# Vista Landfill

## Semi-Annual Water Quality Monitoring Report Second Semi-Annual Monitoring 2018

Vista Landfill, Inc.
242 West Keene Road
Apopka, Florida 32703

SCS ENGINEERS

09207039.11| **March 4, 2019**

SCS Engineers
3922 Coconut Palm Drive, Suite 102
Tampa, Florida 33619
(813) 621-0080

**Vista Landfill**
**Semi-Annual**
**Water Quality Monitoring**
**Second Semi-Annual Monitoring Period 2018**

**Submitted to:**

**Vista Landfill, Inc.**
242 West Keene Road
Apopka, Florida 32703

**Prepared by:**

**SCS ENGINEERS**
3922 Coconut Palm Drive, Suite 102
Tampa Florida 33619
(813)-621-0080

March 4, 2019
File No. 09207039.11

KENNETH GUILBEAULT
LICENSE
No. 2907
STATE OF FLORIDA
PROFESSIONAL GEOLOGIST

Kenneth Guilbeault, P.G.
PG License No. 2907

# Florida Department of Environmental Protection

Bob Martinez Center
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

| |
|---|
| DEP Form #: 62-701.900(31), F.A.C. |
| Form Title: Water Quality Monitoring Certification |
| Effective Date: January 6, 2010 |
| Incorporated in Rule 62-701.510(9), F.A.C. |

## WATER QUALITY MONITORING CERTIFICATION

### PART I GENERAL INFORMATION

(1) Facility Name Vista Landfill, LLC., Class III

Address 242 West Keene Road

City Apopka Zip 32703 County Orange

Telephone Number (407 )286-2920

(2) WACS Facility ID 87801

(3) DEP Permit Number 0165969-027-SO-MM

(4) Authorized Representative's Name Eric Parker Title Environmental Protection

Address 5110 US Hwy 301

City Baldwin Zip 32234 County Duval

Telephone Number (904 )748-6006

Email address (if available) eparker1@wm.com

### CERTIFICATION

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submission of false information including the possibility of fine and imprisonment.

3/4/2019 (Date) (Owner or Authorized Representative's Signature)

### PART II QUALITY ASSURANCE REQUIREMENTS

Sampling Organization Professional Technical Support Services, Inc. (Pro-Tech)

Analytical Lab NELAC / HRS Certification # NELAP Certification E87667

Lab Name TestAmerica, Inc. (TestAmerica Denver)

Address 4955 Yarrow Street, Arvada, CO 80002

Phone Number (303 ) 736-0100

Email address (if available) Danielle.Harrington@testamericainc.com

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# 1 INTRODUCTION

SCS Engineers (SCS) prepared this semi-annual water quality monitoring report for the Vista Landfill (VLF) on behalf of Vista Landfill, Inc. (VLI). The VLF is located approximately two miles south of Apopka, Florida, at 242 West Keene Road. The VLF lies south of Keene Road, west of Old Apopka-Clarcona Road, and east of Lake Mitchell in Orange County Florida (Figure 1-1). The VLF is a Class III lined landfill with a leachate collection system. The bottom-liner system consists of three layers (from top to bottom): a 2-foot thick sand liner protective layer, a double-sided geocomposite drainage layer, and a 50-mil high density polyethylene (HDPE) geomembrane layer. Waste was initially placed in the landfill on November 17, 2008.

This report was prepared in accordance with Florida Department of Environmental Protection (FDEP) Permit/certification No. 0165969-027-SO-MM, Specific Condition Section 2.D, Monitoring Plan Implementation Schedule (MPIS), and Chapter 62-701.510(9)(a) Florida Administrative Code (FAC). Locations of monitoring sites are shown on Figure 1-2. The second semi-annual 2018 sampling data was obtained on December 6th, 7th and 10th, 2018. This report is being submitted within 60 days of receipt of the laboratory results. An electronic data deliverable (EDD) of the results in "ADaPT format" is attached as Appendix B. This EDD has been verified as uploadable into the latest version of ADaPT.

Water quality sampling and physical readings and measurements were performed by technical staff of Pro-Tech Environmental (Pro-Tech), Atlanta, Georgia. Water quality analyses were performed by TestAmerica Laboratories, Inc. (TestAmerica Denver), Denver, Colorado. Field work, sampling methodologies, data evaluation, and data Quality Assurance/Quality Control (QA/QC) were conducted in accordance with FAC Chapter 62-160 Standard Operating Procedures (DEP-SOP-001/01), the VLF MPIS, the VLF site permit, and the Pro-Tech sample team quality manual. Laboratory analyses were performed in accordance with Chapter 62-160, FAC DEP-SOP-001/01, the VLF MPIS, and the site permits. TestAmerica Denver is certified by the Florida Department of Health Environmental Laboratory Certification Program (DoH ELCP).

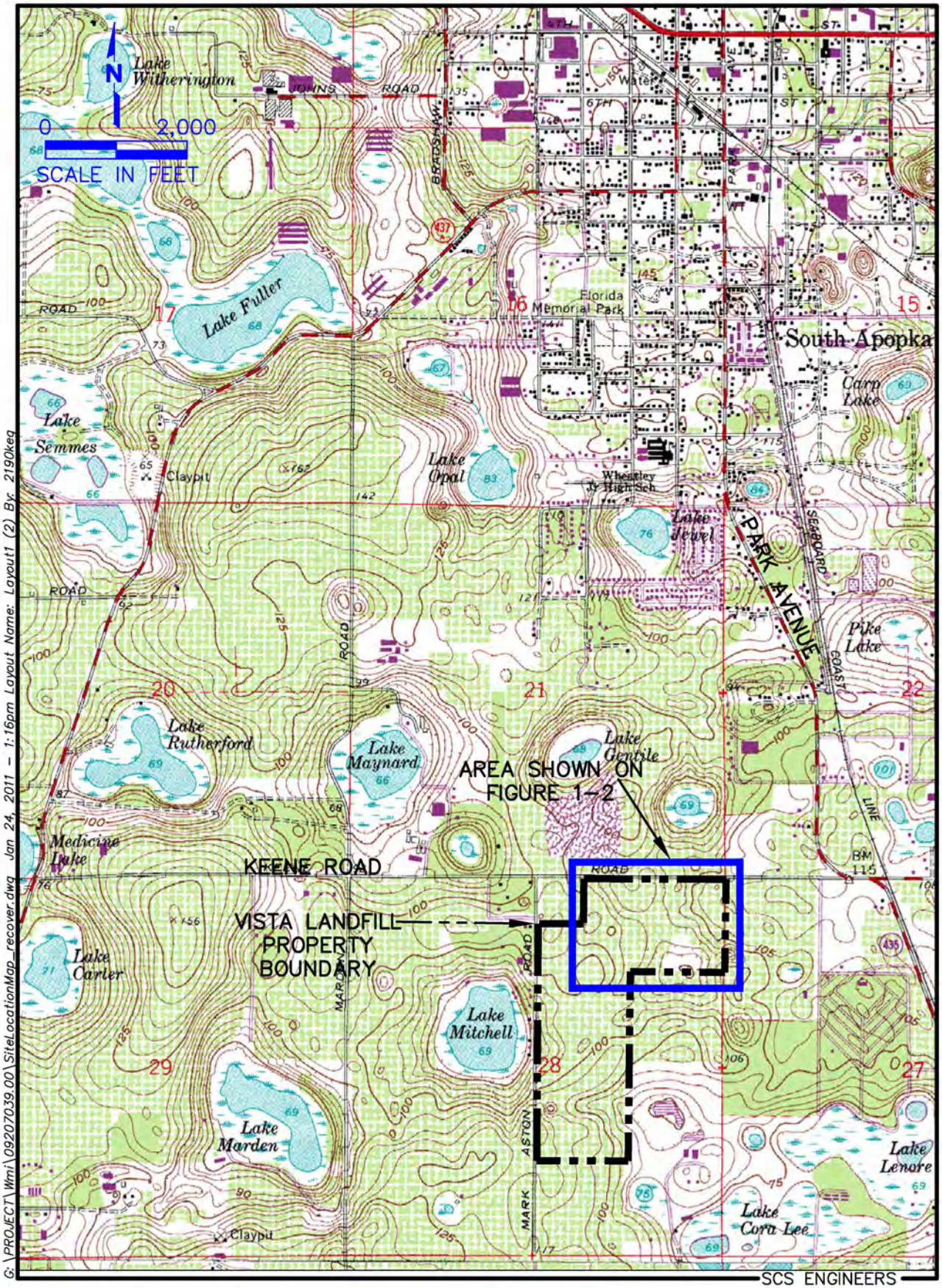


Figure 1–1. Site Location Map, Vista Landfill, Apopka, Florida.

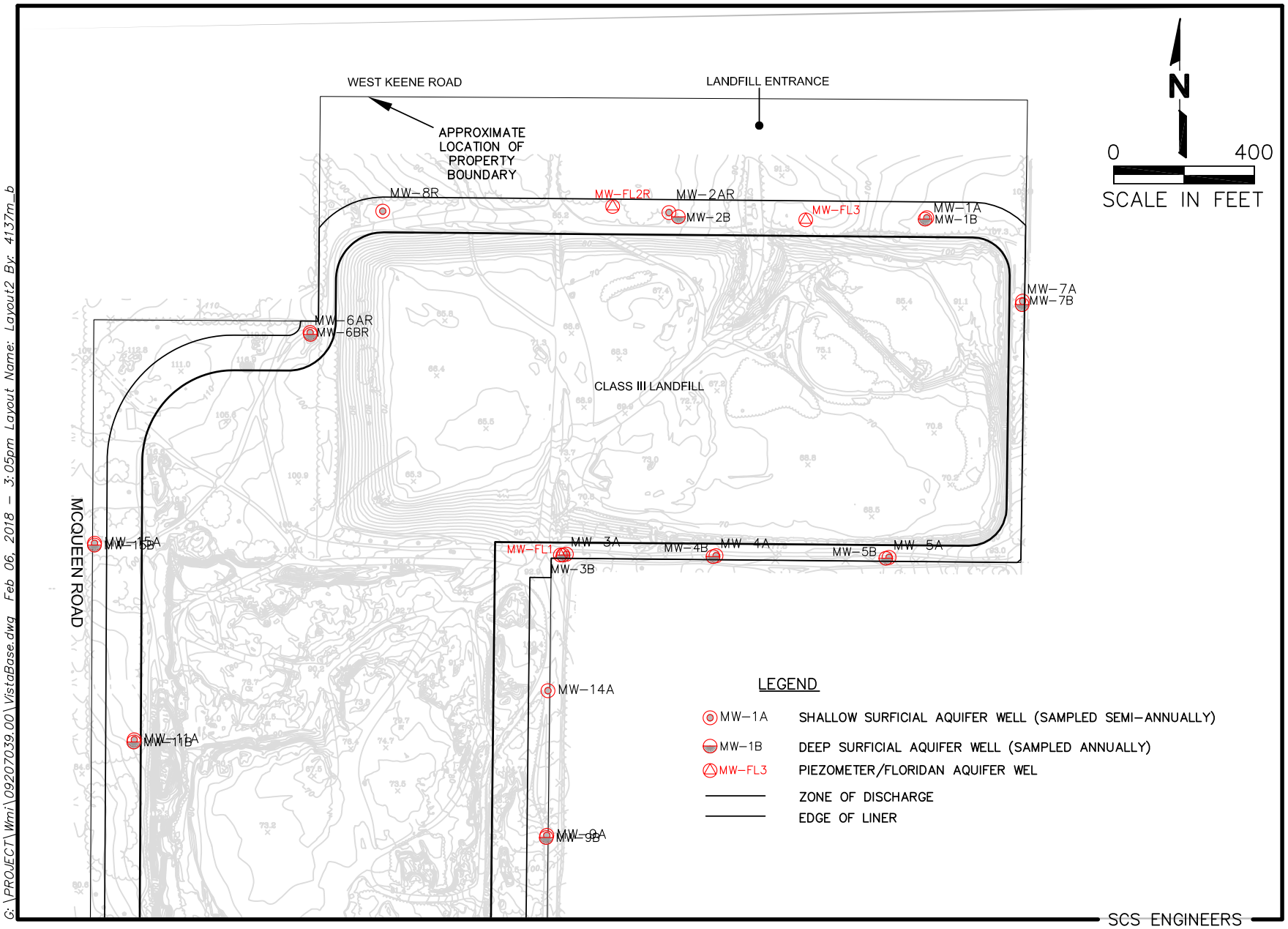


Figure 1-2. Site Map, Vista Landfill, Apopka, Florida.

# 2 GEOLOGIC AND HYDROGEOLOGIC CHARACTERISTICS

Figure 1-1 shows the topography of the VLF site and region prior to the site being developed as a borrow pit and then as a landfill. The topography indicates the site is located in a region that is internally drained.

Based on SCS' evaluation of VLF hydrogeologic data, the groundwater at VLF primarily occurs in the Hawthorn Group and the underlying Floridan aquifer. The "surficial aquifer" consists of the water-bearing permeable zones of the Hawthorn Group that overlay the Floridan aquifer. The groundwater flow direction of the lower Hawthorn Group tends to mimic the pre-construction topography of the VLF.

The Floridan aquifer underlies the surficial aquifer at the VLF and is separated from it by the clay units of the Hawthorn Group.[1] Karst features (e.g., sinkholes) developed historically in the sediments overlying the upper Floridan aquifer, resulting in the internal drainage characteristics of the region. As a result, runoff and surficial aquifer groundwater flow moves toward and into these karst features, often resulting in development of surface water bodies such as Lake Mitchell, which is located west of the VLF (Figure 1-1).

## SEMI-ANNUAL GROUNDWATER FLOW ASSESSMENT

The groundwater flow assessment of the shallow and lower surficial aquifer was performed using the groundwater elevation data obtained on December 6, 2018. This groundwater flow assessment included collecting and compiling groundwater depth measurements, calculating groundwater elevations, and constructing site figures depicting groundwater contours and the estimated groundwater flow direction. Table 2-1 lists monitoring well numbers, measured depths to water, and calculated groundwater elevations. Water level maps generated for the shallow surficial aquifer and lower surficial aquifer are presented in Figures 2-1 and 2-2. These maps are generated using Surfer® Version 10, groundwater contouring computer program, with the interpretation verified by an SCS hydrogeologist.

### Shallow Surficial Aquifer

The shallow surficial aquifer is defined here as the uppermost water-bearing zone of the undifferentiated sands and clayey sands that are part of the Hawthorn Group. A water level map of the shallow surficial aquifer was prepared from shallow surficial well data for the December 2018 sampling event and is provided on Figure 2-1.

Groundwater flow typically is expected to be perpendicular to the water level contours. Therefore, the approximate direction of groundwater flow in the shallow surficial aquifer is primarily to the southwest. A portion of the groundwater enters from the northwest section of the site and flows south. At MW-14A, there is a groundwater high and flow radiates outward. This groundwater flow configuration results from a combination of recharge from rainfall infiltration outside the bottom liner, interchange of groundwater with the underlying intermediate surficial aquifer, and lateral inflow to the shallow surficial aquifer from outside the VLF. The flow direction is consistent with previous flow assessments at the VLF.

[1] The Rust Environment and Infrastructure (RUST) August 1996 (Revised September 1998) report entitled "Keene Road Hydrogeologic Evaluation" Prepared for Waste Management Inc.

**Table 2-1. Groundwater Elevation Measurements**
**Vista Landfill, Apopka, Florida**

| Well No. | TOC Elevation (Feet NGVD) | Depth to Water (Feet Below Top of Casing) | December 6, 2018 Groundwater Elevation (Feet NGVD) |
|---|---|---|---|
| MW-1A | 109.47 | 41.29 | 68.18 |
| MW-1B | 109.53 | 51.08 | 58.45 |
| MW-2AR | 87.22 | 30.11 | 57.11 |
| MW-2B | 88.46 | 32.94 | 55.52 |
| MW-3A | 92.87 | 37.11 | 55.76 |
| MW-3B | 93.06 | 37.32 | 55.74 |
| MW-4A | 82.04 | 26.10 | 55.94 |
| MW-4B | 83.18 | 26.23 | 56.95 |
| MW-5A | 81.86 | 24.50 | 57.36 |
| MW-5B | 81.27 | 25.97 | 55.30 |
| MW-6AR | 104.11 | 47.87 | 56.24 |
| MW-6BR | 103.99 | 47.81 | 56.18 |
| MW-7A | 109.26 | 38.95 | 70.31 |
| MW-7B | 109.13 | 52.05 | 57.08 |
| MW-8R | 99.60 | 41.51 | 58.09 |
| MW-9A | 99.45 | 42.67 | 56.78 |
| MW-9B | 99.52 | 42.94 | 56.58 |
| MW-11A | 96.35 | 39.65 | 56.70 |
| MW-11B | 96.37 | 39.29 | 57.08 |
| MW-14A | 100.62 | 38.27 | 62.35 |
| MW-15A | 105.27 | 39.87 | 65.40 |
| MW-15B | 105.15 | 48.15 | 57.00 |
| MW-FL1 | 93.16 | 37.38 | 55.78 |
| MW-FL2R | 86.76 | 27.95 | 58.81 |
| MW-FL3 | 97.49 | 42.23 | 55.26 |

Notes:
NGVD = National Geodetic Vertical Datum, 1929.
TOC = Top of Casing.

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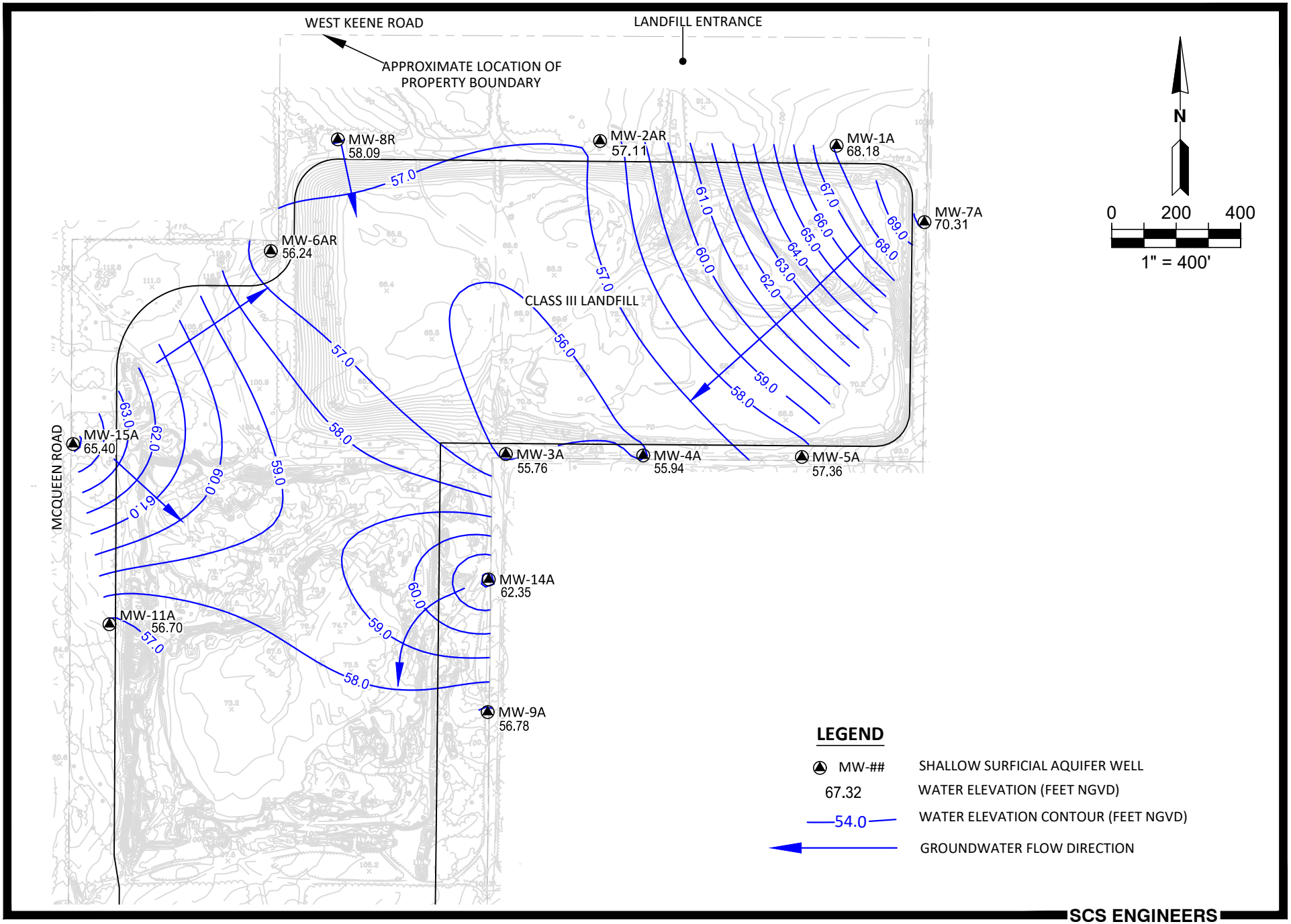


**FIGURE 2-1. DECEMBER 2018 SHALLOW SURFICIAL AQUIFER WATER LEVEL MAP, VISTA LANDFILL, APOPKA, FLORIDA.**

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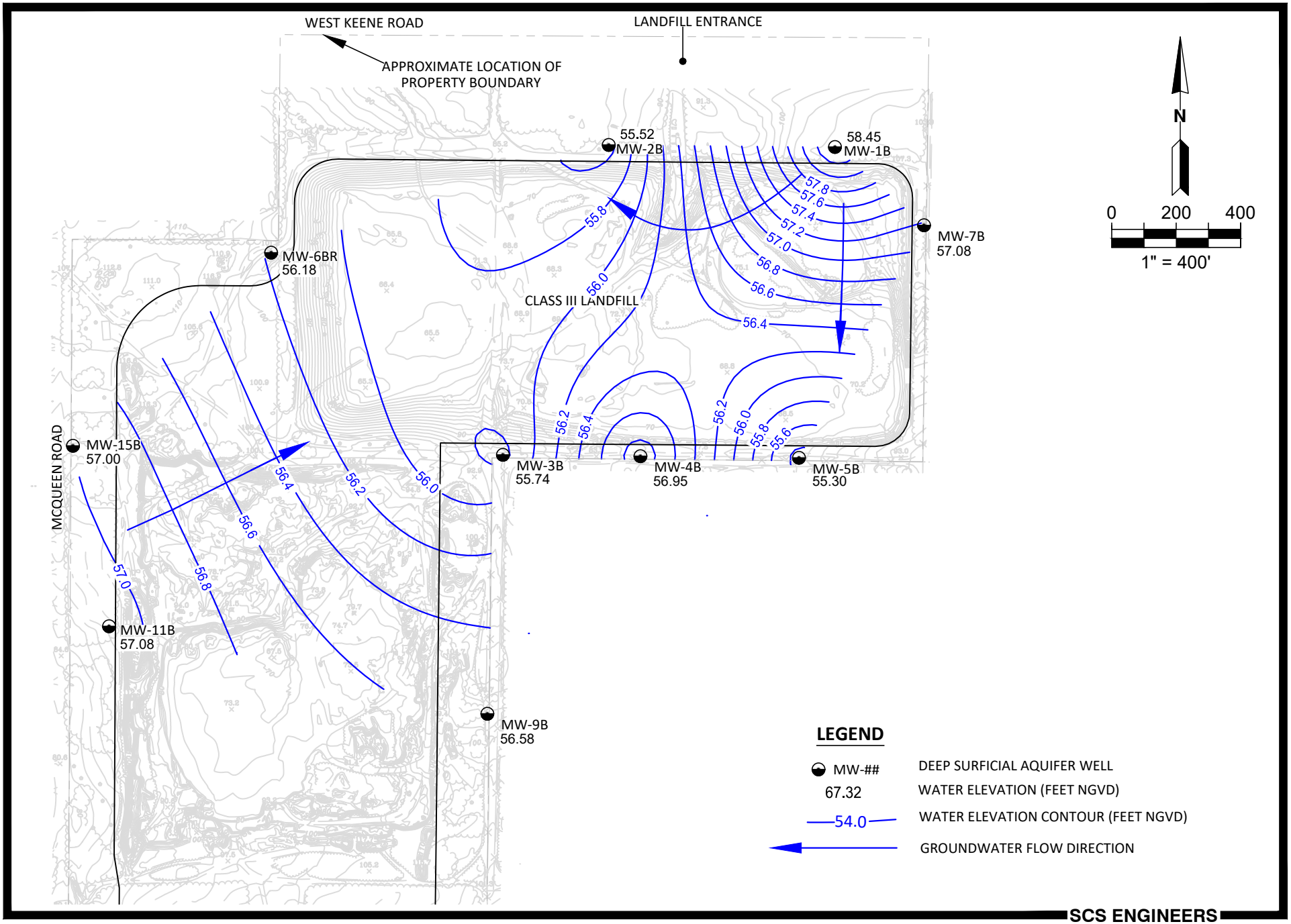


SCS ENGINEERS

**FIGURE 2-2. DECEMBER 2018 INTERMEDIATE SURFICIAL AQUIFER POTENTIOMETRIC SURFACE MAP, VISTA LANDFILL, APOPKA, FLORIDA.**

## Intermediate Surficial Aquifer

A potentiometric map of the intermediate surficial aquifer was prepared from intermediate surficial well data for the December 2018 sampling event (Figure 2-2). Groundwater flow within the intermediate surficial aquifer beneath the VLF apparently consists of multiple flow regimes, as indicated by the groundwater flow direction arrows on Figure 2-2. Groundwater entering from the site's western boundary flows east and northeast towards a slight low on the site's northern boundary. A portion of the groundwater enters near the northeast corner of the site and moves to the south and southeast. This groundwater flow configuration is a combination of interchange of groundwater with the overlying shallow surficial aquifer and lateral inflow to the intermediate surficial aquifer from outside the VLF. These flow directions are consistent with previous flow assessments at the VLF.

## Floridan Aquifer

Due to the limited number of "FL" zone wells for the site (MW-FL2R is a deep surficial aquifer monitoring well), potentiometric maps were not prepared. Regional potentiometric maps for the Floridan aquifer indicate that flow in the aquifer at the VLF is towards the northeast. This is confirmed by the water levels observed at the VLF at Floridan aquifer groundwater monitoring wells MW-FL1 and MW-FL3 (see Table 2-1).

# 3 LANDFILL MONITORING PROGRAM

## GROUNDWATER MONITORING PROGRAM

The surficial aquifer groundwater currently is monitored at the site at 30 locations. The surficial aquifer is monitored in two zones: the shallow zone ("A" wells) and the intermediate zone ("B" wells). The shallow zone is monitored semi-annually and the intermediate zone is sampled annually, during the December sampling event. The intermediate wells will be sampled again during the December 2019 sampling event. The deep zone wells are used as piezometers with no routine sampling unless there are verified landfill impacts in the intermediate water unit.

Well locations for each monitored zone are shown on Figure 1-2. The monitoring wells, with their monitored zone and permitted designations as background or compliance, are listed in Table 3-1. The construction details for the 30 active monitoring wells comprising the monitoring system are included in Table 3-2.

Table 3-1. Active Surficial Aquifer Groundwater Monitoring Wells at the Vista Landfill

| Shallow Zone | Intermediate Zone |
|---|---|
| Background Monitoring Wells | |
| MW-1A | MW-1B |
| MW-2AR | MW-2B |
| MW-6AR | MW-6BR |
| MW-7A | |
| MW-8R | |
| Compliance Monitoring Wells | |
| MW-3A | MW-3B |
| MW-4A | MW-4B |
| MW-5A | MW-5B |
| | MW-7B |
| MW-9A | MW-9B |
| MW-11A | MW-11B |
| MW-14A | MW-14B |
| MW-15A | MW-15B |

Note:

1. Wells listed on the same row are part of a cluster of wells.

The current permit requires semi-annual sampling of the shallow zone and annual sampling of the intermediate zone for the field and laboratory parameters listed below.

### Field Parameters

- Static water level before purging
- Specific conductivity
- pH
- Dissolved oxygen
- Turbidity
- Temperature

## TABLE 3-2. EXISTING MONITORING LOCATIONS AND CONSTRUCTION DETAILS, VISTA LANDFILL, APOPKA, FLORIDA

| WACS ID | Water Quality Monitoring Site ID | Date Installed | Date Abandoned | Well Type | Aquifer Monitored | Top of Casing Elevation (NGVD) | Total Well Depth (Feet BLS) | Outer Casing Diameter/ Depth | Well Diameter | Screen Slot Size | Screen Length (feet) | Top of Screen (Feet BLS) | Bottom of Screen (Feet BLS) | Top of Screen (Feet NGVD) | Bottom of Screen (Feet NGVD) | Northing (NAD 1983) | Easting (NAD 1983) | Latitude (NAD 1983) | Longitude (NAD 1983) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 19335 | MW-1A[1] | 4/20/2004 | NA | BG | Shallow Surficial | 109.47 | 69 | NA | 2 | 0.006 | 20 | 49 | 69 | 57 | 37 | 1565469.28 | 492550.11 | 28° 38' 21.30" | 81° 30' 36.28" |
| 19336 | MW-1B | 4/20/2004 | NA | BG | Intermediate Surficial | 109.53 | 96 | NA | 2 | 0.010 | 10 | 86 | 96 | 20 | 10 | 1565465.40 | 492545.32 | 28° 38' 21.27" | 81° 30' 36.33" |
| ND | MW-2A | ND | 1/15/2007 | BG | Shallow Surficial | ND | ND | NA | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 19337 | MW-2AR | 1/23/2007 | NA | BG | Shallow Surficial | 87.22 | 39.94 | NA | 2 | 0.006 | 10 | 29.44 | 39.44 | 59.91 | 49.91 | 1565481.98 | 491815.07 | 28° 38' 21.40" | 81° 30' 44.53" |
| 19338 | MW-2B | 4/22/2004 | NA | BG | Intermediate Surficial | 88.46 | 73 | NA | 2 | 0.006 | 10 | 63 | 73 | 20 | 10 | 1565471.82 | 491843.09 | 28° 38' 21.30" | 81° 30' 44.21" |
| 19339 | MW-3A | 4/13/2004 | NA | CO | Shallow Surficial | 92.87 | 56 | NA | 2 | 0.006 | 30 | 36 | 56 | 57 | 37 | 1564509.87 | 491522.95 | 28° 38' 11.76" | 81° 30' 47.76" |
| 19340 | MW-3B | 4/13/2004 | NA | CO | Intermediate Surficial | 93.06 | 83 | NA | 2 | 0.010 | 10 | 73 | 83 | 20 | 10 | 1564509.53 | 491514.75 | 28° 38' 11.76" | 81° 30' 47.85" |
| 19341 | MW-4A | 4/14/2004 | NA | CO | Shallow Surficial | 82.04 | 42 | NA | 2 | 0.006 | 20 | 22 | 42 | 57 | 37 | 1564505.59 | 491949.09 | 28° 38' 11.74" | 81° 30' 42.98" |
| 19342 | MW-4B | 4/14/2004 | NA | CO | Intermediate Surficial | 83.18 | 69 | NA | 2 | 0.006 | 10 | 59 | 69 | 20 | 10 | 1564505.16 | 491941.64 | 28° 38' 11.73" | 81° 30' 43.06" |
| 19343 | MW-5A | 4/14/2004 | NA | CO | Shallow Surficial | 81.86 | 40 | NA | 2 | 0.006 | 20 | 20 | 40 | 57 | 37 | 1564500.86 | 492441.55 | 28° 38' 11.71" | 81° 30' 37.45" |
| 19344 | MW-5B | 4/14/2004 | NA | CO | Intermediate Surficial | 81.27 | 67 | NA | 2 | 0.006 | 10 | 57 | 67 | 20 | 10 | 1564500.47 | 492433.39 | 28° 38' 11.71" | 81° 30' 37.54" |
| ND | MW-6A | 4/15/2004 | 1/12/2007 | BG | Shallow Surficial | 101.94 | 61 | NA | 2 | 0.010 | 20 | 41 | 61 | 57 | 37 | ND | ND | ND | ND |
| 19345 | MW-6AR | 1/30/2007 | NA | BG | Shallow Surficial | 104.11 | 69.37 | NA | 2 | 0.010 | 20 | 48.87 | 68.87 | 52.27 | 32.27 | 1565140.42 | 490793.55 | 28° 38' 17.97" | 81° 30' 55.98" |
| ND | MW-6B | 4/15/2004 | 1/12/2007 | BG | Intermediate Surficial | 101.98 | 88 | NA | 2 | 0.010 | 10 | 78 | 88 | 20 | 10 | ND | ND | ND | ND |
| 19346 | MW-6BR | 1/30/2007 | NA | BG | Intermediate Surficial | 103.99 | 88.58 | NA | 2 | 0.010 | 10 | 78.08 | 88.08 | 22.98 | 12.98 | 1565137.25 | 490795.56 | 28° 38' 17.94" | 81° 30' 55.95" |
| 19347 | MW-7A | 4/20/2004 | NA | BG | Shallow Surficial | 109.26 | 69 | NA | 2 | 0.006 | 20 | 49 | 69 | 57 | 37 | 1565230.04 | 492821.74 | 28° 38' 18.95" | 81° 30' 33.22" |
| 19348 | MW-7B | 4/19/2004 | NA | CO | Intermediate Surficial | 109.13 | 96 | NA | 2 | 0.01 | 10 | 86 | 96 | 20 | 10 | 1565222.30 | 492821.61 | 28° 38' 18.87" | 81° 30' 33.22" |
| ND | MW-8 | 4/23/2004 | 1/12/2007 | BG | Shallow Surficial | 99.7 | 60 | NA | 2 | 0.006 | 10 | 50 | 60 | 47 | 37 | ND | ND | ND | ND |
| 19868 | MW-8R | 1/25/2007 | NA | BG | Shallow Surficial | 99.6 | 72.12 | NA | 2 | 0.006 | 10 | 61.62 | 71.72 | 35.05 | 25.05 | 1565489.06 | 490997.80 | 28° 38' 21.43" | 81° 30' 53.70" |
| 19869 | MW-9A | 5/26/2017 | NA | CO | Shallow Surficial | 99.45 | 60 | NA | 2 | 0.010 | 20 | 40 | 60 | | | 1563710.84 | 491467.69 | 28° 38' 03.85" | 81° 30' 48.345" |
| 19870 | MW-9B | 5/26/2017 | NA | CO | Lower Surficial | 99.52 | 85 | NA | 2 | 0.006 | 10 | 75 | 85 | | | 1563705.66 | 491466.69 | 28° 38' 03.79" | 81° 30' 48.355" |
| 19873 | MW-11A | 8/18/2017 | NA | DE | Shallow Surficial | 96.35 | 55 | NA | 2 | 0.010 | 20 | 35 | 55 | | | 1563983.69 | 490293.90 | 28° 38' 03.79" | 81° 30' 48.355" |
| 87081 | MW-11B | 8/25/2017 | NA | DE | Lower Surficial | 96.37 | 85 | NA | 2 | 0.006 | 10 | 75 | 85 | | | 1563977.43 | 490292.60 | 28° 38' 06.437" | 81° 30' 01.542" |
| 87081 | MW-14A | 5/26/2017 | NA | CO | Shallow Surficial | 100.62 | 55 | NA | 2 | 0.010 | 20 | 35 | 55 | | | 1564122.62 | 491470.84 | 28° 38' 07.927" | 81° 30' 48.306" |
| 87081 | MW-15A | 5/26/2017 | NA | CO | Shallow Surficial | 105.27 | 65 | NA | 2 | 0.010 | 20 | 45 | 65 | | | 1564542.92 | 490180.97 | 28° 38' 12.032" | 81° 31' 02.823" |
| 87081 | MW-15B | 5/26/2017 | NA | CO | Lower Surficial | 105.15 | 90 | NA | 2 | 0.006 | 10 | 80 | 90 | | | 1564537.75 | 490180.69 | 28° 38' 11.979" | 81° 31' 02.823" |
| 19879 | MW-FL1 | 4/13/2004 | NA | CO | Floridan | 93.16 | 125 | NA | 2 | 0.010 | 10 | 115 | 125 | -45 | -35 | 1564509.43 | 491507.05 | 28° 38' 11.76" | 81° 30' 47.94" |
| ND | MW-FL2 | 4/22/2004 | 1/15/2007 | CO | Floridan | 87.4 | 130 | NA | 2 | 0.006 | 10 | 120 | 130 | -45 | -35 | ND | ND | ND | ND |
| 19880 | MW-FL2R | 1/29/2007 | NA | CO | Deep Surficial | 86.76 | 129.95 | 6"/0' to 80' | 2 | 0.006 | 10 | 119.45 | 129.45 | -45.54 | -35.54 | 1565501.29 | 491655.91 | 28° 38' 21.58" | 81° 30' 46.32" |
| 19881 | MW-FL3 | 4/21/2004 | NA | CO | Floridan | 97.49 | 140 | NA | 2 | 0.010 | 10 | 130 | 140 | -45 | -35 | 1565463.35 | 492205.45 | 28° 38' 21.23" | 81° 30' 40.15" |
| 22828 | L-1 | NA | NA | CO | Leachate | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | ND | ND | ND | ND |

Notes:
1. Survey Information was obtained from the May 25, 2007 Geosyntec Consultants Environmental Monitoring Location Map.
2. Well construction information obtained from the July 2004, Collinas Group, Inc., Groundwater Monitoring Well Installation Report, Buttrey Landfill Parcel
3. Well construction information obtained from the March 15, 2007, Professional Service Industries, Inc., Monitoring Well Completion and Well Abandonment Report
4. NGVD = National Geodetic Vertical Datum of 1929.
5. NAD 1983 = North American Datum of 1983.
6. WACS = State Water Assurance Compliance System.
7. BLS = Below Landsurface.
8. NA = Not Applicable.
9. BG = Background.
10. CO = Compliance.
11. ND = Data not available.
12. OT = Other.
13. ID = Identification.
14. DE= Detection.

### Shallow Zone Laboratory Parameters

- Total ammonia-nitrogen
- Chloride
- Iron
- Mercury
- Nitrate
- Sodium
- Total dissolved solids (TDS)
- Parameters listed in 40 Code of Federal Regulations (CFR) Part 258, Appendix I

### Intermediate Zone Laboratory Parameters

- Total ammonia-nitrogen
- Chloride
- Sodium
- Nitrate

Intermediate wells should be sampled for the full list of parameters (see shallow zone laboratory parameters) if:

- The shallow well for the well cluster(s) shows a verified landfill impact; or

- The indicator data suggests through an increasing trend (or verified sudden jump far above background) that there is a landfill impact to the intermediate well(s).

## LEACHATE MONITORING PROGRAM

E-mail correspondence dated September 25, 2012, from Kim Rush, FDEP, granted approval to remove annual leachate sampling and analysis from the site requirements per the Chapter 62-701, FAC, rule change. Leachate sampling was terminated accordingly.

## SEMI-ANNUAL GROUNDWATER MONITORING EVENT

Appendix A includes the laboratory analytical data and field forms. Table 3-3 lists groundwater quality detections and exceedances. In accordance with Chapter 62-701, FAC, groundwater results were compared to primary drinking water standards (PDWSs) and secondary drinking water standards (SDWSs) listed in Chapter 62-550. For this routine groundwater monitoring report, groundwater cleanup target levels (GCTLs) in Rule 62-777, FAC, were used for constituents that do not have a PDWS or SDWS. GCTLs are used as a screening tool for potential anomalies in the concentration data that may require further consideration or review. Per Chapter 62-701.510(7)(c)2), GCTLs are only applicable to solid waste facilities outside of the zone of discharge.

### Metals Exceedances

Metals with concentrations in excess of applicable groundwater standards or GCTLs in select wells include:

- Iron
- Mercury

These exceedances are discussed below and are listed in Table 3-3.

### Iron

The concentration of iron in the groundwater ranged from non-detect to 650 micrograms per liter (μg/L) during the December 2018 sampling event. The FDEP SDWS of 300 μg/L for iron was exceeded at MW-7A (380 μg/L), MW-9A (470 μg/L), and MW-14A (650 μg/L). The iron concentrations are not due to landfill operations. Iron at MW-7A, MW-9A, and MW-14A will continue to be closely monitored in subsequent sampling events.

### Mercury

During the December 2018 sampling event, mercury exceeded its PDWS in background monitoring well MW-6AR. The FDEP PDWS of 2 μg/L for mercury was exceeded during the second semi-annual monitoring period in background monitoring well MW-6AR (7.2 μg/L). The dissolved methane concentration was not detected in the collected sample (December 2017). This indicates that the source is not related to landfill gas and since this well is up-gradient from the landfill, the source appears to be from off-site. Mercury analysis will continue to be performed during the next monitoring event.

## Inorganic Parameters Exceedances and Trends

Nitrate and dissolved oxygen exceeded their applicable standards at specific wells. Additionally, the pH concentrations at some monitoring wells fell outside the SDWS range for pH. These parameters are discussed below.

### Nitrate

The FDEP PDWS of 10 milligrams per liter (mg/L) for nitrate was exceeded at background wells MW-1A (12 mg/L) and MW-7A (12 mg/L). These results were consistent with recent nitrate values obtained from these wells.

No exceedances of nitrate occurred at other monitoring wells. The exceedances at MW-1A and MW-7A are not due to the landfill. These wells are located hydraulically up gradient and, in the case of MW-7A, nitrate was detected in previous monitoring events prior to the placement of waste. Nitrate exceedances may be related to Rapid Infiltration Basin (RIB) facilities, which have been previously documented as potential sources for nitrates.[2]

[2] Special Publication SJ2006-SP3, *Estimates Of Upper Floridan Aquifer Recharge Augmentation Based On Hydraulic And Water-Quality Data (1986-2002) From The Water Conserv II RIB Systems, Orange County, Florida* (http://sjr.state.fl.us/programs/outreach/pubs/techpubs/pdfs/SP/SJ2006-SP3.pdf)

**Table 3-3. Summary of Groundwater Quality Analytical Results (Detected Parameters Only)**
**Vista Landfill, December 2018**

| Parameter | Standard | MCL | Units | MW-1A | MW-1B | MW-2AR | MW-2B | MW-3A | MW-3B | MW-4A | MW-4B | MW-5A | MW-5B | MW-6AR | MW-6BR | MW-7A | MW-7B | MW-8R | MW-9A | MW-9B | MW-11A | MW-11B | MW-14A | MW-14B | MW-15A | MW-15B |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Well Type | | | | BG | BG | BG | BG | CO | CO | CO | CO | CO | CO | BG | BG | BG | CO | BG | CO | CO | DE | DE | CO | CO | CO | CO |
| **Volatile Organic Compounds** | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Carbon disulfide | GCTL | 700 | ug/L | 0.19 **U** | --- | 0.19 **U** | --- | 0.19 **U** | --- | 0.19 **U** | --- | 0.19 **U** | --- | 0.19 **U** | --- | 0.19 **U** | --- | 0.29 **IV** | 0.19 **U** | --- | 0.19 **U** | --- | 0.19 **U** | --- | 0.19 **U** | --- |
| **Metals** | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Antimony | PDWS | 6 | ug/L | 0.4 **U** | --- | 0.4 **U** | --- | 0.4 **U** | --- | 0.4 **U** | --- | 0.4 **U** | --- | 0.4 **U** | --- | 0.4 **U** | --- | 0.91 **I** | 0.4 **U** | --- | 0.4 **U** | --- | 0.4 **U** | --- | 0.4 **U** | --- |
| Arsenic | PDWS | 10 | ug/L | 0.33 **U** | --- | 0.33 **U** | --- | 0.33 **U** | --- | 0.33 **U** | --- | 0.33 **U** | --- | 0.33 **U** | --- | 0.38 **I** | --- | 0.55 **I** | 0.33 **U** | --- | 2 **I** | --- | 1.6 **I** | --- | 0.33 **U** | --- |
| Barium | PDWS | 2000 | ug/L | 25 | --- | 16 | --- | 33 | --- | 20 | --- | 49 | --- | 21 | --- | 16 | --- | 14 | 5.1 **I** | --- | 12 | --- | 13 | --- | 5.2 **I** | --- |
| Beryllium | PDWS | 4 | ug/L | 0.08 **U** | --- | 0.08 **U** | --- | 0.16 **I** | --- | 0.083 **I** | --- | 0.083 **I** | --- | 0.08 **U** | --- | 0.08 **U** | --- | 0.08 **U** | 0.08 **U** | --- | 0.08 **U** | --- | 0.08 **U** | --- | 0.08 **U** | --- |
| Cadmium | PDWS | 5 | ug/L | 0.56 **I** | --- | 0.45 **U** | --- | 0.45 **U** | --- | 0.45 **U** | --- | 0.45 **U** | --- | 0.56 **I** | --- | 0.45 **U** | --- | 0.45 **U** | 0.45 **U** | --- | 0.45 **U** | --- | 0.45 **U** | --- | 0.45 **U** | --- |
| Chromium | PDWS | 100 | ug/L | 1.3 **I** | --- | 1.4 **I** | --- | 0.66 **U** | --- | 0.66 **U** | --- | 0.66 **U** | --- | 1.2 **I** | --- | 1.7 **I** | --- | 1.3 **I** | 4.7 **I** | --- | 3.3 **I** | --- | 3.2 **I** | --- | 0.98 **I** | --- |
| Copper | SDWS | 1000 | ug/L | 4.2 **U** | --- | 4.2 **U** | --- | 4.2 **U** | --- | 4.2 **U** | --- | 4.2 **U** | --- | 4.2 **U** | --- | 4.2 **U** | --- | 4.2 **U** | 4.2 **U** | --- | 4.6 **I** | --- | 4.2 **U** | --- | 4.2 **U** | --- |
| Iron | SDWS | 300 | ug/L | 29 **I** | --- | 84 **I** | --- | 100 | --- | 24 **I** | --- | 22 **I** | --- | 22 **U** | --- | 380 | --- | 38 **I** | 470 | --- | 110 | --- | 650 | --- | 86 **I** | --- |
| Lead | PDWS | 15 | ug/L | 2.7 **U** | --- | 2.7 **U** | --- | 2.7 **U** | --- | 2.7 **U** | --- | 2.7 **U** | --- | 2.7 **U** | --- | 2.7 **U** | --- | 2.7 **U** | 2.7 **U** | --- | 2.7 **U** | --- | 3 **I** | --- | 2.7 **U** | --- |
| Mercury | PDWS | 2 | ug/L | 0.027 **U** | --- | 0.027 **U** | --- | 0.035 **I** | --- | 0.027 **U** | --- | 0.077 **I** | --- | 7.2 | --- | 0.027 **U** | --- | 0.027 **U** | 0.03 **I** | --- | 0.027 **U** | --- | 0.027 **U** | --- | 0.027 **U** | --- |
| Nickel | PDWS | 100 | ug/L | 3 **I** | --- | 2.6 **U** | --- | 2.6 **U** | --- | 2.6 **U** | --- | 2.6 **U** | --- | 2.6 **U** | --- | 2.6 **U** | --- | 2.6 **U** | 2.6 **U** | --- | 2.6 **U** | --- | 2.6 **U** | --- | 2.6 **U** | --- |
| Sodium | PDWS | 160 | mg/L | 8 | 5.6 | 1.6 **V** | 5.2 | 2.2 | 4.7 | 1.9 | 1.9 | 3.4 | 4.3 | 10 | 8.1 | 6.8 | 6.9 | 9.2 | 3.1 | 11 | 8.9 | 7.2 | 4.8 | 5.9 | 5 | 4.2 |
| Thallium | PDWS | 2 | ug/L | 0.062 **I** | --- | 0.05 **U** | --- | 0.06 **I** | --- | 0.05 **U** | --- | 0.08 **I** | --- | 0.051 **I** | --- | 0.066 **I** | --- | 0.05 **U** | 0.05 **U** | --- | 0.47 **I** | --- | 0.21 **I** | --- | 0.05 **U** | --- |
| Vanadium | GCTL | 49 | ug/L | 1.6 **I** | --- | 1.1 **I** | --- | 1.6 **I** | --- | 1.1 **U** | --- | 1.1 **U** | --- | 1.1 **U** | --- | 1.4 **I** | --- | 2.2 **I** | 3.2 **I** | --- | 3.5 **I** | --- | 2.9 **I** | --- | 1.1 **U** | --- |
| Zinc | SDWS | 5000 | ug/L | 4.5 **U** | --- | 4.5 **U** | --- | 13 **I** | --- | 200 | --- | 56 | --- | 4.5 **U** | --- | 4.5 **U** | --- | 4.8 **I** | 4.5 **U** | --- | 11 **I** | --- | 4.5 **U** | --- | 4.5 **U** | --- |
| **General Chemistry** | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Ammonia as N | GCTL | 2.8 | mg/L | 0.022 **U** | 0.022 **U** | 0.022 **U** | 0.022 **U** | 0.022 **U** | 0.022 **U** | 0.022 **U** | 0.022 **U** | 0.022 **U** | 0.022 **U** | 0.022 **U** | 0.022 **U** | 0.022 **U** | 0.022 **U** | 0.022 **U** | 0.022 **U** | 0.03 **I** | 0.022 **U** | 0.025 **I** | 0.022 **U** | 0.022 **U** | 0.022 **U** | 0.022 **U** |
| Chloride | SDWS | 250 | mg/L | 15 | 8 | 1.9 **IV** | 4.4 **V** | 3.3 | 8.2 | 2.8 **I** | 2.9 **I** | 2.6 **I** | 7.8 | 24 | 18 | 11 | 4.1 | 3.8 **V** | 4.2 | 25 | 5.6 **V** | 5.9 **V** | 9.2 | 7.1 | 9.2 | 4.6 **V** |
| Nitrate (as N) | PDWS | 10 | mg/L | 12 | 0.37 **IV** | 0.42 **IV** | 0.78 | 0.93 | 1.6 | 0.67 | 1.2 | 1.9 | 0.45 **I** | 7.9 | 2.5 | 12 | 0.06 **IV** | 2.2 | 0.53 | 0.15 **I** | 5.1 | 0.061 **IV** | 2.7 | 0.082 **I** | 1.8 | 2.9 |
| Total Dissolved Solids | SDWS | 500 | mg/L | 250 | --- | 30 | --- | 39 | --- | 86 | --- | 84 | --- | 130 | --- | 220 | --- | 120 | 71 | --- | 180 | --- | 67 | --- | 37 | --- |
| **Field Parameters** | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Conductivity | NS | NS | umhos/cm | 434 | 200 | 52 | 150 | 74 | 245 | 107 | 38 | 139 | 221 | 214 | 317 | 350 | 147 | 198 | 103 | 382 | 304 | 330 | 75 | 141 | 74 | 105 |
| Dissolved Oxygen | NS | NS | mg/L | 0.6 | 0.1 | 5.5 | 0.2 | 1.5 | 2.3 | 4.9 | 0.8 | 3.8 | 0.1 | 2.6 | 1.3 | 1.2 | 0.2 | 1.7 | 2.1 | 0.2 | 2.5 | 0.3 | 2.3 | 0.2 | 3.4 | 2.4 |
| Dissolved Oxygen | MPIS | 20 | % Sat. | 7.13 | 1.21 | 64.11 | 2.38 | 17.82 | 26.81 | 59.31 | 9.5 | 45.99 | 1.21 | 30.31 | 15.15 | 14.26 | 2.38 | 20.19 | 24.48 | 2.29 | 29.14 | 3.5 | 26.81 | 2.29 | 40.39 | 28.51 |
| Field pH | SDWS | 6.5-8.5 | SU | 7.16 | 7.7 | 5.33 | 7.9 | 5.41 | 6.96 | 6.04 | 5.44 | 5.43 | 7.88 | 5.48 | 7.92 | 7.24 | 7.61 | 6.84 | 7.07 | 7.74 | 7.76 | 7.84 | 5.84 | 7.78 | 5.36 | 6.67 |
| Field Temperature | NS | NS | Degrees C | 24.3 | 24.6 | 22.6 | 24 | 23.9 | 23.3 | 24.6 | 24.1 | 25.2 | 24.6 | 23.1 | 23.2 | 24.3 | 23.9 | 24.4 | 22.6 | 21.9 | 23 | 22.8 | 22.8 | 22.3 | 23.9 | 23.6 |
| Turbidity | NS | NS | NTU | 3.72 | 3.42 | 3.66 | 3.76 | 3.37 | 3.49 | 3.56 | 2.41 | 3.15 | 3.52 | 3.3 | 3.89 | 3.77 | 2.62 | 4.44 | 5.45 | 5.73 | 7.91 | 7.01 | 4.16 | 3.01 | 3.58 | 11.56 |

NOTES:
1. PDWS = Primary Drinking Water Standard (62-550 F.A.C.)
2. SDWS = Secondary Drinking Water Standard (62-550 F.A.C.)
3. GCTL = Groundwater Clean-up Target Level (62-777 F.A.C.)
4. MPIS = Monitoring Plan Implementation Schedule
5. NS = No numeric standard has been set for this analyte.
6. mg/L = milligrams per liter
7. ug/L= micrograms per liter
8. NTU = nephelometric turbidity units
9. Yellow shaded values indicate parameter concentrations exceeded respective PDWS, SDWS, or GCTL.
10. Degrees C = Degrees Celcius
11. pCi/L = picocuries per liter
12. umhos/cm = micromhos per centimeter
13. **U** = Analyte concentration was below the laboratory detection limit (value shown).
14. **I** = Analyte concentration was between the laboratory detection limit and laboratory practical.
15. **V** = Analyte was detected in the sample and an associated method blank.
16. **Q =** Sample held beyond the accepted holding time.
17. BG= Background well
18. CO = Compliance well
19. % Sat = Percent saturation
20. Percent saturation of dissolved oxygen calculated from http://www.fivecreeks.org/monitor/do.html.
21. --- = Parameter not collected.

### Dissolved Oxygen

Dissolved oxygen values (calculated from field measurements) were above the VLF MPIS limit of not greater than 20 percent oxygen saturation in background monitoring wells MW-2AR (64.11%), MW-6AR (30.31%), MW-8R (20.19%), at compliance monitoring wells MW-3B (26.81%), MW-4A (59.31%), MW-5A (45.99%), MW-9A (24.48%), MW-14A (26.81%), MW-15A (40.39%), MW-15B (28.51%), and detection monitoring well MW-11A (29.14%).

The monitoring wells were purged and sampled with a bladder pump at low flow rates as indicated by their relative gallons per minute (gpm) pumping rates as follows: MW-2AR (0.15 gpm), MW-3B (0.29 gpm), MW-4A (0.20 gpm), MW-5A (0.19 gpm), MW-6AR (0.21 gpm), MW-8R (0.16 gpm), MW-9A (0.23 gpm), MW-11A (0.21 gpm), MW-14A (0.24 gpm), MW-15A (0.26 gpm), and MW-15B (0.19 gpm). During the stabilization readings, the dissolved oxygen concentrations remained relatively steady. These measurements were collected using low flow techniques and are considered to be a natural characteristic of the aquifer system at these wells.

### pH

The pH was below the SDWS range of 6.5 to 8.5 units in background monitoring wells MW-2AR (5.33 units) and MW-6AR (5.48 units) and in compliance wells MW-3A (5.41 units), MW-4A (6.04 units), MW-4B (5.44 units), MW-5A (5.43 units), MW-14A (5.84 units), and MW-15A (5.36 units). Low groundwater pH in this region is the result of low pH in precipitation, rapid recharge, and little buffering capacity of the surficial sands. The pH levels observed at VLF are characteristic of the groundwater in this region of Florida.

## Organic Parameters Exceedances and Trends

Organic parameters were not detected above their respective PDWS, SDWS, and GCTLs.

### Volatile Organic Compound Detections

There were low level volatile organic compound (VOC) detections of carbon disulfide. Carbon disulfide was detected at an estimated concentration in background monitoring well MW-8R (0.29 IV µg/L). The "I" qualifier indicates that the reported value is between the laboratory method detection limit and the laboratory practical quantitation limit. The "V" qualifier indicates that the analyte was detected at or above the method detection limit in both the sample and the associated method blank and the value of 10 times the blank value was equal to or greater than the associated sample value.

# 4 SUMMARY

The groundwater flow assessment shows the following:

- Shallow surficial aquifer groundwater in the vicinity of the site flows toward the southwest corner of the landfill.

- Groundwater flow direction in the intermediate surficial aquifer is variable with groundwater flowing into the site from the northeast corner and flowing to the south and southeast.

- In the intermediate surficial aquifer, the groundwater also flows into the site from the southern and western boundaries flowing to the northern boundary and southeast corner of the site. Regional potentiometric maps for the Floridan aquifer indicate that flow is towards the northeast and is confirmed by the data from the Floridan aquifer monitoring wells.

The analytical results from analysis of the groundwater samples shows the following:

- There were no verified landfill impacts during the December 2018 monitoring event.

- Nitrate exceeded its PDWS in background monitoring wells MW-1A and MW-7A. The nitrate levels are attributed to background conditions, possibly associated with local RIBs facilities.

- Iron exceeded its SDWS in background monitoring well MW-7A and compliance monitoring wells MW-9A and MW-14A.

- Mercury exceeded its PDWS in background monitoring well MW-6AR. The mercury concentration is from an off-site source and not related to landfill operations.

- Dissolved oxygen values (field measurement) were above the VLF MPIS limit of not greater than 20% oxygen saturation in the groundwater in background monitoring wells MW-2AR, MW-6AR, MW-8R, compliance monitoring wells MW-3B, MW-4A, MW-5A, MW-9A, MW-14A, MW-15A, MW-15B, and detection well MW-11A. These measurements were collected using low flow techniques and are considered to be a natural characteristic of the aquifer system at these wells.

- Field pH levels fell outside the SDWS range for pH at select monitoring wells. The low pH levels in select monitoring wells are attributed to Florida's ambient groundwater quality characteristics due to low pH rainfall, rapid recharge, and the limited buffering capability of Florida's sandy soils.

- Detection monitoring should continue as outlined in the MPIS.

Appendix A

# LABORATORY ANALYTICAL RESULTS AND FIELD FORMS

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

# ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Denver
4955 Yarrow Street
Arvada, CO 80002
Tel: (303)736-0100

TestAmerica Job ID: 280-117909-1
Client Project/Site: FL26|Vista
Sampling Event: Annual Intermediate Wells - Dec
Semiannual GW Parameters June Dec

For:
Waste Management
14415 CR 39
Duette, Florida 34219

Attn: Elizabeth Foeller

Danielle Harrington

*Authorized for release by:*
*1/4/2019 3:41:38 PM*

Danielle Harrington, Project Manager II
(303)736-0176
danielle.harrington@testamericainc.com

LINKS

Review your project results through TotalAccess

Have a Question? Ask The Expert

Visit us at: www.testamericainc.com

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

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

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

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## Qualifiers

### GC/MS VOA

| Qualifier | Qualifier Description |
|---|---|
| U | Indicates that the compound was analyzed for but not detected. |
| I | The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit. |
| V | Indicates that the analyte was detected at or above the method detection limit in both the sample and the associated method blank and the value of 10 times the blank value was equal to or greater than the associated sample value. |
| J3 | Estimated value; value may not be accurate. Spike recovery or RPD outside of criteria. |

### GC Semi VOA

| Qualifier | Qualifier Description |
|---|---|
| U | Indicates that the compound was analyzed for but not detected. |

### Metals

| Qualifier | Qualifier Description |
|---|---|
| I | The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit. |
| U | Indicates that the compound was analyzed for but not detected. |
| V | Indicates that the analyte was detected at or above the method detection limit in both the sample and the associated method blank and the value of 10 times the blank value was equal to or greater than the associated sample value. |

### General Chemistry

| Qualifier | Qualifier Description |
|---|---|
| U | Indicates that the compound was analyzed for but not detected. |
| I | The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit. |
| V | Indicates that the analyte was detected at or above the method detection limit in both the sample and the associated method blank and the value of 10 times the blank value was equal to or greater than the associated sample value. |
| J3 | Estimated value; value may not be accurate. Spike recovery or RPD outside of criteria. |

## Glossary

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

## Job ID: 280-117909-1

**Laboratory: TestAmerica Denver**

**Narrative**

# CASE NARRATIVE

## Client: Waste Management

## Project: FL26|Vista

## Report Number: 280-117909-1

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.

This submission may contain field data obtained by the sampler. The methods referenced in this submission for the field data results may not be the methods used to obtain the field data by the sampler.

**RECEIPT**
The samples were received on 12/07/2018 at a temperature of 4.4C. These samples are logged under job 280-117909-1.

The samples were received on 12/07/2018 at a temperature1.5C. These samples are logged under job 280-117920-1.

The samples were received on 12/08/2018 at temperatures of 1.2C and 5.2C. These samples are logged under job 280-117969-1.

The samples were received on 12/08/2018 at temperatures of 1.2C and 5.2C. These samples are logged under job 280-117970-1. Please note: 1 of 3 Sodium Thiosulfate preserved VOA vials for sample MW-6AR arrived broken. Sufficient volume remained for the Method 8011 analysis. Client was notified on 12/10/2018.

The samples were received on 12/11/2018 at a temperature of 3.3C. These samples are logged under job 280-118028-1.

The samples were received on 12/11/2018 at a temperature of 3.3C. These samples are logged under job 280-118029-1.

Due to instrument capacity from a new instrument coming online, all Method 8260 analysis was performed by TestAmerica Buffalo. Florida certification: E87672.

All other sample bottles were received in acceptable condition.

**HOLDING TIMES**
All Holding Times were met.

**METHOD BLANKS**
Low levels of Carbon Disulfide are present in the method blank associated with QC batch 480-450778. Because the concentration in the method blank is not present at a level greater than the reporting limit, corrective action is deemed unnecessary.

## Job ID: 280-117909-1 (Continued)

### Laboratory: TestAmerica Denver (Continued)

Low levels of Sodium are present in the method blank associated with QC batches 280-440901, 280-441730, and 280-441261. Because the concentration in the method blank is not present at a level greater than the reporting limit, corrective action is deemed unnecessary.

Low levels of Nitrate are present in the method blank associated with QC batches 280-440339 and 280-440479. Because the concentration in the method blank is not present at a level greater than the reporting limit, corrective action is deemed unnecessary.

Low levels of Chloride are present in the method blank associated with QC batch 280-441847. Because the concentration in the method blank is not present at a level greater than the reporting limit, corrective action is deemed unnecessary.

All other Method Blanks were within the acceptance limits.

**LABORATORY CONTROL SAMPLES (LCS)**
The LCS for method 8260C exhibited a percent recovery above the QC limits for cis-1,3-Dichloropropene and trans-1,3-Dichloropropene in batch 480-450778. This is an indicator that data may be biased high. As no detectable concentrations are present in the associated samples, corrective action is deemed unnecessary.

All other Laboratory Control Samples were within the acceptance limits.

**MATRIX SPIKE (MS) and MATRIX SPIKE DUPLICATES (MSD)**
Laboratory generated MS/MSD analysis data have been provided. The MS/MSD for method 8260C exhibited spike compound recoveries outside the QC limits for Vinyl Acetate. The acceptable LCS analysis data indicated that the analytical system was operating within control; therefore, corrective action is deemed unnecessary.

Laboratory generated MS/MSD analysis data have been provided. The MS/MSD for method 8260C exhibited multiple spike compound recoveries outside the QC limits. The acceptable LCS analysis data indicated that the analytical system was operating within control; therefore, corrective action is deemed unnecessary.

Laboratory generated MS/MSD analysis data have been provided. The MS/MSD for method 8260C exhibited spike compound recoveries outside the QC limits for Carbon Tetrachloride. The acceptable LCS analysis data indicated that the analytical system was operating within control; therefore, corrective action is deemed unnecessary.

The method 8011 required MS/MSD could not be performed, due to insufficient sample volume submitted. Method precision and accuracy have been verified by the acceptable LCS/LCSD analysis data.

The method 8260C required MS/MSD could not be reported for batch 480-451772, due to insufficient sample volume submitted. Method precision and accuracy have been verified by the acceptable LCS/LCSD analysis data.

Laboratory generated MS/MSD analysis data have been provided. The MS/MSD for method 350.1 Ammonia exhibited spike recoveries outside the QC limits. Method precision and accuracy have been verified by the acceptable LCS/LCSD analysis data.

**ORGANICS**
Continuing Calibration Verification (CCV) standards associated with samples in batch 480-450778 exhibited %D values out of range, biased high, for 2-Hexanone, cis-1,3-Dichloropropene, trans-1,3-Dichloropropene, Vinyl Acetate, and 2-Butanone (MEK). This is an indicator that data may be biased high. As no detectable concentrations of 2-Hexanone, cis-1,3-Dichloropropene, trans-1,3-Dichloropropene, Vinyl Acetate, and 2-Butanone (MEK) are present in the associated samples, corrective action is deemed unnecessary.

Continuing Calibration Verification (CCV) standards associated with samples in batch 480-450767 exhibited %D values out of range, biased high, for Vinyl Acetate. This is an indicator that data may be biased high. As no detectable concentrations of Vinyl Acetate are present in the associated samples, corrective action is deemed unnecessary.

The continuing calibration verification (CCV) associated with batch 480-450779 recovered outside acceptance criteria, low biased, for Chloromethane. A reporting limit (RL) standard was analyzed, and the target analyte was detected. Since the associated samples were non-detect for this analyte, corrective action is deemed unnecessary.

## Job ID: 280-117909-1 (Continued)

### Laboratory: TestAmerica Denver (Continued)

The continuing calibration verification (CCV) associated with batch 480-450778 recovered outside acceptance criteria, low biased, for Vinyl Chloride, Chloromethane, and Carbon Disulfide. A reporting limit (RL) standard was analyzed, and the target analyte was detected. Since the associated samples were non-detect for this analyte, corrective action is deemed unnecessary.

Please note, the Florida ADapt program is flagging several samples outside of holding time for method 8011. These samples were prepped within holding time and analyzed within holding time per the laboratory's SOP, which states it has up to 40 days for analysis after being prepped. Method 8011 does not have a analytical holding time listed in the source method just a prepped holding time. Analytes of concern are notated to be stable for a month after being prepped.

**GENERAL CHEMISTRY**

Some samples were analyzed at dilutions for Method 300.0A due to high concentrations of Nitrate. The reporting limits have been adjusted accordingly.

# Detection Summary

Client: Waste Management
Project/Site: FL26|Vista

TestAmerica Job ID: 280-117909-1

## Client Sample ID: MW-3B — Lab Sample ID: 280-117909-1

| Analyte | Result | Qualifier | NONE | NONE | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Groundwater Elevation | 55.74 | | | | ft/msl | 1 | | Field Sampling | Total/NA |
| Field pH | 6.96 | | | | SU | 1 | | Field Sampling | Total/NA |
| Field Conductivity | 245 | | | | umhos/cm | 1 | | Field Sampling | Total/NA |
| Field Temperature | 23.3 | | | | Degrees C | 1 | | Field Sampling | Total/NA |
| Field Turbidity | 3.49 | | | | NTU | 1 | | Field Sampling | Total/NA |
| Field Dissolved Oxygen | 2.3 | | | | mg/L | 1 | | Field Sampling | Total/NA |
| Field Color | NONE | | | | No Unit | 1 | | Field Sampling | Total/NA |

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Sodium | 4.7 | | 1.0 | 0.12 | mg/L | 1 | | 6010B | Total Recoverable |
| Chloride | 8.2 | | 3.0 | 0.25 | mg/L | 1 | | 300.0 | Total/NA |
| Nitrate as N | 1.6 | | 0.50 | 0.042 | mg/L | 1 | | 300.0 | Total/NA |

## Client Sample ID: MW-4B — Lab Sample ID: 280-117909-2

| Analyte | Result | Qualifier | NONE | NONE | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Groundwater Elevation | 56.95 | | | | ft/msl | 1 | | Field Sampling | Total/NA |
| Field pH | 5.44 | | | | SU | 1 | | Field Sampling | Total/NA |
| Field Conductivity | 38 | | | | umhos/cm | 1 | | Field Sampling | Total/NA |
| Field Temperature | 24.1 | | | | Degrees C | 1 | | Field Sampling | Total/NA |
| Field Turbidity | 2.41 | | | | NTU | 1 | | Field Sampling | Total/NA |
| Field Dissolved Oxygen | 0.8 | | | | mg/L | 1 | | Field Sampling | Total/NA |
| Field Color | NONE | | | | No Unit | 1 | | Field Sampling | Total/NA |

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Sodium | 1.9 | | 1.0 | 0.12 | mg/L | 1 | | 6010B | Total Recoverable |
| Chloride | 2.9 | I | 3.0 | 0.25 | mg/L | 1 | | 300.0 | Total/NA |
| Nitrate as N | 1.2 | | 0.50 | 0.042 | mg/L | 1 | | 300.0 | Total/NA |

## Client Sample ID: MW-5B — Lab Sample ID: 280-117909-3

| Analyte | Result | Qualifier | NONE | NONE | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Groundwater Elevation | 55.30 | | | | ft/msl | 1 | | Field Sampling | Total/NA |
| Field pH | 7.88 | | | | SU | 1 | | Field Sampling | Total/NA |
| Field Conductivity | 221 | | | | umhos/cm | 1 | | Field Sampling | Total/NA |
| Field Temperature | 24.6 | | | | Degrees C | 1 | | Field Sampling | Total/NA |
| Field Turbidity | 3.52 | | | | NTU | 1 | | Field Sampling | Total/NA |
| Field Dissolved Oxygen | 0.1 | | | | mg/L | 1 | | Field Sampling | Total/NA |
| Field Color | NONE | | | | No Unit | 1 | | Field Sampling | Total/NA |

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Sodium | 4.3 | | 1.0 | 0.12 | mg/L | 1 | | 6010B | Total Recoverable |
| Chloride | 7.8 | | 3.0 | 0.25 | mg/L | 1 | | 300.0 | Total/NA |
| Nitrate as N | 0.45 | I | 0.50 | 0.042 | mg/L | 1 | | 300.0 | Total/NA |

## Client Sample ID: MW-7B — Lab Sample ID: 280-117909-4

| Analyte | Result | Qualifier | NONE | NONE | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Groundwater Elevation | 57.08 | | | | ft/msl | 1 | | Field Sampling | Total/NA |
| Field pH | 7.61 | | | | SU | 1 | | Field Sampling | Total/NA |

This Detection Summary does not include radiochemical test results.

## Client Sample ID: MW-7B (Continued) — Lab Sample ID: 280-117909-4

| Analyte | Result | Qualifier | NONE | NONE | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Field Conductivity | 147 | | | | umhos/cm | 1 | | Field Sampling | Total/NA |
| Field Temperature | 23.9 | | | | Degrees C | 1 | | Field Sampling | Total/NA |
| Field Turbidity | 2.62 | | | | NTU | 1 | | Field Sampling | Total/NA |
| Field Dissolved Oxygen | 0.2 | | | | mg/L | 1 | | Field Sampling | Total/NA |
| Field Color | NONE | | | | No Unit | 1 | | Field Sampling | Total/NA |

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Sodium | 6.9 | | 1.0 | 0.12 | mg/L | 1 | | 6010B | Total Recoverable |
| Chloride | 4.1 | | 3.0 | 0.25 | mg/L | 1 | | 300.0 | Total/NA |
| Nitrate as N | 0.060 | I V | 0.50 | 0.042 | mg/L | 1 | | 300.0 | Total/NA |

## Client Sample ID: MW-1B — Lab Sample ID: 280-117909-5

| Analyte | Result | Qualifier | NONE | NONE | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Groundwater Elevation | 58.45 | | | | ft/msl | 1 | | Field Sampling | Total/NA |
| Field pH | 7.70 | | | | SU | 1 | | Field Sampling | Total/NA |
| Field Conductivity | 200 | | | | umhos/cm | 1 | | Field Sampling | Total/NA |
| Field Temperature | 24.6 | | | | Degrees C | 1 | | Field Sampling | Total/NA |
| Field Turbidity | 3.42 | | | | NTU | 1 | | Field Sampling | Total/NA |
| Field Dissolved Oxygen | 0.1 | | | | mg/L | 1 | | Field Sampling | Total/NA |
| Field Color | NONE | | | | No Unit | 1 | | Field Sampling | Total/NA |

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Sodium | 5.6 | | 1.0 | 0.12 | mg/L | 1 | | 6010B | Total Recoverable |
| Chloride | 8.0 | | 3.0 | 0.25 | mg/L | 1 | | 300.0 | Total/NA |
| Nitrate as N | 0.37 | I V | 0.50 | 0.042 | mg/L | 1 | | 300.0 | Total/NA |

## Client Sample ID: MW-3A — Lab Sample ID: 280-117920-1

| Analyte | Result | Qualifier | NONE | NONE | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Groundwater Elevation | 55.76 | | | | ft/msl | 1 | | Field Sampling | Total/NA |
| Field pH | 5.41 | | | | SU | 1 | | Field Sampling | Total/NA |
| Field Conductivity | 74 | | | | umhos/cm | 1 | | Field Sampling | Total/NA |
| Field Temperature | 23.9 | | | | Degrees C | 1 | | Field Sampling | Total/NA |
| Field Turbidity | 3.37 | | | | NTU | 1 | | Field Sampling | Total/NA |
| Field Dissolved Oxygen | 1.5 | | | | mg/L | 1 | | Field Sampling | Total/NA |
| Field Color | NONE | | | | No Unit | 1 | | Field Sampling | Total/NA |

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Barium | 33 | | 10 | 0.82 | ug/L | 1 | | 6010B | Total Recoverable |
| Iron | 100 | | 100 | 22 | ug/L | 1 | | 6010B | Total Recoverable |
| Vanadium | 1.6 | I | 10 | 1.1 | ug/L | 1 | | 6010B | Total Recoverable |
| Zinc | 13 | I | 20 | 4.5 | ug/L | 1 | | 6010B | Total Recoverable |
| Sodium | 2.2 | | 1.0 | 0.12 | mg/L | 1 | | 6010B | Total Recoverable |
| Beryllium | 0.16 | I | 1.0 | 0.080 | ug/L | 1 | | 6020 | Total Recoverable |
| Thallium | 0.060 | I | 1.0 | 0.050 | ug/L | 1 | | 6020 | Total Recoverable |

This Detection Summary does not include radiochemical test results.

## Client Sample ID: MW-3A (Continued) — Lab Sample ID: 280-117920-1

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Mercury | 0.035 | I | 0.20 | 0.027 | ug/L | 1 | | 7470A | Total/NA |
| Chloride | 3.3 | | 3.0 | 0.25 | mg/L | 1 | | 300.0 | Total/NA |
| Nitrate as N | 0.93 | | 0.50 | 0.042 | mg/L | 1 | | 300.0 | Total/NA |
| Total Dissolved Solids | 39 | | 10 | 4.7 | mg/L | 1 | | SM 2540C | Total/NA |

## Client Sample ID: MW-4A — Lab Sample ID: 280-117920-2

| Analyte | Result | Qualifier | NONE | NONE | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Groundwater Elevation | 55.94 | | | | ft/msl | 1 | | Field Sampling | Total/NA |
| Field pH | 6.04 | | | | SU | 1 | | Field Sampling | Total/NA |
| Field Conductivity | 107 | | | | umhos/cm | 1 | | Field Sampling | Total/NA |
| Field Temperature | 24.6 | | | | Degrees C | 1 | | Field Sampling | Total/NA |
| Field Turbidity | 3.56 | | | | NTU | 1 | | Field Sampling | Total/NA |
| Field Dissolved Oxygen | 4.9 | | | | mg/L | 1 | | Field Sampling | Total/NA |
| Field Color | NONE | | | | No Unit | 1 | | Field Sampling | Total/NA |

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Barium | 20 | | 10 | 0.82 | ug/L | 1 | | 6010B | Total Recoverable |
| Iron | 24 | I | 100 | 22 | ug/L | 1 | | 6010B | Total Recoverable |
| Zinc | 200 | | 20 | 4.5 | ug/L | 1 | | 6010B | Total Recoverable |
| Sodium | 1.9 | | 1.0 | 0.12 | mg/L | 1 | | 6010B | Total Recoverable |
| Beryllium | 0.083 | I | 1.0 | 0.080 | ug/L | 1 | | 6020 | Total Recoverable |
| Chloride | 2.8 | I | 3.0 | 0.25 | mg/L | 1 | | 300.0 | Total/NA |
| Nitrate as N | 0.67 | | 0.50 | 0.042 | mg/L | 1 | | 300.0 | Total/NA |
| Total Dissolved Solids | 86 | | 10 | 4.7 | mg/L | 1 | | SM 2540C | Total/NA |

## Client Sample ID: MW-5A — Lab Sample ID: 280-117920-3

| Analyte | Result | Qualifier | NONE | NONE | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Groundwater Elevation | 57.36 | | | | ft/msl | 1 | | Field Sampling | Total/NA |
| Field pH | 5.43 | | | | SU | 1 | | Field Sampling | Total/NA |
| Field Conductivity | 139 | | | | umhos/cm | 1 | | Field Sampling | Total/NA |
| Field Temperature | 25.2 | | | | Degrees C | 1 | | Field Sampling | Total/NA |
| Field Turbidity | 3.15 | | | | NTU | 1 | | Field Sampling | Total/NA |
| Field Dissolved Oxygen | 3.8 | | | | mg/L | 1 | | Field Sampling | Total/NA |
| Field Color | NONE | | | | No Unit | 1 | | Field Sampling | Total/NA |

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Barium | 49 | | 10 | 0.82 | ug/L | 1 | | 6010B | Total Recoverable |
| Iron | 22 | I | 100 | 22 | ug/L | 1 | | 6010B | Total Recoverable |
| Zinc | 56 | | 20 | 4.5 | ug/L | 1 | | 6010B | Total Recoverable |
| Sodium | 3.4 | | 1.0 | 0.12 | mg/L | 1 | | 6010B | Total Recoverable |
| Beryllium | 0.083 | I | 1.0 | 0.080 | ug/L | 1 | | 6020 | Total Recoverable |
| Thallium | 0.080 | I | 1.0 | 0.050 | ug/L | 1 | | 6020 | Total Recoverable |

This Detection Summary does not include radiochemical test results.

# Detection Summary

Client: Waste Management
Project/Site: FL26|Vista

TestAmerica Job ID: 280-117909-1

## Client Sample ID: MW-5A (Continued) — Lab Sample ID: 280-117920-3

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Mercury | 0.077 | I | 0.20 | 0.027 | ug/L | 1 | | 7470A | Total/NA |
| Chloride | 2.6 | I | 3.0 | 0.25 | mg/L | 1 | | 300.0 | Total/NA |
| Nitrate as N | 1.9 | | 0.50 | 0.042 | mg/L | 1 | | 300.0 | Total/NA |
| Total Dissolved Solids | 84 | | 10 | 4.7 | mg/L | 1 | | SM 2540C | Total/NA |

## Client Sample ID: MW-7A — Lab Sample ID: 280-117920-4

| Analyte | Result | Qualifier | NONE | NONE | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Groundwater Elevation | 70.31 | | | | ft/msl | 1 | | Field Sampling | Total/NA |
| Field pH | 7.24 | | | | SU | 1 | | Field Sampling | Total/NA |
| Field Conductivity | 350 | | | | umhos/cm | 1 | | Field Sampling | Total/NA |
| Field Temperature | 24.3 | | | | Degrees C | 1 | | Field Sampling | Total/NA |
| Field Turbidity | 3.77 | | | | NTU | 1 | | Field Sampling | Total/NA |
| Field Dissolved Oxygen | 1.2 | | | | mg/L | 1 | | Field Sampling | Total/NA |
| Field Color | NONE | | | | No Unit | 1 | | Field Sampling | Total/NA |

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Barium | 16 | | 10 | 0.82 | ug/L | 1 | | 6010B | Total Recoverable |
| Chromium | 1.7 | I | 10 | 0.66 | ug/L | 1 | | 6010B | Total Recoverable |
| Iron | 380 | | 100 | 22 | ug/L | 1 | | 6010B | Total Recoverable |
| Vanadium | 1.4 | I | 10 | 1.1 | ug/L | 1 | | 6010B | Total Recoverable |
| Sodium | 6.8 | | 1.0 | 0.12 | mg/L | 1 | | 6010B | Total Recoverable |
| Arsenic | 0.38 | I | 5.0 | 0.33 | ug/L | 1 | | 6020 | Total Recoverable |
| Thallium | 0.066 | I | 1.0 | 0.050 | ug/L | 1 | | 6020 | Total Recoverable |
| Chloride | 11 | | 3.0 | 0.25 | mg/L | 1 | | 300.0 | Total/NA |
| Nitrate as N | 12 | | 2.5 | 0.21 | mg/L | 5 | | 300.0 | Total/NA |
| Total Dissolved Solids | 220 | | 10 | 4.7 | mg/L | 1 | | SM 2540C | Total/NA |

## Client Sample ID: MW-1A — Lab Sample ID: 280-117920-5

| Analyte | Result | Qualifier | NONE | NONE | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Groundwater Elevation | 68.18 | | | | ft/msl | 1 | | Field Sampling | Total/NA |
| Field pH | 7.16 | | | | SU | 1 | | Field Sampling | Total/NA |
| Field Conductivity | 434 | | | | umhos/cm | 1 | | Field Sampling | Total/NA |
| Field Temperature | 24.3 | | | | Degrees C | 1 | | Field Sampling | Total/NA |
| Field Turbidity | 3.72 | | | | NTU | 1 | | Field Sampling | Total/NA |
| Field Dissolved Oxygen | 0.6 | | | | mg/L | 1 | | Field Sampling | Total/NA |
| Field Color | NONE | | | | No Unit | 1 | | Field Sampling | Total/NA |

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Barium | 25 | | 10 | 0.82 | ug/L | 1 | | 6010B | Total Recoverable |
| Cadmium | 0.56 | I | 5.0 | 0.45 | ug/L | 1 | | 6010B | Total Recoverable |
| Chromium | 1.3 | I | 10 | 0.66 | ug/L | 1 | | 6010B | Total Recoverable |
| Nickel | 3.0 | I | 40 | 2.6 | ug/L | 1 | | 6010B | Total Recoverable |

This Detection Summary does not include radiochemical test results.

## Client Sample ID: MW-1A (Continued) — Lab Sample ID: 280-117920-5

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Iron | 29 | I | 100 | 22 | ug/L | 1 | | 6010B | Total Recoverable |
| Vanadium | 1.6 | I | 10 | 1.1 | ug/L | 1 | | 6010B | Total Recoverable |
| Sodium | 8.0 | | 1.0 | 0.12 | mg/L | 1 | | 6010B | Total Recoverable |
| Thallium | 0.062 | I | 1.0 | 0.050 | ug/L | 1 | | 6020 | Total Recoverable |
| Chloride | 15 | | 3.0 | 0.25 | mg/L | 1 | | 300.0 | Total/NA |
| Nitrate as N | 12 | | 2.5 | 0.21 | mg/L | 5 | | 300.0 | Total/NA |
| Total Dissolved Solids | 250 | | 10 | 4.7 | mg/L | 1 | | SM 2540C | Total/NA |

## Client Sample ID: TRIP BLANK — Lab Sample ID: 280-117920-6

No Detections.

## Client Sample ID: MW-2B — Lab Sample ID: 280-117969-1

| Analyte | Result | Qualifier | NONE | NONE | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Groundwater Elevation | 55.50 | | | | ft/msl | 1 | | Field Sampling | Total/NA |
| Field pH | 7.90 | | | | SU | 1 | | Field Sampling | Total/NA |
| Field Conductivity | 150 | | | | umhos/cm | 1 | | Field Sampling | Total/NA |
| Field Temperature | 24.0 | | | | Degrees C | 1 | | Field Sampling | Total/NA |
| Field Turbidity | 3.76 | | | | NTU | 1 | | Field Sampling | Total/NA |
| Field Dissolved Oxygen | 0.2 | | | | mg/L | 1 | | Field Sampling | Total/NA |
| Field Color | NONE | | | | No Unit | 1 | | Field Sampling | Total/NA |

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Sodium | 5.2 | | 1.0 | 0.12 | mg/L | 1 | | 6010B | Total Recoverable |
| Chloride | 4.4 | V | 3.0 | 0.25 | mg/L | 1 | | 300.0 | Total/NA |
| Nitrate as N | 0.78 | | 0.50 | 0.042 | mg/L | 1 | | 300.0 | Total/NA |

## Client Sample ID: MW-6BR — Lab Sample ID: 280-117969-2

| Analyte | Result | Qualifier | NONE | NONE | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Groundwater Elevation | 56.15 | | | | ft/msl | 1 | | Field Sampling | Total/NA |
| Field pH | 7.92 | | | | SU | 1 | | Field Sampling | Total/NA |
| Field Conductivity | 317 | | | | umhos/cm | 1 | | Field Sampling | Total/NA |
| Field Temperature | 23.2 | | | | Degrees C | 1 | | Field Sampling | Total/NA |
| Field Turbidity | 3.89 | | | | NTU | 1 | | Field Sampling | Total/NA |
| Field Dissolved Oxygen | 1.3 | | | | mg/L | 1 | | Field Sampling | Total/NA |
| Field Color | NONE | | | | No Unit | 1 | | Field Sampling | Total/NA |

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Sodium | 8.1 | | 1.0 | 0.12 | mg/L | 1 | | 6010B | Total Recoverable |
| Chloride | 18 | | 3.0 | 0.25 | mg/L | 1 | | 300.0 | Total/NA |
| Nitrate as N | 2.5 | | 0.50 | 0.042 | mg/L | 1 | | 300.0 | Total/NA |

## Client Sample ID: MW-15B — Lab Sample ID: 280-117969-3

| Analyte | Result | Qualifier | NONE | NONE | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Field pH | 6.67 | | | | SU | 1 | | Field Sampling | Total/NA |

This Detection Summary does not include radiochemical test results.

# Detection Summary

Client: Waste Management
Project/Site: FL26|Vista

TestAmerica Job ID: 280-117909-1

## Client Sample ID: MW-15B (Continued) — Lab Sample ID: 280-117969-3

| Analyte | Result | Qualifier | NONE | NONE | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Field Conductivity | 105 | | | | umhos/cm | 1 | | Field Sampling | Total/NA |
| Field Temperature | 23.6 | | | | Degrees C | 1 | | Field Sampling | Total/NA |
| Field Turbidity | 11.56 | | | | NTU | 1 | | Field Sampling | Total/NA |
| Field Dissolved Oxygen | 2.4 | | | | mg/L | 1 | | Field Sampling | Total/NA |
| Field Color | SLT TAN | | | | No Unit | 1 | | Field Sampling | Total/NA |

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Sodium | 4.2 | | 1.0 | 0.12 | mg/L | 1 | | 6010B | Total Recoverable |
| Chloride | 4.6 | V | 3.0 | 0.25 | mg/L | 1 | | 300.0 | Total/NA |
| Nitrate as N | 2.9 | | 0.50 | 0.042 | mg/L | 1 | | 300.0 | Total/NA |

## Client Sample ID: MW-11B — Lab Sample ID: 280-117969-4

| Analyte | Result | Qualifier | NONE | NONE | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Field pH | 7.84 | | | | SU | 1 | | Field Sampling | Total/NA |
| Field Conductivity | 330 | | | | umhos/cm | 1 | | Field Sampling | Total/NA |
| Field Temperature | 22.8 | | | | Degrees C | 1 | | Field Sampling | Total/NA |
| Field Turbidity | 7.01 | | | | NTU | 1 | | Field Sampling | Total/NA |
| Field Dissolved Oxygen | 0.3 | | | | mg/L | 1 | | Field Sampling | Total/NA |
| Field Color | NONE | | | | No Unit | 1 | | Field Sampling | Total/NA |

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Sodium | 7.2 | | 1.0 | 0.12 | mg/L | 1 | | 6010B | Total Recoverable |
| Chloride | 5.9 | V | 3.0 | 0.25 | mg/L | 1 | | 300.0 | Total/NA |
| Nitrate as N | 0.061 | I V | 0.50 | 0.042 | mg/L | 1 | | 300.0 | Total/NA |
| Ammonia as N | 0.025 | I | 0.10 | 0.022 | mg/L | 1 | | 350.1 | Total/NA |

## Client Sample ID: MW-8R — Lab Sample ID: 280-117970-1

| Analyte | Result | Qualifier | NONE | NONE | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Groundwater Elevation | 58.07 | | | | ft/msl | 1 | | Field Sampling | Total/NA |
| Field pH | 6.84 | | | | SU | 1 | | Field Sampling | Total/NA |
| Field Conductivity | 198 | | | | umhos/cm | 1 | | Field Sampling | Total/NA |
| Field Temperature | 24.4 | | | | Degrees C | 1 | | Field Sampling | Total/NA |
| Field Turbidity | 4.44 | | | | NTU | 1 | | Field Sampling | Total/NA |
| Field Dissolved Oxygen | 1.7 | | | | mg/L | 1 | | Field Sampling | Total/NA |
| Field Color | NONE | | | | No Unit | 1 | | Field Sampling | Total/NA |

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Carbon disulfide | 0.29 | I V | 2.0 | 0.19 | ug/L | 1 | | 8260C | Total/NA |
| Barium | 14 | | 10 | 0.82 | ug/L | 1 | | 6010B | Total Recoverable |
| Chromium | 1.3 | I | 10 | 0.66 | ug/L | 1 | | 6010B | Total Recoverable |
| Iron | 38 | I | 100 | 22 | ug/L | 1 | | 6010B | Total Recoverable |
| Vanadium | 2.2 | I | 10 | 1.1 | ug/L | 1 | | 6010B | Total Recoverable |
| Zinc | 4.8 | I | 20 | 4.5 | ug/L | 1 | | 6010B | Total Recoverable |
| Sodium | 9.2 | | 1.0 | 0.12 | mg/L | 1 | | 6010B | Total Recoverable |

This Detection Summary does not include radiochemical test results.

