



**NORTH COAST
LABORATORIES LTD.**

August 10, 2015

SHN Consulting Engineers and Geologists
812 West Wabash Avenue
Eureka, CA 95501

Attn: Lisa Stromme

RE: 098097.930 Scotia Water System

Order No.: 1508013

Invoice No.: 122647

PO No.:

ELAP No.1247-Expires July 2016

SAMPLE IDENTIFICATION

| Fraction | Client Sample Description |
|----------|---------------------------|
| 01A | 143 Main St. |
| 01B | 143 Main St. |
| 02A | Scotia Inn |
| 02B | Scotia Inn |

ND = Not Detected at the Reporting Limit

Limit = Reporting Limit

Flag = Explanation in Case Narrative

All solid results are expressed on a wet-weight basis unless otherwise noted.

Approved for release by:

Roxanne Moore, Project Manager

Date: 10-Aug-2015
WorkOrder: 1508013

CASE NARRATIVE

Samples for pH, residual chlorine and dissolved oxygen analysis must be analyzed within 15 minutes of collection. Therefore, any samples requiring these analyses were analyzed past the official holding time.

Molybdenum:

The reporting limits were raised due to unstable background interference.

Date: 10-Aug-2015
 WorkOrder: 1508013

ANALYTICAL REPORT

Client Sample ID: 143 Main St.
 Lab ID: 1508013-01A

Received: 8/3/2015
 Collected: 8/3/2015 14:20

Test Name: Hardness

Reference: Std. Meth. 20th Ed. 2340 B

| <u>Parameter</u> | <u>Result</u> | <u>Flag</u> | <u>Limit</u> | <u>Units</u> | <u>DF</u> | <u>Extracted</u> | <u>Analyzed</u> |
|------------------|---------------|-------------|--------------|------------------------|-----------|------------------|-----------------|
| Hardness | 180 | | 1.0 | mg/L CaCO ₃ | 1.0 | 8/7/2015 | 8/10/2015 |

Test Name: ICAP Metals

Reference: EPA 200.7 Rev 4.4 (1994)

| <u>Parameter</u> | <u>Result</u> | <u>Flag</u> | <u>Limit</u> | <u>Units</u> | <u>DF</u> | <u>Extracted</u> | <u>Analyzed</u> |
|------------------|---------------|-------------|--------------|--------------|-----------|------------------|-----------------|
| Calcium | 48,000 | | 20 | µg/L | 1.0 | 8/7/2015 | 8/10/2015 |
| Iron | 31 | | 15 | µg/L | 1.0 | 8/7/2015 | 8/10/2015 |
| Magnesium | 15,000 | | 20 | µg/L | 1.0 | 8/7/2015 | 8/10/2015 |
| Manganese | 420 | | 1.0 | µg/L | 1.0 | 8/7/2015 | 8/10/2015 |

Test Name: ICP-MS Metals

Reference: EPA 200.8 Rev 5.4 (1994)

| <u>Parameter</u> | <u>Result</u> | <u>Flag</u> | <u>Limit</u> | <u>Units</u> | <u>DF</u> | <u>Extracted</u> | <u>Analyzed</u> |
|------------------|---------------|-------------|--------------|--------------|-----------|------------------|-----------------|
| Antimony | ND | | 1.0 | µg/L | 1.0 | 8/7/2015 | 8/10/2015 |
| Arsenic | ND | | 2.0 | µg/L | 1.0 | 8/7/2015 | 8/10/2015 |
| Barium | 220 | | 1.0 | µg/L | 1.0 | 8/7/2015 | 8/10/2015 |
| Beryllium | ND | | 1.0 | µg/L | 1.0 | 8/7/2015 | 8/10/2015 |
| Cadmium | ND | | 1.0 | µg/L | 1.0 | 8/7/2015 | 8/10/2015 |
| Chromium | ND | | 1.0 | µg/L | 1.0 | 8/7/2015 | 8/10/2015 |
| Cobalt | ND | | 1.0 | µg/L | 1.0 | 8/7/2015 | 8/10/2015 |
| Copper | 36 | | 1.0 | µg/L | 1.0 | 8/7/2015 | 8/10/2015 |
| Lead | 5.0 | | 1.0 | µg/L | 1.0 | 8/7/2015 | 8/10/2015 |
| Molybdenum | ND | | 5.0 | µg/L | 1.0 | 8/7/2015 | 8/10/2015 |
| Nickel | 3.9 | | 2.0 | µg/L | 1.0 | 8/7/2015 | 8/10/2015 |
| Selenium | ND | | 5.0 | µg/L | 1.0 | 8/7/2015 | 8/10/2015 |
| Silver | ND | | 2.0 | µg/L | 1.0 | 8/7/2015 | 8/10/2015 |
| Thallium | ND | | 1.0 | µg/L | 1.0 | 8/7/2015 | 8/10/2015 |
| Vanadium | ND | | 1.0 | µg/L | 1.0 | 8/7/2015 | 8/10/2015 |
| Zinc | 14 | | 5.0 | µg/L | 1.0 | 8/7/2015 | 8/10/2015 |

