

Date: 12-JUL-19

PO No.:

WO No.: L2307748

LSD:

Project Ref: ERIC HAMBER SECONDARY

Sample ID: RM 358 DF
Sampled By: Robin Lemay
Date Collected: 10-JUL-19
Lab Sample ID: L2307748-1

Matrix: Water

Vancouver BC V5L 3L4 ATTN: Stephen Thomas			Matrix: Wate	er	PAGE	1 of 17
Test Description	Result	Qualifier	Units of Measure	CDWQG MAC	Aesthetic Objective	Date Analyzed
Total Metals Lead (Pb)-Total	0.00125		mg/L	0.005		12-JUL-19
* CDWQG = Health Canada Guideline Limits updated * CDWQG for Nitrate+Nitrite-N is the limit for nitrate only * Turbidity guideline based on membrane filtration. For Summary Table of Guidelines for Canadian Drinking Wa - A blank entry designates no known limit. - A shaded value in the Results column exceeds CDWG	guidelines on cor ater Quality	ventional treatm	ent and slow sand			ase see
Approved by Edward Ngai Account Manager						





Date: 12-JUL-19

PO No.:

WO No.: L2307748

LSD:

Project Ref: ERIC HAMBER SECONDARY

Sample ID: RM 323
Sampled By: Robin Lemay
Date Collected: 10-JUL-19
Lab Sample ID: L2307748-2

Matrix: Water

Vancouver BC V5L 3L4 ATTN: Stephen Thomas			watrix: wat	er	PAGE	2 of 17
Test Description	Result	Qualifier	Units of Measure	CDWQG MAC	Aesthetic Objective	Date Analyzed
Total Metals Lead (Pb)-Total	0.000713		mg/L	0.005		11-JUL-19
CDWQG = Health Canada Guideline Limits updated * CDWQG for Nitrate+Nitrite-N is the limit for nitrate only * Turbidity guideline based on membrane filtration. For Summary Table of Guidelines for Canadian Drinking Wa - A blank entry designates no known limit. - A shaded value in the Results column exceeds CDWQ	guidelines on cor iter Quality	ventional treatm	ent and slow sand			se see
Approved by Edward Ngai Account Manager	<u> </u>					





Date: 12-JUL-19

PO No.:

WO No.: L2307748

LSD:

Project Ref: ERIC HAMBER SECONDARY

Sample ID: RM 312 Sampled By: Robin Lemay Date Collected: 10-JUL-19 Lab Sample ID: L2307748-3

Matrix: Water

Vancouver BC V5L 3L4 ATTN: Stephen Thomas			Matrix: Wate	er	PAGE	3 of 17
Test Description	Result	Qualifier	Units of Measure	CDWQG MAC	Aesthetic Objective	Date Analyzed
Total Metals Lead (Pb)-Total	0.000275		mg/L	0.005		11-JUL-19
* CDWQG = Health Canada Guideline Limits updated * CDWQG for Nitrate+Nitrite-N is the limit for nitrate only. * Turbidity guideline based on membrane filtration. For g Summary Table of Guidelines for Canadian Drinking War - A blank entry designates no known limit. - A shaded value in the Results column exceeds CDWQC Approved by Edward Ngai	juidelines on con ter Quality	ventional treatm	ent and slow sand			se see

Account Manager





Date: 12-JUL-19

PO No.:

WO No.: L2307748

LSD:

Project Ref: ERIC HAMBER SECONDARY

Sample ID: RM 301
Sampled By: Robin Lemay
Date Collected: 10-JUL-19
Lab Sample ID: L2307748-4

Matrix: Water

Vancouver BC V5L 3L4 ATTN: Stephen Thomas			watrix: wate	er	PAGE	4 of 17
Test Description	Result	Qualifier	Units of Measure	CDWQG MAC	Aesthetic Objective	Date Analyzed
Total Metals Lead (Pb)-Total	0.000611		mg/L	0.005		11-JUL-19
* CDWQG = Health Canada Guideline Limits updated * CDWQG for Nitrate+Nitrite-N is the limit for nitrate only * Turbidity guideline based on membrane filtration. For a Summary Table of Guidelines for Canadian Drinking Wa - A blank entry designates no known limit. - A shaded value in the Results column exceeds CDWQ Approved by Edward Ngai	guidelines on con ter Quality	ventional treatm	ent and slow sand			ase see

