TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

# ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Chicago
2417 Bond Street
University Park, IL 60484
Tel: (708)534-5200

TestAmerica Job ID: 500-144115-1
Client Project/Site: Ponds and Process Tanks

For:
Central Wire (Techalloy)
6509 Olson Road
Union, Illinois 60180

Attn: Robert Johnson

Sandie Fredrick

*Authorized for release by:*
*5/2/2018 4:30:15 PM*

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LINKS

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*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.*

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# Definitions/Glossary

Client: Central Wire (Techalloy)
Project/Site: Ponds and Process Tanks

TestAmerica Job ID: 500-144115-1

## Qualifiers

### GC/MS VOA

| Qualifier | Qualifier Description |
|---|---|
| J | Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value. |

### Metals

| Qualifier | Qualifier Description |
|---|---|
| B | Compound was found in the blank and sample. |
| F1 | MS and/or MSD Recovery is outside acceptance limits. |
| V | Serial Dilution exceeds the control limits |
| J | Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value. |

### General Chemistry

| Qualifier | Qualifier Description |
|---|---|
| HF | Field parameter with a holding time of 15 minutes. Test performed by laboratory at client's request. |

## Glossary

| Abbreviation | These commonly used abbreviations may or may not be present in this report. |
|---|---|
| ¤ | 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 | Detection Limit (DoD/DOE) |
| DL, RA, RE, IN | Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample |
| DLC | Decision Level Concentration (Radiochemistry) |
| EDL | Estimated Detection Limit (Dioxin) |
| LOD | Limit of Detection (DoD/DOE) |
| LOQ | Limit of Quantitation (DoD/DOE) |
| MDA | Minimum Detectable Activity (Radiochemistry) |
| MDC | Minimum Detectable Concentration (Radiochemistry) |
| 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 (Radiochemistry) |
| 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: Central Wire (Techalloy)
Project/Site: Ponds and Process Tanks

TestAmerica Job ID: 500-144115-1

## Job ID: 500-144115-1

**Laboratory: TestAmerica Chicago**

**Narrative**

**Job Narrative**
**500-144115-1**

**Comments**
No additional comments.

**Receipt**
The samples were received on 4/20/2018 10:25 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 2.6º C.

**GC/MS VOA**
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

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

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

# Client Sample Results

Client: Central Wire (Techalloy)
Project/Site: Ponds and Process Tanks

TestAmerica Job ID: 500-144115-1

## Client Sample ID: P&T Effluent

Lab Sample ID: 500-144115-1
Date Collected: 04/19/18 12:30
Matrix: Ground Water
Date Received: 04/20/18 10:25

### Method: 8260B - Volatile Organic Compounds (GC/MS)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | <0.38 | | 1.0 | 0.38 | ug/L | | | 05/01/18 20:23 | 1 |
| **Tetrachloroethene** | **0.68** | **J** | 1.0 | 0.37 | ug/L | | | 05/01/18 20:23 | 1 |
| **Trichloroethene** | **0.73** | | 0.50 | 0.16 | ug/L | | | 05/01/18 20:23 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1,2-Dichloroethane-d4 (Surr)* | *109* | | *75 - 126* | | *05/01/18 20:23* | *1* |
| *4-Bromofluorobenzene (Surr)* | *105* | | *72 - 124* | | *05/01/18 20:23* | *1* |
| *Dibromofluoromethane* | *95* | | *75 - 120* | | *05/01/18 20:23* | *1* |
| *Toluene-d8 (Surr)* | *104* | | *75 - 120* | | *05/01/18 20:23* | *1* |

### General Chemistry

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **pH** | **7.9** | **HF** | 0.2 | 0.2 | SU | | | 04/20/18 14:43 | 1 |

## Client Sample ID: North Pond

Lab Sample ID: 500-144115-2
Date Collected: 04/19/18 12:15
Matrix: Ground Water
Date Received: 04/20/18 10:25

### Method: 6020A - Metals (ICP/MS) - Total Recoverable

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Iron** | **1500** | **F1 B** | 100 | 47 | ug/L | | 04/21/18 15:25 | 04/23/18 17:05 | 1 |
| **Lead** | **8.6** | | 0.50 | 0.19 | ug/L | | 04/21/18 15:25 | 04/23/18 17:05 | 1 |
| **Manganese** | **39** | | 2.5 | 0.79 | ug/L | | 04/21/18 15:25 | 04/23/18 17:05 | 1 |
| **Nickel** | **63** | **V** | 2.0 | 0.63 | ug/L | | 04/21/18 15:25 | 04/23/18 17:05 | 1 |
| Selenium | <0.98 | | 2.5 | 0.98 | ug/L | | 04/21/18 15:25 | 04/23/18 17:05 | 1 |

