
CERTIFICATE OF ANALYSIS

Work Order : **FC2500776**
Client : **Regional Municipality of Wood Buffalo**
Contact : Water Treatment Plant
Address : 1 Silin Forest Road
Fort McMurray Alberta Canada T9H 5A1
Telephone : 780-762-5863
Project : Fort Chipewyan - SC4 Raw and R1 + Table 1 Treated
PO : 4500069025
C-O-C number : ----
Sampler : EA
Site : ----
Quote number : FC24-RMWB100-0005 FC SC4
No. of samples received : 2
No. of samples analysed : 2

Laboratory : ALS Environmental - Fort McMurray
Account Manager : Megha Walia
Address : #4, 340 Macalpine Crescent
Fort McMurray AB Canada T9H 4A8
Telephone : +1 780 791 1524
Date Samples Received : 07-Apr-2025 15:50
Date Analysis Commenced : 08-Apr-2025
Issue Date : 17-Apr-2025 14:35

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>
Alex Drake	Lab Analyst	Metals, Edmonton, Alberta
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Anthony Calero	Supervisor - Inorganic	Inorganics, Calgary, Alberta
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Ping Yeung	Team Leader - Inorganics	Inorganics, Edmonton, Alberta
Sarah Birch	VOC Section Supervisor	VOC, Waterloo, Ontario
Stephanie Pinheiro	Team Leader - LCMS	LCMS, Waterloo, Ontario
Yan Zhang	Team Leader - Organics	Organics, Edmonton, 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).

Unit	Description
-	no units
%	percent
CU	colour units (1 cu = 1 mg/l pt)
meq/L	milliequivalents per litre
mg/L	milligrams per litre
pH units	pH units
psu	practical salinity units
µg/L	micrograms per litre
µS/cm	microsiemens per centimetre

<: less than.

>: greater than.

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

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

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

Qualifiers

Qualifier	Description
DLI	Detection Limit Raised: Dilution required to address Internal Standard response problems caused by matrix interference.





Analytical Results

Sub-Matrix: Water

(Matrix: Water)

Sub-Matrix: Water (Matrix: Water)					Client sample ID	FCWTP-Treated Water Lab Sink	FCWTP-Raw Water Chamber	----	----	----
Client sampling date / time					07-Apr-2025 09:00	07-Apr-2025 09:00	----	----	----	
Analyte	CAS Number	Method/Lab	LOR	Unit	FC2500776-001	FC2500776-002	----	----	----	
					Result	Result	----	----	----	
Physical Tests										
Alkalinity, bicarbonate (as HCO3)	71-52-3	E290/EO	1.2	mg/L	53.1	35.6	----	----	----	
Alkalinity, carbonate (as CO3)	3812-32-6	E290/EO	1.0	mg/L	<0.6	<0.6	----	----	----	
Alkalinity, hydroxide (as OH)	14280-30-9	E290/EO	1.0	mg/L	<0.3	<0.3	----	----	----	
Alkalinity, total (as CaCO3)	----	E290/EO	1.0	mg/L	43.5	29.2	----	----	----	
Colour, true	----	E329-L/EO	2.0	CU	----	8.2	----	----	----	
Conductivity	----	E100/EO	1.0	µS/cm	127	75.8	----	----	----	
Hardness (as CaCO3), dissolved	----	EC100/EO	0.50	mg/L	32.6	----	----	----	----	
Hardness (as CaCO3), from total Ca/Mg	----	EC100A/EO	0.50	mg/L	----	30.2	----	----	----	
pH	----	E108/EO	0.10	pH units	8.00	7.21	----	----	----	
Salinity	----	EC100S/VA	1.0	psu	<1.0	<1.0	----	----	----	
Solids, total dissolved [TDS]	----	E162/EO	10	mg/L	----	76	----	----	----	
Solids, total dissolved [TDS], calculated	----	EC103/EO	1.0	mg/L	74.4	45.6	----	----	----	
Anions and Nutrients										
Ammonia, total (as N)	7664-41-7	E298/EO	0.0050	mg/L	----	0.0104	----	----	----	
Chloride	16887-00-6	E235.Cl/EO	0.50	mg/L	12.1	3.44	----	----	----	
Fluoride	16984-48-8	E235.F/EO	0.020	mg/L	0.026	0.057	----	----	----	
Nitrate (as N)	14797-55-8	E235.NO3/EO	0.020	mg/L	0.103	0.099	----	----	----	
Nitrate + Nitrite (as N)	----	EC235.N+N/E O	0.0300	mg/L	----	0.0990	----	----	----	
Nitrate + Nitrite (as N)	----	EC235.N+N/E O	0.0032	mg/L	0.103	----	----	----	----	
Nitrite (as N)	14797-65-0	E235.NO2/EO	0.010	mg/L	<0.010	<0.010	----	----	----	
Sulfate (as SO4)	14808-79-8	E235.SO4/EO	0.30	mg/L	3.36	3.57	----	----	----	



Analytical Results

Sub-Matrix: Water

(Matrix: Water)

Sub-Matrix: Water (Matrix: Water)					Client sample ID	FCWTP-Treated Water Lab Sink	FCWTP-Raw Water Chamber	----	----	----
Client sampling date / time					07-Apr-2025 09:00	07-Apr-2025 09:00	----	----	----	
Analyte	CAS Number	Method/Lab	LOR	Unit	FC2500776-001	FC2500776-002	----	----	----	
					Result	Result	----	----	----	
Cyanides										
Cyanide, strong acid dissociable (Total)	----	E333/WT	0.0020	mg/L	----	<0.0020	----	----	----	
Organic / Inorganic Carbon										
Carbon, total organic [TOC]	----	E355-L/EO	0.50	mg/L	----	3.85	----	----	----	
Inorganics										
Chlorine, total	7782-50-5	E326-H/EO	0.10	mg/L	----	<0.10	----	----	----	
Chlorine, free	7782-50-5	E327-H/EO	0.10	mg/L	----	<0.10	----	----	----	
Chloramines, total (as Cl2)	----	EC326/EO	0.20	mg/L	----	<0.20	----	----	----	
Total Sulfides										
Sulfide, total (as S)	18496-25-8	E395/CG	0.0015	mg/L	<0.0015	<0.0015	----	----	----	
Sulfide, total (as H2S)	7783-06-4	E395/CG	0.0016	mg/L	<0.0016	<0.0016	----	----	----	
Ion Balance										
Anion sum	----	EC101/EO	0.10	meq/L	----	0.76	----	----	----	
Cation sum	----	EC101/EO	0.10	meq/L	----	0.77	----	----	----	
Ion balance (APHA)	----	EC101/EO	0.01	%	----	0.65	----	----	----	
Ion balance (cations/anions)	----	EC101/EO	0.010	%	101	101	----	----	----	
Total Metals										
Aluminum, total	7429-90-5	E420/EO	0.0030	mg/L	0.0478	0.0398	----	----	----	
Antimony, total	7440-36-0	E420/EO	0.00010	mg/L	<0.00010	<0.00010	----	----	----	
Arsenic, total	7440-38-2	E420/EO	0.00010	mg/L	0.00014	0.00026	----	----	----	
Barium, total	7440-39-3	E420/EO	0.00010	mg/L	0.0147	0.0153	----	----	----	
Beryllium, total	7440-41-7	E420/EO	0.000020	mg/L	<0.000020	----	----	----	----	



Analytical Results

Sub-Matrix: Water
 (Matrix: Water)

