TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

# ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Buffalo
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Amherst, NY 14228-2298
Tel: (716)691-2600

TestAmerica Job ID: 480-17340-1
Client Project/Site: Ramapo Landfill
Sampling Event: Groundwater Wells

For:
Sterling Environmental Engineering PC
24 Wade Road
Latham, New York 12110

Attn: Ms. Elizabeth Davis

*Authorized for release by:*
*3/29/2012 10:39:52 AM*

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Project Manager I
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# Definitions/Glossary

Client: Sterling Environmental Engineering PC
Project/Site: Ramapo Landfill

TestAmerica Job ID: 480-17340-1

## Qualifiers

### Metals

| 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. |
| B7 | Target analyte detected in method blank at or above method reporting limit. Concentration found in the sample was 10 times above the concentration found in the blank. |
| B | Compound was found in the blank and sample. |

### General Chemistry

| Qualifier | Qualifier Description |
|---|---|
| B | Compound was found in the blank and sample. |
| J | Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value. |

## 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 |
| CNF | Contains no Free Liquid |
| DL, RA, RE, IN | Indicates a Dilution, Reanalysis, Re-extraction, or additional Initial metals/anion analysis of the sample |
| EDL | Estimated Detection Limit |
| EPA | United States Environmental Protection Agency |
| MDL | Method Detection Limit |
| ML | Minimum Level (Dioxin) |
| ND | Not detected at the reporting limit (or MDL or EDL if shown) |
| PQL | Practical Quantitation Limit |
| QC | Quality Control |
| RL | Reporting Limit |
| RPD | Relative Percent Difference, a measure of the relative difference between two points |
| TEF | Toxicity Equivalent Factor (Dioxin) |
| TEQ | Toxicity Equivalent Quotient (Dioxin) |

## Job ID: 480-17340-1

### Laboratory: TestAmerica Buffalo

**Narrative**

**Job Narrative**
**480-17340-1**

**Comments**
No additional comments.

**Receipt**
All samples were received in good condition within temperature requirements.

**GC/MS VOA**
No analytical or quality issues were noted.

**Metals**
Method(s) 6010B: The Method Blank for batch 480-55599 contained total iron, potassium, and manganese above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples 9-I (480-17340-1), 9-OS (480-17340-2) was not performed.

No other analytical or quality issues were noted.

**General Chemistry**
Method(s) 310.2: The method blank for batch 56127 contained alkalinity above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.9-R (480-17340-3)

No other analytical or quality issues were noted.

# Detection Summary

Client: Sterling Environmental Engineering PC
Project/Site: Ramapo Landfill

TestAmerica Job ID: 480-17340-1

## Client Sample ID: 9-I — Lab Sample ID: 480-17340-1

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Antimony | 0.17 | J | 3.0 | 0.15 | ug/L | 1 | | 200.8 | Total/NA |
| Thallium | 0.0083 | J | 0.50 | 0.0080 | ug/L | 1 | | 200.8 | Total/NA |
| Aluminum | 0.088 | J | 0.20 | 0.060 | mg/L | 1 | | 6010B | Total/NA |
| Barium | 0.0047 | | 0.0020 | 0.00070 | mg/L | 1 | | 6010B | Total/NA |
| Calcium | 3.9 | B7 | 0.50 | 0.10 | mg/L | 1 | | 6010B | Total/NA |
| Chromium | 0.018 | | 0.0040 | 0.0010 | mg/L | 1 | | 6010B | Total/NA |
| Iron | 0.26 | B | 0.050 | 0.019 | mg/L | 1 | | 6010B | Total/NA |
| Magnesium | 0.93 | | 0.20 | 0.043 | mg/L | 1 | | 6010B | Total/NA |
| Manganese | 0.0069 | B | 0.0030 | 0.00040 | mg/L | 1 | | 6010B | Total/NA |
| Potassium | 0.91 | B | 0.50 | 0.10 | mg/L | 1 | | 6010B | Total/NA |
| Sodium | 11.7 | | 1.0 | 0.32 | mg/L | 1 | | 6010B | Total/NA |
| Alkalinity, Total | 14.9 | | 10.0 | 4.0 | mg/L | 1 | | 310.2 | Total/NA |
| Hardness as calcium carbonate | 20.0 | | 10.0 | 2.6 | mg/L | 1 | | SM 2340C | Total/NA |

## Client Sample ID: 9-OS — Lab Sample ID: 480-17340-2

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Antimony | 0.15 | J | 3.0 | 0.15 | ug/L | 1 | | 200.8 | Total/NA |
| Thallium | 0.015 | J | 0.50 | 0.0080 | ug/L | 1 | | 200.8 | Total/NA |
| Aluminum | 1.1 | | 0.20 | 0.060 | mg/L | 1 | | 6010B | Total/NA |
| Barium | 0.013 | | 0.0020 | 0.00070 | mg/L | 1 | | 6010B | Total/NA |
| Calcium | 6.5 | B7 | 0.50 | 0.10 | mg/L | 1 | | 6010B | Total/NA |
| Chromium | 0.18 | | 0.0040 | 0.0010 | mg/L | 1 | | 6010B | Total/NA |
| Cobalt | 0.00077 | J | 0.0040 | 0.00063 | mg/L | 1 | | 6010B | Total/NA |
| Copper | 0.0035 | J | 0.010 | 0.0016 | mg/L | 1 | | 6010B | Total/NA |
| Iron | 2.4 | B7 | 0.050 | 0.019 | mg/L | 1 | | 6010B | Total/NA |
| Magnesium | 1.7 | | 0.20 | 0.043 | mg/L | 1 | | 6010B | Total/NA |
| Manganese | 0.040 | B | 0.0030 | 0.00040 | mg/L | 1 | | 6010B | Total/NA |
| Nickel | 0.0087 | J | 0.010 | 0.0013 | mg/L | 1 | | 6010B | Total/NA |
| Potassium | 1.1 | B | 0.50 | 0.10 | mg/L | 1 | | 6010B | Total/NA |
| Sodium | 10.8 | | 1.0 | 0.32 | mg/L | 1 | | 6010B | Total/NA |
| Vanadium | 0.0038 | J | 0.0050 | 0.0015 | mg/L | 1 | | 6010B | Total/NA |
| Zinc | 0.0066 | J | 0.010 | 0.0015 | mg/L | 1 | | 6010B | Total/NA |
| Alkalinity, Total | 20.1 | | 10.0 | 4.0 | mg/L | 1 | | 310.2 | Total/NA |
| Total Kjeldahl Nitrogen | 0.22 | | 0.20 | 0.15 | mg/L | 1 | | 351.2 | Total/NA |
| Hardness as calcium carbonate | 30.0 | | 10.0 | 2.6 | mg/L | 1 | | SM 2340C | Total/NA |

## Client Sample ID: 9-R — Lab Sample ID: 480-17340-3

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Arsenic | 0.0077 | J | 0.010 | 0.0056 | mg/L | 1 | | 6010B | Total/NA |
| Barium | 0.028 | | 0.0020 | 0.00070 | mg/L | 1 | | 6010B | Total/NA |
| Calcium | 40.7 | B7 | 0.50 | 0.10 | mg/L | 1 | | 6010B | Total/NA |
| Cobalt | 0.0028 | J | 0.0040 | 0.00063 | mg/L | 1 | | 6010B | Total/NA |
| Iron | 7.9 | B7 | 0.050 | 0.019 | mg/L | 1 | | 6010B | Total/NA |
| Magnesium | 11.5 | | 0.20 | 0.043 | mg/L | 1 | | 6010B | Total/NA |
| Manganese | 2.8 | B7 | 0.0030 | 0.00040 | mg/L | 1 | | 6010B | Total/NA |
| Nickel | 0.0053 | J | 0.010 | 0.0013 | mg/L | 1 | | 6010B | Total/NA |
| Potassium | 11.0 | B7 | 0.50 | 0.10 | mg/L | 1 | | 6010B | Total/NA |
| Sodium | 57.2 | | 1.0 | 0.32 | mg/L | 1 | | 6010B | Total/NA |
| Alkalinity, Total | 209 | B | 100 | 40.0 | mg/L | 10 | | 310.2 | Total/NA |
| Total Kjeldahl Nitrogen | 5.8 | | 0.60 | 0.45 | mg/L | 3 | | 351.2 | Total/NA |
| Hardness as calcium carbonate | 180 | | 20.0 | 5.3 | mg/L | 1 | | SM 2340C | Total/NA |