# Detection Summary

Client: Waste Management
Project/Site: FL26|Vista

TestAmerica Job ID: 280-117909-1

## Client Sample ID: MW-8R (Continued) — Lab Sample ID: 280-117970-1

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Antimony | 0.91 | I | 2.0 | 0.40 | ug/L | 1 | | 6020 | Total Recoverable |
| Arsenic | 0.55 | I | 5.0 | 0.33 | ug/L | 1 | | 6020 | Total Recoverable |
| Chloride | 3.8 | V | 3.0 | 0.25 | mg/L | 1 | | 300.0 | Total/NA |
| Nitrate as N | 2.2 | | 0.50 | 0.042 | mg/L | 1 | | 300.0 | Total/NA |
| Total Dissolved Solids | 120 | | 10 | 4.7 | mg/L | 1 | | SM 2540C | Total/NA |

## Client Sample ID: MW-2AR — Lab Sample ID: 280-117970-2

| Analyte | Result | Qualifier | NONE | NONE | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Groundwater Elevation | 57.10 | | | | ft/msl | 1 | | Field Sampling | Total/NA |
| Field pH | 5.33 | | | | SU | 1 | | Field Sampling | Total/NA |
| Field Conductivity | 52 | | | | umhos/cm | 1 | | Field Sampling | Total/NA |
| Field Temperature | 22.6 | | | | Degrees C | 1 | | Field Sampling | Total/NA |
| Field Turbidity | 3.66 | | | | NTU | 1 | | Field Sampling | Total/NA |
| Field Dissolved Oxygen | 5.5 | | | | mg/L | 1 | | Field Sampling | Total/NA |
| Field Color | NONE | | | | No Unit | 1 | | Field Sampling | Total/NA |

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Barium | 16 | | 10 | 0.82 | ug/L | 1 | | 6010B | Total Recoverable |
| Chromium | 1.4 | I | 10 | 0.66 | ug/L | 1 | | 6010B | Total Recoverable |
| Iron | 84 | I | 100 | 22 | ug/L | 1 | | 6010B | Total Recoverable |
| Vanadium | 1.1 | I | 10 | 1.1 | ug/L | 1 | | 6010B | Total Recoverable |
| Sodium | 1.6 | V | 1.0 | 0.12 | mg/L | 1 | | 6010B | Total Recoverable |
| Chloride | 1.9 | I V | 3.0 | 0.25 | mg/L | 1 | | 300.0 | Total/NA |
| Nitrate as N | 0.42 | I V | 0.50 | 0.042 | mg/L | 1 | | 300.0 | Total/NA |
| Total Dissolved Solids | 30 | | 10 | 4.7 | mg/L | 1 | | SM 2540C | Total/NA |

## Client Sample ID: MW-6AR — Lab Sample ID: 280-117970-3

| Analyte | Result | Qualifier | NONE | NONE | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Groundwater Elevation | 56.21 | | | | ft/msl | 1 | | Field Sampling | Total/NA |
| Field pH | 5.48 | | | | SU | 1 | | Field Sampling | Total/NA |
| Field Conductivity | 214 | | | | umhos/cm | 1 | | Field Sampling | Total/NA |
| Field Temperature | 23.1 | | | | Degrees C | 1 | | Field Sampling | Total/NA |
| Field Turbidity | 3.30 | | | | NTU | 1 | | Field Sampling | Total/NA |
| Field Dissolved Oxygen | 2.6 | | | | mg/L | 1 | | Field Sampling | Total/NA |
| Field Color | NONE | | | | No Unit | 1 | | Field Sampling | Total/NA |

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Barium | 21 | | 10 | 0.82 | ug/L | 1 | | 6010B | Total Recoverable |
| Cadmium | 0.56 | I | 5.0 | 0.45 | ug/L | 1 | | 6010B | Total Recoverable |
| Chromium | 1.2 | I | 10 | 0.66 | ug/L | 1 | | 6010B | Total Recoverable |
| Sodium | 10 | | 1.0 | 0.12 | mg/L | 1 | | 6010B | Total Recoverable |

This Detection Summary does not include radiochemical test results.

## Client Sample ID: MW-6AR (Continued) — Lab Sample ID: 280-117970-3

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Thallium | 0.051 | I | 1.0 | 0.050 | ug/L | 1 | | 6020 | Total Recoverable |
| Mercury | 7.2 | | 0.20 | 0.027 | ug/L | 1 | | 7470A | Total/NA |
| Chloride | 24 | | 3.0 | 0.25 | mg/L | 1 | | 300.0 | Total/NA |
| Nitrate as N | 7.9 | | 0.50 | 0.042 | mg/L | 1 | | 300.0 | Total/NA |
| Total Dissolved Solids | 130 | | 10 | 4.7 | mg/L | 1 | | SM 2540C | Total/NA |

## Client Sample ID: MW-15A — Lab Sample ID: 280-117970-4

| Analyte | Result | Qualifier | NONE | NONE | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Field pH | 5.36 | | | | SU | 1 | | Field Sampling | Total/NA |
| Field Conductivity | 74 | | | | umhos/cm | 1 | | Field Sampling | Total/NA |
| Field Temperature | 23.9 | | | | Degrees C | 1 | | Field Sampling | Total/NA |
| Field Turbidity | 3.58 | | | | NTU | 1 | | Field Sampling | Total/NA |
| Field Dissolved Oxygen | 3.4 | | | | mg/L | 1 | | Field Sampling | Total/NA |
| Field Color | NONE | | | | No Unit | 1 | | Field Sampling | Total/NA |

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Barium | 5.2 | I | 10 | 0.82 | ug/L | 1 | | 6010B | Total Recoverable |
| Chromium | 0.98 | I | 10 | 0.66 | ug/L | 1 | | 6010B | Total Recoverable |
| Iron | 86 | I | 100 | 22 | ug/L | 1 | | 6010B | Total Recoverable |
| Sodium | 5.0 | | 1.0 | 0.12 | mg/L | 1 | | 6010B | Total Recoverable |
| Chloride | 9.2 | | 3.0 | 0.25 | mg/L | 1 | | 300.0 | Total/NA |
| Nitrate as N | 1.8 | | 0.50 | 0.042 | mg/L | 1 | | 300.0 | Total/NA |
| Total Dissolved Solids | 37 | | 10 | 4.7 | mg/L | 1 | | SM 2540C | Total/NA |

## Client Sample ID: MW-11A — Lab Sample ID: 280-117970-5

| Analyte | Result | Qualifier | NONE | NONE | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Field pH | 7.76 | | | | SU | 1 | | Field Sampling | Total/NA |
| Field Conductivity | 304 | | | | umhos/cm | 1 | | Field Sampling | Total/NA |
| Field Temperature | 23.0 | | | | Degrees C | 1 | | Field Sampling | Total/NA |
| Field Turbidity | 7.91 | | | | NTU | 1 | | Field Sampling | Total/NA |
| Field Dissolved Oxygen | 2.5 | | | | mg/L | 1 | | Field Sampling | Total/NA |
| Field Color | NONE | | | | No Unit | 1 | | Field Sampling | Total/NA |

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Barium | 12 | | 10 | 0.82 | ug/L | 1 | | 6010B | Total Recoverable |
| Chromium | 3.3 | I | 10 | 0.66 | ug/L | 1 | | 6010B | Total Recoverable |
| Copper | 4.6 | I | 15 | 4.2 | ug/L | 1 | | 6010B | Total Recoverable |
| Iron | 110 | | 100 | 22 | ug/L | 1 | | 6010B | Total Recoverable |
| Vanadium | 3.5 | I | 10 | 1.1 | ug/L | 1 | | 6010B | Total Recoverable |
| Zinc | 11 | I | 20 | 4.5 | ug/L | 1 | | 6010B | Total Recoverable |
| Sodium | 8.9 | | 1.0 | 0.12 | mg/L | 1 | | 6010B | Total Recoverable |

This Detection Summary does not include radiochemical test results.

# Detection Summary

Client: Waste Management
Project/Site: FL26|Vista

TestAmerica Job ID: 280-117909-1

## Client Sample ID: MW-11A (Continued) — Lab Sample ID: 280-117970-5

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Arsenic | 2.0 | I | 5.0 | 0.33 | ug/L | 1 | | 6020 | Total Recoverable |
| Thallium | 0.47 | I | 1.0 | 0.050 | ug/L | 1 | | 6020 | Total Recoverable |
| Chloride | 5.6 | V | 3.0 | 0.25 | mg/L | 1 | | 300.0 | Total/NA |
| Nitrate as N | 5.1 | | 0.50 | 0.042 | mg/L | 1 | | 300.0 | Total/NA |
| Total Dissolved Solids | 180 | | 10 | 4.7 | mg/L | 1 | | SM 2540C | Total/NA |

## Client Sample ID: TRIP BLANK1 — Lab Sample ID: 280-117970-6

No Detections.

## Client Sample ID: Equipment Blank — Lab Sample ID: 280-118028-1

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Sodium | 0.21 | I V | 1.0 | 0.12 | mg/L | 1 | | 6010B | Total Recoverable |
| Antimony | 0.52 | I | 2.0 | 0.40 | ug/L | 1 | | 6020 | Total Recoverable |
| Total Dissolved Solids | 7.0 | I | 10 | 4.7 | mg/L | 1 | | SM 2540C | Total/NA |

## Client Sample ID: MW-14A — Lab Sample ID: 280-118028-2

| Analyte | Result | Qualifier | NONE | NONE | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Field pH | 5.84 | | | | SU | 1 | | Field Sampling | Total/NA |
| Field Conductivity | 75 | | | | umhos/cm | 1 | | Field Sampling | Total/NA |
| Field Temperature | 22.8 | | | | Degrees C | 1 | | Field Sampling | Total/NA |
| Field Turbidity | 4.16 | | | | NTU | 1 | | Field Sampling | Total/NA |
| Field Dissolved Oxygen | 2.3 | | | | mg/L | 1 | | Field Sampling | Total/NA |
| Field Color | NONE | | | | No Unit | 1 | | Field Sampling | Total/NA |

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Barium | 13 | | 10 | 0.82 | ug/L | 1 | | 6010B | Total Recoverable |
| Chromium | 3.2 | I | 10 | 0.66 | ug/L | 1 | | 6010B | Total Recoverable |
| Lead | 3.0 | I | 9.0 | 2.7 | ug/L | 1 | | 6010B | Total Recoverable |
| Iron | 650 | | 100 | 22 | ug/L | 1 | | 6010B | Total Recoverable |
| Vanadium | 2.9 | I | 10 | 1.1 | ug/L | 1 | | 6010B | Total Recoverable |
| Sodium | 4.8 | | 1.0 | 0.12 | mg/L | 1 | | 6010B | Total Recoverable |
| Arsenic | 1.6 | I | 5.0 | 0.33 | ug/L | 1 | | 6020 | Total Recoverable |
| Thallium | 0.21 | I | 1.0 | 0.050 | ug/L | 1 | | 6020 | Total Recoverable |
| Chloride | 9.2 | | 3.0 | 0.25 | mg/L | 1 | | 300.0 | Total/NA |
| Nitrate as N | 2.7 | | 0.50 | 0.042 | mg/L | 1 | | 300.0 | Total/NA |
| Total Dissolved Solids | 67 | | 10 | 4.7 | mg/L | 1 | | SM 2540C | Total/NA |

## Client Sample ID: MW-9A — Lab Sample ID: 280-118028-3

This Detection Summary does not include radiochemical test results.

## Client Sample ID: MW-9A (Continued) — Lab Sample ID: 280-118028-3

| Analyte | Result | Qualifier | NONE | NONE | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Field pH | 7.07 | | | | SU | 1 | | Field Sampling | Total/NA |
| Field Conductivity | 103 | | | | umhos/cm | 1 | | Field Sampling | Total/NA |
| Field Temperature | 22.6 | | | | Degrees C | 1 | | Field Sampling | Total/NA |
| Field Turbidity | 5.45 | | | | NTU | 1 | | Field Sampling | Total/NA |
| Field Dissolved Oxygen | 2.1 | | | | mg/L | 1 | | Field Sampling | Total/NA |
| Field Color | NONE | | | | No Unit | 1 | | Field Sampling | Total/NA |

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Barium | 5.1 | I | 10 | 0.82 | ug/L | 1 | | 6010B | Total Recoverable |
| Chromium | 4.7 | I | 10 | 0.66 | ug/L | 1 | | 6010B | Total Recoverable |
| Iron | 470 | | 100 | 22 | ug/L | 1 | | 6010B | Total Recoverable |
| Vanadium | 3.2 | I | 10 | 1.1 | ug/L | 1 | | 6010B | Total Recoverable |
| Sodium | 3.1 | | 1.0 | 0.12 | mg/L | 1 | | 6010B | Total Recoverable |
| Mercury | 0.030 | I | 0.20 | 0.027 | ug/L | 1 | | 7470A | Total/NA |
| Chloride | 4.2 | | 3.0 | 0.25 | mg/L | 1 | | 300.0 | Total/NA |
| Nitrate as N | 0.53 | | 0.50 | 0.042 | mg/L | 1 | | 300.0 | Total/NA |
| Total Dissolved Solids | 71 | | 10 | 4.7 | mg/L | 1 | | SM 2540C | Total/NA |

## Client Sample ID: TRIP BLANK2 — Lab Sample ID: 280-118028-4

No Detections.

## Client Sample ID: Equipment Blank1 — Lab Sample ID: 280-118029-1

| Analyte | Result | Qualifier | NONE | NONE | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Field pH | 6.84 | | | | SU | 1 | | Field Sampling | Total/NA |
| Field Conductivity | 6 | | | | umhos/cm | 1 | | Field Sampling | Total/NA |
| Field Temperature | 21.6 | | | | Degrees C | 1 | | Field Sampling | Total/NA |
| Field Turbidity | 0.00 | | | | NTU | 1 | | Field Sampling | Total/NA |
| Field Dissolved Oxygen | 0.8 | | | | mg/L | 1 | | Field Sampling | Total/NA |
| Field Color | NONE | | | | No Unit | 1 | | Field Sampling | Total/NA |

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Sodium | 0.15 | I | 1.0 | 0.12 | mg/L | 1 | | 6010B | Total Recoverable |

## Client Sample ID: MW-14B — Lab Sample ID: 280-118029-2

| Analyte | Result | Qualifier | NONE | NONE | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Field pH | 7.78 | | | | SU | 1 | | Field Sampling | Total/NA |
| Field Conductivity | 141 | | | | umhos/cm | 1 | | Field Sampling | Total/NA |
| Field Temperature | 22.3 | | | | Degrees C | 1 | | Field Sampling | Total/NA |
| Field Turbidity | 3.01 | | | | NTU | 1 | | Field Sampling | Total/NA |
| Field Dissolved Oxygen | 0.2 | | | | mg/L | 1 | | Field Sampling | Total/NA |
| Field Color | NONE | | | | No Unit | 1 | | Field Sampling | Total/NA |

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Sodium | 5.9 | | 1.0 | 0.12 | mg/L | 1 | | 6010B | Total Recoverable |
| Chloride | 7.1 | | 3.0 | 0.25 | mg/L | 1 | | 300.0 | Total/NA |

This Detection Summary does not include radiochemical test results.

# Detection Summary

Client: Waste Management
Project/Site: FL26|Vista

TestAmerica Job ID: 280-117909-1

## Client Sample ID: MW-14B (Continued) — Lab Sample ID: 280-118029-2

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Nitrate as N | 0.082 | I | 0.50 | 0.042 | mg/L | 1 | | 300.0 | Total/NA |

## Client Sample ID: MW-9B — Lab Sample ID: 280-118029-3

| Analyte | Result | Qualifier | NONE | NONE | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Field pH | 7.74 | | | | SU | 1 | | Field Sampling | Total/NA |
| Field Conductivity | 382 | | | | umhos/cm | 1 | | Field Sampling | Total/NA |
| Field Temperature | 21.9 | | | | Degrees C | 1 | | Field Sampling | Total/NA |
| Field Turbidity | 5.73 | | | | NTU | 1 | | Field Sampling | Total/NA |
| Field Dissolved Oxygen | 0.2 | | | | mg/L | 1 | | Field Sampling | Total/NA |
| Field Color | NONE | | | | No Unit | 1 | | Field Sampling | Total/NA |

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Sodium | 11 | | 1.0 | 0.12 | mg/L | 1 | | 6010B | Total Recoverable |
| Chloride | 25 | | 3.0 | 0.25 | mg/L | 1 | | 300.0 | Total/NA |
| Nitrate as N | 0.15 | I | 0.50 | 0.042 | mg/L | 1 | | 300.0 | Total/NA |
| Ammonia as N | 0.030 | I | 0.10 | 0.022 | mg/L | 1 | | 350.1 | Total/NA |

This Detection Summary does not include radiochemical test results.

# Method Summary

Client: Waste Management
Project/Site: FL26|Vista

TestAmerica Job ID: 280-117909-1

| Method | Method Description | Protocol | Laboratory |
|---|---|---|---|
| 8260C | Volatile Organic Compounds by GC/MS | SW846 | TAL BUF |
| 8011 | EDB, DBCP, and 1,2,3-TCP (GC) | SW846 | TAL DEN |
| 6010B | Metals (ICP) | SW846 | TAL DEN |
| 6020 | Metals (ICP/MS) | SW846 | TAL DEN |
| 7470A | Mercury (CVAA) | SW846 | TAL DEN |
| 300.0 | Anions, Ion Chromatography | MCAWW | TAL DEN |
| 350.1 | Nitrogen, Ammonia | MCAWW | TAL DEN |
| SM 2540C | Solids, Total Dissolved (TDS) | SM | TAL DEN |
| Field Sampling | Field Sampling | EPA | TAL DEN |
| 3005A | Preparation, Total Recoverable or Dissolved Metals | SW846 | TAL DEN |
| 5030C | Purge and Trap | SW846 | TAL BUF |
| 7470A | Preparation, Mercury | SW846 | TAL DEN |
| 8011 | Microextraction | SW846 | TAL DEN |

**Protocol 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.

**Laboratory References:**

TAL BUF = TestAmerica Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600
TAL DEN = TestAmerica Denver, 4955 Yarrow Street, Arvada, CO 80002, TEL (303)736-0100

# Sample Summary

Client: Waste Management
Project/Site: FL26|Vista

TestAmerica Job ID: 280-117909-1

| Lab Sample ID | Client Sample ID | Matrix | Collected | Received |
|---|---|---|---|---|
| 280-117909-1 | MW-3B | Water | 12/06/18 08:26 | 12/07/18 09:10 |
| 280-117909-2 | MW-4B | Water | 12/06/18 09:40 | 12/07/18 09:10 |
| 280-117909-3 | MW-5B | Water | 12/06/18 11:01 | 12/07/18 09:10 |
| 280-117909-4 | MW-7B | Water | 12/06/18 12:22 | 12/07/18 09:10 |
| 280-117909-5 | MW-1B | Water | 12/06/18 13:41 | 12/07/18 09:10 |
| 280-117920-1 | MW-3A | Water | 12/06/18 09:00 | 12/07/18 09:10 |
| 280-117920-2 | MW-4A | Water | 12/06/18 10:20 | 12/07/18 09:10 |
| 280-117920-3 | MW-5A | Water | 12/06/18 11:49 | 12/07/18 09:10 |
| 280-117920-4 | MW-7A | Water | 12/06/18 13:04 | 12/07/18 09:10 |
| 280-117920-5 | MW-1A | Water | 12/06/18 14:18 | 12/07/18 09:10 |
| 280-117920-6 | TRIP BLANK | Water | 12/06/18 00:00 | 12/07/18 09:10 |
| 280-117969-1 | MW-2B | Water | 12/07/18 08:41 | 12/08/18 10:40 |
| 280-117969-2 | MW-6BR | Water | 12/07/18 10:01 | 12/08/18 10:40 |
| 280-117969-3 | MW-15B | Water | 12/07/18 11:16 | 12/08/18 10:40 |
| 280-117969-4 | MW-11B | Water | 12/07/18 12:31 | 12/08/18 10:40 |
| 280-117970-1 | MW-8R | Water | 12/07/18 07:27 | 12/08/18 10:40 |
| 280-117970-2 | MW-2AR | Water | 12/07/18 08:06 | 12/08/18 10:40 |
| 280-117970-3 | MW-6AR | Water | 12/07/18 09:27 | 12/08/18 10:40 |
| 280-117970-4 | MW-15A | Water | 12/07/18 10:44 | 12/08/18 10:40 |
| 280-117970-5 | MW-11A | Water | 12/07/18 11:55 | 12/08/18 10:40 |
| 280-117970-6 | TRIP BLANK1 | Water | 12/07/18 00:00 | 12/08/18 10:40 |
| 280-118028-1 | Equipment Blank | Water | 12/10/18 09:11 | 12/11/18 09:20 |
| 280-118028-2 | MW-14A | Water | 12/10/18 08:40 | 12/11/18 09:20 |
| 280-118028-3 | MW-9A | Water | 12/10/18 07:27 | 12/11/18 09:20 |
| 280-118028-4 | TRIP BLANK2 | Water | 12/10/18 00:00 | 12/11/18 09:20 |
| 280-118029-1 | Equipment Blank1 | Water | 12/10/18 09:11 | 12/11/18 09:20 |
| 280-118029-2 | MW-14B | Water | 12/10/18 09:21 | 12/11/18 09:20 |
| 280-118029-3 | MW-9B | Water | 12/10/18 08:01 | 12/11/18 09:20 |

# Client Sample Results

Client: Waste Management
Project/Site: FL26|Vista

TestAmerica Job ID: 280-117909-1

## Method: 8260C - Volatile Organic Compounds by GC/MS

**Client Sample ID: MW-3A**
**Date Collected: 12/06/18 09:00**
**Date Received: 12/07/18 09:10**

**Lab Sample ID: 280-117920-1**
**Matrix: Water**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | 3.0 | U | 20 | 3.0 | ug/L | | | 12/13/18 21:47 | 1 |
| Acrylonitrile | 0.83 | U | 20 | 0.83 | ug/L | | | 12/13/18 21:47 | 1 |
| Benzene | 0.41 | U | 1.0 | 0.41 | ug/L | | | 12/13/18 21:47 | 1 |
| Bromochloromethane | 0.87 | U | 1.0 | 0.87 | ug/L | | | 12/13/18 21:47 | 1 |
| Bromodichloromethane | 0.39 | U | 1.0 | 0.39 | ug/L | | | 12/13/18 21:47 | 1 |
| Bromoform | 0.26 | U | 1.0 | 0.26 | ug/L | | | 12/13/18 21:47 | 1 |
| Bromomethane | 0.69 | U | 2.0 | 0.69 | ug/L | | | 12/13/18 21:47 | 1 |
| 2-Butanone (MEK) | 1.3 | U | 6.0 | 1.3 | ug/L | | | 12/13/18 21:47 | 1 |
| Carbon disulfide | 0.19 | U | 2.0 | 0.19 | ug/L | | | 12/13/18 21:47 | 1 |
| Carbon tetrachloride | 0.27 | U | 1.0 | 0.27 | ug/L | | | 12/13/18 21:47 | 1 |
| Chlorobenzene | 0.75 | U | 1.0 | 0.75 | ug/L | | | 12/13/18 21:47 | 1 |
| Dibromochloromethane | 0.32 | U | 1.0 | 0.32 | ug/L | | | 12/13/18 21:47 | 1 |
| Chloroethane | 0.32 | U | 2.0 | 0.32 | ug/L | | | 12/13/18 21:47 | 1 |
| Chloroform | 0.34 | U | 1.0 | 0.34 | ug/L | | | 12/13/18 21:47 | 1 |
| Chloromethane | 0.35 | U | 2.0 | 0.35 | ug/L | | | 12/13/18 21:47 | 1 |
| Dibromomethane | 0.41 | U | 1.0 | 0.41 | ug/L | | | 12/13/18 21:47 | 1 |
| 1,2-Dichlorobenzene | 0.79 | U | 1.0 | 0.79 | ug/L | | | 12/13/18 21:47 | 1 |
| 1,4-Dichlorobenzene | 0.84 | U | 1.0 | 0.84 | ug/L | | | 12/13/18 21:47 | 1 |
| trans-1,4-Dichloro-2-butene | 0.22 | U | 3.0 | 0.22 | ug/L | | | 12/13/18 21:47 | 1 |
| 1,1-Dichloroethane | 0.38 | U | 1.0 | 0.38 | ug/L | | | 12/13/18 21:47 | 1 |
| 1,2-Dichloroethane | 0.21 | U | 1.0 | 0.21 | ug/L | | | 12/13/18 21:47 | 1 |
| cis-1,2-Dichloroethene | 0.81 | U | 1.0 | 0.81 | ug/L | | | 12/13/18 21:47 | 1 |
| trans-1,2-Dichloroethene | 0.90 | U | 1.0 | 0.90 | ug/L | | | 12/13/18 21:47 | 1 |
| 1,1-Dichloroethene | 0.29 | U | 1.0 | 0.29 | ug/L | | | 12/13/18 21:47 | 1 |
| 1,2-Dichloropropane | 0.72 | U | 1.0 | 0.72 | ug/L | | | 12/13/18 21:47 | 1 |
| cis-1,3-Dichloropropene | 0.36 | U | 1.0 | 0.36 | ug/L | | | 12/13/18 21:47 | 1 |
| trans-1,3-Dichloropropene | 0.37 | U | 3.0 | 0.37 | ug/L | | | 12/13/18 21:47 | 1 |
| Ethylbenzene | 0.74 | U | 1.0 | 0.74 | ug/L | | | 12/13/18 21:47 | 1 |
| 2-Hexanone | 1.2 | U | 5.0 | 1.2 | ug/L | | | 12/13/18 21:47 | 1 |
| Iodomethane | 0.30 | U | 1.0 | 0.30 | ug/L | | | 12/13/18 21:47 | 1 |
| Methylene Chloride | 0.44 | U | 2.0 | 0.44 | ug/L | | | 12/13/18 21:47 | 1 |
| 4-Methyl-2-pentanone (MIBK) | 2.1 | U | 5.0 | 2.1 | ug/L | | | 12/13/18 21:47 | 1 |
| Styrene | 0.73 | U | 1.0 | 0.73 | ug/L | | | 12/13/18 21:47 | 1 |
| 1,1,1,2-Tetrachloroethane | 0.35 | U | 1.0 | 0.35 | ug/L | | | 12/13/18 21:47 | 1 |
| 1,1,2,2-Tetrachloroethane | 0.21 | U | 1.0 | 0.21 | ug/L | | | 12/13/18 21:47 | 1 |
| Tetrachloroethene | 0.36 | U | 1.0 | 0.36 | ug/L | | | 12/13/18 21:47 | 1 |
| Toluene | 0.51 | U | 1.0 | 0.51 | ug/L | | | 12/13/18 21:47 | 1 |
| 1,1,1-Trichloroethane | 0.82 | U | 1.0 | 0.82 | ug/L | | | 12/13/18 21:47 | 1 |
| 1,1,2-Trichloroethane | 0.23 | U | 1.0 | 0.23 | ug/L | | | 12/13/18 21:47 | 1 |
| Trichloroethene | 0.46 | U | 1.0 | 0.46 | ug/L | | | 12/13/18 21:47 | 1 |
| Trichlorofluoromethane | 0.88 | U | 2.0 | 0.88 | ug/L | | | 12/13/18 21:47 | 1 |
| 1,2,3-Trichloropropane | 0.89 | U | 2.5 | 0.89 | ug/L | | | 12/13/18 21:47 | 1 |
| Vinyl acetate | 0.85 | U | 3.0 | 0.85 | ug/L | | | 12/13/18 21:47 | 1 |
| Vinyl chloride | 0.90 | U | 1.0 | 0.90 | ug/L | | | 12/13/18 21:47 | 1 |
| Xylenes (total) | 0.66 | U | 2.0 | 0.66 | ug/L | | | 12/13/18 21:47 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1,2-Dichloroethane-d4 (Surr)* | *112* | | *77 - 120* | | *12/13/18 21:47* | *1* |
| *Toluene-d8 (Surr)* | *94* | | *80 - 120* | | *12/13/18 21:47* | *1* |

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

**Client Sample ID: MW-3A**
**Date Collected: 12/06/18 09:00**
**Date Received: 12/07/18 09:10**

**Lab Sample ID: 280-117920-1**
**Matrix: Water**

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *85* | | *73 - 120* | | *12/13/18 21:47* | *1* |
| *Dibromofluoromethane (Surr)* | *97* | | *75 - 123* | | *12/13/18 21:47* | *1* |

**Client Sample ID: MW-4A**
**Date Collected: 12/06/18 10:20**
**Date Received: 12/07/18 09:10**

**Lab Sample ID: 280-117920-2**
**Matrix: Water**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | 3.0 | U | 20 | 3.0 | ug/L | | | 12/13/18 22:14 | 1 |
| Acrylonitrile | 0.83 | U | 20 | 0.83 | ug/L | | | 12/13/18 22:14 | 1 |
| Benzene | 0.41 | U | 1.0 | 0.41 | ug/L | | | 12/13/18 22:14 | 1 |
| Bromochloromethane | 0.87 | U | 1.0 | 0.87 | ug/L | | | 12/13/18 22:14 | 1 |
| Bromodichloromethane | 0.39 | U | 1.0 | 0.39 | ug/L | | | 12/13/18 22:14 | 1 |
| Bromoform | 0.26 | U | 1.0 | 0.26 | ug/L | | | 12/13/18 22:14 | 1 |
| Bromomethane | 0.69 | U | 2.0 | 0.69 | ug/L | | | 12/13/18 22:14 | 1 |
| 2-Butanone (MEK) | 1.3 | U | 6.0 | 1.3 | ug/L | | | 12/13/18 22:14 | 1 |
| Carbon disulfide | 0.19 | U | 2.0 | 0.19 | ug/L | | | 12/13/18 22:14 | 1 |
| Carbon tetrachloride | 0.27 | U | 1.0 | 0.27 | ug/L | | | 12/13/18 22:14 | 1 |
| Chlorobenzene | 0.75 | U | 1.0 | 0.75 | ug/L | | | 12/13/18 22:14 | 1 |
| Dibromochloromethane | 0.32 | U | 1.0 | 0.32 | ug/L | | | 12/13/18 22:14 | 1 |
| Chloroethane | 0.32 | U | 2.0 | 0.32 | ug/L | | | 12/13/18 22:14 | 1 |
| Chloroform | 0.34 | U | 1.0 | 0.34 | ug/L | | | 12/13/18 22:14 | 1 |
| Chloromethane | 0.35 | U | 2.0 | 0.35 | ug/L | | | 12/13/18 22:14 | 1 |
| Dibromomethane | 0.41 | U | 1.0 | 0.41 | ug/L | | | 12/13/18 22:14 | 1 |
| 1,2-Dichlorobenzene | 0.79 | U | 1.0 | 0.79 | ug/L | | | 12/13/18 22:14 | 1 |
| 1,4-Dichlorobenzene | 0.84 | U | 1.0 | 0.84 | ug/L | | | 12/13/18 22:14 | 1 |
| trans-1,4-Dichloro-2-butene | 0.22 | U | 3.0 | 0.22 | ug/L | | | 12/13/18 22:14 | 1 |
| 1,1-Dichloroethane | 0.38 | U | 1.0 | 0.38 | ug/L | | | 12/13/18 22:14 | 1 |
| 1,2-Dichloroethane | 0.21 | U | 1.0 | 0.21 | ug/L | | | 12/13/18 22:14 | 1 |
| cis-1,2-Dichloroethene | 0.81 | U | 1.0 | 0.81 | ug/L | | | 12/13/18 22:14 | 1 |
| trans-1,2-Dichloroethene | 0.90 | U | 1.0 | 0.90 | ug/L | | | 12/13/18 22:14 | 1 |
| 1,1-Dichloroethene | 0.29 | U | 1.0 | 0.29 | ug/L | | | 12/13/18 22:14 | 1 |
| 1,2-Dichloropropane | 0.72 | U | 1.0 | 0.72 | ug/L | | | 12/13/18 22:14 | 1 |
| cis-1,3-Dichloropropene | 0.36 | U | 1.0 | 0.36 | ug/L | | | 12/13/18 22:14 | 1 |
| trans-1,3-Dichloropropene | 0.37 | U | 3.0 | 0.37 | ug/L | | | 12/13/18 22:14 | 1 |
| Ethylbenzene | 0.74 | U | 1.0 | 0.74 | ug/L | | | 12/13/18 22:14 | 1 |
| 2-Hexanone | 1.2 | U | 5.0 | 1.2 | ug/L | | | 12/13/18 22:14 | 1 |
| Iodomethane | 0.30 | U | 1.0 | 0.30 | ug/L | | | 12/13/18 22:14 | 1 |
| Methylene Chloride | 0.44 | U | 2.0 | 0.44 | ug/L | | | 12/13/18 22:14 | 1 |
| 4-Methyl-2-pentanone (MIBK) | 2.1 | U | 5.0 | 2.1 | ug/L | | | 12/13/18 22:14 | 1 |
| Styrene | 0.73 | U | 1.0 | 0.73 | ug/L | | | 12/13/18 22:14 | 1 |
| 1,1,1,2-Tetrachloroethane | 0.35 | U | 1.0 | 0.35 | ug/L | | | 12/13/18 22:14 | 1 |
| 1,1,2,2-Tetrachloroethane | 0.21 | U | 1.0 | 0.21 | ug/L | | | 12/13/18 22:14 | 1 |
| Tetrachloroethene | 0.36 | U | 1.0 | 0.36 | ug/L | | | 12/13/18 22:14 | 1 |
| Toluene | 0.51 | U | 1.0 | 0.51 | ug/L | | | 12/13/18 22:14 | 1 |
| 1,1,1-Trichloroethane | 0.82 | U | 1.0 | 0.82 | ug/L | | | 12/13/18 22:14 | 1 |
| 1,1,2-Trichloroethane | 0.23 | U | 1.0 | 0.23 | ug/L | | | 12/13/18 22:14 | 1 |
| Trichloroethene | 0.46 | U | 1.0 | 0.46 | ug/L | | | 12/13/18 22:14 | 1 |
| Trichlorofluoromethane | 0.88 | U | 2.0 | 0.88 | ug/L | | | 12/13/18 22:14 | 1 |
| 1,2,3-Trichloropropane | 0.89 | U | 2.5 | 0.89 | ug/L | | | 12/13/18 22:14 | 1 |

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

**Client Sample ID: MW-4A** — **Lab Sample ID: 280-117920-2**
**Date Collected: 12/06/18 10:20** — **Matrix: Water**
**Date Received: 12/07/18 09:10**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Vinyl acetate | 0.85 | U | 3.0 | 0.85 | ug/L | | | 12/13/18 22:14 | 1 |
| Vinyl chloride | 0.90 | U | 1.0 | 0.90 | ug/L | | | 12/13/18 22:14 | 1 |
| Xylenes (total) | 0.66 | U | 2.0 | 0.66 | ug/L | | | 12/13/18 22:14 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1,2-Dichloroethane-d4 (Surr)* | *115* | | *77 - 120* | | *12/13/18 22:14* | *1* |
| *Toluene-d8 (Surr)* | *93* | | *80 - 120* | | *12/13/18 22:14* | *1* |
| *4-Bromofluorobenzene (Surr)* | *82* | | *73 - 120* | | *12/13/18 22:14* | *1* |
| *Dibromofluoromethane (Surr)* | *102* | | *75 - 123* | | *12/13/18 22:14* | *1* |

**Client Sample ID: MW-5A** — **Lab Sample ID: 280-117920-3**
**Date Collected: 12/06/18 11:49** — **Matrix: Water**
**Date Received: 12/07/18 09:10**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | 3.0 | U | 20 | 3.0 | ug/L | | | 12/13/18 22:42 | 1 |
| Acrylonitrile | 0.83 | U | 20 | 0.83 | ug/L | | | 12/13/18 22:42 | 1 |
| Benzene | 0.41 | U | 1.0 | 0.41 | ug/L | | | 12/13/18 22:42 | 1 |
| Bromochloromethane | 0.87 | U | 1.0 | 0.87 | ug/L | | | 12/13/18 22:42 | 1 |
| Bromodichloromethane | 0.39 | U | 1.0 | 0.39 | ug/L | | | 12/13/18 22:42 | 1 |
| Bromoform | 0.26 | U | 1.0 | 0.26 | ug/L | | | 12/13/18 22:42 | 1 |
| Bromomethane | 0.69 | U | 2.0 | 0.69 | ug/L | | | 12/13/18 22:42 | 1 |
| 2-Butanone (MEK) | 1.3 | U | 6.0 | 1.3 | ug/L | | | 12/13/18 22:42 | 1 |
| Carbon disulfide | 0.19 | U | 2.0 | 0.19 | ug/L | | | 12/13/18 22:42 | 1 |
| Carbon tetrachloride | 0.27 | U | 1.0 | 0.27 | ug/L | | | 12/13/18 22:42 | 1 |
| Chlorobenzene | 0.75 | U | 1.0 | 0.75 | ug/L | | | 12/13/18 22:42 | 1 |
| Dibromochloromethane | 0.32 | U | 1.0 | 0.32 | ug/L | | | 12/13/18 22:42 | 1 |
| Chloroethane | 0.32 | U | 2.0 | 0.32 | ug/L | | | 12/13/18 22:42 | 1 |
| Chloroform | 0.34 | U | 1.0 | 0.34 | ug/L | | | 12/13/18 22:42 | 1 |
| Chloromethane | 0.35 | U | 2.0 | 0.35 | ug/L | | | 12/13/18 22:42 | 1 |
| Dibromomethane | 0.41 | U | 1.0 | 0.41 | ug/L | | | 12/13/18 22:42 | 1 |
| 1,2-Dichlorobenzene | 0.79 | U | 1.0 | 0.79 | ug/L | | | 12/13/18 22:42 | 1 |
| 1,4-Dichlorobenzene | 0.84 | U | 1.0 | 0.84 | ug/L | | | 12/13/18 22:42 | 1 |
| trans-1,4-Dichloro-2-butene | 0.22 | U | 3.0 | 0.22 | ug/L | | | 12/13/18 22:42 | 1 |
| 1,1-Dichloroethane | 0.38 | U | 1.0 | 0.38 | ug/L | | | 12/13/18 22:42 | 1 |
| 1,2-Dichloroethane | 0.21 | U | 1.0 | 0.21 | ug/L | | | 12/13/18 22:42 | 1 |
| cis-1,2-Dichloroethene | 0.81 | U | 1.0 | 0.81 | ug/L | | | 12/13/18 22:42 | 1 |
| trans-1,2-Dichloroethene | 0.90 | U | 1.0 | 0.90 | ug/L | | | 12/13/18 22:42 | 1 |
| 1,1-Dichloroethene | 0.29 | U | 1.0 | 0.29 | ug/L | | | 12/13/18 22:42 | 1 |
| 1,2-Dichloropropane | 0.72 | U | 1.0 | 0.72 | ug/L | | | 12/13/18 22:42 | 1 |
| cis-1,3-Dichloropropene | 0.36 | U | 1.0 | 0.36 | ug/L | | | 12/13/18 22:42 | 1 |
| trans-1,3-Dichloropropene | 0.37 | U | 3.0 | 0.37 | ug/L | | | 12/13/18 22:42 | 1 |
| Ethylbenzene | 0.74 | U | 1.0 | 0.74 | ug/L | | | 12/13/18 22:42 | 1 |
| 2-Hexanone | 1.2 | U | 5.0 | 1.2 | ug/L | | | 12/13/18 22:42 | 1 |
| Iodomethane | 0.30 | U | 1.0 | 0.30 | ug/L | | | 12/13/18 22:42 | 1 |
| Methylene Chloride | 0.44 | U | 2.0 | 0.44 | ug/L | | | 12/13/18 22:42 | 1 |
| 4-Methyl-2-pentanone (MIBK) | 2.1 | U | 5.0 | 2.1 | ug/L | | | 12/13/18 22:42 | 1 |
| Styrene | 0.73 | U | 1.0 | 0.73 | ug/L | | | 12/13/18 22:42 | 1 |
| 1,1,1,2-Tetrachloroethane | 0.35 | U | 1.0 | 0.35 | ug/L | | | 12/13/18 22:42 | 1 |
| 1,1,2,2-Tetrachloroethane | 0.21 | U | 1.0 | 0.21 | ug/L | | | 12/13/18 22:42 | 1 |
| Tetrachloroethene | 0.36 | U | 1.0 | 0.36 | ug/L | | | 12/13/18 22:42 | 1 |

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

**Client Sample ID: MW-5A** — **Lab Sample ID: 280-117920-3**
**Date Collected: 12/06/18 11:49** — **Matrix: Water**
**Date Received: 12/07/18 09:10**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Toluene | 0.51 | U | 1.0 | 0.51 | ug/L | | | 12/13/18 22:42 | 1 |
| 1,1,1-Trichloroethane | 0.82 | U | 1.0 | 0.82 | ug/L | | | 12/13/18 22:42 | 1 |
| 1,1,2-Trichloroethane | 0.23 | U | 1.0 | 0.23 | ug/L | | | 12/13/18 22:42 | 1 |
| Trichloroethene | 0.46 | U | 1.0 | 0.46 | ug/L | | | 12/13/18 22:42 | 1 |
| Trichlorofluoromethane | 0.88 | U | 2.0 | 0.88 | ug/L | | | 12/13/18 22:42 | 1 |
| 1,2,3-Trichloropropane | 0.89 | U | 2.5 | 0.89 | ug/L | | | 12/13/18 22:42 | 1 |
| Vinyl acetate | 0.85 | U | 3.0 | 0.85 | ug/L | | | 12/13/18 22:42 | 1 |
| Vinyl chloride | 0.90 | U | 1.0 | 0.90 | ug/L | | | 12/13/18 22:42 | 1 |
| Xylenes (total) | 0.66 | U | 2.0 | 0.66 | ug/L | | | 12/13/18 22:42 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1,2-Dichloroethane-d4 (Surr)* | *116* | | *77 - 120* | | *12/13/18 22:42* | *1* |
| *Toluene-d8 (Surr)* | *94* | | *80 - 120* | | *12/13/18 22:42* | *1* |
| *4-Bromofluorobenzene (Surr)* | *82* | | *73 - 120* | | *12/13/18 22:42* | *1* |
| *Dibromofluoromethane (Surr)* | *99* | | *75 - 123* | | *12/13/18 22:42* | *1* |

**Client Sample ID: MW-7A** — **Lab Sample ID: 280-117920-4**
**Date Collected: 12/06/18 13:04** — **Matrix: Water**
**Date Received: 12/07/18 09:10**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | 3.0 | U | 20 | 3.0 | ug/L | | | 12/13/18 23:10 | 1 |
| Acrylonitrile | 0.83 | U | 20 | 0.83 | ug/L | | | 12/13/18 23:10 | 1 |
| Benzene | 0.41 | U | 1.0 | 0.41 | ug/L | | | 12/13/18 23:10 | 1 |
| Bromochloromethane | 0.87 | U | 1.0 | 0.87 | ug/L | | | 12/13/18 23:10 | 1 |
| Bromodichloromethane | 0.39 | U | 1.0 | 0.39 | ug/L | | | 12/13/18 23:10 | 1 |
| Bromoform | 0.26 | U | 1.0 | 0.26 | ug/L | | | 12/13/18 23:10 | 1 |
| Bromomethane | 0.69 | U | 2.0 | 0.69 | ug/L | | | 12/13/18 23:10 | 1 |
| 2-Butanone (MEK) | 1.3 | U | 6.0 | 1.3 | ug/L | | | 12/13/18 23:10 | 1 |
| Carbon disulfide | 0.19 | U | 2.0 | 0.19 | ug/L | | | 12/13/18 23:10 | 1 |
| Carbon tetrachloride | 0.27 | U | 1.0 | 0.27 | ug/L | | | 12/13/18 23:10 | 1 |
| Chlorobenzene | 0.75 | U | 1.0 | 0.75 | ug/L | | | 12/13/18 23:10 | 1 |
| Dibromochloromethane | 0.32 | U | 1.0 | 0.32 | ug/L | | | 12/13/18 23:10 | 1 |
| Chloroethane | 0.32 | U | 2.0 | 0.32 | ug/L | | | 12/13/18 23:10 | 1 |
| Chloroform | 0.34 | U | 1.0 | 0.34 | ug/L | | | 12/13/18 23:10 | 1 |
| Chloromethane | 0.35 | U | 2.0 | 0.35 | ug/L | | | 12/13/18 23:10 | 1 |
| Dibromomethane | 0.41 | U | 1.0 | 0.41 | ug/L | | | 12/13/18 23:10 | 1 |
| 1,2-Dichlorobenzene | 0.79 | U | 1.0 | 0.79 | ug/L | | | 12/13/18 23:10 | 1 |
| 1,4-Dichlorobenzene | 0.84 | U | 1.0 | 0.84 | ug/L | | | 12/13/18 23:10 | 1 |
| trans-1,4-Dichloro-2-butene | 0.22 | U | 3.0 | 0.22 | ug/L | | | 12/13/18 23:10 | 1 |
| 1,1-Dichloroethane | 0.38 | U | 1.0 | 0.38 | ug/L | | | 12/13/18 23:10 | 1 |
| 1,2-Dichloroethane | 0.21 | U | 1.0 | 0.21 | ug/L | | | 12/13/18 23:10 | 1 |
| cis-1,2-Dichloroethene | 0.81 | U | 1.0 | 0.81 | ug/L | | | 12/13/18 23:10 | 1 |
| trans-1,2-Dichloroethene | 0.90 | U | 1.0 | 0.90 | ug/L | | | 12/13/18 23:10 | 1 |
| 1,1-Dichloroethene | 0.29 | U | 1.0 | 0.29 | ug/L | | | 12/13/18 23:10 | 1 |
| 1,2-Dichloropropane | 0.72 | U | 1.0 | 0.72 | ug/L | | | 12/13/18 23:10 | 1 |
| cis-1,3-Dichloropropene | 0.36 | U | 1.0 | 0.36 | ug/L | | | 12/13/18 23:10 | 1 |
| trans-1,3-Dichloropropene | 0.37 | U | 3.0 | 0.37 | ug/L | | | 12/13/18 23:10 | 1 |
| Ethylbenzene | 0.74 | U | 1.0 | 0.74 | ug/L | | | 12/13/18 23:10 | 1 |
| 2-Hexanone | 1.2 | U | 5.0 | 1.2 | ug/L | | | 12/13/18 23:10 | 1 |
| Iodomethane | 0.30 | U | 1.0 | 0.30 | ug/L | | | 12/13/18 23:10 | 1 |

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

**Client Sample ID: MW-7A** — **Lab Sample ID: 280-117920-4**
**Date Collected: 12/06/18 13:04** — **Matrix: Water**
**Date Received: 12/07/18 09:10**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Methylene Chloride | 0.44 | U | 2.0 | 0.44 | ug/L | | | 12/13/18 23:10 | 1 |
| 4-Methyl-2-pentanone (MIBK) | 2.1 | U | 5.0 | 2.1 | ug/L | | | 12/13/18 23:10 | 1 |
| Styrene | 0.73 | U | 1.0 | 0.73 | ug/L | | | 12/13/18 23:10 | 1 |
| 1,1,1,2-Tetrachloroethane | 0.35 | U | 1.0 | 0.35 | ug/L | | | 12/13/18 23:10 | 1 |
| 1,1,2,2-Tetrachloroethane | 0.21 | U | 1.0 | 0.21 | ug/L | | | 12/13/18 23:10 | 1 |
| Tetrachloroethene | 0.36 | U | 1.0 | 0.36 | ug/L | | | 12/13/18 23:10 | 1 |
| Toluene | 0.51 | U | 1.0 | 0.51 | ug/L | | | 12/13/18 23:10 | 1 |
| 1,1,1-Trichloroethane | 0.82 | U | 1.0 | 0.82 | ug/L | | | 12/13/18 23:10 | 1 |
| 1,1,2-Trichloroethane | 0.23 | U | 1.0 | 0.23 | ug/L | | | 12/13/18 23:10 | 1 |
| Trichloroethene | 0.46 | U | 1.0 | 0.46 | ug/L | | | 12/13/18 23:10 | 1 |
| Trichlorofluoromethane | 0.88 | U | 2.0 | 0.88 | ug/L | | | 12/13/18 23:10 | 1 |
| 1,2,3-Trichloropropane | 0.89 | U | 2.5 | 0.89 | ug/L | | | 12/13/18 23:10 | 1 |
| Vinyl acetate | 0.85 | U | 3.0 | 0.85 | ug/L | | | 12/13/18 23:10 | 1 |
| Vinyl chloride | 0.90 | U | 1.0 | 0.90 | ug/L | | | 12/13/18 23:10 | 1 |
| Xylenes (total) | 0.66 | U | 2.0 | 0.66 | ug/L | | | 12/13/18 23:10 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1,2-Dichloroethane-d4 (Surr)* | *111* | | *77 - 120* | | *12/13/18 23:10* | *1* |
| *Toluene-d8 (Surr)* | *92* | | *80 - 120* | | *12/13/18 23:10* | *1* |
| *4-Bromofluorobenzene (Surr)* | *82* | | *73 - 120* | | *12/13/18 23:10* | *1* |
| *Dibromofluoromethane (Surr)* | *100* | | *75 - 123* | | *12/13/18 23:10* | *1* |

**Client Sample ID: MW-1A** — **Lab Sample ID: 280-117920-5**
**Date Collected: 12/06/18 14:18** — **Matrix: Water**
**Date Received: 12/07/18 09:10**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | 3.0 | U | 20 | 3.0 | ug/L | | | 12/13/18 23:37 | 1 |
| Acrylonitrile | 0.83 | U | 20 | 0.83 | ug/L | | | 12/13/18 23:37 | 1 |
| Benzene | 0.41 | U | 1.0 | 0.41 | ug/L | | | 12/13/18 23:37 | 1 |
| Bromochloromethane | 0.87 | U | 1.0 | 0.87 | ug/L | | | 12/13/18 23:37 | 1 |
| Bromodichloromethane | 0.39 | U | 1.0 | 0.39 | ug/L | | | 12/13/18 23:37 | 1 |
| Bromoform | 0.26 | U | 1.0 | 0.26 | ug/L | | | 12/13/18 23:37 | 1 |
| Bromomethane | 0.69 | U | 2.0 | 0.69 | ug/L | | | 12/13/18 23:37 | 1 |
| 2-Butanone (MEK) | 1.3 | U | 6.0 | 1.3 | ug/L | | | 12/13/18 23:37 | 1 |
| Carbon disulfide | 0.19 | U | 2.0 | 0.19 | ug/L | | | 12/13/18 23:37 | 1 |
| Carbon tetrachloride | 0.27 | U | 1.0 | 0.27 | ug/L | | | 12/13/18 23:37 | 1 |
| Chlorobenzene | 0.75 | U | 1.0 | 0.75 | ug/L | | | 12/13/18 23:37 | 1 |
| Dibromochloromethane | 0.32 | U | 1.0 | 0.32 | ug/L | | | 12/13/18 23:37 | 1 |
| Chloroethane | 0.32 | U | 2.0 | 0.32 | ug/L | | | 12/13/18 23:37 | 1 |
| Chloroform | 0.34 | U | 1.0 | 0.34 | ug/L | | | 12/13/18 23:37 | 1 |
| Chloromethane | 0.35 | U | 2.0 | 0.35 | ug/L | | | 12/13/18 23:37 | 1 |
| Dibromomethane | 0.41 | U | 1.0 | 0.41 | ug/L | | | 12/13/18 23:37 | 1 |
| 1,2-Dichlorobenzene | 0.79 | U | 1.0 | 0.79 | ug/L | | | 12/13/18 23:37 | 1 |
| 1,4-Dichlorobenzene | 0.84 | U | 1.0 | 0.84 | ug/L | | | 12/13/18 23:37 | 1 |
| trans-1,4-Dichloro-2-butene | 0.22 | U | 3.0 | 0.22 | ug/L | | | 12/13/18 23:37 | 1 |
| 1,1-Dichloroethane | 0.38 | U | 1.0 | 0.38 | ug/L | | | 12/13/18 23:37 | 1 |
| 1,2-Dichloroethane | 0.21 | U | 1.0 | 0.21 | ug/L | | | 12/13/18 23:37 | 1 |
| cis-1,2-Dichloroethene | 0.81 | U | 1.0 | 0.81 | ug/L | | | 12/13/18 23:37 | 1 |
| trans-1,2-Dichloroethene | 0.90 | U | 1.0 | 0.90 | ug/L | | | 12/13/18 23:37 | 1 |
| 1,1-Dichloroethene | 0.29 | U | 1.0 | 0.29 | ug/L | | | 12/13/18 23:37 | 1 |

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

**Client Sample ID: MW-1A** — **Lab Sample ID: 280-117920-5**
**Date Collected: 12/06/18 14:18** — **Matrix: Water**
**Date Received: 12/07/18 09:10**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,2-Dichloropropane | 0.72 | U | 1.0 | 0.72 | ug/L | | | 12/13/18 23:37 | 1 |
| cis-1,3-Dichloropropene | 0.36 | U | 1.0 | 0.36 | ug/L | | | 12/13/18 23:37 | 1 |
| trans-1,3-Dichloropropene | 0.37 | U | 3.0 | 0.37 | ug/L | | | 12/13/18 23:37 | 1 |
| Ethylbenzene | 0.74 | U | 1.0 | 0.74 | ug/L | | | 12/13/18 23:37 | 1 |
| 2-Hexanone | 1.2 | U | 5.0 | 1.2 | ug/L | | | 12/13/18 23:37 | 1 |
| Iodomethane | 0.30 | U | 1.0 | 0.30 | ug/L | | | 12/13/18 23:37 | 1 |
| Methylene Chloride | 0.44 | U | 2.0 | 0.44 | ug/L | | | 12/13/18 23:37 | 1 |
| 4-Methyl-2-pentanone (MIBK) | 2.1 | U | 5.0 | 2.1 | ug/L | | | 12/13/18 23:37 | 1 |
| Styrene | 0.73 | U | 1.0 | 0.73 | ug/L | | | 12/13/18 23:37 | 1 |
| 1,1,1,2-Tetrachloroethane | 0.35 | U | 1.0 | 0.35 | ug/L | | | 12/13/18 23:37 | 1 |
| 1,1,2,2-Tetrachloroethane | 0.21 | U | 1.0 | 0.21 | ug/L | | | 12/13/18 23:37 | 1 |
| Tetrachloroethene | 0.36 | U | 1.0 | 0.36 | ug/L | | | 12/13/18 23:37 | 1 |
| Toluene | 0.51 | U | 1.0 | 0.51 | ug/L | | | 12/13/18 23:37 | 1 |
| 1,1,1-Trichloroethane | 0.82 | U | 1.0 | 0.82 | ug/L | | | 12/13/18 23:37 | 1 |
| 1,1,2-Trichloroethane | 0.23 | U | 1.0 | 0.23 | ug/L | | | 12/13/18 23:37 | 1 |
| Trichloroethene | 0.46 | U | 1.0 | 0.46 | ug/L | | | 12/13/18 23:37 | 1 |
| Trichlorofluoromethane | 0.88 | U | 2.0 | 0.88 | ug/L | | | 12/13/18 23:37 | 1 |
| 1,2,3-Trichloropropane | 0.89 | U | 2.5 | 0.89 | ug/L | | | 12/13/18 23:37 | 1 |
| Vinyl acetate | 0.85 | U | 3.0 | 0.85 | ug/L | | | 12/13/18 23:37 | 1 |
| Vinyl chloride | 0.90 | U | 1.0 | 0.90 | ug/L | | | 12/13/18 23:37 | 1 |
| Xylenes (total) | 0.66 | U | 2.0 | 0.66 | ug/L | | | 12/13/18 23:37 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1,2-Dichloroethane-d4 (Surr)* | *111* | | *77 - 120* | | *12/13/18 23:37* | *1* |
| *Toluene-d8 (Surr)* | *95* | | *80 - 120* | | *12/13/18 23:37* | *1* |
| *4-Bromofluorobenzene (Surr)* | *85* | | *73 - 120* | | *12/13/18 23:37* | *1* |
| *Dibromofluoromethane (Surr)* | *97* | | *75 - 123* | | *12/13/18 23:37* | *1* |

**Client Sample ID: TRIP BLANK** — **Lab Sample ID: 280-117920-6**
**Date Collected: 12/06/18 00:00** — **Matrix: Water**
**Date Received: 12/07/18 09:10**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | 3.0 | U | 20 | 3.0 | ug/L | | | 12/14/18 00:05 | 1 |
| Acrylonitrile | 0.83 | U | 20 | 0.83 | ug/L | | | 12/14/18 00:05 | 1 |
| Benzene | 0.41 | U | 1.0 | 0.41 | ug/L | | | 12/14/18 00:05 | 1 |
| Bromochloromethane | 0.87 | U | 1.0 | 0.87 | ug/L | | | 12/14/18 00:05 | 1 |
| Bromodichloromethane | 0.39 | U | 1.0 | 0.39 | ug/L | | | 12/14/18 00:05 | 1 |
| Bromoform | 0.26 | U | 1.0 | 0.26 | ug/L | | | 12/14/18 00:05 | 1 |
| Bromomethane | 0.69 | U | 2.0 | 0.69 | ug/L | | | 12/14/18 00:05 | 1 |
| 2-Butanone (MEK) | 1.3 | U | 6.0 | 1.3 | ug/L | | | 12/14/18 00:05 | 1 |
| Carbon disulfide | 0.19 | U | 2.0 | 0.19 | ug/L | | | 12/14/18 00:05 | 1 |
| Carbon tetrachloride | 0.27 | U | 1.0 | 0.27 | ug/L | | | 12/14/18 00:05 | 1 |
| Chlorobenzene | 0.75 | U | 1.0 | 0.75 | ug/L | | | 12/14/18 00:05 | 1 |
| Dibromochloromethane | 0.32 | U | 1.0 | 0.32 | ug/L | | | 12/14/18 00:05 | 1 |
| Chloroethane | 0.32 | U | 2.0 | 0.32 | ug/L | | | 12/14/18 00:05 | 1 |
| Chloroform | 0.34 | U | 1.0 | 0.34 | ug/L | | | 12/14/18 00:05 | 1 |
| Chloromethane | 0.35 | U | 2.0 | 0.35 | ug/L | | | 12/14/18 00:05 | 1 |
| Dibromomethane | 0.41 | U | 1.0 | 0.41 | ug/L | | | 12/14/18 00:05 | 1 |
| 1,2-Dichlorobenzene | 0.79 | U | 1.0 | 0.79 | ug/L | | | 12/14/18 00:05 | 1 |
| 1,4-Dichlorobenzene | 0.84 | U | 1.0 | 0.84 | ug/L | | | 12/14/18 00:05 | 1 |

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

**Client Sample ID: TRIP BLANK**
**Date Collected: 12/06/18 00:00**
**Date Received: 12/07/18 09:10**

**Lab Sample ID: 280-117920-6**
**Matrix: Water**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| trans-1,4-Dichloro-2-butene | 0.22 | U | 3.0 | 0.22 | ug/L | | | 12/14/18 00:05 | 1 |
| 1,1-Dichloroethane | 0.38 | U | 1.0 | 0.38 | ug/L | | | 12/14/18 00:05 | 1 |
| 1,2-Dichloroethane | 0.21 | U | 1.0 | 0.21 | ug/L | | | 12/14/18 00:05 | 1 |
| cis-1,2-Dichloroethene | 0.81 | U | 1.0 | 0.81 | ug/L | | | 12/14/18 00:05 | 1 |
| trans-1,2-Dichloroethene | 0.90 | U | 1.0 | 0.90 | ug/L | | | 12/14/18 00:05 | 1 |
| 1,1-Dichloroethene | 0.29 | U | 1.0 | 0.29 | ug/L | | | 12/14/18 00:05 | 1 |
| 1,2-Dichloropropane | 0.72 | U | 1.0 | 0.72 | ug/L | | | 12/14/18 00:05 | 1 |
| cis-1,3-Dichloropropene | 0.36 | U | 1.0 | 0.36 | ug/L | | | 12/14/18 00:05 | 1 |
| trans-1,3-Dichloropropene | 0.37 | U | 3.0 | 0.37 | ug/L | | | 12/14/18 00:05 | 1 |
| Ethylbenzene | 0.74 | U | 1.0 | 0.74 | ug/L | | | 12/14/18 00:05 | 1 |
| 2-Hexanone | 1.2 | U | 5.0 | 1.2 | ug/L | | | 12/14/18 00:05 | 1 |
| Iodomethane | 0.30 | U | 1.0 | 0.30 | ug/L | | | 12/14/18 00:05 | 1 |
| Methylene Chloride | 0.44 | U | 2.0 | 0.44 | ug/L | | | 12/14/18 00:05 | 1 |
| 4-Methyl-2-pentanone (MIBK) | 2.1 | U | 5.0 | 2.1 | ug/L | | | 12/14/18 00:05 | 1 |
| Styrene | 0.73 | U | 1.0 | 0.73 | ug/L | | | 12/14/18 00:05 | 1 |
| 1,1,1,2-Tetrachloroethane | 0.35 | U | 1.0 | 0.35 | ug/L | | | 12/14/18 00:05 | 1 |
| 1,1,2,2-Tetrachloroethane | 0.21 | U | 1.0 | 0.21 | ug/L | | | 12/14/18 00:05 | 1 |
| Tetrachloroethene | 0.36 | U | 1.0 | 0.36 | ug/L | | | 12/14/18 00:05 | 1 |
| Toluene | 0.51 | U | 1.0 | 0.51 | ug/L | | | 12/14/18 00:05 | 1 |
| 1,1,1-Trichloroethane | 0.82 | U | 1.0 | 0.82 | ug/L | | | 12/14/18 00:05 | 1 |
| 1,1,2-Trichloroethane | 0.23 | U | 1.0 | 0.23 | ug/L | | | 12/14/18 00:05 | 1 |
| Trichloroethene | 0.46 | U | 1.0 | 0.46 | ug/L | | | 12/14/18 00:05 | 1 |
| Trichlorofluoromethane | 0.88 | U | 2.0 | 0.88 | ug/L | | | 12/14/18 00:05 | 1 |
| 1,2,3-Trichloropropane | 0.89 | U | 2.5 | 0.89 | ug/L | | | 12/14/18 00:05 | 1 |
| Vinyl acetate | 0.85 | U | 3.0 | 0.85 | ug/L | | | 12/14/18 00:05 | 1 |
| Vinyl chloride | 0.90 | U | 1.0 | 0.90 | ug/L | | | 12/14/18 00:05 | 1 |
| Xylenes (total) | 0.66 | U | 2.0 | 0.66 | ug/L | | | 12/14/18 00:05 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1,2-Dichloroethane-d4 (Surr)* | *112* | | *77 - 120* | | *12/14/18 00:05* | *1* |
| *Toluene-d8 (Surr)* | *91* | | *80 - 120* | | *12/14/18 00:05* | *1* |
| *4-Bromofluorobenzene (Surr)* | *81* | | *73 - 120* | | *12/14/18 00:05* | *1* |
| *Dibromofluoromethane (Surr)* | *99* | | *75 - 123* | | *12/14/18 00:05* | *1* |

**Client Sample ID: MW-8R**
**Date Collected: 12/07/18 07:27**
**Date Received: 12/08/18 10:40**

**Lab Sample ID: 280-117970-1**
**Matrix: Water**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | 3.0 | U | 20 | 3.0 | ug/L | | | 12/14/18 00:27 | 1 |
| Acrylonitrile | 0.83 | U | 20 | 0.83 | ug/L | | | 12/14/18 00:27 | 1 |
| Benzene | 0.41 | U | 1.0 | 0.41 | ug/L | | | 12/14/18 00:27 | 1 |
| Bromochloromethane | 0.87 | U | 1.0 | 0.87 | ug/L | | | 12/14/18 00:27 | 1 |
| Bromodichloromethane | 0.39 | U | 1.0 | 0.39 | ug/L | | | 12/14/18 00:27 | 1 |
| Bromoform | 0.26 | U | 1.0 | 0.26 | ug/L | | | 12/14/18 00:27 | 1 |
| Bromomethane | 0.69 | U | 2.0 | 0.69 | ug/L | | | 12/14/18 00:27 | 1 |
| 2-Butanone (MEK) | 1.3 | U | 6.0 | 1.3 | ug/L | | | 12/14/18 00:27 | 1 |
| **Carbon disulfide** | **0.29** | **I V** | 2.0 | 0.19 | ug/L | | | 12/14/18 00:27 | 1 |
| Carbon tetrachloride | 0.27 | U | 1.0 | 0.27 | ug/L | | | 12/14/18 00:27 | 1 |
| Chlorobenzene | 0.75 | U | 1.0 | 0.75 | ug/L | | | 12/14/18 00:27 | 1 |
| Dibromochloromethane | 0.32 | U | 1.0 | 0.32 | ug/L | | | 12/14/18 00:27 | 1 |

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

**Client Sample ID: MW-8R** — **Lab Sample ID: 280-117970-1**
**Date Collected: 12/07/18 07:27** — **Matrix: Water**
**Date Received: 12/08/18 10:40**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Chloroethane | 0.32 | U | 2.0 | 0.32 | ug/L | | | 12/14/18 00:27 | 1 |
| Chloroform | 0.34 | U | 1.0 | 0.34 | ug/L | | | 12/14/18 00:27 | 1 |
| Chloromethane | 0.35 | U | 2.0 | 0.35 | ug/L | | | 12/14/18 00:27 | 1 |
| Dibromomethane | 0.41 | U | 1.0 | 0.41 | ug/L | | | 12/14/18 00:27 | 1 |
| 1,2-Dichlorobenzene | 0.79 | U | 1.0 | 0.79 | ug/L | | | 12/14/18 00:27 | 1 |
| 1,4-Dichlorobenzene | 0.84 | U | 1.0 | 0.84 | ug/L | | | 12/14/18 00:27 | 1 |
| trans-1,4-Dichloro-2-butene | 0.22 | U | 3.0 | 0.22 | ug/L | | | 12/14/18 00:27 | 1 |
| 1,1-Dichloroethane | 0.38 | U | 1.0 | 0.38 | ug/L | | | 12/14/18 00:27 | 1 |
| 1,2-Dichloroethane | 0.21 | U | 1.0 | 0.21 | ug/L | | | 12/14/18 00:27 | 1 |
| cis-1,2-Dichloroethene | 0.81 | U | 1.0 | 0.81 | ug/L | | | 12/14/18 00:27 | 1 |
| trans-1,2-Dichloroethene | 0.90 | U | 1.0 | 0.90 | ug/L | | | 12/14/18 00:27 | 1 |
| 1,1-Dichloroethene | 0.29 | U | 1.0 | 0.29 | ug/L | | | 12/14/18 00:27 | 1 |
| 1,2-Dichloropropane | 0.72 | U | 1.0 | 0.72 | ug/L | | | 12/14/18 00:27 | 1 |
| cis-1,3-Dichloropropene | 0.36 | U J3 | 1.0 | 0.36 | ug/L | | | 12/14/18 00:27 | 1 |
| trans-1,3-Dichloropropene | 0.37 | U J3 | 3.0 | 0.37 | ug/L | | | 12/14/18 00:27 | 1 |
| Ethylbenzene | 0.74 | U | 1.0 | 0.74 | ug/L | | | 12/14/18 00:27 | 1 |
| 2-Hexanone | 1.2 | U | 5.0 | 1.2 | ug/L | | | 12/14/18 00:27 | 1 |
| Iodomethane | 0.30 | U | 1.0 | 0.30 | ug/L | | | 12/14/18 00:27 | 1 |
| Methylene Chloride | 0.44 | U | 2.0 | 0.44 | ug/L | | | 12/14/18 00:27 | 1 |
| 4-Methyl-2-pentanone (MIBK) | 2.1 | U | 5.0 | 2.1 | ug/L | | | 12/14/18 00:27 | 1 |
| Styrene | 0.73 | U | 1.0 | 0.73 | ug/L | | | 12/14/18 00:27 | 1 |
| 1,1,1,2-Tetrachloroethane | 0.35 | U | 1.0 | 0.35 | ug/L | | | 12/14/18 00:27 | 1 |
| 1,1,2,2-Tetrachloroethane | 0.21 | U | 1.0 | 0.21 | ug/L | | | 12/14/18 00:27 | 1 |
| Tetrachloroethene | 0.36 | U | 1.0 | 0.36 | ug/L | | | 12/14/18 00:27 | 1 |
| Toluene | 0.51 | U | 1.0 | 0.51 | ug/L | | | 12/14/18 00:27 | 1 |
| 1,1,1-Trichloroethane | 0.82 | U | 1.0 | 0.82 | ug/L | | | 12/14/18 00:27 | 1 |
| 1,1,2-Trichloroethane | 0.23 | U | 1.0 | 0.23 | ug/L | | | 12/14/18 00:27 | 1 |
| Trichloroethene | 0.46 | U | 1.0 | 0.46 | ug/L | | | 12/14/18 00:27 | 1 |
| Trichlorofluoromethane | 0.88 | U | 2.0 | 0.88 | ug/L | | | 12/14/18 00:27 | 1 |
| 1,2,3-Trichloropropane | 0.89 | U | 2.5 | 0.89 | ug/L | | | 12/14/18 00:27 | 1 |
| Vinyl acetate | 0.85 | U | 3.0 | 0.85 | ug/L | | | 12/14/18 00:27 | 1 |
| Vinyl chloride | 0.90 | U | 1.0 | 0.90 | ug/L | | | 12/14/18 00:27 | 1 |
| Xylenes (total) | 0.66 | U | 2.0 | 0.66 | ug/L | | | 12/14/18 00:27 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1,2-Dichloroethane-d4 (Surr)* | *108* | | *77 - 120* | | *12/14/18 00:27* | *1* |
| *Toluene-d8 (Surr)* | *98* | | *80 - 120* | | *12/14/18 00:27* | *1* |
| *4-Bromofluorobenzene (Surr)* | *112* | | *73 - 120* | | *12/14/18 00:27* | *1* |
| *Dibromofluoromethane (Surr)* | *102* | | *75 - 123* | | *12/14/18 00:27* | *1* |

**Client Sample ID: MW-2AR** — **Lab Sample ID: 280-117970-2**
**Date Collected: 12/07/18 08:06** — **Matrix: Water**
**Date Received: 12/08/18 10:40**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | 3.0 | U | 20 | 3.0 | ug/L | | | 12/14/18 00:54 | 1 |
| Acrylonitrile | 0.83 | U | 20 | 0.83 | ug/L | | | 12/14/18 00:54 | 1 |
| Benzene | 0.41 | U | 1.0 | 0.41 | ug/L | | | 12/14/18 00:54 | 1 |
| Bromochloromethane | 0.87 | U | 1.0 | 0.87 | ug/L | | | 12/14/18 00:54 | 1 |
| Bromodichloromethane | 0.39 | U | 1.0 | 0.39 | ug/L | | | 12/14/18 00:54 | 1 |
| Bromoform | 0.26 | U | 1.0 | 0.26 | ug/L | | | 12/14/18 00:54 | 1 |

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

**Client Sample ID: MW-2AR**
**Date Collected: 12/07/18 08:06**
**Date Received: 12/08/18 10:40**

**Lab Sample ID: 280-117970-2**
**Matrix: Water**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Bromomethane | 0.69 | U | 2.0 | 0.69 | ug/L | | | 12/14/18 00:54 | 1 |
| 2-Butanone (MEK) | 1.3 | U | 6.0 | 1.3 | ug/L | | | 12/14/18 00:54 | 1 |
| Carbon disulfide | 0.19 | U | 2.0 | 0.19 | ug/L | | | 12/14/18 00:54 | 1 |
| Carbon tetrachloride | 0.27 | U | 1.0 | 0.27 | ug/L | | | 12/14/18 00:54 | 1 |
| Chlorobenzene | 0.75 | U | 1.0 | 0.75 | ug/L | | | 12/14/18 00:54 | 1 |
| Dibromochloromethane | 0.32 | U | 1.0 | 0.32 | ug/L | | | 12/14/18 00:54 | 1 |
| Chloroethane | 0.32 | U | 2.0 | 0.32 | ug/L | | | 12/14/18 00:54 | 1 |
| Chloroform | 0.34 | U | 1.0 | 0.34 | ug/L | | | 12/14/18 00:54 | 1 |
| Chloromethane | 0.35 | U | 2.0 | 0.35 | ug/L | | | 12/14/18 00:54 | 1 |
| Dibromomethane | 0.41 | U | 1.0 | 0.41 | ug/L | | | 12/14/18 00:54 | 1 |
| 1,2-Dichlorobenzene | 0.79 | U | 1.0 | 0.79 | ug/L | | | 12/14/18 00:54 | 1 |
| 1,4-Dichlorobenzene | 0.84 | U | 1.0 | 0.84 | ug/L | | | 12/14/18 00:54 | 1 |
| trans-1,4-Dichloro-2-butene | 0.22 | U | 3.0 | 0.22 | ug/L | | | 12/14/18 00:54 | 1 |
| 1,1-Dichloroethane | 0.38 | U | 1.0 | 0.38 | ug/L | | | 12/14/18 00:54 | 1 |
| 1,2-Dichloroethane | 0.21 | U | 1.0 | 0.21 | ug/L | | | 12/14/18 00:54 | 1 |
| cis-1,2-Dichloroethene | 0.81 | U | 1.0 | 0.81 | ug/L | | | 12/14/18 00:54 | 1 |
| trans-1,2-Dichloroethene | 0.90 | U | 1.0 | 0.90 | ug/L | | | 12/14/18 00:54 | 1 |
| 1,1-Dichloroethene | 0.29 | U | 1.0 | 0.29 | ug/L | | | 12/14/18 00:54 | 1 |
| 1,2-Dichloropropane | 0.72 | U | 1.0 | 0.72 | ug/L | | | 12/14/18 00:54 | 1 |
| cis-1,3-Dichloropropene | 0.36 | U J3 | 1.0 | 0.36 | ug/L | | | 12/14/18 00:54 | 1 |
| trans-1,3-Dichloropropene | 0.37 | U J3 | 3.0 | 0.37 | ug/L | | | 12/14/18 00:54 | 1 |
| Ethylbenzene | 0.74 | U | 1.0 | 0.74 | ug/L | | | 12/14/18 00:54 | 1 |
| 2-Hexanone | 1.2 | U | 5.0 | 1.2 | ug/L | | | 12/14/18 00:54 | 1 |
| Iodomethane | 0.30 | U | 1.0 | 0.30 | ug/L | | | 12/14/18 00:54 | 1 |
| Methylene Chloride | 0.44 | U | 2.0 | 0.44 | ug/L | | | 12/14/18 00:54 | 1 |
| 4-Methyl-2-pentanone (MIBK) | 2.1 | U | 5.0 | 2.1 | ug/L | | | 12/14/18 00:54 | 1 |
| Styrene | 0.73 | U | 1.0 | 0.73 | ug/L | | | 12/14/18 00:54 | 1 |
| 1,1,1,2-Tetrachloroethane | 0.35 | U | 1.0 | 0.35 | ug/L | | | 12/14/18 00:54 | 1 |
| 1,1,2,2-Tetrachloroethane | 0.21 | U | 1.0 | 0.21 | ug/L | | | 12/14/18 00:54 | 1 |
| Tetrachloroethene | 0.36 | U | 1.0 | 0.36 | ug/L | | | 12/14/18 00:54 | 1 |
| Toluene | 0.51 | U | 1.0 | 0.51 | ug/L | | | 12/14/18 00:54 | 1 |
| 1,1,1-Trichloroethane | 0.82 | U | 1.0 | 0.82 | ug/L | | | 12/14/18 00:54 | 1 |
| 1,1,2-Trichloroethane | 0.23 | U | 1.0 | 0.23 | ug/L | | | 12/14/18 00:54 | 1 |
| Trichloroethene | 0.46 | U | 1.0 | 0.46 | ug/L | | | 12/14/18 00:54 | 1 |
| Trichlorofluoromethane | 0.88 | U | 2.0 | 0.88 | ug/L | | | 12/14/18 00:54 | 1 |
| 1,2,3-Trichloropropane | 0.89 | U | 2.5 | 0.89 | ug/L | | | 12/14/18 00:54 | 1 |
| Vinyl acetate | 0.85 | U | 3.0 | 0.85 | ug/L | | | 12/14/18 00:54 | 1 |
| Vinyl chloride | 0.90 | U | 1.0 | 0.90 | ug/L | | | 12/14/18 00:54 | 1 |
| Xylenes (total) | 0.66 | U | 2.0 | 0.66 | ug/L | | | 12/14/18 00:54 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1,2-Dichloroethane-d4 (Surr)* | *103* | | *77 - 120* | | *12/14/18 00:54* | *1* |
| *Toluene-d8 (Surr)* | *98* | | *80 - 120* | | *12/14/18 00:54* | *1* |
| *4-Bromofluorobenzene (Surr)* | *116* | | *73 - 120* | | *12/14/18 00:54* | *1* |
| *Dibromofluoromethane (Surr)* | *97* | | *75 - 123* | | *12/14/18 00:54* | *1* |

# Client Sample Results

Client: Waste Management
Project/Site: FL26|Vista

TestAmerica Job ID: 280-117909-1

## Method: 8260C - Volatile Organic Compounds by GC/MS

**Client Sample ID: MW-6AR**
**Date Collected: 12/07/18 09:27**
**Date Received: 12/08/18 10:40**

**Lab Sample ID: 280-117970-3**
**Matrix: Water**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | 3.0 | U | 20 | 3.0 | ug/L | | | 12/14/18 01:21 | 1 |
| Acrylonitrile | 0.83 | U | 20 | 0.83 | ug/L | | | 12/14/18 01:21 | 1 |
| Benzene | 0.41 | U | 1.0 | 0.41 | ug/L | | | 12/14/18 01:21 | 1 |
| Bromochloromethane | 0.87 | U | 1.0 | 0.87 | ug/L | | | 12/14/18 01:21 | 1 |
| Bromodichloromethane | 0.39 | U | 1.0 | 0.39 | ug/L | | | 12/14/18 01:21 | 1 |
| Bromoform | 0.26 | U | 1.0 | 0.26 | ug/L | | | 12/14/18 01:21 | 1 |
| Bromomethane | 0.69 | U | 2.0 | 0.69 | ug/L | | | 12/14/18 01:21 | 1 |
| 2-Butanone (MEK) | 1.3 | U | 6.0 | 1.3 | ug/L | | | 12/14/18 01:21 | 1 |
| Carbon disulfide | 0.19 | U | 2.0 | 0.19 | ug/L | | | 12/14/18 01:21 | 1 |
| Carbon tetrachloride | 0.27 | U | 1.0 | 0.27 | ug/L | | | 12/14/18 01:21 | 1 |
| Chlorobenzene | 0.75 | U | 1.0 | 0.75 | ug/L | | | 12/14/18 01:21 | 1 |
| Dibromochloromethane | 0.32 | U | 1.0 | 0.32 | ug/L | | | 12/14/18 01:21 | 1 |
| Chloroethane | 0.32 | U | 2.0 | 0.32 | ug/L | | | 12/14/18 01:21 | 1 |
| Chloroform | 0.34 | U | 1.0 | 0.34 | ug/L | | | 12/14/18 01:21 | 1 |
| Chloromethane | 0.35 | U | 2.0 | 0.35 | ug/L | | | 12/14/18 01:21 | 1 |
| Dibromomethane | 0.41 | U | 1.0 | 0.41 | ug/L | | | 12/14/18 01:21 | 1 |
| 1,2-Dichlorobenzene | 0.79 | U | 1.0 | 0.79 | ug/L | | | 12/14/18 01:21 | 1 |
| 1,4-Dichlorobenzene | 0.84 | U | 1.0 | 0.84 | ug/L | | | 12/14/18 01:21 | 1 |
| trans-1,4-Dichloro-2-butene | 0.22 | U | 3.0 | 0.22 | ug/L | | | 12/14/18 01:21 | 1 |
| 1,1-Dichloroethane | 0.38 | U | 1.0 | 0.38 | ug/L | | | 12/14/18 01:21 | 1 |
| 1,2-Dichloroethane | 0.21 | U | 1.0 | 0.21 | ug/L | | | 12/14/18 01:21 | 1 |
| cis-1,2-Dichloroethene | 0.81 | U | 1.0 | 0.81 | ug/L | | | 12/14/18 01:21 | 1 |
| trans-1,2-Dichloroethene | 0.90 | U | 1.0 | 0.90 | ug/L | | | 12/14/18 01:21 | 1 |
| 1,1-Dichloroethene | 0.29 | U | 1.0 | 0.29 | ug/L | | | 12/14/18 01:21 | 1 |
| 1,2-Dichloropropane | 0.72 | U | 1.0 | 0.72 | ug/L | | | 12/14/18 01:21 | 1 |
| cis-1,3-Dichloropropene | 0.36 | U J3 | 1.0 | 0.36 | ug/L | | | 12/14/18 01:21 | 1 |
| trans-1,3-Dichloropropene | 0.37 | U J3 | 3.0 | 0.37 | ug/L | | | 12/14/18 01:21 | 1 |
| Ethylbenzene | 0.74 | U | 1.0 | 0.74 | ug/L | | | 12/14/18 01:21 | 1 |
| 2-Hexanone | 1.2 | U | 5.0 | 1.2 | ug/L | | | 12/14/18 01:21 | 1 |
| Iodomethane | 0.30 | U | 1.0 | 0.30 | ug/L | | | 12/14/18 01:21 | 1 |
| Methylene Chloride | 0.44 | U | 2.0 | 0.44 | ug/L | | | 12/14/18 01:21 | 1 |
| 4-Methyl-2-pentanone (MIBK) | 2.1 | U | 5.0 | 2.1 | ug/L | | | 12/14/18 01:21 | 1 |
| Styrene | 0.73 | U | 1.0 | 0.73 | ug/L | | | 12/14/18 01:21 | 1 |
| 1,1,1,2-Tetrachloroethane | 0.35 | U | 1.0 | 0.35 | ug/L | | | 12/14/18 01:21 | 1 |
| 1,1,2,2-Tetrachloroethane | 0.21 | U | 1.0 | 0.21 | ug/L | | | 12/14/18 01:21 | 1 |
| Tetrachloroethene | 0.36 | U | 1.0 | 0.36 | ug/L | | | 12/14/18 01:21 | 1 |
| Toluene | 0.51 | U | 1.0 | 0.51 | ug/L | | | 12/14/18 01:21 | 1 |
| 1,1,1-Trichloroethane | 0.82 | U | 1.0 | 0.82 | ug/L | | | 12/14/18 01:21 | 1 |
| 1,1,2-Trichloroethane | 0.23 | U | 1.0 | 0.23 | ug/L | | | 12/14/18 01:21 | 1 |
| Trichloroethene | 0.46 | U | 1.0 | 0.46 | ug/L | | | 12/14/18 01:21 | 1 |
| Trichlorofluoromethane | 0.88 | U | 2.0 | 0.88 | ug/L | | | 12/14/18 01:21 | 1 |
| 1,2,3-Trichloropropane | 0.89 | U | 2.5 | 0.89 | ug/L | | | 12/14/18 01:21 | 1 |
| Vinyl acetate | 0.85 | U | 3.0 | 0.85 | ug/L | | | 12/14/18 01:21 | 1 |
| Vinyl chloride | 0.90 | U | 1.0 | 0.90 | ug/L | | | 12/14/18 01:21 | 1 |
| Xylenes (total) | 0.66 | U | 2.0 | 0.66 | ug/L | | | 12/14/18 01:21 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1,2-Dichloroethane-d4 (Surr)* | *105* | | *77 - 120* | | *12/14/18 01:21* | *1* |
| *Toluene-d8 (Surr)* | *97* | | *80 - 120* | | *12/14/18 01:21* | *1* |

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

**Client Sample ID: MW-6AR**
**Date Collected: 12/07/18 09:27**
**Date Received: 12/08/18 10:40**

**Lab Sample ID: 280-117970-3**
**Matrix: Water**

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *115* | | *73 - 120* | | *12/14/18 01:21* | *1* |
| *Dibromofluoromethane (Surr)* | *98* | | *75 - 123* | | *12/14/18 01:21* | *1* |

**Client Sample ID: MW-15A**
**Date Collected: 12/07/18 10:44**
**Date Received: 12/08/18 10:40**

**Lab Sample ID: 280-117970-4**
**Matrix: Water**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | 3.0 | U | 20 | 3.0 | ug/L | | | 12/14/18 01:48 | 1 |
| Acrylonitrile | 0.83 | U | 20 | 0.83 | ug/L | | | 12/14/18 01:48 | 1 |
| Benzene | 0.41 | U | 1.0 | 0.41 | ug/L | | | 12/14/18 01:48 | 1 |
| Bromochloromethane | 0.87 | U | 1.0 | 0.87 | ug/L | | | 12/14/18 01:48 | 1 |
| Bromodichloromethane | 0.39 | U | 1.0 | 0.39 | ug/L | | | 12/14/18 01:48 | 1 |
| Bromoform | 0.26 | U | 1.0 | 0.26 | ug/L | | | 12/14/18 01:48 | 1 |
| Bromomethane | 0.69 | U | 2.0 | 0.69 | ug/L | | | 12/14/18 01:48 | 1 |
| 2-Butanone (MEK) | 1.3 | U | 6.0 | 1.3 | ug/L | | | 12/14/18 01:48 | 1 |
| Carbon disulfide | 0.19 | U | 2.0 | 0.19 | ug/L | | | 12/14/18 01:48 | 1 |
| Carbon tetrachloride | 0.27 | U | 1.0 | 0.27 | ug/L | | | 12/14/18 01:48 | 1 |
| Chlorobenzene | 0.75 | U | 1.0 | 0.75 | ug/L | | | 12/14/18 01:48 | 1 |
| Dibromochloromethane | 0.32 | U | 1.0 | 0.32 | ug/L | | | 12/14/18 01:48 | 1 |
| Chloroethane | 0.32 | U | 2.0 | 0.32 | ug/L | | | 12/14/18 01:48 | 1 |
| Chloroform | 0.34 | U | 1.0 | 0.34 | ug/L | | | 12/14/18 01:48 | 1 |
| Chloromethane | 0.35 | U | 2.0 | 0.35 | ug/L | | | 12/14/18 01:48 | 1 |
| Dibromomethane | 0.41 | U | 1.0 | 0.41 | ug/L | | | 12/14/18 01:48 | 1 |
| 1,2-Dichlorobenzene | 0.79 | U | 1.0 | 0.79 | ug/L | | | 12/14/18 01:48 | 1 |
| 1,4-Dichlorobenzene | 0.84 | U | 1.0 | 0.84 | ug/L | | | 12/14/18 01:48 | 1 |
| trans-1,4-Dichloro-2-butene | 0.22 | U | 3.0 | 0.22 | ug/L | | | 12/14/18 01:48 | 1 |
| 1,1-Dichloroethane | 0.38 | U | 1.0 | 0.38 | ug/L | | | 12/14/18 01:48 | 1 |
| 1,2-Dichloroethane | 0.21 | U | 1.0 | 0.21 | ug/L | | | 12/14/18 01:48 | 1 |
| cis-1,2-Dichloroethene | 0.81 | U | 1.0 | 0.81 | ug/L | | | 12/14/18 01:48 | 1 |
| trans-1,2-Dichloroethene | 0.90 | U | 1.0 | 0.90 | ug/L | | | 12/14/18 01:48 | 1 |
| 1,1-Dichloroethene | 0.29 | U | 1.0 | 0.29 | ug/L | | | 12/14/18 01:48 | 1 |
| 1,2-Dichloropropane | 0.72 | U | 1.0 | 0.72 | ug/L | | | 12/14/18 01:48 | 1 |
| cis-1,3-Dichloropropene | 0.36 | U J3 | 1.0 | 0.36 | ug/L | | | 12/14/18 01:48 | 1 |
| trans-1,3-Dichloropropene | 0.37 | U J3 | 3.0 | 0.37 | ug/L | | | 12/14/18 01:48 | 1 |
| Ethylbenzene | 0.74 | U | 1.0 | 0.74 | ug/L | | | 12/14/18 01:48 | 1 |
| 2-Hexanone | 1.2 | U | 5.0 | 1.2 | ug/L | | | 12/14/18 01:48 | 1 |
| Iodomethane | 0.30 | U | 1.0 | 0.30 | ug/L | | | 12/14/18 01:48 | 1 |
| Methylene Chloride | 0.44 | U | 2.0 | 0.44 | ug/L | | | 12/14/18 01:48 | 1 |
| 4-Methyl-2-pentanone (MIBK) | 2.1 | U | 5.0 | 2.1 | ug/L | | | 12/14/18 01:48 | 1 |
| Styrene | 0.73 | U | 1.0 | 0.73 | ug/L | | | 12/14/18 01:48 | 1 |
| 1,1,1,2-Tetrachloroethane | 0.35 | U | 1.0 | 0.35 | ug/L | | | 12/14/18 01:48 | 1 |
| 1,1,2,2-Tetrachloroethane | 0.21 | U | 1.0 | 0.21 | ug/L | | | 12/14/18 01:48 | 1 |
| Tetrachloroethene | 0.36 | U | 1.0 | 0.36 | ug/L | | | 12/14/18 01:48 | 1 |
| Toluene | 0.51 | U | 1.0 | 0.51 | ug/L | | | 12/14/18 01:48 | 1 |
| 1,1,1-Trichloroethane | 0.82 | U | 1.0 | 0.82 | ug/L | | | 12/14/18 01:48 | 1 |
| 1,1,2-Trichloroethane | 0.23 | U | 1.0 | 0.23 | ug/L | | | 12/14/18 01:48 | 1 |
| Trichloroethene | 0.46 | U | 1.0 | 0.46 | ug/L | | | 12/14/18 01:48 | 1 |
| Trichlorofluoromethane | 0.88 | U | 2.0 | 0.88 | ug/L | | | 12/14/18 01:48 | 1 |
| 1,2,3-Trichloropropane | 0.89 | U | 2.5 | 0.89 | ug/L | | | 12/14/18 01:48 | 1 |

