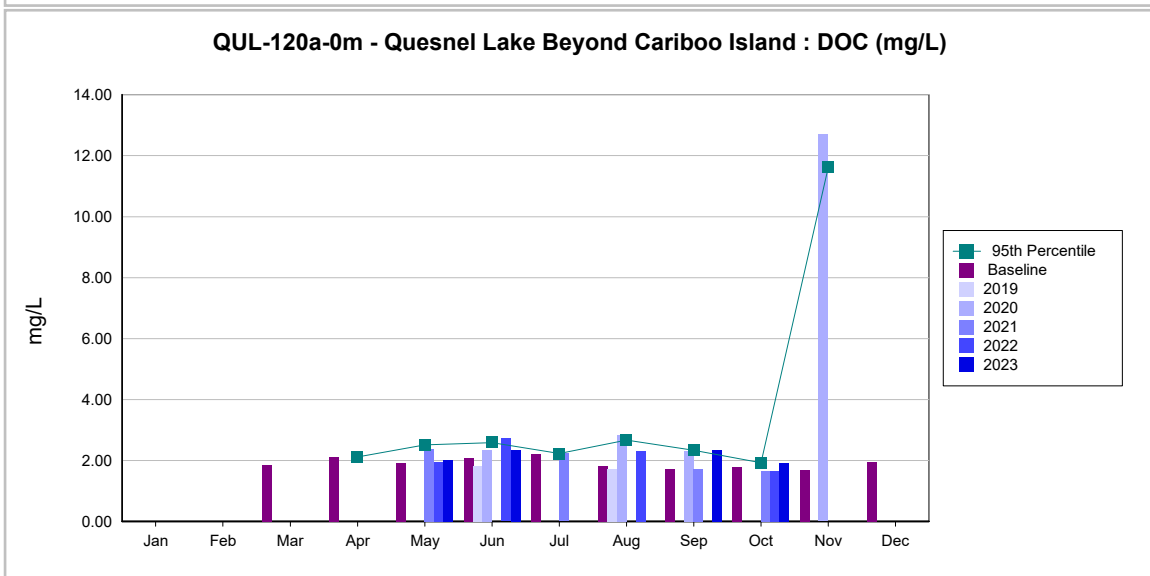
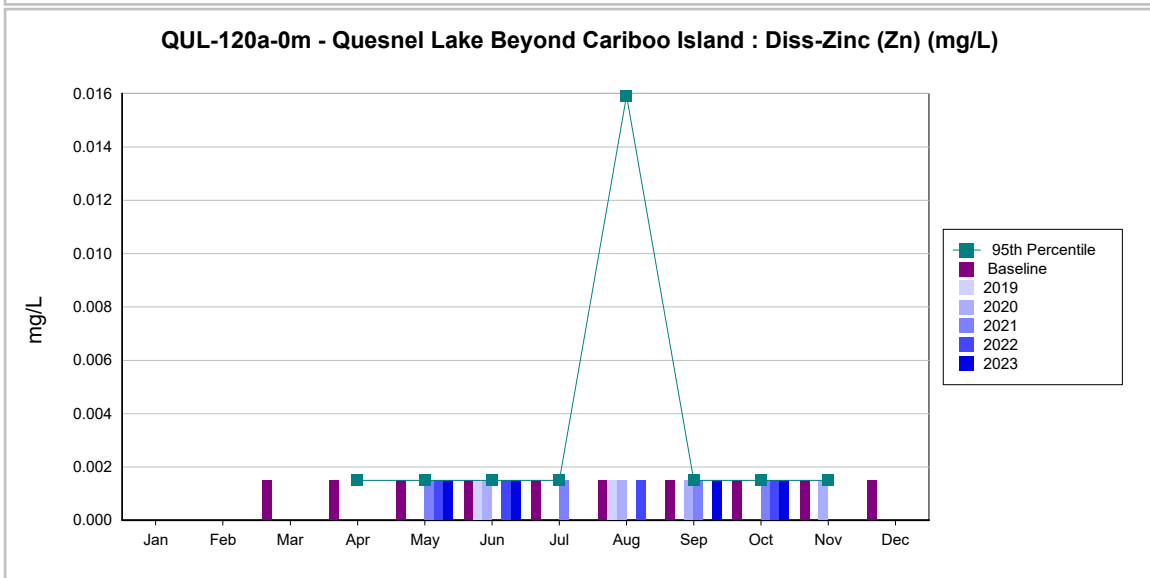
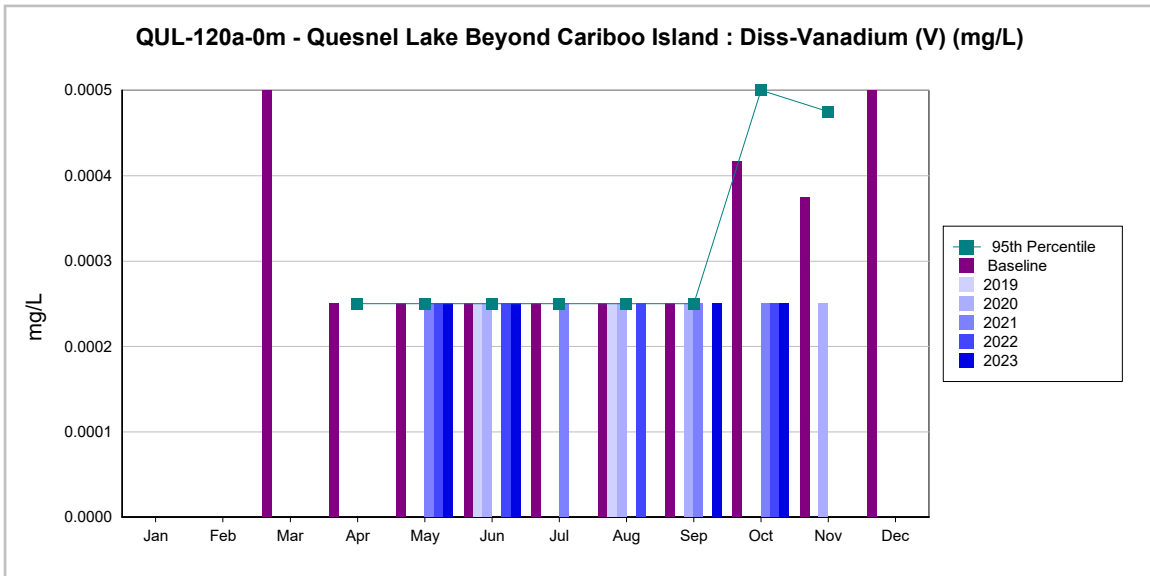
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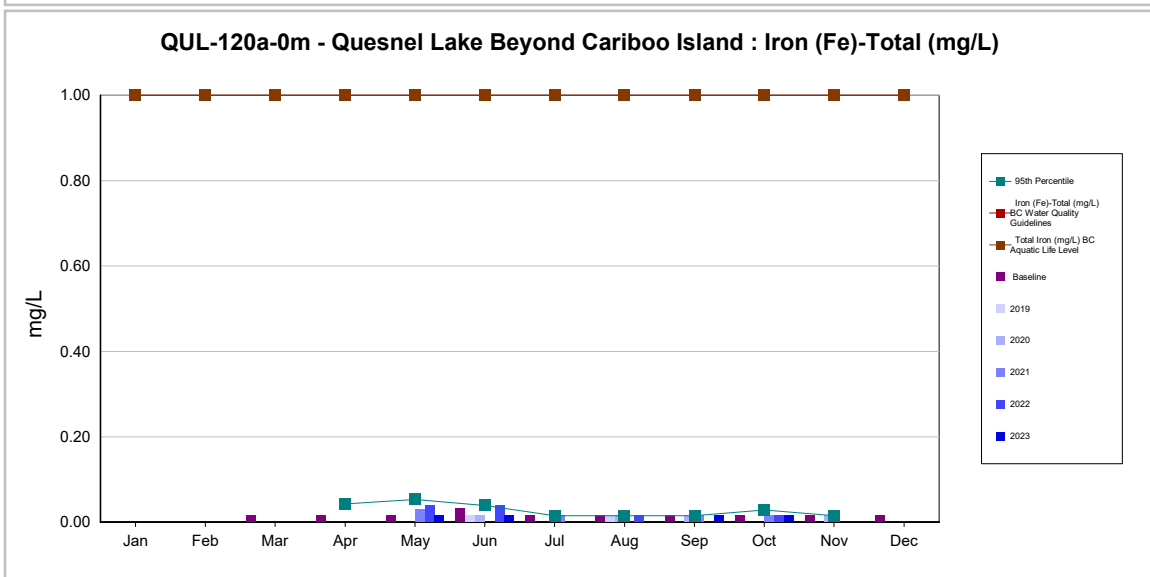
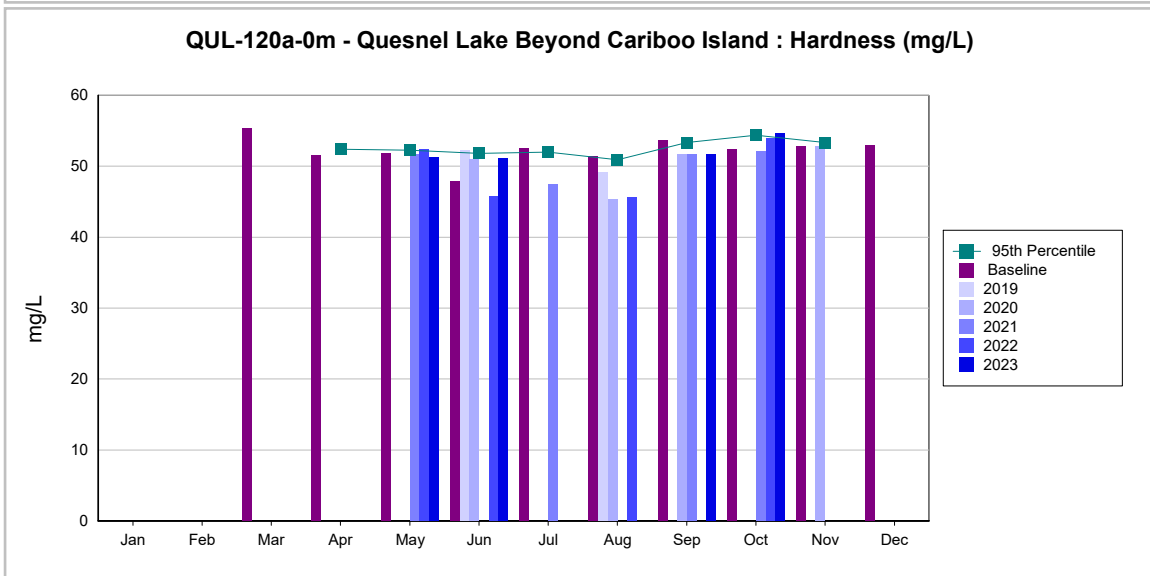
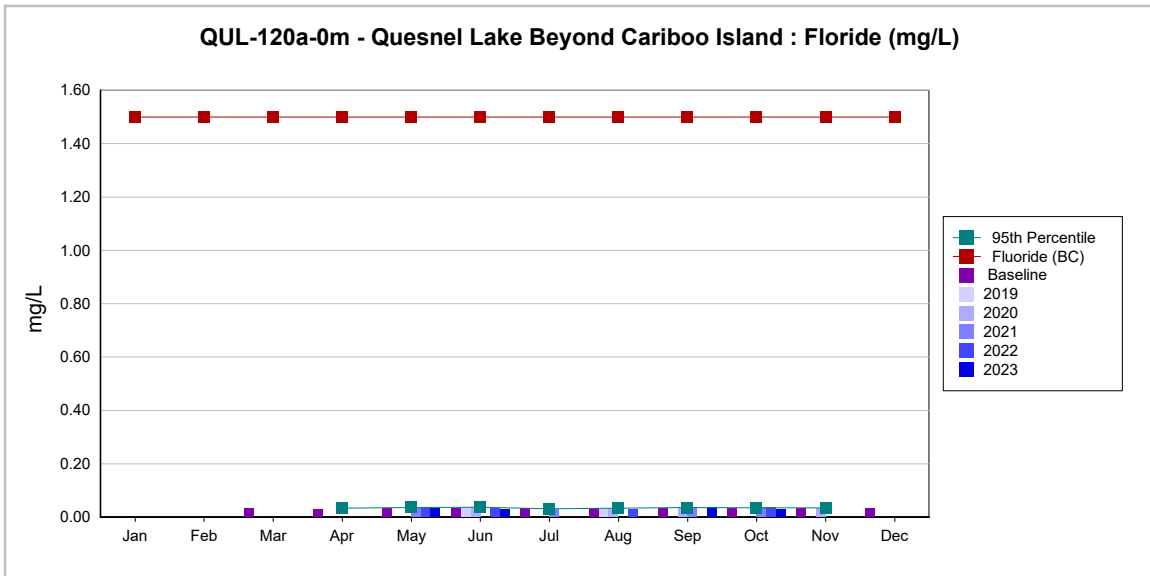
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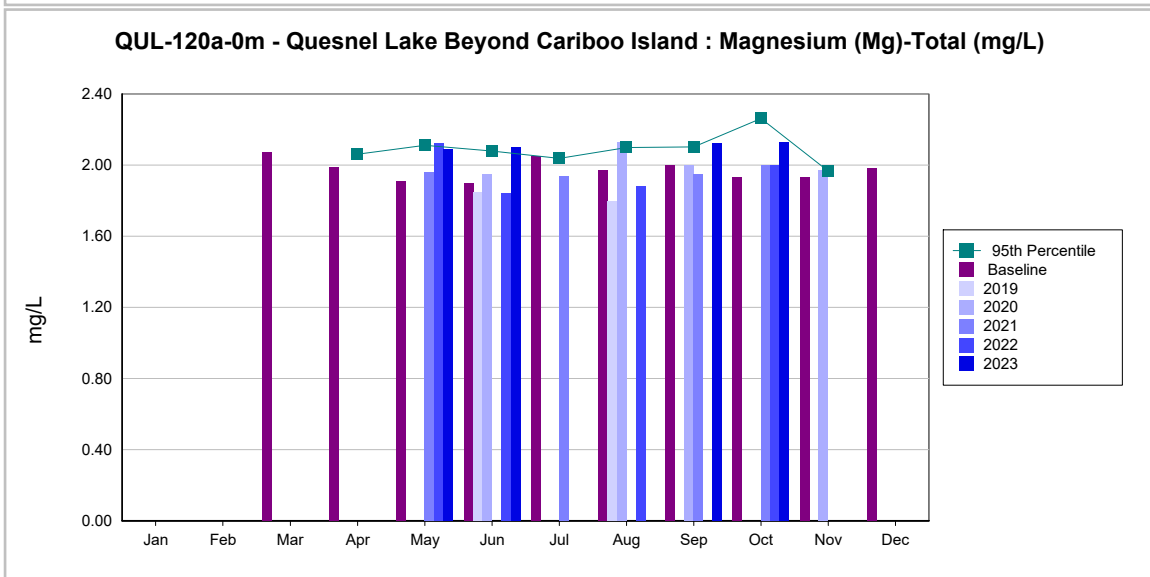
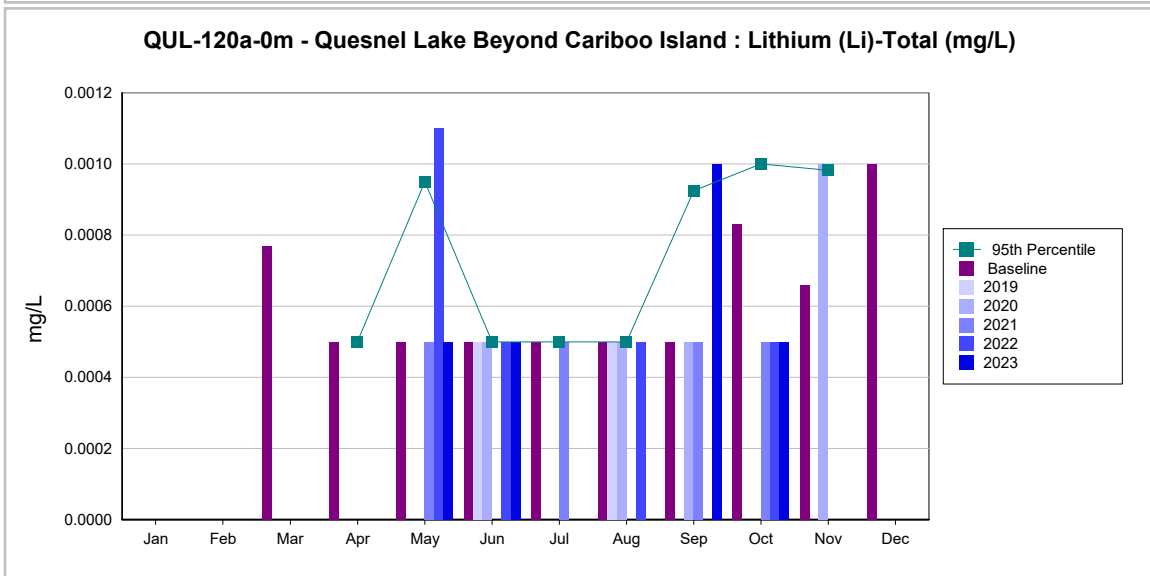
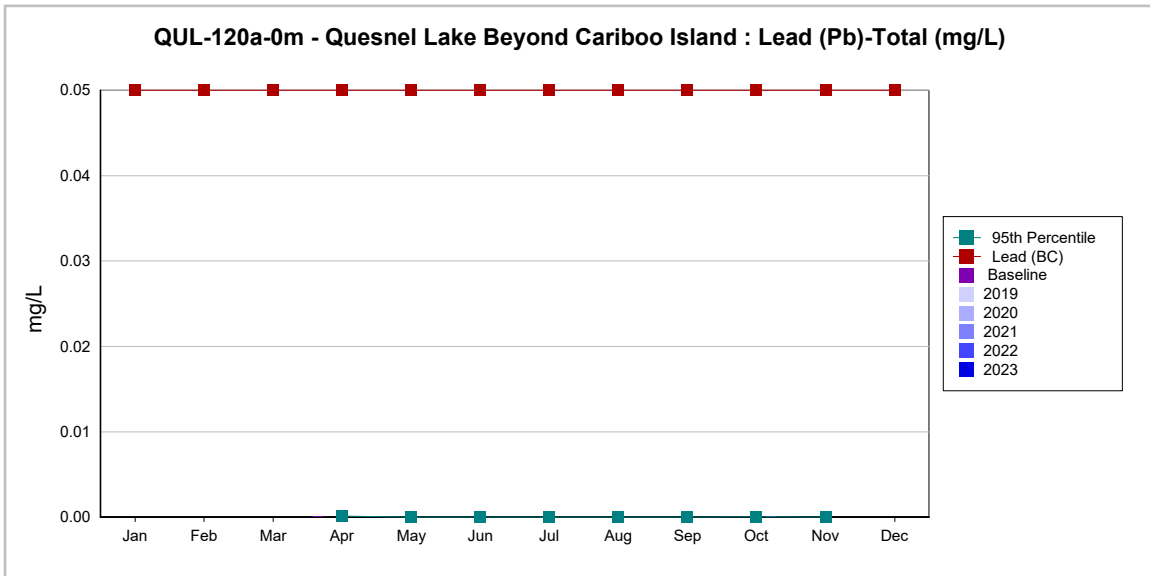
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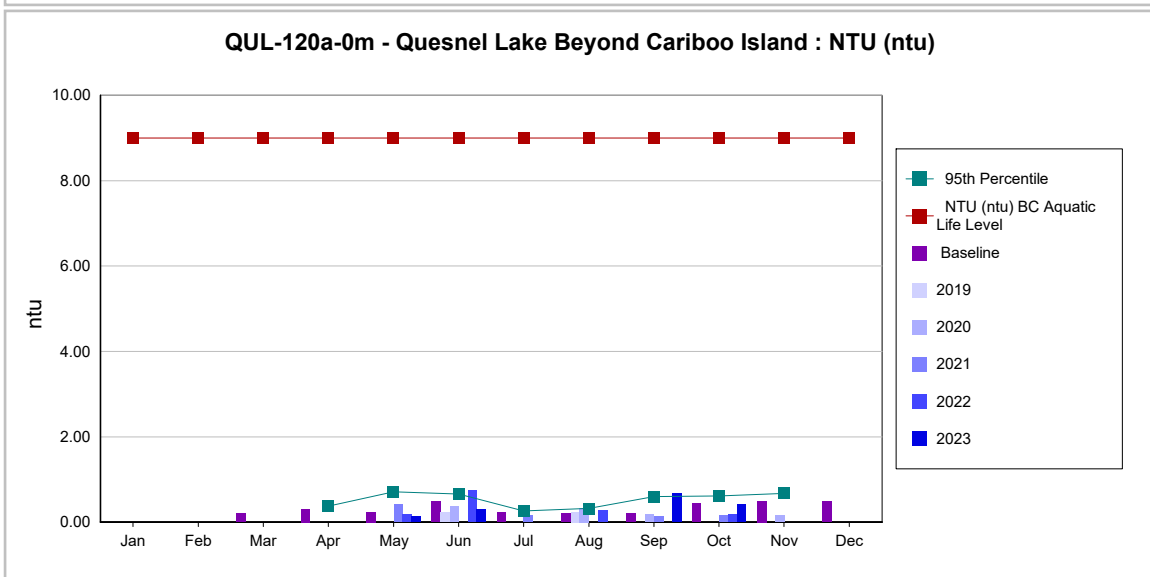
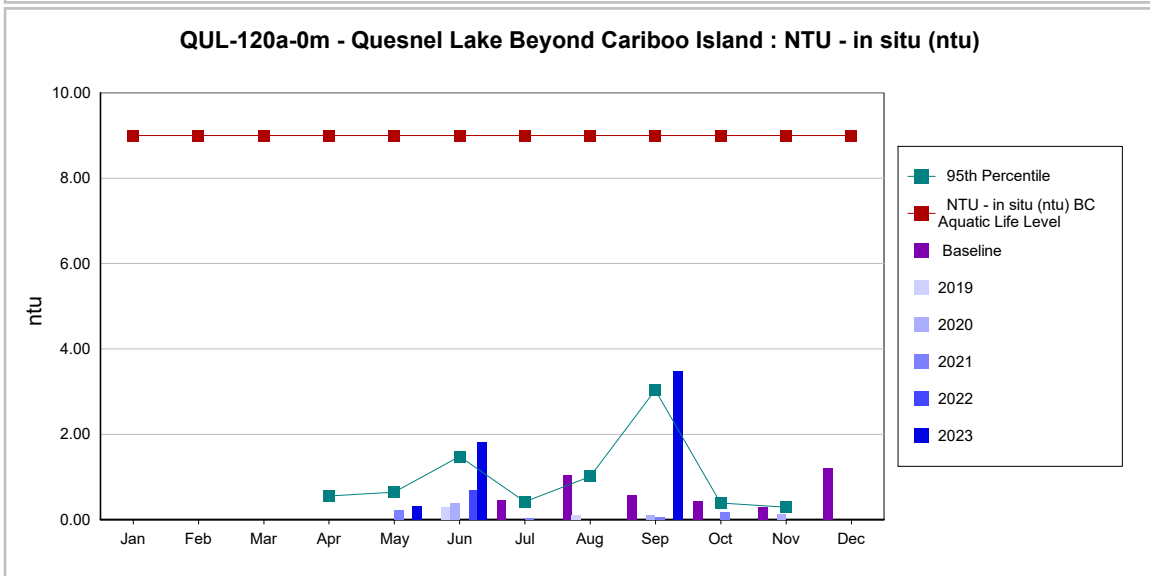
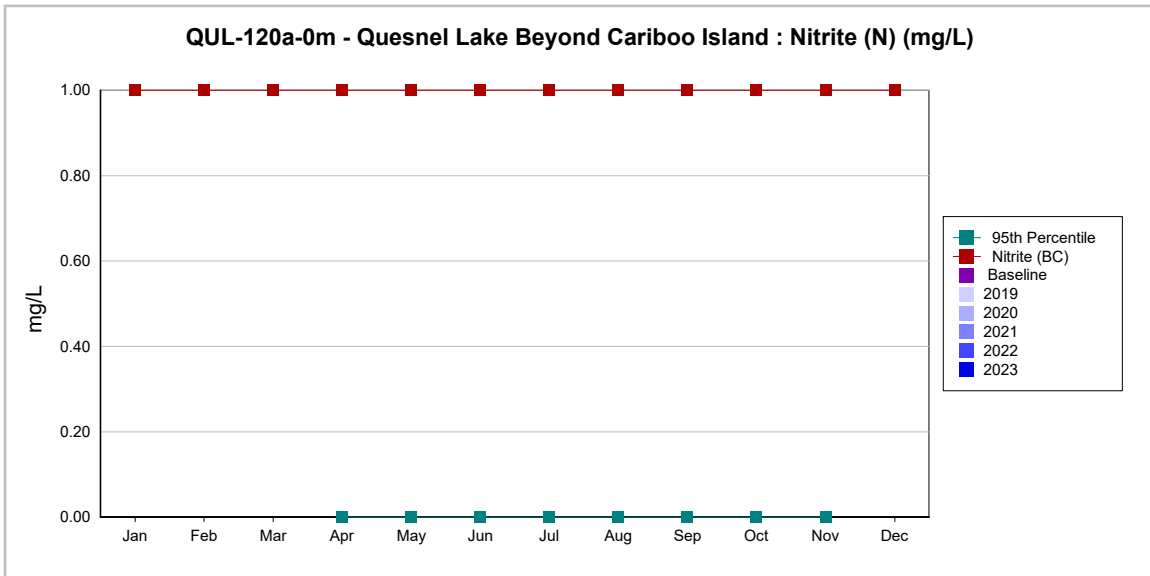
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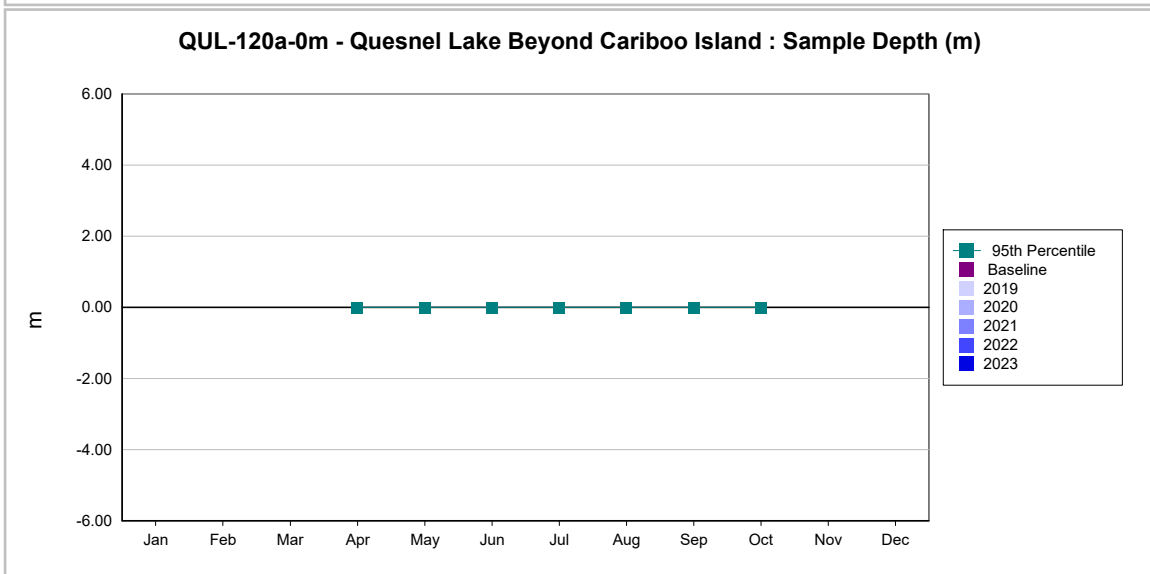
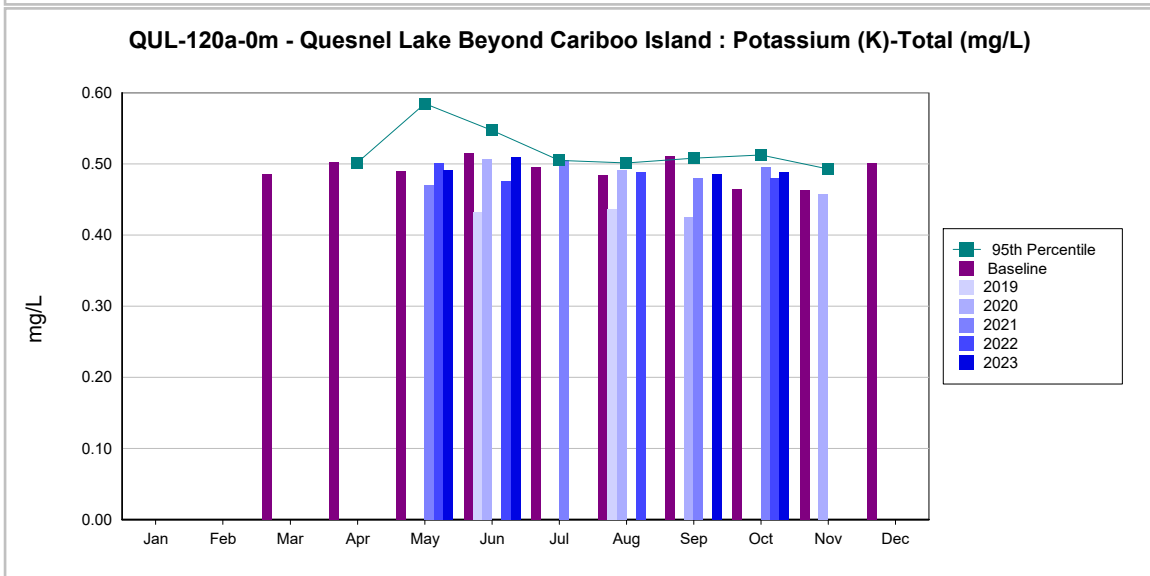
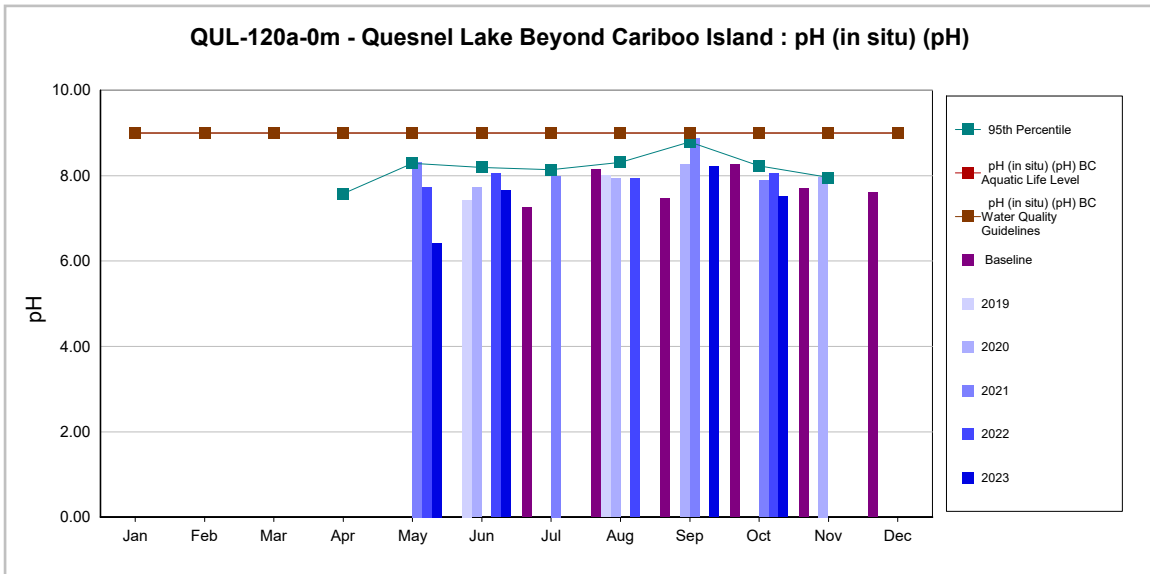
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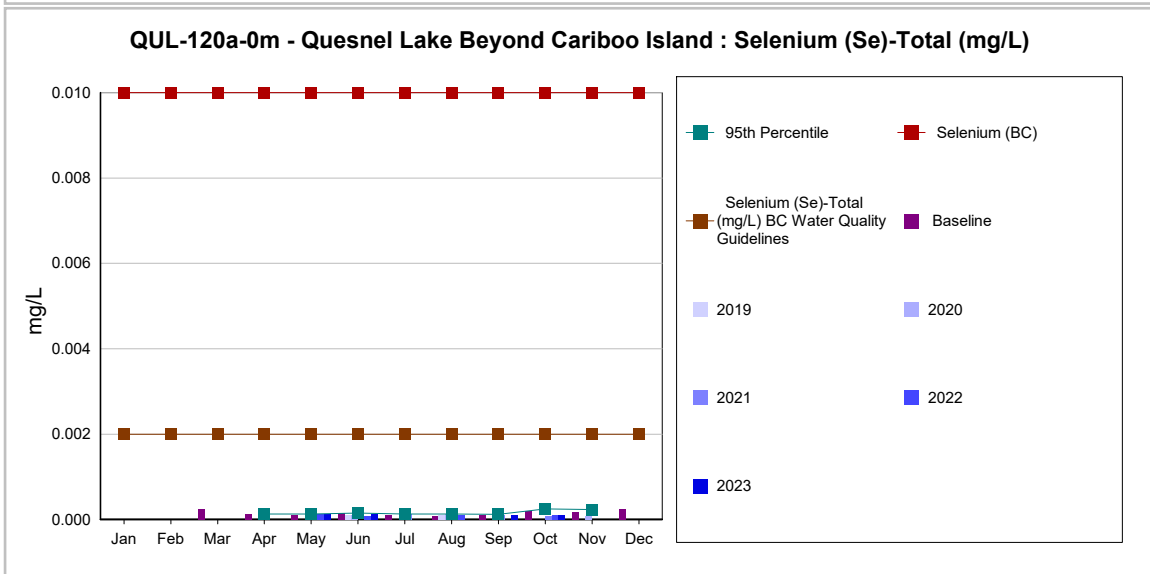
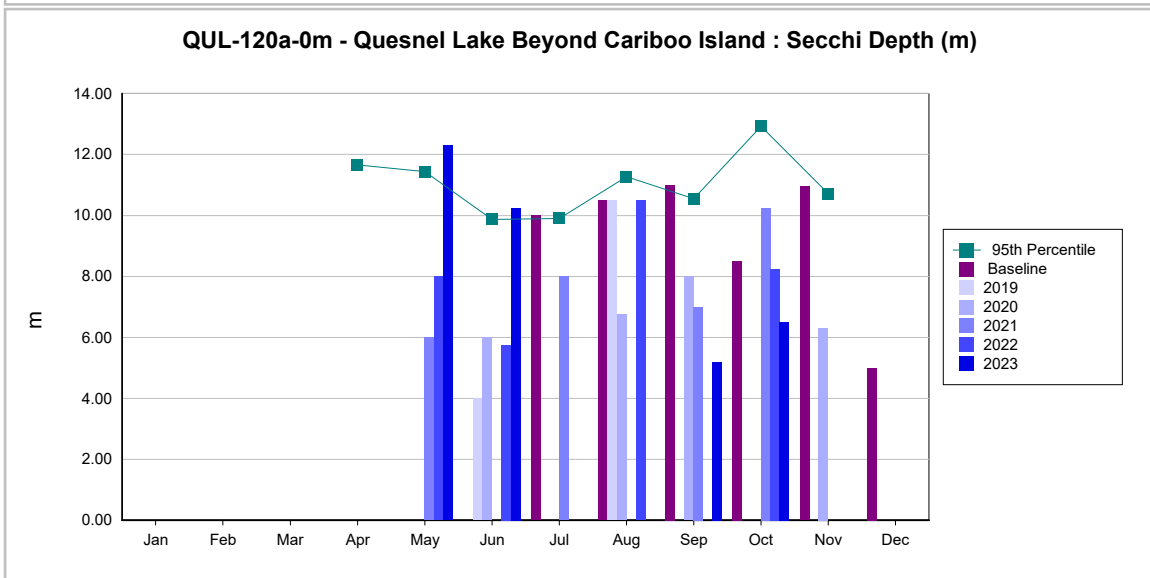
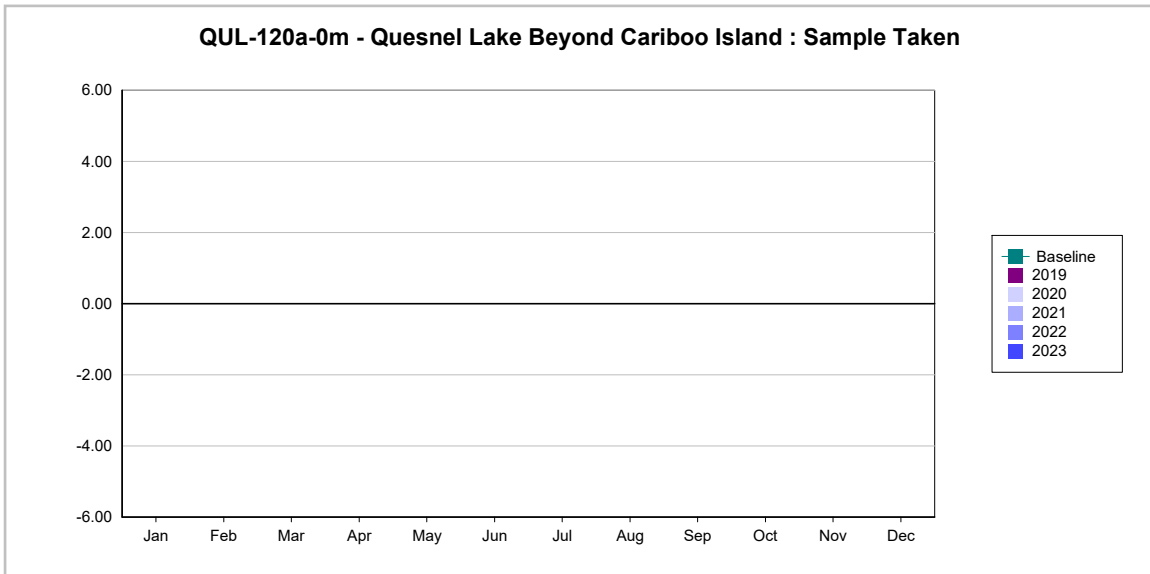
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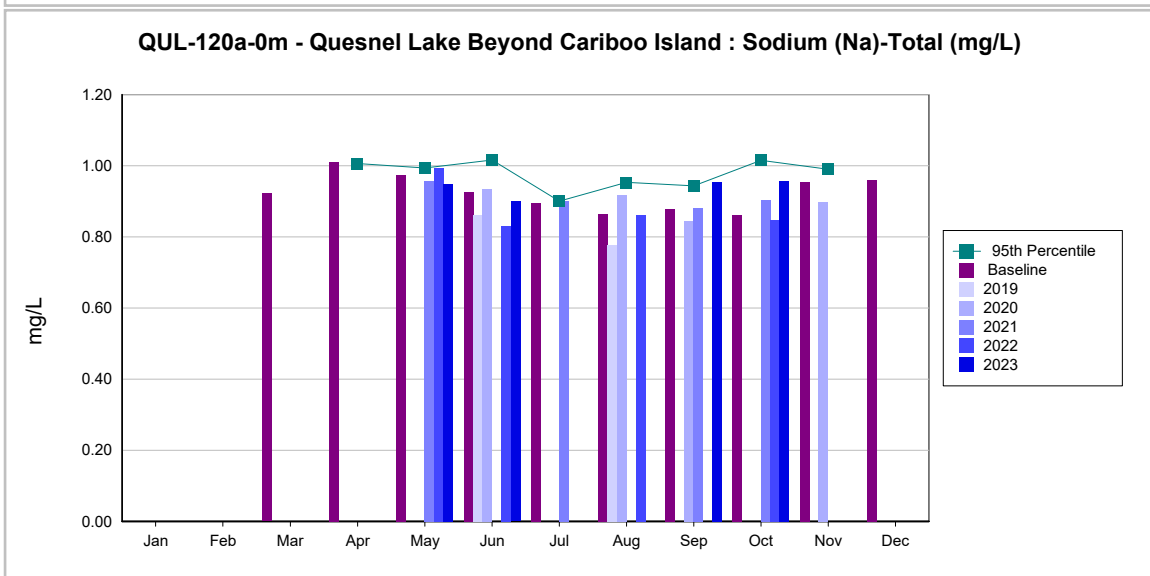
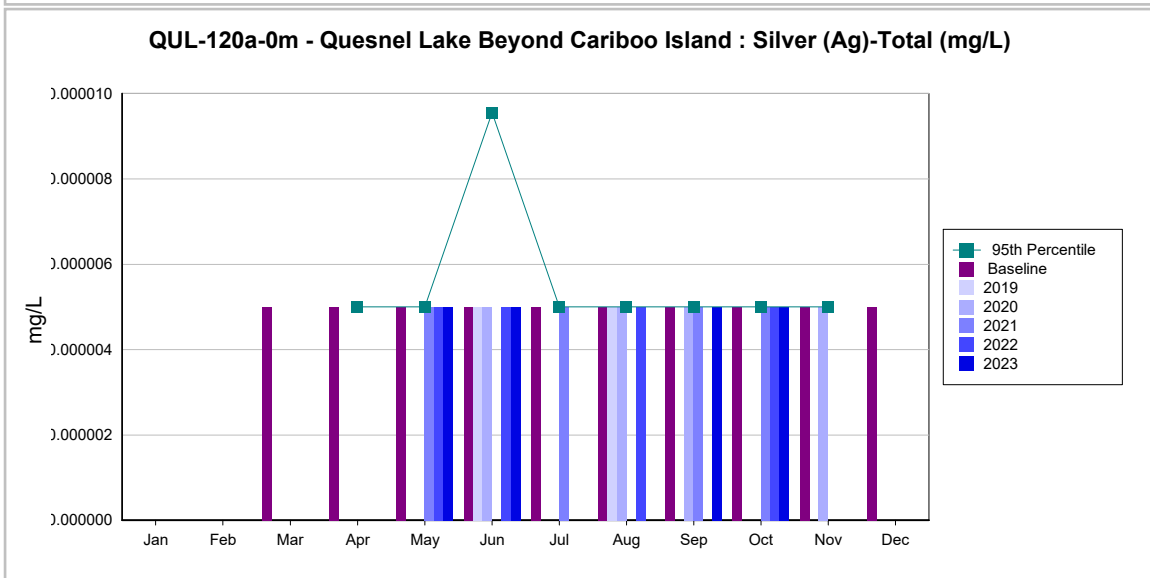
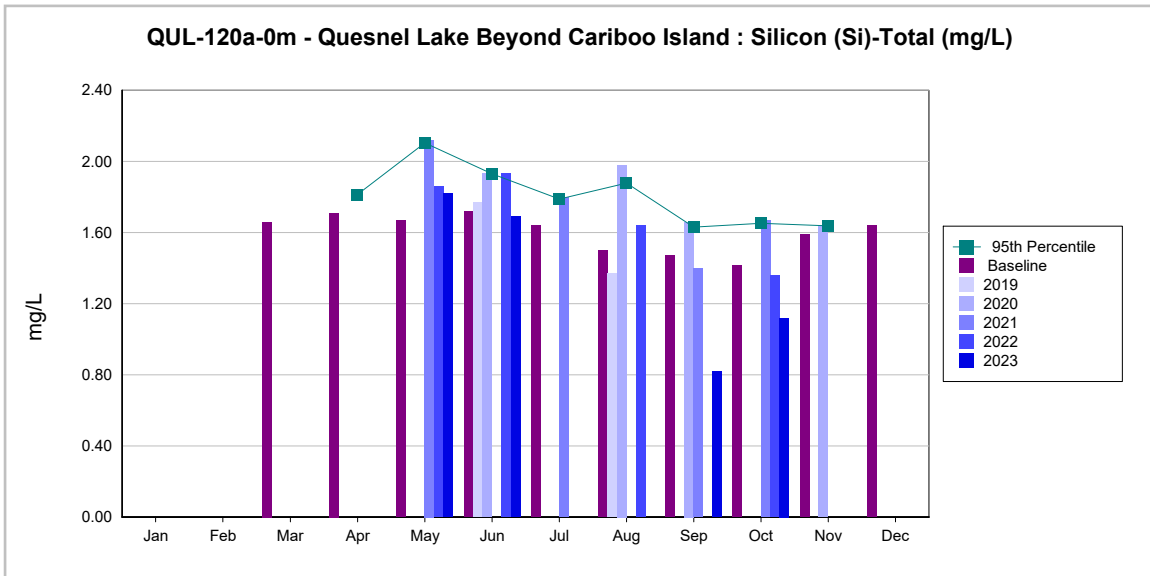
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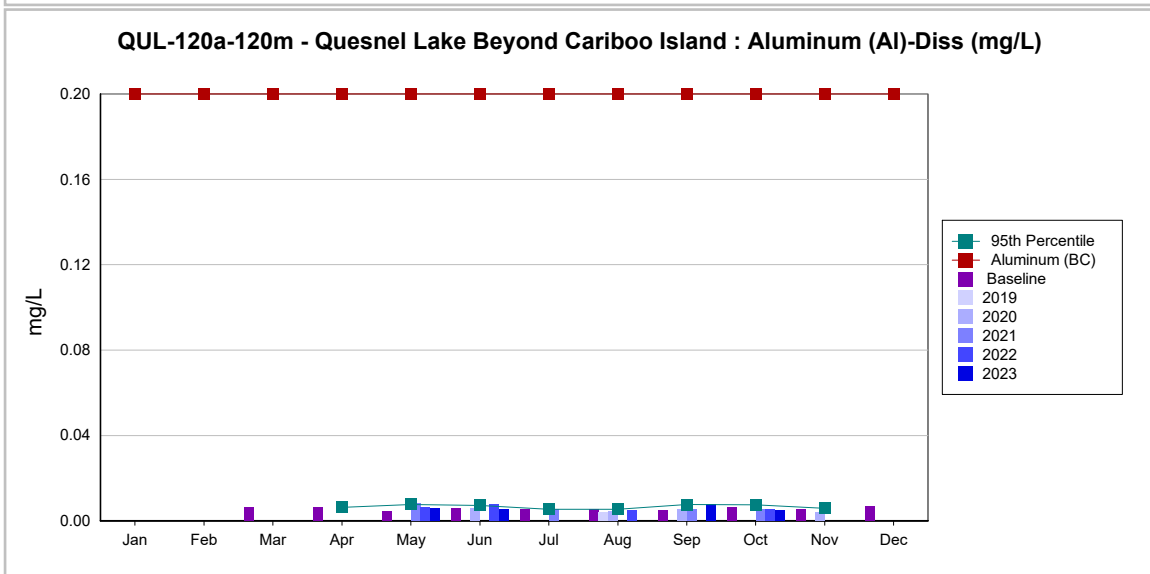
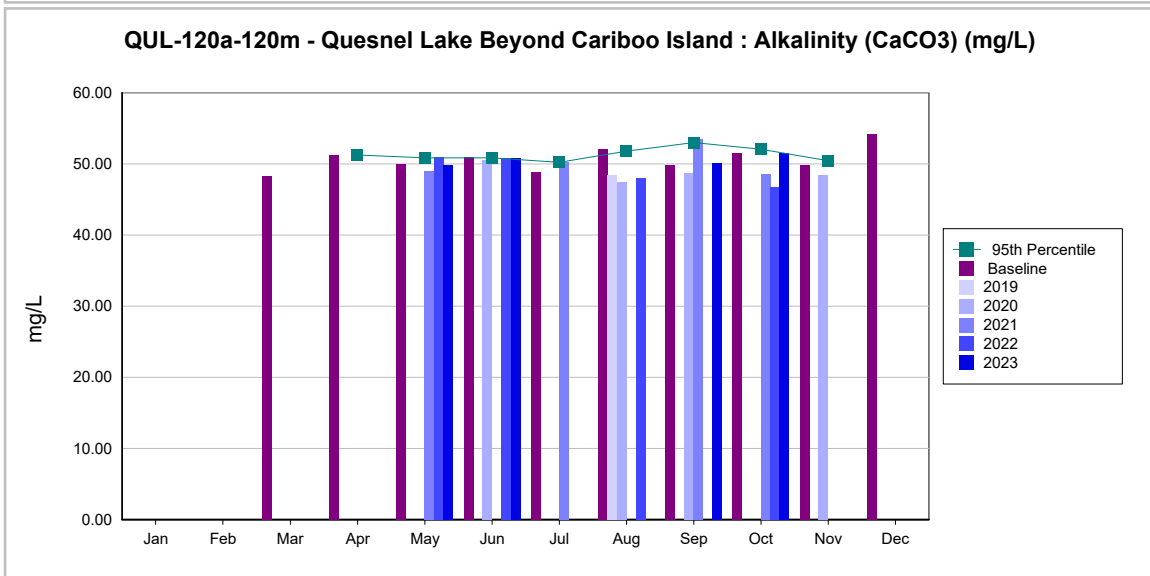
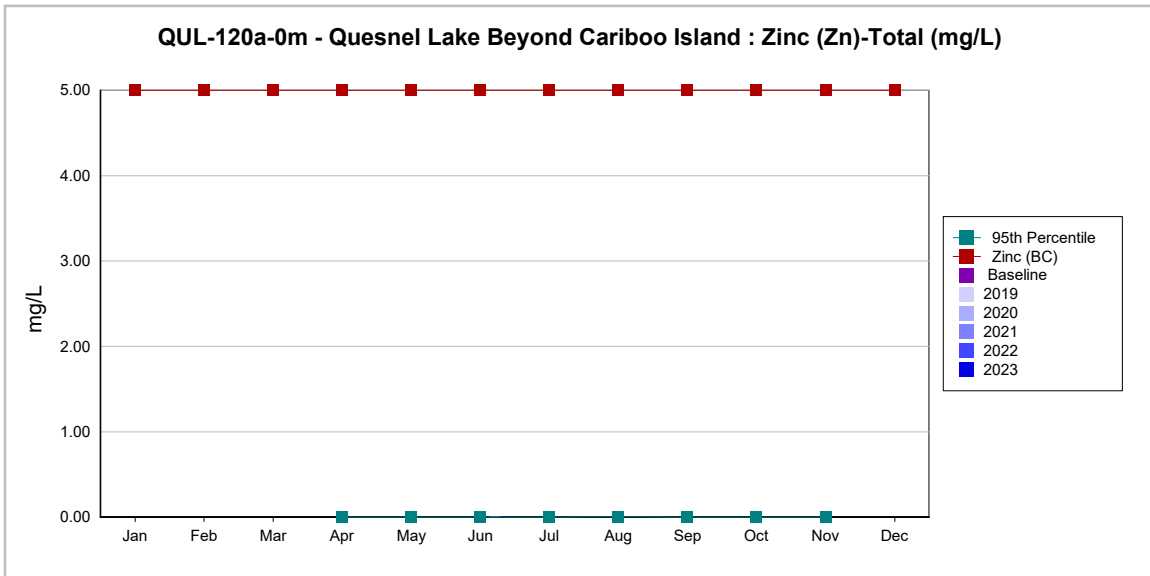
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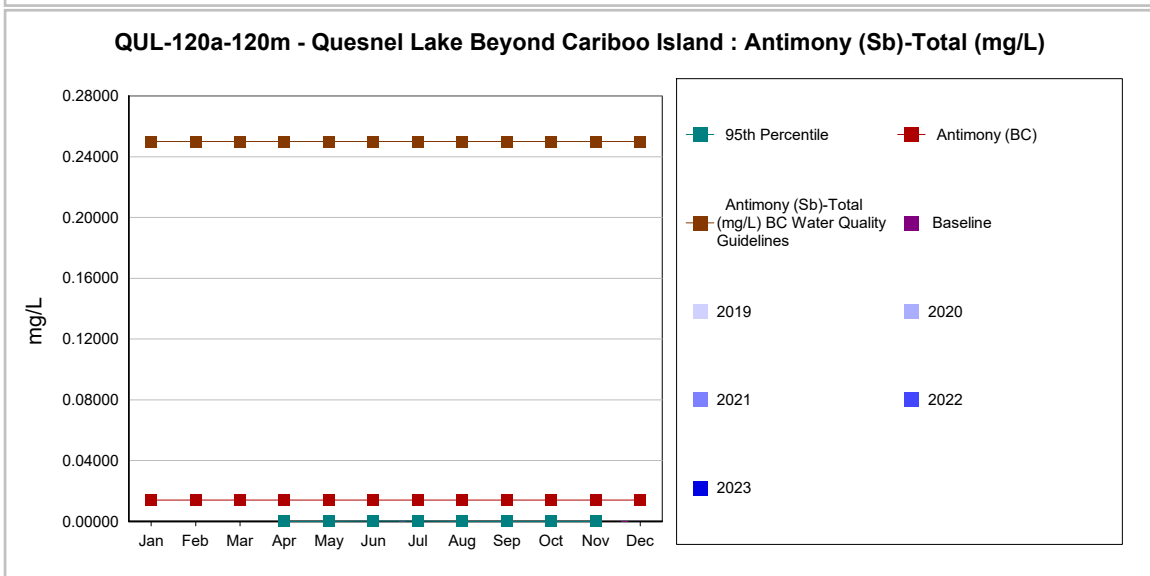
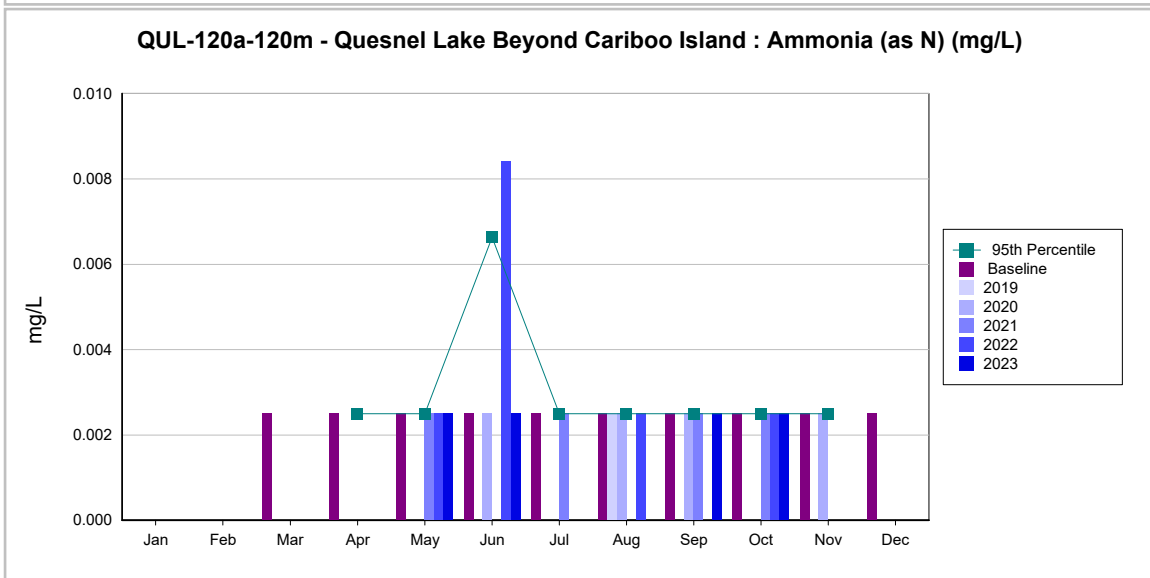
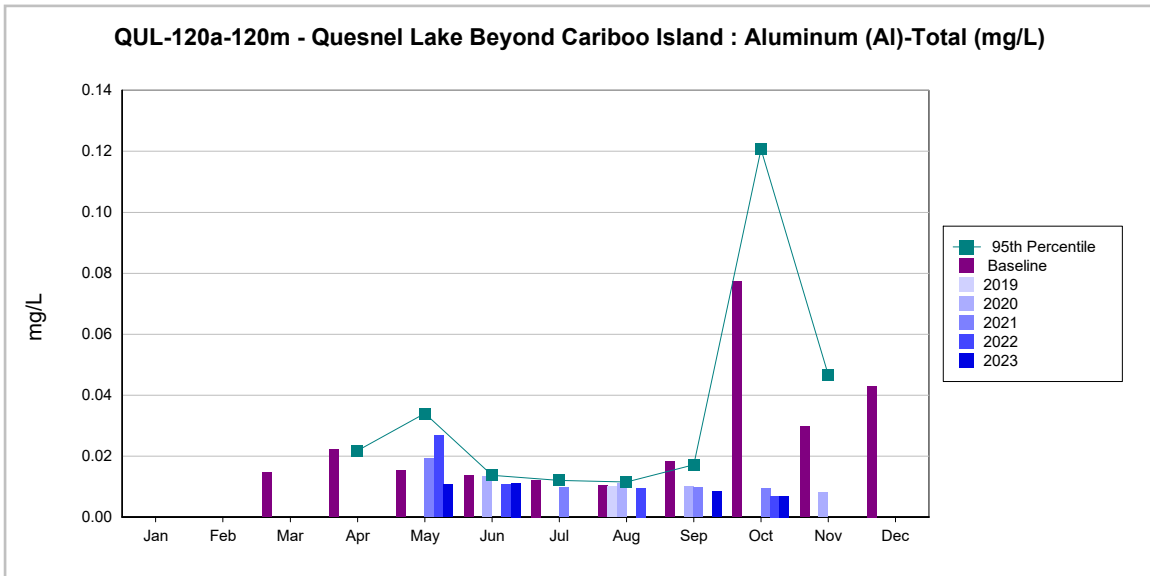
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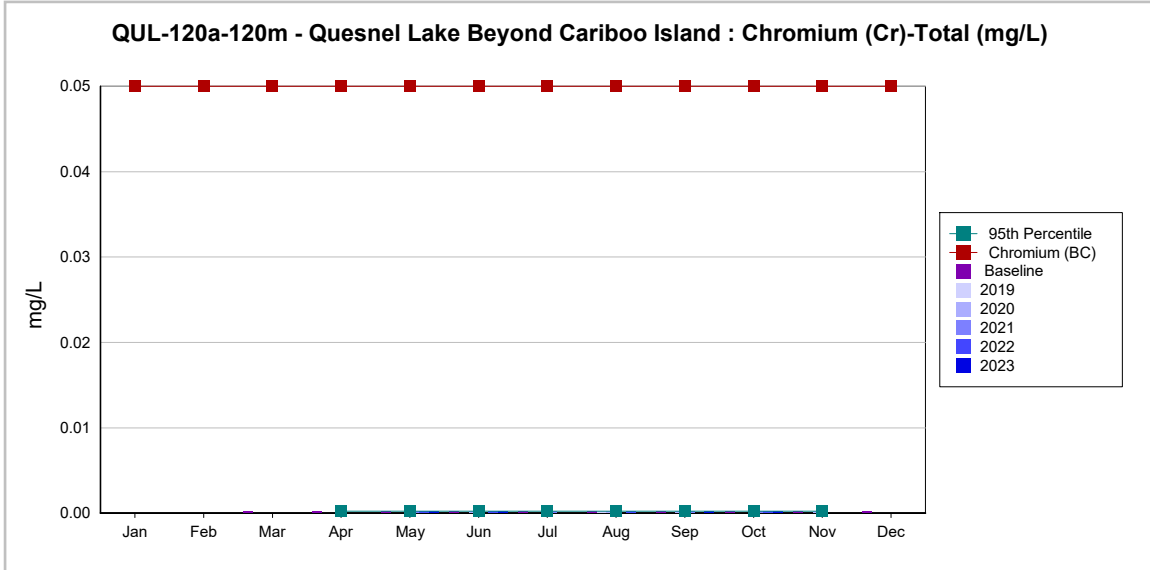
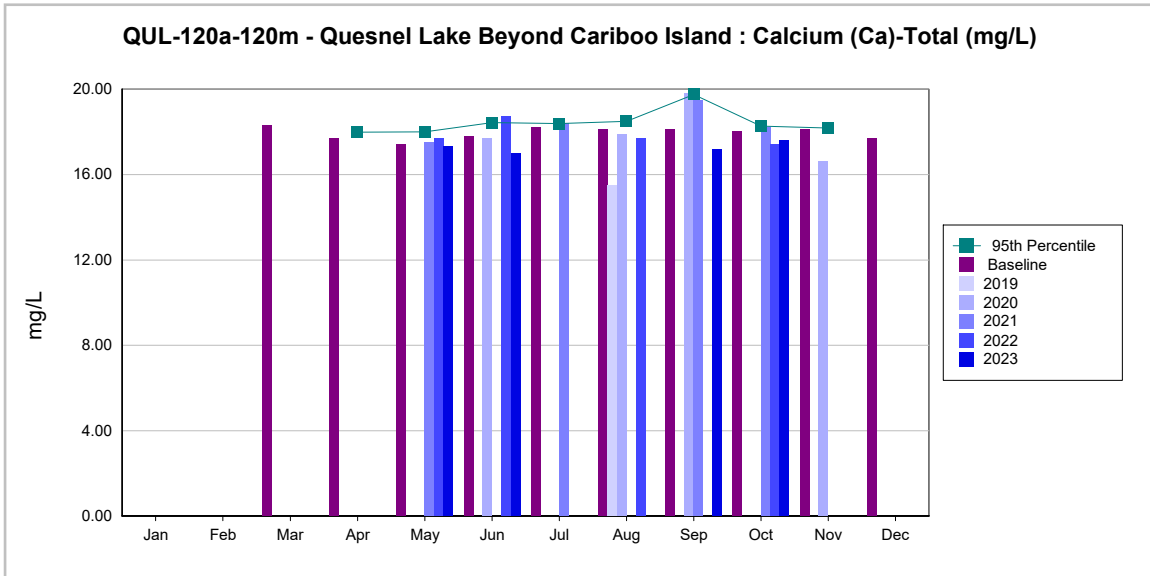
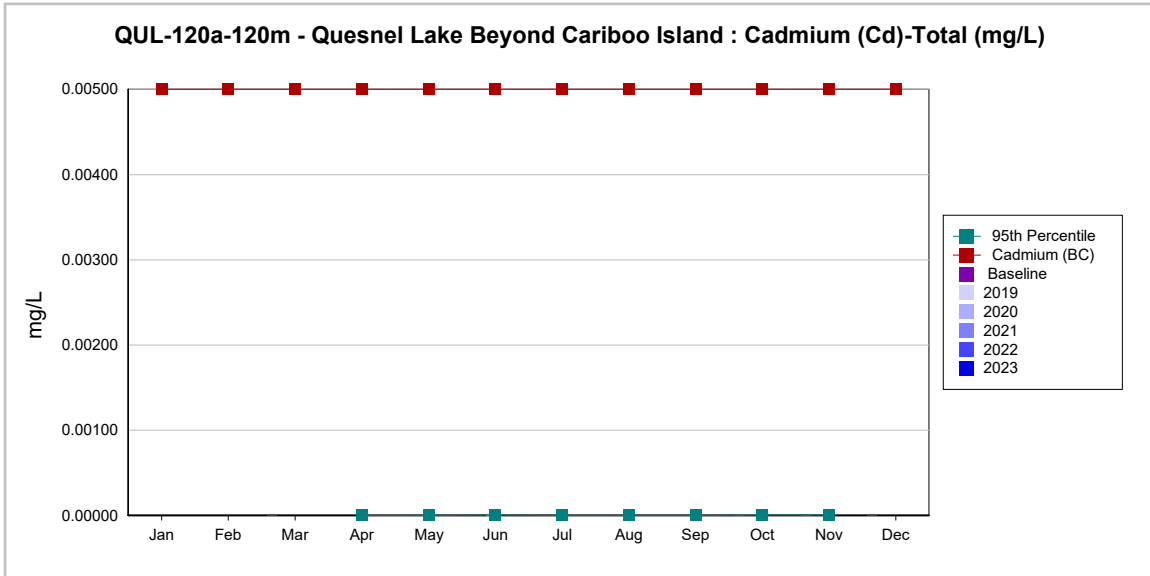
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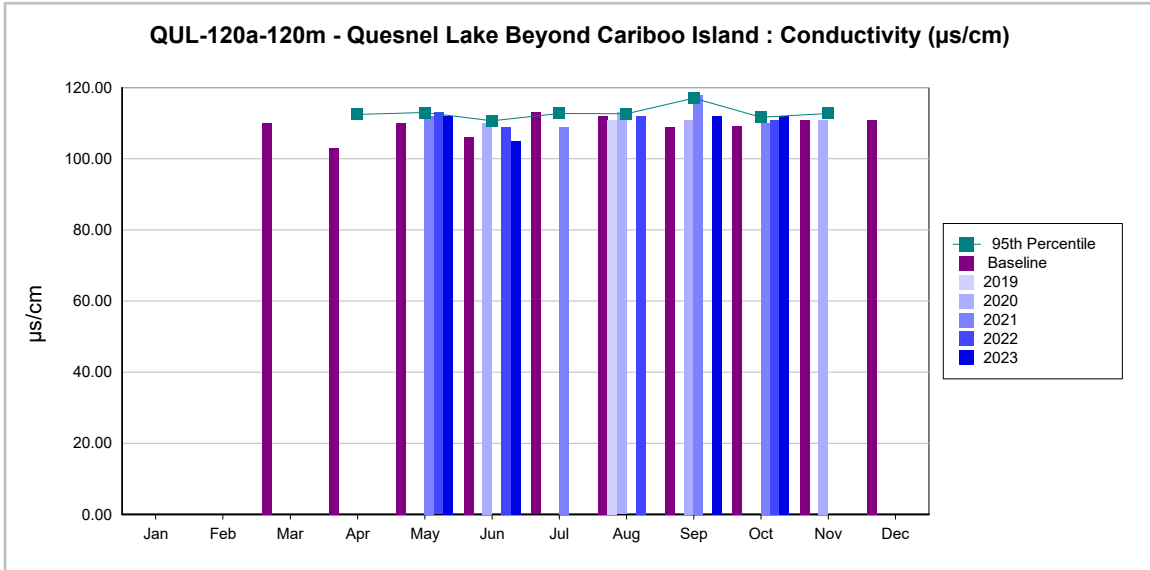
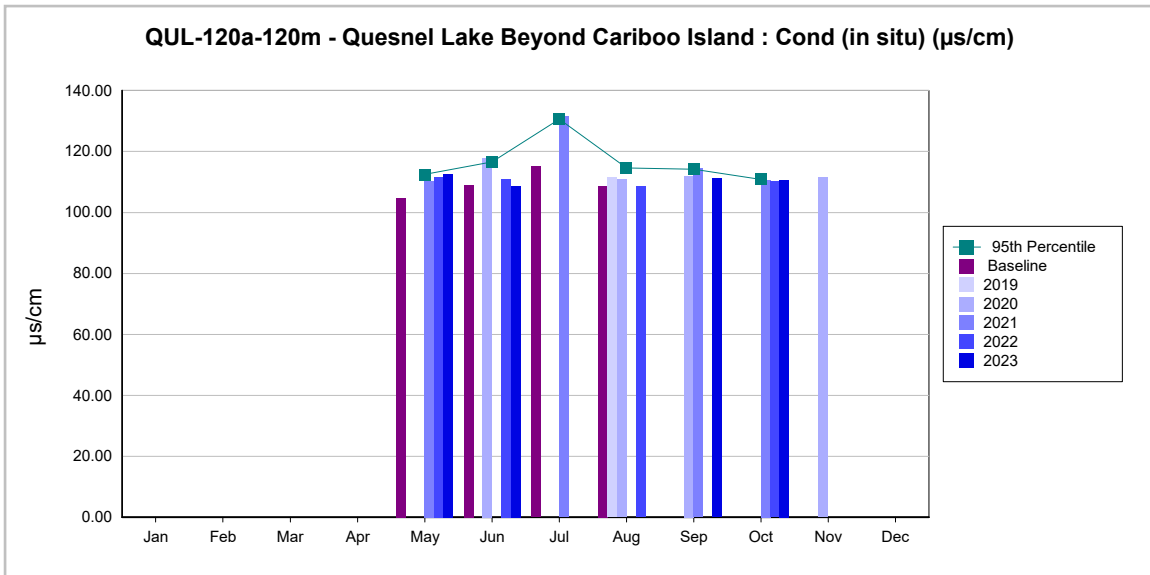
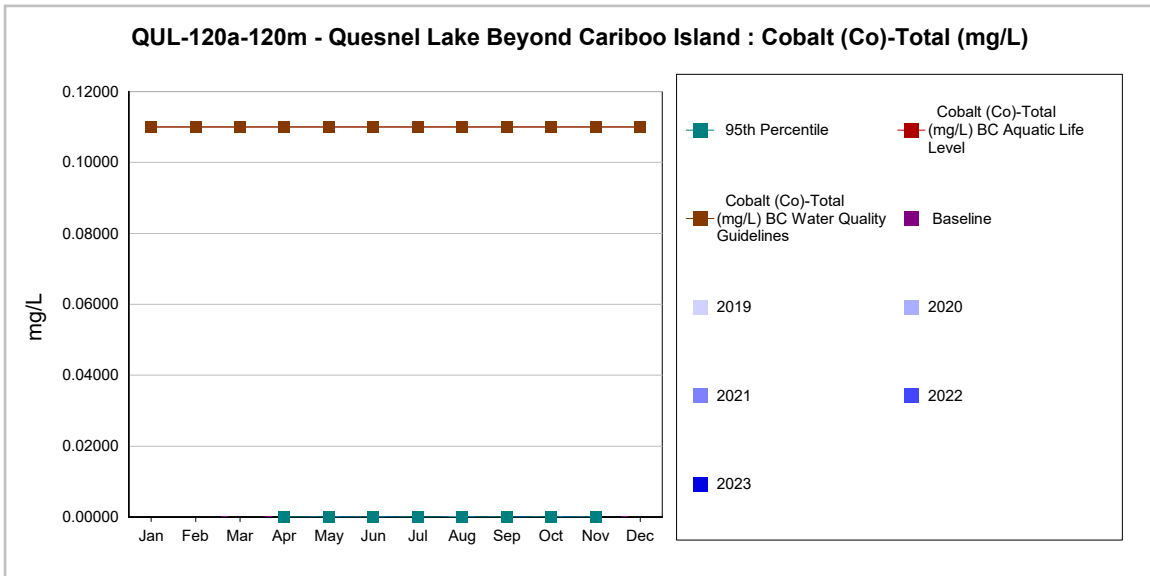
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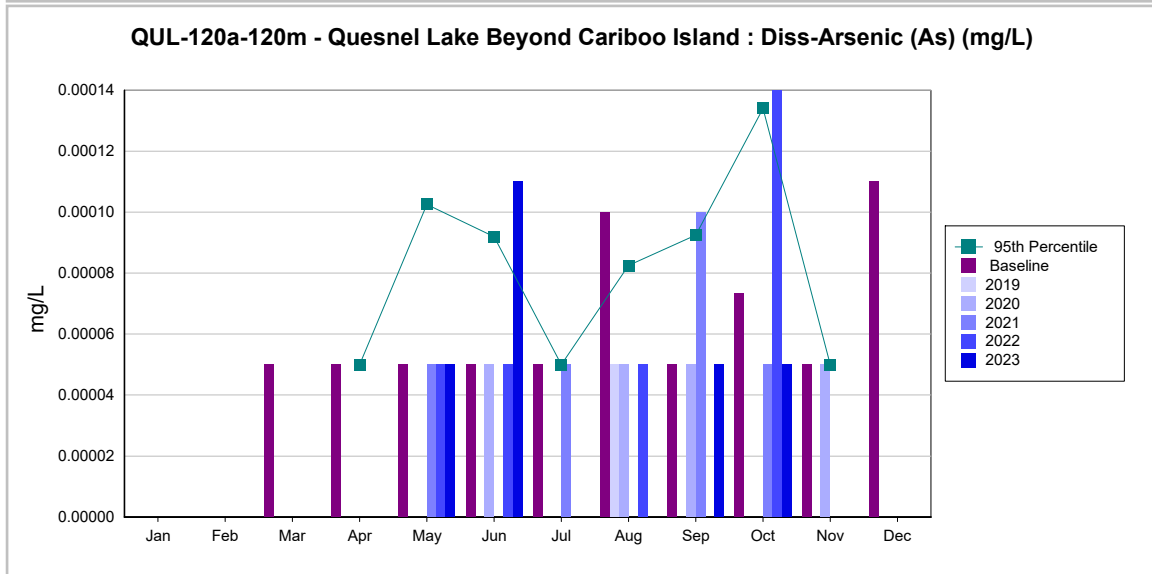
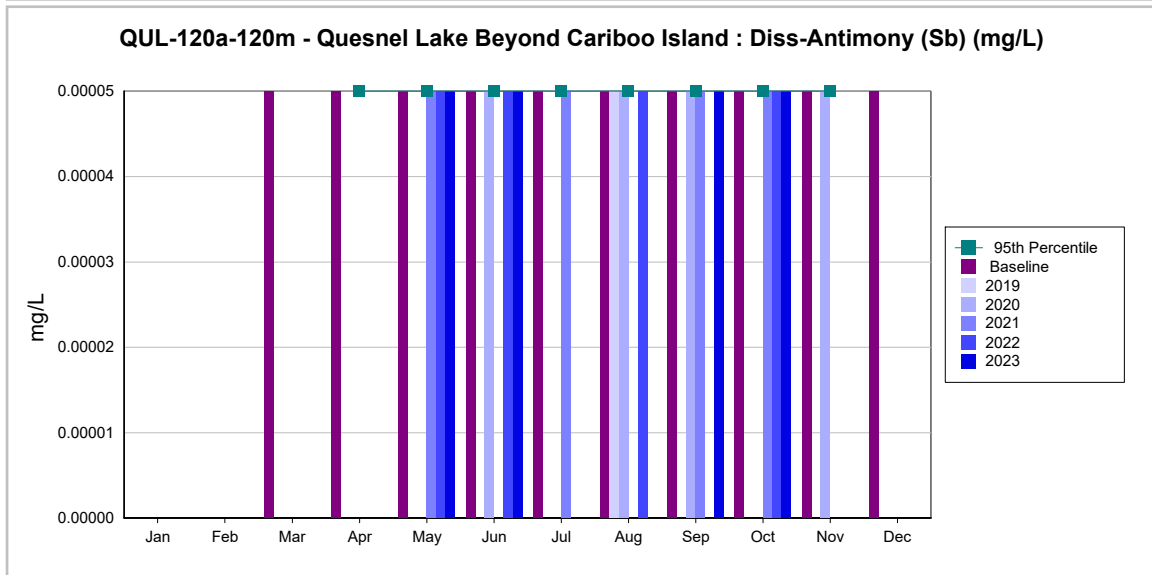
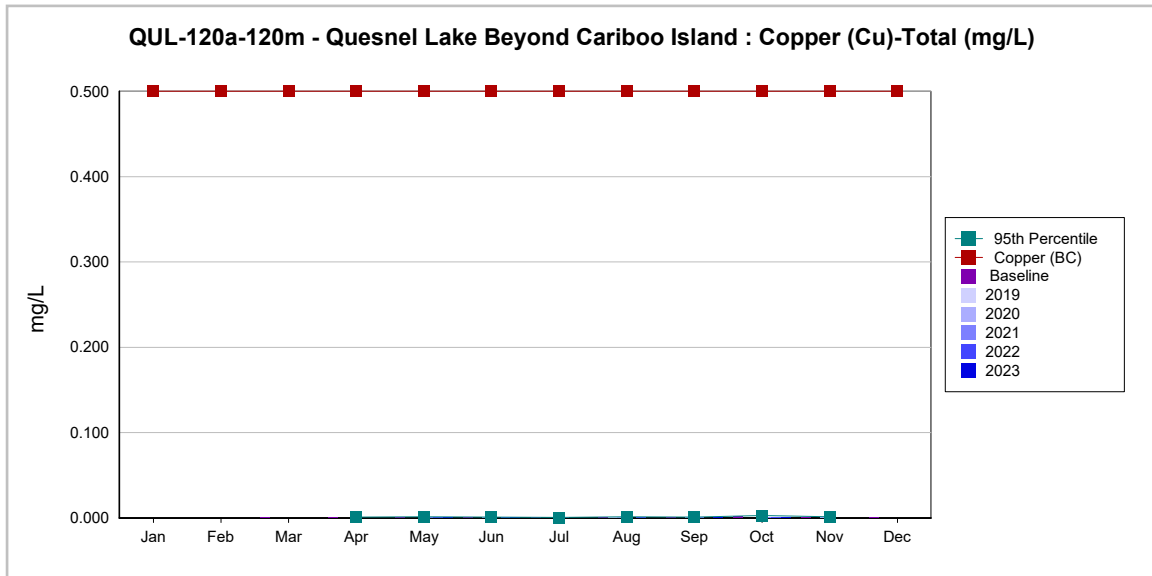
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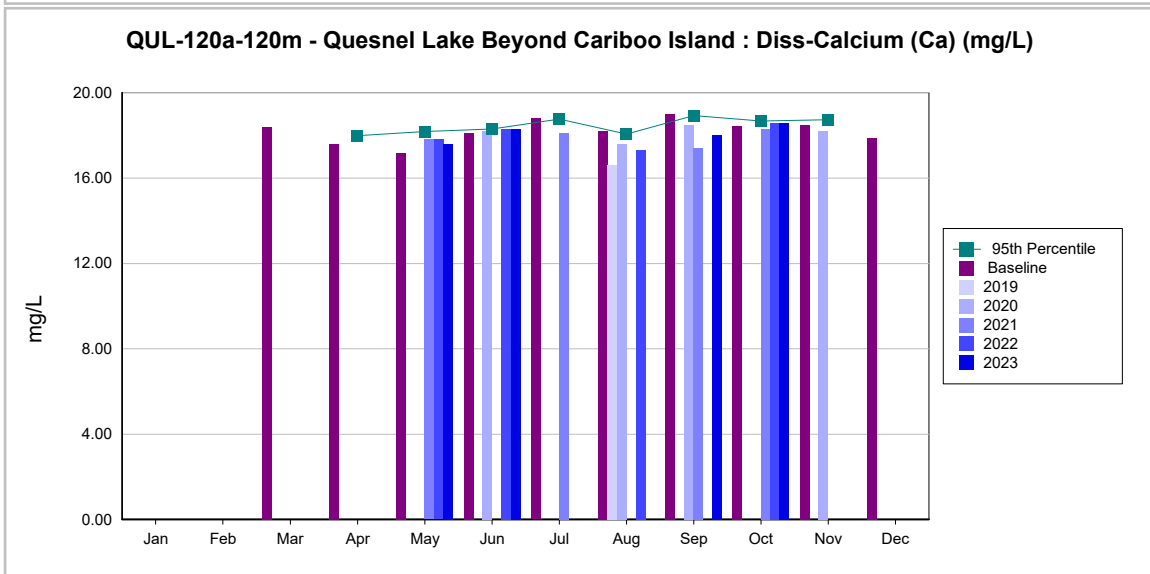
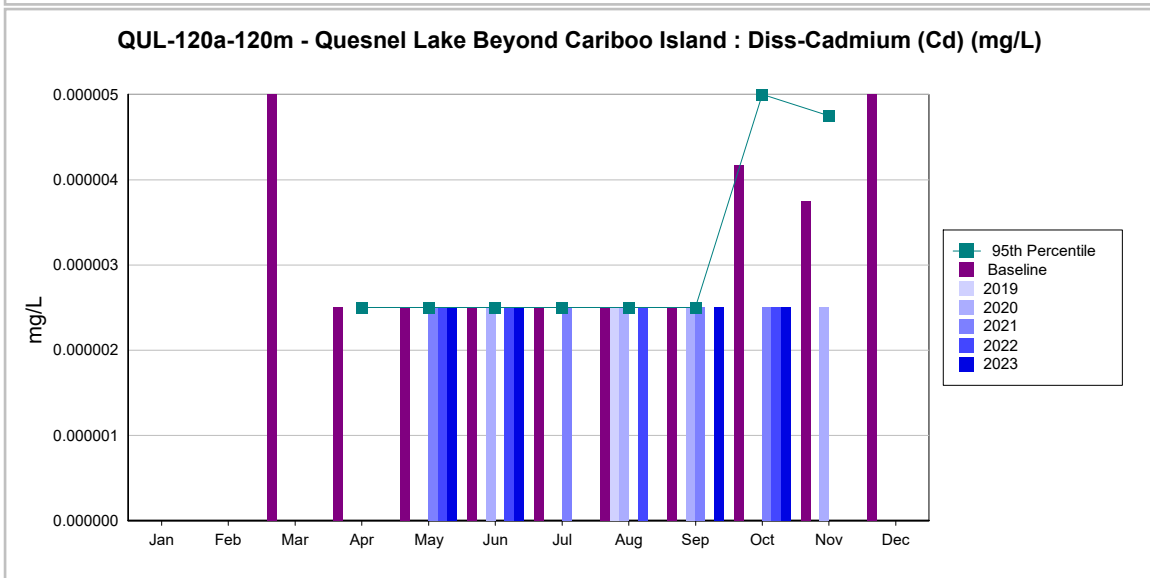
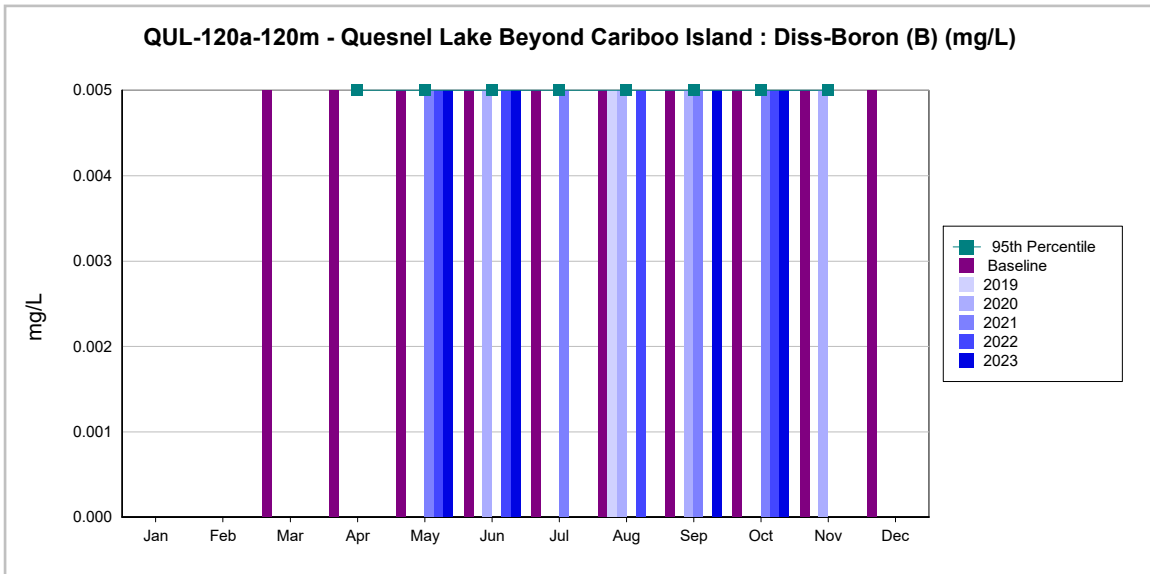
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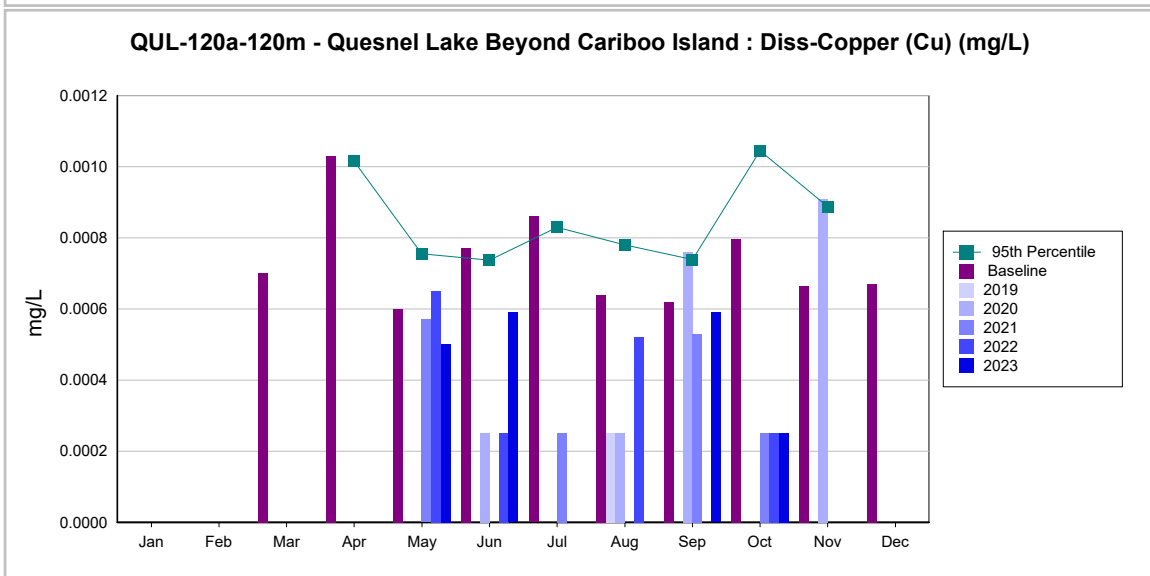
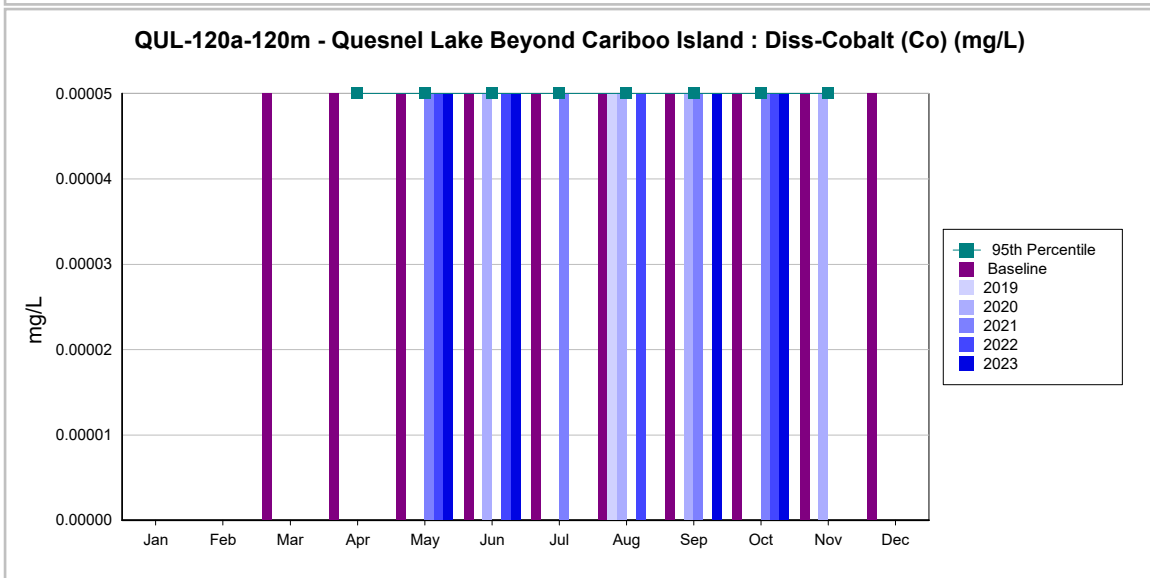
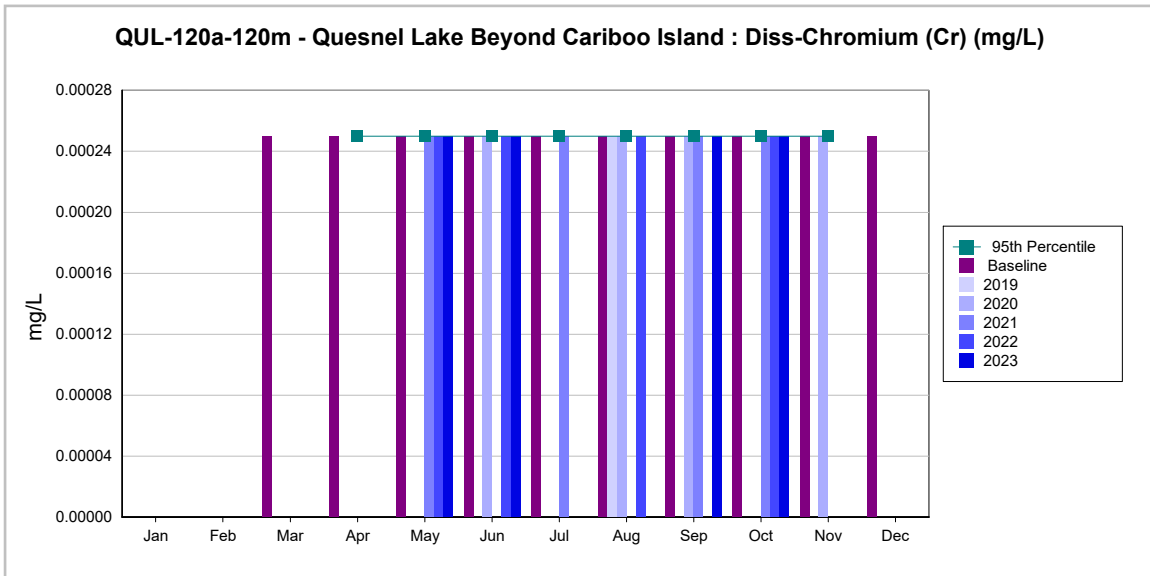
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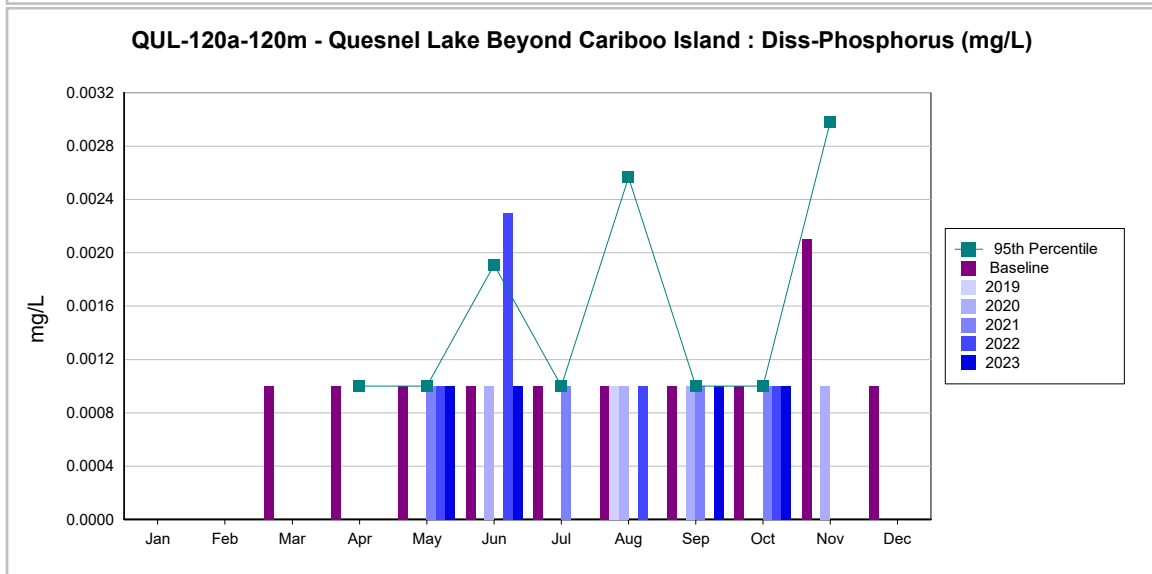
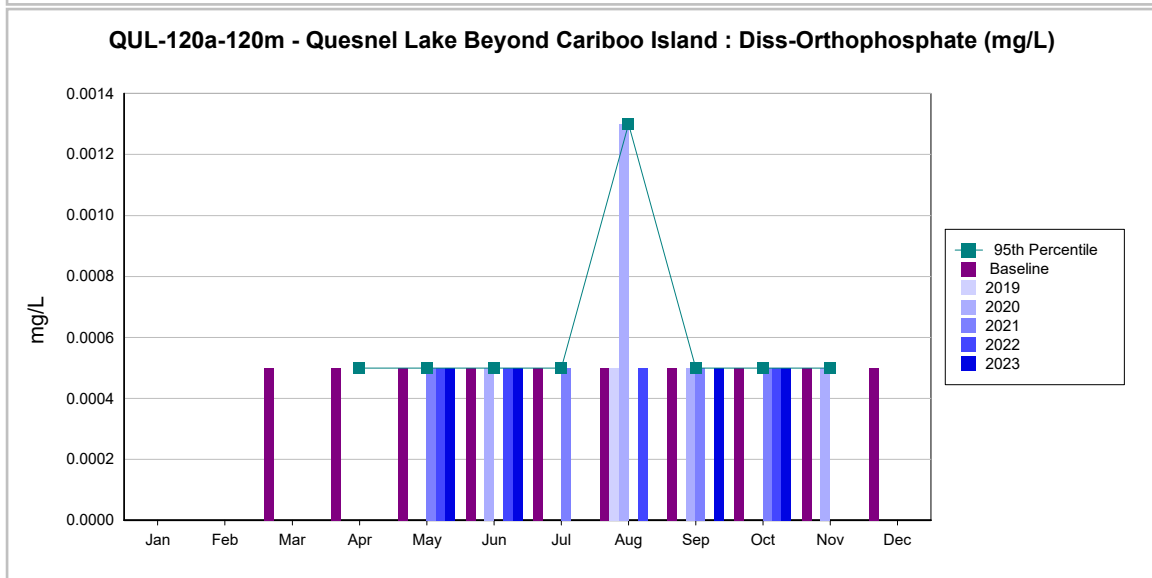
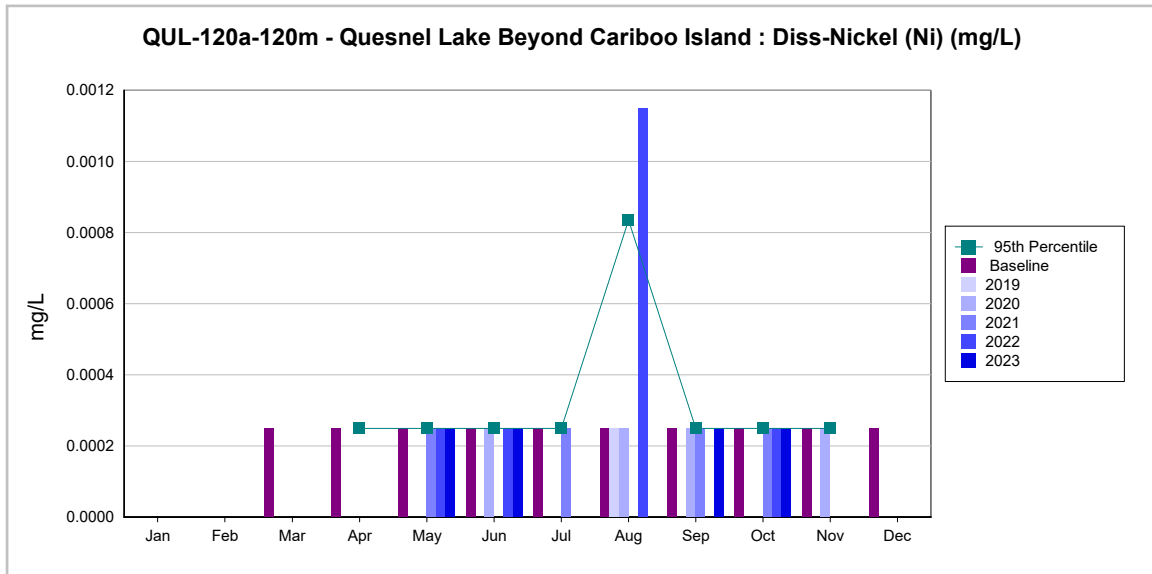
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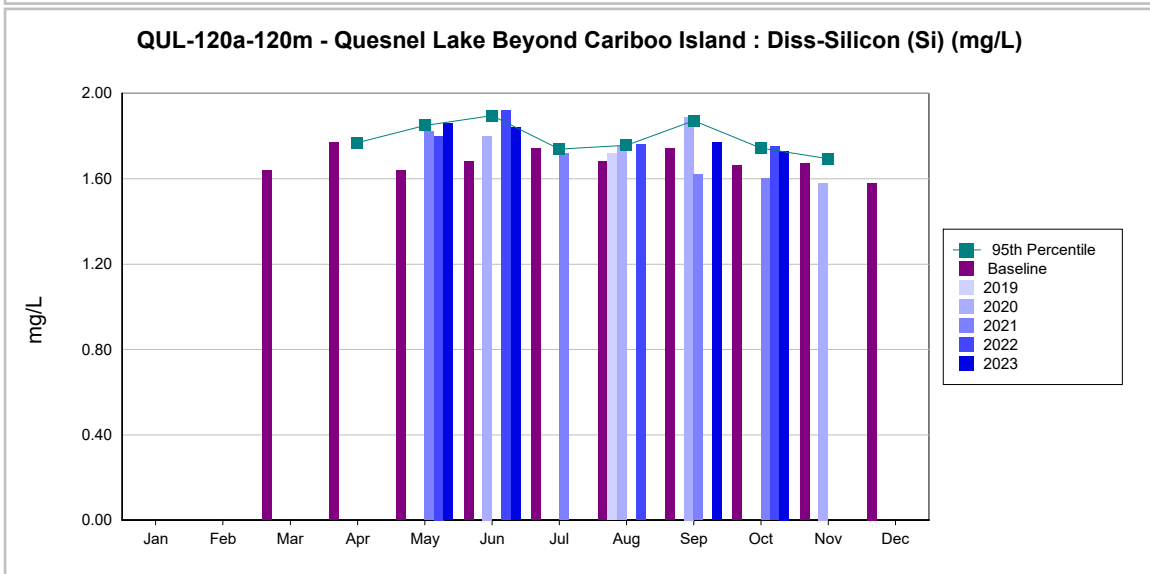
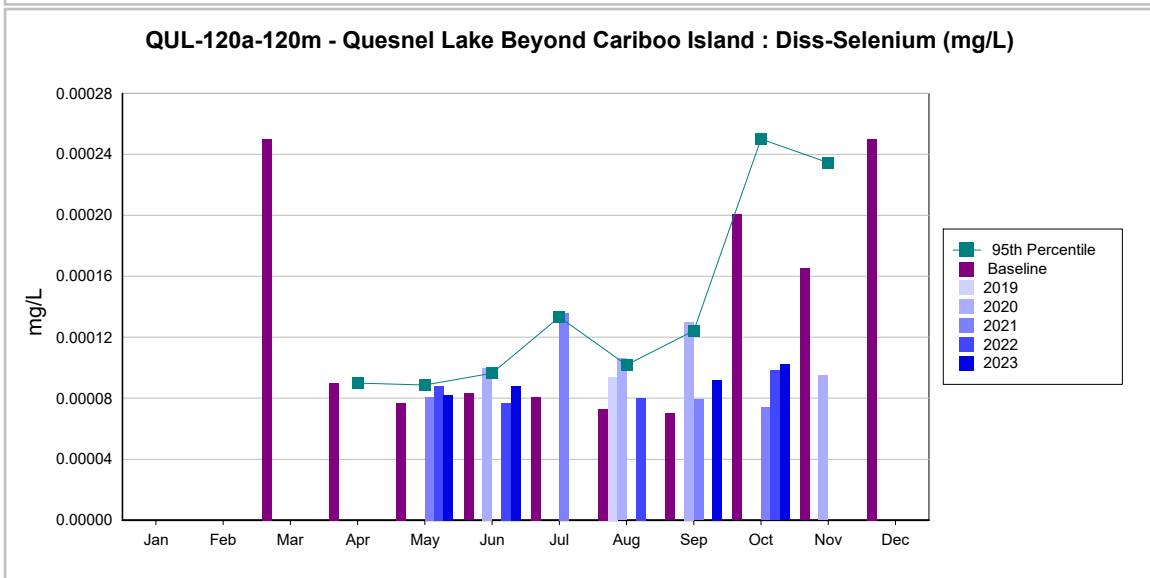
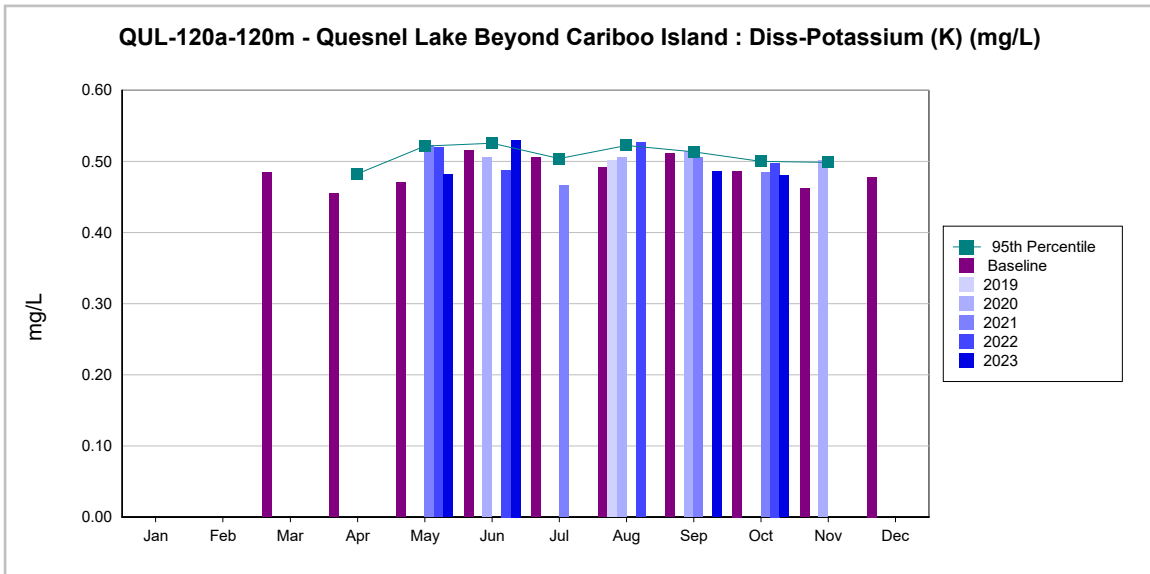
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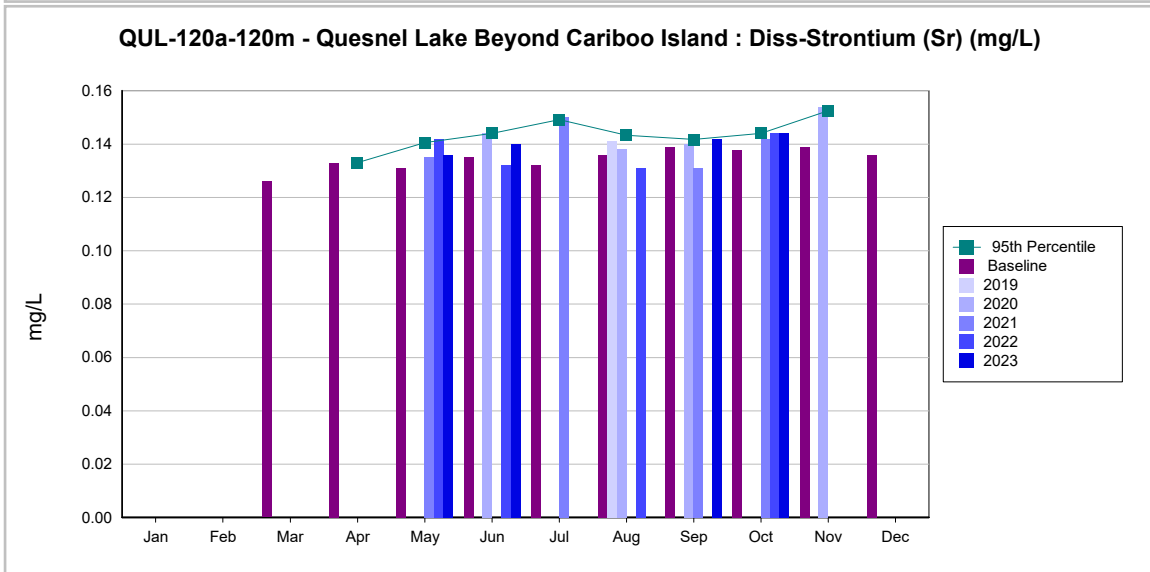
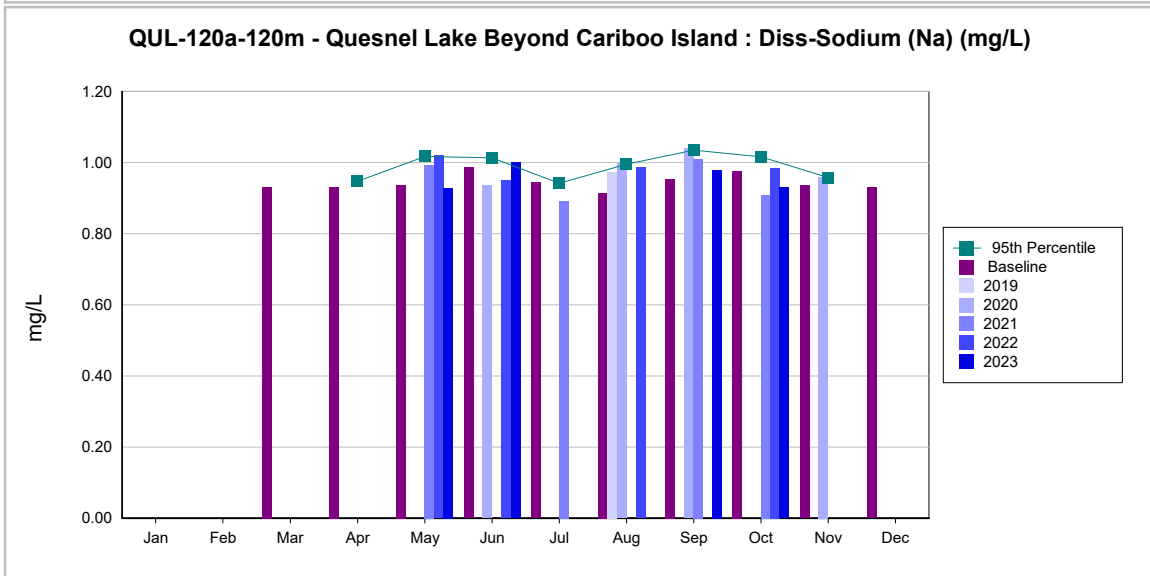
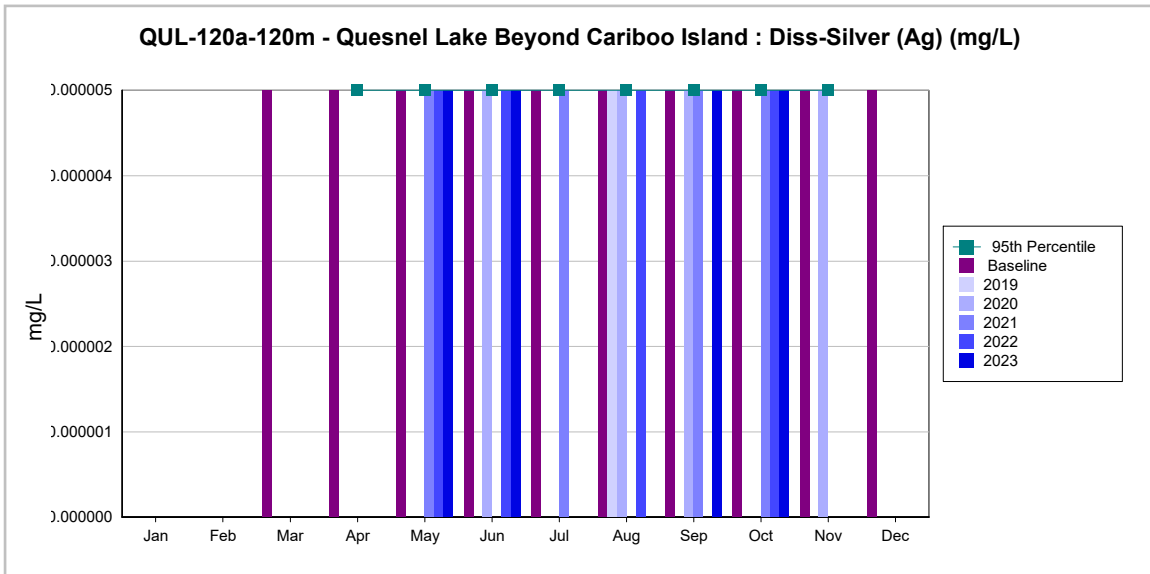
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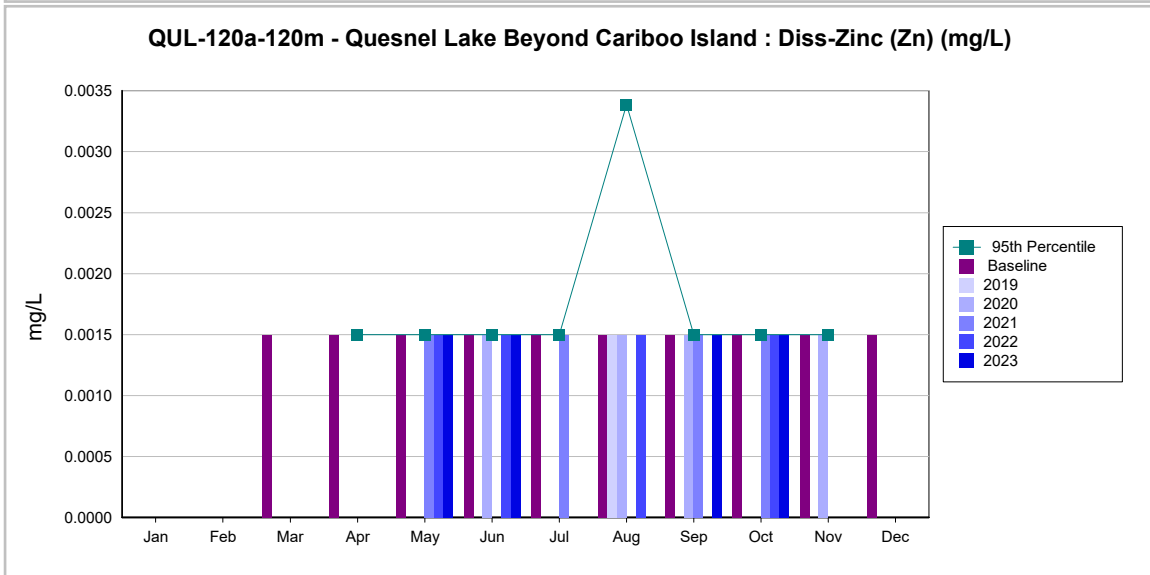
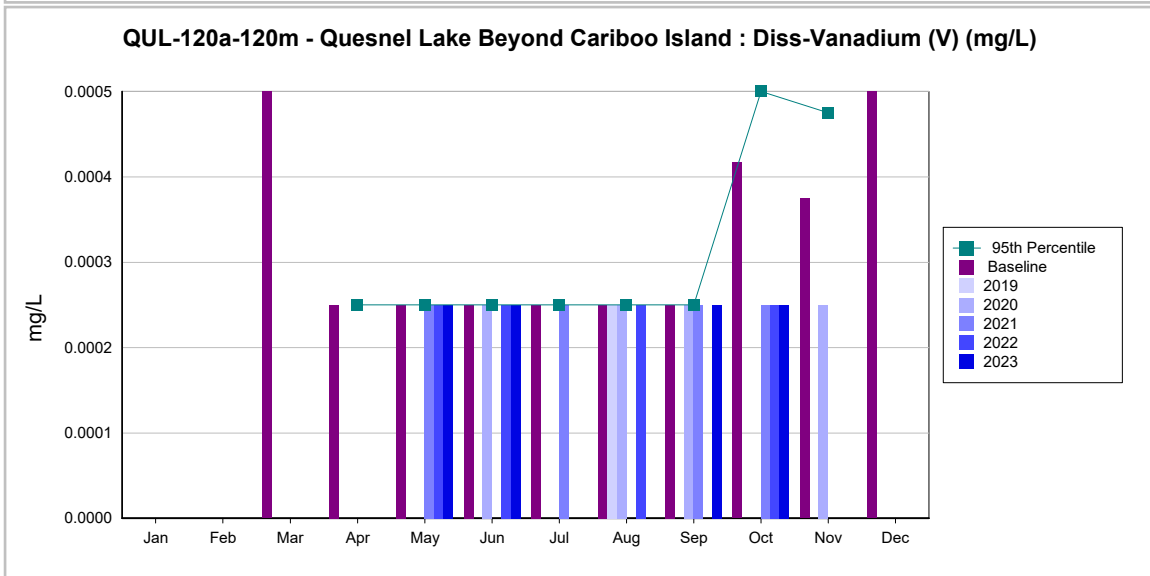
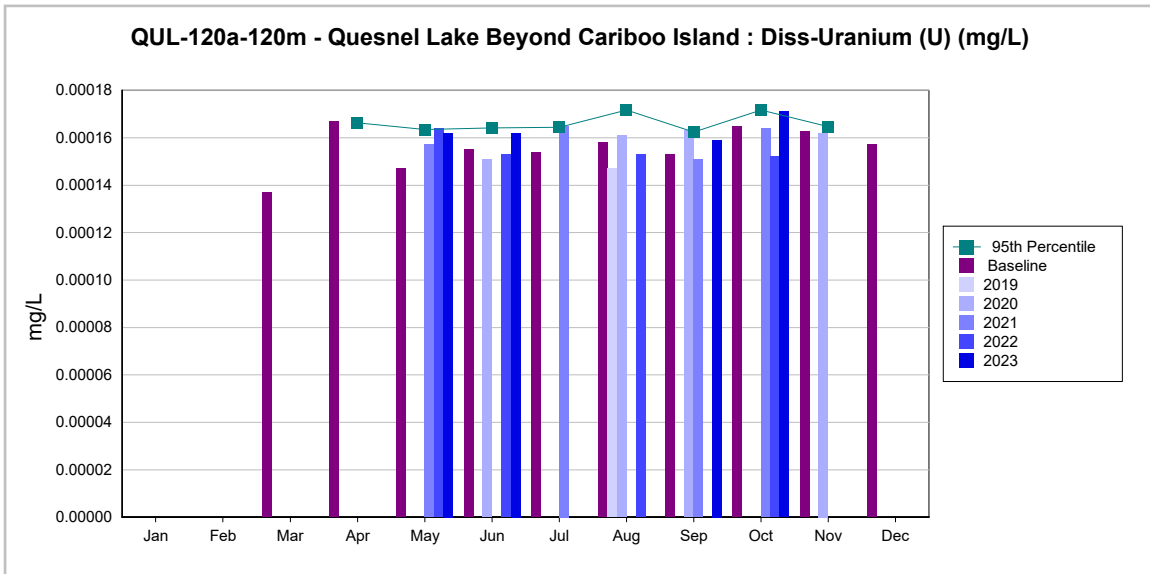
