



CERTIFICATE OF ANALYSIS

<p>Work Order : FC2301105</p> <p>Client : Regional Municipality of Wood Buffalo</p> <p>Contact : Water Treatment Plant</p> <p>Address : 1 Silin Forest Road Fort McMurray AB Canada T9H 5A1</p> <p>Telephone : 780-762-5863</p> <p>Project : Fort Chipewyan Imperial Release</p> <p>PO : 4500049712</p> <p>C-O-C number : ----</p> <p>Sampler : Darwin McDonald</p> <p>Site : Schedule 4: Fort Chip</p> <p>Quote number : Q61323 (Fort chip)</p> <p>No. of samples received : 5</p> <p>No. of samples analysed : 5</p>	<p>Page : 1 of 8</p> <p>Laboratory : Fort McMurray - Environmental</p> <p>Account Manager : Megan Trydal</p> <p>Address : #4, 340 Macalpine Crescent Fort McMurray AB Canada T9H 4A8</p> <p>Telephone : +1 780 791 1524</p> <p>Date Samples Received : 05-May-2023 16:05</p> <p>Date Analysis Commenced : 06-May-2023</p> <p>Issue Date : 10-May-2023 17:19</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
- Surrogate Control Limits

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>
Cynthia Bauer	Organic Supervisor	Organics, Calgary, Alberta
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Victoria Piguing	Laboratory Analyst	Organics, Calgary, Alberta



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
%	percent
µg/L	micrograms per litre
µS/cm	microsiemens per centimetre
meq/L	milliequivalents per litre
mg/L	milligrams per litre
pH units	pH units
psu	practical salinity 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 (Matrix: Water)					Client sample ID	Treated Water	Raw Water Chamber Tap	121 Howard Street	128 McDonald St.	101 Loutit St.
Client sampling date / time					05-May-2023 09:00	05-May-2023 09:00	05-May-2023 09:10	05-May-2023 09:15	05-May-2023 09:15	
Analyte	CAS Number	Method	LOR	Unit	FC2301105-001	FC2301105-002	FC2301105-003	FC2301105-004	FC2301105-005	
					Result	Result	Result	Result	Result	
Physical Tests										
Hardness (as CaCO ₃), dissolved	----	EC100	0.50	mg/L	32.7	29.7	32.7	32.4	34.0	
Hardness (as CaCO ₃), from total Ca/Mg	----	EC100A	0.50	mg/L	31.5	28.9	32.1	32.0	32.7	
Salinity	----	EC100S	1.0	psu	<1.0	<1.0	<1.0	<1.0	<1.0	
Conductivity	----	E100	2.0	µS/cm	127	66.5	126	127	130	
pH	----	E108	0.10	pH units	9.01	7.24	8.94	8.83	8.81	
Alkalinity, bicarbonate (as HCO ₃)	71-52-3	E290	1.0	mg/L	43.9	30.6	45.6	46.4	46.7	
Alkalinity, carbonate (as CO ₃)	3812-32-6	E290	1.0	mg/L	4.7	<1.0	3.7	2.9	2.9	
Alkalinity, hydroxide (as OH)	14280-30-9	E290	1.0	mg/L	<1.0	<1.0	<1.0	<1.0	<1.0	
Alkalinity, total (as CaCO ₃)	----	E290	2.0	mg/L	43.8	25.1	43.6	42.8	43.1	
Solids, total dissolved [TDS], calculated	----	EC103	1.0	mg/L	74.5	40.8	73.8	73.3	74.7	
Anions and Nutrients										
Chloride	16887-00-6	E235.Cl	0.50	mg/L	11.2	3.07	11.3	11.2	11.7	
Fluoride	16984-48-8	E235.F	0.020	mg/L	0.030	0.058	0.030	0.030	0.027	
Nitrate (as N)	14797-55-8	E235.NO3	0.020	mg/L	<0.020	<0.020	<0.020	<0.020	<0.020	
Nitrite (as N)	14797-65-0	E235.NO2	0.010	mg/L	<0.010	<0.010	<0.010	<0.010	<0.010	
Sulfate (as SO ₄)	14808-79-8	E235.SO4	0.30	mg/L	3.68	3.73	3.72	3.67	3.81	
Nitrate + Nitrite (as N)	----	EC235.N+N	0.0500	mg/L	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	
Total Sulfides										
Sulfide, total (as S)	18496-25-8	E395	0.0015	mg/L	<0.0015	<0.0015	<0.0015	<0.0015	<0.0015	
Ion Balance										
Anion sum	----	EC101	0.10	meq/L	1.27	0.67	1.27	1.25	1.27	
Cation sum	----	EC101	0.10	meq/L	1.38	0.74	1.35	1.36	1.38	
Ion balance (APHA)	----	EC101	0.01	%	4.15	4.96	3.05	4.21	4.15	
Ion balance (cations/anions)	----	EC101	0.010	%	109	110	106	109	109	
Total Metals										
Aluminum, total	7429-90-5	E420	0.0030	mg/L	0.0118	0.107	0.0163	0.0222	0.0264	
Antimony, total	7440-36-0	E420	0.00010	mg/L	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	
Arsenic, total	7440-38-2	E420	0.00010	mg/L	0.00019	0.00024	0.00016	0.00017	0.00017	
Barium, total	7440-39-3	E420	0.00010	mg/L	0.0160	0.0168	0.0163	0.0158	0.0165	



Analytical Results

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Analyte	CAS Number	Method	LOR	Unit	FC2301105-001	FC2301105-002	FC2301105-003	FC2301105-004	FC2301105-005	
					Result	Result	Result	Result	Result	
Total Metals										
Beryllium, total	7440-41-7	E420	0.000020	mg/L	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	
Bismuth, total	7440-69-9	E420	0.000050	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	
Boron, total	7440-42-8	E420	0.010	mg/L	0.013	0.012	0.014	0.014	0.014	
Cadmium, total	7440-43-9	E420	0.0000050	mg/L	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	
Calcium, total	7440-70-2	E420	0.050	mg/L	8.48	7.61	8.70	8.63	8.78	
Cesium, total	7440-46-2	E420	0.000010	mg/L	<0.000010	0.000011	<0.000010	<0.000010	<0.000010	
Chromium, total	7440-47-3	E420	0.00050	mg/L	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	
Cobalt, total	7440-48-4	E420	0.00010	mg/L	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	
Copper, total	7440-50-8	E420	0.00050	mg/L	<0.00050	0.00095	0.00052	<0.00050	0.00086	
Iron, total	7439-89-6	E420	0.010	mg/L	<0.010	0.140	<0.010	<0.010	<0.010	
Lead, total	7439-92-1	E420	0.000050	mg/L	<0.000050	0.000055	<0.000050	<0.000050	<0.000050	
Lithium, total	7439-93-2	E420	0.0010	mg/L	0.0024	0.0024	0.0026	0.0025	0.0026	
Magnesium, total	7439-95-4	E420	0.0050	mg/L	2.50	2.40	2.53	2.54	2.61	
Manganese, total	7439-96-5	E420	0.00010	mg/L	0.00227	0.00423	0.00141	0.00166	0.00125	
Molybdenum, total	7439-98-7	E420	0.000050	mg/L	0.000180	0.000204	0.000202	0.000192	0.000188	
Nickel, total	7440-02-0	E420	0.00050	mg/L	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	
Phosphorus, total	7723-14-0	E420	0.050	mg/L	<0.050	<0.050	<0.050	<0.050	<0.050	
Potassium, total	7440-09-7	E420	0.050	mg/L	1.01	0.986	1.03	1.03	1.08	
Rubidium, total	7440-17-7	E420	0.00020	mg/L	0.00113	0.00107	0.00108	0.00102	0.00099	
Selenium, total	7782-49-2	E420	0.000050	mg/L	<0.000050	0.000066	<0.000050	<0.000050	<0.000050	
Silicon, total	7440-21-3	E420	0.10	mg/L	1.69	1.88	1.74	1.74	1.75	
Silver, total	7440-22-4	E420	0.000010	mg/L	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	
Sodium, total	7440-23-5	E420	0.050	mg/L	15.5	2.63	15.2	15.6	15.1	
Strontium, total	7440-24-6	E420	0.00020	mg/L	0.0555	0.0536	0.0584	0.0569	0.0573	
Sulfur, total	7704-34-9	E420	0.50	mg/L	1.38	1.59	1.44	1.40	1.53	
Tellurium, total	13494-80-9	E420	0.00020	mg/L	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	
Thallium, total	7440-28-0	E420	0.000010	mg/L	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	
Thorium, total	7440-29-1	E420	0.00010	mg/L	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	
Tin, total	7440-31-5	E420	0.00010	mg/L	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	
Titanium, total	7440-32-6	E420	0.00030	mg/L	<0.00030	0.00247	<0.00030	<0.00030	<0.00030	



Analytical Results

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Analyte	CAS Number	Method	LOR	Unit	FC2301105-001	FC2301105-002	FC2301105-003	FC2301105-004	FC2301105-005	
					Result	Result	Result	Result	Result	
Total Metals										
Tungsten, total	7440-33-7	E420	0.00010	mg/L	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	
Uranium, total	7440-61-1	E420	0.000010	mg/L	<0.000010	0.000095	<0.000010	<0.000010	<0.000010	
Vanadium, total	7440-62-2	E420	0.00050	mg/L	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	
Zinc, total	7440-66-6	E420	0.0030	mg/L	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	
Zirconium, total	7440-67-7	E420	0.00020	mg/L	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	
Dissolved Metals										
Aluminum, dissolved	7429-90-5	E421	0.0010	mg/L	0.0112	0.0177	0.0189	0.0140	0.0240	
Antimony, dissolved	7440-36-0	E421	0.00010	mg/L	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	
Arsenic, dissolved	7440-38-2	E421	0.00010	mg/L	0.00016	0.00018	0.00017	0.00016	0.00017	
Barium, dissolved	7440-39-3	E421	0.00010	mg/L	0.0158	0.0152	0.0155	0.0155	0.0162	
Beryllium, dissolved	7440-41-7	E421	0.000020	mg/L	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	
Bismuth, dissolved	7440-69-9	E421	0.000050	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	
Boron, dissolved	7440-42-8	E421	0.010	mg/L	0.013	0.012	0.013	0.013	0.014	
Cadmium, dissolved	7440-43-9	E421	0.0000050	mg/L	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	
Calcium, dissolved	7440-70-2	E421	0.050	mg/L	8.84	7.90	8.90	8.76	9.19	
Cesium, dissolved	7440-46-2	E421	0.000010	mg/L	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	
Chromium, dissolved	7440-47-3	E421	0.00050	mg/L	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	
Cobalt, dissolved	7440-48-4	E421	0.00010	mg/L	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	
Copper, dissolved	7440-50-8	E421	0.00020	mg/L	0.00036	0.00070	0.00043	0.00042	0.00076	
Iron, dissolved	7439-89-6	E421	0.030	mg/L	<0.030	0.034	<0.030	<0.030	<0.030	
Lead, dissolved	7439-92-1	E421	0.000050	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	
Lithium, dissolved	7439-93-2	E421	0.0010	mg/L	0.0030	0.0028	0.0030	0.0030	0.0032	
Magnesium, dissolved	7439-95-4	E421	0.0050	mg/L	2.59	2.43	2.55	2.57	2.68	
Manganese, dissolved	7439-96-5	E421	0.00500	mg/L	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	
Molybdenum, dissolved	7439-98-7	E421	0.000050	mg/L	0.000206	0.000212	0.000204	0.000211	0.000194	
Nickel, dissolved	7440-02-0	E421	0.00050	mg/L	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	
Phosphorus, dissolved	7723-14-0	E421	0.050	mg/L	<0.050	<0.050	<0.050	<0.050	<0.050	
Potassium, dissolved	7440-09-7	E421	0.050	mg/L	1.04	0.966	1.01	1.02	1.08	
Rubidium, dissolved	7440-17-7	E421	0.00020	mg/L	0.00085	0.00081	0.00091	0.00103	0.00097	
Selenium, dissolved	7782-49-2	E421	0.000050	mg/L	<0.000050	0.000053	<0.000050	<0.000050	<0.000050	



Analytical Results

Sub-Matrix: Water (Matrix: Water)					Client sample ID	Treated Water	Raw Water Chamber Tap	121 Howard Street	128 McDonald St.	101 Loutit St.
Client sampling date / time					05-May-2023 09:00	05-May-2023 09:00	05-May-2023 09:10	05-May-2023 09:15	05-May-2023 09:15	
Analyte	CAS Number	Method	LOR	Unit	FC2301105-001	FC2301105-002	FC2301105-003	FC2301105-004	FC2301105-005	
					Result	Result	Result	Result	Result	
Dissolved Metals										
Silicon, dissolved	7440-21-3	E421	0.050	mg/L	1.75	1.76	1.74	1.73	1.82	
Silver, dissolved	7440-22-4	E421	0.000010	mg/L	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	
Sodium, dissolved	7440-23-5	E421	0.050	mg/L	16.1	2.75	15.4	15.7	15.4	
Strontium, dissolved	7440-24-6	E421	0.00020	mg/L	0.0576	0.0545	0.0582	0.0558	0.0603	
Sulfur, dissolved	7704-34-9	E421	0.50	mg/L	1.47	1.54	1.37	1.23	1.35	
Tellurium, dissolved	13494-80-9	E421	0.00020	mg/L	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	
Thallium, dissolved	7440-28-0	E421	0.000010	mg/L	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	
Thorium, dissolved	7440-29-1	E421	0.00010	mg/L	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	
Tin, dissolved	7440-31-5	E421	0.00010	mg/L	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	
Titanium, dissolved	7440-32-6	E421	0.00030	mg/L	<0.00030	0.00056	<0.00030	<0.00030	<0.00030	
Tungsten, dissolved	7440-33-7	E421	0.00010	mg/L	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	
Uranium, dissolved	7440-61-1	E421	0.000010	mg/L	<0.000010	0.000077	<0.000010	<0.000010	<0.000010	
Vanadium, dissolved	7440-62-2	E421	0.00050	mg/L	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	
Zinc, dissolved	7440-66-6	E421	0.0010	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	
Zirconium, dissolved	7440-67-7	E421	0.00030	mg/L	<0.00030	<0.00030	<0.00030	<0.00030	<0.00030	
Dissolved metals filtration location	----	EP421	-	-	Laboratory	Laboratory	Laboratory	Laboratory	Laboratory	
Aggregate Organics										
Naphthenic acids	----	E565-L	0.10	mg/L	<0.10	<0.10	<0.10	<0.10	<0.10	
Volatile Organic Compounds [BTEXS+MTBE]										
Benzene	71-43-2	E611A	0.50	µg/L	<0.50	<0.50	<0.50	<0.50	<0.50	
Ethylbenzene	100-41-4	E611A	0.50	µg/L	<0.50	<0.50	<0.50	<0.50	<0.50	
Toluene	108-88-3	E611A	0.50	µg/L	<0.50	<0.50	<0.50	<0.50	<0.50	
Xylene, m+p-	179601-23-1	E611A	0.50	µg/L	<0.50	<0.50	<0.50	<0.50	<0.50	
Xylene, o-	95-47-6	E611A	0.50	µg/L	<0.50	<0.50	<0.50	<0.50	<0.50	
Xylenes, total	1330-20-7	E611A	0.75	µg/L	<0.75	<0.75	<0.75	<0.75	<0.75	
BTEX, total	----	E611A	1.2	µg/L	<1.2	<1.2	<1.2	<1.2	<1.2	
Hydrocarbons										
F1 (C6-C10)	----	E581.F1	100	µg/L	<100	<100	<100	<100	<100	
F1-BTEX	----	EC580	100	µg/L	<100	<100	<100	<100	<100	
F2 (C10-C16)	----	E601	100	µg/L	<100	<100	<100	<100	<100	