# Detection Summary

Client: Sterling Environmental Engineering PC
Project/Site: Ramapo Landfill

TestAmerica Job ID: 480-17340-1

**Client Sample ID: TRIP BLANK** **Lab Sample ID: 480-17340-4**

No Detections

Client: Sterling Environmental Engineering PC
Project/Site: Ramapo Landfill

TestAmerica Job ID: 480-17340-1

**Client Sample ID: 9-I**
**Date Collected: 03/14/12 13:10**
**Date Received: 03/15/12 09:00**

**Lab Sample ID: 480-17340-1**
**Matrix: Ground Water**

### Method: 624 - Volatile Organic Compounds (GC/MS)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,1-Dichloroethane | ND | | 5.0 | 0.59 | ug/L | | | 03/21/12 14:43 | 1 |
| Benzene | ND | | 1.0 | 0.60 | ug/L | | | 03/21/12 14:43 | 1 |
| Chlorobenzene | ND | | 5.0 | 0.48 | ug/L | | | 03/21/12 14:43 | 1 |
| Vinyl chloride | ND | | 2.0 | 0.75 | ug/L | | | 03/21/12 14:43 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1,2-Dichloroethane-d4 (Surr)* | *92* | | *72 - 130* | | *03/21/12 14:43* | *1* |
| *4-Bromofluorobenzene (Surr)* | *98* | | *69 - 121* | | *03/21/12 14:43* | *1* |
| *Toluene-d8 (Surr)* | *99* | | *70 - 123* | | *03/21/12 14:43* | *1* |

### Method: 200.8 - Metals (ICP/MS)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Antimony** | **0.17** | **J** | 3.0 | 0.15 | ug/L | | 03/19/12 08:15 | 03/19/12 21:03 | 1 |
| **Thallium** | **0.0083** | **J** | 0.50 | 0.0080 | ug/L | | 03/19/12 08:15 | 03/19/12 21:03 | 1 |

### Method: 6010B - Metals (ICP)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Aluminum** | **0.088** | **J** | 0.20 | 0.060 | mg/L | | 03/19/12 08:45 | 03/19/12 15:40 | 1 |
| Arsenic | ND | | 0.010 | 0.0056 | mg/L | | 03/19/12 08:45 | 03/19/12 15:40 | 1 |
| **Barium** | **0.0047** | | 0.0020 | 0.00070 | mg/L | | 03/19/12 08:45 | 03/19/12 15:40 | 1 |
| Beryllium | ND | | 0.0020 | 0.00030 | mg/L | | 03/19/12 08:45 | 03/19/12 15:40 | 1 |
| Cadmium | ND | | 0.0010 | 0.00050 | mg/L | | 03/19/12 08:45 | 03/19/12 15:40 | 1 |
| **Calcium** | **3.9** | **B7** | 0.50 | 0.10 | mg/L | | 03/19/12 08:45 | 03/19/12 15:40 | 1 |
| **Chromium** | **0.018** | | 0.0040 | 0.0010 | mg/L | | 03/19/12 08:45 | 03/19/12 15:40 | 1 |
| Cobalt | ND | | 0.0040 | 0.00063 | mg/L | | 03/19/12 08:45 | 03/19/12 15:40 | 1 |
| Copper | ND | | 0.010 | 0.0016 | mg/L | | 03/19/12 08:45 | 03/19/12 15:40 | 1 |
| **Iron** | **0.26** | **B** | 0.050 | 0.019 | mg/L | | 03/19/12 08:45 | 03/19/12 15:40 | 1 |
| Lead | ND | | 0.0050 | 0.0030 | mg/L | | 03/19/12 08:45 | 03/19/12 15:40 | 1 |
| **Magnesium** | **0.93** | | 0.20 | 0.043 | mg/L | | 03/19/12 08:45 | 03/19/12 15:40 | 1 |
| **Manganese** | **0.0069** | **B** | 0.0030 | 0.00040 | mg/L | | 03/19/12 08:45 | 03/19/12 15:40 | 1 |
| Nickel | ND | | 0.010 | 0.0013 | mg/L | | 03/19/12 08:45 | 03/19/12 15:40 | 1 |
| **Potassium** | **0.91** | **B** | 0.50 | 0.10 | mg/L | | 03/19/12 08:45 | 03/19/12 15:40 | 1 |
| Selenium | ND | | 0.015 | 0.0087 | mg/L | | 03/19/12 08:45 | 03/19/12 15:40 | 1 |
| Silver | ND | | 0.0030 | 0.0017 | mg/L | | 03/19/12 08:45 | 03/19/12 15:40 | 1 |
| **Sodium** | **11.7** | | 1.0 | 0.32 | mg/L | | 03/19/12 08:45 | 03/19/12 15:40 | 1 |
| Vanadium | ND | | 0.0050 | 0.0015 | mg/L | | 03/19/12 08:45 | 03/19/12 15:40 | 1 |
| Zinc | ND | | 0.010 | 0.0015 | mg/L | | 03/19/12 08:45 | 03/19/12 15:40 | 1 |

### Method: 7470A - Mercury (CVAA)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Mercury | ND | | 0.00020 | 0.00012 | mg/L | | 03/19/12 08:50 | 03/19/12 12:04 | 1 |

### General Chemistry

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Alkalinity, Total** | **14.9** | | 10.0 | 4.0 | mg/L | | | 03/20/12 11:35 | 1 |
| Total Kjeldahl Nitrogen | ND | | 0.20 | 0.15 | mg/L | | 03/22/12 11:11 | 03/23/12 10:45 | 1 |
| Chemical Oxygen Demand | ND | | 10.0 | 5.0 | mg/L | | | 03/20/12 17:00 | 1 |
| **Hardness as calcium carbonate** | **20.0** | | 10.0 | 2.6 | mg/L | | | 03/27/12 15:15 | 1 |

Client: Sterling Environmental Engineering PC
Project/Site: Ramapo Landfill

TestAmerica Job ID: 480-17340-1

**Client Sample ID: 9-OS**
**Date Collected: 03/14/12 13:30**
**Date Received: 03/15/12 09:00**

**Lab Sample ID: 480-17340-2**
**Matrix: Ground Water**

### Method: 624 - Volatile Organic Compounds (GC/MS)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,1-Dichloroethane | ND | | 5.0 | 0.59 | ug/L | | | 03/21/12 15:06 | 1 |
| Benzene | ND | | 1.0 | 0.60 | ug/L | | | 03/21/12 15:06 | 1 |
| Chlorobenzene | ND | | 5.0 | 0.48 | ug/L | | | 03/21/12 15:06 | 1 |
| Vinyl chloride | ND | | 2.0 | 0.75 | ug/L | | | 03/21/12 15:06 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1,2-Dichloroethane-d4 (Surr)* | *93* | | *72 - 130* | | *03/21/12 15:06* | *1* |
| *4-Bromofluorobenzene (Surr)* | *97* | | *69 - 121* | | *03/21/12 15:06* | *1* |
| *Toluene-d8 (Surr)* | *99* | | *70 - 123* | | *03/21/12 15:06* | *1* |

### Method: 200.8 - Metals (ICP/MS)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Antimony** | **0.15** | **J** | 3.0 | 0.15 | ug/L | | 03/19/12 08:15 | 03/19/12 21:08 | 1 |
| **Thallium** | **0.015** | **J** | 0.50 | 0.0080 | ug/L | | 03/19/12 08:15 | 03/19/12 21:08 | 1 |