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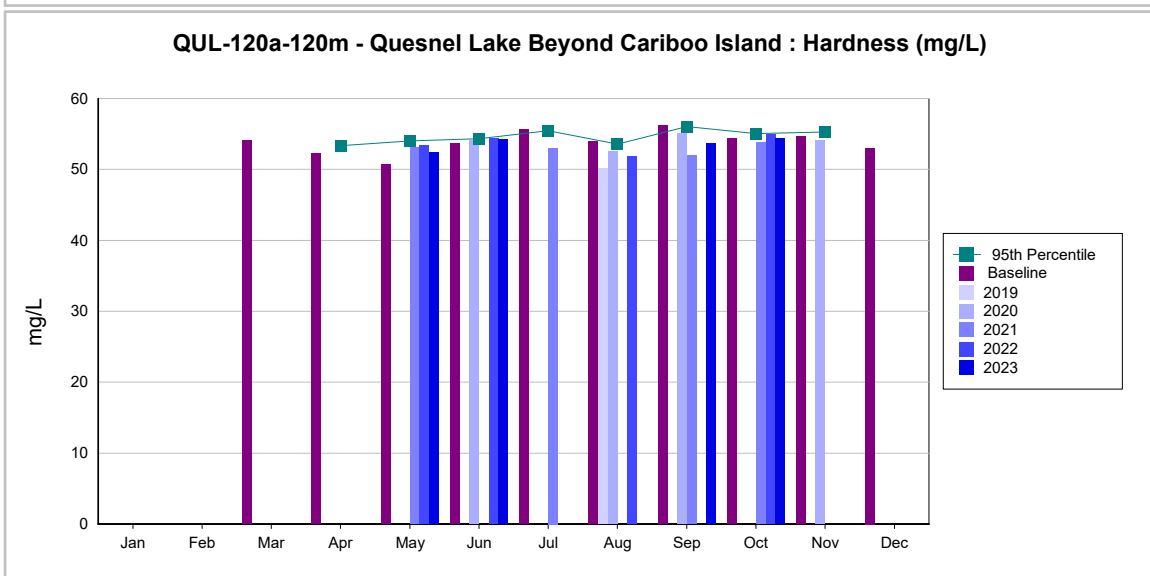
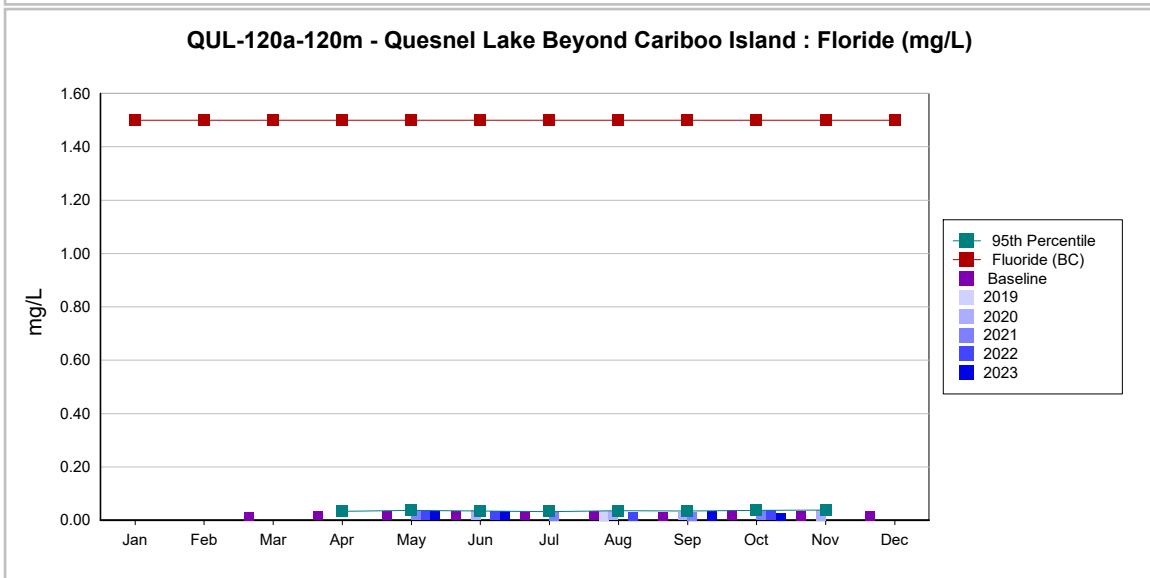
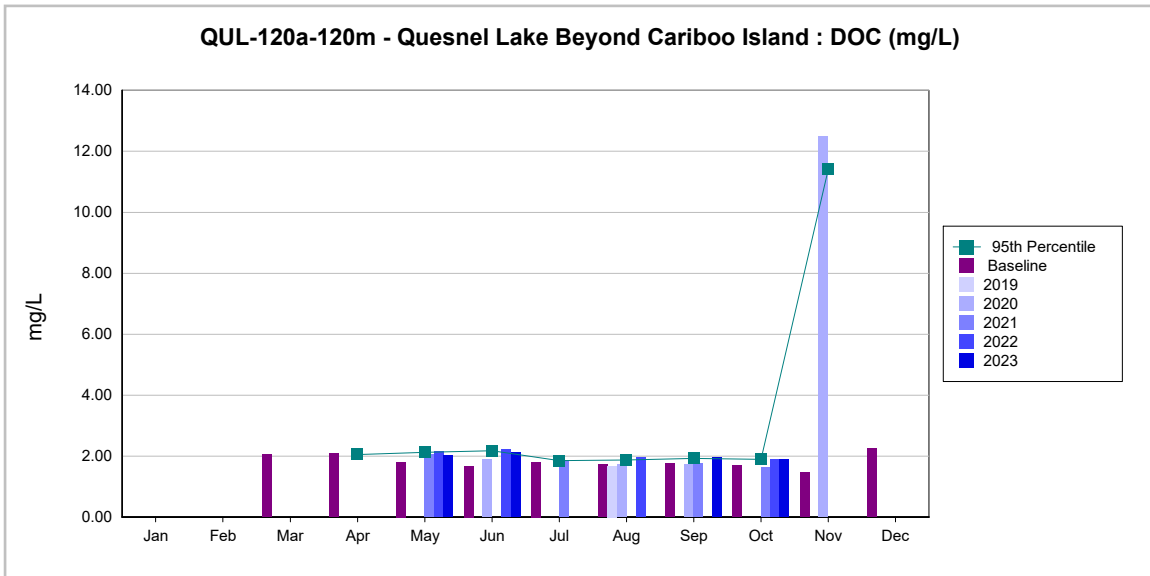
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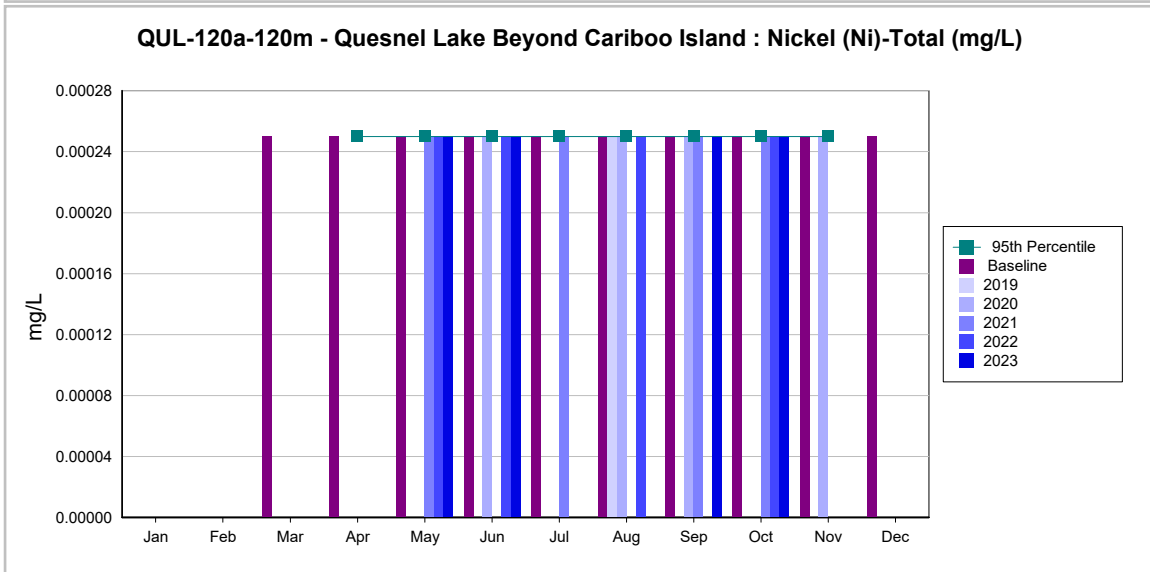
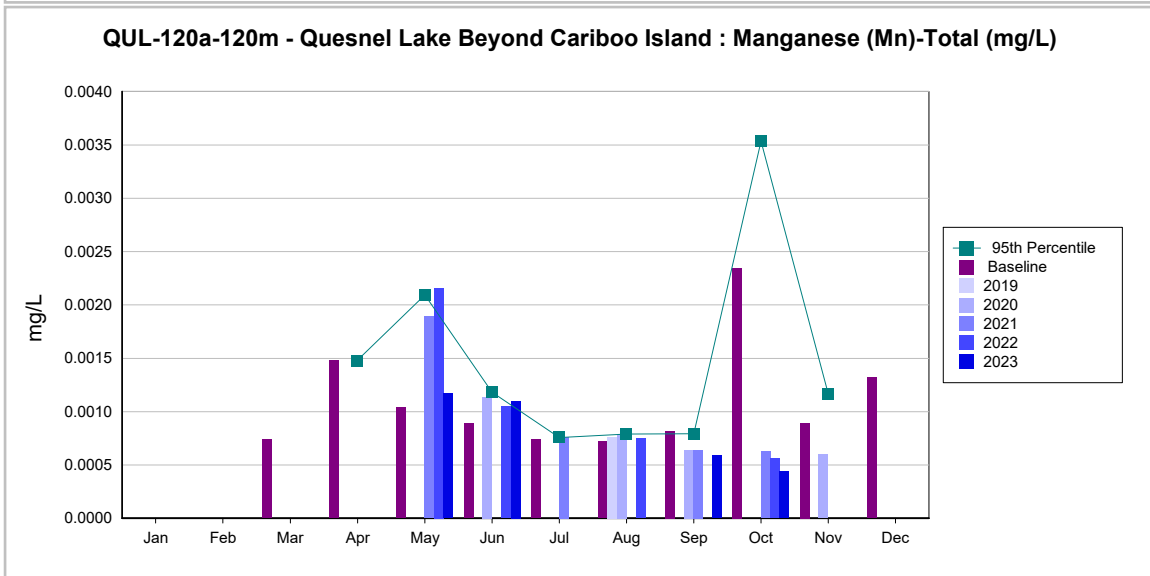
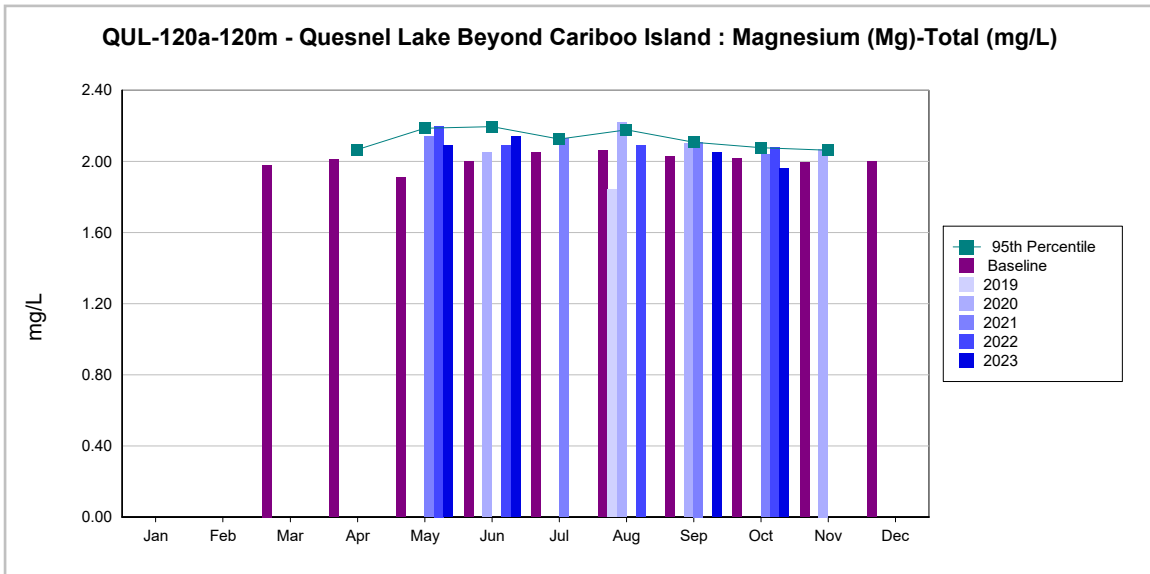
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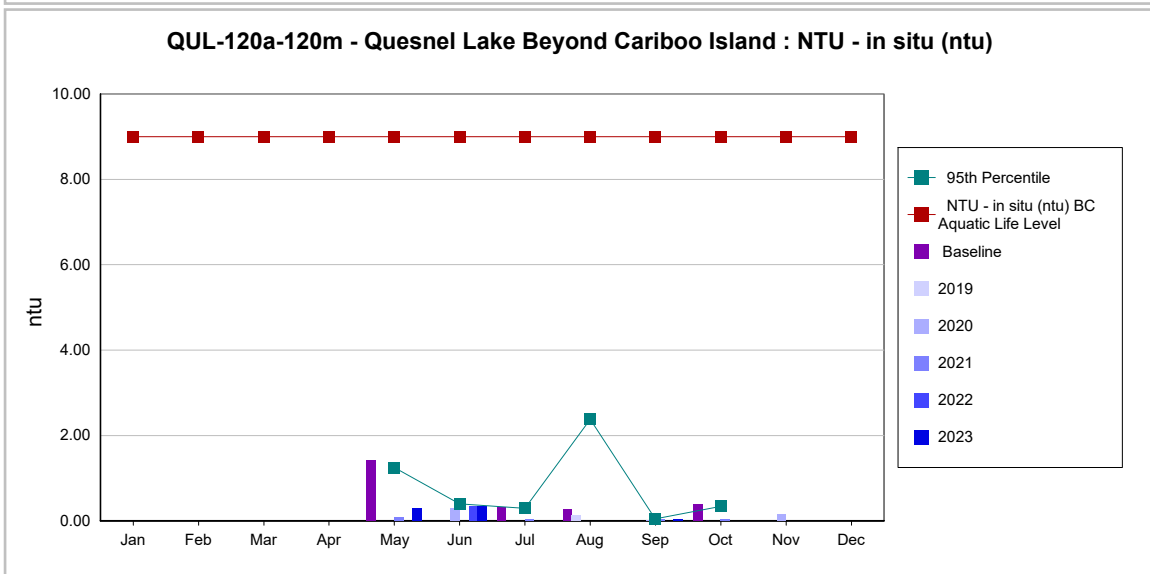
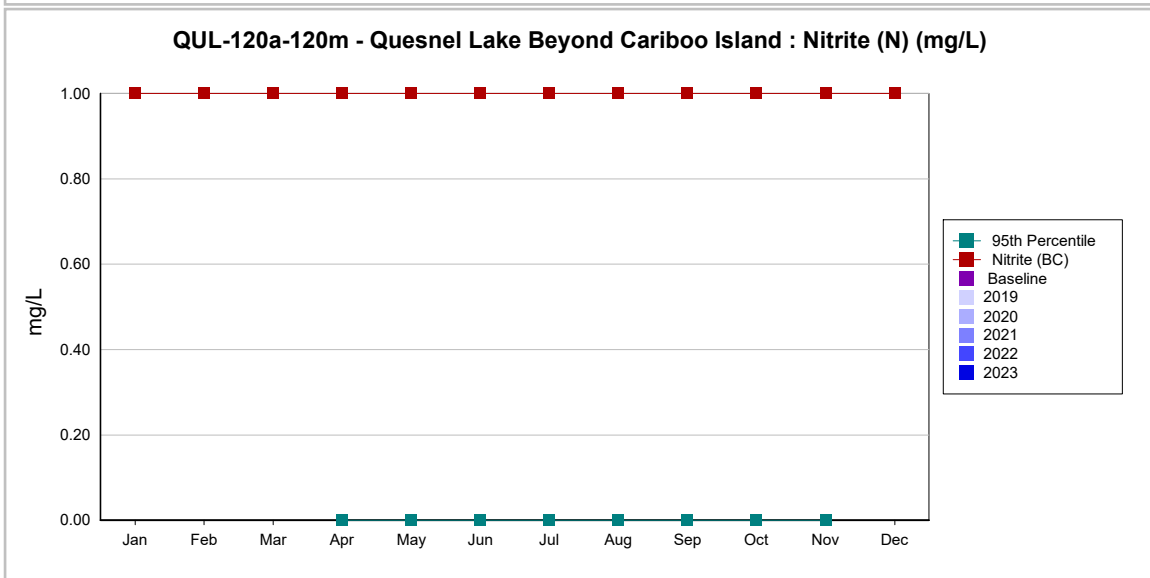
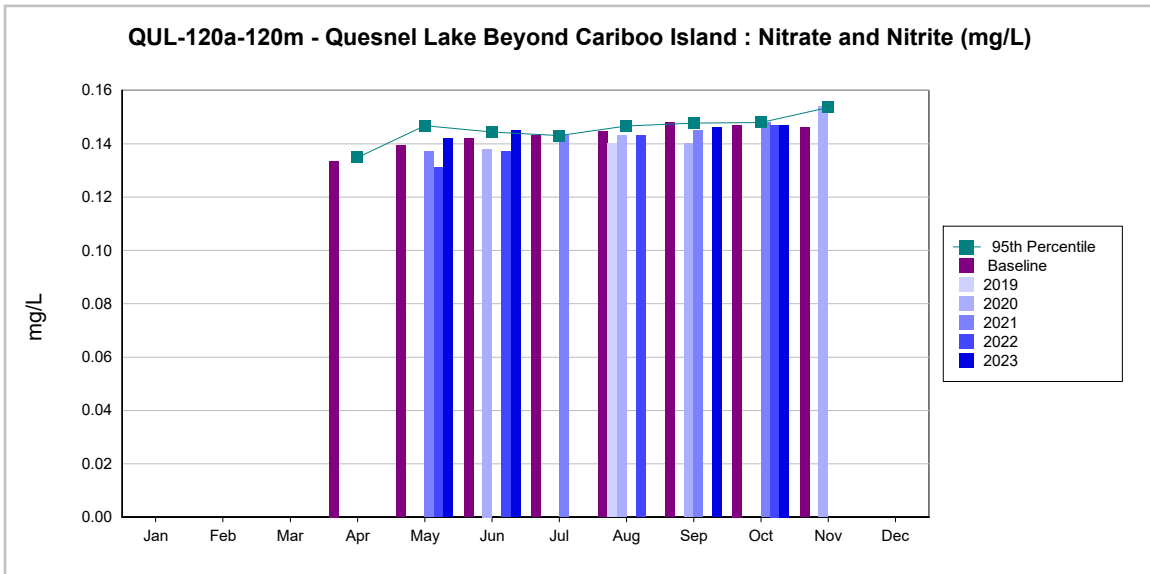
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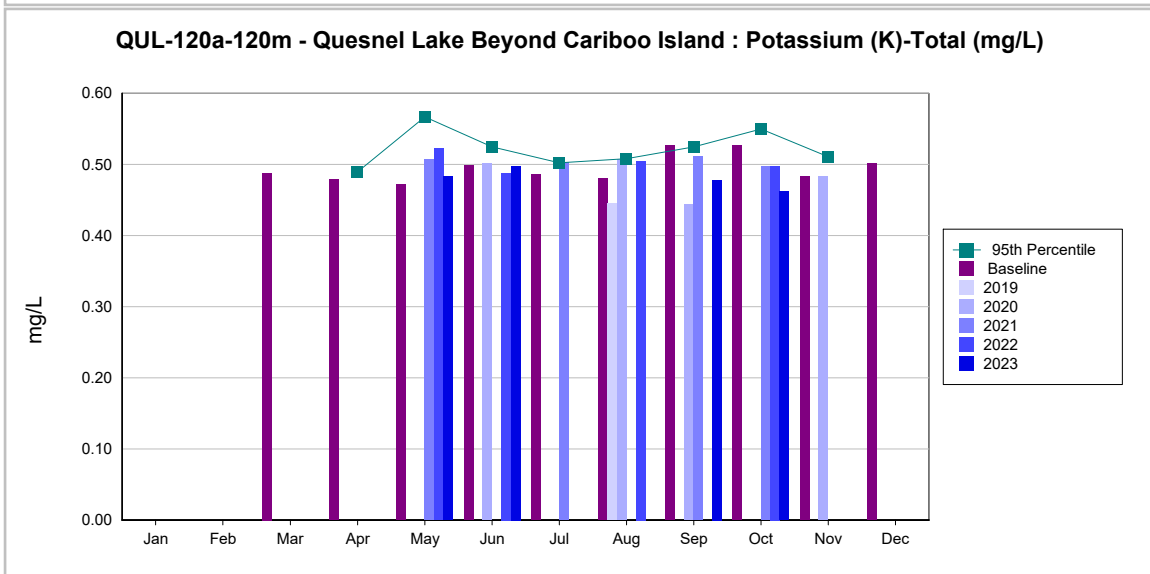
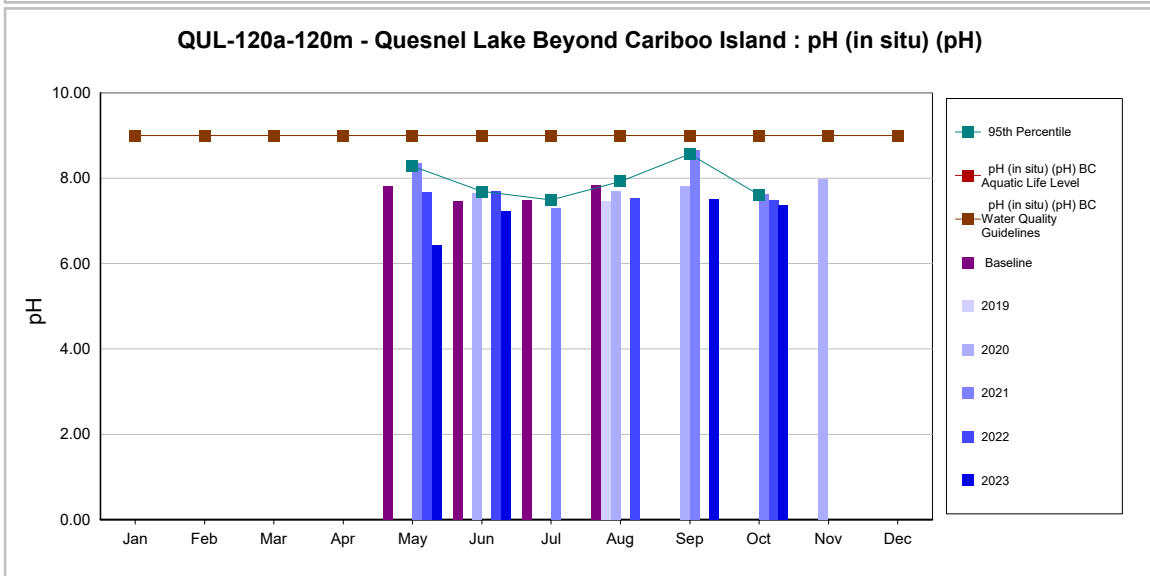
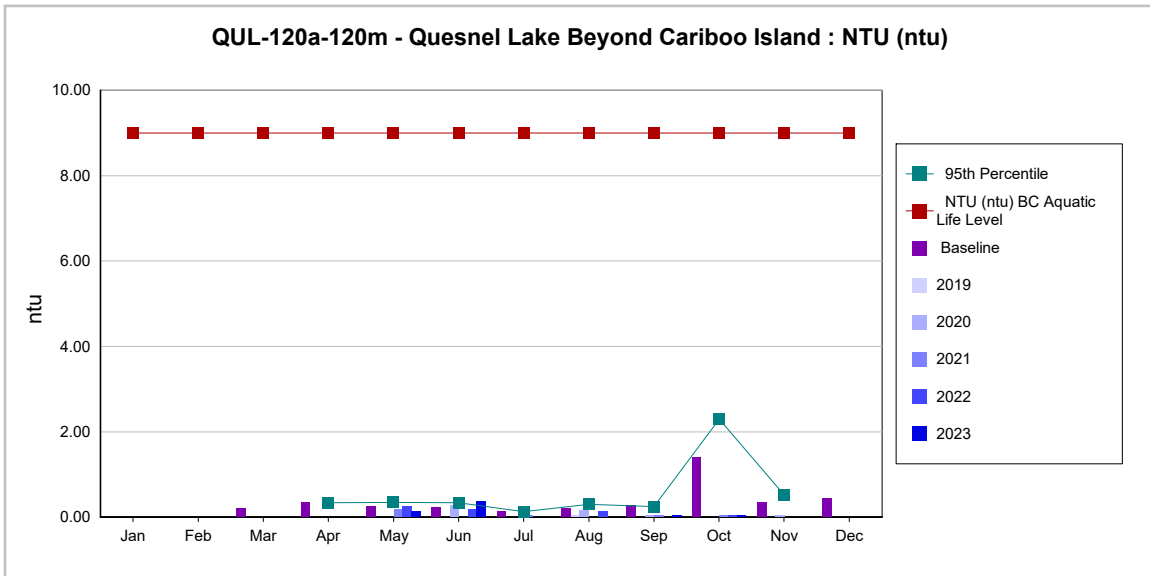
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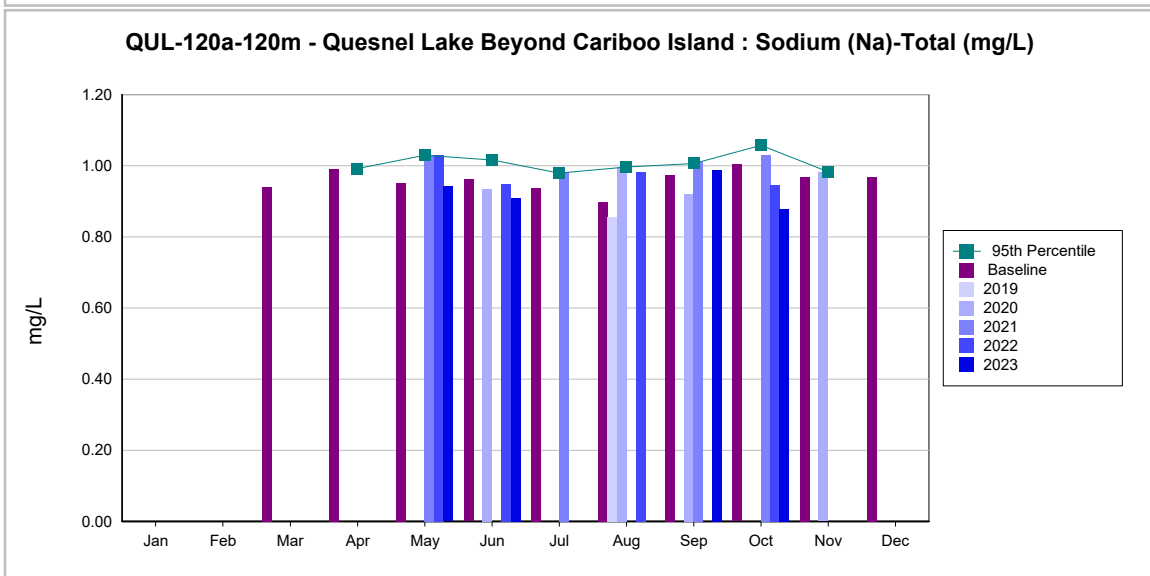
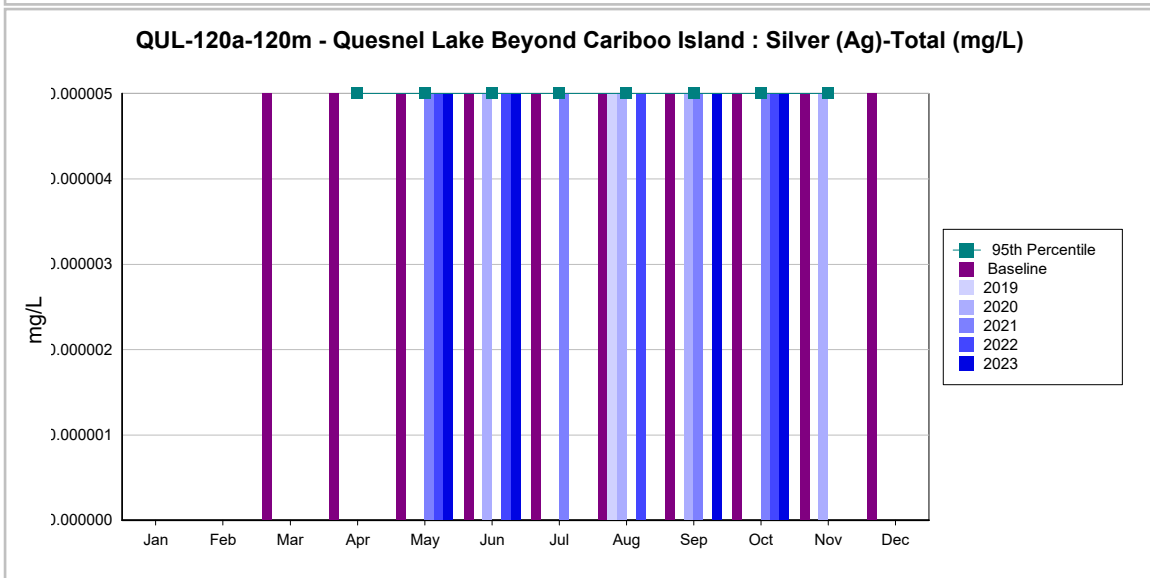
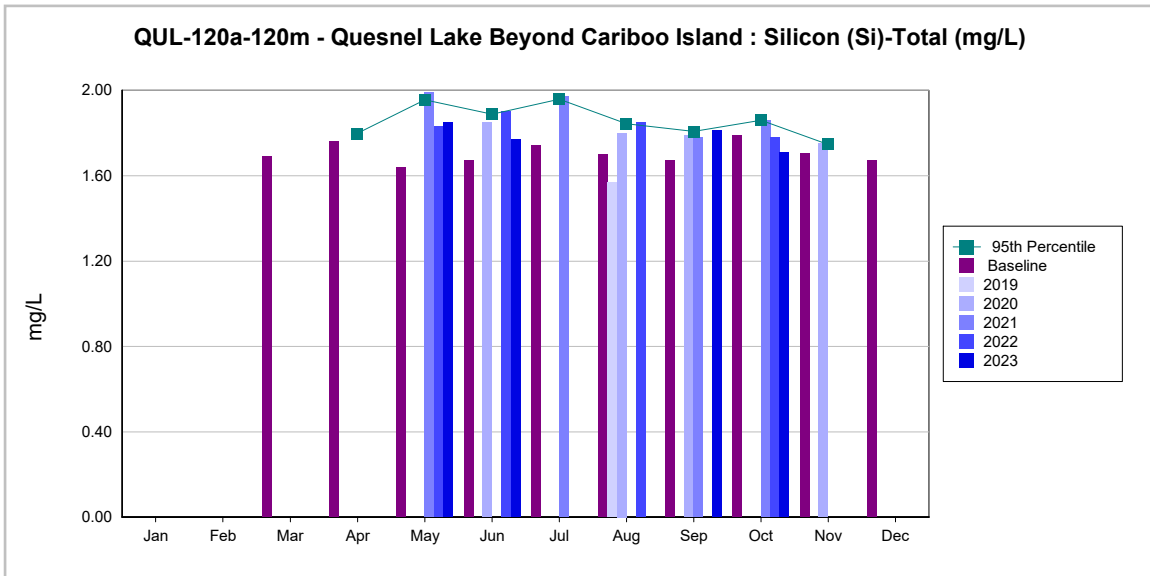
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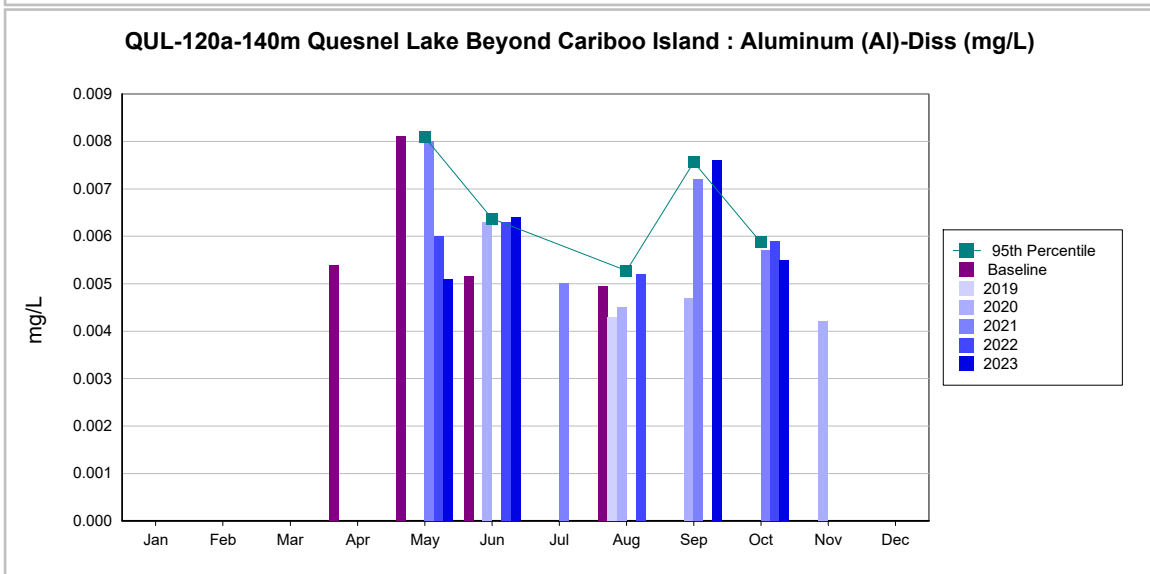
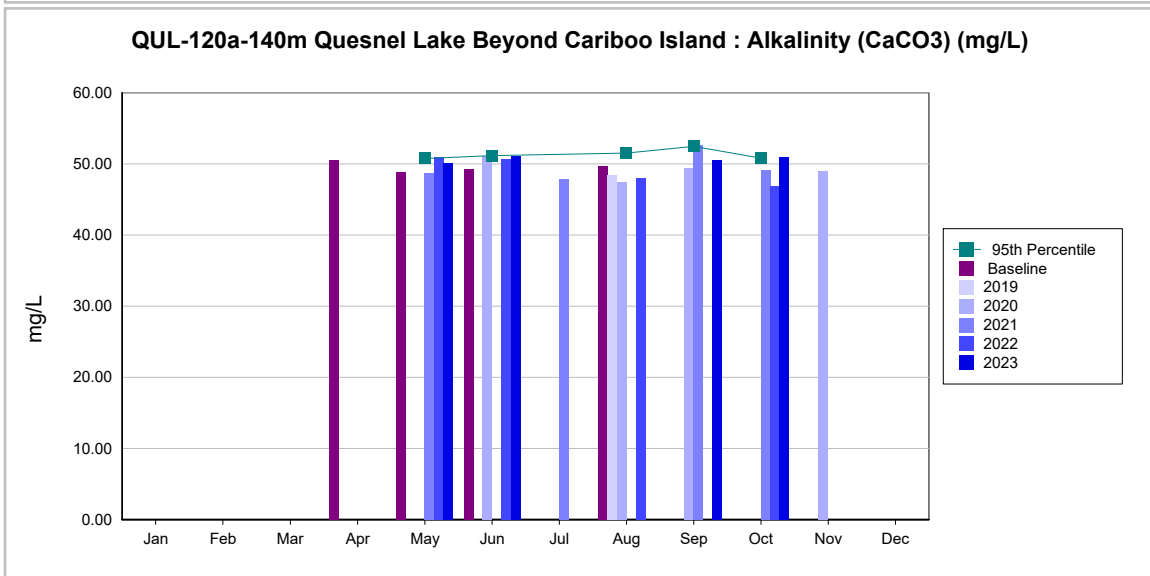
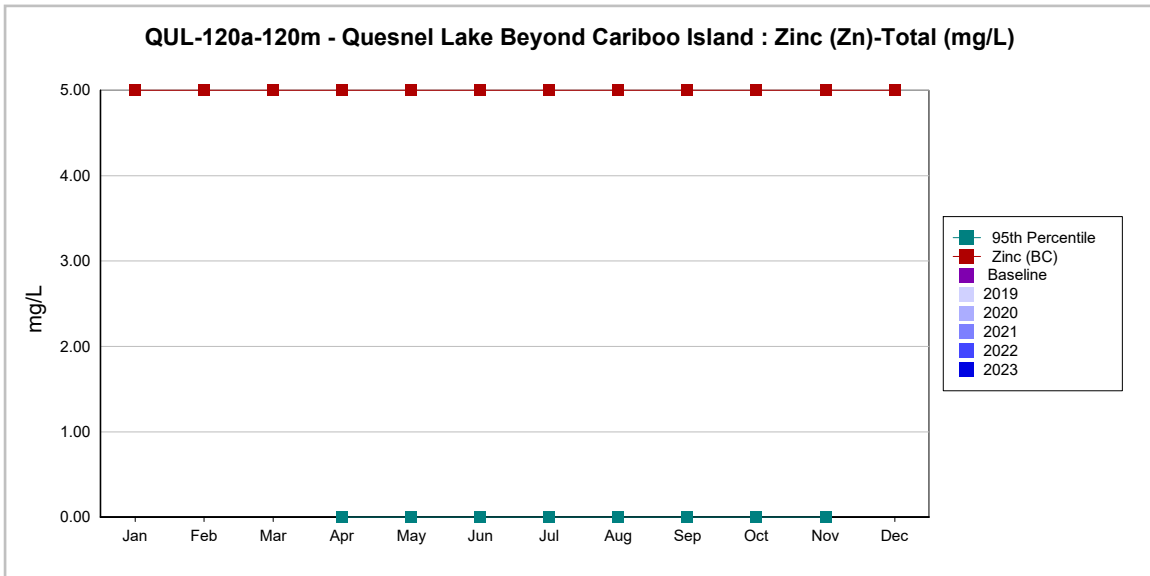
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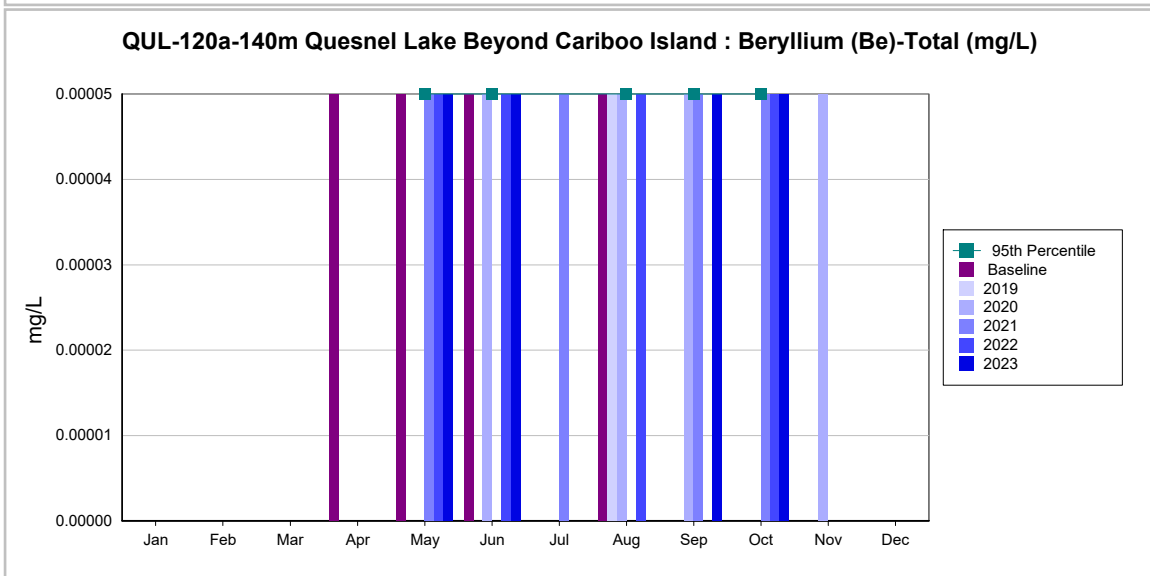
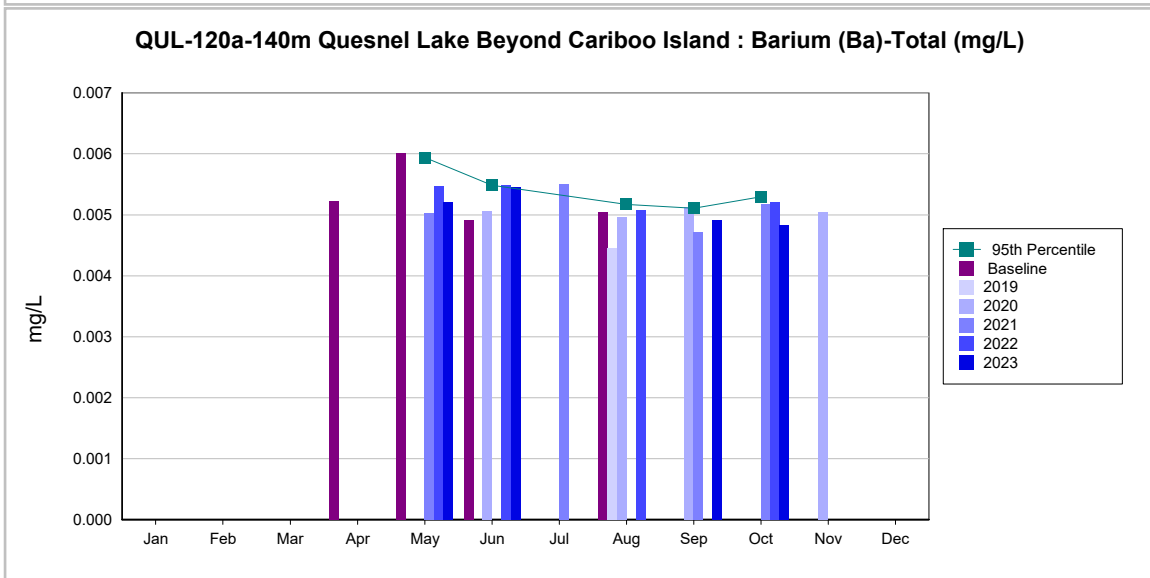
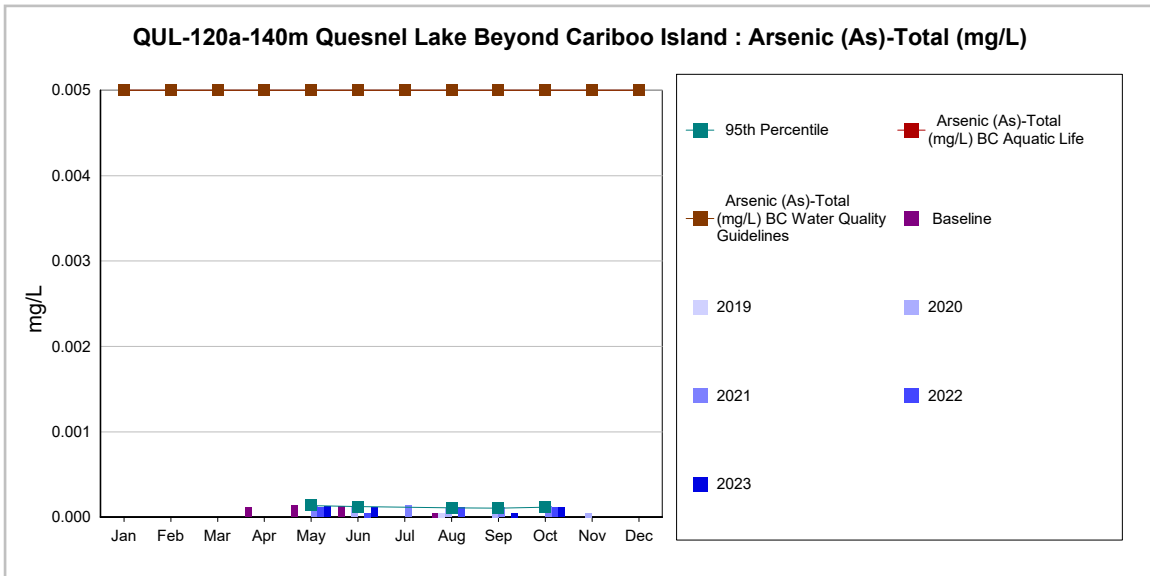
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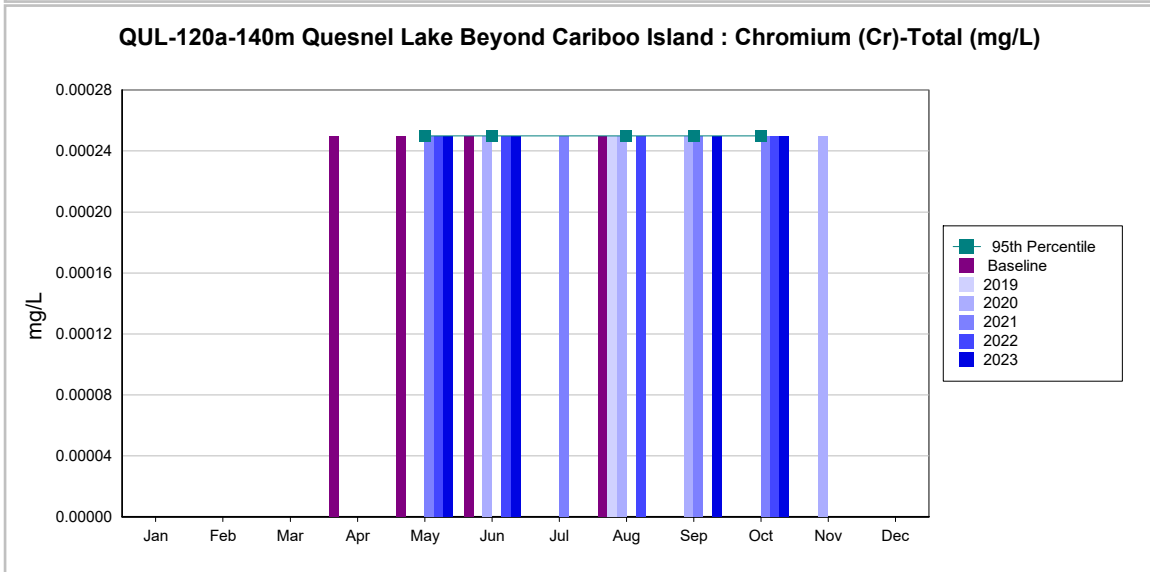
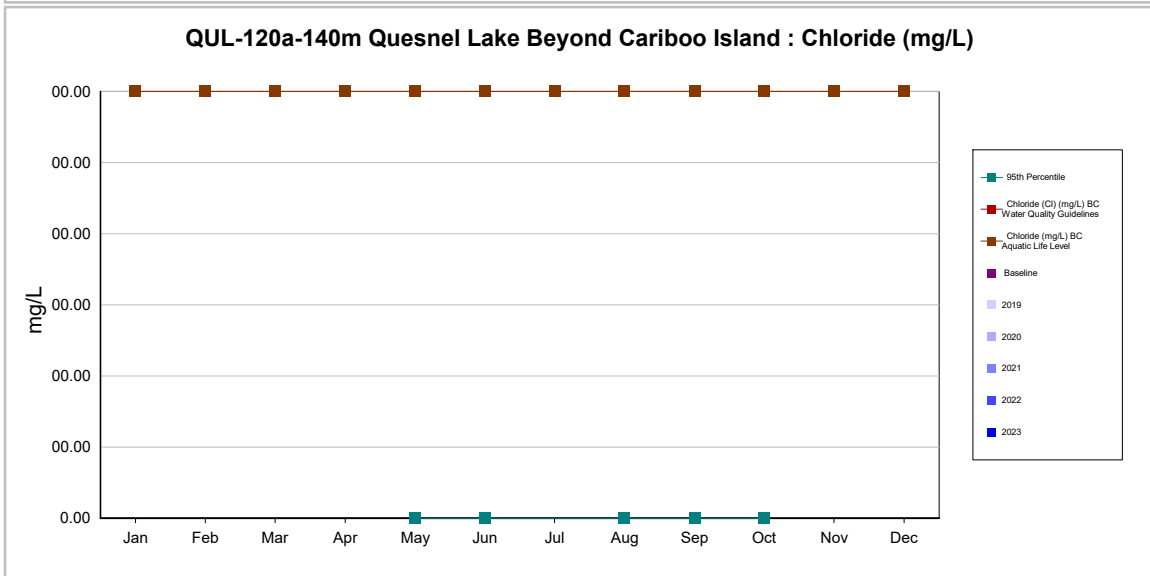
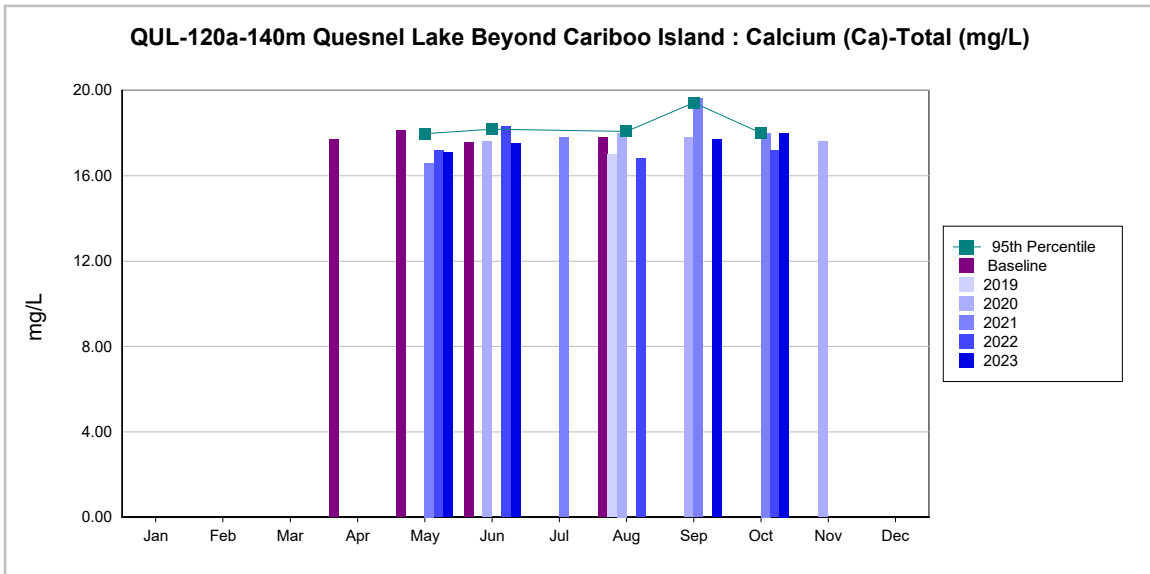
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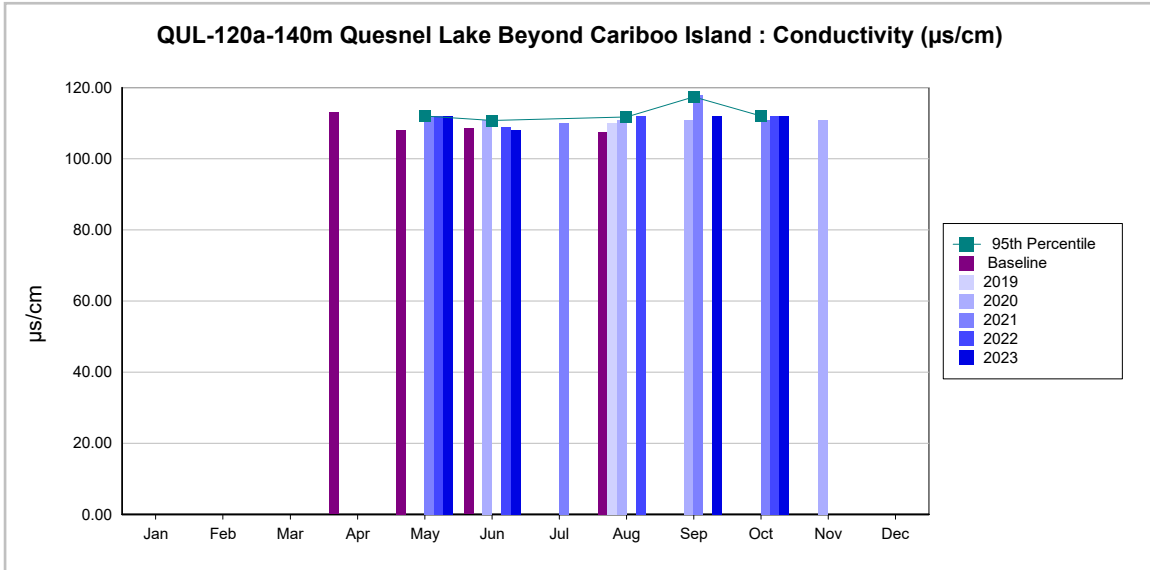
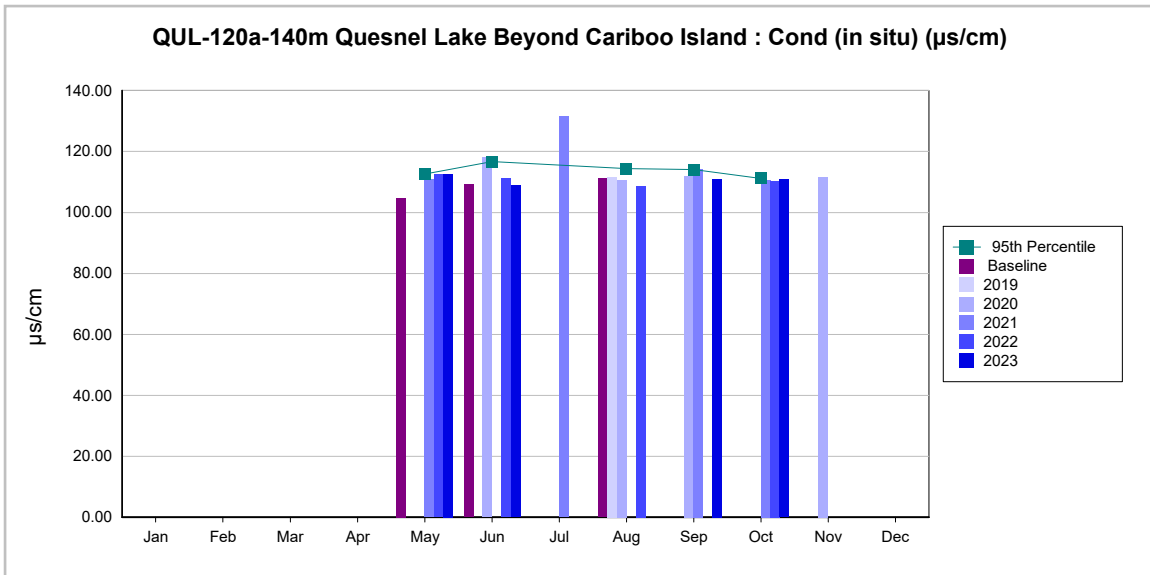
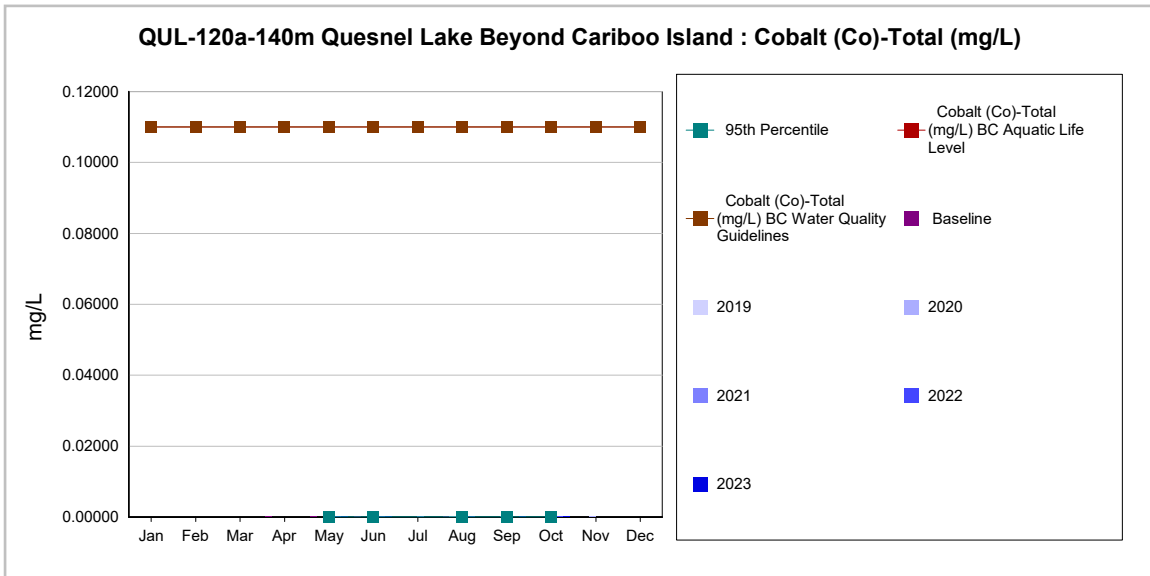
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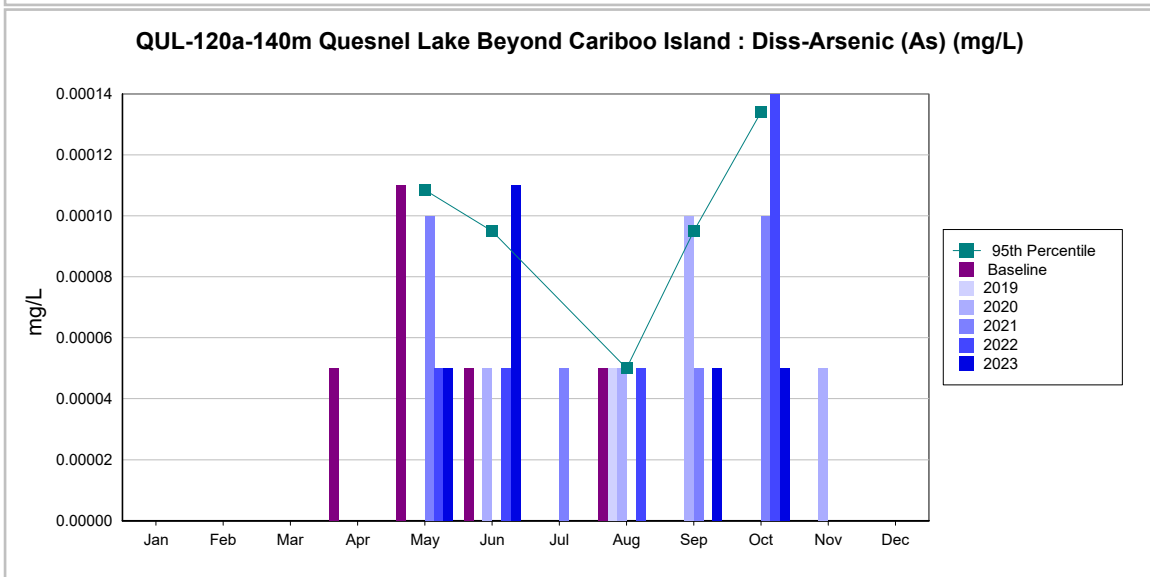
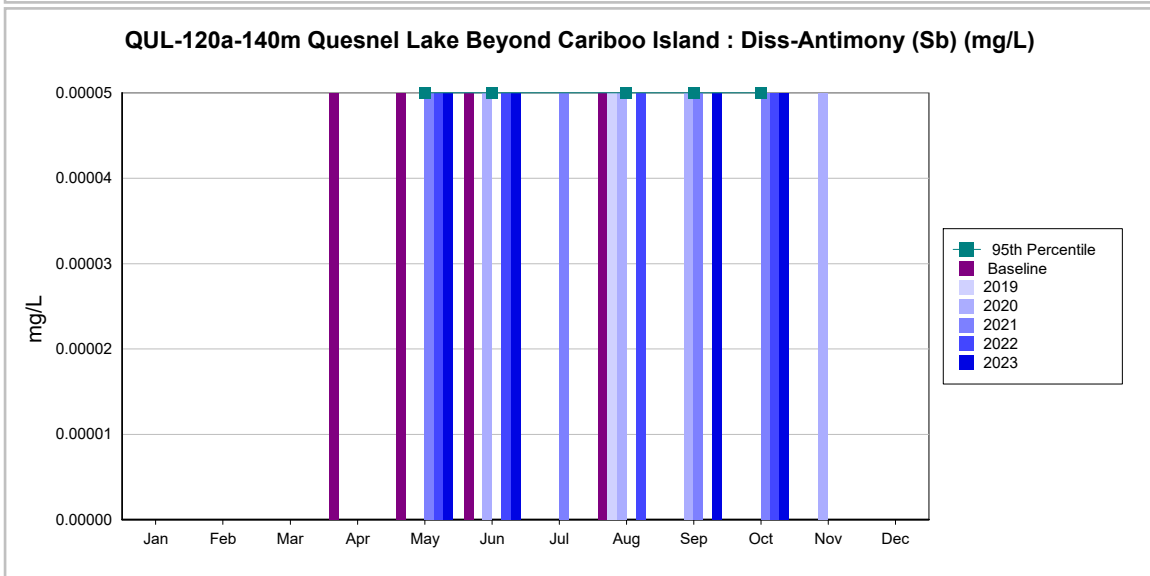
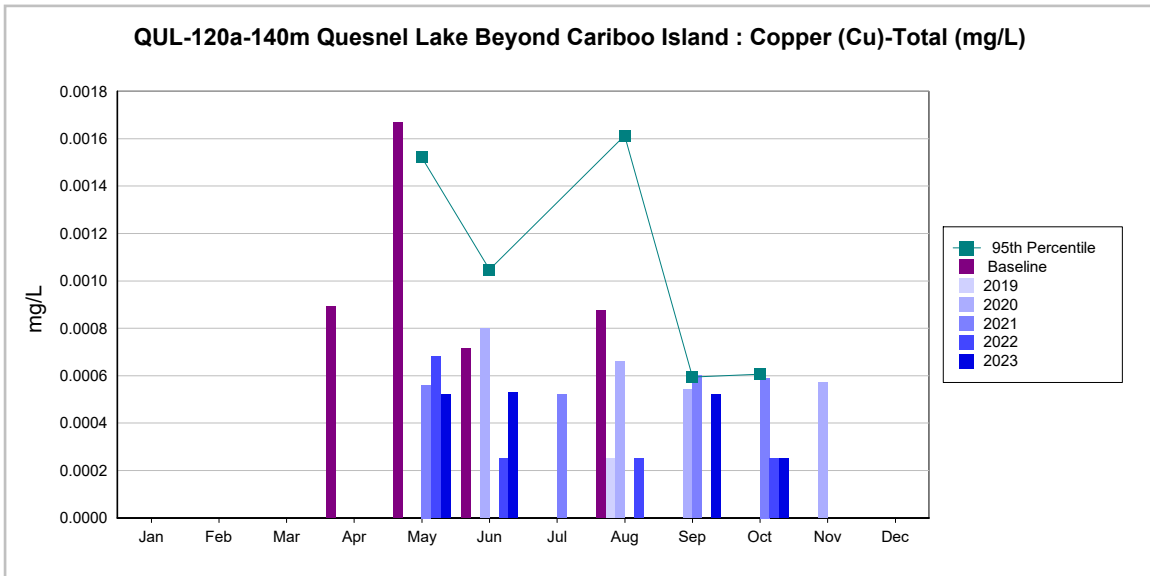
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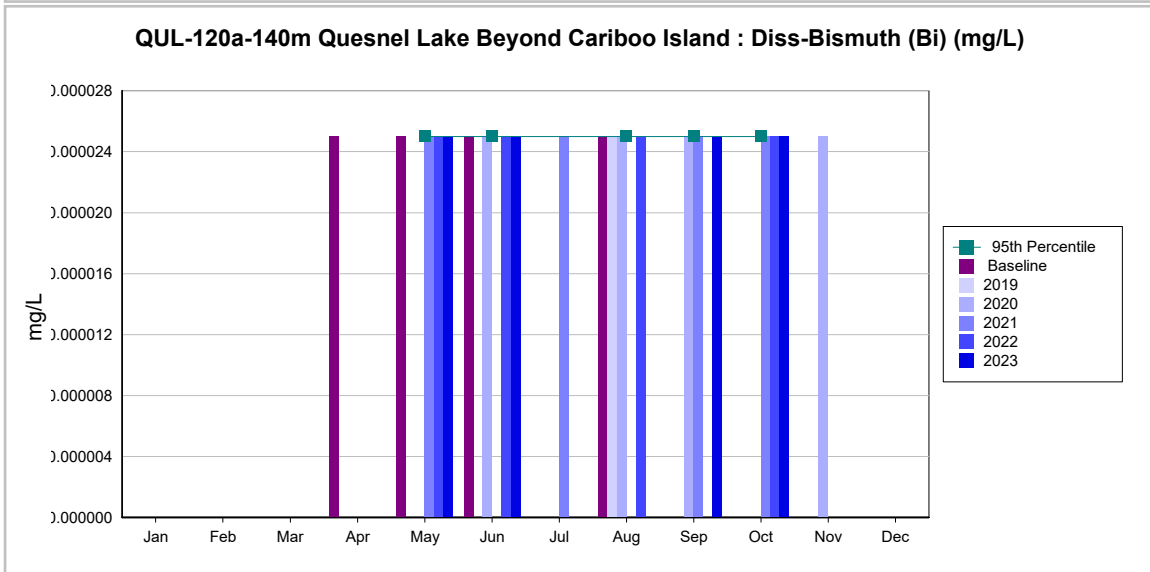
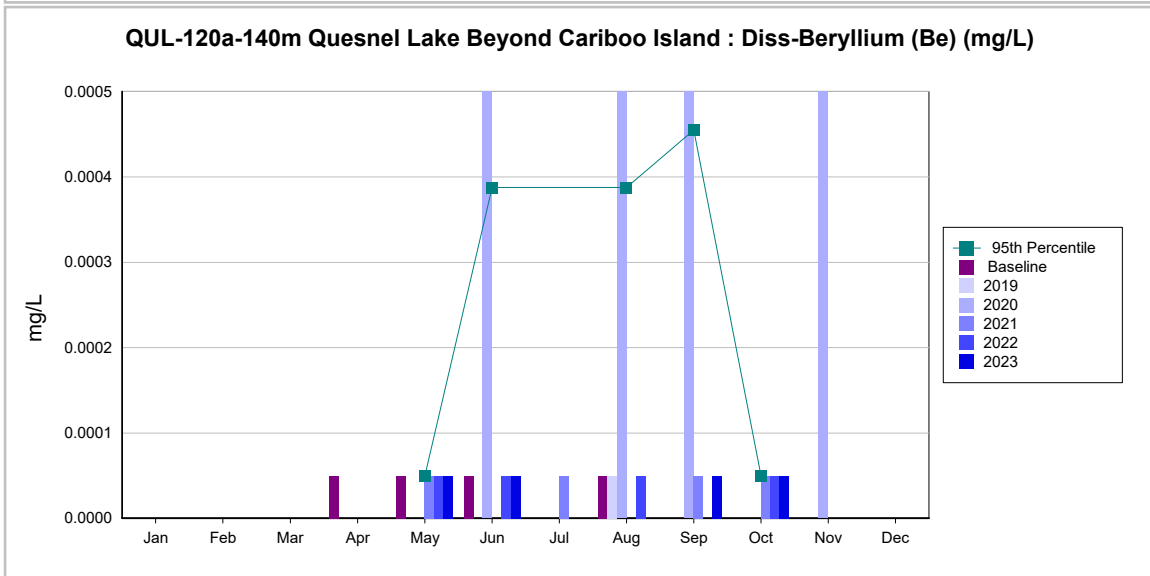
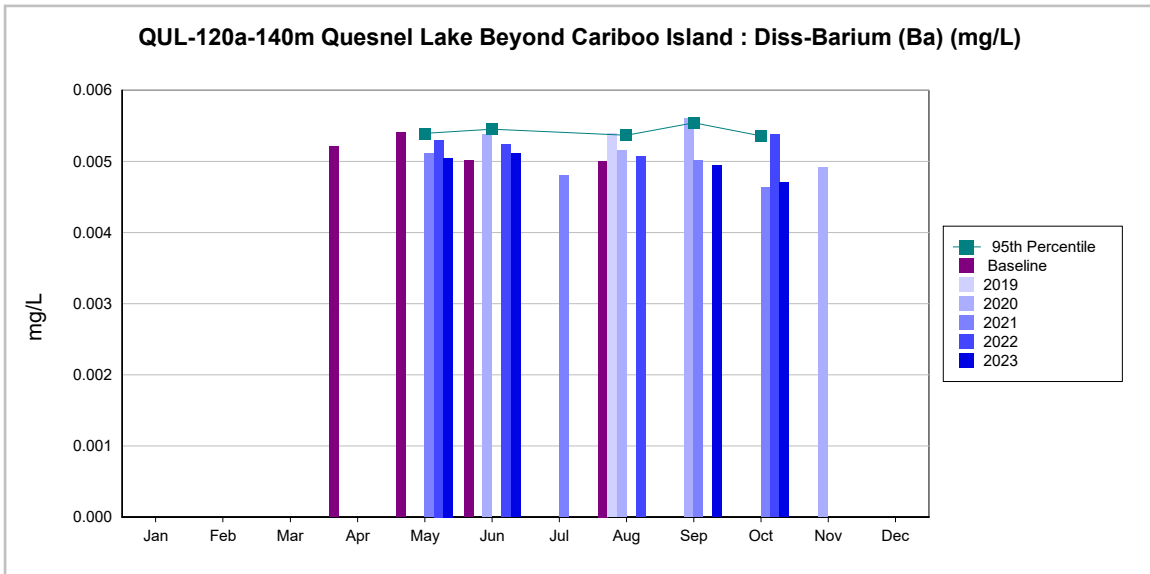
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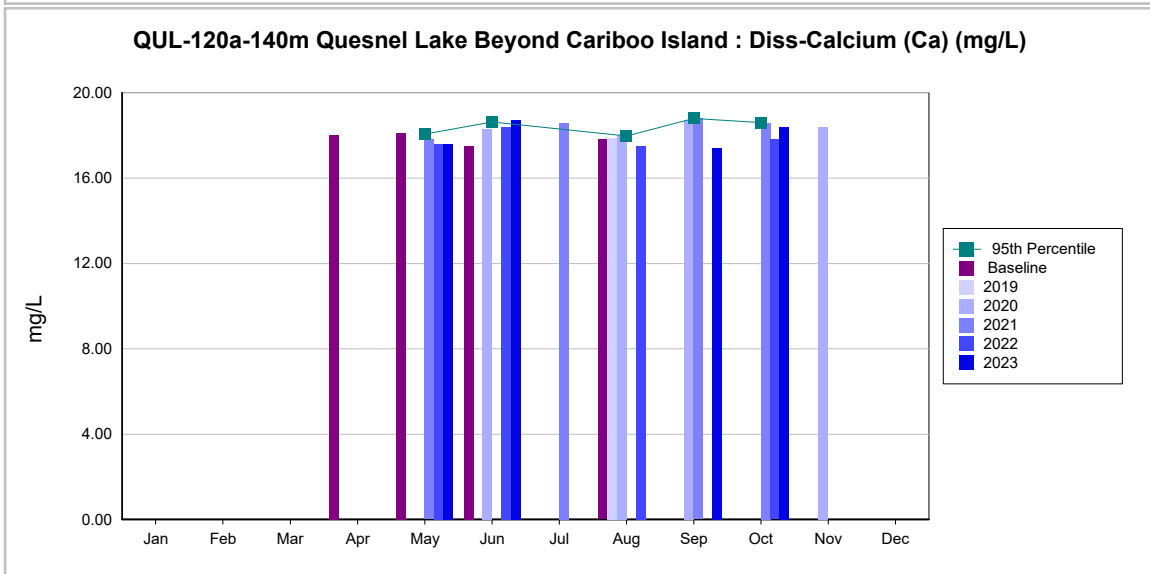
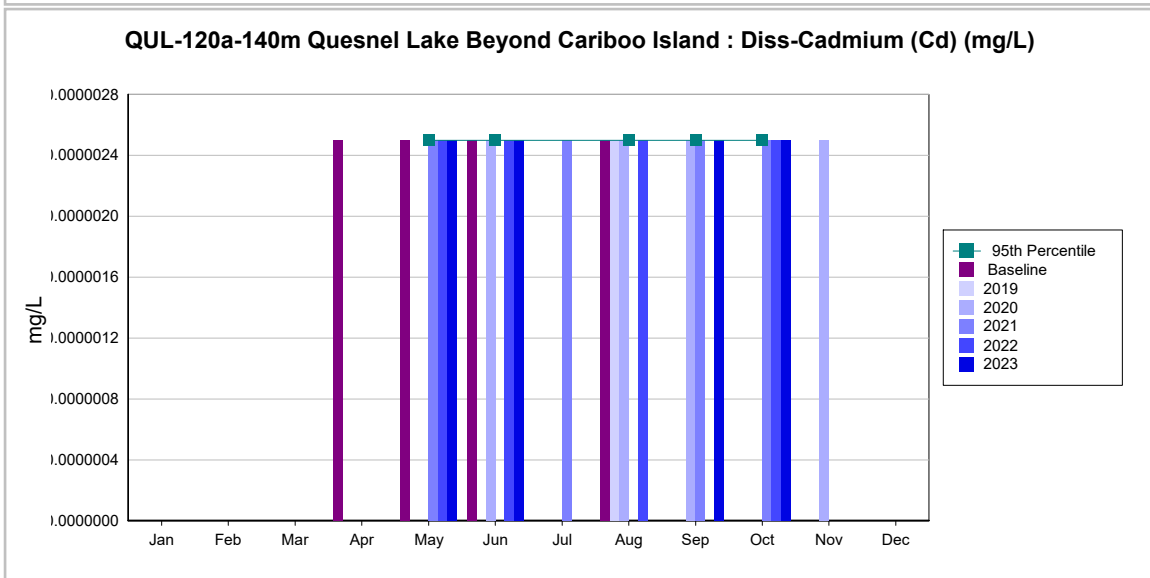
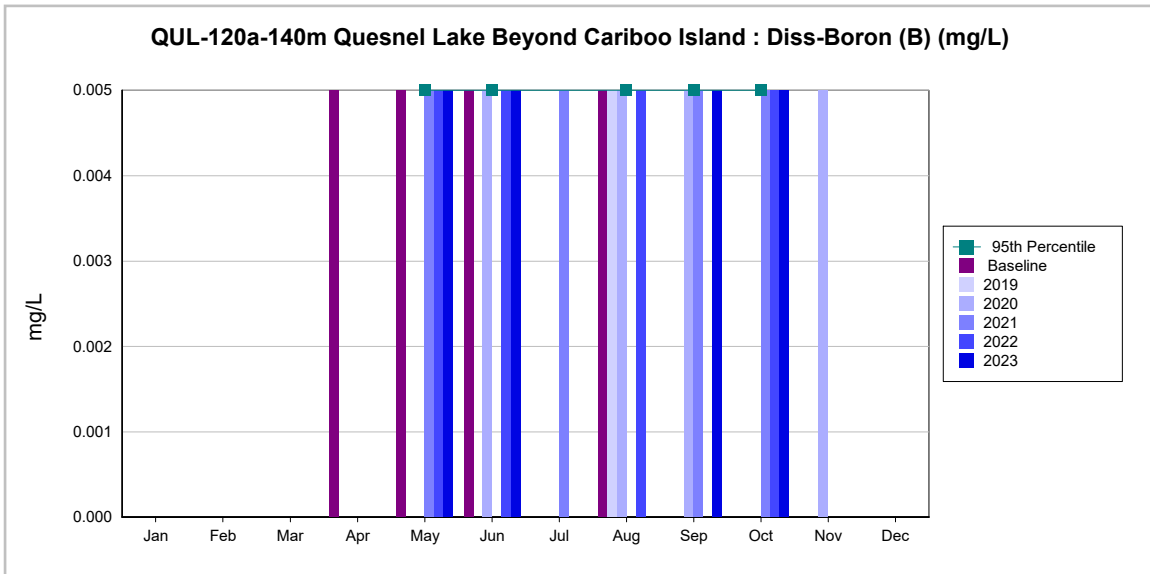
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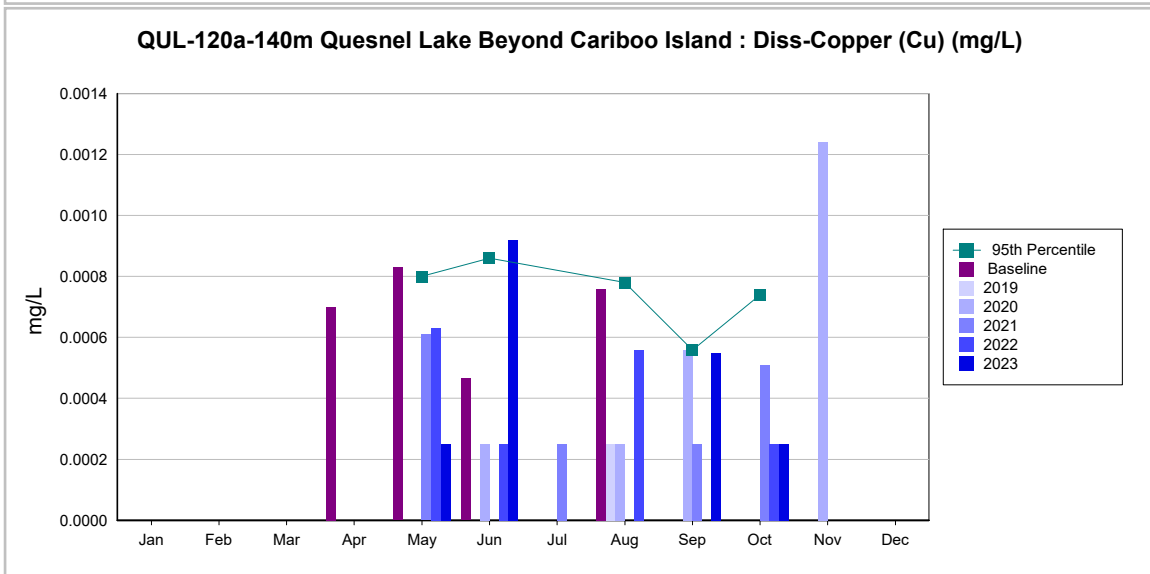
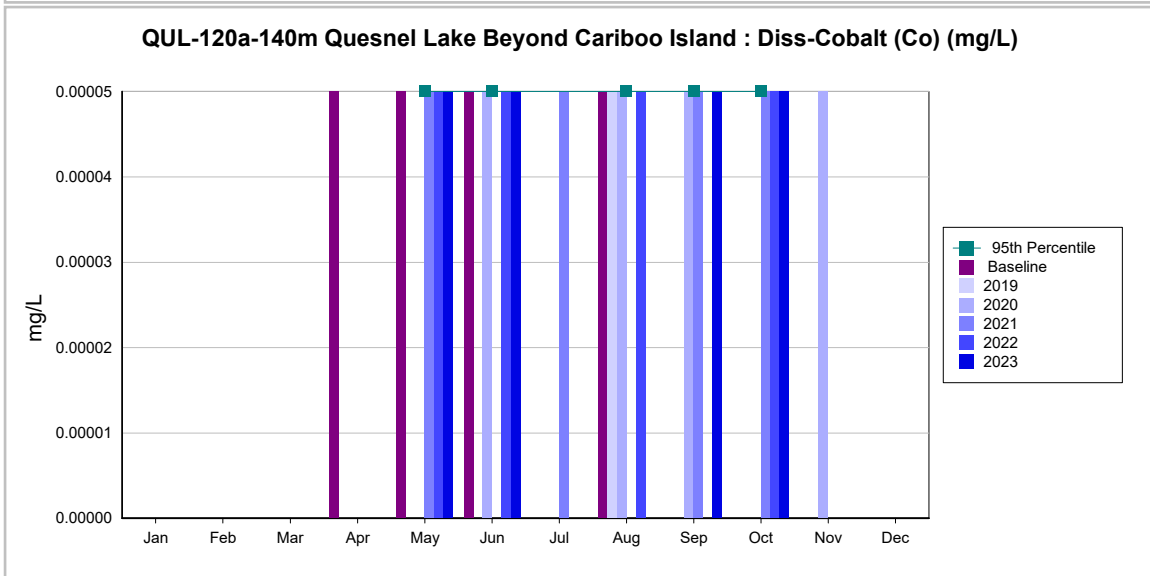
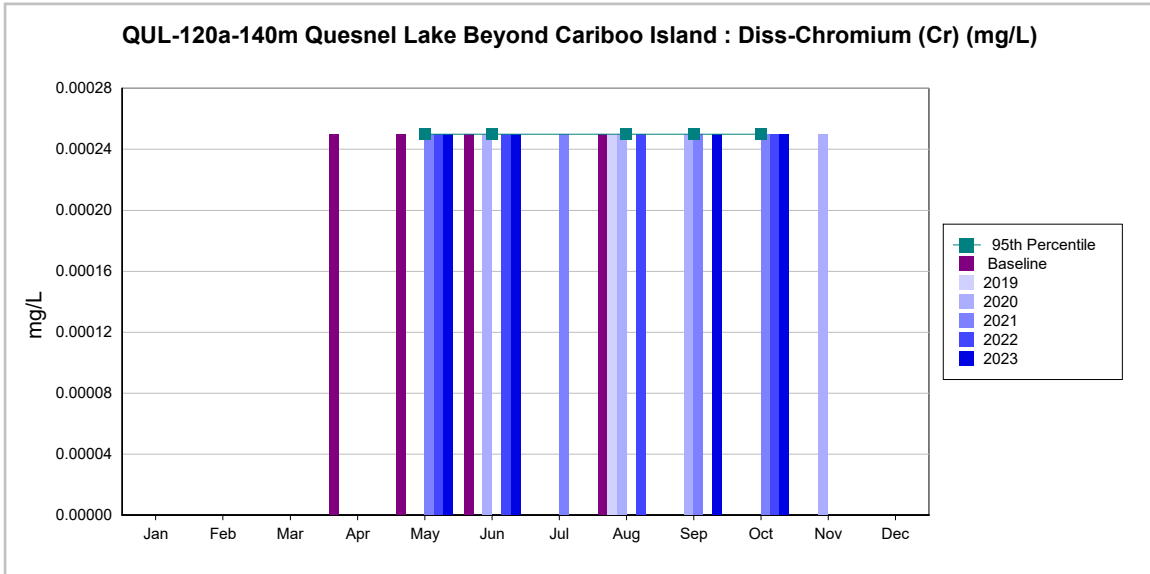
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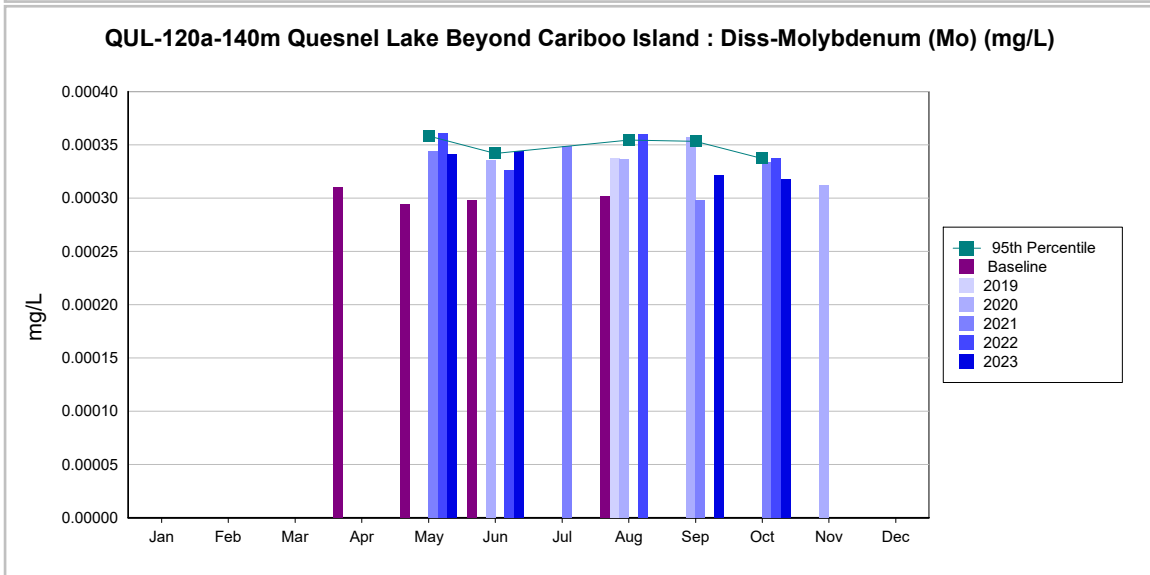
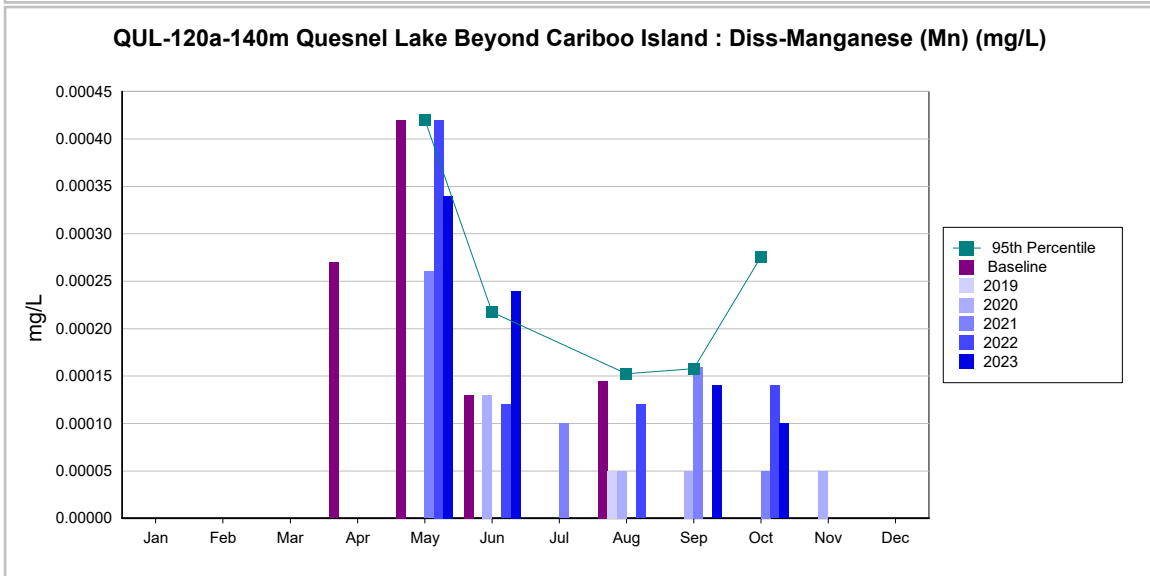
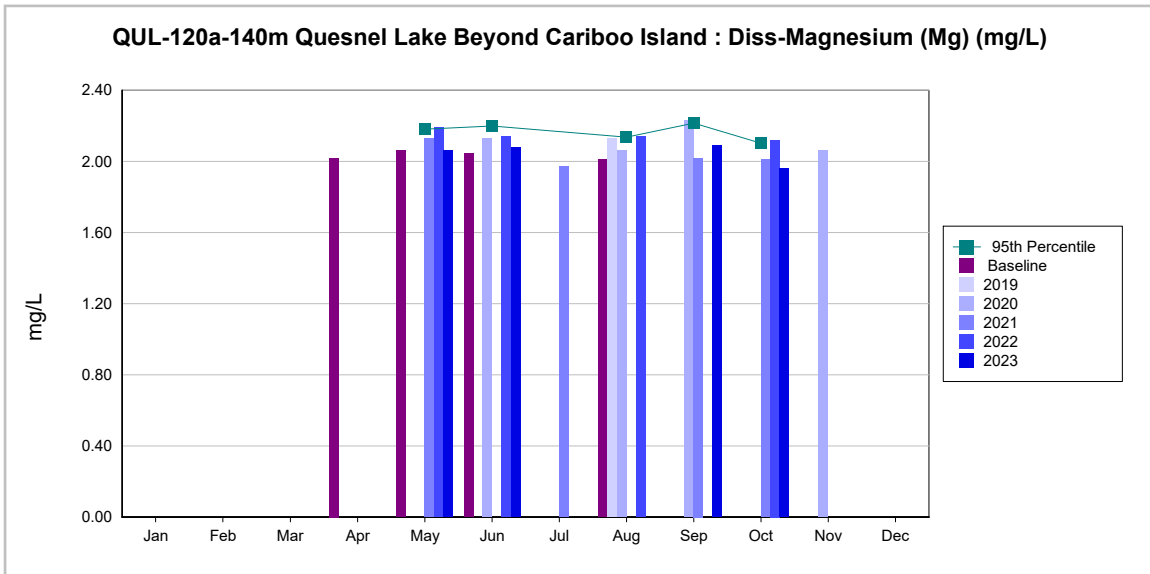
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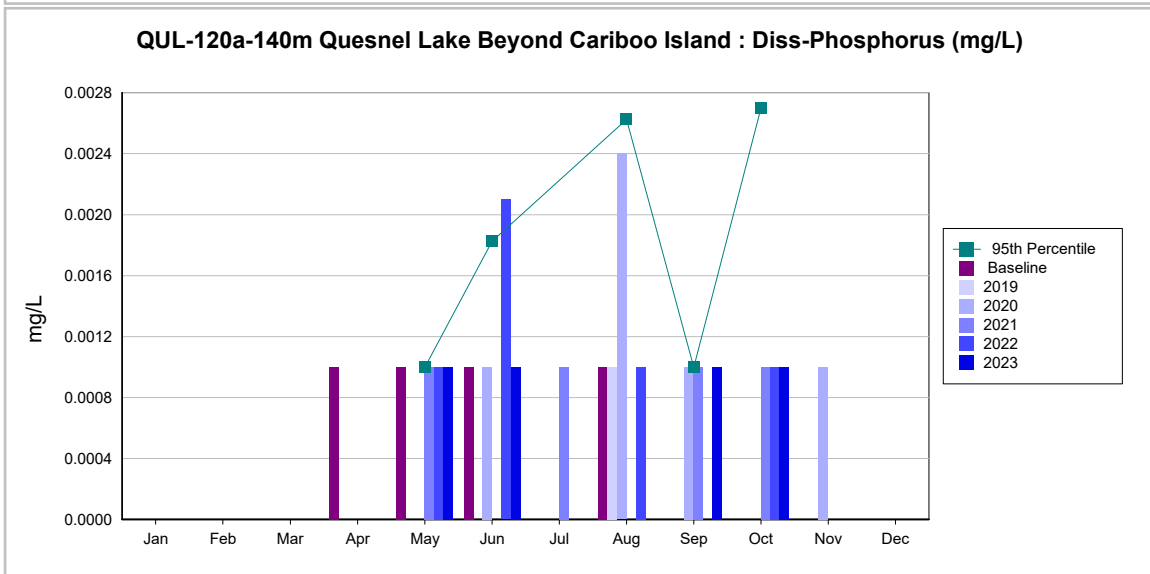
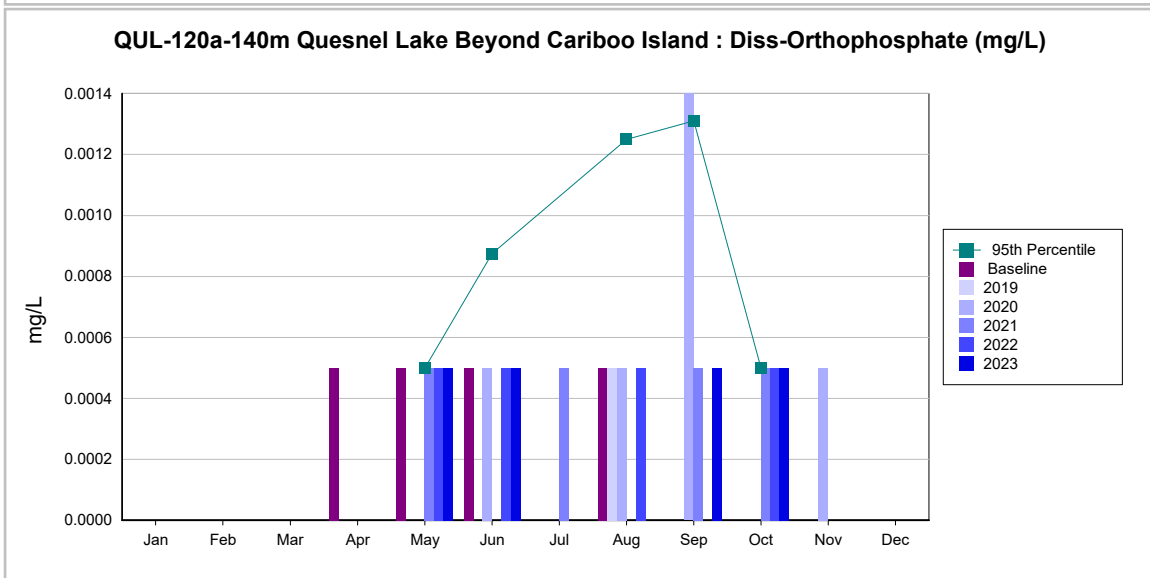
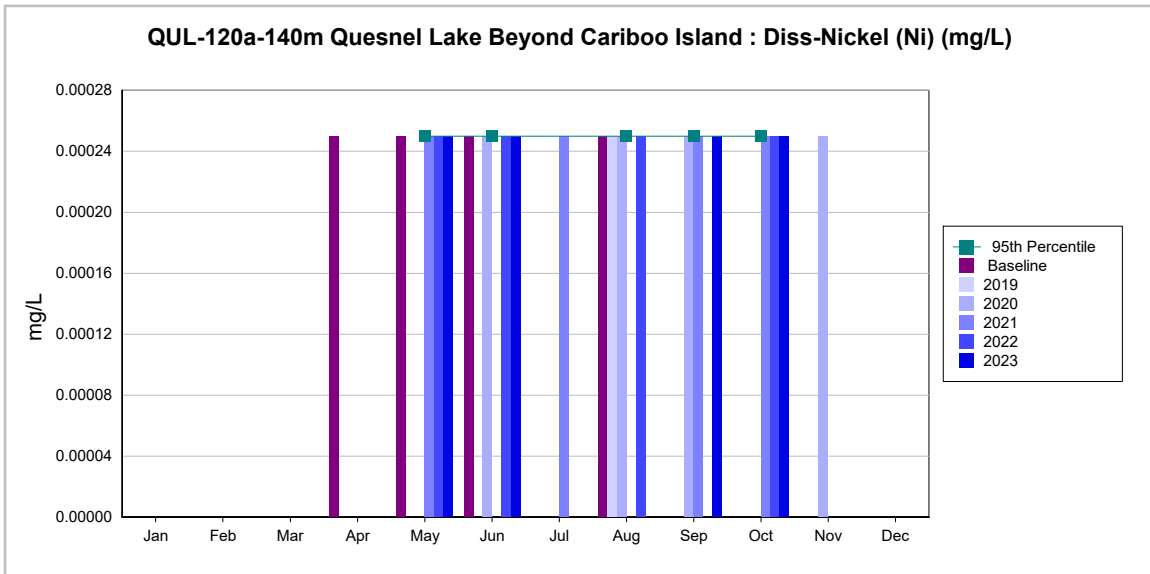
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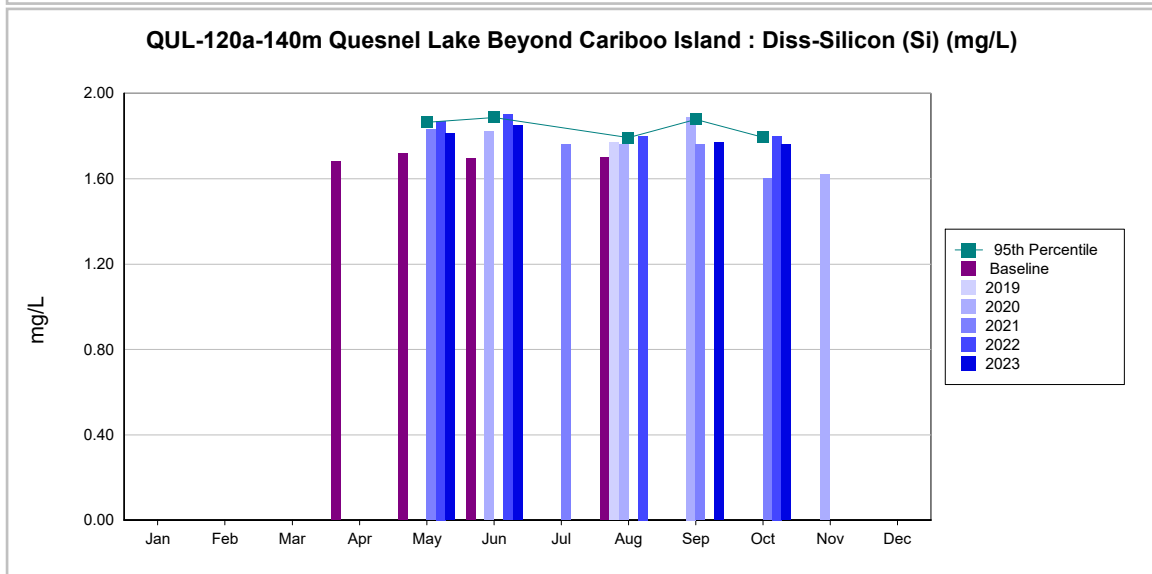
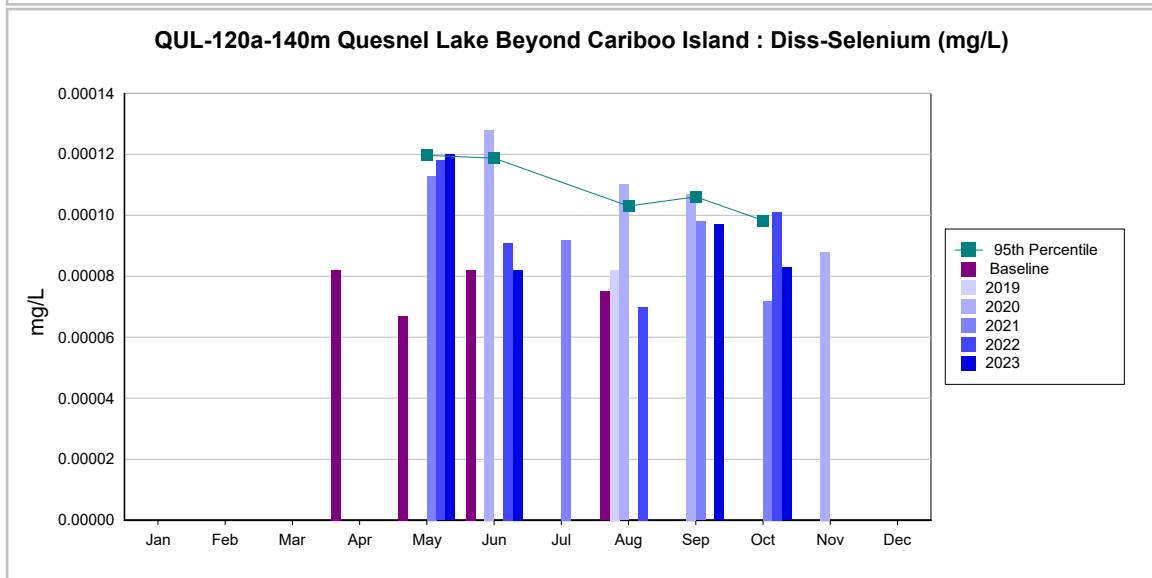
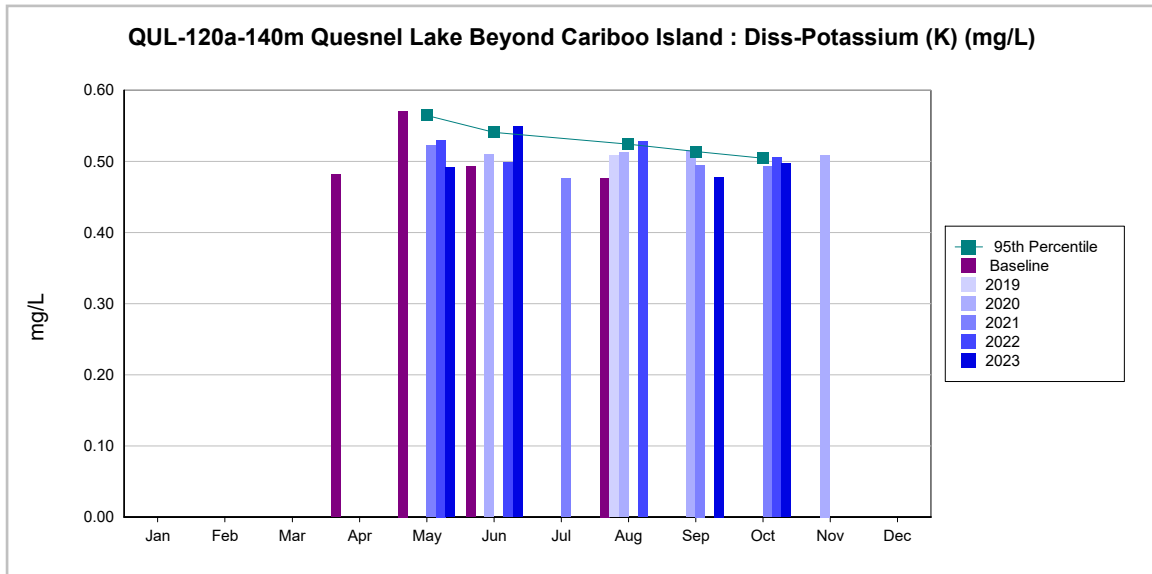
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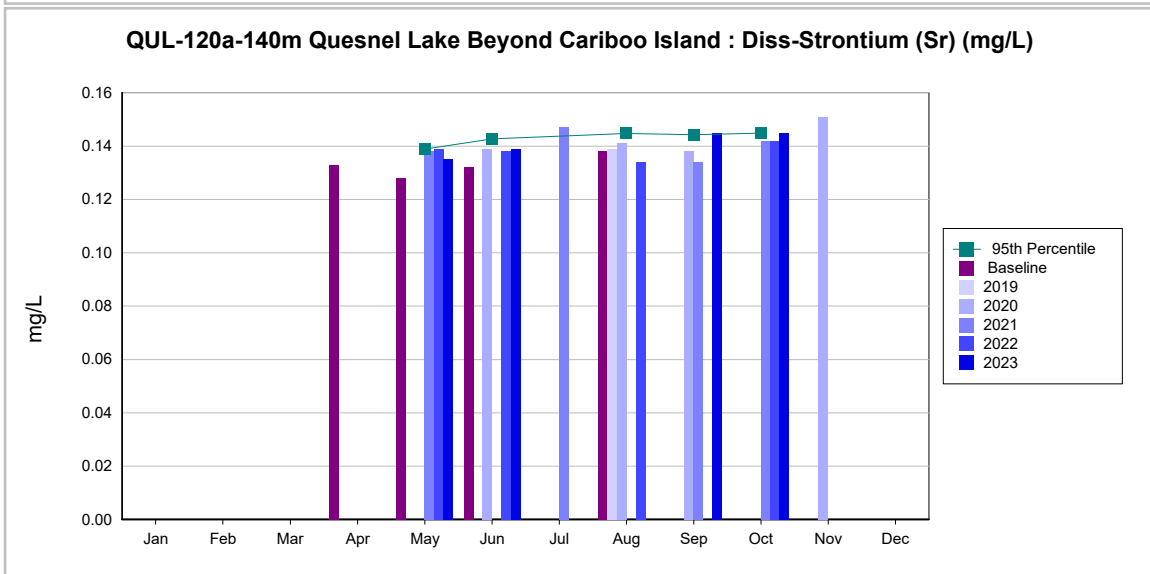
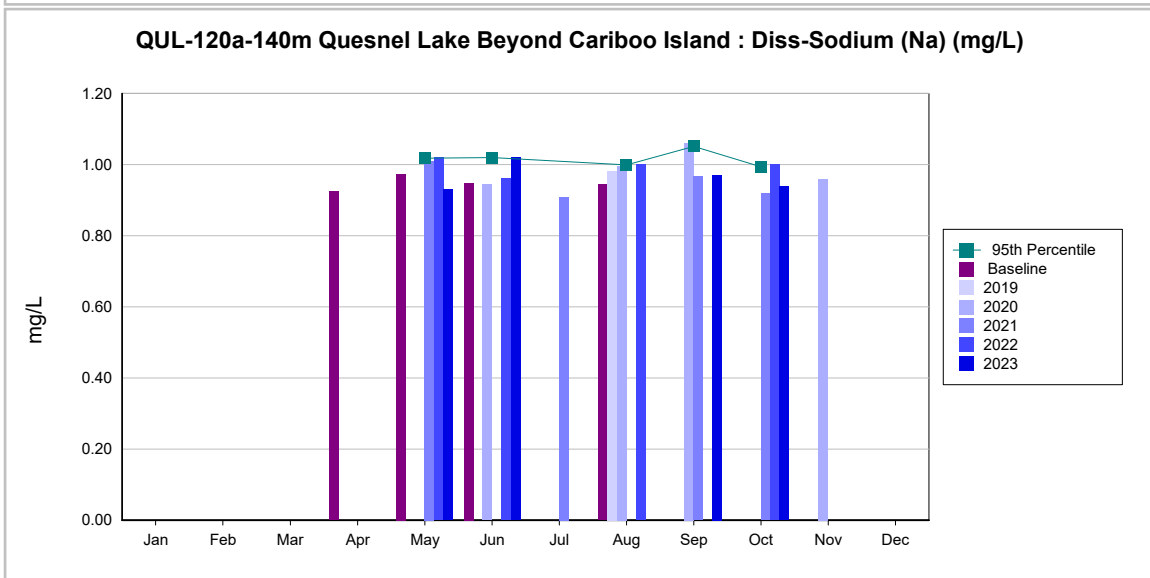
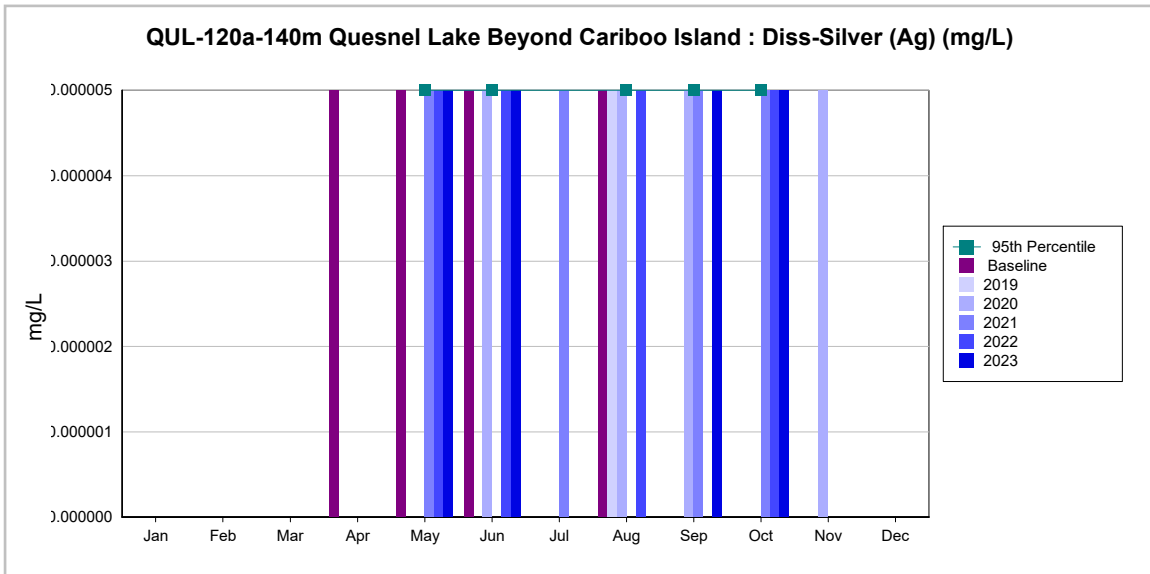
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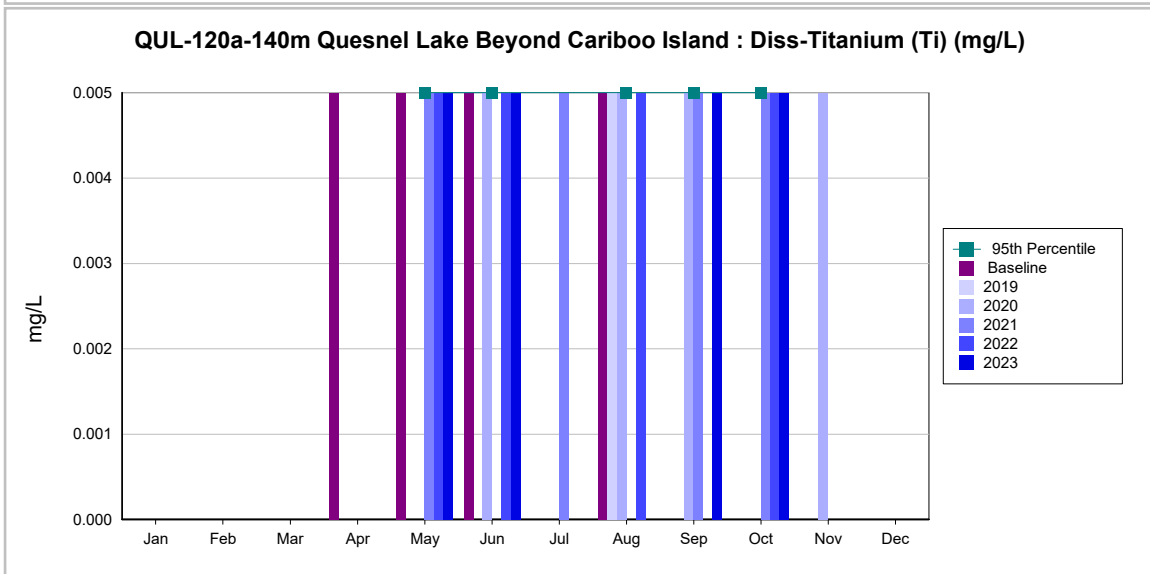
