CERTIFICATE OF ANALYSIS

Work Order	: **FC2301866**	Page	: 1 of 8
Client	: **Regional Municipality of Wood Buffalo**	Laboratory	: ALS Environmental - Fort McMurray
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	: 10-Jul-2023 14:05
PO	: 4500051416	Date Analysis Commenced	: 11-Jul-2023
C-O-C number	: ----	Issue Date	: 14-Jul-2023 17:03
Sampler	: Desmond F		
Site	: Schedule 4: Fort Chip		
Quote number	: Q61323 (Fort chip)		
No. of samples received	: 2		
No. of samples analysed	: 2		

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.

Signatories	*Position*	*Laboratory Department*
Anthony Calero	Supervisor - Inorganic	Inorganics, Calgary, Alberta
Cynthia Bauer	Organic Supervisor	Organics, Calgary, Alberta
Geoff Berg	Lab Analyst	Organics, Edmonton, Alberta
George Huang	Supervisor - Inorganic	Inorganics, Calgary, Alberta
Harpreet Chawla	Team Leader - Inorganics	Inorganics, Calgary, Alberta
Joshua Stessun	Laboratory Analyst	Organics, Calgary, Alberta
Kevin Baxter	Team Leader - Inorganics	Inorganics, Calgary, Alberta
Kevin Baxter	Team Leader - Inorganics	Metals, Calgary, Alberta
Pamela Toledo	Laboratory Assistant	Metals, Calgary, Alberta
Sorina Motea	Laboratory Analyst	Organics, Calgary, Alberta
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
%	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.

Accreditation

Accreditation	*Description*	*Laboratory*	*Address*
A	CALA ISO/IEC 17025:2017	CG ALS Environmental - Calgary	2559 29th Street NE, Calgary, AB
B	CALA ISO/IEC 17025:2017	VA ALS Environmental - Vancouver	8081 Lougheed Highway, Burnaby, BC
C	CALA ISO/IEC 17025:2017	EO ALS Environmental - Edmonton	9450 - 17 Avenue NW, Edmonton, AB

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

Qualifiers

Qualifier	*Description*
DLM	*Detection Limit Adjusted due to sample matrix effects (e.g. chemical interference, colour, turbidity).*

Analytical Results

Sub-Matrix: **Water**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab		LOR	Unit	Client sample ID	Treated Water	Raw Water Pond One	----	----	----
						Client sampling date / time	10-Jul-2023 09:15	10-Jul-2023 09:00	----	----	----
							FC2301866-001	FC2301866-002	--------	--------	--------
							Result	Result	----	----	----
Physical Tests											
Alkalinity, bicarbonate (as HCO3)	71-52-3	E290/CG	A	1.0	mg/L		86.3	120	----	----	----
Alkalinity, carbonate (as CO3)	3812-32-6	E290/CG	A	1.0	mg/L		<1.0	<1.0	----	----	----
Alkalinity, hydroxide (as OH)	14280-30-9	E290/CG	A	1.0	mg/L		<1.0	<1.0	----	----	----
Alkalinity, total (as CaCO3)	----	E290/CG	A	1.0	mg/L		58.0	98.3	----	----	----
Conductivity	----	E100/CG	A	1.0	µS/cm		198	230	----	----	----
Hardness (as CaCO3), dissolved	----	EC100/CG		0.50	mg/L		56.4	92.8	----	----	----
Hardness (as CaCO3), from total Ca/Mg	----	EC100A/CG		0.50	mg/L		55.7	97.0	----	----	----
pH	----	E108/CG	A	0.10	pH units		7.88	8.07	----	----	----
Salinity	----	EC100S/VA		1.0	psu		<1.0	<1.0	----	----	----
Solids, total dissolved [TDS], calculated	----	EC103/CG		1.0	mg/L		108	133	----	----	----
Anions and Nutrients											
Chloride	16887-00-6	E235.Cl/CG	A	0.50	mg/L		20.1	4.86	----	----	----
Fluoride	16984-48-8	E235.F/CG	A	0.020	mg/L		0.034	0.098	----	----	----
Nitrate (as N)	14797-55-8	E235.NO3/CG	A	0.020	mg/L		<0.020	0.203	----	----	----
Nitrate + Nitrite (as N)	----	EC235.N+N/CG		0.0300	mg/L		<0.0300	0.203	----	----	----
Nitrite (as N)	14797-65-0	E235.NO2/CG	A	0.010	mg/L		<0.010	<0.010	----	----	----
Sulfate (as SO4)	14808-79-8	E235.SO4/CG	A	0.30	mg/L		10.6	17.2	----	----	----
Total Sulfides											
Sulfide, total (as S)	18496-25-8	E395/VA	B	0.0015	mg/L		<0.0038 DLM	0.0041	----	----	----
Ion Balance											
Anion sum	----	EC101/CG		0.10	meq/L		1.95	2.48	----	----	----
Cation sum	----	EC101/CG		0.10	meq/L		1.96	2.28	----	----	----
Ion balance (APHA)	----	EC101/CG		0.01	%		0.26	-4.20	----	----	----
Ion balance (cations/anions)	----	EC101/CG		0.010	%		100	91.9	----	----	----
Total Metals											
Aluminum, total	7429-90-5	E420/CG	A	0.0030	mg/L		0.0314	0.0144	----	----	----
Antimony, total	7440-36-0	E420/CG	A	0.00010	mg/L		<0.00010	0.00025	----	----	----
Arsenic, total	7440-38-2	E420/CG	A	0.00010	mg/L		0.00044	0.00089	----	----	----
Barium, total	7440-39-3	E420/CG	A	0.00010	mg/L		0.0362	0.0614	----	----	----

Analytical Results

Sub-Matrix: **Water**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab		LOR	Unit	Client sample ID	Treated Water	Raw Water Pond One	----	----	----
						Client sampling date / time	10-Jul-2023 09:15	10-Jul-2023 09:00	----	----	----
							FC2301866-001	FC2301866-002	--------	--------	--------
							Result	Result	----	----	----
Total Metals											
Beryllium, total	7440-41-7	E420/CG	A	0.000020	mg/L		<0.000020	<0.000020	----	----	----
Bismuth, total	7440-69-9	E420/CG	A	0.000050	mg/L		<0.000050	<0.000050	----	----	----
Boron, total	7440-42-8	E420/CG	A	0.010	mg/L		0.020	0.027	----	----	----
Cadmium, total	7440-43-9	E420/CG	A	0.0000050	mg/L		<0.0000050	0.0000075	----	----	----
Calcium, total	7440-70-2	E420/CG	A	0.050	mg/L		14.6	26.8	----	----	----
Cesium, total	7440-46-2	E420/CG	A	0.000010	mg/L		<0.000010	<0.000010	----	----	----
Chromium, total	7440-47-3	E420/CG	A	0.00050	mg/L		<0.00050	<0.00050	----	----	----
Cobalt, total	7440-48-4	E420/CG	A	0.00010	mg/L		<0.00010	<0.00010	----	----	----
Copper, total	7440-50-8	E420/CG	A	0.00050	mg/L		0.00129	0.00330	----	----	----
Iron, total	7439-89-6	E420/CG	A	0.010	mg/L		<0.010	0.144	----	----	----
Lead, total	7439-92-1	E420/CG	A	0.000050	mg/L		<0.000050	0.000116	----	----	----
Lithium, total	7439-93-2	E420/CG	A	0.0010	mg/L		0.0029	0.0050	----	----	----
Magnesium, total	7439-95-4	E420/CG	A	0.0050	mg/L		4.68	7.30	----	----	----
Manganese, total	7439-96-5	E420/CG	A	0.00010	mg/L		0.00060	0.00204	----	----	----
Molybdenum, total	7439-98-7	E420/CG	A	0.000050	mg/L		0.000436	0.00129	----	----	----
Nickel, total	7440-02-0	E420/CG	A	0.00050	mg/L		<0.00050	0.00242	----	----	----
Phosphorus, total	7723-14-0	E420/CG	A	0.050	mg/L		<0.050	<0.050	----	----	----
Potassium, total	7440-09-7	E420/CG	A	0.050	mg/L		1.24	1.72	----	----	----
Rubidium, total	7440-17-7	E420/CG	A	0.00020	mg/L		0.00122	0.00134	----	----	----
Selenium, total	7782-49-2	E420/CG	A	0.000050	mg/L		0.000078	0.000318	----	----	----
Silicon, total	7440-21-3	E420/CG	A	0.10	mg/L		1.24	3.10	----	----	----
Silver, total	7440-22-4	E420/CG	A	0.000010	mg/L		<0.000010	<0.000010	----	----	----
Sodium, total	7440-23-5	E420/CG	A	0.050	mg/L		18.2	9.79	----	----	----
Strontium, total	7440-24-6	E420/CG	A	0.00020	mg/L		0.106	0.182	----	----	----
Sulfur, total	7704-34-9	E420/CG	A	0.50	mg/L		4.23	6.62	----	----	----
Tellurium, total	13494-80-9	E420/CG	A	0.00020	mg/L		<0.00020	<0.00020	----	----	----
Thallium, total	7440-28-0	E420/CG	A	0.000010	mg/L		<0.000010	<0.000010	----	----	----
Thorium, total	7440-29-1	E420/CG	A	0.00010	mg/L		<0.00010	<0.00010	----	----	----
Tin, total	7440-31-5	E420/CG	A	0.00010	mg/L		0.00011	<0.00010	----	----	----
Titanium, total	7440-32-6	E420/CG	A	0.00030	mg/L		<0.00030	0.00532	----	----	----
Tungsten, total	7440-33-7	E420/CG	A	0.00010	mg/L		<0.00010	<0.00010	----	----	----