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					Result	Result	Result	Result	Result	
Hydrocarbons										
F3 (C16-C34)	----	E601	250	µg/L	<250	<250	<250	<250	<250	
F4 (C34-C50)	----	E601	250	µg/L	<250	<250	<250	<250	<250	
Hydrocarbons, total (C6-C50)	----	EC581	400	µg/L	<400	<400	<400	<400	<400	
Hydrocarbons Surrogates										
Bromobenzotrifluoride, 2- (F2-F4 surrogate)	392-83-6	E601	1.0	%	95.4	98.9	91.9	90.8	88.4	
Dichlorotoluene, 3,4-	95-75-0	E581.F1	1.0	%	115	109	94.3	108	102	
Volatile Organic Compounds Surrogates										
Bromofluorobenzene, 4-	460-00-4	E611A	1.0	%	90.6	91.8	89.8	86.2	88.3	
Difluorobenzene, 1,4-	540-36-3	E611A	1.0	%	92.8	92.7	94.2	93.2	84.4	
Polycyclic Aromatic Hydrocarbons										
Acenaphthene	83-32-9	E641A	0.010	µg/L	<0.010	<0.010	<0.010	<0.010	<0.010	
Acenaphthylene	208-96-8	E641A	0.010	µg/L	<0.010	<0.010	<0.010	<0.010	<0.010	
Acridine	260-94-6	E641A	0.010	µg/L	<0.010	<0.010	<0.010	<0.010	<0.010	
Anthracene	120-12-7	E641A	0.010	µg/L	<0.010	<0.010	<0.010	<0.010	<0.010	
Benz(a)anthracene	56-55-3	E641A	0.010	µg/L	<0.010	<0.010	<0.010	<0.010	<0.010	
Benzo(a)pyrene	50-32-8	E641A	0.0050	µg/L	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	
Benzo(b+j)fluoranthene	n/a	E641A	0.010	µg/L	<0.010	<0.010	<0.010	<0.010	<0.010	
Benzo(b+j+k)fluoranthene	n/a	E641A	0.015	µg/L	<0.015	<0.015	<0.015	<0.015	<0.015	
Benzo(g,h,i)perylene	191-24-2	E641A	0.010	µg/L	<0.010	<0.010	<0.010	<0.010	<0.010	
Benzo(k)fluoranthene	207-08-9	E641A	0.010	µg/L	<0.010	<0.010	<0.010	<0.010	<0.010	
Chrysene	218-01-9	E641A	0.010	µg/L	<0.010	<0.010	<0.010	<0.010	<0.010	
Dibenz(a,h)anthracene	53-70-3	E641A	0.0050	µg/L	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	
Fluoranthene	206-44-0	E641A	0.010	µg/L	<0.010	<0.010	<0.010	<0.010	<0.010	
Fluorene	86-73-7	E641A	0.010	µg/L	<0.010	<0.010	<0.010	<0.010	<0.010	
Indeno(1,2,3-c,d)pyrene	193-39-5	E641A	0.010	µg/L	<0.010	<0.010	<0.010	<0.010	<0.010	
Methylnaphthalene, 1-	90-12-0	E641A	0.010	µg/L	<0.010	<0.010	<0.010	<0.010	<0.010	
Methylnaphthalene, 1+2-	----	E641A	0.015	µg/L	<0.015	<0.015	<0.015	<0.015	<0.015	
Methylnaphthalene, 2-	91-57-6	E641A	0.010	µg/L	<0.010	<0.010	<0.010	<0.010	<0.010	
Naphthalene	91-20-3	E641A	0.050	µg/L	<0.050	<0.050	<0.050	<0.050	<0.050	
Phenanthrene	85-01-8	E641A	0.020	µg/L	<0.020	<0.020	<0.020	<0.020	<0.020	



Analytical Results

Sub-Matrix: Water (Matrix: Water)					Client sample ID	Treated Water	Raw Water Chamber Tap	121 Howard Street	128 McDonald St.	101 Loutit St.
Client sampling date / time					05-May-2023 09:00	05-May-2023 09:00	05-May-2023 09:10	05-May-2023 09:15	05-May-2023 09:15	
Analyte	CAS Number	Method	LOR	Unit	FC2301105-001	FC2301105-002	FC2301105-003	FC2301105-004	FC2301105-005	
					Result	Result	Result	Result	Result	
Polycyclic Aromatic Hydrocarbons										
Pyrene	129-00-0	E641A	0.010	µg/L	<0.010	<0.010	<0.010	<0.010	<0.010	
Quinoline	91-22-5	E641A	0.050	µg/L	<0.050	<0.050	<0.050	<0.050	<0.050	
B(a)P total potency equivalents [B(a)P TPE]	----	E641A	0.010	µg/L	<0.010	<0.010	<0.010	<0.010	<0.010	
PAHs, high molecular weight (BC AWQ)	n/a	E641A	0.030	µg/L	<0.030	<0.030	<0.030	<0.030	<0.030	
PAHs, low molecular weight (BC AWQ)	n/a	E641A	0.060	µg/L	<0.060	<0.060	<0.060	<0.060	<0.060	
PAHs, total (CCME sewer 18)	n/a	E641A	0.070	µg/L	<0.070	<0.070	<0.070	<0.070	<0.070	
PAHs, total (EPA 16)	n/a	E641A	0.065	µg/L	<0.065	<0.065	<0.065	<0.065	<0.065	
Polycyclic Aromatic Hydrocarbons Surrogates										
Chrysene-d12	1719-03-5	E641A	0.1	%	89.8	102	92.9	90.4	88.3	
Naphthalene-d8	1146-65-2	E641A	0.1	%	117	126	116	114	109	
Phenanthrene-d10	1517-22-2	E641A	0.1	%	99.6	118	98.0	96.2	93.7	

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



CERTIFICATE OF ANALYSIS

Work Order	: FC2301105	Page	: 1 of 21
Client	: Regional Municipality of Wood Buffalo	Laboratory	: Fort McMurray - Environmental
Contact	: Water Treatment Plant	Account Manager	: Megan Trydal
Address	: 1 Silin Forest Road Fort McMurray AB Canada T9H 5A1	Address	: #4, 340 Macalpine Crescent Fort McMurray AB Canada T9H 4A8
Telephone	: 780-762-5863	Telephone	: +1 780 791 1524
Project	: Fort Chipewyan Imperial Release	Date Samples Received	: 05-May-2023 16:05
PO	: 4500049712	Date Analysis	: 06-May-2023
C-O-C number	: ----	Commenced	
Sampler	: Darwin McDonald	Issue Date	: 10-May-2023 17:19
Site	: Schedule 4: Fort Chip		
Quote number	: Q61323 (Fort chip)		
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
- Surrogate Control Limits

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>
Cynthia Bauer	Organic Supervisor	Organics, Calgary, Alberta
Geoff Berg	Lab Analyst	Organics, Edmonton, Alberta
George Huang	Supervisor - Inorganic	Inorganics, Calgary, Alberta
Joshua Stessun	Laboratory Analyst	Organics, Calgary, Alberta
Kate Dimitrova	Analyst	Inorganics, Burnaby, British Columbia
Kevin Baxter	Team Leader - Inorganics	Inorganics, Calgary, Alberta
Millicent Brentnall	Laboratory Analyst	Metals, Calgary, Alberta
Nguyen Tran	Laboratory Analyst	Organics, Calgary, Alberta
Shirley Li	Team Leader - Inorganics	Inorganics, Calgary, Alberta
Shirley Li	Team Leader - Inorganics	Metals, Calgary, Alberta
Victoria Piguing	Laboratory Analyst	Organics, Calgary, Alberta



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).

Measurement Uncertainty: The reported uncertainties in this report are expanded uncertainties calculated using a coverage factor of 2, which gives a level of confidence of approximately 95%.

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.

<i>Unit</i>	<i>Description</i>
-	no units
%	percent
µg/L	micrograms per litre
µS/cm	microsiemens per centimetre
meq/L	milliequivalents per litre
mg/L	milligrams per litre
pH units	pH units
psu	practical salinity units

>: greater than.

<: less than.

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

FC2301105-001

Sub-Matrix: Water

(Matrix: Water)

Client sample ID: Treated Water

Client sampling date / time: 05-May-2023 09:00

Analyte	CAS Number	Result	LOR	Unit	Method	Prep Date	Analysis Date	QCLot
Physical Tests								
Hardness (as CaCO ₃), dissolved	----	32.7	0.50	mg/L	EC100	-	07-May-2023	-
Hardness (as CaCO ₃), from total Ca/Mg	----	31.5	0.50	mg/L	EC100A	-	07-May-2023	-
Salinity	----	<1.0	1.0	psu	EC100S	-	10-May-2023	-
Conductivity	----	127	2.0	µS/cm	E100	06-May-2023	06-May-2023	925375
pH	----	9.01	0.10	pH units	E108	06-May-2023	06-May-2023	925374
Alkalinity, bicarbonate (as HCO ₃)	71-52-3	43.9	1.0	mg/L	E290	06-May-2023	06-May-2023	925376
Alkalinity, carbonate (as CO ₃)	3812-32-6	4.7	1.0	mg/L	E290	06-May-2023	06-May-2023	925376
Alkalinity, hydroxide (as OH)	14280-30-9	<1.0	1.0	mg/L	E290	06-May-2023	06-May-2023	925376
Alkalinity, total (as CaCO ₃)	----	43.8	2.0	mg/L	E290	06-May-2023	06-May-2023	925376
Solids, total dissolved [TDS], calculated	----	74.5	1.0	mg/L	EC103	-	06-May-2023	-
Anions and Nutrients								
Chloride	16887-00-6	11.2	0.50	mg/L	E235.Cl	06-May-2023	06-May-2023	925152
Fluoride	16984-48-8	0.030	0.020	mg/L	E235.F	06-May-2023	06-May-2023	925151
Nitrate (as N)	14797-55-8	<0.020	0.020	mg/L	E235.NO3	06-May-2023	06-May-2023	925148
Nitrite (as N)	14797-65-0	<0.010	0.010	mg/L	E235.NO2	06-May-2023	06-May-2023	925149
Sulfate (as SO ₄)	14808-79-8	3.68	0.30	mg/L	E235.SO4	06-May-2023	06-May-2023	925150
Nitrate + Nitrite (as N)	----	<0.0500	0.05	mg/L	EC235.N+N	-	06-May-2023	925373
Total Sulfides								
Sulfide, total (as S)	18496-25-8	<0.0015	0.0015	mg/L	E395	-	09-May-2023	928789
Ion Balance								
Anion sum	----	1.27	0.10	meq/L	EC101	-	06-May-2023	-
Cation sum	----	1.38	0.10	meq/L	EC101	-	06-May-2023	-
Ion balance (APHA)	----	4.15	0.01	%	EC101	-	06-May-2023	-
Ion balance (cations/anions)	----	109	0.010	%	EC101	-	06-May-2023	-
Total Metals								
Aluminum, total	7429-90-5	0.0118	0.0030	mg/L	E420	07-May-2023	07-May-2023	925648
Antimony, total	7440-36-0	<0.00010	0.00010	mg/L	E420	07-May-2023	07-May-2023	925648
Arsenic, total	7440-38-2	0.00019	0.00010	mg/L	E420	07-May-2023	07-May-2023	925648
Barium, total	7440-39-3	0.0160	0.00010	mg/L	E420	07-May-2023	07-May-2023	925648
Beryllium, total	7440-41-7	<0.000020	0.000020	mg/L	E420	07-May-2023	07-May-2023	925648
Bismuth, total	7440-69-9	<0.000050	0.000050	mg/L	E420	07-May-2023	07-May-2023	925648
Boron, total	7440-42-8	0.013	0.010	mg/L	E420	07-May-2023	07-May-2023	925648
Cadmium, total	7440-43-9	<0.0000050	0.0000050	mg/L	E420	07-May-2023	07-May-2023	925648
Calcium, total	7440-70-2	8.48	0.050	mg/L	E420	07-May-2023	07-May-2023	925648
Cesium, total	7440-46-2	<0.000010	0.000010	mg/L	E420	07-May-2023	07-May-2023	925648
Chromium, total	7440-47-3	<0.00050	0.00050	mg/L	E420	07-May-2023	07-May-2023	925648
Cobalt, total	7440-48-4	<0.00010	0.00010	mg/L	E420	07-May-2023	07-May-2023	925648
Copper, total	7440-50-8	<0.00050	0.00050	mg/L	E420	07-May-2023	07-May-2023	925648
Iron, total	7439-89-6	<0.010	0.010	mg/L	E420	07-May-2023	07-May-2023	925648
Lead, total	7439-92-1	<0.000050	0.000050	mg/L	E420	07-May-2023	07-May-2023	925648
Lithium, total	7439-93-2	0.0024	0.0010	mg/L	E420	07-May-2023	07-May-2023	925648
Magnesium, total	7439-95-4	2.50	0.0050	mg/L	E420	07-May-2023	07-May-2023	925648
Manganese, total	7439-96-5	0.00227	0.00010	mg/L	E420	07-May-2023	07-May-2023	925648
Molybdenum, total	7439-98-7	0.000180	0.000050	mg/L	E420	07-May-2023	07-May-2023	925648
Nickel, total	7440-02-0	<0.00050	0.00050	mg/L	E420	07-May-2023	07-May-2023	925648
Phosphorus, total	7723-14-0	<0.050	0.050	mg/L	E420	07-May-2023	07-May-2023	925648



Analytical Results

FC2301105-001

Sub-Matrix: Water

(Matrix: Water)