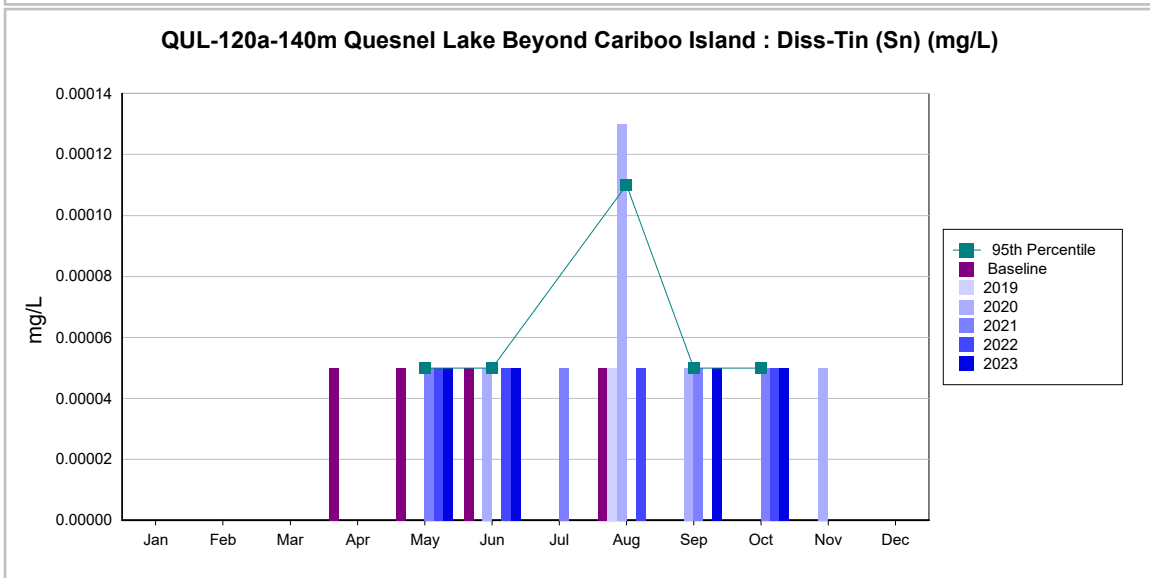
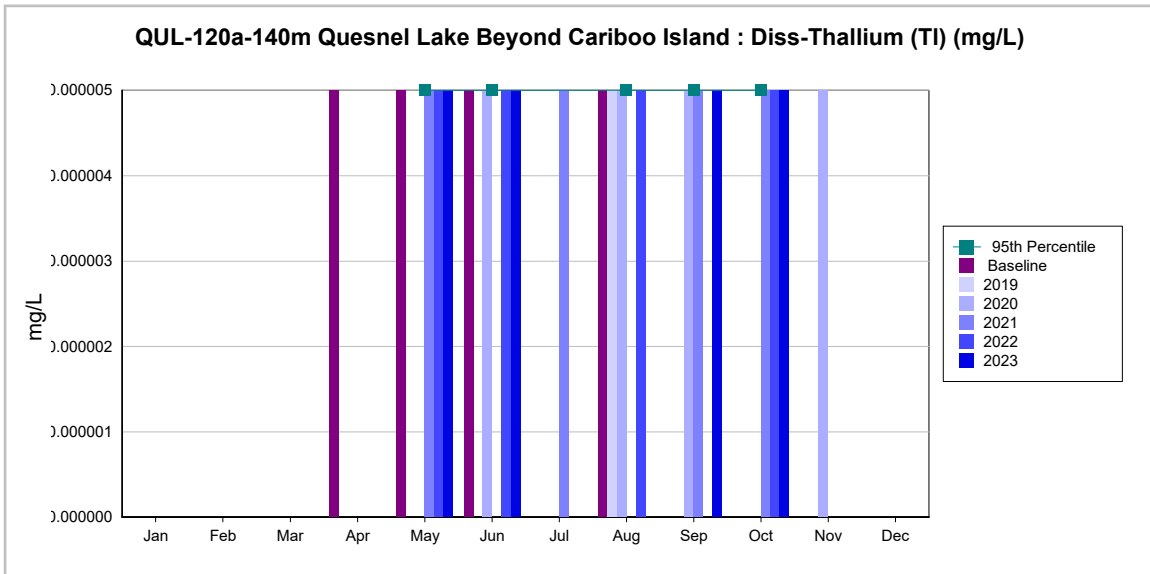
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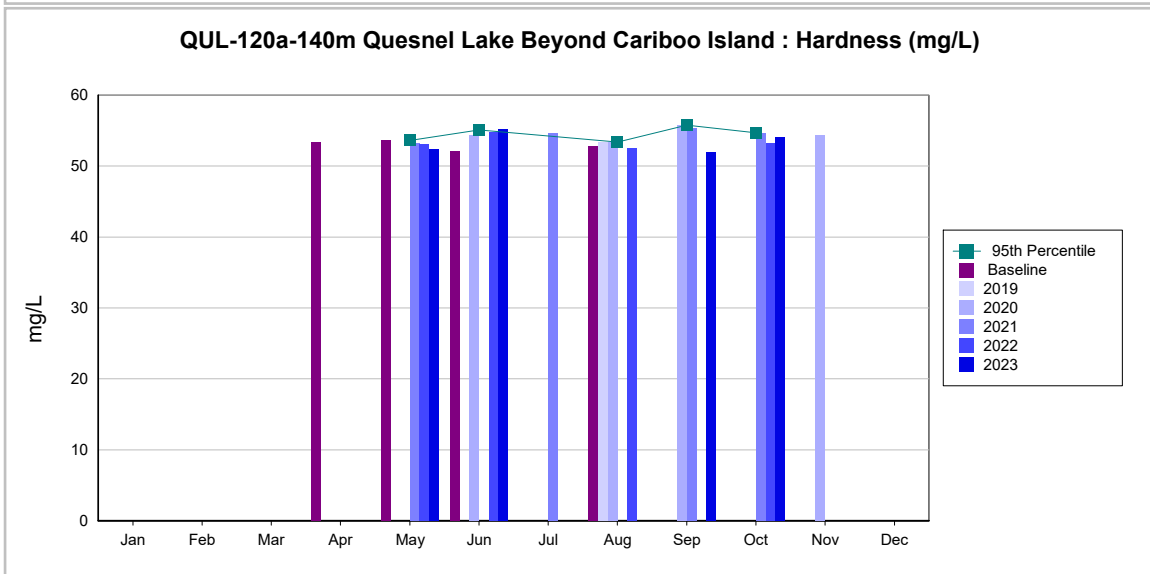
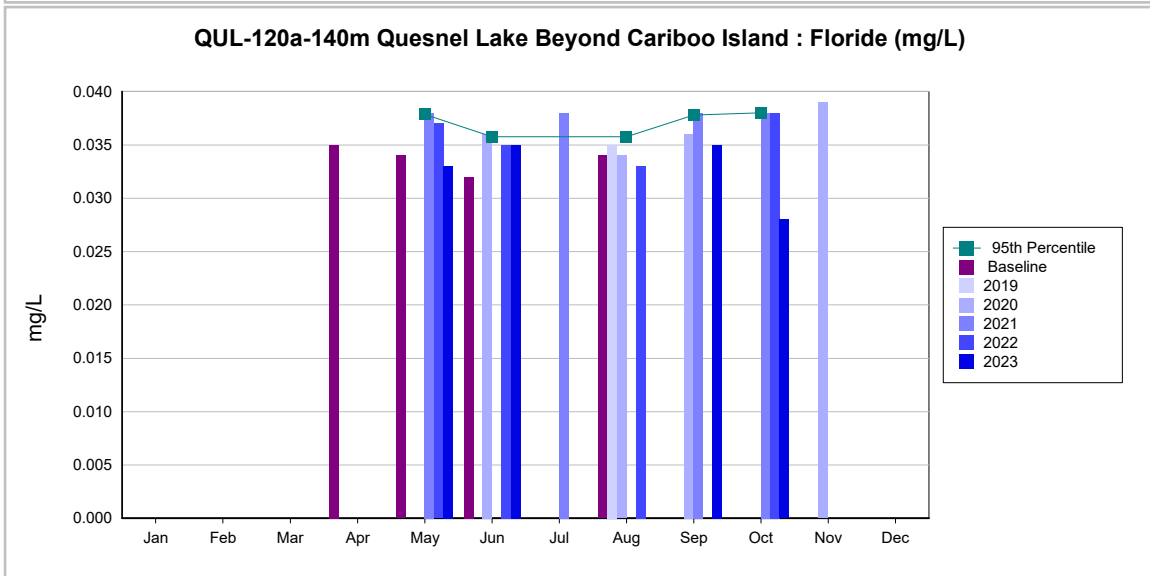
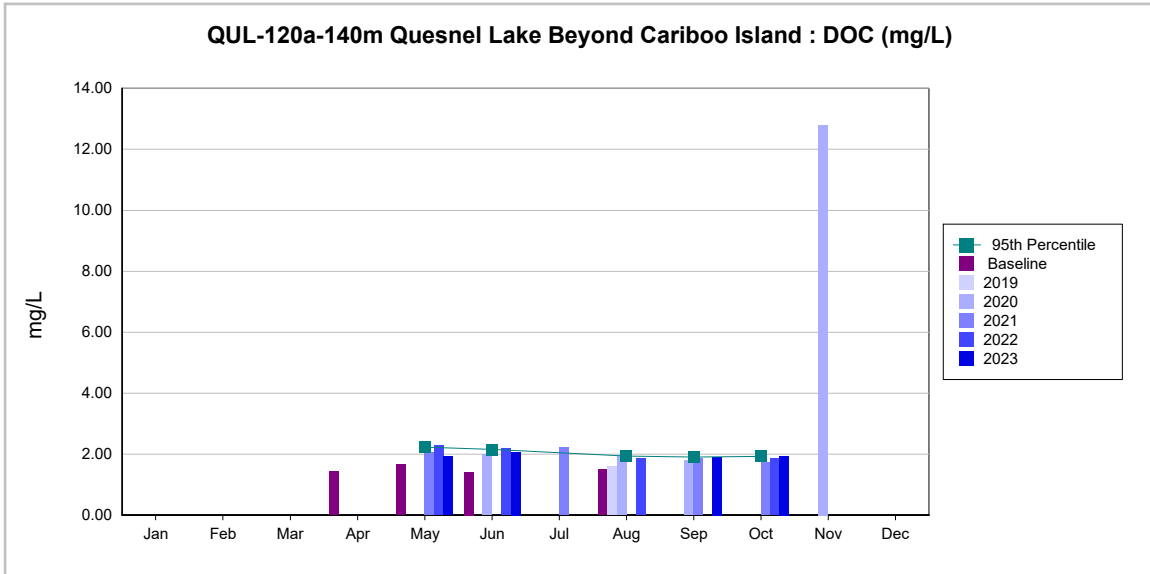
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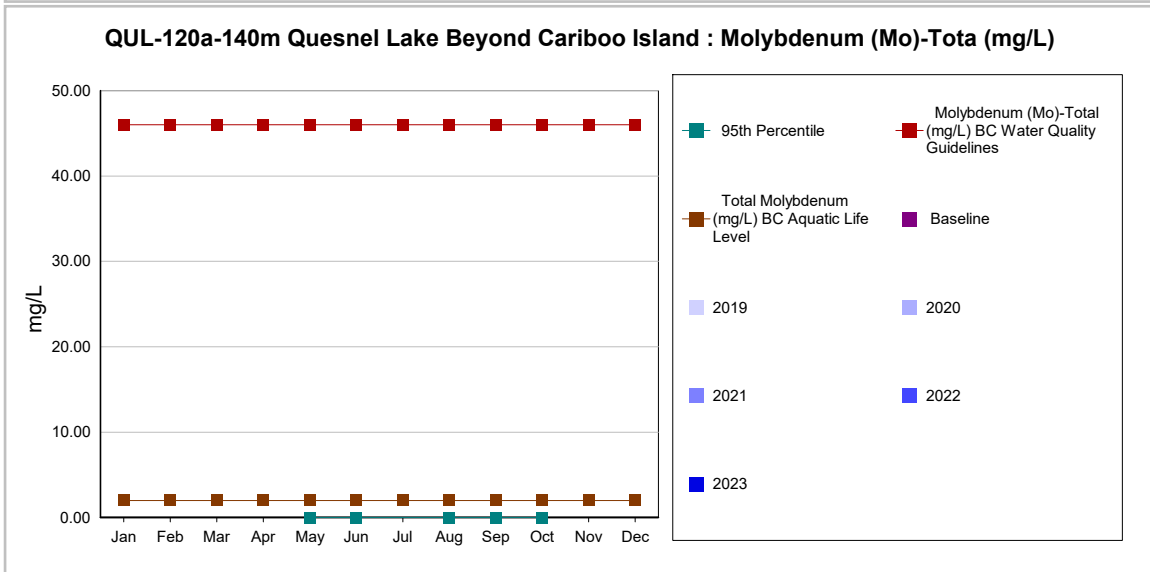
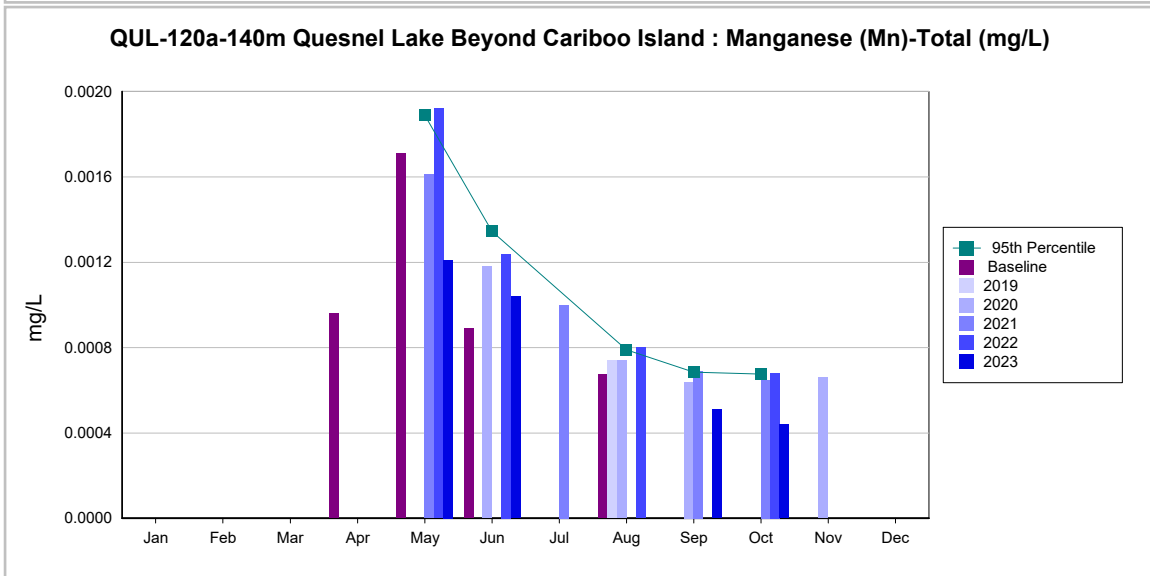
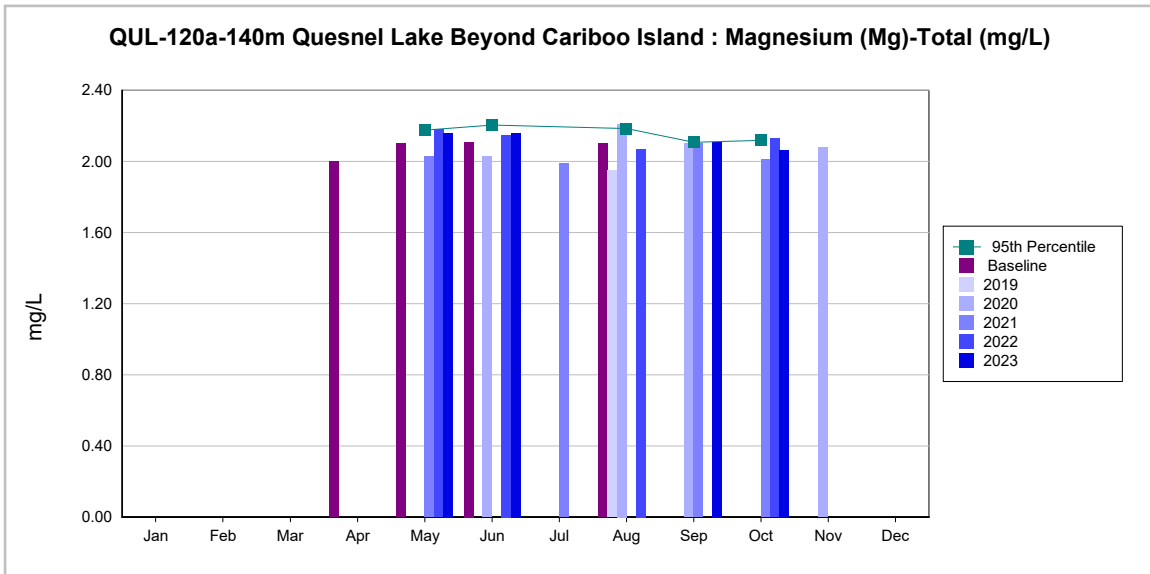
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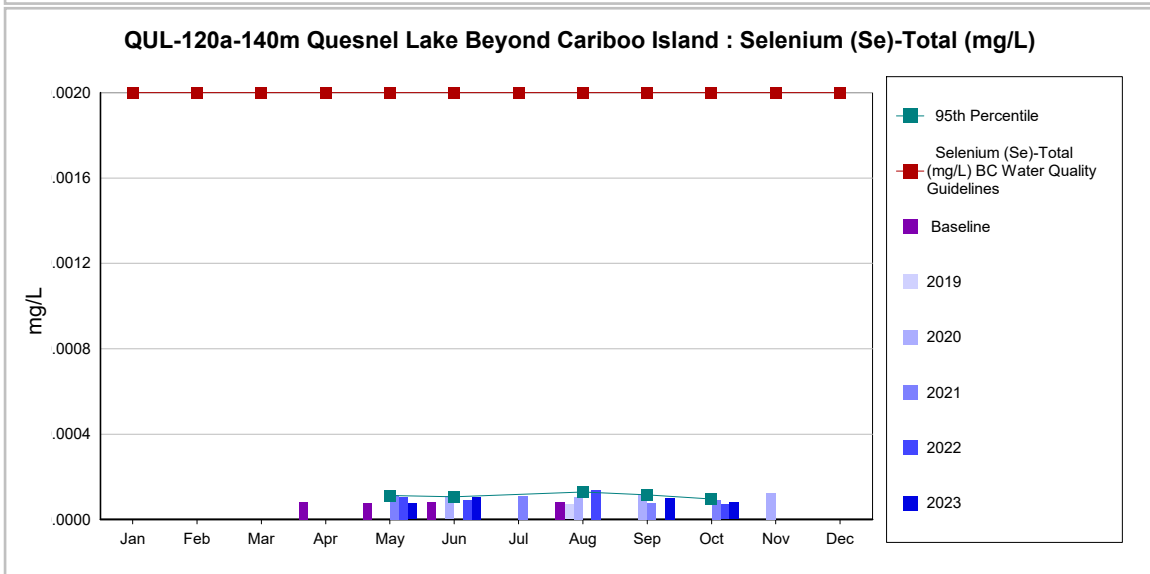
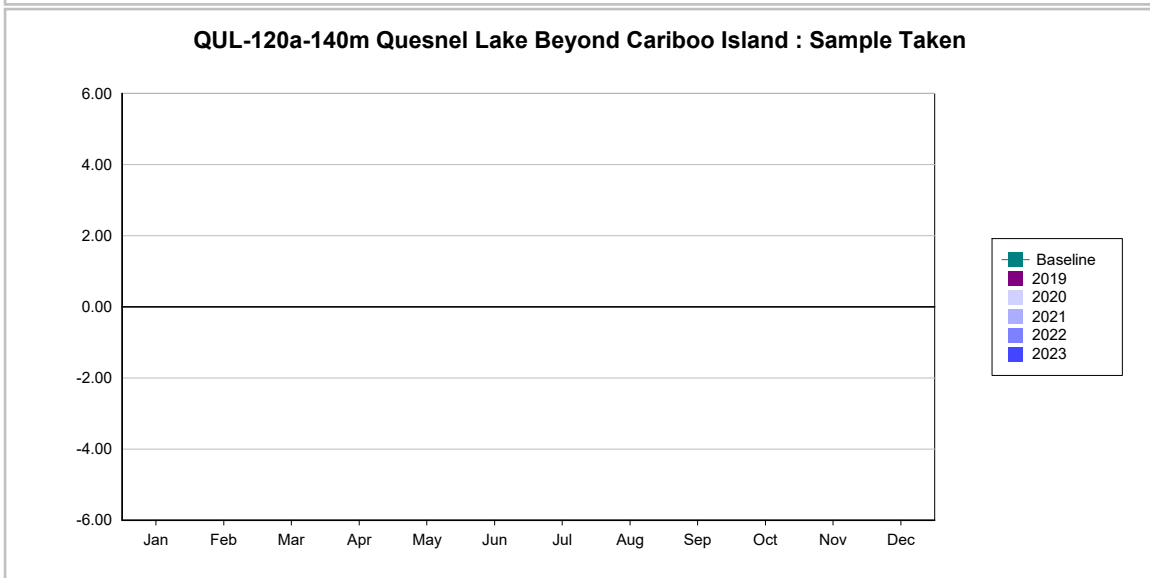
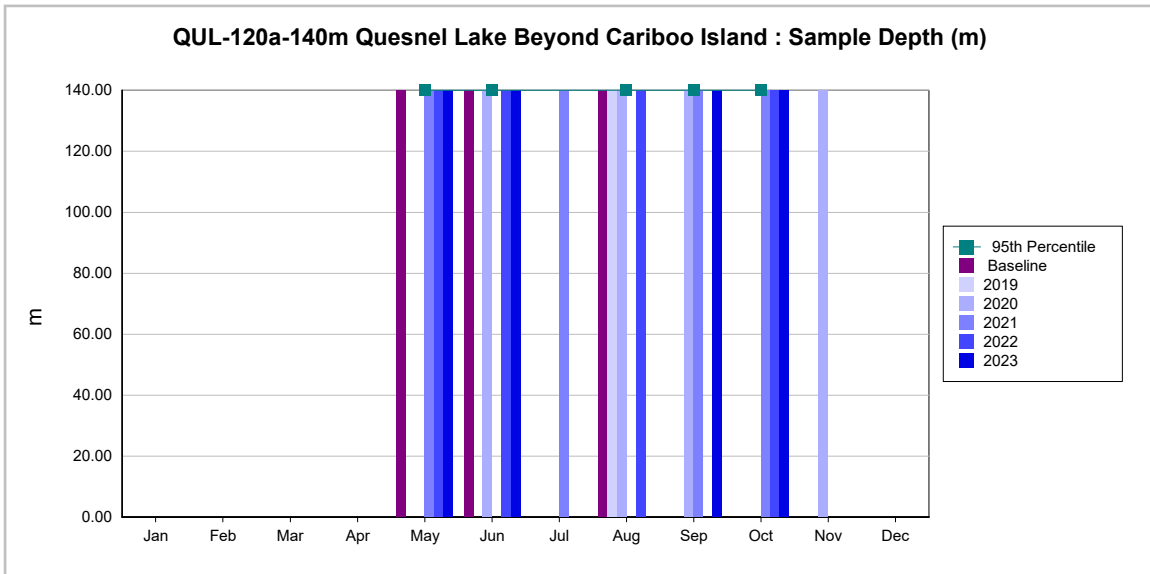
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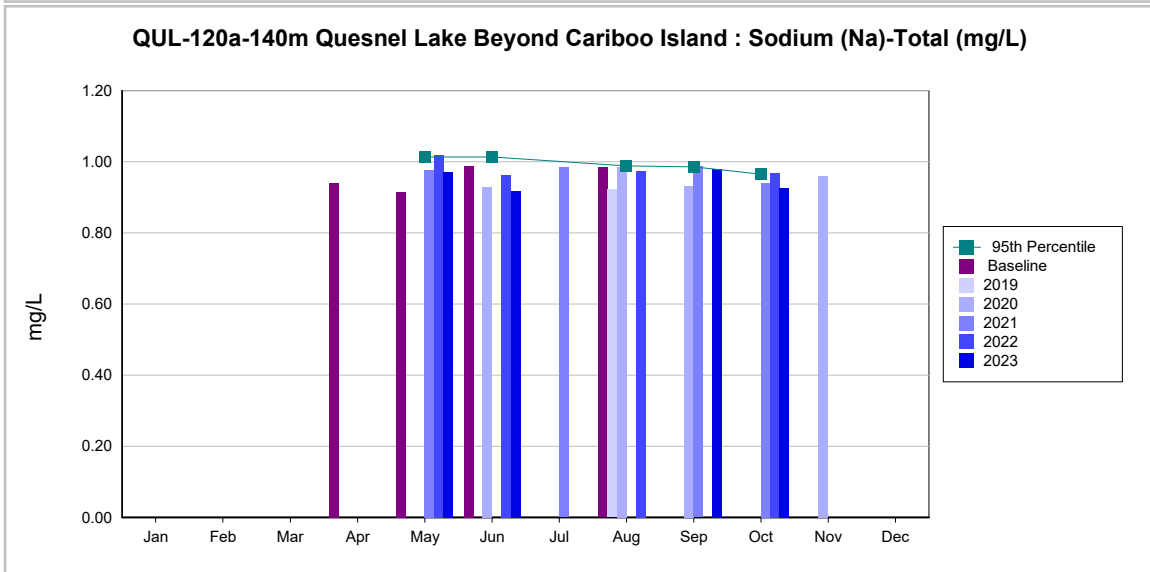
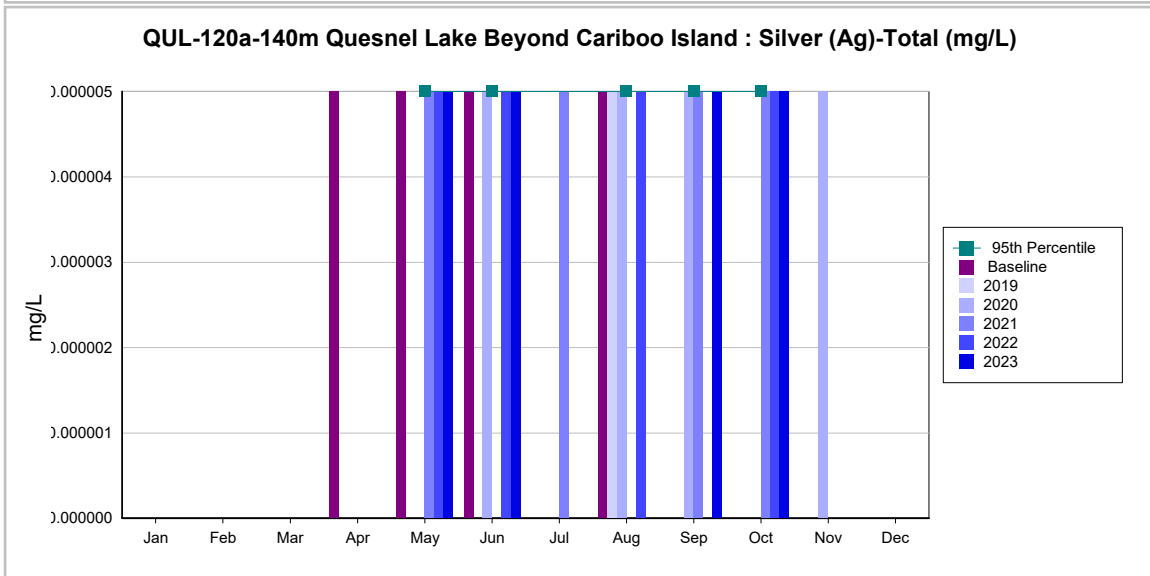
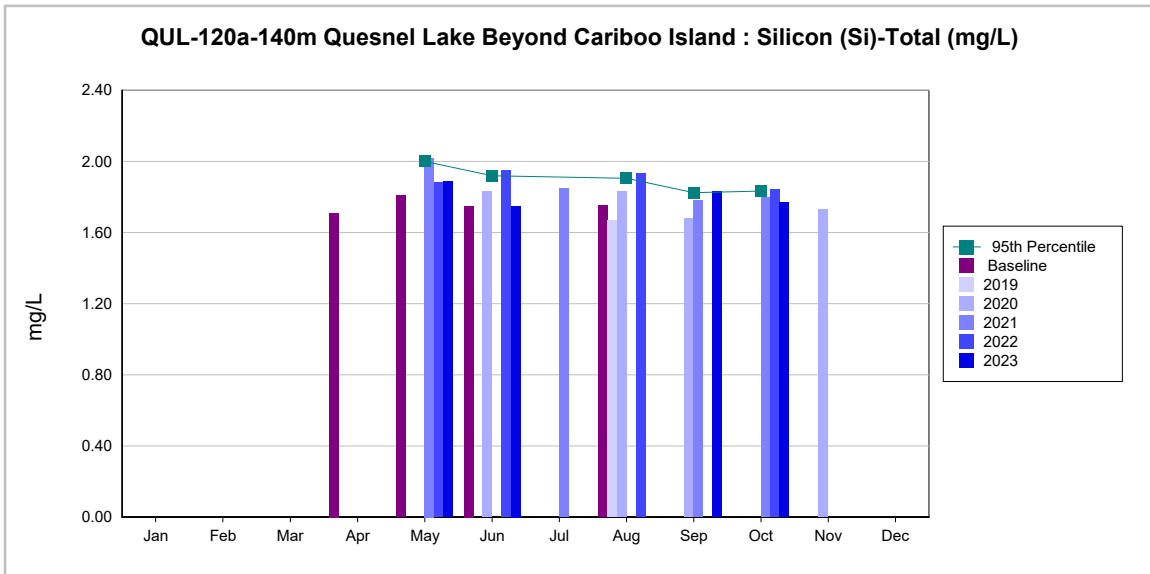
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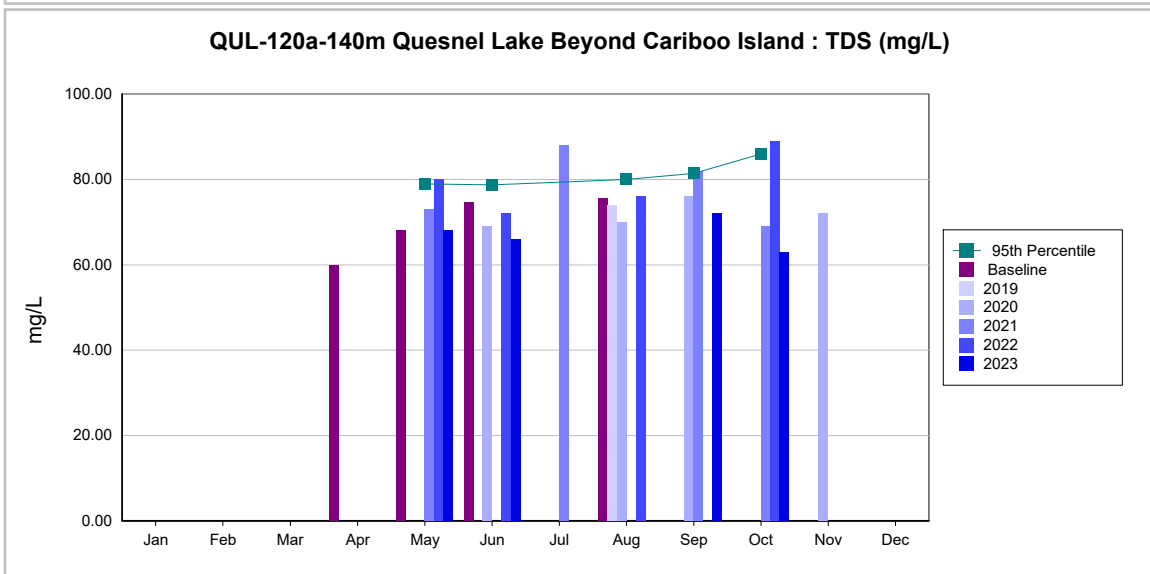
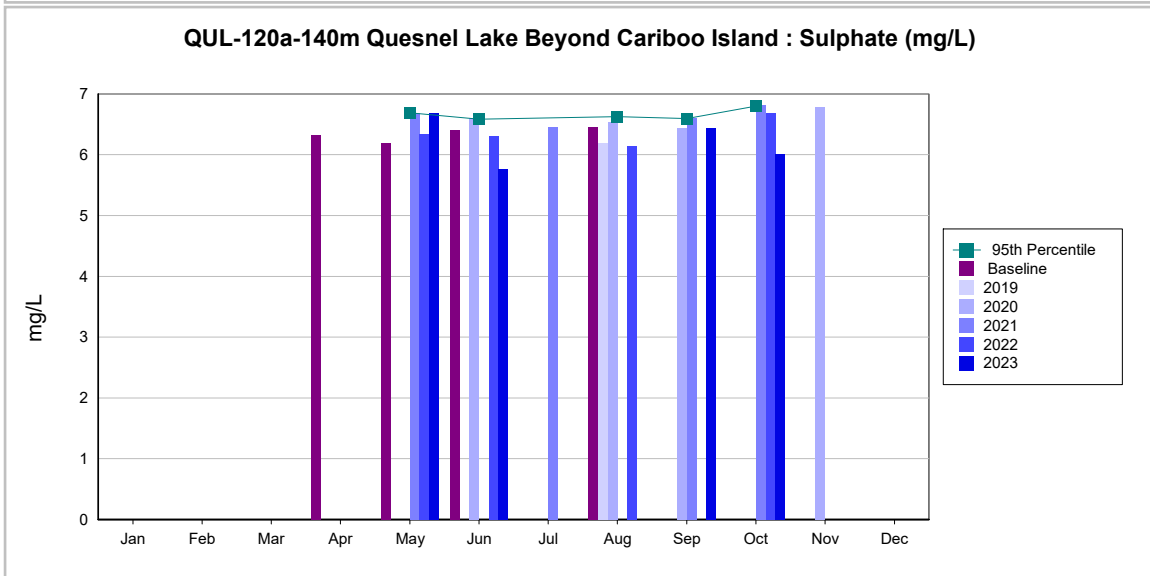
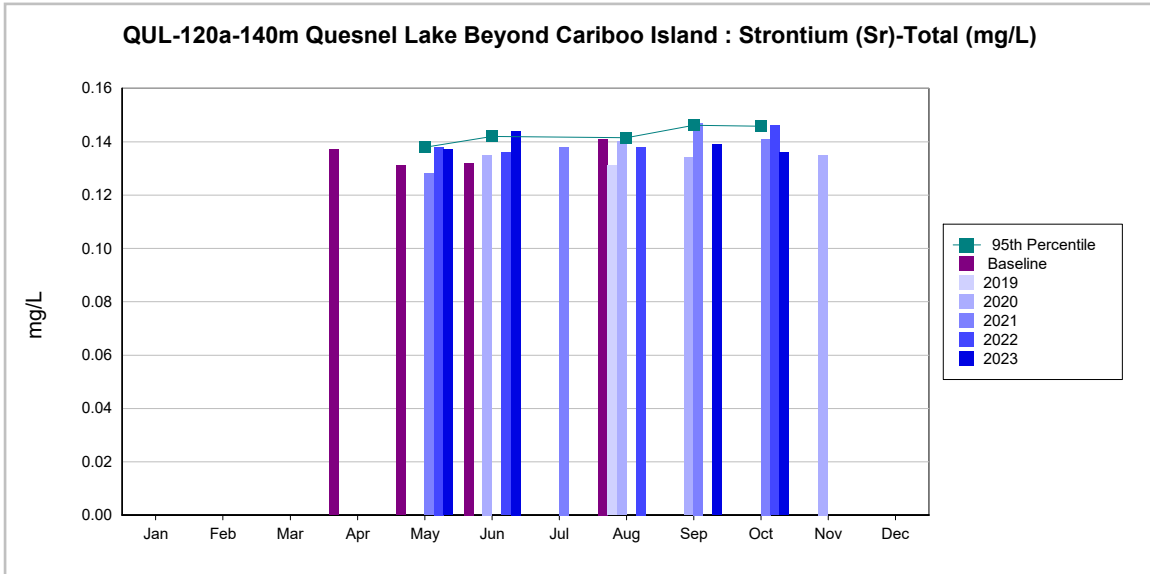
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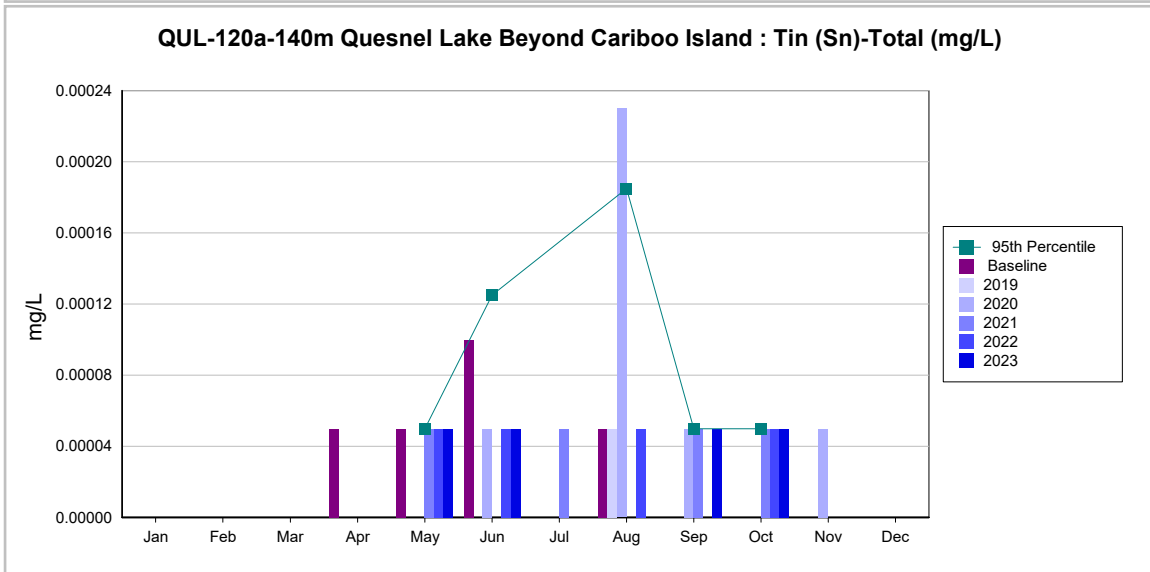
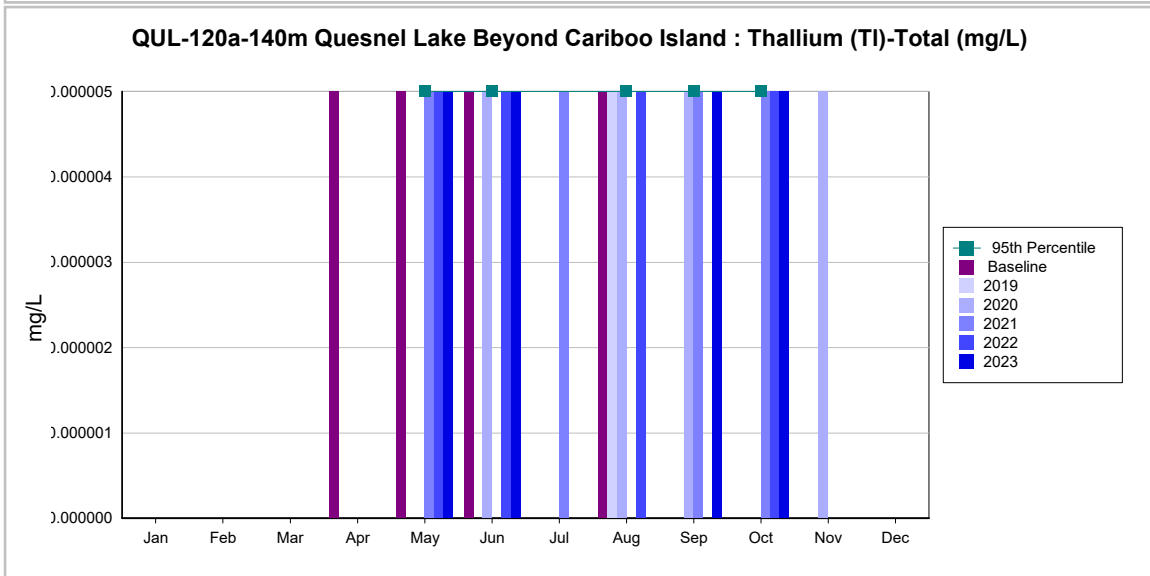
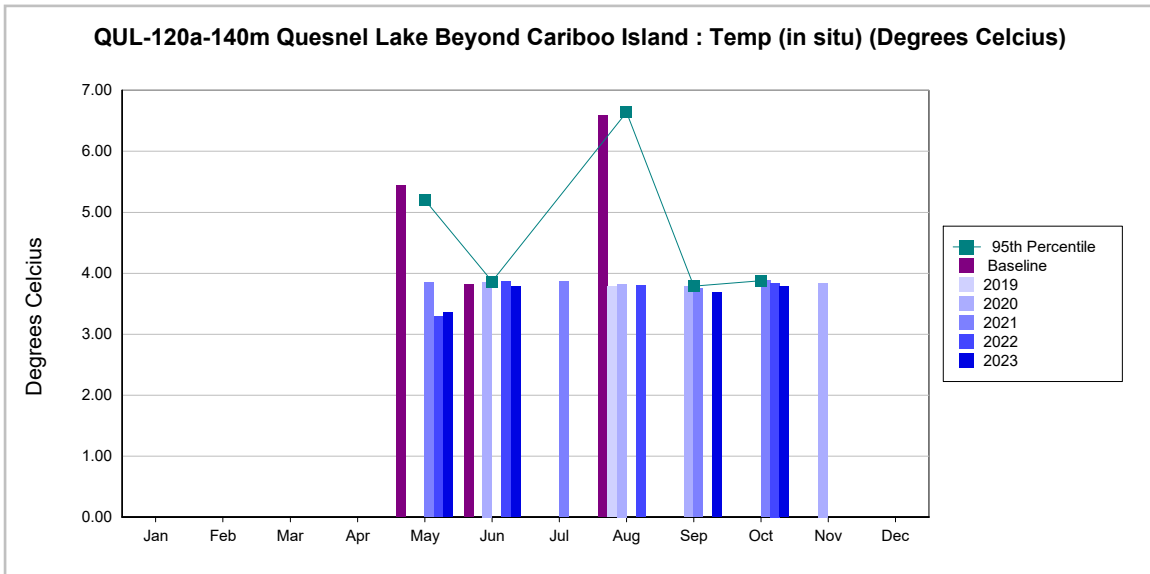
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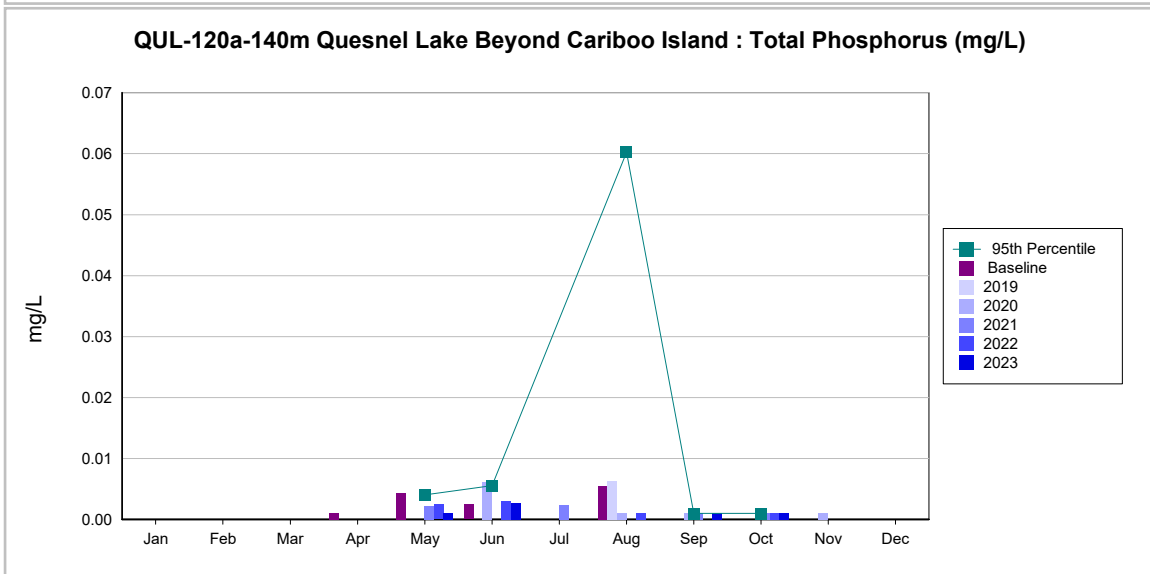
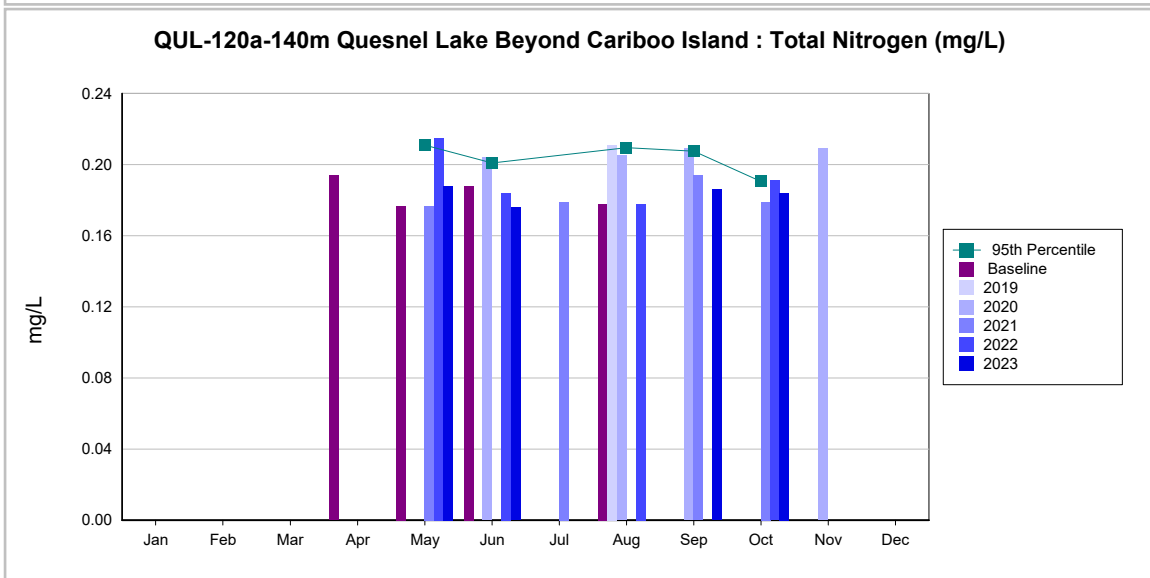
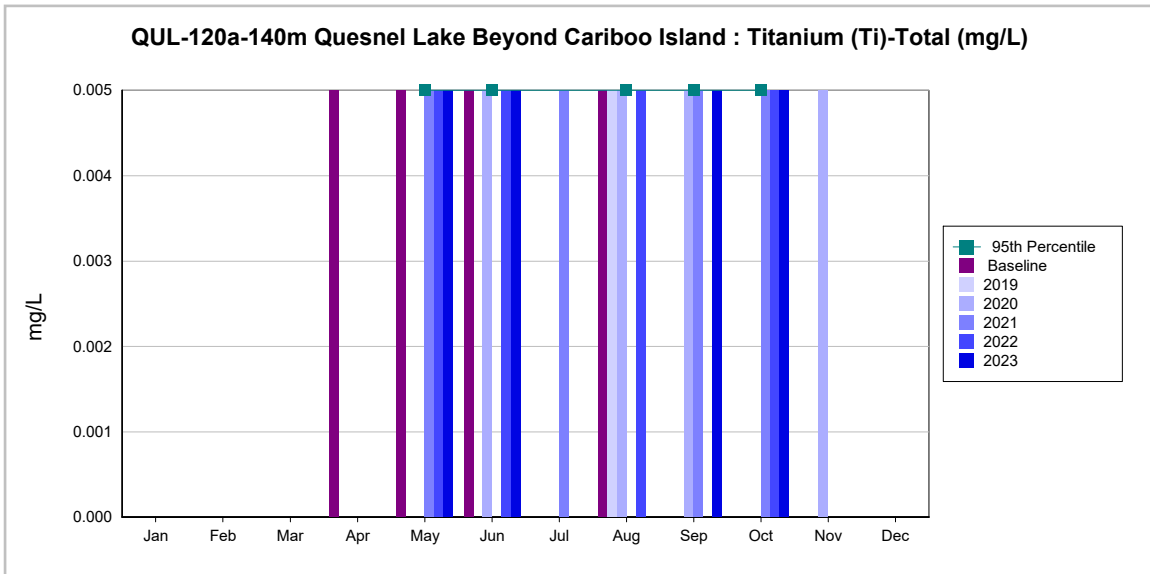
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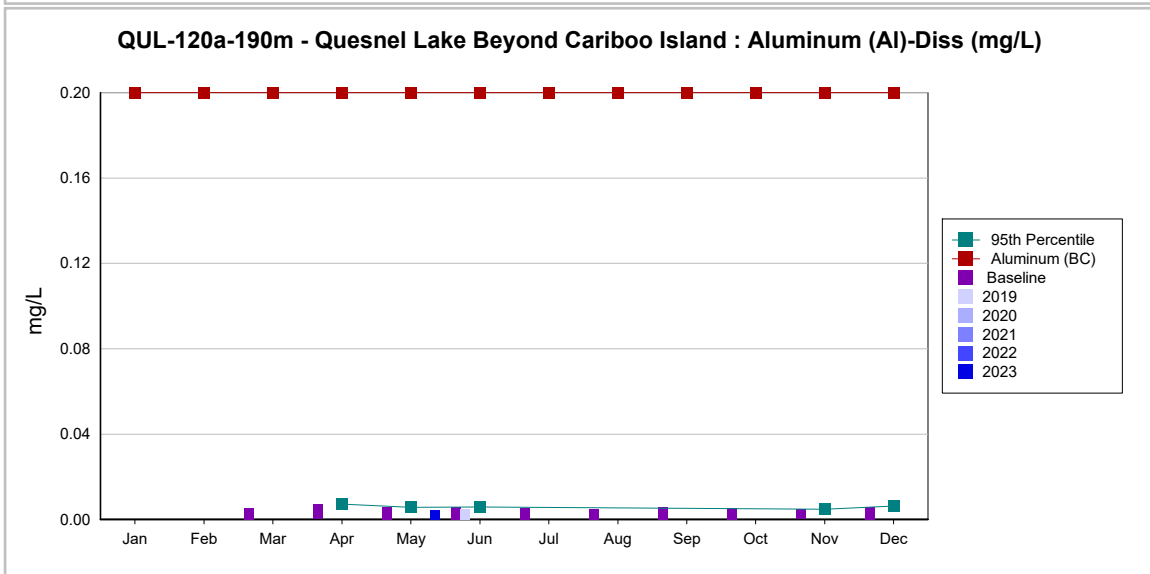
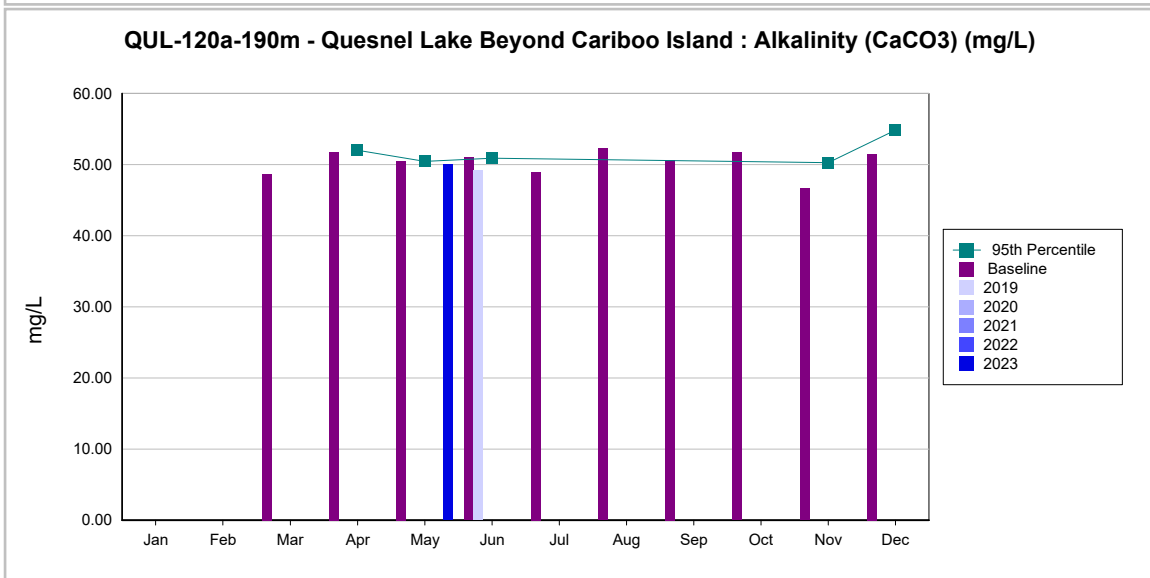
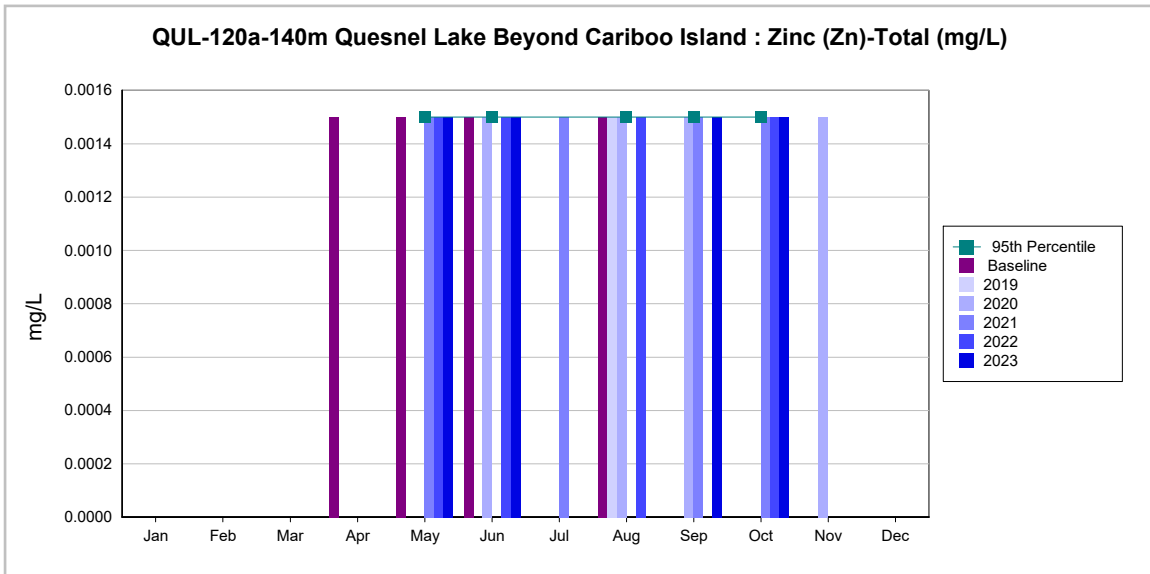
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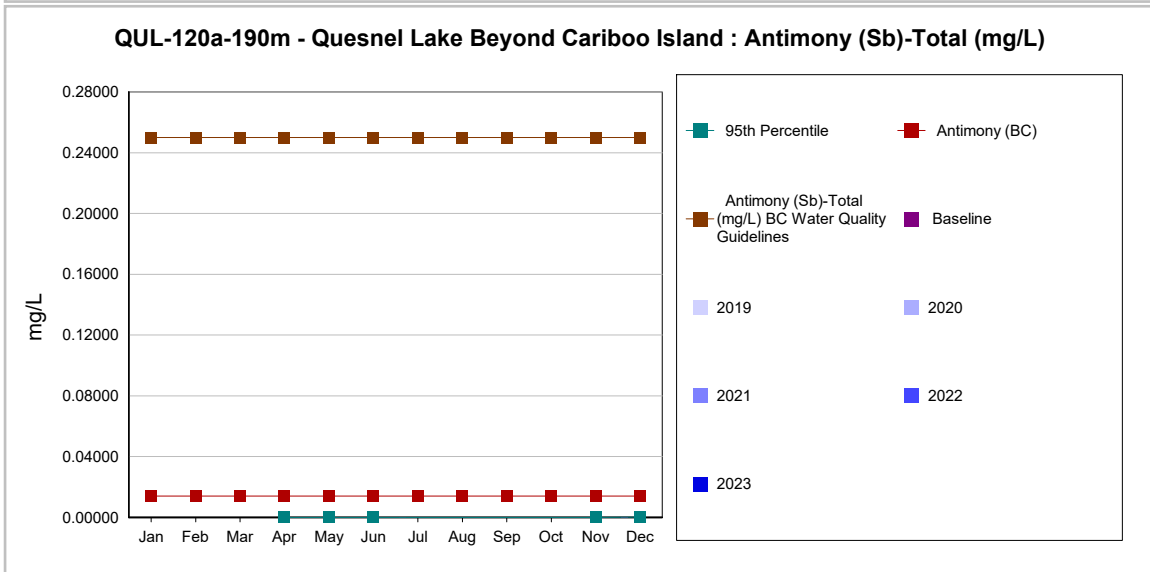
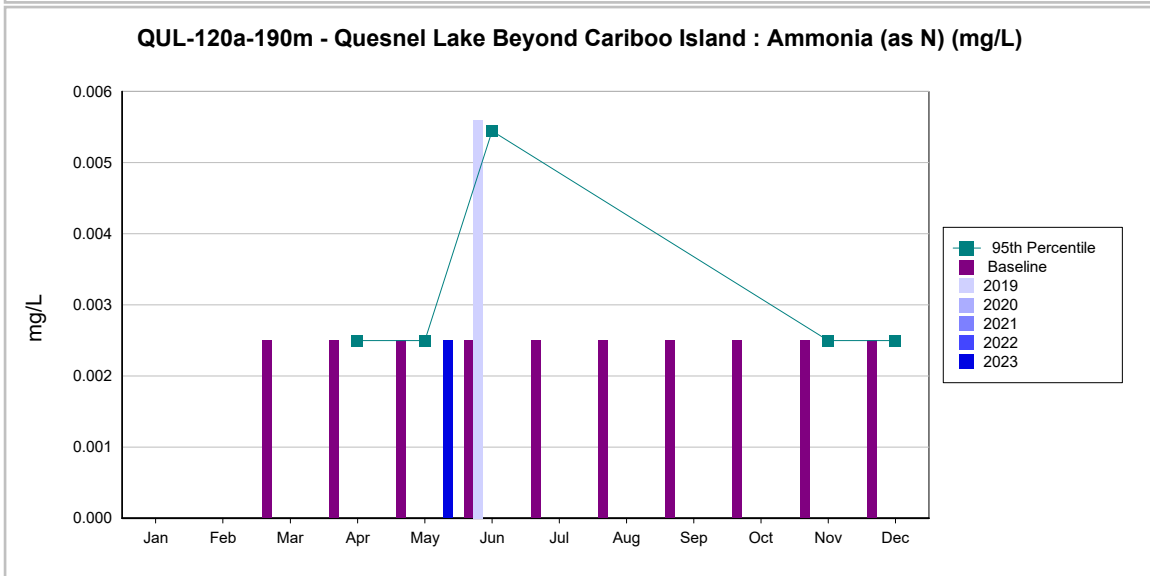
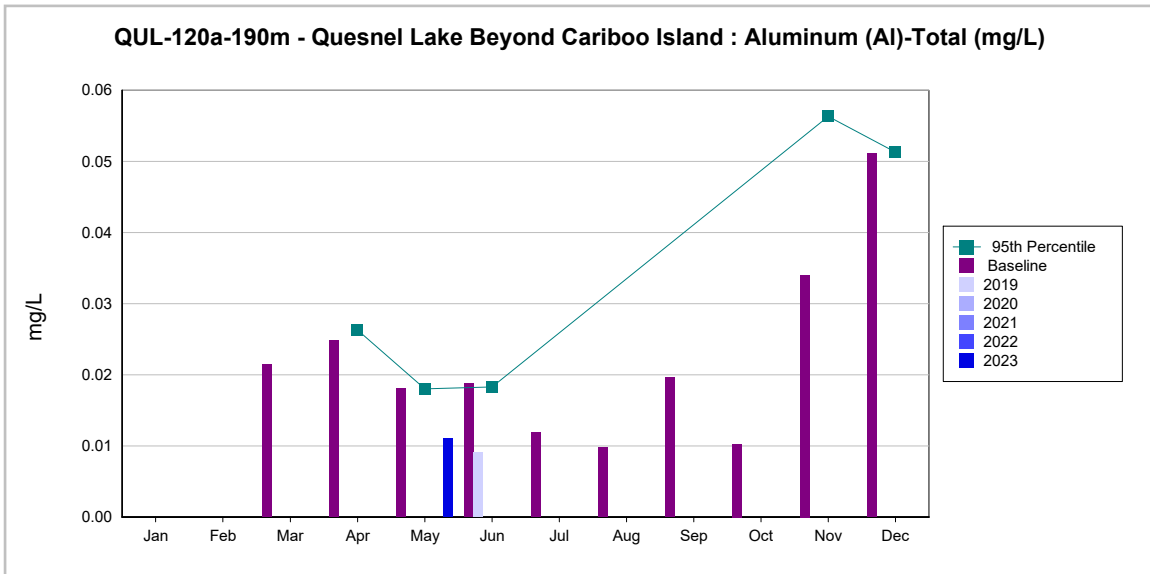
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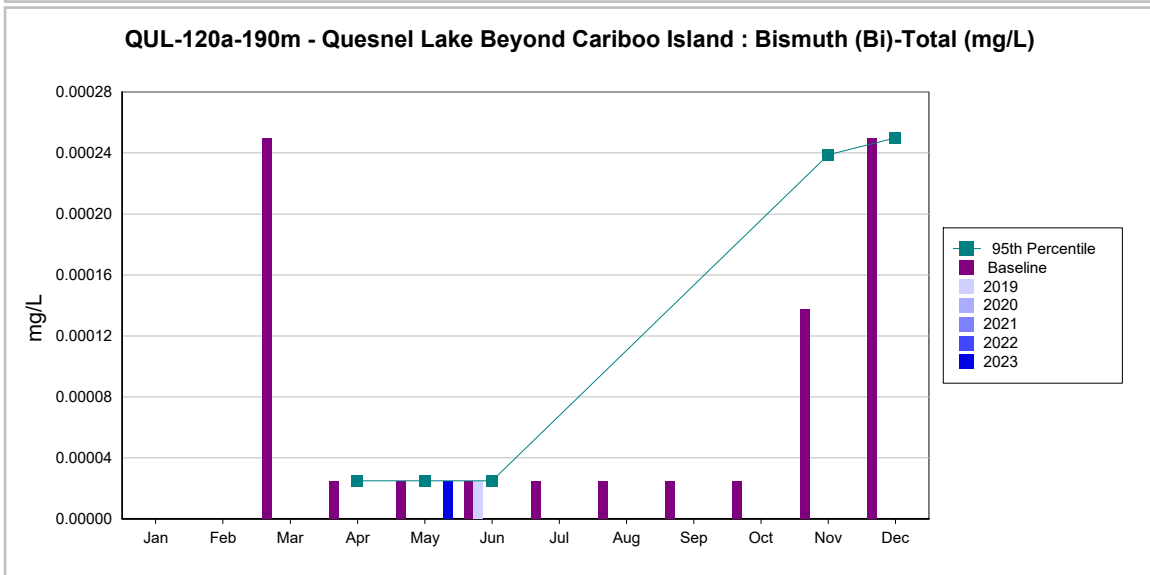
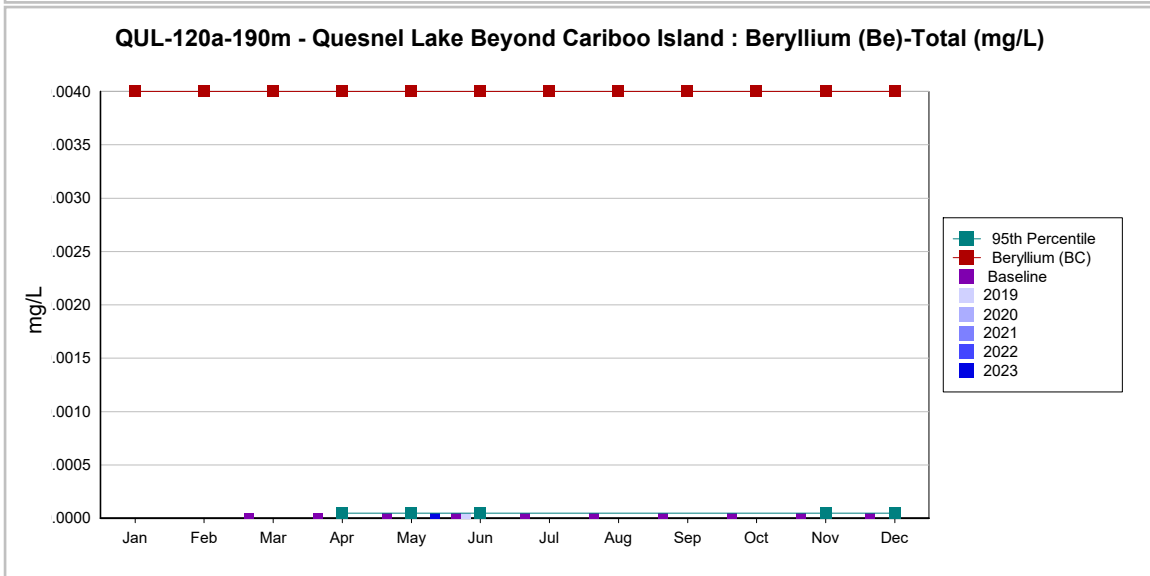
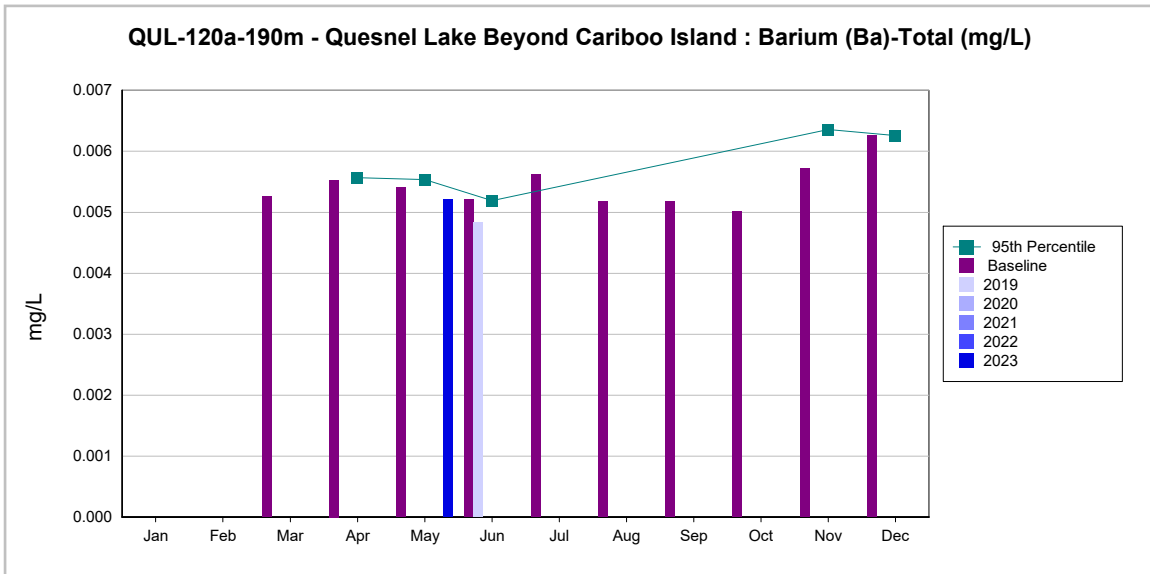
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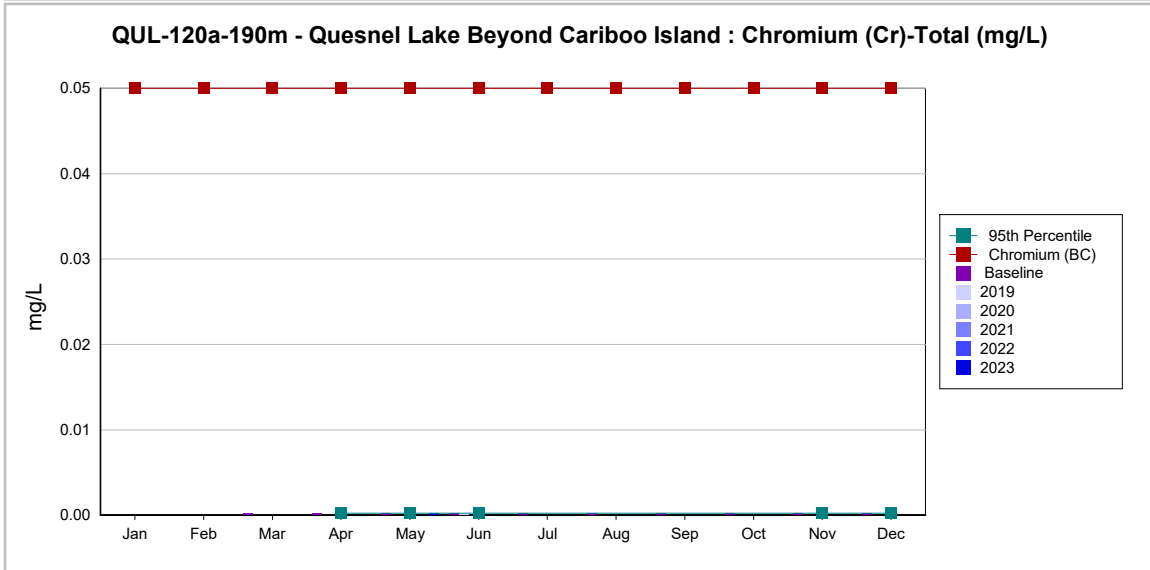
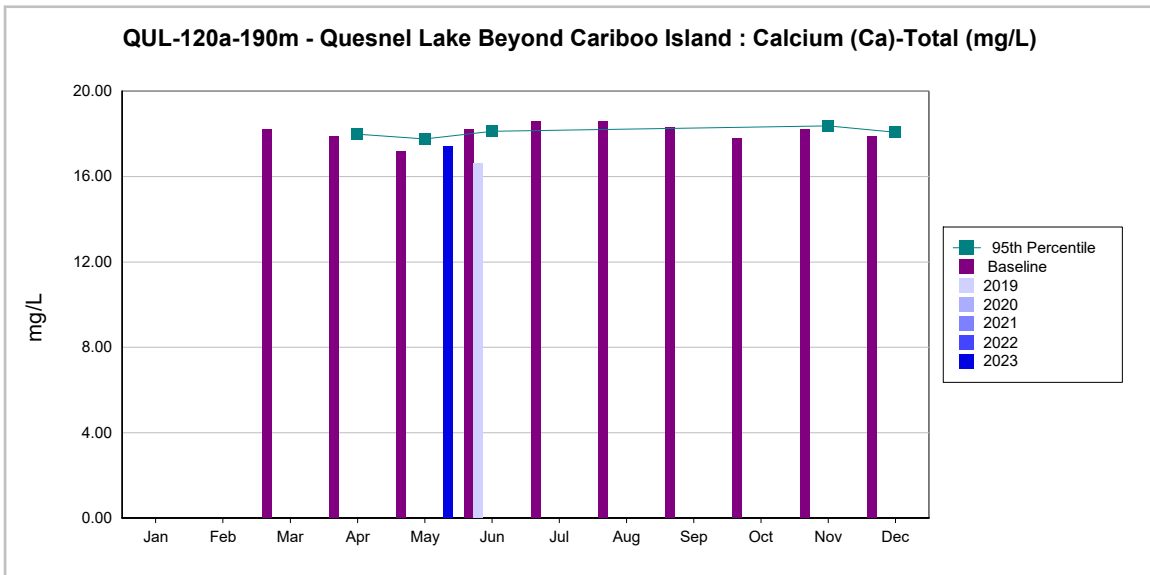
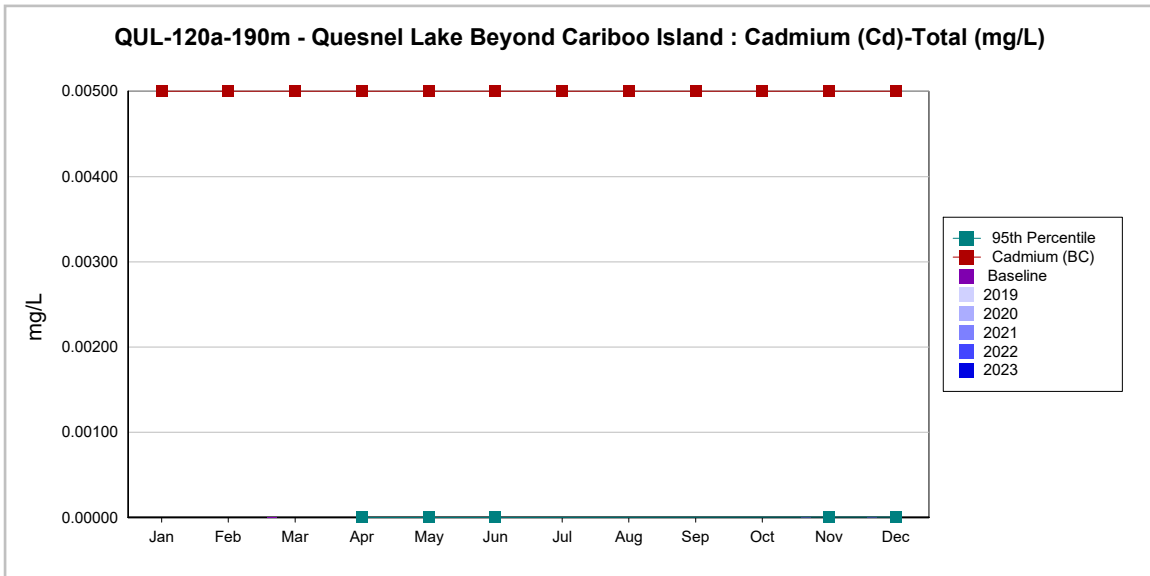
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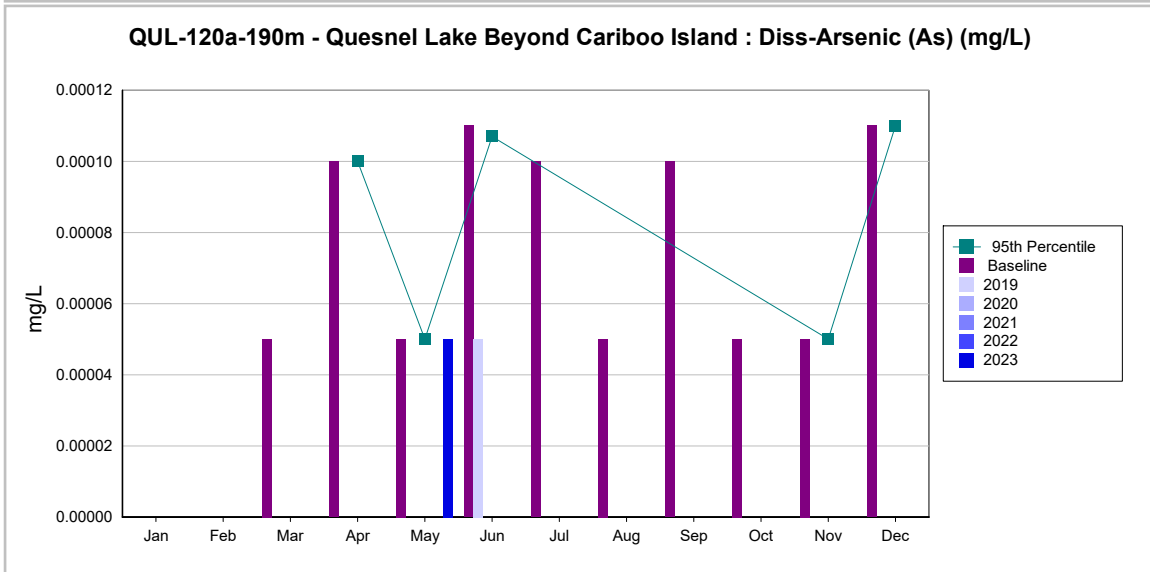
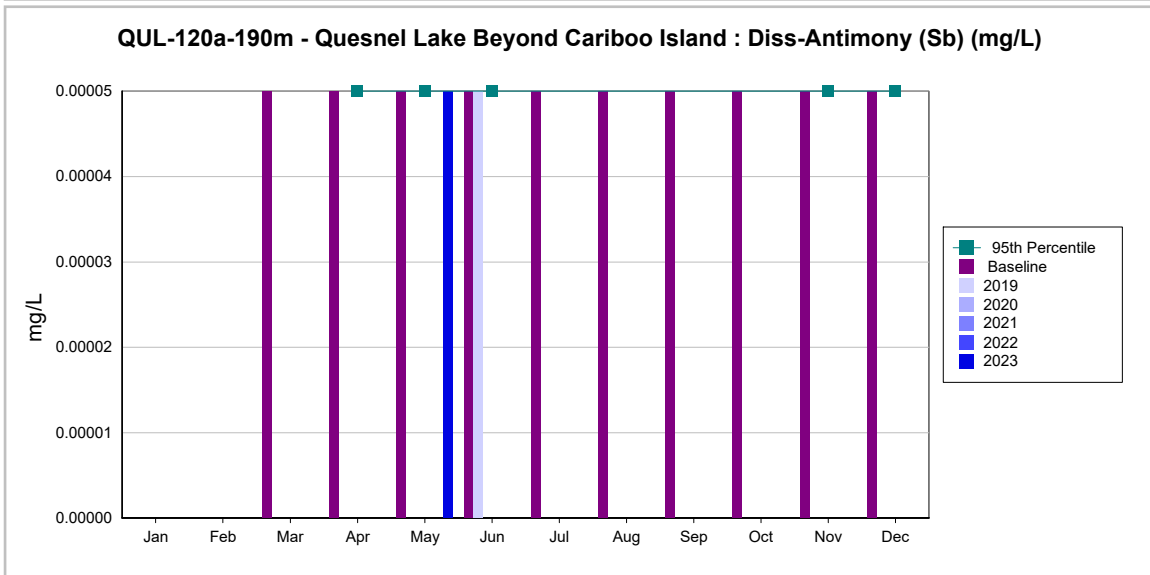
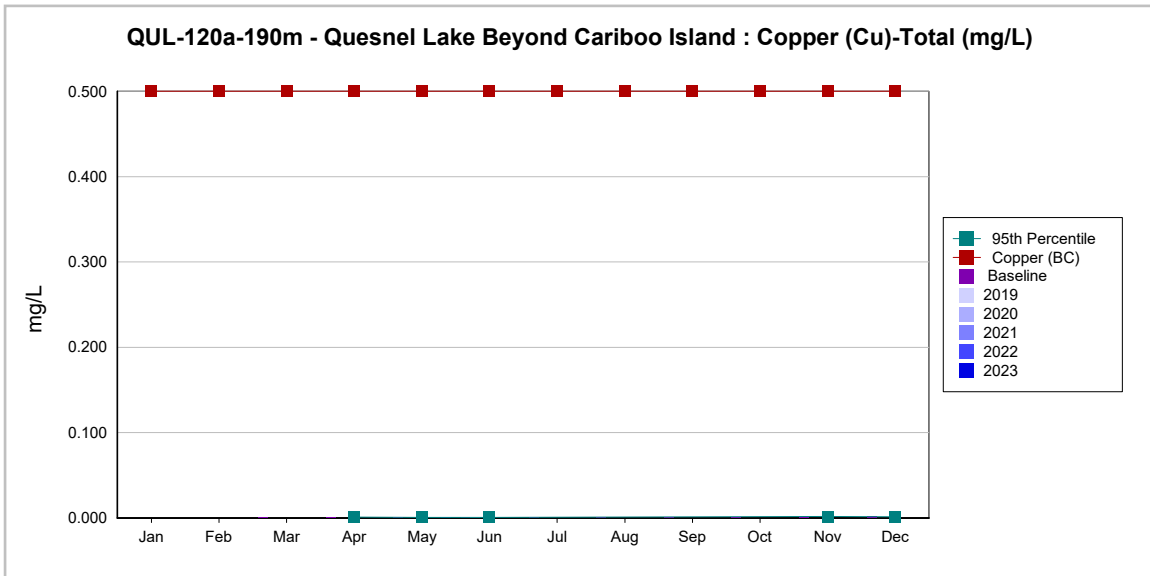
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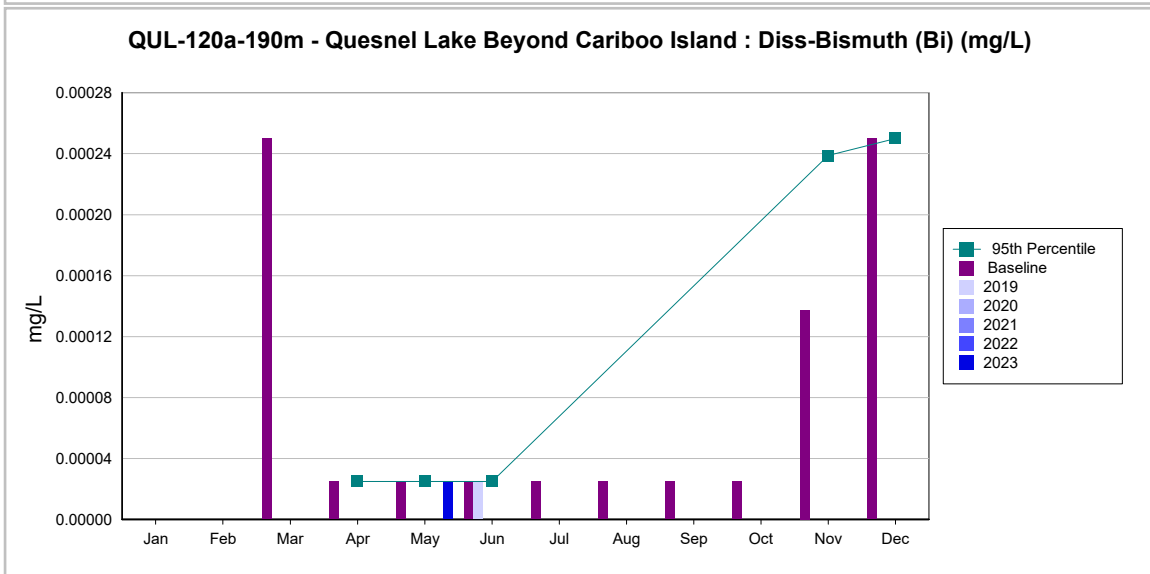
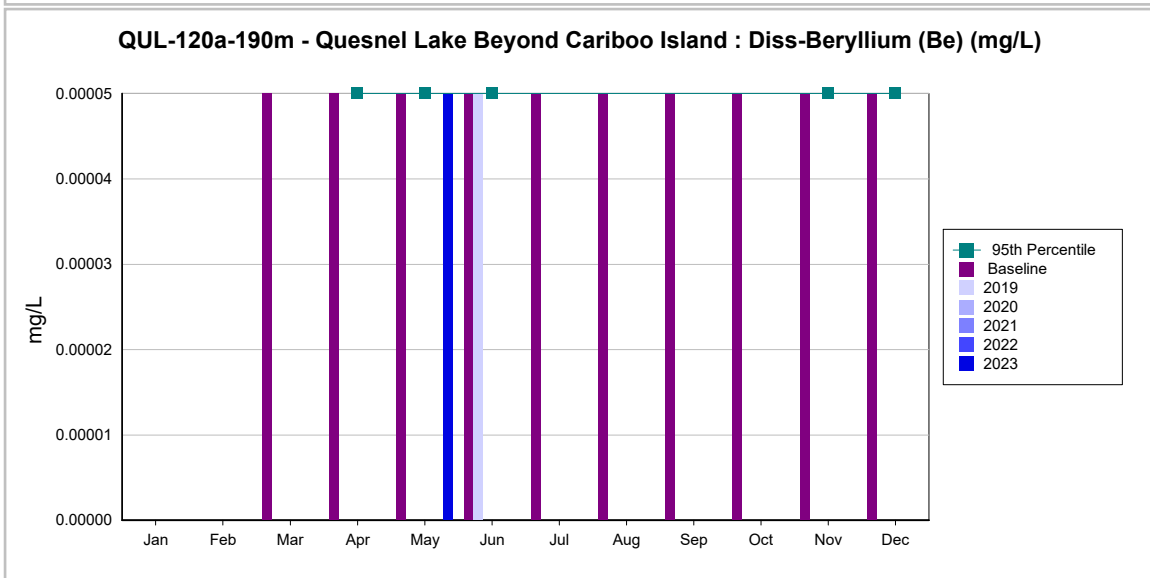
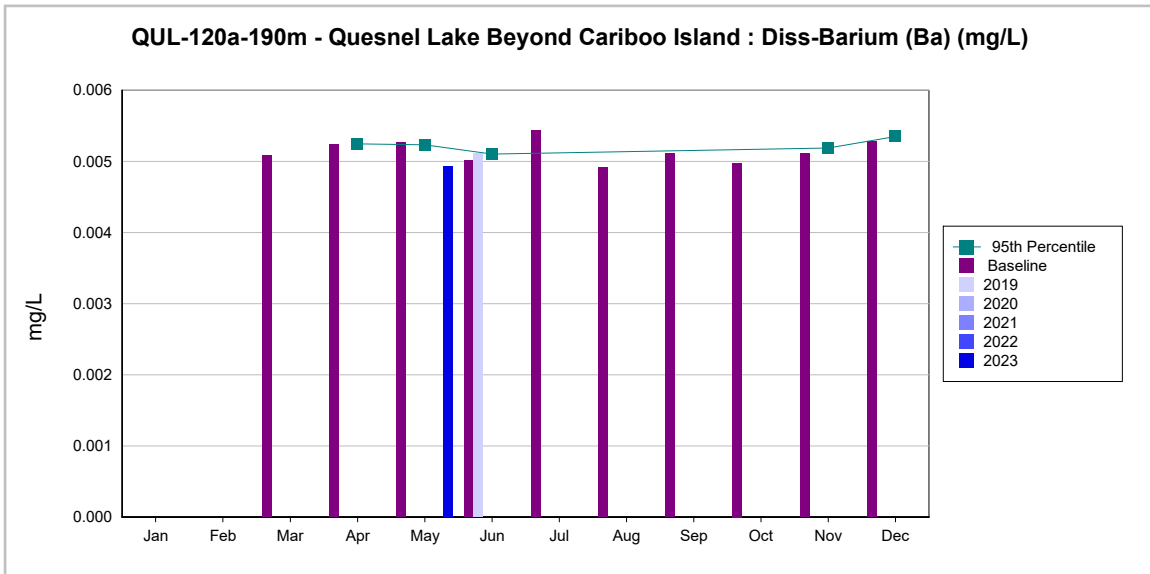
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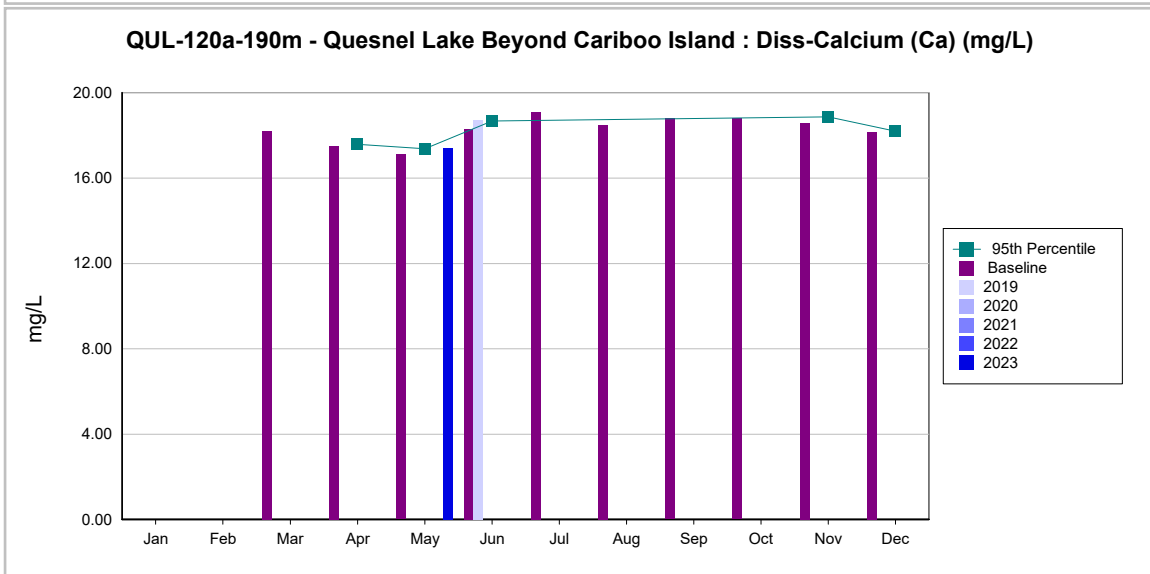
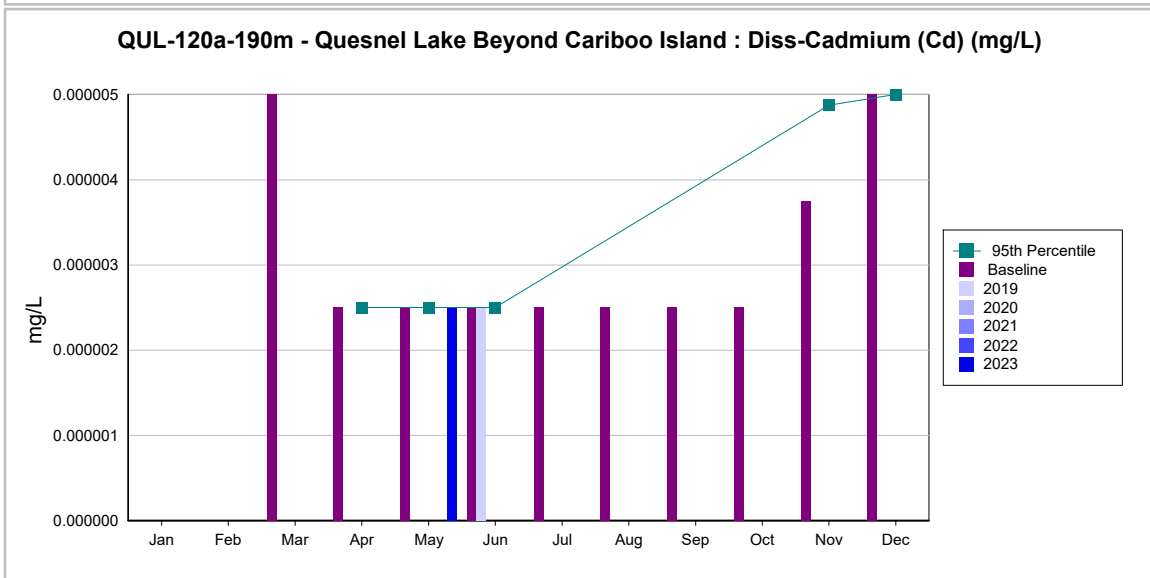
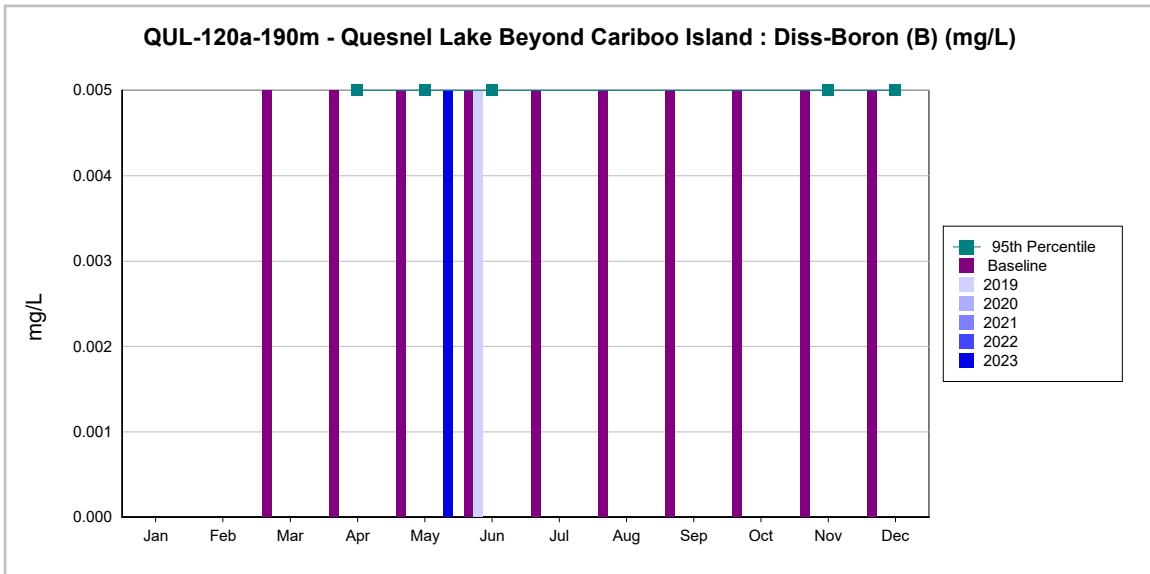
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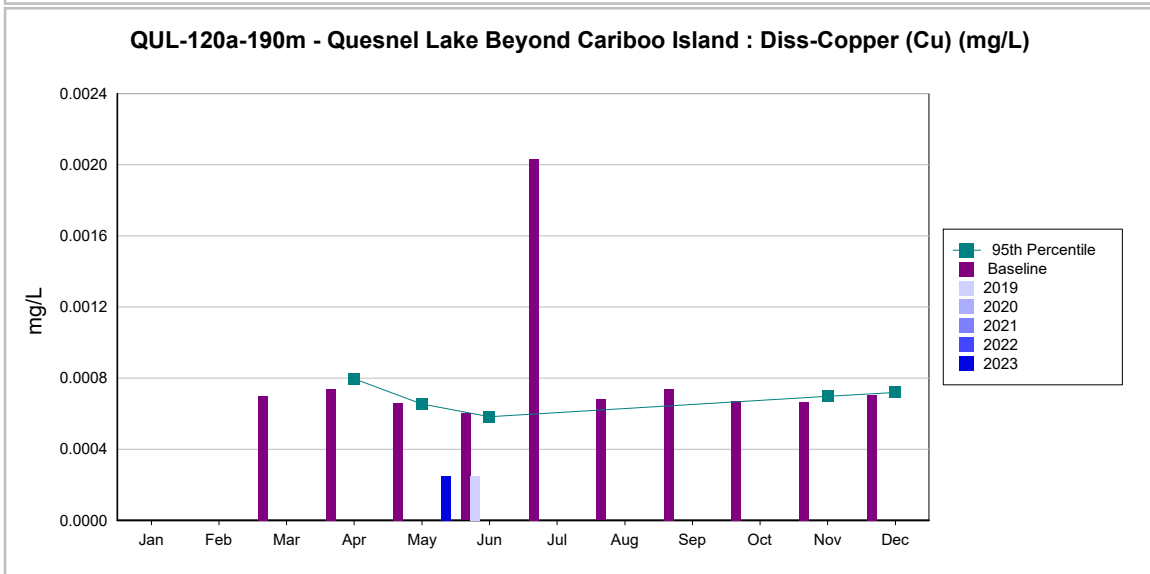
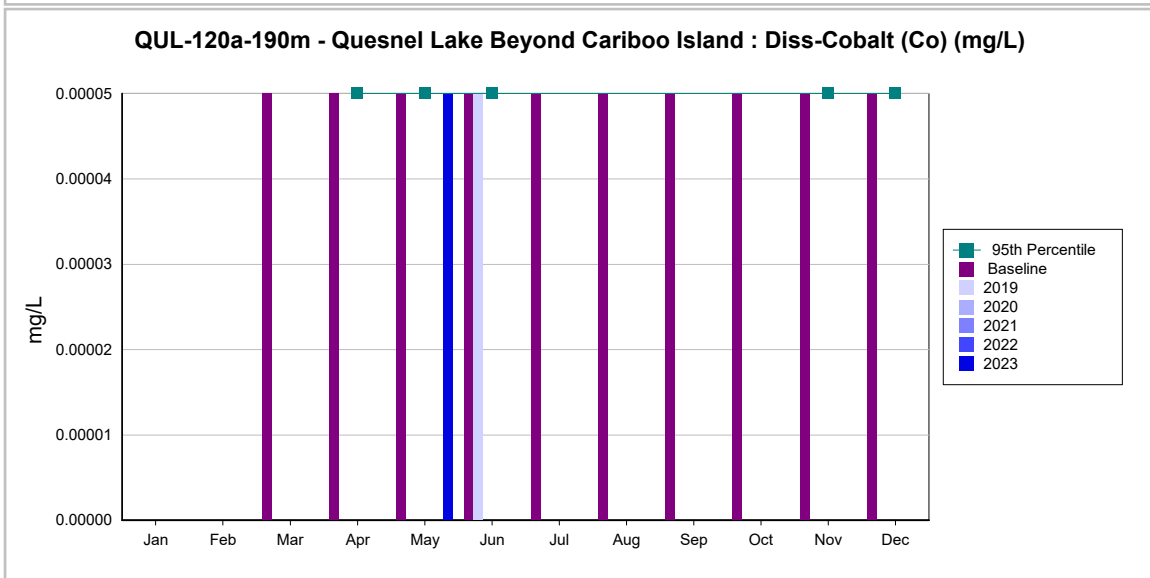
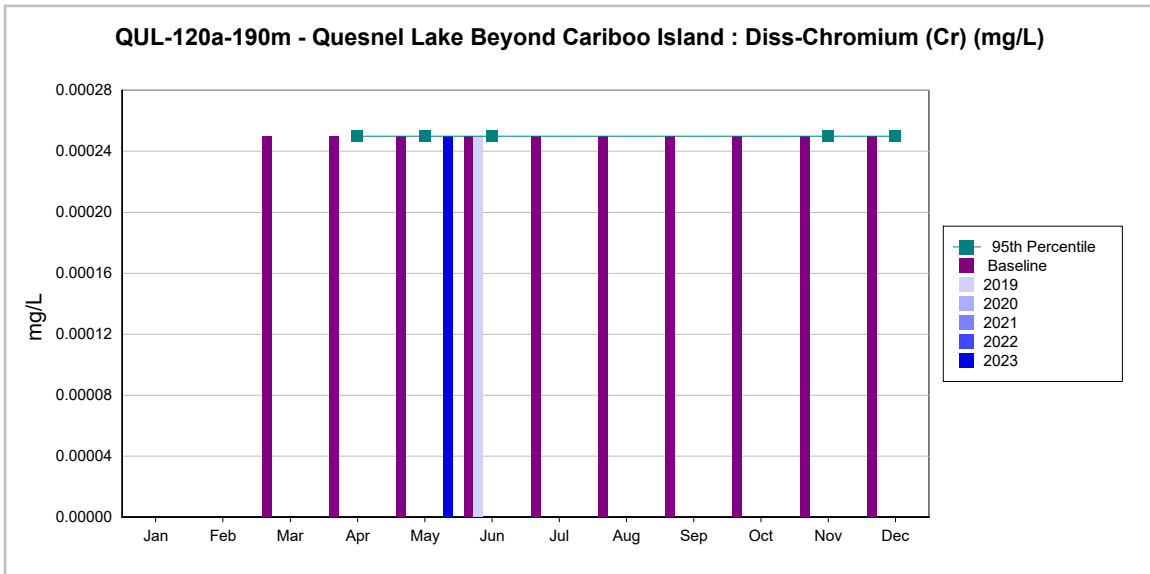
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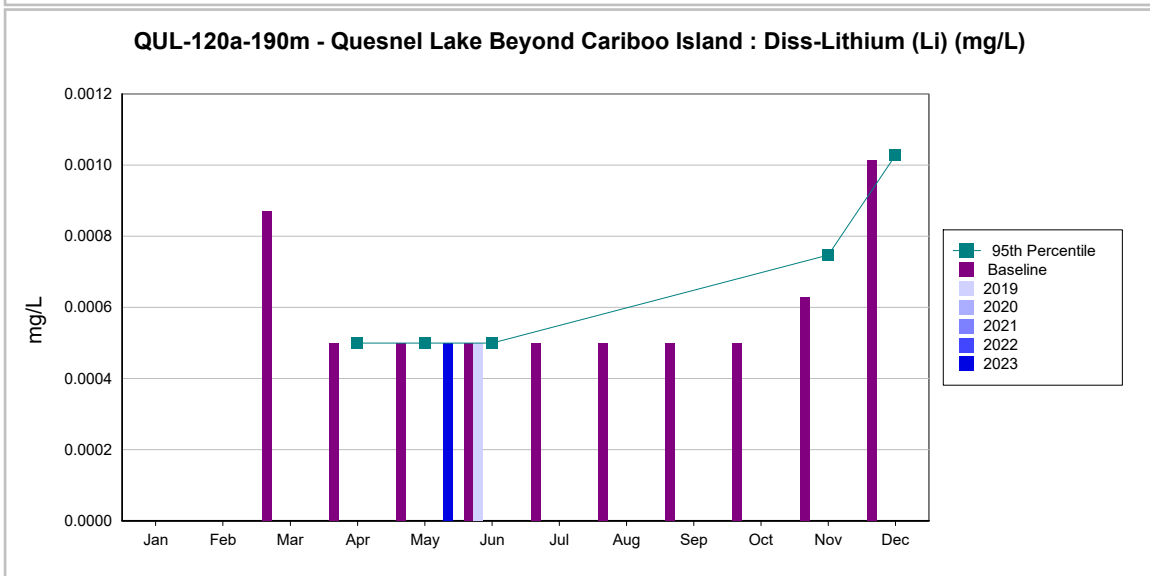
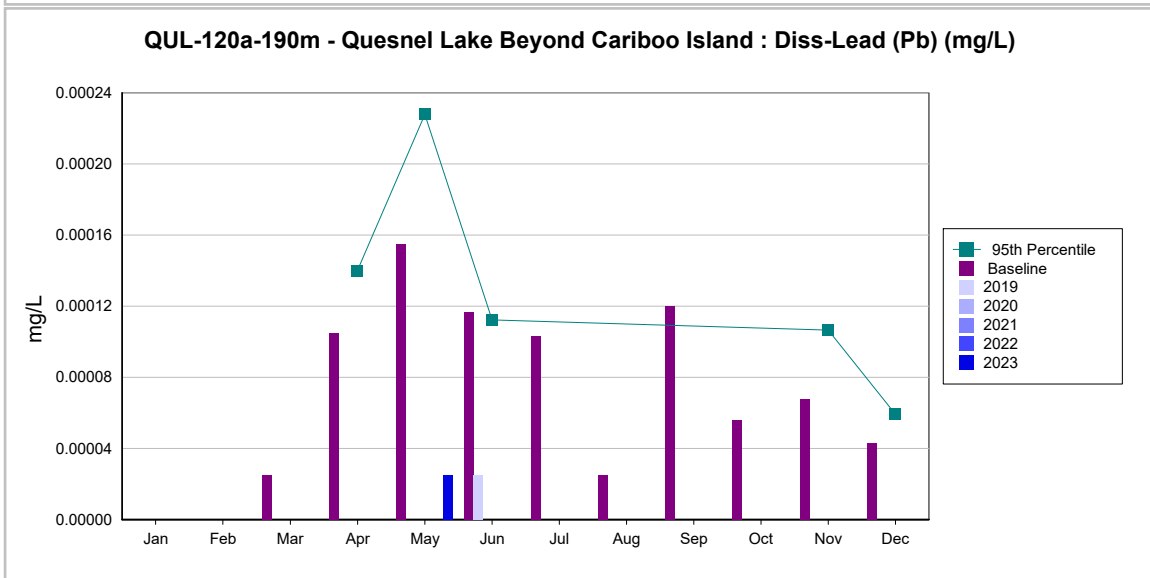
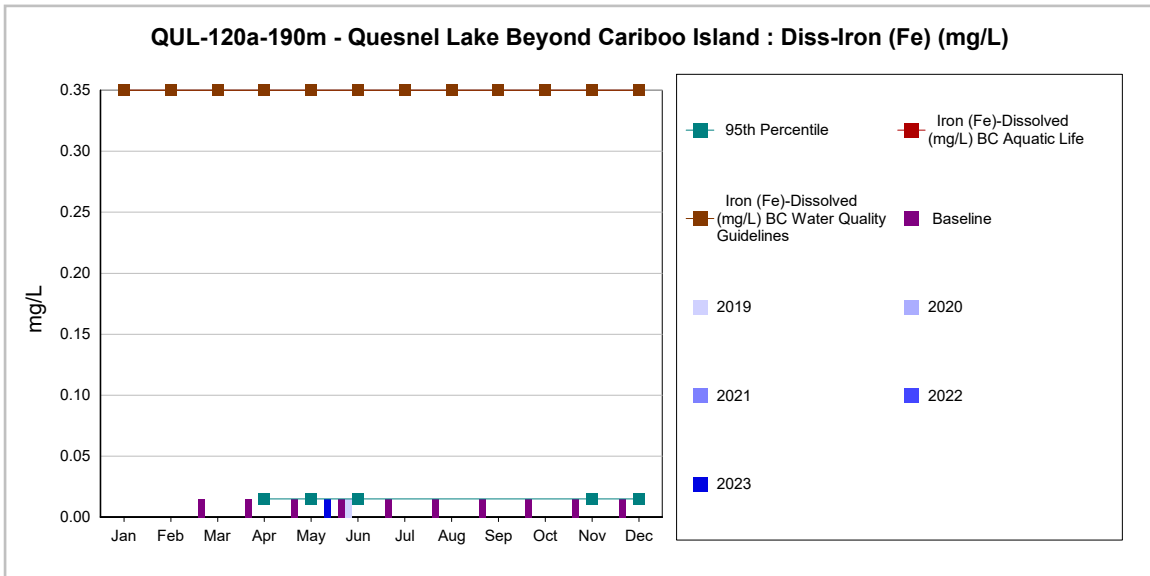
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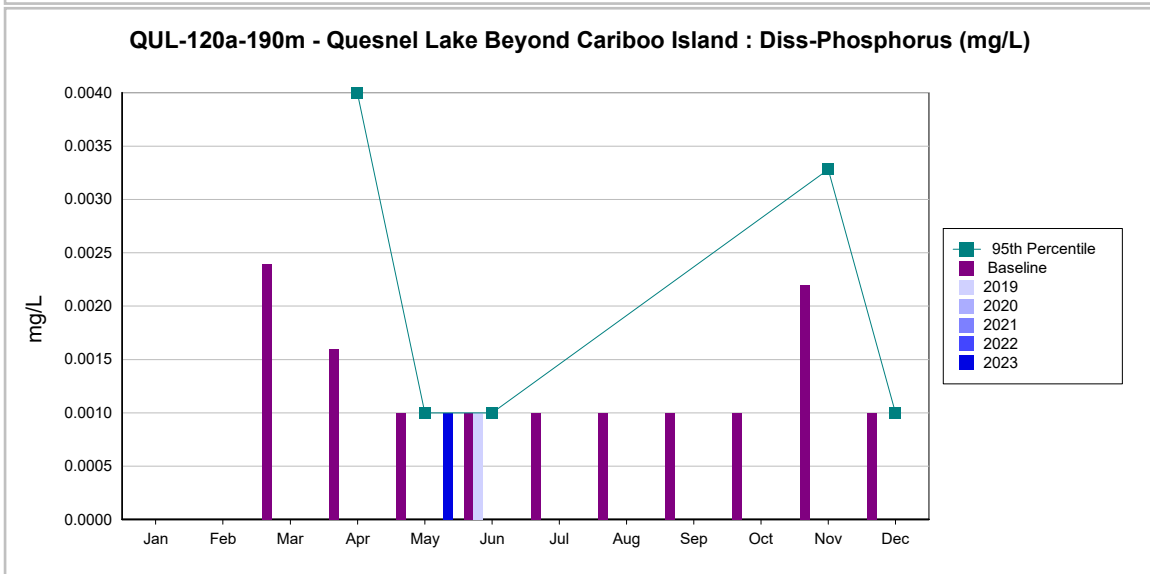
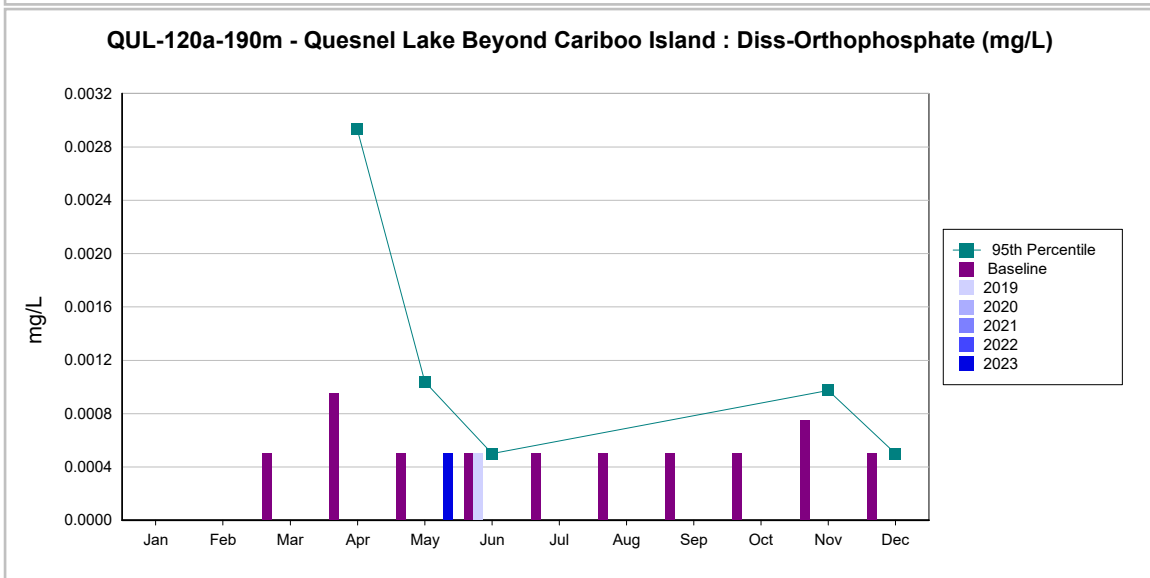
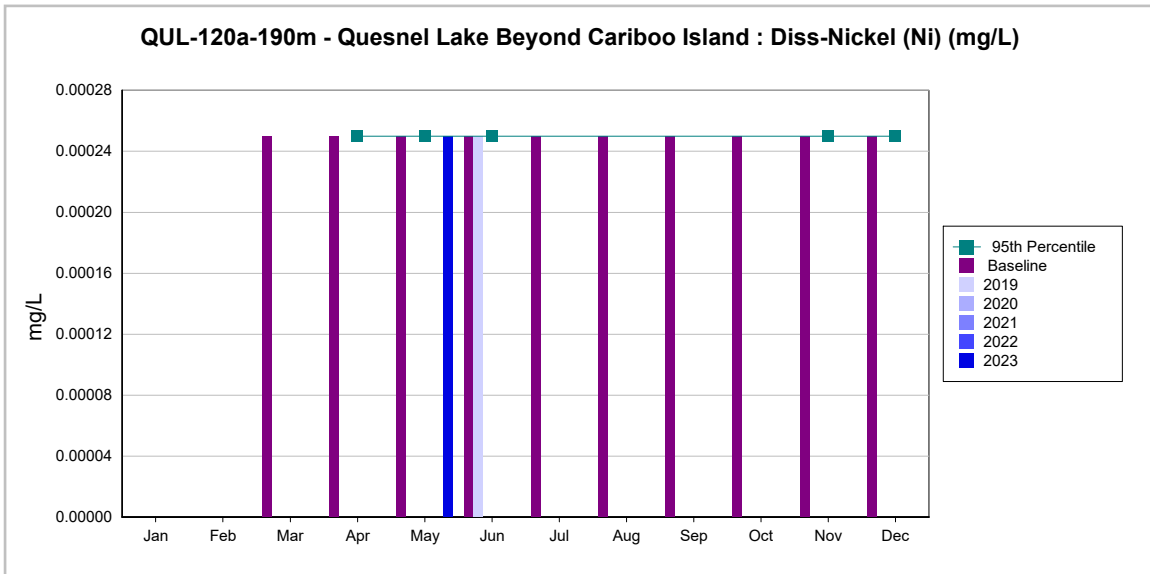