Test Name: Mercury

Reference: EPA 245.1 Rev 3.0 (1994)

| <u>Parameter</u> | <u>Result</u> | <u>Flag</u> | <u>Limit</u> | <u>Units</u> | <u>DF</u> | <u>Extracted</u> | <u>Analyzed</u> |
|------------------|---------------|-------------|--------------|--------------|-----------|------------------|-----------------|
| Mercury | ND | | 1.0 | µg/L | 1.0 | 8/8/2015 | 8/10/2015 |

Client Sample ID: 143 Main St.
 Lab ID: 1508013-01B

Received: 8/3/2015
 Collected: 8/3/2015 14:20

Test Name: Alkalinity

Reference: Std. Meth. 20th Ed. 2320 B

| <u>Parameter</u> | <u>Result</u> | <u>Flag</u> | <u>Limit</u> | <u>Units</u> | <u>DF</u> | <u>Extracted</u> | <u>Analyzed</u> |
|------------------|---------------|-------------|--------------|------------------------|-----------|------------------|-----------------|
| Alkalinity | 140 | | 1.0 | mg/L CaCO ₃ | 1.0 | | 8/6/2015 |

Test Name: Corrosivity Calculation (@20°C)

Reference: Std. Meth. 20th Ed. 2330 B

| <u>Parameter</u> | <u>Result</u> | <u>Flag</u> | <u>Limit</u> | <u>Units</u> | <u>DF</u> | <u>Extracted</u> | <u>Analyzed</u> |
|------------------|---------------|-------------|--------------|--------------|-----------|------------------|-----------------|
| Corrosivity | -0.31 | | N/A | Langlier | 1.0 | | 8/10/2015 |

Date: 10-Aug-2015
 WorkOrder: 1508013

ANALYTICAL REPORT

Client Sample ID: 143 Main St.
 Lab ID: 1508013-01B

Received: 8/3/2015
 Collected: 8/3/2015 14:20

Test Name: pH

Reference: Std. Meth. 20th Ed. 4500-H B

| <u>Parameter</u> | <u>Result</u> | <u>Flag</u> | <u>Limit</u> | <u>Units</u> | <u>DF</u> | <u>Extracted</u> | <u>Analyzed</u> |
|------------------|---------------|-------------|--------------|--------------|-----------|------------------|-----------------|
| pH | 7.2 | | N/A | pH Units | 1.0 | | 8/3/2015 |

Test Name: Tannin and Lignin

Reference: Std. Meth. 20th Ed. 5550 B

| <u>Parameter</u> | <u>Result</u> | <u>Flag</u> | <u>Limit</u> | <u>Units</u> | <u>DF</u> | <u>Extracted</u> | <u>Analyzed</u> |
|-------------------|---------------|-------------|--------------|--------------|-----------|------------------|-----------------|
| Tannin and Lignin | ND | | 0.10 | mg/L | 1.0 | | 8/7/2015 |

Test Name: Total Dissolved Solids

Reference: Std. Meth. 20th Ed. 2540 C

| <u>Parameter</u> | <u>Result</u> | <u>Flag</u> | <u>Limit</u> | <u>Units</u> | <u>DF</u> | <u>Extracted</u> | <u>Analyzed</u> |
|------------------------|---------------|-------------|--------------|--------------|-----------|------------------|-----------------|
| Total Dissolved Solids | 200 | | 10 | mg/L | 1.0 | | 8/6/2015 |

Client Sample ID: Scotia Inn
 Lab ID: 1508013-02A

Received: 8/3/2015
 Collected: 8/3/2015 14:35

Test Name: Hardness

Reference: Std. Meth. 20th Ed. 2340 B

| <u>Parameter</u> | <u>Result</u> | <u>Flag</u> | <u>Limit</u> | <u>Units</u> | <u>DF</u> | <u>Extracted</u> | <u>Analyzed</u> |
|------------------|---------------|-------------|--------------|------------------------|-----------|------------------|-----------------|
| Hardness | 180 | | 1.0 | mg/L CaCO ₃ | 1.0 | 8/7/2015 | 8/10/2015 |