### General Chemistry

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Nitrogen, Nitrate Nitrite** | **0.30** | | 0.10 | 0.041 | mg/L | | | 04/30/18 01:05 | 1 |
| **pH** | **7.7** | **HF** | 0.2 | 0.2 | SU | | | 04/20/18 14:47 | 1 |

## Client Sample ID: South Pond

Lab Sample ID: 500-144115-3
Date Collected: 04/19/18 12:20
Matrix: Ground Water
Date Received: 04/20/18 10:25

### Method: 6020A - Metals (ICP/MS) - Total Recoverable

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Iron** | **120** | **B** | 100 | 47 | ug/L | | 04/21/18 15:25 | 04/23/18 17:23 | 1 |
| **Lead** | **0.25** | **J** | 0.50 | 0.19 | ug/L | | 04/21/18 15:25 | 04/23/18 17:23 | 1 |
| **Manganese** | **7.1** | | 2.5 | 0.79 | ug/L | | 04/21/18 15:25 | 04/23/18 17:23 | 1 |
| **Nickel** | **16** | | 2.0 | 0.63 | ug/L | | 04/21/18 15:25 | 04/23/18 17:23 | 1 |
| Selenium | <0.98 | | 2.5 | 0.98 | ug/L | | 04/21/18 15:25 | 04/23/18 17:23 | 1 |

### General Chemistry

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Nitrogen, Nitrate Nitrite** | **3.1** | | 0.20 | 0.082 | mg/L | | | 04/30/18 02:27 | 2 |
| **pH** | **6.6** | **HF** | 0.2 | 0.2 | SU | | | 04/20/18 14:52 | 1 |

# Client Sample Results

Client: Central Wire (Techalloy)
Project/Site: Ponds and Process Tanks

TestAmerica Job ID: 500-144115-1

Client Sample ID: Ex. 6 Personal Privacy (PP)
Date Collected: 04/19/18 12:40
Date Received: 04/20/18 10:25

