



Environment

## **First Quarter 2020 – January, February, March Operation, Maintenance, and Monitoring Report**

**CHEM-TROL Site  
NYSDEC Site No. 9-15-015  
Report.hw915015.2020-05-27.1Q2020OMM**

**Site:**

CHEM-TROL Site  
4800 Lake Avenue  
Blasdell, New York 14219

**Submitted to:**

NYSDEC  
Region 9 Office  
270 Michigan Avenue  
Buffalo, NY 14203

**Prepared for:**

Waste Management  
100 Brandywine Boulevard, Suite 300  
Newtown, PA 18940

**Prepared by:**

AECOM  
257 West Genesee Street, Suite 400  
Buffalo, New York 14202

May 27, 2020

AECOM Project No. 60592091.1



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May 27, 2020

SUBMITTED VIA ELECTRONIC MAIL

Mr. Glenn May, PG  
NYSDEC  
Region 9 Office  
270 Michigan Avenue  
Buffalo, NY 14203

RE: S.C. Holdings, Inc., 4818 Lake Avenue, Blasdell, New York 14219  
First Quarter 2020 Operation, Maintenance, and Monitoring Report  
Chem-Trol Site, NYSDEC Site No. 9-15-015, Report.hw915015.2020-05-27.1Q2020OMM

Dear Mr. May:

Enclosed please find the First Quarter 2020 (1Q20 – January, February, March) Operation, Maintenance, and Monitoring Report for the “Chem-Trol” project site. AECOM is submitting this quarterly monitoring report on behalf of our client, S.C. Holdings, Inc.

The enclosed report contains the following information for 1Q20:

- Operation, Maintenance and Monitoring Checklists
- Summary Tables of Analytical Results and Flow Readings
- Copies of Analytical Results and Chain-of-Custody Forms

A summary of each month within 1Q20 is as follows:

#### January 2020

AECOM collected the monthly monitoring samples on January 13, 2020; analytical data were received on January 22, 2020. As presented on Table 1 (January 13, 2020), there were no exceedances of the treatment or discharge requirements for any parameter in the effluent samples during this month.

#### February 2020

AECOM collected the monthly monitoring samples on February 3, 2020; analytical data were received on February 12, 2020. As presented on Table 1 (February 3, 2020), there were no exceedances of the treatment or discharge requirements for any parameter in the effluent samples during this month.

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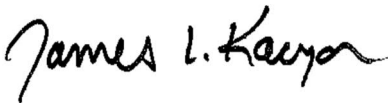
March 2020

On March 12, 2020, AECOM performed a flush-and-rinse acid wash of the system. AECOM collected the monthly monitoring samples on March 13, 2020; analytical data were received on March 18, 2020. As presented on Table 1 (March 13, 2020), there were no exceedances of the treatment or discharge requirements for any parameter in the effluent samples during this month.

AECOM also collected quarterly groundwater levels on March 13, 2020.

If you have any questions regarding the information presented in this report please contact me at (716) 923-1300.

Very truly yours,  
AECOM



James L. Kaczor  
Project Manager

Enclosure

cc: Mr. Chad Moose (Waste Management) (electronic copy)  
Mr. Brian Sadowski, NYSDEC (electronic copy)  
60592091 Project File

January 2020

## Operation, Maintenance & Monitoring Checklist

### Groundwater Treatment System CHEM-TROL Site Town of Hamburg, New York

**This summary inspection checklist is to be completed during each site inspection. Note all items, which require repair or maintenance. Use the last page to note any additional comments or unusual events.**

#### General

Service by: Sean P. Connelly Weather/Temperature: 42° F, cloudy  
Date: 1/13/2020 Arrival Time: 16:30 Departure Time: 18:05

Reason for Service: Inspect system

#### Inspection Items:

#### OK:

#### Comments:

Site Appearance/Condition

X

See comments section.

#### ***Building Exterior***

Overhead Door

X

Wood lintel decaying, header exposed.

Siding

X

Metal trim missing from lintel

Roof and Discharge Pipe

X

#### ***Building Interior***

Indication of Spills or Leaks

Condensation on the floor

Building Heater

X

Breaker turned on. The heater was off on arrival.

Phone System

X

Disconnected

Exhaust Fan

Could not get fan to work.

Fire Extinguisher

X

First Aid & Eye Wash

X

***Groundwater Treatment System***

|                     |   |                                                                                                           |
|---------------------|---|-----------------------------------------------------------------------------------------------------------|
| Air Stripper        | X | Ratchet straps are used to keep the trays together. Several of the clips for the trays are rusted/broken. |
| Iron Removal Filter | X | Tank in-line but filter media removed; not required.                                                      |
| Flow Meters         | X | See Notes.                                                                                                |
| Gauges              | X |                                                                                                           |
| Stripper Blower     | X |                                                                                                           |
| Indication of Alarm | X |                                                                                                           |

***Groundwater Treatment Wells***

|                  |   |                                         |
|------------------|---|-----------------------------------------|
| EW-1 Pump        | X |                                         |
| EW-1 Transducer  | X |                                         |
| EW-1 Flow Meter  | X | Reading 0 but well pumping at low rate. |
| EW-2 Pump        | X |                                         |
| EW-2 Transducer  | X |                                         |
| EW- 2 Flow Meter | X | Reading 0 but well pumping at low rate. |
| EW-3 Pump        | X |                                         |
| EW-3 Transducer  | X |                                         |
| EW-3 Flow Meter  | X | Reading 0 but well pumping at low rate. |

***Effluent Discharge***

|          |   |  |
|----------|---|--|
| Outfall  | X |  |
| Cleanout | X |  |

**Instrumentation/Readings:**

***EW-1***

|                              |                                  |
|------------------------------|----------------------------------|
| Pumping Rate                 | <u>0</u> GPM (see Notes section) |
| Water Level Above Transducer | <u>290</u> Inches                |
| Flow Meter Reading           | <u>8,444,686</u> Gallons         |

***EW-2***

|                              |                                  |
|------------------------------|----------------------------------|
| Pumping Rate                 | <u>0</u> GPM (see Notes section) |
| Water Level Above Transducer | <u>182</u> Inches                |
| Flow Meter Reading           | <u>28,528,520</u> Gallons        |

***EW-3***

|                              |                                  |
|------------------------------|----------------------------------|
| Pumping Rate                 | <u>0</u> GPM (see Notes section) |
| Water Level Above Transducer | <u>205</u> Inches                |
| Flow Meter Reading           | <u>15,696,380</u> Gallons        |

***Air Stripper***

|                          |                        |
|--------------------------|------------------------|
| Stripper Blower Pressure | <u>15.0</u> Inches H2O |
|--------------------------|------------------------|

***Effluent Flow***

|                            |                           |
|----------------------------|---------------------------|
| Total System Meter Reading | <u>70,100,397</u> Gallons |
|----------------------------|---------------------------|

## **Influent/Effluent Sampling**

### **AQUEOUS:**

Monthly monitoring samples of aqueous phase system influent and effluent were collected and submitted for the following analyses:

- VOCs by EPA Method 624 (CFR136 624)
- Iron by MCAWW 200.7
- TSS by MCAWW SM18-20 2540 D
- pH by MCAWW SM18-20 4500-H+B

*pH measurements must be made in the field:*

|             |          |                    |
|-------------|----------|--------------------|
| Influent pH | <u>7</u> | (field test strip) |
| Effluent pH | <u>7</u> | (field test strip) |

### **Notes/Explanations**

*(Please include any additional information on those items that require attention as indicated above.)*

Collected January 2020 monthly influent and effluent samples on January 13, 2020; hand-delivered iced samples in a secure cooler under chain of custody to TestAmerica, Amherst, NY on January 14, 2020.

Total system flow on system totalizer flow meter timed at 5.5 gpm. During visit, individually closed EW-1, EW-2, and EW-3 influent valve to test flow by reading response on transducer elevation; noted rise in transducer elevation when valve was closed and drop when valve was opened confirming well was pumping.

The SVE building overhead door flashing has wind and header damage.

The AS building overhead door flashing needs replacement.

The most recent round of water levels (4Q2019) was collected December 20, 2019.

The most recent acid wash was performed December 5, 2019.

All wells were operational upon arrival and departure.

**Table 1**  
**January 13, 2020 Summary of Influent and Effluent Data**

**Chem-Trol Site**  
**Town of Hamburg, New York**

| Parameters             | Concentration |          |                       |                | Mass Loading |                       |         |
|------------------------|---------------|----------|-----------------------|----------------|--------------|-----------------------|---------|
|                        | Influent      | Effluent | Discharge Limitations | Units          | Effluent     | Discharge Limitations | Units   |
| Flow*                  | 8,527         | 8,527    | 144,000               | gpd            | NA           | NA                    | NA      |
| pH                     | 7.2           | 8.1      | 6.5 to 8.5            | standard units | NA           | NA                    | NA      |
| Toluene                | < 9.1         | < 5.0    | 5                     | ug/L           | < 0.0004     | 0.006                 | lbs/day |
| Chlorobenzene          | < 9.5         | < 5.0    | 10                    | ug/L           | < 0.0004     | 0.012                 | lbs/day |
| cis-1,2-Dichloroethene | < 11          | < 5.0    | 10                    | ug/L           | < 0.0004     | 0.012                 | lbs/day |
| Benzene                | < 12          | < 5.0    | 5                     | ug/L           | < 0.0004     | 0.006                 | lbs/day |
| 1,1,1-Trichloroethane  | < 7.7         | < 5.0    | 10                    | ug/L           | < 0.0004     | 0.012                 | lbs/day |
| Chloroethane           | 24            | < 5.0    | 10                    | ug/L           | < 0.0004     | 0.012                 | lbs/day |
| 1,1-Dichloroethane     | 20            | < 5.0    | 10                    | ug/L           | < 0.0004     | 0.012                 | lbs/day |
| 1,1-Dichloroethene     | < 17          | < 5.0    | 10                    | ug/L           | < 0.0004     | 0.012                 | lbs/day |
| Trichloroethene        | < 12          | < 5.0    | 10                    | ug/L           | < 0.0004     | 0.012                 | lbs/day |
| o-Chlorotoluene        | 1,600         | < 5.0    | 10                    | ug/L           | < 0.0004     | 0.012                 | lbs/day |
| Iron - Total           | 916           | 675      | 3,000                 | ug/L           | 0.05         | 3.61                  | lbs/day |
| TSS                    | 22.8          | 13.2     | 20                    | mg/L           | 0.94         |                       | lbs/day |

*Notes:*

- 1) **Bold** typeface denotes exceedance of treatment requirements in the effluent sample.
  - 2) < indicates Not Detected at or above the laboratory reporting limit.
  - 3) NA indicates Not Applicable.
  - 4) "J" indicates an estimated concentration below the method detection limit.
  - 5) E - Estimated Value, result above calibration curve
  - 6) D - Dilution
  - 7) Revision of monitoring parameters (inorganics and TSS) and discharge limitation (iron) approved by NYSDEC letter dated July 27, 2007.
- \* Average daily flow as measured December 6, 2019 through January 13, 2020.

**Table 2**  
**January 13, 2020 Summary of Influent and Effluent Data**

**Chem-Trol Site**  
**Town of Hamburg, New York**

| <b>Instrumentation/Readings:</b> |                                        | <b>Current Report</b> | <b>units</b>            | <b>Prior Report</b> |
|----------------------------------|----------------------------------------|-----------------------|-------------------------|---------------------|
| <b><i>EW-1</i></b>               |                                        | <b>1/13/2020</b>      |                         | <b>12/6/2019</b>    |
|                                  | Pumping Rate                           | 0                     | GPM                     | 0                   |
|                                  | Water Level Above Transducer           | 290                   | Inches                  | 228                 |
|                                  | Flow Meter Reading                     | 8,444,686             | gallons                 | 8,444,686           |
| <b><i>EW-2</i></b>               |                                        |                       |                         |                     |
|                                  | Pumping Rate                           | 0                     | GPM                     | 0                   |
|                                  | Water Level Above Transducer           | 182                   | Inches                  | 184                 |
|                                  | Flow Meter Reading                     | 28,528,520            | gallons                 | 28,528,520          |
| <b><i>EW-3</i></b>               |                                        |                       |                         |                     |
|                                  | Pumping Rate                           | 0                     | GPM                     | 0                   |
|                                  | Water Level Above Transducer           | 205                   | Inches                  | 150                 |
|                                  | Flow Meter Reading                     | 15,696,380            | gallons                 | 15,696,380          |
| <b><i>Air Stripper</i></b>       |                                        |                       |                         |                     |
|                                  | Stripper Blower Pressure               | 15.0                  | inches H <sub>2</sub> O | 14.0                |
| <b><i>Effluent Flow</i></b>      |                                        |                       |                         |                     |
|                                  | Total System Meter Reading             | 70,100,397            | gallons                 | 69,784,885          |
|                                  | Average System Flow Since Prior Report | 8,527                 | gpd                     |                     |
|                                  |                                        | 355.3                 | gph                     |                     |
|                                  |                                        | 5.9                   | gpm                     |                     |
|                                  | Influent o-Chlorotoluene concentration | 1,600                 | ug/L                    |                     |
|                                  | Current month mass removal             | 1.9                   | kilograms               |                     |

*Note: NA indicates Not Available.*

*NW - Not working*

*ug/L - micrograms per liter*

## ANALYTICAL REPORT

Eurofins TestAmerica, Buffalo  
10 Hazelwood Drive  
Amherst, NY 14228-2298  
Tel: (716)691-2600

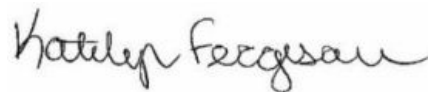
Laboratory Job ID: 480-165136-1

Client Project/Site: ChemTrol Site: Monthly  
Sampling Event: ChemTrol Monthly Groundwater

For:

Waste Management  
600 New Ludlow Road  
South Hadley, Massachusetts 01075

Attn: Ryan Donovan



Authorized for release by:  
1/22/2020 12:15:24 PM

Katelyn Ferguson, Project Management Assistant I  
(716)691-2600

[katelyn.ferguson@testamericainc.com](mailto:katelyn.ferguson@testamericainc.com)

### LINKS

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*The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.*

*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: Waste Management  
Project/Site: ChemTrol Site: Monthly

Job ID: 480-165136-1

### Qualifiers

#### GC/MS VOA

| Qualifier | Qualifier Description                                |
|-----------|------------------------------------------------------|
| F1        | MS and/or MSD Recovery is outside acceptance limits. |

#### 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: Waste Management  
Project/Site: ChemTrol Site: Monthly

Job ID: 480-165136-1

**Job ID: 480-165136-1**

**Laboratory: Eurofins TestAmerica, Buffalo**

## Narrative

### Job Narrative 480-165136-1

#### Comments

No additional comments.

#### Receipt

The samples were received on 1/14/2020 2:30 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 2.8° C.

#### GC/MS VOA

Method 624.1: The following samples were diluted to bring the concentration of target analytes within the calibration range: Influent (480-165136-2), (480-165136-D-2 MS) and (480-165136-D-2 MSD). Elevated reporting limits (RLs) are provided.

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

#### Metals

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

#### General Chemistry

Methods 9040C, SM 4500 H+ B: This analysis is normally performed in the field and has a method-defined holding time of 15 minutes. The following samples has been qualified with the "HF" flag to indicate analysis was performed in the laboratory outside the 15 minute timeframe: Effluent (480-165136-1) and Influent (480-165136-2).

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

## Detection Summary

Client: Waste Management  
Project/Site: ChemTrol Site: Monthly

Job ID: 480-165136-1

### Client Sample ID: Effluent

Lab Sample ID: 480-165136-1

| Analyte                | Result | Qualifier | RL    | MDL | Unit      | Dil Fac | D | Method        | Prep Type   |
|------------------------|--------|-----------|-------|-----|-----------|---------|---|---------------|-------------|
| Iron                   | 675    |           | 50.0  |     | ug/L      | 1       |   | 200.7 Rev 4.4 | Total       |
|                        |        |           |       |     |           |         |   |               | Recoverable |
| Total Suspended Solids | 13.2   |           | 4.0   |     | mg/L      | 1       |   | SM 2540D      | Total/NA    |
| pH                     | 8.1    | HF        | 0.1   |     | SU        | 1       |   | SM 4500 H+ B  | Total/NA    |
| Temperature            | 19.8   | HF        | 0.001 |     | Degrees C | 1       |   | SM 4500 H+ B  | Total/NA    |

### Client Sample ID: Influent

Lab Sample ID: 480-165136-2

| Analyte                | Result | Qualifier | RL    | MDL | Unit      | Dil Fac | D | Method        | Prep Type   |
|------------------------|--------|-----------|-------|-----|-----------|---------|---|---------------|-------------|
| 1,1-Dichloroethane     | 20     |           | 12    |     | ug/L      | 20      |   | 624.1         | Total/NA    |
| Chloroethane           | 24     |           | 17    |     | ug/L      | 20      |   | 624.1         | Total/NA    |
| o-Chlorotoluene        | 1600   |           | 6.6   |     | ug/L      | 20      |   | 624.1         | Total/NA    |
| Iron                   | 916    |           | 50.0  |     | ug/L      | 1       |   | 200.7 Rev 4.4 | Total       |
|                        |        |           |       |     |           |         |   |               | Recoverable |
| Total Suspended Solids | 22.8   |           | 4.0   |     | mg/L      | 1       |   | SM 2540D      | Total/NA    |
| pH                     | 7.2    | HF        | 0.1   |     | SU        | 1       |   | SM 4500 H+ B  | Total/NA    |
| Temperature            | 19.7   | HF        | 0.001 |     | Degrees C | 1       |   | SM 4500 H+ B  | Total/NA    |

### Client Sample ID: Trip Blank

Lab Sample ID: 480-165136-3

No Detections.