Analytical Results

Sub-Matrix: Water (Matrix: Water)						Client sample ID	Treated Water	Raw Water Pond One	----	----	----
						Client sampling date / time	10-Jul-2023 09:15	10-Jul-2023 09:00	----	----	----
Analyte	CAS Number	Method/Lab		LOR	Unit		FC2301866-001	FC2301866-002	--------	--------	--------
							Result	Result	----	----	----
Total Metals											
Uranium, total	7440-61-1	E420/CG	A	0.000010	mg/L		<0.000010	0.000549	----	----	----
Vanadium, total	7440-62-2	E420/CG	A	0.00050	mg/L		<0.00050	<0.00050	----	----	----
Zinc, total	7440-66-6	E420/CG	A	0.0030	mg/L		<0.0030	<0.0030	----	----	----
Zirconium, total	7440-67-7	E420/CG	A	0.00020	mg/L		<0.00020	0.00054	----	----	----
Dissolved Metals											
Aluminum, dissolved	7429-90-5	E421/CG	A	0.0010	mg/L		0.0340	0.0070	----	----	----
Antimony, dissolved	7440-36-0	E421/CG	A	0.00010	mg/L		<0.00010	0.00026	----	----	----
Arsenic, dissolved	7440-38-2	E421/CG	A	0.00010	mg/L		0.00039	0.00076	----	----	----
Barium, dissolved	7440-39-3	E421/CG	A	0.00010	mg/L		0.0338	0.0608	----	----	----
Beryllium, dissolved	7440-41-7	E421/CG	A	0.000020	mg/L		<0.000020	<0.000020	----	----	----
Bismuth, dissolved	7440-69-9	E421/CG	A	0.000050	mg/L		<0.000050	<0.000050	----	----	----
Boron, dissolved	7440-42-8	E421/CG	A	0.010	mg/L		0.019	0.023	----	----	----
Cadmium, dissolved	7440-43-9	E421/CG	A	0.0000050	mg/L		<0.0000050	0.0000075	----	----	----
Calcium, dissolved	7440-70-2	E421/CG	A	0.050	mg/L		14.8	26.5	----	----	----
Cesium, dissolved	7440-46-2	E421/CG	A	0.000010	mg/L		<0.000010	<0.000010	----	----	----
Chromium, dissolved	7440-47-3	E421/CG	A	0.00050	mg/L		<0.00050	<0.00050	----	----	----
Cobalt, dissolved	7440-48-4	E421/CG	A	0.00010	mg/L		<0.00010	<0.00010	----	----	----
Copper, dissolved	7440-50-8	E421/CG	A	0.00020	mg/L		0.00167	0.00289	----	----	----
Iron, dissolved	7439-89-6	E421/CG	A	0.030	mg/L		<0.030	0.105	----	----	----
Lead, dissolved	7439-92-1	E421/CG	A	0.000050	mg/L		<0.000050	0.000072	----	----	----
Lithium, dissolved	7439-93-2	E421/CG	A	0.0010	mg/L		0.0026	0.0050	----	----	----
Magnesium, dissolved	7439-95-4	E421/CG	A	0.0050	mg/L		4.71	6.46	----	----	----
Manganese, dissolved	7439-96-5	E421/CG	A	0.00500	mg/L		<0.00500	<0.00500	----	----	----
Molybdenum, dissolved	7439-98-7	E421/CG	A	0.000050	mg/L		0.000422	0.00138	----	----	----
Nickel, dissolved	7440-02-0	E421/CG	A	0.00050	mg/L		0.00052	0.00230	----	----	----
Phosphorus, dissolved	7723-14-0	E421/CG	A	0.050	mg/L		<0.050	<0.050	----	----	----
Potassium, dissolved	7440-09-7	E421/CG	A	0.050	mg/L		1.22	1.63	----	----	----
Rubidium, dissolved	7440-17-7	E421/CG	A	0.00020	mg/L		0.00123	0.00130	----	----	----
Selenium, dissolved	7782-49-2	E421/CG	A	0.000050	mg/L		0.000163	0.000373	----	----	----
Silicon, dissolved	7440-21-3	E421/CG	A	0.050	mg/L		1.21	2.86	----	----	----
Silver, dissolved	7440-22-4	E421/CG	A	0.000010	mg/L		<0.000010	<0.000010	----	----	----

Analytical Results

Sub-Matrix: **Water**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab		LOR	Unit	Client sample ID	Treated Water	Raw Water Pond One	----	----	----
						Client sampling date / time	10-Jul-2023 09:15	10-Jul-2023 09:00	----	----	----
							FC2301866-001	FC2301866-002	--------	--------	--------
							Result	Result	----	----	----
Dissolved Metals											
Sodium, dissolved	7440-23-5	E421/CG	A	0.050	mg/L		18.3	8.73	----	----	----
Strontium, dissolved	7440-24-6	E421/CG	A	0.00020	mg/L		0.101	0.180	----	----	----
Sulfur, dissolved	7704-34-9	E421/CG	A	0.50	mg/L		4.00	5.74	----	----	----
Tellurium, dissolved	13494-80-9	E421/CG	A	0.00020	mg/L		<0.00020	<0.00020	----	----	----
Thallium, dissolved	7440-28-0	E421/CG	A	0.000010	mg/L		<0.000010	<0.000010	----	----	----
Thorium, dissolved	7440-29-1	E421/CG	A	0.00010	mg/L		<0.00010	<0.00010	----	----	----
Tin, dissolved	7440-31-5	E421/CG	A	0.00010	mg/L		0.00015	<0.00010	----	----	----
Titanium, dissolved	7440-32-6	E421/CG	A	0.00030	mg/L		<0.00030	0.00277	----	----	----
Tungsten, dissolved	7440-33-7	E421/CG	A	0.00010	mg/L		<0.00010	<0.00010	----	----	----
Uranium, dissolved	7440-61-1	E421/CG	A	0.000010	mg/L		0.000011	0.000505	----	----	----
Vanadium, dissolved	7440-62-2	E421/CG	A	0.00050	mg/L		<0.00050	<0.00050	----	----	----
Zinc, dissolved	7440-66-6	E421/CG	A	0.0010	mg/L		0.0030	<0.0010	----	----	----
Zirconium, dissolved	7440-67-7	E421/CG	A	0.00030	mg/L		<0.00030	0.00051	----	----	----
Dissolved metals filtration location	----	EP421/CG		-	-		Laboratory	Laboratory	----	----	----
Aggregate Organics											
Naphthenic acids	----	E565-L/EO	C	0.10	mg/L		<0.10	<0.10	----	----	----
Volatile Organic Compounds [BTEXS+MTBE]											
Benzene	71-43-2	E611A/CG	A	0.50	µg/L		<0.50	<0.50	----	----	----
Ethylbenzene	100-41-4	E611A/CG	A	0.50	µg/L		<0.50	<0.50	----	----	----
Toluene	108-88-3	E611A/CG	A	0.50	µg/L		<0.50	<0.50	----	----	----
Xylene, m+p-	179601-23-1	E611A/CG	A	0.50	µg/L		<0.50	<0.50	----	----	----
Xylene, o-	95-47-6	E611A/CG	A	0.50	µg/L		<0.50	<0.50	----	----	----
Xylenes, total	1330-20-7	E611A/CG	A	0.75	µg/L		<0.75	<0.75	----	----	----
BTEX, total	----	E611A/CG	A	1.2	µg/L		<1.2	<1.2	----	----	----
Hydrocarbons											
F1 (C6-C10)	----	E581.F1/CG	A	100	µg/L		<100	<100	----	----	----
F1-BTEX	----	EC580/CG		100	µg/L		<100	<100	----	----	----
F2 (C10-C16)	----	E601/CG	A	100	µg/L		<100	<100	----	----	----
F3 (C16-C34)	----	E601/CG	A	250	µg/L		<250	<250	----	----	----
F4 (C34-C50)	----	E601/CG	A	250	µg/L		<250	<250	----	----	----
Hydrocarbons, total (C6-C50)	----	EC581/CG		400	µg/L		<400	<400	----	----	----