### Method: 6010B - Metals (ICP)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Aluminum** | **1.1** | | 0.20 | 0.060 | mg/L | | 03/19/12 08:45 | 03/19/12 15:42 | 1 |
| Arsenic | ND | | 0.010 | 0.0056 | mg/L | | 03/19/12 08:45 | 03/19/12 15:42 | 1 |
| **Barium** | **0.013** | | 0.0020 | 0.00070 | mg/L | | 03/19/12 08:45 | 03/19/12 15:42 | 1 |
| Beryllium | ND | | 0.0020 | 0.00030 | mg/L | | 03/19/12 08:45 | 03/19/12 15:42 | 1 |
| Cadmium | ND | | 0.0010 | 0.00050 | mg/L | | 03/19/12 08:45 | 03/19/12 15:42 | 1 |
| **Calcium** | **6.5** | **B7** | 0.50 | 0.10 | mg/L | | 03/19/12 08:45 | 03/19/12 15:42 | 1 |
| **Chromium** | **0.18** | | 0.0040 | 0.0010 | mg/L | | 03/19/12 08:45 | 03/19/12 15:42 | 1 |
| **Cobalt** | **0.00077** | **J** | 0.0040 | 0.00063 | mg/L | | 03/19/12 08:45 | 03/19/12 15:42 | 1 |
| **Copper** | **0.0035** | **J** | 0.010 | 0.0016 | mg/L | | 03/19/12 08:45 | 03/19/12 15:42 | 1 |
| **Iron** | **2.4** | **B7** | 0.050 | 0.019 | mg/L | | 03/19/12 08:45 | 03/19/12 15:42 | 1 |
| Lead | ND | | 0.0050 | 0.0030 | mg/L | | 03/19/12 08:45 | 03/19/12 15:42 | 1 |
| **Magnesium** | **1.7** | | 0.20 | 0.043 | mg/L | | 03/19/12 08:45 | 03/19/12 15:42 | 1 |
| **Manganese** | **0.040** | **B** | 0.0030 | 0.00040 | mg/L | | 03/19/12 08:45 | 03/19/12 15:42 | 1 |
| **Nickel** | **0.0087** | **J** | 0.010 | 0.0013 | mg/L | | 03/19/12 08:45 | 03/19/12 15:42 | 1 |
| **Potassium** | **1.1** | **B** | 0.50 | 0.10 | mg/L | | 03/19/12 08:45 | 03/19/12 15:42 | 1 |
| Selenium | ND | | 0.015 | 0.0087 | mg/L | | 03/19/12 08:45 | 03/19/12 15:42 | 1 |
| Silver | ND | | 0.0030 | 0.0017 | mg/L | | 03/19/12 08:45 | 03/19/12 15:42 | 1 |
| **Sodium** | **10.8** | | 1.0 | 0.32 | mg/L | | 03/19/12 08:45 | 03/19/12 15:42 | 1 |
| **Vanadium** | **0.0038** | **J** | 0.0050 | 0.0015 | mg/L | | 03/19/12 08:45 | 03/19/12 15:42 | 1 |
| **Zinc** | **0.0066** | **J** | 0.010 | 0.0015 | mg/L | | 03/19/12 08:45 | 03/19/12 15:42 | 1 |

### Method: 7470A - Mercury (CVAA)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Mercury | ND | | 0.00020 | 0.00012 | mg/L | | 03/19/12 08:50 | 03/19/12 12:06 | 1 |

### General Chemistry

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Alkalinity, Total** | **20.1** | | 10.0 | 4.0 | mg/L | | | 03/20/12 11:35 | 1 |
| **Total Kjeldahl Nitrogen** | **0.22** | | 0.20 | 0.15 | mg/L | | 03/20/12 12:43 | 03/21/12 11:04 | 1 |
| Chemical Oxygen Demand | ND | | 10.0 | 5.0 | mg/L | | | 03/20/12 17:00 | 1 |
| **Hardness as calcium carbonate** | **30.0** | | 10.0 | 2.6 | mg/L | | | 03/27/12 15:15 | 1 |

Client: Sterling Environmental Engineering PC
Project/Site: Ramapo Landfill

TestAmerica Job ID: 480-17340-1

**Client Sample ID: 9-R**
**Date Collected: 03/14/12 13:45**
**Date Received: 03/15/12 09:00**

**Lab Sample ID: 480-17340-3**
**Matrix: Ground Water**

### Method: 624 - Volatile Organic Compounds (GC/MS)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,1-Dichloroethane | ND | | 5.0 | 0.59 | ug/L | | | 03/21/12 15:29 | 1 |
| Benzene | ND | | 1.0 | 0.60 | ug/L | | | 03/21/12 15:29 | 1 |
| Chlorobenzene | ND | | 5.0 | 0.48 | ug/L | | | 03/21/12 15:29 | 1 |
| Vinyl chloride | ND | | 2.0 | 0.75 | ug/L | | | 03/21/12 15:29 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1,2-Dichloroethane-d4 (Surr)* | *95* | | *72 - 130* | | *03/21/12 15:29* | *1* |
| *4-Bromofluorobenzene (Surr)* | *96* | | *69 - 121* | | *03/21/12 15:29* | *1* |
| *Toluene-d8 (Surr)* | *98* | | *70 - 123* | | *03/21/12 15:29* | *1* |

### Method: 200.8 - Metals (ICP/MS)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Antimony | ND | | 3.0 | 0.15 | ug/L | | 03/19/12 08:15 | 03/19/12 21:13 | 1 |
| Thallium | ND | | 0.50 | 0.0080 | ug/L | | 03/19/12 08:15 | 03/19/12 21:13 | 1 |

### Method: 6010B - Metals (ICP)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Aluminum | ND | | 0.20 | 0.060 | mg/L | | 03/19/12 08:45 | 03/19/12 15:44 | 1 |
| **Arsenic** | **0.0077** | **J** | 0.010 | 0.0056 | mg/L | | 03/19/12 08:45 | 03/19/12 15:44 | 1 |
| **Barium** | **0.028** | | 0.0020 | 0.00070 | mg/L | | 03/19/12 08:45 | 03/19/12 15:44 | 1 |
| Beryllium | ND | | 0.0020 | 0.00030 | mg/L | | 03/19/12 08:45 | 03/19/12 15:44 | 1 |
| Cadmium | ND | | 0.0010 | 0.00050 | mg/L | | 03/19/12 08:45 | 03/19/12 15:44 | 1 |
| **Calcium** | **40.7** | **B7** | 0.50 | 0.10 | mg/L | | 03/19/12 08:45 | 03/19/12 15:44 | 1 |
| Chromium | ND | | 0.0040 | 0.0010 | mg/L | | 03/19/12 08:45 | 03/19/12 15:44 | 1 |
| **Cobalt** | **0.0028** | **J** | 0.0040 | 0.00063 | mg/L | | 03/19/12 08:45 | 03/19/12 15:44 | 1 |
| Copper | ND | | 0.010 | 0.0016 | mg/L | | 03/19/12 08:45 | 03/19/12 15:44 | 1 |
| **Iron** | **7.9** | **B7** | 0.050 | 0.019 | mg/L | | 03/19/12 08:45 | 03/19/12 15:44 | 1 |
| Lead | ND | | 0.0050 | 0.0030 | mg/L | | 03/19/12 08:45 | 03/19/12 15:44 | 1 |
| **Magnesium** | **11.5** | | 0.20 | 0.043 | mg/L | | 03/19/12 08:45 | 03/19/12 15:44 | 1 |
| **Manganese** | **2.8** | **B7** | 0.0030 | 0.00040 | mg/L | | 03/19/12 08:45 | 03/19/12 15:44 | 1 |
| **Nickel** | **0.0053** | **J** | 0.010 | 0.0013 | mg/L | | 03/19/12 08:45 | 03/19/12 15:44 | 1 |
| **Potassium** | **11.0** | **B7** | 0.50 | 0.10 | mg/L | | 03/19/12 08:45 | 03/19/12 15:44 | 1 |
| Selenium | ND | | 0.015 | 0.0087 | mg/L | | 03/19/12 08:45 | 03/19/12 15:44 | 1 |
| Silver | ND | | 0.0030 | 0.0017 | mg/L | | 03/19/12 08:45 | 03/19/12 15:44 | 1 |
| **Sodium** | **57.2** | | 1.0 | 0.32 | mg/L | | 03/19/12 08:45 | 03/19/12 15:44 | 1 |
| Vanadium | ND | | 0.0050 | 0.0015 | mg/L | | 03/19/12 08:45 | 03/19/12 15:44 | 1 |
| Zinc | ND | | 0.010 | 0.0015 | mg/L | | 03/19/12 08:45 | 03/19/12 15:44 | 1 |