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Buffalo

# Client Sample Results

Client: Waste Management  
Project/Site: ChemTrol Site: Monthly

Job ID: 480-165136-1

Client Sample ID: Effluent

Lab Sample ID: 480-165136-1

Date Collected: 01/13/20 16:50

Matrix: Water

Date Received: 01/14/20 14:30

## Method: 624.1 - Volatile Organic Compounds (GC/MS)

| Analyte                | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| 1,1,1-Trichloroethane  | ND     |           | 5.0 |     | ug/L |   |          | 01/16/20 17:30 | 1       |
| 1,1-Dichloroethane     | ND     |           | 5.0 |     | ug/L |   |          | 01/16/20 17:30 | 1       |
| 1,1-Dichloroethene     | ND     |           | 5.0 |     | ug/L |   |          | 01/16/20 17:30 | 1       |
| Benzene                | ND     |           | 5.0 |     | ug/L |   |          | 01/16/20 17:30 | 1       |
| Chlorobenzene          | ND     |           | 5.0 |     | ug/L |   |          | 01/16/20 17:30 | 1       |
| Chloroethane           | ND     |           | 5.0 |     | ug/L |   |          | 01/16/20 17:30 | 1       |
| cis-1,2-Dichloroethene | ND     |           | 5.0 |     | ug/L |   |          | 01/16/20 17:30 | 1       |
| Toluene                | ND     |           | 5.0 |     | ug/L |   |          | 01/16/20 17:30 | 1       |
| Trichloroethene        | ND     |           | 5.0 |     | ug/L |   |          | 01/16/20 17:30 | 1       |
| o-Chlorotoluene        | ND     |           | 5.0 |     | ug/L |   |          | 01/16/20 17:30 | 1       |

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 104       |           | 68 - 130 |          | 01/16/20 17:30 | 1       |
| 4-Bromofluorobenzene (Surr)  | 99        |           | 76 - 123 |          | 01/16/20 17:30 | 1       |
| Toluene-d8 (Surr)            | 100       |           | 77 - 120 |          | 01/16/20 17:30 | 1       |

## Method: 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

| Analyte | Result | Qualifier | RL   | MDL | Unit | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|------|-----|------|---|----------------|----------------|---------|
| Iron    | 675    |           | 50.0 |     | ug/L |   | 01/15/20 07:37 | 01/15/20 15:45 | 1       |

## General Chemistry

| Analyte                | Result | Qualifier | RL    | RL | Unit      | D | Prepared | Analyzed       | Dil Fac |
|------------------------|--------|-----------|-------|----|-----------|---|----------|----------------|---------|
| Total Suspended Solids | 13.2   |           | 4.0   |    | mg/L      |   |          | 01/15/20 18:50 | 1       |
| pH                     | 8.1    | HF        | 0.1   |    | SU        |   |          | 01/15/20 16:40 | 1       |
| Temperature            | 19.8   | HF        | 0.001 |    | Degrees C |   |          | 01/15/20 16:40 | 1       |

# Client Sample Results

Client: Waste Management  
Project/Site: ChemTrol Site: Monthly

Job ID: 480-165136-1

Client Sample ID: Influent

Lab Sample ID: 480-165136-2

Date Collected: 01/13/20 17:00

Matrix: Water

Date Received: 01/14/20 14:30

## Method: 624.1 - Volatile Organic Compounds (GC/MS)

| Analyte                      | Result      | Qualifier | RL       | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------------------|-------------|-----------|----------|-----|------|---|----------|----------------|---------|
| 1,1,1-Trichloroethane        | ND          |           | 7.7      |     | ug/L |   |          | 01/16/20 17:54 | 20      |
| <b>1,1-Dichloroethane</b>    | <b>20</b>   |           | 12       |     | ug/L |   |          | 01/16/20 17:54 | 20      |
| 1,1-Dichloroethene           | ND          |           | 17       |     | ug/L |   |          | 01/16/20 17:54 | 20      |
| Benzene                      | ND          |           | 12       |     | ug/L |   |          | 01/16/20 17:54 | 20      |
| Chlorobenzene                | ND          |           | 9.5      |     | ug/L |   |          | 01/16/20 17:54 | 20      |
| <b>Chloroethane</b>          | <b>24</b>   |           | 17       |     | ug/L |   |          | 01/16/20 17:54 | 20      |
| cis-1,2-Dichloroethene       | ND          |           | 11       |     | ug/L |   |          | 01/16/20 17:54 | 20      |
| Toluene                      | ND          |           | 9.1      |     | ug/L |   |          | 01/16/20 17:54 | 20      |
| Trichloroethene              | ND          | F1        | 12       |     | ug/L |   |          | 01/16/20 17:54 | 20      |
| <b>o-Chlorotoluene</b>       | <b>1600</b> |           | 6.6      |     | ug/L |   |          | 01/16/20 17:54 | 20      |
| Surrogate                    | %Recovery   | Qualifier | Limits   |     |      |   | Prepared | Analyzed       | Dil Fac |
| 1,2-Dichloroethane-d4 (Surr) | 101         |           | 68 - 130 |     |      |   |          | 01/16/20 17:54 | 20      |
| 4-Bromofluorobenzene (Surr)  | 100         |           | 76 - 123 |     |      |   |          | 01/16/20 17:54 | 20      |
| Toluene-d8 (Surr)            | 98          |           | 77 - 120 |     |      |   |          | 01/16/20 17:54 | 20      |

## Method: 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

| Analyte     | Result     | Qualifier | RL   | MDL | Unit | D | Prepared       | Analyzed       | Dil Fac |
|-------------|------------|-----------|------|-----|------|---|----------------|----------------|---------|
| <b>Iron</b> | <b>916</b> |           | 50.0 |     | ug/L |   | 01/15/20 07:37 | 01/15/20 16:14 | 1       |

## General Chemistry

| Analyte                       | Result      | Qualifier | RL    | RL | Unit      | D | Prepared | Analyzed       | Dil Fac |
|-------------------------------|-------------|-----------|-------|----|-----------|---|----------|----------------|---------|
| <b>Total Suspended Solids</b> | <b>22.8</b> |           | 4.0   |    | mg/L      |   |          | 01/15/20 18:50 | 1       |
| <b>pH</b>                     | <b>7.2</b>  | HF        | 0.1   |    | SU        |   |          | 01/15/20 16:38 | 1       |
| <b>Temperature</b>            | <b>19.7</b> | HF        | 0.001 |    | Degrees C |   |          | 01/15/20 16:38 | 1       |

# Client Sample Results

Client: Waste Management  
Project/Site: ChemTrol Site: Monthly

Job ID: 480-165136-1

Client Sample ID: Trip Blank

Lab Sample ID: 480-165136-3

Date Collected: 01/13/20 17:10

Matrix: Water

Date Received: 01/14/20 14:30

## Method: 624.1 - Volatile Organic Compounds (GC/MS)

| Analyte                | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| 1,1,1-Trichloroethane  | ND     |           | 5.0 |     | ug/L |   |          | 01/16/20 18:18 | 1       |
| 1,1-Dichloroethane     | ND     |           | 5.0 |     | ug/L |   |          | 01/16/20 18:18 | 1       |
| 1,1-Dichloroethene     | ND     |           | 5.0 |     | ug/L |   |          | 01/16/20 18:18 | 1       |
| Benzene                | ND     |           | 5.0 |     | ug/L |   |          | 01/16/20 18:18 | 1       |
| Chlorobenzene          | ND     |           | 5.0 |     | ug/L |   |          | 01/16/20 18:18 | 1       |
| Chloroethane           | ND     |           | 5.0 |     | ug/L |   |          | 01/16/20 18:18 | 1       |
| cis-1,2-Dichloroethene | ND     |           | 5.0 |     | ug/L |   |          | 01/16/20 18:18 | 1       |
| Toluene                | ND     |           | 5.0 |     | ug/L |   |          | 01/16/20 18:18 | 1       |
| Trichloroethene        | ND     |           | 5.0 |     | ug/L |   |          | 01/16/20 18:18 | 1       |
| o-Chlorotoluene        | ND     |           | 5.0 |     | ug/L |   |          | 01/16/20 18:18 | 1       |

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 102       |           | 68 - 130 |          | 01/16/20 18:18 | 1       |
| 4-Bromofluorobenzene (Surr)  | 99        |           | 76 - 123 |          | 01/16/20 18:18 | 1       |
| Toluene-d8 (Surr)            | 98        |           | 77 - 120 |          | 01/16/20 18:18 | 1       |

# QC Sample Results

Client: Waste Management  
Project/Site: ChemTrol Site: Monthly

Job ID: 480-165136-1

## Method: 624.1 - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 480-513832/7

Matrix: Water

Analysis Batch: 513832

Client Sample ID: Method Blank

Prep Type: Total/NA

| Analyte                | MB Result | MB Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------------|-----------|--------------|-----|-----|------|---|----------|----------------|---------|
| 1,1,1-Trichloroethane  | ND        |              | 5.0 |     | ug/L |   |          | 01/16/20 13:19 | 1       |
| 1,1-Dichloroethane     | ND        |              | 5.0 |     | ug/L |   |          | 01/16/20 13:19 | 1       |
| 1,1-Dichloroethene     | ND        |              | 5.0 |     | ug/L |   |          | 01/16/20 13:19 | 1       |
| Benzene                | ND        |              | 5.0 |     | ug/L |   |          | 01/16/20 13:19 | 1       |
| Chlorobenzene          | ND        |              | 5.0 |     | ug/L |   |          | 01/16/20 13:19 | 1       |
| Chloroethane           | ND        |              | 5.0 |     | ug/L |   |          | 01/16/20 13:19 | 1       |
| cis-1,2-Dichloroethene | ND        |              | 5.0 |     | ug/L |   |          | 01/16/20 13:19 | 1       |
| Toluene                | ND        |              | 5.0 |     | ug/L |   |          | 01/16/20 13:19 | 1       |
| Trichloroethene        | ND        |              | 5.0 |     | ug/L |   |          | 01/16/20 13:19 | 1       |
| o-Chlorotoluene        | ND        |              | 5.0 |     | ug/L |   |          | 01/16/20 13:19 | 1       |

| Surrogate                    | MB %Recovery | MB Qualifier | Limits   | Prepared | Analyzed       | Dil Fac |
|------------------------------|--------------|--------------|----------|----------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 99           |              | 68 - 130 |          | 01/16/20 13:19 | 1       |
| 4-Bromofluorobenzene (Surr)  | 100          |              | 76 - 123 |          | 01/16/20 13:19 | 1       |
| Toluene-d8 (Surr)            | 104          |              | 77 - 120 |          | 01/16/20 13:19 | 1       |

Lab Sample ID: LCS 480-513832/5

Matrix: Water

Analysis Batch: 513832

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

| Analyte               | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|-----------------------|-------------|------------|---------------|------|---|------|--------------|
| 1,1,1-Trichloroethane | 20.0        | 21.3       |               | ug/L |   | 107  | 52 - 162     |
| 1,1-Dichloroethane    | 20.0        | 20.4       |               | ug/L |   | 102  | 59 - 155     |
| 1,1-Dichloroethene    | 20.0        | 21.4       |               | ug/L |   | 107  | 1 - 234      |
| Benzene               | 20.0        | 19.9       |               | ug/L |   | 99   | 37 - 151     |
| Chlorobenzene         | 20.0        | 20.1       |               | ug/L |   | 101  | 37 - 160     |
| Chloroethane          | 20.0        | 21.0       |               | ug/L |   | 105  | 14 - 230     |
| Toluene               | 20.0        | 20.6       |               | ug/L |   | 103  | 47 - 150     |
| Trichloroethene       | 20.0        | 21.1       |               | ug/L |   | 105  | 71 - 157     |

| Surrogate                    | LCS %Recovery | LCS Qualifier | Limits   |
|------------------------------|---------------|---------------|----------|
| 1,2-Dichloroethane-d4 (Surr) | 100           |               | 68 - 130 |
| 4-Bromofluorobenzene (Surr)  | 101           |               | 76 - 123 |
| Toluene-d8 (Surr)            | 100           |               | 77 - 120 |

Lab Sample ID: 480-165136-2 MS

Matrix: Water

Analysis Batch: 513832

Client Sample ID: Influent

Prep Type: Total/NA

| Analyte               | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec. Limits |
|-----------------------|---------------|------------------|-------------|-----------|--------------|------|---|------|--------------|
| 1,1,1-Trichloroethane | ND            |                  | 400         | 223       |              | ug/L |   | 56   | 52 - 162     |
| 1,1-Dichloroethane    | 20            |                  | 400         | 330       |              | ug/L |   | 78   | 59 - 155     |
| 1,1-Dichloroethene    | ND            |                  | 400         | 188       |              | ug/L |   | 47   | 1 - 234      |
| Benzene               | ND            |                  | 400         | 315       |              | ug/L |   | 79   | 37 - 151     |
| Chlorobenzene         | ND            |                  | 400         | 346       |              | ug/L |   | 86   | 37 - 160     |
| Chloroethane          | 24            |                  | 400         | 220       |              | ug/L |   | 49   | 14 - 230     |
| Toluene               | ND            |                  | 400         | 296       |              | ug/L |   | 74   | 47 - 150     |
| Trichloroethene       | ND            | F1               | 400         | 261       | F1           | ug/L |   | 65   | 71 - 157     |

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# QC Sample Results

Client: Waste Management  
Project/Site: ChemTrol Site: Monthly

Job ID: 480-165136-1

## Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

|                              | MS        | MS        |          |
|------------------------------|-----------|-----------|----------|
| Surrogate                    | %Recovery | Qualifier | Limits   |
| 1,2-Dichloroethane-d4 (Surr) | 99        |           | 68 - 130 |
| 4-Bromofluorobenzene (Surr)  | 103       |           | 76 - 123 |
| Toluene-d8 (Surr)            | 98        |           | 77 - 120 |

Lab Sample ID: 480-165136-2 MSD  
Matrix: Water  
Analysis Batch: 513832

Client Sample ID: Influent  
Prep Type: Total/NA

| Analyte               | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|-----------------------|---------------|------------------|-------------|------------|---------------|------|---|------|--------------|-----|-----------|
| 1,1,1-Trichloroethane | ND            |                  | 400         | 208        |               | ug/L |   | 52   | 52 - 162     | 7   | 15        |
| 1,1-Dichloroethane    | 20            |                  | 400         | 309        |               | ug/L |   | 72   | 59 - 155     | 7   | 15        |
| 1,1-Dichloroethene    | ND            |                  | 400         | 173        |               | ug/L |   | 43   | 1 - 234      | 8   | 15        |
| Benzene               | ND            |                  | 400         | 297        |               | ug/L |   | 74   | 37 - 151     | 6   | 15        |
| Chlorobenzene         | ND            |                  | 400         | 338        |               | ug/L |   | 85   | 37 - 160     | 2   | 15        |
| Chloroethane          | 24            |                  | 400         | 220        |               | ug/L |   | 49   | 14 - 230     | 0   | 15        |
| Toluene               | ND            |                  | 400         | 294        |               | ug/L |   | 73   | 47 - 150     | 1   | 15        |
| Trichloroethene       | ND            | F1               | 400         | 256        | F1            | ug/L |   | 64   | 71 - 157     | 2   | 15        |

|                              | MSD       | MSD       |          |
|------------------------------|-----------|-----------|----------|
| Surrogate                    | %Recovery | Qualifier | Limits   |
| 1,2-Dichloroethane-d4 (Surr) | 96        |           | 68 - 130 |
| 4-Bromofluorobenzene (Surr)  | 100       |           | 76 - 123 |
| Toluene-d8 (Surr)            | 99        |           | 77 - 120 |

Lab Sample ID: MB 480-513833/7  
Matrix: Water  
Analysis Batch: 513833

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

| Analyte                | MB Result | MB Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------------|-----------|--------------|-----|-----|------|---|----------|----------------|---------|
| 1,1,1-Trichloroethane  | ND        |              | 5.0 |     | ug/L |   |          | 01/16/20 13:19 | 1       |
| 1,1-Dichloroethane     | ND        |              | 5.0 |     | ug/L |   |          | 01/16/20 13:19 | 1       |
| 1,1-Dichloroethene     | ND        |              | 5.0 |     | ug/L |   |          | 01/16/20 13:19 | 1       |
| Benzene                | ND        |              | 5.0 |     | ug/L |   |          | 01/16/20 13:19 | 1       |
| Chlorobenzene          | ND        |              | 5.0 |     | ug/L |   |          | 01/16/20 13:19 | 1       |
| Chloroethane           | ND        |              | 5.0 |     | ug/L |   |          | 01/16/20 13:19 | 1       |
| cis-1,2-Dichloroethene | ND        |              | 5.0 |     | ug/L |   |          | 01/16/20 13:19 | 1       |
| Toluene                | ND        |              | 5.0 |     | ug/L |   |          | 01/16/20 13:19 | 1       |
| Trichloroethene        | ND        |              | 5.0 |     | ug/L |   |          | 01/16/20 13:19 | 1       |
| o-Chlorotoluene        | ND        |              | 5.0 |     | ug/L |   |          | 01/16/20 13:19 | 1       |

|                              | MB        | MB        |          |          |                |         |  |  |  |
|------------------------------|-----------|-----------|----------|----------|----------------|---------|--|--|--|
| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared | Analyzed       | Dil Fac |  |  |  |
| 1,2-Dichloroethane-d4 (Surr) | 99        |           | 68 - 130 |          | 01/16/20 13:19 | 1       |  |  |  |
| 4-Bromofluorobenzene (Surr)  | 100       |           | 76 - 123 |          | 01/16/20 13:19 | 1       |  |  |  |
| Toluene-d8 (Surr)            | 104       |           | 77 - 120 |          | 01/16/20 13:19 | 1       |  |  |  |

Lab Sample ID: LCS 480-513833/5  
Matrix: Water  
Analysis Batch: 513833

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

| Analyte               | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|-----------------------|-------------|------------|---------------|------|---|------|--------------|
| 1,1,1-Trichloroethane | 20.0        | 21.3       |               | ug/L |   | 107  | 52 - 162     |
| 1,1-Dichloroethane    | 20.0        | 20.4       |               | ug/L |   | 102  | 59 - 155     |

Eurofins TestAmerica, Buffalo

# QC Sample Results

Client: Waste Management  
Project/Site: ChemTrol Site: Monthly

Job ID: 480-165136-1

## Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 480-513833/5

Matrix: Water

Analysis Batch: 513833

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

| Analyte            | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|--------------------|-------------|------------|---------------|------|---|------|--------------|
| 1,1-Dichloroethene | 20.0        | 21.4       |               | ug/L |   | 107  | 1 - 234      |
| Benzene            | 20.0        | 19.9       |               | ug/L |   | 99   | 37 - 151     |
| Chlorobenzene      | 20.0        | 20.1       |               | ug/L |   | 101  | 37 - 160     |
| Chloroethane       | 20.0        | 21.0       |               | ug/L |   | 105  | 14 - 230     |
| Toluene            | 20.0        | 20.6       |               | ug/L |   | 103  | 47 - 150     |
| Trichloroethene    | 20.0        | 21.1       |               | ug/L |   | 105  | 71 - 157     |

| Surrogate                    | LCS %Recovery | LCS Qualifier | Limits   |
|------------------------------|---------------|---------------|----------|
| 1,2-Dichloroethane-d4 (Surr) | 100           |               | 68 - 130 |
| 4-Bromofluorobenzene (Surr)  | 101           |               | 76 - 123 |
| Toluene-d8 (Surr)            | 100           |               | 77 - 120 |

Lab Sample ID: 480-165136-2 MS

Matrix: Water

Analysis Batch: 513833

Client Sample ID: Influent

Prep Type: Total/NA

| Analyte               | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec. Limits |
|-----------------------|---------------|------------------|-------------|-----------|--------------|------|---|------|--------------|
| 1,1,1-Trichloroethane | ND            |                  | 400         | 223       |              | ug/L |   | 56   | 52 - 162     |
| 1,1-Dichloroethane    | 20            |                  | 400         | 330       |              | ug/L |   | 78   | 59 - 155     |
| 1,1-Dichloroethene    | ND            |                  | 400         | 188       |              | ug/L |   | 47   | 1 - 234      |
| Benzene               | ND            |                  | 400         | 315       |              | ug/L |   | 79   | 37 - 151     |
| Chlorobenzene         | ND            |                  | 400         | 346       |              | ug/L |   | 86   | 37 - 160     |
| Chloroethane          | 24            |                  | 400         | 220       |              | ug/L |   | 49   | 14 - 230     |
| Toluene               | ND            |                  | 400         | 296       |              | ug/L |   | 74   | 47 - 150     |
| Trichloroethene       | ND            | F1               | 400         | 261       | F1           | ug/L |   | 65   | 71 - 157     |

| Surrogate                    | MS %Recovery | MS Qualifier | Limits   |
|------------------------------|--------------|--------------|----------|
| 1,2-Dichloroethane-d4 (Surr) | 99           |              | 68 - 130 |
| 4-Bromofluorobenzene (Surr)  | 103          |              | 76 - 123 |
| Toluene-d8 (Surr)            | 98           |              | 77 - 120 |

Lab Sample ID: 480-165136-2 MSD

Matrix: Water

Analysis Batch: 513833

Client Sample ID: Influent

Prep Type: Total/NA

| Analyte               | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | Limit |
|-----------------------|---------------|------------------|-------------|------------|---------------|------|---|------|--------------|-----|-------|
| 1,1,1-Trichloroethane | ND            |                  | 400         | 208        |               | ug/L |   | 52   | 52 - 162     | 7   | 15    |
| 1,1-Dichloroethane    | 20            |                  | 400         | 309        |               | ug/L |   | 72   | 59 - 155     | 7   | 15    |
| 1,1-Dichloroethene    | ND            |                  | 400         | 173        |               | ug/L |   | 43   | 1 - 234      | 8   | 15    |
| Benzene               | ND            |                  | 400         | 297        |               | ug/L |   | 74   | 37 - 151     | 6   | 15    |
| Chlorobenzene         | ND            |                  | 400         | 338        |               | ug/L |   | 85   | 37 - 160     | 2   | 15    |
| Chloroethane          | 24            |                  | 400         | 220        |               | ug/L |   | 49   | 14 - 230     | 0   | 15    |
| Toluene               | ND            |                  | 400         | 294        |               | ug/L |   | 73   | 47 - 150     | 1   | 15    |
| Trichloroethene       | ND            | F1               | 400         | 256        | F1            | ug/L |   | 64   | 71 - 157     | 2   | 15    |

| Surrogate                    | MSD %Recovery | MSD Qualifier | Limits   |
|------------------------------|---------------|---------------|----------|
| 1,2-Dichloroethane-d4 (Surr) | 96            |               | 68 - 130 |
| 4-Bromofluorobenzene (Surr)  | 100           |               | 76 - 123 |

Eurofins TestAmerica, Buffalo

# QC Sample Results

Client: Waste Management  
Project/Site: ChemTrol Site: Monthly

Job ID: 480-165136-1

## Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 480-165136-2 MSD

Matrix: Water

Analysis Batch: 513833

Client Sample ID: Influent

Prep Type: Total/NA

|                   | MSD       | MSD       |          |
|-------------------|-----------|-----------|----------|
| Surrogate         | %Recovery | Qualifier | Limits   |
| Toluene-d8 (Surr) | 99        |           | 77 - 120 |