Analytical Results

Sub-Matrix: Water (Matrix: Water)						Client sample ID	Treated Water	Raw Water Pond One	----	----	----
						Client sampling date / time	10-Jul-2023 09:15	10-Jul-2023 09:00	----	----	----
Analyte	CAS Number	Method/Lab		LOR	Unit		FC2301866-001	FC2301866-002	--------	--------	--------
							Result	Result	----	----	----
Hydrocarbons Surrogates											
Bromobenzotrifluoride, 2- (F2-F4 surrogate)	392-83-6	E601/CG	A	1.0	%		112	136	----	----	----
Dichlorotoluene, 3,4-	95-75-0	E581.F1/CG	A	1.0	%		117	113	----	----	----
Volatile Organic Compounds Surrogates											
Bromofluorobenzene, 4-	460-00-4	E611A/CG	A	1.0	%		88.8	90.6	----	----	----
Difluorobenzene, 1,4-	540-36-3	E611A/CG	A	1.0	%		89.7	90.8	----	----	----
Polycyclic Aromatic Hydrocarbons											
Acenaphthene	83-32-9	E641A/CG	A	0.010	µg/L		<0.010	<0.010	----	----	----
Acenaphthylene	208-96-8	E641A/CG	A	0.010	µg/L		<0.010	<0.010	----	----	----
Acridine	260-94-6	E641A/CG	A	0.010	µg/L		<0.010	<0.010	----	----	----
Anthracene	120-12-7	E641A/CG	A	0.010	µg/L		<0.010	<0.010	----	----	----
Benz(a)anthracene	56-55-3	E641A/CG	A	0.010	µg/L		<0.010	<0.010	----	----	----
Benzo(a)pyrene	50-32-8	E641A/CG	A	0.0050	µg/L		<0.0050	<0.0050	----	----	----
Benzo(b+j)fluoranthene	n/a	E641A/CG	A	0.010	µg/L		<0.010	<0.010	----	----	----
Benzo(b+j+k)fluoranthene	n/a	E641A/CG	A	0.015	µg/L		<0.015	<0.015	----	----	----
Benzo(g,h,i)perylene	191-24-2	E641A/CG	A	0.010	µg/L		<0.010	<0.010	----	----	----
Benzo(k)fluoranthene	207-08-9	E641A/CG	A	0.010	µg/L		<0.010	<0.010	----	----	----
Chrysene	218-01-9	E641A/CG	A	0.010	µg/L		<0.010	<0.010	----	----	----
Dibenz(a,h)anthracene	53-70-3	E641A/CG	A	0.0050	µg/L		<0.0050	<0.0050	----	----	----
Fluoranthene	206-44-0	E641A/CG	A	0.010	µg/L		<0.010	<0.010	----	----	----
Fluorene	86-73-7	E641A/CG	A	0.010	µg/L		<0.010	<0.010	----	----	----
Indeno(1,2,3-c,d)pyrene	193-39-5	E641A/CG	A	0.010	µg/L		<0.010	<0.010	----	----	----
Methylnaphthalene, 1-	90-12-0	E641A/CG	A	0.010	µg/L		<0.010	<0.010	----	----	----
Methylnaphthalene, 1+2-	----	E641A/CG	A	0.015	µg/L		<0.015	<0.015	----	----	----
Methylnaphthalene, 2-	91-57-6	E641A/CG	A	0.010	µg/L		<0.010	<0.010	----	----	----
Naphthalene	91-20-3	E641A/CG	A	0.050	µg/L		<0.050	<0.050	----	----	----
Phenanthrene	85-01-8	E641A/CG	A	0.020	µg/L		<0.020	<0.020	----	----	----
Pyrene	129-00-0	E641A/CG	A	0.010	µg/L		<0.010	<0.010	----	----	----
Quinoline	91-22-5	E641A/CG	A	0.050	µg/L		<0.050	<0.050	----	----	----
B(a)P total potency equivalents [B(a)P TPE]	----	E641A/CG	A	0.010	µg/L		<0.010	<0.010	----	----	----
PAHs, high molecular weight (BC AWQ)	n/a	E641A/CG	A	0.030	µg/L		<0.030	<0.030	----	----	----
PAHs, low molecular weight (BC AWQ)	n/a	E641A/CG	A	0.060	µg/L		<0.060	<0.060	----	----	----

Analytical Results

Sub-Matrix: Water (Matrix: Water)					Client sample ID	Treated Water	Raw Water Pond One	----	----	----
					Client sampling date / time	10-Jul-2023 09:15	10-Jul-2023 09:00	----	----	----
Analyte	CAS Number	Method/Lab		LOR	Unit	FC2301866-001	FC2301866-002	--------	--------	--------
						Result	Result	----	----	----
Polycyclic Aromatic Hydrocarbons										
PAHs, total (CCME sewer 18)	n/a	E641A/CG	A	0.070	µg/L	<0.070	<0.070	----	----	----
PAHs, total (EPA 16)	n/a	E641A/CG	A	0.065	µg/L	<0.065	<0.065	----	----	----
Polycyclic Aromatic Hydrocarbons Surrogates										
Chrysene-d12	1719-03-5	E641A/CG	A	0.1	%	115	67.7	----	----	----
Naphthalene-d8	1146-65-2	E641A/CG	A	0.1	%	105	75.2	----	----	----
Phenanthrene-d10	1517-22-2	E641A/CG	A	0.1	%	113	67.7	----	----	----

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.

CERTIFICATE OF ANALYSIS

Work Order	: **FC2301866**	Page	: 1 of 10
Client	: **Regional Municipality of Wood Buffalo**	Laboratory	: ALS Environmental - Fort McMurray
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	: 10-Jul-2023 14:05
PO	: 4500051416	Date Analysis Commenced	: 11-Jul-2023
C-O-C number	: ----	Issue Date	: 14-Jul-2023 17:04
Sampler	: Desmond F		
Site	: Schedule 4: Fort Chip		
Quote number	: Q61323 (Fort chip)		
No. of samples received	: 2		
No. of samples analysed	: 2		

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.

Signatories	*Position*	*Laboratory Department*
Anthony Calero	Supervisor - Inorganic	Inorganics, Calgary, Alberta
Cynthia Bauer	Organic Supervisor	Organics, Calgary, Alberta
Geoff Berg	Lab Analyst	Organics, Edmonton, Alberta
George Huang	Supervisor - Inorganic	Inorganics, Calgary, Alberta
Harpreet Chawla	Team Leader - Inorganics	Inorganics, Calgary, Alberta
Joshua Stessun	Laboratory Analyst	Organics, Calgary, Alberta
Kevin Baxter	Team Leader - Inorganics	Inorganics, Calgary, Alberta
Kevin Baxter	Team Leader - Inorganics	Metals, Calgary, Alberta
Pamela Toledo	Laboratory Assistant	Metals, Calgary, Alberta
Sorina Motea	Laboratory Analyst	Organics, Calgary, Alberta
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).
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.

Unit	*Description*
-	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.

Accreditation

Accreditation	*Description*	*Laboratory*	*Address*
A	CALA ISO/IEC 17025:2017	CG ALS Environmental - Calgary	2559 29th Street NE, Calgary, AB
B	CALA ISO/IEC 17025:2017	VA ALS Environmental - Vancouver	8081 Lougheed Highway, Burnaby, BC
C	CALA ISO/IEC 17025:2017	EO ALS Environmental - Edmonton	9450 - 17 Avenue NW, Edmonton, AB

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

Qualifiers

Qualifier	*Description*
DLM	*Detection Limit Adjusted due to sample matrix effects (e.g. chemical interference, colour, turbidity).*

Analytical Results

FC2301866-001

Sub-Matrix:**Water**
(Matrix: **Water**)

