

**Date:** 18-OCT-19 **PO No.:** 1517879 **WO No.:** L2363900

LSD:

Project Ref: WAVERLEY ELEMENTARY

Sample ID: RM. 186 BUB
Sampled By: Robin Lemay
Date Collected: 10-OCT-19
Lab Sample ID: L2363900-1

Matrix: Water

| Vancouver BC V5L 3L4 ATTN: Stephen Thomas  |                                  |                  | Watrix. Wate        | ei           | PAGE                   | 1 of 18          |
|--|----------------------------------|------------------|---------------------|--------------|------------------------|------------------|
| Test Description   | Result                           | Qualifier        | Units of<br>Measure | CDWQG<br>MAC | Aesthetic<br>Objective | Date<br>Analyzed |
| Total Metals<br>Lead (Pb)-Total  | 0.000068                         |                  | mg/L                | 0.005        |                        | 17-OCT-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 | juidelines on con<br>ter Quality | ventional treatm | ent and slow sand   |              |                        | ase see          |

Account Manager





Date: 18-OCT-19 PO No.: 1517879 WO No.: L2363900

LSD:

Project Ref: WAVERLEY ELEMENTARY

Sample ID: RM. 187 BUB
Sampled By: Robin Lemay

Date Collected: 10-OCT-19
Lab Sample ID: L2363900-2

Matrix: Water

| Vancouver BC V5L 3L4 ATTN: Stephen Thomas  |                                  |                  | Matrix: Wate        | er           | PAGE                   | 2 of 18          |
|--|----------------------------------|------------------|---------------------|--------------|------------------------|------------------|
| Test Description   | Result                           | Qualifier        | Units of<br>Measure | CDWQG<br>MAC | Aesthetic<br>Objective | Date<br>Analyzed |
| Total Metals<br>Lead (Pb)-Total  | 0.000161                         |                  | mg/L                | 0.005        |                        | 17-OCT-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<br>ter Quality | ventional treatm | ent and slow sand   |              |                        | ise see          |

Account Manager





**VANCOUVER SCHOOL BOARD Maintenance and Construction** 1549 Clark Drive

**Date:** 18-OCT-19 **PO No.:** 1517879 WO No.: L2363900

LSD:

Project Ref: WAVERLEY ELEMENTARY

Sample ID: RM. 184 BUB Sampled By: Robin Lemay Date Collected: 10-OCT-19 **Lab Sample ID:** L2363900-3

Matrix: Water

|                                   |  | watrix: wate  | er  | PAGE  | 3 of 18  |
|-----------------------------------|--|---|---|---|--|
| Result                            | Qualifier  | Units of<br>Measure   | CDWQG<br>MAC  | Aesthetic<br>Objective  | Date<br>Analyzed   |
| 0.000050                          |  | mg/L  | 0.005   |   | 17-OCT-19  |
| guidelines on cor<br>ater Quality | ventional treatm   | ent and slow sand   |   |   | ase see  |
|                                   | 0.000050  JUNE 2019  If present as N guidelines on corater Quality | 0.000050  JUNE 2019  JUNE 2019 | Result Qualifier Units of Measure  0.000050 mg/L  JUNE 2019  If present as Nitrate then the limit is 10mg/L < or guidelines on conventional treatment and slow sand | Qualifier Measure MAC  0.000050 mg/L 0.005  JUNE 2019  v. If present as Nitrate then the limit is 10mg/L < or N.D. = less than deguidelines on conventional treatment and slow sand or diatomaceous eater Quality | Result Qualifier Units of CDWQG Aesthetic Objective  0.000050 mg/L 0.005  JUNE 2019  If present as Nitrate then the limit is 10mg/L < or N.D. = less than detection limit. guidelines on conventional treatment and slow sand or diatomaceous earth filtration pleater Quality |

Account Manager





**Date:** 18-OCT-19 **PO No.:** 1517879 **WO No.:** L2363900

LSD:

Project Ref: WAVERLEY ELEMENTARY

Sample ID: RM. 183 BUB
Sampled By: Robin Lemay

Date Collected: 10-OCT-19
Lab Sample ID: L2363900-4

Matrix: Water

| Vancouver BC V5L 3L4 ATTN: Stephen Thomas  |                                  |                  | watrix: wate        | er           | PAGE                   | 4 of 18          |
|--|----------------------------------|------------------|---------------------|--------------|------------------------|------------------|
| Test Description   | Result                           | Qualifier        | Units of<br>Measure | CDWQG<br>MAC | Aesthetic<br>Objective | Date<br>Analyzed |
| Total Metals<br>Lead (Pb)-Total  | <0.000050                        |                  | mg/L                | 0.005        |                        | 17-OCT-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<br>ter Quality | ventional treatm | ent and slow sand   |              |                        | ise see          |

Account Manager





Date: 18-OCT-19 PO No.: 1517879 WO No.: L2363900

LSD:

Project Ref: WAVERLEY ELEMENTARY

Sample ID: RM. 188 BUB
Sampled By: Robin Lemay

Date Collected: 10-OCT-19
Lab Sample ID: L2363900-5

Matrix: Water

| Vancouver BC V5L 3L4 ATTN: Stephen Thomas  |                                  |                  | watrix: wate        | er           | PAGE                   | 5 of 18          |
|--|----------------------------------|------------------|---------------------|--------------|------------------------|------------------|
| Test Description   | Result                           | Qualifier        | Units of<br>Measure | CDWQG<br>MAC | Aesthetic<br>Objective | Date<br>Analyzed |
| Total Metals<br>Lead (Pb)-Total  | <0.000050                        |                  | mg/L                | 0.005        |                        | 17-OCT-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<br>ter Quality | ventional treatm | ent and slow sand   |              |                        | ise see          |

Account Manager





Date: 18-OCT-19 PO No.: 1517879 WO No.: L2363900

LSD:

Project Ref: WAVERLEY ELEMENTARY

Sample ID: RM. 189 BUB
Sampled By: Robin Lemay
Date Collected: 10-OCT-19
Lab Sample ID: L2363900-6

Matrix: Water

| Vancouver BC V5L 3L4 ATTN: Stephen Thomas   |                                   |                  | Matrix: Wat         | er           | PAGE                   | 6 of 18          |
|---|-----------------------------------|------------------|---------------------|--------------|------------------------|------------------|
| Test Description  | Result                            | Qualifier        | Units of<br>Measure | CDWQG<br>MAC | Aesthetic<br>Objective | Date<br>Analyzed |
| Total Metals<br>Lead (Pb)-Total   | <0.000050                         |                  | mg/L                | 0.005        |                        | 17-OCT-19        |
| CDWQG = Health Canada Guideline Limits updated  * CDWQG for Nitrate+Nitrite-N is the limit for nitrate onl  * 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<br>ater Quality | ventional treatm | ent and slow san    |              |                        | ise see          |
| Approved by  Edward Ngai  Account Manager   | <del></del>                       |                  |                     |              |                        |                  |





Date: 18-OCT-19 PO No.: 1517879 WO No.: L2363900

LSD:

Project Ref: WAVERLEY ELEMENTARY

Sample ID: RM. 182 BUB
Sampled By: Robin Lemay

Date Collected: 10-OCT-19
Lab Sample ID: L2363900-7

| Vancouver BC V5L 3L4 ATTN: Stephen Thomas  |                                   |                  | Matrix: Wate        | er           | PAGE                   | 7 of 18          |
|--|-----------------------------------|------------------|---------------------|--------------|------------------------|------------------|
| Test Description   | Result                            | Qualifier        | Units of<br>Measure | CDWQG<br>MAC | Aesthetic<br>Objective | Date<br>Analyzed |
| Total Metals<br>Lead (Pb)-Total  | <0.000050                         |                  | mg/L                | 0.005        |                        | 17-OCT-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<br>ater Quality | ventional treatm | ent and slow sand   |              |                        | se see           |
| Approved by Edward Ngai  | _                                 |                  |                     |              |                        |                  |

