#### Richard, Philip E - DNR

PHOW BRETS 1/29/15 (94)

From:

Ree, Timothy <tree@craworld.com>

Sent:

Wednesday, January 28, 2015 6:34 PM

To:

Richard, Philip E - DNR

Cc:

Endsley, Erin A - DNR; Frehner, Ron; Storlie, Pete; Sandberg, Brian

Subject:

Penta Wood - WPDES Compliance Sampling 1/22/2015 ~COR-086165~

**Attachments:** 

J46609-1 UDS Level 2 Report Final Report.pdf

Phil,

Please find attached a copy of the laboratory report for the WPDES compliance effluent sample collected at the Penta Wood site on 1/22/2015. PCP was detected at a concentration of 0.29 ug/L, which exceeds the permit limit of 0.1 ug/L. This represents the first sample collected after the carbon change-out and restarting the system. This also is the first sample collected in January; therefore, this result does not represent a noncompliance of the substantive WPDES permit requirements since additional weekly effluent sampling is required to determine the monthly average.

Based on CRA's review of the August through December 2014 influent data which had elevated PCP levels, we believe that the presence of small amounts of emulsified LNAPL in the influent water may be the cause of the increased PCP levels in the influent water. These small amount of emulsified LNAPL may be preventing treatment to the substantive permit limit by utilizing activated carbon only. CRA recommends that the system continue to operate while we evaluate corrective actions since the effluent concentration is less than 1 ug/L.

As part of a subsequent trouble shooting, CRA recommends that individual influent samples be collected from each groundwater extraction well for laboratory analysis of pentachlorophenol, WI-DRO, and oil and grease on an expedited turn-around-time basis (5-day). The purpose of this sampling is to identify which extraction wells may be contributing to the increased influent concentration detected in December 2014 and where emulsified LNAPL is being extracted.

The additional associated cost with the influent sampling recommended above is estimated to be approximately \$5,000. This cost includes laboratory analyses, sample shipping, and CRA labor.

Please update Kathy Bartilson (WDNR) and Linda Martin (USEPA).

Should you have questions, please do not hesitate to contact me.

Regards,

#### Tim Ree

#### Conestoga-Rovers & Associates (CRA)

1801 Old Highway 8 NW, Suite 114 St Paul, MN 55112

Phone: 651.639.0913

Direct: 651.639-0439 (ext. 338)

Cell: 651.592.7697 Fax: 651.639.0923

Email: tree@CRAworld.com

www.CRAworld.com

Think before you print

Perform every task the safe way, the right way, every time!

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CRA and GHD have merged! To learn more, visit www.CRAworld.com/ghd

Authorized for release by: 1/27/2015 10:58:58 AM

Denise Heckler, Project Manager II (330)966-9477

denise.heckler@testamericainc.com

Review your project results through

... LINKS .....

Have a Question?



Visit us at: www.testamericainc.com

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Client: Conestoga-Rovers & Associates, Inc. Project/Site: 86165-01-01, Penta Wood

TestAmerica Job ID: 240-46609-1

# **Table of Contents**

| Cover Page             | 1  |
|------------------------|----|
| Table of Contents      | 2  |
| Definitions/Glossary   | 3  |
| Case Narrative         | 4  |
| Method Summary         | 5  |
| Sample Summary         | 6  |
|                        | 7  |
| Client Sample Results  | 8  |
| Surrogate Summary      | 9  |
| QC Sample Results      | 10 |
| QC Association Summary | 11 |
| Lab Chronicle          | 12 |
| Certification Summary  | 13 |
| Chain of Custody       | 14 |
| Receipt Checklists     | 17 |

## **Definitions/Glossary**

Client: Conestoga-Rovers & Associates, Inc. Project/Site: 86165-01-01, Penta Wood

TestAmerica Job ID: 240-46609-1

3

#### Qualifiers

#### GC Semi VOA

| Qualifier | Qualifier Description | n |
|-----------|-----------------------|---|
|           |                       | - |
|           |                       |   |

U Indicates the analyte was analyzed for but not detected.