## Method: 200.7 Rev 4.4 - Metals (ICP)

Lab Sample ID: MB 480-513593/1-A

Matrix: Water

Analysis Batch: 513795

Client Sample ID: Method Blank

Prep Type: Total Recoverable

Prep Batch: 513593

| Analyte | MB     | MB        | RL   | MDL | Unit | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|------|-----|------|---|----------------|----------------|---------|
|         | Result | Qualifier |      |     |      |   |                |                |         |
| Iron    | ND     |           | 50.0 |     | ug/L |   | 01/15/20 07:37 | 01/15/20 15:37 | 1       |

Lab Sample ID: LCS 480-513593/2-A

Matrix: Water

Analysis Batch: 513795

Client Sample ID: Lab Control Sample

Prep Type: Total Recoverable

Prep Batch: 513593

| Analyte | Spike | LCS    | LCS       | %Rec.    |
|---------|-------|--------|-----------|----------|
|         | Added | Result | Qualifier | Limits   |
| Iron    | 10000 | 9665   |           | 85 - 115 |
| Unit    |       |        |           |          |
| ug/L    |       |        |           |          |

Lab Sample ID: 480-165136-1 MS

Matrix: Water

Analysis Batch: 513795

Client Sample ID: Effluent

Prep Type: Total Recoverable

Prep Batch: 513593

| Analyte | Sample | Sample    | Spike | MS     | MS        | %Rec.    |
|---------|--------|-----------|-------|--------|-----------|----------|
|         | Result | Qualifier | Added | Result | Qualifier | Limits   |
| Iron    | 675    |           | 10000 | 10460  |           | 70 - 130 |
| Unit    |        |           |       |        |           |          |
| ug/L    |        |           |       |        |           |          |

Lab Sample ID: 480-165136-1 MSD

Matrix: Water

Analysis Batch: 513795

Client Sample ID: Effluent

Prep Type: Total Recoverable

Prep Batch: 513593

| Analyte | Sample | Sample    | Spike | MSD    | MSD       | %Rec.    | RPD   |
|---------|--------|-----------|-------|--------|-----------|----------|-------|
|         | Result | Qualifier | Added | Result | Qualifier | Limits   | Limit |
| Iron    | 675    |           | 10000 | 10230  |           | 70 - 130 | 2     |
| Unit    |        |           |       |        |           |          |       |
| ug/L    |        |           |       |        |           |          | 20    |

## Method: SM 2540D - Solids, Total Suspended (TSS)

Lab Sample ID: MB 480-513722/1

Matrix: Water

Analysis Batch: 513722

Client Sample ID: Method Blank

Prep Type: Total/NA

| Analyte                | MB     | MB        | RL  | RL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------------|--------|-----------|-----|----|------|---|----------|----------------|---------|
|                        | Result | Qualifier |     |    |      |   |          |                |         |
| Total Suspended Solids | ND     |           | 4.0 |    | mg/L |   |          | 01/15/20 18:50 | 1       |

Lab Sample ID: LCS 480-513722/2

Matrix: Water

Analysis Batch: 513722

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

| Analyte                | Spike | LCS    | LCS       | %Rec.    |
|------------------------|-------|--------|-----------|----------|
|                        | Added | Result | Qualifier | Limits   |
| Total Suspended Solids | 274   | 262.4  |           | 88 - 110 |
| Unit                   |       |        |           |          |
| mg/L                   |       |        |           |          |

## QC Sample Results

Client: Waste Management  
Project/Site: ChemTrol Site: Monthly

Job ID: 480-165136-1

### Method: SM 4500 H+ B - pH

Lab Sample ID: LCS 480-513729/1

Matrix: Water

Analysis Batch: 513729

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

| Analyte | Spike<br>Added | LCS<br>Result | LCS<br>Qualifier | Unit | D | %Rec | %Rec.<br>Limits |
|---------|----------------|---------------|------------------|------|---|------|-----------------|
| pH      | 7.00           | 7.0           |                  | SU   |   | 100  | 99 - 101        |

# QC Association Summary

Client: Waste Management  
Project/Site: ChemTrol Site: Monthly

Job ID: 480-165136-1

## GC/MS VOA

### Analysis Batch: 513832

| Lab Sample ID    | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|------------------|--------------------|-----------|--------|--------|------------|
| MB 480-513832/7  | Method Blank       | Total/NA  | Water  | 624.1  |            |
| LCS 480-513832/5 | Lab Control Sample | Total/NA  | Water  | 624.1  |            |
| 480-165136-2 MS  | Influent           | Total/NA  | Water  | 624.1  |            |
| 480-165136-2 MSD | Influent           | Total/NA  | Water  | 624.1  |            |

### Analysis Batch: 513833

| Lab Sample ID    | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|------------------|--------------------|-----------|--------|--------|------------|
| 480-165136-1     | Effluent           | Total/NA  | Water  | 624.1  |            |
| 480-165136-2     | Influent           | Total/NA  | Water  | 624.1  |            |
| 480-165136-3     | Trip Blank         | Total/NA  | Water  | 624.1  |            |
| MB 480-513833/7  | Method Blank       | Total/NA  | Water  | 624.1  |            |
| LCS 480-513833/5 | Lab Control Sample | Total/NA  | Water  | 624.1  |            |
| 480-165136-2 MS  | Influent           | Total/NA  | Water  | 624.1  |            |
| 480-165136-2 MSD | Influent           | Total/NA  | Water  | 624.1  |            |

## Metals

### Prep Batch: 513593

| Lab Sample ID      | Client Sample ID   | Prep Type         | Matrix | Method | Prep Batch |
|--------------------|--------------------|-------------------|--------|--------|------------|
| 480-165136-1       | Effluent           | Total Recoverable | Water  | 200.7  |            |
| 480-165136-2       | Influent           | Total Recoverable | Water  | 200.7  |            |
| MB 480-513593/1-A  | Method Blank       | Total Recoverable | Water  | 200.7  |            |
| LCS 480-513593/2-A | Lab Control Sample | Total Recoverable | Water  | 200.7  |            |
| 480-165136-1 MS    | Effluent           | Total Recoverable | Water  | 200.7  |            |
| 480-165136-1 MSD   | Effluent           | Total Recoverable | Water  | 200.7  |            |

### Analysis Batch: 513795

| Lab Sample ID      | Client Sample ID   | Prep Type         | Matrix | Method        | Prep Batch |
|--------------------|--------------------|-------------------|--------|---------------|------------|
| 480-165136-1       | Effluent           | Total Recoverable | Water  | 200.7 Rev 4.4 | 513593     |
| 480-165136-2       | Influent           | Total Recoverable | Water  | 200.7 Rev 4.4 | 513593     |
| MB 480-513593/1-A  | Method Blank       | Total Recoverable | Water  | 200.7 Rev 4.4 | 513593     |
| LCS 480-513593/2-A | Lab Control Sample | Total Recoverable | Water  | 200.7 Rev 4.4 | 513593     |
| 480-165136-1 MS    | Effluent           | Total Recoverable | Water  | 200.7 Rev 4.4 | 513593     |
| 480-165136-1 MSD   | Effluent           | Total Recoverable | Water  | 200.7 Rev 4.4 | 513593     |

## General Chemistry

### Analysis Batch: 513722

| Lab Sample ID    | Client Sample ID   | Prep Type | Matrix | Method   | Prep Batch |
|------------------|--------------------|-----------|--------|----------|------------|
| 480-165136-1     | Effluent           | Total/NA  | Water  | SM 2540D |            |
| 480-165136-2     | Influent           | Total/NA  | Water  | SM 2540D |            |
| MB 480-513722/1  | Method Blank       | Total/NA  | Water  | SM 2540D |            |
| LCS 480-513722/2 | Lab Control Sample | Total/NA  | Water  | SM 2540D |            |

### Analysis Batch: 513729

| Lab Sample ID    | Client Sample ID   | Prep Type | Matrix | Method       | Prep Batch |
|------------------|--------------------|-----------|--------|--------------|------------|
| 480-165136-1     | Effluent           | Total/NA  | Water  | SM 4500 H+ B |            |
| 480-165136-2     | Influent           | Total/NA  | Water  | SM 4500 H+ B |            |
| LCS 480-513729/1 | Lab Control Sample | Total/NA  | Water  | SM 4500 H+ B |            |

Eurofins TestAmerica, Buffalo

# Lab Chronicle

Client: Waste Management  
Project/Site: ChemTrol Site: Monthly

Job ID: 480-165136-1

## Client Sample ID: Effluent

Lab Sample ID: 480-165136-1

Date Collected: 01/13/20 16:50

Matrix: Water

Date Received: 01/14/20 14:30

| Prep Type         | Batch Type | Batch Method  | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab     |
|-------------------|------------|---------------|-----|-----------------|--------------|----------------------|---------|---------|
| Total/NA          | Analysis   | 624.1         |     | 1               | 513833       | 01/16/20 17:30       | RJF     | TAL BUF |
| Total Recoverable | Prep       | 200.7         |     |                 | 513593       | 01/15/20 07:37       | EMB     | TAL BUF |
| Total Recoverable | Analysis   | 200.7 Rev 4.4 |     | 1               | 513795       | 01/15/20 15:45       | AMH     | TAL BUF |
| Total/NA          | Analysis   | SM 2540D      |     | 1               | 513722       | 01/15/20 18:50       | CSS     | TAL BUF |
| Total/NA          | Analysis   | SM 4500 H+ B  |     | 1               | 513729       | 01/15/20 16:40       | BEF     | TAL BUF |

## Client Sample ID: Influent

Lab Sample ID: 480-165136-2

Date Collected: 01/13/20 17:00

Matrix: Water

Date Received: 01/14/20 14:30

| Prep Type         | Batch Type | Batch Method  | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab     |
|-------------------|------------|---------------|-----|-----------------|--------------|----------------------|---------|---------|
| Total/NA          | Analysis   | 624.1         |     | 20              | 513833       | 01/16/20 17:54       | RJF     | TAL BUF |
| Total Recoverable | Prep       | 200.7         |     |                 | 513593       | 01/15/20 07:37       | EMB     | TAL BUF |
| Total Recoverable | Analysis   | 200.7 Rev 4.4 |     | 1               | 513795       | 01/15/20 16:14       | AMH     | TAL BUF |
| Total/NA          | Analysis   | SM 2540D      |     | 1               | 513722       | 01/15/20 18:50       | CSS     | TAL BUF |
| Total/NA          | Analysis   | SM 4500 H+ B  |     | 1               | 513729       | 01/15/20 16:38       | BEF     | TAL BUF |

## Client Sample ID: Trip Blank

Lab Sample ID: 480-165136-3

Date Collected: 01/13/20 17:10

Matrix: Water

Date Received: 01/14/20 14:30

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab     |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|---------|
| Total/NA  | Analysis   | 624.1        |     | 1               | 513833       | 01/16/20 18:18       | RJF     | TAL BUF |

### Laboratory References:

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

## Accreditation/Certification Summary

Client: Waste Management  
Project/Site: ChemTrol Site: Monthly

Job ID: 480-165136-1

### Laboratory: Eurofins TestAmerica, Buffalo

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

| Authority      | Program             | Identification Number | Expiration Date |
|----------------|---------------------|-----------------------|-----------------|
| Arkansas DEQ   | State               | 88-0686               | 07-06-20        |
| California     | State               | 2931                  | 04-01-20 *      |
| Connecticut    | State               | PH-0568               | 09-30-20        |
| Florida        | NELAP               | E87672                | 06-30-20        |
| Georgia        | State               | 10026 (NY)            | 03-31-20 *      |
| Georgia (DW)   | State               | 956                   | 03-31-20 *      |
| Illinois       | NELAP               | 200003                | 09-30-19 *      |
| Iowa           | State               | 374                   | 02-28-21        |
| Kansas         | NELAP               | E-10187               | 01-31-20        |
| Kentucky (DW)  | State               | 90029                 | 12-31-20 *      |
| Kentucky (UST) | State               | 30                    | 03-31-20 *      |
| Kentucky (WW)  | State               | KY90029               | 12-31-20        |
| Louisiana      | NELAP               | 02031                 | 06-30-20        |
| Maine          | State               | NY00044               | 12-04-20        |
| Maryland       | State               | 294                   | 03-31-20 *      |
| Massachusetts  | State               | M-NY044               | 06-30-20        |
| Michigan       | State               | 9937                  | 03-31-20 *      |
| Minnesota      | NELAP               | 1524384               | 12-31-20        |
| New Hampshire  | NELAP               | 2337                  | 11-17-19 *      |
| New Jersey     | NELAP               | NY455                 | 06-30-20        |
| New York       | NELAP               | 10026                 | 04-01-20 *      |
| North Dakota   | State               | R-176                 | 03-31-20 *      |
| Oklahoma       | State               | 9421                  | 09-01-20        |
| Oregon         | NELAP               | NY200003              | 06-10-20        |
| Pennsylvania   | NELAP               | 68-00281              | 07-31-20        |
| Rhode Island   | State               | LAO00328              | 12-30-20 *      |
| Tennessee      | State               | 02970                 | 03-31-20 *      |
| Texas          | NELAP               | T104704412-18-10      | 08-01-20        |
| USDA           | US Federal Programs | P330-18-00039         | 02-06-21        |
| Virginia       | NELAP               | 460185                | 09-14-20        |
| Washington     | State               | C784                  | 02-10-20 *      |
| Wisconsin      | State               | 998310390             | 08-31-20        |

\* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Eurofins TestAmerica, Buffalo

## Method Summary

Client: Waste Management  
Project/Site: ChemTrol Site: Monthly

Job ID: 480-165136-1

| Method        | Method Description                    | Protocol  | Laboratory |
|---------------|---------------------------------------|-----------|------------|
| 624.1         | Volatile Organic Compounds (GC/MS)    | 40CFR136A | TAL BUF    |
| 200.7 Rev 4.4 | Metals (ICP)                          | EPA       | TAL BUF    |
| SM 2540D      | Solids, Total Suspended (TSS)         | SM        | TAL BUF    |
| SM 4500 H+ B  | pH                                    | SM        | TAL BUF    |
| 200.7         | Preparation, Total Recoverable Metals | EPA       | 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

SM = "Standard Methods For The Examination Of Water And Wastewater"

### Laboratory References:

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

## Sample Summary

Client: Waste Management  
Project/Site: ChemTrol Site: Monthly

Job ID: 480-165136-1

| Lab Sample ID | Client Sample ID | Matrix | Collected      | Received       | Asset ID |
|---------------|------------------|--------|----------------|----------------|----------|
| 480-165136-1  | Effluent         | Water  | 01/13/20 16:50 | 01/14/20 14:30 |          |
| 480-165136-2  | Influent         | Water  | 01/13/20 17:00 | 01/14/20 14:30 |          |
| 480-165136-3  | Trip Blank       | Water  | 01/13/20 17:10 | 01/14/20 14:30 |          |

## Chain of Custody Record



Environment Testing  
TestAmerica

[illegible]

February 2020

## Operation, Maintenance & Monitoring Checklist

### Groundwater Treatment System CHEM-TROL Site Town of Hamburg, New York

**This summary inspection checklist is to be completed during each site inspection. Note all items, which require repair or maintenance. Use the last page to note any additional comments or unusual events.**

#### General

Service by: Sean P. Connelly Weather/Temperature: 40° F, Partly Cloudy  
Date: 2/03/20 Arrival Time: 11:45 Departure Time: 13:00

Reason for Service: Inspect system

#### Inspection Items:

#### OK:

#### Comments:

Site Appearance/Condition

X

See comments section.

#### ***Building Exterior***

Overhead Door

X

Wood lintel decaying, header exposed.

Siding

X

Metal trim missing from lintel

Roof and Discharge Pipe

X

#### ***Building Interior***

Indication of Spills or Leaks

Condensation on the floor

Building Heater

X

Breaker turned on. The heater was off on arrival.

Phone System

X

Disconnected

Exhaust Fan

Could not get fan to work.

Fire Extinguisher

X

First Aid & Eye Wash

X

***Groundwater Treatment System***

|                     |   |                                                                                                           |
|---------------------|---|-----------------------------------------------------------------------------------------------------------|
| Air Stripper        | X | Ratchet straps are used to keep the trays together. Several of the clips for the trays are rusted/broken. |
| Iron Removal Filter | X | Tank in-line but filter media removed; not required.                                                      |
| Flow Meters         | X | See Notes.                                                                                                |
| Gauges              | X |                                                                                                           |
| Stripper Blower     | X |                                                                                                           |
| Indication of Alarm | X |                                                                                                           |

***Groundwater Treatment Wells***

|                  |   |                                         |
|------------------|---|-----------------------------------------|
| EW-1 Pump        | X |                                         |
| EW-1 Transducer  | X |                                         |
| EW-1 Flow Meter  | X | Reading 0 but well pumping at low rate. |
| EW-2 Pump        | X |                                         |
| EW-2 Transducer  | X |                                         |
| EW- 2 Flow Meter | X | Reading 0 but well pumping at low rate. |
| EW-3 Pump        | X |                                         |
| EW-3 Transducer  | X |                                         |
| EW-3 Flow Meter  | X | Reading 0 but well pumping at low rate. |

***Effluent Discharge***

|          |   |  |
|----------|---|--|
| Outfall  | X |  |
| Cleanout | X |  |

**Instrumentation/Readings:**

***EW-1***

|                              |                                  |
|------------------------------|----------------------------------|
| Pumping Rate                 | <u>0</u> GPM (see Notes section) |
| Water Level Above Transducer | <u>280</u> Inches                |
| Flow Meter Reading           | <u>8,444,686</u> Gallons         |

***EW-2***

|                              |                                  |
|------------------------------|----------------------------------|
| Pumping Rate                 | <u>0</u> GPM (see Notes section) |
| Water Level Above Transducer | <u>176</u> Inches                |
| Flow Meter Reading           | <u>28,528,520</u> Gallons        |

***EW-3***

|                              |                                  |
|------------------------------|----------------------------------|
| Pumping Rate                 | <u>0</u> GPM (see Notes section) |
| Water Level Above Transducer | <u>195</u> Inches                |
| Flow Meter Reading           | <u>15,696,380</u> Gallons        |

***Air Stripper***

|                          |                        |
|--------------------------|------------------------|
| Stripper Blower Pressure | <u>15.5</u> Inches H2O |
|--------------------------|------------------------|

***Effluent Flow***

|                            |                           |
|----------------------------|---------------------------|
| Total System Meter Reading | <u>70,253,455</u> Gallons |
|----------------------------|---------------------------|

## **Influent/Effluent Sampling**

### **AQUEOUS:**

Monthly monitoring samples of aqueous phase system influent and effluent were collected and submitted for the following analyses:

- VOCs by EPA Method 624 (CFR136 624)
- Iron by MCAWW 200.7
- TSS by MCAWW SM18-20 2540 D
- pH by MCAWW SM18-20 4500-H+B

*pH measurements must be made in the field:*

|             |          |                    |
|-------------|----------|--------------------|
| Influent pH | <u>7</u> | (field test strip) |
| Effluent pH | <u>7</u> | (field test strip) |

### **Notes/Explanations**

*(Please include any additional information on those items that require attention as indicated above.)*

Collected February 2020 monthly influent and effluent samples on February 3, 2020; hand-delivered iced samples in a secure cooler under chain of custody to TestAmerica, Amherst, NY on February 03, 2020.

Total system flow on system totalizer flow meter timed at 5.0 gpm. During visit, individually closed EW-1, EW-2, and EW-3 influent valve to test flow by reading response on transducer elevation; noted rise in transducer elevation when valve was closed and drop when valve was opened confirming well was pumping.

The SVE building overhead door flashing has wind and header damage.

The AS building overhead door flashing needs replacement.

The most recent round of water levels (4Q2019) was collected December 20, 2019.

The most recent acid wash was performed December 5, 2019.

All wells were operational upon arrival and departure.