### Method: 7470A - Mercury (CVAA)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Mercury | ND | | 0.00020 | 0.00012 | mg/L | | 03/19/12 08:50 | 03/19/12 12:11 | 1 |

### General Chemistry

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Alkalinity, Total** | **209** | **B** | 100 | 40.0 | mg/L | | | 03/20/12 14:00 | 10 |
| **Total Kjeldahl Nitrogen** | **5.8** | | 0.60 | 0.45 | mg/L | | 03/20/12 12:43 | 03/21/12 12:03 | 3 |
| Chemical Oxygen Demand | ND | | 10.0 | 5.0 | mg/L | | | 03/20/12 17:00 | 1 |
| **Hardness as calcium carbonate** | **180** | | 20.0 | 5.3 | mg/L | | | 03/27/12 15:15 | 1 |

Client: Sterling Environmental Engineering PC
Project/Site: Ramapo Landfill

TestAmerica Job ID: 480-17340-1

**Client Sample ID: TRIP BLANK**
**Date Collected: 03/14/12 00:00**
**Date Received: 03/15/12 09:00**

**Lab Sample ID: 480-17340-4**
**Matrix: Water**

**Method: 624 - Volatile Organic Compounds (GC/MS)**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,1-Dichloroethane | ND | | 5.0 | 0.59 | ug/L | | | 03/21/12 15:53 | 1 |
| Benzene | ND | | 1.0 | 0.60 | ug/L | | | 03/21/12 15:53 | 1 |
| Chlorobenzene | ND | | 5.0 | 0.48 | ug/L | | | 03/21/12 15:53 | 1 |
| Vinyl chloride | ND | | 2.0 | 0.75 | ug/L | | | 03/21/12 15:53 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1,2-Dichloroethane-d4 (Surr)* | *93* | | *72 - 130* | | *03/21/12 15:53* | *1* |
| *4-Bromofluorobenzene (Surr)* | *94* | | *69 - 121* | | *03/21/12 15:53* | *1* |
| *Toluene-d8 (Surr)* | *99* | | *70 - 123* | | *03/21/12 15:53* | *1* |

# Surrogate Summary

Client: Sterling Environmental Engineering PC
Project/Site: Ramapo Landfill

TestAmerica Job ID: 480-17340-1

## Method: 624 - Volatile Organic Compounds (GC/MS)

**Matrix: Ground Water** **Prep Type: Total/NA**

| | | Percent Surrogate Recovery (Acceptance Limits) | | |
|---|---|---|---|---|
| | | 12DCE | BFB | TOL |
| Lab Sample ID | Client Sample ID | (72-130) | (69-121) | (70-123) |
| 480-17340-1 | 9-I | 92 | 98 | 99 |
| 480-17340-2 | 9-OS | 93 | 97 | 99 |
| 480-17340-3 | 9-R | 95 | 96 | 98 |

**Surrogate Legend**

12DCE = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
TOL = Toluene-d8 (Surr)

## Method: 624 - Volatile Organic Compounds (GC/MS)

**Matrix: Water** **Prep Type: Total/NA**

| | | Percent Surrogate Recovery (Acceptance Limits) | | |
|---|---|---|---|---|
| | | 12DCE | BFB | TOL |
| Lab Sample ID | Client Sample ID | (72-130) | (69-121) | (70-123) |
| 480-17340-4 | TRIP BLANK | 93 | 94 | 99 |
| LCS 480-56150/4 | Lab Control Sample | 92 | 98 | 97 |
| MB 480-56150/5 | Method Blank | 93 | 97 | 96 |

**Surrogate Legend**

12DCE = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
TOL = Toluene-d8 (Surr)

Client: Sterling Environmental Engineering PC
Project/Site: Ramapo Landfill

TestAmerica Job ID: 480-17340-1

## Method: 624 - Volatile Organic Compounds (GC/MS)

**Lab Sample ID: MB 480-56150/5**
**Matrix: Water**
**Analysis Batch: 56150**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,1-Dichloroethane | ND | | 5.0 | 0.59 | ug/L | | | 03/21/12 14:07 | 1 |
| Benzene | ND | | 1.0 | 0.60 | ug/L | | | 03/21/12 14:07 | 1 |
| Chlorobenzene | ND | | 5.0 | 0.48 | ug/L | | | 03/21/12 14:07 | 1 |
| Vinyl chloride | ND | | 2.0 | 0.75 | ug/L | | | 03/21/12 14:07 | 1 |

| *Surrogate* | *MB %Recovery* | *MB Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1,2-Dichloroethane-d4 (Surr)* | *93* | | *72 - 130* | | *03/21/12 14:07* | *1* |
| *4-Bromofluorobenzene (Surr)* | *97* | | *69 - 121* | | *03/21/12 14:07* | *1* |
| *Toluene-d8 (Surr)* | *96* | | *70 - 123* | | *03/21/12 14:07* | *1* |

**Lab Sample ID: LCS 480-56150/4**
**Matrix: Water**
**Analysis Batch: 56150**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| 1,1-Dichloroethane | 20.0 | 18.5 | | ug/L | | 93 | 73 - 128 |
| Benzene | 20.0 | 18.3 | | ug/L | | 92 | 64 - 136 |
| Chlorobenzene | 20.0 | 19.1 | | ug/L | | 96 | 66 - 134 |
| Vinyl chloride | 20.0 | 16.9 | | ug/L | | 85 | 4 - 196 |

| *Surrogate* | *LCS %Recovery* | *LCS Qualifier* | *Limits* |
|---|---|---|---|
| *1,2-Dichloroethane-d4 (Surr)* | *92* | | *72 - 130* |
| *4-Bromofluorobenzene (Surr)* | *98* | | *69 - 121* |
| *Toluene-d8 (Surr)* | *97* | | *70 - 123* |

## Method: 200.8 - Metals (ICP/MS)

**Lab Sample ID: MB 480-55601/1-A**
**Matrix: Water**
**Analysis Batch: 55944**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**
**Prep Batch: 55601**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Antimony | ND | | 3.0 | 0.15 | ug/L | | 03/19/12 08:15 | 03/19/12 18:49 | 1 |
| Thallium | ND | | 0.50 | 0.0080 | ug/L | | 03/19/12 08:15 | 03/19/12 18:49 | 1 |

**Lab Sample ID: LCS 480-55601/2-A**
**Matrix: Water**
**Analysis Batch: 55944**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**
**Prep Batch: 55601**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| Antimony | 20.0 | 19.64 | | ug/L | | 98 | 85 - 115 |
| Thallium | 20.0 | 20.45 | | ug/L | | 102 | 85 - 115 |