Client sample ID: Treated Water
Client sampling date / time: 10-Jul-2023 09:15

Analyte	CAS Number	Result	LOR	Unit	Method/Lab	Prep Date	Analysis Date	QCLot
Physical Tests								
Alkalinity, bicarbonate (as HCO3)	71-52-3	86.3	1.0	mg/L	E290/CG A	11-Jul-2023	12-Jul-2023	1032494
Alkalinity, carbonate (as CO3)	3812-32-6	<1.0	1.0	mg/L	E290/CG A	11-Jul-2023	12-Jul-2023	1032494
Alkalinity, hydroxide (as OH)	14280-30-9	<1.0	1.0	mg/L	E290/CG A	11-Jul-2023	12-Jul-2023	1032494
Alkalinity, total (as CaCO3)	----	58.0	1.0	mg/L	E290/CG A	11-Jul-2023	12-Jul-2023	1032494
Conductivity	----	198	1.0	µS/cm	E100/CG A	11-Jul-2023	12-Jul-2023	1032495
Hardness (as CaCO3), dissolved	----	56.4	0.50	mg/L	EC100/CG	-	12-Jul-2023	-
Hardness (as CaCO3), from total Ca/Mg	----	55.7	0.50	mg/L	EC100A/CG	-	12-Jul-2023	-
pH	----	7.88	0.10	pH units	E108/CG A	11-Jul-2023	12-Jul-2023	1032493
Salinity	----	<1.0	1.0	psu	EC100S/VA	-	12-Jul-2023	-
Solids, total dissolved [TDS], calculated	----	108	1.0	mg/L	EC103/CG	-	12-Jul-2023	-
Anions and Nutrients								
Chloride	16887-00-6	20.1	0.50	mg/L	E235.Cl/CG A	11-Jul-2023	11-Jul-2023	1032874
Fluoride	16984-48-8	0.034	0.020	mg/L	E235.F/CG A	11-Jul-2023	11-Jul-2023	1032866
Nitrate (as N)	14797-55-8	<0.020	0.020	mg/L	E235.NO3/CG A	11-Jul-2023	11-Jul-2023	1032872
Nitrate + Nitrite (as N)	----	<0.0300	0.03	mg/L	EC235.N+N/CG	-	12-Jul-2023	1034495
Nitrite (as N)	14797-65-0	<0.010	0.010	mg/L	E235.NO2/CG A	11-Jul-2023	11-Jul-2023	1032873
Sulfate (as SO4)	14808-79-8	10.6	0.30	mg/L	E235.SO4/CG A	11-Jul-2023	11-Jul-2023	1032871
Total Sulfides								
Sulfide, total (as S)	18496-25-8	<0.0038 DLM,	0.0038	mg/L	E395/VA B	-	12-Jul-2023	1035304
Ion Balance								
Anion sum	----	1.95	0.10	meq/L	EC101/CG	-	12-Jul-2023	-
Cation sum	----	1.96	0.10	meq/L	EC101/CG	-	12-Jul-2023	-
Ion balance (APHA)	----	0.26	0.01	%	EC101/CG	-	12-Jul-2023	-
Ion balance (cations/anions)	----	100	0.010	%	EC101/CG	-	12-Jul-2023	-
Total Metals								
Aluminum, total	7429-90-5	0.0314	0.0030	mg/L	E420/CG A	12-Jul-2023	12-Jul-2023	1032971
Antimony, total	7440-36-0	<0.00010	0.00010	mg/L	E420/CG A	12-Jul-2023	12-Jul-2023	1032971
Arsenic, total	7440-38-2	0.00044	0.00010	mg/L	E420/CG A	12-Jul-2023	12-Jul-2023	1032971
Barium, total	7440-39-3	0.0362	0.00010	mg/L	E420/CG A	12-Jul-2023	12-Jul-2023	1032971
Beryllium, total	7440-41-7	<0.000020	0.000020	mg/L	E420/CG A	12-Jul-2023	12-Jul-2023	1032971
Bismuth, total	7440-69-9	<0.000050	0.000050	mg/L	E420/CG A	12-Jul-2023	12-Jul-2023	1032971
Boron, total	7440-42-8	0.020	0.010	mg/L	E420/CG A	12-Jul-2023	12-Jul-2023	1032971
Cadmium, total	7440-43-9	<0.0000050	0.0000050	mg/L	E420/CG A	12-Jul-2023	12-Jul-2023	1032971
Calcium, total	7440-70-2	14.6	0.050	mg/L	E420/CG A	12-Jul-2023	12-Jul-2023	1032971
Cesium, total	7440-46-2	<0.000010	0.000010	mg/L	E420/CG A	12-Jul-2023	12-Jul-2023	1032971
Chromium, total	7440-47-3	<0.00050	0.00050	mg/L	E420/CG A	12-Jul-2023	12-Jul-2023	1032971
Cobalt, total	7440-48-4	<0.00010	0.00010	mg/L	E420/CG A	12-Jul-2023	12-Jul-2023	1032971
Copper, total	7440-50-8	0.00129	0.00050	mg/L	E420/CG A	12-Jul-2023	12-Jul-2023	1032971
Iron, total	7439-89-6	<0.010	0.010	mg/L	E420/CG A	12-Jul-2023	12-Jul-2023	1032971
Lead, total	7439-92-1	<0.000050	0.000050	mg/L	E420/CG A	12-Jul-2023	12-Jul-2023	1032971
Lithium, total	7439-93-2	0.0029	0.0010	mg/L	E420/CG A	12-Jul-2023	12-Jul-2023	1032971
Magnesium, total	7439-95-4	4.68	0.0050	mg/L	E420/CG A	12-Jul-2023	12-Jul-2023	1032971
Manganese, total	7439-96-5	0.00060	0.00010	mg/L	E420/CG A	12-Jul-2023	12-Jul-2023	1032971

Analytical Results

FC2301866-001

Sub-Matrix:**Water**
(Matrix: **Water**)

Client sample ID: Treated Water
Client sampling date / time: 10-Jul-2023 09:15

Analyte	CAS Number	Result	LOR	Unit	Method/Lab	Prep Date	Analysis Date	QCLot
Total Metals								
Molybdenum, total	7439-98-7	0.000436	0.000050	mg/L	E420/CG A	12-Jul-2023	12-Jul-2023	1032971
Nickel, total	7440-02-0	<0.00050	0.00050	mg/L	E420/CG A	12-Jul-2023	12-Jul-2023	1032971
Phosphorus, total	7723-14-0	<0.050	0.050	mg/L	E420/CG A	12-Jul-2023	12-Jul-2023	1032971
Potassium, total	7440-09-7	1.24	0.050	mg/L	E420/CG A	12-Jul-2023	12-Jul-2023	1032971
Rubidium, total	7440-17-7	0.00122	0.00020	mg/L	E420/CG A	12-Jul-2023	12-Jul-2023	1032971
Selenium, total	7782-49-2	0.000078	0.000050	mg/L	E420/CG A	12-Jul-2023	12-Jul-2023	1032971
Silicon, total	7440-21-3	1.24	0.10	mg/L	E420/CG A	12-Jul-2023	12-Jul-2023	1032971
Silver, total	7440-22-4	<0.000010	0.000010	mg/L	E420/CG A	12-Jul-2023	12-Jul-2023	1032971
Sodium, total	7440-23-5	18.2	0.050	mg/L	E420/CG A	12-Jul-2023	12-Jul-2023	1032971
Strontium, total	7440-24-6	0.106	0.00020	mg/L	E420/CG A	12-Jul-2023	12-Jul-2023	1032971
Sulfur, total	7704-34-9	4.23	0.50	mg/L	E420/CG A	12-Jul-2023	12-Jul-2023	1032971
Tellurium, total	13494-80-9	<0.00020	0.00020	mg/L	E420/CG A	12-Jul-2023	12-Jul-2023	1032971
Thallium, total	7440-28-0	<0.000010	0.000010	mg/L	E420/CG A	12-Jul-2023	12-Jul-2023	1032971
Thorium, total	7440-29-1	<0.00010	0.00010	mg/L	E420/CG A	12-Jul-2023	12-Jul-2023	1032971
Tin, total	7440-31-5	0.00011	0.00010	mg/L	E420/CG A	12-Jul-2023	12-Jul-2023	1032971
Titanium, total	7440-32-6	<0.00030	0.00030	mg/L	E420/CG A	12-Jul-2023	12-Jul-2023	1032971
Tungsten, total	7440-33-7	<0.00010	0.00010	mg/L	E420/CG A	12-Jul-2023	12-Jul-2023	1032971
Uranium, total	7440-61-1	<0.000010	0.000010	mg/L	E420/CG A	12-Jul-2023	12-Jul-2023	1032971
Vanadium, total	7440-62-2	<0.00050	0.00050	mg/L	E420/CG A	12-Jul-2023	12-Jul-2023	1032971
Zinc, total	7440-66-6	<0.0030	0.0030	mg/L	E420/CG A	12-Jul-2023	12-Jul-2023	1032971
Zirconium, total	7440-67-7	<0.00020	0.00020	mg/L	E420/CG A	12-Jul-2023	12-Jul-2023	1032971
Dissolved Metals								
Aluminum, dissolved	7429-90-5	0.0340	0.0010	mg/L	E421/CG A	12-Jul-2023	12-Jul-2023	1032973
Antimony, dissolved	7440-36-0	<0.00010	0.00010	mg/L	E421/CG A	12-Jul-2023	12-Jul-2023	1032973
Arsenic, dissolved	7440-38-2	0.00039	0.00010	mg/L	E421/CG A	12-Jul-2023	12-Jul-2023	1032973
Barium, dissolved	7440-39-3	0.0338	0.00010	mg/L	E421/CG A	12-Jul-2023	12-Jul-2023	1032973
Beryllium, dissolved	7440-41-7	<0.000020	0.000020	mg/L	E421/CG A	12-Jul-2023	12-Jul-2023	1032973
Bismuth, dissolved	7440-69-9	<0.000050	0.000050	mg/L	E421/CG A	12-Jul-2023	12-Jul-2023	1032973
Boron, dissolved	7440-42-8	0.019	0.010	mg/L	E421/CG A	12-Jul-2023	12-Jul-2023	1032973
Cadmium, dissolved	7440-43-9	<0.0000050	0.0000050	mg/L	E421/CG A	12-Jul-2023	12-Jul-2023	1032973
Calcium, dissolved	7440-70-2	14.8	0.050	mg/L	E421/CG A	12-Jul-2023	12-Jul-2023	1032973
Cesium, dissolved	7440-46-2	<0.000010	0.000010	mg/L	E421/CG A	12-Jul-2023	12-Jul-2023	1032973
Chromium, dissolved	7440-47-3	<0.00050	0.00050	mg/L	E421/CG A	12-Jul-2023	12-Jul-2023	1032973
Cobalt, dissolved	7440-48-4	<0.00010	0.00010	mg/L	E421/CG A	12-Jul-2023	12-Jul-2023	1032973
Copper, dissolved	7440-50-8	0.00167	0.00020	mg/L	E421/CG A	12-Jul-2023	12-Jul-2023	1032973
Iron, dissolved	7439-89-6	<0.030	0.030	mg/L	E421/CG A	12-Jul-2023	12-Jul-2023	1032973
Lead, dissolved	7439-92-1	<0.000050	0.000050	mg/L	E421/CG A	12-Jul-2023	12-Jul-2023	1032973
Lithium, dissolved	7439-93-2	0.0026	0.0010	mg/L	E421/CG A	12-Jul-2023	12-Jul-2023	1032973
Magnesium, dissolved	7439-95-4	4.71	0.0050	mg/L	E421/CG A	12-Jul-2023	12-Jul-2023	1032973
Manganese, dissolved	7439-96-5	<0.00500	0.00500	mg/L	E421/CG A	12-Jul-2023	12-Jul-2023	1032973
Molybdenum, dissolved	7439-98-7	0.000422	0.000050	mg/L	E421/CG A	12-Jul-2023	12-Jul-2023	1032973
Nickel, dissolved	7440-02-0	0.00052	0.00050	mg/L	E421/CG A	12-Jul-2023	12-Jul-2023	1032973
Phosphorus, dissolved	7723-14-0	<0.050	0.050	mg/L	E421/CG A	12-Jul-2023	12-Jul-2023	1032973
Potassium, dissolved	7440-09-7	1.22	0.050	mg/L	E421/CG A	12-Jul-2023	12-Jul-2023	1032973
Rubidium, dissolved	7440-17-7	0.00123	0.00020	mg/L	E421/CG A	12-Jul-2023	12-Jul-2023	1032973