| Glossary       |   |
|----------------|---|
| Abbreviation   | These commonly used abbreviations may or may not be present in this report.                                 |
| p              | Listed under the "D" column to designate that the result is reported on a dry weight basis                  |
| %R             | Percent Recovery  |
| CFL            | Contains Free Liquid  |
| CNF            | Contains no Free Liquid   |
| DER            | Duplicate error ratio (normalized absolute difference)  |
| Dil Fac        | Dilution Factor   |
| DL, RA, RE, IN | Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample |
| DLC            | Decision level concentration  |
| MDA            | Minimum detectable activity   |
| EDL            | Estimated Detection Limit   |
| MDC            | Minimum detectable concentration  |
| MDL            | Method Detection Limit  |
| ML             | Minimum Level (Dioxin)  |
| NC             | Not Calculated  |
| ND             | Not detected at the reporting limit (or MDL or EDL if shown)  |
| PQL            | Practical Quantitation Limit  |
| QC             | Quality Control   |
| RER            | Relative error ratio  |
| RL             | Reporting Limit or Requested Limit (Radiochemistry)   |
| RPD            | Relative Percent Difference, a measure of the relative difference between two points                        |
| TEF            | Toxicity Equivalent Factor (Dioxin)   |
| TEQ            | Toxicity Equivalent Quotient (Dioxin)   |

#### Case Narrative

Client: Conestoga-Rovers & Associates, Inc. Project/Site: 86165-01-01, Penta Wood

TestAmerica Job ID: 240-46609-1

Job ID: 240-46609-1

Laboratory: TestAmerica Canton

Narrative

#### CASE NARRATIVE

Client: Conestoga-Rovers & Associates, Inc.

Project: 86165-01-01, Penta Wood

Report Number: 240-46609-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

TestAmerica Canton attests to the validity of the laboratory data generated by TestAmerica facilities reported herein. All analyses performed by TestAmerica facilities were done using established laboratory SOPs that incorporate QA/QC procedures described in the application methods. TestAmerica's operations groups have reviewed the data for compliance with the laboratory QA/QC plan, and data have been found to be compliant with laboratory protocols unless otherwise noted below.

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

All solid sample results are reported on an "as received" basis unless otherwise indicated by the presence of a % solids value in the method header.

This laboratory report is confidential and is intended for the sole use of TestAmerica and its client.

The samples were received on 01/23/2015; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt was 4.5 C.

#### **CHLORINATED HERBICIDES**

Sample W-150122-PS-WE (240-46609-1) was analyzed for chlorinated herbicides in accordance with EPA SW-846 Method 8151A. The samples were prepared on 01/24/2015 and analyzed on 01/27/2015.

Surrogates are added during the extraction process prior to dilution. When the sample dilution is 5X or greater, surrogate recoveries are diluted out and no corrective action is required.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

TestAmerica Canton 1/27/2015

### **Method Summary**

Client: Conestoga-Rovers & Associates, Inc. Project/Site: 86165-01-01, Penta Wood

TestAmerica Job ID: 240-46609-1

| Method | Method Description | Protocol | Laboratory |
|--------|--------------------|----------|------------|
| 8151A  | Herbicides (GC)    | SW846    | TAL PIT    |

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#### Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

#### **Laboratory References:**

TAL PIT = TestAmerica Pittsburgh, 301 Alpha Drive, RIDC Park, Pittsburgh, PA 15238, TEL (412)963-7058

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### **Sample Summary**

Client: Conestoga-Rovers & Associates, Inc. Project/Site: 86165-01-01, Penta Wood

TestAmerica Job ID: 240-46609-1

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| Lab Sample ID | Client Sample ID | Matrix | Collected      | Received       |
|---------------|------------------|--------|----------------|----------------|
| 240-46609-1   | W-150122-PS-WE   | Water  | 01/22/15 10:00 | 01/23/15 09:20 |

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### **Detection Summary**

Client: Conestoga-Rovers & Associates, Inc. Project/Site: 86165-01-01, Penta Wood

TestAmerica Job ID: 240-46609-1

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Client Sample ID: W-150122-PS-WE

Lab Sample ID: 240-46609-1

|   | Analyte           | Result | Qualifier | RL    | MDL   | Unit | Dil Fac | D | Method | Prep Type |
|---|-------------------|--------|-----------|-------|-------|------|---------|---|--------|-----------|
| ı | Pentachlorophenol | 0.29   |           | 0.095 | 0.015 | ug/L | 4       |   | 8151A  | Total/NA  |

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#### **Client Sample Results**

Client: Conestoga-Rovers & Associates, Inc. Project/Site: 86165-01-01, Penta Wood

TestAmerica Job ID: 240-46609-1

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Client Sample ID: W-150122-PS-WE