Account Manager





Date: 18-OCT-19 PO No.: 1517879 WO No.: L2363900

LSD:

Project Ref: WAVERLEY ELEMENTARY

Sample ID: RM. 190 BUB
Sampled By: Robin Lemay

Date Collected: 10-OCT-19
Lab Sample ID: L2363900-8

Matrix: Water

| Vancouver BC V5L 3L4 ATTN: Stephen Thomas  |                                  |                  | watrix: wate        | er           | PAGE                   | 8 of 18          |
|--|----------------------------------|------------------|---------------------|--------------|------------------------|------------------|
| Test Description   | Result                           | Qualifier        | Units of<br>Measure | CDWQG<br>MAC | Aesthetic<br>Objective | Date<br>Analyzed |
| Total Metals<br>Lead (Pb)-Total  | 0.000158                         |                  | mg/L                | 0.005        |                        | 17-OCT-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<br>ter Quality | ventional treatm | ent and slow sand   |              |                        | ise see          |

Account Manager





Date: 18-OCT-19 PO No.: 1517879 WO No.: L2363900

LSD:

Project Ref: WAVERLEY ELEMENTARY

Sample ID: RM. 181 BUB
Sampled By: Robin Lemay

Date Collected: 10-OCT-19
Lab Sample ID: L2363900-9

Matrix: Water

| Vancouver BC V5L 3L4 ATTN: Stephen Thomas   |                                   |                  | watrix: wat         | er           | PAGE                   | 9 of 18          |
|---|-----------------------------------|------------------|---------------------|--------------|------------------------|------------------|
| Test Description  | Result                            | Qualifier        | Units of<br>Measure | CDWQG<br>MAC | Aesthetic<br>Objective | Date<br>Analyzed |
| Total Metals<br>Lead (Pb)-Total   | 0.000934                          |                  | mg/L                | 0.005        |                        | 17-OCT-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<br>iter Quality | ventional treatm | ent and slow sand   |              |                        | se see           |
| Approved by  Edward Ngai  Account Manager   |                                   |                  |                     |              |                        |                  |





Date: 18-OCT-19 PO No.: 1517879 WO No.: L2363900

LSD:

Project Ref: WAVERLEY ELEMENTARY

Sample ID: RM. 113 DF
Sampled By: Robin Lemay

Date Collected: 10-OCT-19
Lab Sample ID: L2363900-10

Matrix: Water

| Vancouver BC V5L 3L4 ATTN: Stephen Thomas  |                                   |                  | Matrix: Wate        | er           | PAGE                   | 10 of 18         |
|--|-----------------------------------|------------------|---------------------|--------------|------------------------|------------------|
| Test Description   | Result                            | Qualifier        | Units of<br>Measure | CDWQG<br>MAC | Aesthetic<br>Objective | Date<br>Analyzed |
| Total Metals  Lead (Pb)-Total  | 0.000157                          |                  | mg/L                | 0.005        |                        | 17-OCT-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<br>ater Quality | ventional treatm | ent and slow sand   |              |                        | ase see          |
| Approved by Edward Ngai Account Manager  | <del></del>                       |                  |                     |              |                        |                  |





Date: 18-OCT-19 PO No.: 1517879 WO No.: L2363900

LSD:

Project Ref: WAVERLEY ELEMENTARY
Sample ID: CORR. 152 RM. 121 SSDF

Sampled By: Robin Lemay
Date Collected: 10-OCT-19
Lab Sample ID: L2363900-11
Matrix: Water

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| Test Description  | Result          | Qualifier          | Units of<br>Measure | CDWQG<br>MAC      | Aesthetic<br>Objective | Date<br>Analyzed |
|---|-----------------|--------------------|---------------------|-------------------|------------------------|------------------|
| Total Metals<br>Lead (Pb)-Total                             | 0.000504        |                    | mg/L                | 0.005             |                        | 17-OCT-19        |
| CDWQG = Health Canada Guideline Limits updated              | JUNE 2019       |                    |                     |                   |                        |                  |
| * CDMOC for Nitrota Mitrita Ni ia tha limit for nitrota and | If propert on N | itrata than tha li | mit in 10mm/l       | N.D. Jose then de | lootion limit          |                  |