**Table 1**  
**February 3, 2020 Summary of Influent and Effluent Data**

**Chem-Trol Site**  
**Town of Hamburg, New York**

| Parameters             | Concentration |          |                       |                | Mass Loading |                       |         |
|------------------------|---------------|----------|-----------------------|----------------|--------------|-----------------------|---------|
|                        | Influent      | Effluent | Discharge Limitations | Units          | Effluent     | Discharge Limitations | Units   |
| Flow*                  | 7,653         | 7,653    | 144,000               | gpd            | NA           | NA                    | NA      |
| pH                     | 7.1           | 8.2      | 6.5 to 8.5            | standard units | NA           | NA                    | NA      |
| Toluene                | < 9.1         | < 5.0    | 5                     | ug/L           | < 0.0003     | 0.006                 | lbs/day |
| Chlorobenzene          | < 9.5         | < 5.0    | 10                    | ug/L           | < 0.0003     | 0.012                 | lbs/day |
| cis-1,2-Dichloroethene | < 11          | < 5.0    | 10                    | ug/L           | < 0.0003     | 0.012                 | lbs/day |
| Benzene                | < 12          | < 5.0    | 5                     | ug/L           | < 0.0003     | 0.006                 | lbs/day |
| 1,1,1-Trichloroethane  | < 7.7         | < 5.0    | 10                    | ug/L           | < 0.0003     | 0.012                 | lbs/day |
| Chloroethane           | 30            | < 5.0    | 10                    | ug/L           | < 0.0003     | 0.012                 | lbs/day |
| 1,1-Dichloroethane     | 24            | < 5.0    | 10                    | ug/L           | < 0.0003     | 0.012                 | lbs/day |
| 1,1-Dichloroethene     | < 17          | < 5.0    | 10                    | ug/L           | < 0.0003     | 0.012                 | lbs/day |
| Trichloroethene        | < 12          | < 5.0    | 10                    | ug/L           | < 0.0003     | 0.012                 | lbs/day |
| o-Chlorotoluene        | 1,500         | < 5.0    | 10                    | ug/L           | < 0.0003     | 0.012                 | lbs/day |
| Iron - Total           | 1,020         | 2,420    | 3,000                 | ug/L           | 0.15         | 3.61                  | lbs/day |
| TSS                    | < 4.0         | 6.8      | 20                    | mg/L           | 0.43         |                       | lbs/day |

*Notes:*

- 1) **1)** **typeface** denotes exceedance of treatment requirements in the effluent sample.
  - 2) < indicates Not Detected at or above the laboratory reporting limit.
  - 3) NA indicates Not Applicable.
  - 4) "J" indicates an estimated concentration below the method detection limit.
  - 5) E - Estimated Value, result above calibration curve
  - 6) D - Dilution
  - 7) Revision of monitoring parameters (inorganics and TSS) and discharge limitation (iron) approved by NYSDEC letter dated July 27, 2007.
- \* Average daily flow as measured January 13, 2020 through February 3, 2020.

**Table 2**  
**February 3, 2020 Summary of Influent and Effluent Data**

**Chem-Trol Site**  
**Town of Hamburg, New York**

| <b>Instrumentation/Readings:</b> |                                        | <b>Current Report</b> | <b>units</b>            | <b>Prior Report</b> |
|----------------------------------|----------------------------------------|-----------------------|-------------------------|---------------------|
| <b><i>EW-1</i></b>               |                                        | <b>2/3/2020</b>       |                         | <b>1/13/2020</b>    |
|                                  | Pumping Rate                           | 0                     | GPM                     | 0                   |
|                                  | Water Level Above Transducer           | 280                   | Inches                  | 290                 |
|                                  | Flow Meter Reading                     | 8,444,686             | gallons                 | 8,444,686           |
| <b><i>EW-2</i></b>               |                                        |                       |                         |                     |
|                                  | Pumping Rate                           | 0                     | GPM                     | 0                   |
|                                  | Water Level Above Transducer           | 176                   | Inches                  | 182                 |
|                                  | Flow Meter Reading                     | 28,528,520            | gallons                 | 28,528,520          |
| <b><i>EW-3</i></b>               |                                        |                       |                         |                     |
|                                  | Pumping Rate                           | 0                     | GPM                     | 0                   |
|                                  | Water Level Above Transducer           | 195                   | Inches                  | 205                 |
|                                  | Flow Meter Reading                     | 15,696,380            | gallons                 | 15,696,380          |
| <b><i>Air Stripper</i></b>       |                                        |                       |                         |                     |
|                                  | Stripper Blower Pressure               | 15.5                  | inches H <sub>2</sub> O | 15.0                |
| <b><i>Effluent Flow</i></b>      |                                        |                       |                         |                     |
|                                  | Total System Meter Reading             | 70,253,455            | gallons                 | 70,100,397          |
|                                  | Average System Flow Since Prior Report | 7,653                 | gpd                     |                     |
|                                  |                                        | 318.9                 | gph                     |                     |
|                                  |                                        | 5.3                   | gpm                     |                     |
|                                  | Influent o-Chlorotoluene concentration | 1,500                 | ug/L                    |                     |
|                                  | Current month mass removal             | 0.9                   | kilograms               |                     |

*Note: NA indicates Not Available.*

*NW - Not working*

*ug/L - micrograms per liter*

## ANALYTICAL REPORT

Eurofins TestAmerica, Buffalo  
10 Hazelwood Drive  
Amherst, NY 14228-2298  
Tel: (716)691-2600

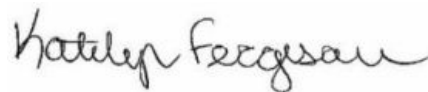
Laboratory Job ID: 480-165822-1

Client Project/Site: ChemTrol Site: Monthly GW  
Sampling Event: ChemTrol Monthly Groundwater

**For:**

Waste Management  
600 New Ludlow Road  
South Hadley, Massachusetts 01075

Attn: Ryan Donovan



Authorized for release by:  
2/12/2020 9:40:47 AM

Katelyn Ferguson, Project Management Assistant I  
(716)691-2600

[katelyn.ferguson@testamericainc.com](mailto:katelyn.ferguson@testamericainc.com)

### LINKS

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*The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.*

*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: Waste Management  
Project/Site: ChemTrol Site: Monthly GW

Job ID: 480-165822-1

### Qualifiers

#### GC/MS VOA

| Qualifier | Qualifier Description                                |
|-----------|------------------------------------------------------|
| F1        | MS and/or MSD Recovery is outside acceptance limits. |

#### 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: Waste Management  
Project/Site: ChemTrol Site: Monthly GW

Job ID: 480-165822-1

**Job ID: 480-165822-1**

**Laboratory: Eurofins TestAmerica, Buffalo**

### Narrative

#### Job Narrative 480-165822-1

### Comments

No additional comments.

### Receipt

The samples were received on 2/3/2020 1:00 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 2.4° C.

### GC/MS VOA

Method 624.1: The following samples were diluted to bring the concentration of target analytes within the calibration range: Influent (480-165822-2), (480-165822-E-2 MS) and (480-165822-E-2 MSD). Elevated reporting limits (RLs) are provided.

Method 624.1: The results reported for the following sample do not concur with results previously reported for this site: Influent (480-165822-2). Reanalysis was performed, and the result was confirmed.

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

### Metals

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

### General Chemistry

Methods 9040C, SM 4500 H+ B: This analysis is normally performed in the field and has a method-defined holding time of 15 minutes. The following samples has been qualified with the "HF" flag to indicate analysis was performed in the laboratory outside the 15 minute timeframe: Effluent (480-165822-1) and Influent (480-165822-2).

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

## Detection Summary

Client: Waste Management  
Project/Site: ChemTrol Site: Monthly GW

Job ID: 480-165822-1

### Client Sample ID: Effluent

Lab Sample ID: 480-165822-1

| Analyte                | Result | Qualifier | RL    | MDL | Unit      | Dil Fac | D | Method        | Prep Type   |
|------------------------|--------|-----------|-------|-----|-----------|---------|---|---------------|-------------|
| Iron                   | 2420   |           | 50.0  |     | ug/L      | 1       |   | 200.7 Rev 4.4 | Total       |
|                        |        |           |       |     |           |         |   |               | Recoverable |
| Total Suspended Solids | 6.8    |           | 4.0   |     | mg/L      | 1       |   | SM 2540D      | Total/NA    |
| pH                     | 8.2    | HF        | 0.1   |     | SU        | 1       |   | SM 4500 H+ B  | Total/NA    |
| Temperature            | 19.9   | HF        | 0.001 |     | Degrees C | 1       |   | SM 4500 H+ B  | Total/NA    |

### Client Sample ID: Influent

Lab Sample ID: 480-165822-2

| Analyte            | Result | Qualifier | RL    | MDL | Unit      | Dil Fac | D | Method        | Prep Type   |
|--------------------|--------|-----------|-------|-----|-----------|---------|---|---------------|-------------|
| 1,1-Dichloroethane | 24     |           | 12    |     | ug/L      | 20      |   | 624.1         | Total/NA    |
| Chloroethane       | 30     |           | 17    |     | ug/L      | 20      |   | 624.1         | Total/NA    |
| o-Chlorotoluene    | 1500   | F1        | 6.6   |     | ug/L      | 20      |   | 624.1         | Total/NA    |
| Iron               | 1020   |           | 50.0  |     | ug/L      | 1       |   | 200.7 Rev 4.4 | Total       |
|                    |        |           |       |     |           |         |   |               | Recoverable |
| pH                 | 7.1    | HF        | 0.1   |     | SU        | 1       |   | SM 4500 H+ B  | Total/NA    |
| Temperature        | 20.2   | HF        | 0.001 |     | Degrees C | 1       |   | SM 4500 H+ B  | Total/NA    |

### Client Sample ID: Trip Blank

Lab Sample ID: 480-165822-3

No Detections.

This Detection Summary does not include radiochemical test results.

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# Client Sample Results

Client: Waste Management  
Project/Site: ChemTrol Site: Monthly GW

Job ID: 480-165822-1

Client Sample ID: Effluent

Lab Sample ID: 480-165822-1

Date Collected: 02/03/20 12:00

Matrix: Water

Date Received: 02/03/20 13:00

## Method: 624.1 - Volatile Organic Compounds (GC/MS)

| Analyte                | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| 1,1,1-Trichloroethane  | ND     |           | 5.0 |     | ug/L |   |          | 02/03/20 15:50 | 1       |
| 1,1-Dichloroethane     | ND     |           | 5.0 |     | ug/L |   |          | 02/03/20 15:50 | 1       |
| 1,1-Dichloroethene     | ND     |           | 5.0 |     | ug/L |   |          | 02/03/20 15:50 | 1       |
| Benzene                | ND     |           | 5.0 |     | ug/L |   |          | 02/03/20 15:50 | 1       |
| Chlorobenzene          | ND     |           | 5.0 |     | ug/L |   |          | 02/03/20 15:50 | 1       |
| Chloroethane           | ND     |           | 5.0 |     | ug/L |   |          | 02/03/20 15:50 | 1       |
| cis-1,2-Dichloroethene | ND     |           | 5.0 |     | ug/L |   |          | 02/03/20 15:50 | 1       |
| Toluene                | ND     |           | 5.0 |     | ug/L |   |          | 02/03/20 15:50 | 1       |
| Trichloroethene        | ND     |           | 5.0 |     | ug/L |   |          | 02/03/20 15:50 | 1       |
| o-Chlorotoluene        | ND     |           | 5.0 |     | ug/L |   |          | 02/03/20 15:50 | 1       |

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 118       |           | 68 - 130 |          | 02/03/20 15:50 | 1       |
| 4-Bromofluorobenzene (Surr)  | 99        |           | 76 - 123 |          | 02/03/20 15:50 | 1       |
| Toluene-d8 (Surr)            | 96        |           | 77 - 120 |          | 02/03/20 15:50 | 1       |

## Method: 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

| Analyte | Result | Qualifier | RL   | MDL | Unit | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|------|-----|------|---|----------------|----------------|---------|
| Iron    | 2420   |           | 50.0 |     | ug/L |   | 02/05/20 09:40 | 02/05/20 17:49 | 1       |

## General Chemistry

| Analyte                | Result | Qualifier | RL    | RL | Unit      | D | Prepared | Analyzed       | Dil Fac |
|------------------------|--------|-----------|-------|----|-----------|---|----------|----------------|---------|
| Total Suspended Solids | 6.8    |           | 4.0   |    | mg/L      |   |          | 02/03/20 14:42 | 1       |
| pH                     | 8.2    | HF        | 0.1   |    | SU        |   |          | 02/03/20 19:29 | 1       |
| Temperature            | 19.9   | HF        | 0.001 |    | Degrees C |   |          | 02/03/20 19:29 | 1       |

# Client Sample Results

Client: Waste Management  
Project/Site: ChemTrol Site: Monthly GW

Job ID: 480-165822-1

Client Sample ID: Influent

Lab Sample ID: 480-165822-2

Date Collected: 02/03/20 12:20

Matrix: Water

Date Received: 02/03/20 13:00

## Method: 624.1 - Volatile Organic Compounds (GC/MS)

| Analyte                      | Result      | Qualifier | RL       | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------------------|-------------|-----------|----------|-----|------|---|----------|----------------|---------|
| 1,1,1-Trichloroethane        | ND          |           | 7.7      |     | ug/L |   |          | 02/03/20 16:13 | 20      |
| <b>1,1-Dichloroethane</b>    | <b>24</b>   |           | 12       |     | ug/L |   |          | 02/03/20 16:13 | 20      |
| 1,1-Dichloroethene           | ND          |           | 17       |     | ug/L |   |          | 02/03/20 16:13 | 20      |
| Benzene                      | ND          |           | 12       |     | ug/L |   |          | 02/03/20 16:13 | 20      |
| Chlorobenzene                | ND          |           | 9.5      |     | ug/L |   |          | 02/03/20 16:13 | 20      |
| <b>Chloroethane</b>          | <b>30</b>   |           | 17       |     | ug/L |   |          | 02/03/20 16:13 | 20      |
| cis-1,2-Dichloroethene       | ND          |           | 11       |     | ug/L |   |          | 02/03/20 16:13 | 20      |
| Toluene                      | ND          |           | 9.1      |     | ug/L |   |          | 02/03/20 16:13 | 20      |
| Trichloroethene              | ND          |           | 12       |     | ug/L |   |          | 02/03/20 16:13 | 20      |
| <b>o-Chlorotoluene</b>       | <b>1500</b> | <b>F1</b> | 6.6      |     | ug/L |   |          | 02/03/20 16:13 | 20      |
| Surrogate                    | %Recovery   | Qualifier | Limits   |     |      |   | Prepared | Analyzed       | Dil Fac |
| 1,2-Dichloroethane-d4 (Surr) | 111         |           | 68 - 130 |     |      |   |          | 02/03/20 16:13 | 20      |
| 4-Bromofluorobenzene (Surr)  | 98          |           | 76 - 123 |     |      |   |          | 02/03/20 16:13 | 20      |
| Toluene-d8 (Surr)            | 93          |           | 77 - 120 |     |      |   |          | 02/03/20 16:13 | 20      |

## Method: 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

| Analyte     | Result      | Qualifier | RL   | MDL | Unit | D | Prepared       | Analyzed       | Dil Fac |
|-------------|-------------|-----------|------|-----|------|---|----------------|----------------|---------|
| <b>Iron</b> | <b>1020</b> |           | 50.0 |     | ug/L |   | 02/05/20 09:40 | 02/05/20 17:53 | 1       |

## General Chemistry

| Analyte                | Result      | Qualifier | RL    | RL | Unit      | D | Prepared | Analyzed       | Dil Fac |
|------------------------|-------------|-----------|-------|----|-----------|---|----------|----------------|---------|
| Total Suspended Solids | ND          |           | 4.0   |    | mg/L      |   |          | 02/03/20 14:42 | 1       |
| <b>pH</b>              | <b>7.1</b>  | <b>HF</b> | 0.1   |    | SU        |   |          | 02/03/20 19:32 | 1       |
| <b>Temperature</b>     | <b>20.2</b> | <b>HF</b> | 0.001 |    | Degrees C |   |          | 02/03/20 19:32 | 1       |

# Client Sample Results

Client: Waste Management  
Project/Site: ChemTrol Site: Monthly GW

Job ID: 480-165822-1

Client Sample ID: Trip Blank

Lab Sample ID: 480-165822-3

Date Collected: 02/03/20 12:30

Matrix: Water

Date Received: 02/03/20 13:00

## Method: 624.1 - Volatile Organic Compounds (GC/MS)

| Analyte                | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| 1,1,1-Trichloroethane  | ND     |           | 5.0 |     | ug/L |   |          | 02/03/20 16:37 | 1       |
| 1,1-Dichloroethane     | ND     |           | 5.0 |     | ug/L |   |          | 02/03/20 16:37 | 1       |
| 1,1-Dichloroethene     | ND     |           | 5.0 |     | ug/L |   |          | 02/03/20 16:37 | 1       |
| Benzene                | ND     |           | 5.0 |     | ug/L |   |          | 02/03/20 16:37 | 1       |
| Chlorobenzene          | ND     |           | 5.0 |     | ug/L |   |          | 02/03/20 16:37 | 1       |
| Chloroethane           | ND     |           | 5.0 |     | ug/L |   |          | 02/03/20 16:37 | 1       |
| cis-1,2-Dichloroethene | ND     |           | 5.0 |     | ug/L |   |          | 02/03/20 16:37 | 1       |
| Toluene                | ND     |           | 5.0 |     | ug/L |   |          | 02/03/20 16:37 | 1       |
| Trichloroethene        | ND     |           | 5.0 |     | ug/L |   |          | 02/03/20 16:37 | 1       |
| o-Chlorotoluene        | ND     |           | 5.0 |     | ug/L |   |          | 02/03/20 16:37 | 1       |

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 114       |           | 68 - 130 |          | 02/03/20 16:37 | 1       |
| 4-Bromofluorobenzene (Surr)  | 99        |           | 76 - 123 |          | 02/03/20 16:37 | 1       |
| Toluene-d8 (Surr)            | 96        |           | 77 - 120 |          | 02/03/20 16:37 | 1       |

# QC Sample Results

Client: Waste Management  
Project/Site: ChemTrol Site: Monthly GW

Job ID: 480-165822-1

## Method: 624.1 - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 480-515912/7

Matrix: Water

Analysis Batch: 515912

Client Sample ID: Method Blank

Prep Type: Total/NA

| Analyte                | MB Result | MB Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------------|-----------|--------------|-----|-----|------|---|----------|----------------|---------|
| 1,1,1-Trichloroethane  | ND        |              | 5.0 |     | ug/L |   |          | 02/03/20 11:52 | 1       |
| 1,1-Dichloroethane     | ND        |              | 5.0 |     | ug/L |   |          | 02/03/20 11:52 | 1       |
| 1,1-Dichloroethene     | ND        |              | 5.0 |     | ug/L |   |          | 02/03/20 11:52 | 1       |
| Benzene                | ND        |              | 5.0 |     | ug/L |   |          | 02/03/20 11:52 | 1       |
| Chlorobenzene          | ND        |              | 5.0 |     | ug/L |   |          | 02/03/20 11:52 | 1       |
| Chloroethane           | ND        |              | 5.0 |     | ug/L |   |          | 02/03/20 11:52 | 1       |
| cis-1,2-Dichloroethene | ND        |              | 5.0 |     | ug/L |   |          | 02/03/20 11:52 | 1       |
| Toluene                | ND        |              | 5.0 |     | ug/L |   |          | 02/03/20 11:52 | 1       |
| Trichloroethene        | ND        |              | 5.0 |     | ug/L |   |          | 02/03/20 11:52 | 1       |
| o-Chlorotoluene        | ND        |              | 5.0 |     | ug/L |   |          | 02/03/20 11:52 | 1       |

| Surrogate                    | MB %Recovery | MB Qualifier | Limits   | Prepared | Analyzed       | Dil Fac |
|------------------------------|--------------|--------------|----------|----------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 113          |              | 68 - 130 |          | 02/03/20 11:52 | 1       |
| 4-Bromofluorobenzene (Surr)  | 98           |              | 76 - 123 |          | 02/03/20 11:52 | 1       |
| Toluene-d8 (Surr)            | 96           |              | 77 - 120 |          | 02/03/20 11:52 | 1       |

Lab Sample ID: LCS 480-515912/5

Matrix: Water

Analysis Batch: 515912

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

| Analyte               | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|-----------------------|-------------|------------|---------------|------|---|------|--------------|
| 1,1,1-Trichloroethane | 20.0        | 22.7       |               | ug/L |   | 113  | 52 - 162     |
| 1,1-Dichloroethane    | 20.0        | 22.6       |               | ug/L |   | 113  | 59 - 155     |
| 1,1-Dichloroethene    | 20.0        | 22.9       |               | ug/L |   | 115  | 1 - 234      |
| Benzene               | 20.0        | 22.3       |               | ug/L |   | 111  | 37 - 151     |
| Chlorobenzene         | 20.0        | 17.8       |               | ug/L |   | 89   | 37 - 160     |
| Chloroethane          | 20.0        | 26.2       |               | ug/L |   | 131  | 14 - 230     |
| Toluene               | 20.0        | 17.8       |               | ug/L |   | 89   | 47 - 150     |
| Trichloroethene       | 20.0        | 22.3       |               | ug/L |   | 111  | 71 - 157     |

| Surrogate                    | LCS %Recovery | LCS Qualifier | Limits   |
|------------------------------|---------------|---------------|----------|
| 1,2-Dichloroethane-d4 (Surr) | 110           |               | 68 - 130 |
| 4-Bromofluorobenzene (Surr)  | 101           |               | 76 - 123 |
| Toluene-d8 (Surr)            | 96            |               | 77 - 120 |