Test Name: ICAP Metals

Reference: EPA 200.7 Rev 4.4 (1994)

| <u>Parameter</u> | <u>Result</u> | <u>Flag</u> | <u>Limit</u> | <u>Units</u> | <u>DF</u> | <u>Extracted</u> | <u>Analyzed</u> |
|------------------|---------------|-------------|--------------|--------------|-----------|------------------|-----------------|
| Calcium | 48,000 | | 20 | µg/L | 1.0 | 8/7/2015 | 8/10/2015 |
| Iron | 180 | | 15 | µg/L | 1.0 | 8/7/2015 | 8/10/2015 |
| Magnesium | 15,000 | | 20 | µg/L | 1.0 | 8/7/2015 | 8/10/2015 |
| Manganese | 960 | | 1.0 | µg/L | 1.0 | 8/7/2015 | 8/10/2015 |

Test Name: ICP-MS Metals

Reference: EPA 200.8 Rev 5.4 (1994)

| <u>Parameter</u> | <u>Result</u> | <u>Flag</u> | <u>Limit</u> | <u>Units</u> | <u>DF</u> | <u>Extracted</u> | <u>Analyzed</u> |
|------------------|---------------|-------------|--------------|--------------|-----------|------------------|-----------------|
| Antimony | ND | | 1.0 | µg/L | 1.0 | 8/7/2015 | 8/10/2015 |
| Arsenic | ND | | 2.0 | µg/L | 1.0 | 8/7/2015 | 8/10/2015 |
| Barium | 270 | | 1.0 | µg/L | 1.0 | 8/7/2015 | 8/10/2015 |
| Beryllium | ND | | 1.0 | µg/L | 1.0 | 8/7/2015 | 8/10/2015 |
| Cadmium | ND | | 1.0 | µg/L | 1.0 | 8/7/2015 | 8/10/2015 |
| Chromium | ND | | 1.0 | µg/L | 1.0 | 8/7/2015 | 8/10/2015 |
| Cobalt | ND | | 1.0 | µg/L | 1.0 | 8/7/2015 | 8/10/2015 |
| Copper | 64 | | 1.0 | µg/L | 1.0 | 8/7/2015 | 8/10/2015 |
| Lead | 1.1 | | 1.0 | µg/L | 1.0 | 8/7/2015 | 8/10/2015 |
| Molybdenum | ND | | 5.0 | µg/L | 1.0 | 8/7/2015 | 8/10/2015 |
| Nickel | 4.2 | | 2.0 | µg/L | 1.0 | 8/7/2015 | 8/10/2015 |
| Selenium | ND | | 5.0 | µg/L | 1.0 | 8/7/2015 | 8/10/2015 |
| Silver | ND | | 2.0 | µg/L | 1.0 | 8/7/2015 | 8/10/2015 |
| Thallium | ND | | 1.0 | µg/L | 1.0 | 8/7/2015 | 8/10/2015 |
| Vanadium | ND | | 1.0 | µg/L | 1.0 | 8/7/2015 | 8/10/2015 |
| Zinc | 110 | | 5.0 | µg/L | 1.0 | 8/7/2015 | 8/10/2015 |

Date: 10-Aug-2015
 WorkOrder: 1508013

ANALYTICAL REPORT

Client Sample ID: Scotia Inn
 Lab ID: 1508013-02A

Received: 8/3/2015
 Collected: 8/3/2015 14:35

Test Name: Mercury

Reference: EPA 245.1 Rev 3.0 (1994)

| <u>Parameter</u> | <u>Result</u> | <u>Flag</u> | <u>Limit</u> | <u>Units</u> | <u>DF</u> | <u>Extracted</u> | <u>Analyzed</u> |
|------------------|---------------|-------------|--------------|--------------|-----------|------------------|-----------------|
| Mercury | ND | | 1.0 | µg/L | 1.0 | 8/8/2015 | 8/10/2015 |

Client Sample ID: Scotia Inn
 Lab ID: 1508013-02B

Received: 8/3/2015
 Collected: 8/3/2015 14:35

Test Name: Alkalinity

Reference: Std. Meth. 20th Ed. 2320 B

| <u>Parameter</u> | <u>Result</u> | <u>Flag</u> | <u>Limit</u> | <u>Units</u> | <u>DF</u> | <u>Extracted</u> | <u>Analyzed</u> |
|------------------|---------------|-------------|--------------|------------------------|-----------|------------------|-----------------|
| Alkalinity | 140 | | 1.0 | mg/L CaCO ₃ | 1.0 | | 8/6/2015 |

Test Name: Corrosivity Calculation (@20°C)