- \* 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





Date: 18-OCT-19 **PO No.:** 1517879 WO No.: L2363900

Project Ref: WAVERLEY ELEMENTARY Sample ID: CORR. 126 RM. 122 SSDF

Sampled By: Robin Lemay Date Collected: 10-OCT-19 **Lab Sample ID:** L2363900-12 Matrix: Water

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| Test Description  | Result            | Qualifier          | Units of<br>Measure    | CDWQG<br>MAC         | Aesthetic<br>Objective | Date<br>Analyzed |
|---|-------------------|--------------------|------------------------|----------------------|------------------------|------------------|
| Total Metals<br>Lead (Pb)-Total                             | 0.000063          |                    | mg/L                   | 0.005                |                        | 17-OCT-19        |
| CDWQG = Health Canada Guideline Limits updated              | JUNE 2019         |                    |                        |                      |                        |                  |
| * CDWQG for Nitrate+Nitrite-N is the limit for nitrate only | . If present as N | itrate then the li | <br>mit is 10ma/L < or | N.D. = less than det | tection 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





Date: 18-OCT-19 **PO No.:** 1517879 WO No.: L2363900

Project Ref: WAVERLEY ELEMENTARY Sample ID: CORR. 126 RM. 125 SSDF

Sampled By: Robin Lemay Date Collected: 10-OCT-19 Lab Sample ID: L2363900-13 Matrix: Water

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| Test Description  | Result Qualifier  |                    | Units of<br>Measure    | CDWQG<br>MAC        | Aesthetic<br>Objective | Date<br>Analyzed |
|---|-------------------|--------------------|------------------------|---------------------|------------------------|------------------|
| Total Metals<br>Lead (Pb)-Total                             | 0.000082          |                    | mg/L                   | 0.005               |                        | 17-OCT-19        |
| CDWQG = Health Canada Guideline Limits updated              | JUNE 2019         |                    |                        |                     |                        |                  |
| * CDWQG for Nitrate+Nitrite-N is the limit for nitrate only | . If present as N | itrate then the li | <br>mit is 10ma/L < or | N.D. = less than de | tection 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





Date: 18-OCT-19 PO No.: 1517879 WO No.: L2363900

LSD:

Project Ref: WAVERLEY ELEMENTARY
Sample ID: CORR. 100 RM. 135 SSDF

Sampled By: Robin Lemay
Date Collected: 10-OCT-19
Lab Sample ID: L2363900-14
Matrix: Water

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| ATTN: Stephen Thomas  |                                   |                  |                     |              |                        |                  |
|---|-----------------------------------|------------------|---------------------|--------------|------------------------|------------------|
| Test Description  | Result                            | Qualifier        | Units of<br>Measure | CDWQG<br>MAC | Aesthetic<br>Objective | Date<br>Analyzed |
| Total Metals<br>Lead (Pb)-Total   | 0.000450                          |                  | mg/L                | 0.005        |                        | 17-OCT-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 con<br>iter Quality | ventional treatm | ent and slow sand   |              |                        | se see           |

Approved by

Edward Ngai Account Manag

Account Manager





Date: 18-OCT-19 PO No.: 1517879 WO No.: L2363900

LSD:

Project Ref: WAVERLEY ELEMENTARY

Sample ID: RM. 169 DF
Sampled By: Robin Lemay
Date Collected: 10-OCT-19
Lab Sample ID: L2363900-15

