WASTE MANAGEMENT

WASTE MANAGEMENT
1850 Parkway Place
Suite 600
Marietta, GA 30067

May 14, 2014

NC Department of Environment and Natural Resources
Division of Waste Management – Solid Waste Section
1646 Mail Service Center
Raleigh, North Carolina 27699-1646
Attn: Ms. Jaclynne Drummond

**RE: First Semiannual Groundwater Monitoring Report of 2014**
**Piedmont Landfill and Recycling Center, Kernersville, North Carolina**
**Permit Number 34-06**

Dear Ms. Drummond:

Please find enclosed a report documenting the First Semiannual Detection Groundwater Monitoring Event of 2014 for the above-referenced facility. The report package includes an Environmental Monitoring Reporting Form with the complete report and laboratory data in electronic format. Samples were collected by Professional Technical Support Services (ProTech) on March 19, 2014. All samples were transported to the Test America, Inc. laboratory in Arvada, Colorado for analysis.

The Piedmont Landfill and Recycling Center is a closed municipal solid waste facility that last received waste in 2004 and entered into post closure care in accordance with Rule .1627(d) of the North Carolina Solid Waste Management Regulations (NCSWMR) as of October 29, 2004. All points at the facility are currently being monitored under a Detection Monitoring Program under Rule .1633 of the NCSWMR.

There were no confirmed statistically significant increases (SSIs) of any NCSWMR Appendix I constituents detected for this site during the first semiannual sampling event of 2014. An exceedance of NC2L groundwater standards for chromium was detected in well MW-03. An Alternate Source Demonstration for chromium was submitted on July 26, 2010 and was approved by DENR in a letter dated April 28, 2011.

A copy of this report will be placed into the site's operating record in accordance with Rule .1633(c)(1) of the NCSWMR.

For future events, in accordance with NCSWMR rules .1632, .1633, and .1634 as revised in April 2011, routine statistical analyses for all detected constituents will no longer be

performed for the Piedmont Landfill. Beginning with the second 2014 semiannual sampling event, all results will be compared directly to groundwater protection standards (GPS) as defined in rules .1634(g) and .1634(h). Statistical background may be calculated on a case-by-case basis to determine whether the background may be used as the GPS for a specific constituent in accordance with rule .1634(g)(5).

The next sampling event for the Piedmont Landfill and Recycling Center is scheduled for the third quarter of 2014. If you have any questions or concerns regarding this report, please call me at (770) 590-2936.

Sincerely,
**Waste Management of Carolinas, Inc.**

Alexander Lacsamana, P.E.
District Manager, Closed Sites

Enclosure

Copy: Van Burbach, Ph.D., P.G. – Joyce Engineering

***PREPARED FOR:***

PIEDMONT LANDFILL & RECYCLING CENTER
9901 FREEMAN ROAD
KERNERSVILLE, NORTH CAROLINA 27284

# PIEDMONT LANDFILL & RECYCLING CENTER
# PERMIT # 34-06

# FIRST SEMIANNUAL
# GROUNDWATER MONITORING REPORT OF 2014

**MAY 2014**

***PREPARED BY:***


2211 WEST MEADOWVIEW ROAD, SUITE 101
GREENSBORO, NORTH CAROLINA 27407
NC LICENSE NUMBER C-0782
PHONE: (336) 323-0092
FAX: (336) 323-0093
JOYCE PROJECT NO. 00392.1401.12.

DENR USE ONLY: ☐ Paper Report ☐ Electronic Data - Email CD (data loaded: Yes / No ) Doc/Event #:

NC DENR
Division of Waste Management - Solid Waste

# Environmental Monitoring Reporting Form

**Notice:** This form and any information attached to it are "Public Records" as defined in NC General Statute 132-1. As such, these documents are available for inspection and examination by any person upon request (NC General Statute 132-6).

## Instructions:

- **Prepare one form for each individually monitored unit.**
- **Please type or print legibly.**
- Attach a notification table with values that attain or exceed NC 2L groundwater standards or NC 2B surface water standards. The notification must include a preliminary analysis of the cause and significance of each value. (e.g. naturally occurring, off-site source, pre-existing condition, etc.).
- Attach a notification table of any groundwater or surface water values that equal or exceed the reporting limits.
- Attach a notification table of any methane gas values that attain or exceed explosive gas levels. This includes any structures on or nearby the facility (NCAC 13B .1629 (4)(a)(i).
- Send the original signed and sealed form, any tables, and Electronic Data Deliverable to: Compliance Unit, NCDENR-DWM, Solid Waste Section, 1646 Mail Service Center, Raleigh, NC 27699-1646.

## Solid Waste Monitoring Data Submittal Information

**Name of entity submitting data (laboratory, consultant, facility owner):**

Waste Management

**Contact for questions about data formatting. Include data preparer's name, telephone number and E-mail address:**

Name: G. Van Ness Burbach, Ph.D., P.G. Phone: (336) 323-0092

E-mail: vburbach@joyceengineering.com

| Facility name: | Facility Address: | Facility Permit # | NC Landfill Rule: (.0500 or .1600) | Actual sampling dates (e.g., October 20-24, 2006) |
|---|---|---|---|---|
| Piedmont Landfill & Recycling Center | 9901 Freeman Rd. Kernersville, NC 27284 | 34-06 | .1600 | March 19, 2014 |

**Environmental Status: (Check all that apply)**

☐ Initial/Background Monitoring ☒ Detection Monitoring ☐ Assessment Monitoring ☐ Corrective Action

**Type of data submitted: (Check all that apply)**

☒ Groundwater monitoring data from monitoring wells
☐ Groundwater monitoring data from private water supply wells
☒ Leachate monitoring data
☒ Surface water monitoring data
☐ Methane gas monitoring data
☐ Corrective action data (specify) _____
☐ Other(specify) _____

**Notification attached?**

☒ No. No groundwater or surface water standards were exceeded.
☐ Yes, a notification of values exceeding a groundwater or surface water standard is attached. It includes a list of groundwater and surface water monitoring points, dates, analytical values, NC 2L groundwater standard, NC 2B surface water standard or NC Solid Waste GWPS and preliminary analysis of the cause and significance of any concentration.
☐ Yes, a notification of values exceeding an explosive methane gas limit is attached. It includes the methane monitoring points, dates, sample values and explosive methane gas limits.

## Certification

**To the best of my knowledge, the information reported and statements made on this data submittal and attachments are true and correct. Furthermore, I have attached complete notification of any sampling values meeting or exceeding groundwater standards or explosive gas levels, and a preliminary analysis of the cause and significance of concentrations exceeding groundwater standards. I am aware that there are significant penalties for making any false statement, representation, or certification including the possibility of a fine and imprisonment.**

Alexander Lacsamana, PE — District Manager - Closed Sites — (770) 590-2936

Facility Representative Name (Print) — Title — (Area Code) Telephone Number

Digitally signed by alacsama@wm.com
DN: cn=alacsama@wm.com
Date: 2014.05.14 10:31:43 -04'00'

5/14/2014

Signature — Date

Affix NC Licensed/ Professional Geologist Seal

1850 Parkway Place, Suite 600 Marietta, GA 30067

Facility Representative Address

NC PE Firm License Number (if applicable effective May 1, 2009)

Revised 6/2009

# PIEDMONT LANDFILL & RECYCLING CENTER
## PERMIT # 34-06

# FIRST SEMIANNUAL GROUNDWATER MONITORING REPORT OF 2014

## MAY 2014

Prepared by:

JOYCE ENGINEERING

2211 West Meadowview Road, Suite 101
Greensboro, North Carolina 27407

NORTH CAROLINA LICENSED SEAL 1349 GEOLOGIST G. VAN NESS BURBACH

Prepared by:

G. Van Ness Burbach, Ph.D., P.G.
NC License # 1349

JOYCE Project # 392.1401.12, Task 01

2211 West Meadowview Rd.
Boone Building, Suite 101
Greensboro, NC 27407

tel: 336/323-0092
fax: 336/323-0093

www.JoyceEngineering.com

May 14, 2014

Alexander Lacsamana, PE
District Manager
Waste Management Closed Site Management Group
1850 Parkway Place, Suite 600
Marietta, GA 30067

**RE: First Semiannual Groundwater Monitoring Report of 2014**
**Piedmont Landfill & Recycling Center, Permit No. 34-06**
**JOYCE Project No. 392.1401.12, Task 01**

Dear Mr. Lacsamana:

The purpose of this report is to provide you with a complete submittal to satisfy the groundwater monitoring compliance requirements for the closed Piedmont Landfill and Recycling Center's first semiannual groundwater monitoring event of 2014. This report may also serve to fulfill the notification requirements of Rule .1635 (g) of the North Carolina Solid Waste Management Regulations (NCSWMR). An Environmental Monitoring Reporting Form (EMRF) for this event is attached.

Sampling for the event was performed on March 19, 2014 by Pro-Tech. During this semiannual event, the site compliance wells and surface water monitoring points were sampled and analyzed for the NC Appendix I list of constituents. The site leachate was also sampled during this event for the required list of parameters. The laboratory analytical reports, field data logs, and chains of custody are provided as *Appendix A* of this report.

## MONITORING PROGRAM HISTORY:

The site entered into an Assessment Monitoring Program for background wells MW-01 and MW-06 and downgradient well MW-09 after volatile organic constituents were detected in MW-09 during the second semiannual event of 1996. Two organic compounds (chloroethane and 1,1-dichloroethane) were historically detected in monitoring well MW-09. Chloroethane exhibited a declining trend to the point where chloroethane was reported at less than the laboratory reporting limit during the January 1998 sampling event. The concentration of 1,1-dichloroethane in MW-09 also decreased below the laboratory reporting limit during the July 1998 sampling event. Following receipt of approval from the North Carolina Department of Environment and Natural Resources (DENR), all wells at the site reverted to the Detection Monitoring Program as of the second semiannual event in 1999, as allowed by 15A NCAC 13B.1634 (b).

Monitoring well MW-09 was replaced by well MW-09R in November 1999. No chloroethane concentration above the laboratory reporting limit or SWSL has been detected in MW-09R since the well was installed; however, 1,1-dichloroethane was detected in MW-09R at a concentration of 23 μg/L during the initial sampling event conducted in January 2000. The concentration of 1,1-dichlorothane remained relatively consistent until recently, ranging in concentration from 7 μg/L to 28 μg/L; however, it has not been detected at quantifiable levels Since September 2009. The constituent cis-1,2-dichloroethene was detected in MW-09R above the laboratory reporting limit for the first time during the July 2002 event at a concentration of 6.5 μg/L, and has been detected at concentrations ranging from 5-28 μg/L; however, it has not been detected at quantifiable levels since September 2009. The presence of organic constituents in MW-09 and MW-09R is attributed to landfill gas (LFG). The LFG extraction network was expanded in this area in January 2003, and the recent decrease in concentrations of organic constituents in this well is attributed to the control of LFG.

Due to the detection of 1,1-dichloroethane in MW-09R during the first semiannual event in 2000, the site performed Assessment Monitoring on wells MW-01, MW-06, and MW-09R through the second semiannual event of 2001. Following NC DENR approval of an August 20, 2001 request by Waste Management, MW-01 and MW-06 again reverted to Detection Monitoring. Monitoring well MW-09R was sampled for the NC Appendix I list of constituents plus detected Appendix II constituents during the first semiannual event each year and NC Appendix II list of constituents during the second semiannual event until the DENR approved reverting back to detection monitoring in a letter dated March 15, 2012.

In the September 2007 sampling event, benzene and vinyl chloride were detected in MW-02 at concentrations in exceedance of NC 2L groundwater standards. A resampling event confirmed the vinyl chloride, but not the benzene exceedance. An *Alternate Source Demonstration* (ASD) was submitted to DENR on March 14, 2008. The ASD demonstrated that the organic constituents detected in MW-02 are related to LFG impacts. In January 2008, improvements to the active LFG recovery system at the site were initiated to help mitigate these impacts. The ASD was accepted by DENR in a letter dated May 7, 2008 with the condition that if vinyl chloride and benzene concentrations in MW-02 are not sufficiently reduced by Spring 2009, MW-02 would enter Assessment Monitoring. Neither benzene nor vinyl chloride have had confirmed detections above the NC 2L standards in MW-02 since September 2008, so MW-02 remains in detection monitoring.

During the March 2010 sampling event, chromium was detected in MW-03 at a statistically significant concentration above the NC 2L groundwater standard. An ASD was submitted on July 26, 2010 for the chromium detected in MW-03 demonstrating that the chromium was naturally occurring in the soil and groundwater of the facility. DENR approved the ASD for chromium at the facility in a letter dated April 28, 2011.

**DETECTION MONITORING EVENT:**

***MW-01, MW-02, MW-03, MW-04, MW-04D, MW-05, MW-06, MW-07, MW-08, MW-9R, MW-10, MW-11, MW-11D, MW-12, MW-12D, and Surface Water Points: S-02, S-03, S-04, and S-05***

During the first semiannual event of 2014, fifteen detection monitoring wells and four surface water points were sampled for the NC Appendix I list of constituents. The laboratory analytical reports, field data logs, and chains of custody for the March 2014 event are provided in *Appendix A* of this report.

***Organic Constituents***

There were no quantified detections (above the SWSL) of any Appendix I organic constituents in any of these wells or surface water points during this event.

***Inorganic Constituents***

Inorganic constituents with quantified detections (above the SWSL) in one or more groundwater or surface water samples included barium in MW-02 and chromium in MW-03 Chromium was detected above the NC 2L in MW-03. The chromium results in MW-03 were not statistically significant increases (SSI) above background. An ASD for chromium was approved by DENR in a letter dated April 28, 2011. No other Appendix I inorganic constituents were detected above the SWSL or the NC 2L groundwater standards or groundwater protection standards (GWPS) in any detection monitoring well or surface water sample during the March 2014 sampling event.

**STATISTICAL ANALYSIS:**

The results of the statistical analysis of the March 2014 groundwater monitoring event are summarized below and in *Table 1*. The detailed statistical analyses for this event are provided in *Appendix B*. The data for each inorganic parameter were statistically compared to historical data for each well using an intrawell approach in accordance with the facility's statistical analysis plan, EPA guidance document ("*Statistical Analysis of Ground-Water Monitoring Data at RCRA Facilities, Addendum to Interim Final Guidance*" July 1992), and ASTM standard D6312-98 ("*Standard Guide for Developing Appropriate Statistical Approaches for Ground-Water Detection Monitoring Programs*"). Statistical analyses for inorganic constituents were completed using the combined Shewhart-CUSUM control chart method. Organic constituents were compared directly to 15A NCAC 2L.0202 Groundwater Standards (NC 2L) or to the North Carolina Department of Environmental and Natural Resources (DENR) Solid Waste Section Limits (SWSL).

**SUBMITTAL OF LEACHATE ANALYTICAL DATA:**

*Appendix A* to this report contains the leachate monitoring results for March 2014 as requested in the Solid Waste Section memo dated November 13, 1996. The leachate was analyzed for NC Appendix I constituents, alkalinity, carbonate alkalinity, bicarbonate alkalinity, TDS, TOC, chloride, ammonia, sulfate, nitrate, phosphorus, BOD, COD, TSS, mercury, indicator metals (calcium, iron, magnesium, manganese, sodium, and potassium), and the required field parameters.

**SUBMITTAL OF GROUNDWATER MAP AND FLOW CALCULATIONS:**

*Appendix C* to this report contains the groundwater surface contour map and groundwater flow rates for this event. In summary, the March 2014 sampling results and groundwater flow assessment indicate that the site monitoring network is effective in monitoring for the release of solid waste constituents to the environment.

**CONCLUSIONS/CLOSURE:**

There were no organic constituents with quantified detections (above the SWSL) reported for any monitoring wells or surface water points during the March 2014 monitoring event. Two inorganic constituents had quantified detections in some monitoring wells or surface water points, and chromium was detected above the NC 2L groundwater standard in MW-03. None of the detections were identified as SSI above the background.

An ASD was submitted on July 26, 2010 for the exceedance of chromium detected in MW-03 during the March 2010 sampling event. On April 28, 2011, DENR approved the ASD for chromium at the facility. MW-03 will continue to be monitored in accordance with the Detection Monitoring Program.

For future events, in accordance with NCSWMR rules .1632, .1633, and .1634 as revised in April 2011, routine statistical analyses for all detected constituents will no longer be performed for the Piedmont Landfill. Beginning with the next semiannual sampling event, all results will be compared directly to groundwater protection standards (GPS) as defined in rules .1634(g) and .1634(h). Statistical background may be calculated on a case-by-case basis to determine whether the background may be used as the GPS for a specific constituent in accordance with rule .1634(g)(5).

All site wells will continue to be monitored in accordance with the Detection Monitoring Program and surface water points will continue to be monitored as required by the DENR. The next monitoring event for the closed Piedmont Landfill and Recycling Center is scheduled for the third quarter of 2014. If you have any questions, feel free to contact me or Steve Cowie at (336) 323-0092.

Sincerely,
**JOYCE ENGINEERING**

G. Van Ness Burbach, PhD, P.G.
Technical Consultant

Attachments: Environmental Monitoring Reporting Form
Table 1 – Summary of Detected Constituents – March 2014
Appendix A – Laboratory Analytical Reports

Appendix B – Groundwater Statistical Analyses Report
Appendix C – Groundwater Flow Regime Report

# TABLE

**TABLE 1**
**QUANTIFIED DETECTED APPENDIX I CONSTITUENTS**

| WELL ID | PARAMETER | RESULT | UNITS | SWSL | NC2L | LIMIT | SSI |
|---|---|---|---|---|---|---|---|
| 3406-MW02 | Barium | 150 | µg/L | 100 | 700 | 1057.8 | No |
| 3406-MW03 | Chromium* | 12 | µg/L | 10 | 10 | 19.5 | No |

Notes:

1. SWSL = NC DENR Solid Waste Section Limits.
2. NC2L = 15A-NCAC-2L.0202 Groundwater Standards.
3. LIMIT = Background limit based on intra-well statististics.
4. SSI = Apparent statistically-significant increase above background.
5. Estimated and blank-qualified detections are excluded.
6. Shaded values are greater than the NC2L Standard.
7. * Chromium has been addressed in an ASD approved by DENR

# Appendix A: Laboratory Analytical Reports

## Including Field Data Logs and Chains of Custody

# ANALYTICAL REPORT

Job Number: 280-53273-1

Job Description: 134|Piedmont Landfill

For:
Waste Management
1850 Parkway Place
Suite 600
Marietta, GA 30067

Attention: Mr. Al Lacsamana

Approved for release.
Janice S Collins
Project Management Assistant I
4/3/2014 3:18 PM

Designee for
Betsy A Sara, Project Manager II
4955 Yarrow Street, Arvada, CO, 80002
(303)736-0189
betsy.sara@testamericainc.com
04/03/2014

cc: Mr. Van Burbach

The test results in this report relate only to the samples in this report and meet all requirements of NELAC, with any exceptions noted. Pursuant to NELAP, this report shall not be reproduced except in full, without the written approval of the laboratory. All questions regarding this report should be directed to the TestAmerica Denver Project Manager.

The Lab Certification ID# is E87667.

Reporting limits are adjusted for sample size used, dilutions and moisture content if applicable.

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**CASE NARRATIVE**

**Client: Waste Management**

**Project: 134|Piedmont Landfill**

**Report Number: 280-53273-1**

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

The reporting limits (RLs) in this report are North Carolina SWSLs.

**Sample Receiving**

The samples were received on 03/20/2014; the samples arrived in good condition, properly preserved and on ice. The temperature of the cooler at receipt was 1.0 C.

**Holding Times**

The holding times were within established control limits.

**Method Blanks**

Methylene Chloride Method 8260B and Total Zinc Method 6020A were detected in the Method Blanks below the project established reporting limits. No corrective action is taken for any values in Method Blanks that are below the requested reporting limits. The Method Blank data are included at the end of this report.

All other Method Blanks were within established control limits.

**Laboratory Control Samples (LCS)**

All Laboratory Control Samples were within established control limits.

**Matrix Spike and Matrix Spike Duplicate (MS/MSD)**

All MS/MSD samples were within established control limits.

**Organics**

The Method 8260B surrogate recoveries of 1,2-Dichloroethane-d4, 4-Bromofluorobenzene and/or Dibromofluoromethane were above control limits for samples 3406-MW12D, 3406-MW05 and TRIP BLANK. Because the data are considered to be biased high and all target analytes in the sample were non-detect, corrective action was deemed unnecessary.

# EXECUTIVE SUMMARY - Detections

Client: Waste Management

Job Number: 280-53273-1

| Lab Sample ID / Analyte | Client Sample ID | Result | Qualifier | Reporting Limit | Units | Method |
|---|---|---|---|---|---|---|
| **280-53273-1FB** | **3406-01FB** | | | | | |
| Field pH | | 7.91 | | | SU | Field Sampling |
| Field Conductivity | | 3 | | | umhos/cm | Field Sampling |
| Field Temperature | | 17.6 | | | Degrees C | Field Sampling |
| Field Turbidity | | 0.0 | | | NTU | Field Sampling |
| Field Dissolved Oxygen | | 1.1 | | | mg/L | Field Sampling |
| Field EH/ORP | | 95 | | | millivolts | Field Sampling |
| **280-53273-2** | **3406-MW01** | | | | | |
| Well Elevation | | 823.93 | | | ft/msl | Field Sampling |
| Depth to water | | 44.20 | | | ft | Field Sampling |
| Groundwater Elevation | | 779.73 | | | ft/msl | Field Sampling |
| Field pH | | 5.45 | | | SU | Field Sampling |
| Field Conductivity | | 68 | | | umhos/cm | Field Sampling |
| Field Temperature | | 13.7 | | | Degrees C | Field Sampling |
| Field Turbidity | | 1.7 | | | NTU | Field Sampling |
| Field Dissolved Oxygen | | 6.6 | | | mg/L | Field Sampling |
| Field EH/ORP | | 95.5 | | | millivolts | Field Sampling |
| ***Total Recoverable*** | | | | | | |
| Barium | | 51 | J | 100 | ug/L | 6010C |
| Chromium | | 1.1 | J | 10 | ug/L | 6010C |
| Copper | | 0.64 | J | 10 | ug/L | 6020A |
| **280-53273-3** | **3406-MW02** | | | | | |
| Well Elevation | | 778.04 | | | ft/msl | Field Sampling |
| Depth to water | | 28.22 | | | ft | Field Sampling |
| Groundwater Elevation | | 749.82 | | | ft/msl | Field Sampling |
| Field pH | | 5.11 | | | SU | Field Sampling |
| Field Conductivity | | 149 | | | umhos/cm | Field Sampling |
| Field Temperature | | 15.1 | | | Degrees C | Field Sampling |
| Field Turbidity | | 1.3 | | | NTU | Field Sampling |
| Field Dissolved Oxygen | | 1.0 | | | mg/L | Field Sampling |
| Field EH/ORP | | 192 | | | millivolts | Field Sampling |
| ***Total Recoverable*** | | | | | | |
| Barium | | 150 | | 100 | ug/L | 6010C |
| Selenium | | 0.87 | J | 10 | ug/L | 6020A |
| Zinc | | 2.8 | J | 10 | ug/L | 6020A |

# EXECUTIVE SUMMARY - Detections

Client: Waste Management

Job Number: 280-53273-1

| Lab Sample ID | Client Sample ID | | | | | |
|---|---|---|---|---|---|---|
| Analyte | | Result | Qualifier | Reporting Limit | Units | Method |
| **280-53273-4** | **3406-MW03** | | | | | |
| 1,1-Dichloroethane | | 0.27 | J | 5.0 | ug/L | 8260B |
| Well Elevation | | 770.08 | | | ft/msl | Field Sampling |
| Depth to water | | 25.28 | | | ft | Field Sampling |
| Groundwater Elevation | | 744.80 | | | ft/msl | Field Sampling |
| Field pH | | 5.50 | | | SU | Field Sampling |
| Field Conductivity | | 129 | | | umhos/cm | Field Sampling |
| Field Temperature | | 13.9 | | | Degrees C | Field Sampling |
| Field Turbidity | | 0.9 | | | NTU | Field Sampling |
| Field Dissolved Oxygen | | 4.9 | | | mg/L | Field Sampling |
| Field EH/ORP | | -6.0 | | | millivolts | Field Sampling |
| ***Total Recoverable*** | | | | | | |
| Barium | | 20 | J | 100 | ug/L | 6010C |
| Chromium | | 12 | | 10 | ug/L | 6010C |
| Nickel | | 24 | J | 50 | ug/L | 6010C |
| Vanadium | | 8.6 | J | 25 | ug/L | 6010C |
| Copper | | 0.59 | J | 10 | ug/L | 6020A |
| **280-53273-5** | **3406-MW04** | | | | | |
| Well Elevation | | 756.92 | | | ft/msl | Field Sampling |
| Depth to water | | 12.19 | | | ft | Field Sampling |
| Groundwater Elevation | | 744.73 | | | ft/msl | Field Sampling |
| Field pH | | 5.30 | | | SU | Field Sampling |
| Field Conductivity | | 86 | | | umhos/cm | Field Sampling |
| Field Temperature | | 15.0 | | | Degrees C | Field Sampling |
| Field Turbidity | | 2.4 | | | NTU | Field Sampling |
| Field Dissolved Oxygen | | 0.4 | | | mg/L | Field Sampling |
| Field EH/ORP | | 153 | | | millivolts | Field Sampling |
| ***Total Recoverable*** | | | | | | |
| Barium | | 66 | J | 100 | ug/L | 6010C |
| Cobalt | | 1.7 | J | 10 | ug/L | 6010C |
| Zinc | | 6.9 | J | 10 | ug/L | 6020A |

# EXECUTIVE SUMMARY - Detections

Client: Waste Management

Job Number: 280-53273-1

| Lab Sample ID / Analyte | Client Sample ID | Result | Qualifier | Reporting Limit | Units | Method |
|---|---|---|---|---|---|---|
| **280-53273-6** | **3406-MW04D** | | | | | |
| Toluene | | 0.25 | J | 1.0 | ug/L | 8260B |
| Well Elevation | | 757.33 | | | ft/msl | Field Sampling |
| Depth to water | | 12.68 | | | ft | Field Sampling |
| Groundwater Elevation | | 744.65 | | | ft/msl | Field Sampling |
| Field pH | | 5.94 | | | SU | Field Sampling |
| Field Conductivity | | 113 | | | umhos/cm | Field Sampling |
| Field Temperature | | 15.6 | | | Degrees C | Field Sampling |
| Field Turbidity | | 12.3 | | | NTU | Field Sampling |
| Field Dissolved Oxygen | | 4.4 | | | mg/L | Field Sampling |
| Field EH/ORP | | 116 | | | millivolts | Field Sampling |
| ***Total Recoverable*** | | | | | | |
| Barium | | 29 | J | 100 | ug/L | 6010C |
| Chromium | | 7.6 | J | 10 | ug/L | 6010C |
| Vanadium | | 3.3 | J | 25 | ug/L | 6010C |
| Zinc | | 6.5 | J | 10 | ug/L | 6020A |
| **280-53273-7** | **3406-MW05** | | | | | |
| Well Elevation | | 743.17 | | | ft/msl | Field Sampling |
| Depth to water | | 4.20 | | | ft | Field Sampling |
| Groundwater Elevation | | 738.97 | | | ft/msl | Field Sampling |
| Field pH | | 5.69 | | | SU | Field Sampling |
| Field Conductivity | | 354 | | | umhos/cm | Field Sampling |
| Field Temperature | | 12.0 | | | Degrees C | Field Sampling |
| Field Turbidity | | 3.3 | | | NTU | Field Sampling |
| Field Dissolved Oxygen | | 1.7 | | | mg/L | Field Sampling |
| Field EH/ORP | | 58.7 | | | millivolts | Field Sampling |
| ***Total Recoverable*** | | | | | | |
| Barium | | 36 | J | 100 | ug/L | 6010C |
| Chromium | | 4.8 | J | 10 | ug/L | 6010C |
| Nickel | | 2.2 | J | 50 | ug/L | 6010C |
| Vanadium | | 5.3 | J | 25 | ug/L | 6010C |
| Zinc | | 4.3 | J B | 10 | ug/L | 6020A |

# EXECUTIVE SUMMARY - Detections

Client: Waste Management

Job Number: 280-53273-1

| Lab Sample ID | Client Sample ID | | | | | |
|---|---|---|---|---|---|---|
| Analyte | | Result | Qualifier | Reporting Limit | Units | Method |
| **280-53273-8** | **3406-MW06** | | | | | |
| Well Elevation | | 800.87 | | | ft/msl | Field Sampling |
| Depth to water | | 22.90 | | | ft | Field Sampling |
| Groundwater Elevation | | 777.03 | | | ft/msl | Field Sampling |
| Field pH | | 4.82 | | | SU | Field Sampling |
| Field Conductivity | | 38 | | | umhos/cm | Field Sampling |
| Field Temperature | | 13.9 | | | Degrees C | Field Sampling |
| Field Turbidity | | 0.7 | | | NTU | Field Sampling |
| Field Dissolved Oxygen | | 4.1 | | | mg/L | Field Sampling |
| Field EH/ORP | | 71.6 | | | millivolts | Field Sampling |
| ***Total Recoverable*** | | | | | | |
| Barium | | 41 | J | 100 | ug/L | 6010C |
| Chromium | | 1.6 | J | 10 | ug/L | 6010C |
| Zinc | | 10 | B | 10 | ug/L | 6020A |
| **280-53273-9** | **3406-MW07** | | | | | |
| Well Elevation | | 771.57 | | | ft/msl | Field Sampling |
| Depth to water | | 23.10 | | | ft | Field Sampling |
| Groundwater Elevation | | 748.47 | | | ft/msl | Field Sampling |
| Field pH | | 5.66 | | | SU | Field Sampling |
| Field Conductivity | | 148 | | | umhos/cm | Field Sampling |
| Field Temperature | | 14.5 | | | Degrees C | Field Sampling |
| Field Turbidity | | 10.1 | | | NTU | Field Sampling |
| Field Dissolved Oxygen | | 5.5 | | | mg/L | Field Sampling |
| Field EH/ORP | | 81.1 | | | millivolts | Field Sampling |
| ***Total Recoverable*** | | | | | | |
| Barium | | 6.0 | J | 100 | ug/L | 6010C |
| Chromium | | 1.4 | J | 10 | ug/L | 6010C |
| Vanadium | | 6.8 | J | 25 | ug/L | 6010C |
| Copper | | 4.8 | J | 10 | ug/L | 6020A |
| Zinc | | 8.9 | J B | 10 | ug/L | 6020A |

# EXECUTIVE SUMMARY - Detections

Client: Waste Management

Job Number: 280-53273-1

| Lab Sample ID / Analyte | Client Sample ID | Result | Qualifier | Reporting Limit | Units | Method |
|---|---|---|---|---|---|---|
| **280-53273-10** | **3406-MW08** | | | | | |
| Well Elevation | | 748.95 | | | ft/msl | Field Sampling |
| Depth to water | | 4.50 | | | ft | Field Sampling |
| Groundwater Elevation | | 744.45 | | | ft/msl | Field Sampling |
| Field pH | | 5.17 | | | SU | Field Sampling |
| Field Conductivity | | 119 | | | umhos/cm | Field Sampling |
| Field Temperature | | 9.2 | | | Degrees C | Field Sampling |
| Field Turbidity | | 19.9 | | | NTU | Field Sampling |
| Field Dissolved Oxygen | | 2.6 | | | mg/L | Field Sampling |
| Field EH/ORP | | 90.1 | | | millivolts | Field Sampling |
| ***Total Recoverable*** | | | | | | |
| Barium | | 77 | J | 100 | ug/L | 6010C |
| Chromium | | 1.5 | J | 10 | ug/L | 6010C |
| Vanadium | | 2.2 | J | 25 | ug/L | 6010C |
| Arsenic | | 0.45 | J | 10 | ug/L | 6020A |
| Copper | | 1.1 | J | 10 | ug/L | 6020A |
| Zinc | | 5.5 | J B | 10 | ug/L | 6020A |
| **280-53273-11** | **3406-MW09R** | | | | | |
| 1,1-Dichloroethane | | 0.43 | J | 5.0 | ug/L | 8260B |
| Well Elevation | | 764.95 | | | ft/msl | Field Sampling |
| Depth to water | | 26.02 | | | ft | Field Sampling |
| Groundwater Elevation | | 738.93 | | | ft/msl | Field Sampling |
| Field pH | | 5.67 | | | SU | Field Sampling |
| Field Conductivity | | 281 | | | umhos/cm | Field Sampling |
| Field Temperature | | 11.7 | | | Degrees C | Field Sampling |
| Field Turbidity | | 1.5 | | | NTU | Field Sampling |
| Field Dissolved Oxygen | | 1.5 | | | mg/L | Field Sampling |
| Field EH/ORP | | -91.5 | | | millivolts | Field Sampling |
| ***Total Recoverable*** | | | | | | |
| Barium | | 11 | J | 100 | ug/L | 6010C |
| Vanadium | | 8.6 | J | 25 | ug/L | 6010C |
| Copper | | 2.7 | J | 10 | ug/L | 6020A |
| Zinc | | 6.6 | J B | 10 | ug/L | 6020A |

# EXECUTIVE SUMMARY - Detections

Client: Waste Management

Job Number: 280-53273-1

| Lab Sample ID / Analyte | Client Sample ID | Result | Qualifier | Reporting Limit | Units | Method |
|---|---|---|---|---|---|---|
| **280-53273-12** | **3406-MW10** | | | | | |
| Tetrachloroethene | | 0.20 | J | 1.0 | ug/L | 8260B |
| Well Elevation | | 777.20 | | | ft/msl | Field Sampling |
| Depth to water | | 29.53 | | | ft | Field Sampling |
| Groundwater Elevation | | 747.67 | | | ft/msl | Field Sampling |
| Field pH | | 5.77 | | | SU | Field Sampling |
| Field Conductivity | | 112 | | | umhos/cm | Field Sampling |
| Field Temperature | | 15.9 | | | Degrees C | Field Sampling |
| Field Turbidity | | 3.9 | | | NTU | Field Sampling |
| Field Dissolved Oxygen | | 3.0 | | | mg/L | Field Sampling |
| Field EH/ORP | | 222 | | | millivolts | Field Sampling |
| ***Total Recoverable*** | | | | | | |
| Barium | | 12 | J | 100 | ug/L | 6010C |
| Chromium | | 4.4 | J | 10 | ug/L | 6010C |
| Nickel | | 1.3 | J | 50 | ug/L | 6010C |
| Vanadium | | 4.6 | J | 25 | ug/L | 6010C |
| Zinc | | 7.1 | J B | 10 | ug/L | 6020A |
| **280-53273-13** | **3406-MW11** | | | | | |
| 1,1-Dichloroethane | | 0.34 | J | 5.0 | ug/L | 8260B |
| cis-1,2-Dichloroethene | | 0.24 | J | 5.0 | ug/L | 8260B |
| Well Elevation | | 776.80 | | | ft/msl | Field Sampling |
| Depth to water | | 27.96 | | | ft | Field Sampling |
| Groundwater Elevation | | 748.84 | | | ft/msl | Field Sampling |
| Field pH | | 5.51 | | | SU | Field Sampling |
| Field Conductivity | | 161 | | | umhos/cm | Field Sampling |
| Field Temperature | | 15.2 | | | Degrees C | Field Sampling |
| Field Turbidity | | 3.0 | | | NTU | Field Sampling |
| Field Dissolved Oxygen | | 0.9 | | | mg/L | Field Sampling |
| Field EH/ORP | | 240 | | | millivolts | Field Sampling |
| ***Total Recoverable*** | | | | | | |
| Barium | | 67 | J | 100 | ug/L | 6010C |
| Cobalt | | 2.0 | J | 10 | ug/L | 6010C |
| Vanadium | | 1.5 | J | 25 | ug/L | 6010C |
| Copper | | 0.67 | J | 10 | ug/L | 6020A |
| Zinc | | 9.8 | J B | 10 | ug/L | 6020A |

# EXECUTIVE SUMMARY - Detections

Client: Waste Management

Job Number: 280-53273-1

| Lab Sample ID / Analyte | Client Sample ID | Result | Qualifier | Reporting Limit | Units | Method |
|---|---|---|---|---|---|---|
| **280-53273-14** | **3406-MW12** | | | | | |
| Well Elevation | | 751.48 | | | ft/msl | Field Sampling |
| Depth to water | | 5.87 | | | ft | Field Sampling |
| Groundwater Elevation | | 745.61 | | | ft/msl | Field Sampling |
| Field pH | | 5.97 | | | SU | Field Sampling |
| Field Conductivity | | 146 | | | umhos/cm | Field Sampling |
| Field Temperature | | 13.5 | | | Degrees C | Field Sampling |
| Field Turbidity | | 4.2 | | | NTU | Field Sampling |
| Field Dissolved Oxygen | | 0.6 | | | mg/L | Field Sampling |
| Field EH/ORP | | 179 | | | millivolts | Field Sampling |
| ***Total Recoverable*** | | | | | | |
| Barium | | 23 | J | 100 | ug/L | 6010C |
| Chromium | | 2.3 | J | 10 | ug/L | 6010C |
| Vanadium | | 4.2 | J | 25 | ug/L | 6010C |
| Copper | | 0.91 | J | 10 | ug/L | 6020A |
| Zinc | | 5.0 | J B | 10 | ug/L | 6020A |
| **280-53273-15** | **3406-MW12D** | | | | | |
| Well Elevation | | 751.48 | | | ft/msl | Field Sampling |
| Depth to water | | 5.13 | | | ft | Field Sampling |
| Groundwater Elevation | | 746.35 | | | ft/msl | Field Sampling |
| Field pH | | 6.60 | | | SU | Field Sampling |
| Field Conductivity | | 202 | | | umhos/cm | Field Sampling |
| Field Temperature | | 14.7 | | | Degrees C | Field Sampling |
| Field Turbidity | | 2.9 | | | NTU | Field Sampling |
| Field Dissolved Oxygen | | 0.4 | | | mg/L | Field Sampling |
| Field EH/ORP | | 146 | | | millivolts | Field Sampling |
| ***Total Recoverable*** | | | | | | |
| Barium | | 9.4 | J | 100 | ug/L | 6010C |
| Chromium | | 2.1 | J | 10 | ug/L | 6010C |
| Vanadium | | 3.7 | J | 25 | ug/L | 6010C |
| Copper | | 1.3 | J | 10 | ug/L | 6020A |
| Zinc | | 6.7 | J B | 10 | ug/L | 6020A |

# EXECUTIVE SUMMARY - Detections

Client: Waste Management

Job Number: 280-53273-1

| Lab Sample ID / Analyte | Client Sample ID | Result | Qualifier | Reporting Limit | Units | Method |
|---|---|---|---|---|---|---|
| **280-53273-17** | **3406-MW11D** | | | | | |
| Well Elevation | | 776.36 | | | ft/msl | Field Sampling |
| Depth to water | | 27.94 | | | ft | Field Sampling |
| Groundwater Elevation | | 748.42 | | | ft/msl | Field Sampling |
| Field pH | | 6.33 | | | SU | Field Sampling |
| Field Conductivity | | 62 | | | umhos/cm | Field Sampling |
| Field Temperature | | 14.9 | | | Degrees C | Field Sampling |
| Field Turbidity | | 5.3 | | | NTU | Field Sampling |
| Field Dissolved Oxygen | | 3.1 | | | mg/L | Field Sampling |
| Field EH/ORP | | 170 | | | millivolts | Field Sampling |
| ***Total Recoverable*** | | | | | | |
| Barium | | 25 | J | 100 | ug/L | 6010C |
| Chromium | | 6.5 | J | 10 | ug/L | 6010C |
| Vanadium | | 11 | J | 25 | ug/L | 6010C |
| Copper | | 5.5 | J | 10 | ug/L | 6020A |
| Zinc | | 8.2 | J B | 10 | ug/L | 6020A |

# METHOD SUMMARY

Client: Waste Management

Job Number: 280-53273-1

| Description | Lab Location | Method | Preparation Method |
|---|---|---|---|
| **Matrix: Water** | | | |
| Volatile Organic Compounds (GC/MS) | TAL DEN | SW846 8260B | |
| Purge and Trap | TAL DEN | | SW846 5030B |
| Metals (ICP) | TAL DEN | SW846 6010C | |
| Preparation, Total Recoverable or Dissolved Metals | TAL DEN | | SW846 3005A |
| Metals (ICP/MS) | TAL DEN | SW846 6020A | |
| Preparation, Total Recoverable or Dissolved Metals | TAL DEN | | SW846 3005A |
| Field Sampling | TAL DEN | EPA Field Sampling | |

**Lab References:**

TAL DEN = TestAmerica Denver

**Method References:**

EPA = US Environmental Protection Agency

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

# METHOD / ANALYST SUMMARY

Client: Waste Management

Job Number: 280-53273-1

| Method | Analyst | Analyst ID |
|---|---|---|
| SW846 8260B | Moan, Matthew R | MRM |
| SW846 8260B | Wickham, Tom A | TAW |
| SW846 6010C | Harre, John K | JKH |
| SW846 6020A | Lill, Thomas E | TEL |
| EPA Field Sampling | Promduang, Thaweesin | TP |

# SAMPLE SUMMARY

Client: Waste Management

Job Number: 280-53273-1

| Lab Sample ID | Client Sample ID | Client Matrix | Date/Time Sampled | Date/Time Received |
|---|---|---|---|---|
| 280-53273-1FB | 3406-01FB | Water | 03/19/2014 1200 | 03/20/2014 0930 |
| 280-53273-2 | 3406-MW01 | Water | 03/19/2014 1105 | 03/20/2014 0930 |
| 280-53273-3 | 3406-MW02 | Water | 03/19/2014 0744 | 03/20/2014 0930 |
| 280-53273-4 | 3406-MW03 | Water | 03/19/2014 0848 | 03/20/2014 0930 |
| 280-53273-5 | 3406-MW04 | Water | 03/19/2014 1045 | 03/20/2014 0930 |
| 280-53273-6 | 3406-MW04D | Water | 03/19/2014 1117 | 03/20/2014 0930 |
| 280-53273-7 | 3406-MW05 | Water | 03/19/2014 0955 | 03/20/2014 0930 |
| 280-53273-8 | 3406-MW06 | Water | 03/19/2014 1143 | 03/20/2014 0930 |
| 280-53273-9 | 3406-MW07 | Water | 03/19/2014 0918 | 03/20/2014 0930 |
| 280-53273-10 | 3406-MW08 | Water | 03/19/2014 1026 | 03/20/2014 0930 |
| 280-53273-11 | 3406-MW09R | Water | 03/19/2014 0813 | 03/20/2014 0930 |
| 280-53273-12 | 3406-MW10 | Water | 03/19/2014 0910 | 03/20/2014 0930 |
| 280-53273-13 | 3406-MW11 | Water | 03/19/2014 0812 | 03/20/2014 0930 |
| 280-53273-14 | 3406-MW12 | Water | 03/19/2014 1011 | 03/20/2014 0930 |
| 280-53273-15 | 3406-MW12D | Water | 03/19/2014 0940 | 03/20/2014 0930 |
| 280-53273-16TB | TRIP BLANK | Water | 03/19/2014 0744 | 03/20/2014 0930 |
| 280-53273-17 | 3406-MW11D | Water | 03/19/2014 0841 | 03/20/2014 0930 |

# SAMPLE RESULTS

Client: Waste Management

Job Number: 280-53273-1

**Client Sample ID:** **3406-01FB**

Lab Sample ID: 280-53273-1FB

Client Matrix: Water

Date Sampled: 03/19/2014 1200

Date Received: 03/20/2014 0930

**8260B Volatile Organic Compounds (GC/MS)**

| | | | | | |
|---|---|---|---|---|---|
| Analysis Method: | 8260B | Analysis Batch: | 280-219162 | Instrument ID: | VMS_R2 |
| Prep Method: | 5030B | Prep Batch: | N/A | Lab File ID: | RR1407.D |
| Dilution: | 1.0 | | | Initial Weight/Volume: | 20 mL |
| Analysis Date: | 04/01/2014 1021 | | | Final Weight/Volume: | 20 mL |
| Prep Date: | 04/01/2014 1021 | | | | |

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|---|---|---|---|---|
| 1,1,1,2-Tetrachloroethane | ND | | 0.21 | 5.0 |
| 1,1,1-Trichloroethane | ND | | 0.16 | 1.0 |
| 1,1,2,2-Tetrachloroethane | ND | | 0.21 | 3.0 |
| 1,1,2-Trichloroethane | ND | | 0.27 | 1.0 |
| 1,1-Dichloroethane | ND | | 0.22 | 5.0 |
| 1,1-Dichloroethene | ND | | 0.23 | 5.0 |
| 1,2,3-Trichloropropane | ND | | 0.33 | 1.0 |
| 1,2-Dibromo-3-Chloropropane | ND | | 0.47 | 13 |
| 1,2-Dibromoethane | ND | | 0.18 | 1.0 |
| 1,2-Dichlorobenzene | ND | | 0.15 | 5.0 |
| 1,2-Dichloroethane | ND | | 0.13 | 1.0 |
| 1,2-Dichloropropane | ND | | 0.18 | 1.0 |
| 1,4-Dichlorobenzene | ND | | 0.16 | 1.0 |
| 2-Butanone (MEK) | ND | | 2.0 | 100 |
| 2-Hexanone | ND | | 1.7 | 50 |
| 4-Methyl-2-pentanone (MIBK) | ND | | 0.98 | 100 |
| Acetone | ND | | 1.9 | 100 |
| Acrylonitrile | ND | | 1.4 | 200 |
| Benzene | ND | | 0.16 | 1.0 |
| Bromochloromethane | ND | | 0.10 | 3.0 |
| Bromodichloromethane | ND | | 0.17 | 1.0 |
| Bromoform | ND | | 0.19 | 3.0 |
| Bromomethane | ND | | 0.21 | 10 |
| Carbon disulfide | ND | | 0.45 | 100 |
| Carbon tetrachloride | ND | | 0.19 | 1.0 |
| Chlorobenzene | ND | | 0.17 | 3.0 |
| Chloroethane | ND | | 0.41 | 10 |
| Chloroform | ND | | 0.16 | 5.0 |
| Chloromethane | ND | | 0.30 | 1.0 |
| cis-1,2-Dichloroethene | ND | | 0.15 | 5.0 |
| cis-1,3-Dichloropropene | ND | | 0.16 | 1.0 |
| Dibromochloromethane | ND | | 0.17 | 3.0 |
| Dibromomethane | ND | | 0.17 | 10 |
| Ethylbenzene | ND | | 0.16 | 1.0 |
| Iodomethane | ND | | 0.23 | 10 |
| Methylene Chloride | ND | | 0.32 | 1.0 |
| Styrene | ND | | 0.17 | 1.0 |
| Tetrachloroethene | ND | | 0.20 | 1.0 |
| Toluene | ND | | 0.17 | 1.0 |
| trans-1,2-Dichloroethene | ND | | 0.15 | 5.0 |
| trans-1,3-Dichloropropene | ND | | 0.19 | 1.0 |
| trans-1,4-Dichloro-2-butene | ND | | 0.80 | 100 |
| Trichloroethene | ND | | 0.16 | 1.0 |
| Trichlorofluoromethane | ND | | 0.29 | 1.0 |
| Vinyl acetate | ND | | 0.94 | 50 |
| Vinyl chloride | ND | | 0.10 | 1.0 |

Client: Waste Management

Job Number: 280-53273-1

**Client Sample ID:** **3406-01FB**

Lab Sample ID: 280-53273-1FB

Client Matrix: Water

Date Sampled: 03/19/2014 1200

Date Received: 03/20/2014 0930

**8260B Volatile Organic Compounds (GC/MS)**

| | | | | | |
|---|---|---|---|---|---|
| Analysis Method: | 8260B | Analysis Batch: | 280-219162 | Instrument ID: | VMS_R2 |
| Prep Method: | 5030B | Prep Batch: | N/A | Lab File ID: | RR1407.D |
| Dilution: | 1.0 | | | Initial Weight/Volume: | 20 mL |
| Analysis Date: | 04/01/2014 1021 | | | Final Weight/Volume: | 20 mL |
| Prep Date: | 04/01/2014 1021 | | | | |

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|---|---|---|---|---|
| Xylenes, Total | ND | | 0.19 | 5.0 |

| Surrogate | %Rec | Qualifier | Acceptance Limits |
|---|---|---|---|
| 1,2-Dichloroethane-d4 (Surr) | 89 | | 70 - 127 |
| 4-Bromofluorobenzene (Surr) | 93 | | 78 - 120 |
| Dibromofluoromethane (Surr) | 88 | | 77 - 120 |
| Toluene-d8 (Surr) | 98 | | 80 - 125 |

Client: Waste Management

Job Number: 280-53273-1

**Client Sample ID:** **3406-MW01**

Lab Sample ID: 280-53273-2

Client Matrix: Water

Date Sampled: 03/19/2014 1105

Date Received: 03/20/2014 0930

**8260B Volatile Organic Compounds (GC/MS)**

| | | | | | |
|---|---|---|---|---|---|
| Analysis Method: | 8260B | Analysis Batch: | 280-219162 | Instrument ID: | VMS_R2 |
| Prep Method: | 5030B | Prep Batch: | N/A | Lab File ID: | RR1408.D |
| Dilution: | 1.0 | | | Initial Weight/Volume: | 20 mL |
| Analysis Date: | 04/01/2014 1044 | | | Final Weight/Volume: | 20 mL |
| Prep Date: | 04/01/2014 1044 | | | | |

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|---|---|---|---|---|
| 1,1,1,2-Tetrachloroethane | ND | | 0.21 | 5.0 |
| 1,1,1-Trichloroethane | ND | | 0.16 | 1.0 |
| 1,1,2,2-Tetrachloroethane | ND | | 0.21 | 3.0 |
| 1,1,2-Trichloroethane | ND | | 0.27 | 1.0 |
| 1,1-Dichloroethane | ND | | 0.22 | 5.0 |
| 1,1-Dichloroethene | ND | | 0.23 | 5.0 |
| 1,2,3-Trichloropropane | ND | | 0.33 | 1.0 |
| 1,2-Dibromo-3-Chloropropane | ND | | 0.47 | 13 |
| 1,2-Dibromoethane | ND | | 0.18 | 1.0 |
| 1,2-Dichlorobenzene | ND | | 0.15 | 5.0 |
| 1,2-Dichloroethane | ND | | 0.13 | 1.0 |
| 1,2-Dichloropropane | ND | | 0.18 | 1.0 |
| 1,4-Dichlorobenzene | ND | | 0.16 | 1.0 |
| 2-Butanone (MEK) | ND | | 2.0 | 100 |
| 2-Hexanone | ND | | 1.7 | 50 |
| 4-Methyl-2-pentanone (MIBK) | ND | | 0.98 | 100 |
| Acetone | ND | | 1.9 | 100 |
| Acrylonitrile | ND | | 1.4 | 200 |
| Benzene | ND | | 0.16 | 1.0 |
| Bromochloromethane | ND | | 0.10 | 3.0 |
| Bromodichloromethane | ND | | 0.17 | 1.0 |
| Bromoform | ND | | 0.19 | 3.0 |
| Bromomethane | ND | | 0.21 | 10 |
| Carbon disulfide | ND | | 0.45 | 100 |
| Carbon tetrachloride | ND | | 0.19 | 1.0 |
| Chlorobenzene | ND | | 0.17 | 3.0 |
| Chloroethane | ND | | 0.41 | 10 |
| Chloroform | ND | | 0.16 | 5.0 |
| Chloromethane | ND | | 0.30 | 1.0 |
| cis-1,2-Dichloroethene | ND | | 0.15 | 5.0 |
| cis-1,3-Dichloropropene | ND | | 0.16 | 1.0 |
| Dibromochloromethane | ND | | 0.17 | 3.0 |
| Dibromomethane | ND | | 0.17 | 10 |
| Ethylbenzene | ND | | 0.16 | 1.0 |
| Iodomethane | ND | | 0.23 | 10 |
| Methylene Chloride | ND | | 0.32 | 1.0 |
| Styrene | ND | | 0.17 | 1.0 |
| Tetrachloroethene | ND | | 0.20 | 1.0 |
| Toluene | ND | | 0.17 | 1.0 |
| trans-1,2-Dichloroethene | ND | | 0.15 | 5.0 |
| trans-1,3-Dichloropropene | ND | | 0.19 | 1.0 |
| trans-1,4-Dichloro-2-butene | ND | | 0.80 | 100 |
| Trichloroethene | ND | | 0.16 | 1.0 |
| Trichlorofluoromethane | ND | | 0.29 | 1.0 |
| Vinyl acetate | ND | | 0.94 | 50 |
| Vinyl chloride | ND | | 0.10 | 1.0 |

Client: Waste Management

Job Number: 280-53273-1

**Client Sample ID:** **3406-MW01**

Lab Sample ID: 280-53273-2

Client Matrix: Water

Date Sampled: 03/19/2014 1105

Date Received: 03/20/2014 0930

**8260B Volatile Organic Compounds (GC/MS)**

| | | | | | |
|---|---|---|---|---|---|
| Analysis Method: | 8260B | Analysis Batch: | 280-219162 | Instrument ID: | VMS_R2 |
| Prep Method: | 5030B | Prep Batch: | N/A | Lab File ID: | RR1408.D |
| Dilution: | 1.0 | | | Initial Weight/Volume: | 20 mL |
| Analysis Date: | 04/01/2014 1044 | | | Final Weight/Volume: | 20 mL |
| Prep Date: | 04/01/2014 1044 | | | | |

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|---|---|---|---|---|
| Xylenes, Total | ND | | 0.19 | 5.0 |

| Surrogate | %Rec | Qualifier | Acceptance Limits |
|---|---|---|---|
| 1,2-Dichloroethane-d4 (Surr) | 99 | | 70 - 127 |
| 4-Bromofluorobenzene (Surr) | 88 | | 78 - 120 |
| Dibromofluoromethane (Surr) | 91 | | 77 - 120 |
| Toluene-d8 (Surr) | 90 | | 80 - 125 |

Client: Waste Management

Job Number: 280-53273-1

**Client Sample ID:** **3406-MW02**

Lab Sample ID: 280-53273-3

Client Matrix: Water

Date Sampled: 03/19/2014 0744

Date Received: 03/20/2014 0930

**8260B Volatile Organic Compounds (GC/MS)**

| | | | | | |
|---|---|---|---|---|---|
| Analysis Method: | 8260B | Analysis Batch: | 280-219162 | Instrument ID: | VMS_R2 |
| Prep Method: | 5030B | Prep Batch: | N/A | Lab File ID: | RR1411.D |
| Dilution: | 1.0 | | | Initial Weight/Volume: | 20 mL |
| Analysis Date: | 04/01/2014 1153 | | | Final Weight/Volume: | 20 mL |
| Prep Date: | 04/01/2014 1153 | | | | |

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|---|---|---|---|---|
| 1,1,1,2-Tetrachloroethane | ND | | 0.21 | 5.0 |
| 1,1,1-Trichloroethane | ND | | 0.16 | 1.0 |
| 1,1,2,2-Tetrachloroethane | ND | | 0.21 | 3.0 |
| 1,1,2-Trichloroethane | ND | | 0.27 | 1.0 |
| 1,1-Dichloroethane | ND | | 0.22 | 5.0 |
| 1,1-Dichloroethene | ND | | 0.23 | 5.0 |
| 1,2,3-Trichloropropane | ND | | 0.33 | 1.0 |
| 1,2-Dibromo-3-Chloropropane | ND | | 0.47 | 13 |
| 1,2-Dibromoethane | ND | | 0.18 | 1.0 |
| 1,2-Dichlorobenzene | ND | | 0.15 | 5.0 |
| 1,2-Dichloroethane | ND | | 0.13 | 1.0 |
| 1,2-Dichloropropane | ND | | 0.18 | 1.0 |
| 1,4-Dichlorobenzene | ND | | 0.16 | 1.0 |
| 2-Butanone (MEK) | ND | | 2.0 | 100 |
| 2-Hexanone | ND | | 1.7 | 50 |
| 4-Methyl-2-pentanone (MIBK) | ND | | 0.98 | 100 |
| Acetone | ND | | 1.9 | 100 |
| Acrylonitrile | ND | | 1.4 | 200 |
| Benzene | ND | | 0.16 | 1.0 |
| Bromochloromethane | ND | | 0.10 | 3.0 |
| Bromodichloromethane | ND | | 0.17 | 1.0 |
| Bromoform | ND | | 0.19 | 3.0 |
| Bromomethane | ND | | 0.21 | 10 |
| Carbon disulfide | ND | | 0.45 | 100 |
| Carbon tetrachloride | ND | | 0.19 | 1.0 |
| Chlorobenzene | ND | | 0.17 | 3.0 |
| Chloroethane | ND | | 0.41 | 10 |
| Chloroform | ND | | 0.16 | 5.0 |
| Chloromethane | ND | | 0.30 | 1.0 |
| cis-1,2-Dichloroethene | ND | | 0.15 | 5.0 |
| cis-1,3-Dichloropropene | ND | | 0.16 | 1.0 |
| Dibromochloromethane | ND | | 0.17 | 3.0 |
| Dibromomethane | ND | | 0.17 | 10 |
| Ethylbenzene | ND | | 0.16 | 1.0 |
| Iodomethane | ND | | 0.23 | 10 |
| Methylene Chloride | ND | | 0.32 | 1.0 |
| Styrene | ND | | 0.17 | 1.0 |
| Tetrachloroethene | ND | | 0.20 | 1.0 |
| Toluene | ND | | 0.17 | 1.0 |
| trans-1,2-Dichloroethene | ND | | 0.15 | 5.0 |
| trans-1,3-Dichloropropene | ND | | 0.19 | 1.0 |
| trans-1,4-Dichloro-2-butene | ND | | 0.80 | 100 |
| Trichloroethene | ND | | 0.16 | 1.0 |
| Trichlorofluoromethane | ND | | 0.29 | 1.0 |
| Vinyl acetate | ND | | 0.94 | 50 |
| Vinyl chloride | ND | | 0.10 | 1.0 |

Client: Waste Management

Job Number: 280-53273-1

**Client Sample ID:** **3406-MW02**

Lab Sample ID: 280-53273-3

Client Matrix: Water

Date Sampled: 03/19/2014 0744

Date Received: 03/20/2014 0930

**8260B Volatile Organic Compounds (GC/MS)**

| | | | | | |
|---|---|---|---|---|---|
| Analysis Method: | 8260B | Analysis Batch: | 280-219162 | Instrument ID: | VMS_R2 |
| Prep Method: | 5030B | Prep Batch: | N/A | Lab File ID: | RR1411.D |
| Dilution: | 1.0 | | | Initial Weight/Volume: | 20 mL |
| Analysis Date: | 04/01/2014 1153 | | | Final Weight/Volume: | 20 mL |
| Prep Date: | 04/01/2014 1153 | | | | |

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|---|---|---|---|---|
| Xylenes, Total | ND | | 0.19 | 5.0 |

| Surrogate | %Rec | Qualifier | Acceptance Limits |
|---|---|---|---|
| 1,2-Dichloroethane-d4 (Surr) | 105 | | 70 - 127 |
| 4-Bromofluorobenzene (Surr) | 97 | | 78 - 120 |
| Dibromofluoromethane (Surr) | 94 | | 77 - 120 |
| Toluene-d8 (Surr) | 98 | | 80 - 125 |

Client: Waste Management

Job Number: 280-53273-1

**Client Sample ID:** **3406-MW03**

Lab Sample ID: 280-53273-4

Client Matrix: Water

Date Sampled: 03/19/2014 0848

Date Received: 03/20/2014 0930

**8260B Volatile Organic Compounds (GC/MS)**

| | | | | | |
|---|---|---|---|---|---|
| Analysis Method: | 8260B | Analysis Batch: | 280-219162 | Instrument ID: | VMS_R2 |
| Prep Method: | 5030B | Prep Batch: | N/A | Lab File ID: | RR1412.D |
| Dilution: | 1.0 | | | Initial Weight/Volume: | 20 mL |
| Analysis Date: | 04/01/2014 1216 | | | Final Weight/Volume: | 20 mL |
| Prep Date: | 04/01/2014 1216 | | | | |

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|---|---|---|---|---|
| 1,1,1,2-Tetrachloroethane | ND | | 0.21 | 5.0 |
| 1,1,1-Trichloroethane | ND | | 0.16 | 1.0 |
| 1,1,2,2-Tetrachloroethane | ND | | 0.21 | 3.0 |
| 1,1,2-Trichloroethane | ND | | 0.27 | 1.0 |
| 1,1-Dichloroethane | 0.27 | J | 0.22 | 5.0 |
| 1,1-Dichloroethene | ND | | 0.23 | 5.0 |
| 1,2,3-Trichloropropane | ND | | 0.33 | 1.0 |
| 1,2-Dibromo-3-Chloropropane | ND | | 0.47 | 13 |
| 1,2-Dibromoethane | ND | | 0.18 | 1.0 |
| 1,2-Dichlorobenzene | ND | | 0.15 | 5.0 |
| 1,2-Dichloroethane | ND | | 0.13 | 1.0 |
| 1,2-Dichloropropane | ND | | 0.18 | 1.0 |
| 1,4-Dichlorobenzene | ND | | 0.16 | 1.0 |
| 2-Butanone (MEK) | ND | | 2.0 | 100 |
| 2-Hexanone | ND | | 1.7 | 50 |
| 4-Methyl-2-pentanone (MIBK) | ND | | 0.98 | 100 |
| Acetone | ND | | 1.9 | 100 |
| Acrylonitrile | ND | | 1.4 | 200 |
| Benzene | ND | | 0.16 | 1.0 |
| Bromochloromethane | ND | | 0.10 | 3.0 |
| Bromodichloromethane | ND | | 0.17 | 1.0 |
| Bromoform | ND | | 0.19 | 3.0 |
| Bromomethane | ND | | 0.21 | 10 |
| Carbon disulfide | ND | | 0.45 | 100 |
| Carbon tetrachloride | ND | | 0.19 | 1.0 |
| Chlorobenzene | ND | | 0.17 | 3.0 |
| Chloroethane | ND | | 0.41 | 10 |
| Chloroform | ND | | 0.16 | 5.0 |
| Chloromethane | ND | | 0.30 | 1.0 |
| cis-1,2-Dichloroethene | ND | | 0.15 | 5.0 |
| cis-1,3-Dichloropropene | ND | | 0.16 | 1.0 |
| Dibromochloromethane | ND | | 0.17 | 3.0 |
| Dibromomethane | ND | | 0.17 | 10 |
| Ethylbenzene | ND | | 0.16 | 1.0 |
| Iodomethane | ND | | 0.23 | 10 |
| Methylene Chloride | ND | | 0.32 | 1.0 |
| Styrene | ND | | 0.17 | 1.0 |
| Tetrachloroethene | ND | | 0.20 | 1.0 |
| Toluene | ND | | 0.17 | 1.0 |
| trans-1,2-Dichloroethene | ND | | 0.15 | 5.0 |
| trans-1,3-Dichloropropene | ND | | 0.19 | 1.0 |
| trans-1,4-Dichloro-2-butene | ND | | 0.80 | 100 |
| Trichloroethene | ND | | 0.16 | 1.0 |
| Trichlorofluoromethane | ND | | 0.29 | 1.0 |
| Vinyl acetate | ND | | 0.94 | 50 |
| Vinyl chloride | ND | | 0.10 | 1.0 |

Client: Waste Management

Job Number: 280-53273-1

**Client Sample ID:** **3406-MW03**

Lab Sample ID: 280-53273-4

Client Matrix: Water

Date Sampled: 03/19/2014 0848

Date Received: 03/20/2014 0930

**8260B Volatile Organic Compounds (GC/MS)**

| | | | | | |
|---|---|---|---|---|---|
| Analysis Method: | 8260B | Analysis Batch: | 280-219162 | Instrument ID: | VMS_R2 |
| Prep Method: | 5030B | Prep Batch: | N/A | Lab File ID: | RR1412.D |
| Dilution: | 1.0 | | | Initial Weight/Volume: | 20 mL |
| Analysis Date: | 04/01/2014 1216 | | | Final Weight/Volume: | 20 mL |
| Prep Date: | 04/01/2014 1216 | | | | |

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|---|---|---|---|---|
| Xylenes, Total | ND | | 0.19 | 5.0 |

| Surrogate | %Rec | Qualifier | Acceptance Limits |
|---|---|---|---|
| 1,2-Dichloroethane-d4 (Surr) | 98 | | 70 - 127 |
| 4-Bromofluorobenzene (Surr) | 87 | | 78 - 120 |
| Dibromofluoromethane (Surr) | 91 | | 77 - 120 |
| Toluene-d8 (Surr) | 91 | | 80 - 125 |

Client: Waste Management

Job Number: 280-53273-1

**Client Sample ID:** **3406-MW04**

Lab Sample ID: 280-53273-5

Client Matrix: Water

Date Sampled: 03/19/2014 1045

Date Received: 03/20/2014 0930

**8260B Volatile Organic Compounds (GC/MS)**

| | | | | | |
|---|---|---|---|---|---|
| Analysis Method: | 8260B | Analysis Batch: | 280-219162 | Instrument ID: | VMS_R2 |
| Prep Method: | 5030B | Prep Batch: | N/A | Lab File ID: | RR1413.D |
| Dilution: | 1.0 | | | Initial Weight/Volume: | 20 mL |
| Analysis Date: | 04/01/2014 1239 | | | Final Weight/Volume: | 20 mL |
| Prep Date: | 04/01/2014 1239 | | | | |

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|---|---|---|---|---|
| 1,1,1,2-Tetrachloroethane | ND | | 0.21 | 5.0 |
| 1,1,1-Trichloroethane | ND | | 0.16 | 1.0 |
| 1,1,2,2-Tetrachloroethane | ND | | 0.21 | 3.0 |
| 1,1,2-Trichloroethane | ND | | 0.27 | 1.0 |
| 1,1-Dichloroethane | ND | | 0.22 | 5.0 |
| 1,1-Dichloroethene | ND | | 0.23 | 5.0 |
| 1,2,3-Trichloropropane | ND | | 0.33 | 1.0 |
| 1,2-Dibromo-3-Chloropropane | ND | | 0.47 | 13 |
| 1,2-Dibromoethane | ND | | 0.18 | 1.0 |
| 1,2-Dichlorobenzene | ND | | 0.15 | 5.0 |
| 1,2-Dichloroethane | ND | | 0.13 | 1.0 |
| 1,2-Dichloropropane | ND | | 0.18 | 1.0 |
| 1,4-Dichlorobenzene | ND | | 0.16 | 1.0 |
| 2-Butanone (MEK) | ND | | 2.0 | 100 |
| 2-Hexanone | ND | | 1.7 | 50 |
| 4-Methyl-2-pentanone (MIBK) | ND | | 0.98 | 100 |
| Acetone | ND | | 1.9 | 100 |
| Acrylonitrile | ND | | 1.4 | 200 |
| Benzene | ND | | 0.16 | 1.0 |
| Bromochloromethane | ND | | 0.10 | 3.0 |
| Bromodichloromethane | ND | | 0.17 | 1.0 |
| Bromoform | ND | | 0.19 | 3.0 |
| Bromomethane | ND | | 0.21 | 10 |
| Carbon disulfide | ND | | 0.45 | 100 |
| Carbon tetrachloride | ND | | 0.19 | 1.0 |
| Chlorobenzene | ND | | 0.17 | 3.0 |
| Chloroethane | ND | | 0.41 | 10 |
| Chloroform | ND | | 0.16 | 5.0 |
| Chloromethane | ND | | 0.30 | 1.0 |
| cis-1,2-Dichloroethene | ND | | 0.15 | 5.0 |
| cis-1,3-Dichloropropene | ND | | 0.16 | 1.0 |
| Dibromochloromethane | ND | | 0.17 | 3.0 |
| Dibromomethane | ND | | 0.17 | 10 |
| Ethylbenzene | ND | | 0.16 | 1.0 |
| Iodomethane | ND | | 0.23 | 10 |
| Methylene Chloride | ND | | 0.32 | 1.0 |
| Styrene | ND | | 0.17 | 1.0 |
| Tetrachloroethene | ND | | 0.20 | 1.0 |
| Toluene | ND | | 0.17 | 1.0 |
| trans-1,2-Dichloroethene | ND | | 0.15 | 5.0 |
| trans-1,3-Dichloropropene | ND | | 0.19 | 1.0 |
| trans-1,4-Dichloro-2-butene | ND | | 0.80 | 100 |
| Trichloroethene | ND | | 0.16 | 1.0 |
| Trichlorofluoromethane | ND | | 0.29 | 1.0 |
| Vinyl acetate | ND | | 0.94 | 50 |
| Vinyl chloride | ND | | 0.10 | 1.0 |

Client: Waste Management

Job Number: 280-53273-1

**Client Sample ID:** **3406-MW04**

Lab Sample ID: 280-53273-5

Client Matrix: Water

Date Sampled: 03/19/2014 1045

Date Received: 03/20/2014 0930

**8260B Volatile Organic Compounds (GC/MS)**

| | | | | | |
|---|---|---|---|---|---|
| Analysis Method: | 8260B | Analysis Batch: | 280-219162 | Instrument ID: | VMS_R2 |
| Prep Method: | 5030B | Prep Batch: | N/A | Lab File ID: | RR1413.D |
| Dilution: | 1.0 | | | Initial Weight/Volume: | 20 mL |
| Analysis Date: | 04/01/2014 1239 | | | Final Weight/Volume: | 20 mL |
| Prep Date: | 04/01/2014 1239 | | | | |

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|---|---|---|---|---|
| Xylenes, Total | ND | | 0.19 | 5.0 |

| Surrogate | %Rec | Qualifier | Acceptance Limits |
|---|---|---|---|
| 1,2-Dichloroethane-d4 (Surr) | 110 | | 70 - 127 |
| 4-Bromofluorobenzene (Surr) | 94 | | 78 - 120 |
| Dibromofluoromethane (Surr) | 99 | | 77 - 120 |
| Toluene-d8 (Surr) | 100 | | 80 - 125 |

Client: Waste Management

Job Number: 280-53273-1

**Client Sample ID:** **3406-MW04D**

Lab Sample ID: 280-53273-6

Client Matrix: Water

Date Sampled: 03/19/2014 1117

Date Received: 03/20/2014 0930

**8260B Volatile Organic Compounds (GC/MS)**

| | | | | | |
|---|---|---|---|---|---|
| Analysis Method: | 8260B | Analysis Batch: | 280-219162 | Instrument ID: | VMS_R2 |
| Prep Method: | 5030B | Prep Batch: | N/A | Lab File ID: | RR1414.D |
| Dilution: | 1.0 | | | Initial Weight/Volume: | 20 mL |
| Analysis Date: | 04/01/2014 1302 | | | Final Weight/Volume: | 20 mL |
| Prep Date: | 04/01/2014 1302 | | | | |

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|---|---|---|---|---|
| 1,1,1,2-Tetrachloroethane | ND | | 0.21 | 5.0 |
| 1,1,1-Trichloroethane | ND | | 0.16 | 1.0 |
| 1,1,2,2-Tetrachloroethane | ND | | 0.21 | 3.0 |
| 1,1,2-Trichloroethane | ND | | 0.27 | 1.0 |
| 1,1-Dichloroethane | ND | | 0.22 | 5.0 |
| 1,1-Dichloroethene | ND | | 0.23 | 5.0 |
| 1,2,3-Trichloropropane | ND | | 0.33 | 1.0 |
| 1,2-Dibromo-3-Chloropropane | ND | | 0.47 | 13 |
| 1,2-Dibromoethane | ND | | 0.18 | 1.0 |
| 1,2-Dichlorobenzene | ND | | 0.15 | 5.0 |
| 1,2-Dichloroethane | ND | | 0.13 | 1.0 |
| 1,2-Dichloropropane | ND | | 0.18 | 1.0 |
| 1,4-Dichlorobenzene | ND | | 0.16 | 1.0 |
| 2-Butanone (MEK) | ND | | 2.0 | 100 |
| 2-Hexanone | ND | | 1.7 | 50 |
| 4-Methyl-2-pentanone (MIBK) | ND | | 0.98 | 100 |
| Acetone | ND | | 1.9 | 100 |
| Acrylonitrile | ND | | 1.4 | 200 |
| Benzene | ND | | 0.16 | 1.0 |
| Bromochloromethane | ND | | 0.10 | 3.0 |
| Bromodichloromethane | ND | | 0.17 | 1.0 |
| Bromoform | ND | | 0.19 | 3.0 |
| Bromomethane | ND | | 0.21 | 10 |
| Carbon disulfide | ND | | 0.45 | 100 |
| Carbon tetrachloride | ND | | 0.19 | 1.0 |
| Chlorobenzene | ND | | 0.17 | 3.0 |
| Chloroethane | ND | | 0.41 | 10 |
| Chloroform | ND | | 0.16 | 5.0 |
| Chloromethane | ND | | 0.30 | 1.0 |
| cis-1,2-Dichloroethene | ND | | 0.15 | 5.0 |
| cis-1,3-Dichloropropene | ND | | 0.16 | 1.0 |
| Dibromochloromethane | ND | | 0.17 | 3.0 |
| Dibromomethane | ND | | 0.17 | 10 |
| Ethylbenzene | ND | | 0.16 | 1.0 |
| Iodomethane | ND | | 0.23 | 10 |
| Methylene Chloride | ND | | 0.32 | 1.0 |
| Styrene | ND | | 0.17 | 1.0 |
| Tetrachloroethene | ND | | 0.20 | 1.0 |
| Toluene | 0.25 | J | 0.17 | 1.0 |
| trans-1,2-Dichloroethene | ND | | 0.15 | 5.0 |
| trans-1,3-Dichloropropene | ND | | 0.19 | 1.0 |
| trans-1,4-Dichloro-2-butene | ND | | 0.80 | 100 |
| Trichloroethene | ND | | 0.16 | 1.0 |
| Trichlorofluoromethane | ND | | 0.29 | 1.0 |
| Vinyl acetate | ND | | 0.94 | 50 |
| Vinyl chloride | ND | | 0.10 | 1.0 |

Client: Waste Management

Job Number: 280-53273-1

**Client Sample ID:** **3406-MW04D**

Lab Sample ID: 280-53273-6

Client Matrix: Water

Date Sampled: 03/19/2014 1117

Date Received: 03/20/2014 0930

**8260B Volatile Organic Compounds (GC/MS)**

| | | | | | |
|---|---|---|---|---|---|
| Analysis Method: | 8260B | Analysis Batch: | 280-219162 | Instrument ID: | VMS_R2 |
| Prep Method: | 5030B | Prep Batch: | N/A | Lab File ID: | RR1414.D |
| Dilution: | 1.0 | | | Initial Weight/Volume: | 20 mL |
| Analysis Date: | 04/01/2014 1302 | | | Final Weight/Volume: | 20 mL |
| Prep Date: | 04/01/2014 1302 | | | | |

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|---|---|---|---|---|
| Xylenes, Total | ND | | 0.19 | 5.0 |

| Surrogate | %Rec | Qualifier | Acceptance Limits |
|---|---|---|---|
| 1,2-Dichloroethane-d4 (Surr) | 98 | | 70 - 127 |
| 4-Bromofluorobenzene (Surr) | 88 | | 78 - 120 |
| Dibromofluoromethane (Surr) | 90 | | 77 - 120 |
| Toluene-d8 (Surr) | 88 | | 80 - 125 |

Client: Waste Management

Job Number: 280-53273-1

**Client Sample ID:** **3406-MW05**

Lab Sample ID: 280-53273-7

Client Matrix: Water

Date Sampled: 03/19/2014 0955

Date Received: 03/20/2014 0930

**8260B Volatile Organic Compounds (GC/MS)**

| | | | | | |
|---|---|---|---|---|---|
| Analysis Method: | 8260B | Analysis Batch: | 280-219162 | Instrument ID: | VMS_R2 |
| Prep Method: | 5030B | Prep Batch: | N/A | Lab File ID: | RR1415.D |
| Dilution: | 1.0 | | | Initial Weight/Volume: | 20 mL |
| Analysis Date: | 04/01/2014 1324 | | | Final Weight/Volume: | 20 mL |
| Prep Date: | 04/01/2014 1324 | | | | |

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|---|---|---|---|---|
| 1,1,1,2-Tetrachloroethane | ND | | 0.21 | 5.0 |
| 1,1,1-Trichloroethane | ND | | 0.16 | 1.0 |
| 1,1,2,2-Tetrachloroethane | ND | | 0.21 | 3.0 |
| 1,1,2-Trichloroethane | ND | | 0.27 | 1.0 |
| 1,1-Dichloroethane | ND | | 0.22 | 5.0 |
| 1,1-Dichloroethene | ND | | 0.23 | 5.0 |
| 1,2,3-Trichloropropane | ND | | 0.33 | 1.0 |
| 1,2-Dibromo-3-Chloropropane | ND | | 0.47 | 13 |
| 1,2-Dibromoethane | ND | | 0.18 | 1.0 |
| 1,2-Dichlorobenzene | ND | | 0.15 | 5.0 |
| 1,2-Dichloroethane | ND | | 0.13 | 1.0 |
| 1,2-Dichloropropane | ND | | 0.18 | 1.0 |
| 1,4-Dichlorobenzene | ND | | 0.16 | 1.0 |
| 2-Butanone (MEK) | ND | | 2.0 | 100 |
| 2-Hexanone | ND | | 1.7 | 50 |
| 4-Methyl-2-pentanone (MIBK) | ND | | 0.98 | 100 |
| Acetone | ND | | 1.9 | 100 |
| Acrylonitrile | ND | | 1.4 | 200 |
| Benzene | ND | | 0.16 | 1.0 |
| Bromochloromethane | ND | | 0.10 | 3.0 |
| Bromodichloromethane | ND | | 0.17 | 1.0 |
| Bromoform | ND | | 0.19 | 3.0 |
| Bromomethane | ND | | 0.21 | 10 |
| Carbon disulfide | ND | | 0.45 | 100 |
| Carbon tetrachloride | ND | | 0.19 | 1.0 |
| Chlorobenzene | ND | | 0.17 | 3.0 |
| Chloroethane | ND | | 0.41 | 10 |
| Chloroform | ND | | 0.16 | 5.0 |
| Chloromethane | ND | | 0.30 | 1.0 |
| cis-1,2-Dichloroethene | ND | | 0.15 | 5.0 |
| cis-1,3-Dichloropropene | ND | | 0.16 | 1.0 |
| Dibromochloromethane | ND | | 0.17 | 3.0 |
| Dibromomethane | ND | | 0.17 | 10 |
| Ethylbenzene | ND | | 0.16 | 1.0 |
| Iodomethane | ND | | 0.23 | 10 |
| Methylene Chloride | ND | | 0.32 | 1.0 |
| Styrene | ND | | 0.17 | 1.0 |
| Tetrachloroethene | ND | | 0.20 | 1.0 |
| Toluene | ND | | 0.17 | 1.0 |
| trans-1,2-Dichloroethene | ND | | 0.15 | 5.0 |
| trans-1,3-Dichloropropene | ND | | 0.19 | 1.0 |
| trans-1,4-Dichloro-2-butene | ND | | 0.80 | 100 |
| Trichloroethene | ND | | 0.16 | 1.0 |
| Trichlorofluoromethane | ND | | 0.29 | 1.0 |
| Vinyl acetate | ND | | 0.94 | 50 |
| Vinyl chloride | ND | | 0.10 | 1.0 |

Client: Waste Management

Job Number: 280-53273-1

**Client Sample ID:** **3406-MW05**

Lab Sample ID: 280-53273-7

Client Matrix: Water

Date Sampled: 03/19/2014 0955

Date Received: 03/20/2014 0930

**8260B Volatile Organic Compounds (GC/MS)**

| | | | | | |
|---|---|---|---|---|---|
| Analysis Method: | 8260B | Analysis Batch: | 280-219162 | Instrument ID: | VMS_R2 |
| Prep Method: | 5030B | Prep Batch: | N/A | Lab File ID: | RR1415.D |
| Dilution: | 1.0 | | | Initial Weight/Volume: | 20 mL |
| Analysis Date: | 04/01/2014 1324 | | | Final Weight/Volume: | 20 mL |
| Prep Date: | 04/01/2014 1324 | | | | |

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|---|---|---|---|---|
| Xylenes, Total | ND | | 0.19 | 5.0 |

| Surrogate | %Rec | Qualifier | Acceptance Limits |
|---|---|---|---|
| 1,2-Dichloroethane-d4 (Surr) | 144 | X | 70 - 127 |
| 4-Bromofluorobenzene (Surr) | 115 | | 78 - 120 |
| Dibromofluoromethane (Surr) | 113 | | 77 - 120 |
| Toluene-d8 (Surr) | 119 | | 80 - 125 |

Client: Waste Management

Job Number: 280-53273-1

**Client Sample ID:** **3406-MW06**

Lab Sample ID: 280-53273-8

Client Matrix: Water

Date Sampled: 03/19/2014 1143

Date Received: 03/20/2014 0930

**8260B Volatile Organic Compounds (GC/MS)**

| | | | | | |
|---|---|---|---|---|---|
| Analysis Method: | 8260B | Analysis Batch: | 280-219162 | Instrument ID: | VMS_R2 |
| Prep Method: | 5030B | Prep Batch: | N/A | Lab File ID: | RR1416.D |
| Dilution: | 1.0 | | | Initial Weight/Volume: | 20 mL |
| Analysis Date: | 04/01/2014 1347 | | | Final Weight/Volume: | 20 mL |
| Prep Date: | 04/01/2014 1347 | | | | |

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|---|---|---|---|---|
| 1,1,1,2-Tetrachloroethane | ND | | 0.21 | 5.0 |
| 1,1,1-Trichloroethane | ND | | 0.16 | 1.0 |
| 1,1,2,2-Tetrachloroethane | ND | | 0.21 | 3.0 |
| 1,1,2-Trichloroethane | ND | | 0.27 | 1.0 |
| 1,1-Dichloroethane | ND | | 0.22 | 5.0 |
| 1,1-Dichloroethene | ND | | 0.23 | 5.0 |
| 1,2,3-Trichloropropane | ND | | 0.33 | 1.0 |
| 1,2-Dibromo-3-Chloropropane | ND | | 0.47 | 13 |
| 1,2-Dibromoethane | ND | | 0.18 | 1.0 |
| 1,2-Dichlorobenzene | ND | | 0.15 | 5.0 |
| 1,2-Dichloroethane | ND | | 0.13 | 1.0 |
| 1,2-Dichloropropane | ND | | 0.18 | 1.0 |
| 1,4-Dichlorobenzene | ND | | 0.16 | 1.0 |
| 2-Butanone (MEK) | ND | | 2.0 | 100 |
| 2-Hexanone | ND | | 1.7 | 50 |
| 4-Methyl-2-pentanone (MIBK) | ND | | 0.98 | 100 |
| Acetone | ND | | 1.9 | 100 |
| Acrylonitrile | ND | | 1.4 | 200 |
| Benzene | ND | | 0.16 | 1.0 |
| Bromochloromethane | ND | | 0.10 | 3.0 |
| Bromodichloromethane | ND | | 0.17 | 1.0 |
| Bromoform | ND | | 0.19 | 3.0 |
| Bromomethane | ND | | 0.21 | 10 |
| Carbon disulfide | ND | | 0.45 | 100 |
| Carbon tetrachloride | ND | | 0.19 | 1.0 |
| Chlorobenzene | ND | | 0.17 | 3.0 |
| Chloroethane | ND | | 0.41 | 10 |
| Chloroform | ND | | 0.16 | 5.0 |
| Chloromethane | ND | | 0.30 | 1.0 |
| cis-1,2-Dichloroethene | ND | | 0.15 | 5.0 |
| cis-1,3-Dichloropropene | ND | | 0.16 | 1.0 |
| Dibromochloromethane | ND | | 0.17 | 3.0 |
| Dibromomethane | ND | | 0.17 | 10 |
| Ethylbenzene | ND | | 0.16 | 1.0 |
| Iodomethane | ND | | 0.23 | 10 |
| Methylene Chloride | ND | | 0.32 | 1.0 |
| Styrene | ND | | 0.17 | 1.0 |
| Tetrachloroethene | ND | | 0.20 | 1.0 |
| Toluene | ND | | 0.17 | 1.0 |
| trans-1,2-Dichloroethene | ND | | 0.15 | 5.0 |
| trans-1,3-Dichloropropene | ND | | 0.19 | 1.0 |
| trans-1,4-Dichloro-2-butene | ND | | 0.80 | 100 |
| Trichloroethene | ND | | 0.16 | 1.0 |
| Trichlorofluoromethane | ND | | 0.29 | 1.0 |
| Vinyl acetate | ND | | 0.94 | 50 |
| Vinyl chloride | ND | | 0.10 | 1.0 |

Client: Waste Management

Job Number: 280-53273-1

**Client Sample ID:** **3406-MW06**

Lab Sample ID: 280-53273-8

Client Matrix: Water

Date Sampled: 03/19/2014 1143

Date Received: 03/20/2014 0930

**8260B Volatile Organic Compounds (GC/MS)**

| | | | | | |
|---|---|---|---|---|---|
| Analysis Method: | 8260B | Analysis Batch: | 280-219162 | Instrument ID: | VMS_R2 |
| Prep Method: | 5030B | Prep Batch: | N/A | Lab File ID: | RR1416.D |
| Dilution: | 1.0 | | | Initial Weight/Volume: | 20 mL |
| Analysis Date: | 04/01/2014 1347 | | | Final Weight/Volume: | 20 mL |
| Prep Date: | 04/01/2014 1347 | | | | |

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|---|---|---|---|---|
| Xylenes, Total | ND | | 0.19 | 5.0 |

| Surrogate | %Rec | Qualifier | Acceptance Limits |
|---|---|---|---|
| 1,2-Dichloroethane-d4 (Surr) | 104 | | 70 - 127 |
| 4-Bromofluorobenzene (Surr) | 94 | | 78 - 120 |
| Dibromofluoromethane (Surr) | 97 | | 77 - 120 |
| Toluene-d8 (Surr) | 95 | | 80 - 125 |

Client: Waste Management

Job Number: 280-53273-1

**Client Sample ID:** **3406-MW07**

Lab Sample ID: 280-53273-9

Client Matrix: Water

Date Sampled: 03/19/2014 0918

Date Received: 03/20/2014 0930

**8260B Volatile Organic Compounds (GC/MS)**

| | | | | | |
|---|---|---|---|---|---|
| Analysis Method: | 8260B | Analysis Batch: | 280-219162 | Instrument ID: | VMS_R2 |
| Prep Method: | 5030B | Prep Batch: | N/A | Lab File ID: | RR1417.D |
| Dilution: | 1.0 | | | Initial Weight/Volume: | 20 mL |
| Analysis Date: | 04/01/2014 1410 | | | Final Weight/Volume: | 20 mL |
| Prep Date: | 04/01/2014 1410 | | | | |

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|---|---|---|---|---|
| 1,1,1,2-Tetrachloroethane | ND | | 0.21 | 5.0 |
| 1,1,1-Trichloroethane | ND | | 0.16 | 1.0 |
| 1,1,2,2-Tetrachloroethane | ND | | 0.21 | 3.0 |
| 1,1,2-Trichloroethane | ND | | 0.27 | 1.0 |
| 1,1-Dichloroethane | ND | | 0.22 | 5.0 |
| 1,1-Dichloroethene | ND | | 0.23 | 5.0 |
| 1,2,3-Trichloropropane | ND | | 0.33 | 1.0 |
| 1,2-Dibromo-3-Chloropropane | ND | | 0.47 | 13 |
| 1,2-Dibromoethane | ND | | 0.18 | 1.0 |
| 1,2-Dichlorobenzene | ND | | 0.15 | 5.0 |
| 1,2-Dichloroethane | ND | | 0.13 | 1.0 |
| 1,2-Dichloropropane | ND | | 0.18 | 1.0 |
| 1,4-Dichlorobenzene | ND | | 0.16 | 1.0 |
| 2-Butanone (MEK) | ND | | 2.0 | 100 |
| 2-Hexanone | ND | | 1.7 | 50 |
| 4-Methyl-2-pentanone (MIBK) | ND | | 0.98 | 100 |
| Acetone | ND | | 1.9 | 100 |
| Acrylonitrile | ND | | 1.4 | 200 |
| Benzene | ND | | 0.16 | 1.0 |
| Bromochloromethane | ND | | 0.10 | 3.0 |
| Bromodichloromethane | ND | | 0.17 | 1.0 |
| Bromoform | ND | | 0.19 | 3.0 |
| Bromomethane | ND | | 0.21 | 10 |
| Carbon disulfide | ND | | 0.45 | 100 |
| Carbon tetrachloride | ND | | 0.19 | 1.0 |
| Chlorobenzene | ND | | 0.17 | 3.0 |
| Chloroethane | ND | | 0.41 | 10 |
| Chloroform | ND | | 0.16 | 5.0 |
| Chloromethane | ND | | 0.30 | 1.0 |
| cis-1,2-Dichloroethene | ND | | 0.15 | 5.0 |
| cis-1,3-Dichloropropene | ND | | 0.16 | 1.0 |
| Dibromochloromethane | ND | | 0.17 | 3.0 |
| Dibromomethane | ND | | 0.17 | 10 |
| Ethylbenzene | ND | | 0.16 | 1.0 |
| Iodomethane | ND | | 0.23 | 10 |
| Methylene Chloride | ND | | 0.32 | 1.0 |
| Styrene | ND | | 0.17 | 1.0 |
| Tetrachloroethene | ND | | 0.20 | 1.0 |
| Toluene | ND | | 0.17 | 1.0 |
| trans-1,2-Dichloroethene | ND | | 0.15 | 5.0 |
| trans-1,3-Dichloropropene | ND | | 0.19 | 1.0 |
| trans-1,4-Dichloro-2-butene | ND | | 0.80 | 100 |
| Trichloroethene | ND | | 0.16 | 1.0 |
| Trichlorofluoromethane | ND | | 0.29 | 1.0 |
| Vinyl acetate | ND | | 0.94 | 50 |
| Vinyl chloride | ND | | 0.10 | 1.0 |

Client: Waste Management

Job Number: 280-53273-1

**Client Sample ID:** **3406-MW07**

Lab Sample ID: 280-53273-9

Client Matrix: Water

Date Sampled: 03/19/2014 0918

Date Received: 03/20/2014 0930

**8260B Volatile Organic Compounds (GC/MS)**

| | | | | | |
|---|---|---|---|---|---|
| Analysis Method: | 8260B | Analysis Batch: | 280-219162 | Instrument ID: | VMS_R2 |
| Prep Method: | 5030B | Prep Batch: | N/A | Lab File ID: | RR1417.D |
| Dilution: | 1.0 | | | Initial Weight/Volume: | 20 mL |
| Analysis Date: | 04/01/2014 1410 | | | Final Weight/Volume: | 20 mL |
| Prep Date: | 04/01/2014 1410 | | | | |

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|---|---|---|---|---|
| Xylenes, Total | ND | | 0.19 | 5.0 |

| Surrogate | %Rec | Qualifier | Acceptance Limits |
|---|---|---|---|
| 1,2-Dichloroethane-d4 (Surr) | 103 | | 70 - 127 |
| 4-Bromofluorobenzene (Surr) | 95 | | 78 - 120 |
| Dibromofluoromethane (Surr) | 94 | | 77 - 120 |
| Toluene-d8 (Surr) | 96 | | 80 - 125 |

Client: Waste Management

Job Number: 280-53273-1

**Client Sample ID:** **3406-MW08**

Lab Sample ID: 280-53273-10

Client Matrix: Water

Date Sampled: 03/19/2014 1026

Date Received: 03/20/2014 0930

**8260B Volatile Organic Compounds (GC/MS)**

| | | | | | |
|---|---|---|---|---|---|
| Analysis Method: | 8260B | Analysis Batch: | 280-219162 | Instrument ID: | VMS_R2 |
| Prep Method: | 5030B | Prep Batch: | N/A | Lab File ID: | RR1418.D |
| Dilution: | 1.0 | | | Initial Weight/Volume: | 20 mL |
| Analysis Date: | 04/01/2014 1433 | | | Final Weight/Volume: | 20 mL |
| Prep Date: | 04/01/2014 1433 | | | | |

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|---|---|---|---|---|
| 1,1,1,2-Tetrachloroethane | ND | | 0.21 | 5.0 |
| 1,1,1-Trichloroethane | ND | | 0.16 | 1.0 |
| 1,1,2,2-Tetrachloroethane | ND | | 0.21 | 3.0 |
| 1,1,2-Trichloroethane | ND | | 0.27 | 1.0 |
| 1,1-Dichloroethane | ND | | 0.22 | 5.0 |
| 1,1-Dichloroethene | ND | | 0.23 | 5.0 |
| 1,2,3-Trichloropropane | ND | | 0.33 | 1.0 |
| 1,2-Dibromo-3-Chloropropane | ND | | 0.47 | 13 |
| 1,2-Dibromoethane | ND | | 0.18 | 1.0 |
| 1,2-Dichlorobenzene | ND | | 0.15 | 5.0 |
| 1,2-Dichloroethane | ND | | 0.13 | 1.0 |
| 1,2-Dichloropropane | ND | | 0.18 | 1.0 |
| 1,4-Dichlorobenzene | ND | | 0.16 | 1.0 |
| 2-Butanone (MEK) | ND | | 2.0 | 100 |
| 2-Hexanone | ND | | 1.7 | 50 |
| 4-Methyl-2-pentanone (MIBK) | ND | | 0.98 | 100 |
| Acetone | ND | | 1.9 | 100 |
| Acrylonitrile | ND | | 1.4 | 200 |
| Benzene | ND | | 0.16 | 1.0 |
| Bromochloromethane | ND | | 0.10 | 3.0 |
| Bromodichloromethane | ND | | 0.17 | 1.0 |
| Bromoform | ND | | 0.19 | 3.0 |
| Bromomethane | ND | | 0.21 | 10 |
| Carbon disulfide | ND | | 0.45 | 100 |
| Carbon tetrachloride | ND | | 0.19 | 1.0 |
| Chlorobenzene | ND | | 0.17 | 3.0 |
| Chloroethane | ND | | 0.41 | 10 |
| Chloroform | ND | | 0.16 | 5.0 |
| Chloromethane | ND | | 0.30 | 1.0 |
| cis-1,2-Dichloroethene | ND | | 0.15 | 5.0 |
| cis-1,3-Dichloropropene | ND | | 0.16 | 1.0 |
| Dibromochloromethane | ND | | 0.17 | 3.0 |
| Dibromomethane | ND | | 0.17 | 10 |
| Ethylbenzene | ND | | 0.16 | 1.0 |
| Iodomethane | ND | | 0.23 | 10 |
| Methylene Chloride | ND | | 0.32 | 1.0 |
| Styrene | ND | | 0.17 | 1.0 |
| Tetrachloroethene | ND | | 0.20 | 1.0 |
| Toluene | ND | | 0.17 | 1.0 |
| trans-1,2-Dichloroethene | ND | | 0.15 | 5.0 |
| trans-1,3-Dichloropropene | ND | | 0.19 | 1.0 |
| trans-1,4-Dichloro-2-butene | ND | | 0.80 | 100 |
| Trichloroethene | ND | | 0.16 | 1.0 |
| Trichlorofluoromethane | ND | | 0.29 | 1.0 |
| Vinyl acetate | ND | | 0.94 | 50 |
| Vinyl chloride | ND | | 0.10 | 1.0 |

Client: Waste Management

Job Number: 280-53273-1

**Client Sample ID:** **3406-MW08**

Lab Sample ID: 280-53273-10

Client Matrix: Water

Date Sampled: 03/19/2014 1026

Date Received: 03/20/2014 0930

**8260B Volatile Organic Compounds (GC/MS)**

| | | | | | |
|---|---|---|---|---|---|
| Analysis Method: | 8260B | Analysis Batch: | 280-219162 | Instrument ID: | VMS_R2 |
| Prep Method: | 5030B | Prep Batch: | N/A | Lab File ID: | RR1418.D |
| Dilution: | 1.0 | | | Initial Weight/Volume: | 20 mL |
| Analysis Date: | 04/01/2014 1433 | | | Final Weight/Volume: | 20 mL |
| Prep Date: | 04/01/2014 1433 | | | | |

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|---|---|---|---|---|
| Xylenes, Total | ND | | 0.19 | 5.0 |

| Surrogate | %Rec | Qualifier | Acceptance Limits |
|---|---|---|---|
| 1,2-Dichloroethane-d4 (Surr) | 98 | | 70 - 127 |
| 4-Bromofluorobenzene (Surr) | 90 | | 78 - 120 |
| Dibromofluoromethane (Surr) | 91 | | 77 - 120 |
| Toluene-d8 (Surr) | 93 | | 80 - 125 |

Client: Waste Management

Job Number: 280-53273-1

**Client Sample ID:** **3406-MW09R**

Lab Sample ID: 280-53273-11

Client Matrix: Water

Date Sampled: 03/19/2014 0813

Date Received: 03/20/2014 0930

**8260B Volatile Organic Compounds (GC/MS)**

| | | | | | |
|---|---|---|---|---|---|
| Analysis Method: | 8260B | Analysis Batch: | 280-219169 | Instrument ID: | VMS_Z |
| Prep Method: | 5030B | Prep Batch: | N/A | Lab File ID: | Z4634.D |
| Dilution: | 1.0 | | | Initial Weight/Volume: | 20 mL |
| Analysis Date: | 04/01/2014 1128 | | | Final Weight/Volume: | 20 mL |
| Prep Date: | 04/01/2014 1128 | | | | |

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|---|---|---|---|---|
| 1,1,1,2-Tetrachloroethane | ND | | 0.21 | 5.0 |
| 1,1,1-Trichloroethane | ND | | 0.16 | 1.0 |
| 1,1,2,2-Tetrachloroethane | ND | | 0.21 | 3.0 |
| 1,1,2-Trichloroethane | ND | | 0.27 | 1.0 |
| 1,1-Dichloroethane | 0.43 | J | 0.22 | 5.0 |
| 1,1-Dichloroethene | ND | | 0.23 | 5.0 |
| 1,2,3-Trichloropropane | ND | | 0.33 | 1.0 |
| 1,2-Dibromo-3-Chloropropane | ND | | 0.47 | 13 |
| 1,2-Dibromoethane | ND | | 0.18 | 1.0 |
| 1,2-Dichlorobenzene | ND | | 0.15 | 5.0 |
| 1,2-Dichloroethane | ND | | 0.13 | 1.0 |
| 1,2-Dichloropropane | ND | | 0.18 | 1.0 |
| 1,4-Dichlorobenzene | ND | | 0.16 | 1.0 |
| 2-Butanone (MEK) | ND | | 2.0 | 100 |
| 2-Hexanone | ND | | 1.7 | 50 |
| 4-Methyl-2-pentanone (MIBK) | ND | | 0.98 | 100 |
| Acetone | ND | | 1.9 | 100 |
| Acrylonitrile | ND | | 1.4 | 200 |
| Benzene | ND | | 0.16 | 1.0 |
| Bromochloromethane | ND | | 0.10 | 3.0 |
| Bromodichloromethane | ND | | 0.17 | 1.0 |
| Bromoform | ND | | 0.19 | 3.0 |
| Bromomethane | ND | | 0.21 | 10 |
| Carbon disulfide | ND | | 0.45 | 100 |
| Carbon tetrachloride | ND | | 0.19 | 1.0 |
| Chlorobenzene | ND | | 0.17 | 3.0 |
| Chloroethane | ND | | 0.41 | 10 |
| Chloroform | ND | | 0.16 | 5.0 |
| Chloromethane | ND | | 0.30 | 1.0 |
| cis-1,2-Dichloroethene | ND | | 0.15 | 5.0 |
| cis-1,3-Dichloropropene | ND | | 0.16 | 1.0 |
| Dibromochloromethane | ND | | 0.17 | 3.0 |
| Dibromomethane | ND | | 0.17 | 10 |
| Ethylbenzene | ND | | 0.16 | 1.0 |
| Iodomethane | ND | | 0.23 | 10 |
| Methylene Chloride | ND | | 0.32 | 1.0 |
| Styrene | ND | | 0.17 | 1.0 |
| Tetrachloroethene | ND | | 0.20 | 1.0 |
| Toluene | ND | | 0.17 | 1.0 |
| trans-1,2-Dichloroethene | ND | | 0.15 | 5.0 |
| trans-1,3-Dichloropropene | ND | | 0.19 | 1.0 |
| trans-1,4-Dichloro-2-butene | ND | | 0.80 | 100 |
| Trichloroethene | ND | | 0.16 | 1.0 |
| Trichlorofluoromethane | ND | | 0.29 | 1.0 |
| Vinyl acetate | ND | | 0.94 | 50 |
| Vinyl chloride | ND | | 0.10 | 1.0 |

Client: Waste Management

Job Number: 280-53273-1

**Client Sample ID:** **3406-MW09R**

Lab Sample ID: 280-53273-11

Client Matrix: Water

Date Sampled: 03/19/2014 0813

Date Received: 03/20/2014 0930

**8260B Volatile Organic Compounds (GC/MS)**

| | | | | | |
|---|---|---|---|---|---|
| Analysis Method: | 8260B | Analysis Batch: | 280-219169 | Instrument ID: | VMS_Z |
| Prep Method: | 5030B | Prep Batch: | N/A | Lab File ID: | Z4634.D |
| Dilution: | 1.0 | | | Initial Weight/Volume: | 20 mL |
| Analysis Date: | 04/01/2014 1128 | | | Final Weight/Volume: | 20 mL |
| Prep Date: | 04/01/2014 1128 | | | | |

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|---|---|---|---|---|
| Xylenes, Total | ND | | 0.19 | 5.0 |

| Surrogate | %Rec | Qualifier | Acceptance Limits |
|---|---|---|---|
| 1,2-Dichloroethane-d4 (Surr) | 90 | | 70 - 127 |
| 4-Bromofluorobenzene (Surr) | 99 | | 78 - 120 |
| Dibromofluoromethane (Surr) | 94 | | 77 - 120 |
| Toluene-d8 (Surr) | 100 | | 80 - 125 |

Client: Waste Management

Job Number: 280-53273-1

**Client Sample ID:** **3406-MW10**

Lab Sample ID: 280-53273-12

Client Matrix: Water

Date Sampled: 03/19/2014 0910

Date Received: 03/20/2014 0930

**8260B Volatile Organic Compounds (GC/MS)**

| | | | | | |
|---|---|---|---|---|---|
| Analysis Method: | 8260B | Analysis Batch: | 280-219169 | Instrument ID: | VMS_Z |
| Prep Method: | 5030B | Prep Batch: | N/A | Lab File ID: | Z4637.D |
| Dilution: | 1.0 | | | Initial Weight/Volume: | 20 mL |
| Analysis Date: | 04/01/2014 1238 | | | Final Weight/Volume: | 20 mL |
| Prep Date: | 04/01/2014 1238 | | | | |

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|---|---|---|---|---|
| 1,1,1,2-Tetrachloroethane | ND | | 0.21 | 5.0 |
| 1,1,1-Trichloroethane | ND | | 0.16 | 1.0 |
| 1,1,2,2-Tetrachloroethane | ND | | 0.21 | 3.0 |
| 1,1,2-Trichloroethane | ND | | 0.27 | 1.0 |
| 1,1-Dichloroethane | ND | | 0.22 | 5.0 |
| 1,1-Dichloroethene | ND | | 0.23 | 5.0 |
| 1,2,3-Trichloropropane | ND | | 0.33 | 1.0 |
| 1,2-Dibromo-3-Chloropropane | ND | | 0.47 | 13 |
| 1,2-Dibromoethane | ND | | 0.18 | 1.0 |
| 1,2-Dichlorobenzene | ND | | 0.15 | 5.0 |
| 1,2-Dichloroethane | ND | | 0.13 | 1.0 |
| 1,2-Dichloropropane | ND | | 0.18 | 1.0 |
| 1,4-Dichlorobenzene | ND | | 0.16 | 1.0 |
| 2-Butanone (MEK) | ND | | 2.0 | 100 |
| 2-Hexanone | ND | | 1.7 | 50 |
| 4-Methyl-2-pentanone (MIBK) | ND | | 0.98 | 100 |
| Acetone | ND | | 1.9 | 100 |
| Acrylonitrile | ND | | 1.4 | 200 |
| Benzene | ND | | 0.16 | 1.0 |
| Bromochloromethane | ND | | 0.10 | 3.0 |
| Bromodichloromethane | ND | | 0.17 | 1.0 |
| Bromoform | ND | | 0.19 | 3.0 |
| Bromomethane | ND | | 0.21 | 10 |
| Carbon disulfide | ND | | 0.45 | 100 |
| Carbon tetrachloride | ND | | 0.19 | 1.0 |
| Chlorobenzene | ND | | 0.17 | 3.0 |
| Chloroethane | ND | | 0.41 | 10 |
| Chloroform | ND | | 0.16 | 5.0 |
| Chloromethane | ND | | 0.30 | 1.0 |
| cis-1,2-Dichloroethene | ND | | 0.15 | 5.0 |
| cis-1,3-Dichloropropene | ND | | 0.16 | 1.0 |
| Dibromochloromethane | ND | | 0.17 | 3.0 |
| Dibromomethane | ND | | 0.17 | 10 |
| Ethylbenzene | ND | | 0.16 | 1.0 |
| Iodomethane | ND | | 0.23 | 10 |
| Methylene Chloride | ND | | 0.32 | 1.0 |
| Styrene | ND | | 0.17 | 1.0 |
| Tetrachloroethene | 0.20 | J | 0.20 | 1.0 |
| Toluene | ND | | 0.17 | 1.0 |
| trans-1,2-Dichloroethene | ND | | 0.15 | 5.0 |
| trans-1,3-Dichloropropene | ND | | 0.19 | 1.0 |
| trans-1,4-Dichloro-2-butene | ND | | 0.80 | 100 |
| Trichloroethene | ND | | 0.16 | 1.0 |
| Trichlorofluoromethane | ND | | 0.29 | 1.0 |
| Vinyl acetate | ND | | 0.94 | 50 |
| Vinyl chloride | ND | | 0.10 | 1.0 |

Client: Waste Management

Job Number: 280-53273-1

**Client Sample ID:** **3406-MW10**

Lab Sample ID: 280-53273-12

Client Matrix: Water

Date Sampled: 03/19/2014 0910

Date Received: 03/20/2014 0930

**8260B Volatile Organic Compounds (GC/MS)**

| | | | | | |
|---|---|---|---|---|---|
| Analysis Method: | 8260B | Analysis Batch: | 280-219169 | Instrument ID: | VMS_Z |
| Prep Method: | 5030B | Prep Batch: | N/A | Lab File ID: | Z4637.D |
| Dilution: | 1.0 | | | Initial Weight/Volume: | 20 mL |
| Analysis Date: | 04/01/2014 1238 | | | Final Weight/Volume: | 20 mL |
| Prep Date: | 04/01/2014 1238 | | | | |

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|---|---|---|---|---|
| Xylenes, Total | ND | | 0.19 | 5.0 |

| Surrogate | %Rec | Qualifier | Acceptance Limits |
|---|---|---|---|
| 1,2-Dichloroethane-d4 (Surr) | 96 | | 70 - 127 |
| 4-Bromofluorobenzene (Surr) | 101 | | 78 - 120 |
| Dibromofluoromethane (Surr) | 98 | | 77 - 120 |
| Toluene-d8 (Surr) | 102 | | 80 - 125 |

Client: Waste Management

Job Number: 280-53273-1

**Client Sample ID:** **3406-MW11**

Lab Sample ID: 280-53273-13

Client Matrix: Water

Date Sampled: 03/19/2014 0812

Date Received: 03/20/2014 0930

**8260B Volatile Organic Compounds (GC/MS)**

| | | | | | |
|---|---|---|---|---|---|
| Analysis Method: | 8260B | Analysis Batch: | 280-219169 | Instrument ID: | VMS_Z |
| Prep Method: | 5030B | Prep Batch: | N/A | Lab File ID: | Z4638.D |
| Dilution: | 1.0 | | | Initial Weight/Volume: | 20 mL |
| Analysis Date: | 04/01/2014 1301 | | | Final Weight/Volume: | 20 mL |
| Prep Date: | 04/01/2014 1301 | | | | |

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|---|---|---|---|---|
| 1,1,1,2-Tetrachloroethane | ND | | 0.21 | 5.0 |
| 1,1,1-Trichloroethane | ND | | 0.16 | 1.0 |
| 1,1,2,2-Tetrachloroethane | ND | | 0.21 | 3.0 |
| 1,1,2-Trichloroethane | ND | | 0.27 | 1.0 |
| 1,1-Dichloroethane | 0.34 | J | 0.22 | 5.0 |
| 1,1-Dichloroethene | ND | | 0.23 | 5.0 |
| 1,2,3-Trichloropropane | ND | | 0.33 | 1.0 |
| 1,2-Dibromo-3-Chloropropane | ND | | 0.47 | 13 |
| 1,2-Dibromoethane | ND | | 0.18 | 1.0 |
| 1,2-Dichlorobenzene | ND | | 0.15 | 5.0 |
| 1,2-Dichloroethane | ND | | 0.13 | 1.0 |
| 1,2-Dichloropropane | ND | | 0.18 | 1.0 |
| 1,4-Dichlorobenzene | ND | | 0.16 | 1.0 |
| 2-Butanone (MEK) | ND | | 2.0 | 100 |
| 2-Hexanone | ND | | 1.7 | 50 |
| 4-Methyl-2-pentanone (MIBK) | ND | | 0.98 | 100 |
| Acetone | ND | | 1.9 | 100 |
| Acrylonitrile | ND | | 1.4 | 200 |
| Benzene | ND | | 0.16 | 1.0 |
| Bromochloromethane | ND | | 0.10 | 3.0 |
| Bromodichloromethane | ND | | 0.17 | 1.0 |
| Bromoform | ND | | 0.19 | 3.0 |
| Bromomethane | ND | | 0.21 | 10 |
| Carbon disulfide | ND | | 0.45 | 100 |
| Carbon tetrachloride | ND | | 0.19 | 1.0 |
| Chlorobenzene | ND | | 0.17 | 3.0 |
| Chloroethane | ND | | 0.41 | 10 |
| Chloroform | ND | | 0.16 | 5.0 |
| Chloromethane | ND | | 0.30 | 1.0 |
| cis-1,2-Dichloroethene | 0.24 | J | 0.15 | 5.0 |
| cis-1,3-Dichloropropene | ND | | 0.16 | 1.0 |
| Dibromochloromethane | ND | | 0.17 | 3.0 |
| Dibromomethane | ND | | 0.17 | 10 |
| Ethylbenzene | ND | | 0.16 | 1.0 |
| Iodomethane | ND | | 0.23 | 10 |
| Methylene Chloride | ND | | 0.32 | 1.0 |
| Styrene | ND | | 0.17 | 1.0 |
| Tetrachloroethene | ND | | 0.20 | 1.0 |
| Toluene | ND | | 0.17 | 1.0 |
| trans-1,2-Dichloroethene | ND | | 0.15 | 5.0 |
| trans-1,3-Dichloropropene | ND | | 0.19 | 1.0 |
| trans-1,4-Dichloro-2-butene | ND | | 0.80 | 100 |
| Trichloroethene | ND | | 0.16 | 1.0 |
| Trichlorofluoromethane | ND | | 0.29 | 1.0 |
| Vinyl acetate | ND | | 0.94 | 50 |
| Vinyl chloride | ND | | 0.10 | 1.0 |

Client: Waste Management

Job Number: 280-53273-1

**Client Sample ID:** **3406-MW11**

Lab Sample ID: 280-53273-13

Client Matrix: Water

Date Sampled: 03/19/2014 0812

Date Received: 03/20/2014 0930

**8260B Volatile Organic Compounds (GC/MS)**

| | | | | | |
|---|---|---|---|---|---|
| Analysis Method: | 8260B | Analysis Batch: | 280-219169 | Instrument ID: | VMS_Z |
| Prep Method: | 5030B | Prep Batch: | N/A | Lab File ID: | Z4638.D |
| Dilution: | 1.0 | | | Initial Weight/Volume: | 20 mL |
| Analysis Date: | 04/01/2014 1301 | | | Final Weight/Volume: | 20 mL |
| Prep Date: | 04/01/2014 1301 | | | | |

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|---|---|---|---|---|
| Xylenes, Total | ND | | 0.19 | 5.0 |

| Surrogate | %Rec | Qualifier | Acceptance Limits |
|---|---|---|---|
| 1,2-Dichloroethane-d4 (Surr) | 102 | | 70 - 127 |
| 4-Bromofluorobenzene (Surr) | 104 | | 78 - 120 |
| Dibromofluoromethane (Surr) | 99 | | 77 - 120 |
| Toluene-d8 (Surr) | 99 | | 80 - 125 |

Client: Waste Management

Job Number: 280-53273-1

**Client Sample ID:** **3406-MW12**

Lab Sample ID: 280-53273-14

Client Matrix: Water

Date Sampled: 03/19/2014 1011

Date Received: 03/20/2014 0930

**8260B Volatile Organic Compounds (GC/MS)**

| | | | | | |
|---|---|---|---|---|---|
| Analysis Method: | 8260B | Analysis Batch: | 280-219169 | Instrument ID: | VMS_Z |
| Prep Method: | 5030B | Prep Batch: | N/A | Lab File ID: | Z4639.D |
| Dilution: | 1.0 | | | Initial Weight/Volume: | 20 mL |
| Analysis Date: | 04/01/2014 1325 | | | Final Weight/Volume: | 20 mL |
| Prep Date: | 04/01/2014 1325 | | | | |

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|---|---|---|---|---|
| 1,1,1,2-Tetrachloroethane | ND | | 0.21 | 5.0 |
| 1,1,1-Trichloroethane | ND | | 0.16 | 1.0 |
| 1,1,2,2-Tetrachloroethane | ND | | 0.21 | 3.0 |
| 1,1,2-Trichloroethane | ND | | 0.27 | 1.0 |
| 1,1-Dichloroethane | ND | | 0.22 | 5.0 |
| 1,1-Dichloroethene | ND | | 0.23 | 5.0 |
| 1,2,3-Trichloropropane | ND | | 0.33 | 1.0 |
| 1,2-Dibromo-3-Chloropropane | ND | | 0.47 | 13 |
| 1,2-Dibromoethane | ND | | 0.18 | 1.0 |
| 1,2-Dichlorobenzene | ND | | 0.15 | 5.0 |
| 1,2-Dichloroethane | ND | | 0.13 | 1.0 |
| 1,2-Dichloropropane | ND | | 0.18 | 1.0 |
| 1,4-Dichlorobenzene | ND | | 0.16 | 1.0 |
| 2-Butanone (MEK) | ND | | 2.0 | 100 |
| 2-Hexanone | ND | | 1.7 | 50 |
| 4-Methyl-2-pentanone (MIBK) | ND | | 0.98 | 100 |
| Acetone | ND | | 1.9 | 100 |
| Acrylonitrile | ND | | 1.4 | 200 |
| Benzene | ND | | 0.16 | 1.0 |
| Bromochloromethane | ND | | 0.10 | 3.0 |
| Bromodichloromethane | ND | | 0.17 | 1.0 |
| Bromoform | ND | | 0.19 | 3.0 |
| Bromomethane | ND | | 0.21 | 10 |
| Carbon disulfide | ND | | 0.45 | 100 |
| Carbon tetrachloride | ND | | 0.19 | 1.0 |
| Chlorobenzene | ND | | 0.17 | 3.0 |
| Chloroethane | ND | | 0.41 | 10 |
| Chloroform | ND | | 0.16 | 5.0 |
| Chloromethane | ND | | 0.30 | 1.0 |
| cis-1,2-Dichloroethene | ND | | 0.15 | 5.0 |
| cis-1,3-Dichloropropene | ND | | 0.16 | 1.0 |
| Dibromochloromethane | ND | | 0.17 | 3.0 |
| Dibromomethane | ND | | 0.17 | 10 |
| Ethylbenzene | ND | | 0.16 | 1.0 |
| Iodomethane | ND | | 0.23 | 10 |
| Methylene Chloride | ND | | 0.32 | 1.0 |
| Styrene | ND | | 0.17 | 1.0 |
| Tetrachloroethene | ND | | 0.20 | 1.0 |
| Toluene | ND | | 0.17 | 1.0 |
| trans-1,2-Dichloroethene | ND | | 0.15 | 5.0 |
| trans-1,3-Dichloropropene | ND | | 0.19 | 1.0 |
| trans-1,4-Dichloro-2-butene | ND | | 0.80 | 100 |
| Trichloroethene | ND | | 0.16 | 1.0 |
| Trichlorofluoromethane | ND | | 0.29 | 1.0 |
| Vinyl acetate | ND | | 0.94 | 50 |
| Vinyl chloride | ND | | 0.10 | 1.0 |

Client: Waste Management

Job Number: 280-53273-1

**Client Sample ID:** **3406-MW12**

Lab Sample ID: 280-53273-14

Client Matrix: Water

Date Sampled: 03/19/2014 1011

Date Received: 03/20/2014 0930

**8260B Volatile Organic Compounds (GC/MS)**

| | | | | | |
|---|---|---|---|---|---|
| Analysis Method: | 8260B | Analysis Batch: | 280-219169 | Instrument ID: | VMS_Z |
| Prep Method: | 5030B | Prep Batch: | N/A | Lab File ID: | Z4639.D |
| Dilution: | 1.0 | | | Initial Weight/Volume: | 20 mL |
| Analysis Date: | 04/01/2014 1325 | | | Final Weight/Volume: | 20 mL |
| Prep Date: | 04/01/2014 1325 | | | | |

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|---|---|---|---|---|
| Xylenes, Total | ND | | 0.19 | 5.0 |

| Surrogate | %Rec | Qualifier | Acceptance Limits |
|---|---|---|---|
| 1,2-Dichloroethane-d4 (Surr) | 100 | | 70 - 127 |
| 4-Bromofluorobenzene (Surr) | 104 | | 78 - 120 |
| Dibromofluoromethane (Surr) | 98 | | 77 - 120 |
| Toluene-d8 (Surr) | 95 | | 80 - 125 |

Client: Waste Management

Job Number: 280-53273-1

**Client Sample ID:** **3406-MW12D**

Lab Sample ID: 280-53273-15

Client Matrix: Water

Date Sampled: 03/19/2014 0940

Date Received: 03/20/2014 0930

**8260B Volatile Organic Compounds (GC/MS)**

| | | | | | |
|---|---|---|---|---|---|
| Analysis Method: | 8260B | Analysis Batch: | 280-219169 | Instrument ID: | VMS_Z |
| Prep Method: | 5030B | Prep Batch: | N/A | Lab File ID: | Z4640.D |
| Dilution: | 1.0 | | | Initial Weight/Volume: | 20 mL |
| Analysis Date: | 04/01/2014 1348 | | | Final Weight/Volume: | 20 mL |
| Prep Date: | 04/01/2014 1348 | | | | |

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|---|---|---|---|---|
| 1,1,1,2-Tetrachloroethane | ND | | 0.21 | 5.0 |
| 1,1,1-Trichloroethane | ND | | 0.16 | 1.0 |
| 1,1,2,2-Tetrachloroethane | ND | | 0.21 | 3.0 |
| 1,1,2-Trichloroethane | ND | | 0.27 | 1.0 |
| 1,1-Dichloroethane | ND | | 0.22 | 5.0 |
| 1,1-Dichloroethene | ND | | 0.23 | 5.0 |
| 1,2,3-Trichloropropane | ND | | 0.33 | 1.0 |
| 1,2-Dibromo-3-Chloropropane | ND | | 0.47 | 13 |
| 1,2-Dibromoethane | ND | | 0.18 | 1.0 |
| 1,2-Dichlorobenzene | ND | | 0.15 | 5.0 |
| 1,2-Dichloroethane | ND | | 0.13 | 1.0 |
| 1,2-Dichloropropane | ND | | 0.18 | 1.0 |
| 1,4-Dichlorobenzene | ND | | 0.16 | 1.0 |
| 2-Butanone (MEK) | ND | | 2.0 | 100 |
| 2-Hexanone | ND | | 1.7 | 50 |
| 4-Methyl-2-pentanone (MIBK) | ND | | 0.98 | 100 |
| Acetone | ND | | 1.9 | 100 |
| Acrylonitrile | ND | | 1.4 | 200 |
| Benzene | ND | | 0.16 | 1.0 |
| Bromochloromethane | ND | | 0.10 | 3.0 |
| Bromodichloromethane | ND | | 0.17 | 1.0 |
| Bromoform | ND | | 0.19 | 3.0 |
| Bromomethane | ND | | 0.21 | 10 |
| Carbon disulfide | ND | | 0.45 | 100 |
| Carbon tetrachloride | ND | | 0.19 | 1.0 |
| Chlorobenzene | ND | | 0.17 | 3.0 |
| Chloroethane | ND | | 0.41 | 10 |
| Chloroform | ND | | 0.16 | 5.0 |
| Chloromethane | ND | | 0.30 | 1.0 |
| cis-1,2-Dichloroethene | ND | | 0.15 | 5.0 |
| cis-1,3-Dichloropropene | ND | | 0.16 | 1.0 |
| Dibromochloromethane | ND | | 0.17 | 3.0 |
| Dibromomethane | ND | | 0.17 | 10 |
| Ethylbenzene | ND | | 0.16 | 1.0 |
| Iodomethane | ND | | 0.23 | 10 |
| Methylene Chloride | ND | | 0.32 | 1.0 |
| Styrene | ND | | 0.17 | 1.0 |
| Tetrachloroethene | ND | | 0.20 | 1.0 |
| Toluene | ND | | 0.17 | 1.0 |
| trans-1,2-Dichloroethene | ND | | 0.15 | 5.0 |
| trans-1,3-Dichloropropene | ND | | 0.19 | 1.0 |
| trans-1,4-Dichloro-2-butene | ND | | 0.80 | 100 |
| Trichloroethene | ND | | 0.16 | 1.0 |
| Trichlorofluoromethane | ND | | 0.29 | 1.0 |
| Vinyl acetate | ND | | 0.94 | 50 |
| Vinyl chloride | ND | | 0.10 | 1.0 |

Client: Waste Management

Job Number: 280-53273-1

**Client Sample ID:** **3406-MW12D**

Lab Sample ID: 280-53273-15

Client Matrix: Water

Date Sampled: 03/19/2014 0940

Date Received: 03/20/2014 0930

**8260B Volatile Organic Compounds (GC/MS)**

| | | | | | |
|---|---|---|---|---|---|
| Analysis Method: | 8260B | Analysis Batch: | 280-219169 | Instrument ID: | VMS_Z |
| Prep Method: | 5030B | Prep Batch: | N/A | Lab File ID: | Z4640.D |
| Dilution: | 1.0 | | | Initial Weight/Volume: | 20 mL |
| Analysis Date: | 04/01/2014 1348 | | | Final Weight/Volume: | 20 mL |
| Prep Date: | 04/01/2014 1348 | | | | |

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|---|---|---|---|---|
| Xylenes, Total | ND | | 0.19 | 5.0 |

| Surrogate | %Rec | Qualifier | Acceptance Limits |
|---|---|---|---|
| 1,2-Dichloroethane-d4 (Surr) | 129 | X | 70 - 127 |
| 4-Bromofluorobenzene (Surr) | 131 | X | 78 - 120 |
| Dibromofluoromethane (Surr) | 124 | X | 77 - 120 |
| Toluene-d8 (Surr) | 124 | | 80 - 125 |

Client: Waste Management

Job Number: 280-53273-1

**Client Sample ID:** **TRIP BLANK**

Lab Sample ID: 280-53273-16TB

Client Matrix: Water

Date Sampled: 03/19/2014 0744

Date Received: 03/20/2014 0930

**8260B Volatile Organic Compounds (GC/MS)**

| | | | | | |
|---|---|---|---|---|---|
| Analysis Method: | 8260B | Analysis Batch: | 280-219169 | Instrument ID: | VMS_Z |
| Prep Method: | 5030B | Prep Batch: | N/A | Lab File ID: | Z4641.D |
| Dilution: | 1.0 | | | Initial Weight/Volume: | 20 mL |
| Analysis Date: | 04/01/2014 1411 | | | Final Weight/Volume: | 20 mL |
| Prep Date: | 04/01/2014 1411 | | | | |

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|---|---|---|---|---|
| 1,1,1,2-Tetrachloroethane | ND | | 0.21 | 5.0 |
| 1,1,1-Trichloroethane | ND | | 0.16 | 1.0 |
| 1,1,2,2-Tetrachloroethane | ND | | 0.21 | 3.0 |
| 1,1,2-Trichloroethane | ND | | 0.27 | 1.0 |
| 1,1-Dichloroethane | ND | | 0.22 | 5.0 |
| 1,1-Dichloroethene | ND | | 0.23 | 5.0 |
| 1,2,3-Trichloropropane | ND | | 0.33 | 1.0 |
| 1,2-Dibromo-3-Chloropropane | ND | | 0.47 | 13 |
| 1,2-Dibromoethane | ND | | 0.18 | 1.0 |
| 1,2-Dichlorobenzene | ND | | 0.15 | 5.0 |
| 1,2-Dichloroethane | ND | | 0.13 | 1.0 |
| 1,2-Dichloropropane | ND | | 0.18 | 1.0 |
| 1,4-Dichlorobenzene | ND | | 0.16 | 1.0 |
| 2-Butanone (MEK) | ND | | 2.0 | 100 |
| 2-Hexanone | ND | | 1.7 | 50 |
| 4-Methyl-2-pentanone (MIBK) | ND | | 0.98 | 100 |
| Acetone | ND | | 1.9 | 100 |
| Acrylonitrile | ND | | 1.4 | 200 |
| Benzene | ND | | 0.16 | 1.0 |
| Bromochloromethane | ND | | 0.10 | 3.0 |
| Bromodichloromethane | ND | | 0.17 | 1.0 |
| Bromoform | ND | | 0.19 | 3.0 |
| Bromomethane | ND | | 0.21 | 10 |
| Carbon disulfide | ND | | 0.45 | 100 |
| Carbon tetrachloride | ND | | 0.19 | 1.0 |
| Chlorobenzene | ND | | 0.17 | 3.0 |
| Chloroethane | ND | | 0.41 | 10 |
| Chloroform | ND | | 0.16 | 5.0 |
| Chloromethane | ND | | 0.30 | 1.0 |
| cis-1,2-Dichloroethene | ND | | 0.15 | 5.0 |
| cis-1,3-Dichloropropene | ND | | 0.16 | 1.0 |
| Dibromochloromethane | ND | | 0.17 | 3.0 |
| Dibromomethane | ND | | 0.17 | 10 |
| Ethylbenzene | ND | | 0.16 | 1.0 |
| Iodomethane | ND | | 0.23 | 10 |
| Methylene Chloride | ND | | 0.32 | 1.0 |
| Styrene | ND | | 0.17 | 1.0 |
| Tetrachloroethene | ND | | 0.20 | 1.0 |
| Toluene | ND | | 0.17 | 1.0 |
| trans-1,2-Dichloroethene | ND | | 0.15 | 5.0 |
| trans-1,3-Dichloropropene | ND | | 0.19 | 1.0 |
| trans-1,4-Dichloro-2-butene | ND | | 0.80 | 100 |
| Trichloroethene | ND | | 0.16 | 1.0 |
| Trichlorofluoromethane | ND | | 0.29 | 1.0 |
| Vinyl acetate | ND | | 0.94 | 50 |
| Vinyl chloride | ND | | 0.10 | 1.0 |