Analytical Results

FC2301866-001
Sub-Matrix:**Water**
(Matrix: **Water**)

Client sample ID: Treated Water
Client sampling date / time: 10-Jul-2023 09:15

Analyte	CAS Number	Result	LOR	Unit	Method/Lab	Prep Date	Analysis Date	QCLot
Dissolved Metals								
Selenium, dissolved	7782-49-2	0.000163	0.000050	mg/L	E421/CG A	12-Jul-2023	12-Jul-2023	1032973
Silicon, dissolved	7440-21-3	1.21	0.050	mg/L	E421/CG A	12-Jul-2023	12-Jul-2023	1032973
Silver, dissolved	7440-22-4	<0.000010	0.000010	mg/L	E421/CG A	12-Jul-2023	12-Jul-2023	1032973
Sodium, dissolved	7440-23-5	18.3	0.050	mg/L	E421/CG A	12-Jul-2023	12-Jul-2023	1032973
Strontium, dissolved	7440-24-6	0.101	0.00020	mg/L	E421/CG A	12-Jul-2023	12-Jul-2023	1032973
Sulfur, dissolved	7704-34-9	4.00	0.50	mg/L	E421/CG A	12-Jul-2023	12-Jul-2023	1032973
Tellurium, dissolved	13494-80-9	<0.00020	0.00020	mg/L	E421/CG A	12-Jul-2023	12-Jul-2023	1032973
Thallium, dissolved	7440-28-0	<0.000010	0.000010	mg/L	E421/CG A	12-Jul-2023	12-Jul-2023	1032973
Thorium, dissolved	7440-29-1	<0.00010	0.00010	mg/L	E421/CG A	12-Jul-2023	12-Jul-2023	1032973
Tin, dissolved	7440-31-5	0.00015	0.00010	mg/L	E421/CG A	12-Jul-2023	12-Jul-2023	1032973
Titanium, dissolved	7440-32-6	<0.00030	0.00030	mg/L	E421/CG A	12-Jul-2023	12-Jul-2023	1032973
Tungsten, dissolved	7440-33-7	<0.00010	0.00010	mg/L	E421/CG A	12-Jul-2023	12-Jul-2023	1032973
Uranium, dissolved	7440-61-1	0.000011	0.000010	mg/L	E421/CG A	12-Jul-2023	12-Jul-2023	1032973
Vanadium, dissolved	7440-62-2	<0.00050	0.00050	mg/L	E421/CG A	12-Jul-2023	12-Jul-2023	1032973
Zinc, dissolved	7440-66-6	0.0030	0.0010	mg/L	E421/CG A	12-Jul-2023	12-Jul-2023	1032973
Zirconium, dissolved	7440-67-7	<0.00030	0.00030	mg/L	E421/CG A	12-Jul-2023	12-Jul-2023	1032973
Dissolved metals filtration location	----	Laboratory	-	-	EP421/CG	-	12-Jul-2023	1032973
Aggregate Organics								
Naphthenic acids	----	<0.10	0.10	mg/L	E565-L/EO C	12-Jul-2023	13-Jul-2023	1034904
Volatile Organic Compounds [BTEXS+MTBE]								
Benzene	71-43-2	<0.50	0.50	µg/L	E611A/CG A	11-Jul-2023	11-Jul-2023	1032772
Ethylbenzene	100-41-4	<0.50	0.50	µg/L	E611A/CG A	11-Jul-2023	11-Jul-2023	1032772
Toluene	108-88-3	<0.50	0.50	µg/L	E611A/CG A	11-Jul-2023	11-Jul-2023	1032772
Xylene, m+p-	179601-23-1	<0.50	0.50	µg/L	E611A/CG A	11-Jul-2023	11-Jul-2023	1032772
Xylene, o-	95-47-6	<0.50	0.50	µg/L	E611A/CG A	11-Jul-2023	11-Jul-2023	1032772
Xylenes, total	1330-20-7	<0.75	0.75	µg/L	E611A/CG A	11-Jul-2023	11-Jul-2023	1032772
BTEX, total	----	<1.2	1.2	µg/L	E611A/CG A	11-Jul-2023	11-Jul-2023	1032772
Hydrocarbons								
F1 (C6-C10)	----	<100	100	µg/L	E581.F1/CG A	11-Jul-2023	11-Jul-2023	1032775
F1-BTEX	----	<100	100	µg/L	EC580/CG	-	12-Jul-2023	-
F2 (C10-C16)	----	<100	100	µg/L	E601/CG A	11-Jul-2023	12-Jul-2023	1032523
F3 (C16-C34)	----	<250	250	µg/L	E601/CG A	11-Jul-2023	12-Jul-2023	1032523
F4 (C34-C50)	----	<250	250	µg/L	E601/CG A	11-Jul-2023	12-Jul-2023	1032523
Hydrocarbons, total (C6-C50)	----	<400	400	µg/L	EC581/CG	-	12-Jul-2023	-
Hydrocarbons Surrogates								
Bromobenzotrifluoride, 2- (F2-F4 surrogate)	392-83-6	112	1.0	%	E601/CG A	11-Jul-2023	12-Jul-2023	1032523
Dichlorotoluene, 3,4-	95-75-0	117	1.0	%	E581.F1/CG A	11-Jul-2023	11-Jul-2023	1032775
Volatile Organic Compounds Surrogates								
Bromofluorobenzene, 4-	460-00-4	88.8	1.0	%	E611A/CG A	11-Jul-2023	11-Jul-2023	1032772
Difluorobenzene, 1,4-	540-36-3	89.7	1.0	%	E611A/CG A	11-Jul-2023	11-Jul-2023	1032772
Polycyclic Aromatic Hydrocarbons								
Acenaphthene	83-32-9	<0.010	0.010	µg/L	E641A/CG A	11-Jul-2023	11-Jul-2023	1032520
Acenaphthylene	208-96-8	<0.010	0.010	µg/L	E641A/CG A	11-Jul-2023	11-Jul-2023	1032520
Acridine	260-94-6	<0.010	0.010	µg/L	E641A/CG A	11-Jul-2023	11-Jul-2023	1032520

Analytical Results

FC2301866-001

Sub-Matrix:**Water** (Matrix: **Water**)