Matrix: Water

| Vancouver BC V5L 3L4 ATTN: Stephen Thomas   |                                   |                  | Matrix: Wate        | er           | PAGE                   | 15 of 18         |
|---|-----------------------------------|------------------|---------------------|--------------|------------------------|------------------|
| Test Description  | Result                            | Qualifier        | Units of<br>Measure | CDWQG<br>MAC | Aesthetic<br>Objective | Date<br>Analyzed |
| Total Metals<br>Lead (Pb)-Total   | 0.000528                          |                  | mg/L                | 0.005        |                        | 17-OCT-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<br>ater Quality | ventional treatm | ent and slow sand   |              |                        | ase see          |
| Approved by  Edward Ngai  Account Manager   | <del></del>                       |                  |                     |              |                        |                  |





**Date:** 18-OCT-19 **PO No.:** 1517879 **WO No.:** L2363900

LSD:

Project Ref: WAVERLEY ELEMENTARY

Sample ID: RM. 161 DF
Sampled By: Robin Lemay

Date Collected: 10-OCT-19
Lab Sample ID: L2363900-16

Matrix: Water

| Vancouver BC V5L 3L4 ATTN: Stephen Thomas  |                                   |                  | Matrix: Wate        | er           | PAGE                   | 16 of 18         |
|--|-----------------------------------|------------------|---------------------|--------------|------------------------|------------------|
| Test Description   | Result                            | Qualifier        | Units of<br>Measure | CDWQG<br>MAC | Aesthetic<br>Objective | Date<br>Analyzed |
| Total Metals<br>Lead (Pb)-Total  | 0.0109                            |                  | mg/L                | 0.005        |                        | 17-OCT-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<br>iter Quality | ventional treatm | ent and slow sand   |              |                        | ase see          |
| Approved by  Edward Ngai  Account Manager  | <u> </u>                          |                  |                     |              |                        |                  |





**Date:** 18-OCT-19 **PO No.:** 1517879 WO No.: L2363900

LSD:

Project Ref: WAVERLEY ELEMENTARY Sample ID: CORR. 157 RM. 159 SSDF

Sampled By: Robin Lemay Date Collected: 10-OCT-19 Lab Sample ID: L2363900-17 Matrix: Water

| Total Metals   | Vancouver BC V5L 3L4 ATTN: Stephen Thomas   |   |                  | matrixi vva       | 51    | PAGE | 17 of 18         |
|--|---|---|------------------|-------------------|-------|------|------------------|
| Lead (Pb)-Total  0.000128  mg/L  0.005  17-OCT-1  CDWQG = Health Canada Guideline Limits updated  * 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. | Test Description  | Result  | Qualifier        |                   |       |      | Date<br>Analyzed |
| * 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.   |   | 0.000128  |                  | mg/L              | 0.005 |      | 17-OCT-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. | <ul> <li>If present as N<br/>guidelines on cor<br/>ter Quality</li> </ul> | ventional treatm | ent and slow sand |       |      | ase see          |

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.

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

\*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

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.

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.

Heterotrophic

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.

# ALS Environmental

Chain of Custody (COC) / Analytical Request Form

2363900-COFC

1 1 11 1 1 m bly = ...

