

Report Transmission Cover Page

Bill To: City of Parksville 1116 Herring Gull Way Parksville, BC, Canada V9P 1R2	Project ID: Project Name: Full Spectrum Project Location: LSD: P.O.: 4101 Proj. Acct. code:	Lot ID: 1479191 Control Number: Date Received: Mar 11, 2021 Date Reported: Mar 17, 2021 Report Number: 2602307
Attn: Accounts Payable Sampled By: Barbara Silenieks Company: City of Parksville		

Contact	Company	Address	
Accounts Payable	City of Parksville	1116 Herring Gull Way Parksville, BC V9P 1R2 Phone: (250) 951-2489 Fax: Email: ap@parksville.ca	
<u>Delivery</u>	<u>Format</u>	<u>Deliverables</u>	
Email - Single Report	PDF	Invoice	
Barbara Silenieks	City of Parksville	1116 Herring Gull Way Parksville, BC V9P 1R2 Phone: (250) 951-2489 Fax: Email: bsilenieks@parksville.ca	
<u>Delivery</u>	<u>Format</u>	<u>Deliverables</u>	
Email - Single Report	PDF	COA	
Email - Single Report	PDF	COC / Test Report	

Notes To Clients:

- Mar 11, 2021 - Upon receipt, samples 1479191-1-3 had exceeded recommended temperature for bacterial analysis.
- Mar 11, 2021 - Upon receipt, samples 1479191-1-3 had exceeded the 30 hour recommended hold time for microbiology testing. Excess time between sampling and testing may affect the validity of the test result.

Analytical Report

Bill To: City of Parksville 1116 Herring Gull Way Parksville, BC, Canada V9P 1R2	Project ID: Project Name: Full Spectrum Project Location: LSD: P.O.: 4101 Proj. Acct. code:	Lot ID: 1479191 Control Number: Date Received: Mar 11, 2021 Date Reported: Mar 17, 2021 Report Number: 2602307
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	Reference Number	1479191-1	1479191-2	1479191-3		
	Sample Date	Mar 09, 2021	Mar 09, 2021	Mar 09, 2021		
	Sample Time	09:45	09:25	09:55		
	Sample Location					
	Sample Description	WTP / Water Treatment Plant / 12.6 °C	River Intake / Englishman River / 12.6 °C	PW Yard / Public Works Yard / 12.6 °C		
	Matrix	Water	Water	Water		
Analyte	Units	Results	Results	Results	Nominal Detection Limit	
Inorganic Nonmetallic Parameters						
Cyanide	Total	mg/L	<0.002	<0.002	<0.002	0.002
Metals Total						
Calcium	Total	mg/L	4.8	5.1	5.2	0.01
Magnesium	Total	mg/L	0.73	0.80	0.74	0.02
Potassium	Total	mg/L	0.15	0.20	0.16	0.04
Silicon	Total	mg/L	2.4	2.9	2.5	0.005
Sodium	Total	mg/L	9.2	2.3	10	0.1
Digestion	Preparation		Field Pres, digest as total Hg	Field Pres, digest as total Hg	Field Pres, digest as total Hg	
Mercury	Total	mg/L	<0.00001	<0.00001	<0.00001	0.00005
Physical and Aggregate Properties						
Colour	True	Colour units	<5	16	<5	5
Turbidity		NTU	<0.10	3.50	<0.10	0.1
Routine Water						
Digestion	Dissolved		Lab filtered & preserved Exceeded	Lab filtered & preserved Exceeded	Lab filtered & preserved Exceeded	
pH - Holding Time						
pH	at 25 °C		7.90	7.08	7.59	0.01
Electrical Conductivity		µS/cm at 25 °C	79	45	78	1
T-Alkalinity	as CaCO3	mg/L	28	13	27	5
Chloride	Dissolved	mg/L	6.79	3.52	6.86	0.05
Fluoride	Dissolved	mg/L	<0.01	<0.01	<0.01	0.01
Nitrate - N	Dissolved	mg/L	0.04	0.05	0.05	0.01
Nitrite - N	Dissolved	mg/L	<0.01	<0.01	<0.01	0.01
Sulfate (SO4)	Dissolved	mg/L	1.5	1.3	1.6	0.1
Hardness	as CaCO3 (dissolved)	mg/L	16	16	16	5
Total Dissolved Solids	Calculated	mg/L	49	29	48	1
Langelier Index			-1.3	-2.4	-1.6	
Trace Metals Total						
Aluminum	Total	mg/L	0.011	0.33	0.018	0.001
Antimony	Total	mg/L	<0.00002	<0.00002	<0.00002	0.00002
Arsenic	Total	mg/L	<0.0001	0.0002	<0.0001	0.0001
Barium	Total	mg/L	0.0031	0.0050	0.0029	0.0001
Boron	Total	mg/L	0.006	0.007	0.007	0.002
Cadmium	Total	mg/L	<0.00001	<0.00001	<0.00001	0.00001
Chromium	Total	mg/L	0.00006	0.00049	0.00011	0.00005
Copper	Total	mg/L	0.0003	0.0034	0.0043	0.0002