Client: Waste Management

Job Number: 280-53273-1

**Client Sample ID:** **TRIP BLANK**

Lab Sample ID: 280-53273-16TB

Client Matrix: Water

Date Sampled: 03/19/2014 0744

Date Received: 03/20/2014 0930

**8260B Volatile Organic Compounds (GC/MS)**

| | | | | | |
|---|---|---|---|---|---|
| Analysis Method: | 8260B | Analysis Batch: | 280-219169 | Instrument ID: | VMS_Z |
| Prep Method: | 5030B | Prep Batch: | N/A | Lab File ID: | Z4641.D |
| Dilution: | 1.0 | | | Initial Weight/Volume: | 20 mL |
| Analysis Date: | 04/01/2014 1411 | | | Final Weight/Volume: | 20 mL |
| Prep Date: | 04/01/2014 1411 | | | | |

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|---|---|---|---|---|
| Xylenes, Total | ND | | 0.19 | 5.0 |

| Surrogate | %Rec | Qualifier | Acceptance Limits |
|---|---|---|---|
| 1,2-Dichloroethane-d4 (Surr) | 131 | X | 70 - 127 |
| 4-Bromofluorobenzene (Surr) | 134 | X | 78 - 120 |
| Dibromofluoromethane (Surr) | 125 | X | 77 - 120 |
| Toluene-d8 (Surr) | 123 | | 80 - 125 |

Client: Waste Management

Job Number: 280-53273-1

**Client Sample ID:** **3406-MW11D**

Lab Sample ID: 280-53273-17

Client Matrix: Water

Date Sampled: 03/19/2014 0841

Date Received: 03/20/2014 0930

**8260B Volatile Organic Compounds (GC/MS)**

| | | | | | |
|---|---|---|---|---|---|
| Analysis Method: | 8260B | Analysis Batch: | 280-219169 | Instrument ID: | VMS_Z |
| Prep Method: | 5030B | Prep Batch: | N/A | Lab File ID: | Z4642.D |
| Dilution: | 1.0 | | | Initial Weight/Volume: | 20 mL |
| Analysis Date: | 04/01/2014 1434 | | | Final Weight/Volume: | 20 mL |
| Prep Date: | 04/01/2014 1434 | | | | |

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|---|---|---|---|---|
| 1,1,1,2-Tetrachloroethane | ND | | 0.21 | 5.0 |
| 1,1,1-Trichloroethane | ND | | 0.16 | 1.0 |
| 1,1,2,2-Tetrachloroethane | ND | | 0.21 | 3.0 |
| 1,1,2-Trichloroethane | ND | | 0.27 | 1.0 |
| 1,1-Dichloroethane | ND | | 0.22 | 5.0 |
| 1,1-Dichloroethene | ND | | 0.23 | 5.0 |
| 1,2,3-Trichloropropane | ND | | 0.33 | 1.0 |
| 1,2-Dibromo-3-Chloropropane | ND | | 0.47 | 13 |
| 1,2-Dibromoethane | ND | | 0.18 | 1.0 |
| 1,2-Dichlorobenzene | ND | | 0.15 | 5.0 |
| 1,2-Dichloroethane | ND | | 0.13 | 1.0 |
| 1,2-Dichloropropane | ND | | 0.18 | 1.0 |
| 1,4-Dichlorobenzene | ND | | 0.16 | 1.0 |
| 2-Butanone (MEK) | ND | | 2.0 | 100 |
| 2-Hexanone | ND | | 1.7 | 50 |
| 4-Methyl-2-pentanone (MIBK) | ND | | 0.98 | 100 |
| Acetone | ND | | 1.9 | 100 |
| Acrylonitrile | ND | | 1.4 | 200 |
| Benzene | ND | | 0.16 | 1.0 |
| Bromochloromethane | ND | | 0.10 | 3.0 |
| Bromodichloromethane | ND | | 0.17 | 1.0 |
| Bromoform | ND | | 0.19 | 3.0 |
| Bromomethane | ND | | 0.21 | 10 |
| Carbon disulfide | ND | | 0.45 | 100 |
| Carbon tetrachloride | ND | | 0.19 | 1.0 |
| Chlorobenzene | ND | | 0.17 | 3.0 |
| Chloroethane | ND | | 0.41 | 10 |
| Chloroform | ND | | 0.16 | 5.0 |
| Chloromethane | ND | | 0.30 | 1.0 |
| cis-1,2-Dichloroethene | ND | | 0.15 | 5.0 |
| cis-1,3-Dichloropropene | ND | | 0.16 | 1.0 |
| Dibromochloromethane | ND | | 0.17 | 3.0 |
| Dibromomethane | ND | | 0.17 | 10 |
| Ethylbenzene | ND | | 0.16 | 1.0 |
| Iodomethane | ND | | 0.23 | 10 |
| Methylene Chloride | ND | | 0.32 | 1.0 |
| Styrene | ND | | 0.17 | 1.0 |
| Tetrachloroethene | ND | | 0.20 | 1.0 |
| Toluene | ND | | 0.17 | 1.0 |
| trans-1,2-Dichloroethene | ND | | 0.15 | 5.0 |
| trans-1,3-Dichloropropene | ND | | 0.19 | 1.0 |
| trans-1,4-Dichloro-2-butene | ND | | 0.80 | 100 |
| Trichloroethene | ND | | 0.16 | 1.0 |
| Trichlorofluoromethane | ND | | 0.29 | 1.0 |
| Vinyl acetate | ND | | 0.94 | 50 |
| Vinyl chloride | ND | | 0.10 | 1.0 |

Client: Waste Management

Job Number: 280-53273-1

**Client Sample ID:** **3406-MW11D**

Lab Sample ID: 280-53273-17

Client Matrix: Water

Date Sampled: 03/19/2014 0841

Date Received: 03/20/2014 0930

**8260B Volatile Organic Compounds (GC/MS)**

| | | | | | |
|---|---|---|---|---|---|
| Analysis Method: | 8260B | Analysis Batch: | 280-219169 | Instrument ID: | VMS_Z |
| Prep Method: | 5030B | Prep Batch: | N/A | Lab File ID: | Z4642.D |
| Dilution: | 1.0 | | | Initial Weight/Volume: | 20 mL |
| Analysis Date: | 04/01/2014 1434 | | | Final Weight/Volume: | 20 mL |
| Prep Date: | 04/01/2014 1434 | | | | |

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|---|---|---|---|---|
| Xylenes, Total | ND | | 0.19 | 5.0 |

| Surrogate | %Rec | Qualifier | Acceptance Limits |
|---|---|---|---|
| 1,2-Dichloroethane-d4 (Surr) | 100 | | 70 - 127 |
| 4-Bromofluorobenzene (Surr) | 104 | | 78 - 120 |
| Dibromofluoromethane (Surr) | 98 | | 77 - 120 |
| Toluene-d8 (Surr) | 97 | | 80 - 125 |

Client: Waste Management

Job Number: 280-53273-1

**Client Sample ID:** **3406-01FB**

Lab Sample ID: 280-53273-1FB

Client Matrix: Water

Date Sampled: 03/19/2014 1200

Date Received: 03/20/2014 0930

**6010C Metals (ICP)-Total Recoverable**

| | | | | | |
|---|---|---|---|---|---|
| Analysis Method: | 6010C | Analysis Batch: | 280-218105 | Instrument ID: | MT_025 |
| Prep Method: | 3005A | Prep Batch: | 280-217744 | Lab File ID: | 25A032114D.asc |
| Dilution: | 1.0 | | | Initial Weight/Volume: | 50 mL |
| Analysis Date: | 03/21/2014 2217 | | | Final Weight/Volume: | 50 mL |
| Prep Date: | 03/21/2014 1300 | | | | |

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|---|---|---|---|---|
| Barium | ND | | 0.58 | 100 |
| Beryllium | ND | | 0.47 | 1.0 |
| Chromium | ND | | 0.66 | 10 |
| Cobalt | ND | | 1.2 | 10 |
| Lead | ND | | 2.6 | 10 |
| Nickel | ND | | 1.3 | 50 |
| Vanadium | ND | | 1.1 | 25 |
| Silver | ND | | 0.93 | 10 |

**6020A Metals (ICP/MS)-Total Recoverable**

| | | | | | |
|---|---|---|---|---|---|
| Analysis Method: | 6020A | Analysis Batch: | 280-218791 | Instrument ID: | MT_024 |
| Prep Method: | 3005A | Prep Batch: | 280-218633 | Lab File ID: | 021SMPL.D |
| Dilution: | 1.0 | | | Initial Weight/Volume: | 50 mL |
| Analysis Date: | 03/27/2014 2027 | | | Final Weight/Volume: | 50 mL |
| Prep Date: | 03/27/2014 1230 | | | | |

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|---|---|---|---|---|
| Antimony | ND | | 0.40 | 6.0 |
| Arsenic | ND | | 0.33 | 10 |
| Cadmium | ND | | 0.10 | 1.0 |
| Copper | ND | | 0.56 | 10 |
| Selenium | ND | | 0.70 | 10 |
| Thallium | ND | | 0.050 | 5.5 |
| Zinc | ND | | 2.0 | 10 |

Client: Waste Management

Job Number: 280-53273-1

**Client Sample ID:** **3406-MW01**

Lab Sample ID: 280-53273-2

Client Matrix: Water

Date Sampled: 03/19/2014 1105

Date Received: 03/20/2014 0930

**6010C Metals (ICP)-Total Recoverable**

| | | | | | |
|---|---|---|---|---|---|
| Analysis Method: | 6010C | Analysis Batch: | 280-218105 | Instrument ID: | MT_025 |
| Prep Method: | 3005A | Prep Batch: | 280-217744 | Lab File ID: | 25A032114D.asc |
| Dilution: | 1.0 | | | Initial Weight/Volume: | 50 mL |
| Analysis Date: | 03/21/2014 2220 | | | Final Weight/Volume: | 50 mL |
| Prep Date: | 03/21/2014 1300 | | | | |

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|---|---|---|---|---|
| Barium | 51 | J | 0.58 | 100 |
| Beryllium | ND | | 0.47 | 1.0 |
| Chromium | 1.1 | J | 0.66 | 10 |
| Cobalt | ND | | 1.2 | 10 |
| Lead | ND | | 2.6 | 10 |
| Nickel | ND | | 1.3 | 50 |
| Vanadium | ND | | 1.1 | 25 |
| Silver | ND | | 0.93 | 10 |

**6020A Metals (ICP/MS)-Total Recoverable**

| | | | | | |
|---|---|---|---|---|---|
| Analysis Method: | 6020A | Analysis Batch: | 280-218791 | Instrument ID: | MT_024 |
| Prep Method: | 3005A | Prep Batch: | 280-218633 | Lab File ID: | 022SMPL.D |
| Dilution: | 1.0 | | | Initial Weight/Volume: | 50 mL |
| Analysis Date: | 03/27/2014 2030 | | | Final Weight/Volume: | 50 mL |
| Prep Date: | 03/27/2014 1230 | | | | |

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|---|---|---|---|---|
| Antimony | ND | | 0.40 | 6.0 |
| Arsenic | ND | | 0.33 | 10 |
| Cadmium | ND | | 0.10 | 1.0 |
| Copper | 0.64 | J | 0.56 | 10 |
| Selenium | ND | | 0.70 | 10 |
| Thallium | ND | | 0.050 | 5.5 |
| Zinc | ND | | 2.0 | 10 |

Client: Waste Management

Job Number: 280-53273-1

**Client Sample ID:** **3406-MW02**

Lab Sample ID: 280-53273-3

Client Matrix: Water

Date Sampled: 03/19/2014 0744

Date Received: 03/20/2014 0930

**6010C Metals (ICP)-Total Recoverable**

| | | | | | |
|---|---|---|---|---|---|
| Analysis Method: | 6010C | Analysis Batch: | 280-218105 | Instrument ID: | MT_025 |
| Prep Method: | 3005A | Prep Batch: | 280-217744 | Lab File ID: | 25A032114D.asc |
| Dilution: | 1.0 | | | Initial Weight/Volume: | 50 mL |
| Analysis Date: | 03/21/2014 2240 | | | Final Weight/Volume: | 50 mL |
| Prep Date: | 03/21/2014 1300 | | | | |

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|---|---|---|---|---|
| Barium | 150 | | 0.58 | 100 |
| Beryllium | ND | | 0.47 | 1.0 |
| Chromium | ND | | 0.66 | 10 |
| Cobalt | ND | | 1.2 | 10 |
| Lead | ND | | 2.6 | 10 |
| Nickel | ND | | 1.3 | 50 |
| Vanadium | ND | | 1.1 | 25 |
| Silver | ND | | 0.93 | 10 |

**6020A Metals (ICP/MS)-Total Recoverable**

| | | | | | |
|---|---|---|---|---|---|
| Analysis Method: | 6020A | Analysis Batch: | 280-218791 | Instrument ID: | MT_024 |
| Prep Method: | 3005A | Prep Batch: | 280-218633 | Lab File ID: | 023SMPL.D |
| Dilution: | 1.0 | | | Initial Weight/Volume: | 50 mL |
| Analysis Date: | 03/27/2014 2033 | | | Final Weight/Volume: | 50 mL |
| Prep Date: | 03/27/2014 1230 | | | | |

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|---|---|---|---|---|
| Antimony | ND | | 0.40 | 6.0 |
| Arsenic | ND | | 0.33 | 10 |
| Cadmium | ND | | 0.10 | 1.0 |
| Copper | ND | | 0.56 | 10 |
| Selenium | 0.87 | J | 0.70 | 10 |
| Thallium | ND | | 0.050 | 5.5 |
| Zinc | 2.8 | J | 2.0 | 10 |

Client: Waste Management

Job Number: 280-53273-1

**Client Sample ID:** **3406-MW03**

Lab Sample ID: 280-53273-4

Client Matrix: Water

Date Sampled: 03/19/2014 0848

Date Received: 03/20/2014 0930

**6010C Metals (ICP)-Total Recoverable**

| | | | | | |
|---|---|---|---|---|---|
| Analysis Method: | 6010C | Analysis Batch: | 280-218105 | Instrument ID: | MT_025 |
| Prep Method: | 3005A | Prep Batch: | 280-217744 | Lab File ID: | 25A032114D.asc |
| Dilution: | 1.0 | | | Initial Weight/Volume: | 50 mL |
| Analysis Date: | 03/21/2014 2243 | | | Final Weight/Volume: | 50 mL |
| Prep Date: | 03/21/2014 1300 | | | | |

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|---|---|---|---|---|
| Barium | 20 | J | 0.58 | 100 |
| Beryllium | ND | | 0.47 | 1.0 |
| Chromium | 12 | | 0.66 | 10 |
| Cobalt | ND | | 1.2 | 10 |
| Lead | ND | | 2.6 | 10 |
| Nickel | 24 | J | 1.3 | 50 |
| Vanadium | 8.6 | J | 1.1 | 25 |
| Silver | ND | | 0.93 | 10 |

**6020A Metals (ICP/MS)-Total Recoverable**

| | | | | | |
|---|---|---|---|---|---|
| Analysis Method: | 6020A | Analysis Batch: | 280-218791 | Instrument ID: | MT_024 |
| Prep Method: | 3005A | Prep Batch: | 280-218633 | Lab File ID: | 024SMPL.D |
| Dilution: | 1.0 | | | Initial Weight/Volume: | 50 mL |
| Analysis Date: | 03/27/2014 2036 | | | Final Weight/Volume: | 50 mL |
| Prep Date: | 03/27/2014 1230 | | | | |

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|---|---|---|---|---|
| Antimony | ND | | 0.40 | 6.0 |
| Arsenic | ND | | 0.33 | 10 |
| Cadmium | ND | | 0.10 | 1.0 |
| Copper | 0.59 | J | 0.56 | 10 |
| Selenium | ND | | 0.70 | 10 |
| Thallium | ND | | 0.050 | 5.5 |
| Zinc | ND | | 2.0 | 10 |

Client: Waste Management

Job Number: 280-53273-1

**Client Sample ID:** **3406-MW04**

Lab Sample ID: 280-53273-5

Client Matrix: Water

Date Sampled: 03/19/2014 1045

Date Received: 03/20/2014 0930

**6010C Metals (ICP)-Total Recoverable**

| | | | | | |
|---|---|---|---|---|---|
| Analysis Method: | 6010C | Analysis Batch: | 280-218105 | Instrument ID: | MT_025 |
| Prep Method: | 3005A | Prep Batch: | 280-217744 | Lab File ID: | 25A032114D.asc |
| Dilution: | 1.0 | | | Initial Weight/Volume: | 50 mL |
| Analysis Date: | 03/21/2014 2245 | | | Final Weight/Volume: | 50 mL |
| Prep Date: | 03/21/2014 1300 | | | | |

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|---|---|---|---|---|
| Barium | 66 | J | 0.58 | 100 |
| Beryllium | ND | | 0.47 | 1.0 |
| Chromium | ND | | 0.66 | 10 |
| Cobalt | 1.7 | J | 1.2 | 10 |
| Lead | ND | | 2.6 | 10 |
| Nickel | ND | | 1.3 | 50 |
| Vanadium | ND | | 1.1 | 25 |
| Silver | ND | | 0.93 | 10 |

**6020A Metals (ICP/MS)-Total Recoverable**

| | | | | | |
|---|---|---|---|---|---|
| Analysis Method: | 6020A | Analysis Batch: | 280-218791 | Instrument ID: | MT_024 |
| Prep Method: | 3005A | Prep Batch: | 280-218633 | Lab File ID: | 028SMPL.D |
| Dilution: | 1.0 | | | Initial Weight/Volume: | 50 mL |
| Analysis Date: | 03/27/2014 2048 | | | Final Weight/Volume: | 50 mL |
| Prep Date: | 03/27/2014 1230 | | | | |

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|---|---|---|---|---|
| Antimony | ND | | 0.40 | 6.0 |
| Arsenic | ND | | 0.33 | 10 |
| Cadmium | ND | | 0.10 | 1.0 |
| Copper | ND | | 0.56 | 10 |
| Selenium | ND | | 0.70 | 10 |
| Thallium | ND | | 0.050 | 5.5 |
| Zinc | 6.9 | J | 2.0 | 10 |

Client: Waste Management

Job Number: 280-53273-1

**Client Sample ID:** **3406-MW04D**

Lab Sample ID: 280-53273-6

Client Matrix: Water

Date Sampled: 03/19/2014 1117

Date Received: 03/20/2014 0930

**6010C Metals (ICP)-Total Recoverable**

| | | | | | |
|---|---|---|---|---|---|
| Analysis Method: | 6010C | Analysis Batch: | 280-218105 | Instrument ID: | MT_025 |
| Prep Method: | 3005A | Prep Batch: | 280-217744 | Lab File ID: | 25A032114D.asc |
| Dilution: | 1.0 | | | Initial Weight/Volume: | 50 mL |
| Analysis Date: | 03/21/2014 2248 | | | Final Weight/Volume: | 50 mL |
| Prep Date: | 03/21/2014 1300 | | | | |

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|---|---|---|---|---|
| Barium | 29 | J | 0.58 | 100 |
| Beryllium | ND | | 0.47 | 1.0 |
| Chromium | 7.6 | J | 0.66 | 10 |
| Cobalt | ND | | 1.2 | 10 |
| Lead | ND | | 2.6 | 10 |
| Nickel | ND | | 1.3 | 50 |
| Vanadium | 3.3 | J | 1.1 | 25 |
| Silver | ND | | 0.93 | 10 |

**6020A Metals (ICP/MS)-Total Recoverable**

| | | | | | |
|---|---|---|---|---|---|
| Analysis Method: | 6020A | Analysis Batch: | 280-218791 | Instrument ID: | MT_024 |
| Prep Method: | 3005A | Prep Batch: | 280-218633 | Lab File ID: | 029AREF.D |
| Dilution: | 1.0 | | | Initial Weight/Volume: | 50 mL |
| Analysis Date: | 03/27/2014 2051 | | | Final Weight/Volume: | 50 mL |
| Prep Date: | 03/27/2014 1230 | | | | |

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|---|---|---|---|---|
| Antimony | ND | | 0.40 | 6.0 |
| Arsenic | ND | | 0.33 | 10 |
| Cadmium | ND | | 0.10 | 1.0 |
| Copper | ND | | 0.56 | 10 |
| Selenium | ND | | 0.70 | 10 |
| Thallium | ND | | 0.050 | 5.5 |
| Zinc | 6.5 | J | 2.0 | 10 |

Client: Waste Management

Job Number: 280-53273-1

**Client Sample ID:** **3406-MW05**

Lab Sample ID: 280-53273-7

Client Matrix: Water

Date Sampled: 03/19/2014 0955

Date Received: 03/20/2014 0930

**6010C Metals (ICP)-Total Recoverable**

| | | | | | |
|---|---|---|---|---|---|
| Analysis Method: | 6010C | Analysis Batch: | 280-218105 | Instrument ID: | MT_025 |
| Prep Method: | 3005A | Prep Batch: | 280-217744 | Lab File ID: | 25A032114D.asc |
| Dilution: | 1.0 | | | Initial Weight/Volume: | 50 mL |
| Analysis Date: | 03/21/2014 2250 | | | Final Weight/Volume: | 50 mL |
| Prep Date: | 03/21/2014 1300 | | | | |

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|---|---|---|---|---|
| Barium | 36 | J | 0.58 | 100 |
| Beryllium | ND | | 0.47 | 1.0 |
| Chromium | 4.8 | J | 0.66 | 10 |
| Cobalt | ND | | 1.2 | 10 |
| Lead | ND | | 2.6 | 10 |
| Nickel | 2.2 | J | 1.3 | 50 |
| Vanadium | 5.3 | J | 1.1 | 25 |
| Silver | ND | | 0.93 | 10 |

**6020A Metals (ICP/MS)-Total Recoverable**

| | | | | | |
|---|---|---|---|---|---|
| Analysis Method: | 6020A | Analysis Batch: | 280-218022 | Instrument ID: | MT_024 |
| Prep Method: | 3005A | Prep Batch: | 280-217743 | Lab File ID: | 220SMPL.D |
| Dilution: | 1.0 | | | Initial Weight/Volume: | 50 mL |
| Analysis Date: | 03/22/2014 0233 | | | Final Weight/Volume: | 50 mL |
| Prep Date: | 03/21/2014 1300 | | | | |

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|---|---|---|---|---|
| Antimony | ND | | 0.40 | 6.0 |
| Arsenic | ND | | 0.33 | 10 |
| Cadmium | ND | | 0.10 | 1.0 |
| Copper | ND | | 0.56 | 10 |
| Selenium | ND | | 0.70 | 10 |
| Thallium | ND | | 0.050 | 5.5 |
| Zinc | 4.3 | J B | 2.0 | 10 |

Client: Waste Management

Job Number: 280-53273-1

**Client Sample ID:** **3406-MW06**

Lab Sample ID: 280-53273-8

Client Matrix: Water

Date Sampled: 03/19/2014 1143

Date Received: 03/20/2014 0930

**6010C Metals (ICP)-Total Recoverable**

| | | | | | |
|---|---|---|---|---|---|
| Analysis Method: | 6010C | Analysis Batch: | 280-218105 | Instrument ID: | MT_025 |
| Prep Method: | 3005A | Prep Batch: | 280-217744 | Lab File ID: | 25A032114D.asc |
| Dilution: | 1.0 | | | Initial Weight/Volume: | 50 mL |
| Analysis Date: | 03/21/2014 2252 | | | Final Weight/Volume: | 50 mL |
| Prep Date: | 03/21/2014 1300 | | | | |

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|---|---|---|---|---|
| Barium | 41 | J | 0.58 | 100 |
| Beryllium | ND | | 0.47 | 1.0 |
| Chromium | 1.6 | J | 0.66 | 10 |
| Cobalt | ND | | 1.2 | 10 |
| Lead | ND | | 2.6 | 10 |
| Nickel | ND | | 1.3 | 50 |
| Vanadium | ND | | 1.1 | 25 |
| Silver | ND | | 0.93 | 10 |

**6020A Metals (ICP/MS)-Total Recoverable**

| | | | | | |
|---|---|---|---|---|---|
| Analysis Method: | 6020A | Analysis Batch: | 280-218022 | Instrument ID: | MT_024 |
| Prep Method: | 3005A | Prep Batch: | 280-217743 | Lab File ID: | 221SMPL.D |
| Dilution: | 1.0 | | | Initial Weight/Volume: | 50 mL |
| Analysis Date: | 03/22/2014 0236 | | | Final Weight/Volume: | 50 mL |
| Prep Date: | 03/21/2014 1300 | | | | |

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|---|---|---|---|---|
| Antimony | ND | | 0.40 | 6.0 |
| Arsenic | ND | | 0.33 | 10 |
| Cadmium | ND | | 0.10 | 1.0 |
| Copper | ND | | 0.56 | 10 |
| Selenium | ND | | 0.70 | 10 |
| Thallium | ND | | 0.050 | 5.5 |
| Zinc | 10 | B | 2.0 | 10 |

Client: Waste Management

Job Number: 280-53273-1

**Client Sample ID:** **3406-MW07**

Lab Sample ID: 280-53273-9

Client Matrix: Water

Date Sampled: 03/19/2014 0918

Date Received: 03/20/2014 0930

**6010C Metals (ICP)-Total Recoverable**

| | | | | | |
|---|---|---|---|---|---|
| Analysis Method: | 6010C | Analysis Batch: | 280-218105 | Instrument ID: | MT_025 |
| Prep Method: | 3005A | Prep Batch: | 280-217744 | Lab File ID: | 25A032114D.asc |
| Dilution: | 1.0 | | | Initial Weight/Volume: | 50 mL |
| Analysis Date: | 03/21/2014 2255 | | | Final Weight/Volume: | 50 mL |
| Prep Date: | 03/21/2014 1300 | | | | |

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|---|---|---|---|---|
| Barium | 6.0 | J | 0.58 | 100 |
| Beryllium | ND | | 0.47 | 1.0 |
| Chromium | 1.4 | J | 0.66 | 10 |
| Cobalt | ND | | 1.2 | 10 |
| Lead | ND | | 2.6 | 10 |
| Nickel | ND | | 1.3 | 50 |
| Vanadium | 6.8 | J | 1.1 | 25 |
| Silver | ND | | 0.93 | 10 |

**6020A Metals (ICP/MS)-Total Recoverable**

| | | | | | |
|---|---|---|---|---|---|
| Analysis Method: | 6020A | Analysis Batch: | 280-218022 | Instrument ID: | MT_024 |
| Prep Method: | 3005A | Prep Batch: | 280-217743 | Lab File ID: | 222SMPL.D |
| Dilution: | 1.0 | | | Initial Weight/Volume: | 50 mL |
| Analysis Date: | 03/22/2014 0239 | | | Final Weight/Volume: | 50 mL |
| Prep Date: | 03/21/2014 1300 | | | | |

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|---|---|---|---|---|
| Antimony | ND | | 0.40 | 6.0 |
| Arsenic | ND | | 0.33 | 10 |
| Cadmium | ND | | 0.10 | 1.0 |
| Copper | 4.8 | J | 0.56 | 10 |
| Selenium | ND | | 0.70 | 10 |
| Thallium | ND | | 0.050 | 5.5 |
| Zinc | 8.9 | J B | 2.0 | 10 |

Client: Waste Management

Job Number: 280-53273-1

**Client Sample ID:** **3406-MW08**

Lab Sample ID: 280-53273-10

Client Matrix: Water

Date Sampled: 03/19/2014 1026

Date Received: 03/20/2014 0930

**6010C Metals (ICP)-Total Recoverable**

| | | | | | |
|---|---|---|---|---|---|
| Analysis Method: | 6010C | Analysis Batch: | 280-218105 | Instrument ID: | MT_025 |
| Prep Method: | 3005A | Prep Batch: | 280-217744 | Lab File ID: | 25A032114D.asc |
| Dilution: | 1.0 | | | Initial Weight/Volume: | 50 mL |
| Analysis Date: | 03/21/2014 2307 | | | Final Weight/Volume: | 50 mL |
| Prep Date: | 03/21/2014 1300 | | | | |

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|---|---|---|---|---|
| Barium | 77 | J | 0.58 | 100 |
| Beryllium | ND | | 0.47 | 1.0 |
| Chromium | 1.5 | J | 0.66 | 10 |
| Cobalt | ND | | 1.2 | 10 |
| Lead | ND | | 2.6 | 10 |
| Nickel | ND | | 1.3 | 50 |
| Vanadium | 2.2 | J | 1.1 | 25 |
| Silver | ND | | 0.93 | 10 |

**6020A Metals (ICP/MS)-Total Recoverable**

| | | | | | |
|---|---|---|---|---|---|
| Analysis Method: | 6020A | Analysis Batch: | 280-218022 | Instrument ID: | MT_024 |
| Prep Method: | 3005A | Prep Batch: | 280-217743 | Lab File ID: | 223SMPL.D |
| Dilution: | 1.0 | | | Initial Weight/Volume: | 50 mL |
| Analysis Date: | 03/22/2014 0242 | | | Final Weight/Volume: | 50 mL |
| Prep Date: | 03/21/2014 1300 | | | | |

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|---|---|---|---|---|
| Antimony | ND | | 0.40 | 6.0 |
| Arsenic | 0.45 | J | 0.33 | 10 |
| Cadmium | ND | | 0.10 | 1.0 |
| Copper | 1.1 | J | 0.56 | 10 |
| Selenium | ND | | 0.70 | 10 |
| Thallium | ND | | 0.050 | 5.5 |
| Zinc | 5.5 | J B | 2.0 | 10 |

Client: Waste Management

Job Number: 280-53273-1

**Client Sample ID:** **3406-MW09R**

Lab Sample ID: 280-53273-11

Client Matrix: Water

Date Sampled: 03/19/2014 0813

Date Received: 03/20/2014 0930

**6010C Metals (ICP)-Total Recoverable**

| | | | | | |
|---|---|---|---|---|---|
| Analysis Method: | 6010C | Analysis Batch: | 280-218827 | Instrument ID: | MT_025 |
| Prep Method: | 3005A | Prep Batch: | 280-218636 | Lab File ID: | 25A5032714.asc |
| Dilution: | 1.0 | | | Initial Weight/Volume: | 50 mL |
| Analysis Date: | 03/27/2014 2318 | | | Final Weight/Volume: | 50 mL |
| Prep Date: | 03/27/2014 1230 | | | | |

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|---|---|---|---|---|
| Barium | 11 | J | 0.58 | 100 |
| Beryllium | ND | | 0.47 | 1.0 |
| Chromium | ND | | 0.66 | 10 |
| Cobalt | ND | | 1.2 | 10 |
| Lead | ND | | 2.6 | 10 |
| Nickel | ND | | 1.3 | 50 |
| Vanadium | 8.6 | J | 1.1 | 25 |
| Silver | ND | | 0.93 | 10 |

**6020A Metals (ICP/MS)-Total Recoverable**

| | | | | | |
|---|---|---|---|---|---|
| Analysis Method: | 6020A | Analysis Batch: | 280-218022 | Instrument ID: | MT_024 |
| Prep Method: | 3005A | Prep Batch: | 280-217743 | Lab File ID: | 224SMPL.D |
| Dilution: | 1.0 | | | Initial Weight/Volume: | 50 mL |
| Analysis Date: | 03/22/2014 0245 | | | Final Weight/Volume: | 50 mL |
| Prep Date: | 03/21/2014 1300 | | | | |

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|---|---|---|---|---|
| Antimony | ND | | 0.40 | 6.0 |
| Arsenic | ND | | 0.33 | 10 |
| Cadmium | ND | | 0.10 | 1.0 |
| Copper | 2.7 | J | 0.56 | 10 |
| Selenium | ND | | 0.70 | 10 |
| Thallium | ND | | 0.050 | 5.5 |
| Zinc | 6.6 | J B | 2.0 | 10 |

Client: Waste Management

Job Number: 280-53273-1

**Client Sample ID:** **3406-MW10**

Lab Sample ID: 280-53273-12

Client Matrix: Water

Date Sampled: 03/19/2014 0910

Date Received: 03/20/2014 0930

**6010C Metals (ICP)-Total Recoverable**

| | | | | | |
|---|---|---|---|---|---|
| Analysis Method: | 6010C | Analysis Batch: | 280-218827 | Instrument ID: | MT_025 |
| Prep Method: | 3005A | Prep Batch: | 280-218636 | Lab File ID: | 25A5032714.asc |
| Dilution: | 1.0 | | | Initial Weight/Volume: | 50 mL |
| Analysis Date: | 03/27/2014 2339 | | | Final Weight/Volume: | 50 mL |
| Prep Date: | 03/27/2014 1230 | | | | |

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|---|---|---|---|---|
| Barium | 12 | J | 0.58 | 100 |
| Beryllium | ND | | 0.47 | 1.0 |
| Chromium | 4.4 | J | 0.66 | 10 |
| Cobalt | ND | | 1.2 | 10 |
| Lead | ND | | 2.6 | 10 |
| Nickel | 1.3 | J | 1.3 | 50 |
| Vanadium | 4.6 | J | 1.1 | 25 |
| Silver | ND | | 0.93 | 10 |

**6020A Metals (ICP/MS)-Total Recoverable**

| | | | | | |
|---|---|---|---|---|---|
| Analysis Method: | 6020A | Analysis Batch: | 280-218022 | Instrument ID: | MT_024 |
| Prep Method: | 3005A | Prep Batch: | 280-217743 | Lab File ID: | 225SMPL.D |
| Dilution: | 1.0 | | | Initial Weight/Volume: | 50 mL |
| Analysis Date: | 03/22/2014 0248 | | | Final Weight/Volume: | 50 mL |
| Prep Date: | 03/21/2014 1300 | | | | |

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|---|---|---|---|---|
| Antimony | ND | | 0.40 | 6.0 |
| Arsenic | ND | | 0.33 | 10 |
| Cadmium | ND | | 0.10 | 1.0 |
| Copper | ND | | 0.56 | 10 |
| Selenium | ND | | 0.70 | 10 |
| Thallium | ND | | 0.050 | 5.5 |
| Zinc | 7.1 | J B | 2.0 | 10 |

Client: Waste Management

Job Number: 280-53273-1

**Client Sample ID:** **3406-MW11**

Lab Sample ID: 280-53273-13

Client Matrix: Water

Date Sampled: 03/19/2014 0812

Date Received: 03/20/2014 0930

**6010C Metals (ICP)-Total Recoverable**

| | | | | | |
|---|---|---|---|---|---|
| Analysis Method: | 6010C | Analysis Batch: | 280-218827 | Instrument ID: | MT_025 |
| Prep Method: | 3005A | Prep Batch: | 280-218636 | Lab File ID: | 25A5032714.asc |
| Dilution: | 1.0 | | | Initial Weight/Volume: | 50 mL |
| Analysis Date: | 03/27/2014 2341 | | | Final Weight/Volume: | 50 mL |
| Prep Date: | 03/27/2014 1230 | | | | |

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|---|---|---|---|---|
| Barium | 67 | J | 0.58 | 100 |
| Beryllium | ND | | 0.47 | 1.0 |
| Chromium | ND | | 0.66 | 10 |
| Cobalt | 2.0 | J | 1.2 | 10 |
| Lead | ND | | 2.6 | 10 |
| Nickel | ND | | 1.3 | 50 |
| Vanadium | 1.5 | J | 1.1 | 25 |
| Silver | ND | | 0.93 | 10 |

**6020A Metals (ICP/MS)-Total Recoverable**

| | | | | | |
|---|---|---|---|---|---|
| Analysis Method: | 6020A | Analysis Batch: | 280-218022 | Instrument ID: | MT_024 |
| Prep Method: | 3005A | Prep Batch: | 280-217743 | Lab File ID: | 229SMPL.D |
| Dilution: | 1.0 | | | Initial Weight/Volume: | 50 mL |
| Analysis Date: | 03/22/2014 0301 | | | Final Weight/Volume: | 50 mL |
| Prep Date: | 03/21/2014 1300 | | | | |

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|---|---|---|---|---|
| Antimony | ND | | 0.40 | 6.0 |
| Arsenic | ND | | 0.33 | 10 |
| Cadmium | ND | | 0.10 | 1.0 |
| Copper | 0.67 | J | 0.56 | 10 |
| Selenium | ND | | 0.70 | 10 |
| Thallium | ND | | 0.050 | 5.5 |
| Zinc | 9.8 | J B | 2.0 | 10 |

Client: Waste Management

Job Number: 280-53273-1

**Client Sample ID:** **3406-MW12**

Lab Sample ID: 280-53273-14

Client Matrix: Water

Date Sampled: 03/19/2014 1011

Date Received: 03/20/2014 0930

**6010C Metals (ICP)-Total Recoverable**

| | | | | | |
|---|---|---|---|---|---|
| Analysis Method: | 6010C | Analysis Batch: | 280-218827 | Instrument ID: | MT_025 |
| Prep Method: | 3005A | Prep Batch: | 280-218636 | Lab File ID: | 25A5032714.asc |
| Dilution: | 1.0 | | | Initial Weight/Volume: | 50 mL |
| Analysis Date: | 03/27/2014 2344 | | | Final Weight/Volume: | 50 mL |
| Prep Date: | 03/27/2014 1230 | | | | |

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|---|---|---|---|---|
| Barium | 23 | J | 0.58 | 100 |
| Beryllium | ND | | 0.47 | 1.0 |
| Chromium | 2.3 | J | 0.66 | 10 |
| Cobalt | ND | | 1.2 | 10 |
| Lead | ND | | 2.6 | 10 |
| Nickel | ND | | 1.3 | 50 |
| Vanadium | 4.2 | J | 1.1 | 25 |
| Silver | ND | | 0.93 | 10 |

**6020A Metals (ICP/MS)-Total Recoverable**

| | | | | | |
|---|---|---|---|---|---|
| Analysis Method: | 6020A | Analysis Batch: | 280-218022 | Instrument ID: | MT_024 |
| Prep Method: | 3005A | Prep Batch: | 280-217743 | Lab File ID: | 230SMPL.D |
| Dilution: | 1.0 | | | Initial Weight/Volume: | 50 mL |
| Analysis Date: | 03/22/2014 0304 | | | Final Weight/Volume: | 50 mL |
| Prep Date: | 03/21/2014 1300 | | | | |

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|---|---|---|---|---|
| Antimony | ND | | 0.40 | 6.0 |
| Arsenic | ND | | 0.33 | 10 |
| Cadmium | ND | | 0.10 | 1.0 |
| Copper | 0.91 | J | 0.56 | 10 |
| Selenium | ND | | 0.70 | 10 |
| Thallium | ND | | 0.050 | 5.5 |
| Zinc | 5.0 | J B | 2.0 | 10 |

Client: Waste Management

Job Number: 280-53273-1

**Client Sample ID:** **3406-MW12D**

Lab Sample ID: 280-53273-15

Client Matrix: Water

Date Sampled: 03/19/2014 0940

Date Received: 03/20/2014 0930

**6010C Metals (ICP)-Total Recoverable**

| | | | | | |
|---|---|---|---|---|---|
| Analysis Method: | 6010C | Analysis Batch: | 280-218827 | Instrument ID: | MT_025 |
| Prep Method: | 3005A | Prep Batch: | 280-218636 | Lab File ID: | 25A5032714.asc |
| Dilution: | 1.0 | | | Initial Weight/Volume: | 50 mL |
| Analysis Date: | 03/27/2014 2346 | | | Final Weight/Volume: | 50 mL |
| Prep Date: | 03/27/2014 1230 | | | | |

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|---|---|---|---|---|
| Barium | 9.4 | J | 0.58 | 100 |
| Beryllium | ND | | 0.47 | 1.0 |
| Chromium | 2.1 | J | 0.66 | 10 |
| Cobalt | ND | | 1.2 | 10 |
| Lead | ND | | 2.6 | 10 |
| Nickel | ND | | 1.3 | 50 |
| Vanadium | 3.7 | J | 1.1 | 25 |
| Silver | ND | | 0.93 | 10 |

**6020A Metals (ICP/MS)-Total Recoverable**

| | | | | | |
|---|---|---|---|---|---|
| Analysis Method: | 6020A | Analysis Batch: | 280-218022 | Instrument ID: | MT_024 |
| Prep Method: | 3005A | Prep Batch: | 280-217743 | Lab File ID: | 231SMPL.D |
| Dilution: | 1.0 | | | Initial Weight/Volume: | 50 mL |
| Analysis Date: | 03/22/2014 0307 | | | Final Weight/Volume: | 50 mL |
| Prep Date: | 03/21/2014 1300 | | | | |

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|---|---|---|---|---|
| Antimony | ND | | 0.40 | 6.0 |
| Arsenic | ND | | 0.33 | 10 |
| Cadmium | ND | | 0.10 | 1.0 |
| Copper | 1.3 | J | 0.56 | 10 |
| Selenium | ND | | 0.70 | 10 |
| Thallium | ND | | 0.050 | 5.5 |
| Zinc | 6.7 | J B | 2.0 | 10 |

Client: Waste Management

Job Number: 280-53273-1

**Client Sample ID:** **3406-MW11D**

Lab Sample ID: 280-53273-17

Client Matrix: Water

Date Sampled: 03/19/2014 0841

Date Received: 03/20/2014 0930

**6010C Metals (ICP)-Total Recoverable**

| | | | | | |
|---|---|---|---|---|---|
| Analysis Method: | 6010C | Analysis Batch: | 280-218827 | Instrument ID: | MT_025 |
| Prep Method: | 3005A | Prep Batch: | 280-218636 | Lab File ID: | 25A5032714.asc |
| Dilution: | 1.0 | | | Initial Weight/Volume: | 50 mL |
| Analysis Date: | 03/27/2014 2348 | | | Final Weight/Volume: | 50 mL |
| Prep Date: | 03/27/2014 1230 | | | | |

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|---|---|---|---|---|
| Barium | 25 | J | 0.58 | 100 |
| Beryllium | ND | | 0.47 | 1.0 |
| Chromium | 6.5 | J | 0.66 | 10 |
| Cobalt | ND | | 1.2 | 10 |
| Lead | ND | | 2.6 | 10 |
| Nickel | ND | | 1.3 | 50 |
| Vanadium | 11 | J | 1.1 | 25 |
| Silver | ND | | 0.93 | 10 |

**6020A Metals (ICP/MS)-Total Recoverable**

| | | | | | |
|---|---|---|---|---|---|
| Analysis Method: | 6020A | Analysis Batch: | 280-218022 | Instrument ID: | MT_024 |
| Prep Method: | 3005A | Prep Batch: | 280-217743 | Lab File ID: | 232AREF.D |
| Dilution: | 1.0 | | | Initial Weight/Volume: | 50 mL |
| Analysis Date: | 03/22/2014 0310 | | | Final Weight/Volume: | 50 mL |
| Prep Date: | 03/21/2014 1300 | | | | |

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|---|---|---|---|---|
| Antimony | ND | | 0.40 | 6.0 |
| Arsenic | ND | | 0.33 | 10 |
| Cadmium | ND | | 0.10 | 1.0 |
| Copper | 5.5 | J | 0.56 | 10 |
| Selenium | ND | | 0.70 | 10 |
| Thallium | ND | | 0.050 | 5.5 |
| Zinc | 8.2 | J B | 2.0 | 10 |

**Field Service / Mobile Lab**

**Client Sample ID:** **3406-01FB**

Lab Sample ID: 280-53273-1FB Date Sampled: 03/19/2014 1200

Client Matrix: Water Date Received: 03/20/2014 0930

| Analyte | Result | Qual | Units | Dil | Method | Analysis Batch | Date Analyzed Date Prepared |
|---|---|---|---|---|---|---|---|
| Field pH | 7.91 | | SU | 1.0 | Field Sampling | 280-217982 | 03/19/2014 1000 |
| Field Conductivity | 3 | | umhos/cm | 1.0 | Field Sampling | 280-217982 | 03/19/2014 1000 |
| Field Temperature | 17.6 | | Degrees C | 1.0 | Field Sampling | 280-217982 | 03/19/2014 1000 |
| Field Turbidity | 0.0 | | NTU | 1.0 | Field Sampling | 280-217982 | 03/19/2014 1000 |
| Field Dissolved Oxygen | 1.1 | | mg/L | 1.0 | Field Sampling | 280-217982 | 03/19/2014 1000 |
| Field EH/ORP | 95 | | millivolts | 1.0 | Field Sampling | 280-217982 | 03/19/2014 1000 |

**Field Service / Mobile Lab**

**Client Sample ID:** **3406-MW01**

Lab Sample ID: 280-53273-2

Client Matrix: Water

Date Sampled: 03/19/2014 1105

Date Received: 03/20/2014 0930

| Analyte | Result | Qual | Units | Dil | Method | Analysis Batch | Date Analyzed Date Prepared |
|---|---|---|---|---|---|---|---|
| Well Elevation | 823.93 | | ft/msl | 1.0 | Field Sampling | 280-217982 | 03/19/2014 0905 |
| Depth to water | 44.20 | | ft | 1.0 | Field Sampling | 280-217982 | 03/19/2014 0905 |
| Groundwater Elevation | 779.73 | | ft/msl | 1.0 | Field Sampling | 280-217982 | 03/19/2014 0905 |
| Field pH | 5.45 | | SU | 1.0 | Field Sampling | 280-217982 | 03/19/2014 0905 |
| Field Conductivity | 68 | | umhos/cm | 1.0 | Field Sampling | 280-217982 | 03/19/2014 0905 |
| Field Temperature | 13.7 | | Degrees C | 1.0 | Field Sampling | 280-217982 | 03/19/2014 0905 |
| Field Turbidity | 1.7 | | NTU | 1.0 | Field Sampling | 280-217982 | 03/19/2014 0905 |
| Field Dissolved Oxygen | 6.6 | | mg/L | 1.0 | Field Sampling | 280-217982 | 03/19/2014 0905 |
| Field EH/ORP | 95.5 | | millivolts | 1.0 | Field Sampling | 280-217982 | 03/19/2014 0905 |

**Field Service / Mobile Lab**

**Client Sample ID:** **3406-MW02**

Lab Sample ID: 280-53273-3

Client Matrix: Water

Date Sampled: 03/19/2014 0744

Date Received: 03/20/2014 0930

| Analyte | Result | Qual | Units | Dil | Method | Analysis Batch | Date Analyzed Date Prepared |
|---|---|---|---|---|---|---|---|
| Well Elevation | 778.04 | | ft/msl | 1.0 | Field Sampling | 280-217982 | 03/19/2014 0544 |
| Depth to water | 28.22 | | ft | 1.0 | Field Sampling | 280-217982 | 03/19/2014 0544 |
| Groundwater Elevation | 749.82 | | ft/msl | 1.0 | Field Sampling | 280-217982 | 03/19/2014 0544 |
| Field pH | 5.11 | | SU | 1.0 | Field Sampling | 280-217982 | 03/19/2014 0544 |
| Field Conductivity | 149 | | umhos/cm | 1.0 | Field Sampling | 280-217982 | 03/19/2014 0544 |
| Field Temperature | 15.1 | | Degrees C | 1.0 | Field Sampling | 280-217982 | 03/19/2014 0544 |
| Field Turbidity | 1.3 | | NTU | 1.0 | Field Sampling | 280-217982 | 03/19/2014 0544 |
| Field Dissolved Oxygen | 1.0 | | mg/L | 1.0 | Field Sampling | 280-217982 | 03/19/2014 0544 |
| Field EH/ORP | 192 | | millivolts | 1.0 | Field Sampling | 280-217982 | 03/19/2014 0544 |

**Field Service / Mobile Lab**

**Client Sample ID:** **3406-MW03**

Lab Sample ID: 280-53273-4

Client Matrix: Water

Date Sampled: 03/19/2014 0848

Date Received: 03/20/2014 0930

| Analyte | Result | Qual | Units | Dil | Method | Analysis Batch | Date Analyzed Date Prepared |
|---|---|---|---|---|---|---|---|
| Well Elevation | 770.08 | | ft/msl | 1.0 | Field Sampling | 280-217982 | 03/19/2014 0648 |
| Depth to water | 25.28 | | ft | 1.0 | Field Sampling | 280-217982 | 03/19/2014 0648 |
| Groundwater Elevation | 744.80 | | ft/msl | 1.0 | Field Sampling | 280-217982 | 03/19/2014 0648 |
| Field pH | 5.50 | | SU | 1.0 | Field Sampling | 280-217982 | 03/19/2014 0648 |
| Field Conductivity | 129 | | umhos/cm | 1.0 | Field Sampling | 280-217982 | 03/19/2014 0648 |
| Field Temperature | 13.9 | | Degrees C | 1.0 | Field Sampling | 280-217982 | 03/19/2014 0648 |
| Field Turbidity | 0.9 | | NTU | 1.0 | Field Sampling | 280-217982 | 03/19/2014 0648 |
| Field Dissolved Oxygen | 4.9 | | mg/L | 1.0 | Field Sampling | 280-217982 | 03/19/2014 0648 |
| Field EH/ORP | -6.0 | | millivolts | 1.0 | Field Sampling | 280-217982 | 03/19/2014 0648 |

**Field Service / Mobile Lab**

**Client Sample ID:** **3406-MW04**

Lab Sample ID: 280-53273-5

Client Matrix: Water

Date Sampled: 03/19/2014 1045

Date Received: 03/20/2014 0930

| Analyte | Result | Qual | Units | Dil | Method | Analysis Batch | Date Analyzed Date Prepared |
|---|---|---|---|---|---|---|---|
| Well Elevation | 756.92 | | ft/msl | 1.0 | Field Sampling | 280-217982 | 03/19/2014 0845 |
| Depth to water | 12.19 | | ft | 1.0 | Field Sampling | 280-217982 | 03/19/2014 0845 |
| Groundwater Elevation | 744.73 | | ft/msl | 1.0 | Field Sampling | 280-217982 | 03/19/2014 0845 |
| Field pH | 5.30 | | SU | 1.0 | Field Sampling | 280-217982 | 03/19/2014 0845 |
| Field Conductivity | 86 | | umhos/cm | 1.0 | Field Sampling | 280-217982 | 03/19/2014 0845 |
| Field Temperature | 15.0 | | Degrees C | 1.0 | Field Sampling | 280-217982 | 03/19/2014 0845 |
| Field Turbidity | 2.4 | | NTU | 1.0 | Field Sampling | 280-217982 | 03/19/2014 0845 |
| Field Dissolved Oxygen | 0.4 | | mg/L | 1.0 | Field Sampling | 280-217982 | 03/19/2014 0845 |
| Field EH/ORP | 153 | | millivolts | 1.0 | Field Sampling | 280-217982 | 03/19/2014 0845 |

**Field Service / Mobile Lab**

**Client Sample ID:** **3406-MW04D**

Lab Sample ID: 280-53273-6

Client Matrix: Water

Date Sampled: 03/19/2014 1117

Date Received: 03/20/2014 0930

| Analyte | Result | Qual | Units | Dil | Method | Analysis Batch | Date Analyzed Date Prepared |
|---|---|---|---|---|---|---|---|
| Well Elevation | 757.33 | | ft/msl | 1.0 | Field Sampling | 280-217982 | 03/19/2014 0917 |
| Depth to water | 12.68 | | ft | 1.0 | Field Sampling | 280-217982 | 03/19/2014 0917 |
| Groundwater Elevation | 744.65 | | ft/msl | 1.0 | Field Sampling | 280-217982 | 03/19/2014 0917 |
| Field pH | 5.94 | | SU | 1.0 | Field Sampling | 280-217982 | 03/19/2014 0917 |
| Field Conductivity | 113 | | umhos/cm | 1.0 | Field Sampling | 280-217982 | 03/19/2014 0917 |
| Field Temperature | 15.6 | | Degrees C | 1.0 | Field Sampling | 280-217982 | 03/19/2014 0917 |
| Field Turbidity | 12.3 | | NTU | 1.0 | Field Sampling | 280-217982 | 03/19/2014 0917 |
| Field Dissolved Oxygen | 4.4 | | mg/L | 1.0 | Field Sampling | 280-217982 | 03/19/2014 0917 |
| Field EH/ORP | 116 | | millivolts | 1.0 | Field Sampling | 280-217982 | 03/19/2014 0917 |

**Field Service / Mobile Lab**

**Client Sample ID:** **3406-MW05**

Lab Sample ID: 280-53273-7

Client Matrix: Water

Date Sampled: 03/19/2014 0955

Date Received: 03/20/2014 0930

| Analyte | Result | Qual | Units | Dil | Method | Analysis Batch | Date Analyzed Date Prepared |
|---|---|---|---|---|---|---|---|
| Well Elevation | 743.17 | | ft/msl | 1.0 | Field Sampling | 280-217982 | 03/19/2014 0755 |
| Depth to water | 4.20 | | ft | 1.0 | Field Sampling | 280-217982 | 03/19/2014 0755 |
| Groundwater Elevation | 738.97 | | ft/msl | 1.0 | Field Sampling | 280-217982 | 03/19/2014 0755 |
| Field pH | 5.69 | | SU | 1.0 | Field Sampling | 280-217982 | 03/19/2014 0755 |
| Field Conductivity | 354 | | umhos/cm | 1.0 | Field Sampling | 280-217982 | 03/19/2014 0755 |
| Field Temperature | 12.0 | | Degrees C | 1.0 | Field Sampling | 280-217982 | 03/19/2014 0755 |
| Field Turbidity | 3.3 | | NTU | 1.0 | Field Sampling | 280-217982 | 03/19/2014 0755 |
| Field Dissolved Oxygen | 1.7 | | mg/L | 1.0 | Field Sampling | 280-217982 | 03/19/2014 0755 |
| Field EH/ORP | 58.7 | | millivolts | 1.0 | Field Sampling | 280-217982 | 03/19/2014 0755 |

**Field Service / Mobile Lab**

**Client Sample ID:** **3406-MW06**

Lab Sample ID: 280-53273-8

Client Matrix: Water

Date Sampled: 03/19/2014 1143

Date Received: 03/20/2014 0930

| Analyte | Result | Qual | Units | Dil | Method | Analysis Batch | Date Analyzed Date Prepared |
|---|---|---|---|---|---|---|---|
| Well Elevation | 800.87 | | ft/msl | 1.0 | Field Sampling | 280-217982 | 03/19/2014 0943 |
| Depth to water | 22.90 | | ft | 1.0 | Field Sampling | 280-217982 | 03/19/2014 0943 |
| Groundwater Elevation | 777.03 | | ft/msl | 1.0 | Field Sampling | 280-217982 | 03/19/2014 0943 |
| Field pH | 4.82 | | SU | 1.0 | Field Sampling | 280-217982 | 03/19/2014 0943 |
| Field Conductivity | 38 | | umhos/cm | 1.0 | Field Sampling | 280-217982 | 03/19/2014 0943 |
| Field Temperature | 13.9 | | Degrees C | 1.0 | Field Sampling | 280-217982 | 03/19/2014 0943 |
| Field Turbidity | 0.7 | | NTU | 1.0 | Field Sampling | 280-217982 | 03/19/2014 0943 |
| Field Dissolved Oxygen | 4.1 | | mg/L | 1.0 | Field Sampling | 280-217982 | 03/19/2014 0943 |
| Field EH/ORP | 71.6 | | millivolts | 1.0 | Field Sampling | 280-217982 | 03/19/2014 0943 |

**Field Service / Mobile Lab**

**Client Sample ID:** **3406-MW07**

Lab Sample ID: 280-53273-9 Date Sampled: 03/19/2014 0918

Client Matrix: Water Date Received: 03/20/2014 0930

| Analyte | Result | Qual | Units | Dil | Method | Analysis Batch | Date Analyzed Date Prepared |
|---|---|---|---|---|---|---|---|
| Well Elevation | 771.57 | | ft/msl | 1.0 | Field Sampling | 280-217982 | 03/19/2014 0718 |
| Depth to water | 23.10 | | ft | 1.0 | Field Sampling | 280-217982 | 03/19/2014 0718 |
| Groundwater Elevation | 748.47 | | ft/msl | 1.0 | Field Sampling | 280-217982 | 03/19/2014 0718 |
| Field pH | 5.66 | | SU | 1.0 | Field Sampling | 280-217982 | 03/19/2014 0718 |
| Field Conductivity | 148 | | umhos/cm | 1.0 | Field Sampling | 280-217982 | 03/19/2014 0718 |
| Field Temperature | 14.5 | | Degrees C | 1.0 | Field Sampling | 280-217982 | 03/19/2014 0718 |
| Field Turbidity | 10.1 | | NTU | 1.0 | Field Sampling | 280-217982 | 03/19/2014 0718 |
| Field Dissolved Oxygen | 5.5 | | mg/L | 1.0 | Field Sampling | 280-217982 | 03/19/2014 0718 |
| Field EH/ORP | 81.1 | | millivolts | 1.0 | Field Sampling | 280-217982 | 03/19/2014 0718 |

**Field Service / Mobile Lab**

**Client Sample ID:** **3406-MW08**

Lab Sample ID: 280-53273-10

Client Matrix: Water

Date Sampled: 03/19/2014 1026

Date Received: 03/20/2014 0930

| Analyte | Result | Qual | Units | Dil | Method | Analysis Batch | Date Analyzed Date Prepared |
|---|---|---|---|---|---|---|---|
| Well Elevation | 748.95 | | ft/msl | 1.0 | Field Sampling | 280-217982 | 03/19/2014 0826 |
| Depth to water | 4.50 | | ft | 1.0 | Field Sampling | 280-217982 | 03/19/2014 0826 |
| Groundwater Elevation | 744.45 | | ft/msl | 1.0 | Field Sampling | 280-217982 | 03/19/2014 0826 |
| Field pH | 5.17 | | SU | 1.0 | Field Sampling | 280-217982 | 03/19/2014 0826 |
| Field Conductivity | 119 | | umhos/cm | 1.0 | Field Sampling | 280-217982 | 03/19/2014 0826 |
| Field Temperature | 9.2 | | Degrees C | 1.0 | Field Sampling | 280-217982 | 03/19/2014 0826 |
| Field Turbidity | 19.9 | | NTU | 1.0 | Field Sampling | 280-217982 | 03/19/2014 0826 |
| Field Dissolved Oxygen | 2.6 | | mg/L | 1.0 | Field Sampling | 280-217982 | 03/19/2014 0826 |
| Field EH/ORP | 90.1 | | millivolts | 1.0 | Field Sampling | 280-217982 | 03/19/2014 0826 |

**Field Service / Mobile Lab**

**Client Sample ID:** **3406-MW09R**

Lab Sample ID: 280-53273-11

Client Matrix: Water

Date Sampled: 03/19/2014 0813

Date Received: 03/20/2014 0930

| Analyte | Result | Qual | Units | Dil | Method | Analysis Batch | Date Analyzed Date Prepared |
|---|---|---|---|---|---|---|---|
| Well Elevation | 764.95 | | ft/msl | 1.0 | Field Sampling | 280-217982 | 03/19/2014 0613 |
| Depth to water | 26.02 | | ft | 1.0 | Field Sampling | 280-217982 | 03/19/2014 0613 |
| Groundwater Elevation | 738.93 | | ft/msl | 1.0 | Field Sampling | 280-217982 | 03/19/2014 0613 |
| Field pH | 5.67 | | SU | 1.0 | Field Sampling | 280-217982 | 03/19/2014 0613 |
| Field Conductivity | 281 | | umhos/cm | 1.0 | Field Sampling | 280-217982 | 03/19/2014 0613 |
| Field Temperature | 11.7 | | Degrees C | 1.0 | Field Sampling | 280-217982 | 03/19/2014 0613 |
| Field Turbidity | 1.5 | | NTU | 1.0 | Field Sampling | 280-217982 | 03/19/2014 0613 |
| Field Dissolved Oxygen | 1.5 | | mg/L | 1.0 | Field Sampling | 280-217982 | 03/19/2014 0613 |
| Field EH/ORP | -91.5 | | millivolts | 1.0 | Field Sampling | 280-217982 | 03/19/2014 0613 |

**Field Service / Mobile Lab**

**Client Sample ID:** **3406-MW10**

Lab Sample ID: 280-53273-12

Client Matrix: Water

Date Sampled: 03/19/2014 0910

Date Received: 03/20/2014 0930

| Analyte | Result | Qual | Units | Dil | Method | Analysis Batch | Date Analyzed Date Prepared |
|---|---|---|---|---|---|---|---|
| Well Elevation | 777.20 | | ft/msl | 1.0 | Field Sampling | 280-217982 | 03/19/2014 0710 |
| Depth to water | 29.53 | | ft | 1.0 | Field Sampling | 280-217982 | 03/19/2014 0710 |
| Groundwater Elevation | 747.67 | | ft/msl | 1.0 | Field Sampling | 280-217982 | 03/19/2014 0710 |
| Field pH | 5.77 | | SU | 1.0 | Field Sampling | 280-217982 | 03/19/2014 0710 |
| Field Conductivity | 112 | | umhos/cm | 1.0 | Field Sampling | 280-217982 | 03/19/2014 0710 |
| Field Temperature | 15.9 | | Degrees C | 1.0 | Field Sampling | 280-217982 | 03/19/2014 0710 |
| Field Turbidity | 3.9 | | NTU | 1.0 | Field Sampling | 280-217982 | 03/19/2014 0710 |
| Field Dissolved Oxygen | 3.0 | | mg/L | 1.0 | Field Sampling | 280-217982 | 03/19/2014 0710 |
| Field EH/ORP | 222 | | millivolts | 1.0 | Field Sampling | 280-217982 | 03/19/2014 0710 |

**Field Service / Mobile Lab**

**Client Sample ID:** **3406-MW11**

Lab Sample ID: 280-53273-13

Client Matrix: Water

Date Sampled: 03/19/2014 0812

Date Received: 03/20/2014 0930

| Analyte | Result | Qual | Units | Dil | Method | Analysis Batch | Date Analyzed Date Prepared |
|---|---|---|---|---|---|---|---|
| Well Elevation | 776.80 | | ft/msl | 1.0 | Field Sampling | 280-217982 | 03/19/2014 0612 |
| Depth to water | 27.96 | | ft | 1.0 | Field Sampling | 280-217982 | 03/19/2014 0612 |
| Groundwater Elevation | 748.84 | | ft/msl | 1.0 | Field Sampling | 280-217982 | 03/19/2014 0612 |
| Field pH | 5.51 | | SU | 1.0 | Field Sampling | 280-217982 | 03/19/2014 0612 |
| Field Conductivity | 161 | | umhos/cm | 1.0 | Field Sampling | 280-217982 | 03/19/2014 0612 |
| Field Temperature | 15.2 | | Degrees C | 1.0 | Field Sampling | 280-217982 | 03/19/2014 0612 |
| Field Turbidity | 3.0 | | NTU | 1.0 | Field Sampling | 280-217982 | 03/19/2014 0612 |
| Field Dissolved Oxygen | 0.9 | | mg/L | 1.0 | Field Sampling | 280-217982 | 03/19/2014 0612 |
| Field EH/ORP | 240 | | millivolts | 1.0 | Field Sampling | 280-217982 | 03/19/2014 0612 |

**Field Service / Mobile Lab**

**Client Sample ID:** **3406-MW12**

Lab Sample ID: 280-53273-14 Date Sampled: 03/19/2014 1011

Client Matrix: Water Date Received: 03/20/2014 0930

| Analyte | Result | Qual | Units | Dil | Method | Analysis Batch | Date Analyzed Date Prepared |
|---|---|---|---|---|---|---|---|
| Well Elevation | 751.48 | | ft/msl | 1.0 | Field Sampling | 280-217982 | 03/19/2014 0811 |
| Depth to water | 5.87 | | ft | 1.0 | Field Sampling | 280-217982 | 03/19/2014 0811 |
| Groundwater Elevation | 745.61 | | ft/msl | 1.0 | Field Sampling | 280-217982 | 03/19/2014 0811 |
| Field pH | 5.97 | | SU | 1.0 | Field Sampling | 280-217982 | 03/19/2014 0811 |
| Field Conductivity | 146 | | umhos/cm | 1.0 | Field Sampling | 280-217982 | 03/19/2014 0811 |
| Field Temperature | 13.5 | | Degrees C | 1.0 | Field Sampling | 280-217982 | 03/19/2014 0811 |
| Field Turbidity | 4.2 | | NTU | 1.0 | Field Sampling | 280-217982 | 03/19/2014 0811 |
| Field Dissolved Oxygen | 0.6 | | mg/L | 1.0 | Field Sampling | 280-217982 | 03/19/2014 0811 |
| Field EH/ORP | 179 | | millivolts | 1.0 | Field Sampling | 280-217982 | 03/19/2014 0811 |

**Field Service / Mobile Lab**

**Client Sample ID:** **3406-MW12D**

Lab Sample ID: 280-53273-15

Client Matrix: Water

Date Sampled: 03/19/2014 0940

Date Received: 03/20/2014 0930

| Analyte | Result | Qual | Units | Dil | Method | Analysis Batch | Date Analyzed Date Prepared |
|---|---|---|---|---|---|---|---|
| Well Elevation | 751.48 | | ft/msl | 1.0 | Field Sampling | 280-217982 | 03/19/2014 0740 |
| Depth to water | 5.13 | | ft | 1.0 | Field Sampling | 280-217982 | 03/19/2014 0740 |
| Groundwater Elevation | 746.35 | | ft/msl | 1.0 | Field Sampling | 280-217982 | 03/19/2014 0740 |
| Field pH | 6.60 | | SU | 1.0 | Field Sampling | 280-217982 | 03/19/2014 0740 |
| Field Conductivity | 202 | | umhos/cm | 1.0 | Field Sampling | 280-217982 | 03/19/2014 0740 |
| Field Temperature | 14.7 | | Degrees C | 1.0 | Field Sampling | 280-217982 | 03/19/2014 0740 |
| Field Turbidity | 2.9 | | NTU | 1.0 | Field Sampling | 280-217982 | 03/19/2014 0740 |
| Field Dissolved Oxygen | 0.4 | | mg/L | 1.0 | Field Sampling | 280-217982 | 03/19/2014 0740 |
| Field EH/ORP | 146 | | millivolts | 1.0 | Field Sampling | 280-217982 | 03/19/2014 0740 |

**Field Service / Mobile Lab**

**Client Sample ID:** **3406-MW11D**

Lab Sample ID: 280-53273-17

Client Matrix: Water

Date Sampled: 03/19/2014 0841

Date Received: 03/20/2014 0930

| Analyte | Result | Qual | Units | Dil | Method | Analysis Batch | Date Analyzed Date Prepared |
|---|---|---|---|---|---|---|---|
| Well Elevation | 776.36 | | ft/msl | 1.0 | Field Sampling | 280-217982 | 03/19/2014 0641 |
| Depth to water | 27.94 | | ft | 1.0 | Field Sampling | 280-217982 | 03/19/2014 0641 |
| Groundwater Elevation | 748.42 | | ft/msl | 1.0 | Field Sampling | 280-217982 | 03/19/2014 0641 |
| Field pH | 6.33 | | SU | 1.0 | Field Sampling | 280-217982 | 03/19/2014 0641 |
| Field Conductivity | 62 | | umhos/cm | 1.0 | Field Sampling | 280-217982 | 03/19/2014 0641 |
| Field Temperature | 14.9 | | Degrees C | 1.0 | Field Sampling | 280-217982 | 03/19/2014 0641 |
| Field Turbidity | 5.3 | | NTU | 1.0 | Field Sampling | 280-217982 | 03/19/2014 0641 |
| Field Dissolved Oxygen | 3.1 | | mg/L | 1.0 | Field Sampling | 280-217982 | 03/19/2014 0641 |
| Field EH/ORP | 170 | | millivolts | 1.0 | Field Sampling | 280-217982 | 03/19/2014 0641 |

# DATA REPORTING QUALIFIERS

Client: Waste Management

Job Number: 280-53273-1

| Lab Section | Qualifier | Description |
|---|---|---|
| GC/MS VOA | | |
| | J | Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value. |
| | X | Surrogate is outside control limits |
| Metals | | |
| | B | Compound was found in the blank and sample. |
| | J | Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value. |

# QUALITY CONTROL RESULTS

Client: Waste Management

Job Number: 280-53273-1

## QC Association Summary

| Lab Sample ID | Client Sample ID | Report Basis | Client Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| **GC/MS VOA** | | | | | |
| **Analysis Batch:280-219162** | | | | | |
| LCS 280-219162/4 | Lab Control Sample | T | Water | 8260B | |
| MB 280-219162/6 | Method Blank | T | Water | 8260B | |
| 280-53273-1FB | 3406-01FB | T | Water | 8260B | |
| 280-53273-2 | 3406-MW01 | T | Water | 8260B | |
| 280-53273-2MS | Matrix Spike | T | Water | 8260B | |
| 280-53273-2MSD | Matrix Spike Duplicate | T | Water | 8260B | |
| 280-53273-3 | 3406-MW02 | T | Water | 8260B | |
| 280-53273-4 | 3406-MW03 | T | Water | 8260B | |
| 280-53273-5 | 3406-MW04 | T | Water | 8260B | |
| 280-53273-6 | 3406-MW04D | T | Water | 8260B | |
| 280-53273-7 | 3406-MW05 | T | Water | 8260B | |
| 280-53273-8 | 3406-MW06 | T | Water | 8260B | |
| 280-53273-9 | 3406-MW07 | T | Water | 8260B | |
| 280-53273-10 | 3406-MW08 | T | Water | 8260B | |
| **Analysis Batch:280-219169** | | | | | |
| LCS 280-219169/10 | Lab Control Sample | T | Water | 8260B | |
| MB 280-219169/11 | Method Blank | T | Water | 8260B | |
| 280-53273-11 | 3406-MW09R | T | Water | 8260B | |
| 280-53273-11MS | Matrix Spike | T | Water | 8260B | |
| 280-53273-11MSD | Matrix Spike Duplicate | T | Water | 8260B | |
| 280-53273-12 | 3406-MW10 | T | Water | 8260B | |
| 280-53273-13 | 3406-MW11 | T | Water | 8260B | |
| 280-53273-14 | 3406-MW12 | T | Water | 8260B | |
| 280-53273-15 | 3406-MW12D | T | Water | 8260B | |
| 280-53273-16TB | TRIP BLANK | T | Water | 8260B | |
| 280-53273-17 | 3406-MW11D | T | Water | 8260B | |

**Report Basis**

T = Total

Client: Waste Management

Job Number: 280-53273-1

## QC Association Summary

| Lab Sample ID | Client Sample ID | Report Basis | Client Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| **Metals** | | | | | |
| **Prep Batch: 280-217743** | | | | | |
| LCS 280-217743/2-A | Lab Control Sample | R | Water | 3005A | |
| MB 280-217743/1-A | Method Blank | R | Water | 3005A | |
| 280-53273-7 | 3406-MW05 | R | Water | 3005A | |
| 280-53273-8 | 3406-MW06 | R | Water | 3005A | |
| 280-53273-9 | 3406-MW07 | R | Water | 3005A | |
| 280-53273-10 | 3406-MW08 | R | Water | 3005A | |
| 280-53273-11 | 3406-MW09R | R | Water | 3005A | |
| 280-53273-12 | 3406-MW10 | R | Water | 3005A | |
| 280-53273-13 | 3406-MW11 | R | Water | 3005A | |
| 280-53273-14 | 3406-MW12 | R | Water | 3005A | |
| 280-53273-15 | 3406-MW12D | R | Water | 3005A | |
| 280-53273-17 | 3406-MW11D | R | Water | 3005A | |
| 280-53273-17MS | Matrix Spike | R | Water | 3005A | |
| 280-53273-17MSD | Matrix Spike Duplicate | R | Water | 3005A | |
| **Prep Batch: 280-217744** | | | | | |
| LCS 280-217744/2-A | Lab Control Sample | R | Water | 3005A | |
| MB 280-217744/1-A | Method Blank | R | Water | 3005A | |
| 280-53273-1FB | 3406-01FB | R | Water | 3005A | |
| 280-53273-2 | 3406-MW01 | R | Water | 3005A | |
| 280-53273-2MS | Matrix Spike | R | Water | 3005A | |
| 280-53273-2MSD | Matrix Spike Duplicate | R | Water | 3005A | |
| 280-53273-3 | 3406-MW02 | R | Water | 3005A | |
| 280-53273-4 | 3406-MW03 | R | Water | 3005A | |
| 280-53273-5 | 3406-MW04 | R | Water | 3005A | |
| 280-53273-6 | 3406-MW04D | R | Water | 3005A | |
| 280-53273-7 | 3406-MW05 | R | Water | 3005A | |
| 280-53273-8 | 3406-MW06 | R | Water | 3005A | |
| 280-53273-9 | 3406-MW07 | R | Water | 3005A | |
| 280-53273-10 | 3406-MW08 | R | Water | 3005A | |

Client: Waste Management

Job Number: 280-53273-1

## QC Association Summary

| Lab Sample ID | Client Sample ID | Report Basis | Client Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| **Metals** | | | | | |
| **Analysis Batch:280-218022** | | | | | |
| LCS 280-217743/2-A | Lab Control Sample | R | Water | 6020A | 280-217743 |
| MB 280-217743/1-A | Method Blank | R | Water | 6020A | 280-217743 |
| 280-53273-7 | 3406-MW05 | R | Water | 6020A | 280-217743 |
| 280-53273-8 | 3406-MW06 | R | Water | 6020A | 280-217743 |
| 280-53273-9 | 3406-MW07 | R | Water | 6020A | 280-217743 |
| 280-53273-10 | 3406-MW08 | R | Water | 6020A | 280-217743 |
| 280-53273-11 | 3406-MW09R | R | Water | 6020A | 280-217743 |
| 280-53273-12 | 3406-MW10 | R | Water | 6020A | 280-217743 |
| 280-53273-13 | 3406-MW11 | R | Water | 6020A | 280-217743 |
| 280-53273-14 | 3406-MW12 | R | Water | 6020A | 280-217743 |
| 280-53273-15 | 3406-MW12D | R | Water | 6020A | 280-217743 |
| 280-53273-17 | 3406-MW11D | R | Water | 6020A | 280-217743 |
| 280-53273-17MS | Matrix Spike | R | Water | 6020A | 280-217743 |
| 280-53273-17MSD | Matrix Spike Duplicate | R | Water | 6020A | 280-217743 |
| **Analysis Batch:280-218105** | | | | | |
| LCS 280-217744/2-A | Lab Control Sample | R | Water | 6010C | 280-217744 |
| MB 280-217744/1-A | Method Blank | R | Water | 6010C | 280-217744 |
| 280-53273-1FB | 3406-01FB | R | Water | 6010C | 280-217744 |
| 280-53273-2 | 3406-MW01 | R | Water | 6010C | 280-217744 |
| 280-53273-2MS | Matrix Spike | R | Water | 6010C | 280-217744 |
| 280-53273-2MSD | Matrix Spike Duplicate | R | Water | 6010C | 280-217744 |
| 280-53273-3 | 3406-MW02 | R | Water | 6010C | 280-217744 |
| 280-53273-4 | 3406-MW03 | R | Water | 6010C | 280-217744 |
| 280-53273-5 | 3406-MW04 | R | Water | 6010C | 280-217744 |
| 280-53273-6 | 3406-MW04D | R | Water | 6010C | 280-217744 |
| 280-53273-7 | 3406-MW05 | R | Water | 6010C | 280-217744 |
| 280-53273-8 | 3406-MW06 | R | Water | 6010C | 280-217744 |
| 280-53273-9 | 3406-MW07 | R | Water | 6010C | 280-217744 |
| 280-53273-10 | 3406-MW08 | R | Water | 6010C | 280-217744 |
| **Prep Batch: 280-218633** | | | | | |
| LCS 280-218633/2-A | Lab Control Sample | R | Water | 3005A | |
| MB 280-218633/1-A | Method Blank | R | Water | 3005A | |
| 280-53273-1FB | 3406-01FB | R | Water | 3005A | |
| 280-53273-2 | 3406-MW01 | R | Water | 3005A | |
| 280-53273-3 | 3406-MW02 | R | Water | 3005A | |
| 280-53273-4 | 3406-MW03 | R | Water | 3005A | |
| 280-53273-5 | 3406-MW04 | R | Water | 3005A | |
| 280-53273-6 | 3406-MW04D | R | Water | 3005A | |
| 280-53273-6MS | Matrix Spike | R | Water | 3005A | |
| 280-53273-6MSD | Matrix Spike Duplicate | R | Water | 3005A | |

Client: Waste Management

Job Number: 280-53273-1

## QC Association Summary

| Lab Sample ID | Client Sample ID | Report Basis | Client Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| **Metals** | | | | | |
| **Prep Batch: 280-218636** | | | | | |
| LCS 280-218636/2-A | Lab Control Sample | R | Water | 3005A | |
| MB 280-218636/1-A | Method Blank | R | Water | 3005A | |
| 280-53273-11 | 3406-MW09R | R | Water | 3005A | |
| 280-53273-11MS | Matrix Spike | R | Water | 3005A | |
| 280-53273-11MSD | Matrix Spike Duplicate | R | Water | 3005A | |
| 280-53273-12 | 3406-MW10 | R | Water | 3005A | |
| 280-53273-13 | 3406-MW11 | R | Water | 3005A | |
| 280-53273-14 | 3406-MW12 | R | Water | 3005A | |
| 280-53273-15 | 3406-MW12D | R | Water | 3005A | |
| 280-53273-17 | 3406-MW11D | R | Water | 3005A | |
| **Analysis Batch:280-218791** | | | | | |
| LCS 280-218633/2-A | Lab Control Sample | R | Water | 6020A | 280-218633 |
| MB 280-218633/1-A | Method Blank | R | Water | 6020A | 280-218633 |
| 280-53273-1FB | 3406-01FB | R | Water | 6020A | 280-218633 |
| 280-53273-2 | 3406-MW01 | R | Water | 6020A | 280-218633 |
| 280-53273-3 | 3406-MW02 | R | Water | 6020A | 280-218633 |
| 280-53273-4 | 3406-MW03 | R | Water | 6020A | 280-218633 |
| 280-53273-5 | 3406-MW04 | R | Water | 6020A | 280-218633 |
| 280-53273-6 | 3406-MW04D | R | Water | 6020A | 280-218633 |
| 280-53273-6MS | Matrix Spike | R | Water | 6020A | 280-218633 |
| 280-53273-6MSD | Matrix Spike Duplicate | R | Water | 6020A | 280-218633 |
| **Analysis Batch:280-218827** | | | | | |
| LCS 280-218636/2-A | Lab Control Sample | R | Water | 6010C | 280-218636 |
| MB 280-218636/1-A | Method Blank | R | Water | 6010C | 280-218636 |
| 280-53273-11 | 3406-MW09R | R | Water | 6010C | 280-218636 |
| 280-53273-11MS | Matrix Spike | R | Water | 6010C | 280-218636 |
| 280-53273-11MSD | Matrix Spike Duplicate | R | Water | 6010C | 280-218636 |
| 280-53273-12 | 3406-MW10 | R | Water | 6010C | 280-218636 |
| 280-53273-13 | 3406-MW11 | R | Water | 6010C | 280-218636 |
| 280-53273-14 | 3406-MW12 | R | Water | 6010C | 280-218636 |
| 280-53273-15 | 3406-MW12D | R | Water | 6010C | 280-218636 |
| 280-53273-17 | 3406-MW11D | R | Water | 6010C | 280-218636 |

**Report Basis**

R = Total Recoverable

Client: Waste Management

Job Number: 280-53273-1

## QC Association Summary

| Lab Sample ID | Client Sample ID | Report Basis | Client Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| **Field Service / Mobile Lab** | | | | | |
| **Analysis Batch:280-217982** | | | | | |
| 280-53273-1FB | 3406-01FB | T | Water | Field Sampling | |
| 280-53273-2 | 3406-MW01 | T | Water | Field Sampling | |
| 280-53273-3 | 3406-MW02 | T | Water | Field Sampling | |
| 280-53273-4 | 3406-MW03 | T | Water | Field Sampling | |
| 280-53273-5 | 3406-MW04 | T | Water | Field Sampling | |
| 280-53273-6 | 3406-MW04D | T | Water | Field Sampling | |
| 280-53273-7 | 3406-MW05 | T | Water | Field Sampling | |
| 280-53273-8 | 3406-MW06 | T | Water | Field Sampling | |
| 280-53273-9 | 3406-MW07 | T | Water | Field Sampling | |
| 280-53273-10 | 3406-MW08 | T | Water | Field Sampling | |
| 280-53273-11 | 3406-MW09R | T | Water | Field Sampling | |
| 280-53273-12 | 3406-MW10 | T | Water | Field Sampling | |
| 280-53273-13 | 3406-MW11 | T | Water | Field Sampling | |
| 280-53273-14 | 3406-MW12 | T | Water | Field Sampling | |
| 280-53273-15 | 3406-MW12D | T | Water | Field Sampling | |
| 280-53273-17 | 3406-MW11D | T | Water | Field Sampling | |

**Report Basis**

T = Total

Client: Waste Management

Job Number: 280-53273-1

## Surrogate Recovery Report

**8260B Volatile Organic Compounds (GC/MS)**

**Client Matrix: Water**

| Lab Sample ID | Client Sample ID | DCA %Rec | BFB %Rec | DBFM %Rec | TOL %Rec |
|---|---|---|---|---|---|
| 280-53273-1 | 3406-01FB | 89 | 93 | 88 | 98 |
| 280-53273-2 | 3406-MW01 | 99 | 88 | 91 | 90 |
| 280-53273-3 | 3406-MW02 | 105 | 97 | 94 | 98 |
| 280-53273-4 | 3406-MW03 | 98 | 87 | 91 | 91 |
| 280-53273-5 | 3406-MW04 | 110 | 94 | 99 | 100 |
| 280-53273-6 | 3406-MW04D | 98 | 88 | 90 | 88 |
| 280-53273-7 | 3406-MW05 | 144X | 115 | 113 | 119 |
| 280-53273-8 | 3406-MW06 | 104 | 94 | 97 | 95 |
| 280-53273-9 | 3406-MW07 | 103 | 95 | 94 | 96 |
| 280-53273-10 | 3406-MW08 | 98 | 90 | 91 | 93 |
| 280-53273-11 | 3406-MW09R | 90 | 99 | 94 | 100 |
| 280-53273-12 | 3406-MW10 | 96 | 101 | 98 | 102 |
| 280-53273-13 | 3406-MW11 | 102 | 104 | 99 | 99 |
| 280-53273-14 | 3406-MW12 | 100 | 104 | 98 | 95 |
| 280-53273-15 | 3406-MW12D | 129X | 131X | 124X | 124 |
| 280-53273-16 | TRIP BLANK | 131X | 134X | 125X | 123 |
| 280-53273-17 | 3406-MW11D | 100 | 104 | 98 | 97 |
| MB 280-219162/6 | | 120 | 104 | 106 | 108 |
| MB 280-219169/11 | | 92 | 97 | 94 | 96 |
| LCS 280-219162/4 | | 107 | 92 | 96 | 95 |
| LCS 280-219169/10 | | 92 | 102 | 98 | 105 |
| 280-53273-2 MS | 3406-MW01 MS | 101 | 91 | 90 | 92 |
| 280-53273-11 MS | 3406-MW09R MS | 95 | 98 | 100 | 109 |
| 280-53273-2 MSD | 3406-MW01 MSD | 103 | 90 | 92 | 92 |
| 280-53273-11 MSD | 3406-MW09R MSD | 98 | 103 | 100 | 108 |

| Surrogate | Acceptance Limits |
|---|---|
| DCA = 1,2-Dichloroethane-d4 (Surr) | 70-127 |
| BFB = 4-Bromofluorobenzene (Surr) | 78-120 |
| DBFM = Dibromofluoromethane (Surr) | 77-120 |
| TOL = Toluene-d8 (Surr) | 80-125 |

Client: Waste Management

Job Number: 280-53273-1

**Method Blank - Batch: 280-219162**

**Method: 8260B**
**Preparation: 5030B**

| | | | | | |
|---|---|---|---|---|---|
| Lab Sample ID: | MB 280-219162/6 | Analysis Batch: | 280-219162 | Instrument ID: | VMS_R2 |
| Client Matrix: | Water | Prep Batch: | N/A | Lab File ID: | RR1406.D |
| Dilution: | 1.0 | Leach Batch: | N/A | Initial Weight/Volume: | 20 mL |
| Analysis Date: | 04/01/2014 0946 | Units: | ug/L | Final Weight/Volume: | 20 mL |
| Prep Date: | 04/01/2014 0946 | | | | |
| Leach Date: | N/A | | | | |

| Analyte | Result | Qual | MDL | RL |
|---|---|---|---|---|
| 1,1,1,2-Tetrachloroethane | ND | | 0.21 | 5.0 |
| 1,1,1-Trichloroethane | ND | | 0.16 | 1.0 |
| 1,1,2,2-Tetrachloroethane | ND | | 0.21 | 3.0 |
| 1,1,2-Trichloroethane | ND | | 0.27 | 1.0 |
| 1,1-Dichloroethane | ND | | 0.22 | 5.0 |
| 1,1-Dichloroethene | ND | | 0.23 | 5.0 |
| 1,2,3-Trichloropropane | ND | | 0.33 | 1.0 |
| 1,2-Dibromo-3-Chloropropane | ND | | 0.47 | 13 |
| 1,2-Dibromoethane | ND | | 0.18 | 1.0 |
| 1,2-Dichlorobenzene | ND | | 0.15 | 5.0 |
| 1,2-Dichloroethane | ND | | 0.13 | 1.0 |
| 1,2-Dichloropropane | ND | | 0.18 | 1.0 |
| 1,4-Dichlorobenzene | ND | | 0.16 | 1.0 |
| 2-Butanone (MEK) | ND | | 2.0 | 100 |
| 2-Hexanone | ND | | 1.7 | 50 |
| 4-Methyl-2-pentanone (MIBK) | ND | | 0.98 | 100 |
| Acetone | ND | | 1.9 | 100 |
| Acrylonitrile | ND | | 1.4 | 200 |
| Benzene | ND | | 0.16 | 1.0 |
| Bromochloromethane | ND | | 0.10 | 3.0 |
| Bromodichloromethane | ND | | 0.17 | 1.0 |
| Bromoform | ND | | 0.19 | 3.0 |
| Bromomethane | ND | | 0.21 | 10 |
| Carbon disulfide | ND | | 0.45 | 100 |
| Carbon tetrachloride | ND | | 0.19 | 1.0 |
| Chlorobenzene | ND | | 0.17 | 3.0 |
| Chloroethane | ND | | 0.41 | 10 |
| Chloroform | ND | | 0.16 | 5.0 |
| Chloromethane | ND | | 0.30 | 1.0 |
| cis-1,2-Dichloroethene | ND | | 0.15 | 5.0 |
| cis-1,3-Dichloropropene | ND | | 0.16 | 1.0 |
| Dibromochloromethane | ND | | 0.17 | 3.0 |
| Dibromomethane | ND | | 0.17 | 10 |
| Ethylbenzene | ND | | 0.16 | 1.0 |
| Iodomethane | ND | | 0.23 | 10 |
| Methylene Chloride | 0.489 | J | 0.32 | 1.0 |
| Styrene | ND | | 0.17 | 1.0 |
| Tetrachloroethene | ND | | 0.20 | 1.0 |
| Toluene | ND | | 0.17 | 1.0 |
| trans-1,2-Dichloroethene | ND | | 0.15 | 5.0 |
| trans-1,3-Dichloropropene | ND | | 0.19 | 1.0 |
| trans-1,4-Dichloro-2-butene | ND | | 0.80 | 100 |
| Trichloroethene | ND | | 0.16 | 1.0 |
| Trichlorofluoromethane | ND | | 0.29 | 1.0 |
| Vinyl acetate | ND | | 0.94 | 50 |

Client: Waste Management

Job Number: 280-53273-1

**Method Blank - Batch: 280-219162**

**Method: 8260B**
**Preparation: 5030B**

| | | | | | |
|---|---|---|---|---|---|
| Lab Sample ID: | MB 280-219162/6 | Analysis Batch: | 280-219162 | Instrument ID: | VMS_R2 |
| Client Matrix: | Water | Prep Batch: | N/A | Lab File ID: | RR1406.D |
| Dilution: | 1.0 | Leach Batch: | N/A | Initial Weight/Volume: | 20 mL |
| Analysis Date: | 04/01/2014 0946 | Units: | ug/L | Final Weight/Volume: | 20 mL |
| Prep Date: | 04/01/2014 0946 | | | | |
| Leach Date: | N/A | | | | |

| Analyte | Result | Qual | MDL | RL |
|---|---|---|---|---|
| Vinyl chloride | ND | | 0.10 | 1.0 |
| Xylenes, Total | ND | | 0.19 | 5.0 |

| Surrogate | % Rec | Acceptance Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 (Surr) | 120 | 70 - 127 |
| 4-Bromofluorobenzene (Surr) | 104 | 78 - 120 |
| Dibromofluoromethane (Surr) | 106 | 77 - 120 |
| Toluene-d8 (Surr) | 108 | 80 - 125 |

**Lab Control Sample - Batch: 280-219162**

**Method: 8260B**
**Preparation: 5030B**

| | | | | | |
|---|---|---|---|---|---|
| Lab Sample ID: | LCS 280-219162/4 | Analysis Batch: | 280-219162 | Instrument ID: | VMS_R2 |
| Client Matrix: | Water | Prep Batch: | N/A | Lab File ID: | RR1405.D |
| Dilution: | 1.0 | Leach Batch: | N/A | Initial Weight/Volume: | 20 mL |
| Analysis Date: | 04/01/2014 0923 | Units: | ug/L | Final Weight/Volume: | 20 mL |
| Prep Date: | 04/01/2014 0923 | | | | |
| Leach Date: | N/A | | | | |

| Analyte | Spike Amount | Result | % Rec. | Limit | Qual |
|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | 5.00 | 5.12 | 102 | 70 - 135 | |
| 1,1-Dichloroethane | 5.00 | 5.01 | 100 | 75 - 135 | |
| 1,1-Dichloroethene | 5.00 | 4.21 | 84 | 71 - 136 | J |
| 1,2-Dichloropropane | 5.00 | 4.89 | 98 | 71 - 120 | |
| 1,3-Dichlorobenzene | 5.00 | 4.54 | 91 | 74 - 135 | |
| Benzene | 5.00 | 4.65 | 93 | 74 - 135 | |
| Bromodichloromethane | 5.00 | 4.87 | 97 | 73 - 135 | |
| Carbon tetrachloride | 5.00 | 5.48 | 110 | 67 - 135 | |
| Chlorobenzene | 5.00 | 4.52 | 90 | 76 - 135 | |
| Chloroform | 5.00 | 4.73 | 95 | 76 - 120 | J |
| Ethylbenzene | 5.00 | 4.54 | 91 | 72 - 120 | |
| Methylene Chloride | 5.00 | 4.66 | 93 | 54 - 141 | |
| Tetrachloroethene | 5.00 | 4.55 | 91 | 70 - 135 | |
| Toluene | 5.00 | 4.77 | 95 | 73 - 120 | |
| trans-1,2-Dichloroethene | 5.00 | 4.51 | 90 | 75 - 135 | J |
| Trichloroethene | 5.00 | 4.76 | 95 | 73 - 135 | |

| Surrogate | % Rec | Acceptance Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 (Surr) | 107 | 70 - 127 |
| 4-Bromofluorobenzene (Surr) | 92 | 78 - 120 |
| Dibromofluoromethane (Surr) | 96 | 77 - 120 |
| Toluene-d8 (Surr) | 95 | 80 - 125 |

Client: Waste Management

Job Number: 280-53273-1

**Matrix Spike/**
**Matrix Spike Duplicate Recovery Report - Batch: 280-219162**

**Method: 8260B**
**Preparation: 5030B**

| | | | | | |
|---|---|---|---|---|---|
| MS Lab Sample ID: | 280-53273-2 | Analysis Batch: | 280-219162 | Instrument ID: | VMS_R2 |
| Client Matrix: | Water | Prep Batch: | N/A | Lab File ID: | RR1409.D |
| Dilution: | 1.0 | Leach Batch: | N/A | Initial Weight/Volume: | 20 mL |
| Analysis Date: | 04/01/2014 1107 | | | Final Weight/Volume: | 20 mL |
| Prep Date: | 04/01/2014 1107 | | | | 20 mL |
| Leach Date: | N/A | | | | |

| | | | | | |
|---|---|---|---|---|---|
| MSD Lab Sample ID: | 280-53273-2 | Analysis Batch: | 280-219162 | Instrument ID: | VMS_R2 |
| Client Matrix: | Water | Prep Batch: | N/A | Lab File ID: | RR1410.D |
| Dilution: | 1.0 | Leach Batch: | N/A | Initial Weight/Volume: | 20 mL |
| Analysis Date: | 04/01/2014 1130 | | | Final Weight/Volume: | 20 mL |
| Prep Date: | 04/01/2014 1130 | | | | 20 mL |
| Leach Date: | N/A | | | | |

| Analyte | % Rec. MS | % Rec. MSD | Limit | RPD | RPD Limit | MS Qual | MSD Qual |
|---|---|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | 95 | 91 | 70 - 135 | 5 | 20 | | |
| 1,1-Dichloroethane | 93 | 92 | 75 - 135 | 2 | 21 | J | J |
| 1,1-Dichloroethene | 80 | 75 | 71 - 136 | 6 | 20 | J | J |
| 1,2-Dichloropropane | 95 | 92 | 71 - 120 | 3 | 20 | | |
| 1,3-Dichlorobenzene | 86 | 86 | 74 - 135 | 0 | 20 | | |
| Benzene | 90 | 89 | 74 - 135 | 1 | 20 | | |
| Bromodichloromethane | 95 | 94 | 73 - 135 | 0 | 20 | | |
| Carbon tetrachloride | 102 | 98 | 67 - 135 | 4 | 21 | | |
| Chlorobenzene | 88 | 86 | 76 - 135 | 3 | 20 | | |
| Chloroform | 92 | 89 | 76 - 120 | 3 | 20 | J | J |
| Ethylbenzene | 88 | 86 | 72 - 120 | 3 | 26 | | |
| Methylene Chloride | 81 | 78 | 54 - 141 | 3 | 20 | | |
| Tetrachloroethene | 87 | 85 | 70 - 135 | 2 | 20 | | |
| Toluene | 91 | 89 | 73 - 120 | 2 | 20 | | |
| trans-1,2-Dichloroethene | 85 | 82 | 75 - 135 | 3 | 24 | J | J |
| Trichloroethene | 95 | 89 | 73 - 135 | 7 | 20 | | |

| Surrogate | MS % Rec | MSD % Rec | Acceptance Limits |
|---|---|---|---|
| 1,2-Dichloroethane-d4 (Surr) | 101 | 103 | 70 - 127 |
| 4-Bromofluorobenzene (Surr) | 91 | 90 | 78 - 120 |
| Dibromofluoromethane (Surr) | 90 | 92 | 77 - 120 |
| Toluene-d8 (Surr) | 92 | 92 | 80 - 125 |

Client: Waste Management

Job Number: 280-53273-1

**Matrix Spike/**
**Matrix Spike Duplicate Recovery Report - Batch: 280-219162**

**Method: 8260B**
**Preparation: 5030B**

| | | | | | |
|---|---|---|---|---|---|
| MS Lab Sample ID: | 280-53273-2 | Units: | ug/L | MSD Lab Sample ID: | 280-53273-2 |
| Client Matrix: | Water | | | Client Matrix: | Water |
| Dilution: | 1.0 | | | Dilution: | 1.0 |
| Analysis Date: | 04/01/2014 1107 | | | Analysis Date: | 04/01/2014 1130 |
| Prep Date: | 04/01/2014 1107 | | | Prep Date: | 04/01/2014 1130 |
| Leach Date: | N/A | | | Leach Date: | N/A |

| Analyte | Sample Result/Qual | MS Spike Amount | MSD Spike Amount | MS Result/Qual | | MSD Result/Qual | |
|---|---|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | ND | 5.00 | 5.00 | 4.76 | | 4.53 | |
| 1,1-Dichloroethane | ND | 5.00 | 5.00 | 4.67 | J | 4.58 | J |
| 1,1-Dichloroethene | ND | 5.00 | 5.00 | 4.01 | J | 3.76 | J |
| 1,2-Dichloropropane | ND | 5.00 | 5.00 | 4.74 | | 4.61 | |
| 1,3-Dichlorobenzene | ND | 5.00 | 5.00 | 4.31 | | 4.32 | |
| Benzene | ND | 5.00 | 5.00 | 4.50 | | 4.44 | |
| Bromodichloromethane | ND | 5.00 | 5.00 | 4.73 | | 4.71 | |
| Carbon tetrachloride | ND | 5.00 | 5.00 | 5.08 | | 4.89 | |
| Chlorobenzene | ND | 5.00 | 5.00 | 4.42 | | 4.29 | |
| Chloroform | ND | 5.00 | 5.00 | 4.61 | J | 4.47 | J |
| Ethylbenzene | ND | 5.00 | 5.00 | 4.41 | | 4.29 | |
| Methylene Chloride | ND | 5.00 | 5.00 | 4.04 | | 3.90 | |
| Tetrachloroethene | ND | 5.00 | 5.00 | 4.33 | | 4.26 | |
| Toluene | ND | 5.00 | 5.00 | 4.55 | | 4.46 | |
| trans-1,2-Dichloroethene | ND | 5.00 | 5.00 | 4.23 | J | 4.10 | J |
| Trichloroethene | ND | 5.00 | 5.00 | 4.76 | | 4.45 | |

Client: Waste Management

Job Number: 280-53273-1

**Method Blank - Batch: 280-219169**

**Method: 8260B**
**Preparation: 5030B**

| | | | | | |
|---|---|---|---|---|---|
| Lab Sample ID: | MB 280-219169/11 | Analysis Batch: | 280-219169 | Instrument ID: | VMS_Z |
| Client Matrix: | Water | Prep Batch: | N/A | Lab File ID: | Z4633.D |
| Dilution: | 1.0 | Leach Batch: | N/A | Initial Weight/Volume: | 20 mL |
| Analysis Date: | 04/01/2014 1104 | Units: | ug/L | Final Weight/Volume: | 20 mL |
| Prep Date: | 04/01/2014 1104 | | | | |
| Leach Date: | N/A | | | | |

| Analyte | Result | Qual | MDL | RL |
|---|---|---|---|---|
| 1,1,1,2-Tetrachloroethane | ND | | 0.21 | 5.0 |
| 1,1,1-Trichloroethane | ND | | 0.16 | 1.0 |
| 1,1,2,2-Tetrachloroethane | ND | | 0.21 | 3.0 |
| 1,1,2-Trichloroethane | ND | | 0.27 | 1.0 |
| 1,1-Dichloroethane | ND | | 0.22 | 5.0 |
| 1,1-Dichloroethene | ND | | 0.23 | 5.0 |
| 1,2,3-Trichloropropane | ND | | 0.33 | 1.0 |
| 1,2-Dibromo-3-Chloropropane | ND | | 0.47 | 13 |
| 1,2-Dibromoethane | ND | | 0.18 | 1.0 |
| 1,2-Dichlorobenzene | ND | | 0.15 | 5.0 |
| 1,2-Dichloroethane | ND | | 0.13 | 1.0 |
| 1,2-Dichloropropane | ND | | 0.18 | 1.0 |
| 1,4-Dichlorobenzene | ND | | 0.16 | 1.0 |
| 2-Butanone (MEK) | ND | | 2.0 | 100 |
| 2-Hexanone | ND | | 1.7 | 50 |
| 4-Methyl-2-pentanone (MIBK) | ND | | 0.98 | 100 |
| Acetone | ND | | 1.9 | 100 |
| Acrylonitrile | ND | | 1.4 | 200 |
| Benzene | ND | | 0.16 | 1.0 |
| Bromochloromethane | ND | | 0.10 | 3.0 |
| Bromodichloromethane | ND | | 0.17 | 1.0 |
| Bromoform | ND | | 0.19 | 3.0 |
| Bromomethane | ND | | 0.21 | 10 |
| Carbon disulfide | ND | | 0.45 | 100 |
| Carbon tetrachloride | ND | | 0.19 | 1.0 |
| Chlorobenzene | ND | | 0.17 | 3.0 |
| Chloroethane | ND | | 0.41 | 10 |
| Chloroform | ND | | 0.16 | 5.0 |
| Chloromethane | ND | | 0.30 | 1.0 |
| cis-1,2-Dichloroethene | ND | | 0.15 | 5.0 |
| cis-1,3-Dichloropropene | ND | | 0.16 | 1.0 |
| Dibromochloromethane | ND | | 0.17 | 3.0 |
| Dibromomethane | ND | | 0.17 | 10 |
| Ethylbenzene | ND | | 0.16 | 1.0 |
| Iodomethane | ND | | 0.23 | 10 |
| Methylene Chloride | ND | | 0.32 | 1.0 |
| Styrene | ND | | 0.17 | 1.0 |
| Tetrachloroethene | ND | | 0.20 | 1.0 |
| Toluene | ND | | 0.17 | 1.0 |
| trans-1,2-Dichloroethene | ND | | 0.15 | 5.0 |
| trans-1,3-Dichloropropene | ND | | 0.19 | 1.0 |
| trans-1,4-Dichloro-2-butene | ND | | 0.80 | 100 |
| Trichloroethene | ND | | 0.16 | 1.0 |
| Trichlorofluoromethane | ND | | 0.29 | 1.0 |
| Vinyl acetate | ND | | 0.94 | 50 |

Client: Waste Management

Job Number: 280-53273-1

**Method Blank - Batch: 280-219169**

**Method: 8260B**
**Preparation: 5030B**

| | | | | | |
|---|---|---|---|---|---|
| Lab Sample ID: | MB 280-219169/11 | Analysis Batch: | 280-219169 | Instrument ID: | VMS_Z |
| Client Matrix: | Water | Prep Batch: | N/A | Lab File ID: | Z4633.D |
| Dilution: | 1.0 | Leach Batch: | N/A | Initial Weight/Volume: | 20 mL |
| Analysis Date: | 04/01/2014 1104 | Units: | ug/L | Final Weight/Volume: | 20 mL |
| Prep Date: | 04/01/2014 1104 | | | | |
| Leach Date: | N/A | | | | |

| Analyte | Result | Qual | MDL | RL |
|---|---|---|---|---|
| Vinyl chloride | ND | | 0.10 | 1.0 |
| Xylenes, Total | ND | | 0.19 | 5.0 |

| Surrogate | % Rec | Acceptance Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 (Surr) | 92 | 70 - 127 |
| 4-Bromofluorobenzene (Surr) | 97 | 78 - 120 |
| Dibromofluoromethane (Surr) | 94 | 77 - 120 |
| Toluene-d8 (Surr) | 96 | 80 - 125 |

**Lab Control Sample - Batch: 280-219169**

**Method: 8260B**
**Preparation: 5030B**

| | | | | | |
|---|---|---|---|---|---|
| Lab Sample ID: | LCS 280-219169/10 | Analysis Batch: | 280-219169 | Instrument ID: | VMS_Z |
| Client Matrix: | Water | Prep Batch: | N/A | Lab File ID: | Z4632.D |
| Dilution: | 1.0 | Leach Batch: | N/A | Initial Weight/Volume: | 20 mL |
| Analysis Date: | 04/01/2014 1040 | Units: | ug/L | Final Weight/Volume: | 20 mL |
| Prep Date: | 04/01/2014 1040 | | | | |
| Leach Date: | N/A | | | | |

| Analyte | Spike Amount | Result | % Rec. | Limit | Qual |
|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | 5.00 | 4.42 | 88 | 70 - 135 | |
| 1,1-Dichloroethane | 5.00 | 4.21 | 84 | 75 - 135 | J |
| 1,1-Dichloroethene | 5.00 | 3.79 | 76 | 71 - 136 | J |
| 1,2-Dichloropropane | 5.00 | 4.15 | 83 | 71 - 120 | |
| 1,3-Dichlorobenzene | 5.00 | 4.40 | 88 | 74 - 135 | |
| Benzene | 5.00 | 4.13 | 83 | 74 - 135 | |
| Bromodichloromethane | 5.00 | 4.29 | 86 | 73 - 135 | |
| Carbon tetrachloride | 5.00 | 4.45 | 89 | 67 - 135 | |
| Chlorobenzene | 5.00 | 4.30 | 86 | 76 - 135 | |
| Chloroform | 5.00 | 4.27 | 85 | 76 - 120 | J |
| Ethylbenzene | 5.00 | 4.31 | 86 | 72 - 120 | |
| Methylene Chloride | 5.00 | 3.46 | 69 | 54 - 141 | |
| Tetrachloroethene | 5.00 | 4.00 | 80 | 70 - 135 | |
| Toluene | 5.00 | 4.29 | 86 | 73 - 120 | |
| trans-1,2-Dichloroethene | 5.00 | 4.11 | 82 | 75 - 135 | J |
| Trichloroethene | 5.00 | 4.33 | 87 | 73 - 135 | |

| Surrogate | % Rec | Acceptance Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 (Surr) | 92 | 70 - 127 |
| 4-Bromofluorobenzene (Surr) | 102 | 78 - 120 |
| Dibromofluoromethane (Surr) | 98 | 77 - 120 |
| Toluene-d8 (Surr) | 105 | 80 - 125 |

Client: Waste Management

Job Number: 280-53273-1

**Matrix Spike/**
**Matrix Spike Duplicate Recovery Report - Batch: 280-219169**

**Method: 8260B**
**Preparation: 5030B**

| | | | | | |
|---|---|---|---|---|---|
| MS Lab Sample ID: | 280-53273-11 | Analysis Batch: | 280-219169 | Instrument ID: | VMS_Z |
| Client Matrix: | Water | Prep Batch: | N/A | Lab File ID: | Z4635.D |
| Dilution: | 1.0 | Leach Batch: | N/A | Initial Weight/Volume: | 20 mL |
| Analysis Date: | 04/01/2014 1152 | | | Final Weight/Volume: | 20 mL |
| Prep Date: | 04/01/2014 1152 | | | | 20 mL |
| Leach Date: | N/A | | | | |

| | | | | | |
|---|---|---|---|---|---|
| MSD Lab Sample ID: | 280-53273-11 | Analysis Batch: | 280-219169 | Instrument ID: | VMS_Z |
| Client Matrix: | Water | Prep Batch: | N/A | Lab File ID: | Z4636.D |
| Dilution: | 1.0 | Leach Batch: | N/A | Initial Weight/Volume: | 20 mL |
| Analysis Date: | 04/01/2014 1215 | | | Final Weight/Volume: | 20 mL |
| Prep Date: | 04/01/2014 1215 | | | | 20 mL |
| Leach Date: | N/A | | | | |

| Analyte | % Rec. MS | % Rec. MSD | Limit | RPD | RPD Limit | MS Qual | MSD Qual |
|---|---|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | 92 | 90 | 70 - 135 | 2 | 20 | | |
| 1,1-Dichloroethane | 86 | 85 | 75 - 135 | 1 | 21 | J | J |
| 1,1-Dichloroethene | 78 | 77 | 71 - 136 | 2 | 20 | J | J |
| 1,2-Dichloropropane | 88 | 88 | 71 - 120 | 0 | 20 | | |
| 1,3-Dichlorobenzene | 93 | 91 | 74 - 135 | 2 | 20 | | |
| Benzene | 85 | 85 | 74 - 135 | 0 | 20 | | |
| Bromodichloromethane | 89 | 91 | 73 - 135 | 1 | 20 | | |
| Carbon tetrachloride | 90 | 90 | 67 - 135 | 0 | 21 | | |
| Chlorobenzene | 90 | 89 | 76 - 135 | 1 | 20 | | |
| Chloroform | 88 | 87 | 76 - 120 | 1 | 20 | J | J |
| Ethylbenzene | 90 | 88 | 72 - 120 | 2 | 26 | | |
| Methylene Chloride | 63 | 64 | 54 - 141 | 2 | 20 | | |
| Tetrachloroethene | 84 | 82 | 70 - 135 | 2 | 20 | | |
| Toluene | 90 | 90 | 73 - 120 | 0 | 20 | | |
| trans-1,2-Dichloroethene | 81 | 79 | 75 - 135 | 2 | 24 | J | J |
| Trichloroethene | 91 | 89 | 73 - 135 | 2 | 20 | | |

| Surrogate | MS % Rec | MSD % Rec | Acceptance Limits |
|---|---|---|---|
| 1,2-Dichloroethane-d4 (Surr) | 95 | 98 | 70 - 127 |
| 4-Bromofluorobenzene (Surr) | 98 | 103 | 78 - 120 |
| Dibromofluoromethane (Surr) | 100 | 100 | 77 - 120 |
| Toluene-d8 (Surr) | 109 | 108 | 80 - 125 |

Client: Waste Management

Job Number: 280-53273-1

**Matrix Spike/**
**Matrix Spike Duplicate Recovery Report - Batch: 280-219169**

**Method: 8260B**
**Preparation: 5030B**

| | | | | | |
|---|---|---|---|---|---|
| MS Lab Sample ID: | 280-53273-11 | Units: | ug/L | MSD Lab Sample ID: | 280-53273-11 |
| Client Matrix: | Water | | | Client Matrix: | Water |
| Dilution: | 1.0 | | | Dilution: | 1.0 |
| Analysis Date: | 04/01/2014 1152 | | | Analysis Date: | 04/01/2014 1215 |
| Prep Date: | 04/01/2014 1152 | | | Prep Date: | 04/01/2014 1215 |
| Leach Date: | N/A | | | Leach Date: | N/A |

| Analyte | Sample Result/Qual | | MS Spike Amount | MSD Spike Amount | MS Result/Qual | | MSD Result/Qual | |
|---|---|---|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | ND | | 5.00 | 5.00 | 4.59 | | 4.49 | |
| 1,1-Dichloroethane | 0.43 | J | 5.00 | 5.00 | 4.75 | J | 4.70 | J |
| 1,1-Dichloroethene | ND | | 5.00 | 5.00 | 3.92 | J | 3.84 | J |
| 1,2-Dichloropropane | ND | | 5.00 | 5.00 | 4.39 | | 4.40 | |
| 1,3-Dichlorobenzene | ND | | 5.00 | 5.00 | 4.65 | | 4.55 | |
| Benzene | ND | | 5.00 | 5.00 | 4.25 | | 4.27 | |
| Bromodichloromethane | ND | | 5.00 | 5.00 | 4.47 | | 4.53 | |
| Carbon tetrachloride | ND | | 5.00 | 5.00 | 4.48 | | 4.49 | |
| Chlorobenzene | ND | | 5.00 | 5.00 | 4.49 | | 4.44 | |
| Chloroform | ND | | 5.00 | 5.00 | 4.39 | J | 4.34 | J |
| Ethylbenzene | ND | | 5.00 | 5.00 | 4.49 | | 4.41 | |
| Methylene Chloride | ND | | 5.00 | 5.00 | 3.15 | | 3.21 | |
| Tetrachloroethene | ND | | 5.00 | 5.00 | 4.19 | | 4.10 | |
| Toluene | ND | | 5.00 | 5.00 | 4.48 | | 4.49 | |
| trans-1,2-Dichloroethene | ND | | 5.00 | 5.00 | 4.06 | J | 3.97 | J |
| Trichloroethene | ND | | 5.00 | 5.00 | 4.55 | | 4.46 | |

Client: Waste Management

Job Number: 280-53273-1

**Method Blank - Batch: 280-217744**

**Method: 6010C**
**Preparation: 3005A**
**Total Recoverable**

| | | | | | |
|---|---|---|---|---|---|
| Lab Sample ID: | MB 280-217744/1-A | Analysis Batch: | 280-218105 | Instrument ID: | MT_025 |
| Client Matrix: | Water | Prep Batch: | 280-217744 | Lab File ID: | 25A032114D.asc |
| Dilution: | 1.0 | Leach Batch: | N/A | Initial Weight/Volume: | 50 mL |
| Analysis Date: | 03/21/2014 2213 | Units: | ug/L | Final Weight/Volume: | 50 mL |
| Prep Date: | 03/21/2014 1300 | | | | |
| Leach Date: | N/A | | | | |

| Analyte | Result | Qual | MDL | RL |
|---|---|---|---|---|
| Barium | ND | | 0.58 | 100 |
| Beryllium | ND | | 0.47 | 1.0 |
| Chromium | ND | | 0.66 | 10 |
| Cobalt | ND | | 1.2 | 10 |
| Lead | ND | | 2.6 | 10 |
| Nickel | ND | | 1.3 | 50 |
| Vanadium | ND | | 1.1 | 25 |
| Silver | ND | | 0.93 | 10 |

**Lab Control Sample - Batch: 280-217744**

**Method: 6010C**
**Preparation: 3005A**
**Total Recoverable**

| | | | | | |
|---|---|---|---|---|---|
| Lab Sample ID: | LCS 280-217744/2-A | Analysis Batch: | 280-218105 | Instrument ID: | MT_025 |
| Client Matrix: | Water | Prep Batch: | 280-217744 | Lab File ID: | 25A032114D.asc |
| Dilution: | 1.0 | Leach Batch: | N/A | Initial Weight/Volume: | 50 mL |
| Analysis Date: | 03/21/2014 2215 | Units: | ug/L | Final Weight/Volume: | 50 mL |
| Prep Date: | 03/21/2014 1300 | | | | |
| Leach Date: | N/A | | | | |

| Analyte | Spike Amount | Result | % Rec. | Limit | Qual |
|---|---|---|---|---|---|
| Barium | 2000 | 2090 | 105 | 90 - 112 | |
| Beryllium | 50.0 | 50.3 | 101 | 89 - 113 | |
| Chromium | 200 | 207 | 104 | 90 - 113 | |
| Cobalt | 500 | 510 | 102 | 89 - 111 | |
| Lead | 500 | 508 | 102 | 89 - 110 | |
| Nickel | 500 | 510 | 102 | 89 - 111 | |
| Vanadium | 500 | 518 | 104 | 90 - 111 | |
| Silver | 50.0 | 53.9 | 108 | 86 - 115 | |

Client: Waste Management

Job Number: 280-53273-1

**Matrix Spike/**
**Matrix Spike Duplicate Recovery Report - Batch: 280-217744**

**Method: 6010C**
**Preparation: 3005A**
**Total Recoverable**

| | | | | | |
|---|---|---|---|---|---|
| MS Lab Sample ID: | 280-53273-2 | Analysis Batch: | 280-218105 | Instrument ID: | MT_025 |
| Client Matrix: | Water | Prep Batch: | 280-217744 | Lab File ID: | 25A032114D.asc |
| Dilution: | 1.0 | Leach Batch: | N/A | Initial Weight/Volume: | 50 mL |
| Analysis Date: | 03/21/2014 2225 | | | Final Weight/Volume: | 50 mL |
| Prep Date: | 03/21/2014 1300 | | | | |
| Leach Date: | N/A | | | | |

| | | | | | |
|---|---|---|---|---|---|
| MSD Lab Sample ID: | 280-53273-2 | Analysis Batch: | 280-218105 | Instrument ID: | MT_025 |
| Client Matrix: | Water | Prep Batch: | 280-217744 | Lab File ID: | 25A032114D.asc |
| Dilution: | 1.0 | Leach Batch: | N/A | Initial Weight/Volume: | 50 mL |
| Analysis Date: | 03/21/2014 2227 | | | Final Weight/Volume: | 50 mL |
| Prep Date: | 03/21/2014 1300 | | | | |
| Leach Date: | N/A | | | | |

| | % Rec. | | | | | | |
|---|---|---|---|---|---|---|---|
| Analyte | MS | MSD | Limit | RPD | RPD Limit | MS Qual | MSD Qual |
| Barium | 102 | 102 | 85 - 120 | 0 | 20 | | |
| Beryllium | 98 | 98 | 79 - 121 | 0 | 20 | | |
| Chromium | 102 | 101 | 73 - 135 | 1 | 20 | | |
| Cobalt | 100 | 100 | 82 - 119 | 0 | 20 | | |
| Lead | 100 | 99 | 89 - 121 | 1 | 20 | | |
| Nickel | 101 | 100 | 84 - 120 | 1 | 20 | | |
| Vanadium | 101 | 101 | 85 - 120 | 0 | 20 | | |
| Silver | 105 | 106 | 75 - 141 | 1 | 20 | | |

**Matrix Spike/**
**Matrix Spike Duplicate Recovery Report - Batch: 280-217744**

**Method: 6010C**
**Preparation: 3005A**
**Total Recoverable**

| | | | |
|---|---|---|---|
| MS Lab Sample ID: | 280-53273-2 | Units: | ug/L |
| Client Matrix: | Water | | |
| Dilution: | 1.0 | | |
| Analysis Date: | 03/21/2014 2225 | | |
| Prep Date: | 03/21/2014 1300 | | |
| Leach Date: | N/A | | |

| | |
|---|---|
| MSD Lab Sample ID: | 280-53273-2 |
| Client Matrix: | Water |
| Dilution: | 1.0 |
| Analysis Date: | 03/21/2014 2227 |
| Prep Date: | 03/21/2014 1300 |
| Leach Date: | N/A |

| Analyte | Sample Result/Qual | | MS Spike Amount | MSD Spike Amount | MS Result/Qual | MSD Result/Qual |
|---|---|---|---|---|---|---|
| Barium | 51 | J | 2000 | 2000 | 2090 | 2090 |
| Beryllium | ND | | 50.0 | 50.0 | 48.9 | 49.1 |
| Chromium | 1.1 | J | 200 | 200 | 205 | 204 |
| Cobalt | ND | | 500 | 500 | 501 | 500 |
| Lead | ND | | 500 | 500 | 502 | 497 |
| Nickel | ND | | 500 | 500 | 504 | 499 |
| Vanadium | ND | | 500 | 500 | 503 | 505 |
| Silver | ND | | 50.0 | 50.0 | 52.7 | 53.0 |

Client: Waste Management

Job Number: 280-53273-1

**Method Blank - Batch: 280-218636**

**Method: 6010C**
**Preparation: 3005A**
**Total Recoverable**

| | | | | | |
|---|---|---|---|---|---|
| Lab Sample ID: | MB 280-218636/1-A | Analysis Batch: | 280-218827 | Instrument ID: | MT_025 |
| Client Matrix: | Water | Prep Batch: | 280-218636 | Lab File ID: | 25A5032714.asc |
| Dilution: | 1.0 | Leach Batch: | N/A | Initial Weight/Volume: | 50 mL |
| Analysis Date: | 03/27/2014 2314 | Units: | ug/L | Final Weight/Volume: | 50 mL |
| Prep Date: | 03/27/2014 1230 | | | | |
| Leach Date: | N/A | | | | |

| Analyte | Result | Qual | MDL | RL |
|---|---|---|---|---|
| Barium | ND | | 0.58 | 100 |
| Beryllium | ND | | 0.47 | 1.0 |
| Chromium | ND | | 0.66 | 10 |
| Cobalt | ND | | 1.2 | 10 |
| Lead | ND | | 2.6 | 10 |
| Nickel | ND | | 1.3 | 50 |
| Vanadium | ND | | 1.1 | 25 |
| Silver | ND | | 0.93 | 10 |

**Lab Control Sample - Batch: 280-218636**

**Method: 6010C**
**Preparation: 3005A**
**Total Recoverable**

| | | | | | |
|---|---|---|---|---|---|
| Lab Sample ID: | LCS 280-218636/2-A | Analysis Batch: | 280-218827 | Instrument ID: | MT_025 |
| Client Matrix: | Water | Prep Batch: | 280-218636 | Lab File ID: | 25A5032714.asc |
| Dilution: | 1.0 | Leach Batch: | N/A | Initial Weight/Volume: | 50 mL |
| Analysis Date: | 03/27/2014 2316 | Units: | ug/L | Final Weight/Volume: | 50 mL |
| Prep Date: | 03/27/2014 1230 | | | | |
| Leach Date: | N/A | | | | |

| Analyte | Spike Amount | Result | % Rec. | Limit | Qual |
|---|---|---|---|---|---|
| Barium | 2000 | 2070 | 103 | 90 - 112 | |
| Beryllium | 50.0 | 49.4 | 99 | 89 - 113 | |
| Chromium | 200 | 201 | 100 | 90 - 113 | |
| Cobalt | 500 | 498 | 100 | 89 - 111 | |
| Lead | 500 | 499 | 100 | 89 - 110 | |
| Nickel | 500 | 491 | 98 | 89 - 111 | |
| Vanadium | 500 | 506 | 101 | 90 - 111 | |
| Silver | 50.0 | 51.3 | 103 | 86 - 115 | |

Client: Waste Management

Job Number: 280-53273-1

**Matrix Spike/**
**Matrix Spike Duplicate Recovery Report - Batch: 280-218636**

**Method: 6010C**
**Preparation: 3005A**
**Total Recoverable**

| | | | | | |
|---|---|---|---|---|---|
| MS Lab Sample ID: | 280-53273-11 | Analysis Batch: | 280-218827 | Instrument ID: | MT_025 |
| Client Matrix: | Water | Prep Batch: | 280-218636 | Lab File ID: | 25A5032714.asc |
| Dilution: | 1.0 | Leach Batch: | N/A | Initial Weight/Volume: | 50 mL |
| Analysis Date: | 03/27/2014 2323 | | | Final Weight/Volume: | 50 mL |
| Prep Date: | 03/27/2014 1230 | | | | |
| Leach Date: | N/A | | | | |

| | | | | | |
|---|---|---|---|---|---|
| MSD Lab Sample ID: | 280-53273-11 | Analysis Batch: | 280-218827 | Instrument ID: | MT_025 |
| Client Matrix: | Water | Prep Batch: | 280-218636 | Lab File ID: | 25A5032714.asc |
| Dilution: | 1.0 | Leach Batch: | N/A | Initial Weight/Volume: | 50 mL |
| Analysis Date: | 03/27/2014 2325 | | | Final Weight/Volume: | 50 mL |
| Prep Date: | 03/27/2014 1230 | | | | |
| Leach Date: | N/A | | | | |

| | % Rec. | | | | | | |
|---|---|---|---|---|---|---|---|
| Analyte | MS | MSD | Limit | RPD | RPD Limit | MS Qual | MSD Qual |
| Barium | 103 | 105 | 85 - 120 | 2 | 20 | | |
| Beryllium | 98 | 100 | 79 - 121 | 2 | 20 | | |
| Chromium | 101 | 100 | 73 - 135 | 0 | 20 | | |
| Cobalt | 99 | 99 | 82 - 119 | 0 | 20 | | |
| Lead | 99 | 99 | 89 - 121 | 0 | 20 | | |
| Nickel | 98 | 98 | 84 - 120 | 0 | 20 | | |
| Vanadium | 102 | 103 | 85 - 120 | 1 | 20 | | |
| Silver | 101 | 104 | 75 - 141 | 3 | 20 | | |

**Matrix Spike/**
**Matrix Spike Duplicate Recovery Report - Batch: 280-218636**

**Method: 6010C**
**Preparation: 3005A**
**Total Recoverable**

| | | | |
|---|---|---|---|
| MS Lab Sample ID: | 280-53273-11 | Units: | ug/L |
| Client Matrix: | Water | | |
| Dilution: | 1.0 | | |
| Analysis Date: | 03/27/2014 2323 | | |
| Prep Date: | 03/27/2014 1230 | | |
| Leach Date: | N/A | | |

| | |
|---|---|
| MSD Lab Sample ID: | 280-53273-11 |
| Client Matrix: | Water |
| Dilution: | 1.0 |
| Analysis Date: | 03/27/2014 2325 |
| Prep Date: | 03/27/2014 1230 |
| Leach Date: | N/A |

| Analyte | Sample Result/Qual | | MS Spike Amount | MSD Spike Amount | MS Result/Qual | MSD Result/Qual |
|---|---|---|---|---|---|---|
| Barium | 11 | J | 2000 | 2000 | 2070 | 2120 |
| Beryllium | ND | | 50.0 | 50.0 | 49.2 | 50.0 |
| Chromium | ND | | 200 | 200 | 201 | 201 |
| Cobalt | ND | | 500 | 500 | 495 | 497 |
| Lead | ND | | 500 | 500 | 495 | 496 |
| Nickel | ND | | 500 | 500 | 490 | 489 |
| Vanadium | 8.6 | J | 500 | 500 | 516 | 523 |
| Silver | ND | | 50.0 | 50.0 | 50.4 | 51.8 |

Client: Waste Management

Job Number: 280-53273-1

**Method Blank - Batch: 280-217743**

**Method: 6020A**
**Preparation: 3005A**
**Total Recoverable**

| | | | | | |
|---|---|---|---|---|---|
| Lab Sample ID: | MB 280-217743/1-A | Analysis Batch: | 280-218022 | Instrument ID: | MT_024 |
| Client Matrix: | Water | Prep Batch: | 280-217743 | Lab File ID: | 209_BLK.D |
| Dilution: | 1.0 | Leach Batch: | N/A | Initial Weight/Volume: | 50 mL |
| Analysis Date: | 03/22/2014 0200 | Units: | ug/L | Final Weight/Volume: | 50 mL |
| Prep Date: | 03/21/2014 1300 | | | | |
| Leach Date: | N/A | | | | |

| Analyte | Result | Qual | MDL | RL |
|---|---|---|---|---|
| Antimony | ND | | 0.40 | 6.0 |
| Arsenic | ND | | 0.33 | 10 |
| Cadmium | ND | | 0.10 | 1.0 |
| Copper | ND | | 0.56 | 10 |
| Selenium | ND | | 0.70 | 10 |
| Thallium | ND | | 0.050 | 5.5 |
| Zinc | 3.87 | J | 2.0 | 10 |

**Lab Control Sample - Batch: 280-217743**

**Method: 6020A**
**Preparation: 3005A**
**Total Recoverable**

| | | | | | |
|---|---|---|---|---|---|
| Lab Sample ID: | LCS 280-217743/2-A | Analysis Batch: | 280-218022 | Instrument ID: | MT_024 |
| Client Matrix: | Water | Prep Batch: | 280-217743 | Lab File ID: | 210_LCS.D |
| Dilution: | 1.0 | Leach Batch: | N/A | Initial Weight/Volume: | 50 mL |
| Analysis Date: | 03/22/2014 0203 | Units: | ug/L | Final Weight/Volume: | 50 mL |
| Prep Date: | 03/21/2014 1300 | | | | |
| Leach Date: | N/A | | | | |

| Analyte | Spike Amount | Result | % Rec. | Limit | Qual |
|---|---|---|---|---|---|
| Antimony | 40.0 | 39.9 | 100 | 85 - 115 | |
| Arsenic | 40.0 | 41.4 | 104 | 85 - 117 | |
| Cadmium | 40.0 | 40.7 | 102 | 85 - 115 | |
| Copper | 40.0 | 42.9 | 107 | 85 - 119 | |
| Selenium | 40.0 | 41.6 | 104 | 77 - 122 | |
| Thallium | 40.0 | 41.5 | 104 | 85 - 118 | |
| Zinc | 40.0 | 44.8 | 112 | 83 - 122 | |