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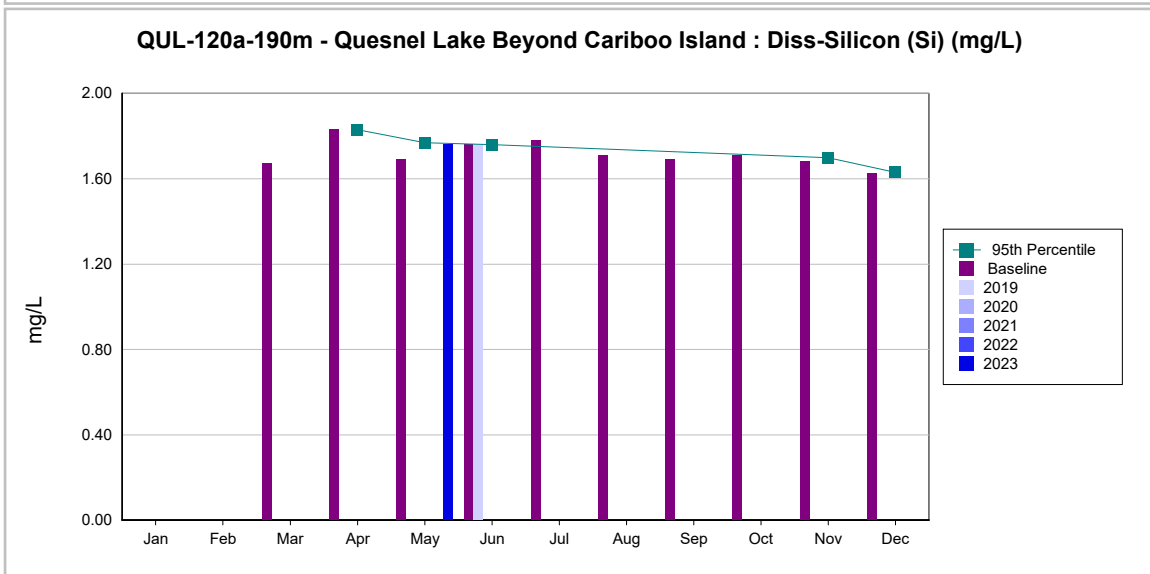
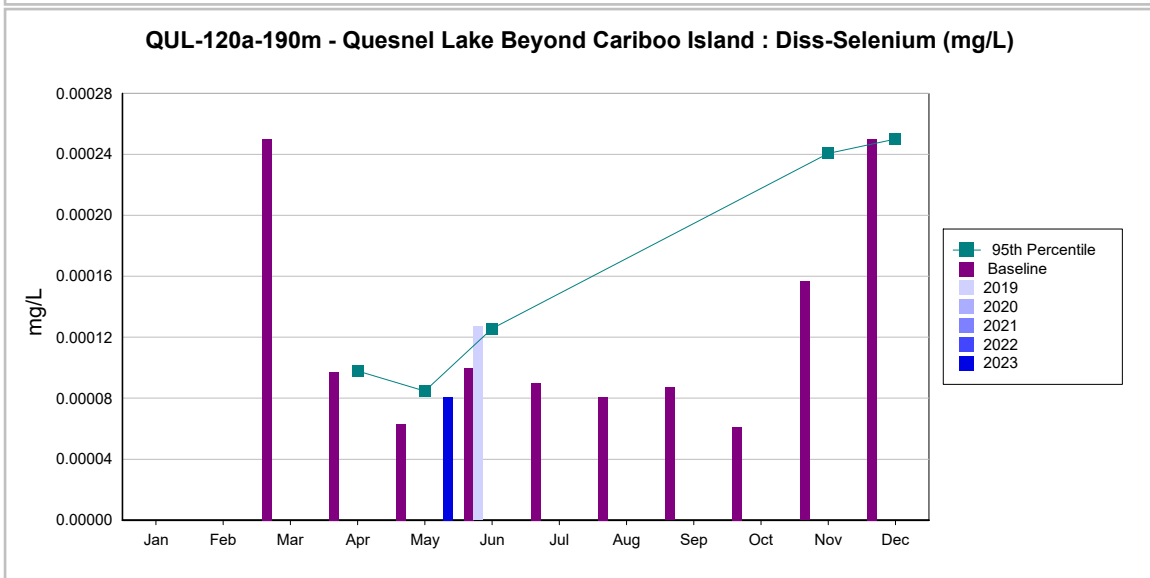
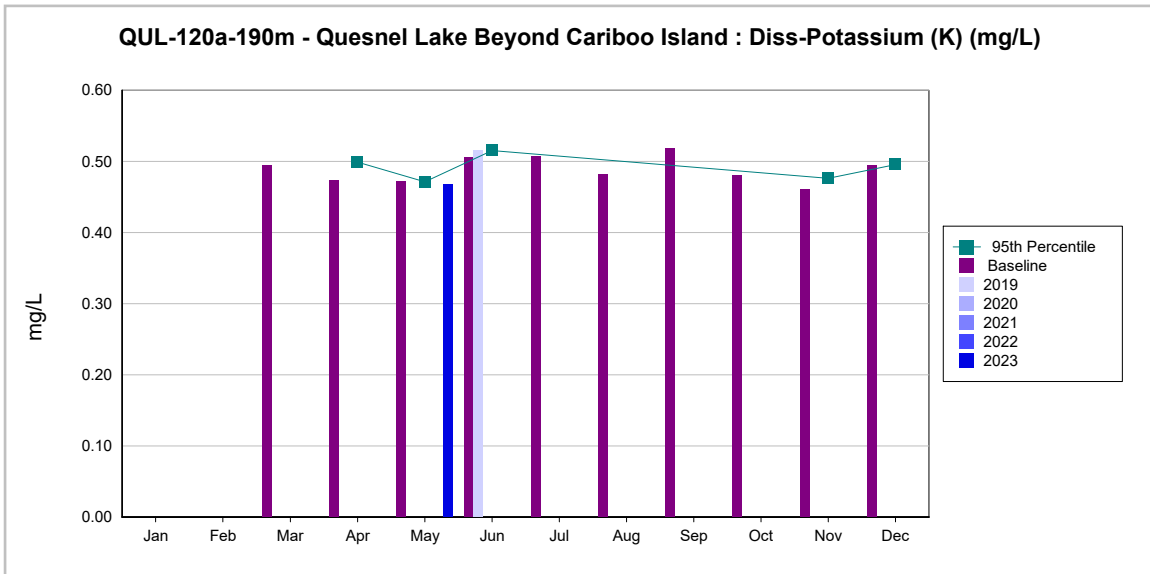
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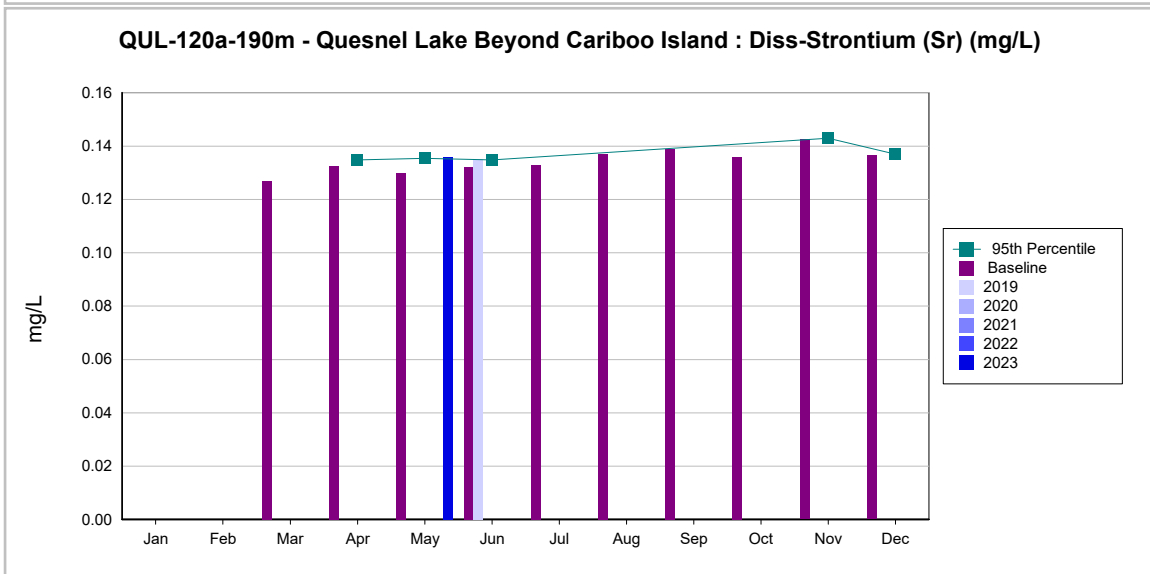
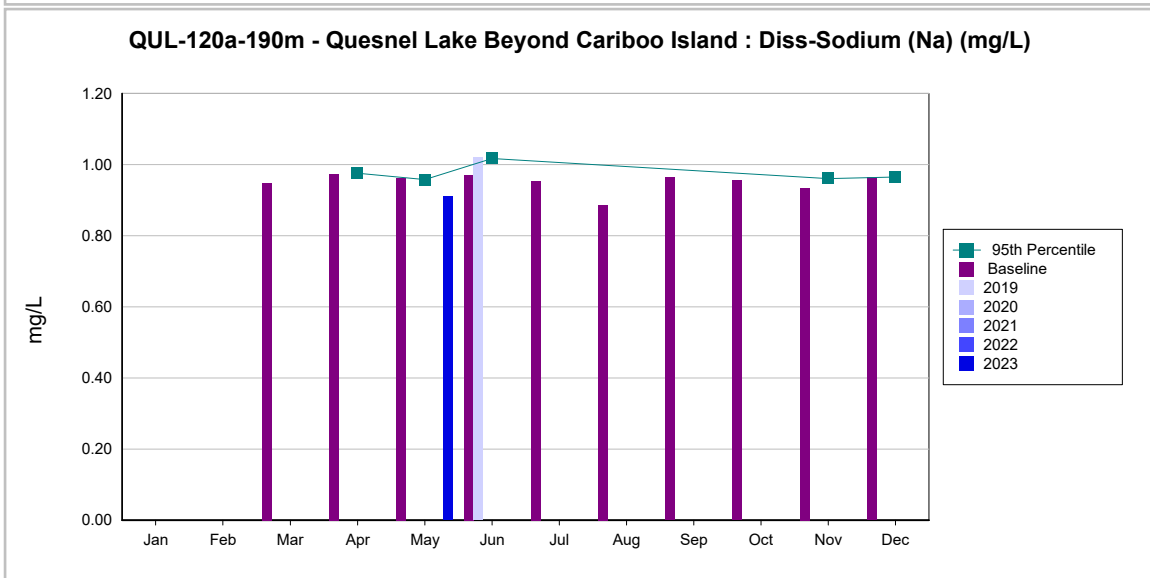
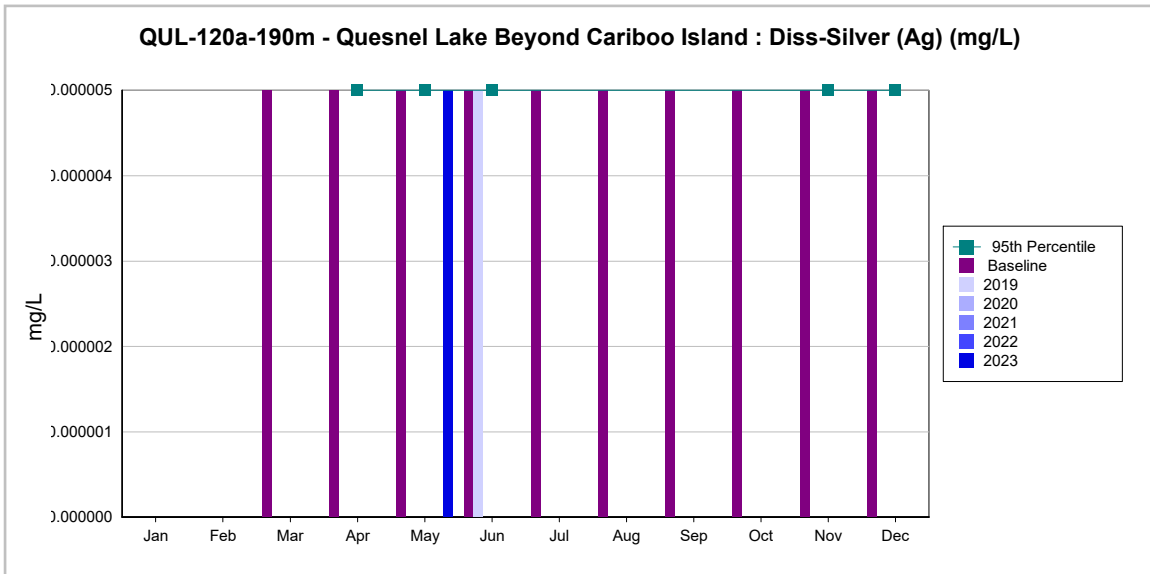
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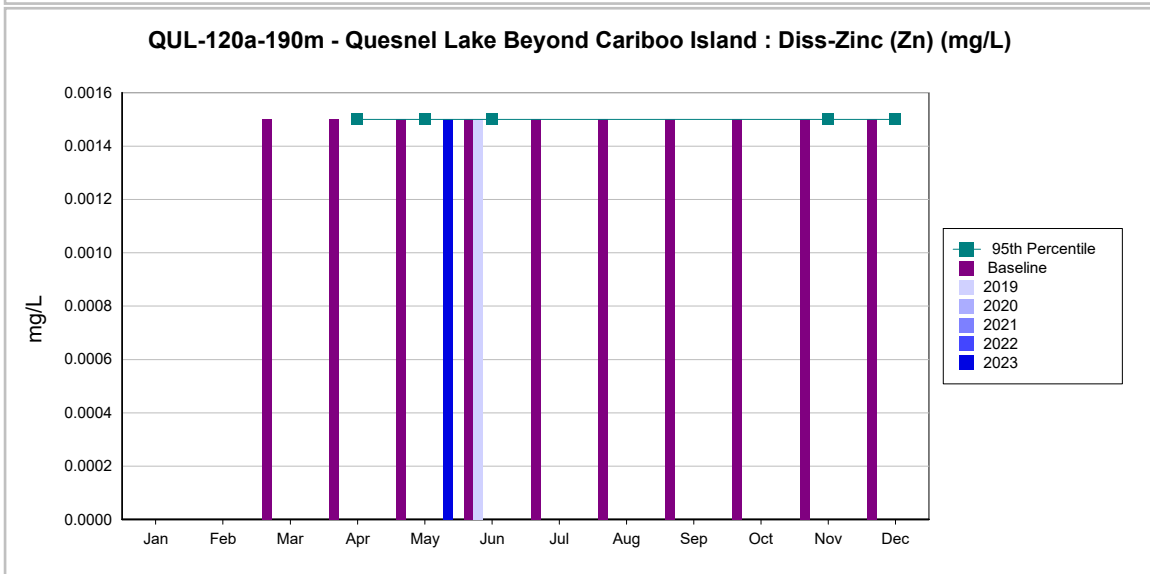
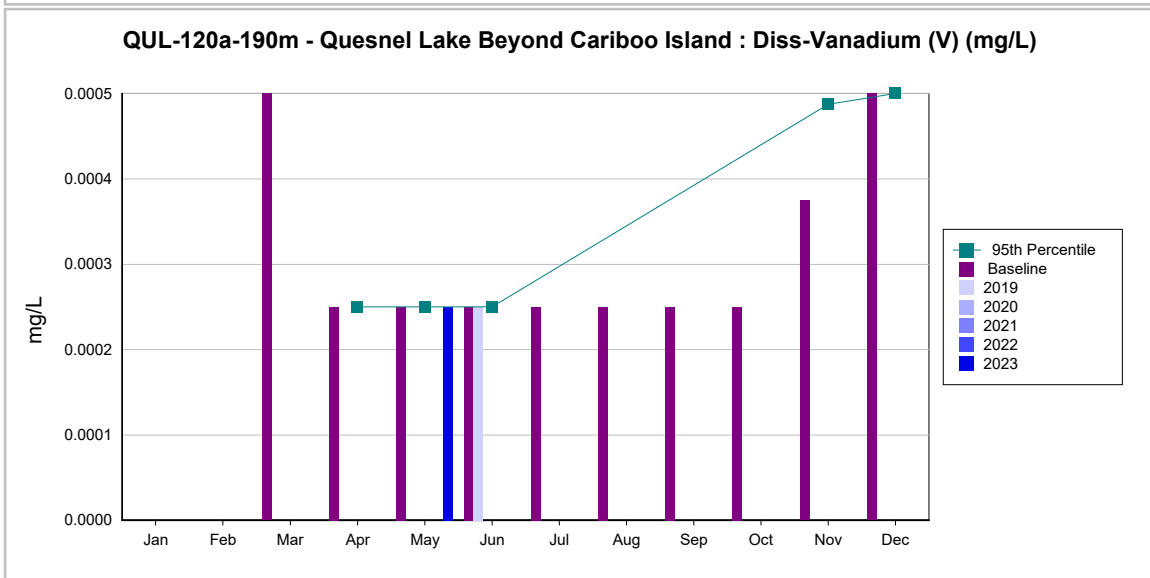
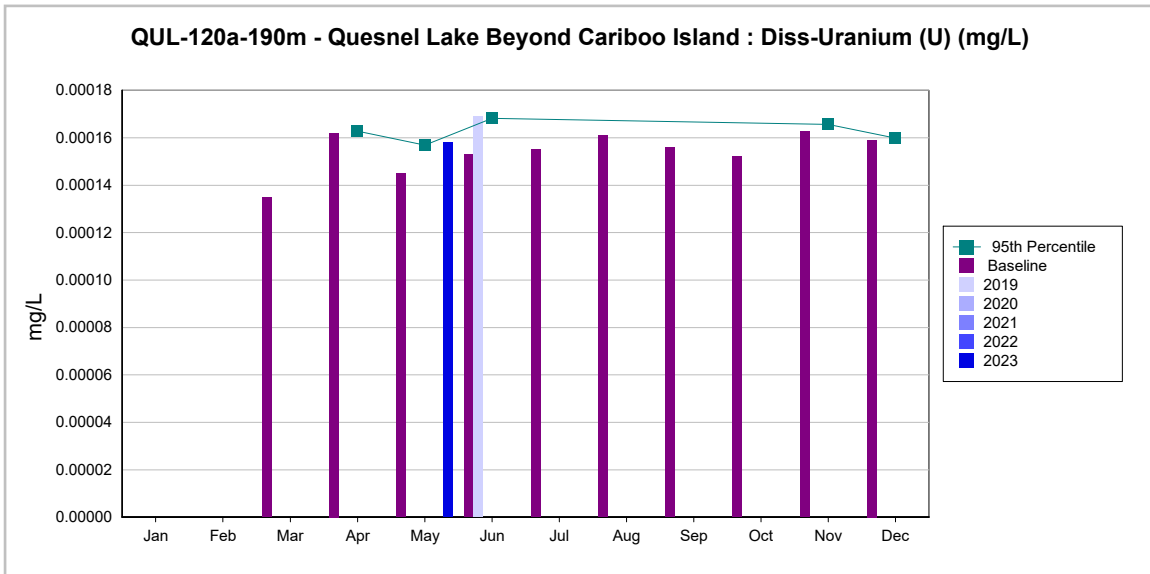
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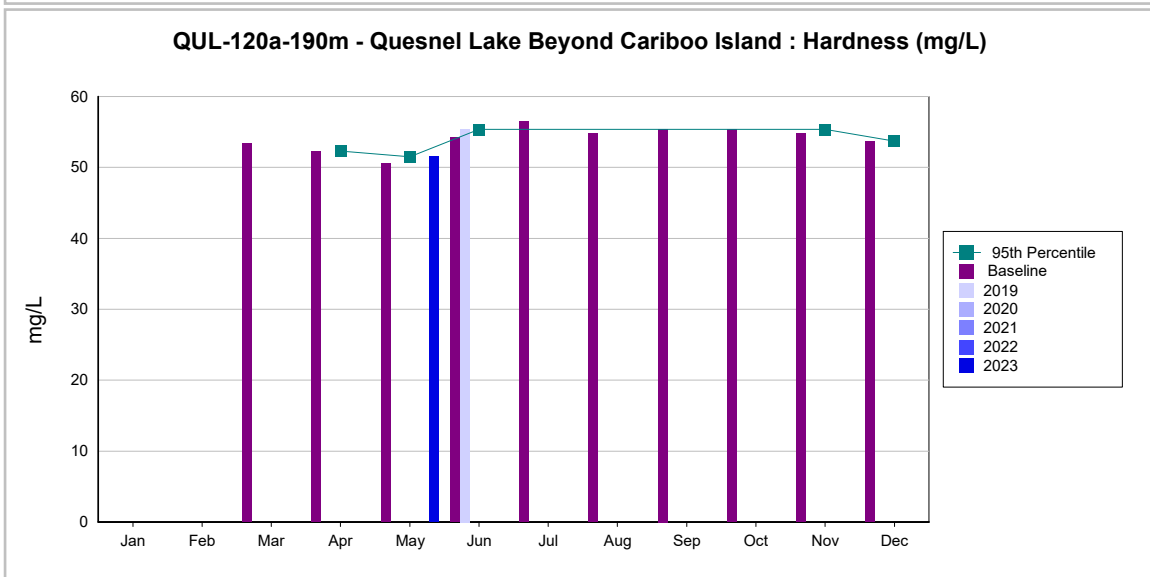
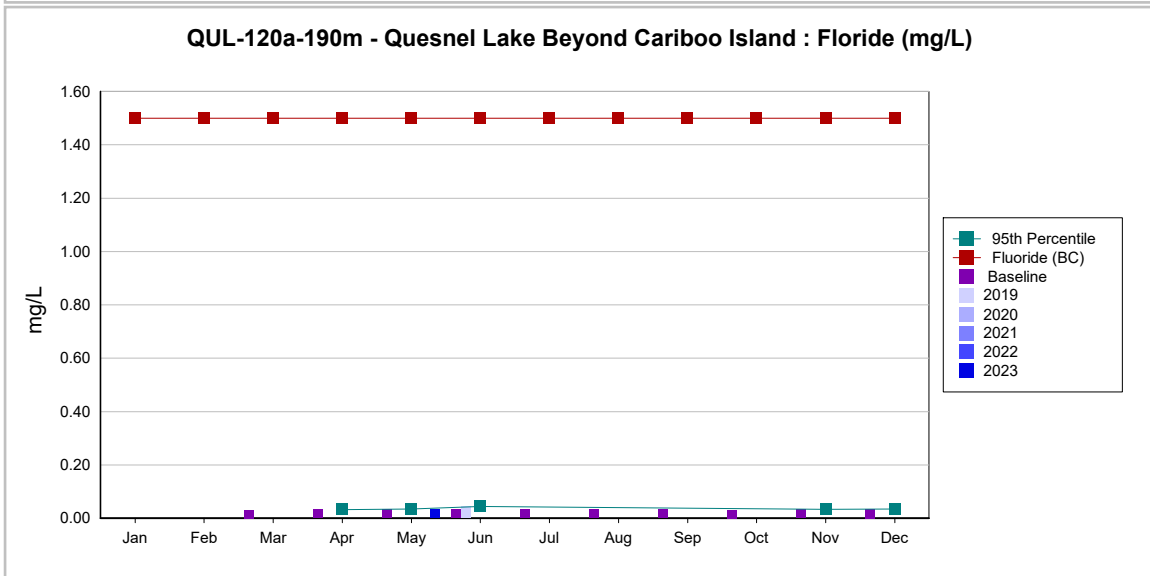
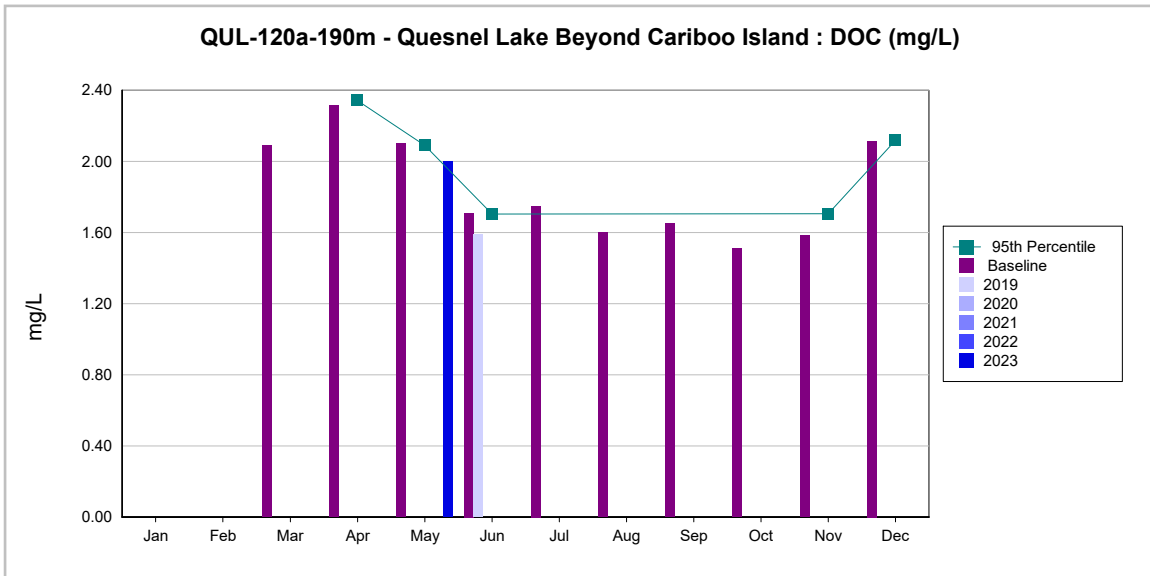
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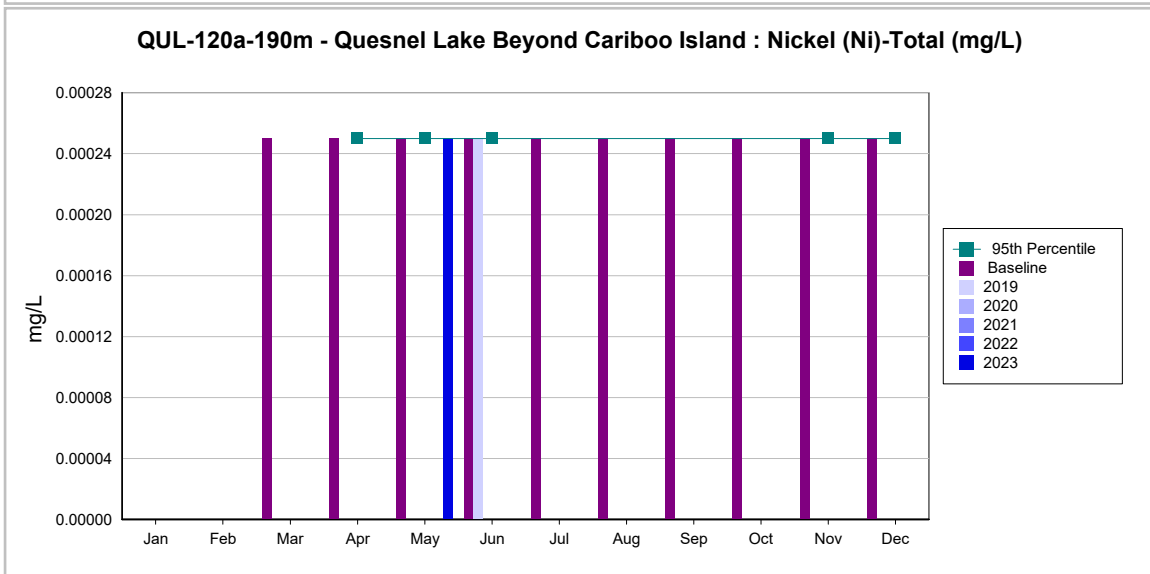
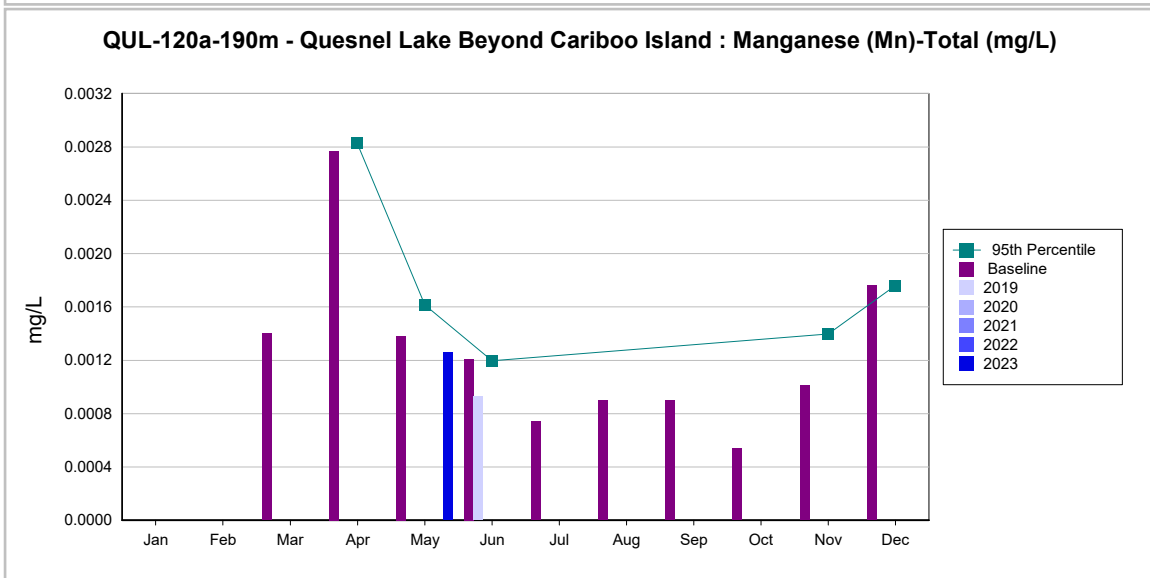
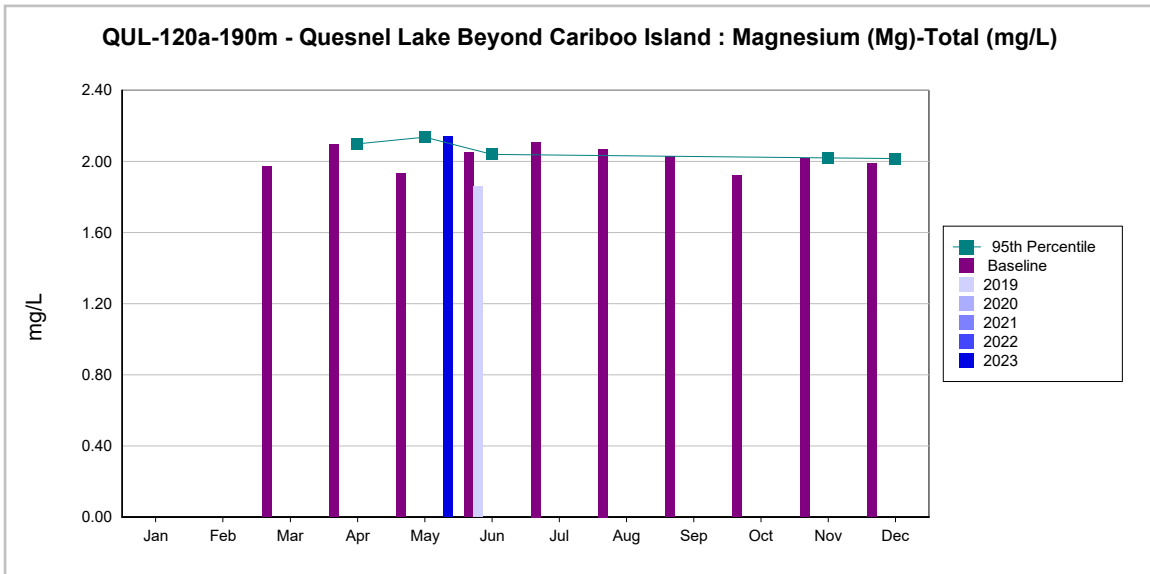
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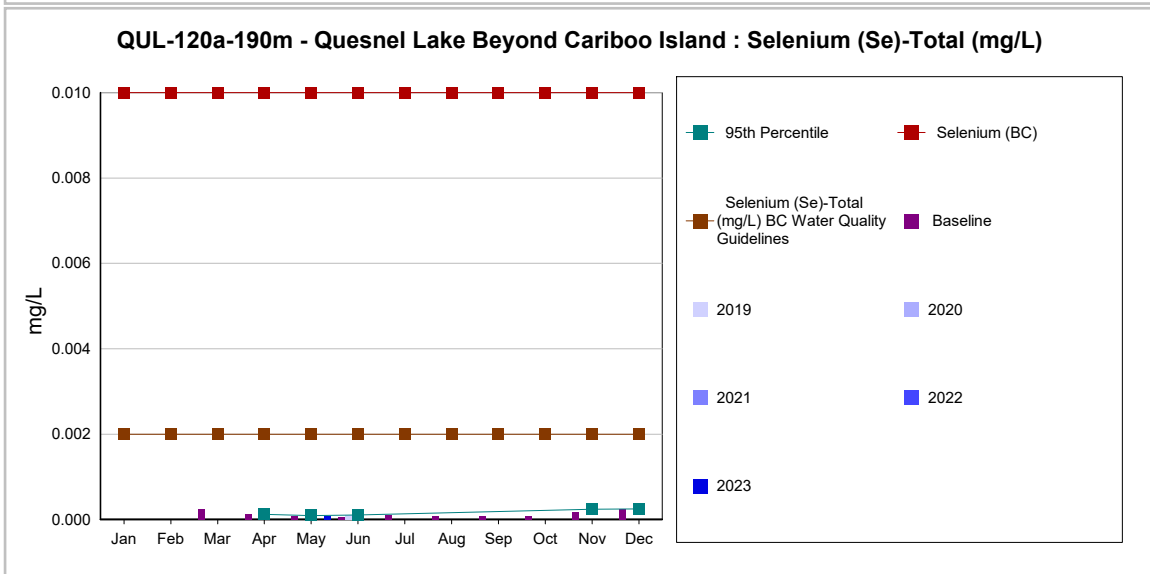
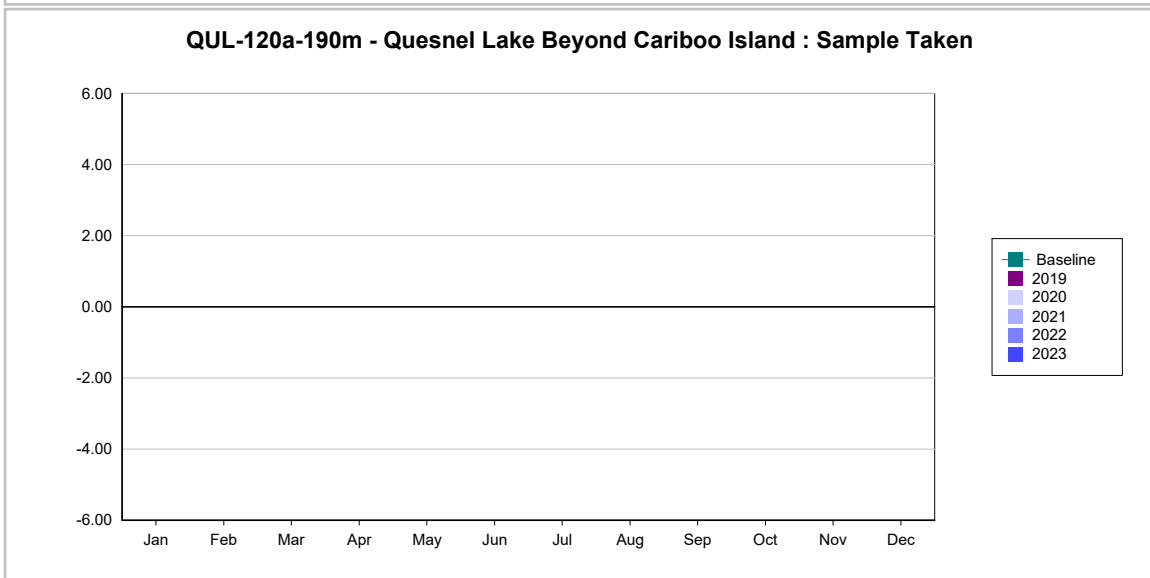
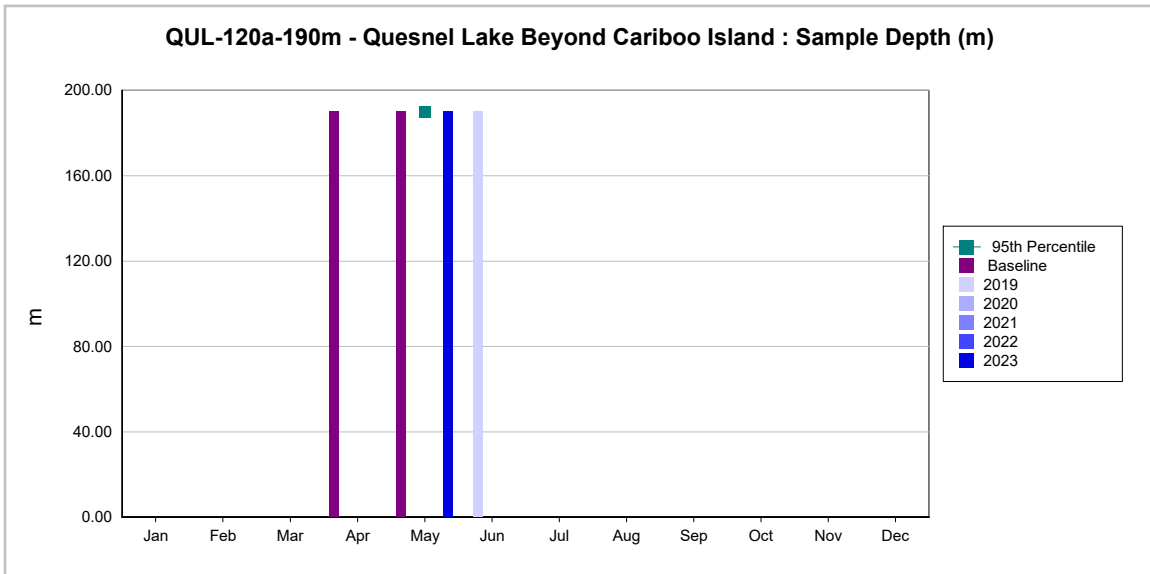
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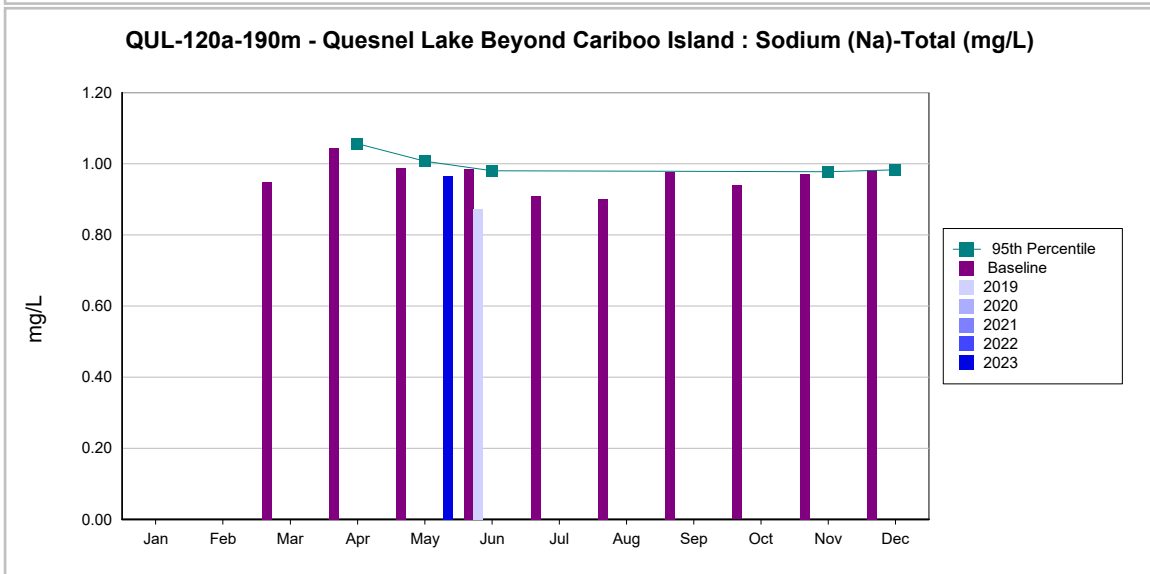
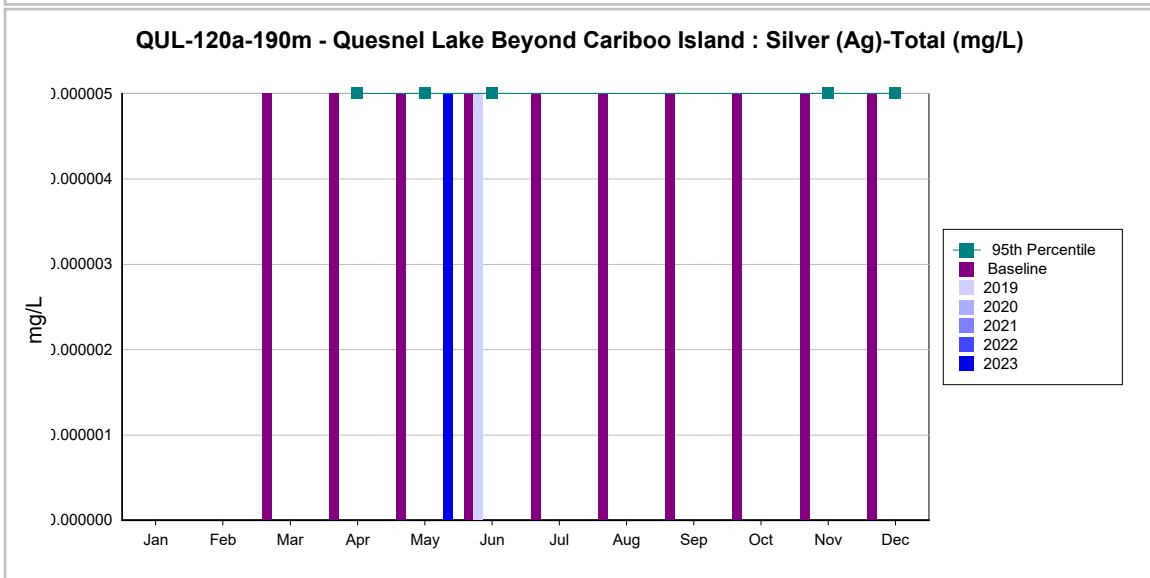
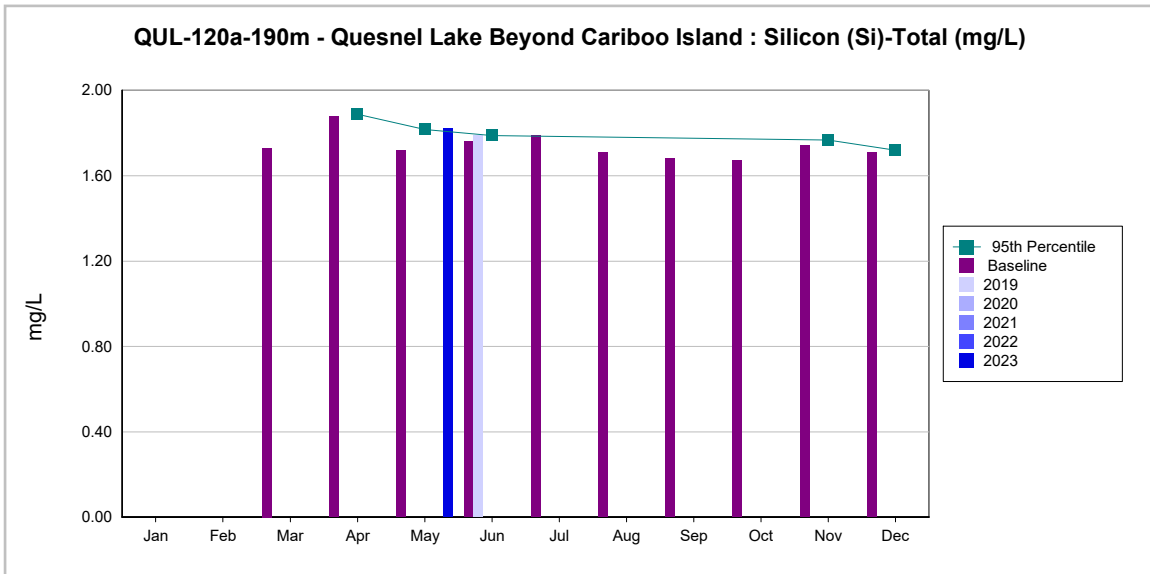
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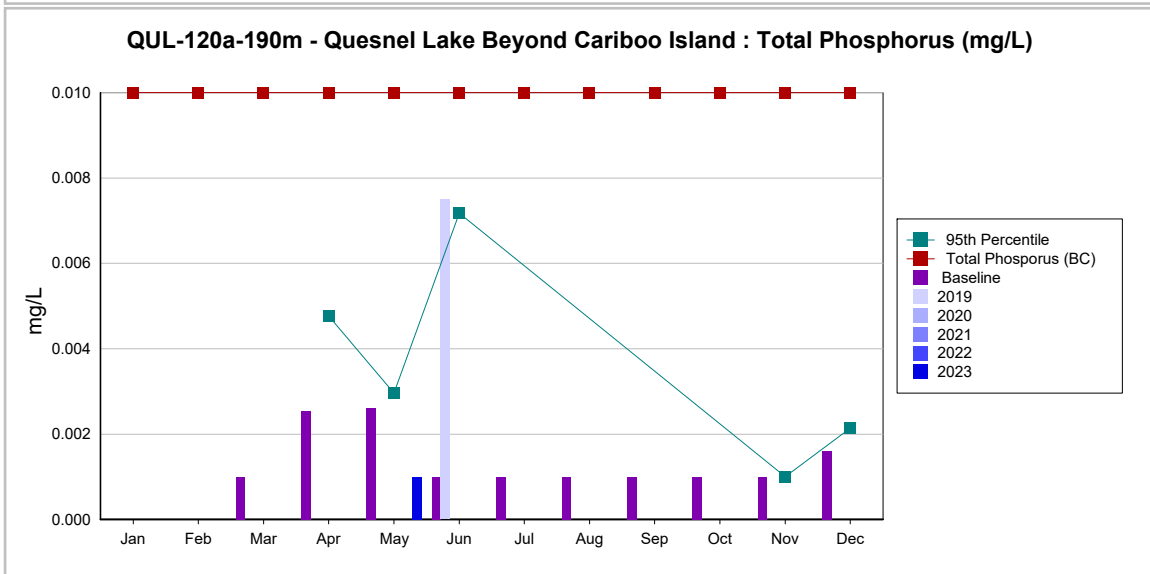
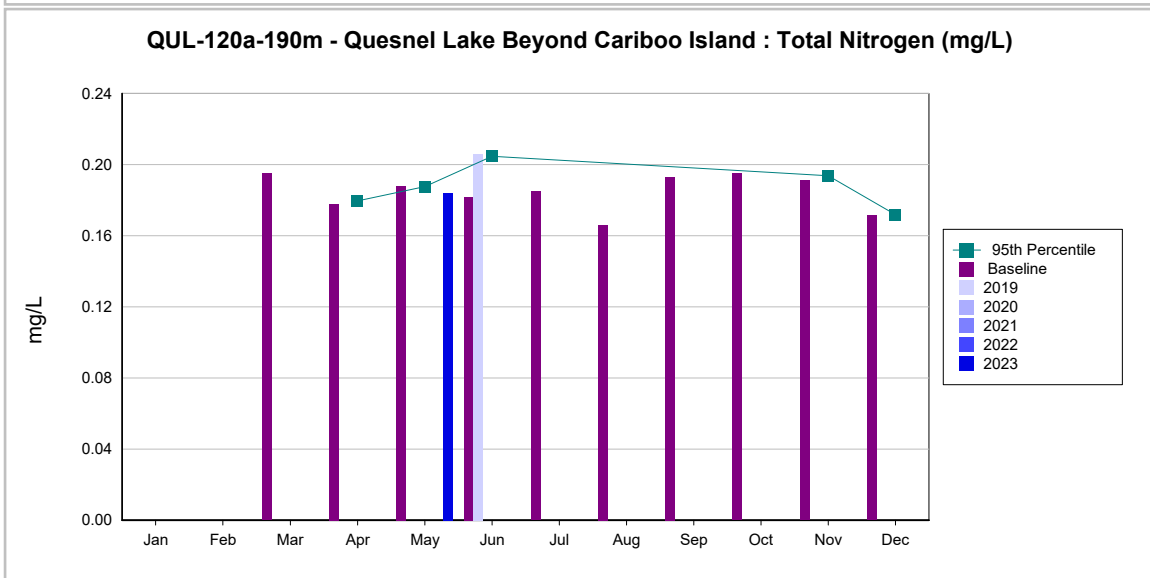
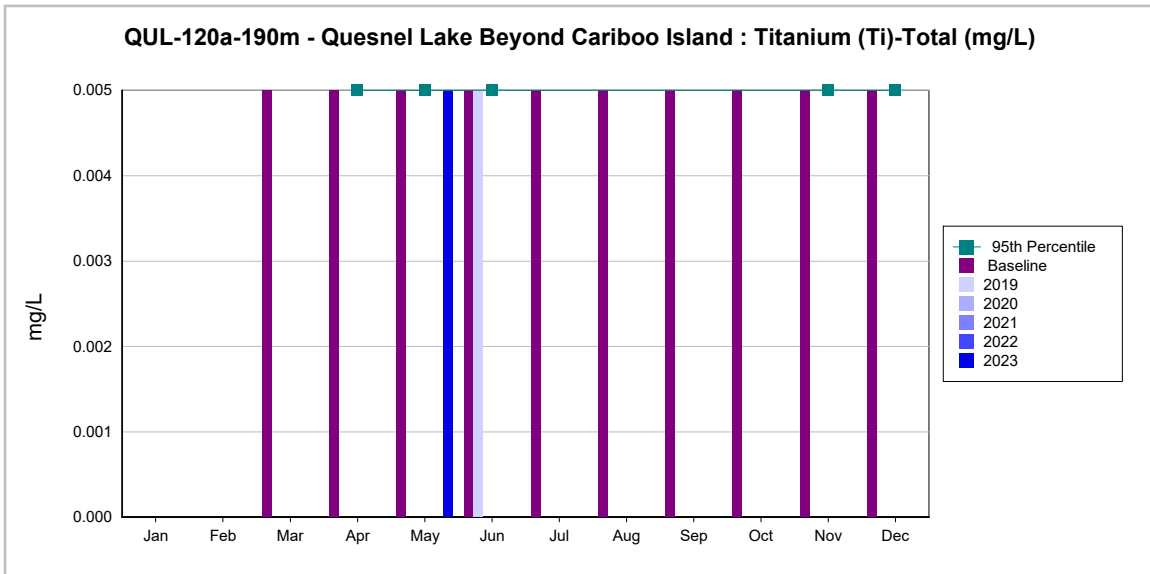
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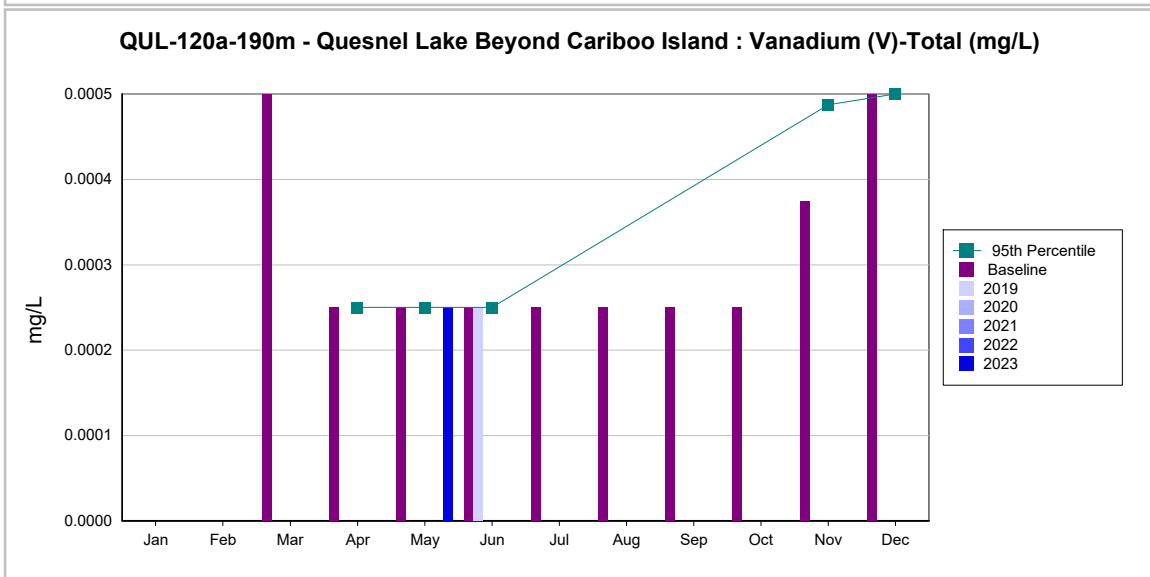
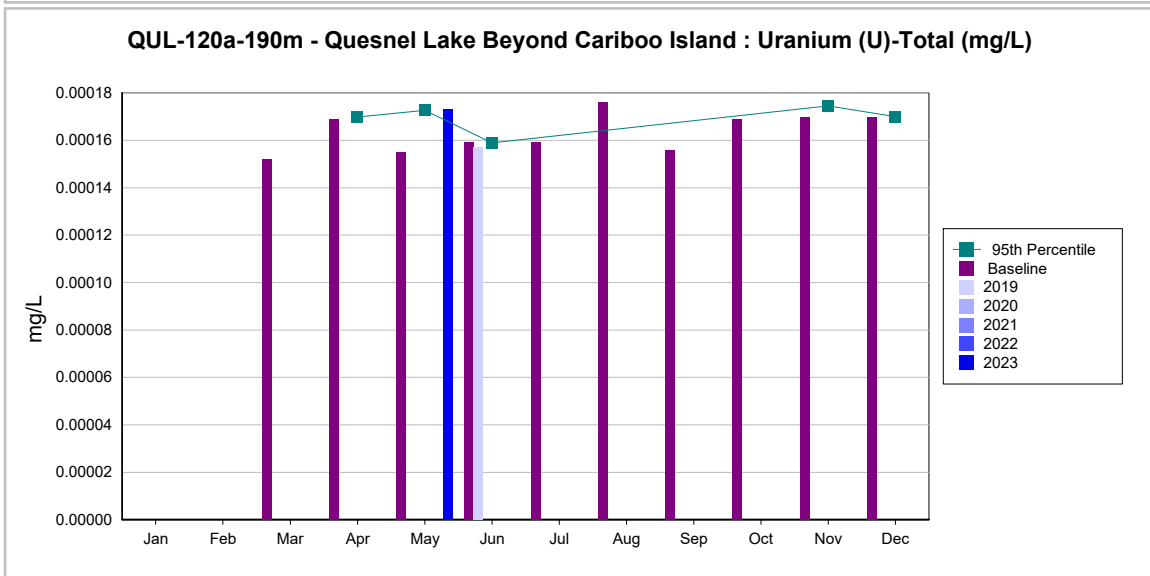
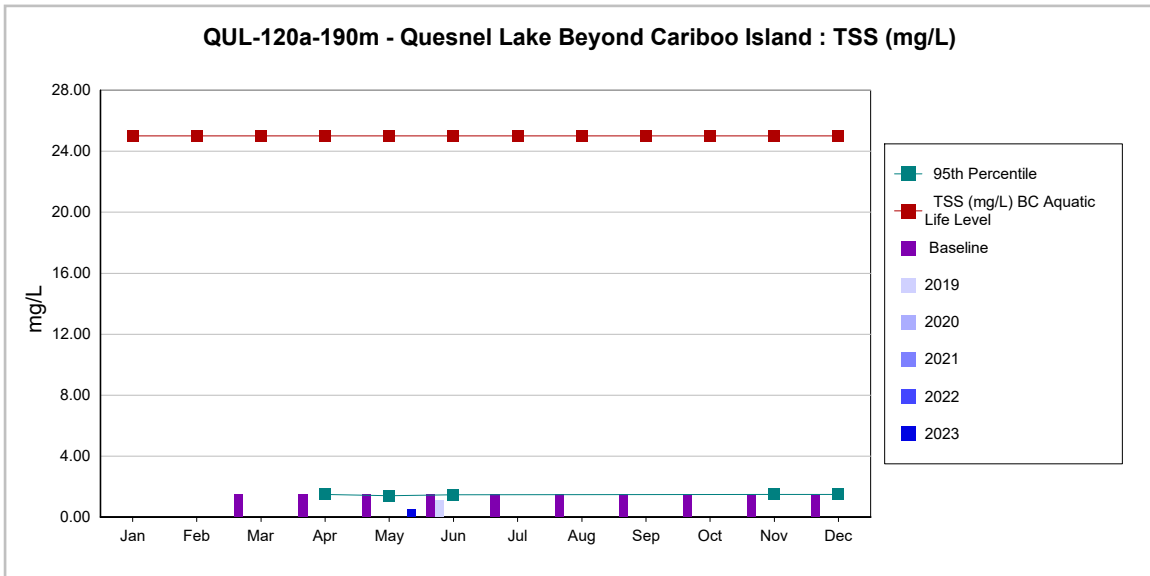
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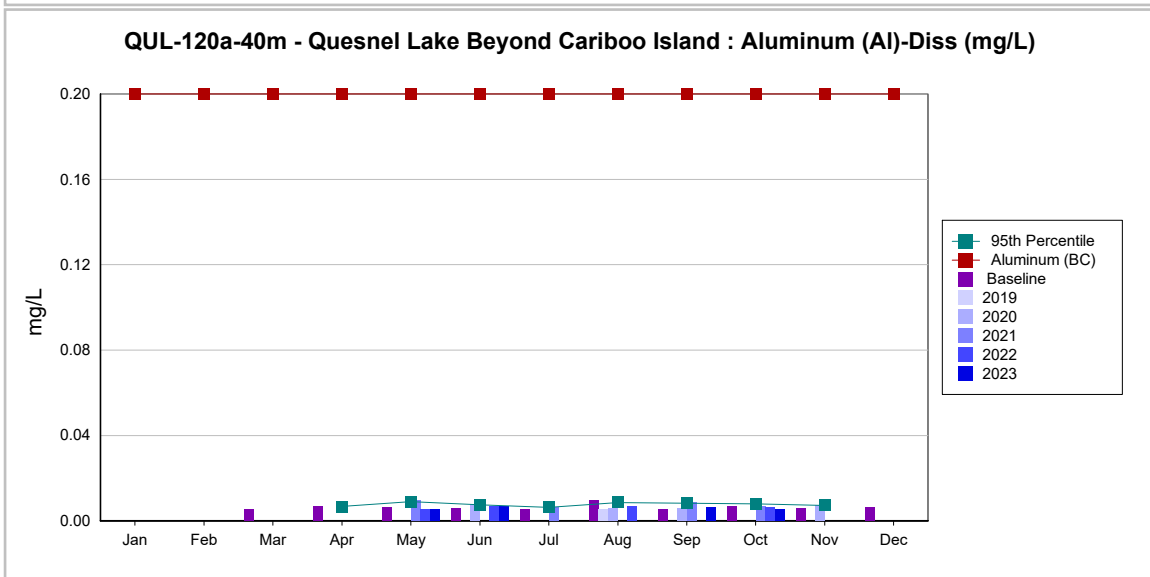
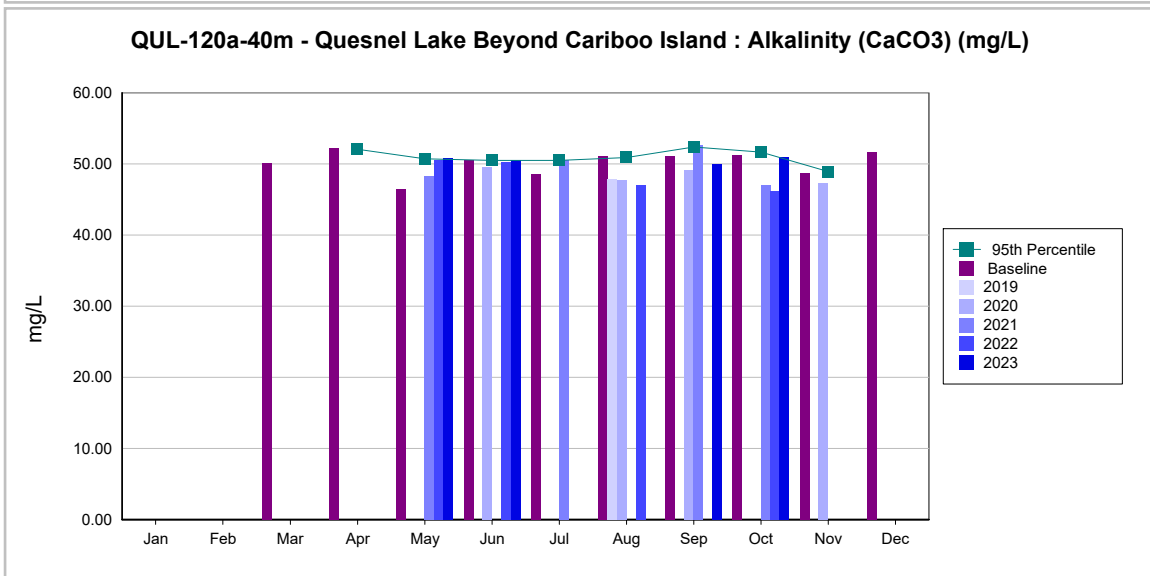
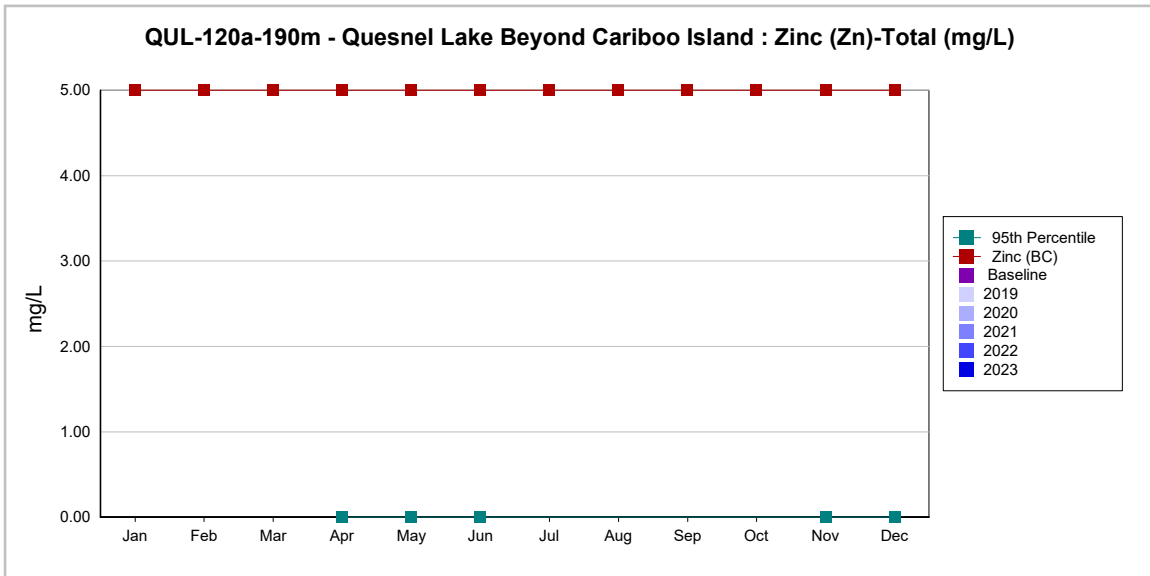
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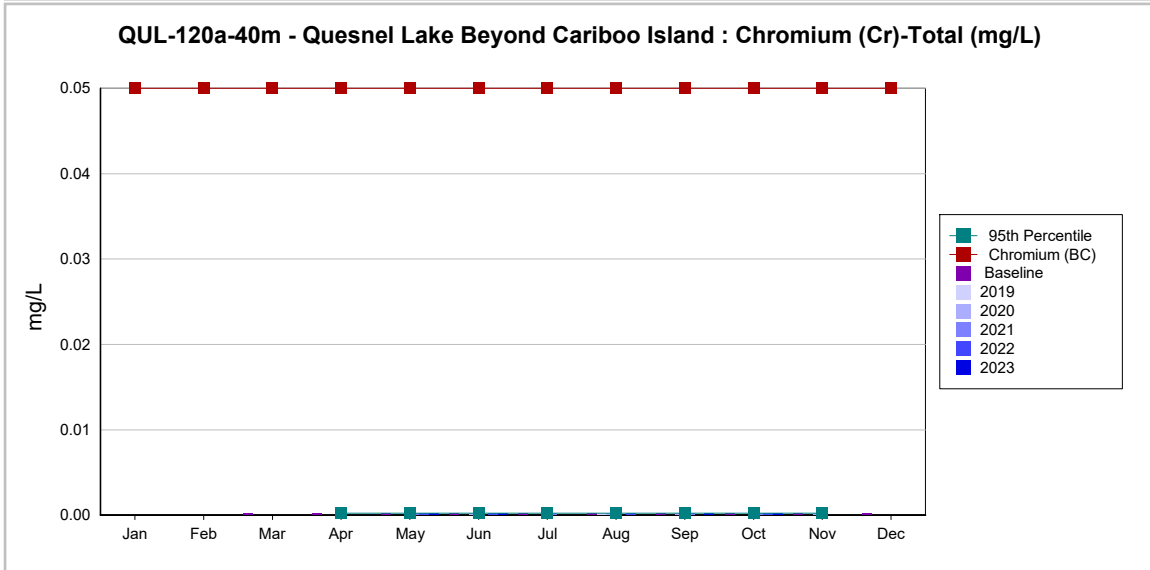
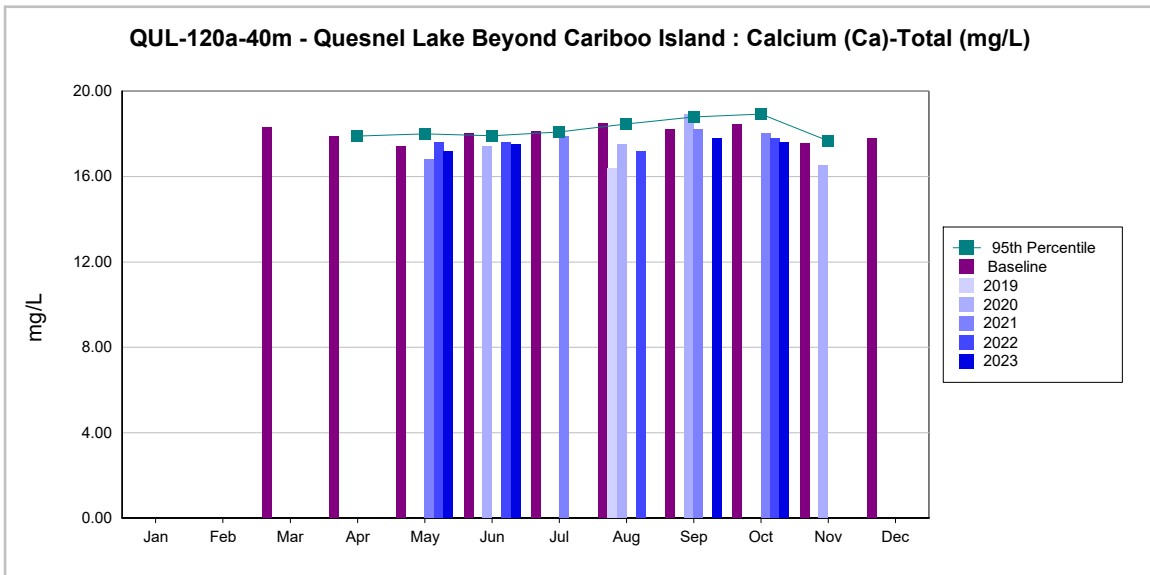
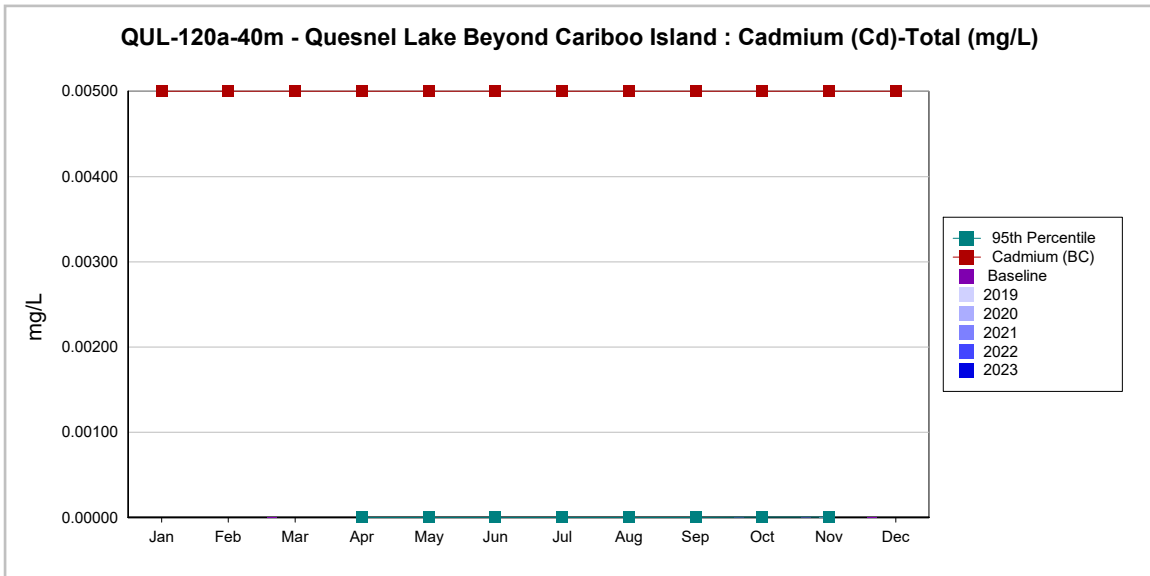
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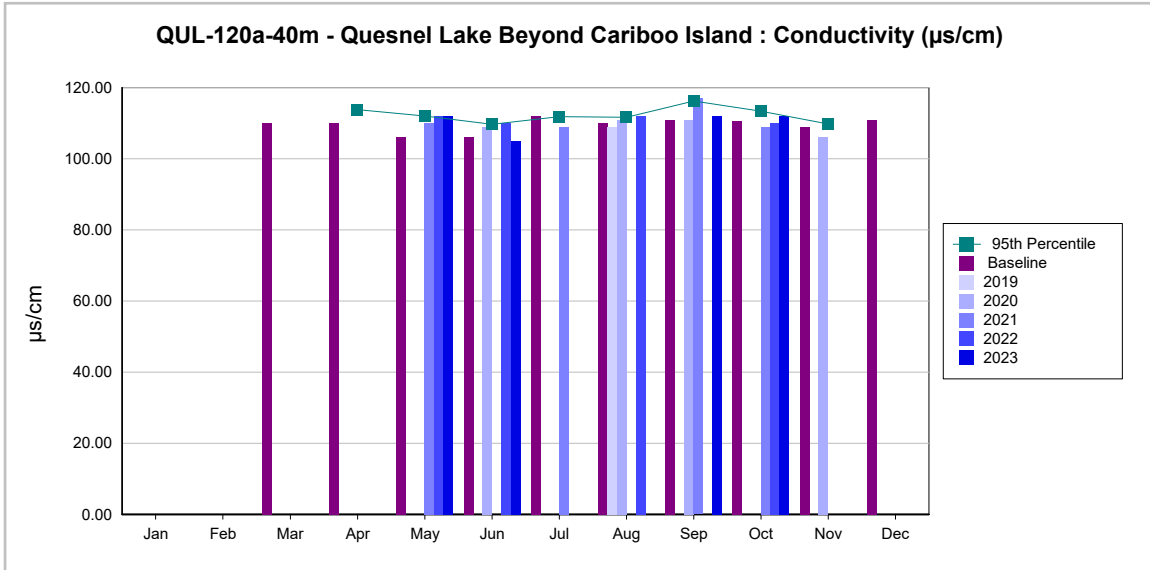
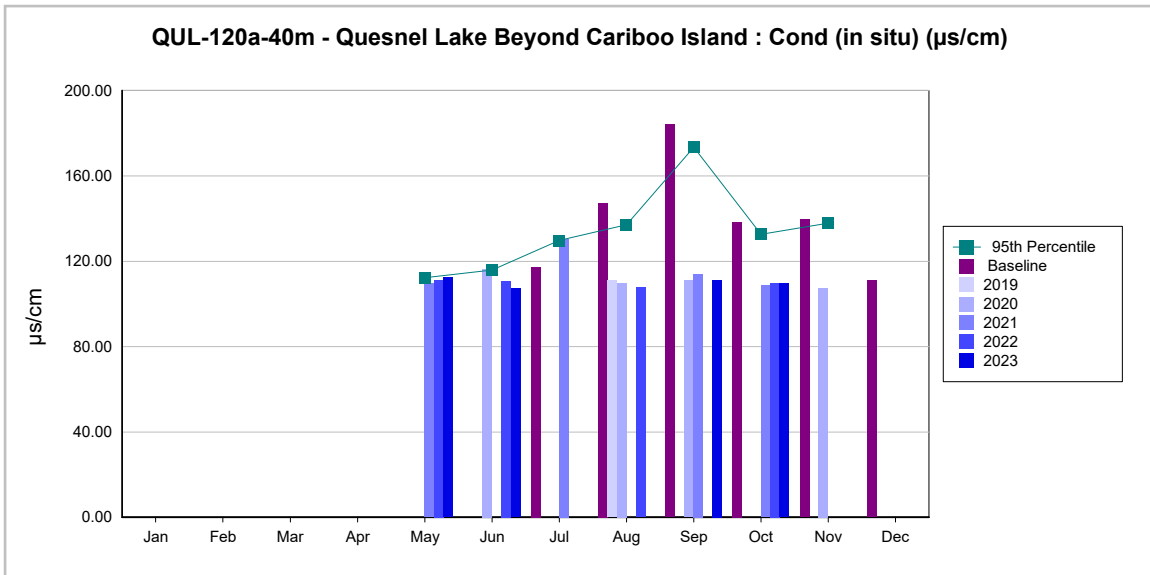
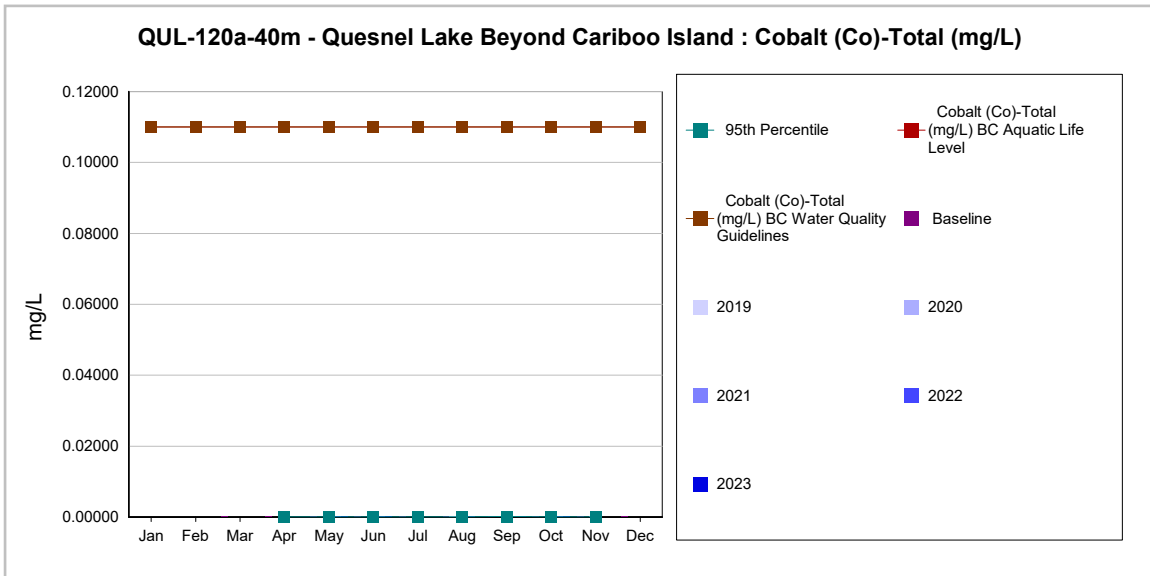
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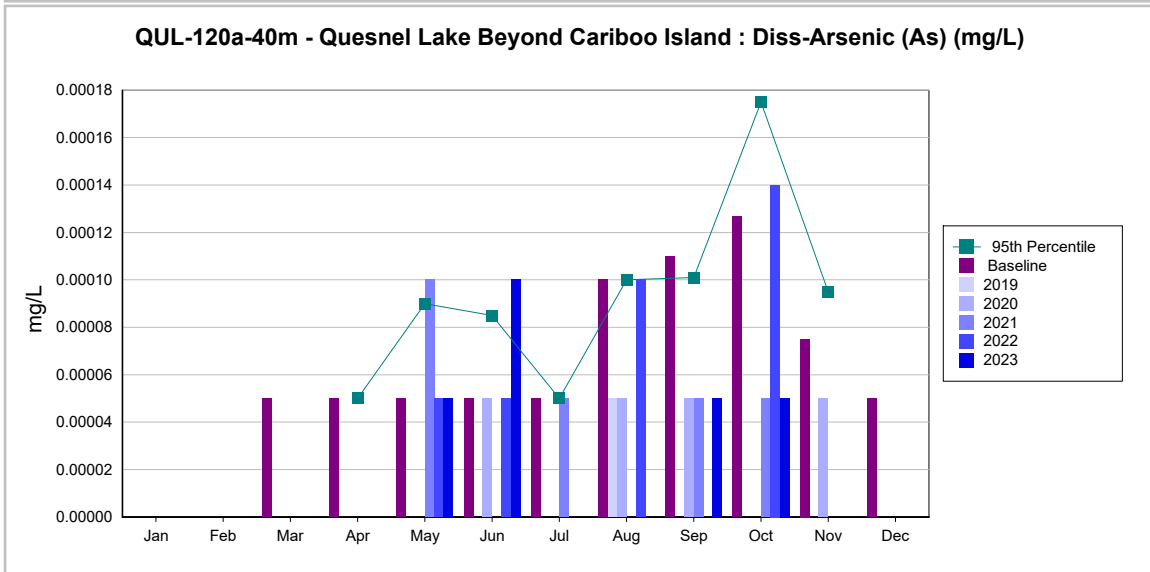
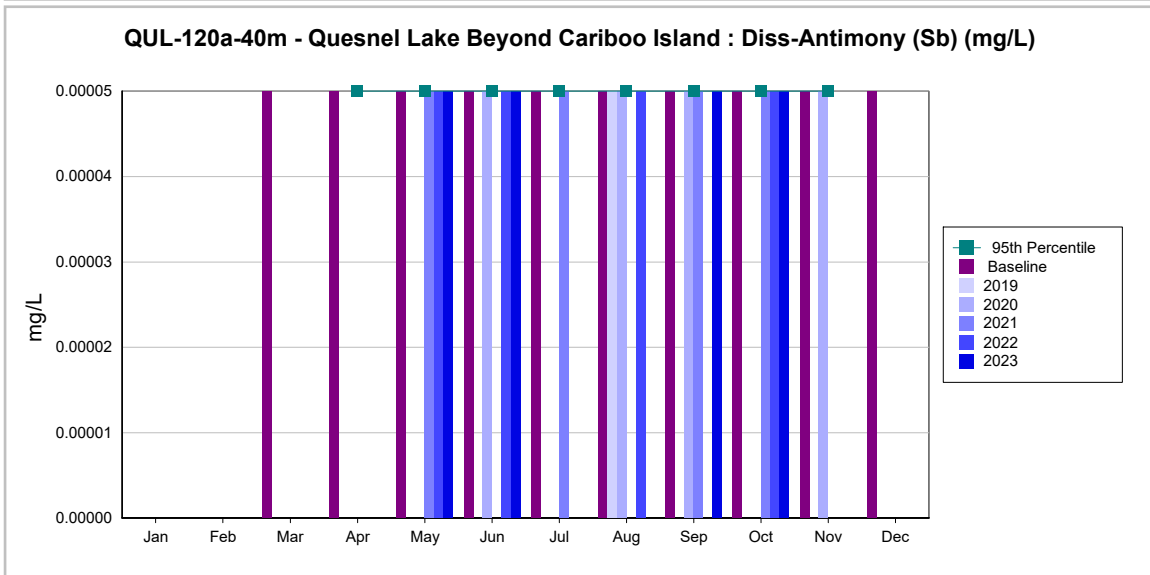
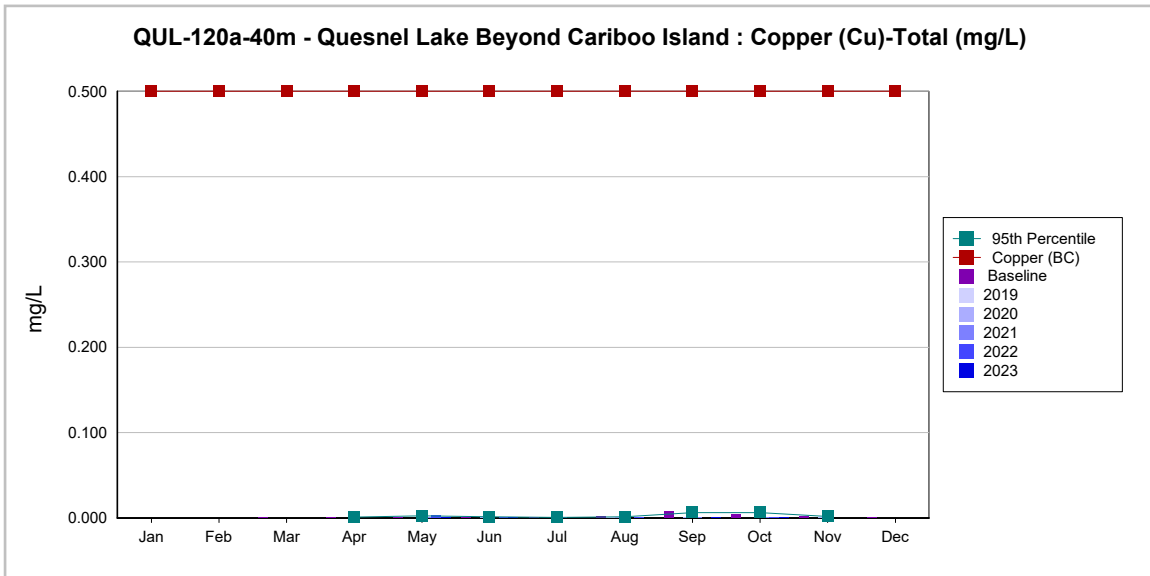
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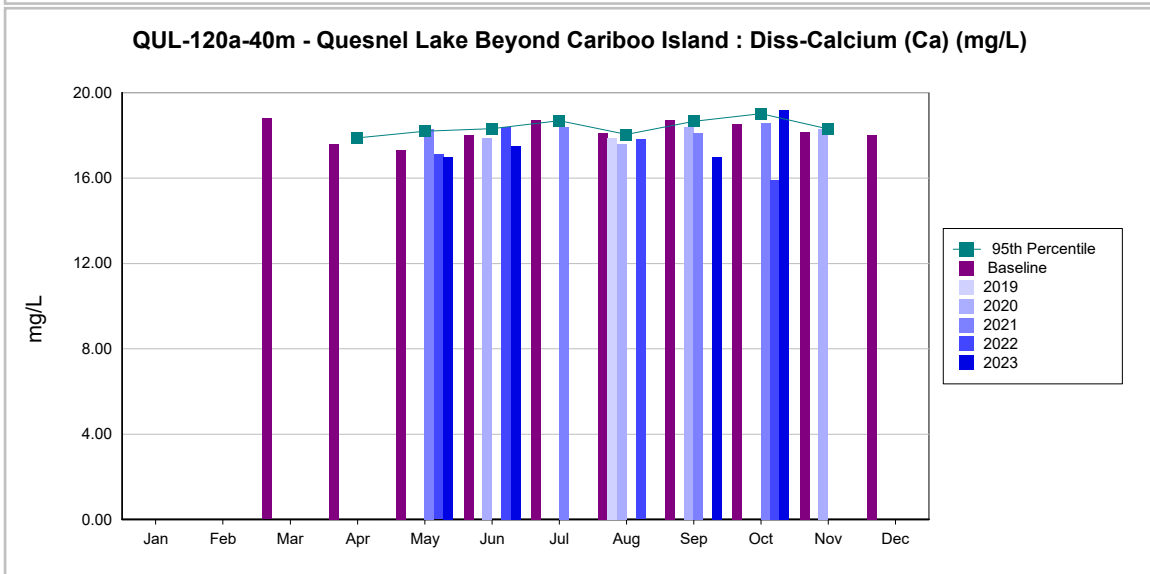
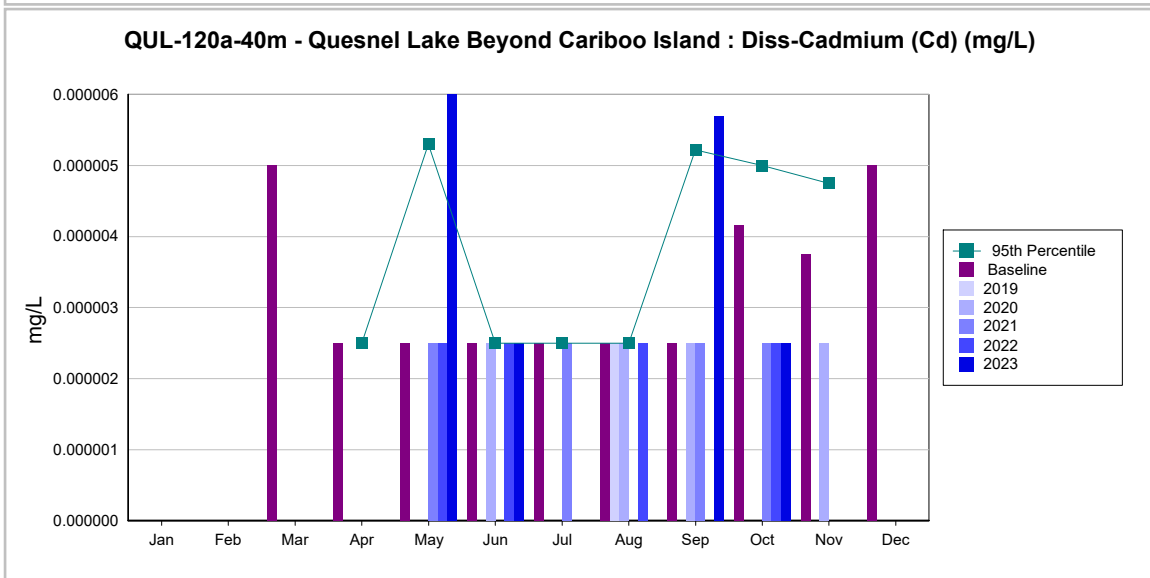
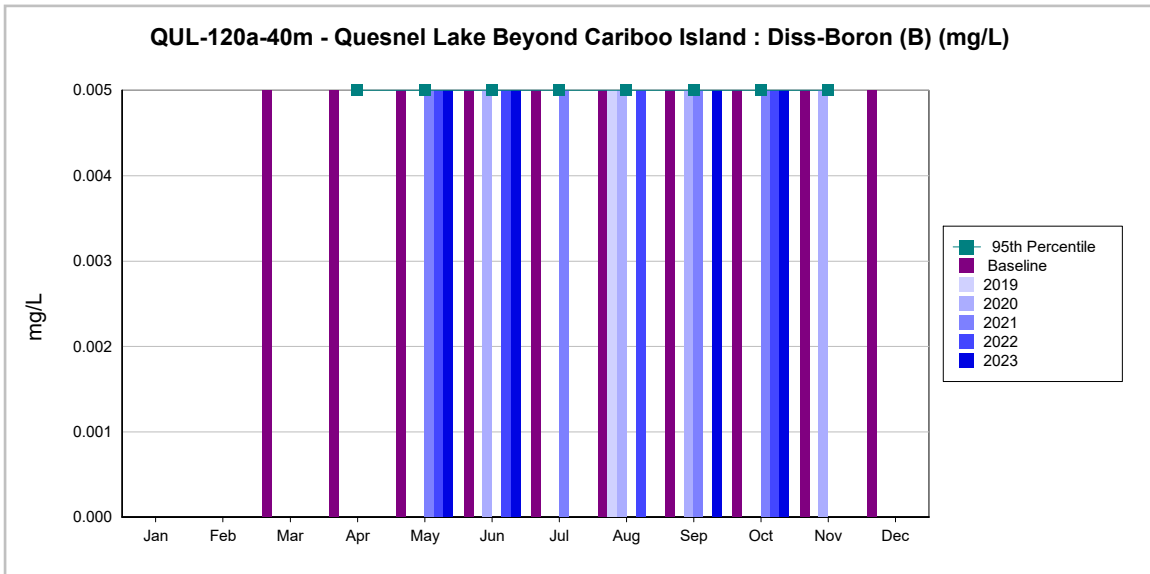
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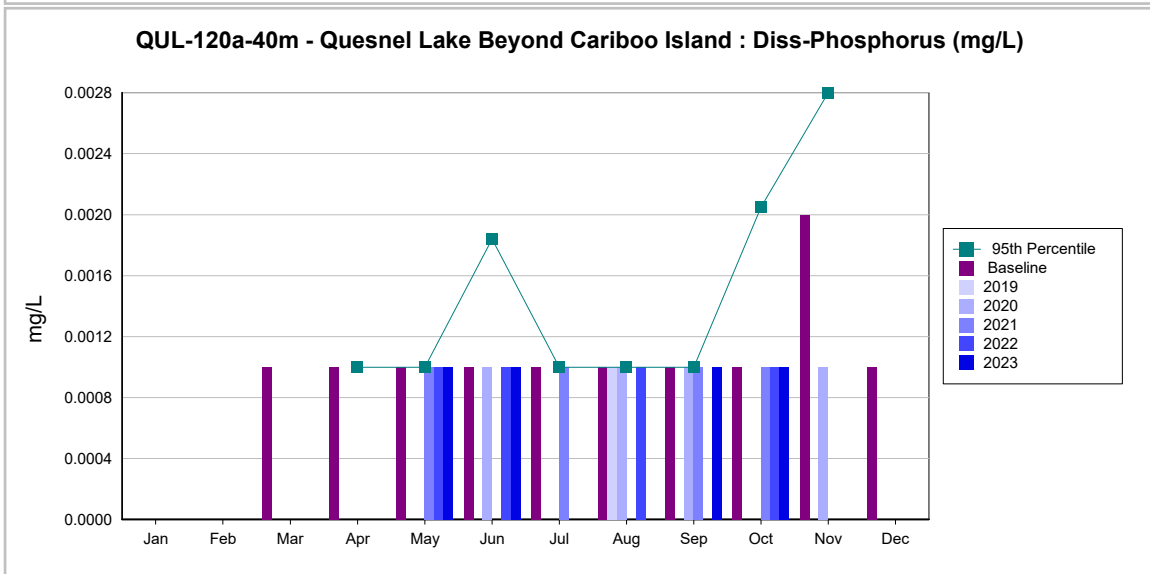
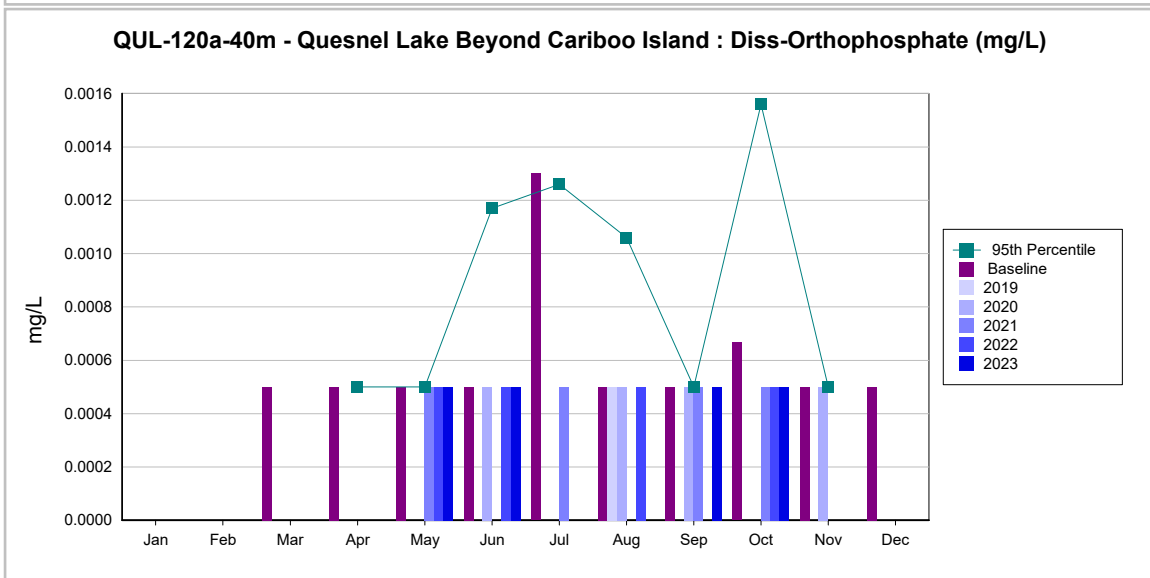
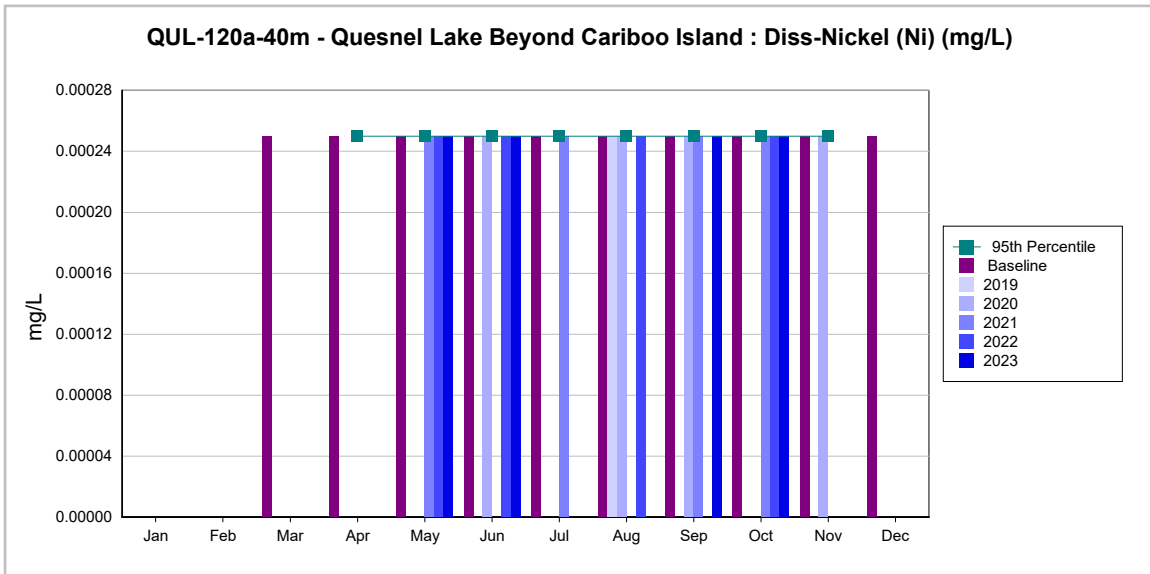
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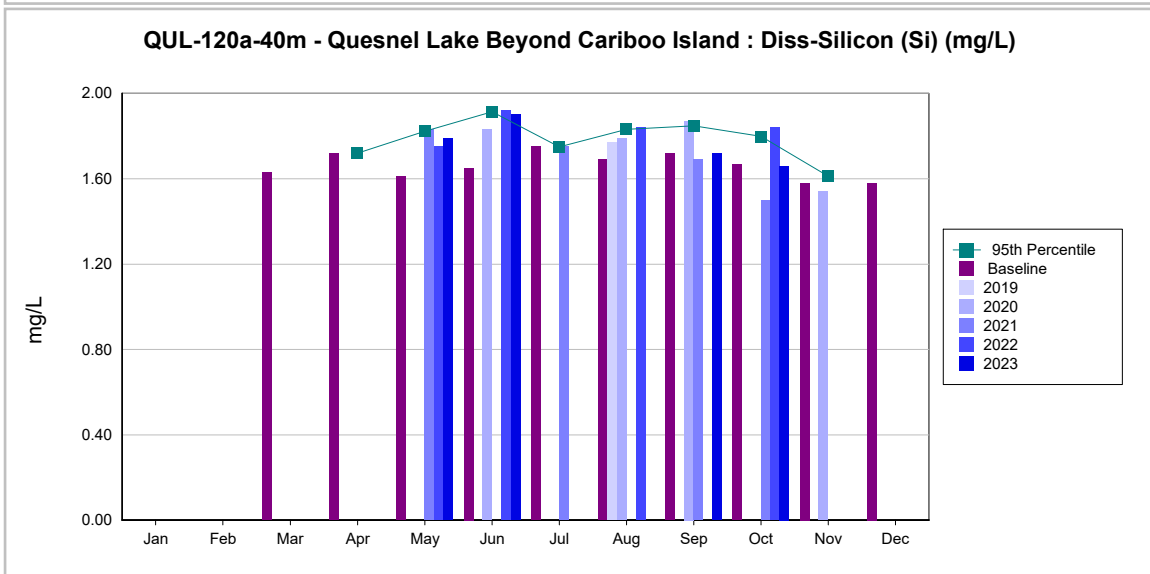
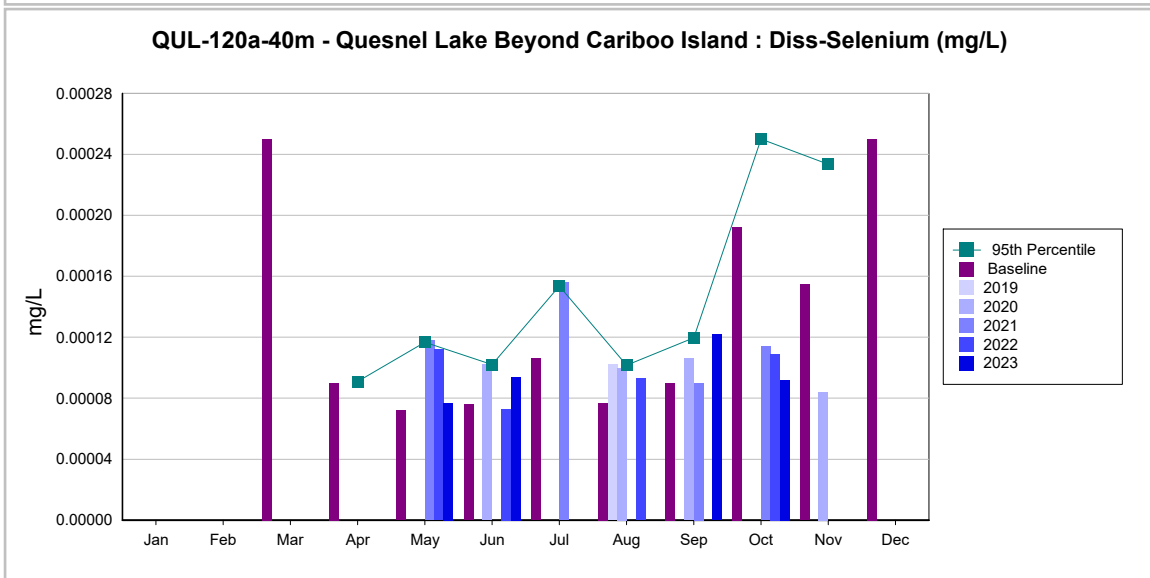
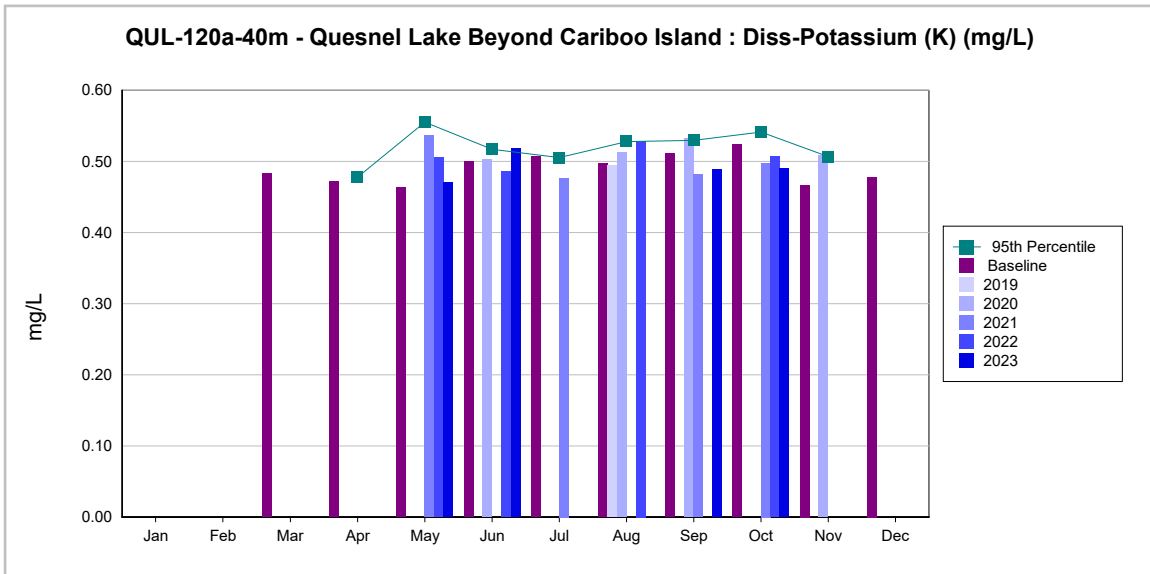
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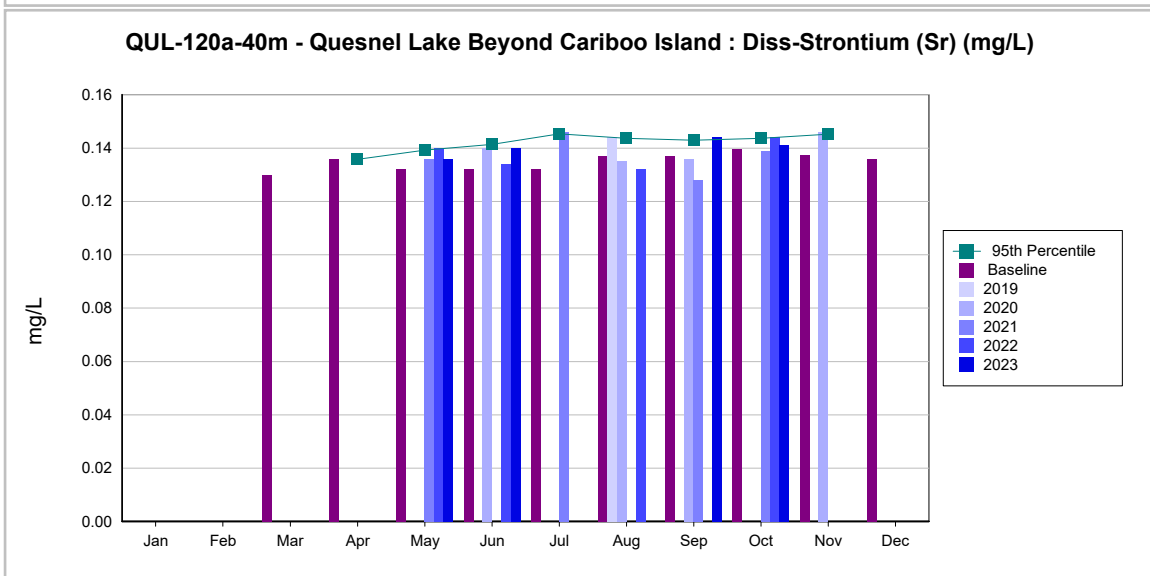
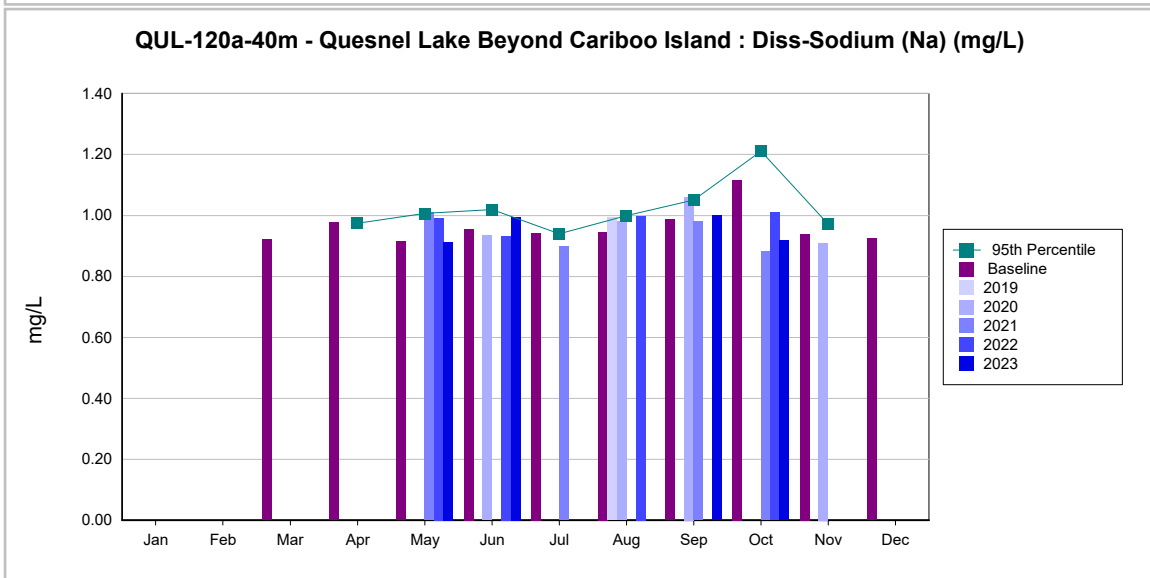
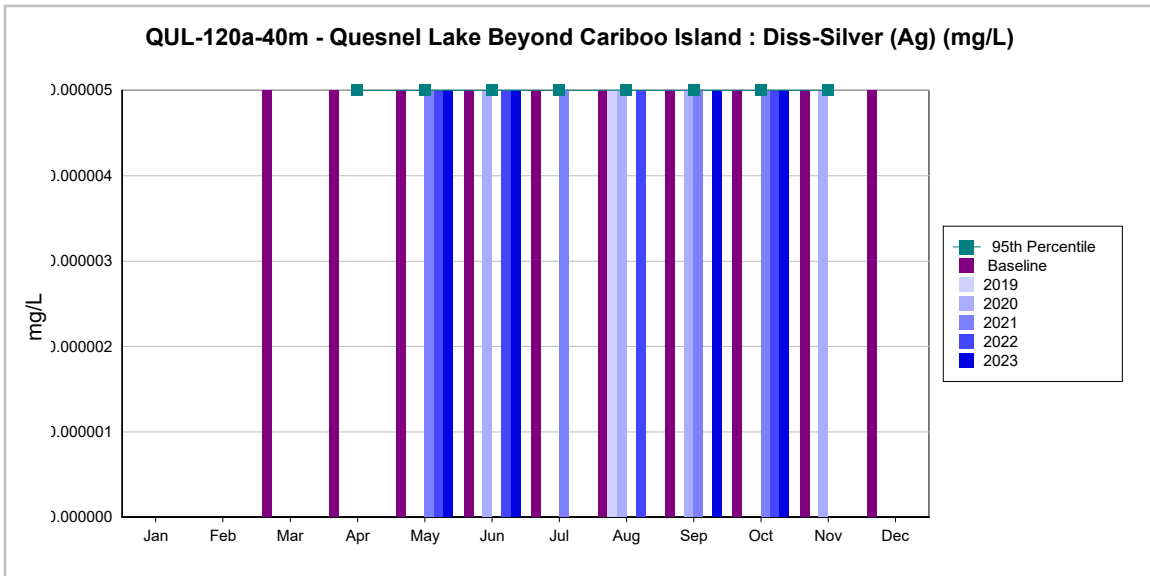
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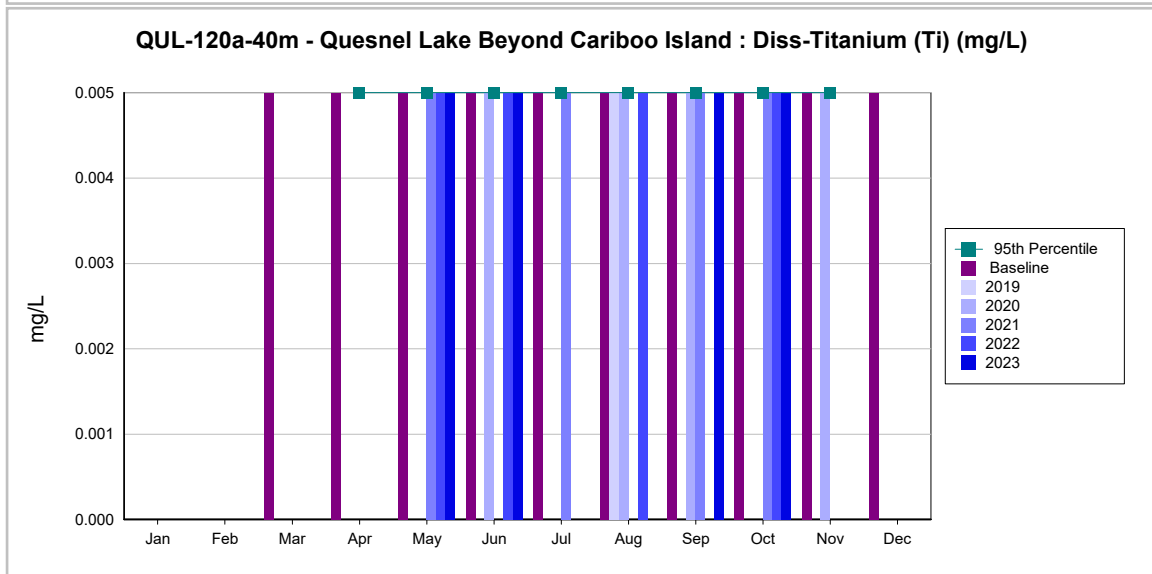
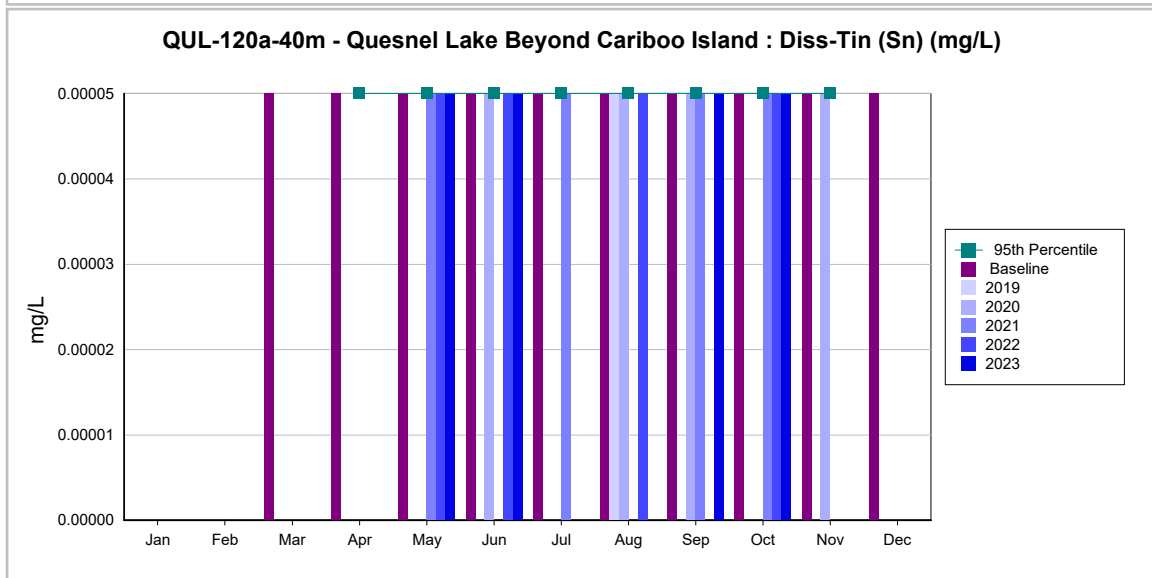