Date Collected: 01/22/15 10:00 Date Received: 01/23/15 09:20 Lab Sample ID: 240-46609-1

Matrix: Water

Method: 8151A - Herbicides (GC)

| Analyte           | Result | Qualifier | RL    | MDL   | Unit | D | Prepared       | Analyzed       | Dil Fac |
|-------------------|--------|-----------|-------|-------|------|---|----------------|----------------|---------|
| Pentachlorophenol | 0.29   |           | 0.095 | 0.015 | ug/L |   | 01/24/15 11:00 | 01/27/15 09:06 | 4       |

 Surrogate
 %Recovery
 Qualifier
 Limits
 Prepared
 Analyzed
 Dil Fac

 2,4-Dichlorophenylacetic acid
 89
 32 - 140
 01/24/15 11:00
 01/27/15 09:06
 4

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### **Surrogate Summary**

Client: Conestoga-Rovers & Associates, Inc. Project/Site: 86165-01-01, Penta Wood

TestAmerica Job ID: 240-46609-1

Prep Type: Total/NA

Matrix: Water

|                     |                        |          |          | Percent Surrogate Recovery (Acceptance Limits) |  |
|---------------------|------------------------|----------|----------|--|--|
|                     |                        | DCPA1    | DCPA2    |  |  |
| Lab Sample ID       | Client Sample ID       | (32-140) | (32-140) |  |  |
| 240-46609-1         | W-150122-PS-WE         | 86       | 89       |  |  |
| LCS 180-131640/2-A  | Lab Control Sample     | 77       | 83       |  |  |
| LCSD 180-131640/3-A | Lab Control Sample Dup | 79       | 83       |  |  |
| MB 180-131640/1-A   | Method Blank           | 59       | 59       |  |  |
| 199                 |                        |          |          |  |  |
| Surrogate Legend    |                        |          |          |  |  |

#### **QC Sample Results**

Client: Conestoga-Rovers & Associates, Inc. Project/Site: 86165-01-01, Penta Wood

TestAmerica Job ID: 240-46609-1

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Method: 8151A - Herbicides (GC)

Lab Sample ID: MB 180-131640/1-A Client Sample ID: Method Blank

Matrix: Water Prep Type: Total/NA
Analysis Batch: 131720 Prep Batch: 131640

MB MB

Analyte Result Qualifier RL MDL Unit D Prepared Analyzed Dil Fac

Pentachlorophenol 1.0 U 1.0 0.16 ug/L 01/24/15 11:00 01/27/15 08:45 4

MB MB

 Surrogate
 %Recovery
 Qualifier
 Limits
 Prepared
 Analyzed
 Dil Fac

 2,4-Dichlorophenylacetic acid
 59
 32 - 140
 01/24/15 11:00
 01/27/15 08:45
 4

Lab Sample ID: LCS 180-131640/2-A

Client Sample ID: Lab Control Sample

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 131720 Prep Batch: 131640
Spike LCS LCS %Rec.

 Analyte
 Added
 Result Qualifier
 Unit
 D
 %Rec
 Limits

 Pentachlorophenol
 25.0
 27.2
 ug/L
 109
 40 - 140

Pentachlorophenol 25.0 27.2 ug/L 109 40 - 140

LCS LCS

Surrogate%RecoveryQualifierLimits2,4-Dichlorophenylacetic acid8332 - 140

Lab Sample ID: LCSD 180-131640/3-A Client Sample ID: Lab Control Sample Dup

Matrix: Water

Analysis Batch: 131720

Spike LCSD LCSD Spike LCSD RPD

\*\*Rec. RPD

Analyte Added Result Qualifier Unit %Rec Limits **RPD** Limit 25.0 ug/L 30 Pentachlorophenol 28.4 113 40 - 140 4

 LCSD LCSD

 Surrogate
 %Recovery Qualifier
 Limits

 2,4-Dichlorophenylacetic acid
 83
 32 - 140

1/27/2015

### **QC Association Summary**

Client: Conestoga-Rovers & Associates, Inc. Project/Site: 86165-01-01, Penta Wood