					Client sample ID	FCWTP-Treated Water Lab Sink	FCWTP-Raw Water Chamber	----	----	----
					Client sampling date / time	07-Apr-2025 09:00	07-Apr-2025 09:00	----	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit	FC2500776-001	FC2500776-002	----	----	----	----
					Result	Result	----	----	----	----
Total Metals										
Bismuth, total	7440-69-9	E420/EO	0.000050	mg/L	<0.000050	----	----	----	----	----
Boron, total	7440-42-8	E420/EO	0.010	mg/L	0.014	0.013	----	----	----	----
Cadmium, total	7440-43-9	E420/EO	0.0000050	mg/L	<0.0000050	----	----	----	----	----
Cadmium, total	7440-43-9	E420/EO	0.0050	µg/L	----	<0.0050	----	----	----	----
Calcium, total	7440-70-2	E420/EO	0.050	mg/L	9.04	8.12	----	----	----	----
Cesium, total	7440-46-2	E420/EO	0.000010	mg/L	<0.000010	----	----	----	----	----
Chromium, total	7440-47-3	E420/EO	0.00050	mg/L	<0.00050	<0.00050	----	----	----	----
Cobalt, total	7440-48-4	E420/EO	0.00010	mg/L	<0.00010	----	----	----	----	----
Copper, total	7440-50-8	E420/EO	0.00050	mg/L	0.00068	0.00149	----	----	----	----
Iron, total	7439-89-6	E420/EO	0.010	mg/L	<0.010	0.086	----	----	----	----
Lead, total	7439-92-1	E420/EO	0.000050	mg/L	<0.000050	----	----	----	----	----
Lead, total	7439-92-1	E420/EO	0.050	µg/L	----	<0.050	----	----	----	----
Lithium, total	7439-93-2	E420/EO	0.0010	mg/L	0.0031	----	----	----	----	----
Magnesium, total	7439-95-4	E420/EO	0.0050	mg/L	2.43	2.42	----	----	----	----
Manganese, total	7439-96-5	E420/EO	0.00010	mg/L	0.00306	0.00509	----	----	----	----
Mercury, total	7439-97-6	E508/EO	0.0050	µg/L	----	<0.0050	----	----	----	----
Molybdenum, total	7439-98-7	E420/EO	0.000050	mg/L	0.000170	----	----	----	----	----
Nickel, total	7440-02-0	E420/EO	0.00050	mg/L	<0.00050	<0.00050	----	----	----	----
Phosphorus, total	7723-14-0	E420/EO	0.050	mg/L	<0.050	----	----	----	----	----
Potassium, total	7440-09-7	E420/EO	0.050	mg/L	0.943	----	----	----	----	----
Rubidium, total	7440-17-7	E420/EO	0.00020	mg/L	0.00101	----	----	----	----	----



Analytical Results

Sub-Matrix: Water
 (Matrix: Water)

Sub-Matrix: Water (Matrix: Water)					Client sample ID	FCWTP-Treated Water Lab Sink	FCWTP-Raw Water Chamber	----	----	----
Client sampling date / time					07-Apr-2025 09:00	07-Apr-2025 09:00	----	----	----	
Analyte	CAS Number	Method/Lab	LOR	Unit	FC2500776-001	FC2500776-002	----	----	----	
					Result	Result	----	----	----	
Total Metals										
Selenium, total	7782-49-2	E420/EO	0.000050	mg/L	<0.000050	----	----	----	----	
Selenium, total	7782-49-2	E420/EO	0.050	µg/L	----	<0.050	----	----	----	
Silicon, total	7440-21-3	E420/EO	0.10	mg/L	2.10	----	----	----	----	
Silver, total	7440-22-4	E420/EO	0.000010	mg/L	<0.000010	----	----	----	----	
Silver, total	7440-22-4	E420/EO	0.010	µg/L	----	<0.010	----	----	----	
Sodium, total	7440-23-5	E420/EO	0.050	mg/L	14.1	2.84	----	----	----	
Strontium, total	7440-24-6	E420/EO	0.00020	mg/L	0.0595	0.0586	----	----	----	
Sulfur, total	7704-34-9	E420/EO	0.50	mg/L	1.35	----	----	----	----	
Tellurium, total	13494-80-9	E420/EO	0.00020	mg/L	<0.00020	----	----	----	----	
Thallium, total	7440-28-0	E420/EO	0.000010	mg/L	<0.000010	----	----	----	----	
Thorium, total	7440-29-1	E420/EO	0.00010	mg/L	<0.00010	----	----	----	----	
Tin, total	7440-31-5	E420/EO	0.00010	mg/L	<0.00010	----	----	----	----	
Titanium, total	7440-32-6	E420/EO	0.00030	mg/L	<0.00030	----	----	----	----	
Tungsten, total	7440-33-7	E420/EO	0.00010	mg/L	<0.00010	----	----	----	----	
Uranium, total	7440-61-1	E420/EO	0.000010	mg/L	<0.000010	----	----	----	----	
Uranium, total	7440-61-1	E420/EO	0.010	µg/L	----	0.065	----	----	----	
Vanadium, total	7440-62-2	E420/EO	0.00050	mg/L	0.00057	----	----	----	----	
Zinc, total	7440-66-6	E420/EO	0.0030	mg/L	<0.0030	<0.0030	----	----	----	
Zirconium, total	7440-67-7	E420/EO	0.00020	mg/L	<0.00020	----	----	----	----	
Dissolved Metals										
Aluminum, dissolved	7429-90-5	E421/EO	0.0010	mg/L	0.0414	----	----	----	----	



Analytical Results

Sub-Matrix: Water
 (Matrix: Water)

Sub-Matrix: Water (Matrix: Water)					Client sample ID	FCWTP-Treated Water Lab Sink	FCWTP-Raw Water Chamber	----	----	----
Client sampling date / time					07-Apr-2025 09:00	07-Apr-2025 09:00	----	----	----	
Analyte	CAS Number	Method/Lab	LOR	Unit	FC2500776-001	FC2500776-002	----	----	----	
					Result	Result	----	----	----	
Dissolved Metals										
Antimony, dissolved	7440-36-0	E421/EO	0.00010	mg/L	<0.00010	----	----	----	----	
Arsenic, dissolved	7440-38-2	E421/EO	0.00010	mg/L	0.00011	----	----	----	----	
Barium, dissolved	7440-39-3	E421/EO	0.00010	mg/L	0.0147	----	----	----	----	
Beryllium, dissolved	7440-41-7	E421/EO	0.000020	mg/L	<0.000020	----	----	----	----	
Bismuth, dissolved	7440-69-9	E421/EO	0.000050	mg/L	<0.000050	----	----	----	----	
Boron, dissolved	7440-42-8	E421/EO	0.010	mg/L	0.012	----	----	----	----	
Cadmium, dissolved	7440-43-9	E421/EO	0.0000050	mg/L	<0.0000050	----	----	----	----	
Calcium, dissolved	7440-70-2	E421/EO	0.050	mg/L	9.03	8.30	----	----	----	
Cesium, dissolved	7440-46-2	E421/EO	0.000010	mg/L	<0.000010	----	----	----	----	
Chromium, dissolved	7440-47-3	E421/EO	0.00050	mg/L	<0.00050	----	----	----	----	
Cobalt, dissolved	7440-48-4	E421/EO	0.00010	mg/L	<0.00010	----	----	----	----	
Copper, dissolved	7440-50-8	E421/EO	0.00020	mg/L	0.00058	----	----	----	----	
Iron, dissolved	7439-89-6	E421/EO	0.010	mg/L	<0.010	0.025	----	----	----	
Lead, dissolved	7439-92-1	E421/EO	0.000050	mg/L	<0.000050	----	----	----	----	
Lithium, dissolved	7439-93-2	E421/EO	0.0010	mg/L	0.0030	----	----	----	----	
Magnesium, dissolved	7439-95-4	E421/EO	0.0050	mg/L	2.44	2.46	----	----	----	
Manganese, dissolved	7439-96-5	E421/EO	0.00010	mg/L	0.00217	0.00283	----	----	----	
Molybdenum, dissolved	7439-98-7	E421/EO	0.000050	mg/L	0.000181	----	----	----	----	
Nickel, dissolved	7440-02-0	E421/EO	0.00050	mg/L	<0.00050	----	----	----	----	
Phosphorus, dissolved	7723-14-0	E421/EO	0.050	mg/L	<0.050	----	----	----	----	
Potassium, dissolved	7440-09-7	E421/EO	0.050	mg/L	0.988	0.997	----	----	----	



