



# North Island Laboratories

• 2755 B Moray Avenue, Courtenay, B.C. V9N 8M9 Tel: (250) 338-7786 Fax: (250) 338-7553

## Certificate of Analysis

Report To: Don Buchner  
330 Horne Lake Rd.  
Qualicum Beach, BC V9K 1Z6

Lab Number: 111440  
Date Reported: 7 Jul 14  
Date Completed: 7 Jul 14  
Date Received: 23 Jun 14 12:43

### **111440-01 Little Qual River Village Well #2**

Sampled By: Don Buchner  
Sampling Date: 23 Jun 14 0:00

| Test                  | Result   | Units        | Drinking Water Guideline |
|-----------------------|----------|--------------|--------------------------|
| Total ammonia - N     | <0.02    | mg/L         |                          |
| Total Coliforms (DES) | <1.0     | MPN/100mL    | <1                       |
| E. coli (DES)         | <1.0     | MPN/100mL    | <1                       |
| Colour - Apparent     | <5       | Colour Units | 15                       |
| UV Transmittance      | 99.0     | %/cm         |                          |
| Fluoride              | 0.02     | mg/L         | 1.5 MAC                  |
| Chloride              | 1.93     | mg/L         | 250 AO                   |
| Nitrate (N)           | 0.40     | mg/L         | 10 MAC                   |
| Nitrite (N)           | <0.01    | mg/L         | 1 MAC                    |
| Sulphate              | 1.6      | mg/L         | 500 AO                   |
| T-Aluminium           | <0.025   | mg/L         | 0.1 Operational Std.     |
| T-Antimony            | <0.0005  | mg/L         | 0.006 MAC                |
| T-Arsenic             | <0.00025 | mg/L         | 0.010 MAC                |
| T-Barium              | 0.00326  | mg/L         | 1.0 MAC                  |
| T-Beryllium           | <0.00025 | mg/L         |                          |
| T-Bismuth             | <0.0005  | mg/L         |                          |
| T-Boron               | 0.013    | mg/L         | 5 IMAC                   |
| T-Cadmium             | <0.00005 | mg/L         | 0.005 MAC                |
| T-Calcium             | 14.2     | mg/L         |                          |
| T-Chromium            | <0.0025  | mg/L         | 0.05 MAC                 |
| T-Cobalt              | <0.0005  | mg/L         |                          |
| T-Copper              | 0.002    | mg/L         | 1.0 AO                   |
| T-Iron                | <0.010   | mg/L         | 0.3 AO                   |
| T-Lead                | <0.0005  | mg/L         | 0.010 MAC                |
| T-Lithium             | <0.0025  | mg/L         |                          |
| T-Magnesium           | 2.33     | mg/L         |                          |

AO = Aesthetic Objective; MAC = Max. Allowable Concentration; IMAC = Interim MAC

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Canadian Drinking Water Guidelines as listed on Dec. 5th, 2005 and are subject to change. Method uncertainties for specified analyses are available upon request.

7/7/2014 14:01

Page 1 of 4



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**111440-01 Little Qual River Village Well #2**