Client sample ID: Treated Water

Client sampling date / time: 05-May-2023 09:00

Analyte	CAS Number	Result	LOR	Unit	Method	Prep Date	Analysis Date	QCLOT
Total Metals								
Potassium, total	7440-09-7	1.01	0.050	mg/L	E420	07-May-2023	07-May-2023	925648
Rubidium, total	7440-17-7	0.00113	0.00020	mg/L	E420	07-May-2023	07-May-2023	925648
Selenium, total	7782-49-2	<0.000050	0.000050	mg/L	E420	07-May-2023	07-May-2023	925648
Silicon, total	7440-21-3	1.69	0.10	mg/L	E420	07-May-2023	07-May-2023	925648
Silver, total	7440-22-4	<0.000010	0.000010	mg/L	E420	07-May-2023	07-May-2023	925648
Sodium, total	7440-23-5	15.5	0.050	mg/L	E420	07-May-2023	07-May-2023	925648
Strontium, total	7440-24-6	0.0555	0.00020	mg/L	E420	07-May-2023	07-May-2023	925648
Sulfur, total	7704-34-9	1.38	0.50	mg/L	E420	07-May-2023	07-May-2023	925648
Tellurium, total	13494-80-9	<0.00020	0.00020	mg/L	E420	07-May-2023	07-May-2023	925648
Thallium, total	7440-28-0	<0.000010	0.000010	mg/L	E420	07-May-2023	07-May-2023	925648
Thorium, total	7440-29-1	<0.00010	0.00010	mg/L	E420	07-May-2023	07-May-2023	925648
Tin, total	7440-31-5	<0.00010	0.00010	mg/L	E420	07-May-2023	07-May-2023	925648
Titanium, total	7440-32-6	<0.00030	0.00030	mg/L	E420	07-May-2023	07-May-2023	925648
Tungsten, total	7440-33-7	<0.00010	0.00010	mg/L	E420	07-May-2023	07-May-2023	925648
Uranium, total	7440-61-1	<0.000010	0.000010	mg/L	E420	07-May-2023	07-May-2023	925648
Vanadium, total	7440-62-2	<0.00050	0.00050	mg/L	E420	07-May-2023	07-May-2023	925648
Zinc, total	7440-66-6	<0.0030	0.0030	mg/L	E420	07-May-2023	07-May-2023	925648
Zirconium, total	7440-67-7	<0.00020	0.00020	mg/L	E420	07-May-2023	07-May-2023	925648
Dissolved Metals								
Aluminum, dissolved	7429-90-5	0.0112	0.0010	mg/L	E421	07-May-2023	07-May-2023	925650
Antimony, dissolved	7440-36-0	<0.00010	0.00010	mg/L	E421	07-May-2023	07-May-2023	925650
Arsenic, dissolved	7440-38-2	0.00016	0.00010	mg/L	E421	07-May-2023	07-May-2023	925650
Barium, dissolved	7440-39-3	0.0158	0.00010	mg/L	E421	07-May-2023	07-May-2023	925650
Beryllium, dissolved	7440-41-7	<0.000020	0.000020	mg/L	E421	07-May-2023	07-May-2023	925650
Bismuth, dissolved	7440-69-9	<0.000050	0.000050	mg/L	E421	07-May-2023	07-May-2023	925650
Boron, dissolved	7440-42-8	0.013	0.010	mg/L	E421	07-May-2023	07-May-2023	925650
Cadmium, dissolved	7440-43-9	<0.0000050	0.0000050	mg/L	E421	07-May-2023	07-May-2023	925650
Calcium, dissolved	7440-70-2	8.84	0.050	mg/L	E421	07-May-2023	07-May-2023	925650
Cesium, dissolved	7440-46-2	<0.000010	0.000010	mg/L	E421	07-May-2023	07-May-2023	925650
Chromium, dissolved	7440-47-3	<0.00050	0.00050	mg/L	E421	07-May-2023	07-May-2023	925650
Cobalt, dissolved	7440-48-4	<0.00010	0.00010	mg/L	E421	07-May-2023	07-May-2023	925650
Copper, dissolved	7440-50-8	0.00036	0.00020	mg/L	E421	07-May-2023	07-May-2023	925650
Iron, dissolved	7439-89-6	<0.030	0.030	mg/L	E421	07-May-2023	07-May-2023	925650
Lead, dissolved	7439-92-1	<0.000050	0.000050	mg/L	E421	07-May-2023	07-May-2023	925650
Lithium, dissolved	7439-93-2	0.0030	0.0010	mg/L	E421	07-May-2023	07-May-2023	925650
Magnesium, dissolved	7439-95-4	2.59	0.0050	mg/L	E421	07-May-2023	07-May-2023	925650
Manganese, dissolved	7439-96-5	<0.00500	0.00500	mg/L	E421	07-May-2023	07-May-2023	925650
Molybdenum, dissolved	7439-98-7	0.000206	0.000050	mg/L	E421	07-May-2023	07-May-2023	925650
Nickel, dissolved	7440-02-0	<0.00050	0.00050	mg/L	E421	07-May-2023	07-May-2023	925650
Phosphorus, dissolved	7723-14-0	<0.050	0.050	mg/L	E421	07-May-2023	07-May-2023	925650
Potassium, dissolved	7440-09-7	1.04	0.050	mg/L	E421	07-May-2023	07-May-2023	925650
Rubidium, dissolved	7440-17-7	0.00085	0.00020	mg/L	E421	07-May-2023	07-May-2023	925650
Selenium, dissolved	7782-49-2	<0.000050	0.000050	mg/L	E421	07-May-2023	07-May-2023	925650
Silicon, dissolved	7440-21-3	1.75	0.050	mg/L	E421	07-May-2023	07-May-2023	925650
Silver, dissolved	7440-22-4	<0.000010	0.000010	mg/L	E421	07-May-2023	07-May-2023	925650
Sodium, dissolved	7440-23-5	16.1	0.050	mg/L	E421	07-May-2023	07-May-2023	925650



Analytical Results

FC2301105-001

Sub-Matrix: Water

(Matrix: Water)

Client sample ID: Treated Water

Client sampling date / time: 05-May-2023 09:00

Analyte	CAS Number	Result	LOR	Unit	Method	Prep Date	Analysis Date	QCLot
Dissolved Metals								
Strontium, dissolved	7440-24-6	0.0576	0.00020	mg/L	E421	07-May-2023	07-May-2023	925650
Sulfur, dissolved	7704-34-9	1.47	0.50	mg/L	E421	07-May-2023	07-May-2023	925650
Tellurium, dissolved	13494-80-9	<0.00020	0.00020	mg/L	E421	07-May-2023	07-May-2023	925650
Thallium, dissolved	7440-28-0	<0.000010	0.000010	mg/L	E421	07-May-2023	07-May-2023	925650
Thorium, dissolved	7440-29-1	<0.00010	0.00010	mg/L	E421	07-May-2023	07-May-2023	925650
Tin, dissolved	7440-31-5	<0.00010	0.00010	mg/L	E421	07-May-2023	07-May-2023	925650
Titanium, dissolved	7440-32-6	<0.00030	0.00030	mg/L	E421	07-May-2023	07-May-2023	925650
Tungsten, dissolved	7440-33-7	<0.00010	0.00010	mg/L	E421	07-May-2023	07-May-2023	925650
Uranium, dissolved	7440-61-1	<0.000010	0.000010	mg/L	E421	07-May-2023	07-May-2023	925650
Vanadium, dissolved	7440-62-2	<0.00050	0.00050	mg/L	E421	07-May-2023	07-May-2023	925650
Zinc, dissolved	7440-66-6	<0.0010	0.0010	mg/L	E421	07-May-2023	07-May-2023	925650
Zirconium, dissolved	7440-67-7	<0.00030	0.00030	mg/L	E421	07-May-2023	07-May-2023	925650
Dissolved metals filtration location	----	Laboratory	-	-	EP421	-	07-May-2023	925650
Aggregate Organics								
Naphthenic acids	----	<0.10	0.10	mg/L	E565-L	08-May-2023	09-May-2023	926511
Volatile Organic Compounds [BTEXS+MTBE]								
Benzene	71-43-2	<0.50	0.50	µg/L	E611A	06-May-2023	06-May-2023	925174
Ethylbenzene	100-41-4	<0.50	0.50	µg/L	E611A	06-May-2023	06-May-2023	925174
Toluene	108-88-3	<0.50	0.50	µg/L	E611A	06-May-2023	06-May-2023	925174
Xylene, m+p-	179601-23-1	<0.50	0.50	µg/L	E611A	06-May-2023	06-May-2023	925174
Xylene, o-	95-47-6	<0.50	0.50	µg/L	E611A	06-May-2023	06-May-2023	925174
Xylenes, total	1330-20-7	<0.75	0.75	µg/L	E611A	06-May-2023	06-May-2023	925174
BTEX, total	----	<1.2	1.2	µg/L	E611A	06-May-2023	06-May-2023	925174
Hydrocarbons								
F1 (C6-C10)	----	<100	100	µg/L	E581.F1	06-May-2023	06-May-2023	925175
F1-BTEX	----	<100	100	µg/L	EC580	-	06-May-2023	-
F2 (C10-C16)	----	<100	100	µg/L	E601	06-May-2023	06-May-2023	925146
F3 (C16-C34)	----	<250	250	µg/L	E601	06-May-2023	06-May-2023	925146
F4 (C34-C50)	----	<250	250	µg/L	E601	06-May-2023	06-May-2023	925146
Hydrocarbons, total (C6-C50)	----	<400	400	µg/L	EC581	-	06-May-2023	-
Hydrocarbons Surrogates								
Bromobenzotrifluoride, 2- (F2-F4 surrogate)	392-83-6	95.4	1.0	%	E601	06-May-2023	06-May-2023	925146
Dichlorotoluene, 3,4-	95-75-0	115	1.0	%	E581.F1	06-May-2023	06-May-2023	925175
Volatile Organic Compounds Surrogates								
Bromofluorobenzene, 4-	460-00-4	90.6	1.0	%	E611A	06-May-2023	06-May-2023	925174
Diffluorobenzene, 1,4-	540-36-3	92.8	1.0	%	E611A	06-May-2023	06-May-2023	925174
Polycyclic Aromatic Hydrocarbons								
Acenaphthene	83-32-9	<0.010	0.010	µg/L	E641A	06-May-2023	06-May-2023	925147
Acenaphthylene	208-96-8	<0.010	0.010	µg/L	E641A	06-May-2023	06-May-2023	925147
Acridine	260-94-6	<0.010	0.010	µg/L	E641A	06-May-2023	06-May-2023	925147
Anthracene	120-12-7	<0.010	0.010	µg/L	E641A	06-May-2023	06-May-2023	925147
Benz(a)anthracene	56-55-3	<0.010	0.010	µg/L	E641A	06-May-2023	06-May-2023	925147
Benzo(a)pyrene	50-32-8	<0.0050	0.0050	µg/L	E641A	06-May-2023	06-May-2023	925147
Benzo(b+j)fluoranthene	n/a	<0.010	0.010	µg/L	E641A	06-May-2023	06-May-2023	925147
Benzo(b+j+k)fluoranthene	n/a	<0.015	0.015	µg/L	E641A	06-May-2023	06-May-2023	925147
Benzo(g,h,i)perylene	191-24-2	<0.010	0.010	µg/L	E641A	06-May-2023	06-May-2023	925147



Analytical Results

FC2301105-001

Sub-Matrix: Water

(Matrix: Water)

Client sample ID: Treated Water

Client sampling date / time: 05-May-2023 09:00

Analyte	CAS Number	Result	LOR	Unit	Method	Prep Date	Analysis Date	QCLot
Polycyclic Aromatic Hydrocarbons								
Benzo(k)fluoranthene	207-08-9	<0.010	0.010	µg/L	E641A	06-May-2023	06-May-2023	925147
Chrysene	218-01-9	<0.010	0.010	µg/L	E641A	06-May-2023	06-May-2023	925147
Dibenz(a,h)anthracene	53-70-3	<0.0050	0.0050	µg/L	E641A	06-May-2023	06-May-2023	925147
Fluoranthene	206-44-0	<0.010	0.010	µg/L	E641A	06-May-2023	06-May-2023	925147
Fluorene	86-73-7	<0.010	0.010	µg/L	E641A	06-May-2023	06-May-2023	925147
Indeno(1,2,3-c,d)pyrene	193-39-5	<0.010	0.010	µg/L	E641A	06-May-2023	06-May-2023	925147
Methylnaphthalene, 1-	90-12-0	<0.010	0.010	µg/L	E641A	06-May-2023	06-May-2023	925147
Methylnaphthalene, 1+2-	----	<0.015	0.015	µg/L	E641A	06-May-2023	06-May-2023	925147
Methylnaphthalene, 2-	91-57-6	<0.010	0.010	µg/L	E641A	06-May-2023	06-May-2023	925147
Naphthalene	91-20-3	<0.050	0.050	µg/L	E641A	06-May-2023	06-May-2023	925147
Phenanthrene	85-01-8	<0.020	0.020	µg/L	E641A	06-May-2023	06-May-2023	925147
Pyrene	129-00-0	<0.010	0.010	µg/L	E641A	06-May-2023	06-May-2023	925147
Quinoline	91-22-5	<0.050	0.050	µg/L	E641A	06-May-2023	06-May-2023	925147
B(a)P total potency equivalents [B(a)P TPE]	----	<0.010	0.010	µg/L	E641A	06-May-2023	06-May-2023	925147
PAHs, high molecular weight (BC AWQ)	n/a	<0.030	0.03	µg/L	E641A	06-May-2023	06-May-2023	925147
PAHs, low molecular weight (BC AWQ)	n/a	<0.060	0.06	µg/L	E641A	06-May-2023	06-May-2023	925147
PAHs, total (CCME sewer 18)	n/a	<0.070	0.07	µg/L	E641A	06-May-2023	06-May-2023	925147
PAHs, total (EPA 16)	n/a	<0.065	0.065	µg/L	E641A	06-May-2023	06-May-2023	925147
Polycyclic Aromatic Hydrocarbons Surrogates								
Chrysene-d12	1719-03-5	89.8	0.1	%	E641A	06-May-2023	06-May-2023	925147
Naphthalene-d8	1146-65-2	117	0.1	%	E641A	06-May-2023	06-May-2023	925147
Phenanthrene-d10	1517-22-2	99.6	0.1	%	E641A	06-May-2023	06-May-2023	925147

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

Analytical Results

FC2301105-002

Sub-Matrix: Water

(Matrix: Water)

Client sample ID: Raw Water Chamber Tap

Client sampling date / time: 05-May-2023 09:00

Analyte	CAS Number	Result	LOR	Unit	Method	Prep Date	Analysis Date	QCLot
Physical Tests								
Hardness (as CaCO ₃), dissolved	----	29.7	0.50	mg/L	EC100	-	07-May-2023	-
Hardness (as CaCO ₃), from total Ca/Mg	----	28.9	0.50	mg/L	EC100A	-	07-May-2023	-
Salinity	----	<1.0	1.0	psu	EC100S	-	10-May-2023	-
Conductivity	----	66.5	2.0	µS/cm	E100	06-May-2023	06-May-2023	925375
pH	----	7.24	0.10	pH units	E108	06-May-2023	06-May-2023	925374
Alkalinity, bicarbonate (as HCO ₃)	71-52-3	30.6	1.0	mg/L	E290	06-May-2023	06-May-2023	925376
Alkalinity, carbonate (as CO ₃)	3812-32-6	<1.0	1.0	mg/L	E290	06-May-2023	06-May-2023	925376
Alkalinity, hydroxide (as OH)	14280-30-9	<1.0	1.0	mg/L	E290	06-May-2023	06-May-2023	925376
Alkalinity, total (as CaCO ₃)	----	25.1	2.0	mg/L	E290	06-May-2023	06-May-2023	925376
Solids, total dissolved [TDS], calculated	----	40.8	1.0	mg/L	EC103	-	06-May-2023	-
Anions and Nutrients								
Chloride	16887-00-6	3.07	0.50	mg/L	E235.Cl	06-May-2023	06-May-2023	925152
Fluoride	16984-48-8	0.058	0.020	mg/L	E235.F	06-May-2023	06-May-2023	925151



Analytical Results

FC2301105-002

Sub-Matrix: Water

(Matrix: Water)