Client sample ID: Treated Water

Client sampling date / time: 10-Jul-2023 09:15

Analyte	CAS Number	Result	LOR	Unit	Method/Lab	Prep Date	Analysis Date	QCLot
Polycyclic Aromatic Hydrocarbons								
Anthracene	120-12-7	<0.010	0.010	µg/L	E641A/CG A	11-Jul-2023	11-Jul-2023	1032520
Benz(a)anthracene	56-55-3	<0.010	0.010	µg/L	E641A/CG A	11-Jul-2023	11-Jul-2023	1032520
Benzo(a)pyrene	50-32-8	<0.0050	0.0050	µg/L	E641A/CG A	11-Jul-2023	11-Jul-2023	1032520
Benzo(b+j)fluoranthene	n/a	<0.010	0.010	µg/L	E641A/CG A	11-Jul-2023	11-Jul-2023	1032520
Benzo(b+j+k)fluoranthene	n/a	<0.015	0.015	µg/L	E641A/CG A	11-Jul-2023	11-Jul-2023	1032520
Benzo(g,h,i)perylene	191-24-2	<0.010	0.010	µg/L	E641A/CG A	11-Jul-2023	11-Jul-2023	1032520
Benzo(k)fluoranthene	207-08-9	<0.010	0.010	µg/L	E641A/CG A	11-Jul-2023	11-Jul-2023	1032520
Chrysene	218-01-9	<0.010	0.010	µg/L	E641A/CG A	11-Jul-2023	11-Jul-2023	1032520
Dibenz(a,h)anthracene	53-70-3	<0.0050	0.0050	µg/L	E641A/CG A	11-Jul-2023	11-Jul-2023	1032520
Fluoranthene	206-44-0	<0.010	0.010	µg/L	E641A/CG A	11-Jul-2023	11-Jul-2023	1032520
Fluorene	86-73-7	<0.010	0.010	µg/L	E641A/CG A	11-Jul-2023	11-Jul-2023	1032520
Indeno(1,2,3-c,d)pyrene	193-39-5	<0.010	0.010	µg/L	E641A/CG A	11-Jul-2023	11-Jul-2023	1032520
Methylnaphthalene, 1-	90-12-0	<0.010	0.010	µg/L	E641A/CG A	11-Jul-2023	11-Jul-2023	1032520
Methylnaphthalene, 1+2-	----	<0.015	0.015	µg/L	E641A/CG A	11-Jul-2023	11-Jul-2023	1032520
Methylnaphthalene, 2-	91-57-6	<0.010	0.010	µg/L	E641A/CG A	11-Jul-2023	11-Jul-2023	1032520
Naphthalene	91-20-3	<0.050	0.050	µg/L	E641A/CG A	11-Jul-2023	11-Jul-2023	1032520
Phenanthrene	85-01-8	<0.020	0.020	µg/L	E641A/CG A	11-Jul-2023	11-Jul-2023	1032520
Pyrene	129-00-0	<0.010	0.010	µg/L	E641A/CG A	11-Jul-2023	11-Jul-2023	1032520
Quinoline	91-22-5	<0.050	0.050	µg/L	E641A/CG A	11-Jul-2023	11-Jul-2023	1032520
B(a)P total potency equivalents [B(a)P TPE]	----	<0.010	0.010	µg/L	E641A/CG A	11-Jul-2023	11-Jul-2023	1032520
PAHs, high molecular weight (BC AWQ)	n/a	<0.030	0.03	µg/L	E641A/CG A	11-Jul-2023	11-Jul-2023	1032520
PAHs, low molecular weight (BC AWQ)	n/a	<0.060	0.06	µg/L	E641A/CG A	11-Jul-2023	11-Jul-2023	1032520
PAHs, total (CCME sewer 18)	n/a	<0.070	0.07	µg/L	E641A/CG A	11-Jul-2023	11-Jul-2023	1032520
PAHs, total (EPA 16)	n/a	<0.065	0.065	µg/L	E641A/CG A	11-Jul-2023	11-Jul-2023	1032520
Polycyclic Aromatic Hydrocarbons Surrogates								
Chrysene-d12	1719-03-5	115	0.1	%	E641A/CG A	11-Jul-2023	11-Jul-2023	1032520
Naphthalene-d8	1146-65-2	105	0.1	%	E641A/CG A	11-Jul-2023	11-Jul-2023	1032520
Phenanthrene-d10	1517-22-2	113	0.1	%	E641A/CG A	11-Jul-2023	11-Jul-2023	1032520

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

FC2301866-002

Sub-Matrix:**Water** (Matrix: **Water**)

Client sample ID: Raw Water Pond One

Client sampling date / time: 10-Jul-2023 09:00

Analyte	CAS Number	Result	LOR	Unit	Method/Lab	Prep Date	Analysis Date	QCLot
Physical Tests								
Alkalinity, bicarbonate (as HCO3)	71-52-3	120	1.0	mg/L	E290/CG A	11-Jul-2023	11-Jul-2023	1032494
Alkalinity, carbonate (as CO3)	3812-32-6	<1.0	1.0	mg/L	E290/CG A	11-Jul-2023	11-Jul-2023	1032494
Alkalinity, hydroxide (as OH)	14280-30-9	<1.0	1.0	mg/L	E290/CG A	11-Jul-2023	11-Jul-2023	1032494
Alkalinity, total (as CaCO3)	----	98.3	1.0	mg/L	E290/CG A	11-Jul-2023	11-Jul-2023	1032494
Conductivity	----	230	1.0	µS/cm	E100/CG A	11-Jul-2023	11-Jul-2023	1032495
Hardness (as CaCO3), dissolved	----	92.8	0.50	mg/L	EC100/CG	-	12-Jul-2023	-

Analytical Results

FC2301866-002

Sub-Matrix:**Water**
(Matrix: **Water**)

Client sample ID: Raw Water Pond One
Client sampling date / time: 10-Jul-2023 09:00

Analyte	CAS Number	Result	LOR	Unit	Method/Lab	Prep Date	Analysis Date	QCLot
Physical Tests								
Hardness (as CaCO3), from total Ca/Mg	----	97.0	0.50	mg/L	EC100A/CG	-	12-Jul-2023	-
pH	----	8.07	0.10	pH units	E108/CG A	11-Jul-2023	11-Jul-2023	1032493
Salinity	----	<1.0	1.0	psu	EC100S/VA	-	12-Jul-2023	-
Solids, total dissolved [TDS], calculated	----	133	1.0	mg/L	EC103/CG	-	12-Jul-2023	-
Anions and Nutrients								
Chloride	16887-00-6	4.86	0.50	mg/L	E235.Cl/CG A	11-Jul-2023	11-Jul-2023	1032874
Fluoride	16984-48-8	0.098	0.020	mg/L	E235.F/CG A	11-Jul-2023	11-Jul-2023	1032866
Nitrate (as N)	14797-55-8	0.203	0.020	mg/L	E235.NO3/CG A	11-Jul-2023	11-Jul-2023	1032872
Nitrate + Nitrite (as N)	----	0.203	0.03	mg/L	EC235.N+N/CG	-	12-Jul-2023	1034495
Nitrite (as N)	14797-65-0	<0.010	0.010	mg/L	E235.NO2/CG A	11-Jul-2023	11-Jul-2023	1032873
Sulfate (as SO4)	14808-79-8	17.2	0.30	mg/L	E235.SO4/CG A	11-Jul-2023	11-Jul-2023	1032871
Total Sulfides								
Sulfide, total (as S)	18496-25-8	0.0041	0.0038	mg/L	E395/VA B	-	12-Jul-2023	1035304
Ion Balance								
Anion sum	----	2.48	0.10	meq/L	EC101/CG	-	12-Jul-2023	-
Cation sum	----	2.28	0.10	meq/L	EC101/CG	-	12-Jul-2023	-
Ion balance (APHA)	----	-4.20	0.01	%	EC101/CG	-	12-Jul-2023	-
Ion balance (cations/anions)	----	91.9	0.010	%	EC101/CG	-	12-Jul-2023	-
Total Metals								
Aluminum, total	7429-90-5	0.0144	0.0030	mg/L	E420/CG A	12-Jul-2023	12-Jul-2023	1032971
Antimony, total	7440-36-0	0.00025	0.00010	mg/L	E420/CG A	12-Jul-2023	12-Jul-2023	1032971
Arsenic, total	7440-38-2	0.00089	0.00010	mg/L	E420/CG A	12-Jul-2023	12-Jul-2023	1032971
Barium, total	7440-39-3	0.0614	0.00010	mg/L	E420/CG A	12-Jul-2023	12-Jul-2023	1032971
Beryllium, total	7440-41-7	<0.000020	0.000020	mg/L	E420/CG A	12-Jul-2023	12-Jul-2023	1032971
Bismuth, total	7440-69-9	<0.000050	0.000050	mg/L	E420/CG A	12-Jul-2023	12-Jul-2023	1032971
Boron, total	7440-42-8	0.027	0.010	mg/L	E420/CG A	12-Jul-2023	12-Jul-2023	1032971
Cadmium, total	7440-43-9	0.0000075	0.0000050	mg/L	E420/CG A	12-Jul-2023	12-Jul-2023	1032971
Calcium, total	7440-70-2	26.8	0.050	mg/L	E420/CG A	12-Jul-2023	12-Jul-2023	1032971
Cesium, total	7440-46-2	<0.000010	0.000010	mg/L	E420/CG A	12-Jul-2023	12-Jul-2023	1032971
Chromium, total	7440-47-3	<0.00050	0.00050	mg/L	E420/CG A	12-Jul-2023	12-Jul-2023	1032971
Cobalt, total	7440-48-4	<0.00010	0.00010	mg/L	E420/CG A	12-Jul-2023	12-Jul-2023	1032971
Copper, total	7440-50-8	0.00330	0.00050	mg/L	E420/CG A	12-Jul-2023	12-Jul-2023	1032971
Iron, total	7439-89-6	0.144	0.010	mg/L	E420/CG A	12-Jul-2023	12-Jul-2023	1032971
Lead, total	7439-92-1	0.000116	0.000050	mg/L	E420/CG A	12-Jul-2023	12-Jul-2023	1032971
Lithium, total	7439-93-2	0.0050	0.0010	mg/L	E420/CG A	12-Jul-2023	12-Jul-2023	1032971
Magnesium, total	7439-95-4	7.30	0.0050	mg/L	E420/CG A	12-Jul-2023	12-Jul-2023	1032971
Manganese, total	7439-96-5	0.00204	0.00010	mg/L	E420/CG A	12-Jul-2023	12-Jul-2023	1032971
Molybdenum, total	7439-98-7	0.00129	0.000050	mg/L	E420/CG A	12-Jul-2023	12-Jul-2023	1032971
Nickel, total	7440-02-0	0.00242	0.00050	mg/L	E420/CG A	12-Jul-2023	12-Jul-2023	1032971
Phosphorus, total	7723-14-0	<0.050	0.050	mg/L	E420/CG A	12-Jul-2023	12-Jul-2023	1032971
Potassium, total	7440-09-7	1.72	0.050	mg/L	E420/CG A	12-Jul-2023	12-Jul-2023	1032971
Rubidium, total	7440-17-7	0.00134	0.00020	mg/L	E420/CG A	12-Jul-2023	12-Jul-2023	1032971
Selenium, total	7782-49-2	0.000318	0.000050	mg/L	E420/CG A	12-Jul-2023	12-Jul-2023	1032971