Client: Waste Management

Job Number: 280-53273-1

**Matrix Spike/**
**Matrix Spike Duplicate Recovery Report - Batch: 280-217743**

**Method: 6020A**
**Preparation: 3005A**
**Total Recoverable**

| | | | | | |
|---|---|---|---|---|---|
| MS Lab Sample ID: | 280-53273-17 | Analysis Batch: | 280-218022 | Instrument ID: | MT_024 |
| Client Matrix: | Water | Prep Batch: | 280-217743 | Lab File ID: | 235_MS.D |
| Dilution: | 1.0 | Leach Batch: | N/A | Initial Weight/Volume: | 50 mL |
| Analysis Date: | 03/22/2014 0319 | | | Final Weight/Volume: | 50 mL |
| Prep Date: | 03/21/2014 1300 | | | | |
| Leach Date: | N/A | | | | |

| | | | | | |
|---|---|---|---|---|---|
| MSD Lab Sample ID: | 280-53273-17 | Analysis Batch: | 280-218022 | Instrument ID: | MT_024 |
| Client Matrix: | Water | Prep Batch: | 280-217743 | Lab File ID: | 236_MSD.D |
| Dilution: | 1.0 | Leach Batch: | N/A | Initial Weight/Volume: | 50 mL |
| Analysis Date: | 03/22/2014 0322 | | | Final Weight/Volume: | 50 mL |
| Prep Date: | 03/21/2014 1300 | | | | |
| Leach Date: | N/A | | | | |

| | % Rec. | | | | | | |
|---|---|---|---|---|---|---|---|
| Analyte | MS | MSD | Limit | RPD | RPD Limit | MS Qual | MSD Qual |
| Antimony | 100 | 99 | 85 - 115 | 1 | 20 | | |
| Arsenic | 103 | 103 | 85 - 117 | 0 | 20 | | |
| Cadmium | 102 | 103 | 85 - 115 | 1 | 20 | | |
| Copper | 103 | 103 | 85 - 119 | 0 | 20 | | |
| Selenium | 105 | 106 | 77 - 122 | 1 | 20 | | |
| Thallium | 103 | 103 | 85 - 118 | 1 | 20 | | |
| Zinc | 103 | 102 | 83 - 122 | 1 | 20 | | |

**Matrix Spike/**
**Matrix Spike Duplicate Recovery Report - Batch: 280-217743**

**Method: 6020A**
**Preparation: 3005A**
**Total Recoverable**

| | | | |
|---|---|---|---|
| MS Lab Sample ID: | 280-53273-17 | Units: | ug/L |
| Client Matrix: | Water | | |
| Dilution: | 1.0 | | |
| Analysis Date: | 03/22/2014 0319 | | |
| Prep Date: | 03/21/2014 1300 | | |
| Leach Date: | N/A | | |

| | |
|---|---|
| MSD Lab Sample ID: | 280-53273-17 |
| Client Matrix: | Water |
| Dilution: | 1.0 |
| Analysis Date: | 03/22/2014 0322 |
| Prep Date: | 03/21/2014 1300 |
| Leach Date: | N/A |

| Analyte | Sample Result/Qual | | MS Spike Amount | MSD Spike Amount | MS Result/Qual | MSD Result/Qual |
|---|---|---|---|---|---|---|
| Antimony | ND | | 40.0 | 40.0 | 40.1 | 39.7 |
| Arsenic | ND | | 40.0 | 40.0 | 41.2 | 41.1 |
| Cadmium | ND | | 40.0 | 40.0 | 40.9 | 41.3 |
| Copper | 5.5 | J | 40.0 | 40.0 | 46.9 | 46.8 |
| Selenium | ND | | 40.0 | 40.0 | 42.0 | 42.2 |
| Thallium | ND | | 40.0 | 40.0 | 41.1 | 41.3 |
| Zinc | 8.2 | J | 40.0 | 40.0 | 49.3 | 48.9 |

Client: Waste Management

Job Number: 280-53273-1

**Method Blank - Batch: 280-218633**

**Method: 6020A**
**Preparation: 3005A**
**Total Recoverable**

| | | | | | |
|---|---|---|---|---|---|
| Lab Sample ID: | MB 280-218633/1-A | Analysis Batch: | 280-218791 | Instrument ID: | MT_024 |
| Client Matrix: | Water | Prep Batch: | 280-218633 | Lab File ID: | 019_BLK.D |
| Dilution: | 1.0 | Leach Batch: | N/A | Initial Weight/Volume: | 50 mL |
| Analysis Date: | 03/27/2014 2021 | Units: | ug/L | Final Weight/Volume: | 50 mL |
| Prep Date: | 03/27/2014 1230 | | | | |
| Leach Date: | N/A | | | | |

| Analyte | Result | Qual | MDL | RL |
|---|---|---|---|---|
| Antimony | ND | | 0.40 | 6.0 |
| Arsenic | ND | | 0.33 | 10 |
| Cadmium | ND | | 0.10 | 1.0 |
| Copper | ND | | 0.56 | 10 |
| Selenium | ND | | 0.70 | 10 |
| Thallium | ND | | 0.050 | 5.5 |
| Zinc | ND | | 2.0 | 10 |

**Lab Control Sample - Batch: 280-218633**

**Method: 6020A**
**Preparation: 3005A**
**Total Recoverable**

| | | | | | |
|---|---|---|---|---|---|
| Lab Sample ID: | LCS 280-218633/2-A | Analysis Batch: | 280-218791 | Instrument ID: | MT_024 |
| Client Matrix: | Water | Prep Batch: | 280-218633 | Lab File ID: | 020_LCS.D |
| Dilution: | 1.0 | Leach Batch: | N/A | Initial Weight/Volume: | 50 mL |
| Analysis Date: | 03/27/2014 2024 | Units: | ug/L | Final Weight/Volume: | 50 mL |
| Prep Date: | 03/27/2014 1230 | | | | |
| Leach Date: | N/A | | | | |

| Analyte | Spike Amount | Result | % Rec. | Limit | Qual |
|---|---|---|---|---|---|
| Antimony | 40.0 | 39.6 | 99 | 85 - 115 | |
| Arsenic | 40.0 | 41.1 | 103 | 85 - 117 | |
| Cadmium | 40.0 | 40.4 | 101 | 85 - 115 | |
| Copper | 40.0 | 43.3 | 108 | 85 - 119 | |
| Selenium | 40.0 | 41.8 | 104 | 77 - 122 | |
| Thallium | 40.0 | 41.4 | 104 | 85 - 118 | |
| Zinc | 40.0 | 42.1 | 105 | 83 - 122 | |

Client: Waste Management

Job Number: 280-53273-1

**Matrix Spike/**
**Matrix Spike Duplicate Recovery Report - Batch: 280-218633**

**Method: 6020A**
**Preparation: 3005A**
**Total Recoverable**

| | | | | | |
|---|---|---|---|---|---|
| MS Lab Sample ID: | 280-53273-6 | Analysis Batch: | 280-218791 | Instrument ID: | MT_024 |
| Client Matrix: | Water | Prep Batch: | 280-218633 | Lab File ID: | 032_MS.D |
| Dilution: | 1.0 | Leach Batch: | N/A | Initial Weight/Volume: | 50 mL |
| Analysis Date: | 03/27/2014 2100 | | | Final Weight/Volume: | 50 mL |
| Prep Date: | 03/27/2014 1230 | | | | |
| Leach Date: | N/A | | | | |

| | | | | | |
|---|---|---|---|---|---|
| MSD Lab Sample ID: | 280-53273-6 | Analysis Batch: | 280-218791 | Instrument ID: | MT_024 |
| Client Matrix: | Water | Prep Batch: | 280-218633 | Lab File ID: | 033_MSD.D |
| Dilution: | 1.0 | Leach Batch: | N/A | Initial Weight/Volume: | 50 mL |
| Analysis Date: | 03/27/2014 2103 | | | Final Weight/Volume: | 50 mL |
| Prep Date: | 03/27/2014 1230 | | | | |
| Leach Date: | N/A | | | | |

| | % Rec. | | | | | | |
|---|---|---|---|---|---|---|---|
| Analyte | MS | MSD | Limit | RPD | RPD Limit | MS Qual | MSD Qual |
| Antimony | 96 | 98 | 85 - 115 | 2 | 20 | | |
| Arsenic | 101 | 103 | 85 - 117 | 2 | 20 | | |
| Cadmium | 100 | 102 | 85 - 115 | 1 | 20 | | |
| Copper | 106 | 106 | 85 - 119 | 0 | 20 | | |
| Selenium | 102 | 104 | 77 - 122 | 2 | 20 | | |
| Thallium | 101 | 103 | 85 - 118 | 2 | 20 | | |
| Zinc | 102 | 102 | 83 - 122 | 0 | 20 | | |

**Matrix Spike/**
**Matrix Spike Duplicate Recovery Report - Batch: 280-218633**

**Method: 6020A**
**Preparation: 3005A**
**Total Recoverable**

| | | | |
|---|---|---|---|
| MS Lab Sample ID: | 280-53273-6 | Units: | ug/L |
| Client Matrix: | Water | | |
| Dilution: | 1.0 | | |
| Analysis Date: | 03/27/2014 2100 | | |
| Prep Date: | 03/27/2014 1230 | | |
| Leach Date: | N/A | | |

| | |
|---|---|
| MSD Lab Sample ID: | 280-53273-6 |
| Client Matrix: | Water |
| Dilution: | 1.0 |
| Analysis Date: | 03/27/2014 2103 |
| Prep Date: | 03/27/2014 1230 |
| Leach Date: | N/A |

| Analyte | Sample Result/Qual | | MS Spike Amount | MSD Spike Amount | MS Result/Qual | MSD Result/Qual |
|---|---|---|---|---|---|---|
| Antimony | ND | | 40.0 | 40.0 | 38.6 | 39.3 |
| Arsenic | ND | | 40.0 | 40.0 | 40.4 | 41.3 |
| Cadmium | ND | | 40.0 | 40.0 | 40.2 | 40.6 |
| Copper | ND | | 40.0 | 40.0 | 42.3 | 42.5 |
| Selenium | ND | | 40.0 | 40.0 | 40.8 | 41.7 |
| Thallium | ND | | 40.0 | 40.0 | 40.5 | 41.4 |
| Zinc | 6.5 | J | 40.0 | 40.0 | 47.2 | 47.5 |

Client: Waste Management

Job Number: 280-53273-1

## Laboratory Chronicle

**Lab ID:** 280-53273-1 **Client ID:** 3406-01FB

Sample Date/Time: 03/19/2014 12:00 Received Date/Time: 03/20/2014 09:30

| Method | Bottle ID | Run | Analysis Batch | Prep Batch | Date Prepared / Analyzed | Dil | Lab | Analyst |
|---|---|---|---|---|---|---|---|---|
| P:5030B | 280-53273-B-1 | | 280-219162 | | 04/01/2014 10:21 | 1 | TAL DEN | TAW |
| A:8260B | 280-53273-B-1 | | 280-219162 | | 04/01/2014 10:21 | 1 | TAL DEN | TAW |
| P:3005A | 280-53273-A-1-B | | 280-218105 | 280-217744 | 03/21/2014 13:00 | 1 | TAL DEN | SEJ |
| A:6010C | 280-53273-A-1-B | | 280-218105 | 280-217744 | 03/21/2014 22:17 | 1 | TAL DEN | JKH |
| P:3005A | 280-53273-A-1-C | | 280-218791 | 280-218633 | 03/27/2014 12:30 | 1 | TAL DEN | LLB |
| A:6020A | 280-53273-A-1-C | | 280-218791 | 280-218633 | 03/27/2014 20:27 | 1 | TAL DEN | TEL |
| A:Field Sampling | 280-53273-A-1 | | 280-217982 | | 03/19/2014 10:00 | 1 | TAL DEN | TP |

**Lab ID:** 280-53273-2 **Client ID:** 3406-MW01

Sample Date/Time: 03/19/2014 11:05 Received Date/Time: 03/20/2014 09:30

| Method | Bottle ID | Run | Analysis Batch | Prep Batch | Date Prepared / Analyzed | Dil | Lab | Analyst |
|---|---|---|---|---|---|---|---|---|
| P:5030B | 280-53273-D-2 | | 280-219162 | | 04/01/2014 10:44 | 1 | TAL DEN | TAW |
| A:8260B | 280-53273-D-2 | | 280-219162 | | 04/01/2014 10:44 | 1 | TAL DEN | TAW |
| P:3005A | 280-53273-A-2-B | | 280-218105 | 280-217744 | 03/21/2014 13:00 | 1 | TAL DEN | SEJ |
| A:6010C | 280-53273-A-2-B | | 280-218105 | 280-217744 | 03/21/2014 22:20 | 1 | TAL DEN | JKH |
| P:3005A | 280-53273-A-2-E | | 280-218791 | 280-218633 | 03/27/2014 12:30 | 1 | TAL DEN | LLB |
| A:6020A | 280-53273-A-2-E | | 280-218791 | 280-218633 | 03/27/2014 20:30 | 1 | TAL DEN | TEL |
| A:Field Sampling | 280-53273-A-2 | | 280-217982 | | 03/19/2014 09:05 | 1 | TAL DEN | TP |

**Lab ID:** 280-53273-2 MS **Client ID:** 3406-MW01

Sample Date/Time: 03/19/2014 11:05 Received Date/Time: 03/20/2014 09:30

| Method | Bottle ID | Run | Analysis Batch | Prep Batch | Date Prepared / Analyzed | Dil | Lab | Analyst |
|---|---|---|---|---|---|---|---|---|
| P:5030B | 280-53273-B-2 MS | | 280-219162 | | 04/01/2014 11:07 | 1 | TAL DEN | TAW |
| A:8260B | 280-53273-B-2 MS | | 280-219162 | | 04/01/2014 11:07 | 1 | TAL DEN | TAW |
| P:3005A | 280-53273-A-2-C MS | | 280-218105 | 280-217744 | 03/21/2014 13:00 | 1 | TAL DEN | SEJ |
| A:6010C | 280-53273-A-2-C MS | | 280-218105 | 280-217744 | 03/21/2014 22:25 | 1 | TAL DEN | JKH |

**Lab ID:** 280-53273-2 MSD **Client ID:** 3406-MW01

Sample Date/Time: 03/19/2014 11:05 Received Date/Time: 03/20/2014 09:30

| Method | Bottle ID | Run | Analysis Batch | Prep Batch | Date Prepared / Analyzed | Dil | Lab | Analyst |
|---|---|---|---|---|---|---|---|---|
| P:5030B | 280-53273-B-2 MSD | | 280-219162 | | 04/01/2014 11:30 | 1 | TAL DEN | TAW |
| A:8260B | 280-53273-B-2 MSD | | 280-219162 | | 04/01/2014 11:30 | 1 | TAL DEN | TAW |
| P:3005A | 280-53273-A-2-D MSD | | 280-218105 | 280-217744 | 03/21/2014 13:00 | 1 | TAL DEN | SEJ |
| A:6010C | 280-53273-A-2-D MSD | | 280-218105 | 280-217744 | 03/21/2014 22:27 | 1 | TAL DEN | JKH |

Client: Waste Management

Job Number: 280-53273-1

## Laboratory Chronicle

**Lab ID:** 280-53273-3 **Client ID:** 3406-MW02

Sample Date/Time: 03/19/2014 07:44 Received Date/Time: 03/20/2014 09:30

| Method | Bottle ID | Run | Analysis Batch | Prep Batch | Date Prepared / Analyzed | Dil | Lab | Analyst |
|---|---|---|---|---|---|---|---|---|
| P:5030B | 280-53273-C-3 | | 280-219162 | | 04/01/2014 11:53 | 1 | TAL DEN | TAW |
| A:8260B | 280-53273-C-3 | | 280-219162 | | 04/01/2014 11:53 | 1 | TAL DEN | TAW |
| P:3005A | 280-53273-A-3-B | | 280-218105 | 280-217744 | 03/21/2014 13:00 | 1 | TAL DEN | SEJ |
| A:6010C | 280-53273-A-3-B | | 280-218105 | 280-217744 | 03/21/2014 22:40 | 1 | TAL DEN | JKH |
| P:3005A | 280-53273-A-3-C | | 280-218791 | 280-218633 | 03/27/2014 12:30 | 1 | TAL DEN | LLB |
| A:6020A | 280-53273-A-3-C | | 280-218791 | 280-218633 | 03/27/2014 20:33 | 1 | TAL DEN | TEL |
| A:Field Sampling | 280-53273-A-3 | | 280-217982 | | 03/19/2014 05:44 | 1 | TAL DEN | TP |

**Lab ID:** 280-53273-4 **Client ID:** 3406-MW03

Sample Date/Time: 03/19/2014 08:48 Received Date/Time: 03/20/2014 09:30

| Method | Bottle ID | Run | Analysis Batch | Prep Batch | Date Prepared / Analyzed | Dil | Lab | Analyst |
|---|---|---|---|---|---|---|---|---|
| P:5030B | 280-53273-B-4 | | 280-219162 | | 04/01/2014 12:16 | 1 | TAL DEN | TAW |
| A:8260B | 280-53273-B-4 | | 280-219162 | | 04/01/2014 12:16 | 1 | TAL DEN | TAW |
| P:3005A | 280-53273-A-4-B | | 280-218105 | 280-217744 | 03/21/2014 13:00 | 1 | TAL DEN | SEJ |
| A:6010C | 280-53273-A-4-B | | 280-218105 | 280-217744 | 03/21/2014 22:43 | 1 | TAL DEN | JKH |
| P:3005A | 280-53273-A-4-C | | 280-218791 | 280-218633 | 03/27/2014 12:30 | 1 | TAL DEN | LLB |
| A:6020A | 280-53273-A-4-C | | 280-218791 | 280-218633 | 03/27/2014 20:36 | 1 | TAL DEN | TEL |
| A:Field Sampling | 280-53273-A-4 | | 280-217982 | | 03/19/2014 06:48 | 1 | TAL DEN | TP |

**Lab ID:** 280-53273-5 **Client ID:** 3406-MW04

Sample Date/Time: 03/19/2014 10:45 Received Date/Time: 03/20/2014 09:30

| Method | Bottle ID | Run | Analysis Batch | Prep Batch | Date Prepared / Analyzed | Dil | Lab | Analyst |
|---|---|---|---|---|---|---|---|---|
| P:5030B | 280-53273-C-5 | | 280-219162 | | 04/01/2014 12:39 | 1 | TAL DEN | TAW |
| A:8260B | 280-53273-C-5 | | 280-219162 | | 04/01/2014 12:39 | 1 | TAL DEN | TAW |
| P:3005A | 280-53273-A-5-B | | 280-218105 | 280-217744 | 03/21/2014 13:00 | 1 | TAL DEN | SEJ |
| A:6010C | 280-53273-A-5-B | | 280-218105 | 280-217744 | 03/21/2014 22:45 | 1 | TAL DEN | JKH |
| P:3005A | 280-53273-A-5-C | | 280-218791 | 280-218633 | 03/27/2014 12:30 | 1 | TAL DEN | LLB |
| A:6020A | 280-53273-A-5-C | | 280-218791 | 280-218633 | 03/27/2014 20:48 | 1 | TAL DEN | TEL |
| A:Field Sampling | 280-53273-A-5 | | 280-217982 | | 03/19/2014 08:45 | 1 | TAL DEN | TP |

Client: Waste Management

Job Number: 280-53273-1

## Laboratory Chronicle

**Lab ID:** 280-53273-6 **Client ID:** 3406-MW04D

Sample Date/Time: 03/19/2014 11:17 Received Date/Time: 03/20/2014 09:30

| Method | Bottle ID | Run | Analysis Batch | Prep Batch | Date Prepared / Analyzed | Dil | Lab | Analyst |
|---|---|---|---|---|---|---|---|---|
| P:5030B | 280-53273-E-6 | | 280-219162 | | 04/01/2014 13:02 | 1 | TAL DEN | TAW |
| A:8260B | 280-53273-E-6 | | 280-219162 | | 04/01/2014 13:02 | 1 | TAL DEN | TAW |
| P:3005A | 280-53273-A-6-B | | 280-218105 | 280-217744 | 03/21/2014 13:00 | 1 | TAL DEN | SEJ |
| A:6010C | 280-53273-A-6-B | | 280-218105 | 280-217744 | 03/21/2014 22:48 | 1 | TAL DEN | JKH |
| P:3005A | 280-53273-A-6-C | | 280-218791 | 280-218633 | 03/27/2014 12:30 | 1 | TAL DEN | LLB |
| A:6020A | 280-53273-A-6-C | | 280-218791 | 280-218633 | 03/27/2014 20:51 | 1 | TAL DEN | TEL |
| A:Field Sampling | 280-53273-A-6 | | 280-217982 | | 03/19/2014 09:17 | 1 | TAL DEN | TP |

**Lab ID:** 280-53273-6 MS **Client ID:** 3406-MW04D

Sample Date/Time: 03/19/2014 11:17 Received Date/Time: 03/20/2014 09:30

| Method | Bottle ID | Run | Analysis Batch | Prep Batch | Date Prepared / Analyzed | Dil | Lab | Analyst |
|---|---|---|---|---|---|---|---|---|
| P:3005A | 280-53273-A-6-D MS | | 280-218791 | 280-218633 | 03/27/2014 12:30 | 1 | TAL DEN | LLB |
| A:6020A | 280-53273-A-6-D MS | | 280-218791 | 280-218633 | 03/27/2014 21:00 | 1 | TAL DEN | TEL |

**Lab ID:** 280-53273-6 MSD **Client ID:** 3406-MW04D

Sample Date/Time: 03/19/2014 11:17 Received Date/Time: 03/20/2014 09:30

| Method | Bottle ID | Run | Analysis Batch | Prep Batch | Date Prepared / Analyzed | Dil | Lab | Analyst |
|---|---|---|---|---|---|---|---|---|
| P:3005A | 280-53273-A-6-E MSD | | 280-218791 | 280-218633 | 03/27/2014 12:30 | 1 | TAL DEN | LLB |
| A:6020A | 280-53273-A-6-E MSD | | 280-218791 | 280-218633 | 03/27/2014 21:03 | 1 | TAL DEN | TEL |

**Lab ID:** 280-53273-7 **Client ID:** 3406-MW05

Sample Date/Time: 03/19/2014 09:55 Received Date/Time: 03/20/2014 09:30

| Method | Bottle ID | Run | Analysis Batch | Prep Batch | Date Prepared / Analyzed | Dil | Lab | Analyst |
|---|---|---|---|---|---|---|---|---|
| P:5030B | 280-53273-D-7 | | 280-219162 | | 04/01/2014 13:24 | 1 | TAL DEN | TAW |
| A:8260B | 280-53273-D-7 | | 280-219162 | | 04/01/2014 13:24 | 1 | TAL DEN | TAW |
| P:3005A | 280-53273-A-7-B | | 280-218105 | 280-217744 | 03/21/2014 13:00 | 1 | TAL DEN | SEJ |
| A:6010C | 280-53273-A-7-B | | 280-218105 | 280-217744 | 03/21/2014 22:50 | 1 | TAL DEN | JKH |
| P:3005A | 280-53273-A-7-A | | 280-218022 | 280-217743 | 03/21/2014 13:00 | 1 | TAL DEN | LLB |
| A:6020A | 280-53273-A-7-A | | 280-218022 | 280-217743 | 03/22/2014 02:33 | 1 | TAL DEN | TEL |
| A:Field Sampling | 280-53273-A-7 | | 280-217982 | | 03/19/2014 07:55 | 1 | TAL DEN | TP |

Client: Waste Management

Job Number: 280-53273-1

## Laboratory Chronicle

**Lab ID:** 280-53273-8 **Client ID:** 3406-MW06

Sample Date/Time: 03/19/2014 11:43 Received Date/Time: 03/20/2014 09:30

| Method | Bottle ID | Run | Analysis Batch | Prep Batch | Date Prepared / Analyzed | Dil | Lab | Analyst |
|---|---|---|---|---|---|---|---|---|
| P:5030B | 280-53273-C-8 | | 280-219162 | | 04/01/2014 13:47 | 1 | TAL DEN | TAW |
| A:8260B | 280-53273-C-8 | | 280-219162 | | 04/01/2014 13:47 | 1 | TAL DEN | TAW |
| P:3005A | 280-53273-A-8-B | | 280-218105 | 280-217744 | 03/21/2014 13:00 | 1 | TAL DEN | SEJ |
| A:6010C | 280-53273-A-8-B | | 280-218105 | 280-217744 | 03/21/2014 22:52 | 1 | TAL DEN | JKH |
| P:3005A | 280-53273-A-8-A | | 280-218022 | 280-217743 | 03/21/2014 13:00 | 1 | TAL DEN | LLB |
| A:6020A | 280-53273-A-8-A | | 280-218022 | 280-217743 | 03/22/2014 02:36 | 1 | TAL DEN | TEL |
| A:Field Sampling | 280-53273-A-8 | | 280-217982 | | 03/19/2014 09:43 | 1 | TAL DEN | TP |

**Lab ID:** 280-53273-9 **Client ID:** 3406-MW07

Sample Date/Time: 03/19/2014 09:18 Received Date/Time: 03/20/2014 09:30

| Method | Bottle ID | Run | Analysis Batch | Prep Batch | Date Prepared / Analyzed | Dil | Lab | Analyst |
|---|---|---|---|---|---|---|---|---|
| P:5030B | 280-53273-C-9 | | 280-219162 | | 04/01/2014 14:10 | 1 | TAL DEN | TAW |
| A:8260B | 280-53273-C-9 | | 280-219162 | | 04/01/2014 14:10 | 1 | TAL DEN | TAW |
| P:3005A | 280-53273-A-9-B | | 280-218105 | 280-217744 | 03/21/2014 13:00 | 1 | TAL DEN | SEJ |
| A:6010C | 280-53273-A-9-B | | 280-218105 | 280-217744 | 03/21/2014 22:55 | 1 | TAL DEN | JKH |
| P:3005A | 280-53273-A-9-A | | 280-218022 | 280-217743 | 03/21/2014 13:00 | 1 | TAL DEN | LLB |
| A:6020A | 280-53273-A-9-A | | 280-218022 | 280-217743 | 03/22/2014 02:39 | 1 | TAL DEN | TEL |
| A:Field Sampling | 280-53273-A-9 | | 280-217982 | | 03/19/2014 07:18 | 1 | TAL DEN | TP |

**Lab ID:** 280-53273-10 **Client ID:** 3406-MW08

Sample Date/Time: 03/19/2014 10:26 Received Date/Time: 03/20/2014 09:30

| Method | Bottle ID | Run | Analysis Batch | Prep Batch | Date Prepared / Analyzed | Dil | Lab | Analyst |
|---|---|---|---|---|---|---|---|---|
| P:5030B | 280-53273-E-10 | | 280-219162 | | 04/01/2014 14:33 | 1 | TAL DEN | TAW |
| A:8260B | 280-53273-E-10 | | 280-219162 | | 04/01/2014 14:33 | 1 | TAL DEN | TAW |
| P:3005A | 280-53273-A-10-B | | 280-218105 | 280-217744 | 03/21/2014 13:00 | 1 | TAL DEN | SEJ |
| A:6010C | 280-53273-A-10-B | | 280-218105 | 280-217744 | 03/21/2014 23:07 | 1 | TAL DEN | JKH |
| P:3005A | 280-53273-A-10-A | | 280-218022 | 280-217743 | 03/21/2014 13:00 | 1 | TAL DEN | LLB |
| A:6020A | 280-53273-A-10-A | | 280-218022 | 280-217743 | 03/22/2014 02:42 | 1 | TAL DEN | TEL |
| A:Field Sampling | 280-53273-A-10 | | 280-217982 | | 03/19/2014 08:26 | 1 | TAL DEN | TP |

Client: Waste Management

Job Number: 280-53273-1

## Laboratory Chronicle

**Lab ID:** **280-53273-11** **Client ID:** **3406-MW09R**

Sample Date/Time: 03/19/2014 08:13 Received Date/Time: 03/20/2014 09:30

| Method | Bottle ID | Run | Analysis Batch | Prep Batch | Date Prepared / Analyzed | Dil | Lab | Analyst |
|---|---|---|---|---|---|---|---|---|
| P:5030B | 280-53273-B-11 | | 280-219169 | | 04/01/2014 11:28 | 1 | TAL DEN | MRM |
| A:8260B | 280-53273-B-11 | | 280-219169 | | 04/01/2014 11:28 | 1 | TAL DEN | MRM |
| P:3005A | 280-53273-A-11-C | | 280-218827 | 280-218636 | 03/27/2014 12:30 | 1 | TAL DEN | LLB |
| A:6010C | 280-53273-A-11-C | | 280-218827 | 280-218636 | 03/27/2014 23:18 | 1 | TAL DEN | JKH |
| P:3005A | 280-53273-A-11-A | | 280-218022 | 280-217743 | 03/21/2014 13:00 | 1 | TAL DEN | LLB |
| A:6020A | 280-53273-A-11-A | | 280-218022 | 280-217743 | 03/22/2014 02:45 | 1 | TAL DEN | TEL |
| A:Field Sampling | 280-53273-A-11 | | 280-217982 | | 03/19/2014 06:13 | 1 | TAL DEN | TP |

**Lab ID:** **280-53273-11 MS** **Client ID:** **3406-MW09R**

Sample Date/Time: 03/19/2014 08:13 Received Date/Time: 03/20/2014 09:30

| Method | Bottle ID | Run | Analysis Batch | Prep Batch | Date Prepared / Analyzed | Dil | Lab | Analyst |
|---|---|---|---|---|---|---|---|---|
| P:5030B | 280-53273-C-11 MS | | 280-219169 | | 04/01/2014 11:52 | 1 | TAL DEN | MRM |
| A:8260B | 280-53273-C-11 MS | | 280-219169 | | 04/01/2014 11:52 | 1 | TAL DEN | MRM |
| P:3005A | 280-53273-A-11-D MS | | 280-218827 | 280-218636 | 03/27/2014 12:30 | 1 | TAL DEN | LLB |
| A:6010C | 280-53273-A-11-D MS | | 280-218827 | 280-218636 | 03/27/2014 23:23 | 1 | TAL DEN | JKH |

**Lab ID:** **280-53273-11 MSD** **Client ID:** **3406-MW09R**

Sample Date/Time: 03/19/2014 08:13 Received Date/Time: 03/20/2014 09:30

| Method | Bottle ID | Run | Analysis Batch | Prep Batch | Date Prepared / Analyzed | Dil | Lab | Analyst |
|---|---|---|---|---|---|---|---|---|
| P:5030B | 280-53273-C-11 MSD | | 280-219169 | | 04/01/2014 12:15 | 1 | TAL DEN | MRM |
| A:8260B | 280-53273-C-11 MSD | | 280-219169 | | 04/01/2014 12:15 | 1 | TAL DEN | MRM |
| P:3005A | 280-53273-A-11-E MSD | | 280-218827 | 280-218636 | 03/27/2014 12:30 | 1 | TAL DEN | LLB |
| A:6010C | 280-53273-A-11-E MSD | | 280-218827 | 280-218636 | 03/27/2014 23:25 | 1 | TAL DEN | JKH |

**Lab ID:** **280-53273-12** **Client ID:** **3406-MW10**

Sample Date/Time: 03/19/2014 09:10 Received Date/Time: 03/20/2014 09:30

| Method | Bottle ID | Run | Analysis Batch | Prep Batch | Date Prepared / Analyzed | Dil | Lab | Analyst |
|---|---|---|---|---|---|---|---|---|
| P:5030B | 280-53273-C-12 | | 280-219169 | | 04/01/2014 12:38 | 1 | TAL DEN | MRM |
| A:8260B | 280-53273-C-12 | | 280-219169 | | 04/01/2014 12:38 | 1 | TAL DEN | MRM |
| P:3005A | 280-53273-A-12-C | | 280-218827 | 280-218636 | 03/27/2014 12:30 | 1 | TAL DEN | LLB |
| A:6010C | 280-53273-A-12-C | | 280-218827 | 280-218636 | 03/27/2014 23:39 | 1 | TAL DEN | JKH |
| P:3005A | 280-53273-A-12-A | | 280-218022 | 280-217743 | 03/21/2014 13:00 | 1 | TAL DEN | LLB |
| A:6020A | 280-53273-A-12-A | | 280-218022 | 280-217743 | 03/22/2014 02:48 | 1 | TAL DEN | TEL |
| A:Field Sampling | 280-53273-A-12 | | 280-217982 | | 03/19/2014 07:10 | 1 | TAL DEN | TP |

Client: Waste Management

Job Number: 280-53273-1

## Laboratory Chronicle

**Lab ID:** 280-53273-13 **Client ID:** 3406-MW11

Sample Date/Time: 03/19/2014 08:12 Received Date/Time: 03/20/2014 09:30

| Method | Bottle ID | Run | Analysis Batch | Prep Batch | Date Prepared / Analyzed | Dil | Lab | Analyst |
|---|---|---|---|---|---|---|---|---|
| P:5030B | 280-53273-D-13 | | 280-219169 | | 04/01/2014 13:01 | 1 | TAL DEN | MRM |
| A:8260B | 280-53273-D-13 | | 280-219169 | | 04/01/2014 13:01 | 1 | TAL DEN | MRM |
| P:3005A | 280-53273-A-13-C | | 280-218827 | 280-218636 | 03/27/2014 12:30 | 1 | TAL DEN | LLB |
| A:6010C | 280-53273-A-13-C | | 280-218827 | 280-218636 | 03/27/2014 23:41 | 1 | TAL DEN | JKH |
| P:3005A | 280-53273-A-13-A | | 280-218022 | 280-217743 | 03/21/2014 13:00 | 1 | TAL DEN | LLB |
| A:6020A | 280-53273-A-13-A | | 280-218022 | 280-217743 | 03/22/2014 03:01 | 1 | TAL DEN | TEL |
| A:Field Sampling | 280-53273-A-13 | | 280-217982 | | 03/19/2014 06:12 | 1 | TAL DEN | TP |

**Lab ID:** 280-53273-14 **Client ID:** 3406-MW12

Sample Date/Time: 03/19/2014 10:11 Received Date/Time: 03/20/2014 09:30

| Method | Bottle ID | Run | Analysis Batch | Prep Batch | Date Prepared / Analyzed | Dil | Lab | Analyst |
|---|---|---|---|---|---|---|---|---|
| P:5030B | 280-53273-E-14 | | 280-219169 | | 04/01/2014 13:25 | 1 | TAL DEN | MRM |
| A:8260B | 280-53273-E-14 | | 280-219169 | | 04/01/2014 13:25 | 1 | TAL DEN | MRM |
| P:3005A | 280-53273-A-14-C | | 280-218827 | 280-218636 | 03/27/2014 12:30 | 1 | TAL DEN | LLB |
| A:6010C | 280-53273-A-14-C | | 280-218827 | 280-218636 | 03/27/2014 23:44 | 1 | TAL DEN | JKH |
| P:3005A | 280-53273-A-14-A | | 280-218022 | 280-217743 | 03/21/2014 13:00 | 1 | TAL DEN | LLB |
| A:6020A | 280-53273-A-14-A | | 280-218022 | 280-217743 | 03/22/2014 03:04 | 1 | TAL DEN | TEL |
| A:Field Sampling | 280-53273-A-14 | | 280-217982 | | 03/19/2014 08:11 | 1 | TAL DEN | TP |

**Lab ID:** 280-53273-15 **Client ID:** 3406-MW12D

Sample Date/Time: 03/19/2014 09:40 Received Date/Time: 03/20/2014 09:30

| Method | Bottle ID | Run | Analysis Batch | Prep Batch | Date Prepared / Analyzed | Dil | Lab | Analyst |
|---|---|---|---|---|---|---|---|---|
| P:5030B | 280-53273-B-15 | | 280-219169 | | 04/01/2014 13:48 | 1 | TAL DEN | MRM |
| A:8260B | 280-53273-B-15 | | 280-219169 | | 04/01/2014 13:48 | 1 | TAL DEN | MRM |
| P:3005A | 280-53273-A-15-C | | 280-218827 | 280-218636 | 03/27/2014 12:30 | 1 | TAL DEN | LLB |
| A:6010C | 280-53273-A-15-C | | 280-218827 | 280-218636 | 03/27/2014 23:46 | 1 | TAL DEN | JKH |
| P:3005A | 280-53273-A-15-A | | 280-218022 | 280-217743 | 03/21/2014 13:00 | 1 | TAL DEN | LLB |
| A:6020A | 280-53273-A-15-A | | 280-218022 | 280-217743 | 03/22/2014 03:07 | 1 | TAL DEN | TEL |
| A:Field Sampling | 280-53273-A-15 | | 280-217982 | | 03/19/2014 07:40 | 1 | TAL DEN | TP |

**Lab ID:** 280-53273-16 **Client ID:** TRIP BLANK

Sample Date/Time: 03/19/2014 07:44 Received Date/Time: 03/20/2014 09:30

| Method | Bottle ID | Run | Analysis Batch | Prep Batch | Date Prepared / Analyzed | Dil | Lab | Analyst |
|---|---|---|---|---|---|---|---|---|
| P:5030B | 280-53273-C-16 | | 280-219169 | | 04/01/2014 14:11 | 1 | TAL DEN | MRM |
| A:8260B | 280-53273-C-16 | | 280-219169 | | 04/01/2014 14:11 | 1 | TAL DEN | MRM |

Client: Waste Management

Job Number: 280-53273-1

## Laboratory Chronicle

**Lab ID:** 280-53273-17 **Client ID:** 3406-MW11D

Sample Date/Time: 03/19/2014 08:41 Received Date/Time: 03/20/2014 09:30

| Method | Bottle ID | Run | Analysis Batch | Prep Batch | Date Prepared / Analyzed | Dil | Lab | Analyst |
|---|---|---|---|---|---|---|---|---|
| P:5030B | 280-53273-B-17 | | 280-219169 | | 04/01/2014 14:34 | 1 | TAL DEN | MRM |
| A:8260B | 280-53273-B-17 | | 280-219169 | | 04/01/2014 14:34 | 1 | TAL DEN | MRM |
| P:3005A | 280-53273-A-17-E | | 280-218827 | 280-218636 | 03/27/2014 12:30 | 1 | TAL DEN | LLB |
| A:6010C | 280-53273-A-17-E | | 280-218827 | 280-218636 | 03/27/2014 23:48 | 1 | TAL DEN | JKH |
| P:3005A | 280-53273-A-17-A | | 280-218022 | 280-217743 | 03/21/2014 13:00 | 1 | TAL DEN | LLB |
| A:6020A | 280-53273-A-17-A | | 280-218022 | 280-217743 | 03/22/2014 03:10 | 1 | TAL DEN | TEL |
| A:Field Sampling | 280-53273-A-17 | | 280-217982 | | 03/19/2014 06:41 | 1 | TAL DEN | TP |

**Lab ID:** 280-53273-17 MS **Client ID:** 3406-MW11D

Sample Date/Time: 03/19/2014 08:41 Received Date/Time: 03/20/2014 09:30

| Method | Bottle ID | Run | Analysis Batch | Prep Batch | Date Prepared / Analyzed | Dil | Lab | Analyst |
|---|---|---|---|---|---|---|---|---|
| P:3005A | 280-53273-A-17-B MS | | 280-218022 | 280-217743 | 03/21/2014 13:00 | 1 | TAL DEN | LLB |
| A:6020A | 280-53273-A-17-B MS | | 280-218022 | 280-217743 | 03/22/2014 03:19 | 1 | TAL DEN | TEL |

**Lab ID:** 280-53273-17 MSD **Client ID:** 3406-MW11D

Sample Date/Time: 03/19/2014 08:41 Received Date/Time: 03/20/2014 09:30

| Method | Bottle ID | Run | Analysis Batch | Prep Batch | Date Prepared / Analyzed | Dil | Lab | Analyst |
|---|---|---|---|---|---|---|---|---|
| P:3005A | 280-53273-A-17-C MSD | | 280-218022 | 280-217743 | 03/21/2014 13:00 | 1 | TAL DEN | LLB |
| A:6020A | 280-53273-A-17-C MSD | | 280-218022 | 280-217743 | 03/22/2014 03:22 | 1 | TAL DEN | TEL |

**Lab ID:** MB **Client ID:** N/A

Sample Date/Time: N/A Received Date/Time: N/A

| Method | Bottle ID | Run | Analysis Batch | Prep Batch | Date Prepared / Analyzed | Dil | Lab | Analyst |
|---|---|---|---|---|---|---|---|---|
| P:5030B | MB 280-219162/6 | | 280-219162 | | 04/01/2014 09:46 | 1 | TAL DEN | TAW |
| A:8260B | MB 280-219162/6 | | 280-219162 | | 04/01/2014 09:46 | 1 | TAL DEN | TAW |
| P:5030B | MB 280-219169/11 | | 280-219169 | | 04/01/2014 11:04 | 1 | TAL DEN | MRM |
| A:8260B | MB 280-219169/11 | | 280-219169 | | 04/01/2014 11:04 | 1 | TAL DEN | MRM |
| P:3005A | MB 280-217744/1-A | | 280-218105 | 280-217744 | 03/21/2014 13:00 | 1 | TAL DEN | SEJ |
| A:6010C | MB 280-217744/1-A | | 280-218105 | 280-217744 | 03/21/2014 22:13 | 1 | TAL DEN | JKH |
| P:3005A | MB 280-218636/1-A | | 280-218827 | 280-218636 | 03/27/2014 12:30 | 1 | TAL DEN | LLB |
| A:6010C | MB 280-218636/1-A | | 280-218827 | 280-218636 | 03/27/2014 23:14 | 1 | TAL DEN | JKH |
| P:3005A | MB 280-217743/1-A | | 280-218022 | 280-217743 | 03/21/2014 13:00 | 1 | TAL DEN | LLB |
| A:6020A | MB 280-217743/1-A | | 280-218022 | 280-217743 | 03/22/2014 02:00 | 1 | TAL DEN | TEL |
| P:3005A | MB 280-218633/1-A | | 280-218791 | 280-218633 | 03/27/2014 12:30 | 1 | TAL DEN | LLB |
| A:6020A | MB 280-218633/1-A | | 280-218791 | 280-218633 | 03/27/2014 20:21 | 1 | TAL DEN | TEL |

Client: Waste Management

Job Number: 280-53273-1

## Laboratory Chronicle

**Lab ID:** **LCS** **Client ID:** **N/A**

Sample Date/Time: N/A Received Date/Time: N/A

| Method | Bottle ID | Run | Analysis Batch | Prep Batch | Date Prepared / Analyzed | Dil | Lab | Analyst |
|---|---|---|---|---|---|---|---|---|
| P:5030B | LCS 280-219162/4 | | 280-219162 | | 04/01/2014 09:23 | 1 | TAL DEN | TAW |
| A:8260B | LCS 280-219162/4 | | 280-219162 | | 04/01/2014 09:23 | 1 | TAL DEN | TAW |
| P:5030B | LCS 280-219169/10 | | 280-219169 | | 04/01/2014 10:40 | 1 | TAL DEN | MRM |
| A:8260B | LCS 280-219169/10 | | 280-219169 | | 04/01/2014 10:40 | 1 | TAL DEN | MRM |
| P:3005A | LCS 280-217744/2-A | | 280-218105 | 280-217744 | 03/21/2014 13:00 | 1 | TAL DEN | SEJ |
| A:6010C | LCS 280-217744/2-A | | 280-218105 | 280-217744 | 03/21/2014 22:15 | 1 | TAL DEN | JKH |
| P:3005A | LCS 280-218636/2-A | | 280-218827 | 280-218636 | 03/27/2014 12:30 | 1 | TAL DEN | LLB |
| A:6010C | LCS 280-218636/2-A | | 280-218827 | 280-218636 | 03/27/2014 23:16 | 1 | TAL DEN | JKH |
| P:3005A | LCS 280-217743/2-A | | 280-218022 | 280-217743 | 03/21/2014 13:00 | 1 | TAL DEN | LLB |
| A:6020A | LCS 280-217743/2-A | | 280-218022 | 280-217743 | 03/22/2014 02:03 | 1 | TAL DEN | TEL |
| P:3005A | LCS 280-218633/2-A | | 280-218791 | 280-218633 | 03/27/2014 12:30 | 1 | TAL DEN | LLB |
| A:6020A | LCS 280-218633/2-A | | 280-218791 | 280-218633 | 03/27/2014 20:24 | 1 | TAL DEN | TEL |

**Lab References:**

TAL DEN = TestAmerica Denver

Tes
4955
Arva
Phon

280-53273 Chain of Custody

# Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

| | | | |
|---|---|---|---|
| Client: | Sampler: DAN ARMOUR | Lab PM: Sara, Betsy A | Carrier Tracking No(s): |
| Client Contact: Mr. Al Lacsamana | Phone: 225.907.4060 | E-Mail: betsy.sara@testamericainc.com | |
| Company: WM-Southern Area | | | |
| Address: 1000 Parkwood Circle, Suite 700 | Due Date Requested: | | |
| City: Atlanta | TAT Requested (days): | | |
| State, Zip: GA, 30339 | | | |
| Phone: 609-434-5622 | PO #: | | |
| Email: alacsama@wm.com | WO #: | | |
| Project Name: 134\|Piedmont Landfill | Project #: 28003156 - SA GW Monitoring Mar | | |
| Site: North Carolina | SSOW#: | | |

COC No: 280-15240-4080.1
Page.
Job #:

**Analysis Requested**

**Preservation Codes:**
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA
M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2SO3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - ph 4-5, Z - other (specify)
Other:

| Sample Identification | Sample Date | Sample Time | Sample Type (C=comp, G=grab) | Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air) | Field Filtered Sample (Yes or No) | Perform MS/MSD (Yes or No) | Total Metals | 8260B - VOA | | ⊗ DISSOLVED METALS | | | | | | | | | Total Number of containers | Special Instructions/Note: |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Preservation Code: | | X | X | D | A | | | | | | | | | | | X | |
| 01FB | 3-19 | 1200 | G | W | N | | 1 | 3 | | | | | | | | | | | | |
| MW01 | 3-19 | 1105 | G | W | N | | 1 | 3 | | | | | | | | | | | | ⊗ DISSOLVED METALS- |
| MW02 | 3-19 | 0744 | G | W | N | | 1 | 3 | | | | | | | | | | | | ONLY ANALYZED AS |
| MW03 | 3-19 | 0848 | G | W | N | | 1 | 3 | | | | | | | | | | | | NEEDED, PLEASE |
| MW04 | 3-19 | 1045 | G | W | Y | | 1 | 3 | | 1 | | | | | | | | | | CONSULT AL LACSAMANA |
| MW04D | 3-19 | 1117 | G | W | Y | | 1 | 3 | | 1 | | | | | | | | | | |
| MW05 | 3-19 | 0955 | G | W | N | | 1 | 3 | | | | | | | | | | | | |
| MW06 | 3-19 | 1143 | G | W | N | | 1 | 3 | | | | | | | | | | | | |
| MW07 | 3-19 | 0918 | G | W | N | | 1 | 3 | | | | | | | | | | | | |
| MW08 | 3-19 | 1026 | G | W | Y | | 1 | 3 | | 1 | | | | | | | | | | |
| MW09R | 3-19 | 0813 | G | W | N | | 1 | 3 | | | | | | | | | | | | |

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

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

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

| | | | |
|---|---|---|---|
| Empty Kit Relinquished by: | Date: | Time: | Method of Shipment: |

| | | | | | |
|---|---|---|---|---|---|
| Relinquished by: | Date/Time: 3-19-14 / 1530 | Company: PRO-TECH | Received by: | Date/Time: 3/20/14 9:30 | Company: TA |
| Relinquished by: | Date/Time: | Company: | Received by: | Date/Time: | Company: |
| Relinquished by: | Date/Time: | Company: | Received by: | Date/Time: | Company: |

Custody Seals Intact: Δ Yes Δ No
Custody Seal No.:
Cooler Temperature(s) °C and Other Remarks: 0.8 IR5 to.2 3/20/14 9:30

**TestAmerica Denver**
4955 Yarrow Street
Arvada, CO 80002
Phone (303) 736-0100 Fax (303) 431-7171

# Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

| Client Information | Sampler: DAN ARMOUR | Lab PM: Sara, Betsy A | Carrier Tracking No(s): | COC No: 280-15240-4080.1 |
|---|---|---|---|---|
| Client Contact: Mr. Al Lacsamana | Phone: 225.907.4060 | E-Mail: betsy.sara@testamericainc.com | | Page: |
| Company: WM-Southern Area | | | | Job # |
| Address: 1000 Parkwood Circle, Suite 700 | Due Date Requested: | | | |
| City: Atlanta | TAT Requested (days): | | | |
| State, Zip: GA, 30339 | | | | |
| Phone: 609-434-5622 | PO #: | | | |
| Email: alacsama@wm.com | WO #: | | | |
| Project Name: 134\|Piedmont Landfill | Project #: 28003156 - SA GW Monitoring Mar | | | |
| Site: North Carolina | SSOW#: | | | |

**Analysis Requested**

**Preservation Codes:**

| | |
|---|---|
| A - HCL | M - Hexane |
| B - NaOH | N - None |
| C - Zn Acetate | O - AsNaO2 |
| D - Nitric Acid | P - Na2O4S |
| E - NaHSO4 | Q - Na2SO3 |
| F - MeOH | R - Na2S2SO3 |
| G - Amchlor | S - H2SO4 |
| H - Ascorbic Acid | T - TSP Dodecahydrate |
| I - Ice | U - Acetone |
| J - DI Water | V - MCAA |
| K - EDTA | W - ph 4-5 |
| L - EDA | Z - other (specify) |

Other:

| Sample Identification | Sample Date | Sample Time | Sample Type (C=comp, G=grab) | Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air) | Field Filtered Sample (Yes or No) | Perform MS/MSD (Yes or No) | Total Metals | 8260B - VOA | | ⊗ DISSOLVED METALS | | | | | | | | | Total Number of containers | Special Instructions/Note: |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Preservation Code: | | | | D | A | | | | | | | | | | | | |
| MW10 | 3-19 | 0910 | G | W | N | | 1 | 3 | | | | | | | | | | | | ⊗ DISSOLVED METALS - |
| MW11 | 3-19 | 0812 | G | W | N | | 1 | 3 | | | | | | | | | | | | ANALYSE ONLY AS |
| MW12 | 3-19 | 1011 | G | W | Y | | 1 | 3 | | 1 | | | | | | | | | | NEEDED - CONSULT |
| MW12D | 3-19 | 0940 | G | W | N | | 1 | 3 | | | | | | | | | | | | AL LACSAMANA |
| TRIP | 3-19 | — | G | W | N | | | ✓ | | | | | | | | | | | | |
| MW11D | 3-19 | 0841 | G | W | N | | 1 | 3 | | | | | | | | | | | | |

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

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

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

| Empty Kit Relinquished by: | Date: | Time: | Method of Shipment: | | |
|---|---|---|---|---|---|
| Relinquished by: | Date/Time: 3-19-14 / 1530 | Company: PRO-TECH | Received by: | Date/Time: 3/20/14 9:30 | Company: TA |
| Relinquished by: | Date/Time: | Company | Received by: | Date/Time. | Company |
| Relinquished by. | Date/Time: | Company | Received by: | Date/Time. | Company |

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks.

# FIELD INFORMATION FORM

WASTE MANAGEMENT

Site Name: PIEDMONT

Site No.:

Sample Point: 01FB (Sample ID)

**This Waste Management Field Information Form is Required**
This form is to be completed, in addition to any State Forms. The Field Form is submitted along with the Chain of Custody Forms that accompany the sample containers (i.e. with the cooler that is returned to the laboratory).

Laboratory Use Only/Lab ID:

## PURGE INFO

| PURGE DATE (MM DD YY) | PURGE TIME (2400 Hr Clock) | ELAPSED HRS (hrs:min) | WATER VOL IN CASING (Gallons) | ACTUAL VOL PURGED (Gallons) | WELL VOLs PURGED |
|---|---|---|---|---|---|
| 03/19/14 | 1200 | | | | |

*Note: For Passive Sampling, replace "Water Vol in Casing" and "Well Vols Purged" w/ Water Vol in Tubing/Flow Cell and Tubing/Flow Cell Vols Purged Mark changes, record field data, below.*

## PURGE/SAMPLE EQUIPMENT

Purging and Sampling Equipment . . . Dedicated: (Y) or N

Filter Device: Y or (N) 0.45 µ or ____ µ (circle or fill in)

Purging Device: –
A-Submersible Pump, B-Peristaltic Pump, C-QED Bladder Pump, D-Bailer, E-Piston Pump, F-Dipper/Bottle

Sampling Device: X

Filter Type: A-In-line Disposable, B-Pressure, C-Vacuum, X-Other ____

Sample Tube Type: A-Teflon, B-Stainless Steel, C-PVC, D-Polypropylene, X-Other: ____

X-Other: SAMPLE BOTTLES

## WELL DATA

Well Elevation (at TOC) ____ (ft/msl)

Depth to Water (DTW) (from TOC) ____ (ft)

Groundwater Elevation (site datum, from TOC) ____ (ft/msl)

Total Well Depth (from TOC) ____ (ft)

Stick Up (from ground elevation) ____ (ft)

Casing ID ____ (in)

Casing Material ____

*Note: Total Well Depth, Stick Up, Casing Id. etc. are optional and can be from historical data, unless required by Site/Permit Well Elevation, DTW, and Groundwater Elevation must be current*

## STABILIZATION DATA (Optional)

| Sample Time (2400 Hr Clock) | Rate/Unit | pH (std) | Conductance (SC/EC) (µmhos/cm@25°C) | Temp. (°C) | Turbidity (ntu) | D.O. (mg/L - ppm) | eH/ORP (mV) | DTW (ft) |
|---|---|---|---|---|---|---|---|---|
| 1200 | NA 1st | 7.91 1st | 3 1st | 17.6 | 0.0 | 1.1 | 95 | |
| | 2nd | 2nd | 2nd | | | | | |
| | 3rd | 3rd | 3rd | | | | | |
| | 4th | 4th | 4th | | | | | |
| Suggested range for 3 consec readings or note Permit/State requirements: | | +/- 0.2 | +/- 3% | -- | -- | +/- 10% | +/- 25 mV | Stabilize |

**Stabilization Data Fields are Optional** *(i.e. complete stabilization readings for parameters required by WM, Site, or State) These fields can be used where four (4) field measurements are required by State/Permit/Site If a Data Logger or other Electronic format is used, fill in final readings below and submit electronic data separately to Site. If more fields above are needed, use separate sheet or form.*

## FIELD DATA

| SAMPLE DATE (MM DD YY) | pH (std) | CONDUCTANCE (umhos/cm @ 25°C) | TEMP. (°C) | TURBIDITY (ntu) | DO (mg/L-ppm) | eH/ORP (mV) | Other: ____ Units ____ |
|---|---|---|---|---|---|---|---|
| 03/19/14 | 7.91 | 3 | 17.6 | 0.0 | 1.1 | 95 | |

**Final Field Readings are required** *(i.e. record field measurements, final stabilized readings, passive sample readings before sampling for all field parameters required by State/Permit/Site*

**Sample Appearance:** CLEAR Odor: ____ Color: NONE Other: ____

**Weather Conditions** (required daily, or as conditions change): Direction/Speed: ____ Outlook: ____ Precipitation: Y or N

**Specific Comments (including purge/well volume calculations if required):**

## FIELD COMMENTS

01FB COMPLETED USING D.I. $H_2O$ PROVIDED BY TEST AMERICA

**I certify that sampling procedures were in accordance with applicable EPA, State, and WM protocols (if more than one sampler, all should sign):**

| Date | Name | Signature | Company |
|---|---|---|---|
| 3/19/14 | DAN ARMOUR | | PRO-TECH |

DISTRIBUTION: WHITE/ORIGINAL - Stays with Sample, YELLOW - Returned to Client. PINK - Field Copy

# FIELD INFORMATION FORM

WASTE MANAGEMENT

Site Name: PIEDMONT

Site No.:

Sample Point: MW01 (Sample ID)

**This Waste Management Field Information Form is Required**
This form is to be completed, in addition to any State Forms. The Field Form is submitted along with the Chain of Custody Forms that accompany the sample containers (i.e. with the cooler that is returned to the laboratory).

Laboratory Use Only/Lab ID:

**PURGE INFO**

| PURGE DATE (MM DD YY) | PURGE TIME (2400 Hr Clock) | ELAPSED HRS (hrs:min) | WATER VOL IN CASING (Gallons) | ACTUAL VOL PURGED (Gallons) | WELL VOLs PURGED |
|---|---|---|---|---|---|
| 031914 | 1045 | 00:20 | 08 | 15 | 1.9 |

*Note: For Passive Sampling, replace "Water Vol in Casing" and "Well Vols Purged" w/ Water Vol in Tubing/Flow Cell and Tubing/Flow Cell Vols Purged. Mark changes, record field data, below.*

**PURGE/SAMPLE EQUIPMENT**

Purging and Sampling Equipment... Dedicated: (Y) or N

Filter Device: Y or (N) 0.45 µ or ____ µ (circle or fill in)

Purging Device: C — A-Submersible Pump, B-Peristaltic Pump, C-QED Bladder Pump, D-Bailer, E-Piston Pump, F-Dipper/Bottle

Sampling Device: C

Filter Type: — A-In-line Disposable, B-Pressure, C-Vacuum, X-Other

X-Other:

Sample Tube Type: A — A-Teflon, B-Stainless Steel, C-PVC, D-Polypropylene, X-Other:

**WELL DATA**

| Well Elevation (at TOC) | Depth to Water (DTW) (from TOC) | Groundwater Elevation (site datum, from TOC) |
|---|---|---|
| 823.93 (ft/msl) | 44.20 (ft) | 779.73 (ft/msl) |

| Total Well Depth (from TOC) | Stick Up (from ground elevation) | Casing ID | Casing Material |
|---|---|---|---|
| 49.00 (ft) | (ft) | 2 (in) | PVC |

*Note. Total Well Depth, Stick Up, Casing Id. etc. are optional and can be from historical data, unless required by Site/Permit. Well Elevation, DTW, and Groundwater Elevation must be current*

**STABILIZATION DATA (Optional)**

| Sample Time (2400 Hr Clock) | Rate/Unit gpm | pH (std) | Conductance (SC/EC) (µmhos/cm@25°C) | Temp. (°C) | Turbidity (ntu) | D.O. (mg/L - ppm) | eH/ORP (mV) | DTW (ft) |
|---|---|---|---|---|---|---|---|---|
| 1055 | .08 | 1st 5.48 | 1st 69 | 13.6 | 2.1 | 6.7 | 91.3 | 44.9 |
| 1058 | .08 | 2nd 5.47 | 2nd 68 | 13.6 | 1.9 | 6.7 | 93.7 | 44.9 |
| 1101 | .08 | 3rd 5.46 | 3rd 68 | 13.6 | 1.9 | 6.6 | 94.8 | 44.9 |
| 1104 | .08 | 4th 5.45 | 4th 68 | 13.7 | 1.7 | 6.6 | 95.5 | 44.9 |
| Suggested range for 3 consec readings or note Permit/State requirements. | | +/- 0.2 | +/- 3% | -- | -- | +/- 10% | +/- 25 mV | Stabilize |

**Stabilization Data Fields are Optional** *(i.e. complete stabilization readings for parameters required by WM, Site, or State). These fields can be used where four (4) field measurements are required by State/Permit/Site. If a Data Logger or other Electronic format is used, fill in final readings below and submit electronic data separately to Site. If more fields above are needed, use separate sheet or form.*

**FIELD DATA**

| SAMPLE DATE (MM DD YY) | pH (std) | CONDUCTANCE (umhos/cm @ 25°C) | TEMP. (°C) | TURBIDITY (ntu) | DO (mg/L-ppm) | eH/ORP (mV) | Other: Units |
|---|---|---|---|---|---|---|---|
| 031914 | 5.45 | 68 | 13.7 | 1.7 | 6.6 | 95.5 | |

**Final Field Readings are required** *(i.e. record field measurements, final stabilized readings, passive sample readings before sampling for all field parameters required by State/Permit/Site.*

**FIELD COMMENTS**

**Sample Appearance:** CLEAR Odor: ____ Color: NONE Other: ____

**Weather Conditions** (required daily, or as conditions change): Direction/Speed: CALM Outlook: CLOUDY, 42°F Precipitation: Y or (N)

**Specific Comments (including purge/well volume calculations if required):**

CALC: 49.00 − 44.20 = 4.80 × 0.163 = 0.78 GAL.
FLOW: 200 × 4 = 800 ÷ 60 = 13.33 MIN/GAL = 0.08 gpm.
VOL: 20.00 ÷ 13.33 = 1.5 GAL.

SAMPLE TIME: 1105

**I certify that sampling procedures were in accordance with applicable EPA, State, and WM protocols (if more than one sampler, all should sign):**

| Date | Name | Signature | Company |
|---|---|---|---|
| 03/19/14 | BEN RAMLEAWAN | Ben Ramlawan | PRO-TECH |

DISTRIBUTION: WHITE/ORIGINAL - Stays with Sample, YELLOW - Returned to Client, PINK - Field Copy

# FIELD INFORMATION FORM

WASTE MANAGEMENT

Site Name: PIEDMONT

Site No.:

Sample Point: MW02 (Sample ID)

**This Waste Management Field Information Form is Required**
This form is to be completed, in addition to any State Forms. The Field Form is submitted along with the Chain of Custody Forms that accompany the sample containers (i.e. with the cooler that is returned to the laboratory).

Laboratory Use Only/Lab ID:

**PURGE INFO**

| PURGE DATE (MM DD YY) | PURGE TIME (2400 Hr Clock) | ELAPSED HRS (hrs·min) | WATER VOL IN CASING (Gallons) | ACTUAL VOL PURGED (Gallons) | WELL VOLs PURGED |
|---|---|---|---|---|---|
| 031914 | 0726 | 118 | 12 | 15 | 1.3 |

*Note: For Passive Sampling, replace "Water Vol in Casing" and "Well Vols Purged" w/ Water Vol in Tubing/Flow Cell and Tubing/Flow Cell Vols Purged. Mark changes, record field data, below.*

**PURGE/SAMPLE EQUIPMENT**

Purging and Sampling Equipment . . . Dedicated: (Y) or N

Filter Device: Y or (N) 0.45 µ or ____ µ (circle or fill in)

Purging Device: C — A-Submersible Pump, B-Peristaltic Pump, C-QED Bladder Pump, D-Bailer, E-Piston Pump, F-Dipper/Bottle

Sampling Device: C

X-Other:

Filter Type: – A-In-line Disposable, B-Pressure, C-Vacuum, X-Other

Sample Tube Type: A — A-Teflon, B-Stainless Steel, C-PVC, D-Polypropylene, X-Other:

**WELL DATA**

Well Elevation (at TOC): 7784 (ft/msl)

Depth to Water (DTW) (from TOC): 2822 (ft)

Groundwater Elevation (site datum, from TOC): 7498 2 (ft/msl)

Total Well Depth (from TOC): 3550 (ft)

Stick Up (from ground elevation): (ft)

Casing ID: 2 (in)

Casing Material: PVC

*Note: Total Well Depth, Stick Up, Casing Id etc are optional and can be from historical data, unless required by Site/Permit. Well Elevation, DTW, and Groundwater Elevation must be current.*

**STABILIZATION DATA (Optional)**

| Sample Time (2400 Hr Clock) | Rate/Unit gpm | pH (std) | Conductance (SC/EC) (µmhos/cm@25°C) | Temp. (°C) | Turbidity (ntu) | D.O. (mg/L - ppm) | eH/ORP (mV) | DTW (ft) |
|---|---|---|---|---|---|---|---|---|
| 0737 | 0.09 1st | 5.12 1st | 147 | 15.1 | 22 | 1.0 | 186 | 28.3 |
| 0739 | 0.09 2nd | 5.11 2nd | 149 | 15.1 | 17 | 1.0 | 190 | 28.3 |
| 0741 | 0.09 3rd | 5.12 3rd | 149 | 15.1 | 16 | 1.0 | 191 | 28.3 |
| 0743 | 0.09 4th | 5.11 4th | 149 | 15.1 | 13 | 1.0 | 192 | 28.3 |
| | | | | | | | | |
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| Suggested range for 3 consec. readings or note Permit/State requirements: | | +/- 0.2 | +/- 3% | -- | -- | +/- 10% | +/- 25 mV | Stabilize |

**Stabilization Data Fields are Optional** *(i.e. complete stabilization readings for parameters required by WM, Site, or State) These fields can be used where four (4) field measurements are required by State/Permit/Site. If a Data Logger or other Electronic format is used, fill in final readings below and submit electronic data separately to Site* ***If more fields above are needed, use separate sheet or form.***

**FIELD DATA**

| SAMPLE DATE (MM DD YY) | pH (std) | CONDUCTANCE (umhos/cm @ 25°C) | TEMP. (°C) | TURBIDITY (ntu) | DO (mg/L-ppm) | eH/ORP (mV) | Other: ____ Units ____ |
|---|---|---|---|---|---|---|---|
| 031914 | 5.11 | 149 | 15.1 | 13 | 1.0 | 192 | |

**Final Field Readings are required** *(i.e. record field measurements, final stabilized readings, passive sample readings before sampling for all field parameters required by State/Permit/Site*

**Sample Appearance:** CLEAR Odor: ____ Color: NONE Other: ____

**Weather Conditions** (required daily, or as conditions change): Direction/Speed: CALM Outlook: cloudy 35°C Precipitation: Y or (N)

**Specific Comments (including purge/well volume calculations if required):**

**FIELD COMMENTS**

CALC: 35.50 - 28.22 = 7.28 x 0.163 = 1.19 gallon

FLOW: 176 cc/gt x 4 gt/gal = 704 cc/gal ÷ 60 cc/min = 11.73 min/gal ∴ 0.085 gpm

ACTUAL: 18 min x 0.085 gpm = 1.53 gallon

Sample Time: 0744

**I certify that sampling procedures were in accordance with applicable EPA, State, and WM protocols (if more than one sampler, all should sign):**

| Date | Name | Signature | Company |
|---|---|---|---|
| 3/19/14 | DAN ARMOUR | [signature] | PRO-TECH |
| __/__/__ | | | |

**DISTRIBUTION: WHITE/ORIGINAL - Stays with Sample, YELLOW - Returned to Client, PINK - Field Copy**

# FIELD INFORMATION FORM

WASTE MANAGEMENT

Site Name: PIEDMONT

Site No.:

Sample Point: MW03 (Sample ID)

**This Waste Management Field Information Form is Required**
This form is to be completed, in addition to any State Forms. The Field Form is submitted along with the Chain of Custody Forms that accompany the sample containers (i.e. with the cooler that is returned to the laboratory).

Laboratory Use Only/Lab ID:

## PURGE INFO

| PURGE DATE (MM DD YY) | PURGE TIME (2400 Hr Clock) | ELAPSED HRS (hrs:min) | WATER VOL IN CASING (Gallons) | ACTUAL VOL PURGED (Gallons) | WELL VOLs PURGED |
|---|---|---|---|---|---|
| 031914 | 0823 | 0025 | 21 | 23 | 1.1 |

*Note: For Passive Sampling, replace "Water Vol in Casing" and "Well Vols Purged" w/ Water Vol in Tubing/Flow Cell and Tubing/Flow Cell Vols Purged. Mark changes, record field data, below.*

## PURGE/SAMPLE EQUIPMENT

Purging and Sampling Equipment . . . Dedicated: (Y) or N

Filter Device: Y or (N) 0.45 µ or ____ µ (circle or fill in)

Purging Device: C — A-Submersible Pump, B-Peristaltic Pump, C-QED Bladder Pump, D-Bailer, E-Piston Pump, F-Dipper/Bottle

Sampling Device: C

X-Other:

Filter Type: — A-In-line Disposable, B-Pressure, C-Vacuum, X-Other ____

Sample Tube Type: A — A-Teflon, B-Stainless Steel, C-PVC, D-Polypropylene, X-Other: ____

## WELL DATA

Well Elevation (at TOC): 770.08 (ft/msl)

Depth to Water (DTW) (from TOC): 25.28 (ft)

Groundwater Elevation (site datum, from TOC): 744.80 (ft/msl)

Total Well Depth (from TOC): 38.00 (ft)

Stick Up (from ground elevation): ____ (ft)

Casing ID: 2 (in)

Casing Material: PVC

*Note: Total Well Depth, Stick Up, Casing Id. etc. are optional and can be from historical data, unless required by Site/Permit. Well Elevation, DTW, and Groundwater Elevation must be current.*

## STABILIZATION DATA (Optional)

| Sample Time (2400 Hr Clock) | Rate/Unit (gpm) | pH (std) | Conductance (SC/EC) (µmhos/cm@25°C) | Temp. (°C) | Turbidity (ntu) | D.O. (mg/L - ppm) | eH/ORP (mV) | DTW (ft) |
|---|---|---|---|---|---|---|---|---|
| 0835 | .09 | 1st 5.59 | 1st 173 | 13.9 | 1.3 | 5.9 | -43.9 | 26.6 |
| 0838 | .09 | 2nd 5.53 | 2nd 130 | 14.0 | 1.2 | 5.3 | -21.5 | 26.6 |
| 0841 | .09 | 3rd 5.51 | 3rd 130 | 14.0 | 1.1 | 4.9 | -14.0 | 26.6 |
| 0844 | .09 | 4th 5.50 | 4th 129 | 14.0 | 0.9 | 4.9 | -9.4 | 26.6 |
| 0847 | .09 | 5.50 | 129 | 13.9 | 0.9 | 4.9 | -6.0 | 26.6 |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| Suggested range for 3 consec readings or note Permit/State requirements: | | +/- 0.2 | +/- 3% | -- | -- | +/- 10% | +/- 25 mV | Stabilize |

**Stabilization Data Fields are Optional** *(i.e. complete stabilization readings for parameters required by WM, Site, or State). These fields can be used where four (4) field measurements are required by State/Permit/Site. If a Data Logger or other Electronic format is used, fill in final readings below and submit electronic data separately to Site.* ***If more fields above are needed, use separate sheet or form.***

## FIELD DATA

| SAMPLE DATE (MM DD YY) | pH (std) | CONDUCTANCE (umhos/cm @ 25°C) | TEMP. (°C) | TURBIDITY (ntu) | DO (mg/L-ppm) | eH/ORP (mV) | Other: ____ Units ____ |
|---|---|---|---|---|---|---|---|
| 031914 | 5.50 | 129 | 13.9 | 0.9 | 4.9 | -6.0 | |

**Final Field Readings are required** *(i.e. record field measurements, final stabilized readings, passive sample readings before sampling for all field parameters required by State/Permit/Site.*

## FIELD COMMENTS

**Sample Appearance:** CLEAR Odor: ____ Color: NONE Other: ____

**Weather Conditions** (required daily, or as conditions change): Direction/Speed: CALM Outlook: CLOUDY, 35°F Precipitation: Y or (N)

**Specific Comments (including purge/well volume calculations if required):**

CALC: 38.00 - 25.28 = 12.72 X 0.163 = 2.07 GAL.
FLOW: 160 X 4 = 640 ÷ 60 = 10.67 MIN/GAL = 0.09 gpm.
VOL: 25.00 ÷ 10.67 = 2.34 GAL.
SAMPLE TIME: 0848

**I certify that sampling procedures were in accordance with applicable EPA, State, and WM protocols (if more than one sampler, all should sign):**

| Date | Name | Signature | Company |
|---|---|---|---|
| 03/19/14 | BEN RAMNEAWAN | Ben Ramneawan | PRO-TECH |

DISTRIBUTION: WHITE/ORIGINAL - Stays with Sample, YELLOW - Returned to Client, PINK - Field Copy

TAL-8029WM (1013)

# FIELD INFORMATION FORM

WASTE MANAGEMENT

Site Name: PIEDMONT

Site No.:

Sample Point: MW04 (Sample ID)

**This Waste Management Field Information Form is Required**
This form is to be completed, in addition to any State Forms The Field Form is submitted along with the Chain of Custody Forms that accompany the sample containers (i.e. with the cooler that is returned to the laboratory).

Laboratory Use Only/Lab ID:

**PURGE INFO**

| PURGE DATE (MM DD YY) | PURGE TIME (2400 Hr Clock) | ELAPSED HRS (hrs:min) | WATER VOL IN CASING (Gallons) | ACTUAL VOL PURGED (Gallons) | WELL VOLs PURGED |
|---|---|---|---|---|---|
| 03 19 14 | 1027 | 18 | 24 | 18 | 0.7 |

*Note: For Passive Sampling, replace "Water Vol in Casing" and "Well Vols Purged" w/ Water Vol in Tubing/Flow Cell and Tubing/Flow Cell Vols Purged. Mark changes, record field data, below.*

**PURGE/SAMPLE EQUIPMENT**

Purging and Sampling Equipment . . . Dedicated: (Y) or N

Filter Device: (Y) or N (0.45) or ____ µ (circle or fill in)

Purging Device: C — A-Submersible Pump, B-Peristaltic Pump, C-QED Bladder Pump, D-Bailer, E-Piston Pump, F-Dipper/Bottle

Sampling Device: C

X-Other:

Filter Type: A — A-In-line Disposable, B-Pressure, C-Vacuum, X-Other ____

Sample Tube Type: A — A-Teflon, B-Stainless Steel, C-PVC, D-Polypropylene, X-Other: ____

**WELL DATA**

Well Elevation (at TOC): 7569.2 (ft/msl)

Depth to Water (DTW) (from TOC): 12.19 (ft)

Groundwater Elevation (site datum, from TOC): 744.73 (ft/msl)

Total Well Depth (from TOC): 27.00 (ft)

Stick Up (from ground elevation): ____ (ft)

Casing ID: 2 (in)

Casing Material: PVC

*Note: Total Well Depth, Stick Up, Casing Id. etc. are optional and can be from historical data, unless required by Site/Permit Well Elevation, DTW, and Groundwater Elevation must be current.*

**STABILIZATION DATA (Optional)**

| Sample Time (2400 Hr Clock) | Rate/Unit (gpm) | pH (std) | Conductance (SC/EC) (µmhos/cm@25°C) | Temp. (°C) | Turbidity (ntu) | D.O. (mg/L - ppm) | eH/ORP (mV) | DTW (ft) |
|---|---|---|---|---|---|---|---|---|
| 10:38 | 0.1 1st | 5.34 1st | 87 | 15.0 | 2.8 | 0.4 | 149 | 13.3 |
| 10:40 | 0.1 2nd | 5.31 2nd | 87 | 15.0 | 2.9 | 0.5 | 150 | 13.3 |
| 10:42 | 0.1 3rd | 5.31 3rd | 87 | 15.0 | 2.5 | 0.4 | 151 | 13.3 |
| 10:44 | 0.1 4th | 5.30 4th | 86 | 15.0 | 2.4 | 0.4 | 153 | 13.3 |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| Suggested range for 3 consec readings or note Permit/State requirements: | | +/- 0.2 | +/- 3% | -- | -- | +/- 10% | +/- 25 mV | Stabilize |

**Stabilization Data Fields are Optional** *(i.e complete stabilization readings for parameters required by WM, Site, or State). These fields can be used where four (4) field measurements are required by State/Permit/Site. If a Data Logger or other Electronic format is used, fill in final readings below and submit electronic data separately to Site* ***If more fields above are needed, use separate sheet or form.***

**FIELD DATA**

| SAMPLE DATE (MM DD YY) | pH (std) | CONDUCTANCE (umhos/cm @ 25°C) | TEMP. (°C) | TURBIDITY (ntu) | DO (mg/L-ppm) | eH/ORP (mV) | Other: ____ Units ____ |
|---|---|---|---|---|---|---|---|
| 03 19 14 | 5.30 | 86 | 15.0 | 2.4 | 0.4 | 153 | |

**Final Field Readings are required** *(i.e record field measurements, final stabilized readings, passive sample readings before sampling for all field parameters required by State/Permit/Site.*

**Sample Appearance:** CLEAR Odor: ____ Color: NONE Other: ____

**Weather Conditions** (required daily, or as conditions change): Direction/Speed: E 0-5 Outlook: cloudy 40°F Precipitation: Y or (N)

**Specific Comments (including purge/well volume calculations if required):**

**FIELD COMMENTS**

CALC: 27.00 - 12.19 = 14.81 x 0.163 = 2.41 gallon

FLOW: 153 ft/gt x 4 gt/gal = 612 sec/gal ÷ 60 sec/min = 10.2 min/gal ∴ 0.098 gpm

ACTUAL: 18 min x 0.098 gpm = 1.76 gallon

SAMPLE TIME: 1045

**I certify that sampling procedures were in accordance with applicable EPA, State, and WM protocols (if more than one sampler, all should sign):**

| Date | Name | Signature | Company |
|---|---|---|---|
| 3/19/14 | DAN ARMOUR | [signature] | PRO-TECH |
| __/__/__ | | | |

**DISTRIBUTION: WHITE/ORIGINAL - Stays with Sample, YELLOW - Returned to Client. PINK - Field Copy**

TAL-8029WM (1013)

# FIELD INFORMATION FORM

WASTE MANAGEMENT

Site Name: PIEDMONT

Site No.:

Sample Point: MW04D (Sample ID)

**This Waste Management Field Information Form is Required**
This form is to be completed, in addition to any State Forms. The Field Form is submitted along with the Chain of Custody Forms that accompany the sample containers (i.e. with the cooler that is returned to the laboratory).

Laboratory Use Only/Lab ID:

**PURGE INFO**

| PURGE DATE (MM DD YY) | PURGE TIME (2400 Hr Clock) | ELAPSED HRS (hrs:min) | WATER VOL IN CASING (Gallons) | ACTUAL VOL PURGED (Gallons) | WELL VOLs PURGED |
|---|---|---|---|---|---|
| 031914 | 1100 | 17 | 80 | 13 | 0.2 |

*Note: For Passive Sampling, replace "Water Vol in Casing" and "Well Vols Purged" w/ Water Vol in Tubing/Flow Cell and Tubing/Flow Cell Vols Purged Mark changes, record field data, below.*

**PURGE/SAMPLE EQUIPMENT**

Purging and Sampling Equipment . . . Dedicated: (Y) or N

Purging Device: C — A-Submersible Pump, B-Peristaltic Pump, C-QED Bladder Pump, D-Bailer, E-Piston Pump, F-Dipper/Bottle

Sampling Device: C

X-Other:

Filter Device: (Y) or N (0.45) or ____ µ (circle or fill in)

Filter Type: A — A-In-line Disposable, B-Pressure, C-Vacuum, X-Other

Sample Tube Type: A — A-Teflon, B-Stainless Steel, C-PVC, D-Polypropylene, X-Other:

**WELL DATA**

Well Elevation (at TOC): 757.33 (ft/msl)

Depth to Water (DTW) (from TOC): 12.68 (ft)

Groundwater Elevation (site datum, from TOC): 744.65 (ft/msl)

Total Well Depth (from TOC): 62.00 (ft)

Stick Up (from ground elevation): (ft)

Casing ID: 2 (in)

Casing Material: PVC

*Note: Total Well Depth, Stick Up, Casing Id. etc. are optional and can be from historical data, unless required by Site/Permit Well Elevation, DTW, and Groundwater Elevation must be current.*

**STABILIZATION DATA (Optional)**

| Sample Time (2400 Hr Clock) | Rate/Unit (gpm) | pH (std) | Conductance (SC/EC) (µmhos/cm@25°C) | Temp. (°C) | Turbidity (ntu) | D.O. (mg/L - ppm) | eH/ORP (mV) | DTW (ft) |
|---|---|---|---|---|---|---|---|---|
| 1110 | 0.08 1st | 5.90 1st | 112 | 15.6 | 8.2 | 4.3 | 111 | 12.7 |
| 1112 | 0.08 2nd | 5.91 2nd | 112 | 15.6 | 9.3 | 4.4 | 114 | 12.7 |
| 1114 | 0.08 3rd | 5.94 3rd | 113 | 15.6 | 11.7 | 4.4 | 115 | 12.7 |
| 1116 | 0.08 4th | 5.94 4th | 113 | 15.6 | 12.3 | 4.4 | 116 | 12.7 |
| Suggested range for 3 consec readings or note Permit/State requirements: | | +/- 0.2 | +/- 3% | -- | -- | +/- 10% | +/- 25 mV | Stabilize |

**Stabilization Data Fields are Optional** *(i.e complete stabilization readings for parameters required by WM, Site, or State). These fields can be used where four (4) field measurements are required by State/Permit/Site. If a Data Logger or other Electrome format is used, fill in final readings below and submit electronic data separately to Site. If more fields above are needed, use separate sheet or form.*

**FIELD DATA**

| SAMPLE DATE (MM DD YY) | pH (std) | CONDUCTANCE (umhos/cm @ 25°C) | TEMP. (°C) | TURBIDITY (ntu) | DO (mg/L-ppm) | eH/ORP (mV) | Other: ____ Units ____ |
|---|---|---|---|---|---|---|---|
| 031914 | 5.94 | 113 | 15.6 | 12.3 | 4.4 | 116 | |

**Final Field Readings are required** *(i e record field measurements, final stabilized readings, passive sample readings before sampling for all field parameters required by State/Permit/Site*

**Sample Appearance:** SLT. CLOUDY Odor: ____ Color: WHITISH TAN Other: ____

**Weather Conditions** (required daily, or as conditions change): Direction/Speed: E 0-5 Outlook: cloudy 40°F Precipitation: Y or (N)

**Specific Comments (including purge/well volume calculations if required):**

**FIELD COMMENTS**

CALC: 62.00 - 12.68 = 49.32 x 0.163 = 8.04 gallons

FLOW: 191 sec/qt x 4 qt/gal = 764 sec/gal ÷ 60 sec/min = 12.73 min/gal ∴ 0.079 gpm

ACTUAL: 17 min x 0.079 gpm = 1.34 gallons

SAMPLE TIME: 1117

**I certify that sampling procedures were in accordance with applicable EPA, State, and WM protocols (if more than one sampler, all should sign):**

| Date | Name | Signature | Company |
|---|---|---|---|
| 3/19/14 | DAN ARMOUR | [signature] | PRO-TECH |
| / / | | | |

**DISTRIBUTION:** WHITE/ORIGINAL - Stays with Sample, YELLOW - Returned to Client, PINK - Field Copy

TAL-8029WM (1013)

# FIELD INFORMATION FORM

WASTE MANAGEMENT

Site Name: PIEDMONT

Site No.:

Sample Point: MW05 (Sample ID)

**This Waste Management Field Information Form is Required**
This form is to be completed, in addition to any State Forms. The Field Form is submitted along with the Chain of Custody Forms that accompany the sample containers (i.e. with the cooler that is returned to the laboratory).

Laboratory Use Only/Lab ID:

**PURGE INFO**

| PURGE DATE (MM DD YY) | PURGE TIME (2400 Hr Clock) | ELAPSED HRS (hrs:min) | WATER VOL IN CASING (Gallons) | ACTUAL VOL PURGED (Gallons) | WELL VOLs PURGED |
|---|---|---|---|---|---|
| 031914 | 0935 | 0020 | 27 | 22 | 0.8 |

*Note: For Passive Sampling, replace "Water Vol in Casing" and "Well Vols Purged" w/ Water Vol in Tubing/Flow Cell and Tubing/Flow Cell Vols Purged. Mark changes, record field data, below*

**PURGE/SAMPLE EQUIPMENT**

Purging and Sampling Equipment . . . Dedicated: (Y) or N

Purging Device: C — A-Submersible Pump, B-Peristaltic Pump, C-QED Bladder Pump, D-Bailer, E-Piston Pump, F-Dipper/Bottle

Sampling Device: C

X-Other:

Filter Device: Y or (N) 0.45 µ or ____ µ (circle or fill in)

Filter Type: ~ — A-In-line Disposable, B-Pressure, C-Vacuum, X-Other

Sample Tube Type: A — A-Teflon, B-Stainless Steel, C-PVC, D-Polypropylene, X-Other:

**WELL DATA**

| Well Elevation (at TOC) | Depth to Water (DTW) (from TOC) | Groundwater Elevation (site datum, from TOC) |
|---|---|---|
| 743.17 (ft/msl) | 4.20 (ft) | 738.97 (ft/msl) |

| Total Well Depth (from TOC) | Stick Up (from ground elevation) | Casing ID | Casing Material |
|---|---|---|---|
| 20.50 (ft) | (ft) | 2 (in) | PVC |

*Note: Total Well Depth, Stick Up, Casing Id etc. are optional and can be from historical data, unless required by Site/Permit. Well Elevation, DTW, and Groundwater Elevation must be current*

**STABILIZATION DATA (Optional)**

| Sample Time (2400 Hr Clock) | Rate/Unit gpm | pH (std) | Conductance (SC/EC) (µmhos/cm@25°C) | Temp. (°C) | Turbidity (ntu) | D.O. (mg/L - ppm) | eH/ORP (mV) | DTW (ft) |
|---|---|---|---|---|---|---|---|---|
| 0945 | .11 | 1st 5.71 | 1st 354 | 12.0 | 4.1 | .16 | 529 | 4.7 |
| 0948 | .11 | 2nd 5.71 | 2nd 353 | 12.0 | 3.9 | .17 | 567 | 4.7 |
| 0951 | .11 | 3rd 5.70 | 3rd 352 | 12.1 | 3.7 | .17 | 582 | 4.7 |
| 0954 | .11 | 4th 5.69 | 4th 354 | 12.0 | 3.3 | .17 | 587 | 4.7 |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| Suggested range for 3 consec. readings or note Permit/State requirements: | | +/- 0.2 | +/- 3% | -- | -- | +/- 10% | +/- 25 mV | Stabilize |

**Stabilization Data Fields are Optional** *(i.e. complete stabilization readings for parameters required by WM, Site, or State). These fields can be used where four (4) field measurements are required by State/Permit/Site. If a Data Logger or other Electronic format is used, fill in final readings below and submit electronic data separately to Site.* ***If more fields above are needed, use separate sheet or form.***

**FIELD DATA**

| SAMPLE DATE (MM DD YY) | pH (std) | CONDUCTANCE (umhos/cm @ 25°C) | TEMP. (°C) | TURBIDITY (ntu) | DO (mg/L-ppm) | eH/ORP (mV) | Other: Units |
|---|---|---|---|---|---|---|---|
| 031914 | 569 | 354 | 120 | 33 | 17 | 587 | |

**Final Field Readings are required** *(i.e. record field measurements, final stabilized readings, passive sample readings before sampling for all field parameters required by State/Permit/Site.*

**Sample Appearance:** CLEAR Odor: ____ Color: NONE Other: ____

**Weather Conditions** (required daily, or as conditions change): Direction/Speed: CALM Outlook: CLOUDY, 40°F Precipitation: Y or (N)

**Specific Comments (including purge/well volume calculations if required):**

**FIELD COMMENTS**

CALC: 20.50 - 4.20 = 16.30 x 0.163 = 2.66 GAL

FLOW: 135 x 4 = 540 ÷ 60 = 9.00 MIN/GAL = 0.11 gpm

VOL: 20.00 ÷ 9.00 = 2.22 GAL

SAMPLE TIME: 0955

I certify that sampling procedures were in accordance with applicable EPA, State, and WM protocols (if more than one sampler, all should sign):

| Date | Name | Signature | Company |
|---|---|---|---|
| 03/19/14 | BEN RAMJEAWAN | Ben Ramjeawan | PRO-TECH |

DISTRIBUTION: WHITE/ORIGINAL - Stays with Sample, YELLOW - Returned to Client, PINK - Field Copy

TAL-8029WM (1013)

# FIELD INFORMATION FORM

WASTE MANAGEMENT

Site Name: PIEDMONT

Site No.:

Sample Point: MW06 (Sample ID)

**This Waste Management Field Information Form is Required**
This form is to be completed, in addition to any State Forms. The Field Form is submitted along with the Chain of Custody Forms that accompany the sample containers (i.e. with the cooler that is returned to the laboratory).

Laboratory Use Only/Lab ID:

## PURGE INFO

| PURGE DATE (MM DD YY) | PURGE TIME (2400 Hr Clock) | ELAPSED HRS (hrs:min) | WATER VOL IN CASING (Gallons) | ACTUAL VOL PURGED (Gallons) | WELL VOLs PURGED |
|---|---|---|---|---|---|
| 031914 | 1120 | 0023 | 11 | 22 | 20 |

*Note For Passive Sampling, replace "Water Vol in Casing" and "Well Vols Purged" w/ Water Vol in Tubing/Flow Cell and Tubing/Flow Cell Vols Purged. Mark changes, record field data, below*

## PURGE/SAMPLE EQUIPMENT

Purging and Sampling Equipment . . . Dedicated: (Y) or N

Filter Device: Y or (N) 0.45 µ or ____ µ (circle or fill in)

Purging Device: C — A-Submersible Pump, B-Peristaltic Pump, C-QED Bladder Pump, D-Bailer, E-Piston Pump, F-Dipper/Bottle

Sampling Device: C

X-Other:

Filter Type: — A-In-line Disposable, B-Pressure, C-Vacuum, X-Other

Sample Tube Type: A — A-Teflon, B-Stainless Steel, C-PVC, D-Polypropylene, X-Other:

## WELL DATA

Well Elevation (at TOC): 800.87 (ft/msl)

Depth to Water (DTW) (from TOC): 22.90 (ft)

Groundwater Elevation (site datum, from TOC): 777.03 (ft/msl)

Total Well Depth (from TOC): 29.60 (ft)

Stick Up (from ground elevation): (ft)

Casing ID: 2 (in)

Casing Material: PVC

*Note: Total Well Depth, Stick Up, Casing Id. etc. are optional and can be from historical data, unless required by Site/Permit Well Elevation, DTW, and Groundwater Elevation must be current.*

## STABILIZATION DATA (Optional)

| Sample Time (2400 Hr Clock) | Rate/Unit gpm | pH (std) | Conductance (SC/EC) (µmhos/cm@25°C) | Temp. (°C) | Turbidity (ntu) | D.O. (mg/L - ppm) | eH/ORP (mV) | DTW (ft) |
|---|---|---|---|---|---|---|---|---|
| 1130 | .09 | 1st 4.87 | 1st 40 | 13.9 | 1.0 | .44 | 606 | 23.4 |
| 1133 | .09 | 2nd 4.86 | 2nd 39 | 13.9 | .09 | .42 | 621 | 23.4 |
| 1136 | .09 | 3rd 4.85 | 3rd 39 | 13.9 | .07 | .42 | 656 | 23.4 |
| 1139 | .09 | 4th 4.83 | 4th 38 | 13.9 | .07 | .42 | 687 | 23.4 |
| 1142 | .09 | 4.82 | 38 | 13.9 | .07 | .41 | 716 | 23.4 |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| Suggested range for 3 consec. readings or note Permit/State requirements: | | +/- 0.2 | +/- 3% | -- | -- | +/- 10% | +/- 25 mV | Stabilize |

**Stabilization Data Fields are Optional** *(i e complete stabilization readings for parameters required by WM, Site, or State). These fields can be used where four (4) field measurements are required by State/Permit/Site If a Data Logger or other Electronic format is used, fill in final readings below and submit electronic data separately to Site. If more fields above are needed, use separate sheet or form.*

## FIELD DATA

| SAMPLE DATE (MM DD YY) | pH (std) | CONDUCTANCE (umhos/cm @ 25°C) | TEMP. (°C) | TURBIDITY (ntu) | DO (mg/L-ppm) | eH/ORP (mV) | Other: Units |
|---|---|---|---|---|---|---|---|
| 031914 | 4.82 | 38 | 13.9 | .07 | .41 | 716 | |

**Final Field Readings are required** *(i e record field measurements, final stabilized readings, passive sample readings before sampling for all field parameters required by State/Permit/Site.*

Sample Appearance: CLEAR Odor: Color: NONE Other:

Weather Conditions (required daily, or as conditions change): Direction/Speed: CALM Outlook: CLOUDY, 48°F Precipitation: Y or (N)

Specific Comments (including purge/well volume calculations if required):

## FIELD COMMENTS

CALC: 29.60 − 22.90 = 6.70 X 0.163 = 1.09 GAL.
FLOW: 160 X 4 = 640 ÷ 60 = 10.67 MIN/GAL = 0.09 gpm
VOL.: 23.00 − 10.67 = 2.16 GAL.
SAMPLE TIME: 1143

I certify that sampling procedures were in accordance with applicable EPA, State, and WM protocols (if more than one sampler, all should sign):

| Date | Name | Signature | Company |
|---|---|---|---|
| 03/19/14 | BEN RAMNEAWAN | Ben Ramneawan | PRO-TECH |

DISTRIBUTION: WHITE/ORIGINAL - Stays with Sample, YELLOW - Returned to Client, PINK - Field Copy

TAL-8029WM (1013)

# FIELD INFORMATION FORM

WASTE MANAGEMENT

Site Name: PIEDMONT

Site No.:

Sample Point: MW07 (Sample ID)

**This Waste Management Field Information Form is Required**
This form is to be completed, in addition to any State Forms. The Field Form is submitted along with the Chain of Custody Forms that accompany the sample containers (i.e. with the cooler that is returned to the laboratory).

Laboratory Use Only/Lab ID:

**PURGE INFO**

| PURGE DATE (MM DD YY) | PURGE TIME (2400 Hr Clock) | ELAPSED HRS (hrs:min) | WATER VOL IN CASING (Gallons) | ACTUAL VOL PURGED (Gallons) | WELL VOLs PURGED |
|---|---|---|---|---|---|
| 031914 | 0855 | 0023 | 1.3 | 21 | 16 |

*Note: For Passive Sampling, replace "Water Vol in Casing" and "Well Vols Purged" w/ Water Vol in Tubing/Flow Cell and Tubing/Flow Cell Vols Purged Mark changes, record field data, below*

**PURGE/SAMPLE EQUIPMENT**

Purging and Sampling Equipment . . . Dedicated: (Y) or N

Purging Device: C — A-Submersible Pump, B-Peristaltic Pump, C-QED Bladder Pump, D-Bailer, E-Piston Pump, F-Dipper/Bottle

Sampling Device: C

X-Other:

Filter Device: Y or (N) 0.45 µ or ____ µ (circle or fill in)

Filter Type: — A-In-line Disposable, B-Pressure, C-Vacuum, X-Other

Sample Tube Type: A — A-Teflon, B-Stainless Steel, C-PVC, D-Polypropylene, X-Other:

**WELL DATA**

Well Elevation (at TOC): 7715.7 (ft/msl)

Depth to Water (DTW) (from TOC): 23.10 (ft)

Groundwater Elevation (site datum, from TOC): 748.47 (ft/msl)

Total Well Depth (from TOC): 31.30 (ft)

Stick Up (from ground elevation): (ft)

Casing ID: 2 (in)

Casing Material: PVC

*Note: Total Well Depth, Stick Up, Casing Id. etc. are optional and can be from historical data, unless required by Site/Permit Well Elevation, DTW, and Groundwater Elevation must be current.*

**STABILIZATION DATA (Optional)**

| Sample Time (2400 Hr Clock) | Rate/Unit (gpm) | pH (std) | Conductance (SC/EC) (µmhos/cm@25°C) | Temp. (°C) | Turbidity (ntu) | D.O. (mg/L - ppm) | eH/ORP (mV) | DTW (ft) |
|---|---|---|---|---|---|---|---|---|
| 0905 | 0.9 1st | 5.63 1st | 149 | 14.5 | 10.9 | 5.4 | 85.9 | 24.2 |
| 0908 | 0.9 2nd | 5.66 2nd | 147 | 14.4 | 10.8 | 5.5 | 74.3 | 24.2 |
| 0911 | 0.9 3rd | 5.66 3rd | 148 | 14.5 | 10.5 | 5.5 | 78.2 | 24.2 |
| 0914 | 0.9 4th | 5.66 4th | 148 | 14.5 | 10.5 | 5.4 | 79.5 | 24.2 |
| 0917 | 0.9 | 5.66 | 148 | 14.5 | 10.1 | 5.5 | 81.1 | 24.2 |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| Suggested range for 3 consec readings or note Permit/State requirements: | | +/- 0.2 | +/- 3% | -- | -- | +/- 10% | +/- 25 mV | Stabilize |

**Stabilization Data Fields are Optional** *(i.e. complete stabilization readings for parameters required by WM, Site, or State). These fields can be used where four (4) field measurements are required by State/Permit/Site. If a Data Logger or other Electronic format is used, fill in final readings below and submit electronic data separately to Site* ***If more fields above are needed, use separate sheet or form.***

**FIELD DATA**

| SAMPLE DATE (MM DD YY) | pH (std) | CONDUCTANCE (umhos/cm @ 25°C) | TEMP. (°C) | TURBIDITY (ntu) | DO (mg/L-ppm) | eH/ORP (mV) | Other: Units |
|---|---|---|---|---|---|---|---|
| 031914 | 5.66 | 148 | 14.5 | 10.1 | 5.5 | 81.1 | |

**Final Field Readings are required** *(i.e record field measurements, final stabilized readings, passive sample readings before sampling for all field parameters required by State/Permit/Site*

**FIELD COMMENTS**

Sample Appearance: CLEAR Odor: ____ Color: NONE Other: ____

Weather Conditions (required daily, or as conditions change): Direction/Speed: CALM Outlook: CLOUDY, 40°F Precipitation: Y or (N)

Specific Comments (including purge/well volume calculations if required):

CALC: 31.30 − 23.10 = 8.20 x 0.163 = 1.34 GAL

FLOW: 1.63 x 4 = 6.52 ÷ 60 = 10.87 ML/GAL = 0.09 gpm

VOL: 23.00 ÷ 10.87 = 2.12 GAL

SAMPLE TIME: 0918

I certify that sampling procedures were in accordance with applicable EPA, State, and WM protocols (if more than one sampler, all should sign):

| Date | Name | Signature | Company |
|---|---|---|---|
| 03/19/14 | BEN RAMJEAWAN | Ben Ramjeawan | PRO-TECH |

DISTRIBUTION: WHITE/ORIGINAL - Stays with Sample, YELLOW - Returned to Client. PINK - Field Copy

TAL-8029WM (1013)

# FIELD INFORMATION FORM

WASTE MANAGEMENT

Site Name: PIEDMONT

Site No.:

Sample Point: MW08 (Sample ID)

**This Waste Management Field Information Form is Required**
This form is to be completed, in addition to any State Forms. The Field Form is submitted along with the Chain of Custody Forms that accompany the sample containers (i.e. with the cooler that is returned to the laboratory).

Laboratory Use Only/Lab ID:

**PURGE INFO**

| PURGE DATE (MM DD YY) | PURGE TIME (2400 Hr Clock) | ELAPSED HRS (hs:mm) | WATER VOL IN CASING (Gallons) | ACTUAL VOL PURGED (Gallons) | WELL VOLs PURGED |
|---|---|---|---|---|---|
| 031914 | 1005 | 0021 | 23 | 21 | 09 |

*Note: For Passive Sampling, replace "Water Vol in Casing" and "Well Vols Purged" w/ Water Vol in Tubing/Flow Cell and Tubing/Flow Cell Vols Purged. Mark changes, record field data, below*

**PURGE/SAMPLE EQUIPMENT**

Purging and Sampling Equipment . . . Dedicated: (Y) or N

Filter Device: (Y) or N; 0.45 or ____ µ (circle or fill in)

Purging Device: C — A-Submersible Pump, B-Peristaltic Pump, C-QED Bladder Pump, D-Bailer, E-Piston Pump, F-Dipper/Bottle

Sampling Device: C

X-Other:

Filter Type: A — A-In-line Disposable, B-Pressure, C-Vacuum, X-Other

Sample Tube Type: A — A-Teflon, B-Stainless Steel, C-PVC, D-Polypropylene, X-Other:

**WELL DATA**

Well Elevation (at TOC): 7489.5 (ft/msl)

Depth to Water (DTW) (from TOC): 450 (ft)

Groundwater Elevation (site datum, from TOC): 7445 (ft/msl)

Total Well Depth (from TOC): 1880 (ft)

Stick Up (from ground elevation): (ft)

Casing ID: 2 (in)

Casing Material: PVC

*Note Total Well Depth, Stick Up, Casing Id. etc. are optional and can be from historical data, unless required by Site/Permit. Well Elevation, DTW, and Groundwater Elevation must be current.*

**STABILIZATION DATA (Optional)**

| Sample Time (2400 Hr Clock) | Rate/Unit gpm | pH (std) | Conductance (SC/EC) (µmhos/cm@25°C) | Temp. (°C) | Turbidity (ntu) | D.O. (mg/L - ppm) | eH/ORP (mV) | DTW (ft) |
|---|---|---|---|---|---|---|---|---|
| 1003 | 1.0 1st | 5.26 1st | 120 | 9.4 | 213 | 2.8 | 856 | 5.2 |
| 1016 | 1.0 2nd | 5.23 2nd | 120 | 9.3 | 211 | 2.8 | 866 | 5.2 |
| 1019 | 1.0 3rd | 5.23 3rd | 119 | 9.3 | 209 | 2.8 | 871 | 5.2 |
| 1022 | 1.0 4th | 5.20 4th | 120 | 9.3 | 207 | 2.7 | 882 | 5.2 |
| 1025 | 1.0 | 5.17 | 119 | 9.2 | 199 | 2.6 | 901 | 5.2 |
| | | | | | | | | |
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| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| Suggested range for 3 consec. readings or note Permit/State requirements: | | +/- 0.2 | +/- 3% | -- | -- | +/- 10% | +/- 25 mV | Stabilize |

**Stabilization Data Fields are Optional** *(i.e. complete stabilization readings for parameters required by WM, Site, or State). These fields can be used where four (4) field measurements are required by State/Permit/Site. If a Data Logger or other Electronic format is used, fill in final readings below and submit electronic data separately to Site.* ***If more fields above are needed, use separate sheet or form.***

**FIELD DATA**

| SAMPLE DATE (MM DD YY) | pH (std) | CONDUCTANCE (umhos/cm @ 25°C) | TEMP. (°C) | TURBIDITY (ntu) | DO (mg/L-ppm) | eH/ORP (mV) | Other: Units |
|---|---|---|---|---|---|---|---|
| 031914 | 517 | 119 | 92 | 199 | 26 | 901 | |

**Final Field Readings are required** *(i.e record field measurements, final stabilized readings, passive sample readings before sampling for all field parameters required by State/Permit/Site.*

**FIELD COMMENTS**

**Sample Appearance:** CLEAR Odor: ____ Color: NONE Other: ____

**Weather Conditions** (required daily, or as conditions change): Direction/Speed: CALM Outlook: CLOUDY, 40°F Precipitation: Y or (N)

**Specific Comments (including purge/well volume calculations if required):**

CALC: 18.80 − 4.50 = 14.30 X 0.163 = 2.33 GAL.
FLOW: 153 X 4 = 612 ÷ 60 = 10.2 MIN/GAL = 0.10 gpm.
VOL: 21.00 ÷ 10.20 = 2.06 GAL.
SAMPLE TIME: 1026

**I certify that sampling procedures were in accordance with applicable EPA, State, and WM protocols (if more than one sampler, all should sign):**

| Date | Name | Signature | Company |
|---|---|---|---|
| 03/19/14 | BEN RAMSEAWAN | Ben Ramseawan | PRO-TECH |

**DISTRIBUTION: WHITE/ORIGINAL - Stays with Sample, YELLOW - Returned to Client, PINK - Field Copy**

MW09 - 31.57

# FIELD INFORMATION FORM

WASTE MANAGEMENT

Site Name: PIEDMONT

Site No.:

Sample Point: MW09R (Sample ID)

**This Waste Management Field Information Form is Required**
This form is to be completed, in addition to any State Forms. The Field Form is submitted along with the Chain of Custody Forms that accompany the sample containers (i.e. with the cooler that is returned to the laboratory).

Laboratory Use Only/Lab ID.

**PURGE INFO**

| PURGE DATE (MM DD YY) | PURGE TIME (2400 Hr Clock) | ELAPSED HRS (hrs:min) | WATER VOL IN CASING (Gallons) | ACTUAL VOL PURGED (Gallons) | WELL VOLs PURGED |
|---|---|---|---|---|---|
| 031914 | 0750 | 00:23 | 2.8 | 2.5 | 0.9 |

*Note: For Passive Sampling, replace "Water Vol in Casing" and "Well Vols Purged" w/ Water Vol in Tubing/Flow Cell and Tubing/Flow Cell Vols Purged Mark changes, record field data, below.*

**PURGE/SAMPLE EQUIPMENT**

Purging and Sampling Equipment . . . Dedicated: (Y) or N

Filter Device: Y or (N) 0.45 µ or _____ µ (circle or fill in)

Purging Device: C — A-Submersible Pump, B-Peristaltic Pump, C-QED Bladder Pump, D-Bailer, E-Piston Pump, F-Dipper/Bottle

Sampling Device: C

X-Other:

Filter Type: — A-In-line Disposable, B-Pressure, C-Vacuum, X-Other

Sample Tube Type: A — A-Teflon, B-Stainless Steel, C-PVC, D-Polypropylene, X-Other:

**WELL DATA**

Well Elevation (at TOC): 7649.5 (ft/msl)

Depth to Water (DTW) (from TOC): 26.02 (ft)

Groundwater Elevation (site datum, from TOC): 738.93 (ft/msl)

Total Well Depth (from TOC): 42.95 (ft)

Stick Up (from ground elevation): (ft)

Casing ID: 2 (in)

Casing Material: PVC

*Note: Total Well Depth, Stick Up, Casing Id etc. are optional and can be from historical data, unless required by Site/Permit Well Elevation, DTW, and Groundwater Elevation must be current.*

**STABILIZATION DATA (Optional)**

| Sample Time (2400 Hr Clock) | Rate/Unit gpm | pH (std) | Conductance (SC/EC) (µmhos/cm@25°C) | Temp. (°C) | Turbidity (ntu) | D.O. (mg/L - ppm) | eH/ORP (mV) | DTW (ft) |
|---|---|---|---|---|---|---|---|---|
| 08:00 | 1.1 | 1st 5.73 | 1st 282 | 11.1 | 2.7 | 1.6 | -101 | 26.8 |
| 08:03 | 1.1 | 2nd 5.70 | 2nd 280 | 11.2 | 2.0 | 1.6 | -93.6 | 26.8 |
| 08:06 | 1.1 | 3rd 5.69 | 3rd 279 | 11.3 | 1.8 | 1.6 | -92.0 | 26.8 |
| 08:09 | 1.1 | 4th 5.67 | 4th 280 | 11.7 | 1.7 | 1.5 | -91.4 | 26.8 |
| 08:12 | 1.1 | 5.67 | 281 | 11.7 | 1.5 | 1.5 | -91.5 | 26.8 |
| | | | | | | | | |
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| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| Suggested range for 3 consec. readings or note Permit/State requirements: | | +/- 0.2 | +/- 3% | -- | -- | +/- 10% | +/- 25 mV | Stabilize |

**Stabilization Data Fields are Optional** *(i.e. complete stabilization readings for parameters required by WM, Site, or State). These fields can be used where four (4) field measurements are required by State/Permit/Site. If a Data Logger or other Electronic format is used, fill in final readings below and submit electronic data separately to Site* ***If more fields above are needed, use separate sheet or form.***

**FIELD DATA**

| SAMPLE DATE (MM DD YY) | pH (std) | CONDUCTANCE (umhos/cm @ 25°C) | TEMP. (°C) | TURBIDITY (ntu) | DO (mg/L-ppm) | eH/ORP (mV) | Other: _____ Units _____ |
|---|---|---|---|---|---|---|---|
| 031914 | 5.67 | 281 | 11.7 | 1.5 | 1.5 | -91.5 | |

**Final Field Readings are required** *(i.e. record field measurements, final stabilized readings, possive sample readings before sampling for all field parameters required by State/Permit/Site.*

**Sample Appearance:** CLEAR Odor: _____ Color: NONE Other: _____

**Weather Conditions** (required daily, or as conditions change): Direction/Speed: CALM Outlook: CLOUDY, 35°F Precipitation: Y or (N)

**Specific Comments (including purge/well volume calculations if required):**

**FIELD COMMENTS**

CALC: 42.95 - 26.02 = 16.93 x 0.163 = 2.76 GAL

FLOW: 140 x 4 = 560 ÷ 60 = 9.33 MIN/GAL = 0.11 gpm

VOL: 23.00 ÷ 9.33 = 2.47 GAL

SAMPLE TIME: 0813

I certify that sampling procedures were in accordance with applicable EPA, State, and WM protocols (if more than one sampler, all should sign):

| Date | Name | Signature | Company |
|---|---|---|---|
| 03/19/14 | BEN RAMJEAWAN | Ben Ramjeawan | PRO-TECH |

DISTRIBUTION: WHITE/ORIGINAL - Stays with Sample, YELLOW - Returned to Client, PINK - Field Copy

TAL-8029WM (1013)

# FIELD INFORMATION FORM

WASTE MANAGEMENT

Site Name: PIEDMONT

Site No.:

Sample Point: MW10 (Sample ID)

**This Waste Management Field Information Form is Required**
This form is to be completed, in addition to any State Forms. The Field Form is submitted along with the Chain of Custody Forms that accompany the sample containers (i.e. with the cooler that is returned to the laboratory).

Laboratory Use Only/Lab ID:

**PURGE INFO**

| PURGE DATE (MM DD YY) | PURGE TIME (2400 Hr Clock) | ELAPSED HRS (hrs:min) | WATER VOL IN CASING (Gallons) | ACTUAL VOL PURGED (Gallons) | WELL VOLs PURGED |
|---|---|---|---|---|---|
| 031914 | 0852 | 18 | 14 | 14 | 1.0 |

*Note: For Passive Sampling, replace "Water Vol in Casing" and "Well Vols Purged" w/ Water Vol in Tubing/Flow Cell and Tubing/Flow Cell Vols Purged. Mark changes, record field data, below.*

**PURGE/SAMPLE EQUIPMENT**

Purging and Sampling Equipment .. Dedicated: (Y) or N

Filter Device: Y or (N) 0.45 µ or ____ µ (circle or fill in)

Purging Device: C — A-Submersible Pump, B-Peristaltic Pump, C-QED Bladder Pump, D-Bailer, E-Piston Pump, F-Dipper/Bottle

Sampling Device: C

Filter Type: A — A-In-line Disposable, B-Pressure, C-Vacuum, X-Other

Sample Tube Type: A — A-Teflon, B-Stainless Steel, C-PVC, D-Polypropylene, X-Other:

X-Other:

**WELL DATA**

| Well Elevation (at TOC) | Depth to Water (DTW) (from TOC) | Groundwater Elevation (site datum, from TOC) |
|---|---|---|
| 772.20 (ft/msl) | 29.53 (ft) | 747.67 (ft/msl) |

| Total Well Depth (from TOC) | Stick Up (from ground elevation) | Casing ID | Casing Material |
|---|---|---|---|
| 38.00 (ft) | (ft) | 2 (in) | PVC |

*Note: Total Well Depth, Stick Up, Casing Id, etc. are optional and can be from historical data, unless required by Site/Permit. Well Elevation, DTW, and Groundwater Elevation must be current.*

**STABILIZATION DATA (Optional)**

| Sample Time (2400 Hr Clock) | Rate/Unit gpm | pH (std) | Conductance (SC/EC) (µmhos/cm@25°C) | Temp. (°C) | Turbidity (ntu) | D.O. (mg/L - ppm) | eH/ORP (mV) | DTW (ft) |
|---|---|---|---|---|---|---|---|---|
| 0910.3 | 0.08 1st | 5.78 1st | 1.11 | 15.7 | 4.9 | 3.0 | 221 | 29.6 |
| 0910.5 | 0.08 2nd | 5.80 2nd | 1.11 | 15.8 | 5.4 | 3.0 | 224 | 29.6 |
| 0910.7 | 0.08 3rd | 5.79 3rd | 1.11 | 15.9 | 4.3 | 3.0 | 223 | 29.6 |
| 0910.9 | 0.08 4th | 5.77 4th | 1.12 | 15.9 | 3.9 | 3.0 | 222 | 29.6 |
| | | | | | | | | |
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| | | | | | | | | |
| | | | | | | | | |
| Suggested range for 3 consec. readings or note Permit/State requirements: | | +/- 0.2 | +/- 3% | -- | -- | +/- 10% | +/- 25 mV | Stabilize |

**Stabilization Data Fields are Optional** *(i.e. complete stabilization readings for parameters required by WM, Site, or State). These fields can be used where four (4) field measurements are required by State/Permit/Site. If a Data Logger or other Electronic format is used, fill in final readings below and submit electronic data separately to Site* ***If more fields above are needed, use separate sheet or form.***

**FIELD DATA**

| SAMPLE DATE (MM DD YY) | pH (std) | CONDUCTANCE (umhos/cm @ 25°C) | TEMP. (°C) | TURBIDITY (ntu) | DO (mg/L-ppm) | eH/ORP (mV) | Other: ____ Units ____ |
|---|---|---|---|---|---|---|---|
| 031914 | 5.77 | 1.12 | 15.9 | 3.9 | 3.0 | 222 | |

**Final Field Readings are required** *(i.e. record field measurements, final stabilized readings, passive sample readings before sampling for all field parameters required by State/Permit/Site*

**Sample Appearance:** CLEAR Odor: ____ Color: NONE Other: ____

**Weather Conditions** (required daily, or as conditions change): Direction/Speed: CALM Outlook: cloudy 40°F Precipitation: Y or (N)

**Specific Comments (including purge/well volume calculations if required):**

**FIELD COMMENTS**

CALC: 38.00 − 29.53 = 8.47 × 0.163 = 1.38 gallon

FLOW: 188 cm/ft × 4 ft/gal = 752 ÷ 60 sec/min = 12.53 min/gal ∴ 0.08 gpm

ACTUAL: 18 min × 0.08 gpm = 1.44 gallon

SAMPLE TIME: 0910

**I certify that sampling procedures were in accordance with applicable EPA, State, and WM protocols (if more than one sampler, all should sign):**

| Date | Name | Signature | Company |
|---|---|---|---|
| 3/19/14 | DAN ARMOUR | | PRO-TECH |
| / / | | | |

**DISTRIBUTION: WHITE/ORIGINAL - Stays with Sample, YELLOW - Returned to Client. PINK - Field Copy**

TAL-8029WM (1013)

# FIELD INFORMATION FORM

WASTE MANAGEMENT

Site Name: PIEDMONT

Site No.:

Sample Point: MW11 (Sample ID)

**This Waste Management Field Information Form is Required**
This form is to be completed, in addition to any State Forms. The Field Form is submitted along with the Chain of Custody Forms that accompany the sample containers (i.e. with the cooler that is returned to the laboratory).

Laboratory Use Only/Lab ID.

## PURGE INFO

| PURGE DATE (MM DD YY) | PURGE TIME (2400 Hr Clock) | ELAPSED HRS (hrs:min) | WATER VOL IN CASING (Gallons) | ACTUAL VOL PURGED (Gallons) | WELL VOLs PURGED |
|---|---|---|---|---|---|
| 031914 | 0755 | 17 | 12 | 15 | 1.3 |

*Note For Passive Sampling, replace "Water Vol in Casing" and "Well Vols Purged" w/ Water Vol in Tubing/Flow Cell and Tubing/Flow Cell Vols Purged. Mark changes, record field data, below.*

## PURGE/SAMPLE EQUIPMENT

Purging and Sampling Equipment . . . Dedicated: (Y) or N

Filter Device: Y or (N) 0.45 µ or _____ µ (circle or fill in)

Purging Device: C — A-Submersible Pump, B-Peristaltic Pump, C-QED Bladder Pump, D-Bailer, E-Piston Pump, F-Dipper/Bottle

Sampling Device: C

X-Other.

Filter Type: — A-In-line Disposable, B-Pressure, C-Vacuum, X-Other

Sample Tube Type: A — A-Teflon, B-Stainless Steel, C-PVC, D-Polypropylene, X-Other:

## WELL DATA

| Well Elevation (at TOC) | Depth to Water (DTW) (from TOC) | Groundwater Elevation (site datum, from TOC) |
|---|---|---|
| 77680 (ft/msl) | 2796 (ft) | 74884 (ft/msl) |

| Total Well Depth (from TOC) | Stick Up (from ground elevation) | Casing ID | Casing Material |
|---|---|---|---|
| 3500 (ft) | (ft) | 2 (in) | PVC |

*Note. Total Well Depth, Stick Up, Casing Id. etc. are optional and can be from historical data, unless required by Site/Permit. Well Elevation, DTW, and Groundwater Elevation must be current.*

## STABILIZATION DATA (Optional)

| Sample Time (2400 Hr Clock) | Rate/Unit (gpm) | pH (std) | Conductance (SC/EC) (µmhos/cm@25°C) | Temp. (°C) | Turbidity (ntu) | D.O. (mg/L - ppm) | eH/ORP (mV) | DTW (ft) |
|---|---|---|---|---|---|---|---|---|
| 0805 | 0.09 1st | 5.52 1st | 163 | 15.1 | 3.9 | 0.9 | 243 | 28.1 |
| 0807 | 0.09 2nd | 5.51 2nd | 162 | 15.1 | 3.3 | 0.9 | 242 | 28.2 |
| 0809 | 0.09 3rd | 5.51 3rd | 161 | 15.2 | 2.9 | 0.9 | 240 | 28.2 |
| 0811 | 0.09 4th | 5.51 4th | 161 | 15.2 | 3.0 | 0.9 | 240 | 28.2 |
| | | | | | | | | |
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| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| Suggested range for 3 consec. readings or note Permit/State requirements: | | +/- 0.2 | +/- 3% | -- | -- | +/- 10% | +/- 25 mV | Stabilize |

**Stabilization Data Fields are Optional** *(i.e. complete stabilization readings for parameters required by WM, Site, or State). These fields can be used where four (4) field measurements are required by State/Permit/Site If a Data Logger or other Electronic format is used, fill in final readings below and submit electronic data separately to Site* ***If more fields above are needed, use separate sheet or form.***

## FIELD DATA

| SAMPLE DATE (MM DD YY) | pH (std) | CONDUCTANCE (umhos/cm @ 25°C) | TEMP. (°C) | TURBIDITY (ntu) | DO (mg/L-ppm) | eH/ORP (mV) | Other: Units |
|---|---|---|---|---|---|---|---|
| 031914 | 5.51 | 161 | 15.2 | 3.0 | 0.9 | 240 | |

**Final Field Readings are required** *(i.e. record field measurements, final stabilized readings, passive sample readings before sampling for all field parameters required by State/Permit/Site.*

## FIELD COMMENTS

**Sample Appearance:** CLEAR Odor: _____ Color: NONE Other: _____

**Weather Conditions** (required daily, or as conditions change): Direction/Speed: CALM Outlook: cloudy 35°F Precipitation: Y or (N)

**Specific Comments (including purge/well volume calculations if required):**

CALC: 35.00 - 27.96 = 7.04 x 0.163 = 1.15 gallon

FLOW: 168 sec/qt x 4 qt/qal = 672 sec/qal ÷ 60 sec/min = 11.2 min/qal ∴ 0.089 gpm

ACTUAL: 17 min x 0.089 gpm = 1.51 gallon

SAMPLE TIME: 0812

**I certify that sampling procedures were in accordance with applicable EPA, State, and WM protocols (if more than one sampler, all should sign):**

| Date | Name | Signature | Company |
|---|---|---|---|
| 3/19/14 | DAN ARMOUR | [signature] | PROTECH |
| __/__/__ | | | |

**DISTRIBUTION: WHITE/ORIGINAL - Stays with Sample, YELLOW - Returned to Client. PINK - Field Copy**

TAL-8029WM (1013)

# FIELD INFORMATION FORM

WASTE MANAGEMENT

Site Name: PIEDMONT

Site No.:

Sample Point: MW12 (Sample ID)

**This Waste Management Field Information Form is Required**
This form is to be completed, in addition to any State Forms. The Field Form is submitted along with the Chain of Custody Forms that accompany the sample containers (i.e. with the cooler that is returned to the laboratory).

Laboratory Use Only/Lab ID:

**PURGE INFO**

| PURGE DATE (MM DD YY) | PURGE TIME (2400 Hr Clock) | ELAPSED HRS (hrs:mm) | WATER VOL IN CASING (Gallons) | ACTUAL VOL PURGED (Gallons) | WELL VOLs PURGED |
|---|---|---|---|---|---|
| 031914 | 0950 | 1:21 | 20 | 17 | 0.9 |

*Note: For Passive Sampling, replace "Water Vol in Casing" and "Well Vols Purged" w/ Water Vol in Tubing/Flow Cell and Tubing/Flow Cell Vols Purged. Mark changes, record field data, below*

**PURGE/SAMPLE EQUIPMENT**

Purging and Sampling Equipment . Dedicated: (Y) or N

Filter Device: (Y) or N (0.45) or ____ µ (circle or fill in)

Purging Device: C — A-Submersible Pump, B-Peristaltic Pump, C-QED Bladder Pump, D-Bailer, E-Piston Pump, F-Dipper/Bottle

Sampling Device: C

X-Other:

Filter Type: A — A-In-line Disposable, B-Pressure, C-Vacuum, X-Other

Sample Tube Type: A — A-Teflon, B-Stainless Steel, C-PVC, D-Polypropylene, X-Other:

**WELL DATA**

Well Elevation (at TOC): 7548 (ft/msl)

Depth to Water (DTW) (from TOC): 587 (ft)

Groundwater Elevation (site datum, from TOC): 74561 (ft/msl)

Total Well Depth (from TOC): 1800 (ft)

Stick Up (from ground elevation): ____ (ft)

Casing ID: 2 (in)

Casing Material: PVC

*Note: Total Well Depth, Stick Up, Casing Id etc are optional and can be from historical data, unless required by Site/Permit. Well Elevation, DTW, and Groundwater Elevation must be current.*

**STABILIZATION DATA (Optional)**

| Sample Time (2400 Hr Clock) | Rate/Unit gpm | pH (std) | Conductance (SC/EC) (µmhos/cm@25°C) | Temp. (°C) | Turbidity (ntu) | D.O. (mg/L - ppm) | eH/ORP (mV) | DTW (ft) |
|---|---|---|---|---|---|---|---|---|
| 1010:4 | 0.08 1st | 5.99 1st | 1.47 1st | 13.3 | 3.9 | 0.5 | 177 | 6.0 |
| 1010:6 | 0.08 2nd | 5.99 2nd | 1.46 2nd | 13.4 | 4.4 | 0.6 | 176 | 6.0 |
| 1010:8 | 0.08 3rd | 5.96 3rd | 1.46 3rd | 13.5 | 4.0 | 0.6 | 177 | 6.0 |
| 1010:10 | 0.08 4th | 5.97 4th | 1.46 4th | 13.5 | 4.2 | 0.6 | 179 | 6.0 |
| Suggested range for 3 consec. readings or note Permit/State requirements: | | +/- 0.2 | +/- 3% | -- | -- | +/- 10% | +/- 25 mV | Stabilize |

**Stabilization Data Fields are Optional** *(i.e. complete stabilization readings for parameters required by WM, Site, or State). These fields can be used where four (4) field measurements are required by State/Permit/Site. If a Data Logger or other Electronic format is used, fill in final readings below and submit electronic data separately to Site.* ***If more fields above are needed, use separate sheet or form.***

**FIELD DATA**

| SAMPLE DATE (MM DD YY) | pH (std) | CONDUCTANCE (umhos/cm @ 25°C) | TEMP. (°C) | TURBIDITY (ntu) | DO (mg/L-ppm) | eH/ORP (mV) | Other: Units |
|---|---|---|---|---|---|---|---|
| 031914 | 5.97 | 1.46 | 13.5 | 4.2 | 0.6 | 179 | |

**Final Field Readings are required** *(i.e record field measurements, final stabilized readings, passive sample readings before sampling for all field parameters required by State/Permit/Site.*

**Sample Appearance:** CLEAR Odor: ____ Color: NONE Other: ____

**Weather Conditions** (required daily, or as conditions change): Direction/Speed: E 0-5 Outlook: cloudy 40°F Precipitation: Y or (N)

**Specific Comments (including purge/well volume calculations if required):**

**FIELD COMMENTS**

CALC: 18.00 - 5.87 = 12.13 x 0.163 = 1.98 gallon

FLOW: 180 sec/qt x 4 qt/gal = 720 sec/gal ÷ 60 sec/min = 12.0 min/gal ∴ 0.083 gpm

ACTUAL: 21 min x 0.083 gpm = 1.74 gallon

SAMPLE TIME: 1011

**I certify that sampling procedures were in accordance with applicable EPA, State, and WM protocols (if more than one sampler, all should sign):**

| Date | Name | Signature | Company |
|---|---|---|---|
| 3/19/14 | DAN ARMOUR | [signature] | PRO TECH |
| / / | | | |

**DISTRIBUTION: WHITE/ORIGINAL - Stays with Sample, YELLOW - Returned to Client, PINK - Field Copy**

TAL-8029WM (1013)

# FIELD INFORMATION FORM

WASTE MANAGEMENT

Site Name: PIEDMONT

Site No.:

Sample Point: MW12D (Sample ID)

**This Waste Management Field Information Form is Required**
This form is to be completed, in addition to any State Forms. The Field Form is submitted along with the Chain of Custody Forms that accompany the sample containers (i.e. with the cooler that is returned to the laboratory).

Laboratory Use Only/Lab ID:

**PURGE INFO**

| PURGE DATE (MM DD YY) | PURGE TIME (2400 Hr Clock) | ELAPSED HRS (hrs:min) | WATER VOL IN CASING (Gallons) | ACTUAL VOL PURGED (Gallons) | WELL VOLs PURGED |
|---|---|---|---|---|---|
| 031914 | 0922 | 18 | 62 | 16 | 0.3 |

*Note: For Passive Sampling, replace "Water Vol in Casing" and "Well Vols Purged" w/ Water Vol in Tubing/Flow Cell and Tubing/Flow Cell Vols Purged. Mark changes, record field data, below.*

**PURGE/SAMPLE EQUIPMENT**

Purging and Sampling Equipment . . . Dedicated: (Y) or N

Filter Device: Y or (N) 0.45 µ or _____ µ (circle or fill in)

Purging Device: C — A-Submersible Pump, B-Peristaltic Pump, C-QED Bladder Pump, D-Bailer, E-Piston Pump, F-Dipper/Bottle

Sampling Device: C

Filter Type: – — A-In-line Disposable, B-Pressure, C-Vacuum, X-Other

X-Other:

Sample Tube Type: A — A-Teflon, B-Stainless Steel, C-PVC, D-Polypropylene, X-Other:

**WELL DATA**

| Well Elevation (at TOC) | Depth to Water (DTW) (from TOC) | Groundwater Elevation (site datum, from TOC) |
|---|---|---|
| 751.48 (ft/msl) | 5.13 (ft) | 746.35 (ft/msl) |

| Total Well Depth (from TOC) | Stick Up (from ground elevation) | Casing ID | Casing Material |
|---|---|---|---|
| 43.30 (ft) | (ft) | 2 (in) | PVC |

*Note. Total Well Depth, Stick Up, Casing Id. etc. are optional and can be from historical data, unless required by Site/Permit. Well Elevation, DTW, and Groundwater Elevation must be current.*

**STABILIZATION DATA (Optional)**

| Sample Time (2400 Hr Clock) | Rate/Unit gpm | pH (std) | Conductance (SC/EC) (µmhos/cm@25°C) | Temp. (°C) | Turbidity (ntu) | D.O. (mg/L - ppm) | eH/ORP (mV) | DTW (ft) |
|---|---|---|---|---|---|---|---|---|
| 0933 | 0.09 1st | 6.61 1st | 205 | 14.6 | 37 | 0.4 | 149 | 5.3 |
| 0935 | 0.09 2nd | 6.61 2nd | 201 | 14.7 | 31 | 0.5 | 148 | 5.3 |
| 0937 | 0.09 3rd | 6.60 3rd | 204 | 14.7 | 32 | 0.5 | 145 | 5.4 |
| 0939 | 0.09 4th | 6.60 4th | 202 | 14.7 | 29 | 0.4 | 146 | 5.4 |
| Suggested range for 3 consec. readings or note Permit/State requirements: | | +/- 0.2 | +/- 3% | -- | -- | +/- 10% | +/- 25 mV | Stabilize |

**Stabilization Data Fields are Optional** *(i.e. complete stabilization readings for parameters required by WM, Site, or State). These fields can be used where four (4) field measurements are required by State/Permit/Site. If a Data Logger or other Electronic format is used, fill in final readings below and submit electronic data separately to Site.* ***If more fields above are needed, use separate sheet or form.***

**FIELD DATA**

| SAMPLE DATE (MM DD YY) | pH (std) | CONDUCTANCE (umhos/cm @ 25°C) | TEMP. (°C) | TURBIDITY (ntu) | DO (mg/L-ppm) | eH/ORP (mV) | Other: Units |
|---|---|---|---|---|---|---|---|
| 031914 | 6.60 | 202 | 14.7 | 29 | 0.4 | 146 | |

**Final Field Readings are required** *(i.e. record field measurements, final stabilized readings, passive sample readings before sampling for all field parameters required by State/Permit/Site*

**Sample Appearance:** CLEAR Odor: _____ Color: NONE Other: _____

**Weather Conditions** (required daily, or as conditions change): Direction/Speed: E 0-5 Outlook: cloudy 40°F Precipitation: Y or (N)

**Specific Comments (including purge/well volume calculations if required):**

**FIELD COMMENTS**

CALC: 43.30 - 5.13 = 38.17 x 0.163 = 6.22 gallon

FLOW: 169 sec/gt x 4 gt/gallon = 676 sec/gal ÷ 60 sec/min = 11.27 min/gal ∴ 0.09 gpm

ACTUAL: 18 min x 0.09 gpm = 1.62 gallon

SAMPLE TIME: 0940

**I certify that sampling procedures were in accordance with applicable EPA, State, and WM protocols (if more than one sampler, all should sign):**

| Date | Name | Signature | Company |
|---|---|---|---|
| 3/19/14 | DAN ARMOUR | [signature] | PRO-TECH |
| __/__/__ | | | |

**DISTRIBUTION: WHITE/ORIGINAL - Stays with Sample, YELLOW - Returned to Client, PINK - Field Copy**

# FIELD INFORMATION FORM

WASTE MANAGEMENT

Site Name: PIEDMONT

Site No.:

Sample Point: MW11D (Sample ID)

**This Waste Management Field Information Form is Required**
This form is to be completed, in addition to any State Forms. The Field Form is submitted along with the Chain of Custody Forms that accompany the sample containers (i.e. with the cooler that is returned to the laboratory).