## Method: 6010B - Metals (ICP)

**Lab Sample ID: MB 480-55599/1-A**
**Matrix: Water**
**Analysis Batch: 55927**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**
**Prep Batch: 55599**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Aluminum | ND | | 0.20 | 0.060 | mg/L | | 03/19/12 08:45 | 03/19/12 14:41 | 1 |
| Arsenic | ND | | 0.010 | 0.0056 | mg/L | | 03/19/12 08:45 | 03/19/12 14:41 | 1 |
| Barium | ND | | 0.0020 | 0.00070 | mg/L | | 03/19/12 08:45 | 03/19/12 14:41 | 1 |
| Beryllium | ND | | 0.0020 | 0.00030 | mg/L | | 03/19/12 08:45 | 03/19/12 14:41 | 1 |
| Cadmium | ND | | 0.0010 | 0.00050 | mg/L | | 03/19/12 08:45 | 03/19/12 14:41 | 1 |
| Calcium | 0.163 | J | 0.50 | 0.10 | mg/L | | 03/19/12 08:45 | 03/19/12 14:41 | 1 |
| Chromium | ND | | 0.0040 | 0.0010 | mg/L | | 03/19/12 08:45 | 03/19/12 14:41 | 1 |
| Cobalt | ND | | 0.0040 | 0.00063 | mg/L | | 03/19/12 08:45 | 03/19/12 14:41 | 1 |
| Copper | ND | | 0.010 | 0.0016 | mg/L | | 03/19/12 08:45 | 03/19/12 14:41 | 1 |
| Iron | 0.0324 | J | 0.050 | 0.019 | mg/L | | 03/19/12 08:45 | 03/19/12 14:41 | 1 |
| Lead | ND | | 0.0050 | 0.0030 | mg/L | | 03/19/12 08:45 | 03/19/12 14:41 | 1 |
| Magnesium | ND | | 0.20 | 0.043 | mg/L | | 03/19/12 08:45 | 03/19/12 14:41 | 1 |
| Manganese | 0.000930 | J | 0.0030 | 0.00040 | mg/L | | 03/19/12 08:45 | 03/19/12 14:41 | 1 |
| Nickel | ND | | 0.010 | 0.0013 | mg/L | | 03/19/12 08:45 | 03/19/12 14:41 | 1 |
| Potassium | 0.229 | J | 0.50 | 0.10 | mg/L | | 03/19/12 08:45 | 03/19/12 14:41 | 1 |
| Selenium | ND | | 0.015 | 0.0087 | mg/L | | 03/19/12 08:45 | 03/19/12 14:41 | 1 |
| Silver | ND | | 0.0030 | 0.0017 | mg/L | | 03/19/12 08:45 | 03/19/12 14:41 | 1 |
| Sodium | ND | | 1.0 | 0.32 | mg/L | | 03/19/12 08:45 | 03/19/12 14:41 | 1 |
| Vanadium | ND | | 0.0050 | 0.0015 | mg/L | | 03/19/12 08:45 | 03/19/12 14:41 | 1 |
| Zinc | ND | | 0.010 | 0.0015 | mg/L | | 03/19/12 08:45 | 03/19/12 14:41 | 1 |

**Lab Sample ID: LCS 480-55599/2-A**
**Matrix: Water**
**Analysis Batch: 55927**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**
**Prep Batch: 55599**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| Aluminum | 10.0 | 9.99 | | mg/L | | 100 | 80 - 120 |
| Arsenic | 0.200 | 0.207 | | mg/L | | 103 | 80 - 120 |
| Barium | 0.200 | 0.212 | | mg/L | | 106 | 80 - 120 |
| Beryllium | 0.200 | 0.206 | | mg/L | | 103 | 80 - 120 |
| Cadmium | 0.200 | 0.204 | | mg/L | | 102 | 80 - 120 |
| Calcium | 10.0 | 10.20 | | mg/L | | 102 | 80 - 120 |
| Chromium | 0.200 | 0.200 | | mg/L | | 100 | 80 - 120 |
| Cobalt | 0.200 | 0.190 | | mg/L | | 95 | 80 - 120 |
| Copper | 0.200 | 0.204 | | mg/L | | 102 | 80 - 120 |
| Iron | 10.0 | 10.10 | | mg/L | | 101 | 80 - 120 |
| Lead | 0.200 | 0.198 | | mg/L | | 99 | 80 - 120 |
| Magnesium | 10.0 | 10.11 | | mg/L | | 101 | 80 - 120 |
| Manganese | 0.200 | 0.203 | | mg/L | | 101 | 80 - 120 |
| Nickel | 0.200 | 0.196 | | mg/L | | 98 | 80 - 120 |
| Potassium | 10.0 | 10.10 | | mg/L | | 101 | 80 - 120 |
| Selenium | 0.200 | 0.206 | | mg/L | | 103 | 80 - 120 |
| Silver | 0.0500 | 0.0500 | | mg/L | | 100 | 80 - 120 |
| Sodium | 10.0 | 10.01 | | mg/L | | 100 | 80 - 120 |
| Vanadium | 0.200 | 0.200 | | mg/L | | 100 | 80 - 120 |
| Zinc | 0.200 | 0.213 | | mg/L | | 107 | 80 - 120 |

## Method: 7470A - Mercury (CVAA)

**Lab Sample ID: MB 480-55752/1-A** — **Client Sample ID: Method Blank**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 55800** — **Prep Batch: 55752**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Mercury | ND | | 0.00020 | 0.00012 | mg/L | | 03/19/12 08:50 | 03/19/12 11:50 | 1 |

**Lab Sample ID: LCS 480-55752/2-A** — **Client Sample ID: Lab Control Sample**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 55800** — **Prep Batch: 55752**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| Mercury | 0.00667 | 0.00658 | | mg/L | | 99 | 80 - 120 |

## Method: 310.2 - Alkalinity

**Lab Sample ID: MB 480-56127/59** — **Client Sample ID: Method Blank**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 56127**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Alkalinity, Total | 8.81 | J | 10.0 | 4.0 | mg/L | | | 03/20/12 14:00 | 1 |

**Lab Sample ID: MB 480-56127/7** — **Client Sample ID: Method Blank**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 56127**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Alkalinity, Total | ND | | 10.0 | 4.0 | mg/L | | | 03/20/12 11:33 | 1 |

**Lab Sample ID: LCS 480-56127/58** — **Client Sample ID: Lab Control Sample**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 56127**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| Alkalinity, Total | 50.0 | 47.58 | | mg/L | | 95 | 90 - 110 |

**Lab Sample ID: LCS 480-56127/6** — **Client Sample ID: Lab Control Sample**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 56127**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| Alkalinity, Total | 50.0 | 48.20 | | mg/L | | 96 | 90 - 110 |

## Method: 351.2 - Nitrogen, Total Kjeldahl

**Lab Sample ID: MB 480-55994/1-A** — **Client Sample ID: Method Blank**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 56255** — **Prep Batch: 55994**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total Kjeldahl Nitrogen | ND | | 0.20 | 0.15 | mg/L | | 03/20/12 12:43 | 03/21/12 10:16 | 1 |

## Method: 351.2 - Nitrogen, Total Kjeldahl (Continued)

**Lab Sample ID: LCS 480-55994/2-A** — **Client Sample ID: Lab Control Sample**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 56255** — **Prep Batch: 55994**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| Total Kjeldahl Nitrogen | 2.50 | 2.69 | | mg/L | | 108 | 90 - 110 |

**Lab Sample ID: 480-17340-2 MS** — **Client Sample ID: 9-OS**
**Matrix: Ground Water** — **Prep Type: Total/NA**
**Analysis Batch: 56255** — **Prep Batch: 55994**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|---|---|
| Total Kjeldahl Nitrogen | 0.22 | | 1.00 | 1.17 | | mg/L | | 95 | 72 - 127 |

**Lab Sample ID: MB 480-56330/1-A** — **Client Sample ID: Method Blank**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 56559** — **Prep Batch: 56330**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total Kjeldahl Nitrogen | ND | | 0.20 | 0.15 | mg/L | | 03/22/12 11:11 | 03/23/12 07:36 | 1 |

**Lab Sample ID: LCS 480-56330/2-A** — **Client Sample ID: Lab Control Sample**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 56559** — **Prep Batch: 56330**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| Total Kjeldahl Nitrogen | 2.50 | 2.39 | | mg/L | | 96 | 90 - 110 |