Analytical Results

Sub-Matrix: Water
 (Matrix: Water)

					Client sample ID	FCWTP-Treated Water Lab Sink	FCWTP-Raw Water Chamber	----	----	----
					Client sampling date / time	07-Apr-2025 09:00	07-Apr-2025 09:00	----	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit	FC2500776-001	FC2500776-002	----	----	----	----
					Result	Result	----	----	----	----
Dissolved Metals										
Rubidium, dissolved	7440-17-7	E421/EO	0.00020	mg/L	0.00099	----	----	----	----	----
Selenium, dissolved	7782-49-2	E421/EO	0.000050	mg/L	<0.000050	----	----	----	----	----
Silicon, dissolved	7440-21-3	E421/EO	0.050	mg/L	2.07	----	----	----	----	----
Silver, dissolved	7440-22-4	E421/EO	0.000010	mg/L	<0.000010	----	----	----	----	----
Sodium, dissolved	7440-23-5	E421/EO	0.050	mg/L	14.2	2.98	----	----	----	----
Strontium, dissolved	7440-24-6	E421/EO	0.00020	mg/L	0.0589	----	----	----	----	----
Sulfur, dissolved	7704-34-9	E421/EO	0.50	mg/L	1.34	----	----	----	----	----
Tellurium, dissolved	13494-80-9	E421/EO	0.00020	mg/L	<0.00020	----	----	----	----	----
Thallium, dissolved	7440-28-0	E421/EO	0.000010	mg/L	<0.000010	----	----	----	----	----
Thorium, dissolved	7440-29-1	E421/EO	0.00010	mg/L	<0.00010	----	----	----	----	----
Tin, dissolved	7440-31-5	E421/EO	0.00010	mg/L	<0.00010	----	----	----	----	----
Titanium, dissolved	7440-32-6	E421/EO	0.00030	mg/L	<0.00030	----	----	----	----	----
Tungsten, dissolved	7440-33-7	E421/EO	0.00010	mg/L	<0.00010	----	----	----	----	----
Uranium, dissolved	7440-61-1	E421/EO	0.000010	mg/L	<0.000010	----	----	----	----	----
Vanadium, dissolved	7440-62-2	E421/EO	0.00050	mg/L	<0.00050	----	----	----	----	----
Zinc, dissolved	7440-66-6	E421/EO	0.0010	mg/L	0.0017	----	----	----	----	----
Zirconium, dissolved	7440-67-7	E421/EO	0.00020	mg/L	<0.00020	----	----	----	----	----
Dissolved metals filtration location	----	EP421/EO	-	-	Field	Field	----	----	----	----
Aggregate Organics										
Naphthenic acids	----	E565/EO	1.0	mg/L	<1.0	----	----	----	----	----
Nitrilotriacetic acid [NTA]	139-13-9	E394/WT	0.40	mg/L	----	<0.40	----	----	----	----



Analytical Results

Sub-Matrix: Water

(Matrix: Water)

					Client sample ID	FCWTP-Treated Water Lab Sink	FCWTP-Raw Water Chamber	----	----	----
					Client sampling date / time	07-Apr-2025 09:00	07-Apr-2025 09:00	----	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit	FC2500776-001	FC2500776-002	----	----	----	----
					Result	Result	----	----	----	----
Volatile Organic Compounds										
Benzene	71-43-2	E611E/EO	0.50	µg/L	----	<0.50	----	----	----	----
Carbon tetrachloride	56-23-5	E611E/EO	0.50	µg/L	----	<0.50	----	----	----	----
Chlorobenzene	108-90-7	E611E/EO	1.0	µg/L	----	<1.0	----	----	----	----
Dichlorobenzene, 1,2-	95-50-1	E611E/EO	0.50	µg/L	----	<0.50	----	----	----	----
Dichlorobenzene, 1,4-	106-46-7	E611E/EO	1.0	µg/L	----	<1.0	----	----	----	----
Dichloroethane, 1,2-	107-06-2	E611E/EO	1.0	µg/L	----	<1.0	----	----	----	----
Dichloromethane	75-09-2	E611E/EO	1.0	µg/L	----	<1.0	----	----	----	----
Dioxane, 1,4-	123-91-1	E611I/WT	20	µg/L	----	<20	----	----	----	----
Ethylbenzene	100-41-4	E611E/EO	0.50	µg/L	----	<0.50	----	----	----	----
Tetrachloroethylene	127-18-4	E611E/EO	1.0	µg/L	----	<1.0	----	----	----	----
Toluene	108-88-3	E611E/EO	0.50	µg/L	----	<0.50	----	----	----	----
Trichloroethylene	79-01-6	E611E/EO	1.0	µg/L	----	<1.0	----	----	----	----
Vinyl chloride	75-01-4	E611E/EO	1.0	µg/L	----	<1.0	----	----	----	----
Xylene, m+p-	179601-23-1	E611E/EO	0.40	µg/L	----	<0.40	----	----	----	----
Xylene, o-	95-47-6	E611E/EO	0.30	µg/L	----	<0.30	----	----	----	----
Xylenes, total	1330-20-7	E611E/EO	0.50	µg/L	----	<0.50	----	----	----	----
Volatile Organic Compounds [Fuels]										
Benzene	71-43-2	E611A/EO	0.50	µg/L	<0.50	----	----	----	----	----
Ethylbenzene	100-41-4	E611A/EO	0.50	µg/L	<0.50	----	----	----	----	----
Styrene	100-42-5	E611A/EO	0.50	µg/L	<0.50	----	----	----	----	----
Toluene	108-88-3	E611A/EO	0.50	µg/L	<0.50	----	----	----	----	----



Analytical Results

Sub-Matrix: Water

(Matrix: Water)