Reference: Std. Meth. 20th Ed. 2330 B

| <u>Parameter</u> | <u>Result</u> | <u>Flag</u> | <u>Limit</u> | <u>Units</u> | <u>DF</u> | <u>Extracted</u> | <u>Analyzed</u> |
|------------------|---------------|-------------|--------------|--------------|-----------|------------------|-----------------|
| Corrosivity | -0.57 | | N/A | Langlier | 1.0 | | 8/10/2015 |

Test Name: pH

Reference: Std. Meth. 20th Ed. 4500-H B

| <u>Parameter</u> | <u>Result</u> | <u>Flag</u> | <u>Limit</u> | <u>Units</u> | <u>DF</u> | <u>Extracted</u> | <u>Analyzed</u> |
|------------------|---------------|-------------|--------------|--------------|-----------|------------------|-----------------|
| pH | 7.0 | | N/A | pH Units | 1.0 | | 8/3/2015 |

Test Name: Tannin and Lignin

Reference: Std. Meth. 20th Ed. 5550 B

| <u>Parameter</u> | <u>Result</u> | <u>Flag</u> | <u>Limit</u> | <u>Units</u> | <u>DF</u> | <u>Extracted</u> | <u>Analyzed</u> |
|-------------------|---------------|-------------|--------------|--------------|-----------|------------------|-----------------|
| Tannin and Lignin | 0.10 | | 0.10 | mg/L | 1.0 | | 8/7/2015 |

Test Name: Total Dissolved Solids

Reference: Std. Meth. 20th Ed. 2540 C

| <u>Parameter</u> | <u>Result</u> | <u>Flag</u> | <u>Limit</u> | <u>Units</u> | <u>DF</u> | <u>Extracted</u> | <u>Analyzed</u> |
|------------------------|---------------|-------------|--------------|--------------|-----------|------------------|-----------------|
| Total Dissolved Solids | 210 | | 10 | mg/L | 1.0 | | 8/6/2015 |

North Coast Laboratories, Ltd.

Date: 8/10/2015

CLIENT: SHN Consulting Engineers and Geologists
Work Order: 1508013
Project: 098097.930 Scotia Water System

QC SUMMARY REPORT

Method Blank

| Sample ID | Batch ID | Test Code | Units | Analysis Date | Prep Date | | | | | | |
|-----------------|--------------|----------------|-----------------------|------------------------------|-----------------|----------|-----------|-------------|------|----------|------|
| MB-32348 | 32348 | ICPMSDW | µg/L | 8/10/2015 10:53:43 AM | 8/7/2015 | | | | | | |
| Client ID: | | Run ID: | ICPMS2_150810B | SeqNo: | 1201074 | | | | | | |
| Analyte | Result | Limit | SPK value | SPK Ref Val | % Rec | LowLimit | HighLimit | RPD Ref Val | %RPD | RPDLimit | Qual |
| Antimony | ND | 1.0 | | | | | | | | | |
| Arsenic | ND | 2.0 | | | | | | | | | |
| Barium | ND | 1.0 | | | | | | | | | |
| Beryllium | ND | 1.0 | | | | | | | | | |
| Cadmium | ND | 1.0 | | | | | | | | | |
| Chromium | ND | 1.0 | | | | | | | | | |
| Cobalt | ND | 1.0 | | | | | | | | | |
| Copper | ND | 1.0 | | | | | | | | | |
| Lead | ND | 1.0 | | | | | | | | | |
| Molybdenum | ND | 5.0 | | | | | | | | | |
| Nickel | ND | 2.0 | | | | | | | | | |
| Selenium | ND | 5.0 | | | | | | | | | |
| Silver | ND | 2.0 | | | | | | | | | |
| Thallium | ND | 1.0 | | | | | | | | | |
| Vanadium | ND | 1.0 | | | | | | | | | |
| Zinc | ND | 5.0 | | | | | | | | | |

| Sample ID | Batch ID | Test Code | Units | Analysis Date | Prep Date | | | | | | |
|-----------------|--------------|-------------|-----------------------|------------------------------|-----------------|----------|-----------|-------------|------|----------|------|
| MB-32348 | 32348 | ICPW | µg/L | 8/10/2015 12:29:42 PM | 8/7/2015 | | | | | | |
| Client ID: | | Run ID: | INICP2_150810B | SeqNo: | 1201197 | | | | | | |
| Analyte | Result | Limit | SPK value | SPK Ref Val | % Rec | LowLimit | HighLimit | RPD Ref Val | %RPD | RPDLimit | Qual |
| Calcium | ND | 20 | | | | | | | | | |
| Iron | ND | 15 | | | | | | | | | |
| Magnesium | ND | 20 | | | | | | | | | |
| Manganese | ND | 1.0 | | | | | | | | | |

Qualifiers: ND - Not Detected at the Reporting Limit
 J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
 R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