Account Manager





Date: 12-JUL-19

PO No.:

WO No.: L2307748

LSD:

Project Ref: ERIC HAMBER SECONDARY

Sample ID: RM 201 Sampled By: Robin Lemay Date Collected: 10-JUL-19 Lab Sample ID: L2307748-5

Matrix: Water

Vancouver BC V5L 3L4 ATTN: Stephen Thomas			Matrix: Wate	9 F	PAGE	5 of 17
Test Description	Result	Qualifier	Units of Measure	CDWQG MAC	Aesthetic Objective	Date Analyzed
Total Metals Lead (Pb)-Total	0.00102		mg/L	0.005		11-JUL-19
* CDWQG = Health Canada Guideline Limits updated * CDWQG for Nitrate+Nitrite-N is the limit for nitrate only * Turbidity guideline based on membrane filtration. For gummary Table of Guidelines for Canadian Drinking Wa - A blank entry designates no known limit. - A shaded value in the Results column exceeds CDWQ Approved by Edward Ngai	guidelines on con ter Quality	ventional treatm	ent and slow sand			se see

Account Manager





Date: 12-JUL-19

PO No.:

WO No.: L2307748

LSD:

Project Ref: ERIC HAMBER SECONDARY

Sample ID: RM 211A
Sampled By: Robin Lemay
Date Collected: 10-JUL-19
Lab Sample ID: L2307748-6

Matrix: Water

Vancouver BC V5L 3L4 ATTN: Stephen Thomas			Matrix: Wate	9 F	PAGE	6 of 17
Test Description	Result	Qualifier	Units of Measure	CDWQG MAC	Aesthetic Objective	Date Analyzed
Total Metals Lead (Pb)-Total	0.000123		mg/L	0.005		11-JUL-19
* CDWQG = Health Canada Guideline Limits updated * CDWQG for Nitrate+Nitrite-N is the limit for nitrate only * Turbidity guideline based on membrane filtration. For a Summary Table of Guidelines for Canadian Drinking Wa - A blank entry designates no known limit. - A shaded value in the Results column exceeds CDWQ Approved by Edward Ngai	guidelines on con ter Quality	ventional treatm	ent and slow sand			se see

Account Manager





VANCOUVER SCHOOL BOARD Maintenance and Construction 1549 Clark Drive

Date: 12-JUL-19

PO No.:

WO No.: L2307748

LSD:

Project Ref: ERIC HAMBER SECONDARY

Sample ID: RM 221 Sampled By: Robin Lemay Date Collected: 10-JUL-19 **Lab Sample ID:** L2307748-7

Matrix: Water

Vancouver BC V5L 3L4 ATTN: Stephen Thomas			watrix: wate	er	PAGE	7 of 17
Test Description	Result	Qualifier	Units of Measure	CDWQG MAC	Aesthetic Objective	Date Analyzed
Total Metals Lead (Pb)-Total	0.000947		mg/L	0.005		11-JUL-19
* CDWQG = Health Canada Guideline Limits updated * CDWQG for Nitrate+Nitrite-N is the limit for nitrate only * Turbidity guideline based on membrane filtration. For commany Table of Guidelines for Canadian Drinking War - A blank entry designates no known limit. - A shaded value in the Results column exceeds CDWQ	guidelines on con ter Quality	ventional treatm	ent and slow sand			ase see

Account Manager





Date: 12-JUL-19

PO No.:

WO No.: L2307748

LSD:

Project Ref: ERIC HAMBER SECONDARY

Sample ID: RM 285
Sampled By: Robin Lemay

Date Collected: 10-JUL-19
Lab Sample ID: L2307748-8

Matrix: Water

Vancouver BC V5L 3L4 ATTN: Stephen Thomas			watrix: wate	er	PAGE	8 of 17
Test Description	Result	Qualifier	Units of Measure	CDWQG MAC	Aesthetic Objective	Date Analyzed
Total Metals Lead (Pb)-Total	0.000550		mg/L	0.005		11-JUL-19
* CDWQG = Health Canada Guideline Limits updated * CDWQG for Nitrate+Nitrite-N is the limit for nitrate only * Turbidity guideline based on membrane filtration. For a Summary Table of Guidelines for Canadian Drinking Wa - A blank entry designates no known limit. - A shaded value in the Results column exceeds CDWQ Approved by Edward Ngai	guidelines on con ter Quality	ventional treatm	ent and slow sand			se see