Laboratory Use Only/Lab ID:

**PURGE INFO**

| PURGE DATE (MM DD YY) | PURGE TIME (2400 Hr Clock) | ELAPSED HRS (hrs:min) | WATER VOL IN CASING (Gallons) | ACTUAL VOL PURGED (Gallons) | WELL VOLs PURGED |
|---|---|---|---|---|---|
| 03 19 14 | 08:22 | 1:19 | 107 | 19 | 0.62 |

*Note: For Passive Sampling, replace "Water Vol in Casing" and "Well Vols Purged" w/ Water Vol in Tubing/Flow Cell and Tubing/Flow Cell Vols Purged Mark changes, record field data, below*

**PURGE/SAMPLE EQUIPMENT**

Purging and Sampling Equipment.. Dedicated: (Y) or N

Filter Device: Y or (N) 0.45 µ or ____ µ (circle or fill in)

Purging Device: C — A-Submersible Pump, B-Peristaltic Pump, C-QED Bladder Pump, D-Bailer, E-Piston Pump, F-Dipper/Bottle

Sampling Device: C

X-Other:

Filter Type: – A-In-line Disposable, B-Pressure, C-Vacuum, X-Other

Sample Tube Type: A — A-Teflon, B-Stainless Steel, C-PVC, D-Polypropylene, X-Other:

**WELL DATA**

Well Elevation (at TOC): 776.36 (ft/msl)

Depth to Water (DTW) (from TOC): 27.94 (ft)

Groundwater Elevation (site datum, from TOC): 748.42 (ft/msl)

Total Well Depth (from TOC): 93.50 (ft)

Stick Up (from ground elevation): (ft)

Casing ID: 2 (in)

Casing Material: PVC

*Note: Total Well Depth, Stick Up, Casing Id etc are optional and can be from historical data, unless required by Site/Permit Well Elevation, DTW, and Groundwater Elevation must be current*

**STABILIZATION DATA (Optional)**

| Sample Time (2400 Hr Clock) | Rate/Unit gpm | pH (std) | Conductance (SC/EC) (µmhos/cm@25°C) | Temp. (°C) | Turbidity (ntu) | D.O. (mg/L - ppm) | eH/ORP (mV) | DTW (ft) |
|---|---|---|---|---|---|---|---|---|
| 08:34 | 0.1 1st | 6.33 1st | 62 | 14.9 | 4.9 | 3.1 | 166 | 30.1 |
| 08:36 | 0.1 2nd | 6.34 2nd | 62 | 14.9 | 5.1 | 3.2 | 168 | 30.1 |
| 08:38 | 0.1 3rd | 6.34 3rd | 63 | 14.9 | 5.5 | 3.1 | 170 | 30.1 |
| 08:40 | 0.1 4th | 6.33 4th | 62 | 14.9 | 5.3 | 3.1 | 170 | 30.1 |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| Suggested range for 3 consec. readings or note Permit/State requirements: | | +/- 0.2 | +/- 3% | -- | -- | +/- 10% | +/- 25 mV | Stabilize |

**Stabilization Data Fields are Optional** *(i.e. complete stabilization readings for parameters required by WM, Site, or State). These fields can be used where four (4) field measurements are required by State/Permit/Site. If a Data Logger or other Electronic format is used, fill in final readings below and submit electronic data separately to Site* ***If more fields above are needed, use separate sheet or form.***

**FIELD DATA**

| SAMPLE DATE (MM DD YY) | pH (std) | CONDUCTANCE (umhos/cm @ 25°C) | TEMP. (°C) | TURBIDITY (ntu) | DO (mg/L-ppm) | eH/ORP (mV) | Other: Units |
|---|---|---|---|---|---|---|---|
| 03 19 14 | 6.33 | 62 | 14.9 | 5.3 | 3.1 | 170 | |

**Final Field Readings are required** *(i.e. record field measurements, final stabilized readings, passive sample readings before sampling for all field parameters required by State/Permit/Site.*

**Sample Appearance:** CLEAR Odor: ____ Color: NONE Other: ____

**Weather Conditions** (required daily, or as conditions change): Direction/Speed: CALM Outlook: cloudy 35°F Precipitation: Y or (N)

**Specific Comments (including purge/well volume calculations if required):**

**FIELD COMMENTS**

CALC: 93.50 - 27.94 = 65.56 x 0.163 = 10.69 gallon

FLOW: 147 cm/qt x 4 qt/gal = 588 cm/gal ÷ 60 cm/min = 9.8 min/gal ∴ 0.102 gpm

ACTUAL: 19 min x 0.102 gpm = 1.94 gallon

SAMPLE TIME: 0841

**I certify that sampling procedures were in accordance with applicable EPA, State, and WM protocols (if more than one sampler, all should sign):**

| Date | Name | Signature | Company |
|---|---|---|---|
| 3/19/14 | DAN ARMOUR | [signature] | PRO-TECH |
| / / | | | |

DISTRIBUTION: WHITE/ORIGINAL - Stays with Sample, YELLOW - Returned to Client, PINK - Field Copy

TAL-8029WM (1013)

# Login Sample Receipt Checklist

Client: Waste Management

Job Number: 280-53273-1

**Login Number: 53273**

**List Source: TestAmerica Denver**

**List Number: 1**

**Creator: Dedio, Michael T**

| Question | Answer | Comment |
|---|---|---|
| Radioactivity either was not measured or, if measured, is at or below background | True | |
| The cooler's custody seal, if present, is intact. | True | |
| The cooler or samples do not appear to have been compromised or tampered with. | True | |
| Samples were received on ice. | True | |
| Cooler Temperature is acceptable. | True | |
| Cooler Temperature is recorded. | True | |
| COC is present. | True | |
| COC is filled out in ink and legible. | True | |
| COC is filled out with all pertinent information. | True | |
| Is the Field Sampler's name present on COC? | True | |
| There are no discrepancies between the sample IDs on the containers and the COC. | True | |
| Samples are received within Holding Time. | True | |
| Sample containers have legible labels. | True | |
| Containers are not broken or leaking. | True | |
| Sample collection date/times are provided. | True | |
| Appropriate sample containers are used. | True | |
| Sample bottles are completely filled. | True | |
| Sample Preservation Verified | N/A | |
| There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs | True | |
| VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter. | True | |
| If necessary, staff have been informed of any short hold time or quick TAT needs | True | |
| Multiphasic samples are not present. | True | |
| Samples do not require splitting or compositing. | True | |
| Sampling Company provided. | True | |
| Samples received within 48 hours of sampling. | True | |
| Samples requiring field filtration have been filtered in the field. | True | |
| Chlorine Residual checked. | True | |

# ANALYTICAL REPORT

Job Number: 280-53291-1

Job Description: 134|Piedmont Landfill

For:
Waste Management
1850 Parkway Place
Suite 600
Marietta, GA 30067

Attention: Mr. Al Lacsamana

Approved for release.
Betsy A Sara
Project Manager II
4/4/2014 11:25 AM

Betsy A Sara, Project Manager II
4955 Yarrow Street, Arvada, CO, 80002
(303)736-0189
betsy.sara@testamericainc.com
04/04/2014

cc: Mr. Van Burbach

The test results in this report relate only to the samples in this report and meet all requirements of NELAC, with any exceptions noted. Pursuant to NELAP, this report shall not be reproduced except in full, without the written approval of the laboratory. All questions regarding this report should be directed to the TestAmerica Denver Project Manager.

The Lab Certification ID# is E87667.

Reporting limits are adjusted for sample size used, dilutions and moisture content if applicable.

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**CASE NARRATIVE**

**Client: Waste Management**

**Project: 134|Piedmont Landfill**

**Report Number: 280-53291-1**

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

This report may include reporting limits (RLs) less than TestAmerica's standard reporting limit. The reported sample results and associated reporting limits are being used specifically to meet the needs of this project. Note that data are not normally reported to these levels without qualification because they are inherently less reliable and potentially less defensible than required by the latest industry standards.

**Sample Receiving**

The samples were received on 03/20/2014; the samples arrived in good condition, properly preserved and on ice. The temperature of the cooler at receipt was 3.0 C.

**Holding Times**

The holding times were within established control limits.

**Trip Blanks**

Acetone was detected in the trip blank sample at a level below the requested reporting limit, however, Acetone was not detected in any other samples, and therefore, no corrective action was performed.

**Method Blanks**

Total Zinc Method 6020A was detected in the Method Blank below the project established reporting limit. No corrective action is taken for any values in Method Blanks that are below the requested reporting limits. The Method Blank data are included at the end of this report.

All other Method Blanks were within established control limits.

**Laboratory Control Samples (LCS)**

All Laboratory Control Samples were within established control limits.

**Matrix Spike and Matrix Spike Duplicate (MS/MSD)**

All MS/MSD samples were within established control limits.

## EXECUTIVE SUMMARY - Detections

Client: Waste Management

Job Number: 280-53291-1

| Lab Sample ID / Analyte | Client Sample ID | Result | Qualifier | Reporting Limit | Units | Method |
|---|---|---|---|---|---|---|
| **280-53291-1** | **3406-S02** | | | | | |
| Field pH | | 6.51 | | | SU | Field Sampling |
| Field Conductivity | | 87 | | | umhos/cm | Field Sampling |
| Field Temperature | | 6.8 | | | Degrees C | Field Sampling |
| Field Turbidity | | 24.1 | | | NTU | Field Sampling |
| Field Dissolved Oxygen | | 6.8 | | | mg/L | Field Sampling |
| Field EH/ORP | | 73.0 | | | millivolts | Field Sampling |
| ***Total Recoverable*** | | | | | | |
| Barium | | 32 | J | 100 | ug/L | 6010C |
| Chromium | | 2.6 | J | 10 | ug/L | 6010C |
| Vanadium | | 5.6 | J | 25 | ug/L | 6010C |
| Copper | | 2.0 | J | 10 | ug/L | 6020A |
| Zinc | | 4.4 | J B | 10 | ug/L | 6020A |
| **280-53291-2** | **3406-S03** | | | | | |
| Field pH | | 6.98 | | | SU | Field Sampling |
| Field Conductivity | | 71 | | | umhos/cm | Field Sampling |
| Field Temperature | | 7.6 | | | Degrees C | Field Sampling |
| Field Turbidity | | 29.6 | | | NTU | Field Sampling |
| Field Dissolved Oxygen | | 6.6 | | | mg/L | Field Sampling |
| Field EH/ORP | | 23.4 | | | millivolts | Field Sampling |
| ***Total Recoverable*** | | | | | | |
| Barium | | 31 | J | 100 | ug/L | 6010C |
| Chromium | | 3.0 | J | 10 | ug/L | 6010C |
| Nickel | | 1.3 | J | 50 | ug/L | 6010C |
| Vanadium | | 7.4 | J | 25 | ug/L | 6010C |
| Copper | | 2.2 | J | 10 | ug/L | 6020A |
| Zinc | | 3.2 | J B | 10 | ug/L | 6020A |

## EXECUTIVE SUMMARY - Detections

Client: Waste Management

Job Number: 280-53291-1

| Lab Sample ID / Analyte | Client Sample ID | Result | Qualifier | Reporting Limit | Units | Method |
|---|---|---|---|---|---|---|
| **280-53291-3** | **3406-S04** | | | | | |
| Field pH | | 7.16 | | | SU | Field Sampling |
| Field Conductivity | | 73 | | | umhos/cm | Field Sampling |
| Field Temperature | | 7.2 | | | Degrees C | Field Sampling |
| Field Turbidity | | 28.6 | | | NTU | Field Sampling |
| Field Dissolved Oxygen | | 6.3 | | | mg/L | Field Sampling |
| Field EH/ORP | | 30.2 | | | millivolts | Field Sampling |
| ***Total Recoverable*** | | | | | | |
| Barium | | 31 | J | 100 | ug/L | 6010C |
| Chromium | | 2.9 | J | 10 | ug/L | 6010C |
| Nickel | | 1.5 | J | 50 | ug/L | 6010C |
| Vanadium | | 7.7 | J | 25 | ug/L | 6010C |
| Copper | | 2.6 | J | 10 | ug/L | 6020A |
| Zinc | | 3.6 | J B | 10 | ug/L | 6020A |
| **280-53291-4** | **3406-S05** | | | | | |
| Field pH | | 6.92 | | | SU | Field Sampling |
| Field Conductivity | | 80 | | | umhos/cm | Field Sampling |
| Field Temperature | | 6.9 | | | Degrees C | Field Sampling |
| Field Turbidity | | 28.8 | | | NTU | Field Sampling |
| Field Dissolved Oxygen | | 6.6 | | | mg/L | Field Sampling |
| Field EH/ORP | | 23.9 | | | millivolts | Field Sampling |
| ***Total Recoverable*** | | | | | | |
| Barium | | 30 | J | 100 | ug/L | 6010C |
| Chromium | | 3.5 | J | 10 | ug/L | 6010C |
| Nickel | | 1.7 | J | 50 | ug/L | 6010C |
| Vanadium | | 7.7 | J | 25 | ug/L | 6010C |
| Copper | | 2.1 | J | 10 | ug/L | 6020A |
| Zinc | | 4.0 | J B | 10 | ug/L | 6020A |
| **280-53291-5TB** | **TRIP BLANK** | | | | | |
| Acetone | | 2.8 | J | 100 | ug/L | 8260B |

# METHOD SUMMARY

Client: Waste Management

Job Number: 280-53291-1

| Description | Lab Location | Method | Preparation Method |
|---|---|---|---|
| **Matrix: Water** | | | |
| Volatile Organic Compounds (GC/MS) | TAL DEN | SW846 8260B | |
| Purge and Trap | TAL DEN | | SW846 5030B |
| Metals (ICP) | TAL DEN | SW846 6010C | |
| Preparation, Total Recoverable or Dissolved Metals | TAL DEN | | SW846 3005A |
| Metals (ICP/MS) | TAL DEN | SW846 6020A | |
| Preparation, Total Recoverable or Dissolved Metals | TAL DEN | | SW846 3005A |
| Field Sampling | TAL DEN | EPA Field Sampling | |

**Lab References:**

TAL DEN = TestAmerica Denver

**Method References:**

EPA = US Environmental Protection Agency

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

# METHOD / ANALYST SUMMARY

Client: Waste Management

Job Number: 280-53291-1

| Method | Analyst | Analyst ID |
|---|---|---|
| SW846 8260B | Wickham, Tom A | TAW |
| SW846 6010C | Harre, John K | JKH |
| SW846 6020A | Lill, Thomas E | TEL |
| EPA Field Sampling | Promduang, Thaweesin | TP |

# SAMPLE SUMMARY

Client: Waste Management

Job Number: 280-53291-1

| Lab Sample ID | Client Sample ID | Client Matrix | Date/Time Sampled | Date/Time Received |
|---|---|---|---|---|
| 280-53291-1 | 3406-S02 | Water | 03/19/2014 1200 | 03/20/2014 0930 |
| 280-53291-2 | 3406-S03 | Water | 03/19/2014 1225 | 03/20/2014 0930 |
| 280-53291-3 | 3406-S04 | Water | 03/19/2014 1240 | 03/20/2014 0930 |
| 280-53291-4 | 3406-S05 | Water | 03/19/2014 1210 | 03/20/2014 0930 |
| 280-53291-5TB | TRIP BLANK | Water | 03/19/2014 0000 | 03/20/2014 0930 |

# SAMPLE RESULTS

Client: Waste Management

Job Number: 280-53291-1

**Client Sample ID:** **3406-S02**

Lab Sample ID: 280-53291-1

Client Matrix: Water

Date Sampled: 03/19/2014 1200

Date Received: 03/20/2014 0930

**8260B Volatile Organic Compounds (GC/MS)**

| | | | | | |
|---|---|---|---|---|---|
| Analysis Method: | 8260B | Analysis Batch: | 280-219161 | Instrument ID: | VMS_MS1 |
| Prep Method: | 5030B | Prep Batch: | N/A | Lab File ID: | MS3941.D |
| Dilution: | 1.0 | | | Initial Weight/Volume: | 20 mL |
| Analysis Date: | 04/01/2014 1131 | | | Final Weight/Volume: | 20 mL |
| Prep Date: | 04/01/2014 1131 | | | | |

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|---|---|---|---|---|
| 1,1,1,2-Tetrachloroethane | ND | | 0.21 | 5.0 |
| 1,1,1-Trichloroethane | ND | | 0.16 | 1.0 |
| 1,1,2,2-Tetrachloroethane | ND | | 0.21 | 3.0 |
| 1,1,2-Trichloroethane | ND | | 0.27 | 1.0 |
| 1,1-Dichloroethane | ND | | 0.22 | 5.0 |
| 1,1-Dichloroethene | ND | | 0.23 | 5.0 |
| 1,2,3-Trichloropropane | ND | | 0.33 | 1.0 |
| 1,2-Dibromo-3-Chloropropane | ND | | 0.47 | 13 |
| 1,2-Dibromoethane | ND | | 0.18 | 1.0 |
| 1,2-Dichlorobenzene | ND | | 0.15 | 5.0 |
| 1,2-Dichloroethane | ND | | 0.13 | 1.0 |
| 1,2-Dichloropropane | ND | | 0.18 | 1.0 |
| 1,4-Dichlorobenzene | ND | | 0.16 | 1.0 |
| 2-Butanone (MEK) | ND | | 2.0 | 100 |
| 2-Hexanone | ND | | 1.7 | 50 |
| 4-Methyl-2-pentanone (MIBK) | ND | | 0.98 | 100 |
| Acetone | ND | | 1.9 | 100 |
| Acrylonitrile | ND | | 1.4 | 200 |
| Benzene | ND | | 0.16 | 1.0 |
| Bromochloromethane | ND | | 0.10 | 3.0 |
| Bromodichloromethane | ND | | 0.17 | 1.0 |
| Bromoform | ND | | 0.19 | 3.0 |
| Bromomethane | ND | | 0.21 | 10 |
| Carbon disulfide | ND | | 0.45 | 100 |
| Carbon tetrachloride | ND | | 0.19 | 1.0 |
| Chlorobenzene | ND | | 0.17 | 3.0 |
| Chloroethane | ND | | 0.41 | 10 |
| Chloroform | ND | | 0.16 | 5.0 |
| Chloromethane | ND | | 0.30 | 1.0 |
| cis-1,2-Dichloroethene | ND | | 0.15 | 5.0 |
| cis-1,3-Dichloropropene | ND | | 0.16 | 1.0 |
| Dibromochloromethane | ND | | 0.17 | 3.0 |
| Dibromomethane | ND | | 0.17 | 10 |
| Ethylbenzene | ND | | 0.16 | 1.0 |
| Iodomethane | ND | | 0.23 | 10 |
| Methylene Chloride | ND | | 0.32 | 1.0 |
| Styrene | ND | | 0.17 | 1.0 |
| Tetrachloroethene | ND | | 0.20 | 1.0 |
| Toluene | ND | | 0.17 | 1.0 |
| trans-1,2-Dichloroethene | ND | | 0.15 | 5.0 |
| trans-1,3-Dichloropropene | ND | | 0.19 | 1.0 |
| trans-1,4-Dichloro-2-butene | ND | | 0.80 | 100 |
| Trichloroethene | ND | | 0.16 | 1.0 |
| Trichlorofluoromethane | ND | | 0.29 | 1.0 |
| Vinyl acetate | ND | | 0.94 | 50 |
| Vinyl chloride | ND | | 0.10 | 1.0 |

Client: Waste Management

Job Number: 280-53291-1

**Client Sample ID:** **3406-S02**

Lab Sample ID: 280-53291-1

Client Matrix: Water

Date Sampled: 03/19/2014 1200

Date Received: 03/20/2014 0930

**8260B Volatile Organic Compounds (GC/MS)**

| | | | | | |
|---|---|---|---|---|---|
| Analysis Method: | 8260B | Analysis Batch: | 280-219161 | Instrument ID: | VMS_MS1 |
| Prep Method: | 5030B | Prep Batch: | N/A | Lab File ID: | MS3941.D |
| Dilution: | 1.0 | | | Initial Weight/Volume: | 20 mL |
| Analysis Date: | 04/01/2014 1131 | | | Final Weight/Volume: | 20 mL |
| Prep Date: | 04/01/2014 1131 | | | | |

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|---|---|---|---|---|
| Xylenes, Total | ND | | 0.19 | 5.0 |

| Surrogate | %Rec | Qualifier | Acceptance Limits |
|---|---|---|---|
| 1,2-Dichloroethane-d4 (Surr) | 95 | | 70 - 127 |
| 4-Bromofluorobenzene (Surr) | 94 | | 78 - 120 |
| Dibromofluoromethane (Surr) | 90 | | 77 - 120 |
| Toluene-d8 (Surr) | 96 | | 80 - 125 |

Client: Waste Management

Job Number: 280-53291-1

**Client Sample ID:** **3406-S03**

Lab Sample ID: 280-53291-2

Client Matrix: Water

Date Sampled: 03/19/2014 1225

Date Received: 03/20/2014 0930

**8260B Volatile Organic Compounds (GC/MS)**

| | | | | | |
|---|---|---|---|---|---|
| Analysis Method: | 8260B | Analysis Batch: | 280-219161 | Instrument ID: | VMS_MS1 |
| Prep Method: | 5030B | Prep Batch: | N/A | Lab File ID: | MS3944.D |
| Dilution: | 1.0 | | | Initial Weight/Volume: | 20 mL |
| Analysis Date: | 04/01/2014 1236 | | | Final Weight/Volume: | 20 mL |
| Prep Date: | 04/01/2014 1236 | | | | |

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|---|---|---|---|---|
| 1,1,1,2-Tetrachloroethane | ND | | 0.21 | 5.0 |
| 1,1,1-Trichloroethane | ND | | 0.16 | 1.0 |
| 1,1,2,2-Tetrachloroethane | ND | | 0.21 | 3.0 |
| 1,1,2-Trichloroethane | ND | | 0.27 | 1.0 |
| 1,1-Dichloroethane | ND | | 0.22 | 5.0 |
| 1,1-Dichloroethene | ND | | 0.23 | 5.0 |
| 1,2,3-Trichloropropane | ND | | 0.33 | 1.0 |
| 1,2-Dibromo-3-Chloropropane | ND | | 0.47 | 13 |
| 1,2-Dibromoethane | ND | | 0.18 | 1.0 |
| 1,2-Dichlorobenzene | ND | | 0.15 | 5.0 |
| 1,2-Dichloroethane | ND | | 0.13 | 1.0 |
| 1,2-Dichloropropane | ND | | 0.18 | 1.0 |
| 1,4-Dichlorobenzene | ND | | 0.16 | 1.0 |
| 2-Butanone (MEK) | ND | | 2.0 | 100 |
| 2-Hexanone | ND | | 1.7 | 50 |
| 4-Methyl-2-pentanone (MIBK) | ND | | 0.98 | 100 |
| Acetone | ND | | 1.9 | 100 |
| Acrylonitrile | ND | | 1.4 | 200 |
| Benzene | ND | | 0.16 | 1.0 |
| Bromochloromethane | ND | | 0.10 | 3.0 |
| Bromodichloromethane | ND | | 0.17 | 1.0 |
| Bromoform | ND | | 0.19 | 3.0 |
| Bromomethane | ND | | 0.21 | 10 |
| Carbon disulfide | ND | | 0.45 | 100 |
| Carbon tetrachloride | ND | | 0.19 | 1.0 |
| Chlorobenzene | ND | | 0.17 | 3.0 |
| Chloroethane | ND | | 0.41 | 10 |
| Chloroform | ND | | 0.16 | 5.0 |
| Chloromethane | ND | | 0.30 | 1.0 |
| cis-1,2-Dichloroethene | ND | | 0.15 | 5.0 |
| cis-1,3-Dichloropropene | ND | | 0.16 | 1.0 |
| Dibromochloromethane | ND | | 0.17 | 3.0 |
| Dibromomethane | ND | | 0.17 | 10 |
| Ethylbenzene | ND | | 0.16 | 1.0 |
| Iodomethane | ND | | 0.23 | 10 |
| Methylene Chloride | ND | | 0.32 | 1.0 |
| Styrene | ND | | 0.17 | 1.0 |
| Tetrachloroethene | ND | | 0.20 | 1.0 |
| Toluene | ND | | 0.17 | 1.0 |
| trans-1,2-Dichloroethene | ND | | 0.15 | 5.0 |
| trans-1,3-Dichloropropene | ND | | 0.19 | 1.0 |
| trans-1,4-Dichloro-2-butene | ND | | 0.80 | 100 |
| Trichloroethene | ND | | 0.16 | 1.0 |
| Trichlorofluoromethane | ND | | 0.29 | 1.0 |
| Vinyl acetate | ND | | 0.94 | 50 |
| Vinyl chloride | ND | | 0.10 | 1.0 |

Client: Waste Management

Job Number: 280-53291-1

**Client Sample ID:** **3406-S03**

Lab Sample ID: 280-53291-2

Client Matrix: Water

Date Sampled: 03/19/2014 1225

Date Received: 03/20/2014 0930

**8260B Volatile Organic Compounds (GC/MS)**

| | | | | | |
|---|---|---|---|---|---|
| Analysis Method: | 8260B | Analysis Batch: | 280-219161 | Instrument ID: | VMS_MS1 |
| Prep Method: | 5030B | Prep Batch: | N/A | Lab File ID: | MS3944.D |
| Dilution: | 1.0 | | | Initial Weight/Volume: | 20 mL |
| Analysis Date: | 04/01/2014 1236 | | | Final Weight/Volume: | 20 mL |
| Prep Date: | 04/01/2014 1236 | | | | |

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|---|---|---|---|---|
| Xylenes, Total | ND | | 0.19 | 5.0 |

| Surrogate | %Rec | Qualifier | Acceptance Limits |
|---|---|---|---|
| 1,2-Dichloroethane-d4 (Surr) | 98 | | 70 - 127 |
| 4-Bromofluorobenzene (Surr) | 97 | | 78 - 120 |
| Dibromofluoromethane (Surr) | 92 | | 77 - 120 |
| Toluene-d8 (Surr) | 94 | | 80 - 125 |

Client: Waste Management

Job Number: 280-53291-1

**Client Sample ID:** **3406-S04**

Lab Sample ID: 280-53291-3

Client Matrix: Water

Date Sampled: 03/19/2014 1240

Date Received: 03/20/2014 0930

**8260B Volatile Organic Compounds (GC/MS)**

| | | | | | |
|---|---|---|---|---|---|
| Analysis Method: | 8260B | Analysis Batch: | 280-219161 | Instrument ID: | VMS_MS1 |
| Prep Method: | 5030B | Prep Batch: | N/A | Lab File ID: | MS3945.D |
| Dilution: | 1.0 | | | Initial Weight/Volume: | 20 mL |
| Analysis Date: | 04/01/2014 1257 | | | Final Weight/Volume: | 20 mL |
| Prep Date: | 04/01/2014 1257 | | | | |

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|---|---|---|---|---|
| 1,1,1,2-Tetrachloroethane | ND | | 0.21 | 5.0 |
| 1,1,1-Trichloroethane | ND | | 0.16 | 1.0 |
| 1,1,2,2-Tetrachloroethane | ND | | 0.21 | 3.0 |
| 1,1,2-Trichloroethane | ND | | 0.27 | 1.0 |
| 1,1-Dichloroethane | ND | | 0.22 | 5.0 |
| 1,1-Dichloroethene | ND | | 0.23 | 5.0 |
| 1,2,3-Trichloropropane | ND | | 0.33 | 1.0 |
| 1,2-Dibromo-3-Chloropropane | ND | | 0.47 | 13 |
| 1,2-Dibromoethane | ND | | 0.18 | 1.0 |
| 1,2-Dichlorobenzene | ND | | 0.15 | 5.0 |
| 1,2-Dichloroethane | ND | | 0.13 | 1.0 |
| 1,2-Dichloropropane | ND | | 0.18 | 1.0 |
| 1,4-Dichlorobenzene | ND | | 0.16 | 1.0 |
| 2-Butanone (MEK) | ND | | 2.0 | 100 |
| 2-Hexanone | ND | | 1.7 | 50 |
| 4-Methyl-2-pentanone (MIBK) | ND | | 0.98 | 100 |
| Acetone | ND | | 1.9 | 100 |
| Acrylonitrile | ND | | 1.4 | 200 |
| Benzene | ND | | 0.16 | 1.0 |
| Bromochloromethane | ND | | 0.10 | 3.0 |
| Bromodichloromethane | ND | | 0.17 | 1.0 |
| Bromoform | ND | | 0.19 | 3.0 |
| Bromomethane | ND | | 0.21 | 10 |
| Carbon disulfide | ND | | 0.45 | 100 |
| Carbon tetrachloride | ND | | 0.19 | 1.0 |
| Chlorobenzene | ND | | 0.17 | 3.0 |
| Chloroethane | ND | | 0.41 | 10 |
| Chloroform | ND | | 0.16 | 5.0 |
| Chloromethane | ND | | 0.30 | 1.0 |
| cis-1,2-Dichloroethene | ND | | 0.15 | 5.0 |
| cis-1,3-Dichloropropene | ND | | 0.16 | 1.0 |
| Dibromochloromethane | ND | | 0.17 | 3.0 |
| Dibromomethane | ND | | 0.17 | 10 |
| Ethylbenzene | ND | | 0.16 | 1.0 |
| Iodomethane | ND | | 0.23 | 10 |
| Methylene Chloride | ND | | 0.32 | 1.0 |
| Styrene | ND | | 0.17 | 1.0 |
| Tetrachloroethene | ND | | 0.20 | 1.0 |
| Toluene | ND | | 0.17 | 1.0 |
| trans-1,2-Dichloroethene | ND | | 0.15 | 5.0 |
| trans-1,3-Dichloropropene | ND | | 0.19 | 1.0 |
| trans-1,4-Dichloro-2-butene | ND | | 0.80 | 100 |
| Trichloroethene | ND | | 0.16 | 1.0 |
| Trichlorofluoromethane | ND | | 0.29 | 1.0 |
| Vinyl acetate | ND | | 0.94 | 50 |
| Vinyl chloride | ND | | 0.10 | 1.0 |

Client: Waste Management

Job Number: 280-53291-1

**Client Sample ID:** **3406-S04**

Lab Sample ID: 280-53291-3

Client Matrix: Water

Date Sampled: 03/19/2014 1240

Date Received: 03/20/2014 0930

**8260B Volatile Organic Compounds (GC/MS)**

| | | | | | |
|---|---|---|---|---|---|
| Analysis Method: | 8260B | Analysis Batch: | 280-219161 | Instrument ID: | VMS_MS1 |
| Prep Method: | 5030B | Prep Batch: | N/A | Lab File ID: | MS3945.D |
| Dilution: | 1.0 | | | Initial Weight/Volume: | 20 mL |
| Analysis Date: | 04/01/2014 1257 | | | Final Weight/Volume: | 20 mL |
| Prep Date: | 04/01/2014 1257 | | | | |

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|---|---|---|---|---|
| Xylenes, Total | ND | | 0.19 | 5.0 |

| Surrogate | %Rec | Qualifier | Acceptance Limits |
|---|---|---|---|
| 1,2-Dichloroethane-d4 (Surr) | 95 | | 70 - 127 |
| 4-Bromofluorobenzene (Surr) | 95 | | 78 - 120 |
| Dibromofluoromethane (Surr) | 90 | | 77 - 120 |
| Toluene-d8 (Surr) | 92 | | 80 - 125 |

Client: Waste Management

Job Number: 280-53291-1

**Client Sample ID:** **3406-S05**

Lab Sample ID: 280-53291-4

Client Matrix: Water

Date Sampled: 03/19/2014 1210

Date Received: 03/20/2014 0930

**8260B Volatile Organic Compounds (GC/MS)**

| | | | | | |
|---|---|---|---|---|---|
| Analysis Method: | 8260B | Analysis Batch: | 280-219161 | Instrument ID: | VMS_MS1 |
| Prep Method: | 5030B | Prep Batch: | N/A | Lab File ID: | MS3946.D |
| Dilution: | 1.0 | | | Initial Weight/Volume: | 20 mL |
| Analysis Date: | 04/01/2014 1319 | | | Final Weight/Volume: | 20 mL |
| Prep Date: | 04/01/2014 1319 | | | | |

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|---|---|---|---|---|
| 1,1,1,2-Tetrachloroethane | ND | | 0.21 | 5.0 |
| 1,1,1-Trichloroethane | ND | | 0.16 | 1.0 |
| 1,1,2,2-Tetrachloroethane | ND | | 0.21 | 3.0 |
| 1,1,2-Trichloroethane | ND | | 0.27 | 1.0 |
| 1,1-Dichloroethane | ND | | 0.22 | 5.0 |
| 1,1-Dichloroethene | ND | | 0.23 | 5.0 |
| 1,2,3-Trichloropropane | ND | | 0.33 | 1.0 |
| 1,2-Dibromo-3-Chloropropane | ND | | 0.47 | 13 |
| 1,2-Dibromoethane | ND | | 0.18 | 1.0 |
| 1,2-Dichlorobenzene | ND | | 0.15 | 5.0 |
| 1,2-Dichloroethane | ND | | 0.13 | 1.0 |
| 1,2-Dichloropropane | ND | | 0.18 | 1.0 |
| 1,4-Dichlorobenzene | ND | | 0.16 | 1.0 |
| 2-Butanone (MEK) | ND | | 2.0 | 100 |
| 2-Hexanone | ND | | 1.7 | 50 |
| 4-Methyl-2-pentanone (MIBK) | ND | | 0.98 | 100 |
| Acetone | ND | | 1.9 | 100 |
| Acrylonitrile | ND | | 1.4 | 200 |
| Benzene | ND | | 0.16 | 1.0 |
| Bromochloromethane | ND | | 0.10 | 3.0 |
| Bromodichloromethane | ND | | 0.17 | 1.0 |
| Bromoform | ND | | 0.19 | 3.0 |
| Bromomethane | ND | | 0.21 | 10 |
| Carbon disulfide | ND | | 0.45 | 100 |
| Carbon tetrachloride | ND | | 0.19 | 1.0 |
| Chlorobenzene | ND | | 0.17 | 3.0 |
| Chloroethane | ND | | 0.41 | 10 |
| Chloroform | ND | | 0.16 | 5.0 |
| Chloromethane | ND | | 0.30 | 1.0 |
| cis-1,2-Dichloroethene | ND | | 0.15 | 5.0 |
| cis-1,3-Dichloropropene | ND | | 0.16 | 1.0 |
| Dibromochloromethane | ND | | 0.17 | 3.0 |
| Dibromomethane | ND | | 0.17 | 10 |
| Ethylbenzene | ND | | 0.16 | 1.0 |
| Iodomethane | ND | | 0.23 | 10 |
| Methylene Chloride | ND | | 0.32 | 1.0 |
| Styrene | ND | | 0.17 | 1.0 |
| Tetrachloroethene | ND | | 0.20 | 1.0 |
| Toluene | ND | | 0.17 | 1.0 |
| trans-1,2-Dichloroethene | ND | | 0.15 | 5.0 |
| trans-1,3-Dichloropropene | ND | | 0.19 | 1.0 |
| trans-1,4-Dichloro-2-butene | ND | | 0.80 | 100 |
| Trichloroethene | ND | | 0.16 | 1.0 |
| Trichlorofluoromethane | ND | | 0.29 | 1.0 |
| Vinyl acetate | ND | | 0.94 | 50 |
| Vinyl chloride | ND | | 0.10 | 1.0 |

Client: Waste Management

Job Number: 280-53291-1

**Client Sample ID:** **3406-S05**

Lab Sample ID: 280-53291-4

Client Matrix: Water

Date Sampled: 03/19/2014 1210

Date Received: 03/20/2014 0930

**8260B Volatile Organic Compounds (GC/MS)**

| | | | | | |
|---|---|---|---|---|---|
| Analysis Method: | 8260B | Analysis Batch: | 280-219161 | Instrument ID: | VMS_MS1 |
| Prep Method: | 5030B | Prep Batch: | N/A | Lab File ID: | MS3946.D |
| Dilution: | 1.0 | | | Initial Weight/Volume: | 20 mL |
| Analysis Date: | 04/01/2014 1319 | | | Final Weight/Volume: | 20 mL |
| Prep Date: | 04/01/2014 1319 | | | | |

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|---|---|---|---|---|
| Xylenes, Total | ND | | 0.19 | 5.0 |

| Surrogate | %Rec | Qualifier | Acceptance Limits |
|---|---|---|---|
| 1,2-Dichloroethane-d4 (Surr) | 100 | | 70 - 127 |
| 4-Bromofluorobenzene (Surr) | 93 | | 78 - 120 |
| Dibromofluoromethane (Surr) | 92 | | 77 - 120 |
| Toluene-d8 (Surr) | 96 | | 80 - 125 |

Client: Waste Management

Job Number: 280-53291-1

**Client Sample ID:** **TRIP BLANK**

Lab Sample ID: 280-53291-5TB

Client Matrix: Water

Date Sampled: 03/19/2014 0000

Date Received: 03/20/2014 0930

**8260B Volatile Organic Compounds (GC/MS)**

| | | | | | |
|---|---|---|---|---|---|
| Analysis Method: | 8260B | Analysis Batch: | 280-219161 | Instrument ID: | VMS_MS1 |
| Prep Method: | 5030B | Prep Batch: | N/A | Lab File ID: | MS3940.D |
| Dilution: | 1.0 | | | Initial Weight/Volume: | 20 mL |
| Analysis Date: | 04/01/2014 1110 | | | Final Weight/Volume: | 20 mL |
| Prep Date: | 04/01/2014 1110 | | | | |

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|---|---|---|---|---|
| 1,1,1,2-Tetrachloroethane | ND | | 0.21 | 5.0 |
| 1,1,1-Trichloroethane | ND | | 0.16 | 1.0 |
| 1,1,2,2-Tetrachloroethane | ND | | 0.21 | 3.0 |
| 1,1,2-Trichloroethane | ND | | 0.27 | 1.0 |
| 1,1-Dichloroethane | ND | | 0.22 | 5.0 |
| 1,1-Dichloroethene | ND | | 0.23 | 5.0 |
| 1,2,3-Trichloropropane | ND | | 0.33 | 1.0 |
| 1,2-Dibromo-3-Chloropropane | ND | | 0.47 | 13 |
| 1,2-Dibromoethane | ND | | 0.18 | 1.0 |
| 1,2-Dichlorobenzene | ND | | 0.15 | 5.0 |
| 1,2-Dichloroethane | ND | | 0.13 | 1.0 |
| 1,2-Dichloropropane | ND | | 0.18 | 1.0 |
| 1,4-Dichlorobenzene | ND | | 0.16 | 1.0 |
| 2-Butanone (MEK) | ND | | 2.0 | 100 |
| 2-Hexanone | ND | | 1.7 | 50 |
| 4-Methyl-2-pentanone (MIBK) | ND | | 0.98 | 100 |
| Acetone | 2.8 | J | 1.9 | 100 |
| Acrylonitrile | ND | | 1.4 | 200 |
| Benzene | ND | | 0.16 | 1.0 |
| Bromochloromethane | ND | | 0.10 | 3.0 |
| Bromodichloromethane | ND | | 0.17 | 1.0 |
| Bromoform | ND | | 0.19 | 3.0 |
| Bromomethane | ND | | 0.21 | 10 |
| Carbon disulfide | ND | | 0.45 | 100 |
| Carbon tetrachloride | ND | | 0.19 | 1.0 |
| Chlorobenzene | ND | | 0.17 | 3.0 |
| Chloroethane | ND | | 0.41 | 10 |
| Chloroform | ND | | 0.16 | 5.0 |
| Chloromethane | ND | | 0.30 | 1.0 |
| cis-1,2-Dichloroethene | ND | | 0.15 | 5.0 |
| cis-1,3-Dichloropropene | ND | | 0.16 | 1.0 |
| Dibromochloromethane | ND | | 0.17 | 3.0 |
| Dibromomethane | ND | | 0.17 | 10 |
| Ethylbenzene | ND | | 0.16 | 1.0 |
| Iodomethane | ND | | 0.23 | 10 |
| Methylene Chloride | ND | | 0.32 | 1.0 |
| Styrene | ND | | 0.17 | 1.0 |
| Tetrachloroethene | ND | | 0.20 | 1.0 |
| Toluene | ND | | 0.17 | 1.0 |
| trans-1,2-Dichloroethene | ND | | 0.15 | 5.0 |
| trans-1,3-Dichloropropene | ND | | 0.19 | 1.0 |
| trans-1,4-Dichloro-2-butene | ND | | 0.80 | 100 |
| Trichloroethene | ND | | 0.16 | 1.0 |
| Trichlorofluoromethane | ND | | 0.29 | 1.0 |
| Vinyl acetate | ND | | 0.94 | 50 |
| Vinyl chloride | ND | | 0.10 | 1.0 |

Client: Waste Management

Job Number: 280-53291-1

**Client Sample ID:** **TRIP BLANK**

Lab Sample ID: 280-53291-5TB

Client Matrix: Water

Date Sampled: 03/19/2014 0000

Date Received: 03/20/2014 0930

**8260B Volatile Organic Compounds (GC/MS)**

| | | | | | |
|---|---|---|---|---|---|
| Analysis Method: | 8260B | Analysis Batch: | 280-219161 | Instrument ID: | VMS_MS1 |
| Prep Method: | 5030B | Prep Batch: | N/A | Lab File ID: | MS3940.D |
| Dilution: | 1.0 | | | Initial Weight/Volume: | 20 mL |
| Analysis Date: | 04/01/2014 1110 | | | Final Weight/Volume: | 20 mL |
| Prep Date: | 04/01/2014 1110 | | | | |

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|---|---|---|---|---|
| Xylenes, Total | ND | | 0.19 | 5.0 |

| Surrogate | %Rec | Qualifier | Acceptance Limits |
|---|---|---|---|
| 1,2-Dichloroethane-d4 (Surr) | 97 | | 70 - 127 |
| 4-Bromofluorobenzene (Surr) | 103 | | 78 - 120 |
| Dibromofluoromethane (Surr) | 93 | | 77 - 120 |
| Toluene-d8 (Surr) | 100 | | 80 - 125 |

Client: Waste Management

Job Number: 280-53291-1

**Client Sample ID:** **3406-S02**

Lab Sample ID: 280-53291-1

Client Matrix: Water

Date Sampled: 03/19/2014 1200

Date Received: 03/20/2014 0930

**6010C Metals (ICP)-Total Recoverable**

| | | | | | |
|---|---|---|---|---|---|
| Analysis Method: | 6010C | Analysis Batch: | 280-218254 | Instrument ID: | MT_025 |
| Prep Method: | 3005A | Prep Batch: | 280-217851 | Lab File ID: | 25A1032414.asc |
| Dilution: | 1.0 | | | Initial Weight/Volume: | 50 mL |
| Analysis Date: | 03/24/2014 2107 | | | Final Weight/Volume: | 50 mL |
| Prep Date: | 03/24/2014 0730 | | | | |

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|---|---|---|---|---|
| Barium | 32 | J | 0.58 | 100 |
| Beryllium | ND | | 0.47 | 1.0 |
| Chromium | 2.6 | J | 0.66 | 10 |
| Cobalt | ND | | 1.2 | 10 |
| Lead | ND | | 2.6 | 10 |
| Nickel | ND | | 1.3 | 50 |
| Vanadium | 5.6 | J | 1.1 | 25 |
| Silver | ND | | 0.93 | 10 |

**6020A Metals (ICP/MS)-Total Recoverable**

| | | | | | |
|---|---|---|---|---|---|
| Analysis Method: | 6020A | Analysis Batch: | 280-218229 | Instrument ID: | MT_024 |
| Prep Method: | 3005A | Prep Batch: | 280-217853 | Lab File ID: | 077AREF.D |
| Dilution: | 1.0 | | | Initial Weight/Volume: | 50 mL |
| Analysis Date: | 03/25/2014 0120 | | | Final Weight/Volume: | 50 mL |
| Prep Date: | 03/24/2014 0730 | | | | |

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|---|---|---|---|---|
| Antimony | ND | | 0.40 | 6.0 |
| Arsenic | ND | | 0.33 | 10 |
| Cadmium | ND | | 0.10 | 1.0 |
| Copper | 2.0 | J | 0.56 | 10 |
| Selenium | ND | | 0.70 | 10 |
| Thallium | ND | | 0.050 | 5.5 |
| Zinc | 4.4 | J B | 2.0 | 10 |

Client: Waste Management

Job Number: 280-53291-1

**Client Sample ID:** **3406-S03**

Lab Sample ID: 280-53291-2

Client Matrix: Water

Date Sampled: 03/19/2014 1225

Date Received: 03/20/2014 0930

**6010C Metals (ICP)-Total Recoverable**

| | | | | | |
|---|---|---|---|---|---|
| Analysis Method: | 6010C | Analysis Batch: | 280-218254 | Instrument ID: | MT_025 |
| Prep Method: | 3005A | Prep Batch: | 280-217851 | Lab File ID: | 25A1032414.asc |
| Dilution: | 1.0 | | | Initial Weight/Volume: | 50 mL |
| Analysis Date: | 03/24/2014 2119 | | | Final Weight/Volume: | 50 mL |
| Prep Date: | 03/24/2014 0730 | | | | |

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|---|---|---|---|---|
| Barium | 31 | J | 0.58 | 100 |
| Beryllium | ND | | 0.47 | 1.0 |
| Chromium | 3.0 | J | 0.66 | 10 |
| Cobalt | ND | | 1.2 | 10 |
| Lead | ND | | 2.6 | 10 |
| Nickel | 1.3 | J | 1.3 | 50 |
| Vanadium | 7.4 | J | 1.1 | 25 |
| Silver | ND | | 0.93 | 10 |

**6020A Metals (ICP/MS)-Total Recoverable**

| | | | | | |
|---|---|---|---|---|---|
| Analysis Method: | 6020A | Analysis Batch: | 280-218229 | Instrument ID: | MT_024 |
| Prep Method: | 3005A | Prep Batch: | 280-217853 | Lab File ID: | 086SMPL.D |
| Dilution: | 1.0 | | | Initial Weight/Volume: | 50 mL |
| Analysis Date: | 03/25/2014 0147 | | | Final Weight/Volume: | 50 mL |
| Prep Date: | 03/24/2014 0730 | | | | |

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|---|---|---|---|---|
| Antimony | ND | | 0.40 | 6.0 |
| Arsenic | ND | | 0.33 | 10 |
| Cadmium | ND | | 0.10 | 1.0 |
| Copper | 2.2 | J | 0.56 | 10 |
| Selenium | ND | | 0.70 | 10 |
| Thallium | ND | | 0.050 | 5.5 |
| Zinc | 3.2 | J B | 2.0 | 10 |

Client: Waste Management

Job Number: 280-53291-1

**Client Sample ID:** **3406-S04**

Lab Sample ID: 280-53291-3

Client Matrix: Water

Date Sampled: 03/19/2014 1240

Date Received: 03/20/2014 0930

**6010C Metals (ICP)-Total Recoverable**

| | | | | | |
|---|---|---|---|---|---|
| Analysis Method: | 6010C | Analysis Batch: | 280-218254 | Instrument ID: | MT_025 |
| Prep Method: | 3005A | Prep Batch: | 280-217851 | Lab File ID: | 25A1032414.asc |
| Dilution: | 1.0 | | | Initial Weight/Volume: | 50 mL |
| Analysis Date: | 03/24/2014 2130 | | | Final Weight/Volume: | 50 mL |
| Prep Date: | 03/24/2014 0730 | | | | |

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|---|---|---|---|---|
| Barium | 31 | J | 0.58 | 100 |
| Beryllium | ND | | 0.47 | 1.0 |
| Chromium | 2.9 | J | 0.66 | 10 |
| Cobalt | ND | | 1.2 | 10 |
| Lead | ND | | 2.6 | 10 |
| Nickel | 1.5 | J | 1.3 | 50 |
| Vanadium | 7.7 | J | 1.1 | 25 |
| Silver | ND | | 0.93 | 10 |

**6020A Metals (ICP/MS)-Total Recoverable**

| | | | | | |
|---|---|---|---|---|---|
| Analysis Method: | 6020A | Analysis Batch: | 280-218229 | Instrument ID: | MT_024 |
| Prep Method: | 3005A | Prep Batch: | 280-217853 | Lab File ID: | 087SMPL.D |
| Dilution: | 1.0 | | | Initial Weight/Volume: | 50 mL |
| Analysis Date: | 03/25/2014 0150 | | | Final Weight/Volume: | 50 mL |
| Prep Date: | 03/24/2014 0730 | | | | |

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|---|---|---|---|---|
| Antimony | ND | | 0.40 | 6.0 |
| Arsenic | ND | | 0.33 | 10 |
| Cadmium | ND | | 0.10 | 1.0 |
| Copper | 2.6 | J | 0.56 | 10 |
| Selenium | ND | | 0.70 | 10 |
| Thallium | ND | | 0.050 | 5.5 |
| Zinc | 3.6 | J B | 2.0 | 10 |

Client: Waste Management

Job Number: 280-53291-1

**Client Sample ID:** **3406-S05**

Lab Sample ID: 280-53291-4

Client Matrix: Water

Date Sampled: 03/19/2014 1210

Date Received: 03/20/2014 0930

**6010C Metals (ICP)-Total Recoverable**

| | | | | | |
|---|---|---|---|---|---|
| Analysis Method: | 6010C | Analysis Batch: | 280-218254 | Instrument ID: | MT_025 |
| Prep Method: | 3005A | Prep Batch: | 280-217851 | Lab File ID: | 25A1032414.asc |
| Dilution: | 1.0 | | | Initial Weight/Volume: | 50 mL |
| Analysis Date: | 03/24/2014 2133 | | | Final Weight/Volume: | 50 mL |
| Prep Date: | 03/24/2014 0730 | | | | |

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|---|---|---|---|---|
| Barium | 30 | J | 0.58 | 100 |
| Beryllium | ND | | 0.47 | 1.0 |
| Chromium | 3.5 | J | 0.66 | 10 |
| Cobalt | ND | | 1.2 | 10 |
| Lead | ND | | 2.6 | 10 |
| Nickel | 1.7 | J | 1.3 | 50 |
| Vanadium | 7.7 | J | 1.1 | 25 |
| Silver | ND | | 0.93 | 10 |

**6020A Metals (ICP/MS)-Total Recoverable**

| | | | | | |
|---|---|---|---|---|---|
| Analysis Method: | 6020A | Analysis Batch: | 280-218229 | Instrument ID: | MT_024 |
| Prep Method: | 3005A | Prep Batch: | 280-217853 | Lab File ID: | 088SMPL.D |
| Dilution: | 1.0 | | | Initial Weight/Volume: | 50 mL |
| Analysis Date: | 03/25/2014 0153 | | | Final Weight/Volume: | 50 mL |
| Prep Date: | 03/24/2014 0730 | | | | |

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|---|---|---|---|---|
| Antimony | ND | | 0.40 | 6.0 |
| Arsenic | ND | | 0.33 | 10 |
| Cadmium | ND | | 0.10 | 1.0 |
| Copper | 2.1 | J | 0.56 | 10 |
| Selenium | ND | | 0.70 | 10 |
| Thallium | ND | | 0.050 | 5.5 |
| Zinc | 4.0 | J B | 2.0 | 10 |

**Field Service / Mobile Lab**

**Client Sample ID:** **3406-S02**

Lab Sample ID: 280-53291-1

Client Matrix: Water

Date Sampled: 03/19/2014 1200

Date Received: 03/20/2014 0930

| Analyte | Result | Qual | Units | Dil | Method | Analysis Batch | Date Analyzed Date Prepared |
|---|---|---|---|---|---|---|---|
| Field pH | 6.51 | | SU | 1.0 | Field Sampling | 280-217982 | 03/19/2014 1000 |
| Field Conductivity | 87 | | umhos/cm | 1.0 | Field Sampling | 280-217982 | 03/19/2014 1000 |
| Field Temperature | 6.8 | | Degrees C | 1.0 | Field Sampling | 280-217982 | 03/19/2014 1000 |
| Field Turbidity | 24.1 | | NTU | 1.0 | Field Sampling | 280-217982 | 03/19/2014 1000 |
| Field Dissolved Oxygen | 6.8 | | mg/L | 1.0 | Field Sampling | 280-217982 | 03/19/2014 1000 |
| Field EH/ORP | 73.0 | | millivolts | 1.0 | Field Sampling | 280-217982 | 03/19/2014 1000 |

**Field Service / Mobile Lab**

**Client Sample ID:** **3406-S03**

Lab Sample ID: 280-53291-2

Client Matrix: Water

Date Sampled: 03/19/2014 1225

Date Received: 03/20/2014 0930

| Analyte | Result | Qual | Units | Dil | Method | Analysis Batch | Date Analyzed Date Prepared |
|---|---|---|---|---|---|---|---|
| Field pH | 6.98 | | SU | 1.0 | Field Sampling | 280-217982 | 03/19/2014 1025 |
| Field Conductivity | 71 | | umhos/cm | 1.0 | Field Sampling | 280-217982 | 03/19/2014 1025 |
| Field Temperature | 7.6 | | Degrees C | 1.0 | Field Sampling | 280-217982 | 03/19/2014 1025 |
| Field Turbidity | 29.6 | | NTU | 1.0 | Field Sampling | 280-217982 | 03/19/2014 1025 |
| Field Dissolved Oxygen | 6.6 | | mg/L | 1.0 | Field Sampling | 280-217982 | 03/19/2014 1025 |
| Field EH/ORP | 23.4 | | millivolts | 1.0 | Field Sampling | 280-217982 | 03/19/2014 1025 |

**Field Service / Mobile Lab**

**Client Sample ID:** **3406-S04**

Lab Sample ID: 280-53291-3

Client Matrix: Water

Date Sampled: 03/19/2014 1240

Date Received: 03/20/2014 0930

| Analyte | Result | Qual | Units | Dil | Method | Analysis Batch | Date Analyzed Date Prepared |
|---|---|---|---|---|---|---|---|
| Field pH | 7.16 | | SU | 1.0 | Field Sampling | 280-217982 | 03/19/2014 1040 |
| Field Conductivity | 73 | | umhos/cm | 1.0 | Field Sampling | 280-217982 | 03/19/2014 1040 |
| Field Temperature | 7.2 | | Degrees C | 1.0 | Field Sampling | 280-217982 | 03/19/2014 1040 |
| Field Turbidity | 28.6 | | NTU | 1.0 | Field Sampling | 280-217982 | 03/19/2014 1040 |
| Field Dissolved Oxygen | 6.3 | | mg/L | 1.0 | Field Sampling | 280-217982 | 03/19/2014 1040 |
| Field EH/ORP | 30.2 | | millivolts | 1.0 | Field Sampling | 280-217982 | 03/19/2014 1040 |

**Field Service / Mobile Lab**

**Client Sample ID:** **3406-S05**

Lab Sample ID: 280-53291-4

Client Matrix: Water

Date Sampled: 03/19/2014 1210

Date Received: 03/20/2014 0930

| Analyte | Result | Qual | Units | Dil | Method | Analysis Batch | Date Analyzed Date Prepared |
|---|---|---|---|---|---|---|---|
| Field pH | 6.92 | | SU | 1.0 | Field Sampling | 280-217982 | 03/19/2014 1010 |
| Field Conductivity | 80 | | umhos/cm | 1.0 | Field Sampling | 280-217982 | 03/19/2014 1010 |
| Field Temperature | 6.9 | | Degrees C | 1.0 | Field Sampling | 280-217982 | 03/19/2014 1010 |
| Field Turbidity | 28.8 | | NTU | 1.0 | Field Sampling | 280-217982 | 03/19/2014 1010 |
| Field Dissolved Oxygen | 6.6 | | mg/L | 1.0 | Field Sampling | 280-217982 | 03/19/2014 1010 |
| Field EH/ORP | 23.9 | | millivolts | 1.0 | Field Sampling | 280-217982 | 03/19/2014 1010 |

# DATA REPORTING QUALIFIERS

Client: Waste Management

Job Number: 280-53291-1

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

# QUALITY CONTROL RESULTS

Client: Waste Management

Job Number: 280-53291-1

## QC Association Summary

| Lab Sample ID | Client Sample ID | Report Basis | Client Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| **GC/MS VOA** | | | | | |
| **Analysis Batch:280-219161** | | | | | |
| LCS 280-219161/4 | Lab Control Sample | T | Water | 8260B | |
| MB 280-219161/6 | Method Blank | T | Water | 8260B | |
| 280-53291-1 | 3406-S02 | T | Water | 8260B | |
| 280-53291-1MS | Matrix Spike | T | Water | 8260B | |
| 280-53291-1MSD | Matrix Spike Duplicate | T | Water | 8260B | |
| 280-53291-2 | 3406-S03 | T | Water | 8260B | |
| 280-53291-3 | 3406-S04 | T | Water | 8260B | |
| 280-53291-4 | 3406-S05 | T | Water | 8260B | |
| 280-53291-5TB | TRIP BLANK | T | Water | 8260B | |

**Report Basis**
T = Total

| | | | | | |
|---|---|---|---|---|---|
| **Metals** | | | | | |
| **Prep Batch: 280-217851** | | | | | |
| LCS 280-217851/2-A | Lab Control Sample | R | Water | 3005A | |
| MB 280-217851/1-A | Method Blank | R | Water | 3005A | |
| 280-53291-1 | 3406-S02 | R | Water | 3005A | |
| 280-53291-2 | 3406-S03 | R | Water | 3005A | |
| 280-53291-2MS | Matrix Spike | R | Water | 3005A | |
| 280-53291-2MSD | Matrix Spike Duplicate | R | Water | 3005A | |
| 280-53291-3 | 3406-S04 | R | Water | 3005A | |
| 280-53291-4 | 3406-S05 | R | Water | 3005A | |
| **Prep Batch: 280-217853** | | | | | |
| LCS 280-217853/2-A | Lab Control Sample | R | Water | 3005A | |
| MB 280-217853/1-A | Method Blank | R | Water | 3005A | |
| 280-53291-1 | 3406-S02 | R | Water | 3005A | |
| 280-53291-1MS | Matrix Spike | R | Water | 3005A | |
| 280-53291-1MSD | Matrix Spike Duplicate | R | Water | 3005A | |
| 280-53291-2 | 3406-S03 | R | Water | 3005A | |
| 280-53291-3 | 3406-S04 | R | Water | 3005A | |
| 280-53291-4 | 3406-S05 | R | Water | 3005A | |
| **Analysis Batch:280-218229** | | | | | |
| LCS 280-217853/2-A | Lab Control Sample | R | Water | 6020A | 280-217853 |
| MB 280-217853/1-A | Method Blank | R | Water | 6020A | 280-217853 |
| 280-53291-1 | 3406-S02 | R | Water | 6020A | 280-217853 |
| 280-53291-1MS | Matrix Spike | R | Water | 6020A | 280-217853 |
| 280-53291-1MSD | Matrix Spike Duplicate | R | Water | 6020A | 280-217853 |
| 280-53291-2 | 3406-S03 | R | Water | 6020A | 280-217853 |
| 280-53291-3 | 3406-S04 | R | Water | 6020A | 280-217853 |
| 280-53291-4 | 3406-S05 | R | Water | 6020A | 280-217853 |

**Analysis Batch:280-218254**

Client: Waste Management

Job Number: 280-53291-1

## QC Association Summary

| Lab Sample ID | Client Sample ID | Report Basis | Client Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| **Metals** | | | | | |
| **Analysis Batch:280-218254** | | | | | |
| LCS 280-217851/2-A | Lab Control Sample | R | Water | 6010C | 280-217851 |
| MB 280-217851/1-A | Method Blank | R | Water | 6010C | 280-217851 |
| 280-53291-1 | 3406-S02 | R | Water | 6010C | 280-217851 |
| 280-53291-2 | 3406-S03 | R | Water | 6010C | 280-217851 |
| 280-53291-2MS | Matrix Spike | R | Water | 6010C | 280-217851 |
| 280-53291-2MSD | Matrix Spike Duplicate | R | Water | 6010C | 280-217851 |
| 280-53291-3 | 3406-S04 | R | Water | 6010C | 280-217851 |
| 280-53291-4 | 3406-S05 | R | Water | 6010C | 280-217851 |

**Report Basis**

R = Total Recoverable

| | | | | | |
|---|---|---|---|---|---|
| **Field Service / Mobile Lab** | | | | | |
| **Analysis Batch:280-217982** | | | | | |
| 280-53291-1 | 3406-S02 | T | Water | Field Sampling | |
| 280-53291-2 | 3406-S03 | T | Water | Field Sampling | |
| 280-53291-3 | 3406-S04 | T | Water | Field Sampling | |
| 280-53291-4 | 3406-S05 | T | Water | Field Sampling | |

**Report Basis**

T = Total

Client: Waste Management

Job Number: 280-53291-1

## Surrogate Recovery Report

**8260B Volatile Organic Compounds (GC/MS)**

**Client Matrix: Water**

| Lab Sample ID | Client Sample ID | DCA %Rec | BFB %Rec | DBFM %Rec | TOL %Rec |
|---|---|---|---|---|---|
| 280-53291-1 | 3406-S02 | 95 | 94 | 90 | 96 |
| 280-53291-2 | 3406-S03 | 98 | 97 | 92 | 94 |
| 280-53291-3 | 3406-S04 | 95 | 95 | 90 | 92 |
| 280-53291-4 | 3406-S05 | 100 | 93 | 92 | 96 |
| 280-53291-5 | TRIP BLANK | 97 | 103 | 93 | 100 |
| MB 280-219161/6 | | 89 | 88 | 85 | 86 |
| LCS 280-219161/4 | | 104 | 99 | 93 | 94 |
| 280-53291-1 MS | 3406-S02 MS | 96 | 94 | 89 | 94 |
| 280-53291-1 MSD | 3406-S02 MSD | 100 | 96 | 92 | 94 |

| Surrogate | Acceptance Limits |
|---|---|
| DCA = 1,2-Dichloroethane-d4 (Surr) | 70-127 |
| BFB = 4-Bromofluorobenzene (Surr) | 78-120 |
| DBFM = Dibromofluoromethane (Surr) | 77-120 |
| TOL = Toluene-d8 (Surr) | 80-125 |

Client: Waste Management

Job Number: 280-53291-1

**Method Blank - Batch: 280-219161**

**Method: 8260B**
**Preparation: 5030B**

| | | | | | |
|---|---|---|---|---|---|
| Lab Sample ID: | MB 280-219161/6 | Analysis Batch: | 280-219161 | Instrument ID: | VMS_MS1 |
| Client Matrix: | Water | Prep Batch: | N/A | Lab File ID: | MS3938.D |
| Dilution: | 1.0 | Leach Batch: | N/A | Initial Weight/Volume: | 20 mL |
| Analysis Date: | 04/01/2014 1011 | Units: | ug/L | Final Weight/Volume: | 20 mL |
| Prep Date: | 04/01/2014 1011 | | | | |
| Leach Date: | N/A | | | | |

| Analyte | Result | Qual | MDL | RL |
|---|---|---|---|---|
| 1,1,1,2-Tetrachloroethane | ND | | 0.21 | 5.0 |
| 1,1,1-Trichloroethane | ND | | 0.16 | 1.0 |
| 1,1,2,2-Tetrachloroethane | ND | | 0.21 | 3.0 |
| 1,1,2-Trichloroethane | ND | | 0.27 | 1.0 |
| 1,1-Dichloroethane | ND | | 0.22 | 5.0 |
| 1,1-Dichloroethene | ND | | 0.23 | 5.0 |
| 1,2,3-Trichloropropane | ND | | 0.33 | 1.0 |
| 1,2-Dibromo-3-Chloropropane | ND | | 0.47 | 13 |
| 1,2-Dibromoethane | ND | | 0.18 | 1.0 |
| 1,2-Dichlorobenzene | ND | | 0.15 | 5.0 |
| 1,2-Dichloroethane | ND | | 0.13 | 1.0 |
| 1,2-Dichloropropane | ND | | 0.18 | 1.0 |
| 1,4-Dichlorobenzene | ND | | 0.16 | 1.0 |
| 2-Butanone (MEK) | ND | | 2.0 | 100 |
| 2-Hexanone | ND | | 1.7 | 50 |
| 4-Methyl-2-pentanone (MIBK) | ND | | 0.98 | 100 |
| Acetone | ND | | 1.9 | 100 |
| Acrylonitrile | ND | | 1.4 | 200 |
| Benzene | ND | | 0.16 | 1.0 |
| Bromochloromethane | ND | | 0.10 | 3.0 |
| Bromodichloromethane | ND | | 0.17 | 1.0 |
| Bromoform | ND | | 0.19 | 3.0 |
| Bromomethane | ND | | 0.21 | 10 |
| Carbon disulfide | ND | | 0.45 | 100 |
| Carbon tetrachloride | ND | | 0.19 | 1.0 |
| Chlorobenzene | ND | | 0.17 | 3.0 |
| Chloroethane | ND | | 0.41 | 10 |
| Chloroform | ND | | 0.16 | 5.0 |
| Chloromethane | ND | | 0.30 | 1.0 |
| cis-1,2-Dichloroethene | ND | | 0.15 | 5.0 |
| cis-1,3-Dichloropropene | ND | | 0.16 | 1.0 |
| Dibromochloromethane | ND | | 0.17 | 3.0 |
| Dibromomethane | ND | | 0.17 | 10 |
| Ethylbenzene | ND | | 0.16 | 1.0 |
| Iodomethane | ND | | 0.23 | 10 |
| Methylene Chloride | ND | | 0.32 | 1.0 |
| Styrene | ND | | 0.17 | 1.0 |
| Tetrachloroethene | ND | | 0.20 | 1.0 |
| Toluene | ND | | 0.17 | 1.0 |
| trans-1,2-Dichloroethene | ND | | 0.15 | 5.0 |
| trans-1,3-Dichloropropene | ND | | 0.19 | 1.0 |
| trans-1,4-Dichloro-2-butene | ND | | 0.80 | 100 |
| Trichloroethene | ND | | 0.16 | 1.0 |
| Trichlorofluoromethane | ND | | 0.29 | 1.0 |
| Vinyl acetate | ND | | 0.94 | 50 |

Client: Waste Management

Job Number: 280-53291-1

**Method Blank - Batch: 280-219161**

**Method: 8260B**
**Preparation: 5030B**

| | | | | | |
|---|---|---|---|---|---|
| Lab Sample ID: | MB 280-219161/6 | Analysis Batch: | 280-219161 | Instrument ID: | VMS_MS1 |
| Client Matrix: | Water | Prep Batch: | N/A | Lab File ID: | MS3938.D |
| Dilution: | 1.0 | Leach Batch: | N/A | Initial Weight/Volume: | 20 mL |
| Analysis Date: | 04/01/2014 1011 | Units: | ug/L | Final Weight/Volume: | 20 mL |
| Prep Date: | 04/01/2014 1011 | | | | |
| Leach Date: | N/A | | | | |

| Analyte | Result | Qual | MDL | RL |
|---|---|---|---|---|
| Vinyl chloride | ND | | 0.10 | 1.0 |
| Xylenes, Total | ND | | 0.19 | 5.0 |

| Surrogate | % Rec | Acceptance Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 (Surr) | 89 | 70 - 127 |
| 4-Bromofluorobenzene (Surr) | 88 | 78 - 120 |
| Dibromofluoromethane (Surr) | 85 | 77 - 120 |
| Toluene-d8 (Surr) | 86 | 80 - 125 |

**Lab Control Sample - Batch: 280-219161**

**Method: 8260B**
**Preparation: 5030B**

| | | | | | |
|---|---|---|---|---|---|
| Lab Sample ID: | LCS 280-219161/4 | Analysis Batch: | 280-219161 | Instrument ID: | VMS_MS1 |
| Client Matrix: | Water | Prep Batch: | N/A | Lab File ID: | MS3937.D |
| Dilution: | 1.0 | Leach Batch: | N/A | Initial Weight/Volume: | 20 mL |
| Analysis Date: | 04/01/2014 0949 | Units: | ug/L | Final Weight/Volume: | 20 mL |
| Prep Date: | 04/01/2014 0949 | | | | |
| Leach Date: | N/A | | | | |

| Analyte | Spike Amount | Result | % Rec. | Limit | Qual |
|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | 5.00 | 4.87 | 97 | 70 - 135 | |
| 1,1-Dichloroethane | 5.00 | 5.07 | 101 | 75 - 135 | |
| 1,1-Dichloroethene | 5.00 | 4.38 | 88 | 71 - 136 | J |
| 1,2-Dichloropropane | 5.00 | 4.98 | 100 | 71 - 120 | |
| 1,3-Dichlorobenzene | 5.00 | 4.92 | 98 | 74 - 135 | |
| Benzene | 5.00 | 4.87 | 97 | 74 - 135 | |
| Bromodichloromethane | 5.00 | 4.48 | 90 | 73 - 135 | |
| Carbon tetrachloride | 5.00 | 4.62 | 92 | 67 - 135 | |
| Chlorobenzene | 5.00 | 4.90 | 98 | 76 - 135 | |
| Chloroform | 5.00 | 4.67 | 93 | 76 - 120 | J |
| Ethylbenzene | 5.00 | 4.95 | 99 | 72 - 120 | |
| Methylene Chloride | 5.00 | 5.11 | 102 | 54 - 141 | |
| Tetrachloroethene | 5.00 | 4.77 | 95 | 70 - 135 | |
| Toluene | 5.00 | 5.13 | 103 | 73 - 120 | |
| trans-1,2-Dichloroethene | 5.00 | 4.81 | 96 | 75 - 135 | J |
| Trichloroethene | 5.00 | 4.88 | 98 | 73 - 135 | |

| Surrogate | % Rec | Acceptance Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 (Surr) | 104 | 70 - 127 |
| 4-Bromofluorobenzene (Surr) | 99 | 78 - 120 |
| Dibromofluoromethane (Surr) | 93 | 77 - 120 |
| Toluene-d8 (Surr) | 94 | 80 - 125 |

Client: Waste Management

Job Number: 280-53291-1

**Matrix Spike/**
**Matrix Spike Duplicate Recovery Report - Batch: 280-219161**

**Method: 8260B**
**Preparation: 5030B**

| | | | | | |
|---|---|---|---|---|---|
| MS Lab Sample ID: | 280-53291-1 | Analysis Batch: | 280-219161 | Instrument ID: | VMS_MS1 |
| Client Matrix: | Water | Prep Batch: | N/A | Lab File ID: | MS3942.D |
| Dilution: | 1.0 | Leach Batch: | N/A | Initial Weight/Volume: | 20 mL |
| Analysis Date: | 04/01/2014 1153 | | | Final Weight/Volume: | 20 mL |
| Prep Date: | 04/01/2014 1153 | | | | 20 mL |
| Leach Date: | N/A | | | | |

| | | | | | |
|---|---|---|---|---|---|
| MSD Lab Sample ID: | 280-53291-1 | Analysis Batch: | 280-219161 | Instrument ID: | VMS_MS1 |
| Client Matrix: | Water | Prep Batch: | N/A | Lab File ID: | MS3943.D |
| Dilution: | 1.0 | Leach Batch: | N/A | Initial Weight/Volume: | 20 mL |
| Analysis Date: | 04/01/2014 1214 | | | Final Weight/Volume: | 20 mL |
| Prep Date: | 04/01/2014 1214 | | | | 20 mL |
| Leach Date: | N/A | | | | |

| | % Rec. | | | | | | |
|---|---|---|---|---|---|---|---|
| Analyte | MS | MSD | Limit | RPD | RPD Limit | MS Qual | MSD Qual |
| 1,1,1-Trichloroethane | 94 | 92 | 70 - 135 | 2 | 20 | | |
| 1,1-Dichloroethane | 96 | 98 | 75 - 135 | 2 | 21 | J | J |
| 1,1-Dichloroethene | 85 | 85 | 71 - 136 | 0 | 20 | J | J |
| 1,2-Dichloropropane | 91 | 93 | 71 - 120 | 2 | 20 | | |
| 1,3-Dichlorobenzene | 93 | 92 | 74 - 135 | 1 | 20 | | |
| Benzene | 93 | 93 | 74 - 135 | 1 | 20 | | |
| Bromodichloromethane | 84 | 84 | 73 - 135 | 1 | 20 | | |
| Carbon tetrachloride | 89 | 89 | 67 - 135 | 1 | 21 | | |
| Chlorobenzene | 92 | 95 | 76 - 135 | 3 | 20 | | |
| Chloroform | 87 | 88 | 76 - 120 | 1 | 20 | J | J |
| Ethylbenzene | 96 | 97 | 72 - 120 | 2 | 26 | | |
| Methylene Chloride | 86 | 89 | 54 - 141 | 3 | 20 | | |
| Tetrachloroethene | 94 | 91 | 70 - 135 | 3 | 20 | | |
| Toluene | 94 | 99 | 73 - 120 | 6 | 20 | | |
| trans-1,2-Dichloroethene | 93 | 93 | 75 - 135 | 1 | 24 | J | J |
| Trichloroethene | 94 | 91 | 73 - 135 | 3 | 20 | | |

| Surrogate | MS % Rec | MSD % Rec | Acceptance Limits |
|---|---|---|---|
| 1,2-Dichloroethane-d4 (Surr) | 96 | 100 | 70 - 127 |
| 4-Bromofluorobenzene (Surr) | 94 | 96 | 78 - 120 |
| Dibromofluoromethane (Surr) | 89 | 92 | 77 - 120 |
| Toluene-d8 (Surr) | 94 | 94 | 80 - 125 |

Client: Waste Management

Job Number: 280-53291-1

**Matrix Spike/**
**Matrix Spike Duplicate Recovery Report - Batch: 280-219161**

**Method: 8260B**
**Preparation: 5030B**

| | | | | | |
|---|---|---|---|---|---|
| MS Lab Sample ID: | 280-53291-1 | Units: | ug/L | MSD Lab Sample ID: | 280-53291-1 |
| Client Matrix: | Water | | | Client Matrix: | Water |
| Dilution: | 1.0 | | | Dilution: | 1.0 |
| Analysis Date: | 04/01/2014 1153 | | | Analysis Date: | 04/01/2014 1214 |
| Prep Date: | 04/01/2014 1153 | | | Prep Date: | 04/01/2014 1214 |
| Leach Date: | N/A | | | Leach Date: | N/A |

| Analyte | Sample Result/Qual | MS Spike Amount | MSD Spike Amount | MS Result/Qual | | MSD Result/Qual | |
|---|---|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | ND | 5.00 | 5.00 | 4.71 | | 4.61 | |
| 1,1-Dichloroethane | ND | 5.00 | 5.00 | 4.79 | J | 4.88 | J |
| 1,1-Dichloroethene | ND | 5.00 | 5.00 | 4.23 | J | 4.23 | J |
| 1,2-Dichloropropane | ND | 5.00 | 5.00 | 4.53 | | 4.63 | |
| 1,3-Dichlorobenzene | ND | 5.00 | 5.00 | 4.63 | | 4.58 | |
| Benzene | ND | 5.00 | 5.00 | 4.63 | | 4.67 | |
| Bromodichloromethane | ND | 5.00 | 5.00 | 4.18 | | 4.22 | |
| Carbon tetrachloride | ND | 5.00 | 5.00 | 4.47 | | 4.45 | |
| Chlorobenzene | ND | 5.00 | 5.00 | 4.60 | | 4.75 | |
| Chloroform | ND | 5.00 | 5.00 | 4.34 | J | 4.41 | J |
| Ethylbenzene | ND | 5.00 | 5.00 | 4.79 | | 4.87 | |
| Methylene Chloride | ND | 5.00 | 5.00 | 4.31 | | 4.46 | |
| Tetrachloroethene | ND | 5.00 | 5.00 | 4.69 | | 4.53 | |
| Toluene | ND | 5.00 | 5.00 | 4.70 | | 4.97 | |
| trans-1,2-Dichloroethene | ND | 5.00 | 5.00 | 4.67 | J | 4.65 | J |
| Trichloroethene | ND | 5.00 | 5.00 | 4.72 | | 4.56 | |

Client: Waste Management

Job Number: 280-53291-1

**Method Blank - Batch: 280-217851**

**Method: 6010C**
**Preparation: 3005A**
**Total Recoverable**

| | | | | | |
|---|---|---|---|---|---|
| Lab Sample ID: | MB 280-217851/1-A | Analysis Batch: | 280-218254 | Instrument ID: | MT_025 |
| Client Matrix: | Water | Prep Batch: | 280-217851 | Lab File ID: | 25A1032414.asc |
| Dilution: | 1.0 | Leach Batch: | N/A | Initial Weight/Volume: | 50 mL |
| Analysis Date: | 03/24/2014 2100 | Units: | ug/L | Final Weight/Volume: | 50 mL |
| Prep Date: | 03/24/2014 0730 | | | | |
| Leach Date: | N/A | | | | |

| Analyte | Result | Qual | MDL | RL |
|---|---|---|---|---|
| Barium | ND | | 0.58 | 100 |
| Beryllium | ND | | 0.47 | 1.0 |
| Chromium | ND | | 0.66 | 10 |
| Cobalt | ND | | 1.2 | 10 |
| Lead | ND | | 2.6 | 10 |
| Nickel | ND | | 1.3 | 50 |
| Vanadium | ND | | 1.1 | 25 |
| Silver | ND | | 0.93 | 10 |

**Lab Control Sample - Batch: 280-217851**

**Method: 6010C**
**Preparation: 3005A**
**Total Recoverable**

| | | | | | |
|---|---|---|---|---|---|
| Lab Sample ID: | LCS 280-217851/2-A | Analysis Batch: | 280-218254 | Instrument ID: | MT_025 |
| Client Matrix: | Water | Prep Batch: | 280-217851 | Lab File ID: | 25A1032414.asc |
| Dilution: | 1.0 | Leach Batch: | N/A | Initial Weight/Volume: | 50 mL |
| Analysis Date: | 03/24/2014 2102 | Units: | ug/L | Final Weight/Volume: | 50 mL |
| Prep Date: | 03/24/2014 0730 | | | | |
| Leach Date: | N/A | | | | |

| Analyte | Spike Amount | Result | % Rec. | Limit | Qual |
|---|---|---|---|---|---|
| Barium | 2000 | 2060 | 103 | 90 - 112 | |
| Beryllium | 50.0 | 50.5 | 101 | 89 - 113 | |
| Chromium | 200 | 205 | 102 | 90 - 113 | |
| Cobalt | 500 | 504 | 101 | 89 - 111 | |
| Lead | 500 | 516 | 103 | 89 - 110 | |
| Nickel | 500 | 509 | 102 | 89 - 111 | |
| Vanadium | 500 | 510 | 102 | 90 - 111 | |
| Silver | 50.0 | 52.7 | 105 | 86 - 115 | |

Client: Waste Management

Job Number: 280-53291-1

**Matrix Spike/**
**Matrix Spike Duplicate Recovery Report - Batch: 280-217851**

**Method: 6010C**
**Preparation: 3005A**
**Total Recoverable**

| | | | | | |
|---|---|---|---|---|---|
| MS Lab Sample ID: | 280-53291-2 | Analysis Batch: | 280-218254 | Instrument ID: | MT_025 |
| Client Matrix: | Water | Prep Batch: | 280-217851 | Lab File ID: | 25A1032414.asc |
| Dilution: | 1.0 | Leach Batch: | N/A | Initial Weight/Volume: | 50 mL |
| Analysis Date: | 03/24/2014 2124 | | | Final Weight/Volume: | 50 mL |
| Prep Date: | 03/24/2014 0730 | | | | |
| Leach Date: | N/A | | | | |

| | | | | | |
|---|---|---|---|---|---|
| MSD Lab Sample ID: | 280-53291-2 | Analysis Batch: | 280-218254 | Instrument ID: | MT_025 |
| Client Matrix: | Water | Prep Batch: | 280-217851 | Lab File ID: | 25A1032414.asc |
| Dilution: | 1.0 | Leach Batch: | N/A | Initial Weight/Volume: | 50 mL |
| Analysis Date: | 03/24/2014 2126 | | | Final Weight/Volume: | 50 mL |
| Prep Date: | 03/24/2014 0730 | | | | |
| Leach Date: | N/A | | | | |

| | % Rec. | | | | | | |
|---|---|---|---|---|---|---|---|
| Analyte | MS | MSD | Limit | RPD | RPD Limit | MS Qual | MSD Qual |
| Barium | 101 | 102 | 85 - 120 | 0 | 20 | | |
| Beryllium | 100 | 100 | 79 - 121 | 0 | 20 | | |
| Chromium | 100 | 100 | 73 - 135 | 0 | 20 | | |
| Cobalt | 99 | 99 | 82 - 119 | 0 | 20 | | |
| Lead | 102 | 102 | 89 - 121 | 0 | 20 | | |
| Nickel | 100 | 101 | 84 - 120 | 0 | 20 | | |
| Vanadium | 101 | 102 | 85 - 120 | 0 | 20 | | |
| Silver | 104 | 105 | 75 - 141 | 1 | 20 | | |

**Matrix Spike/**
**Matrix Spike Duplicate Recovery Report - Batch: 280-217851**

**Method: 6010C**
**Preparation: 3005A**
**Total Recoverable**

| | | | |
|---|---|---|---|
| MS Lab Sample ID: | 280-53291-2 | Units: | ug/L |
| Client Matrix: | Water | | |
| Dilution: | 1.0 | | |
| Analysis Date: | 03/24/2014 2124 | | |
| Prep Date: | 03/24/2014 0730 | | |
| Leach Date: | N/A | | |

| | |
|---|---|
| MSD Lab Sample ID: | 280-53291-2 |
| Client Matrix: | Water |
| Dilution: | 1.0 |
| Analysis Date: | 03/24/2014 2126 |
| Prep Date: | 03/24/2014 0730 |
| Leach Date: | N/A |

| | Sample | | MS Spike | MSD Spike | MS | MSD |
|---|---|---|---|---|---|---|
| Analyte | Result/Qual | | Amount | Amount | Result/Qual | Result/Qual |
| Barium | 31 | J | 2000 | 2000 | 2060 | 2060 |
| Beryllium | ND | | 50.0 | 50.0 | 49.8 | 50.0 |
| Chromium | 3.0 | J | 200 | 200 | 204 | 204 |
| Cobalt | ND | | 500 | 500 | 495 | 496 |
| Lead | ND | | 500 | 500 | 508 | 508 |
| Nickel | 1.3 | J | 500 | 500 | 502 | 504 |
| Vanadium | 7.4 | J | 500 | 500 | 513 | 515 |
| Silver | ND | | 50.0 | 50.0 | 52.2 | 52.7 |

Client: Waste Management

Job Number: 280-53291-1

**Method Blank - Batch: 280-217853**

**Method: 6020A**
**Preparation: 3005A**
**Total Recoverable**

| | | | | | |
|---|---|---|---|---|---|
| Lab Sample ID: | MB 280-217853/1-A | Analysis Batch: | 280-218229 | Instrument ID: | MT_024 |
| Client Matrix: | Water | Prep Batch: | 280-217853 | Lab File ID: | 075_BLK.D |
| Dilution: | 1.0 | Leach Batch: | N/A | Initial Weight/Volume: | 50 mL |
| Analysis Date: | 03/25/2014 0114 | Units: | ug/L | Final Weight/Volume: | 50 mL |
| Prep Date: | 03/24/2014 0730 | | | | |
| Leach Date: | N/A | | | | |

| Analyte | Result | Qual | MDL | RL |
|---|---|---|---|---|
| Antimony | ND | | 0.40 | 6.0 |
| Arsenic | ND | | 0.33 | 10 |
| Cadmium | ND | | 0.10 | 1.0 |
| Copper | ND | | 0.56 | 10 |
| Selenium | ND | | 0.70 | 10 |
| Thallium | ND | | 0.050 | 5.5 |
| Zinc | 3.10 | J | 2.0 | 10 |

**Lab Control Sample - Batch: 280-217853**

**Method: 6020A**
**Preparation: 3005A**
**Total Recoverable**

| | | | | | |
|---|---|---|---|---|---|
| Lab Sample ID: | LCS 280-217853/2-A | Analysis Batch: | 280-218229 | Instrument ID: | MT_024 |
| Client Matrix: | Water | Prep Batch: | 280-217853 | Lab File ID: | 076_LCS.D |
| Dilution: | 1.0 | Leach Batch: | N/A | Initial Weight/Volume: | 50 mL |
| Analysis Date: | 03/25/2014 0117 | Units: | ug/L | Final Weight/Volume: | 50 mL |
| Prep Date: | 03/24/2014 0730 | | | | |
| Leach Date: | N/A | | | | |

| Analyte | Spike Amount | Result | % Rec. | Limit | Qual |
|---|---|---|---|---|---|
| Antimony | 40.0 | 39.7 | 99 | 85 - 115 | |
| Arsenic | 40.0 | 41.1 | 103 | 85 - 117 | |
| Cadmium | 40.0 | 40.4 | 101 | 85 - 115 | |
| Copper | 40.0 | 43.6 | 109 | 85 - 119 | |
| Selenium | 40.0 | 41.3 | 103 | 77 - 122 | |
| Thallium | 40.0 | 41.2 | 103 | 85 - 118 | |
| Zinc | 40.0 | 42.0 | 105 | 83 - 122 | |

Client: Waste Management

Job Number: 280-53291-1

**Matrix Spike/**
**Matrix Spike Duplicate Recovery Report - Batch: 280-217853**

**Method: 6020A**
**Preparation: 3005A**
**Total Recoverable**

| | | | | | |
|---|---|---|---|---|---|
| MS Lab Sample ID: | 280-53291-1 | Analysis Batch: | 280-218229 | Instrument ID: | MT_024 |
| Client Matrix: | Water | Prep Batch: | 280-217853 | Lab File ID: | 080_MS.D |
| Dilution: | 1.0 | Leach Batch: | N/A | Initial Weight/Volume: | 50 mL |
| Analysis Date: | 03/25/2014 0129 | | | Final Weight/Volume: | 50 mL |
| Prep Date: | 03/24/2014 0730 | | | | |
| Leach Date: | N/A | | | | |

| | | | | | |
|---|---|---|---|---|---|
| MSD Lab Sample ID: | 280-53291-1 | Analysis Batch: | 280-218229 | Instrument ID: | MT_024 |
| Client Matrix: | Water | Prep Batch: | 280-217853 | Lab File ID: | 084_MSD.D |
| Dilution: | 1.0 | Leach Batch: | N/A | Initial Weight/Volume: | 50 mL |
| Analysis Date: | 03/25/2014 0141 | | | Final Weight/Volume: | 50 mL |
| Prep Date: | 03/24/2014 0730 | | | | |
| Leach Date: | N/A | | | | |

| | % Rec. | | | | | | |
|---|---|---|---|---|---|---|---|
| Analyte | MS | MSD | Limit | RPD | RPD Limit | MS Qual | MSD Qual |
| Antimony | 90 | 92 | 85 - 115 | 2 | 20 | | |
| Arsenic | 97 | 102 | 85 - 117 | 4 | 20 | | |
| Cadmium | 100 | 103 | 85 - 115 | 3 | 20 | | |
| Copper | 104 | 108 | 85 - 119 | 3 | 20 | | |
| Selenium | 97 | 100 | 77 - 122 | 3 | 20 | | |
| Thallium | 101 | 104 | 85 - 118 | 3 | 20 | | |
| Zinc | 102 | 105 | 83 - 122 | 2 | 20 | | |

**Matrix Spike/**
**Matrix Spike Duplicate Recovery Report - Batch: 280-217853**

**Method: 6020A**
**Preparation: 3005A**
**Total Recoverable**

| | | | |
|---|---|---|---|
| MS Lab Sample ID: | 280-53291-1 | Units: ug/L | |
| Client Matrix: | Water | | |
| Dilution: | 1.0 | | |
| Analysis Date: | 03/25/2014 0129 | | |
| Prep Date: | 03/24/2014 0730 | | |
| Leach Date: | N/A | | |

| | |
|---|---|
| MSD Lab Sample ID: | 280-53291-1 |
| Client Matrix: | Water |
| Dilution: | 1.0 |
| Analysis Date: | 03/25/2014 0141 |
| Prep Date: | 03/24/2014 0730 |
| Leach Date: | N/A |

| Analyte | Sample Result/Qual | | MS Spike Amount | MSD Spike Amount | MS Result/Qual | MSD Result/Qual |
|---|---|---|---|---|---|---|
| Antimony | ND | | 40.0 | 40.0 | 36.1 | 36.8 |
| Arsenic | ND | | 40.0 | 40.0 | 38.9 | 40.6 |
| Cadmium | ND | | 40.0 | 40.0 | 39.9 | 41.2 |
| Copper | 2.0 | J | 40.0 | 40.0 | 43.8 | 45.0 |
| Selenium | ND | | 40.0 | 40.0 | 38.9 | 40.1 |
| Thallium | ND | | 40.0 | 40.0 | 40.4 | 41.6 |
| Zinc | 4.4 | J | 40.0 | 40.0 | 45.3 | 46.4 |

Client: Waste Management

Job Number: 280-53291-1

## Laboratory Chronicle

**Lab ID:** 280-53291-1 **Client ID:** 3406-S02

Sample Date/Time: 03/19/2014 12:00 Received Date/Time: 03/20/2014 09:30

| Method | Bottle ID | Run | Analysis Batch | Prep Batch | Date Prepared / Analyzed | Dil | Lab | Analyst |
|---|---|---|---|---|---|---|---|---|
| P:5030B | 280-53291-C-1 | | 280-219161 | | 04/01/2014 11:31 | 1 | TAL DEN | TAW |
| A:8260B | 280-53291-C-1 | | 280-219161 | | 04/01/2014 11:31 | 1 | TAL DEN | TAW |
| P:3005A | 280-53291-A-1-E | | 280-218254 | 280-217851 | 03/24/2014 07:30 | 1 | TAL DEN | SEJ |
| A:6010C | 280-53291-A-1-E | | 280-218254 | 280-217851 | 03/24/2014 21:07 | 1 | TAL DEN | JKH |
| P:3005A | 280-53291-A-1-B | | 280-218229 | 280-217853 | 03/24/2014 07:30 | 1 | TAL DEN | SEJ |
| A:6020A | 280-53291-A-1-B | | 280-218229 | 280-217853 | 03/25/2014 01:20 | 1 | TAL DEN | TEL |
| A:Field Sampling | 280-53291-A-1 | | 280-217982 | | 03/19/2014 10:00 | 1 | TAL DEN | TP |

**Lab ID:** 280-53291-1 MS **Client ID:** 3406-S02

Sample Date/Time: 03/19/2014 12:00 Received Date/Time: 03/20/2014 09:30

| Method | Bottle ID | Run | Analysis Batch | Prep Batch | Date Prepared / Analyzed | Dil | Lab | Analyst |
|---|---|---|---|---|---|---|---|---|
| P:5030B | 280-53291-D-1 MS | | 280-219161 | | 04/01/2014 11:53 | 1 | TAL DEN | TAW |
| A:8260B | 280-53291-D-1 MS | | 280-219161 | | 04/01/2014 11:53 | 1 | TAL DEN | TAW |
| P:3005A | 280-53291-A-1-C MS | | 280-218229 | 280-217853 | 03/24/2014 07:30 | 1 | TAL DEN | SEJ |
| A:6020A | 280-53291-A-1-C MS | | 280-218229 | 280-217853 | 03/25/2014 01:29 | 1 | TAL DEN | TEL |

**Lab ID:** 280-53291-1 MSD **Client ID:** 3406-S02

Sample Date/Time: 03/19/2014 12:00 Received Date/Time: 03/20/2014 09:30

| Method | Bottle ID | Run | Analysis Batch | Prep Batch | Date Prepared / Analyzed | Dil | Lab | Analyst |
|---|---|---|---|---|---|---|---|---|
| P:5030B | 280-53291-B-1 MSD | | 280-219161 | | 04/01/2014 12:14 | 1 | TAL DEN | TAW |
| A:8260B | 280-53291-B-1 MSD | | 280-219161 | | 04/01/2014 12:14 | 1 | TAL DEN | TAW |
| P:3005A | 280-53291-A-1-D MSD | | 280-218229 | 280-217853 | 03/24/2014 07:30 | 1 | TAL DEN | SEJ |
| A:6020A | 280-53291-A-1-D MSD | | 280-218229 | 280-217853 | 03/25/2014 01:41 | 1 | TAL DEN | TEL |

**Lab ID:** 280-53291-2 **Client ID:** 3406-S03

Sample Date/Time: 03/19/2014 12:25 Received Date/Time: 03/20/2014 09:30

| Method | Bottle ID | Run | Analysis Batch | Prep Batch | Date Prepared / Analyzed | Dil | Lab | Analyst |
|---|---|---|---|---|---|---|---|---|
| P:5030B | 280-53291-C-2 | | 280-219161 | | 04/01/2014 12:36 | 1 | TAL DEN | TAW |
| A:8260B | 280-53291-C-2 | | 280-219161 | | 04/01/2014 12:36 | 1 | TAL DEN | TAW |
| P:3005A | 280-53291-A-2-C | | 280-218254 | 280-217851 | 03/24/2014 07:30 | 1 | TAL DEN | SEJ |
| A:6010C | 280-53291-A-2-C | | 280-218254 | 280-217851 | 03/24/2014 21:19 | 1 | TAL DEN | JKH |
| P:3005A | 280-53291-A-2-B | | 280-218229 | 280-217853 | 03/24/2014 07:30 | 1 | TAL DEN | SEJ |
| A:6020A | 280-53291-A-2-B | | 280-218229 | 280-217853 | 03/25/2014 01:47 | 1 | TAL DEN | TEL |
| A:Field Sampling | 280-53291-A-2 | | 280-217982 | | 03/19/2014 10:25 | 1 | TAL DEN | TP |

Client: Waste Management

Job Number: 280-53291-1

## Laboratory Chronicle

**Lab ID:** **280-53291-2 MS** **Client ID:** **3406-S03**

Sample Date/Time: 03/19/2014 12:25 Received Date/Time: 03/20/2014 09:30

| Method | Bottle ID | Run | Analysis Batch | Prep Batch | Date Prepared / Analyzed | Dil | Lab | Analyst |
|---|---|---|---|---|---|---|---|---|
| P:3005A | 280-53291-A-2-D MS | | 280-218254 | 280-217851 | 03/24/2014 07:30 | 1 | TAL DEN | SEJ |
| A:6010C | 280-53291-A-2-D MS | | 280-218254 | 280-217851 | 03/24/2014 21:24 | 1 | TAL DEN | JKH |

**Lab ID:** **280-53291-2 MSD** **Client ID:** **3406-S03**

Sample Date/Time: 03/19/2014 12:25 Received Date/Time: 03/20/2014 09:30

| Method | Bottle ID | Run | Analysis Batch | Prep Batch | Date Prepared / Analyzed | Dil | Lab | Analyst |
|---|---|---|---|---|---|---|---|---|
| P:3005A | 280-53291-A-2-E MSD | | 280-218254 | 280-217851 | 03/24/2014 07:30 | 1 | TAL DEN | SEJ |
| A:6010C | 280-53291-A-2-E MSD | | 280-218254 | 280-217851 | 03/24/2014 21:26 | 1 | TAL DEN | JKH |

**Lab ID:** **280-53291-3** **Client ID:** **3406-S04**

Sample Date/Time: 03/19/2014 12:40 Received Date/Time: 03/20/2014 09:30

| Method | Bottle ID | Run | Analysis Batch | Prep Batch | Date Prepared / Analyzed | Dil | Lab | Analyst |
|---|---|---|---|---|---|---|---|---|
| P:5030B | 280-53291-C-3 | | 280-219161 | | 04/01/2014 12:57 | 1 | TAL DEN | TAW |
| A:8260B | 280-53291-C-3 | | 280-219161 | | 04/01/2014 12:57 | 1 | TAL DEN | TAW |
| P:3005A | 280-53291-A-3-A | | 280-218254 | 280-217851 | 03/24/2014 07:30 | 1 | TAL DEN | SEJ |
| A:6010C | 280-53291-A-3-A | | 280-218254 | 280-217851 | 03/24/2014 21:30 | 1 | TAL DEN | JKH |
| P:3005A | 280-53291-A-3-B | | 280-218229 | 280-217853 | 03/24/2014 07:30 | 1 | TAL DEN | SEJ |
| A:6020A | 280-53291-A-3-B | | 280-218229 | 280-217853 | 03/25/2014 01:50 | 1 | TAL DEN | TEL |
| A:Field Sampling | 280-53291-A-3 | | 280-217982 | | 03/19/2014 10:40 | 1 | TAL DEN | TP |

**Lab ID:** **280-53291-4** **Client ID:** **3406-S05**

Sample Date/Time: 03/19/2014 12:10 Received Date/Time: 03/20/2014 09:30

| Method | Bottle ID | Run | Analysis Batch | Prep Batch | Date Prepared / Analyzed | Dil | Lab | Analyst |
|---|---|---|---|---|---|---|---|---|
| P:5030B | 280-53291-D-4 | | 280-219161 | | 04/01/2014 13:19 | 1 | TAL DEN | TAW |
| A:8260B | 280-53291-D-4 | | 280-219161 | | 04/01/2014 13:19 | 1 | TAL DEN | TAW |
| P:3005A | 280-53291-A-4-A | | 280-218254 | 280-217851 | 03/24/2014 07:30 | 1 | TAL DEN | SEJ |
| A:6010C | 280-53291-A-4-A | | 280-218254 | 280-217851 | 03/24/2014 21:33 | 1 | TAL DEN | JKH |
| P:3005A | 280-53291-A-4-B | | 280-218229 | 280-217853 | 03/24/2014 07:30 | 1 | TAL DEN | SEJ |
| A:6020A | 280-53291-A-4-B | | 280-218229 | 280-217853 | 03/25/2014 01:53 | 1 | TAL DEN | TEL |
| A:Field Sampling | 280-53291-A-4 | | 280-217982 | | 03/19/2014 10:10 | 1 | TAL DEN | TP |

Client: Waste Management

Job Number: 280-53291-1

## Laboratory Chronicle

**Lab ID:** **280-53291-5** **Client ID:** **TRIP BLANK**

Sample Date/Time: 03/19/2014 00:00 Received Date/Time: 03/20/2014 09:30

| Method | Bottle ID | Run | Analysis Batch | Prep Batch | Date Prepared / Analyzed | Dil | Lab | Analyst |
|---|---|---|---|---|---|---|---|---|
| P:5030B | 280-53291-A-5 | | 280-219161 | | 04/01/2014 11:10 | 1 | TAL DEN | TAW |
| A:8260B | 280-53291-A-5 | | 280-219161 | | 04/01/2014 11:10 | 1 | TAL DEN | TAW |

**Lab ID:** **MB** **Client ID:** **N/A**

Sample Date/Time: N/A Received Date/Time: N/A

| Method | Bottle ID | Run | Analysis Batch | Prep Batch | Date Prepared / Analyzed | Dil | Lab | Analyst |
|---|---|---|---|---|---|---|---|---|
| P:5030B | MB 280-219161/6 | | 280-219161 | | 04/01/2014 10:11 | 1 | TAL DEN | TAW |
| A:8260B | MB 280-219161/6 | | 280-219161 | | 04/01/2014 10:11 | 1 | TAL DEN | TAW |
| P:3005A | MB 280-217851/1-A | | 280-218254 | 280-217851 | 03/24/2014 07:30 | 1 | TAL DEN | SEJ |
| A:6010C | MB 280-217851/1-A | | 280-218254 | 280-217851 | 03/24/2014 21:00 | 1 | TAL DEN | JKH |
| P:3005A | MB 280-217853/1-A | | 280-218229 | 280-217853 | 03/24/2014 07:30 | 1 | TAL DEN | SEJ |
| A:6020A | MB 280-217853/1-A | | 280-218229 | 280-217853 | 03/25/2014 01:14 | 1 | TAL DEN | TEL |

**Lab ID:** **LCS** **Client ID:** **N/A**

Sample Date/Time: N/A Received Date/Time: N/A

| Method | Bottle ID | Run | Analysis Batch | Prep Batch | Date Prepared / Analyzed | Dil | Lab | Analyst |
|---|---|---|---|---|---|---|---|---|
| P:5030B | LCS 280-219161/4 | | 280-219161 | | 04/01/2014 09:49 | 1 | TAL DEN | TAW |
| A:8260B | LCS 280-219161/4 | | 280-219161 | | 04/01/2014 09:49 | 1 | TAL DEN | TAW |
| P:3005A | LCS 280-217851/2-A | | 280-218254 | 280-217851 | 03/24/2014 07:30 | 1 | TAL DEN | SEJ |
| A:6010C | LCS 280-217851/2-A | | 280-218254 | 280-217851 | 03/24/2014 21:02 | 1 | TAL DEN | JKH |
| P:3005A | LCS 280-217853/2-A | | 280-218229 | 280-217853 | 03/24/2014 07:30 | 1 | TAL DEN | SEJ |
| A:6020A | LCS 280-217853/2-A | | 280-218229 | 280-217853 | 03/25/2014 01:17 | 1 | TAL DEN | TEL |

**Lab References:**

TAL DEN = TestAmerica Denver

Te
495
Arv
Phd

280-53291 Chain of Custody

# Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Clie

| | | | |
|---|---|---|---|
| Sampler: DAN ARMOUR | Lab PM: Sara, Betsy A | Carrier Tracking No(s): | COC No: 280-15241-5755.1 |
| Client Contact: Mr. Al Lacsamana | Phone: 225.907.4060 | E-Mail: betsy.sara@testamericainc.com | Page: Page 1 of 1 |
| Company: Waste Management | | | Job #: |
| Address: Southern Area 1000 Parkwood Circle, Suite 700 | Due Date Requested: | | |
| City: Atlanta | TAT Requested (days): | | |
| State, Zip: GA, 30339 | | | |
| Phone: 770-805-3366(Tel) | PO #: Purchase Order not requir | | |
| Email: alacsama@wm.com | WO # | | |
| Project Name: 134\|Piedmont Landfill | Project #: 28003156 - SA Surface Water Mar Sep | | |
| Site: North Carolina | SSOW#: | | |

**Analysis Requested**

**Preservation Codes:**

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2SO3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - ph 4-5, Z - other (specify)

Other:

| Sample Identification | Sample Date | Sample Time | Sample Type (C=comp, G=grab) | Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air) | Field Filtered Sample (Yes or No) | Perform MS/MSD (Yes or No) | Total Metals | 8260B - VOA | Total Number of containers | Special Instructions/Note: |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Preservation Code: | | | | D | A | | |
| SD2 | 3-19 | 1200 | G | W | N | | 1 | 3 | | |
| SD3 | 3-19 | 1225 | G | W | N | | 1 | 3 | | |
| SD4 | 3-19 | 1240 | G | W | N | | 1 | 3 | | |
| SD5 | 3-19 | 1210 | G | W | N | | 1 | 3 | | |
| TRIP | 3-19 | — | G | W | N | | | ✓ | | |

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

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

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

| | | | | | |
|---|---|---|---|---|---|
| Empty Kit Relinquished by: | Date: | Time: | Method of Shipment: | | |
| Relinquished by: | Date/Time: 3-19-14 / 1530 | Company: PRO-TECH | Received by: | Date/Time: 3-20-14 930 | Company: TA |
| Relinquished by: | Date/Time: | Company | Received by: | Date/Time: | Company |
| Relinquished by: | Date/Time: | Company | Received by: | Date/Time: | Company |

Custody Seals Intact: Δ Yes Δ No

Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks: 2.8 IR ST0.C 3/20/14 JU

# FIELD INFORMATION FORM

WASTE MANAGEMENT

Site Name: PIEDMONT

Site No.:

Sample Point: S02 (Sample ID)

**This Waste Management Field Information Form is Required**
This form is to be completed, in addition to any State Forms. The Field Form is submitted along with the Chain of Custody Forms that accompany the sample containers (i.e. with the cooler that is returned to the laboratory).

Laboratory Use Only/Lab ID:

## PURGE INFO

| PURGE DATE (MM DD YY) | PURGE TIME (2400 Hr Clock) | ELAPSED HRS (hrs:min) | WATER VOL IN CASING (Gallons) | ACTUAL VOL PURGED (Gallons) | WELL VOLs PURGED |
|---|---|---|---|---|---|
| 031914 | 1200 | — | — | — | — |

*Note For Passive Sampling, replace "Water Vol in Casing" and "Well Vols Purged" w/ Water Vol in Tubing/Flow Cell and Tubing/Flow Cell Vols Purged. Mark changes, record field data, below.*

## PURGE/SAMPLE EQUIPMENT

Purging and Sampling Equipment . . . Dedicated: (Y) or N

Filter Device: Y or (N) 0.45 µ or ____ µ (circle or fill in)

Purging Device: —
A-Submersible Pump, B-Peristaltic Pump, C-QED Bladder Pump, D-Bailer, E-Piston Pump, F-Dipper/Bottle

Sampling Device: F

X-Other:

Filter Type: —
A-In-line Disposable, B-Pressure, C-Vacuum, X-Other

Sample Tube Type: —
A-Teflon, B-Stainless Steel, C-PVC, D-Polypropylene, X-Other:

## WELL DATA

Well Elevation (at TOC) (ft/msl)

Depth to Water (DTW) (from TOC) (ft)

Groundwater Elevation (site datum, from TOC) (ft/msl)

Total Well Depth (from TOC) (ft)

Stick Up (from ground elevation) (ft)

Casing ID (in)

Casing Material

*Note: Total Well Depth, Stick Up, Casing Id, etc. are optional and can be from historical data, unless required by Site/Permit. Well Elevation, DTW, and Groundwater Elevation must be current.*

## STABILIZATION DATA (Optional)

| Sample Time (2400 Hr Clock) | Rate/Unit | pH (std) | Conductance (SC/EC) (µmhos/cm@25°C) | Temp. (°C) | Turbidity (ntu) | D.O. (mg/L - ppm) | eH/ORP (mV) | DTW (ft) |
|---|---|---|---|---|---|---|---|---|
| | 1st | 1st | | | | | | |
| | 2nd | 2nd | | | | | | |
| | 3rd | 3rd | | | | | | |
| | 4th | 4th | | | | | | |
| Suggested range for 3 consec. readings or note Permit/State requirements: | | +/- 0.2 | +/- 3% | -- | -- | +/- 10% | +/- 25 mV | Stabilize |

**Stabilization Data Fields are Optional** *(i.e. complete stabilization readings for parameters required by WM, Site, or State). These fields can be used where four (4) field measurements are required by State/Permit/Site. If a Data Logger or other Electronic format is used, fill in final readings below and submit electronic data separately to Site. If more fields above are needed, use separate sheet or form.*

## FIELD DATA

| SAMPLE DATE (MM DD YY) | pH (std) | CONDUCTANCE (umhos/cm @ 25°C) | TEMP. (°C) | TURBIDITY (ntu) | DO (mg/L-ppm) | eH/ORP (mV) | Other: ____ Units ____ |
|---|---|---|---|---|---|---|---|
| 031914 | 651 | 87 | 68 | 241 | 68 | 730 | |

**Final Field Readings are required** *(i.e. record field measurements, final stabilized readings, passive sample readings before sampling for all field parameters required by State/Permit/Site.*

## FIELD COMMENTS

**Sample Appearance:** SLT- CLOUDY **Odor:** ____ **Color:** SPRYISH/BROWN **Other:** ____

**Weather Conditions** (required daily, or as conditions change): **Direction/Speed:** CALM **Outlook:** CLOUDY, 45°F **Precipitation:** Y or (N)

**Specific Comments (including purge/well volume calculations if required):**

**I certify that sampling procedures were in accordance with applicable EPA, State, and WM protocols (if more than one sampler, all should sign):**

| Date | Name | Signature | Company |
|---|---|---|---|
| 03/19/14 | BEN RAMLEAWAN | Ben Ramleawan | PRO-TECH |

**DISTRIBUTION:** WHITE/ORIGINAL - Stays with Sample, YELLOW - Returned to Client, PINK - Field Copy

TAL-8029WM (1013)

# FIELD INFORMATION FORM

WASTE MANAGEMENT

Site Name: PIEDMONT

Site No.:

Sample Point: S03 (Sample ID)

**This Waste Management Field Information Form is Required**
This form is to be completed, in addition to any State Forms. The Field Form is submitted along with the Chain of Custody Forms that accompany the sample containers (i.e. with the cooler that is returned to the laboratory).

Laboratory Use Only/Lab ID:

## PURGE INFO

| PURGE DATE (MM DD YY) | PURGE TIME (2400 Hr Clock) | ELAPSED HRS (hrs min) | WATER VOL IN CASING (Gallons) | ACTUAL VOL PURGED (Gallons) | WELL VOLs PURGED |
|---|---|---|---|---|---|
| 031914 | 1225 | — | — | — | — |

*Note: For Passive Sampling, replace "Water Vol in Casing" and "Well Vols Purged" w/ Water Vol in Tubing/Flow Cell and Tubing/Flow Cell Vols Purged Mark changes, record field data, below*

## PURGE/SAMPLE EQUIPMENT

Purging and Sampling Equipment . . . Dedicated: (Y) or N

Filter Device: Y or (N) 0.45 µ or ____ µ (circle or fill in)

Purging Device: —
A-Submersible Pump, B-Peristaltic Pump, C-QED Bladder Pump, D-Bailer, E-Piston Pump, F-Dipper/Bottle

Sampling Device: F

X-Other:

Filter Type: —
A-In-line Disposable, B-Pressure, C-Vacuum, X-Other

Sample Tube Type: —
A-Teflon, B-Stainless Steel, C-PVC, D-Polypropylene, X-Other:

## WELL DATA

Well Elevation (at TOC) ____ (ft/msl)

Depth to Water (DTW) (from TOC) ____ (ft)

Groundwater Elevation (site datum, from TOC) ____ (ft/msl)

Total Well Depth (from TOC) ____ (ft)

Stick Up (from ground elevation) ____ (ft)

Casing ID ____ (in)

Casing Material ____

*Note: Total Well Depth, Stick Up, Casing Id. etc are optional and can be from historical data, unless required by Site/Permit Well Elevation, DTW, and Groundwater Elevation must be current*

## STABILIZATION DATA (Optional)

| Sample Time (2400 Hr Clock) | Rate/Unit | pH (std) | Conductance (SC/EC) (µmhos/cm@25°C) | Temp. (°C) | Turbidity (ntu) | D.O. (mg/L - ppm) | eH/ORP (mV) | DTW (ft) |
|---|---|---|---|---|---|---|---|---|
| | 1st | 1st | | | | | | |
| | 2nd | 2nd | | | | | | |
| | 3rd | 3rd | | | | | | |
| | 4th | 4th | | | | | | |
| Suggested range for 3 consec. readings or note Permit/State requirements: | | +/- 0.2 | +/- 3% | -- | -- | +/- 10% | +/- 25 mV | Stabilize |

**Stabilization Data Fields are Optional** *(i.e. complete stabilization readings for parameters required by WM, Site, or State). These fields can be used where four (4) field measurements are required by State/Permit/Site. If a Data Logger or other Electronic format is used, fill in final readings below and submit electronic data separately to Site* ***If more fields above are needed, use separate sheet or form.***

## FIELD DATA

| SAMPLE DATE (MM DD YY) | pH (std) | CONDUCTANCE (umhos/cm @ 25°C) | TEMP. (°C) | TURBIDITY (ntu) | DO (mg/L-ppm) | eH/ORP (mV) | Other: ____ Units ____ |
|---|---|---|---|---|---|---|---|
| 031914 | 6.98 | 71 | 7.6 | 29.6 | 6.6 | 234 | |

**Final Field Readings are required** *(i.e. record field measurements, final stabilized readings, passive sample readings before sampling for all field parameters required by State/Permit/Site.*

## FIELD COMMENTS

**Sample Appearance:** SLT. CLOUDY Odor: ____ Color: GRAYISH TINT Other: ____

**Weather Conditions** (required daily, or as conditions change): Direction/Speed: CALM Outlook: CLOUDY, 45°F Precipitation: Y or (N)

**Specific Comments (including purge/well volume calculations if required):**

**I certify that sampling procedures were in accordance with applicable EPA, State, and WM protocols (if more than one sampler, all should sign):**

| Date | Name | Signature | Company |
|---|---|---|---|
| 03/19/14 | BEN RAMNEAWAN | Ben Ramneawan | PRO-TECH |

DISTRIBUTION: WHITE/ORIGINAL - Stays with Sample, YELLOW - Returned to Client, PINK - Field Copy

# FIELD INFORMATION FORM

WASTE MANAGEMENT

Site Name: PIEDMONT

Site No.:

Sample Point: S04 (Sample ID)

**This Waste Management Field Information Form is Required**
This form is to be completed, in addition to any State Forms. The Field Form is submitted along with the Chain of Custody Forms that accompany the sample containers (i.e. with the cooler that is returned to the laboratory)

Laboratory Use Only/Lab ID:

## PURGE INFO

| PURGE DATE (MM DD YY) | PURGE TIME (2400 Hr Clock) | ELAPSED HRS (hrs:min) | WATER VOL IN CASING (Gallons) | ACTUAL VOL PURGED (Gallons) | WELL VOLs PURGED |
|---|---|---|---|---|---|
| 031914 | 1240 | | | | |

*Note. For Passive Sampling, replace "Water Vol in Casing" and "Well Vols Purged" w/ Water Vol in Tubing/Flow Cell and Tubing/Flow Cell Vols Purged. Mark changes, record field data, below.*

## PURGE/SAMPLE EQUIPMENT

Purging and Sampling Equipment . . . Dedicated: (Y) or N

Filter Device: Y or (N) 0.45 µ or ____ µ (circle or fill in)

Purging Device: —

A-Submersible Pump, B-Peristaltic Pump, C-QED Bladder Pump, D-Bailer, E-Piston Pump, F-Dipper/Bottle

Sampling Device: F

Filter Type: — A-In-line Disposable, B-Pressure, C-Vacuum, X-Other

X-Other:

Sample Tube Type: — A-Teflon, B-Stainless Steel, C-PVC, D-Polypropylene, X-Other:

## WELL DATA

Well Elevation (at TOC) (ft/msl)

Depth to Water (DTW) (from TOC) (ft)

Groundwater Elevation (site datum, from TOC) (ft/msl)

Total Well Depth (from TOC) (ft)

Stick Up (from ground elevation) (ft)

Casing ID (in)

Casing Material

*Note. Total Well Depth, Stick Up, Casing Id. etc. are optional and can be from historical data, unless required by Site/Permit. Well Elevation, DTW, and Groundwater Elevation must be current*

## STABILIZATION DATA (Optional)

| Sample Time (2400 Hr Clock) | Rate/Unit | pH (std) | Conductance (SC/BC) (µmhos/cm@25°C) | Temp. (°C) | Turbidity (ntu) | D.O. (mg/L - ppm) | eH/ORP (mV) | DTW (ft) |
|---|---|---|---|---|---|---|---|---|
| | 1st | 1st | | | | | | |
| | 2nd | 2nd | | | | | | |
| | 3rd | 3rd | | | | | | |
| | 4th | 4th | | | | | | |
| Suggested range for 3 consec. readings or note Permit/State requirements: | | +/- 0.2 | +/- 3% | -- | -- | +/- 10% | +/- 25 mV | Stabilize |

**Stabilization Data Fields are Optional** *(i.e. complete stabilization readings for parameters required by WM, Site, or State) These fields can be used where four (4) field measurements are required by State/Permit/Site. If a Data Logger or other Electronic format is used, fill in final readings below and submit electronic data separately to Site. If more fields above are needed, use separate sheet or form.*

## FIELD DATA

| SAMPLE DATE (MM DD YY) | pH (std) | CONDUCTANCE (umhos/cm @ 25°C) | TEMP. (°C) | TURBIDITY (ntu) | DO (mg/L-ppm) | eH/ORP (mV) | Other: Units |
|---|---|---|---|---|---|---|---|
| 031914 | 7.16 | 73 | 72 | 286 | 6.3 | 302 | |

**Final Field Readings are required** *(i.e. record field measurements, final stabilized readings, passive sample readings before sampling for all field parameters required by State/Permit/Site.*

## FIELD COMMENTS

**Sample Appearance:** SLT. CLOUDY Odor: ____ Color: GRAY/BROWN TINT Other: ____

**Weather Conditions** (required daily, or as conditions change): Direction/Speed: CALM Outlook: CLOUDY, 45°F Precipitation: Y or (N)

**Specific Comments (including purge/well volume calculations if required):**

**I certify that sampling procedures were in accordance with applicable EPA, State, and WM protocols (if more than one sampler, all should sign):**

| Date | Name | Signature | Company |
|---|---|---|---|
| 03/19/14 | BEN RAMPEAWAN | Ben Rampeawan | PRO-TECH |

DISTRIBUTION: WHITE/ORIGINAL - Stays with Sample, YELLOW - Returned to Client, PINK - Field Copy

TAL-8029WM (1013)

# FIELD INFORMATION FORM

WASTE MANAGEMENT

Site Name: PIEDMONT

Site No.:

Sample Point: S05 (Sample ID)

**This Waste Management Field Information Form is Required**
This form is to be completed, in addition to any State Forms. The Field Form is submitted along with the Chain of Custody Forms that accompany the sample containers (i.e. with the cooler that is returned to the laboratory).

Laboratory Use Only/Lab ID:

## PURGE INFO

| PURGE DATE (MM DD YY) | PURGE TIME (2400 Hr Clock) | ELAPSED HRS (hrs:min) | WATER VOL IN CASING (Gallons) | ACTUAL VOL PURGED (Gallons) | WELL VOLs PURGED |
|---|---|---|---|---|---|
| 03 19 14 | 12:10 | | | | |

*Note: For Passive Sampling, replace "Water Vol in Casing" and "Well Vols Purged" w/ Water Vol in Tubing/Flow Cell and Tubing/Flow Cell Vols Purged. Mark changes, record field data, below.*

## PURGE/SAMPLE EQUIPMENT

Purging and Sampling Equipment ... Dedicated: (Y) or N

Filter Device: Y or (N) 0.45 µ or _____ µ (circle or fill in)

Purging Device: —
A-Submersible Pump, B-Peristaltic Pump, C-QED Bladder Pump, D-Bailer, E-Piston Pump, F-Dipper/Bottle

Sampling Device: F

X-Other:

Filter Type: —
A-In-line Disposable, B-Pressure, C-Vacuum, X-Other

Sample Tube Type: —
A-Teflon, B-Stainless Steel, C-PVC, D-Polypropylene, X-Other:

## WELL DATA

Well Elevation (at TOC) (ft/msl)

Depth to Water (DTW) (from TOC) (ft)

Groundwater Elevation (site datum, from TOC) (ft/msl)

Total Well Depth (from TOC) (ft)

Stick Up (from ground elevation) (ft)

Casing ID (in)

Casing Material

*Note: Total Well Depth, Stick Up, Casing Id. etc. are optional and can be from historical data, unless required by Site/Permit. Well Elevation, DTW, and Groundwater Elevation must be current.*

## STABILIZATION DATA (Optional)

| Sample Time (2400 Hr Clock) | Rate/Unit | pH (std) | Conductance (SC/EC) (µmhos/cm@25°C) | Temp. (°C) | Turbidity (ntu) | D.O. (mg/L - ppm) | eH/ORP (mV) | DTW (ft) |
|---|---|---|---|---|---|---|---|---|
| | 1st | 1st | | | | | | |
| | 2nd | 2nd | | | | | | |
| | 3rd | 3rd | | | | | | |
| | 4th | 4th | | | | | | |
| Suggested range for 3 consec. readings or note Permit/State requirements: | | +/- 0.2 | +/- 3% | -- | -- | +/- 10% | +/- 25 mV | Stabilize |

**Stabilization Data Fields are Optional** *(i.e. complete stabilization readings for parameters required by WM, Site, or State). These fields can be used where four (4) field measurements are required by State/Permit/Site. If a Data Logger or other Electronic format is used, fill in final readings below and submit electronic data separately to Site.* ***If more fields above are needed, use separate sheet or form.***

## FIELD DATA

| SAMPLE DATE (MM DD YY) | pH (std) | CONDUCTANCE (umhos/cm @ 25°C) | TEMP. (°C) | TURBIDITY (ntu) | DO (mg/L-ppm) | eH/ORP (mV) | Other: _____ Units _____ |
|---|---|---|---|---|---|---|---|
| 03 19 14 | 6.92 | 80 | 6.9 | 288 | 6.6 | 239 | |

**Final Field Readings are required** *(i.e. record field measurements, final stabilized readings, passive sample readings before sampling for all field parameters required by State/Permit/Site)*

## FIELD COMMENTS

**Sample Appearance:** SLT. CLOUDY Odor: _____ Color: GRAYISH TINT Other: _____

**Weather Conditions** (required daily, or as conditions change): Direction/Speed: CALM Outlook: CLOUDY, 45°F Precipitation: Y or (N)

**Specific Comments (including purge/well volume calculations if required):**

**I certify that sampling procedures were in accordance with applicable EPA, State, and WM protocols (if more than one sampler, all should sign):**

| Date | Name | Signature | Company |
|---|---|---|---|
| 03/19/14 | BEN RAMJEAWAN | Ben Ramjeawan | PRO-TECH |

DISTRIBUTION: WHITE/ORIGINAL - Stays with Sample, YELLOW - Returned to Client, PINK - Field Copy

# Login Sample Receipt Checklist

Client: Waste Management

Job Number: 280-53291-1

**Login Number: 53291**

**List Source: TestAmerica Denver**

**List Number: 1**

**Creator: Knauf, James R**

| Question | Answer | Comment |
|---|---|---|
| Radioactivity either was not measured or, if measured, is at or below background | True | |
| The cooler's custody seal, if present, is intact. | True | |
| The cooler or samples do not appear to have been compromised or tampered with. | True | |
| Samples were received on ice. | True | |
| Cooler Temperature is acceptable. | True | |
| Cooler Temperature is recorded. | True | |
| COC is present. | True | |
| COC is filled out in ink and legible. | True | |
| COC is filled out with all pertinent information. | True | |
| Is the Field Sampler's name present on COC? | True | |
| There are no discrepancies between the sample IDs on the containers and the COC. | True | |
| Samples are received within Holding Time. | True | |
| Sample containers have legible labels. | True | |
| Containers are not broken or leaking. | True | |
| Sample collection date/times are provided. | True | |
| Appropriate sample containers are used. | True | |
| Sample bottles are completely filled. | True | |
| Sample Preservation Verified | N/A | |
| There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs | True | |
| VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter. | True | |
| If necessary, staff have been informed of any short hold time or quick TAT needs | True | |
| Multiphasic samples are not present. | True | |
| Samples do not require splitting or compositing. | True | |
| Sampling Company provided. | True | |
| Samples received within 48 hours of sampling. | True | |
| Samples requiring field filtration have been filtered in the field. | True | |
| Chlorine Residual checked. | N/A | |

# ANALYTICAL REPORT

Job Number: 280-53261-1

Job Description: 134|Piedmont Landfill

For:
Waste Management
1850 Parkway Place
Suite 600
Marietta, GA 30067

Attention: Mr. Al Lacsamana

Approved for release.
Betsy A Sara
Project Manager II
4/4/2014 11:13 AM

Betsy A Sara, Project Manager II
4955 Yarrow Street, Arvada, CO, 80002
(303)736-0189
betsy.sara@testamericainc.com
04/04/2014

cc: Mr. Van Burbach

The test results in this report relate only to the samples in this report and meet all requirements of NELAC, with any exceptions noted. Pursuant to NELAP, this report shall not be reproduced except in full, without the written approval of the laboratory. All questions regarding this report should be directed to the TestAmerica Denver Project Manager.

The Lab Certification ID# is E87667.

Reporting limits are adjusted for sample size used, dilutions and moisture content if applicable.

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**CASE NARRATIVE**

**Client: Waste Management**

**Project: 134|Piedmont Landfill**

**Report Number: 280-53261-1**

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

This report may include reporting limits (RLs) less than TestAmerica's standard reporting limit. The reported sample results and associated reporting limits are being used specifically to meet the needs of this project. Note that data are not normally reported to these levels without qualification because they are inherently less reliable and potentially less defensible than required by the latest industry standards.

**Sample Receiving**

The samples were received on 03/20/2014; the samples arrived in good condition, properly preserved and on ice. The temperatures of the coolers at receipt were 1.5º C and 2.5º C.

**Holding Times**

The holding times were within established control limits.

**Method Blanks**

Methylene Chloride Method 8260B was detected in the Method Blank below the project established reporting limit. No corrective action is taken for any values in Method Blanks that are below the requested reporting limits.

Total Alkalinity and Bicarbonate Alkalinity Method 2320B were detected in the Method Blanks above the project established reporting limits, however, the requested reporting limits for Total Alkalinity and Bicarbonate Alkalinity are below TestAmerica Denver's standard reporting limits and, therefore, no corrective action has been taken for this anomaly. It must be noted that results reported below TestAmerica Denver's standard reporting limits may result in false positive/false negative results, less accurate quantitation and potential misidentification at the lower concentrations.

All other Method Blanks were within established control limits.