CLIENT: SHN Consulting Engineers and Geologists
Work Order: 1508013
Project: 098097.930 Scotia Water System

QC SUMMARY REPORT

Method Blank

Sample ID **MB-32351** Batch ID: **32351** Test Code: **MERCW** Units: **µg/L** Analysis Date **8/10/2015 11:12:32 AM** Prep Date **8/8/2015**

Client ID: Run ID: **CVAA1_150810A** SeqNo: **1200922**

| Analyte | Result | Limit | SPK value | SPK Ref Val | % Rec | LowLimit | HighLimit | RPD Ref Val | %RPD | RPDLimit | Qual |
|---------|--------|-------|-----------|-------------|-------|----------|-----------|-------------|------|----------|------|
| Mercury | ND | 1.0 | | | | | | | | | |

Sample ID **MBLK 080715** Batch ID: **R83326** Test Code: **TANLIW** Units: **mg/L** Analysis Date **8/7/2015** Prep Date

Client ID: Run ID: **WC_150807B** SeqNo: **1200746**

| Analyte | Result | Limit | SPK value | SPK Ref Val | % Rec | LowLimit | HighLimit | RPD Ref Val | %RPD | RPDLimit | Qual |
|-------------------|--------|-------|-----------|-------------|-------|----------|-----------|-------------|------|----------|------|
| Tannin and Lignin | ND | 0.10 | | | | | | | | | |

Sample ID **MBLK** Batch ID: **R83340** Test Code: **TDS** Units: **mg/L** Analysis Date **8/6/2015** Prep Date

Client ID: Run ID: **WC_150806G** SeqNo: **1200902**

| Analyte | Result | Limit | SPK value | SPK Ref Val | % Rec | LowLimit | HighLimit | RPD Ref Val | %RPD | RPDLimit | Qual |
|------------------------|--------|-------|-----------|-------------|-------|----------|-----------|-------------|------|----------|------|
| Total Dissolved Solids | ND | 10 | | | | | | | | | |

Qualifiers: ND - Not Detected at the Reporting Limit
 J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
 R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

North Coast Laboratories, Ltd.

Date: 8/10/2015

CLIENT: SHN Consulting Engineers and Geologists**Work Order:** 1508013**Project:** 098097.930 Scotia Water System**QC SUMMARY REPORT**

Sample Matrix Spike

| Sample ID | 1508013-02B MS | Batch ID: | R83326 | Test Code: | TANLIW | Units: | mg/L | Analysis Date | 8/7/2015 | Prep Date | |
|-------------------|----------------|-----------|------------|-------------|---------|----------|-----------|---------------|----------|-----------|------|
| Client ID: | Scotia Inn | Run ID: | WC_150807B | SeqNo: | 1200752 | | | | | | |
| Analyte | Result | Limit | SPK value | SPK Ref Val | % Rec | LowLimit | HighLimit | RPD Ref Val | %RPD | RPDLimit | Qual |
| Tannin and Lignin | 1.065 | 0.10 | 1.00 | 0.101 | 96.4% | 83 | 120 | 0 | | | |

| Sample ID | 1508013-02B MSD | Batch ID: | R83326 | Test Code: | TANLIW | Units: | mg/L | Analysis Date | 8/7/2015 | Prep Date | |
|-------------------|-----------------|-----------|------------|-------------|---------|----------|-----------|---------------|----------|-----------|------|
| Client ID: | Scotia Inn | Run ID: | WC_150807B | SeqNo: | 1200753 | | | | | | |
| Analyte | Result | Limit | SPK value | SPK Ref Val | % Rec | LowLimit | HighLimit | RPD Ref Val | %RPD | RPDLimit | Qual |
| Tannin and Lignin | 1.076 | 0.10 | 1.00 | 0.101 | 97.6% | 83 | 120 | 1.06 | 1.09% | 20 | |

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

North Coast Laboratories, Ltd.

Date: 8/10/2015

CLIENT: SHN Consulting Engineers and Geologists
Work Order: 1508013
Project: 098097.930 Scotia Water System