Account Manager





VANCOUVER SCHOOL BOARD Maintenance and Construction 1549 Clark Drive

Date: 12-JUL-19

PO No.:

WO No.: L2307748

LSD:

Project Ref: ERIC HAMBER SECONDARY

Sample ID: RM 293 Sampled By: Robin Lemay Date Collected: 10-JUL-19 Lab Sample ID: L2307748-9

Matrix: Wa

Vancouver BC V5L 3L4 ATTN: Stephen Thomas			Matrix: Wat	er	PAGE	9 of 17
Test Description	Result	Qualifier	Units of Measure	CDWQG MAC	Aesthetic Objective	Date Analyzed
Total Metals Lead (Pb)-Total	0.000156		mg/L	0.005		11-JUL-19
CDWQG = Health Canada Guideline Limits updated * CDWQG for Nitrate+Nitrite-N is the limit for nitrate only * Turbidity guideline based on membrane filtration. For summary Table of Guidelines for Canadian Drinking Wa - A blank entry designates no known limit. - A shaded value in the Results column exceeds CDWQ	guidelines on cor Iter Quality	ventional treatn	nent and slow san			se see
Approved by Edward Ngai Account Manager	_					

Account Manager





VANCOUVER SCHOOL BOARD Maintenance and Construction 1549 Clark Drive Vancouver BC V5L 3L4 **Date:** 12-JUL-19

PO No.:

WO No.: L2307748

LSD:

Project Ref: ERIC HAMBER SECONDARY

Sample ID: RM 295
Sampled By: Robin Lemay
Date Collected: 10-JUL-19
Lab Sample ID: L2307748-10

Matrix: Water

Vancouver BC V5L 3L4 ATTN: Stephen Thomas			Matrix: Wate	er	PAGE	10 of 17
Test Description	Result	Qualifier	Units of Measure	CDWQG MAC	Aesthetic Objective	Date Analyzed
Total Metals Lead (Pb)-Total	0.000166		mg/L	0.005		11-JUL-19
CDWQG = Health Canada Guideline Limits updated * CDWQG for Nitrate+Nitrite-N is the limit for nitrate only * Turbidity guideline based on membrane filtration. For Summary Table of Guidelines for Canadian Drinking Wa - A blank entry designates no known limit. - A shaded value in the Results column exceeds CDWC	guidelines on cor iter Quality	ventional treatm	ent and slow sand			ase see
Approved by Edward Ngai Account Manager	1					





Date: 12-JUL-19

PO No.:

WO No.: L2307748

LSD:

Project Ref: ERIC HAMBER SECONDARY

Sample ID: RM 290
Sampled By: Robin Lemay
Date Collected: 10-JUL-19
Lab Sample ID: L2307748-11

Matrix: Water

Vancouver BC V5L 3L4 ATTN: Stephen Thomas			Matrix: Wate	er	PAGE	11 of 17
Test Description	Result	Qualifier	Units of Measure	CDWQG MAC	Aesthetic Objective	Date Analyzed
Total Metals Lead (Pb)-Total	0.000285		mg/L	0.005		12-JUL-19
* CDWQG = Health Canada Guideline Limits updated * CDWQG for Nitrate+Nitrite-N is the limit for nitrate only * Turbidity guideline based on membrane filtration. For Summary Table of Guidelines for Canadian Drinking Wa - A blank entry designates no known limit. - A shaded value in the Results column exceeds CDWC	guidelines on cor ater Quality	ventional treatm	ent and slow sand			ase see
Approved by Edward Ngai Account Manager						





Date: 12-JUL-19

PO No.:

WO No.: L2307748

LSD:

Project Ref: ERIC HAMBER SECONDARY

Sample ID: RM 110
Sampled By: Robin Lemay
Date Collected: 10-JUL-19
Lab Sample ID: L2307748-12