Lab Sample ID: 480-165822-2 MS

Matrix: Water

Analysis Batch: 515912

Client Sample ID: Influent

Prep Type: Total/NA

| Analyte               | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec. Limits |
|-----------------------|---------------|------------------|-------------|-----------|--------------|------|---|------|--------------|
| 1,1,1-Trichloroethane | ND            |                  | 400         | 461       |              | ug/L |   | 115  | 52 - 162     |
| 1,1-Dichloroethane    | 24            |                  | 400         | 472       |              | ug/L |   | 112  | 59 - 155     |
| 1,1-Dichloroethene    | ND            |                  | 400         | 450       |              | ug/L |   | 113  | 1 - 234      |
| Benzene               | ND            |                  | 400         | 459       |              | ug/L |   | 115  | 37 - 151     |
| Chlorobenzene         | ND            |                  | 400         | 353       |              | ug/L |   | 88   | 37 - 160     |
| Chloroethane          | 30            |                  | 400         | 525       |              | ug/L |   | 124  | 14 - 230     |
| Toluene               | ND            |                  | 400         | 363       |              | ug/L |   | 91   | 47 - 150     |
| Trichloroethene       | ND            |                  | 400         | 456       |              | ug/L |   | 114  | 71 - 157     |

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# QC Sample Results

Client: Waste Management  
Project/Site: ChemTrol Site: Monthly GW

Job ID: 480-165822-1

## Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

| <i>Surrogate</i>             | <i>MS</i><br><i>%Recovery</i> | <i>MS</i><br><i>Qualifier</i> | <i>Limits</i> |
|------------------------------|-------------------------------|-------------------------------|---------------|
| 1,2-Dichloroethane-d4 (Surr) | 120                           |                               | 68 - 130      |
| 4-Bromofluorobenzene (Surr)  | 101                           |                               | 76 - 123      |
| Toluene-d8 (Surr)            | 96                            |                               | 77 - 120      |

Lab Sample ID: 480-165822-2 MSD

Matrix: Water

Analysis Batch: 515912

Client Sample ID: Influent

Prep Type: Total/NA

| <i>Analyte</i>        | <i>Sample</i><br><i>Result</i> | <i>Sample</i><br><i>Qualifier</i> | <i>Spike</i><br><i>Added</i> | <i>MSD</i><br><i>Result</i> | <i>MSD</i><br><i>Qualifier</i> | <i>Unit</i> | <i>D</i> | <i>%Rec</i> | <i>%Rec.</i><br><i>Limits</i> | <i>RPD</i> | <i>RPD</i><br><i>Limit</i> |
|-----------------------|--------------------------------|-----------------------------------|------------------------------|-----------------------------|--------------------------------|-------------|----------|-------------|-------------------------------|------------|----------------------------|
| 1,1,1-Trichloroethane | ND                             |                                   | 400                          | 442                         |                                | ug/L        |          | 110         | 52 - 162                      | 4          | 15                         |
| 1,1-Dichloroethane    | 24                             |                                   | 400                          | 464                         |                                | ug/L        |          | 110         | 59 - 155                      | 2          | 15                         |
| 1,1-Dichloroethene    | ND                             |                                   | 400                          | 434                         |                                | ug/L        |          | 109         | 1 - 234                       | 4          | 15                         |
| Benzene               | ND                             |                                   | 400                          | 445                         |                                | ug/L        |          | 111         | 37 - 151                      | 3          | 15                         |
| Chlorobenzene         | ND                             |                                   | 400                          | 351                         |                                | ug/L        |          | 88          | 37 - 160                      | 0          | 15                         |
| Chloroethane          | 30                             |                                   | 400                          | 531                         |                                | ug/L        |          | 125         | 14 - 230                      | 1          | 15                         |
| Toluene               | ND                             |                                   | 400                          | 346                         |                                | ug/L        |          | 87          | 47 - 150                      | 5          | 15                         |
| Trichloroethene       | ND                             |                                   | 400                          | 435                         |                                | ug/L        |          | 109         | 71 - 157                      | 5          | 15                         |

| <i>Surrogate</i>             | <i>MSD</i><br><i>%Recovery</i> | <i>MSD</i><br><i>Qualifier</i> | <i>Limits</i> |
|------------------------------|--------------------------------|--------------------------------|---------------|
| 1,2-Dichloroethane-d4 (Surr) | 111                            |                                | 68 - 130      |
| 4-Bromofluorobenzene (Surr)  | 101                            |                                | 76 - 123      |
| Toluene-d8 (Surr)            | 93                             |                                | 77 - 120      |

Lab Sample ID: MB 480-515914/7

Matrix: Water

Analysis Batch: 515914

Client Sample ID: Method Blank

Prep Type: Total/NA

| <i>Analyte</i>         | <i>MB</i><br><i>Result</i> | <i>MB</i><br><i>Qualifier</i> | <i>RL</i> | <i>MDL</i> | <i>Unit</i> | <i>D</i> | <i>Prepared</i> | <i>Analyzed</i> | <i>Dil Fac</i> |
|------------------------|----------------------------|-------------------------------|-----------|------------|-------------|----------|-----------------|-----------------|----------------|
| 1,1,1-Trichloroethane  | ND                         |                               | 5.0       |            | ug/L        |          |                 | 02/03/20 11:52  | 1              |
| 1,1-Dichloroethane     | ND                         |                               | 5.0       |            | ug/L        |          |                 | 02/03/20 11:52  | 1              |
| 1,1-Dichloroethene     | ND                         |                               | 5.0       |            | ug/L        |          |                 | 02/03/20 11:52  | 1              |
| Benzene                | ND                         |                               | 5.0       |            | ug/L        |          |                 | 02/03/20 11:52  | 1              |
| Chlorobenzene          | ND                         |                               | 5.0       |            | ug/L        |          |                 | 02/03/20 11:52  | 1              |
| Chloroethane           | ND                         |                               | 5.0       |            | ug/L        |          |                 | 02/03/20 11:52  | 1              |
| cis-1,2-Dichloroethene | ND                         |                               | 5.0       |            | ug/L        |          |                 | 02/03/20 11:52  | 1              |
| Toluene                | ND                         |                               | 5.0       |            | ug/L        |          |                 | 02/03/20 11:52  | 1              |
| Trichloroethene        | ND                         |                               | 5.0       |            | ug/L        |          |                 | 02/03/20 11:52  | 1              |
| o-Chlorotoluene        | ND                         |                               | 5.0       |            | ug/L        |          |                 | 02/03/20 11:52  | 1              |

| <i>Surrogate</i>             | <i>MB</i><br><i>%Recovery</i> | <i>MB</i><br><i>Qualifier</i> | <i>Limits</i> | <i>Prepared</i> | <i>Analyzed</i> | <i>Dil Fac</i> |
|------------------------------|-------------------------------|-------------------------------|---------------|-----------------|-----------------|----------------|
| 1,2-Dichloroethane-d4 (Surr) | 113                           |                               | 68 - 130      |                 | 02/03/20 11:52  | 1              |
| 4-Bromofluorobenzene (Surr)  | 98                            |                               | 76 - 123      |                 | 02/03/20 11:52  | 1              |
| Toluene-d8 (Surr)            | 96                            |                               | 77 - 120      |                 | 02/03/20 11:52  | 1              |

Lab Sample ID: LCS 480-515914/5

Matrix: Water

Analysis Batch: 515914

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

| <i>Analyte</i>        | <i>Spike</i><br><i>Added</i> | <i>LCS</i><br><i>Result</i> | <i>LCS</i><br><i>Qualifier</i> | <i>Unit</i> | <i>D</i> | <i>%Rec</i> | <i>%Rec.</i><br><i>Limits</i> |
|-----------------------|------------------------------|-----------------------------|--------------------------------|-------------|----------|-------------|-------------------------------|
| 1,1,1-Trichloroethane | 20.0                         | 22.7                        |                                | ug/L        |          | 113         | 52 - 162                      |
| 1,1-Dichloroethane    | 20.0                         | 22.6                        |                                | ug/L        |          | 113         | 59 - 155                      |

Eurofins TestAmerica, Buffalo

# QC Sample Results

Client: Waste Management  
Project/Site: ChemTrol Site: Monthly GW

Job ID: 480-165822-1

## Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 480-515914/5

Matrix: Water

Analysis Batch: 515914

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

| Analyte            | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|--------------------|-------------|------------|---------------|------|---|------|--------------|
| 1,1-Dichloroethene | 20.0        | 22.9       |               | ug/L |   | 115  | 1 - 234      |
| Benzene            | 20.0        | 22.3       |               | ug/L |   | 111  | 37 - 151     |
| Chlorobenzene      | 20.0        | 17.8       |               | ug/L |   | 89   | 37 - 160     |
| Chloroethane       | 20.0        | 26.2       |               | ug/L |   | 131  | 14 - 230     |
| Toluene            | 20.0        | 17.8       |               | ug/L |   | 89   | 47 - 150     |
| Trichloroethene    | 20.0        | 22.3       |               | ug/L |   | 111  | 71 - 157     |

| Surrogate                    | LCS %Recovery | LCS Qualifier | Limits   |
|------------------------------|---------------|---------------|----------|
| 1,2-Dichloroethane-d4 (Surr) | 110           |               | 68 - 130 |
| 4-Bromofluorobenzene (Surr)  | 101           |               | 76 - 123 |
| Toluene-d8 (Surr)            | 96            |               | 77 - 120 |

Lab Sample ID: 480-165822-2 MS

Matrix: Water

Analysis Batch: 515914

Client Sample ID: Influent

Prep Type: Total/NA

| Analyte               | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec. Limits |
|-----------------------|---------------|------------------|-------------|-----------|--------------|------|---|------|--------------|
| 1,1,1-Trichloroethane | ND            |                  | 400         | 461       |              | ug/L |   | 115  | 52 - 162     |
| 1,1-Dichloroethane    | 24            |                  | 400         | 472       |              | ug/L |   | 112  | 59 - 155     |
| 1,1-Dichloroethene    | ND            |                  | 400         | 450       |              | ug/L |   | 113  | 1 - 234      |
| Benzene               | ND            |                  | 400         | 459       |              | ug/L |   | 115  | 37 - 151     |
| Chlorobenzene         | ND            |                  | 400         | 353       |              | ug/L |   | 88   | 37 - 160     |
| Chloroethane          | 30            |                  | 400         | 525       |              | ug/L |   | 124  | 14 - 230     |
| Toluene               | ND            |                  | 400         | 363       |              | ug/L |   | 91   | 47 - 150     |
| Trichloroethene       | ND            |                  | 400         | 456       |              | ug/L |   | 114  | 71 - 157     |

| Surrogate                    | MS %Recovery | MS Qualifier | Limits   |
|------------------------------|--------------|--------------|----------|
| 1,2-Dichloroethane-d4 (Surr) | 120          |              | 68 - 130 |
| 4-Bromofluorobenzene (Surr)  | 101          |              | 76 - 123 |
| Toluene-d8 (Surr)            | 96           |              | 77 - 120 |

Lab Sample ID: 480-165822-2 MSD

Matrix: Water

Analysis Batch: 515914

Client Sample ID: Influent

Prep Type: Total/NA

| Analyte               | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | Limit |
|-----------------------|---------------|------------------|-------------|------------|---------------|------|---|------|--------------|-----|-------|
| 1,1,1-Trichloroethane | ND            |                  | 400         | 442        |               | ug/L |   | 110  | 52 - 162     | 4   | 15    |
| 1,1-Dichloroethane    | 24            |                  | 400         | 464        |               | ug/L |   | 110  | 59 - 155     | 2   | 15    |
| 1,1-Dichloroethene    | ND            |                  | 400         | 434        |               | ug/L |   | 109  | 1 - 234      | 4   | 15    |
| Benzene               | ND            |                  | 400         | 445        |               | ug/L |   | 111  | 37 - 151     | 3   | 15    |
| Chlorobenzene         | ND            |                  | 400         | 351        |               | ug/L |   | 88   | 37 - 160     | 0   | 15    |
| Chloroethane          | 30            |                  | 400         | 531        |               | ug/L |   | 125  | 14 - 230     | 1   | 15    |
| Toluene               | ND            |                  | 400         | 346        |               | ug/L |   | 87   | 47 - 150     | 5   | 15    |
| Trichloroethene       | ND            |                  | 400         | 435        |               | ug/L |   | 109  | 71 - 157     | 5   | 15    |

| Surrogate                    | MSD %Recovery | MSD Qualifier | Limits   |
|------------------------------|---------------|---------------|----------|
| 1,2-Dichloroethane-d4 (Surr) | 111           |               | 68 - 130 |
| 4-Bromofluorobenzene (Surr)  | 101           |               | 76 - 123 |

Eurofins TestAmerica, Buffalo

# QC Sample Results

Client: Waste Management  
Project/Site: ChemTrol Site: Monthly GW

Job ID: 480-165822-1

## Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 480-165822-2 MSD

Matrix: Water

Analysis Batch: 515914

Client Sample ID: Influent

Prep Type: Total/NA

|                   | MSD       | MSD       |          |
|-------------------|-----------|-----------|----------|
| Surrogate         | %Recovery | Qualifier | Limits   |
| Toluene-d8 (Surr) | 93        |           | 77 - 120 |

## Method: 200.7 Rev 4.4 - Metals (ICP)

Lab Sample ID: MB 480-516248/1-A

Matrix: Water

Analysis Batch: 516478

Client Sample ID: Method Blank

Prep Type: Total Recoverable

Prep Batch: 516248

| Analyte | MB     | MB        | RL   | MDL | Unit | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|------|-----|------|---|----------------|----------------|---------|
|         | Result | Qualifier |      |     |      |   |                |                |         |
| Iron    | ND     |           | 50.0 |     | ug/L |   | 02/05/20 09:40 | 02/05/20 16:13 | 1       |

Lab Sample ID: LCS 480-516248/2-A

Matrix: Water

Analysis Batch: 516478

Client Sample ID: Lab Control Sample

Prep Type: Total Recoverable

Prep Batch: 516248

| Analyte | Spike | LCS    | LCS       | Unit | D | %Rec | %Rec.    |
|---------|-------|--------|-----------|------|---|------|----------|
|         | Added | Result | Qualifier |      |   |      | Limits   |
| Iron    | 10000 | 10130  |           | ug/L |   | 101  | 85 - 115 |

## Method: SM 2540D - Solids, Total Suspended (TSS)

Lab Sample ID: MB 480-515985/1

Matrix: Water

Analysis Batch: 515985

Client Sample ID: Method Blank

Prep Type: Total/NA

| Analyte                | MB     | MB        | RL  | RL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------------|--------|-----------|-----|----|------|---|----------|----------------|---------|
|                        | Result | Qualifier |     |    |      |   |          |                |         |
| Total Suspended Solids | ND     |           | 4.0 |    | mg/L |   |          | 02/03/20 14:42 | 1       |

Lab Sample ID: LCS 480-515985/2

Matrix: Water

Analysis Batch: 515985

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

| Analyte                | Spike | LCS    | LCS       | Unit | D | %Rec | %Rec.    |
|------------------------|-------|--------|-----------|------|---|------|----------|
|                        | Added | Result | Qualifier |      |   |      | Limits   |
| Total Suspended Solids | 250   | 248.4  |           | mg/L |   | 99   | 88 - 110 |

## Method: SM 4500 H+ B - pH

Lab Sample ID: LCS 480-516033/23

Matrix: Water

Analysis Batch: 516033

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

| Analyte | Spike | LCS    | LCS       | Unit | D | %Rec | %Rec.    |
|---------|-------|--------|-----------|------|---|------|----------|
|         | Added | Result | Qualifier |      |   |      | Limits   |
| pH      | 7.00  | 7.0    |           | SU   |   | 100  | 99 - 101 |

# QC Association Summary

Client: Waste Management  
Project/Site: ChemTrol Site: Monthly GW

Job ID: 480-165822-1

## GC/MS VOA

### Analysis Batch: 515912

| Lab Sample ID    | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|------------------|--------------------|-----------|--------|--------|------------|
| MB 480-515912/7  | Method Blank       | Total/NA  | Water  | 624.1  |            |
| LCS 480-515912/5 | Lab Control Sample | Total/NA  | Water  | 624.1  |            |
| 480-165822-2 MS  | Influent           | Total/NA  | Water  | 624.1  |            |
| 480-165822-2 MSD | Influent           | Total/NA  | Water  | 624.1  |            |

### Analysis Batch: 515914

| Lab Sample ID    | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|------------------|--------------------|-----------|--------|--------|------------|
| 480-165822-1     | Effluent           | Total/NA  | Water  | 624.1  |            |
| 480-165822-2     | Influent           | Total/NA  | Water  | 624.1  |            |
| 480-165822-3     | Trip Blank         | Total/NA  | Water  | 624.1  |            |
| MB 480-515914/7  | Method Blank       | Total/NA  | Water  | 624.1  |            |
| LCS 480-515914/5 | Lab Control Sample | Total/NA  | Water  | 624.1  |            |
| 480-165822-2 MS  | Influent           | Total/NA  | Water  | 624.1  |            |
| 480-165822-2 MSD | Influent           | Total/NA  | Water  | 624.1  |            |

## Metals

### Prep Batch: 516248

| Lab Sample ID      | Client Sample ID   | Prep Type         | Matrix | Method | Prep Batch |
|--------------------|--------------------|-------------------|--------|--------|------------|
| 480-165822-1       | Effluent           | Total Recoverable | Water  | 200.7  |            |
| 480-165822-2       | Influent           | Total Recoverable | Water  | 200.7  |            |
| MB 480-516248/1-A  | Method Blank       | Total Recoverable | Water  | 200.7  |            |
| LCS 480-516248/2-A | Lab Control Sample | Total Recoverable | Water  | 200.7  |            |

### Analysis Batch: 516478

| Lab Sample ID      | Client Sample ID   | Prep Type         | Matrix | Method        | Prep Batch |
|--------------------|--------------------|-------------------|--------|---------------|------------|
| 480-165822-1       | Effluent           | Total Recoverable | Water  | 200.7 Rev 4.4 | 516248     |
| 480-165822-2       | Influent           | Total Recoverable | Water  | 200.7 Rev 4.4 | 516248     |
| MB 480-516248/1-A  | Method Blank       | Total Recoverable | Water  | 200.7 Rev 4.4 | 516248     |
| LCS 480-516248/2-A | Lab Control Sample | Total Recoverable | Water  | 200.7 Rev 4.4 | 516248     |

## General Chemistry

### Analysis Batch: 515985

| Lab Sample ID    | Client Sample ID   | Prep Type | Matrix | Method   | Prep Batch |
|------------------|--------------------|-----------|--------|----------|------------|
| 480-165822-1     | Effluent           | Total/NA  | Water  | SM 2540D |            |
| 480-165822-2     | Influent           | Total/NA  | Water  | SM 2540D |            |
| MB 480-515985/1  | Method Blank       | Total/NA  | Water  | SM 2540D |            |
| LCS 480-515985/2 | Lab Control Sample | Total/NA  | Water  | SM 2540D |            |

### Analysis Batch: 516033

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method       | Prep Batch |
|-------------------|--------------------|-----------|--------|--------------|------------|
| 480-165822-1      | Effluent           | Total/NA  | Water  | SM 4500 H+ B |            |
| 480-165822-2      | Influent           | Total/NA  | Water  | SM 4500 H+ B |            |
| LCS 480-516033/23 | Lab Control Sample | Total/NA  | Water  | SM 4500 H+ B |            |

# Lab Chronicle

Client: Waste Management  
Project/Site: ChemTrol Site: Monthly GW

Job ID: 480-165822-1

## Client Sample ID: Effluent

Lab Sample ID: 480-165822-1

Date Collected: 02/03/20 12:00

Matrix: Water

Date Received: 02/03/20 13:00

| Prep Type         | Batch Type | Batch Method  | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab     |
|-------------------|------------|---------------|-----|-----------------|--------------|----------------------|---------|---------|
| Total/NA          | Analysis   | 624.1         |     | 1               | 515914       | 02/03/20 15:50       | WJD     | TAL BUF |
| Total Recoverable | Prep       | 200.7         |     |                 | 516248       | 02/05/20 09:40       | EMB     | TAL BUF |
| Total Recoverable | Analysis   | 200.7 Rev 4.4 |     | 1               | 516478       | 02/05/20 17:49       | LMH     | TAL BUF |
| Total/NA          | Analysis   | SM 2540D      |     | 1               | 515985       | 02/03/20 14:42       | T1S     | TAL BUF |
| Total/NA          | Analysis   | SM 4500 H+ B  |     | 1               | 516033       | 02/03/20 19:29       | BEF     | TAL BUF |