QC SUMMARY REPORT
 Laboratory Control Spike

| Sample ID | Batch ID | Test Code | Units | Analysis Date | Prep Date | | | | | | |
|------------|----------------|-----------|-----------|-----------------------|-----------|----------|-----------|-------------|------|----------|------|
| LCS-32348 | 32348 | ICPMSDW | µg/L | 8/10/2015 10:57:55 AM | 8/7/2015 | | | | | | |
| Client ID: | Run ID: | SeqNo: | | | | | | | | | |
| | ICPMS2_150810B | 1201075 | | | | | | | | | |
| Analyte | Result | Limit | SPK value | SPK Ref Val | % Rec | LowLimit | HighLimit | RPD Ref Val | %RPD | RPDLimit | Qual |
| Antimony | 474.1 | 5.0 | 500 | 0 | 94.8% | 85 | 115 | 0 | | | |
| Arsenic | 494.8 | 10 | 500 | 0 | 99.0% | 85 | 115 | 0 | | | |
| Barium | 458.3 | 5.0 | 500 | 0 | 91.7% | 85 | 115 | 0 | | | |
| Beryllium | 482.8 | 5.0 | 500 | 0 | 96.6% | 85 | 115 | 0 | | | |
| Cadmium | 480.3 | 5.0 | 500 | 0 | 96.1% | 85 | 115 | 0 | | | |
| Chromium | 482.4 | 5.0 | 500 | 0 | 96.5% | 85 | 115 | 0 | | | |
| Cobalt | 474.0 | 5.0 | 500 | 0 | 94.8% | 85 | 115 | 0 | | | |
| Copper | 489.4 | 5.0 | 500 | 0 | 97.9% | 85 | 115 | 0 | | | |
| Lead | 483.6 | 5.0 | 500 | 0 | 96.7% | 85 | 115 | 0 | | | |
| Molybdenum | 534.1 | 25 | 500 | 0.775 | 107% | 85 | 115 | 0 | | | |
| Nickel | 471.1 | 10 | 500 | 0 | 94.2% | 85 | 115 | 0 | | | |
| Selenium | 500.4 | 25 | 500 | 0 | 100% | 85 | 115 | 0 | | | |
| Silver | 63.81 | 10 | 62.5 | 0.0700 | 102% | 85 | 115 | 0 | | | |
| Thallium | 477.8 | 5.0 | 500 | 0 | 95.6% | 85 | 115 | 0 | | | |
| Vanadium | 481.1 | 5.0 | 500 | 0 | 96.2% | 85 | 115 | 0 | | | |
| Zinc | 477.9 | 25 | 500 | 0 | 95.6% | 85 | 115 | 0 | | | |

Qualifiers: ND - Not Detected at the Reporting Limit
 J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
 R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

CLIENT: SHN Consulting Engineers and Geologists
Work Order: 1508013
Project: 098097.930 Scotia Water System

QC SUMMARY REPORT
 Laboratory Control Spike Duplicate

| Sample ID | Batch ID | Test Code | Units | Analysis Date | Prep Date | | | | | | |
|------------------|--------------|-----------------------|-------------|------------------------------|-----------------|----------|-----------|-------------|----------|----------|------|
| LCS-32348 | 32348 | ICPMSDW | µg/L | 8/10/2015 11:02:08 AM | 8/7/2015 | | | | | | |
| Client ID: | | Run ID: | | SeqNo: | | | | | | | |
| | | ICPMS2_150810B | | 1201076 | | | | | | | |
| Analyte | Result | Limit | SPK value | SPK Ref Val | % Rec | LowLimit | HighLimit | RPD Ref Val | %RPD | RPDLimit | Qual |
| Antimony | 480.3 | 5.0 | 500 | 0 | 96.1% | 85 | 115 | 474 | 1.31% | 20 | |
| Arsenic | 489.0 | 10 | 500 | 0 | 97.8% | 85 | 115 | 495 | 1.17% | 20 | |
| Barium | 469.5 | 5.0 | 500 | 0 | 93.9% | 85 | 115 | 458 | 2.42% | 20 | |
| Beryllium | 472.3 | 5.0 | 500 | 0 | 94.5% | 85 | 115 | 483 | 2.19% | 20 | |
| Cadmium | 491.4 | 5.0 | 500 | 0 | 98.3% | 85 | 115 | 480 | 2.29% | 20 | |
| Chromium | 472.6 | 5.0 | 500 | 0 | 94.5% | 85 | 115 | 482 | 2.05% | 20 | |
| Cobalt | 474.0 | 5.0 | 500 | 0 | 94.8% | 85 | 115 | 474 | 0.00401% | 20 | |
| Copper | 475.2 | 5.0 | 500 | 0 | 95.0% | 85 | 115 | 489 | 2.95% | 20 | |
| Lead | 480.4 | 5.0 | 500 | 0 | 96.1% | 85 | 115 | 484 | 0.667% | 20 | |
| Molybdenum | 539.5 | 25 | 500 | 0.775 | 108% | 85 | 115 | 534 | 1.01% | 20 | |
| Nickel | 468.3 | 10 | 500 | 0 | 93.7% | 85 | 115 | 471 | 0.594% | 20 | |
| Selenium | 496.9 | 25 | 500 | 0 | 99.4% | 85 | 115 | 500 | 0.707% | 20 | |
| Silver | 64.05 | 10 | 62.5 | 0.0700 | 102% | 85 | 115 | 63.8 | 0.366% | 20 | |
| Thallium | 481.4 | 5.0 | 500 | 0 | 96.3% | 85 | 115 | 478 | 0.762% | 20 | |
| Vanadium | 474.0 | 5.0 | 500 | 0 | 94.8% | 85 | 115 | 481 | 1.49% | 20 | |
| Zinc | 463.2 | 25 | 500 | 0 | 92.6% | 85 | 115 | 478 | 3.14% | 20 | |