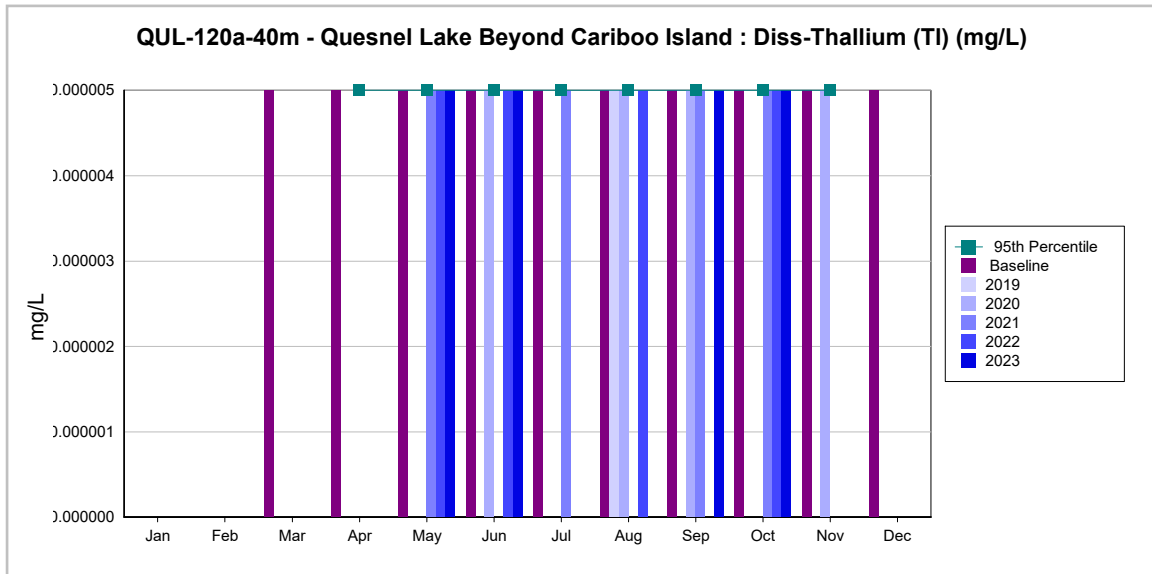
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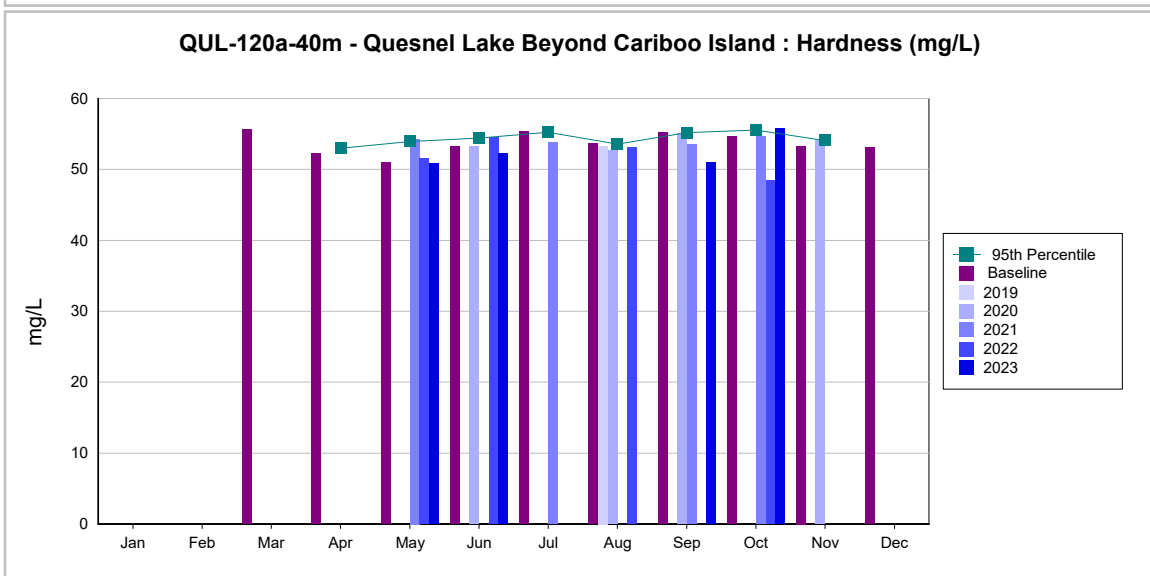
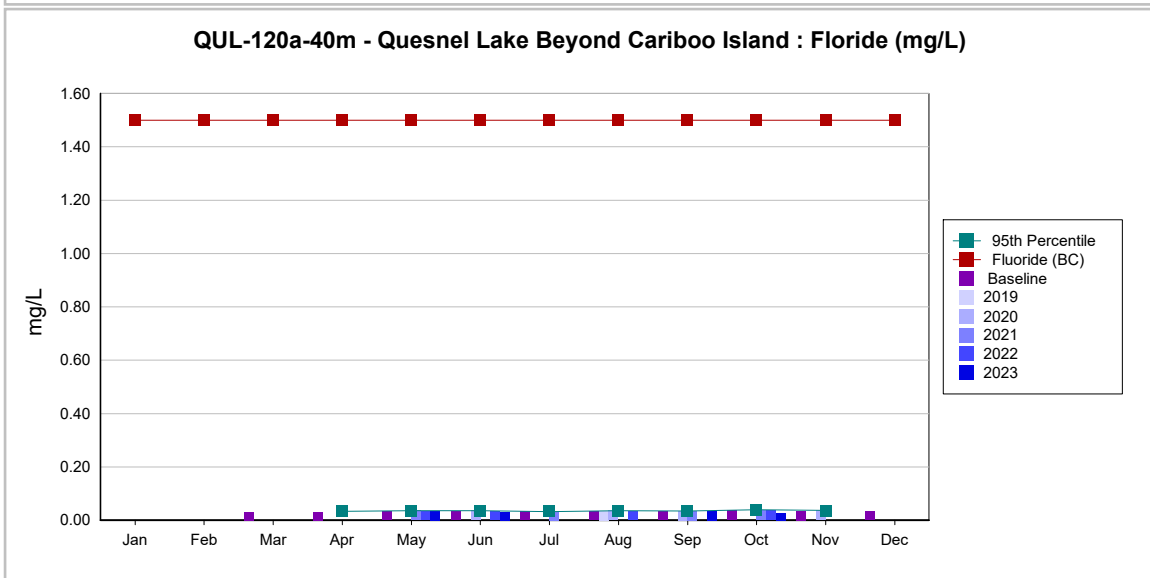
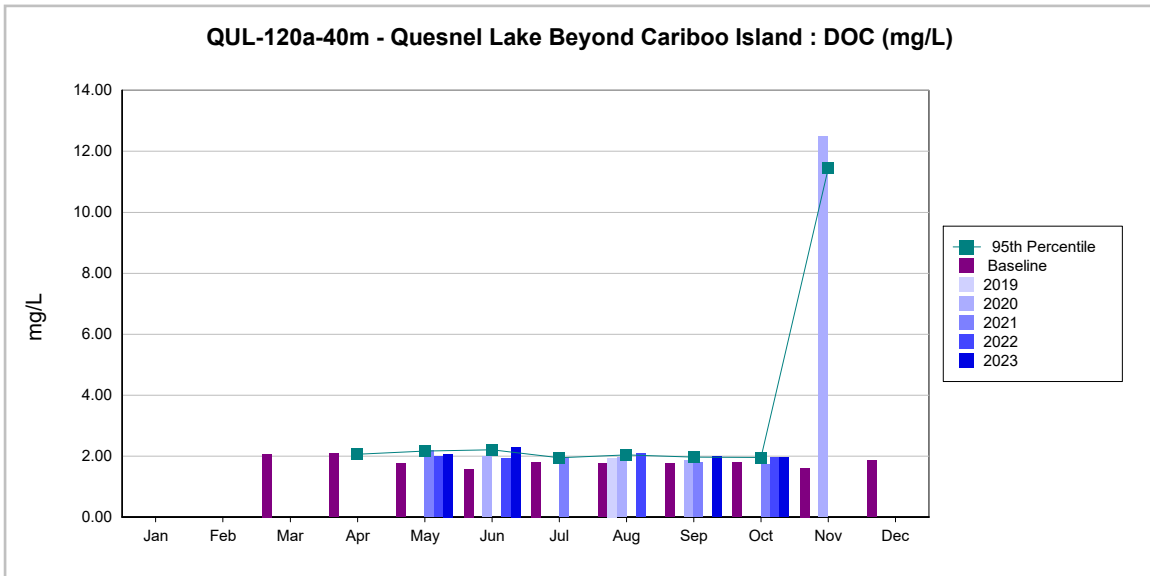
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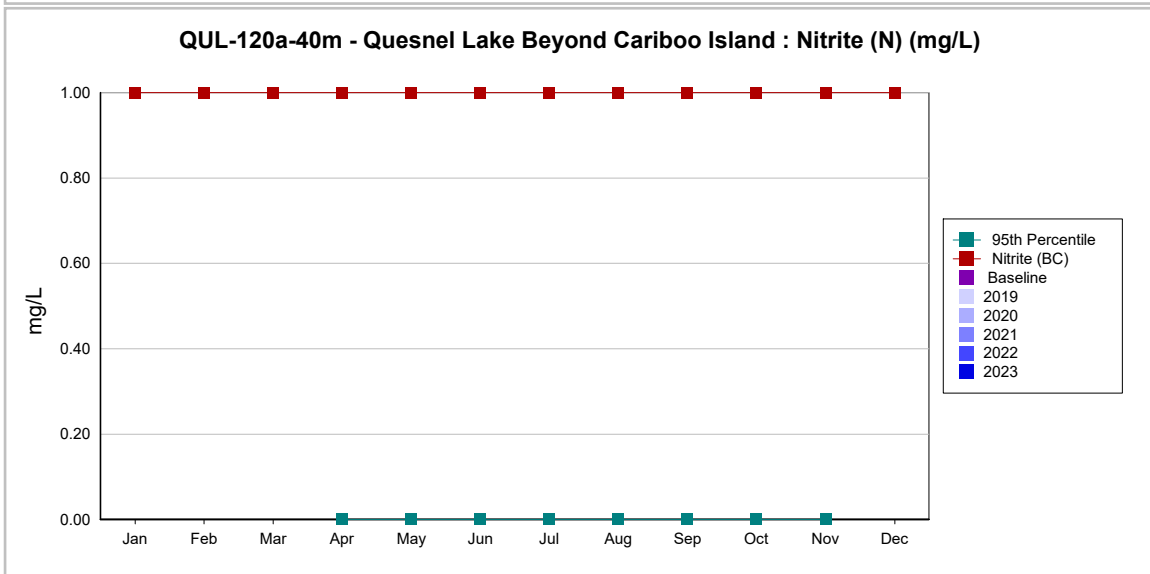
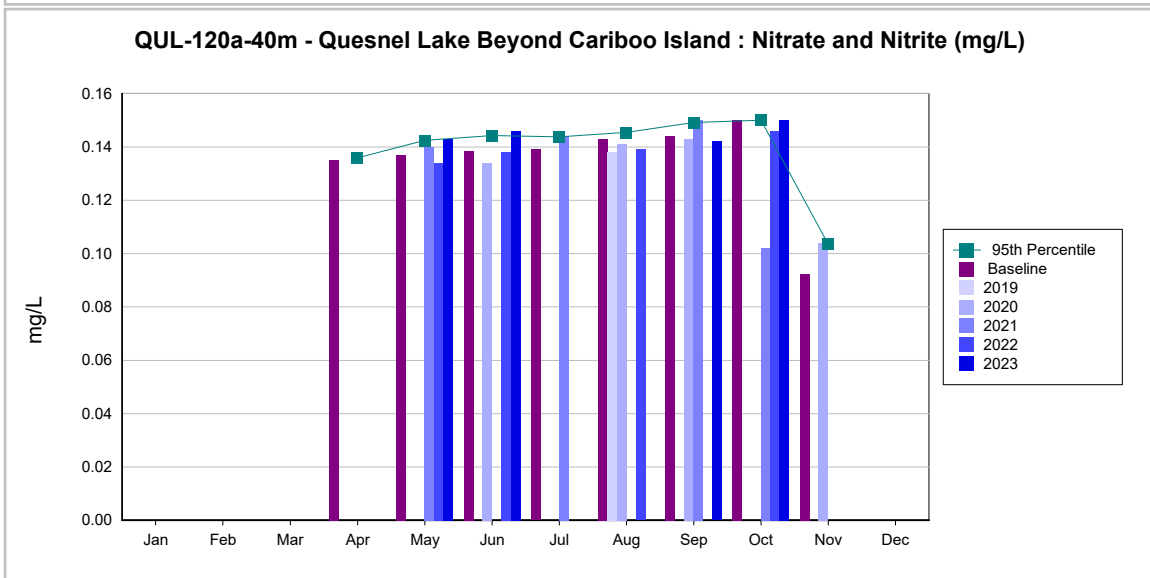
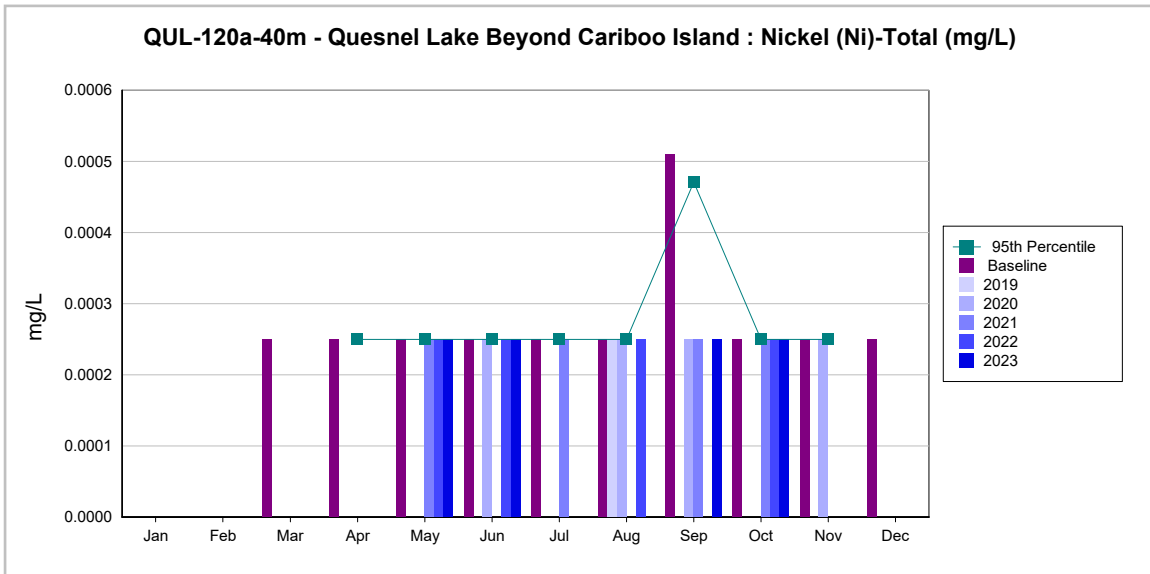
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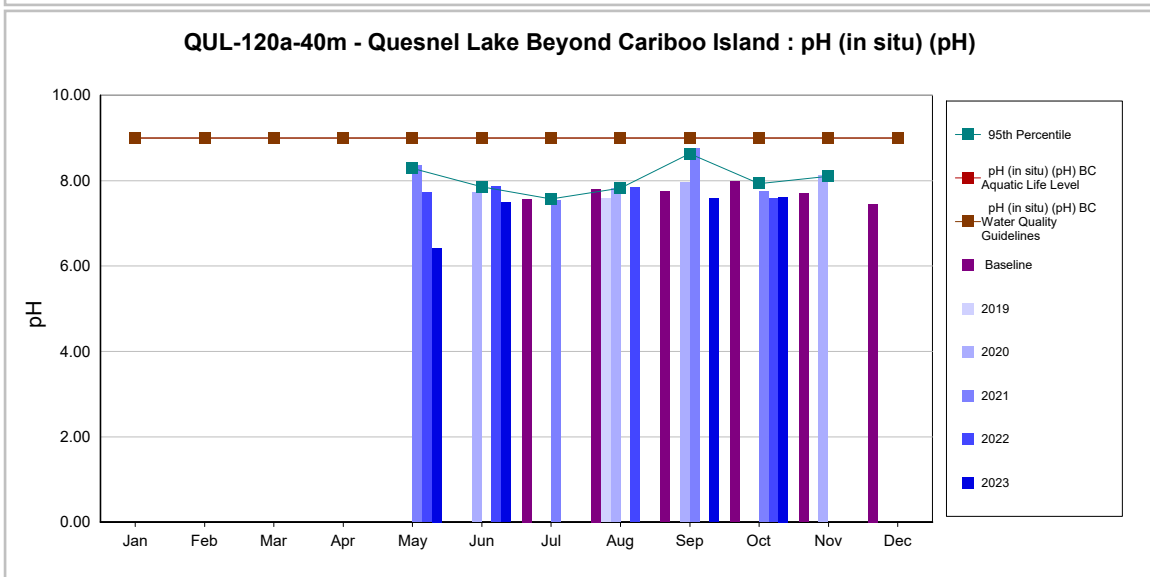
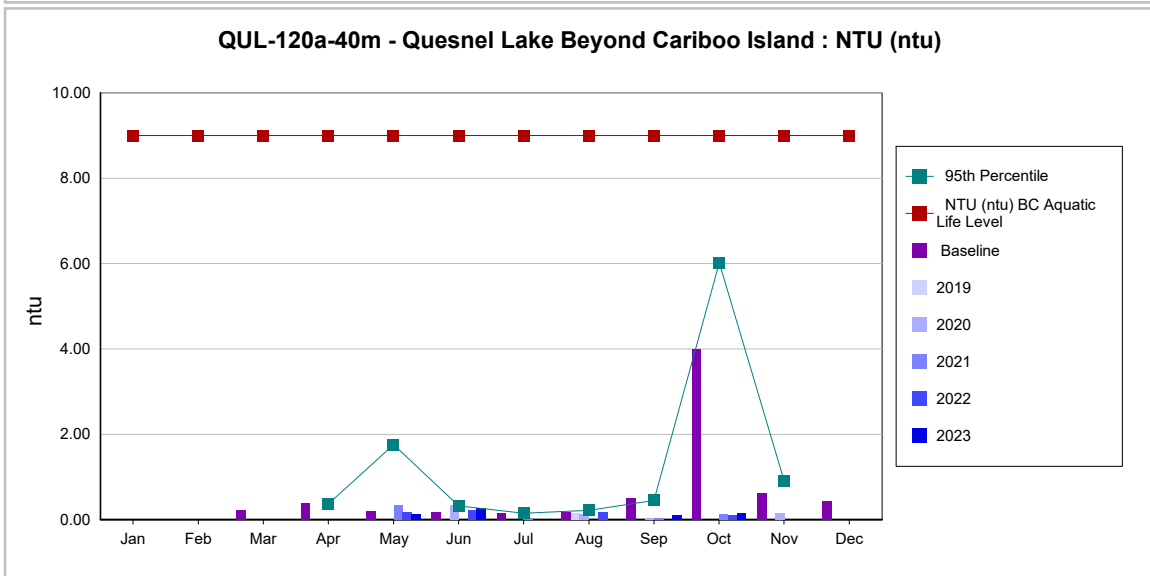
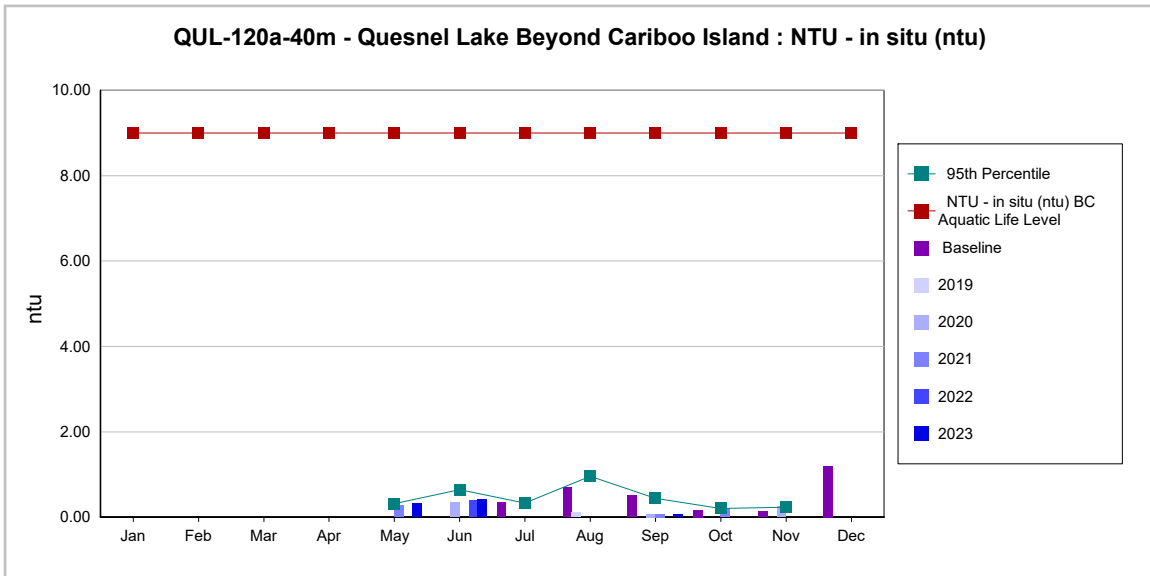
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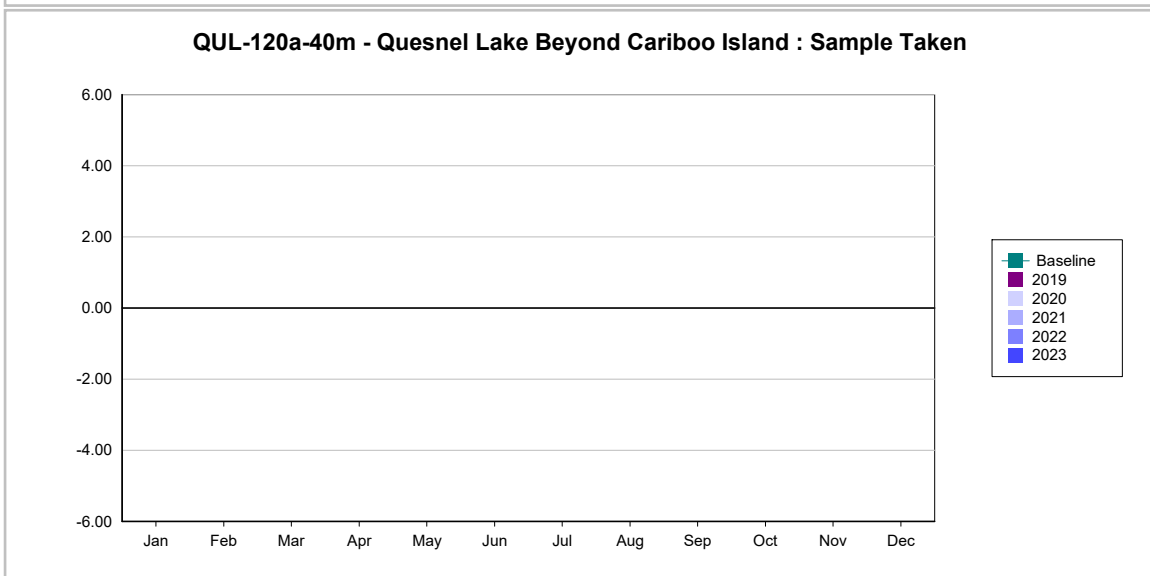
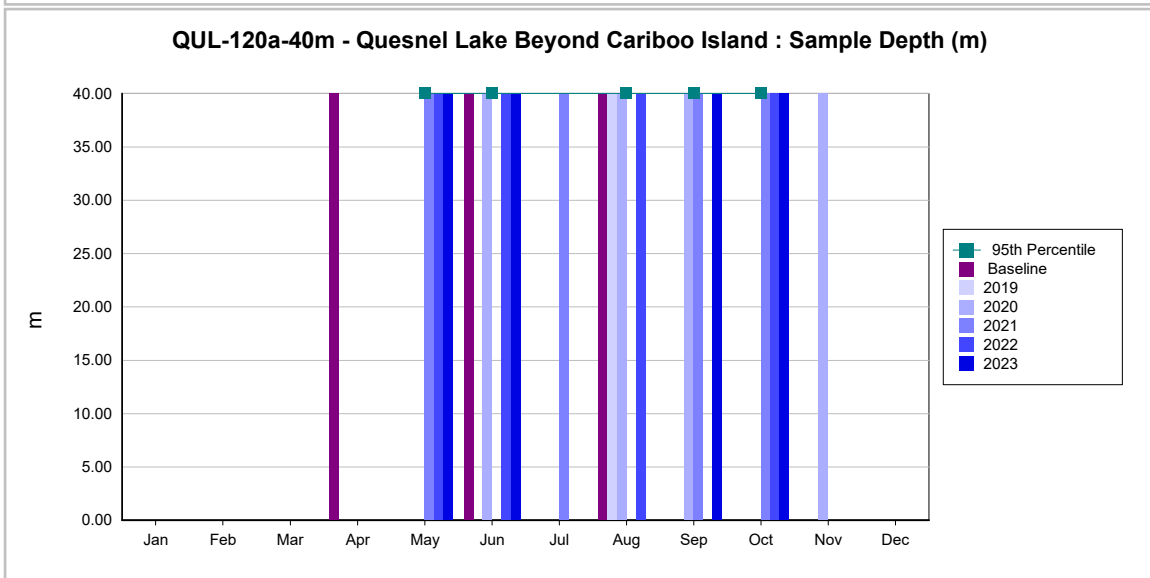
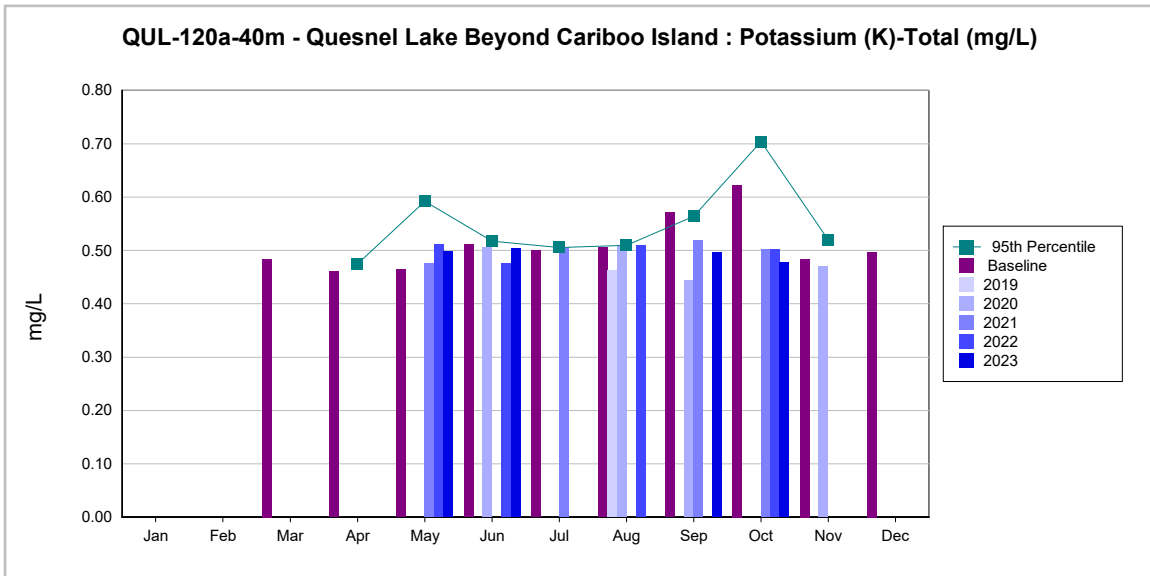
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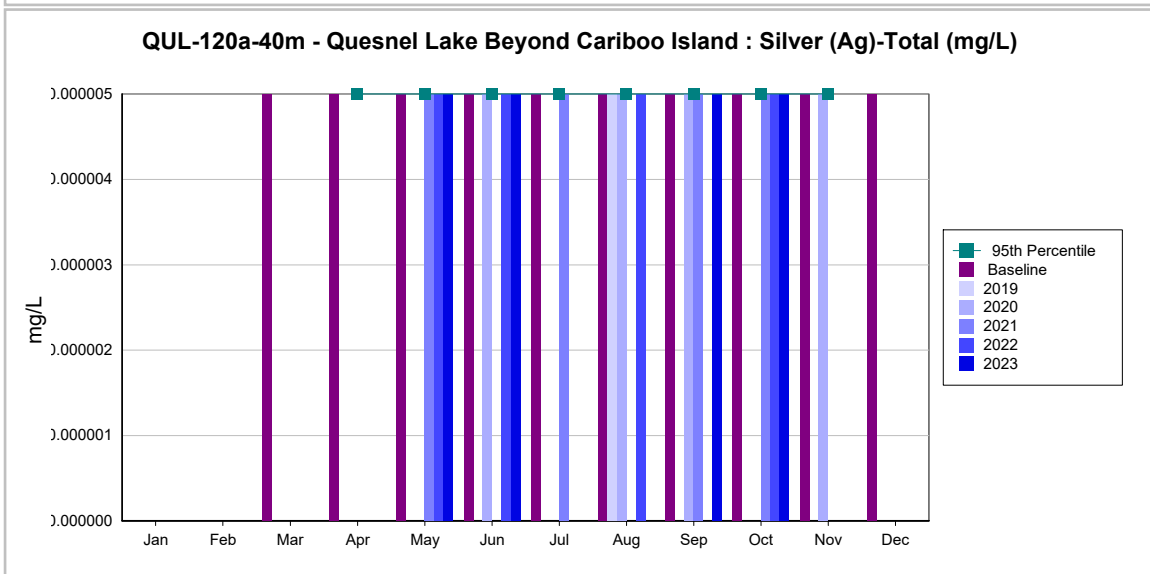
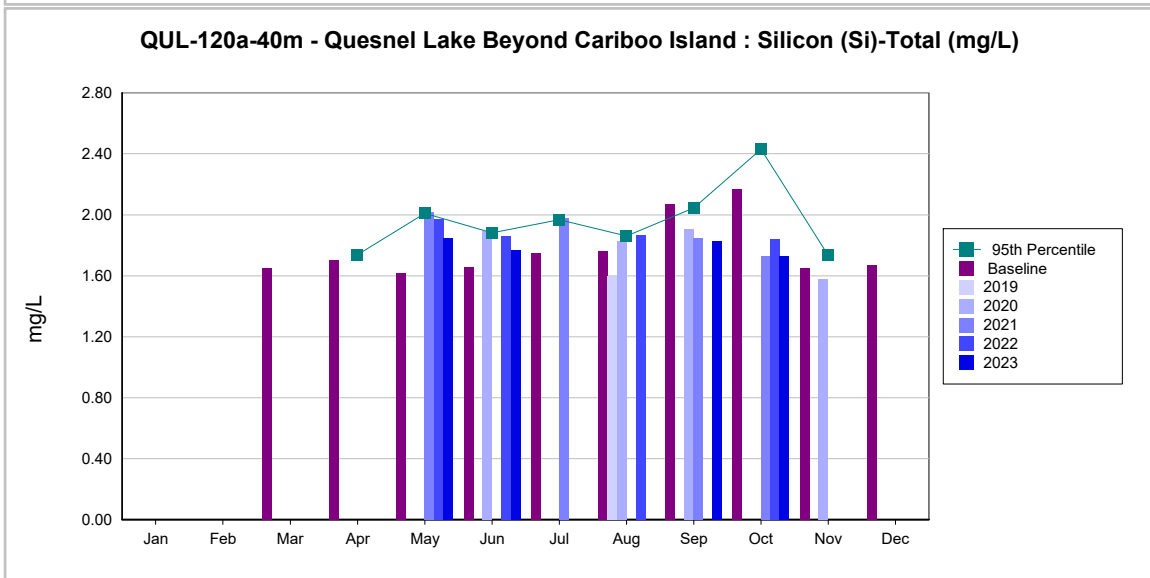
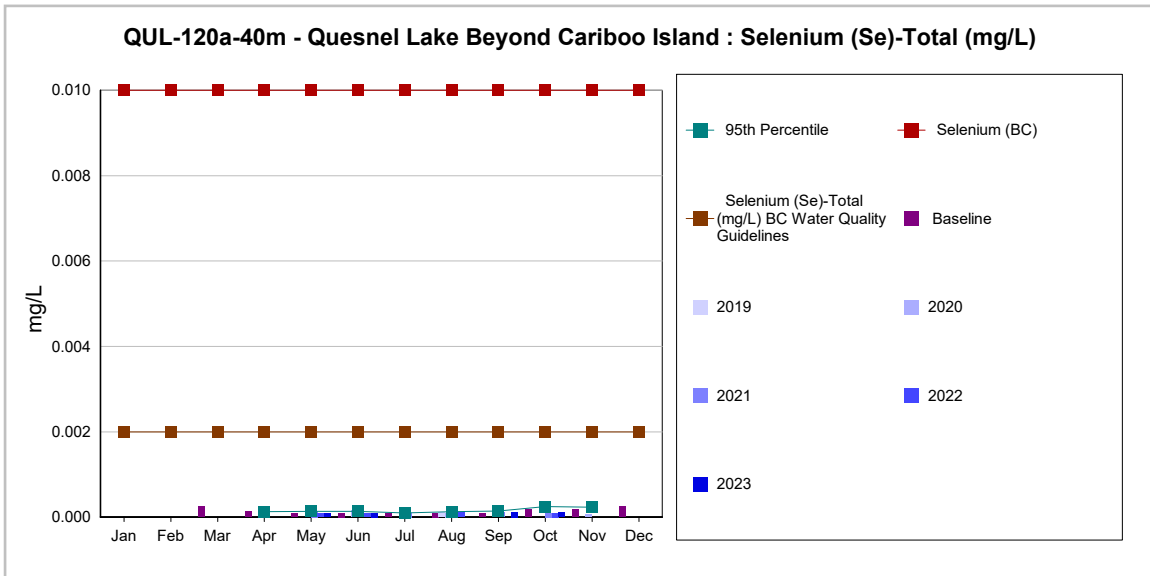
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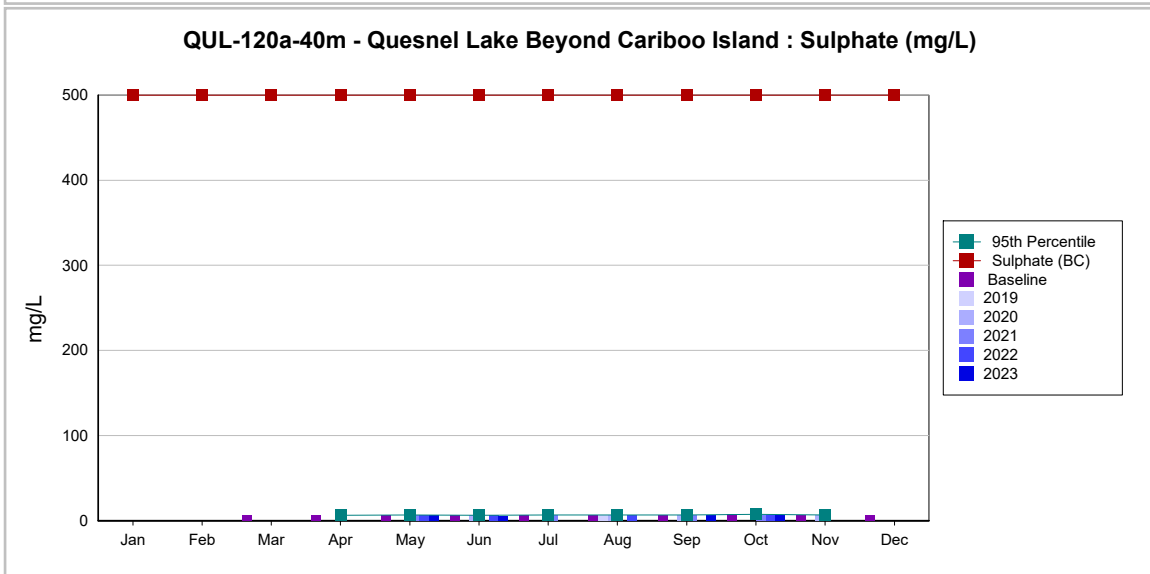
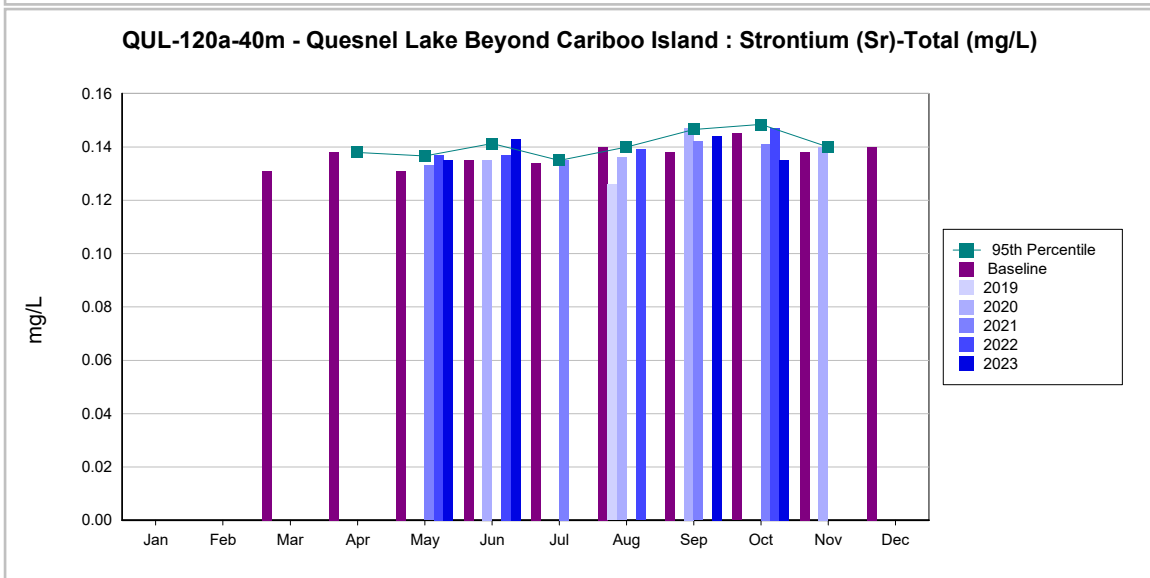
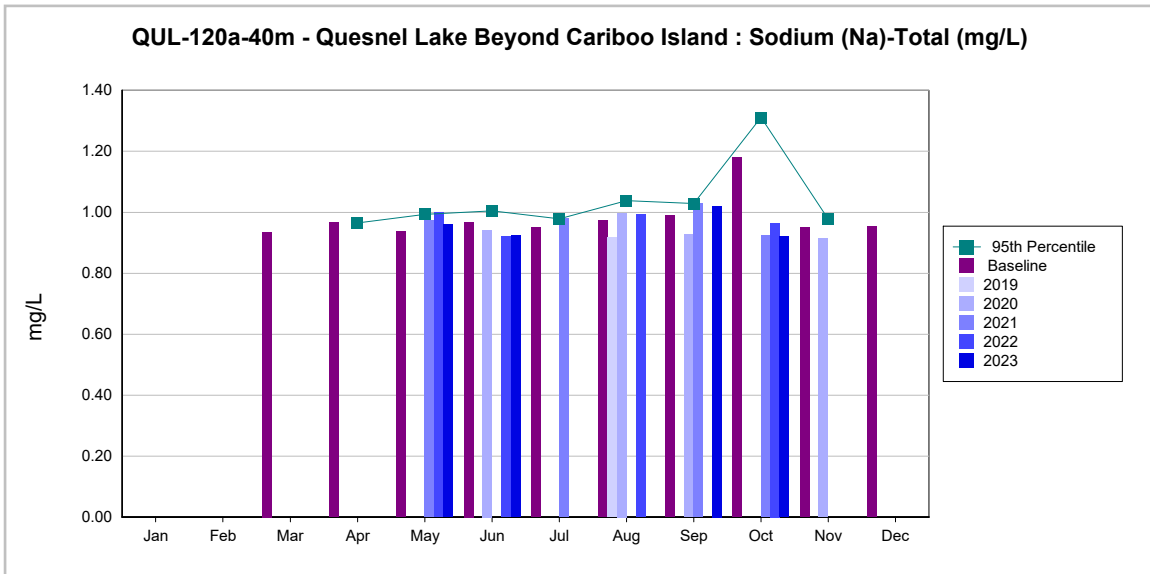
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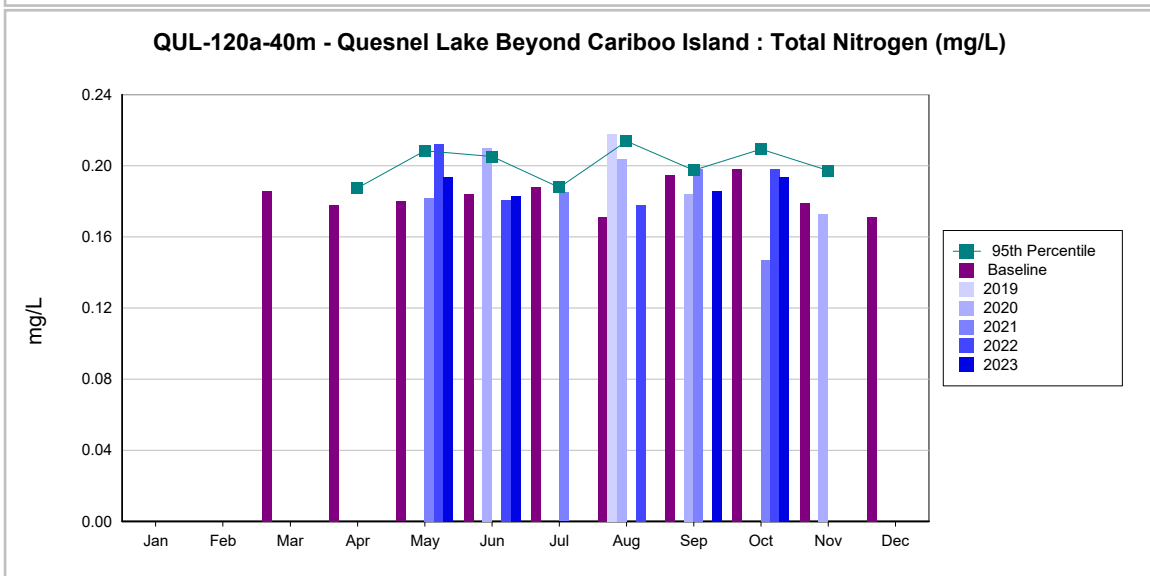
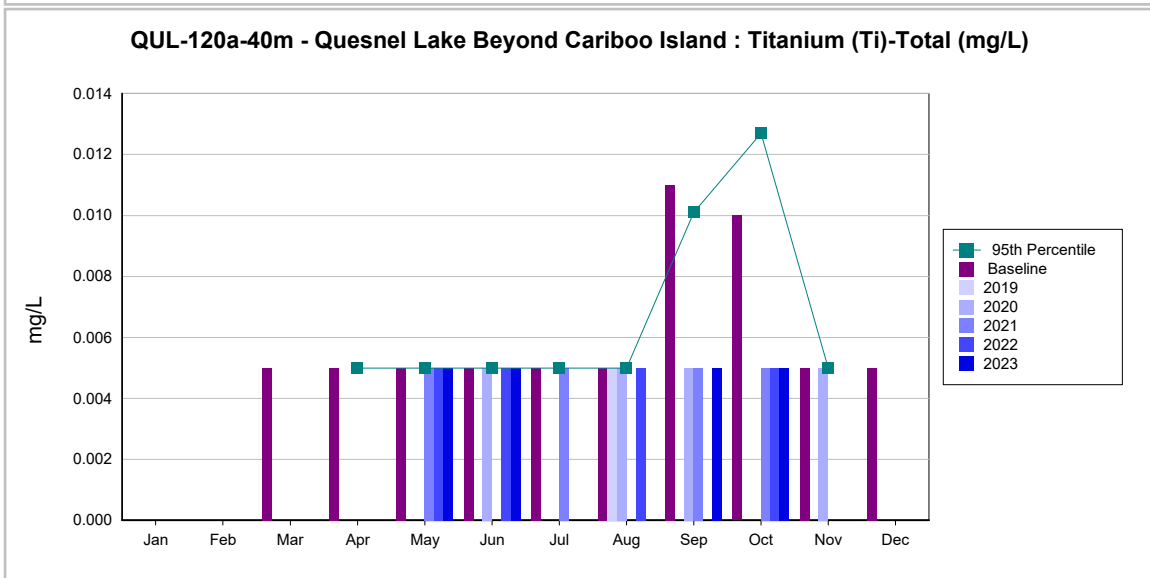
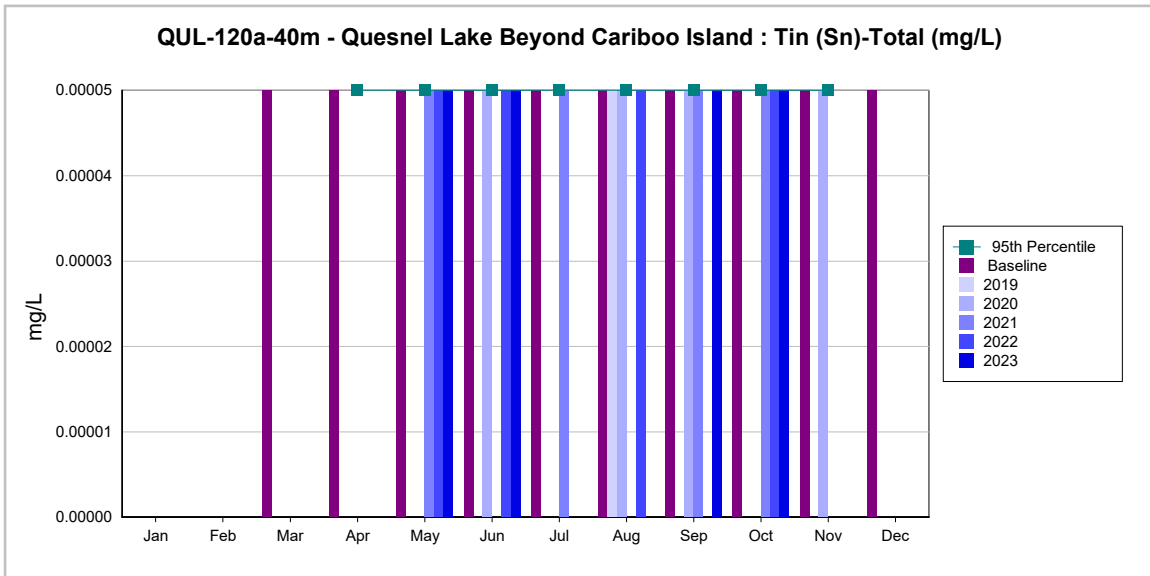
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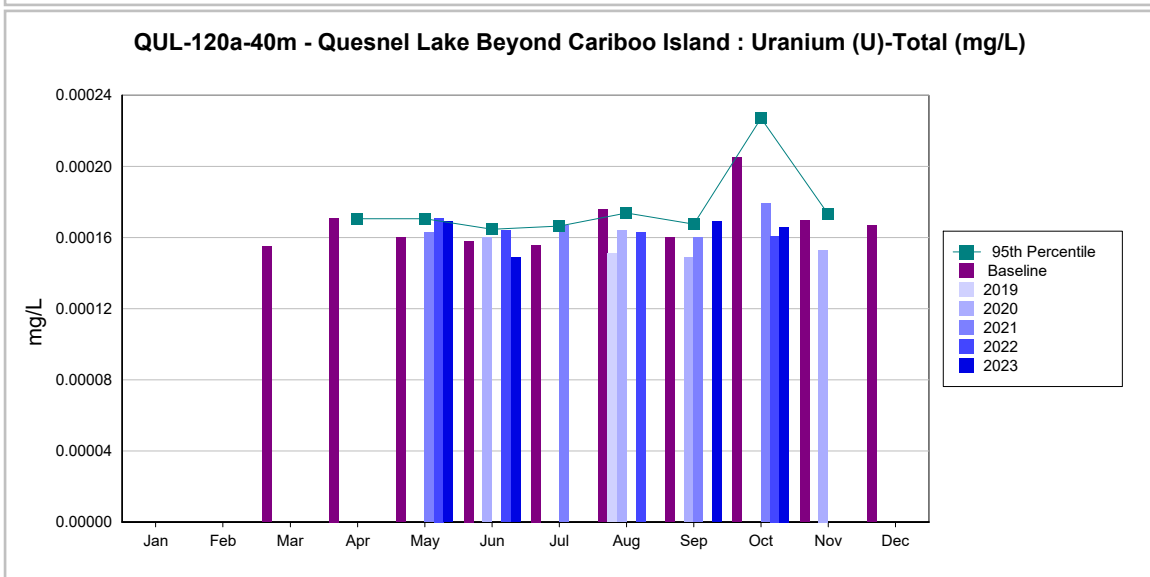
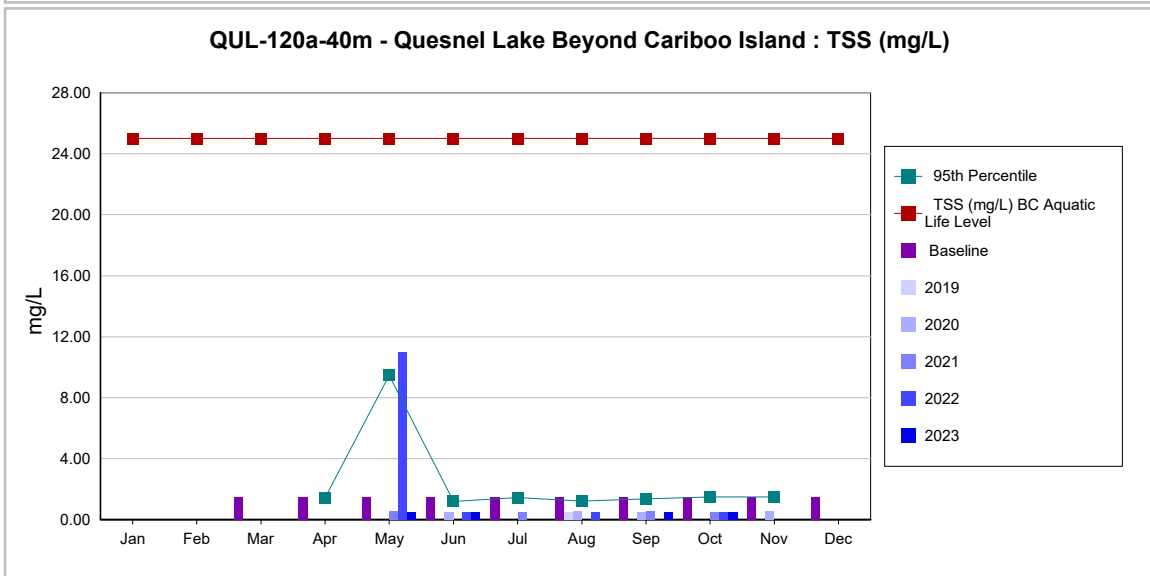
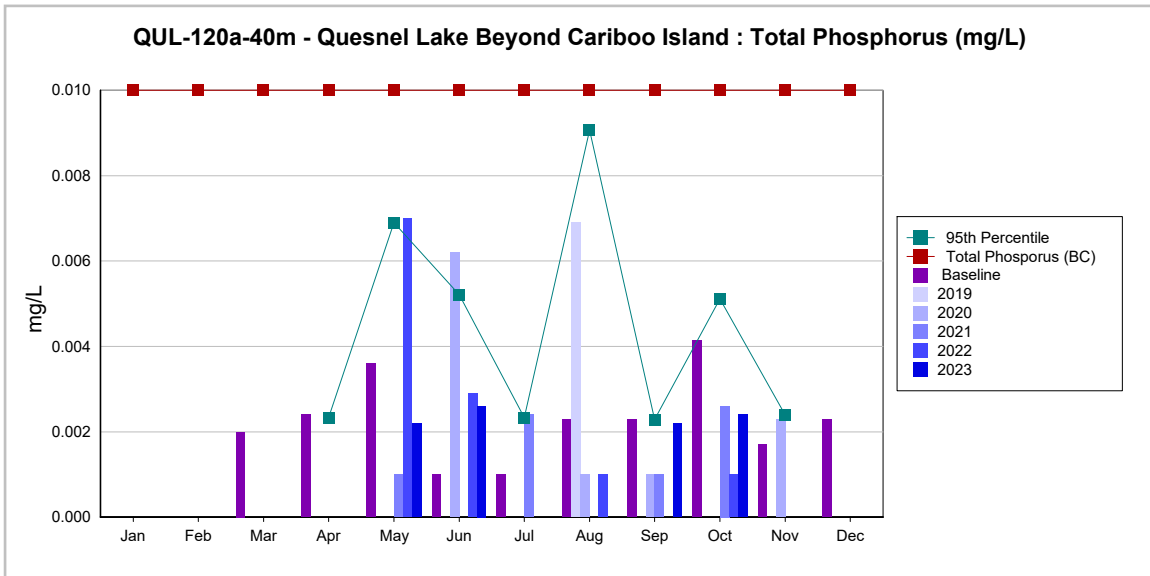
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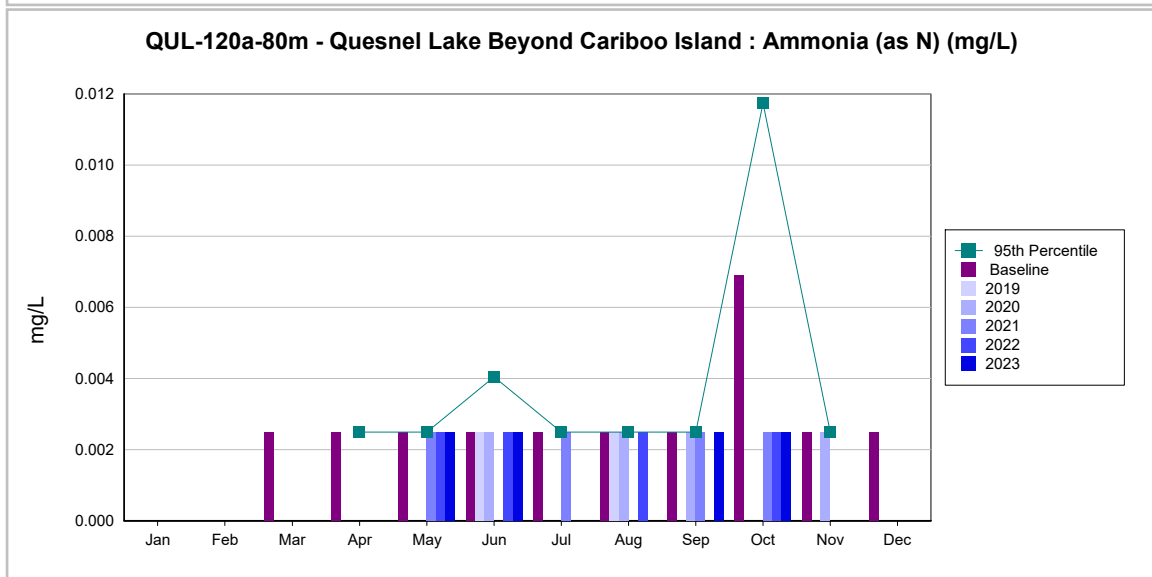
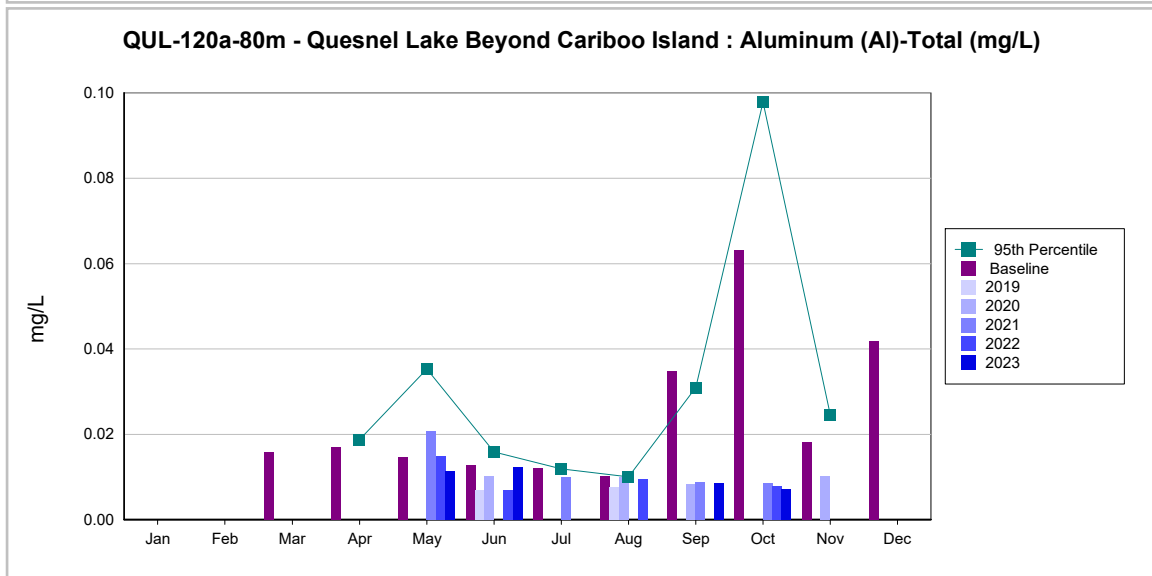
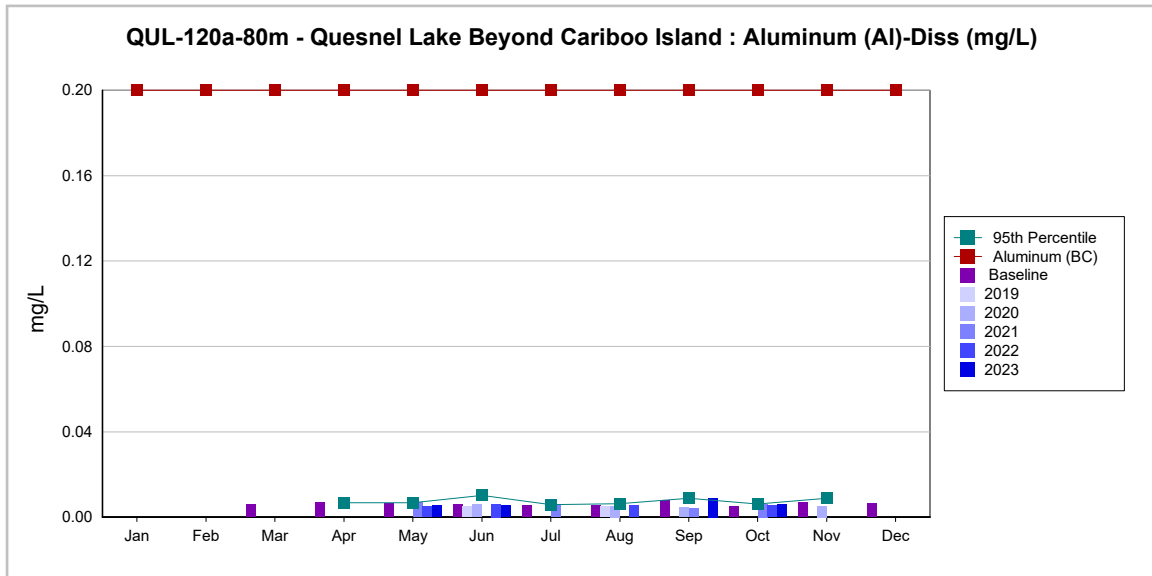
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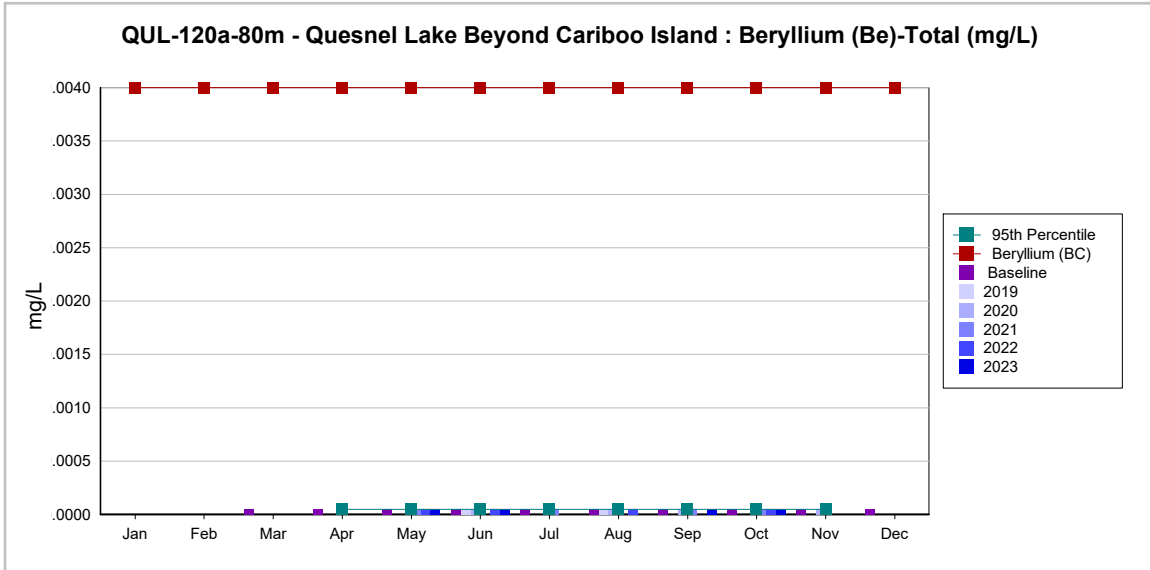
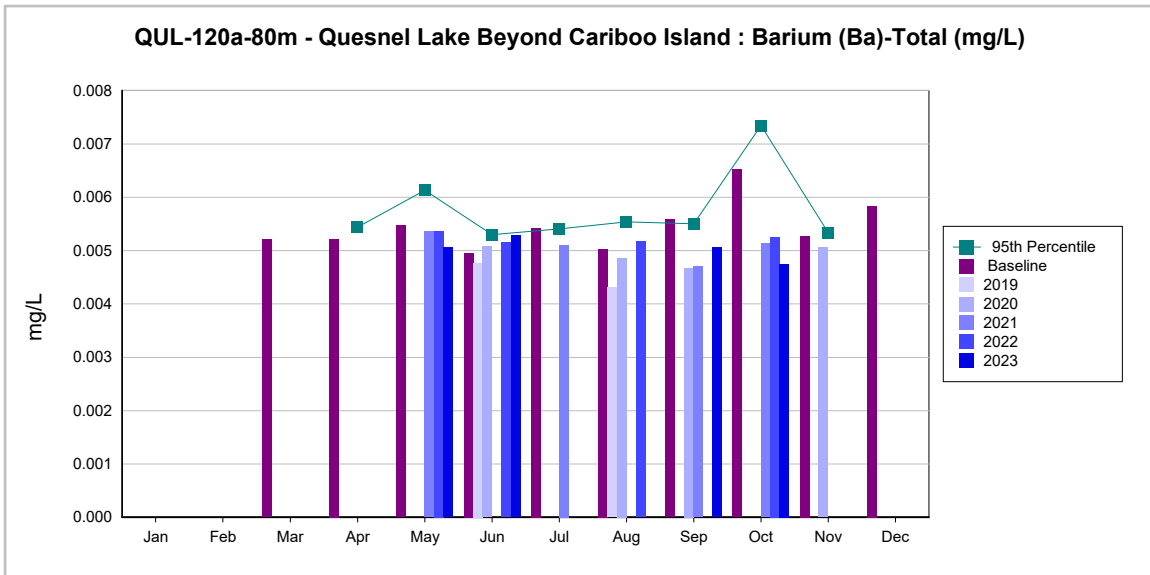
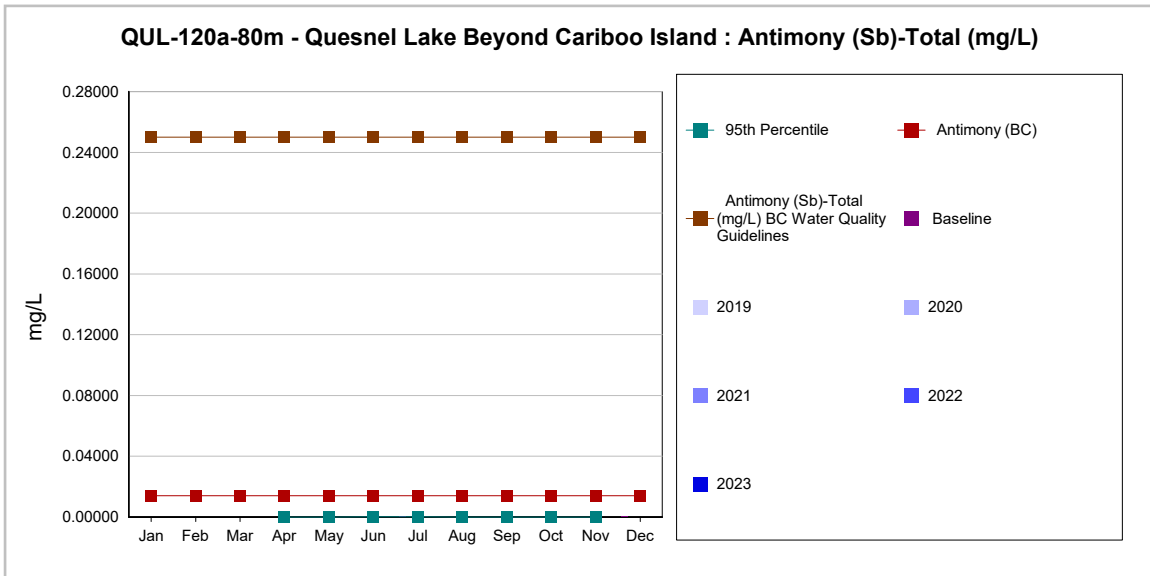
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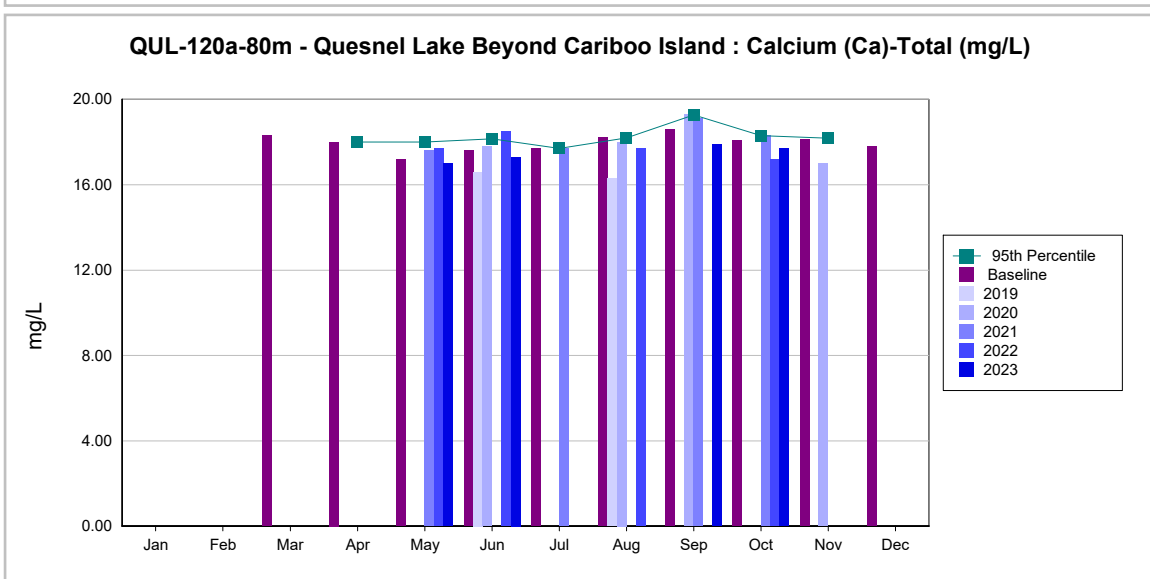
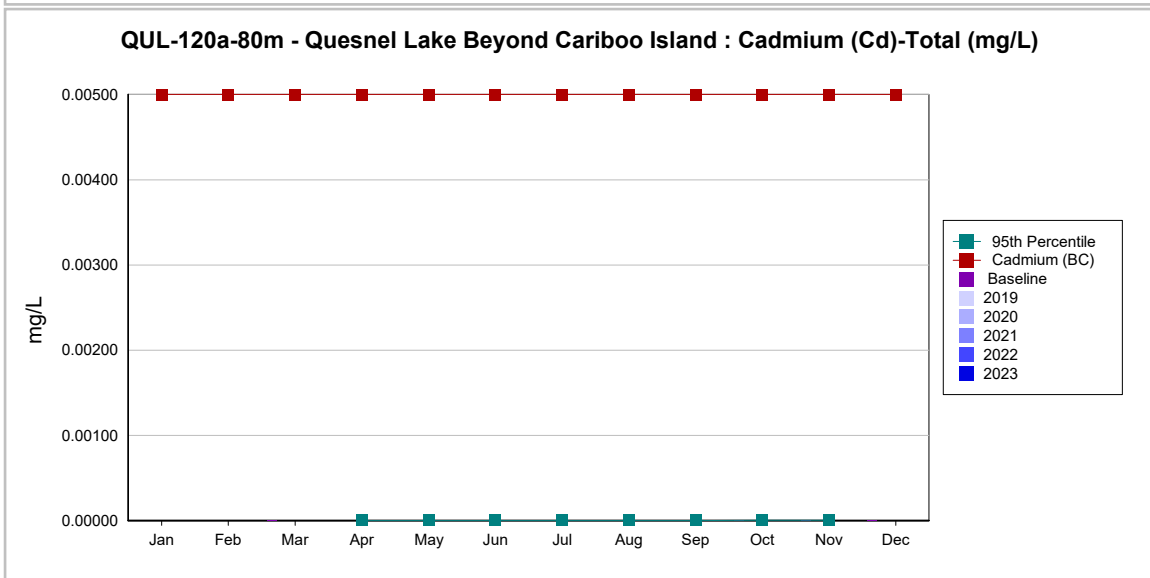
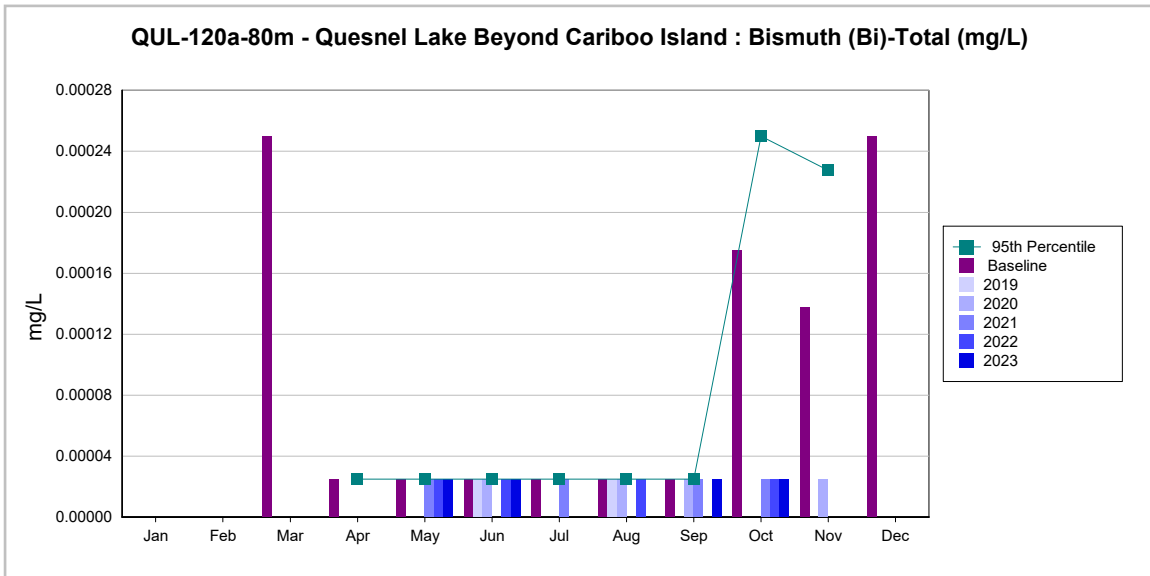
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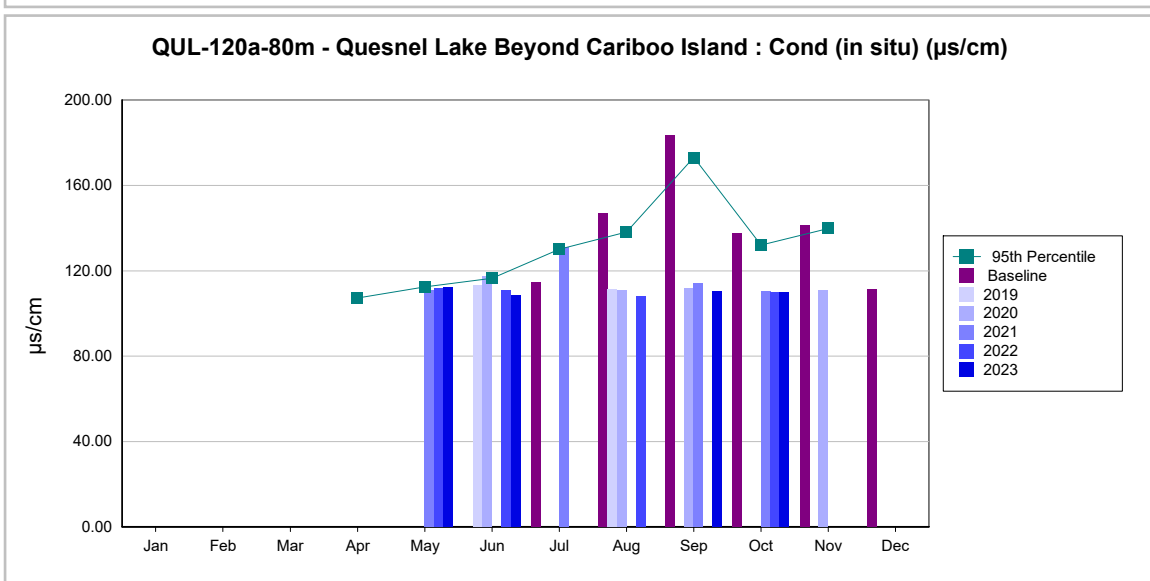
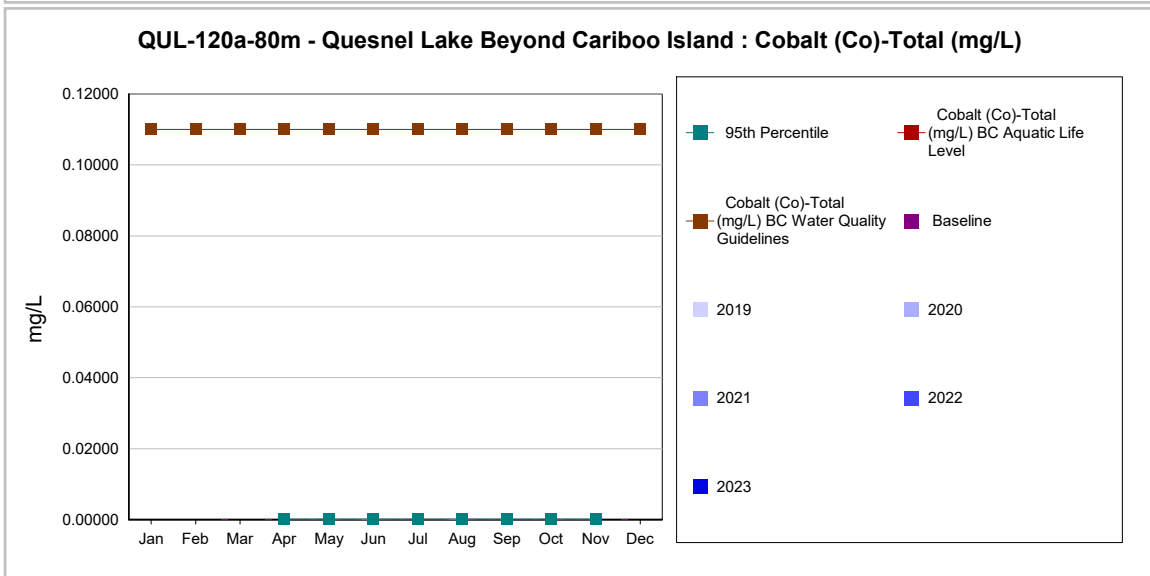
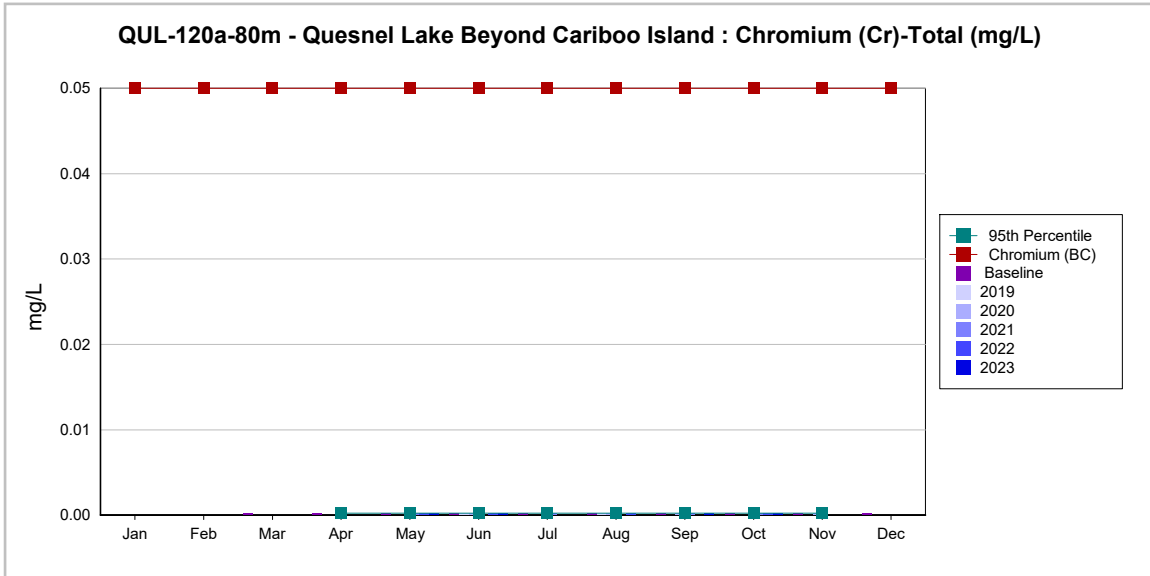
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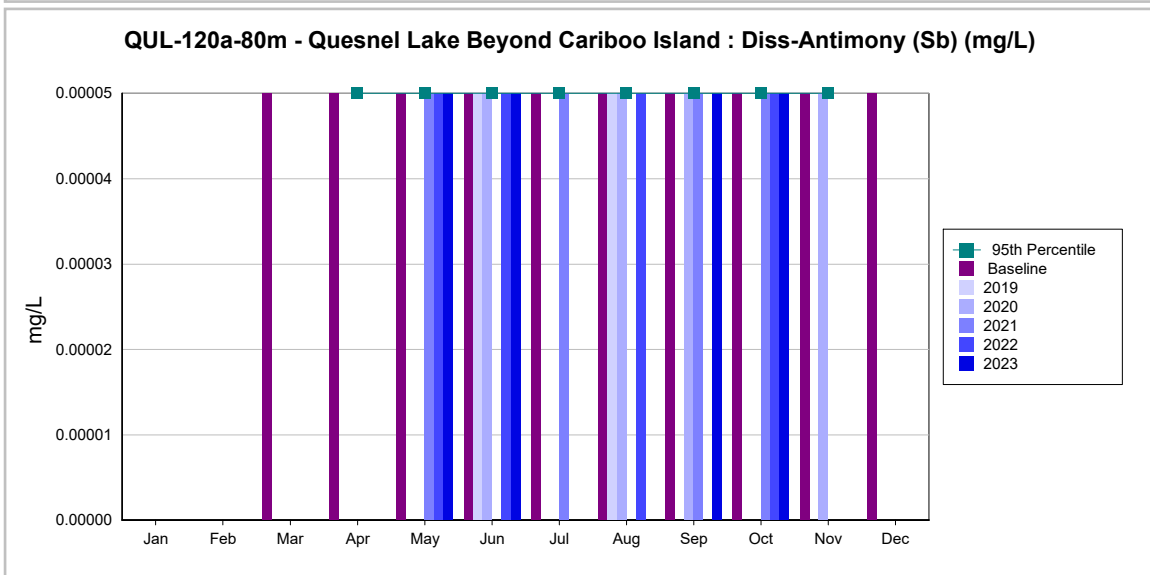
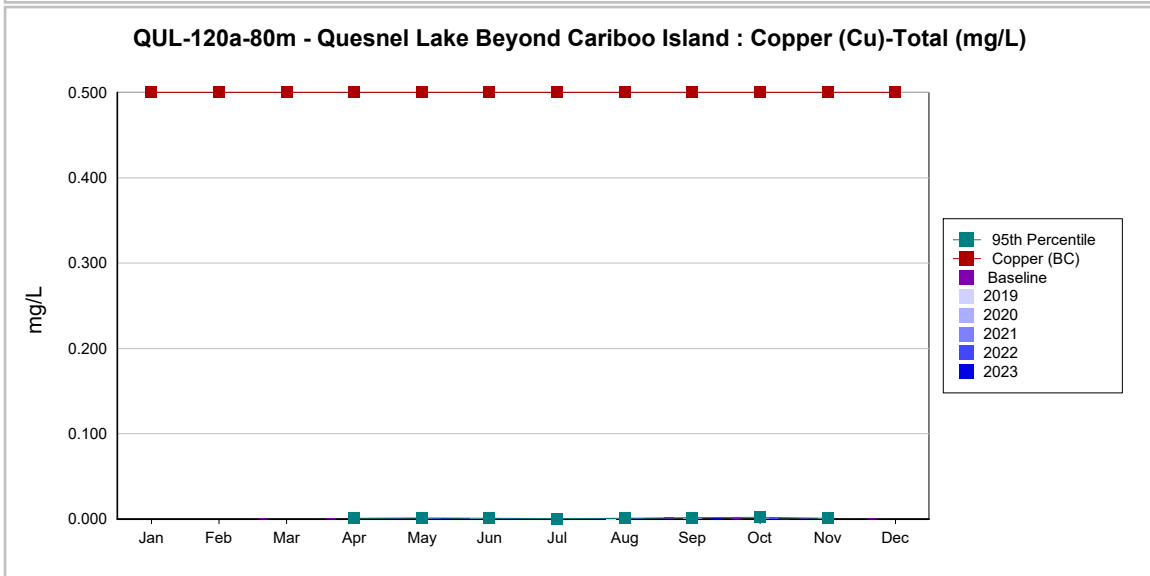
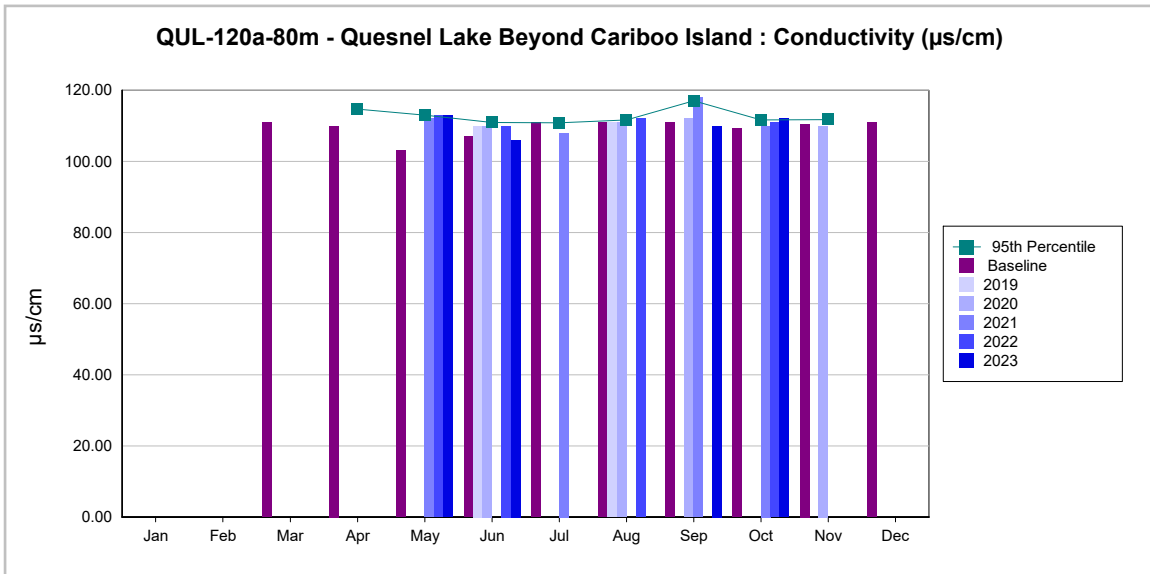
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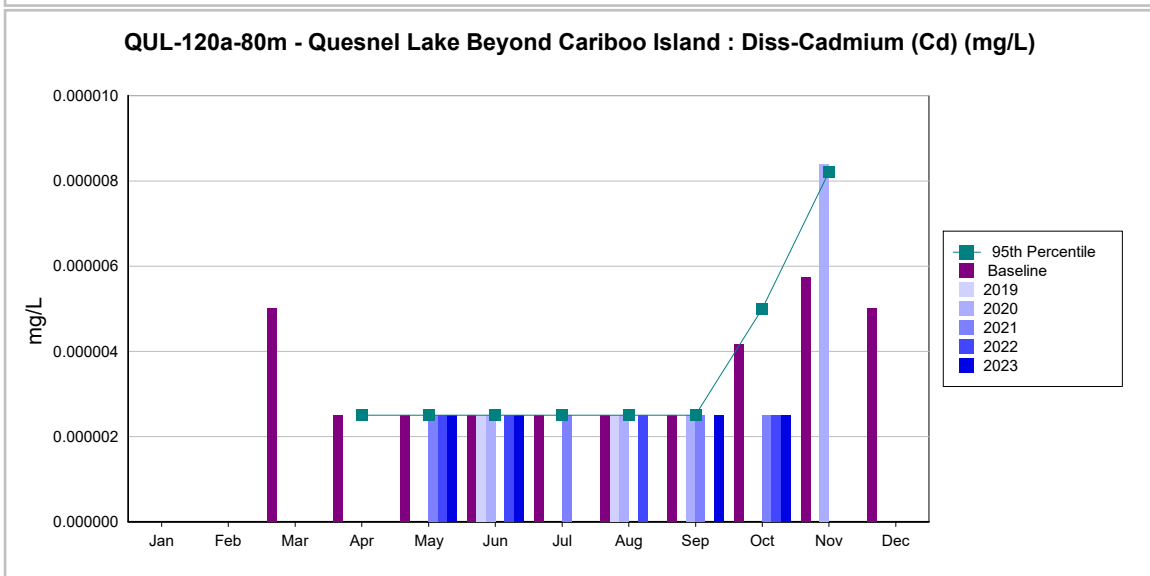
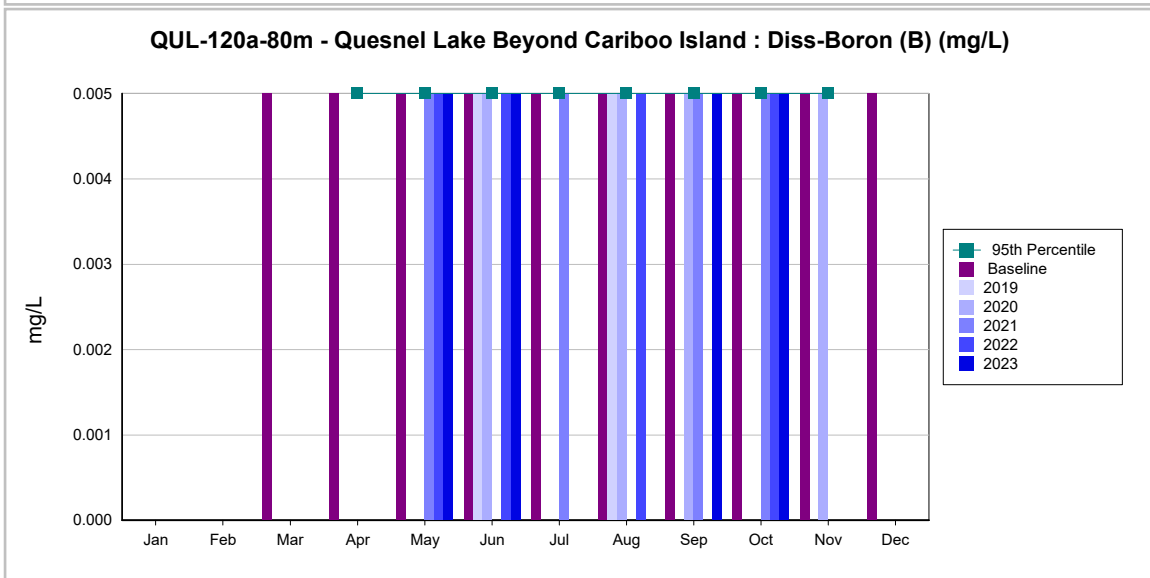
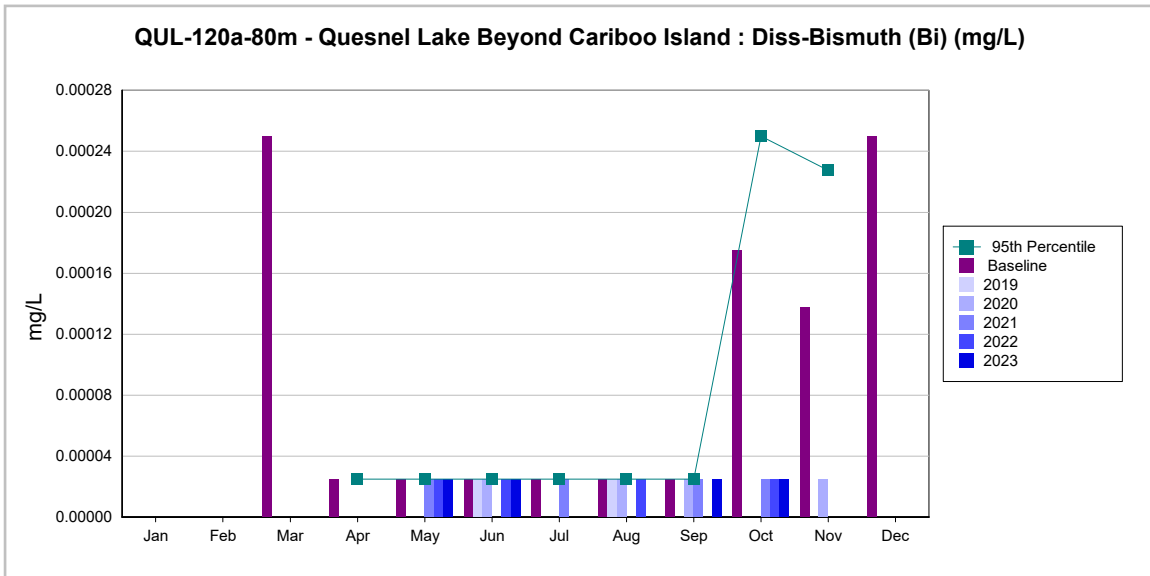
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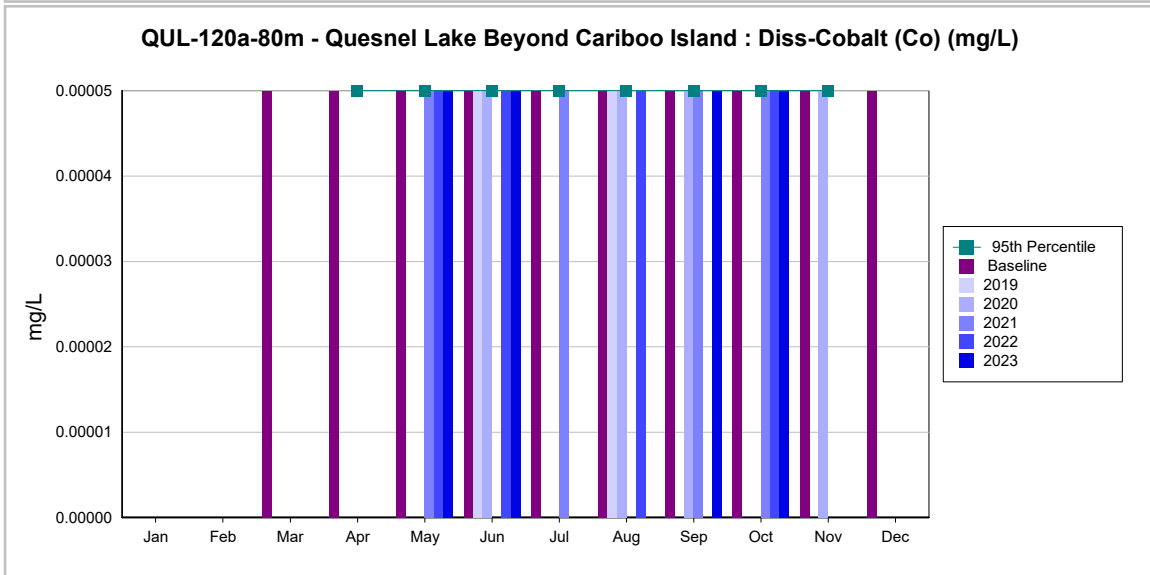
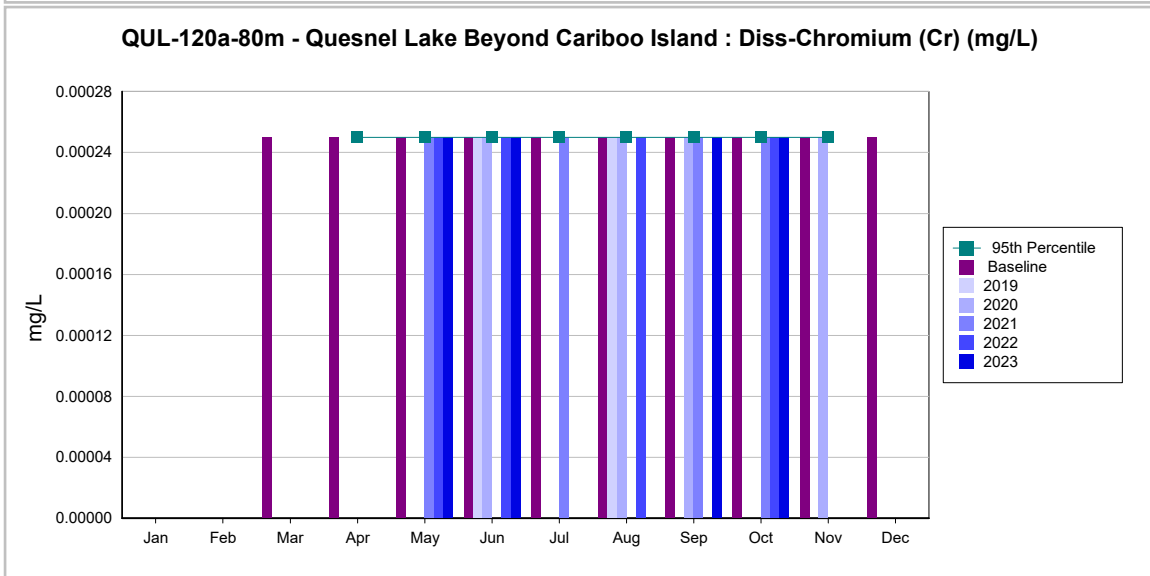
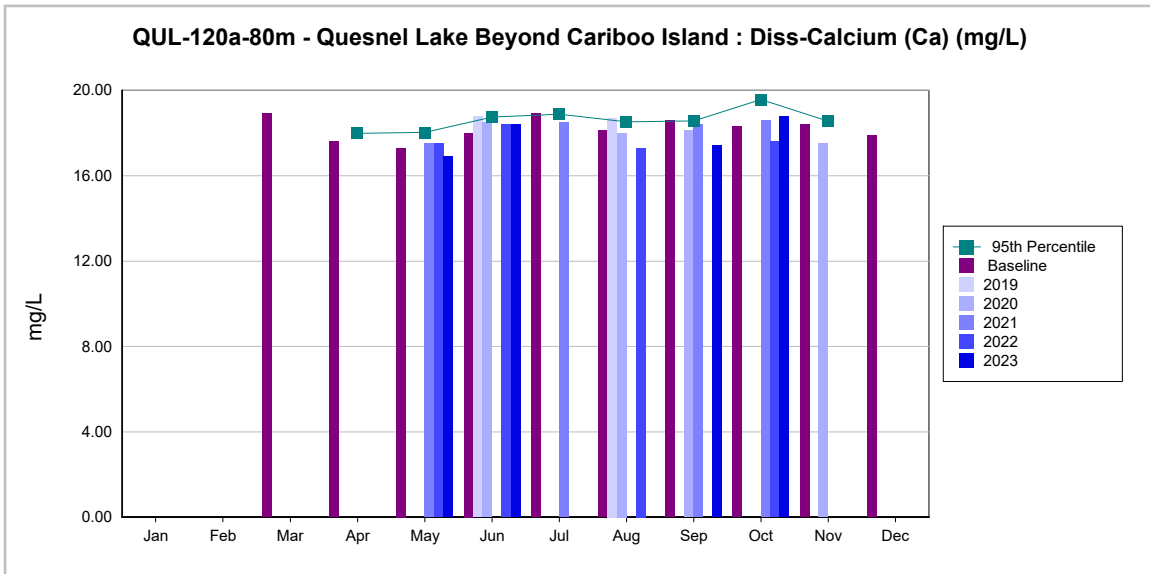
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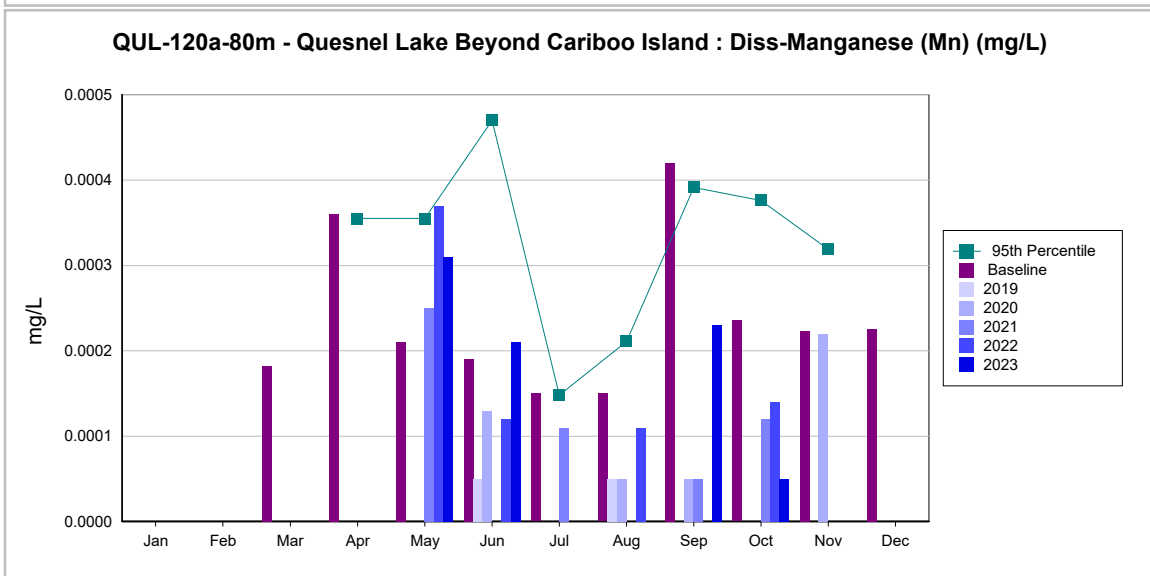
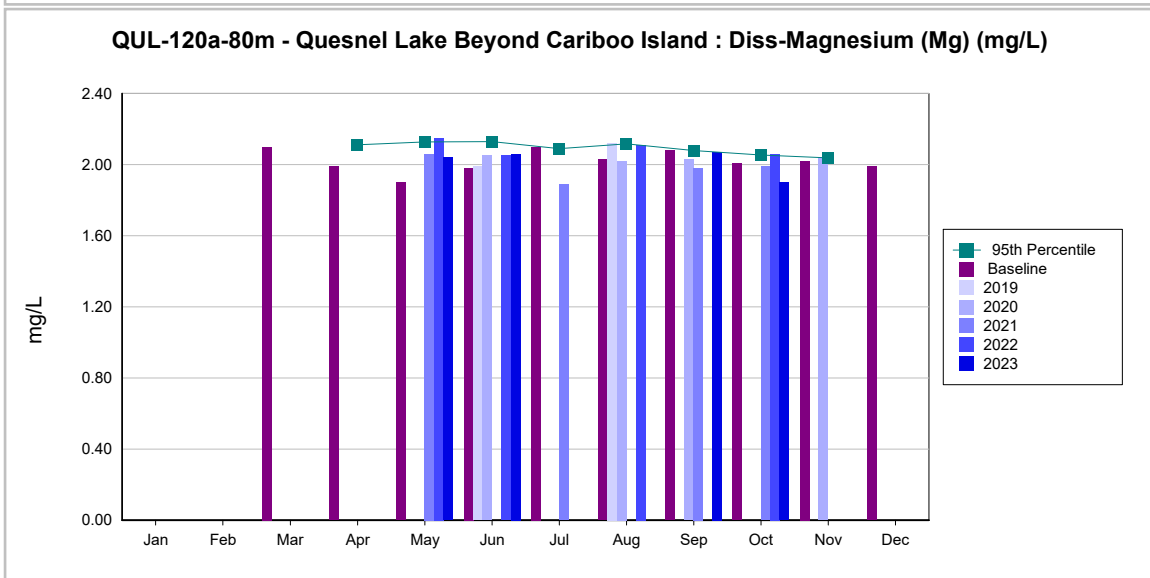
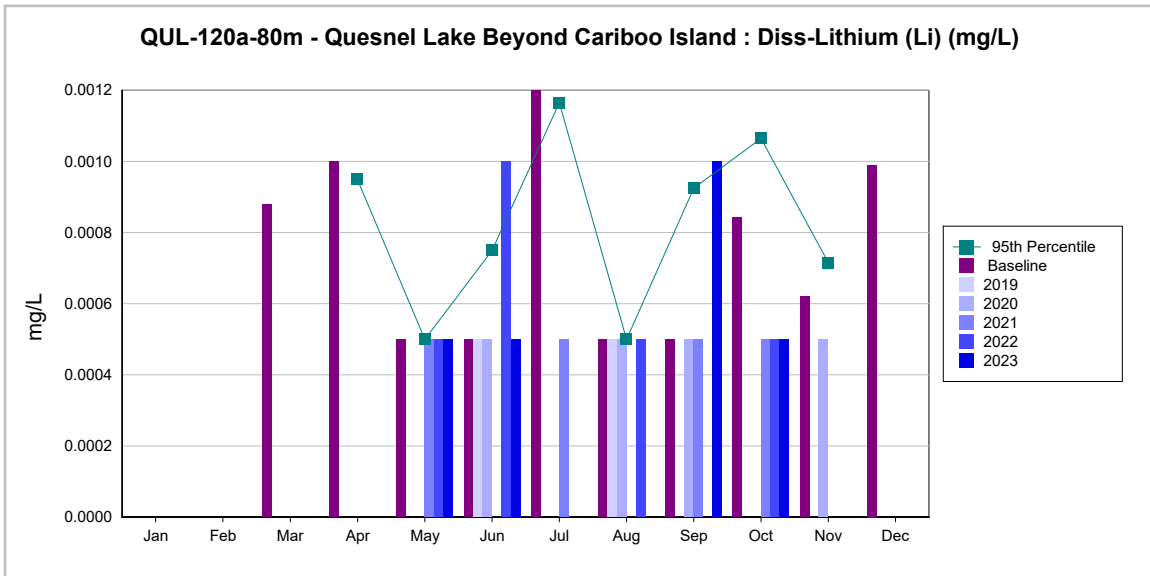
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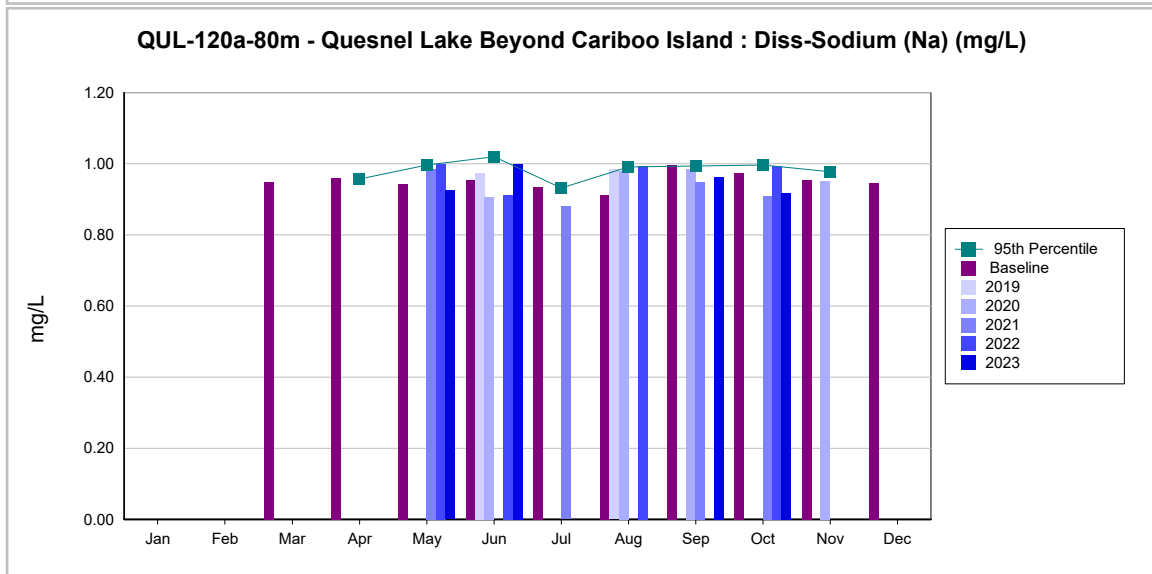
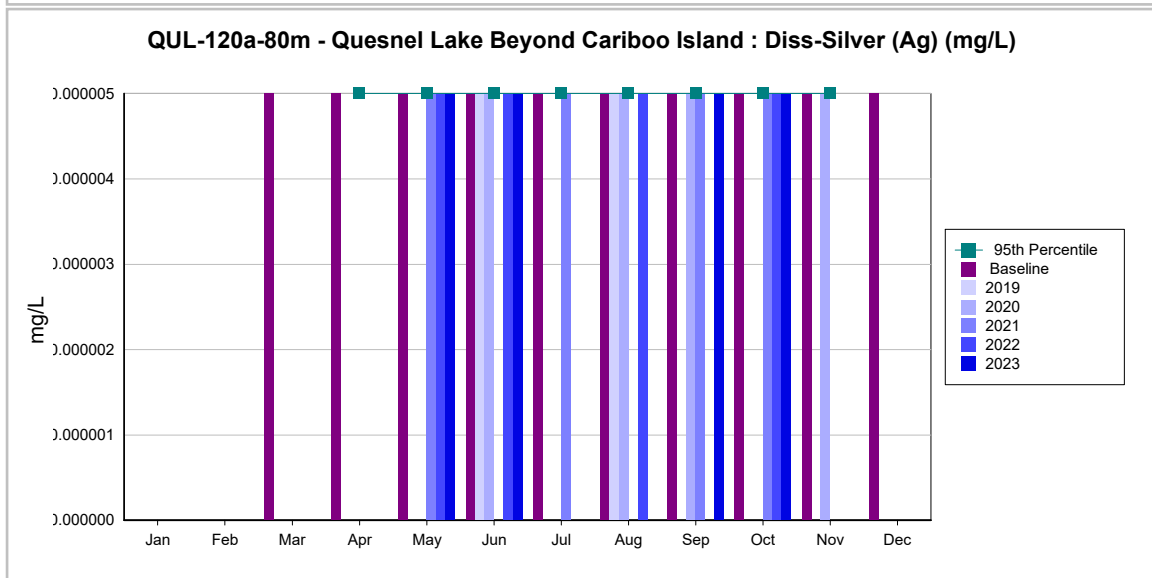
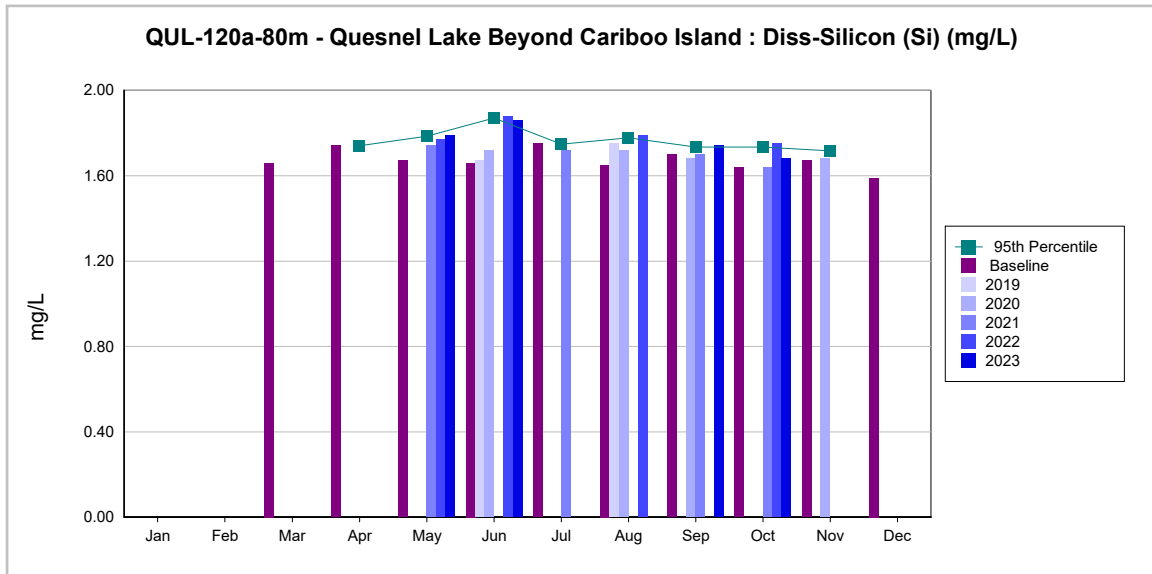
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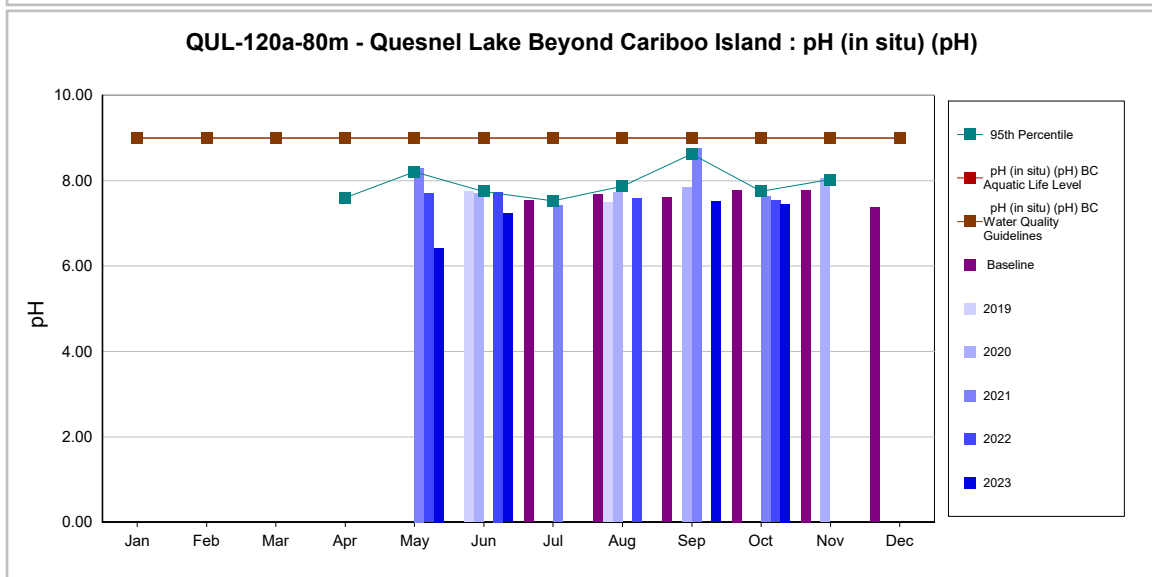