Matrix: Water

Vancouver BC V5L 3L4 ATTN: Stephen Thomas			Matrix: Wate	er	PAGE	12 of 17
Test Description	Result	Qualifier	Units of Measure	CDWQG MAC	Aesthetic Objective	Date Analyzed
Total Metals Lead (Pb)-Total	0.000732		mg/L	0.005		11-JUL-19
* CDWQG or Nitrate+Nitrite-N is the limit for nitrate only * Turbidity guideline based on membrane filtration. For summary Table of Guidelines for Canadian Drinking Wa - A blank entry designates no known limit A shaded value in the Results column exceeds CDWQ Approved by Edward Ngai	guidelines on con ter Quality	ventional treatm	ent and slow sand			ase see

Account Manager





Date: 12-JUL-19

PO No.:

WO No.: L2307748

LSD:

Project Ref: ERIC HAMBER SECONDARY

Sample ID: RM 121
Sampled By: Robin Lemay

Date Collected: 10-JUL-19
Lab Sample ID: L2307748-13

Matrix: Water

Vancouver BC V5L 3L4 ATTN: Stephen Thomas			watrix: wate	er	PAGE	13 of 17
Test Description	Result	Qualifier	Units of Measure	CDWQG MAC	Aesthetic Objective	Date Analyzed
Total Metals Lead (Pb)-Total	0.00126		mg/L	0.005		11-JUL-19
* CDWQG for Nitrate+Nitrite-N is the limit for nitrate only * Turbidity guideline based on membrane filtration. For Summary Table of Guidelines for Canadian Drinking Wa - A blank entry designates no known limit A shaded value in the Results column exceeds CDWQ Approved by Edward Ngai	guidelines on con Iter Quality	ventional treatm	ent and slow sand			ase see

Account Manager





Date: 12-JUL-19

PO No.:

WO No.: L2307748

LSD:

Project Ref: ERIC HAMBER SECONDARY

Sample ID: RM L105
Sampled By: Robin Lemay

Date Collected: 10-JUL-19
Lab Sample ID: L2307748-14

Matrix: Water

Vancouver BC V5L 3L4 ATTN: Stephen Thomas			watrix: wat	er	PAGE	14 of 17
Test Description	Result	Qualifier	Units of Measure	CDWQG MAC	Aesthetic Objective	Date Analyzed
Total Metals Lead (Pb)-Total	0.000138		mg/L	0.005		11-JUL-19
* CDWQG = Health Canada Guideline Limits updated * CDWQG for Nitrate+Nitrite-N is the limit for nitrate only * Turbidity guideline based on membrane filtration. For Summary Table of Guidelines for Canadian Drinking Wa - A blank entry designates no known limit. - A shaded value in the Results column exceeds CDWQ	guidelines on cor iter Quality	ventional treatm	ent and slow sand			ase see
Approved by Edward Ngai Account Manager						





VANCOUVER SCHOOL BOARD Maintenance and Construction 1549 Clark Drive Vancouver BC V5L 3L4 **Date:** 12-JUL-19

PO No.:

WO No.: L2307748

LSD:

Project Ref: ERIC HAMBER SECONDARY

Sample ID: RM 144
Sampled By: Robin Lemay
Date Collected: 10-JUL-19
Lab Sample ID: L2307748-15

Matrix: Water

Vancouver BC V5L 3L4 ATTN: Stephen Thomas			Matrix: Wate	er	PAGE	15 of 17
Test Description	Result	Qualifier	Units of Measure	CDWQG MAC	Aesthetic Objective	Date Analyzed
Total Metals Lead (Pb)-Total	0.000325		mg/L	0.005		12-JUL-19
* CDWQG = Health Canada Guideline Limits updated * CDWQG for Nitrate+Nitrite-N is the limit for nitrate only * Turbidity guideline based on membrane filtration. For a Summary Table of Guidelines for Canadian Drinking Wa - A blank entry designates no known limit. - A shaded value in the Results column exceeds CDWQ Approved by Edward Ngai	guidelines on con ter Quality	ventional treatm	ent and slow sand			ise see

Account Manager





Date: 12-JUL-19

PO No.:

WO No.: L2307748

LSD:

Project Ref: ERIC HAMBER SECONDARY

Sample ID: RM 138
Sampled By: Robin Lemay

Date Collected: 10-JUL-19
Lab Sample ID: L2307748-16

Matrix: Water

Vancouver BC V5L 3L4 ATTN: Stephen Thomas			Matrix: Wate	er	PAGE	16 of 17
Test Description	Result	Qualifier	Units of Measure	CDWQG MAC	Aesthetic Objective	Date Analyzed
Total Metals Lead (Pb)-Total	0.000131		mg/L	0.005		12-JUL-19
* CDWQG = Health Canada Guideline Limits updated * CDWQG for Nitrate+Nitrite-N is the limit for nitrate only * Turbidity guideline based on membrane filtration. For a Summary Table of Guidelines for Canadian Drinking Wa - A blank entry designates no known limit. - A shaded value in the Results column exceeds CDWQ Approved by Edward Ngai	guidelines on con ter Quality	ventional treatm	ent and slow sand			ase see

Account Manager



Guidelines & Objectives

Health Canada MAC Health Related Criteria Limits

Nitrate/Nitrite-N* Criteria limit is 10 mg/L (1.0 mg/L if present as all Nitrite-N). High concentrations may contribute to blue baby syndrome in infants.

Lead* A cumulative body poison, uncommon in naturally occurring hard waters.

Fluoride* Present in fluoridated water supplies at 0.8 mg/L to reduce dental caries. Elevated levels causes fluorosis (mottling of teeth).

Total Coliforms* Criteria is 0 CFU/100mL. Adverse health effects.

E. Coli* Criteria is 0 CFU/100 mL. Certain E. Coli bacteria can be life threatening.

*Health Canada Canadian Drinking Water Quality Guidelines (MAC limit)

Aesthetic Objective Concentration Levels

Alkalinity Acid neutralizing capacity. Usually a measure of carbonate and bicarbonates and calculated and reported as calcium carbonate.

Balance Quality control parameter ratioing cations to anions
Bicarbonate See Alkalinity. Report as the anion HCO3-1
Carbonate See Alkalinity. Reported at the anion CO3-2

See Hardness. Common major cation of water chemistry.

Chloride Common major anion of water chemistry.

Conductance Physical test measuring water salinity (dissolved ions or solids)

Hardness Classical measure or capacity of water to precipitate soap (chiefly calcium and magnesium ions). Causes scaling tendency in

water if carbonates/bicarbonates are present (if >200 mg/L). For drinking water purposes waters with results <200 mg/L are considered acceptable, results >200 mg/L are considered poor but can be tolerated. Results >500 mg/L are unacceptable.

Hydroxide See alkalinity

Magnesium See hardness. Common major cation of water chemistry. Elevated levels (>125 mg/L) may exert a cathartic or diuretic action.

Measure of water acidity/alkalinity. Normal range is 7.0-8.5.

Potassium Common major cation of water chemistry.

Sodium Common major cation of water chemistry. Measure of salinity (saltiness).

Sulphate Common major anion of water chemistry. Elevated levels may exert a cathartic or diuretic action.

Total Dissolved Solids A measure of water salinity.

Iron Causes staining to laundry and porcelain and astringent taste. Oxidizes to red-brown precipitate on exposure to air.

Manganese Elevated levels may cause staining of laundry and porcelain.

Heterotrophic

Calcium

рΗ

Plate Count Criteria is 500 cfu/mL Measure of heterotrophic bacteria present.

GLOSSARY OF REPORT TERMS

Surrogates are compounds that are similar in behaviour to target analyte(s), but that do not normally occur in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery. In reports that display the D.L. column, laboratory objectives for surrogates are listed there.

mg/kg - milligrams per kilogram based on dry weight of sample mg/kg wwt - milligrams per kilogram based on wet weight of sample mg/kg lwt - milligrams per kilogram based on lipid-adjusted weight mg/L - unit of concentration based on volume, parts per million.

< - Less than.

D.L. - The reporting limit.

N/A - Result not available. Refer to qualifier code and definition for explanation.