TestAmerica Job ID: 240-46609-1

2

#### GC Semi VOA

#### Prep Batch: 131640

| Lab Sample ID       | Client Sample ID       | Prep Type | Matrix | Method | Prep Batch |
|---------------------|------------------------|-----------|--------|--------|------------|
| 240-46609-1         | W-150122-PS-WE         | Total/NA  | Water  | 8151A  |            |
| LCS 180-131640/2-A  | Lab Control Sample     | Total/NA  | Water  | 8151A  |            |
| LCSD 180-131640/3-A | Lab Control Sample Dup | Total/NA  | Water  | 8151A  |            |
| MB 180-131640/1-A   | Method Blank           | Total/NA  | Water  | 8151A  |            |

#### Analysis Batch: 131720

| Lab Sample ID       | Client Sample ID       | Prep Type | Matrix | Method | Prep Batch |
|---------------------|------------------------|-----------|--------|--------|------------|
| 240-46609-1         | W-150122-PS-WE         | Total/NA  | Water  | 8151A  | 131640     |
| LCS 180-131640/2-A  | Lab Control Sample     | Total/NA  | Water  | 8151A  | 131640     |
| LCSD 180-131640/3-A | Lab Control Sample Dup | Total/NA  | Water  | 8151A  | 131640     |
| MB 180-131640/1-A   | Method Blank           | Total/NA  | Water  | 8151A  | 131640     |

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#### **Lab Chronicle**

Client: Conestoga-Rovers & Associates, Inc. Project/Site: 86165-01-01, Penta Wood

TestAmerica Job ID: 240-46609-1

2

Client Sample ID: W-150122-PS-WE

Date Collected: 01/22/15 10:00 Date Received: 01/23/15 09:20 Lab Sample ID: 240-46609-1

Matrix: Water

| ١ |           | Batch    | Batch  |     | Dilution | Batch  | Prepared       |         |         |
|---|-----------|----------|--------|-----|----------|--------|----------------|---------|---------|
| ١ | Prep Type | Туре     | Method | Run | Factor   | Number | or Analyzed    | Analyst | Lab     |
| ı | Total/NA  | Prep     | 8151A  |     |          | 131640 | 01/24/15 11:00 | CBY     | TAL PIT |
|   | Total/NA  | Analysis | 8151A  |     | 4        | 131720 | 01/27/15 09:06 | JMO     | TAL PIT |

#### **Laboratory References:**

TAL PIT = TestAmerica Pittsburgh, 301 Alpha Drive, RIDC Park, Pittsburgh, PA 15238, TEL (412)963-7058

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### **Certification Summary**

Client: Conestoga-Rovers & Associates, Inc. Project/Site: 86165-01-01, Penta Wood

TestAmerica Job ID: 240-46609-1

4

Laboratory: TestAmerica Canton

The certifications listed below are applicable to this report.

|   | Authority | Program       | EPA Region | Certification ID | Expiration Date |
|---|-----------|---------------|------------|------------------|-----------------|
| ١ | Wisconsin | State Program | 5          | 999518190        | 08-31-15        |
|   |           |               |            |                  |                 |

#### Laboratory: TestAmerica Pittsburgh

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

| Authority              | Program       | EPA Region | Certification ID | Expiration Date |
|------------------------|---------------|------------|------------------|-----------------|
| Arkansas DEQ           | State Program | 6          | 88-0690          | 06-27-15        |
| California             | State Program | 9          | 2891             | 03-31-15        |
| Connecticut            | State Program | 1          | PH-0688          | 09-30-16        |
| Florida                | NELAP         | 4          | E871008          | 06-30-15        |
| Illinois               | NELAP         | 5          | 002602           | 06-30-15        |
| Kansas                 | NELAP         | 7          | E-10350          | 03-31-15        |
| Louisiana              | NELAP         | 6          | 04041            | 06-30-15        |
| New Hampshire          | NELAP         | 1          | 203011           | 04-04-15        |
| New Jersey             | NELAP         | 2          | PA005            | 06-30-15        |
| New York               | NELAP         | 2          | 11182            | 03-31-15        |
| North Carolina (WW/SW) | State Program | 4          | 434              | 12-31-15        |
| Pennsylvania           | NELAP         | 3          | 02-00416         | 04-30-15        |
| South Carolina         | State Program | 4          | 89014            | 04-30-15        |
| Texas                  | NELAP         | 6          | T104704528       | 03-31-15        |
| US Fish & Wildlife     | Federal       |            | LE94312A-1       | 11-30-15        |
| USDA                   | Federal       |            | P330-10-00139    | 05-23-16        |
| Utah                   | NELAP         | 8          | STLP             | 05-31-15        |
| Virginia               | NELAP         | 3          | 460189           | 09-14-15        |
| West Virginia DEP      | State Program | 3          | 142              | 01-31-15 *      |

TestAmerica Canton

1/27/2015

<sup>\*</sup> Certification renewal pending - certification considered valid.