## Client Sample ID: Influent

Lab Sample ID: 480-165822-2

Date Collected: 02/03/20 12:20

Matrix: Water

Date Received: 02/03/20 13:00

| Prep Type         | Batch Type | Batch Method  | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab     |
|-------------------|------------|---------------|-----|-----------------|--------------|----------------------|---------|---------|
| Total/NA          | Analysis   | 624.1         |     | 20              | 515914       | 02/03/20 16:13       | WJD     | TAL BUF |
| Total Recoverable | Prep       | 200.7         |     |                 | 516248       | 02/05/20 09:40       | EMB     | TAL BUF |
| Total Recoverable | Analysis   | 200.7 Rev 4.4 |     | 1               | 516478       | 02/05/20 17:53       | LMH     | TAL BUF |
| Total/NA          | Analysis   | SM 2540D      |     | 1               | 515985       | 02/03/20 14:42       | T1S     | TAL BUF |
| Total/NA          | Analysis   | SM 4500 H+ B  |     | 1               | 516033       | 02/03/20 19:32       | BEF     | TAL BUF |

## Client Sample ID: Trip Blank

Lab Sample ID: 480-165822-3

Date Collected: 02/03/20 12:30

Matrix: Water

Date Received: 02/03/20 13:00

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab     |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|---------|
| Total/NA  | Analysis   | 624.1        |     | 1               | 515914       | 02/03/20 16:37       | WJD     | TAL BUF |

### Laboratory References:

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

## Accreditation/Certification Summary

Client: Waste Management  
Project/Site: ChemTrol Site: Monthly GW

Job ID: 480-165822-1

### Laboratory: Eurofins TestAmerica, Buffalo

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

| Authority | Program | Identification Number | Expiration Date |
|-----------|---------|-----------------------|-----------------|
| New York  | NELAP   | 10026                 | 04-01-20 *      |

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

| Analysis Method | Prep Method | Matrix | Analyte         |
|-----------------|-------------|--------|-----------------|
| 624.1           |             | Water  | o-Chlorotoluene |
| SM 4500 H+ B    |             | Water  | pH              |
| SM 4500 H+ B    |             | Water  | Temperature     |

\* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Eurofins TestAmerica, Buffalo

## Method Summary

Client: Waste Management  
Project/Site: ChemTrol Site: Monthly GW

Job ID: 480-165822-1

| Method        | Method Description                    | Protocol  | Laboratory |
|---------------|---------------------------------------|-----------|------------|
| 624.1         | Volatile Organic Compounds (GC/MS)    | 40CFR136A | TAL BUF    |
| 200.7 Rev 4.4 | Metals (ICP)                          | EPA       | TAL BUF    |
| SM 2540D      | Solids, Total Suspended (TSS)         | SM        | TAL BUF    |
| SM 4500 H+ B  | pH                                    | SM        | TAL BUF    |
| 200.7         | Preparation, Total Recoverable Metals | EPA       | 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

SM = "Standard Methods For The Examination Of Water And Wastewater"

### Laboratory References:

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

## Sample Summary

Client: Waste Management  
Project/Site: ChemTrol Site: Monthly GW

Job ID: 480-165822-1

| Lab Sample ID | Client Sample ID | Matrix | Collected      | Received       | Asset ID |
|---------------|------------------|--------|----------------|----------------|----------|
| 480-165822-1  | Effluent         | Water  | 02/03/20 12:00 | 02/03/20 13:00 |          |
| 480-165822-2  | Influent         | Water  | 02/03/20 12:20 | 02/03/20 13:00 |          |
| 480-165822-3  | Trip Blank       | Water  | 02/03/20 12:30 | 02/03/20 13:00 |          |

## Chain of Custody Record



|                                                                                                                                                                                                                                                                                                                                                      |  |                                                                                                                                                                                                                                         |  |                                                                                      |  |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--------------------------------------------------------------------------------------|--|
| <b>Client Information</b><br>Client Contact: Mr. Dino Zack<br>Company: AECOM<br>Address: 257 West Genesee Street Suite 400<br>City: Buffalo<br>State, Zip: NY, 14202-2657<br>Phone: 215-269-2114(Tel) 215-699-8315(Fax)<br>Email: dino.zack@aecom.com<br>Project Name: ChemTrol Site/NY22 Event Desc: ChemTrol Monthly Groundwater<br>Site: New York |  | Sampler: Sean P. Conway<br>Lab PM: Ferguson, Katelyn M<br>E-Mail: katelyn.ferguson@testamericainc.com<br>Phone:                                                                                                                         |  | Carrier Tracking No(s):<br>COC No: 480-140451-28522.1<br>Page: Page 1 of 1<br>Job #: |  |
| Due Date Requested:<br>TAT Requested (days): <b>STANDARD</b><br>PO #: 5070003206<br>WO #:<br>Project #: 48002447<br>SSOW#:                                                                                                                                                                                                                           |  | <b>Analysis Requested</b><br>Preservation Codes:<br>A - HCL<br>B - NaOH<br>C - Zn Acetate<br>D - Nitric Acid<br>E - NaHSO4<br>F - MeOH<br>G - Amchlor<br>H - Ascorbic Acid<br>I - Ice<br>J - DI Water<br>K - EDTA<br>L - EDA<br>Other:  |  |                                                                                      |  |
| <b>Sample Identification</b><br>Sample Date<br>Sample Time<br>Sample Type (C=Comp, G=grab)<br>Matrix (W=water, S=solid, O=water/solid)<br>Preservation Code:                                                                                                                                                                                         |  | Perform MS/MSD (Yes or No)<br>200.7 - Iron<br>624.1 - PREC - 624<br>2540D - Total Suspended Solids<br>SM4500-H+ - pH<br>Total Number of Containers                                                                                      |  |                                                                                      |  |
| Effluent<br>Influent<br>Trip Blank                                                                                                                                                                                                                                                                                                                   |  | Special Instructions/Note:<br>480-165822 Chain of Custody                                                                                                                                                                               |  |                                                                                      |  |
| <b>Possible Hazard Identification</b><br><input checked="" type="checkbox"/> Non-Hazard<br><input type="checkbox"/> Flammable<br><input type="checkbox"/> Skin Irritant<br><input type="checkbox"/> Poison B<br><input type="checkbox"/> Unknown<br><input type="checkbox"/> Radiological<br>Deliverable Requested: I, II, III, IV, Other (specify)  |  | <b>Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)</b><br><input type="checkbox"/> Return To Client<br><input checked="" type="checkbox"/> Disposal By Lab<br>Special Instructions/QC Requirements: |  |                                                                                      |  |
| Empty Kit Relinquished by:                                                                                                                                                                                                                                                                                                                           |  | Time: 2:4 JCC II                                                                                                                                                                                                                        |  |                                                                                      |  |
| Relinquished by:                                                                                                                                                                                                                                                                                                                                     |  | Date/Time: 2/03/20 13:10<br>Company: AECOM                                                                                                                                                                                              |  |                                                                                      |  |
| Relinquished by:                                                                                                                                                                                                                                                                                                                                     |  | Date/Time: 2/03 13:0<br>Company: Eurofins                                                                                                                                                                                               |  |                                                                                      |  |
| Relinquished by:                                                                                                                                                                                                                                                                                                                                     |  | Date/Time:                                                                                                                                                                                                                              |  |                                                                                      |  |
| Custody Seals Intact:                                                                                                                                                                                                                                                                                                                                |  | Cooler Temperature(s) °C and Other Remarks:                                                                                                                                                                                             |  |                                                                                      |  |

March 2020

## Operation, Maintenance & Monitoring Checklist

### Groundwater Treatment System CHEM-TROL Site Town of Hamburg, New York

**This summary inspection checklist is to be completed during each site inspection. Note all items, which require repair or maintenance. Use the last page to note any additional comments or unusual events.**

#### General

Service by: Sean P. Connelly and Chris Bourne Weather/Temperature: 51° F, cloudy, windy  
Date: 3/13/20 Arrival Time: 07:45 Departure Time: 13:00

Reason for Service: Inspect system

#### Inspection Items:

#### OK:

#### Comments:

Site Appearance/Condition

X

See comments section.

#### ***Building Exterior***

Overhead Door

X

Wood lintel decaying, header exposed.

Siding

X

Metal trim missing from lintel

Roof and Discharge Pipe

X

#### ***Building Interior***

Indication of Spills or Leaks

Condensation on the floor

Building Heater

X

Breaker turned on. The heater was off on arrival.

Phone System

X

Disconnected

Exhaust Fan

Could not get fan to work.

Fire Extinguisher

X

First Aid & Eye Wash

X

***Groundwater Treatment System***

|                     |   |                                                                                                           |
|---------------------|---|-----------------------------------------------------------------------------------------------------------|
| Air Stripper        | X | Ratchet straps are used to keep the trays together. Several of the clips for the trays are rusted/broken. |
| Iron Removal Filter | X | Tank in-line but filter media removed; not required.                                                      |
| Flow Meters         | X | See Notes.                                                                                                |
| Gauges              | X |                                                                                                           |
| Stripper Blower     | X |                                                                                                           |
| Indication of Alarm | X |                                                                                                           |

***Groundwater Treatment Wells***

|                  |   |                                         |
|------------------|---|-----------------------------------------|
| EW-1 Pump        | X |                                         |
| EW-1 Transducer  | X |                                         |
| EW-1 Flow Meter  | X | Reading 0 but well pumping at low rate. |
| EW-2 Pump        | X |                                         |
| EW-2 Transducer  | X |                                         |
| EW- 2 Flow Meter | X | Reading 0 but well pumping at low rate. |
| EW-3 Pump        | X |                                         |
| EW-3 Transducer  | X |                                         |
| EW-3 Flow Meter  | X | Reading 0 but well pumping at low rate. |

***Effluent Discharge***

|          |   |  |
|----------|---|--|
| Outfall  | X |  |
| Cleanout | X |  |

**Instrumentation/Readings:**

***EW-1***

|                              |                                  |
|------------------------------|----------------------------------|
| Pumping Rate                 | <u>0</u> GPM (see Notes section) |
| Water Level Above Transducer | <u>286</u> Inches                |
| Flow Meter Reading           | <u>8,444,686</u> Gallons         |

***EW-2***

|                              |                                  |
|------------------------------|----------------------------------|
| Pumping Rate                 | <u>0</u> GPM (see Notes section) |
| Water Level Above Transducer | <u>182</u> Inches                |
| Flow Meter Reading           | <u>285,528,520</u> Gallons       |

***EW-3***

|                              |                                  |
|------------------------------|----------------------------------|
| Pumping Rate                 | <u>0</u> GPM (see Notes section) |
| Water Level Above Transducer | <u>207</u> Inches                |
| Flow Meter Reading           | <u>15,696,380</u> Gallons        |

***Air Stripper***

|                          |                      |
|--------------------------|----------------------|
| Stripper Blower Pressure | <u>17</u> Inches H2O |
|--------------------------|----------------------|

***Effluent Flow***

|                            |                           |
|----------------------------|---------------------------|
| Total System Meter Reading | <u>70,530,866</u> Gallons |
|----------------------------|---------------------------|

## **Influent/Effluent Sampling**

### **AQUEOUS:**

Monthly monitoring samples of aqueous phase system influent and effluent were collected and submitted for the following analyses:

- VOCs by EPA Method 624 (CFR136 624)
- Iron by MCAWW 200.7
- TSS by MCAWW SM18-20 2540 D
- pH by MCAWW SM18-20 4500-H+B

*pH measurements must be made in the field:*

|             |          |                    |
|-------------|----------|--------------------|
| Influent pH | <u>7</u> | (field test strip) |
| Effluent pH | <u>7</u> | (field test strip) |

### **Notes/Explanations**

*(Please include any additional information on those items that require attention as indicated above.)*

Collected March 2020 monthly influent and effluent samples on March 13, 2020; hand-delivered iced samples in a secure cooler under chain of custody to TestAmerica, Amherst, NY on March 13, 2020.

Total system flow on system totalizer flow meter timed at 5 gpm. During visit, individually closed EW-1, EW-2, and EW-3 influent valve to test flow by reading response on transducer elevation; noted rise in transducer elevation when valve was closed and drop when valve was opened confirming well was pumping.

The SVE building overhead door flashing has wind and header damage.

The AS building overhead door flashing needs replacement.

The most recent round of water levels (1Q2020) were collected today, March 13, 2020.

The most recent acid wash was performed March 12, 2020.

All wells were operational upon arrival and departure.

**Table 1**  
**March 13, 2020 Summary of Influent and Effluent Data**

**Chem-Trol Site**  
**Town of Hamburg, New York**

| Parameters             | Concentration |          |                       |                | Mass Loading |                       |         |
|------------------------|---------------|----------|-----------------------|----------------|--------------|-----------------------|---------|
|                        | Influent      | Effluent | Discharge Limitations | Units          | Effluent     | Discharge Limitations | Units   |
| Flow*                  | 6,935         | 6,935    | 144,000               | gpd            | NA           | NA                    | NA      |
| pH                     | 7.2           | 8.1      | 6.5 to 8.5            | standard units | NA           | NA                    | NA      |
| Toluene                | < 9.1         | < 5.0    | 5                     | ug/L           | < 0.0003     | 0.006                 | lbs/day |
| Chlorobenzene          | < 9.5         | < 5.0    | 10                    | ug/L           | < 0.0003     | 0.012                 | lbs/day |
| cis-1,2-Dichloroethene | < 11          | < 5.0    | 10                    | ug/L           | < 0.0003     | 0.012                 | lbs/day |
| Benzene                | < 12          | < 5.0    | 5                     | ug/L           | < 0.0003     | 0.006                 | lbs/day |
| 1,1,1-Trichloroethane  | < 7.7         | < 5.0    | 10                    | ug/L           | < 0.0003     | 0.012                 | lbs/day |
| Chloroethane           | 22            | < 5.0    | 10                    | ug/L           | < 0.0003     | 0.012                 | lbs/day |
| 1,1-Dichloroethane     | 27            | < 5.0    | 10                    | ug/L           | < 0.0003     | 0.012                 | lbs/day |
| 1,1-Dichloroethene     | < 17          | < 5.0    | 10                    | ug/L           | < 0.0003     | 0.012                 | lbs/day |
| Trichloroethene        | < 12          | < 5.0    | 10                    | ug/L           | < 0.0003     | 0.012                 | lbs/day |
| o-Chlorotoluene        | 1,700         | < 5.0    | 10                    | ug/L           | < 0.0003     | 0.012                 | lbs/day |
| Iron - Total           | 1,080         | 1,730    | 3,000                 | ug/L           | 0.10         | 3.61                  | lbs/day |
| TSS                    | 7.7           | 11.5     | 20                    | mg/L           | 0.67         |                       | lbs/day |

*Notes:*

- 1) **Bold** typeface denotes exceedance of treatment requirements in the effluent sample.
  - 2) < indicates Not Detected at or above the laboratory reporting limit.
  - 3) NA indicates Not Applicable.
  - 4) "J" indicates an estimated concentration below the method detection limit.
  - 5) E - Estimated Value, result above calibration curve
  - 6) D - Dilution
  - 7) Revision of monitoring parameters (inorganics and TSS) and discharge limitation (iron) approved by NYSDEC letter dated July 27, 2007.
- \* Average daily flow as measured February 3, 2020 through March 13, 2020.

**Table 2**  
**March 13, 2020 Summary of Influent and Effluent Data**

**Chem-Trol Site**  
**Town of Hamburg, New York**

| <b>Instrumentation/Readings:</b> |                                        | <b>Current Report</b> | <b>units</b>            | <b>Prior Report</b> |
|----------------------------------|----------------------------------------|-----------------------|-------------------------|---------------------|
| <b><i>EW-1</i></b>               |                                        | <b>3/13/2020</b>      |                         | <b>2/3/2020</b>     |
|                                  | Pumping Rate                           | 0                     | GPM                     | 0                   |
|                                  | Water Level Above Transducer           | 286                   | Inches                  | 280                 |
|                                  | Flow Meter Reading                     | 8,444,686             | gallons                 | 8,444,686           |
| <b><i>EW-2</i></b>               |                                        |                       |                         |                     |
|                                  | Pumping Rate                           | 0                     | GPM                     | 0                   |
|                                  | Water Level Above Transducer           | 182                   | Inches                  | 176                 |
|                                  | Flow Meter Reading                     | 28,528,520            | gallons                 | 28,528,520          |
| <b><i>EW-3</i></b>               |                                        |                       |                         |                     |
|                                  | Pumping Rate                           | 0                     | GPM                     | 0                   |
|                                  | Water Level Above Transducer           | 207                   | Inches                  | 195                 |
|                                  | Flow Meter Reading                     | 15,696,380            | gallons                 | 15,696,380          |
| <b><i>Air Stripper</i></b>       |                                        |                       |                         |                     |
|                                  | Stripper Blower Pressure               | 17.0                  | inches H <sub>2</sub> O | 15.5                |
| <b><i>Effluent Flow</i></b>      |                                        |                       |                         |                     |
|                                  | Total System Meter Reading             | 70,530,866            | gallons                 | 70,253,455          |
|                                  | Average System Flow Since Prior Report | 6,935                 | gpd                     |                     |
|                                  |                                        | 289.0                 | gph                     |                     |
|                                  |                                        | 4.8                   | gpm                     |                     |
|                                  | Influent o-Chlorotoluene concentration | 1,500                 | ug/L                    |                     |
|                                  | Current month mass removal             | 1.6                   | kilograms               |                     |

*Note: NA indicates Not Available.*

*NW - Not working*

*ug/L - micrograms per liter*

## ANALYTICAL REPORT

Eurofins TestAmerica, Buffalo  
10 Hazelwood Drive  
Amherst, NY 14228-2298  
Tel: (716)691-2600

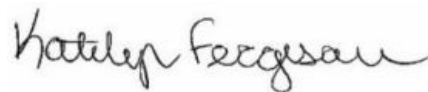
Laboratory Job ID: 480-167427-1

Client Project/Site: ChemTrol Site: Monthly GW  
Sampling Event: ChemTrol Monthly Groundwater

For:

Waste Management  
600 New Ludlow Road  
South Hadley, Massachusetts 01075

Attn: Ryan Donovan



Authorized for release by:  
3/18/2020 3:56:16 PM

Katelyn Ferguson, Project Management Assistant I  
(716)691-2600

[katelyn.ferguson@testamericainc.com](mailto:katelyn.ferguson@testamericainc.com)

### LINKS

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*The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.*

*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: Waste Management  
Project/Site: ChemTrol Site: Monthly GW

Job ID: 480-167427-1

### Qualifiers

#### 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: Waste Management  
Project/Site: ChemTrol Site: Monthly GW

Job ID: 480-167427-1

**Job ID: 480-167427-1**

**Laboratory: Eurofins TestAmerica, Buffalo**

### Narrative

#### Job Narrative 480-167427-1

### Comments

No additional comments.

### Receipt

The samples were received on 3/13/2020 11:48 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 3.3° C.

### GC/MS VOA

Method 624.1: The following samples were diluted to bring the concentration of target analytes within the calibration range: Influent (480-167427-2), (480-167427-D-2 MS) and (480-167427-D-2 MSD). Elevated reporting limits (RLs) are provided.

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

### Metals

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

### General Chemistry

Method SM 2540D: Due to the matrix, the initial volume(s) used for the following samples deviated from the standard procedure: Effluent (480-167427-1) and Influent (480-167427-2). The reporting limits (RLs) have been adjusted proportionately.

Methods 9040C, SM 4500 H+ B: This analysis is normally performed in the field and has a method-defined holding time of 15 minutes. The following samples has been qualified with the "HF" flag to indicate analysis was performed in the laboratory outside the 15 minute timeframe: Effluent (480-167427-1) and Influent (480-167427-2).