Test results reported relate only to the samples as received by the laboratory. UNLESS OTHERWISE STATED, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

Analytical results in unsigned test reports with the DRAFT watermark are subject to change, pending final QC review.

hone:

Street:

SD

ALS Sample #

(lab use only)

Chain of Custody (COC) / Analytical **Request Form**

L2307748-COFC

Sample Type

Frozen

YELLOW - CLIENT COPY

Cooling Initiated

ice Packs 🗹 ice Cubes 🎾 Custody seal intact

INITIAL COOLER TEMPERATURES °C

Received by: 22

COC Number: 17 - 811614

Νo

No

FINAL COOLER TEMPERATURES C

FINAL SHIPMENT RECEPTION (lab use only)

Environmental Canada Toll Free: 1 800 668 9878 www.alsglobal.com Report To Contact and company name below will appear on the final report Report Format / Distribution Select Service Level Below - Contact your AM to confirm all F&P TATs (surcharges may apply) Vancouver School Select Report Format: PDF FXCEL | EDD (DIGITAL) Regular (R) Standard TAT if received by 3 pm - business days - no surcharges apply Company: Stephen Thomas Contact: Quality Control (QC) Report with Report 4 day [P4-20%] Business day [E - 100%] CM - 713-5637 Compare Results to Criteria on Report - provide details below if box checked 3 day [P3-25%]. Same Day, Weekend or Statutory holiday (E2 -200%) EMAIL | MAIL | FAX (Laboratory opening fees may apply)] Company address below will appear on the final report Select Distribution: 2 day (P2-50%) Email 1 or Fax <5 thomas Q vab. bc. Ca Date and Time Required for all E&P TATE: dd-mmm-vy hh:mm rlemay @ vsb. bc. Ca City/Province: For tests that can not be performed according to the service level selected, you will be contacted ostal Code Email 3 Analysis Request nvoice To Same as Report To 💢 YES 🗀 NO Invoice Distribution Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below HOLD ONTAINERS Copy of Invoice with Report TL YES [T] Select Invoice Distribution: EMAIL MAIL FAX . ssthomas@vsb.bc.ca Company: Contact: rlenance usb. bc. ca Project Information Oil and Gas Required Fields (client use) N O ALS Account # / Quote # AFF/Cost Center PO# Hamber Secondary Maior/Minor Code: Routing Code: ច SAMPLES PO/AFE: Requisitioner: 6 ocation: Sampler: Robin Lenay ALS Lab Work Order # (lab use only): ALS Contact:

Kn 338 DF	10-01-19 12:09 water	
Km 323	10-07-19 12:13 water	
Rm 312	10-07-19/2:18 water	
Rm 301	10-07-19 12:23 water	
Rm 201	10-07-19 12:28 Wates	
Rn 211 A	10-07-19 12:35 water	
Rm 221	10-07-19 12:39 Water	
Rn 285	10-07-19 12:46 water	
Rm 293	10-07-19 12:53 water	
Rm 295	10-07-19 12:59 water	
Rn 290	10-07-19 1:05 water	
Rn 110	10-07-19 1:12 water	
Special Instructions / S	pecify Criteria to add on report by clicking on the drop-down list below	SAMPLE CONDITION AS RECEIVED (lab use only)

INITIAL SHIPMENT RECEPTION (lab use only)

WHITE - LABORATORY COPY

Date:

(hb:mm)

Date

(dd-mmm-yy)

(electronic COC only)

No preservatives added

Received by:

Time:

SHIPMENT RELEASE (client use)

REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION

Drinking Water (DW) Samples¹ (client use)

Are samples taken from a Regulated DW System?

YES NO

I I YES I I NO

Released by:

Are samples for human consumption/ use?

Sample Identification and/or Coordinates

(This description will appear on the report)