**Laboratory Control Samples (LCS)**

All Laboratory Control Samples were within established control limits.

**Matrix Spike and Matrix Spike Duplicate (MS/MSD)**

Sample 3406-T01 was selected to fulfill the laboratory batch quality control requirements for Method 7470A. Analysis of the laboratory generated MS/MSD for this sample exhibited recoveries of Total Mercury below the lower control limit indicating the possible presence of a matrix interference.

All other MS/MSD samples were within established control limits.

**Organics**

Sample 3406-T01 was analyzed at a dilution during Method 8260B analysis due to foamy matrix. The reporting limits have been adjusted accordingly.

**General Chemistry**

The Method 2320B Initial Calibration Blank (ICB) was above the control limits for Total Alkalinity and Bicarbonate Alkalinity. Because the associated sample exhibited detections of Total Alkalinity and Bicarbonate Alkalinity greater than ten times the results of the ICB, corrective action was deemed unnecessary.

# EXECUTIVE SUMMARY - Detections

Client: Waste Management

Job Number: 280-53261-1

| Lab Sample ID / Analyte | Client Sample ID | Result | Qualifier | Reporting Limit | Units | Method |
|---|---|---|---|---|---|---|
| **280-53261-1** | **3406-T01** | | | | | |
| 1,4-Dichlorobenzene | | 3.1 | J | 30 | ug/L | 8260B |
| 2-Butanone (MEK) | | 580 | J | 1000 | ug/L | 8260B |
| 4-Methyl-2-pentanone (MIBK) | | 39 | J | 1000 | ug/L | 8260B |
| Acetone | | 1300 | | 1000 | ug/L | 8260B |
| Benzene | | 5.4 | J | 30 | ug/L | 8260B |
| Ethylbenzene | | 19 | J | 50 | ug/L | 8260B |
| Methylene Chloride | | 4.9 | J B | 55 | ug/L | 8260B |
| Tetrachloroethene | | 5.0 | J | 30 | ug/L | 8260B |
| Toluene | | 15 | J | 50 | ug/L | 8260B |
| Vinyl chloride | | 1.1 | J | 55 | ug/L | 8260B |
| Xylenes, Total | | 39 | J | 40 | ug/L | 8260B |
| Field pH | | 7.48 | | | SU | Field Sampling |
| Field Conductivity | | 18180 | | | umhos/cm | Field Sampling |
| Field Temperature | | 3.7 | | | Degrees C | Field Sampling |
| Field Turbidity | | 14.4 | | | NTU | Field Sampling |
| Field Dissolved Oxygen | | 1.7 | | | mg/L | Field Sampling |
| Field EH/ORP | | -122 | | | millivolts | Field Sampling |
| Chloride | | 2800 | | 30 | mg/L | 300.0 |
| Sulfate | | 23 | J | 50 | mg/L | 300.0 |
| Ammonia | | 1500 | | 16 | mg/L | 350.1 |
| Phosphorus, Total | | 7.7 | | 1.0 | mg/L | 365.1 |
| Chemical Oxygen Demand | | 1200 | | 500 | mg/L | 410.4 |
| Nitrate as N | | 0.30 | J | 0.50 | mg/L | Nitrate by calc |
| Total Alkalinity | | 7600 | B ^ | 5.0 | mg/L | SM 2320B |
| Bicarbonate Alkalinity as CaCO3 | | 7600 | B ^ | 5.0 | mg/L | SM 2320B |
| Total Dissolved Solids | | 7800 | | 100 | mg/L | SM 2540C |
| Total Suspended Solids | | 43 | | 10 | mg/L | SM 2540D |
| Total Organic Carbon - Average | | 450 | | 20 | mg/L | SM 5310B |
| Biochemical Oxygen Demand | | 170 | | 50 | mg/L | SM5210B |
| ***Total Recoverable*** | | | | | | |
| Barium | | 510 | | 100 | ug/L | 6010C |
| Chromium | | 210 | | 10 | ug/L | 6010C |
| Cobalt | | 49 | | 10 | ug/L | 6010C |
| Calcium | | 28000 | | 200 | ug/L | 6010C |
| Copper | | 61 | | 15 | ug/L | 6010C |
| Nickel | | 320 | | 50 | ug/L | 6010C |
| Iron | | 10000 | | 100 | ug/L | 6010C |
| Zinc | | 40 | | 20 | ug/L | 6010C |
| Vanadium | | 110 | | 25 | ug/L | 6010C |
| Magnesium | | 29000 | | 200 | ug/L | 6010C |
| Manganese | | 240 | | 10 | ug/L | 6010C |
| Selenium | | 11 | J | 15 | ug/L | 6010C |
| Potassium | | 550000 | | 30000 | ug/L | 6010C |
| Sodium | | 2100000 | | 5000 | ug/L | 6010C |
| Antimony | | 20 | | 10 | ug/L | 6020A |

## EXECUTIVE SUMMARY - Detections

Client: Waste Management

Job Number: 280-53261-1

| Lab Sample ID<br>Analyte | Client Sample ID | Result | Qualifier | Reporting Limit | Units | Method |
|---|---|---|---|---|---|---|
| Arsenic | | 66 | | 25 | ug/L | 6020A |
| Cadmium | | 0.83 | J | 5.0 | ug/L | 6020A |

# METHOD SUMMARY

Client: Waste Management

Job Number: 280-53261-1

| Description | Lab Location | Method | Preparation Method |
|---|---|---|---|
| **Matrix: Water** | | | |
| Volatile Organic Compounds (GC/MS) | TAL DEN | SW846 8260B | |
| Purge and Trap | TAL DEN | | SW846 5030B |
| Metals (ICP) | TAL DEN | SW846 6010C | |
| Preparation, Total Recoverable or Dissolved Metals | TAL DEN | | SW846 3005A |
| Metals (ICP/MS) | TAL DEN | SW846 6020A | |
| Preparation, Total Recoverable or Dissolved Metals | TAL DEN | | SW846 3005A |
| Mercury (CVAA) | TAL DEN | SW846 7470A | |
| Preparation, Mercury | TAL DEN | | SW846 7470A |
| Anions, Ion Chromatography | TAL DEN | MCAWW 300.0 | |
| Nitrogen, Ammonia | TAL DEN | MCAWW 350.1 | |
| Phosphorus, Total | TAL DEN | EPA 365.1 | |
| Phosphorus, Total | TAL DEN | | MCAWW 365.2/365.3/365 |
| COD | TAL DEN | MCAWW 410.4 | |
| Nitrogen, Nitrate-Nitrite | TAL DEN | SM Nitrate by calc | |
| Alkalinity | TAL DEN | SM SM 2320B | |
| Solids, Total Dissolved (TDS) | TAL DEN | SM SM 2540C | |
| Solids, Total Suspended (TSS) | TAL DEN | SM SM 2540D | |
| Organic Carbon, Total (TOC) | TAL DEN | SM SM 5310B | |
| BOD, 5 Day | TAL DEN | SM SM5210B | |
| Field Sampling | TAL DEN | EPA Field Sampling | |

**Lab References:**

TAL DEN = TestAmerica Denver

**Method References:**

EPA = US Environmental Protection Agency

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

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

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

# METHOD / ANALYST SUMMARY

Client: Waste Management

Job Number: 280-53261-1

| Method | Analyst | Analyst ID |
|---|---|---|
| SW846 8260B | Contreras, Evan | EC |
| SW846 8260B | Wickham, Tom A | TAW |
| SW846 6010C | Harre, John K | JKH |
| SW846 6020A | Lill, Thomas E | TEL |
| SW846 7470A | Whyte, Whitney A | WAW |
| EPA Field Sampling | Promduang, Thaweesin | TP |
| MCAWW 300.0 | Allen, Andrew J | AJA |
| MCAWW 350.1 | Hoefler, Alexandra F | AFH |
| EPA 365.1 | Schwemin, Andrew J | AJS |
| MCAWW 410.4 | Jewell, Connie C | CCJ |
| SM Nitrate by calc | Sullivan, Roxanne K | RKS |
| SM SM 2320B | Hoefler, Alexandra F | AFH |
| SM SM 2540C | Janssen, Elizabeth L | ELJ |
| SM SM 2540D | Woolley, Mark - | MW1 |
| SM SM 5310B | Jewell, Connie C | CCJ |
| SM SM5210B | Bland, Morgan R | MRB |

# SAMPLE SUMMARY

Client: Waste Management

Job Number: 280-53261-1

| Lab Sample ID | Client Sample ID | Client Matrix | Date/Time Sampled | Date/Time Received |
|---|---|---|---|---|
| 280-53261-1 | 3406-T01 | Water | 03/19/2014 1135 | 03/20/2014 0930 |
| 280-53261-2TB | TRIP BLANK | Water | 03/19/2014 1135 | 03/20/2014 0930 |

# SAMPLE RESULTS

Client: Waste Management

Job Number: 280-53261-1

**Client Sample ID:** **3406-T01**

Lab Sample ID: 280-53261-1

Client Matrix: Water

Date Sampled: 03/19/2014 1135

Date Received: 03/20/2014 0930

**8260B Volatile Organic Compounds (GC/MS)**

| | | | | | |
|---|---|---|---|---|---|
| Analysis Method: | 8260B | Analysis Batch: | 280-219349 | Instrument ID: | VMS_MS1 |
| Prep Method: | 5030B | Prep Batch: | N/A | Lab File ID: | MS4016.D |
| Dilution: | 1.0 | | | Initial Weight/Volume: | 2 mL |
| Analysis Date: | 04/02/2014 1606 | | | Final Weight/Volume: | 20 mL |
| Prep Date: | 04/02/2014 1606 | | | | |

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|---|---|---|---|---|
| 1,1,1,2-Tetrachloroethane | ND | | 2.1 | 50 |
| 1,1,1-Trichloroethane | ND | | 1.6 | 50 |
| 1,1,2,2-Tetrachloroethane | ND | | 2.1 | 30 |
| 1,1,2-Trichloroethane | ND | | 2.7 | 50 |
| 1,1-Dichloroethane | ND | | 2.2 | 50 |
| 1,1-Dichloroethene | ND | | 2.3 | 50 |
| 1,2,3-Trichloropropane | ND | | 3.3 | 80 |
| 1,2-Dibromo-3-Chloropropane | ND | | 4.7 | 130 |
| 1,2-Dibromoethane | ND | | 1.8 | 30 |
| 1,2-Dichlorobenzene | ND | | 1.5 | 100 |
| 1,2-Dichloroethane | ND | | 1.3 | 30 |
| 1,2-Dichloropropane | ND | | 1.8 | 30 |
| 1,4-Dichlorobenzene | 3.1 | J | 1.6 | 30 |
| 2-Butanone (MEK) | 580 | J | 20 | 1000 |
| 2-Hexanone | ND | | 17 | 500 |
| 4-Methyl-2-pentanone (MIBK) | 39 | J | 9.8 | 1000 |
| Acetone | 1300 | | 19 | 1000 |
| Acrylonitrile | ND | | 14 | 2000 |
| Benzene | 5.4 | J | 1.6 | 30 |
| Bromochloromethane | ND | | 1.0 | 30 |
| Bromodichloromethane | ND | | 1.7 | 30 |
| Bromoform | ND | | 1.9 | 30 |
| Bromomethane | ND | | 2.1 | 100 |
| Carbon disulfide | ND | | 4.5 | 1000 |
| Carbon tetrachloride | ND | | 1.9 | 55 |
| Chlorobenzene | ND | | 1.7 | 30 |
| Chloroethane | ND | | 4.1 | 100 |
| Chloroform | ND | | 1.6 | 50 |
| Chloromethane | ND | | 3.0 | 55 |
| cis-1,2-Dichloroethene | ND | | 1.5 | 50 |
| cis-1,3-Dichloropropene | ND | | 1.6 | 55 |
| Dibromochloromethane | ND | | 1.7 | 30 |
| Dibromomethane | ND | | 1.7 | 100 |
| Ethylbenzene | 19 | J | 1.6 | 50 |
| Iodomethane | ND | | 2.3 | 100 |
| Methylene Chloride | 4.9 | J B | 3.2 | 55 |
| Styrene | ND | | 1.7 | 100 |
| Tetrachloroethene | 5.0 | J | 2.0 | 30 |
| Toluene | 15 | J | 1.7 | 50 |
| trans-1,2-Dichloroethene | ND | | 1.5 | 50 |
| trans-1,3-Dichloropropene | ND | | 1.9 | 55 |
| trans-1,4-Dichloro-2-butene | ND | | 8.0 | 1000 |
| Trichloroethene | ND | | 1.6 | 30 |
| Trichlorofluoromethane | ND | | 2.9 | 50 |
| Vinyl acetate | ND | | 9.4 | 500 |
| Vinyl chloride | 1.1 | J | 1.0 | 55 |

Client: Waste Management

Job Number: 280-53261-1

**Client Sample ID:** **3406-T01**

Lab Sample ID: 280-53261-1

Client Matrix: Water

Date Sampled: 03/19/2014 1135

Date Received: 03/20/2014 0930

**8260B Volatile Organic Compounds (GC/MS)**

| | | | | | |
|---|---|---|---|---|---|
| Analysis Method: | 8260B | Analysis Batch: | 280-219349 | Instrument ID: | VMS_MS1 |
| Prep Method: | 5030B | Prep Batch: | N/A | Lab File ID: | MS4016.D |
| Dilution: | 1.0 | | | Initial Weight/Volume: | 2 mL |
| Analysis Date: | 04/02/2014 1606 | | | Final Weight/Volume: | 20 mL |
| Prep Date: | 04/02/2014 1606 | | | | |

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|---|---|---|---|---|
| Xylenes, Total | 39 | J | 1.9 | 40 |

| Surrogate | %Rec | Qualifier | Acceptance Limits |
|---|---|---|---|
| 1,2-Dichloroethane-d4 (Surr) | 119 | | 70 - 127 |
| 4-Bromofluorobenzene (Surr) | 96 | | 78 - 120 |
| Dibromofluoromethane (Surr) | 100 | | 77 - 120 |
| Toluene-d8 (Surr) | 95 | | 80 - 125 |

Client: Waste Management

Job Number: 280-53261-1

**Client Sample ID:** **TRIP BLANK**

Lab Sample ID: 280-53261-2TB

Client Matrix: Water

Date Sampled: 03/19/2014 1135

Date Received: 03/20/2014 0930

**8260B Volatile Organic Compounds (GC/MS)**

| | | | | | |
|---|---|---|---|---|---|
| Analysis Method: | 8260B | Analysis Batch: | 280-219161 | Instrument ID: | VMS_MS1 |
| Prep Method: | 5030B | Prep Batch: | N/A | Lab File ID: | MS3947.D |
| Dilution: | 1.0 | | | Initial Weight/Volume: | 20 mL |
| Analysis Date: | 04/01/2014 1340 | | | Final Weight/Volume: | 20 mL |
| Prep Date: | 04/01/2014 1340 | | | | |

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|---|---|---|---|---|
| 1,1,1,2-Tetrachloroethane | ND | | 0.21 | 5.0 |
| 1,1,1-Trichloroethane | ND | | 0.16 | 5.0 |
| 1,1,2,2-Tetrachloroethane | ND | | 0.21 | 3.0 |
| 1,1,2-Trichloroethane | ND | | 0.27 | 5.0 |
| 1,1-Dichloroethane | ND | | 0.22 | 5.0 |
| 1,1-Dichloroethene | ND | | 0.23 | 5.0 |
| 1,2,3-Trichloropropane | ND | | 0.33 | 8.0 |
| 1,2-Dibromo-3-Chloropropane | ND | | 0.47 | 13 |
| 1,2-Dibromoethane | ND | | 0.18 | 3.0 |
| 1,2-Dichlorobenzene | ND | | 0.15 | 10 |
| 1,2-Dichloroethane | ND | | 0.13 | 3.0 |
| 1,2-Dichloropropane | ND | | 0.18 | 3.0 |
| 1,4-Dichlorobenzene | ND | | 0.16 | 3.0 |
| 2-Butanone (MEK) | ND | | 2.0 | 100 |
| 2-Hexanone | ND | | 1.7 | 50 |
| 4-Methyl-2-pentanone (MIBK) | ND | | 0.98 | 100 |
| Acetone | ND | | 1.9 | 100 |
| Acrylonitrile | ND | | 1.4 | 200 |
| Benzene | ND | | 0.16 | 3.0 |
| Bromochloromethane | ND | | 0.10 | 3.0 |
| Bromodichloromethane | ND | | 0.17 | 3.0 |
| Bromoform | ND | | 0.19 | 3.0 |
| Bromomethane | ND | | 0.21 | 10 |
| Carbon disulfide | ND | | 0.45 | 100 |
| Carbon tetrachloride | ND | | 0.19 | 5.5 |
| Chlorobenzene | ND | | 0.17 | 3.0 |
| Chloroethane | ND | | 0.41 | 10 |
| Chloroform | ND | | 0.16 | 5.0 |
| Chloromethane | ND | | 0.30 | 5.5 |
| cis-1,2-Dichloroethene | ND | | 0.15 | 5.0 |
| cis-1,3-Dichloropropene | ND | | 0.16 | 5.5 |
| Dibromochloromethane | ND | | 0.17 | 3.0 |
| Dibromomethane | ND | | 0.17 | 10 |
| Ethylbenzene | ND | | 0.16 | 5.0 |
| Iodomethane | ND | | 0.23 | 10 |
| Methylene Chloride | ND | | 0.32 | 5.5 |
| Styrene | ND | | 0.17 | 10 |
| Tetrachloroethene | ND | | 0.20 | 3.0 |
| Toluene | ND | | 0.17 | 5.0 |
| trans-1,2-Dichloroethene | ND | | 0.15 | 5.0 |
| trans-1,3-Dichloropropene | ND | | 0.19 | 5.5 |
| trans-1,4-Dichloro-2-butene | ND | | 0.80 | 100 |
| Trichloroethene | ND | | 0.16 | 3.0 |
| Trichlorofluoromethane | ND | | 0.29 | 5.0 |
| Vinyl acetate | ND | | 0.94 | 50 |
| Vinyl chloride | ND | | 0.10 | 5.5 |

Client: Waste Management

Job Number: 280-53261-1

**Client Sample ID:** **TRIP BLANK**

Lab Sample ID: 280-53261-2TB

Client Matrix: Water

Date Sampled: 03/19/2014 1135

Date Received: 03/20/2014 0930

**8260B Volatile Organic Compounds (GC/MS)**

| | | | | | |
|---|---|---|---|---|---|
| Analysis Method: | 8260B | Analysis Batch: | 280-219161 | Instrument ID: | VMS_MS1 |
| Prep Method: | 5030B | Prep Batch: | N/A | Lab File ID: | MS3947.D |
| Dilution: | 1.0 | | | Initial Weight/Volume: | 20 mL |
| Analysis Date: | 04/01/2014 1340 | | | Final Weight/Volume: | 20 mL |
| Prep Date: | 04/01/2014 1340 | | | | |

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|---|---|---|---|---|
| Xylenes, Total | ND | | 0.19 | 4.0 |

| Surrogate | %Rec | Qualifier | Acceptance Limits |
|---|---|---|---|
| 1,2-Dichloroethane-d4 (Surr) | 97 | | 70 - 127 |
| 4-Bromofluorobenzene (Surr) | 93 | | 78 - 120 |
| Dibromofluoromethane (Surr) | 91 | | 77 - 120 |
| Toluene-d8 (Surr) | 93 | | 80 - 125 |

Client: Waste Management

Job Number: 280-53261-1

**Client Sample ID:** **3406-T01**

Lab Sample ID: 280-53261-1

Client Matrix: Water

Date Sampled: 03/19/2014 1135

Date Received: 03/20/2014 0930

**6010C Metals (ICP)-Total Recoverable**

| | | | | | |
|---|---|---|---|---|---|
| Analysis Method: | 6010C | Analysis Batch: | 280-218254 | Instrument ID: | MT_025 |
| Prep Method: | 3005A | Prep Batch: | 280-217851 | Lab File ID: | 25A1032414.asc |
| Dilution: | 1.0 | | | Initial Weight/Volume: | 50 mL |
| Analysis Date: | 03/24/2014 2104 | | | Final Weight/Volume: | 50 mL |
| Prep Date: | 03/24/2014 0730 | | | | |

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|---|---|---|---|---|
| Barium | 510 | | 0.58 | 100 |
| Chromium | 210 | | 0.66 | 10 |
| Cobalt | 49 | | 1.2 | 10 |
| Calcium | 28000 | | 35 | 200 |
| Copper | 61 | | 1.4 | 15 |
| Lead | ND | | 2.6 | 10 |
| Nickel | 320 | | 1.3 | 50 |
| Iron | 10000 | | 22 | 100 |
| Zinc | 40 | | 4.5 | 20 |
| Vanadium | 110 | | 1.1 | 25 |
| Magnesium | 29000 | | 11 | 200 |
| Manganese | 240 | | 0.25 | 10 |
| Selenium | 11 | J | 4.9 | 15 |
| Silver | ND | | 0.93 | 10 |
| Sodium | 2100000 | | 92 | 5000 |

| | | | | | |
|---|---|---|---|---|---|
| Analysis Method: | 6010C | Analysis Batch: | 280-218464 | Instrument ID: | MT_025 |
| Prep Method: | 3005A | Prep Batch: | 280-217851 | Lab File ID: | 25A2032514.asc |
| Dilution: | 10 | | | Initial Weight/Volume: | 50 mL |
| Analysis Date: | 03/25/2014 2112 | | | Final Weight/Volume: | 50 mL |
| Prep Date: | 03/24/2014 0730 | | | | |

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|---|---|---|---|---|
| Potassium | 550000 | | 2400 | 30000 |

**6020A Metals (ICP/MS)-Total Recoverable**

| | | | | | |
|---|---|---|---|---|---|
| Analysis Method: | 6020A | Analysis Batch: | 280-218229 | Instrument ID: | MT_024 |
| Prep Method: | 3005A | Prep Batch: | 280-217853 | Lab File ID: | 085SMPL.D |
| Dilution: | 5.0 | | | Initial Weight/Volume: | 50 mL |
| Analysis Date: | 03/25/2014 0144 | | | Final Weight/Volume: | 50 mL |
| Prep Date: | 03/24/2014 0730 | | | | |

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|---|---|---|---|---|
| Antimony | 20 | | 2.0 | 10 |
| Arsenic | 66 | | 1.7 | 25 |
| Cadmium | 0.83 | J | 0.50 | 5.0 |
| Thallium | ND | | 0.25 | 5.0 |

Client: Waste Management

Job Number: 280-53261-1

**Client Sample ID:** **3406-T01**

Lab Sample ID: 280-53261-1

Client Matrix: Water

Date Sampled: 03/19/2014 1135

Date Received: 03/20/2014 0930

**6020A Metals (ICP/MS)-Total Recoverable**

| | | | | | |
|---|---|---|---|---|---|
| Analysis Method: | 6020A | Analysis Batch: | 280-218414 | Instrument ID: | MT_024 |
| Prep Method: | 3005A | Prep Batch: | 280-217853 | Lab File ID: | 046SMPL.D |
| Dilution: | 10 | | | Initial Weight/Volume: | 50 mL |
| Analysis Date: | 03/25/2014 2044 | Run Type: | DL | Final Weight/Volume: | 50 mL |
| Prep Date: | 03/24/2014 0730 | | | | |

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|---|---|---|---|---|
| Beryllium | ND | | 0.80 | 10 |

**7470A Mercury (CVAA)**

| | | | | | |
|---|---|---|---|---|---|
| Analysis Method: | 7470A | Analysis Batch: | 280-218876 | Instrument ID: | MT_034 |
| Prep Method: | 7470A | Prep Batch: | 280-218503 | Lab File ID: | 140327taa.txt |
| Dilution: | 1.0 | | | Initial Weight/Volume: | 30 mL |
| Analysis Date: | 03/27/2014 1914 | | | Final Weight/Volume: | 30 mL |
| Prep Date: | 03/27/2014 1145 | | | | |

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|---|---|---|---|---|
| Mercury | ND | | 0.027 | 0.20 |

**General Chemistry**

**Client Sample ID:** **3406-T01**

Lab Sample ID: 280-53261-1 Date Sampled: 03/19/2014 1135
Client Matrix: Water Date Received: 03/20/2014 0930

| Analyte | Result | Qual | Units | MDL | RL | Dil | Method |
|---|---|---|---|---|---|---|---|
| Chloride | 2800 | | mg/L | 25 | 30 | 100 | 300.0 |
| Analysis Batch: 280-219022 | Analysis Date: 04/01/2014 0511 | | | | | | |
| Sulfate | 23 | J | mg/L | 2.3 | 50 | 10 | 300.0 |
| Analysis Batch: 280-219022 | Analysis Date: 03/31/2014 1958 | | | | | | |
| Ammonia | 1500 | | mg/L | 8.8 | 16 | 400 | 350.1 |
| Analysis Batch: 280-218597 | Analysis Date: 03/26/2014 1439 | | | | | | |
| Phosphorus, Total | 7.7 | | mg/L | 0.10 | 1.0 | 20 | 365.1 |
| Analysis Batch: 280-218460 | Analysis Date: 03/26/2014 1221 | | | | | | |
| Prep Batch: 280-218235 | Prep Date: 03/25/2014 0935 | | | | | | |
| Chemical Oxygen Demand | 1200 | | mg/L | 41 | 500 | 10 | 410.4 |
| Analysis Batch: 280-217939 | Analysis Date: 03/22/2014 0905 | | | | | | |
| Nitrate as N | 0.30 | J | mg/L | 0.019 | 0.50 | 1.0 | Nitrate by calc |
| Analysis Batch: 280-219061 | Analysis Date: 03/30/2014 1614 | | | | | | |
| Total Alkalinity | 7600 | B ^ | mg/L | 1.1 | 5.0 | 1.0 | SM 2320B |
| Analysis Batch: 280-219102 | Analysis Date: 03/31/2014 1423 | | | | | | |
| Bicarbonate Alkalinity as CaCO3 | 7600 | B ^ | mg/L | 1.1 | 5.0 | 1.0 | SM 2320B |
| Analysis Batch: 280-219102 | Analysis Date: 03/31/2014 1423 | | | | | | |
| Carbonate Alkalinity as CaCO3 | ND | | mg/L | 1.1 | 5.0 | 1.0 | SM 2320B |
| Analysis Batch: 280-219102 | Analysis Date: 03/31/2014 1423 | | | | | | |
| Total Dissolved Solids | 7800 | | mg/L | 47 | 100 | 1.0 | SM 2540C |
| Analysis Batch: 280-218172 | Analysis Date: 03/24/2014 1905 | | | | | | |
| Total Suspended Solids | 43 | | mg/L | 2.8 | 10 | 1.0 | SM 2540D |
| Analysis Batch: 280-218346 | Analysis Date: 03/25/2014 1714 | | | | | | |
| Total Organic Carbon - Average | 450 | | mg/L | 3.1 | 20 | 20 | SM 5310B |
| Analysis Batch: 280-218940 | Analysis Date: 03/28/2014 1307 | | | | | | |
| Biochemical Oxygen Demand | 170 | | mg/L | 5.9 | 50 | 5.0 | SM5210B |
| Analysis Batch: 280-217700 | Analysis Date: 03/20/2014 1602 | | | | | | |

**Field Service / Mobile Lab**

**Client Sample ID:** **3406-T01**

Lab Sample ID: 280-53261-1

Client Matrix: Water

Date Sampled: 03/19/2014 1135

Date Received: 03/20/2014 0930

| Analyte | Result | Qual | Units | Dil | Method | Analysis Batch | Date Analyzed Date Prepared |
|---|---|---|---|---|---|---|---|
| Field pH | 7.48 | | SU | 1.0 | Field Sampling | 280-217982 | 03/19/2014 0935 |
| Field Conductivity | 18180 | | umhos/cm | 1.0 | Field Sampling | 280-217982 | 03/19/2014 0935 |
| Field Temperature | 3.7 | | Degrees C | 1.0 | Field Sampling | 280-217982 | 03/19/2014 0935 |
| Field Turbidity | 14.4 | | NTU | 1.0 | Field Sampling | 280-217982 | 03/19/2014 0935 |
| Field Dissolved Oxygen | 1.7 | | mg/L | 1.0 | Field Sampling | 280-217982 | 03/19/2014 0935 |
| Field EH/ORP | -122 | | millivolts | 1.0 | Field Sampling | 280-217982 | 03/19/2014 0935 |

# DATA REPORTING QUALIFIERS

Client: Waste Management

Job Number: 280-53261-1

| Lab Section | Qualifier | Description |
|---|---|---|
| GC/MS VOA | | |
| | B | Compound was found in the blank and sample. |
| | J | Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value. |
| Metals | | |
| | F1 | MS and/or MSD Recovery exceeds the control limits |
| | J | Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value. |
| General Chemistry | | |
| | B | Compound was found in the blank and sample. |
| | ^ | ICV,CCV,ICB,CCB, ISA, ISB, CRI, CRA, DLCK or MRL standard: Instrument related QC exceeds the control limits. |
| | E | Result exceeded calibration range. |
| | J | Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value. |

# QUALITY CONTROL RESULTS

Client: Waste Management

Job Number: 280-53261-1

## QC Association Summary

| Lab Sample ID | Client Sample ID | Report Basis | Client Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| **GC/MS VOA** | | | | | |
| **Analysis Batch:280-219161** | | | | | |
| LCS 280-219161/4 | Lab Control Sample | T | Water | 8260B | |
| MB 280-219161/6 | Method Blank | T | Water | 8260B | |
| 280-53261-2TB | TRIP BLANK | T | Water | 8260B | |
| 280-53291-D-1 MS | Matrix Spike | T | Water | 8260B | |
| 280-53291-B-1 MSD | Matrix Spike Duplicate | T | Water | 8260B | |
| **Analysis Batch:280-219349** | | | | | |
| LCS 280-219349/4 | Lab Control Sample | T | Water | 8260B | |
| LCSD 280-219349/5 | Lab Control Sample Duplicate | T | Water | 8260B | |
| MB 280-219349/6 | Method Blank | T | Water | 8260B | |
| 280-53261-1 | 3406-T01 | T | Water | 8260B | |
| 280-53352-G-1 MS | Matrix Spike | T | Water | 8260B | |
| 280-53352-G-1 MSD | Matrix Spike Duplicate | T | Water | 8260B | |

**Report Basis**

T = Total

Client: Waste Management

Job Number: 280-53261-1

## QC Association Summary

| Lab Sample ID | Client Sample ID | Report Basis | Client Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| **Metals** | | | | | |
| **Prep Batch: 280-217851** | | | | | |
| LCS 280-217851/2-A | Lab Control Sample | R | Water | 3005A | |
| MB 280-217851/1-A | Method Blank | R | Water | 3005A | |
| 280-53261-1 | 3406-T01 | R | Water | 3005A | |
| 280-53291-A-2-D MS | Matrix Spike | R | Water | 3005A | |
| 280-53291-A-2-E MSD | Matrix Spike Duplicate | R | Water | 3005A | |
| **Prep Batch: 280-217853** | | | | | |
| LCS 280-217853/2-A | Lab Control Sample | R | Water | 3005A | |
| MB 280-217853/1-A | Method Blank | R | Water | 3005A | |
| 280-53261-1 | 3406-T01 | R | Water | 3005A | |
| 280-53261-1DL | 3406-T01 | R | Water | 3005A | |
| 280-53291-A-1-C MS | Matrix Spike | R | Water | 3005A | |
| 280-53291-A-1-D MSD | Matrix Spike Duplicate | R | Water | 3005A | |
| **Analysis Batch:280-218229** | | | | | |
| LCS 280-217853/2-A | Lab Control Sample | R | Water | 6020A | 280-217853 |
| MB 280-217853/1-A | Method Blank | R | Water | 6020A | 280-217853 |
| 280-53261-1 | 3406-T01 | R | Water | 6020A | 280-217853 |
| 280-53291-A-1-C MS | Matrix Spike | R | Water | 6020A | 280-217853 |
| 280-53291-A-1-D MSD | Matrix Spike Duplicate | R | Water | 6020A | 280-217853 |
| **Analysis Batch:280-218254** | | | | | |
| LCS 280-217851/2-A | Lab Control Sample | R | Water | 6010C | 280-217851 |
| MB 280-217851/1-A | Method Blank | R | Water | 6010C | 280-217851 |
| 280-53261-1 | 3406-T01 | R | Water | 6010C | 280-217851 |
| 280-53291-A-2-D MS | Matrix Spike | R | Water | 6010C | 280-217851 |
| 280-53291-A-2-E MSD | Matrix Spike Duplicate | R | Water | 6010C | 280-217851 |
| **Analysis Batch:280-218414** | | | | | |
| 280-53261-1DL | 3406-T01 | R | Water | 6020A | 280-217853 |
| **Analysis Batch:280-218464** | | | | | |
| 280-53261-1 | 3406-T01 | R | Water | 6010C | 280-217851 |
| **Prep Batch: 280-218503** | | | | | |
| LCS 280-218503/2-A | Lab Control Sample | T | Water | 7470A | |
| MB 280-218503/1-A | Method Blank | T | Water | 7470A | |
| 280-53261-1 | 3406-T01 | T | Water | 7470A | |
| 280-53261-1MS | Matrix Spike | T | Water | 7470A | |
| 280-53261-1MSD | Matrix Spike Duplicate | T | Water | 7470A | |

Client: Waste Management

Job Number: 280-53261-1

## QC Association Summary

| Lab Sample ID | Client Sample ID | Report Basis | Client Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| **Metals** | | | | | |
| **Analysis Batch:280-218876** | | | | | |
| LCS 280-218503/2-A | Lab Control Sample | T | Water | 7470A | 280-218503 |
| MB 280-218503/1-A | Method Blank | T | Water | 7470A | 280-218503 |
| 280-53261-1 | 3406-T01 | T | Water | 7470A | 280-218503 |
| 280-53261-1MS | Matrix Spike | T | Water | 7470A | 280-218503 |
| 280-53261-1MSD | Matrix Spike Duplicate | T | Water | 7470A | 280-218503 |

**Report Basis**
R = Total Recoverable
T = Total

| | | | | | |
|---|---|---|---|---|---|
| **Field Service / Mobile Lab** | | | | | |
| **Analysis Batch:280-217982** | | | | | |
| 280-53261-1 | 3406-T01 | T | Water | Field Sampling | |

**Report Basis**
T = Total

Client: Waste Management

Job Number: 280-53261-1

## QC Association Summary

| Lab Sample ID | Client Sample ID | Report Basis | Client Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| **General Chemistry** | | | | | |
| **Analysis Batch:280-217700** | | | | | |
| LCS 280-217700/3 | Lab Control Sample | T | Water | SM5210B | |
| LCSD 280-217700/5 | Lab Control Sample Duplicate | T | Water | SM5210B | |
| MB 280-217700/6 | Method Blank | T | Water | SM5210B | |
| 280-53258-D-1 DU | Duplicate | T | Water | SM5210B | |
| 280-53261-1 | 3406-T01 | T | Water | SM5210B | |
| **Analysis Batch:280-217939** | | | | | |
| LCS 280-217939/3 | Lab Control Sample | T | Water | 410.4 | |
| LCSD 280-217939/4 | Lab Control Sample Duplicate | T | Water | 410.4 | |
| MB 280-217939/5 | Method Blank | T | Water | 410.4 | |
| 280-53205-B-5 MS | Matrix Spike | T | Water | 410.4 | |
| 280-53205-B-5 MSD | Matrix Spike Duplicate | T | Water | 410.4 | |
| 280-53261-1 | 3406-T01 | T | Water | 410.4 | |
| **Analysis Batch:280-218172** | | | | | |
| LCS 280-218172/2 | Lab Control Sample | T | Water | SM 2540C | |
| LCSD 280-218172/3 | Lab Control Sample Duplicate | T | Water | SM 2540C | |
| MB 280-218172/1 | Method Blank | T | Water | SM 2540C | |
| 280-53261-1 | 3406-T01 | T | Water | SM 2540C | |
| 280-53267-E-1 DU | Duplicate | T | Water | SM 2540C | |
| **Prep Batch: 280-218235** | | | | | |
| LCS 280-218235/3-A | Lab Control Sample | T | Water | 365.2/365.3/365 | |
| LCSD 280-218235/4-A | Lab Control Sample Duplicate | T | Water | 365.2/365.3/365 | |
| MB 280-218235/5-A | Method Blank | T | Water | 365.2/365.3/365 | |
| 280-53261-1 | 3406-T01 | T | Water | 365.2/365.3/365 | |
| 280-53299-E-7-B MS | Matrix Spike | T | Water | 365.2/365.3/365 | |
| 280-53299-E-7-C MSD | Matrix Spike Duplicate | T | Water | 365.2/365.3/365 | |
| **Analysis Batch:280-218346** | | | | | |
| LCS 280-218346/1 | Lab Control Sample | T | Water | SM 2540D | |
| LCSD 280-218346/2 | Lab Control Sample Duplicate | T | Water | SM 2540D | |
| MB 280-218346/3 | Method Blank | T | Water | SM 2540D | |
| 160-5978-A-1 DU | Duplicate | T | Water | SM 2540D | |
| 280-53261-1 | 3406-T01 | T | Water | SM 2540D | |
| **Analysis Batch:280-218460** | | | | | |
| LCS 280-218235/3-A | Lab Control Sample | T | Water | 365.1 | 280-218235 |
| LCSD 280-218235/4-A | Lab Control Sample Duplicate | T | Water | 365.1 | 280-218235 |
| MB 280-218235/5-A | Method Blank | T | Water | 365.1 | 280-218235 |
| 280-53261-1 | 3406-T01 | T | Water | 365.1 | 280-218235 |
| 280-53299-E-7-B MS | Matrix Spike | T | Water | 365.1 | 280-218235 |
| 280-53299-E-7-C MSD | Matrix Spike Duplicate | T | Water | 365.1 | 280-218235 |

Client: Waste Management

Job Number: 280-53261-1

## QC Association Summary

| Lab Sample ID | Client Sample ID | Report Basis | Client Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| **General Chemistry** | | | | | |
| **Analysis Batch:280-218597** | | | | | |
| LCS 280-218597/19 | Lab Control Sample | T | Water | 350.1 | |
| LCSD 280-218597/20 | Lab Control Sample Duplicate | T | Water | 350.1 | |
| MB 280-218597/21 | Method Blank | T | Water | 350.1 | |
| 280-53203-E-3 MS | Matrix Spike | T | Water | 350.1 | |
| 280-53203-E-3 MSD | Matrix Spike Duplicate | T | Water | 350.1 | |
| 280-53261-1 | 3406-T01 | T | Water | 350.1 | |
| **Analysis Batch:280-218940** | | | | | |
| LCS 280-218940/3 | Lab Control Sample | T | Water | SM 5310B | |
| LCSD 280-218940/4 | Lab Control Sample Duplicate | T | Water | SM 5310B | |
| MB 280-218940/5 | Method Blank | T | Water | SM 5310B | |
| 280-53260-B-5 MS | Matrix Spike | T | Water | SM 5310B | |
| 280-53260-B-5 MSD | Matrix Spike Duplicate | T | Water | SM 5310B | |
| 280-53261-1 | 3406-T01 | T | Water | SM 5310B | |
| **Analysis Batch:280-219022** | | | | | |
| LCS 280-219022/12 | Lab Control Sample | T | Water | 300.0 | |
| LCSD 280-219022/13 | Lab Control Sample Duplicate | T | Water | 300.0 | |
| MB 280-219022/14 | Method Blank | T | Water | 300.0 | |
| 280-53210-A-1 DU | Duplicate | T | Water | 300.0 | |
| 280-53210-A-1 MS | Matrix Spike | T | Water | 300.0 | |
| 280-53210-A-1 MSD | Matrix Spike Duplicate | T | Water | 300.0 | |
| 280-53261-1 | 3406-T01 | T | Water | 300.0 | |
| 280-53264-A-3 DU | Duplicate | T | Water | 300.0 | |
| 280-53264-A-3 MS | Matrix Spike | T | Water | 300.0 | |
| 280-53264-A-3 MSD | Matrix Spike Duplicate | T | Water | 300.0 | |
| **Analysis Batch:280-219061** | | | | | |
| MB 280-219061/1 | Method Blank | T | Water | Nitrate by calc | |
| 280-53261-1 | 3406-T01 | T | Water | Nitrate by calc | |
| **Analysis Batch:280-219102** | | | | | |
| LCS 280-219102/4 | Lab Control Sample | T | Water | SM 2320B | |
| LCSD 280-219102/5 | Lab Control Sample Duplicate | T | Water | SM 2320B | |
| MB 280-219102/6 | Method Blank | T | Water | SM 2320B | |
| 280-53261-1 | 3406-T01 | T | Water | SM 2320B | |
| 280-53261-1DU | Duplicate | T | Water | SM 2320B | |

**Report Basis**

T = Total

Client: Waste Management

Job Number: 280-53261-1

## Surrogate Recovery Report

**8260B Volatile Organic Compounds (GC/MS)**

**Client Matrix: Water**

| Lab Sample ID | Client Sample ID | DCA %Rec | BFB %Rec | DBFM %Rec | TOL %Rec |
|---|---|---|---|---|---|
| 280-53261-1 | 3406-T01 | 119 | 96 | 100 | 95 |
| 280-53261-2 | TRIP BLANK | 97 | 93 | 91 | 93 |
| MB 280-219161/6 | | 89 | 88 | 85 | 86 |
| MB 280-219349/6 | | 102 | 93 | 90 | 90 |
| LCS 280-219161/4 | | 104 | 99 | 93 | 94 |
| LCS 280-219349/4 | | 113 | 100 | 100 | 104 |
| LCSD 280-219349/5 | | 102 | 92 | 89 | 93 |
| 280-53291-D-1 MS | | 96 | 94 | 89 | 94 |
| 280-53352-G-1 MS | | 109 | 89 | 93 | 92 |
| 280-53291-B-1 MSD | | 100 | 96 | 92 | 94 |
| 280-53352-G-1 MSD | | 107 | 88 | 93 | 91 |

| Surrogate | Acceptance Limits |
|---|---|
| DCA = 1,2-Dichloroethane-d4 (Surr) | 70-127 |
| BFB = 4-Bromofluorobenzene (Surr) | 78-120 |
| DBFM = Dibromofluoromethane (Surr) | 77-120 |
| TOL = Toluene-d8 (Surr) | 80-125 |

Client: Waste Management

Job Number: 280-53261-1

**Method Blank - Batch: 280-219161**

**Method: 8260B**
**Preparation: 5030B**

| | | | | | |
|---|---|---|---|---|---|
| Lab Sample ID: | MB 280-219161/6 | Analysis Batch: | 280-219161 | Instrument ID: | VMS_MS1 |
| Client Matrix: | Water | Prep Batch: | N/A | Lab File ID: | MS3938.D |
| Dilution: | 1.0 | Leach Batch: | N/A | Initial Weight/Volume: | 20 mL |
| Analysis Date: | 04/01/2014 1011 | Units: | ug/L | Final Weight/Volume: | 20 mL |
| Prep Date: | 04/01/2014 1011 | | | | |
| Leach Date: | N/A | | | | |

| Analyte | Result | Qual | MDL | RL |
|---|---|---|---|---|
| 1,1,1,2-Tetrachloroethane | ND | | 0.21 | 5.0 |
| 1,1,1-Trichloroethane | ND | | 0.16 | 5.0 |
| 1,1,2,2-Tetrachloroethane | ND | | 0.21 | 3.0 |
| 1,1,2-Trichloroethane | ND | | 0.27 | 5.0 |
| 1,1-Dichloroethane | ND | | 0.22 | 5.0 |
| 1,1-Dichloroethene | ND | | 0.23 | 5.0 |
| 1,2,3-Trichloropropane | ND | | 0.33 | 8.0 |
| 1,2-Dibromo-3-Chloropropane | ND | | 0.47 | 13 |
| 1,2-Dibromoethane | ND | | 0.18 | 3.0 |
| 1,2-Dichlorobenzene | ND | | 0.15 | 10 |
| 1,2-Dichloroethane | ND | | 0.13 | 3.0 |
| 1,2-Dichloropropane | ND | | 0.18 | 3.0 |
| 1,4-Dichlorobenzene | ND | | 0.16 | 3.0 |
| 2-Butanone (MEK) | ND | | 2.0 | 100 |
| 2-Hexanone | ND | | 1.7 | 50 |
| 4-Methyl-2-pentanone (MIBK) | ND | | 0.98 | 100 |
| Acetone | ND | | 1.9 | 100 |
| Acrylonitrile | ND | | 1.4 | 200 |
| Benzene | ND | | 0.16 | 3.0 |
| Bromochloromethane | ND | | 0.10 | 3.0 |
| Bromodichloromethane | ND | | 0.17 | 3.0 |
| Bromoform | ND | | 0.19 | 3.0 |
| Bromomethane | ND | | 0.21 | 10 |
| Carbon disulfide | ND | | 0.45 | 100 |
| Carbon tetrachloride | ND | | 0.19 | 5.5 |
| Chlorobenzene | ND | | 0.17 | 3.0 |
| Chloroethane | ND | | 0.41 | 10 |
| Chloroform | ND | | 0.16 | 5.0 |
| Chloromethane | ND | | 0.30 | 5.5 |
| cis-1,2-Dichloroethene | ND | | 0.15 | 5.0 |
| cis-1,3-Dichloropropene | ND | | 0.16 | 5.5 |
| Dibromochloromethane | ND | | 0.17 | 3.0 |
| Dibromomethane | ND | | 0.17 | 10 |
| Ethylbenzene | ND | | 0.16 | 5.0 |
| Iodomethane | ND | | 0.23 | 10 |
| Methylene Chloride | ND | | 0.32 | 5.5 |
| Styrene | ND | | 0.17 | 10 |
| Tetrachloroethene | ND | | 0.20 | 3.0 |
| Toluene | ND | | 0.17 | 5.0 |
| trans-1,2-Dichloroethene | ND | | 0.15 | 5.0 |
| trans-1,3-Dichloropropene | ND | | 0.19 | 5.5 |
| trans-1,4-Dichloro-2-butene | ND | | 0.80 | 100 |
| Trichloroethene | ND | | 0.16 | 3.0 |
| Trichlorofluoromethane | ND | | 0.29 | 5.0 |
| Vinyl acetate | ND | | 0.94 | 50 |

Client: Waste Management

Job Number: 280-53261-1

**Method Blank - Batch: 280-219161**

**Method: 8260B**
**Preparation: 5030B**

| | | | | | |
|---|---|---|---|---|---|
| Lab Sample ID: | MB 280-219161/6 | Analysis Batch: | 280-219161 | Instrument ID: | VMS_MS1 |
| Client Matrix: | Water | Prep Batch: | N/A | Lab File ID: | MS3938.D |
| Dilution: | 1.0 | Leach Batch: | N/A | Initial Weight/Volume: | 20 mL |
| Analysis Date: | 04/01/2014 1011 | Units: | ug/L | Final Weight/Volume: | 20 mL |
| Prep Date: | 04/01/2014 1011 | | | | |
| Leach Date: | N/A | | | | |

| Analyte | Result | Qual | MDL | RL |
|---|---|---|---|---|
| Vinyl chloride | ND | | 0.10 | 5.5 |
| Xylenes, Total | ND | | 0.19 | 4.0 |

| Surrogate | % Rec | Acceptance Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 (Surr) | 89 | 70 - 127 |
| 4-Bromofluorobenzene (Surr) | 88 | 78 - 120 |
| Dibromofluoromethane (Surr) | 85 | 77 - 120 |
| Toluene-d8 (Surr) | 86 | 80 - 125 |

**Lab Control Sample - Batch: 280-219161**

**Method: 8260B**
**Preparation: 5030B**

| | | | | | |
|---|---|---|---|---|---|
| Lab Sample ID: | LCS 280-219161/4 | Analysis Batch: | 280-219161 | Instrument ID: | VMS_MS1 |
| Client Matrix: | Water | Prep Batch: | N/A | Lab File ID: | MS3937.D |
| Dilution: | 1.0 | Leach Batch: | N/A | Initial Weight/Volume: | 20 mL |
| Analysis Date: | 04/01/2014 0949 | Units: | ug/L | Final Weight/Volume: | 20 mL |
| Prep Date: | 04/01/2014 0949 | | | | |
| Leach Date: | N/A | | | | |

| Analyte | Spike Amount | Result | % Rec. | Limit | Qual |
|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | 5.00 | 4.87 | 97 | 70 - 135 | J |
| 1,1-Dichloroethane | 5.00 | 5.07 | 101 | 75 - 135 | |
| 1,1-Dichloroethene | 5.00 | 4.38 | 88 | 71 - 136 | J |
| 1,2-Dichloropropane | 5.00 | 4.98 | 100 | 71 - 120 | |
| 1,3-Dichlorobenzene | 5.00 | 4.92 | 98 | 74 - 135 | |
| Benzene | 5.00 | 4.87 | 97 | 74 - 135 | |
| Bromodichloromethane | 5.00 | 4.48 | 90 | 73 - 135 | |
| Carbon tetrachloride | 5.00 | 4.62 | 92 | 67 - 135 | J |
| Chlorobenzene | 5.00 | 4.90 | 98 | 76 - 135 | |
| Chloroform | 5.00 | 4.67 | 93 | 76 - 120 | J |
| Ethylbenzene | 5.00 | 4.95 | 99 | 72 - 120 | J |
| Methylene Chloride | 5.00 | 5.11 | 102 | 54 - 141 | J |
| Tetrachloroethene | 5.00 | 4.77 | 95 | 70 - 135 | |
| Toluene | 5.00 | 5.13 | 103 | 73 - 120 | |
| trans-1,2-Dichloroethene | 5.00 | 4.81 | 96 | 75 - 135 | J |
| Trichloroethene | 5.00 | 4.88 | 98 | 73 - 135 | |

| Surrogate | % Rec | Acceptance Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 (Surr) | 104 | 70 - 127 |
| 4-Bromofluorobenzene (Surr) | 99 | 78 - 120 |
| Dibromofluoromethane (Surr) | 93 | 77 - 120 |
| Toluene-d8 (Surr) | 94 | 80 - 125 |

Client: Waste Management

Job Number: 280-53261-1

**Matrix Spike/**
**Matrix Spike Duplicate Recovery Report - Batch: 280-219161**

**Method: 8260B**
**Preparation: 5030B**

| | | | | | |
|---|---|---|---|---|---|
| MS Lab Sample ID: | 280-53291-D-1 MS | Analysis Batch: | 280-219161 | Instrument ID: | VMS_MS1 |
| Client Matrix: | Water | Prep Batch: | N/A | Lab File ID: | MS3942.D |
| Dilution: | 1.0 | Leach Batch: | N/A | Initial Weight/Volume: | 20 mL |
| Analysis Date: | 04/01/2014 1153 | | | Final Weight/Volume: | 20 mL |
| Prep Date: | 04/01/2014 1153 | | | | 20 mL |
| Leach Date: | N/A | | | | |

| | | | | | |
|---|---|---|---|---|---|
| MSD Lab Sample ID: | 280-53291-B-1 MSD | Analysis Batch: | 280-219161 | Instrument ID: | VMS_MS1 |
| Client Matrix: | Water | Prep Batch: | N/A | Lab File ID: | MS3943.D |
| Dilution: | 1.0 | Leach Batch: | N/A | Initial Weight/Volume: | 20 mL |
| Analysis Date: | 04/01/2014 1214 | | | Final Weight/Volume: | 20 mL |
| Prep Date: | 04/01/2014 1214 | | | | 20 mL |
| Leach Date: | N/A | | | | |

| | % Rec. | | | | | | |
|---|---|---|---|---|---|---|---|
| Analyte | MS | MSD | Limit | RPD | RPD Limit | MS Qual | MSD Qual |
| 1,1,1-Trichloroethane | 94 | 92 | 70 - 135 | 2 | 20 | J | J |
| 1,1-Dichloroethane | 96 | 98 | 75 - 135 | 2 | 21 | J | J |
| 1,1-Dichloroethene | 85 | 85 | 71 - 136 | 0 | 20 | J | J |
| 1,2-Dichloropropane | 91 | 93 | 71 - 120 | 2 | 20 | | |
| 1,3-Dichlorobenzene | 93 | 92 | 74 - 135 | 1 | 20 | | |
| Benzene | 93 | 93 | 74 - 135 | 1 | 20 | | |
| Bromodichloromethane | 84 | 84 | 73 - 135 | 1 | 20 | | |
| Carbon tetrachloride | 89 | 89 | 67 - 135 | 1 | 21 | J | J |
| Chlorobenzene | 92 | 95 | 76 - 135 | 3 | 20 | | |
| Chloroform | 87 | 88 | 76 - 120 | 1 | 20 | J | J |
| Ethylbenzene | 96 | 97 | 72 - 120 | 2 | 26 | J | J |
| Methylene Chloride | 86 | 89 | 54 - 141 | 3 | 20 | J | J |
| Tetrachloroethene | 94 | 91 | 70 - 135 | 3 | 20 | | |
| Toluene | 94 | 99 | 73 - 120 | 6 | 20 | J | J |
| trans-1,2-Dichloroethene | 93 | 93 | 75 - 135 | 1 | 24 | J | J |
| Trichloroethene | 94 | 91 | 73 - 135 | 3 | 20 | | |

| Surrogate | MS % Rec | MSD % Rec | Acceptance Limits |
|---|---|---|---|
| 1,2-Dichloroethane-d4 (Surr) | 96 | 100 | 70 - 127 |
| 4-Bromofluorobenzene (Surr) | 94 | 96 | 78 - 120 |
| Dibromofluoromethane (Surr) | 89 | 92 | 77 - 120 |
| Toluene-d8 (Surr) | 94 | 94 | 80 - 125 |

Client: Waste Management

Job Number: 280-53261-1

**Matrix Spike/**
**Matrix Spike Duplicate Recovery Report - Batch: 280-219161**

**Method: 8260B**
**Preparation: 5030B**

| | | | | | |
|---|---|---|---|---|---|
| MS Lab Sample ID: | 280-53291-D-1 MS | Units: | ug/L | MSD Lab Sample ID: | 280-53291-B-1 MSD |
| Client Matrix: | Water | | | Client Matrix: | Water |
| Dilution: | 1.0 | | | Dilution: | 1.0 |
| Analysis Date: | 04/01/2014 1153 | | | Analysis Date: | 04/01/2014 1214 |
| Prep Date: | 04/01/2014 1153 | | | Prep Date: | 04/01/2014 1214 |
| Leach Date: | N/A | | | Leach Date: | N/A |

| Analyte | Sample Result/Qual | MS Spike Amount | MSD Spike Amount | MS Result/Qual | | MSD Result/Qual | |
|---|---|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | ND | 5.00 | 5.00 | 4.71 | J | 4.61 | J |
| 1,1-Dichloroethane | ND | 5.00 | 5.00 | 4.79 | J | 4.88 | J |
| 1,1-Dichloroethene | ND | 5.00 | 5.00 | 4.23 | J | 4.23 | J |
| 1,2-Dichloropropane | ND | 5.00 | 5.00 | 4.53 | | 4.63 | |
| 1,3-Dichlorobenzene | ND | 5.00 | 5.00 | 4.63 | | 4.58 | |
| Benzene | ND | 5.00 | 5.00 | 4.63 | | 4.67 | |
| Bromodichloromethane | ND | 5.00 | 5.00 | 4.18 | | 4.22 | |
| Carbon tetrachloride | ND | 5.00 | 5.00 | 4.47 | J | 4.45 | J |
| Chlorobenzene | ND | 5.00 | 5.00 | 4.60 | | 4.75 | |
| Chloroform | ND | 5.00 | 5.00 | 4.34 | J | 4.41 | J |
| Ethylbenzene | ND | 5.00 | 5.00 | 4.79 | J | 4.87 | J |
| Methylene Chloride | ND | 5.00 | 5.00 | 4.31 | J | 4.46 | J |
| Tetrachloroethene | ND | 5.00 | 5.00 | 4.69 | | 4.53 | |
| Toluene | ND | 5.00 | 5.00 | 4.70 | J | 4.97 | J |
| trans-1,2-Dichloroethene | ND | 5.00 | 5.00 | 4.67 | J | 4.65 | J |
| Trichloroethene | ND | 5.00 | 5.00 | 4.72 | | 4.56 | |

Client: Waste Management

Job Number: 280-53261-1

**Method Blank - Batch: 280-219349**

**Method: 8260B**
**Preparation: 5030B**

| | | | | | |
|---|---|---|---|---|---|
| Lab Sample ID: | MB 280-219349/6 | Analysis Batch: | 280-219349 | Instrument ID: | VMS_MS1 |
| Client Matrix: | Water | Prep Batch: | N/A | Lab File ID: | MS4014.D |
| Dilution: | 1.0 | Leach Batch: | N/A | Initial Weight/Volume: | 20 mL |
| Analysis Date: | 04/02/2014 1523 | Units: | ug/L | Final Weight/Volume: | 20 mL |
| Prep Date: | 04/02/2014 1523 | | | | |
| Leach Date: | N/A | | | | |

| Analyte | Result | Qual | MDL | RL |
|---|---|---|---|---|
| 1,1,1,2-Tetrachloroethane | ND | | 0.21 | 5.0 |
| 1,1,1-Trichloroethane | ND | | 0.16 | 5.0 |
| 1,1,2,2-Tetrachloroethane | ND | | 0.21 | 3.0 |
| 1,1,2-Trichloroethane | ND | | 0.27 | 5.0 |
| 1,1-Dichloroethane | ND | | 0.22 | 5.0 |
| 1,1-Dichloroethene | ND | | 0.23 | 5.0 |
| 1,2,3-Trichloropropane | ND | | 0.33 | 8.0 |
| 1,2-Dibromo-3-Chloropropane | ND | | 0.47 | 13 |
| 1,2-Dibromoethane | ND | | 0.18 | 3.0 |
| 1,2-Dichlorobenzene | ND | | 0.15 | 10 |
| 1,2-Dichloroethane | ND | | 0.13 | 3.0 |
| 1,2-Dichloropropane | ND | | 0.18 | 3.0 |
| 1,4-Dichlorobenzene | ND | | 0.16 | 3.0 |
| 2-Butanone (MEK) | ND | | 2.0 | 100 |
| 2-Hexanone | ND | | 1.7 | 50 |
| 4-Methyl-2-pentanone (MIBK) | ND | | 0.98 | 100 |
| Acetone | ND | | 1.9 | 100 |
| Acrylonitrile | ND | | 1.4 | 200 |
| Benzene | ND | | 0.16 | 3.0 |
| Bromochloromethane | ND | | 0.10 | 3.0 |
| Bromodichloromethane | ND | | 0.17 | 3.0 |
| Bromoform | ND | | 0.19 | 3.0 |
| Bromomethane | ND | | 0.21 | 10 |
| Carbon disulfide | ND | | 0.45 | 100 |
| Carbon tetrachloride | ND | | 0.19 | 5.5 |
| Chlorobenzene | ND | | 0.17 | 3.0 |
| Chloroethane | ND | | 0.41 | 10 |
| Chloroform | ND | | 0.16 | 5.0 |
| Chloromethane | ND | | 0.30 | 5.5 |
| cis-1,2-Dichloroethene | ND | | 0.15 | 5.0 |
| cis-1,3-Dichloropropene | ND | | 0.16 | 5.5 |
| Dibromochloromethane | ND | | 0.17 | 3.0 |
| Dibromomethane | ND | | 0.17 | 10 |
| Ethylbenzene | ND | | 0.16 | 5.0 |
| Iodomethane | ND | | 0.23 | 10 |
| Methylene Chloride | 0.496 | J | 0.32 | 5.5 |
| Styrene | ND | | 0.17 | 10 |
| Tetrachloroethene | ND | | 0.20 | 3.0 |
| Toluene | ND | | 0.17 | 5.0 |
| trans-1,2-Dichloroethene | ND | | 0.15 | 5.0 |
| trans-1,3-Dichloropropene | ND | | 0.19 | 5.5 |
| trans-1,4-Dichloro-2-butene | ND | | 0.80 | 100 |
| Trichloroethene | ND | | 0.16 | 3.0 |
| Trichlorofluoromethane | ND | | 0.29 | 5.0 |
| Vinyl acetate | ND | | 0.94 | 50 |

Client: Waste Management

Job Number: 280-53261-1

**Method Blank - Batch: 280-219349**

**Method: 8260B**
**Preparation: 5030B**

| | | | | | |
|---|---|---|---|---|---|
| Lab Sample ID: | MB 280-219349/6 | Analysis Batch: | 280-219349 | Instrument ID: | VMS_MS1 |
| Client Matrix: | Water | Prep Batch: | N/A | Lab File ID: | MS4014.D |
| Dilution: | 1.0 | Leach Batch: | N/A | Initial Weight/Volume: | 20 mL |
| Analysis Date: | 04/02/2014 1523 | Units: | ug/L | Final Weight/Volume: | 20 mL |
| Prep Date: | 04/02/2014 1523 | | | | |
| Leach Date: | N/A | | | | |

| Analyte | Result | Qual | MDL | RL |
|---|---|---|---|---|
| Vinyl chloride | ND | | 0.10 | 5.5 |
| Xylenes, Total | ND | | 0.19 | 4.0 |

| Surrogate | % Rec | Acceptance Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 (Surr) | 102 | 70 - 127 |
| 4-Bromofluorobenzene (Surr) | 93 | 78 - 120 |
| Dibromofluoromethane (Surr) | 90 | 77 - 120 |
| Toluene-d8 (Surr) | 90 | 80 - 125 |

Client: Waste Management

Job Number: 280-53261-1

**Lab Control Sample/**
**Lab Control Sample Duplicate Recovery Report - Batch: 280-219349**

**Method: 8260B**
**Preparation: 5030B**

| | | | | | |
|---|---|---|---|---|---|
| LCS Lab Sample ID: | LCS 280-219349/4 | Analysis Batch: | 280-219349 | Instrument ID: | VMS_MS1 |
| Client Matrix: | Water | Prep Batch: | N/A | Lab File ID: | MS4002.D |
| Dilution: | 1.0 | Leach Batch: | N/A | Initial Weight/Volume: | 20 mL |
| Analysis Date: | 04/02/2014 0955 | Units: | ug/L | Final Weight/Volume: | 20 mL |
| Prep Date: | 04/02/2014 0955 | | | | 20 mL |
| Leach Date: | N/A | | | | |

| | | | | | |
|---|---|---|---|---|---|
| LCSD Lab Sample ID: | LCSD 280-219349/5 | Analysis Batch: | 280-219349 | Instrument ID: | VMS_MS1 |
| Client Matrix: | Water | Prep Batch: | N/A | Lab File ID: | MS4003.D |
| Dilution: | 1.0 | Leach Batch: | N/A | Initial Weight/Volume: | 20 mL |
| Analysis Date: | 04/02/2014 1016 | Units: | ug/L | Final Weight/Volume: | 20 mL |
| Prep Date: | 04/02/2014 1016 | | | | 20 mL |
| Leach Date: | N/A | | | | |

| Analyte | % Rec. LCS | % Rec. LCSD | Limit | RPD | RPD Limit | LCS Qual | LCSD Qual |
|---|---|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | 112 | 98 | 70 - 135 | 13 | 20 | | J |
| 1,1-Dichloroethane | 115 | 103 | 75 - 135 | 12 | 21 | | |
| 1,1-Dichloroethene | 101 | 90 | 71 - 136 | 11 | 20 | | J |
| 1,2-Dichloropropane | 110 | 96 | 71 - 120 | 13 | 20 | | |
| 1,3-Dichlorobenzene | 107 | 95 | 74 - 135 | 11 | 20 | | |
| Benzene | 111 | 98 | 74 - 135 | 12 | 20 | | |
| Bromodichloromethane | 101 | 92 | 73 - 135 | 10 | 20 | | |
| Carbon tetrachloride | 110 | 96 | 67 - 135 | 14 | 21 | | J |
| Chlorobenzene | 111 | 98 | 76 - 135 | 12 | 20 | | |
| Chloroform | 106 | 93 | 76 - 120 | 13 | 20 | | J |
| Ethylbenzene | 114 | 101 | 72 - 120 | 12 | 26 | | |
| Methylene Chloride | 131 | 116 | 54 - 141 | 12 | 20 | | |
| Tetrachloroethene | 123 | 109 | 70 - 135 | 12 | 20 | | |
| Toluene | 112 | 100 | 73 - 120 | 12 | 20 | | J |
| trans-1,2-Dichloroethene | 110 | 98 | 75 - 135 | 11 | 24 | | J |
| Trichloroethene | 113 | 101 | 73 - 135 | 12 | 20 | | |

| Surrogate | LCS % Rec | LCSD % Rec | Acceptance Limits |
|---|---|---|---|
| 1,2-Dichloroethane-d4 (Surr) | 113 | 102 | 70 - 127 |
| 4-Bromofluorobenzene (Surr) | 100 | 92 | 78 - 120 |
| Dibromofluoromethane (Surr) | 100 | 89 | 77 - 120 |
| Toluene-d8 (Surr) | 104 | 93 | 80 - 125 |

Client: Waste Management

Job Number: 280-53261-1

**Laboratory Control/**
**Laboratory Duplicate Data Report - Batch: 280-219349**

**Method: 8260B**
**Preparation: 5030B**

| | | | | | |
|---|---|---|---|---|---|
| LCS Lab Sample ID: | LCS 280-219349/4 | Units: | ug/L | LCSD Lab Sample ID: | LCSD 280-219349/5 |
| Client Matrix: | Water | | | Client Matrix: | Water |
| Dilution: | 1.0 | | | Dilution: | 1.0 |
| Analysis Date: | 04/02/2014 0955 | | | Analysis Date: | 04/02/2014 1016 |
| Prep Date: | 04/02/2014 0955 | | | Prep Date: | 04/02/2014 1016 |
| Leach Date: | N/A | | | Leach Date: | N/A |

| Analyte | LCS Spike Amount | LCSD Spike Amount | LCS Result/Qual | LCSD Result/Qual | |
|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | 5.00 | 5.00 | 5.61 | 4.91 | J |
| 1,1-Dichloroethane | 5.00 | 5.00 | 5.77 | 5.14 | |
| 1,1-Dichloroethene | 5.00 | 5.00 | 5.04 | 4.51 | J |
| 1,2-Dichloropropane | 5.00 | 5.00 | 5.48 | 4.82 | |
| 1,3-Dichlorobenzene | 5.00 | 5.00 | 5.33 | 4.76 | |
| Benzene | 5.00 | 5.00 | 5.55 | 4.92 | |
| Bromodichloromethane | 5.00 | 5.00 | 5.07 | 4.58 | |
| Carbon tetrachloride | 5.00 | 5.00 | 5.50 | 4.79 | J |
| Chlorobenzene | 5.00 | 5.00 | 5.55 | 4.91 | |
| Chloroform | 5.00 | 5.00 | 5.28 | 4.64 | J |
| Ethylbenzene | 5.00 | 5.00 | 5.69 | 5.05 | |
| Methylene Chloride | 5.00 | 5.00 | 6.53 | 5.79 | |
| Tetrachloroethene | 5.00 | 5.00 | 6.16 | 5.47 | |
| Toluene | 5.00 | 5.00 | 5.62 | 4.99 | J |
| trans-1,2-Dichloroethene | 5.00 | 5.00 | 5.49 | 4.89 | J |
| Trichloroethene | 5.00 | 5.00 | 5.67 | 5.05 | |

Client: Waste Management

Job Number: 280-53261-1

**Matrix Spike/**
**Matrix Spike Duplicate Recovery Report - Batch: 280-219349**

**Method: 8260B**
**Preparation: 5030B**

| | | | | | |
|---|---|---|---|---|---|
| MS Lab Sample ID: | 280-53352-G-1 MS | Analysis Batch: | 280-219349 | Instrument ID: | VMS_MS1 |
| Client Matrix: | Water | Prep Batch: | N/A | Lab File ID: | MS4018.D |
| Dilution: | 1.0 | Leach Batch: | N/A | Initial Weight/Volume: | 0.0025 mL |
| Analysis Date: | 04/02/2014 1649 | | | Final Weight/Volume: | 20 mL |
| Prep Date: | 04/02/2014 1649 | | | | 20 mL |
| Leach Date: | N/A | | | | |

| | | | | | |
|---|---|---|---|---|---|
| MSD Lab Sample ID: | 280-53352-G-1 MSD | Analysis Batch: | 280-219349 | Instrument ID: | VMS_MS1 |
| Client Matrix: | Water | Prep Batch: | N/A | Lab File ID: | MS4019.D |
| Dilution: | 1.0 | Leach Batch: | N/A | Initial Weight/Volume: | 0.0025 mL |
| Analysis Date: | 04/02/2014 1710 | | | Final Weight/Volume: | 20 mL |
| Prep Date: | 04/02/2014 1710 | | | | 20 mL |
| Leach Date: | N/A | | | | |

| Analyte | % Rec. MS | % Rec. MSD | Limit | RPD | RPD Limit | MS Qual | MSD Qual |
|---|---|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | 103 | 104 | 70 - 135 | 1 | 20 | | |
| 1,1-Dichloroethane | 114 | 112 | 75 - 135 | 2 | 21 | | |
| 1,1-Dichloroethene | 90 | 94 | 71 - 136 | 4 | 20 | J | J |
| 1,2-Dichloropropane | 105 | 103 | 71 - 120 | 3 | 20 | | |
| 1,3-Dichlorobenzene | 96 | 94 | 74 - 135 | 2 | 20 | | |
| Benzene | 106 | 105 | 74 - 135 | 1 | 20 | | |
| Bromodichloromethane | 101 | 98 | 73 - 135 | 3 | 20 | | |
| Carbon tetrachloride | 122 | 114 | 67 - 135 | 3 | 21 | | |
| Chlorobenzene | 101 | 98 | 76 - 135 | 3 | 20 | | |
| Chloroform | 104 | 102 | 76 - 120 | 2 | 20 | | |
| Ethylbenzene | 103 | 101 | 72 - 120 | 2 | 26 | | |
| Methylene Chloride | 107 | 107 | 54 - 141 | 0 | 20 | | |
| Tetrachloroethene | 98 | 101 | 70 - 135 | 3 | 20 | | |
| Toluene | 104 | 103 | 73 - 120 | 1 | 20 | | |
| trans-1,2-Dichloroethene | 103 | 103 | 75 - 135 | 1 | 24 | | |
| Trichloroethene | 107 | 105 | 73 - 135 | 2 | 20 | | |

| Surrogate | MS % Rec | MSD % Rec | Acceptance Limits |
|---|---|---|---|
| 1,2-Dichloroethane-d4 (Surr) | 109 | 107 | 70 - 127 |
| 4-Bromofluorobenzene (Surr) | 89 | 88 | 78 - 120 |
| Dibromofluoromethane (Surr) | 93 | 93 | 77 - 120 |
| Toluene-d8 (Surr) | 92 | 91 | 80 - 125 |

Client: Waste Management

Job Number: 280-53261-1

**Matrix Spike/**
**Matrix Spike Duplicate Recovery Report - Batch: 280-219349**

**Method: 8260B**
**Preparation: 5030B**

| | | | | | |
|---|---|---|---|---|---|
| MS Lab Sample ID: | 280-53352-G-1 MS | Units: | ug/L | MSD Lab Sample ID: | 280-53352-G-1 MSD |
| Client Matrix: | Water | | | Client Matrix: | Water |
| Dilution: | 1.0 | | | Dilution: | 1.0 |
| Analysis Date: | 04/02/2014 1649 | | | Analysis Date: | 04/02/2014 1710 |
| Prep Date: | 04/02/2014 1649 | | | Prep Date: | 04/02/2014 1710 |
| Leach Date: | N/A | | | Leach Date: | N/A |

| Analyte | Sample Result/Qual | | MS Spike Amount | MSD Spike Amount | MS Result/Qual | | MSD Result/Qual | |
|---|---|---|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | ND | | 40000 | 40000 | 41100 | | 41700 | |
| 1,1-Dichloroethane | ND | | 40000 | 40000 | 45800 | | 44900 | |
| 1,1-Dichloroethene | ND | | 40000 | 40000 | 36000 | J | 37400 | J |
| 1,2-Dichloropropane | ND | | 40000 | 40000 | 42100 | | 41100 | |
| 1,3-Dichlorobenzene | ND | | 40000 | 40000 | 38400 | | 37700 | |
| Benzene | ND | | 40000 | 40000 | 42300 | | 42100 | |
| Bromodichloromethane | ND | | 40000 | 40000 | 40400 | | 39100 | |
| Carbon tetrachloride | 81000 | | 40000 | 40000 | 129000 | | 126000 | |
| Chlorobenzene | ND | | 40000 | 40000 | 40400 | | 39300 | |
| Chloroform | 2300 | J | 40000 | 40000 | 43700 | | 43000 | |
| Ethylbenzene | ND | | 40000 | 40000 | 41100 | | 40500 | |
| Methylene Chloride | 3900 | J | 40000 | 40000 | 46500 | | 46500 | |
| Tetrachloroethene | 3700 | J | 40000 | 40000 | 42800 | | 43900 | |
| Toluene | ND | | 40000 | 40000 | 41600 | | 41100 | |
| trans-1,2-Dichloroethene | ND | | 40000 | 40000 | 41000 | | 41400 | |
| Trichloroethene | ND | | 40000 | 40000 | 42900 | | 42100 | |

Client: Waste Management

Job Number: 280-53261-1

**Method Blank - Batch: 280-217851**

**Method: 6010C**
**Preparation: 3005A**
**Total Recoverable**

| | | | | | |
|---|---|---|---|---|---|
| Lab Sample ID: | MB 280-217851/1-A | Analysis Batch: | 280-218254 | Instrument ID: | MT_025 |
| Client Matrix: | Water | Prep Batch: | 280-217851 | Lab File ID: | 25A1032414.asc |
| Dilution: | 1.0 | Leach Batch: | N/A | Initial Weight/Volume: | 50 mL |
| Analysis Date: | 03/24/2014 2100 | Units: | ug/L | Final Weight/Volume: | 50 mL |
| Prep Date: | 03/24/2014 0730 | | | | |
| Leach Date: | N/A | | | | |

| Analyte | Result | Qual | MDL | RL |
|---|---|---|---|---|
| Barium | ND | | 0.58 | 100 |
| Chromium | ND | | 0.66 | 10 |
| Cobalt | ND | | 1.2 | 10 |
| Calcium | ND | | 35 | 200 |
| Copper | ND | | 1.4 | 15 |
| Lead | ND | | 2.6 | 10 |
| Nickel | ND | | 1.3 | 50 |
| Iron | ND | | 22 | 100 |
| Zinc | ND | | 4.5 | 20 |
| Vanadium | ND | | 1.1 | 25 |
| Magnesium | ND | | 11 | 200 |
| Manganese | ND | | 0.25 | 10 |
| Selenium | ND | | 4.9 | 15 |
| Silver | ND | | 0.93 | 10 |
| Potassium | ND | | 240 | 3000 |
| Sodium | ND | | 92 | 5000 |

Client: Waste Management

Job Number: 280-53261-1

**Lab Control Sample - Batch: 280-217851**

**Method: 6010C**
**Preparation: 3005A**
**Total Recoverable**

| | | | | | |
|---|---|---|---|---|---|
| Lab Sample ID: | LCS 280-217851/2-A | Analysis Batch: | 280-218254 | Instrument ID: | MT_025 |
| Client Matrix: | Water | Prep Batch: | 280-217851 | Lab File ID: | 25A1032414.asc |
| Dilution: | 1.0 | Leach Batch: | N/A | Initial Weight/Volume: | 50 mL |
| Analysis Date: | 03/24/2014 2102 | Units: | ug/L | Final Weight/Volume: | 50 mL |
| Prep Date: | 03/24/2014 0730 | | | | |
| Leach Date: | N/A | | | | |

| Analyte | Spike Amount | Result | % Rec. | Limit | Qual |
|---|---|---|---|---|---|
| Barium | 2000 | 2060 | 103 | 90 - 112 | |
| Chromium | 200 | 205 | 102 | 90 - 113 | |
| Cobalt | 500 | 504 | 101 | 89 - 111 | |
| Calcium | 50000 | 50600 | 101 | 90 - 111 | |
| Copper | 250 | 256 | 102 | 86 - 112 | |
| Lead | 500 | 516 | 103 | 89 - 110 | |
| Nickel | 500 | 509 | 102 | 89 - 111 | |
| Iron | 1000 | 1010 | 101 | 89 - 115 | |
| Zinc | 500 | 504 | 101 | 85 - 111 | |
| Vanadium | 500 | 510 | 102 | 90 - 111 | |
| Magnesium | 50000 | 51600 | 103 | 90 - 113 | |
| Manganese | 500 | 505 | 101 | 90 - 110 | |
| Selenium | 2000 | 2060 | 103 | 85 - 112 | |
| Silver | 50.0 | 52.7 | 105 | 86 - 115 | |
| Potassium | 50000 | 51700 | 103 | 89 - 114 | |
| Sodium | 50000 | 54500 | 109 | 90 - 115 | |

Client: Waste Management

Job Number: 280-53261-1

**Matrix Spike/**
**Matrix Spike Duplicate Recovery Report - Batch: 280-217851**

**Method: 6010C**
**Preparation: 3005A**
**Total Recoverable**

| | | | | | |
|---|---|---|---|---|---|
| MS Lab Sample ID: | 280-53291-A-2-D MS | Analysis Batch: | 280-218254 | Instrument ID: | MT_025 |
| Client Matrix: | Water | Prep Batch: | 280-217851 | Lab File ID: | 25A1032414.asc |
| Dilution: | 1.0 | Leach Batch: | N/A | Initial Weight/Volume: | 50 mL |
| Analysis Date: | 03/24/2014 2124 | | | Final Weight/Volume: | 50 mL |
| Prep Date: | 03/24/2014 0730 | | | | |
| Leach Date: | N/A | | | | |

| | | | | | |
|---|---|---|---|---|---|
| MSD Lab Sample ID: | 280-53291-A-2-E MSD | Analysis Batch: | 280-218254 | Instrument ID: | MT_025 |
| Client Matrix: | Water | Prep Batch: | 280-217851 | Lab File ID: | 25A1032414.asc |
| Dilution: | 1.0 | Leach Batch: | N/A | Initial Weight/Volume: | 50 mL |
| Analysis Date: | 03/24/2014 2126 | | | Final Weight/Volume: | 50 mL |
| Prep Date: | 03/24/2014 0730 | | | | |
| Leach Date: | N/A | | | | |

| | % Rec. | | | | | | |
|---|---|---|---|---|---|---|---|
| Analyte | MS | MSD | Limit | RPD | RPD Limit | MS Qual | MSD Qual |
| Barium | 101 | 102 | 85 - 120 | 0 | 20 | | |
| Chromium | 100 | 100 | 73 - 135 | 0 | 20 | | |
| Cobalt | 99 | 99 | 82 - 119 | 0 | 20 | | |
| Calcium | 99 | 100 | 48 - 153 | 1 | 20 | | |
| Copper | 103 | 104 | 82 - 129 | 1 | 20 | | |
| Lead | 102 | 102 | 89 - 121 | 0 | 20 | | |
| Nickel | 100 | 101 | 84 - 120 | 0 | 20 | | |
| Iron | 117 | 120 | 52 - 155 | 1 | 20 | | |
| Zinc | 99 | 99 | 60 - 137 | 0 | 20 | | |
| Vanadium | 101 | 102 | 85 - 120 | 0 | 20 | | |
| Magnesium | 102 | 102 | 62 - 146 | 0 | 20 | | |
| Manganese | 100 | 101 | 79 - 121 | 1 | 20 | | |
| Selenium | 102 | 102 | 71 - 140 | 0 | 20 | | |
| Silver | 104 | 105 | 75 - 141 | 1 | 20 | | |
| Potassium | 102 | 103 | 76 - 132 | 0 | 20 | | |
| Sodium | 108 | 109 | 70 - 203 | 0 | 20 | | |

Client: Waste Management

Job Number: 280-53261-1

**Matrix Spike/**
**Matrix Spike Duplicate Recovery Report - Batch: 280-217851**

**Method: 6010C**
**Preparation: 3005A**
**Total Recoverable**

| | | | | | |
|---|---|---|---|---|---|
| MS Lab Sample ID: | 280-53291-A-2-D MS | Units: | ug/L | MSD Lab Sample ID: | 280-53291-A-2-E MSD |
| Client Matrix: | Water | | | Client Matrix: | Water |
| Dilution: | 1.0 | | | Dilution: | 1.0 |
| Analysis Date: | 03/24/2014 2124 | | | Analysis Date: | 03/24/2014 2126 |
| Prep Date: | 03/24/2014 0730 | | | Prep Date: | 03/24/2014 0730 |
| Leach Date: | N/A | | | Leach Date: | N/A |

| Analyte | Sample Result/Qual | | MS Spike Amount | MSD Spike Amount | MS Result/Qual | MSD Result/Qual |
|---|---|---|---|---|---|---|
| Barium | 31 | J | 2000 | 2000 | 2060 | 2060 |
| Chromium | 3.0 | J | 200 | 200 | 204 | 204 |
| Cobalt | ND | | 500 | 500 | 495 | 496 |
| Calcium | 5900 | | 50000 | 50000 | 55500 | 55900 |
| Copper | 2.3 | J | 250 | 250 | 259 | 262 |
| Lead | ND | | 500 | 500 | 508 | 508 |
| Nickel | 1.3 | J | 500 | 500 | 502 | 504 |
| Iron | 2500 | | 1000 | 1000 | 3690 | 3720 |
| Zinc | 6.4 | J | 500 | 500 | 501 | 501 |
| Vanadium | 7.4 | J | 500 | 500 | 513 | 515 |
| Magnesium | 2700 | | 50000 | 50000 | 53700 | 53800 |
| Manganese | 71 | | 500 | 500 | 571 | 574 |
| Selenium | ND | | 2000 | 2000 | 2030 | 2040 |
| Silver | ND | | 50.0 | 50.0 | 52.2 | 52.7 |
| Potassium | 1600 | J | 50000 | 50000 | 52700 | 52900 |
| Sodium | 3600 | J | 50000 | 50000 | 57900 | 58000 |

Client: Waste Management

Job Number: 280-53261-1

**Method Blank - Batch: 280-217853**

**Method: 6020A**
**Preparation: 3005A**
**Total Recoverable**

| | | | | | |
|---|---|---|---|---|---|
| Lab Sample ID: | MB 280-217853/1-A | Analysis Batch: | 280-218229 | Instrument ID: | MT_024 |
| Client Matrix: | Water | Prep Batch: | 280-217853 | Lab File ID: | 075_BLK.D |
| Dilution: | 1.0 | Leach Batch: | N/A | Initial Weight/Volume: | 50 mL |
| Analysis Date: | 03/25/2014 0114 | Units: | ug/L | Final Weight/Volume: | 50 mL |
| Prep Date: | 03/24/2014 0730 | | | | |
| Leach Date: | N/A | | | | |

| Analyte | Result | Qual | MDL | RL |
|---|---|---|---|---|
| Antimony | ND | | 0.40 | 2.0 |
| Arsenic | ND | | 0.33 | 5.0 |
| Beryllium | ND | | 0.080 | 1.0 |
| Cadmium | ND | | 0.10 | 1.0 |
| Thallium | ND | | 0.050 | 1.0 |

**Lab Control Sample - Batch: 280-217853**

**Method: 6020A**
**Preparation: 3005A**
**Total Recoverable**

| | | | | | |
|---|---|---|---|---|---|
| Lab Sample ID: | LCS 280-217853/2-A | Analysis Batch: | 280-218229 | Instrument ID: | MT_024 |
| Client Matrix: | Water | Prep Batch: | 280-217853 | Lab File ID: | 076_LCS.D |
| Dilution: | 1.0 | Leach Batch: | N/A | Initial Weight/Volume: | 50 mL |
| Analysis Date: | 03/25/2014 0117 | Units: | ug/L | Final Weight/Volume: | 50 mL |
| Prep Date: | 03/24/2014 0730 | | | | |
| Leach Date: | N/A | | | | |

| Analyte | Spike Amount | Result | % Rec. | Limit | Qual |
|---|---|---|---|---|---|
| Antimony | 40.0 | 39.7 | 99 | 85 - 115 | |
| Arsenic | 40.0 | 41.1 | 103 | 85 - 117 | |
| Beryllium | 40.0 | 40.2 | 101 | 80 - 125 | |
| Cadmium | 40.0 | 40.4 | 101 | 85 - 115 | |
| Thallium | 40.0 | 41.2 | 103 | 85 - 118 | |

Client: Waste Management

Job Number: 280-53261-1

**Matrix Spike/**
**Matrix Spike Duplicate Recovery Report - Batch: 280-217853**

**Method: 6020A**
**Preparation: 3005A**
**Total Recoverable**

| | | | | | |
|---|---|---|---|---|---|
| MS Lab Sample ID: | 280-53291-A-1-C MS | Analysis Batch: | 280-218229 | Instrument ID: | MT_024 |
| Client Matrix: | Water | Prep Batch: | 280-217853 | Lab File ID: | 080_MS.D |
| Dilution: | 1.0 | Leach Batch: | N/A | Initial Weight/Volume: | 50 mL |
| Analysis Date: | 03/25/2014 0129 | | | Final Weight/Volume: | 50 mL |
| Prep Date: | 03/24/2014 0730 | | | | |
| Leach Date: | N/A | | | | |

| | | | | | |
|---|---|---|---|---|---|
| MSD Lab Sample ID: | 280-53291-A-1-D MSD | Analysis Batch: | 280-218229 | Instrument ID: | MT_024 |
| Client Matrix: | Water | Prep Batch: | 280-217853 | Lab File ID: | 084_MSD.D |
| Dilution: | 1.0 | Leach Batch: | N/A | Initial Weight/Volume: | 50 mL |
| Analysis Date: | 03/25/2014 0141 | | | Final Weight/Volume: | 50 mL |
| Prep Date: | 03/24/2014 0730 | | | | |
| Leach Date: | N/A | | | | |

| Analyte | % Rec. MS | % Rec. MSD | Limit | RPD | RPD Limit | MS Qual | MSD Qual |
|---|---|---|---|---|---|---|---|
| Antimony | 90 | 92 | 85 - 115 | 2 | 20 | | |
| Arsenic | 97 | 102 | 85 - 117 | 4 | 20 | | |
| Beryllium | 101 | 104 | 80 - 125 | 3 | 20 | | |
| Cadmium | 100 | 103 | 85 - 115 | 3 | 20 | | |
| Thallium | 101 | 104 | 85 - 118 | 3 | 20 | | |

**Matrix Spike/**
**Matrix Spike Duplicate Recovery Report - Batch: 280-217853**

**Method: 6020A**
**Preparation: 3005A**
**Total Recoverable**

| | | | |
|---|---|---|---|
| MS Lab Sample ID: | 280-53291-A-1-C MS | Units: | ug/L |
| Client Matrix: | Water | | |
| Dilution: | 1.0 | | |
| Analysis Date: | 03/25/2014 0129 | | |
| Prep Date: | 03/24/2014 0730 | | |
| Leach Date: | N/A | | |

| | |
|---|---|
| MSD Lab Sample ID: | 280-53291-A-1-D MSD |
| Client Matrix: | Water |
| Dilution: | 1.0 |
| Analysis Date: | 03/25/2014 0141 |
| Prep Date: | 03/24/2014 0730 |
| Leach Date: | N/A |

| Analyte | Sample Result/Qual | | MS Spike Amount | MSD Spike Amount | MS Result/Qual | MSD Result/Qual |
|---|---|---|---|---|---|---|
| Antimony | ND | | 40.0 | 40.0 | 36.1 | 36.8 |
| Arsenic | ND | | 40.0 | 40.0 | 38.9 | 40.6 |
| Beryllium | 0.085 | J | 40.0 | 40.0 | 40.4 | 41.5 |
| Cadmium | ND | | 40.0 | 40.0 | 39.9 | 41.2 |
| Thallium | ND | | 40.0 | 40.0 | 40.4 | 41.6 |

Client: Waste Management

Job Number: 280-53261-1

**Method Blank - Batch: 280-218503**

**Method: 7470A**
**Preparation: 7470A**

| | | | | | |
|---|---|---|---|---|---|
| Lab Sample ID: | MB 280-218503/1-A | Analysis Batch: | 280-218876 | Instrument ID: | MT_034 |
| Client Matrix: | Water | Prep Batch: | 280-218503 | Lab File ID: | 140327taa.txt |
| Dilution: | 1.0 | Leach Batch: | N/A | Initial Weight/Volume: | 30 mL |
| Analysis Date: | 03/27/2014 1855 | Units: | ug/L | Final Weight/Volume: | 30 mL |
| Prep Date: | 03/27/2014 1145 | | | | |
| Leach Date: | N/A | | | | |

| Analyte | Result | Qual | MDL | RL |
|---|---|---|---|---|
| Mercury | ND | | 0.027 | 0.20 |

**Lab Control Sample - Batch: 280-218503**

**Method: 7470A**
**Preparation: 7470A**

| | | | | | |
|---|---|---|---|---|---|
| Lab Sample ID: | LCS 280-218503/2-A | Analysis Batch: | 280-218876 | Instrument ID: | MT_034 |
| Client Matrix: | Water | Prep Batch: | 280-218503 | Lab File ID: | 140327taa.txt |
| Dilution: | 1.0 | Leach Batch: | N/A | Initial Weight/Volume: | 30 mL |
| Analysis Date: | 03/27/2014 1858 | Units: | ug/L | Final Weight/Volume: | 30 mL |
| Prep Date: | 03/27/2014 1145 | | | | |
| Leach Date: | N/A | | | | |

| Analyte | Spike Amount | Result | % Rec. | Limit | Qual |
|---|---|---|---|---|---|
| Mercury | 5.00 | 4.98 | 100 | 84 - 120 | |

**Matrix Spike/**
**Matrix Spike Duplicate Recovery Report - Batch: 280-218503**

**Method: 7470A**
**Preparation: 7470A**

| | | | | | |
|---|---|---|---|---|---|
| MS Lab Sample ID: | 280-53261-1 | Analysis Batch: | 280-218876 | Instrument ID: | MT_034 |
| Client Matrix: | Water | Prep Batch: | 280-218503 | Lab File ID: | 140327taa.txt |
| Dilution: | 1.0 | Leach Batch: | N/A | Initial Weight/Volume: | 30 mL |
| Analysis Date: | 03/27/2014 1916 | | | Final Weight/Volume: | 30 mL |
| Prep Date: | 03/27/2014 1145 | | | | |
| Leach Date: | N/A | | | | |

| | | | | | |
|---|---|---|---|---|---|
| MSD Lab Sample ID: | 280-53261-1 | Analysis Batch: | 280-218876 | Instrument ID: | MT_034 |
| Client Matrix: | Water | Prep Batch: | 280-218503 | Lab File ID: | 140327taa.txt |
| Dilution: | 1.0 | Leach Batch: | N/A | Initial Weight/Volume: | 30 mL |
| Analysis Date: | 03/27/2014 1918 | | | Final Weight/Volume: | 30 mL |
| Prep Date: | 03/27/2014 1145 | | | | |
| Leach Date: | N/A | | | | |

| | % Rec. | | | | | | |
|---|---|---|---|---|---|---|---|
| Analyte | MS | MSD | Limit | RPD | RPD Limit | MS Qual | MSD Qual |
| Mercury | 48 | 53 | 75 - 125 | 10 | 20 | F1 | F1 |

Client: Waste Management

Job Number: 280-53261-1

**Matrix Spike/**
**Matrix Spike Duplicate Recovery Report - Batch: 280-218503**

**Method: 7470A**
**Preparation: 7470A**

| | | | | | |
|---|---|---|---|---|---|
| MS Lab Sample ID: | 280-53261-1 | Units: | ug/L | MSD Lab Sample ID: | 280-53261-1 |
| Client Matrix: | Water | | | Client Matrix: | Water |
| Dilution: | 1.0 | | | Dilution: | 1.0 |
| Analysis Date: | 03/27/2014 1916 | | | Analysis Date: | 03/27/2014 1918 |
| Prep Date: | 03/27/2014 1145 | | | Prep Date: | 03/27/2014 1145 |
| Leach Date: | N/A | | | Leach Date: | N/A |

| Analyte | Sample Result/Qual | MS Spike Amount | MSD Spike Amount | MS Result/Qual | | MSD Result/Qual | |
|---|---|---|---|---|---|---|---|
| Mercury | ND | 5.00 | 5.00 | 2.41 | F1 | 2.65 | F1 |

Client: Waste Management

Job Number: 280-53261-1

**Method Blank - Batch: 280-219022**

**Method: 300.0**
**Preparation: N/A**

| | | | | | |
|---|---|---|---|---|---|
| Lab Sample ID: | MB 280-219022/14 | Analysis Batch: | 280-219022 | Instrument ID: | WC_IonChrom6 |
| Client Matrix: | Water | Prep Batch: | N/A | Lab File ID: | 13.0000.d |
| Dilution: | 1.0 | Leach Batch: | N/A | Initial Weight/Volume: | 5 mL |
| Analysis Date: | 03/31/2014 1111 | Units: | mg/L | Final Weight/Volume: | 5 mL |
| Prep Date: | N/A | | | | |
| Leach Date: | N/A | | | | |

| Analyte | Result | Qual | MDL | RL |
|---|---|---|---|---|
| Chloride | ND | | 0.25 | 0.30 |
| Sulfate | ND | | 0.23 | 5.0 |

**Method Reporting Limit Check - Batch: 280-219022**

**Method: 300.0**
**Preparation: N/A**

| | | | | | |
|---|---|---|---|---|---|
| Lab Sample ID: | MRL 280-219022/10 | Analysis Batch: | 280-219022 | Instrument ID: | WC_IonChrom6 |
| Client Matrix: | Water | Prep Batch: | N/A | Lab File ID: | 10.0000.d |
| Dilution: | 1.0 | Leach Batch: | N/A | Initial Weight/Volume: | 5 mL |
| Analysis Date: | 03/31/2014 1019 | Units: | mg/L | Final Weight/Volume: | 5 mL |
| Prep Date: | N/A | | | | |
| Leach Date: | N/A | | | | |

| Analyte | Spike Amount | Result | % Rec. | Limit | Qual |
|---|---|---|---|---|---|
| Chloride | 1.00 | 1.15 | 115 | 50 - 150 | J |
| Sulfate | 1.00 | 1.01 | 101 | 50 - 150 | J |

**Lab Control Sample/**
**Lab Control Sample Duplicate Recovery Report - Batch: 280-219022**

**Method: 300.0**
**Preparation: N/A**

| | | | | | |
|---|---|---|---|---|---|
| LCS Lab Sample ID: | LCS 280-219022/12 | Analysis Batch: | 280-219022 | Instrument ID: | WC_IonChrom6 |
| Client Matrix: | Water | Prep Batch: | N/A | Lab File ID: | 11.0000.d |
| Dilution: | 1.0 | Leach Batch: | N/A | Initial Weight/Volume: | 5 mL |
| Analysis Date: | 03/31/2014 1036 | Units: | mg/L | Final Weight/Volume: | 5 mL |
| Prep Date: | N/A | | | | 1 uL |
| Leach Date: | N/A | | | | |

| | | | | | |
|---|---|---|---|---|---|
| LCSD Lab Sample ID: | LCSD 280-219022/13 | Analysis Batch: | 280-219022 | Instrument ID: | WC_IonChrom6 |
| Client Matrix: | Water | Prep Batch: | N/A | Lab File ID: | 12.0000.d |
| Dilution: | 1.0 | Leach Batch: | N/A | Initial Weight/Volume: | 5 mL |
| Analysis Date: | 03/31/2014 1053 | Units: | mg/L | Final Weight/Volume: | 5 mL |
| Prep Date: | N/A | | | | 1 uL |
| Leach Date: | N/A | | | | |

| | % Rec. | | | | | | |
|---|---|---|---|---|---|---|---|
| Analyte | LCS | LCSD | Limit | RPD | RPD Limit | LCS Qual | LCSD Qual |
| Chloride | 102 | 102 | 90 - 110 | 0 | 10 | | |
| Sulfate | 105 | 104 | 90 - 110 | 1 | 10 | | |

Client: Waste Management

Job Number: 280-53261-1

**Laboratory Control/**
**Laboratory Duplicate Data Report - Batch: 280-219022**

**Method: 300.0**
**Preparation: N/A**

| | | | | | |
|---|---|---|---|---|---|
| LCS Lab Sample ID: | LCS 280-219022/12 | Units: | mg/L | LCSD Lab Sample ID: | LCSD 280-219022/13 |
| Client Matrix: | Water | | | Client Matrix: | Water |
| Dilution: | 1.0 | | | Dilution: | 1.0 |
| Analysis Date: | 03/31/2014 1036 | | | Analysis Date: | 03/31/2014 1053 |
| Prep Date: | N/A | | | Prep Date: | N/A |
| Leach Date: | N/A | | | Leach Date: | N/A |

| Analyte | LCS Spike Amount | LCSD Spike Amount | LCS Result/Qual | LCSD Result/Qual |
|---|---|---|---|---|
| Chloride | 25.0 | 25.0 | 25.6 | 25.5 |
| Sulfate | 25.0 | 25.0 | 26.3 | 25.9 |

Client: Waste Management

Job Number: 280-53261-1

**Matrix Spike/**
**Matrix Spike Duplicate Recovery Report - Batch: 280-219022**

**Method: 300.0**
**Preparation: N/A**

| | | | | | |
|---|---|---|---|---|---|
| MS Lab Sample ID: | 280-53264-A-3 MS | Analysis Batch: | 280-219022 | Instrument ID: | WC_IonChrom6 |
| Client Matrix: | Water | Prep Batch: | N/A | Lab File ID: | 19.0000.d |
| Dilution: | 100 | Leach Batch: | N/A | Initial Weight/Volume: | 5 mL |
| Analysis Date: | 03/31/2014 1318 | | | Final Weight/Volume: | 5 mL |
| Prep Date: | N/A | | | | 1 uL |
| Leach Date: | N/A | | | | |

| | | | | | |
|---|---|---|---|---|---|
| MSD Lab Sample ID: | 280-53264-A-3 MSD | Analysis Batch: | 280-219022 | Instrument ID: | WC_IonChrom6 |
| Client Matrix: | Water | Prep Batch: | N/A | Lab File ID: | 20.0000.d |
| Dilution: | 100 | Leach Batch: | N/A | Initial Weight/Volume: | 5 mL |
| Analysis Date: | 03/31/2014 1335 | | | Final Weight/Volume: | 5 mL |
| Prep Date: | N/A | | | | 1 uL |
| Leach Date: | N/A | | | | |

| Analyte | % Rec. MS | % Rec. MSD | Limit | RPD | RPD Limit | MS Qual | MSD Qual |
|---|---|---|---|---|---|---|---|
| Chloride | 103 | 103 | 80 - 120 | 1 | 20 | | |
| Sulfate | 94 | 94 | 80 - 120 | 0 | 20 | | |

**Matrix Spike/**
**Matrix Spike Duplicate Recovery Report - Batch: 280-219022**

**Method: 300.0**
**Preparation: N/A**

| | | | | | |
|---|---|---|---|---|---|
| MS Lab Sample ID: | 280-53210-A-1 MS | Analysis Batch: | 280-219022 | Instrument ID: | WC_IonChrom6 |
| Client Matrix: | Water | Prep Batch: | N/A | Lab File ID: | 27.0000.d |
| Dilution: | 20 | Leach Batch: | N/A | Initial Weight/Volume: | 5 mL |
| Analysis Date: | 03/31/2014 1923 | | | Final Weight/Volume: | 5 mL |
| Prep Date: | N/A | | | | 1 uL |
| Leach Date: | N/A | | | | |

| | | | | | |
|---|---|---|---|---|---|
| MSD Lab Sample ID: | 280-53210-A-1 MSD | Analysis Batch: | 280-219022 | Instrument ID: | WC_IonChrom6 |
| Client Matrix: | Water | Prep Batch: | N/A | Lab File ID: | 28.0000.d |
| Dilution: | 20 | Leach Batch: | N/A | Initial Weight/Volume: | 5 mL |
| Analysis Date: | 03/31/2014 1940 | | | Final Weight/Volume: | 5 mL |
| Prep Date: | N/A | | | | 1 uL |
| Leach Date: | N/A | | | | |

| Analyte | % Rec. MS | % Rec. MSD | Limit | RPD | RPD Limit | MS Qual | MSD Qual |
|---|---|---|---|---|---|---|---|
| Chloride | 98 | 99 | 80 - 120 | 0 | 20 | E | E |
| Sulfate | 108 | 108 | 80 - 120 | 0 | 20 | | |

Client: Waste Management

Job Number: 280-53261-1

**Matrix Spike/**
**Matrix Spike Duplicate Recovery Report - Batch: 280-219022**

**Method: 300.0**
**Preparation: N/A**

| | | | | | |
|---|---|---|---|---|---|
| MS Lab Sample ID: | 280-53264-A-3 MS | Units: mg/L | | MSD Lab Sample ID: | 280-53264-A-3 MSD |
| Client Matrix: | Water | | | Client Matrix: | Water |
| Dilution: | 100 | | | Dilution: | 100 |
| Analysis Date: | 03/31/2014 1318 | | | Analysis Date: | 03/31/2014 1335 |
| Prep Date: | N/A | | | Prep Date: | N/A |
| Leach Date: | N/A | | | Leach Date: | N/A |

| Analyte | Sample Result/Qual | MS Spike Amount | MSD Spike Amount | MS Result/Qual | MSD Result/Qual |
|---|---|---|---|---|---|
| Chloride | ND | 2500 | 2500 | 2590 | 2570 |
| Sulfate | 1500 | 2500 | 2500 | 3810 | 3820 |

**Matrix Spike/**
**Matrix Spike Duplicate Recovery Report - Batch: 280-219022**

**Method: 300.0**
**Preparation: N/A**

| | | | | | |
|---|---|---|---|---|---|
| MS Lab Sample ID: | 280-53210-A-1 MS | Units: mg/L | | MSD Lab Sample ID: | 280-53210-A-1 MSD |
| Client Matrix: | Water | | | Client Matrix: | Water |
| Dilution: | 20 | | | Dilution: | 20 |
| Analysis Date: | 03/31/2014 1923 | | | Analysis Date: | 03/31/2014 1940 |
| Prep Date: | N/A | | | Prep Date: | N/A |
| Leach Date: | N/A | | | Leach Date: | N/A |

| Analyte | Sample Result/Qual | MS Spike Amount | MSD Spike Amount | MS Result/Qual | MSD Result/Qual |
|---|---|---|---|---|---|
| Chloride | 800 | 500 | 500 | 1290 E | 1290 E |
| Sulfate | 120 | 500 | 500 | 663 | 664 |

Client: Waste Management

Job Number: 280-53261-1

**Duplicate - Batch: 280-219022**

**Method: 300.0**
**Preparation: N/A**

| | | | | | |
|---|---|---|---|---|---|
| Lab Sample ID: | 280-53264-A-3 DU | Analysis Batch: | 280-219022 | Instrument ID: | WC_IonChrom6 |
| Client Matrix: | Water | Prep Batch: | N/A | Lab File ID: | 18.0000.d |
| Dilution: | 100 | Leach Batch: | N/A | Initial Weight/Volume: | 5 mL |
| Analysis Date: | 03/31/2014 1301 | Units: | mg/L | Final Weight/Volume: | 5 mL |
| Prep Date: | N/A | | | | 1 uL |
| Leach Date: | N/A | | | | |

| Analyte | Sample Result/Qual | Result | RPD | Limit | Qual |
|---|---|---|---|---|---|
| Chloride | ND | ND | NC | 15 | |
| Sulfate | 1500 | 1350 | 8 | 15 | |

**Duplicate - Batch: 280-219022**

**Method: 300.0**
**Preparation: N/A**

| | | | | | |
|---|---|---|---|---|---|
| Lab Sample ID: | 280-53210-A-1 DU | Analysis Batch: | 280-219022 | Instrument ID: | WC_IonChrom6 |
| Client Matrix: | Water | Prep Batch: | N/A | Lab File ID: | 26.0000.d |
| Dilution: | 20 | Leach Batch: | N/A | Initial Weight/Volume: | 5 mL |
| Analysis Date: | 03/31/2014 1906 | Units: | mg/L | Final Weight/Volume: | 5 mL |
| Prep Date: | N/A | | | | 1 uL |
| Leach Date: | N/A | | | | |

| Analyte | Sample Result/Qual | Result | RPD | Limit | Qual |
|---|---|---|---|---|---|
| Chloride | 800 | 795 | 0.6 | 15 | |
| Sulfate | 120 | 129 | 5 | 15 | |

Client: Waste Management

Job Number: 280-53261-1

**Method Blank - Batch: 280-218597**

**Method: 350.1**
**Preparation: N/A**

| | | | | | |
|---|---|---|---|---|---|
| Lab Sample ID: | MB 280-218597/21 | Analysis Batch: | 280-218597 | Instrument ID: | WC_Alp 3 |
| Client Matrix: | Water | Prep Batch: | N/A | Lab File ID: | E:\FLOW_4\032614B.RST |
| Dilution: | 1.0 | Leach Batch: | N/A | Initial Weight/Volume: | 10 mL |
| Analysis Date: | 03/26/2014 1330 | Units: | mg/L | Final Weight/Volume: | 10 mL |
| Prep Date: | N/A | | | | |
| Leach Date: | N/A | | | | |

| Analyte | Result | Qual | MDL | RL |
|---|---|---|---|---|
| Ammonia | ND | | 0.022 | 0.040 |

**Lab Control Sample/**
**Lab Control Sample Duplicate Recovery Report - Batch: 280-218597**

**Method: 350.1**
**Preparation: N/A**

| | | | | | |
|---|---|---|---|---|---|
| LCS Lab Sample ID: | LCS 280-218597/19 | Analysis Batch: | 280-218597 | Instrument ID: | WC_Alp 3 |
| Client Matrix: | Water | Prep Batch: | N/A | Lab File ID: | E:\FLOW_4\032614B.RST |
| Dilution: | 1.0 | Leach Batch: | N/A | Initial Weight/Volume: | 100 mL |
| Analysis Date: | 03/26/2014 1326 | Units: | mg/L | Final Weight/Volume: | 100 mL |
| Prep Date: | N/A | | | | |
| Leach Date: | N/A | | | | |

| | | | | | |
|---|---|---|---|---|---|
| LCSD Lab Sample ID: | LCSD 280-218597/20 | Analysis Batch: | 280-218597 | Instrument ID: | WC_Alp 3 |
| Client Matrix: | Water | Prep Batch: | N/A | Lab File ID: | E:\FLOW_4\032614B.RST |
| Dilution: | 1.0 | Leach Batch: | N/A | Initial Weight/Volume: | 100 mL |
| Analysis Date: | 03/26/2014 1328 | Units: | mg/L | Final Weight/Volume: | 100 mL |
| Prep Date: | N/A | | | | |
| Leach Date: | N/A | | | | |

| | % Rec. | | | | | | |
|---|---|---|---|---|---|---|---|
| Analyte | LCS | LCSD | Limit | RPD | RPD Limit | LCS Qual | LCSD Qual |
| Ammonia | 104 | 104 | 90 - 110 | 0 | 10 | | |

**Laboratory Control/**
**Laboratory Duplicate Data Report - Batch: 280-218597**

**Method: 350.1**
**Preparation: N/A**

| | | | | | |
|---|---|---|---|---|---|
| LCS Lab Sample ID: | LCS 280-218597/19 | Units: | mg/L | LCSD Lab Sample ID: | LCSD 280-218597/20 |
| Client Matrix: | Water | | | Client Matrix: | Water |
| Dilution: | 1.0 | | | Dilution: | 1.0 |
| Analysis Date: | 03/26/2014 1326 | | | Analysis Date: | 03/26/2014 1328 |
| Prep Date: | N/A | | | Prep Date: | N/A |
| Leach Date: | N/A | | | Leach Date: | N/A |

| Analyte | LCS Spike Amount | LCSD Spike Amount | LCS Result/Qual | LCSD Result/Qual |
|---|---|---|---|---|
| Ammonia | 2.50 | 2.50 | 2.60 | 2.59 |

Client: Waste Management

Job Number: 280-53261-1

**Matrix Spike/**
**Matrix Spike Duplicate Recovery Report - Batch: 280-218597**

**Method: 350.1**
**Preparation: N/A**

| | | | | | |
|---|---|---|---|---|---|
| MS Lab Sample ID: | 280-53203-E-3 MS | Analysis Batch: | 280-218597 | Instrument ID: | WC_Alp 3 |
| Client Matrix: | Water | Prep Batch: | N/A | Lab File ID: | E:\FLOW_4\032614B.RST |
| Dilution: | 1.0 | Leach Batch: | N/A | Initial Weight/Volume: | 10 mL |
| Analysis Date: | 03/26/2014 1413 | | | Final Weight/Volume: | 10 mL |
| Prep Date: | N/A | | | | |
| Leach Date: | N/A | | | | |

| | | | | | |
|---|---|---|---|---|---|
| MSD Lab Sample ID: | 280-53203-E-3 MSD | Analysis Batch: | 280-218597 | Instrument ID: | WC_Alp 3 |
| Client Matrix: | Water | Prep Batch: | N/A | Lab File ID: | E:\FLOW_4\032614B.RST |
| Dilution: | 1.0 | Leach Batch: | N/A | Initial Weight/Volume: | 10 mL |
| Analysis Date: | 03/26/2014 1415 | | | Final Weight/Volume: | 10 mL |
| Prep Date: | N/A | | | | |
| Leach Date: | N/A | | | | |

| | % Rec. | | | | | | |
|---|---|---|---|---|---|---|---|
| Analyte | MS | MSD | Limit | RPD | RPD Limit | MS Qual | MSD Qual |
| Ammonia | 107 | 108 | 90 - 110 | 0 | 10 | | |

**Matrix Spike/**
**Matrix Spike Duplicate Recovery Report - Batch: 280-218597**

**Method: 350.1**
**Preparation: N/A**

| | | | | | |
|---|---|---|---|---|---|
| MS Lab Sample ID: | 280-53203-E-3 MS | Units: | mg/L | MSD Lab Sample ID: | 280-53203-E-3 MSD |
| Client Matrix: | Water | | | Client Matrix: | Water |
| Dilution: | 1.0 | | | Dilution: | 1.0 |
| Analysis Date: | 03/26/2014 1413 | | | Analysis Date: | 03/26/2014 1415 |
| Prep Date: | N/A | | | Prep Date: | N/A |
| Leach Date: | N/A | | | Leach Date: | N/A |

| Analyte | Sample Result/Qual | | MS Spike Amount | MSD Spike Amount | MS Result/Qual | MSD Result/Qual |
|---|---|---|---|---|---|---|
| Ammonia | 0.037 | J | 1.00 | 1.00 | 1.11 | 1.11 |

Client: Waste Management

Job Number: 280-53261-1

**Method Blank - Batch: 280-218235**

**Method: 365.1**
**Preparation: 365.2/365.3/365**

| | | | | | |
|---|---|---|---|---|---|
| Lab Sample ID: | MB 280-218235/5-A | Analysis Batch: | 280-218460 | Instrument ID: | WC_Konelab |
| Client Matrix: | Water | Prep Batch: | 280-218235 | Lab File ID: | 032614TPHOS.xls |
| Dilution: | 1.0 | Leach Batch: | N/A | Initial Weight/Volume: | 50 mL |
| Analysis Date: | 03/26/2014 1138 | Units: | mg/L | Final Weight/Volume: | 50 mL |
| Prep Date: | 03/25/2014 0935 | | | | |
| Leach Date: | N/A | | | | |

| Analyte | Result | Qual | MDL | RL |
|---|---|---|---|---|
| Phosphorus, Total | ND | | 0.0050 | 0.050 |

**Lab Control Sample/**
**Lab Control Sample Duplicate Recovery Report - Batch: 280-218235**

**Method: 365.1**
**Preparation: 365.2/365.3/365**

| | | | | | |
|---|---|---|---|---|---|
| LCS Lab Sample ID: | LCS 280-218235/3-A | Analysis Batch: | 280-218460 | Instrument ID: | WC_Konelab |
| Client Matrix: | Water | Prep Batch: | 280-218235 | Lab File ID: | 032614TPHOS.xls |
| Dilution: | 1.0 | Leach Batch: | N/A | Initial Weight/Volume: | 50 mL |
| Analysis Date: | 03/26/2014 1138 | Units: | mg/L | Final Weight/Volume: | 50 mL |
| Prep Date: | 03/25/2014 0935 | | | | |
| Leach Date: | N/A | | | | |

| | | | | | |
|---|---|---|---|---|---|
| LCSD Lab Sample ID: | LCSD 280-218235/4-A | Analysis Batch: | 280-218460 | Instrument ID: | WC_Konelab |
| Client Matrix: | Water | Prep Batch: | 280-218235 | Lab File ID: | 032614TPHOS.xls |
| Dilution: | 1.0 | Leach Batch: | N/A | Initial Weight/Volume: | 50 mL |
| Analysis Date: | 03/26/2014 1138 | Units: | mg/L | Final Weight/Volume: | 50 mL |
| Prep Date: | 03/25/2014 0935 | | | | |
| Leach Date: | N/A | | | | |

| | % Rec. | | | | | | |
|---|---|---|---|---|---|---|---|
| Analyte | LCS | LCSD | Limit | RPD | RPD Limit | LCS Qual | LCSD Qual |
| Phosphorus, Total | 101 | 105 | 90 - 110 | 4 | 10 | | |

**Laboratory Control/**
**Laboratory Duplicate Data Report - Batch: 280-218235**

**Method: 365.1**
**Preparation: 365.2/365.3/365**

| | | | |
|---|---|---|---|
| LCS Lab Sample ID: | LCS 280-218235/3-A | Units: | mg/L |
| Client Matrix: | Water | | |
| Dilution: | 1.0 | | |
| Analysis Date: | 03/26/2014 1138 | | |
| Prep Date: | 03/25/2014 0935 | | |
| Leach Date: | N/A | | |

| | |
|---|---|
| LCSD Lab Sample ID: | LCSD 280-218235/4-A |
| Client Matrix: | Water |
| Dilution: | 1.0 |
| Analysis Date: | 03/26/2014 1138 |
| Prep Date: | 03/25/2014 0935 |
| Leach Date: | N/A |

| Analyte | LCS Spike Amount | LCSD Spike Amount | LCS Result/Qual | LCSD Result/Qual |
|---|---|---|---|---|
| Phosphorus, Total | 0.500 | 0.500 | 0.503 | 0.524 |

Client: Waste Management

Job Number: 280-53261-1

**Matrix Spike/**
**Matrix Spike Duplicate Recovery Report - Batch: 280-218235**

**Method: 365.1**
**Preparation: 365.2/365.3/365**

| | | | | | |
|---|---|---|---|---|---|
| MS Lab Sample ID: | 280-53299-E-7-B MS | Analysis Batch: | 280-218460 | Instrument ID: | WC_Konelab |
| Client Matrix: | Water | Prep Batch: | 280-218235 | Lab File ID: | 032614TPHOS.xls |
| Dilution: | 1.0 | Leach Batch: | N/A | Initial Weight/Volume: | 50 mL |
| Analysis Date: | 03/26/2014 1209 | | | Final Weight/Volume: | 50 mL |
| Prep Date: | 03/25/2014 0935 | | | | |
| Leach Date: | N/A | | | | |

| | | | | | |
|---|---|---|---|---|---|
| MSD Lab Sample ID: | 280-53299-E-7-C MSD | Analysis Batch: | 280-218460 | Instrument ID: | WC_Konelab |
| Client Matrix: | Water | Prep Batch: | 280-218235 | Lab File ID: | 032614TPHOS.xls |
| Dilution: | 1.0 | Leach Batch: | N/A | Initial Weight/Volume: | 50 mL |
| Analysis Date: | 03/26/2014 1209 | | | Final Weight/Volume: | 50 mL |
| Prep Date: | 03/25/2014 0935 | | | | |
| Leach Date: | N/A | | | | |

| | % Rec. | | | | | | |
|---|---|---|---|---|---|---|---|
| Analyte | MS | MSD | Limit | RPD | RPD Limit | MS Qual | MSD Qual |
| Phosphorus, Total | 103 | 104 | 90 - 110 | 1 | 10 | | |

**Matrix Spike/**
**Matrix Spike Duplicate Recovery Report - Batch: 280-218235**

**Method: 365.1**
**Preparation: 365.2/365.3/365**

| | | | |
|---|---|---|---|
| MS Lab Sample ID: | 280-53299-E-7-B MS | Units: | mg/L |
| Client Matrix: | Water | | |
| Dilution: | 1.0 | | |
| Analysis Date: | 03/26/2014 1209 | | |
| Prep Date: | 03/25/2014 0935 | | |
| Leach Date: | N/A | | |

| | |
|---|---|
| MSD Lab Sample ID: | 280-53299-E-7-C MSD |
| Client Matrix: | Water |
| Dilution: | 1.0 |
| Analysis Date: | 03/26/2014 1209 |
| Prep Date: | 03/25/2014 0935 |
| Leach Date: | N/A |

| Analyte | Sample Result/Qual | MS Spike Amount | MSD Spike Amount | MS Result/Qual | MSD Result/Qual |
|---|---|---|---|---|---|
| Phosphorus, Total | 0.050 | 0.500 | 0.500 | 0.564 | 0.567 |

Client: Waste Management

Job Number: 280-53261-1

**Method Blank - Batch: 280-217939**

**Method: 410.4**
**Preparation: N/A**

| | | | | | |
|---|---|---|---|---|---|
| Lab Sample ID: | MB 280-217939/5 | Analysis Batch: | 280-217939 | Instrument ID: | WC_HACH SPEC |
| Client Matrix: | Water | Prep Batch: | N/A | Lab File ID: | N/A |
| Dilution: | 1.0 | Leach Batch: | N/A | Initial Weight/Volume: | 2 mL |
| Analysis Date: | 03/22/2014 0905 | Units: | mg/L | Final Weight/Volume: | 2 mL |
| Prep Date: | N/A | | | | |
| Leach Date: | N/A | | | | |

| Analyte | Result | Qual | MDL | RL |
|---|---|---|---|---|
| Chemical Oxygen Demand | ND | | 4.1 | 50 |

**Lab Control Sample/**
**Lab Control Sample Duplicate Recovery Report - Batch: 280-217939**

**Method: 410.4**
**Preparation: N/A**

| | | | | | |
|---|---|---|---|---|---|
| LCS Lab Sample ID: | LCS 280-217939/3 | Analysis Batch: | 280-217939 | Instrument ID: | WC_HACH SPEC |
| Client Matrix: | Water | Prep Batch: | N/A | Lab File ID: | N/A |
| Dilution: | 1.0 | Leach Batch: | N/A | Initial Weight/Volume: | 100 mL |
| Analysis Date: | 03/22/2014 0905 | Units: | mg/L | Final Weight/Volume: | 100 mL |
| Prep Date: | N/A | | | | |
| Leach Date: | N/A | | | | |

| | | | | | |
|---|---|---|---|---|---|
| LCSD Lab Sample ID: | LCSD 280-217939/4 | Analysis Batch: | 280-217939 | Instrument ID: | WC_HACH SPEC |
| Client Matrix: | Water | Prep Batch: | N/A | Lab File ID: | N/A |
| Dilution: | 1.0 | Leach Batch: | N/A | Initial Weight/Volume: | 100 mL |
| Analysis Date: | 03/22/2014 0905 | Units: | mg/L | Final Weight/Volume: | 100 mL |
| Prep Date: | N/A | | | | |
| Leach Date: | N/A | | | | |

| | % Rec. | | | | | | |
|---|---|---|---|---|---|---|---|
| Analyte | LCS | LCSD | Limit | RPD | RPD Limit | LCS Qual | LCSD Qual |
| Chemical Oxygen Demand | 105 | 104 | 90 - 110 | 1 | 11 | | |

**Laboratory Control/**
**Laboratory Duplicate Data Report - Batch: 280-217939**

**Method: 410.4**
**Preparation: N/A**

| | | | | | |
|---|---|---|---|---|---|
| LCS Lab Sample ID: | LCS 280-217939/3 | Units: | mg/L | LCSD Lab Sample ID: | LCSD 280-217939/4 |
| Client Matrix: | Water | | | Client Matrix: | Water |
| Dilution: | 1.0 | | | Dilution: | 1.0 |
| Analysis Date: | 03/22/2014 0905 | | | Analysis Date: | 03/22/2014 0905 |
| Prep Date: | N/A | | | Prep Date: | N/A |
| Leach Date: | N/A | | | Leach Date: | N/A |

| Analyte | LCS Spike Amount | LCSD Spike Amount | LCS Result/Qual | LCSD Result/Qual |
|---|---|---|---|---|
| Chemical Oxygen Demand | 100 | 100 | 105 | 104 |

Client: Waste Management

Job Number: 280-53261-1

**Matrix Spike/**
**Matrix Spike Duplicate Recovery Report - Batch: 280-217939**

**Method: 410.4**
**Preparation: N/A**

| | | | | | |
|---|---|---|---|---|---|
| MS Lab Sample ID: | 280-53205-B-5 MS | Analysis Batch: | 280-217939 | Instrument ID: | WC_HACH SPEC |
| Client Matrix: | Water | Prep Batch: | N/A | Lab File ID: | N/A |
| Dilution: | 1.0 | Leach Batch: | N/A | Initial Weight/Volume: | 100 mL |
| Analysis Date: | 03/22/2014 0905 | | | Final Weight/Volume: | 100 mL |
| Prep Date: | N/A | | | | |
| Leach Date: | N/A | | | | |

| | | | | | |
|---|---|---|---|---|---|
| MSD Lab Sample ID: | 280-53205-B-5 MSD | Analysis Batch: | 280-217939 | Instrument ID: | WC_HACH SPEC |
| Client Matrix: | Water | Prep Batch: | N/A | Lab File ID: | N/A |
| Dilution: | 1.0 | Leach Batch: | N/A | Initial Weight/Volume: | 100 mL |
| Analysis Date: | 03/22/2014 0905 | | | Final Weight/Volume: | 100 mL |
| Prep Date: | N/A | | | | |
| Leach Date: | N/A | | | | |

| Analyte | % Rec. MS | % Rec. MSD | Limit | RPD | RPD Limit | MS Qual | MSD Qual |
|---|---|---|---|---|---|---|---|
| Chemical Oxygen Demand | 100 | 92 | 90 - 110 | 7 | 11 | | |

**Matrix Spike/**
**Matrix Spike Duplicate Recovery Report - Batch: 280-217939**

**Method: 410.4**
**Preparation: N/A**

| | | | |
|---|---|---|---|
| MS Lab Sample ID: | 280-53205-B-5 MS | Units: | mg/L |
| Client Matrix: | Water | | |
| Dilution: | 1.0 | | |
| Analysis Date: | 03/22/2014 0905 | | |
| Prep Date: | N/A | | |
| Leach Date: | N/A | | |

| | |
|---|---|
| MSD Lab Sample ID: | 280-53205-B-5 MSD |
| Client Matrix: | Water |
| Dilution: | 1.0 |
| Analysis Date: | 03/22/2014 0905 |
| Prep Date: | N/A |
| Leach Date: | N/A |

| Analyte | Sample Result/Qual | | MS Spike Amount | MSD Spike Amount | MS Result/Qual | MSD Result/Qual |
|---|---|---|---|---|---|---|
| Chemical Oxygen Demand | 8.2 | J | 50.0 | 50.0 | 58.3 | 54.3 |

Client: Waste Management

Job Number: 280-53261-1

**Method Blank - Batch: 280-219061**

**Method: Nitrate by calc**
**Preparation: N/A**

| | | | | | |
|---|---|---|---|---|---|
| Lab Sample ID: | MB 280-219061/1 | Analysis Batch: | 280-219061 | Instrument ID: | No Equipment Assigned |
| Client Matrix: | Water | Prep Batch: | N/A | Lab File ID: | N/A |
| Dilution: | 1.0 | Leach Batch: | N/A | Initial Weight/Volume: | |
| Analysis Date: | 03/30/2014 1614 | Units: | mg/L | Final Weight/Volume: | |
| Prep Date: | N/A | | | | |
| Leach Date: | N/A | | | | |

| Analyte | Result | Qual | MDL | RL |
|---|---|---|---|---|
| Nitrate as N | ND | | 0.019 | 0.50 |

Client: Waste Management

Job Number: 280-53261-1

**Method Blank - Batch: 280-219102**

**Method: SM 2320B**
**Preparation: N/A**

| | | | | | |
|---|---|---|---|---|---|
| Lab Sample ID: | MB 280-219102/6 | Analysis Batch: | 280-219102 | Instrument ID: | WC-AT3 |
| Client Matrix: | Water | Prep Batch: | N/A | Lab File ID: | 033114a.TXT |
| Dilution: | 1.0 | Leach Batch: | N/A | Initial Weight/Volume: | |
| Analysis Date: | 03/31/2014 1417 | Units: | mg/L | Final Weight/Volume: | |
| Prep Date: | N/A | | | | |
| Leach Date: | N/A | | | | |

| Analyte | Result | Qual | MDL | RL |
|---|---|---|---|---|
| Total Alkalinity | 6.01 | | 1.1 | 5.0 |
| Bicarbonate Alkalinity as CaCO3 | 6.01 | | 1.1 | 5.0 |
| Carbonate Alkalinity as CaCO3 | ND | | 1.1 | 5.0 |

**Lab Control Sample/**
**Lab Control Sample Duplicate Recovery Report - Batch: 280-219102**

**Method: SM 2320B**
**Preparation: N/A**

| | | | | | |
|---|---|---|---|---|---|
| LCS Lab Sample ID: | LCS 280-219102/4 | Analysis Batch: | 280-219102 | Instrument ID: | WC-AT3 |
| Client Matrix: | Water | Prep Batch: | N/A | Lab File ID: | 033114a.TXT |
| Dilution: | 1.0 | Leach Batch: | N/A | Initial Weight/Volume: | |
| Analysis Date: | 03/31/2014 1409 | Units: | mg/L | Final Weight/Volume: | |
| Prep Date: | N/A | | | | |
| Leach Date: | N/A | | | | |

| | | | | | |
|---|---|---|---|---|---|
| LCSD Lab Sample ID: | LCSD 280-219102/5 | Analysis Batch: | 280-219102 | Instrument ID: | WC-AT3 |
| Client Matrix: | Water | Prep Batch: | N/A | Lab File ID: | 033114a.TXT |
| Dilution: | 1.0 | Leach Batch: | N/A | Initial Weight/Volume: | |
| Analysis Date: | 03/31/2014 1414 | Units: | mg/L | Final Weight/Volume: | |
| Prep Date: | N/A | | | | |
| Leach Date: | N/A | | | | |

| | % Rec. | | | | | | |
|---|---|---|---|---|---|---|---|
| Analyte | LCS | LCSD | Limit | RPD | RPD Limit | LCS Qual | LCSD Qual |
| Total Alkalinity | 99 | 95 | 90 - 110 | 3 | 10 | | |

**Laboratory Control/**
**Laboratory Duplicate Data Report - Batch: 280-219102**

**Method: SM 2320B**
**Preparation: N/A**

| | | | | | |
|---|---|---|---|---|---|
| LCS Lab Sample ID: | LCS 280-219102/4 | Units: | mg/L | LCSD Lab Sample ID: | LCSD 280-219102/5 |
| Client Matrix: | Water | | | Client Matrix: | Water |
| Dilution: | 1.0 | | | Dilution: | 1.0 |
| Analysis Date: | 03/31/2014 1409 | | | Analysis Date: | 03/31/2014 1414 |
| Prep Date: | N/A | | | Prep Date: | N/A |
| Leach Date: | N/A | | | Leach Date: | N/A |

| Analyte | LCS Spike Amount | LCSD Spike Amount | LCS Result/Qual | LCSD Result/Qual |
|---|---|---|---|---|
| Total Alkalinity | 1000 | 1000 | 988 | 954 |