COC Number: 17 - 762170

Canada Toll Free: 1 800 668 9878

Contact and company name below will appear on the final report Report To Report Fo. Select Service Level Below - Contact your AM to confirm all E&P TATs (surcharges may apply) Regular [R] Company: Varcouver School Select Report Format: PDF EXCEL | EDD (DIGITAL) Standard TAT if received by 3 pm - business days - no surcharges apply Stephen Thomas Contact: Quality Control (QC) Report with Report 4 day [P4-20%] 1 Business day [E - 100%] Compare Results to Criteria on Report - provide details below if box checked Phóne: 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 2 day [P2-50%] Email 1 or Fax 55 thomas @ USb. bc.ca Clark Date and Time Required for all E&P TATs: dd-mmm-yy hh:mm City/Province: rlemay@usb.bc.ca or tests that can not be performed according to the service level selected, you will be contacted. Vancou V e c Postal Code: Email 3 **Analysis Request** Invoice To Same as Report To YES NO Invoice Distribution Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below HOLD CONTAINERS Select Invoice Distribution: FAX EMAIL MAIL FAX Copy of Invoice with Report YES 55thomas@usb.bc.ca Company: Contact: rlenav@usb. bc.ca N O Project Information Oil and Gas Required Fields (client use) ALS Account # / Quote #: AFE/Cost Center: Waverley taior/Minor Code Routing Code: **AMPLES** PO / AFE: Requisitioner: ō LSD: ocation: Sampler: Robin Lena ALS Lab Work Order # (lab use only): ALS Contact: Sample Identification and/or Coordinates Date ALS Sample # Sample Type (lab use only) (This description will appear on the report) (dd-mmm-yy) (hh:mm) 2 5 ľο Rn. 121 55 DF 11 12 R~ 122 SAMPLE CONDITION AS RECEIVED (lab use only) Special Instructions / Specify Criteria to add on report by clicking on the drop-down list below Drinking Water (DW) Samples' (client use) (electronic COC only) Frozen SIF Observations No Are samples taken from a Regulated DW System? No preservatives added YES NO Cooling Initiated 🖊 Are samples for human consumption/ use? INDITIAL COOLER TEMPERATURES °C FINAL COOLER TEMPERATURES °C | YES | NO INITIAL SHIPMENT RECEPTION (lab use only) FINAL SHIPMENT RECEPTION (lab use only) SHIPMENT RELEASE (client use) Released by: Time: Received by: Time: Received by: (JA 2 D REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION WHITE - LABORATORY COPY YELLOW - CLIENT COPY