Lab Sample ID: 500-144115-4
Matrix: Ground Water

## Method: 8260B - Volatile Organic Compounds (GC/MS)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,1,1,2-Tetrachloroethane | <0.46 | | 1.0 | 0.46 | ug/L | | | 05/01/18 20:51 | 1 |
| 1,1,1-Trichloroethane | <0.38 | | 1.0 | 0.38 | ug/L | | | 05/01/18 20:51 | 1 |
| 1,1,2,2-Tetrachloroethane | <0.40 | | 1.0 | 0.40 | ug/L | | | 05/01/18 20:51 | 1 |
| 1,1,2-Trichloroethane | <0.35 | | 1.0 | 0.35 | ug/L | | | 05/01/18 20:51 | 1 |
| 1,1-Dichloroethane | <0.41 | | 1.0 | 0.41 | ug/L | | | 05/01/18 20:51 | 1 |
| 1,1-Dichloroethene | <0.39 | | 1.0 | 0.39 | ug/L | | | 05/01/18 20:51 | 1 |
| 1,1-Dichloropropene | <0.30 | | 1.0 | 0.30 | ug/L | | | 05/01/18 20:51 | 1 |
| 1,2,3-Trichlorobenzene | <0.46 | | 1.0 | 0.46 | ug/L | | | 05/01/18 20:51 | 1 |
| 1,2,3-Trichloropropane | <0.41 | | 1.0 | 0.41 | ug/L | | | 05/01/18 20:51 | 1 |
| 1,2,4-Trichlorobenzene | <0.34 | | 1.0 | 0.34 | ug/L | | | 05/01/18 20:51 | 1 |
| 1,2,4-Trimethylbenzene | <0.36 | | 1.0 | 0.36 | ug/L | | | 05/01/18 20:51 | 1 |
| 1,2-Dibromo-3-Chloropropane | <2.0 | | 5.0 | 2.0 | ug/L | | | 05/01/18 20:51 | 1 |
| 1,2-Dibromoethane | <0.39 | | 1.0 | 0.39 | ug/L | | | 05/01/18 20:51 | 1 |
| 1,2-Dichlorobenzene | <0.33 | | 1.0 | 0.33 | ug/L | | | 05/01/18 20:51 | 1 |
| 1,2-Dichloroethane | <0.39 | | 1.0 | 0.39 | ug/L | | | 05/01/18 20:51 | 1 |
| 1,2-Dichloropropane | <0.43 | | 1.0 | 0.43 | ug/L | | | 05/01/18 20:51 | 1 |
| 1,3,5-Trimethylbenzene | <0.25 | | 1.0 | 0.25 | ug/L | | | 05/01/18 20:51 | 1 |
| 1,3-Dichlorobenzene | <0.40 | | 1.0 | 0.40 | ug/L | | | 05/01/18 20:51 | 1 |
| 1,3-Dichloropropane | <0.36 | | 1.0 | 0.36 | ug/L | | | 05/01/18 20:51 | 1 |
| 1,4-Dichlorobenzene | <0.36 | | 1.0 | 0.36 | ug/L | | | 05/01/18 20:51 | 1 |
| 2,2-Dichloropropane | <0.44 | | 1.0 | 0.44 | ug/L | | | 05/01/18 20:51 | 1 |
| 2-Chlorotoluene | <0.31 | | 1.0 | 0.31 | ug/L | | | 05/01/18 20:51 | 1 |
| 2-Hexanone | <1.6 | | 5.0 | 1.6 | ug/L | | | 05/01/18 20:51 | 1 |
| 4-Chlorotoluene | <0.35 | | 1.0 | 0.35 | ug/L | | | 05/01/18 20:51 | 1 |
| Acetone | <1.7 | | 5.0 | 1.7 | ug/L | | | 05/01/18 20:51 | 1 |
| Benzene | <0.15 | | 0.50 | 0.15 | ug/L | | | 05/01/18 20:51 | 1 |
| Bromobenzene | <0.36 | | 1.0 | 0.36 | ug/L | | | 05/01/18 20:51 | 1 |
| Bromochloromethane | <0.43 | | 1.0 | 0.43 | ug/L | | | 05/01/18 20:51 | 1 |
| Bromodichloromethane | <0.37 | | 1.0 | 0.37 | ug/L | | | 05/01/18 20:51 | 1 |
| Bromoform | <0.48 | | 1.0 | 0.48 | ug/L | | | 05/01/18 20:51 | 1 |
| Bromomethane | <0.80 | | 2.0 | 0.80 | ug/L | | | 05/01/18 20:51 | 1 |
| Carbon disulfide | <0.45 | | 2.0 | 0.45 | ug/L | | | 05/01/18 20:51 | 1 |
| Carbon tetrachloride | <0.38 | | 1.0 | 0.38 | ug/L | | | 05/01/18 20:51 | 1 |
| Chlorobenzene | <0.39 | | 1.0 | 0.39 | ug/L | | | 05/01/18 20:51 | 1 |
| Chloroethane | <0.51 | | 1.0 | 0.51 | ug/L | | | 05/01/18 20:51 | 1 |
| Chloroform | <0.37 | | 2.0 | 0.37 | ug/L | | | 05/01/18 20:51 | 1 |
| Chloromethane | <0.32 | | 1.0 | 0.32 | ug/L | | | 05/01/18 20:51 | 1 |
| cis-1,2-Dichloroethene | <0.41 | | 1.0 | 0.41 | ug/L | | | 05/01/18 20:51 | 1 |
| cis-1,3-Dichloropropene | <0.42 | | 1.0 | 0.42 | ug/L | | | 05/01/18 20:51 | 1 |
| Dibromochloromethane | <0.49 | | 1.0 | 0.49 | ug/L | | | 05/01/18 20:51 | 1 |
| Dibromomethane | <0.27 | | 1.0 | 0.27 | ug/L | | | 05/01/18 20:51 | 1 |
| Dichlorodifluoromethane | <0.67 | | 2.0 | 0.67 | ug/L | | | 05/01/18 20:51 | 1 |
| Ethylbenzene | <0.18 | | 0.50 | 0.18 | ug/L | | | 05/01/18 20:51 | 1 |
| Hexachlorobutadiene | <0.45 | | 1.0 | 0.45 | ug/L | | | 05/01/18 20:51 | 1 |
| Isopropylbenzene | <0.39 | | 1.0 | 0.39 | ug/L | | | 05/01/18 20:51 | 1 |
| m&p-Xylene | <0.18 | | 1.0 | 0.18 | ug/L | | | 05/01/18 20:51 | 1 |
| Methyl Ethyl Ketone | <2.1 | | 5.0 | 2.1 | ug/L | | | 05/01/18 20:51 | 1 |
| methyl isobutyl ketone | <2.2 | | 5.0 | 2.2 | ug/L | | | 05/01/18 20:51 | 1 |
| Methyl tert-butyl ether | <0.39 | | 1.0 | 0.39 | ug/L | | | 05/01/18 20:51 | 1 |

# Client Sample Results

Client: Central Wire (Techalloy)
Project/Site: Ponds and Process Tanks

TestAmerica Job ID: 500-144115-1

## Client Sample ID: Ex. 6 Personal Privacy (PP)

Lab Sample ID: 500-144115-4
Date Collected: 04/19/18 12:40
Matrix: Ground Water
Date Received: 04/20/18 10:25

### Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Methylene Chloride | <1.6 | | 5.0 | 1.6 | ug/L | | | 05/01/18 20:51 | 1 |
| Naphthalene | <0.34 | | 1.0 | 0.34 | ug/L | | | 05/01/18 20:51 | 1 |
| n-Butylbenzene | <0.39 | | 1.0 | 0.39 | ug/L | | | 05/01/18 20:51 | 1 |
| N-Propylbenzene | <0.41 | | 1.0 | 0.41 | ug/L | | | 05/01/18 20:51 | 1 |
| o-Xylene | <0.22 | | 0.50 | 0.22 | ug/L | | | 05/01/18 20:51 | 1 |
| p-Isopropyltoluene | <0.36 | | 1.0 | 0.36 | ug/L | | | 05/01/18 20:51 | 1 |
| sec-Butylbenzene | <0.40 | | 1.0 | 0.40 | ug/L | | | 05/01/18 20:51 | 1 |
| Styrene | <0.39 | | 1.0 | 0.39 | ug/L | | | 05/01/18 20:51 | 1 |
| tert-Butylbenzene | <0.40 | | 1.0 | 0.40 | ug/L | | | 05/01/18 20:51 | 1 |
| Tetrachloroethene | <0.37 | | 1.0 | 0.37 | ug/L | | | 05/01/18 20:51 | 1 |
| Toluene | <0.15 | | 0.50 | 0.15 | ug/L | | | 05/01/18 20:51 | 1 |
| trans-1,2-Dichloroethene | <0.35 | | 1.0 | 0.35 | ug/L | | | 05/01/18 20:51 | 1 |
| trans-1,3-Dichloropropene | <0.36 | | 1.0 | 0.36 | ug/L | | | 05/01/18 20:51 | 1 |
| Trichloroethene | <0.16 | | 0.50 | 0.16 | ug/L | | | 05/01/18 20:51 | 1 |
| Trichlorofluoromethane | <0.43 | | 1.0 | 0.43 | ug/L | | | 05/01/18 20:51 | 1 |
| Vinyl chloride | <0.20 | | 1.0 | 0.20 | ug/L | | | 05/01/18 20:51 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1,2-Dichloroethane-d4 (Surr)* | *113* | | *75 - 126* | | *05/01/18 20:51* | *1* |
| *4-Bromofluorobenzene (Surr)* | *104* | | *72 - 124* | | *05/01/18 20:51* | *1* |
| *Dibromofluoromethane* | *99* | | *75 - 120* | | *05/01/18 20:51* | *1* |
| *Toluene-d8 (Surr)* | *105* | | *75 - 120* | | *05/01/18 20:51* | *1* |

### General Chemistry

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **pH** | **7.4** | **HF** | 0.2 | 0.2 | SU | | | 04/20/18 14:56 | 1 |

## Client Sample ID: Trip Blank

Lab Sample ID: 500-144115-5
Date Collected: 04/19/18 00:00
Matrix: Water
Date Received: 04/20/18 10:25

### Method: 8260B - Volatile Organic Compounds (GC/MS)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,1,1,2-Tetrachloroethane | <0.46 | | 1.0 | 0.46 | ug/L | | | 05/01/18 21:18 | 1 |
| 1,1,1-Trichloroethane | <0.38 | | 1.0 | 0.38 | ug/L | | | 05/01/18 21:18 | 1 |
| 1,1,2,2-Tetrachloroethane | <0.40 | | 1.0 | 0.40 | ug/L | | | 05/01/18 21:18 | 1 |
| 1,1,2-Trichloroethane | <0.35 | | 1.0 | 0.35 | ug/L | | | 05/01/18 21:18 | 1 |
| 1,1-Dichloroethane | <0.41 | | 1.0 | 0.41 | ug/L | | | 05/01/18 21:18 | 1 |
| 1,1-Dichloroethene | <0.39 | | 1.0 | 0.39 | ug/L | | | 05/01/18 21:18 | 1 |
| 1,1-Dichloropropene | <0.30 | | 1.0 | 0.30 | ug/L | | | 05/01/18 21:18 | 1 |
| 1,2,3-Trichlorobenzene | <0.46 | | 1.0 | 0.46 | ug/L | | | 05/01/18 21:18 | 1 |
| 1,2,3-Trichloropropane | <0.41 | | 1.0 | 0.41 | ug/L | | | 05/01/18 21:18 | 1 |
| 1,2,4-Trichlorobenzene | <0.34 | | 1.0 | 0.34 | ug/L | | | 05/01/18 21:18 | 1 |
| 1,2,4-Trimethylbenzene | <0.36 | | 1.0 | 0.36 | ug/L | | | 05/01/18 21:18 | 1 |
| 1,2-Dibromo-3-Chloropropane | <2.0 | | 5.0 | 2.0 | ug/L | | | 05/01/18 21:18 | 1 |
| 1,2-Dibromoethane | <0.39 | | 1.0 | 0.39 | ug/L | | | 05/01/18 21:18 | 1 |
| 1,2-Dichlorobenzene | <0.33 | | 1.0 | 0.33 | ug/L | | | 05/01/18 21:18 | 1 |
| 1,2-Dichloroethane | <0.39 | | 1.0 | 0.39 | ug/L | | | 05/01/18 21:18 | 1 |
| 1,2-Dichloropropane | <0.43 | | 1.0 | 0.43 | ug/L | | | 05/01/18 21:18 | 1 |
| 1,3,5-Trimethylbenzene | <0.25 | | 1.0 | 0.25 | ug/L | | | 05/01/18 21:18 | 1 |