Client: Waste Management

Job Number: 280-53261-1

**Duplicate - Batch: 280-219102**

**Method: SM 2320B**
**Preparation: N/A**

| | | | | | |
|---|---|---|---|---|---|
| Lab Sample ID: | 280-53261-1 | Analysis Batch: | 280-219102 | Instrument ID: | WC-AT3 |
| Client Matrix: | Water | Prep Batch: | N/A | Lab File ID: | 033114a.TXT |
| Dilution: | 1.0 | Leach Batch: | N/A | Initial Weight/Volume: | |
| Analysis Date: | 03/31/2014 1429 | Units: | mg/L | Final Weight/Volume: | |
| Prep Date: | N/A | | | | |
| Leach Date: | N/A | | | | |

| Analyte | Sample Result/Qual | Result | RPD | Limit | Qual |
|---|---|---|---|---|---|
| Total Alkalinity | 7600 | 7570 | 0.3 | 10 | |
| Bicarbonate Alkalinity as CaCO3 | 7600 | 7570 | 0.3 | | |
| Carbonate Alkalinity as CaCO3 | ND | ND | NC | | |

Client: Waste Management

Job Number: 280-53261-1

**Method Blank - Batch: 280-218172**

**Method: SM 2540C**
**Preparation: N/A**

| | | | | | |
|---|---|---|---|---|---|
| Lab Sample ID: | MB 280-218172/1 | Analysis Batch: | 280-218172 | Instrument ID: | No Equipment Assigned |
| Client Matrix: | Water | Prep Batch: | N/A | Lab File ID: | N/A |
| Dilution: | 1.0 | Leach Batch: | N/A | Initial Weight/Volume: | 100 mL |
| Analysis Date: | 03/24/2014 1905 | Units: | mg/L | Final Weight/Volume: | 100 mL |
| Prep Date: | N/A | | | | |
| Leach Date: | N/A | | | | |

| Analyte | Result | Qual | MDL | RL |
|---|---|---|---|---|
| Total Dissolved Solids | ND | | 4.7 | 10 |

**Lab Control Sample/**
**Lab Control Sample Duplicate Recovery Report - Batch: 280-218172**

**Method: SM 2540C**
**Preparation: N/A**

| | | | | | |
|---|---|---|---|---|---|
| LCS Lab Sample ID: | LCS 280-218172/2 | Analysis Batch: | 280-218172 | Instrument ID: | No Equipment Assigned |
| Client Matrix: | Water | Prep Batch: | N/A | Lab File ID: | N/A |
| Dilution: | 1.0 | Leach Batch: | N/A | Initial Weight/Volume: | 100 mL |
| Analysis Date: | 03/24/2014 1905 | Units: | mg/L | Final Weight/Volume: | 100 mL |
| Prep Date: | N/A | | | | |
| Leach Date: | N/A | | | | |

| | | | | | |
|---|---|---|---|---|---|
| LCSD Lab Sample ID: | LCSD 280-218172/3 | Analysis Batch: | 280-218172 | Instrument ID: | No Equipment Assigned |
| Client Matrix: | Water | Prep Batch: | N/A | Lab File ID: | N/A |
| Dilution: | 1.0 | Leach Batch: | N/A | Initial Weight/Volume: | 100 mL |
| Analysis Date: | 03/24/2014 1905 | Units: | mg/L | Final Weight/Volume: | 100 mL |
| Prep Date: | N/A | | | | |
| Leach Date: | N/A | | | | |

| | % Rec. | | | | | | |
|---|---|---|---|---|---|---|---|
| Analyte | LCS | LCSD | Limit | RPD | RPD Limit | LCS Qual | LCSD Qual |
| Total Dissolved Solids | 98 | 100 | 86 - 110 | 1 | 20 | | |

**Laboratory Control/**
**Laboratory Duplicate Data Report - Batch: 280-218172**

**Method: SM 2540C**
**Preparation: N/A**

| | | | | | |
|---|---|---|---|---|---|
| LCS Lab Sample ID: | LCS 280-218172/2 | Units: | mg/L | LCSD Lab Sample ID: | LCSD 280-218172/3 |
| Client Matrix: | Water | | | Client Matrix: | Water |
| Dilution: | 1.0 | | | Dilution: | 1.0 |
| Analysis Date: | 03/24/2014 1905 | | | Analysis Date: | 03/24/2014 1905 |
| Prep Date: | N/A | | | Prep Date: | N/A |
| Leach Date: | N/A | | | Leach Date: | N/A |

| Analyte | LCS Spike Amount | LCSD Spike Amount | LCS Result/Qual | LCSD Result/Qual |
|---|---|---|---|---|
| Total Dissolved Solids | 500 | 500 | 491 | 498 |

Client: Waste Management

Job Number: 280-53261-1

**Duplicate - Batch: 280-218172**

**Method: SM 2540C**
**Preparation: N/A**

| | | | | | |
|---|---|---|---|---|---|
| Lab Sample ID: | 280-53267-E-1 DU | Analysis Batch: | 280-218172 | Instrument ID: | No Equipment Assigned |
| Client Matrix: | Water | Prep Batch: | N/A | Lab File ID: | N/A |
| Dilution: | 1.0 | Leach Batch: | N/A | Initial Weight/Volume: | 100 mL |
| Analysis Date: | 03/24/2014 1905 | Units: | mg/L | Final Weight/Volume: | 100 mL |
| Prep Date: | N/A | | | | |
| Leach Date: | N/A | | | | |

| Analyte | Sample Result/Qual | Result | RPD | Limit | Qual |
|---|---|---|---|---|---|
| Total Dissolved Solids | 290 | 292 | 1 | 10 | |

Client: Waste Management

Job Number: 280-53261-1

**Method Blank - Batch: 280-218346**

**Method: SM 2540D**
**Preparation: N/A**

| | | | | | |
|---|---|---|---|---|---|
| Lab Sample ID: | MB 280-218346/3 | Analysis Batch: | 280-218346 | Instrument ID: | No Equipment Assigned |
| Client Matrix: | Water | Prep Batch: | N/A | Lab File ID: | N/A |
| Dilution: | 1.0 | Leach Batch: | N/A | Initial Weight/Volume: | 250 mL |
| Analysis Date: | 03/25/2014 1714 | Units: | mg/L | Final Weight/Volume: | 250 mL |
| Prep Date: | N/A | | | | |
| Leach Date: | N/A | | | | |

| Analyte | Result | Qual | MDL | RL |
|---|---|---|---|---|
| Total Suspended Solids | ND | | 1.1 | 4.0 |

**Lab Control Sample/**
**Lab Control Sample Duplicate Recovery Report - Batch: 280-218346**

**Method: SM 2540D**
**Preparation: N/A**

| | | | | | |
|---|---|---|---|---|---|
| LCS Lab Sample ID: | LCS 280-218346/1 | Analysis Batch: | 280-218346 | Instrument ID: | No Equipment Assigned |
| Client Matrix: | Water | Prep Batch: | N/A | Lab File ID: | N/A |
| Dilution: | 1.0 | Leach Batch: | N/A | Initial Weight/Volume: | 100 mL |
| Analysis Date: | 03/25/2014 1714 | Units: | mg/L | Final Weight/Volume: | 250 mL |
| Prep Date: | N/A | | | | |
| Leach Date: | N/A | | | | |

| | | | | | |
|---|---|---|---|---|---|
| LCSD Lab Sample ID: | LCSD 280-218346/2 | Analysis Batch: | 280-218346 | Instrument ID: | No Equipment Assigned |
| Client Matrix: | Water | Prep Batch: | N/A | Lab File ID: | N/A |
| Dilution: | 1.0 | Leach Batch: | N/A | Initial Weight/Volume: | 100 mL |
| Analysis Date: | 03/25/2014 1714 | Units: | mg/L | Final Weight/Volume: | 250 mL |
| Prep Date: | N/A | | | | |
| Leach Date: | N/A | | | | |

| | % Rec. | | | | | | |
|---|---|---|---|---|---|---|---|
| Analyte | LCS | LCSD | Limit | RPD | RPD Limit | LCS Qual | LCSD Qual |
| Total Suspended Solids | 96 | 93 | 86 - 114 | 3 | 20 | | |

**Laboratory Control/**
**Laboratory Duplicate Data Report - Batch: 280-218346**

**Method: SM 2540D**
**Preparation: N/A**

| | | | | | |
|---|---|---|---|---|---|
| LCS Lab Sample ID: | LCS 280-218346/1 | Units: | mg/L | LCSD Lab Sample ID: | LCSD 280-218346/2 |
| Client Matrix: | Water | | | Client Matrix: | Water |
| Dilution: | 1.0 | | | Dilution: | 1.0 |
| Analysis Date: | 03/25/2014 1714 | | | Analysis Date: | 03/25/2014 1714 |
| Prep Date: | N/A | | | Prep Date: | N/A |
| Leach Date: | N/A | | | Leach Date: | N/A |

| Analyte | LCS Spike Amount | LCSD Spike Amount | LCS Result/Qual | LCSD Result/Qual |
|---|---|---|---|---|
| Total Suspended Solids | 100 | 100 | 96.0 | 93.0 |

Client: Waste Management

Job Number: 280-53261-1

**Duplicate - Batch: 280-218346**

**Method: SM 2540D**
**Preparation: N/A**

| | | | | | |
|---|---|---|---|---|---|
| Lab Sample ID: | 160-5978-A-1 DU | Analysis Batch: | 280-218346 | Instrument ID: | No Equipment Assigned |
| Client Matrix: | Water | Prep Batch: | N/A | Lab File ID: | N/A |
| Dilution: | 1.0 | Leach Batch: | N/A | Initial Weight/Volume: | 50 mL |
| Analysis Date: | 03/25/2014 1714 | Units: | mg/L | Final Weight/Volume: | 250 mL |
| Prep Date: | N/A | | | | |
| Leach Date: | N/A | | | | |

| Analyte | Sample Result/Qual | Result | RPD | Limit | Qual |
|---|---|---|---|---|---|
| Total Suspended Solids | 140 | 146 | 1 | 10 | |

Client: Waste Management

Job Number: 280-53261-1

**Method Blank - Batch: 280-218940**

**Method: SM 5310B**
**Preparation: N/A**

| | | | | | |
|---|---|---|---|---|---|
| Lab Sample ID: | MB 280-218940/5 | Analysis Batch: | 280-218940 | Instrument ID: | WC_SHI2 |
| Client Matrix: | Water | Prep Batch: | N/A | Lab File ID: | 032814b.txt |
| Dilution: | 1.0 | Leach Batch: | N/A | Initial Weight/Volume: | |
| Analysis Date: | 03/28/2014 1132 | Units: | mg/L | Final Weight/Volume: | |
| Prep Date: | N/A | | | | |
| Leach Date: | N/A | | | | |

| Analyte | Result | Qual | MDL | RL |
|---|---|---|---|---|
| Total Organic Carbon - Average | ND | | 0.16 | 1.0 |

**Lab Control Sample/**
**Lab Control Sample Duplicate Recovery Report - Batch: 280-218940**

**Method: SM 5310B**
**Preparation: N/A**

| | | | | | |
|---|---|---|---|---|---|
| LCS Lab Sample ID: | LCS 280-218940/3 | Analysis Batch: | 280-218940 | Instrument ID: | WC_SHI2 |
| Client Matrix: | Water | Prep Batch: | N/A | Lab File ID: | 032814b.txt |
| Dilution: | 1.0 | Leach Batch: | N/A | Initial Weight/Volume: | |
| Analysis Date: | 03/28/2014 1057 | Units: | mg/L | Final Weight/Volume: | 200 mL |
| Prep Date: | N/A | | | | |
| Leach Date: | N/A | | | | |

| | | | | | |
|---|---|---|---|---|---|
| LCSD Lab Sample ID: | LCSD 280-218940/4 | Analysis Batch: | 280-218940 | Instrument ID: | WC_SHI2 |
| Client Matrix: | Water | Prep Batch: | N/A | Lab File ID: | 032814b.txt |
| Dilution: | 1.0 | Leach Batch: | N/A | Initial Weight/Volume: | |
| Analysis Date: | 03/28/2014 1114 | Units: | mg/L | Final Weight/Volume: | 200 mL |
| Prep Date: | N/A | | | | |
| Leach Date: | N/A | | | | |

| | % Rec. | | | | | | |
|---|---|---|---|---|---|---|---|
| Analyte | LCS | LCSD | Limit | RPD | RPD Limit | LCS Qual | LCSD Qual |
| Total Organic Carbon - Average | 100 | 99 | 88 - 112 | 0 | 15 | | |

**Laboratory Control/**
**Laboratory Duplicate Data Report - Batch: 280-218940**

**Method: SM 5310B**
**Preparation: N/A**

| | | | | | |
|---|---|---|---|---|---|
| LCS Lab Sample ID: | LCS 280-218940/3 | Units: | mg/L | LCSD Lab Sample ID: | LCSD 280-218940/4 |
| Client Matrix: | Water | | | Client Matrix: | Water |
| Dilution: | 1.0 | | | Dilution: | 1.0 |
| Analysis Date: | 03/28/2014 1057 | | | Analysis Date: | 03/28/2014 1114 |
| Prep Date: | N/A | | | Prep Date: | N/A |
| Leach Date: | N/A | | | Leach Date: | N/A |

| Analyte | LCS Spike Amount | LCSD Spike Amount | LCS Result/Qual | LCSD Result/Qual |
|---|---|---|---|---|
| Total Organic Carbon - Average | 25.0 | 25.0 | 24.9 | 24.8 |

Client: Waste Management

Job Number: 280-53261-1

**Matrix Spike/**
**Matrix Spike Duplicate Recovery Report - Batch: 280-218940**

**Method: SM 5310B**
**Preparation: N/A**

| | | | | | |
|---|---|---|---|---|---|
| MS Lab Sample ID: | 280-53260-B-5 MS | Analysis Batch: | 280-218940 | Instrument ID: | WC_SHI2 |
| Client Matrix: | Water | Prep Batch: | N/A | Lab File ID: | 032814b.txt |
| Dilution: | 1.0 | Leach Batch: | N/A | Initial Weight/Volume: | |
| Analysis Date: | 03/28/2014 1216 | | | Final Weight/Volume: | 50 mL |
| Prep Date: | N/A | | | | |
| Leach Date: | N/A | | | | |

| | | | | | |
|---|---|---|---|---|---|
| MSD Lab Sample ID: | 280-53260-B-5 MSD | Analysis Batch: | 280-218940 | Instrument ID: | WC_SHI2 |
| Client Matrix: | Water | Prep Batch: | N/A | Lab File ID: | 032814b.txt |
| Dilution: | 1.0 | Leach Batch: | N/A | Initial Weight/Volume: | |
| Analysis Date: | 03/28/2014 1233 | | | Final Weight/Volume: | 50 mL |
| Prep Date: | N/A | | | | |
| Leach Date: | N/A | | | | |

| Analyte | % Rec. MS | % Rec. MSD | Limit | RPD | RPD Limit | MS Qual | MSD Qual |
|---|---|---|---|---|---|---|---|
| Total Organic Carbon - Average | 99 | 99 | 88 - 112 | 0 | 15 | | |

**Matrix Spike/**
**Matrix Spike Duplicate Recovery Report - Batch: 280-218940**

**Method: SM 5310B**
**Preparation: N/A**

| | | | | | |
|---|---|---|---|---|---|
| MS Lab Sample ID: | 280-53260-B-5 MS | Units: | mg/L | MSD Lab Sample ID: | 280-53260-B-5 MSD |
| Client Matrix: | Water | | | Client Matrix: | Water |
| Dilution: | 1.0 | | | Dilution: | 1.0 |
| Analysis Date: | 03/28/2014 1216 | | | Analysis Date: | 03/28/2014 1233 |
| Prep Date: | N/A | | | Prep Date: | N/A |
| Leach Date: | N/A | | | Leach Date: | N/A |

| Analyte | Sample Result/Qual | | MS Spike Amount | MSD Spike Amount | MS Result/Qual | MSD Result/Qual |
|---|---|---|---|---|---|---|
| Total Organic Carbon - Average | 0.47 | J | 25.0 | 25.0 | 25.3 | 25.2 |

Client: Waste Management

Job Number: 280-53261-1

**Method Blank - Batch: 280-217700**

**Method: SM5210B**
**Preparation: N/A**

| | | | | | |
|---|---|---|---|---|---|
| Lab Sample ID: | MB 280-217700/6 | Analysis Batch: | 280-217700 | Instrument ID: | No Equipment Assigned |
| Client Matrix: | Water | Prep Batch: | N/A | Lab File ID: | N/A |
| Dilution: | 1.0 | Leach Batch: | N/A | Initial Weight/Volume: | |
| Analysis Date: | 03/20/2014 1602 | Units: | mg/L | Final Weight/Volume: | 300 mL |
| Prep Date: | N/A | | | | |
| Leach Date: | N/A | | | | |

| Analyte | Result | Qual | MDL | RL |
|---|---|---|---|---|
| Biochemical Oxygen Demand | ND | | 0.24 | 2.0 |

**Lab Control Sample/**
**Lab Control Sample Duplicate Recovery Report - Batch: 280-217700**

**Method: SM5210B**
**Preparation: N/A**

| | | | | | |
|---|---|---|---|---|---|
| LCS Lab Sample ID: | LCS 280-217700/3 | Analysis Batch: | 280-217700 | Instrument ID: | No Equipment Assigned |
| Client Matrix: | Water | Prep Batch: | N/A | Lab File ID: | N/A |
| Dilution: | 1.0 | Leach Batch: | N/A | Initial Weight/Volume: | |
| Analysis Date: | 03/20/2014 1602 | Units: | mg/L | Final Weight/Volume: | 300 mL |
| Prep Date: | N/A | | | | |
| Leach Date: | N/A | | | | |
| LCSD Lab Sample ID: | LCSD 280-217700/5 | Analysis Batch: | 280-217700 | Instrument ID: | No Equipment Assigned |
| Client Matrix: | Water | Prep Batch: | N/A | Lab File ID: | N/A |
| Dilution: | 1.0 | Leach Batch: | N/A | Initial Weight/Volume: | |
| Analysis Date: | 03/20/2014 1602 | Units: | mg/L | Final Weight/Volume: | 300 mL |
| Prep Date: | N/A | | | | |
| Leach Date: | N/A | | | | |

| | % Rec. | | | | | | |
|---|---|---|---|---|---|---|---|
| Analyte | LCS | LCSD | Limit | RPD | RPD Limit | LCS Qual | LCSD Qual |
| Biochemical Oxygen Demand | 111 | 104 | 85 - 115 | 6 | 20 | | |

**Laboratory Control/**
**Laboratory Duplicate Data Report - Batch: 280-217700**

**Method: SM5210B**
**Preparation: N/A**

| | | | | | |
|---|---|---|---|---|---|
| LCS Lab Sample ID: | LCS 280-217700/3 | Units: | mg/L | LCSD Lab Sample ID: | LCSD 280-217700/5 |
| Client Matrix: | Water | | | Client Matrix: | Water |
| Dilution: | 1.0 | | | Dilution: | 1.0 |
| Analysis Date: | 03/20/2014 1602 | | | Analysis Date: | 03/20/2014 1602 |
| Prep Date: | N/A | | | Prep Date: | N/A |
| Leach Date: | N/A | | | Leach Date: | N/A |

| Analyte | LCS Spike Amount | LCSD Spike Amount | LCS Result/Qual | LCSD Result/Qual |
|---|---|---|---|---|
| Biochemical Oxygen Demand | 198 | 198 | 219 | 207 |

Client: Waste Management

Job Number: 280-53261-1

**Duplicate - Batch: 280-217700**

**Method: SM5210B**
**Preparation: N/A**

| | | | | | |
|---|---|---|---|---|---|
| Lab Sample ID: | 280-53258-D-1 DU | Analysis Batch: | 280-217700 | Instrument ID: | No Equipment Assigned |
| Client Matrix: | Water | Prep Batch: | N/A | Lab File ID: | N/A |
| Dilution: | 1.0 | Leach Batch: | N/A | Initial Weight/Volume: | |
| Analysis Date: | 03/20/2014 1602 | Units: | mg/L | Final Weight/Volume: | 300 mL |
| Prep Date: | N/A | | | | |
| Leach Date: | N/A | | | | |

| Analyte | Sample Result/Qual | Result | RPD | Limit | Qual |
|---|---|---|---|---|---|
| Biochemical Oxygen Demand | ND | ND | NC | 20 | |

Client: Waste Management

Job Number: 280-53261-1

## Laboratory Chronicle

**Lab ID:** **280-53261-1** **Client ID:** **3406-T01**

Sample Date/Time: 03/19/2014 11:35 Received Date/Time: 03/20/2014 09:30

| Method | Bottle ID | Run | Analysis Batch | Prep Batch | Date Prepared / Analyzed | Dil | Lab | Analyst |
|---|---|---|---|---|---|---|---|---|
| P:5030B | 280-53261-I-1 | | 280-219349 | | 04/02/2014 16:06 | 1 | TAL DEN | EC |
| A:8260B | 280-53261-I-1 | | 280-219349 | | 04/02/2014 16:06 | 1 | TAL DEN | EC |
| P:3005A | 280-53261-H-1-A | | 280-218254 | 280-217851 | 03/24/2014 07:30 | 1 | TAL DEN | SEJ |
| A:6010C | 280-53261-H-1-A | | 280-218254 | 280-217851 | 03/24/2014 21:04 | 1 | TAL DEN | JKH |
| P:3005A | 280-53261-H-1-A ^10 | | 280-218464 | 280-217851 | 03/24/2014 07:30 | 10 | TAL DEN | SEJ |
| A:6010C | 280-53261-H-1-A ^10 | | 280-218464 | 280-217851 | 03/25/2014 21:12 | 10 | TAL DEN | JKH |
| P:3005A | 280-53261-H-1-D ^5 | | 280-218229 | 280-217853 | 03/24/2014 07:30 | 5 | TAL DEN | SEJ |
| A:6020A | 280-53261-H-1-D ^5 | | 280-218229 | 280-217853 | 03/25/2014 01:44 | 5 | TAL DEN | TEL |
| P:3005A | 280-53261-H-1-D ^10 | DL | 280-218414 | 280-217853 | 03/24/2014 07:30 | 10 | TAL DEN | SEJ |
| A:6020A | 280-53261-H-1-D ^10 | DL | 280-218414 | 280-217853 | 03/25/2014 20:44 | 10 | TAL DEN | TEL |
| P:7470A | 280-53261-H-1-F | | 280-218876 | 280-218503 | 03/27/2014 11:45 | 1 | TAL DEN | WAW |
| A:7470A | 280-53261-H-1-F | | 280-218876 | 280-218503 | 03/27/2014 19:14 | 1 | TAL DEN | WAW |
| A:300.0 | 280-53261-A-1 | | 280-219022 | | 03/31/2014 19:58 | 10 | TAL DEN | AJA |
| A:300.0 | 280-53261-A-1 | | 280-219022 | | 04/01/2014 05:11 | 100 | TAL DEN | AJA |
| A:350.1 | 280-53261-F-1 | | 280-218597 | | 03/26/2014 14:39 | 400 | TAL DEN | AFH |
| P:365.2/365.3/365 | 280-53261-D-1-A | | 280-218460 | 280-218235 | 03/25/2014 09:35 | 20 | TAL DEN | AJS |
| A:365.1 | 280-53261-D-1-A | | 280-218460 | 280-218235 | 03/26/2014 12:21 | 20 | TAL DEN | AJS |
| A:410.4 | 280-53261-E-1 | | 280-217939 | | 03/22/2014 09:05 | 10 | TAL DEN | CCJ |
| A:Nitrate by calc | 280-53261-A-1 | | 280-219061 | | 03/30/2014 16:14 | 1 | TAL DEN | RKS |
| A:SM 2320B | 280-53261-A-1 | | 280-219102 | | 03/31/2014 14:23 | 1 | TAL DEN | AFH |
| A:SM 2540C | 280-53261-A-1 | | 280-218172 | | 03/24/2014 19:05 | 1 | TAL DEN | ELJ |
| A:SM 2540D | 280-53261-B-1 | | 280-218346 | | 03/25/2014 17:14 | 1 | TAL DEN | MW1 |
| A:SM 5310B | 280-53261-F-1 | | 280-218940 | | 03/28/2014 13:07 | 20 | TAL DEN | CCJ |
| A:SM5210B | 280-53261-C-1 | | 280-217700 | | 03/20/2014 16:02 | 5 | TAL DEN | MRB |
| A:Field Sampling | 280-53261-A-1 | | 280-217982 | | 03/19/2014 09:35 | 1 | TAL DEN | TP |

**Lab ID:** **280-53261-1 MS** **Client ID:** **3406-T01**

Sample Date/Time: 03/19/2014 11:35 Received Date/Time: 03/20/2014 09:30

| Method | Bottle ID | Run | Analysis Batch | Prep Batch | Date Prepared / Analyzed | Dil | Lab | Analyst |
|---|---|---|---|---|---|---|---|---|
| P:7470A | 280-53261-H-1-G MS | | 280-218876 | 280-218503 | 03/27/2014 11:45 | 1 | TAL DEN | WAW |
| A:7470A | 280-53261-H-1-G MS | | 280-218876 | 280-218503 | 03/27/2014 19:16 | 1 | TAL DEN | WAW |

**Lab ID:** **280-53261-1 MSD** **Client ID:** **3406-T01**

Sample Date/Time: 03/19/2014 11:35 Received Date/Time: 03/20/2014 09:30

| Method | Bottle ID | Run | Analysis Batch | Prep Batch | Date Prepared / Analyzed | Dil | Lab | Analyst |
|---|---|---|---|---|---|---|---|---|
| P:7470A | 280-53261-H-1-H MSD | | 280-218876 | 280-218503 | 03/27/2014 11:45 | 1 | TAL DEN | WAW |
| A:7470A | 280-53261-H-1-H MSD | | 280-218876 | 280-218503 | 03/27/2014 19:18 | 1 | TAL DEN | WAW |

Client: Waste Management

Job Number: 280-53261-1

## Laboratory Chronicle

**Lab ID:** **280-53261-1 DU** **Client ID:** **3406-T01**

Sample Date/Time: 03/19/2014 11:35 Received Date/Time: 03/20/2014 09:30

| Method | Bottle ID | Run | Analysis Batch | Prep Batch | Date Prepared / Analyzed | Dil | Lab | Analyst |
|---|---|---|---|---|---|---|---|---|
| A:SM 2320B | 280-53261-A-1 DU | | 280-219102 | | 03/31/2014 14:29 | 1 | TAL DEN | AFH |

**Lab ID:** **280-53261-2** **Client ID:** **TRIP BLANK**

Sample Date/Time: 03/19/2014 11:35 Received Date/Time: 03/20/2014 09:30

| Method | Bottle ID | Run | Analysis Batch | Prep Batch | Date Prepared / Analyzed | Dil | Lab | Analyst |
|---|---|---|---|---|---|---|---|---|
| P:5030B | 280-53261-A-2 | | 280-219161 | | 04/01/2014 13:40 | 1 | TAL DEN | TAW |
| A:8260B | 280-53261-A-2 | | 280-219161 | | 04/01/2014 13:40 | 1 | TAL DEN | TAW |

**Lab ID:** **MB** **Client ID:** **N/A**

Sample Date/Time: N/A Received Date/Time: N/A

| Method | Bottle ID | Run | Analysis Batch | Prep Batch | Date Prepared / Analyzed | Dil | Lab | Analyst |
|---|---|---|---|---|---|---|---|---|
| P:5030B | MB 280-219161/6 | | 280-219161 | | 04/01/2014 10:11 | 1 | TAL DEN | TAW |
| A:8260B | MB 280-219161/6 | | 280-219161 | | 04/01/2014 10:11 | 1 | TAL DEN | TAW |
| P:5030B | MB 280-219349/6 | | 280-219349 | | 04/02/2014 15:23 | 1 | TAL DEN | EC |
| A:8260B | MB 280-219349/6 | | 280-219349 | | 04/02/2014 15:23 | 1 | TAL DEN | EC |
| P:3005A | MB 280-217851/1-A | | 280-218254 | 280-217851 | 03/24/2014 07:30 | 1 | TAL DEN | SEJ |
| A:6010C | MB 280-217851/1-A | | 280-218254 | 280-217851 | 03/24/2014 21:00 | 1 | TAL DEN | JKH |
| P:3005A | MB 280-217853/1-A | | 280-218229 | 280-217853 | 03/24/2014 07:30 | 1 | TAL DEN | SEJ |
| A:6020A | MB 280-217853/1-A | | 280-218229 | 280-217853 | 03/25/2014 01:14 | 1 | TAL DEN | TEL |
| P:7470A | MB 280-218503/1-A | | 280-218876 | 280-218503 | 03/27/2014 11:45 | 1 | TAL DEN | WAW |
| A:7470A | MB 280-218503/1-A | | 280-218876 | 280-218503 | 03/27/2014 18:55 | 1 | TAL DEN | WAW |
| A:300.0 | MB 280-219022/14 | | 280-219022 | | 03/31/2014 11:11 | 1 | TAL DEN | AJA |
| A:350.1 | MB 280-218597/21 | | 280-218597 | | 03/26/2014 13:30 | 1 | TAL DEN | AFH |
| P:365.2/365.3/365 | MB 280-218235/5-A | | 280-218460 | 280-218235 | 03/25/2014 09:35 | 1 | TAL DEN | AJS |
| A:365.1 | MB 280-218235/5-A | | 280-218460 | 280-218235 | 03/26/2014 11:38 | 1 | TAL DEN | AJS |
| A:410.4 | MB 280-217939/5 | | 280-217939 | | 03/22/2014 09:05 | 1 | TAL DEN | CCJ |
| A:Nitrate by calc | MB 280-219061/1 | | 280-219061 | | 03/30/2014 16:14 | 1 | TAL DEN | RKS |
| A:SM 2320B | MB 280-219102/6 | | 280-219102 | | 03/31/2014 14:17 | 1 | TAL DEN | AFH |
| A:SM 2540C | MB 280-218172/1 | | 280-218172 | | 03/24/2014 19:05 | 1 | TAL DEN | ELJ |
| A:SM 2540D | MB 280-218346/3 | | 280-218346 | | 03/25/2014 17:14 | 1 | TAL DEN | MW1 |
| A:SM 5310B | MB 280-218940/5 | | 280-218940 | | 03/28/2014 11:32 | 1 | TAL DEN | CCJ |
| A:SM5210B | MB 280-217700/6 | | 280-217700 | | 03/20/2014 16:02 | 1 | TAL DEN | MRB |

Client: Waste Management

Job Number: 280-53261-1

## Laboratory Chronicle

**Lab ID:** **LCS** **Client ID:** **N/A**

Sample Date/Time: N/A Received Date/Time: N/A

| Method | Bottle ID | Run | Analysis Batch | Prep Batch | Date Prepared / Analyzed | Dil | Lab | Analyst |
|---|---|---|---|---|---|---|---|---|
| P:5030B | LCS 280-219161/4 | | 280-219161 | | 04/01/2014 09:49 | 1 | TAL DEN | TAW |
| A:8260B | LCS 280-219161/4 | | 280-219161 | | 04/01/2014 09:49 | 1 | TAL DEN | TAW |
| P:5030B | LCS 280-219349/4 | | 280-219349 | | 04/02/2014 09:55 | 1 | TAL DEN | EC |
| A:8260B | LCS 280-219349/4 | | 280-219349 | | 04/02/2014 09:55 | 1 | TAL DEN | EC |
| P:3005A | LCS 280-217851/2-A | | 280-218254 | 280-217851 | 03/24/2014 07:30 | 1 | TAL DEN | SEJ |
| A:6010C | LCS 280-217851/2-A | | 280-218254 | 280-217851 | 03/24/2014 21:02 | 1 | TAL DEN | JKH |
| P:3005A | LCS 280-217853/2-A | | 280-218229 | 280-217853 | 03/24/2014 07:30 | 1 | TAL DEN | SEJ |
| A:6020A | LCS 280-217853/2-A | | 280-218229 | 280-217853 | 03/25/2014 01:17 | 1 | TAL DEN | TEL |
| P:7470A | LCS 280-218503/2-A | | 280-218876 | 280-218503 | 03/27/2014 11:45 | 1 | TAL DEN | WAW |
| A:7470A | LCS 280-218503/2-A | | 280-218876 | 280-218503 | 03/27/2014 18:58 | 1 | TAL DEN | WAW |
| A:300.0 | LCS 280-219022/12 | | 280-219022 | | 03/31/2014 10:36 | 1 | TAL DEN | AJA |
| A:350.1 | LCS 280-218597/19 | | 280-218597 | | 03/26/2014 13:26 | 1 | TAL DEN | AFH |
| P:365.2/365.3/365 | LCS 280-218235/3-A | | 280-218460 | 280-218235 | 03/25/2014 09:35 | 1 | TAL DEN | AJS |
| A:365.1 | LCS 280-218235/3-A | | 280-218460 | 280-218235 | 03/26/2014 11:38 | 1 | TAL DEN | AJS |
| A:410.4 | LCS 280-217939/3 | | 280-217939 | | 03/22/2014 09:05 | 1 | TAL DEN | CCJ |
| A:SM 2320B | LCS 280-219102/4 | | 280-219102 | | 03/31/2014 14:09 | 1 | TAL DEN | AFH |
| A:SM 2540C | LCS 280-218172/2 | | 280-218172 | | 03/24/2014 19:05 | 1 | TAL DEN | ELJ |
| A:SM 2540D | LCS 280-218346/1 | | 280-218346 | | 03/25/2014 17:14 | 1 | TAL DEN | MW1 |
| A:SM 5310B | LCS 280-218940/3 | | 280-218940 | | 03/28/2014 10:57 | 1 | TAL DEN | CCJ |
| A:SM5210B | LCS 280-217700/3 | | 280-217700 | | 03/20/2014 16:02 | 1 | TAL DEN | MRB |

**Lab ID:** **LCSD** **Client ID:** **N/A**

Sample Date/Time: N/A Received Date/Time: N/A

| Method | Bottle ID | Run | Analysis Batch | Prep Batch | Date Prepared / Analyzed | Dil | Lab | Analyst |
|---|---|---|---|---|---|---|---|---|
| P:5030B | LCSD 280-219349/5 | | 280-219349 | | 04/02/2014 10:16 | 1 | TAL DEN | EC |
| A:8260B | LCSD 280-219349/5 | | 280-219349 | | 04/02/2014 10:16 | 1 | TAL DEN | EC |
| A:300.0 | LCSD 280-219022/13 | | 280-219022 | | 03/31/2014 10:53 | 1 | TAL DEN | AJA |
| A:350.1 | LCSD 280-218597/20 | | 280-218597 | | 03/26/2014 13:28 | 1 | TAL DEN | AFH |
| P:365.2/365.3/365 | LCSD 280-218235/4-A | | 280-218460 | 280-218235 | 03/25/2014 09:35 | 1 | TAL DEN | AJS |
| A:365.1 | LCSD 280-218235/4-A | | 280-218460 | 280-218235 | 03/26/2014 11:38 | 1 | TAL DEN | AJS |
| A:410.4 | LCSD 280-217939/4 | | 280-217939 | | 03/22/2014 09:05 | 1 | TAL DEN | CCJ |
| A:SM 2320B | LCSD 280-219102/5 | | 280-219102 | | 03/31/2014 14:14 | 1 | TAL DEN | AFH |
| A:SM 2540C | LCSD 280-218172/3 | | 280-218172 | | 03/24/2014 19:05 | 1 | TAL DEN | ELJ |
| A:SM 2540D | LCSD 280-218346/2 | | 280-218346 | | 03/25/2014 17:14 | 1 | TAL DEN | MW1 |
| A:SM 5310B | LCSD 280-218940/4 | | 280-218940 | | 03/28/2014 11:14 | 1 | TAL DEN | CCJ |
| A:SM5210B | LCSD 280-217700/5 | | 280-217700 | | 03/20/2014 16:02 | 1 | TAL DEN | MRB |

Client: Waste Management

Job Number: 280-53261-1

## Laboratory Chronicle

**Lab ID:** **MRL** **Client ID:** **N/A**

Sample Date/Time: N/A Received Date/Time: N/A

| Method | Bottle ID | Run | Analysis Batch | Prep Batch | Date Prepared / Analyzed | Dil | Lab | Analyst |
|---|---|---|---|---|---|---|---|---|
| A:300.0 | MRL 280-219022/10 | | 280-219022 | | 03/31/2014 10:19 | 1 | TAL DEN | AJA |

**Lab ID:** **MS** **Client ID:** **N/A**

Sample Date/Time: 03/19/2014 12:00 Received Date/Time: 03/20/2014 09:30

| Method | Bottle ID | Run | Analysis Batch | Prep Batch | Date Prepared / Analyzed | Dil | Lab | Analyst |
|---|---|---|---|---|---|---|---|---|
| P:5030B | 280-53291-D-1 MS | | 280-219161 | | 04/01/2014 11:53 | 1 | TAL DEN | TAW |
| A:8260B | 280-53291-D-1 MS | | 280-219161 | | 04/01/2014 11:53 | 1 | TAL DEN | TAW |
| P:5030B | 280-53352-G-1 MS | | 280-219349 | | 04/02/2014 16:49 | 1 | TAL DEN | EC |
| A:8260B | 280-53352-G-1 MS | | 280-219349 | | 04/02/2014 16:49 | 1 | TAL DEN | EC |
| P:3005A | 280-53291-A-2-D MS | | 280-218254 | 280-217851 | 03/24/2014 07:30 | 1 | TAL DEN | SEJ |
| A:6010C | 280-53291-A-2-D MS | | 280-218254 | 280-217851 | 03/24/2014 21:24 | 1 | TAL DEN | JKH |
| P:3005A | 280-53291-A-1-C MS | | 280-218229 | 280-217853 | 03/24/2014 07:30 | 1 | TAL DEN | SEJ |
| A:6020A | 280-53291-A-1-C MS | | 280-218229 | 280-217853 | 03/25/2014 01:29 | 1 | TAL DEN | TEL |
| A:300.0 | 280-53264-A-3 MS | | 280-219022 | | 03/31/2014 13:18 | 100 | TAL DEN | AJA |
| A:300.0 | 280-53210-A-1 MS | | 280-219022 | | 03/31/2014 19:23 | 20 | TAL DEN | AJA |
| A:350.1 | 280-53203-E-3 MS | | 280-218597 | | 03/26/2014 14:13 | 1 | TAL DEN | AFH |
| P:365.2/365.3/365 | 280-53299-E-7-B MS | | 280-218460 | 280-218235 | 03/25/2014 09:35 | 1 | TAL DEN | AJS |
| A:365.1 | 280-53299-E-7-B MS | | 280-218460 | 280-218235 | 03/26/2014 12:09 | 1 | TAL DEN | AJS |
| A:410.4 | 280-53205-B-5 MS | | 280-217939 | | 03/22/2014 09:05 | 1 | TAL DEN | CCJ |
| A:SM 5310B | 280-53260-B-5 MS | | 280-218940 | | 03/28/2014 12:16 | 1 | TAL DEN | CCJ |

Client: Waste Management

Job Number: 280-53261-1

## Laboratory Chronicle

**Lab ID:** **MSD** **Client ID:** **N/A**

Sample Date/Time: 03/19/2014 12:00 Received Date/Time: 03/20/2014 09:30

| Method | Bottle ID | Run | Analysis Batch | Prep Batch | Date Prepared / Analyzed | Dil | Lab | Analyst |
|---|---|---|---|---|---|---|---|---|
| P:5030B | 280-53291-B-1 MSD | | 280-219161 | | 04/01/2014 12:14 | 1 | TAL DEN | TAW |
| A:8260B | 280-53291-B-1 MSD | | 280-219161 | | 04/01/2014 12:14 | 1 | TAL DEN | TAW |
| P:5030B | 280-53352-G-1 MSD | | 280-219349 | | 04/02/2014 17:10 | 1 | TAL DEN | EC |
| A:8260B | 280-53352-G-1 MSD | | 280-219349 | | 04/02/2014 17:10 | 1 | TAL DEN | EC |
| P:3005A | 280-53291-A-2-E MSD | | 280-218254 | 280-217851 | 03/24/2014 07:30 | 1 | TAL DEN | SEJ |
| A:6010C | 280-53291-A-2-E MSD | | 280-218254 | 280-217851 | 03/24/2014 21:26 | 1 | TAL DEN | JKH |
| P:3005A | 280-53291-A-1-D MSD | | 280-218229 | 280-217853 | 03/24/2014 07:30 | 1 | TAL DEN | SEJ |
| A:6020A | 280-53291-A-1-D MSD | | 280-218229 | 280-217853 | 03/25/2014 01:41 | 1 | TAL DEN | TEL |
| A:300.0 | 280-53264-A-3 MSD | | 280-219022 | | 03/31/2014 13:35 | 100 | TAL DEN | AJA |
| A:300.0 | 280-53210-A-1 MSD | | 280-219022 | | 03/31/2014 19:40 | 20 | TAL DEN | AJA |
| A:350.1 | 280-53203-E-3 MSD | | 280-218597 | | 03/26/2014 14:15 | 1 | TAL DEN | AFH |
| P:365.2/365.3/365 | 280-53299-E-7-C MSD | | 280-218460 | 280-218235 | 03/25/2014 09:35 | 1 | TAL DEN | AJS |
| A:365.1 | 280-53299-E-7-C MSD | | 280-218460 | 280-218235 | 03/26/2014 12:09 | 1 | TAL DEN | AJS |
| A:410.4 | 280-53205-B-5 MSD | | 280-217939 | | 03/22/2014 09:05 | 1 | TAL DEN | CCJ |
| A:SM 5310B | 280-53260-B-5 MSD | | 280-218940 | | 03/28/2014 12:33 | 1 | TAL DEN | CCJ |

**Lab ID:** **DU** **Client ID:** **N/A**

Sample Date/Time: 03/19/2014 10:10 Received Date/Time: 03/19/2014 17:53

| Method | Bottle ID | Run | Analysis Batch | Prep Batch | Date Prepared / Analyzed | Dil | Lab | Analyst |
|---|---|---|---|---|---|---|---|---|
| A:300.0 | 280-53264-A-3 DU | | 280-219022 | | 03/31/2014 13:01 | 100 | TAL DEN | AJA |
| A:300.0 | 280-53210-A-1 DU | | 280-219022 | | 03/31/2014 19:06 | 20 | TAL DEN | AJA |
| A:SM 2540C | 280-53267-E-1 DU | | 280-218172 | | 03/24/2014 19:05 | 1 | TAL DEN | ELJ |
| A:SM 2540D | 160-5978-A-1 DU | | 280-218346 | | 03/25/2014 17:14 | 1 | TAL DEN | MW1 |
| A:SM5210B | 280-53258-D-1 DU | | 280-217700 | | 03/20/2014 16:02 | 1 | TAL DEN | MRB |

**Lab References:**

TAL DEN = TestAmerica Denver

280-53261 Chain of Custody

# Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

| | | | |
|---|---|---|---|
| Client: Mr. Al Lacsamana | Sampler: DAN ARMOUR | Lab PM: Sara, Betsy A | Carrier Tracking No(s). |
| | Phone: 225.907.4060 | E-Mail: betsy.sara@testamericainc.com | |
| Company: Waste Management | | | |
| Address: Southern Area 1000 Parkwood Circle, Suite 700 | Due Date Requested: | | |
| City: Atlanta | TAT Requested (days): | | |
| State, Zip: GA, 30339 | | | |
| Phone: 770-805-3366(Tel) | PO #: Purchase Order not requir | | |
| Email: alacsama@wm.com | WO #. | | |
| Project Name: 134|Piedmont Landfill | Project #: 28003156 - SA Leachate Mon Mar Sep | | |
| Site: North Carolina | SSOW#. | | |

COC No: 280-15243-2289.1
Page: Page 1 of 1
Job #:

## Analysis Requested

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA
M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2SO3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - ph 4-5, Z - other (specify)
Other:

| Sample Identification | Sample Date | Sample Time | Sample Type (C=comp, G=grab) | Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air) | Field Filtered Sample (Yes or No) | Perform MS/MSD (Yes or No) | Chloride/Sulfate/NO3(353.2)/Alks/TDS | Total Metals | Ammonia/COD | Total Phos/TOC | 8260B-VOA | TSS | BOD | Total Number of containers | Special Instructions/Note: |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Preservation Code: | | X | X | N | D | S | S | A | N | N | X | |
| TO1 | 3-19 | 1135 | G | W | N | | 1 | 1 | 2 | 2 | 3 | 1 | 1 | | Short Holds: NO3(calc), BOD |
| TRIP | 3-19 | — | G | W | N | | | | | | ✓ | | | | |

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

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

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

| | | | | | |
|---|---|---|---|---|---|
| Empty Kit Relinquished by: | Date: | Time: | | Method of Shipment: | |
| Relinquished by: | Date/Time: 3-19-14 / 1530 | Company: PRO-TECH | Received by: | Date/Time: 3/20/14 9:30 | Company: TA |
| Relinquished by: | Date/Time: | Company | Received by | Date/Time: | Company |
| Relinquished by: | Date/Time: | Company | Received by | Date/Time: | Company |

Custody Seals Intact: Δ Yes Δ No
Custody Seal No.:
Cooler Temperature(s) °C and Other Remarks: 1.3, 2.3 IR5 to 2 3/20/14 9:30

# FIELD INFORMATION FORM

WASTE MANAGEMENT

Site Name: PIEDMONT

Site No.:

Sample Point: T01 (Sample ID)

**This Waste Management Field Information Form is Required**
This form is to be completed, in addition to any State Forms. The Field Form is submitted along with the Chain of Custody Forms that accompany the sample containers (i.e. with the cooler that is returned to the laboratory).

Laboratory Use Only/Lab ID:

## PURGE INFO

| PURGE DATE (MM DD YY) | PURGE TIME (2400 Hr Clock) | ELAPSED HRS (hrs:min) | WATER VOL IN CASING (Gallons) | ACTUAL VOL PURGED (Gallons) | WELL VOLs PURGED |
|---|---|---|---|---|---|
| 031914 | 1135 | — | — | — | — |

*Note: For Passive Sampling, replace "Water Vol in Casing" and "Well Vols Purged" w/ Water Vol in Tubing/Flow Cell and Tubing/Flow Cell Vols Purged. Mark changes, record field data, below.*

## PURGE/SAMPLE EQUIPMENT

Purging and Sampling Equipment . . . Dedicated: (Y) or N

Filter Device: Y or (N) 0.45 µ or _____ µ (circle or fill in)

Purging Device: —
A-Submersible Pump, B-Peristaltic Pump, C-QED Bladder Pump, D-Bailer, E-Piston Pump, F-Dipper/Bottle

Sampling Device: X

X-Other: Sample Port on leachate System

Filter Type: A-In-line Disposable, B-Pressure, C-Vacuum, X-Other

Sample Tube Type: A-Teflon, B-Stainless Steel, C-PVC, D-Polypropylene, X-Other:

## WELL DATA

| Well Elevation (at TOC) | Depth to Water (DTW) (from TOC) | Groundwater Elevation (site datum, from TOC) |
|---|---|---|
| (ft/msl) | (ft) | (ft/msl) |

| Total Well Depth (from TOC) | Stick Up (from ground elevation) | Casing ID | Casing Material |
|---|---|---|---|
| (ft) | (ft) | (in) | |

*Note: Total Well Depth, Stick Up, Casing Id etc. are optional and can be from historical data, unless required by Site/Permit. Well Elevation, DTW, and Groundwater Elevation must be current.*

## STABILIZATION DATA (Optional)

| Sample Time (2400 Hr Clock) | Rate/Unit | pH (std) | Conductance (SC/EC) (µmhos/cm@25°C) | Temp. (°C) | Turbidity (ntu) | D.O. (mg/L - ppm) | eH/ORP (mV) | DTW (ft) |
|---|---|---|---|---|---|---|---|---|
| 1135 | NA | 1st 7.48 | 1st 18180 | 3.7 | 144 | 1.7 | 122 | |
| | | 2nd | 2nd | | | | | |
| | | 3rd | 3rd | | | | | |
| | | 4th | 4th | | | | | |
| Suggested range for 3 consec. readings or note Permit/State requirements: | | +/- 0.2 | +/- 3% | -- | -- | +/- 10% | +/- 25 mV | Stabilize |

**Stabilization Data Fields are Optional** *(i.e. complete stabilization readings for parameters required by WM, Site, or State) These fields can be used where four (4) field measurements are required by State/Permit/Site. If a Data Logger or other Electronic format is used, fill in final readings below and submit electronic data separately to Site.* ***If more fields above are needed, use separate sheet or form.***

## FIELD DATA

| SAMPLE DATE (MM DD YY) | pH (std) | CONDUCTANCE (umhos/cm @ 25°C) | TEMP. (°C) | TURBIDITY (ntu) | DO (mg/L-ppm) | eH/ORP (mV) | Other: Units |
|---|---|---|---|---|---|---|---|
| 031914 | 7.48 | 18180 | 3.7 | 144 | 1.7 | 122 | |

**Final Field Readings are required** *(i.e. record field measurements, final stabilized readings, passive sample readings before sampling for all field parameters required by State/Permit/Site.*

## FIELD COMMENTS

**Sample Appearance:** CLEAR Odor: _____ Color: BROWN Other: _____

**Weather Conditions** (required daily, or as conditions change): Direction/Speed: E 0-5 Outlook: cloudy 40°F Precipitation: Y or (N)

**Specific Comments (including purge/well volume calculations if required):**

**I certify that sampling procedures were in accordance with applicable EPA, State, and WM protocols (if more than one sampler, all should sign):**

| Date | Name | Signature | Company |
|---|---|---|---|
| 3/19/14 | DAN ARMOUR | [signature] | PRO-TECH |
| / / | | | |

**DISTRIBUTION: WHITE/ORIGINAL - Stays with Sample, YELLOW - Returned to Client, PINK - Field Copy**

TAL-8029WM (1013)

# Login Sample Receipt Checklist

Client: Waste Management

Job Number: 280-53261-1

**Login Number: 53261**

**List Source: TestAmerica Denver**

**List Number: 1**

**Creator: Dedio, Michael T**

| Question | Answer | Comment |
|---|---|---|
| Radioactivity either was not measured or, if measured, is at or below background | True | |
| The cooler's custody seal, if present, is intact. | True | |
| The cooler or samples do not appear to have been compromised or tampered with. | True | |
| Samples were received on ice. | True | |
| Cooler Temperature is acceptable. | True | |
| Cooler Temperature is recorded. | True | |
| COC is present. | True | |
| COC is filled out in ink and legible. | True | |
| COC is filled out with all pertinent information. | True | |
| Is the Field Sampler's name present on COC? | True | |
| There are no discrepancies between the sample IDs on the containers and the COC. | True | |
| Samples are received within Holding Time. | True | |
| Sample containers have legible labels. | True | |
| Containers are not broken or leaking. | True | |
| Sample collection date/times are provided. | True | |
| Appropriate sample containers are used. | True | |
| Sample bottles are completely filled. | True | |
| Sample Preservation Verified | N/A | |
| There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs | True | |
| VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter. | True | |
| If necessary, staff have been informed of any short hold time or quick TAT needs | True | |
| Multiphasic samples are not present. | True | |
| Samples do not require splitting or compositing. | True | |
| Sampling Company provided. | True | |
| Samples received within 48 hours of sampling. | True | |
| Samples requiring field filtration have been filtered in the field. | True | |
| Chlorine Residual checked. | True | |

# Appendix B: Groundwater Statistical Analyses Report

# Results of the Ground Water Statistics for

# Piedmont Landfill

First Semi-Annual Monitoring Event in 2014

*Prepared for:*
Piedmont Landfill and Recycling Center
Kernersville, North Carolina

*Prepared by:*
Jeffrey A. Holmgren
**Otter Creek Environmental Services, L.L.C.**
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Elgin, IL 60124
(847) 464-1355

**April 2014**

## Introduction

This report contains the results of the statistical analysis used to evaluate the ground water data obtained during the first semi-annual monitoring event in 2014 at Piedmont Landfill in Kernersville, North Carolina. The ground water at Piedmont Landfill is monitored semi-annually at MW01 (upgradient), MW02, MW03, MW04, MW04D, MW05, MW06 (upgradient), MW07, MW08, MW09R, MW10, MW11, MW11D, MW12, and MW12D. These ground water monitoring wells were sampled on March 19, 2014 and analyzed for the trace metals and volatile organic compounds (VOCs) listed below.

*Trace Metals*

| | | |
|---|---|---|
| Antimony, Total | Chromium, Total | Selenium, Total |
| Arsenic, Total | Cobalt, Total | Silver, Total |
| Barium, Total | Copper, Total | Thallium, Total |
| Beryllium, Total | Lead, Total | Vanadium, Total |
| Cadmium, Total | Nickel, Total | Zinc, Total |

*Volatile Organic Compounds*

| | | |
|---|---|---|
| 1,1,1,2-Tetrachloroethane | Acetone | Dibromomethane |
| 1,1,1-Trichloroethane | Acrylonitrile | Ethylbenzene |
| 1,1,2,2-Tetrachloroethane | Benzene | Iodomethane |
| 1,1,2-Trichloroethane | Bromochloromethane | Methylene chloride |
| 1,1-Dichloroethane | Bromodichloromethane | Styrene |
| 1,1-Dichloroethene | Bromoform | Tetrachloroethene |
| 1,2,3-Trichloropropane | Bromomethane | Toluene |
| 1,2-Dibromo-3-chloropropane | Carbon disulfide | *trans*-1,2-Dichloroethene |
| 1,2-Dibromoethane | Carbon tetrachloride | *trans*-1,3-Dichloropropene |
| 1,2-Dichlorobenzene | Chlorobenzene | *trans*-1,4-Dichloro-2-butene |
| 1,2-Dichloroethane | Chloroethane | Trichloroethene |
| 1,2-Dichloropropane | Chloroform | Trichlorofluoromethane |
| 1,4-Dichlorobenzene | Chloromethane | Vinyl acetate |
| 2-Butanone; Methyl ethyl ketone | *cis*-1,2-Dichloroethene | Vinyl chloride |
| 2-Hexanone | *cis*-1,3-Dichloropropene | Xylenes (Total) |
| 4-Methyl-2-pentanone | Dibromochloromethane | |

The trace metals data were compared to historical background data using intrawell statistics. The statistical method used to evaluate the ground water data was prepared by Dr. Robert Gibbons in accordance with the EPA statistical guidance document (*"Statistical Analysis of Ground-Water Monitoring Data at RCRA Facilities, Addendum to Interim Final Guidance"*, July 1992) and ASTM standard D6312-98 (*"Standard Guide for Developing Appropriate Statistical Approaches for Ground-Water Detection Monitoring Programs").* The organic constituents were compared to maximum contaminant levels (MCLs) or practical quantitation limits (PQLs), in lieu of statistical comparisons to background concentrations.

## Intrawell Comparisons

Intrawell comparisons are used to evaluate the ground water data at Piedmont Landfill in accordance with the site's statistical analysis plan. Intrawell statistics are appropriate for facilities where the upgradient wells do not accurately characterize the natural ground water conditions downgradient from the facility,

due to different hydrogeological conditions where the wells are screened, having too few upgradient wells to account for the spatial variability, or the site exhibiting no definable hydraulic gradient. Intrawell statistics compare new measurements to the historical data at each ground water monitoring well independently.

The most useful technique for intrawell comparisons is the combined Shewhart-CUSUM control chart using the DUMPStat® program. This control chart procedure is useful because it will detect releases both in terms of the constituent concentration and cumulative increases. This method is also extremely sensitive to sudden and gradual releases. A requirement for constructing these control charts is that the parameter is detected at a frequency greater than or equal to 25%, otherwise the data variance is not properly defined.

The database is screened for outliers using the Dixon test. An erroneous data point, if not removed prior to the mean and variance computations would yield a larger control limit thus increasing the false negative rate. Anomalous data will still be plotted on the graphs but will not be included in the calculations. The background data is tested for existing trends using Sen's slope test. If contamination exists prior to completing the background, the control limits could be potentially high and this control chart method would not be able to detect an increasing trend unless the increase is severe.

The combined Shewhart-CUSUM control chart assumes that the data are independent and normally distributed with a fixed mean and a constant variance. Many ground water monitoring parameters are not detected at a frequency great enough to generate the combined Shewhart-CUSUM control charts. For constituents that are detected less than 25% of the time monitored at a particular well, the data is plotted as a time series until a sufficient number of data points are available to provide a 99% confidence nonparametric prediction limit. The nonparametric prediction limit is the largest determination out of the data set collected for that well and parameter.

**Results**

The ground water data obtained during the first semi-annual monitoring event in 2014 are summarized in Attachment A. The trace metals data were compared to the historical background data at each well. The previously used background was established using the data obtained through 2008. Since there were no exceedances attributed to the landfill, the background was updated to include data obtained through 2012 for all wells. The background range was tested for increasing trends using Sen's Test. There were increasing trends detected for barium at upgradient well MW01, barium at MW02, and chromium at MW03.

A summary of the intrawell statistics is included in Attachment B, Table 1 "Summary Statistics and Intermediate Computations for Combined Shewhart-CUSUM Control Charts." The control charts or time series graphs follow the summary table. For the trace metals analyzed, there are no control limit exceedances detected. The site-wide false positive rate is 1% and the test becomes sensitive to 4.5 standard deviation units over background.

There were no VOCs detected in the ground water above the laboratory reporting limits during the first semi-annual monitoring event in 2014. Historical VOC detections are summarized in Attachment C.

# Attachment A

Summary of the Ground Water Data obtained during the First Semi-Annual Monitoring Event in 2014

## Table 1

## Analytical Data Summary for 3/19/2014

| Constituents | Units | 3406-MW01 | 3406-MW02 | 3406-MW03 | 3406-MW04 | 3406-MW04D | 3406-MW05 |
|---|---|---|---|---|---|---|---|
| 1,1,1,2-tetrachloroethane | UG/L | <5.0000 | <5.0000 | <5.0000 | <5.0000 | <5.0000 | <5.0000 |
| 1,1,1-trichloroethane | UG/L | <1.0000 | <1.0000 | <1.0000 | <1.0000 | <1.0000 | <1.0000 |
| 1,1,2,2-tetrachloroethane | UG/L | <3.0000 | <3.0000 | <3.0000 | <3.0000 | <3.0000 | <3.0000 |
| 1,1,2-trichloroethane | UG/L | <1.0000 | <1.0000 | <1.0000 | <1.0000 | <1.0000 | <1.0000 |
| 1,1-dichloroethane | UG/L | <5.0000 | <5.0000 | <5.0000 | <5.0000 | <5.0000 | <5.0000 |
| 1,1-dichloroethene | UG/L | <5.0000 | <5.0000 | <5.0000 | <5.0000 | <5.0000 | <5.0000 |
| 1,2,3-trichloropropane | UG/L | <1.0000 | <1.0000 | <1.0000 | <1.0000 | <1.0000 | <1.0000 |
| 1,2-dibromo-3-chloropropane (dbcp) | UG/L | <13.0000 | <13.0000 | <13.0000 | <13.0000 | <13.0000 | <13.0000 |
| 1,2-dibromoethane (edb) | UG/L | <1.0000 | <1.0000 | <1.0000 | <1.0000 | <1.0000 | <1.0000 |
| 1,2-dichlorobenzene | UG/L | <5.0000 | <5.0000 | <5.0000 | <5.0000 | <5.0000 | <5.0000 |
| 1,2-dichloroethane | UG/L | <1.0000 | <1.0000 | <1.0000 | <1.0000 | <1.0000 | <1.0000 |
| 1,2-dichloropropane | UG/L | <1.0000 | <1.0000 | <1.0000 | <1.0000 | <1.0000 | <1.0000 |
| 1,4-dichlorobenzene | UG/L | <1.0000 | <1.0000 | <1.0000 | <1.0000 | <1.0000 | <1.0000 |
| 2-hexanone | UG/L | <50.0000 | <50.0000 | <50.0000 | <50.0000 | <50.0000 | <50.0000 |
| Acetone | UG/L | <100.0000 | <100.0000 | <100.0000 | <100.0000 | <100.0000 | <100.0000 |
| Acrylonitrile | UG/L | <200.0000 | <200.0000 | <200.0000 | <200.0000 | <200.0000 | <200.0000 |
| Antimony, total | UG/L | <6.0000 | <6.0000 | <6.0000 | <6.0000 | <6.0000 | <6.0000 |
| Arsenic, total | UG/L | <10.0000 | <10.0000 | <10.0000 | <10.0000 | <10.0000 | <10.0000 |
| Barium, total | UG/L | <100.0000 | 150.0000 | <100.0000 | <100.0000 | <100.0000 | <100.0000 |
| Benzene | UG/L | <1.0000 | <1.0000 | <1.0000 | <1.0000 | <1.0000 | <1.0000 |
| Beryllium, total | UG/L | <1.0000 | <1.0000 | <1.0000 | <1.0000 | <1.0000 | <1.0000 |
| Bromochloromethane | UG/L | <3.0000 | <3.0000 | <3.0000 | <3.0000 | <3.0000 | <3.0000 |
| Bromoform | UG/L | <3.0000 | <3.0000 | <3.0000 | <3.0000 | <3.0000 | <3.0000 |
| Bromomethane | UG/L | <10.0000 | <10.0000 | <10.0000 | <10.0000 | <10.0000 | <10.0000 |
| Cadmium, total | UG/L | <1.0000 | <1.0000 | <1.0000 | <1.0000 | <1.0000 | <1.0000 |
| Carbon disulfide | UG/L | <100.0000 | <100.0000 | <100.0000 | <100.0000 | <100.0000 | <100.0000 |
| Carbon tetrachloride | UG/L | <1.0000 | <1.0000 | <1.0000 | <1.0000 | <1.0000 | <1.0000 |
| Chlorobenzene | UG/L | <3.0000 | <3.0000 | <3.0000 | <3.0000 | <3.0000 | <3.0000 |
| Chloroethane | UG/L | <10.0000 | <10.0000 | <10.0000 | <10.0000 | <10.0000 | <10.0000 |
| Chloroform | UG/L | <5.0000 | <5.0000 | <5.0000 | <5.0000 | <5.0000 | <5.0000 |
| Chloromethane | UG/L | <1.0000 | <1.0000 | <1.0000 | <1.0000 | <1.0000 | <1.0000 |
| Chromium, total | UG/L | <10.0000 | <10.0000 | 12.0000 | <10.0000 | <10.0000 | <10.0000 |
| Cis-1,2-dichloroethene | UG/L | <5.0000 | <5.0000 | <5.0000 | <5.0000 | <5.0000 | <5.0000 |
| Cis-1,3-dichloropropene | UG/L | <1.0000 | <1.0000 | <1.0000 | <1.0000 | <1.0000 | <1.0000 |
| Cobalt, total | UG/L | <10.0000 | <10.0000 | <10.0000 | <10.0000 | <10.0000 | <10.0000 |
| Copper, total | UG/L | <10.0000 | <10.0000 | <10.0000 | <10.0000 | <10.0000 | <10.0000 |
| Dibromochloromethane | UG/L | <3.0000 | <3.0000 | <3.0000 | <3.0000 | <3.0000 | <3.0000 |
| Dibromomethane | UG/L | <10.0000 | <10.0000 | <10.0000 | <10.0000 | <10.0000 | <10.0000 |
| Dichlorobromomethane | UG/L | <1.0000 | <1.0000 | <1.0000 | <1.0000 | <1.0000 | <1.0000 |
| Do (field) | MG/L | 6.6000 | 1.0000 | 4.9000 | .4000 | 4.4000 | 1.7000 |
| Eh/orp (field) | mV | 95.5000 | 192.0000 | <.0000 | 153.0000 | 116.0000 | 58.7000 |
| Ethylbenzene | UG/L | <1.0000 | <1.0000 | <1.0000 | <1.0000 | <1.0000 | <1.0000 |
| Groundwater elev. | FT MSL | 779.7300 | 749.8200 | 744.8000 | 744.7300 | 744.6500 | 738.9700 |
| Iodomethane | UG/L | <10.0000 | <10.0000 | <10.0000 | <10.0000 | <10.0000 | <10.0000 |
| Lead, total | UG/L | <10.0000 | <10.0000 | <10.0000 | <10.0000 | <10.0000 | <10.0000 |
| Methyl ethyl ketone | UG/L | <100.0000 | <100.0000 | <100.0000 | <100.0000 | <100.0000 | <100.0000 |
| Methyl isobutyl ketone | UG/L | <100.0000 | <100.0000 | <100.0000 | <100.0000 | <100.0000 | <100.0000 |
| Methylene chloride | UG/L | <1.0000 | <1.0000 | <1.0000 | <1.0000 | <1.0000 | <1.0000 |
| Nickel, total | UG/L | <50.0000 | <50.0000 | <50.0000 | <50.0000 | <50.0000 | <50.0000 |
| pH FIELD | PH UNITS | 5.4500 | 5.1100 | 5.5000 | 5.3000 | 5.9400 | 5.6900 |
| Selenium, total | UG/L | <10.0000 | <10.0000 | <10.0000 | <10.0000 | <10.0000 | <10.0000 |
| Silver, total | UG/L | <10.0000 | <10.0000 | <10.0000 | <10.0000 | <10.0000 | <10.0000 |
| Specific conductance field | UMHOS/CM | 68.0000 | 149.0000 | 129.0000 | 86.0000 | 113.0000 | 354.0000 |
| Styrene | UG/L | <1.0000 | <1.0000 | <1.0000 | <1.0000 | <1.0000 | <1.0000 |
| Tetrachloroethene | UG/L | <1.0000 | <1.0000 | <1.0000 | <1.0000 | <1.0000 | <1.0000 |
| Thallium, total | UG/L | <5.5000 | <5.5000 | <5.5000 | <5.5000 | <5.5000 | <5.5000 |
| Toluene | UG/L | <1.0000 | <1.0000 | <1.0000 | <1.0000 | <1.0000 | <1.0000 |
| Total xylenes | UG/L | <5.0000 | <5.0000 | <5.0000 | <5.0000 | <5.0000 | <5.0000 |
| Trans-1,2-dichloroethene | UG/L | <5.0000 | <5.0000 | <5.0000 | <5.0000 | <5.0000 | <5.0000 |
| Trans-1,3-dichloropropene | UG/L | <1.0000 | <1.0000 | <1.0000 | <1.0000 | <1.0000 | <1.0000 |
| Trans-1,4-dichloro-2-butene | UG/L | <100.0000 | <100.0000 | <100.0000 | <100.0000 | <100.0000 | <100.0000 |
| Trichloroethene | UG/L | <1.0000 | <1.0000 | <1.0000 | <1.0000 | <1.0000 | <1.0000 |
| Trichlorofluoromethane | UG/L | <1.0000 | <1.0000 | <1.0000 | <1.0000 | <1.0000 | <1.0000 |
| Turbidity | NTU | 1.7000 | 1.3000 | .9000 | 2.4000 | 12.3000 | 3.3000 |
| Vanadium, total | UG/L | <25.0000 | <25.0000 | <25.0000 | <25.0000 | <25.0000 | <25.0000 |
| Vinyl acetate | UG/L | <50.0000 | <50.0000 | <50.0000 | <50.0000 | <50.0000 | <50.0000 |
| Vinyl chloride | UG/L | <1.0000 | <1.0000 | <1.0000 | <1.0000 | <1.0000 | <1.0000 |
| Zinc, total | UG/L | <10.0000 | <10.0000 | <10.0000 | <10.0000 | <10.0000 | <10.0000 |

* - The displayed value is the arithmetic mean of multiple database matches.

## Table 1

## Analytical Data Summary for 3/19/2014

| Constituents | 3406-MW06 | 3406-MW07 | 3406-MW08 | 3406-MW09R | 3406-MW10 | 3406-MW11 | 3406-MW11D |
|---|---|---|---|---|---|---|---|
| 1,1,1,2-tetrachloroethane | <5.0000 | <5.0000 | <5.0000 | <5.0000 | <5.0000 | <5.0000 | <5.0000 |
| 1,1,1-trichloroethane | <1.0000 | <1.0000 | <1.0000 | <1.0000 | <1.0000 | <1.0000 | <1.0000 |
| 1,1,2,2-tetrachloroethane | <3.0000 | <3.0000 | <3.0000 | <3.0000 | <3.0000 | <3.0000 | <3.0000 |
| 1,1,2-trichloroethane | <1.0000 | <1.0000 | <1.0000 | <1.0000 | <1.0000 | <1.0000 | <1.0000 |
| 1,1-dichloroethane | <5.0000 | <5.0000 | <5.0000 | <5.0000 | <5.0000 | <5.0000 | <5.0000 |
| 1,1-dichloroethene | <5.0000 | <5.0000 | <5.0000 | <5.0000 | <5.0000 | <5.0000 | <5.0000 |
| 1,2,3-trichloropropane | <1.0000 | <1.0000 | <1.0000 | <1.0000 | <1.0000 | <1.0000 | <1.0000 |
| 1,2-dibromo-3-chloropropane (dbcp) | <13.0000 | <13.0000 | <13.0000 | <13.0000 | <13.0000 | <13.0000 | <13.0000 |
| 1,2-dibromoethane (edb) | <1.0000 | <1.0000 | <1.0000 | <1.0000 | <1.0000 | <1.0000 | <1.0000 |
| 1,2-dichlorobenzene | <5.0000 | <5.0000 | <5.0000 | <5.0000 | <5.0000 | <5.0000 | <5.0000 |
| 1,2-dichloroethane | <1.0000 | <1.0000 | <1.0000 | <1.0000 | <1.0000 | <1.0000 | <1.0000 |
| 1,2-dichloropropane | <1.0000 | <1.0000 | <1.0000 | <1.0000 | <1.0000 | <1.0000 | <1.0000 |
| 1,4-dichlorobenzene | <1.0000 | <1.0000 | <1.0000 | <1.0000 | <1.0000 | <1.0000 | <1.0000 |
| 2-hexanone | <50.0000 | <50.0000 | <50.0000 | <50.0000 | <50.0000 | <50.0000 | <50.0000 |
| Acetone | <100.0000 | <100.0000 | <100.0000 | <100.0000 | <100.0000 | <100.0000 | <100.0000 |
| Acrylonitrile | <200.0000 | <200.0000 | <200.0000 | <200.0000 | <200.0000 | <200.0000 | <200.0000 |
| Antimony, total | <6.0000 | <6.0000 | <6.0000 | <6.0000 | <6.0000 | <6.0000 | <6.0000 |
| Arsenic, total | <10.0000 | <10.0000 | <10.0000 | <10.0000 | <10.0000 | <10.0000 | <10.0000 |
| Barium, total | <100.0000 | <100.0000 | <100.0000 | <100.0000 | <100.0000 | <100.0000 | <100.0000 |
| Benzene | <1.0000 | <1.0000 | <1.0000 | <1.0000 | <1.0000 | <1.0000 | <1.0000 |
| Beryllium, total | <1.0000 | <1.0000 | <1.0000 | <1.0000 | <1.0000 | <1.0000 | <1.0000 |
| Bromochloromethane | <3.0000 | <3.0000 | <3.0000 | <3.0000 | <3.0000 | <3.0000 | <3.0000 |
| Bromoform | <3.0000 | <3.0000 | <3.0000 | <3.0000 | <3.0000 | <3.0000 | <3.0000 |
| Bromomethane | <10.0000 | <10.0000 | <10.0000 | <10.0000 | <10.0000 | <10.0000 | <10.0000 |
| Cadmium, total | <1.0000 | <1.0000 | <1.0000 | <1.0000 | <1.0000 | <1.0000 | <1.0000 |
| Carbon disulfide | <100.0000 | <100.0000 | <100.0000 | <100.0000 | <100.0000 | <100.0000 | <100.0000 |
| Carbon tetrachloride | <1.0000 | <1.0000 | <1.0000 | <1.0000 | <1.0000 | <1.0000 | <1.0000 |
| Chlorobenzene | <3.0000 | <3.0000 | <3.0000 | <3.0000 | <3.0000 | <3.0000 | <3.0000 |
| Chloroethane | <10.0000 | <10.0000 | <10.0000 | <10.0000 | <10.0000 | <10.0000 | <10.0000 |
| Chloroform | <5.0000 | <5.0000 | <5.0000 | <5.0000 | <5.0000 | <5.0000 | <5.0000 |
| Chloromethane | <1.0000 | <1.0000 | <1.0000 | <1.0000 | <1.0000 | <1.0000 | <1.0000 |
| Chromium, total | <10.0000 | <10.0000 | <10.0000 | <10.0000 | <10.0000 | <10.0000 | <10.0000 |
| Cis-1,2-dichloroethene | <5.0000 | <5.0000 | <5.0000 | <5.0000 | <5.0000 | <5.0000 | <5.0000 |
| Cis-1,3-dichloropropene | <1.0000 | <1.0000 | <1.0000 | <1.0000 | <1.0000 | <1.0000 | <1.0000 |
| Cobalt, total | <10.0000 | <10.0000 | <10.0000 | <10.0000 | <10.0000 | <10.0000 | <10.0000 |
| Copper, total | <10.0000 | <10.0000 | <10.0000 | <10.0000 | <10.0000 | <10.0000 | <10.0000 |
| Dibromochloromethane | <3.0000 | <3.0000 | <3.0000 | <3.0000 | <3.0000 | <3.0000 | <3.0000 |
| Dibromomethane | <10.0000 | <10.0000 | <10.0000 | <10.0000 | <10.0000 | <10.0000 | <10.0000 |
| Dichlorobromomethane | <1.0000 | <1.0000 | <1.0000 | <1.0000 | <1.0000 | <1.0000 | <1.0000 |
| Do (field) | 4.1000 | 5.5000 | 2.6000 | 1.5000 | 3.0000 | .9000 | 3.1000 |
| Eh/orp (field) | 71.6000 | 81.1000 | 90.1000 | <.0000 | 222.0000 | 240.0000 | 170.0000 |
| Ethylbenzene | <1.0000 | <1.0000 | <1.0000 | <1.0000 | <1.0000 | <1.0000 | <1.0000 |
| Groundwater elev. | 777.0300 | 748.4700 | 744.4500 | 738.9300 | 747.6700 | 748.8400 | 748.4200 |
| Iodomethane | <10.0000 | <10.0000 | <10.0000 | <10.0000 | <10.0000 | <10.0000 | <10.0000 |
| Lead, total | <10.0000 | <10.0000 | <10.0000 | <10.0000 | <10.0000 | <10.0000 | <10.0000 |
| Methyl ethyl ketone | <100.0000 | <100.0000 | <100.0000 | <100.0000 | <100.0000 | <100.0000 | <100.0000 |
| Methyl isobutyl ketone | <100.0000 | <100.0000 | <100.0000 | <100.0000 | <100.0000 | <100.0000 | <100.0000 |
| Methylene chloride | <1.0000 | <1.0000 | <1.0000 | <1.0000 | <1.0000 | <1.0000 | <1.0000 |
| Nickel, total | <50.0000 | <50.0000 | <50.0000 | <50.0000 | <50.0000 | <50.0000 | <50.0000 |
| pH FIELD | 4.8200 | 5.6600 | 5.1700 | 5.6700 | 5.7700 | 5.5100 | 6.3300 |
| Selenium, total | <10.0000 | <10.0000 | <10.0000 | <10.0000 | <10.0000 | <10.0000 | <10.0000 |
| Silver, total | <10.0000 | <10.0000 | <10.0000 | <10.0000 | <10.0000 | <10.0000 | <10.0000 |
| Specific conductance field | 38.0000 | 148.0000 | 119.0000 | 281.0000 | 112.0000 | 161.0000 | 62.0000 |
| Styrene | <1.0000 | <1.0000 | <1.0000 | <1.0000 | <1.0000 | <1.0000 | <1.0000 |
| Tetrachloroethene | <1.0000 | <1.0000 | <1.0000 | <1.0000 | <1.0000 | <1.0000 | <1.0000 |
| Thallium, total | <5.5000 | <5.5000 | <5.5000 | <5.5000 | <5.5000 | <5.5000 | <5.5000 |
| Toluene | <1.0000 | <1.0000 | <1.0000 | <1.0000 | <1.0000 | <1.0000 | <1.0000 |
| Total xylenes | <5.0000 | <5.0000 | <5.0000 | <5.0000 | <5.0000 | <5.0000 | <5.0000 |
| Trans-1,2-dichloroethene | <5.0000 | <5.0000 | <5.0000 | <5.0000 | <5.0000 | <5.0000 | <5.0000 |
| Trans-1,3-dichloropropene | <1.0000 | <1.0000 | <1.0000 | <1.0000 | <1.0000 | <1.0000 | <1.0000 |
| Trans-1,4-dichloro-2-butene | <100.0000 | <100.0000 | <100.0000 | <100.0000 | <100.0000 | <100.0000 | <100.0000 |
| Trichloroethene | <1.0000 | <1.0000 | <1.0000 | <1.0000 | <1.0000 | <1.0000 | <1.0000 |
| Trichlorofluoromethane | <1.0000 | <1.0000 | <1.0000 | <1.0000 | <1.0000 | <1.0000 | <1.0000 |
| Turbidity | .7000 | 10.1000 | 19.9000 | 1.5000 | 3.9000 | 3.0000 | 5.3000 |
| Vanadium, total | <25.0000 | <25.0000 | <25.0000 | <25.0000 | <25.0000 | <25.0000 | <25.0000 |
| Vinyl acetate | <50.0000 | <50.0000 | <50.0000 | <50.0000 | <50.0000 | <50.0000 | <50.0000 |
| Vinyl chloride | <1.0000 | <1.0000 | <1.0000 | <1.0000 | <1.0000 | <1.0000 | <1.0000 |
| Zinc, total | 10.0000 | <10.0000 | <10.0000 | <10.0000 | <10.0000 | <10.0000 | <10.0000 |

* - The displayed value is the arithmetic mean of multiple database matches.

## Table 1

## Analytical Data Summary for 3/19/2014

| Constituents | 3406-MW12 | 3406-MW12D | 3406-S02 | 3406-S03 | 3406-S04 | 3406-S05 |
|---|---|---|---|---|---|---|
| 1,1,1,2-tetrachloroethane | <5.0000 | <5.0000 | <5.0000 | <5.0000 | <5.0000 | <5.0000 |
| 1,1,1-trichloroethane | <1.0000 | <1.0000 | <1.0000 | <1.0000 | <1.0000 | <1.0000 |
| 1,1,2,2-tetrachloroethane | <3.0000 | <3.0000 | <3.0000 | <3.0000 | <3.0000 | <3.0000 |
| 1,1,2-trichloroethane | <1.0000 | <1.0000 | <1.0000 | <1.0000 | <1.0000 | <1.0000 |
| 1,1-dichloroethane | <5.0000 | <5.0000 | <5.0000 | <5.0000 | <5.0000 | <5.0000 |
| 1,1-dichloroethene | <5.0000 | <5.0000 | <5.0000 | <5.0000 | <5.0000 | <5.0000 |
| 1,2,3-trichloropropane | <1.0000 | <1.0000 | <1.0000 | <1.0000 | <1.0000 | <1.0000 |
| 1,2-dibromo-3-chloropropane (dbcp) | <13.0000 | <13.0000 | <13.0000 | <13.0000 | <13.0000 | <13.0000 |
| 1,2-dibromoethane (edb) | <1.0000 | <1.0000 | <1.0000 | <1.0000 | <1.0000 | <1.0000 |
| 1,2-dichlorobenzene | <5.0000 | <5.0000 | <5.0000 | <5.0000 | <5.0000 | <5.0000 |
| 1,2-dichloroethane | <1.0000 | <1.0000 | <1.0000 | <1.0000 | <1.0000 | <1.0000 |
| 1,2-dichloropropane | <1.0000 | <1.0000 | <1.0000 | <1.0000 | <1.0000 | <1.0000 |
| 1,4-dichlorobenzene | <1.0000 | <1.0000 | <1.0000 | <1.0000 | <1.0000 | <1.0000 |
| 2-hexanone | <50.0000 | <50.0000 | <50.0000 | <50.0000 | <50.0000 | <50.0000 |
| Acetone | <100.0000 | <100.0000 | <100.0000 | <100.0000 | <100.0000 | <100.0000 |
| Acrylonitrile | <200.0000 | <200.0000 | <200.0000 | <200.0000 | <200.0000 | <200.0000 |
| Antimony, total | <6.0000 | <6.0000 | <6.0000 | <6.0000 | <6.0000 | <6.0000 |
| Arsenic, total | <10.0000 | <10.0000 | <10.0000 | <10.0000 | <10.0000 | <10.0000 |
| Barium, total | <100.0000 | <100.0000 | <100.0000 | <100.0000 | <100.0000 | <100.0000 |
| Benzene | <1.0000 | <1.0000 | <1.0000 | <1.0000 | <1.0000 | <1.0000 |
| Beryllium, total | <1.0000 | <1.0000 | <1.0000 | <1.0000 | <1.0000 | <1.0000 |
| Bromochloromethane | <3.0000 | <3.0000 | <3.0000 | <3.0000 | <3.0000 | <3.0000 |
| Bromoform | <3.0000 | <3.0000 | <3.0000 | <3.0000 | <3.0000 | <3.0000 |
| Bromomethane | <10.0000 | <10.0000 | <10.0000 | <10.0000 | <10.0000 | <10.0000 |
| Cadmium, total | <1.0000 | <1.0000 | <1.0000 | <1.0000 | <1.0000 | <1.0000 |
| Carbon disulfide | <100.0000 | <100.0000 | <100.0000 | <100.0000 | <100.0000 | <100.0000 |
| Carbon tetrachloride | <1.0000 | <1.0000 | <1.0000 | <1.0000 | <1.0000 | <1.0000 |
| Chlorobenzene | <3.0000 | <3.0000 | <3.0000 | <3.0000 | <3.0000 | <3.0000 |
| Chloroethane | <10.0000 | <10.0000 | <10.0000 | <10.0000 | <10.0000 | <10.0000 |
| Chloroform | <5.0000 | <5.0000 | <5.0000 | <5.0000 | <5.0000 | <5.0000 |
| Chloromethane | <1.0000 | <1.0000 | <1.0000 | <1.0000 | <1.0000 | <1.0000 |
| Chromium, total | <10.0000 | <10.0000 | <10.0000 | <10.0000 | <10.0000 | <10.0000 |
| Cis-1,2-dichloroethene | <5.0000 | <5.0000 | <5.0000 | <5.0000 | <5.0000 | <5.0000 |
| Cis-1,3-dichloropropene | <1.0000 | <1.0000 | <1.0000 | <1.0000 | <1.0000 | <1.0000 |
| Cobalt, total | <10.0000 | <10.0000 | <10.0000 | <10.0000 | <10.0000 | <10.0000 |
| Copper, total | <10.0000 | <10.0000 | <10.0000 | <10.0000 | <10.0000 | <10.0000 |
| Dibromochloromethane | <3.0000 | <3.0000 | <3.0000 | <3.0000 | <3.0000 | <3.0000 |
| Dibromomethane | <10.0000 | <10.0000 | <10.0000 | <10.0000 | <10.0000 | <10.0000 |
| Dichlorobromomethane | <1.0000 | <1.0000 | <1.0000 | <1.0000 | <1.0000 | <1.0000 |
| Do (field) | .6000 | .4000 | 6.8000 | 6.6000 | 6.3000 | 6.6000 |
| Eh/orp (field) | 179.0000 | 146.0000 | 73.0000 | 23.4000 | 30.2000 | 23.9000 |
| Ethylbenzene | <1.0000 | <1.0000 | <1.0000 | <1.0000 | <1.0000 | <1.0000 |
| Groundwater elev. | 745.6100 | 746.3500 | | | | |
| Iodomethane | <10.0000 | <10.0000 | <10.0000 | <10.0000 | <10.0000 | <10.0000 |
| Lead, total | <10.0000 | <10.0000 | <10.0000 | <10.0000 | <10.0000 | <10.0000 |
| Methyl ethyl ketone | <100.0000 | <100.0000 | <100.0000 | <100.0000 | <100.0000 | <100.0000 |
| Methyl isobutyl ketone | <100.0000 | <100.0000 | <100.0000 | <100.0000 | <100.0000 | <100.0000 |
| Methylene chloride | <1.0000 | <1.0000 | <1.0000 | <1.0000 | <1.0000 | <1.0000 |
| Nickel, total | <50.0000 | <50.0000 | <50.0000 | <50.0000 | <50.0000 | <50.0000 |
| pH FIELD | 5.9700 | 6.6000 | 6.5100 | 6.9800 | 7.1600 | 6.9200 |
| Selenium, total | <10.0000 | <10.0000 | <10.0000 | <10.0000 | <10.0000 | <10.0000 |
| Silver, total | <10.0000 | <10.0000 | <10.0000 | <10.0000 | <10.0000 | <10.0000 |
| Specific conductance field | 146.0000 | 202.0000 | 87.0000 | 71.0000 | 73.0000 | 80.0000 |
| Styrene | <1.0000 | <1.0000 | <1.0000 | <1.0000 | <1.0000 | <1.0000 |
| Tetrachloroethene | <1.0000 | <1.0000 | <1.0000 | <1.0000 | <1.0000 | <1.0000 |
| Thallium, total | <5.5000 | <5.5000 | <5.5000 | <5.5000 | <5.5000 | <5.5000 |
| Toluene | <1.0000 | <1.0000 | <1.0000 | <1.0000 | <1.0000 | <1.0000 |
| Total xylenes | <5.0000 | <5.0000 | <5.0000 | <5.0000 | <5.0000 | <5.0000 |
| Trans-1,2-dichloroethene | <5.0000 | <5.0000 | <5.0000 | <5.0000 | <5.0000 | <5.0000 |
| Trans-1,3-dichloropropene | <1.0000 | <1.0000 | <1.0000 | <1.0000 | <1.0000 | <1.0000 |
| Trans-1,4-dichloro-2-butene | <100.0000 | <100.0000 | <100.0000 | <100.0000 | <100.0000 | <100.0000 |
| Trichloroethene | <1.0000 | <1.0000 | <1.0000 | <1.0000 | <1.0000 | <1.0000 |
| Trichlorofluoromethane | <1.0000 | <1.0000 | <1.0000 | <1.0000 | <1.0000 | <1.0000 |
| Turbidity | 4.2000 | 2.9000 | 24.1000 | 29.6000 | 28.6000 | 28.8000 |
| Vanadium, total | <25.0000 | <25.0000 | <25.0000 | <25.0000 | <25.0000 | <25.0000 |
| Vinyl acetate | <50.0000 | <50.0000 | <50.0000 | <50.0000 | <50.0000 | <50.0000 |
| Vinyl chloride | <1.0000 | <1.0000 | <1.0000 | <1.0000 | <1.0000 | <1.0000 |
| Zinc, total | <10.0000 | <10.0000 | <10.0000 | <10.0000 | <10.0000 | <10.0000 |

* - The displayed value is the arithmetic mean of multiple database matches.

# Attachment B

Summary Table and Graphs for the Intrawell Comparisons

## Table 1

## Summary Statistics and Intermediate Computations for Combined Shewhart-Cusum Control Charts

| Constituent | Units | Well | N | Mean | SD | S(i-1) | S(i) | Limit |
|---|---|---|---|---|---|---|---|---|
| Antimony, total | UG/L | 3406-MW01 | 43 | | | | | 30.0000** |
| Arsenic, total | UG/L | 3406-MW01 | 49 | | | | | 10.0000** |
| Barium, total | UG/L | 3406-MW01 | 49 | 320.0429 | 219.2848 | 320.0429 | 320.0429 | 1197.1819 |
| Beryllium, total | UG/L | 3406-MW01 | 41 | | | | | 2.0000** |
| Cadmium, total | UG/L | 3406-MW01 | 52 | | | | | 2.0000** |
| Chromium, total | UG/L | 3406-MW01 | 49 | | | | | 10.0000** |
| Cobalt, total | UG/L | 3406-MW01 | 41 | | | | | 10.0000** |
| Copper, total | UG/L | 3406-MW01 | 49 | | | | | 25.0000** |
| Lead, total | UG/L | 3406-MW01 | 49 | | | | | 10.0000** |
| Nickel, total | UG/L | 3406-MW01 | 41 | | | | | 50.0000** |
| Selenium, total | UG/L | 3406-MW01 | 49 | | | | | 10.8000** |
| Silver, total | UG/L | 3406-MW01 | 49 | | | | | 10.0000** |
| Thallium, total | UG/L | 3406-MW01 | 41 | | | | | 10.0000** |
| Vanadium, total | UG/L | 3406-MW01 | 41 | | | | | 40.0000** |
| Zinc, total | UG/L | 3406-MW01 | 49 | | | | | 65.4000** |
| Antimony, total | UG/L | 3406-MW02 | 42 | | | | | 30.0000** |
| Arsenic, total | UG/L | 3406-MW02 | 48 | | | | | 10.1000** |
| Barium, total | UG/L | 3406-MW02 | 48 | 209.0313 | 212.1981 | 209.0313 | 209.0313 | 1057.8236 |
| Beryllium, total | UG/L | 3406-MW02 | 40 | | | | | 2.0000** |
| Cadmium, total | UG/L | 3406-MW02 | 51 | | | | | 2.1000** |
| Chromium, total | UG/L | 3406-MW02 | 48 | | | | | 10.0000** |
| Cobalt, total | UG/L | 3406-MW02 | 40 | | | | | 10.0000** |
| Copper, total | UG/L | 3406-MW02 | 48 | | | | | 25.0000** |
| Lead, total | UG/L | 3406-MW02 | 48 | | | | | 10.0000** |
| Nickel, total | UG/L | 3406-MW02 | 40 | | | | | 50.0000** |
| Selenium, total | UG/L | 3406-MW02 | 48 | | | | | 10.0000** |
| Silver, total | UG/L | 3406-MW02 | 48 | | | | | 10.0000** |
| Thallium, total | UG/L | 3406-MW02 | 40 | | | | | 10.0000** |
| Vanadium, total | UG/L | 3406-MW02 | 40 | | | | | 40.0000** |
| Zinc, total | UG/L | 3406-MW02 | 48 | | | | | 50.0000** |
| Antimony, total | UG/L | 3406-MW03 | 43 | | | | | 30.0000** |
| Arsenic, total | UG/L | 3406-MW03 | 48 | | | | | 10.0000** |
| Barium, total | UG/L | 3406-MW03 | 48 | 296.7354 | 243.0618 | 296.7354 | 296.7354 | 1268.9827 |
| Beryllium, total | UG/L | 3406-MW03 | 40 | | | | | 2.0000** |
| Cadmium, total | UG/L | 3406-MW03 | 51 | | | | | 2.3000** |
| Chromium, total | UG/L | 3406-MW03 | 49 | 9.6592 | 2.4715 | 10.6336 | 11.1208 | 19.5452 |
| Cobalt, total | UG/L | 3406-MW03 | 41 | | | | | 10.0000** |
| Copper, total | UG/L | 3406-MW03 | 49 | | | | | 31.6000** |
| Lead, total | UG/L | 3406-MW03 | 48 | | | | | 10.0000** |
| Nickel, total | UG/L | 3406-MW03 | 40 | | | | | 50.0000** |
| Selenium, total | UG/L | 3406-MW03 | 48 | | | | | 10.0000** |
| Silver, total | UG/L | 3406-MW03 | 48 | | | | | 10.0000** |
| Thallium, total | UG/L | 3406-MW03 | 40 | | | | | 10.0000** |
| Vanadium, total | UG/L | 3406-MW03 | 41 | | | | | 40.0000** |
| Zinc, total | UG/L | 3406-MW03 | 48 | | | | | 50.0000** |
| Antimony, total | UG/L | 3406-MW04 | 42 | | | | | 30.0000** |
| Arsenic, total | UG/L | 3406-MW04 | 48 | | | | | 10.0000** |
| Barium, total | UG/L | 3406-MW04 | 48 | 304.2146 | 234.1135 | 304.2146 | 304.2146 | 1240.6686 |
| Beryllium, total | UG/L | 3406-MW04 | 40 | | | | | 2.0000** |
| Cadmium, total | UG/L | 3406-MW04 | 51 | | | | | 1.8000** |
| Chromium, total | UG/L | 3406-MW04 | 48 | | | | | 10.0000** |
| Cobalt, total | UG/L | 3406-MW04 | 40 | | | | | 10.0000** |
| Copper, total | UG/L | 3406-MW04 | 48 | | | | | 25.0000** |
| Lead, total | UG/L | 3406-MW04 | 48 | | | | | 10.0000** |
| Nickel, total | UG/L | 3406-MW04 | 40 | | | | | 50.0000** |
| Selenium, total | UG/L | 3406-MW04 | 48 | | | | | 14.7000** |
| Silver, total | UG/L | 3406-MW04 | 48 | | | | | 10.0000** |
| Thallium, total | UG/L | 3406-MW04 | 40 | | | | | 10.0000** |
| Vanadium, total | UG/L | 3406-MW04 | 40 | | | | | 40.0000** |
| Zinc, total | UG/L | 3406-MW04 | 48 | | | | | 50.0000** |
| Antimony, total | UG/L | 3406-MW04D | 38 | | | | | 30.0000** |
| Arsenic, total | UG/L | 3406-MW04D | 38 | | | | | 10.0000** |
| Barium, total | UG/L | 3406-MW04D | 38 | 392.7895 | 187.0881 | 392.7895 | 392.7895 | 1141.1419 |
| Beryllium, total | UG/L | 3406-MW04D | 38 | | | | | 8.0000** |
| Cadmium, total | UG/L | 3406-MW04D | 38 | | | | | 2.1000** |
| Chromium, total | UG/L | 3406-MW04D | 38 | 9.7868 | 2.9570 | 9.7868 | 9.7868 | 21.6149 |
| Cobalt, total | UG/L | 3406-MW04D | 38 | | | | | 26.0000** |
| Copper, total | UG/L | 3406-MW04D | 38 | | | | | 200.0000** |
| Lead, total | UG/L | 3406-MW04D | 40 | 10.9750 | 11.9052 | 10.9750 | 10.9750 | 58.5958 |
| Nickel, total | UG/L | 3406-MW04D | 38 | | | | | 50.0000** |
| Selenium, total | UG/L | 3406-MW04D | 38 | | | | | 20.0000** |
| Silver, total | UG/L | 3406-MW04D | 38 | | | | | 10.0000** |
| Thallium, total | UG/L | 3406-MW04D | 38 | | | | | 10.0000** |

* - Insufficient Data
** - Detection Frequency < 25%
*** - Zero Variance

## Table 1

## Summary Statistics and Intermediate Computations for Combined Shewhart-Cusum Control Charts

| Constituent | Units | Well | N | Mean | SD | S(i-1) | S(i) | Limit |
|---|---|---|---|---|---|---|---|---|
| Vanadium, total | UG/L | 3406-MW04D | 38 | | | | | 120.0000** |
| Zinc, total | UG/L | 3406-MW04D | 40 | 57.7000 | 38.2892 | 57.7000 | 57.7000 | 210.8569 |
| Antimony, total | UG/L | 3406-MW05 | 42 | | | | | 30.0000** |
| Arsenic, total | UG/L | 3406-MW05 | 48 | | | | | 11.9000** |
| Barium, total | UG/L | 3406-MW05 | 48 | 298.6438 | 240.7731 | 298.6438 | 298.6438 | 1261.7360 |
| Beryllium, total | UG/L | 3406-MW05 | 40 | | | | | 2.0000** |
| Cadmium, total | UG/L | 3406-MW05 | 51 | | | | | 1.0000** |
| Chromium, total | UG/L | 3406-MW05 | 48 | | | | | 10.0000** |
| Cobalt, total | UG/L | 3406-MW05 | 40 | | | | | 10.0000** |
| Copper, total | UG/L | 3406-MW05 | 48 | | | | | 25.0000** |
| Lead, total | UG/L | 3406-MW05 | 48 | | | | | 10.0000** |
| Nickel, total | UG/L | 3406-MW05 | 40 | | | | | 50.0000** |
| Selenium, total | UG/L | 3406-MW05 | 48 | | | | | 10.0000** |
| Silver, total | UG/L | 3406-MW05 | 48 | | | | | 10.0000** |
| Thallium, total | UG/L | 3406-MW05 | 40 | | | | | 10.0000** |
| Vanadium, total | UG/L | 3406-MW05 | 40 | | | | | 40.0000** |
| Zinc, total | UG/L | 3406-MW05 | 48 | | | | | 110.0000** |
| Antimony, total | UG/L | 3406-MW06 | 42 | | | | | 30.0000** |
| Arsenic, total | UG/L | 3406-MW06 | 40 | | | | | 10.0000** |
| Barium, total | UG/L | 3406-MW06 | 40 | 361.4300 | 214.4190 | 361.4300 | 361.4300 | 1219.1059 |
| Beryllium, total | UG/L | 3406-MW06 | 40 | | | | | 2.6000** |
| Cadmium, total | UG/L | 3406-MW06 | 43 | | | | | 1.0000** |
| Chromium, total | UG/L | 3406-MW06 | 40 | | | | | 10.0000** |
| Cobalt, total | UG/L | 3406-MW06 | 40 | | | | | 10.0000** |
| Copper, total | UG/L | 3406-MW06 | 40 | | | | | 200.0000** |
| Lead, total | UG/L | 3406-MW06 | 40 | | | | | 10.0000** |
| Nickel, total | UG/L | 3406-MW06 | 40 | | | | | 50.0000** |
| Selenium, total | UG/L | 3406-MW06 | 40 | | | | | 20.0000** |
| Silver, total | UG/L | 3406-MW06 | 40 | | | | | 10.0000** |
| Thallium, total | UG/L | 3406-MW06 | 40 | | | | | 10.0000** |
| Vanadium, total | UG/L | 3406-MW06 | 40 | | | | | 45.6000** |
| Zinc, total | UG/L | 3406-MW06 | 40 | | | | | 310.0000** |
| Antimony, total | UG/L | 3406-MW07 | 39 | | | | | 30.0000** |
| Arsenic, total | UG/L | 3406-MW07 | 39 | | | | | 10.6000** |
| Barium, total | UG/L | 3406-MW07 | 39 | 361.5718 | 223.7632 | 361.5718 | 361.5718 | 1256.6246 |
| Beryllium, total | UG/L | 3406-MW07 | 39 | | | | | 2.0000** |
| Cadmium, total | UG/L | 3406-MW07 | 39 | | | | | 1.0000** |
| Chromium, total | UG/L | 3406-MW07 | 39 | | | | | 10.0000** |
| Cobalt, total | UG/L | 3406-MW07 | 39 | | | | | 10.0000** |
| Copper, total | UG/L | 3406-MW07 | 39 | | | | | 200.0000** |
| Lead, total | UG/L | 3406-MW07 | 39 | | | | | 10.0000** |
| Nickel, total | UG/L | 3406-MW07 | 39 | | | | | 50.0000** |
| Selenium, total | UG/L | 3406-MW07 | 39 | | | | | 20.0000** |
| Silver, total | UG/L | 3406-MW07 | 38 | | | | | 10.0000** |
| Thallium, total | UG/L | 3406-MW07 | 39 | | | | | 10.0000** |
| Vanadium, total | UG/L | 3406-MW07 | 39 | | | | | 40.0000** |
| Zinc, total | UG/L | 3406-MW07 | 39 | | | | | 50.0000** |
| Antimony, total | UG/L | 3406-MW08 | 40 | | | | | 30.0000** |
| Arsenic, total | UG/L | 3406-MW08 | 40 | | | | | 11.3000** |
| Barium, total | UG/L | 3406-MW08 | 39 | 351.3051 | 193.4109 | 351.3051 | 351.3051 | 1124.9489 |
| Beryllium, total | UG/L | 3406-MW08 | 39 | | | | | 2.0000** |
| Cadmium, total | UG/L | 3406-MW08 | 40 | | | | | 1.3000** |
| Chromium, total | UG/L | 3406-MW08 | 39 | | | | | 11.5000** |
| Cobalt, total | UG/L | 3406-MW08 | 43 | 11.6512 | 3.4783 | 11.6512 | 11.6512 | 25.5645 |
| Copper, total | UG/L | 3406-MW08 | 39 | | | | | 200.0000** |
| Lead, total | UG/L | 3406-MW08 | 40 | | | | | 56.8000** |
| Nickel, total | UG/L | 3406-MW08 | 39 | | | | | 50.0000** |
| Selenium, total | UG/L | 3406-MW08 | 39 | | | | | 20.0000** |
| Silver, total | UG/L | 3406-MW08 | 39 | | | | | 11.6000** |
| Thallium, total | UG/L | 3406-MW08 | 40 | | | | | 10.0000** |
| Vanadium, total | UG/L | 3406-MW08 | 40 | | | | | 40.0000** |
| Zinc, total | UG/L | 3406-MW08 | 39 | | | | | 79.1000** |
| Antimony, total | UG/L | 3406-MW09R | 36 | | | | | 30.0000** |
| Arsenic, total | UG/L | 3406-MW09R | 36 | | | | | 10.0000** |
| Barium, total | UG/L | 3406-MW09R | 36 | 382.9000 | 206.1481 | 382.9000 | 382.9000 | 1207.4925 |
| Beryllium, total | UG/L | 3406-MW09R | 36 | | | | | 2.0000** |
| Cadmium, total | UG/L | 3406-MW09R | 36 | | | | | 1.0000** |
| Chromium, total | UG/L | 3406-MW09R | 36 | | | | | 49.9000** |
| Cobalt, total | UG/L | 3406-MW09R | 40 | | | | | 18.2000** |
| Copper, total | UG/L | 3406-MW09R | 36 | | | | | 200.0000** |
| Lead, total | UG/L | 3406-MW09R | 36 | | | | | 10.0000** |
| Nickel, total | UG/L | 3406-MW09R | 36 | | | | | 50.0000** |
| Selenium, total | UG/L | 3406-MW09R | 36 | | | | | 20.0000** |

* - Insufficient Data
** - Detection Frequency < 25%
*** - Zero Variance

## Table 1

### Summary Statistics and Intermediate Computations for Combined Shewhart-Cusum Control Charts

| Constituent | Units | Well | N | Mean | SD | S(i-1) | S(i) | Limit |
|---|---|---|---|---|---|---|---|---|
| Silver, total | UG/L | 3406-MW09R | 36 | | | | | 10.0000** |
| Thallium, total | UG/L | 3406-MW09R | 36 | | | | | 10.0000** |
| Vanadium, total | UG/L | 3406-MW09R | 37 | | | | | 106.0000** |
| Zinc, total | UG/L | 3406-MW09R | 36 | | | | | 87.9000** |
| Antimony, total | UG/L | 3406-MW10 | 38 | | | | | 30.0000** |
| Arsenic, total | UG/L | 3406-MW10 | 38 | | | | | 10.0000** |
| Barium, total | UG/L | 3406-MW10 | 38 | 371.4237 | 218.0654 | 371.4237 | 371.4237 | 1243.6852 |
| Beryllium, total | UG/L | 3406-MW10 | 38 | | | | | 2.0000** |
| Cadmium, total | UG/L | 3406-MW10 | 38 | | | | | 1.0000** |
| Chromium, total | UG/L | 3406-MW10 | 40 | 9.6075 | 3.5570 | 9.6075 | 9.6075 | 23.8354 |
| Cobalt, total | UG/L | 3406-MW10 | 38 | | | | | 13.3000** |
| Copper, total | UG/L | 3406-MW10 | 38 | | | | | 200.0000** |
| Lead, total | UG/L | 3406-MW10 | 38 | | | | | 10.0000** |
| Nickel, total | UG/L | 3406-MW10 | 38 | | | | | 50.0000** |
| Selenium, total | UG/L | 3406-MW10 | 38 | | | | | 20.0000** |
| Silver, total | UG/L | 3406-MW10 | 38 | | | | | 10.0000** |
| Thallium, total | UG/L | 3406-MW10 | 38 | | | | | 10.0000** |
| Vanadium, total | UG/L | 3406-MW10 | 38 | | | | | 40.0000** |
| Zinc, total | UG/L | 3406-MW10 | 38 | | | | | 50.0000** |
| Antimony, total | UG/L | 3406-MW11 | 38 | | | | | 30.0000** |
| Arsenic, total | UG/L | 3406-MW11 | 38 | | | | | 10.0000** |
| Barium, total | UG/L | 3406-MW11 | 38 | | | | | 500.0000** |
| Beryllium, total | UG/L | 3406-MW11 | 38 | | | | | 2.0000** |
| Cadmium, total | UG/L | 3406-MW11 | 38 | | | | | 1.0000** |
| Chromium, total | UG/L | 3406-MW11 | 38 | | | | | 10.0000** |
| Cobalt, total | UG/L | 3406-MW11 | 38 | | | | | 10.0000** |
| Copper, total | UG/L | 3406-MW11 | 38 | | | | | 200.0000** |
| Lead, total | UG/L | 3406-MW11 | 38 | | | | | 10.0000** |
| Nickel, total | UG/L | 3406-MW11 | 38 | | | | | 50.0000** |
| Selenium, total | UG/L | 3406-MW11 | 38 | | | | | 20.0000** |
| Silver, total | UG/L | 3406-MW11 | 38 | | | | | 10.0000** |
| Thallium, total | UG/L | 3406-MW11 | 38 | | | | | 10.0000** |
| Vanadium, total | UG/L | 3406-MW11 | 38 | | | | | 40.0000** |
| Zinc, total | UG/L | 3406-MW11 | 38 | 40.2342 | 16.6502 | 40.2342 | 40.2342 | 106.8351 |
| Antimony, total | UG/L | 3406-MW11D | 38 | | | | | 30.0000** |
| Arsenic, total | UG/L | 3406-MW11D | 38 | | | | | 10.0000** |
| Barium, total | UG/L | 3406-MW11D | 38 | 409.7632 | 167.2930 | 409.7632 | 409.7632 | 1078.9350 |
| Beryllium, total | UG/L | 3406-MW11D | 38 | | | | | 2.4000** |
| Cadmium, total | UG/L | 3406-MW11D | 38 | | | | | 1.4000** |
| Chromium, total | UG/L | 3406-MW11D | 40 | 12.7775 | 10.3504 | 12.7775 | 12.7775 | 54.1790 |
| Cobalt, total | UG/L | 3406-MW11D | 38 | | | | | 50.3000** |
| Copper, total | UG/L | 3406-MW11D | 39 | 172.0231 | 65.6841 | 172.0231 | 172.0231 | 434.7596 |
| Lead, total | UG/L | 3406-MW11D | 38 | | | | | 12.7000** |
| Nickel, total | UG/L | 3406-MW11D | 38 | | | | | 50.0000** |
| Selenium, total | UG/L | 3406-MW11D | 38 | | | | | 20.0000** |
| Silver, total | UG/L | 3406-MW11D | 38 | | | | | 10.0000** |
| Thallium, total | UG/L | 3406-MW11D | 38 | | | | | 10.0000** |
| Vanadium, total | UG/L | 3406-MW11D | 39 | | | | | 174.0000** |
| Zinc, total | UG/L | 3406-MW11D | 39 | 54.0872 | 29.0968 | 54.0872 | 54.0872 | 170.4743 |
| Antimony, total | UG/L | 3406-MW12 | 38 | | | | | 30.0000** |
| Arsenic, total | UG/L | 3406-MW12 | 38 | | | | | 10.0000** |
| Barium, total | UG/L | 3406-MW12 | 38 | 375.4368 | 211.5372 | 375.4368 | 375.4368 | 1221.5858 |
| Beryllium, total | UG/L | 3406-MW12 | 38 | | | | | 2.0000** |
| Cadmium, total | UG/L | 3406-MW12 | 38 | | | | | 1.0000** |
| Chromium, total | UG/L | 3406-MW12 | 39 | | | | | 14.0000** |
| Cobalt, total | UG/L | 3406-MW12 | 38 | | | | | 11.0000** |
| Copper, total | UG/L | 3406-MW12 | 38 | | | | | 200.0000** |
| Lead, total | UG/L | 3406-MW12 | 39 | | | | | 25.0000** |
| Nickel, total | UG/L | 3406-MW12 | 38 | | | | | 50.0000** |
| Selenium, total | UG/L | 3406-MW12 | 38 | | | | | 20.0000** |
| Silver, total | UG/L | 3406-MW12 | 38 | | | | | 10.0000** |
| Thallium, total | UG/L | 3406-MW12 | 38 | | | | | 10.0000** |
| Vanadium, total | UG/L | 3406-MW12 | 38 | | | | | 40.0000** |
| Zinc, total | UG/L | 3406-MW12 | 38 | 58.9500 | 51.1508 | 58.9500 | 58.9500 | 263.5531 |
| Antimony, total | UG/L | 3406-MW12D | 38 | | | | | 30.0000** |
| Arsenic, total | UG/L | 3406-MW12D | 38 | | | | | 10.0000** |
| Barium, total | UG/L | 3406-MW12D | 39 | 403.0718 | 175.5681 | 403.0718 | 403.0718 | 1105.3441 |
| Beryllium, total | UG/L | 3406-MW12D | 38 | | | | | 2.6000** |
| Cadmium, total | UG/L | 3406-MW12D | 38 | | | | | 1.0000** |
| Chromium, total | UG/L | 3406-MW12D | 39 | 34.0128 | 62.3518 | 34.0128 | 34.0128 | 283.4199 |
| Cobalt, total | UG/L | 3406-MW12D | 39 | 16.4410 | 19.6355 | 16.4410 | 16.4410 | 94.9831 |
| Copper, total | UG/L | 3406-MW12D | 39 | | | | | 208.0000** |
| Lead, total | UG/L | 3406-MW12D | 39 | | | | | 59.0000** |

* - Insufficient Data
** - Detection Frequency < 25%
*** - Zero Variance

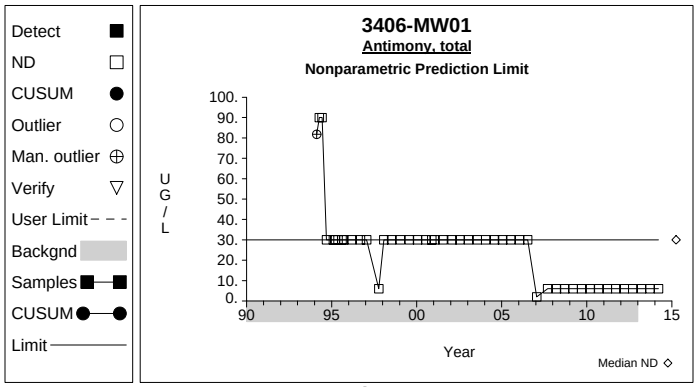
## Table 1

### Summary Statistics and Intermediate Computations for Combined Shewhart-Cusum Control Charts

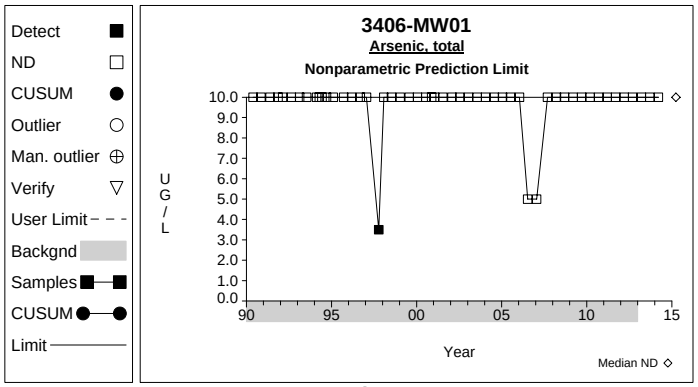
| Constituent | Units | Well | N | Mean | SD | S(i-1) | S(i) | Limit |
|---|---|---|---|---|---|---|---|---|
| Nickel, total | UG/L | 3406-MW12D | 39 | | | | | 108.0000** |
| Selenium, total | UG/L | 3406-MW12D | 38 | | | | | 20.0000** |
| Silver, total | UG/L | 3406-MW12D | 38 | | | | | 10.0000** |
| Thallium, total | UG/L | 3406-MW12D | 38 | | | | | 10.0000** |
| Vanadium, total | UG/L | 3406-MW12D | 39 | 65.5154 | 76.5384 | 65.5154 | 65.5154 | 371.6690 |
| Zinc, total | UG/L | 3406-MW12D | 39 | 82.3513 | 107.0410 | 82.3513 | 82.3513 | 510.5153 |