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

**Client Sample ID: MW-15A** — **Lab Sample ID: 280-117970-4**
**Date Collected: 12/07/18 10:44** — **Matrix: Water**
**Date Received: 12/08/18 10:40**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Vinyl acetate | 0.85 | U | 3.0 | 0.85 | ug/L | | | 12/14/18 01:48 | 1 |
| Vinyl chloride | 0.90 | U | 1.0 | 0.90 | ug/L | | | 12/14/18 01:48 | 1 |
| Xylenes (total) | 0.66 | U | 2.0 | 0.66 | ug/L | | | 12/14/18 01:48 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1,2-Dichloroethane-d4 (Surr)* | *107* | | *77 - 120* | | *12/14/18 01:48* | *1* |
| *Toluene-d8 (Surr)* | *98* | | *80 - 120* | | *12/14/18 01:48* | *1* |
| *4-Bromofluorobenzene (Surr)* | *114* | | *73 - 120* | | *12/14/18 01:48* | *1* |
| *Dibromofluoromethane (Surr)* | *102* | | *75 - 123* | | *12/14/18 01:48* | *1* |

**Client Sample ID: MW-11A** — **Lab Sample ID: 280-117970-5**
**Date Collected: 12/07/18 11:55** — **Matrix: Water**
**Date Received: 12/08/18 10:40**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | 3.0 | U | 20 | 3.0 | ug/L | | | 12/14/18 00:55 | 1 |
| Acrylonitrile | 0.83 | U | 20 | 0.83 | ug/L | | | 12/14/18 00:55 | 1 |
| Benzene | 0.41 | U | 1.0 | 0.41 | ug/L | | | 12/14/18 00:55 | 1 |
| Bromochloromethane | 0.87 | U | 1.0 | 0.87 | ug/L | | | 12/14/18 00:55 | 1 |
| Bromodichloromethane | 0.39 | U | 1.0 | 0.39 | ug/L | | | 12/14/18 00:55 | 1 |
| Bromoform | 0.26 | U | 1.0 | 0.26 | ug/L | | | 12/14/18 00:55 | 1 |
| Bromomethane | 0.69 | U | 2.0 | 0.69 | ug/L | | | 12/14/18 00:55 | 1 |
| 2-Butanone (MEK) | 1.3 | U | 6.0 | 1.3 | ug/L | | | 12/14/18 00:55 | 1 |
| Carbon disulfide | 0.19 | U | 2.0 | 0.19 | ug/L | | | 12/14/18 00:55 | 1 |
| Carbon tetrachloride | 0.27 | U | 1.0 | 0.27 | ug/L | | | 12/14/18 00:55 | 1 |
| Chlorobenzene | 0.75 | U | 1.0 | 0.75 | ug/L | | | 12/14/18 00:55 | 1 |
| Dibromochloromethane | 0.32 | U | 1.0 | 0.32 | ug/L | | | 12/14/18 00:55 | 1 |
| Chloroethane | 0.32 | U | 2.0 | 0.32 | ug/L | | | 12/14/18 00:55 | 1 |
| Chloroform | 0.34 | U | 1.0 | 0.34 | ug/L | | | 12/14/18 00:55 | 1 |
| Chloromethane | 0.35 | U | 2.0 | 0.35 | ug/L | | | 12/14/18 00:55 | 1 |
| Dibromomethane | 0.41 | U | 1.0 | 0.41 | ug/L | | | 12/14/18 00:55 | 1 |
| 1,2-Dichlorobenzene | 0.79 | U | 1.0 | 0.79 | ug/L | | | 12/14/18 00:55 | 1 |
| 1,4-Dichlorobenzene | 0.84 | U | 1.0 | 0.84 | ug/L | | | 12/14/18 00:55 | 1 |
| trans-1,4-Dichloro-2-butene | 0.22 | U | 3.0 | 0.22 | ug/L | | | 12/14/18 00:55 | 1 |
| 1,1-Dichloroethane | 0.38 | U | 1.0 | 0.38 | ug/L | | | 12/14/18 00:55 | 1 |
| 1,2-Dichloroethane | 0.21 | U | 1.0 | 0.21 | ug/L | | | 12/14/18 00:55 | 1 |
| cis-1,2-Dichloroethene | 0.81 | U | 1.0 | 0.81 | ug/L | | | 12/14/18 00:55 | 1 |
| trans-1,2-Dichloroethene | 0.90 | U | 1.0 | 0.90 | ug/L | | | 12/14/18 00:55 | 1 |
| 1,1-Dichloroethene | 0.29 | U | 1.0 | 0.29 | ug/L | | | 12/14/18 00:55 | 1 |
| 1,2-Dichloropropane | 0.72 | U | 1.0 | 0.72 | ug/L | | | 12/14/18 00:55 | 1 |
| cis-1,3-Dichloropropene | 0.36 | U | 1.0 | 0.36 | ug/L | | | 12/14/18 00:55 | 1 |
| trans-1,3-Dichloropropene | 0.37 | U | 3.0 | 0.37 | ug/L | | | 12/14/18 00:55 | 1 |
| Ethylbenzene | 0.74 | U | 1.0 | 0.74 | ug/L | | | 12/14/18 00:55 | 1 |
| 2-Hexanone | 1.2 | U | 5.0 | 1.2 | ug/L | | | 12/14/18 00:55 | 1 |
| Iodomethane | 0.30 | U | 1.0 | 0.30 | ug/L | | | 12/14/18 00:55 | 1 |
| Methylene Chloride | 0.44 | U | 2.0 | 0.44 | ug/L | | | 12/14/18 00:55 | 1 |
| 4-Methyl-2-pentanone (MIBK) | 2.1 | U | 5.0 | 2.1 | ug/L | | | 12/14/18 00:55 | 1 |
| Styrene | 0.73 | U | 1.0 | 0.73 | ug/L | | | 12/14/18 00:55 | 1 |
| 1,1,1,2-Tetrachloroethane | 0.35 | U | 1.0 | 0.35 | ug/L | | | 12/14/18 00:55 | 1 |
| 1,1,2,2-Tetrachloroethane | 0.21 | U | 1.0 | 0.21 | ug/L | | | 12/14/18 00:55 | 1 |
| Tetrachloroethene | 0.36 | U | 1.0 | 0.36 | ug/L | | | 12/14/18 00:55 | 1 |

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

**Client Sample ID: MW-11A** — **Lab Sample ID: 280-117970-5**
**Date Collected: 12/07/18 11:55** — **Matrix: Water**
**Date Received: 12/08/18 10:40**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Toluene | 0.51 | U | 1.0 | 0.51 | ug/L | | | 12/14/18 00:55 | 1 |
| 1,1,1-Trichloroethane | 0.82 | U | 1.0 | 0.82 | ug/L | | | 12/14/18 00:55 | 1 |
| 1,1,2-Trichloroethane | 0.23 | U | 1.0 | 0.23 | ug/L | | | 12/14/18 00:55 | 1 |
| Trichloroethene | 0.46 | U | 1.0 | 0.46 | ug/L | | | 12/14/18 00:55 | 1 |
| Trichlorofluoromethane | 0.88 | U | 2.0 | 0.88 | ug/L | | | 12/14/18 00:55 | 1 |
| 1,2,3-Trichloropropane | 0.89 | U | 2.5 | 0.89 | ug/L | | | 12/14/18 00:55 | 1 |
| Vinyl acetate | 0.85 | U | 3.0 | 0.85 | ug/L | | | 12/14/18 00:55 | 1 |
| Vinyl chloride | 0.90 | U | 1.0 | 0.90 | ug/L | | | 12/14/18 00:55 | 1 |
| Xylenes (total) | 0.66 | U | 2.0 | 0.66 | ug/L | | | 12/14/18 00:55 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1,2-Dichloroethane-d4 (Surr)* | *96* | | *77 - 120* | | *12/14/18 00:55* | *1* |
| *Toluene-d8 (Surr)* | *100* | | *80 - 120* | | *12/14/18 00:55* | *1* |
| *4-Bromofluorobenzene (Surr)* | *105* | | *73 - 120* | | *12/14/18 00:55* | *1* |
| *Dibromofluoromethane (Surr)* | *100* | | *75 - 123* | | *12/14/18 00:55* | *1* |

**Client Sample ID: TRIP BLANK1** — **Lab Sample ID: 280-117970-6**
**Date Collected: 12/07/18 00:00** — **Matrix: Water**
**Date Received: 12/08/18 10:40**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | 3.0 | U | 20 | 3.0 | ug/L | | | 12/14/18 01:18 | 1 |
| Acrylonitrile | 0.83 | U | 20 | 0.83 | ug/L | | | 12/14/18 01:18 | 1 |
| Benzene | 0.41 | U | 1.0 | 0.41 | ug/L | | | 12/14/18 01:18 | 1 |
| Bromochloromethane | 0.87 | U | 1.0 | 0.87 | ug/L | | | 12/14/18 01:18 | 1 |
| Bromodichloromethane | 0.39 | U | 1.0 | 0.39 | ug/L | | | 12/14/18 01:18 | 1 |
| Bromoform | 0.26 | U | 1.0 | 0.26 | ug/L | | | 12/14/18 01:18 | 1 |
| Bromomethane | 0.69 | U | 2.0 | 0.69 | ug/L | | | 12/14/18 01:18 | 1 |
| 2-Butanone (MEK) | 1.3 | U | 6.0 | 1.3 | ug/L | | | 12/14/18 01:18 | 1 |
| Carbon disulfide | 0.19 | U | 2.0 | 0.19 | ug/L | | | 12/14/18 01:18 | 1 |
| Carbon tetrachloride | 0.27 | U | 1.0 | 0.27 | ug/L | | | 12/14/18 01:18 | 1 |
| Chlorobenzene | 0.75 | U | 1.0 | 0.75 | ug/L | | | 12/14/18 01:18 | 1 |
| Dibromochloromethane | 0.32 | U | 1.0 | 0.32 | ug/L | | | 12/14/18 01:18 | 1 |
| Chloroethane | 0.32 | U | 2.0 | 0.32 | ug/L | | | 12/14/18 01:18 | 1 |
| Chloroform | 0.34 | U | 1.0 | 0.34 | ug/L | | | 12/14/18 01:18 | 1 |
| Chloromethane | 0.35 | U | 2.0 | 0.35 | ug/L | | | 12/14/18 01:18 | 1 |
| Dibromomethane | 0.41 | U | 1.0 | 0.41 | ug/L | | | 12/14/18 01:18 | 1 |
| 1,2-Dichlorobenzene | 0.79 | U | 1.0 | 0.79 | ug/L | | | 12/14/18 01:18 | 1 |
| 1,4-Dichlorobenzene | 0.84 | U | 1.0 | 0.84 | ug/L | | | 12/14/18 01:18 | 1 |
| trans-1,4-Dichloro-2-butene | 0.22 | U | 3.0 | 0.22 | ug/L | | | 12/14/18 01:18 | 1 |
| 1,1-Dichloroethane | 0.38 | U | 1.0 | 0.38 | ug/L | | | 12/14/18 01:18 | 1 |
| 1,2-Dichloroethane | 0.21 | U | 1.0 | 0.21 | ug/L | | | 12/14/18 01:18 | 1 |
| cis-1,2-Dichloroethene | 0.81 | U | 1.0 | 0.81 | ug/L | | | 12/14/18 01:18 | 1 |
| trans-1,2-Dichloroethene | 0.90 | U | 1.0 | 0.90 | ug/L | | | 12/14/18 01:18 | 1 |
| 1,1-Dichloroethene | 0.29 | U | 1.0 | 0.29 | ug/L | | | 12/14/18 01:18 | 1 |
| 1,2-Dichloropropane | 0.72 | U | 1.0 | 0.72 | ug/L | | | 12/14/18 01:18 | 1 |
| cis-1,3-Dichloropropene | 0.36 | U | 1.0 | 0.36 | ug/L | | | 12/14/18 01:18 | 1 |
| trans-1,3-Dichloropropene | 0.37 | U | 3.0 | 0.37 | ug/L | | | 12/14/18 01:18 | 1 |
| Ethylbenzene | 0.74 | U | 1.0 | 0.74 | ug/L | | | 12/14/18 01:18 | 1 |
| 2-Hexanone | 1.2 | U | 5.0 | 1.2 | ug/L | | | 12/14/18 01:18 | 1 |
| Iodomethane | 0.30 | U | 1.0 | 0.30 | ug/L | | | 12/14/18 01:18 | 1 |

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

**Client Sample ID: TRIP BLANK1**
**Date Collected: 12/07/18 00:00**
**Date Received: 12/08/18 10:40**

**Lab Sample ID: 280-117970-6**
**Matrix: Water**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Methylene Chloride | 0.44 | U | 2.0 | 0.44 | ug/L | | | 12/14/18 01:18 | 1 |
| 4-Methyl-2-pentanone (MIBK) | 2.1 | U | 5.0 | 2.1 | ug/L | | | 12/14/18 01:18 | 1 |
| Styrene | 0.73 | U | 1.0 | 0.73 | ug/L | | | 12/14/18 01:18 | 1 |
| 1,1,1,2-Tetrachloroethane | 0.35 | U | 1.0 | 0.35 | ug/L | | | 12/14/18 01:18 | 1 |
| 1,1,2,2-Tetrachloroethane | 0.21 | U | 1.0 | 0.21 | ug/L | | | 12/14/18 01:18 | 1 |
| Tetrachloroethene | 0.36 | U | 1.0 | 0.36 | ug/L | | | 12/14/18 01:18 | 1 |
| Toluene | 0.51 | U | 1.0 | 0.51 | ug/L | | | 12/14/18 01:18 | 1 |
| 1,1,1-Trichloroethane | 0.82 | U | 1.0 | 0.82 | ug/L | | | 12/14/18 01:18 | 1 |
| 1,1,2-Trichloroethane | 0.23 | U | 1.0 | 0.23 | ug/L | | | 12/14/18 01:18 | 1 |
| Trichloroethene | 0.46 | U | 1.0 | 0.46 | ug/L | | | 12/14/18 01:18 | 1 |
| Trichlorofluoromethane | 0.88 | U | 2.0 | 0.88 | ug/L | | | 12/14/18 01:18 | 1 |
| 1,2,3-Trichloropropane | 0.89 | U | 2.5 | 0.89 | ug/L | | | 12/14/18 01:18 | 1 |
| Vinyl acetate | 0.85 | U | 3.0 | 0.85 | ug/L | | | 12/14/18 01:18 | 1 |
| Vinyl chloride | 0.90 | U | 1.0 | 0.90 | ug/L | | | 12/14/18 01:18 | 1 |
| Xylenes (total) | 0.66 | U | 2.0 | 0.66 | ug/L | | | 12/14/18 01:18 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1,2-Dichloroethane-d4 (Surr)* | *96* | | *77 - 120* | | *12/14/18 01:18* | *1* |
| *Toluene-d8 (Surr)* | *99* | | *80 - 120* | | *12/14/18 01:18* | *1* |
| *4-Bromofluorobenzene (Surr)* | *104* | | *73 - 120* | | *12/14/18 01:18* | *1* |
| *Dibromofluoromethane (Surr)* | *99* | | *75 - 123* | | *12/14/18 01:18* | *1* |

**Client Sample ID: MW-14A**
**Date Collected: 12/10/18 08:40**
**Date Received: 12/11/18 09:20**

**Lab Sample ID: 280-118028-2**
**Matrix: Water**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | 3.0 | U | 20 | 3.0 | ug/L | | | 12/20/18 03:19 | 1 |
| Acrylonitrile | 0.83 | U | 20 | 0.83 | ug/L | | | 12/20/18 03:19 | 1 |
| Benzene | 0.41 | U | 1.0 | 0.41 | ug/L | | | 12/20/18 03:19 | 1 |
| Bromochloromethane | 0.87 | U | 1.0 | 0.87 | ug/L | | | 12/20/18 03:19 | 1 |
| Bromodichloromethane | 0.39 | U | 1.0 | 0.39 | ug/L | | | 12/20/18 03:19 | 1 |
| Bromoform | 0.26 | U | 1.0 | 0.26 | ug/L | | | 12/20/18 03:19 | 1 |
| Bromomethane | 0.69 | U | 2.0 | 0.69 | ug/L | | | 12/20/18 03:19 | 1 |
| 2-Butanone (MEK) | 1.3 | U | 6.0 | 1.3 | ug/L | | | 12/20/18 03:19 | 1 |
| Carbon disulfide | 0.19 | U | 2.0 | 0.19 | ug/L | | | 12/20/18 03:19 | 1 |
| Carbon tetrachloride | 0.27 | U | 1.0 | 0.27 | ug/L | | | 12/20/18 03:19 | 1 |
| Chlorobenzene | 0.75 | U | 1.0 | 0.75 | ug/L | | | 12/20/18 03:19 | 1 |
| Dibromochloromethane | 0.32 | U | 1.0 | 0.32 | ug/L | | | 12/20/18 03:19 | 1 |
| Chloroethane | 0.32 | U | 2.0 | 0.32 | ug/L | | | 12/20/18 03:19 | 1 |
| Chloroform | 0.34 | U | 1.0 | 0.34 | ug/L | | | 12/20/18 03:19 | 1 |
| Chloromethane | 0.35 | U | 2.0 | 0.35 | ug/L | | | 12/20/18 03:19 | 1 |
| Dibromomethane | 0.41 | U | 1.0 | 0.41 | ug/L | | | 12/20/18 03:19 | 1 |
| 1,2-Dichlorobenzene | 0.79 | U | 1.0 | 0.79 | ug/L | | | 12/20/18 03:19 | 1 |
| 1,4-Dichlorobenzene | 0.84 | U | 1.0 | 0.84 | ug/L | | | 12/20/18 03:19 | 1 |
| trans-1,4-Dichloro-2-butene | 0.22 | U | 3.0 | 0.22 | ug/L | | | 12/20/18 03:19 | 1 |
| 1,1-Dichloroethane | 0.38 | U | 1.0 | 0.38 | ug/L | | | 12/20/18 03:19 | 1 |
| 1,2-Dichloroethane | 0.21 | U | 1.0 | 0.21 | ug/L | | | 12/20/18 03:19 | 1 |
| cis-1,2-Dichloroethene | 0.81 | U | 1.0 | 0.81 | ug/L | | | 12/20/18 03:19 | 1 |
| trans-1,2-Dichloroethene | 0.90 | U | 1.0 | 0.90 | ug/L | | | 12/20/18 03:19 | 1 |
| 1,1-Dichloroethene | 0.29 | U | 1.0 | 0.29 | ug/L | | | 12/20/18 03:19 | 1 |

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

**Client Sample ID: MW-14A** — **Lab Sample ID: 280-118028-2**
**Date Collected: 12/10/18 08:40** — **Matrix: Water**
**Date Received: 12/11/18 09:20**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,2-Dichloropropane | 0.72 | U | 1.0 | 0.72 | ug/L | | | 12/20/18 03:19 | 1 |
| cis-1,3-Dichloropropene | 0.36 | U | 1.0 | 0.36 | ug/L | | | 12/20/18 03:19 | 1 |
| trans-1,3-Dichloropropene | 0.37 | U | 3.0 | 0.37 | ug/L | | | 12/20/18 03:19 | 1 |
| Ethylbenzene | 0.74 | U | 1.0 | 0.74 | ug/L | | | 12/20/18 03:19 | 1 |
| 2-Hexanone | 1.2 | U | 5.0 | 1.2 | ug/L | | | 12/20/18 03:19 | 1 |
| Iodomethane | 0.30 | U | 1.0 | 0.30 | ug/L | | | 12/20/18 03:19 | 1 |
| Methylene Chloride | 0.44 | U | 2.0 | 0.44 | ug/L | | | 12/20/18 03:19 | 1 |
| 4-Methyl-2-pentanone (MIBK) | 2.1 | U | 5.0 | 2.1 | ug/L | | | 12/20/18 03:19 | 1 |
| Styrene | 0.73 | U | 1.0 | 0.73 | ug/L | | | 12/20/18 03:19 | 1 |
| 1,1,1,2-Tetrachloroethane | 0.35 | U | 1.0 | 0.35 | ug/L | | | 12/20/18 03:19 | 1 |
| 1,1,2,2-Tetrachloroethane | 0.21 | U | 1.0 | 0.21 | ug/L | | | 12/20/18 03:19 | 1 |
| Tetrachloroethene | 0.36 | U | 1.0 | 0.36 | ug/L | | | 12/20/18 03:19 | 1 |
| Toluene | 0.51 | U | 1.0 | 0.51 | ug/L | | | 12/20/18 03:19 | 1 |
| 1,1,1-Trichloroethane | 0.82 | U | 1.0 | 0.82 | ug/L | | | 12/20/18 03:19 | 1 |
| 1,1,2-Trichloroethane | 0.23 | U | 1.0 | 0.23 | ug/L | | | 12/20/18 03:19 | 1 |
| Trichloroethene | 0.46 | U | 1.0 | 0.46 | ug/L | | | 12/20/18 03:19 | 1 |
| Trichlorofluoromethane | 0.88 | U | 2.0 | 0.88 | ug/L | | | 12/20/18 03:19 | 1 |
| 1,2,3-Trichloropropane | 0.89 | U | 2.5 | 0.89 | ug/L | | | 12/20/18 03:19 | 1 |
| Vinyl acetate | 0.85 | U | 3.0 | 0.85 | ug/L | | | 12/20/18 03:19 | 1 |
| Vinyl chloride | 0.90 | U | 1.0 | 0.90 | ug/L | | | 12/20/18 03:19 | 1 |
| Xylenes (total) | 0.66 | U | 2.0 | 0.66 | ug/L | | | 12/20/18 03:19 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1,2-Dichloroethane-d4 (Surr)* | *103* | | *77 - 120* | | *12/20/18 03:19* | *1* |
| *Toluene-d8 (Surr)* | *91* | | *80 - 120* | | *12/20/18 03:19* | *1* |
| *4-Bromofluorobenzene (Surr)* | *81* | | *73 - 120* | | *12/20/18 03:19* | *1* |
| *Dibromofluoromethane (Surr)* | *91* | | *75 - 123* | | *12/20/18 03:19* | *1* |

**Client Sample ID: MW-9A** — **Lab Sample ID: 280-118028-3**
**Date Collected: 12/10/18 07:27** — **Matrix: Water**
**Date Received: 12/11/18 09:20**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | 3.0 | U | 20 | 3.0 | ug/L | | | 12/20/18 03:46 | 1 |
| Acrylonitrile | 0.83 | U | 20 | 0.83 | ug/L | | | 12/20/18 03:46 | 1 |
| Benzene | 0.41 | U | 1.0 | 0.41 | ug/L | | | 12/20/18 03:46 | 1 |
| Bromochloromethane | 0.87 | U | 1.0 | 0.87 | ug/L | | | 12/20/18 03:46 | 1 |
| Bromodichloromethane | 0.39 | U | 1.0 | 0.39 | ug/L | | | 12/20/18 03:46 | 1 |
| Bromoform | 0.26 | U | 1.0 | 0.26 | ug/L | | | 12/20/18 03:46 | 1 |
| Bromomethane | 0.69 | U | 2.0 | 0.69 | ug/L | | | 12/20/18 03:46 | 1 |
| 2-Butanone (MEK) | 1.3 | U | 6.0 | 1.3 | ug/L | | | 12/20/18 03:46 | 1 |
| Carbon disulfide | 0.19 | U | 2.0 | 0.19 | ug/L | | | 12/20/18 03:46 | 1 |
| Carbon tetrachloride | 0.27 | U | 1.0 | 0.27 | ug/L | | | 12/20/18 03:46 | 1 |
| Chlorobenzene | 0.75 | U | 1.0 | 0.75 | ug/L | | | 12/20/18 03:46 | 1 |
| Dibromochloromethane | 0.32 | U | 1.0 | 0.32 | ug/L | | | 12/20/18 03:46 | 1 |
| Chloroethane | 0.32 | U | 2.0 | 0.32 | ug/L | | | 12/20/18 03:46 | 1 |
| Chloroform | 0.34 | U | 1.0 | 0.34 | ug/L | | | 12/20/18 03:46 | 1 |
| Chloromethane | 0.35 | U | 2.0 | 0.35 | ug/L | | | 12/20/18 03:46 | 1 |
| Dibromomethane | 0.41 | U | 1.0 | 0.41 | ug/L | | | 12/20/18 03:46 | 1 |
| 1,2-Dichlorobenzene | 0.79 | U | 1.0 | 0.79 | ug/L | | | 12/20/18 03:46 | 1 |
| 1,4-Dichlorobenzene | 0.84 | U | 1.0 | 0.84 | ug/L | | | 12/20/18 03:46 | 1 |

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

**Client Sample ID: MW-9A** — **Lab Sample ID: 280-118028-3**
**Date Collected: 12/10/18 07:27** — **Matrix: Water**
**Date Received: 12/11/18 09:20**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| trans-1,4-Dichloro-2-butene | 0.22 | U | 3.0 | 0.22 | ug/L | | | 12/20/18 03:46 | 1 |
| 1,1-Dichloroethane | 0.38 | U | 1.0 | 0.38 | ug/L | | | 12/20/18 03:46 | 1 |
| 1,2-Dichloroethane | 0.21 | U | 1.0 | 0.21 | ug/L | | | 12/20/18 03:46 | 1 |
| cis-1,2-Dichloroethene | 0.81 | U | 1.0 | 0.81 | ug/L | | | 12/20/18 03:46 | 1 |
| trans-1,2-Dichloroethene | 0.90 | U | 1.0 | 0.90 | ug/L | | | 12/20/18 03:46 | 1 |
| 1,1-Dichloroethene | 0.29 | U | 1.0 | 0.29 | ug/L | | | 12/20/18 03:46 | 1 |
| 1,2-Dichloropropane | 0.72 | U | 1.0 | 0.72 | ug/L | | | 12/20/18 03:46 | 1 |
| cis-1,3-Dichloropropene | 0.36 | U | 1.0 | 0.36 | ug/L | | | 12/20/18 03:46 | 1 |
| trans-1,3-Dichloropropene | 0.37 | U | 3.0 | 0.37 | ug/L | | | 12/20/18 03:46 | 1 |
| Ethylbenzene | 0.74 | U | 1.0 | 0.74 | ug/L | | | 12/20/18 03:46 | 1 |
| 2-Hexanone | 1.2 | U | 5.0 | 1.2 | ug/L | | | 12/20/18 03:46 | 1 |
| Iodomethane | 0.30 | U | 1.0 | 0.30 | ug/L | | | 12/20/18 03:46 | 1 |
| Methylene Chloride | 0.44 | U | 2.0 | 0.44 | ug/L | | | 12/20/18 03:46 | 1 |
| 4-Methyl-2-pentanone (MIBK) | 2.1 | U | 5.0 | 2.1 | ug/L | | | 12/20/18 03:46 | 1 |
| Styrene | 0.73 | U | 1.0 | 0.73 | ug/L | | | 12/20/18 03:46 | 1 |
| 1,1,1,2-Tetrachloroethane | 0.35 | U | 1.0 | 0.35 | ug/L | | | 12/20/18 03:46 | 1 |
| 1,1,2,2-Tetrachloroethane | 0.21 | U | 1.0 | 0.21 | ug/L | | | 12/20/18 03:46 | 1 |
| Tetrachloroethene | 0.36 | U | 1.0 | 0.36 | ug/L | | | 12/20/18 03:46 | 1 |
| Toluene | 0.51 | U | 1.0 | 0.51 | ug/L | | | 12/20/18 03:46 | 1 |
| 1,1,1-Trichloroethane | 0.82 | U | 1.0 | 0.82 | ug/L | | | 12/20/18 03:46 | 1 |
| 1,1,2-Trichloroethane | 0.23 | U | 1.0 | 0.23 | ug/L | | | 12/20/18 03:46 | 1 |
| Trichloroethene | 0.46 | U | 1.0 | 0.46 | ug/L | | | 12/20/18 03:46 | 1 |
| Trichlorofluoromethane | 0.88 | U | 2.0 | 0.88 | ug/L | | | 12/20/18 03:46 | 1 |
| 1,2,3-Trichloropropane | 0.89 | U | 2.5 | 0.89 | ug/L | | | 12/20/18 03:46 | 1 |
| Vinyl acetate | 0.85 | U | 3.0 | 0.85 | ug/L | | | 12/20/18 03:46 | 1 |
| Vinyl chloride | 0.90 | U | 1.0 | 0.90 | ug/L | | | 12/20/18 03:46 | 1 |
| Xylenes (total) | 0.66 | U | 2.0 | 0.66 | ug/L | | | 12/20/18 03:46 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1,2-Dichloroethane-d4 (Surr)* | *104* | | *77 - 120* | | *12/20/18 03:46* | *1* |
| *Toluene-d8 (Surr)* | *94* | | *80 - 120* | | *12/20/18 03:46* | *1* |
| *4-Bromofluorobenzene (Surr)* | *83* | | *73 - 120* | | *12/20/18 03:46* | *1* |
| *Dibromofluoromethane (Surr)* | *91* | | *75 - 123* | | *12/20/18 03:46* | *1* |

**Client Sample ID: TRIP BLANK2** — **Lab Sample ID: 280-118028-4**
**Date Collected: 12/10/18 00:00** — **Matrix: Water**
**Date Received: 12/11/18 09:20**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | 3.0 | U | 20 | 3.0 | ug/L | | | 12/20/18 04:14 | 1 |
| Acrylonitrile | 0.83 | U | 20 | 0.83 | ug/L | | | 12/20/18 04:14 | 1 |
| Benzene | 0.41 | U | 1.0 | 0.41 | ug/L | | | 12/20/18 04:14 | 1 |
| Bromochloromethane | 0.87 | U | 1.0 | 0.87 | ug/L | | | 12/20/18 04:14 | 1 |
| Bromodichloromethane | 0.39 | U | 1.0 | 0.39 | ug/L | | | 12/20/18 04:14 | 1 |
| Bromoform | 0.26 | U | 1.0 | 0.26 | ug/L | | | 12/20/18 04:14 | 1 |
| Bromomethane | 0.69 | U | 2.0 | 0.69 | ug/L | | | 12/20/18 04:14 | 1 |
| 2-Butanone (MEK) | 1.3 | U | 6.0 | 1.3 | ug/L | | | 12/20/18 04:14 | 1 |
| Carbon disulfide | 0.19 | U | 2.0 | 0.19 | ug/L | | | 12/20/18 04:14 | 1 |
| Carbon tetrachloride | 0.27 | U | 1.0 | 0.27 | ug/L | | | 12/20/18 04:14 | 1 |
| Chlorobenzene | 0.75 | U | 1.0 | 0.75 | ug/L | | | 12/20/18 04:14 | 1 |
| Dibromochloromethane | 0.32 | U | 1.0 | 0.32 | ug/L | | | 12/20/18 04:14 | 1 |

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

**Client Sample ID: TRIP BLANK2**
**Date Collected: 12/10/18 00:00**
**Date Received: 12/11/18 09:20**

**Lab Sample ID: 280-118028-4**
**Matrix: Water**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Chloroethane | 0.32 | U | 2.0 | 0.32 | ug/L | | | 12/20/18 04:14 | 1 |
| Chloroform | 0.34 | U | 1.0 | 0.34 | ug/L | | | 12/20/18 04:14 | 1 |
| Chloromethane | 0.35 | U | 2.0 | 0.35 | ug/L | | | 12/20/18 04:14 | 1 |
| Dibromomethane | 0.41 | U | 1.0 | 0.41 | ug/L | | | 12/20/18 04:14 | 1 |
| 1,2-Dichlorobenzene | 0.79 | U | 1.0 | 0.79 | ug/L | | | 12/20/18 04:14 | 1 |
| 1,4-Dichlorobenzene | 0.84 | U | 1.0 | 0.84 | ug/L | | | 12/20/18 04:14 | 1 |
| trans-1,4-Dichloro-2-butene | 0.22 | U | 3.0 | 0.22 | ug/L | | | 12/20/18 04:14 | 1 |
| 1,1-Dichloroethane | 0.38 | U | 1.0 | 0.38 | ug/L | | | 12/20/18 04:14 | 1 |
| 1,2-Dichloroethane | 0.21 | U | 1.0 | 0.21 | ug/L | | | 12/20/18 04:14 | 1 |
| cis-1,2-Dichloroethene | 0.81 | U | 1.0 | 0.81 | ug/L | | | 12/20/18 04:14 | 1 |
| trans-1,2-Dichloroethene | 0.90 | U | 1.0 | 0.90 | ug/L | | | 12/20/18 04:14 | 1 |
| 1,1-Dichloroethene | 0.29 | U | 1.0 | 0.29 | ug/L | | | 12/20/18 04:14 | 1 |
| 1,2-Dichloropropane | 0.72 | U | 1.0 | 0.72 | ug/L | | | 12/20/18 04:14 | 1 |
| cis-1,3-Dichloropropene | 0.36 | U | 1.0 | 0.36 | ug/L | | | 12/20/18 04:14 | 1 |
| trans-1,3-Dichloropropene | 0.37 | U | 3.0 | 0.37 | ug/L | | | 12/20/18 04:14 | 1 |
| Ethylbenzene | 0.74 | U | 1.0 | 0.74 | ug/L | | | 12/20/18 04:14 | 1 |
| 2-Hexanone | 1.2 | U | 5.0 | 1.2 | ug/L | | | 12/20/18 04:14 | 1 |
| Iodomethane | 0.30 | U | 1.0 | 0.30 | ug/L | | | 12/20/18 04:14 | 1 |
| Methylene Chloride | 0.44 | U | 2.0 | 0.44 | ug/L | | | 12/20/18 04:14 | 1 |
| 4-Methyl-2-pentanone (MIBK) | 2.1 | U | 5.0 | 2.1 | ug/L | | | 12/20/18 04:14 | 1 |
| Styrene | 0.73 | U | 1.0 | 0.73 | ug/L | | | 12/20/18 04:14 | 1 |
| 1,1,1,2-Tetrachloroethane | 0.35 | U | 1.0 | 0.35 | ug/L | | | 12/20/18 04:14 | 1 |
| 1,1,2,2-Tetrachloroethane | 0.21 | U | 1.0 | 0.21 | ug/L | | | 12/20/18 04:14 | 1 |
| Tetrachloroethene | 0.36 | U | 1.0 | 0.36 | ug/L | | | 12/20/18 04:14 | 1 |
| Toluene | 0.51 | U | 1.0 | 0.51 | ug/L | | | 12/20/18 04:14 | 1 |
| 1,1,1-Trichloroethane | 0.82 | U | 1.0 | 0.82 | ug/L | | | 12/20/18 04:14 | 1 |
| 1,1,2-Trichloroethane | 0.23 | U | 1.0 | 0.23 | ug/L | | | 12/20/18 04:14 | 1 |
| Trichloroethene | 0.46 | U | 1.0 | 0.46 | ug/L | | | 12/20/18 04:14 | 1 |
| Trichlorofluoromethane | 0.88 | U | 2.0 | 0.88 | ug/L | | | 12/20/18 04:14 | 1 |
| 1,2,3-Trichloropropane | 0.89 | U | 2.5 | 0.89 | ug/L | | | 12/20/18 04:14 | 1 |
| Vinyl acetate | 0.85 | U | 3.0 | 0.85 | ug/L | | | 12/20/18 04:14 | 1 |
| Vinyl chloride | 0.90 | U | 1.0 | 0.90 | ug/L | | | 12/20/18 04:14 | 1 |
| Xylenes (total) | 0.66 | U | 2.0 | 0.66 | ug/L | | | 12/20/18 04:14 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1,2-Dichloroethane-d4 (Surr)* | *106* | | *77 - 120* | | *12/20/18 04:14* | *1* |
| *Toluene-d8 (Surr)* | *91* | | *80 - 120* | | *12/20/18 04:14* | *1* |
| *4-Bromofluorobenzene (Surr)* | *81* | | *73 - 120* | | *12/20/18 04:14* | *1* |
| *Dibromofluoromethane (Surr)* | *94* | | *75 - 123* | | *12/20/18 04:14* | *1* |

## Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

**Client Sample ID: MW-3A**
**Date Collected: 12/06/18 09:00**
**Date Received: 12/07/18 09:10**

**Lab Sample ID: 280-117920-1**
**Matrix: Water**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,2-Dibromoethane | 0.0037 | U | 0.020 | 0.0037 | ug/L | | 12/13/18 13:59 | 12/14/18 05:15 | 1 |
| 1,2-Dibromo-3-Chloropropane | 0.0069 | U | 0.020 | 0.0069 | ug/L | | 12/13/18 13:59 | 12/14/18 05:15 | 1 |

## Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC) (Continued)

| Surrogate | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|
| 1,2-Dibromopropane | 104 | | 70 - 130 | 12/13/18 13:59 | 12/14/18 05:15 | 1 |

**Client Sample ID: MW-4A** — **Lab Sample ID: 280-117920-2**
**Date Collected: 12/06/18 10:20** — **Matrix: Water**
**Date Received: 12/07/18 09:10**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,2-Dibromoethane | 0.0038 | U | 0.021 | 0.0038 | ug/L | | 12/13/18 13:59 | 12/14/18 05:34 | 1 |
| 1,2-Dibromo-3-Chloropropane | 0.0070 | U | 0.021 | 0.0070 | ug/L | | 12/13/18 13:59 | 12/14/18 05:34 | 1 |

| Surrogate | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|
| 1,2-Dibromopropane | 107 | | 70 - 130 | 12/13/18 13:59 | 12/14/18 05:34 | 1 |

**Client Sample ID: MW-5A** — **Lab Sample ID: 280-117920-3**
**Date Collected: 12/06/18 11:49** — **Matrix: Water**
**Date Received: 12/07/18 09:10**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,2-Dibromoethane | 0.0038 | U | 0.021 | 0.0038 | ug/L | | 12/13/18 13:59 | 12/14/18 05:53 | 1 |
| 1,2-Dibromo-3-Chloropropane | 0.0070 | U | 0.021 | 0.0070 | ug/L | | 12/13/18 13:59 | 12/14/18 05:53 | 1 |

| Surrogate | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|
| 1,2-Dibromopropane | 109 | | 70 - 130 | 12/13/18 13:59 | 12/14/18 05:53 | 1 |

**Client Sample ID: MW-7A** — **Lab Sample ID: 280-117920-4**
**Date Collected: 12/06/18 13:04** — **Matrix: Water**
**Date Received: 12/07/18 09:10**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,2-Dibromoethane | 0.0038 | U | 0.020 | 0.0038 | ug/L | | 12/13/18 13:59 | 12/14/18 06:12 | 1 |
| 1,2-Dibromo-3-Chloropropane | 0.0069 | U | 0.020 | 0.0069 | ug/L | | 12/13/18 13:59 | 12/14/18 06:12 | 1 |

| Surrogate | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|
| 1,2-Dibromopropane | 107 | | 70 - 130 | 12/13/18 13:59 | 12/14/18 06:12 | 1 |

**Client Sample ID: MW-1A** — **Lab Sample ID: 280-117920-5**
**Date Collected: 12/06/18 14:18** — **Matrix: Water**
**Date Received: 12/07/18 09:10**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,2-Dibromoethane | 0.0038 | U | 0.020 | 0.0038 | ug/L | | 12/13/18 13:59 | 12/14/18 06:50 | 1 |
| 1,2-Dibromo-3-Chloropropane | 0.0070 | U | 0.020 | 0.0070 | ug/L | | 12/13/18 13:59 | 12/14/18 06:50 | 1 |

| Surrogate | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|
| 1,2-Dibromopropane | 106 | | 70 - 130 | 12/13/18 13:59 | 12/14/18 06:50 | 1 |

**Client Sample ID: TRIP BLANK** — **Lab Sample ID: 280-117920-6**
**Date Collected: 12/06/18 00:00** — **Matrix: Water**
**Date Received: 12/07/18 09:10**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,2-Dibromoethane | 0.0038 | U | 0.021 | 0.0038 | ug/L | | 12/13/18 10:28 | 12/14/18 00:11 | 1 |
| 1,2-Dibromo-3-Chloropropane | 0.0070 | U | 0.021 | 0.0070 | ug/L | | 12/13/18 10:28 | 12/14/18 00:11 | 1 |

| Surrogate | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|
| 1,2-Dibromopropane | 103 | | 70 - 130 | 12/13/18 10:28 | 12/14/18 00:11 | 1 |

## Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

**Client Sample ID: MW-8R** — **Lab Sample ID: 280-117970-1**
**Date Collected: 12/07/18 07:27** — **Matrix: Water**
**Date Received: 12/08/18 10:40**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,2-Dibromoethane | 0.0038 | U | 0.021 | 0.0038 | ug/L | | 12/13/18 13:59 | 12/14/18 07:09 | 1 |
| 1,2-Dibromo-3-Chloropropane | 0.0070 | U | 0.021 | 0.0070 | ug/L | | 12/13/18 13:59 | 12/14/18 07:09 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1,2-Dibromopropane* | *107* | | *70 - 130* | *12/13/18 13:59* | *12/14/18 07:09* | *1* |

**Client Sample ID: MW-2AR** — **Lab Sample ID: 280-117970-2**
**Date Collected: 12/07/18 08:06** — **Matrix: Water**
**Date Received: 12/08/18 10:40**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,2-Dibromoethane | 0.0038 | U | 0.020 | 0.0038 | ug/L | | 12/13/18 13:59 | 12/14/18 07:28 | 1 |
| 1,2-Dibromo-3-Chloropropane | 0.0069 | U | 0.020 | 0.0069 | ug/L | | 12/13/18 13:59 | 12/14/18 07:28 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1,2-Dibromopropane* | *108* | | *70 - 130* | *12/13/18 13:59* | *12/14/18 07:28* | *1* |

**Client Sample ID: MW-6AR** — **Lab Sample ID: 280-117970-3**
**Date Collected: 12/07/18 09:27** — **Matrix: Water**
**Date Received: 12/08/18 10:40**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,2-Dibromoethane | 0.0038 | U | 0.021 | 0.0038 | ug/L | | 12/13/18 13:59 | 12/14/18 07:47 | 1 |
| 1,2-Dibromo-3-Chloropropane | 0.0070 | U | 0.021 | 0.0070 | ug/L | | 12/13/18 13:59 | 12/14/18 07:47 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1,2-Dibromopropane* | *113* | | *70 - 130* | *12/13/18 13:59* | *12/14/18 07:47* | *1* |

**Client Sample ID: MW-15A** — **Lab Sample ID: 280-117970-4**
**Date Collected: 12/07/18 10:44** — **Matrix: Water**
**Date Received: 12/08/18 10:40**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,2-Dibromoethane | 0.0038 | U | 0.020 | 0.0038 | ug/L | | 12/13/18 13:59 | 12/14/18 08:07 | 1 |
| 1,2-Dibromo-3-Chloropropane | 0.0070 | U | 0.020 | 0.0070 | ug/L | | 12/13/18 13:59 | 12/14/18 08:07 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1,2-Dibromopropane* | *109* | | *70 - 130* | *12/13/18 13:59* | *12/14/18 08:07* | *1* |

**Client Sample ID: MW-11A** — **Lab Sample ID: 280-117970-5**
**Date Collected: 12/07/18 11:55** — **Matrix: Water**
**Date Received: 12/08/18 10:40**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,2-Dibromoethane | 0.0038 | U | 0.021 | 0.0038 | ug/L | | 12/13/18 13:59 | 12/14/18 08:26 | 1 |
| 1,2-Dibromo-3-Chloropropane | 0.0070 | U | 0.021 | 0.0070 | ug/L | | 12/13/18 13:59 | 12/14/18 08:26 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1,2-Dibromopropane* | *108* | | *70 - 130* | *12/13/18 13:59* | *12/14/18 08:26* | *1* |

**Client Sample ID: TRIP BLANK1** — **Lab Sample ID: 280-117970-6**
**Date Collected: 12/07/18 00:00** — **Matrix: Water**
**Date Received: 12/08/18 10:40**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,2-Dibromoethane | 0.0038 | U | 0.021 | 0.0038 | ug/L | | 12/13/18 13:59 | 12/14/18 08:45 | 1 |
| 1,2-Dibromo-3-Chloropropane | 0.0071 | U | 0.021 | 0.0071 | ug/L | | 12/13/18 13:59 | 12/14/18 08:45 | 1 |

| Surrogate | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|
| 1,2-Dibromopropane | 107 | | 70 - 130 | 12/13/18 13:59 | 12/14/18 08:45 | 1 |

**Client Sample ID: MW-14A** — **Lab Sample ID: 280-118028-2**
**Date Collected: 12/10/18 08:40** — **Matrix: Water**
**Date Received: 12/11/18 09:20**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,2-Dibromoethane | 0.0038 | U | 0.021 | 0.0038 | ug/L | | 12/21/18 14:04 | 01/03/19 08:39 | 1 |
| 1,2-Dibromo-3-Chloropropane | 0.0070 | U | 0.021 | 0.0070 | ug/L | | 12/21/18 14:04 | 01/03/19 08:39 | 1 |

| Surrogate | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|
| 1,2-Dibromopropane | 115 | | 70 - 130 | 12/21/18 14:04 | 01/03/19 08:39 | 1 |

**Client Sample ID: MW-9A** — **Lab Sample ID: 280-118028-3**
**Date Collected: 12/10/18 07:27** — **Matrix: Water**
**Date Received: 12/11/18 09:20**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,2-Dibromoethane | 0.0038 | U | 0.021 | 0.0038 | ug/L | | 12/21/18 14:04 | 01/03/19 08:59 | 1 |
| 1,2-Dibromo-3-Chloropropane | 0.0070 | U | 0.021 | 0.0070 | ug/L | | 12/21/18 14:04 | 01/03/19 08:59 | 1 |

| Surrogate | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|
| 1,2-Dibromopropane | 109 | | 70 - 130 | 12/21/18 14:04 | 01/03/19 08:59 | 1 |

**Client Sample ID: TRIP BLANK2** — **Lab Sample ID: 280-118028-4**
**Date Collected: 12/10/18 00:00** — **Matrix: Water**
**Date Received: 12/11/18 09:20**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,2-Dibromoethane | 0.0038 | U | 0.021 | 0.0038 | ug/L | | 12/20/18 14:59 | 12/31/18 02:55 | 1 |
| 1,2-Dibromo-3-Chloropropane | 0.0070 | U | 0.021 | 0.0070 | ug/L | | 12/20/18 14:59 | 12/31/18 02:55 | 1 |

| Surrogate | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|
| 1,2-Dibromopropane | 91 | | 70 - 130 | 12/20/18 14:59 | 12/31/18 02:55 | 1 |

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

**Client Sample ID: MW-3B** — **Lab Sample ID: 280-117909-1**
**Date Collected: 12/06/18 08:26** — **Matrix: Water**
**Date Received: 12/07/18 09:10**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Sodium** | **4.7** | | 1.0 | 0.12 | mg/L | | 12/11/18 06:45 | 12/11/18 23:40 | 1 |

**Client Sample ID: MW-4B** — **Lab Sample ID: 280-117909-2**
**Date Collected: 12/06/18 09:40** — **Matrix: Water**
**Date Received: 12/07/18 09:10**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Sodium** | **1.9** | | 1.0 | 0.12 | mg/L | | 12/11/18 06:45 | 12/11/18 23:44 | 1 |

**Client Sample ID: MW-5B** — **Lab Sample ID: 280-117909-3**
**Date Collected: 12/06/18 11:01** — **Matrix: Water**
**Date Received: 12/07/18 09:10**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Sodium** | **4.3** | | 1.0 | 0.12 | mg/L | | 12/11/18 06:45 | 12/11/18 23:47 | 1 |

# Client Sample Results

Client: Waste Management
Project/Site: FL26|Vista

TestAmerica Job ID: 280-117909-1

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

**Client Sample ID: MW-7B** — **Lab Sample ID: 280-117909-4**
**Date Collected: 12/06/18 12:22** — **Matrix: Water**
**Date Received: 12/07/18 09:10**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Sodium** | **6.9** | | 1.0 | 0.12 | mg/L | | 12/11/18 06:45 | 12/11/18 23:51 | 1 |

**Client Sample ID: MW-1B** — **Lab Sample ID: 280-117909-5**
**Date Collected: 12/06/18 13:41** — **Matrix: Water**
**Date Received: 12/07/18 09:10**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Sodium** | **5.6** | | 1.0 | 0.12 | mg/L | | 12/11/18 06:45 | 12/12/18 00:08 | 1 |

**Client Sample ID: MW-3A** — **Lab Sample ID: 280-117920-1**
**Date Collected: 12/06/18 09:00** — **Matrix: Water**
**Date Received: 12/07/18 09:10**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Barium** | **33** | | 10 | 0.82 | ug/L | | 12/11/18 06:45 | 12/12/18 00:11 | 1 |
| Cadmium | 0.45 | U | 5.0 | 0.45 | ug/L | | 12/11/18 06:45 | 12/12/18 00:11 | 1 |
| Cobalt | 1.2 | U | 10 | 1.2 | ug/L | | 12/11/18 06:45 | 12/12/18 00:11 | 1 |
| Chromium | 0.66 | U | 10 | 0.66 | ug/L | | 12/11/18 06:45 | 12/12/18 00:11 | 1 |
| Copper | 4.2 | U | 15 | 4.2 | ug/L | | 12/11/18 06:45 | 12/12/18 00:11 | 1 |
| Nickel | 2.6 | U | 40 | 2.6 | ug/L | | 12/11/18 06:45 | 12/12/18 00:11 | 1 |
| Lead | 2.7 | U | 9.0 | 2.7 | ug/L | | 12/11/18 06:45 | 12/12/18 00:11 | 1 |
| Selenium | 6.3 | U | 20 | 6.3 | ug/L | | 12/11/18 06:45 | 12/12/18 00:11 | 1 |
| **Iron** | **100** | | 100 | 22 | ug/L | | 12/11/18 06:45 | 12/12/18 00:11 | 1 |
| **Vanadium** | **1.6** | **I** | 10 | 1.1 | ug/L | | 12/11/18 06:45 | 12/12/18 00:11 | 1 |
| **Zinc** | **13** | **I** | 20 | 4.5 | ug/L | | 12/11/18 06:45 | 12/12/18 00:11 | 1 |
| Silver | 0.93 | U | 10 | 0.93 | ug/L | | 12/11/18 06:45 | 12/12/18 00:11 | 1 |
| **Sodium** | **2.2** | | 1.0 | 0.12 | mg/L | | 12/11/18 06:45 | 12/12/18 00:11 | 1 |

**Client Sample ID: MW-4A** — **Lab Sample ID: 280-117920-2**
**Date Collected: 12/06/18 10:20** — **Matrix: Water**
**Date Received: 12/07/18 09:10**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Barium** | **20** | | 10 | 0.82 | ug/L | | 12/11/18 06:45 | 12/12/18 00:14 | 1 |
| Cadmium | 0.45 | U | 5.0 | 0.45 | ug/L | | 12/11/18 06:45 | 12/12/18 00:14 | 1 |
| Cobalt | 1.2 | U | 10 | 1.2 | ug/L | | 12/11/18 06:45 | 12/12/18 00:14 | 1 |
| Chromium | 0.66 | U | 10 | 0.66 | ug/L | | 12/11/18 06:45 | 12/12/18 00:14 | 1 |
| Copper | 4.2 | U | 15 | 4.2 | ug/L | | 12/11/18 06:45 | 12/12/18 00:14 | 1 |
| Nickel | 2.6 | U | 40 | 2.6 | ug/L | | 12/11/18 06:45 | 12/12/18 00:14 | 1 |
| Lead | 2.7 | U | 9.0 | 2.7 | ug/L | | 12/11/18 06:45 | 12/12/18 00:14 | 1 |
| Selenium | 6.3 | U | 20 | 6.3 | ug/L | | 12/11/18 06:45 | 12/12/18 00:14 | 1 |
| **Iron** | **24** | **I** | 100 | 22 | ug/L | | 12/11/18 06:45 | 12/12/18 00:14 | 1 |
| Vanadium | 1.1 | U | 10 | 1.1 | ug/L | | 12/11/18 06:45 | 12/12/18 00:14 | 1 |
| **Zinc** | **200** | | 20 | 4.5 | ug/L | | 12/11/18 06:45 | 12/12/18 00:14 | 1 |
| Silver | 0.93 | U | 10 | 0.93 | ug/L | | 12/11/18 06:45 | 12/12/18 00:14 | 1 |
| **Sodium** | **1.9** | | 1.0 | 0.12 | mg/L | | 12/11/18 06:45 | 12/12/18 00:14 | 1 |

**Client Sample ID: MW-5A** — **Lab Sample ID: 280-117920-3**
**Date Collected: 12/06/18 11:49** — **Matrix: Water**
**Date Received: 12/07/18 09:10**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Barium** | **49** | | 10 | 0.82 | ug/L | | 12/11/18 06:45 | 12/12/18 00:18 | 1 |
| Cadmium | 0.45 | U | 5.0 | 0.45 | ug/L | | 12/11/18 06:45 | 12/12/18 00:18 | 1 |

## Method: 6010B - Metals (ICP) - Total Recoverable (Continued)

**Client Sample ID: MW-5A** — **Lab Sample ID: 280-117920-3**
**Date Collected: 12/06/18 11:49** — **Matrix: Water**
**Date Received: 12/07/18 09:10**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Cobalt | 1.2 | U | 10 | 1.2 | ug/L | | 12/11/18 06:45 | 12/12/18 00:18 | 1 |
| Chromium | 0.66 | U | 10 | 0.66 | ug/L | | 12/11/18 06:45 | 12/12/18 00:18 | 1 |
| Copper | 4.2 | U | 15 | 4.2 | ug/L | | 12/11/18 06:45 | 12/12/18 00:18 | 1 |
| Nickel | 2.6 | U | 40 | 2.6 | ug/L | | 12/11/18 06:45 | 12/12/18 00:18 | 1 |
| Lead | 2.7 | U | 9.0 | 2.7 | ug/L | | 12/11/18 06:45 | 12/12/18 00:18 | 1 |
| Selenium | 6.3 | U | 20 | 6.3 | ug/L | | 12/11/18 06:45 | 12/12/18 00:18 | 1 |
| **Iron** | **22** | **I** | 100 | 22 | ug/L | | 12/11/18 06:45 | 12/12/18 00:18 | 1 |
| Vanadium | 1.1 | U | 10 | 1.1 | ug/L | | 12/11/18 06:45 | 12/12/18 00:18 | 1 |
| **Zinc** | **56** | | 20 | 4.5 | ug/L | | 12/11/18 06:45 | 12/12/18 00:18 | 1 |
| Silver | 0.93 | U | 10 | 0.93 | ug/L | | 12/11/18 06:45 | 12/12/18 00:18 | 1 |
| **Sodium** | **3.4** | | 1.0 | 0.12 | mg/L | | 12/11/18 06:45 | 12/12/18 00:18 | 1 |

**Client Sample ID: MW-7A** — **Lab Sample ID: 280-117920-4**
**Date Collected: 12/06/18 13:04** — **Matrix: Water**
**Date Received: 12/07/18 09:10**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Barium** | **16** | | 10 | 0.82 | ug/L | | 12/11/18 06:45 | 12/12/18 00:21 | 1 |
| Cadmium | 0.45 | U | 5.0 | 0.45 | ug/L | | 12/11/18 06:45 | 12/12/18 00:21 | 1 |
| Cobalt | 1.2 | U | 10 | 1.2 | ug/L | | 12/11/18 06:45 | 12/12/18 00:21 | 1 |
| **Chromium** | **1.7** | **I** | 10 | 0.66 | ug/L | | 12/11/18 06:45 | 12/12/18 00:21 | 1 |
| Copper | 4.2 | U | 15 | 4.2 | ug/L | | 12/11/18 06:45 | 12/12/18 00:21 | 1 |
| Nickel | 2.6 | U | 40 | 2.6 | ug/L | | 12/11/18 06:45 | 12/12/18 00:21 | 1 |
| Lead | 2.7 | U | 9.0 | 2.7 | ug/L | | 12/11/18 06:45 | 12/12/18 00:21 | 1 |
| Selenium | 6.3 | U | 20 | 6.3 | ug/L | | 12/11/18 06:45 | 12/12/18 00:21 | 1 |
| **Iron** | **380** | | 100 | 22 | ug/L | | 12/11/18 06:45 | 12/12/18 00:21 | 1 |
| **Vanadium** | **1.4** | **I** | 10 | 1.1 | ug/L | | 12/11/18 06:45 | 12/12/18 00:21 | 1 |
| Zinc | 4.5 | U | 20 | 4.5 | ug/L | | 12/11/18 06:45 | 12/12/18 00:21 | 1 |
| Silver | 0.93 | U | 10 | 0.93 | ug/L | | 12/11/18 06:45 | 12/12/18 00:21 | 1 |
| **Sodium** | **6.8** | | 1.0 | 0.12 | mg/L | | 12/11/18 06:45 | 12/12/18 00:21 | 1 |

**Client Sample ID: MW-1A** — **Lab Sample ID: 280-117920-5**
**Date Collected: 12/06/18 14:18** — **Matrix: Water**
**Date Received: 12/07/18 09:10**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Barium** | **25** | | 10 | 0.82 | ug/L | | 12/11/18 06:45 | 12/12/18 00:24 | 1 |
| **Cadmium** | **0.56** | **I** | 5.0 | 0.45 | ug/L | | 12/11/18 06:45 | 12/12/18 00:24 | 1 |
| Cobalt | 1.2 | U | 10 | 1.2 | ug/L | | 12/11/18 06:45 | 12/12/18 00:24 | 1 |
| **Chromium** | **1.3** | **I** | 10 | 0.66 | ug/L | | 12/11/18 06:45 | 12/12/18 00:24 | 1 |
| Copper | 4.2 | U | 15 | 4.2 | ug/L | | 12/11/18 06:45 | 12/12/18 00:24 | 1 |
| **Nickel** | **3.0** | **I** | 40 | 2.6 | ug/L | | 12/11/18 06:45 | 12/12/18 00:24 | 1 |
| Lead | 2.7 | U | 9.0 | 2.7 | ug/L | | 12/11/18 06:45 | 12/12/18 00:24 | 1 |
| Selenium | 6.3 | U | 20 | 6.3 | ug/L | | 12/11/18 06:45 | 12/12/18 00:24 | 1 |
| **Iron** | **29** | **I** | 100 | 22 | ug/L | | 12/11/18 06:45 | 12/12/18 00:24 | 1 |
| **Vanadium** | **1.6** | **I** | 10 | 1.1 | ug/L | | 12/11/18 06:45 | 12/12/18 00:24 | 1 |
| Zinc | 4.5 | U | 20 | 4.5 | ug/L | | 12/11/18 06:45 | 12/12/18 00:24 | 1 |
| Silver | 0.93 | U | 10 | 0.93 | ug/L | | 12/11/18 06:45 | 12/12/18 00:24 | 1 |
| **Sodium** | **8.0** | | 1.0 | 0.12 | mg/L | | 12/11/18 06:45 | 12/12/18 00:24 | 1 |

# Client Sample Results

Client: Waste Management
Project/Site: FL26|Vista

TestAmerica Job ID: 280-117909-1

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

**Client Sample ID: MW-2B** — **Lab Sample ID: 280-117969-1**
**Date Collected: 12/07/18 08:41** — **Matrix: Water**
**Date Received: 12/08/18 10:40**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Sodium | 5.2 | | 1.0 | 0.12 | mg/L | | 12/11/18 16:30 | 12/13/18 18:40 | 1 |

**Client Sample ID: MW-6BR** — **Lab Sample ID: 280-117969-2**
**Date Collected: 12/07/18 10:01** — **Matrix: Water**
**Date Received: 12/08/18 10:40**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Sodium | 8.1 | | 1.0 | 0.12 | mg/L | | 12/11/18 16:30 | 12/13/18 18:43 | 1 |

**Client Sample ID: MW-15B** — **Lab Sample ID: 280-117969-3**
**Date Collected: 12/07/18 11:16** — **Matrix: Water**
**Date Received: 12/08/18 10:40**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Sodium | 4.2 | | 1.0 | 0.12 | mg/L | | 12/11/18 16:30 | 12/13/18 18:46 | 1 |

**Client Sample ID: MW-11B** — **Lab Sample ID: 280-117969-4**
**Date Collected: 12/07/18 12:31** — **Matrix: Water**
**Date Received: 12/08/18 10:40**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Sodium | 7.2 | | 1.0 | 0.12 | mg/L | | 12/11/18 16:30 | 12/13/18 18:49 | 1 |

**Client Sample ID: MW-8R** — **Lab Sample ID: 280-117970-1**
**Date Collected: 12/07/18 07:27** — **Matrix: Water**
**Date Received: 12/08/18 10:40**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Barium | 14 | | 10 | 0.82 | ug/L | | 12/11/18 16:30 | 12/13/18 18:52 | 1 |
| Cadmium | 0.45 | U | 5.0 | 0.45 | ug/L | | 12/11/18 16:30 | 12/13/18 18:52 | 1 |
| Cobalt | 1.2 | U | 10 | 1.2 | ug/L | | 12/11/18 16:30 | 12/13/18 18:52 | 1 |
| Chromium | 1.3 | I | 10 | 0.66 | ug/L | | 12/11/18 16:30 | 12/13/18 18:52 | 1 |
| Copper | 4.2 | U | 15 | 4.2 | ug/L | | 12/11/18 16:30 | 12/13/18 18:52 | 1 |
| Nickel | 2.6 | U | 40 | 2.6 | ug/L | | 12/11/18 16:30 | 12/13/18 18:52 | 1 |
| Lead | 2.7 | U | 9.0 | 2.7 | ug/L | | 12/11/18 16:30 | 12/13/18 18:52 | 1 |
| Selenium | 6.3 | U | 20 | 6.3 | ug/L | | 12/11/18 16:30 | 12/13/18 18:52 | 1 |
| Iron | 38 | I | 100 | 22 | ug/L | | 12/11/18 16:30 | 12/13/18 18:52 | 1 |
| Vanadium | 2.2 | I | 10 | 1.1 | ug/L | | 12/11/18 16:30 | 12/13/18 18:52 | 1 |
| Zinc | 4.8 | I | 20 | 4.5 | ug/L | | 12/11/18 16:30 | 12/13/18 18:52 | 1 |
| Silver | 0.93 | U | 10 | 0.93 | ug/L | | 12/11/18 16:30 | 12/13/18 18:52 | 1 |
| Sodium | 9.2 | | 1.0 | 0.12 | mg/L | | 12/11/18 16:30 | 12/13/18 18:52 | 1 |

**Client Sample ID: MW-2AR** — **Lab Sample ID: 280-117970-2**
**Date Collected: 12/07/18 08:06** — **Matrix: Water**
**Date Received: 12/08/18 10:40**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Barium | 16 | | 10 | 0.82 | ug/L | | 12/11/18 16:30 | 12/13/18 19:19 | 1 |
| Cadmium | 0.45 | U | 5.0 | 0.45 | ug/L | | 12/11/18 16:30 | 12/13/18 19:19 | 1 |
| Cobalt | 1.2 | U | 10 | 1.2 | ug/L | | 12/11/18 16:30 | 12/13/18 19:19 | 1 |
| Chromium | 1.4 | I | 10 | 0.66 | ug/L | | 12/11/18 16:30 | 12/13/18 19:19 | 1 |
| Copper | 4.2 | U | 15 | 4.2 | ug/L | | 12/11/18 16:30 | 12/13/18 19:19 | 1 |
| Nickel | 2.6 | U | 40 | 2.6 | ug/L | | 12/11/18 16:30 | 12/13/18 19:19 | 1 |
| Lead | 2.7 | U | 9.0 | 2.7 | ug/L | | 12/11/18 16:30 | 12/13/18 19:19 | 1 |
| Selenium | 6.3 | U | 20 | 6.3 | ug/L | | 12/11/18 16:30 | 12/13/18 19:19 | 1 |

## Method: 6010B - Metals (ICP) - Total Recoverable (Continued)

**Client Sample ID: MW-2AR** — **Lab Sample ID: 280-117970-2**
**Date Collected: 12/07/18 08:06** — **Matrix: Water**
**Date Received: 12/08/18 10:40**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Iron | 84 | I | 100 | 22 | ug/L | | 12/11/18 16:30 | 12/13/18 19:19 | 1 |
| Vanadium | 1.1 | I | 10 | 1.1 | ug/L | | 12/11/18 16:30 | 12/13/18 19:19 | 1 |
| Zinc | 4.5 | U | 20 | 4.5 | ug/L | | 12/11/18 16:30 | 12/13/18 19:19 | 1 |
| Silver | 0.93 | U | 10 | 0.93 | ug/L | | 12/11/18 16:30 | 12/13/18 19:19 | 1 |
| Sodium | 1.6 | V | 1.0 | 0.12 | mg/L | | 12/11/18 16:30 | 12/13/18 19:19 | 1 |

**Client Sample ID: MW-6AR** — **Lab Sample ID: 280-117970-3**
**Date Collected: 12/07/18 09:27** — **Matrix: Water**
**Date Received: 12/08/18 10:40**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Barium | 21 | | 10 | 0.82 | ug/L | | 12/11/18 16:30 | 12/13/18 19:22 | 1 |
| Cadmium | 0.56 | I | 5.0 | 0.45 | ug/L | | 12/11/18 16:30 | 12/13/18 19:22 | 1 |
| Cobalt | 1.2 | U | 10 | 1.2 | ug/L | | 12/11/18 16:30 | 12/13/18 19:22 | 1 |
| Chromium | 1.2 | I | 10 | 0.66 | ug/L | | 12/11/18 16:30 | 12/13/18 19:22 | 1 |
| Copper | 4.2 | U | 15 | 4.2 | ug/L | | 12/11/18 16:30 | 12/13/18 19:22 | 1 |
| Nickel | 2.6 | U | 40 | 2.6 | ug/L | | 12/11/18 16:30 | 12/13/18 19:22 | 1 |
| Lead | 2.7 | U | 9.0 | 2.7 | ug/L | | 12/11/18 16:30 | 12/13/18 19:22 | 1 |
| Selenium | 6.3 | U | 20 | 6.3 | ug/L | | 12/11/18 16:30 | 12/13/18 19:22 | 1 |
| Iron | 22 | U | 100 | 22 | ug/L | | 12/11/18 16:30 | 12/13/18 19:22 | 1 |
| Vanadium | 1.1 | U | 10 | 1.1 | ug/L | | 12/11/18 16:30 | 12/13/18 19:22 | 1 |
| Zinc | 4.5 | U | 20 | 4.5 | ug/L | | 12/11/18 16:30 | 12/13/18 19:22 | 1 |
| Silver | 0.93 | U | 10 | 0.93 | ug/L | | 12/11/18 16:30 | 12/13/18 19:22 | 1 |
| Sodium | 10 | | 1.0 | 0.12 | mg/L | | 12/11/18 16:30 | 12/13/18 19:22 | 1 |

**Client Sample ID: MW-15A** — **Lab Sample ID: 280-117970-4**
**Date Collected: 12/07/18 10:44** — **Matrix: Water**
**Date Received: 12/08/18 10:40**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Barium | 5.2 | I | 10 | 0.82 | ug/L | | 12/11/18 16:30 | 12/13/18 19:25 | 1 |
| Cadmium | 0.45 | U | 5.0 | 0.45 | ug/L | | 12/11/18 16:30 | 12/13/18 19:25 | 1 |
| Cobalt | 1.2 | U | 10 | 1.2 | ug/L | | 12/11/18 16:30 | 12/13/18 19:25 | 1 |
| Chromium | 0.98 | I | 10 | 0.66 | ug/L | | 12/11/18 16:30 | 12/13/18 19:25 | 1 |
| Copper | 4.2 | U | 15 | 4.2 | ug/L | | 12/11/18 16:30 | 12/13/18 19:25 | 1 |
| Nickel | 2.6 | U | 40 | 2.6 | ug/L | | 12/11/18 16:30 | 12/13/18 19:25 | 1 |
| Lead | 2.7 | U | 9.0 | 2.7 | ug/L | | 12/11/18 16:30 | 12/13/18 19:25 | 1 |
| Selenium | 6.3 | U | 20 | 6.3 | ug/L | | 12/11/18 16:30 | 12/13/18 19:25 | 1 |
| Iron | 86 | I | 100 | 22 | ug/L | | 12/11/18 16:30 | 12/13/18 19:25 | 1 |
| Vanadium | 1.1 | U | 10 | 1.1 | ug/L | | 12/11/18 16:30 | 12/13/18 19:25 | 1 |
| Zinc | 4.5 | U | 20 | 4.5 | ug/L | | 12/11/18 16:30 | 12/13/18 19:25 | 1 |
| Silver | 0.93 | U | 10 | 0.93 | ug/L | | 12/11/18 16:30 | 12/13/18 19:25 | 1 |
| Sodium | 5.0 | | 1.0 | 0.12 | mg/L | | 12/11/18 16:30 | 12/13/18 19:25 | 1 |

**Client Sample ID: MW-11A** — **Lab Sample ID: 280-117970-5**
**Date Collected: 12/07/18 11:55** — **Matrix: Water**
**Date Received: 12/08/18 10:40**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Barium | 12 | | 10 | 0.82 | ug/L | | 12/11/18 16:30 | 12/13/18 19:28 | 1 |
| Cadmium | 0.45 | U | 5.0 | 0.45 | ug/L | | 12/11/18 16:30 | 12/13/18 19:28 | 1 |
| Cobalt | 1.2 | U | 10 | 1.2 | ug/L | | 12/11/18 16:30 | 12/13/18 19:28 | 1 |
| Chromium | 3.3 | I | 10 | 0.66 | ug/L | | 12/11/18 16:30 | 12/13/18 19:28 | 1 |

## Method: 6010B - Metals (ICP) - Total Recoverable (Continued)

**Client Sample ID: MW-11A** — **Lab Sample ID: 280-117970-5**
**Date Collected: 12/07/18 11:55** — **Matrix: Water**
**Date Received: 12/08/18 10:40**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Copper** | **4.6** | **I** | 15 | 4.2 | ug/L | | 12/11/18 16:30 | 12/13/18 19:28 | 1 |
| Nickel | 2.6 | U | 40 | 2.6 | ug/L | | 12/11/18 16:30 | 12/13/18 19:28 | 1 |
| Lead | 2.7 | U | 9.0 | 2.7 | ug/L | | 12/11/18 16:30 | 12/13/18 19:28 | 1 |
| Selenium | 6.3 | U | 20 | 6.3 | ug/L | | 12/11/18 16:30 | 12/13/18 19:28 | 1 |
| **Iron** | **110** | | 100 | 22 | ug/L | | 12/11/18 16:30 | 12/13/18 19:28 | 1 |
| **Vanadium** | **3.5** | **I** | 10 | 1.1 | ug/L | | 12/11/18 16:30 | 12/13/18 19:28 | 1 |
| **Zinc** | **11** | **I** | 20 | 4.5 | ug/L | | 12/11/18 16:30 | 12/13/18 19:28 | 1 |
| Silver | 0.93 | U | 10 | 0.93 | ug/L | | 12/11/18 16:30 | 12/13/18 19:28 | 1 |
| **Sodium** | **8.9** | | 1.0 | 0.12 | mg/L | | 12/11/18 16:30 | 12/13/18 19:28 | 1 |

**Client Sample ID: Equipment Blank** — **Lab Sample ID: 280-118028-1**
**Date Collected: 12/10/18 09:11** — **Matrix: Water**
**Date Received: 12/11/18 09:20**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Barium | 0.82 | U | 10 | 0.82 | ug/L | | 12/13/18 07:48 | 12/14/18 01:09 | 1 |
| Cadmium | 0.45 | U | 5.0 | 0.45 | ug/L | | 12/13/18 07:48 | 12/14/18 01:09 | 1 |
| Cobalt | 1.2 | U | 10 | 1.2 | ug/L | | 12/13/18 07:48 | 12/14/18 01:09 | 1 |
| Chromium | 0.66 | U | 10 | 0.66 | ug/L | | 12/13/18 07:48 | 12/14/18 01:09 | 1 |
| Copper | 4.2 | U | 15 | 4.2 | ug/L | | 12/13/18 07:48 | 12/14/18 01:09 | 1 |
| Nickel | 2.6 | U | 40 | 2.6 | ug/L | | 12/13/18 07:48 | 12/14/18 01:09 | 1 |
| Lead | 2.7 | U | 9.0 | 2.7 | ug/L | | 12/13/18 07:48 | 12/14/18 01:09 | 1 |
| Selenium | 6.3 | U | 20 | 6.3 | ug/L | | 12/13/18 07:48 | 12/14/18 01:09 | 1 |
| Iron | 22 | U | 100 | 22 | ug/L | | 12/13/18 07:48 | 12/14/18 01:09 | 1 |
| Vanadium | 1.1 | U | 10 | 1.1 | ug/L | | 12/13/18 07:48 | 12/14/18 01:09 | 1 |
| Zinc | 4.5 | U | 20 | 4.5 | ug/L | | 12/13/18 07:48 | 12/14/18 01:09 | 1 |
| Silver | 0.93 | U | 10 | 0.93 | ug/L | | 12/13/18 07:48 | 12/14/18 01:09 | 1 |
| **Sodium** | **0.21** | **I V** | 1.0 | 0.12 | mg/L | | 12/13/18 07:48 | 12/17/18 17:43 | 1 |

**Client Sample ID: MW-14A** — **Lab Sample ID: 280-118028-2**
**Date Collected: 12/10/18 08:40** — **Matrix: Water**
**Date Received: 12/11/18 09:20**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Barium** | **13** | | 10 | 0.82 | ug/L | | 12/13/18 07:48 | 12/14/18 01:12 | 1 |
| Cadmium | 0.45 | U | 5.0 | 0.45 | ug/L | | 12/13/18 07:48 | 12/14/18 01:12 | 1 |
| Cobalt | 1.2 | U | 10 | 1.2 | ug/L | | 12/13/18 07:48 | 12/14/18 01:12 | 1 |
| **Chromium** | **3.2** | **I** | 10 | 0.66 | ug/L | | 12/13/18 07:48 | 12/14/18 01:12 | 1 |
| Copper | 4.2 | U | 15 | 4.2 | ug/L | | 12/13/18 07:48 | 12/14/18 01:12 | 1 |
| Nickel | 2.6 | U | 40 | 2.6 | ug/L | | 12/13/18 07:48 | 12/14/18 01:12 | 1 |
| **Lead** | **3.0** | **I** | 9.0 | 2.7 | ug/L | | 12/13/18 07:48 | 12/14/18 01:12 | 1 |
| Selenium | 6.3 | U | 20 | 6.3 | ug/L | | 12/13/18 07:48 | 12/14/18 01:12 | 1 |
| **Iron** | **650** | | 100 | 22 | ug/L | | 12/13/18 07:48 | 12/14/18 01:12 | 1 |
| **Vanadium** | **2.9** | **I** | 10 | 1.1 | ug/L | | 12/13/18 07:48 | 12/14/18 01:12 | 1 |
| Zinc | 4.5 | U | 20 | 4.5 | ug/L | | 12/13/18 07:48 | 12/14/18 01:12 | 1 |
| Silver | 0.93 | U | 10 | 0.93 | ug/L | | 12/13/18 07:48 | 12/14/18 01:12 | 1 |
| **Sodium** | **4.8** | | 1.0 | 0.12 | mg/L | | 12/13/18 07:48 | 12/17/18 17:46 | 1 |

# Client Sample Results

Client: Waste Management
Project/Site: FL26|Vista

TestAmerica Job ID: 280-117909-1

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

**Client Sample ID: MW-9A** — **Lab Sample ID: 280-118028-3**
**Date Collected: 12/10/18 07:27** — **Matrix: Water**
**Date Received: 12/11/18 09:20**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Barium** | **5.1** | **I** | 10 | 0.82 | ug/L | | 12/13/18 07:48 | 12/14/18 01:25 | 1 |
| Cadmium | 0.45 | U | 5.0 | 0.45 | ug/L | | 12/13/18 07:48 | 12/14/18 01:25 | 1 |
| Cobalt | 1.2 | U | 10 | 1.2 | ug/L | | 12/13/18 07:48 | 12/14/18 01:25 | 1 |
| **Chromium** | **4.7** | **I** | 10 | 0.66 | ug/L | | 12/13/18 07:48 | 12/14/18 01:25 | 1 |
| Copper | 4.2 | U | 15 | 4.2 | ug/L | | 12/13/18 07:48 | 12/14/18 01:25 | 1 |
| Nickel | 2.6 | U | 40 | 2.6 | ug/L | | 12/13/18 07:48 | 12/14/18 01:25 | 1 |
| Lead | 2.7 | U | 9.0 | 2.7 | ug/L | | 12/13/18 07:48 | 12/14/18 01:25 | 1 |
| Selenium | 6.3 | U | 20 | 6.3 | ug/L | | 12/13/18 07:48 | 12/14/18 01:25 | 1 |
| **Iron** | **470** | | 100 | 22 | ug/L | | 12/13/18 07:48 | 12/14/18 01:25 | 1 |
| **Vanadium** | **3.2** | **I** | 10 | 1.1 | ug/L | | 12/13/18 07:48 | 12/14/18 01:25 | 1 |
| Zinc | 4.5 | U | 20 | 4.5 | ug/L | | 12/13/18 07:48 | 12/14/18 01:25 | 1 |
| Silver | 0.93 | U | 10 | 0.93 | ug/L | | 12/13/18 07:48 | 12/14/18 01:25 | 1 |
| **Sodium** | **3.1** | | 1.0 | 0.12 | mg/L | | 12/13/18 07:48 | 12/17/18 18:14 | 1 |

**Client Sample ID: Equipment Blank1** — **Lab Sample ID: 280-118029-1**
**Date Collected: 12/10/18 09:11** — **Matrix: Water**
**Date Received: 12/11/18 09:20**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Sodium** | **0.15** | **I** | 1.0 | 0.12 | mg/L | | 12/13/18 17:30 | 12/24/18 13:27 | 1 |

**Client Sample ID: MW-14B** — **Lab Sample ID: 280-118029-2**
**Date Collected: 12/10/18 09:21** — **Matrix: Water**
**Date Received: 12/11/18 09:20**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Sodium** | **5.9** | | 1.0 | 0.12 | mg/L | | 12/13/18 17:30 | 12/24/18 13:31 | 1 |

**Client Sample ID: MW-9B** — **Lab Sample ID: 280-118029-3**
**Date Collected: 12/10/18 08:01** — **Matrix: Water**
**Date Received: 12/11/18 09:20**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Sodium** | **11** | | 1.0 | 0.12 | mg/L | | 12/13/18 17:30 | 12/24/18 13:34 | 1 |

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

**Client Sample ID: MW-3A** — **Lab Sample ID: 280-117920-1**
**Date Collected: 12/06/18 09:00** — **Matrix: Water**
**Date Received: 12/07/18 09:10**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Antimony | 0.40 | U | 2.0 | 0.40 | ug/L | | 12/11/18 06:45 | 12/12/18 05:27 | 1 |
| Arsenic | 0.33 | U | 5.0 | 0.33 | ug/L | | 12/11/18 06:45 | 12/12/18 05:27 | 1 |
| **Beryllium** | **0.16** | **I** | 1.0 | 0.080 | ug/L | | 12/11/18 06:45 | 12/12/18 05:27 | 1 |
| **Thallium** | **0.060** | **I** | 1.0 | 0.050 | ug/L | | 12/11/18 06:45 | 12/12/18 05:27 | 1 |

**Client Sample ID: MW-4A** — **Lab Sample ID: 280-117920-2**
**Date Collected: 12/06/18 10:20** — **Matrix: Water**
**Date Received: 12/07/18 09:10**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Antimony | 0.40 | U | 2.0 | 0.40 | ug/L | | 12/11/18 06:45 | 12/12/18 05:31 | 1 |
| Arsenic | 0.33 | U | 5.0 | 0.33 | ug/L | | 12/11/18 06:45 | 12/12/18 05:31 | 1 |
| **Beryllium** | **0.083** | **I** | 1.0 | 0.080 | ug/L | | 12/11/18 06:45 | 12/12/18 05:31 | 1 |

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

**Client Sample ID: MW-4A** — **Lab Sample ID: 280-117920-2**
**Date Collected: 12/06/18 10:20** — **Matrix: Water**
**Date Received: 12/07/18 09:10**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Thallium | 0.050 | U | 1.0 | 0.050 | ug/L | | 12/11/18 06:45 | 12/12/18 05:31 | 1 |

**Client Sample ID: MW-5A** — **Lab Sample ID: 280-117920-3**
**Date Collected: 12/06/18 11:49** — **Matrix: Water**
**Date Received: 12/07/18 09:10**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Antimony | 0.40 | U | 2.0 | 0.40 | ug/L | | 12/11/18 06:45 | 12/12/18 05:35 | 1 |
| Arsenic | 0.33 | U | 5.0 | 0.33 | ug/L | | 12/11/18 06:45 | 12/12/18 05:35 | 1 |
| **Beryllium** | **0.083** | **I** | 1.0 | 0.080 | ug/L | | 12/11/18 06:45 | 12/12/18 05:35 | 1 |
| **Thallium** | **0.080** | **I** | 1.0 | 0.050 | ug/L | | 12/11/18 06:45 | 12/12/18 05:35 | 1 |

**Client Sample ID: MW-7A** — **Lab Sample ID: 280-117920-4**
**Date Collected: 12/06/18 13:04** — **Matrix: Water**
**Date Received: 12/07/18 09:10**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Antimony | 0.40 | U | 2.0 | 0.40 | ug/L | | 12/11/18 06:45 | 12/12/18 05:39 | 1 |
| **Arsenic** | **0.38** | **I** | 5.0 | 0.33 | ug/L | | 12/11/18 06:45 | 12/12/18 05:39 | 1 |
| Beryllium | 0.080 | U | 1.0 | 0.080 | ug/L | | 12/11/18 06:45 | 12/12/18 05:39 | 1 |
| **Thallium** | **0.066** | **I** | 1.0 | 0.050 | ug/L | | 12/11/18 06:45 | 12/12/18 05:39 | 1 |

**Client Sample ID: MW-1A** — **Lab Sample ID: 280-117920-5**
**Date Collected: 12/06/18 14:18** — **Matrix: Water**
**Date Received: 12/07/18 09:10**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Antimony | 0.40 | U | 2.0 | 0.40 | ug/L | | 12/11/18 06:45 | 12/12/18 05:42 | 1 |
| Arsenic | 0.33 | U | 5.0 | 0.33 | ug/L | | 12/11/18 06:45 | 12/12/18 05:42 | 1 |
| Beryllium | 0.080 | U | 1.0 | 0.080 | ug/L | | 12/11/18 06:45 | 12/12/18 05:42 | 1 |
| **Thallium** | **0.062** | **I** | 1.0 | 0.050 | ug/L | | 12/11/18 06:45 | 12/12/18 05:42 | 1 |

**Client Sample ID: MW-8R** — **Lab Sample ID: 280-117970-1**
**Date Collected: 12/07/18 07:27** — **Matrix: Water**
**Date Received: 12/08/18 10:40**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Antimony** | **0.91** | **I** | 2.0 | 0.40 | ug/L | | 12/11/18 16:30 | 12/12/18 03:31 | 1 |
| **Arsenic** | **0.55** | **I** | 5.0 | 0.33 | ug/L | | 12/11/18 16:30 | 12/12/18 03:31 | 1 |
| Beryllium | 0.080 | U | 1.0 | 0.080 | ug/L | | 12/11/18 16:30 | 12/12/18 03:31 | 1 |
| Thallium | 0.050 | U | 1.0 | 0.050 | ug/L | | 12/11/18 16:30 | 12/12/18 03:31 | 1 |

**Client Sample ID: MW-2AR** — **Lab Sample ID: 280-117970-2**
**Date Collected: 12/07/18 08:06** — **Matrix: Water**
**Date Received: 12/08/18 10:40**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Antimony | 0.40 | U | 2.0 | 0.40 | ug/L | | 12/11/18 16:30 | 12/12/18 03:35 | 1 |
| Arsenic | 0.33 | U | 5.0 | 0.33 | ug/L | | 12/11/18 16:30 | 12/12/18 03:35 | 1 |
| Beryllium | 0.080 | U | 1.0 | 0.080 | ug/L | | 12/11/18 16:30 | 12/12/18 03:35 | 1 |
| Thallium | 0.050 | U | 1.0 | 0.050 | ug/L | | 12/11/18 16:30 | 12/12/18 03:35 | 1 |

# Client Sample Results

Client: Waste Management
Project/Site: FL26|Vista

TestAmerica Job ID: 280-117909-1

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

**Client Sample ID: MW-6AR** — **Lab Sample ID: 280-117970-3**
**Date Collected: 12/07/18 09:27** — **Matrix: Water**
**Date Received: 12/08/18 10:40**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Antimony | 0.40 | U | 2.0 | 0.40 | ug/L | | 12/11/18 16:30 | 12/12/18 03:38 | 1 |
| Arsenic | 0.33 | U | 5.0 | 0.33 | ug/L | | 12/11/18 16:30 | 12/12/18 03:38 | 1 |
| Beryllium | 0.080 | U | 1.0 | 0.080 | ug/L | | 12/11/18 16:30 | 12/12/18 03:38 | 1 |
| **Thallium** | **0.051** | **I** | 1.0 | 0.050 | ug/L | | 12/11/18 16:30 | 12/12/18 03:38 | 1 |

**Client Sample ID: MW-15A** — **Lab Sample ID: 280-117970-4**
**Date Collected: 12/07/18 10:44** — **Matrix: Water**
**Date Received: 12/08/18 10:40**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Antimony | 0.40 | U | 2.0 | 0.40 | ug/L | | 12/11/18 16:30 | 12/12/18 03:42 | 1 |
| Arsenic | 0.33 | U | 5.0 | 0.33 | ug/L | | 12/11/18 16:30 | 12/12/18 03:42 | 1 |
| Beryllium | 0.080 | U | 1.0 | 0.080 | ug/L | | 12/11/18 16:30 | 12/12/18 03:42 | 1 |
| Thallium | 0.050 | U | 1.0 | 0.050 | ug/L | | 12/11/18 16:30 | 12/12/18 03:42 | 1 |

**Client Sample ID: MW-11A** — **Lab Sample ID: 280-117970-5**
**Date Collected: 12/07/18 11:55** — **Matrix: Water**
**Date Received: 12/08/18 10:40**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Antimony | 0.40 | U | 2.0 | 0.40 | ug/L | | 12/11/18 16:30 | 12/12/18 03:52 | 1 |
| **Arsenic** | **2.0** | **I** | 5.0 | 0.33 | ug/L | | 12/11/18 16:30 | 12/12/18 03:52 | 1 |
| Beryllium | 0.080 | U | 1.0 | 0.080 | ug/L | | 12/11/18 16:30 | 12/12/18 03:52 | 1 |
| **Thallium** | **0.47** | **I** | 1.0 | 0.050 | ug/L | | 12/11/18 16:30 | 12/12/18 03:52 | 1 |