# Client Sample Results

Client: Central Wire (Techalloy)
Project/Site: Ponds and Process Tanks

TestAmerica Job ID: 500-144115-1

## Client Sample ID: Trip Blank

Lab Sample ID: 500-144115-5

Date Collected: 04/19/18 00:00
Date Received: 04/20/18 10:25

Matrix: Water

### Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,3-Dichlorobenzene | <0.40 | | 1.0 | 0.40 | ug/L | | | 05/01/18 21:18 | 1 |
| 1,3-Dichloropropane | <0.36 | | 1.0 | 0.36 | ug/L | | | 05/01/18 21:18 | 1 |
| 1,4-Dichlorobenzene | <0.36 | | 1.0 | 0.36 | ug/L | | | 05/01/18 21:18 | 1 |
| 2,2-Dichloropropane | <0.44 | | 1.0 | 0.44 | ug/L | | | 05/01/18 21:18 | 1 |
| 2-Chlorotoluene | <0.31 | | 1.0 | 0.31 | ug/L | | | 05/01/18 21:18 | 1 |
| 2-Hexanone | <1.6 | | 5.0 | 1.6 | ug/L | | | 05/01/18 21:18 | 1 |
| 4-Chlorotoluene | <0.35 | | 1.0 | 0.35 | ug/L | | | 05/01/18 21:18 | 1 |
| Acetone | <1.7 | | 5.0 | 1.7 | ug/L | | | 05/01/18 21:18 | 1 |
| Benzene | <0.15 | | 0.50 | 0.15 | ug/L | | | 05/01/18 21:18 | 1 |
| Bromobenzene | <0.36 | | 1.0 | 0.36 | ug/L | | | 05/01/18 21:18 | 1 |
| Bromochloromethane | <0.43 | | 1.0 | 0.43 | ug/L | | | 05/01/18 21:18 | 1 |
| Bromodichloromethane | <0.37 | | 1.0 | 0.37 | ug/L | | | 05/01/18 21:18 | 1 |
| Bromoform | <0.48 | | 1.0 | 0.48 | ug/L | | | 05/01/18 21:18 | 1 |
| Bromomethane | <0.80 | | 2.0 | 0.80 | ug/L | | | 05/01/18 21:18 | 1 |
| Carbon disulfide | <0.45 | | 2.0 | 0.45 | ug/L | | | 05/01/18 21:18 | 1 |
| Carbon tetrachloride | <0.38 | | 1.0 | 0.38 | ug/L | | | 05/01/18 21:18 | 1 |
| Chlorobenzene | <0.39 | | 1.0 | 0.39 | ug/L | | | 05/01/18 21:18 | 1 |
| Chloroethane | <0.51 | | 1.0 | 0.51 | ug/L | | | 05/01/18 21:18 | 1 |
| Chloroform | <0.37 | | 2.0 | 0.37 | ug/L | | | 05/01/18 21:18 | 1 |
| Chloromethane | <0.32 | | 1.0 | 0.32 | ug/L | | | 05/01/18 21:18 | 1 |
| cis-1,2-Dichloroethene | <0.41 | | 1.0 | 0.41 | ug/L | | | 05/01/18 21:18 | 1 |
| cis-1,3-Dichloropropene | <0.42 | | 1.0 | 0.42 | ug/L | | | 05/01/18 21:18 | 1 |
| Dibromochloromethane | <0.49 | | 1.0 | 0.49 | ug/L | | | 05/01/18 21:18 | 1 |
| Dibromomethane | <0.27 | | 1.0 | 0.27 | ug/L | | | 05/01/18 21:18 | 1 |
| Dichlorodifluoromethane | <0.67 | | 2.0 | 0.67 | ug/L | | | 05/01/18 21:18 | 1 |
| Ethylbenzene | <0.18 | | 0.50 | 0.18 | ug/L | | | 05/01/18 21:18 | 1 |
| Hexachlorobutadiene | <0.45 | | 1.0 | 0.45 | ug/L | | | 05/01/18 21:18 | 1 |
| Isopropylbenzene | <0.39 | | 1.0 | 0.39 | ug/L | | | 05/01/18 21:18 | 1 |