Sampled By: Don Buchner

Sampling Date: 23 Jun 14 0:00

| Test                                    | Result   | Units                     | Drinking Water Guideline |
|-----------------------------------------|----------|---------------------------|--------------------------|
| T-Manganese                             | <0.0050  | mg/L                      | 0.05 AO                  |
| T-Molybdenum                            | <0.00025 | mg/L                      |                          |
| T-Nickel                                | <0.0010  | mg/L                      |                          |
| T-Potassium                             | <0.5     | mg/L                      |                          |
| T-Selenium                              | <0.0005  | mg/L                      | 0.01 MAC                 |
| T-Silicon                               | 8.62     | mg/L                      |                          |
| T-Silver                                | <0.00025 | mg/L                      |                          |
| T-Sodium                                | 2.4      | mg/L                      | 200 AO                   |
| T-Strontium                             | 0.0317   | mg/L                      |                          |
| T-Thallium                              | <0.00005 | mg/L                      |                          |
| T-Tin                                   | <0.0005  | mg/L                      |                          |
| T-Titanium                              | <0.0025  | mg/L                      |                          |
| T-Uranium                               | <0.00005 | mg/L                      | 0.02 MAC                 |
| T-Vanadium                              | 0.0011   | mg/L                      |                          |
| T-Zinc                                  | 0.0266   | mg/L                      | 5 AO                     |
| Hardness (CaCO <sub>3</sub> )           | 45       | mg/L                      |                          |
| Tannins & Lignins                       | <0.1     | mg/L                      | 0.4 AO                   |
| pH at 25 C                              | 6.4      | pH Units                  | 6.5-8.5                  |
| Alkalinity                              | 42       | mg/L (CaCO <sub>3</sub> ) |                          |
| Turbidity                               | <0.5     | NTU's                     | 5 AO                     |
| Total Dissolved Solids (conductivity ca | 63       | mg/L                      | 500 AO                   |
| Total Nitrogen (N)                      | 0.46     | mg/L                      |                          |
| Total Organic Nitrogen                  | 0.5      | mg/L                      |                          |

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7/7/2014 14:01

Page 2 of 4



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## 111440-01

| Test                          | Method                                             | Analyst | Date      |
|-------------------------------|----------------------------------------------------|---------|-----------|
| Alkalinity                    | Titration to 4.5, APHA 2320 B -modified            | NiSL    | 6/23/2014 |
| Chloride                      | Ion Chromatography, EPA 300.1 -modified            | EXL     | 6/26/2014 |
| Colour - Apparent             | Spectrophotometer, APHA 2120 C -modified           | NiSL    | 6/25/2014 |
| E. coli (DES)                 | Enzyme Substrate, APHA 9223 B -modified            | NiSL    | 6/23/2014 |
| Fluoride                      | Ion Chromatography, EPA 300.1 -modified            | EXL     | 6/26/2014 |
| Hardness (CaCO <sub>3</sub> ) | Hardness by Calculation, APHA 2340 B -modified     | NiSL    | 7/4/2014  |
| Nitrate (N)                   | Ion Chromatography, EPA 300.1 -modified            | EXL     | 6/25/2014 |
| Nitrite (N)                   | Ion Chromatography, EPA 300.1 -modified            | EXL     | 6/25/2014 |
| pH at 25 C                    | Electrometric, APHA 4500 B -modified               | NiSL    | 6/23/2014 |
| Sulphate                      | Ion Chromatography, EPA 300.1 -modified            | EXL     | 6/26/2014 |
| T-Aluminium                   | Exova Subcontract, ICP-AES,EPA6010C,200.8-modified | EXL     | 6/30/2014 |
| T-Antimony                    | Exova Subcontract, ICP-AES,EPA6010C,200.8-modified | EXL     | 6/30/2014 |
| T-Arsenic                     | Exova Subcontract, ICP-AES,EPA6010C,200.8-modified | EXL     | 6/30/2014 |
| T-Barium                      | Exova Subcontract, ICP-AES,EPA6010C,200.8-modified | EXL     | 6/30/2014 |
| T-Beryllium                   | Exova Subcontract, ICP-AES,EPA6010C,200.8-modified | EXL     | 6/30/2014 |
| T-Bismuth                     | Exova Subcontract, ICP-AES,EPA6010C,200.8-modified | EXL     | 6/30/2014 |
| T-Boron                       | Exova Subcontract, ICP-AES,EPA6010C,200.8-modified | EXL     | 6/30/2014 |
| T-Cadmium                     | Exova Subcontract, ICP-AES,EPA6010C,200.8-modified | EXL     | 6/30/2014 |
| T-Calcium                     | Exova Subcontract, ICP-AES,EPA6010C,200.8-modified | EXL     | 6/30/2014 |
| T-Chromium                    | Exova Subcontract, ICP-AES,EPA6010C,200.8-modified | EXL     | 6/30/2014 |
| T-Cobalt                      | Exova Subcontract, ICP-AES,EPA6010C,200.8-modified | EXL     | 6/30/2014 |
| T-Copper                      | Exova Subcontract, ICP-AES,EPA6010C,200.8-modified | EXL     | 6/30/2014 |
| T-Iron                        | Exova Subcontract, ICP-AES,EPA6010C,200.8-modified | EXL     | 6/30/2014 |
| T-Lead                        | Exova Subcontract, ICP-AES,EPA6010C,200.8-modified | EXL     | 6/30/2014 |
| T-Lithium                     | Exova Subcontract, ICP-AES,EPA6010C,200.8-modified | EXL     | 6/30/2014 |
| T-Magnesium                   | Exova Subcontract, ICP-AES,EPA6010C,200.8-modified | EXL     | 6/30/2014 |
| T-Manganese                   | Exova Subcontract, ICP-AES,EPA6010C,200.8-modified | EXL     | 6/30/2014 |
| T-Molybdenum                  | Exova Subcontract, ICP-AES,EPA6010C,200.8-modified | EXL     | 6/30/2014 |
| T-Nickel                      | Exova Subcontract, ICP-AES,EPA6010C,200.8-modified | EXL     | 6/30/2014 |
| T-Potassium                   | Exova Subcontract, ICP-AES,EPA6010C,200.8-modified | EXL     | 6/30/2014 |
| T-Selenium                    | Exova Subcontract, ICP-AES,EPA6010C,200.8-modified | EXL     | 6/30/2014 |
| T-Silicon                     | Exova Subcontract, ICP-AES,EPA6010C,200.8-modified | EXL     | 6/30/2014 |
| T-Silver                      | Exova Subcontract, ICP-AES,EPA6010C,200.8-modified | EXL     | 6/30/2014 |
| T-Sodium                      | Exova Subcontract, ICP-AES,EPA6010C,200.8-modified | EXL     | 6/30/2014 |
| T-Strontium                   | Exova Subcontract, ICP-AES,EPA6010C,200.8-modified | EXL     | 6/30/2014 |