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

COC Number: 17 - 762169
Page 2 of 2

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|  |  |                        |  |                     | 01            | /C 5             |  |                |   |                  |            |          |             |              |           |      |          |  |  |  |  |  |  |
|--|--|------------------------|--|---------------------|---------------|------------------|--|----------------|---|------------------|------------|----------|-------------|--------------|-----------|------|----------|--|--|--|--|--|--|
| Report To  | Contact and company name below will appear on the final report   |                        | Report Fol   |                     |               |                  | selow - Contact your AM to confirm all E&P TATs (surcharges may apply) |                |   |                  |            |          |             |              |           |      |          |  |  |  |  |  |  |
| Company:   | Vancouver School Board   | Select Report          | Format: DPDF   | EXCEL~ ~~r··        |               |                  |  |                | Standard  | TAT if r         | eceived by | 3 pm - b | business da | ays - no sui | charges a | pply | ·        |  |  |  |  |  |  |
| Contact:   | Stephen Thomas   | Quality Contro         | Quality Control (QC) Report with Report YES NO                               |                     |               |                  |  | -4-0           |   |                  |            |          |             |              |           |      |          |  |  |  |  |  |  |
| Phone:   | 604 713-5637   |                        | Compare Results to Criteria on Report - provide details below if box checked |                     |               |                  | 3 day (P3  | · · ·          | [E2 -2009] Same Day, Weekend or Statutory holiday               |                  |            |          |             |              |           |      | -200%    |  |  |  |  |  |  |
|  | Company address below will appear on the final report  | Select Distribu        |  | MAIL []             |               | <del>  ~  </del> | 2 day [P2  |                |   |                  |            |          |             |              |           |      |          |  |  |  |  |  |  |
| Street:  | 1549 Clark Dr  |                        | ssthonas   |                     |               | <u> </u>         | Date and Tir   | ne Required t  | for all E&F   | TATs:            |            |          |             | dd-mn        | ım-yy h   | h:mm | nm       |  |  |  |  |  |  |
| City/Province:   | Vancouver B.C.   |                        | lenay @ 1  | <u>156. kc.c</u>    | Δ             | For tests        | that can not b   | e performed as | ccording to   | the servi        |            |          |             | ntacted.     |           |      |          |  |  |  |  |  |  |
| Postal Code:   |  | Email 3                | Email 3  |                     |               |                  |  |                |   | Analysis Request |            |          |             |              |           |      |          | ,  |  |  |  |  |  |
| Invoice To   | Same as Report To YES NO   |                        | Invoice Di   |                     |               | ام⊦              | T  | Indicate Fi    | Itered (F), Preserved (P) or Filtered and Preserved (F/P) below |                  |            |          |             |              |           |      |          | <sub>€</sub>                                     |  |  |  |  |  |
|  | Copy of Invoice with Report YES NO   | Select Invoice         |  | MAIL MAIL           |               |                  |  |                |   |                  |            | _ _      |             |              |           |      | OL       | 탏  |  |  |  |  |  |
| Company:   |  | Email 1 or Fax         | 7) // (//)   |                     |               | CONTAINER        | -  |                |   | 1                |            |          |             |              |           |      | <u>0</u> | truc   |  |  |  |  |  |
| Contact:   | 1  | Email 2 🥋              | lenaye v   |                     |               | Ι≣Ι              |  |                |   |                  | ļ.         | -        |             |              |           |      | I        | l se   |  |  |  |  |  |
|  | Project Information  |                        | Oil and Gas Require  | * * ****            | ė)            | 151              |  |                |   |                  |            |          |             |              |           |      | Z        | ecia   |  |  |  |  |  |
| ALS Account # /  |  | AFE/Cost Center.       |  | PO#                 |               | 101              |  |                |   |                  |            | -        |             |              |           |      | O        | e Sp   |  |  |  |  |  |
|  | werley Elementary  | Major/Minor Code:      |  | Routing Code:       |               | 101              |  |                | 1   |                  |            |          |             |              |           |      | S        | (se  |  |  |  |  |  |
| PO / AFE:  |  | Requisitioner:         |  | <del></del>         |               | ┨┇┞              |  | .              |   |                  |            |          |             |              |           |      | Щ        | ARD  |  |  |  |  |  |
| LSD:   | · · · · · · · · · · · · · · · · · · ·  | Location:              |  | 71                  |               |                  | 7  |                | -   |                  |            |          |             |              |           |      | 귑        | Ψ¥   |  |  |  |  |  |
| ALS Lab Wor  | rk Order# (lab use only):  | ALS Contact:           |  | Sampler: Rob        | in Lemay      | NUMBER           | Car  |                |   |                  |            |          |             |              |           |      | AMF      | SUSPECTED HAZARD (see Special Instructions)      |  |  |  |  |  |
| ALS Sample #   | Sample Identification and/or Coordinate  | s                      | Date   | Time                | Sample Type   | 151              | 7  |                |   |                  |            |          |             |              |           |      |          | SPE  |  |  |  |  |  |
| (lab use only)   | (This description will appear on the report  |                        | (dd-mmm-yy)  | (hh:mm)             | bample Type   | Z                |  |                |   |                  |            |          |             |              |           |      | ္        | ng<br>Si   |  |  |  |  |  |