					Client sample ID	FCWTP-Treated Water Lab Sink	FCWTP-Raw Water Chamber	----	----	----
					Client sampling date / time	07-Apr-2025 09:00	07-Apr-2025 09:00	----	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit	FC2500776-001	FC2500776-002	----	----	----	----
					Result	Result	----	----	----	----
Volatile Organic Compounds [Fuels]										
Xylene, m+p-	179601-23-1	E611A/EO	0.40	µg/L	<0.40	----	----	----	----	----
Xylene, o-	95-47-6	E611A/EO	0.30	µg/L	<0.30	----	----	----	----	----
Xylenes, total	1330-20-7	E611A/EO	0.50	µg/L	<0.50	----	----	----	----	----
BTEX, total	----	E611A/EO	1.0	µg/L	<1.0	----	----	----	----	----
Hydrocarbons										
F1 (C6-C10)	----	E581.F1/EO	100	µg/L	<100	----	----	----	----	----
F1-BTEX	----	EC580/EO	25	µg/L	<100	----	----	----	----	----
F2 (C10-C16)	----	E601/EO	100	µg/L	<100	----	----	----	----	----
F3 (C16-C34)	----	E601/EO	250	µg/L	<250	----	----	----	----	----
F4 (C34-C50)	----	E601/EO	250	µg/L	<250	----	----	----	----	----
Hydrocarbons, total (C6-C50)	n/a	EC581/EO	370	µg/L	<380	----	----	----	----	----
Hydrocarbons Surrogates										
Bromobenzotrifluoride, 2- (F2-F4 surrogate)	392-83-6	E601/EO	1.0	%	110	----	----	----	----	----
Dichlorotoluene, 3,4-	95-75-0	E581.F1/EO	1.0	%	82.4	----	----	----	----	----
Volatile Organic Compounds Surrogates										
Bromofluorobenzene, 4-	460-00-4	E611E/EO	1.0	%	----	74.1	----	----	----	----
Bromofluorobenzene, 4-	460-00-4	E611I/WT	1.0	%	----	82.7	----	----	----	----
Bromofluorobenzene, 4-	460-00-4	E611A/EO	1.0	%	100	----	----	----	----	----
Difluorobenzene, 1,4-	540-36-3	E611I/WT	1.0	%	----	94.2	----	----	----	----
Difluorobenzene, 1,4-	540-36-3	E611E/EO	1.0	%	----	93.0	----	----	----	----
Difluorobenzene, 1,4-	540-36-3	E611A/EO	1.0	%	103	----	----	----	----	----



Analytical Results

Sub-Matrix: Water

(Matrix: Water)

Sub-Matrix: Water (Matrix: Water)					Client sample ID	FCWTP-Treated Water Lab Sink	FCWTP-Raw Water Chamber	----	----	----
Client sampling date / time					07-Apr-2025 09:00	07-Apr-2025 09:00	----	----	----	
Analyte	CAS Number	Method/Lab	LOR	Unit	FC2500776-001	FC2500776-002	----	----	----	
					Result	Result	----	----	----	
Polycyclic Aromatic Hydrocarbons										
Acenaphthene	83-32-9	E641A/EO	0.010	µg/L	<0.010	----	----	----	----	
Acenaphthylene	208-96-8	E641A/EO	0.010	µg/L	<0.010	----	----	----	----	
Acridine	260-94-6	E641A/EO	0.010	µg/L	<0.010	----	----	----	----	
Anthracene	120-12-7	E641A/EO	0.010	µg/L	<0.010	----	----	----	----	
Benz(a)anthracene	56-55-3	E641A/EO	0.010	µg/L	<0.010	----	----	----	----	
Benzo(a)pyrene	50-32-8	E641A/EO	0.0050	µg/L	<0.0050	<0.0050	----	----	----	
Benzo(b+j)fluoranthene	n/a	E641A/EO	0.010	µg/L	<0.010	----	----	----	----	
Benzo(b+j+k)fluoranthene	n/a	E641A/EO	0.015	µg/L	<0.015	----	----	----	----	
Benzo(g,h,i)perylene	191-24-2	E641A/EO	0.010	µg/L	<0.010	----	----	----	----	
Benzo(k)fluoranthene	207-08-9	E641A/EO	0.010	µg/L	<0.010	----	----	----	----	
Chrysene	218-01-9	E641A/EO	0.010	µg/L	<0.010	----	----	----	----	
Dibenz(a,h)anthracene	53-70-3	E641A/EO	0.0050	µg/L	<0.0050	----	----	----	----	
Fluoranthene	206-44-0	E641A/EO	0.010	µg/L	<0.010	----	----	----	----	
Fluorene	86-73-7	E641A/EO	0.010	µg/L	<0.010	----	----	----	----	
Indeno(1,2,3-c,d)pyrene	193-39-5	E641A/EO	0.010	µg/L	<0.010	----	----	----	----	
Methylnaphthalene, 1-	90-12-0	E641A/EO	0.010	µg/L	<0.010	----	----	----	----	
Methylnaphthalene, 1+2-	----	E641A/EO	0.015	µg/L	<0.015	----	----	----	----	
Methylnaphthalene, 2-	91-57-6	E641A/EO	0.010	µg/L	<0.010	----	----	----	----	
Naphthalene	91-20-3	E641A/EO	0.050	µg/L	<0.050	----	----	----	----	
Phenanthrene	85-01-8	E641A/EO	0.020	µg/L	<0.020	----	----	----	----	
Pyrene	129-00-0	E641A/EO	0.010	µg/L	<0.010	----	----	----	----	



Analytical Results

Sub-Matrix: Water

(Matrix: Water)

					Client sample ID	FCWTP-Treated Water Lab Sink	FCWTP-Raw Water Chamber	----	----	----
					Client sampling date / time	07-Apr-2025 09:00	07-Apr-2025 09:00	----	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit	FC2500776-001	FC2500776-002	----	----	----	----
					Result	Result	----	----	----	----
Polycyclic Aromatic Hydrocarbons										
Quinoline	91-22-5	E641A/EO	0.050	µg/L	<0.050	----	----	----	----	----
B(a)P total potency equivalents [B(a)P TPE]	----	E641A/EO	0.010	µg/L	<0.010	----	----	----	----	----
PAHs, high molecular weight (BC AWQ)	n/a	E641A/EO	0.030	µg/L	<0.030	----	----	----	----	----
PAHs, low molecular weight (BC AWQ)	n/a	E641A/EO	0.060	µg/L	<0.060	----	----	----	----	----
PAHs, total (CCME sewer 18)	n/a	E641A/EO	0.070	µg/L	<0.070	----	----	----	----	----
PAHs, total (EPA 16)	n/a	E641A/EO	0.065	µg/L	<0.065	----	----	----	----	----
Polycyclic Aromatic Hydrocarbons Surrogates										
Chrysene-d12	1719-03-5	E641A/EO	0.1	%	90.0	90.9	----	----	----	----
Naphthalene-d8	1146-65-2	E641A/EO	0.1	%	106	97.2	----	----	----	----
Phenanthrene-d10	1517-22-2	E641A/EO	0.1	%	95.2	96.3	----	----	----	----
Disinfectant By-Products										
Bromate	15541-45-4	E722A/WT	0.00030	mg/L	----	<0.00030	----	----	----	----
Semi-Volatile Organics Surrogates										
Fluorobiphenyl, 2-	321-60-8	E625A/WT	1.0	%	----	88.4	----	----	----	----
Nitrobenzene-d5	4165-60-0	E625A/WT	1.0	%	----	89.1	----	----	----	----
Terphenyl-d14, p-	1718-51-0	E625A/WT	1.0	%	----	90.7	----	----	----	----
Chlorinated Phenolics										
Dichlorophenol, 2,4-	120-83-2	E625A/WT	0.20	µg/L	----	<0.20	----	----	----	----
Pentachlorophenol [PCP]	87-86-5	E625A/WT	0.50	µg/L	----	<0.50	----	----	----	----
Tetrachlorophenol, 2,3,4,6-	58-90-2	E625A/WT	0.50	µg/L	----	<0.50	----	----	----	----
Trichlorophenol, 2,4,6-	88-06-2	E625A/WT	0.20	µg/L	----	<0.20	----	----	----	----



Analytical Results

Sub-Matrix: Water

(Matrix: Water)