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Page 3 of 4



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|                                  |                                                    |      |           |
|----------------------------------|----------------------------------------------------|------|-----------|
| T-Thallium                       | Exova Subcontract, ICP-AES,EPA6010C,200.8-modified | EXL  | 6/30/2014 |
| T-Tin                            | Exova Subcontract, ICP-AES,EPA6010C,200.8-modified | EXL  | 6/30/2014 |
| T-Titanium                       | Exova Subcontract, ICP-AES,EPA6010C,200.8-modified | EXL  | 6/30/2014 |
| T-Uranium                        | Exova Subcontract, ICP-AES,EPA6010C,200.8-modified | EXL  | 6/30/2014 |
| T-Vanadium                       | Exova Subcontract, ICP-AES,EPA6010C,200.8-modified | EXL  | 6/30/2014 |
| T-Zinc                           | Exova Subcontract, ICP-AES,EPA6010C,200.8-modified | EXL  | 6/30/2014 |
| Tannins & Lignins                | Exova Subcontract,Colorimetric,APHA 5550B-modified | EXL  | 6/27/2014 |
| Total ammonia - N                | Hach 10205, Salicylate -modified                   | NiSL | 6/25/2014 |
| Total Coliforms (DES)            | Enzyme Substrate, APHA 9223 B -modified            | NiSL | 6/23/2014 |
| Total Dissolved Solids (conducti | Conductivity @25C, APHA 2510 A -modified           | NiSL | 6/24/2014 |
| Total Nitrogen (N)               | Exova Subcontract, ISO/TR 11905-2 -modified        | EXL  | 6/30/2014 |
| Total Organic Nitrogen           | Exova Subcontract, Ch.34 SSSA BookSeries5-modified | NiSL | 7/4/2014  |
| Turbidity                        | Nephelometric, APHA 2130 B -modified               | NiSL | 6/24/2014 |
| UV Transmittance                 | APHA 5910 B -modified                              | NiSL | 6/25/2014 |

Approved By:

Catherine Black, Owner/Operator

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Page 4 of 4