TestAmerica Laboratories, Inc.

# CHAIN OF CUSTODY AND RECEIVING DOCUMENTS



240-46609 Chain of Custody



### CHAIN OF CUSTODY RECORD

3,8/C4.5

COC NO.: **SP-** 01292

(See Reverse Side for Instructions)

PAGE OF

1801 Old Highway 8 Northwest, Suite 114 St. Paul, Minnesota 55112 United States

Phone: (651) 639-0913 Fax: (651) 639-0923

Project No/ Phase/Task Code: Laboratory Name: Lab Location: SSOW ID: 086165-01-01 Penta Word - Siren America Project Name: Lab Contact: Lab Quote No: Cooler No: Project Location: / CONTAINER QUANTITY & Carrier: SAMPLE ANALYSIS REQUESTED PRESERVATION .. TYPE (See Back of COC for Definitions) ganderson@coworld. Chemistry Contact: Airbill No: Total Containers/Sample EnCores 3x5-g, 1x25-g (Soil Sampler(s): MS/MSD Request Date Shipped: COMMENTS/ SAMPLE IDENTIFICATION SPECIAL INSTRUCTIONS: 11/22/15 1000 2 3 17 8 TAT Required in business days (use separate COCs for different TATs) Total Number of Containers: 2 Notes/ Special Requirements: ☐ 1 Day ☐ 2 Days ☐ 3 Days ☐ 1 Week ☐ 2 Week ☒ Other: 5. All Samples in Cooler must be on COC RECEIVED BY COMPANY DATE TIME 920 1-23-15 TA 2.















| TestAmerica Canton Samp  | ole Receipt Form/Narrative   | Logiı   | 1#: 410        | 009                           |  |  |  |  |
|--|--|---|----------------|-------------------------------|--|--|--|--|
|  |  |   | Cooler un      | packed by:                    |  |  |  |  |
|  | Site Name  |   |                | • • •                         |  |  |  |  |
| Cooler Received on 1-2315  |  |   |                |                               |  |  |  |  |
| FedEx: ft Grd Exp UP:  | S FAS Stetson Client Drop Off  | TestAmerica Courier                           | Other          |                               |  |  |  |  |
| TestAmerica Cooler #   |  | Storage Location Box Other                    |                |                               |  |  |  |  |
| Packing material used:   | Bubble Wrap Foam Plastic Bag   | None Other                                    |                |                               |  |  |  |  |
|  | The Blue Ice Dry Ice Wate  |   |                |                               |  |  |  |  |
| Cooler temperature upon  |  |   |                |                               |  |  |  |  |
| IR GUN# A (CF +4.0   | °C) Observed Cooler Temp.  | _°C Corrected Cooler Te                       | emp°           | C                             |  |  |  |  |
| IR GUN# 4 (CF +1.2   | 2 °C) Observed Cooler Temp.  | _°C Corrected Cooler T                        | emp            | °C                            |  |  |  |  |
| IR GUN# 5 (CF +0.4   | 4°C) Observed Cooler Temp. 7°C) Observed Cooler Temp. 7.4  | _°C Corrected Cooler T                        | emp.           | °C Cooler Form                |  |  |  |  |
|  |  |   |                | °C                            |  |  |  |  |
|  | e outside of the cooler(s)? If Yes   |   |                |                               |  |  |  |  |
|  | he outside of the cooler(s) signed & da  |   | s No NA        |                               |  |  |  |  |
| -Were custody seals on the   |  | F100  | s Do           |                               |  |  |  |  |
| <ul><li>3. Shippers' packing slip atta</li><li>4. Did custody papers accor</li></ul> |  |   | s No<br>s No   |                               |  |  |  |  |
|  | npany the sample(s)?<br>relinquished & signed in the appropriat  |   | s No<br>s No   |                               |  |  |  |  |
| J. Word the dustody papers i   | cumquistica ce signed in the appropriat  | o praco:                                      | 9 110          |                               |  |  |  |  |
| 6. Did all bottles arrive in go  | ood condition (Unbroken)?  | Ye:   | s No           | и                             |  |  |  |  |
|  | reconciled with the COC?   | Yes   | s No           |                               |  |  |  |  |
| 8. Were correct bottle(s) use  | ed for the test(s) indicated?  | Xe  | s No           |                               |  |  |  |  |
|  | ved to perform indicated analyses?   | Yes   | s No           |                               |  |  |  |  |
| 10. Were sample(s) at the con  |  | Ye  | s No (NA       | pH Strip Lot# <u>HC425511</u> |  |  |  |  |
| 11. Were VOAs on the COC?  |  | Yes   | s No           |                               |  |  |  |  |
| 12. Were air bubbles >6 mm i   |  |   | s No NA        | -                             |  |  |  |  |
| 13. Was a trip blank present i   | n the cooler(s)?   | Yes   | s Mo           |                               |  |  |  |  |
| Contacted PM   | Dateby   | via Verbal \                                  | oice Mail O    | ther                          |  |  |  |  |
| Concerning   | The second secon |   |                |                               |  |  |  |  |
| 14. CHAIN OF CUSTODY   | & SAMPLE DISCREPANCIES   | ANTONO  | Sampl          | es processed by:              |  |  |  |  |
|  |  |   |                | PW                            |  |  |  |  |
|  |  |   |                |                               |  |  |  |  |
| ****   |  |   |                |                               |  |  |  |  |
|  |  | ****  |                |                               |  |  |  |  |
|  |  |   |                |                               |  |  |  |  |
|  | XUL - MESSAKALIEMP POP -   |   |                |                               |  |  |  |  |
|  |  | ALLES AND | 10.            |                               |  |  |  |  |
|  |  |   |                | *******                       |  |  |  |  |
|  | 3  |   |                |                               |  |  |  |  |
|  |  |   |                |                               |  |  |  |  |
|  |  |   |                | 4844                          |  |  |  |  |
| 15. SAMPLE CONDITION   |  |   |                |                               |  |  |  |  |
|  |  | er the recommended hole                       | ding time had  | expired.                      |  |  |  |  |
| Sample(s)  | Sample(s) were received after the recommended holding time had expired.  Sample(s) were received in a broken container.  |   |                |                               |  |  |  |  |
| Sample(s)  |  | ved with bubble >6 mm                         |                |                               |  |  |  |  |
| 16. SAMPLE PRESERVAT   |  |   | ***********    |                               |  |  |  |  |
|  |  |   |                | rad in the lebeneter-         |  |  |  |  |
| Sample(s)  | Preservative(s) added/Lot number(s   | were f  | urther preserv | red in the laboratory.        |  |  |  |  |
| i mie preserved;   |  | )   |                |                               |  |  |  |  |