Sub-Matrix: Water (Matrix: Water)					Client sample ID	FCWTP-Treated Water Lab Sink	FCWTP-Raw Water Chamber	----	----	----
Client sampling date / time					07-Apr-2025 09:00	07-Apr-2025 09:00	----	----	----	
Analyte	CAS Number	Method/Lab	LOR	Unit	FC2500776-001	FC2500776-002	----	----	----	
					Result	Result	----	----	----	
Phenolics Surrogates										
Tribromophenol, 2,4,6-	118-79-6	E625A/WT	0.50	%	----	88.5	----	----	----	
Organochlorine Pesticides Surrogates										
Decachlorobiphenyl	2051-24-3	E660F/WT	0.10	%	----	116	----	----	----	
Tetrachloro-m-xylene	877-09-8	E660F/WT	0.10	%	----	120	----	----	----	
Herbicides										
Alachlor	15972-60-8	E755/WT	0.050	µg/L	----	<0.050	----	----	----	
Atrazine	1912-24-9	E755/WT	0.050	µg/L	----	<0.050	----	----	----	
Atrazine + metabolites, total	----	E755/WT	0.45	µg/L	----	<0.45	----	----	----	
Atrazine + N-dealkylated metabolites	----	E755/WT	0.10	µg/L	----	<0.10	----	----	----	
Atrazine-desethyl	6190-65-4	E755/WT	0.025	µg/L	----	<0.025	----	----	----	
Cyanazine	21725-46-2	E755/WT	0.10	µg/L	----	<0.10	----	----	----	
Diclofop-methyl	51338-27-3	E755/WT	0.10	µg/L	----	<0.10	----	----	----	
Dinoseb	88-85-7	E706A/WT	0.050	µg/L	----	<0.050	----	----	----	
Diuron	330-54-1	E755/WT	0.050	µg/L	----	<0.050	----	----	----	
Metolachlor	51218-45-2	E755/WT	0.025	µg/L	----	<0.025	----	----	----	
Metribuzin	21087-64-9	E755/WT	0.10	µg/L	----	<0.10	----	----	----	
Prometryn	7287-19-6	E755/WT	0.025	µg/L	----	<0.025	----	----	----	
Simazine	122-34-9	E755/WT	0.10	µg/L	----	<0.10	----	----	----	
Triallate	2303-17-5	E755/WT	0.10	µg/L	----	<0.10	----	----	----	
Trifluralin	1582-09-8	E756/WT	0.10	µg/L	----	<0.10	----	----	----	



Analytical Results

Sub-Matrix: Water

(Matrix: Water)

Sub-Matrix: Water (Matrix: Water)					Client sample ID	FCWTP-Treated Water Lab Sink	FCWTP-Raw Water Chamber	----	----	----
Client sampling date / time					07-Apr-2025 09:00	07-Apr-2025 09:00	----	----	----	
Analyte	CAS Number	Method/Lab	LOR	Unit	FC2500776-001	FC2500776-002	----	----	----	
					Result	Result	----	----	----	
Herbicides Surrogates										
Dichlorophenylacetic acid, 2,4-	19719-28-9	E706A/WT	1.0	%	----	80.2	----	----	----	
Insecticides										
Aldicarb	116-06-3	E755/WT	0.10	µg/L	----	<0.10	----	----	----	
Azinphos-methyl	86-50-0	E755/WT	0.10	µg/L	----	<0.10	----	----	----	
Bendiocarb	22781-23-3	E755/WT	0.025	µg/L	----	<0.025	----	----	----	
Carbaryl	63-25-2	E755/WT	0.050	µg/L	----	<0.050	----	----	----	
Carbofuran	1563-66-2	E755/WT	0.025	µg/L	----	<0.025	----	----	----	
Chlorpyrifos	2921-88-2	E756/WT	0.10	µg/L	----	<0.10	----	----	----	
Diazinon	333-41-5	E755/WT	0.025	µg/L	----	<0.025	----	----	----	
Dimethoate	60-51-5	E755/WT	0.050	µg/L	----	<0.050	----	----	----	
Malathion	121-75-5	E755/WT	0.025	µg/L	----	<0.025	----	----	----	
Parathion	56-38-2	E756/WT	0.10	µg/L	----	<0.10	----	----	----	
Phorate	298-02-2	E755/WT	0.25	µg/L	----	<0.25	----	----	----	
Temephos	3383-96-8	E755/WT	0.25	µg/L	----	<1.25 ^{DLI}	----	----	----	
Terbufos	13071-79-9	E755/WT	0.50	µg/L	----	<0.50	----	----	----	
Pesticides										
Acetic acid, 2-methyl-4-chlorophenoxy-[MCPA]	94-74-6	E706A/WT	0.050	µg/L	----	<0.050	----	----	----	
Aldrin	309-00-2	E660F/WT	0.0080	µg/L	----	<0.0080	----	----	----	
Aldrin + Dieldrin	----	E660F/WT	0.011	µg/L	----	<0.011	----	----	----	
Bromoxynil	1689-84-5	E706A/WT	0.050	µg/L	----	<0.050	----	----	----	
Chlordane, cis- (alpha)	5103-71-9	E660F/WT	0.0080	µg/L	----	<0.0080	----	----	----	



Analytical Results

Sub-Matrix: Water

(Matrix: Water)

Sub-Matrix: Water (Matrix: Water)					Client sample ID	FCWTP-Treated Water Lab Sink	FCWTP-Raw Water Chamber	----	----	----
Client sampling date / time					07-Apr-2025 09:00	07-Apr-2025 09:00	----	----	----	
Analyte	CAS Number	Method/Lab	LOR	Unit	FC2500776-001	FC2500776-002	----	----	----	
					Result	Result	----	----	----	
Pesticides										
Chlordane, total	57-74-9	E660F/WT	0.011	µg/L	----	<0.011	----	----	----	
Chlordane, trans- (gamma)	5103-74-2	E660F/WT	0.0080	µg/L	----	<0.0080	----	----	----	
DDD, 2,4'-	53-19-0	E660F/WT	0.0040	µg/L	----	<0.0040	----	----	----	
DDD, 4,4'-	72-54-8	E660F/WT	0.0040	µg/L	----	<0.0040	----	----	----	
DDD, total	----	E660F/WT	0.0060	µg/L	----	<0.0060	----	----	----	
DDE, 2,4'-	3424-82-6	E660F/WT	0.0040	µg/L	----	<0.0040	----	----	----	
DDE, 4,4'-	72-55-9	E660F/WT	0.0040	µg/L	----	<0.0040	----	----	----	
DDE, total	----	E660F/WT	0.0060	µg/L	----	<0.0060	----	----	----	
DDT + metabolites, total	----	E660F/WT	0.010	µg/L	----	<0.010	----	----	----	
DDT, 2,4'-	789-02-6	E660F/WT	0.0040	µg/L	----	<0.0040	----	----	----	
DDT, 4,4'-	50-29-3	E660F/WT	0.0040	µg/L	----	<0.0040	----	----	----	
DDT, total	----	E660F/WT	0.0060	µg/L	----	<0.0060	----	----	----	
Dicamba	1918-00-9	E706A/WT	0.10	µg/L	----	<0.10	----	----	----	
Dichlorophenoxyacetic acid, 2,4- [2,4-D]	94-75-7	E706A/WT	0.050	µg/L	----	<0.050	----	----	----	
Dieldrin	60-57-1	E660F/WT	0.0080	µg/L	----	<0.0080	----	----	----	
Diquat (ion)	2764-72-9	E723A/WT	1.0	µg/L	----	<1.0	----	----	----	
Glyphosate	1071-83-6	E716A/WT	1.0	µg/L	----	<1.0	----	----	----	
Heptachlor	76-44-8	E660F/WT	0.0080	µg/L	----	<0.0080	----	----	----	
Heptachlor + Heptachlor epoxide	n/a	E660F/WT	0.011	µg/L	----	<0.011	----	----	----	
Heptachlor epoxide	1024-57-3	E660F/WT	0.0080	µg/L	----	<0.0080	----	----	----	
Hexachlorocyclohexane, gamma-	58-89-9	E660F/WT	0.0080	µg/L	----	<0.0080	----	----	----	



