

VANCOUVER SCHOOL BOARD Maintenance and Construction 1549 Clark Drive Vancouver BC V5L 3L4 ATTN: Stephen Thomas

Date: 16-OCT-19 PO No.: 1517879 WO No.: L2362037 LSD: Project Ref: TILLICUM ELEMENTARY Sample ID: RM.121 DF Sampled By: ROBIN LEMAY Date Collected: 08-OCT-19 Lab Sample ID: L2362037-1 Matrix: WATER

PAGE 1 of 4

Test Description	Result	Qualifier	Units of Measure	CDWQG MAC	Aesthetic Objective	Date Analyze
Fotal Metals	0.000166			0.005		11-OCT-
Lead (Pb)-Total	0.000186		mg/L	0.005		11-001
DWQG = Health Canada Guideline Limits updated	JUNE 2019					
CDWQG for Nitrate+Nitrite-N is the limit for nitrate only Turbidity guideline based on membrane filtration. For ummary 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	N.D. = less than de or diatomaceous e	tection limit. arth filtration plea	se see
Canto 1						
Edward Ngai Account Manager						

ADDRESS: 8081 Lougheed Hwy, Suite 100, Burnaby, BC V5A 1W9 Canada | Phone: +1 604 253 4188 | Fax: +1 604 253 6700 ALS CANADA LTD Part of the ALS Group A Campbell Brothers Limited Company

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VANCOUVER SCHOOL BOARD Maintenance and Construction 1549 Clark Drive Vancouver BC V5L 3L4 ATTN: Stephen Thomas

Date: 16-OCT-19 PO No.: 1517879 WO No.: L2362037 LSD: Project Ref: TILLICUM ELEMENTARY Sample ID: RM.102 DF Sampled By: ROBIN LEMAY Date Collected: 08-OCT-19 Lab Sample ID: L2362037-2 Matrix: WATER

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Test Description	Result	Qualifier	Units of Measure	CDWQG MAC	Aesthetic Objective	Date Analyze
Fotal Metals Lead (Pb)-Total	0.000070		mg/L	0.005		11-OCT
WQG = Health Canada Guideline Limits updated	JUNE 2019					
CDWQG for Nitrate+Nitrite-N is the limit for nitrate only Furbidity guideline based on membrane filtration. For g ummary 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 ter Quality	ventional treatm	ent and slow sand	N.D. = less than de or diatomaceous e	tection limit. arth filtration plea	se see
Approved by Edward Ngai Account Manager						

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VANCOUVER SCHOOL BOARD Maintenance and Construction 1549 Clark Drive Vancouver BC V5L 3L4 ATTN: Stephen Thomas

Date: 16-OCT-19 PO No.: 1517879 WO No.: L2362037 LSD: Project Ref: TILLICUM ELEMENTARY Sample ID: RM.105 DF Sampled By: ROBIN LEMAY Date Collected: 08-OCT-19 Lab Sample ID: L2362037-3 Matrix: WATER

PAGE 3 of 4

Test Description	Result	Qualifier	Units of Measure	CDWQG MAC	Aesthetic Objective	Date Analyze
Total Metals Lead (Pb)-Total	0.000228		mg/L	0.005		11-OCT-
DWQG = Health Canada Guideline Limits updated	JUNE 2019					
CDWQG for Nitrate+Nitrite-N is the limit for nitrate only Turbidity guideline based on membrane filtration. For ummary 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	N.D. = less than de or diatomaceous e	tection limit. arth filtration plea	ise see
Approved by Edward Ngai Account Manager						

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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.
Manganese*	Criteria limit is 0.12 mg/L. Possible neurological effects in infants.

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

Aesthetic Objective Conce	entration 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
Calcium	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.
рН	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 Heterotrophic	Causes staining to laundry and porcelain and astringent taste. Oxidizes to red-brown precipitate on exposure to air.
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



COC Number: 17 - 756190

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Phone:	604-713-5637		Compare Results to Criteria on Report - provide details below if box checked				§ 4 day [P4-20%] [] 9 1 E § 4 day [P3-25%] [] 2 gas § 2 day [P2-50%] [] 1 (Lai) []					Sam	ame Day, Weekend or Statutory holiday (E2 -200%					-200%	
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City/Province:	Vancouver B.C.		Email 2 rlenay@usb.bc.ca Fort				For tests that can not be performed according to the service level selected, you will be contacted.												
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Drinking	g Water (DW) Samples ¹ (client use)		add on report by click	king on the drop-de	own list below				SAM	-	_	_	ECEIVED) (lab use	only)				
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1. If any water samples are taken from a Regulated Drinking Water (DW) System, please submit using an Authorized DW COC form.