| Sample ID | Batch ID | Test Code | Units | Analysis Date | Prep Date | | | | | | |
|------------------|--------------|-----------------------|-------------|------------------------------|-----------------|----------|-----------|-------------|------|----------|------|
| LCS-32348 | 32348 | ICPW | µg/L | 8/10/2015 12:36:04 PM | 8/7/2015 | | | | | | |
| Client ID: | | Run ID: | | SeqNo: | | | | | | | |
| | | INICP2_150810B | | 1201200 | | | | | | | |
| Analyte | Result | Limit | SPK value | SPK Ref Val | % Rec | LowLimit | HighLimit | RPD Ref Val | %RPD | RPDLimit | Qual |
| Calcium | 515.3 | 20 | 500 | 0 | 103% | 85 | 115 | 0 | | | |
| Iron | 508.8 | 15 | 500 | 0 | 102% | 85 | 115 | 0 | | | |
| Magnesium | 503.9 | 20 | 500 | 0 | 101% | 85 | 115 | 0 | | | |
| Manganese | 528.6 | 1.0 | 500 | 0 | 106% | 85 | 115 | 0 | | | |

Qualifiers: ND - Not Detected at the Reporting Limit
 J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
 R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

CLIENT: SHN Consulting Engineers and Geologists
Work Order: 1508013
Project: 098097.930 Scotia Water System

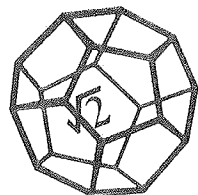
QC SUMMARY REPORT
 Laboratory Control Spike Duplicate

| Sample ID | Batch ID | Test Code | Units | Analysis Date | Prep Date | | | | | | |
|------------------------|---------------|-------------------------------|-------------|------------------------------|-----------------|----------|-----------|-------------|-------|----------|------|
| LCS-32348 | 32348 | ICPW | µg/L | 8/10/2015 12:38:58 PM | 8/7/2015 | | | | | | |
| Client ID: | | Run ID: INICP2_150810B | | SeqNo: 1201201 | | | | | | | |
| Analyte | Result | Limit | SPK value | SPK Ref Val | % Rec | LowLimit | HighLimit | RPD Ref Val | %RPD | RPDLimit | Qual |
| Calcium | 503.6 | 20 | 500 | 0 | 101% | 85 | 115 | 515 | 2.29% | 20 | |
| Iron | 500.3 | 15 | 500 | 0 | 100% | 85 | 115 | 509 | 1.70% | 20 | |
| Magnesium | 497.8 | 20 | 500 | 0 | 99.6% | 85 | 115 | 504 | 1.21% | 20 | |
| Manganese | 515.9 | 1.0 | 500 | 0 | 103% | 85 | 115 | 529 | 2.43% | 20 | |
| Sample ID | Batch ID | Test Code | Units | Analysis Date | Prep Date | | | | | | |
| LCS-32351 | 32351 | MERCW | µg/L | 8/10/2015 11:13:42 AM | 8/8/2015 | | | | | | |
| Client ID: | | Run ID: CVAA1_150810A | | SeqNo: 1200923 | | | | | | | |
| Analyte | Result | Limit | SPK value | SPK Ref Val | % Rec | LowLimit | HighLimit | RPD Ref Val | %RPD | RPDLimit | Qual |
| Mercury | 4.730 | 1.0 | 5.00 | 0 | 94.6% | 85 | 115 | 0 | | | |
| Sample ID | Batch ID | Test Code | Units | Analysis Date | Prep Date | | | | | | |
| LCS-32351 | 32351 | MERCW | µg/L | 8/10/2015 11:14:52 AM | 8/8/2015 | | | | | | |
| Client ID: | | Run ID: CVAA1_150810A | | SeqNo: 1200924 | | | | | | | |
| Analyte | Result | Limit | SPK value | SPK Ref Val | % Rec | LowLimit | HighLimit | RPD Ref Val | %RPD | RPDLimit | Qual |
| Mercury | 4.660 | 1.0 | 5.00 | 0 | 93.2% | 85 | 115 | 4.73 | 1.49% | 20 | |
| Sample ID | Batch ID | Test Code | Units | Analysis Date | Prep Date | | | | | | |
| LCS WL-08071501 | R83326 | TANLIW | mg/L | 8/7/2015 | | | | | | | |
| Client ID: | | Run ID: WC_150807B | | SeqNo: 1200747 | | | | | | | |
| Analyte | Result | Limit | SPK value | SPK Ref Val | % Rec | LowLimit | HighLimit | RPD Ref Val | %RPD | RPDLimit | Qual |
| Tannin and Lignin | 0.9711 | 0.10 | 1.00 | 0 | 97.1% | 83 | 120 | 0 | | | |
| Sample ID | Batch ID | Test Code | Units | Analysis Date | Prep Date | | | | | | |
| LCS WL-080715 | R83326 | TANLIW | mg/L | 8/7/2015 | | | | | | | |
| Client ID: | | Run ID: WC_150807B | | SeqNo: 1200748 | | | | | | | |
| Analyte | Result | Limit | SPK value | SPK Ref Val | % Rec | LowLimit | HighLimit | RPD Ref Val | %RPD | RPDLimit | Qual |
| Tannin and Lignin | 0.9973 | 0.10 | 1.00 | 0 | 99.7% | 83 | 120 | 0.971 | 2.66% | 20 | |