Analytical Results

Sub-Matrix: Water (Matrix: Water)					Client sample ID	FCWTP-Treated Water Lab Sink	FCWTP-Raw Water Chamber	----	----	----
Client sampling date / time					07-Apr-2025 09:00	07-Apr-2025 09:00	----	----	----	
Analyte	CAS Number	Method/Lab	LOR	Unit	FC2500776-001	FC2500776-002	----	----	----	
					Result	Result	----	----	----	
Pesticides										
Methoxychlor	72-43-5	E660F/WT	0.0080	µg/L	----	<0.0080	----	----	----	
Oxychlorthane	27304-13-8	E660F/WT	0.0080	µg/L	----	<0.0080	----	----	----	
Paraquat (as dichloride)	1910-42-5	E723A/WT	1.0	µg/L	----	<1.0	----	----	----	
Picloram	1918-02-1	E706A/WT	0.10	µg/L	----	<0.10	----	----	----	
Trichlorophenoxyacetic acid, 2,4,5- [2,4,5-T]	93-76-5	E706A/WT	0.050	µg/L	----	<0.050	----	----	----	

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

CERTIFICATE OF ANALYSIS

Work Order : **FC2500774**
Client : **Regional Municipality of Wood Buffalo**
Contact : Water Treatment Plant
Address : 1 Silin Forest Road
Fort McMurray Alberta Canada T9H 5A1
Telephone : 780-762-5863
Project : Fort Chipewyan - SC4 R1 (non-approval)
PO : 4500069025
C-O-C number : ----
Sampler : EA
Site : ----
Quote number : FC24-RMWB100-0005 FC SC4
No. of samples received : 1
No. of samples analysed : 1

Laboratory : ALS Environmental - Fort McMurray
Account Manager : Megha Walia
Address : #4, 340 Macalpine Crescent
Fort McMurray AB Canada T9H 4A8
Telephone : +1 780 791 1524
Date Samples Received : 07-Apr-2025 16:00
Date Analysis Commenced : 08-Apr-2025
Issue Date : 17-Apr-2025 14:12

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>
Alex Drake	Lab Analyst	Inorganics, Edmonton, Alberta
Alex Drake	Lab Analyst	Metals, Edmonton, Alberta
Amaninder Dhillon	Team Lead - Semi-Volatile Instrumentation	Organics, Waterloo, Ontario
Anthony Calero	Supervisor - Inorganic	Inorganics, Calgary, Alberta
Brayden Ginther	Laboratory Analyst	Inorganics, Edmonton, Alberta
Brooke Miller	Laboratory Analyst	Inorganics, Edmonton, Alberta
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Sarah Birch	VOC Section Supervisor	VOC, Waterloo, Ontario
Stephanie Pinheiro	Team Leader - LCMS	LCMS, Waterloo, Ontario
Yan Zhang	Team Leader - Organics	Organics, Edmonton, 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).

Unit	Description
-	no units
%	percent
CU	colour units (1 cu = 1 mg/l pt)
meq/L	milliequivalents per litre
mg/L	milligrams per litre
pH units	pH units
µg/L	micrograms per litre
µS/cm	microsiemens per centimetre

<: less than.

>: greater than.

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

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

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

Qualifiers

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





Analytical Results

Sub-Matrix: Water
 (Matrix: Water)

Client sample ID					R1-9150030-Fort Chipewyan Willy's	----	----	----	----
Client sampling date / time					07-Apr-2025 09:15	----	----	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit	FC2500774-001	----	----	----	----
Result						----	----	----	----
Physical Tests									
Alkalinity, bicarbonate (as HCO ₃)	71-52-3	E290/EO	1.2	mg/L	53.6	----	----	----	----
Alkalinity, carbonate (as CO ₃)	3812-32-6	E290/EO	1.0	mg/L	<0.6	----	----	----	----
Alkalinity, hydroxide (as OH)	14280-30-9	E290/EO	1.0	mg/L	<0.3	----	----	----	----
Alkalinity, total (as CaCO ₃)	----	E290/EO	1.0	mg/L	43.9	----	----	----	----
Colour, true	----	E329-L/EO	2.0	CU	2.5	----	----	----	----
Conductivity	----	E100/EO	1.0	µS/cm	130	----	----	----	----
Hardness (as CaCO ₃), from total Ca/Mg	----	EC100A/EO	0.50	mg/L	32.6	----	----	----	----
pH	----	E108/EO	0.10	pH units	7.89	----	----	----	----
Solids, total dissolved [TDS]	----	E162/EO	10	mg/L	72	----	----	----	----
Solids, total dissolved [TDS], calculated	----	EC103/EO	1.0	mg/L	75.3	----	----	----	----
Anions and Nutrients									
Ammonia, total (as N)	7664-41-7	E298/EO	0.0050	mg/L	0.0082	----	----	----	----
Chloride	16887-00-6	E235.Cl/EO	0.50	mg/L	12.8	----	----	----	----
Fluoride	16984-48-8	E235.F/EO	0.020	mg/L	0.028	----	----	----	----
Nitrate (as N)	14797-55-8	E235.NO ₃ /EO	0.020	mg/L	0.101	----	----	----	----
Nitrate + Nitrite (as N)	----	EC235.N+N/E O	0.0300	mg/L	0.101	----	----	----	----
Nitrite (as N)	14797-65-0	E235.NO ₂ /EO	0.010	mg/L	<0.010	----	----	----	----
Sulfate (as SO ₄)	14808-79-8	E235.SO ₄ /EO	0.30	mg/L	3.39	----	----	----	----
Cyanides									
Cyanide, strong acid dissociable (Total)	----	E333/WT	0.0020	mg/L	<0.0200 ^{DLM}	----	----	----	----



Analytical Results

Sub-Matrix: Water
 (Matrix: Water)

Client sample ID					R1-9150030-Fort Chipewyan Willy's	----	----	----	----
Client sampling date / time					07-Apr-2025 09:15	----	----	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit	FC2500774-001	----	----	----	----
					Result	----	----	----	----
Organic / Inorganic Carbon									
Carbon, total organic [TOC]	----	E355-L/EO	0.50	mg/L	2.13	----	----	----	----
Inorganics									
Chlorine, total	7782-50-5	E326-H/EO	0.10	mg/L	1.67	----	----	----	----
Chlorine, free	7782-50-5	E327-H/EO	0.10	mg/L	1.43	----	----	----	----
Chloramines, total (as Cl2)	----	EC326/EO	0.20	mg/L	0.24	----	----	----	----
Total Sulfides									
Sulfide, total (as S)	18496-25-8	E395/CG	0.0015	mg/L	<0.0015	----	----	----	----
Sulfide, total (as H2S)	7783-06-4	E395/CG	0.0016	mg/L	<0.0016	----	----	----	----
Ion Balance									
Anion sum	----	EC101/EO	0.10	meq/L	1.32	----	----	----	----
Cation sum	----	EC101/EO	0.10	meq/L	1.30	----	----	----	----
Ion balance (APHA)	----	EC101/EO	0.01	%	-0.76	----	----	----	----
Ion balance (cations/anions)	----	EC101/EO	0.010	%	98.5	----	----	----	----
Total Metals									
Aluminum, total	7429-90-5	E420/EO	0.0030	mg/L	0.0589	----	----	----	----
Antimony, total	7440-36-0	E420/EO	0.00010	mg/L	<0.00010	----	----	----	----
Arsenic, total	7440-38-2	E420/EO	0.00010	mg/L	0.00014	----	----	----	----
Barium, total	7440-39-3	E420/EO	0.00010	mg/L	0.0153	----	----	----	----
Boron, total	7440-42-8	E420/EO	0.010	mg/L	0.012	----	----	----	----
Cadmium, total	7440-43-9	E420/EO	0.0050	µg/L	<0.0050	----	----	----	----
Calcium, total	7440-70-2	E420/EO	0.050	mg/L	8.97	----	----	----	----