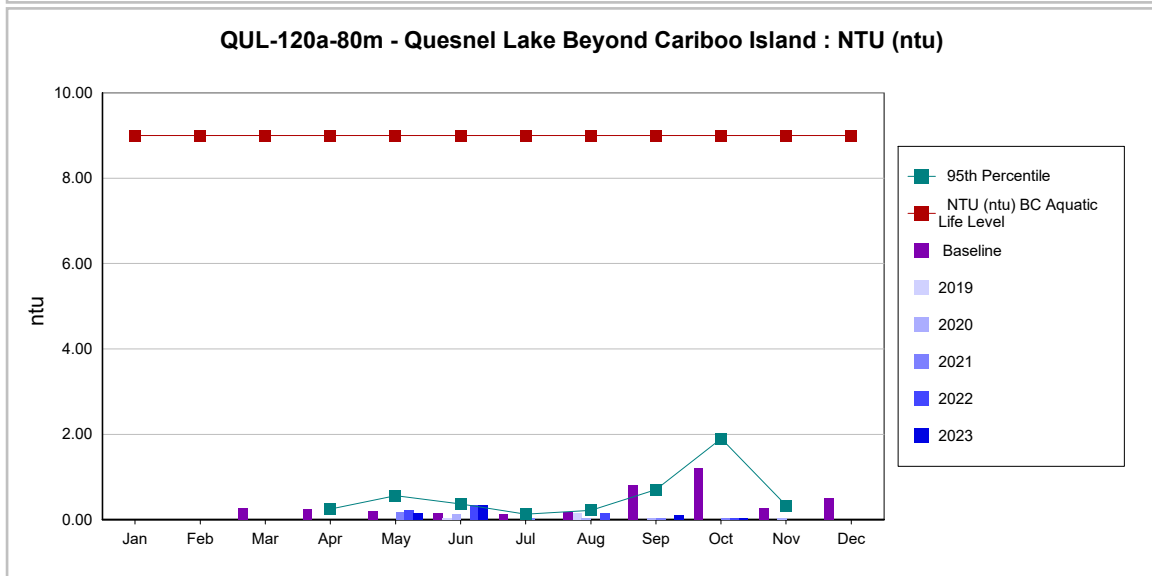
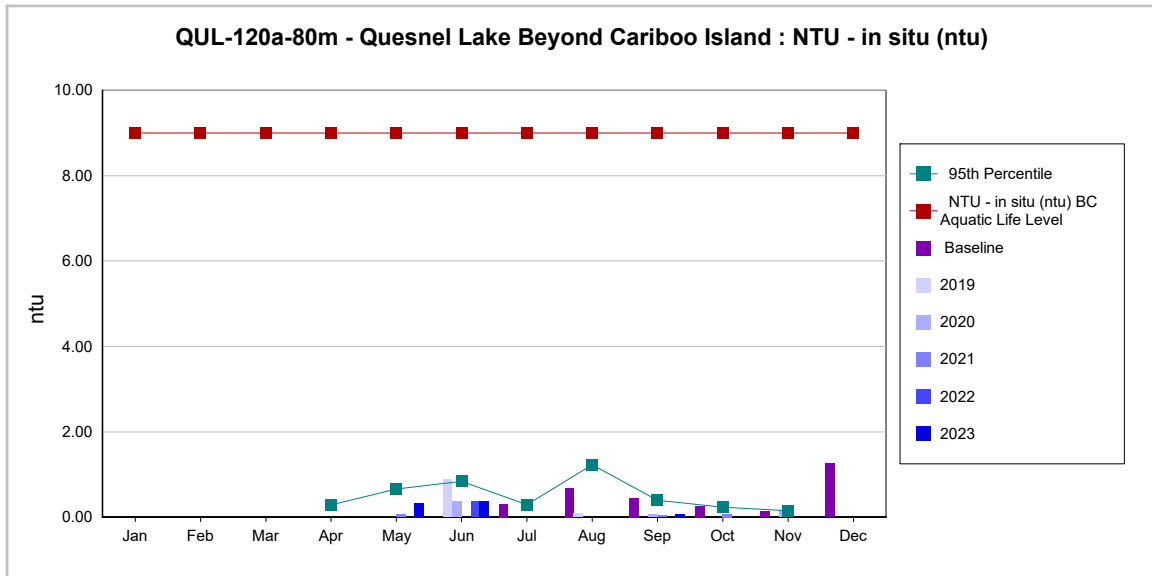
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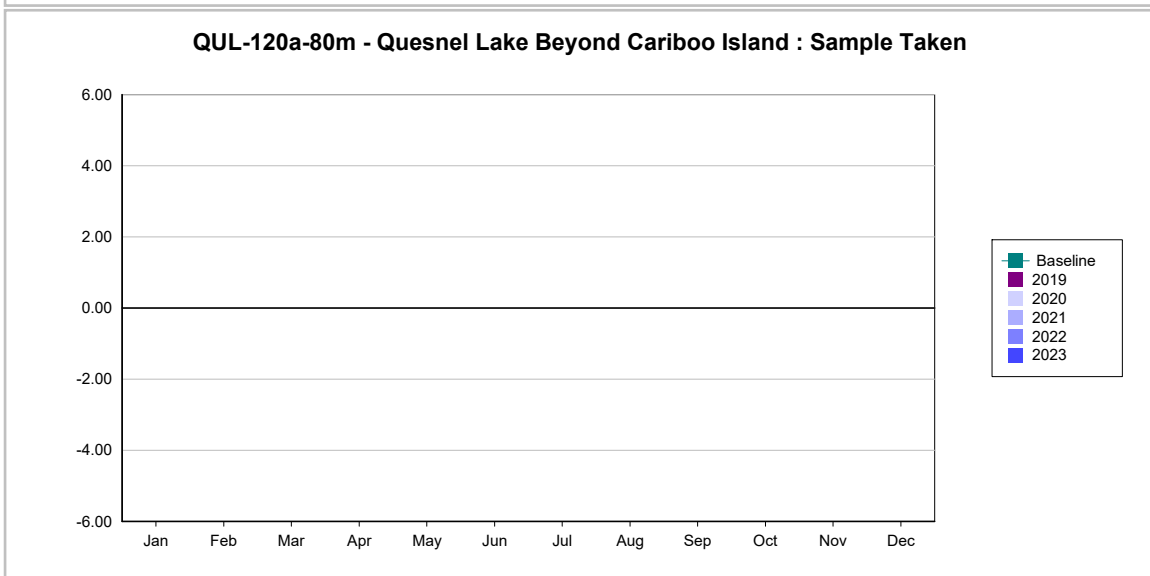
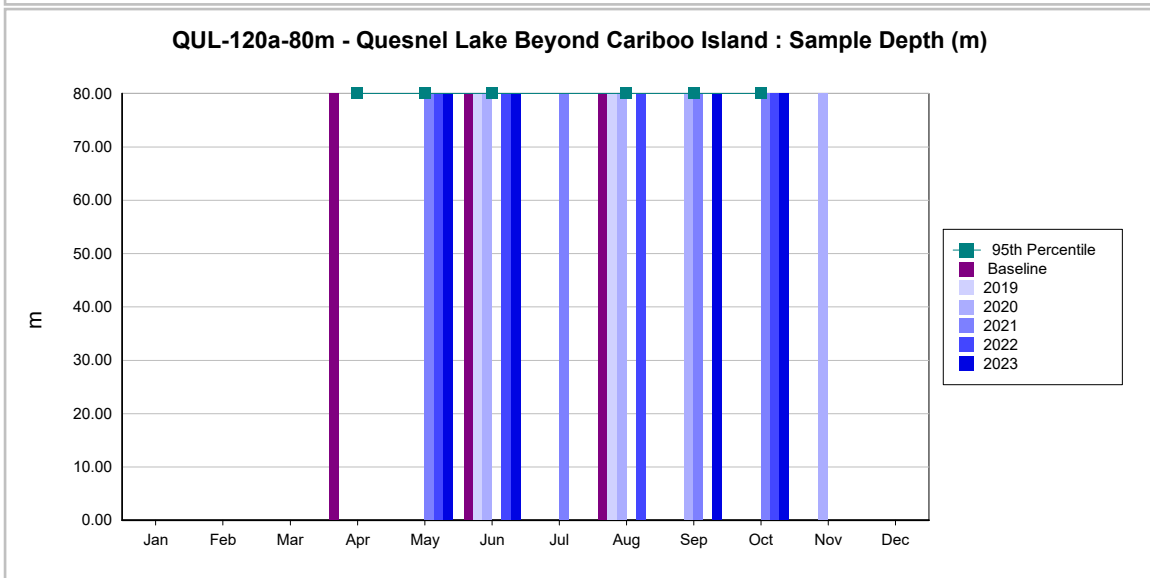
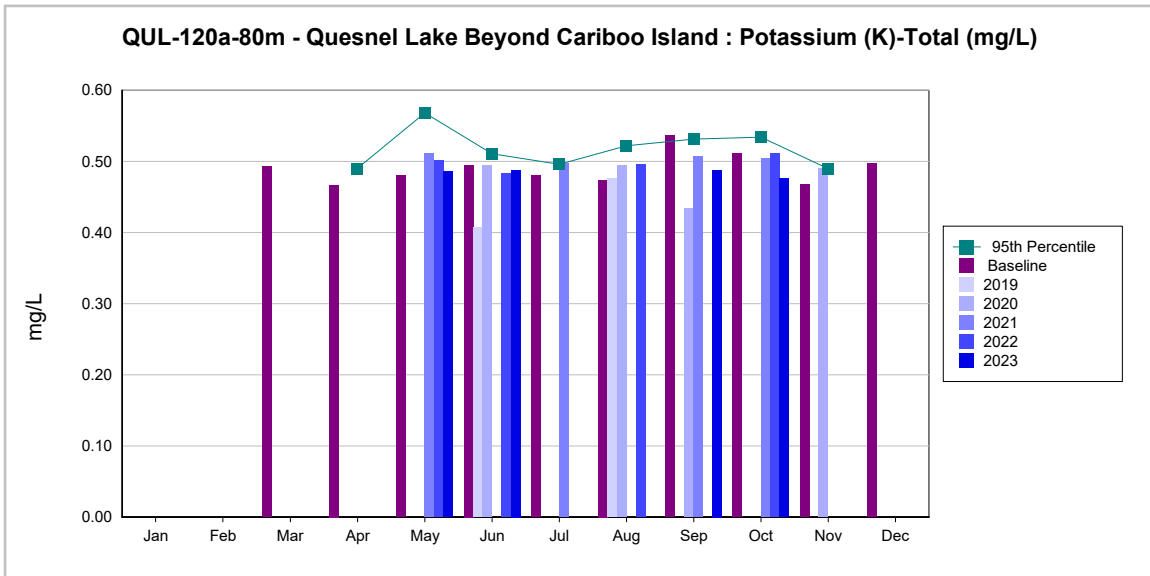
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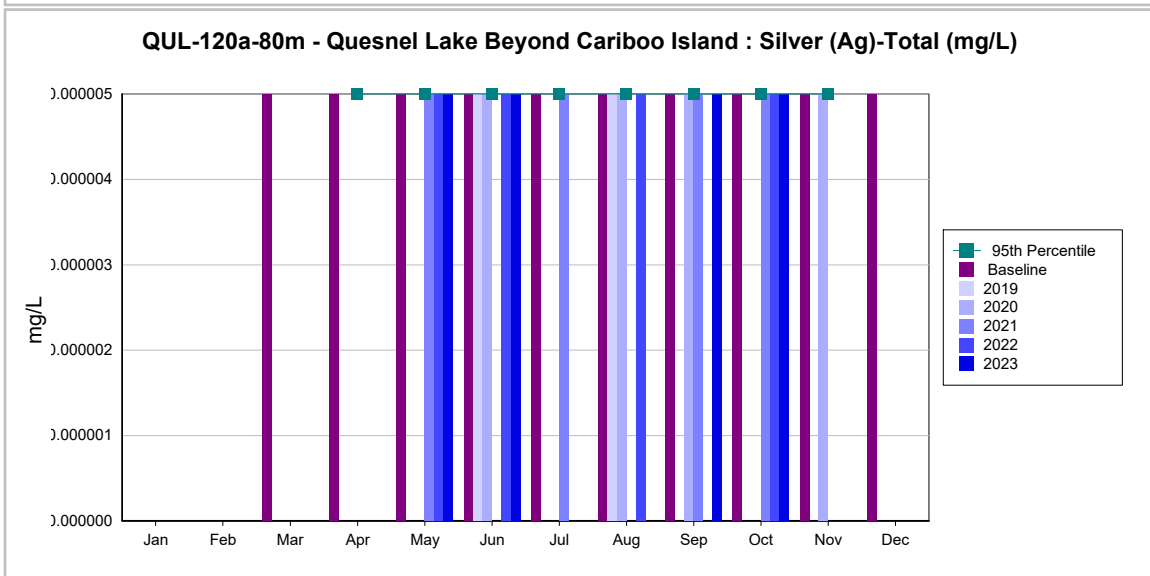
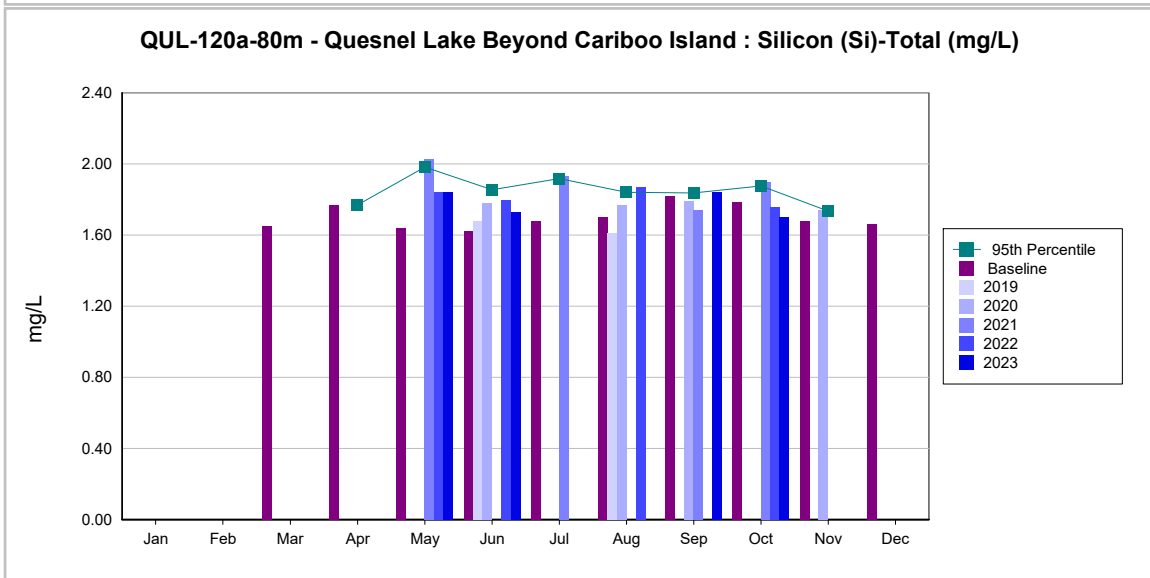
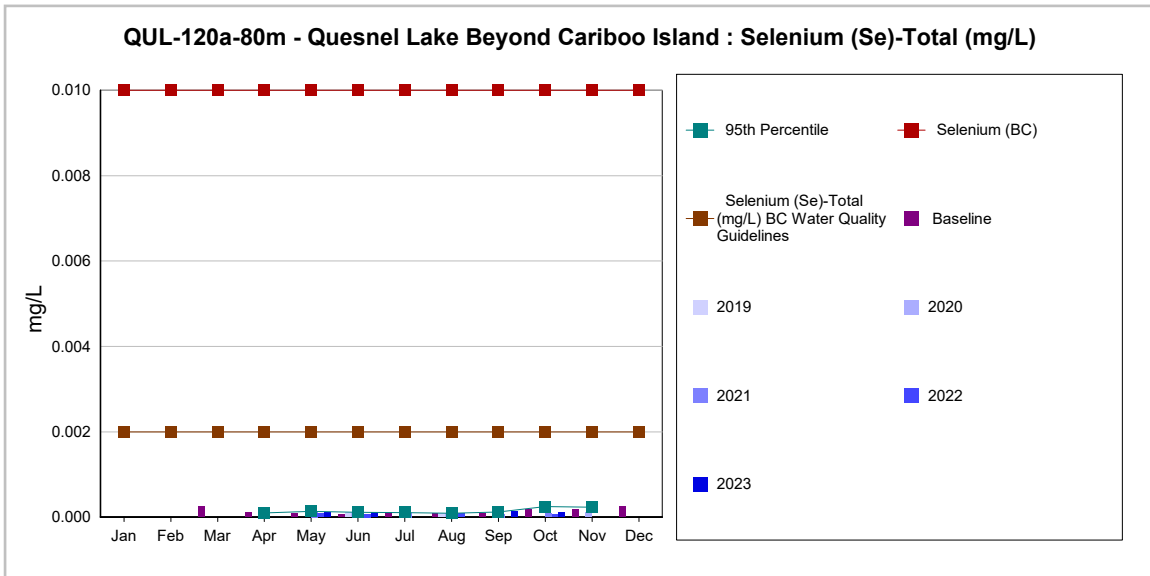
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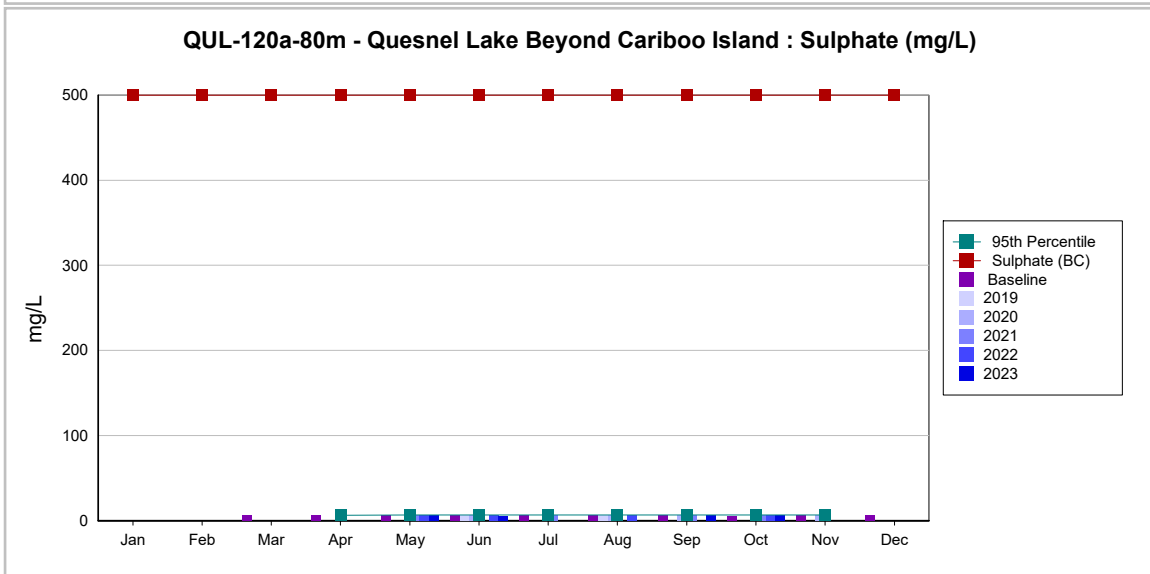
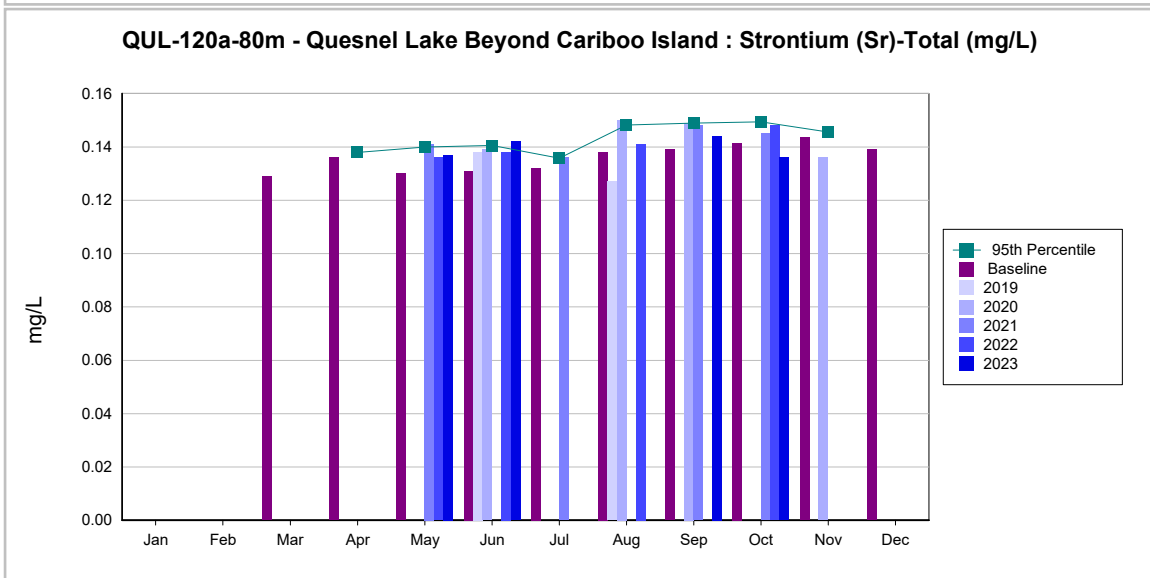
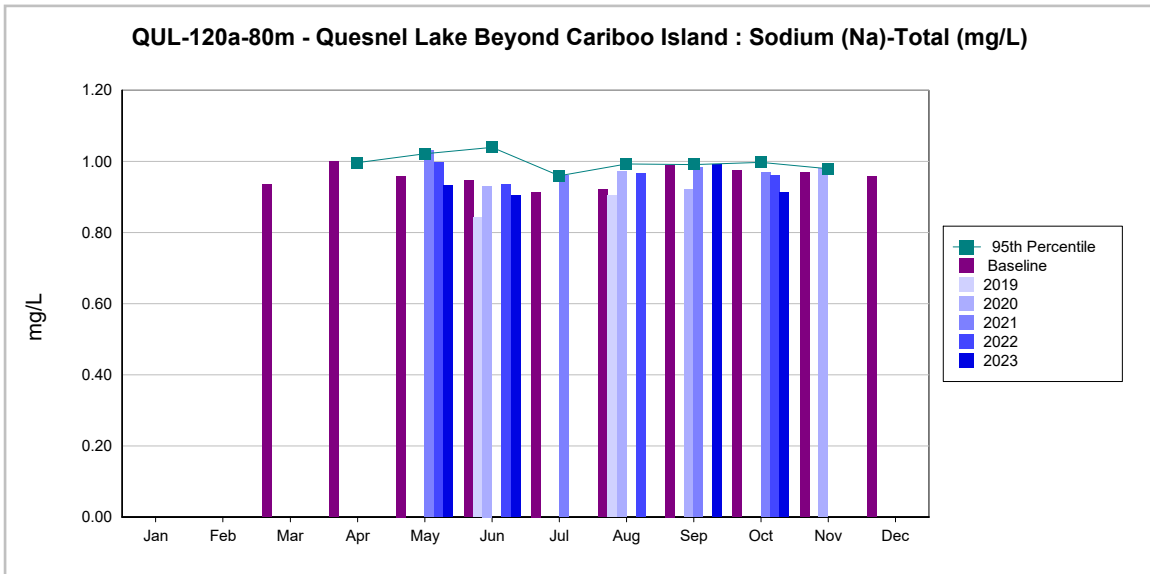
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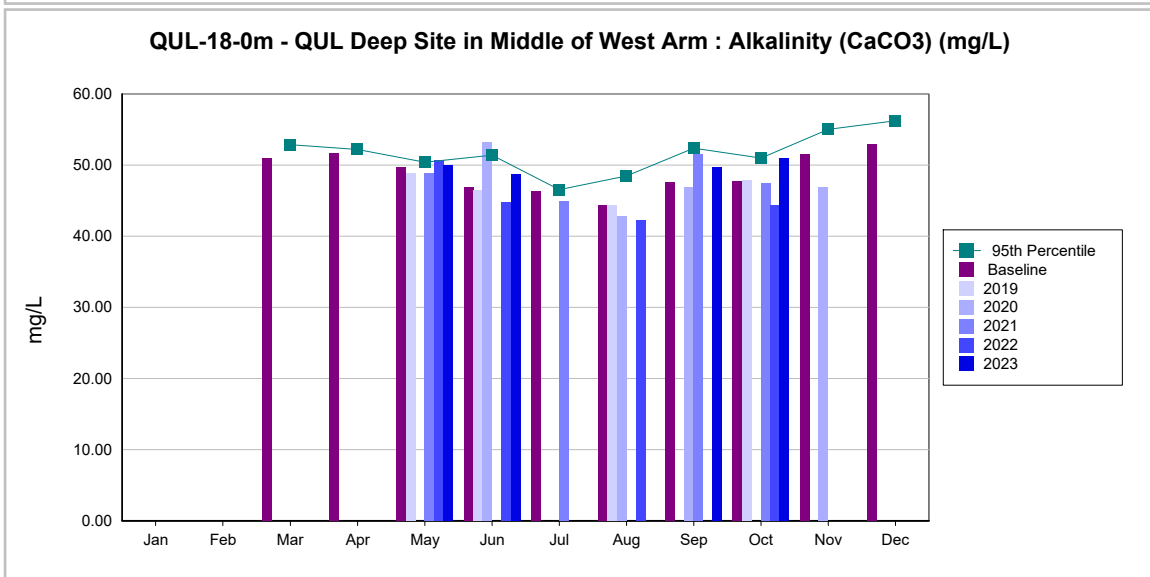
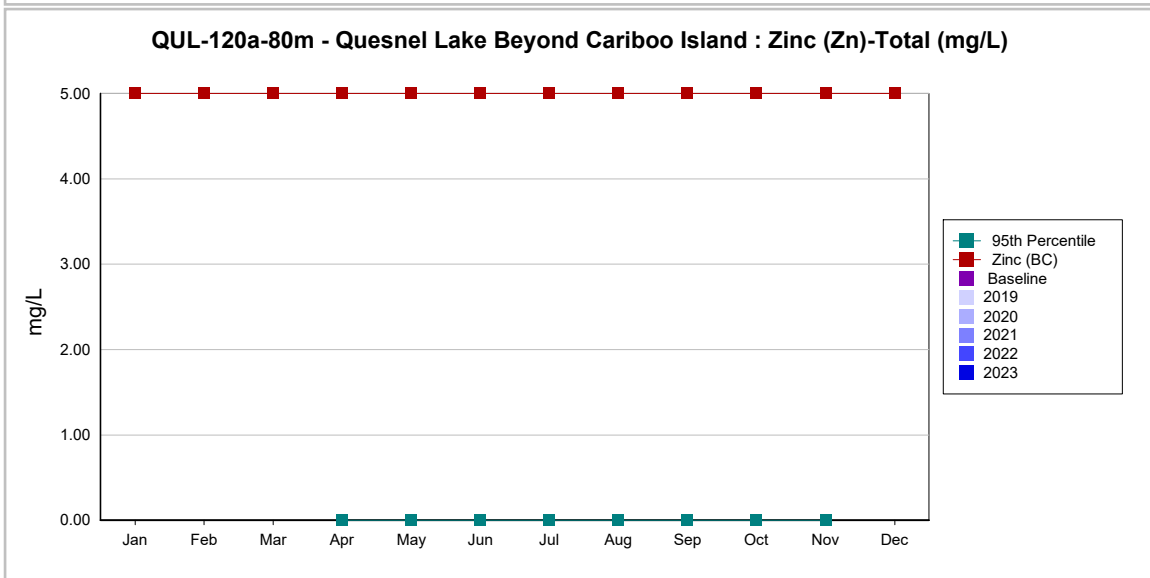
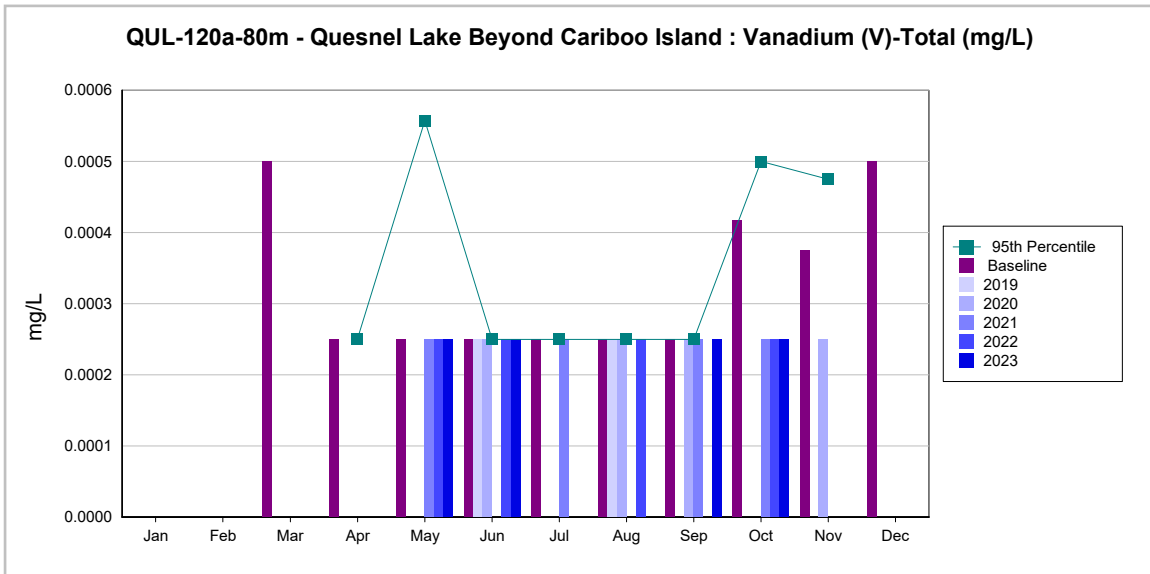
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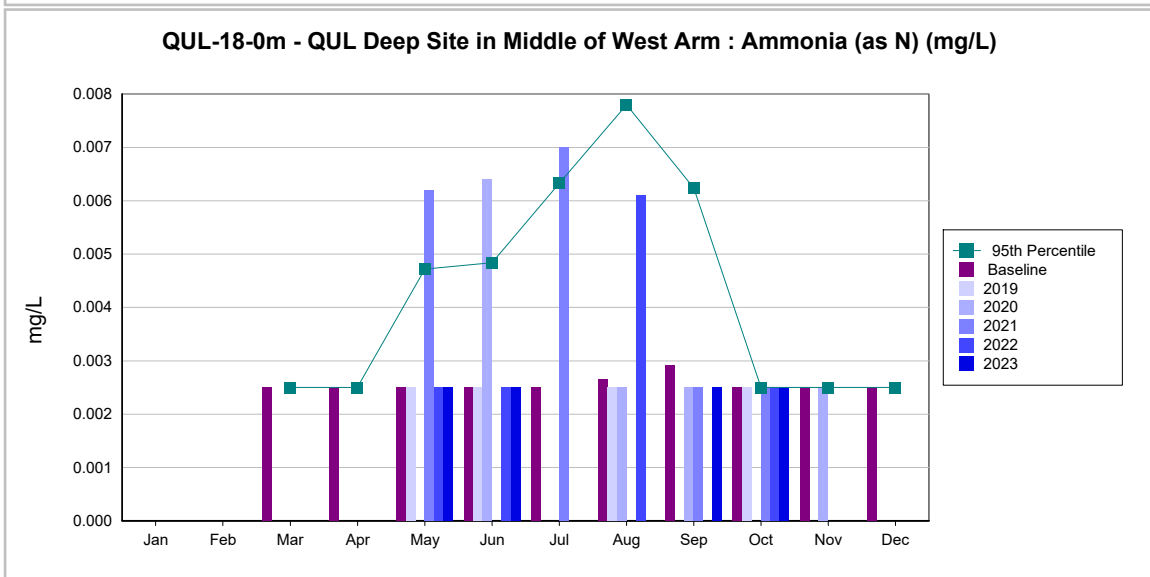
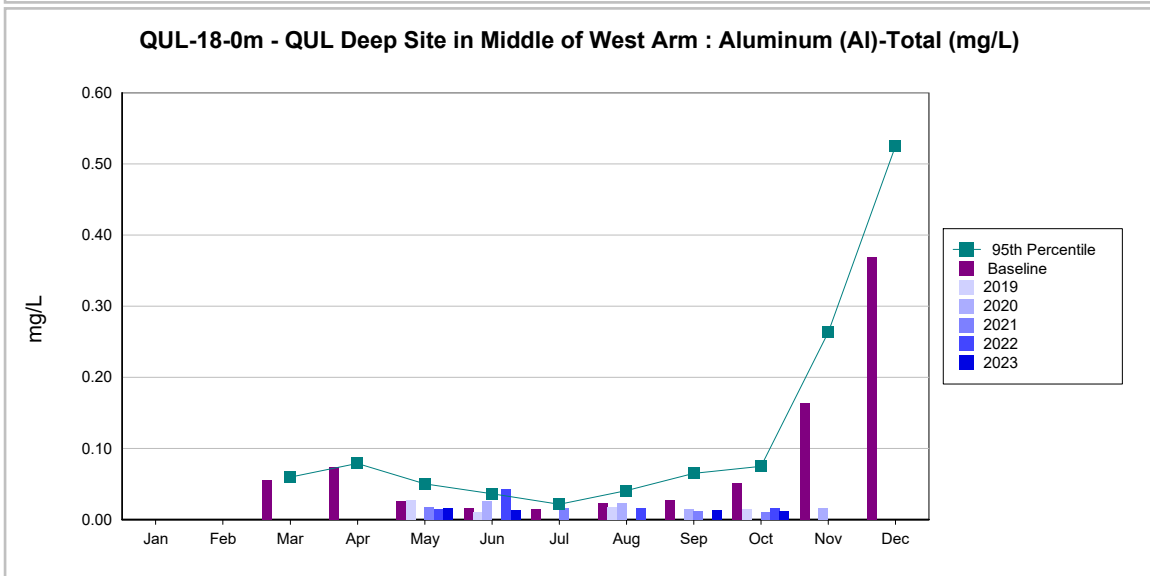
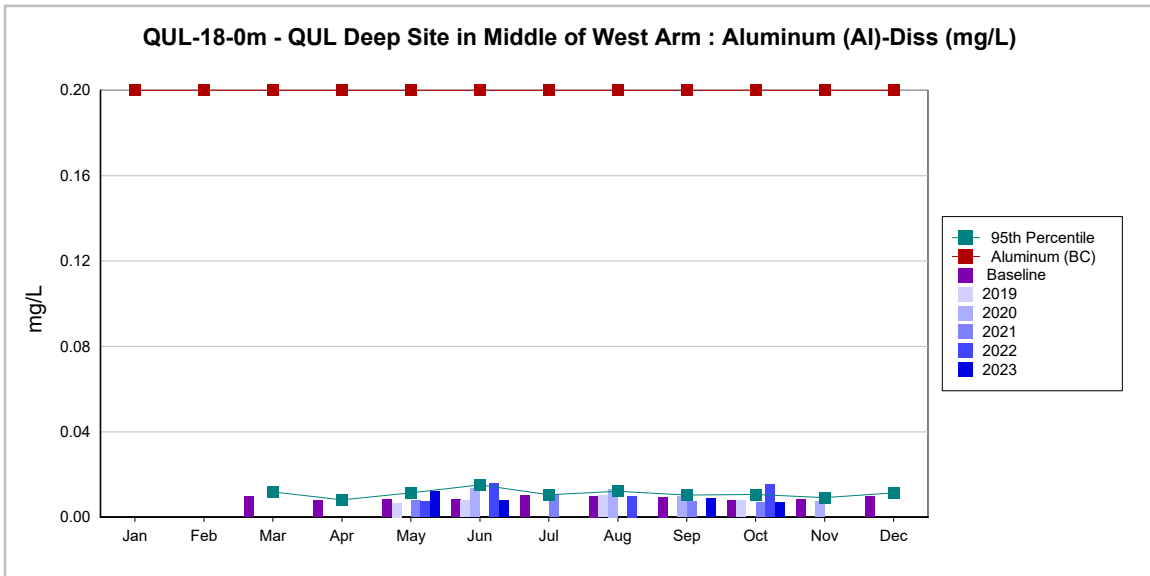
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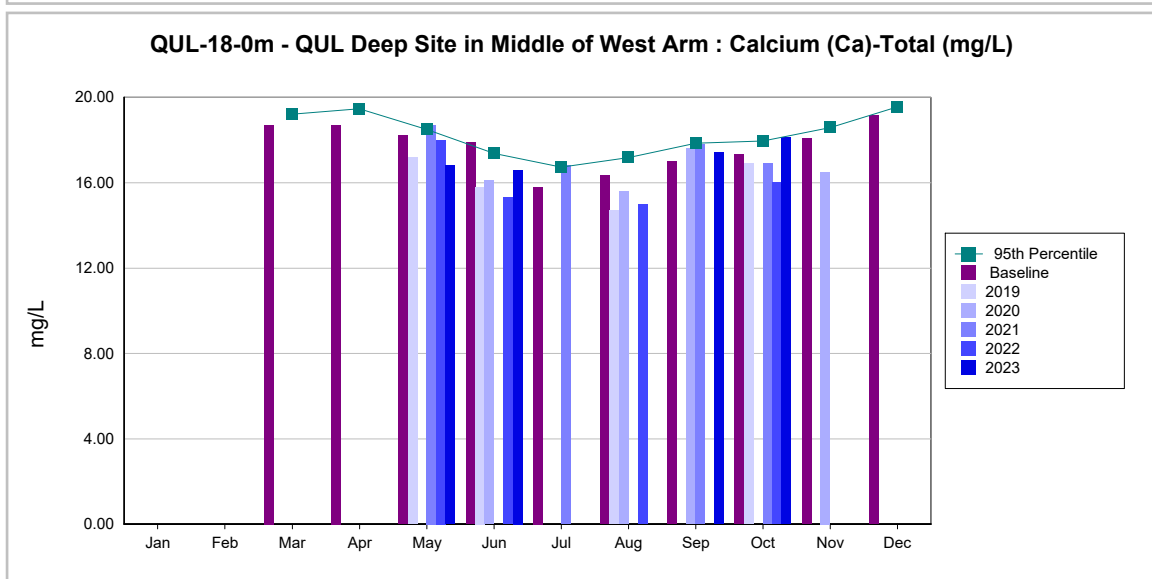
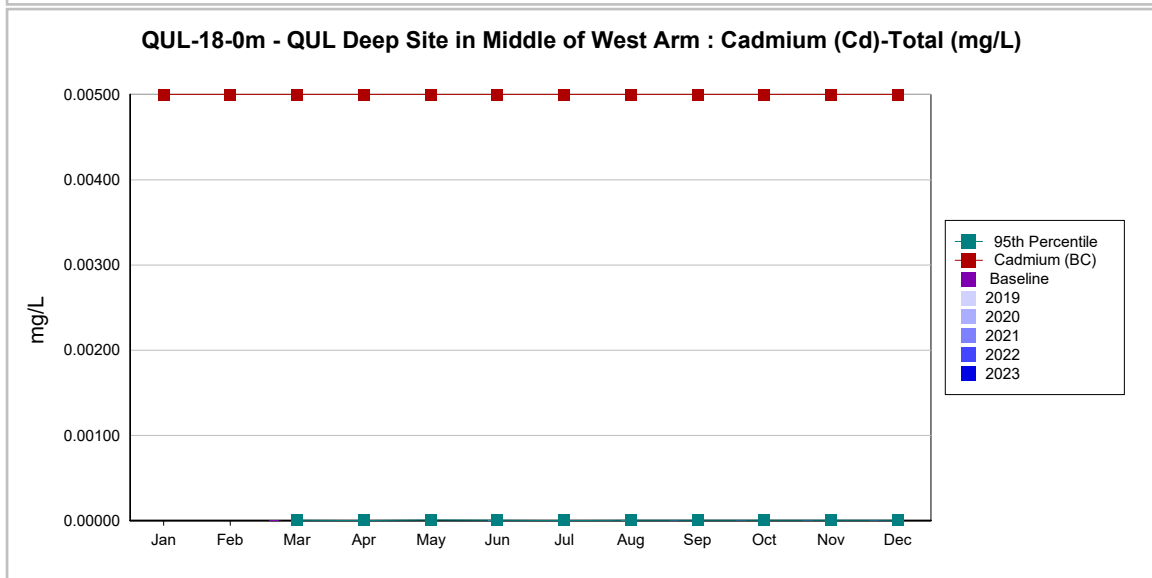
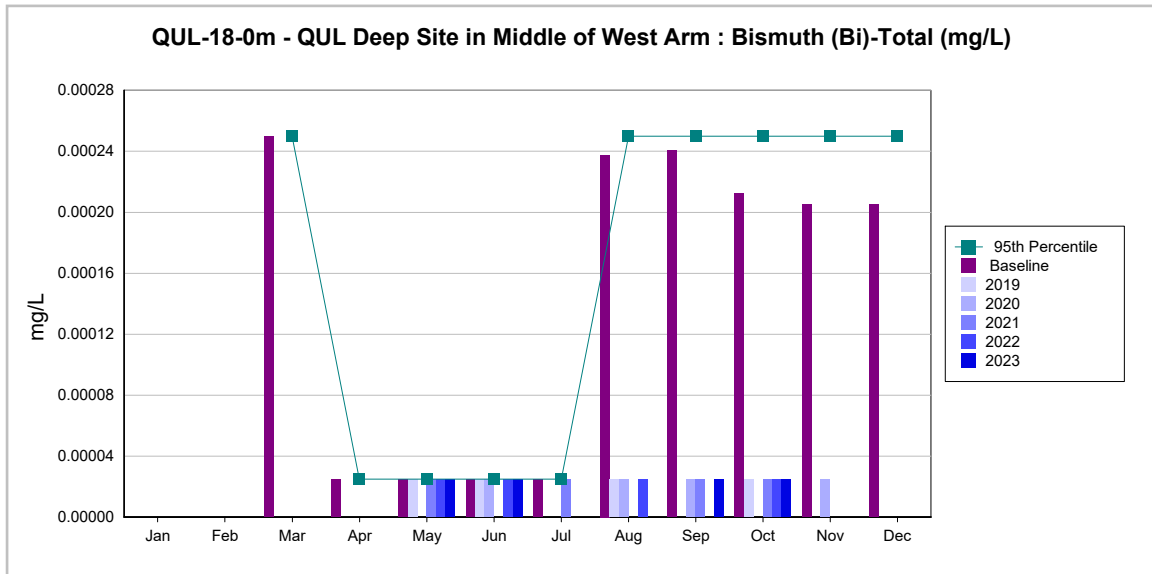
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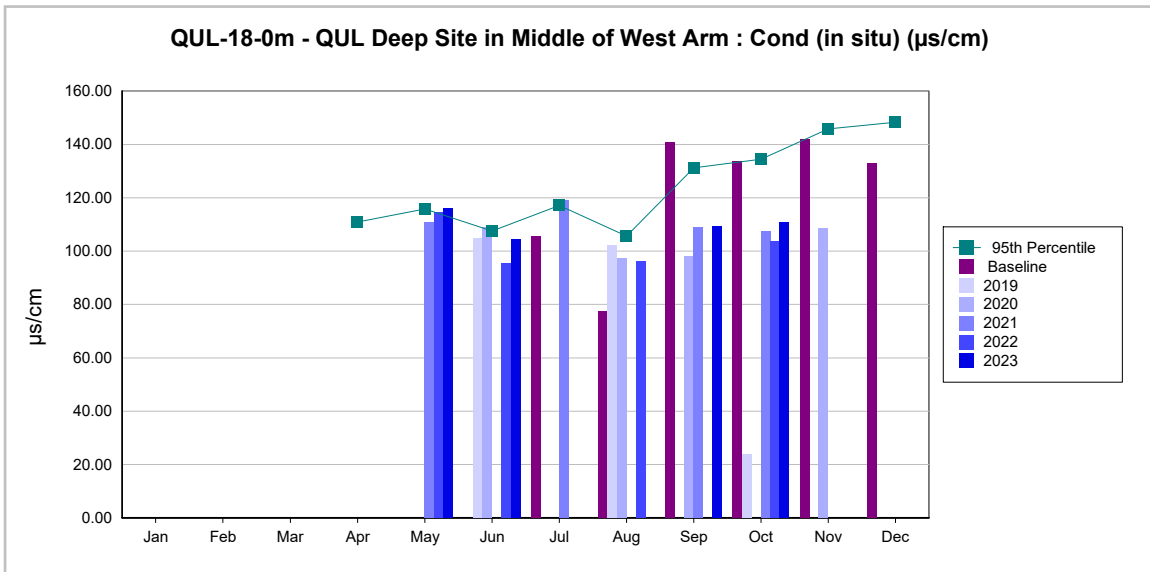
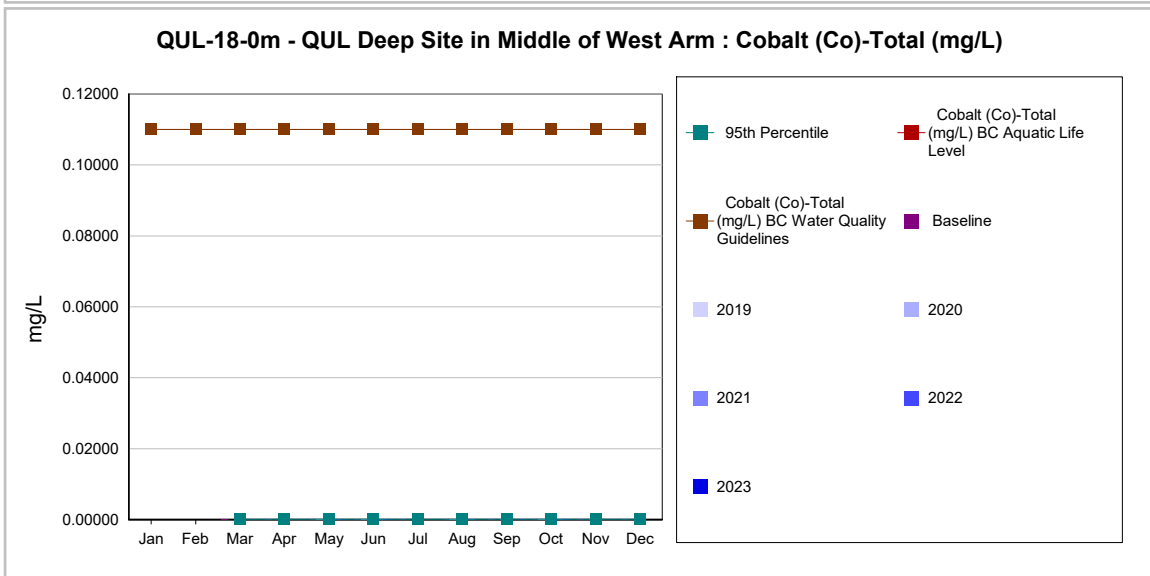
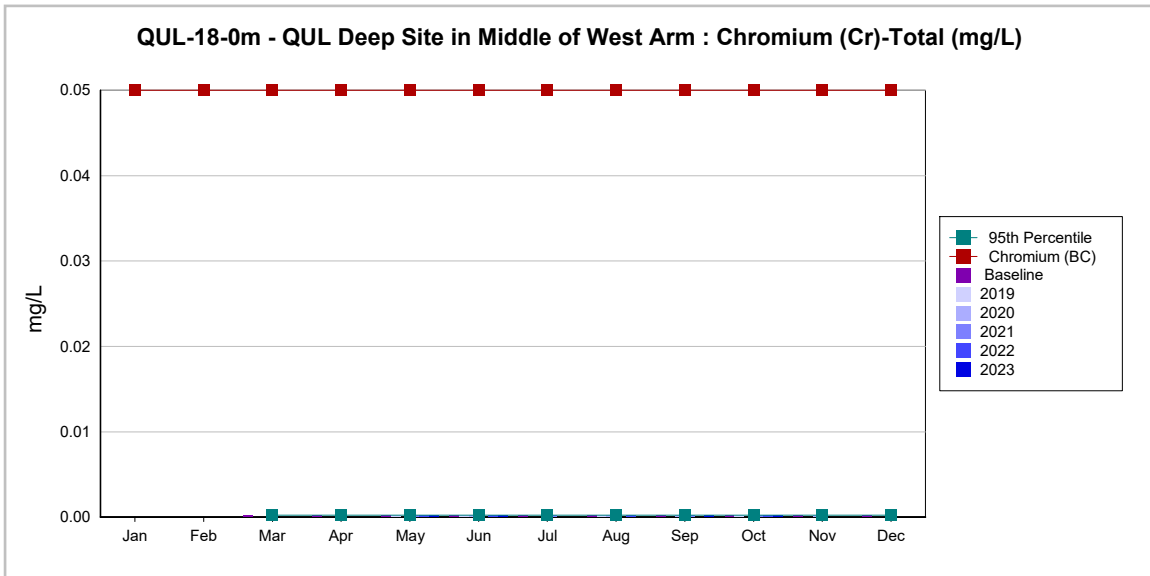
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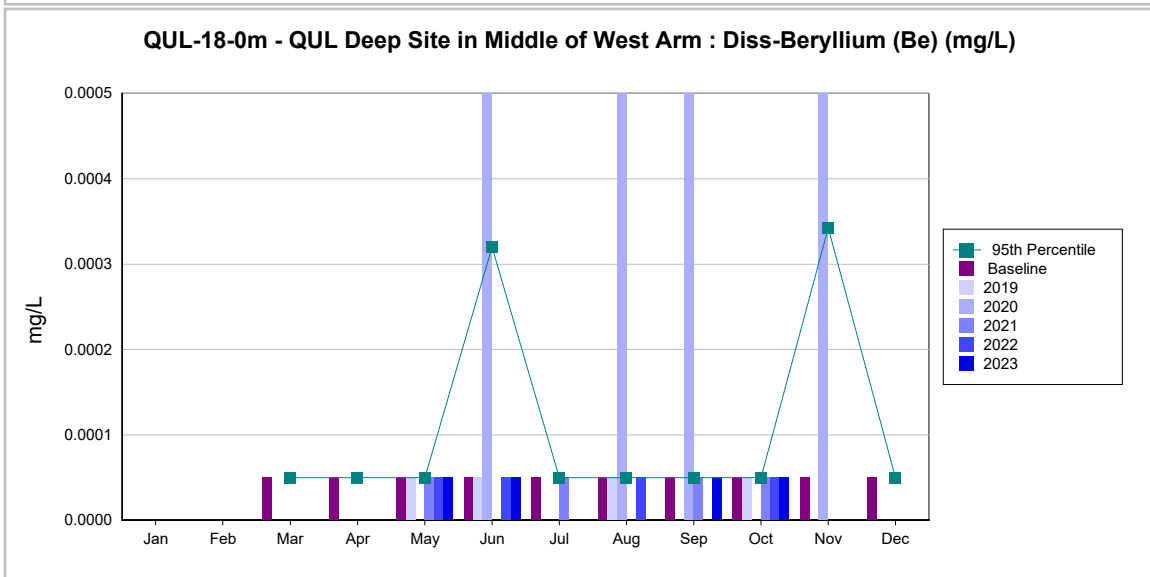
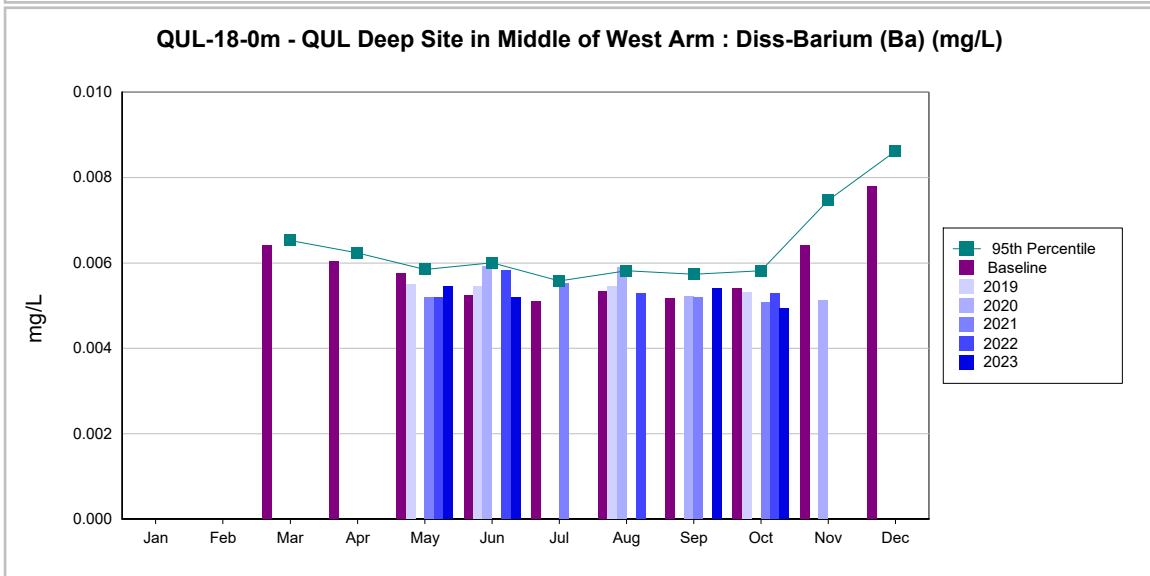
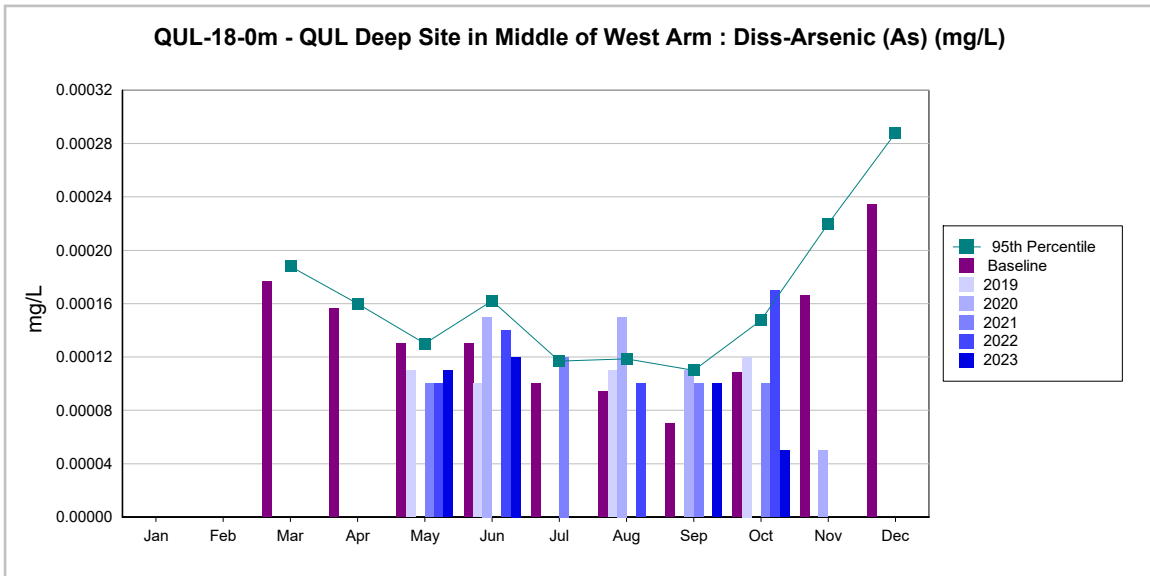
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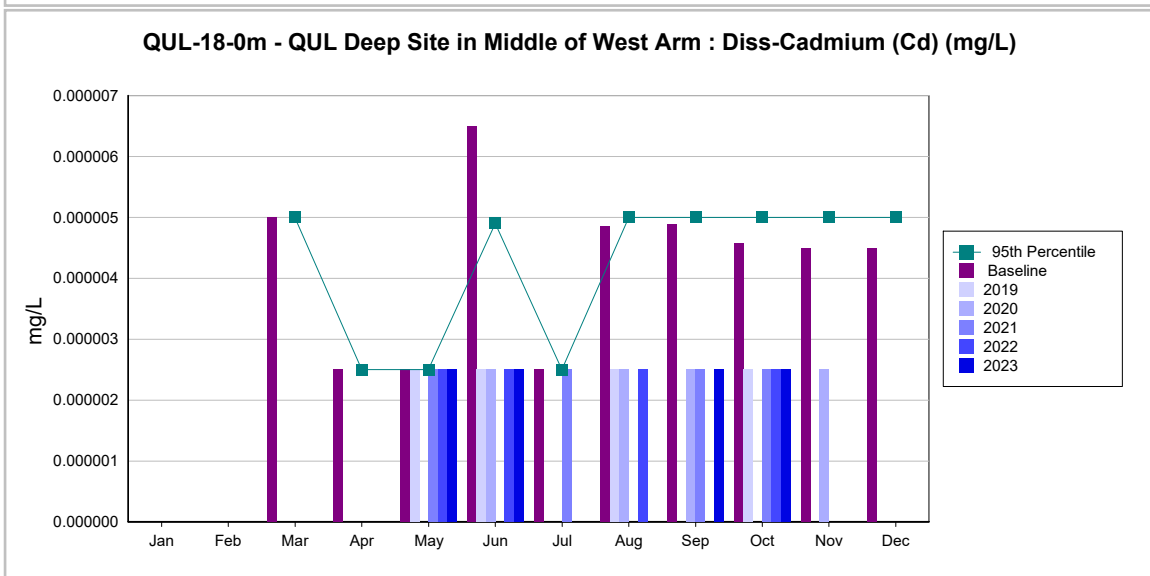
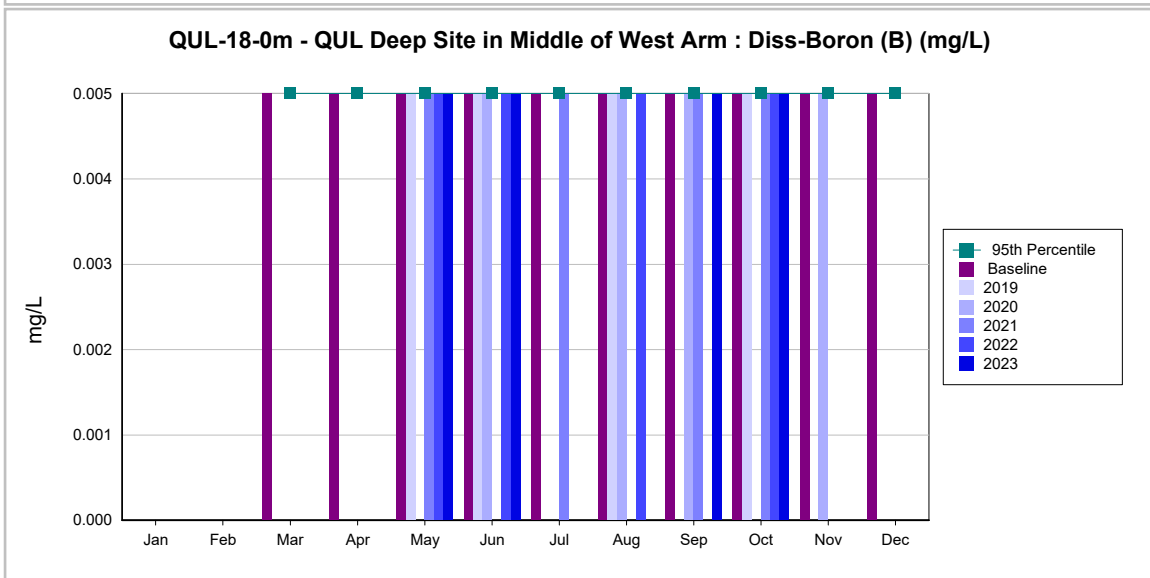
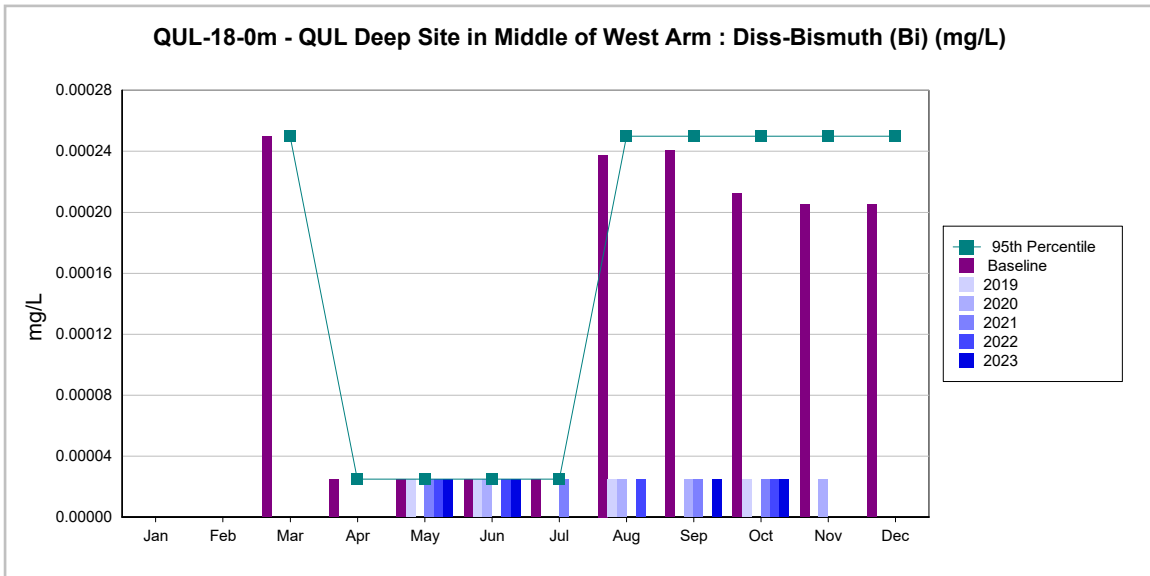
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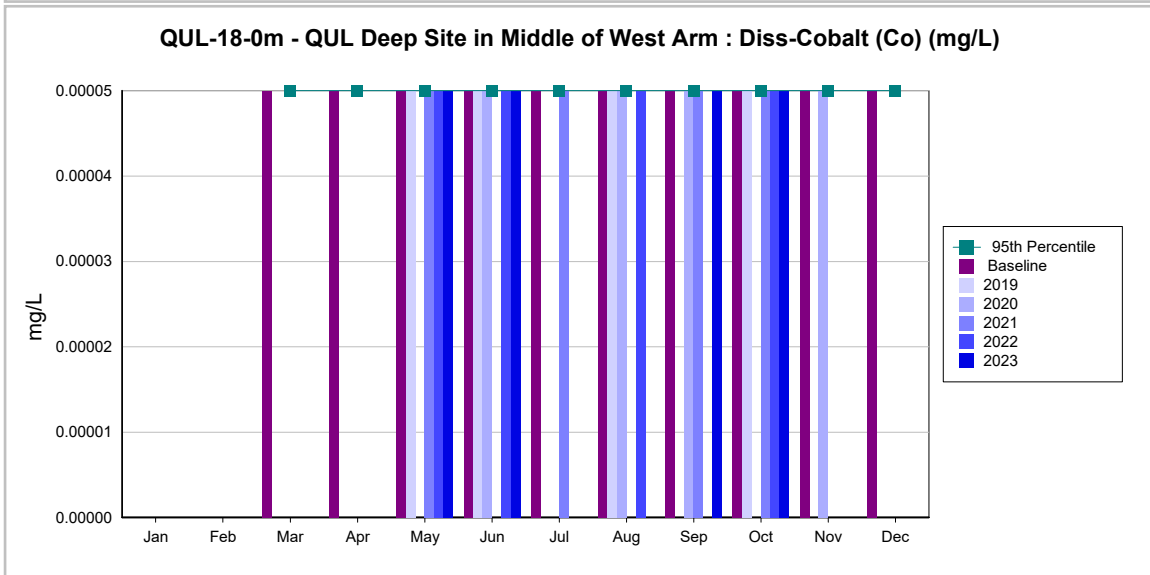
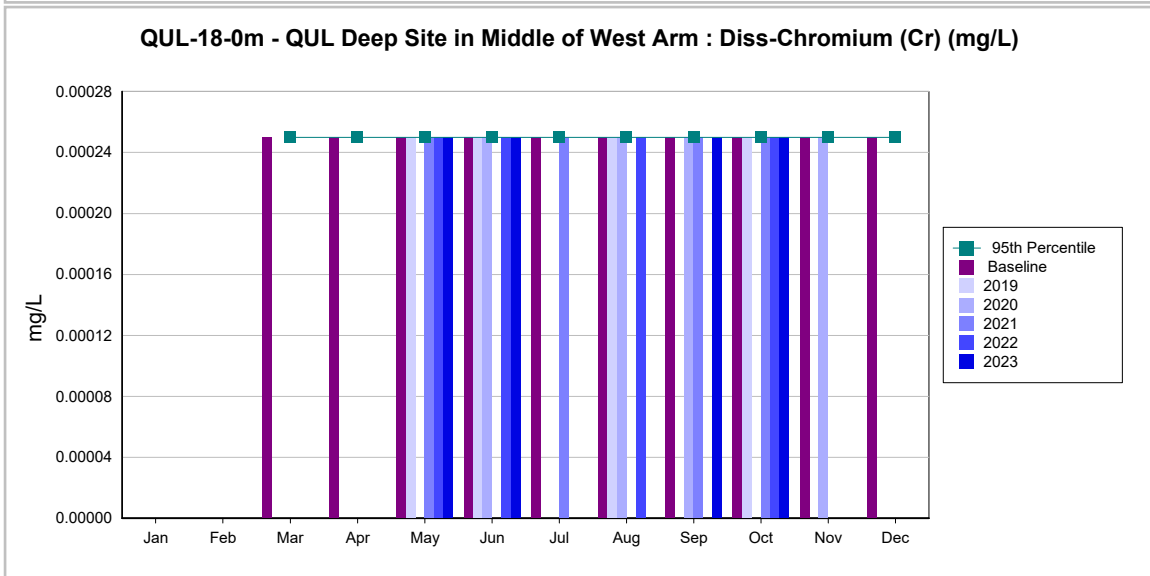
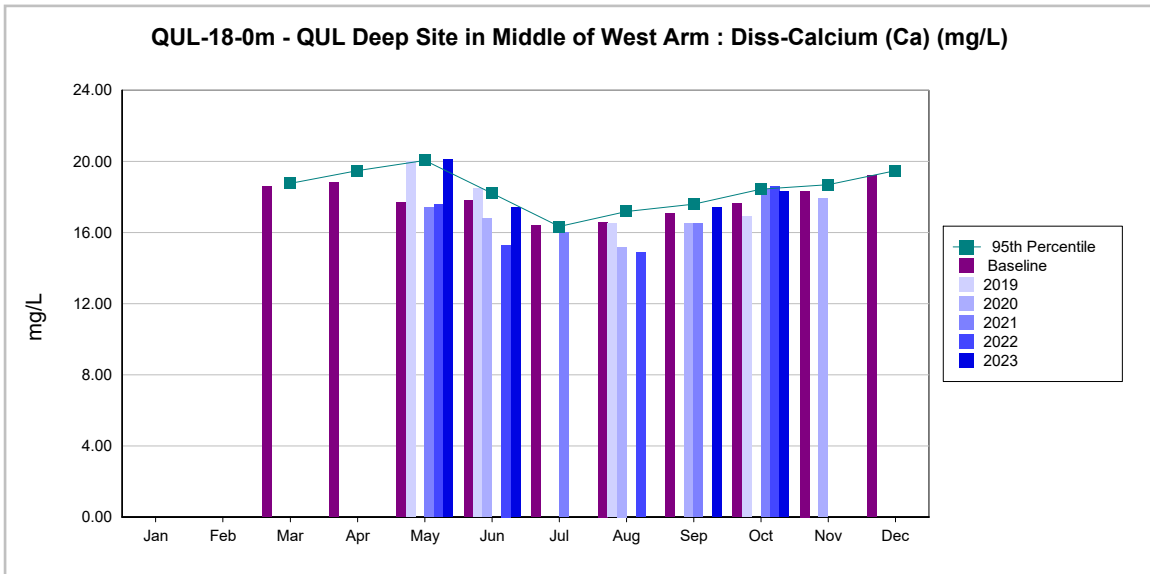
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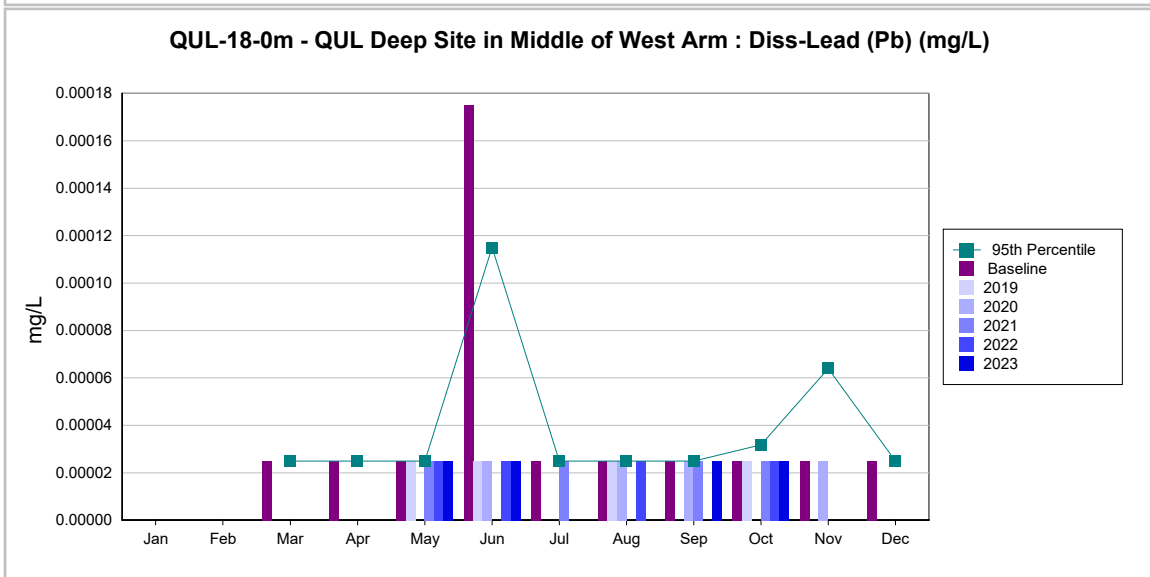
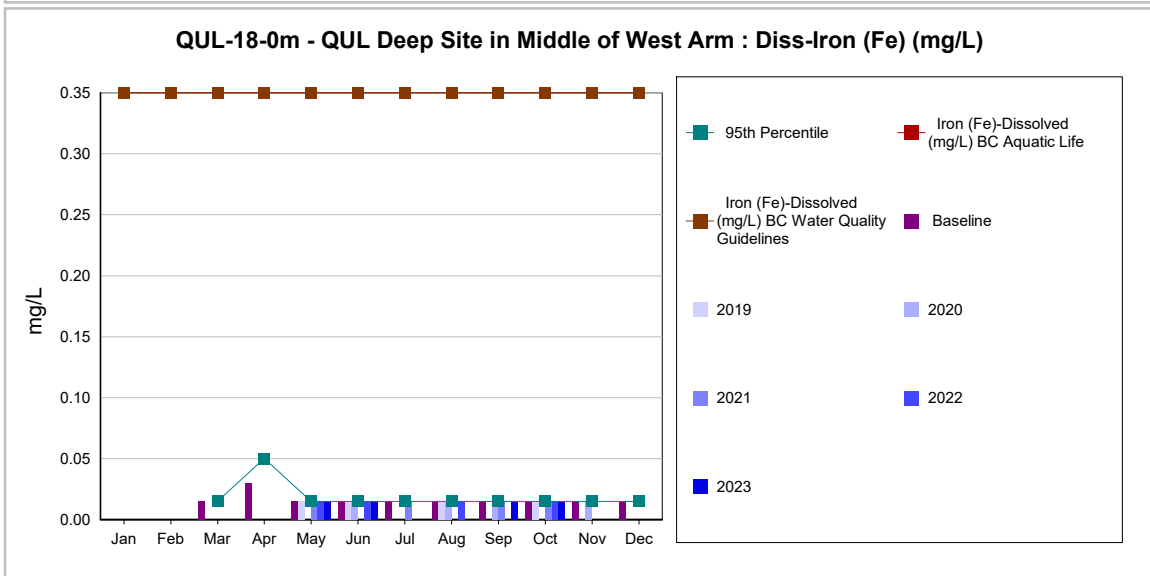
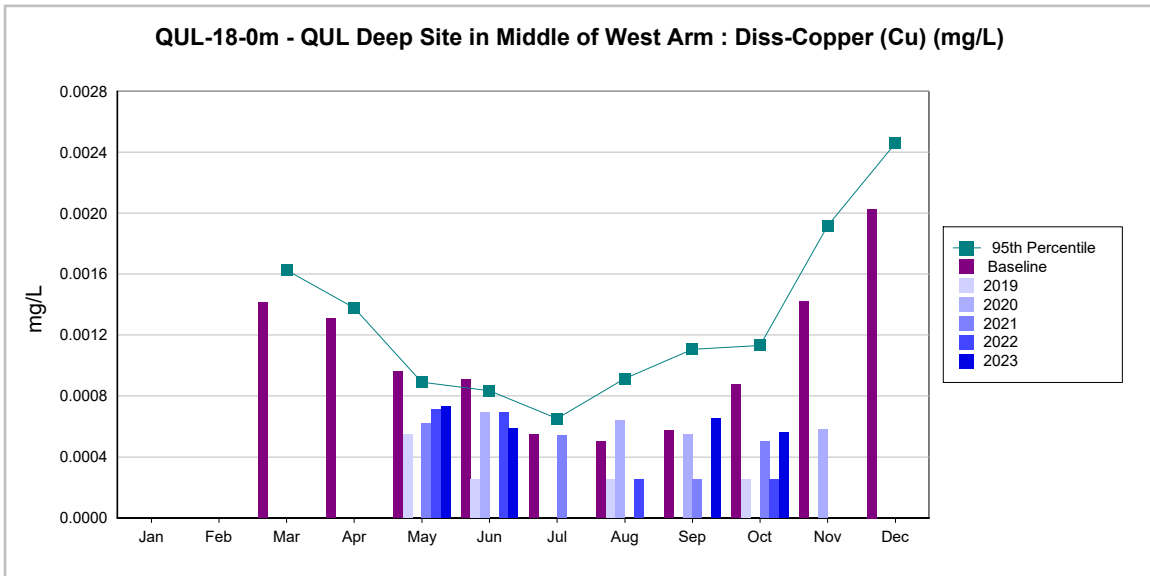
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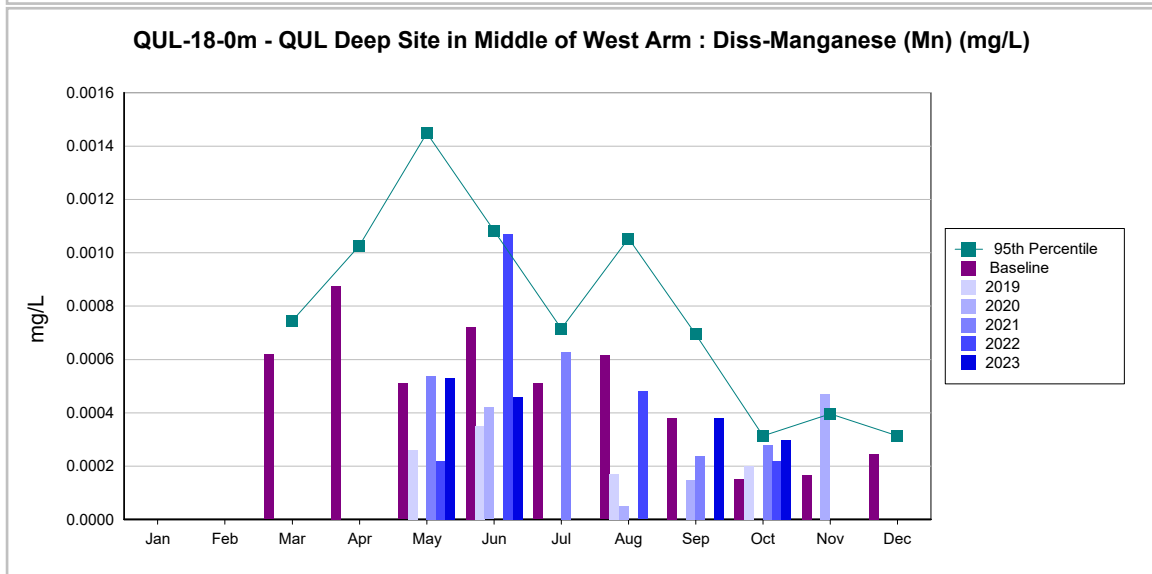
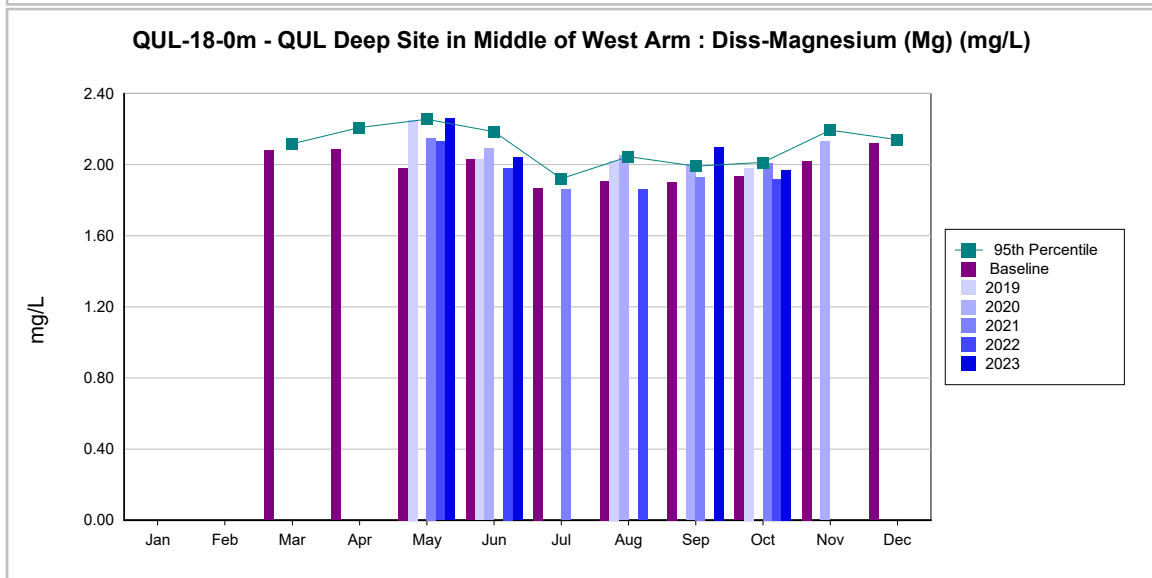
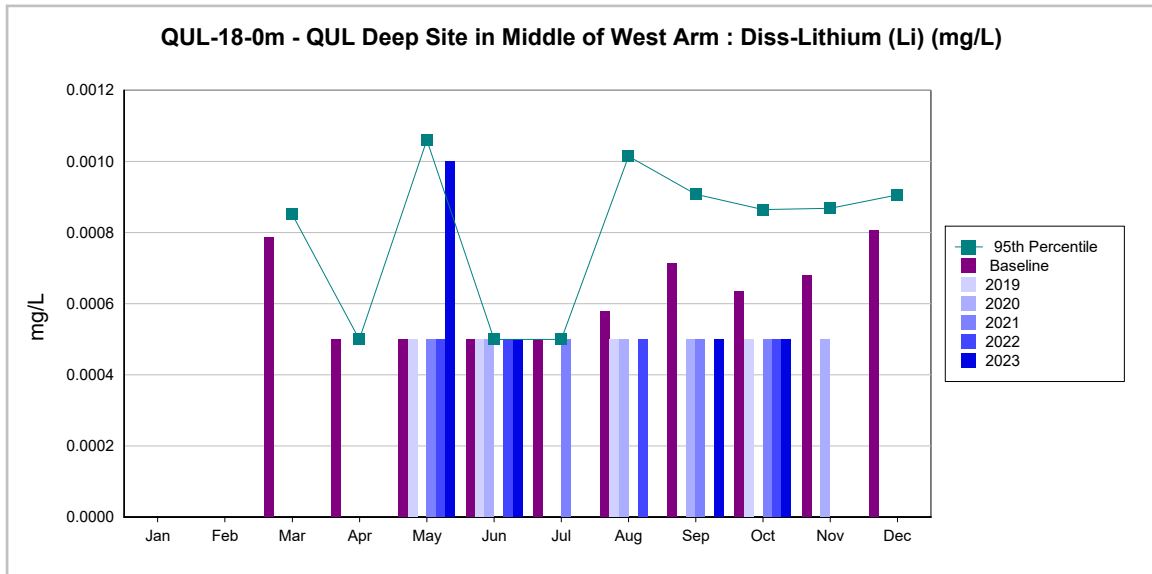
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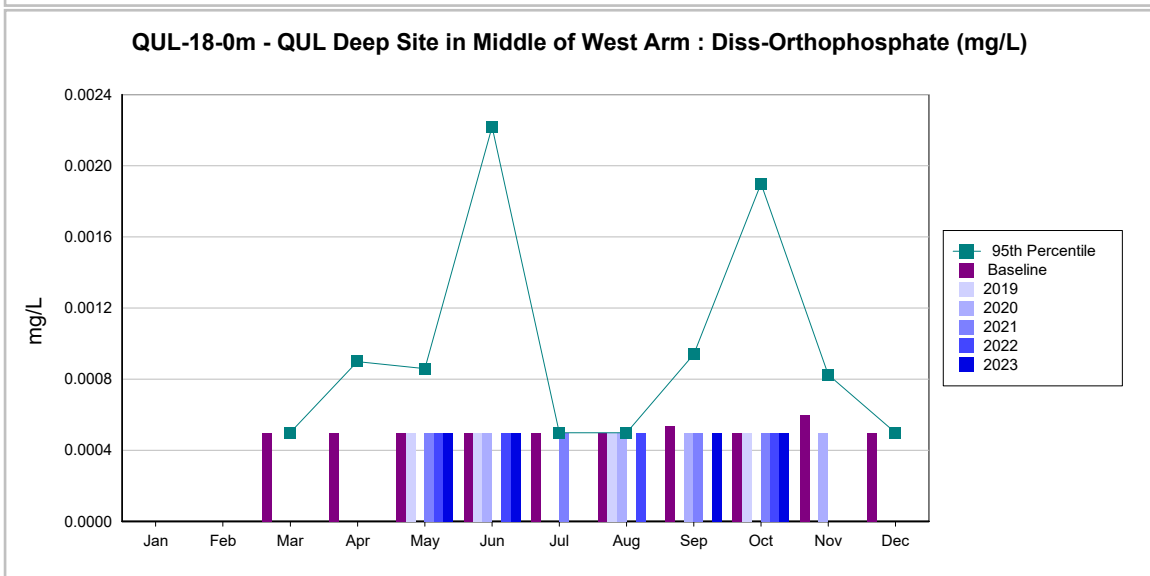
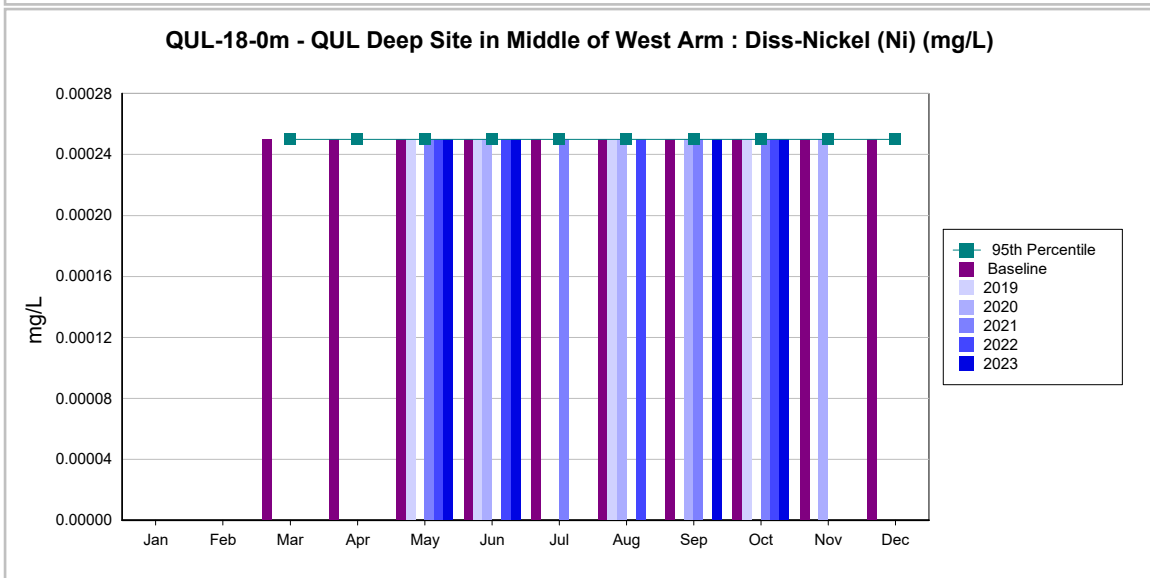
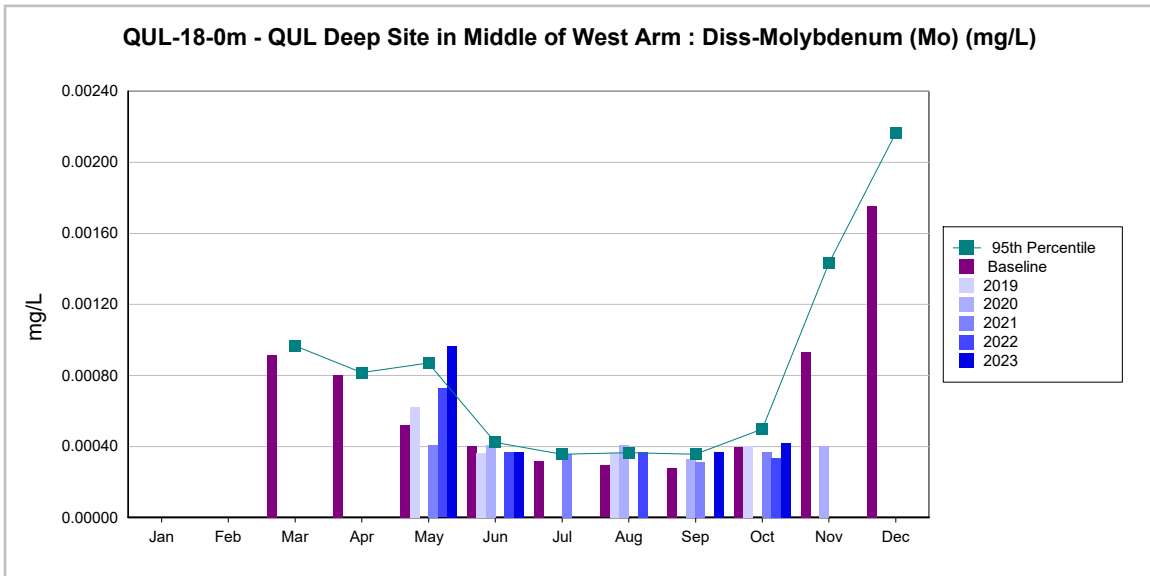
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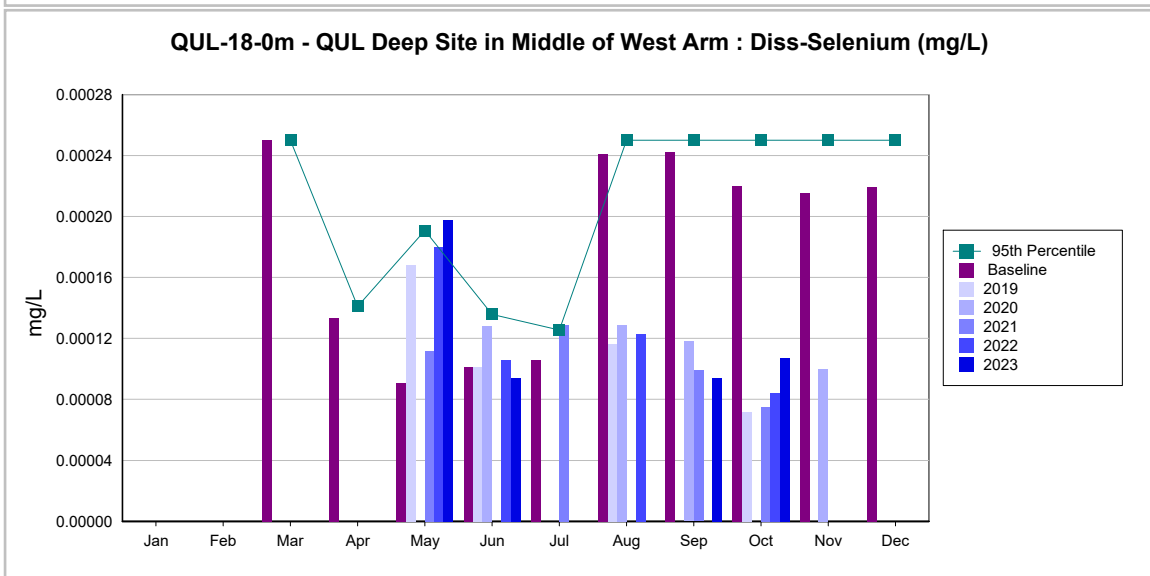
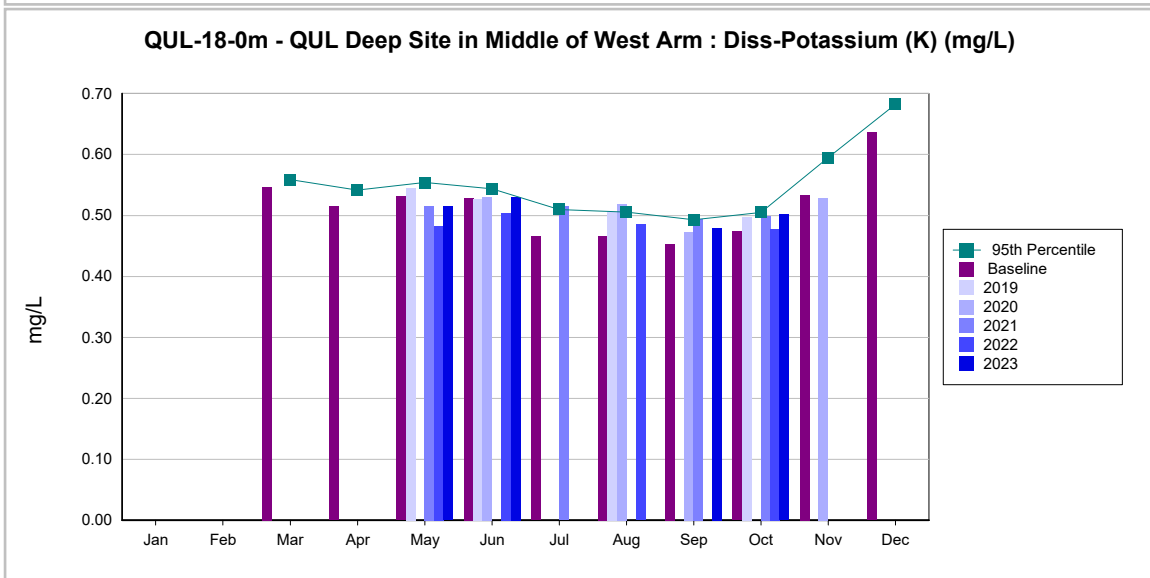
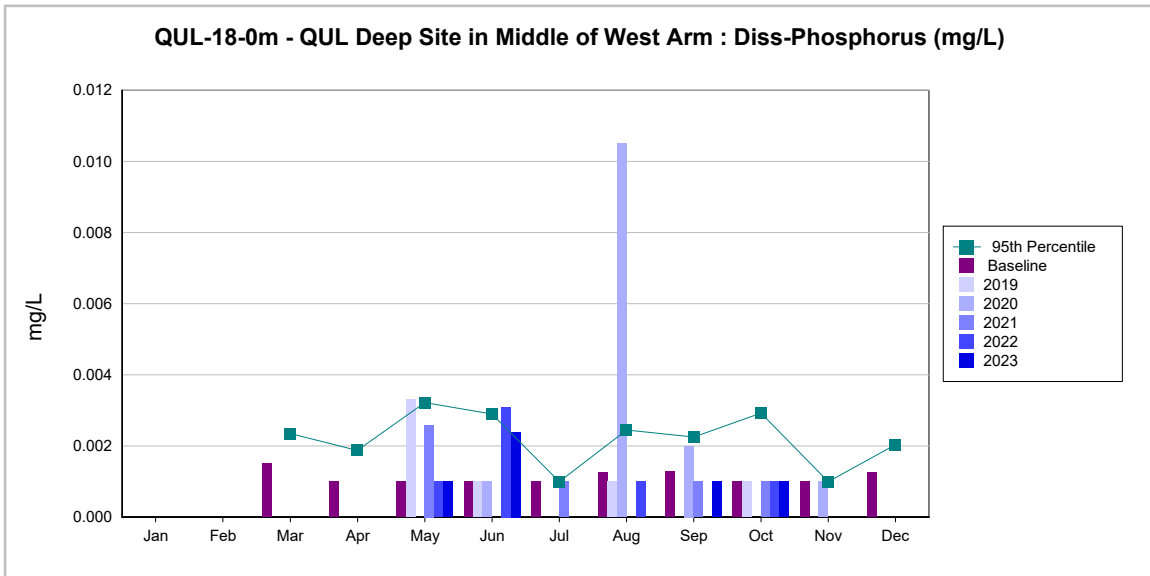
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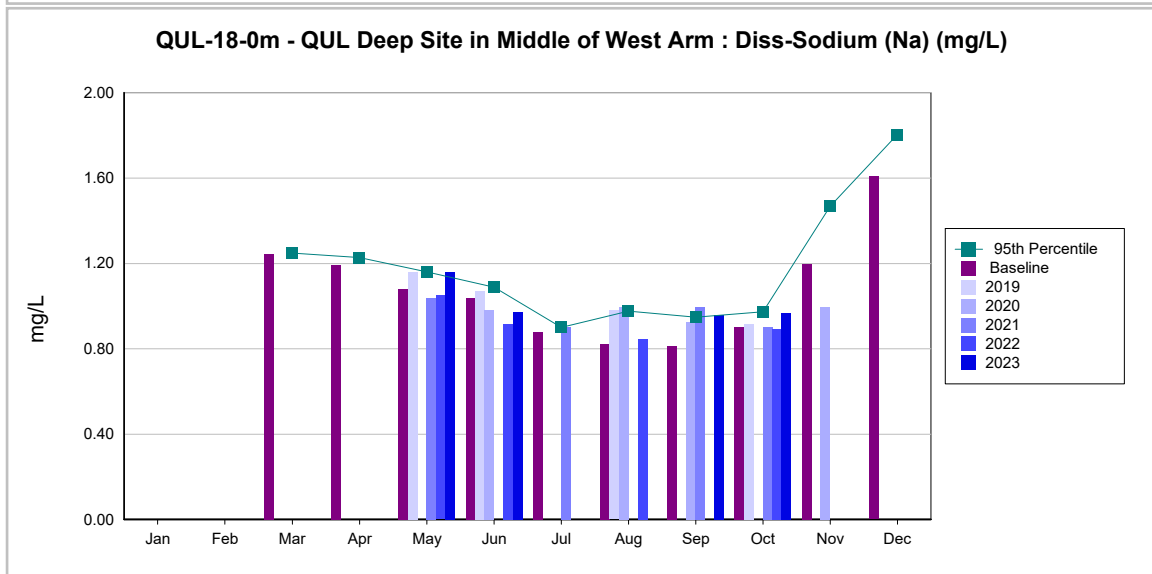
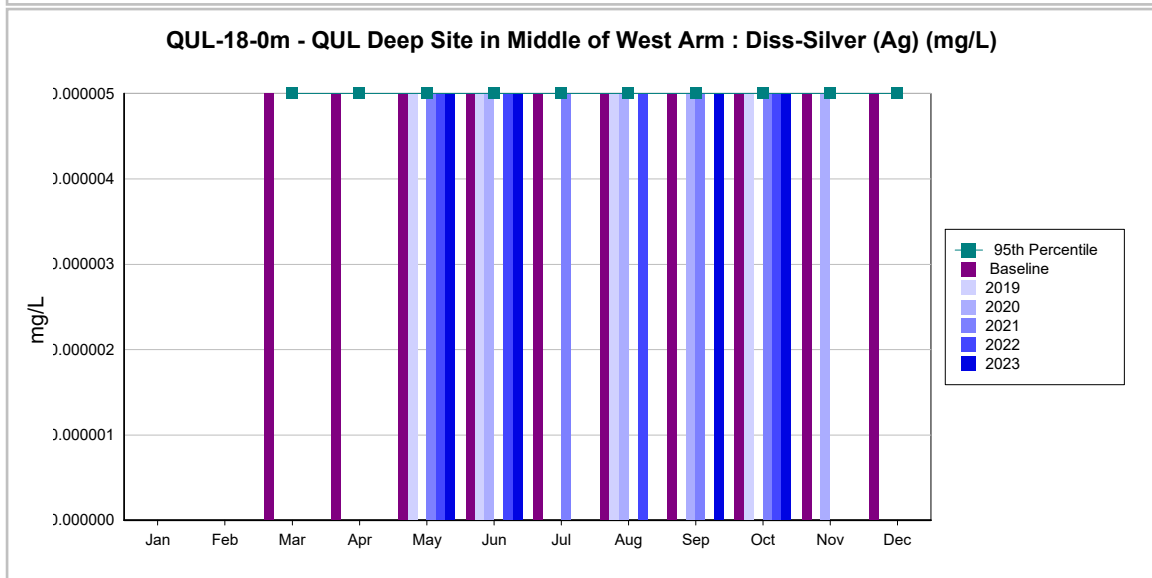
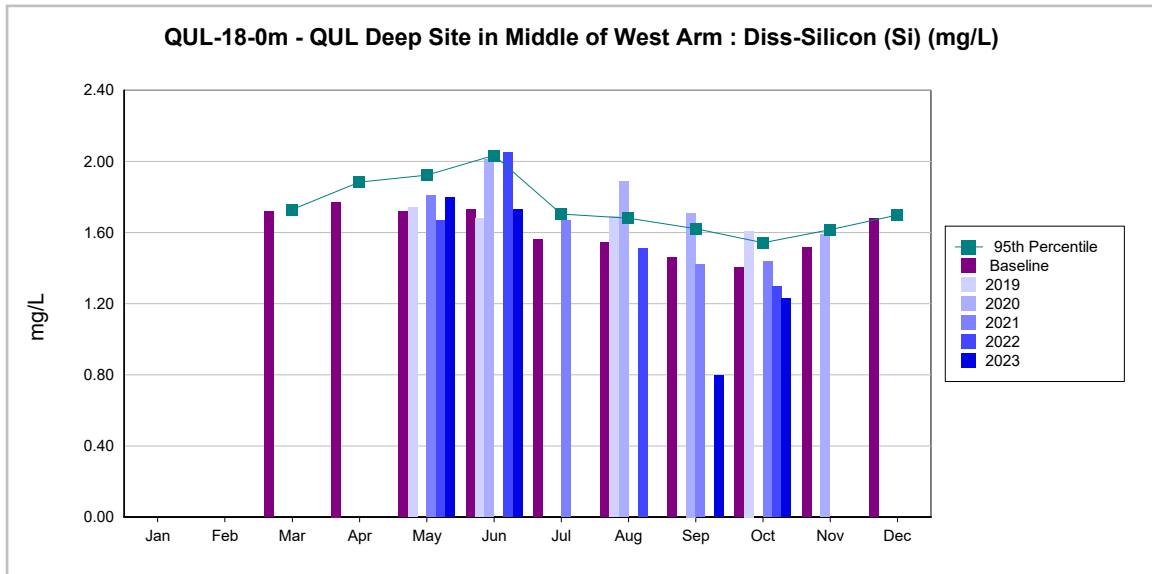
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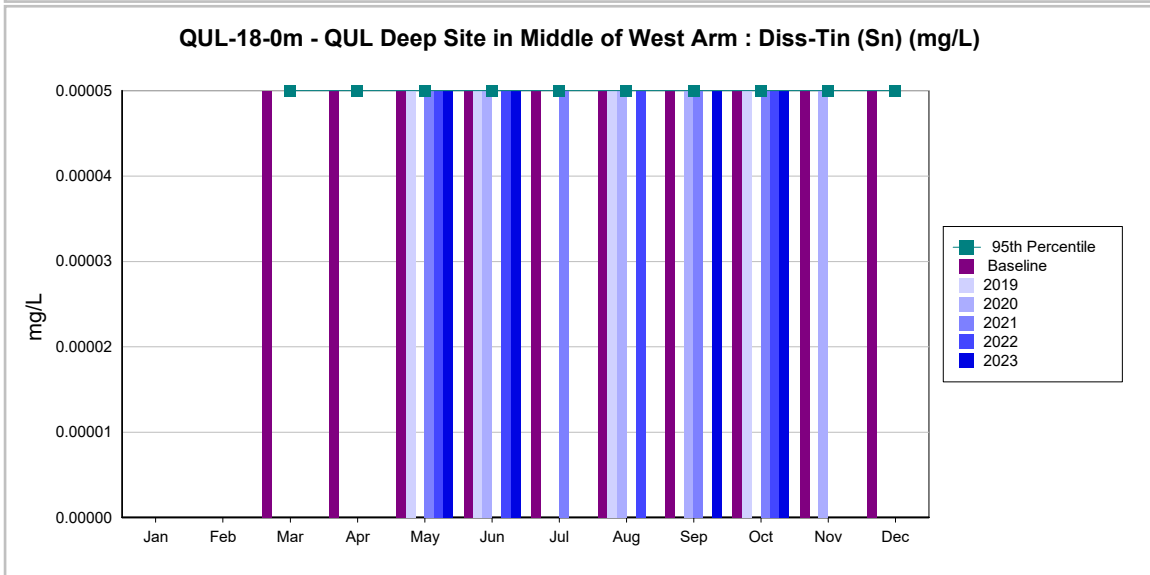
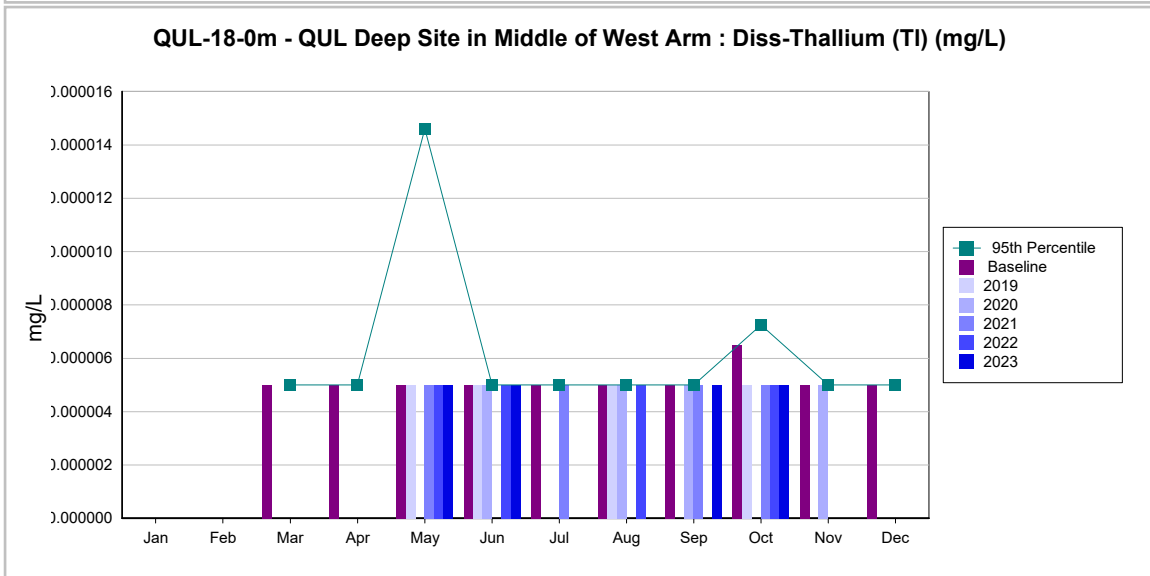
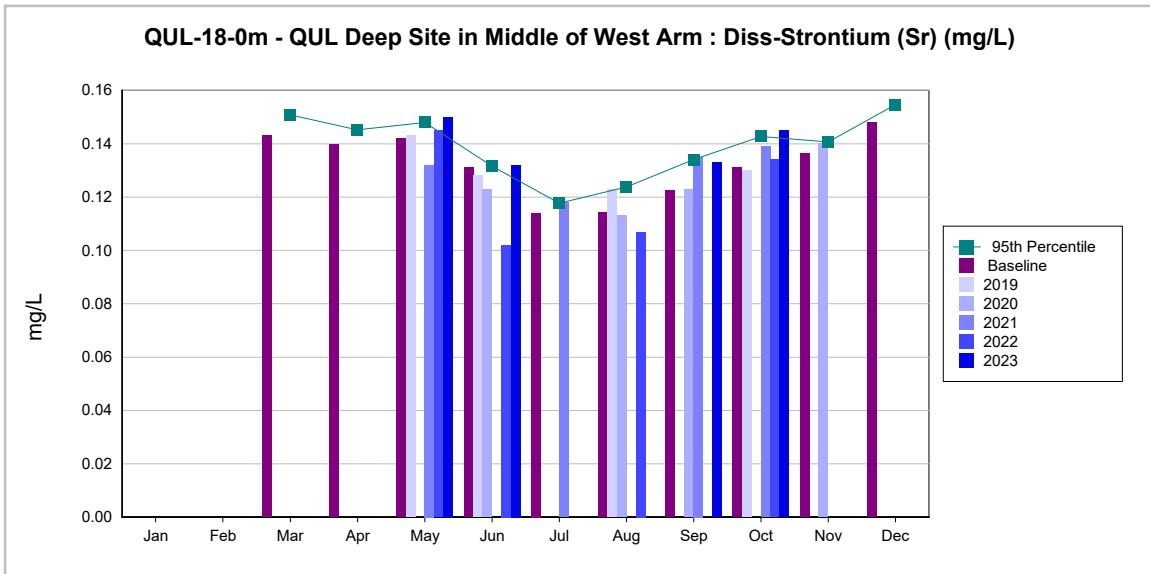
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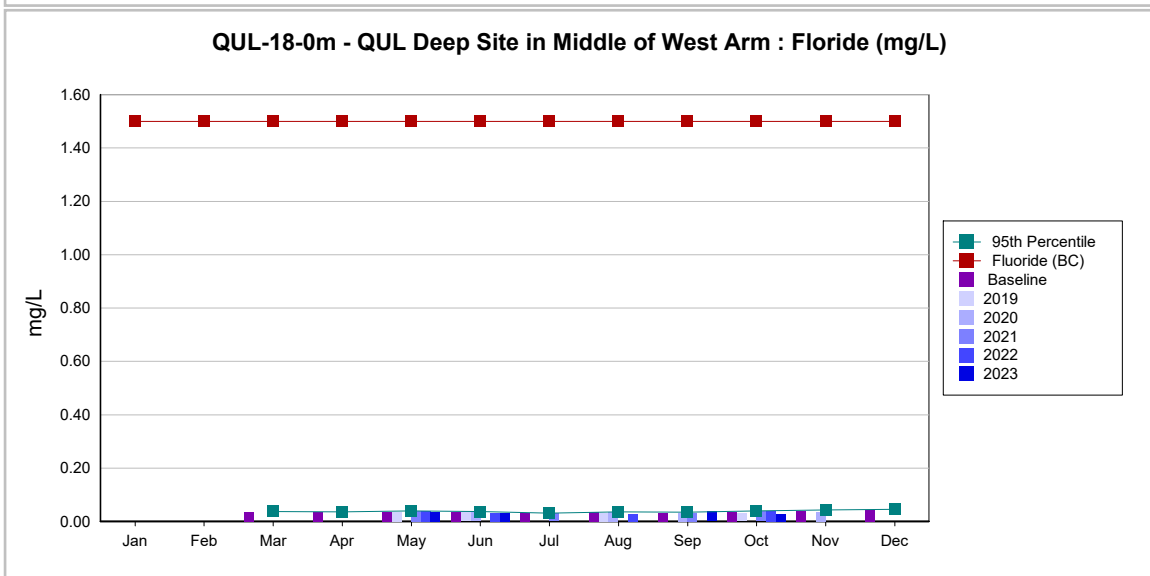
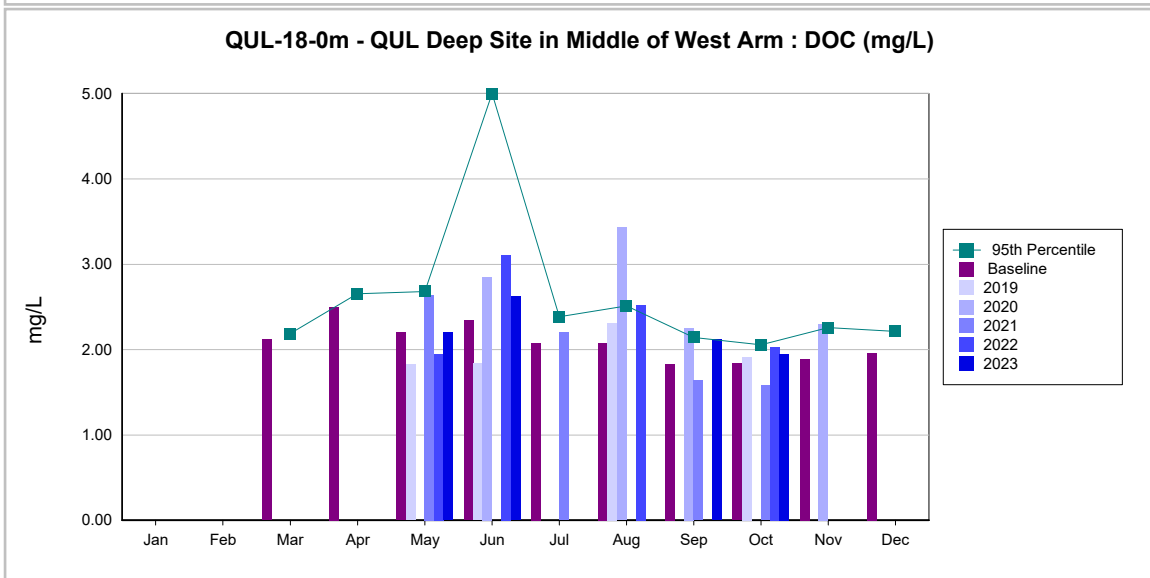
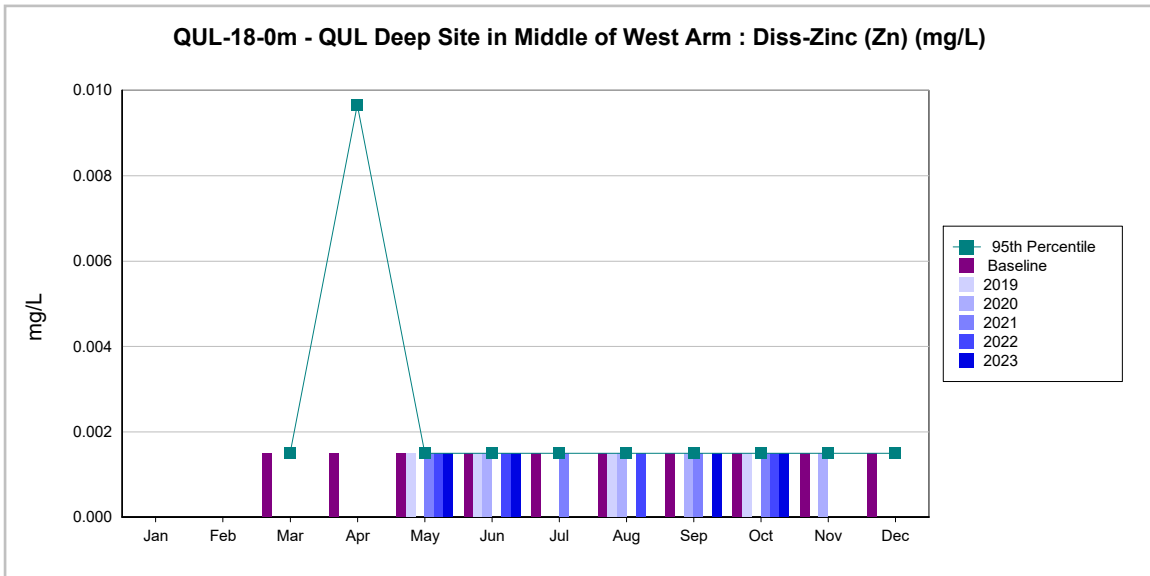