* - Insufficient Data
** - Detection Frequency < 25%
*** - Zero Variance

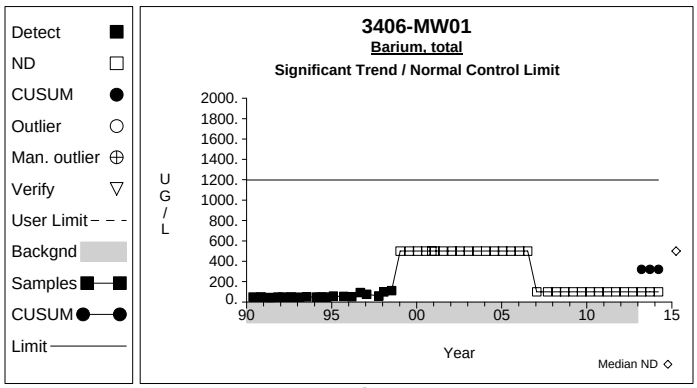
# Intra-Well Control Charts



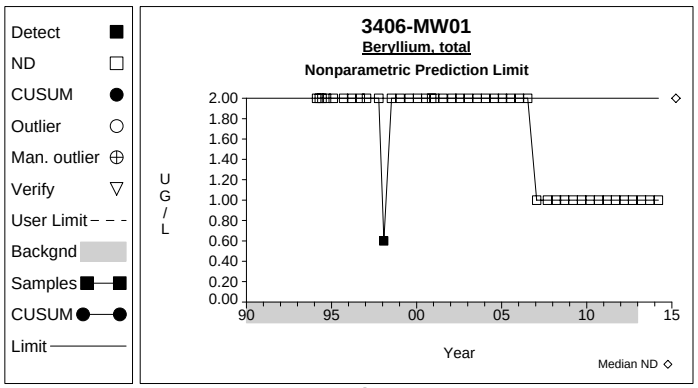

Graph 1



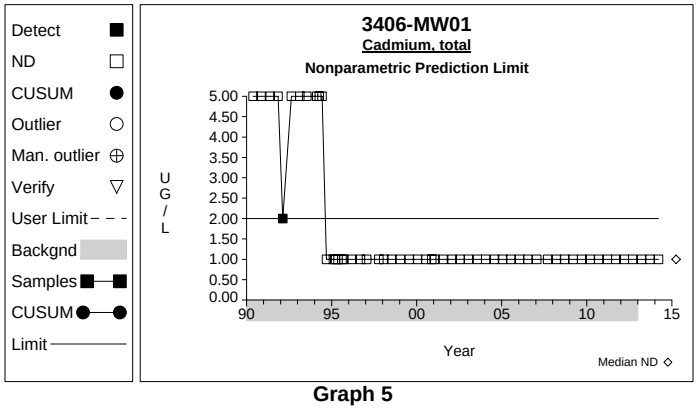

Graph 2



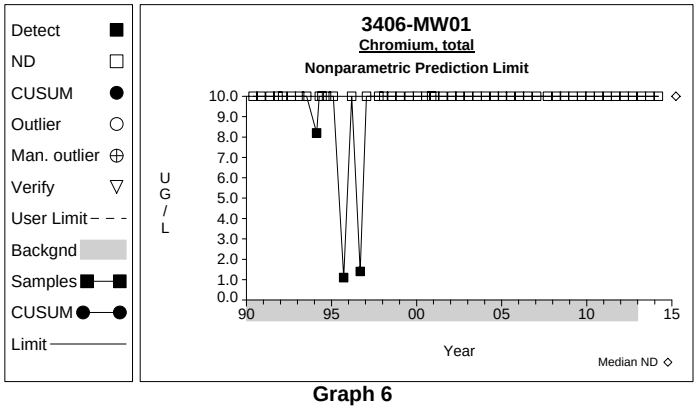

Graph 3



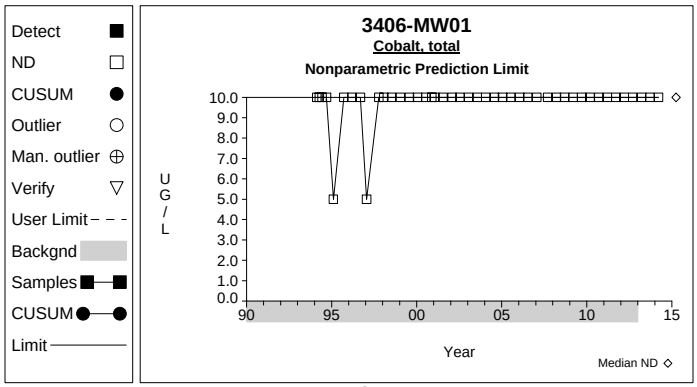

Graph 4



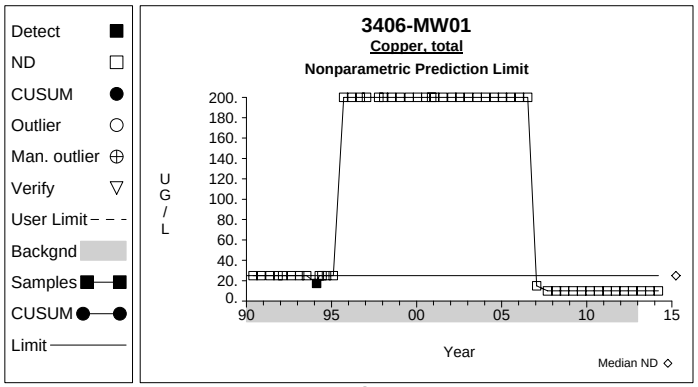

Graph 5




Graph 6

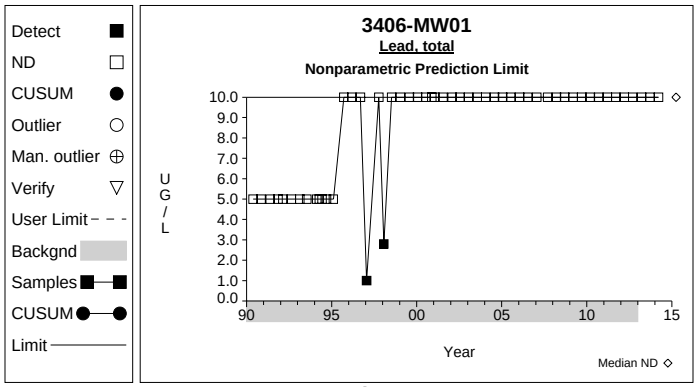



Graph 7

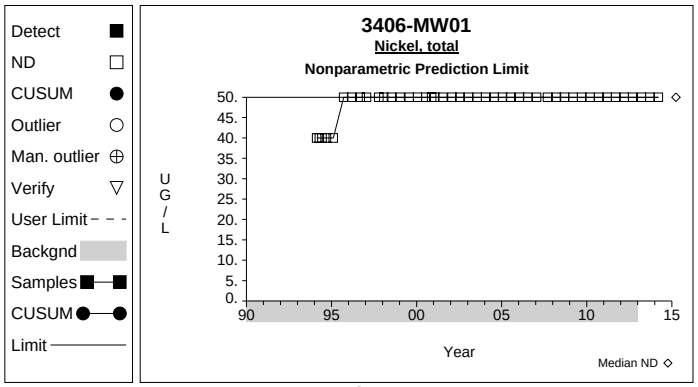



Graph 8

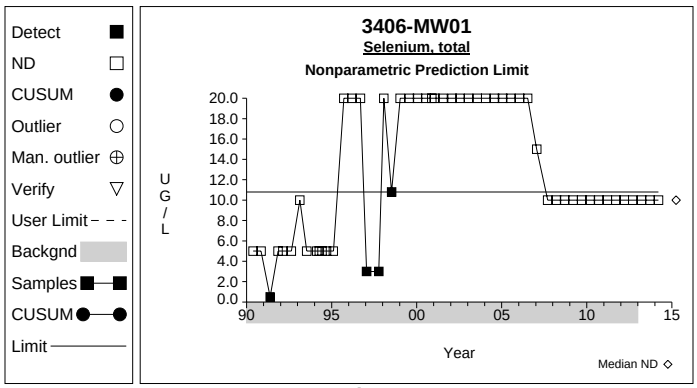
# Intra-Well Control Charts



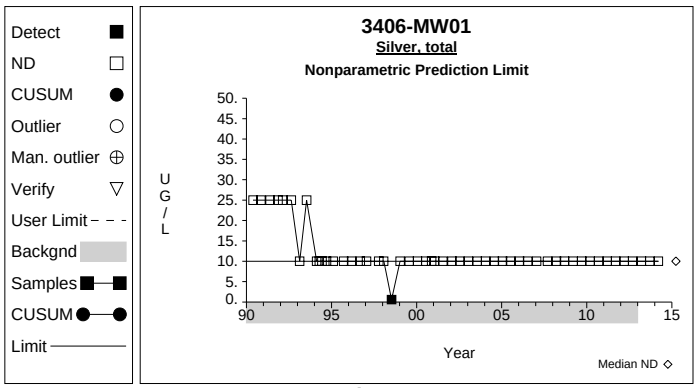

Graph 9



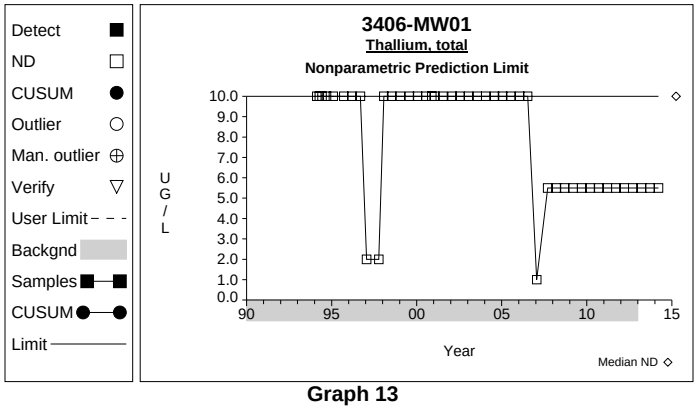

Graph 10



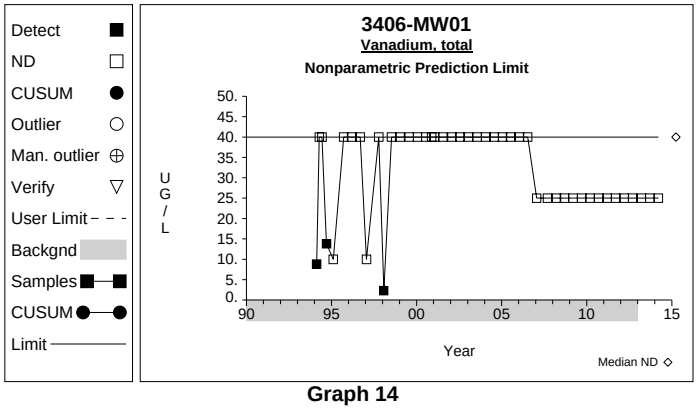

Graph 11



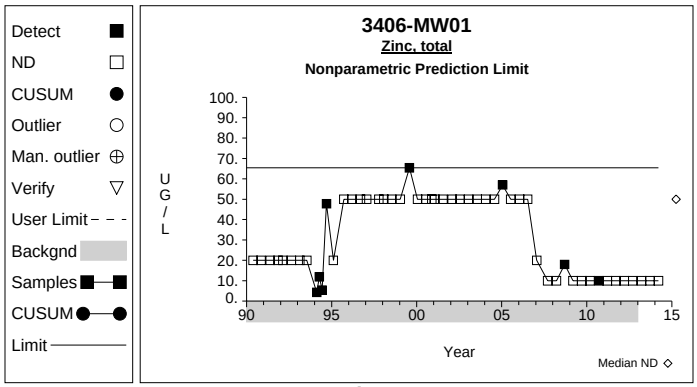

Graph 12




Graph 13

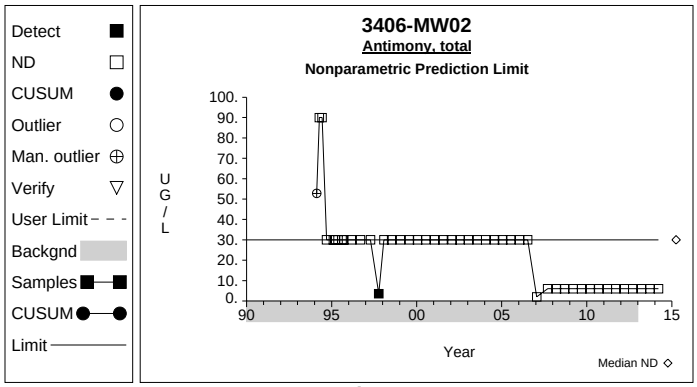



Graph 14

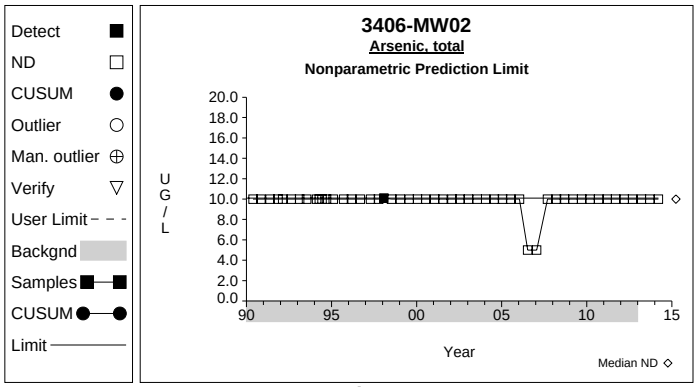



Graph 15

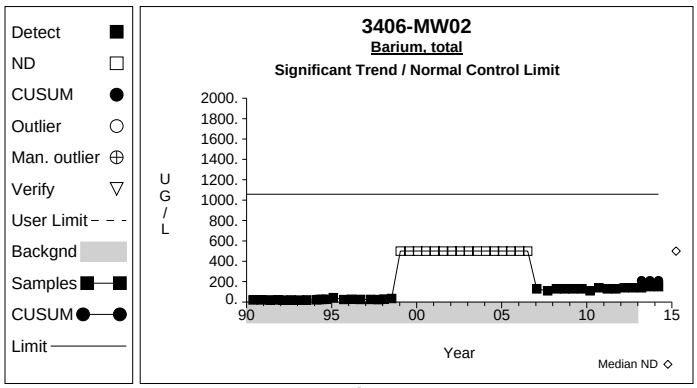
# Intra-Well Control Charts



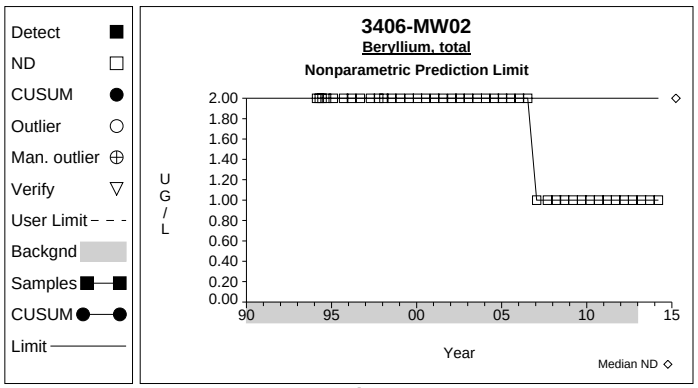

Graph 16



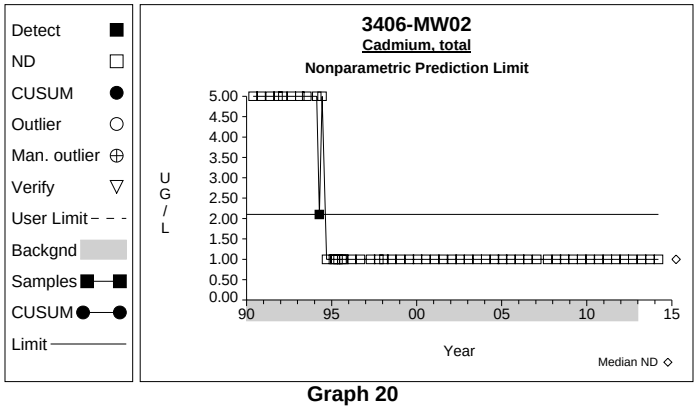

Graph 17



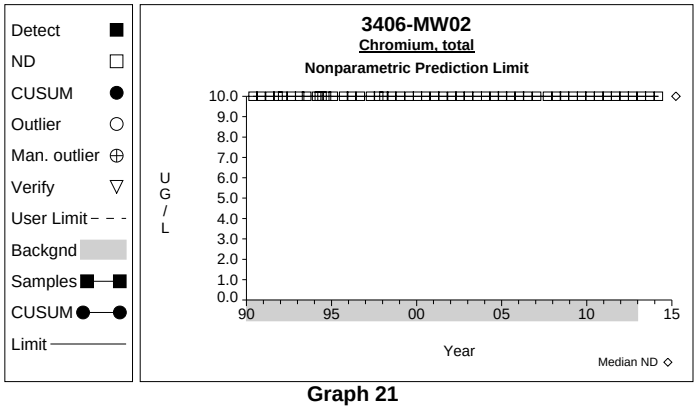

Graph 18



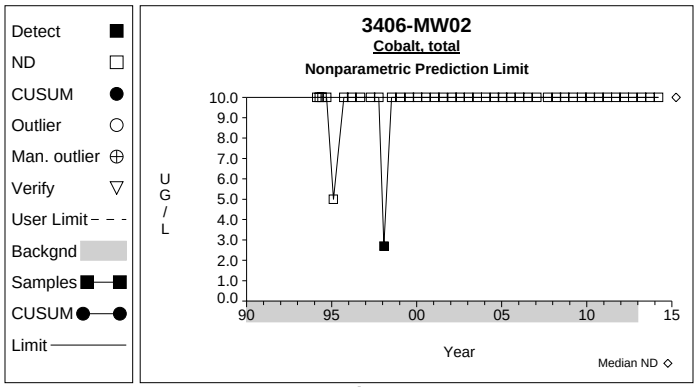

Graph 19



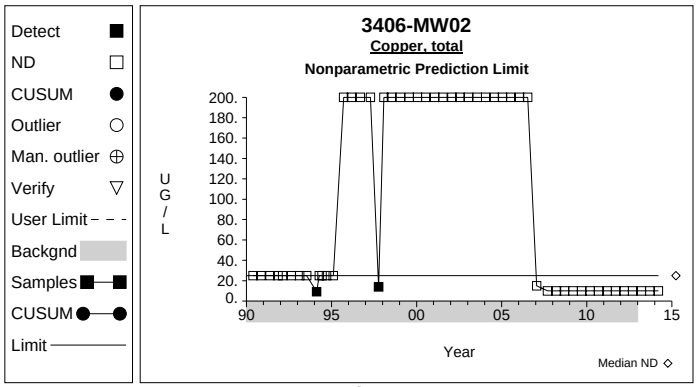

Graph 20




Graph 21

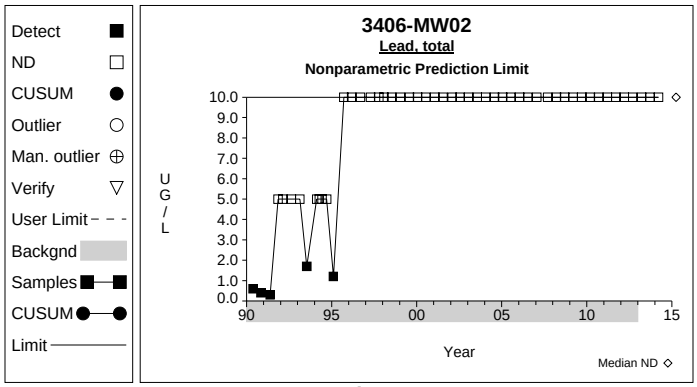



Graph 22

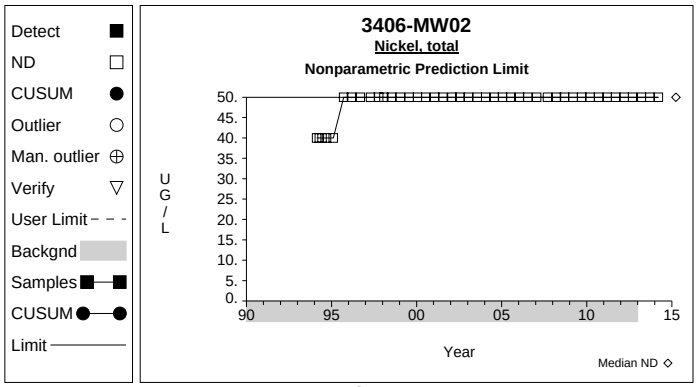



Graph 23

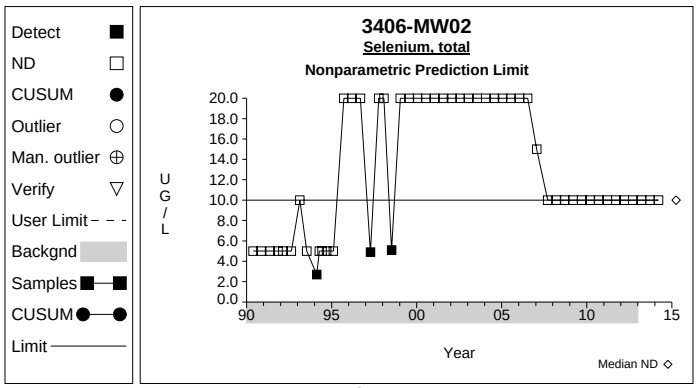
# Intra-Well Control Charts



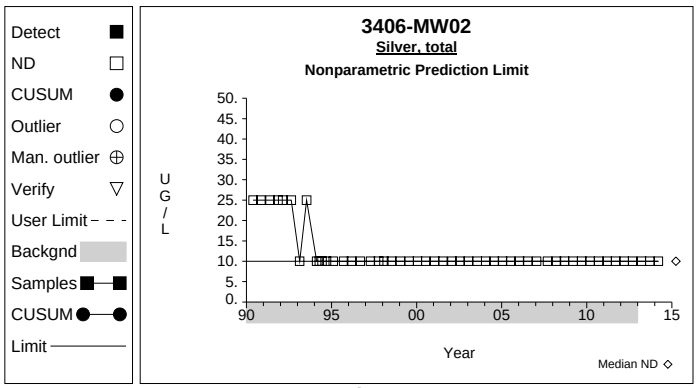

Graph 24



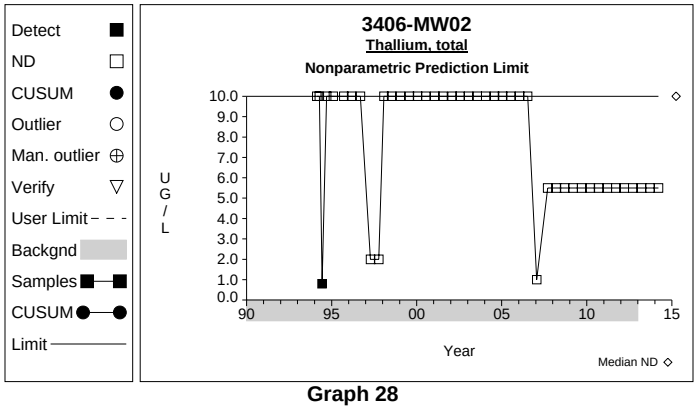

Graph 25



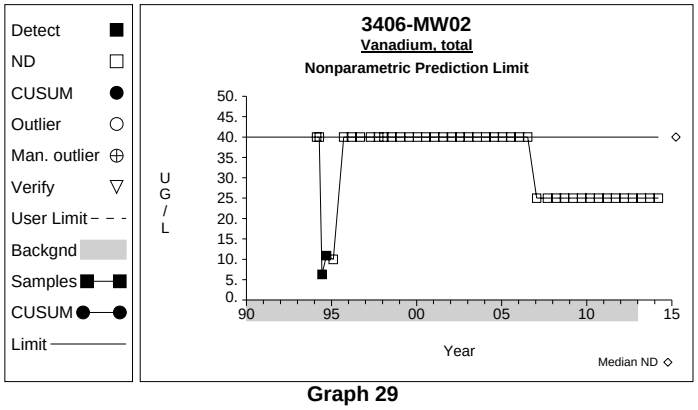

Graph 26



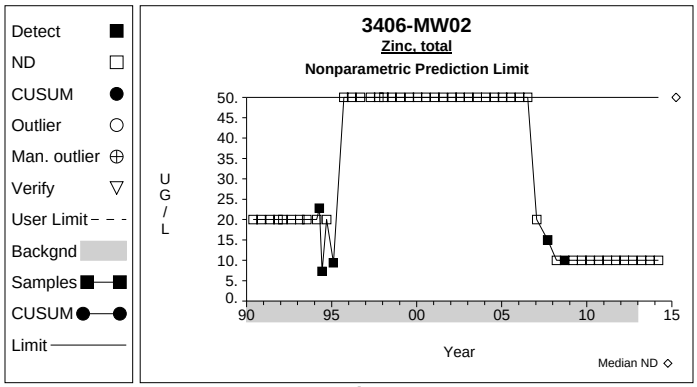

Graph 27




Graph 28

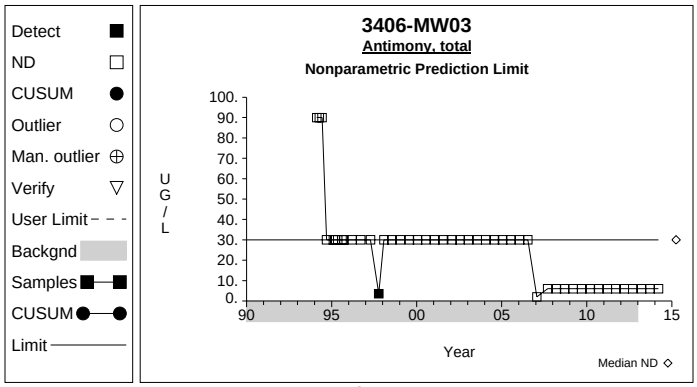



Graph 29

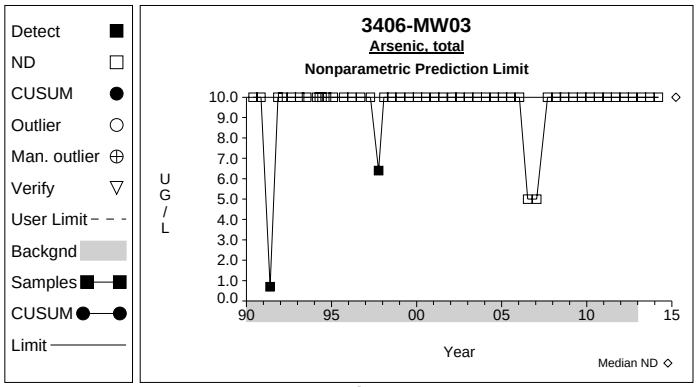



Graph 30

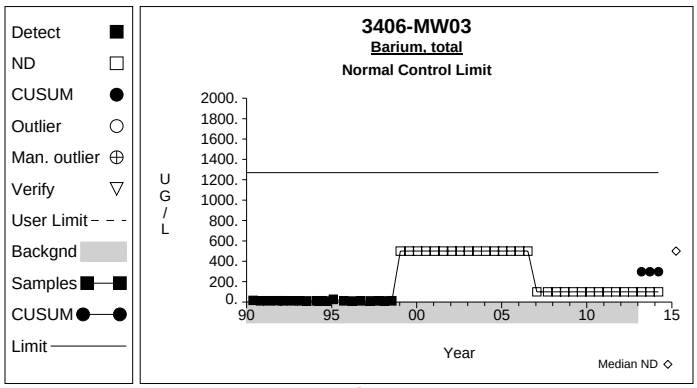
# Intra-Well Control Charts



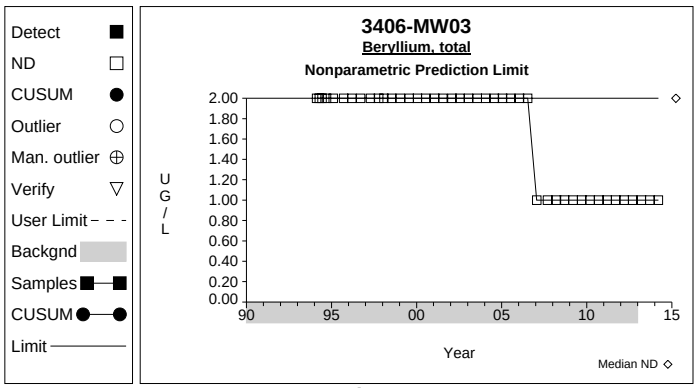

Graph 31



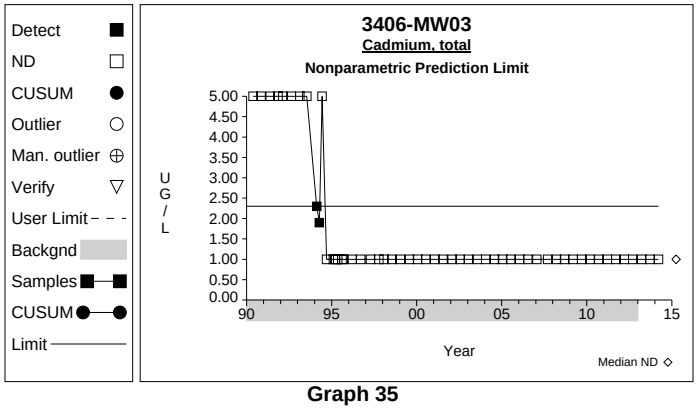

Graph 32



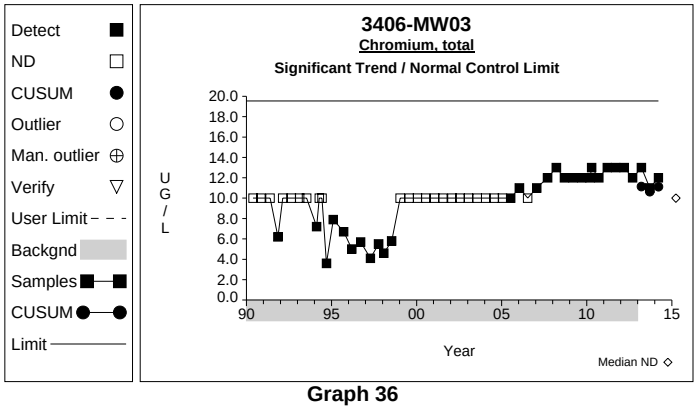

Graph 33



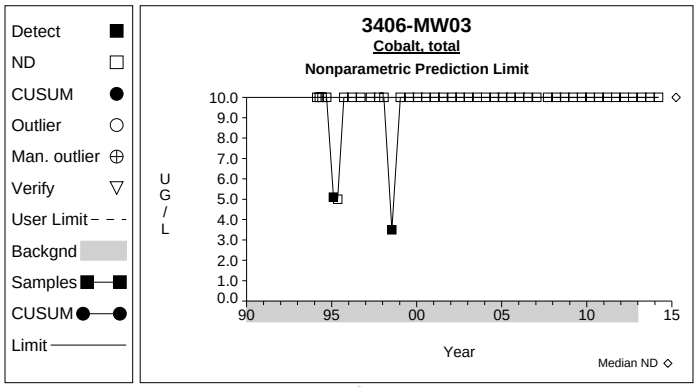

Graph 34



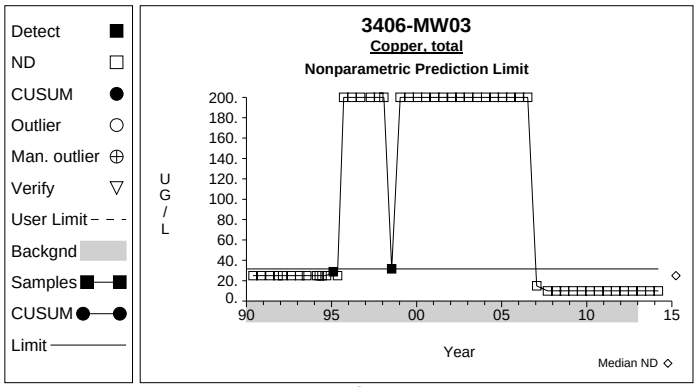

Graph 35




Graph 36

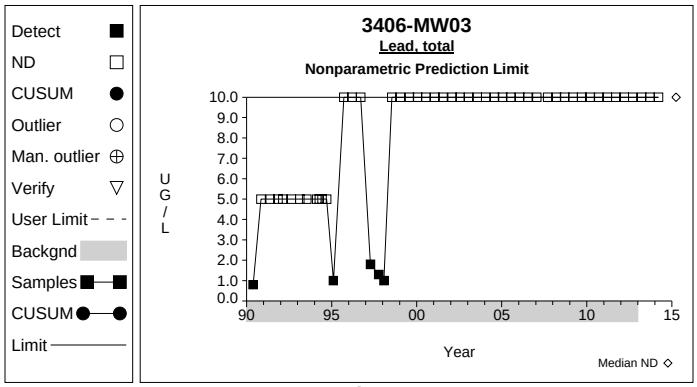



Graph 37

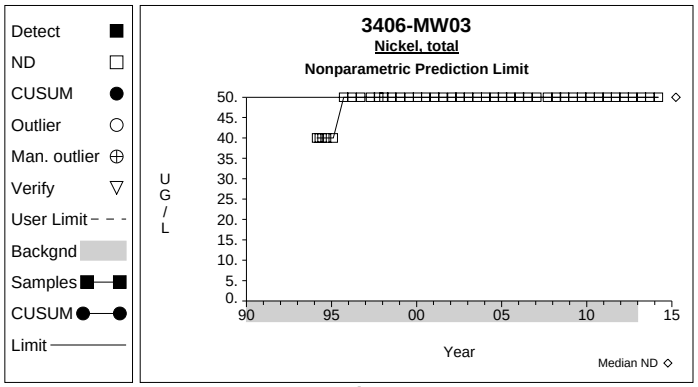



Graph 38

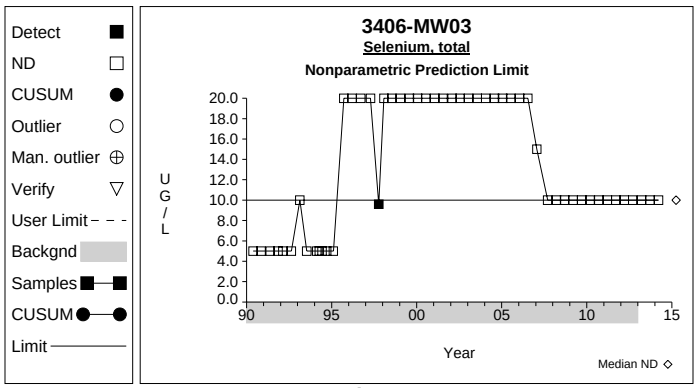
# Intra-Well Control Charts



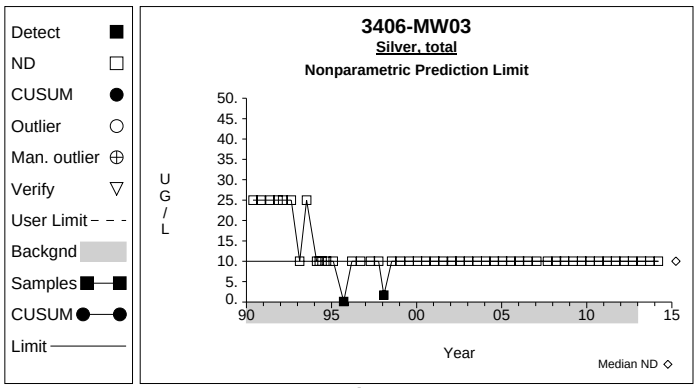

Graph 39



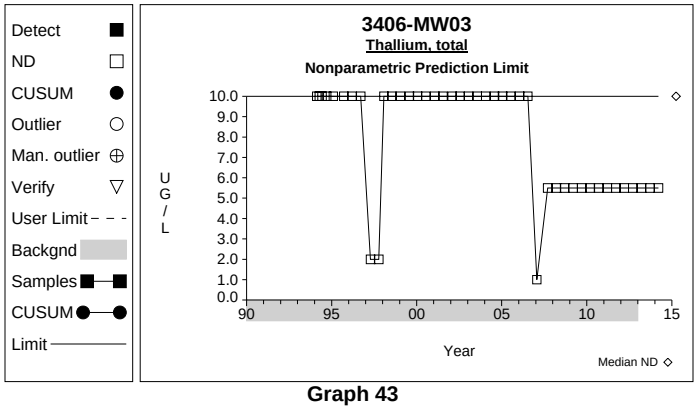

Graph 40



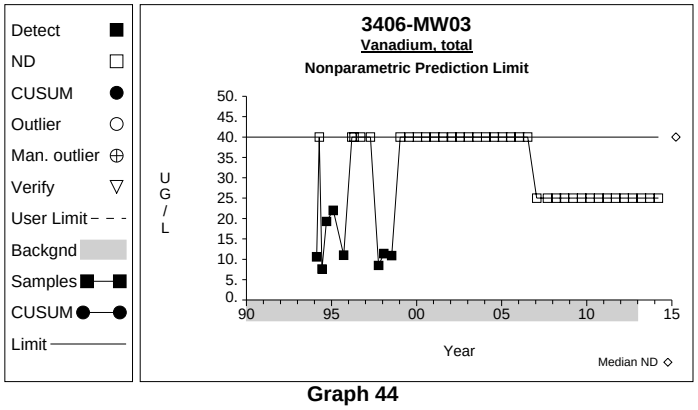

Graph 41



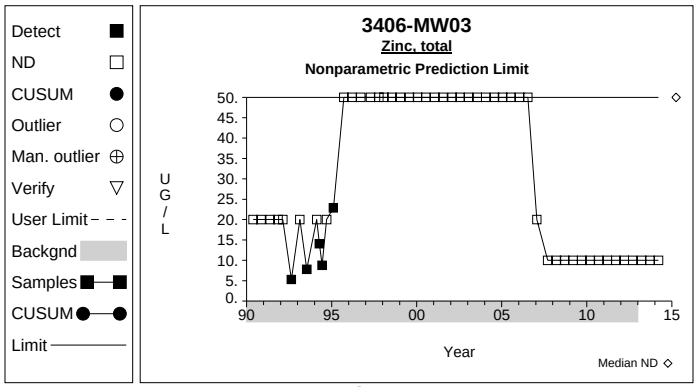

Graph 42




Graph 43

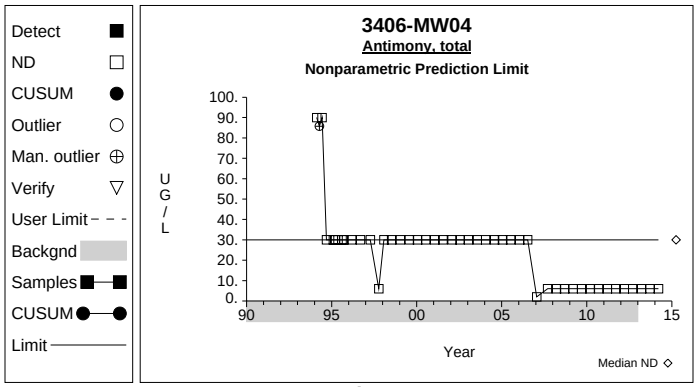



Graph 44

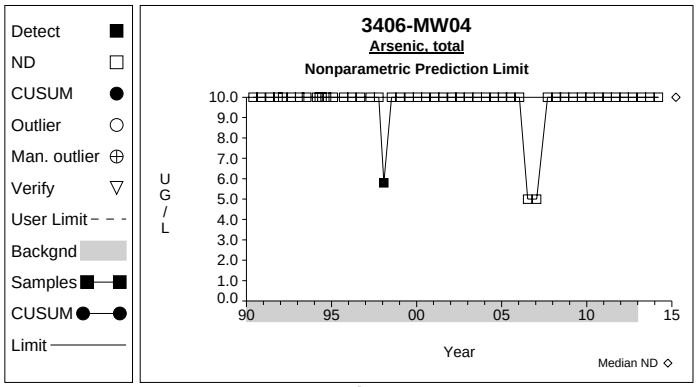



Graph 45

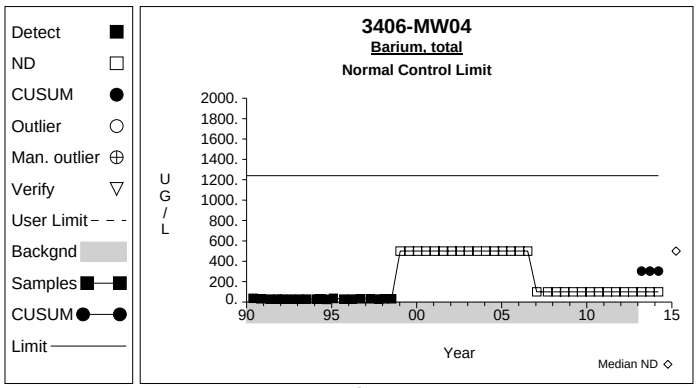
# Intra-Well Control Charts



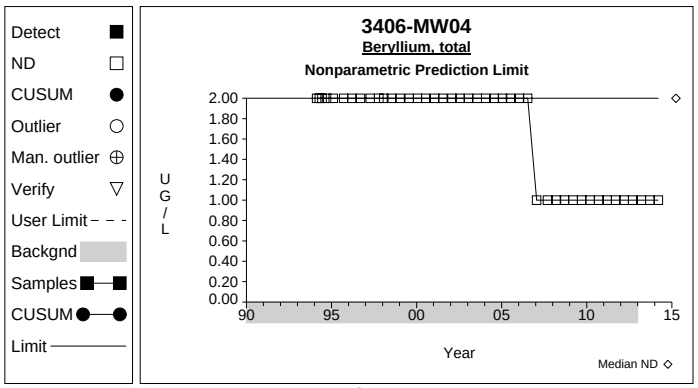

Graph 46



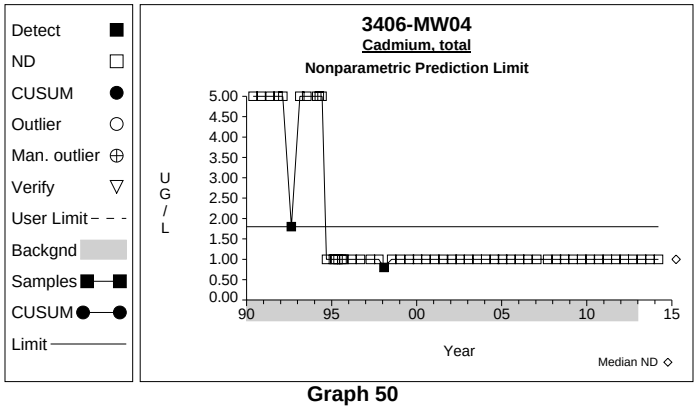

Graph 47



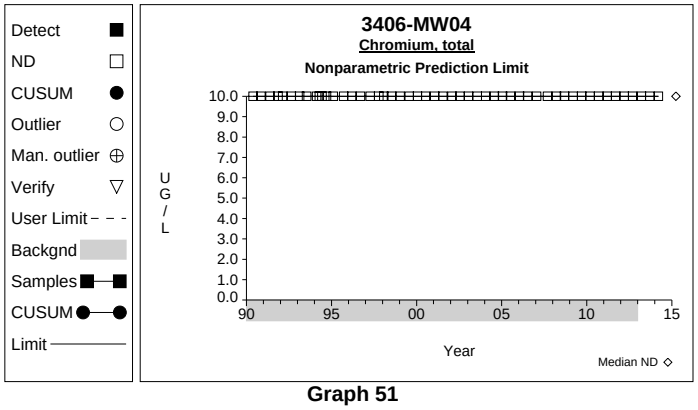

Graph 48



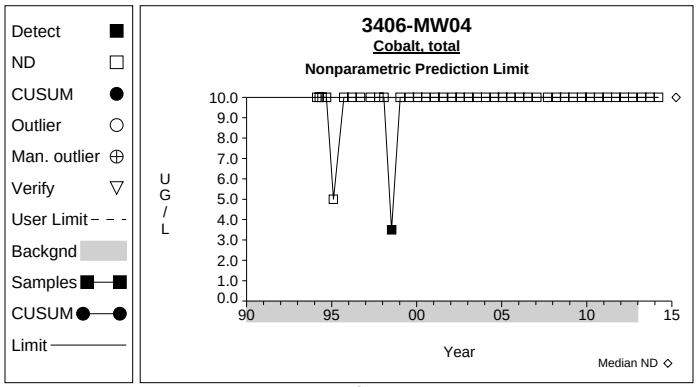

Graph 49



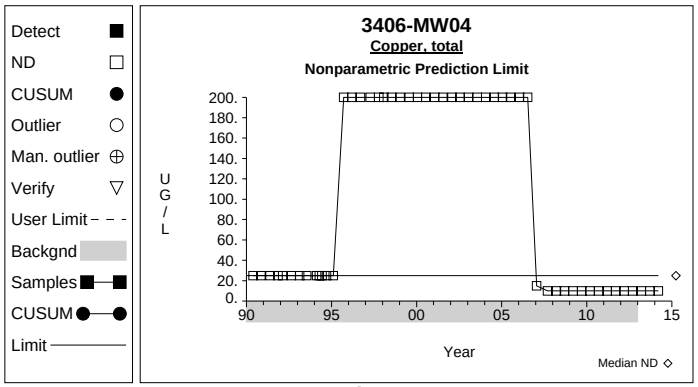

Graph 50




Graph 51

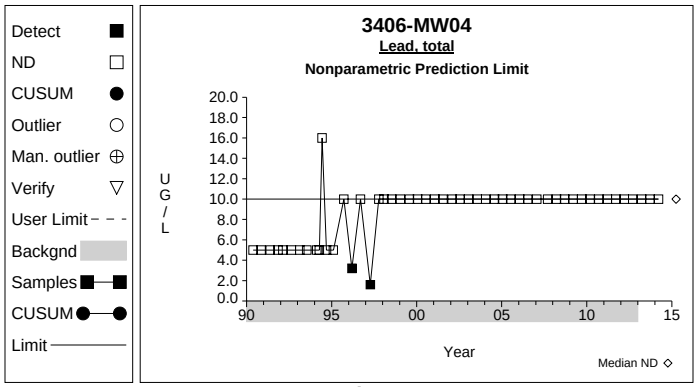



Graph 52

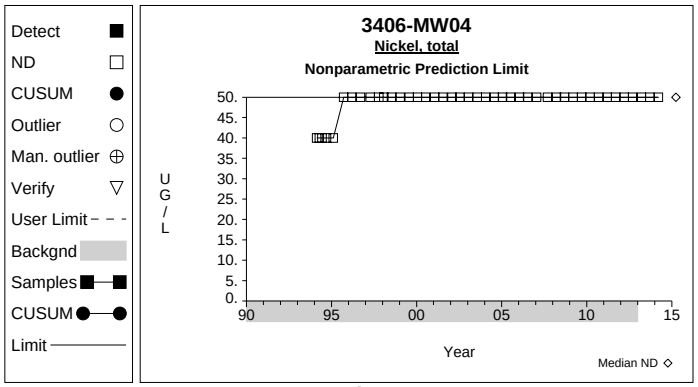



Graph 53

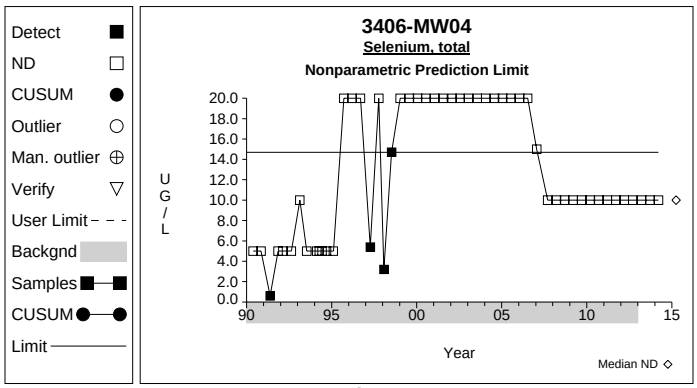
# Intra-Well Control Charts



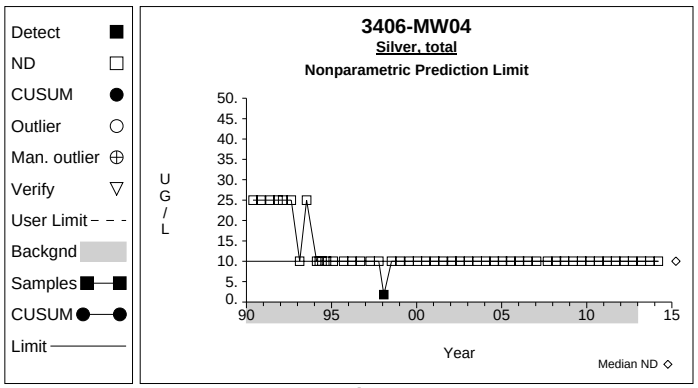

Graph 54



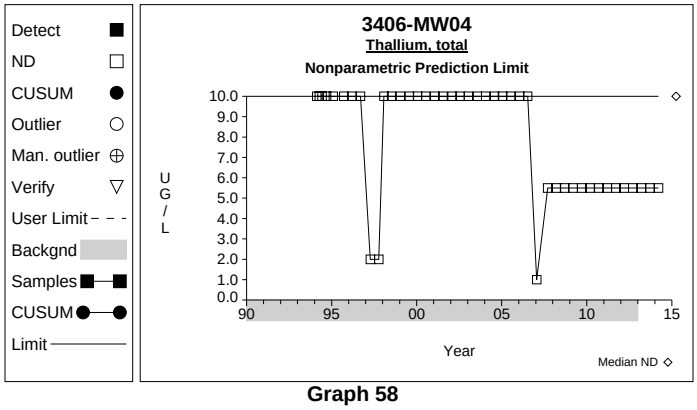

Graph 55



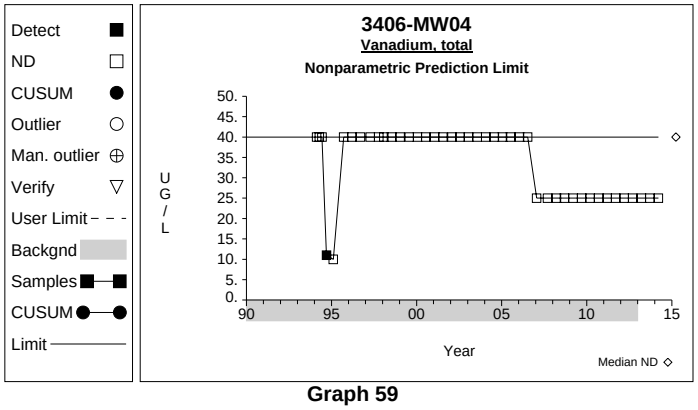

Graph 56



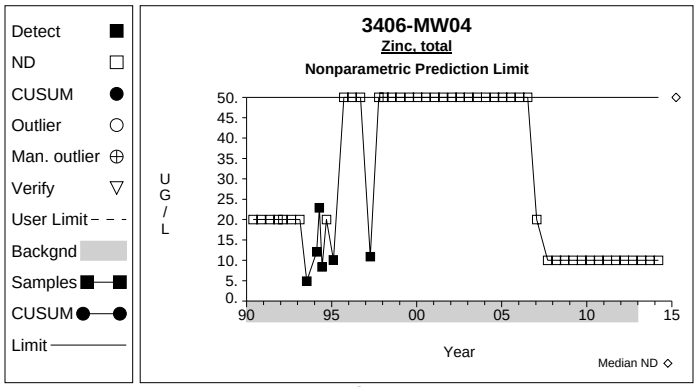

Graph 57




Graph 58

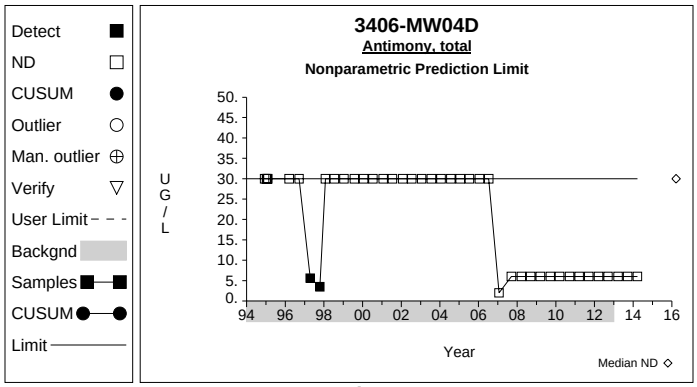



Graph 59

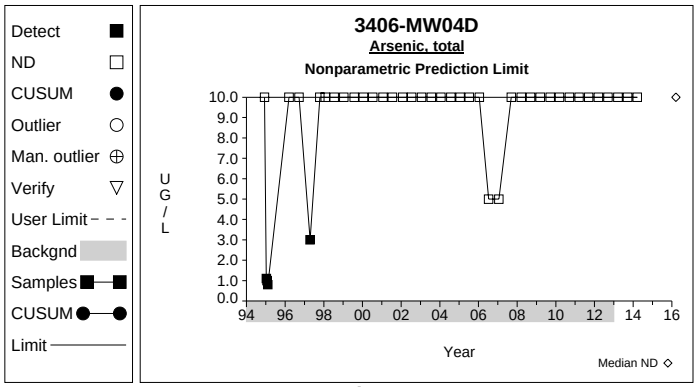



Graph 60

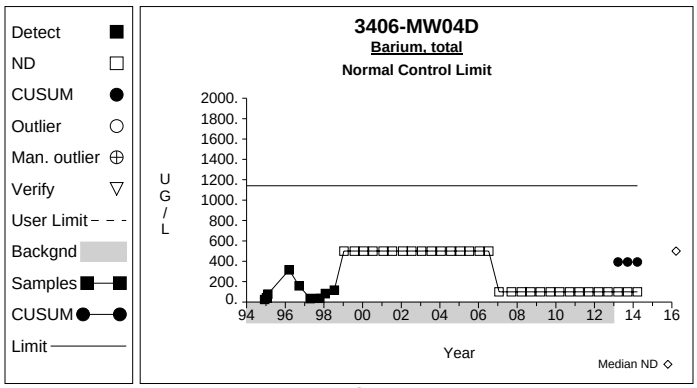
# Intra-Well Control Charts



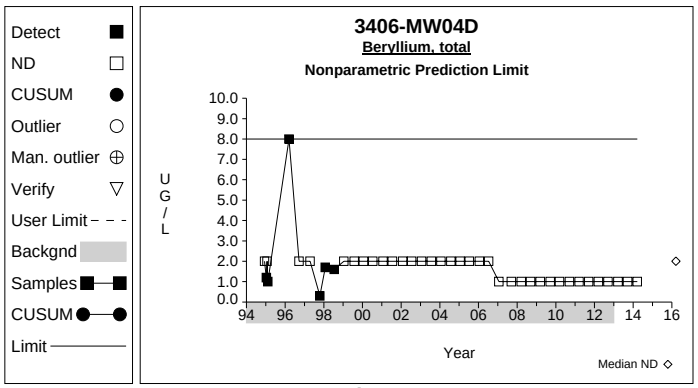

Graph 61



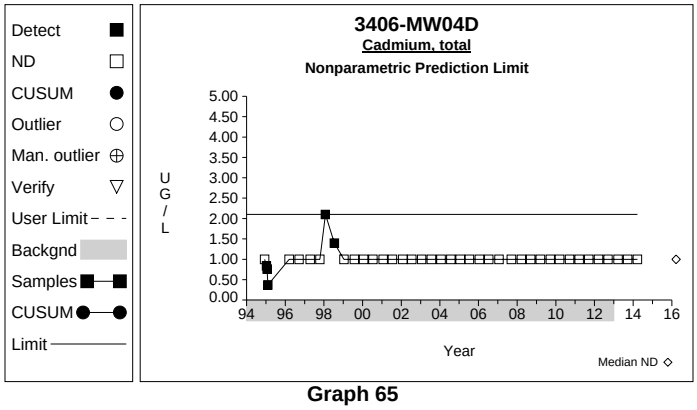

Graph 62



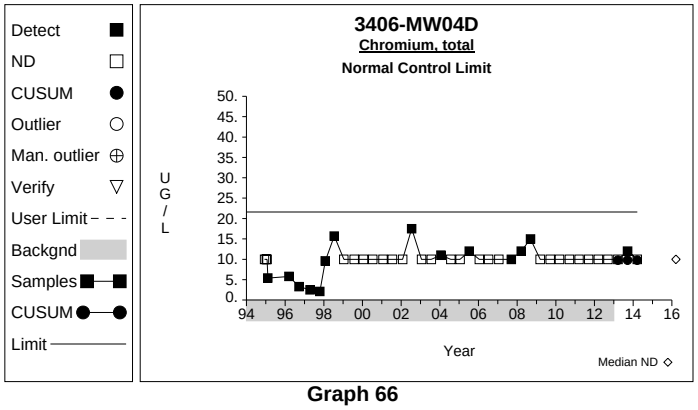

Graph 63



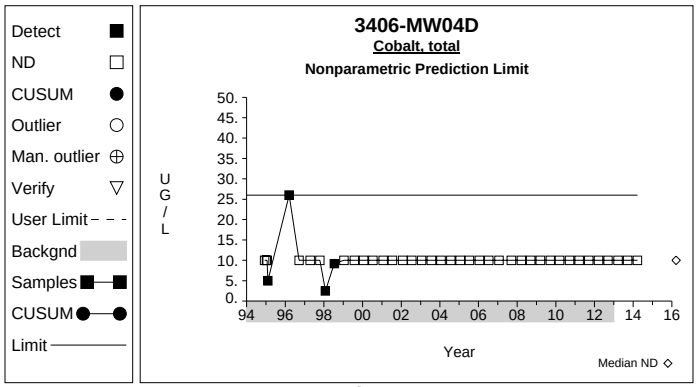

Graph 64



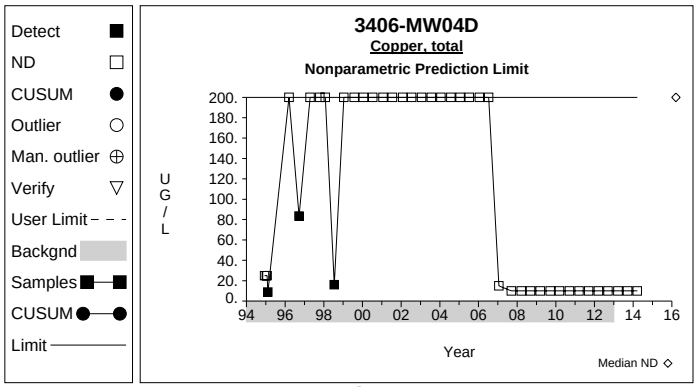

Graph 65




Graph 66

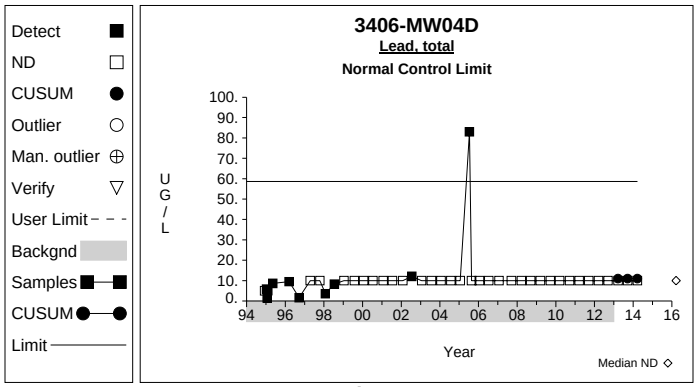



Graph 67

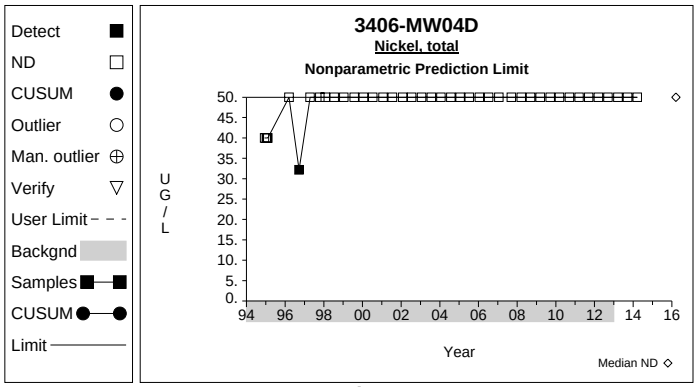



Graph 68

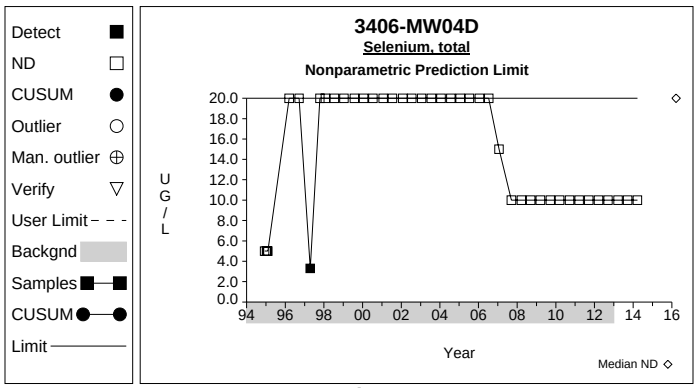
# Intra-Well Control Charts



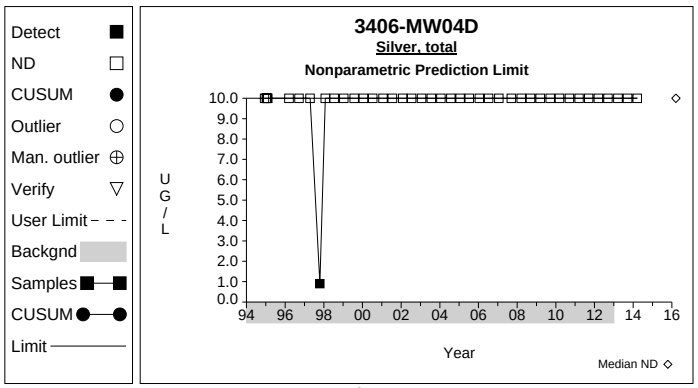

Graph 69



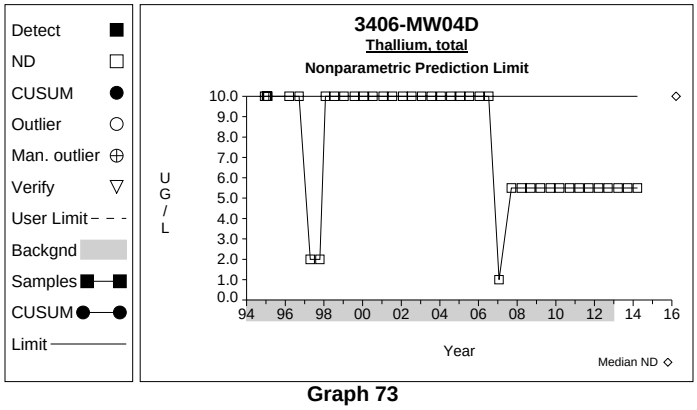

Graph 70



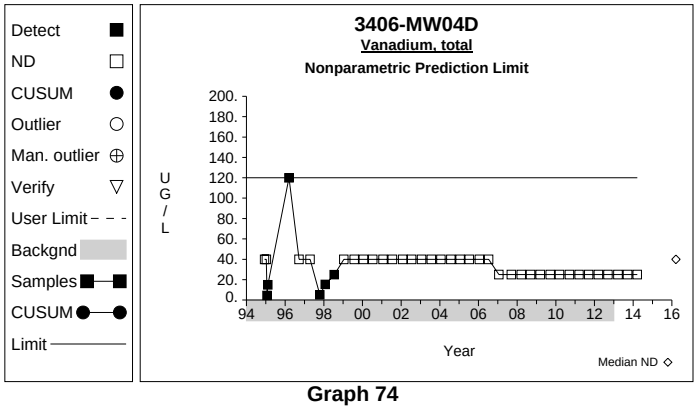

Graph 71



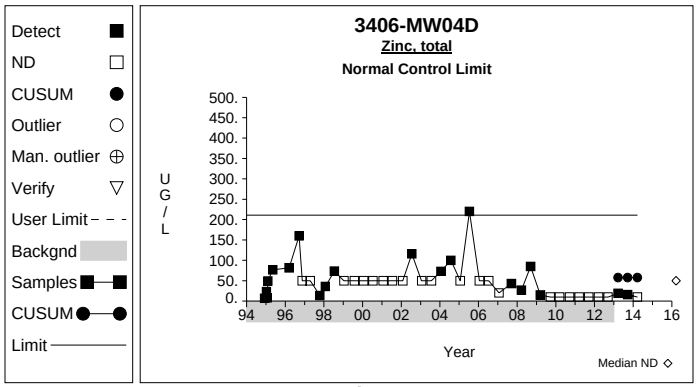

Graph 72




Graph 73

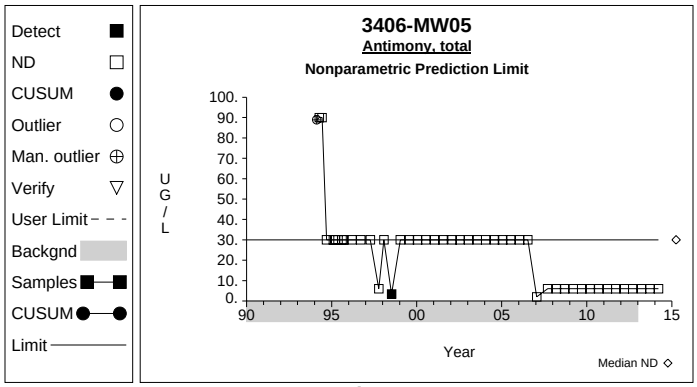



Graph 74

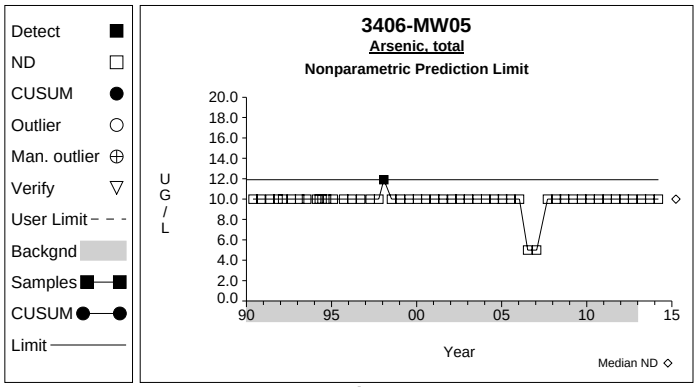



Graph 75

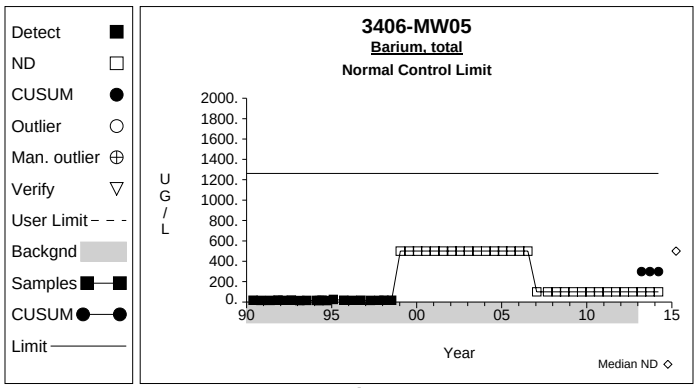
# Intra-Well Control Charts



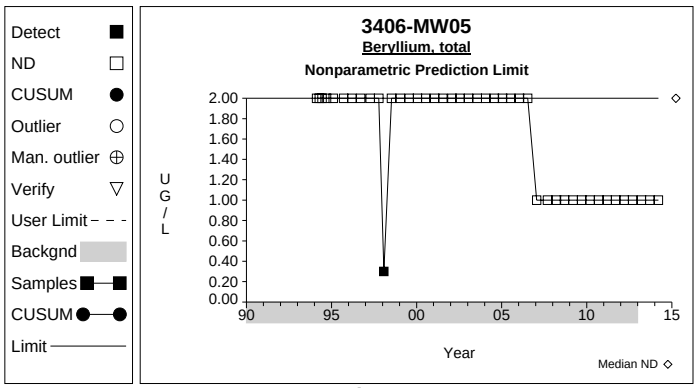

Graph 76



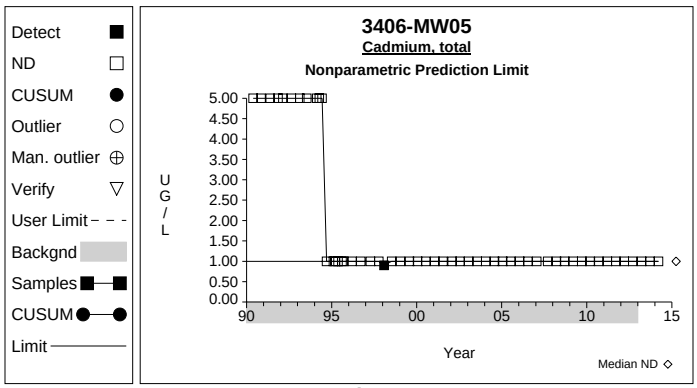

Graph 77



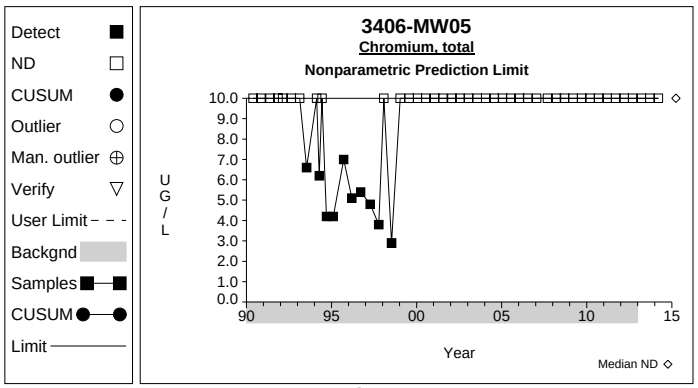

Graph 78



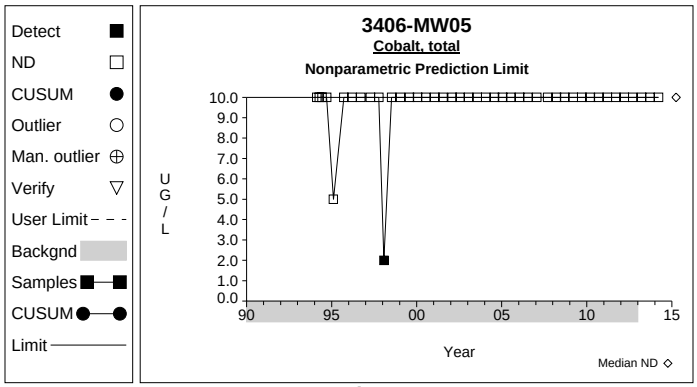

Graph 79



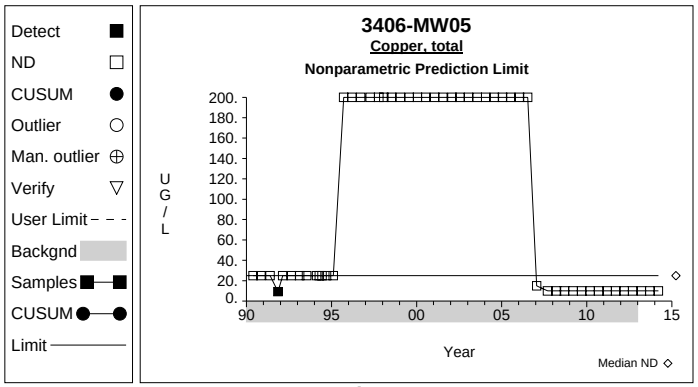

Graph 80




Graph 81

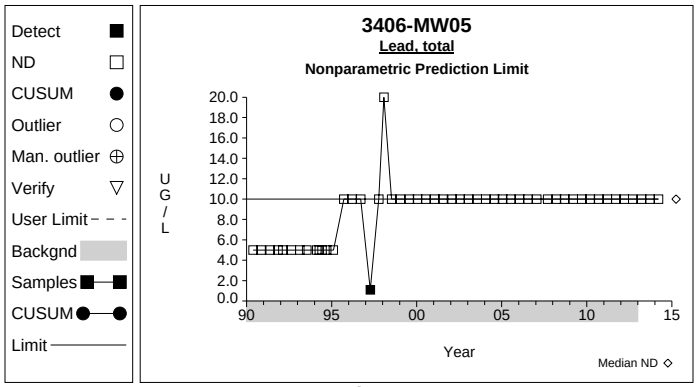



Graph 82

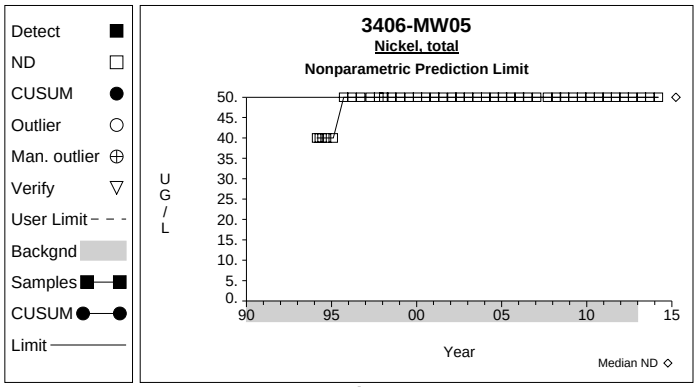



Graph 83

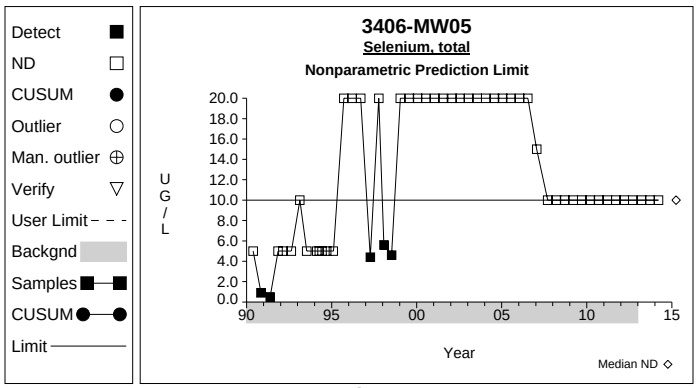
# Intra-Well Control Charts



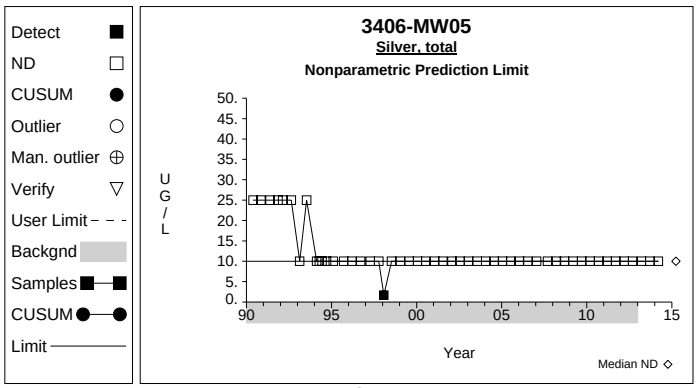

Graph 84



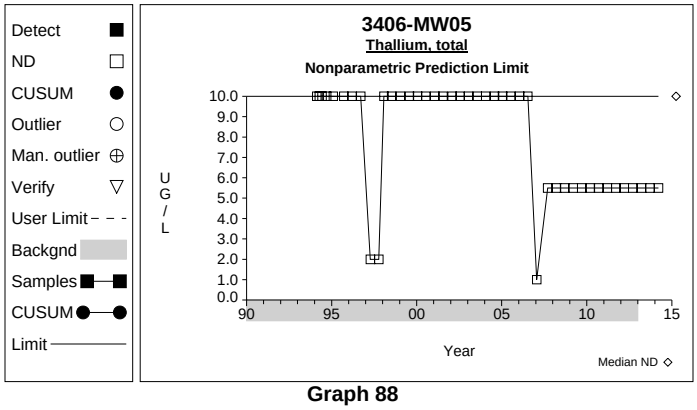

Graph 85



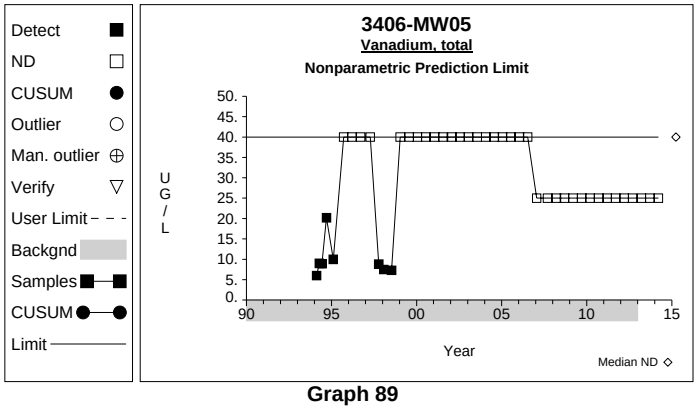

Graph 86



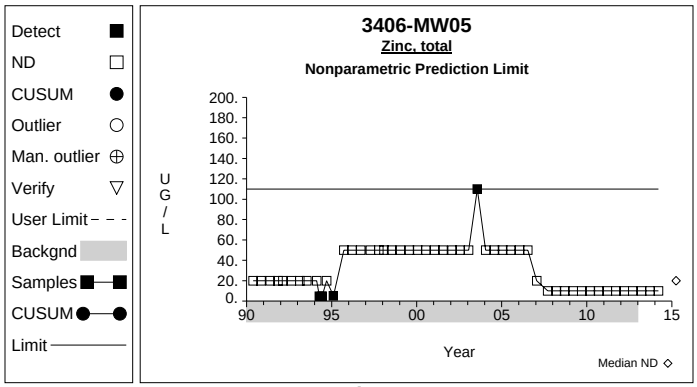

Graph 87




Graph 88

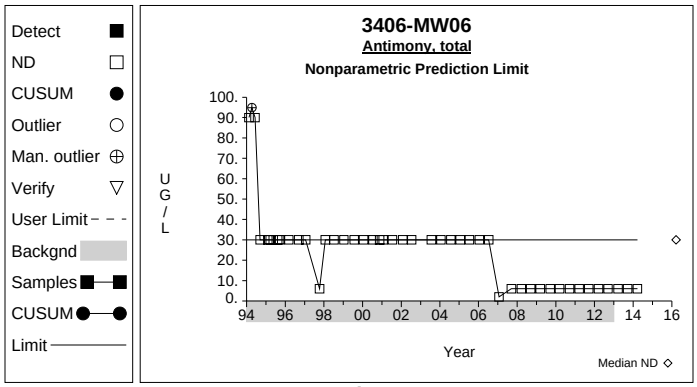



Graph 89

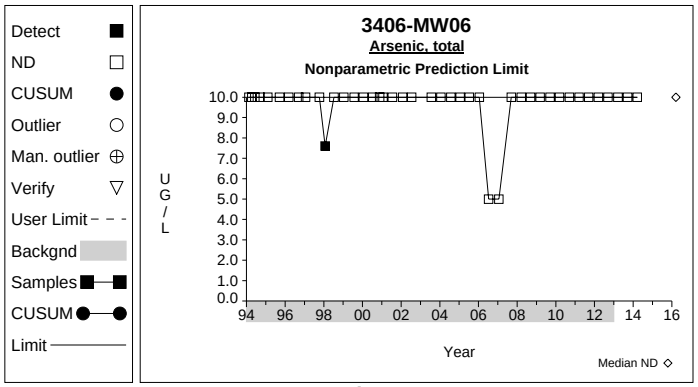



Graph 90

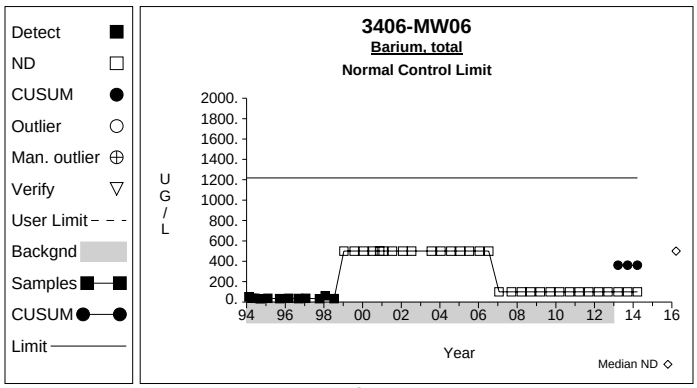
# Intra-Well Control Charts



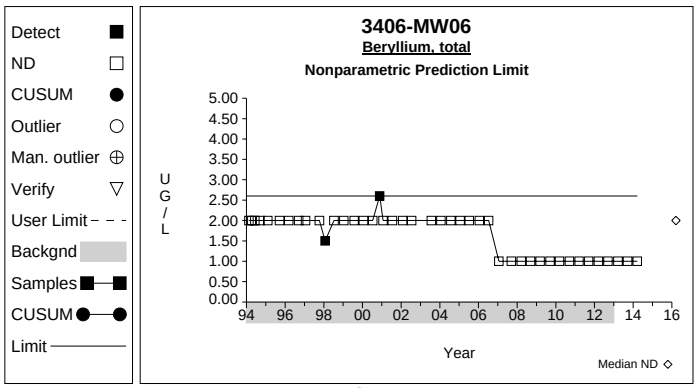

Graph 91



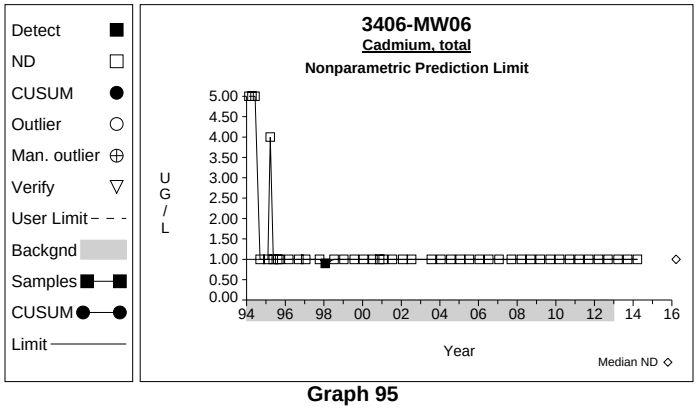

Graph 92



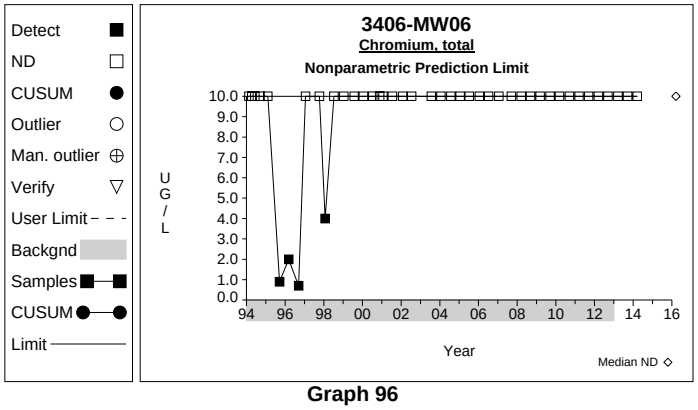

Graph 93



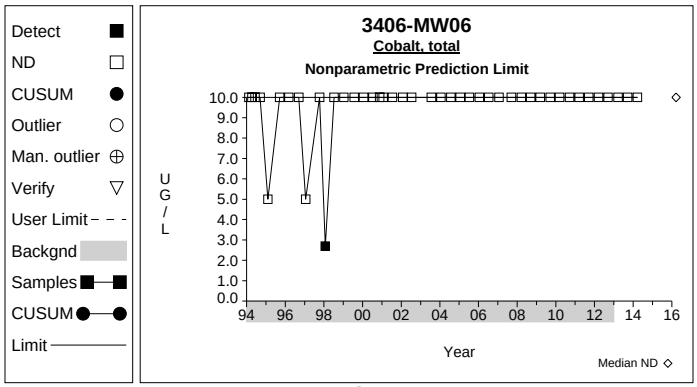

Graph 94



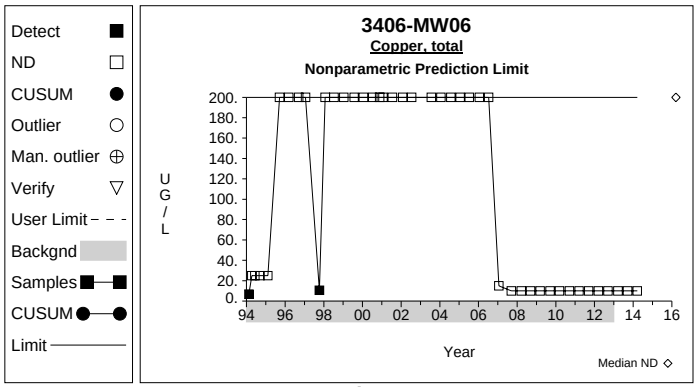

Graph 95




Graph 96

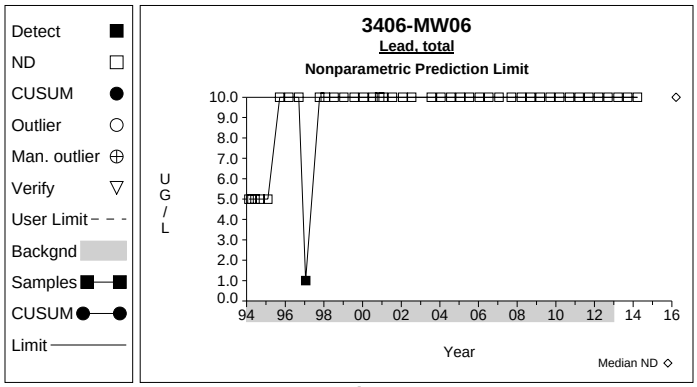



Graph 97

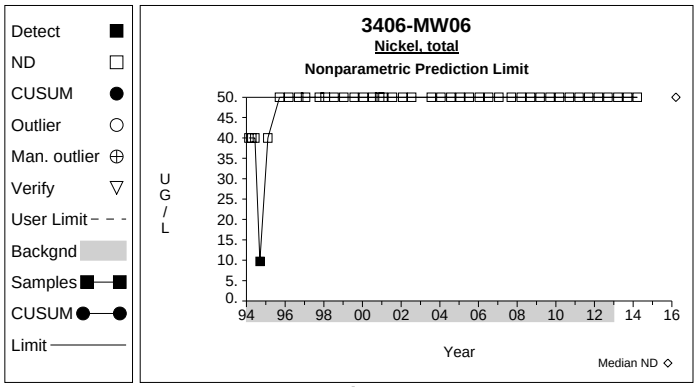



Graph 98

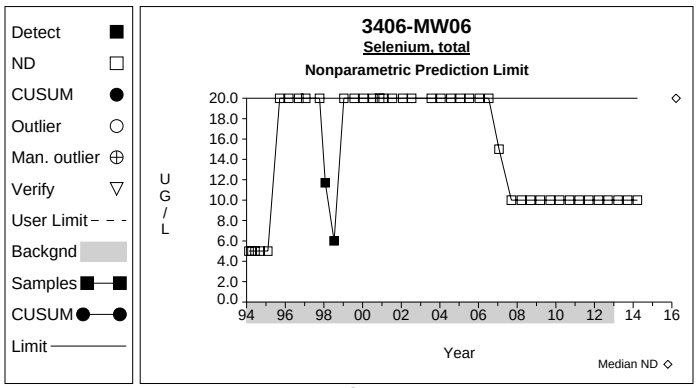
# Intra-Well Control Charts



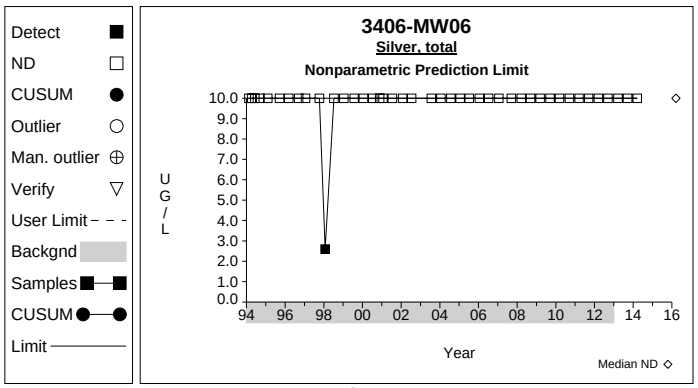

Graph 99



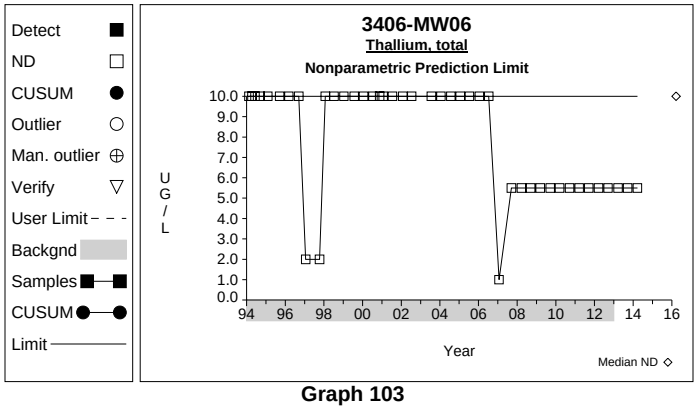

Graph 100



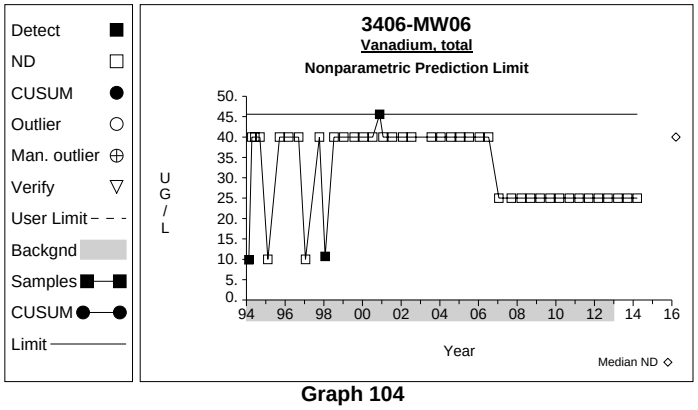

Graph 101



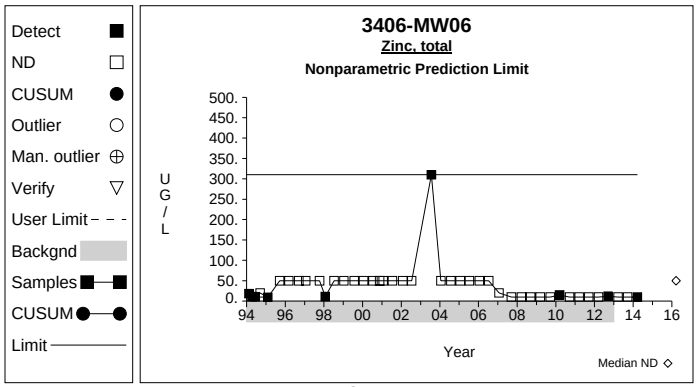

Graph 102




Graph 103

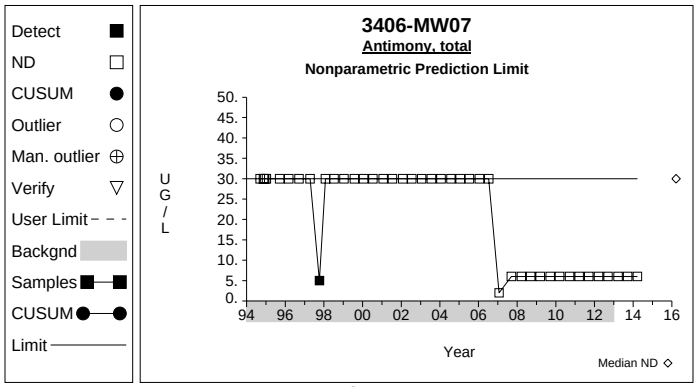



Graph 104

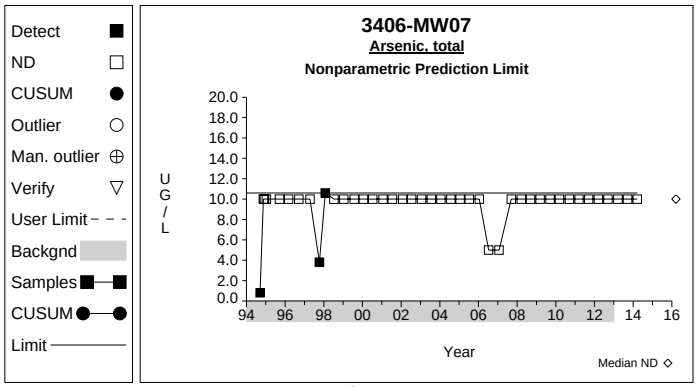



Graph 105

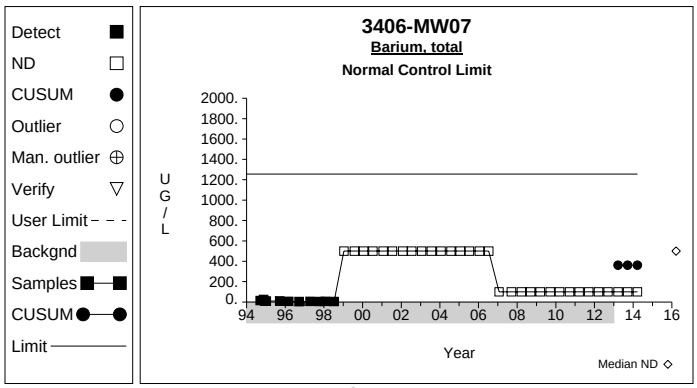
# Intra-Well Control Charts



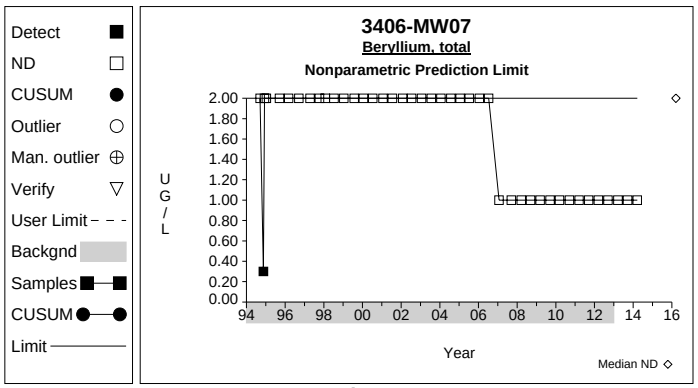

Graph 106



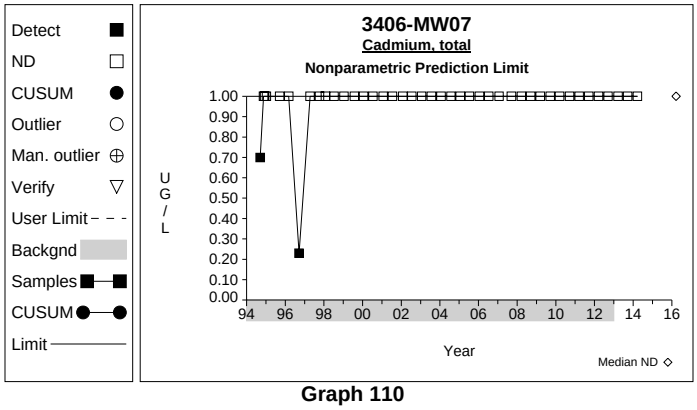

Graph 107



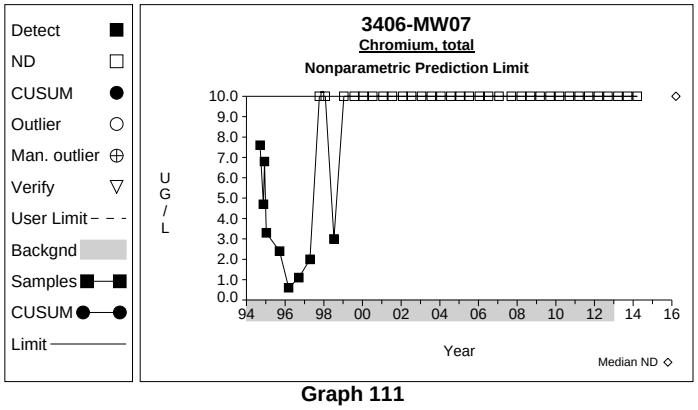

Graph 108



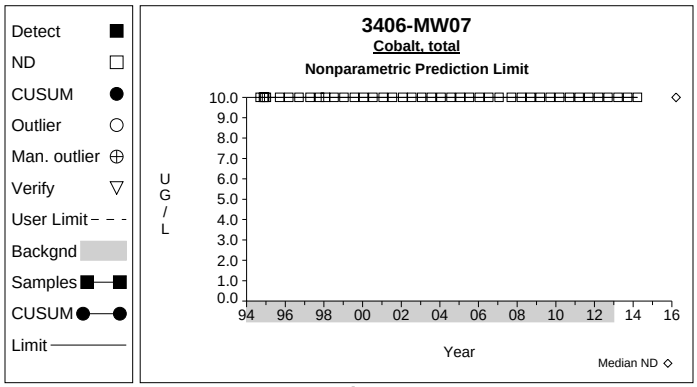

Graph 109



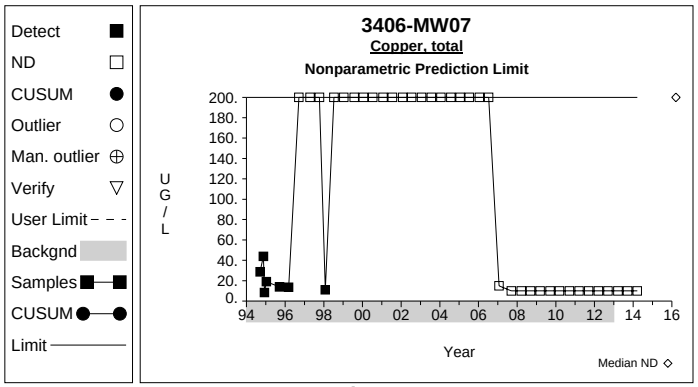

Graph 110




Graph 111

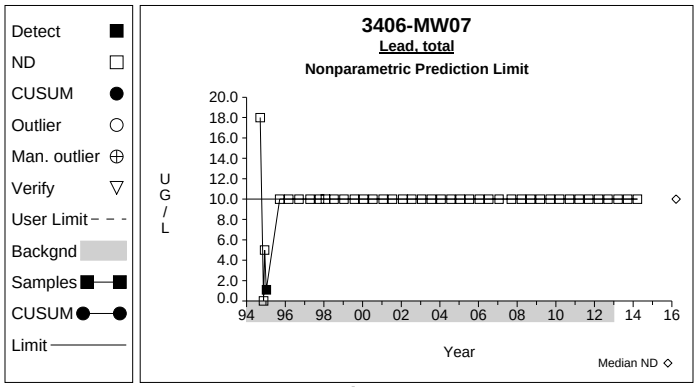



Graph 112

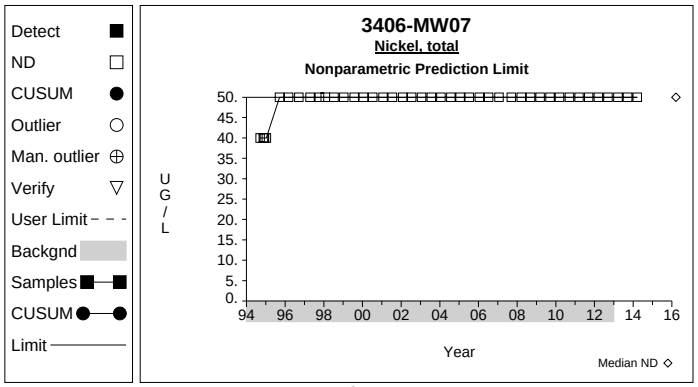



Graph 113

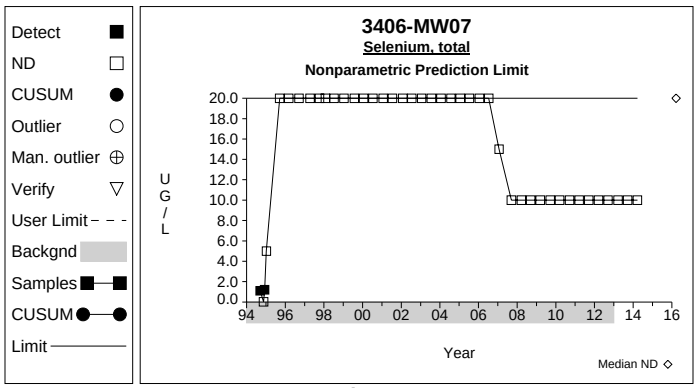
# Intra-Well Control Charts



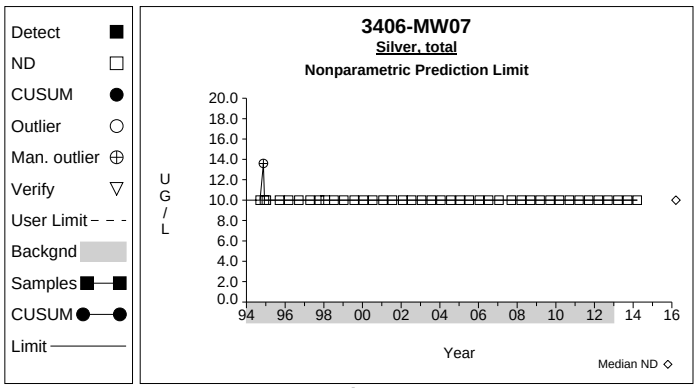

Graph 114



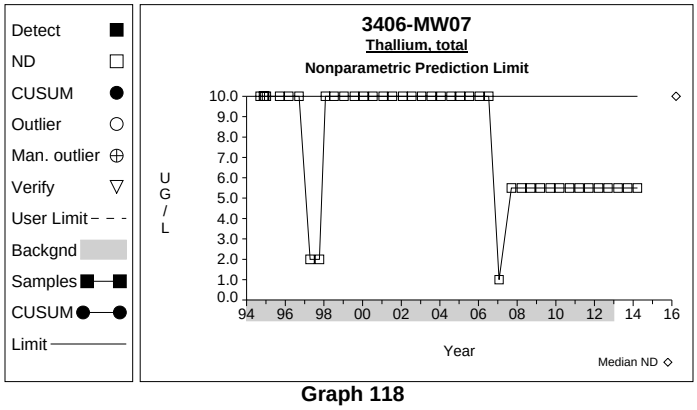

Graph 115



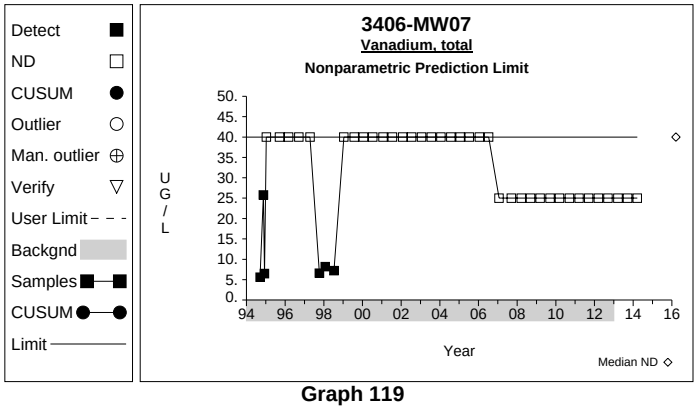

Graph 116



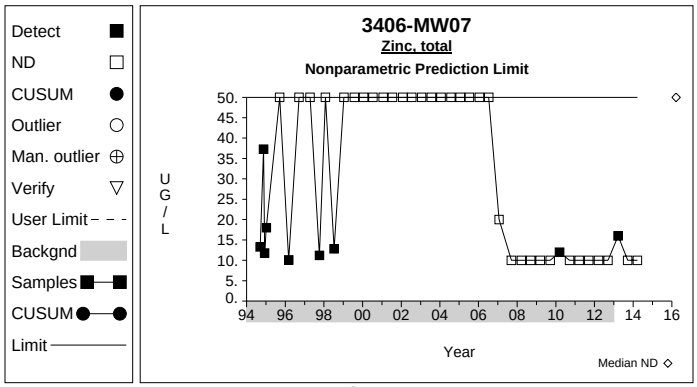

Graph 117




Graph 118

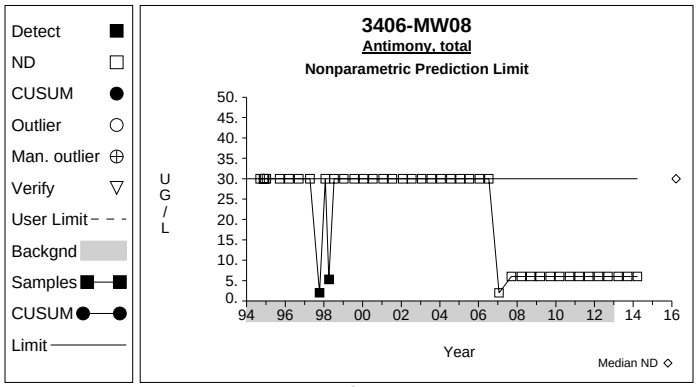



Graph 119

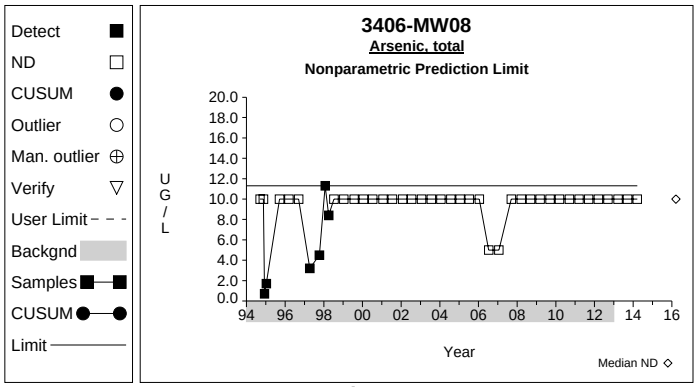



Graph 120

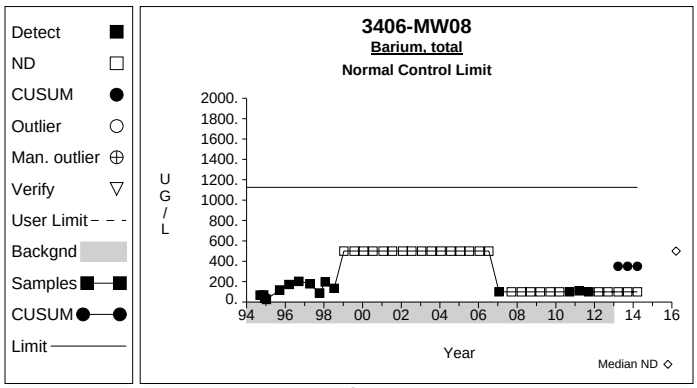
# Intra-Well Control Charts



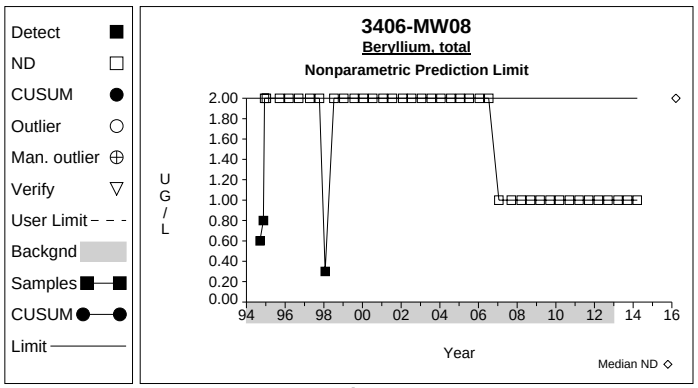

Graph 121



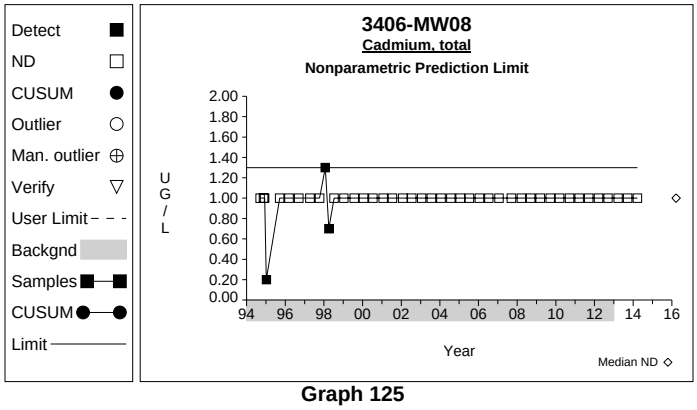

Graph 122



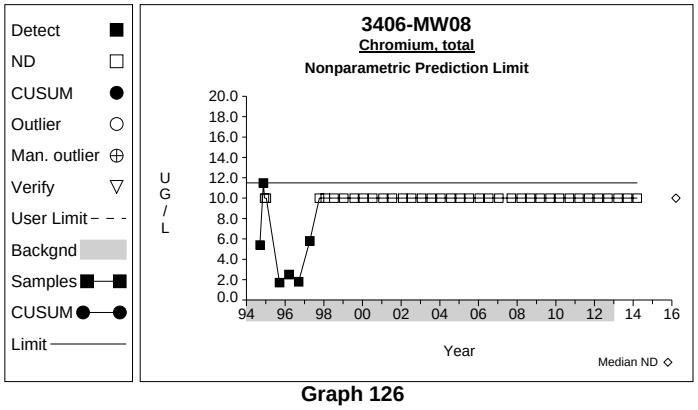

Graph 123



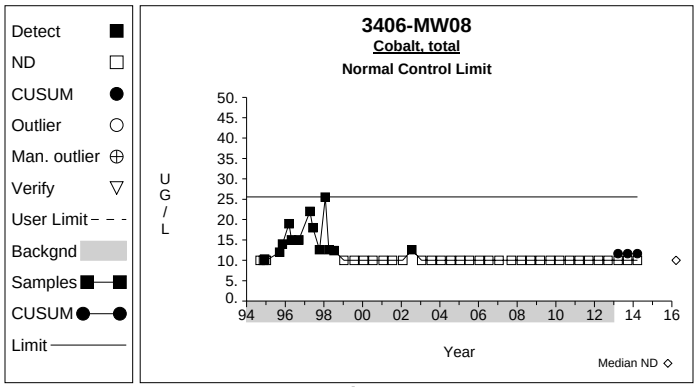

Graph 124



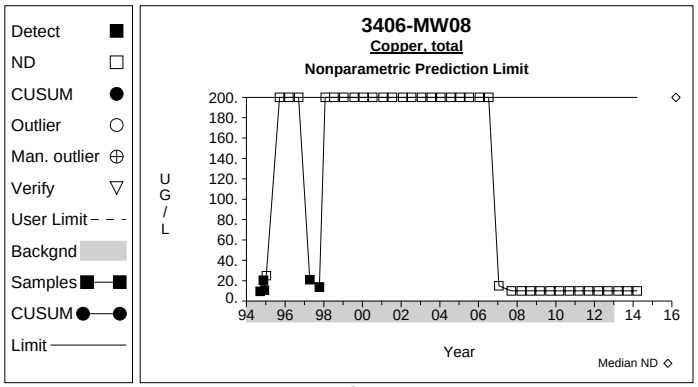

Graph 125




Graph 126

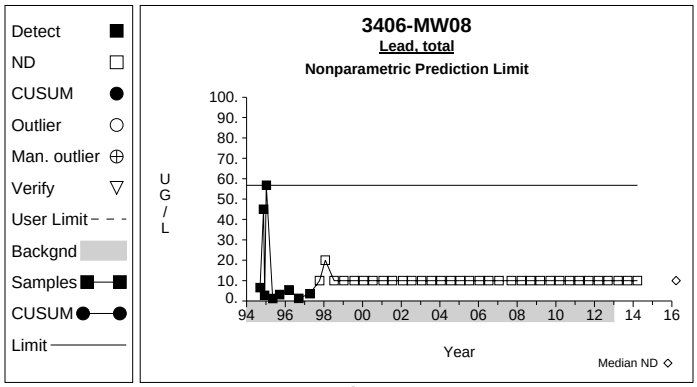



Graph 127

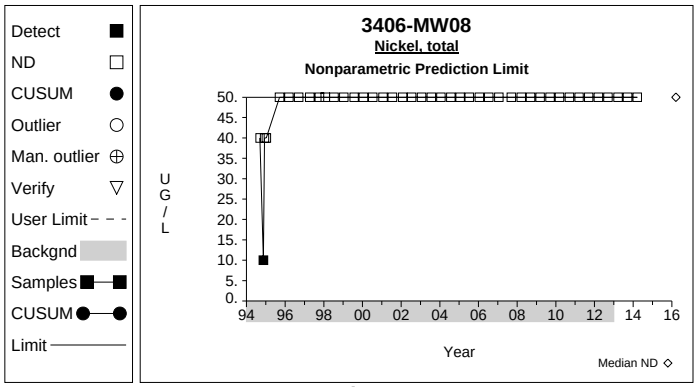



Graph 128

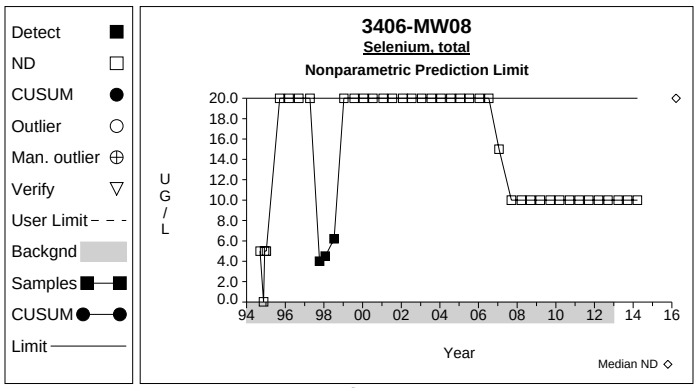
# Intra-Well Control Charts



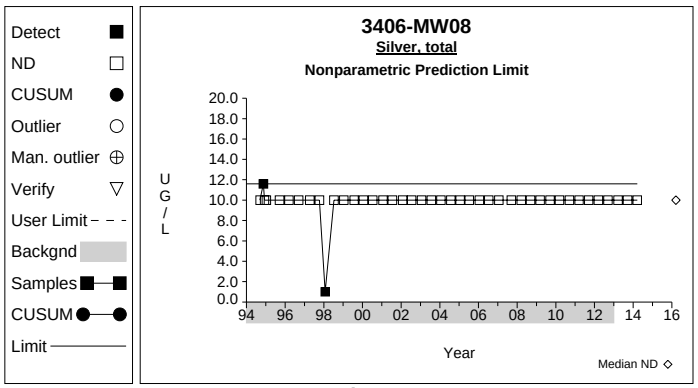

Graph 129



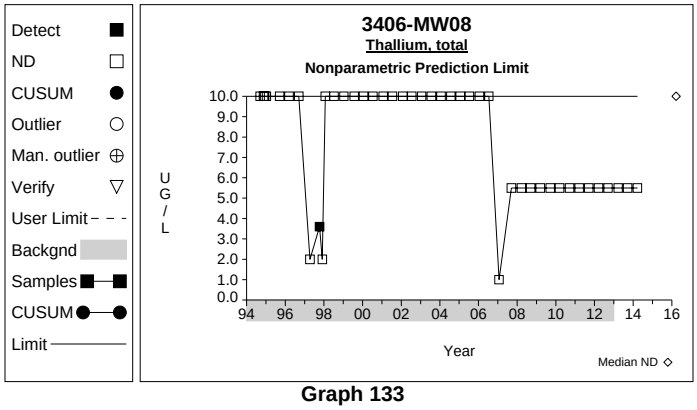

Graph 130



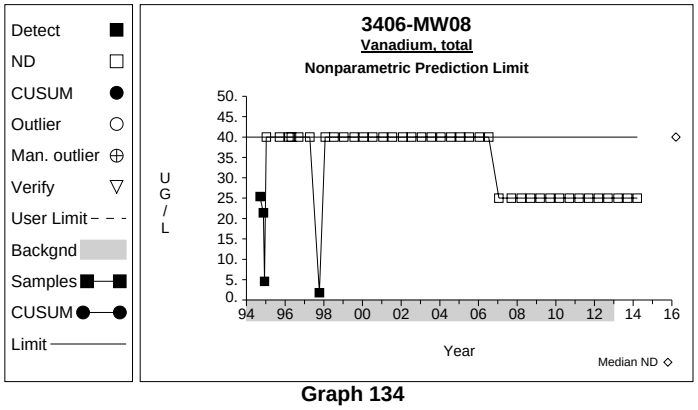

Graph 131



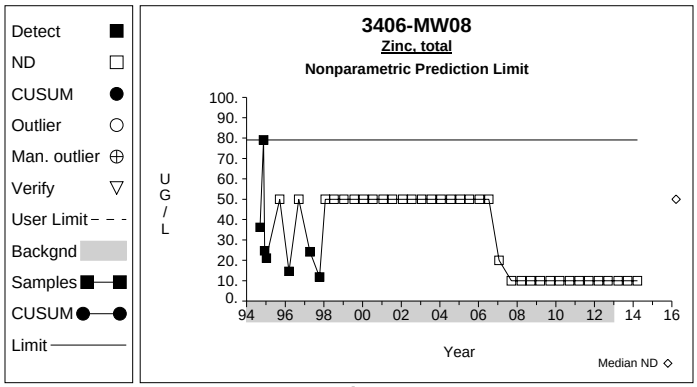

Graph 132




Graph 133

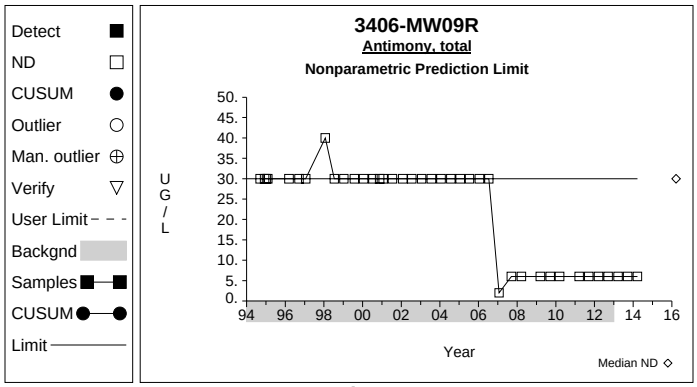



Graph 134

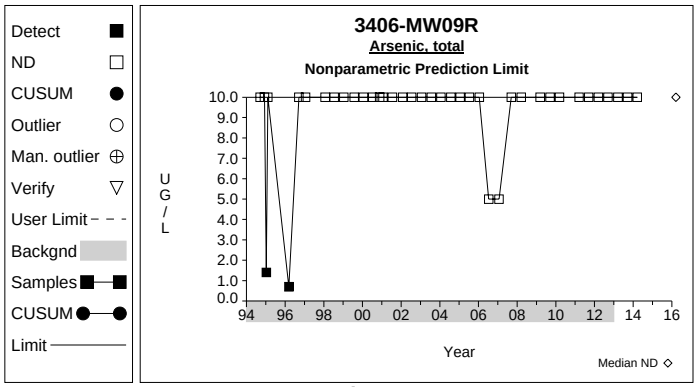



Graph 135

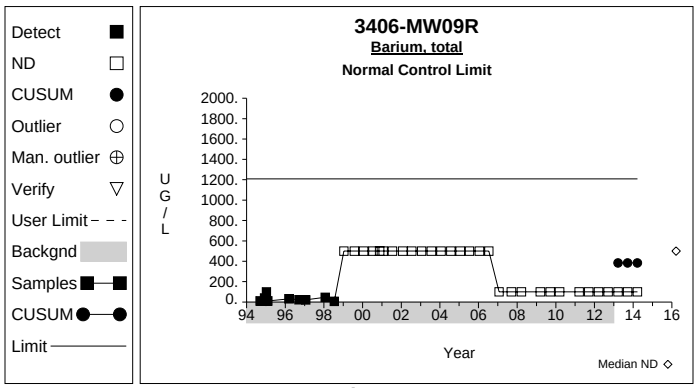
# Intra-Well Control Charts



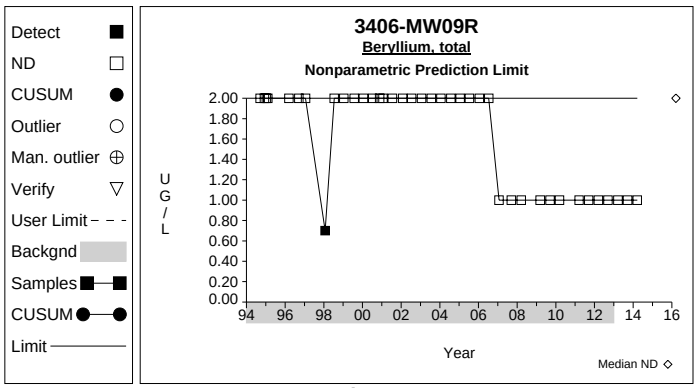

Graph 136



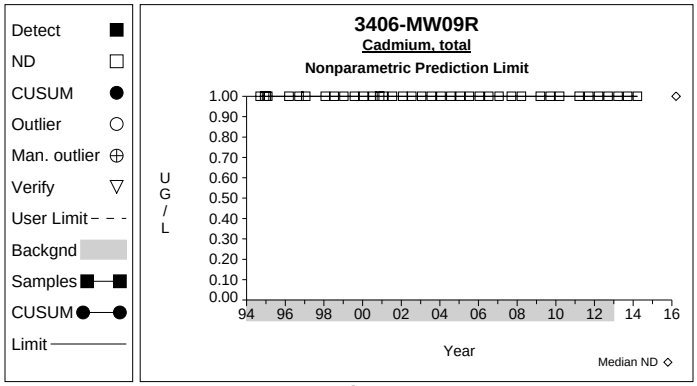

Graph 137



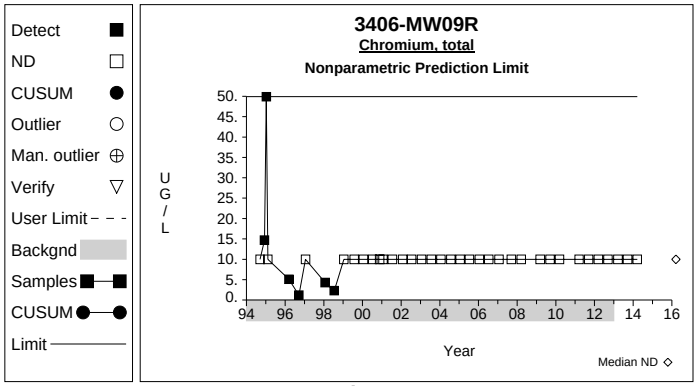

Graph 138



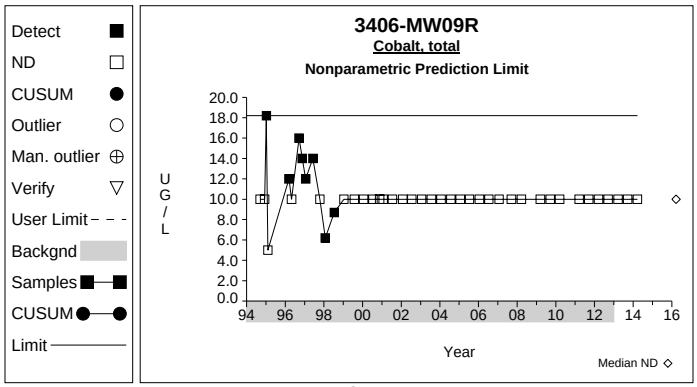

Graph 139



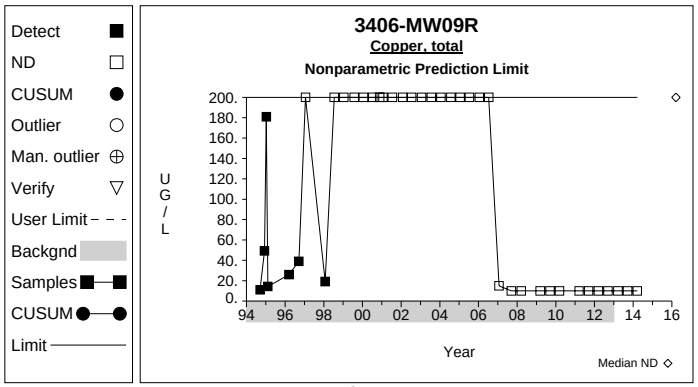

Graph 140




Graph 141

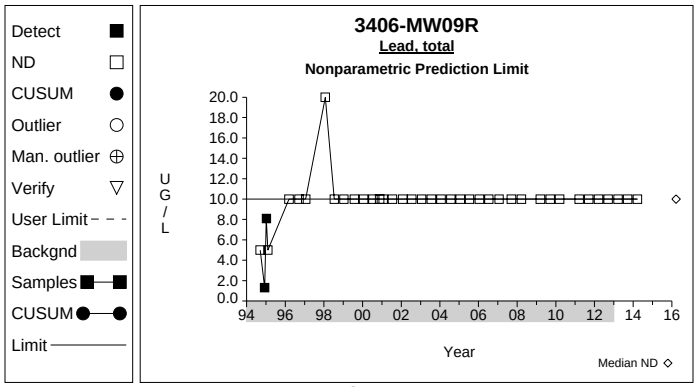



Graph 142

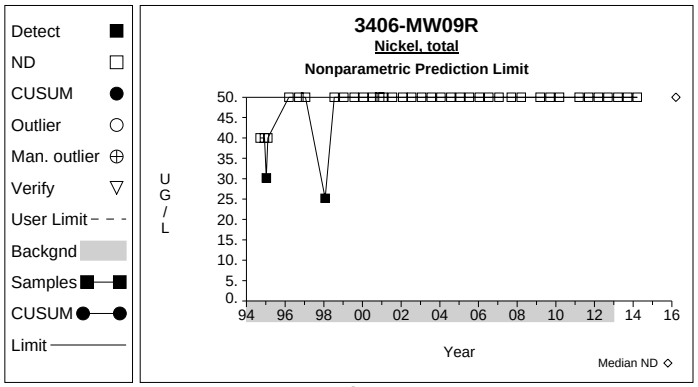



Graph 143

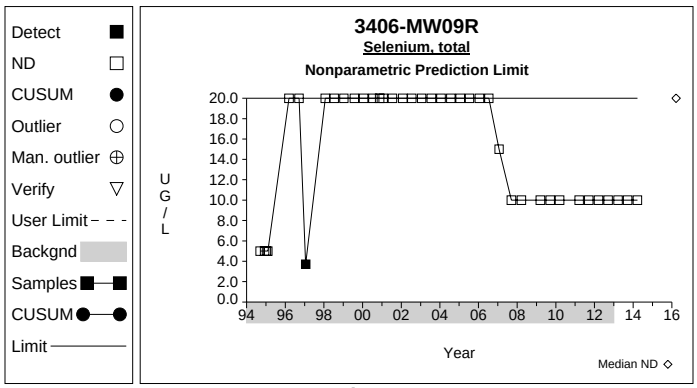
# Intra-Well Control Charts



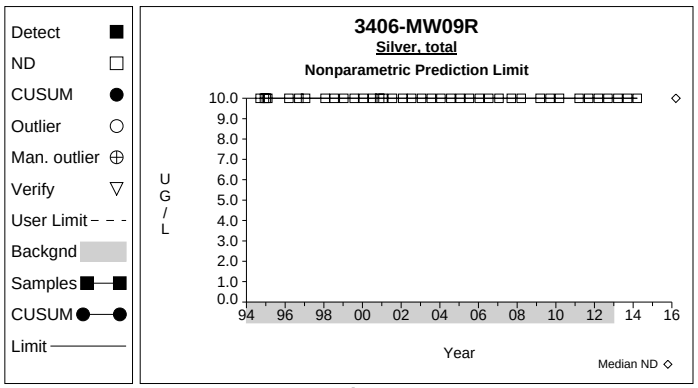

Graph 144



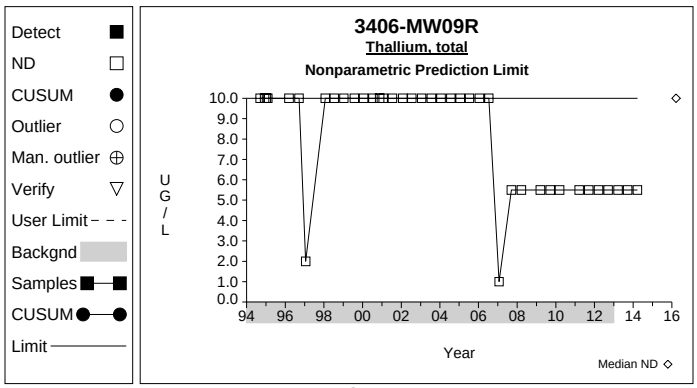

Graph 145



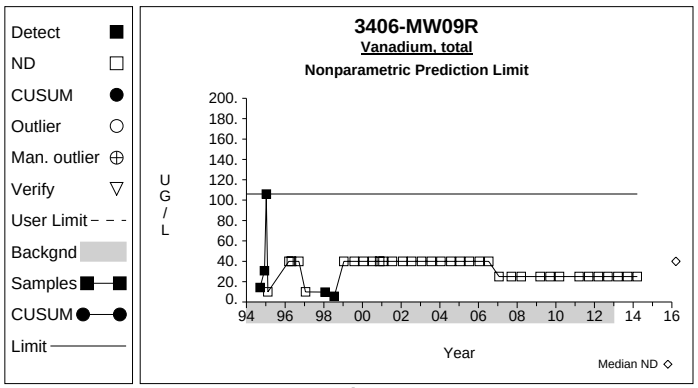

Graph 146



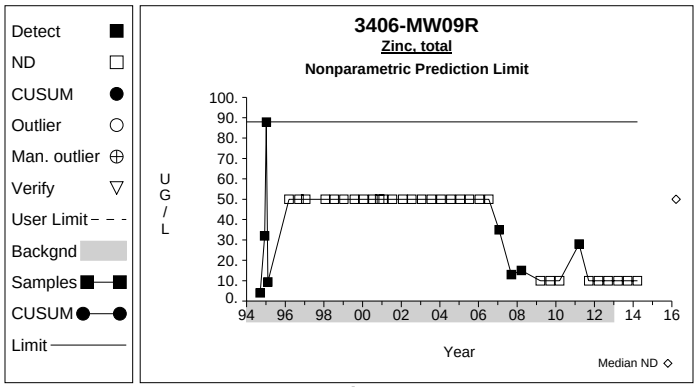

Graph 147




Graph 148

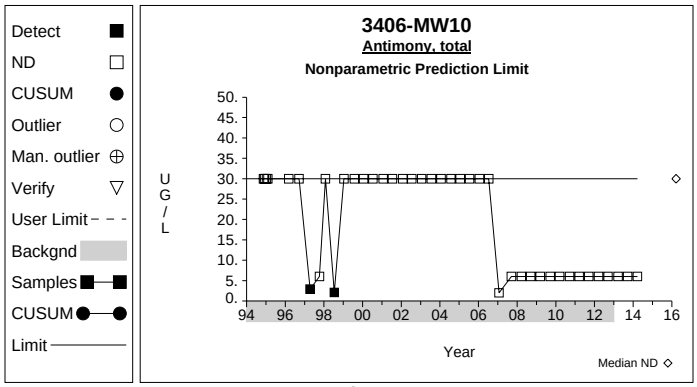



Graph 149

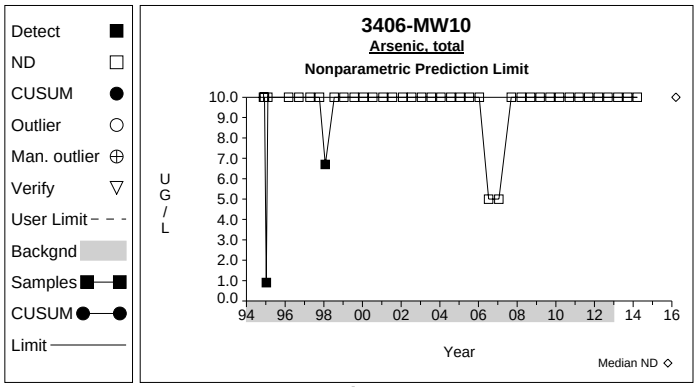



Graph 150

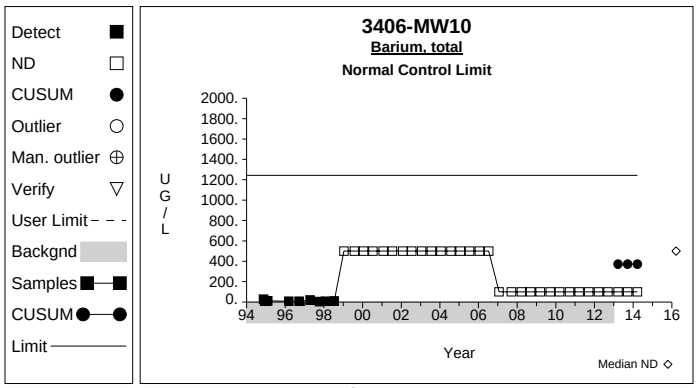
# Intra-Well Control Charts



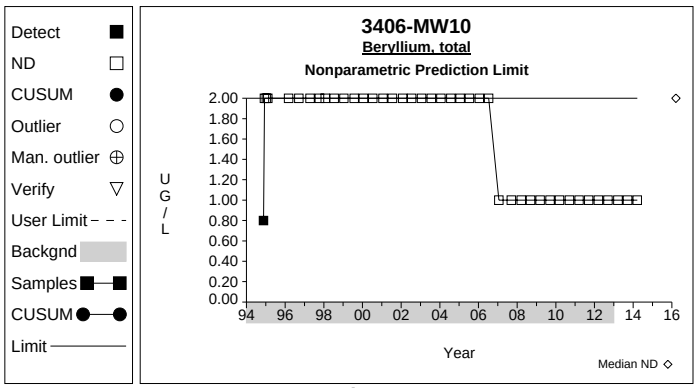

Graph 151



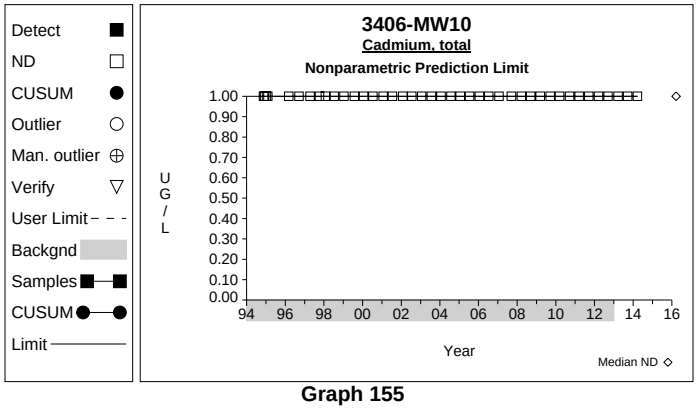

Graph 152



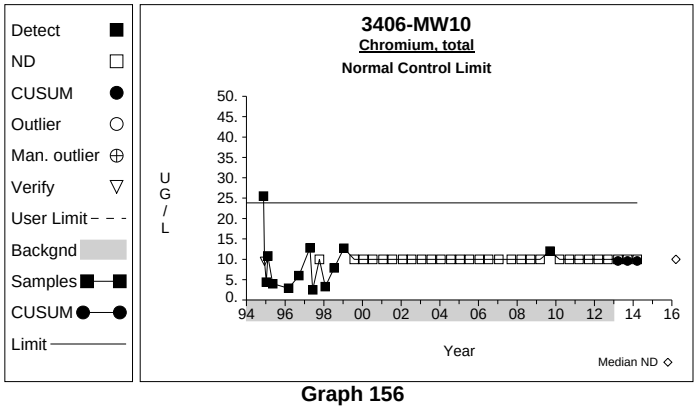

Graph 153



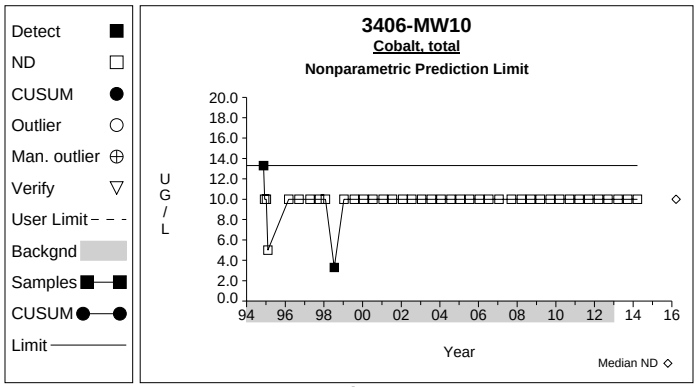

Graph 154



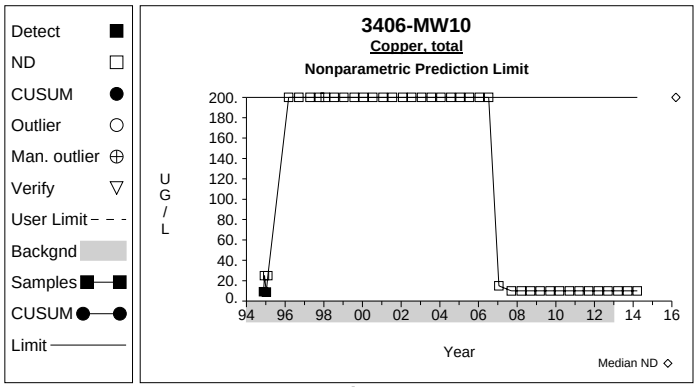

Graph 155




Graph 156

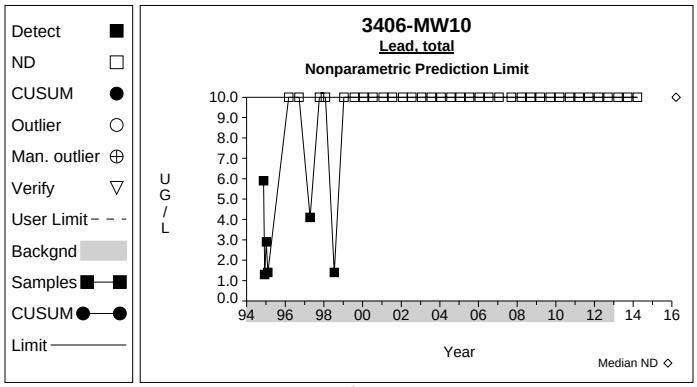



Graph 157

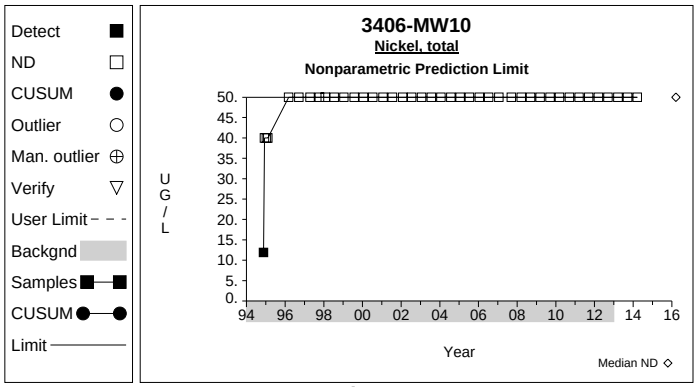



Graph 158

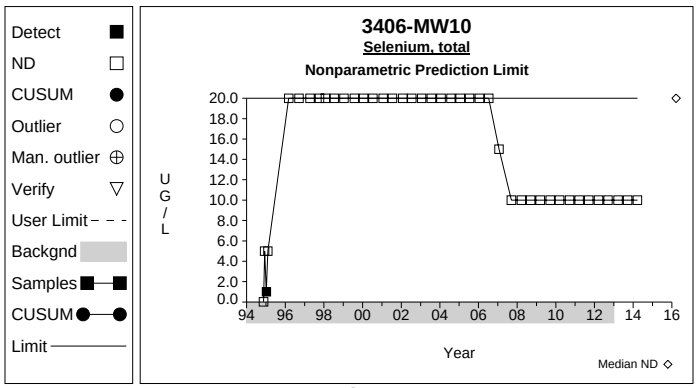
# Intra-Well Control Charts



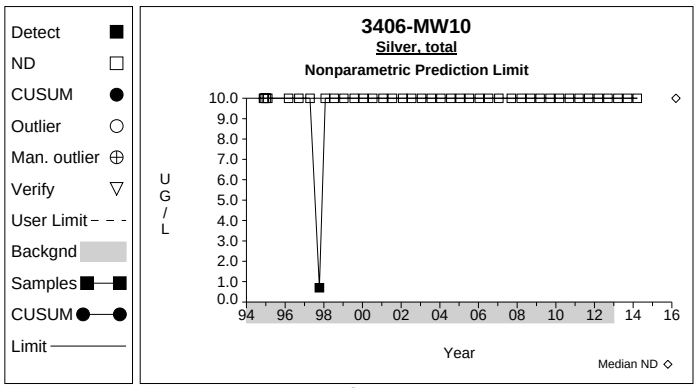

Graph 159



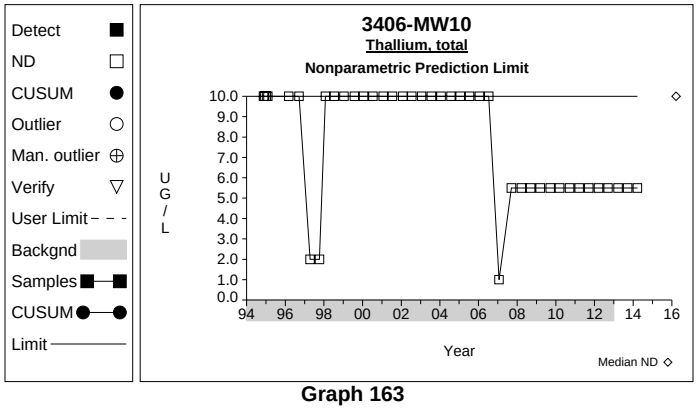

Graph 160



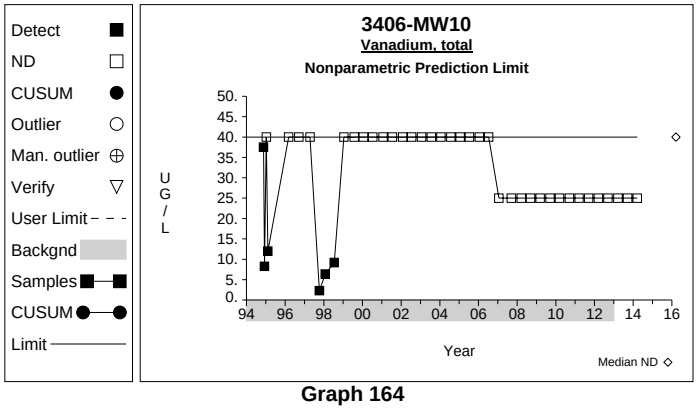

Graph 161



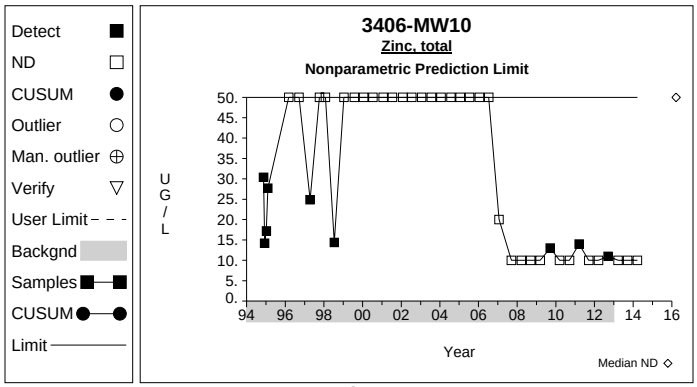

Graph 162




Graph 163

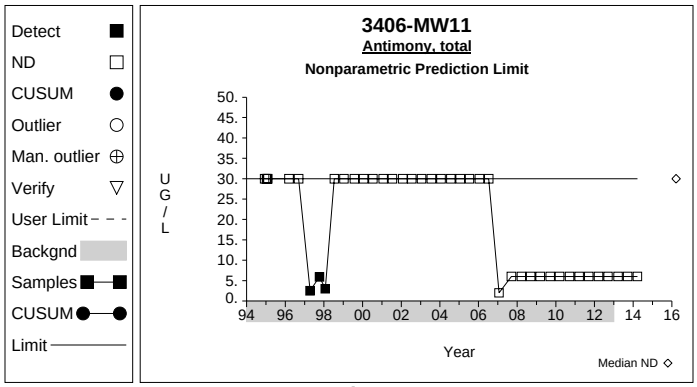



Graph 164

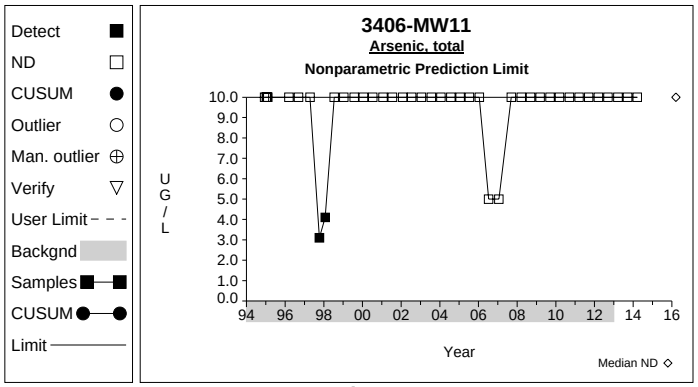



Graph 165

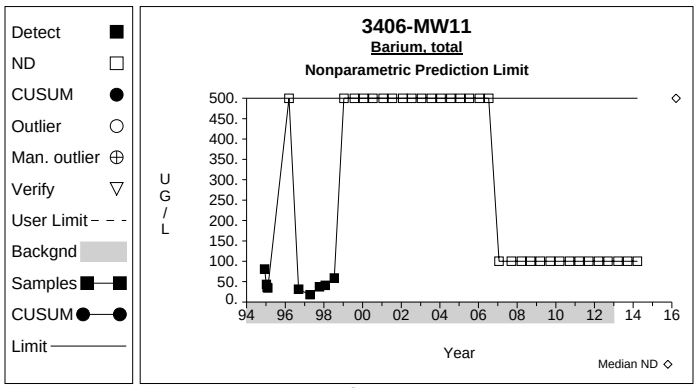
# Intra-Well Control Charts



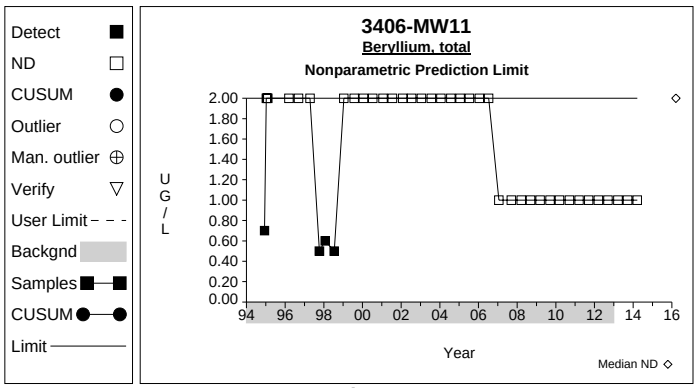

Graph 166



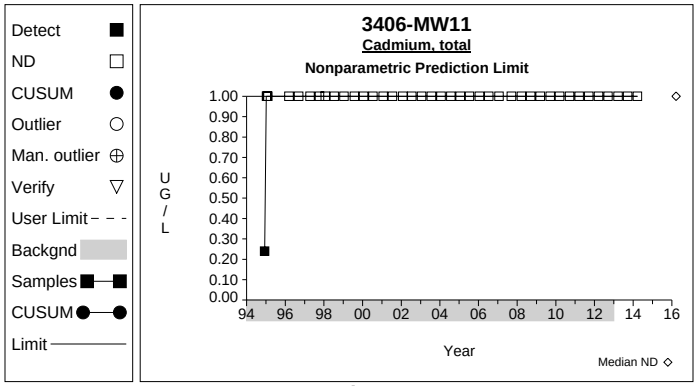

Graph 167



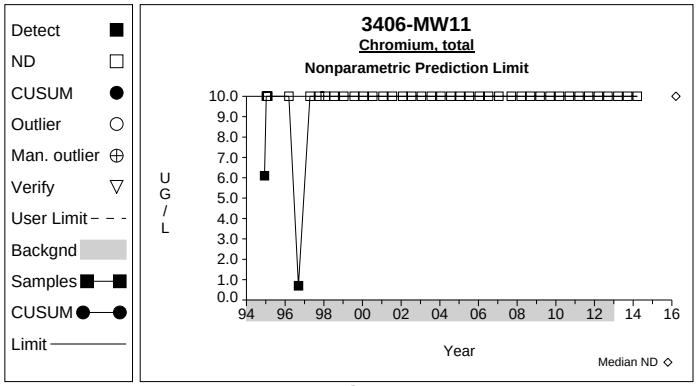

Graph 168



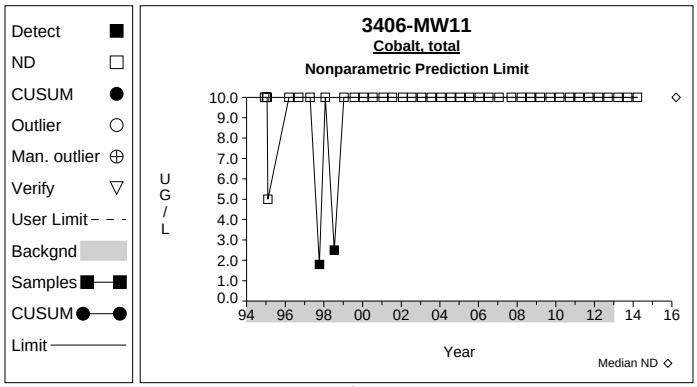

Graph 169



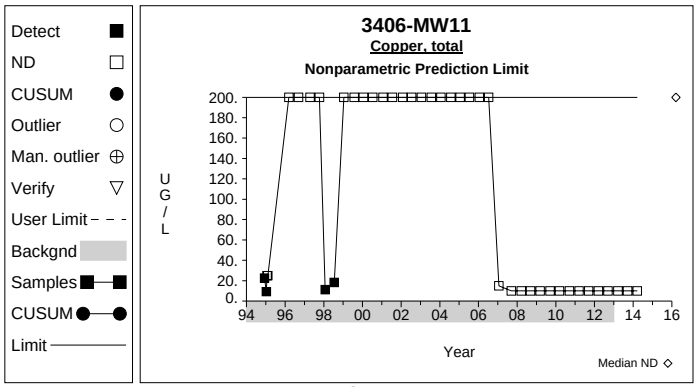

Graph 170




Graph 171

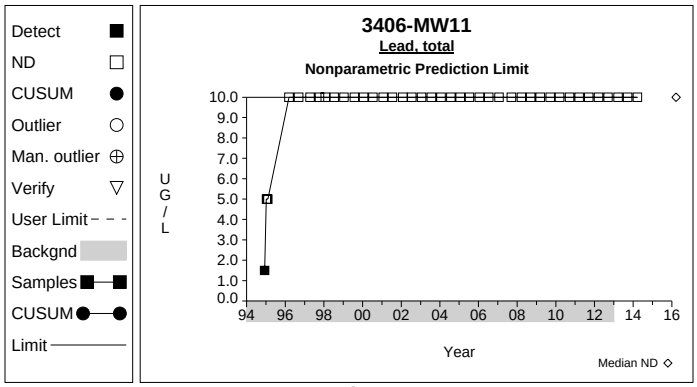



Graph 172

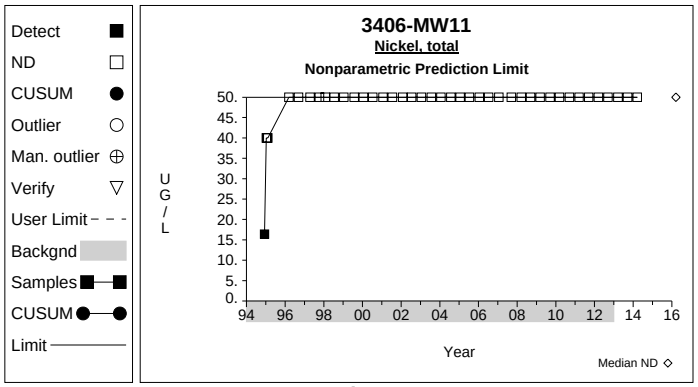



Graph 173

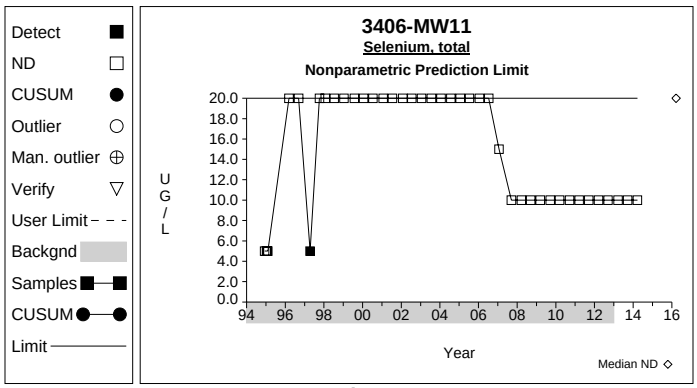
# Intra-Well Control Charts



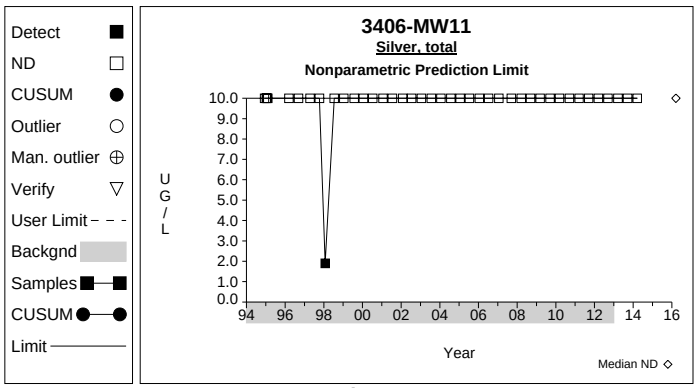

Graph 174



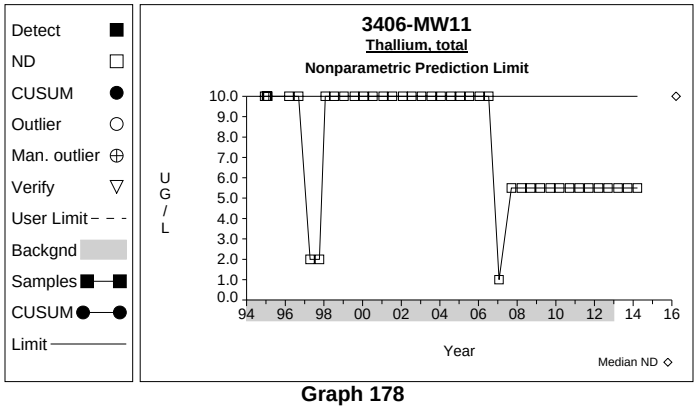

Graph 175



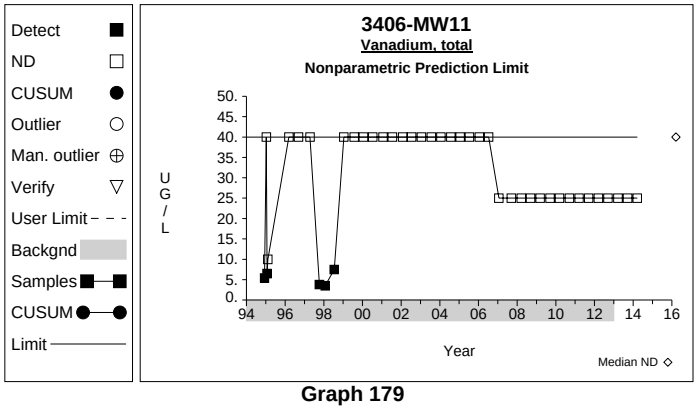

Graph 176



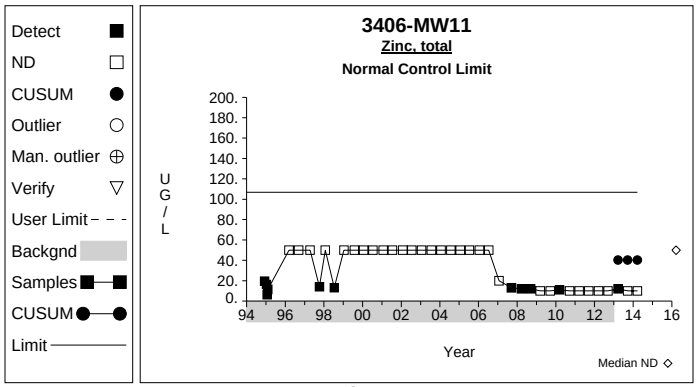

Graph 177




Graph 178

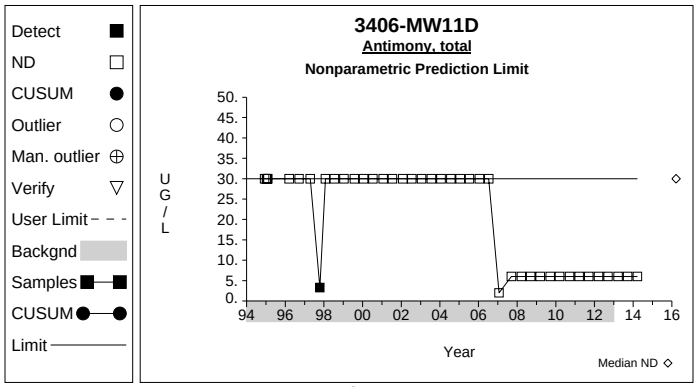



Graph 179

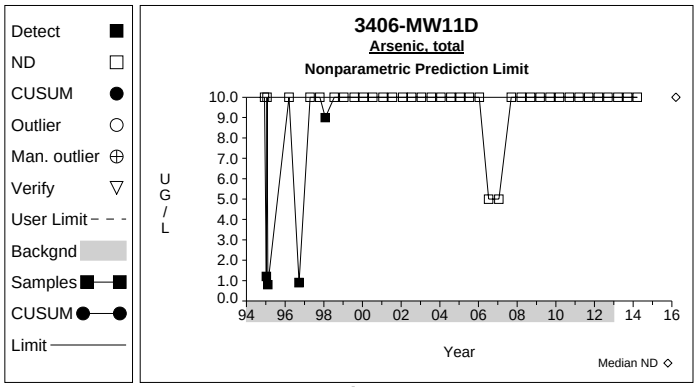



Graph 180

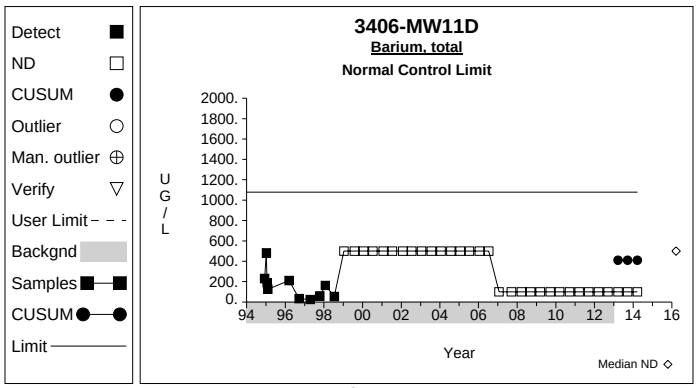
# Intra-Well Control Charts



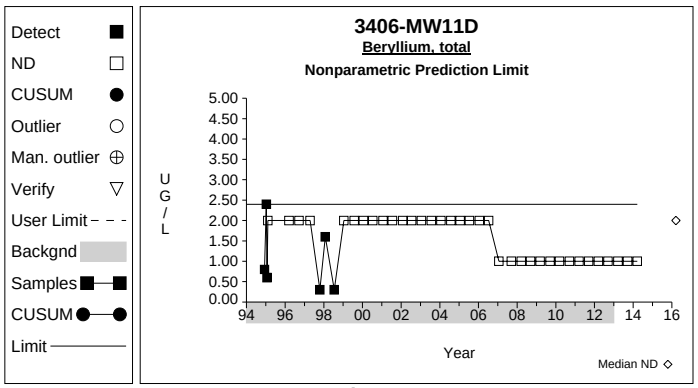

Graph 181



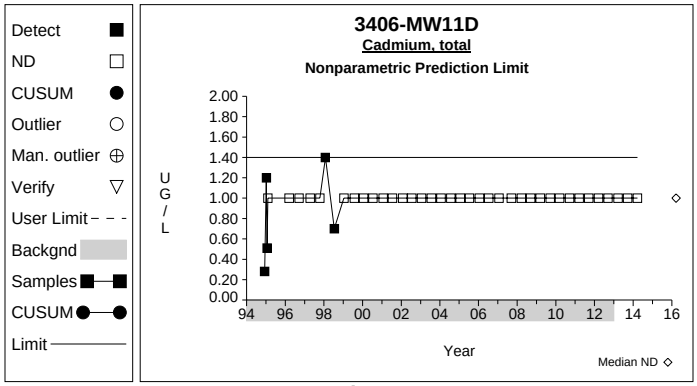

Graph 182



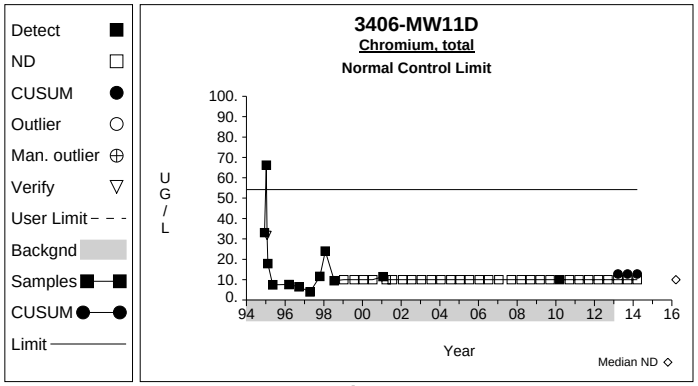

Graph 183



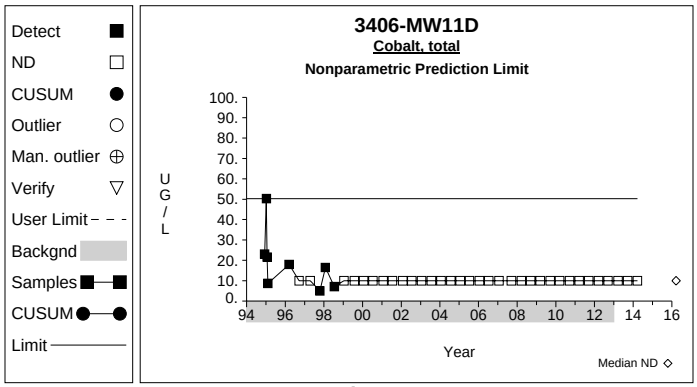

Graph 184



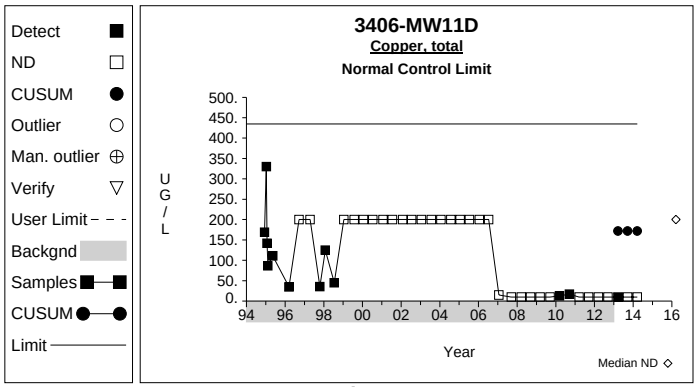

Graph 185




Graph 186

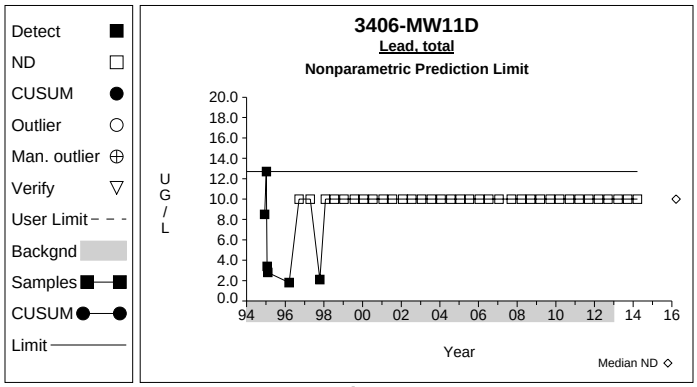



Graph 187

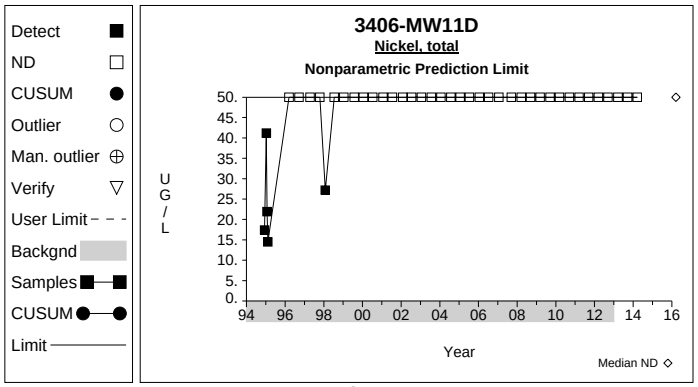



Graph 188

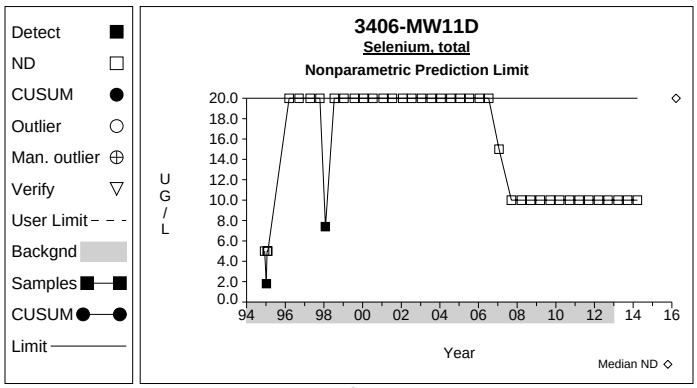
# Intra-Well Control Charts



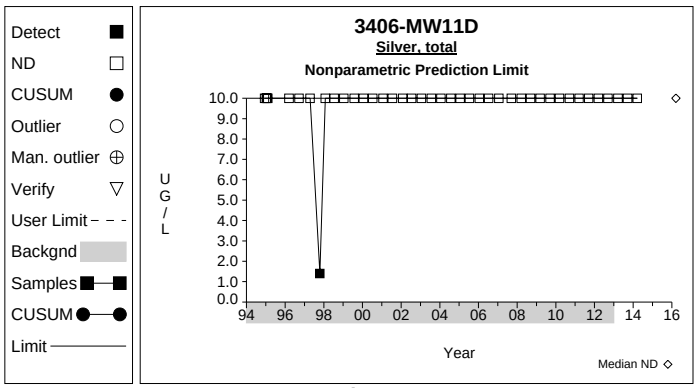

Graph 189



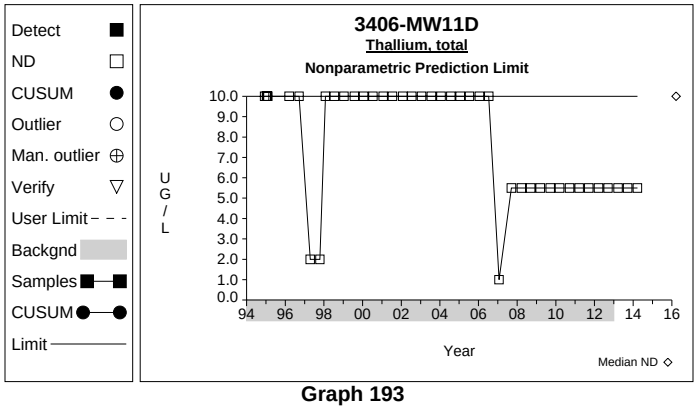

Graph 190



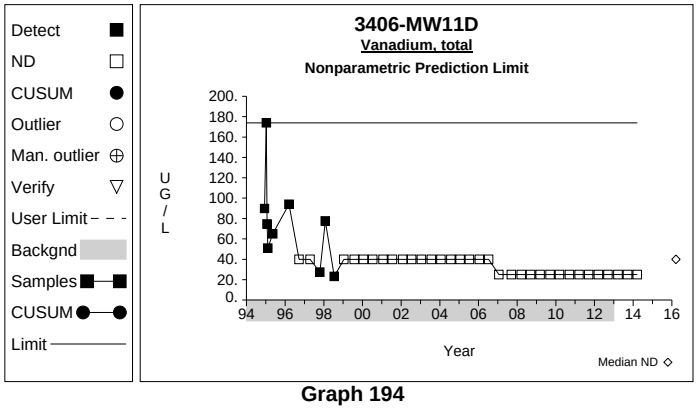

Graph 191



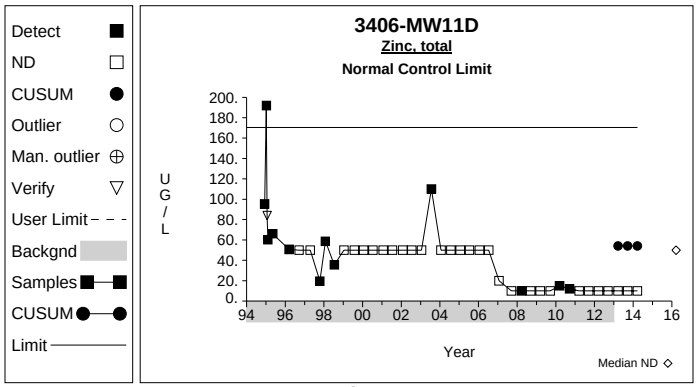

Graph 192




Graph 193

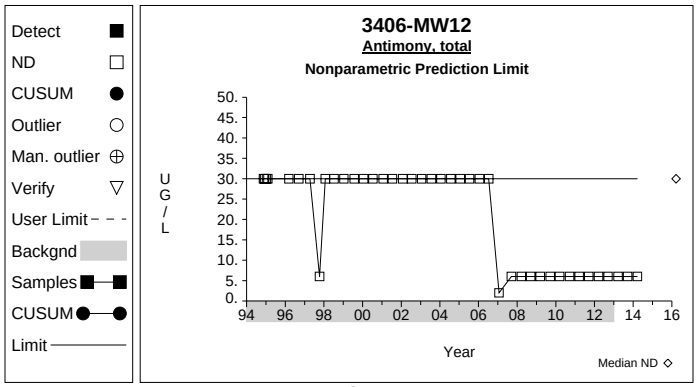



Graph 194

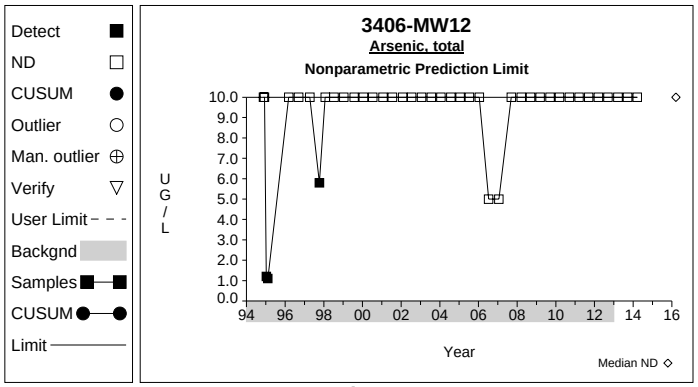



Graph 195

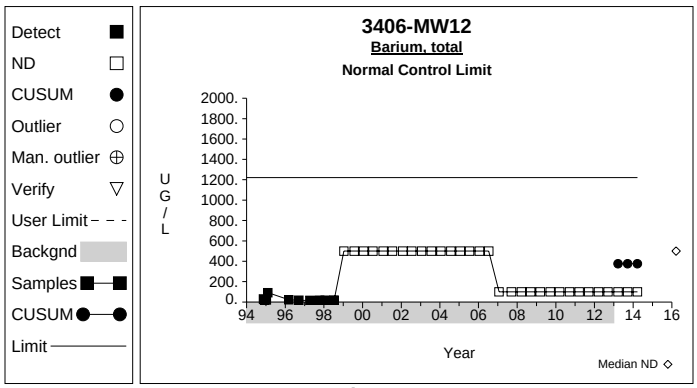
# Intra-Well Control Charts



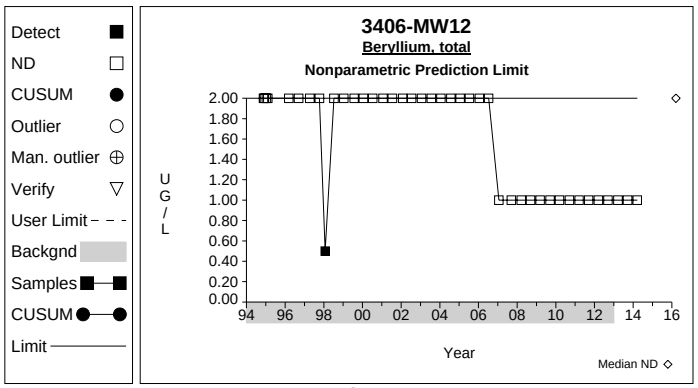

Graph 196



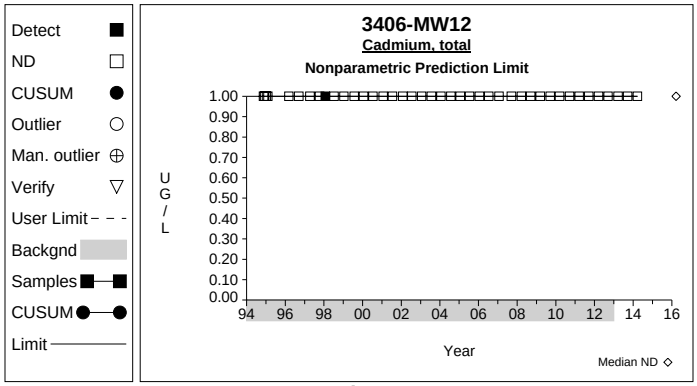

Graph 197



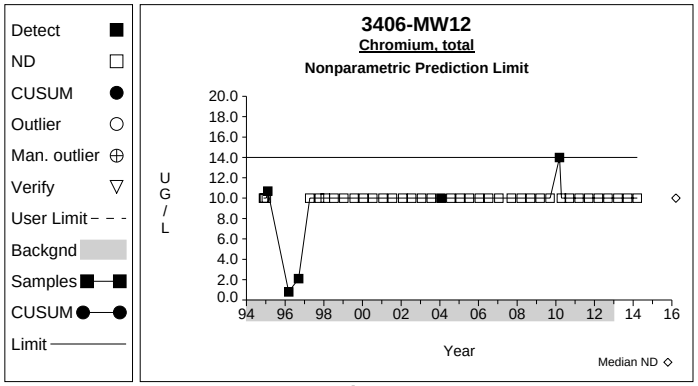

Graph 198



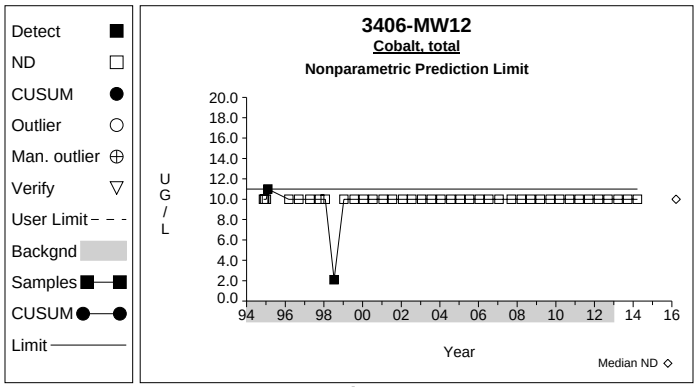

Graph 199



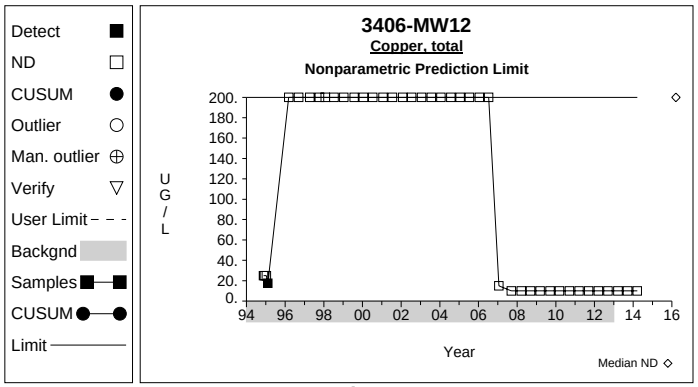

Graph 200




Graph 201

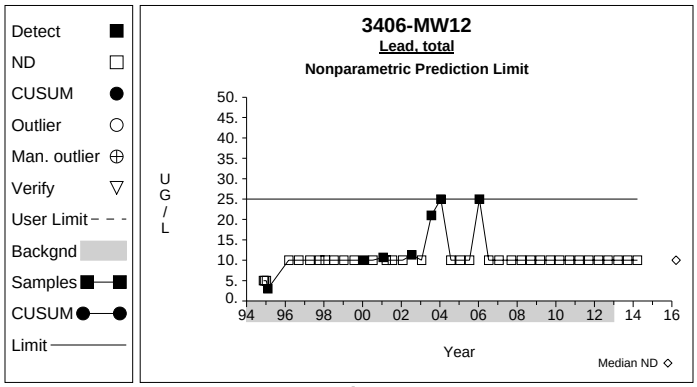



Graph 202

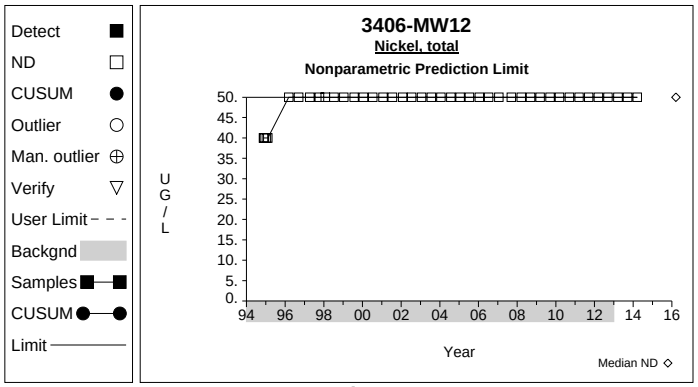



Graph 203

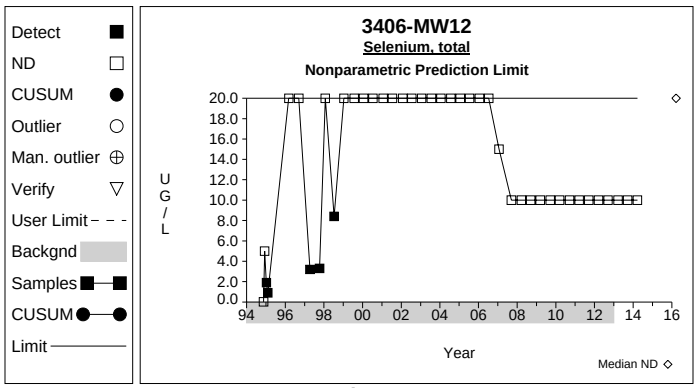
# Intra-Well Control Charts



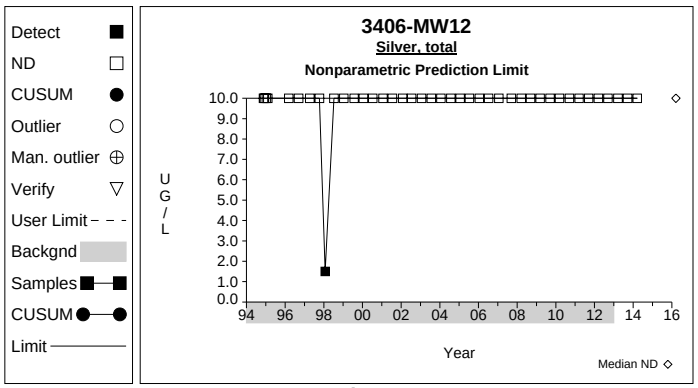

Graph 204



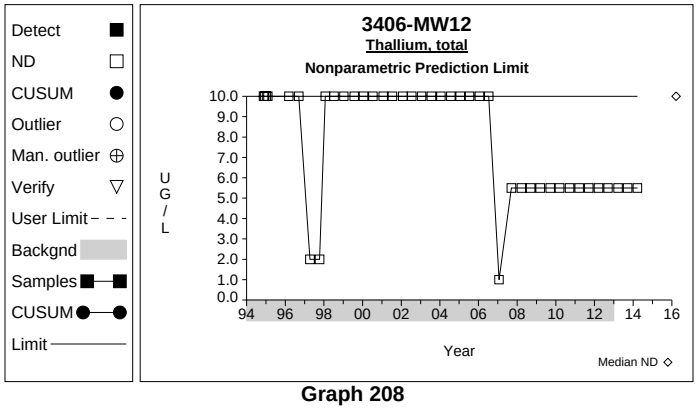

Graph 205



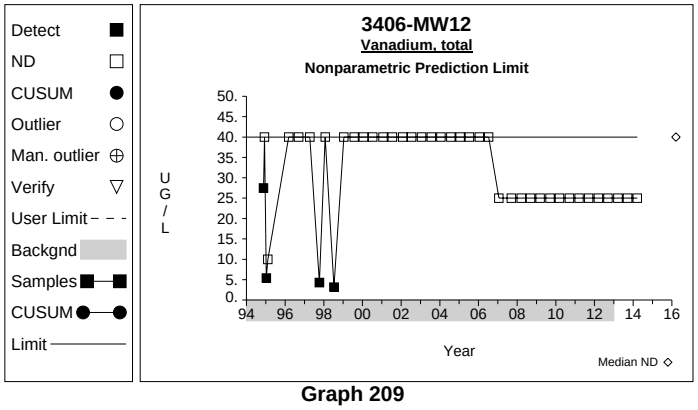

Graph 206



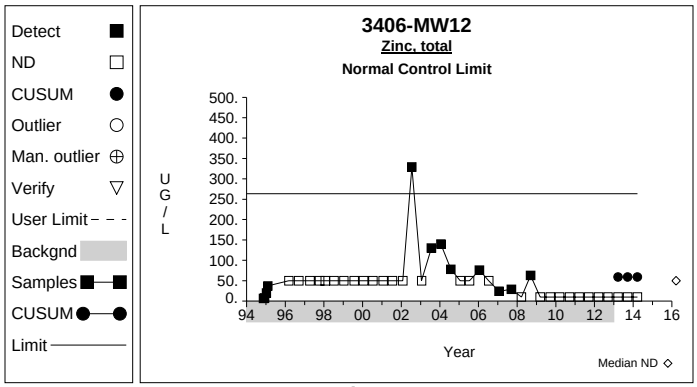

Graph 207




Graph 208

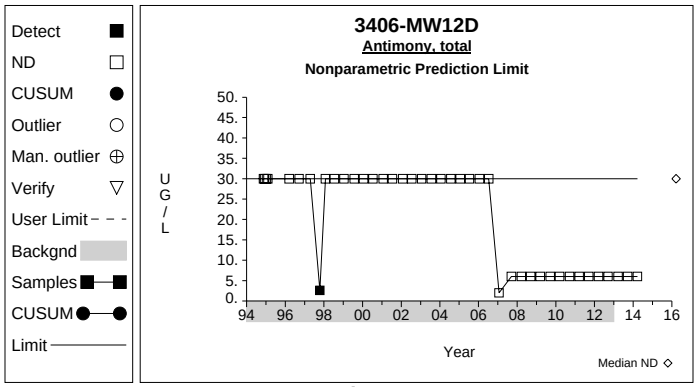



Graph 209

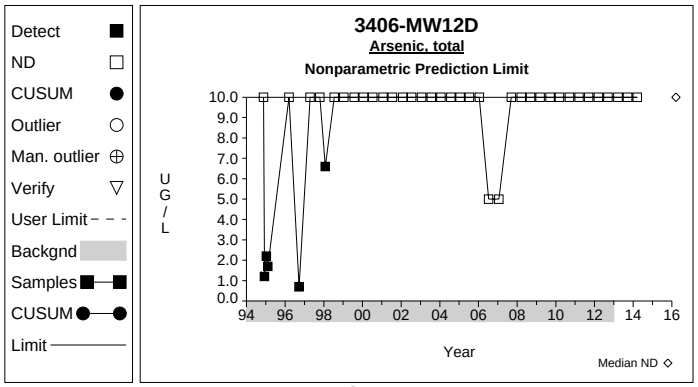



Graph 210

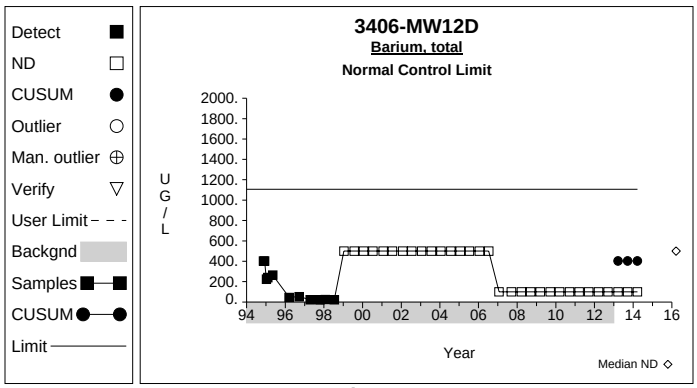
# Intra-Well Control Charts



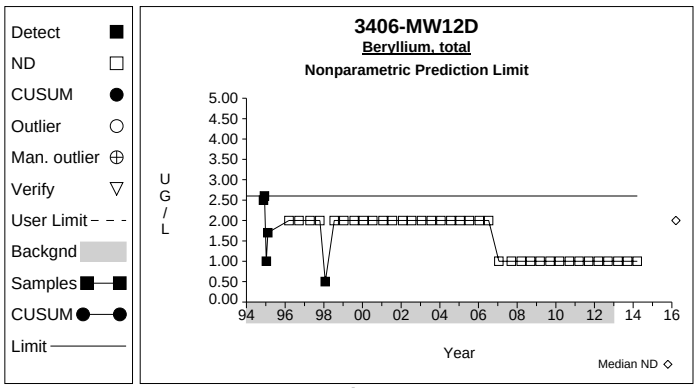

Graph 211



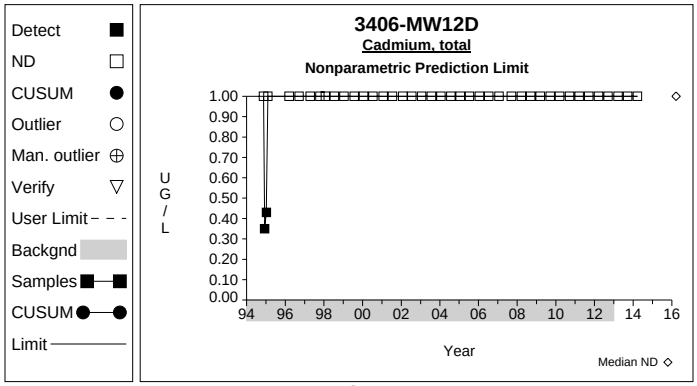

Graph 212



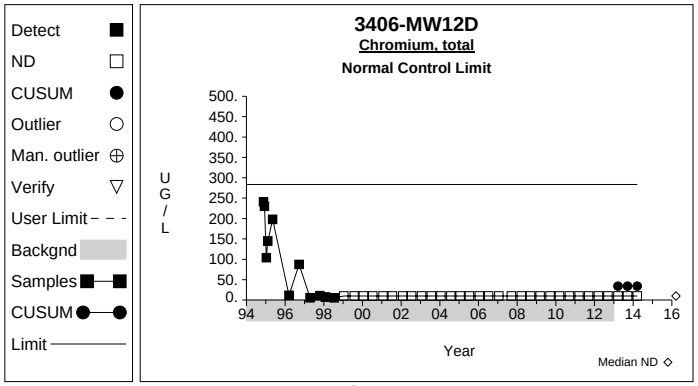

Graph 213



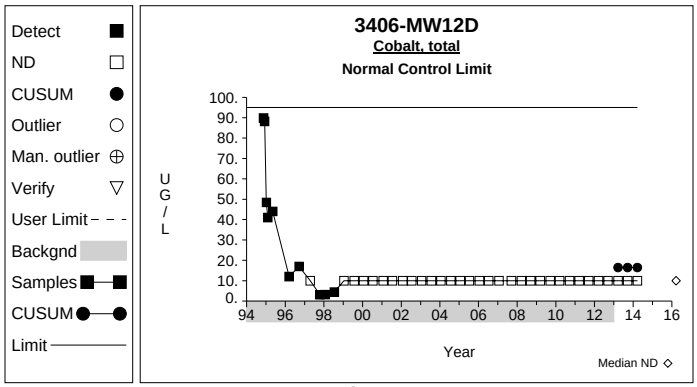

Graph 214



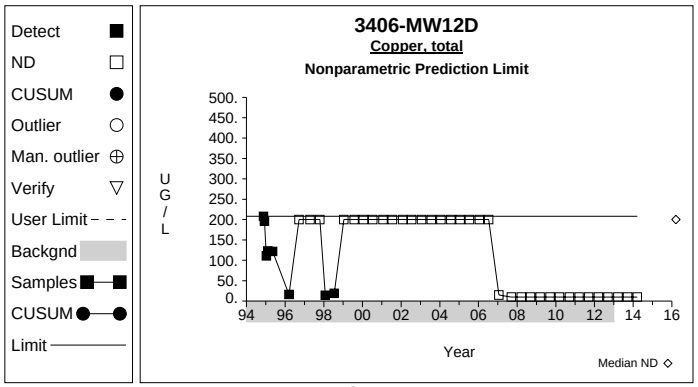

Graph 215




Graph 216

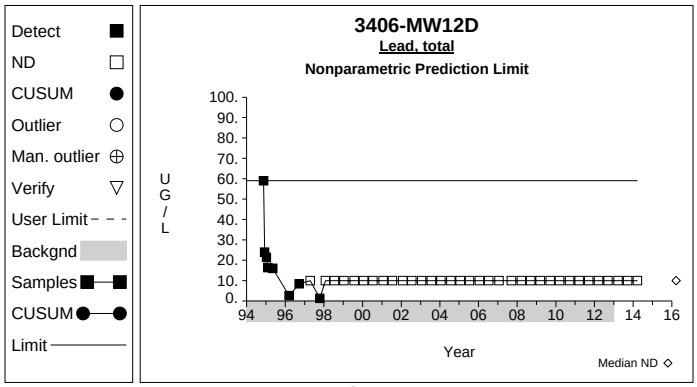



Graph 217

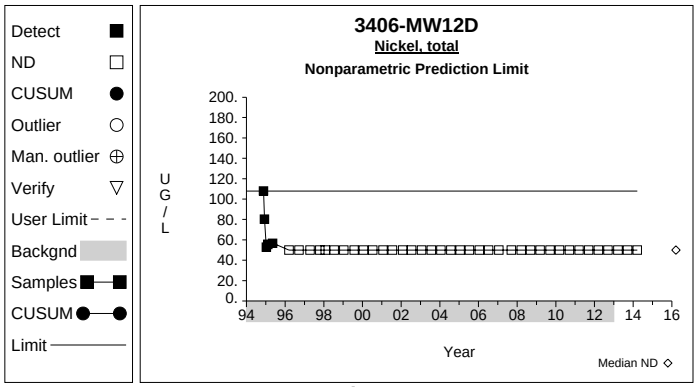



Graph 218

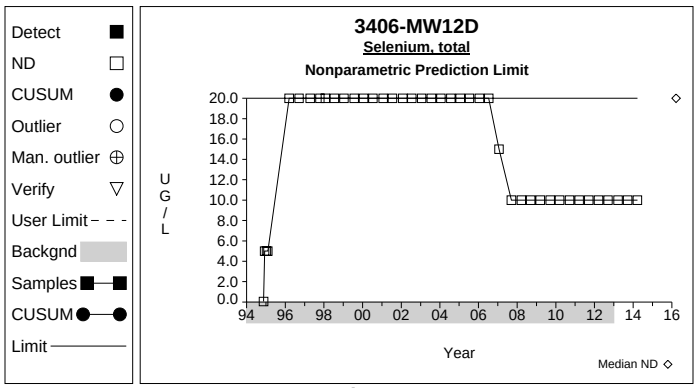
# Intra-Well Control Charts



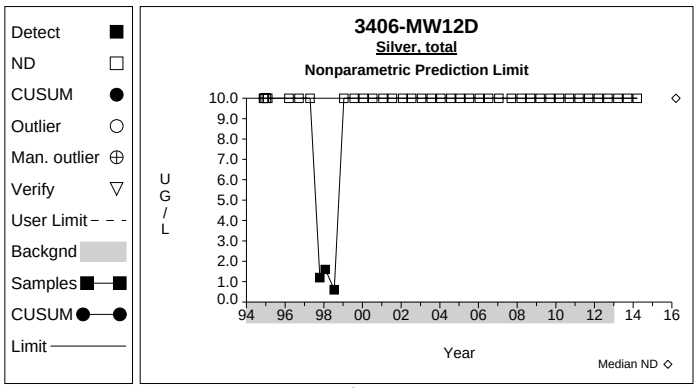

Graph 219



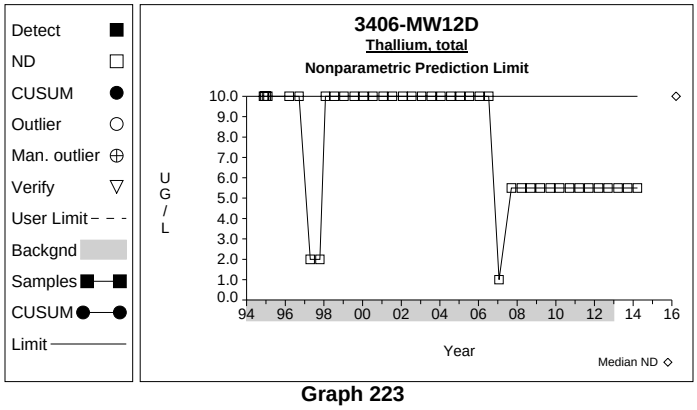

Graph 220



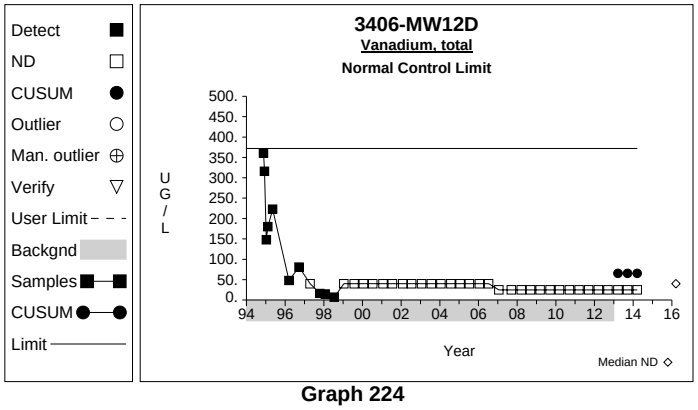

Graph 221



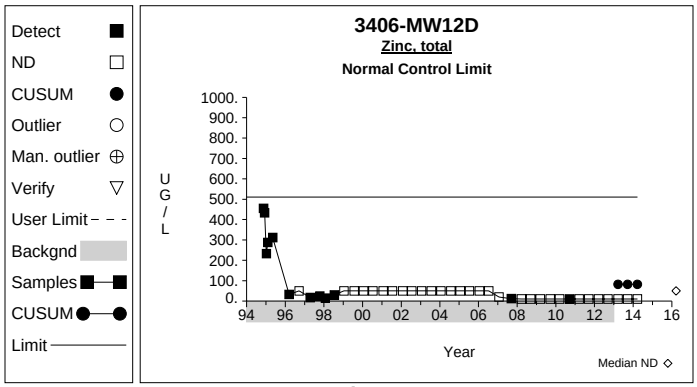

Graph 222




Graph 223

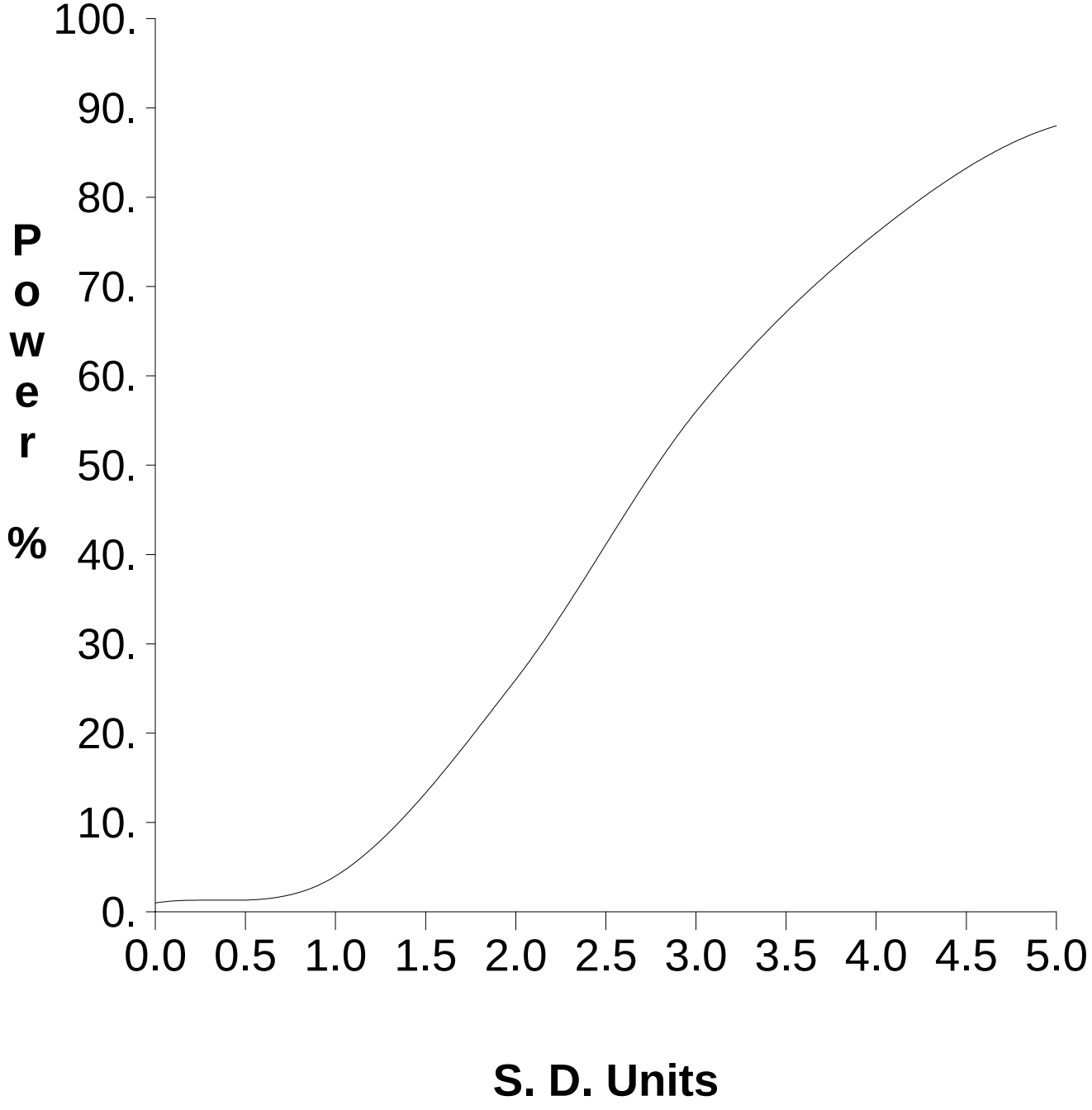



Graph 224

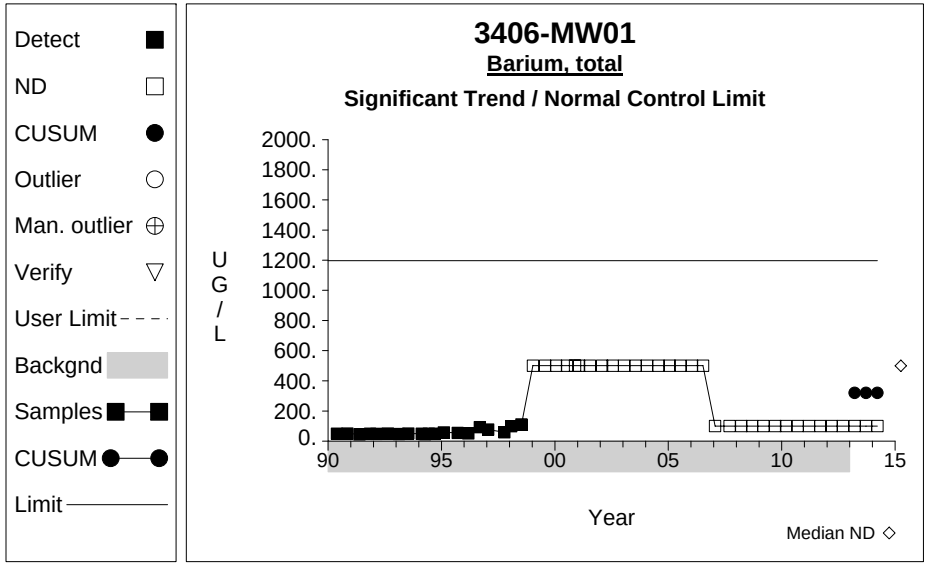



Graph 225

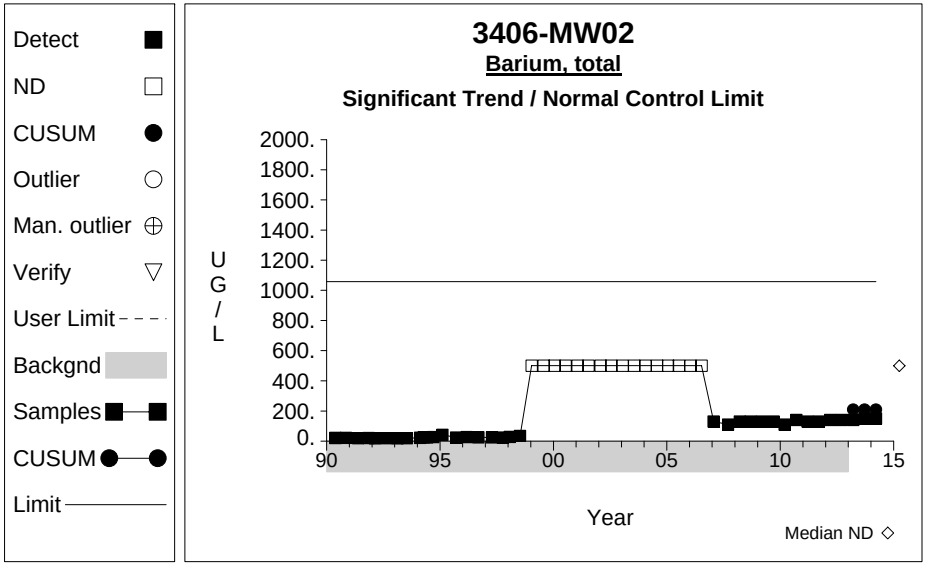
# False Positive and False Negative Rates for Current Intra-Well Control Charts Monitoring Program



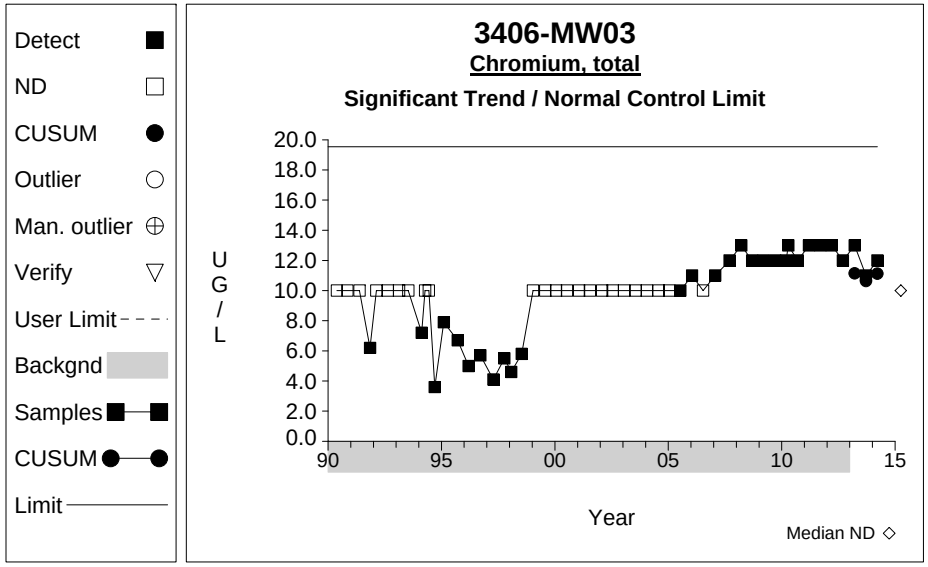
# Intra-Well Control Charts




**Graph 3**




**Graph 18**




**Graph 36**

# Attachment C

Summary of the VOCs Detected in the Ground Water

## Table 1

## Historical Volatile Organic Compound Detections

| Constituent | Units | Well | Date | Result | Limit |
|---|---|---|---|---|---|
| Acetone | UG/L | 3406-MW01 | 9/09/1996 | 21.0000 | 100.0000 |
| Heptachlor | UG/L | 3406-MW01 | 1/27/1998 | .0200 | .0500 |
| 1,1-dichloroethene | UG/L | 3406-MW02 | 7/10/1998 | .4000 | 5.0000 |
| Benzene | UG/L | 3406-MW02 | 9/13/2007 | 1.1000 | 1.0000 |
| Benzene | UG/L | 3406-MW02 | 3/19/2008 | 1.4000 | 1.0000 |
| Chloroform | UG/L | 3406-MW02 | 2/16/1994 | .5000 | 5.0000 |
| Chloroform | UG/L | 3406-MW02 | 4/11/1994 | .5000 | 5.0000 |
| Chloroform | UG/L | 3406-MW02 | 9/14/1994 | .4000 | 5.0000 |
| Methane | UG/L | 3406-MW02 | 2/05/2008 | 1300.0000 | 5.0000 |
| Toluene | UG/L | 3406-MW02 | 9/09/1996 | .2000 | 5.0000 |
| Vinyl chloride | UG/L | 3406-MW02 | 9/13/2007 | 1.3000 | 1.0000 |
| Vinyl chloride | UG/L | 3406-MW02 | 11/15/2007 | 1.3000 | 1.0000 |
| Vinyl chloride | UG/L | 3406-MW02 | 3/19/2008 | 1.4000 | 1.0000 |
| Vinyl chloride | UG/L | 3406-MW02 | 9/11/2008 | 3.2000 | 1.0000 |
| Vinyl chloride | UG/L | 3406-MW02 | 3/10/2009 | 1.6000 | 1.0000 |
| Benzene | UG/L | 3406-MW04D | 1/10/1995 | .2000 | 5.0000 |
| Chloromethane | UG/L | 3406-MW04D | 12/07/1994 | .5000 | 10.0000 |
| Toluene | UG/L | 3406-MW04D | 12/07/1994 | .2000 | 5.0000 |
| Toluene | UG/L | 3406-MW04D | 1/10/1995 | .3000 | 5.0000 |
| Toluene | UG/L | 3406-MW04D | 3/11/2009 | 1.2000 | 1.0000 |
| Bis(2-ethylhexyl) phthalate | UG/L | 3406-MW06 | 1/27/1998 | 4.0000 | 20.0000 |
| Benzene | UG/L | 3406-MW07 | 11/17/1994 | .2000 | 5.0000 |
| Chloromethane | UG/L | 3406-MW07 | 3/05/1996 | .6000 | 10.0000 |
| Benzene | UG/L | 3406-MW08 | 11/17/1994 | .2000 | 5.0000 |
| 1,1,1-trichloroethane | UG/L | 3406-MW09R | 6/05/1997 | .2000 | 5.0000 |
| 1,1,1-trichloroethane | UG/L | 3406-MW09R | 10/16/1997 | .2000 | 5.0000 |
| 1,1-dichloroethane | UG/L | 3406-MW09R | 3/11/1996 | 1.0000 | 5.0000 |
| 1,1-dichloroethane | UG/L | 3406-MW09R | 9/17/1996 | 3.0000 | 5.0000 |
| 1,1-dichloroethane | UG/L | 3406-MW09R | 1/22/1997 | 9.0000 | 5.0000 |
| 1,1-dichloroethane | UG/L | 3406-MW09R | 6/05/1997 | 7.0000 | 5.0000 |
| 1,1-dichloroethane | UG/L | 3406-MW09R | 10/16/1997 | 8.0000 | 5.0000 |
| 1,1-dichloroethane | UG/L | 3406-MW09R | 1/27/1998 | 8.0000 | 5.0000 |
| 1,1-dichloroethane | UG/L | 3406-MW09R | 7/14/1998 | 2.0000 | 5.0000 |
| 1,1-dichloroethane | UG/L | 3406-MW09R | 1/20/2000 | 23.0000 | 5.0000 |
| 1,1-dichloroethane | UG/L | 3406-MW09R | 2/16/2000 | 24.0000 | 5.0000 |
| 1,1-dichloroethane | UG/L | 3406-MW09R | 7/12/2000 | 20.0000 | 5.0000 |
| 1,1-dichloroethane | UG/L | 3406-MW09R | 11/21/2000 | 26.0000 | 5.0000 |
| 1,1-dichloroethane | UG/L | 3406-MW09R | 1/24/2001 | 28.0000 | 5.0000 |
| 1,1-dichloroethane | UG/L | 3406-MW09R | 7/18/2001 | 19.0000 | 5.0000 |
| 1,1-dichloroethane | UG/L | 3406-MW09R | 1/31/2002 | 21.0000 | 5.0000 |
| 1,1-dichloroethane | UG/L | 3406-MW09R | 7/18/2002 | 24.0000 | 5.0000 |
| 1,1-dichloroethane | UG/L | 3406-MW09R | 1/21/2003 | 7.0000 | 5.0000 |
| 1,1-dichloroethane | UG/L | 3406-MW09R | 7/24/2003 | 14.0000 | 5.0000 |
| 1,1-dichloroethane | UG/L | 3406-MW09R | 1/22/2004 | 22.0000 | 5.0000 |
| 1,1-dichloroethane | UG/L | 3406-MW09R | 7/27/2004 | 20.0000 | 5.0000 |
| 1,1-dichloroethane | UG/L | 3406-MW09R | 1/19/2005 | 16.0000 | 5.0000 |
| 1,1-dichloroethane | UG/L | 3406-MW09R | 7/12/2005 | 18.0000 | 5.0000 |
| 1,1-dichloroethane | UG/L | 3406-MW09R | 1/18/2006 | 12.0000 | 5.0000 |
| 1,1-dichloroethane | UG/L | 3406-MW09R | 7/12/2006 | 11.0000 | 5.0000 |
| 1,1-dichloroethane | UG/L | 3406-MW09R | 1/24/2007 | 6.1000 | 5.0000 |
| 1,1-dichloroethane | UG/L | 3406-MW09R | 9/12/2007 | 12.0000 | 5.0000 |
| 1,1-dichloroethane | UG/L | 3406-MW09R | 3/19/2008 | 6.3000 | 5.0000 |
| 1,1-dichloroethane | UG/L | 3406-MW09R | 9/11/2008 | 6.1000 | 5.0000 |
| 1,1-dichloroethane | UG/L | 3406-MW09R | 9/16/2009 | 5.1000 | 5.0000 |
| 1,2-dichloroethane | UG/L | 3406-MW09R | 3/11/1996 | .2000 | 5.0000 |
| 3-methylphenol | UG/L | 3406-MW09R | 1/22/1997 | 2.0000 | 10.0000 |
| 4-methylphenol | UG/L | 3406-MW09R | 1/22/1997 | 2.0000 | 10.0000 |
| Acetone | UG/L | 3406-MW09R | 3/11/1996 | 66.0000 | 100.0000 |
| Acetone | UG/L | 3406-MW09R | 4/29/1996 | 35.0000 | 34.0000 |
| Acetone | UG/L | 3406-MW09R | 9/17/1996 | 12.0000 | 100.0000 |
| Acetone | UG/L | 3406-MW09R | 6/05/1997 | 6.0000 | 100.0000 |
| Benzene | UG/L | 3406-MW09R | 3/11/1996 | 5.0000 | 5.0000 |
| Benzene | UG/L | 3406-MW09R | 4/29/1996 | 3.0000 | 5.0000 |
| Benzene | UG/L | 3406-MW09R | 9/17/1996 | .9000 | 5.0000 |
| Benzene | UG/L | 3406-MW09R | 1/22/1997 | 2.0000 | 5.0000 |
| Benzene | UG/L | 3406-MW09R | 6/05/1997 | 1.0000 | 5.0000 |
| Benzene | UG/L | 3406-MW09R | 10/16/1997 | .9000 | 5.0000 |
| Bis(2-ethylhexyl) phthalate | UG/L | 3406-MW09R | 1/22/1997 | 3.0000 | 50.0000 |
| Bis(2-ethylhexyl) phthalate | UG/L | 3406-MW09R | 1/27/1998 | 9.0000 | 20.0000 |
| Carbon disulfide | UG/L | 3406-MW09R | 3/11/1996 | .2000 | 100.0000 |
| Carbon disulfide | UG/L | 3406-MW09R | 9/17/1996 | .3000 | 100.0000 |
| Chloroethane | UG/L | 3406-MW09R | 9/14/1994 | 1.0000 | 10.0000 |
| Chloroethane | UG/L | 3406-MW09R | 12/06/1994 | 1.0000 | 10.0000 |
| Chloroethane | UG/L | 3406-MW09R | 1/10/1995 | 2.0000 | 10.0000 |
| Chloroethane | UG/L | 3406-MW09R | 3/11/1996 | 7.0000 | 10.0000 |
| Chloroethane | UG/L | 3406-MW09R | 9/17/1996 | 25.0000 | 10.0000 |

Detections are shown for constituents selected in the VOC list and all selected wells
The Limit column refers to the laboratory reporting limit

## Table 1

## Historical Volatile Organic Compound Detections

| Constituent | Units | Well | Date | Result | Limit |
|---|---|---|---|---|---|
| Chloroethane | UG/L | 3406-MW09R | 11/18/1996 | 27.0000 | 10.0000 |
| Chloroethane | UG/L | 3406-MW09R | 1/22/1997 | 32.0000 | 10.0000 |
| Chloroethane | UG/L | 3406-MW09R | 6/05/1997 | 16.0000 | 10.0000 |
| Chloroethane | UG/L | 3406-MW09R | 10/16/1997 | 14.0000 | 10.0000 |
| Chloroethane | UG/L | 3406-MW09R | 1/27/1998 | 8.0000 | 10.0000 |
| Chloroethane | UG/L | 3406-MW09R | 7/14/1998 | .5000 | 10.0000 |
| Cis-1,2-dichloroethene | UG/L | 3406-MW09R | 9/17/1996 | 2.0000 | 5.0000 |
| Cis-1,2-dichloroethene | UG/L | 3406-MW09R | 1/22/1997 | 3.0000 | 5.0000 |
| Cis-1,2-dichloroethene | UG/L | 3406-MW09R | 6/05/1997 | 2.0000 | 5.0000 |
| Cis-1,2-dichloroethene | UG/L | 3406-MW09R | 10/16/1997 | 2.0000 | 5.0000 |
| Cis-1,2-dichloroethene | UG/L | 3406-MW09R | 1/27/1998 | 1.0000 | 5.0000 |
| Cis-1,2-dichloroethene | UG/L | 3406-MW09R | 7/18/2002 | 6.5000 | 5.0000 |
| Cis-1,2-dichloroethene | UG/L | 3406-MW09R | 1/21/2003 | 6.9000 | 5.0000 |
| Cis-1,2-dichloroethene | UG/L | 3406-MW09R | 7/24/2003 | 7.5000 | 5.0000 |
| Cis-1,2-dichloroethene | UG/L | 3406-MW09R | 1/22/2004 | 12.0000 | 5.0000 |
| Cis-1,2-dichloroethene | UG/L | 3406-MW09R | 7/27/2004 | 12.0000 | 5.0000 |
| Cis-1,2-dichloroethene | UG/L | 3406-MW09R | 1/19/2005 | 11.0000 | 5.0000 |
| Cis-1,2-dichloroethene | UG/L | 3406-MW09R | 7/12/2005 | 11.0000 | 5.0000 |
| Cis-1,2-dichloroethene | UG/L | 3406-MW09R | 1/18/2006 | 8.4000 | 5.0000 |
| Cis-1,2-dichloroethene | UG/L | 3406-MW09R | 7/12/2006 | 6.5000 | 5.0000 |
| Cis-1,2-dichloroethene | UG/L | 3406-MW09R | 9/12/2007 | 5.1000 | 5.0000 |
| Dichlorodifluoromethane | UG/L | 3406-MW09R | 1/22/1997 | 2.0000 | 10.0000 |
| Dichlorodifluoromethane | UG/L | 3406-MW09R | 1/27/1998 | .7000 | 5.0000 |
| Ethane | UG/L | 3406-MW09R | 11/21/2000 | .9600 | .5000 |