**Client Sample ID: Equipment Blank** — **Lab Sample ID: 280-118028-1**
**Date Collected: 12/10/18 09:11** — **Matrix: Water**
**Date Received: 12/11/18 09:20**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Antimony** | **0.52** | **I** | 2.0 | 0.40 | ug/L | | 12/13/18 07:48 | 12/14/18 00:07 | 1 |
| Arsenic | 0.33 | U | 5.0 | 0.33 | ug/L | | 12/13/18 07:48 | 12/14/18 00:07 | 1 |
| Beryllium | 0.080 | U | 1.0 | 0.080 | ug/L | | 12/13/18 07:48 | 12/14/18 00:07 | 1 |
| Thallium | 0.050 | U | 1.0 | 0.050 | ug/L | | 12/13/18 07:48 | 12/14/18 00:07 | 1 |

**Client Sample ID: MW-14A** — **Lab Sample ID: 280-118028-2**
**Date Collected: 12/10/18 08:40** — **Matrix: Water**
**Date Received: 12/11/18 09:20**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Antimony | 0.40 | U | 2.0 | 0.40 | ug/L | | 12/13/18 07:48 | 12/14/18 00:11 | 1 |
| **Arsenic** | **1.6** | **I** | 5.0 | 0.33 | ug/L | | 12/13/18 07:48 | 12/14/18 00:11 | 1 |
| Beryllium | 0.080 | U | 1.0 | 0.080 | ug/L | | 12/13/18 07:48 | 12/14/18 00:11 | 1 |
| **Thallium** | **0.21** | **I** | 1.0 | 0.050 | ug/L | | 12/13/18 07:48 | 12/14/18 00:11 | 1 |

**Client Sample ID: MW-9A** — **Lab Sample ID: 280-118028-3**
**Date Collected: 12/10/18 07:27** — **Matrix: Water**
**Date Received: 12/11/18 09:20**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Antimony | 0.40 | U | 2.0 | 0.40 | ug/L | | 12/13/18 07:48 | 12/14/18 00:14 | 1 |
| Arsenic | 0.33 | U | 5.0 | 0.33 | ug/L | | 12/13/18 07:48 | 12/14/18 00:14 | 1 |
| Beryllium | 0.080 | U | 1.0 | 0.080 | ug/L | | 12/13/18 07:48 | 12/14/18 00:14 | 1 |
| Thallium | 0.050 | U | 1.0 | 0.050 | ug/L | | 12/13/18 07:48 | 12/14/18 00:14 | 1 |

## Method: 7470A - Mercury (CVAA)

**Client Sample ID: MW-3A** — **Lab Sample ID: 280-117920-1**
**Date Collected: 12/06/18 09:00** — **Matrix: Water**
**Date Received: 12/07/18 09:10**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Mercury | 0.035 | I | 0.20 | 0.027 | ug/L | | 12/10/18 12:21 | 12/10/18 20:12 | 1 |

**Client Sample ID: MW-4A** — **Lab Sample ID: 280-117920-2**
**Date Collected: 12/06/18 10:20** — **Matrix: Water**
**Date Received: 12/07/18 09:10**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Mercury | 0.027 | U | 0.20 | 0.027 | ug/L | | 12/10/18 12:21 | 12/10/18 20:14 | 1 |

**Client Sample ID: MW-5A** — **Lab Sample ID: 280-117920-3**
**Date Collected: 12/06/18 11:49** — **Matrix: Water**
**Date Received: 12/07/18 09:10**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Mercury | 0.077 | I | 0.20 | 0.027 | ug/L | | 12/10/18 12:21 | 12/10/18 20:16 | 1 |

**Client Sample ID: MW-7A** — **Lab Sample ID: 280-117920-4**
**Date Collected: 12/06/18 13:04** — **Matrix: Water**
**Date Received: 12/07/18 09:10**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Mercury | 0.027 | U | 0.20 | 0.027 | ug/L | | 12/10/18 12:21 | 12/10/18 20:18 | 1 |

**Client Sample ID: MW-1A** — **Lab Sample ID: 280-117920-5**
**Date Collected: 12/06/18 14:18** — **Matrix: Water**
**Date Received: 12/07/18 09:10**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Mercury | 0.027 | U | 0.20 | 0.027 | ug/L | | 12/10/18 12:21 | 12/10/18 20:21 | 1 |

**Client Sample ID: MW-8R** — **Lab Sample ID: 280-117970-1**
**Date Collected: 12/07/18 07:27** — **Matrix: Water**
**Date Received: 12/08/18 10:40**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Mercury | 0.027 | U | 0.20 | 0.027 | ug/L | | 12/12/18 11:45 | 12/12/18 17:40 | 1 |

**Client Sample ID: MW-2AR** — **Lab Sample ID: 280-117970-2**
**Date Collected: 12/07/18 08:06** — **Matrix: Water**
**Date Received: 12/08/18 10:40**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Mercury | 0.027 | U | 0.20 | 0.027 | ug/L | | 12/12/18 11:45 | 12/12/18 17:42 | 1 |

**Client Sample ID: MW-6AR** — **Lab Sample ID: 280-117970-3**
**Date Collected: 12/07/18 09:27** — **Matrix: Water**
**Date Received: 12/08/18 10:40**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Mercury | 7.2 | | 0.20 | 0.027 | ug/L | | 12/12/18 11:45 | 12/12/18 17:44 | 1 |

**Client Sample ID: MW-15A** — **Lab Sample ID: 280-117970-4**
**Date Collected: 12/07/18 10:44** — **Matrix: Water**
**Date Received: 12/08/18 10:40**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Mercury | 0.027 | U | 0.20 | 0.027 | ug/L | | 12/12/18 11:45 | 12/12/18 17:46 | 1 |

## Method: 7470A - Mercury (CVAA)

**Client Sample ID: MW-11A** — **Lab Sample ID: 280-117970-5**
**Date Collected: 12/07/18 11:55** — **Matrix: Water**
**Date Received: 12/08/18 10:40**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Mercury | 0.027 | U | 0.20 | 0.027 | ug/L | | 12/12/18 11:45 | 12/12/18 17:53 | 1 |

**Client Sample ID: Equipment Blank** — **Lab Sample ID: 280-118028-1**
**Date Collected: 12/10/18 09:11** — **Matrix: Water**
**Date Received: 12/11/18 09:20**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Mercury | 0.027 | U | 0.20 | 0.027 | ug/L | | 12/21/18 11:25 | 12/21/18 16:40 | 1 |

**Client Sample ID: MW-14A** — **Lab Sample ID: 280-118028-2**
**Date Collected: 12/10/18 08:40** — **Matrix: Water**
**Date Received: 12/11/18 09:20**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Mercury | 0.027 | U | 0.20 | 0.027 | ug/L | | 12/21/18 11:25 | 12/21/18 16:47 | 1 |

**Client Sample ID: MW-9A** — **Lab Sample ID: 280-118028-3**
**Date Collected: 12/10/18 07:27** — **Matrix: Water**
**Date Received: 12/11/18 09:20**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Mercury** | **0.030** | **I** | 0.20 | 0.027 | ug/L | | 12/21/18 11:25 | 12/21/18 16:49 | 1 |

## General Chemistry

**Client Sample ID: MW-3B** — **Lab Sample ID: 280-117909-1**
**Date Collected: 12/06/18 08:26** — **Matrix: Water**
**Date Received: 12/07/18 09:10**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **8.2** | | 3.0 | 0.25 | mg/L | | | 12/07/18 15:38 | 1 |
| **Nitrate as N** | **1.6** | | 0.50 | 0.042 | mg/L | | | 12/07/18 15:38 | 1 |
| Ammonia as N | 0.022 | U | 0.10 | 0.022 | mg/L | | | 12/21/18 10:14 | 1 |

**Client Sample ID: MW-4B** — **Lab Sample ID: 280-117909-2**
**Date Collected: 12/06/18 09:40** — **Matrix: Water**
**Date Received: 12/07/18 09:10**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **2.9** | **I** | 3.0 | 0.25 | mg/L | | | 12/07/18 16:52 | 1 |
| **Nitrate as N** | **1.2** | | 0.50 | 0.042 | mg/L | | | 12/07/18 16:52 | 1 |
| Ammonia as N | 0.022 | U | 0.10 | 0.022 | mg/L | | | 12/21/18 10:20 | 1 |

**Client Sample ID: MW-5B** — **Lab Sample ID: 280-117909-3**
**Date Collected: 12/06/18 11:01** — **Matrix: Water**
**Date Received: 12/07/18 09:10**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **7.8** | | 3.0 | 0.25 | mg/L | | | 12/07/18 17:11 | 1 |
| **Nitrate as N** | **0.45** | **I** | 0.50 | 0.042 | mg/L | | | 12/07/18 17:11 | 1 |
| Ammonia as N | 0.022 | U | 0.10 | 0.022 | mg/L | | | 12/21/18 10:22 | 1 |

**Client Sample ID: MW-7B** — **Lab Sample ID: 280-117909-4**
**Date Collected: 12/06/18 12:22** — **Matrix: Water**
**Date Received: 12/07/18 09:10**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **4.1** | | 3.0 | 0.25 | mg/L | | | 12/07/18 17:30 | 1 |

## General Chemistry (Continued)

**Client Sample ID: MW-7B** — **Lab Sample ID: 280-117909-4**
**Date Collected: 12/06/18 12:22** — **Matrix: Water**
**Date Received: 12/07/18 09:10**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Nitrate as N | 0.060 | I V | 0.50 | 0.042 | mg/L | | | 12/07/18 17:30 | 1 |
| Ammonia as N | 0.022 | U | 0.10 | 0.022 | mg/L | | | 12/21/18 10:24 | 1 |

**Client Sample ID: MW-1B** — **Lab Sample ID: 280-117909-5**
**Date Collected: 12/06/18 13:41** — **Matrix: Water**
**Date Received: 12/07/18 09:10**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | 8.0 | | 3.0 | 0.25 | mg/L | | | 12/07/18 17:48 | 1 |
| Nitrate as N | 0.37 | I V | 0.50 | 0.042 | mg/L | | | 12/07/18 17:48 | 1 |
| Ammonia as N | 0.022 | U | 0.10 | 0.022 | mg/L | | | 12/21/18 10:26 | 1 |

**Client Sample ID: MW-3A** — **Lab Sample ID: 280-117920-1**
**Date Collected: 12/06/18 09:00** — **Matrix: Water**
**Date Received: 12/07/18 09:10**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | 3.3 | | 3.0 | 0.25 | mg/L | | | 12/07/18 18:07 | 1 |
| Nitrate as N | 0.93 | | 0.50 | 0.042 | mg/L | | | 12/07/18 18:07 | 1 |
| Ammonia as N | 0.022 | U | 0.10 | 0.022 | mg/L | | | 12/21/18 11:00 | 1 |
| Total Dissolved Solids | 39 | | 10 | 4.7 | mg/L | | | 12/11/18 09:35 | 1 |

**Client Sample ID: MW-4A** — **Lab Sample ID: 280-117920-2**
**Date Collected: 12/06/18 10:20** — **Matrix: Water**
**Date Received: 12/07/18 09:10**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | 2.8 | I | 3.0 | 0.25 | mg/L | | | 12/07/18 18:26 | 1 |
| Nitrate as N | 0.67 | | 0.50 | 0.042 | mg/L | | | 12/07/18 18:26 | 1 |
| Ammonia as N | 0.022 | U | 0.10 | 0.022 | mg/L | | | 12/21/18 11:02 | 1 |
| Total Dissolved Solids | 86 | | 10 | 4.7 | mg/L | | | 12/11/18 09:35 | 1 |

**Client Sample ID: MW-5A** — **Lab Sample ID: 280-117920-3**
**Date Collected: 12/06/18 11:49** — **Matrix: Water**
**Date Received: 12/07/18 09:10**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | 2.6 | I | 3.0 | 0.25 | mg/L | | | 12/07/18 19:22 | 1 |
| Nitrate as N | 1.9 | | 0.50 | 0.042 | mg/L | | | 12/07/18 19:22 | 1 |
| Ammonia as N | 0.022 | U | 0.10 | 0.022 | mg/L | | | 12/21/18 11:04 | 1 |
| Total Dissolved Solids | 84 | | 10 | 4.7 | mg/L | | | 12/11/18 09:35 | 1 |

**Client Sample ID: MW-7A** — **Lab Sample ID: 280-117920-4**
**Date Collected: 12/06/18 13:04** — **Matrix: Water**
**Date Received: 12/07/18 09:10**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | 11 | | 3.0 | 0.25 | mg/L | | | 12/07/18 20:37 | 1 |
| Nitrate as N | 12 | | 2.5 | 0.21 | mg/L | | | 12/07/18 20:56 | 5 |
| Ammonia as N | 0.022 | U | 0.10 | 0.022 | mg/L | | | 12/21/18 11:18 | 1 |
| Total Dissolved Solids | 220 | | 10 | 4.7 | mg/L | | | 12/11/18 09:35 | 1 |

## General Chemistry

**Client Sample ID: MW-1A** — **Lab Sample ID: 280-117920-5**
**Date Collected: 12/06/18 14:18** — **Matrix: Water**
**Date Received: 12/07/18 09:10**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | 15 | | 3.0 | 0.25 | mg/L | | | 12/07/18 21:14 | 1 |
| Nitrate as N | 12 | | 2.5 | 0.21 | mg/L | | | 12/07/18 21:33 | 5 |
| Ammonia as N | 0.022 | U | 0.10 | 0.022 | mg/L | | | 12/21/18 11:20 | 1 |
| Total Dissolved Solids | 250 | | 10 | 4.7 | mg/L | | | 12/11/18 09:35 | 1 |

**Client Sample ID: MW-2B** — **Lab Sample ID: 280-117969-1**
**Date Collected: 12/07/18 08:41** — **Matrix: Water**
**Date Received: 12/08/18 10:40**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | 4.4 | V | 3.0 | 0.25 | mg/L | | | 12/19/18 20:32 | 1 |
| Nitrate as N | 0.78 | | 0.50 | 0.042 | mg/L | | | 12/08/18 16:18 | 1 |
| Ammonia as N | 0.022 | U | 0.10 | 0.022 | mg/L | | | 12/27/18 10:00 | 1 |

**Client Sample ID: MW-6BR** — **Lab Sample ID: 280-117969-2**
**Date Collected: 12/07/18 10:01** — **Matrix: Water**
**Date Received: 12/08/18 10:40**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | 18 | | 3.0 | 0.25 | mg/L | | | 12/19/18 21:37 | 1 |
| Nitrate as N | 2.5 | | 0.50 | 0.042 | mg/L | | | 12/08/18 17:32 | 1 |
| Ammonia as N | 0.022 | U | 0.10 | 0.022 | mg/L | | | 12/27/18 10:02 | 1 |

**Client Sample ID: MW-15B** — **Lab Sample ID: 280-117969-3**
**Date Collected: 12/07/18 11:16** — **Matrix: Water**
**Date Received: 12/08/18 10:40**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | 4.6 | V | 3.0 | 0.25 | mg/L | | | 12/19/18 21:54 | 1 |
| Nitrate as N | 2.9 | | 0.50 | 0.042 | mg/L | | | 12/08/18 17:51 | 1 |
| Ammonia as N | 0.022 | U | 0.10 | 0.022 | mg/L | | | 12/27/18 10:16 | 1 |

**Client Sample ID: MW-11B** — **Lab Sample ID: 280-117969-4**
**Date Collected: 12/07/18 12:31** — **Matrix: Water**
**Date Received: 12/08/18 10:40**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | 5.9 | V | 3.0 | 0.25 | mg/L | | | 12/19/18 22:10 | 1 |
| Nitrate as N | 0.061 | I V | 0.50 | 0.042 | mg/L | | | 12/08/18 18:10 | 1 |
| Ammonia as N | 0.025 | I | 0.10 | 0.022 | mg/L | | | 12/27/18 10:18 | 1 |

**Client Sample ID: MW-8R** — **Lab Sample ID: 280-117970-1**
**Date Collected: 12/07/18 07:27** — **Matrix: Water**
**Date Received: 12/08/18 10:40**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | 3.8 | V | 3.0 | 0.25 | mg/L | | | 12/19/18 22:27 | 1 |
| Nitrate as N | 2.2 | | 0.50 | 0.042 | mg/L | | | 12/08/18 18:28 | 1 |
| Ammonia as N | 0.022 | U | 0.10 | 0.022 | mg/L | | | 12/21/18 12:02 | 1 |
| Total Dissolved Solids | 120 | | 10 | 4.7 | mg/L | | | 12/13/18 10:12 | 1 |

**Client Sample ID: MW-2AR** — **Lab Sample ID: 280-117970-2**
**Date Collected: 12/07/18 08:06** — **Matrix: Water**
**Date Received: 12/08/18 10:40**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | 1.9 | I V | 3.0 | 0.25 | mg/L | | | 12/19/18 22:43 | 1 |

## General Chemistry (Continued)

**Client Sample ID: MW-2AR** — **Lab Sample ID: 280-117970-2**
**Date Collected: 12/07/18 08:06** — **Matrix: Water**
**Date Received: 12/08/18 10:40**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Nitrate as N | 0.42 | I V | 0.50 | 0.042 | mg/L | | | 12/08/18 18:47 | 1 |
| Ammonia as N | 0.022 | U | 0.10 | 0.022 | mg/L | | | 12/21/18 12:08 | 1 |
| Total Dissolved Solids | 30 | | 10 | 4.7 | mg/L | | | 12/13/18 10:12 | 1 |

**Client Sample ID: MW-6AR** — **Lab Sample ID: 280-117970-3**
**Date Collected: 12/07/18 09:27** — **Matrix: Water**
**Date Received: 12/08/18 10:40**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | 24 | | 3.0 | 0.25 | mg/L | | | 12/19/18 22:59 | 1 |
| Nitrate as N | 7.9 | | 0.50 | 0.042 | mg/L | | | 12/08/18 20:02 | 1 |
| Ammonia as N | 0.022 | U | 0.10 | 0.022 | mg/L | | | 12/21/18 12:10 | 1 |
| Total Dissolved Solids | 130 | | 10 | 4.7 | mg/L | | | 12/13/18 10:12 | 1 |

**Client Sample ID: MW-15A** — **Lab Sample ID: 280-117970-4**
**Date Collected: 12/07/18 10:44** — **Matrix: Water**
**Date Received: 12/08/18 10:40**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | 9.2 | | 3.0 | 0.25 | mg/L | | | 12/19/18 23:49 | 1 |
| Nitrate as N | 1.8 | | 0.50 | 0.042 | mg/L | | | 12/08/18 20:21 | 1 |
| Ammonia as N | 0.022 | U | 0.10 | 0.022 | mg/L | | | 12/21/18 12:12 | 1 |
| Total Dissolved Solids | 37 | | 10 | 4.7 | mg/L | | | 12/13/18 10:12 | 1 |

**Client Sample ID: MW-11A** — **Lab Sample ID: 280-117970-5**
**Date Collected: 12/07/18 11:55** — **Matrix: Water**
**Date Received: 12/08/18 10:40**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | 5.6 | V | 3.0 | 0.25 | mg/L | | | 12/20/18 00:05 | 1 |
| Nitrate as N | 5.1 | | 0.50 | 0.042 | mg/L | | | 12/08/18 20:39 | 1 |
| Ammonia as N | 0.022 | U | 0.10 | 0.022 | mg/L | | | 12/21/18 12:14 | 1 |
| Total Dissolved Solids | 180 | | 10 | 4.7 | mg/L | | | 12/13/18 10:12 | 1 |

**Client Sample ID: Equipment Blank** — **Lab Sample ID: 280-118028-1**
**Date Collected: 12/10/18 09:11** — **Matrix: Water**
**Date Received: 12/11/18 09:20**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | 0.25 | U | 3.0 | 0.25 | mg/L | | | 12/11/18 17:49 | 1 |
| Nitrate as N | 0.042 | U | 0.50 | 0.042 | mg/L | | | 12/11/18 17:49 | 1 |
| Ammonia as N | 0.022 | U | 0.10 | 0.022 | mg/L | | | 12/21/18 12:52 | 1 |
| Total Dissolved Solids | 7.0 | I | 10 | 4.7 | mg/L | | | 12/13/18 10:12 | 1 |

**Client Sample ID: MW-14A** — **Lab Sample ID: 280-118028-2**
**Date Collected: 12/10/18 08:40** — **Matrix: Water**
**Date Received: 12/11/18 09:20**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | 9.2 | | 3.0 | 0.25 | mg/L | | | 12/11/18 18:05 | 1 |
| Nitrate as N | 2.7 | | 0.50 | 0.042 | mg/L | | | 12/11/18 18:05 | 1 |
| Ammonia as N | 0.022 | U | 0.10 | 0.022 | mg/L | | | 12/21/18 13:06 | 1 |
| Total Dissolved Solids | 67 | | 10 | 4.7 | mg/L | | | 12/13/18 10:12 | 1 |

# Client Sample Results

Client: Waste Management
Project/Site: FL26|Vista

TestAmerica Job ID: 280-117909-1

## General Chemistry

**Client Sample ID: MW-9A** — **Lab Sample ID: 280-118028-3**
**Date Collected: 12/10/18 07:27** — **Matrix: Water**
**Date Received: 12/11/18 09:20**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | 4.2 | | 3.0 | 0.25 | mg/L | | | 12/11/18 19:06 | 1 |
| Nitrate as N | 0.53 | | 0.50 | 0.042 | mg/L | | | 12/11/18 19:06 | 1 |
| Ammonia as N | 0.022 | U | 0.10 | 0.022 | mg/L | | | 12/21/18 13:08 | 1 |
| Total Dissolved Solids | 71 | | 10 | 4.7 | mg/L | | | 12/13/18 10:12 | 1 |

**Client Sample ID: Equipment Blank1** — **Lab Sample ID: 280-118029-1**
**Date Collected: 12/10/18 09:11** — **Matrix: Water**
**Date Received: 12/11/18 09:20**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | 0.25 | U | 3.0 | 0.25 | mg/L | | | 12/11/18 19:22 | 1 |
| Nitrate as N | 0.042 | U | 0.50 | 0.042 | mg/L | | | 12/11/18 19:22 | 1 |
| Ammonia as N | 0.022 | U | 0.10 | 0.022 | mg/L | | | 12/27/18 11:26 | 1 |

**Client Sample ID: MW-14B** — **Lab Sample ID: 280-118029-2**
**Date Collected: 12/10/18 09:21** — **Matrix: Water**
**Date Received: 12/11/18 09:20**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | 7.1 | | 3.0 | 0.25 | mg/L | | | 12/11/18 19:37 | 1 |
| Nitrate as N | 0.082 | I | 0.50 | 0.042 | mg/L | | | 12/11/18 19:37 | 1 |
| Ammonia as N | 0.022 | U | 0.10 | 0.022 | mg/L | | | 12/27/18 11:28 | 1 |

**Client Sample ID: MW-9B** — **Lab Sample ID: 280-118029-3**
**Date Collected: 12/10/18 08:01** — **Matrix: Water**
**Date Received: 12/11/18 09:20**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | 25 | | 3.0 | 0.25 | mg/L | | | 12/11/18 19:53 | 1 |
| Nitrate as N | 0.15 | I | 0.50 | 0.042 | mg/L | | | 12/11/18 19:53 | 1 |
| Ammonia as N | 0.030 | I | 0.10 | 0.022 | mg/L | | | 12/27/18 11:30 | 1 |

## Method: Field Sampling - Field Sampling

**Client Sample ID: MW-3B** — **Lab Sample ID: 280-117909-1**
**Date Collected: 12/06/18 08:26** — **Matrix: Water**
**Date Received: 12/07/18 09:10**

| Analyte | Result | Qualifier | NONE | NONE | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Groundwater Elevation | 55.74 | | | | ft/msl | | | 12/06/18 06:26 | 1 |
| Field pH | 6.96 | | | | SU | | | 12/06/18 06:26 | 1 |
| Field Conductivity | 245 | | | | umhos/cm | | | 12/06/18 06:26 | 1 |
| Field Temperature | 23.3 | | | | Degrees C | | | 12/06/18 06:26 | 1 |
| Field Turbidity | 3.49 | | | | NTU | | | 12/06/18 06:26 | 1 |
| Field Dissolved Oxygen | 2.3 | | | | mg/L | | | 12/06/18 06:26 | 1 |
| Field Color | NONE | | | | No Unit | | | 12/06/18 06:26 | 1 |

**Client Sample ID: MW-4B** — **Lab Sample ID: 280-117909-2**
**Date Collected: 12/06/18 09:40** — **Matrix: Water**
**Date Received: 12/07/18 09:10**

| Analyte | Result | Qualifier | NONE | NONE | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Groundwater Elevation | 56.95 | | | | ft/msl | | | 12/06/18 07:40 | 1 |
| Field pH | 5.44 | | | | SU | | | 12/06/18 07:40 | 1 |
| Field Conductivity | 38 | | | | umhos/cm | | | 12/06/18 07:40 | 1 |

## Method: Field Sampling - Field Sampling (Continued)

**Client Sample ID: MW-4B** — **Lab Sample ID: 280-117909-2**
**Date Collected: 12/06/18 09:40** — **Matrix: Water**
**Date Received: 12/07/18 09:10**

| Analyte | Result | Qualifier | NONE | NONE | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Field Temperature | 24.1 | | | | Degrees C | | | 12/06/18 07:40 | 1 |
| Field Turbidity | 2.41 | | | | NTU | | | 12/06/18 07:40 | 1 |
| Field Dissolved Oxygen | 0.8 | | | | mg/L | | | 12/06/18 07:40 | 1 |
| Field Color | NONE | | | | No Unit | | | 12/06/18 07:40 | 1 |

**Client Sample ID: MW-5B** — **Lab Sample ID: 280-117909-3**
**Date Collected: 12/06/18 11:01** — **Matrix: Water**
**Date Received: 12/07/18 09:10**

| Analyte | Result | Qualifier | NONE | NONE | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Groundwater Elevation | 55.30 | | | | ft/msl | | | 12/06/18 09:01 | 1 |
| Field pH | 7.88 | | | | SU | | | 12/06/18 09:01 | 1 |
| Field Conductivity | 221 | | | | umhos/cm | | | 12/06/18 09:01 | 1 |
| Field Temperature | 24.6 | | | | Degrees C | | | 12/06/18 09:01 | 1 |
| Field Turbidity | 3.52 | | | | NTU | | | 12/06/18 09:01 | 1 |
| Field Dissolved Oxygen | 0.1 | | | | mg/L | | | 12/06/18 09:01 | 1 |
| Field Color | NONE | | | | No Unit | | | 12/06/18 09:01 | 1 |

**Client Sample ID: MW-7B** — **Lab Sample ID: 280-117909-4**
**Date Collected: 12/06/18 12:22** — **Matrix: Water**
**Date Received: 12/07/18 09:10**

| Analyte | Result | Qualifier | NONE | NONE | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Groundwater Elevation | 57.08 | | | | ft/msl | | | 12/06/18 10:22 | 1 |
| Field pH | 7.61 | | | | SU | | | 12/06/18 10:22 | 1 |
| Field Conductivity | 147 | | | | umhos/cm | | | 12/06/18 10:22 | 1 |
| Field Temperature | 23.9 | | | | Degrees C | | | 12/06/18 10:22 | 1 |
| Field Turbidity | 2.62 | | | | NTU | | | 12/06/18 10:22 | 1 |
| Field Dissolved Oxygen | 0.2 | | | | mg/L | | | 12/06/18 10:22 | 1 |
| Field Color | NONE | | | | No Unit | | | 12/06/18 10:22 | 1 |

**Client Sample ID: MW-1B** — **Lab Sample ID: 280-117909-5**
**Date Collected: 12/06/18 13:41** — **Matrix: Water**
**Date Received: 12/07/18 09:10**

| Analyte | Result | Qualifier | NONE | NONE | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Groundwater Elevation | 58.45 | | | | ft/msl | | | 12/06/18 11:41 | 1 |
| Field pH | 7.70 | | | | SU | | | 12/06/18 11:41 | 1 |
| Field Conductivity | 200 | | | | umhos/cm | | | 12/06/18 11:41 | 1 |
| Field Temperature | 24.6 | | | | Degrees C | | | 12/06/18 11:41 | 1 |
| Field Turbidity | 3.42 | | | | NTU | | | 12/06/18 11:41 | 1 |
| Field Dissolved Oxygen | 0.1 | | | | mg/L | | | 12/06/18 11:41 | 1 |
| Field Color | NONE | | | | No Unit | | | 12/06/18 11:41 | 1 |

**Client Sample ID: MW-3A** — **Lab Sample ID: 280-117920-1**
**Date Collected: 12/06/18 09:00** — **Matrix: Water**
**Date Received: 12/07/18 09:10**

| Analyte | Result | Qualifier | NONE | NONE | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Groundwater Elevation | 55.76 | | | | ft/msl | | | 12/06/18 07:00 | 1 |
| Field pH | 5.41 | | | | SU | | | 12/06/18 07:00 | 1 |
| Field Conductivity | 74 | | | | umhos/cm | | | 12/06/18 07:00 | 1 |
| Field Temperature | 23.9 | | | | Degrees C | | | 12/06/18 07:00 | 1 |
| Field Turbidity | 3.37 | | | | NTU | | | 12/06/18 07:00 | 1 |

## Method: Field Sampling - Field Sampling (Continued)

**Client Sample ID: MW-3A** — **Lab Sample ID: 280-117920-1**
**Date Collected: 12/06/18 09:00** — **Matrix: Water**
**Date Received: 12/07/18 09:10**

| Analyte | Result | Qualifier | NONE | NONE | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Field Dissolved Oxygen | 1.5 | | | | mg/L | | | 12/06/18 07:00 | 1 |
| Field Color | NONE | | | | No Unit | | | 12/06/18 07:00 | 1 |

**Client Sample ID: MW-4A** — **Lab Sample ID: 280-117920-2**
**Date Collected: 12/06/18 10:20** — **Matrix: Water**
**Date Received: 12/07/18 09:10**

| Analyte | Result | Qualifier | NONE | NONE | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Groundwater Elevation | 55.94 | | | | ft/msl | | | 12/06/18 08:20 | 1 |
| Field pH | 6.04 | | | | SU | | | 12/06/18 08:20 | 1 |
| Field Conductivity | 107 | | | | umhos/cm | | | 12/06/18 08:20 | 1 |
| Field Temperature | 24.6 | | | | Degrees C | | | 12/06/18 08:20 | 1 |
| Field Turbidity | 3.56 | | | | NTU | | | 12/06/18 08:20 | 1 |
| Field Dissolved Oxygen | 4.9 | | | | mg/L | | | 12/06/18 08:20 | 1 |
| Field Color | NONE | | | | No Unit | | | 12/06/18 08:20 | 1 |

**Client Sample ID: MW-5A** — **Lab Sample ID: 280-117920-3**
**Date Collected: 12/06/18 11:49** — **Matrix: Water**
**Date Received: 12/07/18 09:10**

| Analyte | Result | Qualifier | NONE | NONE | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Groundwater Elevation | 57.36 | | | | ft/msl | | | 12/06/18 09:49 | 1 |
| Field pH | 5.43 | | | | SU | | | 12/06/18 09:49 | 1 |
| Field Conductivity | 139 | | | | umhos/cm | | | 12/06/18 09:49 | 1 |
| Field Temperature | 25.2 | | | | Degrees C | | | 12/06/18 09:49 | 1 |
| Field Turbidity | 3.15 | | | | NTU | | | 12/06/18 09:49 | 1 |
| Field Dissolved Oxygen | 3.8 | | | | mg/L | | | 12/06/18 09:49 | 1 |
| Field Color | NONE | | | | No Unit | | | 12/06/18 09:49 | 1 |

**Client Sample ID: MW-7A** — **Lab Sample ID: 280-117920-4**
**Date Collected: 12/06/18 13:04** — **Matrix: Water**
**Date Received: 12/07/18 09:10**

| Analyte | Result | Qualifier | NONE | NONE | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Groundwater Elevation | 70.31 | | | | ft/msl | | | 12/06/18 11:04 | 1 |
| Field pH | 7.24 | | | | SU | | | 12/06/18 11:04 | 1 |
| Field Conductivity | 350 | | | | umhos/cm | | | 12/06/18 11:04 | 1 |
| Field Temperature | 24.3 | | | | Degrees C | | | 12/06/18 11:04 | 1 |
| Field Turbidity | 3.77 | | | | NTU | | | 12/06/18 11:04 | 1 |
| Field Dissolved Oxygen | 1.2 | | | | mg/L | | | 12/06/18 11:04 | 1 |
| Field Color | NONE | | | | No Unit | | | 12/06/18 11:04 | 1 |

**Client Sample ID: MW-1A** — **Lab Sample ID: 280-117920-5**
**Date Collected: 12/06/18 14:18** — **Matrix: Water**
**Date Received: 12/07/18 09:10**

| Analyte | Result | Qualifier | NONE | NONE | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Groundwater Elevation | 68.18 | | | | ft/msl | | | 12/06/18 12:18 | 1 |
| Field pH | 7.16 | | | | SU | | | 12/06/18 12:18 | 1 |
| Field Conductivity | 434 | | | | umhos/cm | | | 12/06/18 12:18 | 1 |
| Field Temperature | 24.3 | | | | Degrees C | | | 12/06/18 12:18 | 1 |
| Field Turbidity | 3.72 | | | | NTU | | | 12/06/18 12:18 | 1 |
| Field Dissolved Oxygen | 0.6 | | | | mg/L | | | 12/06/18 12:18 | 1 |
| Field Color | NONE | | | | No Unit | | | 12/06/18 12:18 | 1 |

## Method: Field Sampling - Field Sampling

**Client Sample ID: MW-2B** — **Lab Sample ID: 280-117969-1**
**Date Collected: 12/07/18 08:41** — **Matrix: Water**
**Date Received: 12/08/18 10:40**

| Analyte | Result | Qualifier | NONE | NONE | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Groundwater Elevation | 55.50 | | | | ft/msl | | | 12/07/18 06:41 | 1 |
| Field pH | 7.90 | | | | SU | | | 12/07/18 06:41 | 1 |
| Field Conductivity | 150 | | | | umhos/cm | | | 12/07/18 06:41 | 1 |
| Field Temperature | 24.0 | | | | Degrees C | | | 12/07/18 06:41 | 1 |
| Field Turbidity | 3.76 | | | | NTU | | | 12/07/18 06:41 | 1 |
| Field Dissolved Oxygen | 0.2 | | | | mg/L | | | 12/07/18 06:41 | 1 |
| Field Color | NONE | | | | No Unit | | | 12/07/18 06:41 | 1 |

**Client Sample ID: MW-6BR** — **Lab Sample ID: 280-117969-2**
**Date Collected: 12/07/18 10:01** — **Matrix: Water**
**Date Received: 12/08/18 10:40**

| Analyte | Result | Qualifier | NONE | NONE | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Groundwater Elevation | 56.15 | | | | ft/msl | | | 12/07/18 08:01 | 1 |
| Field pH | 7.92 | | | | SU | | | 12/07/18 08:01 | 1 |
| Field Conductivity | 317 | | | | umhos/cm | | | 12/07/18 08:01 | 1 |
| Field Temperature | 23.2 | | | | Degrees C | | | 12/07/18 08:01 | 1 |
| Field Turbidity | 3.89 | | | | NTU | | | 12/07/18 08:01 | 1 |
| Field Dissolved Oxygen | 1.3 | | | | mg/L | | | 12/07/18 08:01 | 1 |
| Field Color | NONE | | | | No Unit | | | 12/07/18 08:01 | 1 |

**Client Sample ID: MW-15B** — **Lab Sample ID: 280-117969-3**
**Date Collected: 12/07/18 11:16** — **Matrix: Water**
**Date Received: 12/08/18 10:40**

| Analyte | Result | Qualifier | NONE | NONE | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Field pH | 6.67 | | | | SU | | | 12/07/18 09:16 | 1 |
| Field Conductivity | 105 | | | | umhos/cm | | | 12/07/18 09:16 | 1 |
| Field Temperature | 23.6 | | | | Degrees C | | | 12/07/18 09:16 | 1 |
| Field Turbidity | 11.56 | | | | NTU | | | 12/07/18 09:16 | 1 |
| Field Dissolved Oxygen | 2.4 | | | | mg/L | | | 12/07/18 09:16 | 1 |
| Field Color | SLT TAN | | | | No Unit | | | 12/07/18 09:16 | 1 |

**Client Sample ID: MW-11B** — **Lab Sample ID: 280-117969-4**
**Date Collected: 12/07/18 12:31** — **Matrix: Water**
**Date Received: 12/08/18 10:40**

| Analyte | Result | Qualifier | NONE | NONE | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Field pH | 7.84 | | | | SU | | | 12/07/18 10:31 | 1 |
| Field Conductivity | 330 | | | | umhos/cm | | | 12/07/18 10:31 | 1 |
| Field Temperature | 22.8 | | | | Degrees C | | | 12/07/18 10:31 | 1 |
| Field Turbidity | 7.01 | | | | NTU | | | 12/07/18 10:31 | 1 |
| Field Dissolved Oxygen | 0.3 | | | | mg/L | | | 12/07/18 10:31 | 1 |
| Field Color | NONE | | | | No Unit | | | 12/07/18 10:31 | 1 |

**Client Sample ID: MW-8R** — **Lab Sample ID: 280-117970-1**
**Date Collected: 12/07/18 07:27** — **Matrix: Water**
**Date Received: 12/08/18 10:40**

| Analyte | Result | Qualifier | NONE | NONE | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Groundwater Elevation | 58.07 | | | | ft/msl | | | 12/07/18 05:27 | 1 |
| Field pH | 6.84 | | | | SU | | | 12/07/18 05:27 | 1 |
| Field Conductivity | 198 | | | | umhos/cm | | | 12/07/18 05:27 | 1 |
| Field Temperature | 24.4 | | | | Degrees C | | | 12/07/18 05:27 | 1 |

## Method: Field Sampling - Field Sampling (Continued)

**Client Sample ID: MW-8R** — **Lab Sample ID: 280-117970-1**
**Date Collected: 12/07/18 07:27** — **Matrix: Water**
**Date Received: 12/08/18 10:40**

| Analyte | Result | Qualifier | NONE | NONE | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Field Turbidity | 4.44 | | | | NTU | | | 12/07/18 05:27 | 1 |
| Field Dissolved Oxygen | 1.7 | | | | mg/L | | | 12/07/18 05:27 | 1 |
| Field Color | NONE | | | | No Unit | | | 12/07/18 05:27 | 1 |

**Client Sample ID: MW-2AR** — **Lab Sample ID: 280-117970-2**
**Date Collected: 12/07/18 08:06** — **Matrix: Water**
**Date Received: 12/08/18 10:40**

| Analyte | Result | Qualifier | NONE | NONE | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Groundwater Elevation | 57.10 | | | | ft/msl | | | 12/07/18 06:06 | 1 |
| Field pH | 5.33 | | | | SU | | | 12/07/18 06:06 | 1 |
| Field Conductivity | 52 | | | | umhos/cm | | | 12/07/18 06:06 | 1 |
| Field Temperature | 22.6 | | | | Degrees C | | | 12/07/18 06:06 | 1 |
| Field Turbidity | 3.66 | | | | NTU | | | 12/07/18 06:06 | 1 |
| Field Dissolved Oxygen | 5.5 | | | | mg/L | | | 12/07/18 06:06 | 1 |
| Field Color | NONE | | | | No Unit | | | 12/07/18 06:06 | 1 |

**Client Sample ID: MW-6AR** — **Lab Sample ID: 280-117970-3**
**Date Collected: 12/07/18 09:27** — **Matrix: Water**
**Date Received: 12/08/18 10:40**

| Analyte | Result | Qualifier | NONE | NONE | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Groundwater Elevation | 56.21 | | | | ft/msl | | | 12/07/18 07:27 | 1 |
| Field pH | 5.48 | | | | SU | | | 12/07/18 07:27 | 1 |
| Field Conductivity | 214 | | | | umhos/cm | | | 12/07/18 07:27 | 1 |
| Field Temperature | 23.1 | | | | Degrees C | | | 12/07/18 07:27 | 1 |
| Field Turbidity | 3.30 | | | | NTU | | | 12/07/18 07:27 | 1 |
| Field Dissolved Oxygen | 2.6 | | | | mg/L | | | 12/07/18 07:27 | 1 |
| Field Color | NONE | | | | No Unit | | | 12/07/18 07:27 | 1 |

**Client Sample ID: MW-15A** — **Lab Sample ID: 280-117970-4**
**Date Collected: 12/07/18 10:44** — **Matrix: Water**
**Date Received: 12/08/18 10:40**

| Analyte | Result | Qualifier | NONE | NONE | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Field pH | 5.36 | | | | SU | | | 12/07/18 08:44 | 1 |
| Field Conductivity | 74 | | | | umhos/cm | | | 12/07/18 08:44 | 1 |
| Field Temperature | 23.9 | | | | Degrees C | | | 12/07/18 08:44 | 1 |
| Field Turbidity | 3.58 | | | | NTU | | | 12/07/18 08:44 | 1 |
| Field Dissolved Oxygen | 3.4 | | | | mg/L | | | 12/07/18 08:44 | 1 |
| Field Color | NONE | | | | No Unit | | | 12/07/18 08:44 | 1 |

**Client Sample ID: MW-11A** — **Lab Sample ID: 280-117970-5**
**Date Collected: 12/07/18 11:55** — **Matrix: Water**
**Date Received: 12/08/18 10:40**

| Analyte | Result | Qualifier | NONE | NONE | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Field pH | 7.76 | | | | SU | | | 12/07/18 09:55 | 1 |
| Field Conductivity | 304 | | | | umhos/cm | | | 12/07/18 09:55 | 1 |
| Field Temperature | 23.0 | | | | Degrees C | | | 12/07/18 09:55 | 1 |
| Field Turbidity | 7.91 | | | | NTU | | | 12/07/18 09:55 | 1 |
| Field Dissolved Oxygen | 2.5 | | | | mg/L | | | 12/07/18 09:55 | 1 |
| Field Color | NONE | | | | No Unit | | | 12/07/18 09:55 | 1 |

# Client Sample Results

Client: Waste Management
Project/Site: FL26|Vista

TestAmerica Job ID: 280-117909-1

## Method: Field Sampling - Field Sampling

**Client Sample ID: MW-14A** — **Lab Sample ID: 280-118028-2**
**Date Collected: 12/10/18 08:40** — **Matrix: Water**
**Date Received: 12/11/18 09:20**

| Analyte | Result | Qualifier | NONE | NONE | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Field pH | 5.84 | | | | SU | | | 12/10/18 06:40 | 1 |
| Field Conductivity | 75 | | | | umhos/cm | | | 12/10/18 06:40 | 1 |
| Field Temperature | 22.8 | | | | Degrees C | | | 12/10/18 06:40 | 1 |
| Field Turbidity | 4.16 | | | | NTU | | | 12/10/18 06:40 | 1 |
| Field Dissolved Oxygen | 2.3 | | | | mg/L | | | 12/10/18 06:40 | 1 |
| Field Color | NONE | | | | No Unit | | | 12/10/18 06:40 | 1 |

**Client Sample ID: MW-9A** — **Lab Sample ID: 280-118028-3**
**Date Collected: 12/10/18 07:27** — **Matrix: Water**
**Date Received: 12/11/18 09:20**

| Analyte | Result | Qualifier | NONE | NONE | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Field pH | 7.07 | | | | SU | | | 12/10/18 05:27 | 1 |
| Field Conductivity | 103 | | | | umhos/cm | | | 12/10/18 05:27 | 1 |
| Field Temperature | 22.6 | | | | Degrees C | | | 12/10/18 05:27 | 1 |
| Field Turbidity | 5.45 | | | | NTU | | | 12/10/18 05:27 | 1 |
| Field Dissolved Oxygen | 2.1 | | | | mg/L | | | 12/10/18 05:27 | 1 |
| Field Color | NONE | | | | No Unit | | | 12/10/18 05:27 | 1 |

**Client Sample ID: Equipment Blank1** — **Lab Sample ID: 280-118029-1**
**Date Collected: 12/10/18 09:11** — **Matrix: Water**
**Date Received: 12/11/18 09:20**

| Analyte | Result | Qualifier | NONE | NONE | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Field pH | 6.84 | | | | SU | | | 12/10/18 07:11 | 1 |
| Field Conductivity | 6 | | | | umhos/cm | | | 12/10/18 07:11 | 1 |
| Field Temperature | 21.6 | | | | Degrees C | | | 12/10/18 07:11 | 1 |
| Field Turbidity | 0.00 | | | | NTU | | | 12/10/18 07:11 | 1 |
| Field Dissolved Oxygen | 0.8 | | | | mg/L | | | 12/10/18 07:11 | 1 |
| Field Color | NONE | | | | No Unit | | | 12/10/18 07:11 | 1 |

**Client Sample ID: MW-14B** — **Lab Sample ID: 280-118029-2**
**Date Collected: 12/10/18 09:21** — **Matrix: Water**
**Date Received: 12/11/18 09:20**

| Analyte | Result | Qualifier | NONE | NONE | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Field pH | 7.78 | | | | SU | | | 12/10/18 07:21 | 1 |
| Field Conductivity | 141 | | | | umhos/cm | | | 12/10/18 07:21 | 1 |
| Field Temperature | 22.3 | | | | Degrees C | | | 12/10/18 07:21 | 1 |
| Field Turbidity | 3.01 | | | | NTU | | | 12/10/18 07:21 | 1 |
| Field Dissolved Oxygen | 0.2 | | | | mg/L | | | 12/10/18 07:21 | 1 |
| Field Color | NONE | | | | No Unit | | | 12/10/18 07:21 | 1 |

**Client Sample ID: MW-9B** — **Lab Sample ID: 280-118029-3**
**Date Collected: 12/10/18 08:01** — **Matrix: Water**
**Date Received: 12/11/18 09:20**

| Analyte | Result | Qualifier | NONE | NONE | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Field pH | 7.74 | | | | SU | | | 12/10/18 06:01 | 1 |
| Field Conductivity | 382 | | | | umhos/cm | | | 12/10/18 06:01 | 1 |
| Field Temperature | 21.9 | | | | Degrees C | | | 12/10/18 06:01 | 1 |
| Field Turbidity | 5.73 | | | | NTU | | | 12/10/18 06:01 | 1 |
| Field Dissolved Oxygen | 0.2 | | | | mg/L | | | 12/10/18 06:01 | 1 |
| Field Color | NONE | | | | No Unit | | | 12/10/18 06:01 | 1 |

# Surrogate Summary

Client: Waste Management
Project/Site: FL26|Vista

TestAmerica Job ID: 280-117909-1

## Method: 8260C - Volatile Organic Compounds by GC/MS

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

| | | Percent Surrogate Recovery (Acceptance Limits) | | | |
|---|---|---|---|---|---|
| | | DCA | TOL | BFB | DBFM |
| Lab Sample ID | Client Sample ID | (77-120) | (80-120) | (73-120) | (75-123) |
| 280-117920-1 | MW-3A | 112 | 94 | 85 | 97 |
| 280-117920-2 | MW-4A | 115 | 93 | 82 | 102 |
| 280-117920-3 | MW-5A | 116 | 94 | 82 | 99 |
| 280-117920-4 | MW-7A | 111 | 92 | 82 | 100 |
| 280-117920-5 | MW-1A | 111 | 95 | 85 | 97 |
| 280-117920-6 | TRIP BLANK | 112 | 91 | 81 | 99 |
| 280-117970-1 | MW-8R | 108 | 98 | 112 | 102 |
| 280-117970-2 | MW-2AR | 103 | 98 | 116 | 97 |
| 280-117970-3 | MW-6AR | 105 | 97 | 115 | 98 |
| 280-117970-4 | MW-15A | 107 | 98 | 114 | 102 |
| 280-117970-5 | MW-11A | 96 | 100 | 105 | 100 |
| 280-117970-6 | TRIP BLANK1 | 96 | 99 | 104 | 99 |
| 280-118028-2 | MW-14A | 103 | 91 | 81 | 91 |
| 280-118028-3 | MW-9A | 104 | 94 | 83 | 91 |
| 280-118028-4 | TRIP BLANK2 | 106 | 91 | 81 | 94 |
| 480-146744-A-1 MS | Matrix Spike | 92 | 106 | | 98 |
| 480-146744-A-1 MSD | Matrix Spike Duplicate | 98 | 107 | | 103 |
| 480-146749-K-8 MS | Matrix Spike | 108 | 93 | 87 | |
| 480-146749-K-8 MSD | Matrix Spike Duplicate | 110 | 94 | 85 | |
| 480-146749-K-9 MS | Matrix Spike | 98 | 98 | 112 | |
| 480-146749-K-9 MSD | Matrix Spike Duplicate | 106 | 102 | 112 | |
| LCS 480-450767/5 | Lab Control Sample | 104 | 95 | 88 | 95 |
| LCS 480-450778/10 | Lab Control Sample | 105 | 99 | 115 | 103 |
| LCS 480-450779/5 | Lab Control Sample | 96 | 104 | 110 | 103 |
| LCS 480-451772/5 | Lab Control Sample | 106 | 94 | 88 | 94 |
| MB 480-450767/7 | Method Blank | 112 | 94 | 84 | 96 |
| MB 480-450778/7 | Method Blank | 100 | 95 | 106 | 94 |
| MB 480-450779/7 | Method Blank | 100 | 102 | 106 | 98 |
| MB 480-451772/7 | Method Blank | 100 | 91 | 82 | 90 |

**Surrogate Legend**

DCA = 1,2-Dichloroethane-d4 (Surr)
TOL = Toluene-d8 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane (Surr)

## Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

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

| | | Percent Surrogate Recovery (Acceptance Limits) |
|---|---|---|
| | | 12DBP1 |
| Lab Sample ID | Client Sample ID | (70-130) |
| 280-117920-1 | MW-3A | 104 |
| 280-117920-2 | MW-4A | 107 |
| 280-117920-3 | MW-5A | 109 |
| 280-117920-4 | MW-7A | 107 |
| 280-117920-5 | MW-1A | 106 |
| 280-117920-6 | TRIP BLANK | 103 |
| 280-117970-1 | MW-8R | 107 |

# Surrogate Summary

Client: Waste Management
Project/Site: FL26|Vista

TestAmerica Job ID: 280-117909-1

## Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC) (Continued)

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

| | | Percent Surrogate Recovery (Acceptance Limits) | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **Lab Sample ID** | **Client Sample ID** | **12DBP1 (70-130)** | | | | | | |
| 280-117970-2 | MW-2AR | 108 | | | | | | |
| 280-117970-3 | MW-6AR | 113 | | | | | | |
| 280-117970-4 | MW-15A | 109 | | | | | | |
| 280-117970-5 | MW-11A | 108 | | | | | | |
| 280-117970-6 | TRIP BLANK1 | 107 | | | | | | |
| 280-118028-2 | MW-14A | 115 | | | | | | |
| 280-118028-3 | MW-9A | 109 | | | | | | |
| 280-118028-4 | TRIP BLANK2 | 91 | | | | | | |
| LCS 280-441124/2-A | Lab Control Sample | 102 | | | | | | |
| LCS 280-441158/2-A | Lab Control Sample | 105 | | | | | | |
| LCS 280-442076/2-A | Lab Control Sample | 98 | | | | | | |
| LCS 280-442223/2-A | Lab Control Sample | 108 | | | | | | |
| LCSD 280-441124/3-A | Lab Control Sample Dup | 95 | | | | | | |
| LCSD 280-441158/3-A | Lab Control Sample Dup | 103 | | | | | | |
| LCSD 280-442076/3-A | Lab Control Sample Dup | 97 | | | | | | |
| LCSD 280-442223/3-A | Lab Control Sample Dup | 98 | | | | | | |
| MB 280-441124/4-A | Method Blank | 95 | | | | | | |
| MB 280-441158/4-A | Method Blank | 102 | | | | | | |
| MB 280-442076/4-A | Method Blank | 102 | | | | | | |
| MB 280-442223/4-A | Method Blank | 104 | | | | | | |

**Surrogate Legend**

12DBP = 1,2-Dibromopropane

## Method: 8260C - Volatile Organic Compounds by GC/MS

**Lab Sample ID: MB 480-450767/7**
**Matrix: Water**
**Analysis Batch: 450767**

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

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | 3.0 | U | 20 | 3.0 | ug/L | | | 12/13/18 20:58 | 1 |
| Acrylonitrile | 0.83 | U | 20 | 0.83 | ug/L | | | 12/13/18 20:58 | 1 |
| Benzene | 0.41 | U | 1.0 | 0.41 | ug/L | | | 12/13/18 20:58 | 1 |
| Bromochloromethane | 0.87 | U | 1.0 | 0.87 | ug/L | | | 12/13/18 20:58 | 1 |
| Bromodichloromethane | 0.39 | U | 1.0 | 0.39 | ug/L | | | 12/13/18 20:58 | 1 |
| Bromoform | 0.26 | U | 1.0 | 0.26 | ug/L | | | 12/13/18 20:58 | 1 |
| Bromomethane | 0.69 | U | 2.0 | 0.69 | ug/L | | | 12/13/18 20:58 | 1 |
| 2-Butanone (MEK) | 1.3 | U | 6.0 | 1.3 | ug/L | | | 12/13/18 20:58 | 1 |
| Carbon disulfide | 0.19 | U | 2.0 | 0.19 | ug/L | | | 12/13/18 20:58 | 1 |
| Carbon tetrachloride | 0.27 | U | 1.0 | 0.27 | ug/L | | | 12/13/18 20:58 | 1 |
| Chlorobenzene | 0.75 | U | 1.0 | 0.75 | ug/L | | | 12/13/18 20:58 | 1 |
| Dibromochloromethane | 0.32 | U | 1.0 | 0.32 | ug/L | | | 12/13/18 20:58 | 1 |
| Chloroethane | 0.32 | U | 2.0 | 0.32 | ug/L | | | 12/13/18 20:58 | 1 |
| Chloroform | 0.34 | U | 1.0 | 0.34 | ug/L | | | 12/13/18 20:58 | 1 |
| Chloromethane | 0.35 | U | 2.0 | 0.35 | ug/L | | | 12/13/18 20:58 | 1 |
| Dibromomethane | 0.41 | U | 1.0 | 0.41 | ug/L | | | 12/13/18 20:58 | 1 |
| 1,2-Dichlorobenzene | 0.79 | U | 1.0 | 0.79 | ug/L | | | 12/13/18 20:58 | 1 |
| 1,4-Dichlorobenzene | 0.84 | U | 1.0 | 0.84 | ug/L | | | 12/13/18 20:58 | 1 |
| trans-1,4-Dichloro-2-butene | 0.22 | U | 3.0 | 0.22 | ug/L | | | 12/13/18 20:58 | 1 |
| 1,1-Dichloroethane | 0.38 | U | 1.0 | 0.38 | ug/L | | | 12/13/18 20:58 | 1 |
| 1,2-Dichloroethane | 0.21 | U | 1.0 | 0.21 | ug/L | | | 12/13/18 20:58 | 1 |
| cis-1,2-Dichloroethene | 0.81 | U | 1.0 | 0.81 | ug/L | | | 12/13/18 20:58 | 1 |
| trans-1,2-Dichloroethene | 0.90 | U | 1.0 | 0.90 | ug/L | | | 12/13/18 20:58 | 1 |
| 1,1-Dichloroethene | 0.29 | U | 1.0 | 0.29 | ug/L | | | 12/13/18 20:58 | 1 |
| 1,2-Dichloropropane | 0.72 | U | 1.0 | 0.72 | ug/L | | | 12/13/18 20:58 | 1 |
| cis-1,3-Dichloropropene | 0.36 | U | 1.0 | 0.36 | ug/L | | | 12/13/18 20:58 | 1 |
| trans-1,3-Dichloropropene | 0.37 | U | 3.0 | 0.37 | ug/L | | | 12/13/18 20:58 | 1 |
| Ethylbenzene | 0.74 | U | 1.0 | 0.74 | ug/L | | | 12/13/18 20:58 | 1 |
| 2-Hexanone | 1.2 | U | 5.0 | 1.2 | ug/L | | | 12/13/18 20:58 | 1 |
| Iodomethane | 0.30 | U | 1.0 | 0.30 | ug/L | | | 12/13/18 20:58 | 1 |
| Methylene Chloride | 0.44 | U | 2.0 | 0.44 | ug/L | | | 12/13/18 20:58 | 1 |
| 4-Methyl-2-pentanone (MIBK) | 2.1 | U | 5.0 | 2.1 | ug/L | | | 12/13/18 20:58 | 1 |
| Styrene | 0.73 | U | 1.0 | 0.73 | ug/L | | | 12/13/18 20:58 | 1 |
| 1,1,1,2-Tetrachloroethane | 0.35 | U | 1.0 | 0.35 | ug/L | | | 12/13/18 20:58 | 1 |
| 1,1,2,2-Tetrachloroethane | 0.21 | U | 1.0 | 0.21 | ug/L | | | 12/13/18 20:58 | 1 |
| Tetrachloroethene | 0.36 | U | 1.0 | 0.36 | ug/L | | | 12/13/18 20:58 | 1 |
| Toluene | 0.51 | U | 1.0 | 0.51 | ug/L | | | 12/13/18 20:58 | 1 |
| 1,1,1-Trichloroethane | 0.82 | U | 1.0 | 0.82 | ug/L | | | 12/13/18 20:58 | 1 |
| 1,1,2-Trichloroethane | 0.23 | U | 1.0 | 0.23 | ug/L | | | 12/13/18 20:58 | 1 |
| Trichloroethene | 0.46 | U | 1.0 | 0.46 | ug/L | | | 12/13/18 20:58 | 1 |
| Trichlorofluoromethane | 0.88 | U | 2.0 | 0.88 | ug/L | | | 12/13/18 20:58 | 1 |
| 1,2,3-Trichloropropane | 0.89 | U | 2.5 | 0.89 | ug/L | | | 12/13/18 20:58 | 1 |
| Vinyl acetate | 0.85 | U | 3.0 | 0.85 | ug/L | | | 12/13/18 20:58 | 1 |
| Vinyl chloride | 0.90 | U | 1.0 | 0.90 | ug/L | | | 12/13/18 20:58 | 1 |
| Xylenes (total) | 0.66 | U | 2.0 | 0.66 | ug/L | | | 12/13/18 20:58 | 1 |

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

**Lab Sample ID: MB 480-450767/7**
**Matrix: Water**
**Analysis Batch: 450767**

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

| *Surrogate* | *MB %Recovery* | *MB Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1,2-Dichloroethane-d4 (Surr)* | *112* | | *77 - 120* | | *12/13/18 20:58* | *1* |
| *Toluene-d8 (Surr)* | *94* | | *80 - 120* | | *12/13/18 20:58* | *1* |
| *4-Bromofluorobenzene (Surr)* | *84* | | *73 - 120* | | *12/13/18 20:58* | *1* |
| *Dibromofluoromethane (Surr)* | *96* | | *75 - 123* | | *12/13/18 20:58* | *1* |

**Lab Sample ID: LCS 480-450767/5**
**Matrix: Water**
**Analysis Batch: 450767**

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

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| Acetone | 125 | 130 | | ug/L | | 104 | 56 - 142 |
| Acrylonitrile | 250 | 275 | | ug/L | | 110 | 63 - 125 |
| Benzene | 25.0 | 28.1 | | ug/L | | 113 | 71 - 124 |
| Bromochloromethane | 25.0 | 21.8 | | ug/L | | 87 | 72 - 130 |
| Bromodichloromethane | 25.0 | 28.0 | | ug/L | | 112 | 80 - 122 |
| Bromoform | 25.0 | 23.0 | | ug/L | | 92 | 61 - 132 |
| Bromomethane | 25.0 | 23.0 | | ug/L | | 92 | 55 - 144 |
| 2-Butanone (MEK) | 125 | 145 | | ug/L | | 116 | 57 - 140 |
| Carbon disulfide | 25.0 | 28.7 | | ug/L | | 115 | 59 - 134 |
| Carbon tetrachloride | 25.0 | 27.1 | | ug/L | | 108 | 72 - 134 |
| Chlorobenzene | 25.0 | 23.6 | | ug/L | | 94 | 80 - 120 |
| Dibromochloromethane | 25.0 | 23.3 | | ug/L | | 93 | 75 - 125 |
| Chloroethane | 25.0 | 28.4 | | ug/L | | 113 | 69 - 136 |
| Chloroform | 25.0 | 27.5 | | ug/L | | 110 | 73 - 127 |
| Chloromethane | 25.0 | 27.7 | | ug/L | | 111 | 68 - 124 |
| Dibromomethane | 25.0 | 24.7 | | ug/L | | 99 | 76 - 127 |
| 1,2-Dichlorobenzene | 25.0 | 24.5 | | ug/L | | 98 | 80 - 124 |
| 1,4-Dichlorobenzene | 25.0 | 24.7 | | ug/L | | 99 | 80 - 120 |
| trans-1,4-Dichloro-2-butene | 25.0 | 27.8 | | ug/L | | 111 | 41 - 131 |
| 1,1-Dichloroethane | 25.0 | 28.4 | | ug/L | | 114 | 77 - 120 |
| 1,2-Dichloroethane | 25.0 | 28.1 | | ug/L | | 112 | 75 - 120 |
| cis-1,2-Dichloroethene | 25.0 | 24.5 | | ug/L | | 98 | 74 - 124 |
| trans-1,2-Dichloroethene | 25.0 | 24.1 | | ug/L | | 96 | 73 - 127 |
| 1,1-Dichloroethene | 25.0 | 24.4 | | ug/L | | 98 | 66 - 127 |
| 1,2-Dichloropropane | 25.0 | 26.8 | | ug/L | | 107 | 76 - 120 |
| cis-1,3-Dichloropropene | 25.0 | 27.0 | | ug/L | | 108 | 74 - 124 |
| trans-1,3-Dichloropropene | 25.0 | 27.4 | | ug/L | | 110 | 80 - 120 |
| Ethylbenzene | 25.0 | 25.9 | | ug/L | | 104 | 77 - 123 |
| 2-Hexanone | 125 | 139 | | ug/L | | 112 | 65 - 127 |
| Iodomethane | 25.0 | 21.8 | | ug/L | | 87 | 78 - 123 |
| Methylene Chloride | 25.0 | 26.1 | | ug/L | | 104 | 75 - 124 |
| 4-Methyl-2-pentanone (MIBK) | 125 | 142 | | ug/L | | 114 | 71 - 125 |
| Styrene | 25.0 | 24.0 | | ug/L | | 96 | 80 - 120 |
| 1,1,1,2-Tetrachloroethane | 25.0 | 23.2 | | ug/L | | 93 | 80 - 120 |
| 1,1,2,2-Tetrachloroethane | 25.0 | 28.1 | | ug/L | | 112 | 76 - 120 |
| Tetrachloroethene | 25.0 | 22.8 | | ug/L | | 91 | 74 - 122 |
| Toluene | 25.0 | 24.5 | | ug/L | | 98 | 80 - 122 |
| 1,1,1-Trichloroethane | 25.0 | 27.9 | | ug/L | | 112 | 73 - 126 |

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

**Lab Sample ID: LCS 480-450767/5**
**Matrix: Water**
**Analysis Batch: 450767**

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

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| 1,1,2-Trichloroethane | 25.0 | 25.3 | | ug/L | | 101 | 76 - 122 |
| Trichloroethene | 25.0 | 25.6 | | ug/L | | 102 | 74 - 123 |
| Trichlorofluoromethane | 25.0 | 25.7 | | ug/L | | 103 | 62 - 150 |
| 1,2,3-Trichloropropane | 25.0 | 27.1 | | ug/L | | 108 | 68 - 122 |
| Vinyl acetate | 50.0 | 61.7 | | ug/L | | 123 | 50 - 144 |
| Vinyl chloride | 25.0 | 27.6 | | ug/L | | 110 | 65 - 133 |
| Xylenes (total) | 50.0 | 48.7 | | ug/L | | 97 | 76 - 122 |

| *Surrogate* | *LCS %Recovery* | *LCS Qualifier* | *Limits* |
|---|---|---|---|
| *1,2-Dichloroethane-d4 (Surr)* | *104* | | *77 - 120* |
| *Toluene-d8 (Surr)* | *95* | | *80 - 120* |
| *4-Bromofluorobenzene (Surr)* | *88* | | *73 - 120* |
| *Dibromofluoromethane (Surr)* | *95* | | *75 - 123* |

**Lab Sample ID: 480-146749-K-8 MS**
**Matrix: Water**
**Analysis Batch: 450767**

**Client Sample ID: Matrix Spike**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | 23000 | | 12500 | 35000 | | ug/L | | 98 | 56 - 142 |
| Acrylonitrile | 83 | U | 25000 | 27400 | | ug/L | | 110 | 63 - 125 |
| Benzene | 81 | I | 2500 | 2830 | | ug/L | | 110 | 71 - 124 |
| Bromochloromethane | 87 | U | 2500 | 2180 | | ug/L | | 87 | 72 - 130 |
| Bromodichloromethane | 39 | U | 2500 | 2730 | | ug/L | | 109 | 80 - 122 |
| Bromoform | 26 | U | 2500 | 2230 | | ug/L | | 89 | 61 - 132 |
| Bromomethane | 69 | U | 2500 | 2250 | | ug/L | | 90 | 55 - 144 |
| 2-Butanone (MEK) | 2800 | | 12500 | 16600 | | ug/L | | 110 | 57 - 140 |
| Carbon disulfide | 19 | U | 2500 | 2680 | | ug/L | | 107 | 59 - 134 |
| Carbon tetrachloride | 27 | U | 2500 | 2680 | | ug/L | | 107 | 72 - 134 |
| Chlorobenzene | 75 | U | 2500 | 2270 | | ug/L | | 91 | 80 - 120 |
| Dibromochloromethane | 32 | U | 2500 | 2270 | | ug/L | | 91 | 75 - 125 |
| Chloroethane | 32 | U | 2500 | 2820 | | ug/L | | 113 | 69 - 136 |
| Chloroform | 34 | U | 2500 | 2680 | | ug/L | | 107 | 73 - 127 |
| Chloromethane | 35 | U | 2500 | 2210 | | ug/L | | 88 | 68 - 124 |
| Dibromomethane | 41 | U | 2500 | 2410 | | ug/L | | 96 | 76 - 127 |
| 1,2-Dichlorobenzene | 79 | U | 2500 | 2340 | | ug/L | | 94 | 80 - 124 |
| 1,4-Dichlorobenzene | 84 | U | 2500 | 2270 | | ug/L | | 91 | 78 - 124 |
| trans-1,4-Dichloro-2-butene | 22 | U | 2500 | 1780 | | ug/L | | 71 | 41 - 131 |
| 1,1-Dichloroethane | 110 | | 2500 | 2900 | | ug/L | | 112 | 77 - 120 |
| 1,2-Dichloroethane | 21 | U | 2500 | 2690 | | ug/L | | 108 | 75 - 120 |
| cis-1,2-Dichloroethene | 81 | U | 2500 | 2380 | | ug/L | | 95 | 74 - 124 |
| trans-1,2-Dichloroethene | 90 | U | 2500 | 2410 | | ug/L | | 96 | 73 - 127 |
| 1,1-Dichloroethene | 29 | U | 2500 | 2320 | | ug/L | | 93 | 66 - 127 |
| 1,2-Dichloropropane | 72 | U | 2500 | 2710 | | ug/L | | 108 | 76 - 120 |
| cis-1,3-Dichloropropene | 36 | U | 2500 | 2730 | | ug/L | | 109 | 74 - 124 |
| trans-1,3-Dichloropropene | 37 | U | 2500 | 2430 | | ug/L | | 97 | 80 - 120 |
| Ethylbenzene | 74 | U | 2500 | 2540 | | ug/L | | 102 | 77 - 123 |
| 2-Hexanone | 120 | U | 12500 | 13300 | | ug/L | | 106 | 65 - 127 |

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

**Lab Sample ID: 480-146749-K-8 MS**
**Matrix: Water**
**Analysis Batch: 450767**

**Client Sample ID: Matrix Spike**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|---|---|
| Iodomethane | 30 | U | 2500 | 2010 | | ug/L | | 81 | 78 - 123 |
| Methylene Chloride | 44 | U | 2500 | 2780 | | ug/L | | 111 | 75 - 124 |
| 4-Methyl-2-pentanone (MIBK) | 270 | I | 12500 | 14100 | | ug/L | | 111 | 71 - 125 |
| Styrene | 73 | U | 2500 | 2320 | | ug/L | | 93 | 80 - 120 |
| 1,1,1,2-Tetrachloroethane | 35 | U | 2500 | 2170 | | ug/L | | 87 | 80 - 120 |
| 1,1,2,2-Tetrachloroethane | 21 | U | 2500 | 2250 | | ug/L | | 90 | 76 - 120 |
| Tetrachloroethene | 36 | U | 2500 | 2210 | | ug/L | | 88 | 74 - 122 |
| Toluene | 190 | | 2500 | 2530 | | ug/L | | 93 | 80 - 122 |
| 1,1,1-Trichloroethane | 82 | U | 2500 | 2740 | | ug/L | | 110 | 73 - 126 |
| 1,1,2-Trichloroethane | 23 | U | 2500 | 2430 | | ug/L | | 97 | 76 - 122 |
| Trichloroethene | 46 | U | 2500 | 2750 | | ug/L | | 110 | 74 - 123 |
| Trichlorofluoromethane | 88 | U | 2500 | 2650 | | ug/L | | 106 | 62 - 150 |
| 1,2,3-Trichloropropane | 89 | U | 2500 | 2490 | | ug/L | | 100 | 68 - 122 |
| Vinyl acetate | 85 | U | 5000 | 2420 | J3 | ug/L | | 48 | 50 - 144 |
| Vinyl chloride | 90 | U | 2500 | 2800 | | ug/L | | 112 | 65 - 133 |
| Xylenes (total) | 66 | U | 5000 | 4760 | | ug/L | | 95 | 76 - 122 |

| *Surrogate* | *MS %Recovery* | *MS Qualifier* | *Limits* |
|---|---|---|---|
| *1,2-Dichloroethane-d4 (Surr)* | *108* | | *77 - 120* |
| *Toluene-d8 (Surr)* | *93* | | *80 - 120* |
| *4-Bromofluorobenzene (Surr)* | *87* | | *73 - 120* |

**Lab Sample ID: 480-146749-K-8 MSD**
**Matrix: Water**
**Analysis Batch: 450767**

**Client Sample ID: Matrix Spike Duplicate**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Acetone | 23000 | | 12500 | 34300 | | ug/L | | 93 | 56 - 142 | 2 | 15 |
| Acrylonitrile | 83 | U | 25000 | 27800 | | ug/L | | 111 | 63 - 125 | 1 | 20 |
| Benzene | 81 | I | 2500 | 2720 | | ug/L | | 106 | 71 - 124 | 4 | 13 |
| Bromochloromethane | 87 | U | 2500 | 2190 | | ug/L | | 88 | 72 - 130 | 0 | 15 |
| Bromodichloromethane | 39 | U | 2500 | 2660 | | ug/L | | 106 | 80 - 122 | 3 | 15 |
| Bromoform | 26 | U | 2500 | 2180 | | ug/L | | 87 | 61 - 132 | 2 | 15 |
| Bromomethane | 69 | U | 2500 | 2080 | | ug/L | | 83 | 55 - 144 | 8 | 15 |
| 2-Butanone (MEK) | 2800 | | 12500 | 16800 | | ug/L | | 112 | 57 - 140 | 1 | 20 |
| Carbon disulfide | 19 | U | 2500 | 2580 | | ug/L | | 103 | 59 - 134 | 4 | 15 |
| Carbon tetrachloride | 27 | U | 2500 | 2540 | | ug/L | | 102 | 72 - 134 | 5 | 15 |
| Chlorobenzene | 75 | U | 2500 | 2230 | | ug/L | | 89 | 80 - 120 | 2 | 25 |
| Dibromochloromethane | 32 | U | 2500 | 2220 | | ug/L | | 89 | 75 - 125 | 2 | 15 |
| Chloroethane | 32 | U | 2500 | 2740 | | ug/L | | 110 | 69 - 136 | 3 | 15 |
| Chloroform | 34 | U | 2500 | 2610 | | ug/L | | 104 | 73 - 127 | 3 | 20 |
| Chloromethane | 35 | U | 2500 | 2090 | | ug/L | | 84 | 68 - 124 | 6 | 15 |
| Dibromomethane | 41 | U | 2500 | 2430 | | ug/L | | 97 | 76 - 127 | 1 | 15 |
| 1,2-Dichlorobenzene | 79 | U | 2500 | 2390 | | ug/L | | 96 | 80 - 124 | 2 | 20 |
| 1,4-Dichlorobenzene | 84 | U | 2500 | 2310 | | ug/L | | 92 | 78 - 124 | 2 | 20 |
| trans-1,4-Dichloro-2-butene | 22 | U | 2500 | 1690 | | ug/L | | 68 | 41 - 131 | 5 | 20 |
| 1,1-Dichloroethane | 110 | | 2500 | 2790 | | ug/L | | 107 | 77 - 120 | 4 | 20 |
| 1,2-Dichloroethane | 21 | U | 2500 | 2740 | | ug/L | | 110 | 75 - 120 | 2 | 20 |

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

**Lab Sample ID: 480-146749-K-8 MSD**
**Matrix: Water**
**Analysis Batch: 450767**

**Client Sample ID: Matrix Spike Duplicate**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| cis-1,2-Dichloroethene | 81 | U | 2500 | 2340 | | ug/L | | 94 | 74 - 124 | 2 | 15 |
| trans-1,2-Dichloroethene | 90 | U | 2500 | 2310 | | ug/L | | 92 | 73 - 127 | 4 | 20 |
| 1,1-Dichloroethene | 29 | U | 2500 | 2170 | | ug/L | | 87 | 66 - 127 | 7 | 16 |
| 1,2-Dichloropropane | 72 | U | 2500 | 2620 | | ug/L | | 105 | 76 - 120 | 3 | 20 |
| cis-1,3-Dichloropropene | 36 | U | 2500 | 2680 | | ug/L | | 107 | 74 - 124 | 2 | 15 |
| trans-1,3-Dichloropropene | 37 | U | 2500 | 2420 | | ug/L | | 97 | 80 - 120 | 0 | 15 |
| Ethylbenzene | 74 | U | 2500 | 2430 | | ug/L | | 97 | 77 - 123 | 5 | 15 |
| 2-Hexanone | 120 | U | 12500 | 13100 | | ug/L | | 105 | 65 - 127 | 1 | 15 |
| Iodomethane | 30 | U | 2500 | 2000 | | ug/L | | 80 | 78 - 123 | 1 | 20 |
| Methylene Chloride | 44 | U | 2500 | 2740 | | ug/L | | 109 | 75 - 124 | 2 | 15 |
| 4-Methyl-2-pentanone (MIBK) | 270 | I | 12500 | 13800 | | ug/L | | 108 | 71 - 125 | 2 | 35 |
| Styrene | 73 | U | 2500 | 2310 | | ug/L | | 92 | 80 - 120 | 0 | 20 |
| 1,1,1,2-Tetrachloroethane | 35 | U | 2500 | 2130 | | ug/L | | 85 | 80 - 120 | 2 | 20 |
| 1,1,2,2-Tetrachloroethane | 21 | U | 2500 | 2260 | | ug/L | | 90 | 76 - 120 | 0 | 15 |
| Tetrachloroethene | 36 | U | 2500 | 2080 | | ug/L | | 83 | 74 - 122 | 6 | 20 |
| Toluene | 190 | | 2500 | 2450 | | ug/L | | 90 | 80 - 122 | 3 | 15 |
| 1,1,1-Trichloroethane | 82 | U | 2500 | 2580 | | ug/L | | 103 | 73 - 126 | 6 | 15 |
| 1,1,2-Trichloroethane | 23 | U | 2500 | 2390 | | ug/L | | 95 | 76 - 122 | 2 | 15 |
| Trichloroethene | 46 | U | 2500 | 2700 | | ug/L | | 108 | 74 - 123 | 2 | 16 |
| Trichlorofluoromethane | 88 | U | 2500 | 2340 | | ug/L | | 94 | 62 - 150 | 12 | 20 |
| 1,2,3-Trichloropropane | 89 | U | 2500 | 2500 | | ug/L | | 100 | 68 - 122 | 0 | 14 |
| Vinyl acetate | 85 | U | 5000 | 2150 | J3 | ug/L | | 43 | 50 - 144 | 12 | 23 |
| Vinyl chloride | 90 | U | 2500 | 2600 | | ug/L | | 104 | 65 - 133 | 7 | 15 |
| Xylenes (total) | 66 | U | 5000 | 4550 | | ug/L | | 91 | 76 - 122 | 5 | 16 |

| *Surrogate* | *MSD %Recovery* | *MSD Qualifier* | *Limits* |
|---|---|---|---|
| *1,2-Dichloroethane-d4 (Surr)* | *110* | | *77 - 120* |
| *Toluene-d8 (Surr)* | *94* | | *80 - 120* |
| *4-Bromofluorobenzene (Surr)* | *85* | | *73 - 120* |

**Lab Sample ID: MB 480-450778/7**
**Matrix: Water**
**Analysis Batch: 450778**

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

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | 3.0 | U | 20 | 3.0 | ug/L | | | 12/13/18 23:37 | 1 |
| Acrylonitrile | 0.83 | U | 20 | 0.83 | ug/L | | | 12/13/18 23:37 | 1 |
| Benzene | 0.41 | U | 1.0 | 0.41 | ug/L | | | 12/13/18 23:37 | 1 |
| Bromochloromethane | 0.87 | U | 1.0 | 0.87 | ug/L | | | 12/13/18 23:37 | 1 |
| Bromodichloromethane | 0.39 | U | 1.0 | 0.39 | ug/L | | | 12/13/18 23:37 | 1 |
| Bromoform | 0.26 | U | 1.0 | 0.26 | ug/L | | | 12/13/18 23:37 | 1 |
| Bromomethane | 0.69 | U | 2.0 | 0.69 | ug/L | | | 12/13/18 23:37 | 1 |
| 2-Butanone (MEK) | 1.3 | U | 6.0 | 1.3 | ug/L | | | 12/13/18 23:37 | 1 |
| Carbon disulfide | 0.406 | I | 2.0 | 0.19 | ug/L | | | 12/13/18 23:37 | 1 |
| Carbon tetrachloride | 0.27 | U | 1.0 | 0.27 | ug/L | | | 12/13/18 23:37 | 1 |
| Chlorobenzene | 0.75 | U | 1.0 | 0.75 | ug/L | | | 12/13/18 23:37 | 1 |
| Dibromochloromethane | 0.32 | U | 1.0 | 0.32 | ug/L | | | 12/13/18 23:37 | 1 |
| Chloroethane | 0.32 | U | 2.0 | 0.32 | ug/L | | | 12/13/18 23:37 | 1 |

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

**Lab Sample ID: MB 480-450778/7**
**Matrix: Water**
**Analysis Batch: 450778**

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

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Chloroform | 0.34 | U | 1.0 | 0.34 | ug/L | | | 12/13/18 23:37 | 1 |
| Chloromethane | 0.35 | U | 2.0 | 0.35 | ug/L | | | 12/13/18 23:37 | 1 |
| Dibromomethane | 0.41 | U | 1.0 | 0.41 | ug/L | | | 12/13/18 23:37 | 1 |
| 1,2-Dichlorobenzene | 0.79 | U | 1.0 | 0.79 | ug/L | | | 12/13/18 23:37 | 1 |
| 1,4-Dichlorobenzene | 0.84 | U | 1.0 | 0.84 | ug/L | | | 12/13/18 23:37 | 1 |
| trans-1,4-Dichloro-2-butene | 0.22 | U | 3.0 | 0.22 | ug/L | | | 12/13/18 23:37 | 1 |
| 1,1-Dichloroethane | 0.38 | U | 1.0 | 0.38 | ug/L | | | 12/13/18 23:37 | 1 |
| 1,2-Dichloroethane | 0.21 | U | 1.0 | 0.21 | ug/L | | | 12/13/18 23:37 | 1 |
| cis-1,2-Dichloroethene | 0.81 | U | 1.0 | 0.81 | ug/L | | | 12/13/18 23:37 | 1 |
| trans-1,2-Dichloroethene | 0.90 | U | 1.0 | 0.90 | ug/L | | | 12/13/18 23:37 | 1 |
| 1,1-Dichloroethene | 0.29 | U | 1.0 | 0.29 | ug/L | | | 12/13/18 23:37 | 1 |
| 1,2-Dichloropropane | 0.72 | U | 1.0 | 0.72 | ug/L | | | 12/13/18 23:37 | 1 |
| cis-1,3-Dichloropropene | 0.36 | U | 1.0 | 0.36 | ug/L | | | 12/13/18 23:37 | 1 |
| trans-1,3-Dichloropropene | 0.37 | U | 3.0 | 0.37 | ug/L | | | 12/13/18 23:37 | 1 |
| Ethylbenzene | 0.74 | U | 1.0 | 0.74 | ug/L | | | 12/13/18 23:37 | 1 |
| 2-Hexanone | 1.2 | U | 5.0 | 1.2 | ug/L | | | 12/13/18 23:37 | 1 |
| Iodomethane | 0.30 | U | 1.0 | 0.30 | ug/L | | | 12/13/18 23:37 | 1 |
| Methylene Chloride | 0.44 | U | 2.0 | 0.44 | ug/L | | | 12/13/18 23:37 | 1 |
| 4-Methyl-2-pentanone (MIBK) | 2.1 | U | 5.0 | 2.1 | ug/L | | | 12/13/18 23:37 | 1 |
| Styrene | 0.73 | U | 1.0 | 0.73 | ug/L | | | 12/13/18 23:37 | 1 |
| 1,1,1,2-Tetrachloroethane | 0.35 | U | 1.0 | 0.35 | ug/L | | | 12/13/18 23:37 | 1 |
| 1,1,2,2-Tetrachloroethane | 0.21 | U | 1.0 | 0.21 | ug/L | | | 12/13/18 23:37 | 1 |
| Tetrachloroethene | 0.36 | U | 1.0 | 0.36 | ug/L | | | 12/13/18 23:37 | 1 |
| Toluene | 0.51 | U | 1.0 | 0.51 | ug/L | | | 12/13/18 23:37 | 1 |
| 1,1,1-Trichloroethane | 0.82 | U | 1.0 | 0.82 | ug/L | | | 12/13/18 23:37 | 1 |
| 1,1,2-Trichloroethane | 0.23 | U | 1.0 | 0.23 | ug/L | | | 12/13/18 23:37 | 1 |
| Trichloroethene | 0.46 | U | 1.0 | 0.46 | ug/L | | | 12/13/18 23:37 | 1 |
| Trichlorofluoromethane | 0.88 | U | 2.0 | 0.88 | ug/L | | | 12/13/18 23:37 | 1 |
| 1,2,3-Trichloropropane | 0.89 | U | 2.5 | 0.89 | ug/L | | | 12/13/18 23:37 | 1 |
| Vinyl acetate | 0.85 | U | 3.0 | 0.85 | ug/L | | | 12/13/18 23:37 | 1 |
| Vinyl chloride | 0.90 | U | 1.0 | 0.90 | ug/L | | | 12/13/18 23:37 | 1 |
| Xylenes (total) | 0.66 | U | 2.0 | 0.66 | ug/L | | | 12/13/18 23:37 | 1 |

| *Surrogate* | *MB %Recovery* | *MB Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1,2-Dichloroethane-d4 (Surr)* | *100* | | *77 - 120* | | *12/13/18 23:37* | *1* |
| *Toluene-d8 (Surr)* | *95* | | *80 - 120* | | *12/13/18 23:37* | *1* |
| *4-Bromofluorobenzene (Surr)* | *106* | | *73 - 120* | | *12/13/18 23:37* | *1* |
| *Dibromofluoromethane (Surr)* | *94* | | *75 - 123* | | *12/13/18 23:37* | *1* |

**Lab Sample ID: LCS 480-450778/10**
**Matrix: Water**
**Analysis Batch: 450778**

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

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| Acetone | 125 | 148 | | ug/L | | 119 | 56 - 142 |
| Acrylonitrile | 250 | 206 | | ug/L | | 82 | 63 - 125 |
| Benzene | 25.0 | 25.0 | | ug/L | | 100 | 71 - 124 |
| Bromochloromethane | 25.0 | 24.9 | | ug/L | | 99 | 72 - 130 |

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

**Lab Sample ID: LCS 480-450778/10**
**Matrix: Water**
**Analysis Batch: 450778**

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

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| Bromodichloromethane | 25.0 | 29.5 | | ug/L | | 118 | 80 - 122 |
| Bromoform | 25.0 | 28.4 | | ug/L | | 114 | 61 - 132 |
| Bromomethane | 25.0 | 22.3 | | ug/L | | 89 | 55 - 144 |
| 2-Butanone (MEK) | 125 | 149 | | ug/L | | 119 | 57 - 140 |
| Carbon disulfide | 25.0 | 20.5 | | ug/L | | 82 | 59 - 134 |
| Carbon tetrachloride | 25.0 | 26.6 | | ug/L | | 107 | 72 - 134 |
| Chlorobenzene | 25.0 | 27.1 | | ug/L | | 108 | 80 - 120 |
| Dibromochloromethane | 25.0 | 29.3 | | ug/L | | 117 | 75 - 125 |
| Chloroethane | 25.0 | 23.3 | | ug/L | | 93 | 69 - 136 |
| Chloroform | 25.0 | 23.6 | | ug/L | | 95 | 73 - 127 |
| Chloromethane | 25.0 | 18.7 | | ug/L | | 75 | 68 - 124 |
| Dibromomethane | 25.0 | 29.1 | | ug/L | | 117 | 76 - 127 |
| 1,2-Dichlorobenzene | 25.0 | 25.3 | | ug/L | | 101 | 80 - 124 |
| 1,4-Dichlorobenzene | 25.0 | 27.1 | | ug/L | | 109 | 80 - 120 |
| trans-1,4-Dichloro-2-butene | 25.0 | 27.7 | | ug/L | | 111 | 41 - 131 |
| 1,1-Dichloroethane | 25.0 | 21.9 | | ug/L | | 88 | 77 - 120 |
| 1,2-Dichloroethane | 25.0 | 26.2 | | ug/L | | 105 | 75 - 120 |
| cis-1,2-Dichloroethene | 25.0 | 23.5 | | ug/L | | 94 | 74 - 124 |
| trans-1,2-Dichloroethene | 25.0 | 23.4 | | ug/L | | 94 | 73 - 127 |
| 1,1-Dichloroethene | 25.0 | 22.4 | | ug/L | | 90 | 66 - 127 |
| 1,2-Dichloropropane | 25.0 | 25.6 | | ug/L | | 103 | 76 - 120 |
| cis-1,3-Dichloropropene | 25.0 | 31.9 | J3 | ug/L | | 128 | 74 - 124 |
| trans-1,3-Dichloropropene | 25.0 | 30.3 | J3 | ug/L | | 121 | 80 - 120 |
| Ethylbenzene | 25.0 | 24.5 | | ug/L | | 98 | 77 - 123 |
| 2-Hexanone | 125 | 143 | | ug/L | | 114 | 65 - 127 |
| Iodomethane | 25.0 | 24.4 | | ug/L | | 97 | 78 - 123 |
| Methylene Chloride | 25.0 | 22.5 | | ug/L | | 90 | 75 - 124 |
| 4-Methyl-2-pentanone (MIBK) | 125 | 117 | | ug/L | | 93 | 71 - 125 |
| Styrene | 25.0 | 27.6 | | ug/L | | 110 | 80 - 120 |
| 1,1,1,2-Tetrachloroethane | 25.0 | 25.3 | | ug/L | | 101 | 80 - 120 |
| 1,1,2,2-Tetrachloroethane | 25.0 | 22.3 | | ug/L | | 89 | 76 - 120 |
| Tetrachloroethene | 25.0 | 28.2 | | ug/L | | 113 | 74 - 122 |
| Toluene | 25.0 | 25.4 | | ug/L | | 102 | 80 - 122 |
| 1,1,1-Trichloroethane | 25.0 | 25.2 | | ug/L | | 101 | 73 - 126 |
| 1,1,2-Trichloroethane | 25.0 | 25.7 | | ug/L | | 103 | 76 - 122 |
| Trichloroethene | 25.0 | 27.3 | | ug/L | | 109 | 74 - 123 |
| Trichlorofluoromethane | 25.0 | 24.0 | | ug/L | | 96 | 62 - 150 |
| 1,2,3-Trichloropropane | 25.0 | 26.1 | | ug/L | | 105 | 68 - 122 |
| Vinyl acetate | 50.0 | 59.9 | | ug/L | | 120 | 50 - 144 |
| Vinyl chloride | 25.0 | 20.8 | | ug/L | | 83 | 65 - 133 |
| Xylenes (total) | 50.0 | 48.3 | | ug/L | | 97 | 76 - 122 |

| *Surrogate* | *LCS %Recovery* | *LCS Qualifier* | *Limits* |
|---|---|---|---|
| *1,2-Dichloroethane-d4 (Surr)* | *105* | | *77 - 120* |
| *Toluene-d8 (Surr)* | *99* | | *80 - 120* |
| *4-Bromofluorobenzene (Surr)* | *115* | | *73 - 120* |
| *Dibromofluoromethane (Surr)* | *103* | | *75 - 123* |