Client sample ID: Raw Water Chamber Tap

Client sampling date / time: 05-May-2023 09:00

Analyte	CAS Number	Result	LOR	Unit	Method	Prep Date	Analysis Date	QCLot
Anions and Nutrients								
Nitrate (as N)	14797-55-8	<0.020	0.020	mg/L	E235.NO3	06-May-2023	06-May-2023	925148
Nitrite (as N)	14797-65-0	<0.010	0.010	mg/L	E235.NO2	06-May-2023	06-May-2023	925149
Sulfate (as SO4)	14808-79-8	3.73	0.30	mg/L	E235.SO4	06-May-2023	06-May-2023	925150
Nitrate + Nitrite (as N)	----	<0.0500	0.05	mg/L	EC235.N+N	-	06-May-2023	925373
Total Sulfides								
Sulfide, total (as S)	18496-25-8	<0.0015	0.0015	mg/L	E395	-	09-May-2023	928789
Ion Balance								
Anion sum	----	0.67	0.10	meq/L	EC101	-	06-May-2023	-
Cation sum	----	0.74	0.10	meq/L	EC101	-	06-May-2023	-
Ion balance (APHA)	----	4.96	0.01	%	EC101	-	06-May-2023	-
Ion balance (cations/anions)	----	110	0.010	%	EC101	-	06-May-2023	-
Total Metals								
Aluminum, total	7429-90-5	0.107	0.0030	mg/L	E420	07-May-2023	07-May-2023	925648
Antimony, total	7440-36-0	<0.00010	0.00010	mg/L	E420	07-May-2023	07-May-2023	925648
Arsenic, total	7440-38-2	0.00024	0.00010	mg/L	E420	07-May-2023	07-May-2023	925648
Barium, total	7440-39-3	0.0168	0.00010	mg/L	E420	07-May-2023	07-May-2023	925648
Beryllium, total	7440-41-7	<0.000020	0.000020	mg/L	E420	07-May-2023	07-May-2023	925648
Bismuth, total	7440-69-9	<0.000050	0.000050	mg/L	E420	07-May-2023	07-May-2023	925648
Boron, total	7440-42-8	0.012	0.010	mg/L	E420	07-May-2023	07-May-2023	925648
Cadmium, total	7440-43-9	<0.0000050	0.0000050	mg/L	E420	07-May-2023	07-May-2023	925648
Calcium, total	7440-70-2	7.61	0.050	mg/L	E420	07-May-2023	07-May-2023	925648
Cesium, total	7440-46-2	0.000011	0.000010	mg/L	E420	07-May-2023	07-May-2023	925648
Chromium, total	7440-47-3	<0.00050	0.00050	mg/L	E420	07-May-2023	07-May-2023	925648
Cobalt, total	7440-48-4	<0.00010	0.00010	mg/L	E420	07-May-2023	07-May-2023	925648
Copper, total	7440-50-8	0.00095	0.00050	mg/L	E420	07-May-2023	07-May-2023	925648
Iron, total	7439-89-6	0.140	0.010	mg/L	E420	07-May-2023	07-May-2023	925648
Lead, total	7439-92-1	0.000055	0.000050	mg/L	E420	07-May-2023	07-May-2023	925648
Lithium, total	7439-93-2	0.0024	0.0010	mg/L	E420	07-May-2023	07-May-2023	925648
Magnesium, total	7439-95-4	2.40	0.0050	mg/L	E420	07-May-2023	07-May-2023	925648
Manganese, total	7439-96-5	0.00423	0.00010	mg/L	E420	07-May-2023	07-May-2023	925648
Molybdenum, total	7439-98-7	0.000204	0.000050	mg/L	E420	07-May-2023	07-May-2023	925648
Nickel, total	7440-02-0	<0.00050	0.00050	mg/L	E420	07-May-2023	07-May-2023	925648
Phosphorus, total	7723-14-0	<0.050	0.050	mg/L	E420	07-May-2023	07-May-2023	925648
Potassium, total	7440-09-7	0.986	0.050	mg/L	E420	07-May-2023	07-May-2023	925648
Rubidium, total	7440-17-7	0.00107	0.00020	mg/L	E420	07-May-2023	07-May-2023	925648
Selenium, total	7782-49-2	0.000066	0.000050	mg/L	E420	07-May-2023	07-May-2023	925648
Silicon, total	7440-21-3	1.88	0.10	mg/L	E420	07-May-2023	07-May-2023	925648
Silver, total	7440-22-4	<0.000010	0.000010	mg/L	E420	07-May-2023	07-May-2023	925648
Sodium, total	7440-23-5	2.63	0.050	mg/L	E420	07-May-2023	07-May-2023	925648
Strontium, total	7440-24-6	0.0536	0.00020	mg/L	E420	07-May-2023	07-May-2023	925648
Sulfur, total	7704-34-9	1.59	0.50	mg/L	E420	07-May-2023	07-May-2023	925648
Tellurium, total	13494-80-9	<0.00020	0.00020	mg/L	E420	07-May-2023	07-May-2023	925648
Thallium, total	7440-28-0	<0.000010	0.000010	mg/L	E420	07-May-2023	07-May-2023	925648
Thorium, total	7440-29-1	<0.00010	0.00010	mg/L	E420	07-May-2023	07-May-2023	925648
Tin, total	7440-31-5	<0.00010	0.00010	mg/L	E420	07-May-2023	07-May-2023	925648
Titanium, total	7440-32-6	0.00247	0.00030	mg/L	E420	07-May-2023	07-May-2023	925648



Analytical Results

FC2301105-002

Sub-Matrix: Water

(Matrix: Water)

Client sample ID: Raw Water Chamber Tap

Client sampling date / time: 05-May-2023 09:00

Analyte	CAS Number	Result	LOR	Unit	Method	Prep Date	Analysis Date	QCLot
Total Metals								
Tungsten, total	7440-33-7	<0.00010	0.00010	mg/L	E420	07-May-2023	07-May-2023	925648
Uranium, total	7440-61-1	0.000095	0.000010	mg/L	E420	07-May-2023	07-May-2023	925648
Vanadium, total	7440-62-2	<0.00050	0.00050	mg/L	E420	07-May-2023	07-May-2023	925648
Zinc, total	7440-66-6	<0.0030	0.0030	mg/L	E420	07-May-2023	07-May-2023	925648
Zirconium, total	7440-67-7	<0.00020	0.00020	mg/L	E420	07-May-2023	07-May-2023	925648
Dissolved Metals								
Aluminum, dissolved	7429-90-5	0.0177	0.0010	mg/L	E421	07-May-2023	07-May-2023	925650
Antimony, dissolved	7440-36-0	<0.00010	0.00010	mg/L	E421	07-May-2023	07-May-2023	925650
Arsenic, dissolved	7440-38-2	0.00018	0.00010	mg/L	E421	07-May-2023	07-May-2023	925650
Barium, dissolved	7440-39-3	0.0152	0.00010	mg/L	E421	07-May-2023	07-May-2023	925650
Beryllium, dissolved	7440-41-7	<0.000020	0.000020	mg/L	E421	07-May-2023	07-May-2023	925650
Bismuth, dissolved	7440-69-9	<0.000050	0.000050	mg/L	E421	07-May-2023	07-May-2023	925650
Boron, dissolved	7440-42-8	0.012	0.010	mg/L	E421	07-May-2023	07-May-2023	925650
Cadmium, dissolved	7440-43-9	<0.0000050	0.0000050	mg/L	E421	07-May-2023	07-May-2023	925650
Calcium, dissolved	7440-70-2	7.90	0.050	mg/L	E421	07-May-2023	07-May-2023	925650
Cesium, dissolved	7440-46-2	<0.000010	0.000010	mg/L	E421	07-May-2023	07-May-2023	925650
Chromium, dissolved	7440-47-3	<0.00050	0.00050	mg/L	E421	07-May-2023	07-May-2023	925650
Cobalt, dissolved	7440-48-4	<0.00010	0.00010	mg/L	E421	07-May-2023	07-May-2023	925650
Copper, dissolved	7440-50-8	0.00070	0.00020	mg/L	E421	07-May-2023	07-May-2023	925650
Iron, dissolved	7439-89-6	0.034	0.030	mg/L	E421	07-May-2023	07-May-2023	925650
Lead, dissolved	7439-92-1	<0.000050	0.000050	mg/L	E421	07-May-2023	07-May-2023	925650
Lithium, dissolved	7439-93-2	0.0028	0.0010	mg/L	E421	07-May-2023	07-May-2023	925650
Magnesium, dissolved	7439-95-4	2.43	0.0050	mg/L	E421	07-May-2023	07-May-2023	925650
Manganese, dissolved	7439-96-5	<0.00500	0.00500	mg/L	E421	07-May-2023	07-May-2023	925650
Molybdenum, dissolved	7439-98-7	0.000212	0.000050	mg/L	E421	07-May-2023	07-May-2023	925650
Nickel, dissolved	7440-02-0	<0.00050	0.00050	mg/L	E421	07-May-2023	07-May-2023	925650
Phosphorus, dissolved	7723-14-0	<0.050	0.050	mg/L	E421	07-May-2023	07-May-2023	925650
Potassium, dissolved	7440-09-7	0.966	0.050	mg/L	E421	07-May-2023	07-May-2023	925650
Rubidium, dissolved	7440-17-7	0.00081	0.00020	mg/L	E421	07-May-2023	07-May-2023	925650
Selenium, dissolved	7782-49-2	0.000053	0.000050	mg/L	E421	07-May-2023	07-May-2023	925650
Silicon, dissolved	7440-21-3	1.76	0.050	mg/L	E421	07-May-2023	07-May-2023	925650
Silver, dissolved	7440-22-4	<0.000010	0.000010	mg/L	E421	07-May-2023	07-May-2023	925650
Sodium, dissolved	7440-23-5	2.75	0.050	mg/L	E421	07-May-2023	07-May-2023	925650
Strontium, dissolved	7440-24-6	0.0545	0.00020	mg/L	E421	07-May-2023	07-May-2023	925650
Sulfur, dissolved	7704-34-9	1.54	0.50	mg/L	E421	07-May-2023	07-May-2023	925650
Tellurium, dissolved	13494-80-9	<0.00020	0.00020	mg/L	E421	07-May-2023	07-May-2023	925650
Thallium, dissolved	7440-28-0	<0.000010	0.000010	mg/L	E421	07-May-2023	07-May-2023	925650
Thorium, dissolved	7440-29-1	<0.00010	0.00010	mg/L	E421	07-May-2023	07-May-2023	925650
Tin, dissolved	7440-31-5	<0.00010	0.00010	mg/L	E421	07-May-2023	07-May-2023	925650
Titanium, dissolved	7440-32-6	0.00056	0.00030	mg/L	E421	07-May-2023	07-May-2023	925650
Tungsten, dissolved	7440-33-7	<0.00010	0.00010	mg/L	E421	07-May-2023	07-May-2023	925650
Uranium, dissolved	7440-61-1	0.000077	0.000010	mg/L	E421	07-May-2023	07-May-2023	925650
Vanadium, dissolved	7440-62-2	<0.00050	0.00050	mg/L	E421	07-May-2023	07-May-2023	925650
Zinc, dissolved	7440-66-6	<0.0010	0.0010	mg/L	E421	07-May-2023	07-May-2023	925650
Zirconium, dissolved	7440-67-7	<0.00030	0.00030	mg/L	E421	07-May-2023	07-May-2023	925650
Dissolved metals filtration location	----	Laboratory	-	-	EP421	-	07-May-2023	925650



Analytical Results

FC2301105-002

Sub-Matrix: Water

(Matrix: Water)

Client sample ID: Raw Water Chamber Tap

Client sampling date / time: 05-May-2023 09:00

Analyte	CAS Number	Result	LOR	Unit	Method	Prep Date	Analysis Date	QCLot
Aggregate Organics								
Naphthenic acids	----	<0.10	0.10	mg/L	E565-L	08-May-2023	09-May-2023	926511
Volatile Organic Compounds [BTEXS+MTBE]								
Benzene	71-43-2	<0.50	0.50	µg/L	E611A	06-May-2023	06-May-2023	925174
Ethylbenzene	100-41-4	<0.50	0.50	µg/L	E611A	06-May-2023	06-May-2023	925174
Toluene	108-88-3	<0.50	0.50	µg/L	E611A	06-May-2023	06-May-2023	925174
Xylene, m+p-	179601-23-1	<0.50	0.50	µg/L	E611A	06-May-2023	06-May-2023	925174
Xylene, o-	95-47-6	<0.50	0.50	µg/L	E611A	06-May-2023	06-May-2023	925174
Xylenes, total	1330-20-7	<0.75	0.75	µg/L	E611A	06-May-2023	06-May-2023	925174
BTEX, total	----	<1.2	1.2	µg/L	E611A	06-May-2023	06-May-2023	925174
Hydrocarbons								
F1 (C6-C10)	----	<100	100	µg/L	E581.F1	06-May-2023	06-May-2023	925175
F1-BTEX	----	<100	100	µg/L	EC580	-	06-May-2023	-
F2 (C10-C16)	----	<100	100	µg/L	E601	06-May-2023	06-May-2023	925146
F3 (C16-C34)	----	<250	250	µg/L	E601	06-May-2023	06-May-2023	925146
F4 (C34-C50)	----	<250	250	µg/L	E601	06-May-2023	06-May-2023	925146
Hydrocarbons, total (C6-C50)	----	<400	400	µg/L	EC581	-	06-May-2023	-
Hydrocarbons Surrogates								
Bromobenzotrifluoride, 2- (F2-F4 surrogate)	392-83-6	98.9	1.0	%	E601	06-May-2023	06-May-2023	925146
Dichlorotoluene, 3,4-	95-75-0	109	1.0	%	E581.F1	06-May-2023	06-May-2023	925175
Volatile Organic Compounds Surrogates								
Bromofluorobenzene, 4-	460-00-4	91.8	1.0	%	E611A	06-May-2023	06-May-2023	925174
Difluorobenzene, 1,4-	540-36-3	92.7	1.0	%	E611A	06-May-2023	06-May-2023	925174
Polycyclic Aromatic Hydrocarbons								
Acenaphthene	83-32-9	<0.010	0.010	µg/L	E641A	06-May-2023	06-May-2023	925147
Acenaphthylene	208-96-8	<0.010	0.010	µg/L	E641A	06-May-2023	06-May-2023	925147
Acridine	260-94-6	<0.010	0.010	µg/L	E641A	06-May-2023	06-May-2023	925147
Anthracene	120-12-7	<0.010	0.010	µg/L	E641A	06-May-2023	06-May-2023	925147
Benzo(a)anthracene	56-55-3	<0.010	0.010	µg/L	E641A	06-May-2023	06-May-2023	925147
Benzo(a)pyrene	50-32-8	<0.0050	0.0050	µg/L	E641A	06-May-2023	06-May-2023	925147
Benzo(b+j)fluoranthene	n/a	<0.010	0.010	µg/L	E641A	06-May-2023	06-May-2023	925147
Benzo(b+j+k)fluoranthene	n/a	<0.015	0.015	µg/L	E641A	06-May-2023	06-May-2023	925147
Benzo(g,h,i)perylene	191-24-2	<0.010	0.010	µg/L	E641A	06-May-2023	06-May-2023	925147
Benzo(k)fluoranthene	207-08-9	<0.010	0.010	µg/L	E641A	06-May-2023	06-May-2023	925147
Chrysene	218-01-9	<0.010	0.010	µg/L	E641A	06-May-2023	06-May-2023	925147
Dibenz(a,h)anthracene	53-70-3	<0.0050	0.0050	µg/L	E641A	06-May-2023	06-May-2023	925147
Fluoranthene	206-44-0	<0.010	0.010	µg/L	E641A	06-May-2023	06-May-2023	925147
Fluorene	86-73-7	<0.010	0.010	µg/L	E641A	06-May-2023	06-May-2023	925147
Indeno(1,2,3-c,d)pyrene	193-39-5	<0.010	0.010	µg/L	E641A	06-May-2023	06-May-2023	925147
Methylnaphthalene, 1-	90-12-0	<0.010	0.010	µg/L	E641A	06-May-2023	06-May-2023	925147
Methylnaphthalene, 1+2-	----	<0.015	0.015	µg/L	E641A	06-May-2023	06-May-2023	925147
Methylnaphthalene, 2-	91-57-6	<0.010	0.010	µg/L	E641A	06-May-2023	06-May-2023	925147
Naphthalene	91-20-3	<0.050	0.050	µg/L	E641A	06-May-2023	06-May-2023	925147
Phenanthrene	85-01-8	<0.020	0.020	µg/L	E641A	06-May-2023	06-May-2023	925147
Pyrene	129-00-0	<0.010	0.010	µg/L	E641A	06-May-2023	06-May-2023	925147
Quinoline	91-22-5	<0.050	0.050	µg/L	E641A	06-May-2023	06-May-2023	925147
B(a)P total potency equivalents [B(a)P TPE]	----	<0.010	0.010	µg/L	E641A	06-May-2023	06-May-2023	925147