## Method: 410.4 - COD

**Lab Sample ID: MB 480-56054/51** — **Client Sample ID: Method Blank**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 56054**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Chemical Oxygen Demand | ND | | 10.0 | 5.0 | mg/L | | | 03/20/12 17:00 | 1 |

**Lab Sample ID: LCS 480-56054/52** — **Client Sample ID: Lab Control Sample**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 56054**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| Chemical Oxygen Demand | 25.0 | 25.25 | | mg/L | | 101 | 90 - 110 |

## Method: SM 2340C - Hardness, Total

**Lab Sample ID: MB 480-56951/27** — **Client Sample ID: Method Blank**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 56951**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Hardness as calcium carbonate | ND | | 2.0 | 0.53 | mg/L | | | 03/27/12 15:15 | 1 |

## Method: SM 2340C - Hardness, Total (Continued)

**Lab Sample ID: MB 480-56951/3**
**Matrix: Water**
**Analysis Batch: 56951**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Hardness as calcium carbonate | ND | | 2.0 | 0.53 | mg/L | | | 03/27/12 15:15 | 1 |

**Lab Sample ID: LCS 480-56951/28**
**Matrix: Water**
**Analysis Batch: 56951**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| Hardness as calcium carbonate | 250 | 244.0 | | mg/L | | 98 | 90 - 110 |

**Lab Sample ID: LCS 480-56951/4**
**Matrix: Water**
**Analysis Batch: 56951**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| Hardness as calcium carbonate | 250 | 256.0 | | mg/L | | 102 | 90 - 110 |

## GC/MS VOA

### Analysis Batch: 56150

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 480-17340-1 | 9-I | Total/NA | Ground Water | 624 | |
| 480-17340-2 | 9-OS | Total/NA | Ground Water | 624 | |
| 480-17340-3 | 9-R | Total/NA | Ground Water | 624 | |
| 480-17340-4 | TRIP BLANK | Total/NA | Water | 624 | |
| LCS 480-56150/4 | Lab Control Sample | Total/NA | Water | 624 | |
| MB 480-56150/5 | Method Blank | Total/NA | Water | 624 | |

## Metals

### Prep Batch: 55599

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 480-17340-1 | 9-I | Total/NA | Ground Water | 3005A | |
| 480-17340-2 | 9-OS | Total/NA | Ground Water | 3005A | |
| 480-17340-3 | 9-R | Total/NA | Ground Water | 3005A | |
| LCS 480-55599/2-A | Lab Control Sample | Total/NA | Water | 3005A | |
| MB 480-55599/1-A | Method Blank | Total/NA | Water | 3005A | |

### Prep Batch: 55601

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 480-17340-1 | 9-I | Total/NA | Ground Water | 200.8 | |
| 480-17340-2 | 9-OS | Total/NA | Ground Water | 200.8 | |
| 480-17340-3 | 9-R | Total/NA | Ground Water | 200.8 | |
| LCS 480-55601/2-A | Lab Control Sample | Total/NA | Water | 200.8 | |
| MB 480-55601/1-A | Method Blank | Total/NA | Water | 200.8 | |

### Prep Batch: 55752

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 480-17340-1 | 9-I | Total/NA | Ground Water | 7470A | |
| 480-17340-2 | 9-OS | Total/NA | Ground Water | 7470A | |
| 480-17340-3 | 9-R | Total/NA | Ground Water | 7470A | |
| LCS 480-55752/2-A | Lab Control Sample | Total/NA | Water | 7470A | |
| MB 480-55752/1-A | Method Blank | Total/NA | Water | 7470A | |

### Analysis Batch: 55800

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 480-17340-1 | 9-I | Total/NA | Ground Water | 7470A | 55752 |
| 480-17340-2 | 9-OS | Total/NA | Ground Water | 7470A | 55752 |
| 480-17340-3 | 9-R | Total/NA | Ground Water | 7470A | 55752 |
| LCS 480-55752/2-A | Lab Control Sample | Total/NA | Water | 7470A | 55752 |
| MB 480-55752/1-A | Method Blank | Total/NA | Water | 7470A | 55752 |

### Analysis Batch: 55927

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 480-17340-1 | 9-I | Total/NA | Ground Water | 6010B | 55599 |
| 480-17340-2 | 9-OS | Total/NA | Ground Water | 6010B | 55599 |
| 480-17340-3 | 9-R | Total/NA | Ground Water | 6010B | 55599 |
| LCS 480-55599/2-A | Lab Control Sample | Total/NA | Water | 6010B | 55599 |
| MB 480-55599/1-A | Method Blank | Total/NA | Water | 6010B | 55599 |

### Analysis Batch: 55944

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 480-17340-1 | 9-I | Total/NA | Ground Water | 200.8 | 55601 |

## Metals (Continued)

### Analysis Batch: 55944 (Continued)

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 480-17340-2 | 9-OS | Total/NA | Ground Water | 200.8 | 55601 |
| 480-17340-3 | 9-R | Total/NA | Ground Water | 200.8 | 55601 |
| LCS 480-55601/2-A | Lab Control Sample | Total/NA | Water | 200.8 | 55601 |
| MB 480-55601/1-A | Method Blank | Total/NA | Water | 200.8 | 55601 |

## General Chemistry

### Prep Batch: 55994

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 480-17340-2 | 9-OS | Total/NA | Ground Water | 351.2 | |
| 480-17340-2 MS | 9-OS | Total/NA | Ground Water | 351.2 | |
| 480-17340-3 | 9-R | Total/NA | Ground Water | 351.2 | |
| LCS 480-55994/2-A | Lab Control Sample | Total/NA | Water | 351.2 | |
| MB 480-55994/1-A | Method Blank | Total/NA | Water | 351.2 | |

### Analysis Batch: 56054

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 480-17340-1 | 9-I | Total/NA | Ground Water | 410.4 | |
| 480-17340-2 | 9-OS | Total/NA | Ground Water | 410.4 | |
| 480-17340-3 | 9-R | Total/NA | Ground Water | 410.4 | |
| LCS 480-56054/52 | Lab Control Sample | Total/NA | Water | 410.4 | |
| MB 480-56054/51 | Method Blank | Total/NA | Water | 410.4 | |

### Analysis Batch: 56127

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 480-17340-1 | 9-I | Total/NA | Ground Water | 310.2 | |
| 480-17340-2 | 9-OS | Total/NA | Ground Water | 310.2 | |
| 480-17340-3 | 9-R | Total/NA | Ground Water | 310.2 | |
| LCS 480-56127/58 | Lab Control Sample | Total/NA | Water | 310.2 | |
| LCS 480-56127/6 | Lab Control Sample | Total/NA | Water | 310.2 | |
| MB 480-56127/59 | Method Blank | Total/NA | Water | 310.2 | |
| MB 480-56127/7 | Method Blank | Total/NA | Water | 310.2 | |

### Analysis Batch: 56255

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 480-17340-2 | 9-OS | Total/NA | Ground Water | 351.2 | 55994 |
| 480-17340-2 MS | 9-OS | Total/NA | Ground Water | 351.2 | 55994 |
| 480-17340-3 | 9-R | Total/NA | Ground Water | 351.2 | 55994 |
| LCS 480-55994/2-A | Lab Control Sample | Total/NA | Water | 351.2 | 55994 |
| MB 480-55994/1-A | Method Blank | Total/NA | Water | 351.2 | 55994 |

### Prep Batch: 56330

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 480-17340-1 | 9-I | Total/NA | Ground Water | 351.2 | |
| LCS 480-56330/2-A | Lab Control Sample | Total/NA | Water | 351.2 | |
| MB 480-56330/1-A | Method Blank | Total/NA | Water | 351.2 | |

### Analysis Batch: 56559

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 480-17340-1 | 9-I | Total/NA | Ground Water | 351.2 | 56330 |
| LCS 480-56330/2-A | Lab Control Sample | Total/NA | Water | 351.2 | 56330 |
| MB 480-56330/1-A | Method Blank | Total/NA | Water | 351.2 | 56330 |