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

**Lab Sample ID: 480-146749-K-9 MS**
**Matrix: Water**
**Analysis Batch: 450778**

**Client Sample ID: Matrix Spike**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | 66 | I | 625 | 823 | | ug/L | | 121 | 56 - 142 |
| Acrylonitrile | 4.2 | U | 1250 | 983 | | ug/L | | 79 | 63 - 125 |
| Benzene | 2.1 | U | 125 | 125 | | ug/L | | 100 | 71 - 124 |
| Bromochloromethane | 4.4 | U | 125 | 122 | | ug/L | | 97 | 72 - 130 |
| Bromodichloromethane | 2.0 | U | 125 | 135 | | ug/L | | 108 | 80 - 122 |
| Bromoform | 1.3 | U | 125 | 140 | | ug/L | | 112 | 61 - 132 |
| Bromomethane | 3.5 | U | 125 | 111 | | ug/L | | 89 | 55 - 144 |
| 2-Butanone (MEK) | 6.6 | U | 625 | 707 | | ug/L | | 113 | 57 - 140 |
| Carbon disulfide | 0.95 | U | 125 | 87.8 | | ug/L | | 70 | 59 - 134 |
| Carbon tetrachloride | 1.4 | U | 125 | 135 | | ug/L | | 108 | 72 - 134 |
| Chlorobenzene | 330 | | 125 | 433 | | ug/L | | 83 | 80 - 120 |
| Dibromochloromethane | 1.6 | U | 125 | 143 | | ug/L | | 114 | 75 - 125 |
| Chloroethane | 1.6 | U | 125 | 118 | | ug/L | | 94 | 69 - 136 |
| Chloroform | 1.7 | U | 125 | 114 | | ug/L | | 91 | 73 - 127 |
| Chloromethane | 1.8 | U | 125 | 88.7 | | ug/L | | 71 | 68 - 124 |
| Dibromomethane | 2.1 | U | 125 | 139 | | ug/L | | 112 | 76 - 127 |
| 1,2-Dichlorobenzene | 18 | | 125 | 139 | | ug/L | | 97 | 80 - 124 |
| 1,4-Dichlorobenzene | 38 | | 125 | 160 | | ug/L | | 97 | 78 - 124 |
| trans-1,4-Dichloro-2-butene | 1.1 | U | 125 | 109 | | ug/L | | 87 | 41 - 131 |
| 1,1-Dichloroethane | 1.9 | U | 125 | 107 | | ug/L | | 86 | 77 - 120 |
| 1,2-Dichloroethane | 1.1 | U | 125 | 128 | | ug/L | | 103 | 75 - 120 |
| cis-1,2-Dichloroethene | 4.1 | U | 125 | 111 | | ug/L | | 88 | 74 - 124 |
| trans-1,2-Dichloroethene | 4.5 | U | 125 | 115 | | ug/L | | 92 | 73 - 127 |
| 1,1-Dichloroethene | 1.5 | U | 125 | 131 | | ug/L | | 105 | 66 - 127 |
| 1,2-Dichloropropane | 3.6 | U | 125 | 122 | | ug/L | | 98 | 76 - 120 |
| cis-1,3-Dichloropropene | 1.8 | U J3 | 125 | 146 | | ug/L | | 117 | 74 - 124 |
| trans-1,3-Dichloropropene | 1.9 | U J3 | 125 | 145 | | ug/L | | 116 | 80 - 120 |
| Ethylbenzene | 3.7 | U | 125 | 124 | | ug/L | | 99 | 77 - 123 |
| 2-Hexanone | 6.2 | U | 625 | 727 | | ug/L | | 116 | 65 - 127 |
| Iodomethane | 1.5 | U | 125 | 118 | | ug/L | | 94 | 78 - 123 |
| Methylene Chloride | 3.1 | I | 125 | 106 | | ug/L | | 82 | 75 - 124 |
| 4-Methyl-2-pentanone (MIBK) | 11 | U | 625 | 600 | | ug/L | | 96 | 71 - 125 |
| Styrene | 3.7 | U | 125 | 140 | | ug/L | | 112 | 80 - 120 |
| 1,1,1,2-Tetrachloroethane | 1.8 | U | 125 | 120 | | ug/L | | 96 | 80 - 120 |
| 1,1,2,2-Tetrachloroethane | 1.1 | U | 125 | 1.1 | U J3 | ug/L | | 0 | 76 - 120 |
| Tetrachloroethene | 1.8 | U | 125 | 148 | | ug/L | | 119 | 74 - 122 |
| Toluene | 2.6 | U | 125 | 129 | | ug/L | | 103 | 80 - 122 |
| 1,1,1-Trichloroethane | 4.1 | U | 125 | 127 | | ug/L | | 102 | 73 - 126 |
| 1,1,2-Trichloroethane | 1.2 | U | 125 | 105 | | ug/L | | 84 | 76 - 122 |
| Trichloroethene | 3.3 | I | 125 | 254 | J3 | ug/L | | 201 | 74 - 123 |
| Trichlorofluoromethane | 4.4 | U | 125 | 123 | | ug/L | | 98 | 62 - 150 |
| 1,2,3-Trichloropropane | 4.5 | U | 125 | 126 | | ug/L | | 101 | 68 - 122 |
| Vinyl acetate | 4.3 | U | 250 | 4.3 | U J3 | ug/L | | 0 | 50 - 144 |
| Vinyl chloride | 4.5 | U | 125 | 103 | | ug/L | | 82 | 65 - 133 |
| Xylenes (total) | 3.3 | U | 250 | 244 | | ug/L | | 98 | 76 - 122 |

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

**Lab Sample ID: 480-146749-K-9 MS**
**Matrix: Water**
**Analysis Batch: 450778**

**Client Sample ID: Matrix Spike**
**Prep Type: Total/NA**

| *Surrogate* | *MS %Recovery* | *MS Qualifier* | *Limits* |
|---|---|---|---|
| *1,2-Dichloroethane-d4 (Surr)* | *98* | | *77 - 120* |
| *Toluene-d8 (Surr)* | *98* | | *80 - 120* |
| *4-Bromofluorobenzene (Surr)* | *112* | | *73 - 120* |

**Lab Sample ID: 480-146749-K-9 MSD**
**Matrix: Water**
**Analysis Batch: 450778**

**Client Sample ID: Matrix Spike Duplicate**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Acetone | 66 | I | 625 | 835 | | ug/L | | 123 | 56 - 142 | 1 | 15 |
| Acrylonitrile | 4.2 | U | 1250 | 1020 | | ug/L | | 81 | 63 - 125 | 3 | 20 |
| Benzene | 2.1 | U | 125 | 128 | | ug/L | | 102 | 71 - 124 | 2 | 13 |
| Bromochloromethane | 4.4 | U | 125 | 127 | | ug/L | | 101 | 72 - 130 | 4 | 15 |
| Bromodichloromethane | 2.0 | U | 125 | 137 | | ug/L | | 110 | 80 - 122 | 2 | 15 |
| Bromoform | 1.3 | U | 125 | 145 | | ug/L | | 116 | 61 - 132 | 4 | 15 |
| Bromomethane | 3.5 | U | 125 | 113 | | ug/L | | 91 | 55 - 144 | 2 | 15 |
| 2-Butanone (MEK) | 6.6 | U | 625 | 740 | | ug/L | | 118 | 57 - 140 | 5 | 20 |
| Carbon disulfide | 0.95 | U | 125 | 91.9 | | ug/L | | 74 | 59 - 134 | 5 | 15 |
| Carbon tetrachloride | 1.4 | U | 125 | 140 | | ug/L | | 112 | 72 - 134 | 4 | 15 |
| Chlorobenzene | 330 | | 125 | 433 | | ug/L | | 83 | 80 - 120 | 0 | 25 |
| Dibromochloromethane | 1.6 | U | 125 | 145 | | ug/L | | 116 | 75 - 125 | 1 | 15 |
| Chloroethane | 1.6 | U | 125 | 120 | | ug/L | | 96 | 69 - 136 | 2 | 15 |
| Chloroform | 1.7 | U | 125 | 117 | | ug/L | | 94 | 73 - 127 | 3 | 20 |
| Chloromethane | 1.8 | U | 125 | 90.5 | | ug/L | | 72 | 68 - 124 | 2 | 15 |
| Dibromomethane | 2.1 | U | 125 | 147 | | ug/L | | 117 | 76 - 127 | 5 | 15 |
| 1,2-Dichlorobenzene | 18 | | 125 | 141 | | ug/L | | 99 | 80 - 124 | 1 | 20 |
| 1,4-Dichlorobenzene | 38 | | 125 | 164 | | ug/L | | 100 | 78 - 124 | 2 | 20 |
| trans-1,4-Dichloro-2-butene | 1.1 | U | 125 | 114 | | ug/L | | 91 | 41 - 131 | 4 | 20 |
| 1,1-Dichloroethane | 1.9 | U | 125 | 108 | | ug/L | | 86 | 77 - 120 | 0 | 20 |
| 1,2-Dichloroethane | 1.1 | U | 125 | 130 | | ug/L | | 104 | 75 - 120 | 2 | 20 |
| cis-1,2-Dichloroethene | 4.1 | U | 125 | 115 | | ug/L | | 92 | 74 - 124 | 4 | 15 |
| trans-1,2-Dichloroethene | 4.5 | U | 125 | 119 | | ug/L | | 95 | 73 - 127 | 3 | 20 |
| 1,1-Dichloroethene | 1.5 | U | 125 | 134 | | ug/L | | 107 | 66 - 127 | 2 | 16 |
| 1,2-Dichloropropane | 3.6 | U | 125 | 127 | | ug/L | | 102 | 76 - 120 | 4 | 20 |
| cis-1,3-Dichloropropene | 1.8 | U J3 | 125 | 153 | | ug/L | | 122 | 74 - 124 | 5 | 15 |
| trans-1,3-Dichloropropene | 1.9 | U J3 | 125 | 146 | | ug/L | | 117 | 80 - 120 | 1 | 15 |
| Ethylbenzene | 3.7 | U | 125 | 126 | | ug/L | | 100 | 77 - 123 | 2 | 15 |
| 2-Hexanone | 6.2 | U | 625 | 734 | | ug/L | | 117 | 65 - 127 | 1 | 15 |
| Iodomethane | 1.5 | U | 125 | 125 | | ug/L | | 100 | 78 - 123 | 6 | 20 |
| Methylene Chloride | 3.1 | I | 125 | 109 | | ug/L | | 85 | 75 - 124 | 3 | 15 |
| 4-Methyl-2-pentanone (MIBK) | 11 | U | 625 | 597 | | ug/L | | 96 | 71 - 125 | 0 | 35 |
| Styrene | 3.7 | U | 125 | 138 | | ug/L | | 110 | 80 - 120 | 1 | 20 |
| 1,1,1,2-Tetrachloroethane | 1.8 | U | 125 | 122 | | ug/L | | 98 | 80 - 120 | 2 | 20 |
| 1,1,2,2-Tetrachloroethane | 1.1 | U | 125 | 1.1 | U J3 | ug/L | | 0 | 76 - 120 | NC | 15 |
| Tetrachloroethene | 1.8 | U | 125 | 148 | | ug/L | | 119 | 74 - 122 | 0 | 20 |
| Toluene | 2.6 | U | 125 | 132 | | ug/L | | 105 | 80 - 122 | 2 | 15 |
| 1,1,1-Trichloroethane | 4.1 | U | 125 | 133 | | ug/L | | 106 | 73 - 126 | 4 | 15 |
| 1,1,2-Trichloroethane | 1.2 | U | 125 | 106 | | ug/L | | 85 | 76 - 122 | 1 | 15 |

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

**Lab Sample ID: 480-146749-K-9 MSD**
**Matrix: Water**
**Analysis Batch: 450778**

**Client Sample ID: Matrix Spike Duplicate**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Trichloroethene | 3.3 | I | 125 | 260 | J3 | ug/L | | 206 | 74 - 123 | 2 | 16 |
| Trichlorofluoromethane | 4.4 | U | 125 | 126 | | ug/L | | 101 | 62 - 150 | 3 | 20 |
| 1,2,3-Trichloropropane | 4.5 | U | 125 | 129 | | ug/L | | 103 | 68 - 122 | 2 | 14 |
| Vinyl acetate | 4.3 | U | 250 | 58.1 | J3 | ug/L | | 23 | 50 - 144 | NC | 23 |
| Vinyl chloride | 4.5 | U | 125 | 107 | | ug/L | | 86 | 65 - 133 | 4 | 15 |
| Xylenes (total) | 3.3 | U | 250 | 248 | | ug/L | | 99 | 76 - 122 | 2 | 16 |

| *Surrogate* | *MSD %Recovery* | *MSD Qualifier* | *Limits* |
|---|---|---|---|
| *1,2-Dichloroethane-d4 (Surr)* | *106* | | *77 - 120* |
| *Toluene-d8 (Surr)* | *102* | | *80 - 120* |
| *4-Bromofluorobenzene (Surr)* | *112* | | *73 - 120* |

**Lab Sample ID: MB 480-450779/7**
**Matrix: Water**
**Analysis Batch: 450779**

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

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | 3.0 | U | 20 | 3.0 | ug/L | | | 12/14/18 00:16 | 1 |
| Acrylonitrile | 0.83 | U | 20 | 0.83 | ug/L | | | 12/14/18 00:16 | 1 |
| Benzene | 0.41 | U | 1.0 | 0.41 | ug/L | | | 12/14/18 00:16 | 1 |
| Bromochloromethane | 0.87 | U | 1.0 | 0.87 | ug/L | | | 12/14/18 00:16 | 1 |
| Bromodichloromethane | 0.39 | U | 1.0 | 0.39 | ug/L | | | 12/14/18 00:16 | 1 |
| Bromoform | 0.26 | U | 1.0 | 0.26 | ug/L | | | 12/14/18 00:16 | 1 |
| Bromomethane | 0.69 | U | 2.0 | 0.69 | ug/L | | | 12/14/18 00:16 | 1 |
| 2-Butanone (MEK) | 1.3 | U | 6.0 | 1.3 | ug/L | | | 12/14/18 00:16 | 1 |
| Carbon disulfide | 0.19 | U | 2.0 | 0.19 | ug/L | | | 12/14/18 00:16 | 1 |
| Carbon tetrachloride | 0.27 | U | 1.0 | 0.27 | ug/L | | | 12/14/18 00:16 | 1 |
| Chlorobenzene | 0.75 | U | 1.0 | 0.75 | ug/L | | | 12/14/18 00:16 | 1 |
| Dibromochloromethane | 0.32 | U | 1.0 | 0.32 | ug/L | | | 12/14/18 00:16 | 1 |
| Chloroethane | 0.32 | U | 2.0 | 0.32 | ug/L | | | 12/14/18 00:16 | 1 |
| Chloroform | 0.34 | U | 1.0 | 0.34 | ug/L | | | 12/14/18 00:16 | 1 |
| Chloromethane | 0.35 | U | 2.0 | 0.35 | ug/L | | | 12/14/18 00:16 | 1 |
| Dibromomethane | 0.41 | U | 1.0 | 0.41 | ug/L | | | 12/14/18 00:16 | 1 |
| 1,2-Dichlorobenzene | 0.79 | U | 1.0 | 0.79 | ug/L | | | 12/14/18 00:16 | 1 |
| 1,4-Dichlorobenzene | 0.84 | U | 1.0 | 0.84 | ug/L | | | 12/14/18 00:16 | 1 |
| trans-1,4-Dichloro-2-butene | 0.22 | U | 3.0 | 0.22 | ug/L | | | 12/14/18 00:16 | 1 |
| 1,1-Dichloroethane | 0.38 | U | 1.0 | 0.38 | ug/L | | | 12/14/18 00:16 | 1 |
| 1,2-Dichloroethane | 0.21 | U | 1.0 | 0.21 | ug/L | | | 12/14/18 00:16 | 1 |
| cis-1,2-Dichloroethene | 0.81 | U | 1.0 | 0.81 | ug/L | | | 12/14/18 00:16 | 1 |
| trans-1,2-Dichloroethene | 0.90 | U | 1.0 | 0.90 | ug/L | | | 12/14/18 00:16 | 1 |
| 1,1-Dichloroethene | 0.29 | U | 1.0 | 0.29 | ug/L | | | 12/14/18 00:16 | 1 |
| 1,2-Dichloropropane | 0.72 | U | 1.0 | 0.72 | ug/L | | | 12/14/18 00:16 | 1 |
| cis-1,3-Dichloropropene | 0.36 | U | 1.0 | 0.36 | ug/L | | | 12/14/18 00:16 | 1 |
| trans-1,3-Dichloropropene | 0.37 | U | 3.0 | 0.37 | ug/L | | | 12/14/18 00:16 | 1 |
| Ethylbenzene | 0.74 | U | 1.0 | 0.74 | ug/L | | | 12/14/18 00:16 | 1 |
| 2-Hexanone | 1.2 | U | 5.0 | 1.2 | ug/L | | | 12/14/18 00:16 | 1 |
| Iodomethane | 0.30 | U | 1.0 | 0.30 | ug/L | | | 12/14/18 00:16 | 1 |
| Methylene Chloride | 0.44 | U | 2.0 | 0.44 | ug/L | | | 12/14/18 00:16 | 1 |

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

**Lab Sample ID: MB 480-450779/7**
**Matrix: Water**
**Analysis Batch: 450779**

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

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 4-Methyl-2-pentanone (MIBK) | 2.1 | U | 5.0 | 2.1 | ug/L | | | 12/14/18 00:16 | 1 |
| Styrene | 0.73 | U | 1.0 | 0.73 | ug/L | | | 12/14/18 00:16 | 1 |
| 1,1,1,2-Tetrachloroethane | 0.35 | U | 1.0 | 0.35 | ug/L | | | 12/14/18 00:16 | 1 |
| 1,1,2,2-Tetrachloroethane | 0.21 | U | 1.0 | 0.21 | ug/L | | | 12/14/18 00:16 | 1 |
| Tetrachloroethene | 0.36 | U | 1.0 | 0.36 | ug/L | | | 12/14/18 00:16 | 1 |
| Toluene | 0.51 | U | 1.0 | 0.51 | ug/L | | | 12/14/18 00:16 | 1 |
| 1,1,1-Trichloroethane | 0.82 | U | 1.0 | 0.82 | ug/L | | | 12/14/18 00:16 | 1 |
| 1,1,2-Trichloroethane | 0.23 | U | 1.0 | 0.23 | ug/L | | | 12/14/18 00:16 | 1 |
| Trichloroethene | 0.46 | U | 1.0 | 0.46 | ug/L | | | 12/14/18 00:16 | 1 |
| Trichlorofluoromethane | 0.88 | U | 2.0 | 0.88 | ug/L | | | 12/14/18 00:16 | 1 |
| 1,2,3-Trichloropropane | 0.89 | U | 2.5 | 0.89 | ug/L | | | 12/14/18 00:16 | 1 |
| Vinyl acetate | 0.85 | U | 3.0 | 0.85 | ug/L | | | 12/14/18 00:16 | 1 |
| Vinyl chloride | 0.90 | U | 1.0 | 0.90 | ug/L | | | 12/14/18 00:16 | 1 |
| Xylenes (total) | 0.66 | U | 2.0 | 0.66 | ug/L | | | 12/14/18 00:16 | 1 |

| *Surrogate* | *MB %Recovery* | *MB Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1,2-Dichloroethane-d4 (Surr)* | *100* | | *77 - 120* | | *12/14/18 00:16* | *1* |
| *Toluene-d8 (Surr)* | *102* | | *80 - 120* | | *12/14/18 00:16* | *1* |
| *4-Bromofluorobenzene (Surr)* | *106* | | *73 - 120* | | *12/14/18 00:16* | *1* |
| *Dibromofluoromethane (Surr)* | *98* | | *75 - 123* | | *12/14/18 00:16* | *1* |

**Lab Sample ID: LCS 480-450779/5**
**Matrix: Water**
**Analysis Batch: 450779**

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

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| Acetone | 125 | 136 | | ug/L | | 109 | 56 - 142 |
| Acrylonitrile | 250 | 253 | | ug/L | | 101 | 63 - 125 |
| Benzene | 25.0 | 24.8 | | ug/L | | 99 | 71 - 124 |
| Bromochloromethane | 25.0 | 25.0 | | ug/L | | 100 | 72 - 130 |
| Bromodichloromethane | 25.0 | 26.0 | | ug/L | | 104 | 80 - 122 |
| Bromoform | 25.0 | 29.5 | | ug/L | | 118 | 61 - 132 |
| Bromomethane | 25.0 | 20.7 | | ug/L | | 83 | 55 - 144 |
| 2-Butanone (MEK) | 125 | 130 | | ug/L | | 104 | 57 - 140 |
| Carbon disulfide | 25.0 | 23.5 | | ug/L | | 94 | 59 - 134 |
| Carbon tetrachloride | 25.0 | 22.0 | | ug/L | | 88 | 72 - 134 |
| Chlorobenzene | 25.0 | 24.8 | | ug/L | | 99 | 80 - 120 |
| Dibromochloromethane | 25.0 | 28.4 | | ug/L | | 114 | 75 - 125 |
| Chloroethane | 25.0 | 22.0 | | ug/L | | 88 | 69 - 136 |
| Chloroform | 25.0 | 23.0 | | ug/L | | 92 | 73 - 127 |
| Chloromethane | 25.0 | 20.3 | | ug/L | | 81 | 68 - 124 |
| Dibromomethane | 25.0 | 25.2 | | ug/L | | 101 | 76 - 127 |
| 1,2-Dichlorobenzene | 25.0 | 25.3 | | ug/L | | 101 | 80 - 124 |
| 1,4-Dichlorobenzene | 25.0 | 25.7 | | ug/L | | 103 | 80 - 120 |
| trans-1,4-Dichloro-2-butene | 25.0 | 20.8 | | ug/L | | 83 | 41 - 131 |
| 1,1-Dichloroethane | 25.0 | 22.8 | | ug/L | | 91 | 77 - 120 |
| 1,2-Dichloroethane | 25.0 | 22.2 | | ug/L | | 89 | 75 - 120 |
| cis-1,2-Dichloroethene | 25.0 | 25.0 | | ug/L | | 100 | 74 - 124 |

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

**Lab Sample ID: LCS 480-450779/5**
**Matrix: Water**
**Analysis Batch: 450779**

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

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| trans-1,2-Dichloroethene | 25.0 | 23.3 | | ug/L | | 93 | 73 - 127 |
| 1,1-Dichloroethene | 25.0 | 23.1 | | ug/L | | 92 | 66 - 127 |
| 1,2-Dichloropropane | 25.0 | 25.9 | | ug/L | | 103 | 76 - 120 |
| cis-1,3-Dichloropropene | 25.0 | 25.8 | | ug/L | | 103 | 74 - 124 |
| trans-1,3-Dichloropropene | 25.0 | 26.6 | | ug/L | | 106 | 80 - 120 |
| Ethylbenzene | 25.0 | 25.1 | | ug/L | | 100 | 77 - 123 |
| 2-Hexanone | 125 | 138 | | ug/L | | 110 | 65 - 127 |
| Iodomethane | 25.0 | 23.7 | | ug/L | | 95 | 78 - 123 |
| Methylene Chloride | 25.0 | 26.2 | | ug/L | | 105 | 75 - 124 |
| 4-Methyl-2-pentanone (MIBK) | 125 | 126 | | ug/L | | 101 | 71 - 125 |
| Styrene | 25.0 | 25.5 | | ug/L | | 102 | 80 - 120 |
| 1,1,1,2-Tetrachloroethane | 25.0 | 25.8 | | ug/L | | 103 | 80 - 120 |
| 1,1,2,2-Tetrachloroethane | 25.0 | 26.2 | | ug/L | | 105 | 76 - 120 |
| Tetrachloroethene | 25.0 | 24.5 | | ug/L | | 98 | 74 - 122 |
| Toluene | 25.0 | 24.6 | | ug/L | | 98 | 80 - 122 |
| 1,1,1-Trichloroethane | 25.0 | 22.6 | | ug/L | | 90 | 73 - 126 |
| 1,1,2-Trichloroethane | 25.0 | 25.9 | | ug/L | | 104 | 76 - 122 |
| Trichloroethene | 25.0 | 23.0 | | ug/L | | 92 | 74 - 123 |
| Trichlorofluoromethane | 25.0 | 25.4 | | ug/L | | 101 | 62 - 150 |
| 1,2,3-Trichloropropane | 25.0 | 24.1 | | ug/L | | 97 | 68 - 122 |
| Vinyl acetate | 50.0 | 48.6 | | ug/L | | 97 | 50 - 144 |
| Vinyl chloride | 25.0 | 20.7 | | ug/L | | 83 | 65 - 133 |
| Xylenes (total) | 50.0 | 49.6 | | ug/L | | 99 | 76 - 122 |

| *Surrogate* | *LCS %Recovery* | *LCS Qualifier* | *Limits* |
|---|---|---|---|
| *1,2-Dichloroethane-d4 (Surr)* | *96* | | *77 - 120* |
| *Toluene-d8 (Surr)* | *104* | | *80 - 120* |
| *4-Bromofluorobenzene (Surr)* | *110* | | *73 - 120* |
| *Dibromofluoromethane (Surr)* | *103* | | *75 - 123* |

**Lab Sample ID: 480-146744-A-1 MS**
**Matrix: Water**
**Analysis Batch: 450779**

**Client Sample ID: Matrix Spike**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | 33 | U | 2000 | 2010 | | ug/L | | 100 | 71 - 124 |
| Carbon disulfide | 5700 | | 2000 | 7000 | | ug/L | | 63 | 59 - 134 |
| Carbon tetrachloride | 5900 | | 2000 | 7080 | J3 | ug/L | | 57 | 72 - 134 |
| Chlorobenzene | 60 | U | 2000 | 1990 | | ug/L | | 100 | 80 - 120 |
| Chloroform | 2600 | | 2000 | 4220 | | ug/L | | 80 | 73 - 127 |
| Methylene Chloride | 140 | I | 2000 | 2240 | | ug/L | | 105 | 75 - 124 |
| Tetrachloroethene | 110 | | 2000 | 2140 | | ug/L | | 102 | 74 - 122 |
| Toluene | 41 | U | 2000 | 2020 | | ug/L | | 101 | 80 - 122 |
| Trichloroethene | 95 | | 2000 | 2010 | | ug/L | | 96 | 74 - 123 |

| *Surrogate* | *MS %Recovery* | *MS Qualifier* | *Limits* |
|---|---|---|---|
| *1,2-Dichloroethane-d4 (Surr)* | *92* | | *77 - 120* |

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

**Lab Sample ID: 480-146744-A-1 MS**
**Matrix: Water**
**Analysis Batch: 450779**

**Client Sample ID: Matrix Spike**
**Prep Type: Total/NA**

| *Surrogate* | *MS %Recovery* | *MS Qualifier* | *Limits* |
|---|---|---|---|
| *Toluene-d8 (Surr)* | *106* | | *80 - 120* |
| *Dibromofluoromethane (Surr)* | *98* | | *75 - 123* |

**Lab Sample ID: 480-146744-A-1 MSD**
**Matrix: Water**
**Analysis Batch: 450779**

**Client Sample ID: Matrix Spike Duplicate**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Benzene | 33 | U | 2000 | 2000 | | ug/L | | 100 | 71 - 124 | 0 | 13 |
| Carbon disulfide | 5700 | | 2000 | 7050 | | ug/L | | 66 | 59 - 134 | 1 | 15 |
| Carbon tetrachloride | 5900 | | 2000 | 7610 | | ug/L | | 83 | 72 - 134 | 7 | 15 |
| Chlorobenzene | 60 | U | 2000 | 2000 | | ug/L | | 100 | 80 - 120 | 0 | 25 |
| Chloroform | 2600 | | 2000 | 4380 | | ug/L | | 89 | 73 - 127 | 4 | 20 |
| Methylene Chloride | 140 | I | 2000 | 2210 | | ug/L | | 104 | 75 - 124 | 1 | 15 |
| Tetrachloroethene | 110 | | 2000 | 2250 | | ug/L | | 107 | 74 - 122 | 5 | 20 |
| Toluene | 41 | U | 2000 | 2050 | | ug/L | | 102 | 80 - 122 | 1 | 15 |
| Trichloroethene | 95 | | 2000 | 2090 | | ug/L | | 100 | 74 - 123 | 4 | 16 |

| *Surrogate* | *MSD %Recovery* | *MSD Qualifier* | *Limits* |
|---|---|---|---|
| *1,2-Dichloroethane-d4 (Surr)* | *98* | | *77 - 120* |
| *Toluene-d8 (Surr)* | *107* | | *80 - 120* |
| *Dibromofluoromethane (Surr)* | *103* | | *75 - 123* |

**Lab Sample ID: MB 480-451772/7**
**Matrix: Water**
**Analysis Batch: 451772**

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

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | 3.0 | U | 20 | 3.0 | ug/L | | | 12/19/18 21:54 | 1 |
| Acrylonitrile | 0.83 | U | 20 | 0.83 | ug/L | | | 12/19/18 21:54 | 1 |
| Benzene | 0.41 | U | 1.0 | 0.41 | ug/L | | | 12/19/18 21:54 | 1 |
| Bromochloromethane | 0.87 | U | 1.0 | 0.87 | ug/L | | | 12/19/18 21:54 | 1 |
| Bromodichloromethane | 0.39 | U | 1.0 | 0.39 | ug/L | | | 12/19/18 21:54 | 1 |
| Bromoform | 0.26 | U | 1.0 | 0.26 | ug/L | | | 12/19/18 21:54 | 1 |
| Bromomethane | 0.69 | U | 2.0 | 0.69 | ug/L | | | 12/19/18 21:54 | 1 |
| 2-Butanone (MEK) | 1.3 | U | 6.0 | 1.3 | ug/L | | | 12/19/18 21:54 | 1 |
| Carbon disulfide | 0.19 | U | 2.0 | 0.19 | ug/L | | | 12/19/18 21:54 | 1 |
| Carbon tetrachloride | 0.27 | U | 1.0 | 0.27 | ug/L | | | 12/19/18 21:54 | 1 |
| Chlorobenzene | 0.75 | U | 1.0 | 0.75 | ug/L | | | 12/19/18 21:54 | 1 |
| Dibromochloromethane | 0.32 | U | 1.0 | 0.32 | ug/L | | | 12/19/18 21:54 | 1 |
| Chloroethane | 0.32 | U | 2.0 | 0.32 | ug/L | | | 12/19/18 21:54 | 1 |
| Chloroform | 0.34 | U | 1.0 | 0.34 | ug/L | | | 12/19/18 21:54 | 1 |
| Chloromethane | 0.35 | U | 2.0 | 0.35 | ug/L | | | 12/19/18 21:54 | 1 |
| Dibromomethane | 0.41 | U | 1.0 | 0.41 | ug/L | | | 12/19/18 21:54 | 1 |
| 1,2-Dichlorobenzene | 0.79 | U | 1.0 | 0.79 | ug/L | | | 12/19/18 21:54 | 1 |
| 1,4-Dichlorobenzene | 0.84 | U | 1.0 | 0.84 | ug/L | | | 12/19/18 21:54 | 1 |
| trans-1,4-Dichloro-2-butene | 0.22 | U | 3.0 | 0.22 | ug/L | | | 12/19/18 21:54 | 1 |
| 1,1-Dichloroethane | 0.38 | U | 1.0 | 0.38 | ug/L | | | 12/19/18 21:54 | 1 |

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

**Lab Sample ID: MB 480-451772/7**
**Matrix: Water**
**Analysis Batch: 451772**

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

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,2-Dichloroethane | 0.21 | U | 1.0 | 0.21 | ug/L | | | 12/19/18 21:54 | 1 |
| cis-1,2-Dichloroethene | 0.81 | U | 1.0 | 0.81 | ug/L | | | 12/19/18 21:54 | 1 |
| trans-1,2-Dichloroethene | 0.90 | U | 1.0 | 0.90 | ug/L | | | 12/19/18 21:54 | 1 |
| 1,1-Dichloroethene | 0.29 | U | 1.0 | 0.29 | ug/L | | | 12/19/18 21:54 | 1 |
| 1,2-Dichloropropane | 0.72 | U | 1.0 | 0.72 | ug/L | | | 12/19/18 21:54 | 1 |
| cis-1,3-Dichloropropene | 0.36 | U | 1.0 | 0.36 | ug/L | | | 12/19/18 21:54 | 1 |
| trans-1,3-Dichloropropene | 0.37 | U | 3.0 | 0.37 | ug/L | | | 12/19/18 21:54 | 1 |
| Ethylbenzene | 0.74 | U | 1.0 | 0.74 | ug/L | | | 12/19/18 21:54 | 1 |
| 2-Hexanone | 1.2 | U | 5.0 | 1.2 | ug/L | | | 12/19/18 21:54 | 1 |
| Iodomethane | 0.30 | U | 1.0 | 0.30 | ug/L | | | 12/19/18 21:54 | 1 |
| Methylene Chloride | 0.44 | U | 2.0 | 0.44 | ug/L | | | 12/19/18 21:54 | 1 |
| 4-Methyl-2-pentanone (MIBK) | 2.1 | U | 5.0 | 2.1 | ug/L | | | 12/19/18 21:54 | 1 |
| Styrene | 0.73 | U | 1.0 | 0.73 | ug/L | | | 12/19/18 21:54 | 1 |
| 1,1,1,2-Tetrachloroethane | 0.35 | U | 1.0 | 0.35 | ug/L | | | 12/19/18 21:54 | 1 |
| 1,1,2,2-Tetrachloroethane | 0.21 | U | 1.0 | 0.21 | ug/L | | | 12/19/18 21:54 | 1 |
| Tetrachloroethene | 0.36 | U | 1.0 | 0.36 | ug/L | | | 12/19/18 21:54 | 1 |
| Toluene | 0.51 | U | 1.0 | 0.51 | ug/L | | | 12/19/18 21:54 | 1 |
| 1,1,1-Trichloroethane | 0.82 | U | 1.0 | 0.82 | ug/L | | | 12/19/18 21:54 | 1 |
| 1,1,2-Trichloroethane | 0.23 | U | 1.0 | 0.23 | ug/L | | | 12/19/18 21:54 | 1 |
| Trichloroethene | 0.46 | U | 1.0 | 0.46 | ug/L | | | 12/19/18 21:54 | 1 |
| Trichlorofluoromethane | 0.88 | U | 2.0 | 0.88 | ug/L | | | 12/19/18 21:54 | 1 |
| 1,2,3-Trichloropropane | 0.89 | U | 2.5 | 0.89 | ug/L | | | 12/19/18 21:54 | 1 |
| Vinyl acetate | 0.85 | U | 3.0 | 0.85 | ug/L | | | 12/19/18 21:54 | 1 |
| Vinyl chloride | 0.90 | U | 1.0 | 0.90 | ug/L | | | 12/19/18 21:54 | 1 |
| Xylenes (total) | 0.66 | U | 2.0 | 0.66 | ug/L | | | 12/19/18 21:54 | 1 |

| *Surrogate* | *MB %Recovery* | *MB Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1,2-Dichloroethane-d4 (Surr)* | *100* | | *77 - 120* | | *12/19/18 21:54* | *1* |
| *Toluene-d8 (Surr)* | *91* | | *80 - 120* | | *12/19/18 21:54* | *1* |
| *4-Bromofluorobenzene (Surr)* | *82* | | *73 - 120* | | *12/19/18 21:54* | *1* |
| *Dibromofluoromethane (Surr)* | *90* | | *75 - 123* | | *12/19/18 21:54* | *1* |

**Lab Sample ID: LCS 480-451772/5**
**Matrix: Water**
**Analysis Batch: 451772**

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

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| Acetone | 125 | 115 | | ug/L | | 92 | 56 - 142 |
| Acrylonitrile | 250 | 264 | | ug/L | | 105 | 63 - 125 |
| Benzene | 25.0 | 27.8 | | ug/L | | 111 | 71 - 124 |
| Bromochloromethane | 25.0 | 22.9 | | ug/L | | 91 | 72 - 130 |
| Bromodichloromethane | 25.0 | 27.1 | | ug/L | | 109 | 80 - 122 |
| Bromoform | 25.0 | 22.8 | | ug/L | | 91 | 61 - 132 |
| Bromomethane | 25.0 | 23.2 | | ug/L | | 93 | 55 - 144 |
| 2-Butanone (MEK) | 125 | 123 | | ug/L | | 98 | 57 - 140 |
| Carbon disulfide | 25.0 | 27.6 | | ug/L | | 111 | 59 - 134 |
| Carbon tetrachloride | 25.0 | 26.5 | | ug/L | | 106 | 72 - 134 |
| Chlorobenzene | 25.0 | 23.1 | | ug/L | | 92 | 80 - 120 |

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

**Lab Sample ID: LCS 480-451772/5**
**Matrix: Water**
**Analysis Batch: 451772**

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

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| Dibromochloromethane | 25.0 | 22.9 | | ug/L | | 92 | 75 - 125 |
| Chloroethane | 25.0 | 27.2 | | ug/L | | 109 | 69 - 136 |
| Chloroform | 25.0 | 27.2 | | ug/L | | 109 | 73 - 127 |
| Chloromethane | 25.0 | 28.2 | | ug/L | | 113 | 68 - 124 |
| Dibromomethane | 25.0 | 24.3 | | ug/L | | 97 | 76 - 127 |
| 1,2-Dichlorobenzene | 25.0 | 24.1 | | ug/L | | 96 | 80 - 124 |
| 1,4-Dichlorobenzene | 25.0 | 23.4 | | ug/L | | 94 | 80 - 120 |
| trans-1,4-Dichloro-2-butene | 25.0 | 28.0 | | ug/L | | 112 | 41 - 131 |
| 1,1-Dichloroethane | 25.0 | 27.1 | | ug/L | | 109 | 77 - 120 |
| 1,2-Dichloroethane | 25.0 | 26.9 | | ug/L | | 108 | 75 - 120 |
| cis-1,2-Dichloroethene | 25.0 | 24.5 | | ug/L | | 98 | 74 - 124 |
| trans-1,2-Dichloroethene | 25.0 | 24.2 | | ug/L | | 97 | 73 - 127 |
| 1,1-Dichloroethene | 25.0 | 23.9 | | ug/L | | 95 | 66 - 127 |
| 1,2-Dichloropropane | 25.0 | 26.4 | | ug/L | | 106 | 76 - 120 |
| cis-1,3-Dichloropropene | 25.0 | 26.8 | | ug/L | | 107 | 74 - 124 |
| trans-1,3-Dichloropropene | 25.0 | 26.6 | | ug/L | | 106 | 80 - 120 |
| Ethylbenzene | 25.0 | 25.0 | | ug/L | | 100 | 77 - 123 |
| 2-Hexanone | 125 | 124 | | ug/L | | 99 | 65 - 127 |
| Iodomethane | 25.0 | 22.1 | | ug/L | | 88 | 78 - 123 |
| Methylene Chloride | 25.0 | 25.3 | | ug/L | | 101 | 75 - 124 |
| 4-Methyl-2-pentanone (MIBK) | 125 | 127 | | ug/L | | 101 | 71 - 125 |
| Styrene | 25.0 | 23.9 | | ug/L | | 96 | 80 - 120 |
| 1,1,1,2-Tetrachloroethane | 25.0 | 22.2 | | ug/L | | 89 | 80 - 120 |
| 1,1,2,2-Tetrachloroethane | 25.0 | 25.5 | | ug/L | | 102 | 76 - 120 |
| Tetrachloroethene | 25.0 | 22.9 | | ug/L | | 91 | 74 - 122 |
| Toluene | 25.0 | 24.1 | | ug/L | | 96 | 80 - 122 |
| 1,1,1-Trichloroethane | 25.0 | 26.4 | | ug/L | | 106 | 73 - 126 |
| 1,1,2-Trichloroethane | 25.0 | 23.9 | | ug/L | | 96 | 76 - 122 |
| Trichloroethene | 25.0 | 25.4 | | ug/L | | 101 | 74 - 123 |
| Trichlorofluoromethane | 25.0 | 25.0 | | ug/L | | 100 | 62 - 150 |
| 1,2,3-Trichloropropane | 25.0 | 24.9 | | ug/L | | 100 | 68 - 122 |
| Vinyl acetate | 50.0 | 51.5 | | ug/L | | 103 | 50 - 144 |
| Vinyl chloride | 25.0 | 27.1 | | ug/L | | 109 | 65 - 133 |
| Xylenes (total) | 50.0 | 47.7 | | ug/L | | 95 | 76 - 122 |

| *Surrogate* | *LCS %Recovery* | *LCS Qualifier* | *Limits* |
|---|---|---|---|
| *1,2-Dichloroethane-d4 (Surr)* | *106* | | *77 - 120* |
| *Toluene-d8 (Surr)* | *94* | | *80 - 120* |
| *4-Bromofluorobenzene (Surr)* | *88* | | *73 - 120* |
| *Dibromofluoromethane (Surr)* | *94* | | *75 - 123* |

## Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

**Lab Sample ID: MB 280-441124/4-A** — **Client Sample ID: Method Blank**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 441198** — **Prep Batch: 441124**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,2-Dibromoethane | 0.0037 | U | 0.020 | 0.0037 | ug/L | | 12/13/18 10:28 | 12/13/18 19:06 | 1 |
| 1,2-Dibromo-3-Chloropropane | 0.0068 | U | 0.020 | 0.0068 | ug/L | | 12/13/18 10:28 | 12/13/18 19:06 | 1 |

| *Surrogate* | *MB %Recovery* | *MB Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1,2-Dibromopropane* | *95* | | *70 - 130* | *12/13/18 10:28* | *12/13/18 19:06* | *1* |

**Lab Sample ID: LCS 280-441124/2-A** — **Client Sample ID: Lab Control Sample**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 441198** — **Prep Batch: 441124**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| 1,2-Dibromoethane | 0.250 | 0.220 | | ug/L | | 88 | 70 - 130 |
| 1,2-Dibromo-3-Chloropropane | 0.250 | 0.219 | | ug/L | | 88 | 70 - 130 |

| *Surrogate* | *LCS %Recovery* | *LCS Qualifier* | *Limits* |
|---|---|---|---|
| *1,2-Dibromopropane* | *102* | | *70 - 130* |

**Lab Sample ID: LCSD 280-441124/3-A** — **Client Sample ID: Lab Control Sample Dup**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 441198** — **Prep Batch: 441124**

| Analyte | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|
| 1,2-Dibromoethane | 0.250 | 0.228 | | ug/L | | 91 | 70 - 130 | 4 | 10 |
| 1,2-Dibromo-3-Chloropropane | 0.250 | 0.226 | | ug/L | | 90 | 70 - 130 | 3 | 10 |

| *Surrogate* | *LCSD %Recovery* | *LCSD Qualifier* | *Limits* |
|---|---|---|---|
| *1,2-Dibromopropane* | *95* | | *70 - 130* |

**Lab Sample ID: MB 280-441158/4-A** — **Client Sample ID: Method Blank**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 441198** — **Prep Batch: 441158**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,2-Dibromoethane | 0.0037 | U | 0.020 | 0.0037 | ug/L | | 12/13/18 13:59 | 12/14/18 03:02 | 1 |
| 1,2-Dibromo-3-Chloropropane | 0.0068 | U | 0.020 | 0.0068 | ug/L | | 12/13/18 13:59 | 12/14/18 03:02 | 1 |

| *Surrogate* | *MB %Recovery* | *MB Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1,2-Dibromopropane* | *102* | | *70 - 130* | *12/13/18 13:59* | *12/14/18 03:02* | *1* |

**Lab Sample ID: LCS 280-441158/2-A** — **Client Sample ID: Lab Control Sample**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 441198** — **Prep Batch: 441158**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| 1,2-Dibromoethane | 0.250 | 0.233 | | ug/L | | 93 | 70 - 130 |
| 1,2-Dibromo-3-Chloropropane | 0.250 | 0.232 | | ug/L | | 93 | 70 - 130 |

## Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC) (Continued)

**Lab Sample ID: LCS 280-441158/2-A**
**Matrix: Water**
**Analysis Batch: 441198**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**
**Prep Batch: 441158**

| Surrogate | LCS %Recovery | LCS Qualifier | Limits |
|---|---|---|---|
| 1,2-Dibromopropane | 105 | | 70 - 130 |

**Lab Sample ID: LCSD 280-441158/3-A**
**Matrix: Water**
**Analysis Batch: 441198**

**Client Sample ID: Lab Control Sample Dup**
**Prep Type: Total/NA**
**Prep Batch: 441158**

| Analyte | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|
| 1,2-Dibromoethane | 0.250 | 0.228 | | ug/L | | 91 | 70 - 130 | 2 | 10 |
| 1,2-Dibromo-3-Chloropropane | 0.250 | 0.228 | | ug/L | | 91 | 70 - 130 | 2 | 10 |

| Surrogate | LCSD %Recovery | LCSD Qualifier | Limits |
|---|---|---|---|
| 1,2-Dibromopropane | 103 | | 70 - 130 |

**Lab Sample ID: MB 280-442076/4-A**
**Matrix: Water**
**Analysis Batch: 443045**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**
**Prep Batch: 442076**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,2-Dibromoethane | 0.0037 | U | 0.020 | 0.0037 | ug/L | | 12/20/18 14:59 | 01/03/19 00:21 | 1 |
| 1,2-Dibromo-3-Chloropropane | 0.0068 | U | 0.020 | 0.0068 | ug/L | | 12/20/18 14:59 | 01/03/19 00:21 | 1 |

| Surrogate | MB %Recovery | MB Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|
| 1,2-Dibromopropane | 102 | | 70 - 130 | 12/20/18 14:59 | 01/03/19 00:21 | 1 |

**Lab Sample ID: LCS 280-442076/2-A**
**Matrix: Water**
**Analysis Batch: 443045**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**
**Prep Batch: 442076**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| 1,2-Dibromoethane | 0.250 | 0.218 | | ug/L | | 87 | 70 - 130 |
| 1,2-Dibromo-3-Chloropropane | 0.250 | 0.208 | | ug/L | | 83 | 70 - 130 |

| Surrogate | LCS %Recovery | LCS Qualifier | Limits |
|---|---|---|---|
| 1,2-Dibromopropane | 98 | | 70 - 130 |

**Lab Sample ID: LCSD 280-442076/3-A**
**Matrix: Water**
**Analysis Batch: 443045**

**Client Sample ID: Lab Control Sample Dup**
**Prep Type: Total/NA**
**Prep Batch: 442076**

| Analyte | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|
| 1,2-Dibromoethane | 0.250 | 0.218 | | ug/L | | 87 | 70 - 130 | 0 | 10 |
| 1,2-Dibromo-3-Chloropropane | 0.250 | 0.223 | | ug/L | | 89 | 70 - 130 | 7 | 10 |

| Surrogate | LCSD %Recovery | LCSD Qualifier | Limits |
|---|---|---|---|
| 1,2-Dibromopropane | 97 | | 70 - 130 |

## Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC) (Continued)

**Lab Sample ID: MB 280-442223/4-A**
**Matrix: Water**
**Analysis Batch: 443045**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**
**Prep Batch: 442223**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,2-Dibromoethane | 0.0037 | U | 0.020 | 0.0037 | ug/L | | 12/21/18 14:04 | 01/03/19 08:20 | 1 |
| 1,2-Dibromo-3-Chloropropane | 0.0068 | U | 0.020 | 0.0068 | ug/L | | 12/21/18 14:04 | 01/03/19 08:20 | 1 |

| *Surrogate* | *MB %Recovery* | *MB Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1,2-Dibromopropane* | *104* | | *70 - 130* | *12/21/18 14:04* | *01/03/19 08:20* | *1* |

**Lab Sample ID: LCS 280-442223/2-A**
**Matrix: Water**
**Analysis Batch: 443045**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**
**Prep Batch: 442223**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| 1,2-Dibromoethane | 0.250 | 0.232 | | ug/L | | 93 | 70 - 130 |
| 1,2-Dibromo-3-Chloropropane | 0.250 | 0.236 | | ug/L | | 94 | 70 - 130 |

| *Surrogate* | *LCS %Recovery* | *LCS Qualifier* | *Limits* |
|---|---|---|---|
| *1,2-Dibromopropane* | *108* | | *70 - 130* |

**Lab Sample ID: LCSD 280-442223/3-A**
**Matrix: Water**
**Analysis Batch: 443045**

**Client Sample ID: Lab Control Sample Dup**
**Prep Type: Total/NA**
**Prep Batch: 442223**

| Analyte | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|
| 1,2-Dibromoethane | 0.250 | 0.235 | | ug/L | | 94 | 70 - 130 | 2 | 10 |
| 1,2-Dibromo-3-Chloropropane | 0.250 | 0.239 | | ug/L | | 95 | 70 - 130 | 1 | 10 |

| *Surrogate* | *LCSD %Recovery* | *LCSD Qualifier* | *Limits* |
|---|---|---|---|
| *1,2-Dibromopropane* | *98* | | *70 - 130* |

## Method: 6010B - Metals (ICP)

**Lab Sample ID: MB 280-440437/1-A**
**Matrix: Water**
**Analysis Batch: 440901**

**Client Sample ID: Method Blank**
**Prep Type: Total Recoverable**
**Prep Batch: 440437**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Barium | 0.82 | U | 10 | 0.82 | ug/L | | 12/11/18 06:45 | 12/11/18 22:49 | 1 |
| Cadmium | 0.45 | U | 5.0 | 0.45 | ug/L | | 12/11/18 06:45 | 12/11/18 22:49 | 1 |
| Cobalt | 1.2 | U | 10 | 1.2 | ug/L | | 12/11/18 06:45 | 12/11/18 22:49 | 1 |
| Chromium | 0.66 | U | 10 | 0.66 | ug/L | | 12/11/18 06:45 | 12/11/18 22:49 | 1 |
| Copper | 4.2 | U | 15 | 4.2 | ug/L | | 12/11/18 06:45 | 12/11/18 22:49 | 1 |
| Nickel | 2.6 | U | 40 | 2.6 | ug/L | | 12/11/18 06:45 | 12/11/18 22:49 | 1 |
| Lead | 2.7 | U | 9.0 | 2.7 | ug/L | | 12/11/18 06:45 | 12/11/18 22:49 | 1 |
| Selenium | 6.3 | U | 20 | 6.3 | ug/L | | 12/11/18 06:45 | 12/11/18 22:49 | 1 |
| Iron | 22 | U | 100 | 22 | ug/L | | 12/11/18 06:45 | 12/11/18 22:49 | 1 |
| Vanadium | 1.1 | U | 10 | 1.1 | ug/L | | 12/11/18 06:45 | 12/11/18 22:49 | 1 |
| Zinc | 4.5 | U | 20 | 4.5 | ug/L | | 12/11/18 06:45 | 12/11/18 22:49 | 1 |
| Silver | 0.93 | U | 10 | 0.93 | ug/L | | 12/11/18 06:45 | 12/11/18 22:49 | 1 |

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

**Lab Sample ID: MB 280-440437/1-A**
**Matrix: Water**
**Analysis Batch: 440901**

**Client Sample ID: Method Blank**
**Prep Type: Total Recoverable**
**Prep Batch: 440437**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Sodium | 0.154 | I | 1.0 | 0.12 | mg/L | | 12/11/18 06:45 | 12/11/18 22:49 | 1 |

**Lab Sample ID: LCS 280-440437/2-A**
**Matrix: Water**
**Analysis Batch: 440901**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total Recoverable**
**Prep Batch: 440437**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| Barium | 2000 | 2060 | | ug/L | | 103 | 90 - 112 |
| Cadmium | 100 | 103 | | ug/L | | 103 | 88 - 111 |
| Cobalt | 500 | 493 | | ug/L | | 99 | 89 - 111 |
| Chromium | 200 | 204 | | ug/L | | 102 | 90 - 113 |
| Copper | 250 | 250 | | ug/L | | 100 | 86 - 112 |
| Nickel | 500 | 492 | | ug/L | | 98 | 89 - 111 |
| Lead | 500 | 503 | | ug/L | | 101 | 89 - 110 |
| Selenium | 2000 | 2040 | | ug/L | | 102 | 85 - 112 |
| Iron | 1000 | 1120 | | ug/L | | 112 | 89 - 115 |
| Vanadium | 500 | 519 | | ug/L | | 104 | 90 - 111 |
| Zinc | 500 | 511 | | ug/L | | 102 | 85 - 111 |
| Silver | 50.0 | 52.0 | | ug/L | | 104 | 86 - 115 |
| Sodium | 50.0 | 49.9 | | mg/L | | 100 | 90 - 115 |

**Lab Sample ID: 280-117920-5 MS**
**Matrix: Water**
**Analysis Batch: 440901**

**Client Sample ID: MW-1A**
**Prep Type: Total Recoverable**
**Prep Batch: 440437**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|---|---|
| Barium | 25 | | 2000 | 2120 | | ug/L | | 105 | 85 - 120 |
| Cadmium | 0.56 | I | 100 | 106 | | ug/L | | 105 | 82 - 119 |
| Cobalt | 1.2 | U | 500 | 506 | | ug/L | | 101 | 82 - 119 |
| Chromium | 1.3 | I | 200 | 210 | | ug/L | | 104 | 73 - 135 |
| Copper | 4.2 | U | 250 | 260 | | ug/L | | 104 | 82 - 129 |
| Nickel | 3.0 | I | 500 | 507 | | ug/L | | 101 | 84 - 120 |
| Lead | 2.7 | U | 500 | 519 | | ug/L | | 104 | 89 - 121 |
| Selenium | 6.3 | U | 2000 | 2110 | | ug/L | | 105 | 71 - 140 |
| Iron | 29 | I | 1000 | 1100 | | ug/L | | 107 | 52 - 155 |
| Vanadium | 1.6 | I | 500 | 537 | | ug/L | | 107 | 85 - 120 |
| Zinc | 4.5 | U | 500 | 525 | | ug/L | | 105 | 60 - 137 |
| Silver | 0.93 | U | 50.0 | 54.5 | | ug/L | | 109 | 75 - 141 |
| Sodium | 8.0 | | 50.0 | 59.1 | | mg/L | | 102 | 70 - 203 |

**Lab Sample ID: 280-117920-5 MSD**
**Matrix: Water**
**Analysis Batch: 440901**

**Client Sample ID: MW-1A**
**Prep Type: Total Recoverable**
**Prep Batch: 440437**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Barium | 25 | | 2000 | 2110 | | ug/L | | 104 | 85 - 120 | 0 | 20 |
| Cadmium | 0.56 | I | 100 | 104 | | ug/L | | 104 | 82 - 119 | 1 | 20 |
| Cobalt | 1.2 | U | 500 | 503 | | ug/L | | 101 | 82 - 119 | 1 | 20 |
| Chromium | 1.3 | I | 200 | 208 | | ug/L | | 103 | 73 - 135 | 1 | 20 |

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

**Lab Sample ID: 280-117920-5 MSD**
**Matrix: Water**
**Analysis Batch: 440901**

**Client Sample ID: MW-1A**
**Prep Type: Total Recoverable**
**Prep Batch: 440437**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Copper | 4.2 | U | 250 | 258 | | ug/L | | 103 | 82 - 129 | 1 | 20 |
| Nickel | 3.0 | I | 500 | 502 | | ug/L | | 100 | 84 - 120 | 1 | 20 |
| Lead | 2.7 | U | 500 | 512 | | ug/L | | 102 | 89 - 121 | 1 | 20 |
| Selenium | 6.3 | U | 2000 | 2100 | | ug/L | | 105 | 71 - 140 | 0 | 20 |
| Iron | 29 | I | 1000 | 1080 | | ug/L | | 105 | 52 - 155 | 2 | 20 |
| Vanadium | 1.6 | I | 500 | 532 | | ug/L | | 106 | 85 - 120 | 1 | 20 |
| Zinc | 4.5 | U | 500 | 520 | | ug/L | | 104 | 60 - 137 | 1 | 20 |
| Silver | 0.93 | U | 50.0 | 53.6 | | ug/L | | 107 | 75 - 141 | 2 | 20 |
| Sodium | 8.0 | | 50.0 | 58.6 | | mg/L | | 101 | 70 - 203 | 1 | 20 |

**Lab Sample ID: MB 280-440699/1-A**
**Matrix: Water**
**Analysis Batch: 441261**

**Client Sample ID: Method Blank**
**Prep Type: Total Recoverable**
**Prep Batch: 440699**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Barium | 0.82 | U | 10 | 0.82 | ug/L | | 12/11/18 16:30 | 12/13/18 18:33 | 1 |
| Cadmium | 0.45 | U | 5.0 | 0.45 | ug/L | | 12/11/18 16:30 | 12/13/18 18:33 | 1 |
| Cobalt | 1.2 | U | 10 | 1.2 | ug/L | | 12/11/18 16:30 | 12/13/18 18:33 | 1 |
| Chromium | 0.66 | U | 10 | 0.66 | ug/L | | 12/11/18 16:30 | 12/13/18 18:33 | 1 |
| Copper | 4.2 | U | 15 | 4.2 | ug/L | | 12/11/18 16:30 | 12/13/18 18:33 | 1 |
| Nickel | 2.6 | U | 40 | 2.6 | ug/L | | 12/11/18 16:30 | 12/13/18 18:33 | 1 |
| Lead | 2.7 | U | 9.0 | 2.7 | ug/L | | 12/11/18 16:30 | 12/13/18 18:33 | 1 |
| Selenium | 6.3 | U | 20 | 6.3 | ug/L | | 12/11/18 16:30 | 12/13/18 18:33 | 1 |
| Iron | 22 | U | 100 | 22 | ug/L | | 12/11/18 16:30 | 12/13/18 18:33 | 1 |
| Vanadium | 1.1 | U | 10 | 1.1 | ug/L | | 12/11/18 16:30 | 12/13/18 18:33 | 1 |
| Zinc | 4.5 | U | 20 | 4.5 | ug/L | | 12/11/18 16:30 | 12/13/18 18:33 | 1 |
| Silver | 0.93 | U | 10 | 0.93 | ug/L | | 12/11/18 16:30 | 12/13/18 18:33 | 1 |
| Sodium | 0.401 | I | 1.0 | 0.12 | mg/L | | 12/11/18 16:30 | 12/13/18 18:33 | 1 |

**Lab Sample ID: LCS 280-440699/2-A**
**Matrix: Water**
**Analysis Batch: 441261**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total Recoverable**
**Prep Batch: 440699**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| Barium | 2000 | 2000 | | ug/L | | 100 | 90 - 112 |
| Cadmium | 100 | 97.0 | | ug/L | | 97 | 88 - 111 |
| Cobalt | 500 | 482 | | ug/L | | 96 | 89 - 111 |
| Chromium | 200 | 193 | | ug/L | | 96 | 90 - 113 |
| Copper | 250 | 247 | | ug/L | | 99 | 86 - 112 |
| Nickel | 500 | 479 | | ug/L | | 96 | 89 - 111 |
| Lead | 500 | 488 | | ug/L | | 98 | 89 - 110 |
| Selenium | 2000 | 1890 | | ug/L | | 94 | 85 - 112 |
| Iron | 1000 | 1020 | | ug/L | | 102 | 89 - 115 |
| Vanadium | 500 | 511 | | ug/L | | 102 | 90 - 111 |
| Zinc | 500 | 475 | | ug/L | | 95 | 85 - 111 |
| Silver | 50.0 | 51.8 | | ug/L | | 104 | 86 - 115 |
| Sodium | 50.0 | 50.1 | | mg/L | | 100 | 90 - 115 |

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

**Lab Sample ID: 280-117970-1 MS**
**Matrix: Water**
**Analysis Batch: 441261**

**Client Sample ID: MW-8R**
**Prep Type: Total Recoverable**
**Prep Batch: 440699**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|---|---|
| Barium | 14 | | 2000 | 2020 | | ug/L | | 101 | 85 - 120 |
| Cadmium | 0.45 | U | 100 | 97.2 | | ug/L | | 97 | 82 - 119 |
| Cobalt | 1.2 | U | 500 | 487 | | ug/L | | 97 | 82 - 119 |
| Chromium | 1.3 | I | 200 | 197 | | ug/L | | 98 | 73 - 135 |
| Copper | 4.2 | U | 250 | 250 | | ug/L | | 100 | 82 - 129 |
| Nickel | 2.6 | U | 500 | 483 | | ug/L | | 97 | 84 - 120 |
| Lead | 2.7 | U | 500 | 488 | | ug/L | | 98 | 89 - 121 |
| Selenium | 6.3 | U | 2000 | 1900 | | ug/L | | 95 | 71 - 140 |
| Iron | 38 | I | 1000 | 1050 | | ug/L | | 101 | 52 - 155 |
| Vanadium | 2.2 | I | 500 | 519 | | ug/L | | 103 | 85 - 120 |
| Zinc | 4.8 | I | 500 | 483 | | ug/L | | 96 | 60 - 137 |
| Silver | 0.93 | U | 50.0 | 52.4 | | ug/L | | 105 | 75 - 141 |
| Sodium | 9.2 | | 50.0 | 59.3 | | mg/L | | 100 | 70 - 203 |

**Lab Sample ID: 280-117970-1 MSD**
**Matrix: Water**
**Analysis Batch: 441261**

**Client Sample ID: MW-8R**
**Prep Type: Total Recoverable**
**Prep Batch: 440699**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Barium | 14 | | 2000 | 2030 | | ug/L | | 101 | 85 - 120 | 0 | 20 |
| Cadmium | 0.45 | U | 100 | 98.0 | | ug/L | | 98 | 82 - 119 | 1 | 20 |
| Cobalt | 1.2 | U | 500 | 488 | | ug/L | | 98 | 82 - 119 | 0 | 20 |
| Chromium | 1.3 | I | 200 | 197 | | ug/L | | 98 | 73 - 135 | 0 | 20 |
| Copper | 4.2 | U | 250 | 251 | | ug/L | | 100 | 82 - 129 | 0 | 20 |
| Nickel | 2.6 | U | 500 | 486 | | ug/L | | 97 | 84 - 120 | 0 | 20 |
| Lead | 2.7 | U | 500 | 491 | | ug/L | | 98 | 89 - 121 | 1 | 20 |
| Selenium | 6.3 | U | 2000 | 1910 | | ug/L | | 96 | 71 - 140 | 0 | 20 |
| Iron | 38 | I | 1000 | 1060 | | ug/L | | 102 | 52 - 155 | 1 | 20 |
| Vanadium | 2.2 | I | 500 | 522 | | ug/L | | 104 | 85 - 120 | 1 | 20 |
| Zinc | 4.8 | I | 500 | 489 | | ug/L | | 97 | 60 - 137 | 1 | 20 |
| Silver | 0.93 | U | 50.0 | 53.3 | | ug/L | | 107 | 75 - 141 | 2 | 20 |
| Sodium | 9.2 | | 50.0 | 59.6 | | mg/L | | 101 | 70 - 203 | 1 | 20 |

**Lab Sample ID: MB 280-440887/1-A**
**Matrix: Water**
**Analysis Batch: 441262**

**Client Sample ID: Method Blank**
**Prep Type: Total Recoverable**
**Prep Batch: 440887**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Barium | 0.82 | U | 10 | 0.82 | ug/L | | 12/13/18 07:48 | 12/14/18 00:31 | 1 |
| Cadmium | 0.45 | U | 5.0 | 0.45 | ug/L | | 12/13/18 07:48 | 12/14/18 00:31 | 1 |
| Cobalt | 1.2 | U | 10 | 1.2 | ug/L | | 12/13/18 07:48 | 12/14/18 00:31 | 1 |
| Chromium | 0.66 | U | 10 | 0.66 | ug/L | | 12/13/18 07:48 | 12/14/18 00:31 | 1 |
| Copper | 4.2 | U | 15 | 4.2 | ug/L | | 12/13/18 07:48 | 12/14/18 00:31 | 1 |
| Nickel | 2.6 | U | 40 | 2.6 | ug/L | | 12/13/18 07:48 | 12/14/18 00:31 | 1 |
| Lead | 2.7 | U | 9.0 | 2.7 | ug/L | | 12/13/18 07:48 | 12/14/18 00:31 | 1 |
| Selenium | 6.3 | U | 20 | 6.3 | ug/L | | 12/13/18 07:48 | 12/14/18 00:31 | 1 |
| Iron | 22 | U | 100 | 22 | ug/L | | 12/13/18 07:48 | 12/14/18 00:31 | 1 |
| Vanadium | 1.1 | U | 10 | 1.1 | ug/L | | 12/13/18 07:48 | 12/14/18 00:31 | 1 |

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

**Lab Sample ID: MB 280-440887/1-A**
**Matrix: Water**
**Analysis Batch: 441262**

**Client Sample ID: Method Blank**
**Prep Type: Total Recoverable**
**Prep Batch: 440887**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Zinc | 4.5 | U | 20 | 4.5 | ug/L | | 12/13/18 07:48 | 12/14/18 00:31 | 1 |
| Silver | 0.93 | U | 10 | 0.93 | ug/L | | 12/13/18 07:48 | 12/14/18 00:31 | 1 |

**Lab Sample ID: MB 280-440887/1-A**
**Matrix: Water**
**Analysis Batch: 441730**

**Client Sample ID: Method Blank**
**Prep Type: Total Recoverable**
**Prep Batch: 440887**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Barium | 0.82 | U | 10 | 0.82 | ug/L | | 12/13/18 07:48 | 12/17/18 17:04 | 1 |
| Cadmium | 0.45 | U | 5.0 | 0.45 | ug/L | | 12/13/18 07:48 | 12/17/18 17:04 | 1 |
| Cobalt | 1.2 | U | 10 | 1.2 | ug/L | | 12/13/18 07:48 | 12/17/18 17:04 | 1 |
| Chromium | 0.66 | U | 10 | 0.66 | ug/L | | 12/13/18 07:48 | 12/17/18 17:04 | 1 |
| Copper | 4.2 | U | 15 | 4.2 | ug/L | | 12/13/18 07:48 | 12/17/18 17:04 | 1 |
| Nickel | 2.6 | U | 40 | 2.6 | ug/L | | 12/13/18 07:48 | 12/17/18 17:04 | 1 |
| Lead | 2.7 | U | 9.0 | 2.7 | ug/L | | 12/13/18 07:48 | 12/17/18 17:04 | 1 |
| Selenium | 6.3 | U | 20 | 6.3 | ug/L | | 12/13/18 07:48 | 12/17/18 17:04 | 1 |
| Iron | 22 | U | 100 | 22 | ug/L | | 12/13/18 07:48 | 12/17/18 17:04 | 1 |
| Vanadium | 1.1 | U | 10 | 1.1 | ug/L | | 12/13/18 07:48 | 12/17/18 17:04 | 1 |
| Zinc | 4.5 | U | 20 | 4.5 | ug/L | | 12/13/18 07:48 | 12/17/18 17:04 | 1 |
| Silver | 0.93 | U | 10 | 0.93 | ug/L | | 12/13/18 07:48 | 12/17/18 17:04 | 1 |
| Sodium | 0.208 | I | 1.0 | 0.12 | mg/L | | 12/13/18 07:48 | 12/17/18 17:04 | 1 |

**Lab Sample ID: LCS 280-440887/2-A**
**Matrix: Water**
**Analysis Batch: 441262**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total Recoverable**
**Prep Batch: 440887**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| Barium | 2000 | 2080 | | ug/L | | 104 | 90 - 112 |
| Cadmium | 100 | 100 | | ug/L | | 100 | 88 - 111 |
| Cobalt | 500 | 506 | | ug/L | | 101 | 89 - 111 |
| Chromium | 200 | 198 | | ug/L | | 99 | 90 - 113 |
| Copper | 250 | 258 | | ug/L | | 103 | 86 - 112 |
| Nickel | 500 | 503 | | ug/L | | 101 | 89 - 111 |
| Lead | 500 | 503 | | ug/L | | 101 | 89 - 110 |
| Selenium | 2000 | 1910 | | ug/L | | 96 | 85 - 112 |
| Iron | 1000 | 1060 | | ug/L | | 106 | 89 - 115 |
| Vanadium | 500 | 535 | | ug/L | | 107 | 90 - 111 |
| Zinc | 500 | 492 | | ug/L | | 98 | 85 - 111 |
| Silver | 50.0 | 53.7 | | ug/L | | 107 | 86 - 115 |

**Lab Sample ID: LCS 280-440887/2-A**
**Matrix: Water**
**Analysis Batch: 441730**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total Recoverable**
**Prep Batch: 440887**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| Barium | 2000 | 2070 | | ug/L | | 104 | 90 - 112 |
| Cadmium | 100 | 104 | | ug/L | | 104 | 88 - 111 |
| Cobalt | 500 | 499 | | ug/L | | 100 | 89 - 111 |
| Chromium | 200 | 213 | | ug/L | | 106 | 90 - 113 |

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

**Lab Sample ID: LCS 280-440887/2-A**
**Matrix: Water**
**Analysis Batch: 441730**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total Recoverable**
**Prep Batch: 440887**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| Copper | 250 | 254 | | ug/L | | 102 | 86 - 112 |
| Nickel | 500 | 495 | | ug/L | | 99 | 89 - 111 |
| Lead | 500 | 512 | | ug/L | | 102 | 89 - 110 |
| Selenium | 2000 | 2120 | | ug/L | | 106 | 85 - 112 |
| Iron | 1000 | 1030 | | ug/L | | 103 | 89 - 115 |
| Vanadium | 500 | 526 | | ug/L | | 105 | 90 - 111 |
| Zinc | 500 | 521 | | ug/L | | 104 | 85 - 111 |
| Silver | 50.0 | 52.2 | | ug/L | | 104 | 86 - 115 |
| Sodium | 50.0 | 52.0 | | mg/L | | 104 | 90 - 115 |

**Lab Sample ID: 280-118028-2 MS**
**Matrix: Water**
**Analysis Batch: 441262**

**Client Sample ID: MW-14A**
**Prep Type: Total Recoverable**
**Prep Batch: 440887**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|---|---|
| Barium | 13 | | 2000 | 2050 | | ug/L | | 102 | 85 - 120 |
| Cadmium | 0.45 | U | 100 | 97.8 | | ug/L | | 98 | 82 - 119 |
| Cobalt | 1.2 | U | 500 | 494 | | ug/L | | 99 | 82 - 119 |
| Chromium | 3.2 | I | 200 | 197 | | ug/L | | 97 | 73 - 135 |
| Copper | 4.2 | U | 250 | 252 | | ug/L | | 101 | 82 - 129 |
| Nickel | 2.6 | U | 500 | 491 | | ug/L | | 98 | 84 - 120 |
| Lead | 3.0 | I | 500 | 489 | | ug/L | | 97 | 89 - 121 |
| Selenium | 6.3 | U | 2000 | 1860 | | ug/L | | 93 | 71 - 140 |
| Iron | 650 | | 1000 | 1910 | | ug/L | | 126 | 52 - 155 |
| Vanadium | 2.9 | I | 500 | 523 | | ug/L | | 104 | 85 - 120 |
| Zinc | 4.5 | U | 500 | 478 | | ug/L | | 96 | 60 - 137 |
| Silver | 0.93 | U | 50.0 | 52.3 | | ug/L | | 105 | 75 - 141 |

**Lab Sample ID: 280-118028-2 MS**
**Matrix: Water**
**Analysis Batch: 441730**

**Client Sample ID: MW-14A**
**Prep Type: Total Recoverable**
**Prep Batch: 440887**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|---|---|
| Barium | 14 | | 2000 | 2050 | | ug/L | | 102 | 85 - 120 |
| Cadmium | 0.45 | U | 100 | 102 | | ug/L | | 102 | 82 - 119 |
| Cobalt | 1.2 | U | 500 | 487 | | ug/L | | 97 | 82 - 119 |
| Chromium | 4.4 | I | 200 | 212 | | ug/L | | 104 | 73 - 135 |
| Copper | 4.2 | U | 250 | 250 | | ug/L | | 100 | 82 - 129 |
| Nickel | 2.6 | U | 500 | 485 | | ug/L | | 97 | 84 - 120 |
| Lead | 2.7 | U | 500 | 500 | | ug/L | | 100 | 89 - 121 |
| Selenium | 6.3 | U | 2000 | 2080 | | ug/L | | 104 | 71 - 140 |
| Iron | 670 | | 1000 | 1890 | | ug/L | | 122 | 52 - 155 |
| Vanadium | 2.3 | I | 500 | 516 | | ug/L | | 103 | 85 - 120 |
| Zinc | 4.5 | U | 500 | 512 | | ug/L | | 102 | 60 - 137 |
| Silver | 0.93 | U | 50.0 | 52.1 | | ug/L | | 104 | 75 - 141 |
| Sodium | 4.8 | | 50.0 | 55.0 | | mg/L | | 100 | 70 - 203 |

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

**Lab Sample ID: 280-118028-2 MSD** — **Client Sample ID: MW-14A**
**Matrix: Water** — **Prep Type: Total Recoverable**
**Analysis Batch: 441262** — **Prep Batch: 440887**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Barium | 13 | | 2000 | 2070 | | ug/L | | 103 | 85 - 120 | 1 | 20 |
| Cadmium | 0.45 | U | 100 | 98.9 | | ug/L | | 99 | 82 - 119 | 1 | 20 |
| Cobalt | 1.2 | U | 500 | 497 | | ug/L | | 99 | 82 - 119 | 1 | 20 |
| Chromium | 3.2 | I | 200 | 200 | | ug/L | | 99 | 73 - 135 | 2 | 20 |
| Copper | 4.2 | U | 250 | 256 | | ug/L | | 102 | 82 - 129 | 2 | 20 |
| Nickel | 2.6 | U | 500 | 497 | | ug/L | | 99 | 84 - 120 | 1 | 20 |
| Lead | 3.0 | I | 500 | 498 | | ug/L | | 99 | 89 - 121 | 2 | 20 |
| Selenium | 6.3 | U | 2000 | 1890 | | ug/L | | 94 | 71 - 140 | 2 | 20 |
| Iron | 650 | | 1000 | 2140 | | ug/L | | 149 | 52 - 155 | 11 | 20 |
| Vanadium | 2.9 | I | 500 | 530 | | ug/L | | 106 | 85 - 120 | 1 | 20 |
| Zinc | 4.5 | U | 500 | 485 | | ug/L | | 97 | 60 - 137 | 1 | 20 |
| Silver | 0.93 | U | 50.0 | 53.3 | | ug/L | | 107 | 75 - 141 | 2 | 20 |

**Lab Sample ID: 280-118028-2 MSD** — **Client Sample ID: MW-14A**
**Matrix: Water** — **Prep Type: Total Recoverable**
**Analysis Batch: 441730** — **Prep Batch: 440887**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Barium | 14 | | 2000 | 2080 | | ug/L | | 103 | 85 - 120 | 1 | 20 |
| Cadmium | 0.45 | U | 100 | 104 | | ug/L | | 104 | 82 - 119 | 1 | 20 |
| Cobalt | 1.2 | U | 500 | 493 | | ug/L | | 99 | 82 - 119 | 1 | 20 |
| Chromium | 4.4 | I | 200 | 217 | | ug/L | | 106 | 73 - 135 | 2 | 20 |
| Copper | 4.2 | U | 250 | 253 | | ug/L | | 101 | 82 - 129 | 1 | 20 |
| Nickel | 2.6 | U | 500 | 491 | | ug/L | | 98 | 84 - 120 | 1 | 20 |
| Lead | 2.7 | U | 500 | 509 | | ug/L | | 102 | 89 - 121 | 2 | 20 |
| Selenium | 6.3 | U | 2000 | 2100 | | ug/L | | 105 | 71 - 140 | 1 | 20 |
| Iron | 670 | | 1000 | 2120 | | ug/L | | 144 | 52 - 155 | 11 | 20 |
| Vanadium | 2.3 | I | 500 | 522 | | ug/L | | 104 | 85 - 120 | 1 | 20 |
| Zinc | 4.5 | U | 500 | 519 | | ug/L | | 104 | 60 - 137 | 1 | 20 |
| Silver | 0.93 | U | 50.0 | 52.3 | | ug/L | | 105 | 75 - 141 | 0 | 20 |
| Sodium | 4.8 | | 50.0 | 55.9 | | mg/L | | 102 | 70 - 203 | 2 | 20 |

**Lab Sample ID: MB 280-440969/1-A** — **Client Sample ID: Method Blank**
**Matrix: Water** — **Prep Type: Total Recoverable**
**Analysis Batch: 441534** — **Prep Batch: 440969**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Sodium | 0.12 | U | 1.0 | 0.12 | mg/L | | 12/13/18 17:30 | 12/14/18 19:33 | 1 |

**Lab Sample ID: LCS 280-440969/2-A** — **Client Sample ID: Lab Control Sample**
**Matrix: Water** — **Prep Type: Total Recoverable**
**Analysis Batch: 441534** — **Prep Batch: 440969**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| Sodium | 50.0 | 54.0 | | mg/L | | 108 | 90 - 115 |

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

**Lab Sample ID: 280-118062-N-1-B MS** — **Client Sample ID: Matrix Spike**
**Matrix: Water** — **Prep Type: Total Recoverable**
**Analysis Batch: 441534** — **Prep Batch: 440969**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|---|---|
| Sodium | 120 | | 50.0 | 176 | | mg/L | | 108 | 70 - 203 |

**Lab Sample ID: 280-118062-N-1-C MSD** — **Client Sample ID: Matrix Spike Duplicate**
**Matrix: Water** — **Prep Type: Total Recoverable**
**Analysis Batch: 441534** — **Prep Batch: 440969**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Sodium | 120 | | 50.0 | 178 | | mg/L | | 111 | 70 - 203 | 1 | 20 |

## Method: 6020 - Metals (ICP/MS)

**Lab Sample ID: MB 280-440448/1-A** — **Client Sample ID: Method Blank**
**Matrix: Water** — **Prep Type: Total Recoverable**
**Analysis Batch: 440938** — **Prep Batch: 440448**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Antimony | 0.40 | U | 2.0 | 0.40 | ug/L | | 12/11/18 06:45 | 12/12/18 03:45 | 1 |
| Arsenic | 0.33 | U | 5.0 | 0.33 | ug/L | | 12/11/18 06:45 | 12/12/18 03:45 | 1 |
| Beryllium | 0.080 | U | 1.0 | 0.080 | ug/L | | 12/11/18 06:45 | 12/12/18 03:45 | 1 |
| Thallium | 0.050 | U | 1.0 | 0.050 | ug/L | | 12/11/18 06:45 | 12/12/18 03:45 | 1 |

**Lab Sample ID: LCS 280-440448/2-A** — **Client Sample ID: Lab Control Sample**
**Matrix: Water** — **Prep Type: Total Recoverable**
**Analysis Batch: 440938** — **Prep Batch: 440448**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| Antimony | 40.0 | 37.6 | | ug/L | | 94 | 85 - 115 |
| Arsenic | 40.0 | 36.6 | | ug/L | | 91 | 85 - 117 |
| Beryllium | 40.0 | 37.0 | | ug/L | | 93 | 80 - 125 |
| Thallium | 40.0 | 38.6 | | ug/L | | 96 | 85 - 118 |

**Lab Sample ID: 280-117877-A-1-C MS** — **Client Sample ID: Matrix Spike**
**Matrix: Water** — **Prep Type: Total Recoverable**
**Analysis Batch: 440938** — **Prep Batch: 440448**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|---|---|
| Arsenic | 5.8 | | 40.0 | 42.6 | | ug/L | | 92 | 85 - 117 |
| Beryllium | 0.080 | U | 40.0 | 38.9 | | ug/L | | 97 | 80 - 125 |
| Thallium | 0.050 | U | 40.0 | 39.1 | | ug/L | | 98 | 85 - 118 |

**Lab Sample ID: 280-117877-A-1-C MS** — **Client Sample ID: Matrix Spike**
**Matrix: Water** — **Prep Type: Total Recoverable**
**Analysis Batch: 441252** — **Prep Batch: 440448**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|---|---|
| Antimony | 2.1 | | 40.0 | 42.3 | | ug/L | | 101 | 85 - 115 |

## Method: 6020 - Metals (ICP/MS) (Continued)

**Lab Sample ID: 280-117877-A-1-D MSD** — **Client Sample ID: Matrix Spike Duplicate**
**Matrix: Water** — **Prep Type: Total Recoverable**
**Analysis Batch: 440938** — **Prep Batch: 440448**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Arsenic | 5.8 | | 40.0 | 43.0 | | ug/L | | 93 | 85 - 117 | 1 | 20 |
| Beryllium | 0.080 | U | 40.0 | 39.3 | | ug/L | | 98 | 80 - 125 | 1 | 20 |
| Thallium | 0.050 | U | 40.0 | 39.7 | | ug/L | | 99 | 85 - 118 | 2 | 20 |

**Lab Sample ID: 280-117877-A-1-D MSD** — **Client Sample ID: Matrix Spike Duplicate**
**Matrix: Water** — **Prep Type: Total Recoverable**
**Analysis Batch: 441252** — **Prep Batch: 440448**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Antimony | 2.1 | | 40.0 | 42.1 | | ug/L | | 100 | 85 - 115 | 0 | 20 |

**Lab Sample ID: MB 280-440702/1-A** — **Client Sample ID: Method Blank**
**Matrix: Water** — **Prep Type: Total Recoverable**
**Analysis Batch: 440908** — **Prep Batch: 440702**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Antimony | 0.40 | U | 2.0 | 0.40 | ug/L | | 12/11/18 16:30 | 12/12/18 03:25 | 1 |
| Arsenic | 0.33 | U | 5.0 | 0.33 | ug/L | | 12/11/18 16:30 | 12/12/18 03:25 | 1 |
| Beryllium | 0.080 | U | 1.0 | 0.080 | ug/L | | 12/11/18 16:30 | 12/12/18 03:25 | 1 |
| Thallium | 0.050 | U | 1.0 | 0.050 | ug/L | | 12/11/18 16:30 | 12/12/18 03:25 | 1 |

**Lab Sample ID: LCS 280-440702/2-A** — **Client Sample ID: Lab Control Sample**
**Matrix: Water** — **Prep Type: Total Recoverable**
**Analysis Batch: 440908** — **Prep Batch: 440702**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| Antimony | 40.0 | 36.8 | | ug/L | | 92 | 85 - 115 |
| Arsenic | 40.0 | 36.4 | | ug/L | | 91 | 85 - 117 |
| Beryllium | 40.0 | 38.8 | | ug/L | | 97 | 80 - 125 |
| Thallium | 40.0 | 40.5 | | ug/L | | 101 | 85 - 118 |

**Lab Sample ID: 280-117970-5 MS** — **Client Sample ID: MW-11A**
**Matrix: Water** — **Prep Type: Total Recoverable**
**Analysis Batch: 440908** — **Prep Batch: 440702**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|---|---|
| Antimony | 0.40 | U | 40.0 | 37.4 | | ug/L | | 93 | 85 - 115 |
| Arsenic | 2.0 | I | 40.0 | 37.9 | | ug/L | | 90 | 85 - 117 |
| Beryllium | 0.080 | U | 40.0 | 38.2 | | ug/L | | 96 | 80 - 125 |
| Thallium | 0.47 | I | 40.0 | 39.8 | | ug/L | | 98 | 85 - 118 |

**Lab Sample ID: 280-117970-5 MSD** — **Client Sample ID: MW-11A**
**Matrix: Water** — **Prep Type: Total Recoverable**
**Analysis Batch: 440908** — **Prep Batch: 440702**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Antimony | 0.40 | U | 40.0 | 38.3 | | ug/L | | 96 | 85 - 115 | 2 | 20 |
| Arsenic | 2.0 | I | 40.0 | 38.9 | | ug/L | | 92 | 85 - 117 | 2 | 20 |
| Beryllium | 0.080 | U | 40.0 | 38.8 | | ug/L | | 97 | 80 - 125 | 1 | 20 |

## Method: 6020 - Metals (ICP/MS) (Continued)

**Lab Sample ID: 280-117970-5 MSD** — **Client Sample ID: MW-11A**
**Matrix: Water** — **Prep Type: Total Recoverable**
**Analysis Batch: 440908** — **Prep Batch: 440702**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Thallium | 0.47 | I | 40.0 | 40.1 | | ug/L | | 99 | 85 - 118 | 1 | 20 |

**Lab Sample ID: MB 280-440885/1-A** — **Client Sample ID: Method Blank**
**Matrix: Water** — **Prep Type: Total Recoverable**
**Analysis Batch: 441327** — **Prep Batch: 440885**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Antimony | 0.40 | U | 2.0 | 0.40 | ug/L | | 12/13/18 07:48 | 12/14/18 00:00 | 1 |
| Arsenic | 0.33 | U | 5.0 | 0.33 | ug/L | | 12/13/18 07:48 | 12/14/18 00:00 | 1 |
| Beryllium | 0.080 | U | 1.0 | 0.080 | ug/L | | 12/13/18 07:48 | 12/14/18 00:00 | 1 |
| Thallium | 0.050 | U | 1.0 | 0.050 | ug/L | | 12/13/18 07:48 | 12/14/18 00:00 | 1 |

**Lab Sample ID: LCS 280-440885/2-A** — **Client Sample ID: Lab Control Sample**
**Matrix: Water** — **Prep Type: Total Recoverable**
**Analysis Batch: 441327** — **Prep Batch: 440885**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| Antimony | 40.0 | 37.8 | | ug/L | | 94 | 85 - 115 |
| Arsenic | 40.0 | 34.9 | | ug/L | | 87 | 85 - 117 |
| Beryllium | 40.0 | 37.4 | | ug/L | | 94 | 80 - 125 |
| Thallium | 40.0 | 40.6 | | ug/L | | 102 | 85 - 118 |

**Lab Sample ID: 280-118028-3 MS** — **Client Sample ID: MW-9A**
**Matrix: Water** — **Prep Type: Total Recoverable**
**Analysis Batch: 441327** — **Prep Batch: 440885**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|---|---|
| Antimony | 0.40 | U | 40.0 | 37.5 | | ug/L | | 94 | 85 - 115 |
| Arsenic | 0.33 | U | 40.0 | 35.9 | | ug/L | | 90 | 85 - 117 |
| Beryllium | 0.080 | U | 40.0 | 39.1 | | ug/L | | 98 | 80 - 125 |
| Thallium | 0.050 | U | 40.0 | 41.7 | | ug/L | | 104 | 85 - 118 |

**Lab Sample ID: 280-118028-3 MSD** — **Client Sample ID: MW-9A**
**Matrix: Water** — **Prep Type: Total Recoverable**
**Analysis Batch: 441327** — **Prep Batch: 440885**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Antimony | 0.40 | U | 40.0 | 37.3 | | ug/L | | 93 | 85 - 115 | 1 | 20 |
| Arsenic | 0.33 | U | 40.0 | 36.7 | | ug/L | | 92 | 85 - 117 | 2 | 20 |
| Beryllium | 0.080 | U | 40.0 | 40.8 | | ug/L | | 102 | 80 - 125 | 4 | 20 |
| Thallium | 0.050 | U | 40.0 | 41.3 | | ug/L | | 103 | 85 - 118 | 1 | 20 |

## Method: 7470A - Mercury (CVAA)

**Lab Sample ID: MB 280-440538/1-A** — **Client Sample ID: Method Blank**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 440688** — **Prep Batch: 440538**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Mercury | 0.027 | U | 0.20 | 0.027 | ug/L | | 12/10/18 12:21 | 12/10/18 19:19 | 1 |

**Lab Sample ID: LCS 280-440538/2-A** — **Client Sample ID: Lab Control Sample**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 440688** — **Prep Batch: 440538**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| Mercury | 5.00 | 5.04 | | ug/L | | 101 | 84 - 120 |

**Lab Sample ID: LCSD 280-440538/3-A** — **Client Sample ID: Lab Control Sample Dup**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 440688** — **Prep Batch: 440538**

| Analyte | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|
| Mercury | 5.00 | 5.26 | | ug/L | | 105 | 84 - 120 | 4 | 15 |

**Lab Sample ID: 280-117868-A-18-H MS** — **Client Sample ID: Matrix Spike**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 440688** — **Prep Batch: 440538**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|---|---|
| Mercury | 6.2 | | 5.00 | 10.7 | | ug/L | | 90 | 75 - 125 |

**Lab Sample ID: 280-117868-A-18-I MSD** — **Client Sample ID: Matrix Spike Duplicate**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 440688** — **Prep Batch: 440538**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Mercury | 6.2 | | 5.00 | 11.0 | | ug/L | | 96 | 75 - 125 | 3 | 20 |

**Lab Sample ID: MB 280-440923/1-A** — **Client Sample ID: Method Blank**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 441077** — **Prep Batch: 440923**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Mercury | 0.027 | U | 0.20 | 0.027 | ug/L | | 12/12/18 11:45 | 12/12/18 16:46 | 1 |