Analytical Results

FC2301866-002

Sub-Matrix:**Water**
(Matrix: **Water**)

Client sample ID: Raw Water Pond One
Client sampling date / time: 10-Jul-2023 09:00

Analyte	CAS Number	Result	LOR	Unit	Method/Lab	Prep Date	Analysis Date	QCLot
Total Metals								
Silicon, total	7440-21-3	3.10	0.10	mg/L	E420/CG A	12-Jul-2023	12-Jul-2023	1032971
Silver, total	7440-22-4	<0.000010	0.000010	mg/L	E420/CG A	12-Jul-2023	12-Jul-2023	1032971
Sodium, total	7440-23-5	9.79	0.050	mg/L	E420/CG A	12-Jul-2023	12-Jul-2023	1032971
Strontium, total	7440-24-6	0.182	0.00020	mg/L	E420/CG A	12-Jul-2023	12-Jul-2023	1032971
Sulfur, total	7704-34-9	6.62	0.50	mg/L	E420/CG A	12-Jul-2023	12-Jul-2023	1032971
Tellurium, total	13494-80-9	<0.00020	0.00020	mg/L	E420/CG A	12-Jul-2023	12-Jul-2023	1032971
Thallium, total	7440-28-0	<0.000010	0.000010	mg/L	E420/CG A	12-Jul-2023	12-Jul-2023	1032971
Thorium, total	7440-29-1	<0.00010	0.00010	mg/L	E420/CG A	12-Jul-2023	12-Jul-2023	1032971
Tin, total	7440-31-5	<0.00010	0.00010	mg/L	E420/CG A	12-Jul-2023	12-Jul-2023	1032971
Titanium, total	7440-32-6	0.00532	0.00030	mg/L	E420/CG A	12-Jul-2023	12-Jul-2023	1032971
Tungsten, total	7440-33-7	<0.00010	0.00010	mg/L	E420/CG A	12-Jul-2023	12-Jul-2023	1032971
Uranium, total	7440-61-1	0.000549	0.000010	mg/L	E420/CG A	12-Jul-2023	12-Jul-2023	1032971
Vanadium, total	7440-62-2	<0.00050	0.00050	mg/L	E420/CG A	12-Jul-2023	12-Jul-2023	1032971
Zinc, total	7440-66-6	<0.0030	0.0030	mg/L	E420/CG A	12-Jul-2023	12-Jul-2023	1032971
Zirconium, total	7440-67-7	0.00054	0.00020	mg/L	E420/CG A	12-Jul-2023	12-Jul-2023	1032971
Dissolved Metals								
Aluminum, dissolved	7429-90-5	0.0070	0.0010	mg/L	E421/CG A	12-Jul-2023	12-Jul-2023	1032973
Antimony, dissolved	7440-36-0	0.00026	0.00010	mg/L	E421/CG A	12-Jul-2023	12-Jul-2023	1032973
Arsenic, dissolved	7440-38-2	0.00076	0.00010	mg/L	E421/CG A	12-Jul-2023	12-Jul-2023	1032973
Barium, dissolved	7440-39-3	0.0608	0.00010	mg/L	E421/CG A	12-Jul-2023	12-Jul-2023	1032973
Beryllium, dissolved	7440-41-7	<0.000020	0.000020	mg/L	E421/CG A	12-Jul-2023	12-Jul-2023	1032973
Bismuth, dissolved	7440-69-9	<0.000050	0.000050	mg/L	E421/CG A	12-Jul-2023	12-Jul-2023	1032973
Boron, dissolved	7440-42-8	0.023	0.010	mg/L	E421/CG A	12-Jul-2023	12-Jul-2023	1032973
Cadmium, dissolved	7440-43-9	0.0000075	0.0000050	mg/L	E421/CG A	12-Jul-2023	12-Jul-2023	1032973
Calcium, dissolved	7440-70-2	26.5	0.050	mg/L	E421/CG A	12-Jul-2023	12-Jul-2023	1032973
Cesium, dissolved	7440-46-2	<0.000010	0.000010	mg/L	E421/CG A	12-Jul-2023	12-Jul-2023	1032973
Chromium, dissolved	7440-47-3	<0.00050	0.00050	mg/L	E421/CG A	12-Jul-2023	12-Jul-2023	1032973
Cobalt, dissolved	7440-48-4	<0.00010	0.00010	mg/L	E421/CG A	12-Jul-2023	12-Jul-2023	1032973
Copper, dissolved	7440-50-8	0.00289	0.00020	mg/L	E421/CG A	12-Jul-2023	12-Jul-2023	1032973
Iron, dissolved	7439-89-6	0.105	0.030	mg/L	E421/CG A	12-Jul-2023	12-Jul-2023	1032973
Lead, dissolved	7439-92-1	0.000072	0.000050	mg/L	E421/CG A	12-Jul-2023	12-Jul-2023	1032973
Lithium, dissolved	7439-93-2	0.0050	0.0010	mg/L	E421/CG A	12-Jul-2023	12-Jul-2023	1032973
Magnesium, dissolved	7439-95-4	6.46	0.0050	mg/L	E421/CG A	12-Jul-2023	12-Jul-2023	1032973
Manganese, dissolved	7439-96-5	<0.00500	0.00500	mg/L	E421/CG A	12-Jul-2023	12-Jul-2023	1032973
Molybdenum, dissolved	7439-98-7	0.00138	0.000050	mg/L	E421/CG A	12-Jul-2023	12-Jul-2023	1032973
Nickel, dissolved	7440-02-0	0.00230	0.00050	mg/L	E421/CG A	12-Jul-2023	12-Jul-2023	1032973
Phosphorus, dissolved	7723-14-0	<0.050	0.050	mg/L	E421/CG A	12-Jul-2023	12-Jul-2023	1032973
Potassium, dissolved	7440-09-7	1.63	0.050	mg/L	E421/CG A	12-Jul-2023	12-Jul-2023	1032973
Rubidium, dissolved	7440-17-7	0.00130	0.00020	mg/L	E421/CG A	12-Jul-2023	12-Jul-2023	1032973
Selenium, dissolved	7782-49-2	0.000373	0.000050	mg/L	E421/CG A	12-Jul-2023	12-Jul-2023	1032973
Silicon, dissolved	7440-21-3	2.86	0.050	mg/L	E421/CG A	12-Jul-2023	12-Jul-2023	1032973
Silver, dissolved	7440-22-4	<0.000010	0.000010	mg/L	E421/CG A	12-Jul-2023	12-Jul-2023	1032973
Sodium, dissolved	7440-23-5	8.73	0.050	mg/L	E421/CG A	12-Jul-2023	12-Jul-2023	1032973
Strontium, dissolved	7440-24-6	0.180	0.00020	mg/L	E421/CG A	12-Jul-2023	12-Jul-2023	1032973
Sulfur, dissolved	7704-34-9	5.74	0.50	mg/L	E421/CG A	12-Jul-2023	12-Jul-2023	1032973

Analytical Results

FC2301866-002

Sub-Matrix:**Water**
(Matrix: **Water**)

Client sample ID: Raw Water Pond One
Client sampling date / time: 10-Jul-2023 09:00