#### **Login Sample Receipt Checklist**

Client: Conestoga-Rovers & Associates, Inc.

Samples do not require splitting or compositing.

Residual Chlorine Checked.

Job Number: 240-46609-1

Login Number: 46609

List Number: 2

Creator: Lonzo, Michael A

List Source: TestAmerica Pittsburgh

List Creation: 01/24/15 10:30 AM

| Question   | Answer | Comment |  |
|--|--------|---------|--|
| Radioactivity wasn't checked or is = background as measured by a survey meter.</td <td>True</td> <td></td> <td></td> | True   |         |  |
| The cooler's custody seal, if present, is intact.  | True   |         |  |
| Sample custody seals, if present, are intact.  | True   |         |  |
| The cooler or samples do not appear to have been compromised or tampered with.                                       | True   |         |  |
| Samples were received on ice.  | True   |         |  |
| Cooler Temperature is acceptable.  | True   |         |  |
| Cooler Temperature is recorded.  | True   |         |  |
| COC is present.  | True   |         |  |
| COC is filled out in ink and legible.  | True   |         |  |
| COC is filled out with all pertinent information.  | True   |         |  |
| Is the Field Sampler's name present on COC?  | True   |         |  |
| There are no discrepancies between the containers received and the COC.  | True   |         |  |
| Samples are received within Holding Time.  | True   |         |  |
| Sample containers have legible labels.   | True   |         |  |
| Containers are not broken or leaking.  | True   |         |  |
| Sample collection date/times are provided.   | True   |         |  |
| Appropriate sample containers are used.  | True   |         |  |
| Sample bottles are completely filled.  | True   |         |  |
| Sample Preservation Verified.  | True   |         |  |
| There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs                                     | True   |         |  |
| Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").                                      | True   |         |  |
| Multiphasic samples are not present.   | True   |         |  |

True

N/A