Qualifiers: ND - Not Detected at the Reporting Limit
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B - Analyte detected in the associated Method Blank



NORTH COAST LABORATORIES LTD.

5680 West End Road • Arcata • CA 95521-9202
707-822-4649 Fax 707-822-6831

Chain of Custody

Attention: LUCA SPURME
 Results & Invoice to: SHN
 Address: 812 West Wabash Avenue
Eureka, CA 95501
 Phone: 441-8855
 Copies of Report to: MARY LYNN @ SHN
FRANK PANK @ SCANA, Kelly McNeill @ SCANA
 Sampler (Sign & Print): [Signature] LUCA SPURME

PROJECT INFORMATION
 Project Number: 08097.930
 Project Name: SCOTIA WATER SYSTEM
 Purchase Order Number: _____

| LAB ID | SAMPLE ID | DATE | TIME | MATRIX* |
|--------|--------------|--------|------------------|---------|
| | 143 MAIN ST. | 8/3/15 | 14 ²⁰ | DW |
| | SCOTIA INN | 8/3/15 | 14 ³⁵ | DW |
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| ANALYSIS | CONTAINER | PRESERVATIVE |
|---------------------|-----------|--------------|
| XX HANDED ANALYSIS | (1) | — |
| XX TOTAL METALS CAN | 17 (1) | — |
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LABORATORY NUMBER: 1508013

TAT: 24 Hr 48 Hr 5 Day 5-7 Day
 STD (2-3 Wk) Other: _____
 PRIOR AUTHORIZATION IS REQUIRED FOR RUSHES

REPORTING REQUIREMENTS: State Forms
 Preliminary: FAX Verbal By: / /
 Final Report: FAX Verbal By: / /

CONTAINER CODES: 1—½ gal. pl; 2—250 ml pl;
 3—500 ml pl; 4—1 L Nalgene; 5—250 ml BG;
 6—500 ml BG; 7—1 L BG; 8—1 L cg; 9—40ml VOA;
 10—125 ml VOA; 11—4 oz glass jar; 12—8 oz glass jar;
 13—brass tube; 14—other
 PRESERVATIVE CODES: a—HNO₃; b—HCl; c—H₂SO₄;
 d—Na₂S₂O₃; e—NaOH; f—C₂H₃O₂Cl; g—other

SAMPLE CONDITION/SPECIAL INSTRUCTIONS

TOTAL METALS
EPA No 200.7 REV 4
200 & REV 5.4

1.4°C

| RELINQUISHED BY (Sign & Print) | DATE/TIME | RECEIVED BY (Sign) | DATE/TIME |
|--------------------------------|-------------------------|--------------------|-------------------------|
| <u>[Signature]</u> LUCA SPURME | 8/3/15 14 ³⁵ | <u>[Signature]</u> | 8/3/15 15 ³⁸ |
| | | | |

SAMPLE DISPOSAL
 NCL Disposal of Non-Contaminated
 Return Pickup

CHAIN OF CUSTODY SEALS Y/N/NA
SHIPPED VIA: UPS Air-Ex Fed-Ex Bus Hand

*MATRIX: DW=Drinking Water; Eff=Effluent; Inf=Influent; SW=Surface Water; GW=Ground Water; S=Soil; O=Other.

ALL CONTAMINATED NON-AQUEOUS SAMPLES WILL BE RETURNED TO CLIENT