.S) Environmental

Chain of Custody (COC) / Analytical Request Form

L2307748-COFC

COC Number: 17 - 811615

of

Canada Toll Free: 1 800 668 9878

	www.alsglobal.com																		
Report To	Contact and company name below will appear on the t	final report	Report Format / Distribution					Select Service Level Balow - Contact your AM to confirm all E&P TATs (surcharges may apply)											
Company:	Vancouver School Board	<i>1</i>	Select Report Format: PDF EXCEL EDD (DIGITAL)					Regular [R] Standard TAT if received by 3 pm - business days - no surcharges apply											
Contact:	Stephen Thomas		Quality Control (QC) Report with Report YES NO				- A	4 day [P4-20%] 1 Business day [E - 100%]											
Phone:	604-713-5637		Compare Results to Criteria on Report - provide details below if box checked				TIORET Team	3 day [P3-25%] Same Day, Weekend or Statutory holiday [E2 -200%							I				
	Company address below will appear on the final report		Select Distribution: 🙀 EMAIL MAIL 🗍 FAX				dans)	2 day [P2-50%] (Laboratory opening fees may apply)]							니				
Street:	1549 Clark Dr.		Email 1 or Fax Sthomas Cousb. bc. ca					Date and Time Required for all E&P TATs: dd-mmm-yy hh:mm											
City/Province:	Vancouver B.C.		Email 2 Y	may@us	b.bc. C	a.	For tests	s that can not be performed according to the service level selected, you will be contacted.											
Postal Code:			Email 3	Email 3				Analysis Request											
Invoice To	Same as Report To YES NO			Invoice Dis	tribution			Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below								$\overline{}$			
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ALS Account #	/ Quote #:		AFE/Cost Center:		PO#		1 <u>z</u>				1						- 1 2	כֿ	¥
Job#: F	ric Hamber Secondar	ζ.	Major/Minor Code:		Routing Code:		18 [i								
PO / AFE:			Requisitioner:				삥								İ	1		TI C	👸
LSD:			Location:		•		1	$ \vec{c} $.			'			3.	🐧
ALS Lab Wo	ork Order # (lab use only):		ALS Contact: Sampler: Robi Zena		Lenay	NUMBER	768										AMP	SUSPECTED HAZARD (see	
ALS Sample # (lab use only)				Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	Ž											SA	SUSPEC
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	Rn L105			10-07-19	1:25	water	1			+		-	+ +	_	-	 -			├─┤
	En 144					water	1					_	+	+		+			├─┤
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	Rm 138			10-07-19	1:37	water	<u> </u>						\perp						Ш
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	<u> </u>				<u></u>	<u></u>													Ш
Drinkir	ng Water (DW) Samples¹ (client use)	ecial Instructions / S	Specify Criteria to	o add on report by click ectronic COC only)	ing on the drop-do	wn list below	<u></u>			SAM		DITION A			_				
L	on from a Regulated DW System?		/an	ectionic COC only)			Frozen		<u>_</u> 🗆			bservation	-	Yes			No		_
		ſ	O	42	11 0		Ice Par Cooling	g Initia	ted 🔀		_		act	Yes			No		
Are samples for human consumption/ use? No preservatives added				<u> </u>	- IN	IIITIAL COO	ER TEMPER	VATURES *		1-7	 -	NAL COOL	R TEMPE	RATURES 6	c				
I YES I NO								<u> </u>				6°C							
Poloocad hus	SHIPMENT RELEASE (client use)		District 11	INITIAL SHIPMEN		b use only)	· -	\Box			FINAL	SHIPME		EPTIO	l (lab us	only)			
Released by:	Date:	Time;	Received by:		Date:	·	Time:			by: Za	<u>. </u>		ily (0)	, 7	219		Time	3:6	1~
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Date: 30-JUL-19 PO No.: 1517879 WO No.: L2316469

LSD:

Project Ref: ERIC HAMBER
Sample ID: RM 144 BUB
Sampled By: Robin Lemay

Date Collected: 24-JUL-19
Lab Sample ID: L2316469-1

Matrix: Water

Vancouver BC V5L 3L4 ATTN: Stephen Thomas			Matrix: Wate	er	PAGE	1 of 3
Test Description	Result	Qualifier	Units of Measure	CDWQG MAC	Aesthetic Objective	Date Analyzed
Total Metals Lead (Pb)-Total	0.000707		mg/L	0.005		27-JUL-19
CDWQG = Health Canada Guideline Limits updated * CDWQG for Nitrate+Nitrite-N is the limit for nitrate only * Turbidity guideline based on membrane filtration. For sommary Table of Guidelines for Canadian Drinking Walling - A blank entry designates no known limit. - A shaded value in the Results column exceeds CDWQ	guidelines on cor iter Quality	ventional treatm	ent and slow sand			ase see
Approved by Edward Ngai Account Manager						





Date: 30-JUL-19 **PO No.:** 1517879 **WO No.:** L2316469

LSD:

Project Ref: ERIC HAMBER Sample ID: RM A201C SSDF Sampled By: Robin Lemay Date Collected: 24-JUL-19 **Lab Sample ID:** L2316469-2