## General Chemistry (Continued)

### Analysis Batch: 56951

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 480-17340-1 | 9-I | Total/NA | Ground Water | SM 2340C | |
| 480-17340-2 | 9-OS | Total/NA | Ground Water | SM 2340C | |
| 480-17340-3 | 9-R | Total/NA | Ground Water | SM 2340C | |
| LCS 480-56951/28 | Lab Control Sample | Total/NA | Water | SM 2340C | |
| LCS 480-56951/4 | Lab Control Sample | Total/NA | Water | SM 2340C | |
| MB 480-56951/27 | Method Blank | Total/NA | Water | SM 2340C | |
| MB 480-56951/3 | Method Blank | Total/NA | Water | SM 2340C | |

# Lab Chronicle

Client: Sterling Environmental Engineering PC
Project/Site: Ramapo Landfill

TestAmerica Job ID: 480-17340-1

## Client Sample ID: 9-I

**Lab Sample ID: 480-17340-1**

**Date Collected: 03/14/12 13:10**

**Matrix: Ground Water**

**Date Received: 03/15/12 09:00**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 624 | | 1 | 56150 | 03/21/12 14:43 | RJ | TAL BUF |
| Total/NA | Prep | 7470A | | | 55752 | 03/19/12 08:50 | JM | TAL BUF |
| Total/NA | Analysis | 7470A | | 1 | 55800 | 03/19/12 12:04 | JM | TAL BUF |
| Total/NA | Prep | 3005A | | | 55599 | 03/19/12 08:45 | SS | TAL BUF |
| Total/NA | Analysis | 6010B | | 1 | 55927 | 03/19/12 15:40 | MM | TAL BUF |
| Total/NA | Prep | 200.8 | | | 55601 | 03/19/12 08:15 | SS | TAL BUF |
| Total/NA | Analysis | 200.8 | | 1 | 55944 | 03/19/12 21:03 | JRK | TAL BUF |
| Total/NA | Analysis | 410.4 | | 1 | 56054 | 03/20/12 17:00 | EGN | TAL BUF |
| Total/NA | Analysis | 310.2 | | 1 | 56127 | 03/20/12 11:35 | PN | TAL BUF |
| Total/NA | Prep | 351.2 | | | 56330 | 03/22/12 11:11 | PN | TAL BUF |
| Total/NA | Analysis | 351.2 | | 1 | 56559 | 03/23/12 10:45 | PN | TAL BUF |
| Total/NA | Analysis | SM 2340C | | 1 | 56951 | 03/27/12 15:15 | EGN | TAL BUF |

## Client Sample ID: 9-OS

**Lab Sample ID: 480-17340-2**

**Date Collected: 03/14/12 13:30**

**Matrix: Ground Water**

**Date Received: 03/15/12 09:00**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 624 | | 1 | 56150 | 03/21/12 15:06 | RJ | TAL BUF |
| Total/NA | Prep | 7470A | | | 55752 | 03/19/12 08:50 | JM | TAL BUF |
| Total/NA | Analysis | 7470A | | 1 | 55800 | 03/19/12 12:06 | JM | TAL BUF |
| Total/NA | Prep | 3005A | | | 55599 | 03/19/12 08:45 | SS | TAL BUF |
| Total/NA | Analysis | 6010B | | 1 | 55927 | 03/19/12 15:42 | MM | TAL BUF |
| Total/NA | Prep | 200.8 | | | 55601 | 03/19/12 08:15 | SS | TAL BUF |
| Total/NA | Analysis | 200.8 | | 1 | 55944 | 03/19/12 21:08 | JRK | TAL BUF |
| Total/NA | Analysis | 410.4 | | 1 | 56054 | 03/20/12 17:00 | EGN | TAL BUF |
| Total/NA | Analysis | 310.2 | | 1 | 56127 | 03/20/12 11:35 | PN | TAL BUF |
| Total/NA | Prep | 351.2 | | | 55994 | 03/20/12 12:43 | PN | TAL BUF |
| Total/NA | Analysis | 351.2 | | 1 | 56255 | 03/21/12 11:04 | PN | TAL BUF |
| Total/NA | Analysis | SM 2340C | | 1 | 56951 | 03/27/12 15:15 | EGN | TAL BUF |

## Client Sample ID: 9-R

**Lab Sample ID: 480-17340-3**

**Date Collected: 03/14/12 13:45**

**Matrix: Ground Water**

**Date Received: 03/15/12 09:00**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 624 | | 1 | 56150 | 03/21/12 15:29 | RJ | TAL BUF |
| Total/NA | Prep | 7470A | | | 55752 | 03/19/12 08:50 | JM | TAL BUF |
| Total/NA | Analysis | 7470A | | 1 | 55800 | 03/19/12 12:11 | JM | TAL BUF |
| Total/NA | Prep | 3005A | | | 55599 | 03/19/12 08:45 | SS | TAL BUF |
| Total/NA | Analysis | 6010B | | 1 | 55927 | 03/19/12 15:44 | MM | TAL BUF |
| Total/NA | Prep | 200.8 | | | 55601 | 03/19/12 08:15 | SS | TAL BUF |
| Total/NA | Analysis | 200.8 | | 1 | 55944 | 03/19/12 21:13 | JRK | TAL BUF |

# Lab Chronicle

Client: Sterling Environmental Engineering PC
Project/Site: Ramapo Landfill

TestAmerica Job ID: 480-17340-1

## Client Sample ID: 9-R

**Lab Sample ID: 480-17340-3**

**Date Collected: 03/14/12 13:45**

**Matrix: Ground Water**

**Date Received: 03/15/12 09:00**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 410.4 | | 1 | 56054 | 03/20/12 17:00 | EGN | TAL BUF |
| Total/NA | Analysis | 310.2 | | 10 | 56127 | 03/20/12 14:00 | PN | TAL BUF |
| Total/NA | Prep | 351.2 | | | 55994 | 03/20/12 12:43 | PN | TAL BUF |
| Total/NA | Analysis | 351.2 | | 3 | 56255 | 03/21/12 12:03 | PN | TAL BUF |
| Total/NA | Analysis | SM 2340C | | 1 | 56951 | 03/27/12 15:15 | EGN | TAL BUF |

## Client Sample ID: TRIP BLANK

**Lab Sample ID: 480-17340-4**

**Date Collected: 03/14/12 00:00**

**Matrix: Water**

**Date Received: 03/15/12 09:00**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 624 | | 1 | 56150 | 03/21/12 15:53 | RJ | TAL BUF |