**Lab Sample ID: LCS 280-440923/2-A** — **Client Sample ID: Lab Control Sample**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 441077** — **Prep Batch: 440923**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| Mercury | 5.00 | 4.98 | | ug/L | | 100 | 84 - 120 |

**Lab Sample ID: LCSD 280-440923/3-A** — **Client Sample ID: Lab Control Sample Dup**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 441077** — **Prep Batch: 440923**

| Analyte | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|
| Mercury | 5.00 | 5.08 | | ug/L | | 102 | 84 - 120 | 2 | 15 |

# QC Sample Results

Client: Waste Management
Project/Site: FL26|Vista

TestAmerica Job ID: 280-117909-1

**Lab Sample ID: 280-118007-A-5-H MS** — **Client Sample ID: Matrix Spike**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 441077** — **Prep Batch: 440923**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec. Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Mercury | 0.027 | U | 5.00 | 4.99 | | ug/L | | 100 | 75 - 125 | | |

**Lab Sample ID: 280-118007-A-5-I MSD** — **Client Sample ID: Matrix Spike Duplicate**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 441077** — **Prep Batch: 440923**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Mercury | 0.027 | U | 5.00 | 5.14 | | ug/L | | 103 | 75 - 125 | 3 | 20 |

**Lab Sample ID: MB 280-442172/1-A** — **Client Sample ID: Method Blank**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 442367** — **Prep Batch: 442172**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Mercury | 0.027 | U | 0.20 | 0.027 | ug/L | | 12/21/18 11:25 | 12/21/18 16:34 | 1 |

**Lab Sample ID: LCS 280-442172/2-A** — **Client Sample ID: Lab Control Sample**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 442367** — **Prep Batch: 442172**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Mercury | | | 5.00 | 4.86 | | ug/L | | 97 | 84 - 120 | | |

**Lab Sample ID: 280-118028-1 MS** — **Client Sample ID: Equipment Blank**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 442367** — **Prep Batch: 442172**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec. Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Mercury | 0.027 | U | 5.00 | 4.76 | | ug/L | | 95 | 75 - 125 | | |

**Lab Sample ID: 280-118028-1 MSD** — **Client Sample ID: Equipment Blank**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 442367** — **Prep Batch: 442172**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Mercury | 0.027 | U | 5.00 | 4.76 | | ug/L | | 95 | 75 - 125 | 0 | 20 |

## Method: 300.0 - Anions, Ion Chromatography

**Lab Sample ID: MB 280-440338/6** — **Client Sample ID: Method Blank**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 440338**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | 0.25 | U | 3.0 | 0.25 | mg/L | | | 12/07/18 11:24 | 1 |

## Method: 300.0 - Anions, Ion Chromatography (Continued)

**Lab Sample ID: LCS 280-440338/4** — **Client Sample ID: Lab Control Sample**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 440338**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| Chloride | 100 | 101 | | mg/L | | 101 | 90 - 110 |

**Lab Sample ID: LCSD 280-440338/5** — **Client Sample ID: Lab Control Sample Dup**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 440338**

| Analyte | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | 100 | 101 | | mg/L | | 101 | 90 - 110 | 0 | 10 |

**Lab Sample ID: MRL 280-440338/3** — **Client Sample ID: Lab Control Sample**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 440338**

| Analyte | Spike Added | MRL Result | MRL Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| Chloride | 2.50 | 2.65 | I | mg/L | | 106 | 50 - 150 |

**Lab Sample ID: 280-117909-1 MS** — **Client Sample ID: MW-3B**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 440338**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | 8.2 | | 25.0 | 36.9 | | mg/L | | 115 | 80 - 120 |

**Lab Sample ID: 280-117909-1 MSD** — **Client Sample ID: MW-3B**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 440338**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | 8.2 | | 25.0 | 36.9 | | mg/L | | 115 | 80 - 120 | 0 | 20 |

**Lab Sample ID: 280-117920-3 MS** — **Client Sample ID: MW-5A**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 440338**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | 2.6 | I | 25.0 | 30.9 | | mg/L | | 113 | 80 - 120 |

**Lab Sample ID: 280-117920-3 MSD** — **Client Sample ID: MW-5A**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 440338**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | 2.6 | I | 25.0 | 31.1 | | mg/L | | 114 | 80 - 120 | 1 | 20 |

**Lab Sample ID: 280-117909-1 DU** — **Client Sample ID: MW-3B**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 440338**

| Analyte | Sample Result | Sample Qualifier | DU Result | DU Qualifier | Unit | D | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|
| Chloride | 8.2 | | 8.48 | | mg/L | | 4 | 15 |

# QC Sample Results

Client: Waste Management
Project/Site: FL26|Vista

TestAmerica Job ID: 280-117909-1

**Lab Sample ID: 280-117920-3 DU** — **Client Sample ID: MW-5A**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 440338**

| Analyte | Sample Result | Sample Qualifier | | DU Result | DU Qualifier | Unit | D | | | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | 2.6 | I | | 2.62 | I | mg/L | | | | 0 | 15 |

**Lab Sample ID: MB 280-440339/6** — **Client Sample ID: Method Blank**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 440339**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Nitrate as N | 0.0426 | I | 0.50 | 0.042 | mg/L | | | 12/07/18 11:24 | 1 |

**Lab Sample ID: LCS 280-440339/4** — **Client Sample ID: Lab Control Sample**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 440339**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Nitrate as N | | | 5.00 | 4.63 | | mg/L | | 93 | 90 - 110 | | |

**Lab Sample ID: LCSD 280-440339/5** — **Client Sample ID: Lab Control Sample Dup**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 440339**

| Analyte | | | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Nitrate as N | | | 5.00 | 4.64 | | mg/L | | 93 | 90 - 110 | 0 | 10 |

**Lab Sample ID: MRL 280-440339/3** — **Client Sample ID: Lab Control Sample**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 440339**

| Analyte | | | Spike Added | MRL Result | MRL Qualifier | Unit | D | %Rec | %Rec. Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Nitrate as N | | | 0.200 | 0.231 | I | mg/L | | 116 | 50 - 150 | | |

**Lab Sample ID: 280-117909-1 MS** — **Client Sample ID: MW-3B**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 440339**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec. Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Nitrate as N | 1.6 | | 5.00 | 6.53 | | mg/L | | 99 | 80 - 120 | | |

**Lab Sample ID: 280-117909-1 MSD** — **Client Sample ID: MW-3B**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 440339**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Nitrate as N | 1.6 | | 5.00 | 6.53 | | mg/L | | 99 | 80 - 120 | 0 | 20 |

**Lab Sample ID: 280-117920-3 MS** — **Client Sample ID: MW-5A**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 440339**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec. Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Nitrate as N | 1.9 | | 5.00 | 6.80 | | mg/L | | 99 | 80 - 120 | | |

## Method: 300.0 - Anions, Ion Chromatography (Continued)

**Lab Sample ID: 280-117920-3 MSD** — **Client Sample ID: MW-5A**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 440339**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Nitrate as N | 1.9 | | 5.00 | 6.82 | | mg/L | | 99 | 80 - 120 | 0 | 20 |

**Lab Sample ID: 280-117909-1 DU** — **Client Sample ID: MW-3B**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 440339**

| Analyte | Sample Result | Sample Qualifier | | DU Result | DU Qualifier | Unit | D | | | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Nitrate as N | 1.6 | | | 1.58 | | mg/L | | | | 1 | 15 |

**Lab Sample ID: 280-117920-3 DU** — **Client Sample ID: MW-5A**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 440339**

| Analyte | Sample Result | Sample Qualifier | | DU Result | DU Qualifier | Unit | D | | | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Nitrate as N | 1.9 | | | 1.87 | | mg/L | | | | 0.4 | 15 |

**Lab Sample ID: MB 280-440479/6** — **Client Sample ID: Method Blank**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 440479**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Nitrate as N | 0.0601 | I | 0.50 | 0.042 | mg/L | | | 12/08/18 14:55 | 1 |

**Lab Sample ID: LCS 280-440479/4** — **Client Sample ID: Lab Control Sample**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 440479**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Nitrate as N | | | 5.00 | 5.05 | | mg/L | | 101 | 90 - 110 | | |

**Lab Sample ID: LCSD 280-440479/5** — **Client Sample ID: Lab Control Sample Dup**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 440479**

| Analyte | | | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Nitrate as N | | | 5.00 | 5.38 | | mg/L | | 108 | 90 - 110 | 6 | 10 |

**Lab Sample ID: MRL 280-440479/3** — **Client Sample ID: Lab Control Sample**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 440479**

| Analyte | | | Spike Added | MRL Result | MRL Qualifier | Unit | D | %Rec | %Rec. Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Nitrate as N | | | 0.200 | 0.285 | I | mg/L | | 142 | 50 - 150 | | |

**Lab Sample ID: 280-117969-1 MS** — **Client Sample ID: MW-2B**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 440479**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec. Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Nitrate as N | 0.78 | | 5.00 | 5.99 | | mg/L | | 104 | 80 - 120 | | |

# QC Sample Results

Client: Waste Management
Project/Site: FL26|Vista

TestAmerica Job ID: 280-117909-1

**Lab Sample ID: 280-117969-1 MSD** — **Client Sample ID: MW-2B**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 440479**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Nitrate as N | 0.78 | | 5.00 | 5.96 | | mg/L | | 104 | 80 - 120 | 0 | 20 |

**Lab Sample ID: 280-117969-1 DU** — **Client Sample ID: MW-2B**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 440479**

| Analyte | Sample Result | Sample Qualifier | | DU Result | DU Qualifier | Unit | D | | | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Nitrate as N | 0.78 | | | 0.824 | | mg/L | | | | 5 | 15 |

**Lab Sample ID: MB 280-440789/13** — **Client Sample ID: Method Blank**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 440789**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Nitrate as N | 0.042 | U | 0.50 | 0.042 | mg/L | | | 12/11/18 17:34 | 1 |

**Lab Sample ID: LCS 280-440789/11** — **Client Sample ID: Lab Control Sample**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 440789**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Nitrate as N | | | 5.00 | 5.04 | | mg/L | | 101 | 90 - 110 | | |

**Lab Sample ID: LCSD 280-440789/12** — **Client Sample ID: Lab Control Sample Dup**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 440789**

| Analyte | | | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Nitrate as N | | | 5.00 | 5.06 | | mg/L | | 101 | 90 - 110 | 0 | 10 |

**Lab Sample ID: MRL 280-440789/10** — **Client Sample ID: Lab Control Sample**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 440789**

| Analyte | | | Spike Added | MRL Result | MRL Qualifier | Unit | D | %Rec | %Rec. Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Nitrate as N | | | 0.200 | 0.202 | I | mg/L | | 101 | 50 - 150 | | |

**Lab Sample ID: 280-118028-2 MS** — **Client Sample ID: MW-14A**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 440789**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec. Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Nitrate as N | 2.7 | | 5.00 | 8.33 | | mg/L | | 112 | 80 - 120 | | |

**Lab Sample ID: 280-118028-2 MSD** — **Client Sample ID: MW-14A**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 440789**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Nitrate as N | 2.7 | | 5.00 | 8.29 | | mg/L | | 111 | 80 - 120 | 1 | 20 |

## Method: 300.0 - Anions, Ion Chromatography (Continued)

**Lab Sample ID: 280-118029-3 MS** — **Client Sample ID: MW-9B**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 440789**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec. Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Nitrate as N | 0.15 | I | 5.00 | 5.81 | | mg/L | | 113 | 80 - 120 | | |

**Lab Sample ID: 280-118029-3 MSD** — **Client Sample ID: MW-9B**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 440789**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Nitrate as N | 0.15 | I | 5.00 | 5.74 | | mg/L | | 112 | 80 - 120 | 1 | 20 |

**Lab Sample ID: 280-118028-2 DU** — **Client Sample ID: MW-14A**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 440789**

| Analyte | Sample Result | Sample Qualifier | | DU Result | DU Qualifier | Unit | D | | | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Nitrate as N | 2.7 | | | 2.89 | | mg/L | | | | 5 | 15 |

**Lab Sample ID: 280-118029-3 DU** — **Client Sample ID: MW-9B**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 440789**

| Analyte | Sample Result | Sample Qualifier | | DU Result | DU Qualifier | Unit | D | | | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Nitrate as N | 0.15 | I | | 0.150 | I | mg/L | | | | 0.8 | 15 |

**Lab Sample ID: MB 280-440790/13** — **Client Sample ID: Method Blank**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 440790**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | 0.25 | U | 3.0 | 0.25 | mg/L | | | 12/11/18 17:34 | 1 |

**Lab Sample ID: LCS 280-440790/11** — **Client Sample ID: Lab Control Sample**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 440790**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | | | 100 | 99.4 | | mg/L | | 99 | 90 - 110 | | |

**Lab Sample ID: LCSD 280-440790/12** — **Client Sample ID: Lab Control Sample Dup**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 440790**

| Analyte | | | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | | | 100 | 100 | | mg/L | | 100 | 90 - 110 | 1 | 10 |

**Lab Sample ID: MRL 280-440790/10** — **Client Sample ID: Lab Control Sample**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 440790**

| Analyte | | | Spike Added | MRL Result | MRL Qualifier | Unit | D | %Rec | %Rec. Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | | | 2.50 | 2.60 | I | mg/L | | 104 | 50 - 150 | | |

# QC Sample Results

Client: Waste Management
Project/Site: FL26|Vista

TestAmerica Job ID: 280-117909-1

**Lab Sample ID: 280-118028-2 MS** — **Client Sample ID: MW-14A**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 440790**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec. Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | 9.2 | | 25.0 | 37.6 | | mg/L | | 114 | 80 - 120 | | |

**Lab Sample ID: 280-118028-2 MSD** — **Client Sample ID: MW-14A**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 440790**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | 9.2 | | 25.0 | 37.5 | | mg/L | | 113 | 80 - 120 | 0 | 20 |

**Lab Sample ID: 280-118029-3 MS** — **Client Sample ID: MW-9B**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 440790**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec. Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | 25 | | 25.0 | 53.5 | | mg/L | | 112 | 80 - 120 | | |

**Lab Sample ID: 280-118029-3 MSD** — **Client Sample ID: MW-9B**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 440790**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | 25 | | 25.0 | 53.1 | | mg/L | | 111 | 80 - 120 | 1 | 20 |

**Lab Sample ID: 280-118028-2 DU** — **Client Sample ID: MW-14A**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 440790**

| Analyte | Sample Result | Sample Qualifier | | DU Result | DU Qualifier | Unit | D | | | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | 9.2 | | | 9.68 | | mg/L | | | | 5 | 15 |

**Lab Sample ID: 280-118029-3 DU** — **Client Sample ID: MW-9B**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 440790**

| Analyte | Sample Result | Sample Qualifier | | DU Result | DU Qualifier | Unit | D | | | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | 25 | | | 25.1 | | mg/L | | | | 1 | 15 |

**Lab Sample ID: MB 280-441847/6** — **Client Sample ID: Method Blank**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 441847**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | 0.644 | I | 3.0 | 0.25 | mg/L | | | 12/19/18 14:22 | 1 |

**Lab Sample ID: LCS 280-441847/4** — **Client Sample ID: Lab Control Sample**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 441847**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | | | 100 | 92.8 | | mg/L | | 93 | 90 - 110 | | |

## Method: 300.0 - Anions, Ion Chromatography (Continued)

**Lab Sample ID: LCSD 280-441847/5** — **Client Sample ID: Lab Control Sample Dup**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 441847**

| Analyte | | | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | | | 100 | 93.3 | | mg/L | | 93 | 90 - 110 | 1 | 10 |

**Lab Sample ID: MRL 280-441847/3** — **Client Sample ID: Lab Control Sample**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 441847**

| Analyte | | | Spike Added | MRL Result | MRL Qualifier | Unit | D | %Rec | %Rec. Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | | | 2.50 | 2.25 | I | mg/L | | 90 | 50 - 150 | | |

**Lab Sample ID: 280-117969-1 MS** — **Client Sample ID: MW-2B**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 441847**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec. Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | 4.4 | V | 25.0 | 28.1 | | mg/L | | 95 | 80 - 120 | | |

**Lab Sample ID: 280-117969-1 MSD** — **Client Sample ID: MW-2B**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 441847**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | 4.4 | V | 25.0 | 28.2 | | mg/L | | 95 | 80 - 120 | 0 | 20 |

**Lab Sample ID: 280-117970-5 MS** — **Client Sample ID: MW-11A**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 441847**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec. Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | 5.6 | V | 25.0 | 29.8 | | mg/L | | 97 | 80 - 120 | | |

**Lab Sample ID: 280-117970-5 MSD** — **Client Sample ID: MW-11A**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 441847**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | 5.6 | V | 25.0 | 29.8 | | mg/L | | 97 | 80 - 120 | 0 | 20 |

**Lab Sample ID: 280-117969-1 DU** — **Client Sample ID: MW-2B**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 441847**

| Analyte | Sample Result | Sample Qualifier | | DU Result | DU Qualifier | Unit | D | | | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | 4.4 | V | | 4.37 | V | mg/L | | | | 0.2 | 15 |

**Lab Sample ID: 280-117970-5 DU** — **Client Sample ID: MW-11A**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 441847**

| Analyte | Sample Result | Sample Qualifier | | DU Result | DU Qualifier | Unit | D | | | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | 5.6 | V | | 5.62 | V | mg/L | | | | 0.2 | 15 |

## Method: 350.1 - Nitrogen, Ammonia

**Lab Sample ID: MB 280-442235/19** — **Client Sample ID: Method Blank**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 442235**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Ammonia as N | 0.022 | U | 0.10 | 0.022 | mg/L | | | 12/21/18 10:12 | 1 |

**Lab Sample ID: MB 280-442235/70** — **Client Sample ID: Method Blank**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 442235**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Ammonia as N | 0.022 | U | 0.10 | 0.022 | mg/L | | | 12/21/18 12:00 | 1 |

**Lab Sample ID: LCS 280-442235/18** — **Client Sample ID: Lab Control Sample**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 442235**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| Ammonia as N | 2.50 | 2.46 | | mg/L | | 98 | 90 - 110 |

**Lab Sample ID: LCS 280-442235/69** — **Client Sample ID: Lab Control Sample**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 442235**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| Ammonia as N | 2.50 | 2.58 | | mg/L | | 103 | 90 - 110 |

**Lab Sample ID: 280-117909-1 MS** — **Client Sample ID: MW-3B**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 442235**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|---|---|
| Ammonia as N | 0.022 | U | 1.00 | 0.952 | | mg/L | | 95 | 90 - 110 |

**Lab Sample ID: 280-117909-1 MSD** — **Client Sample ID: MW-3B**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 442235**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Ammonia as N | 0.022 | U | 1.00 | 0.997 | | mg/L | | 100 | 90 - 110 | 5 | 10 |

**Lab Sample ID: 280-117920-5 MS** — **Client Sample ID: MW-1A**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 442235**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|---|---|
| Ammonia as N | 0.022 | U | 1.00 | 0.987 | | mg/L | | 99 | 90 - 110 |

## Method: 350.1 - Nitrogen, Ammonia (Continued)

**Lab Sample ID: 280-117920-5 MSD** — **Client Sample ID: MW-1A**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 442235**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Ammonia as N | 0.022 | U | 1.00 | 0.931 | | mg/L | | 93 | 90 - 110 | 6 | 10 |

**Lab Sample ID: 280-117970-1 MS** — **Client Sample ID: MW-8R**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 442235**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec. Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Ammonia as N | 0.022 | U | 1.00 | 0.927 | | mg/L | | 93 | 90 - 110 | | |

**Lab Sample ID: 280-117970-1 MSD** — **Client Sample ID: MW-8R**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 442235**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Ammonia as N | 0.022 | U | 1.00 | 0.986 | | mg/L | | 99 | 90 - 110 | 6 | 10 |

**Lab Sample ID: 280-118028-3 MS** — **Client Sample ID: MW-9A**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 442235**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec. Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Ammonia as N | 0.022 | U | 1.00 | 1.01 | | mg/L | | 101 | 90 - 110 | | |

**Lab Sample ID: 280-118028-3 MSD** — **Client Sample ID: MW-9A**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 442235**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Ammonia as N | 0.022 | U | 1.00 | 1.00 | | mg/L | | 100 | 90 - 110 | 0 | 10 |

**Lab Sample ID: MB 280-442654/20** — **Client Sample ID: Method Blank**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 442654**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Ammonia as N | 0.022 | U | 0.10 | 0.022 | mg/L | | | 12/27/18 09:42 | 1 |

**Lab Sample ID: MB 280-442654/64** — **Client Sample ID: Method Blank**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 442654**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Ammonia as N | 0.022 | U | 0.10 | 0.022 | mg/L | | | 12/27/18 11:10 | 1 |

**Lab Sample ID: LCS 280-442654/18** — **Client Sample ID: Lab Control Sample**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 442654**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Ammonia as N | | | 2.50 | 2.57 | | mg/L | | 103 | 90 - 110 | | |

**Lab Sample ID: LCS 280-442654/63** — **Client Sample ID: Lab Control Sample**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 442654**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Ammonia as N | | | 2.50 | 2.73 | | mg/L | | 109 | 90 - 110 | | |

**Lab Sample ID: LCSD 280-442654/19** — **Client Sample ID: Lab Control Sample Dup**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 442654**

| Analyte | | | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Ammonia as N | | | 2.50 | 2.40 | | mg/L | | 96 | 90 - 110 | 7 | 10 |

**Lab Sample ID: 280-118030-A-2 MS** — **Client Sample ID: Matrix Spike**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 442654**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec. Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Ammonia as N | 3.9 | | 1.00 | 4.51 | J3 | mg/L | | 56 | 90 - 110 | | |

**Lab Sample ID: 280-118030-A-2 MSD** — **Client Sample ID: Matrix Spike Duplicate**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 442654**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Ammonia as N | 3.9 | | 1.00 | 4.44 | J3 | mg/L | | 50 | 90 - 110 | 1 | 10 |

**Lab Sample ID: 280-118092-B-1 MS** — **Client Sample ID: Matrix Spike**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 442654**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec. Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Ammonia as N | 0.80 | | 1.00 | 1.76 | | mg/L | | 97 | 90 - 110 | | |

**Lab Sample ID: 280-118092-B-1 MSD** — **Client Sample ID: Matrix Spike Duplicate**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 442654**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Ammonia as N | 0.80 | | 1.00 | 1.65 | J3 | mg/L | | 85 | 90 - 110 | 7 | 10 |

## Method: SM 2540C - Solids, Total Dissolved (TDS)

**Lab Sample ID: MB 280-440727/1** — **Client Sample ID: Method Blank**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 440727**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total Dissolved Solids | 4.7 | U | 10 | 4.7 | mg/L | | | 12/11/18 09:35 | 1 |

## Method: SM 2540C - Solids, Total Dissolved (TDS) (Continued)

**Lab Sample ID: LCS 280-440727/2** — **Client Sample ID: Lab Control Sample**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 440727**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Total Dissolved Solids | | | 500 | 491 | | mg/L | | 98 | 93 - 110 | | |

**Lab Sample ID: 280-117912-E-1 DU** — **Client Sample ID: Duplicate**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 440727**

| Analyte | Sample Result | Sample Qualifier | | DU Result | DU Qualifier | Unit | D | | | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Total Dissolved Solids | 1000 | | | 1060 | | mg/L | | | | 3 | 10 |

**Lab Sample ID: MB 280-441113/1** — **Client Sample ID: Method Blank**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 441113**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total Dissolved Solids | 4.7 | U | 10 | 4.7 | mg/L | | | 12/13/18 10:12 | 1 |

**Lab Sample ID: LCS 280-441113/2** — **Client Sample ID: Lab Control Sample**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 441113**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Total Dissolved Solids | | | 500 | 495 | | mg/L | | 99 | 93 - 110 | | |

**Lab Sample ID: LCSD 280-441113/3** — **Client Sample ID: Lab Control Sample Dup**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 441113**

| Analyte | | | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Total Dissolved Solids | | | 500 | 487 | | mg/L | | 97 | 93 - 110 | 2 | 20 |

**Lab Sample ID: 280-118028-3 DU** — **Client Sample ID: MW-9A**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 441113**

| Analyte | Sample Result | Sample Qualifier | | DU Result | DU Qualifier | Unit | D | | | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Total Dissolved Solids | 71 | | | 71.0 | | mg/L | | | | 0 | 10 |

**Lab Sample ID: 280-118151-A-19 DU** — **Client Sample ID: Duplicate**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 441113**

| Analyte | Sample Result | Sample Qualifier | | DU Result | DU Qualifier | Unit | D | | | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Total Dissolved Solids | 250 | | | 255 | | mg/L | | | | 0.8 | 10 |

# QC Association Summary

Client: Waste Management
Project/Site: FL26|Vista

TestAmerica Job ID: 280-117909-1

## GC/MS VOA

### Analysis Batch: 450767

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 280-117920-1 | MW-3A | Total/NA | Water | 8260C | |
| 280-117920-2 | MW-4A | Total/NA | Water | 8260C | |
| 280-117920-3 | MW-5A | Total/NA | Water | 8260C | |
| 280-117920-4 | MW-7A | Total/NA | Water | 8260C | |
| 280-117920-5 | MW-1A | Total/NA | Water | 8260C | |
| 280-117920-6 | TRIP BLANK | Total/NA | Water | 8260C | |
| MB 480-450767/7 | Method Blank | Total/NA | Water | 8260C | |
| LCS 480-450767/5 | Lab Control Sample | Total/NA | Water | 8260C | |
| 480-146749-K-8 MS | Matrix Spike | Total/NA | Water | 8260C | |
| 480-146749-K-8 MSD | Matrix Spike Duplicate | Total/NA | Water | 8260C | |

### Analysis Batch: 450778

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 280-117970-1 | MW-8R | Total/NA | Water | 8260C | |
| 280-117970-2 | MW-2AR | Total/NA | Water | 8260C | |
| 280-117970-3 | MW-6AR | Total/NA | Water | 8260C | |
| 280-117970-4 | MW-15A | Total/NA | Water | 8260C | |
| MB 480-450778/7 | Method Blank | Total/NA | Water | 8260C | |
| LCS 480-450778/10 | Lab Control Sample | Total/NA | Water | 8260C | |
| 480-146749-K-9 MS | Matrix Spike | Total/NA | Water | 8260C | |
| 480-146749-K-9 MSD | Matrix Spike Duplicate | Total/NA | Water | 8260C | |

### Analysis Batch: 450779

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 280-117970-5 | MW-11A | Total/NA | Water | 8260C | |
| 280-117970-6 | TRIP BLANK1 | Total/NA | Water | 8260C | |
| MB 480-450779/7 | Method Blank | Total/NA | Water | 8260C | |
| LCS 480-450779/5 | Lab Control Sample | Total/NA | Water | 8260C | |
| 480-146744-A-1 MS | Matrix Spike | Total/NA | Water | 8260C | |
| 480-146744-A-1 MSD | Matrix Spike Duplicate | Total/NA | Water | 8260C | |

### Analysis Batch: 451772

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 280-118028-2 | MW-14A | Total/NA | Water | 8260C | |
| 280-118028-3 | MW-9A | Total/NA | Water | 8260C | |
| 280-118028-4 | TRIP BLANK2 | Total/NA | Water | 8260C | |
| MB 480-451772/7 | Method Blank | Total/NA | Water | 8260C | |
| LCS 480-451772/5 | Lab Control Sample | Total/NA | Water | 8260C | |

## GC Semi VOA

### Prep Batch: 441124

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 280-117920-6 | TRIP BLANK | Total/NA | Water | 8011 | |
| MB 280-441124/4-A | Method Blank | Total/NA | Water | 8011 | |
| LCS 280-441124/2-A | Lab Control Sample | Total/NA | Water | 8011 | |
| LCSD 280-441124/3-A | Lab Control Sample Dup | Total/NA | Water | 8011 | |

## GC Semi VOA (Continued)

### Prep Batch: 441158

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 280-117920-1 | MW-3A | Total/NA | Water | 8011 | |
| 280-117920-2 | MW-4A | Total/NA | Water | 8011 | |
| 280-117920-3 | MW-5A | Total/NA | Water | 8011 | |
| 280-117920-4 | MW-7A | Total/NA | Water | 8011 | |
| 280-117920-5 | MW-1A | Total/NA | Water | 8011 | |
| 280-117970-1 | MW-8R | Total/NA | Water | 8011 | |
| 280-117970-2 | MW-2AR | Total/NA | Water | 8011 | |
| 280-117970-3 | MW-6AR | Total/NA | Water | 8011 | |
| 280-117970-4 | MW-15A | Total/NA | Water | 8011 | |
| 280-117970-5 | MW-11A | Total/NA | Water | 8011 | |
| 280-117970-6 | TRIP BLANK1 | Total/NA | Water | 8011 | |
| MB 280-441158/4-A | Method Blank | Total/NA | Water | 8011 | |
| LCS 280-441158/2-A | Lab Control Sample | Total/NA | Water | 8011 | |
| LCSD 280-441158/3-A | Lab Control Sample Dup | Total/NA | Water | 8011 | |

### Analysis Batch: 441198

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 280-117920-1 | MW-3A | Total/NA | Water | 8011 | 441158 |
| 280-117920-2 | MW-4A | Total/NA | Water | 8011 | 441158 |
| 280-117920-3 | MW-5A | Total/NA | Water | 8011 | 441158 |
| 280-117920-4 | MW-7A | Total/NA | Water | 8011 | 441158 |
| 280-117920-5 | MW-1A | Total/NA | Water | 8011 | 441158 |
| 280-117920-6 | TRIP BLANK | Total/NA | Water | 8011 | 441124 |
| 280-117970-1 | MW-8R | Total/NA | Water | 8011 | 441158 |
| 280-117970-2 | MW-2AR | Total/NA | Water | 8011 | 441158 |
| 280-117970-3 | MW-6AR | Total/NA | Water | 8011 | 441158 |
| 280-117970-4 | MW-15A | Total/NA | Water | 8011 | 441158 |
| 280-117970-5 | MW-11A | Total/NA | Water | 8011 | 441158 |
| 280-117970-6 | TRIP BLANK1 | Total/NA | Water | 8011 | 441158 |
| MB 280-441124/4-A | Method Blank | Total/NA | Water | 8011 | 441124 |
| MB 280-441158/4-A | Method Blank | Total/NA | Water | 8011 | 441158 |
| LCS 280-441124/2-A | Lab Control Sample | Total/NA | Water | 8011 | 441124 |
| LCS 280-441158/2-A | Lab Control Sample | Total/NA | Water | 8011 | 441158 |
| LCSD 280-441124/3-A | Lab Control Sample Dup | Total/NA | Water | 8011 | 441124 |
| LCSD 280-441158/3-A | Lab Control Sample Dup | Total/NA | Water | 8011 | 441158 |

### Prep Batch: 442076

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 280-118028-4 | TRIP BLANK2 | Total/NA | Water | 8011 | |
| MB 280-442076/4-A | Method Blank | Total/NA | Water | 8011 | |
| LCS 280-442076/2-A | Lab Control Sample | Total/NA | Water | 8011 | |
| LCSD 280-442076/3-A | Lab Control Sample Dup | Total/NA | Water | 8011 | |

### Prep Batch: 442223

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 280-118028-2 | MW-14A | Total/NA | Water | 8011 | |
| 280-118028-3 | MW-9A | Total/NA | Water | 8011 | |
| MB 280-442223/4-A | Method Blank | Total/NA | Water | 8011 | |
| LCS 280-442223/2-A | Lab Control Sample | Total/NA | Water | 8011 | |
| LCSD 280-442223/3-A | Lab Control Sample Dup | Total/NA | Water | 8011 | |

## GC Semi VOA (Continued)

### Analysis Batch: 442844

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 280-118028-4 | TRIP BLANK2 | Total/NA | Water | 8011 | 442076 |

### Analysis Batch: 443045

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 280-118028-2 | MW-14A | Total/NA | Water | 8011 | 442223 |
| 280-118028-3 | MW-9A | Total/NA | Water | 8011 | 442223 |
| MB 280-442076/4-A | Method Blank | Total/NA | Water | 8011 | 442076 |
| MB 280-442223/4-A | Method Blank | Total/NA | Water | 8011 | 442223 |
| LCS 280-442076/2-A | Lab Control Sample | Total/NA | Water | 8011 | 442076 |
| LCS 280-442223/2-A | Lab Control Sample | Total/NA | Water | 8011 | 442223 |
| LCSD 280-442076/3-A | Lab Control Sample Dup | Total/NA | Water | 8011 | 442076 |
| LCSD 280-442223/3-A | Lab Control Sample Dup | Total/NA | Water | 8011 | 442223 |

## Metals

### Prep Batch: 440437

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 280-117909-1 | MW-3B | Total Recoverable | Water | 3005A | |
| 280-117909-2 | MW-4B | Total Recoverable | Water | 3005A | |
| 280-117909-3 | MW-5B | Total Recoverable | Water | 3005A | |
| 280-117909-4 | MW-7B | Total Recoverable | Water | 3005A | |
| 280-117909-5 | MW-1B | Total Recoverable | Water | 3005A | |
| 280-117920-1 | MW-3A | Total Recoverable | Water | 3005A | |
| 280-117920-2 | MW-4A | Total Recoverable | Water | 3005A | |
| 280-117920-3 | MW-5A | Total Recoverable | Water | 3005A | |
| 280-117920-4 | MW-7A | Total Recoverable | Water | 3005A | |
| 280-117920-5 | MW-1A | Total Recoverable | Water | 3005A | |
| MB 280-440437/1-A | Method Blank | Total Recoverable | Water | 3005A | |
| LCS 280-440437/2-A | Lab Control Sample | Total Recoverable | Water | 3005A | |
| 280-117920-5 MS | MW-1A | Total Recoverable | Water | 3005A | |
| 280-117920-5 MSD | MW-1A | Total Recoverable | Water | 3005A | |

### Prep Batch: 440448

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 280-117920-1 | MW-3A | Total Recoverable | Water | 3005A | |
| 280-117920-2 | MW-4A | Total Recoverable | Water | 3005A | |
| 280-117920-3 | MW-5A | Total Recoverable | Water | 3005A | |
| 280-117920-4 | MW-7A | Total Recoverable | Water | 3005A | |
| 280-117920-5 | MW-1A | Total Recoverable | Water | 3005A | |
| MB 280-440448/1-A | Method Blank | Total Recoverable | Water | 3005A | |
| LCS 280-440448/2-A | Lab Control Sample | Total Recoverable | Water | 3005A | |
| 280-117877-A-1-C MS | Matrix Spike | Total Recoverable | Water | 3005A | |
| 280-117877-A-1-D MSD | Matrix Spike Duplicate | Total Recoverable | Water | 3005A | |

### Prep Batch: 440538

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 280-117920-1 | MW-3A | Total/NA | Water | 7470A | |
| 280-117920-2 | MW-4A | Total/NA | Water | 7470A | |
| 280-117920-3 | MW-5A | Total/NA | Water | 7470A | |
| 280-117920-4 | MW-7A | Total/NA | Water | 7470A | |

## Metals (Continued)

### Prep Batch: 440538 (Continued)

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 280-117920-5 | MW-1A | Total/NA | Water | 7470A | |
| MB 280-440538/1-A | Method Blank | Total/NA | Water | 7470A | |
| LCS 280-440538/2-A | Lab Control Sample | Total/NA | Water | 7470A | |
| LCSD 280-440538/3-A | Lab Control Sample Dup | Total/NA | Water | 7470A | |
| 280-117868-A-18-H MS | Matrix Spike | Total/NA | Water | 7470A | |
| 280-117868-A-18-I MSD | Matrix Spike Duplicate | Total/NA | Water | 7470A | |

### Analysis Batch: 440688

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 280-117920-1 | MW-3A | Total/NA | Water | 7470A | 440538 |
| 280-117920-2 | MW-4A | Total/NA | Water | 7470A | 440538 |
| 280-117920-3 | MW-5A | Total/NA | Water | 7470A | 440538 |
| 280-117920-4 | MW-7A | Total/NA | Water | 7470A | 440538 |
| 280-117920-5 | MW-1A | Total/NA | Water | 7470A | 440538 |
| MB 280-440538/1-A | Method Blank | Total/NA | Water | 7470A | 440538 |
| LCS 280-440538/2-A | Lab Control Sample | Total/NA | Water | 7470A | 440538 |
| LCSD 280-440538/3-A | Lab Control Sample Dup | Total/NA | Water | 7470A | 440538 |
| 280-117868-A-18-H MS | Matrix Spike | Total/NA | Water | 7470A | 440538 |
| 280-117868-A-18-I MSD | Matrix Spike Duplicate | Total/NA | Water | 7470A | 440538 |

### Prep Batch: 440699

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 280-117969-1 | MW-2B | Total Recoverable | Water | 3005A | |
| 280-117969-2 | MW-6BR | Total Recoverable | Water | 3005A | |
| 280-117969-3 | MW-15B | Total Recoverable | Water | 3005A | |
| 280-117969-4 | MW-11B | Total Recoverable | Water | 3005A | |
| 280-117970-1 | MW-8R | Total Recoverable | Water | 3005A | |
| 280-117970-2 | MW-2AR | Total Recoverable | Water | 3005A | |
| 280-117970-3 | MW-6AR | Total Recoverable | Water | 3005A | |
| 280-117970-4 | MW-15A | Total Recoverable | Water | 3005A | |
| 280-117970-5 | MW-11A | Total Recoverable | Water | 3005A | |
| MB 280-440699/1-A | Method Blank | Total Recoverable | Water | 3005A | |
| LCS 280-440699/2-A | Lab Control Sample | Total Recoverable | Water | 3005A | |
| 280-117970-1 MS | MW-8R | Total Recoverable | Water | 3005A | |
| 280-117970-1 MSD | MW-8R | Total Recoverable | Water | 3005A | |

### Prep Batch: 440702

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 280-117970-1 | MW-8R | Total Recoverable | Water | 3005A | |
| 280-117970-2 | MW-2AR | Total Recoverable | Water | 3005A | |
| 280-117970-3 | MW-6AR | Total Recoverable | Water | 3005A | |
| 280-117970-4 | MW-15A | Total Recoverable | Water | 3005A | |
| 280-117970-5 | MW-11A | Total Recoverable | Water | 3005A | |
| MB 280-440702/1-A | Method Blank | Total Recoverable | Water | 3005A | |
| LCS 280-440702/2-A | Lab Control Sample | Total Recoverable | Water | 3005A | |
| 280-117970-5 MS | MW-11A | Total Recoverable | Water | 3005A | |
| 280-117970-5 MSD | MW-11A | Total Recoverable | Water | 3005A | |

### Prep Batch: 440885

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 280-118028-1 | Equipment Blank | Total Recoverable | Water | 3005A | |

## Metals (Continued)

### Prep Batch: 440885 (Continued)

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 280-118028-2 | MW-14A | Total Recoverable | Water | 3005A | |
| 280-118028-3 | MW-9A | Total Recoverable | Water | 3005A | |
| MB 280-440885/1-A | Method Blank | Total Recoverable | Water | 3005A | |
| LCS 280-440885/2-A | Lab Control Sample | Total Recoverable | Water | 3005A | |
| 280-118028-3 MS | MW-9A | Total Recoverable | Water | 3005A | |
| 280-118028-3 MSD | MW-9A | Total Recoverable | Water | 3005A | |

### Prep Batch: 440887

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 280-118028-1 | Equipment Blank | Total Recoverable | Water | 3005A | |
| 280-118028-2 | MW-14A | Total Recoverable | Water | 3005A | |
| 280-118028-3 | MW-9A | Total Recoverable | Water | 3005A | |
| MB 280-440887/1-A | Method Blank | Total Recoverable | Water | 3005A | |
| LCS 280-440887/2-A | Lab Control Sample | Total Recoverable | Water | 3005A | |
| 280-118028-2 MS | MW-14A | Total Recoverable | Water | 3005A | |
| 280-118028-2 MSD | MW-14A | Total Recoverable | Water | 3005A | |

### Analysis Batch: 440901

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 280-117909-1 | MW-3B | Total Recoverable | Water | 6010B | 440437 |
| 280-117909-2 | MW-4B | Total Recoverable | Water | 6010B | 440437 |
| 280-117909-3 | MW-5B | Total Recoverable | Water | 6010B | 440437 |
| 280-117909-4 | MW-7B | Total Recoverable | Water | 6010B | 440437 |
| 280-117909-5 | MW-1B | Total Recoverable | Water | 6010B | 440437 |
| 280-117920-1 | MW-3A | Total Recoverable | Water | 6010B | 440437 |
| 280-117920-2 | MW-4A | Total Recoverable | Water | 6010B | 440437 |
| 280-117920-3 | MW-5A | Total Recoverable | Water | 6010B | 440437 |
| 280-117920-4 | MW-7A | Total Recoverable | Water | 6010B | 440437 |
| 280-117920-5 | MW-1A | Total Recoverable | Water | 6010B | 440437 |
| MB 280-440437/1-A | Method Blank | Total Recoverable | Water | 6010B | 440437 |
| LCS 280-440437/2-A | Lab Control Sample | Total Recoverable | Water | 6010B | 440437 |
| 280-117920-5 MS | MW-1A | Total Recoverable | Water | 6010B | 440437 |
| 280-117920-5 MSD | MW-1A | Total Recoverable | Water | 6010B | 440437 |

### Analysis Batch: 440908

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 280-117970-1 | MW-8R | Total Recoverable | Water | 6020 | 440702 |
| 280-117970-2 | MW-2AR | Total Recoverable | Water | 6020 | 440702 |
| 280-117970-3 | MW-6AR | Total Recoverable | Water | 6020 | 440702 |
| 280-117970-4 | MW-15A | Total Recoverable | Water | 6020 | 440702 |
| 280-117970-5 | MW-11A | Total Recoverable | Water | 6020 | 440702 |
| MB 280-440702/1-A | Method Blank | Total Recoverable | Water | 6020 | 440702 |
| LCS 280-440702/2-A | Lab Control Sample | Total Recoverable | Water | 6020 | 440702 |
| 280-117970-5 MS | MW-11A | Total Recoverable | Water | 6020 | 440702 |
| 280-117970-5 MSD | MW-11A | Total Recoverable | Water | 6020 | 440702 |

### Prep Batch: 440923

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 280-117970-1 | MW-8R | Total/NA | Water | 7470A | |
| 280-117970-2 | MW-2AR | Total/NA | Water | 7470A | |
| 280-117970-3 | MW-6AR | Total/NA | Water | 7470A | |

## Metals (Continued)

### Prep Batch: 440923 (Continued)

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 280-117970-4 | MW-15A | Total/NA | Water | 7470A | |
| 280-117970-5 | MW-11A | Total/NA | Water | 7470A | |
| MB 280-440923/1-A | Method Blank | Total/NA | Water | 7470A | |
| LCS 280-440923/2-A | Lab Control Sample | Total/NA | Water | 7470A | |
| LCSD 280-440923/3-A | Lab Control Sample Dup | Total/NA | Water | 7470A | |
| 280-118007-A-5-H MS | Matrix Spike | Total/NA | Water | 7470A | |
| 280-118007-A-5-I MSD | Matrix Spike Duplicate | Total/NA | Water | 7470A | |

### Analysis Batch: 440938

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 280-117920-1 | MW-3A | Total Recoverable | Water | 6020 | 440448 |
| 280-117920-2 | MW-4A | Total Recoverable | Water | 6020 | 440448 |
| 280-117920-3 | MW-5A | Total Recoverable | Water | 6020 | 440448 |
| 280-117920-4 | MW-7A | Total Recoverable | Water | 6020 | 440448 |
| 280-117920-5 | MW-1A | Total Recoverable | Water | 6020 | 440448 |
| MB 280-440448/1-A | Method Blank | Total Recoverable | Water | 6020 | 440448 |
| LCS 280-440448/2-A | Lab Control Sample | Total Recoverable | Water | 6020 | 440448 |
| 280-117877-A-1-C MS | Matrix Spike | Total Recoverable | Water | 6020 | 440448 |
| 280-117877-A-1-D MSD | Matrix Spike Duplicate | Total Recoverable | Water | 6020 | 440448 |

### Prep Batch: 440969

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 280-118029-1 | Equipment Blank1 | Total Recoverable | Water | 3005A | |
| 280-118029-2 | MW-14B | Total Recoverable | Water | 3005A | |
| 280-118029-3 | MW-9B | Total Recoverable | Water | 3005A | |
| MB 280-440969/1-A | Method Blank | Total Recoverable | Water | 3005A | |
| LCS 280-440969/2-A | Lab Control Sample | Total Recoverable | Water | 3005A | |
| 280-118062-N-1-B MS | Matrix Spike | Total Recoverable | Water | 3005A | |
| 280-118062-N-1-C MSD | Matrix Spike Duplicate | Total Recoverable | Water | 3005A | |

### Analysis Batch: 441077

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 280-117970-1 | MW-8R | Total/NA | Water | 7470A | 440923 |
| 280-117970-2 | MW-2AR | Total/NA | Water | 7470A | 440923 |
| 280-117970-3 | MW-6AR | Total/NA | Water | 7470A | 440923 |
| 280-117970-4 | MW-15A | Total/NA | Water | 7470A | 440923 |
| 280-117970-5 | MW-11A | Total/NA | Water | 7470A | 440923 |
| MB 280-440923/1-A | Method Blank | Total/NA | Water | 7470A | 440923 |
| LCS 280-440923/2-A | Lab Control Sample | Total/NA | Water | 7470A | 440923 |
| LCSD 280-440923/3-A | Lab Control Sample Dup | Total/NA | Water | 7470A | 440923 |
| 280-118007-A-5-H MS | Matrix Spike | Total/NA | Water | 7470A | 440923 |
| 280-118007-A-5-I MSD | Matrix Spike Duplicate | Total/NA | Water | 7470A | 440923 |

### Analysis Batch: 441252

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 280-117877-A-1-C MS | Matrix Spike | Total Recoverable | Water | 6020 | 440448 |
| 280-117877-A-1-D MSD | Matrix Spike Duplicate | Total Recoverable | Water | 6020 | 440448 |

### Analysis Batch: 441261

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 280-117969-1 | MW-2B | Total Recoverable | Water | 6010B | 440699 |

## Metals (Continued)

### Analysis Batch: 441261 (Continued)

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 280-117969-2 | MW-6BR | Total Recoverable | Water | 6010B | 440699 |
| 280-117969-3 | MW-15B | Total Recoverable | Water | 6010B | 440699 |
| 280-117969-4 | MW-11B | Total Recoverable | Water | 6010B | 440699 |
| 280-117970-1 | MW-8R | Total Recoverable | Water | 6010B | 440699 |
| 280-117970-2 | MW-2AR | Total Recoverable | Water | 6010B | 440699 |
| 280-117970-3 | MW-6AR | Total Recoverable | Water | 6010B | 440699 |
| 280-117970-4 | MW-15A | Total Recoverable | Water | 6010B | 440699 |
| 280-117970-5 | MW-11A | Total Recoverable | Water | 6010B | 440699 |
| MB 280-440699/1-A | Method Blank | Total Recoverable | Water | 6010B | 440699 |
| LCS 280-440699/2-A | Lab Control Sample | Total Recoverable | Water | 6010B | 440699 |
| 280-117970-1 MS | MW-8R | Total Recoverable | Water | 6010B | 440699 |
| 280-117970-1 MSD | MW-8R | Total Recoverable | Water | 6010B | 440699 |

### Analysis Batch: 441262

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 280-118028-1 | Equipment Blank | Total Recoverable | Water | 6010B | 440887 |
| 280-118028-2 | MW-14A | Total Recoverable | Water | 6010B | 440887 |
| 280-118028-3 | MW-9A | Total Recoverable | Water | 6010B | 440887 |
| MB 280-440887/1-A | Method Blank | Total Recoverable | Water | 6010B | 440887 |
| LCS 280-440887/2-A | Lab Control Sample | Total Recoverable | Water | 6010B | 440887 |
| 280-118028-2 MS | MW-14A | Total Recoverable | Water | 6010B | 440887 |
| 280-118028-2 MSD | MW-14A | Total Recoverable | Water | 6010B | 440887 |

### Analysis Batch: 441327

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 280-118028-1 | Equipment Blank | Total Recoverable | Water | 6020 | 440885 |
| 280-118028-2 | MW-14A | Total Recoverable | Water | 6020 | 440885 |
| 280-118028-3 | MW-9A | Total Recoverable | Water | 6020 | 440885 |
| MB 280-440885/1-A | Method Blank | Total Recoverable | Water | 6020 | 440885 |
| LCS 280-440885/2-A | Lab Control Sample | Total Recoverable | Water | 6020 | 440885 |
| 280-118028-3 MS | MW-9A | Total Recoverable | Water | 6020 | 440885 |
| 280-118028-3 MSD | MW-9A | Total Recoverable | Water | 6020 | 440885 |

### Analysis Batch: 441534

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| MB 280-440969/1-A | Method Blank | Total Recoverable | Water | 6010B | 440969 |
| LCS 280-440969/2-A | Lab Control Sample | Total Recoverable | Water | 6010B | 440969 |
| 280-118062-N-1-B MS | Matrix Spike | Total Recoverable | Water | 6010B | 440969 |
| 280-118062-N-1-C MSD | Matrix Spike Duplicate | Total Recoverable | Water | 6010B | 440969 |

### Analysis Batch: 441730

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 280-118028-1 | Equipment Blank | Total Recoverable | Water | 6010B | 440887 |
| 280-118028-2 | MW-14A | Total Recoverable | Water | 6010B | 440887 |
| 280-118028-3 | MW-9A | Total Recoverable | Water | 6010B | 440887 |
| MB 280-440887/1-A | Method Blank | Total Recoverable | Water | 6010B | 440887 |
| LCS 280-440887/2-A | Lab Control Sample | Total Recoverable | Water | 6010B | 440887 |
| 280-118028-2 MS | MW-14A | Total Recoverable | Water | 6010B | 440887 |
| 280-118028-2 MSD | MW-14A | Total Recoverable | Water | 6010B | 440887 |

## Metals (Continued)

### Prep Batch: 442172

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 280-118028-1 | Equipment Blank | Total/NA | Water | 7470A | |
| 280-118028-2 | MW-14A | Total/NA | Water | 7470A | |
| 280-118028-3 | MW-9A | Total/NA | Water | 7470A | |
| MB 280-442172/1-A | Method Blank | Total/NA | Water | 7470A | |
| LCS 280-442172/2-A | Lab Control Sample | Total/NA | Water | 7470A | |
| 280-118028-1 MS | Equipment Blank | Total/NA | Water | 7470A | |
| 280-118028-1 MSD | Equipment Blank | Total/NA | Water | 7470A | |

### Analysis Batch: 442367

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 280-118028-1 | Equipment Blank | Total/NA | Water | 7470A | 442172 |
| 280-118028-2 | MW-14A | Total/NA | Water | 7470A | 442172 |
| 280-118028-3 | MW-9A | Total/NA | Water | 7470A | 442172 |
| MB 280-442172/1-A | Method Blank | Total/NA | Water | 7470A | 442172 |
| LCS 280-442172/2-A | Lab Control Sample | Total/NA | Water | 7470A | 442172 |
| 280-118028-1 MS | Equipment Blank | Total/NA | Water | 7470A | 442172 |
| 280-118028-1 MSD | Equipment Blank | Total/NA | Water | 7470A | 442172 |

### Analysis Batch: 442434

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 280-118029-1 | Equipment Blank1 | Total Recoverable | Water | 6010B | 440969 |
| 280-118029-2 | MW-14B | Total Recoverable | Water | 6010B | 440969 |
| 280-118029-3 | MW-9B | Total Recoverable | Water | 6010B | 440969 |

## General Chemistry

### Analysis Batch: 440338

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 280-117909-1 | MW-3B | Total/NA | Water | 300.0 | |
| 280-117909-2 | MW-4B | Total/NA | Water | 300.0 | |
| 280-117909-3 | MW-5B | Total/NA | Water | 300.0 | |
| 280-117909-4 | MW-7B | Total/NA | Water | 300.0 | |
| 280-117909-5 | MW-1B | Total/NA | Water | 300.0 | |
| 280-117920-1 | MW-3A | Total/NA | Water | 300.0 | |
| 280-117920-2 | MW-4A | Total/NA | Water | 300.0 | |
| 280-117920-3 | MW-5A | Total/NA | Water | 300.0 | |
| 280-117920-4 | MW-7A | Total/NA | Water | 300.0 | |
| 280-117920-5 | MW-1A | Total/NA | Water | 300.0 | |
| MB 280-440338/6 | Method Blank | Total/NA | Water | 300.0 | |
| LCS 280-440338/4 | Lab Control Sample | Total/NA | Water | 300.0 | |
| LCSD 280-440338/5 | Lab Control Sample Dup | Total/NA | Water | 300.0 | |
| MRL 280-440338/3 | Lab Control Sample | Total/NA | Water | 300.0 | |
| 280-117909-1 MS | MW-3B | Total/NA | Water | 300.0 | |
| 280-117909-1 MSD | MW-3B | Total/NA | Water | 300.0 | |
| 280-117920-3 MS | MW-5A | Total/NA | Water | 300.0 | |
| 280-117920-3 MSD | MW-5A | Total/NA | Water | 300.0 | |
| 280-117909-1 DU | MW-3B | Total/NA | Water | 300.0 | |
| 280-117920-3 DU | MW-5A | Total/NA | Water | 300.0 | |

## General Chemistry (Continued)

### Analysis Batch: 440339

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 280-117909-1 | MW-3B | Total/NA | Water | 300.0 | |
| 280-117909-2 | MW-4B | Total/NA | Water | 300.0 | |
| 280-117909-3 | MW-5B | Total/NA | Water | 300.0 | |
| 280-117909-4 | MW-7B | Total/NA | Water | 300.0 | |
| 280-117909-5 | MW-1B | Total/NA | Water | 300.0 | |
| 280-117920-1 | MW-3A | Total/NA | Water | 300.0 | |
| 280-117920-2 | MW-4A | Total/NA | Water | 300.0 | |
| 280-117920-3 | MW-5A | Total/NA | Water | 300.0 | |
| 280-117920-4 | MW-7A | Total/NA | Water | 300.0 | |
| 280-117920-5 | MW-1A | Total/NA | Water | 300.0 | |
| MB 280-440339/6 | Method Blank | Total/NA | Water | 300.0 | |
| LCS 280-440339/4 | Lab Control Sample | Total/NA | Water | 300.0 | |
| LCSD 280-440339/5 | Lab Control Sample Dup | Total/NA | Water | 300.0 | |
| MRL 280-440339/3 | Lab Control Sample | Total/NA | Water | 300.0 | |
| 280-117909-1 MS | MW-3B | Total/NA | Water | 300.0 | |
| 280-117909-1 MSD | MW-3B | Total/NA | Water | 300.0 | |
| 280-117920-3 MS | MW-5A | Total/NA | Water | 300.0 | |
| 280-117920-3 MSD | MW-5A | Total/NA | Water | 300.0 | |
| 280-117909-1 DU | MW-3B | Total/NA | Water | 300.0 | |
| 280-117920-3 DU | MW-5A | Total/NA | Water | 300.0 | |

### Analysis Batch: 440479

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 280-117969-1 | MW-2B | Total/NA | Water | 300.0 | |
| 280-117969-2 | MW-6BR | Total/NA | Water | 300.0 | |
| 280-117969-3 | MW-15B | Total/NA | Water | 300.0 | |
| 280-117969-4 | MW-11B | Total/NA | Water | 300.0 | |
| 280-117970-1 | MW-8R | Total/NA | Water | 300.0 | |
| 280-117970-2 | MW-2AR | Total/NA | Water | 300.0 | |
| 280-117970-3 | MW-6AR | Total/NA | Water | 300.0 | |
| 280-117970-4 | MW-15A | Total/NA | Water | 300.0 | |
| 280-117970-5 | MW-11A | Total/NA | Water | 300.0 | |
| MB 280-440479/6 | Method Blank | Total/NA | Water | 300.0 | |
| LCS 280-440479/4 | Lab Control Sample | Total/NA | Water | 300.0 | |
| LCSD 280-440479/5 | Lab Control Sample Dup | Total/NA | Water | 300.0 | |
| MRL 280-440479/3 | Lab Control Sample | Total/NA | Water | 300.0 | |
| 280-117969-1 MS | MW-2B | Total/NA | Water | 300.0 | |
| 280-117969-1 MSD | MW-2B | Total/NA | Water | 300.0 | |
| 280-117969-1 DU | MW-2B | Total/NA | Water | 300.0 | |

### Analysis Batch: 440727

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 280-117920-1 | MW-3A | Total/NA | Water | SM 2540C | |
| 280-117920-2 | MW-4A | Total/NA | Water | SM 2540C | |
| 280-117920-3 | MW-5A | Total/NA | Water | SM 2540C | |
| 280-117920-4 | MW-7A | Total/NA | Water | SM 2540C | |
| 280-117920-5 | MW-1A | Total/NA | Water | SM 2540C | |
| MB 280-440727/1 | Method Blank | Total/NA | Water | SM 2540C | |
| LCS 280-440727/2 | Lab Control Sample | Total/NA | Water | SM 2540C | |
| 280-117912-E-1 DU | Duplicate | Total/NA | Water | SM 2540C | |

## General Chemistry (Continued)

### Analysis Batch: 440789

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 280-118028-1 | Equipment Blank | Total/NA | Water | 300.0 | |
| 280-118028-2 | MW-14A | Total/NA | Water | 300.0 | |
| 280-118028-3 | MW-9A | Total/NA | Water | 300.0 | |
| 280-118029-1 | Equipment Blank1 | Total/NA | Water | 300.0 | |
| 280-118029-2 | MW-14B | Total/NA | Water | 300.0 | |
| 280-118029-3 | MW-9B | Total/NA | Water | 300.0 | |
| MB 280-440789/13 | Method Blank | Total/NA | Water | 300.0 | |
| LCS 280-440789/11 | Lab Control Sample | Total/NA | Water | 300.0 | |
| LCSD 280-440789/12 | Lab Control Sample Dup | Total/NA | Water | 300.0 | |
| MRL 280-440789/10 | Lab Control Sample | Total/NA | Water | 300.0 | |
| 280-118028-2 MS | MW-14A | Total/NA | Water | 300.0 | |
| 280-118028-2 MSD | MW-14A | Total/NA | Water | 300.0 | |
| 280-118029-3 MS | MW-9B | Total/NA | Water | 300.0 | |
| 280-118029-3 MSD | MW-9B | Total/NA | Water | 300.0 | |
| 280-118028-2 DU | MW-14A | Total/NA | Water | 300.0 | |
| 280-118029-3 DU | MW-9B | Total/NA | Water | 300.0 | |

### Analysis Batch: 440790

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 280-118028-1 | Equipment Blank | Total/NA | Water | 300.0 | |
| 280-118028-2 | MW-14A | Total/NA | Water | 300.0 | |
| 280-118028-3 | MW-9A | Total/NA | Water | 300.0 | |
| 280-118029-1 | Equipment Blank1 | Total/NA | Water | 300.0 | |
| 280-118029-2 | MW-14B | Total/NA | Water | 300.0 | |
| 280-118029-3 | MW-9B | Total/NA | Water | 300.0 | |
| MB 280-440790/13 | Method Blank | Total/NA | Water | 300.0 | |
| LCS 280-440790/11 | Lab Control Sample | Total/NA | Water | 300.0 | |
| LCSD 280-440790/12 | Lab Control Sample Dup | Total/NA | Water | 300.0 | |
| MRL 280-440790/10 | Lab Control Sample | Total/NA | Water | 300.0 | |
| 280-118028-2 MS | MW-14A | Total/NA | Water | 300.0 | |
| 280-118028-2 MSD | MW-14A | Total/NA | Water | 300.0 | |
| 280-118029-3 MS | MW-9B | Total/NA | Water | 300.0 | |
| 280-118029-3 MSD | MW-9B | Total/NA | Water | 300.0 | |
| 280-118028-2 DU | MW-14A | Total/NA | Water | 300.0 | |
| 280-118029-3 DU | MW-9B | Total/NA | Water | 300.0 | |

### Analysis Batch: 441113

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 280-117970-1 | MW-8R | Total/NA | Water | SM 2540C | |
| 280-117970-2 | MW-2AR | Total/NA | Water | SM 2540C | |
| 280-117970-3 | MW-6AR | Total/NA | Water | SM 2540C | |
| 280-117970-4 | MW-15A | Total/NA | Water | SM 2540C | |
| 280-117970-5 | MW-11A | Total/NA | Water | SM 2540C | |
| 280-118028-1 | Equipment Blank | Total/NA | Water | SM 2540C | |
| 280-118028-2 | MW-14A | Total/NA | Water | SM 2540C | |
| 280-118028-3 | MW-9A | Total/NA | Water | SM 2540C | |
| MB 280-441113/1 | Method Blank | Total/NA | Water | SM 2540C | |
| LCS 280-441113/2 | Lab Control Sample | Total/NA | Water | SM 2540C | |
| LCSD 280-441113/3 | Lab Control Sample Dup | Total/NA | Water | SM 2540C | |
| 280-118028-3 DU | MW-9A | Total/NA | Water | SM 2540C | |
| 280-118151-A-19 DU | Duplicate | Total/NA | Water | SM 2540C | |

# QC Association Summary

Client: Waste Management
Project/Site: FL26|Vista

TestAmerica Job ID: 280-117909-1

## Analysis Batch: 441847

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 280-117969-1 | MW-2B | Total/NA | Water | 300.0 | |
| 280-117969-2 | MW-6BR | Total/NA | Water | 300.0 | |
| 280-117969-3 | MW-15B | Total/NA | Water | 300.0 | |
| 280-117969-4 | MW-11B | Total/NA | Water | 300.0 | |
| 280-117970-1 | MW-8R | Total/NA | Water | 300.0 | |
| 280-117970-2 | MW-2AR | Total/NA | Water | 300.0 | |
| 280-117970-3 | MW-6AR | Total/NA | Water | 300.0 | |
| 280-117970-4 | MW-15A | Total/NA | Water | 300.0 | |
| 280-117970-5 | MW-11A | Total/NA | Water | 300.0 | |
| MB 280-441847/6 | Method Blank | Total/NA | Water | 300.0 | |
| LCS 280-441847/4 | Lab Control Sample | Total/NA | Water | 300.0 | |
| LCSD 280-441847/5 | Lab Control Sample Dup | Total/NA | Water | 300.0 | |
| MRL 280-441847/3 | Lab Control Sample | Total/NA | Water | 300.0 | |
| 280-117969-1 MS | MW-2B | Total/NA | Water | 300.0 | |
| 280-117969-1 MSD | MW-2B | Total/NA | Water | 300.0 | |
| 280-117970-5 MS | MW-11A | Total/NA | Water | 300.0 | |
| 280-117970-5 MSD | MW-11A | Total/NA | Water | 300.0 | |
| 280-117969-1 DU | MW-2B | Total/NA | Water | 300.0 | |
| 280-117970-5 DU | MW-11A | Total/NA | Water | 300.0 | |

## Analysis Batch: 442235

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 280-117909-1 | MW-3B | Total/NA | Water | 350.1 | |
| 280-117909-2 | MW-4B | Total/NA | Water | 350.1 | |
| 280-117909-3 | MW-5B | Total/NA | Water | 350.1 | |
| 280-117909-4 | MW-7B | Total/NA | Water | 350.1 | |
| 280-117909-5 | MW-1B | Total/NA | Water | 350.1 | |
| 280-117920-1 | MW-3A | Total/NA | Water | 350.1 | |
| 280-117920-2 | MW-4A | Total/NA | Water | 350.1 | |
| 280-117920-3 | MW-5A | Total/NA | Water | 350.1 | |
| 280-117920-4 | MW-7A | Total/NA | Water | 350.1 | |
| 280-117920-5 | MW-1A | Total/NA | Water | 350.1 | |
| 280-117970-1 | MW-8R | Total/NA | Water | 350.1 | |
| 280-117970-2 | MW-2AR | Total/NA | Water | 350.1 | |
| 280-117970-3 | MW-6AR | Total/NA | Water | 350.1 | |
| 280-117970-4 | MW-15A | Total/NA | Water | 350.1 | |
| 280-117970-5 | MW-11A | Total/NA | Water | 350.1 | |
| 280-118028-1 | Equipment Blank | Total/NA | Water | 350.1 | |
| 280-118028-2 | MW-14A | Total/NA | Water | 350.1 | |
| 280-118028-3 | MW-9A | Total/NA | Water | 350.1 | |
| MB 280-442235/19 | Method Blank | Total/NA | Water | 350.1 | |
| MB 280-442235/70 | Method Blank | Total/NA | Water | 350.1 | |
| LCS 280-442235/18 | Lab Control Sample | Total/NA | Water | 350.1 | |
| LCS 280-442235/69 | Lab Control Sample | Total/NA | Water | 350.1 | |
| 280-117909-1 MS | MW-3B | Total/NA | Water | 350.1 | |
| 280-117909-1 MSD | MW-3B | Total/NA | Water | 350.1 | |
| 280-117920-5 MS | MW-1A | Total/NA | Water | 350.1 | |
| 280-117920-5 MSD | MW-1A | Total/NA | Water | 350.1 | |
| 280-117970-1 MS | MW-8R | Total/NA | Water | 350.1 | |
| 280-117970-1 MSD | MW-8R | Total/NA | Water | 350.1 | |
| 280-118028-3 MS | MW-9A | Total/NA | Water | 350.1 | |
| 280-118028-3 MSD | MW-9A | Total/NA | Water | 350.1 | |

## General Chemistry (Continued)

### Analysis Batch: 442654

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 280-117969-1 | MW-2B | Total/NA | Water | 350.1 | |
| 280-117969-2 | MW-6BR | Total/NA | Water | 350.1 | |
| 280-117969-3 | MW-15B | Total/NA | Water | 350.1 | |
| 280-117969-4 | MW-11B | Total/NA | Water | 350.1 | |
| 280-118029-1 | Equipment Blank1 | Total/NA | Water | 350.1 | |
| 280-118029-2 | MW-14B | Total/NA | Water | 350.1 | |
| 280-118029-3 | MW-9B | Total/NA | Water | 350.1 | |
| MB 280-442654/20 | Method Blank | Total/NA | Water | 350.1 | |
| MB 280-442654/64 | Method Blank | Total/NA | Water | 350.1 | |
| LCS 280-442654/18 | Lab Control Sample | Total/NA | Water | 350.1 | |
| LCS 280-442654/63 | Lab Control Sample | Total/NA | Water | 350.1 | |
| LCSD 280-442654/19 | Lab Control Sample Dup | Total/NA | Water | 350.1 | |
| 280-118030-A-2 MS | Matrix Spike | Total/NA | Water | 350.1 | |
| 280-118030-A-2 MSD | Matrix Spike Duplicate | Total/NA | Water | 350.1 | |
| 280-118092-B-1 MS | Matrix Spike | Total/NA | Water | 350.1 | |
| 280-118092-B-1 MSD | Matrix Spike Duplicate | Total/NA | Water | 350.1 | |

## Field Service / Mobile Lab

### Analysis Batch: 441799

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 280-117909-1 | MW-3B | Total/NA | Water | Field Sampling | |
| 280-117909-2 | MW-4B | Total/NA | Water | Field Sampling | |
| 280-117909-3 | MW-5B | Total/NA | Water | Field Sampling | |
| 280-117909-4 | MW-7B | Total/NA | Water | Field Sampling | |
| 280-117909-5 | MW-1B | Total/NA | Water | Field Sampling | |
| 280-117920-1 | MW-3A | Total/NA | Water | Field Sampling | |
| 280-117920-2 | MW-4A | Total/NA | Water | Field Sampling | |
| 280-117920-3 | MW-5A | Total/NA | Water | Field Sampling | |
| 280-117920-4 | MW-7A | Total/NA | Water | Field Sampling | |
| 280-117920-5 | MW-1A | Total/NA | Water | Field Sampling | |
| 280-117969-1 | MW-2B | Total/NA | Water | Field Sampling | |
| 280-117969-2 | MW-6BR | Total/NA | Water | Field Sampling | |
| 280-117969-3 | MW-15B | Total/NA | Water | Field Sampling | |
| 280-117969-4 | MW-11B | Total/NA | Water | Field Sampling | |
| 280-117970-1 | MW-8R | Total/NA | Water | Field Sampling | |
| 280-117970-2 | MW-2AR | Total/NA | Water | Field Sampling | |
| 280-117970-3 | MW-6AR | Total/NA | Water | Field Sampling | |
| 280-117970-4 | MW-15A | Total/NA | Water | Field Sampling | |
| 280-117970-5 | MW-11A | Total/NA | Water | Field Sampling | |
| 280-118028-2 | MW-14A | Total/NA | Water | Field Sampling | |
| 280-118028-3 | MW-9A | Total/NA | Water | Field Sampling | |
| 280-118029-1 | Equipment Blank1 | Total/NA | Water | Field Sampling | |
| 280-118029-2 | MW-14B | Total/NA | Water | Field Sampling | |
| 280-118029-3 | MW-9B | Total/NA | Water | Field Sampling | |

# Lab Chronicle

Client: Waste Management
Project/Site: FL26|Vista

TestAmerica Job ID: 280-117909-1

## Client Sample ID: MW-3B — Lab Sample ID: 280-117909-1

**Date Collected: 12/06/18 08:26**
**Date Received: 12/07/18 09:10**
**Matrix: Water**

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| Total Recoverable | Prep | 3005A | | | 50 mL | 50 mL | 440437 | 12/11/18 06:45 | MRJ | TAL DEN |
| Total Recoverable | Analysis | 6010B | | 1 | | | 440901 | 12/11/18 23:40 | SJS | TAL DEN |
| Total/NA | Analysis | 300.0 | | 1 | 5 mL | 5 mL | 440338 | 12/07/18 15:38 | ARM | TAL DEN |
| Total/NA | Analysis | 300.0 | | 1 | 5 mL | 5 mL | 440339 | 12/07/18 15:38 | ARM | TAL DEN |
| Total/NA | Analysis | 350.1 | | 1 | | | 442235 | 12/21/18 10:14 | JAP | TAL DEN |
| Total/NA | Analysis | Field Sampling | | 1 | | | 441799 | 12/06/18 06:26 | TXS | TAL DEN |

## Client Sample ID: MW-4B — Lab Sample ID: 280-117909-2

**Date Collected: 12/06/18 09:40**
**Date Received: 12/07/18 09:10**
**Matrix: Water**

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| Total Recoverable | Prep | 3005A | | | 50 mL | 50 mL | 440437 | 12/11/18 06:45 | MRJ | TAL DEN |
| Total Recoverable | Analysis | 6010B | | 1 | | | 440901 | 12/11/18 23:44 | SJS | TAL DEN |
| Total/NA | Analysis | 300.0 | | 1 | 5 mL | 5 mL | 440338 | 12/07/18 16:52 | ARM | TAL DEN |
| Total/NA | Analysis | 300.0 | | 1 | 5 mL | 5 mL | 440339 | 12/07/18 16:52 | ARM | TAL DEN |
| Total/NA | Analysis | 350.1 | | 1 | | | 442235 | 12/21/18 10:20 | JAP | TAL DEN |
| Total/NA | Analysis | Field Sampling | | 1 | | | 441799 | 12/06/18 07:40 | TXS | TAL DEN |

## Client Sample ID: MW-5B — Lab Sample ID: 280-117909-3

**Date Collected: 12/06/18 11:01**
**Date Received: 12/07/18 09:10**
**Matrix: Water**

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| Total Recoverable | Prep | 3005A | | | 50 mL | 50 mL | 440437 | 12/11/18 06:45 | MRJ | TAL DEN |
| Total Recoverable | Analysis | 6010B | | 1 | | | 440901 | 12/11/18 23:47 | SJS | TAL DEN |
| Total/NA | Analysis | 300.0 | | 1 | 5 mL | 5 mL | 440338 | 12/07/18 17:11 | ARM | TAL DEN |
| Total/NA | Analysis | 300.0 | | 1 | 5 mL | 5 mL | 440339 | 12/07/18 17:11 | ARM | TAL DEN |
| Total/NA | Analysis | 350.1 | | 1 | | | 442235 | 12/21/18 10:22 | JAP | TAL DEN |
| Total/NA | Analysis | Field Sampling | | 1 | | | 441799 | 12/06/18 09:01 | TXS | TAL DEN |

## Client Sample ID: MW-7B — Lab Sample ID: 280-117909-4

**Date Collected: 12/06/18 12:22**
**Date Received: 12/07/18 09:10**
**Matrix: Water**

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| Total Recoverable | Prep | 3005A | | | 50 mL | 50 mL | 440437 | 12/11/18 06:45 | MRJ | TAL DEN |
| Total Recoverable | Analysis | 6010B | | 1 | | | 440901 | 12/11/18 23:51 | SJS | TAL DEN |
| Total/NA | Analysis | 300.0 | | 1 | 5 mL | 5 mL | 440338 | 12/07/18 17:30 | ARM | TAL DEN |
| Total/NA | Analysis | 300.0 | | 1 | 5 mL | 5 mL | 440339 | 12/07/18 17:30 | ARM | TAL DEN |
| Total/NA | Analysis | 350.1 | | 1 | | | 442235 | 12/21/18 10:24 | JAP | TAL DEN |

# Lab Chronicle

Client: Waste Management
Project/Site: FL26|Vista

TestAmerica Job ID: 280-117909-1

## Client Sample ID: MW-7B — Lab Sample ID: 280-117909-4

**Date Collected: 12/06/18 12:22**
**Date Received: 12/07/18 09:10**
**Matrix: Water**

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | Field Sampling | | 1 | | | 441799 | 12/06/18 10:22 | TXS | TAL DEN |

## Client Sample ID: MW-1B — Lab Sample ID: 280-117909-5

**Date Collected: 12/06/18 13:41**
**Date Received: 12/07/18 09:10**
**Matrix: Water**

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| Total Recoverable | Prep | 3005A | | | 50 mL | 50 mL | 440437 | 12/11/18 06:45 | MRJ | TAL DEN |
| Total Recoverable | Analysis | 6010B | | 1 | | | 440901 | 12/12/18 00:08 | SJS | TAL DEN |
| Total/NA | Analysis | 300.0 | | 1 | 5 mL | 5 mL | 440338 | 12/07/18 17:48 | ARM | TAL DEN |
| Total/NA | Analysis | 300.0 | | 1 | 5 mL | 5 mL | 440339 | 12/07/18 17:48 | ARM | TAL DEN |
| Total/NA | Analysis | 350.1 | | 1 | | | 442235 | 12/21/18 10:26 | JAP | TAL DEN |
| Total/NA | Analysis | Field Sampling | | 1 | | | 441799 | 12/06/18 11:41 | TXS | TAL DEN |

## Client Sample ID: MW-3A — Lab Sample ID: 280-117920-1

**Date Collected: 12/06/18 09:00**
**Date Received: 12/07/18 09:10**
**Matrix: Water**

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 8260C | | 1 | 5 mL | 5 mL | 450767 | 12/13/18 21:47 | RJF | TAL BUF |
| Total/NA | Prep | 8011 | | | 34.6 mL | 35 mL | 441158 | 12/13/18 13:59 | MJS | TAL DEN |
| Total/NA | Analysis | 8011 | | 1 | | | 441198 | 12/14/18 05:15 | JLW | TAL DEN |
| Total Recoverable | Prep | 3005A | | | 50 mL | 50 mL | 440437 | 12/11/18 06:45 | MRJ | TAL DEN |
| Total Recoverable | Analysis | 6010B | | 1 | | | 440901 | 12/12/18 00:11 | SJS | TAL DEN |
| Total Recoverable | Prep | 3005A | | | 50 mL | 50 mL | 440448 | 12/11/18 06:45 | MRJ | TAL DEN |
| Total Recoverable | Analysis | 6020 | | 1 | | | 440938 | 12/12/18 05:27 | LMT | TAL DEN |
| Total/NA | Prep | 7470A | | | 30 mL | 50 mL | 440538 | 12/10/18 12:21 | MRJ | TAL DEN |
| Total/NA | Analysis | 7470A | | 1 | | | 440688 | 12/10/18 20:12 | THP | TAL DEN |
| Total/NA | Analysis | 300.0 | | 1 | 5 mL | 5 mL | 440338 | 12/07/18 18:07 | ARM | TAL DEN |
| Total/NA | Analysis | 300.0 | | 1 | 5 mL | 5 mL | 440339 | 12/07/18 18:07 | ARM | TAL DEN |
| Total/NA | Analysis | 350.1 | | 1 | | | 442235 | 12/21/18 11:00 | JAP | TAL DEN |
| Total/NA | Analysis | SM 2540C | | 1 | 100 mL | 100 mL | 440727 | 12/11/18 09:35 | MJS | TAL DEN |
| Total/NA | Analysis | Field Sampling | | 1 | | | 441799 | 12/06/18 07:00 | TXS | TAL DEN |

## Client Sample ID: MW-4A — Lab Sample ID: 280-117920-2

**Date Collected: 12/06/18 10:20**
**Date Received: 12/07/18 09:10**
**Matrix: Water**

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 8260C | | 1 | 5 mL | 5 mL | 450767 | 12/13/18 22:14 | RJF | TAL BUF |
| Total/NA | Prep | 8011 | | | 34.1 mL | 35 mL | 441158 | 12/13/18 13:59 | MJS | TAL DEN |
| Total/NA | Analysis | 8011 | | 1 | | | 441198 | 12/14/18 05:34 | JLW | TAL DEN |

# Lab Chronicle

Client: Waste Management
Project/Site: FL26|Vista

TestAmerica Job ID: 280-117909-1

## Client Sample ID: MW-4A
**Date Collected: 12/06/18 10:20**
**Date Received: 12/07/18 09:10**

## Lab Sample ID: 280-117920-2
**Matrix: Water**

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| Total Recoverable | Prep | 3005A | | | 50 mL | 50 mL | 440437 | 12/11/18 06:45 | MRJ | TAL DEN |
| Total Recoverable | Analysis | 6010B | | 1 | | | 440901 | 12/12/18 00:14 | SJS | TAL DEN |
| Total Recoverable | Prep | 3005A | | | 50 mL | 50 mL | 440448 | 12/11/18 06:45 | MRJ | TAL DEN |
| Total Recoverable | Analysis | 6020 | | 1 | | | 440938 | 12/12/18 05:31 | LMT | TAL DEN |
| Total/NA | Prep | 7470A | | | 30 mL | 50 mL | 440538 | 12/10/18 12:21 | MRJ | TAL DEN |
| Total/NA | Analysis | 7470A | | 1 | | | 440688 | 12/10/18 20:14 | THP | TAL DEN |
| Total/NA | Analysis | 300.0 | | 1 | 5 mL | 5 mL | 440338 | 12/07/18 18:26 | ARM | TAL DEN |
| Total/NA | Analysis | 300.0 | | 1 | 5 mL | 5 mL | 440339 | 12/07/18 18:26 | ARM | TAL DEN |
| Total/NA | Analysis | 350.1 | | 1 | | | 442235 | 12/21/18 11:02 | JAP | TAL DEN |
| Total/NA | Analysis | SM 2540C | | 1 | 100 mL | 100 mL | 440727 | 12/11/18 09:35 | MJS | TAL DEN |
| Total/NA | Analysis | Field Sampling | | 1 | | | 441799 | 12/06/18 08:20 | TXS | TAL DEN |

## Client Sample ID: MW-5A
**Date Collected: 12/06/18 11:49**
**Date Received: 12/07/18 09:10**

## Lab Sample ID: 280-117920-3
**Matrix: Water**

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 8260C | | 1 | 5 mL | 5 mL | 450767 | 12/13/18 22:42 | RJF | TAL BUF |
| Total/NA | Prep | 8011 | | | 34 mL | 35 mL | 441158 | 12/13/18 13:59 | MJS | TAL DEN |
| Total/NA | Analysis | 8011 | | 1 | | | 441198 | 12/14/18 05:53 | JLW | TAL DEN |
| Total Recoverable | Prep | 3005A | | | 50 mL | 50 mL | 440437 | 12/11/18 06:45 | MRJ | TAL DEN |
| Total Recoverable | Analysis | 6010B | | 1 | | | 440901 | 12/12/18 00:18 | SJS | TAL DEN |
| Total Recoverable | Prep | 3005A | | | 50 mL | 50 mL | 440448 | 12/11/18 06:45 | MRJ | TAL DEN |
| Total Recoverable | Analysis | 6020 | | 1 | | | 440938 | 12/12/18 05:35 | LMT | TAL DEN |
| Total/NA | Prep | 7470A | | | 30 mL | 50 mL | 440538 | 12/10/18 12:21 | MRJ | TAL DEN |
| Total/NA | Analysis | 7470A | | 1 | | | 440688 | 12/10/18 20:16 | THP | TAL DEN |
| Total/NA | Analysis | 300.0 | | 1 | 5 mL | 5 mL | 440338 | 12/07/18 19:22 | ARM | TAL DEN |
| Total/NA | Analysis | 300.0 | | 1 | 5 mL | 5 mL | 440339 | 12/07/18 19:22 | ARM | TAL DEN |
| Total/NA | Analysis | 350.1 | | 1 | | | 442235 | 12/21/18 11:04 | JAP | TAL DEN |
| Total/NA | Analysis | SM 2540C | | 1 | 100 mL | 100 mL | 440727 | 12/11/18 09:35 | MJS | TAL DEN |
| Total/NA | Analysis | Field Sampling | | 1 | | | 441799 | 12/06/18 09:49 | TXS | TAL DEN |

## Client Sample ID: MW-7A
**Date Collected: 12/06/18 13:04**
**Date Received: 12/07/18 09:10**

## Lab Sample ID: 280-117920-4
**Matrix: Water**

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 8260C | | 1 | 5 mL | 5 mL | 450767 | 12/13/18 23:10 | RJF | TAL BUF |
| Total/NA | Prep | 8011 | | | 34.4 mL | 35 mL | 441158 | 12/13/18 13:59 | MJS | TAL DEN |
| Total/NA | Analysis | 8011 | | 1 | | | 441198 | 12/14/18 06:12 | JLW | TAL DEN |
| Total Recoverable | Prep | 3005A | | | 50 mL | 50 mL | 440437 | 12/11/18 06:45 | MRJ | TAL DEN |
| Total Recoverable | Analysis | 6010B | | 1 | | | 440901 | 12/12/18 00:21 | SJS | TAL DEN |

# Lab Chronicle

Client: Waste Management
Project/Site: FL26|Vista

TestAmerica Job ID: 280-117909-1

## Client Sample ID: MW-7A
**Date Collected: 12/06/18 13:04**
**Date Received: 12/07/18 09:10**

## Lab Sample ID: 280-117920-4
**Matrix: Water**

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| Total Recoverable | Prep | 3005A | | | 50 mL | 50 mL | 440448 | 12/11/18 06:45 | MRJ | TAL DEN |
| Total Recoverable | Analysis | 6020 | | 1 | | | 440938 | 12/12/18 05:39 | LMT | TAL DEN |
| Total/NA | Prep | 7470A | | | 30 mL | 50 mL | 440538 | 12/10/18 12:21 | MRJ | TAL DEN |
| Total/NA | Analysis | 7470A | | 1 | | | 440688 | 12/10/18 20:18 | THP | TAL DEN |
| Total/NA | Analysis | 300.0 | | 1 | 5 mL | 5 mL | 440338 | 12/07/18 20:37 | ARM | TAL DEN |
| Total/NA | Analysis | 300.0 | | 5 | 5 mL | 5 mL | 440339 | 12/07/18 20:56 | ARM | TAL DEN |
| Total/NA | Analysis | 350.1 | | 1 | | | 442235 | 12/21/18 11:18 | JAP | TAL DEN |
| Total/NA | Analysis | SM 2540C | | 1 | 100 mL | 100 mL | 440727 | 12/11/18 09:35 | MJS | TAL DEN |
| Total/NA | Analysis | Field Sampling | | 1 | | | 441799 | 12/06/18 11:04 | TXS | TAL DEN |

## Client Sample ID: MW-1A
**Date Collected: 12/06/18 14:18**
**Date Received: 12/07/18 09:10**

## Lab Sample ID: 280-117920-5
**Matrix: Water**

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 8260C | | 1 | 5 mL | 5 mL | 450767 | 12/13/18 23:37 | RJF | TAL BUF |
| Total/NA | Prep | 8011 | | | 34.2 mL | 35 mL | 441158 | 12/13/18 13:59 | MJS | TAL DEN |
| Total/NA | Analysis | 8011 | | 1 | | | 441198 | 12/14/18 06:50 | JLW | TAL DEN |
| Total Recoverable | Prep | 3005A | | | 50 mL | 50 mL | 440437 | 12/11/18 06:45 | MRJ | TAL DEN |
| Total Recoverable | Analysis | 6010B | | 1 | | | 440901 | 12/12/18 00:24 | SJS | TAL DEN |
| Total Recoverable | Prep | 3005A | | | 50 mL | 50 mL | 440448 | 12/11/18 06:45 | MRJ | TAL DEN |
| Total Recoverable | Analysis | 6020 | | 1 | | | 440938 | 12/12/18 05:42 | LMT | TAL DEN |
| Total/NA | Prep | 7470A | | | 30 mL | 50 mL | 440538 | 12/10/18 12:21 | MRJ | TAL DEN |
| Total/NA | Analysis | 7470A | | 1 | | | 440688 | 12/10/18 20:21 | THP | TAL DEN |
| Total/NA | Analysis | 300.0 | | 1 | 5 mL | 5 mL | 440338 | 12/07/18 21:14 | ARM | TAL DEN |
| Total/NA | Analysis | 300.0 | | 5 | 5 mL | 5 mL | 440339 | 12/07/18 21:33 | ARM | TAL DEN |
| Total/NA | Analysis | 350.1 | | 1 | | | 442235 | 12/21/18 11:20 | JAP | TAL DEN |
| Total/NA | Analysis | SM 2540C | | 1 | 100 mL | 100 mL | 440727 | 12/11/18 09:35 | MJS | TAL DEN |
| Total/NA | Analysis | Field Sampling | | 1 | | | 441799 | 12/06/18 12:18 | TXS | TAL DEN |

## Client Sample ID: TRIP BLANK
**Date Collected: 12/06/18 00:00**
**Date Received: 12/07/18 09:10**

## Lab Sample ID: 280-117920-6
**Matrix: Water**

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 8260C | | 1 | 5 mL | 5 mL | 450767 | 12/14/18 00:05 | RJF | TAL BUF |
| Total/NA | Prep | 8011 | | | 34 mL | 35 mL | 441124 | 12/13/18 10:28 | MJS | TAL DEN |
| Total/NA | Analysis | 8011 | | 1 | | | 441198 | 12/14/18 00:11 | JLW | TAL DEN |

# Lab Chronicle

Client: Waste Management
Project/Site: FL26|Vista

TestAmerica Job ID: 280-117909-1

## Client Sample ID: MW-2B
**Date Collected: 12/07/18 08:41**
**Date Received: 12/08/18 10:40**

**Lab Sample ID: 280-117969-1**
**Matrix: Water**

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| Total Recoverable | Prep | 3005A | | | 50 mL | 50 mL | 440699 | 12/11/18 16:30 | LRD | TAL DEN |
| Total Recoverable | Analysis | 6010B | | 1 | | | 441261 | 12/13/18 18:40 | CML | TAL DEN |
| Total/NA | Analysis | 300.0 | | 1 | 5 mL | 5 mL | 441847 | 12/19/18 20:32 | TLP | TAL DEN |
| Total/NA | Analysis | 300.0 | | 1 | 5 mL | 5 mL | 440479 | 12/08/18 16:18 | ARM | TAL DEN |
| Total/NA | Analysis | 350.1 | | 1 | | | 442654 | 12/27/18 10:00 | JAP | TAL DEN |
| Total/NA | Analysis | Field Sampling | | 1 | | | 441799 | 12/07/18 06:41 | TXS | TAL DEN |

## Client Sample ID: MW-6BR
**Date Collected: 12/07/18 10:01**
**Date Received: 12/08/18 10:40**

**Lab Sample ID: 280-117969-2**
**Matrix: Water**

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| Total Recoverable | Prep | 3005A | | | 50 mL | 50 mL | 440699 | 12/11/18 16:30 | LRD | TAL DEN |
| Total Recoverable | Analysis | 6010B | | 1 | | | 441261 | 12/13/18 18:43 | CML | TAL DEN |
| Total/NA | Analysis | 300.0 | | 1 | 5 mL | 5 mL | 441847 | 12/19/18 21:37 | TLP | TAL DEN |
| Total/NA | Analysis | 300.0 | | 1 | 5 mL | 5 mL | 440479 | 12/08/18 17:32 | ARM | TAL DEN |
| Total/NA | Analysis | 350.1 | | 1 | | | 442654 | 12/27/18 10:02 | JAP | TAL DEN |
| Total/NA | Analysis | Field Sampling | | 1 | | | 441799 | 12/07/18 08:01 | TXS | TAL DEN |