Analyte	CAS Number	Result	LOR	Unit	Method/Lab		Prep Date	Analysis Date	QCLot
Dissolved Metals									
Tellurium, dissolved	13494-80-9	<0.00020	0.00020	mg/L	E421/CG	A	12-Jul-2023	12-Jul-2023	1032973
Thallium, dissolved	7440-28-0	<0.000010	0.000010	mg/L	E421/CG	A	12-Jul-2023	12-Jul-2023	1032973
Thorium, dissolved	7440-29-1	<0.00010	0.00010	mg/L	E421/CG	A	12-Jul-2023	12-Jul-2023	1032973
Tin, dissolved	7440-31-5	<0.00010	0.00010	mg/L	E421/CG	A	12-Jul-2023	12-Jul-2023	1032973
Titanium, dissolved	7440-32-6	0.00277	0.00030	mg/L	E421/CG	A	12-Jul-2023	12-Jul-2023	1032973
Tungsten, dissolved	7440-33-7	<0.00010	0.00010	mg/L	E421/CG	A	12-Jul-2023	12-Jul-2023	1032973
Uranium, dissolved	7440-61-1	0.000505	0.000010	mg/L	E421/CG	A	12-Jul-2023	12-Jul-2023	1032973
Vanadium, dissolved	7440-62-2	<0.00050	0.00050	mg/L	E421/CG	A	12-Jul-2023	12-Jul-2023	1032973
Zinc, dissolved	7440-66-6	<0.0010	0.0010	mg/L	E421/CG	A	12-Jul-2023	12-Jul-2023	1032973
Zirconium, dissolved	7440-67-7	0.00051	0.00030	mg/L	E421/CG	A	12-Jul-2023	12-Jul-2023	1032973
Dissolved metals filtration location	----	Laboratory	-	-	EP421/CG		-	12-Jul-2023	1032973
Aggregate Organics									
Naphthenic acids	----	<0.10	0.10	mg/L	E565-L/EO	C	12-Jul-2023	13-Jul-2023	1034904
Volatile Organic Compounds [BTEXS+MTBE]									
Benzene	71-43-2	<0.50	0.50	µg/L	E611A/CG	A	11-Jul-2023	11-Jul-2023	1032772
Ethylbenzene	100-41-4	<0.50	0.50	µg/L	E611A/CG	A	11-Jul-2023	11-Jul-2023	1032772
Toluene	108-88-3	<0.50	0.50	µg/L	E611A/CG	A	11-Jul-2023	11-Jul-2023	1032772
Xylene, m+p-	179601-23-1	<0.50	0.50	µg/L	E611A/CG	A	11-Jul-2023	11-Jul-2023	1032772
Xylene, o-	95-47-6	<0.50	0.50	µg/L	E611A/CG	A	11-Jul-2023	11-Jul-2023	1032772
Xylenes, total	1330-20-7	<0.75	0.75	µg/L	E611A/CG	A	11-Jul-2023	11-Jul-2023	1032772
BTEX, total	----	<1.2	1.2	µg/L	E611A/CG	A	11-Jul-2023	11-Jul-2023	1032772
Hydrocarbons									
F1 (C6-C10)	----	<100	100	µg/L	E581.F1/CG	A	11-Jul-2023	11-Jul-2023	1032775
F1-BTEX	----	<100	100	µg/L	EC580/CG		-	12-Jul-2023	-
F2 (C10-C16)	----	<100	100	µg/L	E601/CG	A	11-Jul-2023	12-Jul-2023	1032523
F3 (C16-C34)	----	<250	250	µg/L	E601/CG	A	11-Jul-2023	12-Jul-2023	1032523
F4 (C34-C50)	----	<250	250	µg/L	E601/CG	A	11-Jul-2023	12-Jul-2023	1032523
Hydrocarbons, total (C6-C50)	----	<400	400	µg/L	EC581/CG		-	12-Jul-2023	-
Hydrocarbons Surrogates									
Bromobenzotrifluoride, 2- (F2-F4 surrogate)	392-83-6	136	1.0	%	E601/CG	A	11-Jul-2023	12-Jul-2023	1032523
Dichlorotoluene, 3,4-	95-75-0	113	1.0	%	E581.F1/CG	A	11-Jul-2023	11-Jul-2023	1032775
Volatile Organic Compounds Surrogates									
Bromofluorobenzene, 4-	460-00-4	90.6	1.0	%	E611A/CG	A	11-Jul-2023	11-Jul-2023	1032772
Difluorobenzene, 1,4-	540-36-3	90.8	1.0	%	E611A/CG	A	11-Jul-2023	11-Jul-2023	1032772
Polycyclic Aromatic Hydrocarbons									
Acenaphthene	83-32-9	<0.010	0.010	µg/L	E641A/CG	A	11-Jul-2023	11-Jul-2023	1032520
Acenaphthylene	208-96-8	<0.010	0.010	µg/L	E641A/CG	A	11-Jul-2023	11-Jul-2023	1032520
Acridine	260-94-6	<0.010	0.010	µg/L	E641A/CG	A	11-Jul-2023	11-Jul-2023	1032520
Anthracene	120-12-7	<0.010	0.010	µg/L	E641A/CG	A	11-Jul-2023	11-Jul-2023	1032520
Benz(a)anthracene	56-55-3	<0.010	0.010	µg/L	E641A/CG	A	11-Jul-2023	11-Jul-2023	1032520
Benzo(a)pyrene	50-32-8	<0.0050	0.0050	µg/L	E641A/CG	A	11-Jul-2023	11-Jul-2023	1032520
Benzo(b+j)fluoranthene	n/a	<0.010	0.010	µg/L	E641A/CG	A	11-Jul-2023	11-Jul-2023	1032520
Benzo(b+j+k)fluoranthene	n/a	<0.015	0.015	µg/L	E641A/CG	A	11-Jul-2023	11-Jul-2023	1032520
Benzo(g,h,i)perylene	191-24-2	<0.010	0.010	µg/L	E641A/CG	A	11-Jul-2023	11-Jul-2023	1032520

Analytical Results

FC2301866-002

Sub-Matrix:**Water**
(Matrix: **Water**)

Client sample ID: Raw Water Pond One
Client sampling date / time: 10-Jul-2023 09:00

Analyte	CAS Number	Result	LOR	Unit	Method/Lab	Prep Date	Analysis Date	QCLot
Polycyclic Aromatic Hydrocarbons								
Benzo(k)fluoranthene	207-08-9	<0.010	0.010	µg/L	E641A/CG A	11-Jul-2023	11-Jul-2023	1032520
Chrysene	218-01-9	<0.010	0.010	µg/L	E641A/CG A	11-Jul-2023	11-Jul-2023	1032520
Dibenz(a,h)anthracene	53-70-3	<0.0050	0.0050	µg/L	E641A/CG A	11-Jul-2023	11-Jul-2023	1032520
Fluoranthene	206-44-0	<0.010	0.010	µg/L	E641A/CG A	11-Jul-2023	11-Jul-2023	1032520
Fluorene	86-73-7	<0.010	0.010	µg/L	E641A/CG A	11-Jul-2023	11-Jul-2023	1032520
Indeno(1,2,3-c,d)pyrene	193-39-5	<0.010	0.010	µg/L	E641A/CG A	11-Jul-2023	11-Jul-2023	1032520
Methylnaphthalene, 1-	90-12-0	<0.010	0.010	µg/L	E641A/CG A	11-Jul-2023	11-Jul-2023	1032520
Methylnaphthalene, 1+2-	----	<0.015	0.015	µg/L	E641A/CG A	11-Jul-2023	11-Jul-2023	1032520
Methylnaphthalene, 2-	91-57-6	<0.010	0.010	µg/L	E641A/CG A	11-Jul-2023	11-Jul-2023	1032520
Naphthalene	91-20-3	<0.050	0.050	µg/L	E641A/CG A	11-Jul-2023	11-Jul-2023	1032520
Phenanthrene	85-01-8	<0.020	0.020	µg/L	E641A/CG A	11-Jul-2023	11-Jul-2023	1032520
Pyrene	129-00-0	<0.010	0.010	µg/L	E641A/CG A	11-Jul-2023	11-Jul-2023	1032520
Quinoline	91-22-5	<0.050	0.050	µg/L	E641A/CG A	11-Jul-2023	11-Jul-2023	1032520
B(a)P total potency equivalents [B(a)P TPE]	----	<0.010	0.010	µg/L	E641A/CG A	11-Jul-2023	11-Jul-2023	1032520
PAHs, high molecular weight (BC AWQ)	n/a	<0.030	0.03	µg/L	E641A/CG A	11-Jul-2023	11-Jul-2023	1032520
PAHs, low molecular weight (BC AWQ)	n/a	<0.060	0.06	µg/L	E641A/CG A	11-Jul-2023	11-Jul-2023	1032520
PAHs, total (CCME sewer 18)	n/a	<0.070	0.07	µg/L	E641A/CG A	11-Jul-2023	11-Jul-2023	1032520
PAHs, total (EPA 16)	n/a	<0.065	0.065	µg/L	E641A/CG A	11-Jul-2023	11-Jul-2023	1032520
Polycyclic Aromatic Hydrocarbons Surrogates								
Chrysene-d12	1719-03-5	67.7	0.1	%	E641A/CG A	11-Jul-2023	11-Jul-2023	1032520
Naphthalene-d8	1146-65-2	75.2	0.1	%	E641A/CG A	11-Jul-2023	11-Jul-2023	1032520
Phenanthrene-d10	1517-22-2	67.7	0.1	%	E641A/CG A	11-Jul-2023	11-Jul-2023	1032520

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.