| 13   |  | DF                     | 10-10-19   | 1:20pm              | water         |                  |  |                |   |                  |            |          |             |              |           |      |          |  |  |  |  |  |  |
| 14   | Coss, 100 Rn. 135 55   | DF                     | F 10-10-19 1:23pm water  |                     |               | 1 1              |  |                |   |                  |            |          |             |              |           |      |          |  |  |  |  |  |  |
| 15   | Rm. 169 DF   | -                      | 10-10-19   | 1:27 pm             | water         |                  |  |                |   |                  |            |          |             |              |           |      |          |  |  |  |  |  |  |
| 16   | Rn. 161 DF   |                        | 10-10-19   | 1.32 on             | water         |                  |  | 1 1            | <del></del>   | 1. 1             |            | $\top$   |             |              |           |      |          | <b>†</b>   |  |  |  |  |  |
| 17   | 7 7 7 1-0  | SSDF                   | 10-10-19   | 1:36 pm             | <del> </del>  | +                |  |                | +   |                  |            | +        |             | · -          |           |      |          | <del>                                     </del> |  |  |  |  |  |
| 1.7  | Corr, 13+ Km. 157  | 77DF                   | 10 10 17   | 1 20 pm             | Water         | ++               | <del></del>  | 1              |   |                  |            | _        | -           |              |           | +    |          | <b>├</b> ┈─                                      |  |  |  |  |  |
|  |  |                        |  |                     |               | ++               |  | -              |   |                  |            |          |             |              |           | -    |          | $\vdash$   |  |  |  |  |  |
|  |  |                        |  | ļ                   |               | -                |  |                | _   | $\sqcup$         |            | _        |             |              | _         | 1    |          | _  |  |  |  |  |  |
|  |  |                        |  | <u> </u>            |               | <u> </u>         |  |                |   | <u> </u>         |            | .        | <u></u>     |              |           | İ    |          |  |  |  |  |  |  |
|  | :  |                        |  |                     | l             | <u>L.</u>        |  |                |   |                  |            |          |             | ٠ .          |           |      |          | L  |  |  |  |  |  |
|  |  |                        |  |                     |               |                  |  |                |   |                  |            |          |             |              |           |      |          |  |  |  |  |  |  |
|  |  | -                      | ·  |                     |               |                  |  |                |   |                  |            |          |             | f .          |           |      |          |  |  |  |  |  |  |
|  |  | ··                     |  |                     |               | 1                | 1  |                |   |                  |            | _        | $\top$      |              |           |      |          | 1  |  |  |  |  |  |
|  | Special Instruct   | ons / Specify Criteria | to add on report by clic   | king on the drop-do | wn list below | ╁┈╌              |  |                | SAMPL   | E CON            | DITION     | AS RE    | CEIVED      | (lab use     | only)     |      |          |  |  |  |  |  |  |
| Drinking Water (DW) Samples' (client use)  Special Instructions / Specify Criteria to add on report by (electronic COC only) |  |                        |  |                     | Frozen        | 1                |  |                | SIF O   | bservatio        | ons        | Yes      |             | -            | No        |      |          |  |  |  |  |  |  |
| •  | n from a Regulated DW System?  |                        | ,  |                     | •             | Ice Pad          | cks 📝  | Ice Cube       | s 🔲   | Custo            | dy seal i  | ntact    | Yes         |              |           | No   | . 1      |  |  |  |  |  |  |
| ☐ YI   | ES NO NO   | soco (Va               | +1:125   | addec               | ×/            | Cooling          | Initiated  | -2             |   |                  |            |          |             |              |           |      |          |  |  |  |  |  |  |
| Are samples for h  | I YES [ NO No preservatives added   Preservatives added   No preservatives added   Preservatives added   No preservatives |                        |  |                     | INIITIA       | L COOLER TI      | EMPERAT  | URES °C        | )   | $\perp$          |            | FINAL CO | OLER TE     | MPERATU      | RES °C    | ,    |          |  |  |  |  |  |  |
|  | ES   NO  | <u> </u>               |  |                     |               | <u> </u>         |  |                |   | L                |            |          |             |              |           |      |          |  |  |  |  |  |  |
|  | SHIPMENT RELEASE (client use)  |                        | INITIAL SHIPMEN  |                     | b use only)   | 1=               |  |                |   | FINAL            |            |          | ECEPTION    | ON (lab      | use onl   | y)   |          |  |  |  |  |  |  |
| Released by:   | Date:  | ne: Received by:       |  | Date:               |               | Time:            | Rec  | eived by:      | 1.  | IX               | þ          | ate:     |             | 10           | 1. 1      | 9    | Time:    | <i>5</i> ρ                                       |  |  |  |  |  |
| REFER TO BACK  | PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION  |                        | WHI  | TE - LABORATORY     | COPY YELLO    | U - CLIEI        | NT COPY  |                |   | 74.              |            |          |             | 1 -          | 1,        | —    | JUNE.    | 2018 FRONT                                       |  |  |  |  |  |
|  |  |                        |  |                     |               |                  |  |                |   |                  |            |          |             |              |           |      |          |  |  |  |  |  |  |