## Client Sample ID: MW-15B
**Date Collected: 12/07/18 11:16**
**Date Received: 12/08/18 10:40**

**Lab Sample ID: 280-117969-3**
**Matrix: Water**

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| Total Recoverable | Prep | 3005A | | | 50 mL | 50 mL | 440699 | 12/11/18 16:30 | LRD | TAL DEN |
| Total Recoverable | Analysis | 6010B | | 1 | | | 441261 | 12/13/18 18:46 | CML | TAL DEN |
| Total/NA | Analysis | 300.0 | | 1 | 5 mL | 5 mL | 441847 | 12/19/18 21:54 | TLP | TAL DEN |
| Total/NA | Analysis | 300.0 | | 1 | 5 mL | 5 mL | 440479 | 12/08/18 17:51 | ARM | TAL DEN |
| Total/NA | Analysis | 350.1 | | 1 | | | 442654 | 12/27/18 10:16 | JAP | TAL DEN |
| Total/NA | Analysis | Field Sampling | | 1 | | | 441799 | 12/07/18 09:16 | TXS | TAL DEN |

## Client Sample ID: MW-11B
**Date Collected: 12/07/18 12:31**
**Date Received: 12/08/18 10:40**

**Lab Sample ID: 280-117969-4**
**Matrix: Water**

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| Total Recoverable | Prep | 3005A | | | 50 mL | 50 mL | 440699 | 12/11/18 16:30 | LRD | TAL DEN |
| Total Recoverable | Analysis | 6010B | | 1 | | | 441261 | 12/13/18 18:49 | CML | TAL DEN |
| Total/NA | Analysis | 300.0 | | 1 | 5 mL | 5 mL | 441847 | 12/19/18 22:10 | TLP | TAL DEN |
| Total/NA | Analysis | 300.0 | | 1 | 5 mL | 5 mL | 440479 | 12/08/18 18:10 | ARM | TAL DEN |
| Total/NA | Analysis | 350.1 | | 1 | | | 442654 | 12/27/18 10:18 | JAP | TAL DEN |

# Lab Chronicle

Client: Waste Management
Project/Site: FL26|Vista

TestAmerica Job ID: 280-117909-1

## Client Sample ID: MW-11B
**Date Collected: 12/07/18 12:31**
**Date Received: 12/08/18 10:40**

## Lab Sample ID: 280-117969-4
**Matrix: Water**

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | Field Sampling | | 1 | | | 441799 | 12/07/18 10:31 | TXS | TAL DEN |

## Client Sample ID: MW-8R
**Date Collected: 12/07/18 07:27**
**Date Received: 12/08/18 10:40**

## Lab Sample ID: 280-117970-1
**Matrix: Water**

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 8260C | | 1 | 5 mL | 5 mL | 450778 | 12/14/18 00:27 | KMN | TAL BUF |
| Total/NA | Prep | 8011 | | | 33.8 mL | 35 mL | 441158 | 12/13/18 13:59 | MJS | TAL DEN |
| Total/NA | Analysis | 8011 | | 1 | | | 441198 | 12/14/18 07:09 | JLW | TAL DEN |
| Total Recoverable | Prep | 3005A | | | 50 mL | 50 mL | 440699 | 12/11/18 16:30 | LRD | TAL DEN |
| Total Recoverable | Analysis | 6010B | | 1 | | | 441261 | 12/13/18 18:52 | CML | TAL DEN |
| Total Recoverable | Prep | 3005A | | | 50 mL | 50 mL | 440702 | 12/11/18 16:30 | LRD | TAL DEN |
| Total Recoverable | Analysis | 6020 | | 1 | | | 440908 | 12/12/18 03:31 | LMT | TAL DEN |
| Total/NA | Prep | 7470A | | | 30 mL | 50 mL | 440923 | 12/12/18 11:45 | THP | TAL DEN |
| Total/NA | Analysis | 7470A | | 1 | | | 441077 | 12/12/18 17:40 | THP | TAL DEN |
| Total/NA | Analysis | 300.0 | | 1 | 5 mL | 5 mL | 441847 | 12/19/18 22:27 | TLP | TAL DEN |
| Total/NA | Analysis | 300.0 | | 1 | 5 mL | 5 mL | 440479 | 12/08/18 18:28 | ARM | TAL DEN |
| Total/NA | Analysis | 350.1 | | 1 | | | 442235 | 12/21/18 12:02 | JAP | TAL DEN |
| Total/NA | Analysis | SM 2540C | | 1 | 100 mL | 100 mL | 441113 | 12/13/18 10:12 | MJS | TAL DEN |
| Total/NA | Analysis | Field Sampling | | 1 | | | 441799 | 12/07/18 05:27 | TXS | TAL DEN |

## Client Sample ID: MW-2AR
**Date Collected: 12/07/18 08:06**
**Date Received: 12/08/18 10:40**

## Lab Sample ID: 280-117970-2
**Matrix: Water**

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 8260C | | 1 | 5 mL | 5 mL | 450778 | 12/14/18 00:54 | KMN | TAL BUF |
| Total/NA | Prep | 8011 | | | 34.5 mL | 35 mL | 441158 | 12/13/18 13:59 | MJS | TAL DEN |
| Total/NA | Analysis | 8011 | | 1 | | | 441198 | 12/14/18 07:28 | JLW | TAL DEN |
| Total Recoverable | Prep | 3005A | | | 50 mL | 50 mL | 440699 | 12/11/18 16:30 | LRD | TAL DEN |
| Total Recoverable | Analysis | 6010B | | 1 | | | 441261 | 12/13/18 19:19 | CML | TAL DEN |
| Total Recoverable | Prep | 3005A | | | 50 mL | 50 mL | 440702 | 12/11/18 16:30 | LRD | TAL DEN |
| Total Recoverable | Analysis | 6020 | | 1 | | | 440908 | 12/12/18 03:35 | LMT | TAL DEN |
| Total/NA | Prep | 7470A | | | 30 mL | 50 mL | 440923 | 12/12/18 11:45 | THP | TAL DEN |
| Total/NA | Analysis | 7470A | | 1 | | | 441077 | 12/12/18 17:42 | THP | TAL DEN |
| Total/NA | Analysis | 300.0 | | 1 | 5 mL | 5 mL | 441847 | 12/19/18 22:43 | TLP | TAL DEN |
| Total/NA | Analysis | 300.0 | | 1 | 5 mL | 5 mL | 440479 | 12/08/18 18:47 | ARM | TAL DEN |
| Total/NA | Analysis | 350.1 | | 1 | | | 442235 | 12/21/18 12:08 | JAP | TAL DEN |
| Total/NA | Analysis | SM 2540C | | 1 | 100 mL | 100 mL | 441113 | 12/13/18 10:12 | MJS | TAL DEN |
| Total/NA | Analysis | Field Sampling | | 1 | | | 441799 | 12/07/18 06:06 | TXS | TAL DEN |

# Lab Chronicle

Client: Waste Management
Project/Site: FL26|Vista

TestAmerica Job ID: 280-117909-1

## Client Sample ID: MW-6AR

**Lab Sample ID: 280-117970-3**
**Date Collected: 12/07/18 09:27**
**Matrix: Water**
**Date Received: 12/08/18 10:40**

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 8260C | | 1 | 5 mL | 5 mL | 450778 | 12/14/18 01:21 | KMN | TAL BUF |
| Total/NA | Prep | 8011 | | | 33.9 mL | 35 mL | 441158 | 12/13/18 13:59 | MJS | TAL DEN |
| Total/NA | Analysis | 8011 | | 1 | | | 441198 | 12/14/18 07:47 | JLW | TAL DEN |
| Total Recoverable | Prep | 3005A | | | 50 mL | 50 mL | 440699 | 12/11/18 16:30 | LRD | TAL DEN |
| Total Recoverable | Analysis | 6010B | | 1 | | | 441261 | 12/13/18 19:22 | CML | TAL DEN |
| Total Recoverable | Prep | 3005A | | | 50 mL | 50 mL | 440702 | 12/11/18 16:30 | LRD | TAL DEN |
| Total Recoverable | Analysis | 6020 | | 1 | | | 440908 | 12/12/18 03:38 | LMT | TAL DEN |
| Total/NA | Prep | 7470A | | | 30 mL | 50 mL | 440923 | 12/12/18 11:45 | THP | TAL DEN |
| Total/NA | Analysis | 7470A | | 1 | | | 441077 | 12/12/18 17:44 | THP | TAL DEN |
| Total/NA | Analysis | 300.0 | | 1 | 5 mL | 5 mL | 441847 | 12/19/18 22:59 | TLP | TAL DEN |
| Total/NA | Analysis | 300.0 | | 1 | 5 mL | 5 mL | 440479 | 12/08/18 20:02 | ARM | TAL DEN |
| Total/NA | Analysis | 350.1 | | 1 | | | 442235 | 12/21/18 12:10 | JAP | TAL DEN |
| Total/NA | Analysis | SM 2540C | | 1 | 100 mL | 100 mL | 441113 | 12/13/18 10:12 | MJS | TAL DEN |
| Total/NA | Analysis | Field Sampling | | 1 | | | 441799 | 12/07/18 07:27 | TXS | TAL DEN |

## Client Sample ID: MW-15A

**Lab Sample ID: 280-117970-4**
**Date Collected: 12/07/18 10:44**
**Matrix: Water**
**Date Received: 12/08/18 10:40**

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 8260C | | 1 | 5 mL | 5 mL | 450778 | 12/14/18 01:48 | KMN | TAL BUF |
| Total/NA | Prep | 8011 | | | 34.2 mL | 35 mL | 441158 | 12/13/18 13:59 | MJS | TAL DEN |
| Total/NA | Analysis | 8011 | | 1 | | | 441198 | 12/14/18 08:07 | JLW | TAL DEN |
| Total Recoverable | Prep | 3005A | | | 50 mL | 50 mL | 440699 | 12/11/18 16:30 | LRD | TAL DEN |
| Total Recoverable | Analysis | 6010B | | 1 | | | 441261 | 12/13/18 19:25 | CML | TAL DEN |
| Total Recoverable | Prep | 3005A | | | 50 mL | 50 mL | 440702 | 12/11/18 16:30 | LRD | TAL DEN |
| Total Recoverable | Analysis | 6020 | | 1 | | | 440908 | 12/12/18 03:42 | LMT | TAL DEN |
| Total/NA | Prep | 7470A | | | 30 mL | 50 mL | 440923 | 12/12/18 11:45 | THP | TAL DEN |
| Total/NA | Analysis | 7470A | | 1 | | | 441077 | 12/12/18 17:46 | THP | TAL DEN |
| Total/NA | Analysis | 300.0 | | 1 | 5 mL | 5 mL | 441847 | 12/19/18 23:49 | TLP | TAL DEN |
| Total/NA | Analysis | 300.0 | | 1 | 5 mL | 5 mL | 440479 | 12/08/18 20:21 | ARM | TAL DEN |
| Total/NA | Analysis | 350.1 | | 1 | | | 442235 | 12/21/18 12:12 | JAP | TAL DEN |
| Total/NA | Analysis | SM 2540C | | 1 | 100 mL | 100 mL | 441113 | 12/13/18 10:12 | MJS | TAL DEN |
| Total/NA | Analysis | Field Sampling | | 1 | | | 441799 | 12/07/18 08:44 | TXS | TAL DEN |

## Client Sample ID: MW-11A

**Lab Sample ID: 280-117970-5**
**Date Collected: 12/07/18 11:55**
**Matrix: Water**
**Date Received: 12/08/18 10:40**

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 8260C | | 1 | 5 mL | 5 mL | 450779 | 12/14/18 00:55 | S1V | TAL BUF |
| Total/NA | Prep | 8011 | | | 33.9 mL | 35 mL | 441158 | 12/13/18 13:59 | MJS | TAL DEN |

# Lab Chronicle

Client: Waste Management
Project/Site: FL26|Vista

TestAmerica Job ID: 280-117909-1

## Client Sample ID: MW-11A — Lab Sample ID: 280-117970-5

**Date Collected: 12/07/18 11:55**
**Date Received: 12/08/18 10:40**
**Matrix: Water**

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 8011 | | 1 | | | 441198 | 12/14/18 08:26 | JLW | TAL DEN |
| Total Recoverable | Prep | 3005A | | | 50 mL | 50 mL | 440699 | 12/11/18 16:30 | LRD | TAL DEN |
| Total Recoverable | Analysis | 6010B | | 1 | | | 441261 | 12/13/18 19:28 | CML | TAL DEN |
| Total Recoverable | Prep | 3005A | | | 50 mL | 50 mL | 440702 | 12/11/18 16:30 | LRD | TAL DEN |
| Total Recoverable | Analysis | 6020 | | 1 | | | 440908 | 12/12/18 03:52 | LMT | TAL DEN |
| Total/NA | Prep | 7470A | | | 30 mL | 50 mL | 440923 | 12/12/18 11:45 | THP | TAL DEN |
| Total/NA | Analysis | 7470A | | 1 | | | 441077 | 12/12/18 17:53 | THP | TAL DEN |
| Total/NA | Analysis | 300.0 | | 1 | 5 mL | 5 mL | 441847 | 12/20/18 00:05 | TLP | TAL DEN |
| Total/NA | Analysis | 300.0 | | 1 | 5 mL | 5 mL | 440479 | 12/08/18 20:39 | ARM | TAL DEN |
| Total/NA | Analysis | 350.1 | | 1 | | | 442235 | 12/21/18 12:14 | JAP | TAL DEN |
| Total/NA | Analysis | SM 2540C | | 1 | 100 mL | 100 mL | 441113 | 12/13/18 10:12 | MJS | TAL DEN |
| Total/NA | Analysis | Field Sampling | | 1 | | | 441799 | 12/07/18 09:55 | TXS | TAL DEN |

## Client Sample ID: TRIP BLANK1 — Lab Sample ID: 280-117970-6

**Date Collected: 12/07/18 00:00**
**Date Received: 12/08/18 10:40**
**Matrix: Water**

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 8260C | | 1 | 5 mL | 5 mL | 450779 | 12/14/18 01:18 | S1V | TAL BUF |
| Total/NA | Prep | 8011 | | | 33.7 mL | 35 mL | 441158 | 12/13/18 13:59 | MJS | TAL DEN |
| Total/NA | Analysis | 8011 | | 1 | | | 441198 | 12/14/18 08:45 | JLW | TAL DEN |

## Client Sample ID: Equipment Blank — Lab Sample ID: 280-118028-1

**Date Collected: 12/10/18 09:11**
**Date Received: 12/11/18 09:20**
**Matrix: Water**

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| Total Recoverable | Prep | 3005A | | | 50 mL | 50 mL | 440887 | 12/13/18 07:48 | MRJ | TAL DEN |
| Total Recoverable | Analysis | 6010B | | 1 | | | 441262 | 12/14/18 01:09 | CML | TAL DEN |
| Total Recoverable | Prep | 3005A | | | 50 mL | 50 mL | 440887 | 12/13/18 07:48 | MRJ | TAL DEN |
| Total Recoverable | Analysis | 6010B | | 1 | | | 441730 | 12/17/18 17:43 | SJS | TAL DEN |
| Total Recoverable | Prep | 3005A | | | 50 mL | 50 mL | 440885 | 12/13/18 07:48 | MRJ | TAL DEN |
| Total Recoverable | Analysis | 6020 | | 1 | | | 441327 | 12/14/18 00:07 | LMT | TAL DEN |
| Total/NA | Prep | 7470A | | | 30 mL | 50 mL | 442172 | 12/21/18 11:25 | CML | TAL DEN |
| Total/NA | Analysis | 7470A | | 1 | | | 442367 | 12/21/18 16:40 | CML | TAL DEN |
| Total/NA | Analysis | 300.0 | | 1 | 5 mL | 5 mL | 440789 | 12/11/18 17:49 | A1D | TAL DEN |
| Total/NA | Analysis | 300.0 | | 1 | 5 mL | 5 mL | 440790 | 12/11/18 17:49 | A1D | TAL DEN |
| Total/NA | Analysis | 350.1 | | 1 | | | 442235 | 12/21/18 12:52 | JAP | TAL DEN |
| Total/NA | Analysis | SM 2540C | | 1 | 100 mL | 100 mL | 441113 | 12/13/18 10:12 | MJS | TAL DEN |

# Lab Chronicle

Client: Waste Management
Project/Site: FL26|Vista

TestAmerica Job ID: 280-117909-1

## Client Sample ID: MW-14A

**Lab Sample ID: 280-118028-2**

**Date Collected: 12/10/18 08:40**
**Matrix: Water**
**Date Received: 12/11/18 09:20**

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 8260C | | 1 | 5 mL | 5 mL | 451772 | 12/20/18 03:19 | RJF | TAL BUF |
| Total/NA | Prep | 8011 | | | 34.1 mL | 35 mL | 442223 | 12/21/18 14:04 | MJS | TAL DEN |
| Total/NA | Analysis | 8011 | | 1 | | | 443045 | 01/03/19 08:39 | JLW | TAL DEN |
| Total Recoverable | Prep | 3005A | | | 50 mL | 50 mL | 440887 | 12/13/18 07:48 | MRJ | TAL DEN |
| Total Recoverable | Analysis | 6010B | | 1 | | | 441262 | 12/14/18 01:12 | CML | TAL DEN |
| Total Recoverable | Prep | 3005A | | | 50 mL | 50 mL | 440887 | 12/13/18 07:48 | MRJ | TAL DEN |
| Total Recoverable | Analysis | 6010B | | 1 | | | 441730 | 12/17/18 17:46 | SJS | TAL DEN |
| Total Recoverable | Prep | 3005A | | | 50 mL | 50 mL | 440885 | 12/13/18 07:48 | MRJ | TAL DEN |
| Total Recoverable | Analysis | 6020 | | 1 | | | 441327 | 12/14/18 00:11 | LMT | TAL DEN |
| Total/NA | Prep | 7470A | | | 30 mL | 50 mL | 442172 | 12/21/18 11:25 | CML | TAL DEN |
| Total/NA | Analysis | 7470A | | 1 | | | 442367 | 12/21/18 16:47 | CML | TAL DEN |
| Total/NA | Analysis | 300.0 | | 1 | 5 mL | 5 mL | 440789 | 12/11/18 18:05 | A1D | TAL DEN |
| Total/NA | Analysis | 300.0 | | 1 | 5 mL | 5 mL | 440790 | 12/11/18 18:05 | A1D | TAL DEN |
| Total/NA | Analysis | 350.1 | | 1 | | | 442235 | 12/21/18 13:06 | JAP | TAL DEN |
| Total/NA | Analysis | SM 2540C | | 1 | 100 mL | 100 mL | 441113 | 12/13/18 10:12 | MJS | TAL DEN |
| Total/NA | Analysis | Field Sampling | | 1 | | | 441799 | 12/10/18 06:40 | TXS | TAL DEN |

## Client Sample ID: MW-9A

**Lab Sample ID: 280-118028-3**

**Date Collected: 12/10/18 07:27**
**Matrix: Water**
**Date Received: 12/11/18 09:20**

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 8260C | | 1 | 5 mL | 5 mL | 451772 | 12/20/18 03:46 | RJF | TAL BUF |
| Total/NA | Prep | 8011 | | | 33.8 mL | 35 mL | 442223 | 12/21/18 14:04 | MJS | TAL DEN |
| Total/NA | Analysis | 8011 | | 1 | | | 443045 | 01/03/19 08:59 | JLW | TAL DEN |
| Total Recoverable | Prep | 3005A | | | 50 mL | 50 mL | 440887 | 12/13/18 07:48 | MRJ | TAL DEN |
| Total Recoverable | Analysis | 6010B | | 1 | | | 441262 | 12/14/18 01:25 | CML | TAL DEN |
| Total Recoverable | Prep | 3005A | | | 50 mL | 50 mL | 440887 | 12/13/18 07:48 | MRJ | TAL DEN |
| Total Recoverable | Analysis | 6010B | | 1 | | | 441730 | 12/17/18 18:14 | SJS | TAL DEN |
| Total Recoverable | Prep | 3005A | | | 50 mL | 50 mL | 440885 | 12/13/18 07:48 | MRJ | TAL DEN |
| Total Recoverable | Analysis | 6020 | | 1 | | | 441327 | 12/14/18 00:14 | LMT | TAL DEN |
| Total/NA | Prep | 7470A | | | 30 mL | 50 mL | 442172 | 12/21/18 11:25 | CML | TAL DEN |
| Total/NA | Analysis | 7470A | | 1 | | | 442367 | 12/21/18 16:49 | CML | TAL DEN |
| Total/NA | Analysis | 300.0 | | 1 | 5 mL | 5 mL | 440789 | 12/11/18 19:06 | A1D | TAL DEN |
| Total/NA | Analysis | 300.0 | | 1 | 5 mL | 5 mL | 440790 | 12/11/18 19:06 | A1D | TAL DEN |
| Total/NA | Analysis | 350.1 | | 1 | | | 442235 | 12/21/18 13:08 | JAP | TAL DEN |
| Total/NA | Analysis | SM 2540C | | 1 | 100 mL | 100 mL | 441113 | 12/13/18 10:12 | MJS | TAL DEN |
| Total/NA | Analysis | Field Sampling | | 1 | | | 441799 | 12/10/18 05:27 | TXS | TAL DEN |

# Lab Chronicle

Client: Waste Management
Project/Site: FL26|Vista

TestAmerica Job ID: 280-117909-1

## Client Sample ID: TRIP BLANK2 — Lab Sample ID: 280-118028-4

**Date Collected: 12/10/18 00:00** — **Matrix: Water**
**Date Received: 12/11/18 09:20**

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 8260C | | 1 | 5 mL | 5 mL | 451772 | 12/20/18 04:14 | RJF | TAL BUF |
| Total/NA | Prep | 8011 | | | 34.1 mL | 35 mL | 442076 | 12/20/18 14:59 | MJS | TAL DEN |
| Total/NA | Analysis | 8011 | | 1 | | | 442844 | 12/31/18 02:55 | JLW | TAL DEN |

## Client Sample ID: Equipment Blank1 — Lab Sample ID: 280-118029-1

**Date Collected: 12/10/18 09:11** — **Matrix: Water**
**Date Received: 12/11/18 09:20**

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| Total Recoverable | Prep | 3005A | | | 50 mL | 50 mL | 440969 | 12/13/18 17:30 | LRD | TAL DEN |
| Total Recoverable | Analysis | 6010B | | 1 | | | 442434 | 12/24/18 13:27 | CML | TAL DEN |
| Total/NA | Analysis | 300.0 | | 1 | 5 mL | 5 mL | 440789 | 12/11/18 19:22 | A1D | TAL DEN |
| Total/NA | Analysis | 300.0 | | 1 | 5 mL | 5 mL | 440790 | 12/11/18 19:22 | A1D | TAL DEN |
| Total/NA | Analysis | 350.1 | | 1 | | | 442654 | 12/27/18 11:26 | JAP | TAL DEN |
| Total/NA | Analysis | Field Sampling | | 1 | | | 441799 | 12/10/18 07:11 | TXS | TAL DEN |

## Client Sample ID: MW-14B — Lab Sample ID: 280-118029-2

**Date Collected: 12/10/18 09:21** — **Matrix: Water**
**Date Received: 12/11/18 09:20**

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| Total Recoverable | Prep | 3005A | | | 50 mL | 50 mL | 440969 | 12/13/18 17:30 | LRD | TAL DEN |
| Total Recoverable | Analysis | 6010B | | 1 | | | 442434 | 12/24/18 13:31 | CML | TAL DEN |
| Total/NA | Analysis | 300.0 | | 1 | 5 mL | 5 mL | 440789 | 12/11/18 19:37 | A1D | TAL DEN |
| Total/NA | Analysis | 300.0 | | 1 | 5 mL | 5 mL | 440790 | 12/11/18 19:37 | A1D | TAL DEN |
| Total/NA | Analysis | 350.1 | | 1 | | | 442654 | 12/27/18 11:28 | JAP | TAL DEN |
| Total/NA | Analysis | Field Sampling | | 1 | | | 441799 | 12/10/18 07:21 | TXS | TAL DEN |

## Client Sample ID: MW-9B — Lab Sample ID: 280-118029-3

**Date Collected: 12/10/18 08:01** — **Matrix: Water**
**Date Received: 12/11/18 09:20**

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| Total Recoverable | Prep | 3005A | | | 50 mL | 50 mL | 440969 | 12/13/18 17:30 | LRD | TAL DEN |
| Total Recoverable | Analysis | 6010B | | 1 | | | 442434 | 12/24/18 13:34 | CML | TAL DEN |
| Total/NA | Analysis | 300.0 | | 1 | 5 mL | 5 mL | 440789 | 12/11/18 19:53 | A1D | TAL DEN |
| Total/NA | Analysis | 300.0 | | 1 | 5 mL | 5 mL | 440790 | 12/11/18 19:53 | A1D | TAL DEN |
| Total/NA | Analysis | 350.1 | | 1 | | | 442654 | 12/27/18 11:30 | JAP | TAL DEN |
| Total/NA | Analysis | Field Sampling | | 1 | | | 441799 | 12/10/18 06:01 | TXS | TAL DEN |

# Lab Chronicle

Client: Waste Management
Project/Site: FL26|Vista

TestAmerica Job ID: 280-117909-1

**Laboratory References:**

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

TAL DEN = TestAmerica Denver, 4955 Yarrow Street, Arvada, CO 80002, TEL (303)736-0100

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

# Chain of Custody Record

Denver #280

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

| Client Information | Sampler: DANNY ARMOUR | Lab PM: Harrington, Danielle M | Carrier Tracking No(s): | COC No: 280-59404-20781.1 |
|---|---|---|---|---|
| Client Contact: Elizabeth Foeller | Phone: 225-907-4060 | E-Mail: danielle.harrington@testamericainc.com | | Page: Page 1 of 1 |
| Company: Waste Management | | | | Job #: |
| Address: 242 W Keene Road | Due Date Requested: | | | |
| City: Apopka | TAT Requested (days): | | | |
| State, Zip: FL, 32703 | | | | |
| Phone: | PO #: Purchase Order Requested | | | |
| Email: efoeller@wm.com | WO #: | | | |
| Project Name: FL26\|Vista/FL26 Event: Annual Intermediate Wells - Dec | Project #: 28002729 | | | |
| Site: Florida | 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 - Na2S2O3, 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) | IC Nitrate and Chloride (250ml PE) | 6010B - Sodium (500ml PE) | 350.1 - Ammonia as N (500ml AG) | Total Number of containers | Special Instructions/Note: |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Preservation Code: | | | | N | B | S | | |
| MW-03B | 12-6 | 0826 | G | W | N | | 1 | 1 | 1 | | Login: Shortholds include Nitrate by IC |
| MW-04B | 12-6 | 0940 | G | W | N | | 1 | 1 | 1 | | |
| MW-05B | 12-6 | 1101 | G | W | N | | 1 | 1 | 1 | | |
| MW-07B | 12-6 | 1222 | G | W | N | | 1 | 1 | 1 | | |
| MW-01B | 12-6 | 1341 | G | W | N | | 1 | 1 | 1 | | |

280-117909 Chain of Custody

**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: | Company | Received by: | Date/Time: | Company |
|---|---|---|---|---|---|
| [signature] | 12-6-18 / 1700 | PRO-TECH | [signature] | 12-7-18 0910 | TAD |
| 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: 3.4, 4.0, 2.4, X, Iced by AHC 12-7-18

Form FD 9000-24

# GROUNDWATER SAMPLING LOG

| | | | |
|---|---|---|---|
| SITE NAME: VISTA | | SITE LOCATION: APOPKA, FL | |
| WELL NO: MW-03B | SAMPLE ID: | | DATE: 12-6-18 |

## PURGING DATA

| | | | | |
|---|---|---|---|---|
| WELL DIAMETER (inches): 2 | TUBING DIAMETER (inches): 3/8 | WELL SCREEN INTERVAL DEPTH: 80.3 feet to 85.3 feet | STATIC DEPTH TO WATER (feet): 37.32 | PURGE PUMP TYPE OR BAILER: BP |

WELL ELEVATION TOC (ft NGVD): 93.06 GROUNDWATER ELEVATION (ft NGVD): 55.74

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= ( feet – feet) X gallons/foot = gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= 0.3 gallons + (0.006 gallons/foot X 85.30 feet) + 0.05 gallons = 0.86 gallons

| | | | | |
|---|---|---|---|---|
| INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 82.80 | FINAL PUMP OR TUBING DEPTH IN WELL (feet): 82.80 | PURGING INITIATED AT: 0806 | PURGING ENDED AT: 0826 | TOTAL VOLUME PURGED (gallons): 5.80 |

| TIME | VOLUME PURGED (gallons) | CUMUL. VOLUME PURGED (gallons) | PURGE RATE (gpm) | DEPTH TO WATER (feet) | pH (standard units) | TEMP. (°C) | COND. (circle units) µmhos/cm or µS/cm | DISSOLVED OXYGEN (circle units) mg/L or % saturation | TURBIDITY (NTUs) | ORP (mV) | COLOR | ODOR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0816 | 2.90 | 2.90 | 0.29 | 38.14 | 6.92 | 23.2 | 243 | 2.2 | 3.11 | 62 | | |
| 0819 | 0.87 | 3.77 | 0.29 | 38.14 | 6.94 | 23.2 | 244 | 2.3 | 3.93 | 59 | | |
| 0822 | 0.87 | 4.64 | 0.29 | 38.14 | 6.95 | 23.3 | 245 | 2.3 | 3.53 | 58 | | |
| 0825 | 0.87 | 5.51 | 0.29 | 38.15 | 6.96 | 23.3 | 245 | 2.3 | 3.49 | 57 | NONE | |

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016

PURGING EQUIPMENT CODES: B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; O = Other (Specify)

## SAMPLING DATA

| | | | |
|---|---|---|---|
| SAMPLED BY (PRINT) / AFFILIATION: Danny Arnone / Pro-Tech | SAMPLER(S) SIGNATURE(S): | SAMPLING INITIATED AT: 0826 | SAMPLING ENDED AT: NR |
| PUMP OR TUBING DEPTH IN WELL (feet): 82.80 | TUBING MATERIAL CODE: T | FIELD-FILTERED: Y (N) µm Filtration Equipment Type: | FILTER SIZE: |
| FIELD DECONTAMINATION: PUMP Y (N) | TUBING Y (N) (replaced) | DUPLICATE: Y (N) | |

| SAMPLE CONTAINER SPECIFICATION | | | | SAMPLE PRESERVATION | | | INTENDED ANALYSIS AND/OR METHOD | SAMPLE PUMP FLOW RATE (ml/min. per minute) | SAMPLING EQUIPMENT CODE |
|---|---|---|---|---|---|---|---|---|---|
| SAMPLE ID CODE | # CONTAINERS | MATERIAL CODE | VOLUME | PRESERVATIVE USED | TOTAL VOL ADDED IN FIELD (mL) | FINAL pH | | | |
| | 1 | PE | 250 ml | – | 4°C Ambient | – | Cl, Nitrate | 0.29 | BP |
| | 1 | PE | 500 ml | $HNO_3$ | Sodium | – | Sodium | | |
| | 1 | AG | 500 ml | Hexane | NaS | – | $NH_3$ | | |

REMARKS:
SHEEN: NO

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)

SAMPLING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)

NOTES: 1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.
2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)
pH: ± 0.2 units Temperature: ± 0.2 °C Specific Conductance: ± 5% Dissolved Oxygen: all readings ≤ 20% saturation (see Table FS 2200-2); optionally, ± 0.2 mg/L or ± 10% (whichever is greater) Turbidity: all readings ≤ 20 NTU; optionally ± 5 NTU or ± 10% (whichever is greater)

Revision Date: February 12, 2009

Form FD 9000-24

# GROUNDWATER SAMPLING LOG

| | | | |
|---|---|---|---|
| SITE NAME: VISTA | | SITE LOCATION: APOPKA, FL | |
| WELL NO: MW-48 | SAMPLE ID: | | DATE: 12-6-18 |

## PURGING DATA

| | | | | |
|---|---|---|---|---|
| WELL DIAMETER (inches): 2 | TUBING DIAMETER (inches): 3/8 | WELL SCREEN INTERVAL DEPTH: 63 feet to 73 feet | STATIC DEPTH TO WATER (feet): 26.23 | PURGE PUMP TYPE OR BAILER: BP |
| WELL ELEVATION TOC (ft NGVD): 83.18 | | GROUNDWATER ELEVATION (ft NGVD): 56.95 | | |

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= ( feet – feet) X gallons/foot = gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= 0.3 gallons + (0.006 gallons/foot X 73.00 feet) + 0.05 gallons = 0.79 gallons

| | | | | |
|---|---|---|---|---|
| INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 68.00 | FINAL PUMP OR TUBING DEPTH IN WELL (feet): 68.00 | PURGING INITIATED AT: 0920 | PURGING ENDED AT: 0940 | TOTAL VOLUME PURGED (gallons): 5.40 |

| TIME | VOLUME PURGED (gallons) | CUMUL. VOLUME PURGED (gallons) | PURGE RATE (gpm) | DEPTH TO WATER (feet) | pH (standard units) | TEMP. (°C) | COND. (circle units) µmhos/cm or µS/cm | DISSOLVED OXYGEN (circle units) mg/L or % saturation | TURBIDITY (NTUs) | ORP (mV) | COLOR | ODOR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0930 | 2.70 | 2.70 | 0.27 | 27.91 | 5.44 | 24.2 | 38 | 0.8 | 2.85 | 222 | | |
| 0933 | 0.81 | 3.51 | 0.27 | 27.91 | 5.43 | 24.1 | 38 | 0.8 | 3.16 | 224 | | |
| 0936 | 0.81 | 4.32 | 0.27 | 27.91 | 5.44 | 24.1 | 38 | 0.8 | 2.92 | 224 | | |
| 0939 | 0.81 | 5.13 | 0.27 | 27.91 | 5.44 | 24.1 | 38 | 0.8 | 2.41 | 224 | None | |

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016

PURGING EQUIPMENT CODES: B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; O = Other (Specify)

## SAMPLING DATA

| | | | |
|---|---|---|---|
| SAMPLED BY (PRINT) / AFFILIATION: Danny Armour / Pro-Tech | SAMPLER(S) SIGNATURE(S): | SAMPLING INITIATED AT: 0940 | SAMPLING ENDED AT: NR |
| PUMP OR TUBING DEPTH IN WELL (feet): 68.00 | TUBING MATERIAL CODE: T | FIELD-FILTERED: Y (N) µm Filtration Equipment Type: | FILTER SIZE: |
| FIELD DECONTAMINATION: PUMP Y (N) | TUBING Y (N) (replaced) | DUPLICATE: Y (N) | |

| SAMPLE CONTAINER SPECIFICATION | | | | SAMPLE PRESERVATION | | | INTENDED ANALYSIS AND/OR METHOD | SAMPLE PUMP FLOW RATE (mL per minute) | SAMPLING EQUIPMENT CODE |
|---|---|---|---|---|---|---|---|---|---|
| SAMPLE ID CODE | # CONTAINERS | MATERIAL CODE | VOLUME | PRESERVATIVE USED | TOTAL VOL. ADDED IN FIELD (mL) | FINAL pH | | | |
| | 1 | PE | 250 ml | – | ~~[illegible]~~ | – | Cl, Nitrate | 0.27 | BP |
| | 1 | PE | 500 ml | HNO3 | – | – | Sodium | 1 | 1 |
| | 1 | AG | 500 ml | H2SO4 | – | – | NH3 | | |

REMARKS:
Sheen : No

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)

SAMPLING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)

NOTES: 1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.
2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)
pH: ± 0.2 units Temperature: ± 0.2 °C Specific Conductance: ± 5% Dissolved Oxygen: all readings ≤ 20% saturation (see Table FS 2200-2); optionally, ± 0.2 mg/L or ± 10% (whichever is greater) Turbidity: all readings ≤ 20 NTU; optionally ± 5 NTU or ± 10% (whichever is greater)

Revision Date: February 12, 2009

Form FD 9000-24

# GROUNDWATER SAMPLING LOG

| | | | |
|---|---|---|---|
| SITE NAME: VISTA | | SITE LOCATION: APOPKA, FL | |
| WELL NO: MW-05B | SAMPLE ID: | | DATE: 12-6-18 |

## PURGING DATA

| | | | | |
|---|---|---|---|---|
| WELL DIAMETER (inches): 2 | TUBING DIAMETER (inches): 3/8 | WELL SCREEN INTERVAL DEPTH: 59.35 feet to 64.35 feet | STATIC DEPTH TO WATER (feet): 25.97 | PURGE PUMP TYPE OR BAILER: BP |

WELL ELEVATION TOC (ft NGVD): 81.27 GROUNDWATER ELEVATION (ft NGVD): 55.30

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= ( feet – feet) X gallons/foot = gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= 0.3 gallons + (0.006 gallons/foot X 64.35 feet) + 0.05 gallons = 0.78 gallons

| | | | | |
|---|---|---|---|---|
| INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 64.35 | FINAL PUMP OR TUBING DEPTH IN WELL (feet): 64.35 | PURGING INITIATED AT: 1041 | PURGING ENDED AT: 1101 | TOTAL VOLUME PURGED (gallons): 5.40 |

| TIME | VOLUME PURGED (gallons) | CUMUL. VOLUME PURGED (gallons) | PURGE RATE (gpm) | DEPTH TO WATER (feet) | pH (standard units) | TEMP. (°C) | COND. (circle units) µmhos/cm or µS/cm | DISSOLVED OXYGEN (circle units) mg/L or % saturation | TURBIDITY (NTUs) | ORP (mV) | COLOR | ODOR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1051 | 2.70 | 2.70 | 0.27 | 26.94 | 7.84 | 24.9 | 220 | 0.1 | 3.48 | 120 | | |
| 1054 | 0.81 | 3.51 | 0.27 | 26.94 | 7.87 | 24.6 | 220 | 0.1 | 3.09 | 119 | | |
| 1057 | 0.81 | 4.32 | 0.27 | 26.95 | 7.88 | 24.6 | 220 | 0.1 | 2.81 | 117 | | |
| 1100 | 0.81 | 5.13 | 0.27 | 26.95 | 7.88 | 24.6 | 221 | 0.1 | 3.52 | 116 | None | |

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.66; 5" = 1.02; 6" = 1.47; 12" = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016

PURGING EQUIPMENT CODES: B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; O = Other (Specify)

## SAMPLING DATA

| | | | |
|---|---|---|---|
| SAMPLED BY (PRINT) / AFFILIATION: Danny Armour / Tetra Tech | SAMPLER(S) SIGNATURE(S): | SAMPLING INITIATED AT: 1101 | SAMPLING ENDED AT: NR |
| PUMP OR TUBING DEPTH IN WELL (feet): 64.35 | TUBING MATERIAL CODE: T | FIELD-FILTERED: Y (N) µm Filtration Equipment Type: | FILTER SIZE: |
| FIELD DECONTAMINATION: PUMP Y (N) | TUBING Y (N) replaced) | DUPLICATE: Y (N) | |

| SAMPLE CONTAINER SPECIFICATION | | | | SAMPLE PRESERVATION | | | INTENDED ANALYSIS AND/OR METHOD | SAMPLE PUMP FLOW RATE (mL per minute) | SAMPLING EQUIPMENT CODE |
|---|---|---|---|---|---|---|---|---|---|
| SAMPLE ID CODE | # CONTAINERS | MATERIAL CODE | VOLUME | PRESERVATIVE USED | TOTAL VOL ADDED IN FIELD (mL) | FINAL pH | | | |
| | 1 | PE | 250 ml | – | – | – | Cl, Nitrate | 0.27 | BP |
| | 1 | PE | 500 ml | HNO3 | – | – | Sodium | 1 | 1 |
| | 1 | AG | 500 ml | H2SO4 | – | – | NH3 | | |

REMARKS: SHEEN : No

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)

SAMPLING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)

NOTES: 1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.
2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)
pH: ± 0.2 units Temperature: ± 0.2 °C Specific Conductance: ± 5% Dissolved Oxygen: all readings ≤ 20% saturation (see Table FS 2200-2); optionally, ± 0.2 mg/L or ± 10% (whichever is greater) Turbidity: all readings ≤ 20 NTU; optionally ± 5 NTU or ± 10% (whichever is greater)

Revision Date: February 12, 2009

Form FD 9000-24

# GROUNDWATER SAMPLING LOG

| | | | |
|---|---|---|---|
| SITE NAME: VISTA | | SITE LOCATION: APOPKA, FL | |
| WELL NO: MW-78 | SAMPLE ID: | | DATE: 12-6-18 |

## PURGING DATA

| | | | | |
|---|---|---|---|---|
| WELL DIAMETER (inches): 2 | TUBING DIAMETER (inches): 1/4 | WELL SCREEN INTERVAL DEPTH: 81.7 feet to 91.7 feet | STATIC DEPTH TO WATER (feet): 52.05 | PURGE PUMP TYPE OR BAILER: BP |

WELL ELEVATION TOC (ft NGVD): 109.13 GROUNDWATER ELEVATION (ft NGVD): 57.08

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= ( feet – feet) X gallons/foot = gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= 0.2 gallons + (0.0026 gallons/foot X 91.70 feet) + 0.05 gallons = 0.49 gallons

| INITIAL PUMP OR TUBING DEPTH IN WELL (feet): | FINAL PUMP OR TUBING DEPTH IN WELL (feet): | PURGING INITIATED AT: | PURGING ENDED AT: | | TOTAL VOLUME PURGED (gallons): |
|---|---|---|---|---|---|
| 86.70 | 86.70 | 1202 | 1222 | | 3.60 |

| TIME | VOLUME PURGED (gallons) | CUMUL. VOLUME PURGED (gallons) | PURGE RATE (gpm) | DEPTH TO WATER (feet) | pH (standard units) | TEMP. (°C) | COND. (circle units) µmhos/cm or µS/cm | DISSOLVED OXYGEN (circle units) mg/L or % saturation | TURBIDITY (NTUs) | ORP (mV) | COLOR | ODOR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1212 | 1.80 | 1.80 | 0.18 | 52.59 | 7.57 | 23.8 | 147 | 0.1 | 2.81 | 117 | | |
| 1215 | 0.54 | 2.34 | 0.18 | 52.60 | 7.60 | 23.8 | 147 | 0.2 | 2.97 | 116 | | |
| 1218 | 0.54 | 2.88 | 0.18 | 52.60 | 7.60 | 23.8 | 147 | 0.1 | 2.84 | 116 | | |
| 1221 | 0.54 | 3.42 | 0.18 | 52.60 | 7.61 | 23.9 | 147 | 0.2 | 2.62 | 114 | NONE | |
| | | | | | | | | | | | | |
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WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016

PURGING EQUIPMENT CODES: B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; O = Other (Specify)

## SAMPLING DATA

| | | | |
|---|---|---|---|
| SAMPLED BY (PRINT) / AFFILIATION: DANNY ARNOLD / Pan-Terra | SAMPLER(S) SIGNATURE(S): | SAMPLING INITIATED AT: 1222 | SAMPLING ENDED AT: NR |
| PUMP OR TUBING DEPTH IN WELL (feet): 86.70 | TUBING MATERIAL CODE: T | FIELD-FILTERED: Y (N) µm Filtration Equipment Type: | FILTER SIZE: |
| FIELD DECONTAMINATION: PUMP Y (N) | TUBING Y (N)(replaced) | DUPLICATE: Y (N) | |

| SAMPLE CONTAINER SPECIFICATION | | | | SAMPLE PRESERVATION | | | INTENDED ANALYSIS AND/OR METHOD | SAMPLE PUMP FLOW RATE (ml/min per minute) | SAMPLING EQUIPMENT CODE |
|---|---|---|---|---|---|---|---|---|---|
| SAMPLE ID CODE | # CONTAINERS | MATERIAL CODE | VOLUME | PRESERVATIVE USED | TOTAL VOL ADDED IN FIELD (mL) | FINAL pH | | | |
| | 1 | PE | 250ml | – | – | – | Cl, NITRATE | 0.18 | BP |
| | 1 | PE | 500ml | HNO3 | – | – | Sodium | / | / |
| | 1 | AG | 500ml | H2SO4 | – | – | NH3 | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |

REMARKS:
SHEEN : NO

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)

SAMPLING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)

NOTES: 1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.
2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)
pH: ± 0.2 units Temperature: ± 0.2 °C Specific Conductance: ± 5% Dissolved Oxygen: all readings ≤ 20% saturation (see Table FS 2200-2); optionally, ± 0.2 mg/L or ± 10% (whichever is greater) Turbidity: all readings ≤ 20 NTU; optionally ± 5 NTU or ± 10% (whichever is greater)

Revision Date: February 12, 2009

Form FD 9000-24

# GROUNDWATER SAMPLING LOG

| | | | |
|---|---|---|---|
| SITE NAME: VISTA | | SITE LOCATION: APOPKA, FL | |
| WELL NO: MW-01B | SAMPLE ID: | | DATE: 12-6-18 |

## PURGING DATA

| | | | | |
|---|---|---|---|---|
| WELL DIAMETER (inches): 2 | TUBING DIAMETER (inches): 3/8 | WELL SCREEN INTERVAL DEPTH: 86.28 feet to 96.28 feet | STATIC DEPTH TO WATER (feet): 51.08 | PURGE PUMP TYPE OR BAILER: BP |

WELL ELEVATION TOC (ft NGVD): 109.53 GROUNDWATER ELEVATION (ft NGVD): 58.45

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= ( feet – feet) X gallons/foot = gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= 0.3 gallons + (0.006 gallons/foot X 96.78 feet) + 0.05 gallons = 0.93 gallons

| | | | | |
|---|---|---|---|---|
| INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 91.78 | FINAL PUMP OR TUBING DEPTH IN WELL (feet): 91.78 | PURGING INITIATED AT: 1321 | PURGING ENDED AT: 1341 | TOTAL VOLUME PURGED (gallons): 6.43 |

| TIME | VOLUME PURGED (gallons) | CUMUL. VOLUME PURGED (gallons) | PURGE RATE (gpm) | DEPTH TO WATER (feet) | pH (standard units) | TEMP. (°C) | COND. (circle units) µmhos/cm or µS/cm | DISSOLVED OXYGEN (circle units) mg/L or % saturation | TURBIDITY (NTUs) | ORP (mV) | COLOR | ODOR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1331 | 3.20 | 3.23 | 0.32 | 52.52 | 7.69 | 24.6 | 201 | 0.1 | 3.85 | 114 | | |
| 1334 | 0.96 | 4.19 | 0.32 | 52.52 | 7.70 | 24.5 | 201 | 0.1 | 3.45 | 114 | | |
| 1337 | 0.96 | 5.15 | 0.32 | 52.53 | 7.70 | 24.5 | 200 | 0.1 | 4.33 | 113 | | |
| 1340 | 0.96 | 6.11 | 0.32 | 52.53 | 7.70 | 24.6 | 200 | 0.1 | 3.42 | 113 | None | |
| | | | | | | | | | | | | |
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WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016

PURGING EQUIPMENT CODES: B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; O = Other (Specify)

## SAMPLING DATA

| | | | |
|---|---|---|---|
| SAMPLED BY (PRINT) / AFFILIATION: Danny Armour / Pan-Terra | SAMPLER(S) SIGNATURE(S): | SAMPLING INITIATED AT: 1341 | SAMPLING ENDED AT: NR |
| PUMP OR TUBING DEPTH IN WELL (feet): 91.78 | TUBING MATERIAL CODE: T | FIELD-FILTERED: Y (N) µm Filtration Equipment Type: | FILTER SIZE: |

FIELD DECONTAMINATION: PUMP Y (N) TUBING Y (N replaced) DUPLICATE: Y (N)

| SAMPLE CONTAINER SPECIFICATION | | | | SAMPLE PRESERVATION | | | INTENDED ANALYSIS AND/OR METHOD | SAMPLE PUMP FLOW RATE (mL per minute) | SAMPLING EQUIPMENT CODE |
|---|---|---|---|---|---|---|---|---|---|
| SAMPLE ID CODE | # CONTAINERS | MATERIAL CODE | VOLUME | PRESERVATIVE USED | TOTAL VOL ADDED IN FIELD (mL) | FINAL pH | | | |
| | 1 | PE | 250 ml | – | – | – | 4, Nitrate | 0.32 | BP |
| | 1 | PE | 500 ml | $HNO_3$ | – | – | Sodium | 1 | 1 |
| | 1 | AG | 500 ml | $H_2SO_4$ | – | – | $NH_3$ | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |

REMARKS:
SHEEN : NO

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)

SAMPLING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)

NOTES: 1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.
2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)
pH: ± 0.2 units Temperature: ± 0.2 °C Specific Conductance: ± 5% Dissolved Oxygen: all readings ≤ 20% saturation (see Table FS 2200-2); optionally, ± 0.2 mg/L or ± 10% (whichever is greater) Turbidity: all readings ≤ 20 NTU; optionally ± 5 NTU or ± 10% (whichever is greater)

Revision Date: February 12, 2009

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

# Chain of Custody Record

**Denver #280**

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

| Client Information | Sampler: Dawn Armour | Lab PM: Harrington, Danielle M | Carrier Tracking No(s): | COC No: 280-47705-17862.1 |
|---|---|---|---|---|
| Client Contact: Elizabeth Foeller | Phone: 225-907-4060 | E-Mail: danielle.harrington@testamericainc.com | | Page: Page 1 of 1 |
| Company: Waste Management | | | | Job #: |
| Address: 242 W Keene Road | Due Date Requested: | | | |
| City: Apopka | TAT Requested (days): | | | |
| State, Zip: FL, 32703 | | | | |
| Phone: 321-704-4162(Tel) 321-984-8170(Fax) | PO #: Purchase Order Requested | | | |
| Email: efoeller@wm.com | WO #: | | | |
| Project Name: FL26\|Vista Event Desc: Semiannual GW Parameters June Dec | Project #: 28002729 | | | |
| Site: Florida | 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) | Filtered Sample (Yes or No) | Perform MS/MSD (Yes or No) | 8260B - (40 mL VOA - CG) | 6010B, 6020, 7470A ( 500 mL - PE) | 350.1 - Ammonia as N (500 mL-PE) | 300.0 Cl, NO3, TDS (( 1 Liter-PE) | 8011 (40 mL VOA - CG) | | | | | | | | | Total Number of containers | Special Instructions/Note: |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Preservation Code: | | | | B | D | S | N | R | | | | | | | | | | |
| MW-03A | 12-6 | 0900 | G | Water | N | | 3 | 1 | 1 | 1 | 3 | | | | | | | | | | Note: Short holding times include Method 300.0 NO3 |
| MW-04A | 12-6 | 1020 | G | Water | N | | 3 | 1 | 1 | 1 | 3 | | | | | | | | | | |
| MW-05A | 12-6 | 1149 | G | Water | N | | 3 | 1 | 1 | 1 | 3 | | | | | | | | | | |
| MW-07A | 12-6 | 1304 | G | Water | N | | 3 | 1 | 1 | 1 | 3 | | | | | | | | | | |
| MW-01A | 12-6 | 1418 | G | Water | N | | 3 | 1 | 1 | 1 | 3 | | | | | | | | | | |
| TRIP | 12-6 | – | G | Water | N | | ✓ | | | | ✓ | | | | | | | | | | |
| | | | | Water | | | | | | | | | | | | | | | | | |
| | | | | Water | | | | | | | | | | | | | | | | | |
| | | | | Water | | | | | | | | | | | | | | | | | |
| | | | | Water | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | |

280-117920 Chain of Custody

*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: | Company | Received by: | Date/Time: | Company |
|---|---|---|---|---|---|
| [signature] | 12-6-18 / 1700 | Pro-Tech | [signature] | 12/7/18 0910 | TAD EN |
| 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: 0.5 H2O [illegible]

Form FD 9000-24

# GROUNDWATER SAMPLING LOG

SITE NAME: VISTA | SITE LOCATION: APOPKA, FL

WELL NO: MW-03A | SAMPLE ID: | DATE: 12-6-18

## PURGING DATA

WELL DIAMETER (inches): 2 | TUBING DIAMETER (inches): 1/4 | WELL SCREEN INTERVAL DEPTH: 50.20 feet to 60.20 feet | STATIC DEPTH TO WATER (feet): 37.11 | PURGE PUMP TYPE OR BAILER: BP

WELL ELEVATION TOC (ft NGVD): 92.87 | GROUNDWATER ELEVATION (ft NGVD): 55.76

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= ( feet – feet) X gallons/foot = gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= 0.2 gallons + (0.0026 gallons/foot X 60.20 feet) + 0.05 gallons = 0.41 gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 55.20 | FINAL PUMP OR TUBING DEPTH IN WELL (feet): 55.20 | PURGING INITIATED AT: 0840 | PURGING ENDED AT: 0900 | TOTAL VOLUME PURGED (gallons): 2.80

| TIME | VOLUME PURGED (gallons) | CUMUL. VOLUME PURGED (gallons) | PURGE RATE (gpm) | DEPTH TO WATER (feet) | pH (standard units) | TEMP. (°C) | COND. (circle units) µmhos/cm or µS/cm | DISSOLVED OXYGEN (circle units) mg/L or % saturation | TURBIDITY (NTUs) | ORP (mV) | COLOR | ODOR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0850 | 1.40 | 1.40 | 0.14 | 37.45 | 5.38 | 23.8 | 73 | 1.4 | 4.06 | 221 | | |
| 0853 | 0.42 | 1.82 | 0.14 | 37.45 | 5.40 | 23.9 | 74 | 1.5 | 3.38 | 221 | | |
| 0856 | 0.42 | 2.24 | 0.14 | 37.45 | 5.40 | 23.8 | 74 | 1.5 | 3.48 | 221 | | |
| 0859 | 0.42 | 2.66 | 0.14 | 37.45 | 5.41 | 23.9 | 74 | 1.5 | 3.37 | 221 | NONE | |

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016
PURGING EQUIPMENT CODES: B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; O = Other (Specify

## SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: DAN ARMOUR / PRO-TECH | SAMPLER(S) SIGNATURE(S): [signature] | SAMPLING INITIATED AT: 0900 | SAMPLING ENDED AT: NA

PUMP OR TUBING DEPTH IN WELL (feet): 55.20 | TUBING MATERIAL CODE: T | FIELD-FILTERED: Y (N) | FILTER SIZE: µm | Filtration Equipment Type:

FIELD DECONTAMINATION: PUMP Y (N) | TUBING Y (N replaced) | DUPLICATE: Y (N)

| SAMPLE ID CODE | SAMPLE CONTAINER SPECIFICATION: # CONTAINERS | MATERIAL CODE | VOLUME | SAMPLE PRESERVATION: PRESERVATIVE USED | TOTAL VOL ADDED IN FIELD (mL) | FINAL pH | INTENDED ANALYSIS AND/OR METHOD | SAMPLE PUMP FLOW RATE (mL per minute) | SAMPLING EQUIPMENT CODE |
|---|---|---|---|---|---|---|---|---|---|
| | 3 | G | 40ml | HCl | – | NM | VOA | 0.14 | BP |
| | 3 | G | 40ml | Na2S2O3 | – | | EDB/DBCP | | |
| | 1 | P | 1000ml | – | – | | G-CHEM | | |
| | 1 | P | 500ml | HNO3 | – | | METALS | | |
| | 1 | AG | 500ml | H2SO4 | – | | NH3 | | |
| | ~~1~~ | ~~P~~ | ~~1000ml~~ | ~~HNO3~~ | ~~–~~ | | ~~Gross Alpha~~ | | |

REMARKS:
Sheen Present YES (NO)

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)

SAMPLING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)

NOTES: 1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.
2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2217, SECTION 3)
pH: ± 0.2 units Temperature: ± 0.2 °C Specific Conductance: ± 5% Dissolved Oxygen: all readings ≤ 20% saturation (see Table FS 2200-2), optionally, ± 0.2 mg/L or ± 10% (whichever is greater) Turbidity: all readings ≤ 20 NTU; optionally ± 5 NTU or ± 10% (whichever is greater)

Revision Date: February 12, 2009

Form FD 9000-24

# GROUNDWATER SAMPLING LOG

SITE NAME: VISTA | SITE LOCATION: APOPKA, FL

WELL NO: MW-04A | SAMPLE ID: | DATE: 12-6-18

## PURGING DATA

WELL DIAMETER (inches): 2 | TUBING DIAMETER (inches): 1/4 | WELL SCREEN INTERVAL DEPTHS: 36.35 feet to 46.35 feet | STATIC DEPTH TO WATER (feet): 26.10 | PURGE PUMP TYPE OR BAILER: BP

WELL ELEVATION TOC (ft NGVD): 82.04 | GROUNDWATER ELEVATION (ft NGVD): 55.94

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)

= ( 46.35 feet – 26.10 feet) X 0.163 gallons/foot = 3.30 gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)

= 0.2 gallons + (0.0026 gallons/foot X 46.35 feet) + 0.05 gallons = 0.33 gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 41.65 | FINAL PUMP OR TUBING DEPTH IN WELL (feet): 41.65 | PURGING INITIATED AT: 0953 | PURGING ENDED AT: 1020 | TOTAL VOLUME PURGED (gallons): 5.40

| TIME | VOLUME PURGED (gallons) | CUMUL. VOLUME PURGED (gallons) | PURGE RATE (gpm) | DEPTH TO WATER (feet) | pH (standard units) | TEMP. (°C) | COND. (circle units) µmhos/cm or µS/cm | DISSOLVED OXYGEN (circle units) mg/L or % saturation | TURBIDITY (NTUs) | ORP (mV) | COLOR | ODOR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1010 | 3.40 | 3.40 | 0.20 | 28.35 | 5.99 | 24.6 | 102 | 4.8 | 2.80 | 221 | | |
| 1013 | 0.60 | 4.00 | 0.20 | 28.35 | 6.01 | 24.4 | 104 | 4.9 | 3.44 | 220 | | |
| 1016 | 0.60 | 4.60 | 0.20 | 28.35 | 6.01 | 24.5 | 106 | 4.9 | 1.86 | 221 | | |
| 1019 | 0.60 | 5.20 | 0.20 | 28.35 | 6.04 | 24.6 | 107 | 4.9 | 3.56 | 220 | NONE | |

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0005; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.005; 1/2" = 0.010; 5/8" = 0.016
PURGING EQUIPMENT CODES: B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; O = Other (Specify)

## SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: DAN ARMOUR / PRO-TECH | SAMPLER(S) SIGNATURE(S): [signature] | SAMPLING INITIATED AT: 1020 | SAMPLING ENDED AT: NR

PUMP OR TUBING DEPTH IN WELL (feet): 41.65 | TUBING MATERIAL CODE: T | FIELD-FILTERED: Y (N) µm Filtration Equipment Type: | FILTER SIZE:

FIELD DECONTAMINATION: PUMP Y (N) TUBING Y (R)(replaced) | DUPLICATE: Y (N)

| SAMPLE CONTAINER SPECIFICATION | | | | SAMPLE PRESERVATION | | | INTENDED ANALYSIS AND/OR METHOD | SAMPLE PUMP FLOW RATE (mL per minute) | SAMPLING EQUIPMENT CODE |
|---|---|---|---|---|---|---|---|---|---|
| SAMPLE ID CODE | # CONTAINERS | MATERIAL CODE | VOLUME | PRESERVATIVE USED | TOTAL VOL ADDED IN FIELD (mL) | FINAL pH | | | |
| | 3 | G | 40ml | HCl | – | NM | VOA | 0.20 | BP |
| | 3 | G | 40ml | Nothio | – | | EDB/DBCP | | |
| | 1 | P | 1000ml | – | – | | G-CHEM | | |
| | 1 | P | 500ml | HNO3 | – | | METALS | | |
| | 1 | AG | 500ml | H2SO4 | – | | NH3 | | |
| | ~~1~~ | ~~P~~ | ~~1000ml~~ | ~~HNO3~~ | ~~–~~ | | ~~GROSS ALPHA~~ | | |

REMARKS:

Sheen Present: YES (NO)

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)

SAMPLING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)

NOTES: 1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.
2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)
pH: ± 0.2 units Temperature: ± 0.2 °C Specific Conductance: ± 5% Dissolved Oxygen: all readings ≤ 20% saturation (see Table FS 2200-2), optionally, ± 0.2 mg/L or ± 10% (whichever is greater) Turbidity: all readings ≤ 20 NTU; optionally ± 5 NTU or ± 10% (whichever is greater)

Revision Date: February 12, 2009

Form FD 9000-24

# GROUNDWATER SAMPLING LOG

SITE NAME: VISTA | SITE LOCATION: APOPKA, FL

WELL NO: MW-05A | SAMPLE ID: | DATE: 12-6-18

## PURGING DATA

WELL DIAMETER (inches): 2 | TUBING DIAMETER (inches): 1/4 | WELL SCREEN INTERVAL DEPTH 38.08 feet to 48.08 feet | STATIC DEPTH TO WATER (feet): 24.50 | PURGE PUMP TYPE OR BAILER: BP

WELL ELEVATION TOC (ft NGVD): 81.86 | GROUNDWATER ELEVATION (ft NGVD): 57.36

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)

= (43.08 feet – 24.50 feet) X 0.163 gallons/foot = 3.03 gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)

= 0.2 gallons + (0.0026 gallons/foot X 43.08 feet) + 0.05 gallons = 0.36 gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 38.08 | FINAL PUMP OR TUBING DEPTH IN WELL (feet): 38.08 | PURGING INITIATED AT: 1123 | PURGING ENDED AT: 1149 | TOTAL VOLUME PURGED (gallons): 4.94

| TIME | VOLUME PURGED (gallons) | CUMUL. VOLUME PURGED (gallons) | PURGE RATE (gpm) | DEPTH TO WATER (feet) | pH (standard units) | TEMP. (°C) | COND. (circle units) µmhos/cm or µS/cm | DISSOLVED OXYGEN (circle units) mg/L or % saturation | TURBIDITY (NTUs) | ORP (mV) | COLOR | ODOR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1139 | 3.04 | 3.04 | 0.19 | 27.08 | 5.41 | 25.4 | 139 | 3.8 | 2.33 | 187 | | |
| 1142 | 0.57 | 3.61 | 0.19 | 27.09 | 5.42 | 25.3 | 137 | 3.8 | 3.00 | 189 | | |
| 1145 | 0.57 | 4.18 | 0.19 | 27.09 | 5.43 | 25.3 | 137 | 3.8 | 2.23 | 189 | | |
| 1148 | 0.57 | 4.75 | 0.19 | 27.10 | 5.43 | 25.2 | 139 | 3.8 | 3.15 | 190 | None | |

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./FT): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016

PURGING EQUIPMENT CODES: B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; O = Other (Specify)

## SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: DAN ARMOUR / PRO-TECH | SAMPLER(S) SIGNATURE(S): | SAMPLING INITIATED AT: 1149 | SAMPLING ENDED AT: NA

PUMP OR TUBING DEPTH IN WELL (feet): 38.08 | TUBING MATERIAL CODE: T | FIELD-FILTERED: Y (N) µm Filtration Equipment Type: | FILTER SIZE:

FIELD DECONTAMINATION: PUMP Y (N) TUBING Y (N replaced) | DUPLICATE: Y (N)

| SAMPLE CONTAINER SPECIFICATION | | | | SAMPLE PRESERVATION | | | INTENDED ANALYSIS AND/OR METHOD | SAMPLE PUMP FLOW RATE (mL per minute) | SAMPLING EQUIPMENT CODE |
|---|---|---|---|---|---|---|---|---|---|
| SAMPLE ID CODE | # CONTAINERS | MATERIAL CODE | VOLUME | PRESERVATIVE USED | TOTAL VOL ADDED IN FIELD (mL) | FINAL pH | | | |
| | 3 | G | 40ml | HCl | – | NM | VOA | 0.19 | BP |
| | 3 | G | 40ml | Na2S2O3 | – | | EDB/DBCP | | |
| | 1 | P | 1000ml | – | – | | G-CHEM | | |
| | 1 | P | 500ml | HNO3 | – | | METALS | | |
| | 1 | AG | 500ml | H2SO4 | – | | NH3 | | |
| | ~~1~~ | ~~P~~ | ~~1000ml~~ | ~~HNO3~~ | ~~–~~ | | ~~GROSS ALPHA~~ | | |

REMARKS:

Sheen Present: YES (NO)

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)

SAMPLING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)

NOTES: 1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.
2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)
pH: ± 0.2 units Temperature: ± 0.2 °C Specific Conductance: ± 5% Dissolved Oxygen: all readings ≤ 20% saturation (see Table FS 2200-2). optionally, ± 0.2 mg/L or ± 10% (whichever is greater) Turbidity: all readings ≤ 20 NTU; optionally ± 5 NTU or ± 10% (whichever is greater)

Revision Date: February 12, 2009

Form FD 9000-24

# GROUNDWATER SAMPLING LOG

SITE NAME: VISTA | SITE LOCATION: APOPKA, FL

WELL NO: MW-03A | SAMPLE ID: | DATE: 12-6-18

## PURGING DATA

WELL DIAMETER (inches): 2 | TUBING DIAMETER (inches): 1/4 | WELL SCREEN INTERVAL DEPTHS (feet): | STATIC DEPTH TO WATER (feet): 38.95 | PURGE PUMP TYPE OR BAILER: BP

WELL ELEVATION TOC (ft NGVD): 109.26 | GROUNDWATER ELEVATION (ft NGVD): 70.31

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)

= ( 71.03 feet – 38.95 feet) X 0.163 gallons/foot = 5.22 gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)

= 0.2 gallons + (0.0026 gallons/foot X 71.03 feet) + 0.05 gallons = 0.43 gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 66.03 | FINAL PUMP OR TUBING DEPTH IN WELL (feet): 66.03 | PURGING INITIATED AT: 1232 | PURGING ENDED AT: 1304 | TOTAL VOLUME PURGED (gallons): 7.68

| TIME | VOLUME PURGED (gallons) | CUMUL. VOLUME PURGED (gallons) | PURGE RATE (gpm) | DEPTH TO WATER (feet) | pH (standard units) | TEMP. (°C) | COND. (circle units) µmhos/cm or µS/cm | DISSOLVED OXYGEN (circle units) mg/L or % saturation | TURBIDITY (NTUs) | ORP (mV) | COLOR | ODOR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1254 | 5.28 | 5.28 | 0.24 | 40.51 | 7.24 | 24.3 | 349 | 1.2 | 3.91 | 118 | | |
| 1257 | 0.72 | 6.00 | 0.24 | 40.51 | 7.24 | 24.3 | 350 | 1.2 | 3.97 | 119 | | |
| 1300 | 0.72 | 6.72 | 0.24 | 40.51 | 7.24 | 24.4 | 350 | 1.3 | 3.91 | 118 | | |
| 1303 | 0.72 | 7.44 | 0.24 | 40.52 | 7.24 | 24.3 | 350 | 1.2 | 3.77 | 118 | NONE | |

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./FT.): 1/8" = 0.0005; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.005; 1/2" = 0.010; 5/8" = 0.016
PURGING EQUIPMENT CODES: B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; O = Other (Specify)

## SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: DAN ARMOUR / PRO-TECH | SAMPLER(S) SIGNATURE(S): [signature] | SAMPLING INITIATED AT: 1304 | SAMPLING ENDED AT: NA

PUMP OR TUBING DEPTH IN WELL (feet): 66.03 | TUBING MATERIAL CODE: T | FIELD-FILTERED: Y (N) µm | Filtration Equipment Type: | FILTER SIZE:

FIELD DECONTAMINATION: PUMP Y (N) | TUBING Y (N) (replaced) | DUPLICATE: Y (N)

| SAMPLE ID CODE | # CONTAINERS | MATERIAL CODE | VOLUME | PRESERVATIVE USED | TOTAL VOL ADDED IN FIELD (mL) | FINAL pH | INTENDED ANALYSIS AND/OR METHOD | SAMPLE-PUMP FLOW RATE (mL per minute) | SAMPLING EQUIPMENT CODE |
|---|---|---|---|---|---|---|---|---|---|
| | 3 | G | 40ml | HCl | – | NM | VOA | 0.24 | BP |
| | 3 | G | 40ml | Na2S2O3 | – | | GDB/DRGP | | |
| | 1 | P | 1000ml | – | – | | G-CHEM | | |
| | 1 | P | 500ml | HNO3 | – | | METALS | | |
| | 1 | AG | 500ml | H2SO4 | – | | NH3 | | |
| | 1 | P | 1000ml | HNO3 | – | | GROSS ALPHA | | |

REMARKS:

Sheen Present: YES (NO)

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)

SAMPLING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; RFPP = Reversed Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)

NOTES: 1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.
2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)
pH: ± 0.2 units Temperature: ± 0.2 °C Specific Conductance: ± 5% Dissolved Oxygen: all readings ≤ 20% saturation (see Table FS 2200-2), optionally, ± 0.2 mg/L or ± 10% (whichever is greater) Turbidity: all readings ≤ 20 NTU; optionally ± 5 NTU or ± 10% (whichever is greater)

Revision Date: February 12, 2009

Form FD-9000-24

# GROUNDWATER SAMPLING LOG

SITE NAME: VISTA | SITE LOCATION: APOPKA, FL

WELL NO: MW-01A | SAMPLE ID: | DATE: 12-6-18

## PURGING DATA

WELL DIAMETER (inches): 2 | TUBING DIAMETER (inches): 3/8 | WELL SCREEN INTERVAL DEPTH: feet to feet | STATIC DEPTH TO WATER (feet): 41.29 | PURGE PUMP TYPE OR BAILER: BP

WELL ELEVATION TOC (ft NGVD): 109.47 | GROUNDWATER ELEVATION (ft NGVD): 68.18

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= ( feet – feet) X gallons/foot = gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= 0.3 gallons + (0.006 gallons/foot X 69.71 feet) + 0.05 gallons = 0.73 gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 64.71 | FINAL PUMP OR TUBING DEPTH IN WELL (feet): 64.71 | PURGING INITIATED AT: 1358 | PURGING ENDED AT: 1418 | TOTAL VOLUME PURGED (gallons) 5.20

| TIME | VOLUME PURGED (gallons) | CUMUL. VOLUME PURGED (gallons) | PURGE RATE (gpm) | DEPTH TO WATER (feet) | pH (standard units) | TEMP. (°C) | COND. (circle units) µmhos/cm or mS/cm | DISSOLVED OXYGEN (circle units) mg/L or % saturation | TURBIDITY (NTUs) | ORP (mV) | COLOR | ODOR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1408 | 2.60 | 2.60 | 0.26 | 42.71 | 7.15 | 24.5 | 437 | 0.5 | 3.53 | 114 | | |
| 1411 | 0.78 | 3.38 | 0.26 | 42.71 | 7.16 | 24.5 | 437 | 0.6 | 3.85 | 114 | | |
| 1414 | 0.78 | 4.16 | 0.26 | 42.71 | 7.16 | 24.4 | 435 | 0.5 | 3.71 | 114 | | |
| 1417 | 0.78 | 4.94 | 0.26 | 42.71 | 7.16 | 24.3 | 434 | 0.6 | 3.72 | 113 | NONE | |

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 6" = 1.02; 8" = 1.47; 12" = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./FL): 1/8" = 0.0005; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016
PURGING EQUIPMENT CODES: B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; O = Other (Specify

## SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: DAN ARMOUR / PRO-TECH | SAMPLER(S) SIGNATURE(S): [signature] | SAMPLING INITIATED AT: 1418 | SAMPLING ENDED AT: NR

PUMP OR TUBING DEPTH IN WELL (feet): 64.71 | TUBING MATERIAL CODE: T | FIELD-FILTERED: Y (N) µm Filtration Equipment Type: | FILTER SIZE:

FIELD DECONTAMINATION: PUMP Y (N) TUBING Y (N) (Replaced) | DUPLICATE: Y (N)

| SAMPLE ID CODE | # CONTAINERS | MATERIAL CODE | VOLUME | PRESERVATIVE USED | TOTAL VOL ADDED IN FIELD (mL) | FINAL pH | INTENDED ANALYSIS AND/OR METHOD | SAMPLE PUMP FLOW RATE gal/(min per minute) | SAMPLING EQUIPMENT CODE |
|---|---|---|---|---|---|---|---|---|---|
| | 3 | G | 40ml | HCl | – | NM | VOA | 0.26 | BP |
| | 3 | G | 40ml | Na2S2O3 | – | | EDB/DBCP | | |
| | 1 | P | 1000ml | – | – | | G-CHEM | | |
| | 1 | P | 500ml | HNO3 | – | | METALS | | |
| | 1 | AG | 500ml | H2SO4 | – | | NH3 | | |
| | ~~1~~ | ~~AG~~ | ~~1000ml~~ | ~~HNO3~~ | ~~–~~ | | ~~GROSS ALPHA~~ | | |

REMARKS:

Sheen Present YES (NO)

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)

SAMPLING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)

NOTES: 1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.
2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)
pH: ± 0.2 units Temperature: ± 0.2 °C Specific Conductance: ± 5% Dissolved Oxygen: all readings ≤ 20% saturation (see Table FS 2200-2), optionally, ± 0.2 mg/L or ± 10% (whichever is greater) Turbidity: all readings ≤ 20 NTU; optionally ± 5 NTU or ± 10% (whichever is greater)

Revision Date: February 12, 2009

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

# Chain of Custody Record

Denver #280

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

| Client Information | Sampler: DANNY ARMOUR | Lab PM: Harrington, Danielle M | Carrier Tracking No(s): | COC No: 280-59404-20781.1 |
|---|---|---|---|---|
| Client Contact: Elizabeth Foeller | Phone: 225-907-4060 | E-Mail: danielle.harrington@testamericainc.com | | Page: Page 1 of 1 |
| Company: Waste Management | | | | Job #: |
| Address: 242 W Keene Road | Due Date Requested: | | | |
| City: Apopka | TAT Requested (days): | | | |
| State, Zip: FL, 32703 | | | | |
| Phone: | PO #: Purchase Order Requested | | | |
| Email: efoeller@wm.com | WO #: | | | |
| Project Name: FL26\|Vista/FL26 Event: Annual Intermediate Wells - Dec | Project #: 28002729 | | | |
| Site: Florida | 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 - Na2S2O3, 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) | IC Nitrate and Chloride (250ml PE) | 6010B - Sodium (500ml PE) | 350.1 - Ammonia as N (500ml AG) | Total Number of containers | Special Instructions/Note: |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Preservation Code: | | | | N | O | O | | |
| MW-2B | 12-7 | 0841 | G | W | N | | 1 | 1 | 1 | | Login: Shortholds include Nitrate by IC |
| MW-6BR | 12-7 | 1001 | G | W | N | | 1 | 1 | 1 | | |
| MW-15B | 12-7 | 1116 | G | W | N | | 1 | 1 | 1 | | |
| MW-11B | 12-7 | 1231 | G | W | N | | 1 | 1 | 1 | | |

280-117969 Chain of Custody

*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: | Company | Received by: | Date/Time: | Company |
|---|---|---|---|---|---|
| [signature] | 12-7-18 1700 | PRO-TECH | [signature] | 12-08-18 1040 | TADEN |
| 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: 0.2, 4.2 +1.0 IRS XFERED BY KD 12-08-18

Form FD 9000-24

# GROUNDWATER SAMPLING LOG

| | | | |
|---|---|---|---|
| SITE NAME: VISTA | | SITE LOCATION: APOPKA, FL | |
| WELL NO: MW - 28 | SAMPLE ID: | | DATE: 12-9-18 |

## PURGING DATA

| | | | | |
|---|---|---|---|---|
| WELL DIAMETER (inches): 2 | TUBING DIAMETER (inches): 3/8 | WELL SCREEN INTERVAL DEPTHS: [illegible] feet to [illegible] feet | STATIC DEPTH TO WATER (feet): 32.96 | PURGE PUMP TYPE OR BAILER: BP |
| WELL ELEVATION TOC (ft NGVD): 88.46 | | GROUNDWATER ELEVATION (ft NGVD): 55.50 | | |

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= ( feet – feet) X gallons/foot = gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= 0.3 gallons + (0.006 gallons/foot X 72.05 feet) + 0.05 gallons = 0.81 gallons

| | | | | |
|---|---|---|---|---|
| INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 72.05 | FINAL PUMP OR TUBING DEPTH IN WELL (feet): 72.05 | PURGING INITIATED AT: 0821 | PURGING ENDED AT: 0841 | TOTAL VOLUME PURGED (gallons): 5.60 |

| TIME | VOLUME PURGED (gallons) | CUMUL. VOLUME PURGED (gallons) | PURGE RATE (gpm) | DEPTH TO WATER (feet) | pH (standard units) | TEMP. (°C) | COND. (circle units) µmhos/cm or µS/cm | DISSOLVED OXYGEN (circle units) mg/L or % saturation | TURBIDITY (NTUs) | ORP (mV) | COLOR | ODOR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0831 | 2.80 | 2.80 | 0.28 | 34.64 | 7.93 | 24.1 | 150 | 0.2 | 3.56 | 162 | | |
| 0834 | 0.84 | 3.64 | 0.28 | 34.65 | 7.90 | 24.0 | 150 | 0.2 | 4.72 | 161 | | |
| 0837 | 0.84 | 4.48 | 0.28 | 34.65 | 7.91 | 24.0 | 149 | 0.2 | 3.83 | 160 | | |
| 0840 | 0.84 | 5.32 | 0.28 | 34.65 | 7.90 | 24.0 | 150 | 0.2 | 3.46 | 159 | None | |
| | | | | | | | | | | | | |
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WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016
PURGING EQUIPMENT CODES: B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; O = Other (Specify)

## SAMPLING DATA

| | | | |
|---|---|---|---|
| SAMPLED BY (PRINT) / AFFILIATION: DAN ARMOUR / PRO-TECH | SAMPLER(S) SIGNATURE(S): [signature] | SAMPLING INITIATED AT: 0841 | SAMPLING ENDED AT: NR |
| PUMP OR TUBING DEPTH IN WELL (feet): 72.05 | TUBING MATERIAL CODE: T | FIELD-FILTERED: Y (N) µm Filtration Equipment Type: | FILTER SIZE: |
| FIELD DECONTAMINATION: PUMP Y (N) | TUBING Y (N) (replaced) | DUPLICATE: Y (N) | |

| SAMPLE CONTAINER SPECIFICATION | | | | SAMPLE PRESERVATION | | | INTENDED ANALYSIS AND/OR METHOD | SAMPLE PUMP FLOW RATE (mL per minute) | SAMPLING EQUIPMENT CODE |
|---|---|---|---|---|---|---|---|---|---|
| SAMPLE ID CODE | # CONTAINERS | MATERIAL CODE | VOLUME | PRESERVATIVE USED | TOTAL VOL ADDED IN FIELD (mL) | FINAL pH | | | |
| | 1 | PE | 250 ml | – | – | – | NITRATE | 0.28 | BP |
| | 1 | PE | 500 ml | $HNO_3$ | – | – | METALS | 1 | BP |
| | 1 | AG | 500 ml | $H_2SO_4$ | – | – | $NH_3$ | 1 | BP |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |

REMARKS:
SHEEN: NO

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)

SAMPLING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)

NOTES: 1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.
2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)
pH: ± 0.2 units Temperature: ± 0.2 °C Specific Conductance: ± 5% Dissolved Oxygen: all readings ≤ 20% saturation (see Table FS 2200-2); optionally, ± 0.2 mg/L or ± 10% (whichever is greater) Turbidity: all readings ≤ 20 NTU; optionally ± 5 NTU or ± 10% (whichever is greater)

Revision Date: February 12, 2009

Form FD 9000-24

# GROUNDWATER SAMPLING LOG

| | | | |
|---|---|---|---|
| SITE NAME: VISTA | | SITE LOCATION: APOPKA, FL | |
| WELL NO: MW-68R | SAMPLE ID: | | DATE: 12-7-18 |

## PURGING DATA

| | | | | |
|---|---|---|---|---|
| WELL DIAMETER (inches): 2 | TUBING DIAMETER (inches): 3/8 | WELL SCREEN INTERVAL DEPTH: [illegible] feet to [illegible] feet | STATIC DEPTH TO WATER (feet): 47.84 | PURGE PUMP TYPE OR BAILER: BP |
| WELL ELEVATION TOC (ft NGVD): 103.99 | | | GROUNDWATER ELEVATION (ft NGVD): 56.15 | |

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= ( feet – feet) X gallons/foot = gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= 0.3 gallons + (0.006 gallons/foot X 92.48 feet) + 0.05 gallons = 0.9 gallons

| | | | | |
|---|---|---|---|---|
| INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 82.48 | FINAL PUMP OR TUBING DEPTH IN WELL (feet): 82.48 | PURGING INITIATED AT: 0940 | PURGING ENDED AT: 1001 | TOTAL VOLUME PURGED (gallons): 6.51 |

| TIME | VOLUME PURGED (gallons) | CUMUL. VOLUME PURGED (gallons) | PURGE RATE (gpm) | DEPTH TO WATER (feet) | pH (standard units) | TEMP. (°C) | COND. (circle units) µmhos/cm or µS/cm | DISSOLVED OXYGEN (circle units) mg/L or % saturation | TURBIDITY (NTUs) | ORP (mV) | COLOR | ODOR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0951 | 3.41 | 3.41 | 0.31 | 48.59 | 7.89 | 23.2 | 315 | 1.3 | 3.11 | 139 | | |
| 0954 | 0.93 | 4.34 | 0.31 | 48.59 | 7.93 | 23.2 | 316 | 1.3 | 3.48 | 139 | | |
| 0957 | 0.93 | 5.27 | 0.31 | 48.60 | 7.91 | 23.2 | 317 | 1.3 | 3.44 | 135 | | |
| 1000 | 0.93 | 6.20 | 0.31 | 48.61 | 7.92 | 23.2 | 317 | 1.3 | 3.89 | 135 | None | |
| | | | | | | | | | | | | |
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WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016
PURGING EQUIPMENT CODES: B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; O = Other (Specify)

## SAMPLING DATA

| | | | |
|---|---|---|---|
| SAMPLED BY (PRINT) / AFFILIATION: DAN ARMOUR / PRO-TECH | SAMPLER(S) SIGNATURE(S): | SAMPLING INITIATED AT: 1001 | SAMPLING ENDED AT: NR |
| PUMP OR TUBING DEPTH IN WELL (feet): 82.48 | TUBING MATERIAL CODE: T | FIELD-FILTERED: Y (N) µm Filtration Equipment Type: | FILTER SIZE: |
| FIELD DECONTAMINATION: PUMP Y (N) | TUBING Y (N) (replaced) | DUPLICATE: Y (N) | |

| SAMPLE CONTAINER SPECIFICATION | | | | SAMPLE PRESERVATION | | | INTENDED ANALYSIS AND/OR METHOD | SAMPLE PUMP FLOW RATE (mL per minute) | SAMPLING EQUIPMENT CODE |
|---|---|---|---|---|---|---|---|---|---|
| SAMPLE ID CODE | # CONTAINERS | MATERIAL CODE | VOLUME | PRESERVATIVE USED | TOTAL VOL. ADDED IN FIELD (mL) | FINAL pH | | | |
| | 1 | PE | 250 ml | – | – | – | NITRATE | 0.31 | BP |
| | 1 | PE | 500 ml | $HNO_3$ | – | – | METALS | 1 | BP |
| | 1 | AG | 500 ml | $H_2SO_4$ | – | – | $NH_3$ | 1 | BP |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |

REMARKS:
SHEEN: No

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)

SAMPLING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)

NOTES: 1. This above do not constitute all of the information required by Chapter 62-160, F.A.C.
2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)
pH: ± 0.2 units Temperature: ± 0.2 °C Specific Conductance: ± 5% Dissolved Oxygen: all readings ≤ 20% saturation (see Table FS 2200-2); optionally, ± 0.2 mg/L or ± 10% (whichever is greater) Turbidity: all readings ≤ 20 NTU; optionally ± 5 NTU or ± 10% (whichever is greater)

Revision Date: February 12, 2009

Form FD 9000-24

# GROUNDWATER SAMPLING LOG

| | |
|---|---|
| SITE NAME: VISTA | SITE LOCATION: APOPKA, FL |
| WELL NO: MW-15B | SAMPLE ID: |
| | DATE: 12-7-18 |

## PURGING DATA

| | | | | |
|---|---|---|---|---|
| WELL DIAMETER (inches): 2 | TUBING DIAMETER (inches): 1/4 | WELL SCREEN INTERVAL DEPTH: [illegible] feet to 93.48 feet | STATIC DEPTH TO WATER (feet): 48.16 | PURGE PUMP TYPE OR BAILER: BP |

WELL ELEVATION TOC (ft NGVD): NA GROUNDWATER ELEVATION (ft NGVD): NA

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= ( feet – feet) X gallons/foot = gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= 0.2 gallons + (0.026 gallons/foot X 93.48 feet) + 0.05 gallons = 0.44 gallons

| | | | | |
|---|---|---|---|---|
| INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 88.48 | FINAL PUMP OR TUBING DEPTH IN WELL (feet): 88.48 | PURGING INITIATED AT: 1056 | PURGING ENDED AT: 1116 | TOTAL VOLUME PURGED (gallons): 3.60 |

| TIME | VOLUME PURGED (gallons) | CUMUL. VOLUME PURGED (gallons) | PURGE RATE (gpm) | DEPTH TO WATER (feet) | pH (standard units) | TEMP. (°C) | COND. (circle units) µmhos/cm or µS/cm | DISSOLVED OXYGEN (circle units) mg/L or % saturation | TURBIDITY (NTUs) | ORP (mV) | COLOR | ODOR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1106 | 1.90 | 1.90 | 0.19 | 52.62 | 6.67 | 23.5 | 104 | 2.3 | 11.84 | 163 | | |
| 1109 | 0.57 | 2.47 | 0.19 | 52.62 | 6.67 | 23.6 | 104 | 2.3 | 11.34 | 163 | | |
| 1112 | 0.57 | 3.04 | 0.19 | 52.62 | 6.67 | 23.6 | 104 | 2.4 | 11.85 | 163 | | |
| 1115 | 0.57 | 3.61 | 0.19 | 52.63 | 6.67 | 23.6 | 105 | 2.4 | 11.56 | 164 | SLY TAN | |

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016
PURGING EQUIPMENT CODES: B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; O = Other (Specify)

## SAMPLING DATA

| | | | |
|---|---|---|---|
| SAMPLED BY (PRINT) / AFFILIATION: DAN ARINDER / PRO-TECH | SAMPLER(S) SIGNATURE(S): | SAMPLING INITIATED AT: 1116 | SAMPLING ENDED AT: NR |
| PUMP OR TUBING DEPTH IN WELL (feet): 88.48 | TUBING MATERIAL CODE: T | FIELD-FILTERED: Y (N) µm. Filtration Equipment Type: | FILTER SIZE: |
| FIELD DECONTAMINATION: PUMP Y (N) | TUBING Y (N) (replaced) | DUPLICATE: Y (N) | |

| SAMPLE ID CODE | # CONTAINERS | MATERIAL CODE | VOLUME | PRESERVATIVE USED | TOTAL VOL ADDED IN FIELD (mL) | FINAL pH | INTENDED ANALYSIS AND/OR METHOD | SAMPLE PUMP FLOW RATE (mL per minute) | SAMPLING EQUIPMENT CODE |
|---|---|---|---|---|---|---|---|---|---|
| | ~~3~~ | ~~G~~ | ~~40 ml~~ | ~~HCl~~ | ~~–~~ | ~~NM~~ | ~~VOA~~ | ~~–~~ | BP |
| | ~~3~~ | ~~G~~ | ~~40 ml~~ | ~~NaHSO4~~ | ~~–~~ | | ~~8011~~ | ~~–~~ | |
| | 1 | P | 1000 ml | – | – | | G-CHEM | 0.19 | |
| | 1 | P | 500 ml | HNO3 | – | | METALS | 0.19 | |
| | 1 | AG | 500 ml | H2SO4 | – | | NH3 | 0.19 | |
| | ~~1~~ | ~~P~~ | ~~1000 ml~~ | ~~NaOH~~ | ~~–~~ | | ~~CRYS. ALGAE~~ | ~~–~~ | |

REMARKS:
SHEEN: No

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)

SAMPLING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)

NOTES: 1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.
2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)
pH: ± 0.2 units Temperature: ± 0.2 °C Specific Conductance: ± 5% Dissolved Oxygen: all readings ≤ 20% saturation (see Table FS 2200-2); optionally, ± 0.2 mg/L or ± 10% (whichever is greater) Turbidity: all readings ≤ 20 NTU; optionally ± 5 NTU or ± 10% (whichever is greater)

Revision Date: February 12, 2009

Form FD 9000-24

# GROUNDWATER SAMPLING LOG

| | | | |
|---|---|---|---|
| SITE NAME: VISTA | | SITE LOCATION: APOPKA FL | |
| WELL NO: MW-11B | SAMPLE ID: | | DATE: 12-7-18 |

## PURGING DATA

| | | | | |
|---|---|---|---|---|
| WELL DIAMETER (inches): 2 | TUBING DIAMETER (inches): 1/4 | WELL SCREEN INTERVAL DEPTH: 78.8 feet to 88.8 feet | STATIC DEPTH TO WATER (feet): 39.31 | PURGE PUMP TYPE OR BAILER: BP |