Analytical Results

FC2301105-002

Sub-Matrix: Water

(Matrix: Water)

Client sample ID: Raw Water Chamber Tap

Client sampling date / time: 05-May-2023 09:00

Analyte	CAS Number	Result	LOR	Unit	Method	Prep Date	Analysis Date	QCLot
Polycyclic Aromatic Hydrocarbons								
PAHs, high molecular weight (BC AWQ)	n/a	<0.030	0.03	µg/L	E641A	06-May-2023	06-May-2023	925147
PAHs, low molecular weight (BC AWQ)	n/a	<0.060	0.06	µg/L	E641A	06-May-2023	06-May-2023	925147
PAHs, total (CCME sewer 18)	n/a	<0.070	0.07	µg/L	E641A	06-May-2023	06-May-2023	925147
PAHs, total (EPA 16)	n/a	<0.065	0.065	µg/L	E641A	06-May-2023	06-May-2023	925147
Polycyclic Aromatic Hydrocarbons Surrogates								
Chrysene-d12	1719-03-5	102	0.1	%	E641A	06-May-2023	06-May-2023	925147
Naphthalene-d8	1146-65-2	126	0.1	%	E641A	06-May-2023	06-May-2023	925147
Phenanthrene-d10	1517-22-2	118	0.1	%	E641A	06-May-2023	06-May-2023	925147

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

Analytical Results

FC2301105-003

Sub-Matrix: Water

(Matrix: Water)

Client sample ID: 121 Howard Street

Client sampling date / time: 05-May-2023 09:10

Analyte	CAS Number	Result	LOR	Unit	Method	Prep Date	Analysis Date	QCLot
Physical Tests								
Hardness (as CaCO ₃), dissolved	----	32.7	0.50	mg/L	EC100	-	07-May-2023	-
Hardness (as CaCO ₃), from total Ca/Mg	----	32.1	0.50	mg/L	EC100A	-	07-May-2023	-
Salinity	----	<1.0	1.0	psu	EC100S	-	10-May-2023	-
Conductivity	----	126	2.0	µS/cm	E100	06-May-2023	06-May-2023	925375
pH	----	8.94	0.10	pH units	E108	06-May-2023	06-May-2023	925374
Alkalinity, bicarbonate (as HCO ₃)	71-52-3	45.6	1.0	mg/L	E290	06-May-2023	06-May-2023	925376
Alkalinity, carbonate (as CO ₃)	3812-32-6	3.7	1.0	mg/L	E290	06-May-2023	06-May-2023	925376
Alkalinity, hydroxide (as OH)	14280-30-9	<1.0	1.0	mg/L	E290	06-May-2023	06-May-2023	925376
Alkalinity, total (as CaCO ₃)	----	43.6	2.0	mg/L	E290	06-May-2023	06-May-2023	925376
Solids, total dissolved [TDS], calculated	----	73.8	1.0	mg/L	EC103	-	06-May-2023	-
Anions and Nutrients								
Chloride	16887-00-6	11.3	0.50	mg/L	E235.Cl	06-May-2023	06-May-2023	925152
Fluoride	16984-48-8	0.030	0.020	mg/L	E235.F	06-May-2023	06-May-2023	925151
Nitrate (as N)	14797-55-8	<0.020	0.020	mg/L	E235.NO3	06-May-2023	06-May-2023	925148
Nitrite (as N)	14797-65-0	<0.010	0.010	mg/L	E235.NO2	06-May-2023	06-May-2023	925149
Sulfate (as SO ₄)	14808-79-8	3.72	0.30	mg/L	E235.SO4	06-May-2023	06-May-2023	925150
Nitrate + Nitrite (as N)	----	<0.0500	0.05	mg/L	EC235.N+N	-	06-May-2023	925373
Total Sulfides								
Sulfide, total (as S)	18496-25-8	<0.0015	0.0015	mg/L	E395	-	09-May-2023	928789
Ion Balance								
Anion sum	----	1.27	0.10	meq/L	EC101	-	06-May-2023	-
Cation sum	----	1.35	0.10	meq/L	EC101	-	06-May-2023	-
Ion balance (APHA)	----	3.05	0.01	%	EC101	-	06-May-2023	-
Ion balance (cations/anions)	----	106	0.010	%	EC101	-	06-May-2023	-
Total Metals								
Aluminum, total	7429-90-5	0.0163	0.0030	mg/L	E420	07-May-2023	07-May-2023	925648
Antimony, total	7440-36-0	<0.00010	0.00010	mg/L	E420	07-May-2023	07-May-2023	925648



Analytical Results

FC2301105-003

Sub-Matrix: Water

(Matrix: Water)

Client sample ID: 121 Howard Street

Client sampling date / time: 05-May-2023 09:10

Analyte	CAS Number	Result	LOR	Unit	Method	Prep Date	Analysis Date	QCLOT
Total Metals								
Arsenic, total	7440-38-2	0.00016	0.00010	mg/L	E420	07-May-2023	07-May-2023	925648
Barium, total	7440-39-3	0.0163	0.00010	mg/L	E420	07-May-2023	07-May-2023	925648
Beryllium, total	7440-41-7	<0.000020	0.000020	mg/L	E420	07-May-2023	07-May-2023	925648
Bismuth, total	7440-69-9	<0.000050	0.000050	mg/L	E420	07-May-2023	07-May-2023	925648
Boron, total	7440-42-8	0.014	0.010	mg/L	E420	07-May-2023	07-May-2023	925648
Cadmium, total	7440-43-9	<0.0000050	0.0000050	mg/L	E420	07-May-2023	07-May-2023	925648
Calcium, total	7440-70-2	8.70	0.050	mg/L	E420	07-May-2023	07-May-2023	925648
Cesium, total	7440-46-2	<0.000010	0.000010	mg/L	E420	07-May-2023	07-May-2023	925648
Chromium, total	7440-47-3	<0.00050	0.00050	mg/L	E420	07-May-2023	07-May-2023	925648
Cobalt, total	7440-48-4	<0.00010	0.00010	mg/L	E420	07-May-2023	07-May-2023	925648
Copper, total	7440-50-8	0.00052	0.00050	mg/L	E420	07-May-2023	07-May-2023	925648
Iron, total	7439-89-6	<0.010	0.010	mg/L	E420	07-May-2023	07-May-2023	925648
Lead, total	7439-92-1	<0.000050	0.000050	mg/L	E420	07-May-2023	07-May-2023	925648
Lithium, total	7439-93-2	0.0026	0.0010	mg/L	E420	07-May-2023	07-May-2023	925648
Magnesium, total	7439-95-4	2.53	0.0050	mg/L	E420	07-May-2023	07-May-2023	925648
Manganese, total	7439-96-5	0.00141	0.00010	mg/L	E420	07-May-2023	07-May-2023	925648
Molybdenum, total	7439-98-7	0.000202	0.000050	mg/L	E420	07-May-2023	07-May-2023	925648
Nickel, total	7440-02-0	<0.00050	0.00050	mg/L	E420	07-May-2023	07-May-2023	925648
Phosphorus, total	7723-14-0	<0.050	0.050	mg/L	E420	07-May-2023	07-May-2023	925648
Potassium, total	7440-09-7	1.03	0.050	mg/L	E420	07-May-2023	07-May-2023	925648
Rubidium, total	7440-17-7	0.00108	0.00020	mg/L	E420	07-May-2023	07-May-2023	925648
Selenium, total	7782-49-2	<0.000050	0.000050	mg/L	E420	07-May-2023	07-May-2023	925648
Silicon, total	7440-21-3	1.74	0.10	mg/L	E420	07-May-2023	07-May-2023	925648
Silver, total	7440-22-4	<0.000010	0.000010	mg/L	E420	07-May-2023	07-May-2023	925648
Sodium, total	7440-23-5	15.2	0.050	mg/L	E420	07-May-2023	07-May-2023	925648
Strontium, total	7440-24-6	0.0584	0.00020	mg/L	E420	07-May-2023	07-May-2023	925648
Sulfur, total	7704-34-9	1.44	0.50	mg/L	E420	07-May-2023	07-May-2023	925648
Tellurium, total	13494-80-9	<0.00020	0.00020	mg/L	E420	07-May-2023	07-May-2023	925648
Thallium, total	7440-28-0	<0.000010	0.000010	mg/L	E420	07-May-2023	07-May-2023	925648
Thorium, total	7440-29-1	<0.00010	0.00010	mg/L	E420	07-May-2023	07-May-2023	925648
Tin, total	7440-31-5	<0.00010	0.00010	mg/L	E420	07-May-2023	07-May-2023	925648
Titanium, total	7440-32-6	<0.00030	0.00030	mg/L	E420	07-May-2023	07-May-2023	925648
Tungsten, total	7440-33-7	<0.00010	0.00010	mg/L	E420	07-May-2023	07-May-2023	925648
Uranium, total	7440-61-1	<0.000010	0.000010	mg/L	E420	07-May-2023	07-May-2023	925648
Vanadium, total	7440-62-2	<0.00050	0.00050	mg/L	E420	07-May-2023	07-May-2023	925648
Zinc, total	7440-66-6	<0.0030	0.0030	mg/L	E420	07-May-2023	07-May-2023	925648
Zirconium, total	7440-67-7	<0.00020	0.00020	mg/L	E420	07-May-2023	07-May-2023	925648
Dissolved Metals								
Aluminum, dissolved	7429-90-5	0.0189	0.0010	mg/L	E421	07-May-2023	07-May-2023	925650
Antimony, dissolved	7440-36-0	<0.00010	0.00010	mg/L	E421	07-May-2023	07-May-2023	925650
Arsenic, dissolved	7440-38-2	0.00017	0.00010	mg/L	E421	07-May-2023	07-May-2023	925650
Barium, dissolved	7440-39-3	0.0155	0.00010	mg/L	E421	07-May-2023	07-May-2023	925650
Beryllium, dissolved	7440-41-7	<0.000020	0.000020	mg/L	E421	07-May-2023	07-May-2023	925650
Bismuth, dissolved	7440-69-9	<0.000050	0.000050	mg/L	E421	07-May-2023	07-May-2023	925650
Boron, dissolved	7440-42-8	0.013	0.010	mg/L	E421	07-May-2023	07-May-2023	925650
Cadmium, dissolved	7440-43-9	<0.0000050	0.0000050	mg/L	E421	07-May-2023	07-May-2023	925650



Analytical Results

FC2301105-003

Sub-Matrix: Water

(Matrix: Water)

Client sample ID: 121 Howard Street

Client sampling date / time: 05-May-2023 09:10

Analyte	CAS Number	Result	LOR	Unit	Method	Prep Date	Analysis Date	QCLOT
Dissolved Metals								
Calcium, dissolved	7440-70-2	8.90	0.050	mg/L	E421	07-May-2023	07-May-2023	925650
Cesium, dissolved	7440-46-2	<0.000010	0.000010	mg/L	E421	07-May-2023	07-May-2023	925650
Chromium, dissolved	7440-47-3	<0.00050	0.00050	mg/L	E421	07-May-2023	07-May-2023	925650
Cobalt, dissolved	7440-48-4	<0.00010	0.00010	mg/L	E421	07-May-2023	07-May-2023	925650
Copper, dissolved	7440-50-8	0.00043	0.00020	mg/L	E421	07-May-2023	07-May-2023	925650
Iron, dissolved	7439-89-6	<0.030	0.030	mg/L	E421	07-May-2023	07-May-2023	925650
Lead, dissolved	7439-92-1	<0.000050	0.000050	mg/L	E421	07-May-2023	07-May-2023	925650
Lithium, dissolved	7439-93-2	0.0030	0.0010	mg/L	E421	07-May-2023	07-May-2023	925650
Magnesium, dissolved	7439-95-4	2.55	0.0050	mg/L	E421	07-May-2023	07-May-2023	925650
Manganese, dissolved	7439-96-5	<0.00500	0.00500	mg/L	E421	07-May-2023	07-May-2023	925650
Molybdenum, dissolved	7439-98-7	0.000204	0.000050	mg/L	E421	07-May-2023	07-May-2023	925650
Nickel, dissolved	7440-02-0	<0.00050	0.00050	mg/L	E421	07-May-2023	07-May-2023	925650
Phosphorus, dissolved	7723-14-0	<0.050	0.050	mg/L	E421	07-May-2023	07-May-2023	925650
Potassium, dissolved	7440-09-7	1.01	0.050	mg/L	E421	07-May-2023	07-May-2023	925650
Rubidium, dissolved	7440-17-7	0.00091	0.00020	mg/L	E421	07-May-2023	07-May-2023	925650
Selenium, dissolved	7782-49-2	<0.000050	0.000050	mg/L	E421	07-May-2023	07-May-2023	925650
Silicon, dissolved	7440-21-3	1.74	0.050	mg/L	E421	07-May-2023	07-May-2023	925650
Silver, dissolved	7440-22-4	<0.000010	0.000010	mg/L	E421	07-May-2023	07-May-2023	925650
Sodium, dissolved	7440-23-5	15.4	0.050	mg/L	E421	07-May-2023	07-May-2023	925650
Strontium, dissolved	7440-24-6	0.0582	0.00020	mg/L	E421	07-May-2023	07-May-2023	925650
Sulfur, dissolved	7704-34-9	1.37	0.50	mg/L	E421	07-May-2023	07-May-2023	925650
Tellurium, dissolved	13494-80-9	<0.00020	0.00020	mg/L	E421	07-May-2023	07-May-2023	925650
Thallium, dissolved	7440-28-0	<0.000010	0.000010	mg/L	E421	07-May-2023	07-May-2023	925650
Thorium, dissolved	7440-29-1	<0.00010	0.00010	mg/L	E421	07-May-2023	07-May-2023	925650
Tin, dissolved	7440-31-5	<0.00010	0.00010	mg/L	E421	07-May-2023	07-May-2023	925650
Titanium, dissolved	7440-32-6	<0.00030	0.00030	mg/L	E421	07-May-2023	07-May-2023	925650
Tungsten, dissolved	7440-33-7	<0.00010	0.00010	mg/L	E421	07-May-2023	07-May-2023	925650
Uranium, dissolved	7440-61-1	<0.000010	0.000010	mg/L	E421	07-May-2023	07-May-2023	925650
Vanadium, dissolved	7440-62-2	<0.00050	0.00050	mg/L	E421	07-May-2023	07-May-2023	925650
Zinc, dissolved	7440-66-6	<0.0010	0.0010	mg/L	E421	07-May-2023	07-May-2023	925650
Zirconium, dissolved	7440-67-7	<0.00030	0.00030	mg/L	E421	07-May-2023	07-May-2023	925650
Dissolved metals filtration location	----	Laboratory	-	-	EP421	-	07-May-2023	925650
Aggregate Organics								
Naphthenic acids	----	<0.10	0.10	mg/L	E565-L	08-May-2023	09-May-2023	926511
Volatile Organic Compounds [BTEXS+MTBE]								
Benzene	71-43-2	<0.50	0.50	µg/L	E611A	06-May-2023	06-May-2023	925174
Ethylbenzene	100-41-4	<0.50	0.50	µg/L	E611A	06-May-2023	06-May-2023	925174
Toluene	108-88-3	<0.50	0.50	µg/L	E611A	06-May-2023	06-May-2023	925174
Xylene, m+p-	179601-23-1	<0.50	0.50	µg/L	E611A	06-May-2023	06-May-2023	925174
Xylene, o-	95-47-6	<0.50	0.50	µg/L	E611A	06-May-2023	06-May-2023	925174
Xylenes, total	1330-20-7	<0.75	0.75	µg/L	E611A	06-May-2023	06-May-2023	925174
BTEX, total	----	<1.2	1.2	µg/L	E611A	06-May-2023	06-May-2023	925174
Hydrocarbons								
F1 (C6-C10)	----	<100	100	µg/L	E581.F1	06-May-2023	06-May-2023	925175
F1-BTEX	----	<100	100	µg/L	EC580	-	06-May-2023	-
F2 (C10-C16)	----	<100	100	µg/L	E601	06-May-2023	06-May-2023	925146