| Isobutyl alcohol | UG/L | 3406-MW09R | 1/22/1997 | 30.0000 | 50.0000 |
| Methane | UG/L | 3406-MW09R | 11/21/2000 | 720.0000 | .5000 |
| Methane | UG/L | 3406-MW09R | 11/21/2000 | 4100.0000 | 100.0000 |
| Methyl ethyl ketone | UG/L | 3406-MW09R | 3/11/1996 | 10.0000 | 100.0000 |
| Methylene chloride | UG/L | 3406-MW09R | 3/11/1996 | .5000 | 10.0000 |
| Methylene chloride | UG/L | 3406-MW09R | 9/17/1996 | 2.0000 | 10.0000 |
| Methylene chloride | UG/L | 3406-MW09R | 1/22/1997 | 6.0000 | 10.0000 |
| Methylene chloride | UG/L | 3406-MW09R | 6/05/1997 | 3.0000 | 10.0000 |
| Methylene chloride | UG/L | 3406-MW09R | 10/16/1997 | 5.0000 | 10.0000 |
| Methylene chloride | UG/L | 3406-MW09R | 1/27/1998 | 4.0000 | 10.0000 |
| Methylene chloride | UG/L | 3406-MW09R | 7/14/1998 | .3000 | 10.0000 |
| Tetrachloroethene | UG/L | 3406-MW09R | 3/11/1996 | 1.0000 | 5.0000 |
| Tetrachloroethene | UG/L | 3406-MW09R | 9/17/1996 | .5000 | 5.0000 |
| Tetrachloroethene | UG/L | 3406-MW09R | 1/22/1997 | 1.0000 | 5.0000 |
| Tetrachloroethene | UG/L | 3406-MW09R | 6/05/1997 | 1.0000 | 5.0000 |
| Tetrachloroethene | UG/L | 3406-MW09R | 10/16/1997 | 1.0000 | 5.0000 |
| Tetrachloroethene | UG/L | 3406-MW09R | 1/27/1998 | .6000 | 5.0000 |
| Tetrachloroethene | UG/L | 3406-MW09R | 7/14/1998 | .3000 | 5.0000 |
| Toluene | UG/L | 3406-MW09R | 9/17/1996 | .6000 | 5.0000 |
| Toluene | UG/L | 3406-MW09R | 1/22/1997 | 2.0000 | 5.0000 |
| Toluene | UG/L | 3406-MW09R | 6/05/1997 | 4.0000 | 5.0000 |
| Total xylenes | UG/L | 3406-MW09R | 9/17/1996 | 1.0000 | 5.0000 |
| Total xylenes | UG/L | 3406-MW09R | 1/22/1997 | 2.0000 | 5.0000 |
| Trichloroethene | UG/L | 3406-MW09R | 3/11/1996 | .5000 | 5.0000 |
| Trichloroethene | UG/L | 3406-MW09R | 9/17/1996 | 1.0000 | 5.0000 |
| Trichloroethene | UG/L | 3406-MW09R | 1/22/1997 | 2.0000 | 5.0000 |
| Trichloroethene | UG/L | 3406-MW09R | 6/05/1997 | 1.0000 | 5.0000 |
| Trichloroethene | UG/L | 3406-MW09R | 10/16/1997 | 2.0000 | 5.0000 |
| Trichloroethene | UG/L | 3406-MW09R | 1/27/1998 | 2.0000 | 5.0000 |
| Trichloroethene | UG/L | 3406-MW09R | 7/14/1998 | .2000 | 5.0000 |
| Vinyl chloride | UG/L | 3406-MW09R | 3/11/1996 | .5000 | 10.0000 |
| Vinyl chloride | UG/L | 3406-MW09R | 9/17/1996 | 1.0000 | 10.0000 |
| Vinyl chloride | UG/L | 3406-MW09R | 1/22/1997 | 2.0000 | 10.0000 |
| Vinyl chloride | UG/L | 3406-MW09R | 6/05/1997 | 1.0000 | 10.0000 |
| Vinyl chloride | UG/L | 3406-MW09R | 10/16/1997 | 1.0000 | 10.0000 |
| Vinyl chloride | UG/L | 3406-MW09R | 1/27/1998 | .6000 | 10.0000 |
| Chloromethane | UG/L | 3406-MW10 | 3/05/1996 | .8000 | 10.0000 |
| Acetone | UG/L | 3406-MW11 | 3/11/1996 | 8.0000 | 100.0000 |
| Acetone | UG/L | 3406-MW11D | 12/07/1994 | 110.0000 | 34.0000 |
| Chloromethane | UG/L | 3406-MW12D | 11/18/1994 | .9000 | 10.0000 |
| Chloromethane | UG/L | 3406-MW12D | 12/06/1994 | .6000 | 10.0000 |
| Methylene chloride | UG/L | 3406-MW12D | 7/16/1998 | .2000 | 10.0000 |
| 1,1-dichloroethane | UG/L | 3406-S05 | 9/14/1994 | .8000 | 5.0000 |
| 1,1-dichloroethane | UG/L | 3406-S05 | 9/14/1995 | .8000 | 5.0000 |
| 1,1-dichloroethane | UG/L | 3406-S05 | 3/04/1996 | .3000 | 5.0000 |
| 1,1-dichloroethane | UG/L | 3406-S05 | 9/23/1996 | .4000 | 5.0000 |
| 1,1-dichloroethane | UG/L | 3406-S05 | 3/27/1997 | .2000 | 5.0000 |
| 1,1-dichloroethane | UG/L | 3406-S05 | 10/07/1997 | .3000 | 5.0000 |
| 1,1-dichloroethane | UG/L | 3406-S05 | 7/14/1998 | .2000 | 5.0000 |
| Acetone | UG/L | 3406-S05 | 3/04/1996 | 8.0000 | 100.0000 |
| Cis-1,2-dichloroethene | UG/L | 3406-S05 | 2/17/1994 | .9000 | 5.0000 |
| Cis-1,2-dichloroethene | UG/L | 3406-S05 | 9/14/1994 | 1.0000 | 5.0000 |

Detections are shown for constituents selected in the VOC list and all selected wells
The Limit column refers to the laboratory reporting limit

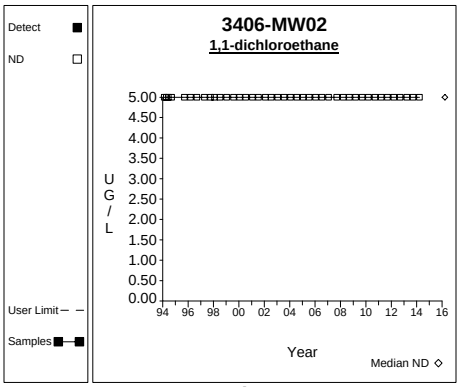
## Table 1

## Historical Volatile Organic Compound Detections

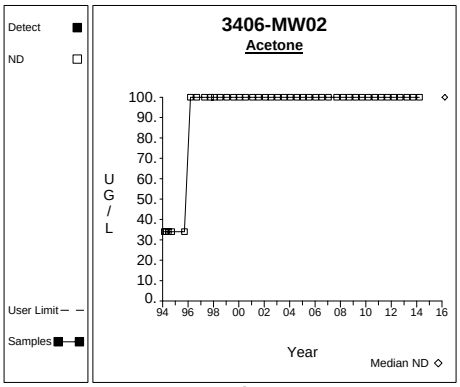
| Constituent | Units | Well | Date | Result | Limit |
|---|---|---|---|---|---|
| Cis-1,2-dichloroethene | UG/L | 3406-S05 | 1/10/1995 | .8000 | 5.0000 |
| Cis-1,2-dichloroethene | UG/L | 3406-S05 | 9/14/1995 | 2.0000 | 5.0000 |
| Cis-1,2-dichloroethene | UG/L | 3406-S05 | 3/04/1996 | .7000 | 5.0000 |
| Cis-1,2-dichloroethene | UG/L | 3406-S05 | 9/23/1996 | .8000 | 5.0000 |
| Cis-1,2-dichloroethene | UG/L | 3406-S05 | 3/27/1997 | .4000 | 5.0000 |
| Cis-1,2-dichloroethene | UG/L | 3406-S05 | 10/07/1997 | .5000 | 5.0000 |
| Cis-1,2-dichloroethene | UG/L | 3406-S05 | 1/30/1998 | .3000 | 5.0000 |
| Cis-1,2-dichloroethene | UG/L | 3406-S05 | 7/14/1998 | .4000 | 5.0000 |
| Trichloroethene | UG/L | 3406-S05 | 9/14/1994 | .2000 | 5.0000 |
| Trichloroethene | UG/L | 3406-S05 | 9/14/1995 | .2000 | 5.0000 |
| Trichlorofluoromethane | UG/L | 3406-S05 | 2/17/1994 | .6000 | 5.0000 |
| Vinyl chloride | UG/L | 3406-S05 | 9/14/1995 | .5000 | 10.0000 |
| Vinyl chloride | UG/L | 3406-S05 | 3/04/1996 | .4000 | 10.0000 |
| Vinyl chloride | UG/L | 3406-S05 | 9/23/1996 | .4000 | 10.0000 |

Detections are shown for constituents selected in the VOC list and all selected wells
The Limit column refers to the laboratory reporting limit

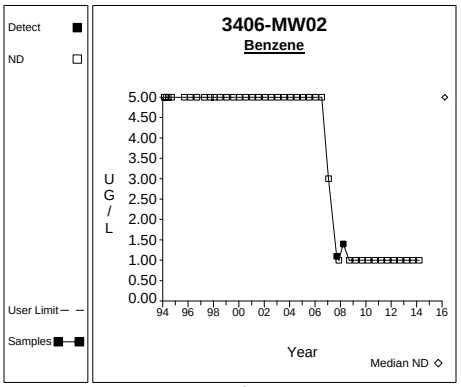
# Time Series



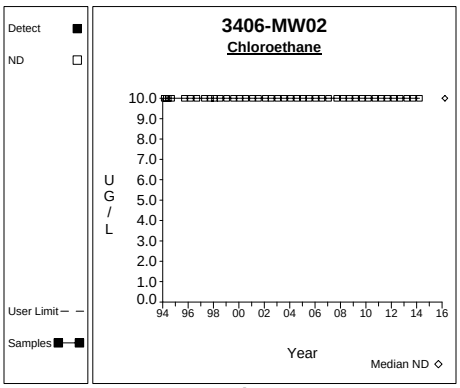

Graph 1



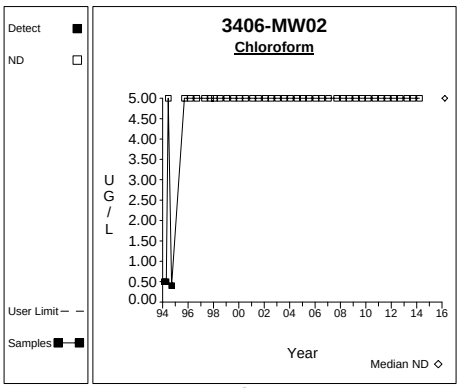

Graph 2



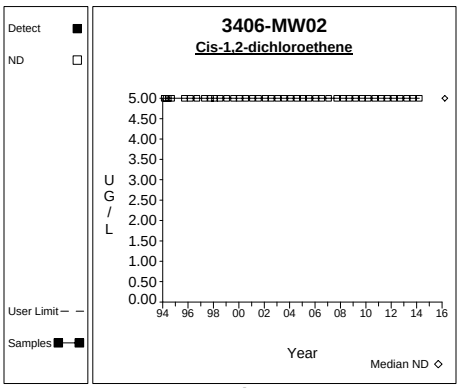

Graph 3



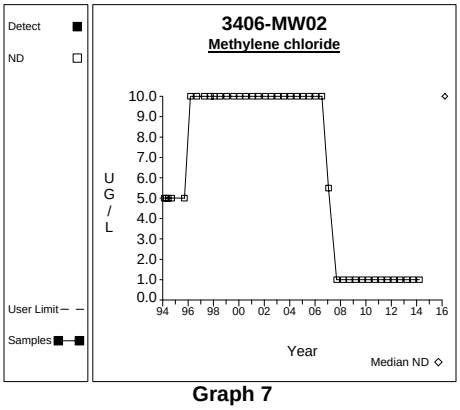

Graph 4



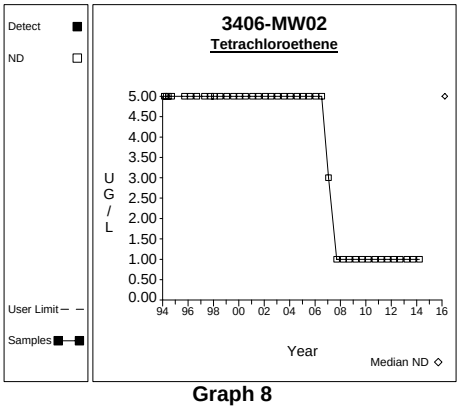

Graph 5



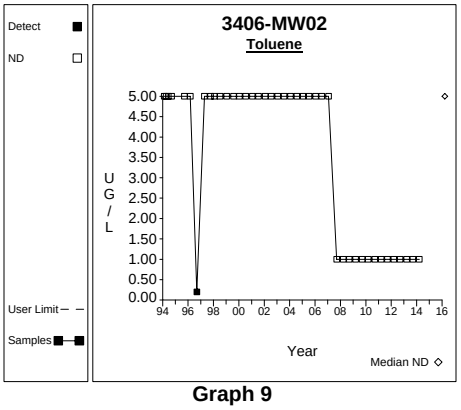

Graph 6



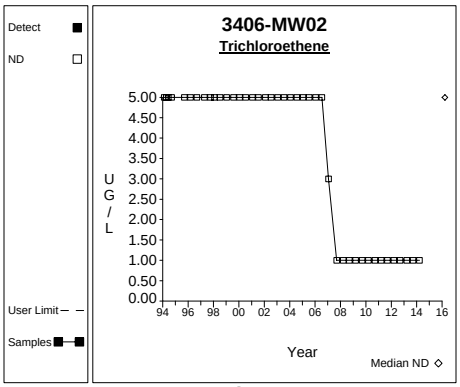

Graph 7



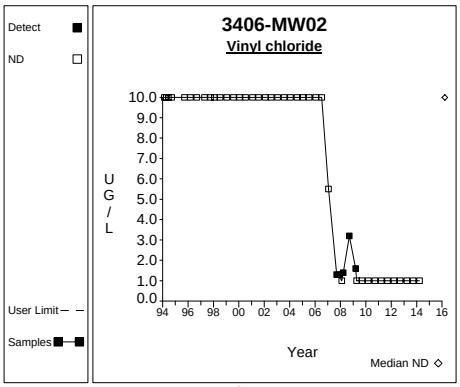

Graph 8




Graph 9

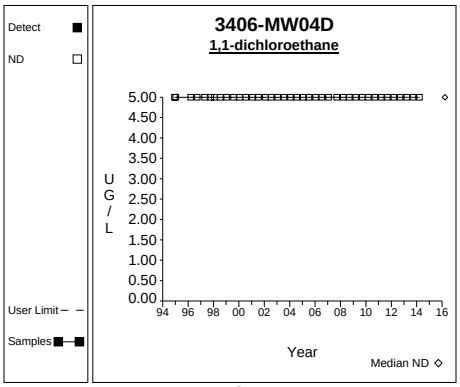



Graph 10

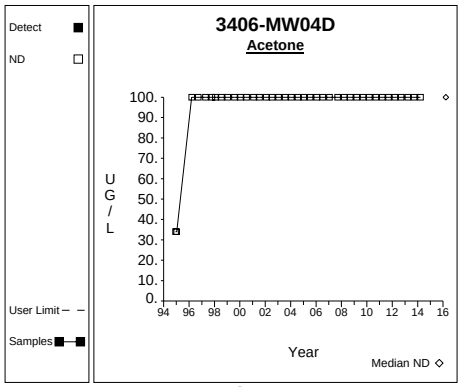



Graph 11

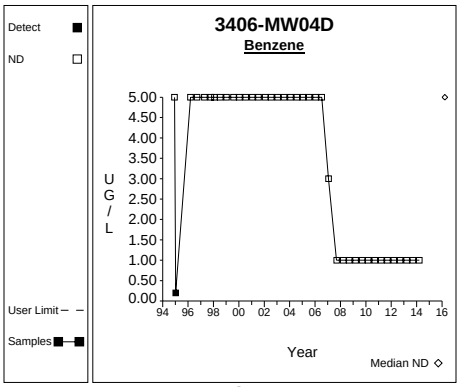
# Time Series



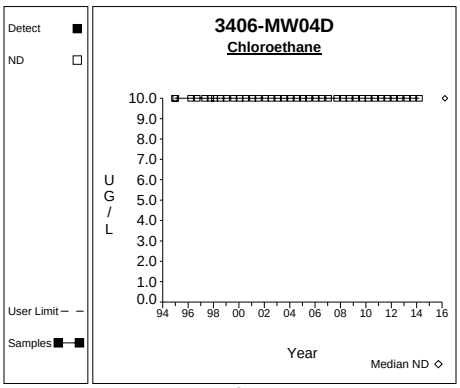

Graph 12



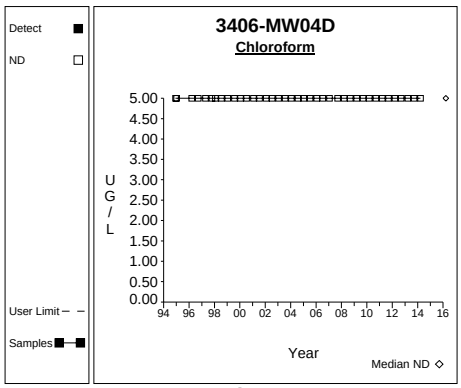

Graph 13



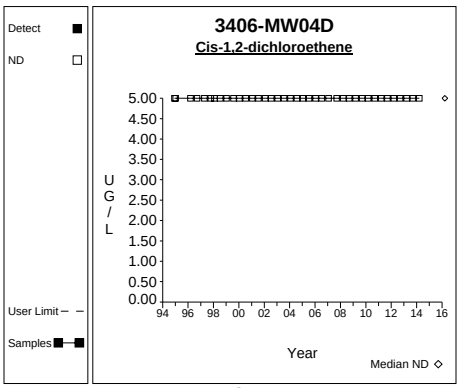

Graph 14



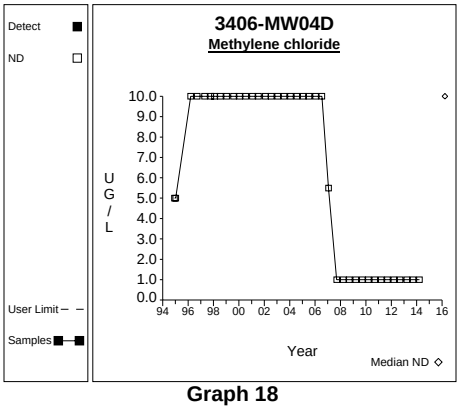

Graph 15



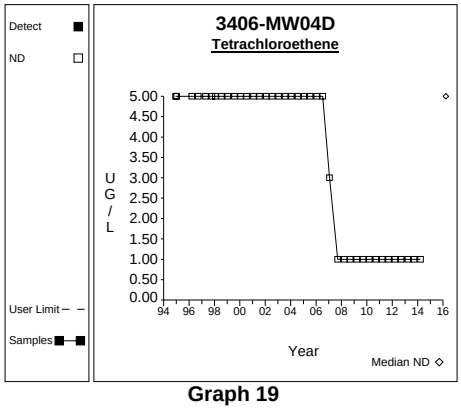

Graph 16



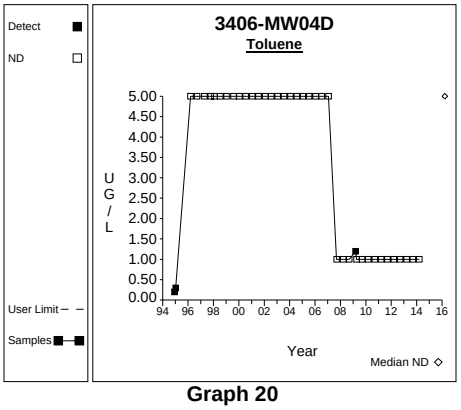

Graph 17



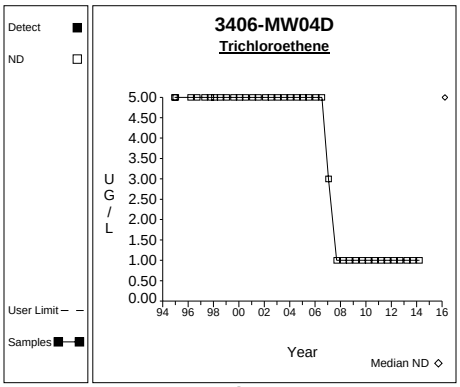

Graph 18



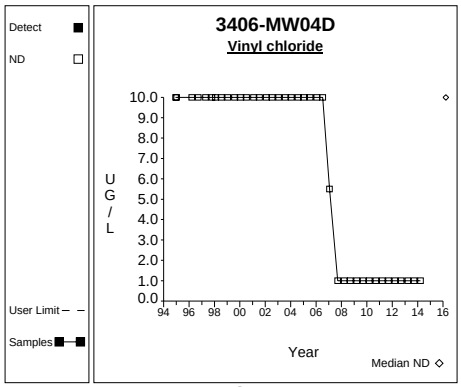

Graph 19




Graph 20

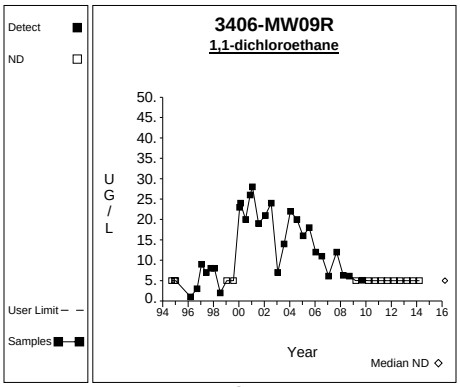



Graph 21

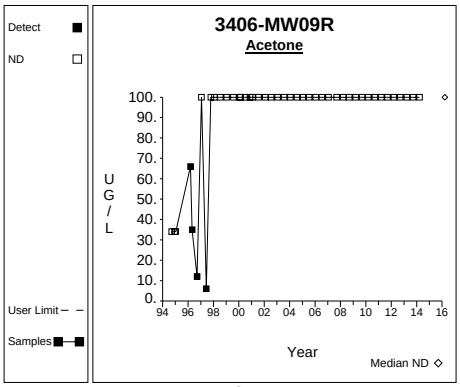



Graph 22

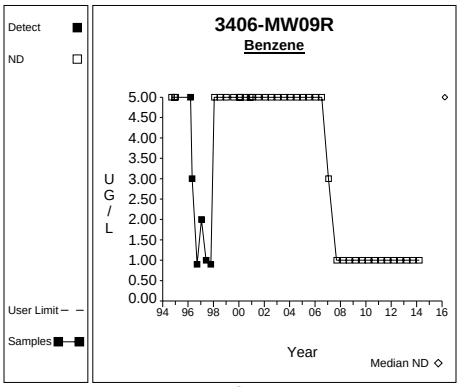
# Time Series



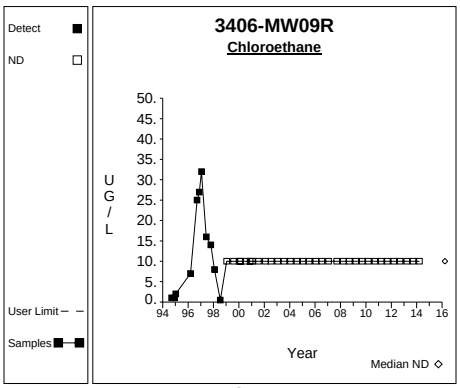

Graph 23



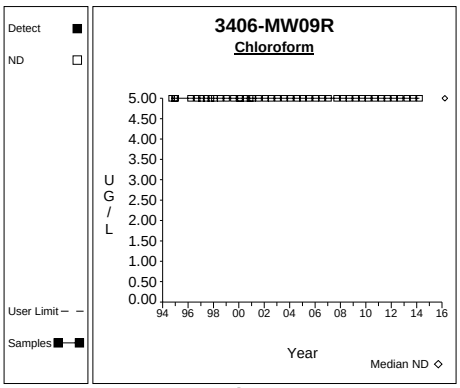

Graph 24



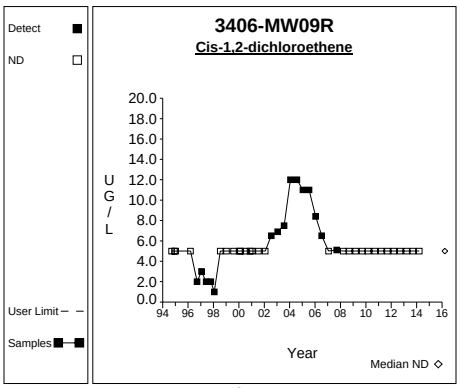

Graph 25



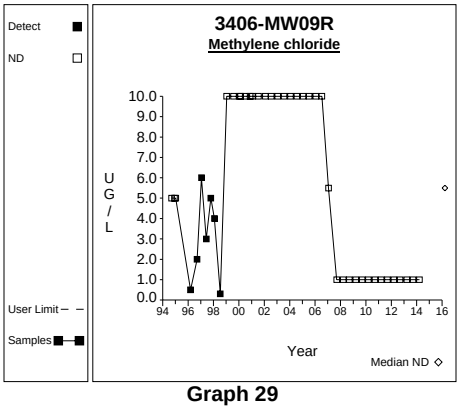

Graph 26



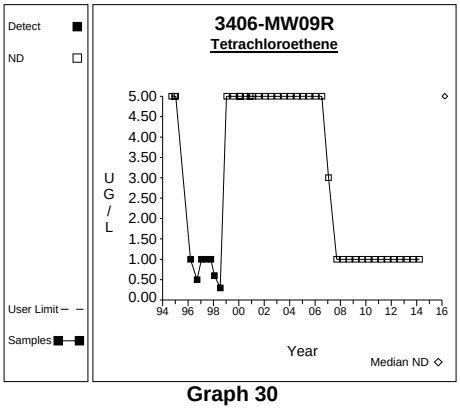

Graph 27



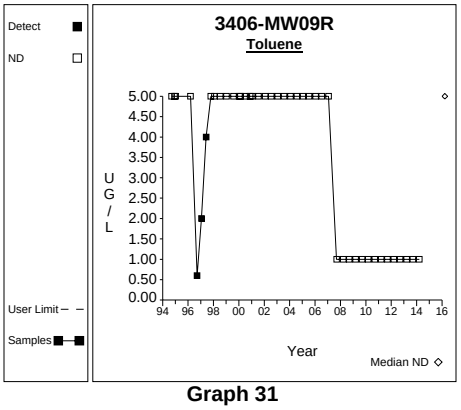

Graph 28



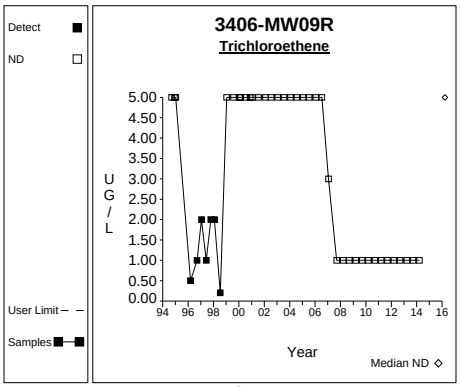

Graph 29



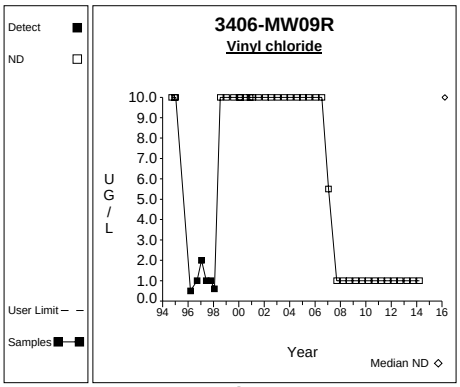

Graph 30




Graph 31




Graph 32




Graph 33

# APPENDIX C

## GROUNDWATER FLOW REGIME REPORT

**Piedmont Landfill & Recycling Center – Permit No. 34-06**
**Groundwater Flow Regime Report – March 2014 Event**

*Prepared by:*


JOYCE ENGINEERING

2211 West Meadowview Road, Suite 101
Greensboro, North Carolina 27407


NORTH CAROLINA LICENSED SEAL 1349 GEOLOGIST G. VAN NESS BURBACH

*Prepared by:* G. Van Ness Burbach


G. Van Ness Burbach, Ph.D., P.G.


Attachments: Drawing No. 1 – Groundwater Surface Map
Table 2 – Historical Groundwater Elevations
Table 3 – Groundwater Flow Rate Calculations

# Piedmont Landfill & Recycling Center
**Permit 34-06**

# APPENDIX C:
# Groundwater Flow Regime Report – March 2014 Event

On behalf of Waste Management, Joyce Engineering has reviewed groundwater flow rates and flow directions at the Piedmont Landfill and Recycling Center for the first semiannual groundwater sampling event of 2014. The groundwater flow and direction calculations presented in this report are based on groundwater elevation data obtained by ProTech on March 19, 2014. The information provided in this report will satisfy, in part, the environmental reporting requirements of Piedmont Landfill's Municipal Solid Waste Permit.

The groundwater level measurements taken during the above referenced sampling event were used to construct the groundwater surface contour map attached to this report as *Drawing No. 1*. A summary of groundwater elevations obtained during this and previous sampling events is provided in *Table 2.* The potentiometric contours and the groundwater flow directions presented in *Drawing No. 1* were used to calculate hydraulic gradients for the site. The hydraulic gradient calculations are provided in *Table 3*. The hydraulic gradients (**i**) ranged from 0.011 ft/ft to 0.028 ft/ft. These gradients are generally consistent with past interpretations for the site.

An effective porosity value (**n**) of 41 percent was used in the equation based on an average of six laboratory-derived porosities as reported in the April 1994 *Design Hydrogeologic Study*, prepared by RUST Environment & Infrastructure. Hydraulic conductivities (**K**) were also taken from the *Design Hydrogeologic Study*, and were based on slug test data from piezometers located nearest the respective groundwater flow paths. Using the gradient (**i**) along each flow path, the linear flow velocity (**V**) was estimated using the modified Darcy equation: $\mathbf{V = i\,K/n}$. The flow rate calculations are presented in *Table 4*.

As shown on *Drawing 1*, groundwater flow at the site is generally west to northwest. Segment $i_1$ was 20.8 feet/year to the north-northwest; Segment $i_2$ was 4.8 feet/year to the northwest; Segment $i_3$ was 10.8 feet/year to the west. The average groundwater flow rate for March 2014 was approximately 12.1 feet/year. These groundwater flow directions and velocities are consistent with those calculated during other recent events.

The groundwater measurements obtained during the March 2014 event are generally consistent with those obtained during previous sampling events. Based on this information, it is our opinion that the groundwater monitoring system continues to be adequate for the detection of the release of solid waste constituents to the environment.

# TABLE 2
# HISTORICAL GROUNDWATER ELEVATIONS

| DATA | MONITORING WELL WATER LEVEL ELEVATIONS | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Well ID:** | **MW-01** | **MW-02** | **MW-03** | **MW-04** | **MW-04D** | **MW-05** | **MW-06** | **MW-07** | **MW-08** | **MW-09** | **MW-09R** | **MW-10** | **MW-11** | **MW-11D** | **MW-12** | **MW-12D** |
| **TOC Elevation:** | 823.93 | 778.04 | 770.08 | 756.92 | 757.33 | 743.17 | 800.82 | 771.57 | 748.95 | 770.62 | 764.95 | 777.20 | 776.80 | 776.36 | 751.48 | 751.53 |
| **Well Depth:** | 49.0 | 35.5 | 38.0 | 27.0 | 62.0 | 20.5 | 29.6 | 31.3 | 18.8 | 35.0 | 43.0 | 38.0 | 35.0 | 93.5 | 18.0 | 43.3 |
| 30-Jan-1998 | 781.82 | 750.71 | 746.26 | 745.46 | 745.46 | 738.49 | 779.84 | 744.32 | 744.30 | 737.47 | NA | 744.42 | 749.08 | 747.66 | 746.58 | 747.05 |
| 21-Jul-1998 | 784.78 | 750.06 | 746.76 | 743.92 | 743.78 | 737.14 | 781.04 | 745.07 | 741.20 | 738.96 | NA | 744.35 | 748.95 | 748.58 | 745.88 | 746.11 |
| 14-Jan-1999 | 780.98 | 749.16 | 744.91 | 744.27 | 744.16 | 737.60 | 777.86 | 743.57 | 742.68 | 736.62 | NA | 743.63 | 748.09 | 747.74 | 745.93 | 746.11 |
| 27-Jul-1999 | 780.48 | 749.08 | 744.86 | 743.26 | 743.28 | 734.04 | 777.52 | 743.92 | 740.53 | 737.12 | NA | 743.62 | 748.05 | 747.75 | 745.53 | 745.68 |
| 20-Jan-2000 | 780.30 | 748.51 | 744.83 | 744.77 | 744.43 | 737.82 | 777.27 | 743.87 | 743.18 | NA | 737.14 | 743.90 | 748.36 | 747.97 | 746.28 | 746.53 |
| 12-Jul-2001 | 780.10 | 748.73 | 745.30 | 742.88 | 743.06 | 737.08 | 776.81 | 744.25 | 740.40 | NA | 738.12 | 743.66 | 747.77 | 747.44 | 745.45 | 745.71 |
| 24-Jan-2001 | 778.93 | 748.91 | 744.43 | 744.69 | 744.73 | 737.72 | 775.84 | 743.40 | 743.41 | NA | 737.35 | 743.49 | 747.85 | 747.54 | 746.06 | 746.54 |
| 17,18-Jul-2001 | 779.59 | 748.41 | 744.61 | 742.72 | 742.78 | 736.76 | 776.08 | 743.92 | 739.99 | NA | 737.77 | 743.35 | 749.45 | 747.09 | 745.45 | 745.40 |
| 30,31-Jan-2002 | 777.29 | 748.14 | 743.08 | 743.09 | 743.49 | 737.37 | 773.72 | 742.57 | 742.17 | NA | 736.40 | 742.74 | 747.35 | 747.03 | 745.14 | 742.42 |
| 17,18-Jul-2002 | 776.47 | 747.29 | 742.88 | 741.80 | 741.93 | 736.48 | 772.97 | 742.57 | 738.97 | NA | 735.86 | 742.30 | 746.54 | 746.21 | 744.27 | 744.44 |
| 20,21-Jan-2003 | 777.12 | 748.14 | 745.45 | 743.87 | 743.96 | 737.40 | 775.08 | 744.06 | 742.51 | NA | 738.06 | 743.60 | 748.05 | 746.57 | 745.50 | 745.92 |
| 23,24-Jul-2003 | 782.10 | 749.48 | 748.08 | 743.92 | 743.83 | 738.07 | 778.39 | 745.53 | 742.74 | NA | 741.80 | 744.60 | 748.40 | 748.16 | 745.83 | 746.08 |
| 21,22-Jan-2004 | 781.75 | 748.89 | 746.57 | 743.77 | 743.84 | 737.36 | 778.02 | 744.37 | 742.30 | NA | 739.10 | 743.91 | 747.86 | 747.47 | 745.87 | 746.07 |
| 27,28-Jul-2004 | 780.80 | 748.24 | 745.18 | 742.27 | 742.43 | 736.77 | 776.65 | 743.96 | 739.65 | NA | 738.45 | 743.37 | 747.26 | 746.96 | 745.03 | 745.31 |
| 19,20-Jan-2005 | 780.38 | 749.11 | 745.43 | 744.35 | 744.37 | 737.97 | 777.46 | 744.56 | 743.35 | NA | 739.05 | 744.95 | 748.39 | 747.75 | 746.02 | 746.39 |
| 11,12,13-Jul-2005 | 780.55 | 748.59 | 744.82 | 742.81 | 742.87 | 735.22 | 777.51 | 744.96 | 740.87 | NA | 739.20 | 744.51 | 747.60 | 747.26 | 745.21 | 745.43 |
| 16,17,18-Jan-2006 | 778.76 | 748.58 | 744.75 | 744.03 | 744.13 | 737.77 | 776.53 | 744.19 | 743.40 | NA | 737.95 | 744.21 | 747.70 | 747.36 | 745.73 | 746.09 |
| 10,11,12-Jul-2006 | 779.27 | 748.17 | 744.47 | 743.69 | 743.58 | 737.39 | 776.09 | 744.08 | 741.90 | NA | 738.07 | 744.00 | 747.05 | 746.76 | 745.51 | 745.77 |
| 22, 23, 24-Jan-2007 | 781.16 | 749.52 | 745.64 | 744.30 | 744.30 | 738.22 | 778.37 | 745.67 | 743.79 | NA | 739.33 | 745.14 | 748.40 | 747.94 | 745.95 | 746.33 |
| 12,13-Sep-2007 | 781.71 | 747.84 | 743.58 | 741.65 | 741.58 | 736.57 | 773.75 | 744.06 | 738.53 | NA | 737.60 | 743.15 | 746.70 | 746.26 | 744.48 | 744.44 |
| 19-Mar-2008 | 780.19 | 749.02 | 744.26 | 744.04 | 744.04 | 737.91 | 777.94 | 744.85 | 743.34 | NA | 737.35 | 744.87 | 747.99 | 747.62 | 745.42 | 746.05 |
| 11-Sep-2008 | 779.78 | 747.53 | 743.05 | 742.03 | 741.98 | 736.92 | 775.93 | 743.93 | 739.86 | NA | 736.89 | 743.55 | 746.55 | 746.14 | 744.54 | 744.65 |
| 11-Mar-2009 | 779.55 | 749.34 | 744.67 | 743.91 | 744.14 | 737.96 | 777.02 | 745.84 | 743.52 | NA | 738.35 | 747.67 | 748.13 | 747.76 | 745.37 | 746.01 |
| 16-Sep-2009 | 780.08 | 747.87 | 743.28 | 741.69 | 741.56 | 736.64 | 775.82 | 744.64 | 738.49 | NA | 737.13 | 743.37 | 746.84 | 746.36 | 744.41 | 744.38 |
| 10-Mar-2010 | 781.45 | 750.17 | 745.87 | 744.22 | 744.21 | 738.17 | 779.04 | 748.14 | 743.24 | NA | 741.16 | 748.24 | 749.06 | 748.61 | 745.33 | 746.23 |
| 16-Sep-2010 | 781.85 | 748.47 | 744.64 | 742.51 | 742.53 | 737.22 | 777.86 | 745.57 | 740.03 | NA | 737.90 | 744.90 | 747.42 | 747.07 | 744.86 | 745.08 |
| 15-Mar-2011 | 780.68 | 749.36 | 745.05 | 743.89 | 744.35 | 738.29 | 778.17 | 746.17 | 743.74 | NA | 738.35 | 745.14 | 748.42 | 747.47 | 744.91 | 745.63 |
| 14-Sep-2011 | 779.51 | 747.58 | 742.58 | 742.01 | 741.95 | 736.34 | 775.42 | 744.48 | 739.28 | NA | 736.20 | 742.70 | 746.64 | 746.26 | 744.35 | 744.66 |
| 14-Mar-2012 | 779.74 | 748.97 | 744.85 | 743.92 | 743.91 | 738.05 | 777.61 | 746.82 | 742.95 | NA | 738.28 | 746.07 | 748.02 | 747.48 | 745.37 | 745.72 |
| 12-Sep-2012 | 779.25 | 748.01 | 743.26 | 742.42 | 742.35 | 737.39 | 775.87 | 744.70 | 740.40 | NA | 737.13 | 744.40 | 746.82 | 746.53 | 744.57 | 744.91 |
| 20-Mar-2013 | 778.80 | 749.52 | 744.09 | 744.22 | 744.15 | 738.26 | 777.37 | 746.86 | 743.31 | NA | 738.28 | 747.16 | 748.46 | 748.05 | 745.25 | 746.10 |
| 18-Sep-2013 | 780.36 | 748.53 | 744.23 | 742.68 | 742.60 | 737.61 | 777.12 | 745.97 | 740.20 | NA | 737.95 | 744.95 | 747.49 | 747.11 | 744.72 | 745.23 |
| 19-Mar-2014 | 779.73 | 749.82 | 744.80 | 744.73 | 744.65 | 738.97 | 777.92 | 748.47 | 744.45 | NA | 738.93 | 747.67 | 748.84 | 748.42 | 745.61 | 746.40 |

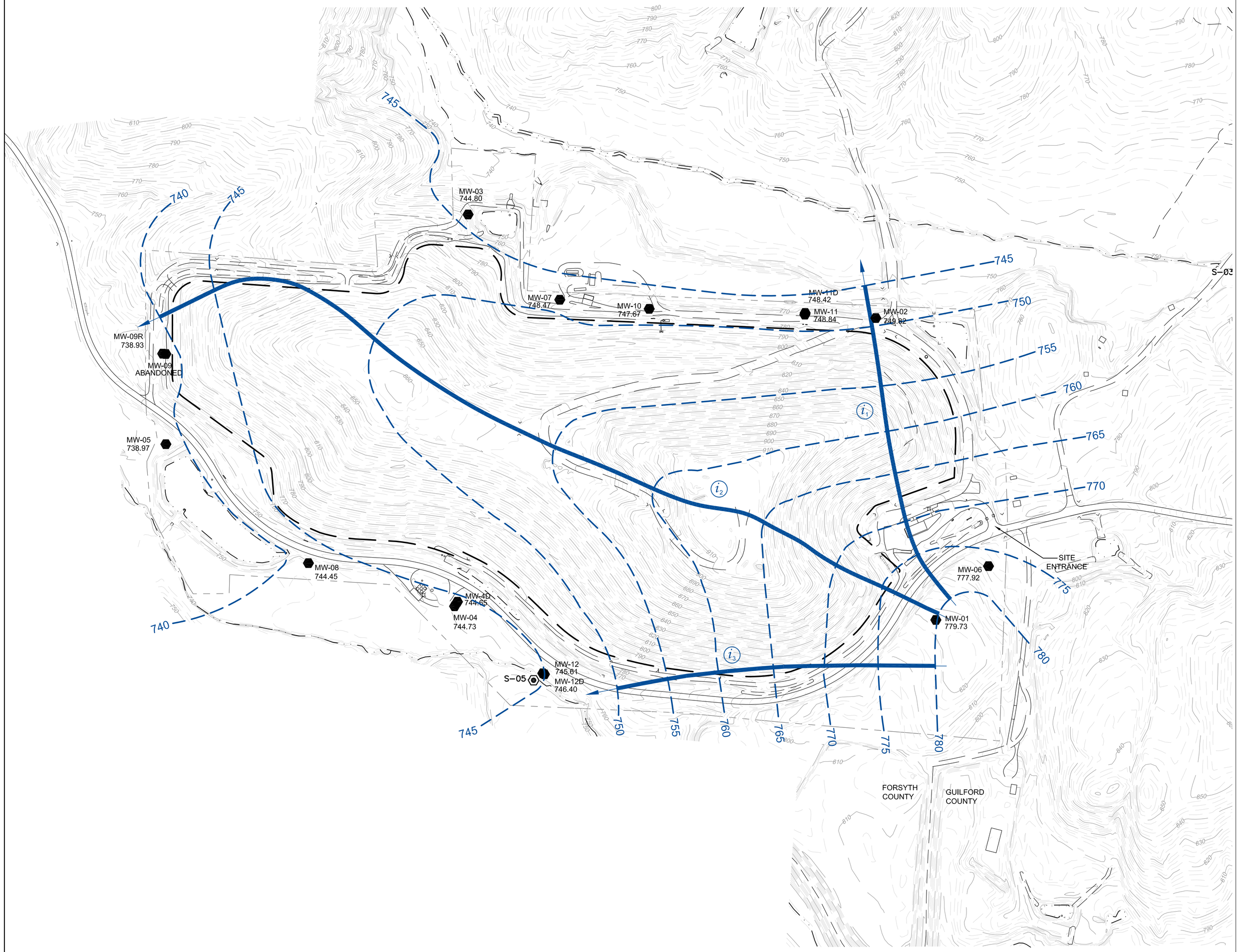
**Notes:**
TOC = Top of PVC casing.
All depths in feet measured from TOC.
TOC elevation for MW-02 is revised reflecting improvements were made to the well in July 2001 prior to sampling.
All water level elevations are reported in feet above mean sea level.
NA = data not available.

## TABLE 3
## GROUNDWATER FLOW RATE CALCULATIONS

| GRADIENT CALCULATION SEGMENT | HYDRAULIC CONDUCTIVITY (K, cm/s) | HYDRAULIC CONDUCTIVITY (K, ft/s) | EFFECTIVE POROSITY (**n**, unitless) | FLOW SEGMENT LENGTH (ft) | FLOW DIRECTION | March 19, 2014 | | |
|---|---|---|---|---|---|---|---|---|
| | | | | | | **Elevation** (ft AMSL) | **Gradient** (**i**, ft/ft) | **Velocity** (**V**, ft/yr) |
| $i_1$ | 2.90E-04 | 9.51E-06 | 0.41 | 1233 | NNW | 780<br>745 | 0.028 | 20.8 |
| $i_2$ | 1.70E-04 | 5.58E-06 | 0.41 | 3560 | NW | 780<br>740 | 0.011 | 4.8 |
| $i_3$ | 1.70E-04 | 5.58E-06 | 0.41 | 1194 | W | 780<br>750 | 0.025 | 10.8 |
| | | | | | | **AVERAGE:** | 0.022 | 12.1 |

Note:

1. An effective porosity ("n" ) of 41% was based on average laboratory-derived porosity as reported in the April 1994 Design Hydrogeologic Study, prepared by RUST Environment & Infrastructure.
2. Hydraulic conductivities ("K") were also taken from the Design Hydrogeologic Study, and were based on slug test data from piezometers originally located nearest the respective groundwater flow paths.
3. V = i K / n




| Well ID | Installation Date | Location Relative to Waste | Screened Interval (feet BGS) | Lithology of Screened Interval | Monitoring Program * |
|---|---|---|---|---|---|
| MW-01 | 07/13/89 | Upgradient | 44.0 - 49.0 | WEATHERED GNEISS BEDROCK | Detection |
| MW-02 | 08/05/89 | Downgradient | 20.2 - 35.5 | SILTY SAND | Detection |
| MW-03 | 08/06/89 | Downgradient | 32.5 - 37.5 | SILTY SAND | Detection |
| MW-04 | 07/14/89 | Downgradient | 20.0 - 25.0 | SILTY SAND | Detection |
| MW-04D | 02/18/94 | Downgradient | 53.25-58.25 | SAPROLITE/BEDROCK | Detection |
| MW-05 | 08/02/89 | Downgradient | 14.45 - 19.45 | SILTY SAND | Detection |
| MW-06 | 08/09/93 | Upgradient | 20.9 - 25.9 | SILTY SAND | Detection |
| MW-07 | 08/25/94 | Downgradient | 17.0 - 32.4 | SILTY SAND | Detection |
| MW-08 | 08/31/94 | Downgradient | 5.0 - 20.0 | SILTY SAND | Detection |
| MW-09 | 08/30/94 | Downgradient | 19.81 - 34.22 | SAND/SAPROLITE BEDROCK | Abandoned |
| MW-09R | 11/09/99 | Downgradient | 32.0 - 42.5 | BEDROCK | Detection |
| MW-10 | 10/24/94 | Downgradient | 20.0 - 36.99 | CLAYEY SILT/SILT | Detection |
| MW-11 | 11/17/94 | Downgradient | 19.01 - 34.22 | SILT/SANDY SILT | Detection |
| MW-11D | 11/15/94 | Downgradient | 81.82 - 91.79 | SANDY SILT/GRAVELY SILT | Detection |
| MW-12 | 10/21/94 | Downgradient | 3.33 - 17.22 | SILTY CLAY/SILTY SAND/SANDY SILT | Detection |
| MW-12D | 10/27/94 | Downgradient | 31.98 - 42.2 | SILTY GRAVEL | Detection |

BGS = below ground surface.

* Monitoring Program = status as of April 2012

## LEGEND

- EXISTING 10' TOPOGRAPHIC CONTOUR — 850
- EXISTING 2' TOPOGRAPHIC CONTOUR
- APPROXIMATE LIMITS OF WASTE
- GROUNDWATER SURFACE CONTOUR [FEET ABOVE MEAN SEA LEVEL (AMSL)] — 740
- GROUNDWATER FLOW DIRECTION
- EXISTING ROAD
- CENTERLINE OF STREAM
- PROPERTY LINE
- GROUNDWATER MONITORING WELL LOCATION AND IDENTIFICATION WITH STATIC WATER LEVEL ELEVATION (FEET AMSL) — MW-9R 738.93
- SURFACE WATER MONITORING POINTS — S-03
- SEGMENT USED FOR GRADIENT CALCULATIONS — $i_4$

## FLOW PATH LENGTH

- $i_1$ = 1,233 LF
- $i_2$ = 3,259 LF
- $i_3$ = 1,193 LF

## NOTES:

1. TOPOGRAPHIC CONTOUR INTERVAL = 2 FEET.
2. GROUNDWATER SURFACE CONTOUR INTERVAL = 5 FEET.
3. STATIC WATER LEVELS MEASURED ON 03/19/14.
4. GROUNDWATER CONTOURS BASED ON LINEAR INTERPOLATION BETWEEN AND EXTRAPOLATION FROM KNOWN DATA, TOPOGRAPHIC CONTOURS, AND KNOWN FIELD CONDITIONS. THEREFORE, GROUNDWATER CONTOURS MAY NOT REFLECT ACTUAL GROUNDWATER CONDITIONS.
5. TOPOGRAPHIC MAP AND SURVEYED WELL LOCATIONS PROVIDED TO JOYCE ENGINEERING, INC. BY PIEDMONT LANDFILL.
6. GROUNDWATER CONTOUR LINES SHOW THE WATER TABLE SHAPE AND ELEVATION. THESE CONTOURS ARE INFERRED LINES FOLLOWING THE GROUNDWATER SURFACE AT A CONSTANT ELEVATION ABOVE SEA LEVEL. THE GROUNDWATER FLOW DIRECTION IS GENERALLY PERPENDICULAR TO THE GROUNDWATER SURFACE CONTOURS, SIMILAR TO THE RELATIONSHIP BETWEEN SURFACE WATER FLOW AND TOPOGRAPHIC CONTOURS.
7. THE LOCATIONS OF SURFACE WATER MONITORING POINTS ARE APPROXIMATE AS SHOWN.

GRAPHIC SCALE

0 100 200 400

(FEET)

| DATE | REVISIONS AND RECORD OF ISSUE | NO | BY | CK | APP |
|---|---|---|---|---|---|

DESIGNED ACE
DRAWN RWH
CHECKED ACE
APPROVED GVB
DATE 4/21/14

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PIEDMONT LANDFILL AND RECYCLING CENTER
KERNERSVILLE, NORTH CAROLINA

GROUNDWATER SURFACE MAP
MARCH 19, 2014
PERMIT NO. 34-06

PROJECT NO.
392.1401.12

SCALE
AS NOTED

DRAWING NO.
1

N:\Dwgs\Drawings-Current\WM\Piedmont\GW EVENT MAPS\GW EVENT 03-14.dwg Layout=Layout1