| m&p-Xylene | <0.18 | | 1.0 | 0.18 | ug/L | | | 05/01/18 21:18 | 1 |
| Methyl Ethyl Ketone | <2.1 | | 5.0 | 2.1 | ug/L | | | 05/01/18 21:18 | 1 |
| methyl isobutyl ketone | <2.2 | | 5.0 | 2.2 | ug/L | | | 05/01/18 21:18 | 1 |
| Methyl tert-butyl ether | <0.39 | | 1.0 | 0.39 | ug/L | | | 05/01/18 21:18 | 1 |
| Methylene Chloride | <1.6 | | 5.0 | 1.6 | ug/L | | | 05/01/18 21:18 | 1 |
| Naphthalene | <0.34 | | 1.0 | 0.34 | ug/L | | | 05/01/18 21:18 | 1 |
| n-Butylbenzene | <0.39 | | 1.0 | 0.39 | ug/L | | | 05/01/18 21:18 | 1 |
| N-Propylbenzene | <0.41 | | 1.0 | 0.41 | ug/L | | | 05/01/18 21:18 | 1 |
| o-Xylene | <0.22 | | 0.50 | 0.22 | ug/L | | | 05/01/18 21:18 | 1 |
| p-Isopropyltoluene | <0.36 | | 1.0 | 0.36 | ug/L | | | 05/01/18 21:18 | 1 |
| sec-Butylbenzene | <0.40 | | 1.0 | 0.40 | ug/L | | | 05/01/18 21:18 | 1 |
| Styrene | <0.39 | | 1.0 | 0.39 | ug/L | | | 05/01/18 21:18 | 1 |
| tert-Butylbenzene | <0.40 | | 1.0 | 0.40 | ug/L | | | 05/01/18 21:18 | 1 |
| Tetrachloroethene | <0.37 | | 1.0 | 0.37 | ug/L | | | 05/01/18 21:18 | 1 |
| Toluene | <0.15 | | 0.50 | 0.15 | ug/L | | | 05/01/18 21:18 | 1 |
| trans-1,2-Dichloroethene | <0.35 | | 1.0 | 0.35 | ug/L | | | 05/01/18 21:18 | 1 |
| trans-1,3-Dichloropropene | <0.36 | | 1.0 | 0.36 | ug/L | | | 05/01/18 21:18 | 1 |
| Trichloroethene | <0.16 | | 0.50 | 0.16 | ug/L | | | 05/01/18 21:18 | 1 |
| Trichlorofluoromethane | <0.43 | | 1.0 | 0.43 | ug/L | | | 05/01/18 21:18 | 1 |
| Vinyl chloride | <0.20 | | 1.0 | 0.20 | ug/L | | | 05/01/18 21:18 | 1 |

# Client Sample Results

Client: Central Wire (Techalloy)
Project/Site: Ponds and Process Tanks

TestAmerica Job ID: 500-144115-1

## Client Sample ID: Trip Blank

Lab Sample ID: 500-144115-5

Date Collected: 04/19/18 00:00
Date Received: 04/20/18 10:25

Matrix: Water

| Surrogate | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|
| 1,2-Dichloroethane-d4 (Surr) | 108 | | 75 - 126 | | 05/01/18 21:18 | 1 |
| 4-Bromofluorobenzene (Surr) | 101 | | 72 - 124 | | 05/01/18 21:18 | 1 |
| Dibromofluoromethane | 96 | | 75 - 120 | | 05/01/18 21:18 | 1 |
| Toluene-d8 (Surr) | 106 | | 75 - 120 | | 05/01/18 21:18 | 1 |

# Lab Chronicle

Client: Central Wire (Techalloy)
Project/Site: Ponds and Process Tanks

TestAmerica Job ID: 500-144115-1

## Client Sample ID: P&T Effluent — Lab Sample ID: 500-144115-1

Date Collected: 04/19/18 12:30
Date Received: 04/20/18 10:25
Matrix: Ground Water