Analytical Results

FC2301105-003

Sub-Matrix: Water

(Matrix: Water)

Client sample ID: 121 Howard Street

Client sampling date / time: 05-May-2023 09:10

Analyte	CAS Number	Result	LOR	Unit	Method	Prep Date	Analysis Date	QCLot
Hydrocarbons								
F3 (C16-C34)	----	<250	250	µg/L	E601	06-May-2023	06-May-2023	925146
F4 (C34-C50)	----	<250	250	µg/L	E601	06-May-2023	06-May-2023	925146
Hydrocarbons, total (C6-C50)	----	<400	400	µg/L	EC581	-	06-May-2023	-
Hydrocarbons Surrogates								
Bromobenzotrifluoride, 2- (F2-F4 surrogate)	392-83-6	91.9	1.0	%	E601	06-May-2023	06-May-2023	925146
Dichlorotoluene, 3,4-	95-75-0	94.3	1.0	%	E581.F1	06-May-2023	06-May-2023	925175
Volatile Organic Compounds Surrogates								
Bromofluorobenzene, 4-	460-00-4	89.8	1.0	%	E611A	06-May-2023	06-May-2023	925174
Difluorobenzene, 1,4-	540-36-3	94.2	1.0	%	E611A	06-May-2023	06-May-2023	925174
Polycyclic Aromatic Hydrocarbons								
Acenaphthene	83-32-9	<0.010	0.010	µg/L	E641A	06-May-2023	06-May-2023	925147
Acenaphthylene	208-96-8	<0.010	0.010	µg/L	E641A	06-May-2023	06-May-2023	925147
Acridine	260-94-6	<0.010	0.010	µg/L	E641A	06-May-2023	06-May-2023	925147
Anthracene	120-12-7	<0.010	0.010	µg/L	E641A	06-May-2023	06-May-2023	925147
Benz(a)anthracene	56-55-3	<0.010	0.010	µg/L	E641A	06-May-2023	06-May-2023	925147
Benzo(a)pyrene	50-32-8	<0.0050	0.0050	µg/L	E641A	06-May-2023	06-May-2023	925147
Benzo(b+j)fluoranthene	n/a	<0.010	0.010	µg/L	E641A	06-May-2023	06-May-2023	925147
Benzo(b+j+k)fluoranthene	n/a	<0.015	0.015	µg/L	E641A	06-May-2023	06-May-2023	925147
Benzo(g,h,i)perylene	191-24-2	<0.010	0.010	µg/L	E641A	06-May-2023	06-May-2023	925147
Benzo(k)fluoranthene	207-08-9	<0.010	0.010	µg/L	E641A	06-May-2023	06-May-2023	925147
Chrysene	218-01-9	<0.010	0.010	µg/L	E641A	06-May-2023	06-May-2023	925147
Dibenz(a,h)anthracene	53-70-3	<0.0050	0.0050	µg/L	E641A	06-May-2023	06-May-2023	925147
Fluoranthene	206-44-0	<0.010	0.010	µg/L	E641A	06-May-2023	06-May-2023	925147
Fluorene	86-73-7	<0.010	0.010	µg/L	E641A	06-May-2023	06-May-2023	925147
Indeno(1,2,3-c,d)pyrene	193-39-5	<0.010	0.010	µg/L	E641A	06-May-2023	06-May-2023	925147
Methylnaphthalene, 1-	90-12-0	<0.010	0.010	µg/L	E641A	06-May-2023	06-May-2023	925147
Methylnaphthalene, 1+2-	----	<0.015	0.015	µg/L	E641A	06-May-2023	06-May-2023	925147
Methylnaphthalene, 2-	91-57-6	<0.010	0.010	µg/L	E641A	06-May-2023	06-May-2023	925147
Naphthalene	91-20-3	<0.050	0.050	µg/L	E641A	06-May-2023	06-May-2023	925147
Phenanthrene	85-01-8	<0.020	0.020	µg/L	E641A	06-May-2023	06-May-2023	925147
Pyrene	129-00-0	<0.010	0.010	µg/L	E641A	06-May-2023	06-May-2023	925147
Quinoline	91-22-5	<0.050	0.050	µg/L	E641A	06-May-2023	06-May-2023	925147
B(a)P total potency equivalents [B(a)P TPE]	----	<0.010	0.010	µg/L	E641A	06-May-2023	06-May-2023	925147
PAHs, high molecular weight (BC AWQ)	n/a	<0.030	0.03	µg/L	E641A	06-May-2023	06-May-2023	925147
PAHs, low molecular weight (BC AWQ)	n/a	<0.060	0.06	µg/L	E641A	06-May-2023	06-May-2023	925147
PAHs, total (CCME sewer 18)	n/a	<0.070	0.07	µg/L	E641A	06-May-2023	06-May-2023	925147
PAHs, total (EPA 16)	n/a	<0.065	0.065	µg/L	E641A	06-May-2023	06-May-2023	925147
Polycyclic Aromatic Hydrocarbons Surrogates								
Chrysene-d12	1719-03-5	92.9	0.1	%	E641A	06-May-2023	06-May-2023	925147
Naphthalene-d8	1146-65-2	116	0.1	%	E641A	06-May-2023	06-May-2023	925147
Phenanthrene-d10	1517-22-2	98.0	0.1	%	E641A	06-May-2023	06-May-2023	925147

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



Analytical Results

FC2301105-004

Sub-Matrix: Water

(Matrix: Water)

Client sample ID: 128 Mcdonald St.

Client sampling date / time: 05-May-2023 09:15

Analyte	CAS Number	Result	LOR	Unit	Method	Prep Date	Analysis Date	QC/OT
Physical Tests								
Hardness (as CaCO ₃), dissolved	----	32.4	0.50	mg/L	EC100	-	07-May-2023	-
Hardness (as CaCO ₃), from total Ca/Mg	----	32.0	0.50	mg/L	EC100A	-	07-May-2023	-
Salinity	----	<1.0	1.0	psu	EC100S	-	10-May-2023	-
Conductivity	----	127	2.0	µS/cm	E100	06-May-2023	06-May-2023	925375
pH	----	8.83	0.10	pH units	E108	06-May-2023	06-May-2023	925374
Alkalinity, bicarbonate (as HCO ₃)	71-52-3	46.4	1.0	mg/L	E290	06-May-2023	06-May-2023	925376
Alkalinity, carbonate (as CO ₃)	3812-32-6	2.9	1.0	mg/L	E290	06-May-2023	06-May-2023	925376
Alkalinity, hydroxide (as OH)	14280-30-9	<1.0	1.0	mg/L	E290	06-May-2023	06-May-2023	925376
Alkalinity, total (as CaCO ₃)	----	42.8	2.0	mg/L	E290	06-May-2023	06-May-2023	925376
Solids, total dissolved [TDS], calculated	----	73.3	1.0	mg/L	EC103	-	06-May-2023	-
Anions and Nutrients								
Chloride	16887-00-6	11.2	0.50	mg/L	E235.Cl	06-May-2023	06-May-2023	925152
Fluoride	16984-48-8	0.030	0.020	mg/L	E235.F	06-May-2023	06-May-2023	925151
Nitrate (as N)	14797-55-8	<0.020	0.020	mg/L	E235.NO3	06-May-2023	06-May-2023	925148
Nitrite (as N)	14797-65-0	<0.010	0.010	mg/L	E235.NO2	06-May-2023	06-May-2023	925149
Sulfate (as SO ₄)	14808-79-8	3.67	0.30	mg/L	E235.SO4	06-May-2023	06-May-2023	925150
Nitrate + Nitrite (as N)	----	<0.0500	0.05	mg/L	EC235.N+N	-	06-May-2023	925373
Total Sulfides								
Sulfide, total (as S)	18496-25-8	<0.0015	0.0015	mg/L	E395	-	09-May-2023	928789
Ion Balance								
Anion sum	----	1.25	0.10	meq/L	EC101	-	06-May-2023	-
Cation sum	----	1.36	0.10	meq/L	EC101	-	06-May-2023	-
Ion balance (APHA)	----	4.21	0.01	%	EC101	-	06-May-2023	-
Ion balance (cations/anions)	----	109	0.010	%	EC101	-	06-May-2023	-
Total Metals								
Aluminum, total	7429-90-5	0.0222	0.0030	mg/L	E420	07-May-2023	07-May-2023	925648
Antimony, total	7440-36-0	<0.00010	0.00010	mg/L	E420	07-May-2023	07-May-2023	925648
Arsenic, total	7440-38-2	0.00017	0.00010	mg/L	E420	07-May-2023	07-May-2023	925648
Barium, total	7440-39-3	0.0158	0.00010	mg/L	E420	07-May-2023	07-May-2023	925648
Beryllium, total	7440-41-7	<0.000020	0.000020	mg/L	E420	07-May-2023	07-May-2023	925648
Bismuth, total	7440-69-9	<0.000050	0.000050	mg/L	E420	07-May-2023	07-May-2023	925648
Boron, total	7440-42-8	0.014	0.010	mg/L	E420	07-May-2023	07-May-2023	925648
Cadmium, total	7440-43-9	<0.000050	0.000050	mg/L	E420	07-May-2023	07-May-2023	925648
Calcium, total	7440-70-2	8.63	0.050	mg/L	E420	07-May-2023	07-May-2023	925648
Cesium, total	7440-46-2	<0.000010	0.000010	mg/L	E420	07-May-2023	07-May-2023	925648
Chromium, total	7440-47-3	<0.00050	0.00050	mg/L	E420	07-May-2023	07-May-2023	925648
Cobalt, total	7440-48-4	<0.00010	0.00010	mg/L	E420	07-May-2023	07-May-2023	925648
Copper, total	7440-50-8	<0.00050	0.00050	mg/L	E420	07-May-2023	07-May-2023	925648
Iron, total	7439-89-6	<0.010	0.010	mg/L	E420	07-May-2023	07-May-2023	925648
Lead, total	7439-92-1	<0.000050	0.000050	mg/L	E420	07-May-2023	07-May-2023	925648
Lithium, total	7439-93-2	0.0025	0.0010	mg/L	E420	07-May-2023	07-May-2023	925648
Magnesium, total	7439-95-4	2.54	0.0050	mg/L	E420	07-May-2023	07-May-2023	925648
Manganese, total	7439-96-5	0.00166	0.00010	mg/L	E420	07-May-2023	07-May-2023	925648
Molybdenum, total	7439-98-7	0.000192	0.000050	mg/L	E420	07-May-2023	07-May-2023	925648
Nickel, total	7440-02-0	<0.00050	0.00050	mg/L	E420	07-May-2023	07-May-2023	925648
Phosphorus, total	7723-14-0	<0.050	0.050	mg/L	E420	07-May-2023	07-May-2023	925648



Analytical Results

FC2301105-004

Sub-Matrix: Water

(Matrix: Water)

Client sample ID: 128 Mcdonald St.

Client sampling date / time: 05-May-2023 09:15

Analyte	CAS Number	Result	LOR	Unit	Method	Prep Date	Analysis Date	QCLOT
Total Metals								
Potassium, total	7440-09-7	1.03	0.050	mg/L	E420	07-May-2023	07-May-2023	925648
Rubidium, total	7440-17-7	0.00102	0.00020	mg/L	E420	07-May-2023	07-May-2023	925648
Selenium, total	7782-49-2	<0.000050	0.000050	mg/L	E420	07-May-2023	07-May-2023	925648
Silicon, total	7440-21-3	1.74	0.10	mg/L	E420	07-May-2023	07-May-2023	925648
Silver, total	7440-22-4	<0.000010	0.000010	mg/L	E420	07-May-2023	07-May-2023	925648
Sodium, total	7440-23-5	15.6	0.050	mg/L	E420	07-May-2023	07-May-2023	925648
Strontium, total	7440-24-6	0.0569	0.00020	mg/L	E420	07-May-2023	07-May-2023	925648
Sulfur, total	7704-34-9	1.40	0.50	mg/L	E420	07-May-2023	07-May-2023	925648
Tellurium, total	13494-80-9	<0.00020	0.00020	mg/L	E420	07-May-2023	07-May-2023	925648
Thallium, total	7440-28-0	<0.000010	0.000010	mg/L	E420	07-May-2023	07-May-2023	925648
Thorium, total	7440-29-1	<0.00010	0.00010	mg/L	E420	07-May-2023	07-May-2023	925648
Tin, total	7440-31-5	<0.00010	0.00010	mg/L	E420	07-May-2023	07-May-2023	925648
Titanium, total	7440-32-6	<0.00030	0.00030	mg/L	E420	07-May-2023	07-May-2023	925648
Tungsten, total	7440-33-7	<0.00010	0.00010	mg/L	E420	07-May-2023	07-May-2023	925648
Uranium, total	7440-61-1	<0.000010	0.000010	mg/L	E420	07-May-2023	07-May-2023	925648
Vanadium, total	7440-62-2	<0.00050	0.00050	mg/L	E420	07-May-2023	07-May-2023	925648
Zinc, total	7440-66-6	<0.0030	0.0030	mg/L	E420	07-May-2023	07-May-2023	925648
Zirconium, total	7440-67-7	<0.00020	0.00020	mg/L	E420	07-May-2023	07-May-2023	925648
Dissolved Metals								
Aluminum, dissolved	7429-90-5	0.0140	0.0010	mg/L	E421	07-May-2023	07-May-2023	925650
Antimony, dissolved	7440-36-0	<0.00010	0.00010	mg/L	E421	07-May-2023	07-May-2023	925650
Arsenic, dissolved	7440-38-2	0.00016	0.00010	mg/L	E421	07-May-2023	07-May-2023	925650
Barium, dissolved	7440-39-3	0.0155	0.00010	mg/L	E421	07-May-2023	07-May-2023	925650
Beryllium, dissolved	7440-41-7	<0.000020	0.000020	mg/L	E421	07-May-2023	07-May-2023	925650
Bismuth, dissolved	7440-69-9	<0.000050	0.000050	mg/L	E421	07-May-2023	07-May-2023	925650
Boron, dissolved	7440-42-8	0.013	0.010	mg/L	E421	07-May-2023	07-May-2023	925650
Cadmium, dissolved	7440-43-9	<0.0000050	0.0000050	mg/L	E421	07-May-2023	07-May-2023	925650
Calcium, dissolved	7440-70-2	8.76	0.050	mg/L	E421	07-May-2023	07-May-2023	925650
Cesium, dissolved	7440-46-2	<0.000010	0.000010	mg/L	E421	07-May-2023	07-May-2023	925650
Chromium, dissolved	7440-47-3	<0.00050	0.00050	mg/L	E421	07-May-2023	07-May-2023	925650
Cobalt, dissolved	7440-48-4	<0.00010	0.00010	mg/L	E421	07-May-2023	07-May-2023	925650
Copper, dissolved	7440-50-8	0.00042	0.00020	mg/L	E421	07-May-2023	07-May-2023	925650
Iron, dissolved	7439-89-6	<0.030	0.030	mg/L	E421	07-May-2023	07-May-2023	925650
Lead, dissolved	7439-92-1	<0.000050	0.000050	mg/L	E421	07-May-2023	07-May-2023	925650
Lithium, dissolved	7439-93-2	0.0030	0.0010	mg/L	E421	07-May-2023	07-May-2023	925650
Magnesium, dissolved	7439-95-4	2.57	0.0050	mg/L	E421	07-May-2023	07-May-2023	925650
Manganese, dissolved	7439-96-5	<0.00500	0.00500	mg/L	E421	07-May-2023	07-May-2023	925650
Molybdenum, dissolved	7439-98-7	0.000211	0.000050	mg/L	E421	07-May-2023	07-May-2023	925650
Nickel, dissolved	7440-02-0	<0.00050	0.00050	mg/L	E421	07-May-2023	07-May-2023	925650
Phosphorus, dissolved	7723-14-0	<0.050	0.050	mg/L	E421	07-May-2023	07-May-2023	925650
Potassium, dissolved	7440-09-7	1.02	0.050	mg/L	E421	07-May-2023	07-May-2023	925650
Rubidium, dissolved	7440-17-7	0.00103	0.00020	mg/L	E421	07-May-2023	07-May-2023	925650
Selenium, dissolved	7782-49-2	<0.000050	0.000050	mg/L	E421	07-May-2023	07-May-2023	925650
Silicon, dissolved	7440-21-3	1.73	0.050	mg/L	E421	07-May-2023	07-May-2023	925650
Silver, dissolved	7440-22-4	<0.000010	0.000010	mg/L	E421	07-May-2023	07-May-2023	925650
Sodium, dissolved	7440-23-5	15.7	0.050	mg/L	E421	07-May-2023	07-May-2023	925650



Analytical Results

FC2301105-004

Sub-Matrix: Water

(Matrix: Water)

Client sample ID: 128 Mcdonald St.