**Laboratory References:**

TAL BUF = TestAmerica Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

# Certification Summary

Client: Sterling Environmental Engineering PC
Project/Site: Ramapo Landfill

TestAmerica Job ID: 480-17340-1

| Laboratory | Authority | Program | EPA Region | Certification ID |
|---|---|---|---|---|
| TestAmerica Buffalo | Arkansas DEQ | State Program | 6 | 88-0686 |
| TestAmerica Buffalo | California | NELAC | 9 | 1169CA |
| TestAmerica Buffalo | Connecticut | State Program | 1 | PH-0568 |
| TestAmerica Buffalo | Florida | NELAC | 4 | E87672 |
| TestAmerica Buffalo | Georgia | State Program | 4 | 956 |
| TestAmerica Buffalo | Georgia | State Program | 4 | N/A |
| TestAmerica Buffalo | Illinois | NELAC | 5 | 100325 / 200003 |
| TestAmerica Buffalo | Iowa | State Program | 7 | 374 |
| TestAmerica Buffalo | Kansas | NELAC | 7 | E-10187 |
| TestAmerica Buffalo | Kentucky | State Program | 4 | 90029 |
| TestAmerica Buffalo | Kentucky (UST) | State Program | 4 | 30 |
| TestAmerica Buffalo | Louisiana | NELAC | 6 | 02031 |
| TestAmerica Buffalo | Maine | State Program | 1 | NY0044 |
| TestAmerica Buffalo | Maryland | State Program | 3 | 294 |
| TestAmerica Buffalo | Massachusetts | State Program | 1 | M-NY044 |
| TestAmerica Buffalo | Michigan | State Program | 5 | 9937 |
| TestAmerica Buffalo | Minnesota | NELAC | 5 | 036-999-337 |
| TestAmerica Buffalo | New Hampshire | NELAC | 1 | 2337 |
| TestAmerica Buffalo | New Hampshire | NELAC | 1 | 68-00281 |
| TestAmerica Buffalo | New Jersey | NELAC | 2 | NY455 |
| TestAmerica Buffalo | New York | NELAC | 2 | 10026 |
| TestAmerica Buffalo | North Dakota | State Program | 8 | R-176 |
| TestAmerica Buffalo | Oklahoma | State Program | 6 | 9421 |
| TestAmerica Buffalo | Oregon | NELAC | 10 | NY200003 |
| TestAmerica Buffalo | Pennsylvania | NELAC | 3 | 68-00281 |
| TestAmerica Buffalo | Tennessee | State Program | 4 | TN02970 |
| TestAmerica Buffalo | Texas | NELAC | 6 | T104704412-08-TX |
| TestAmerica Buffalo | USDA | Federal | | P330-08-00242 |
| TestAmerica Buffalo | Virginia | NELAC Secondary AB | 3 | 460185 |
| TestAmerica Buffalo | Virginia | State Program | 3 | 278 |
| TestAmerica Buffalo | Washington | State Program | 10 | C1677 |
| TestAmerica Buffalo | West Virginia DEP | State Program | 3 | 252 |
| TestAmerica Buffalo | Wisconsin | State Program | 5 | 998310390 |

Accreditation may not be offered or required for all methods and analytes reported in this package. Please contact your project manager for the laboratory's current list of certified methods and analytes.

# Method Summary

Client: Sterling Environmental Engineering PC
Project/Site: Ramapo Landfill

TestAmerica Job ID: 480-17340-1

| Method | Method Description | Protocol | Laboratory |
|---|---|---|---|
| 624 | Volatile Organic Compounds (GC/MS) | 40CFR136A | TAL BUF |
| 200.8 | Metals (ICP/MS) | EPA | TAL BUF |
| 6010B | Metals (ICP) | SW846 | TAL BUF |
| 7470A | Mercury (CVAA) | SW846 | TAL BUF |
| 310.2 | Alkalinity | MCAWW | TAL BUF |
| 351.2 | Nitrogen, Total Kjeldahl | MCAWW | TAL BUF |
| 410.4 | COD | MCAWW | TAL BUF |
| SM 2340C | Hardness, Total | SM | TAL BUF |

**Protocol References:**

40CFR136A = "Methods for Organic Chemical Analysis of Municipal Industrial Wastewater", 40CFR, Part 136, Appendix A, October 26, 1984 and subsequent revisions.

EPA = US Environmental Protection Agency

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 BUF = TestAmerica Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

# Sample Summary

Client: Sterling Environmental Engineering PC
Project/Site: Ramapo Landfill

TestAmerica Job ID: 480-17340-1

| Lab Sample ID | Client Sample ID | Matrix | Collected | Received |
|---|---|---|---|---|
| 480-17340-1 | 9-I | Ground Water | 03/14/12 13:10 | 03/15/12 09:00 |
| 480-17340-2 | 9-OS | Ground Water | 03/14/12 13:30 | 03/15/12 09:00 |
| 480-17340-3 | 9-R | Ground Water | 03/14/12 13:45 | 03/15/12 09:00 |
| 480-17340-4 | TRIP BLANK | Water | 03/14/12 00:00 | 03/15/12 09:00 |

# Detection Limit Exceptions Summary

Client: Sterling Environmental Engineering PC
Project/Site: Ramapo Landfill

TestAmerica Job ID: 480-17340-1

The requested project specific reporting limits listed below were less than lab standard quantitation limits but greater than or equal to the lab MDL. It must be noted that results reported below lab standard quantitation limits (PQL) may result in false positive/false negative values and less accurate quantitation. Routine laboratory procedures do not indicate corrective action for detections below the laboratory's PQL.

| Method | Matrix | Analyte | Units | Client RL | Lab PQL |
|---|---|---|---|---|---|
| 624 | Ground Water | Benzene | ug/L | 1.0 | 5 |
| 624 | Ground Water | Vinyl chloride | ug/L | 2.0 | 5 |

# Chain of Custody Record

Temperature on Receipt _____

Drinking Water? Yes ☐ No ☒

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TAL-4124 (1007)

| Client | Project Manager | Date | Chain of Custody Number |
|---|---|---|---|
| STERLING ENV. ENG. P.C. | Liz Davis | 3/14/2012 | 212640 |
| **Address** | **Telephone Number (Area Code)/Fax Number** | **Lab Number** | **Page** 1 of 1 |
| 24 Wade Road | (518) 456-4900 | | |
| **City** / **State** / **Zip Code** | **Site Contact** / **Lab Contact** | | |
| Latham / NY / 12110 | Charlotte Verhoef / Denise Giglia | | |
| **Project Name and Location (State)** | **Carrier/Waybill Number** | | |
| 20010 | | | |
| **Contract/Purchase Order/Quote No.** | | | |

| Sample I.D. No. and Description (Containers for each sample may be combined on one line) | Date | Time | Matrix: Air | Aqueous | Sed | Soil | Containers & Preservatives: Unpres | H2SO4 | HNO3 | HCl | NaOH | ZnAc/NaOH | Analysis: TKN, COD(410.1) | Alkalinity (310.1) | Hardness (as CaCO3) | TAL Metals(1) | Site VOCs(2) | Total VOCs |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 9-OS | 3/14/12 | 1:30 | | X | | | 1 | 1 | 2 | 3 | | | X | X | X | X | X | |
| 9-I | | 1:10 | | | | | | | | | | | | | | | X | |
| 9-R | | 1:45 | | | | | | | | | | | | | | | X | |
| DUP | | | | | | | | | | | | | | | | | | X |
| MS | | | | | | | | | | | | | | | | | | X |
| MSD | | | | | | | | | | | | | | | | | | X |
| Trip Blank | | | | | | | | | | | | | | | | | | X |

Special Instructions/ Conditions of Receipt

(1) Reporting Limit for Antimony = 3.0ppb or less, Thallium = 0.5ppb or less.
(2) Site VOCs: 1,1 Dichloroethane, Vinyl Chloride, Benzene and Chlorobenzene

**Possible Hazard Identification**
☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

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

**Turn Around Time Required**
☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☒ Other STD TAT

**QC Requirements (Specify)**

| | Date | Time |
|---|---|---|
| 1. Relinquished By: Charlotte Verhoef | 3/14/12 | 3:30 |
| 2. Relinquished By: | | |
| 3. Relinquished By: | | |

| | Date | Time |
|---|---|---|
| 1. Received By: CLV | 3/15/12 | 906 |
| 2. Received By: | | |
| 3. Received By: | | |

Comments: 7.4 DZ

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy



3/29/2012

# Login Sample Receipt Checklist

Client: Sterling Environmental Engineering PC

Job Number: 480-17340-1

**Login Number: 17340**

**List Source: TestAmerica Buffalo**

**List Number: 1**

**Creator: Janish, Carl**

| Question | Answer | Comment |
|---|---|---|
| Radioactivity either was not measured or, if measured, is at or below background | True | |
| The cooler's custody seal, if present, is 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 sample IDs on the containers 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 | |
| VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter. | True | |
| If necessary, staff have been informed of any short hold time or quick TAT needs | True | |
| Multiphasic samples are not present. | True | |
| Samples do not require splitting or compositing. | True | |
| Sampling Company provided. | False | |
| Samples received within 48 hours of sampling. | True | |
| Samples requiring field filtration have been filtered in the field. | N/A | |
| Chlorine Residual checked. | N/A | |