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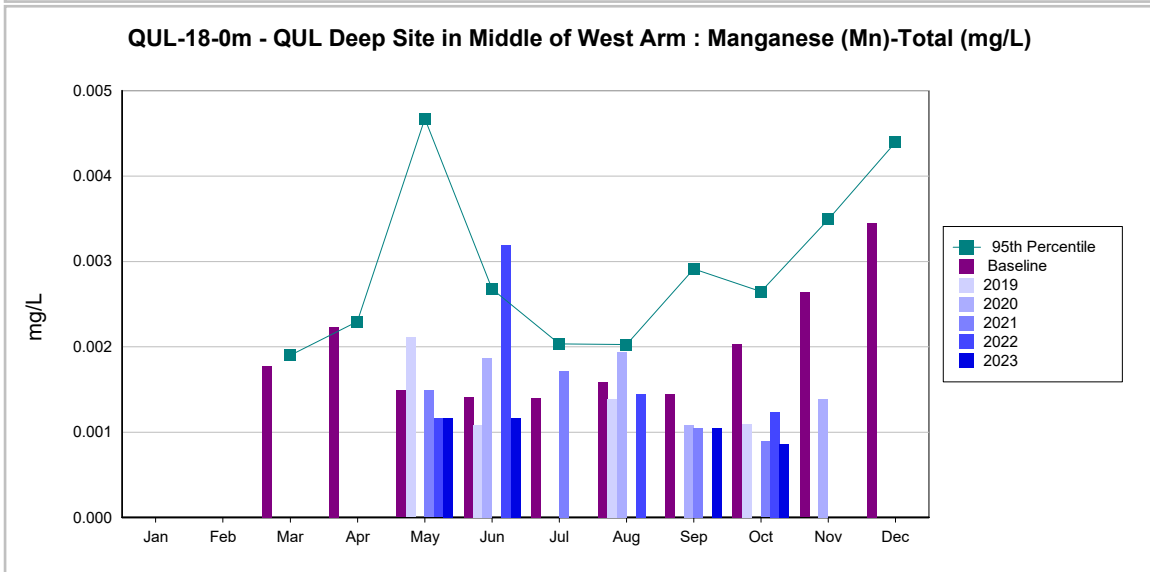
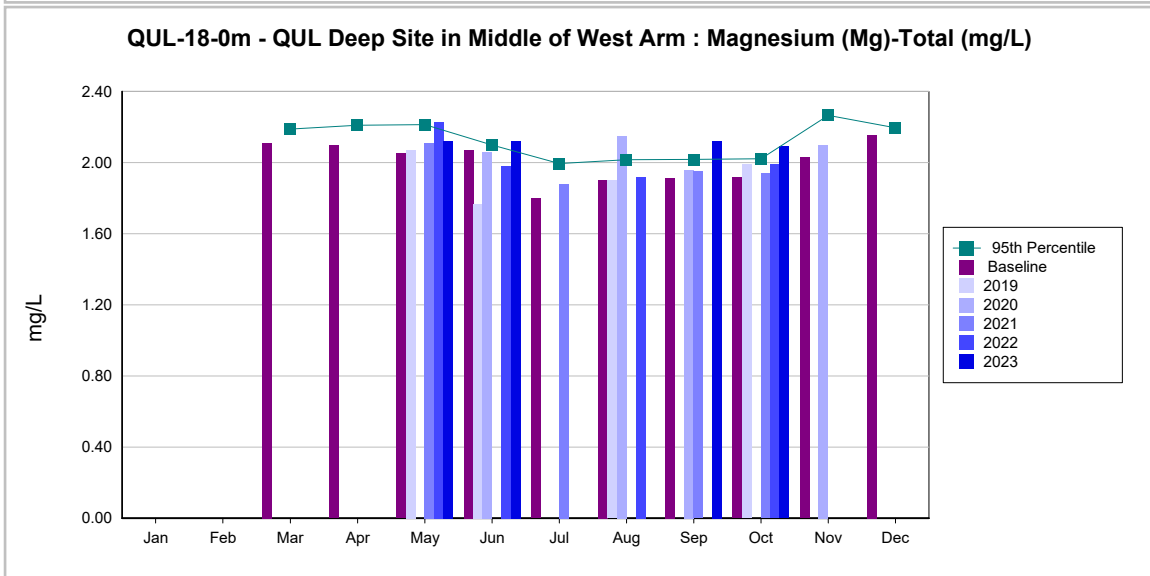
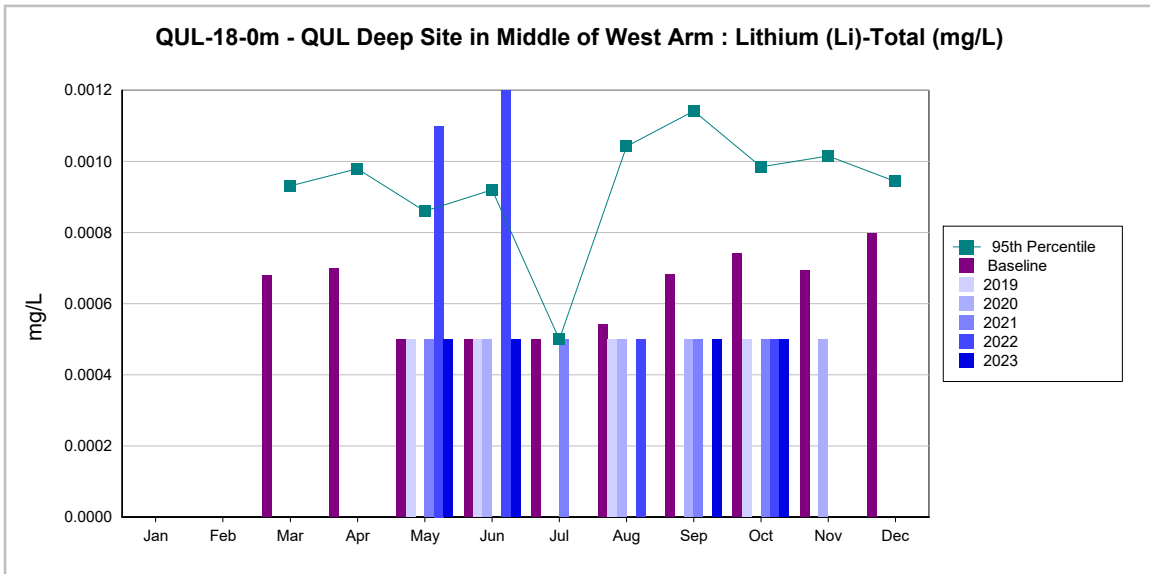
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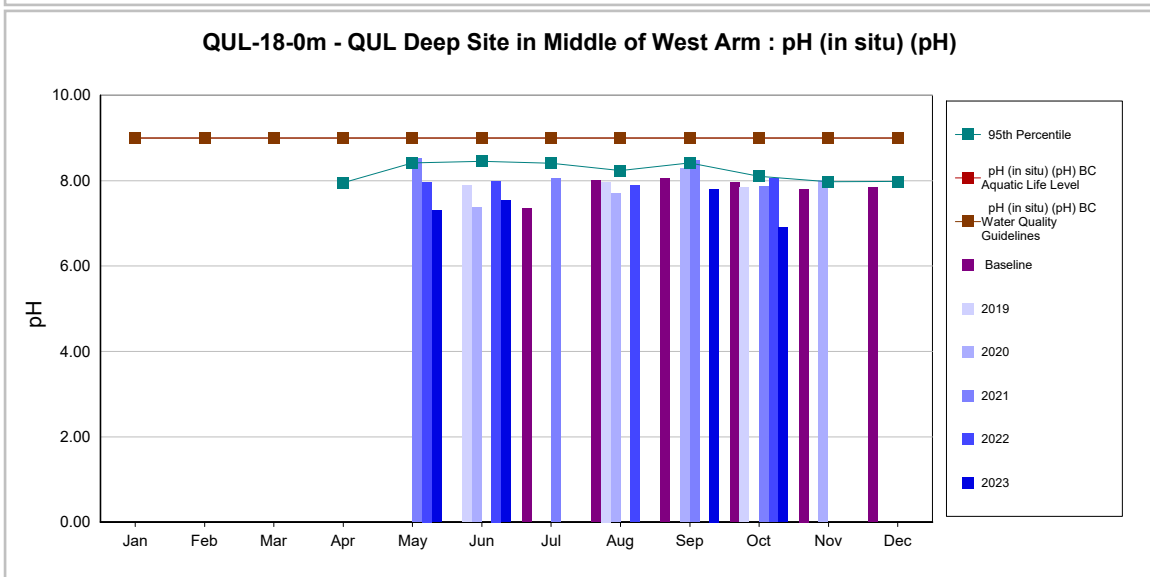
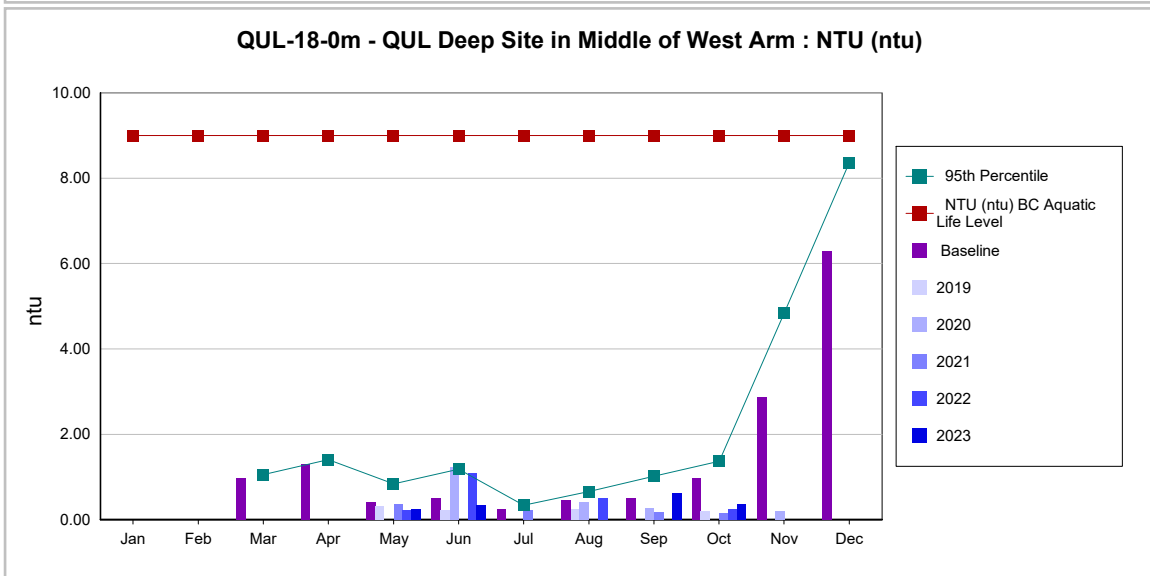
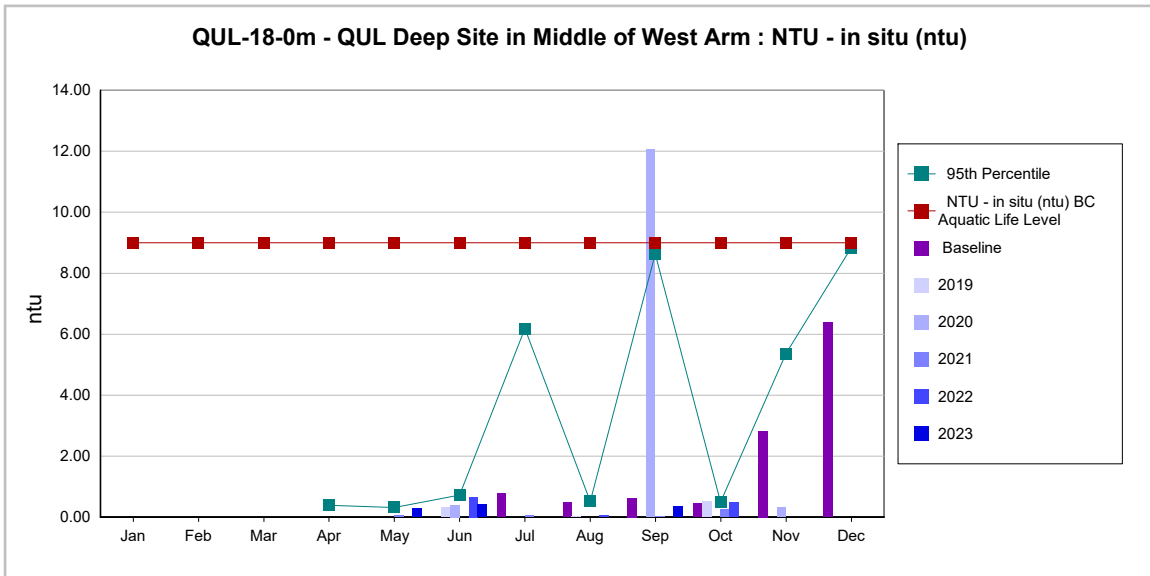
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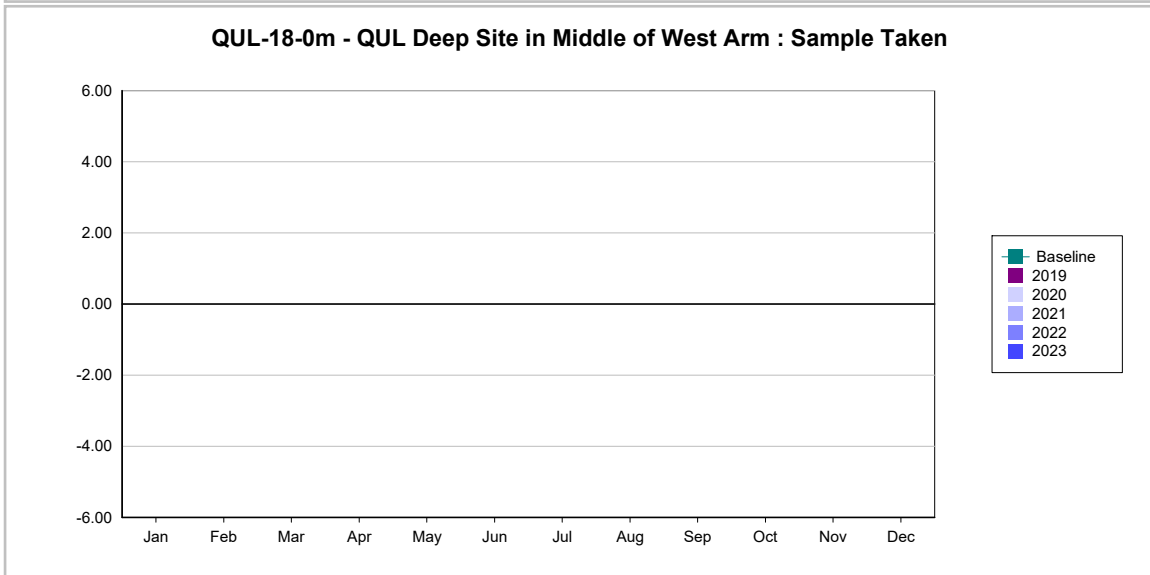
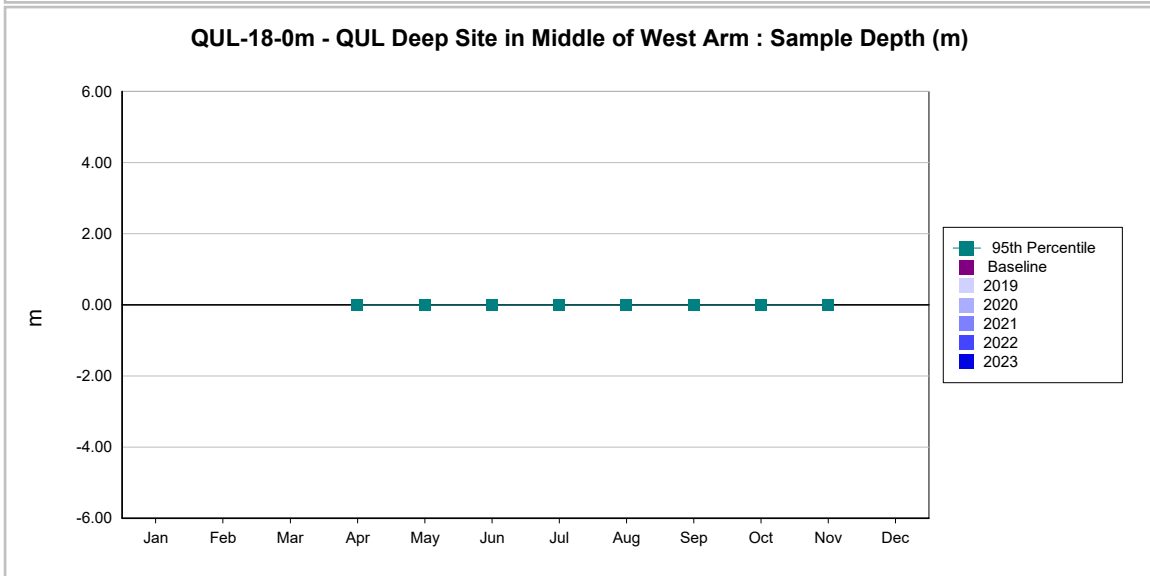
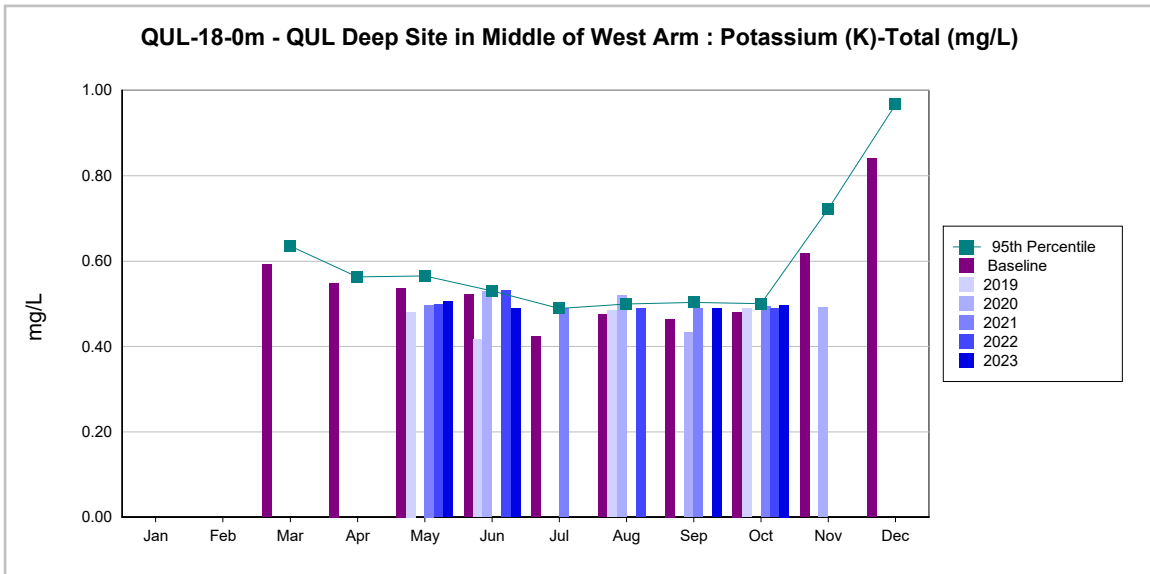
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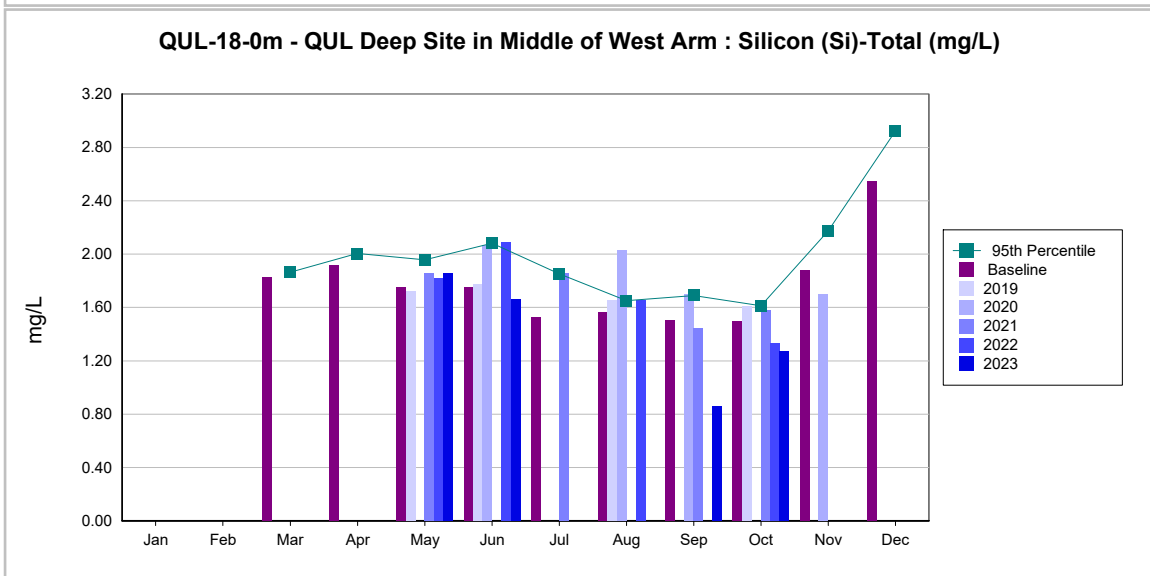
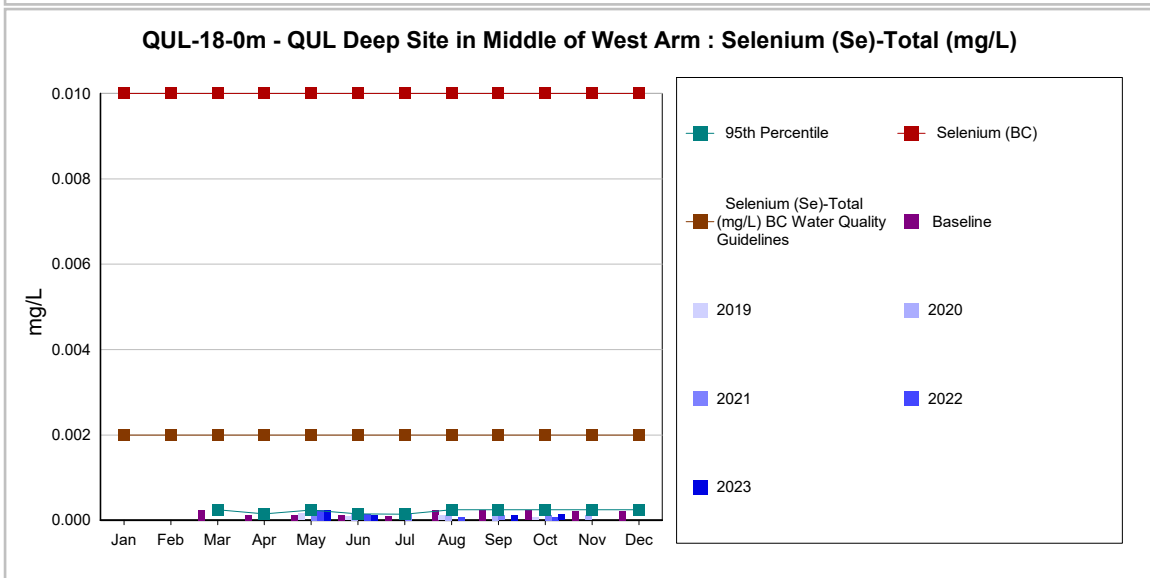
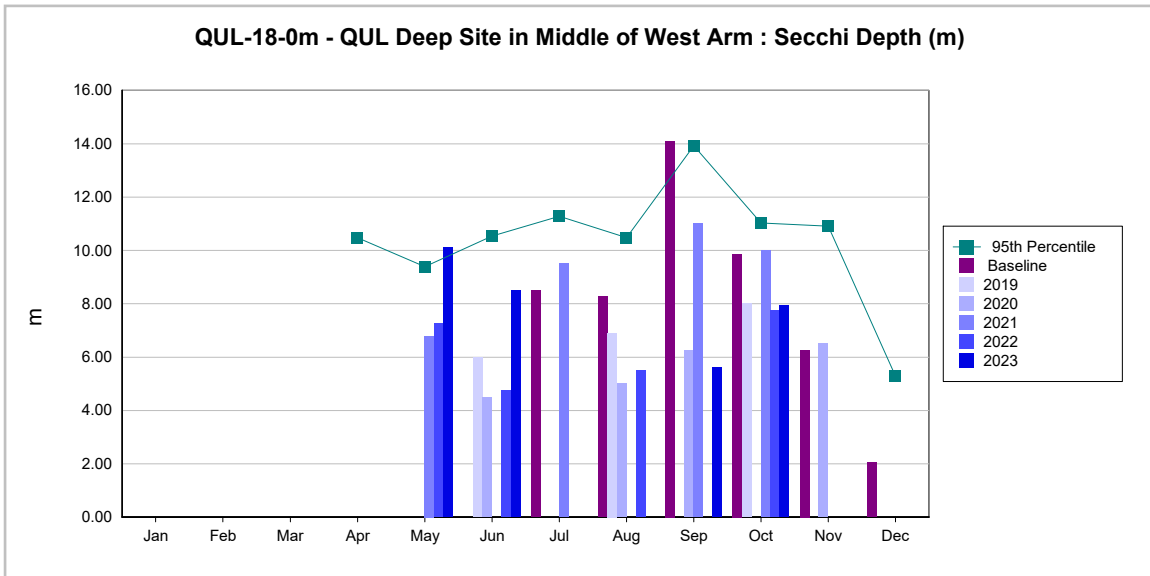
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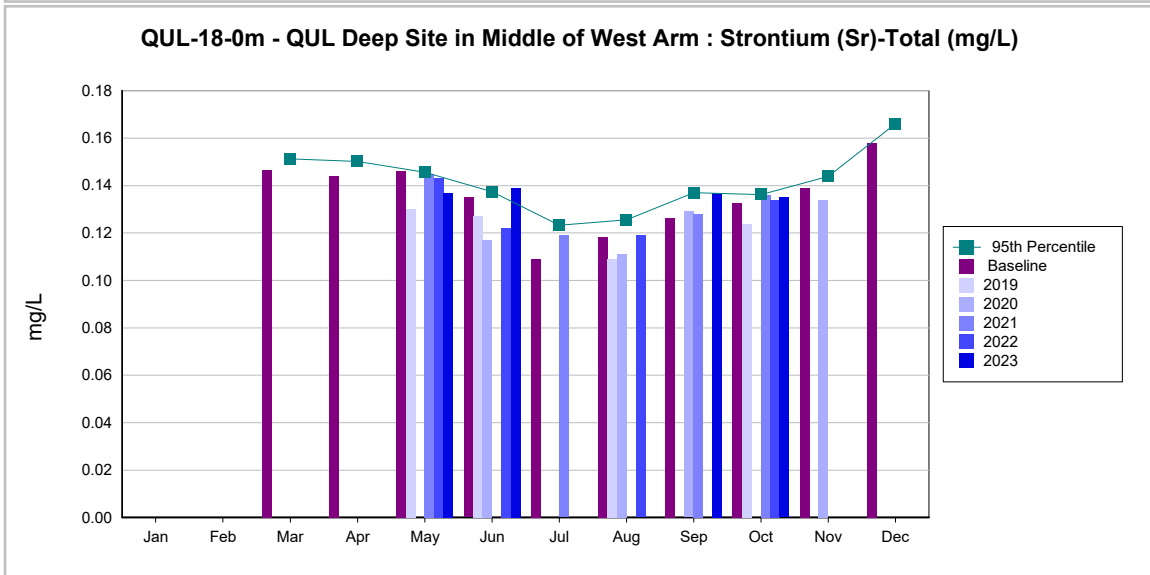
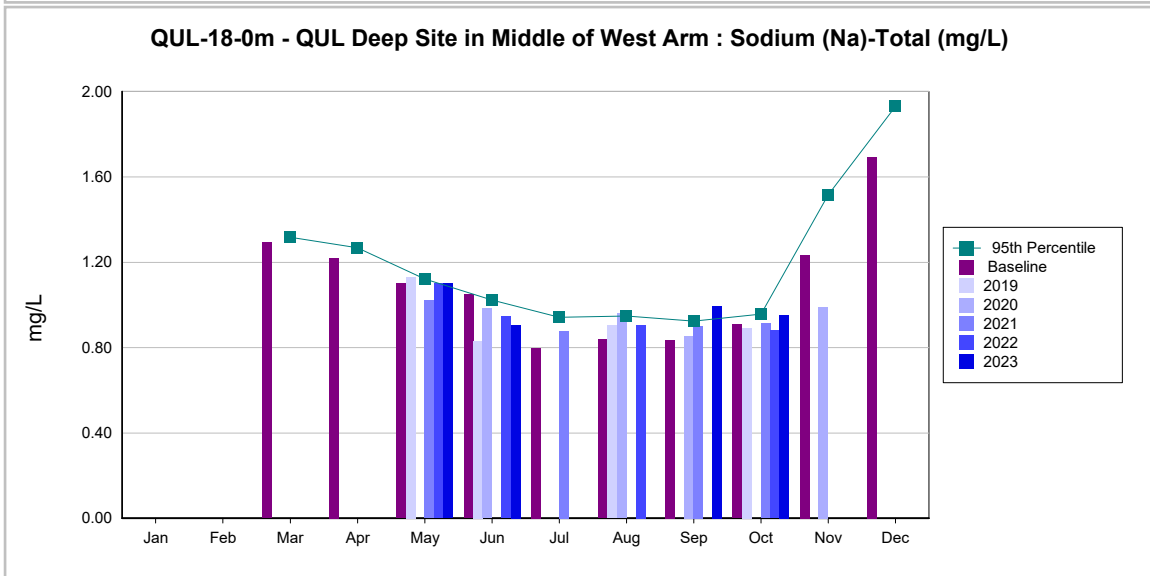
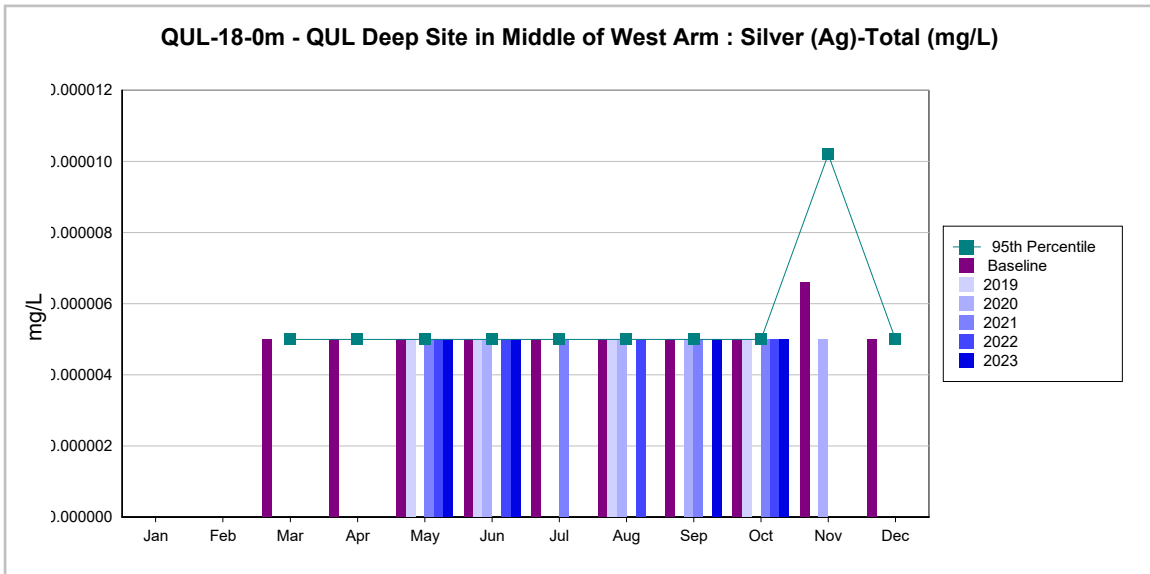
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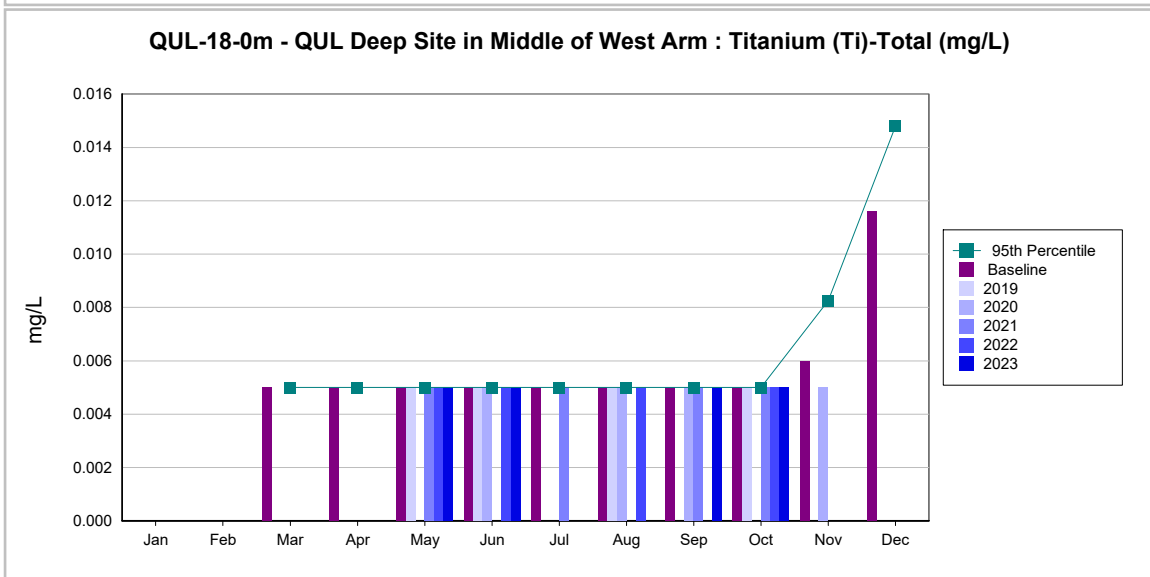
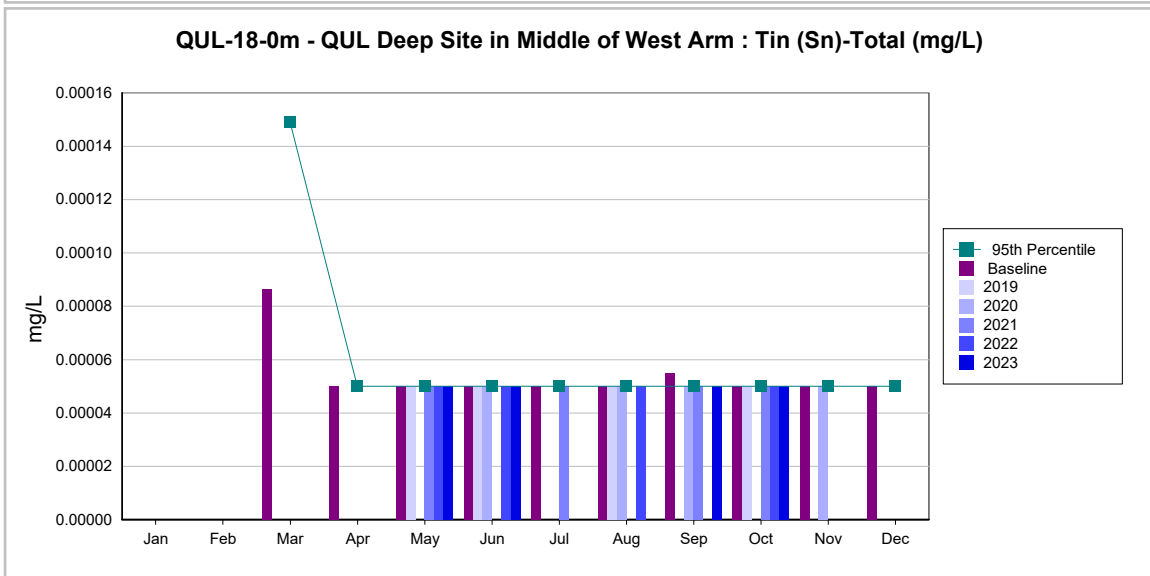
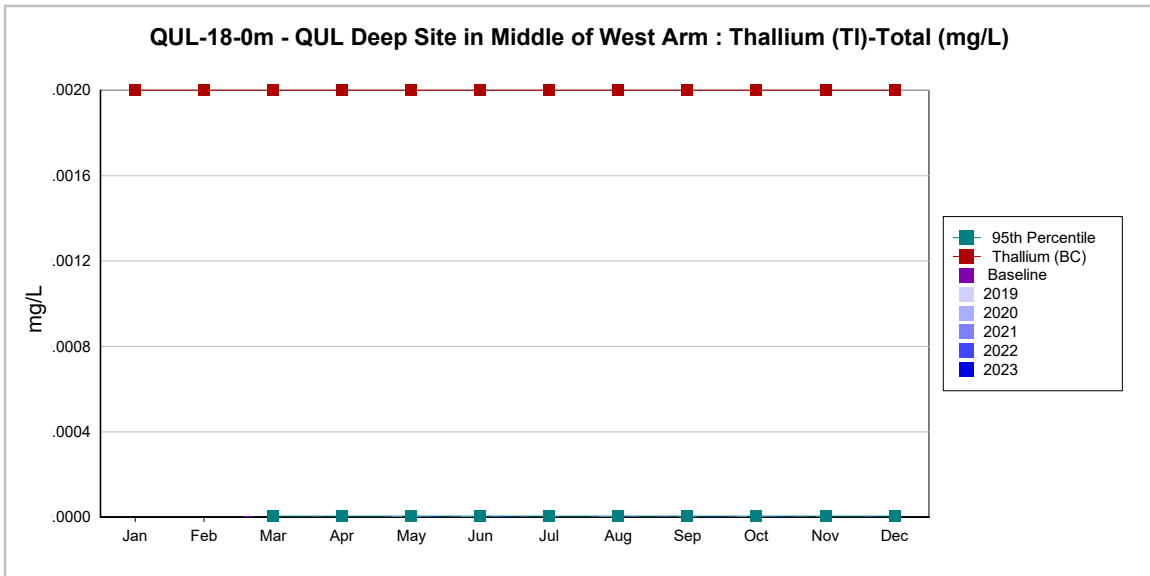
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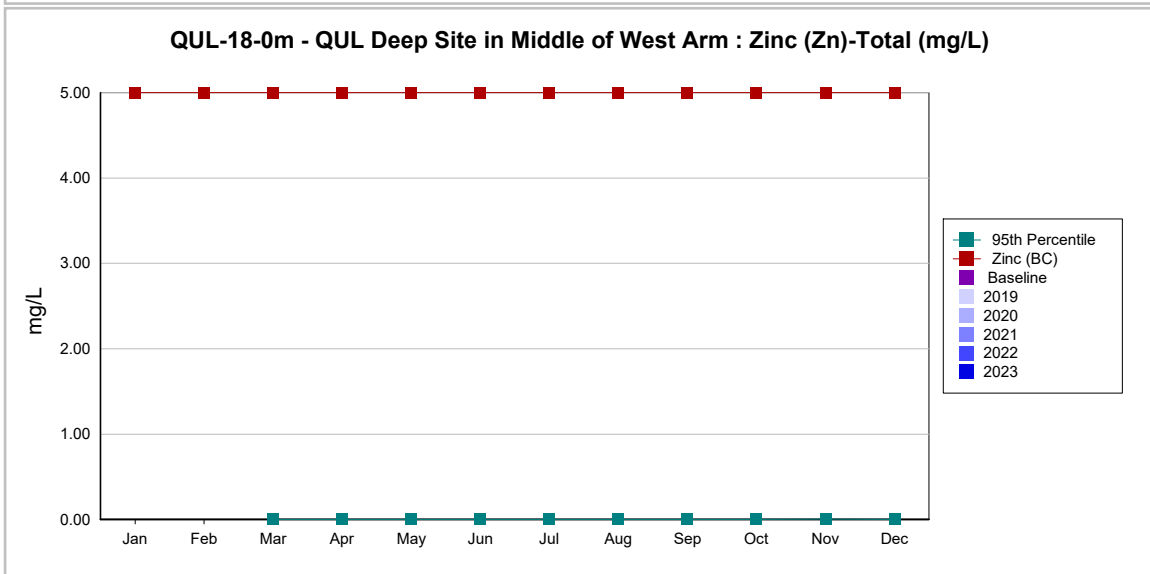
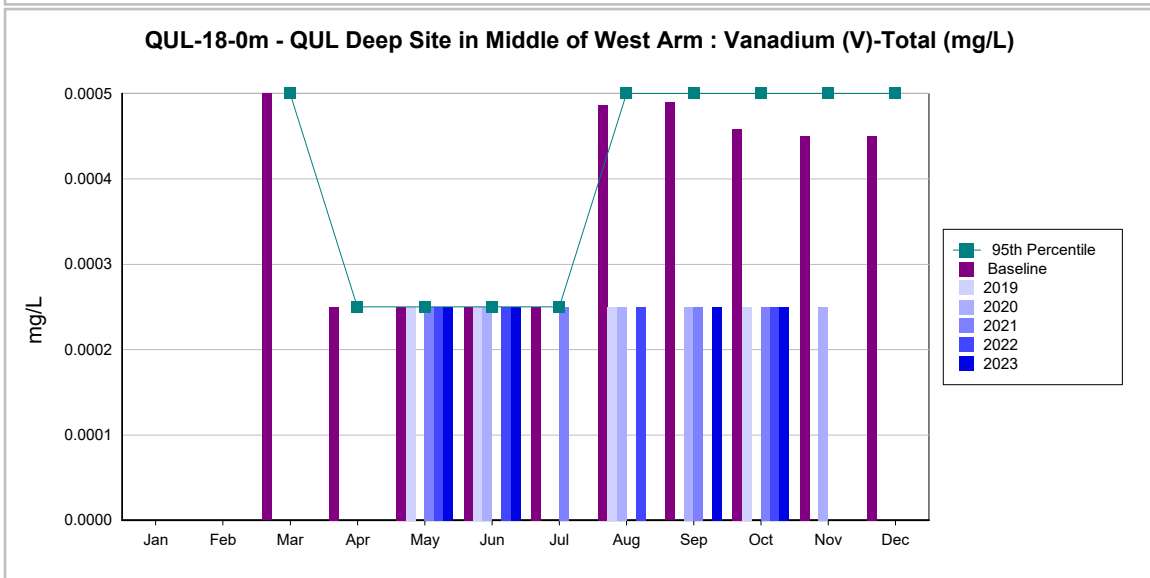
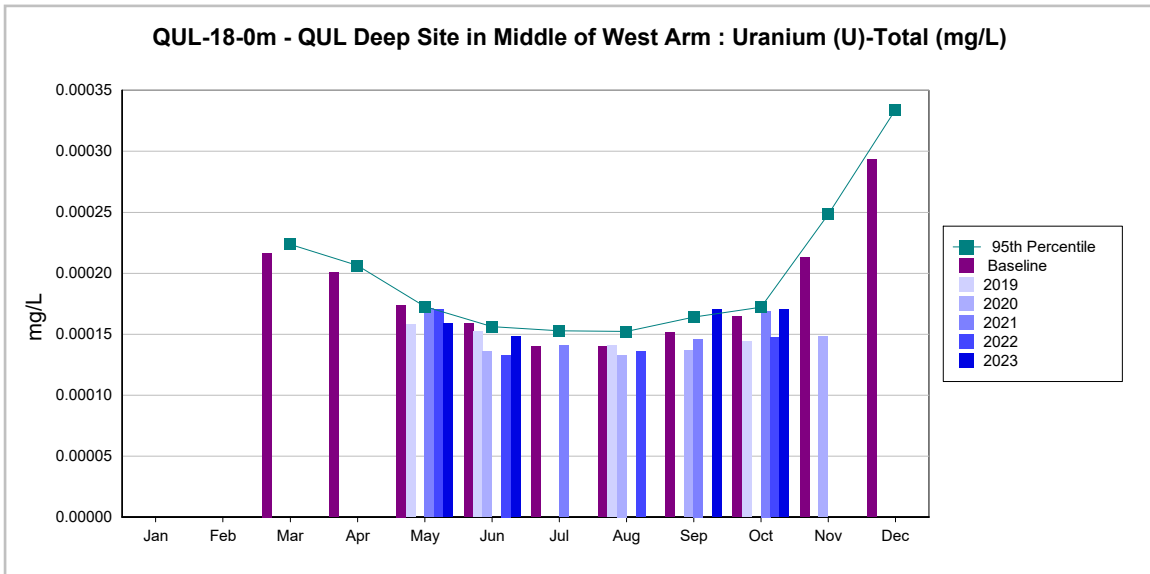
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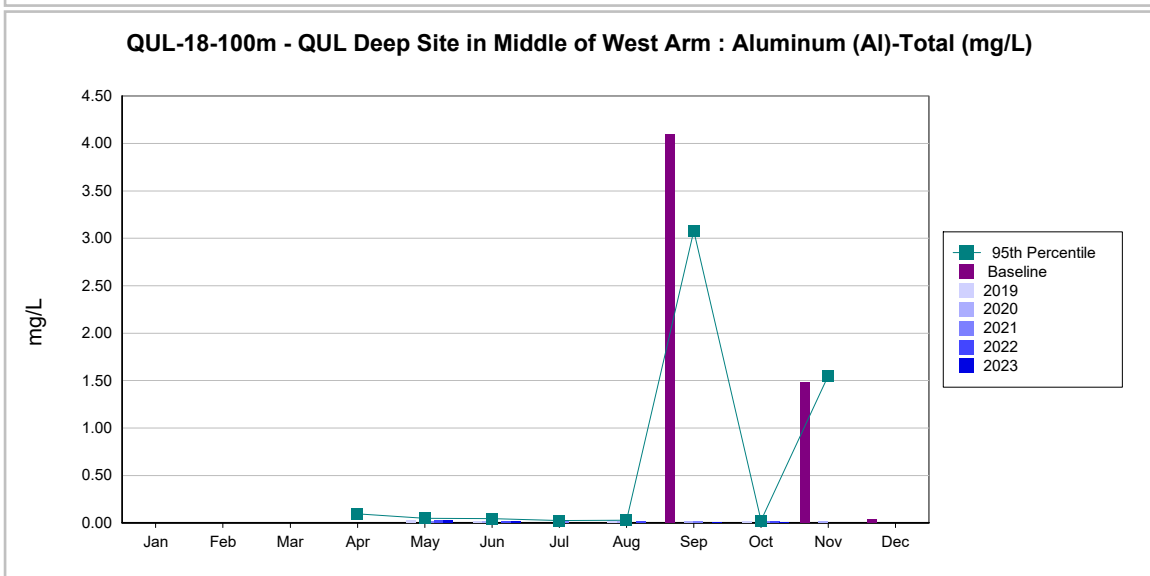
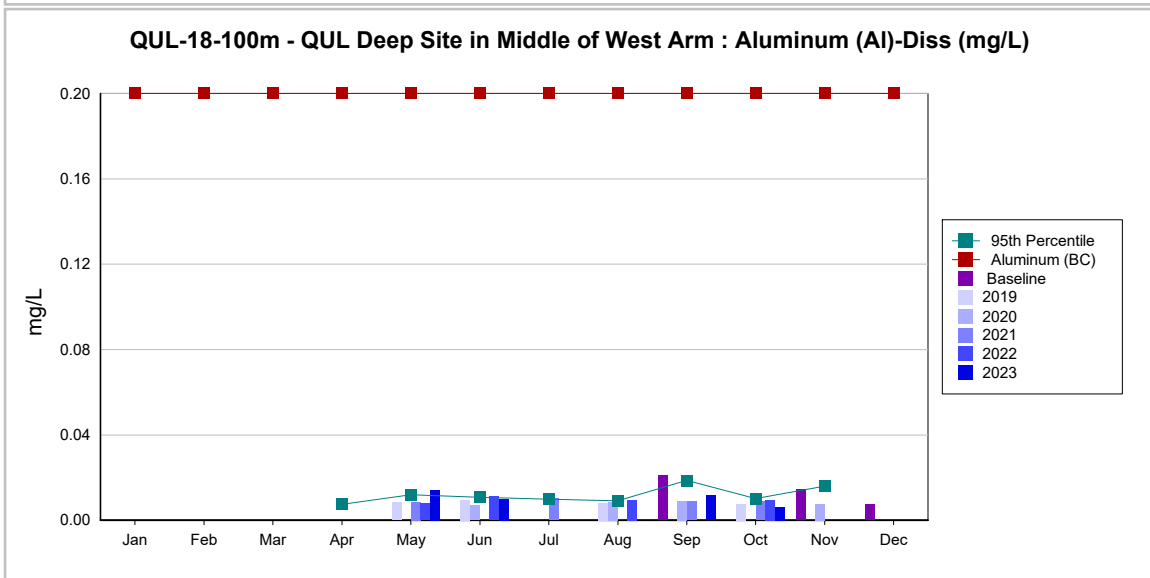
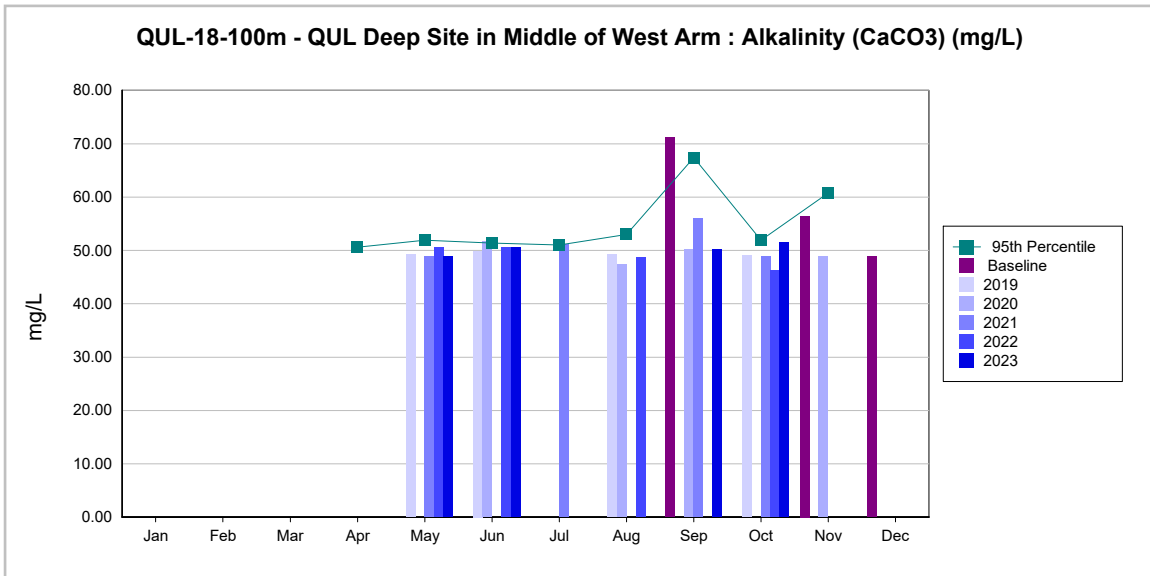
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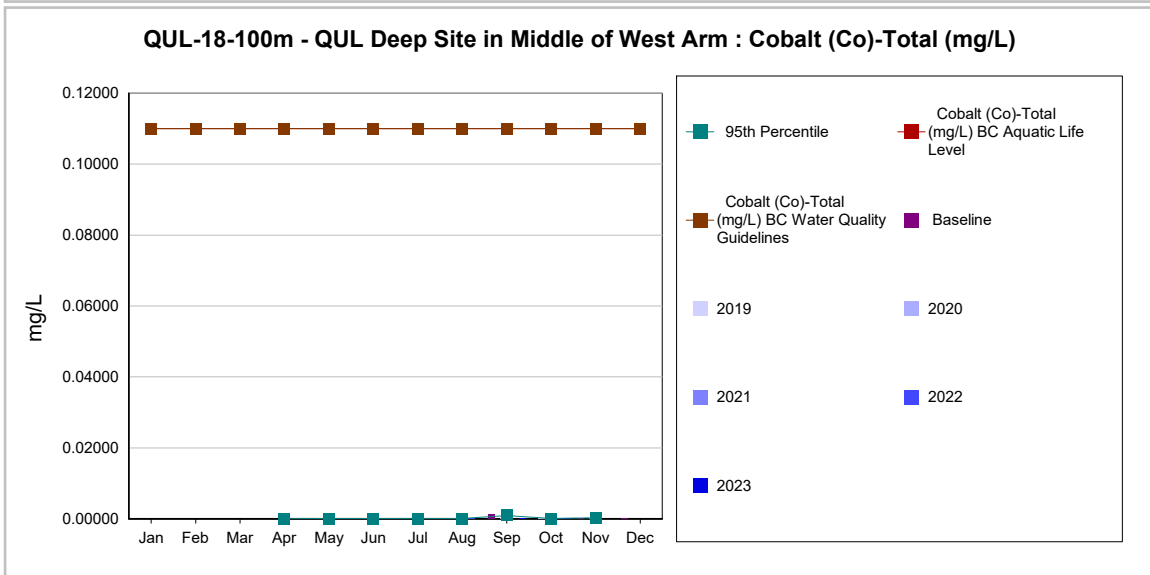
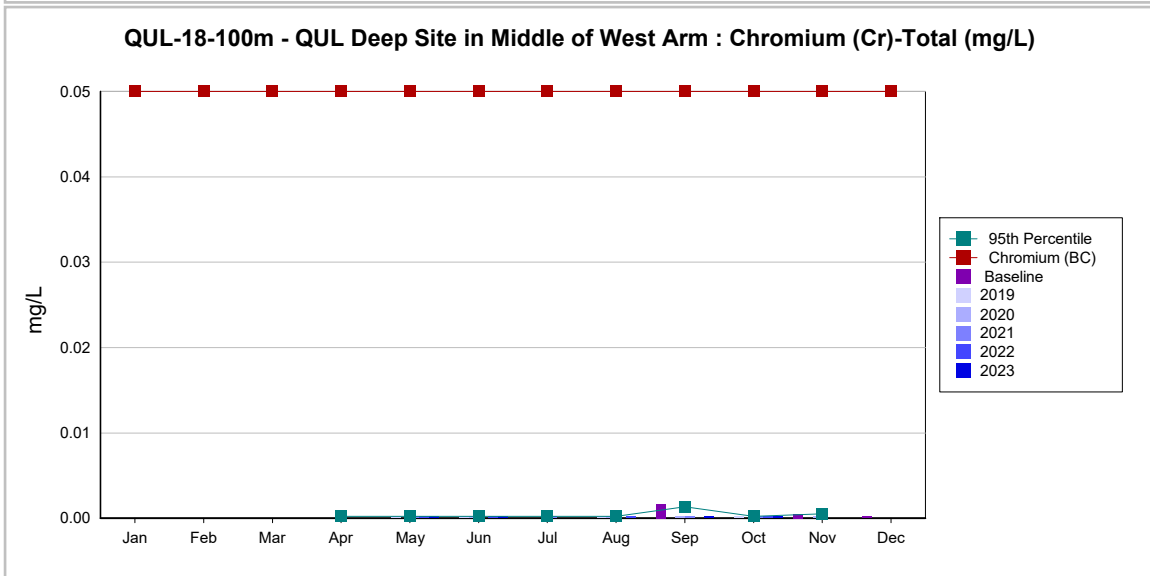
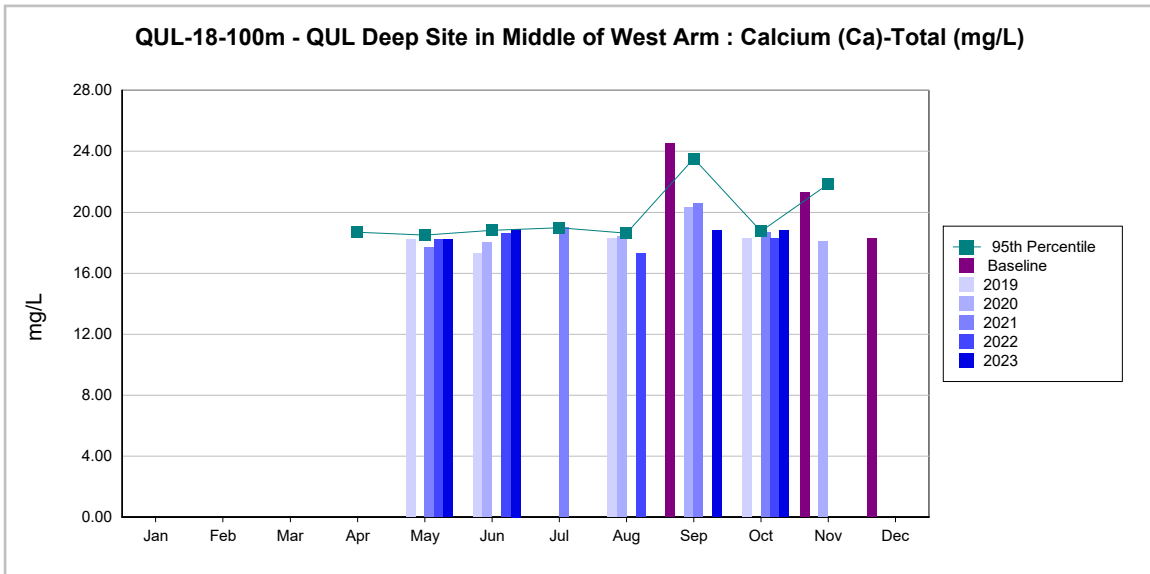
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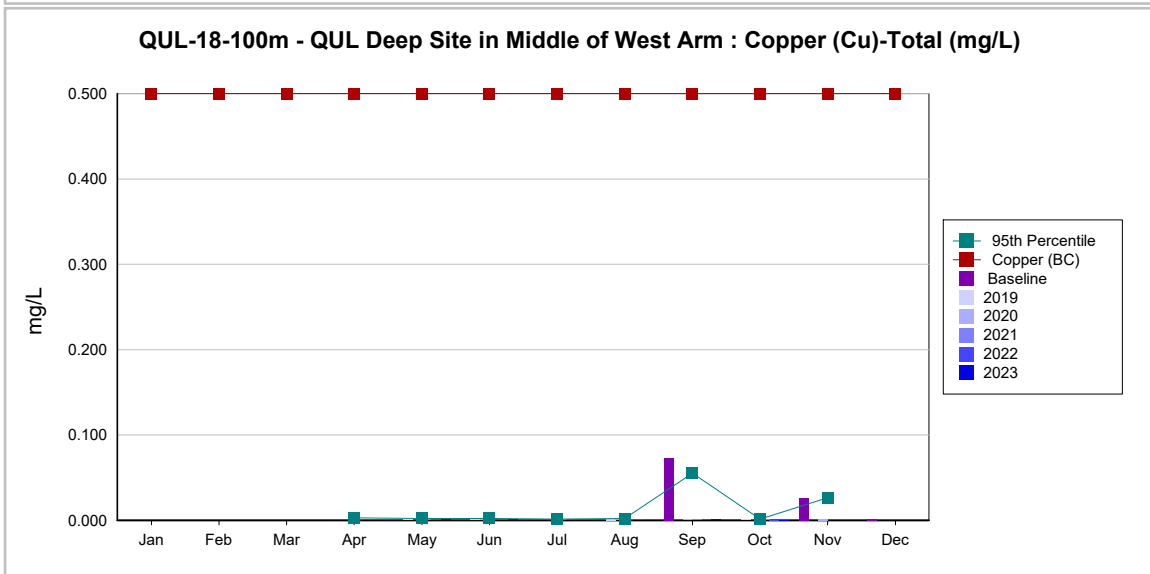
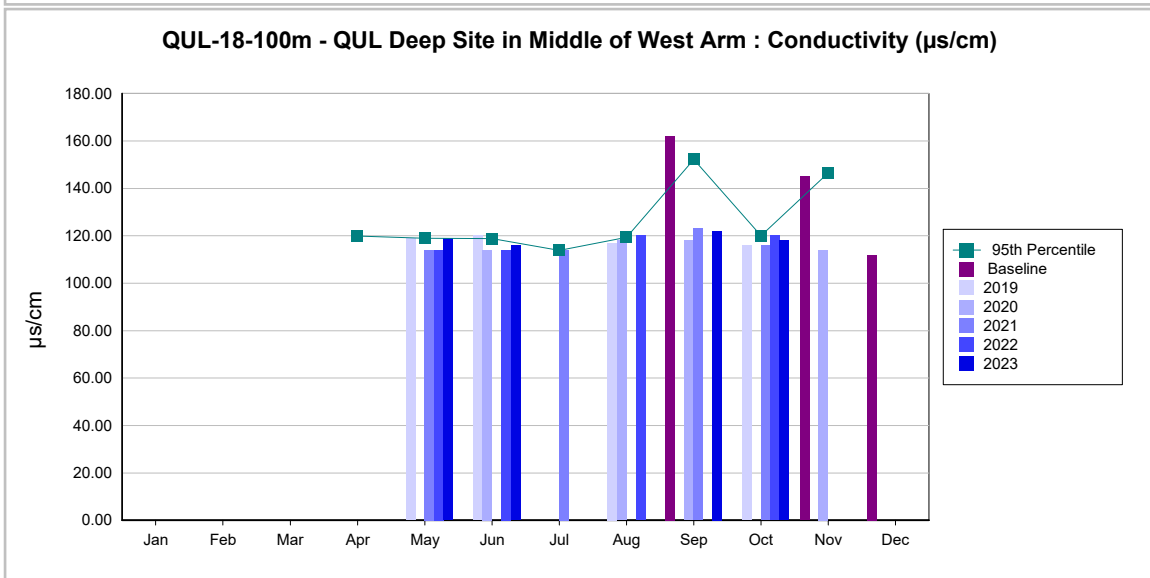
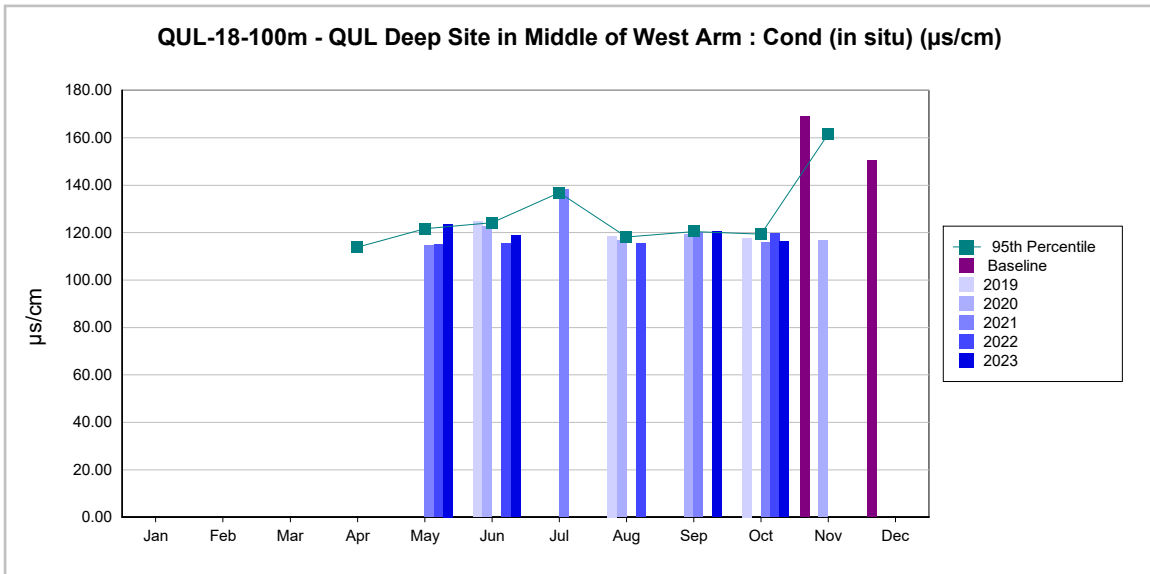
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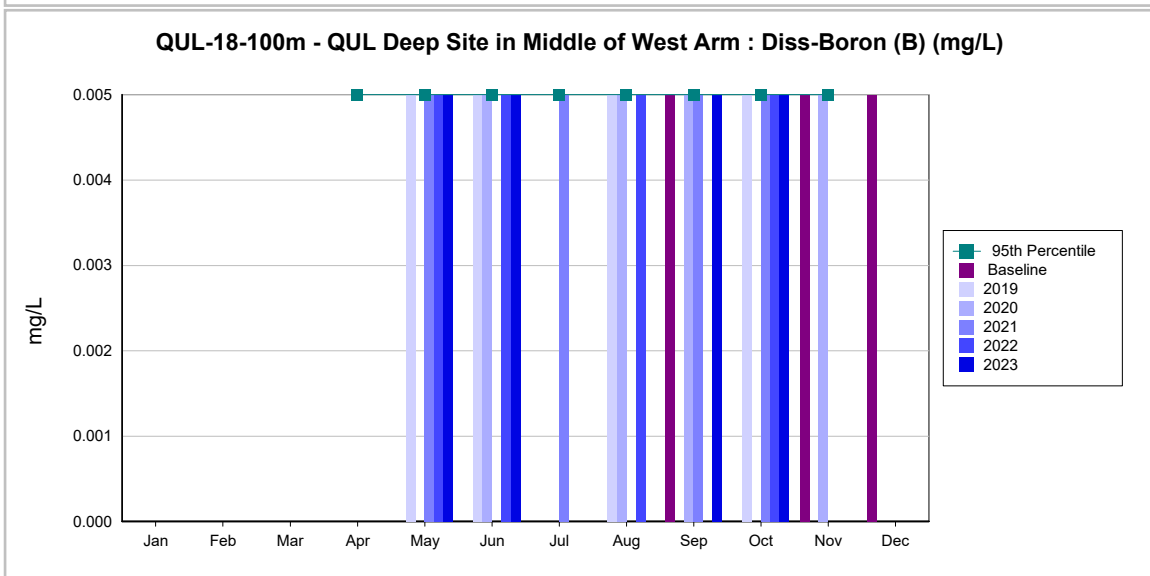
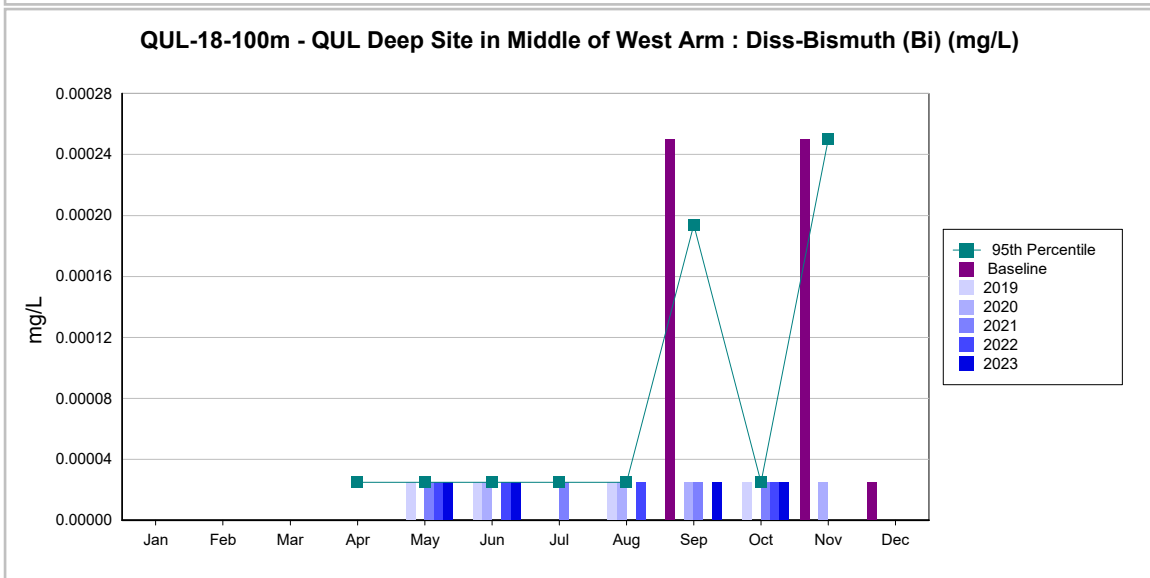
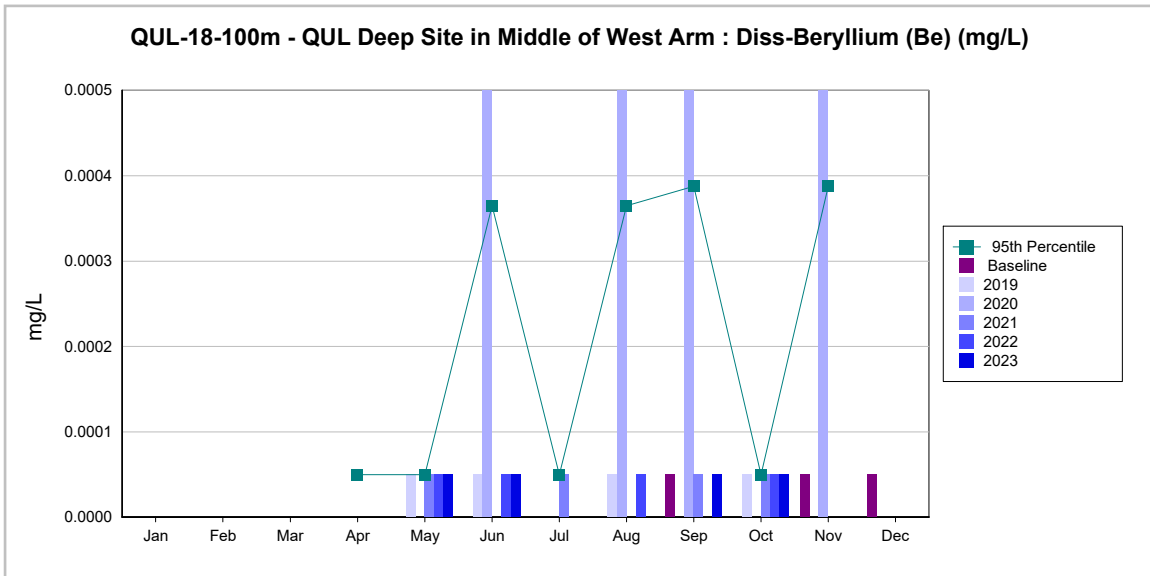
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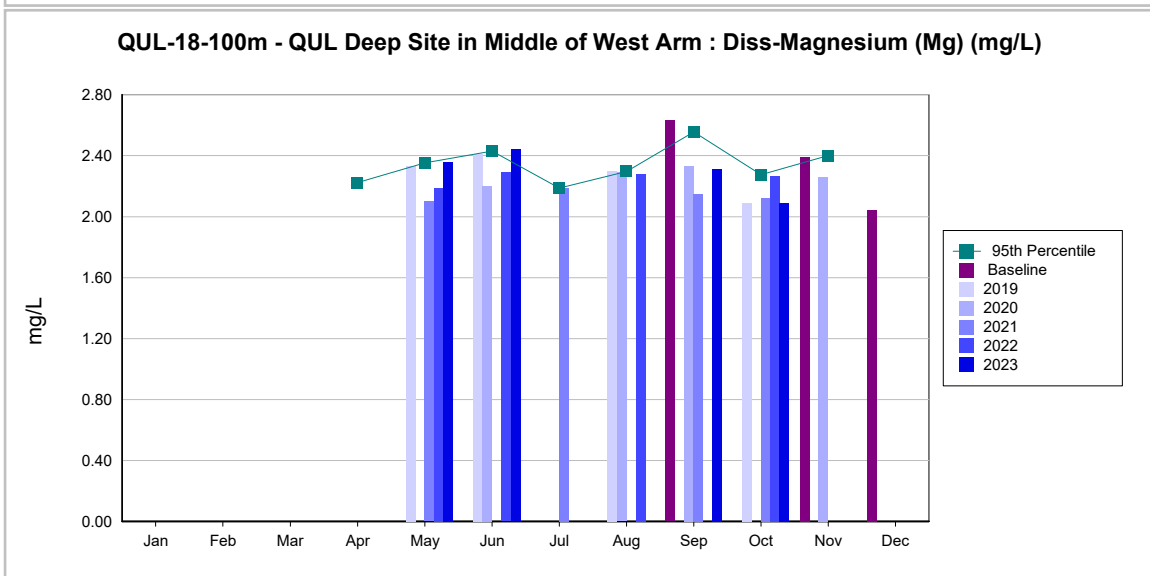
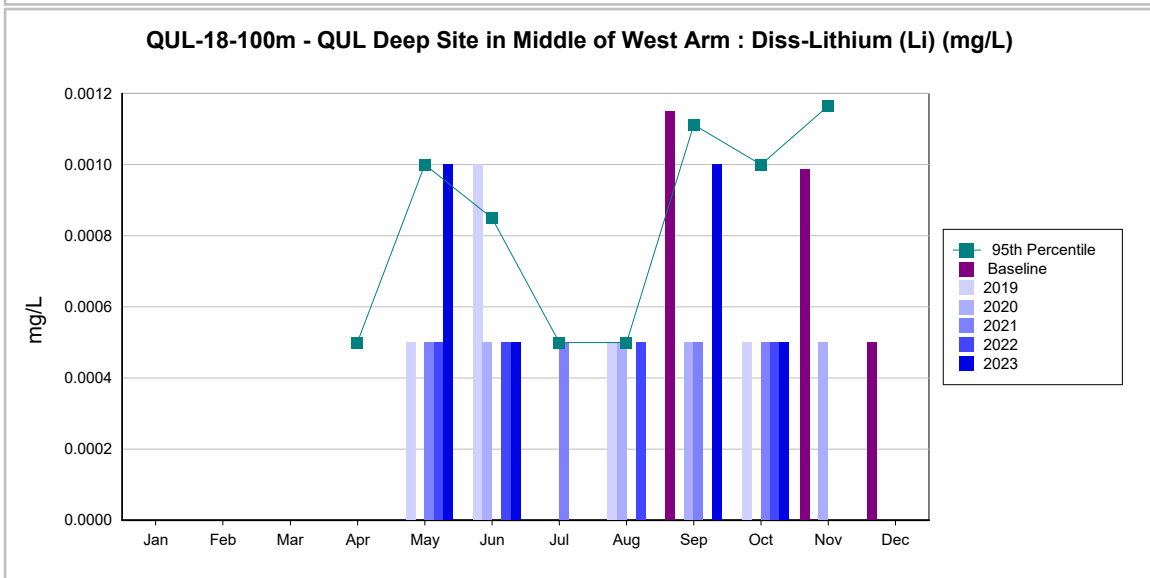
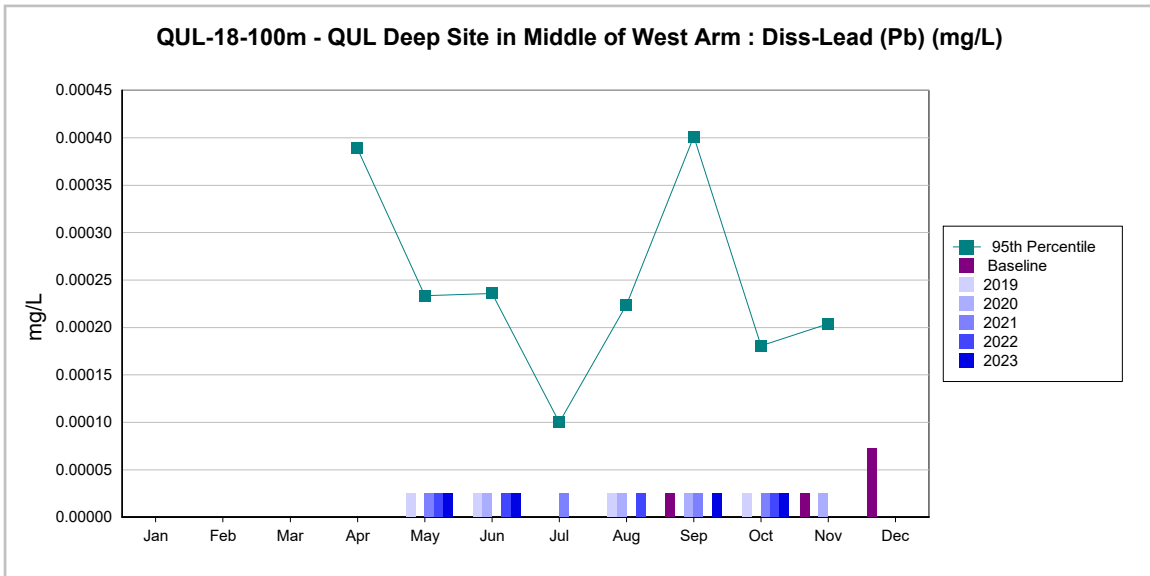
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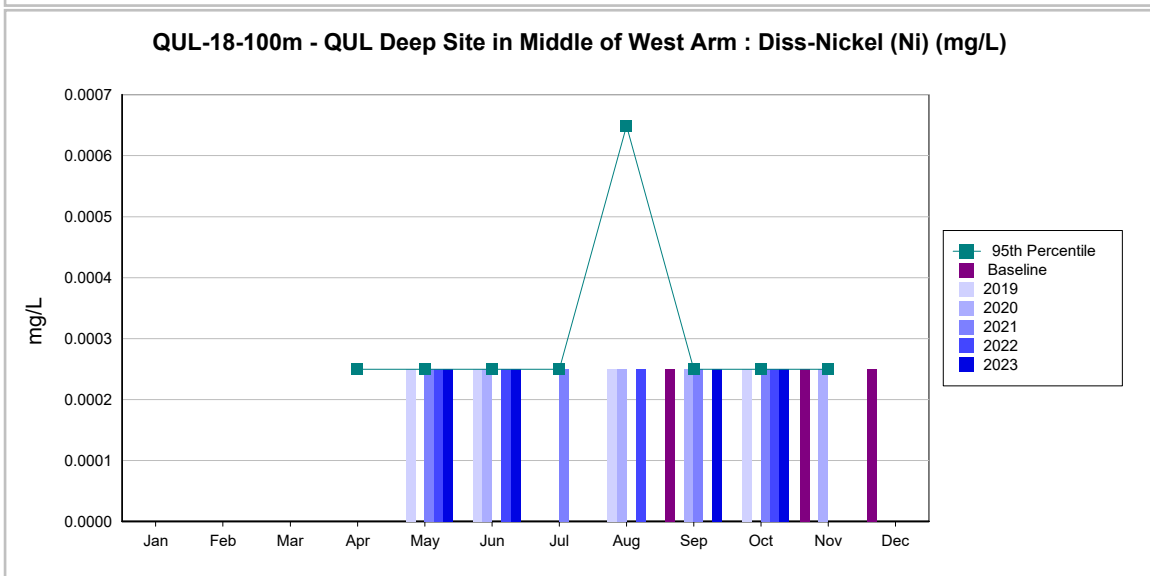
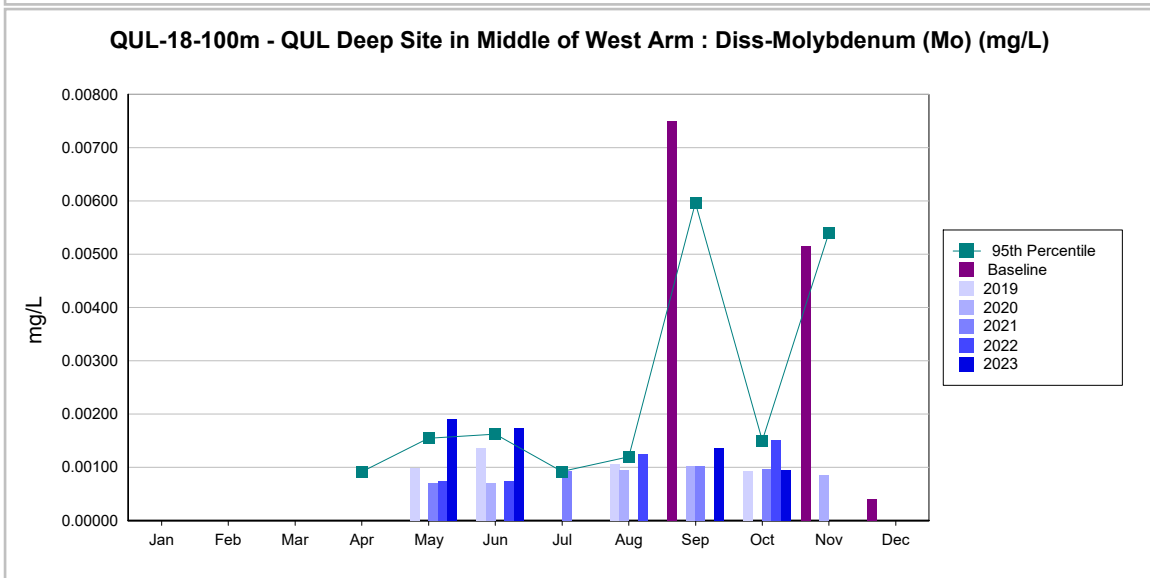
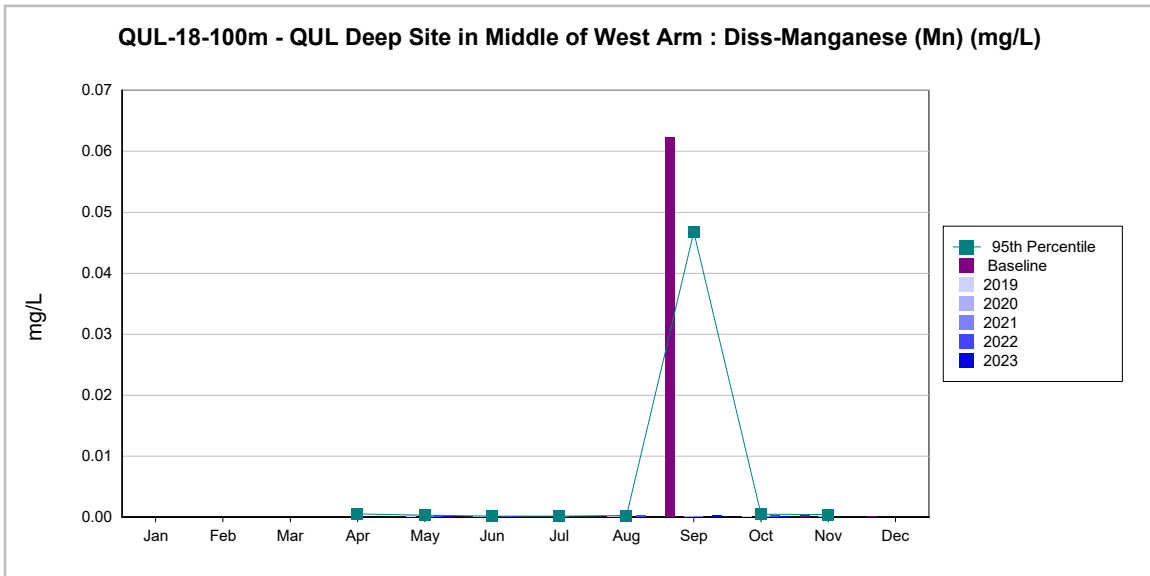
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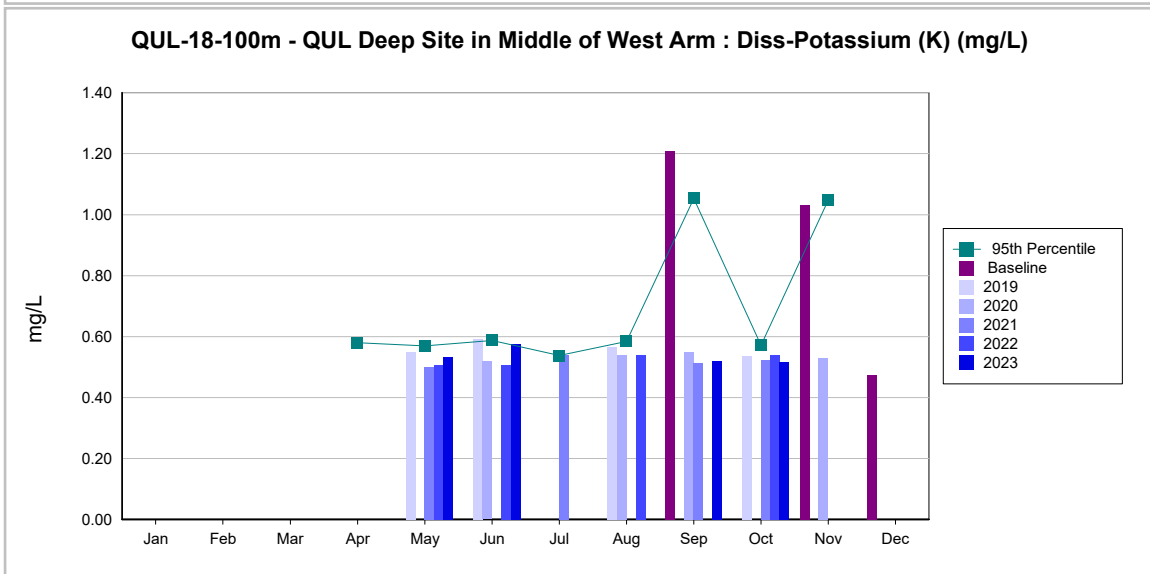
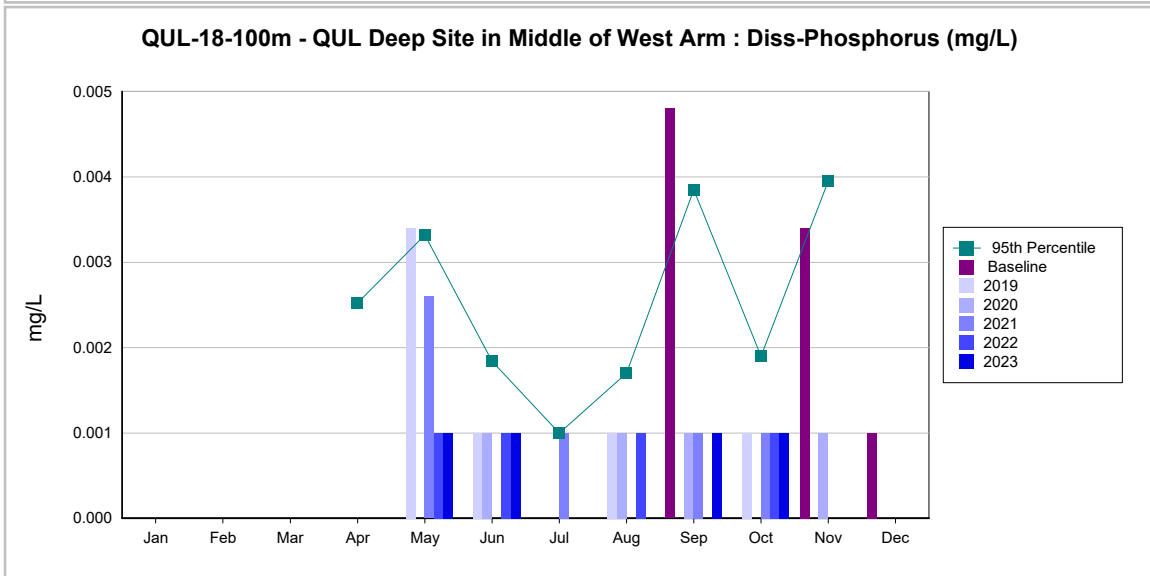
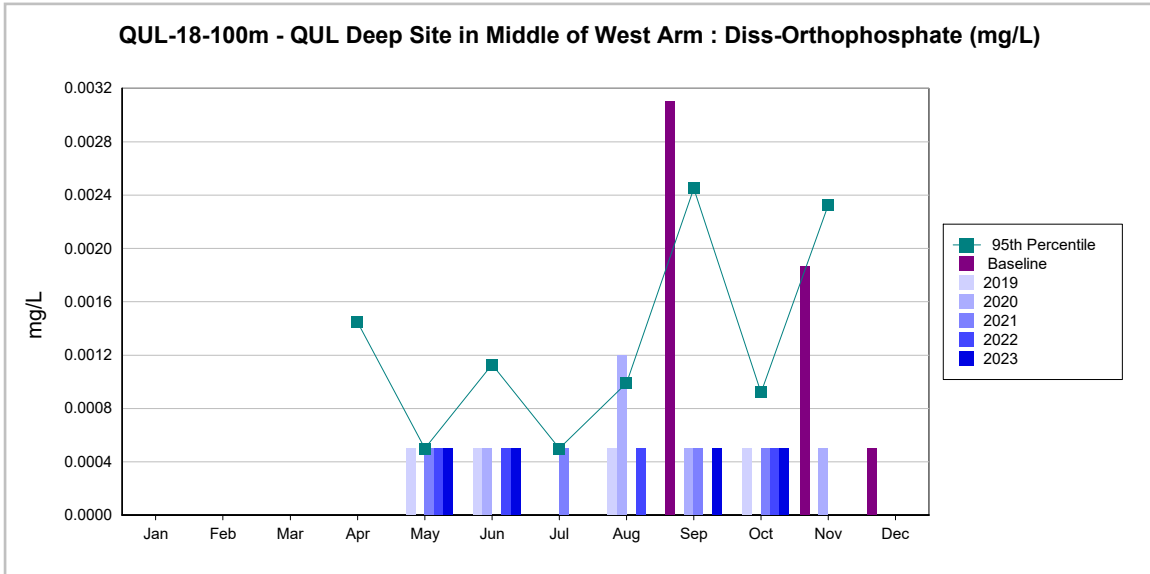
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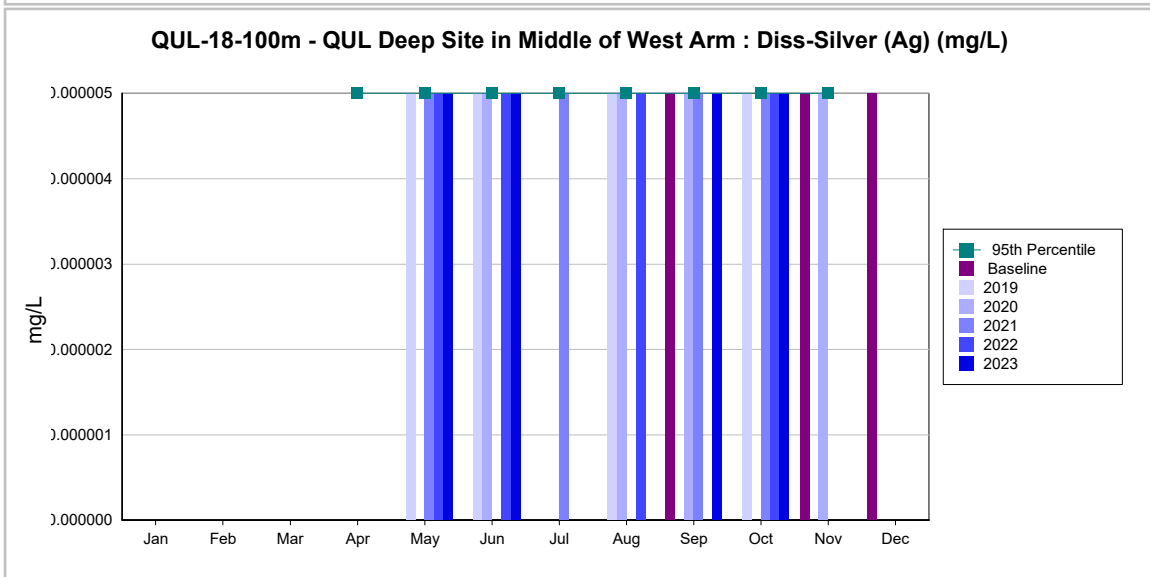
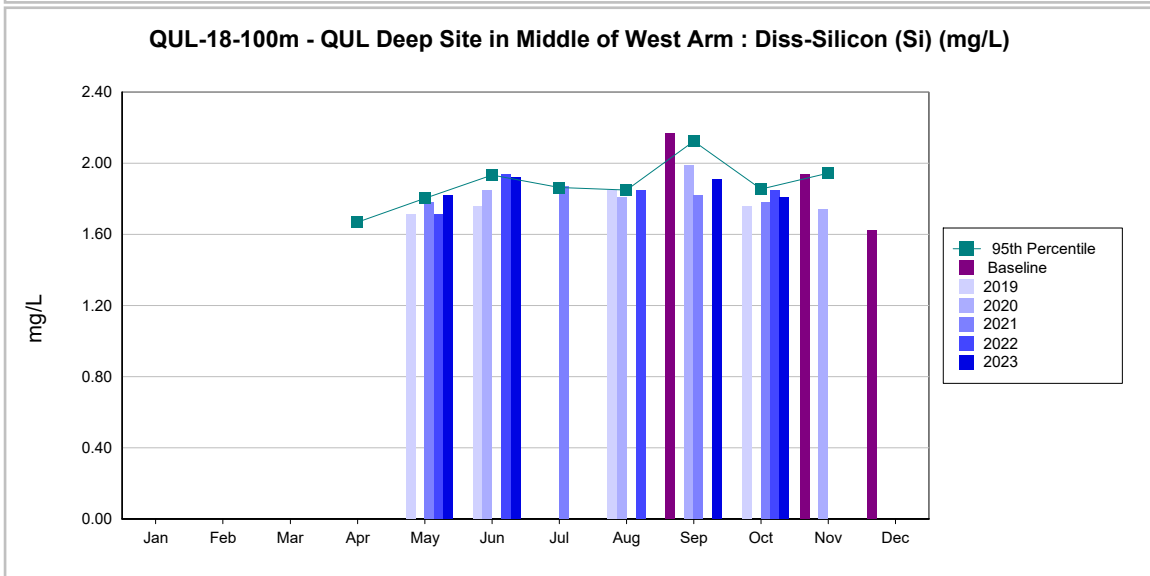
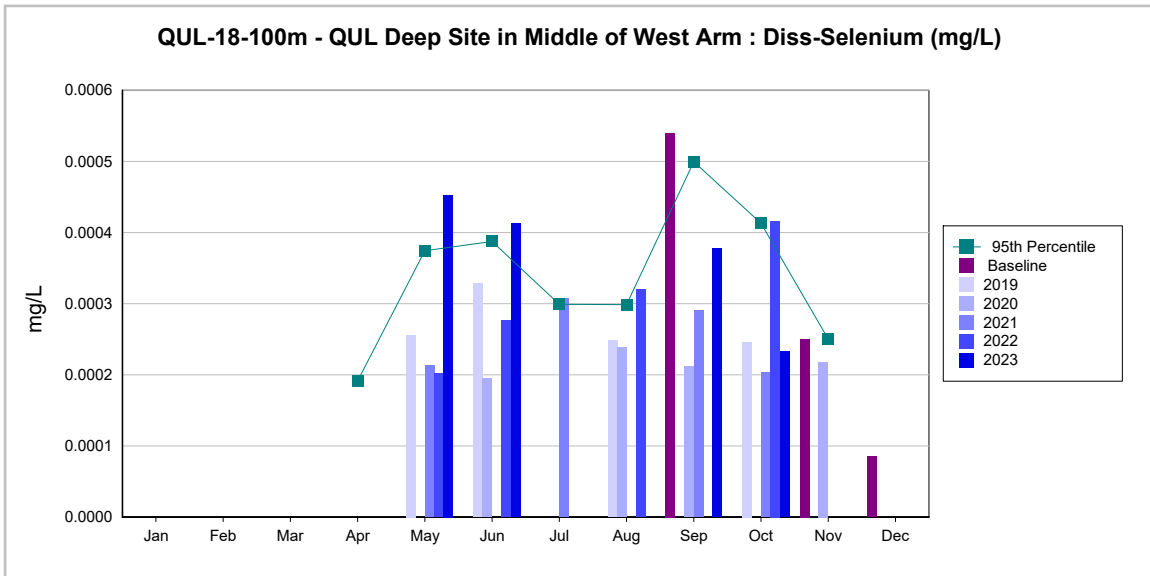
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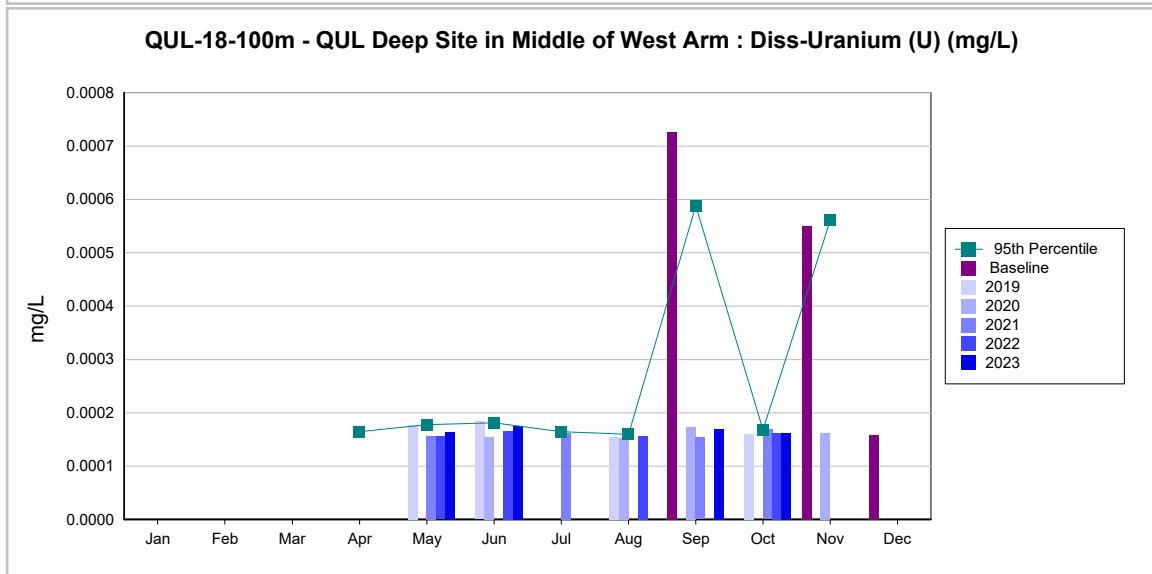
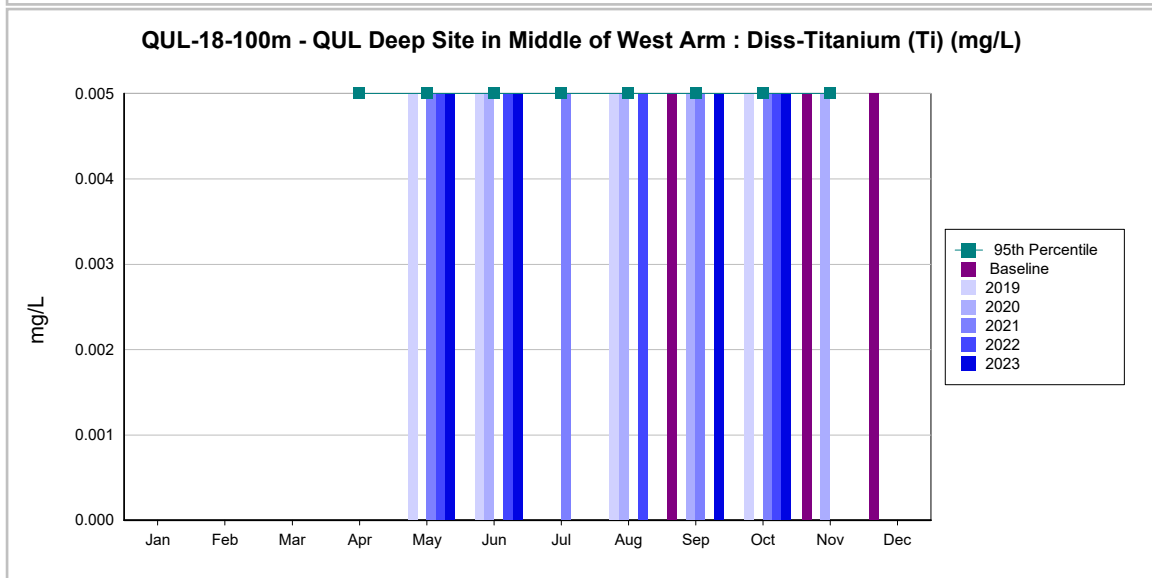
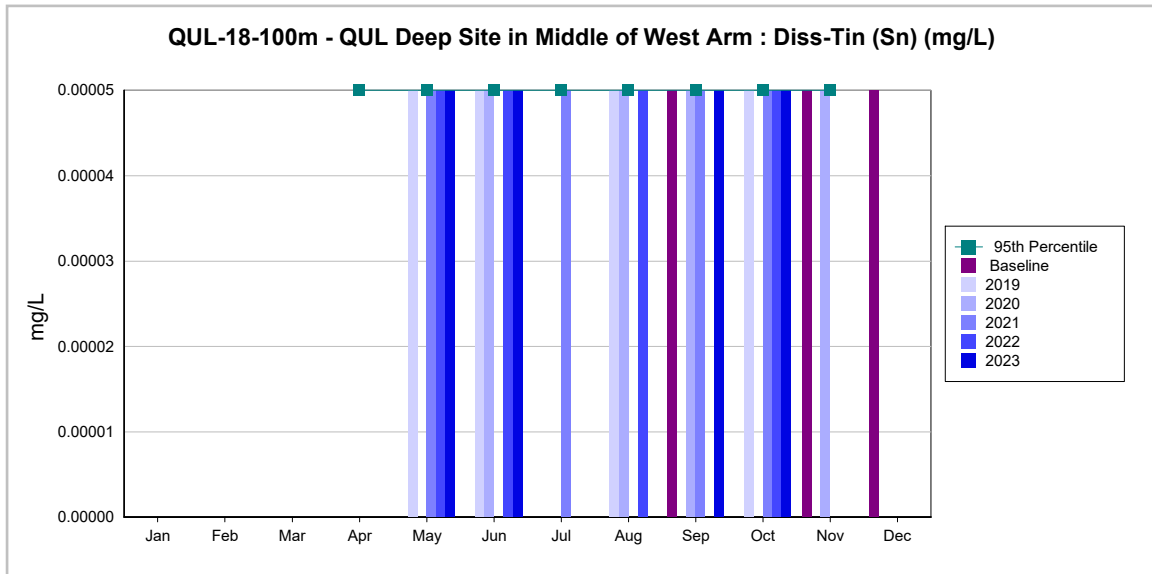
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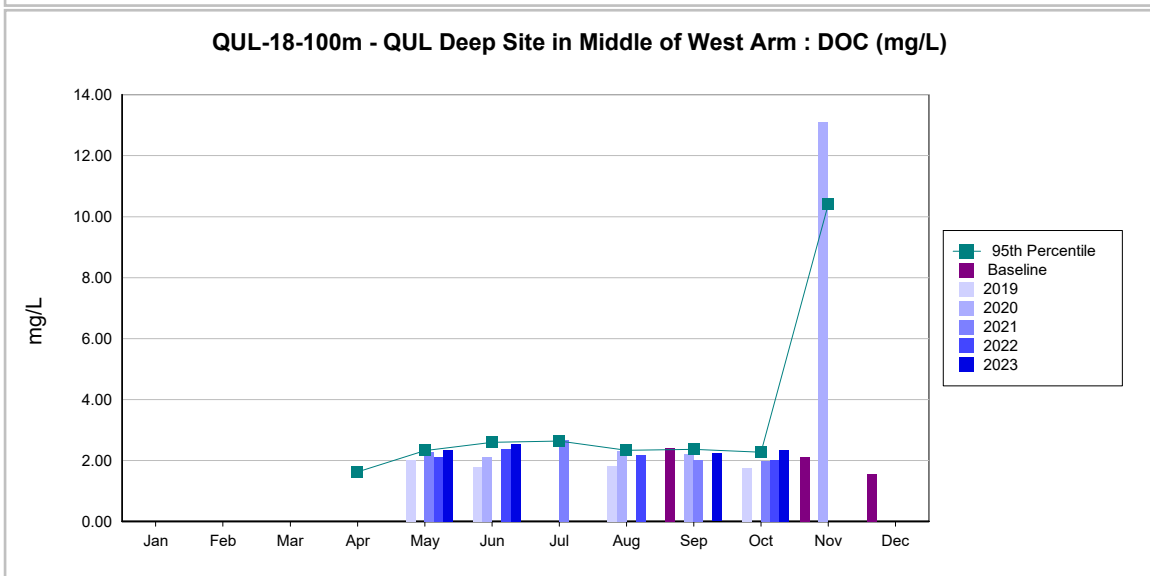
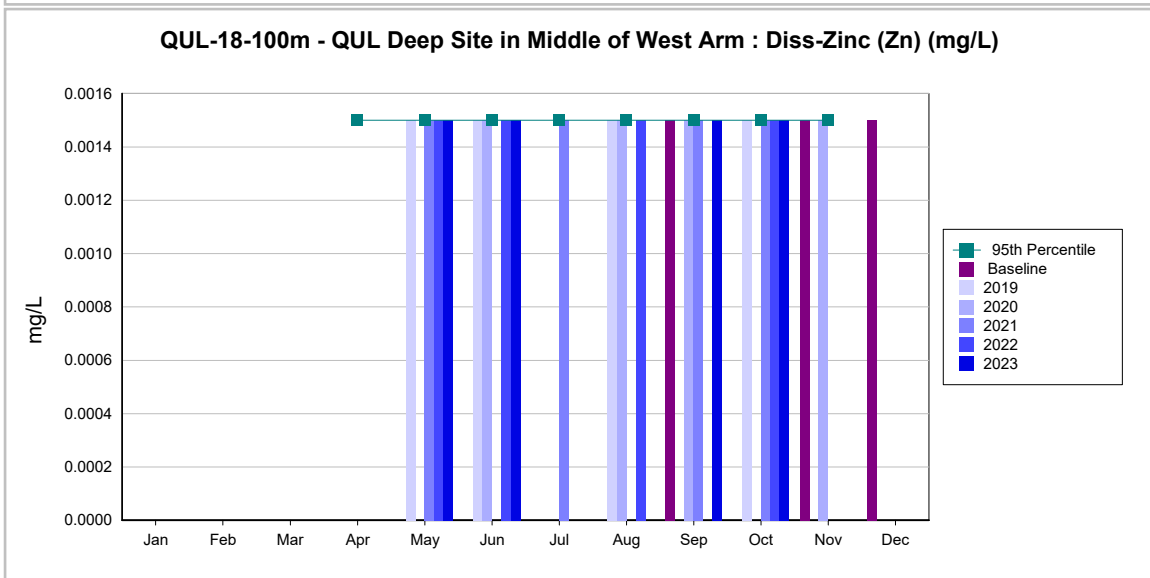
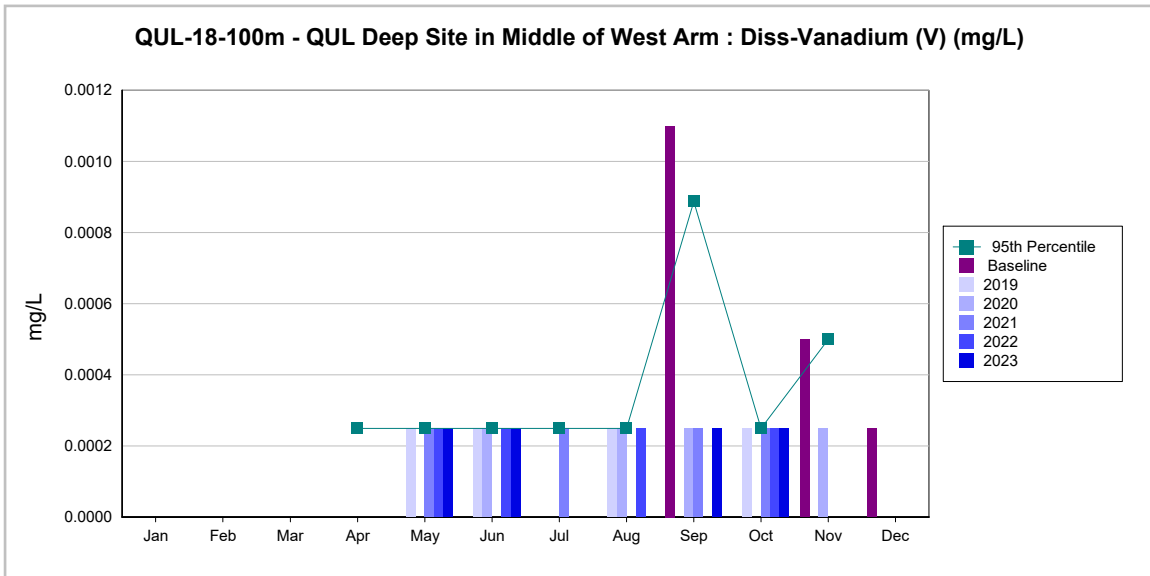
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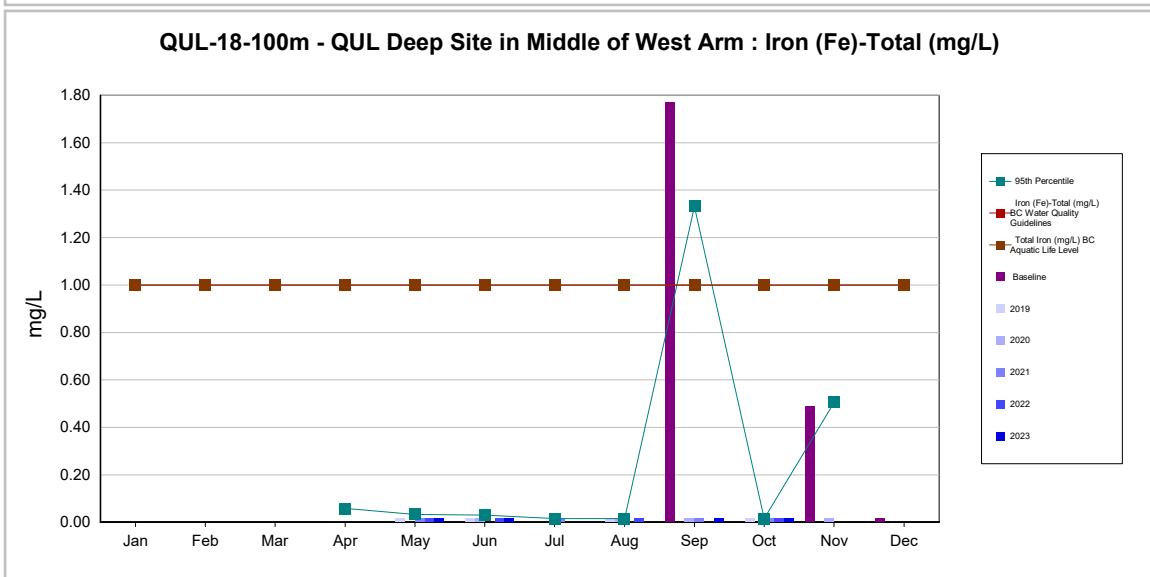
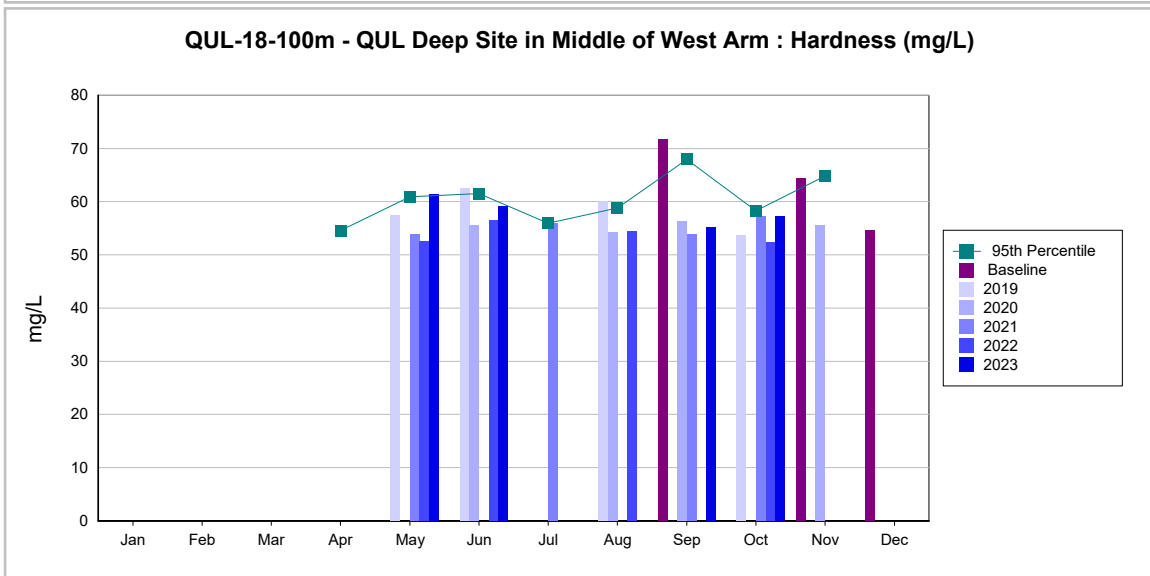