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	Sample Description	WTP / Water Treatment Plant / 12.6 °C	River Intake / Englishman River / 12.6 °C	PW Yard / Public Works Yard / 12.6 °C		
	Matrix	Water	Water	Water		
Analyte	Units	Results	Results	Results	Nominal Detection Limit	
Trace Metals Total - Continued						
Iron	Total	mg/L	0.006	0.32	0.014	0.002
Lead	Total	mg/L	<0.00001	0.00004	0.00013	0.00001
Manganese	Total	mg/L	0.002	0.006	0.002	0.001
Selenium	Total	mg/L	<0.0002	<0.0002	<0.0002	0.0002
Strontium	Total	mg/L	0.022	0.024	0.022	0.0001
Uranium	Total	mg/L	<0.00001	0.00001	<0.00001	0.00001
Zinc	Total	mg/L	0.0006	0.0011	0.0020	0.0005

Approved by: 
 Anthony Neumann, MSc
 General Manager

Methodology and Notes

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Method of Analysis

Method Name	Reference	Method	Date Analysis Started	Location
Alk, pH, EC, Turb in water (BC)	APHA	* Alkalinity - Titration Method, 2320 B	Mar 11, 2021	Element Vancouver
Alk, pH, EC, Turb in water (BC)	APHA	* Conductivity, 2510 B	Mar 11, 2021	Element Vancouver
Alk, pH, EC, Turb in water (BC)	APHA	* pH - Electrometric Method, 4500-H+ B	Mar 11, 2021	Element Vancouver
Anions by IEC in water (VAN)	APHA	* Ion Chromatography with Chemical Suppression of Eluent Cond., 4110 B	Mar 11, 2021	Element Vancouver
Cyanide (Total) in water	US EPA	* US EPA method, 335.3	Mar 17, 2021	Element Edmonton - Roper Road
Mercury Low Level (Total) in water (VAN)	EPA	* Mercury in Water by Cold Vapor Atomic Fluorescence Spectrometry, 245.7	Mar 17, 2021	Element Vancouver
Metals SemiTrace (Dissolved) in water (VAN)	US EPA	* Metals & Trace Elements by ICP-AES, 6010C	Mar 12, 2021	Element Vancouver
Metals SemiTrace (Total) in Water (VAN)	US EPA	* Metals & Trace Elements by ICP-AES, 6010C	Mar 12, 2021	Element Vancouver
Trace Metals (Total) in Water (VAN)	US EPA	* Determination of Trace Elements in Waters and Wastes by ICP-MS, 200.8	Mar 12, 2021	Element Vancouver
True Color in water (VAN)	APHA	* Spectrophotometric - Single Wavelength Method, 2120 C	Mar 11, 2021	Element Vancouver
Turbidity - Water (VAN)	APHA	* Turbidity - Nephelometric Method, 2130 B	Mar 11, 2021	Element Vancouver

* Reference Method Modified

References

APHA	Standard Methods for the Examination of Water and Wastewater
EPA	Environmental Protection Agency Test Methods - US
US EPA	US Environmental Protection Agency Test Methods

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Please direct any inquiries regarding this report to our Client Services group.

Results relate only to samples as submitted.

The test report shall not be reproduced except in full, without the written approval of the laboratory.