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

## Detection Summary

Client: Waste Management  
Project/Site: ChemTrol Site: Monthly GW

Job ID: 480-167427-1

### Client Sample ID: Effluent

Lab Sample ID: 480-167427-1

| Analyte                | Result | Qualifier | RL    | MDL | Unit      | Dil Fac | D | Method        | Prep Type   |
|------------------------|--------|-----------|-------|-----|-----------|---------|---|---------------|-------------|
| Iron                   | 1730   |           | 50.0  |     | ug/L      | 1       |   | 200.7 Rev 4.4 | Total       |
|                        |        |           |       |     |           |         |   |               | Recoverable |
| Total Suspended Solids | 11.5   |           | 7.7   |     | mg/L      | 1       |   | SM 2540D      | Total/NA    |
| pH                     | 8.1    | HF        | 0.1   |     | SU        | 1       |   | SM 4500 H+ B  | Total/NA    |
| Temperature            | 18.5   | HF        | 0.001 |     | Degrees C | 1       |   | SM 4500 H+ B  | Total/NA    |

### Client Sample ID: Influent

Lab Sample ID: 480-167427-2

| Analyte                | Result | Qualifier | RL    | MDL | Unit      | Dil Fac | D | Method        | Prep Type   |
|------------------------|--------|-----------|-------|-----|-----------|---------|---|---------------|-------------|
| 1,1-Dichloroethane     | 27     |           | 12    |     | ug/L      | 20      |   | 624.1         | Total/NA    |
| Chloroethane           | 22     |           | 17    |     | ug/L      | 20      |   | 624.1         | Total/NA    |
| o-Chlorotoluene        | 1700   |           | 6.6   |     | ug/L      | 20      |   | 624.1         | Total/NA    |
| Iron                   | 1080   |           | 50.0  |     | ug/L      | 1       |   | 200.7 Rev 4.4 | Total       |
|                        |        |           |       |     |           |         |   |               | Recoverable |
| Total Suspended Solids | 7.7    |           | 7.7   |     | mg/L      | 1       |   | SM 2540D      | Total/NA    |
| pH                     | 7.2    | HF        | 0.1   |     | SU        | 1       |   | SM 4500 H+ B  | Total/NA    |
| Temperature            | 19.1   | HF        | 0.001 |     | Degrees C | 1       |   | SM 4500 H+ B  | Total/NA    |

### Client Sample ID: Trip Blank

Lab Sample ID: 480-167427-3

No Detections.

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Buffalo

# Client Sample Results

Client: Waste Management  
Project/Site: ChemTrol Site: Monthly GW

Job ID: 480-167427-1

Client Sample ID: Effluent

Lab Sample ID: 480-167427-1

Date Collected: 03/13/20 09:30

Matrix: Water

Date Received: 03/13/20 11:48

## Method: 624.1 - Volatile Organic Compounds (GC/MS)

| Analyte                | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| 1,1,1-Trichloroethane  | ND     |           | 5.0 |     | ug/L |   |          | 03/16/20 15:13 | 1       |
| 1,1-Dichloroethane     | ND     |           | 5.0 |     | ug/L |   |          | 03/16/20 15:13 | 1       |
| 1,1-Dichloroethene     | ND     |           | 5.0 |     | ug/L |   |          | 03/16/20 15:13 | 1       |
| Benzene                | ND     |           | 5.0 |     | ug/L |   |          | 03/16/20 15:13 | 1       |
| Chlorobenzene          | ND     |           | 5.0 |     | ug/L |   |          | 03/16/20 15:13 | 1       |
| Chloroethane           | ND     |           | 5.0 |     | ug/L |   |          | 03/16/20 15:13 | 1       |
| cis-1,2-Dichloroethene | ND     |           | 5.0 |     | ug/L |   |          | 03/16/20 15:13 | 1       |
| Toluene                | ND     |           | 5.0 |     | ug/L |   |          | 03/16/20 15:13 | 1       |
| Trichloroethene        | ND     |           | 5.0 |     | ug/L |   |          | 03/16/20 15:13 | 1       |
| o-Chlorotoluene        | ND     |           | 5.0 |     | ug/L |   |          | 03/16/20 15:13 | 1       |

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 97        |           | 68 - 130 |          | 03/16/20 15:13 | 1       |
| 4-Bromofluorobenzene (Surr)  | 111       |           | 76 - 123 |          | 03/16/20 15:13 | 1       |
| Toluene-d8 (Surr)            | 101       |           | 77 - 120 |          | 03/16/20 15:13 | 1       |

## Method: 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

| Analyte | Result | Qualifier | RL   | MDL | Unit | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|------|-----|------|---|----------------|----------------|---------|
| Iron    | 1730   |           | 50.0 |     | ug/L |   | 03/16/20 08:52 | 03/16/20 18:03 | 1       |

## General Chemistry

| Analyte                | Result | Qualifier | RL    | RL | Unit      | D | Prepared | Analyzed       | Dil Fac |
|------------------------|--------|-----------|-------|----|-----------|---|----------|----------------|---------|
| Total Suspended Solids | 11.5   |           | 7.7   |    | mg/L      |   |          | 03/16/20 15:32 | 1       |
| pH                     | 8.1    | HF        | 0.1   |    | SU        |   |          | 03/15/20 12:06 | 1       |
| Temperature            | 18.5   | HF        | 0.001 |    | Degrees C |   |          | 03/15/20 12:06 | 1       |

# Client Sample Results

Client: Waste Management  
Project/Site: ChemTrol Site: Monthly GW

Job ID: 480-167427-1

Client Sample ID: Influent

Lab Sample ID: 480-167427-2

Date Collected: 03/13/20 11:00

Matrix: Water

Date Received: 03/13/20 11:48

## Method: 624.1 - Volatile Organic Compounds (GC/MS)

| Analyte                      | Result      | Qualifier | RL       | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------------------|-------------|-----------|----------|-----|------|---|----------|----------------|---------|
| 1,1,1-Trichloroethane        | ND          |           | 7.7      |     | ug/L |   |          | 03/16/20 15:37 | 20      |
| <b>1,1-Dichloroethane</b>    | <b>27</b>   |           | 12       |     | ug/L |   |          | 03/16/20 15:37 | 20      |
| 1,1-Dichloroethene           | ND          |           | 17       |     | ug/L |   |          | 03/16/20 15:37 | 20      |
| Benzene                      | ND          |           | 12       |     | ug/L |   |          | 03/16/20 15:37 | 20      |
| Chlorobenzene                | ND          |           | 9.5      |     | ug/L |   |          | 03/16/20 15:37 | 20      |
| <b>Chloroethane</b>          | <b>22</b>   |           | 17       |     | ug/L |   |          | 03/16/20 15:37 | 20      |
| cis-1,2-Dichloroethene       | ND          |           | 11       |     | ug/L |   |          | 03/16/20 15:37 | 20      |
| Toluene                      | ND          |           | 9.1      |     | ug/L |   |          | 03/16/20 15:37 | 20      |
| Trichloroethene              | ND          |           | 12       |     | ug/L |   |          | 03/16/20 15:37 | 20      |
| <b>o-Chlorotoluene</b>       | <b>1700</b> |           | 6.6      |     | ug/L |   |          | 03/16/20 15:37 | 20      |
| Surrogate                    | %Recovery   | Qualifier | Limits   |     |      |   | Prepared | Analyzed       | Dil Fac |
| 1,2-Dichloroethane-d4 (Surr) | 97          |           | 68 - 130 |     |      |   |          | 03/16/20 15:37 | 20      |
| 4-Bromofluorobenzene (Surr)  | 108         |           | 76 - 123 |     |      |   |          | 03/16/20 15:37 | 20      |
| Toluene-d8 (Surr)            | 97          |           | 77 - 120 |     |      |   |          | 03/16/20 15:37 | 20      |

## Method: 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

| Analyte     | Result      | Qualifier | RL   | MDL | Unit | D | Prepared       | Analyzed       | Dil Fac |
|-------------|-------------|-----------|------|-----|------|---|----------------|----------------|---------|
| <b>Iron</b> | <b>1080</b> |           | 50.0 |     | ug/L |   | 03/16/20 08:52 | 03/16/20 18:07 | 1       |

## General Chemistry

| Analyte                       | Result      | Qualifier | RL    | RL | Unit      | D | Prepared | Analyzed       | Dil Fac |
|-------------------------------|-------------|-----------|-------|----|-----------|---|----------|----------------|---------|
| <b>Total Suspended Solids</b> | <b>7.7</b>  |           | 7.7   |    | mg/L      |   |          | 03/16/20 15:32 | 1       |
| <b>pH</b>                     | <b>7.2</b>  | HF        | 0.1   |    | SU        |   |          | 03/15/20 12:07 | 1       |
| <b>Temperature</b>            | <b>19.1</b> | HF        | 0.001 |    | Degrees C |   |          | 03/15/20 12:07 | 1       |

# Client Sample Results

Client: Waste Management  
Project/Site: ChemTrol Site: Monthly GW

Job ID: 480-167427-1

Client Sample ID: Trip Blank

Lab Sample ID: 480-167427-3

Date Collected: 03/13/20 10:00

Matrix: Water

Date Received: 03/13/20 11:48

## Method: 624.1 - Volatile Organic Compounds (GC/MS)

| Analyte                | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| 1,1,1-Trichloroethane  | ND     |           | 5.0 |     | ug/L |   |          | 03/16/20 16:01 | 1       |
| 1,1-Dichloroethane     | ND     |           | 5.0 |     | ug/L |   |          | 03/16/20 16:01 | 1       |
| 1,1-Dichloroethene     | ND     |           | 5.0 |     | ug/L |   |          | 03/16/20 16:01 | 1       |
| Benzene                | ND     |           | 5.0 |     | ug/L |   |          | 03/16/20 16:01 | 1       |
| Chlorobenzene          | ND     |           | 5.0 |     | ug/L |   |          | 03/16/20 16:01 | 1       |
| Chloroethane           | ND     |           | 5.0 |     | ug/L |   |          | 03/16/20 16:01 | 1       |
| cis-1,2-Dichloroethene | ND     |           | 5.0 |     | ug/L |   |          | 03/16/20 16:01 | 1       |
| Toluene                | ND     |           | 5.0 |     | ug/L |   |          | 03/16/20 16:01 | 1       |
| Trichloroethene        | ND     |           | 5.0 |     | ug/L |   |          | 03/16/20 16:01 | 1       |
| o-Chlorotoluene        | ND     |           | 5.0 |     | ug/L |   |          | 03/16/20 16:01 | 1       |

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 99        |           | 68 - 130 |          | 03/16/20 16:01 | 1       |
| 4-Bromofluorobenzene (Surr)  | 110       |           | 76 - 123 |          | 03/16/20 16:01 | 1       |
| Toluene-d8 (Surr)            | 100       |           | 77 - 120 |          | 03/16/20 16:01 | 1       |

# QC Sample Results

Client: Waste Management  
Project/Site: ChemTrol Site: Monthly GW

Job ID: 480-167427-1

## Method: 624.1 - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 480-521588/8

Matrix: Water

Analysis Batch: 521588

Client Sample ID: Method Blank

Prep Type: Total/NA

| Analyte                | MB Result | MB Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------------|-----------|--------------|-----|-----|------|---|----------|----------------|---------|
| 1,1,1-Trichloroethane  | ND        |              | 5.0 |     | ug/L |   |          | 03/16/20 14:34 | 1       |
| 1,1-Dichloroethane     | ND        |              | 5.0 |     | ug/L |   |          | 03/16/20 14:34 | 1       |
| 1,1-Dichloroethene     | ND        |              | 5.0 |     | ug/L |   |          | 03/16/20 14:34 | 1       |
| Benzene                | ND        |              | 5.0 |     | ug/L |   |          | 03/16/20 14:34 | 1       |
| Chlorobenzene          | ND        |              | 5.0 |     | ug/L |   |          | 03/16/20 14:34 | 1       |
| Chloroethane           | ND        |              | 5.0 |     | ug/L |   |          | 03/16/20 14:34 | 1       |
| cis-1,2-Dichloroethene | ND        |              | 5.0 |     | ug/L |   |          | 03/16/20 14:34 | 1       |
| Toluene                | ND        |              | 5.0 |     | ug/L |   |          | 03/16/20 14:34 | 1       |
| Trichloroethene        | ND        |              | 5.0 |     | ug/L |   |          | 03/16/20 14:34 | 1       |
| o-Chlorotoluene        | ND        |              | 5.0 |     | ug/L |   |          | 03/16/20 14:34 | 1       |

| Surrogate                    | MB %Recovery | MB Qualifier | Limits   | Prepared | Analyzed       | Dil Fac |
|------------------------------|--------------|--------------|----------|----------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 93           |              | 68 - 130 |          | 03/16/20 14:34 | 1       |
| 4-Bromofluorobenzene (Surr)  | 108          |              | 76 - 123 |          | 03/16/20 14:34 | 1       |
| Toluene-d8 (Surr)            | 98           |              | 77 - 120 |          | 03/16/20 14:34 | 1       |

Lab Sample ID: LCS 480-521588/6

Matrix: Water

Analysis Batch: 521588

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

| Analyte               | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|-----------------------|-------------|------------|---------------|------|---|------|--------------|
| 1,1,1-Trichloroethane | 20.0        | 19.1       |               | ug/L |   | 96   | 52 - 162     |
| 1,1-Dichloroethane    | 20.0        | 19.8       |               | ug/L |   | 99   | 59 - 155     |
| 1,1-Dichloroethene    | 20.0        | 20.6       |               | ug/L |   | 103  | 1 - 234      |
| Benzene               | 20.0        | 19.7       |               | ug/L |   | 98   | 37 - 151     |
| Chlorobenzene         | 20.0        | 19.8       |               | ug/L |   | 99   | 37 - 160     |
| Chloroethane          | 20.0        | 19.0       |               | ug/L |   | 95   | 14 - 230     |
| Toluene               | 20.0        | 19.4       |               | ug/L |   | 97   | 47 - 150     |
| Trichloroethene       | 20.0        | 19.5       |               | ug/L |   | 98   | 71 - 157     |

| Surrogate                    | LCS %Recovery | LCS Qualifier | Limits   |
|------------------------------|---------------|---------------|----------|
| 1,2-Dichloroethane-d4 (Surr) | 98            |               | 68 - 130 |
| 4-Bromofluorobenzene (Surr)  | 111           |               | 76 - 123 |
| Toluene-d8 (Surr)            | 98            |               | 77 - 120 |

Lab Sample ID: 480-167427-2 MS

Matrix: Water

Analysis Batch: 521588

Client Sample ID: Influent

Prep Type: Total/NA

| Analyte               | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec. Limits |
|-----------------------|---------------|------------------|-------------|-----------|--------------|------|---|------|--------------|
| 1,1,1-Trichloroethane | ND            |                  | 400         | 407       |              | ug/L |   | 102  | 52 - 162     |
| 1,1-Dichloroethane    | 27            |                  | 400         | 438       |              | ug/L |   | 103  | 59 - 155     |
| 1,1-Dichloroethene    | ND            |                  | 400         | 426       |              | ug/L |   | 107  | 1 - 234      |
| Benzene               | ND            |                  | 400         | 416       |              | ug/L |   | 104  | 37 - 151     |
| Chlorobenzene         | ND            |                  | 400         | 415       |              | ug/L |   | 104  | 37 - 160     |
| Chloroethane          | 22            |                  | 400         | 420       |              | ug/L |   | 100  | 14 - 230     |
| Toluene               | ND            |                  | 400         | 404       |              | ug/L |   | 101  | 47 - 150     |
| Trichloroethene       | ND            |                  | 400         | 410       |              | ug/L |   | 102  | 71 - 157     |

Eurofins TestAmerica, Buffalo

# QC Sample Results

Client: Waste Management  
Project/Site: ChemTrol Site: Monthly GW

Job ID: 480-167427-1

## Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

| <i>Surrogate</i>             | <i>MS %Recovery</i> | <i>MS Qualifier</i> | <i>Limits</i> |
|------------------------------|---------------------|---------------------|---------------|
| 1,2-Dichloroethane-d4 (Surr) | 93                  |                     | 68 - 130      |
| 4-Bromofluorobenzene (Surr)  | 111                 |                     | 76 - 123      |
| Toluene-d8 (Surr)            | 99                  |                     | 77 - 120      |

Lab Sample ID: 480-167427-2 MSD  
Matrix: Water  
Analysis Batch: 521588

Client Sample ID: Influent  
Prep Type: Total/NA

| <i>Analyte</i>        | <i>Sample Result</i> | <i>Sample Qualifier</i> | <i>Spike Added</i> | <i>MSD Result</i> | <i>MSD Qualifier</i> | <i>Unit</i> | <i>D</i> | <i>%Rec</i> | <i>%Rec. Limits</i> | <i>RPD</i> | <i>RPD Limit</i> |
|-----------------------|----------------------|-------------------------|--------------------|-------------------|----------------------|-------------|----------|-------------|---------------------|------------|------------------|
| 1,1,1-Trichloroethane | ND                   |                         | 400                | 431               |                      | ug/L        |          | 108         | 52 - 162            | 6          | 15               |
| 1,1-Dichloroethane    | 27                   |                         | 400                | 448               |                      | ug/L        |          | 105         | 59 - 155            | 2          | 15               |
| 1,1-Dichloroethene    | ND                   |                         | 400                | 441               |                      | ug/L        |          | 110         | 1 - 234             | 3          | 15               |
| Benzene               | ND                   |                         | 400                | 429               |                      | ug/L        |          | 107         | 37 - 151            | 3          | 15               |
| Chlorobenzene         | ND                   |                         | 400                | 417               |                      | ug/L        |          | 104         | 37 - 160            | 0          | 15               |
| Chloroethane          | 22                   |                         | 400                | 427               |                      | ug/L        |          | 101         | 14 - 230            | 2          | 15               |
| Toluene               | ND                   |                         | 400                | 412               |                      | ug/L        |          | 103         | 47 - 150            | 2          | 15               |
| Trichloroethene       | ND                   |                         | 400                | 414               |                      | ug/L        |          | 104         | 71 - 157            | 1          | 15               |

| <i>Surrogate</i>             | <i>MSD %Recovery</i> | <i>MSD Qualifier</i> | <i>Limits</i> |
|------------------------------|----------------------|----------------------|---------------|
| 1,2-Dichloroethane-d4 (Surr) | 92                   |                      | 68 - 130      |
| 4-Bromofluorobenzene (Surr)  | 110                  |                      | 76 - 123      |
| Toluene-d8 (Surr)            | 97                   |                      | 77 - 120      |

Lab Sample ID: MB 480-521589/8  
Matrix: Water  
Analysis Batch: 521589

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

| <i>Analyte</i>         | <i>MB Result</i> | <i>MB Qualifier</i> | <i>RL</i> | <i>MDL</i> | <i>Unit</i> | <i>D</i> | <i>Prepared</i> | <i>Analyzed</i> | <i>Dil Fac</i> |
|------------------------|------------------|---------------------|-----------|------------|-------------|----------|-----------------|-----------------|----------------|
| 1,1,1-Trichloroethane  | ND               |                     | 5.0       |            | ug/L        |          |                 | 03/16/20 14:34  | 1              |
| 1,1-Dichloroethane     | ND               |                     | 5.0       |            | ug/L        |          |                 | 03/16/20 14:34  | 1              |
| 1,1-Dichloroethene     | ND               |                     | 5.0       |            | ug/L        |          |                 | 03/16/20 14:34  | 1              |
| Benzene                | ND               |                     | 5.0       |            | ug/L        |          |                 | 03/16/20 14:34  | 1              |
| Chlorobenzene          | ND               |                     | 5.0       |            | ug/L        |          |                 | 03/16/20 14:34  | 1              |
| Chloroethane           | ND               |                     | 5.0       |            | ug/L        |          |                 | 03/16/20 14:34  | 1              |
| cis-1,2-Dichloroethene | ND               |                     | 5.0       |            | ug/L        |          |                 | 03/16/20 14:34  | 1              |
| Toluene                | ND               |                     | 5.0       |            | ug/L        |          |                 | 03/16/20 14:34  | 1              |
| Trichloroethene        | ND               |                     | 5.0       |            | ug/L        |          |                 | 03/16/20 14:34  | 1              |
| o-Chlorotoluene        | ND               |                     | 5.0       |            | ug/L        |          |                 | 03/16/20 14:34  | 1              |

| <i>Surrogate</i>             | <i>MB %Recovery</i> | <i>MB Qualifier</i> | <i>Limits</i> | <i>Prepared</i> | <i>Analyzed</i> | <i>Dil Fac</i> |
|------------------------------|---------------------|---------------------|---------------|-----------------|-----------------|----------------|
| 1,2-Dichloroethane-d4 (Surr) | 93                  |                     | 68 - 130      |                 | 03/16/20 14:34  | 1              |
| 4-Bromofluorobenzene (Surr)  | 108                 |                     | 76 - 123      |                 | 03/16/20 14:34  | 1              |
| Toluene-d8 (Surr)            | 98                  |                     | 77 - 120      |                 | 03/16/20 14:34  | 1              |