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 8260B | | 1 | 430110 | 05/01/18 20:23 | JDD | TAL CHI |
| Total/NA | Analysis | SM 4500 H+ B | | 1 | 428785 | | SMO | TAL CHI |
| | | | | | (Start) | 04/20/18 14:43 | | |
| | | | | | (End) | 04/20/18 14:45 | | |

## Client Sample ID: North Pond — Lab Sample ID: 500-144115-2

Date Collected: 04/19/18 12:15
Date Received: 04/20/18 10:25
Matrix: Ground Water

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|
| Total Recoverable | Prep | 3005A | | | 428869 | 04/21/18 15:25 | BDE | TAL CHI |
| Total Recoverable | Analysis | 6020A | | 1 | 429139 | 04/23/18 17:05 | FXG | TAL CHI |
| Total/NA | Analysis | 353.2 | | 1 | 430042 | 04/30/18 01:05 | HMW | TAL CHI |
| Total/NA | Analysis | SM 4500 H+ B | | 1 | 428785 | | SMO | TAL CHI |
| | | | | | (Start) | 04/20/18 14:47 | | |
| | | | | | (End) | 04/20/18 14:49 | | |

## Client Sample ID: South Pond — Lab Sample ID: 500-144115-3

Date Collected: 04/19/18 12:20
Date Received: 04/20/18 10:25
Matrix: Ground Water

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|
| Total Recoverable | Prep | 3005A | | | 428869 | 04/21/18 15:25 | BDE | TAL CHI |
| Total Recoverable | Analysis | 6020A | | 1 | 429139 | 04/23/18 17:23 | FXG | TAL CHI |
| Total/NA | Analysis | 353.2 | | 2 | 430042 | 04/30/18 02:27 | HMW | TAL CHI |
| Total/NA | Analysis | SM 4500 H+ B | | 1 | 428785 | | SMO | TAL CHI |
| | | | | | (Start) | 04/20/18 14:52 | | |
| | | | | | (End) | 04/20/18 14:54 | | |

## Client Sample ID: Ex. 6 Personal Privacy (PP) — Lab Sample ID: 500-144115-4

Date Collected: 04/19/18 12:40
Date Received: 04/20/18 10:25
Matrix: Ground Water

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 8260B | | 1 | 430110 | 05/01/18 20:51 | JDD | TAL CHI |
| Total/NA | Analysis | SM 4500 H+ B | | 1 | 428785 | | SMO | TAL CHI |
| | | | | | (Start) | 04/20/18 14:56 | | |
| | | | | | (End) | 04/20/18 14:58 | | |

# Lab Chronicle

Client: Central Wire (Techalloy)
Project/Site: Ponds and Process Tanks

TestAmerica Job ID: 500-144115-1

## Client Sample ID: Trip Blank

Lab Sample ID: 500-144115-5
Matrix: Water

Date Collected: 04/19/18 00:00
Date Received: 04/20/18 10:25

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 8260B | | 1 | 430110 | 05/01/18 21:18 | JDD | TAL CHI |

**Laboratory References:**

TAL CHI = TestAmerica Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

# Accreditation/Certification Summary

Client: Central Wire (Techalloy)
Project/Site: Ponds and Process Tanks

TestAmerica Job ID: 500-144115-1

## Laboratory: TestAmerica Chicago

The accreditations/certifications listed below are applicable to this report.

| Authority | Program | EPA Region | Identification Number | Expiration Date |
|---|---|---|---|---|
| Illinois | NELAP | 5 | 100201 | 04-30-19 |

# Method Summary

Client: Central Wire (Techalloy)
Project/Site: Ponds and Process Tanks

TestAmerica Job ID: 500-144115-1

| Method | Method Description | Protocol | Laboratory |
|---|---|---|---|
| 8260B | Volatile Organic Compounds (GC/MS) | SW846 | TAL CHI |
| 6020A | Metals (ICP/MS) | SW846 | TAL CHI |
| 353.2 | Nitrogen, Nitrate-Nitrite | MCAWW | TAL CHI |
| SM 4500 H+ B | pH | SM | TAL CHI |
| 3005A | Preparation, Total Recoverable or Dissolved Metals | SW846 | TAL CHI |
| 5030B | Purge and Trap | SW846 | TAL CHI |

**Protocol References:**

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.
SM = "Standard Methods For The Examination Of Water And Wastewater"
SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