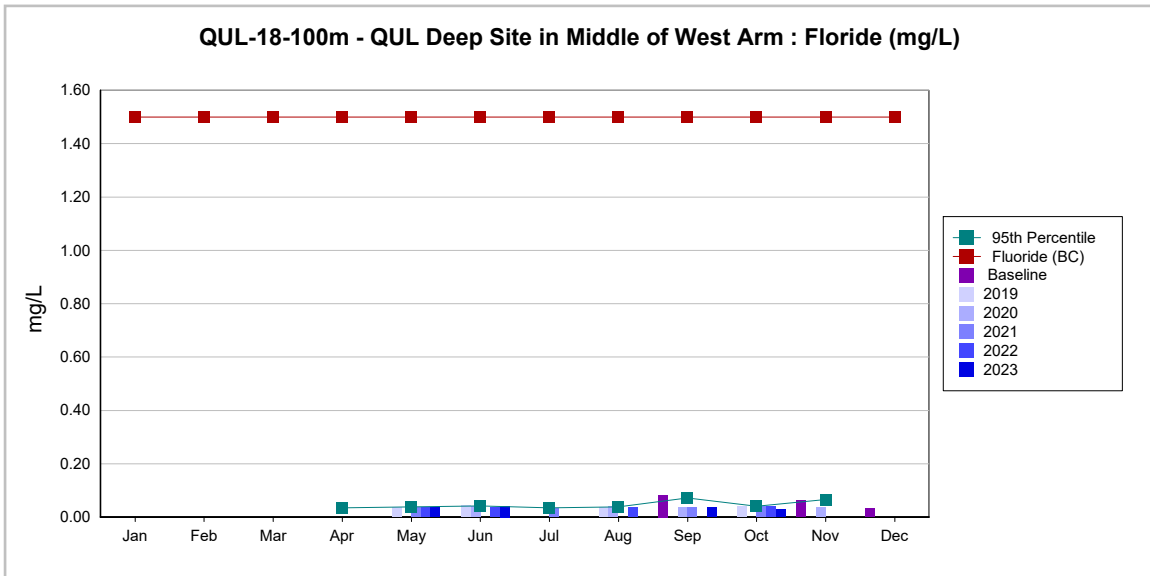
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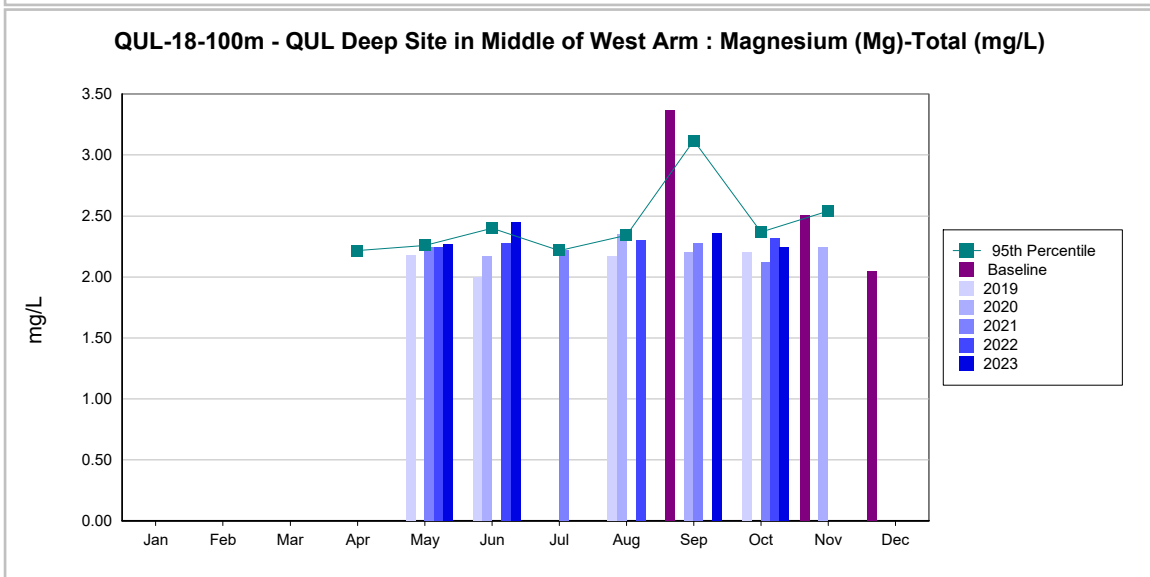
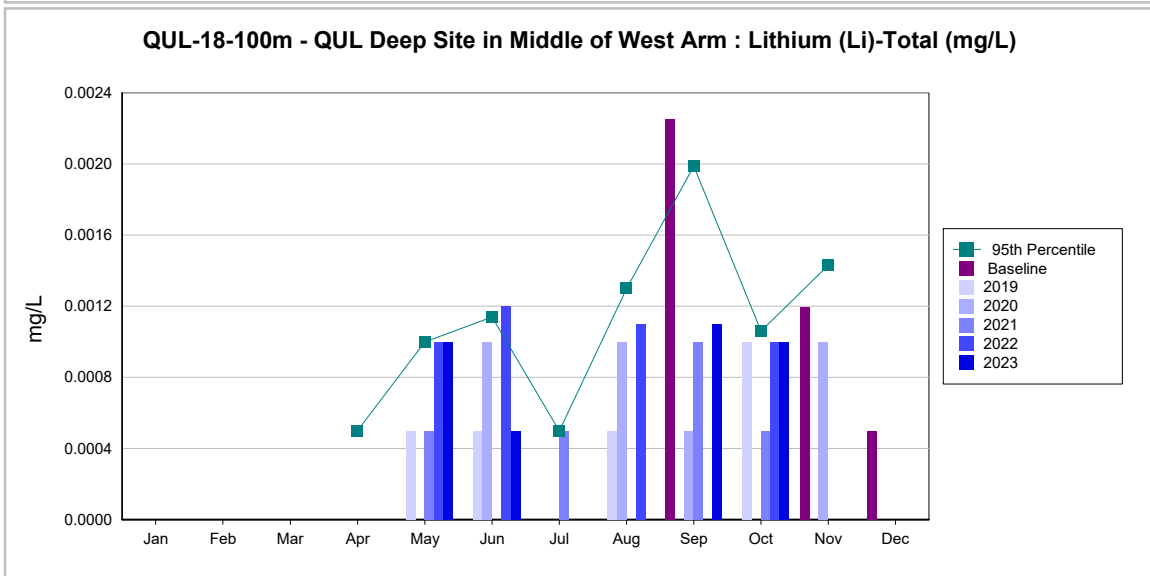
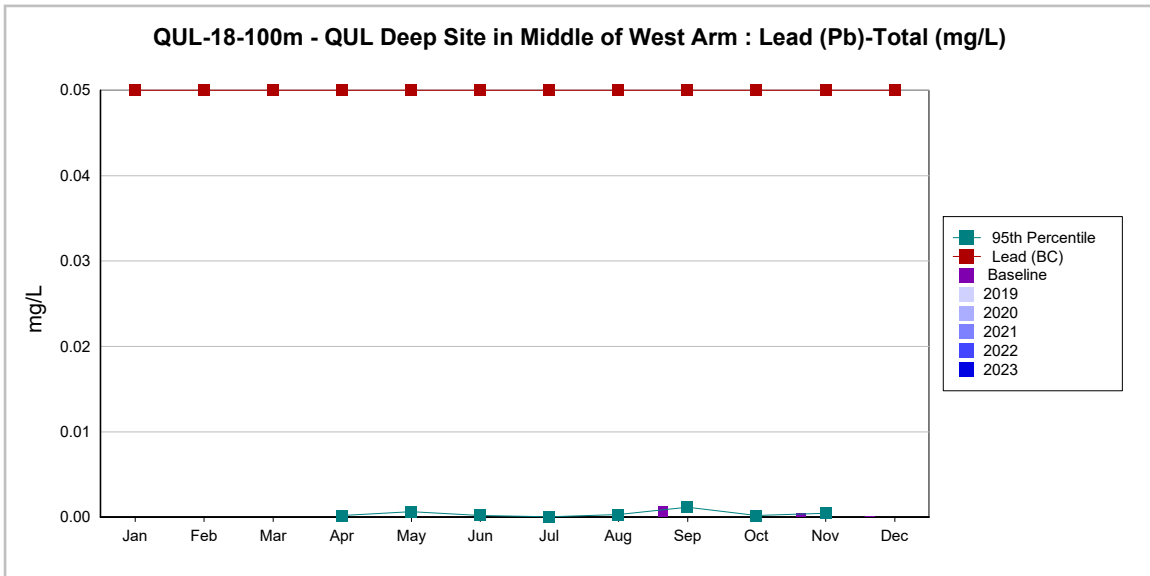
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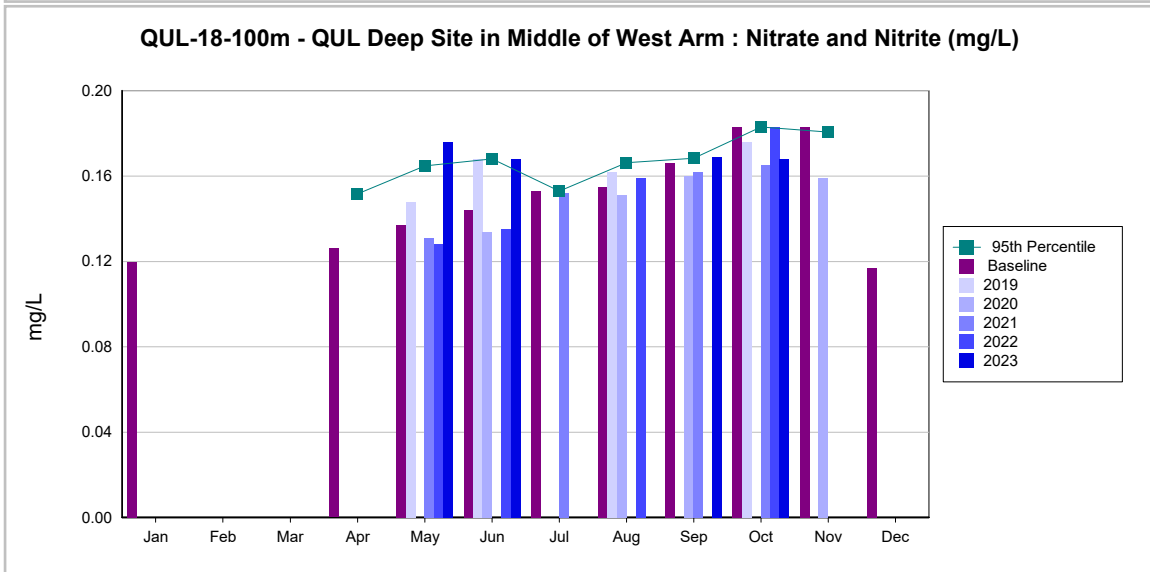
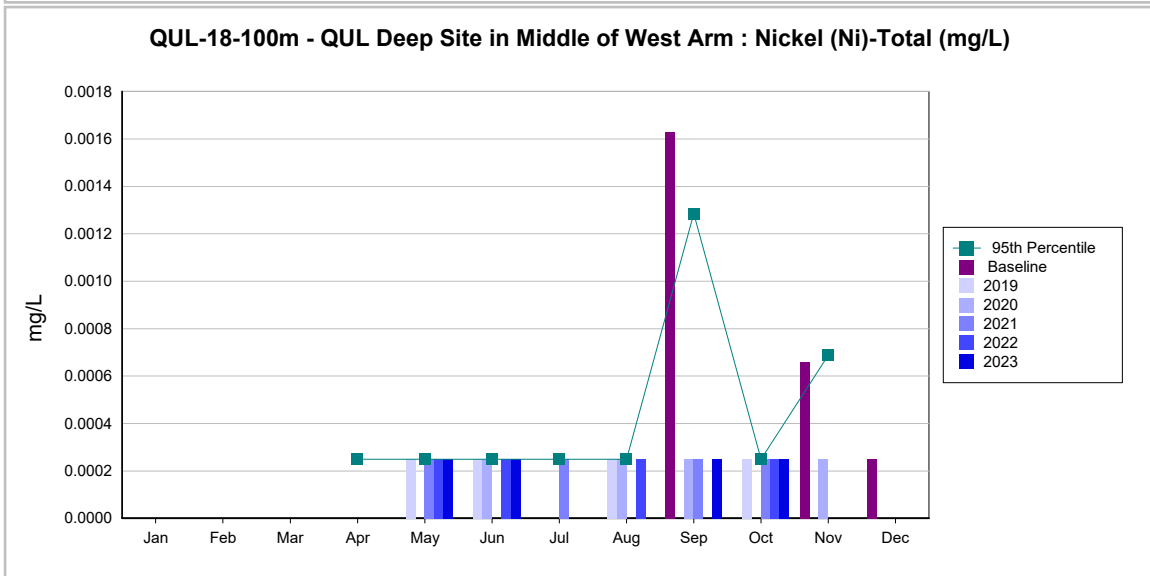
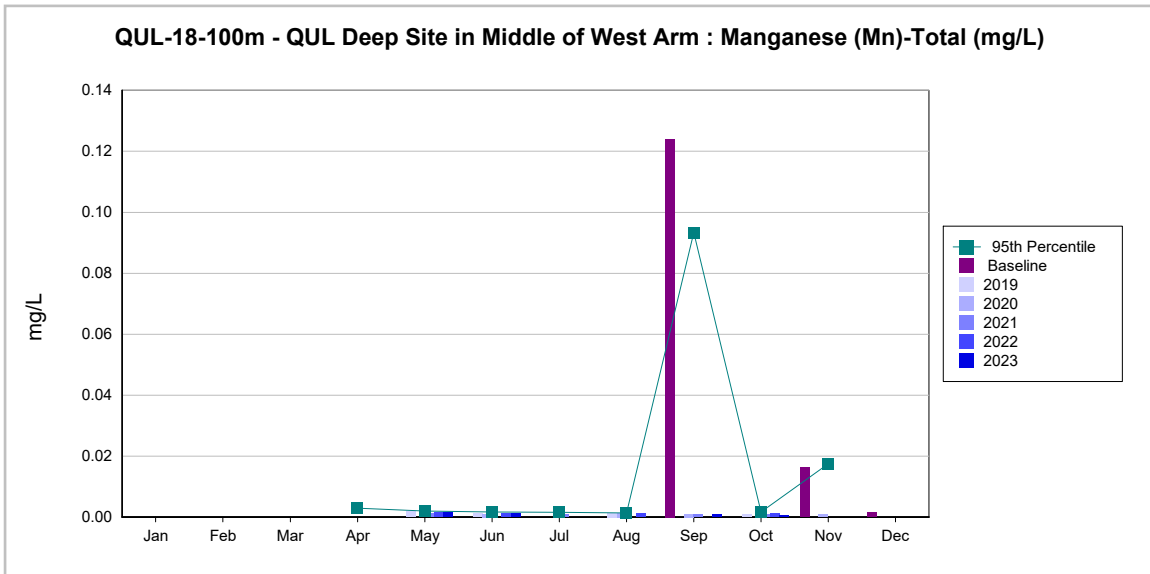
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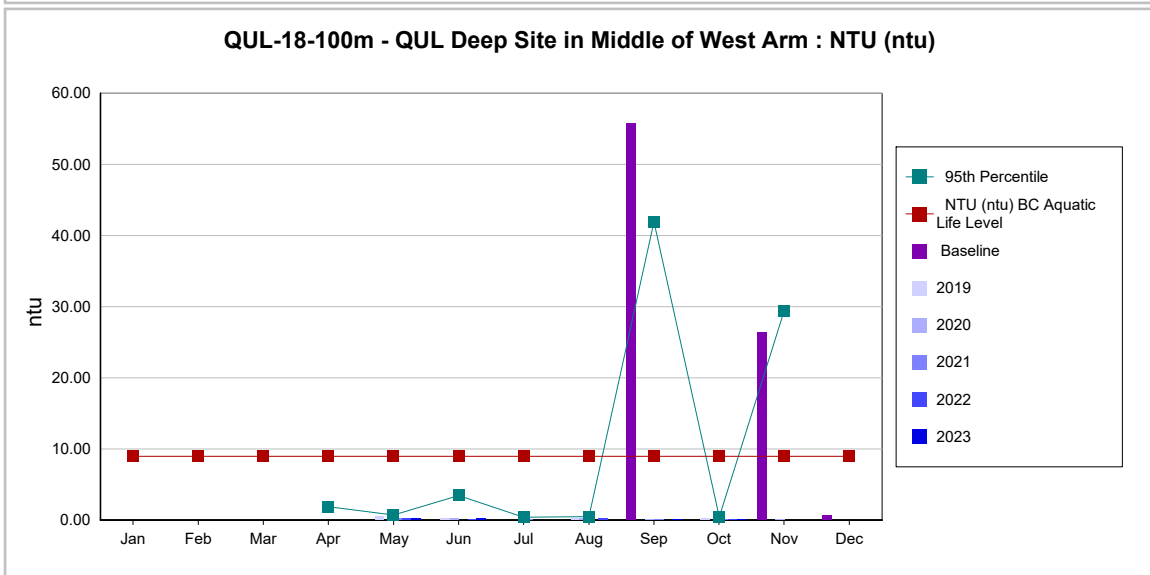
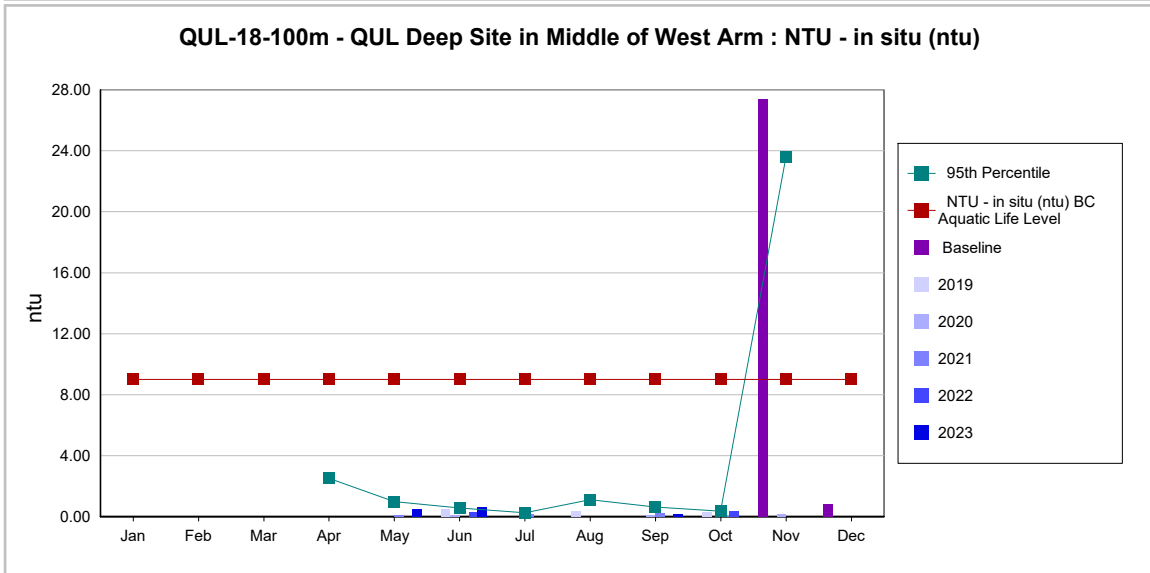
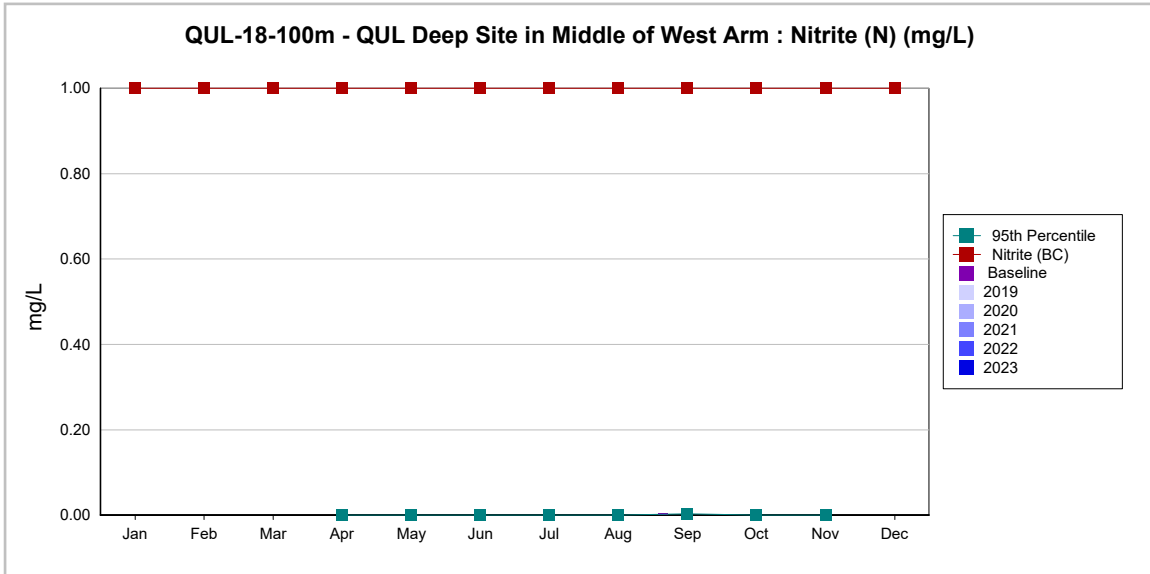
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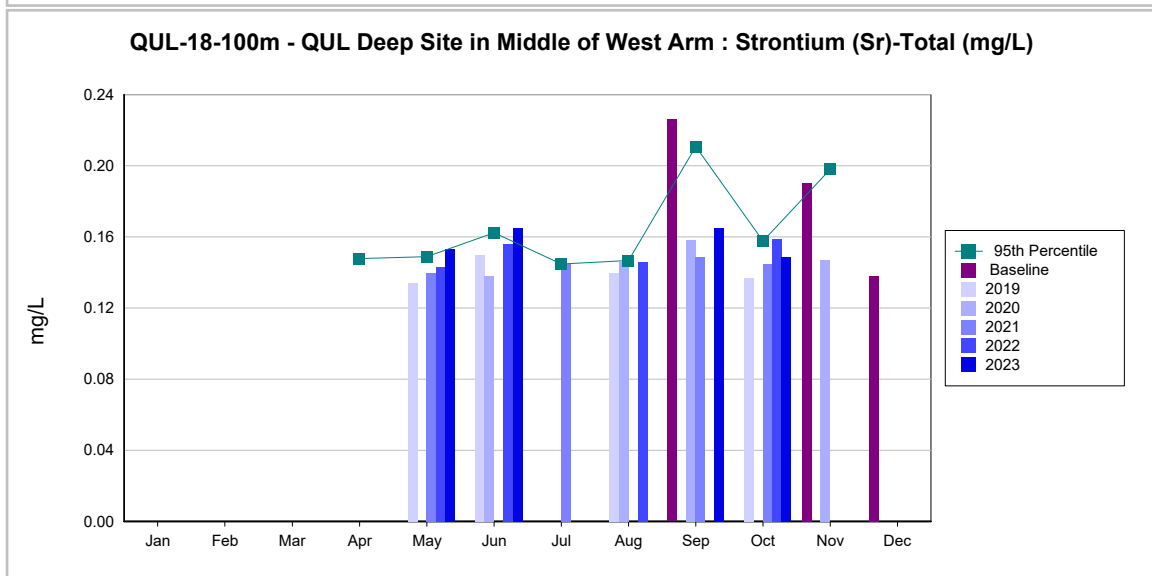
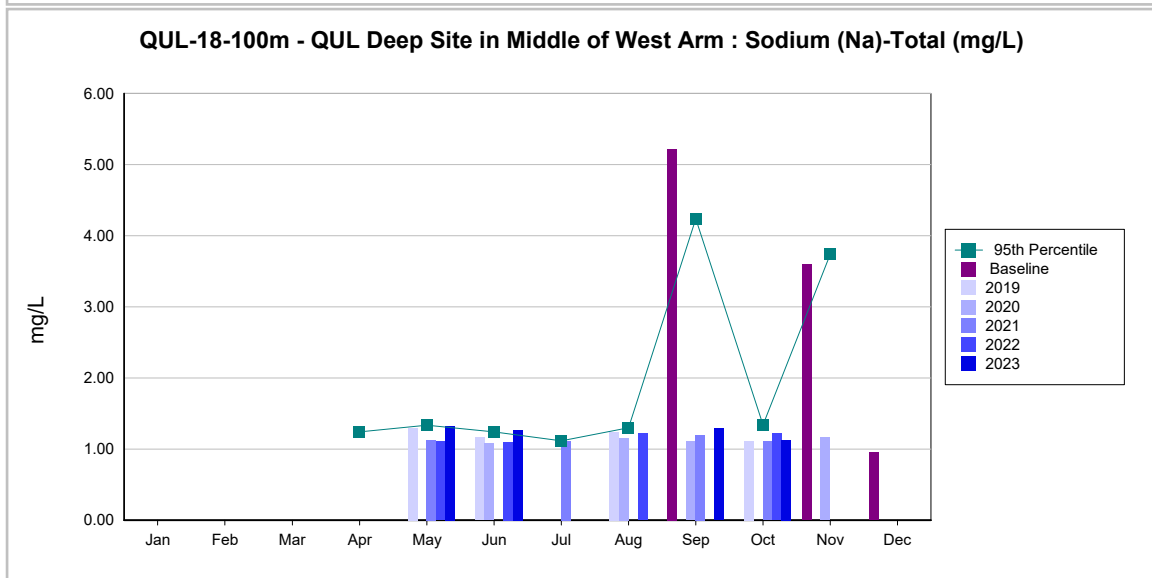
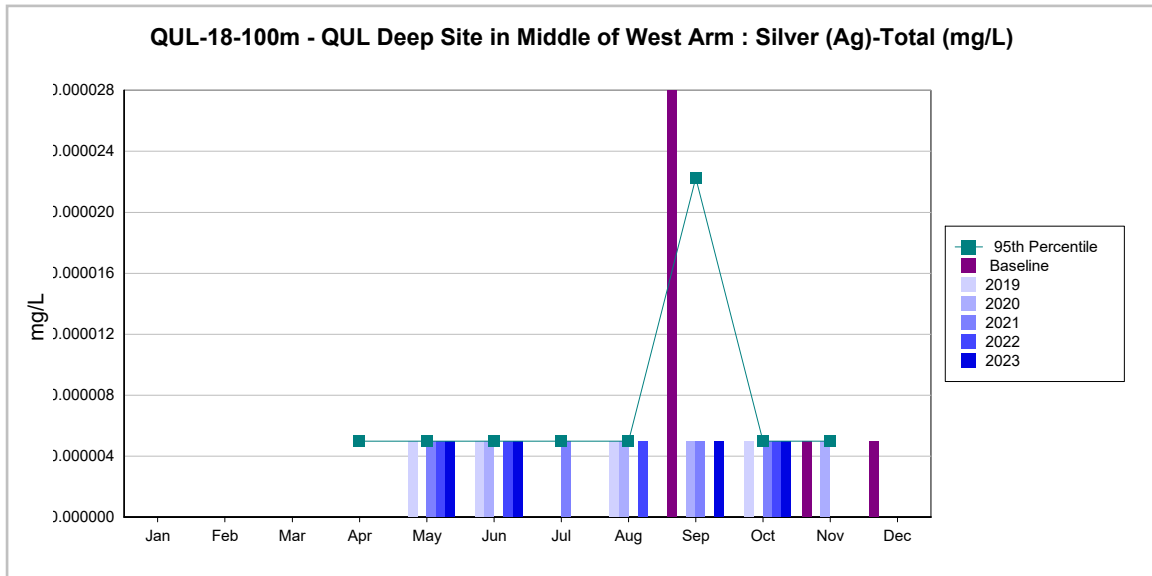
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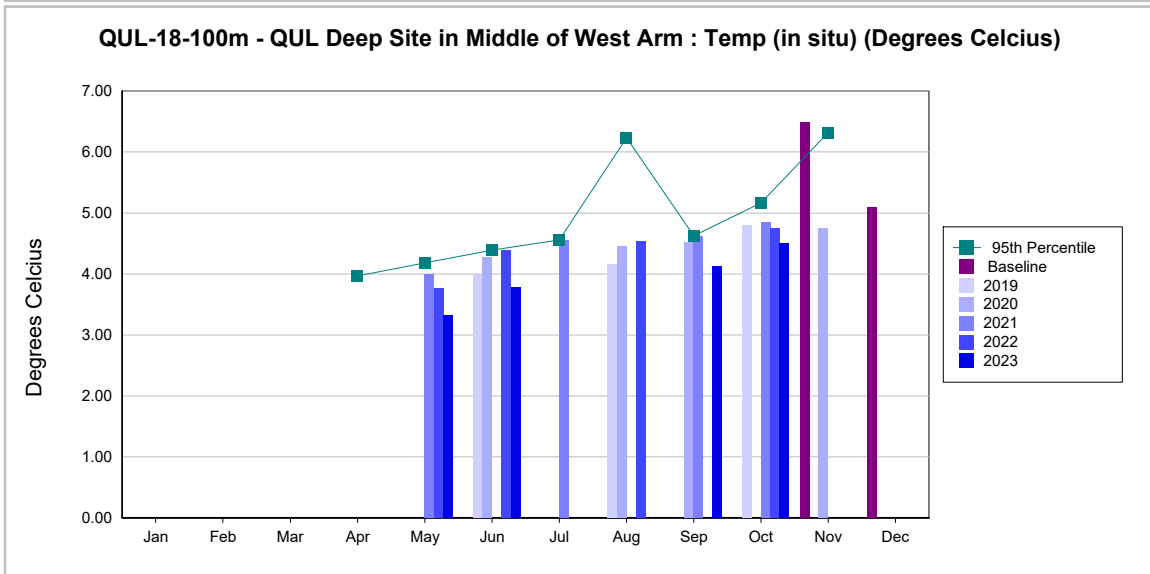
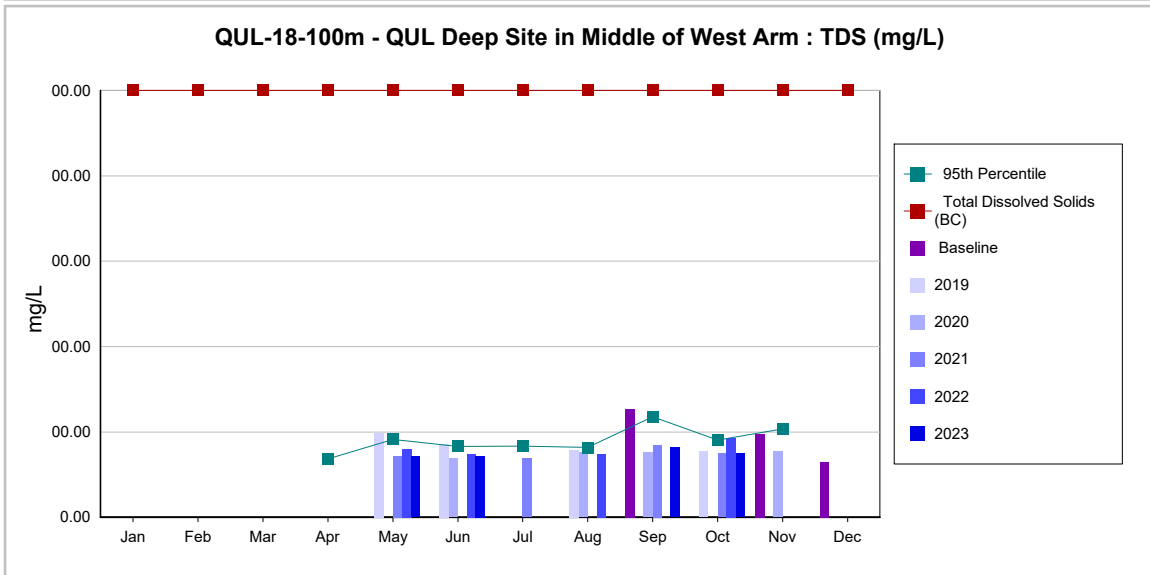
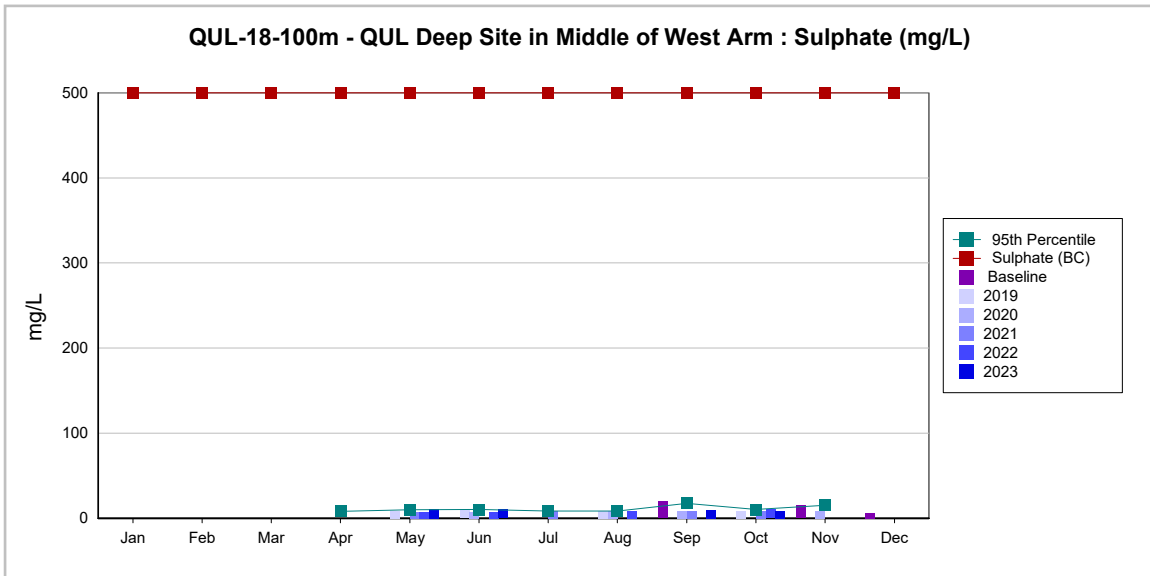
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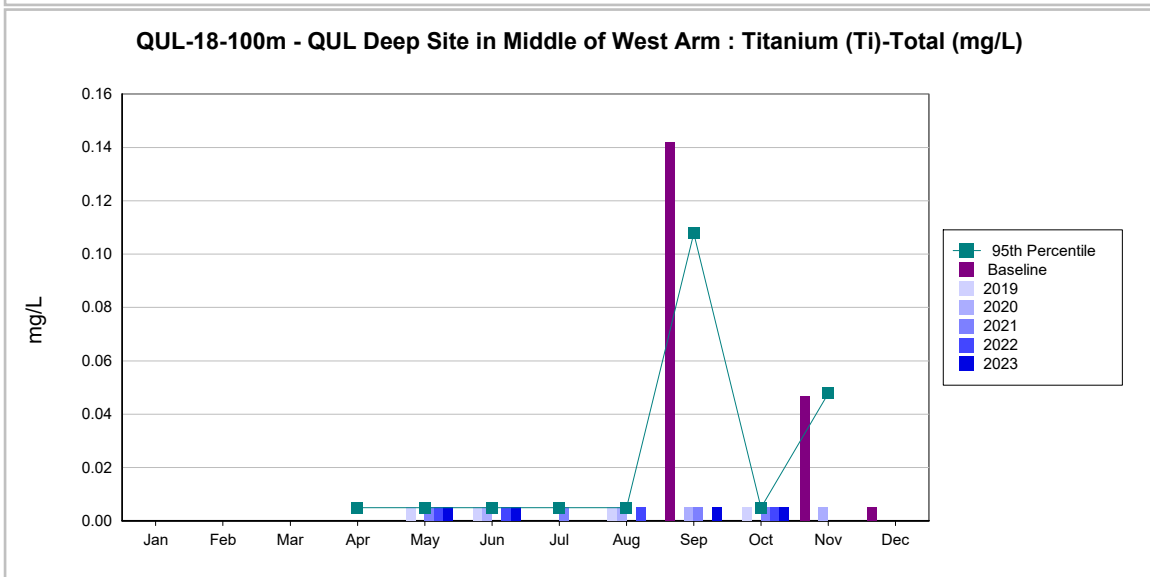
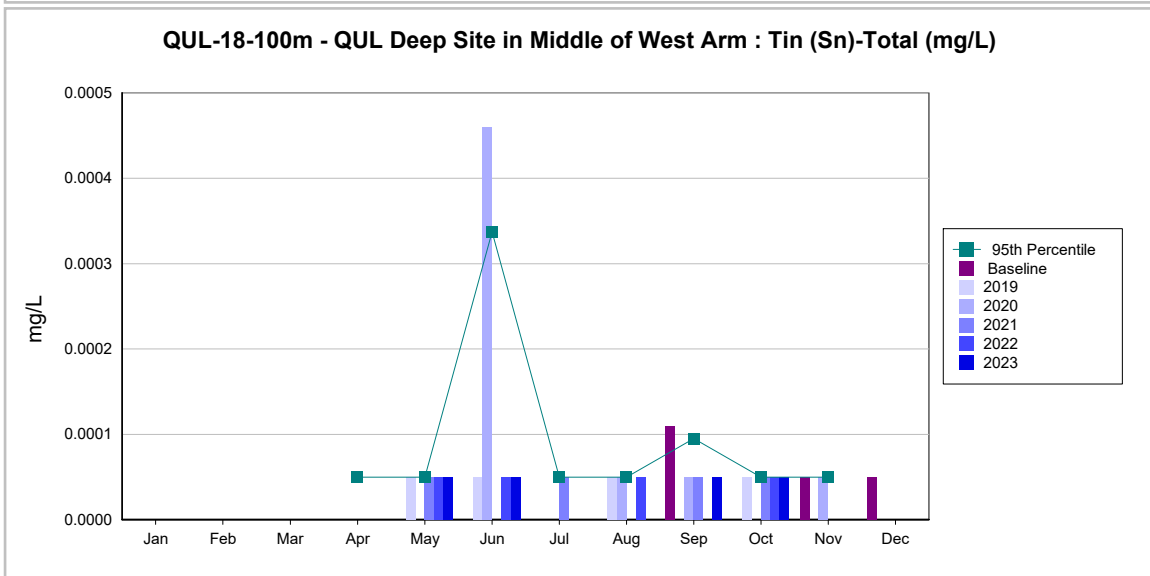
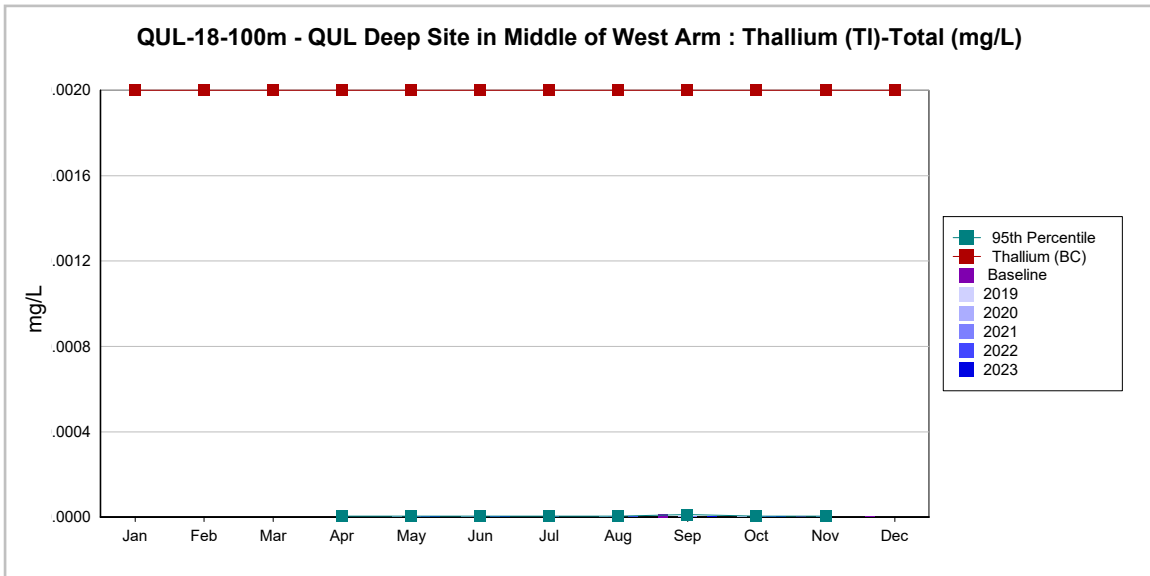
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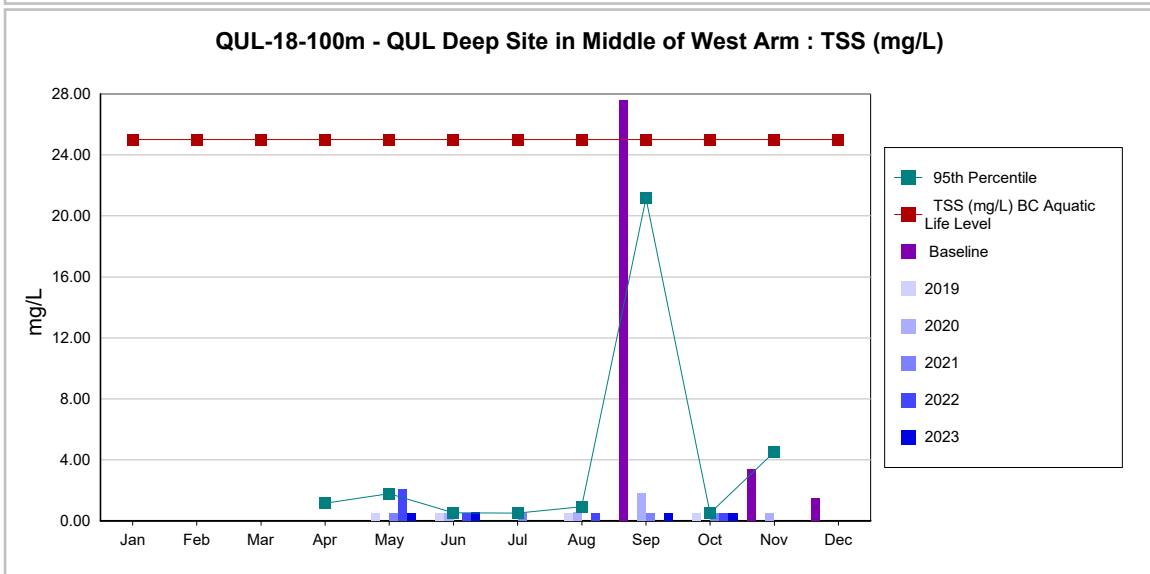
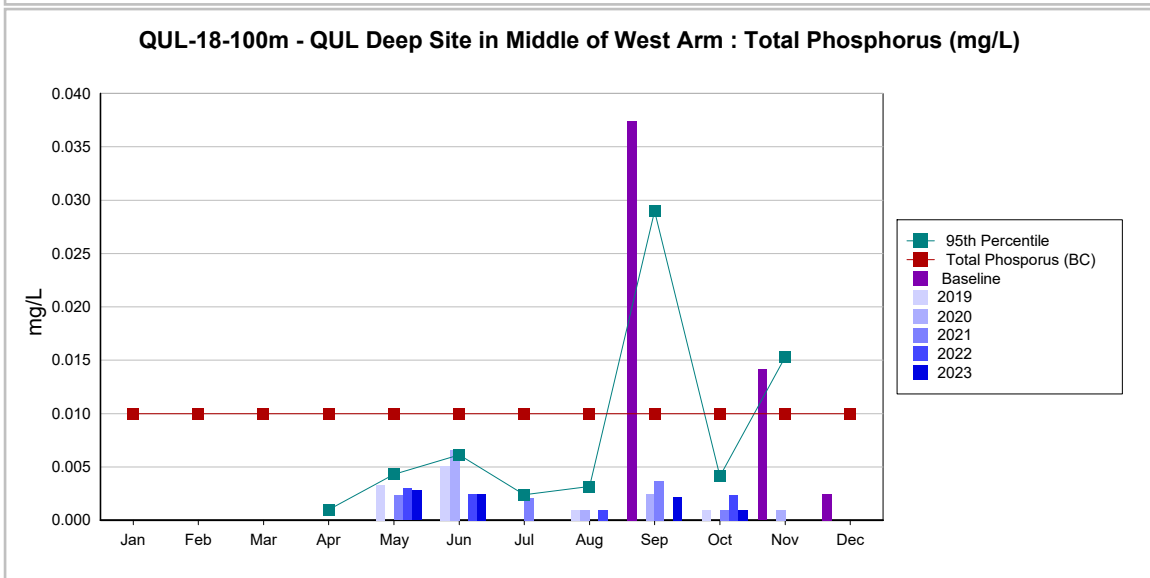
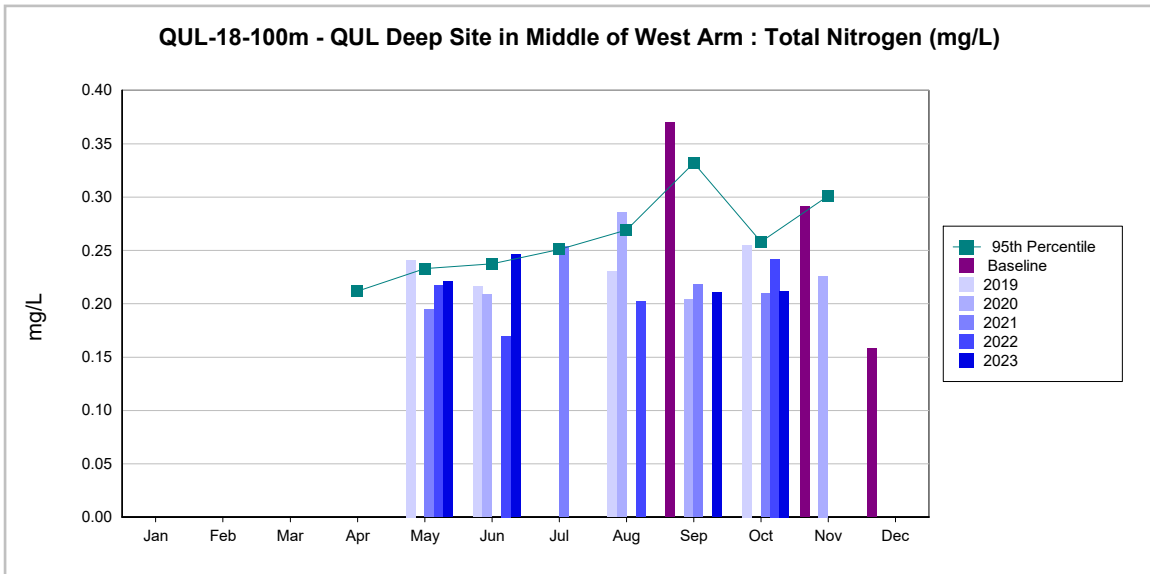
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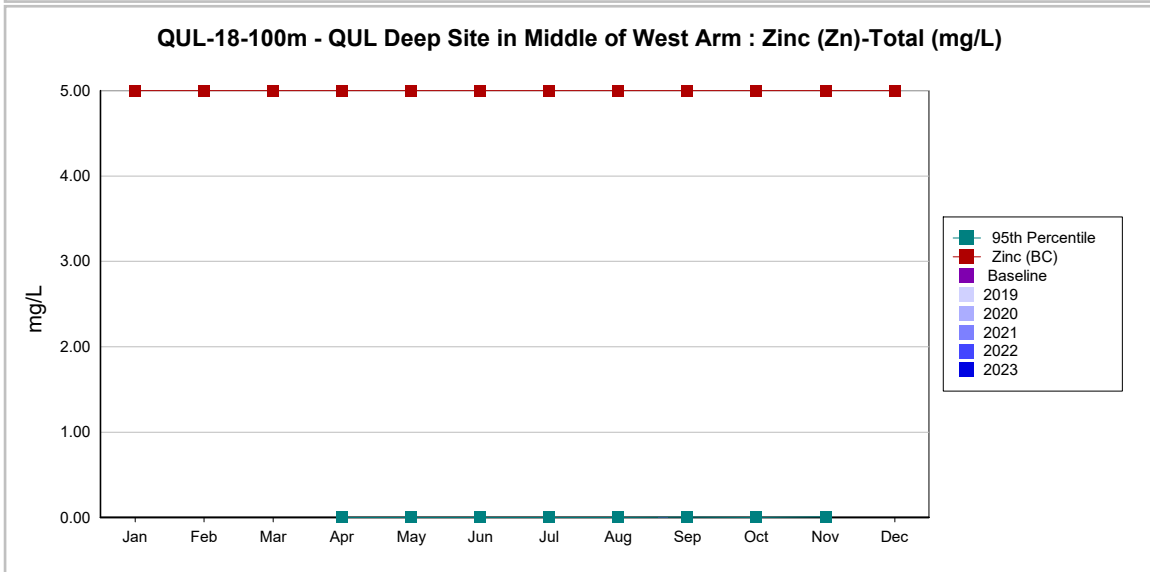
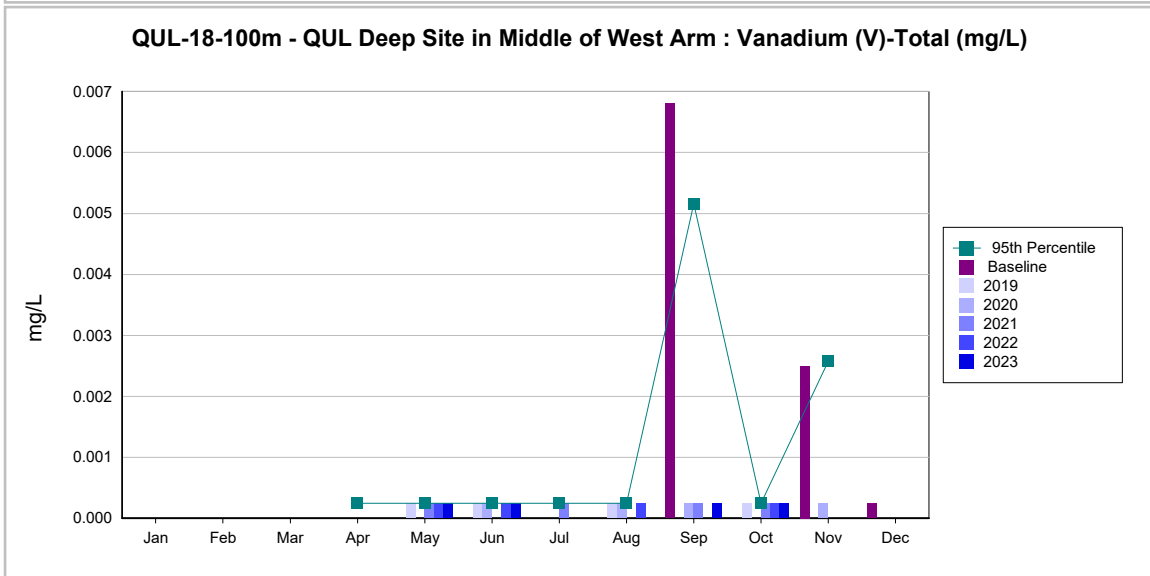
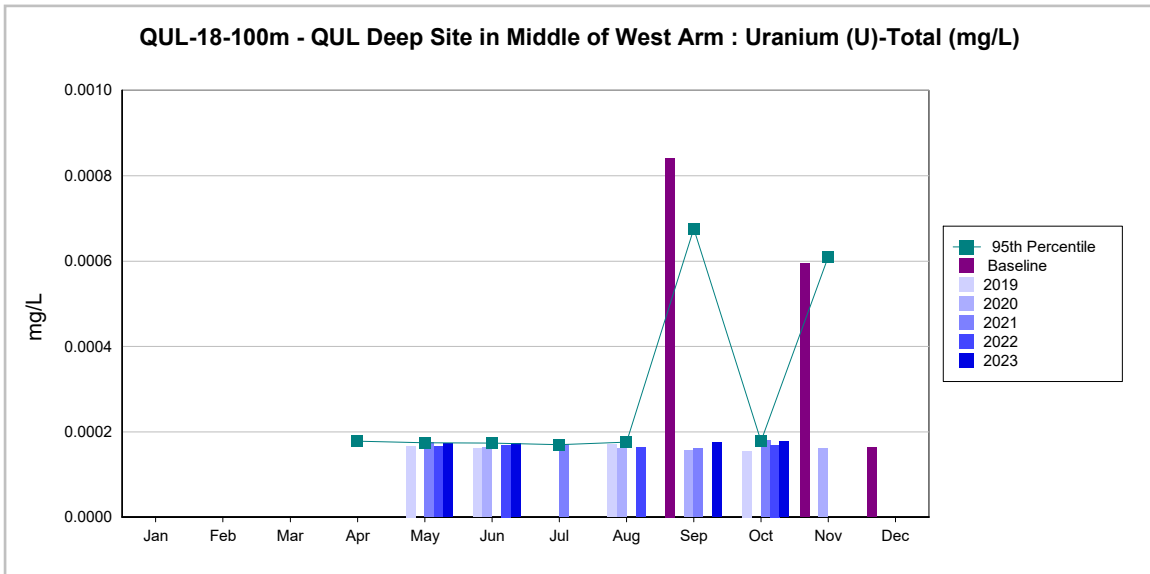
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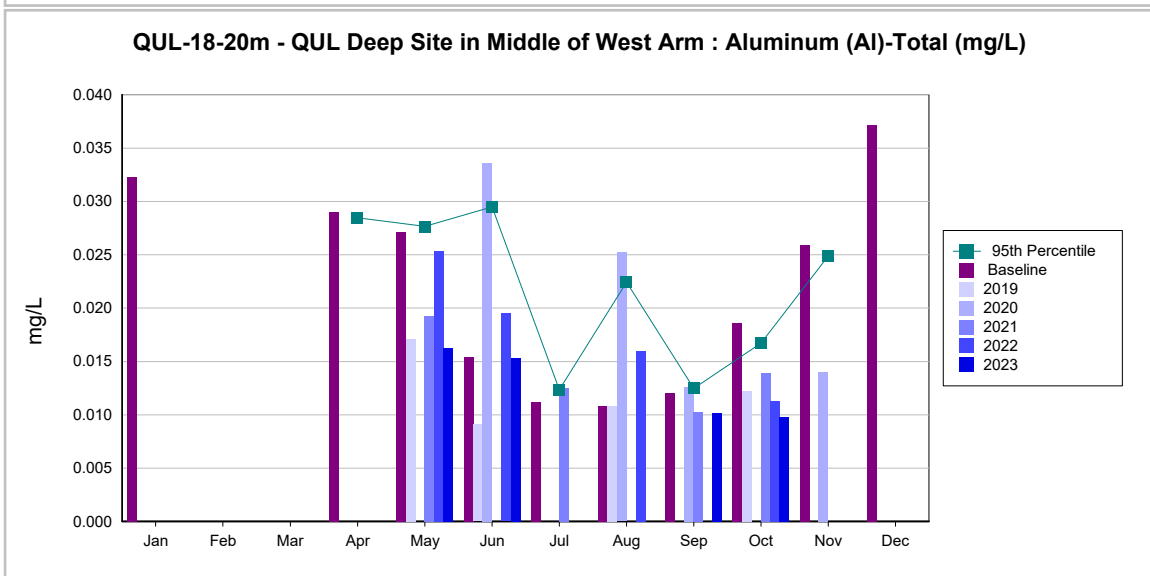
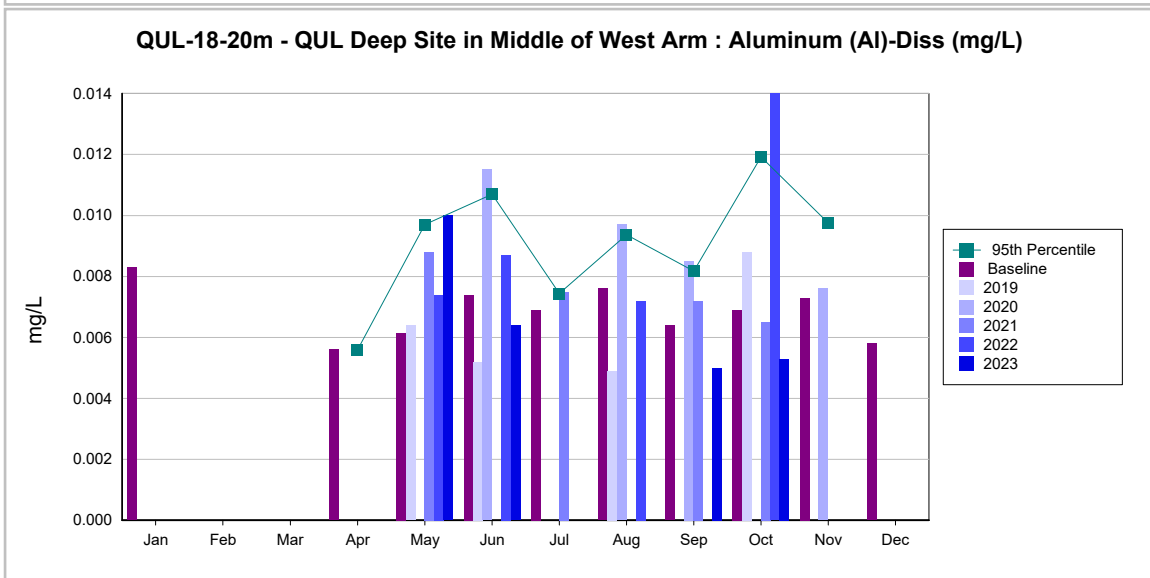
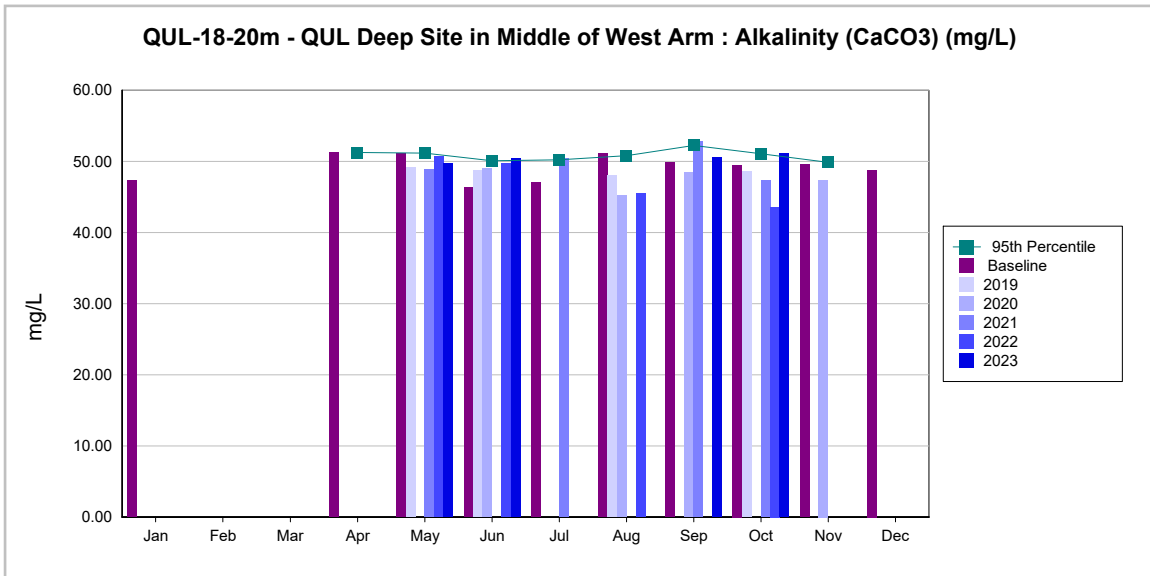
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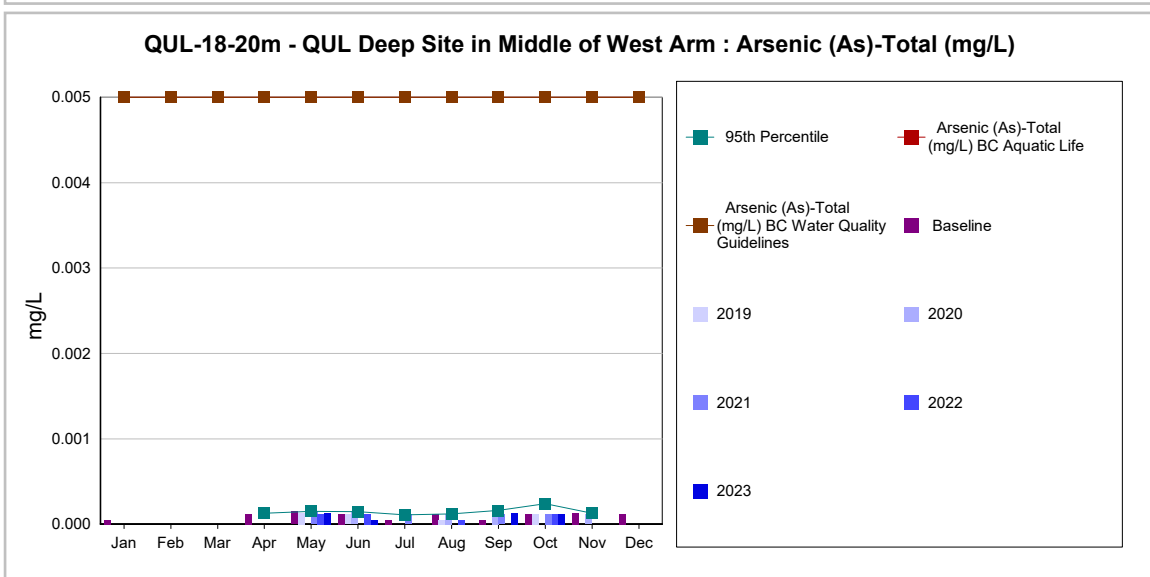
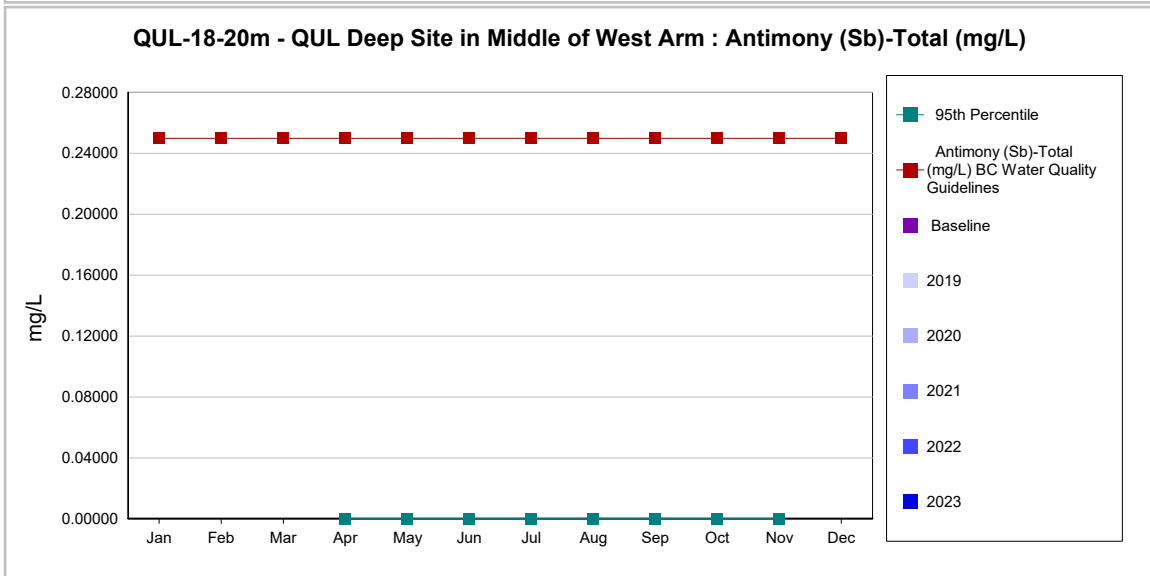
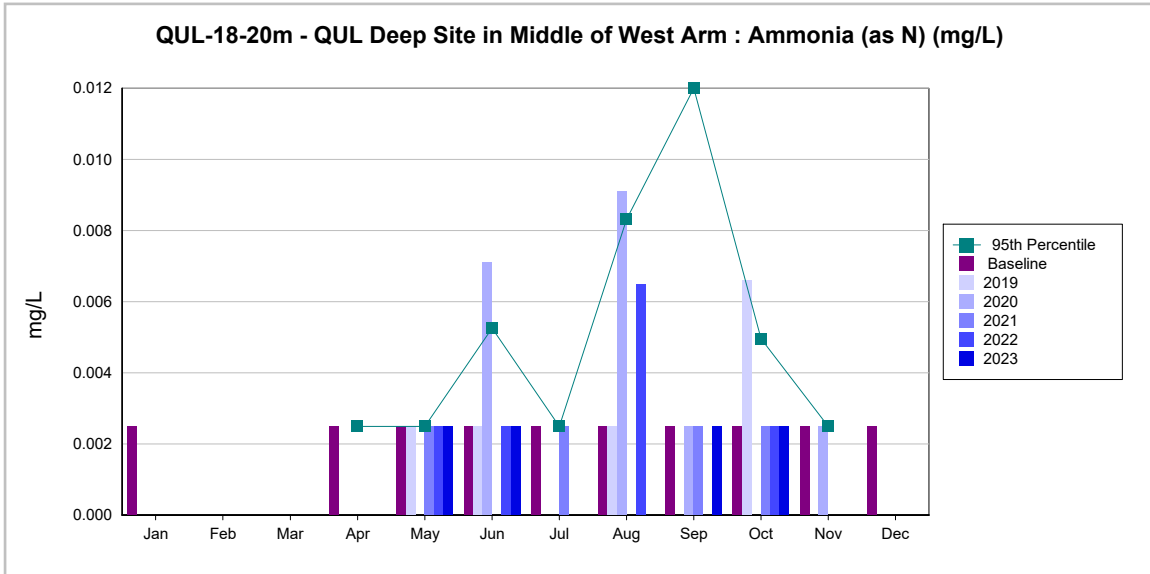
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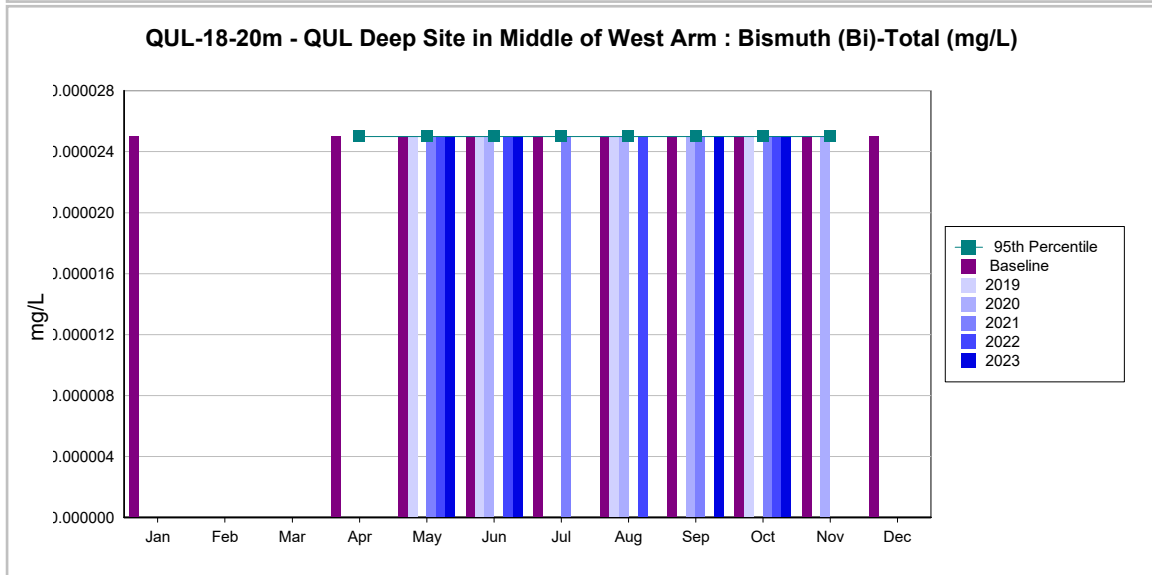
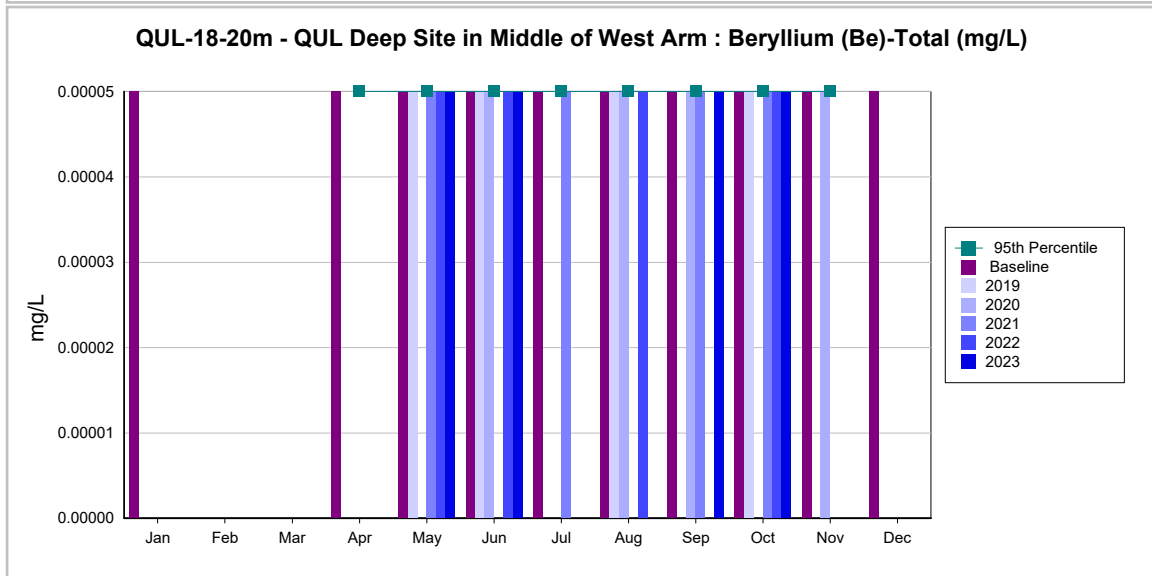
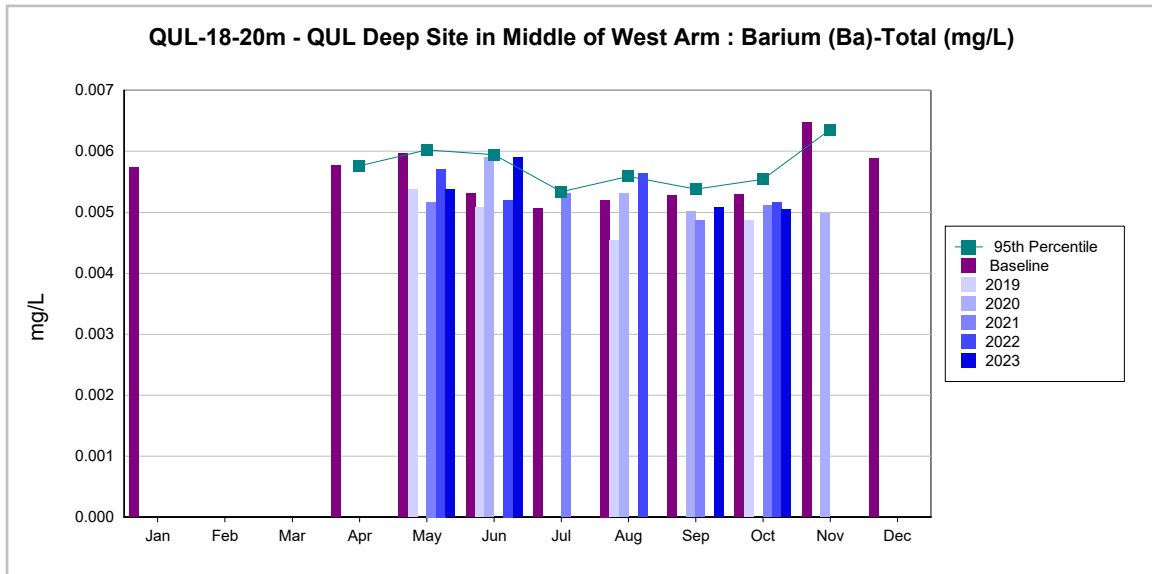
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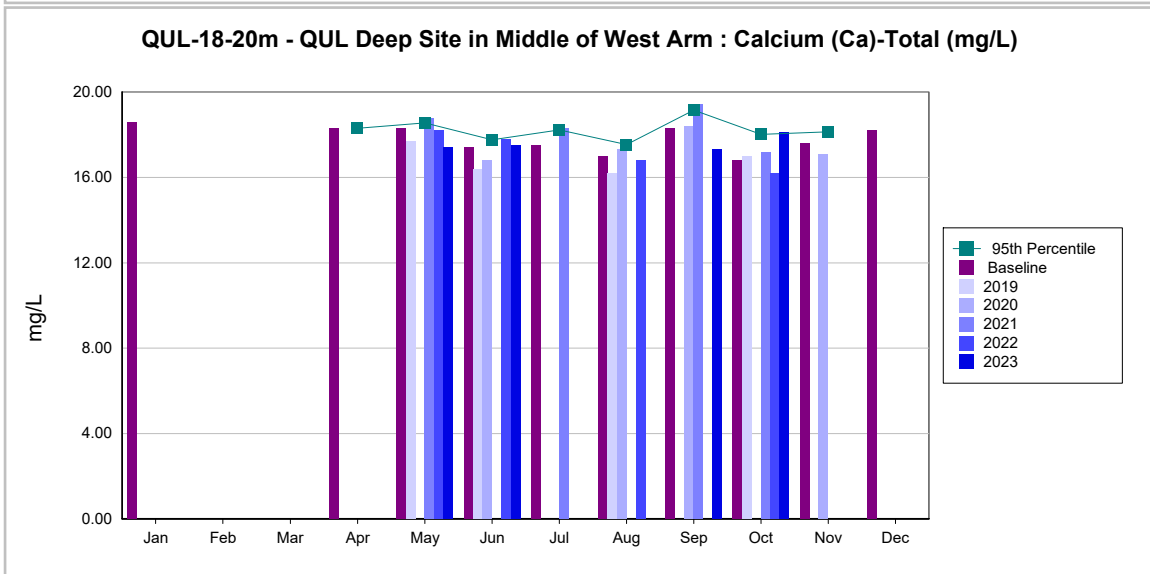
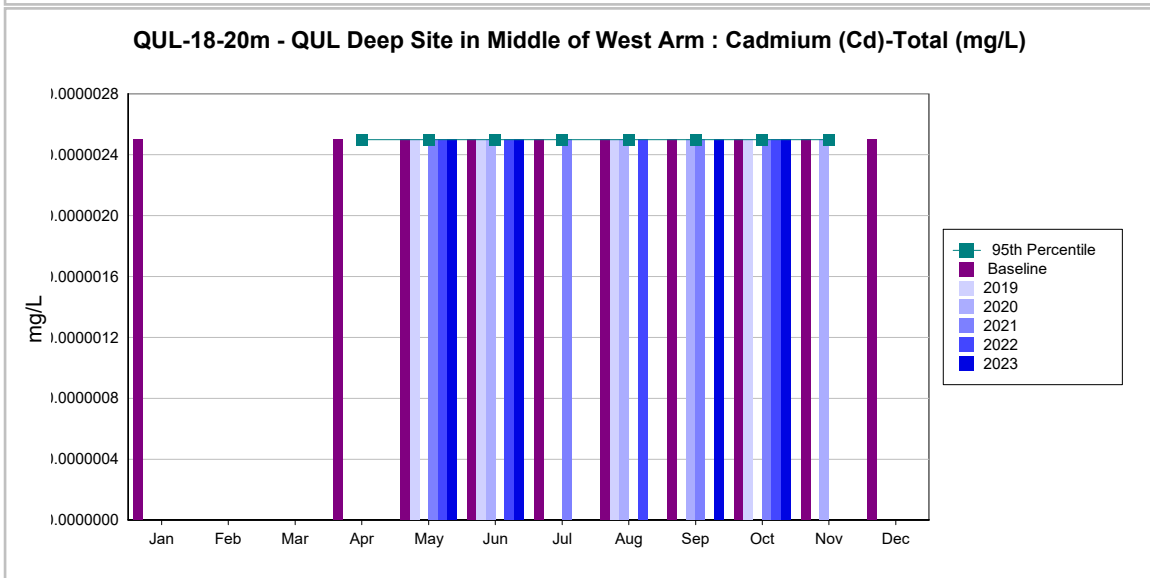
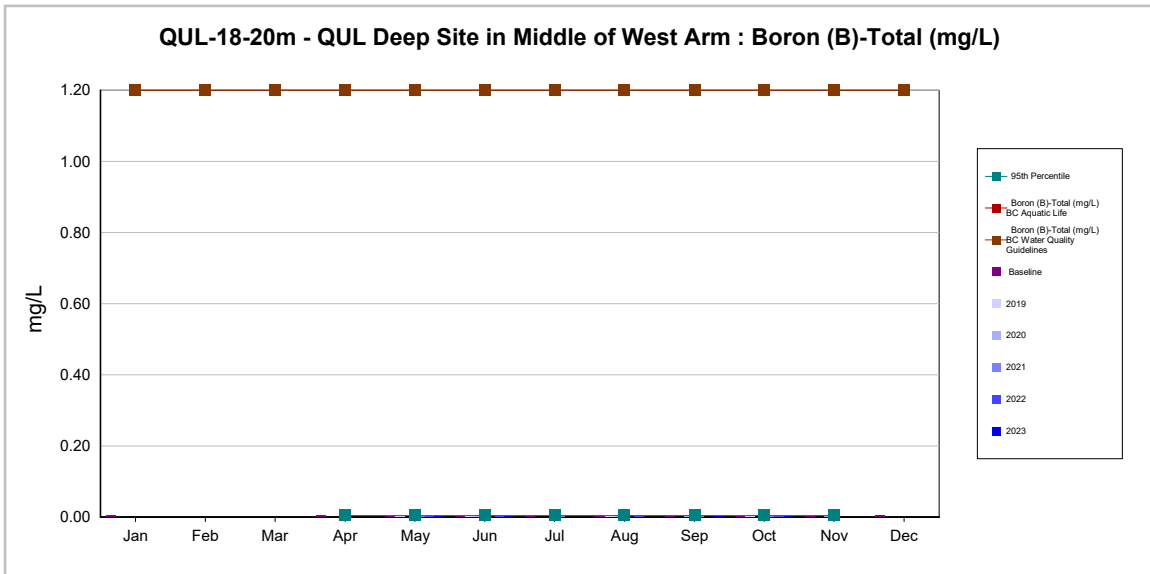
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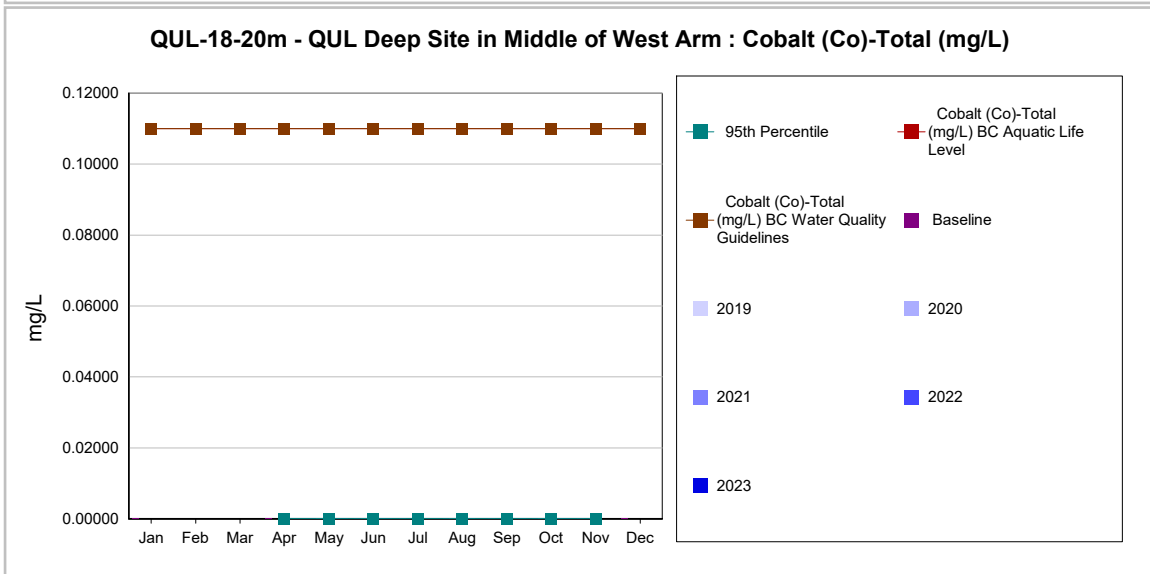
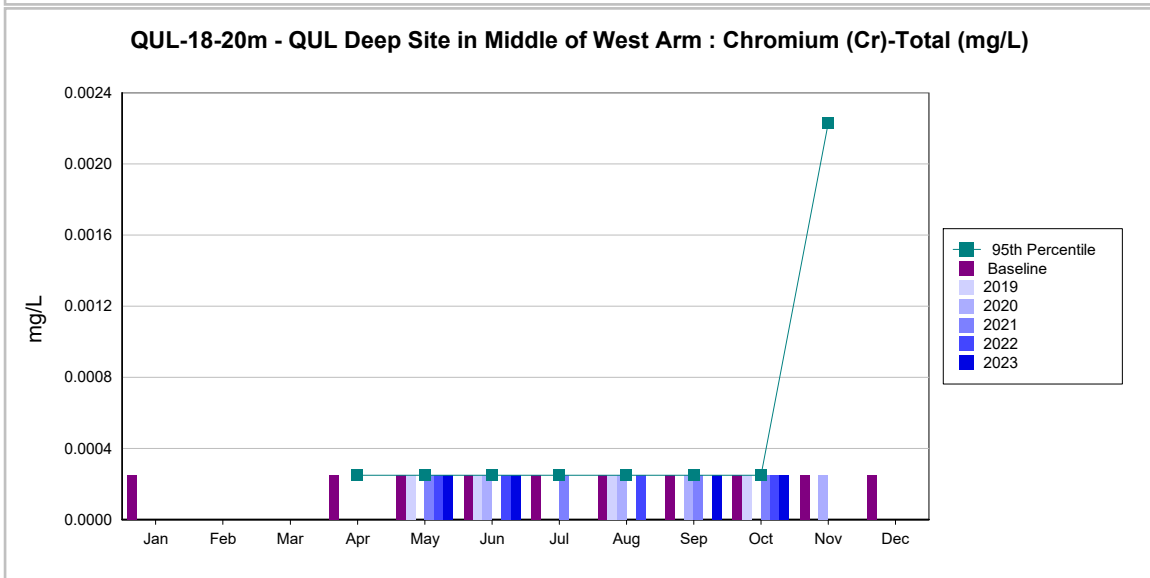
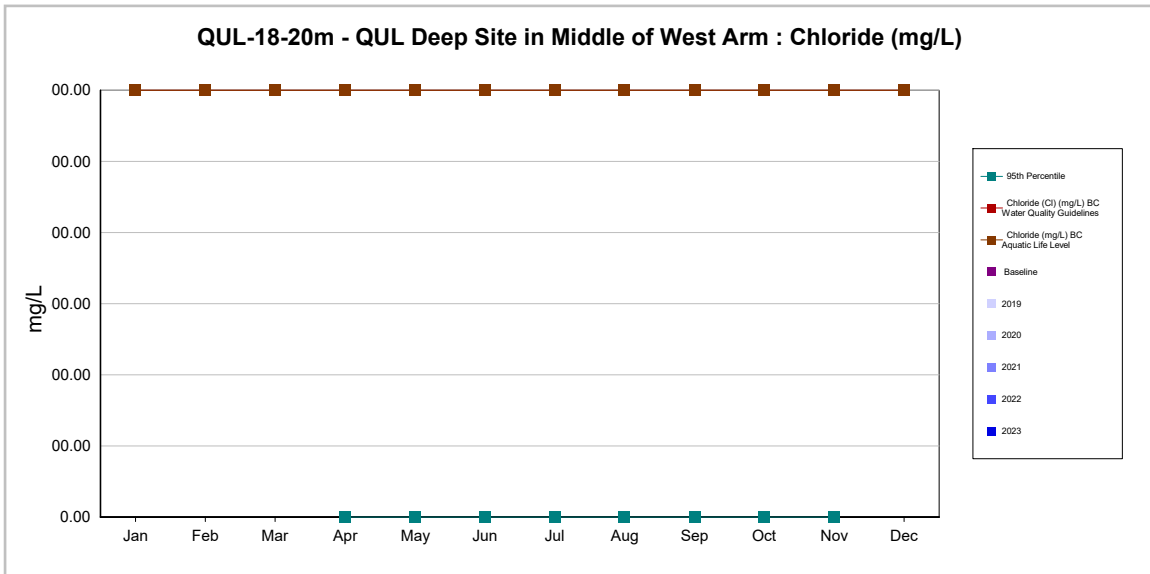
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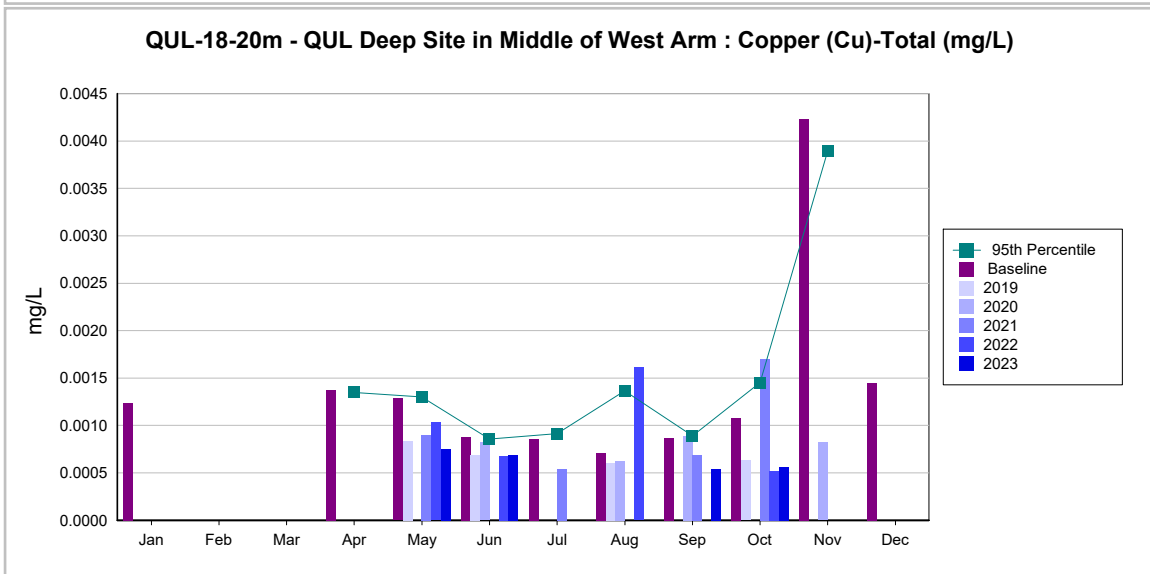
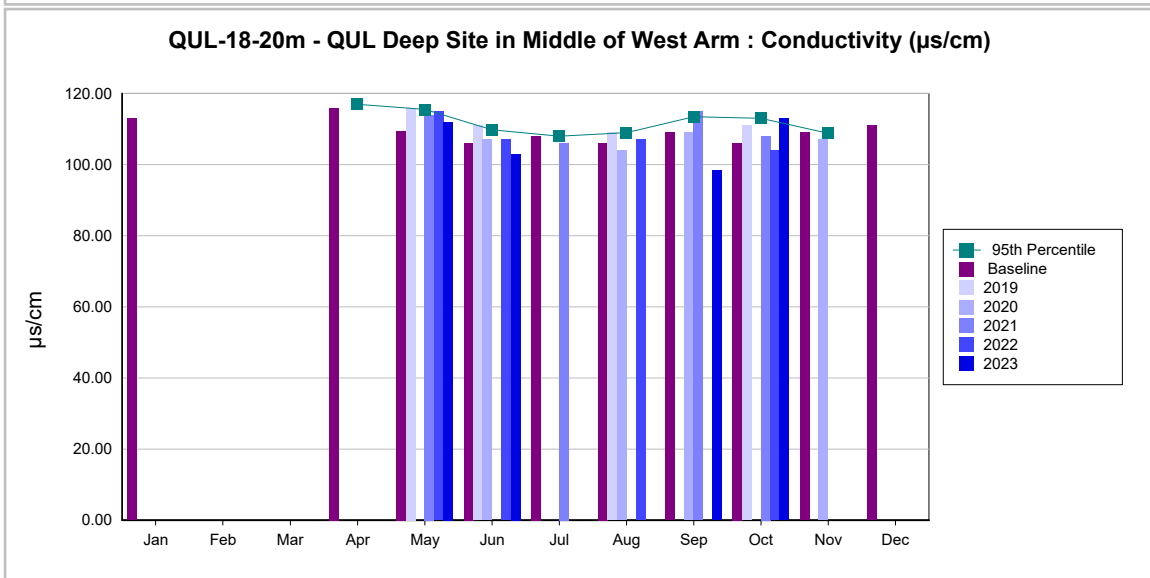
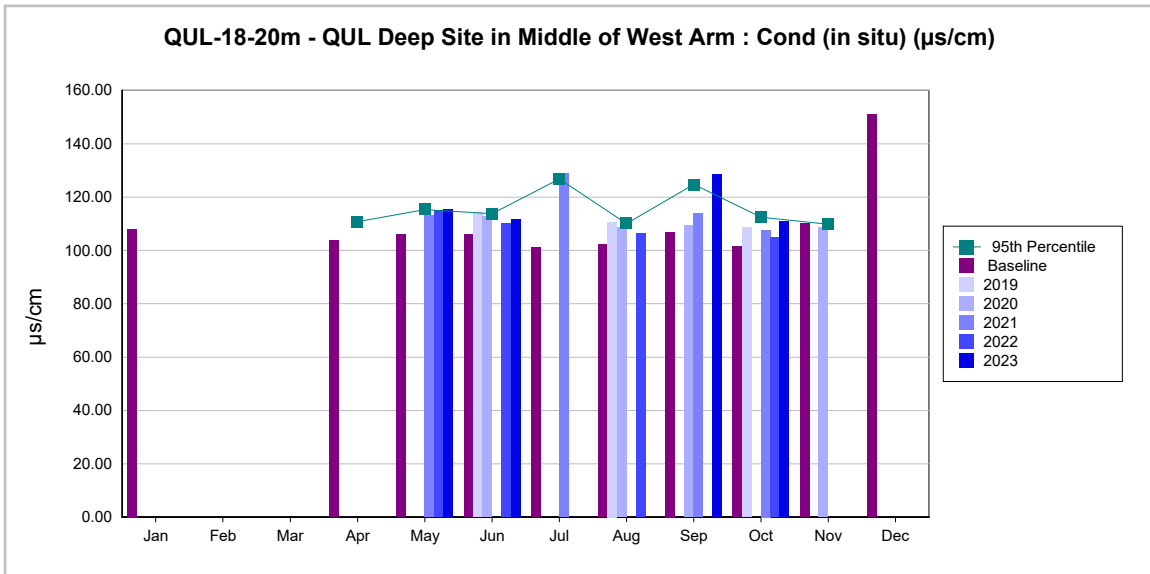
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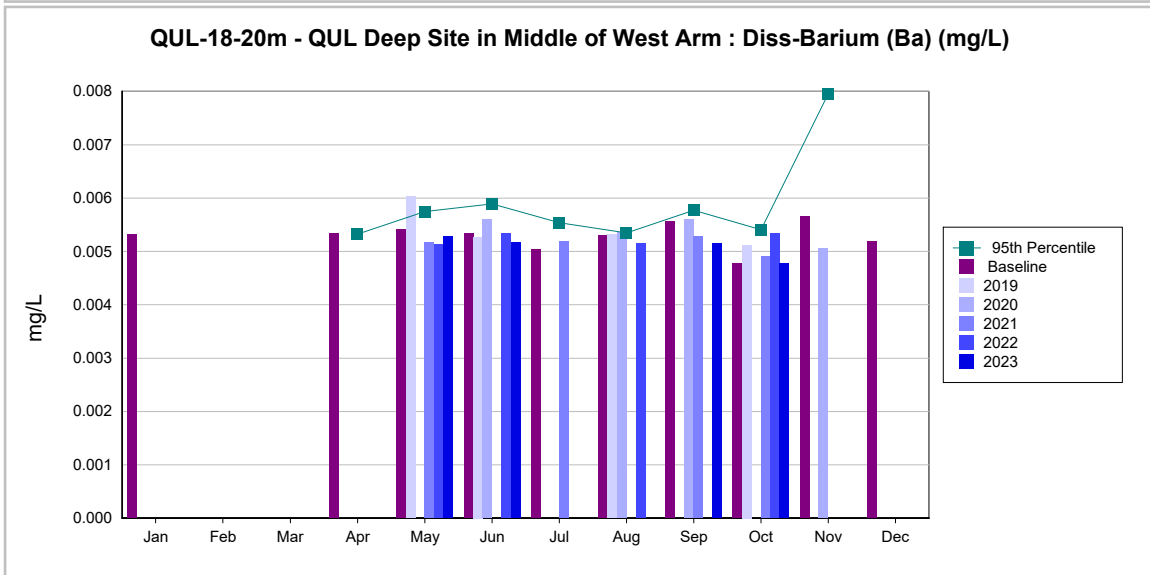
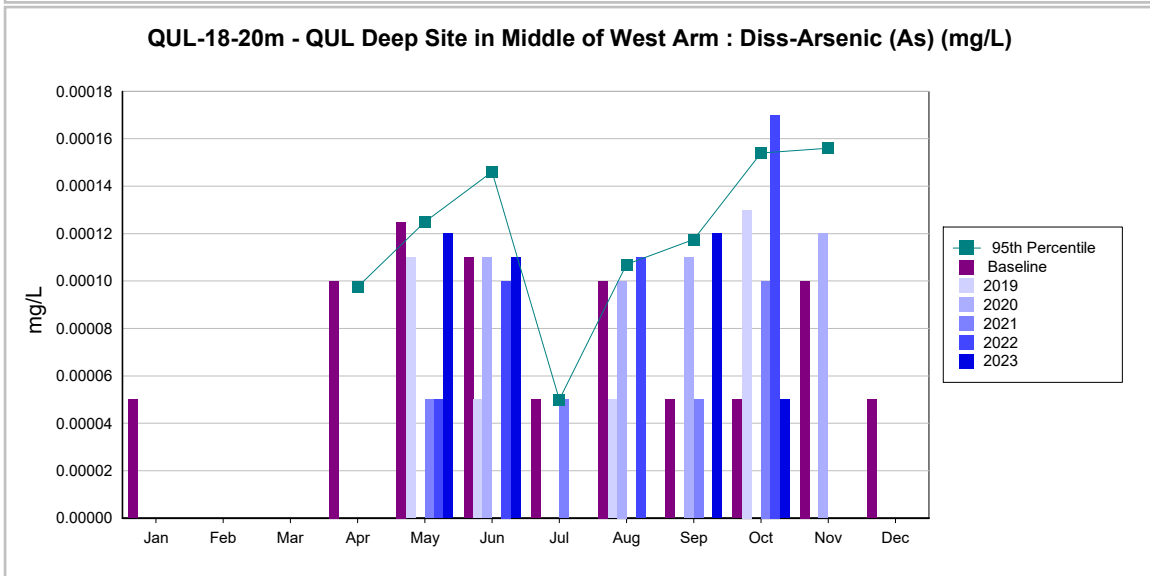
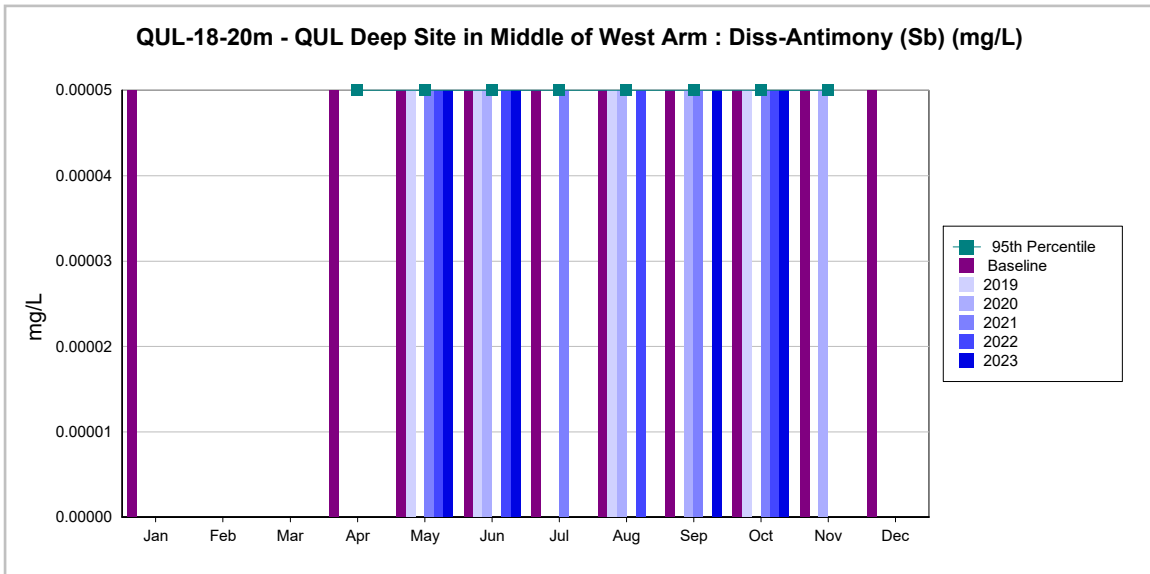
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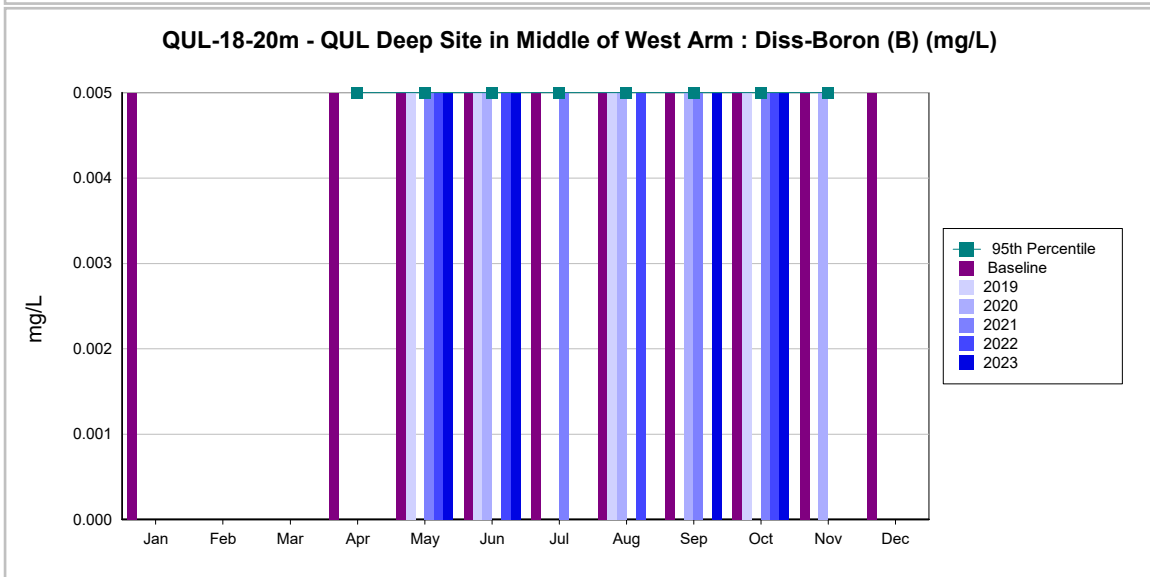
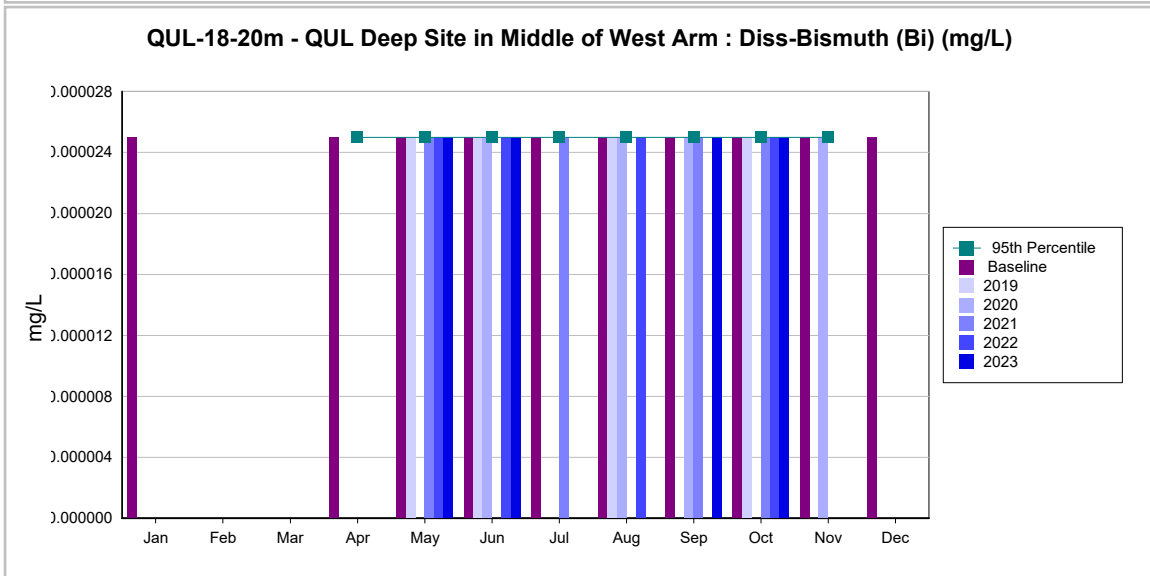
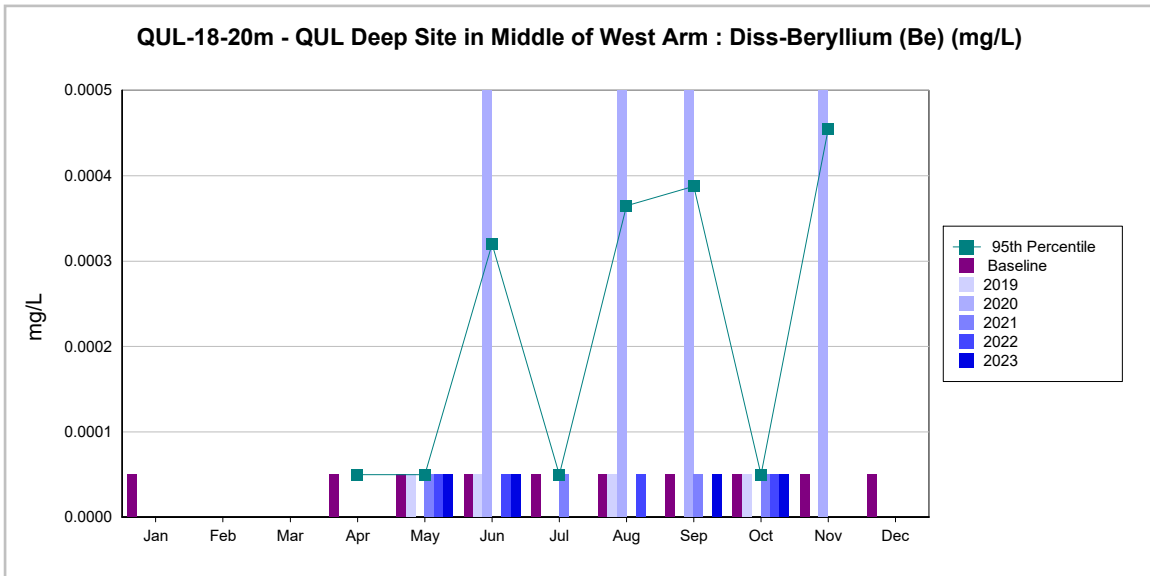
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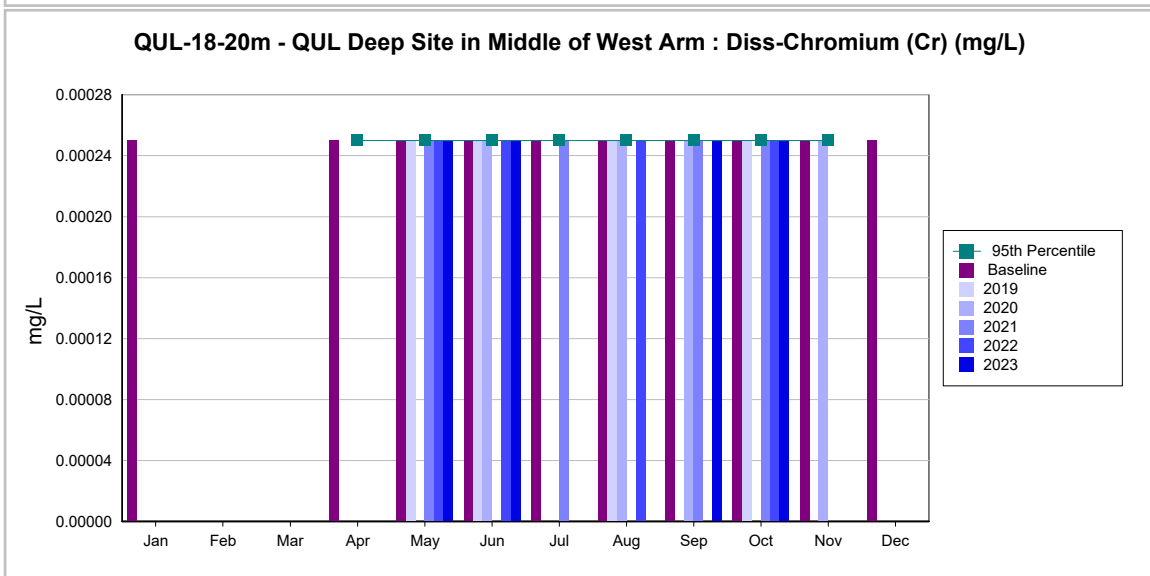
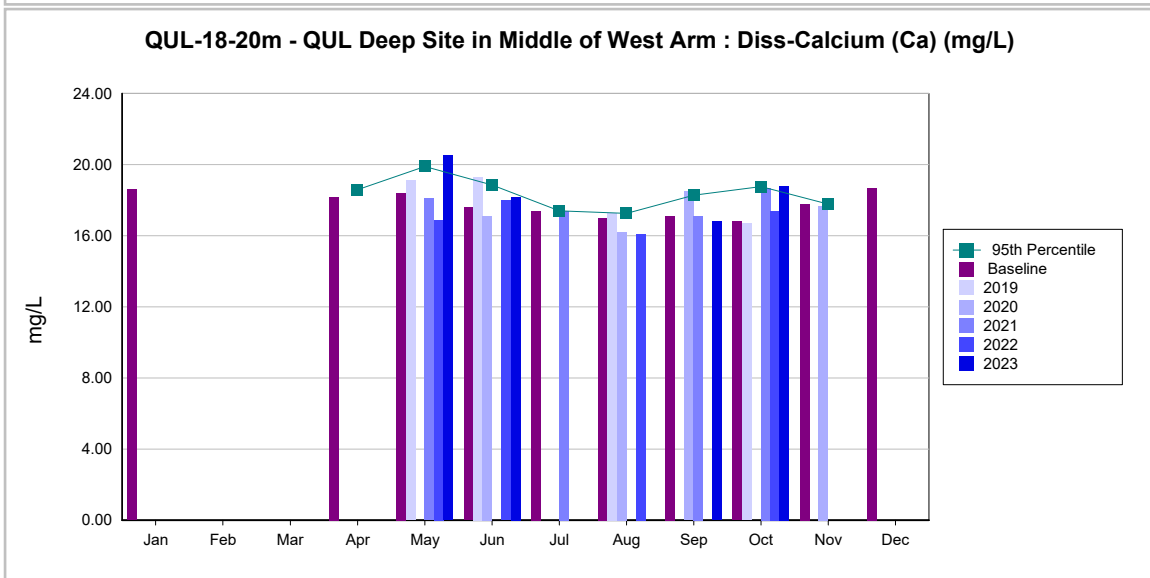
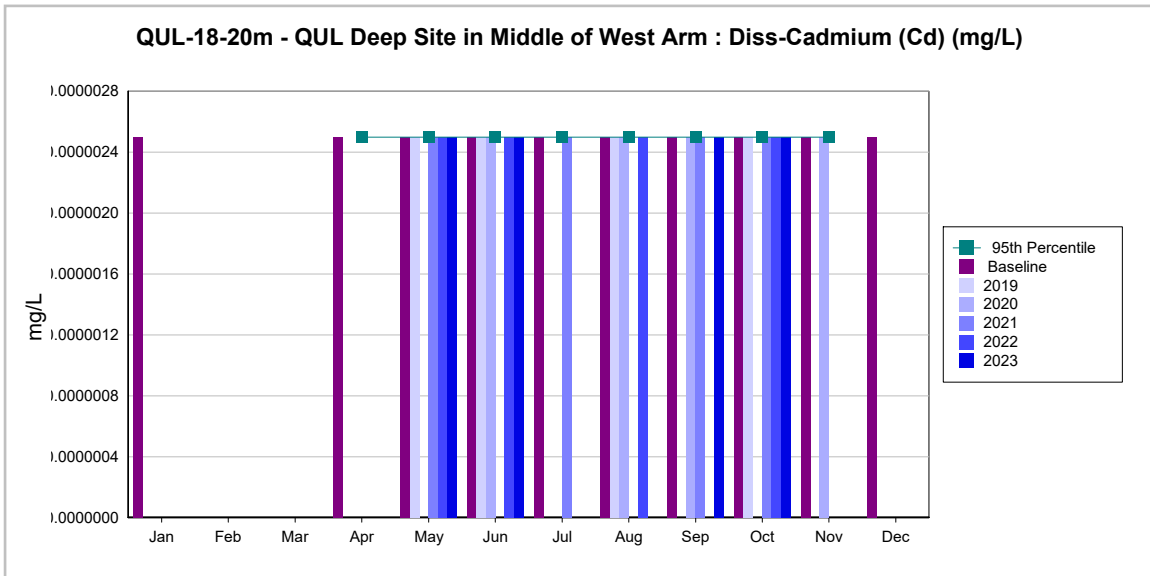
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