Matrix: Water

PAGE 2 of 3

Test Description	Result	Qualifier	Units of Measure	CDWQG MAC	Aesthetic Objective	Date Analyzed
Total Metals Lead (Pb)-Total	0.000807		mg/L	0.005		27-JUL-19
CDWQG = Health Canada Guideline Limits updated	JUNE 2019					
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- * CDWQG for Nitrate+Nitrite-N is the limit for nitrate only. If present as Nitrate then the limit is 10mg/L < or N.D. = less than detection limit.
- * Turbidity guideline based on membrane filtration. For guidelines on conventional treatment and slow sand or diatomaceous earth filtration please see Summary Table of Guidelines for Canadian Drinking Water Quality
- A blank entry designates no known limit.
- A shaded value in the Results column exceeds CDWQG MAC and/ or Aesthetic Objective.

Approved by

Edward Ngai

Account Manager



Guidelines & Objectives

Health Canada MAC Health Related Criteria Limits

Nitrate/Nitrite-N* Criteria limit is 10 mg/L (1.0 mg/L if present as all Nitrite-N). High concentrations may contribute to blue baby syndrome in infants.

Lead* A cumulative body poison, uncommon in naturally occurring hard waters.

Fluoride* Present in fluoridated water supplies at 0.8 mg/L to reduce dental caries. Elevated levels causes fluorosis (mottling of teeth).

Total Coliforms* Criteria is 0 CFU/100mL. Adverse health effects.

E. Coli* Criteria is 0 CFU/100 mL. Certain E. Coli bacteria can be life threatening.

*Health Canada Canadian Drinking Water Quality Guidelines (MAC limit)

Aesthetic Objective Concentration Levels

Alkalinity Acid neutralizing capacity. Usually a measure of carbonate and bicarbonates and calculated and reported as calcium carbonate.

Balance Quality control parameter ratioing cations to anions
Bicarbonate See Alkalinity. Report as the anion HCO3-1
Carbonate See Alkalinity. Reported at the anion CO3-2

See Hardness. Common major cation of water chemistry.

Chloride Common major anion of water chemistry.

Conductance Physical test measuring water salinity (dissolved ions or solids)

Hardness Classical measure or capacity of water to precipitate soap (chiefly calcium and magnesium ions). Causes scaling tendency in

water if carbonates/bicarbonates are present (if >200 mg/L). For drinking water purposes waters with results <200 mg/L are considered acceptable, results >200 mg/L are considered poor but can be tolerated. Results >500 mg/L are unacceptable.

Hydroxide See alkalinity

Magnesium See hardness. Common major cation of water chemistry. Elevated levels (>125 mg/L) may exert a cathartic or diuretic action.

Measure of water acidity/alkalinity. Normal range is 7.0-8.5.

Potassium Common major cation of water chemistry.

Sodium Common major cation of water chemistry. Measure of salinity (saltiness).

Sulphate Common major anion of water chemistry. Elevated levels may exert a cathartic or diuretic action.

Total Dissolved Solids A measure of water salinity.

Iron Causes staining to laundry and porcelain and astringent taste. Oxidizes to red-brown precipitate on exposure to air.

Manganese Elevated levels may cause staining of laundry and porcelain.

Heterotrophic

Calcium

рΗ

Plate Count Criteria is 500 cfu/mL Measure of heterotrophic bacteria present.

GLOSSARY OF REPORT TERMS

Surrogates are compounds that are similar in behaviour to target analyte(s), but that do not normally occur in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery. In reports that display the D.L. column, laboratory objectives for surrogates are listed there.

mg/kg - milligrams per kilogram based on dry weight of sample mg/kg wwt - milligrams per kilogram based on wet weight of sample mg/kg lwt - milligrams per kilogram based on lipid-adjusted weight mg/L - unit of concentration based on volume, parts per million.

< - Less than.

D.L. - The reporting limit.

N/A - Result not available. Refer to qualifier code and definition for explanation.

Test results reported relate only to the samples as received by the laboratory. UNLESS OTHERWISE STATED, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

Analytical results in unsigned test reports with the DRAFT watermark are subject to change, pending final QC review.



Chain of Custody (COC) / Analytical Request Form

Canada Toll Free: 1 800 668 9878

L2316469-COFC

COC Number: 17 - 756169

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