Lab Sample ID: LCS 480-521589/6  
Matrix: Water  
Analysis Batch: 521589

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

| <i>Analyte</i>        | <i>Spike Added</i> | <i>LCS Result</i> | <i>LCS Qualifier</i> | <i>Unit</i> | <i>D</i> | <i>%Rec</i> | <i>%Rec. Limits</i> |
|-----------------------|--------------------|-------------------|----------------------|-------------|----------|-------------|---------------------|
| 1,1,1-Trichloroethane | 20.0               | 19.1              |                      | ug/L        |          | 96          | 52 - 162            |
| 1,1-Dichloroethane    | 20.0               | 19.8              |                      | ug/L        |          | 99          | 59 - 155            |

Eurofins TestAmerica, Buffalo

# QC Sample Results

Client: Waste Management  
Project/Site: ChemTrol Site: Monthly GW

Job ID: 480-167427-1

## Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 480-521589/6

Matrix: Water

Analysis Batch: 521589

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

| Analyte            | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|--------------------|-------------|------------|---------------|------|---|------|--------------|
| 1,1-Dichloroethene | 20.0        | 20.6       |               | ug/L |   | 103  | 1 - 234      |
| Benzene            | 20.0        | 19.7       |               | ug/L |   | 98   | 37 - 151     |
| Chlorobenzene      | 20.0        | 19.8       |               | ug/L |   | 99   | 37 - 160     |
| Chloroethane       | 20.0        | 19.0       |               | ug/L |   | 95   | 14 - 230     |
| Toluene            | 20.0        | 19.4       |               | ug/L |   | 97   | 47 - 150     |
| Trichloroethene    | 20.0        | 19.5       |               | ug/L |   | 98   | 71 - 157     |

| Surrogate                    | LCS %Recovery | LCS Qualifier | Limits   |
|------------------------------|---------------|---------------|----------|
| 1,2-Dichloroethane-d4 (Surr) | 98            |               | 68 - 130 |
| 4-Bromofluorobenzene (Surr)  | 111           |               | 76 - 123 |
| Toluene-d8 (Surr)            | 98            |               | 77 - 120 |

Lab Sample ID: 480-167427-2 MS

Matrix: Water

Analysis Batch: 521589

Client Sample ID: Influent

Prep Type: Total/NA

| Analyte               | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec. Limits |
|-----------------------|---------------|------------------|-------------|-----------|--------------|------|---|------|--------------|
| 1,1,1-Trichloroethane | ND            |                  | 400         | 407       |              | ug/L |   | 102  | 52 - 162     |
| 1,1-Dichloroethane    | 27            |                  | 400         | 438       |              | ug/L |   | 103  | 59 - 155     |
| 1,1-Dichloroethene    | ND            |                  | 400         | 426       |              | ug/L |   | 107  | 1 - 234      |
| Benzene               | ND            |                  | 400         | 416       |              | ug/L |   | 104  | 37 - 151     |
| Chlorobenzene         | ND            |                  | 400         | 415       |              | ug/L |   | 104  | 37 - 160     |
| Chloroethane          | 22            |                  | 400         | 420       |              | ug/L |   | 100  | 14 - 230     |
| Toluene               | ND            |                  | 400         | 404       |              | ug/L |   | 101  | 47 - 150     |
| Trichloroethene       | ND            |                  | 400         | 410       |              | ug/L |   | 102  | 71 - 157     |

| Surrogate                    | MS %Recovery | MS Qualifier | Limits   |
|------------------------------|--------------|--------------|----------|
| 1,2-Dichloroethane-d4 (Surr) | 93           |              | 68 - 130 |
| 4-Bromofluorobenzene (Surr)  | 111          |              | 76 - 123 |
| Toluene-d8 (Surr)            | 99           |              | 77 - 120 |

Lab Sample ID: 480-167427-2 MSD

Matrix: Water

Analysis Batch: 521589

Client Sample ID: Influent

Prep Type: Total/NA

| Analyte               | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | Limit |
|-----------------------|---------------|------------------|-------------|------------|---------------|------|---|------|--------------|-----|-------|
| 1,1,1-Trichloroethane | ND            |                  | 400         | 431        |               | ug/L |   | 108  | 52 - 162     | 6   | 15    |
| 1,1-Dichloroethane    | 27            |                  | 400         | 448        |               | ug/L |   | 105  | 59 - 155     | 2   | 15    |
| 1,1-Dichloroethene    | ND            |                  | 400         | 441        |               | ug/L |   | 110  | 1 - 234      | 3   | 15    |
| Benzene               | ND            |                  | 400         | 429        |               | ug/L |   | 107  | 37 - 151     | 3   | 15    |
| Chlorobenzene         | ND            |                  | 400         | 417        |               | ug/L |   | 104  | 37 - 160     | 0   | 15    |
| Chloroethane          | 22            |                  | 400         | 427        |               | ug/L |   | 101  | 14 - 230     | 2   | 15    |
| Toluene               | ND            |                  | 400         | 412        |               | ug/L |   | 103  | 47 - 150     | 2   | 15    |
| Trichloroethene       | ND            |                  | 400         | 414        |               | ug/L |   | 104  | 71 - 157     | 1   | 15    |

| Surrogate                    | MSD %Recovery | MSD Qualifier | Limits   |
|------------------------------|---------------|---------------|----------|
| 1,2-Dichloroethane-d4 (Surr) | 92            |               | 68 - 130 |
| 4-Bromofluorobenzene (Surr)  | 110           |               | 76 - 123 |

Eurofins TestAmerica, Buffalo

# QC Sample Results

Client: Waste Management  
Project/Site: ChemTrol Site: Monthly GW

Job ID: 480-167427-1

## Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 480-167427-2 MSD

Matrix: Water

Analysis Batch: 521589

Client Sample ID: Influent

Prep Type: Total/NA

|                   | MSD       | MSD       |          |
|-------------------|-----------|-----------|----------|
| Surrogate         | %Recovery | Qualifier | Limits   |
| Toluene-d8 (Surr) | 97        |           | 77 - 120 |

## Method: 200.7 Rev 4.4 - Metals (ICP)

Lab Sample ID: MB 480-521495/1-A

Matrix: Water

Analysis Batch: 521697

Client Sample ID: Method Blank

Prep Type: Total Recoverable

Prep Batch: 521495

| Analyte | MB     | MB        | RL   | MDL | Unit | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|------|-----|------|---|----------------|----------------|---------|
|         | Result | Qualifier |      |     |      |   |                |                |         |
| Iron    | ND     |           | 50.0 |     | ug/L |   | 03/16/20 08:52 | 03/16/20 15:56 | 1       |

Lab Sample ID: LCS 480-521495/2-A

Matrix: Water

Analysis Batch: 521697

Client Sample ID: Lab Control Sample

Prep Type: Total Recoverable

Prep Batch: 521495

| Analyte | Spike | LCS    | LCS       | Unit | D | %Rec | %Rec.    |
|---------|-------|--------|-----------|------|---|------|----------|
|         | Added | Result | Qualifier |      |   |      | Limits   |
| Iron    | 10000 | 9540   |           | ug/L |   | 95   | 85 - 115 |

## Method: SM 2540D - Solids, Total Suspended (TSS)

Lab Sample ID: MB 480-521636/1

Matrix: Water

Analysis Batch: 521636

Client Sample ID: Method Blank

Prep Type: Total/NA

| Analyte                | MB     | MB        | RL  | RL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------------|--------|-----------|-----|----|------|---|----------|----------------|---------|
|                        | Result | Qualifier |     |    |      |   |          |                |         |
| Total Suspended Solids | ND     |           | 4.0 |    | mg/L |   |          | 03/16/20 15:32 | 1       |

Lab Sample ID: LCS 480-521636/2

Matrix: Water

Analysis Batch: 521636

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

| Analyte                | Spike | LCS    | LCS       | Unit | D | %Rec | %Rec.    |
|------------------------|-------|--------|-----------|------|---|------|----------|
|                        | Added | Result | Qualifier |      |   |      | Limits   |
| Total Suspended Solids | 262   | 256.0  |           | mg/L |   | 98   | 88 - 110 |

## Method: SM 4500 H+ B - pH

Lab Sample ID: LCS 480-521445/41

Matrix: Water

Analysis Batch: 521445

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

| Analyte | Spike | LCS    | LCS       | Unit | D | %Rec | %Rec.    |
|---------|-------|--------|-----------|------|---|------|----------|
|         | Added | Result | Qualifier |      |   |      | Limits   |
| pH      | 7.00  | 7.1    |           | SU   |   | 101  | 99 - 101 |

# QC Association Summary

Client: Waste Management  
Project/Site: ChemTrol Site: Monthly GW

Job ID: 480-167427-1

## GC/MS VOA

### Analysis Batch: 521588

| Lab Sample ID    | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|------------------|--------------------|-----------|--------|--------|------------|
| MB 480-521588/8  | Method Blank       | Total/NA  | Water  | 624.1  |            |
| LCS 480-521588/6 | Lab Control Sample | Total/NA  | Water  | 624.1  |            |
| 480-167427-2 MS  | Influent           | Total/NA  | Water  | 624.1  |            |
| 480-167427-2 MSD | Influent           | Total/NA  | Water  | 624.1  |            |

### Analysis Batch: 521589

| Lab Sample ID    | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|------------------|--------------------|-----------|--------|--------|------------|
| 480-167427-1     | Effluent           | Total/NA  | Water  | 624.1  |            |
| 480-167427-2     | Influent           | Total/NA  | Water  | 624.1  |            |
| 480-167427-3     | Trip Blank         | Total/NA  | Water  | 624.1  |            |
| MB 480-521589/8  | Method Blank       | Total/NA  | Water  | 624.1  |            |
| LCS 480-521589/6 | Lab Control Sample | Total/NA  | Water  | 624.1  |            |
| 480-167427-2 MS  | Influent           | Total/NA  | Water  | 624.1  |            |
| 480-167427-2 MSD | Influent           | Total/NA  | Water  | 624.1  |            |

## Metals

### Prep Batch: 521495

| Lab Sample ID      | Client Sample ID   | Prep Type         | Matrix | Method | Prep Batch |
|--------------------|--------------------|-------------------|--------|--------|------------|
| 480-167427-1       | Effluent           | Total Recoverable | Water  | 200.7  |            |
| 480-167427-2       | Influent           | Total Recoverable | Water  | 200.7  |            |
| MB 480-521495/1-A  | Method Blank       | Total Recoverable | Water  | 200.7  |            |
| LCS 480-521495/2-A | Lab Control Sample | Total Recoverable | Water  | 200.7  |            |

### Analysis Batch: 521697

| Lab Sample ID      | Client Sample ID   | Prep Type         | Matrix | Method        | Prep Batch |
|--------------------|--------------------|-------------------|--------|---------------|------------|
| 480-167427-1       | Effluent           | Total Recoverable | Water  | 200.7 Rev 4.4 | 521495     |
| 480-167427-2       | Influent           | Total Recoverable | Water  | 200.7 Rev 4.4 | 521495     |
| MB 480-521495/1-A  | Method Blank       | Total Recoverable | Water  | 200.7 Rev 4.4 | 521495     |
| LCS 480-521495/2-A | Lab Control Sample | Total Recoverable | Water  | 200.7 Rev 4.4 | 521495     |

## General Chemistry

### Analysis Batch: 521445

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method       | Prep Batch |
|-------------------|--------------------|-----------|--------|--------------|------------|
| 480-167427-1      | Effluent           | Total/NA  | Water  | SM 4500 H+ B |            |
| 480-167427-2      | Influent           | Total/NA  | Water  | SM 4500 H+ B |            |
| LCS 480-521445/41 | Lab Control Sample | Total/NA  | Water  | SM 4500 H+ B |            |

### Analysis Batch: 521636

| Lab Sample ID    | Client Sample ID   | Prep Type | Matrix | Method   | Prep Batch |
|------------------|--------------------|-----------|--------|----------|------------|
| 480-167427-1     | Effluent           | Total/NA  | Water  | SM 2540D |            |
| 480-167427-2     | Influent           | Total/NA  | Water  | SM 2540D |            |
| MB 480-521636/1  | Method Blank       | Total/NA  | Water  | SM 2540D |            |
| LCS 480-521636/2 | Lab Control Sample | Total/NA  | Water  | SM 2540D |            |

# Lab Chronicle

Client: Waste Management  
Project/Site: ChemTrol Site: Monthly GW

Job ID: 480-167427-1

## Client Sample ID: Effluent

Lab Sample ID: 480-167427-1

Date Collected: 03/13/20 09:30

Matrix: Water

Date Received: 03/13/20 11:48

| Prep Type         | Batch Type | Batch Method  | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab     |
|-------------------|------------|---------------|-----|-----------------|--------------|----------------------|---------|---------|
| Total/NA          | Analysis   | 624.1         |     | 1               | 521589       | 03/16/20 15:13       | WJD     | TAL BUF |
| Total Recoverable | Prep       | 200.7         |     |                 | 521495       | 03/16/20 08:52       | EMB     | TAL BUF |
| Total Recoverable | Analysis   | 200.7 Rev 4.4 |     | 1               | 521697       | 03/16/20 18:03       | LMH     | TAL BUF |
| Total/NA          | Analysis   | SM 2540D      |     | 1               | 521636       | 03/16/20 15:32       | T1S     | TAL BUF |
| Total/NA          | Analysis   | SM 4500 H+ B  |     | 1               | 521445       | 03/15/20 12:06       | BEF     | TAL BUF |

## Client Sample ID: Influent

Lab Sample ID: 480-167427-2

Date Collected: 03/13/20 11:00

Matrix: Water

Date Received: 03/13/20 11:48

| Prep Type         | Batch Type | Batch Method  | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab     |
|-------------------|------------|---------------|-----|-----------------|--------------|----------------------|---------|---------|
| Total/NA          | Analysis   | 624.1         |     | 20              | 521589       | 03/16/20 15:37       | WJD     | TAL BUF |
| Total Recoverable | Prep       | 200.7         |     |                 | 521495       | 03/16/20 08:52       | EMB     | TAL BUF |
| Total Recoverable | Analysis   | 200.7 Rev 4.4 |     | 1               | 521697       | 03/16/20 18:07       | LMH     | TAL BUF |
| Total/NA          | Analysis   | SM 2540D      |     | 1               | 521636       | 03/16/20 15:32       | T1S     | TAL BUF |
| Total/NA          | Analysis   | SM 4500 H+ B  |     | 1               | 521445       | 03/15/20 12:07       | BEF     | TAL BUF |

## Client Sample ID: Trip Blank

Lab Sample ID: 480-167427-3

Date Collected: 03/13/20 10:00

Matrix: Water

Date Received: 03/13/20 11:48

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab     |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|---------|
| Total/NA  | Analysis   | 624.1        |     | 1               | 521589       | 03/16/20 16:01       | WJD     | TAL BUF |

### Laboratory References:

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

## Accreditation/Certification Summary

Client: Waste Management  
Project/Site: ChemTrol Site: Monthly GW

Job ID: 480-167427-1

### Laboratory: Eurofins TestAmerica, Buffalo

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

| Authority | Program | Identification Number | Expiration Date |
|-----------|---------|-----------------------|-----------------|
| New York  | NELAP   | 10026                 | 04-01-20        |

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

| Analysis Method | Prep Method | Matrix | Analyte         |
|-----------------|-------------|--------|-----------------|
| 624.1           |             | Water  | o-Chlorotoluene |
| SM 4500 H+ B    |             | Water  | pH              |
| SM 4500 H+ B    |             | Water  | Temperature     |

## Method Summary

Client: Waste Management  
Project/Site: ChemTrol Site: Monthly GW

Job ID: 480-167427-1

| Method        | Method Description                    | Protocol  | Laboratory |
|---------------|---------------------------------------|-----------|------------|
| 624.1         | Volatile Organic Compounds (GC/MS)    | 40CFR136A | TAL BUF    |
| 200.7 Rev 4.4 | Metals (ICP)                          | EPA       | TAL BUF    |
| SM 2540D      | Solids, Total Suspended (TSS)         | SM        | TAL BUF    |
| SM 4500 H+ B  | pH                                    | SM        | TAL BUF    |
| 200.7         | Preparation, Total Recoverable Metals | EPA       | 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

SM = "Standard Methods For The Examination Of Water And Wastewater"

### Laboratory References:

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

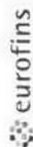
## Sample Summary

Client: Waste Management  
Project/Site: ChemTrol Site: Monthly GW

Job ID: 480-167427-1

| Lab Sample ID | Client Sample ID | Matrix | Collected      | Received       | Asset ID |
|---------------|------------------|--------|----------------|----------------|----------|
| 480-167427-1  | Effluent         | Water  | 03/13/20 09:30 | 03/13/20 11:48 |          |
| 480-167427-2  | Influent         | Water  | 03/13/20 11:00 | 03/13/20 11:48 |          |
| 480-167427-3  | Trip Blank       | Water  | 03/13/20 10:00 | 03/13/20 11:48 |          |

## Chain of Custody Record



Environment Testing  
 TestAmerica

|                                                                                                                                                                                                                                                                                                                                                      |  |                                                                                                                                                                                                                                                                                                                                                                                          |  |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| <b>Client Information</b><br>Client Contact: Mr. Dino Zack<br>Company: AECOM<br>Address: 257 West Genesee Street Suite 400<br>City: Buffalo<br>State, Zip: NY, 14202-2657<br>Phone: 215-269-2114(Tel) 215-699-8315(Fax)<br>Email: dino.zack@aecom.com<br>Project Name: ChemTrol Site/NY22 Event Desc: ChemTrol Monthly Groundwater<br>Site: New York |  | Sampler: <i>Sen P. Connolly / Chris B...</i><br>Lab PM: Giglia, Denise L<br>E-Mail: denise.giglia@testamerica.com<br>Carrier Tracking No(s): 480-139307-28522-1<br>Page: 1 of 1<br>Job #:                                                                                                                                                                                                |  |
| Due Date Requested:<br>TAT Requested (days): <i>52</i><br>PO #: 5070003206<br>WO #: 48002447<br>Project #: 48002447<br>SSOW#:                                                                                                                                                                                                                        |  | <b>Analyte Determined</b><br><br>480-167427 Chain of Custody                                                                                                                                                                                                                                            |  |
| <b>Sample Identification</b><br>Sample Date: 3/13/20<br>Sample Time: 0930<br>Sample Type: G (grab)<br>Matrix: Water<br>Preservation Code:                                                                                                                                                                                                            |  | Field Filtered Sample (Yes or No): <input checked="" type="checkbox"/><br>Perform MS/MSD (Yes or No): <input checked="" type="checkbox"/><br>200.7 - Iron: <input checked="" type="checkbox"/><br>624.1 - PREC - 624: <input checked="" type="checkbox"/><br>2540D - Total Suspended Solids: <input checked="" type="checkbox"/><br>SM4500 - H + PH: <input checked="" type="checkbox"/> |  |
| Effluent<br>Influent<br>Trip Blank                                                                                                                                                                                                                                                                                                                   |  | Special Instructions/Note:<br>Total Number of Containers:                                                                                                                                                                                                                                                                                                                                |  |
| <b>Possible Hazard Identification</b><br><input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological<br>Deliverable Requested: I, II, III, IV, Other (specify)                            |  |                                                                                                                                                                                                                                                                                                                                                                                          |  |
| <b>Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)</b><br><input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For Months                                                                                                                         |  |                                                                                                                                                                                                                                                                                                                                                                                          |  |
| <b>Special Instructions/OC Requirements:</b>                                                                                                                                                                                                                                                                                                         |  |                                                                                                                                                                                                                                                                                                                                                                                          |  |
| <b>Empty Kit Relinquished by:</b><br>Relinquished by: <i>Sen P. Connolly</i><br>Date/Time: 3/13/20 1148<br>Relinquished by: Company: <i>AECOM</i><br>Relinquished by: Company:                                                                                                                                                                       |  | <b>Method of Shipment:</b><br>Received by: <i>APD</i><br>Date/Time: 3-13-20 1148<br>Received by: Company: <i>JAB</i><br>Received by: Company:                                                                                                                                                                                                                                            |  |
| Custody Seals Intact: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No<br>Custody Seal No.:                                                                                                                                                                                                                                       |  | Cooler Temperature(s) °C and Other Remarks: 3.3 #17                                                                                                                                                                                                                                                                                                                                      |  |