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Analytical Report

Bill To: County of Vermilion River #24	Project ID:		Lot ID: **1247381**
Box 69	Project Name: CWW		Control Number:
Kitscoty, AB, Canada	Project Location:		Date Received: Jan 4, 2018
T0B 2P0	LSD:		Date Reported: Jan 9, 2018
Attn: Darrell Stefanick	P.O.: 5185		Report Number: 2254957
Sampled By: Evan Boser	Proj. Acct. code:		
Company: CVR			

		Reference Number	1247381-1	1247381-2	
		Sample Date	Jan 03, 2018	Jan 03, 2018	
		Sample Time	NA	NA	
		Sample Location			
		Sample Description	1 / Pardise Valley / 5.8	1 / Preston / 5.8	
		Matrix	Water	Water	

Analyte	Units	Results	Results	Results	Nominal Detection Limit
Metals Dissolved					
Subsample	Field Filtered	Lab Filtered	Lab Filtered		
Routine Water					
pH		7.81	7.83		
Temperature of observed pH	°C	21.7	21.7		
Electrical Conductivity	at 25 °C	µS/cm	1220	1600	1
Electrical Conductivity	at 25 °C	dS/m	1.22	1.60	0.001
Calcium	Dissolved	mg/L	105	88.2	0.2
Magnesium	Dissolved	mg/L	38.9	58.7	0.2
Sodium	Dissolved	mg/L	140	222	0.4
Potassium	Dissolved	mg/L	4.7	6.1	0.4
Iron	Dissolved	mg/L	<0.01	<0.01	0.01
Manganese	Dissolved	mg/L	0.105	0.008	0.005
Chloride	Dissolved	mg/L	4.4	4.9	0.4
Nitrate - N		mg/L	0.38	0.74	0.01
Nitrite - N		mg/L	<0.005	<0.005	0.005
Nitrate and Nitrite - N		mg/L	0.38	0.74	0.01
Sulfate (SO4)	Dissolved	mg/L	238	400	0.9
Hydroxide		mg/L	<5	<5	
Carbonate		mg/L	<6	<6	
Bicarbonate		mg/L	589	636	
P-Alkalinity	as CaCO3	mg/L	<5.0	<5.0	5
T-Alkalinity	as CaCO3	mg/L	483	522	5
Total Dissolved Solids	Calculated	mg/L	821	1090	1
Hardness	Dissolved as CaCO3	mg/L	423	462	
Ionic Balance	Dissolved	%	99	101	

Approved by: *Anthony Neumann*

Anthony Neumann, MSc
Laboratory Operations Manager

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Methodology and Notes

Bill To:	County of Vermilion River #24	Project ID:		Lot ID:	**1247381**
	Box 69	Project Name:	CWW	Control Number:	
	Kitscoty, AB, Canada	Project Location:		Date Received:	Jan 4, 2018
	T0B 2P0	LSD:		Date Reported:	Jan 9, 2018
Attn:	Darrell Stefanick	P.O.:	5185	Report Number:	2254957
Sampled By:	Evan Boser	Proj. Acct. code:			
Company:	CVR				

Method of Analysis

Method Name	Reference	Method	Date Analysis Started	Location
Alkalinity, pH, and EC in water	APHA	* Alkalinity - Titration Method, 2320 B	Jan 5, 2018	Exova Edmonton
Alkalinity, pH, and EC in water	APHA	* Conductivity, 2510 B	Jan 5, 2018	Exova Edmonton
Alkalinity, pH, and EC in water	APHA	* pH - Electrometric Method, 4500-H+ B	Jan 5, 2018	Exova Edmonton
Anions (Routine) by Ion Chromatography	APHA	* Ion Chromatography with Chemical Suppression of Eluent Cond., 4110 B	Jan 8, 2018	Exova Edmonton
Approval-Edmonton	APHA	Checking Correctness of Analyses, 1030 E	Jan 8, 2018	Exova Edmonton
Chloride in Water	APHA	* Automated Ferricyanide Method, 4500-Cl-E	Jan 8, 2018	Exova Edmonton
Metals Trace (Dissolved) in water	APHA	Hardness by Calculation, 2340 B	Jan 8, 2018	Exova Edmonton
Metals Trace (Dissolved) in water	APHA	* Inductively Coupled Plasma (ICP) Method, 3120 B	Jan 8, 2018	Exova Edmonton

Reference Method Modified

References

APHA   Standard Methods for the Examination of Water and Wastewater

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