Client sampling date / time: 05-May-2023 09:15

Analyte	CAS Number	Result	LOR	Unit	Method	Prep Date	Analysis Date	QC/OT
Dissolved Metals								
Strontium, dissolved	7440-24-6	0.0558	0.00020	mg/L	E421	07-May-2023	07-May-2023	925650
Sulfur, dissolved	7704-34-9	1.23	0.50	mg/L	E421	07-May-2023	07-May-2023	925650
Tellurium, dissolved	13494-80-9	<0.00020	0.00020	mg/L	E421	07-May-2023	07-May-2023	925650
Thallium, dissolved	7440-28-0	<0.000010	0.000010	mg/L	E421	07-May-2023	07-May-2023	925650
Thorium, dissolved	7440-29-1	<0.00010	0.00010	mg/L	E421	07-May-2023	07-May-2023	925650
Tin, dissolved	7440-31-5	<0.00010	0.00010	mg/L	E421	07-May-2023	07-May-2023	925650
Titanium, dissolved	7440-32-6	<0.00030	0.00030	mg/L	E421	07-May-2023	07-May-2023	925650
Tungsten, dissolved	7440-33-7	<0.00010	0.00010	mg/L	E421	07-May-2023	07-May-2023	925650
Uranium, dissolved	7440-61-1	<0.000010	0.000010	mg/L	E421	07-May-2023	07-May-2023	925650
Vanadium, dissolved	7440-62-2	<0.00050	0.00050	mg/L	E421	07-May-2023	07-May-2023	925650
Zinc, dissolved	7440-66-6	<0.0010	0.0010	mg/L	E421	07-May-2023	07-May-2023	925650
Zirconium, dissolved	7440-67-7	<0.00030	0.00030	mg/L	E421	07-May-2023	07-May-2023	925650
Dissolved metals filtration location	----	Laboratory	-	-	EP421	-	07-May-2023	925650
Aggregate Organics								
Naphthenic acids	----	<0.10	0.10	mg/L	E565-L	08-May-2023	09-May-2023	926511
Volatile Organic Compounds [BTEXS+MTBE]								
Benzene	71-43-2	<0.50	0.50	µg/L	E611A	06-May-2023	06-May-2023	925174
Ethylbenzene	100-41-4	<0.50	0.50	µg/L	E611A	06-May-2023	06-May-2023	925174
Toluene	108-88-3	<0.50	0.50	µg/L	E611A	06-May-2023	06-May-2023	925174
Xylene, m+p-	179601-23-1	<0.50	0.50	µg/L	E611A	06-May-2023	06-May-2023	925174
Xylene, o-	95-47-6	<0.50	0.50	µg/L	E611A	06-May-2023	06-May-2023	925174
Xylenes, total	1330-20-7	<0.75	0.75	µg/L	E611A	06-May-2023	06-May-2023	925174
BTEX, total	----	<1.2	1.2	µg/L	E611A	06-May-2023	06-May-2023	925174
Hydrocarbons								
F1 (C6-C10)	----	<100	100	µg/L	E581.F1	06-May-2023	06-May-2023	925175
F1-BTEX	----	<100	100	µg/L	EC580	-	06-May-2023	-
F2 (C10-C16)	----	<100	100	µg/L	E601	06-May-2023	06-May-2023	925146
F3 (C16-C34)	----	<250	250	µg/L	E601	06-May-2023	06-May-2023	925146
F4 (C34-C50)	----	<250	250	µg/L	E601	06-May-2023	06-May-2023	925146
Hydrocarbons, total (C6-C50)	----	<400	400	µg/L	EC581	-	06-May-2023	-
Hydrocarbons Surrogates								
Bromobenzotrifluoride, 2- (F2-F4 surrogate)	392-83-6	90.8	1.0	%	E601	06-May-2023	06-May-2023	925146
Dichlorotoluene, 3,4-	95-75-0	108	1.0	%	E581.F1	06-May-2023	06-May-2023	925175
Volatile Organic Compounds Surrogates								
Bromofluorobenzene, 4-	460-00-4	86.2	1.0	%	E611A	06-May-2023	06-May-2023	925174
Diffluorobenzene, 1,4-	540-36-3	93.2	1.0	%	E611A	06-May-2023	06-May-2023	925174
Polycyclic Aromatic Hydrocarbons								
Acenaphthene	83-32-9	<0.010	0.010	µg/L	E641A	06-May-2023	06-May-2023	925147
Acenaphthylene	208-96-8	<0.010	0.010	µg/L	E641A	06-May-2023	06-May-2023	925147
Acridine	260-94-6	<0.010	0.010	µg/L	E641A	06-May-2023	06-May-2023	925147
Anthracene	120-12-7	<0.010	0.010	µg/L	E641A	06-May-2023	06-May-2023	925147
Benz(a)anthracene	56-55-3	<0.010	0.010	µg/L	E641A	06-May-2023	06-May-2023	925147
Benzo(a)pyrene	50-32-8	<0.0050	0.0050	µg/L	E641A	06-May-2023	06-May-2023	925147
Benzo(b+j)fluoranthene	n/a	<0.010	0.010	µg/L	E641A	06-May-2023	06-May-2023	925147
Benzo(b+j+k)fluoranthene	n/a	<0.015	0.015	µg/L	E641A	06-May-2023	06-May-2023	925147
Benzo(g,h,i)perylene	191-24-2	<0.010	0.010	µg/L	E641A	06-May-2023	06-May-2023	925147



Analytical Results

FC2301105-004

Sub-Matrix: Water

(Matrix: Water)

Client sample ID: 128 Mcdonald St.

Client sampling date / time: 05-May-2023 09:15

Analyte	CAS Number	Result	LOR	Unit	Method	Prep Date	Analysis Date	QCLot
Polycyclic Aromatic Hydrocarbons								
Benzo(k)fluoranthene	207-08-9	<0.010	0.010	µg/L	E641A	06-May-2023	06-May-2023	925147
Chrysene	218-01-9	<0.010	0.010	µg/L	E641A	06-May-2023	06-May-2023	925147
Dibenz(a,h)anthracene	53-70-3	<0.0050	0.0050	µg/L	E641A	06-May-2023	06-May-2023	925147
Fluoranthene	206-44-0	<0.010	0.010	µg/L	E641A	06-May-2023	06-May-2023	925147
Fluorene	86-73-7	<0.010	0.010	µg/L	E641A	06-May-2023	06-May-2023	925147
Indeno(1,2,3-c,d)pyrene	193-39-5	<0.010	0.010	µg/L	E641A	06-May-2023	06-May-2023	925147
Methylnaphthalene, 1-	90-12-0	<0.010	0.010	µg/L	E641A	06-May-2023	06-May-2023	925147
Methylnaphthalene, 1+2-	----	<0.015	0.015	µg/L	E641A	06-May-2023	06-May-2023	925147
Methylnaphthalene, 2-	91-57-6	<0.010	0.010	µg/L	E641A	06-May-2023	06-May-2023	925147
Naphthalene	91-20-3	<0.050	0.050	µg/L	E641A	06-May-2023	06-May-2023	925147
Phenanthrene	85-01-8	<0.020	0.020	µg/L	E641A	06-May-2023	06-May-2023	925147
Pyrene	129-00-0	<0.010	0.010	µg/L	E641A	06-May-2023	06-May-2023	925147
Quinoline	91-22-5	<0.050	0.050	µg/L	E641A	06-May-2023	06-May-2023	925147
B(a)P total potency equivalents [B(a)P TPE]	----	<0.010	0.010	µg/L	E641A	06-May-2023	06-May-2023	925147
PAHs, high molecular weight (BC AWQ)	n/a	<0.030	0.03	µg/L	E641A	06-May-2023	06-May-2023	925147
PAHs, low molecular weight (BC AWQ)	n/a	<0.060	0.06	µg/L	E641A	06-May-2023	06-May-2023	925147
PAHs, total (CCME sewer 18)	n/a	<0.070	0.07	µg/L	E641A	06-May-2023	06-May-2023	925147
PAHs, total (EPA 16)	n/a	<0.065	0.065	µg/L	E641A	06-May-2023	06-May-2023	925147
Polycyclic Aromatic Hydrocarbons Surrogates								
Chrysene-d12	1719-03-5	90.4	0.1	%	E641A	06-May-2023	06-May-2023	925147
Naphthalene-d8	1146-65-2	114	0.1	%	E641A	06-May-2023	06-May-2023	925147
Phenanthrene-d10	1517-22-2	96.2	0.1	%	E641A	06-May-2023	06-May-2023	925147

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

Analytical Results

FC2301105-005

Sub-Matrix: Water

(Matrix: Water)

Client sample ID: 101 Loutit St. -

Client sampling date / time: 05-May-2023 09:15

Analyte	CAS Number	Result	LOR	Unit	Method	Prep Date	Analysis Date	QCLot
Physical Tests								
Hardness (as CaCO ₃), dissolved	----	34.0	0.50	mg/L	EC100	-	07-May-2023	-
Hardness (as CaCO ₃), from total Ca/Mg	----	32.7	0.50	mg/L	EC100A	-	07-May-2023	-
Salinity	----	<1.0	1.0	psu	EC100S	-	10-May-2023	-
Conductivity	----	130	2.0	µS/cm	E100	06-May-2023	06-May-2023	925375
pH	----	8.81	0.10	pH units	E108	06-May-2023	06-May-2023	925374
Alkalinity, bicarbonate (as HCO ₃)	71-52-3	46.7	1.0	mg/L	E290	06-May-2023	06-May-2023	925376
Alkalinity, carbonate (as CO ₃)	3812-32-6	2.9	1.0	mg/L	E290	06-May-2023	06-May-2023	925376
Alkalinity, hydroxide (as OH)	14280-30-9	<1.0	1.0	mg/L	E290	06-May-2023	06-May-2023	925376
Alkalinity, total (as CaCO ₃)	----	43.1	2.0	mg/L	E290	06-May-2023	06-May-2023	925376
Solids, total dissolved [TDS], calculated	----	74.7	1.0	mg/L	EC103	-	06-May-2023	-
Anions and Nutrients								
Chloride	16887-00-6	11.7	0.50	mg/L	E235.Cl	06-May-2023	06-May-2023	925152
Fluoride	16984-48-8	0.027	0.020	mg/L	E235.F	06-May-2023	06-May-2023	925151



Analytical Results

FC2301105-005

Sub-Matrix: Water

(Matrix: Water)

Client sample ID: 101 Loutit St. -

Client sampling date / time: 05-May-2023 09:15

Analyte	CAS Number	Result	LOR	Unit	Method	Prep Date	Analysis Date	QC Lot
Anions and Nutrients								
Nitrate (as N)	14797-55-8	<0.020	0.020	mg/L	E235.NO3	06-May-2023	06-May-2023	925148
Nitrite (as N)	14797-65-0	<0.010	0.010	mg/L	E235.NO2	06-May-2023	06-May-2023	925149
Sulfate (as SO4)	14808-79-8	3.81	0.30	mg/L	E235.SO4	06-May-2023	06-May-2023	925150
Nitrate + Nitrite (as N)	----	<0.0500	0.05	mg/L	EC235.N+N	-	06-May-2023	925373
Total Sulfides								
Sulfide, total (as S)	18496-25-8	<0.0015	0.0015	mg/L	E395	-	09-May-2023	928789
Ion Balance								
Anion sum	----	1.27	0.10	meq/L	EC101	-	06-May-2023	-
Cation sum	----	1.38	0.10	meq/L	EC101	-	06-May-2023	-
Ion balance (APHA)	----	4.15	0.01	%	EC101	-	06-May-2023	-
Ion balance (cations/anions)	----	109	0.010	%	EC101	-	06-May-2023	-
Total Metals								
Aluminum, total	7429-90-5	0.0264	0.0030	mg/L	E420	07-May-2023	07-May-2023	925648
Antimony, total	7440-36-0	<0.00010	0.00010	mg/L	E420	07-May-2023	07-May-2023	925648
Arsenic, total	7440-38-2	0.00017	0.00010	mg/L	E420	07-May-2023	07-May-2023	925648
Barium, total	7440-39-3	0.0165	0.00010	mg/L	E420	07-May-2023	07-May-2023	925648
Beryllium, total	7440-41-7	<0.000020	0.000020	mg/L	E420	07-May-2023	07-May-2023	925648
Bismuth, total	7440-69-9	<0.000050	0.000050	mg/L	E420	07-May-2023	07-May-2023	925648
Boron, total	7440-42-8	0.014	0.010	mg/L	E420	07-May-2023	07-May-2023	925648
Cadmium, total	7440-43-9	<0.0000050	0.0000050	mg/L	E420	07-May-2023	07-May-2023	925648
Calcium, total	7440-70-2	8.78	0.050	mg/L	E420	07-May-2023	07-May-2023	925648
Cesium, total	7440-46-2	<0.000010	0.000010	mg/L	E420	07-May-2023	07-May-2023	925648
Chromium, total	7440-47-3	<0.00050	0.00050	mg/L	E420	07-May-2023	07-May-2023	925648
Cobalt, total	7440-48-4	<0.00010	0.00010	mg/L	E420	07-May-2023	07-May-2023	925648
Copper, total	7440-50-8	0.00086	0.00050	mg/L	E420	07-May-2023	07-May-2023	925648
Iron, total	7439-89-6	<0.010	0.010	mg/L	E420	07-May-2023	07-May-2023	925648
Lead, total	7439-92-1	<0.000050	0.000050	mg/L	E420	07-May-2023	07-May-2023	925648
Lithium, total	7439-93-2	0.0026	0.0010	mg/L	E420	07-May-2023	07-May-2023	925648
Magnesium, total	7439-95-4	2.61	0.0050	mg/L	E420	07-May-2023	07-May-2023	925648
Manganese, total	7439-96-5	0.00125	0.00010	mg/L	E420	07-May-2023	07-May-2023	925648
Molybdenum, total	7439-98-7	0.000188	0.000050	mg/L	E420	07-May-2023	07-May-2023	925648
Nickel, total	7440-02-0	<0.00050	0.00050	mg/L	E420	07-May-2023	07-May-2023	925648
Phosphorus, total	7723-14-0	<0.050	0.050	mg/L	E420	07-May-2023	07-May-2023	925648
Potassium, total	7440-09-7	1.08	0.050	mg/L	E420	07-May-2023	07-May-2023	925648
Rubidium, total	7440-17-7	0.00099	0.00020	mg/L	E420	07-May-2023	07-May-2023	925648
Selenium, total	7782-49-2	<0.000050	0.000050	mg/L	E420	07-May-2023	07-May-2023	925648
Silicon, total	7440-21-3	1.75	0.10	mg/L	E420	07-May-2023	07-May-2023	925648
Silver, total	7440-22-4	<0.000010	0.000010	mg/L	E420	07-May-2023	07-May-2023	925648
Sodium, total	7440-23-5	15.1	0.050	mg/L	E420	07-May-2023	07-May-2023	925648
Strontium, total	7440-24-6	0.0573	0.00020	mg/L	E420	07-May-2023	07-May-2023	925648
Sulfur, total	7704-34-9	1.53	0.50	mg/L	E420	07-May-2023	07-May-2023	925648
Tellurium, total	13494-80-9	<0.00020	0.00020	mg/L	E420	07-May-2023	07-May-2023	925648
Thallium, total	7440-28-0	<0.000010	0.000010	mg/L	E420	07-May-2023	07-May-2023	925648
Thorium, total	7440-29-1	<0.00010	0.00010	mg/L	E420	07-May-2023	07-May-2023	925648
Tin, total	7440-31-5	<0.00010	0.00010	mg/L	E420	07-May-2023	07-May-2023	925648
Titanium, total	7440-32-6	<0.00030	0.00030	mg/L	E420	07-May-2023	07-May-2023	925648