Analytical Results

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Analyte	CAS Number	Method/Lab	LOR	Unit	FC2500774-001	----	----	----	----
					Result	----	----	----	----
Total Metals									
Chromium, total	7440-47-3	E420/EO	0.00050	mg/L	<0.00050	----	----	----	----
Copper, total	7440-50-8	E420/EO	0.00050	mg/L	0.00124	----	----	----	----
Iron, total	7439-89-6	E420/EO	0.010	mg/L	<0.010	----	----	----	----
Lead, total	7439-92-1	E420/EO	0.050	µg/L	<0.050	----	----	----	----
Magnesium, total	7439-95-4	E420/EO	0.0050	mg/L	2.49	----	----	----	----
Manganese, total	7439-96-5	E420/EO	0.00010	mg/L	0.00244	----	----	----	----
Mercury, total	7439-97-6	E508/EO	0.0050	µg/L	<0.0050	----	----	----	----
Nickel, total	7440-02-0	E420/EO	0.00050	mg/L	<0.00050	----	----	----	----
Selenium, total	7782-49-2	E420/EO	0.050	µg/L	<0.050	----	----	----	----
Silver, total	7440-22-4	E420/EO	0.010	µg/L	<0.010	----	----	----	----
Sodium, total	7440-23-5	E420/EO	0.050	mg/L	14.6	----	----	----	----
Strontium, total	7440-24-6	E420/EO	0.00020	mg/L	0.0592	----	----	----	----
Uranium, total	7440-61-1	E420/EO	0.010	µg/L	<0.010	----	----	----	----
Zinc, total	7440-66-6	E420/EO	0.0030	mg/L	<0.0030	----	----	----	----
Dissolved Metals									
Calcium, dissolved	7440-70-2	E421/EO	0.050	mg/L	9.05	----	----	----	----
Iron, dissolved	7439-89-6	E421/EO	0.010	mg/L	<0.010	----	----	----	----
Magnesium, dissolved	7439-95-4	E421/EO	0.0050	mg/L	2.47	----	----	----	----
Manganese, dissolved	7439-96-5	E421/EO	0.00010	mg/L	0.00130	----	----	----	----
Potassium, dissolved	7440-09-7	E421/EO	0.050	mg/L	0.996	----	----	----	----
Sodium, dissolved	7440-23-5	E421/EO	0.050	mg/L	14.1	----	----	----	----



Analytical Results

Sub-Matrix: Water
 (Matrix: Water)

Client sample ID					R1-9150030-Fort Chipewyan Willy's	----	----	----	----
Client sampling date / time					07-Apr-2025 09:15	----	----	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit	FC2500774-001	----	----	----	----
					Result	----	----	----	----
Dissolved Metals									
Dissolved metals filtration location	----	EP421/EO	-	-	Field	----	----	----	----
Aggregate Organics									
Nitritotriacetic acid [NTA]	139-13-9	E394/WT	0.40	mg/L	<0.40	----	----	----	----
Volatile Organic Compounds									
Benzene	71-43-2	E611E/EO	0.50	µg/L	<0.50	----	----	----	----
Carbon tetrachloride	56-23-5	E611E/EO	0.50	µg/L	<0.50	----	----	----	----
Chlorobenzene	108-90-7	E611E/EO	1.0	µg/L	<1.0	----	----	----	----
Dichlorobenzene, 1,2-	95-50-1	E611E/EO	0.50	µg/L	<0.50	----	----	----	----
Dichlorobenzene, 1,4-	106-46-7	E611E/EO	1.0	µg/L	<1.0	----	----	----	----
Dichloroethane, 1,2-	107-06-2	E611E/EO	1.0	µg/L	<1.0	----	----	----	----
Dichloromethane	75-09-2	E611E/EO	1.0	µg/L	<1.0	----	----	----	----
Dioxane, 1,4-	123-91-1	E611I/WT	20	µg/L	<20	----	----	----	----
Ethylbenzene	100-41-4	E611E/EO	0.50	µg/L	<0.50	----	----	----	----
Tetrachloroethylene	127-18-4	E611E/EO	1.0	µg/L	<1.0	----	----	----	----
Toluene	108-88-3	E611E/EO	0.50	µg/L	<0.50	----	----	----	----
Trichloroethylene	79-01-6	E611E/EO	1.0	µg/L	<1.0	----	----	----	----
Vinyl chloride	75-01-4	E611E/EO	1.0	µg/L	<1.0	----	----	----	----
Xylene, m+p-	179601-23-1	E611E/EO	0.40	µg/L	<0.40	----	----	----	----
Xylene, o-	95-47-6	E611E/EO	0.30	µg/L	<0.30	----	----	----	----
Xylenes, total	1330-20-7	E611E/EO	0.50	µg/L	<0.50	----	----	----	----



Analytical Results

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Analyte	CAS Number	Method/Lab	LOR	Unit	FC2500774-001	----	----	----	----
					Result	----	----	----	----
Volatile Organic Compounds Surrogates									
Bromofluorobenzene, 4-	460-00-4	E611I/WT	1.0	%	84.0	----	----	----	----
Bromofluorobenzene, 4-	460-00-4	E611E/EO	1.0	%	81.8	----	----	----	----
Difluorobenzene, 1,4-	540-36-3	E611I/WT	1.0	%	94.7	----	----	----	----
Difluorobenzene, 1,4-	540-36-3	E611E/EO	1.0	%	80.8	----	----	----	----
Polycyclic Aromatic Hydrocarbons									
Benzo(a)pyrene	50-32-8	E641A/EO	0.0050	µg/L	<0.0050	----	----	----	----
Polycyclic Aromatic Hydrocarbons Surrogates									
Chrysene-d12	1719-03-5	E641A/EO	0.1	%	96.4	----	----	----	----
Naphthalene-d8	1146-65-2	E641A/EO	0.1	%	112	----	----	----	----
Phenanthrene-d10	1517-22-2	E641A/EO	0.1	%	104	----	----	----	----
Disinfectant By-Products									
Bromate	15541-45-4	E722A/WT	0.00030	mg/L	<0.00030	----	----	----	----
Semi-Volatile Organics Surrogates									
Fluorobiphenyl, 2-	321-60-8	E625A/WT	1.0	%	95.9	----	----	----	----
Nitrobenzene-d5	4165-60-0	E625A/WT	1.0	%	97.7	----	----	----	----
Terphenyl-d14, p-	1718-51-0	E625A/WT	1.0	%	101	----	----	----	----
Chlorinated Phenolics									
Dichlorophenol, 2,4-	120-83-2	E625A/WT	0.20	µg/L	<0.20	----	----	----	----
Pentachlorophenol [PCP]	87-86-5	E625A/WT	0.50	µg/L	<0.50	----	----	----	----
Tetrachlorophenol, 2,3,4,6-	58-90-2	E625A/WT	0.50	µg/L	<0.50	----	----	----	----
Trichlorophenol, 2,4,6-	88-06-2	E625A/WT	0.20	µg/L	<0.20	----	----	----	----