**Laboratory References:**

TAL CHI = TestAmerica Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

# Sample Summary

Client: Central Wire (Techalloy)
Project/Site: Ponds and Process Tanks

TestAmerica Job ID: 500-144115-1

| Lab Sample ID | Client Sample ID | Matrix | Collected | Received |
|---|---|---|---|---|
| 500-144115-1 | P&T Effluent | Ground Water | 04/19/18 12:30 | 04/20/18 10:25 |
| 500-144115-2 | North Pond | Ground Water | 04/19/18 12:15 | 04/20/18 10:25 |
| 500-144115-3 | South Pond | Ground Water | 04/19/18 12:20 | 04/20/18 10:25 |
| 500-144115-4 | Ex. 6 Personal Privacy (PP) | Ground Water | 04/19/18 12:40 | 04/20/18 10:25 |
| 500-144115-5 | Trip Blank | Water | 04/19/18 00:00 | 04/20/18 10:25 |

**Chicago**
2417 Bond Street
University Park, IL 60466
phone 708.534.5200 fax 708.534.5363

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

# Chain of Custody Record, 1st & 2nd Month of Quarter

TestAmerica Laboratories, Inc.

48 qt.

| Client Contact | Project Manager: Robert Johnson | Site Contact: Robert Johnson | Date: | COC No: 646424 |
|---|---|---|---|---|
| Central Wire Union Plant | Tel/Fax: 815.923.4919; 815.923.2126 | Lab Contact: | Carrier: UPS Ground | 1 of 1 COCs |
| 6509 Olson Rd. | Analysis Turnaround Time | | | Job No. 500-144115 |
| Union, IL 60180 | Calendar ( C ) or Work Days (W) _____ | | | |
| (815) 923-2131 Phone | TAT if different from Below _____ | | | |
| (815) 923-2126 Fax | [X] 2 weeks | | | SDG No. |
| 1st 2 mos. of qtr | [ ] 1 week | | | |
| Union Plant | [ ] 2 days | | | |
| P O # | [ ] 1 day | | | |

| Sample Identification | Sample Date | Sample Time | Sample Type | Matrix | # of Cont. | Filtered Sample | VOCs (vials) 1, 2 | Metals* (250 ml jars) 1, 4 | N + N (500 ml vials) 1, 3 | pH 1, 6 | Sample Specific Notes: |
|---|---|---|---|---|---|---|---|---|---|---|---|
| P&T Effluent | 4/19 | 1230 | G | GW | 3 | N | X | | | | |
| P&T pH | | 1230 | G | GW | 1 | N | | | | X | |
| North Pond | | 1215 | G | GW | 1 | N | | X | | | |
| North Pond | | 1215 | G | GW | 1 | N | | | X | | |
| North Pond | | 1215 | G | GW | 1 | N | | | | X | |
| South Pond | | 1220 | G | GW | 1 | N | | X | | | |
| South Pond | | 1220 | G | GW | 1 | N | | | X | | |
| South Pond | | 1220 | G | GW | 1 | N | | | | X | |
| Ex. 6 Personal Privacy (PP) | | 1240 | G | GW | 1 | N | X | | | | |
| | | 1240 | G | GW | 1 | N | | | | X | |
| Trip Blank | | | | | 1 | | | | | | |

500-144115 COC

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

*Possible Hazard Identification*
[ ] *Non-Hazard* [ ] *Flammable* [ ] *Skin Irritant* *Poison B* [ ] *Unknown* [ ]

*Sample Disposal ( A fee may be assessed if samples are retained longer than 1 month)*
[ ] *Return To Client* [X] *Disposal By Lab* [ ] *Archive For* _____ *Months*

**Special Instructions/QC Requirements & Comments:**
North Pond Metals: Iron (Fe), Lead (Pb), Manganese (Mn), Nickel (Ni) & Selenium (Se)
South Pond Metals: Iron (Fe), Lead (Pb), Manganese (Mn), Nickel (Ni) & Selenium (Se)
Rec Center Metals: EPA Method 6020A & pH - no preservative

1.7-72.6

| Relinquished by: | Company: | Date/Time: | Received by: | Company: | Date/Time: |
|---|---|---|---|---|---|
| Bob Johnson | CWI 4/19/18 | 1320 | [signature] | CWI | 4/19/18 13:20 |
| [signature] | CWI | 4/19/18 15:30 | [signature] | UPS | 4-19-18 15:30 |
| | | | [signature] | TAHE | 04/20/18 1025 |

# Login Sample Receipt Checklist

Client: Central Wire (Techalloy)

Job Number: 500-144115-1

**Login Number: 144115**
**List Number: 1**
**Creator: Sanchez, Ariel M**

**List Source: TestAmerica Chicago**

| Question | Answer | Comment |
|---|---|---|
| Radioactivity wasn't checked or is </= background as measured by a survey meter. | 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 | 2.6 |
| 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 (excluding tests with immediate HTs) | 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 | |
| Samples do not require splitting or compositing. | True | |
| Residual Chlorine Checked. | N/A | |