Analytical Results

FC2301105-005

Sub-Matrix: Water

(Matrix: Water)

Client sample ID: 101 Loutit St. -

Client sampling date / time: 05-May-2023 09:15

Analyte	CAS Number	Result	LOR	Unit	Method	Prep Date	Analysis Date	QCLot
Total Metals								
Tungsten, total	7440-33-7	<0.00010	0.00010	mg/L	E420	07-May-2023	07-May-2023	925648
Uranium, total	7440-61-1	<0.000010	0.000010	mg/L	E420	07-May-2023	07-May-2023	925648
Vanadium, total	7440-62-2	<0.00050	0.00050	mg/L	E420	07-May-2023	07-May-2023	925648
Zinc, total	7440-66-6	<0.0030	0.0030	mg/L	E420	07-May-2023	07-May-2023	925648
Zirconium, total	7440-67-7	<0.00020	0.00020	mg/L	E420	07-May-2023	07-May-2023	925648
Dissolved Metals								
Aluminum, dissolved	7429-90-5	0.0240	0.0010	mg/L	E421	07-May-2023	07-May-2023	925650
Antimony, dissolved	7440-36-0	<0.00010	0.00010	mg/L	E421	07-May-2023	07-May-2023	925650
Arsenic, dissolved	7440-38-2	0.00017	0.00010	mg/L	E421	07-May-2023	07-May-2023	925650
Barium, dissolved	7440-39-3	0.0162	0.00010	mg/L	E421	07-May-2023	07-May-2023	925650
Beryllium, dissolved	7440-41-7	<0.000020	0.000020	mg/L	E421	07-May-2023	07-May-2023	925650
Bismuth, dissolved	7440-69-9	<0.000050	0.000050	mg/L	E421	07-May-2023	07-May-2023	925650
Boron, dissolved	7440-42-8	0.014	0.010	mg/L	E421	07-May-2023	07-May-2023	925650
Cadmium, dissolved	7440-43-9	<0.0000050	0.0000050	mg/L	E421	07-May-2023	07-May-2023	925650
Calcium, dissolved	7440-70-2	9.19	0.050	mg/L	E421	07-May-2023	07-May-2023	925650
Cesium, dissolved	7440-46-2	<0.000010	0.000010	mg/L	E421	07-May-2023	07-May-2023	925650
Chromium, dissolved	7440-47-3	<0.00050	0.00050	mg/L	E421	07-May-2023	07-May-2023	925650
Cobalt, dissolved	7440-48-4	<0.00010	0.00010	mg/L	E421	07-May-2023	07-May-2023	925650
Copper, dissolved	7440-50-8	0.00076	0.00020	mg/L	E421	07-May-2023	07-May-2023	925650
Iron, dissolved	7439-89-6	<0.030	0.030	mg/L	E421	07-May-2023	07-May-2023	925650
Lead, dissolved	7439-92-1	<0.000050	0.000050	mg/L	E421	07-May-2023	07-May-2023	925650
Lithium, dissolved	7439-93-2	0.0032	0.0010	mg/L	E421	07-May-2023	07-May-2023	925650
Magnesium, dissolved	7439-95-4	2.68	0.0050	mg/L	E421	07-May-2023	07-May-2023	925650
Manganese, dissolved	7439-96-5	<0.00500	0.00500	mg/L	E421	07-May-2023	07-May-2023	925650
Molybdenum, dissolved	7439-98-7	0.000194	0.000050	mg/L	E421	07-May-2023	07-May-2023	925650
Nickel, dissolved	7440-02-0	<0.00050	0.00050	mg/L	E421	07-May-2023	07-May-2023	925650
Phosphorus, dissolved	7723-14-0	<0.050	0.050	mg/L	E421	07-May-2023	07-May-2023	925650
Potassium, dissolved	7440-09-7	1.08	0.050	mg/L	E421	07-May-2023	07-May-2023	925650
Rubidium, dissolved	7440-17-7	0.00097	0.00020	mg/L	E421	07-May-2023	07-May-2023	925650
Selenium, dissolved	7782-49-2	<0.000050	0.000050	mg/L	E421	07-May-2023	07-May-2023	925650
Silicon, dissolved	7440-21-3	1.82	0.050	mg/L	E421	07-May-2023	07-May-2023	925650
Silver, dissolved	7440-22-4	<0.000010	0.000010	mg/L	E421	07-May-2023	07-May-2023	925650
Sodium, dissolved	7440-23-5	15.4	0.050	mg/L	E421	07-May-2023	07-May-2023	925650
Strontium, dissolved	7440-24-6	0.0603	0.00020	mg/L	E421	07-May-2023	07-May-2023	925650
Sulfur, dissolved	7704-34-9	1.35	0.50	mg/L	E421	07-May-2023	07-May-2023	925650
Tellurium, dissolved	13494-80-9	<0.00020	0.00020	mg/L	E421	07-May-2023	07-May-2023	925650
Thallium, dissolved	7440-28-0	<0.000010	0.000010	mg/L	E421	07-May-2023	07-May-2023	925650
Thorium, dissolved	7440-29-1	<0.00010	0.00010	mg/L	E421	07-May-2023	07-May-2023	925650
Tin, dissolved	7440-31-5	<0.00010	0.00010	mg/L	E421	07-May-2023	07-May-2023	925650
Titanium, dissolved	7440-32-6	<0.00030	0.00030	mg/L	E421	07-May-2023	07-May-2023	925650
Tungsten, dissolved	7440-33-7	<0.00010	0.00010	mg/L	E421	07-May-2023	07-May-2023	925650
Uranium, dissolved	7440-61-1	<0.000010	0.000010	mg/L	E421	07-May-2023	07-May-2023	925650
Vanadium, dissolved	7440-62-2	<0.00050	0.00050	mg/L	E421	07-May-2023	07-May-2023	925650
Zinc, dissolved	7440-66-6	<0.0010	0.0010	mg/L	E421	07-May-2023	07-May-2023	925650
Zirconium, dissolved	7440-67-7	<0.00030	0.00030	mg/L	E421	07-May-2023	07-May-2023	925650
Dissolved metals filtration location	----	Laboratory	-	-	EP421	-	07-May-2023	925650



Analytical Results

FC2301105-005

Sub-Matrix: Water

(Matrix: Water)

Client sample ID: 101 Loutit St. -

Client sampling date / time: 05-May-2023 09:15

Analyte	CAS Number	Result	LOR	Unit	Method	Prep Date	Analysis Date	QCLot
Aggregate Organics								
Naphthenic acids	----	<0.10	0.10	mg/L	E565-L	08-May-2023	09-May-2023	926511
Volatile Organic Compounds [BTEXS+MTBE]								
Benzene	71-43-2	<0.50	0.50	µg/L	E611A	06-May-2023	06-May-2023	925174
Ethylbenzene	100-41-4	<0.50	0.50	µg/L	E611A	06-May-2023	06-May-2023	925174
Toluene	108-88-3	<0.50	0.50	µg/L	E611A	06-May-2023	06-May-2023	925174
Xylene, m+p-	179601-23-1	<0.50	0.50	µg/L	E611A	06-May-2023	06-May-2023	925174
Xylene, o-	95-47-6	<0.50	0.50	µg/L	E611A	06-May-2023	06-May-2023	925174
Xylenes, total	1330-20-7	<0.75	0.75	µg/L	E611A	06-May-2023	06-May-2023	925174
BTEX, total	----	<1.2	1.2	µg/L	E611A	06-May-2023	06-May-2023	925174
Hydrocarbons								
F1 (C6-C10)	----	<100	100	µg/L	E581.F1	06-May-2023	06-May-2023	925175
F1-BTEX	----	<100	100	µg/L	EC580	-	06-May-2023	-
F2 (C10-C16)	----	<100	100	µg/L	E601	06-May-2023	06-May-2023	925146
F3 (C16-C34)	----	<250	250	µg/L	E601	06-May-2023	06-May-2023	925146
F4 (C34-C50)	----	<250	250	µg/L	E601	06-May-2023	06-May-2023	925146
Hydrocarbons, total (C6-C50)	----	<400	400	µg/L	EC581	-	06-May-2023	-
Hydrocarbons Surrogates								
Bromobenzotrifluoride, 2- (F2-F4 surrogate)	392-83-6	88.4	1.0	%	E601	06-May-2023	06-May-2023	925146
Dichlorotoluene, 3,4-	95-75-0	102	1.0	%	E581.F1	06-May-2023	06-May-2023	925175
Volatile Organic Compounds Surrogates								
Bromofluorobenzene, 4-	460-00-4	88.3	1.0	%	E611A	06-May-2023	06-May-2023	925174
Difluorobenzene, 1,4-	540-36-3	84.4	1.0	%	E611A	06-May-2023	06-May-2023	925174
Polycyclic Aromatic Hydrocarbons								
Acenaphthene	83-32-9	<0.010	0.010	µg/L	E641A	06-May-2023	06-May-2023	925147
Acenaphthylene	208-96-8	<0.010	0.010	µg/L	E641A	06-May-2023	06-May-2023	925147
Acridine	260-94-6	<0.010	0.010	µg/L	E641A	06-May-2023	06-May-2023	925147
Anthracene	120-12-7	<0.010	0.010	µg/L	E641A	06-May-2023	06-May-2023	925147
Benzo(a)anthracene	56-55-3	<0.010	0.010	µg/L	E641A	06-May-2023	06-May-2023	925147
Benzo(a)pyrene	50-32-8	<0.0050	0.0050	µg/L	E641A	06-May-2023	06-May-2023	925147
Benzo(b+j)fluoranthene	n/a	<0.010	0.010	µg/L	E641A	06-May-2023	06-May-2023	925147
Benzo(b+j+k)fluoranthene	n/a	<0.015	0.015	µg/L	E641A	06-May-2023	06-May-2023	925147
Benzo(g,h,i)perylene	191-24-2	<0.010	0.010	µg/L	E641A	06-May-2023	06-May-2023	925147
Benzo(k)fluoranthene	207-08-9	<0.010	0.010	µg/L	E641A	06-May-2023	06-May-2023	925147
Chrysene	218-01-9	<0.010	0.010	µg/L	E641A	06-May-2023	06-May-2023	925147
Dibenz(a,h)anthracene	53-70-3	<0.0050	0.0050	µg/L	E641A	06-May-2023	06-May-2023	925147
Fluoranthene	206-44-0	<0.010	0.010	µg/L	E641A	06-May-2023	06-May-2023	925147
Fluorene	86-73-7	<0.010	0.010	µg/L	E641A	06-May-2023	06-May-2023	925147
Indeno(1,2,3-c,d)pyrene	193-39-5	<0.010	0.010	µg/L	E641A	06-May-2023	06-May-2023	925147
Methylnaphthalene, 1-	90-12-0	<0.010	0.010	µg/L	E641A	06-May-2023	06-May-2023	925147
Methylnaphthalene, 1+2-	----	<0.015	0.015	µg/L	E641A	06-May-2023	06-May-2023	925147
Methylnaphthalene, 2-	91-57-6	<0.010	0.010	µg/L	E641A	06-May-2023	06-May-2023	925147
Naphthalene	91-20-3	<0.050	0.050	µg/L	E641A	06-May-2023	06-May-2023	925147
Phenanthrene	85-01-8	<0.020	0.020	µg/L	E641A	06-May-2023	06-May-2023	925147
Pyrene	129-00-0	<0.010	0.010	µg/L	E641A	06-May-2023	06-May-2023	925147
Quinoline	91-22-5	<0.050	0.050	µg/L	E641A	06-May-2023	06-May-2023	925147
B(a)P total potency equivalents [B(a)P TPE]	----	<0.010	0.010	µg/L	E641A	06-May-2023	06-May-2023	925147



Analytical Results

FC2301105-005

Sub-Matrix: Water

(Matrix: Water)

Client sample ID: 101 Loutit St. -

Client sampling date / time: 05-May-2023 09:15

Analyte	CAS Number	Result	LOR	Unit	Method	Prep Date	Analysis Date	QCLot
Polycyclic Aromatic Hydrocarbons								
PAHs, high molecular weight (BC AWQ)	n/a	<0.030	0.03	µg/L	E641A	06-May-2023	06-May-2023	925147
PAHs, low molecular weight (BC AWQ)	n/a	<0.060	0.06	µg/L	E641A	06-May-2023	06-May-2023	925147
PAHs, total (CCME sewer 18)	n/a	<0.070	0.07	µg/L	E641A	06-May-2023	06-May-2023	925147
PAHs, total (EPA 16)	n/a	<0.065	0.065	µg/L	E641A	06-May-2023	06-May-2023	925147
Polycyclic Aromatic Hydrocarbons Surrogates								
Chrysene-d12	1719-03-5	88.3	0.1	%	E641A	06-May-2023	06-May-2023	925147
Naphthalene-d8	1146-65-2	109	0.1	%	E641A	06-May-2023	06-May-2023	925147
Phenanthrene-d10	1517-22-2	93.7	0.1	%	E641A	06-May-2023	06-May-2023	925147

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