Analytical Results

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Client sample ID					R1-9150030-Fort Chipewyan Willy's	----	----	----	----
Client sampling date / time					07-Apr-2025 09:15	----	----	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit	FC2500774-001	----	----	----	----
					Result	----	----	----	----
Phenolics Surrogates									
Tribromophenol, 2,4,6-	118-79-6	E625A/WT	0.50	%	93.4	----	----	----	----
Organochlorine Pesticides Surrogates									
Decachlorobiphenyl	2051-24-3	E660F/WT	0.10	%	113	----	----	----	----
Tetrachloro-m-xylene	877-09-8	E660F/WT	0.10	%	111	----	----	----	----
Herbicides									
Alachlor	15972-60-8	E755/WT	0.050	µg/L	<0.050	----	----	----	----
Atrazine	1912-24-9	E755/WT	0.050	µg/L	<0.050	----	----	----	----
Atrazine + metabolites, total	----	E755/WT	0.45	µg/L	<0.45	----	----	----	----
Atrazine + N-dealkylated metabolites	----	E755/WT	0.10	µg/L	<0.10	----	----	----	----
Atrazine-desethyl	6190-65-4	E755/WT	0.025	µg/L	<0.025	----	----	----	----
Cyanazine	21725-46-2	E755/WT	0.10	µg/L	<0.10	----	----	----	----
Diclofop-methyl	51338-27-3	E755/WT	0.10	µg/L	<0.10	----	----	----	----
Dinoseb	88-85-7	E706A/WT	0.050	µg/L	<0.050	----	----	----	----
Diuron	330-54-1	E755/WT	0.050	µg/L	<0.050	----	----	----	----
Metolachlor	51218-45-2	E755/WT	0.025	µg/L	<0.025	----	----	----	----
Metribuzin	21087-64-9	E755/WT	0.10	µg/L	<0.10	----	----	----	----
Prometryn	7287-19-6	E755/WT	0.025	µg/L	<0.025	----	----	----	----
Simazine	122-34-9	E755/WT	0.10	µg/L	<0.10	----	----	----	----
Triallate	2303-17-5	E755/WT	0.10	µg/L	<0.10	----	----	----	----
Trifluralin	1582-09-8	E756/WT	0.10	µg/L	<0.10	----	----	----	----



Analytical Results

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Client sampling date / time					07-Apr-2025 09:15	----	----	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit	FC2500774-001	----	----	----	----
					Result	----	----	----	----
Herbicides Surrogates									
Dichlorophenylacetic acid, 2,4-	19719-28-9	E706A/WT	1.0	%	77.9	----	----	----	----
Insecticides									
Aldicarb	116-06-3	E755/WT	0.10	µg/L	<0.10	----	----	----	----
Azinphos-methyl	86-50-0	E755/WT	0.10	µg/L	<0.10	----	----	----	----
Bendiocarb	22781-23-3	E755/WT	0.025	µg/L	<0.025	----	----	----	----
Carbaryl	63-25-2	E755/WT	0.050	µg/L	<0.050	----	----	----	----
Carbofuran	1563-66-2	E755/WT	0.025	µg/L	<0.025	----	----	----	----
Chlorpyrifos	2921-88-2	E756/WT	0.10	µg/L	<0.10	----	----	----	----
Diazinon	333-41-5	E755/WT	0.025	µg/L	<0.025	----	----	----	----
Dimethoate	60-51-5	E755/WT	0.050	µg/L	<0.050	----	----	----	----
Malathion	121-75-5	E755/WT	0.025	µg/L	<0.025	----	----	----	----
Parathion	56-38-2	E756/WT	0.10	µg/L	<0.10	----	----	----	----
Phorate	298-02-2	E755/WT	0.25	µg/L	<0.25	----	----	----	----
Temephos	3383-96-8	E755/WT	0.25	µg/L	<0.25	----	----	----	----
Terbufos	13071-79-9	E755/WT	0.50	µg/L	<0.50	----	----	----	----
Pesticides									
Acetic acid, 2-methyl-4-chlorophenoxy-[MCPA]	94-74-6	E706A/WT	0.050	µg/L	<0.050	----	----	----	----
Aldrin	309-00-2	E660F/WT	0.0080	µg/L	<0.0080	----	----	----	----
Aldrin + Dieldrin	----	E660F/WT	0.011	µg/L	<0.011	----	----	----	----
Bromoxynil	1689-84-5	E706A/WT	0.050	µg/L	<0.050	----	----	----	----
Chlordane, cis- (alpha)	5103-71-9	E660F/WT	0.0080	µg/L	<0.0080	----	----	----	----



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Analyte	CAS Number	Method/Lab	LOR	Unit	FC2500774-001	----	----	----	----
					Result	----	----	----	----
Pesticides									
Chlordane, total	57-74-9	E660F/WT	0.011	µg/L	<0.011	----	----	----	----
Chlordane, trans- (gamma)	5103-74-2	E660F/WT	0.0080	µg/L	<0.0080	----	----	----	----
DDD, 2,4'-	53-19-0	E660F/WT	0.0040	µg/L	<0.0040	----	----	----	----
DDD, 4,4'-	72-54-8	E660F/WT	0.0040	µg/L	<0.0040	----	----	----	----
DDD, total	----	E660F/WT	0.0060	µg/L	<0.0060	----	----	----	----
DDE, 2,4'-	3424-82-6	E660F/WT	0.0040	µg/L	<0.0040	----	----	----	----
DDE, 4,4'-	72-55-9	E660F/WT	0.0040	µg/L	<0.0040	----	----	----	----
DDE, total	----	E660F/WT	0.0060	µg/L	<0.0060	----	----	----	----
DDT + metabolites, total	----	E660F/WT	0.010	µg/L	<0.010	----	----	----	----
DDT, 2,4'-	789-02-6	E660F/WT	0.0040	µg/L	<0.0040	----	----	----	----
DDT, 4,4'-	50-29-3	E660F/WT	0.0040	µg/L	<0.0040	----	----	----	----
DDT, total	----	E660F/WT	0.0060	µg/L	<0.0060	----	----	----	----
Dicamba	1918-00-9	E706A/WT	0.10	µg/L	<0.10	----	----	----	----
Dichlorophenoxyacetic acid, 2,4- [2,4-D]	94-75-7	E706A/WT	0.050	µg/L	<0.050	----	----	----	----
Dieldrin	60-57-1	E660F/WT	0.0080	µg/L	<0.0080	----	----	----	----
Diquat (ion)	2764-72-9	E723A/WT	1.0	µg/L	<1.0	----	----	----	----
Glyphosate	1071-83-6	E716A/WT	1.0	µg/L	<1.0	----	----	----	----
Heptachlor	76-44-8	E660F/WT	0.0080	µg/L	<0.0080	----	----	----	----
Heptachlor + Heptachlor epoxide	n/a	E660F/WT	0.011	µg/L	<0.011	----	----	----	----
Heptachlor epoxide	1024-57-3	E660F/WT	0.0080	µg/L	<0.0080	----	----	----	----
Hexachlorocyclohexane, gamma-	58-89-9	E660F/WT	0.0080	µg/L	<0.0080	----	----	----	----



Analytical Results

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 (Matrix: Water)

					Client sample ID				
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					Client sampling date / time	07-Apr-2025 09:15	----	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit	FC2500774-001				
					Result	----	----	----	----
Pesticides									
Methoxychlor	72-43-5	E660F/WT	0.0080	µg/L	<0.0080	----	----	----	----
Oxychlorane	27304-13-8	E660F/WT	0.0080	µg/L	<0.0080	----	----	----	----
Paraquat (as dichloride)	1910-42-5	E723A/WT	1.0	µg/L	<1.0	----	----	----	----
Picloram	1918-02-1	E706A/WT	0.10	µg/L	<0.10	----	----	----	----
Trichlorophenoxyacetic acid, 2,4,5- [2,4,5-T]	93-76-5	E706A/WT	0.050	µg/L	<0.050	----	----	----	----

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