WELL ELEVATION TOC (ft NGVD): NO

GROUNDWATER ELEVATION (ft NGVD): NA

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= ( feet – feet) X gallons/foot = gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= 0.2 gallons + (0.0026 gallons/foot X 88.80 feet) + 0.05 gallons = 0.43 gallons

| INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 83.80 | FINAL PUMP OR TUBING DEPTH IN WELL (feet): 83.80 | PURGING INITIATED AT: 1210 | PURGING ENDED AT: 1231 | TOTAL VOLUME PURGED (gallons): 3.78 |
|---|---|---|---|---|

| TIME | VOLUME PURGED (gallons) | CUMUL. VOLUME PURGED (gallons) | PURGE RATE (gpm) | DEPTH TO WATER (feet) | pH (standard units) | TEMP. (°C) | COND. (circle units) µmhos/cm or µS/cm | DISSOLVED OXYGEN (circle units) mg/L or % saturation | TURBIDITY (NTUs) | ORP (mV) | COLOR | ODOR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1221 | 1.98 | 1.98 | 0.18 | 47.53 | 7.81 | 22.9 | 333 | 0.4 | 6.56 | -59 | | |
| 1224 | 0.54 | 2.52 | 0.18 | 47.54 | 7.82 | 22.9 | 325 | 0.3 | 7.03 | -60 | | |
| 1227 | 0.54 | 3.06 | 0.18 | 47.54 | 7.83 | 22.8 | 321 | 0.3 | 7.44 | -60 | | |
| 1230 | 0.54 | 3.60 | 0.18 | 47.54 | 7.84 | 22.8 | 330 | 0.3 | 7.01 | -60 | NONE | |

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016
PURGING EQUIPMENT CODES: B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; O = Other (Specify)

## SAMPLING DATA

| | | | |
|---|---|---|---|
| SAMPLED BY (PRINT) / AFFILIATION: DAN ARDOUR / PRO-TECH | SAMPLER(S) SIGNATURE(S): | SAMPLING INITIATED AT: 1231 | SAMPLING ENDED AT: NR |
| PUMP OR TUBING DEPTH IN WELL (feet): 83.80 | TUBING MATERIAL CODE: T | FIELD-FILTERED: Y (N) µm Filtration Equipment Type: | FILTER SIZE: |
| FIELD DECONTAMINATION: PUMP Y (N) | TUBING Y (N) (replaced) | | DUPLICATE: Y (N) |

| SAMPLE CONTAINER SPECIFICATION | | | | SAMPLE PRESERVATION | | | INTENDED ANALYSIS AND/OR METHOD | SAMPLE PUMP FLOW RATE (mL per minute) | SAMPLING EQUIPMENT CODE |
|---|---|---|---|---|---|---|---|---|---|
| SAMPLE ID CODE | # CONTAINERS | MATERIAL CODE | VOLUME | PRESERVATIVE USED | TOTAL VOL. ADDED IN FIELD (mL) | FINAL pH | | | |
| | 3 | G | 40 ml | HCl | – | <2 | VOA | | BP |
| | 3 | G | 40 ml | NaOH | – | | BOD | | |
| | 1 | P | 1000 ml | – | – | | G-CHEM | | |
| | 1 | P | 500 ml | HNO3 | – | | METALS | | |
| | 1 | AG | 500 ml | H2SO4 | – | | NH3 | | |
| | 1 | P | 1000 ml | NONE | – | | GROSS ALPHA | | |

REMARKS:
SHEEN: No

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)

SAMPLING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)

NOTES: 1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.
2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)
pH: ± 0.2 units Temperature: ± 0.2 °C Specific Conductance: ± 5% Dissolved Oxygen: all readings ≤ 20% saturation (see Table FS 2200-2); optionally, ± 0.2 mg/L or ± 10% (whichever is greater) Turbidity: all readings ≤ 20 NTU; optionally ± 5 NTU or ± 10% (whichever is greater)

Revision Date: February 12, 2009

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

# Chain of Custody Record

Denver #280

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

| Client Information | Sampler: DAWNY ARMOUR | Lab PM: Harrington, Danielle M | Carrier Tracking No(s): | COC No: 280-47705-17862.1 |
|---|---|---|---|---|
| Client Contact: Elizabeth Foeller | Phone: 225-907-4060 | E-Mail: danielle.harrington@testamericainc.com | | Page: Page 1 of 1 |
| Company: Waste Management | | | | Job #: |
| Address: 242 W Keene Road | Due Date Requested: | | | |
| City: Apopka | TAT Requested (days): | | | |
| State, Zip: FL, 32703 | | | | |
| Phone: 321-704-4162(Tel) 321-984-8170(Fax) | PO #: Purchase Order Requested | | | |
| Email: efoeller@wm.com | WO #: | | | |
| Project Name: FL26\|Vista Event Desc: Semiannual GW Parameters June Dec | Project #: 28002729 | | | |
| Site: Florida | 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) | Filtered Sample (Y or N) | Perform MS/MSD (Y or N) | 8260B - (40 mL VOA - CG) | 6010B, 6020, 7470A ( 500 mL - PE) | 350.1 - Ammonia as N (500 mL-PE) | 300.0 Cl, NO3, TDS (( 1 Liter-PE) | 8011 (40 mL VOA - CG) | Total Number of containers | Special Instructions/Note: |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Preservation Code: | | | | A | D | S | N | R | | |
| MW-8R | 12-7 | 0727 | G | Water | N | | 3 | 1 | 1 | 1 | 3 | | Note: Short holding times include Method 300.0 NO3 |
| MW-02AR | 12-7 | 0806 | G | Water | N | | 3 | 1 | 1 | 1 | 3 | | |
| MW-06AR | 12-7 | 0927 | G | Water | N | | 3 | 1 | 1 | 1 | 3 | | |
| MW-15A | 12-7 | 1044 | G | Water | N | | 3 | 1 | 1 | 1 | 3 | | |
| MW-11A | 12-7 | 1155 | G | Water | N | | 3 | 1 | 1 | 1 | 3 | | |
| TRIP | 12-7 | — | G | Water | N | | ✓ | | | | ✓ | | |
| | | | | Water | | | | | | | | | |
| | | | | Water | | | | | | | | | |
| | | | | Water | | | | | | | | | |
| | | | | Water | | | | | | | | | |
| | | | | | | | | | | | | | |

280-117970 Chain of Custody

*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: 12-7-18 / 1700 | Company: Pro-Tech | Received by: | Date/Time: 12-08-18 1040 | Company: TADEN |
| 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: 0.2, 4.2 +1.0 IRS XFERED BY KD 12-08-18

Form FD 9000-24

# GROUNDWATER SAMPLING LOG

SITE NAME: VISTA | SITE LOCATION: APOPKA, FL

WELL NO: MW-8R | SAMPLE ID: | DATE: 12-7-18

## PURGING DATA

WELL DIAMETER (inches): 2 | TUBING DIAMETER (inches): 1/4 | WELL SCREEN INTERVAL DEPTH: 61 feet to 71 feet | STATIC DEPTH TO WATER (feet): 41.53 | PURGE PUMP TYPE OR BAILER: BP

WELL ELEVATION TOC (ft NGVD): 99.60 | GROUNDWATER ELEVATION (ft NGVD): 58.07

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= ( feet – feet) X gallons/foot = gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= 0.2 gallons + (0.0014 gallons/foot X 71.00 feet) + 0.05 gallons = 0.43 gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 66.00 | FINAL PUMP OR TUBING DEPTH IN WELL (feet): 66.00 | PURGING INITIATED AT: 0707 | PURGING ENDED AT: 0727 | TOTAL VOLUME PURGED (gallons): 3.00

| TIME | VOLUME PURGED (gallons) | CUMUL. VOLUME PURGED (gallons) | PURGE RATE (gpm) | DEPTH TO WATER (feet) | pH (standard units) | TEMP. (°C) | COND. (circle units) µmhos/cm or µS/cm | DISSOLVED OXYGEN (circle units) mg/L or % saturation | TURBIDITY (NTUs) | ORP (mV) | COLOR | ODOR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0717 | 1.60 | 1.60 | 0.16 | 42.12 | 6.87 | 24.3 | 199 | 1.7 | 4.86 | 224 | | |
| 0720 | 0.48 | 2.08 | 0.16 | 42.12 | 6.85 | 24.4 | 196 | 1.7 | 5.05 | 227 | | |
| 0723 | 0.48 | 2.56 | 0.16 | 42.12 | 6.83 | 24.4 | 198 | 1.7 | 4.31 | 229 | | |
| 0726 | 0.48 | 3.04 | 0.16 | 42.12 | 6.84 | 24.4 | 198 | 1.7 | 4.49 | 229 | NONE | |

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 6" = 1.02; 8" = 1.47; 12" = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./FL): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016
PURGING EQUIPMENT CODES: B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; O = Other (Specify)

## SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: DAN ARMOUR / PRO-TECH | SAMPLER(S) SIGNATURE(S): [signature] | SAMPLING INITIATED AT: 0727 | SAMPLING ENDED AT: NR

PUMP OR TUBING DEPTH IN WELL (feet): 66.00 | TUBING MATERIAL CODE: T | FIELD-FILTERED: Y (N) µm Filtration Equipment Type: | FILTER SIZE:

FIELD DECONTAMINATION: PUMP Y (N) TUBING Y (N replaced) | DUPLICATE: Y (N)

| SAMPLE ID CODE | # CONTAINERS | MATERIAL CODE | VOLUME | PRESERVATIVE USED | TOTAL VOL ADDED IN FIELD (mL) | FINAL pH | INTENDED ANALYSIS AND/OR METHOD | SAMPLE PUMP FLOW RATE (mL per minute) | SAMPLING EQUIPMENT CODE |
|---|---|---|---|---|---|---|---|---|---|
| | 3 | G | 40 ml | HCl | – | NM | VOA | 0.16 | BP |
| | 3 | G | 40 ml | Na2S2O3 | – | | EDB/DBCP | | |
| | 1 | P | 1000 ml | – | – | | G-CHEM | | |
| | 1 | P | 500 ml | HNO3 | – | | METALS | | |
| | 1 | AG | 500 ml | H2SO4 | – | | NH3 | | |
| | 1 | P | 1000 ml | HNO3 | – | | GROSS ALPHA | | |

REMARKS:

Sheen Present: YES (NO)

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)

SAMPLING EQUIPMENT CODES: APP = Aner Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)

NOTES: 1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.
2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)
pH: ± 0.2 units Temperature: ± 0.2 °C Specific Conductance: ± 5% Dissolved Oxygen: all readings ≤ 20% saturation (see Table FS 2200-2), optionally, ± 0.2 mg/L or ± 10% (whichever is greater) Turbidity: all readings ≤ 20 NTU; optionally ± 5 NTU or ± 10% (whichever is greater)

Revision Date: February 12, 2009

Form FD 9000-24

# GROUNDWATER SAMPLING LOG

SITE NAME: Vista

SITE LOCATION: Apopka, FL

WELL NO: MW-02AR

SAMPLE ID:

DATE: 12-7-18

## PURGING DATA

WELL DIAMETER (inches): 2

TUBING DIAMETER (inches): 1/4

WELL SCREEN INTERVAL DEPTH: 9.06 feet to 91.06 feet

STATIC DEPTH TO WATER (feet): 30.12

PURGE PUMP TYPE OR BAILER: BP

WELL ELEVATION TOC (ft NGVD): 87.22

GROUNDWATER ELEVATION (ft NGVD): 57.10

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)

= (41.06 feet – 30.12 feet) X 0.163 gallons/foot = 1.78 gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)

= 0.2 gallons + (0.0026 gallons/foot X 41.06 feet) + 0.05 gallons = 0.36 gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 36.06

FINAL PUMP OR TUBING DEPTH IN WELL (feet): 36.06

PURGING INITIATED AT: 0744

PURGING ENDED AT: 0806

TOTAL VOLUME PURGED (gallons): 3.30

| TIME | VOLUME PURGED (gallons) | CUMUL. VOLUME PURGED (gallons) | PURGE RATE* (gpm) | DEPTH TO WATER (feet) | pH (standard units) | TEMP. (°C) | COND. (circle units) µmhos/cm or µS/cm | DISSOLVED OXYGEN (circle units) mg/L or % saturation | TURBIDITY (NTUs) | ORP (mV) | COLOR | ODOR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0756 | 1.80 | 1.80 | 0.15 | 33.86 | 5.35 | 22.5 | 54 | 5.5 | 3.90 | 206 | | |
| 0759 | 0.45 | 2.25 | 0.15 | 33.86 | 5.34 | 22.6 | 53 | 5.5 | 3.68 | 210 | | |
| 0802 | 0.45 | 2.70 | 0.15 | 33.86 | 5.34 | 22.6 | 52 | 5.5 | 3.75 | 206 | | |
| 0805 | 0.45 | 3.15 | 0.15 | 33.86 | 5.33 | 22.6 | 52 | 5.5 | 3.66 | 209 | None | |

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016
PURGING EQUIPMENT CODES: B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; O = Other (Specify

## SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Dan Armour / Pro-Tech

SAMPLER(S) SIGNATURE(S):

SAMPLING INITIATED AT: 0806

SAMPLING ENDED AT: NR

PUMP OR TUBING DEPTH IN WELL (feet): 36.06

TUBING MATERIAL CODE: T

FIELD-FILTERED: Y (N) µm

FILTER SIZE:

Filtration Equipment Type:

FIELD DECONTAMINATION: PUMP Y (N) TUBING Y (N replaced)

DUPLICATE: Y (N)

| SAMPLE ID CODE | SAMPLE CONTAINER SPECIFICATION: # CONTAINERS | MATERIAL CODE | VOLUME | SAMPLE PRESERVATION: PRESERVATIVE USED | TOTAL VOL ADDED IN FIELD (mL) | FINAL pH | INTENDED ANALYSIS AND/OR METHOD | SAMPLE PUMP FLOW RATE (mL per minute) | SAMPLING EQUIPMENT CODE |
|---|---|---|---|---|---|---|---|---|---|
| | 3 | G | 40ml | HCl | – | NM | VOA | 0.15 | BP |
| | 3 | G | 40ml | Na2S2O3 | – | | EDB/DBCP | | |
| | 1 | P | 1000ml | – | – | | G-CHEM | | |
| | 1 | P | 500ml | HNO3 | – | | METALS | | |
| | 1 | AG | 500ml | H2SO4 | – | | NH3 | | |
| | ~~1~~ | ~~P~~ | ~~1000ml~~ | ~~HNO3~~ | | | ~~GROSS ALPHA~~ | | |

REMARKS:

Sheen Present: YES (NO)

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)

SAMPLING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)

NOTES: 1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.
2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)
pH: ± 0.2 units Temperature: ± 0.2 °C Specific Conductance: ± 5% Dissolved Oxygen: all readings ≤ 20% saturation (see Table FS 2200-2), optionally, ± 0.2 mg/L or ± 10% (whichever is greater) Turbidity: all readings ≤ 20 NTU; optionally ± 5 NTU or ± 10% (whichever is greater)

Revision Date: February 12, 2009

Form FD 9000-24

# GROUNDWATER SAMPLING LOG

SITE NAME: VISTA | SITE LOCATION: APOPKA, FL

WELL NO: MW-06AR | SAMPLE ID: | DATE: 12-7-18

## PURGING DATA

WELL DIAMETER (inches): 2 | TUBING DIAMETER (inches): 1/4 | WELL SCREEN INTERVAL DEPTHS: 52.35 feet to 72.35 feet | STATIC DEPTH TO WATER (feet): 47.90 | PURGE PUMP TYPE OR BAILER: BP

WELL ELEVATION TOC (ft NGVD): 104.11 | GROUNDWATER ELEVATION (ft NGVD): 56.21

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= (72.35 feet – 47.10 feet) X 0.163 gallons/foot = 4.12 gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= 0.2 gallons + (0.0026 gallons/foot X 72.35 feet) + 0.05 gallons = 0.44 gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 69.35 | FINAL PUMP OR TUBING DEPTH IN WELL (feet): 69.35 | PURGING INITIATED AT: 0857 | PURGING ENDED AT: 0927 | TOTAL VOLUME PURGED (gallons): 6.30

| TIME | VOLUME PURGED (gallons) | CUMUL. VOLUME PURGED (gallons) | PURGE RATE (gpm) | DEPTH TO WATER (feet) | pH (standard units) | TEMP. (°C) | COND. (circle units) µmhos/cm or µS/cm | DISSOLVED OXYGEN (circle units) mg/L or % saturation | TURBIDITY (NTUs) | ORP (mV) | COLOR | ODOR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0917 | 4.20 | 4.20 | 0.21 | 50.16 | 5.48 | 23.3 | 213 | 2.6 | 2.32 | 186 | | |
| 0920 | 0.63 | 4.83 | 0.21 | 50.16 | 5.48 | 23.2 | 213 | 2.6 | 2.71 | 188 | | |
| 0923 | 0.63 | 5.46 | 0.21 | 50.17 | 5.48 | 23.1 | 214 | 2.6 | 3.21 | 188 | | |
| 0926 | 0.63 | 6.09 | 0.21 | 50.17 | 5.48 | 23.1 | 214 | 2.6 | 3.30 | 188 | NONE | |

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016
PURGING EQUIPMENT CODES: B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; O = Other (Specify

## SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: DAN ARMOUR / PRO-TECH | SAMPLER(S) SIGNATURE(S): [signature] | SAMPLING INITIATED AT: 0927 | SAMPLING ENDED AT: NR

PUMP OR TUBING DEPTH IN WELL (feet): 67.35 | TUBING MATERIAL CODE: T | FIELD-FILTERED: Y (N) µm Filtration Equipment Type: | FILTER SIZE:

FIELD DECONTAMINATION: PUMP Y (N) TUBING Y (N)(replaced) | DUPLICATE: Y (N)

| SAMPLE ID CODE | SAMPLE CONTAINER SPECIFICATION: # CONTAINERS | MATERIAL CODE | VOLUME | SAMPLE PRESERVATION: PRESERVATIVE USED | TOTAL VOL ADDED IN FIELD (mL) | FINAL pH | INTENDED ANALYSIS AND/OR METHOD | SAMPLE PUMP FLOW RATE (mL per minute) | SAMPLING EQUIPMENT CODE |
|---|---|---|---|---|---|---|---|---|---|
| | 3 | G | 40ml | HCl | – | NM | VOA | 0.2L | BP |
| | 3 | G | 40ml | Nathio | – | | EDB/DBCP | | |
| | 1 | P | 1000 ml | – | – | | G-CHEM | | |
| | 1 | P | 500ml | HNO3 | – | | METALS | | |
| | 1 | AG | 500 ml | H2SO4 | – | | NH3 | | |
| | ~~4~~ | ~~P~~ | ~~1000ml~~ | ~~HNO3~~ | ~~–~~ | | ~~GROSS ALPHA~~ | | |

REMARKS:

Sheen Present YES (NO)

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)

SAMPLING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)

NOTES: 1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.
2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)
pH: ± 0.2 units Temperature: ± 0.2 °C Specific Conductance: ± 5% Dissolved Oxygen: all readings ≤ 20% saturation (see Table FS 2200-2), optionally, ± 0.2 mg/L or ± 10% (whichever is greater) Turbidity: all readings ≤ 20 NTU; optionally ± 5 NTU or ± 10% (whichever is greater)

Revision Date: February 12, 2009

Form FD 9000-24

# GROUNDWATER SAMPLING LOG

| | |
|---|---|
| SITE NAME: VISTA | SITE LOCATION: APOPKA FL |
| WELL NO: MW-15A | SAMPLE ID: |
| DATE: 12-7-18 | |

## PURGING DATA

| | | | | |
|---|---|---|---|---|
| WELL DIAMETER (inches): 2 | TUBING DIAMETER (inches): 3/4 | WELL SCREEN INTERVAL DEPTH: 49.3 feet to 69.3 feet | STATIC DEPTH TO WATER (feet): 39.90 | PURGE PUMP TYPE OR BAILER: BP |

WELL ELEVATION TOC (ft NGVD): NA

GROUNDWATER ELEVATION (ft NGVD): NA

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)

= (69.30 feet – 39.90 feet) X 0.163 gallons/foot = 4.79 gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)

= 0.2 gallons + (0.0026 gallons/foot X 69.30 feet) + 0.05 gallons = 0.43 gallons

| | | | | |
|---|---|---|---|---|
| INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 64.30 | FINAL PUMP OR TUBING DEPTH IN WELL (feet): 64.30 | PURGING INITIATED AT: 1015 | PURGING ENDED AT: 1044 | TOTAL VOLUME PURGED (gallons): 7.59 |

| TIME | VOLUME PURGED (gallons) | CUMUL. VOLUME PURGED (gallons) | PURGE RATE (gpm) | DEPTH TO WATER (feet) | pH (standard units) | TEMP. (°C) | COND. (circle units) µmhos/cm or µS/cm | DISSOLVED OXYGEN (circle units) mg/L or % saturation | TURBIDITY (NTUs) | ORP (mV) | COLOR | ODOR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1034 | 4.94 | 4.94 | 0.26 | 40.98 | 5.31 | 23.9 | 93 | 3.4 | 3.60 | 205 | | |
| 1037 | 0.78 | 5.72 | 0.26 | 40.98 | 5.37 | 23.8 | 94 | 3.4 | 4.87 | 209 | | |
| 1040 | 0.78 | 6.50 | 0.26 | 40.98 | 5.35 | 23.9 | 94 | 3.4 | 3.43 | 211 | | |
| 1043 | 0.78 | 7.28 | 0.26 | 40.98 | 5.36 | 23.9 | 94 | 3.4 | 3.58 | 211 | NONE | |

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./FL): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016
PURGING EQUIPMENT CODES: B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; O = Other (Specify)

## SAMPLING DATA

| | | | |
|---|---|---|---|
| SAMPLED BY (PRINT) / AFFILIATION: TRAVIS ARMOUR / PRO-TECH | SAMPLER(S) SIGNATURE(S): | SAMPLING INITIATED AT: 1044 | SAMPLING ENDED AT: NR |
| PUMP OR TUBING DEPTH IN WELL (feet): 64.30 | TUBING MATERIAL CODE: T | FIELD-FILTERED: Y (N) µm Filtration Equipment Type: | FILTER SIZE: |
| FIELD DECONTAMINATION: PUMP Y (N) | TUBING Y (N) (replaced) | | DUPLICATE: Y (N) |

| SAMPLE CONTAINER SPECIFICATION | | | | SAMPLE PRESERVATION | | | INTENDED ANALYSIS AND/OR METHOD | SAMPLE PUMP FLOW RATE (mL per minute) | SAMPLING EQUIPMENT CODE |
|---|---|---|---|---|---|---|---|---|---|
| SAMPLE ID CODE | # CONTAINERS | MATERIAL CODE | VOLUME | PRESERVATIVE USED | TOTAL VOL ADDED IN FIELD (mL) | FINAL pH | | | |
| | 3 | G | 40ml | HCl | – | N.M. | VOA | 0.26 | BP |
| | 3 | G | 40ml | NaHSO4 | – | | 8011 | | |
| | 1 | P | 1000ml | – | – | | G-GROSS | | |
| | 1 | P | 500ml | HNO3 | – | | METALS | | |
| | 1 | AG | 500ml | H2SO4 | – | | NO3 | | |
| | 1 | P | 1000ml | HNO3 | | | GROSS ALPHA | | |

REMARKS:
SHEEN: NO

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)

SAMPLING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; RPPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)

NOTES: 1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.
2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)
pH: ± 0.2 units Temperature: ± 0.2 °C Specific Conductance: ± 5% Dissolved Oxygen: all readings ≤ 20% saturation (see Table FS 2200-2); optionally, ± 0.2 mg/L or ± 10% (whichever is greater) Turbidity: all readings ≤ 20 NTU; optionally ± 5 NTU or ± 10% (whichever is greater)

Revision Date: February 12, 2009

Form FD 9000-24

# GROUNDWATER SAMPLING LOG

| | | | |
|---|---|---|---|
| SITE NAME: VISTA | | SITE LOCATION: APOPKA, FL | |
| WELL NO: MW-11A | SAMPLE ID: | | DATE 12-7-18 |

## PURGING DATA

| | | | | |
|---|---|---|---|---|
| WELL DIAMETER (inches): 2 | TUBING DIAMETER (inches): 1/4 | WELL SCREEN INTERVAL DEPTH: 32.5 feet to 52.5 feet | STATIC DEPTH TO WATER (feet): 39.67 | PURGE PUMP TYPE OR BAILER: BP |

WELL ELEVATION TOC (ft NGVD): NA | GROUNDWATER ELEVATION (ft NGVD): NA

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= (57.50 feet – 39.67 feet) X 0.163 gallons/foot = 2.91 gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= 0.2 gallons + (0.0026 gallons/foot X 57.50 feet) + 0.05 gallons = 0.4 gallons

| | | | | | |
|---|---|---|---|---|---|
| INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 49.50 | FINAL PUMP OR TUBING DEPTH IN WELL (feet): 49.50 | PURGING INITIATED AT: 1131 | PURGING ENDED AT: 1155 | | TOTAL VOLUME PURGED (gallons): 5.04 |

| TIME | VOLUME PURGED (gallons) | CUMUL. VOLUME PURGED (gallons) | PURGE RATE (ppm) | DEPTH TO WATER (feet) | pH (standard units) | TEMP. (°C) | COND. (circle units) µmhos/cm or µS/cm | DISSOLVED OXYGEN (circle units) mg/L or % saturation | TURBIDITY (NTUs) | ORP (mV) | COLOR | ODOR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1145 | 2.94 | 2.94 | 0.21 | 40.31 | 7.33 | 23.0 | 303 | 2.4 | 8.31 | 138 | | |
| 1148 | 0.63 | 3.57 | 0.21 | 40.31 | 7.35 | 23.0 | 303 | 2.5 | 7.81 | 137 | | |
| 1151 | 0.63 | 4.20 | 0.21 | 40.31 | 7.36 | 23.0 | 303 | 2.5 | 8.42 | 137 | | |
| 1154 | 0.63 | 4.83 | 0.21 | 40.31 | 7.36 | 23.0 | 304 | 2.5 | 7.91 | 137 | NONE | |

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./FL): 1/8" = 0.0006; 3/16" = 0.0014; 1/8" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016
PURGING EQUIPMENT CODES: B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; O = Other (Specify)

## SAMPLING DATA

| | | | |
|---|---|---|---|
| SAMPLED BY (PRINT) / AFFILIATION: DAN PRIMOUR / PRO-TECH | SAMPLER(S) SIGNATURE(S): | SAMPLING INITIATED AT: 1155 | SAMPLING ENDED AT: NR |
| PUMP OR TUBING DEPTH IN WELL (feet): 49.50 | TUBING MATERIAL CODE: T | FIELD-FILTERED: Y (N) µm Filtration Equipment Type: | FILTER SIZE: |
| FIELD DECONTAMINATION: PUMP Y (N) | TUBING Y (N)(replaced) | | DUPLICATE: Y (N) |

| SAMPLE ID CODE | # CONTAINERS | MATERIAL CODE | VOLUME | PRESERVATIVE USED | TOTAL VOL ADDED IN FIELD (mL) | FINAL pH | INTENDED ANALYSIS AND/OR METHOD | SAMPLE PUMP FLOW RATE (mL per minute) | SAMPLING EQUIPMENT CODE |
|---|---|---|---|---|---|---|---|---|---|
| | 3 | G | 40 ml | HCl | – | NA | VOA | 0.21 | BP |
| | 3 | G | 40 ml | Na2S2O3 | – | | 8011 | | |
| | 1 | P | 1000 ml | – | – | | G-CHEM | | |
| | 1 | P | 500 ml | HNO3 | – | | METALS | | |
| | 1 | AG | 500 ml | H2SO4 | – | | NH3 | | |
| | | P | 1000 ml | HNO3 | | | ~~GROSS ALPHA~~ | | |

REMARKS:
SPEEN: NO

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)

SAMPLING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)

NOTES: 1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.
2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)
pH: ± 0.2 units Temperature: ± 0.2 °C Specific Conductance: ± 5% Dissolved Oxygen: all readings ≤ 20% saturation (see Table FS 2200-2); optionally, ± 0.2 mg/L or ± 10% (whichever is greater) Turbidity: all readings ≤ 20 NTU; optionally ± 5 NTU or ± 10% (whichever is greater)

Revision Date: February 12, 2009

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

# Chain of Custody Record

**Denver #280**

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

| Client Information | Sampler: DANNY ARMOUR | Lab PM: Harrington, Danielle M | Carrier Tracking No(s): | COC No: 280-47705-17862.1 |
|---|---|---|---|---|
| Client Contact: Elizabeth Foeller | Phone: 225-907-4060 | E-Mail: danielle.harrington@testamericainc.com | | Page: Page 1 of 1 |
| Company: Waste Management | | | | Job #: |
| Address: 242 W Keene Road | Due Date Requested: | | | |
| City: Apopka | TAT Requested (days): | | | |
| State, Zip: FL, 32703 | | | | |
| Phone: 321-704-4162(Tel) 321-984-8170(Fax) | PO #: Purchase Order Requested | | | |
| Email: efoeller@wm.com | WO #: | | | |
| Project Name: FL26\|Vista Event Desc: Semiannual GW Parameters June Dec | Project #: 28002729 | | | |
| Site: Florida | 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) | 8260B - (40 mL VOA - CG) | 6010B, 6020, 7470A ( 500 mL - PE) | 350.1 - Ammonia as N (500 mL-PE) | 300.0 Cl, NO3, TDS (( 1 Liter-PE) | 8011 (40 mL VOA - CG) | Total Number of containers | Special Instructions/Note: |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Preservation Code: | | | | A | D | S | N | R | | |
| EQUIPMENT BLANK | 12-10 | 0911 | G | Water | N | | | 1 | 1 | 1 | | | Note: Short holding times include Method 300.0 NO3 |
| MW-14A | 12-10 | 0840 | G | Water | N | | 3 | 1 | 1 | 1 | 3 | | |
| MW-09A | 12-10 | 0727 | G | Water | N | | 3 | 1 | 1 | 1 | 3 | | |
| TRIP | 12-10 | ~ | G | Water | N | | ✓ | | | | ✓ | | |
| | | | | Water | | | | | | | | | |
| | | | | Water | | | | | | | | | |
| | | | | Water | | | | | | | | | |
| | | | | Water | | | | | | | | | |
| | | | | Water | | | | | | | | | |
| | | | | Water | | | | | | | | | |
| | | | | | | | | | | | | | |

280-118028 Chain of Custody

**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: 12-10-18 / 1800 | Company: Pro-Tech | Received by: | Date/Time: | Company |
| Relinquished by: | Date/Time: | Company | Received by: | Date/Time: | Company |
| Relinquished by: | Date/Time: | Company | Received by: | Date/Time: 12/11/18 0920 | Company: TA DEN |

Custody Seals Intact: Δ Yes Δ No
Custody Seal No.:
Cooler Temperature(s) °C and Other Remarks: 2.3 5 +1.0 by AP 12/11/18

Form FD 9000-24

# GROUNDWATER SAMPLING LOG

| | | | |
|---|---|---|---|
| SITE NAME: VISTA | | SITE LOCATION: APOPKA, FL | |
| WELL NO: MW-14A | SAMPLE ID: | | DATE: 12-10-18 |

## PURGING DATA

| | | | | | |
|---|---|---|---|---|---|
| WELL DIAMETER (inches): 2 | TUBING DIAMETER (inches): 1/4 | WELL SCREEN INTERVAL DEPTH: 38 feet to 58 feet | STATIC DEPTH TO WATER (feet): 38.30 | | PURGE PUMP TYPE OR BAILER: BP |
| WELL ELEVATION TOC (ft NGVD): NA | | | GROUNDWATER ELEVATION (ft NGVD): NA | | |

WELL VOLUME PURGED: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= (58.15 feet – 38.30 feet) X 0.163 gallons/foot = 3.24 gallons

EQUIPMENT VOLUME PURGED: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME 0.40
(only fill out if applicable)
= 0.2 gallons + (0.0026 gallons/foot X 58.15 feet) + 0.05 gallons = gallons

| | | | | |
|---|---|---|---|---|
| INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 49.15 | FINAL PUMP OR TUBING DEPTH IN WELL (feet): 48.15 | PURGING INITIATED AT: 0816 | PURGING ENDED AT: 0840 | TOTAL VOLUME PURGED (gallons): 5.76 |

| TIME | VOLUME PURGED (gallons) | CUMUL. VOLUME PURGED (gallons) | PURGE RATE (gpm) | DEPTH TO WATER (feet) | pH (standard units) | TEMP. (°C) | COND. (circle units) µmhos/cm or µS/cm | DISSOLVED OXYGEN (circle units) mg/L or % saturation | TURBIDITY (NTUs) | ORP (mV) | COLOR | ODOR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0830 | 3.36 | 3.36 | 0.24 | 44.93 | 5.81 | 22.8 | 72 | 2.2 | 4.89 | 196 | | |
| 0833 | 0.72 | 4.08 | 0.24 | 44.93 | 5.84 | 22.8 | 74 | 2.3 | 4.94 | 197 | | |
| 0836 | 0.72 | 4.80 | 0.24 | 44.94 | 5.84 | 22.8 | 75 | 2.3 | 4.32 | 196 | | |
| 0839 | 0.72 | 5.52 | 0.24 | 44.94 | 5.84 | 22.8 | 75 | 2.3 | 4.16 | 195 | HDNT | |
| | | | | | | | | | | | | |
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| | | | | | | | | | | | | |

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016
PURGING EQUIPMENT CODES: B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; O = Other (Specify)

## SAMPLING DATA

| | | | |
|---|---|---|---|
| SAMPLED BY (PRINT) / AFFILIATION: EAN ARMOUR / PRO-TECH | SAMPLER(S) SIGNATURE(S): [signature] | SAMPLING INITIATED AT: 0840 | SAMPLING ENDED AT: NR |
| PUMP OR TUBING DEPTH IN WELL (feet): 49.15 | TUBING MATERIAL CODE: T | FIELD-FILTERED: Y (N) µm Filtration Equipment Type: | FILTER SIZE: |
| FIELD DECONTAMINATION: PUMP Y (N) | TUBING Y (N) (replaced) | | DUPLICATE: Y (N) |

| SAMPLE CONTAINER SPECIFICATION | | | | SAMPLE PRESERVATION | | | INTENDED ANALYSIS AND/OR METHOD | SAMPLE PUMP FLOW RATE (mL per minute) | SAMPLING EQUIPMENT CODE |
|---|---|---|---|---|---|---|---|---|---|
| SAMPLE ID CODE | # CONTAINERS | MATERIAL CODE | VOLUME | PRESERVATIVE USED | TOTAL VOL ADDED IN FIELD (mL) | FINAL pH | | | |
| | 3 | G | 40 ml | HCl | – | NM | VOA | 0.24 | BP |
| | 3 | G | 40 ml | NaHSO4 | – | | 8011 | | |
| | 1 | P | 1000 ml | – | – | | G-CHEM | | |
| | 1 | P | 500 ml | HNO3 | – | | METALS | | |
| | 1 | AG | 500 ml | H2SO4 | – | | NH3 | | |
| | 1 | P | 1000 ml | NaOH | – | | ~~GROSS ALPHA~~ | | |

REMARKS:
SHEEN: No

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)

SAMPLING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)

NOTES: 1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.
2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)
pH: ± 0.2 units Temperature: ± 0.2 °C Specific Conductance: ± 5% Dissolved Oxygen: all readings ≤ 20% saturation (see Table FS 2200-2); optionally, ± 0.2 mg/L or ± 10% (whichever is greater) Turbidity: all readings ≤ 20 NTU; optionally ± 5 NTU or ± 10% (whichever is greater)

Revision Date: February 12, 2009

Form FD 9000-24

# GROUNDWATER SAMPLING LOG

| | | | |
|---|---|---|---|
| SITE NAME: VISTA | | SITE LOCATION: APOPKA, FL | |
| WELL NO: MW-9A | SAMPLE ID: | | DATE: 12-10-18 |

## PURGING DATA

| | | | | |
|---|---|---|---|---|
| WELL DIAMETER (inches): 2 | TUBING DIAMETER (inches): 1/4 | WELL SCREEN INTERVAL DEPTH: 43.05 feet to 63.05 feet | STATIC DEPTH TO WATER (feet): 42.70 | PURGE PUMP TYPE OR BAILER: BP |

WELL ELEVATION TOC (ft NGVD): NA  GROUNDWATER ELEVATION (ft NGVD): NA

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= (63.05 feet – 42.70 feet) X 0.163 gallons/foot = 3.32 gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= 0.2 gallons + (0.0026 gallons/foot X 63.05 feet) + 0.05 gallons = 0.41 gallons

| | | | | | |
|---|---|---|---|---|---|
| INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 53.05 | FINAL PUMP OR TUBING DEPTH IN WELL (feet): 53.05 | PURGING INITIATED AT: 0702 | PURGING ENDED AT: 0727 | | TOTAL VOLUME PURGED (gallons): 5.75 |

| TIME | VOLUME PURGED (gallons) | CUMUL. VOLUME PURGED (gallons) | PURGE RATE (gpm) | DEPTH TO WATER (feet) | pH (standard units) | TEMP. (°C) | COND. (circle units) µmhos/cm or µS/cm | DISSOLVED OXYGEN (circle units) mg/L or % saturation | TURBIDITY (NTUs) | ORP (mV) | COLOR | ODOR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0717 | 3.45 | 3.45 | 0.23 | 43.38 | 7.03 | 22.6 | 104 | 2.0 | 5.70 | 207 | | |
| 0720 | 0.69 | 4.14 | 0.23 | 43.38 | 7.04 | 22.7 | 104 | 2.1 | 5.36 | 206 | | |
| 0723 | 0.69 | 4.83 | 0.23 | 43.38 | 7.03 | 22.7 | 104 | 2.0 | 5.63 | 204 | | |
| 0726 | 0.69 | 5.52 | 0.23 | 43.39 | 7.03 | 22.6 | 103 | 2.1 | 5.45 | 203 | NONE | |

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./FL): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016

PURGING EQUIPMENT CODES: B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; O = Other (Specify)

## SAMPLING DATA

| | | | |
|---|---|---|---|
| SAMPLED BY (PRINT) / AFFILIATION: DAN ARMOUR / PRO-TECH | SAMPLER(S) SIGNATURE(S): [signature] | SAMPLING INITIATED AT: 0727 | SAMPLING ENDED AT: NR |
| PUMP OR TUBING DEPTH IN WELL (feet): 53.05 | TUBING MATERIAL CODE: T | FIELD-FILTERED: Y (N) µm Filtration Equipment Type: | FILTER SIZE: |
| FIELD DECONTAMINATION: PUMP Y (N) | TUBING Y (N) (replaced) | | DUPLICATE: Y (N) |

| SAMPLE ID CODE | # CONTAINERS | MATERIAL CODE | VOLUME | PRESERVATIVE USED | TOTAL VOL ADDED IN FIELD (mL) | FINAL pH | INTENDED ANALYSIS AND/OR METHOD | SAMPLE PUMP FLOW RATE (mL per minute) | SAMPLING EQUIPMENT CODE |
|---|---|---|---|---|---|---|---|---|---|
| | 3 | G | 40 ml | HCl | – | NA | VOA | 0.23 | BP |
| | 3 | G | 40 ml | NaHSO4 | – | | 8011 | | |
| | 1 | P | 1000 ml | – | – | | G-CHEM | | |
| | 1 | P | 500 ml | HNO3 | – | | METALS | | |
| | 1 | AG | 500 ml | H2SO4 | – | | NH3 | | |
| | 1 | P | 1000 ml | NaOH | – | | GROSS ALPHA | | |

REMARKS:
SPEED: No

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)

SAMPLING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)

NOTES: 1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.
2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)
pH: ± 0.2 units Temperature: ± 0.2 °C Specific Conductance: ± 5% Dissolved Oxygen: all readings ≤ 20% saturation (see Table FS 2200-2); optionally, ± 0.2 mg/L or ± 10% (whichever is greater) Turbidity: all readings ≤ 20 NTU; optionally ± 5 NTU or ± 10% (whichever is greater)

Revision Date: February 12, 2009

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

# Chain of Custody Record

Denver #280

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

| Client Information | Sampler: DANNY ARMOUR | Lab PM: Harrington, Danielle M | Carrier Tracking No(s): | COC No: 280-59404-20781.1 |
|---|---|---|---|---|
| Client Contact: Elizabeth Foeller | Phone: 225-907-4060 | E-Mail: danielle.harrington@testamericainc.com | | Page: Page 1 of 1 |
| Company: Waste Management | | | | Job #: |
| Address: 242 W Keene Road | Due Date Requested: | | | |
| City: Apopka | TAT Requested (days): | | | |
| State, Zip: FL, 32703 | | | | |
| Phone: | PO #: Purchase Order Requested | | | |
| Email: efoeller@wm.com | WO #: | | | |
| Project Name: FL26[Vista/FL26 Event: Annual Intermediate Wells - Dec | Project #: 28002729 | | | |
| Site: Florida | 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 - Na2S2O3, 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) | IC Nitrate and Chloride (250ml PE) | 6010B - Sodium (500ml PE) | 350.1 - Ammonia as N (500ml AG) | Total Number of containers | Special Instructions/Note: |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Preservation Code: | | | | N | D | S | | |
| EQUIPMENT BLANK | 12-10 | 0911 | G | W | N | | 1 | 1 | 1 | | Login: Shortholds include Nitrate by IC |
| MW-14B | 12-10 | 0931 | G | W | N | | 1 | 1 | 1 | | |
| MW-09B | 12-10 | 0801 | G | W | N | | 1 | 1 | 1 | | |

280-118029 Chain of Custody

*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: | Company | Received by: | Date/Time: | Company |
|---|---|---|---|---|---|
| | 12-10-18 / 1800 | PRO TECH | | | |
| Relinquished by: | Date/Time: | Company | Received by: | Date/Time: | Company |
| | | | | | |
| Relinquished by: | Date/Time: | Company | Received by: | Date/Time: | Company |
| | | | | 12/11/18 0920 | TA DEN |

| Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks: 2.3 S +1.0 by AP 12/11/18 |
|---|---|---|

Form FD 9000-24

# GROUNDWATER SAMPLING LOG

| | |
|---|---|
| SITE NAME: VISTA | SITE LOCATION: APOPKA, FL |
| WELL NO: EQUIPMENT BLANK | SAMPLE ID: |
| | DATE: 12-10-18 |

## PURGING DATA

| | | | | |
|---|---|---|---|---|
| WELL DIAMETER (inches): NA | TUBING DIAMETER (inches): NA | WELL SCREEN INTERVAL DEPTH: — feet to — feet | STATIC DEPTH TO WATER (feet): NA | PURGE PUMP TYPE OR BAILER: NA |

WELL ELEVATION TOC (ft NGVD): NA — GROUNDWATER ELEVATION (ft NGVD): NA

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= ( feet– feet) X gallons/foot = gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= gallons + ( gallons/foot X (feet) + gallons = gallons

| INITIAL PUMP OR TUBING DEPTH IN WELL (feet): | FINAL PUMP OR TUBING DEPTH IN WELL (feet): | PURGING INITIATED AT: | PURGING ENDED AT: | TOTAL VOLUME PURGED (gallons): |
|---|---|---|---|---|
| NA | NA | NA | NA | NA |

| TIME | VOLUME PURGED (gallons) | CUMUL. VOLUME PURGED (gallons) | PURGE RATE (gpm) | DEPTH TO WATER (feet) | pH (standard units) | TEMP. (°C) | COND. (circle units) µmhos/cm or µS/cm | DISSOLVED OXYGEN (circle units) mg/L or % saturation | TURBIDITY (NTUs) | ORP (mV) | COLOR | ODOR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0911 | NA | NA | NA | NA | 6.84 | 21.6 | 6 | 0.8 | 0.00 | 41 | NONE | |
| | | | | | | | | | | | | |
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WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016
PURGING EQUIPMENT CODES: B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; O = Other (Specify)

## SAMPLING DATA

| | | | |
|---|---|---|---|
| SAMPLED BY (PRINT) / AFFILIATION: DAN ASHBURN / P2P-TECH | SAMPLER(S) SIGNATURE(S): | SAMPLING INITIATED AT: 0911 | SAMPLING ENDED AT: NA |
| PUMP OR TUBING DEPTH IN WELL (feet): NA | TUBING MATERIAL CODE: NA | FIELD-FILTERED: Y (N) µm Filtration Equipment Type: | FILTER SIZE: |
| FIELD DECONTAMINATION: PUMP Y N NA TUBING Y N (replaced) | | DUPLICATE: Y (N) | |

| SAMPLE CONTAINER SPECIFICATION | | | | SAMPLE PRESERVATION | | | INTENDED ANALYSIS AND/OR METHOD | SAMPLE PUMP FLOW RATE (mL per minute) | SAMPLING EQUIPMENT CODE |
|---|---|---|---|---|---|---|---|---|---|
| SAMPLE ID CODE | # CONTAINERS | MATERIAL CODE | VOLUME | PRESERVATIVE USED | TOTAL VOL ADDED IN FIELD (mL) | FINAL pH | | | |
| | 1 | P | 1L | – | – | NA | G-Chem | NA | NA |
| | 1 | P | 500 ml | HNO3 | – | NA | METALS | | |
| | 1 2 | AG | 500 ml | H2SO4 | – | NA | NH3 | | |
| | 1 | P | 500 ml | NaOH | – | NA | Sodium | | |
| | 1 | P | 250 | – | – | NA | Cl, NITRATE | | |
| | | | | | | | | | |

REMARKS:
SHEEN: NO - Completed Using D.I. $H_2O$ Provided By Test America

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)

SAMPLING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)

NOTES: 1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.
2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)
pH: ± 0.2 units Temperature: ± 0.2 °C Specific Conductance: ± 5% Dissolved Oxygen: all readings ≤ 20% saturation (see Table FS 2200-2); optionally ± 0.2 mg/L or ± 10% (whichever is greater). Turbidity: all readings ≤ 20 NTU; optionally ± 5 NTU or ± 10% (whichever is greater)

Revision Date: February 12, 2009

Form FD 9000-24

# GROUNDWATER SAMPLING LOG

| | |
|---|---|
| SITE NAME: VISTA | SITE LOCATION: APOPKA FL |
| WELL NO: MW-14B | SAMPLE ID: |
| | DATE: 12-10-18 |

## PURGING DATA

| | | | | |
|---|---|---|---|---|
| WELL DIAMETER (inches): 4 | TUBING DIAMETER (inches): 1/4 | WELL SCREEN INTERVAL DEPTH: 90 feet to 100 feet | STATIC DEPTH TO WATER (feet): 43.69 | PURGE PUMP TYPE OR BAILER: ESP |

WELL ELEVATION TOC (ft NGVD): NA | GROUNDWATER ELEVATION (ft NGVD): NA

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= ( feet – feet) X gallons/foot = gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= 0.2 gallons + (0.0026 gallons/foot X 100.60 feet) + 0.05 gallons = 0.51 gallons

| INITIAL PUMP OR TUBING DEPTH IN WELL (feet): | FINAL PUMP OR TUBING DEPTH IN WELL (feet): | PURGING INITIATED AT: | PURGING ENDED AT: | TOTAL VOLUME PURGED (gallons): |
|---|---|---|---|---|
| 95.60 | 95.60 | 0859 | 0921 | 4.18 |

| TIME | VOLUME PURGED (gallons) | CUMUL. VOLUME PURGED (gallons) | PURGE RATE (gpm) | DEPTH TO WATER (feet) | pH (standard units) | TEMP. (°C) | COND. (circle units) µmhos/cm or µS/cm | DISSOLVED OXYGEN (circle units) mg/L or % saturation | TURBIDITY (NTUs) | ORP (mV) | COLOR | ODOR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0911 | 2.28 | 2.28 | 0.19 | 43.83 | 7.81 | 22.2 | 138 | 0.3 | 5.06 | 61 | | |
| 0914 | 0.57 | 2.85 | 0.19 | 43.83 | 7.79 | 22.2 | 140 | 0.3 | 4.61 | 58 | | |
| 0917 | 0.57 | 3.42 | 0.19 | 43.83 | 7.79 | 22.3 | 141 | 0.2 | 4.09 | 56 | | |
| 0920 | 0.57 | 3.99 | 0.19 | 43.83 | 7.78 | 22.3 | 141 | 0.2 | 3.01 | 56 | NONE | |

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./FL): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016
PURGING EQUIPMENT CODES: B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; O = Other (Specify)

## SAMPLING DATA

| | | | |
|---|---|---|---|
| SAMPLED BY (PRINT) / AFFILIATION: TRAVIS ARMSTRONG / PRO-TECH | SAMPLER(S) SIGNATURE(S): | SAMPLING INITIATED AT: 0921 | SAMPLING ENDED AT: NR |
| PUMP OR TUBING DEPTH IN WELL (feet): 95.60 | TUBING MATERIAL CODE: T | FIELD-FILTERED: Y (N) µm Filtration Equipment Type: | FILTER SIZE: |
| FIELD DECONTAMINATION: PUMP Y (N) | TUBING Y (N) (replaced) | DUPLICATE: Y (N) | |

| SAMPLE ID CODE | # CONTAINERS | MATERIAL CODE | VOLUME | PRESERVATIVE USED | TOTAL VOL ADDED IN FIELD (mL) | FINAL pH | INTENDED ANALYSIS AND/OR METHOD | SAMPLE PUMP FLOW RATE (mL per minute) | SAMPLING EQUIPMENT CODE |
|---|---|---|---|---|---|---|---|---|---|
| | 3 | G | 40 ml | HCL | | NA | VOA | | ESP |
| | 3 | G | 40 ml | Na2S2O3 | – | | 8011 | | |
| | 1 | P | 1000 ml | – | – | | G-CHEM | 0.19 | |
| | 1 | P | 500 ml | HNO3 | – | | METALS | 0.19 | |
| | 1 | AG | 500 ml | H2SO4 | – | | NH3 | 0.19 | |
| | 1 | P | 1000 ml | HNO3 | | | ~~GROSS ALPHA~~ | | |

REMARKS:
SHEEN: NO

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)

SAMPLING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)

NOTES: 1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.
2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)
pH: ± 0.2 units Temperature: ± 0.2 °C Specific Conductance: ± 5% Dissolved Oxygen: all readings ≤ 20% saturation (see Table FS 2200-2); optionally, ± 0.2 mg/L or ± 10% (whichever is greater) Turbidity: all readings ≤ 20 NTU; optionally ± 5 NTU or ± 10% (whichever is greater)

Revision Date: February 12, 2009

Form FD 9000-24

# GROUNDWATER SAMPLING LOG

| | | | |
|---|---|---|---|
| SITE NAME: VISTA | | SITE LOCATION: APOPKA FL | |
| WELL NO: MW-9B | SAMPLE ID: | | DATE: 12-10-18 |

## PURGING DATA

| | | | | | |
|---|---|---|---|---|---|
| WELL DIAMETER (inches): 2 | TUBING DIAMETER (inches): 1/4 | WELL SCREEN INTERVAL DEPTH: 79.3 feet to 89.3 feet | STATIC DEPTH TO WATER (feet): 42.97 | | PURGE PUMP TYPE OR BAILER: BP |
| WELL ELEVATION TOC (ft NGVD): NA | | | GROUNDWATER ELEVATION (ft NGVD): NA | | |

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= ( feet – feet) X gallons/foot = gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= 0.2 gallons + (0.00[illegible] gallons/foot X 89.30 feet) + 0.05 gallons = 0.48 gallons

| | | | | | |
|---|---|---|---|---|---|
| INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 84.30 | FINAL PUMP OR TUBING DEPTH IN WELL (feet): 84.30 | PURGING INITIATED AT: 0790 | PURGING ENDED AT: 0801 | | TOTAL VOLUME PURGED (gallons): 3.99 |

| TIME | VOLUME PURGED (gallons) | CUMUL. VOLUME PURGED (gallons) | PURGE RATE (gpm) | DEPTH TO WATER (feet) | pH (standard units) | TEMP. (°C) | COND. (circle units) µmhos/cm or µS/cm | DISSOLVED OXYGEN (circle units) mg/L or % saturation | TURBIDITY (NTUs) | ORP (mV) | COLOR | ODOR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0751 | 2.09 | 2.09 | 0.19 | 43.15 | 7.73 | 21.9 | 380 | 0.2 | 4.74 | 126 | | |
| 0754 | 0.57 | 2.66 | 0.19 | 43.15 | 7.73 | 21.8 | 382 | 0.2 | 5.37 | 123 | | |
| 0757 | 0.57 | 3.23 | 0.19 | 43.15 | 7.74 | 21.9 | 382 | 0.2 | 4.95 | 121 | | |
| 0800 | 0.57 | 3.80 | 0.19 | 43.15 | 7.74 | 21.9 | 382 | 0.2 | 5.73 | 120 | NONE | |

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016
PURGING EQUIPMENT CODES: B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; O = Other (Specify)

## SAMPLING DATA

| | | | |
|---|---|---|---|
| SAMPLED BY (PRINT) / AFFILIATION: RAM PROPERTIES / PRO-TECH | SAMPLER(S) SIGNATURE(S): | SAMPLING INITIATED AT: 0801 | SAMPLING ENDED AT: NR |
| PUMP OR TUBING DEPTH IN WELL (feet): 84.30 | TUBING MATERIAL CODE: T | FIELD-FILTERED: Y (N) µm Filtration Equipment Type: | FILTER SIZE: |
| FIELD DECONTAMINATION: PUMP Y (N) | TUBING Y (N) (replaced) | DUPLICATE: Y (N) | |

| SAMPLE ID CODE | # CONTAINERS | MATERIAL CODE | VOLUME | PRESERVATIVE USED | TOTAL VOL ADDED IN FIELD (mL) | FINAL pH | INTENDED ANALYSIS AND/OR METHOD | SAMPLE PUMP FLOW RATE (gal. per minute) | SAMPLING EQUIPMENT CODE |
|---|---|---|---|---|---|---|---|---|---|
| | ~~3~~ | ~~G~~ | ~~40 ml~~ | ~~HCL~~ | ~~—~~ | ~~<2~~ | ~~VOC~~ | 0.19 | BP |
| | ~~3~~ | ~~G~~ | ~~40 ml~~ | ~~NaHSO4~~ | ~~—~~ | | ~~8011~~ | | |
| | 1 | P | 1000 ml | — | — | | G-CHEM | | |
| | 1 | P | 500 ml | HNO3 | — | | METALS | | |
| | 1 | AG | 500 ml | H2SO4 | — | | NH3 | | |
| | ~~1~~ | ~~P~~ | ~~1000 ml~~ | ~~HNO3~~ | ~~—~~ | | ~~GROSS ALPHA~~ | | |

REMARKS:
SHEEN: No

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)

SAMPLING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; RPPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)

NOTES: 1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.
2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)
pH: ± 0.2 units Temperature: ± 0.2 °C Specific Conductance: ± 5% Dissolved Oxygen: all readings ≤ 20% saturation (see Table FS 2200-2); optionally, ± 0.2 mg/L or ± 10% (whichever is greater) Turbidity: all readings ≤ 20 NTU; optionally ± 5 NTU or ± 10% (whichever is greater)

Revision Date: February 12, 2009

# Login Sample Receipt Checklist

Client: Waste Management

Job Number: 280-117909-1

**Login Number: 117909**
**List Number: 1**
**Creator: Gomez, Alyssa I**

**List Source: TestAmerica Denver**

| Question | Answer | Comment |
|---|---|---|
| Radioactivity either was not measured or, if measured, is at or below background | N/A | |
| 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 (Excluding tests with immediate HTs).. | True | |
| Sample containers have legible labels. | True | |
| Containers are not broken or leaking. | True | |
| Sample collection date/times are provided. | True | |
| Appropriate sample containers are used. | True | |
| Sample bottles are completely filled. | True | |
| Sample Preservation Verified | 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. | N/A | |
| 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 | |

# Login Sample Receipt Checklist

Client: Waste Management

Job Number: 280-117909-1

**Login Number: 117920**
**List Number: 1**
**Creator: Quint, Jessica A**

**List Source: TestAmerica Denver**

| Question | Answer | Comment |
|---|---|---|
| Radioactivity either was not measured or, if measured, is at or below background | N/A | |
| 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 (Excluding tests with immediate HTs).. | True | |
| Sample containers have legible labels. | True | |
| Containers are not broken or leaking. | True | |
| Sample collection date/times are provided. | True | |
| Appropriate sample containers are used. | True | |
| Sample bottles are completely filled. | True | |
| Sample Preservation Verified | 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 | |

# Login Sample Receipt Checklist

Client: Waste Management

Job Number: 280-117909-1

**Login Number: 117920**
**List Number: 2**
**Creator: Hulbert, Michael J**

**List Source: TestAmerica Buffalo**
**List Creation: 12/13/18 02:33 PM**

| 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 | 3.3 #1 |
| 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 (Excluding tests with immediate HTs).. | True | |
| Sample containers have legible labels. | True | |
| Containers are not broken or leaking. | True | |
| Sample collection date/times are provided. | True | |
| Appropriate sample containers are used. | True | |
| Sample bottles are completely filled. | True | |
| Sample Preservation Verified | True | |
| There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs | True | |
| 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. | False | |
| Samples requiring field filtration have been filtered in the field. | N/A | |
| Chlorine Residual checked. | N/A | |

# Login Sample Receipt Checklist

Client: Waste Management

Job Number: 280-117909-1

**Login Number: 117969**
**List Number: 1**
**Creator: Dunlap, Krista M**

**List Source: TestAmerica Denver**

| Question | Answer | Comment |
|---|---|---|
| Radioactivity either was not measured or, if measured, is at or below background | N/A | |
| 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 (Excluding tests with immediate HTs).. | True | |
| Sample containers have legible labels. | True | |
| Containers are not broken or leaking. | True | |
| Sample collection date/times are provided. | True | |
| Appropriate sample containers are used. | True | |
| Sample bottles are completely filled. | True | |
| Sample Preservation Verified | 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. | N/A | |
| 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 | |

# Login Sample Receipt Checklist

Client: Waste Management

Job Number: 280-117909-1

**Login Number: 117970**
**List Number: 1**
**Creator: Dunlap, Krista M**

**List Source: TestAmerica Denver**

| Question | Answer | Comment |
|---|---|---|
| Radioactivity either was not measured or, if measured, is at or below background | N/A | |
| 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 (Excluding tests with immediate HTs).. | True | |
| Sample containers have legible labels. | True | |
| Containers are not broken or leaking. | True | |
| Sample collection date/times are provided. | True | |
| Appropriate sample containers are used. | True | |
| Sample bottles are completely filled. | True | |
| Sample Preservation Verified | 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 | |

# Login Sample Receipt Checklist

Client: Waste Management

Job Number: 280-117909-1

**Login Number: 117970**
**List Number: 2**
**Creator: Hulbert, Michael J**

**List Source: TestAmerica Buffalo**
**List Creation: 12/13/18 02:31 PM**

| 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 | 3.3 #1 |
| 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 (Excluding tests with immediate HTs).. | True | |
| Sample containers have legible labels. | True | |
| Containers are not broken or leaking. | True | |
| Sample collection date/times are provided. | True | |
| Appropriate sample containers are used. | True | |
| Sample bottles are completely filled. | True | |
| Sample Preservation Verified | True | |
| There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs | True | |
| 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. | False | |
| Samples requiring field filtration have been filtered in the field. | N/A | |
| Chlorine Residual checked. | N/A | |

# Login Sample Receipt Checklist

Client: Waste Management

Job Number: 280-117909-1

**Login Number: 118028**
**List Number: 1**
**Creator: Diffendall, Jessica L**

**List Source: TestAmerica Denver**

| Question | Answer | Comment |
|---|---|---|
| Radioactivity either was not measured or, if measured, is at or below background | N/A | |
| 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 (Excluding tests with immediate HTs).. | True | |
| Sample containers have legible labels. | True | |
| Containers are not broken or leaking. | True | |
| Sample collection date/times are provided. | True | |
| Appropriate sample containers are used. | True | |
| Sample bottles are completely filled. | True | |
| Sample Preservation Verified | 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 | |

# Login Sample Receipt Checklist

Client: Waste Management

Job Number: 280-117909-1

**Login Number: 118028**
**List Number: 2**
**Creator: Hulbert, Michael J**

**List Source: TestAmerica Buffalo**
**List Creation: 12/19/18 12:28 PM**

| 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 | 3.8 #1 |
| 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 (Excluding tests with immediate HTs).. | True | |
| Sample containers have legible labels. | True | |
| Containers are not broken or leaking. | True | |
| Sample collection date/times are provided. | True | |
| Appropriate sample containers are used. | True | |
| Sample bottles are completely filled. | True | |
| Sample Preservation Verified | True | |
| There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs | True | |
| 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. | False | |
| Samples requiring field filtration have been filtered in the field. | N/A | |
| Chlorine Residual checked. | N/A | |

# Login Sample Receipt Checklist

Client: Waste Management

Job Number: 280-117909-1

**Login Number: 118029**
**List Number: 1**
**Creator: Diffendall, Jessica L**

**List Source: TestAmerica Denver**

| Question | Answer | Comment |
|---|---|---|
| Radioactivity either was not measured or, if measured, is at or below background | N/A | |
| 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 (Excluding tests with immediate HTs).. | True | |
| Sample containers have legible labels. | True | |
| Containers are not broken or leaking. | True | |
| Sample collection date/times are provided. | True | |
| Appropriate sample containers are used. | True | |
| Sample bottles are completely filled. | True | |
| Sample Preservation Verified | 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. | N/A | |
| 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 | |

PROFESSIONAL TECHNICAL SUPPORT SERVICES, INC.
Atlanta (770) 723-9229
Baton Rouge (504) 293-0136
Jacksonville (904) 693-3177
Houston (208) 441-7606
Pittsburgh (412) 746-8833

FACILITY NAME: VISTA

?TH TO WATER
:ASUREMENTS

DATE: 12-6-18

| MONITORING LOCATION | DEPTH TO WATER (ft TOC) |
|---|---|
| MW-01A | 41.29 |
| MW-01B | 51.08 |
| MW-02AR | 30.11 |
| MW-02B | 32.94 |
| MW-03A | 37.11 |
| MW-03B | 37.32 |
| MW-04A | 26.10 |
| MW-04B | 26.23 |
| MW-05A | 24.50 |
| MW-05B | 25.97 |
| MW-06AR | 47.87 |
| MW-06BR | 47.81 |
| MW-07A | 38.95 |
| MW-07B | 52.05 |
| MW-08R | 41.51 |
| MW-FL01 | 37.38 |
| MW-FL02R | 27.95 |

| MONITORING LOCATION | DEPTH TO WATER (ft TOC) |
|---|---|
| MW-FL03 | 42.23 |
| MW-01 ~~MW-01~~ | 24.29 |
| MW-09A | 42.67 |
| MW-09B | 42.94 |
| MW-11A | 39.65 |
| MW-11B | 39.29 |
| MW-14A | 38.27 |
| MW-14B | 43.67 |
| MW-15A | 39.87 |
| MW-15B | 48.15 |
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PROFESSIONAL TECHNICAL SUPPORT SERVICES, INC.
Atlanta (770) 723-9229
Baton Rouge (504) 293-0136
Jacksonville (904) 693-3177
Houston (208) 441-7606
Pittsburgh (412) 746-8821

FACILITY NAME: VISTA

?TH TO WATER
3ASUREMENTS

DATE: 12-10-18

| MONITORING LOCATION | DEPTH TO WATER (ft TOC) |
|---|---|
| BPZ-1 | 39.28 |
| BPZ-2 | 19.79 |
| BPZ-3 | 27.10 |
| BPZ-4 | 21.54 |
| BPZ-5 | 25.26 |
| BPZ-6 | 33.18 |
| BPZ-7 | 29.50 |
| BPZ-8 | 37.57 |
| BPZ-9 | 40.50 |
| BPZ-10 | 30.79 |
| BPZ-11 | 31.54 |
| BPZ-12 | 28.13 |
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| MONITORING LOCATION | DEPTH TO WATER (ft TOC) |
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# WELL CONDITION INSPECTION FORM

WASTE MANAGEMENT

Site: VISTA

Personnel: DANNY ARMOUR

Date: 12-6-18

Page 1 of 3

| Well ID | Protective Casing | Well Casing | Label | Lock | Sample Equipment Type | General Turbidity | Well Yield | Comments/Observations * |
|---|---|---|---|---|---|---|---|---|
| MW-01A | ☒ OK ☐ Damaged | ☒ OK ☐ Damaged | ☒ OK ☐ Inadequate | ☒ Yes ☐ No | DEDICATED BLADDER PUMP | ☒ Clear ☐ Turbid | ☒ OK ☐ Inadequate | |
| MW-01B | ☒ OK ☐ Damaged | ☒ OK ☐ Damaged | ☒ OK ☐ Inadequate | ☒ Yes ☐ No | " | ☒ Clear ☐ Turbid | ☒ OK ☐ Inadequate | |
| MW-02AR | ☒ OK ☐ Damaged | ☒ OK ☐ Damaged | ☒ OK ☐ Inadequate | ☒ Yes ☐ No | " | ☒ Clear ☐ Turbid | ☒ OK ☐ Inadequate | |
| MW-02B | ☐ OK ☒ Damaged | ☒ OK ☐ Damaged | ☒ OK ☐ Inadequate | ☒ Yes ☐ No | " | ☒ Clear ☐ Turbid | ☒ OK ☐ Inadequate | BROKEN HINGE ON PROTECTIVE CASING |
| MW-03A | ☒ OK ☐ Damaged | ☒ OK ☐ Damaged | ☒ OK ☐ Inadequate | ☒ Yes ☐ No | " | ☒ Clear ☐ Turbid | ☒ OK ☐ Inadequate | |
| MW-03B | ☐ OK ☒ Damaged | ☒ OK ☐ Damaged | ☒ OK ☐ Inadequate | ☒ Yes ☐ No | " | ☒ Clear ☐ Turbid | ☒ OK ☐ Inadequate | BROKEN HINGE ON PROTECTIVE CASING |
| MW-04A | ☒ OK ☐ Damaged | ☒ OK ☐ Damaged | ☒ OK ☐ Inadequate | ☒ Yes ☐ No | " | ☒ Clear ☐ Turbid | ☒ OK ☐ Inadequate | |
| MW-04B | ☐ OK ☒ Damaged | ☒ OK ☐ Damaged | ☒ OK ☐ Inadequate | ☒ Yes ☐ No | " | ☒ Clear ☐ Turbid | ☒ OK ☐ Inadequate | BROKEN HINGE ON PROTECTIVE CASING |
| MW-05A | ☒ OK ☐ Damaged | ☒ OK ☐ Damaged | ☒ OK ☐ Inadequate | ☒ Yes ☐ No | " | ☒ Clear ☐ Turbid | ☒ OK ☐ Inadequate | |
| MW-05B | ☒ OK ☐ Damaged | ☒ OK ☐ Damaged | ☒ OK ☐ Inadequate | ☒ Yes ☐ No | " | ☒ Clear ☐ Turbid | ☒ OK ☐ Inadequate | |

* Note ponding water, weep holes, or any other information pertaining to well condition. Provide additional details on listed items.

Return this form to Site Manager - FOR INTERNAL USE ONLY.

# WELL CONDITION INSPECTION FORM

WASTE MANAGEMENT

Site: VISTA

Personnel: DANNY ARMOUR

Date: 12-6-18

Page 2 of 3

| Well ID | Protective Casing | Well Casing | Label | Lock | Sample Equipment Type | General Turbidity | Well Yield | Comments/Observations * |
|---|---|---|---|---|---|---|---|---|
| MW-06AR | ☒ OK ☐ Damaged | ☒ OK ☐ Damaged | ☒ OK ☐ Inadequate | ☒ Yes ☐ No | DEDICATED BLADDER PUMP | ☒ Clear ☐ Turbid | ☒ OK ☐ Inadequate | |
| MW-06BR | ☒ OK ☐ Damaged | ☒ OK ☐ Damaged | ☒ OK ☐ Inadequate | ☒ Yes ☐ No | " | ☒ Clear ☐ Turbid | ☒ OK ☐ Inadequate | |
| MW-07A | ☒ OK ☐ Damaged | ☒ OK ☐ Damaged | ☒ OK ☐ Inadequate | ☒ Yes ☐ No | " | ☒ Clear ☐ Turbid | ☒ OK ☐ Inadequate | |
| MW-07B | ☒ OK ☐ Damaged | ☒ OK ☐ Damaged | ☒ OK ☐ Inadequate | ☒ Yes ☐ No | " | ☒ Clear ☐ Turbid | ☒ OK ☐ Inadequate | |
| MW-08R | ☒ OK ☐ Damaged | ☒ OK ☐ Damaged | ☒ OK ☐ Inadequate | ☒ Yes ☐ No | ELECTRIC SUBMERIBLE PUMP | ☒ Clear ☐ Turbid | ☒ OK ☐ Inadequate | |
| MW-FL01 | ☐ OK ☒ Damaged | ☒ OK ☐ Damaged | ☒ OK ☐ Inadequate | ☒ Yes ☐ No | DEDICATED BLADDER PUM | ☐ Clear NA ☐ Turbid | ☐ OK NA ☐ Inadequate | BROKEN HINGE ON PROTECTIVE CASING (NOT SAMPLED) |
| MW-FL02R | ☒ OK ☐ Damaged | ☒ OK ☐ Damaged | ☒ OK ☐ Inadequate | ☒ Yes ☐ No | " | ☐ Clear NA ☐ Turbid | ☐ OK NA ☐ Inadequate | NOT SAMPLED |
| MW-FL03 | ☐ OK ☒ Damaged | ☒ OK ☐ Damaged | ☒ OK ☐ Inadequate | ☒ Yes ☐ No | " | ☐ Clear NA ☐ Turbid | ☐ OK NA ☐ Inadequate | BROKEN HINGE ON PROTECTIVE CASING NOT SAMPLED |
| MW-9A | ☒ OK ☐ Damaged | ☒ OK ☐ Damaged | ☒ OK ☐ Inadequate | ☒ Yes ☐ No | " | ☒ Clear ☐ Turbid | ☒ OK ☐ Inadequate | |
| MW-9B | ☒ OK ☐ Damaged | ☒ OK ☐ Damaged | ☒ OK ☐ Inadequate | ☒ Yes ☐ No | " | ☒ Clear ☐ Turbid | ☒ OK ☐ Inadequate | |

* Note ponding water, weep holes, or any other information pertaining to well condition. Provide additional details on listed items.

Return this form to Site Manager - FOR INTERNAL USE ONLY.

WASTE MANAGEMENT

# WELL CONDITION INSPECTION FORM

Site: VISTA

Personnel: DANNY ARMOUR

Date: 12-6-18

Page 3 of 3

| Well ID | Protective Casing | Well Casing | Label | Lock | Sample Equipment Type | General Turbidity | Well Yield | Comments/Observations * |
|---|---|---|---|---|---|---|---|---|
| MW-11A | ☒ OK ☐ Damaged | ☒ OK ☐ Damaged | ☒ OK ☐ Inadequate | ☒ Yes ☐ No | DEDICATED BLADDER PUMP | ☒ Clear ☐ Turbid | ☒ OK ☐ Inadequate | |
| MW-11B | ☒ OK ☐ Damaged | ☒ OK ☐ Damaged | ☒ OK ☐ Inadequate | ☒ Yes ☐ No | DEDICATED BLADDER PUMP | ☒ Clear ☐ Turbid | ☒ OK ☐ Inadequate | |
| MW-15A | ☒ OK ☐ Damaged | ☒ OK ☐ Damaged | ☒ OK ☐ Inadequate | ☒ Yes ☐ No | " | ☒ Clear ☐ Turbid | ☒ OK ☐ Inadequate | |
| MW-15B | ☒ OK ☐ Damaged | ☒ OK ☐ Damaged | ☒ OK ☐ Inadequate | ☒ Yes ☐ No | " | ☒ Clear ☐ Turbid | ☒ OK ☐ Inadequate | |
| MW-14A | ☒ OK ☐ Damaged | ☒ OK ☐ Damaged | ☒ OK ☐ Inadequate | ☒ Yes ☐ No | " | ☒ Clear ☐ Turbid | ☒ OK ☐ Inadequate | |
| MW-14B | ☒ OK ☐ Damaged | ☒ OK ☐ Damaged | ☒ OK ☐ Inadequate | ☒ Yes ☐ No | ELECTRIC SUBMERSIBLE PUMP | ☒ Clear ☐ Turbid | ☒ OK ☐ Inadequate | |
| | ☐ OK ☐ Damaged | ☐ OK ☐ Damaged | ☐ OK ☐ Inadequate | ☐ Yes ☐ No | | ☐ Clear ☐ Turbid | ☐ OK ☐ Inadequate | |
| | ☐ OK ☐ Damaged | ☐ OK ☐ Damaged | ☐ OK ☐ Inadequate | ☐ Yes ☐ No | | ☐ Clear ☐ Turbid | ☐ OK ☐ Inadequate | |
| | ☐ OK ☐ Damaged | ☐ OK ☐ Damaged | ☐ OK ☐ Inadequate | ☐ Yes ☐ No | | ☐ Clear ☐ Turbid | ☐ OK ☐ Inadequate | |
| | ☐ OK ☐ Damaged | ☐ OK ☐ Damaged | ☐ OK ☐ Inadequate | ☐ Yes ☐ No | | ☐ Clear ☐ Turbid | ☐ OK ☐ Inadequate | |

* Note ponding water, weep holes, or any other information pertaining to well condition. Provide additional details on listed items.

Return this form to Site Manager - FOR INTERNAL USE ONLY.

## Form FD 9000-8: FIELD INSTRUMENT CALIBRATION RECORDS

INSTRUMENT (MAKE/MODEL#) YSI PRO SERIES INSTRUMENT # 15D100782

PARAMETER: *[check only one]*

☐ TEMPERATURE ☐ CONDUCTIVITY ☐ SALINITY ☒ pH ☐ ORP
☐ TURBIDITY ☐ RESIDUAL Cl ☐ DO ☐ OTHER _____

STANDARDS: *[Specify the type(s) of standards used for calibration, the origin of the standards, the standard values, and the date the standards were prepared or purchased]*

*Standard A* 7.00 (std) RICCA CHEM LOT# 2708A14 EXP: 7/23/19
Standard B 4.00 (std) RICCA CHEM LOT# 2703F77 EXP: 3/2019
*Standard C* 10.00 (std) RICCA CHEM LOT# 2703951 EXP: 08/2019

| DATE (yy/mm/dd) | TIME (hr:min) | STD (A, B, C) | STD VALUE | INSTRUMENT RESPONSE | % DEV | CALIBRATED (YES, NO) | TYPE (INIT, CONT) | SAMPLER INITIALS |
|---|---|---|---|---|---|---|---|---|
| 18/12/05 | 0700 | A | 7.00 | AUTO CAL | – | YES | INIT | DKA |
| \| | \| | B | 4.00 | \| | – | YES | INIT | DKA |
| | | C | 10.00 | | – | YES | INIT | DKA |
| | | | | | | | | |
| 18/12/06 | 0700 | A | 7.00 | AUTO CAL | | YES | CONT | DKA |
| \| | \| | B | 4.00 | \| | | YES | CONT | DKA |
| | | C | 10.00 | | | YES | CONT | DKA |
| | | | | | | | | |
| 18/12/07 | 0615 | A | 7.00 | AUTO CAL | | YES | CONT | DKA |
| \| | \| | B | 4.00 | \| | | YES | CONT | DKA |
| | | C | 10.00 | | | YES | CONT | DKA |
| | | | | | | | | |
| 18/12/10 | 0630 | A | 7.00 | AUTO CAL | | YES | INIT | DKA |
| \| | \| | B | 4.00 | \| | | YES | INIT | DKA |
| | | C | 10.00 | | | YES | INIT | DKA |
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## Form FD 9000-8: FIELD INSTRUMENT CALIBRATION RECORDS

INSTRUMENT (MAKE/MODEL#) YSI PRO SERIES INSTRUMENT # 15D100782

PARAMETER: *[check only one]*

- ☐ TEMPERATURE
- ☐ CONDUCTIVITY
- ☐ SALINITY
- ☐ pH
- ☐ ORP
- ☐ TURBIDITY
- ☐ RESIDUAL Cl
- ☒ DO
- ☐ OTHER _____

STANDARDS: *[Specify the type(s) of standards used for calibration, the origin of the standards, the standard values, and the date the standards were prepared or purchased]*

*Standard A* SATURATED AIR

Standard B _____

*Standard C* _____

| DATE (yy/mm/dd) | TIME (hr:min) | STD (A, B, C) | STD VALUE | INSTRUMENT RESPONSE | % DEV | CALIBRATED (YES, NO) | TYPE (INIT, CONT) | SAMPLER INITIALS |
|---|---|---|---|---|---|---|---|---|
| 18/12/05 | 0700 | A | 100% SAT | 100% | – | YES | INIT | DA |
| | | | | | | | | |
| 18/12/06 | 0700 | A | 100% SAT | 100% | – | YES | CONT | DA |
| | | | | | | | | |
| 18/12/07 | 0615 | A | 100% SAT | 100% | – | YES | CONT | DA |
| | | | | | | | | |
| 18/12/10 | 0630 | A | 100% SAT | 100% | – | YES | INIT | DA |
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## Form FD 9000-8: FIELD INSTRUMENT CALIBRATION RECORDS

INSTRUMENT (MAKE/MODEL#) HF SCIENTIFIC MICRO TBI INSTRUMENT # 200710329

PARAMETER: *[check only one]*

☐ TEMPERATURE ☐ CONDUCTIVITY ☐ SALINITY ☐ pH ☐ ORP

☒ TURBIDITY ☐ RESIDUAL Cl ☐ DO ☐ OTHER _____

STANDARDS: *[Specify the type(s) of standards used for calibration, the origin of the standards, the standard values, and the date the standards were prepared or purchased]*

*Standard A* 1000 NTU HF SCIENTIFIC EXP: FEB 2019

Standard B 10.0 NTU HF SCIENTIFIC EXP: FEB 2019

*Standard C* 0.02 NTU HF SCIENTIFIC EXP: FEB 2019

| DATE (yy/mm/dd) | TIME (hr:min) | STD (A, B, C) | STD VALUE | INSTRUMENT RESPONSE | % DEV. | CALIBRATED (YES, NO) | TYPE (INIT, CONT) | SAMPLER INITIALS |
|---|---|---|---|---|---|---|---|---|
| 18/12/05 | 0700 | A | 1000 | AUTO CAL | - | YES | INIT | DKA |
| \| | \| | B | 10.0 | \| | - | YES | INIT | DKA |
| | | C | 0.02 | | - | YES | INIT | DKA |
| | | | | | | | | |
| 18/12/06 | 0700 | A | 1000 | AUTO CAL | - | YES | CONT | DKA |
| \| | \| | B | 10.0 | \| | - | YES | CONT | DKA |
| | | C | 0.02 | | - | YES | CONT | DKA |
| | | | | | | | | |
| 18/12/07 | 0615 | A | 1000 | AUTO CALIB | - | YES | CONT | DKA |
| \| | \| | B | 10.0 | \| | - | YES | CONT | DKA |
| | | C | 0.02 | | - | YES | CONT | DKA |
| | | | | | | | | |
| 18/12/10 | 0630 | A | 1000 | AUTO CAL | - | YES | INIT | DKA |
| \| | \| | B | 10.0 | \| | - | YES | INIT | DKA |
| | | C | 0.02 | | - | YES | INIT | DKA |
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## Form FD 9000-8: FIELD INSTRUMENT CALIBRATION RECORDS

INSTRUMENT (MAKE/MODEL#) YSI PRO SERIES INSTRUMENT # 15D100782

PARAMETER: *[check only one]*

- ☐ TEMPERATURE
- ☒ CONDUCTIVITY
- ☐ SALINITY
- ☐ pH
- ☐ ORP
- ☐ TURBIDITY
- ☐ RESIDUAL Cl
- ☐ DO
- ☐ OTHER _____

STANDARDS: *[Specify the type(s) of standards used for calibration, the origin of the standards, the standard values, and the date the standards were prepared or purchased]*

*Standard A* 1.413 vs/cm AQUAPHOENIX LOT# 766708 EXP: 07/2018

Standard B _____

*Standard C* _____

| DATE (yy/mm/dd) | TIME (hr:min) | STD (A, B, C) | STD VALUE | INSTRUMENT RESPONSE | % DEV | CALIBRATED (YES, NO) | TYPE (INIT, CONT) | SAMPLER INITIALS |
|---|---|---|---|---|---|---|---|---|
| 18/12/05 | 0700 | A | 1.413 | AUTO CAL | - | YES | INIT | DCA |
| | | | | | | | | |
| 18/12/06 | 0700 | A | 1.413 | AUTO CAL | - | YES | CONT | DCA |
| | | | | | | | | |
| 18/12/07 | 0615 | A | 1.413 | AUTO CAL | - | YES | CONT | DCA |
| | | | | | | | | |
| 18/12/10 | 0630 | A | 1.413 | AUTO CAL | - | YES | INIT | DCA |
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Table FS 2200-2
Dissolved Oxygen Saturation

| TEMP | D.O. | mg/L | TEMP | D.O. | mg/L | TEMP | D.O. | mg/L | TEMP | D.O. | mg/L |
|---|---|---|---|---|---|---|---|---|---|---|---|
| deg C | SAT. | 20% | deg C | SAT. | 20% | deg C | SAT. | 20% | deg C | SAT. | 20% |
| 15.0 | 10.084 | 2.017 | 19.0 | 9.276 | 1.855 | 23.0 | 8.578 | 1.716 | 27.0 | 7.968 | 1.594 |
| 15.1 | 10.062 | 2.012 | 19.1 | 9.258 | 1.852 | 23.1 | 8.562 | 1.712 | 27.1 | 7.954 | 1.591 |
| 15.2 | 10.040 | 2.008 | 19.2 | 9.239 | 1.848 | 23.2 | 8.546 | 1.709 | 27.2 | 7.940 | 1.588 |
| 15.3 | 10.019 | 2.004 | 19.3 | 9.220 | 1.844 | 23.3 | 8.530 | 1.706 | 27.3 | 7.926 | 1.585 |
| 15.4 | 9.997 | 1.999 | 19.4 | 9.202 | 1.840 | 23.4 | 8.514 | 1.703 | 27.4 | 7.912 | 1.582 |
| 15.5 | 9.976 | 1.995 | 19.5 | 9.184 | 1.837 | 23.5 | 8.498 | 1.700 | 27.5 | 7.898 | 1.580 |
| 15.6 | 9.955 | 1.991 | 19.6 | 9.165 | 1.833 | 23.6 | 8.482 | 1.696 | 27.6 | 7.884 | 1.577 |
| 15.7 | 9.934 | 1.987 | 19.7 | 9.147 | 1.829 | 23.7 | 8.466 | 1.693 | 27.7 | 7.870 | 1.574 |
| 15.8 | 9.912 | 1.982 | 19.8 | 9.129 | 1.826 | 23.8 | 8.450 | 1.690 | 27.8 | 7.856 | 1.571 |
| 15.9 | 9.891 | 1.978 | 19.9 | 9.111 | 1.822 | 23.9 | 8.434 | 1.687 | 27.9 | 7.842 | 1.568 |
| 16.0 | 9.870 | 1.974 | 20.0 | 9.092 | 1.818 | 24.0 | 8.418 | 1.684 | 28.0 | 7.828 | 1.566 |
| 16.1 | 9.849 | 1.970 | 20.1 | 9.074 | 1.815 | 24.1 | 8.403 | 1.681 | 28.1 | 7.814 | 1.563 |
| 16.2 | 9.829 | 1.966 | 20.2 | 9.056 | 1.811 | 24.2 | 8.387 | 1.677 | 28.2 | 7.800 | 1.560 |
| 16.3 | 9.808 | 1.962 | 20.3 | 9.039 | 1.808 | 24.3 | 8.371 | 1.674 | 28.3 | 7.786 | 1.557 |
| 16.4 | 9.787 | 1.957 | 20.4 | 9.021 | 1.804 | 24.4 | 8.356 | 1.671 | 28.4 | 7.773 | 1.555 |
| 16.5 | 9.767 | 1.953 | 20.5 | 9.003 | 1.801 | 24.5 | 8.340 | 1.668 | 28.5 | 7.759 | 1.552 |
| 16.6 | 9.746 | 1.949 | 20.6 | 8.985 | 1.797 | 24.6 | 8.325 | 1.665 | 28.6 | 7.745 | 1.549 |
| 16.7 | 9.726 | 1.945 | 20.7 | 8.968 | 1.794 | 24.7 | 8.309 | 1.662 | 28.7 | 7.732 | 1.546 |
| 16.8 | 9.705 | 1.941 | 20.8 | 8.950 | 1.790 | 24.8 | 8.294 | 1.659 | 28.8 | 7.718 | 1.544 |
| 16.9 | 9.685 | 1.937 | 20.9 | 8.932 | 1.786 | 24.9 | 8.279 | 1.656 | 28.9 | 7.705 | 1.541 |
| 17.0 | 9.665 | 1.933 | 21.0 | 8.915 | 1.783 | 25.0 | 8.263 | 1.653 | 29.0 | 7.691 | 1.538 |
| 17.1 | 9.645 | 1.929 | 21.1 | 8.898 | 1.780 | 25.1 | 8.248 | 1.650 | 29.1 | 7.678 | 1.536 |
| 17.2 | 9.625 | 1.925 | 21.2 | 8.880 | 1.776 | 25.2 | 8.233 | 1.647 | 29.2 | 7.664 | 1.533 |
| 17.3 | 9.605 | 1.921 | 21.3 | 8.863 | 1.773 | 25.3 | 8.218 | 1.644 | 29.3 | 7.651 | 1.530 |
| 17.4 | 9.585 | 1.917 | 21.4 | 8.846 | 1.769 | 25.4 | 8.203 | 1.641 | 29.4 | 7.638 | 1.528 |
| 17.5 | 9.565 | 1.913 | 21.5 | 8.829 | 1.766 | 25.5 | 8.188 | 1.638 | 29.5 | 7.625 | 1.525 |
| 17.6 | 9.545 | 1.909 | 21.6 | 8.812 | 1.762 | 25.6 | 8.173 | 1.635 | 29.6 | 7.611 | 1.522 |
| 17.7 | 9.526 | 1.905 | 21.7 | 8.794 | 1.759 | 25.7 | 8.158 | 1.632 | 29.7 | 7.598 | 1.520 |
| 17.8 | 9.506 | 1.901 | 21.8 | 8.777 | 1.755 | 25.8 | 8.143 | 1.629 | 29.8 | 7.585 | 1.517 |
| 17.9 | 9.486 | 1.897 | 21.9 | 8.761 | 1.752 | 25.9 | 8.128 | 1.626 | 29.9 | 7.572 | 1.514 |
| 18.0 | 9.467 | 1.893 | 22.0 | 8.744 | 1.749 | 26.0 | 8.114 | 1.623 | 30.0 | 7.559 | 1.512 |
| 18.1 | 9.448 | 1.890 | 22.1 | 8.727 | 1.745 | 26.1 | 8.099 | 1.620 | 30.1 | 7.546 | 1.509 |
| 18.2 | 9.428 | 1.886 | 22.2 | 8.710 | 1.742 | 26.2 | 8.084 | 1.617 | 30.2 | 7.533 | 1.507 |
| 18.3 | 9.409 | 1.882 | 22.3 | 8.693 | 1.739 | 26.3 | 8.070 | 1.614 | 30.3 | 7.520 | 1.504 |
| 18.4 | 9.390 | 1.878 | 22.4 | 8.677 | 1.735 | 26.4 | 8.055 | 1.611 | 30.4 | 7.507 | 1.501 |
| 18.5 | 9.371 | 1.874 | 22.5 | 8.660 | 1.732 | 26.5 | 8.040 | 1.608 | 30.5 | 7.494 | 1.499 |
| 18.6 | 9.352 | 1.870 | 22.6 | 8.644 | 1.729 | 26.6 | 8.026 | 1.605 | 30.6 | 7.481 | 1.496 |
| 18.7 | 9.333 | 1.867 | 22.7 | 8.627 | 1.725 | 26.7 | 8.012 | 1.602 | 30.7 | 7.468 | 1.494 |
| 18.8 | 9.314 | 1.863 | 22.8 | 8.611 | 1.722 | 26.8 | 7.997 | 1.599 | 30.8 | 7.456 | 1.491 |
| 18.9 | 9.295 | 1.859 | 22.9 | 8.595 | 1.719 | 26.9 | 7.983 | 1.597 | 30.9 | 7.443 | 1.489 |

Derived using the formula in Standard Methods for the Examination of Water and Wastewater, Page 4-101, 18th Edition, 1992

Appendix B

# COMPACT DISK CONTAINING REPORT IN PDF FORMAT AND ADaPT FILE